

# WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY



**CONTRACT NO. FQ16078  
VOLUME 3**

**STRUCTURAL RETROFIT OF B9 BEAM  
FARRAGUT NORTH METRORAIL STATION**

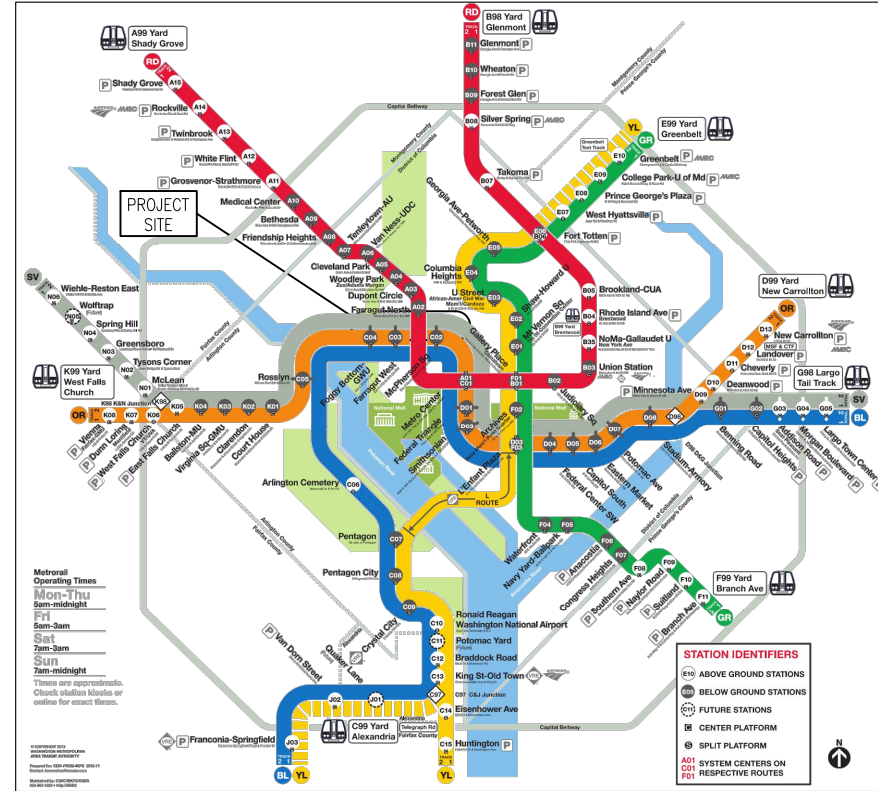
**CONTRACT DRAWINGS**

**AUGUST 2015**

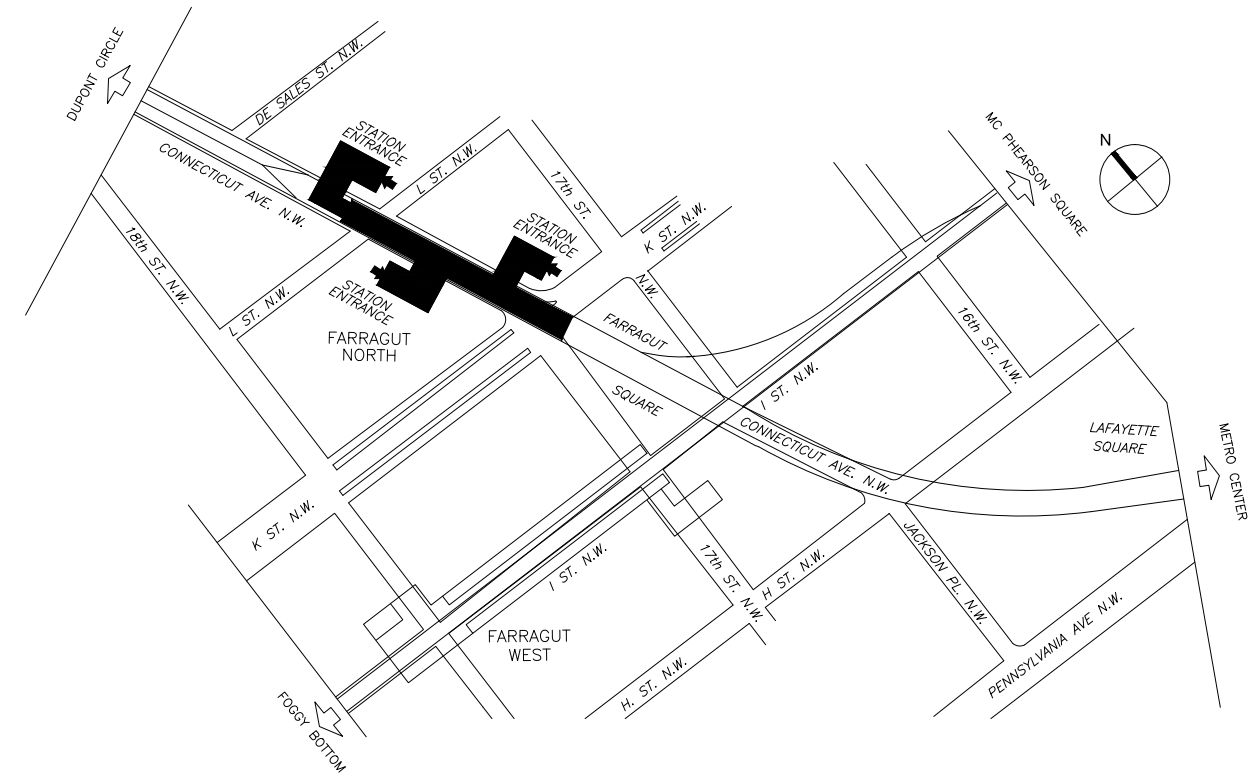


# ABBREVIATIONS

BRG./BRGS.	BEARINGS	LF	LINEAR FEET
BOT.	BOTTOM	LLV	LONG LEG VERTICAL
CFRP	CARBON FIBER-REINFORCED POLYMER	L.P.	LOW POINT
C.I.P.	CAST-IN-PLACE	LS	LUMP SUM
☉	CENTER LINE	MAT'L	MATERIAL
CL	CLEARANCE	MAX.	MAXIMUM
CLR	CLEAR	MIN.	MINIMUM
COL./COLS.	COLUMN/COLUMNS	MH	MANHOLE
CONC.	CONCRETE	MNFR	MANUFACTURER
CONST.	CONSTRUCTION	N/A	NOT APPLICABLE
COTR	CONTRACTING OFFICER TECHNICAL REPRESENTATIVE	NO.	NUMBER
C.O.R.	CONTRACTING OFFICER REPRESENTATIVE	N.T.S.	NOT TO SCALE
CY	CUBIC YARD	O.B.	OUTBOUND
DB	REINFORCING BAR DIAMETER	OH	OVERHEAD
DIA.	DIAMETER	OPNG	OPENING
DWG.	DRAWING	PL	PLATE
EXP.	EXPANSION	PT.	POINT
E.B.	EASTBOUND	RA	RETURN AIR
E.F.	EACH FACE	R.S.A.	REVENUE SERVICE ADJUSTMENT
EL	ELEVATION	SA	SUPPLY AIR
EXIST.	EXISTING	SAN.	SANITARY
F.S.	FAR SIDE	S.F.	SQUARE FEET
FT.	FEET	SPA.	SPACING
GALV.	GALVANIZED	SS	STAINLESS STEEL
GFRP	GLASS FIBER-REINFORCED POLYMER	SSWP	SITE SPECIFIC WORK PLAN
GOTRS	GENERAL ORDER TRACK RIGHTS	ST.	STORM
H.P.	HIGH POINT	STIFF.	STIFFENER
H.S.	HIGH STRENGTH	T.C.	TENSION CONTROL
I.B.	INBOUND	TYP.	TYPICAL
IN	INCHES	VERT.	VERTICAL
JT	JOINT	V.I.F.	VERIFY IN FIELD
		U.O.N.	UNLESS OTHERWISE NOTED



**SYSTEM MAP**  
N.T.S.



**LOCATION MAP**  
N.T.S.

## INDEX OF DRAWINGS

SHEET NO.	DWG. NO.	TITLE OF DRAWING
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M1275-03	A02-S-100	BEAM 9 LEVEL PLAN
M1275-04	A02-S-101	PLATFORM LEVEL PLAN
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M1275-08	A02-S-501	SUPPORT COLUMN DETAILS - 1
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SHEET NO.	DWG. NO.	TITLE OF DRAWING
M10-147	A03-S-002	STRUCTURAL KEY PLAN - STA. 37+62 TO STA. 45+29.75
M10-207	A03-S-163	VAULT ROOF PLAN BELOW "L" STREET STRUCTURE UNITS A441, A436 & PART A431
M10-208	A03-S-153	BEAM DETAILS FOR VAULT BELOW "L" STREET
M10-210	A03-S-154	VAULT ROOF PLAN BELOW "L" STREET - STRUCTURE UNIT A441
M10-211	A03-S-141	STRUCTURE UNIT A441
M10-212	A03-S-127	VAULT & PLATFORM PLAN - STRUCTURE UNIT A436
M10-213	A03-S-155	PART ROOF SLAB BELOW "L" STREET - STRUCTURE UNIT A436
M10-214	A03-S-142	STRUCTURE UNIT A436
M10-302	A03-A-005	PLATFORM PLAN & STATION SECTION STA. 42+85 TO STA. 45+29.75
M80-026	FA3-A-021	STATION SECTIONS & DETAILS
M80-067	FA3-AC-002	FARRAGUT NORTH STATION AIR CONDITIONING, NORTH END PLATFORM PLAN STA. 43+00 TO STA. 45+40.83
M80-074	FA3-AC-13	FARRAGUT NORTH STATION AIR CONDITIONING SECTIONS & DETAILS
	A02-M-102	A02 FARRAGUT NORTH STATION, MECHANICAL NEW WORK PLAN, UNDER PLATFORM DUCTWORK

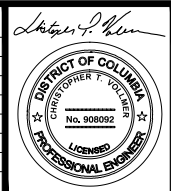
**BID DOCUMENTS**

CONTRACT NO.  
**FQ16078**

DESIGNED	CTV	7-30-15
DRAWN	CJP	7-30-15
CHECKED	CTV	7-30-15
APPROVED	DAB	7-30-15

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

REVISIONS	
DATE	DESCRIPTION



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**  
DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES  
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

**GFP** A Gannett Fleming/Parsons JOINT VENTURE

APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION**  
VICINITY MAP AND ABBREVIATIONS

SCALE NONE DRAWING NO. A02-S-001 M1275-01

## STRUCTURAL GENERAL NOTES

- REPAIR/RETROFIT THE EXISTING WMATA STRUCTURES AS SHOWN ON THE DRAWINGS. FOR DESCRIPTION OF WORK, APPLICABLE REFERENCES, REQUIRED SUBMITTALS, QUALITY ASSURANCE, MATERIALS, EXECUTION, SEE PROJECT SPECIFICATIONS IN ADDITION TO THESE NOTES.
- FOR DETAILS OF EXISTING STRUCTURE, SEE REFERENCE DRAWINGS; WMATA, SECTION A-3, CONNECTICUT AVENUE ROUTE, JUNE 1970 APPROVED FOR CONSTRUCTION JUNE 17, 1970.
- ALL APPLICABLE DIMENSIONS, LOCATIONS, CLEARANCES AND ELEVATIONS OF EXISTING STRUCTURES SHOWN ON THE DRAWINGS AND IN THE REFERENCE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD PRIOR TO PREPARATION OF SHOP DRAWINGS AND COMMENCEMENT OF ANY WORK. IF DISCREPANCIES ARE DISCOVERED BETWEEN EXISTING CONDITIONS AND THE CONTRACT WORK, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE C.O.R.
- ALL WORK WITHIN WMATA FARRAGUT NORTH STATION WILL BE SUBJECT TO WORK HOUR RESTRICTIONS AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- THE CONTRACTOR SHALL KEEP DEBRIS FROM FALLING ON THE TRACKS BY PROVIDING A DEBRIS CONTAINMENT SYSTEM WHERE APPLICABLE OR AS DIRECTED BY C.O.R..
- THE CONTRACTOR SHALL MAINTAIN AND MONITOR EXISTING UTILITIES DURING THE EXECUTION OF WORK IN THE VICINITY OF THE PLATFORM.
- CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL IN ACCORDANCE WITH THE SPECIFICATIONS.
- UPON COMPLETION OF WORK, CONTRACTOR SHALL RESTORE SITE TO THE CONDITION THAT EXISTED PRIOR TO THE START OF THE CONTRACT.
- FALSEWORK SHORING SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO "GUIDE SPECIFICATIONS FOR BRIDGE TEMPORARY WORKS," 1995. FALSEWORK SYSTEMS ARE TO BE CONFIGURED SUCH THAT THE EXISTING PLATFORM IS NOT DAMAGED OR OVER STRESSED BY TEMPORARY LOADS.
- ALL DIMENSIONS SHOWN ON THE PLANS ARE MEASURED HORIZONTALLY OR VERTICALLY UNLESS OTHERWISE NOTED. DIMENSIONS SHALL NOT BE MEASURED FROM THE PLANS.
  - SPECIFICATIONS**
    - CONSTRUCTION: WMATA MANUAL OF DESIGN CRITERIA FOR MAINTAINING & CONTINUED OPERATION OF FACILITIES & SYSTEMS, RELEASE 9, REVISION 2, AUGUST 2014.
    - DESIGN: WMATA MANUAL OF DESIGN CRITERIA, FACILITIES, SECTION 15, 2014.
    - DESIGN: AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES," 17TH EDITION, 2002.
    - DESIGN: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, ACI 318-99.
  - LOADINGS**
    - ALL LOADINGS SHALL BE IN ACCORDANCE WITH WMATA MANUAL OF DESIGN CRITERIA FOR MAINTAINING & CONTINUED OPERATION OF FACILITIES & SYSTEMS, RELEASE 9, REVISION 2, AUGUST 2014.
    - TEMPORARY CONSTRUCTION LOADING ON THE PLATFORM SHALL NOT EXCEED 150 PSF AND THE WEIGHT OF MATERIAL TRANSPORTED ACROSS THE PLATFORM SHALL NOT EXCEED 5000 LBS AT A TIME.
    - THE MAXIMUM WEIGHT OF MATERIAL TRANSPORTED VIA ESCALATOR AND ELEVATORS DURING CONSTRUCTION, SHALL NOT EXCEED 200 PSF.
  - MATERIALS**
    - CONCRETE (MIN. 28-DAY STRENGTHS):  
 CONCRETE NON-SHRINK GROUT .....f'c = 7,500 psi  
 CAST IN PLACE SUPPORT PEDESTALS / PLATFORM .....f'c = 5,000 psi  
 LEAN CONCRETE FILL .....f'c = 1,000 psi
    - ALL EXPOSED CORNERS SHALL BE CHAMFERED  $\frac{3}{4}$ ", UNLESS SHOWN OTHERWISE.
    - CONSTRUCTION JOINTS SHALL BE MADE WHERE SHOWN IN THE PLANS. ADDITIONAL JOINTS SHALL BE MADE ONLY WITH THE APPROVAL OF THE C.O.R.

- REINFORCING STEEL: ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60, EPOXY COATED.
- ALL REINFORCING STEEL SHALL HAVE 2" CLEAR COVER FOR PRIMARY REINFORCEMENT AND 1  $\frac{1}{2}$ " FOR STIRRUPS, UNLESS OTHERWISE NOTED.
- ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE OUT-TO-OUT OF BARS, ALL PLACEMENT DIMENSIONS SHALL BE TO THE CENTER OF BARS, UNLESS OTHERWISE NOTED.
- FIELD ADJUSTMENTS OF REINFORCING STEEL SHALL BE MADE ONLY WITH APPROVAL OF THE C.O.R. CUT BARS MUST HAVE ACCOMPANYING BARS OF THE SAME SIZE WITH APPROPRIATE LAP ACROSS THE CUT LOCATION. THE SHOP DRAWINGS SHALL INCLUDE ADDITIONS OR REARRANGEMENT OF REINFORCING STEEL FROM THAT SHOWN ON THE PLANS.
- BAR LAPS, HOOKS AND BENDS SHALL HAVE A MINIMUM LENGTH IN ACCORDANCE WITH AASHTO, OR AS SHOWN ON THE PLANS.
- WELDING OF REINFORCING BARS IS NOT PERMITTED UNLESS APPROVED IN WRITING BY THE COTR.
- FIELD BENDING OF REINFORCING BARS PARTIALLY EMBEDDED IN CONCRETE IS NOT PERMITTED. REBAR SHALL NOT BE HEATED WITH A TORCH IN THE FIELD.
- FABRICATED STRUCTURAL STEEL SHALL BE AASHTO M270, GRADE 50, UNLESS NOTED OTHERWISE. ALL FABRICATED STRUCTURAL STEEL AND HARDWARE SHALL BE GALVANIZED EXCEPT A490 T.C. BOLTS.
- ALL FASTENERS ARE TO BE 1" DIA. A490 T.C. BOLTS, UNLESS OTHERWISE NOTED.
- ANCHOR BOLTS ARE TO BE ASTM F1554, GRADE 55. SET ANCHOR BOLTS BY TEMPLATE OR PREFORMED HOLES. FILL PREFORMED HOLES WITH NON-SHRINK GROUT.
- PROVIDE SPRAYED CEMENTITIOUS FIREPROOFING MATERIAL ON ALL STRUCTURAL INTERMEDIATE SUPPORT ELEMENTS (MINIMUM 1" THICKNESS). FIREPROOFING MATERIAL IS TO HAVE A MINIMUM 3 HOUR FIREPROOFING RATING. SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- PROVIDE CFRP PRECURED STRIPS TO TEMPORARILY STRENGTHEN THE EXISTING PLATFORM SLAB AS INDICATED. SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL INFORMATION.

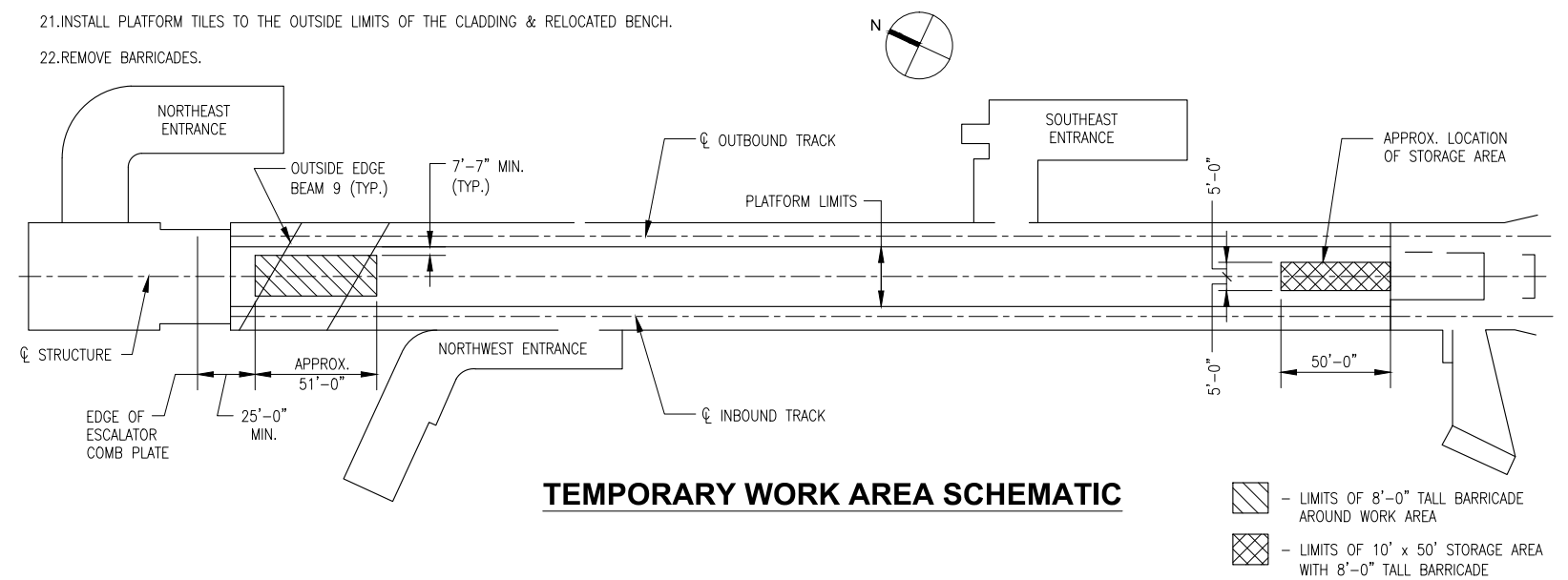
## BEAM 9 RETROFIT CONSTRUCTION SEQUENCE

- REMOVE, STORE AND PROTECT THE EXISTING GRANITE BENCH AND EXISTING PYLON WITHIN THE VICINITY OF THE RETROFIT. STORE ON THE SOUTH END OF THE PLATFORM (SEE SCHEMATIC).
- SET BARRICADES AS APPLICABLE FOR CONSTRUCTION. (SEE SCHEMATIC)
- REMOVE EXISTING FLOOR TILES AS INDICATED.
- INSTALL CFRP REINFORCING STRIPS AND TEMPORARY WOOD SUPPORTS AS SHOWN PRIOR TO PLATFORM REMOVAL.
- SAWCUT AND REMOVE EXISTING PLATFORM TO THE LIMITS SHOWN FOR COLUMN INSTALLATION AND BENCH RELOCATION.
- REMOVE AND STORE EXISTING CEILING PANELS AND SUPPORTING ELEMENTS TO FACILITATE BEAM 9 RETROFIT.
- RELOCATE MECHANICAL AND HVAC ELEMENTS AS APPLICABLE (SEE MECHANICAL PLANS).
- CLEAN AND PREPARE INVERT SLAB FOR PEDESTALS, INSTALL DOWELS AND CONSTRUCT CIP CONCRETE SUPPORT PEDESTALS. DO NOT INSTALL STEEL COLUMNS UNTIL PEDESTALS HAVE REACHED A MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI.
- INSTALL STEEL COLUMN ANCHOR BOLTS BY USE OF A TEMPLATE OR PRE-FORMED HOLES.
- INSTALL TOP PLATE ANCHOR RODS INTO THE EXISTING BEAM 9 AS NOTED. USE A TEMPLATE FOR POSITIONING THE ANCHOR RODS.
- INSTALL TOP PLATES AND LOCK INTO POSITION WITH HEX NUTS AS INDICATED. OPTIONALLY USE ANCHOR RODS TO SUPPORT BOTTOM PLATES PRIOR TO COLUMN ERECTION (SEE DETAIL ON SHEET S-503).
- ERECT STEEL COLUMN SYSTEMS INCLUDING COLUMNS, BATTEN PLATES, BOTTOM PLATES AND STIFFENING ASSEMBLIES. INSTALL WELDED CONNECTIONS WHERE APPLICABLE. DO NOT EXCEED LOADS NOTED IN GENERAL NOTES, ITEM B.
- INSTALL HYDRAULIC JACKS. VERTICALLY JACK THE CYLINDERS IN UNISON TO 145 TONS/JACK AND LOCK-OFF. SEE JACKING NOTES ON SHEET S-503 FOR ADDITIONAL INFORMATION.
- INSTALL REINFORCEMENT AROUND THE HYDRAULIC JACKS AS SHOWN AND PLACE NON-SHRINK GROUT TO THE LIMITS IDENTIFIED.
- INSTALL FIREPROOFING ON ALL EXPOSED STRUCTURAL STEEL.
- INSTALL PLATFORM DOWELS AND REINFORCEMENT, RECONSTRUCT PLATFORM AND CONSTRUCT NEW BENCH PEDESTAL.
- INSTALL LEAN CONCRETE AT THE BASE OF THE COLUMNS AS SHOWN.
- INSTALL CLADDING.
- RE-INSTALL CEILING PANELS AND MODIFY PANELS & SUPPORT ELEMENTS AS REQUIRED TO FIT AROUND CLADDING.
- RE-INSTALL BENCH AND PYLONS TO THE LOCATIONS INDICATED.
- INSTALL PLATFORM TILES TO THE OUTSIDE LIMITS OF THE CLADDING & RELOCATED BENCH.
- REMOVE BARRICADES.

APPROXIMATE QUANTITIES - BEAM 9 RETROFIT		
ITEM	UNIT	TOTAL
CAST-IN-PLACE CONCRETE	CY	6
REINFORCEMENT	LBS	1490
FIRE PROOFING	SF	500
FABRICATED STRUCTURAL STEEL <sup>(1)</sup>	LB	21900
ANCHOR BOLTS	EA	16
ANCHOR RODS	EA	8
GFRP CLADDING <sup>(2)</sup>	SF	300
CFRP STRIPS	SF	60

<sup>(1)</sup> INCLUDES NON-SHRINK GROUT, BASE PLATES, H.S. BOLTS, NUTS, WASHERS & LEAN CONCRETE.

<sup>(2)</sup> INCLUDES ANCHORAGE DEVICES AND BRACING ELEMENTS.



TEMPORARY WORK AREA SCHEMATIC

BID DOCUMENTS

CONTRACT NO.  
FQ16078

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE  
AND ENGINEERING SERVICES  
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

**GFP** A Gannett Fleming/Parsons  
JOINT VENTURE

STRUCTURAL RETROFIT OF B9 BEAM  
FARRAGUT NORTH METRORAIL STATION

GENERAL NOTES

APPROVED \_\_\_\_\_

SUBMITTED DAVID BURROWS  
PROJECT MANAGER

SCALE  
NONE

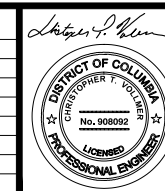
DRAWING NO.  
A02-S-002

M1275-02

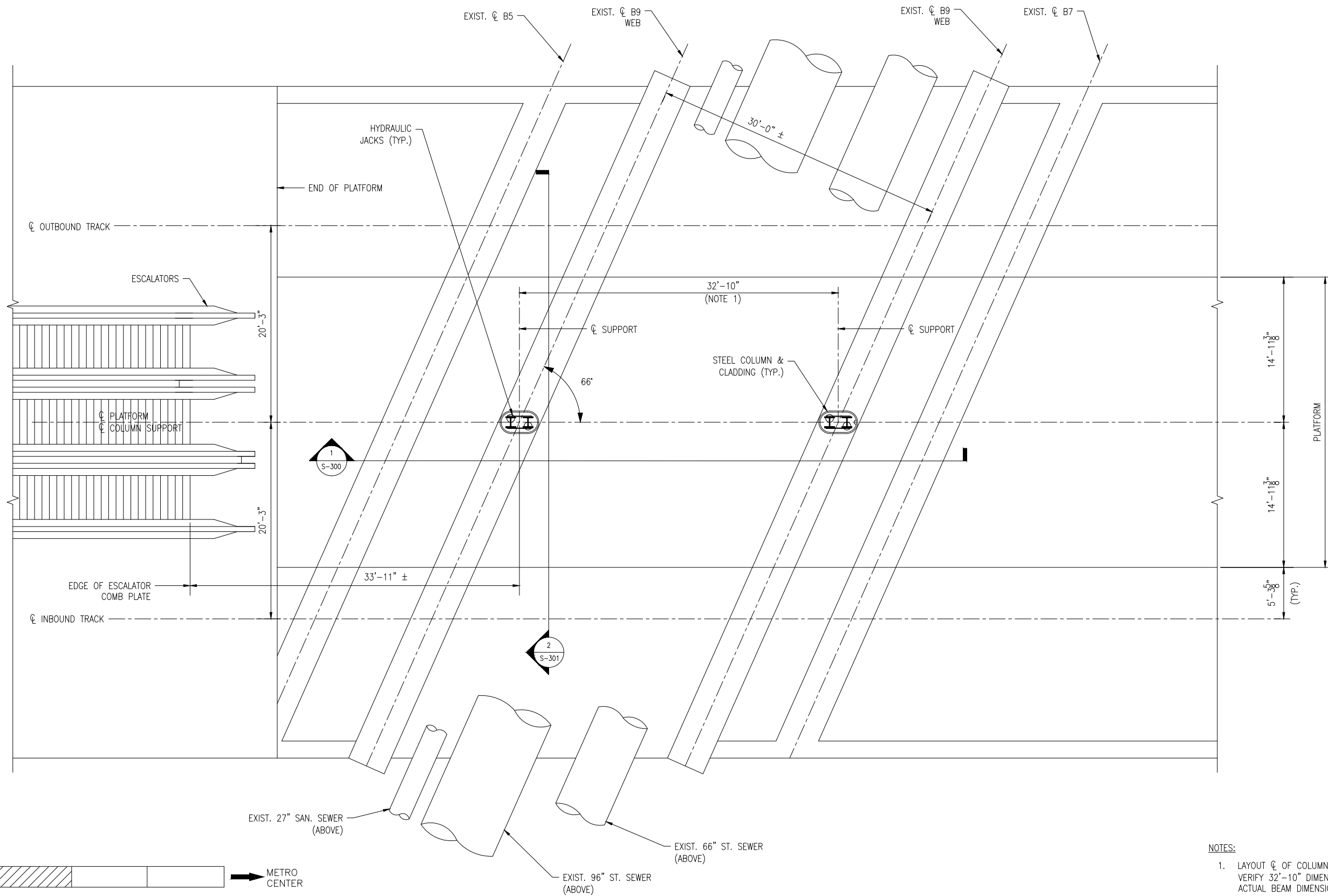
DESIGNED	CTV	7-30-15
		DATE
DRAWN	CJP	7-30-15
		DATE
CHECKED	CTV	7-30-15
		DATE
APPROVED	DAB	7-30-15
		DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

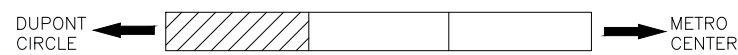
REVISIONS		
DATE	BY	DESCRIPTION



APPROVED \_\_\_\_\_



- NOTES:
- LAYOUT  $\phi$  OF COLUMN SUPPORTS AT THE  $\phi$  OF THE BEAM 9 WEBS. VERIFY 32'-10" DIMENSION AND REVISE AS APPLICABLE BASED ON ACTUAL BEAM DIMENSIONS.



**KEY PLAN**  
N.T.S.

**BEAM 9 LEVEL PLAN**  
1  
S-100 3/16" = 1'-0"

**BID DOCUMENTS** CONTRACT NO. **FQ16078**

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	NUMBER	DESCRIPTION	DATE	BY
CTV		7-30-15					
CJP		7-30-15					
CTV		7-30-15					
DAB		7-30-15					



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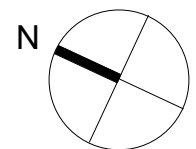
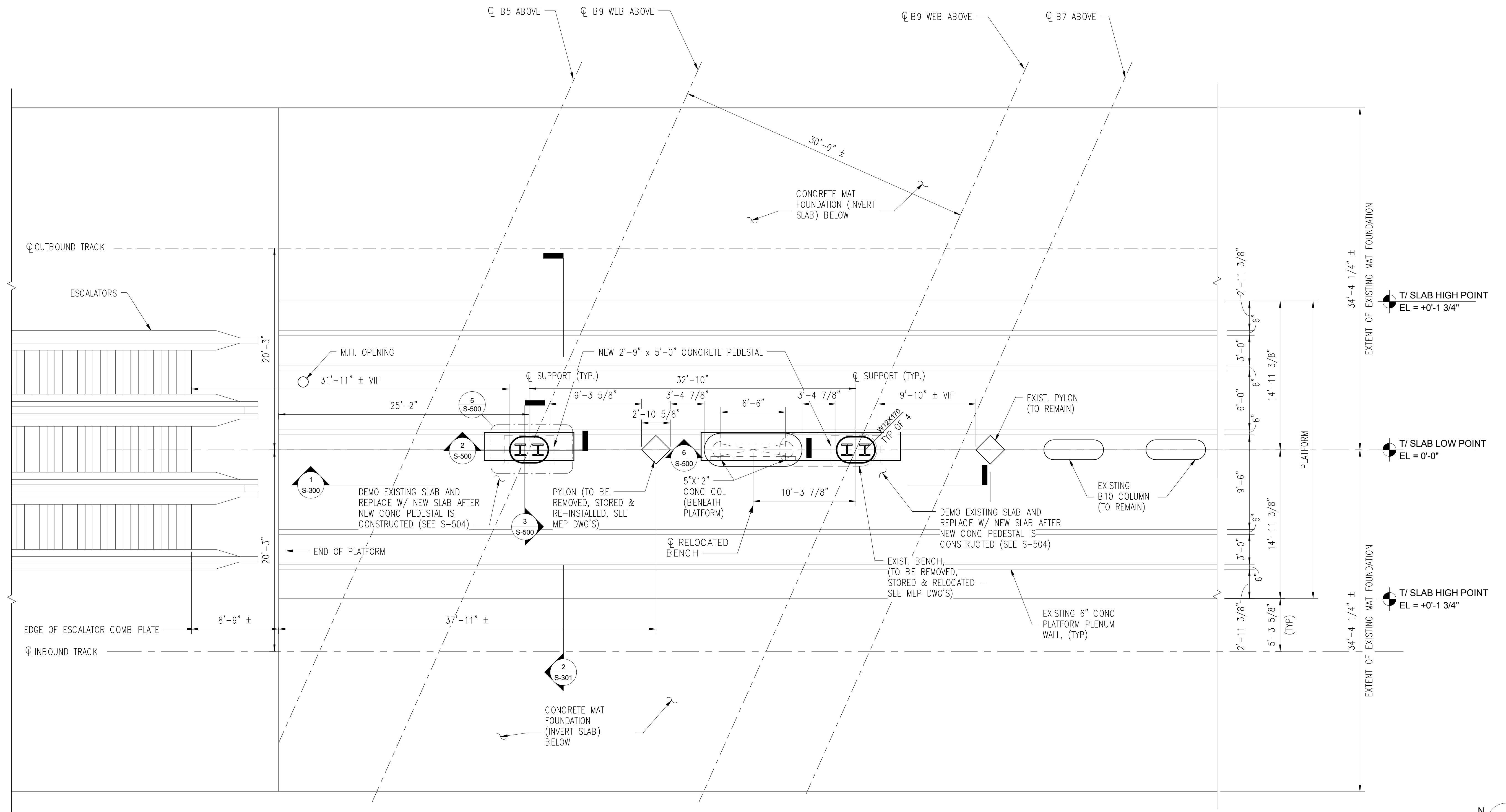
APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRO RAIL STATION**

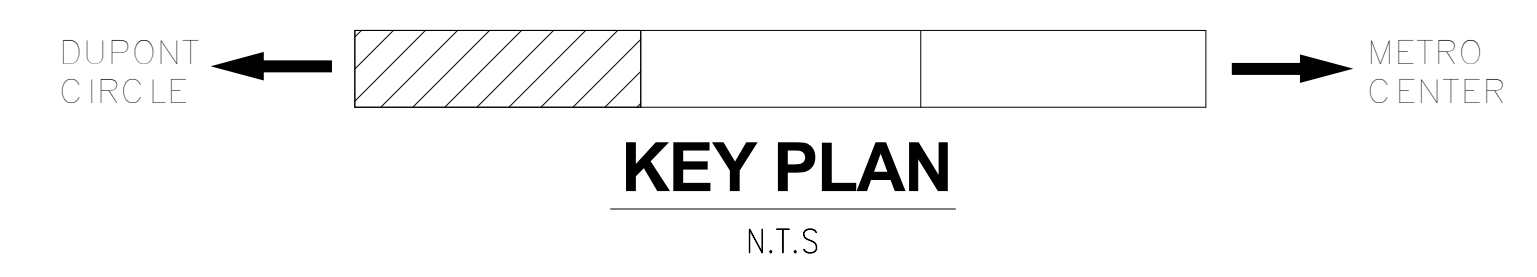
BEAM 9 LEVEL PLAN

SCALE 3/16" = 1'-0" 1 0 1 3 5 7

DRAWING NO. **A02-S-100** M1275-03



1 S-101 PLATFORM LEVEL PLAN  
3/16" = 1'-0"



BID DOCUMENTS CONTRACT NO. FQ16078

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
S-101	PLATFORM LEVEL PLAN	06/15	S.GROVER				
		06/15	S.GROVER				
		06/15	J.MEAGHER				
		06/15	H.THOMAS				

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY  
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APPROVED \_\_\_\_\_

Submitted: DAVID BURROWS  
 PROJECT MANAGER

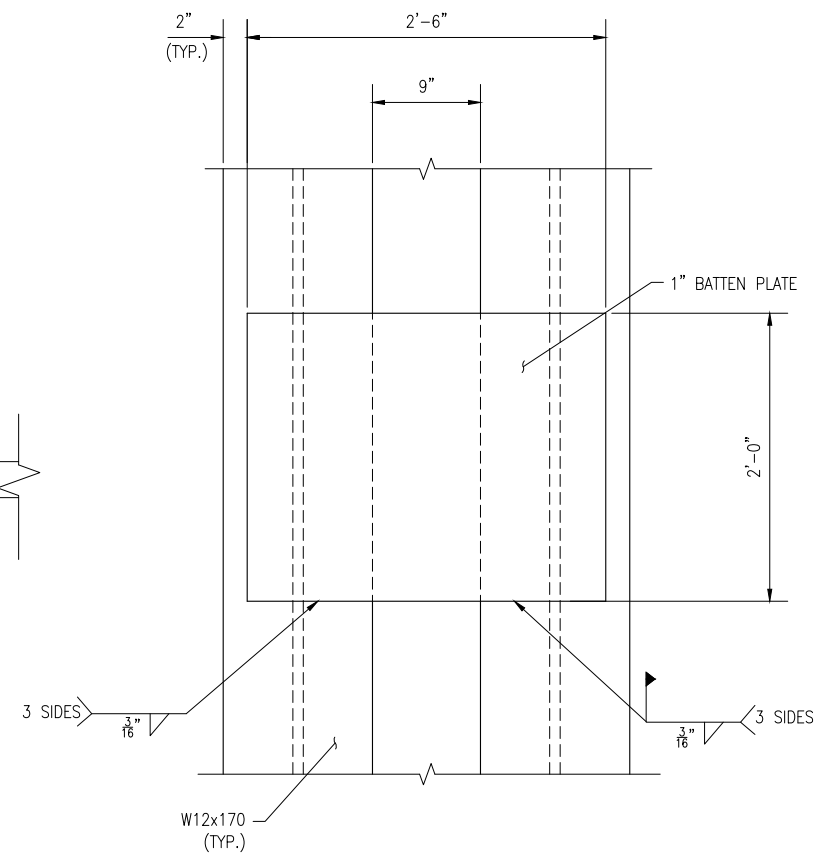
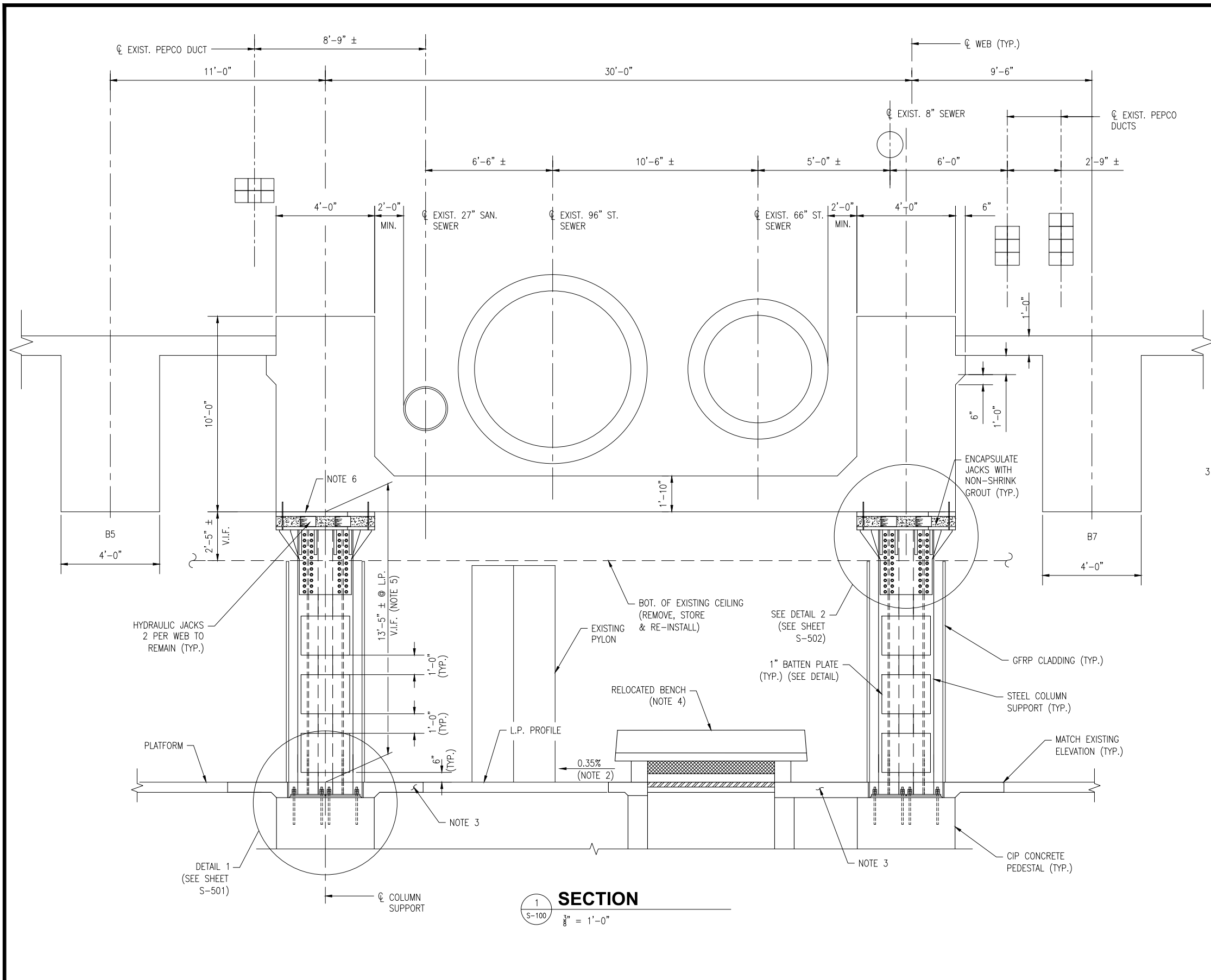
STRUCTURAL RETROFIT OF B9 BEAM  
 FARRAGUT NORTH METRORAIL STATION

PLATFORM LEVEL PLAN

SCALE 3/16" = 1'-0"

DRAWING NO. A02-S-101

M1275-04



**1 BATTEN PLATE DETAIL**  
S-300 1 1/2" = 1'-0"

- NOTES:**
1. PROVIDE SPRAYED CEMENTITIOUS FIREPROOFING MATERIAL ON ALL STRUCTURAL INTERMEDIATE SUPPORT ELEMENTS (1" MINIMUM THICKNESS). SEE CONTRACT SPECIFICATIONS FOR ADDITIONAL INFORMATION.
  2. VERIFY EXISTING SLOPE AND MATCH ACTUAL CONDITIONS.
  3. FOR SLAB REMOVAL & RECONSTRUCTION DETAILS, SEE SHEET S-504.
  4. RECONSTRUCT THE BASE OF THE RELOCATED BENCH IN ACCORDANCE WITH THE DETAILS ON EXISTING DRAWINGS FA3-A-021 & A03-S-127. REMOVE, STORE & REINSTALL EXISTING GRANITE BENCH. ALL OTHER BENCH ELEMENTS TO BE REPLACED.
  5. VERIFY ACTUAL CLEAR DIMENSION IN THE FIELD AT EACH PROPOSED COLUMN AND DETAIL ALL RETROFIT ELEMENTS ACCORDINGLY. PROVIDE MEASURED DIMENSIONS TO THE C.O.R.
  6. VERIFY TRUENESS OF THE BOTTOM OF THE BEAM TO BE IN CONTACT WITH THE TOP PLATES AND PROVIDE ACCOMODATIONS FOR ACTUAL CONDITIONS. PROVIDE EXISTING CONDITION INFORMATION TO THE C.O.R.

**1 SECTION**  
S-100 3/8" = 1'-0"

**BID DOCUMENTS** CONTRACT NO. **FQ16078**

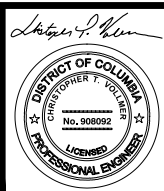
**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION**

SECTIONS-1

DESIGNED	CTV	7-30-15
		DATE
DRAWN	CJP	7-30-15
		DATE
CHECKED	CTV	7-30-15
		DATE
APPROVED	DAB	7-30-15
		DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

REVISIONS		
DATE	BY	DESCRIPTION

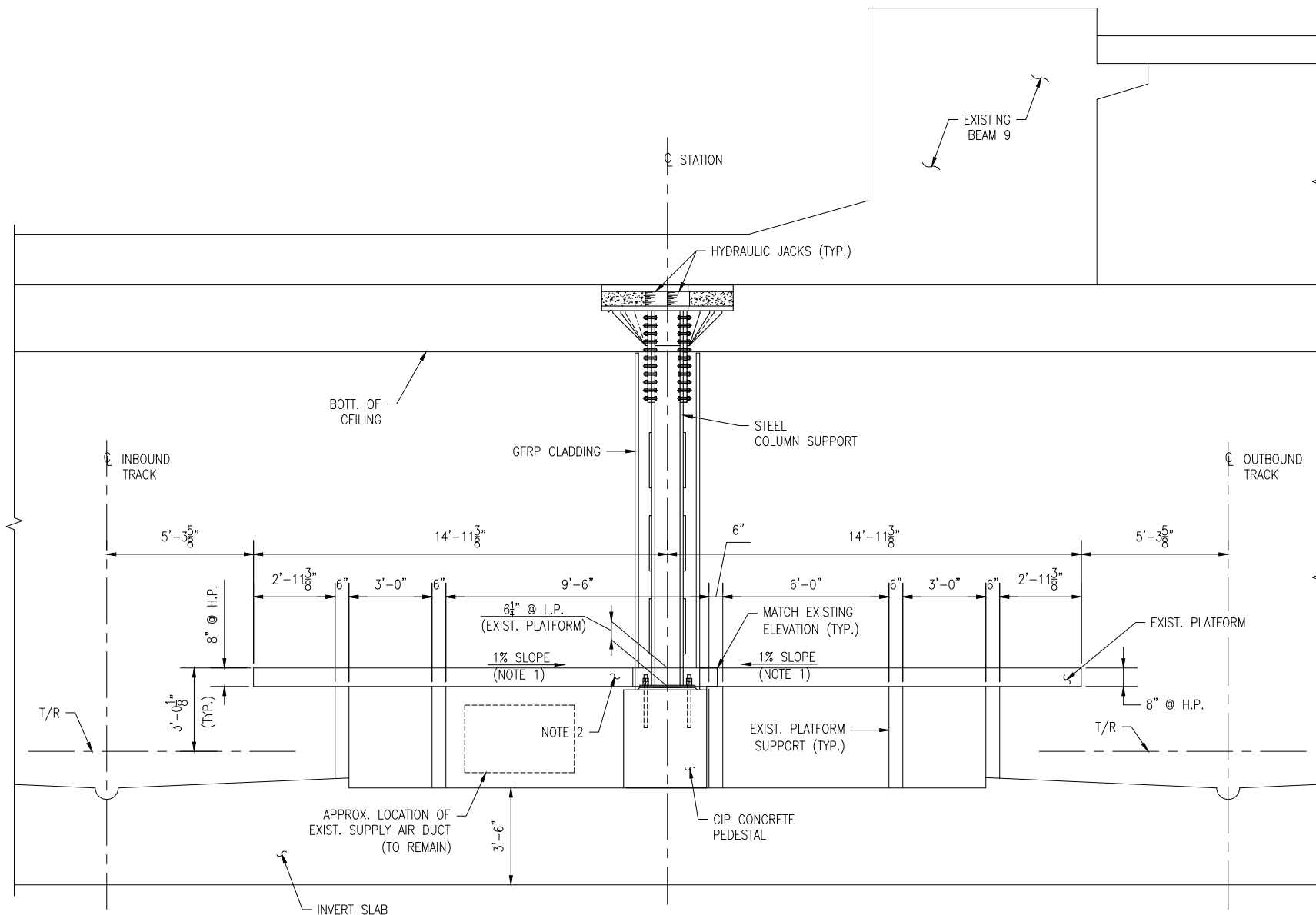


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**GFP** A Gannett Fleming/Parsons JOINT VENTURE

APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

SCALE AS NOTED	DRAWING NO. A02-S-300	M1275-05
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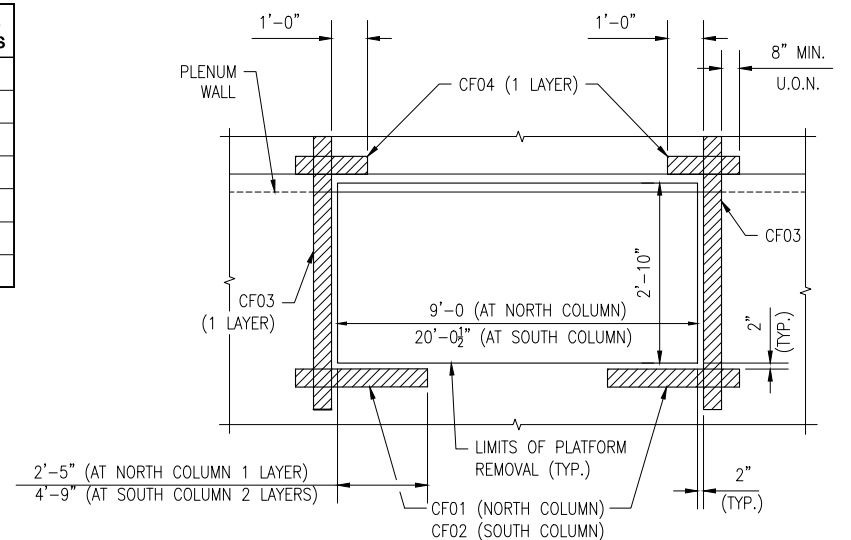
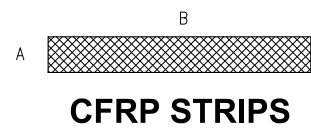
**2 SECTION**

S-100 3/8" = 1'-0"

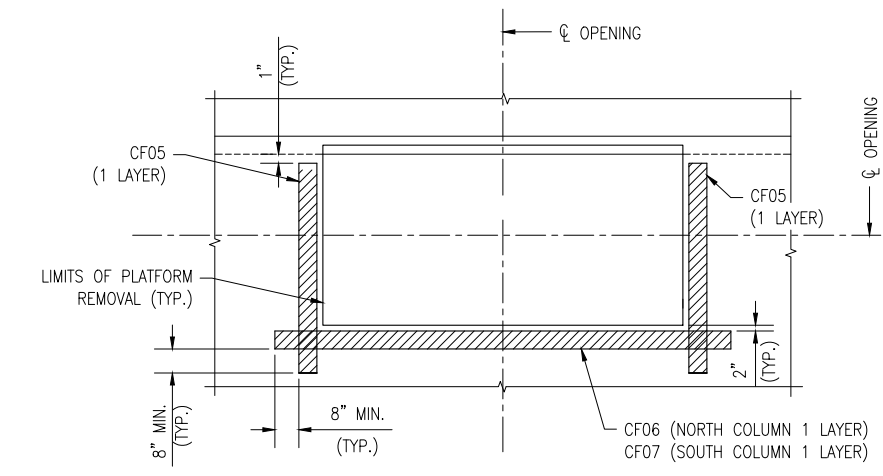
NOTE: EXISTING REINFORCEMENT NOT SHOWN FOR CLARITY

MARK	A (IN.)	B (IN.)	TOTAL LAYERS
CF01	6	45	2
CF02	6	73	4
CF03	6	66	4
CF04	6	26	4
CF05	6	46	4
CF06	6	140	1
CF07	6	273	1

**CFRP SCHEDULE**



**4 CFRP DETAIL-TOP OF PLATFORM**  
S-301 N.T.S.



**5 CFRP DETAIL-BOTTOM OF PLATFORM**  
S-301 N.T.S.

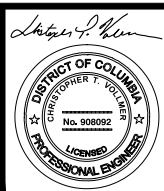
- NOTES:
1. VERIFY EXISTING SLOPE AND MATCH ACTUAL CONDITIONS.
  2. FOR SLAB REMOVAL & RECONSTRUCTION DETAILS, SEE SHEET S-504.

**BID DOCUMENTS** CONTRACT NO. **FQ16078**

DESIGNED	CTV	7-30-15
DRAWN	CJP	7-30-15
CHECKED	CTV	7-30-15
APPROVED	DAB	7-30-15

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY  
 DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES  
 OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

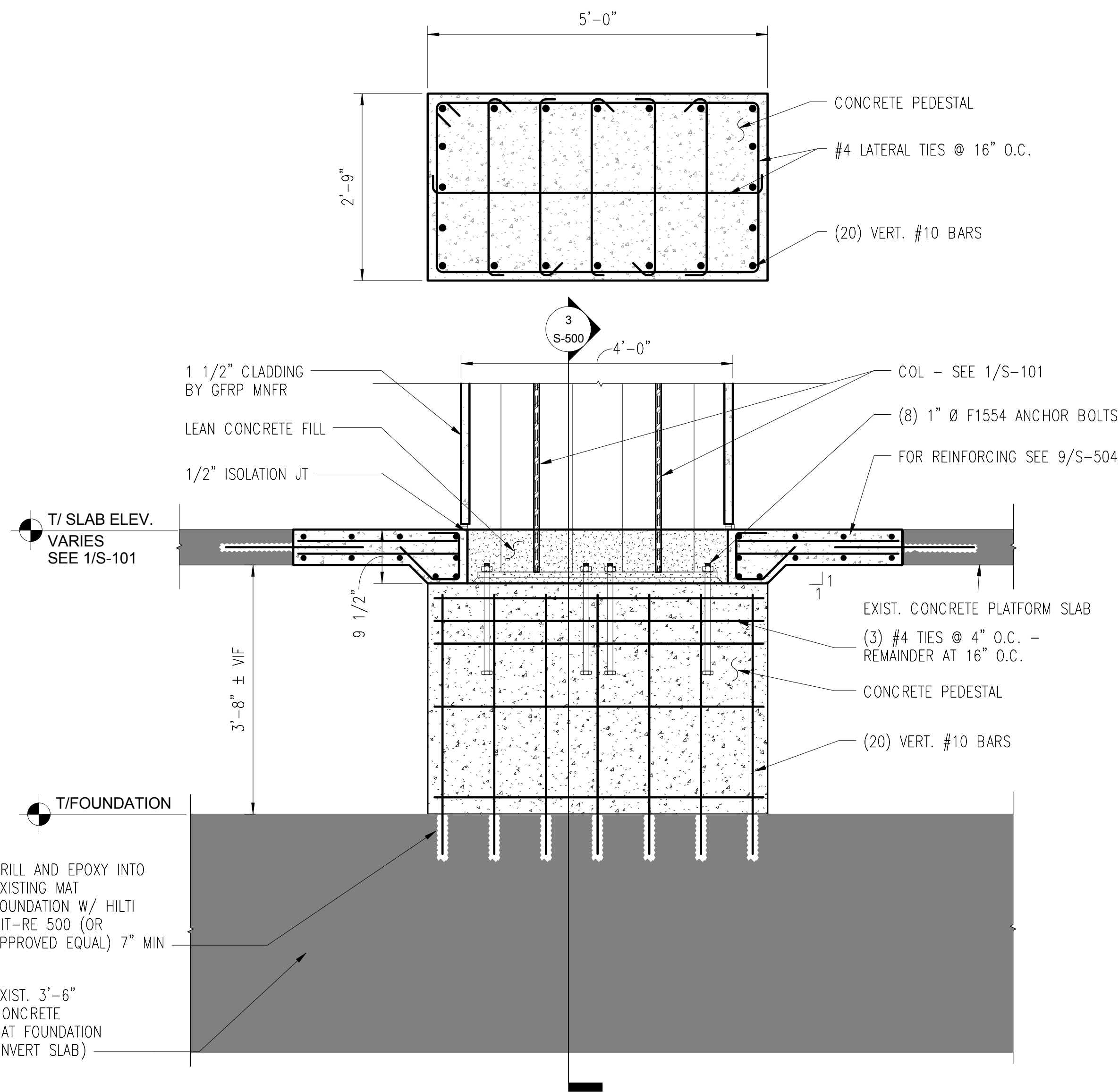
**GFP** A Gannett Fleming/Parsons JOINT VENTURE

APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

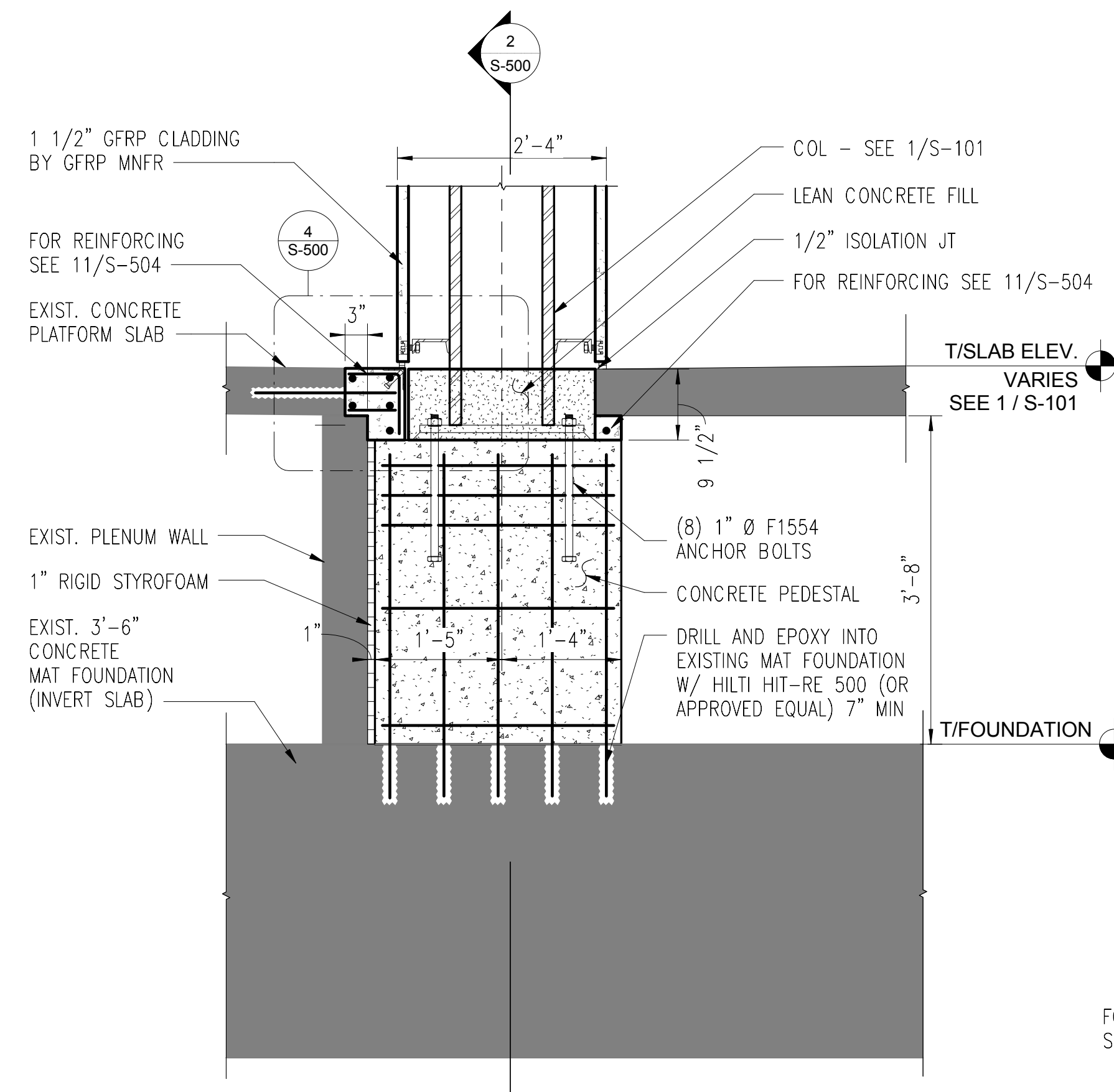
STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION

SECTIONS-2

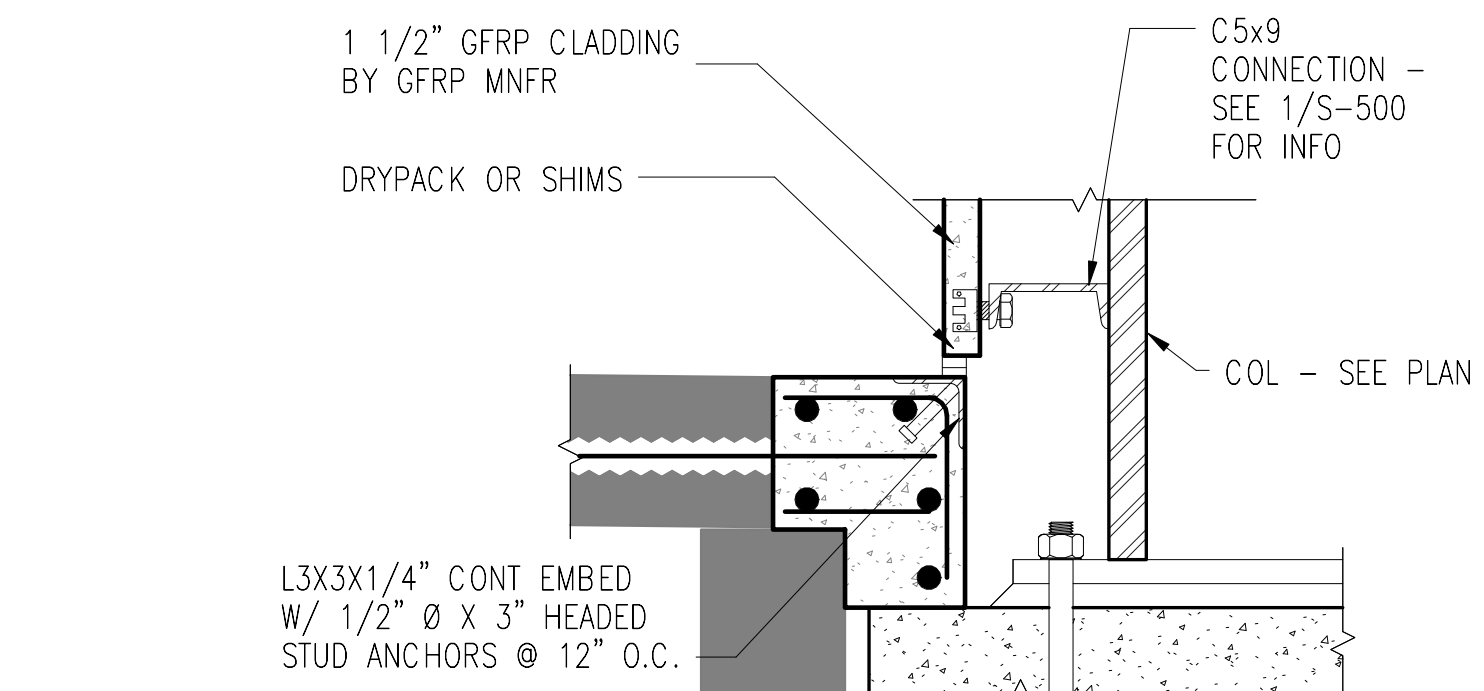
SCALE AS NOTED DRAWING NO. A02-S-301 M1275-06



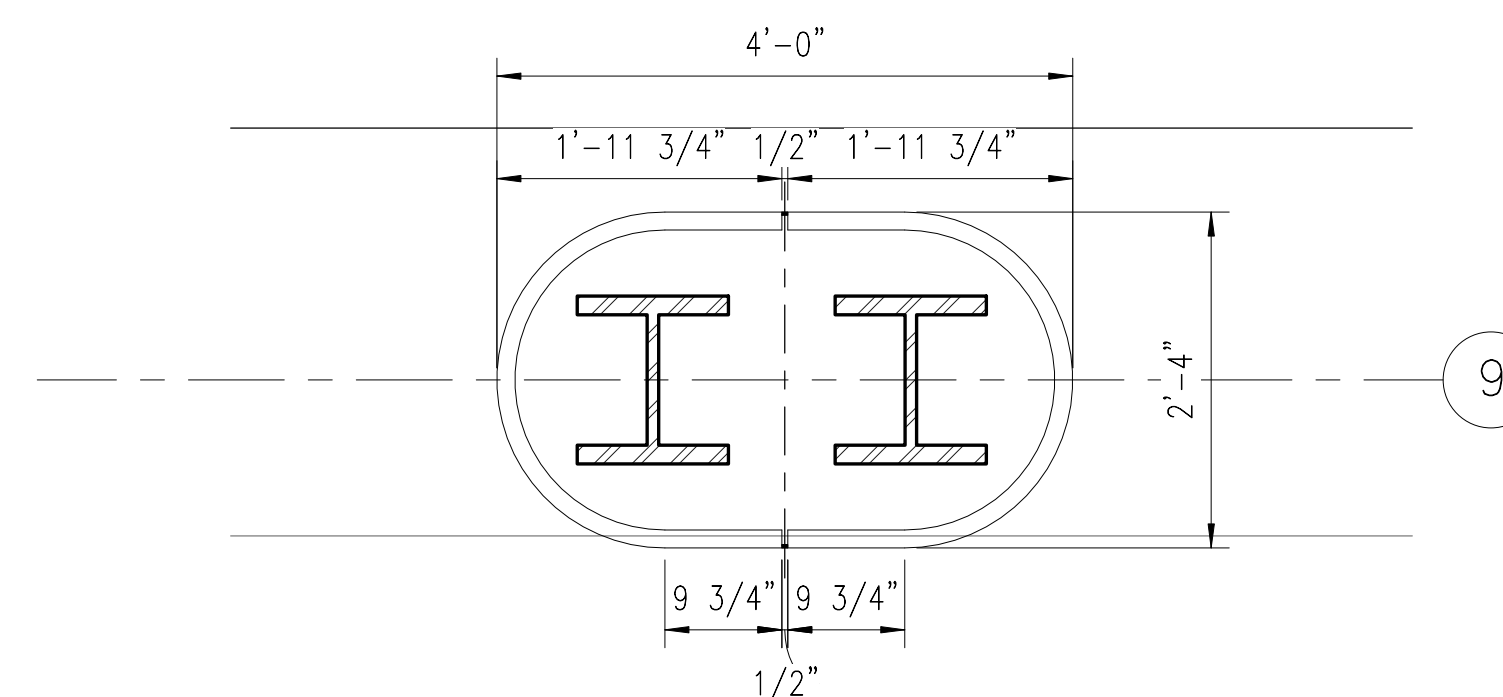
2  
S-500 3/4" = 1'-0"  
CONCRETE PEDESTAL SECTION  
(NORTH COLUMN SHOWN, SOUTH COLUMN SIMILAR)



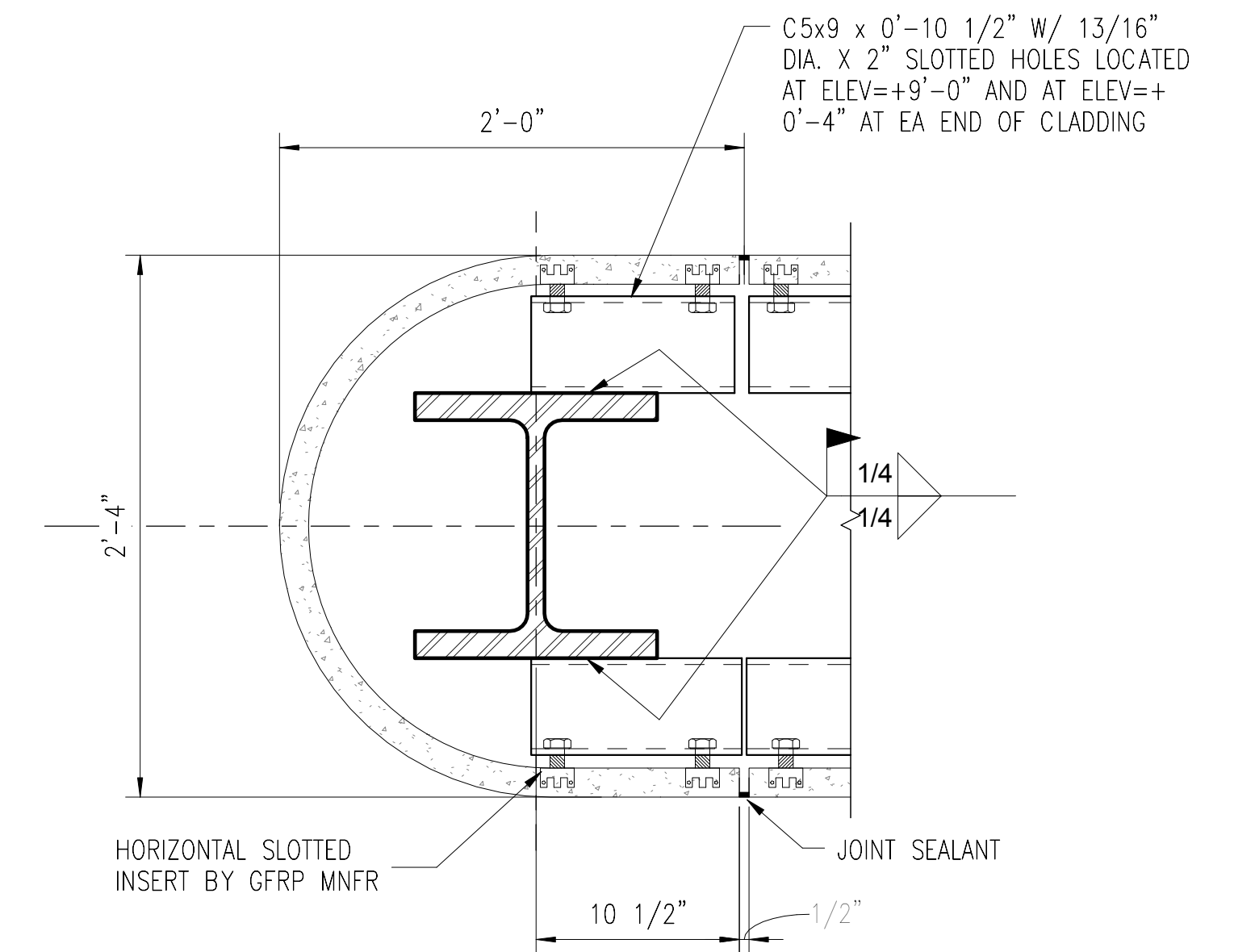
3  
S-500 3/4" = 1'-0"  
CONCRETE PEDESTAL SECTION



4  
S-500 1 1/2" = 1'-0"  
CLADDING CONNECTION TO SLAB

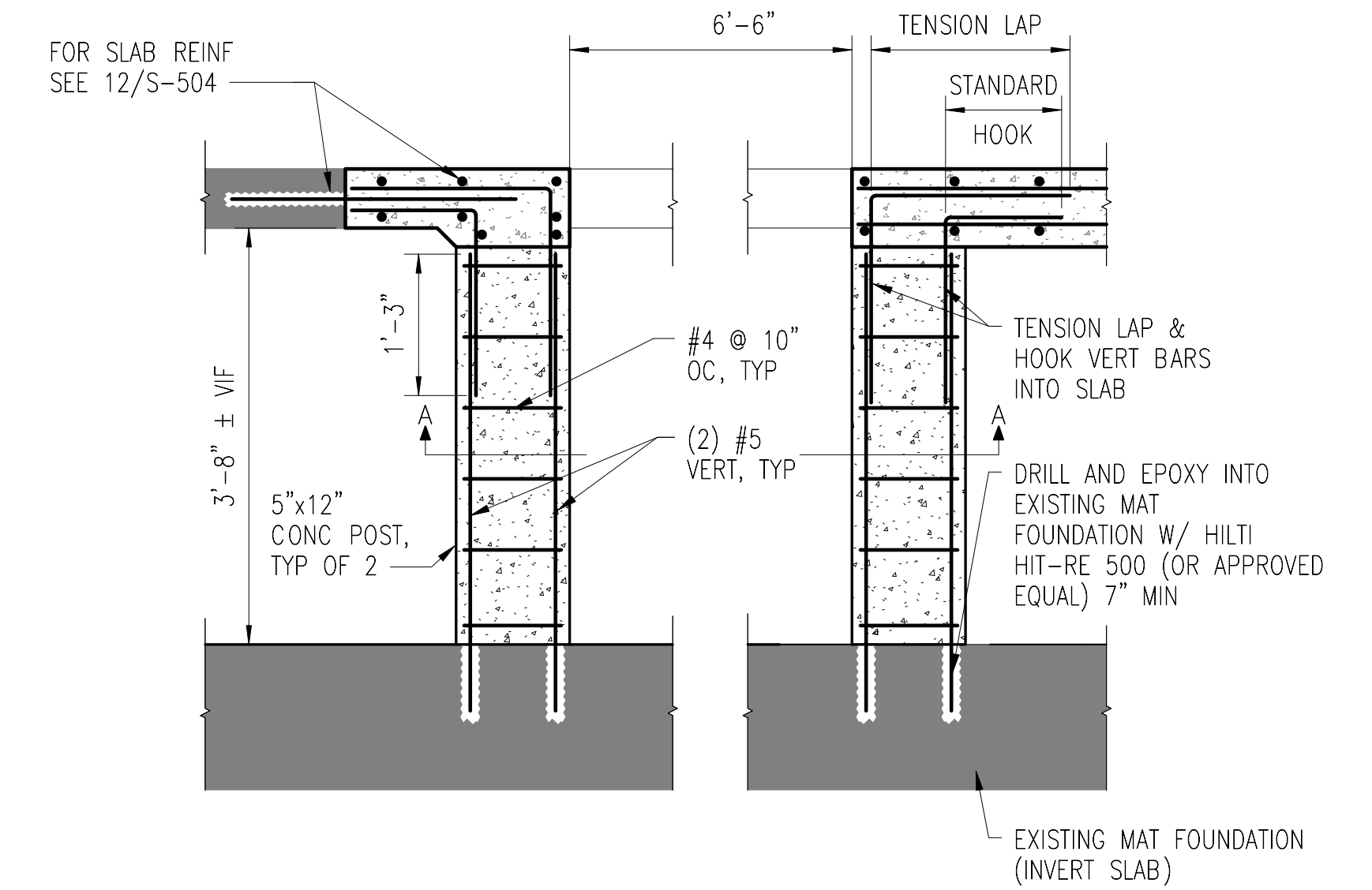
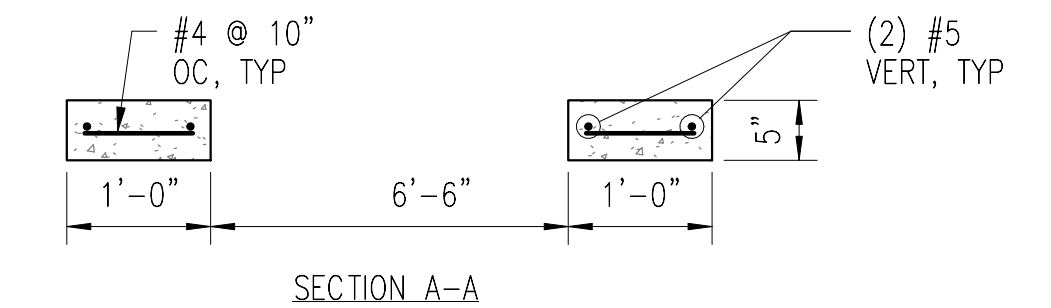


5  
S-500 3/4" = 1'-0"  
PRECAST CLADDING LAYOUT

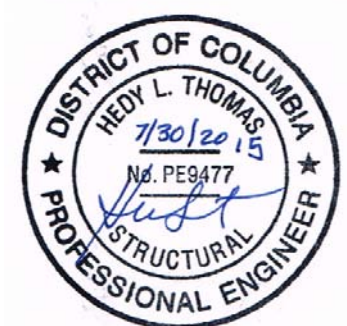


NOTE:  
1. CONNECTIONS SHOWN ARE FOR DESIGN INTENT ONLY, FINAL CONNECTIONS SHALL BE COORDINATED WITH GFRP MANUFACTURER AND SUBMITTED WITH CALCULATIONS FOR REVIEW AND APPROVAL.

1  
S-500 1 1/2" = 1'-0"  
PANEL LATERAL TIE CONNECTION



6  
S-500 3/4" = 1'-0"  
SECTION @ PLATFORM SUPPORT



DESIGNED S. GROVER 06/15 DATE  
DRAWN S. GROVER 06/15 DATE  
CHECKED J. MEAGHER 06/15 DATE  
APPROVED H. THOMAS 06/15 DATE

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	DESCRIPTION

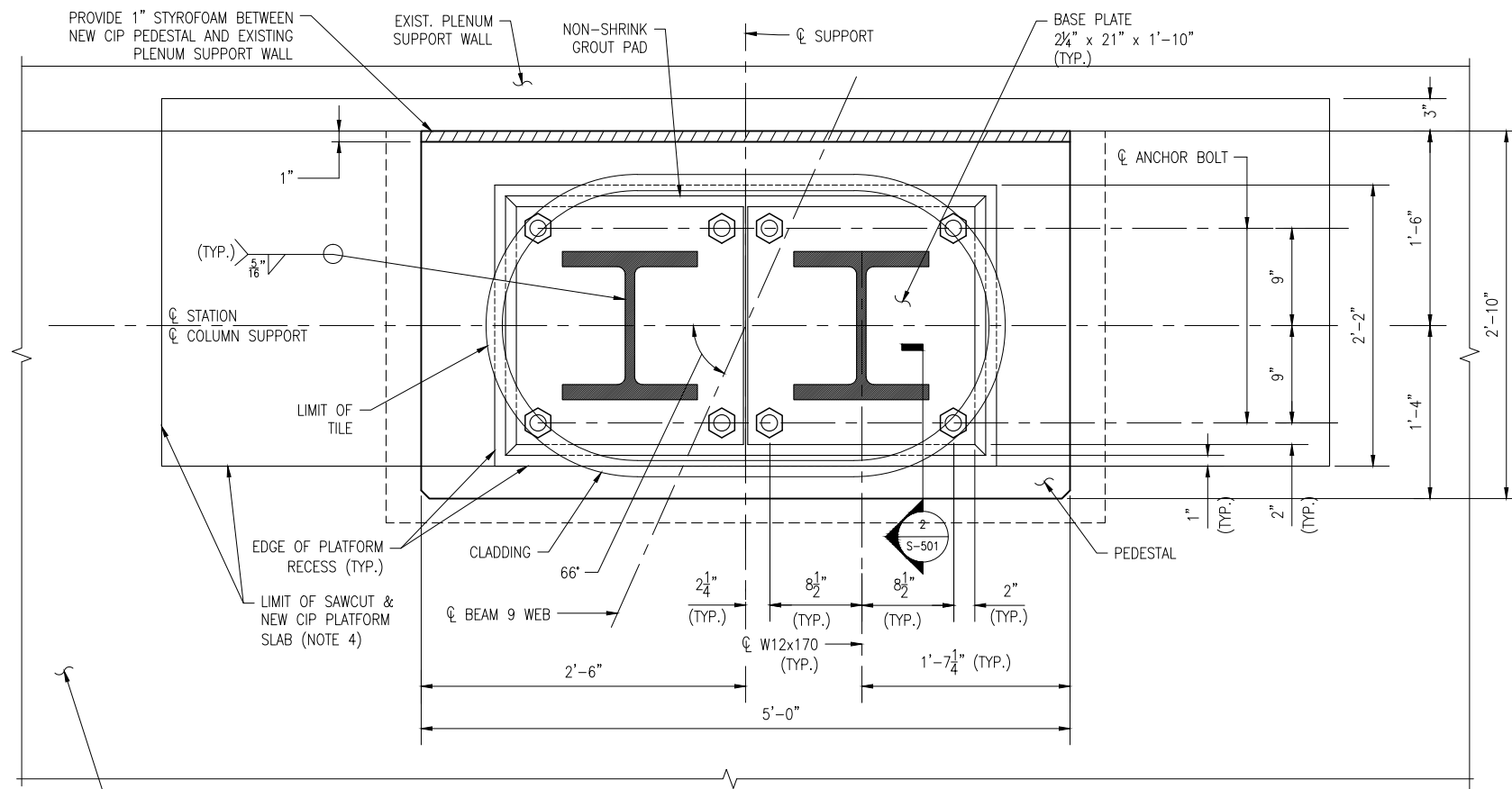
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY  
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OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM



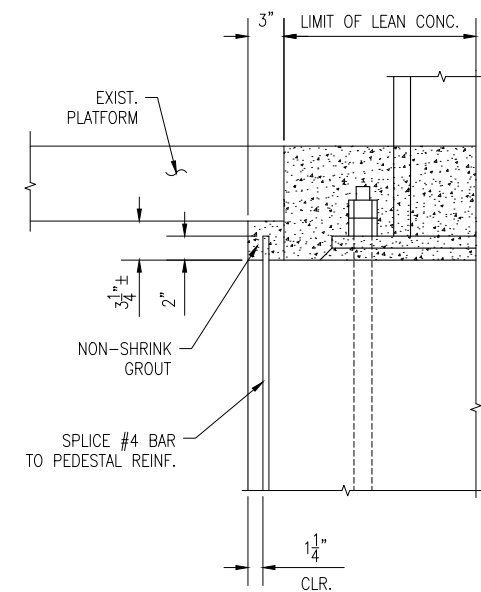
APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

BID DOCUMENTS CONTRACT NO. FQ16078  
STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION  
STRUCTURAL DETAILS  
SCALE AS NOTED DRAWING NO. A02-S-500 M1275-07

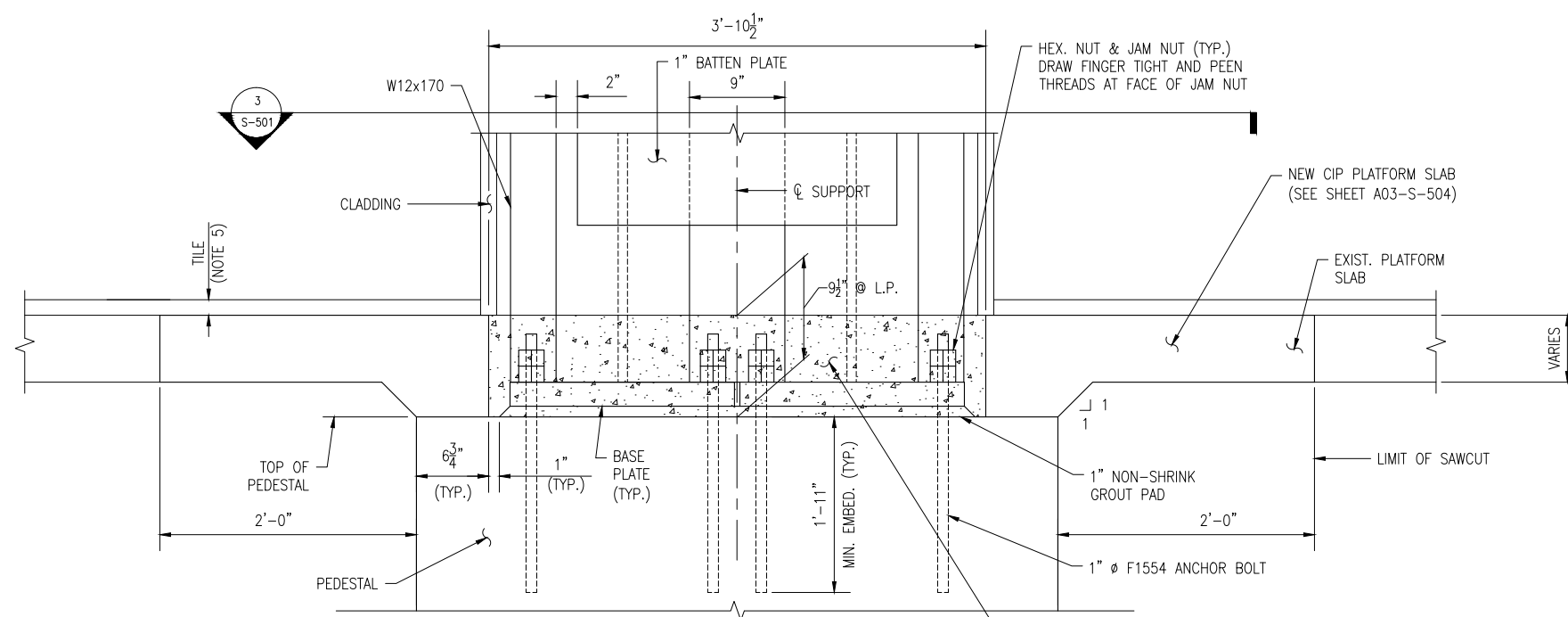




**3 SECTION**  
S-501 1 1/2" = 1'-0"



**2 SECTION**  
S-501 1 1/2" = 1'-0"



**1 COLUMN BASE DETAIL**  
S-300 (NORTH COLUMN SHOWN—SOUTH COLUMN SIMILAR)  
1 1/2" = 1'-0"

**NOTES:**

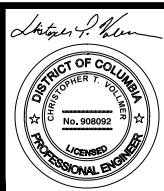
1. FOR PEDESTAL DETAILS, SEE SHEET S-500.
2. FOR NEW CIP PLATFORM SLAB REINFORCEMENT DETAILS, SEE SHEET S-504.
3. FOR ADDITIONAL SUPPORT DETAILS, SEE SHEET S-502.
4. FOR SLAB REMOVAL & RECONSTRUCTION DETAILS, SEE SHEET S-504.
5. FOR PLATFORM TILE CONSTRUCTION, FOLLOW WMATA ARCHITECTURAL STANDARD DRAWING ST-A-SW-001.
6. APPLY BOND BREAKER AROUND ALL EXPOSED SURFACES OF BASE PLATES, ANCHOR BOLTS, NUTS AND ADJACENT CONCRETE PRIOR TO PLACING LEAN CONCRETE.
7. FOR CFRP DETAILS, SEE SHEET S-301.

**BID DOCUMENTS** CONTRACT NO. **FQ16078**

DESIGNED	CTV	7-30-15
		DATE
DRAWN	CJP	7-30-15
		DATE
CHECKED	CTV	7-30-15
		DATE
APPROVED	DAB	7-30-15
		DATE

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY

REVISIONS	
DATE	DESCRIPTION



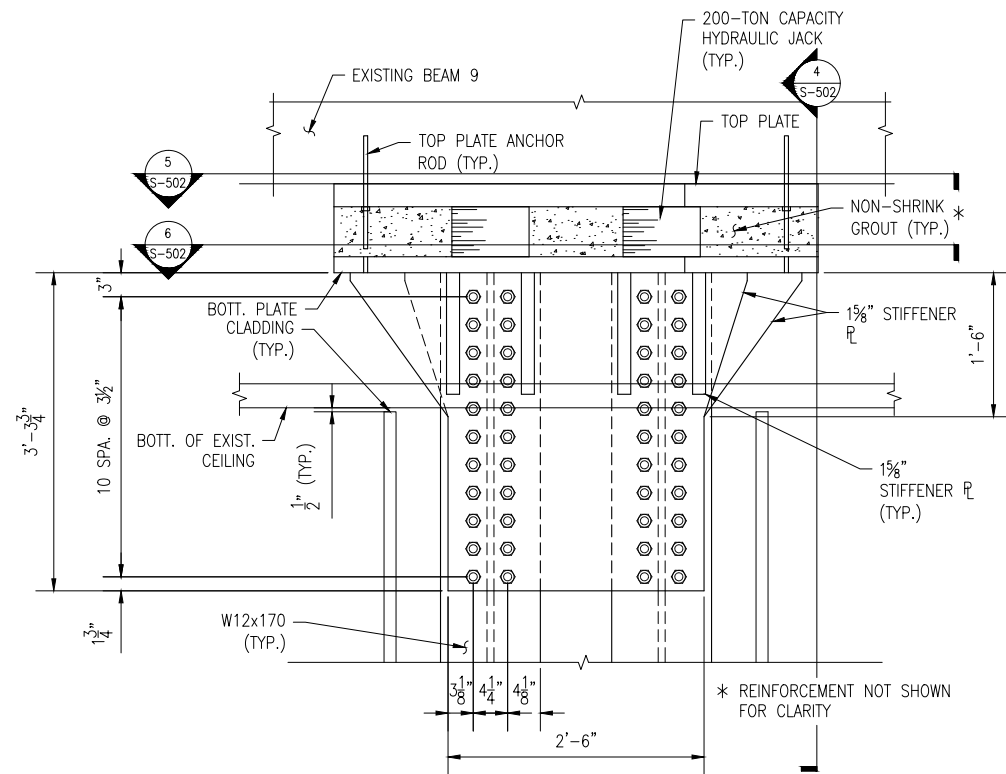
**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**  
DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES  
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

**GFP** A Gannett Fleming/Parsons JOINT VENTURE

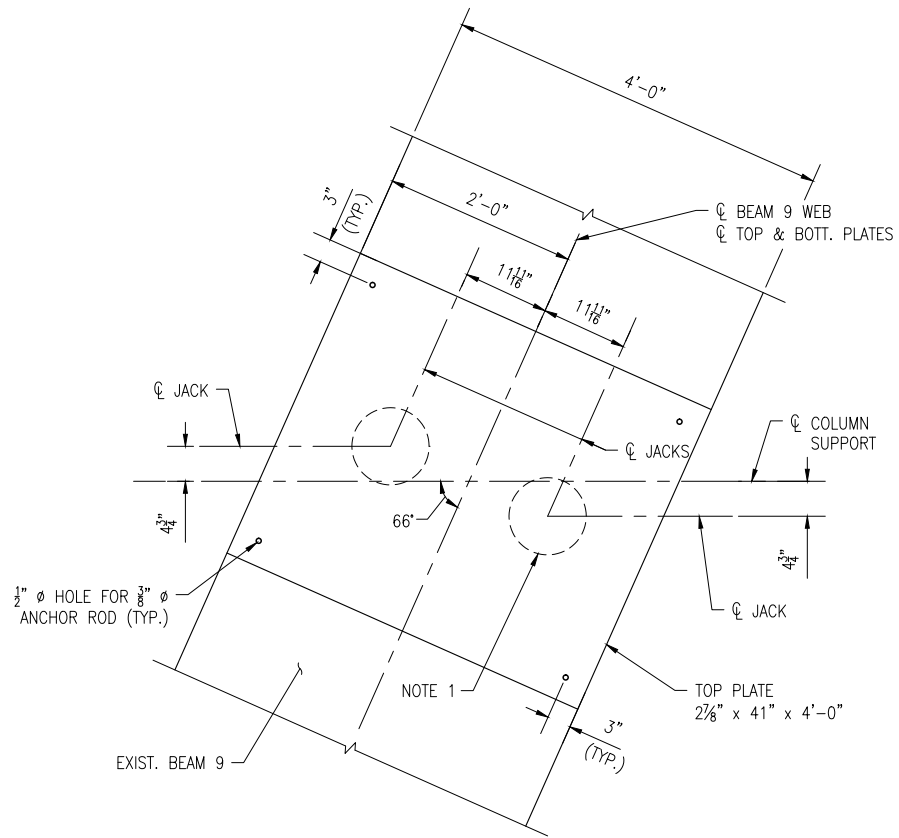
APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRO RAIL STATION**  
SUPPORT COLUMN DETAILS-1

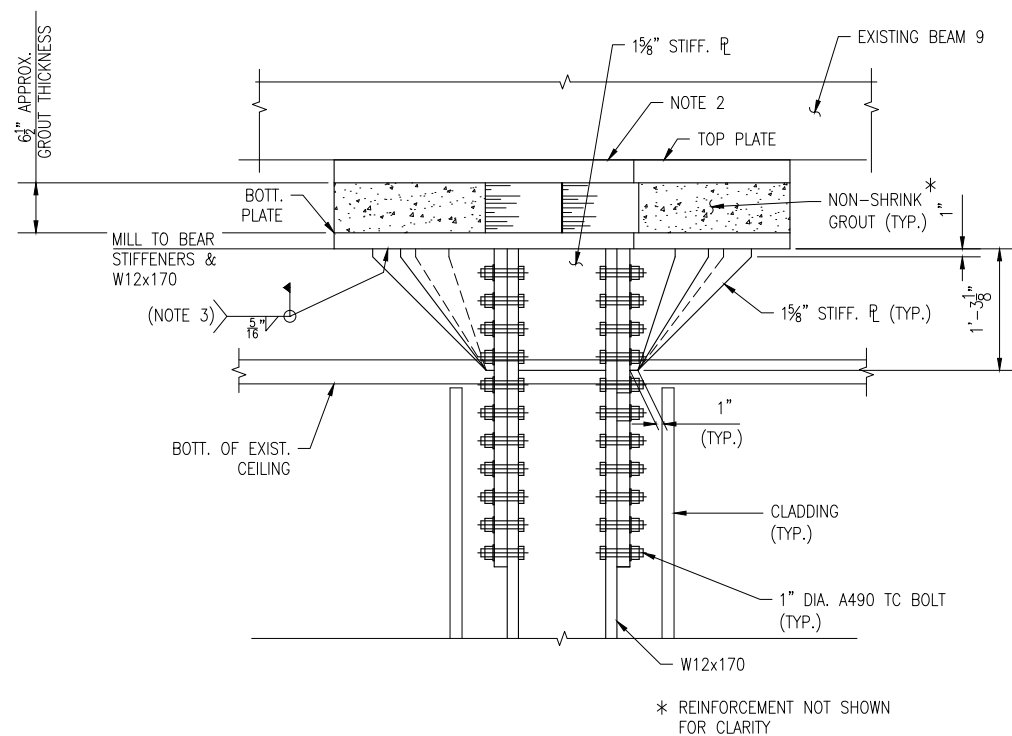
SCALE AS NOTED DRAWING NO. A02-S-501 M1275-08



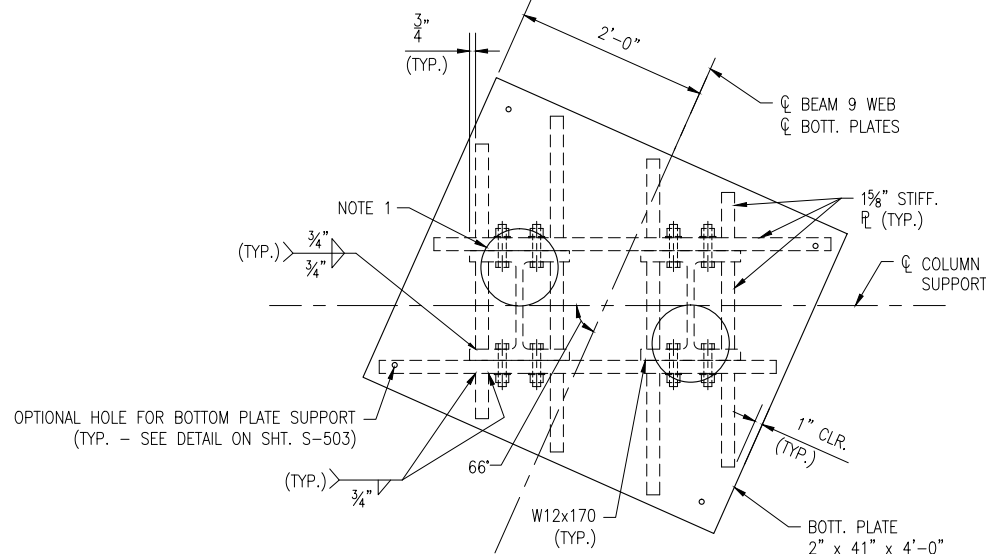
2 TOP PLATE DETAIL  
S-300 1" = 1'-0"



5 SECTION  
S-502 1" = 1'-0"



4 SECTION  
S-502 1" = 1'-0"



6 SECTION  
S-502 1" = 1'-0"

NOTES:

1. MARK TOP AND BOTTOM PLATES TO IDENTIFY THE LOCATION OF 9.65" DIAMETER HYDRAULIC JACKS.
2. ENSURE 100% CONTACT BETWEEN BOTTOM OF EXISTING BEAM & TOP PLATE BY MEANS OF GRINDING THE BEAM OR BY GROUTING THE VOIDS BETWEEN THE TWO SURFACES WITH NON-SHRINK GROUT.
3. WELD ALL AROUND STIFFENERS & COLUMNS TO BOTTOM PLATE.
4. COLUMN SYSTEM INCLUDING COLUMNS, BATTEN PLATES, STIFFENER ASSEMBLIES AND BOTTOM PLATE CAN BE ASSEMBLED IN THE SHOP TO THE EXTENT THAT THE CONTRACTOR CAN DELIVER AND ERECT WITHIN THE PLATFORM, BASED ON THE SITE LIMITATIONS AND CONTRACTOR MEANS AND METHODS. DO NOT EXCEED THE WEIGHT LIMITS SHOWN ON SHEET S-002, ITEM B, LOADINGS.

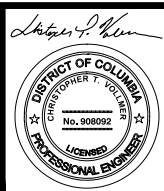
BID DOCUMENTS

CONTRACT NO.  
FQ16078

DESIGNED	CTV	7-30-15
		DATE
DRAWN	CJP	7-30-15
		DATE
CHECKED	CTV	7-30-15
		DATE
APPROVED	DAB	7-30-15
		DATE

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NUMBER	DESCRIPTION	DATE	BY

REVISIONS	
DATE	DESCRIPTION



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY  
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OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

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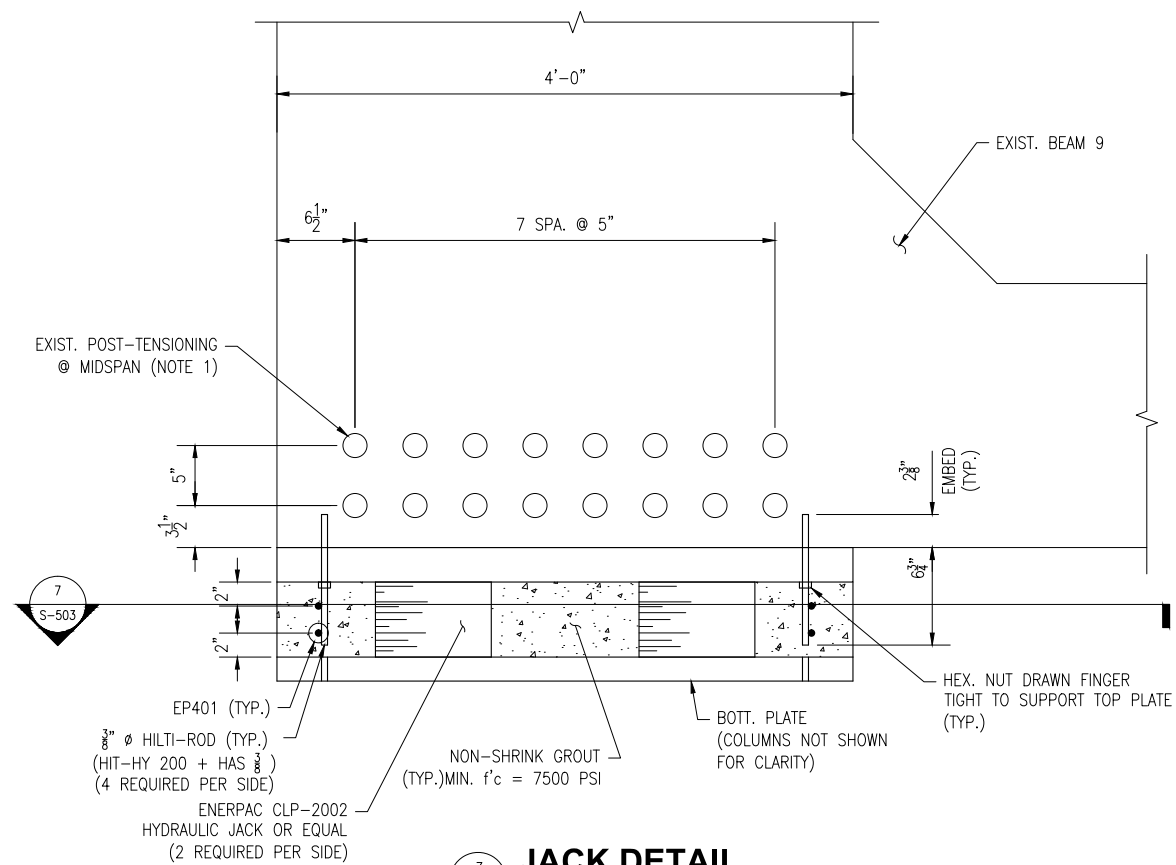
APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION

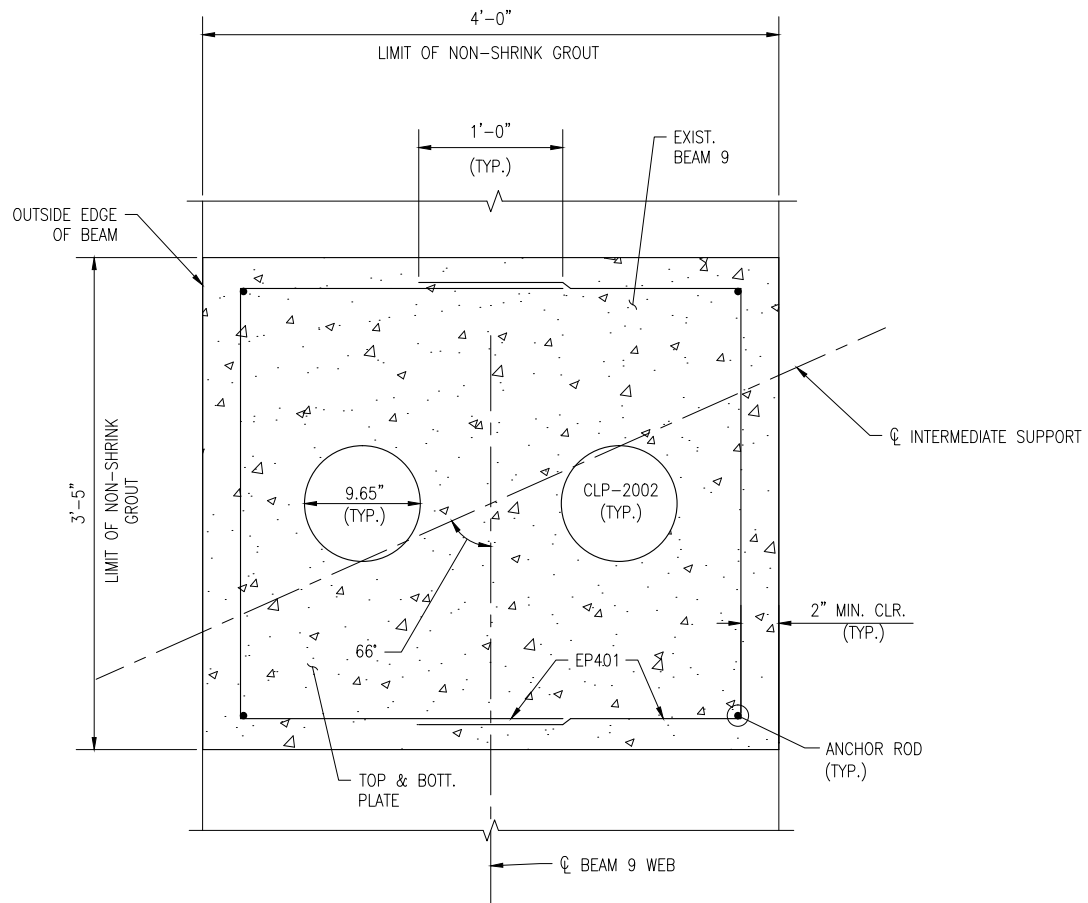
SUPPORT COLUMN DETAILS-2

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

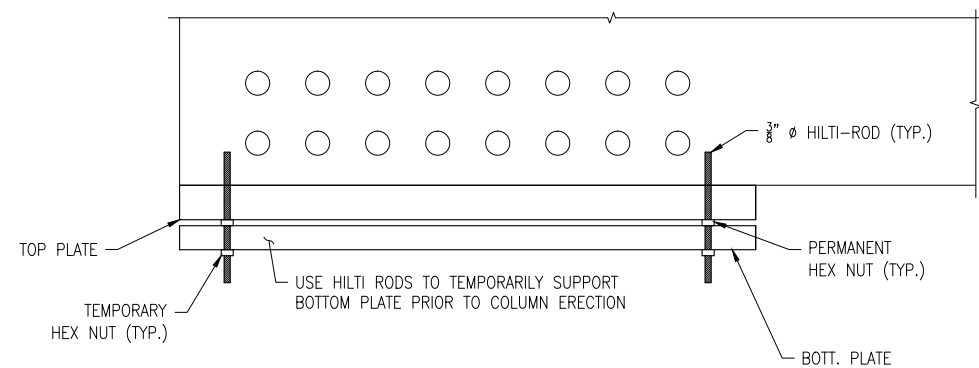
DRAWING NO. A02-S-502 M1275-09



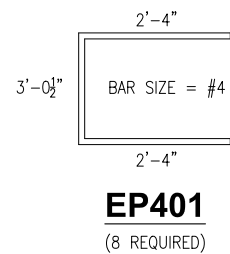
**3 JACK DETAIL**  
 1 1/2" = 1'-0"



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



**2 OPTIONAL BOTTOM PLATE SUPPORT DETAIL**  
 1 1/2" = 1'-0"



**NOTES:**

1. VERIFY THE LOCATION OF THE EXISTING POST-TENSIONING DUCTS IN THE VICINITY OF THE PROPOSED HILTI RODS WITH A PACHOMETER. ADJUST HILTI ROD LOCATIONS AS REQUIRED TO MISS POST-TENSIONING DUCTS PRIOR TO DRILLING HOLES IN THE TOP PLATE.

**JACKING NOTES:**

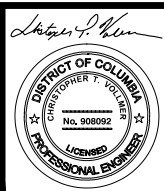
1. JACK ALL FOUR CYLINDERS TO A UNIFORM LOAD. THE JACKING OPERATION IS TO BE MONITORED AS INDICATED IN ORDER TO VERIFY THAT EXCESSIVE MOVEMENTS AND/OR UNBALANCED LOADING DOES NOT OCCUR IN THE BEAM.
2. IN ORDER TO CONTROL THE UNIFORM LOADING, USE A ENERPAC SLCG-8 SERIES LIFT SYSTEM (OR EQUIVALENT). THE ACCURACY TOLERANCE BETWEEN LEADING AND LAGGING CYLINDERS IS NOT TO EXCEED 0.04".
3. JACK EACH CYLINDER TO 145 TONS AT INCREMENTS OF 25 TONS/JACK VERIFY THAT ALL FOUR JACKS ARE LOADED EQUALLY BEFORE ADDING ADDITIONAL LOAD. CONTINUE THIS PROCESS UNTIL 145 TON/JACK IS REACHED. LOCK-OFF CYLINDERS (TO PERMANENTLY REMAIN).
4. DURING THE JACKING OPERATION, MONITOR THE VERTICAL MOVEMENT OF BEAM 9. IF THE BEAM MOVES 3/8" VERTICALLY PRIOR TO REACHING 145 TONS/JACK, STOP THE OPERATION AND NOTIFY THE C.O.R.
5. DURING THE JACKING OPERATION, VISUALLY MONITOR THE ADJACENT CEILING SLABS SUPPORTED FROM BEAM 9. IF CRACKING OF THE SLABS OCCUR DURING THIS OPERATION, STOP WORK AND NOTIFY THE C.O.R.
6. AFTER JACKS ARE LOCKED, INSTALL REINFORCEMENT & PLACE NON-SHRINK GROUT.

**BID DOCUMENTS** CONTRACT NO. **FQ16078**

DESIGNED	CTV	7-30-15
DATE		7-30-15
DRAWN	CJP	7-30-15
DATE		7-30-15
CHECKED	CTV	7-30-15
DATE		7-30-15
APPROVED	DAB	7-30-15
DATE		7-30-15

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY

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**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**  
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 OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

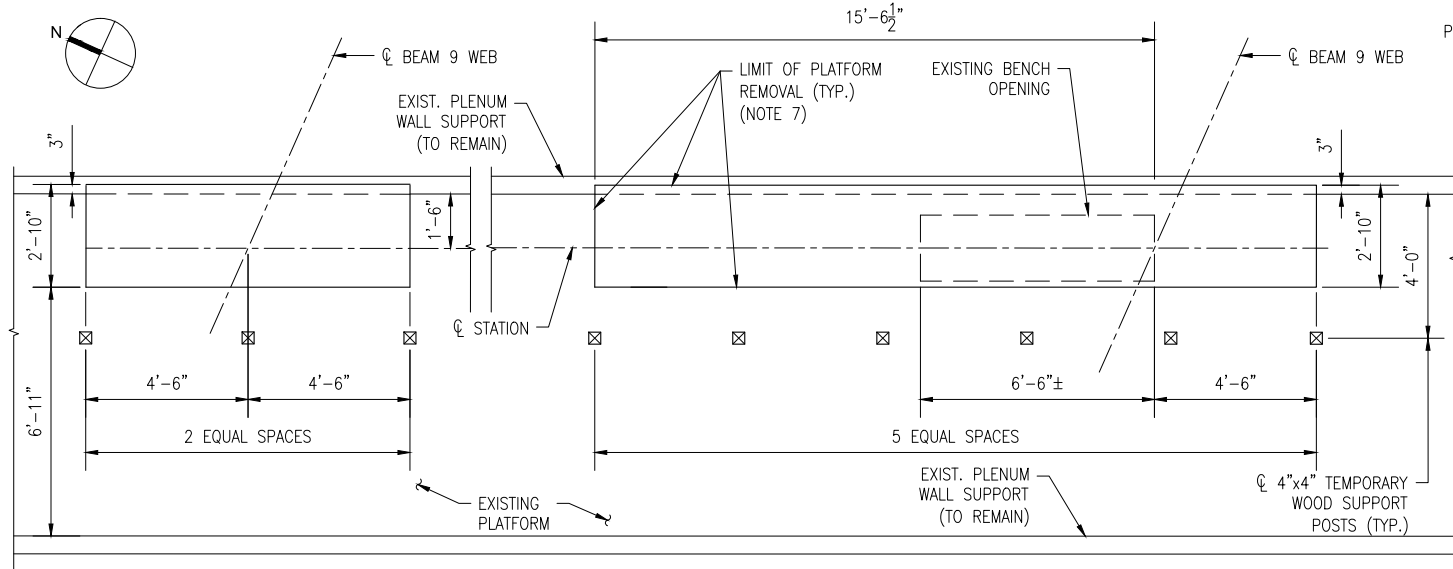
**GFP** A Gannett Fleming/Parsons JOINT VENTURE

APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

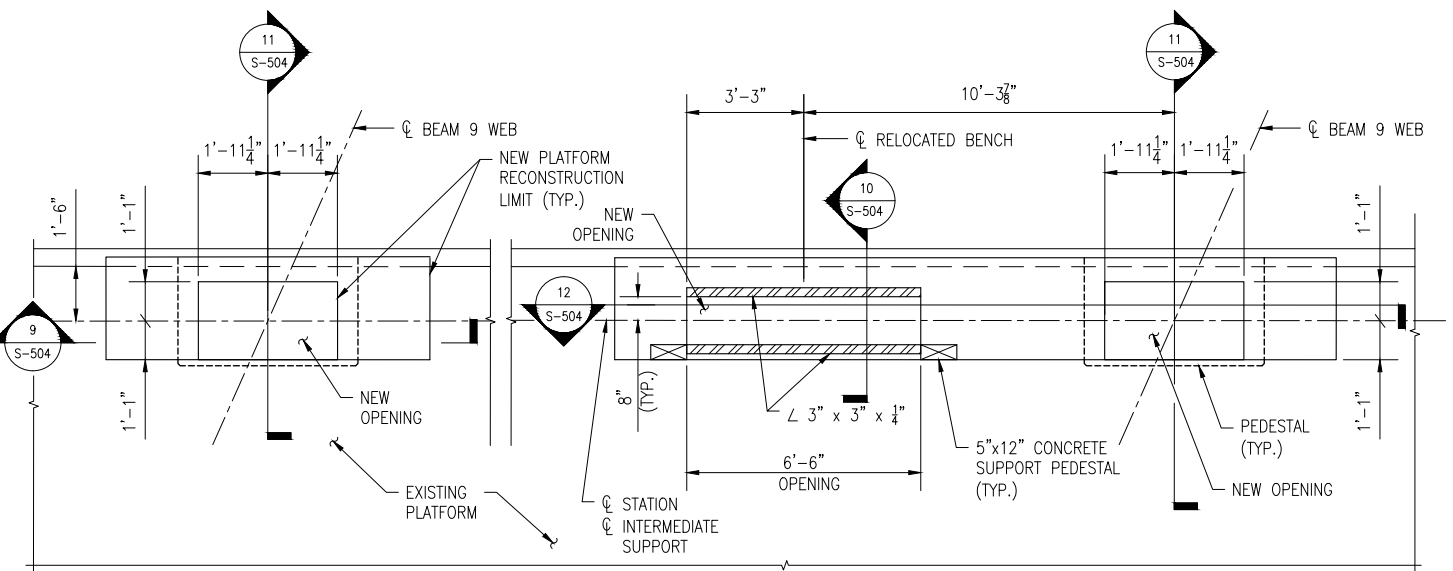
**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION**

JACKING DETAILS

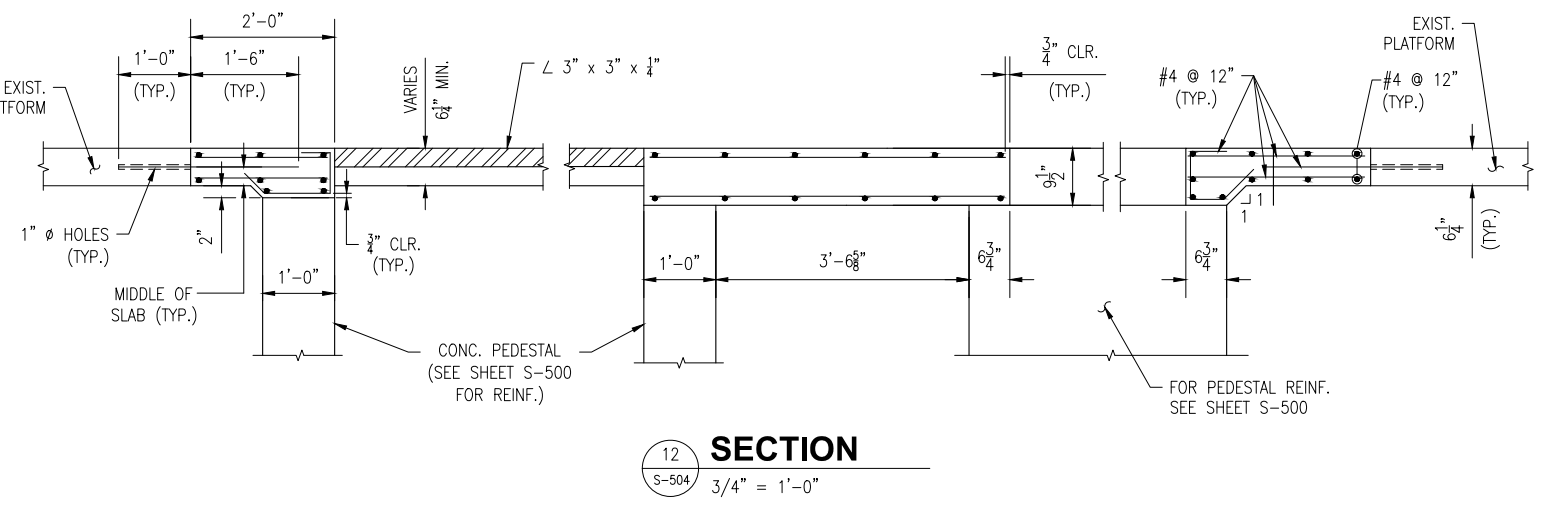
SCALE 1 1/2" = 1'-0" DRAWING NO. **A02-S-503** M1275-10



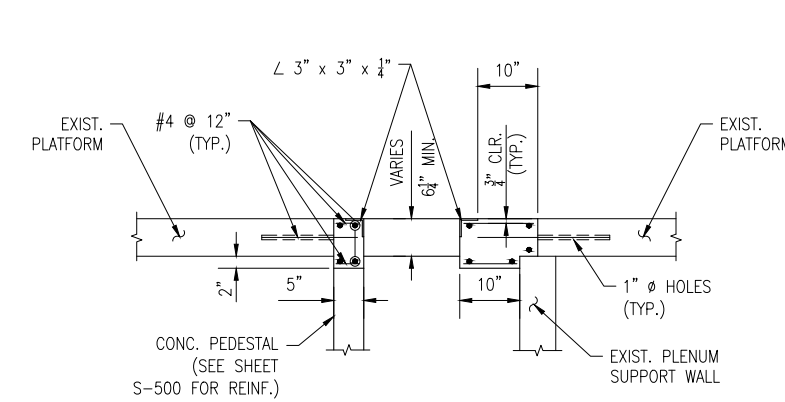
**1 PLATFORM REMOVAL LIMITS**  
 S-504 3/8" = 1'-0"



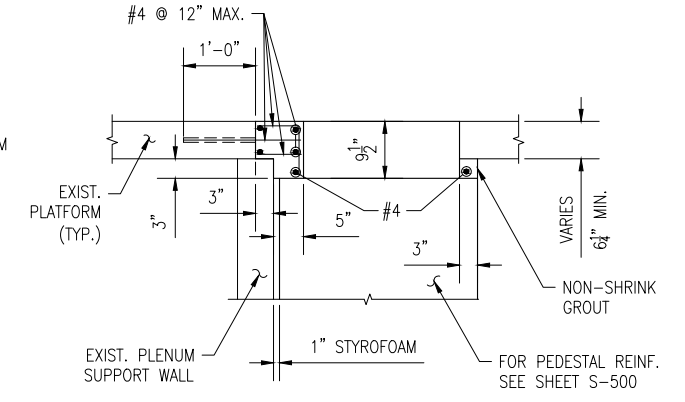
**2 PLATFORM RECONSTRUCTION LIMITS**  
 S-504 (SOUTH COLUMN SHOWN-NORTH COLUMN AS NOTED)  
 3/8" = 1'-0"



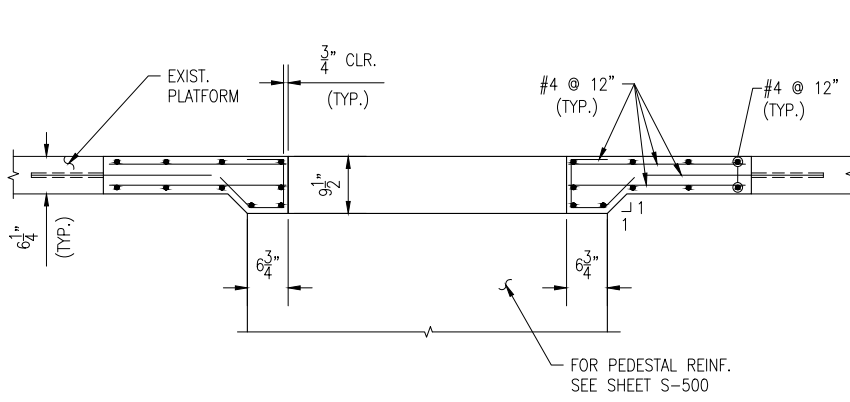
**12 SECTION**  
 S-504 3/4" = 1'-0"



**10 SECTION**  
 S-504 3/4" = 1'-0"



**11 SECTION**  
 S-504 3/4" = 1'-0"



**9 SECTION**  
 S-504 3/4" = 1'-0"

- NOTES:**
- FOR CFRP DETAILS, SEE SHEET S-301.
- PLATFORM REMOVAL NOTES:**
- REMOVE WHOLE TILES AND CONCRETE SETTING BED TO A MINIMUM OF 1'-0" OUTSIDE THE LIMITS OF THE CFRP.
  - DELINEATE SAWCUT LIMITS TO THE DIMENSIONS SHOWN AND MARK THE PLENUM SUPPORT WALL PRIOR TO SAWCUTTING.
  - PROVIDE TEMPORARY WOOD SUPPORTS UNDER THE PLATFORM AS SHOWN AT A MINIMUM AND AS APPLICABLE TO SUPPORT THE PROPOSED CONSTRUCTION LOADING PRIOR TO SAWCUTTING THE PLATFORM.
  - PROVIDE FULL DEPTH SAWCUTS (INCLUDING REINFORCEMENT) TO WITHIN 6" OF THE PLENUM SUPPORT WALL.
  - REMAINING PLATFORM ADJACENT TO SUPPORT WALL IS TO BE REMOVED WITH NO LARGER THAN A 30 LB. HAND HELD HAMMER. PRESERVE THE EXISTING PLATFORM SUPPORT WALL AND ANY PROJECTING REINFORCEMENT.
  - INSTALL CFRP AS INDICATED ON DETAILS 4 AND 5, SHEET S-301.
  - IN THE EVENT A BONDING STRAP IS ENCOUNTERED DURING PLATFORM REMOVAL, THE CONTRACTOR SHALL REPLACE THE STRAP IN-KIND.

**BID DOCUMENTS** CONTRACT NO. FQ16078

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		DATE
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APPROVED	DAB	7-30-15
		DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION

REVISIONS		
DATE	BY	DESCRIPTION



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**  
 DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES  
 OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

**GFP** A Gannett Fleming/Parsons JOINT VENTURE




APPROVED \_\_\_\_\_ SUBMITTED DAVID BURROWS PROJECT MANAGER

**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION**

PLATFORM REINFORCEMENT DETAILS

SCALE AS NOTED DRAWING NO. A02-S-504 M1275-11

**SYMBOLS AND ABBREVIATIONS**

POINT OF CONNECTION   
 POINT OF DISCONNECT   
 DUCT 

CONTRACTING OFFICER REPRESENTATIVE C.O.R.  
 EXISTING (E)  
 TYPICAL TYP.  
 STAINLESS STEEL SS  
 FEET FT  
 INCHES IN  
 MANHOLE MH  
 RETURN AIR RA  
 SUPPLY AIR SA  
 CENTER LINE ☉  
 DEMOLISH DEMO

**MECHANICAL GENERAL NOTES DEMOLITION**

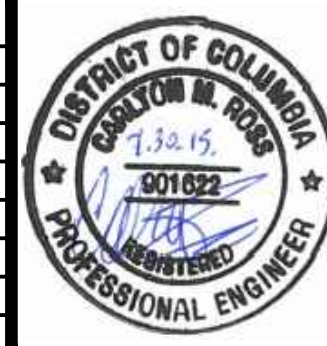
1. THE CONTRACTOR SHALL INSPECT THE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED.
2. ALL DEMOLITION SHALL BE ACCOMPLISHED IN PHASES AS REQUIRED TO MEET THE OWNER'S OPERATIONAL NEEDS. SUBMIT DETAILS OF PROPOSED TEMPORARY WORK TO C.O.R. FOR APPROVAL.
3. ALL WORK IN RETURN AIR TUNNEL SHALL CONFORM TO "CONFINED SPACE ENTRY" REQUIREMENTS.
4. IN REMOVING DESIGNATED COMPONENTS CONTRACTOR SHALL PRESERVE AND PROTECT ADJACENT OR ADJOINING COMPONENTS SUCH AS DUCT TRANSITION PIECES FOR REUSE WITH NEW COMPONENTS.
5. REMOVE OR RELOCATE ANY EXISTING PIPING, DUCTWORK OR ELECTRICAL CONDUITS THAT INTERFERE WITH THE DEMOLITION OR INSTALLATION OF NEW WORK. PROVIDE TEMPORARY SERVICE TO EQUIPMENT FOR ITEMS REMOVED. SUBMIT DETAILS OF PROPOSED TEMPORARY WORK TO C.O.R. FOR APPROVAL.
6. THE LOCATIONS OF THE VARIOUS DUCTS AND EQUIPMENT AS SHOWN ON THE DRAWINGS ARE INTENDED TO BE DIAGRAMMATIC ONLY. THE CONTRACTOR SHALL CONFORM TO THE CONDITIONS IN THE AREA AND ALL NECESSARY CHANGES IN THE RUN OF THE DUCT FROM THOSE SHOWN IN THE DRAWING SHALL BE MADE AS PART OF THE WORK UNDER THIS CONTRACT SUBJECT TO THE APPROVAL OF THE C.O.R.

**GENERAL NOTES:**

1. THE PLANS SHOWS THE TYPICAL ARRANGEMENT OF THE NEW EQUIPMENT AND ACCESSORIES IN THE STATION. THE EXISTING RETURN AIR BENCH AND DUCTWORK IS SHOWN IN IT'S APPROXIMATE LOCATION. CONTRACTOR SHALL PROVIDE THE REQUIRED FITTINGS TO CONNECT THE NEW DUCTWORK TO THE EXISTING.
2. THE CONTRACTOR SHALL INSPECT THE ENTIRE SITE AND BECOME INFORMED AS TO THE CONDITION OF THE PREMISES AND THE EXTENT AND CHARACTER OF WORK REQUIRED PARTICULARLY GAINING ACCESS TO THE WORK AREA. NOTE THAT THE ACTUAL CONDITION IN THE FIELD MAY VARY FROM THE EXISTING CONDITIONS SHOWN ON THE DRAWINGS. CONTRACTOR SHALL MAKE MODIFICATIONS IN THE FIELD TO COMPLY WITH THE GENERAL INTENT OF THE CONTRACT.
3. COORDINATE ALL MECHANICAL WORK WITH ALL OTHER TRADES TO AVOID CONFLICTS. PROVIDE NECESSARY FITTINGS FOR OFFSETS, RISES AND DROPS TO AVOID CONFLICTS. PROVIDE COORDINATION DRAWINGS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SPECIFICATIONS.
4. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE DUCT SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY CODE.
5. CONTRACTOR TO COORDINATE WITH THE C.O.R. FOR ANY REMOVED EQUIPMENT FOR SALVAGE.
6. GROUNDING OF EXPOSED MATALLIC STRUCTURES SHALL BE PROVIDED. THE GROUNDING SYSTEM SHALL PROVIDE A LOW IMPEDANCE PATH TO GROUND FOR ALL EXPOSED METALLIC STRUCTURES.
7. ANY HARDWARE OR STRUCTURAL METAL USED SHALL BE OF TYPE 316 SS.
8. REFER TO REFERENCE DRAWING FA3-AC-21 FOR ADDITIONAL INFORMATION.

**BID DOCUMENTS** CONTRACT NO. FQ16078

	REFERENCE DRAWINGS		REVISIONS		
	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DESIGNED <u>P. SANFORD</u>	06/15				
	DATE				
DRAWN <u>A. PINKOWSKI</u>	06/15				
	DATE				
CHECKED <u>C. ROSS</u>	06/15				
	DATE				
APPROVED <u>D. BURROWS</u>	06/15				
	DATE				



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES  
 OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED \_\_\_\_\_

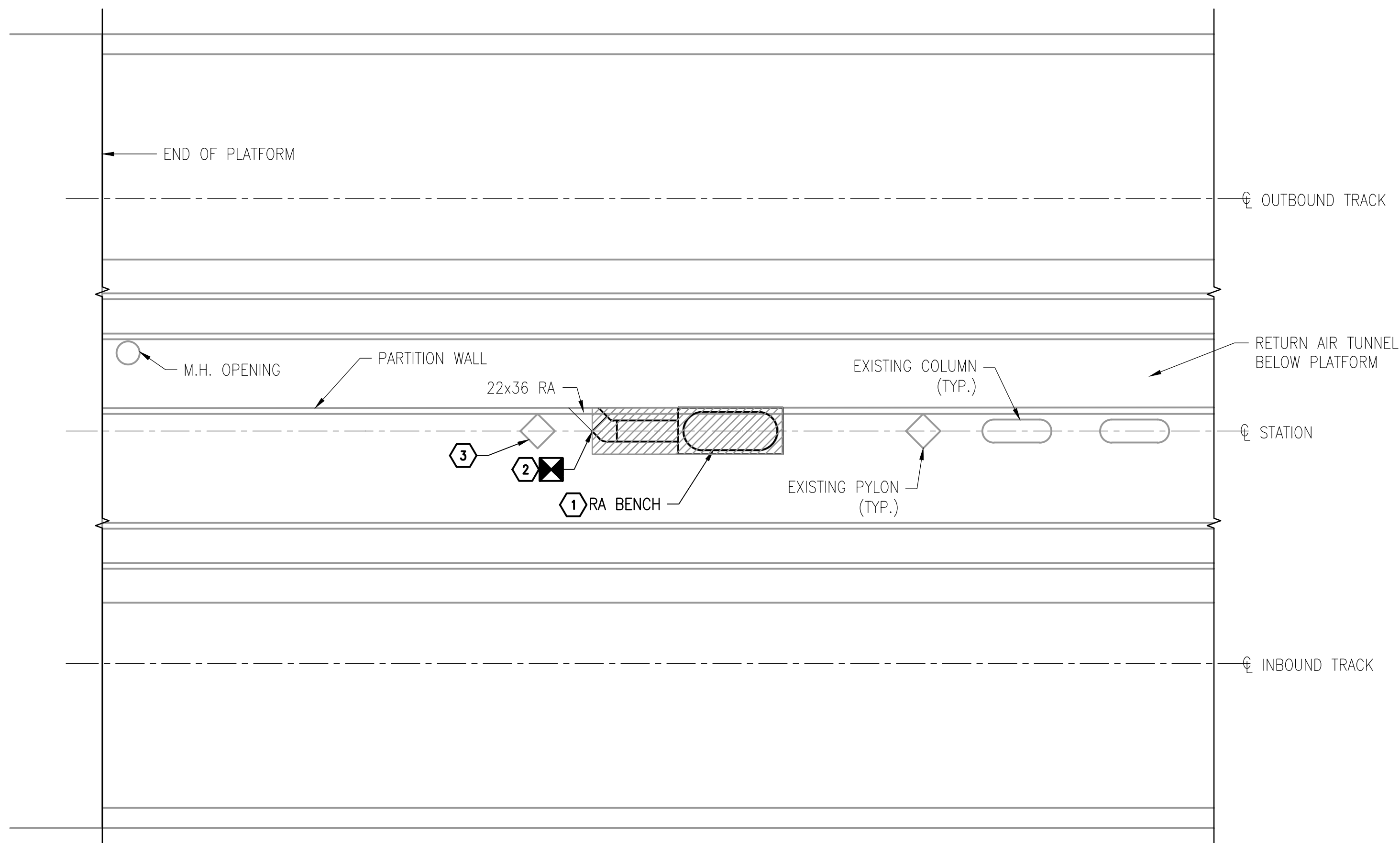


SUBMITTED DAVID BURROWS  
 PROJECT MANAGER

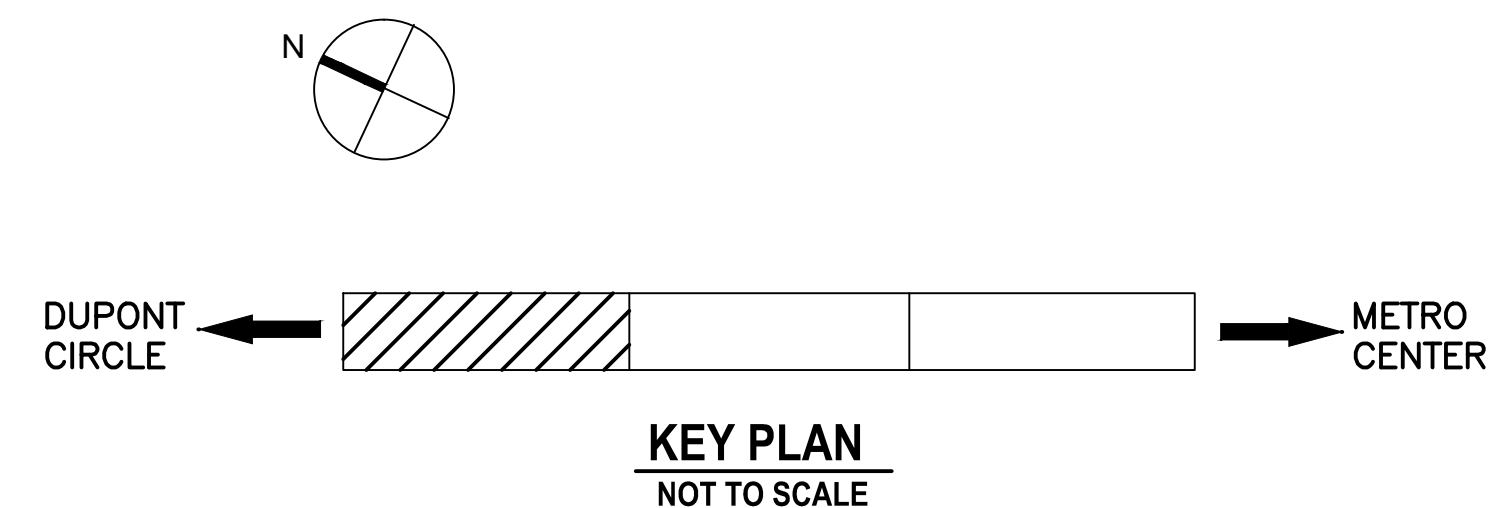
**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION**

**SYMBOLS, ABBREVIATIONS, AND NOTES**

SCALE NONE DRAWING NO. A02-M-001 M1275-12



**1**  
A02-M-002 SCALE: 1/8" = 1'-0"  
**TRACK LEVEL FLOOR PLAN - DEMOLITION**

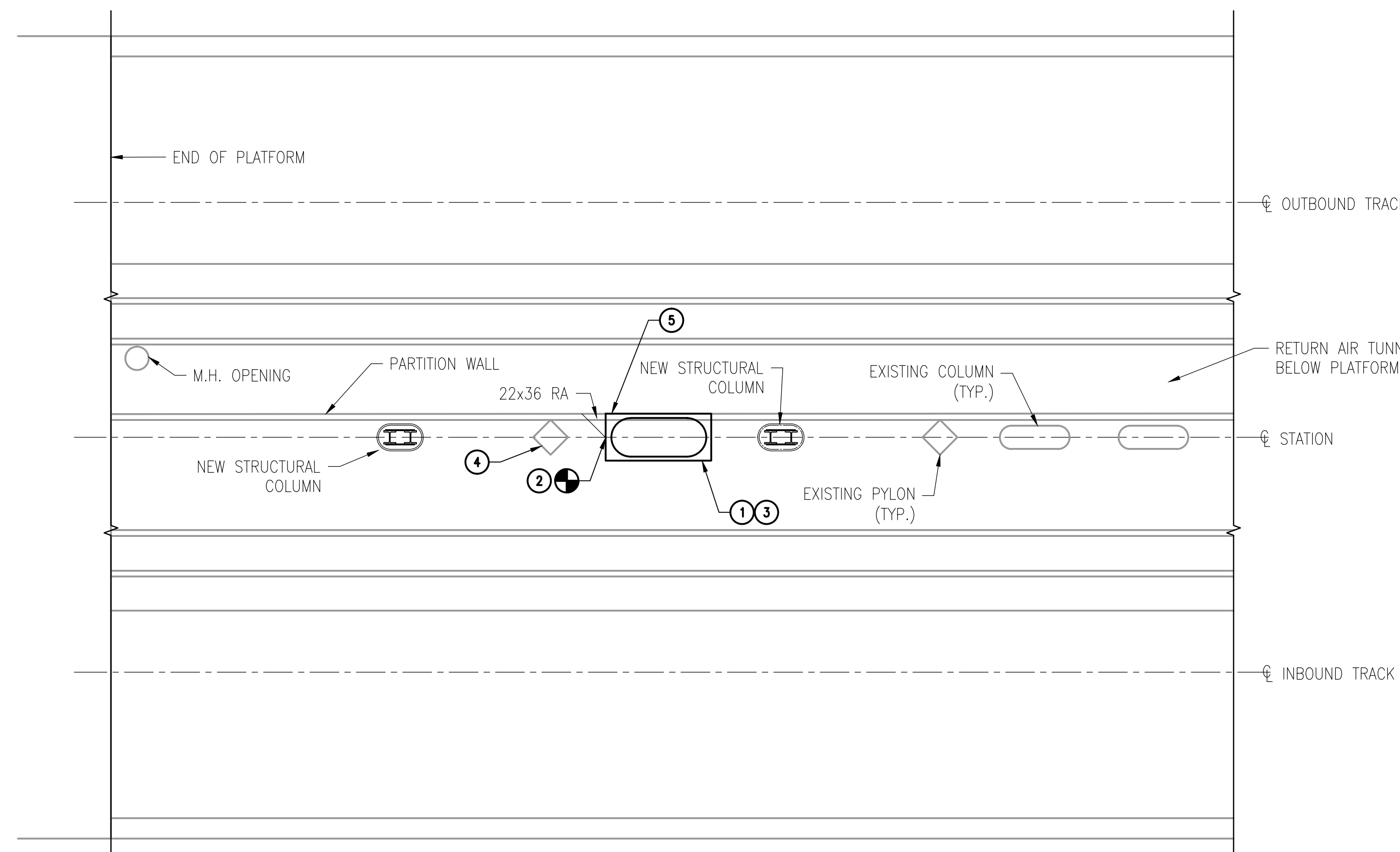


**DEMOLITION NOTES**

- ① REMOVE AND RETAIN THE EXISTING RETURN AIR BENCH AS INDICATED BY REMOVING THE GRANITE TOP AND STORING IT IN THE TEMPORARY CONSTRUCTION STORAGE AREA AT THE SOUTH END OF THE PLATFORM. DEMO THE EXISTING BENCH PEDESTAL.
- ② REMOVE RETURN AIR DUCTWORK TO POINT INDICATED. RA DUCT PENETRATION THROUGH PARTITION WALL TO REMAIN FOR FUTURE NEW DUCT CONNECTION. TEMPORARILY SEAL RA DUCT OPENING DURING CONSTRUCTION TO PREVENT DUST/ DEBRIS INFILTRATION.
- ③ CONTRACTOR TO EITHER REMOVE THE SUPPLY AIR PYLON AND STORE OFF-SITE OR REMOVE THE SUPPLY AIR GRILL AT THE TOP OF PYLON AND PROTECT IN-PLACE.

**NEW WORK NOTES**

- ① RECONSTRUCT THE PEDESTAL IN THE NEW BENCH LOCATION WITH TWO NEW 11"x96" WIRE MESH SCREENS AND RE-INSTALL THE GRANITE TOP. USE DETAILS FROM THE AS-BUILT DRAWINGS FOR THE RECONSTRUCTION OF THE RA BENCH PEDESTAL.
- ② PROVIDE AND INSTALL NEW RETURN AIR DUCTWORK AS NECESSARY. CONNECT RETURN AIR BENCH INTO EXISTING RETURN AIR TUNNEL.
- ③ SEE STRUCTURAL DRAWINGS FOR DETAILS ON PLATFORM WORK.
- ④ CONTRACTOR TO RETURN/REINSTALL SUPPLY AIR PYLON AT ORIGINAL LOCATION AND IN WORKING CONDITION. CONTRACTOR TO REBALANCE SUPPLY AIR PYLON TO ORIGINAL AIR FLOW.
- ⑤ CONTRACTOR SHALL FIELD FABRICATE RA DUCT CONNECTION BETWEEN RA OPENING IN UNDER PLATFORM WALL AND POINT OF CONNECTION TO RA BENCH PLENUM BOX.



**2**  
A02-M-002 SCALE: 1/8" = 1'-0"  
**TRACK LEVEL FLOOR PLAN - NEW WORK**

**BID DOCUMENTS** CONTRACT NO. FQ16078

DESIGNED	P. SANFORD	06/15	REFERENCE DRAWINGS		REVISIONS	
DRAWN	A. PINKOWSKI	06/15	NUMBER	DESCRIPTION	DATE	BY
CHECKED	C. ROSS	06/15				
APPROVED	D. BURROWS	06/15				



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

DEPARTMENT OF TRANSIT INFRASTRUCTURE AND ENGINEERING SERVICES  
OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM

APPROVED \_\_\_\_\_



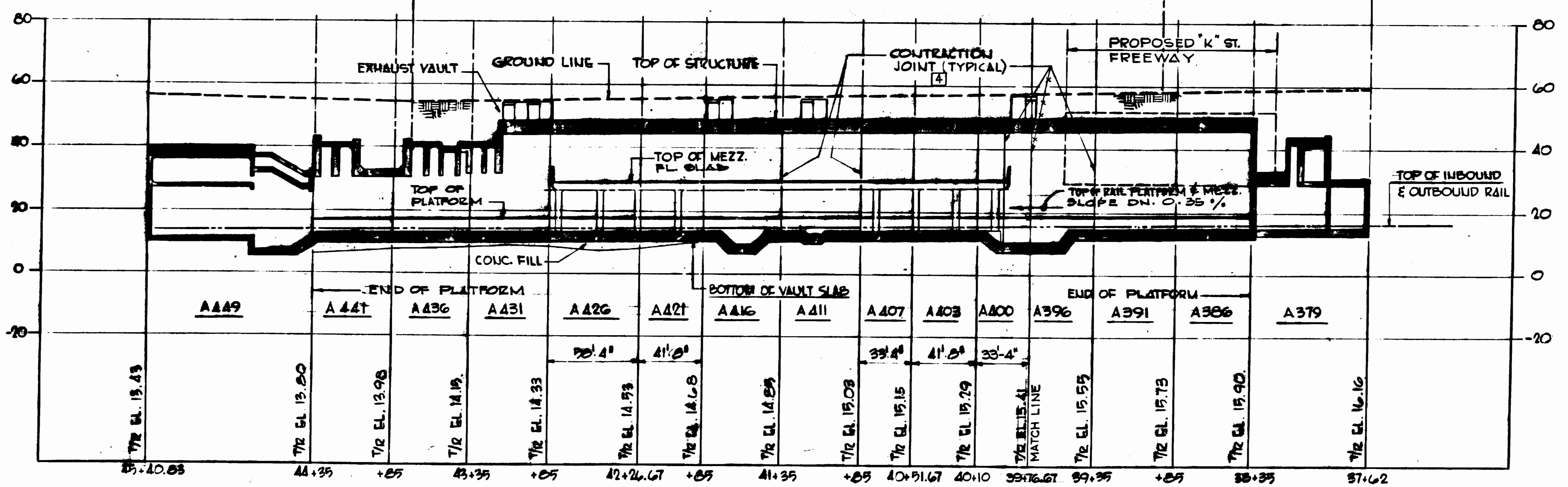
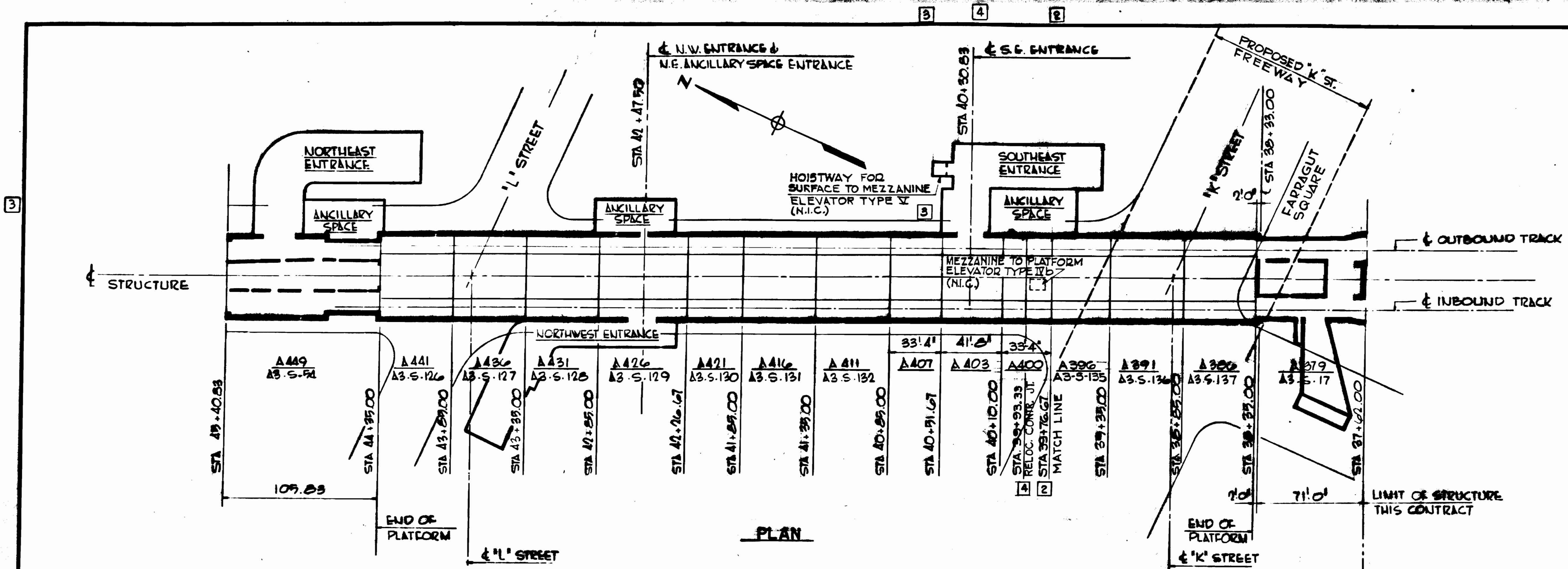
SUBMITTED DAVID BURROWS PROJECT MANAGER

**STRUCTURAL RETROFIT OF B9 BEAM FARRAGUT NORTH METRORAIL STATION**  
**MECHANICAL DEMOLITION AND NEW WORK PLANS**

SCALE: 1/8" = 1'-0" 2 10 20 40 80 100

DRAWING NO. A02-M-002

M1275-13



**PROFILE AT STRUCTURE**  
 SCALE HORIZ. 1" = 40'  
 VERT. 1" = 20'

**NOTE**  
 [3] ELEVATOR DETAILS ON THIS DRAWING ARE TO ACCOMMODATE ELEVATORS FOR THE HANDICAPPED (DESIGN B)

**FOR REFERENCE ONLY AS BUILT**

- NOTES:**
- FOR DETAIL OF CONSTRUCTION JOINTS FOR EACH UNIT SEE DWG. ST-3-6.
  - AA41 DENOTES STRUCTURE UNIT NO.
  - AS-5-126 DENOTES DWG. NUMBER.

**STRUCTURAL GENERAL NOTES**

- THE DESIGN OF REINFORCED CONCRETE STRUCTURES ARE BASED ON THE USE OF CONCRETE HAVING MINIMUM COMPRESSIVE STRENGTHS AT 28 DAYS AS FOLLOWS:
 

STRUCTURE UNIT NO.	MIN. COMP. STRENGTH
A666 THROUGH A655	3,500 psi
AA49 - ALL COMPONENTS EXCEPT FOUNDATION CAISSONS AND POST-TENSIONED MEZZANINE ROOF SLAB AND SIDEWALLS	4,000 psi
AA99 - POST-TENSIONED MEZZANINE ROOF SLAB AND SIDEWALLS	5,000 psi
AA90 - FOUNDATION CAISSONS	3,500 psi
AA41, 436 AND 431 - ALL COMPONENTS EXCEPT POST-TENSIONED ROOF BEAMS AND SLABS	4,000 psi
AA41, 436 AND 431 - POST-TENSIONED ROOF BEAMS AND SLABS	5,000 psi
A436 THROUGH A386, INCLUDING NORTHWEST AND SOUTHEAST STATION ENTRANCE STRUCTURES AND ANCILLARY ROOMS	4,000 psi
AA79	3,500 psi
CONCRETE FILL (SUBFOUNDATIONS)	2,500 psi
MISCELLANEOUS CONCRETE	3,500 psi UNLESS OTHERWISE NOTED OR SPECIFIED
- UNLESS OTHERWISE NOTED, STEEL REINFORCEMENT (EXCEPT BARS, STRANDS AND WIRES FOR POST-TENSIONING, AND SPIRALS FOR COLUMNS AND FOUNDATION CAISSONS) SHALL BE DEFORMED STEEL BARS CONFORMING TO ASTM DESIGNATION A 615, GRADE 60.
- STEEL RODS, STRANDS AND WIRES FOR POST-TENSIONING, AND SPIRALS FOR COLUMNS AND FOUNDATION CAISSONS, SHALL BE AS SPECIFIED UNDER SECTIONS 3.11 AND 3.9 RESPECTIVELY, OF THE SPECIFICATIONS.
- REINFORCEMENT DETAILS SHALL CONFORM TO THE REQUIREMENTS OF THE A.C.I. MINIMUM OF STANDARD PRACTICE (ACI-315) UNLESS OTHERWISE NOTED OR INDICATED. SPLICES AND EMBEDMENT LENGTHS NOT GIVEN ON THE CONTRACT DRAWINGS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF THE ABOVE-MENTIONED CODE FOR TENSION CONDITIONS. ACI 315 IS MINIMUM REQUIREMENT.
- ELECTRICAL BONDING OF LONGITUDINAL REINFORCEMENT AT CONTRACTION JOINTS WILL BE REQUIRED AS INDICATED ON DRAWING NO. ST-3-7.
- EXCEPT WHERE OTHERWISE NOTED OR INDICATED, ALL FOUNDATIONS SHALL BE FOUNDED IN SOUND ROCK HAVING AN ALLOWABLE BEARING VALUE OF 60 K/S.F. THE ENGINEER SHALL APPROVE ALL FOUNDATIONS BEFORE REINFORCING STEEL OR CONCRETE IS PLACED. REFER TO SECTION 3.3 OF THE SPECIFICATIONS.
- UNDERPINNING NOTES - REFER TO SECTION 3.2 OF THE SPECIFICATIONS.
  - UNDERPINNING DETAILS SHOWN ON THE CONTRACT DRAWINGS FOR CATEGORY 1 UNDERPINNING STRUCTURES ARE BASED ON INFORMATION OBTAINED FROM THE CONSTRUCTION DRAWINGS OF THE EXISTING STRUCTURES BUT ARE NOT GUARANTEED.
  - ALL EXISTING STRUCTURE ELEMENTS WHICH ARE TO BE UNDERPINNED, LOADED OR OTHERWISE MODIFIED SHALL BE THOROUGHLY CLEANED, WASHED WITH WATER JETS WHERE NECESSARY AND INSPECTED FOR DEFECTS.
  - IF EXISTING CONDITIONS, EXPOSED DURING CONSTRUCTION, ARE FOUND TO DIFFER FROM THOSE SHOWN ON THE CONTRACT DRAWINGS, OR IF DEFECTS ARE FOUND TO EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
  - EXISTING STRUCTURES ADJACENT TO METRO CONSTRUCTION, AND FOR WHICH UNDERPINNING DETAILS ARE NOT SHOWN ON THE CONTRACT DRAWINGS, ARE CATEGORY 2 UNDERPINNING STRUCTURES.
  - THE UNDERPINNING SCHEME SHOWN IS CONTINGENT UPON INVESTIGATION OF THE EXISTING FOOTINGS. THE BOTTOMS OF ALL FOOTINGS SHALL BE THOROUGHLY CLEANED AND WASHED WITH A JET SPRAY AND INSPECTED FOR CRACKS IN THE CONCRETE OR OTHER DAMAGE. IF CRACKS OR OTHER DAMAGE ARE FOUND IN FOOTINGS OR OTHER STRUCTURAL ELEMENTS EXPOSED BY UNDERPINNING OPERATIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER.
- CONSTRUCTION ELEVATIONS TO ATTAIN THE REQUIRED ELEVATIONS OF TOP OF RAIL MAY HAVE TO BE ADJUSTED, BY THE CONTRACTOR, FOR NET MOVEMENT OF THE SUBGRADE. ADJUSTMENT FOR NET MOVEMENT - THE DIFFERENCE BETWEEN HEAVE AND ESTIMATED SUBSIDENCE - SHALL BE DETERMINED BY FIELD OBSERVATIONS DURING EXCAVATION.
- FOR IDENTIFICATION OF STUBBED ENDS OF EMBEDDED CONDUITS, SEE DWG. NO. AS-E1 AND AS-TC-1. FOR COLOR CODING OF STUBBED ENDS OF EMBEDDED PIPING, SEE DWG. NO. AS-M-2.
- UNLESS OTHERWISE SHOWN ON THE CONTRACT DRAWINGS, ALL HORIZONTAL CONSTRUCTION JOINTS WITH EARTH ON ONE SIDE SHALL BE BOWDED; OTHER HORIZONTAL CONSTRUCTION JOINTS SHALL BE UNBOWDED.

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION
1		2-10-78	W.F.H.	REVISED PER AMENDMENT #2			
2		1-5-79	J.M.K.	REVISED PER PCO # 74			
3		1-14-79	W.G.B.	REVISED PER PCO # 74 DESIGN B			
4		1-14-79	W.G.B.	AS BUILT CONTRACTION JOINT			

**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
 SECTION DESIGNERS

DE LEUW, CATHER & COMPANY  
 GENERAL ENGINEERING CONSULTANT

HARRY WEESÉ & ASSOCIATES  
 GENERAL ARCHITECTURAL CONSULTANT

**CONNECTICUT AVENUE ROUTE**

**STRUCTURAL KEY PLAN**

STA. 37+62 TO STA. 45+40.83

SCALE HORIZ. 1" = 40'  
 VERT. 1" = 20'

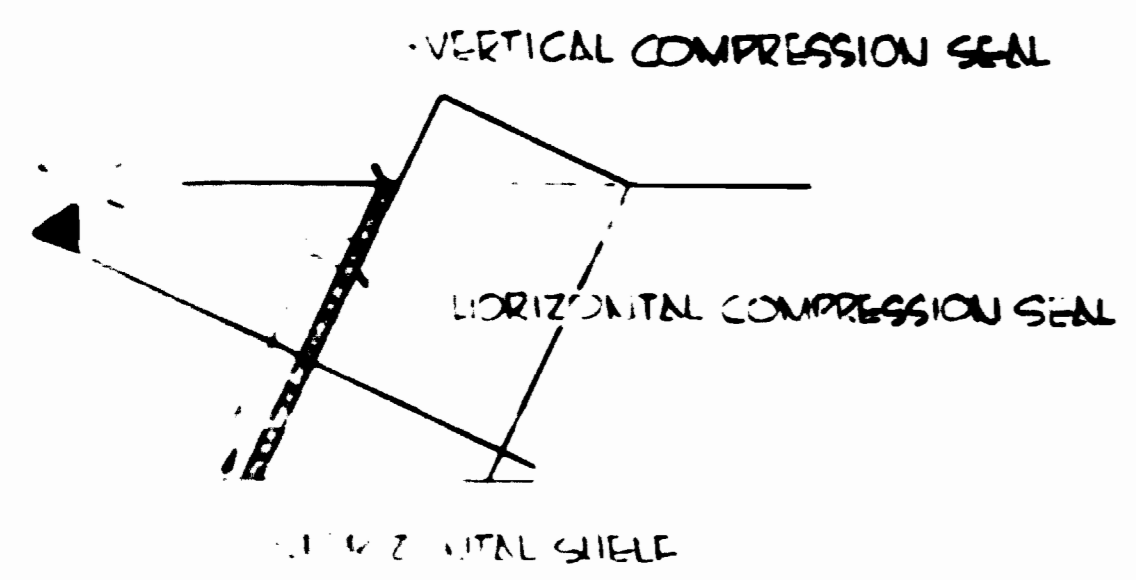
DRAWING NO. **A3-S-2 MIO-147**

STRUCTURAL NOTES

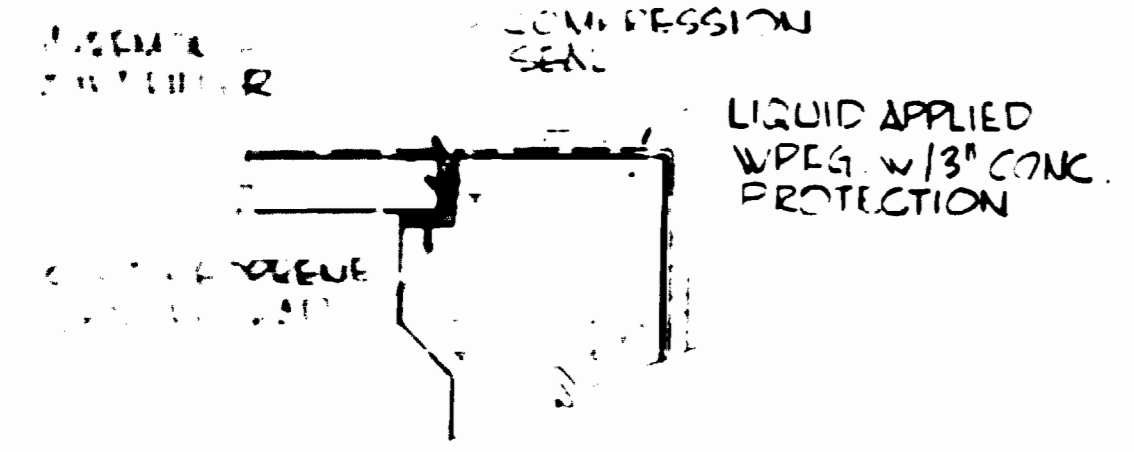
- 1 CONTRACTOR SHALL PROVIDE FOR OFFSETTING SHEETING 4" MIN. AT ENDS OF ALL MENTIONED BEAMS TO PROVIDE SOCKETS FOR JOINTS CLEARANCE
- 2 15' PRESTRESSED CONCRETE - 4000 P.S.I.
- 3 15' ALL OTHER CONCRETE - 4000 P.S.I.
- 4 REINF OTHER THAN PRESTRESSING WIRE SHALL CONFORM TO ASTM AND GRADE 40
- 5 STIRRUP REINF SHALL CONFORM TO ASTM AND GRADE 40
- 6 18 # 4 TIE DOWN RODS SHALL BE REGULAR SPACE WITH ULTIMATE TENSILE STRENGTH OF 125 K.S.I.
- 7 FOR TEMPORARY SUPPORT OF SEWER LINES LOCATED UNDER STRUCTURE SEE BEGS.

FOR GENERAL NOTES & LOCATION OF STRUCTURE UNIT SEE KEY PLAN DWG. A3-S-2

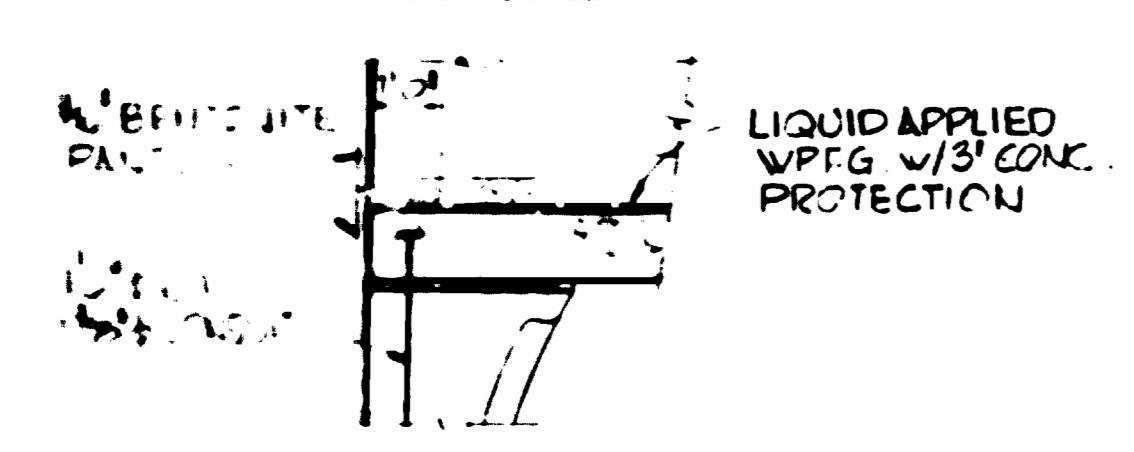
FOR REFERENCE ONLY



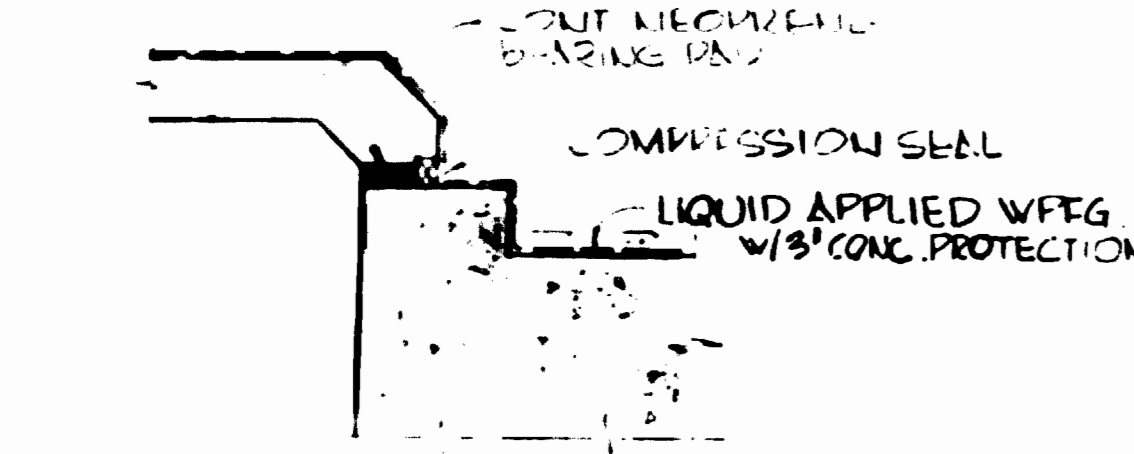
DETAIL "C" NO SCALE



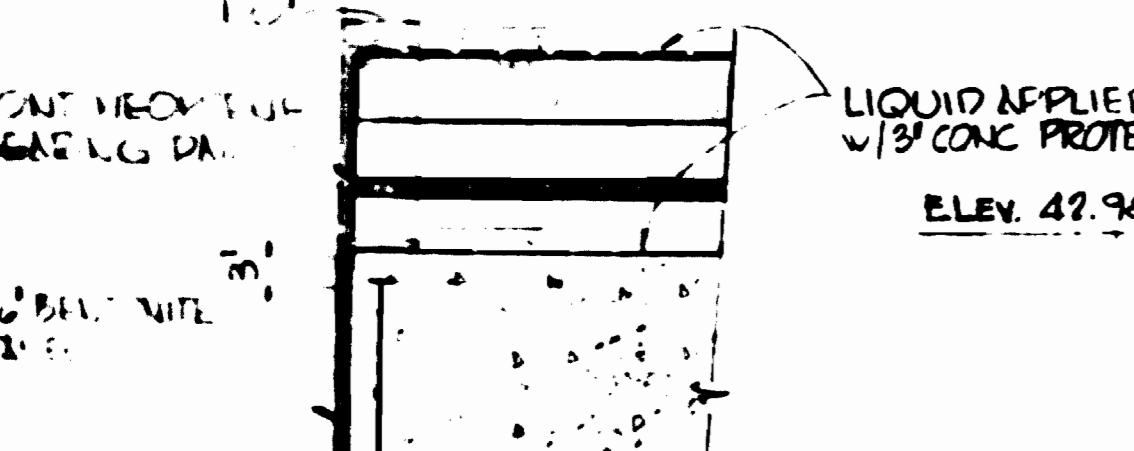
SECTION "202" NO SCALE



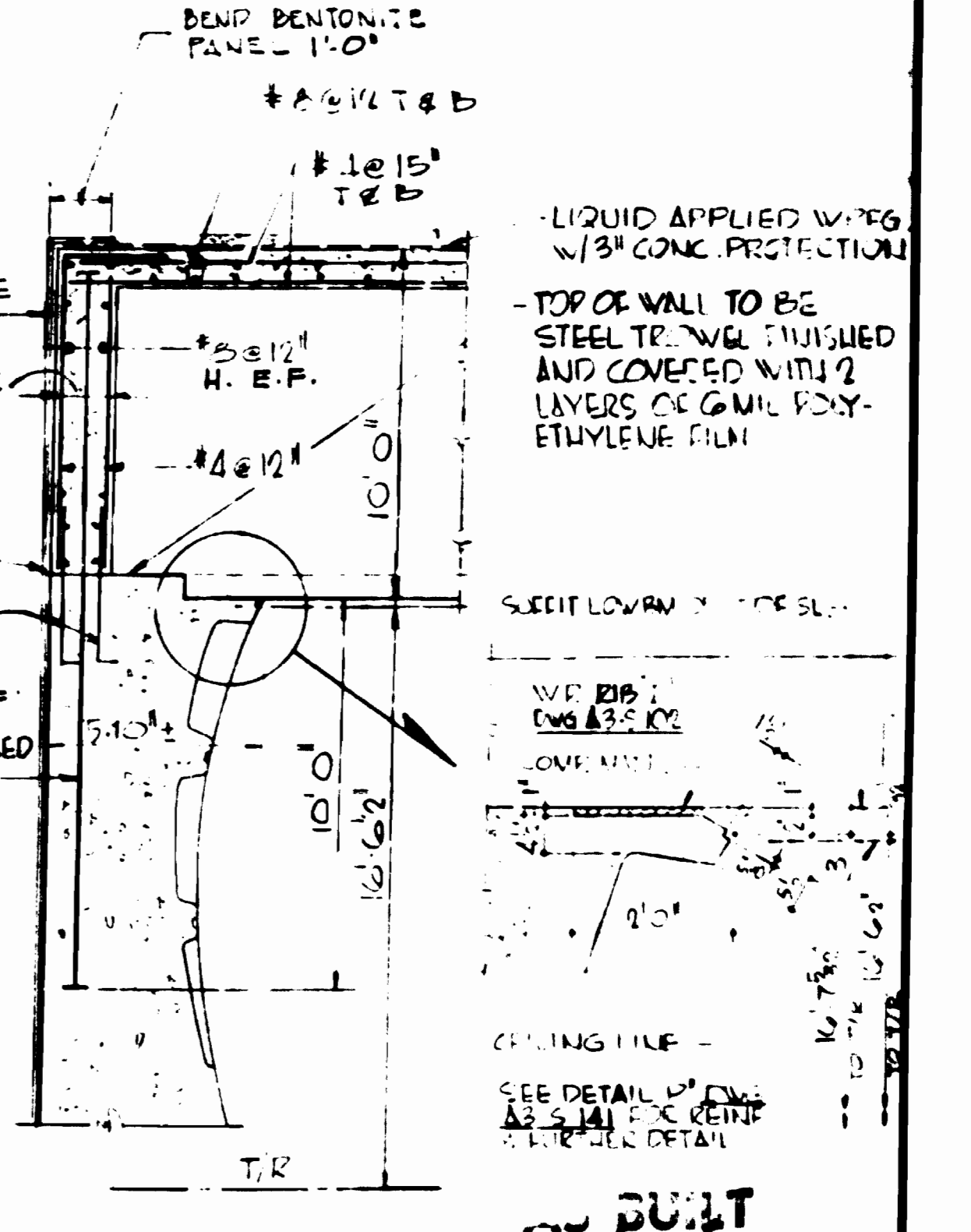
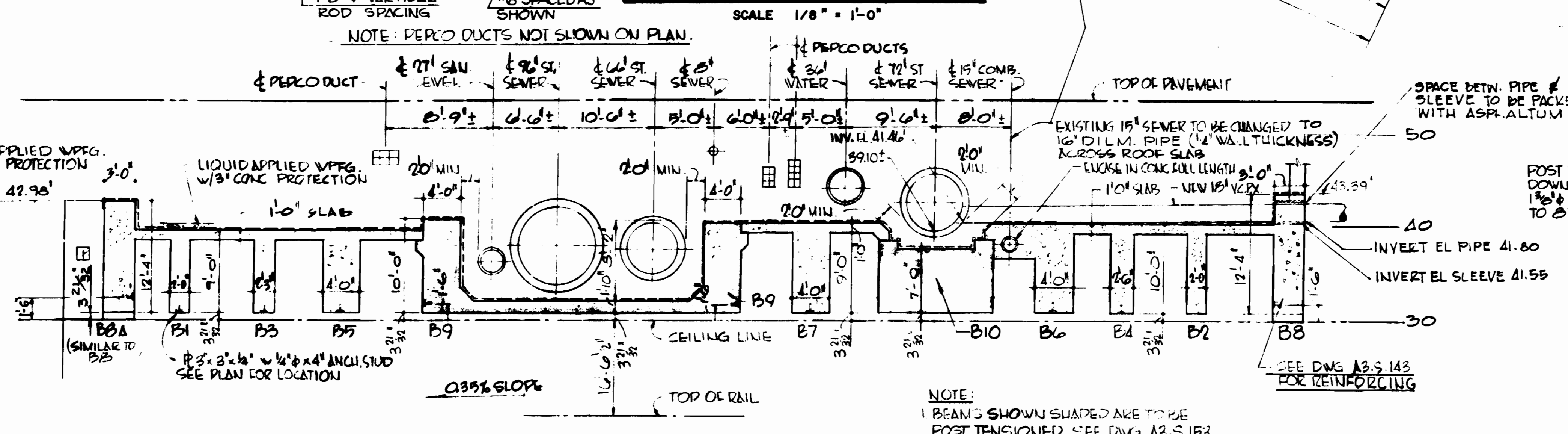
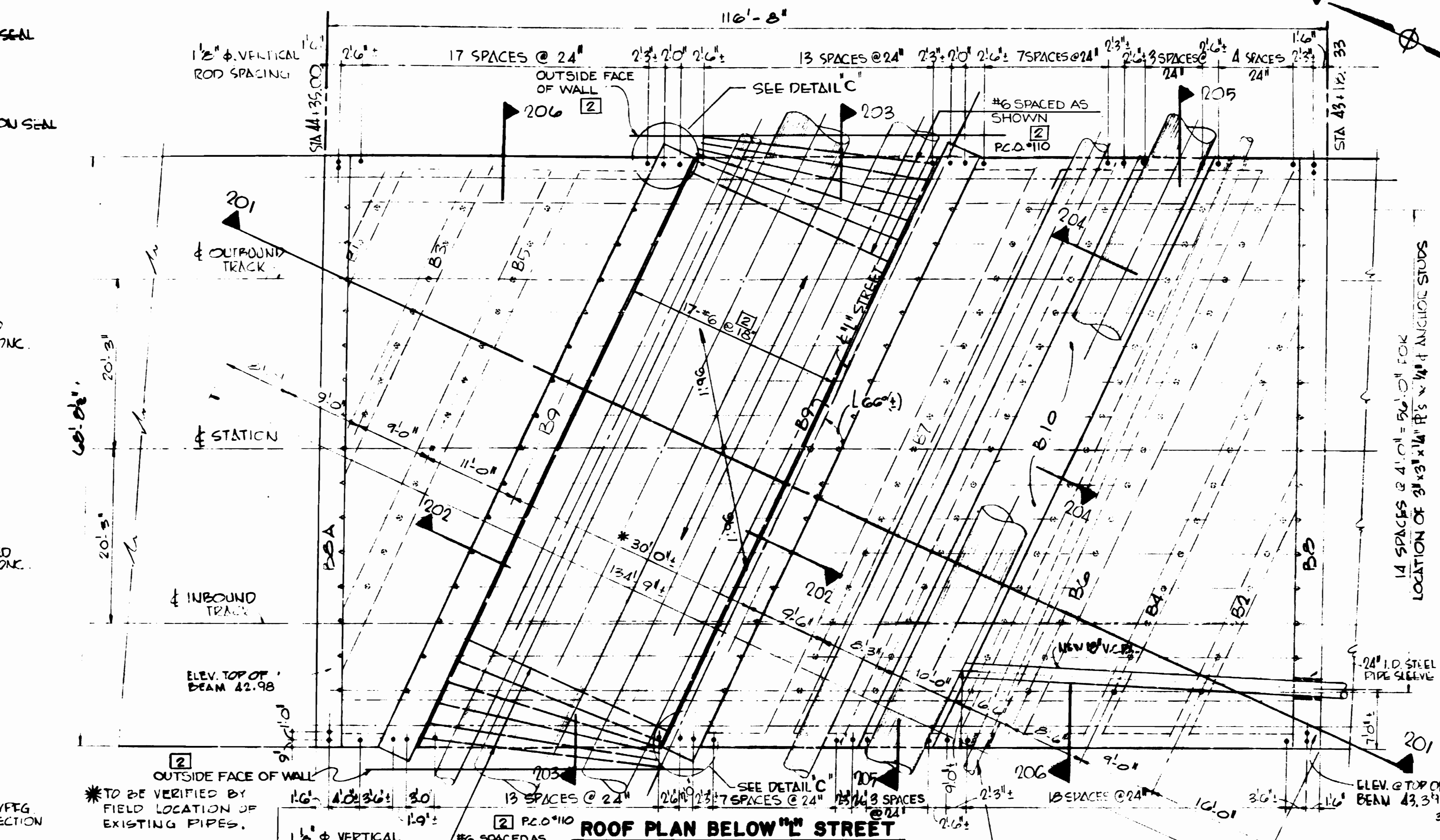
SECTION "203" NO SCALE



SECTION "204" NO SCALE



SECTION "205" NO SCALE



NOTE:  
1 BEAMS SHOWN SHAPED ARE TO BE POST TENSIONED. SEE DWG. A3-S-152.  
2 FLOOR SLAB & RAILS BOTH SLOPE AT 0.35% MAINTAINING EQUAL DISTANCE BETWEEN.

DESIGNED	F.W.S.	DATE	12-1-69
DRAWN	D.A.	DATE	12-1-69
CHECKED	F.W.S.	DATE	1-1-69
APPROVED	H.C.C.	DATE	2-1-69

NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
		8-11-72	WGB	REVISED PER PCO #56
		1/22/75	B.E.K.	AS BUILT - PCO #110 ADD REINF. BEAM #9



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
SECTION DESIGNERS

MILLS, PETTICORD & MILLS  
ARCHITECTS & ENGINEERS

DE LEUW, CATHAR & COMPANY  
GENERAL ENGINEERING CONSULTANT

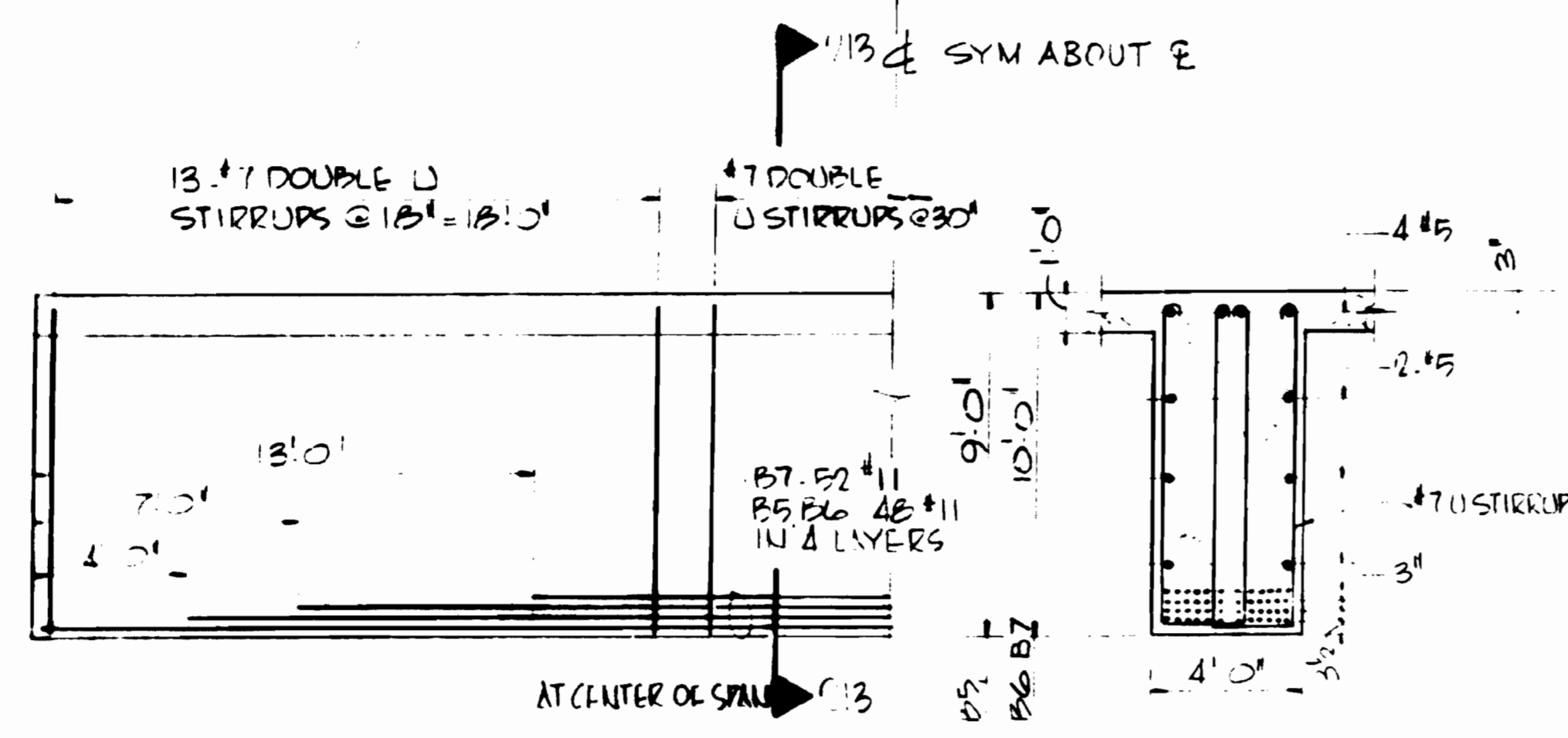
HARRY WEESE & ASSOCIATES  
GENERAL ARCHITECTURAL CONSULTANT

CONNECTICUT AVENUE ROUTE  
VAULT ROOF PLAN BELOW "L" STREET  
STRUCTURE UNITS A441, A436 & PART A431

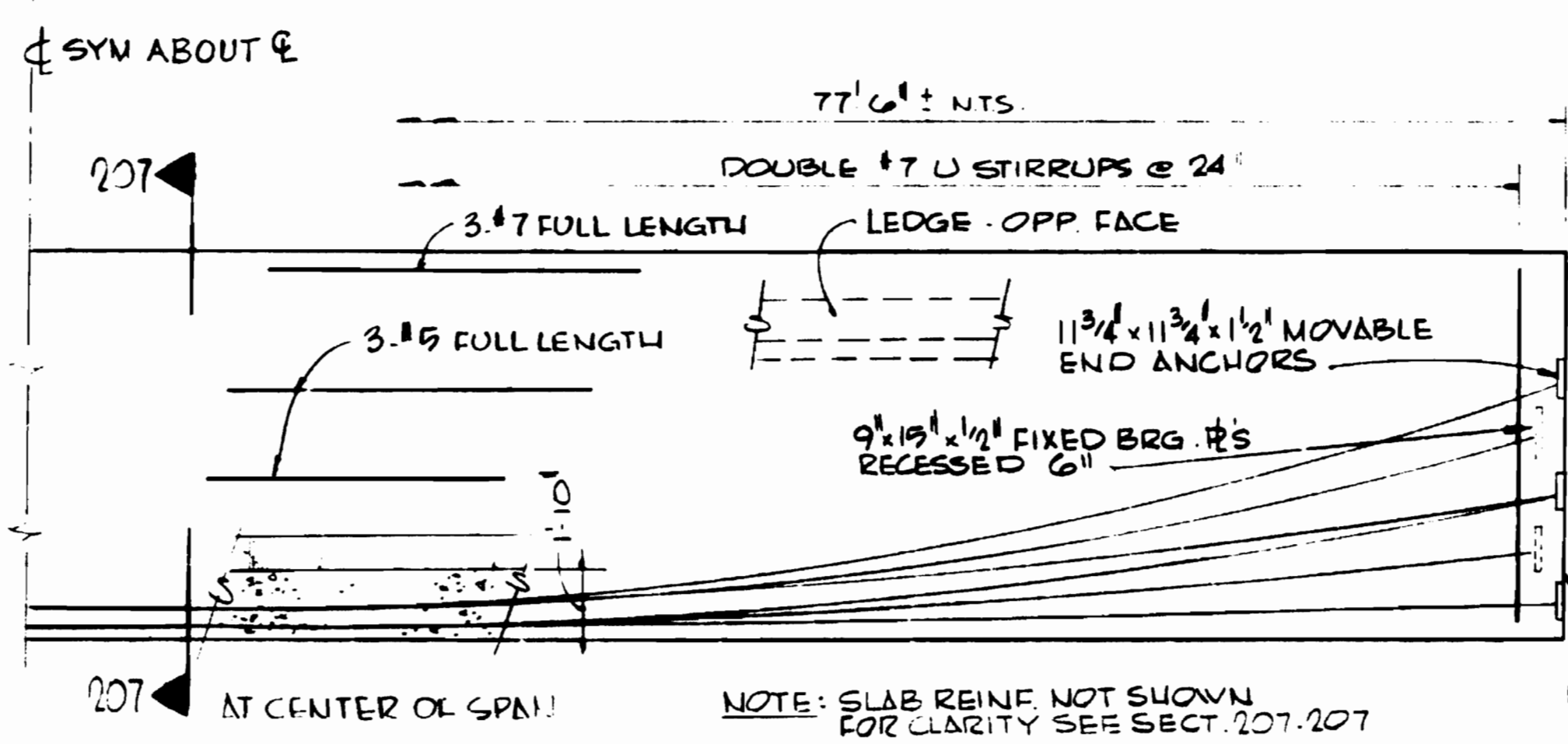
SCALE: 1" = 1'-0" AND AS NOTED

DRAWING NO. A3-S-163 MIO-207

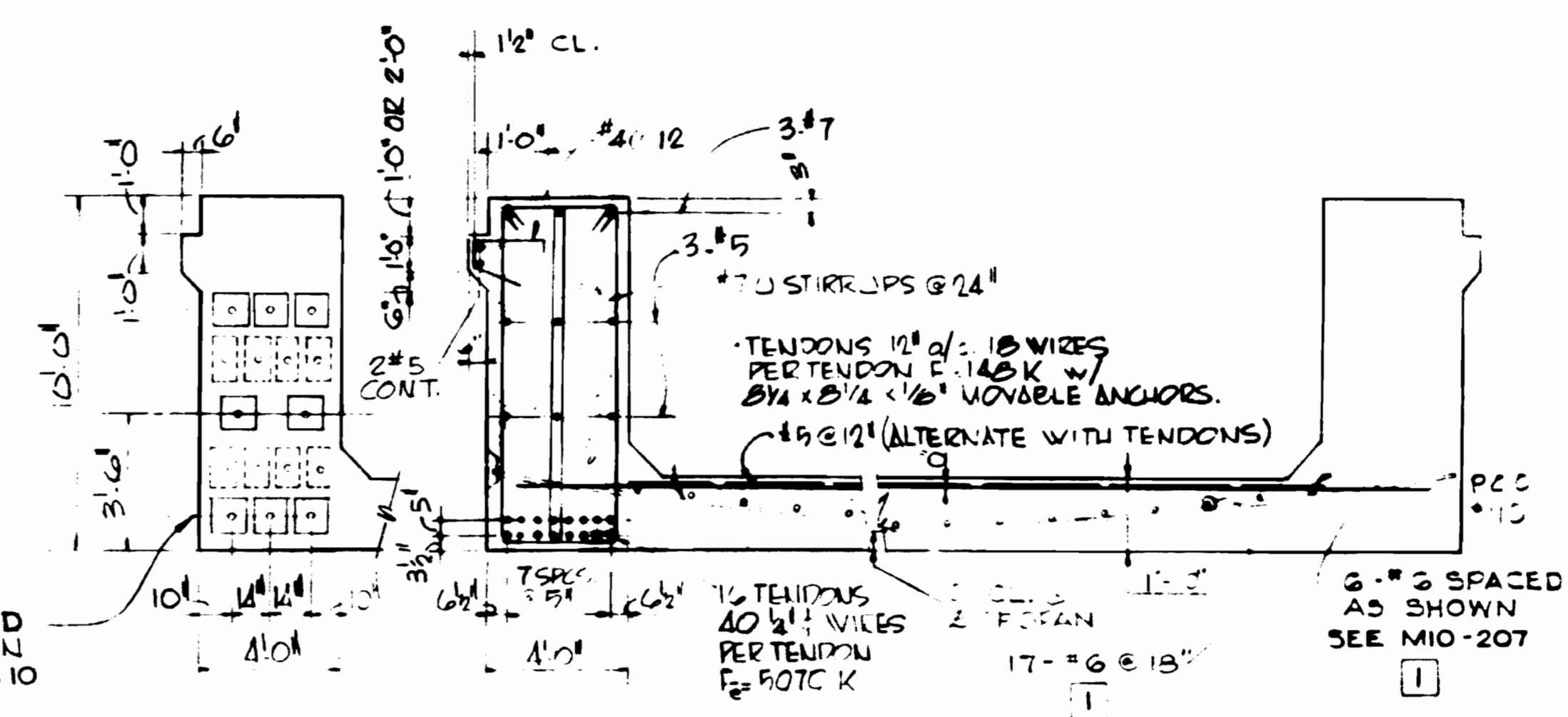




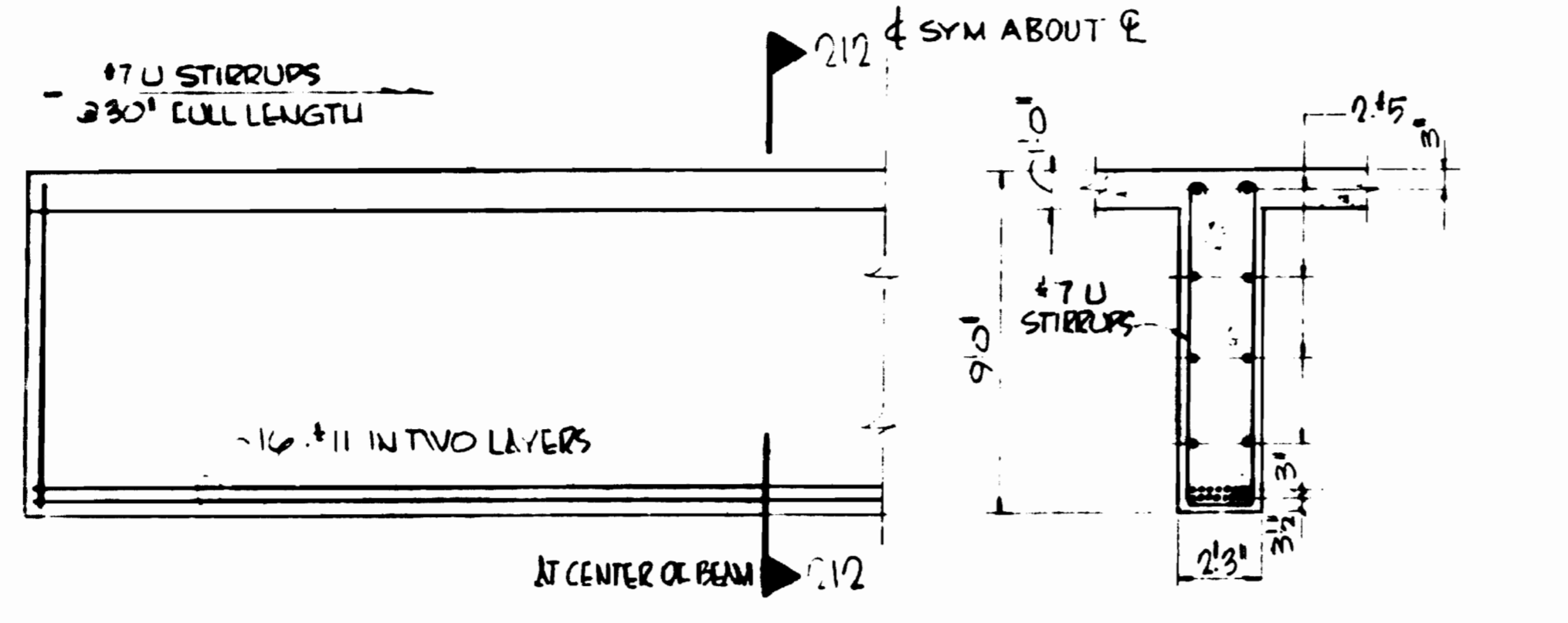
**ELEV. BEAM B5, B6, B7**  
SCALE 1/4" = 1'-0"  
**SECTION 213-213**  
SCALE 1/4" = 1'-0"



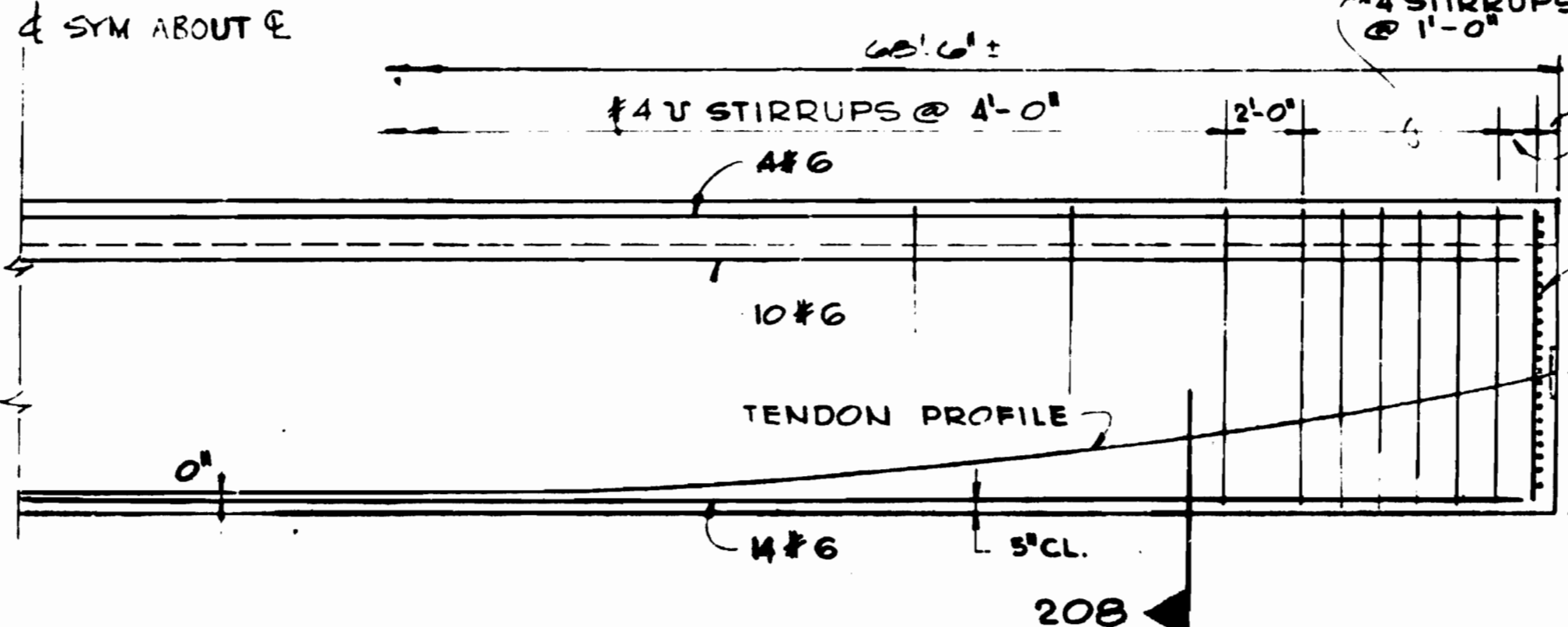
**ELEV. BEAM B9**  
SCALE 1/4" = 1'-0"  
**SECTION 207-207**  
SCALE 1/4" = 1'-0"



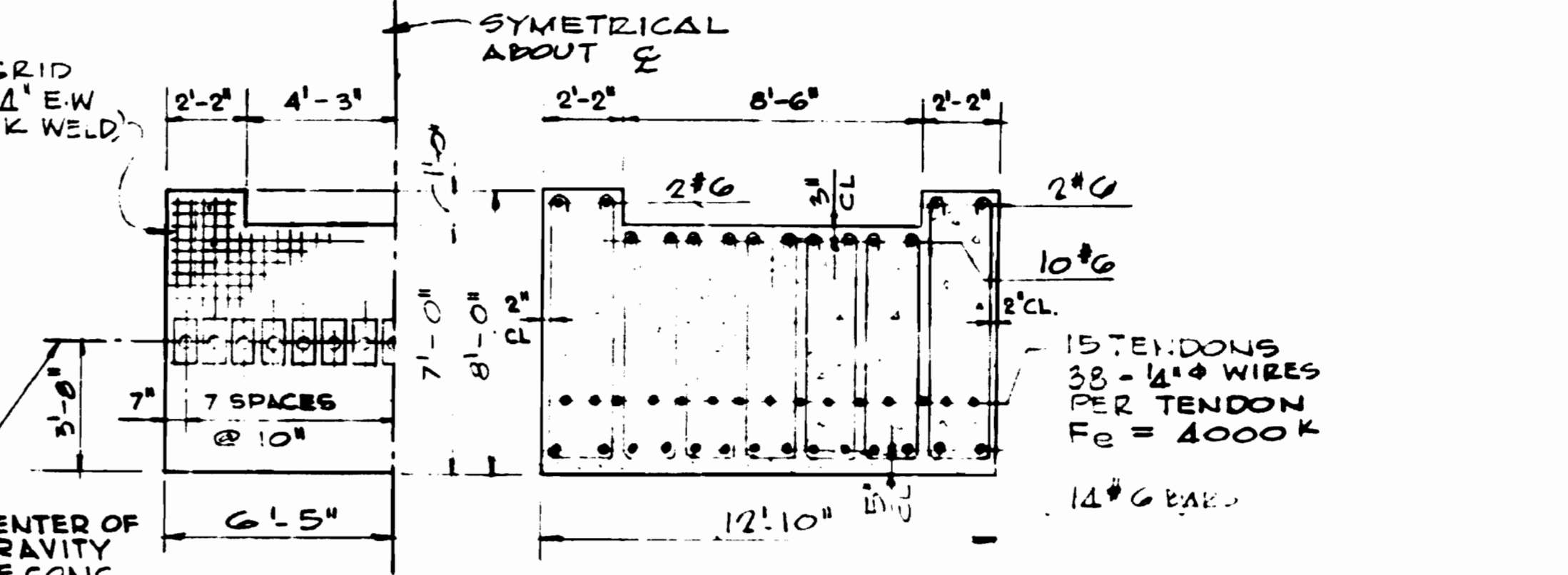
**END ELEV.**  
SCALE 1/4" = 1'-0"  
**SECTION 208-208**  
SCALE 1/4" = 1'-0"



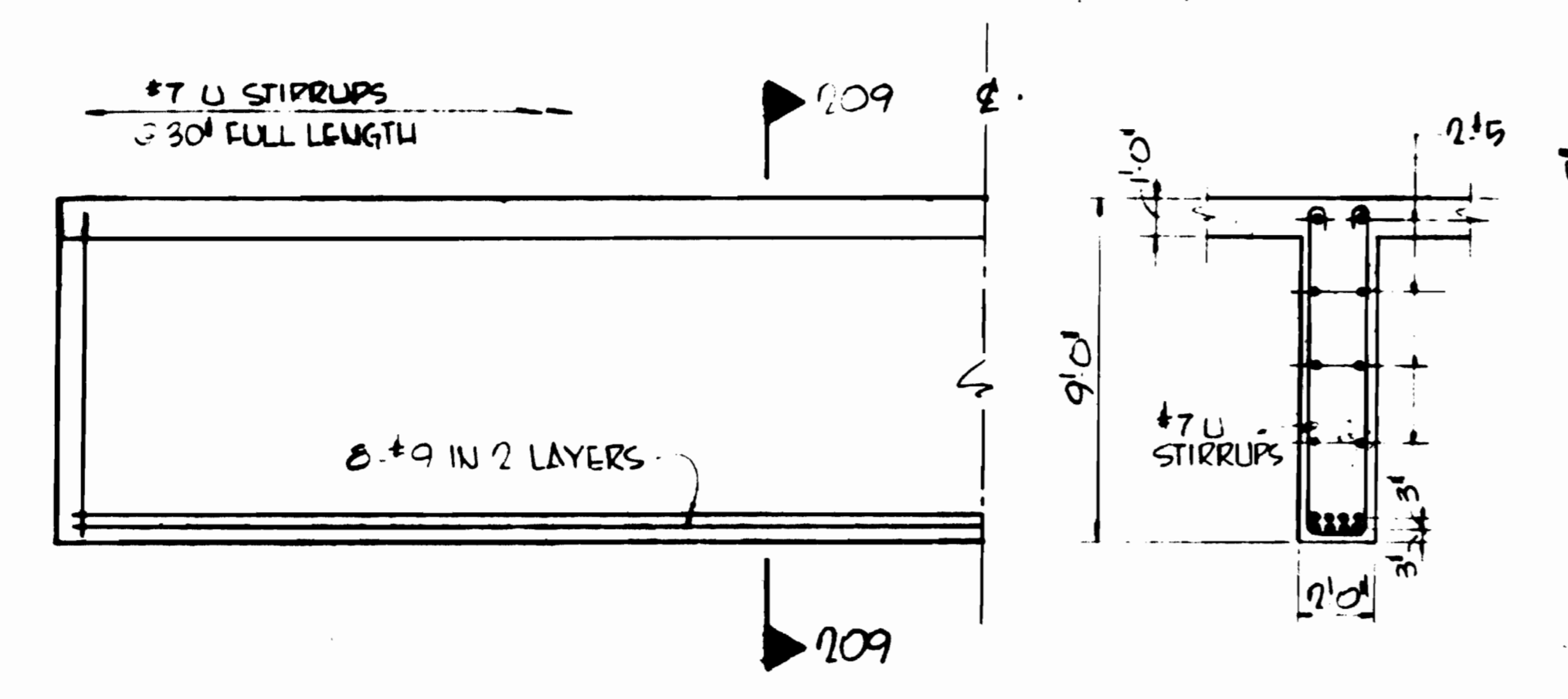
**ELEV. BEAM B3**  
SCALE 1/4" = 1'-0"  
**SECTION 212-212**  
SCALE 1/4" = 1'-0"



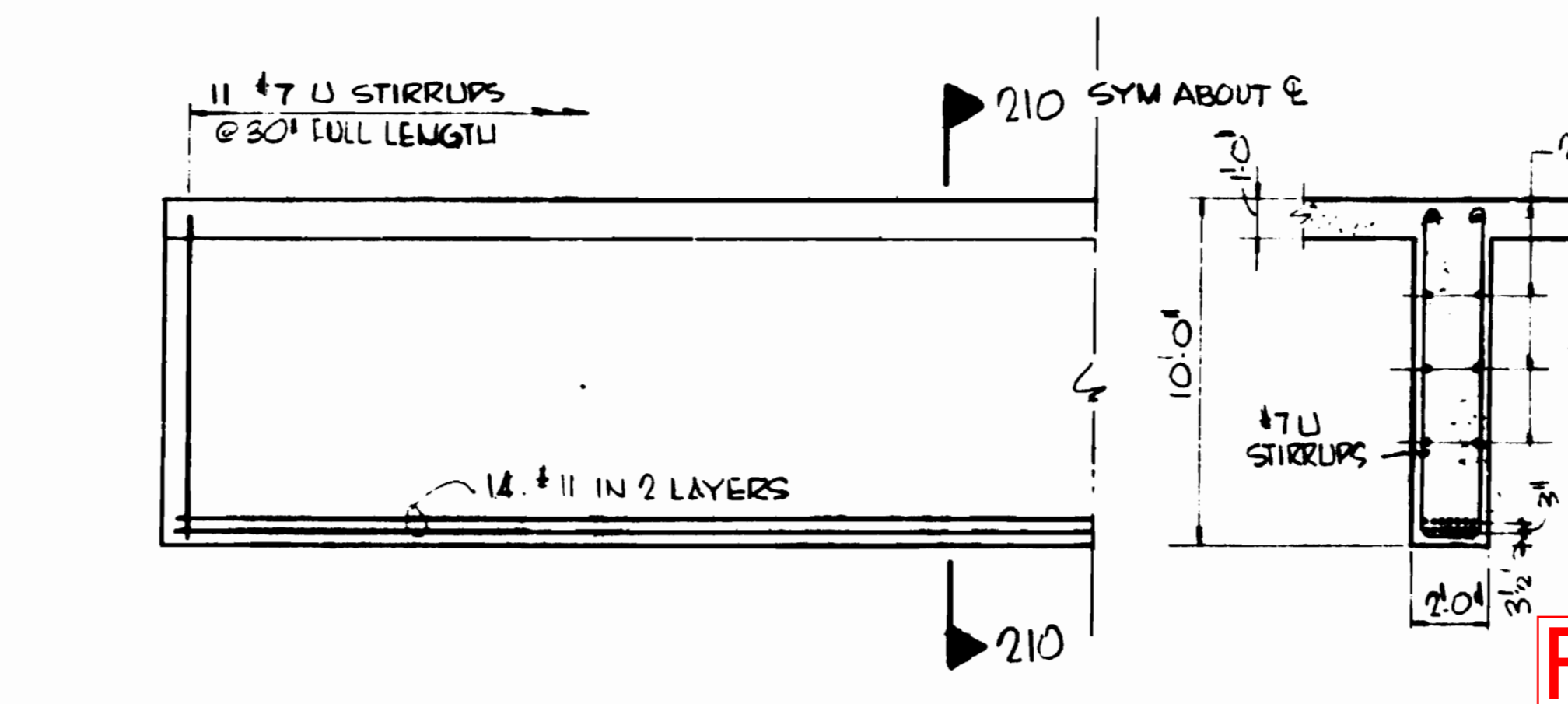
**ELEV. BEAM B10**  
SCALE 1/4" = 1'-0"  
**SECTION 208-208**  
SCALE 1/4" = 1'-0"



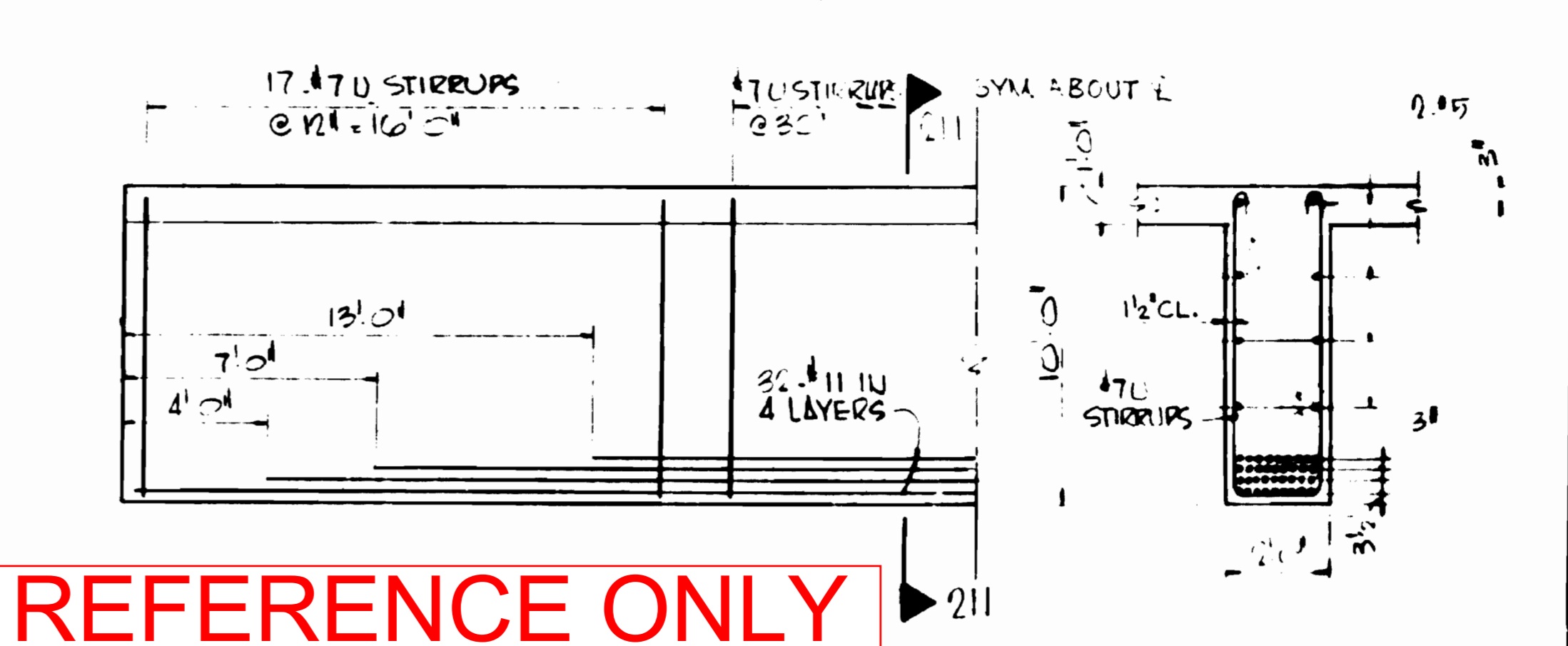
**END ELEV.**  
SCALE 1/4" = 1'-0"  
**SECTION 208-208**  
SCALE 1/4" = 1'-0"



**ELEV. - BEAM B1**  
NO SCALE  
**SECTION 209-209**  
SCALE 1/4" = 1'-0"



**ELEV. - BEAM B2**  
NO SCALE  
**SECTION 210-210**  
SCALE 1/4" = 1'-0"



**ELEV. - BEAM B4**  
NO SCALE  
**SECTION 211-211**  
SCALE 1/4" = 1'-0"

**FOR REFERENCE ONLY**

**NOTE:**  
AT BMS. B1, B3, B5, B2 AND B4 EXTEND ALL FULL LENGTH REINFORCING INTO BM. B6 OR BM. B8A SEE DWGS. A3-S-15A & 15B

*AS BUILT*  
7/12/76

DESIGNED	F.W.S.	12-11-69	DATE	NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
DRAWN	D.A.	12-11-69	DATE			1/24/75	B.E.K.	AS BUILT - PCO # 110
CHECKED	F.W.S.	2-11-69	DATE					
APPROVED	M.C.C.	12-11-69	DATE					

**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
SECTION DESIGNERS

MILLS, PETTICORD & MILLS  
ARCHITECTS & ENGINEERS

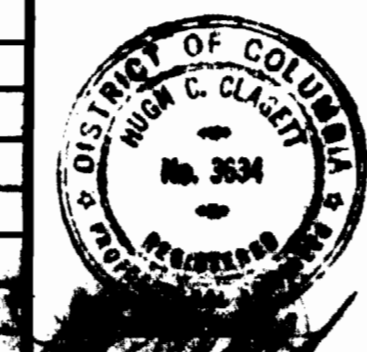
DE LEUW, CATHAR & COMPANY  
GENERAL ENGINEERING CONSULTANT

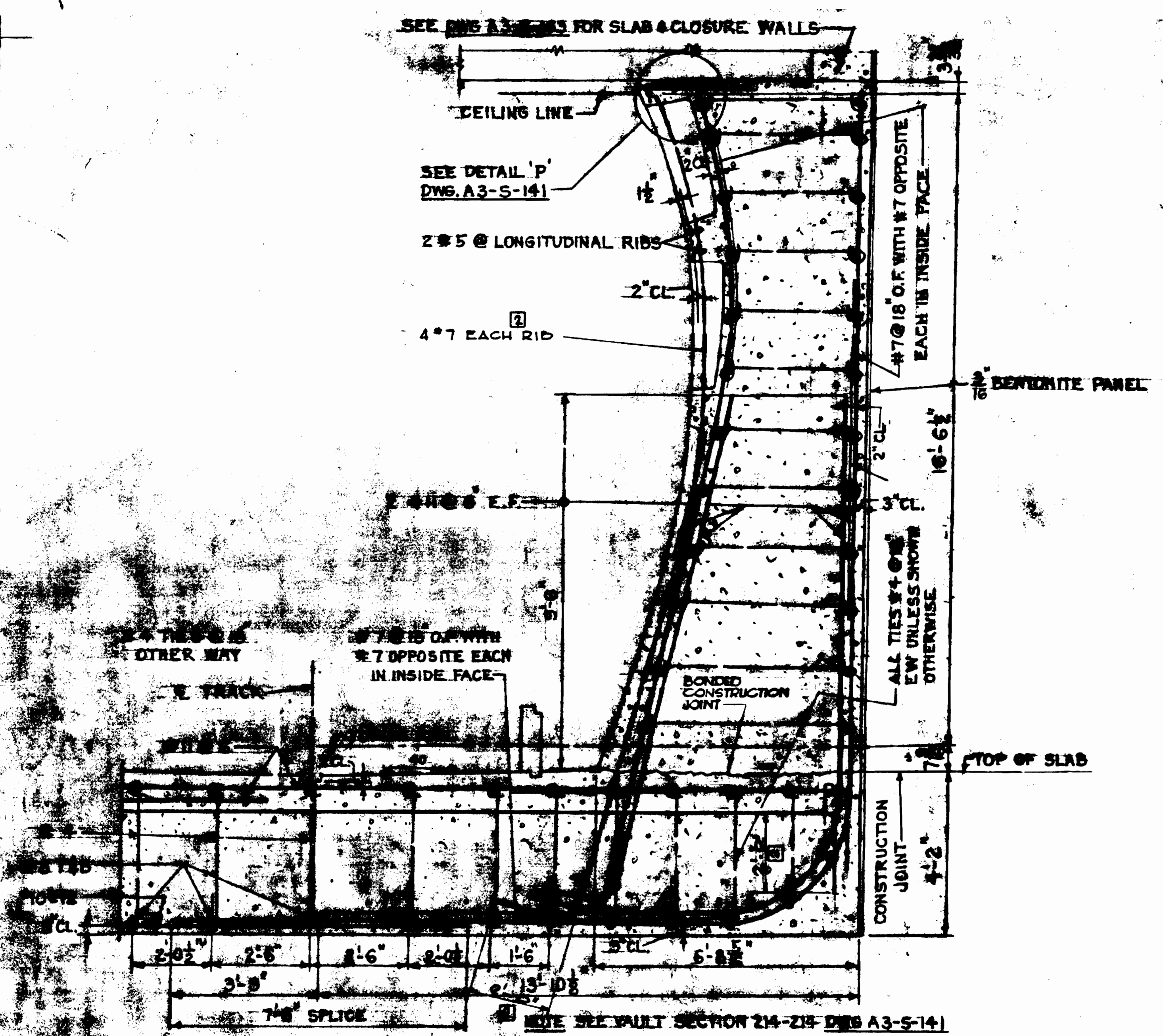
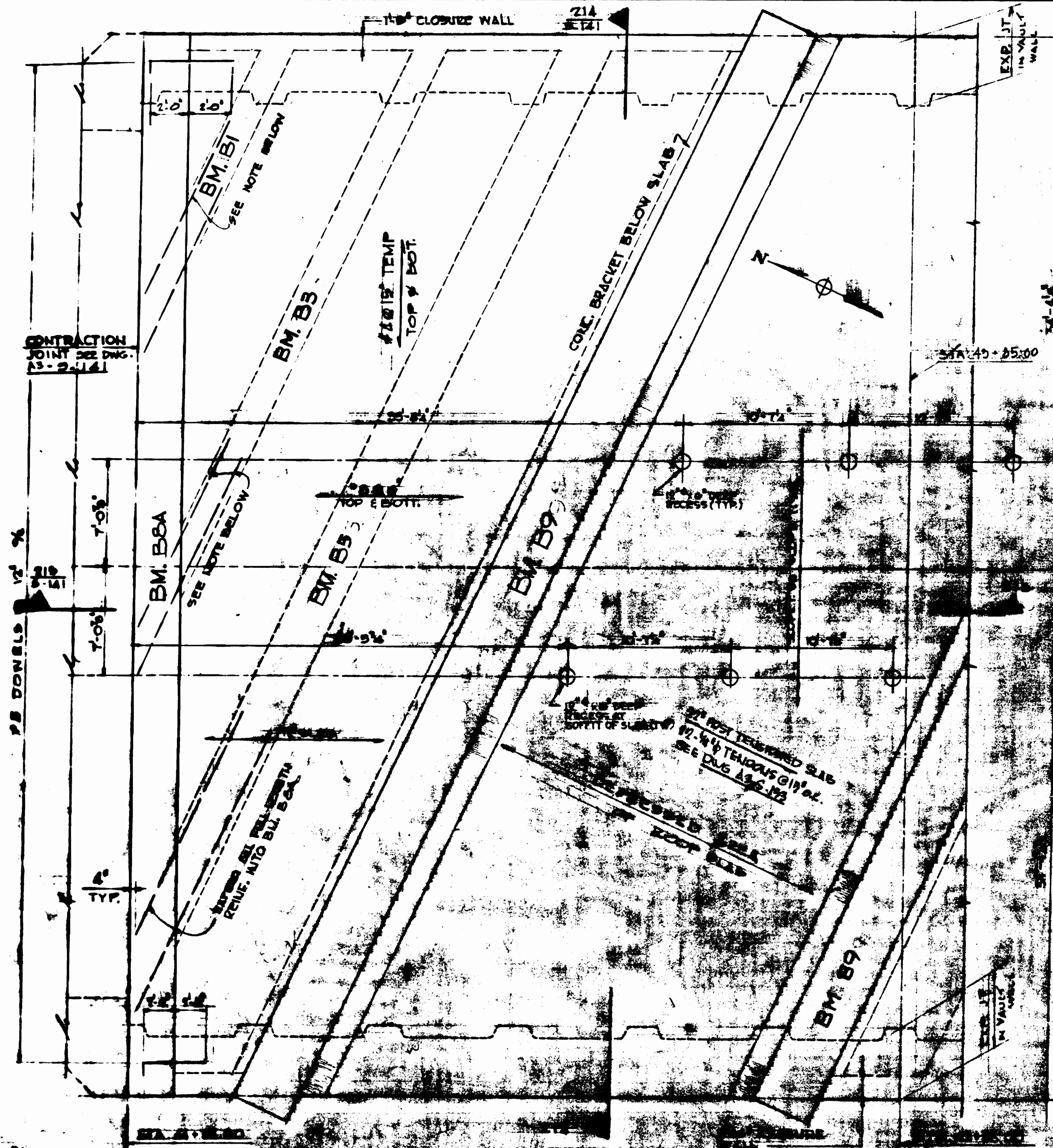
HARRY WEESSE & ASSOCIATES  
GENERAL ARCHITECTURAL CONSULTANT

**CONNECTICUT AVENUE ROUTE**  
**BEAM DETAILS FOR VAULT**  
**BELOW "L" STREET**

SCALE AS NOTED

DRAWING NO. **A3-S-153** **MIO-208**





**VAULT WALL "A"**  
 SCALE 1/2" = 1'-0"  
 TYPICAL WALL DETAIL  
 BELOW "L" STREET

SEE DETAIL 'P' FOR REINFORCEMENT SEE DWG. A3-5-141  
 FOR BM. B5A SEE SECT. 219-219 DWG. A3-5-141  
 AND GENERAL NOTES SEE DWG. A3-5-141

**FOR REFERENCE ONLY**

NOTE: FOR GENERAL NOTES / LOCATION OF STRUCTURE UNIT SEE KEY PLAN DWG. A3-5-2

**AS BUILT**  
*Retained*  
 4/12/76

REFERENCE DRAWINGS			REVISIONS	
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
1		2-28-72	E.K.	SPANKER LOCATIONS REVISED
2		5-22-72	SP	REVISED PER R.O. 919



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
 SECTION DESIGNERS

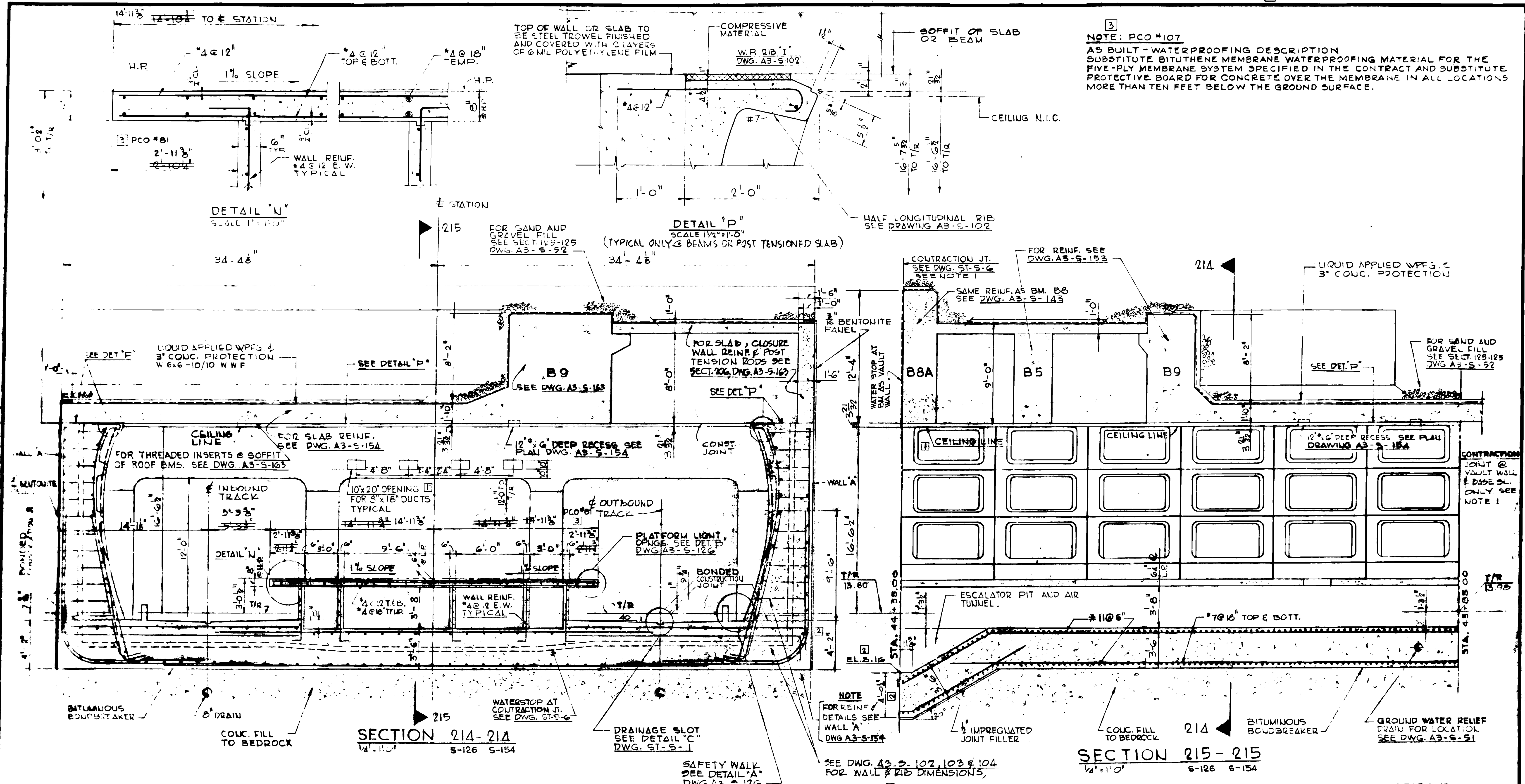
DELIJW, CATHEN & COMPANY  
 GENERAL ENGINEERING CONSULTANT

MILES, PETTICORD & MILLS  
 ARCHITECTS & ENGINEERS

HARRY WEBER & ASSOCIATES  
 GENERAL ARCHITECTURAL CONSULTANT

**CONNECTICUT AVENUE ROUTE**  
**VAULT ROOF PLAN BELOW "L" STREET**  
 STRUCTURE UNIT A 441

SCALE: 1/2" = 1'-0"  
 DRAWING NO. **A3-5-154** MIO-210



**NOTE: PCO #107**  
 AS BUILT - WATERPROOFING DESCRIPTION  
 SUBSTITUTE BITUTHENE MEMBRANE WATERPROOFING MATERIAL FOR THE  
 FIVE-PLY MEMBRANE SYSTEM SPECIFIED IN THE CONTRACT AND SUBSTITUTE  
 PROTECTIVE BOARD FOR CONCRETE OVER THE MEMBRANE IN ALL LOCATIONS  
 MORE THAN TEN FEET BELOW THE GROUND SURFACE.

**FOR REFERENCE ONLY**

AS BUILT  
 4/11/76

**NOTE:** 1. CONTRACTION JOINTS SHOWN ON SECTIONS  
 OCCUR ONLY @ VAULT WALLS & BASE SLAB.  
 2. A-B-A #11 INDICATES 4 BUNDLES OF 4 #11 BARS EACH.  
 3. SEE DRAWING A3-S-103 FOR VAULT REINF.  
 SPACINGS AND DIMENSIONS NOT SHOWN.

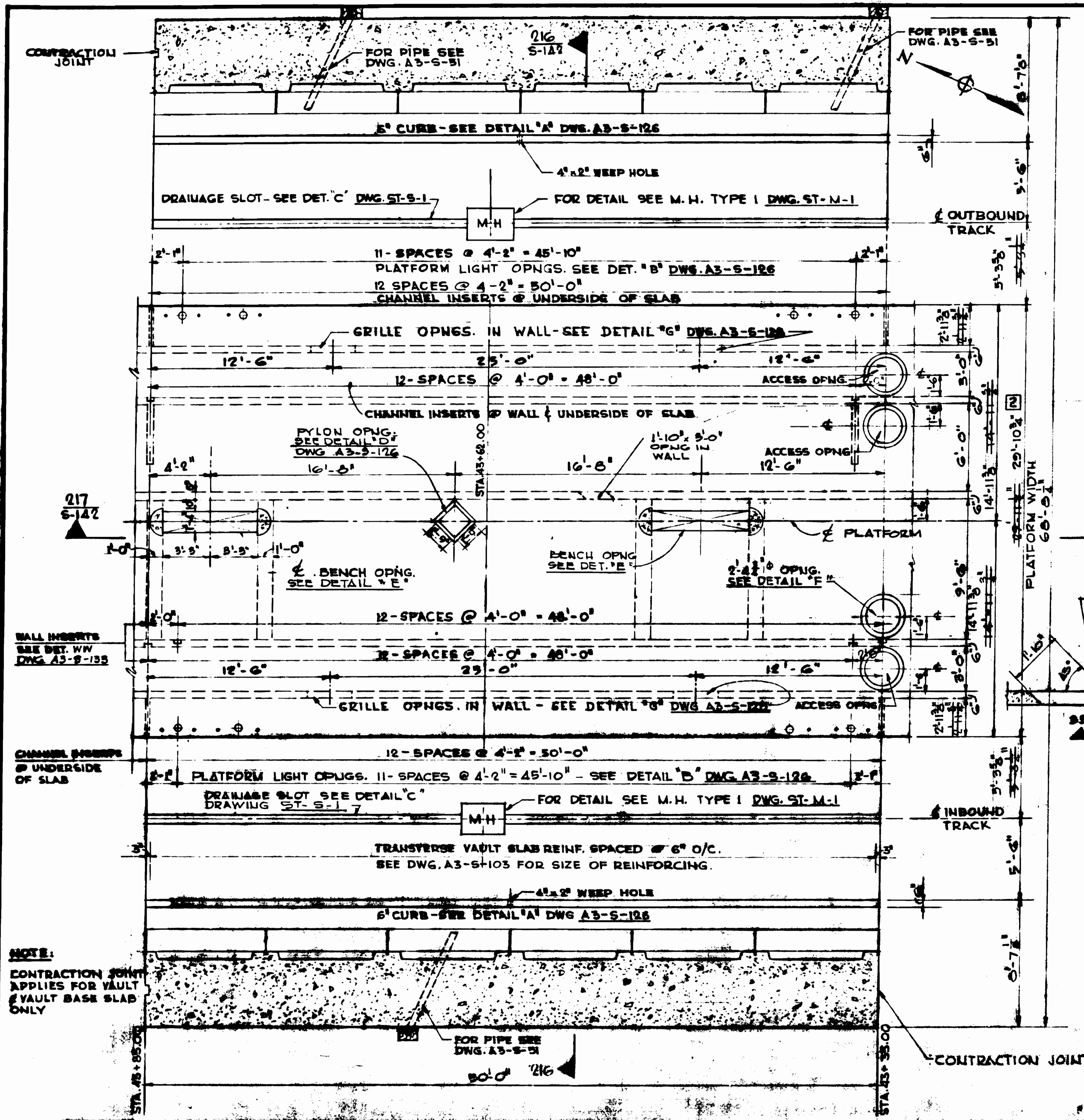
DESIGNED P.W.S. & Y.A. 8-2-69  
 DRAWN J.C. RY. 8-2-69  
 CHECKED T.A. P.F. 8-2-69  
 APPROVED H.C.C. 8-11-69

NUMBER	DESCRIPTION	DATE	BY	REVISIONS
ST-S-1	DRAINAGE SLOT	8-11-72	MGB	REVISED PER PCO #56
ST-S-6	WATERSTOPS AND CONTRACTION JT.	8-22-72	SP	REVISED PER PCO #49
		1/21/75	WFR	AS BUILT PER PCO #81 AND PCO #107

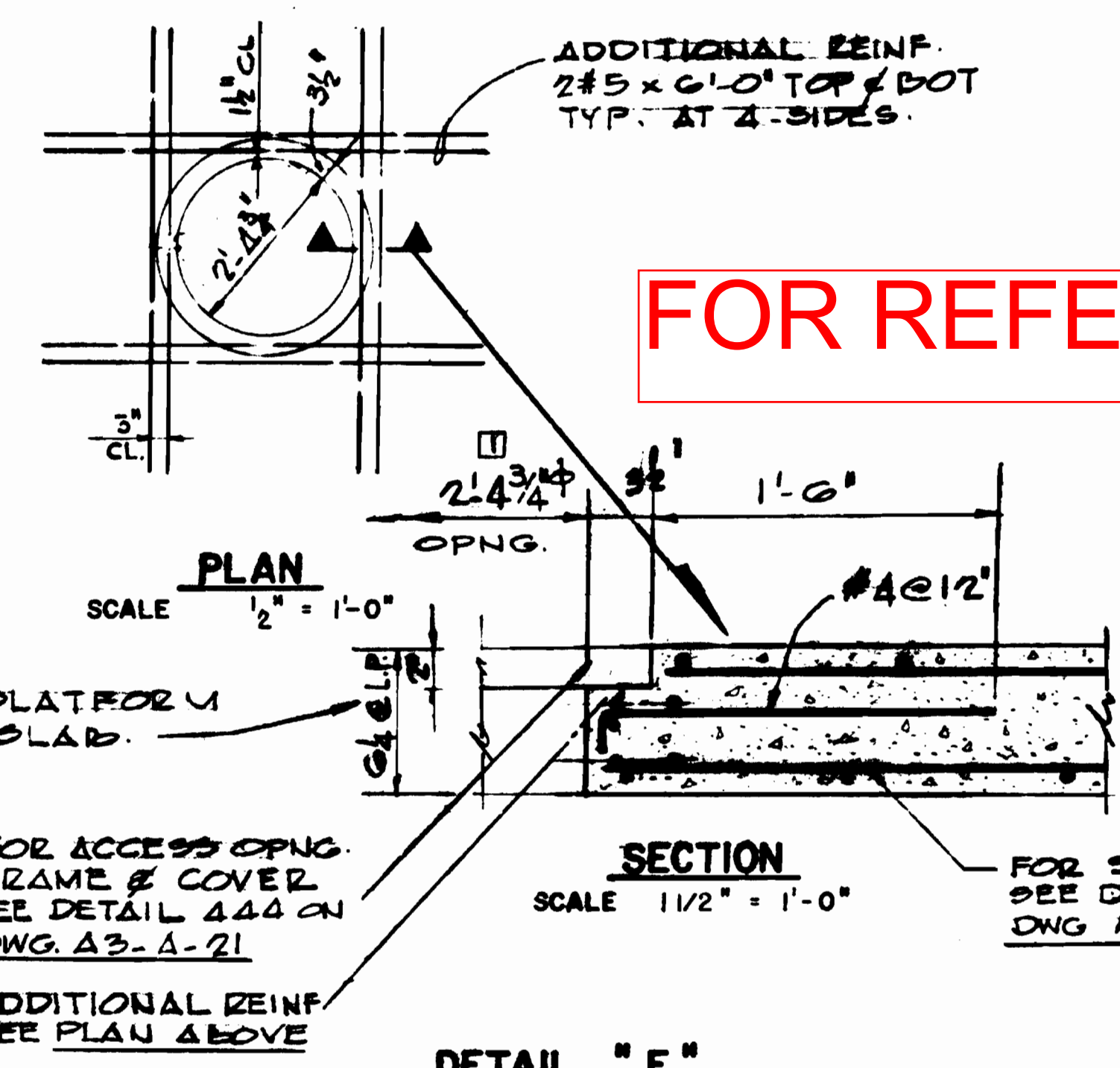


**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**  
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 SECTION DESIGNERS  
 WELLS, PETTICORD & MILLS  
 ARCHITECTS & ENGINEERS

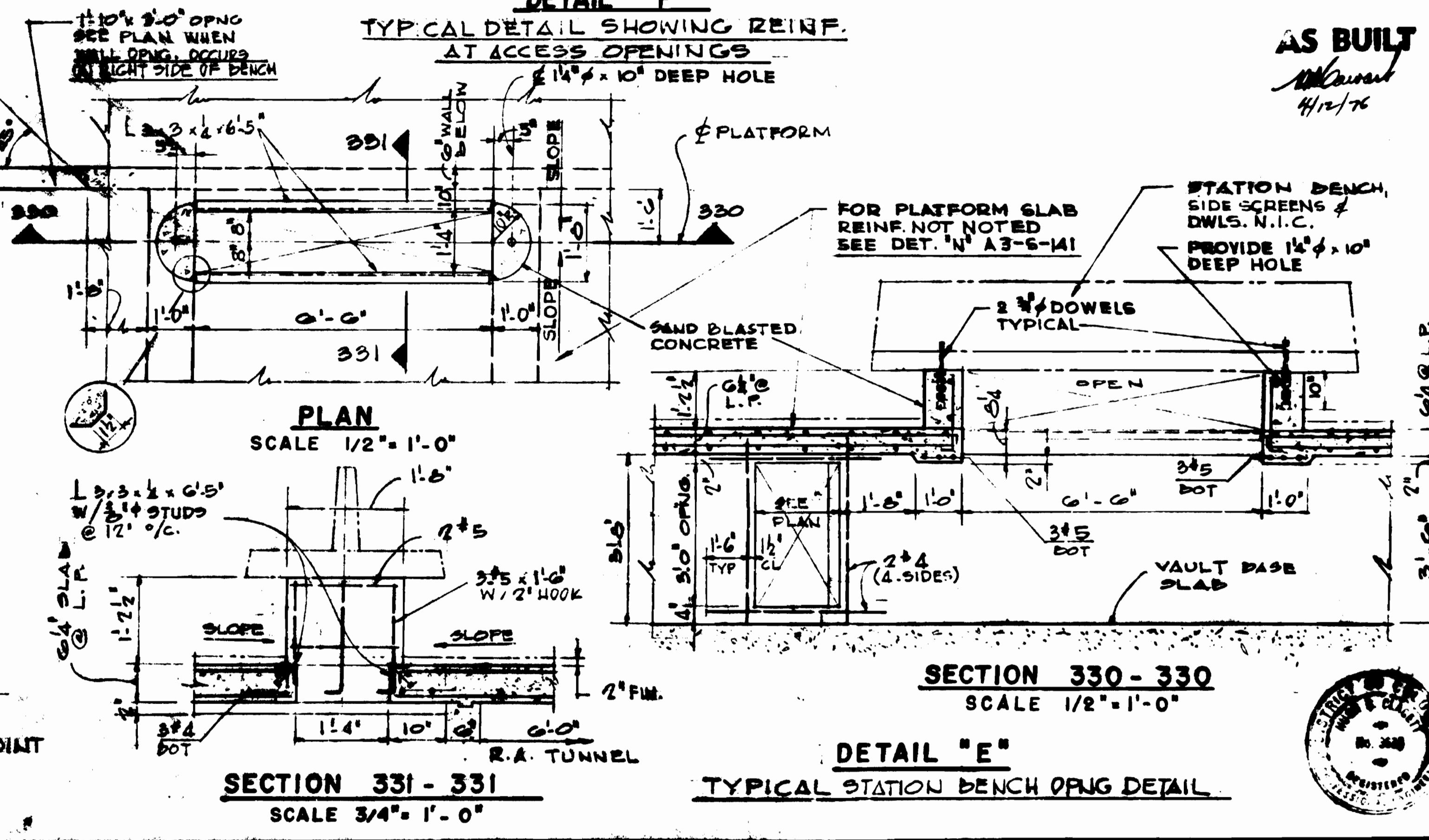
**CONNECTICUT AVENUE ROUTE**  
 STRUCTURE UNIT - A 441  
 SCALE AS NOTED AND  
 A3-S-141 MIO-211



NOTE: FOR GENERAL NOTES & LOCATION OF STRUCTURE UNIT SEE KEY PLAN DWG. A3-S-2



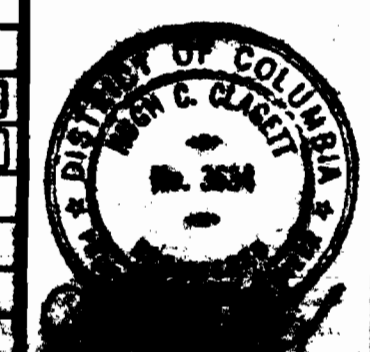
FOR REFERENCE ONLY



AS BUILT  
4/12/76

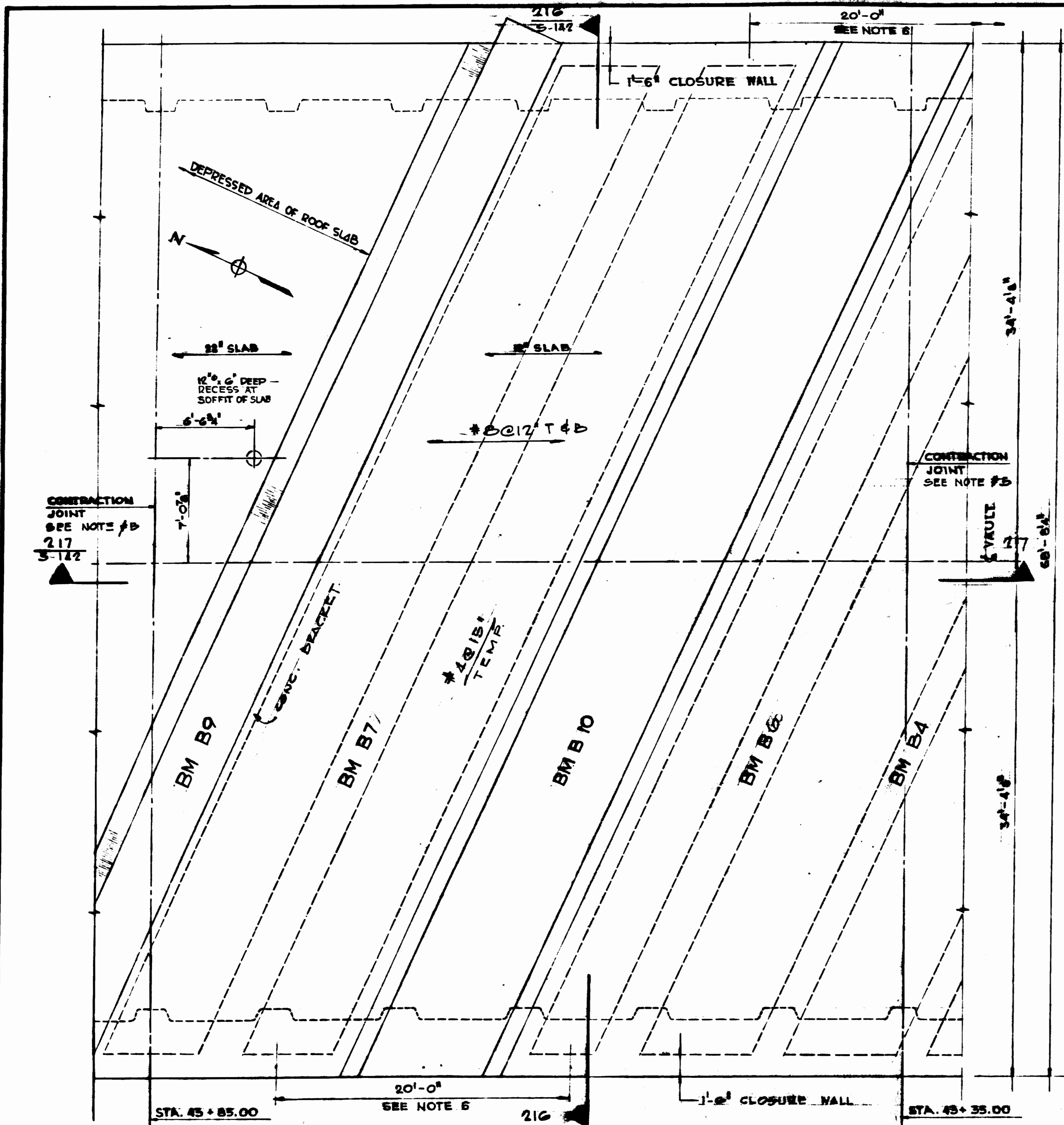
NOTE:  
CONTRACTION JOINT  
APPLIES FOR VAULT  
& VAULT BASE SLAB  
ONLY

DESIGNED	DATE	REFERENCE DRAWINGS		REVISIONS	
		NUMBER	DESCRIPTION	DATE	BY
V.A.F.A.H.	8-1-72	ST-S-1	DRAINAGE SLOT	8-2-72	W.B.H. REVISED PER PCO #56
J.C.	8-1-72	ST-M-1	MANHOLE TYPE I	1/21/75	W.F.H. AS BUILT PER PCO #51
R.K.	8-1-72				
A.G.L.	8-1-72				



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY  
 RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
 SECTION DESIGNERS  
 HENRY WERNER & ASSOCIATED  
 ARCHITECTS & ENGINEERS

CONNECTICUT AVENUE ROUTE  
 VAULT & PLATFORM PLAN  
 STRUCTURE UNIT A 436  
 SCALE 1/2" = 1'-0" AND AS NOTED  
 DRAWING NO. A3-S-127  
 MIO-212



**NOTES**

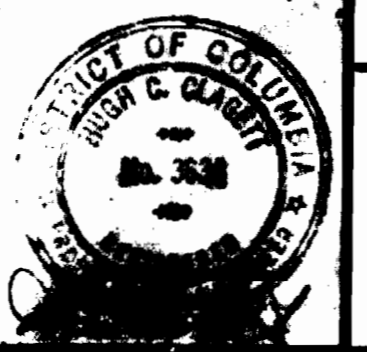
- 1 FOR BEAM SIZES & REINFORCEMENT SEE DWG. A3-S-155
- 2 FOR UTILITY LINES ABOVE ROOF SEE DWG. A3-S-103
- 3 SEE DWG. A3-S-101 FOR EL. TOP OF ROOF SLABS
- 4 FOR THREADED INSERTS @ SOFFIT OF ROOF BMS. SEE DWG. A3-S-163
- 5 CONTRACTION JOINTS OCCUR AT VAULT WALLS & BASE SLAB ONLY. SEE DWG. A2-S-102.
- 6 PROVIDE DISTANCE FOR ADDITIONAL REINF. IN WALL & BASE SLAB UNDER POST-TENSIONED GIRDER B-10 WITH PRE-TENSIONED TENDONS SEE DETAIL DWG. A3-S-162.

FOR REFERENCE ONLY

NOTE: FOR GENERAL NOTES & LOCATION OF STRUCTURE UNIT SEE KEY PLAN DWG. A3-S-2

**AS BUILT**  
*M. J. [Signature]*  
 4/12/76

DESIGNED	DATE	REFERENCE DRAWINGS		REVISIONS	
		NUMBER	DESCRIPTION	DATE	DESCRIPTION
F.W.S.	12-11-69			2-28-72	E.K. SPANNER LOCATION REVISED PER PCO #34
DRAWN	J.C.				
CHECKED	E.K.				
APPROVED	H.C.G.				



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
SECTION DESIGNERS

MILLS, PETTICORD & MILLS  
ARCHITECTS & ENGINEERS

DE LEUW, CATHER & COMPANY  
GENERAL ENGINEERING CONSULTANT

HARRY WRESSE & ASSOCIATES  
GENERAL ARCHITECTURAL CONSULTANT

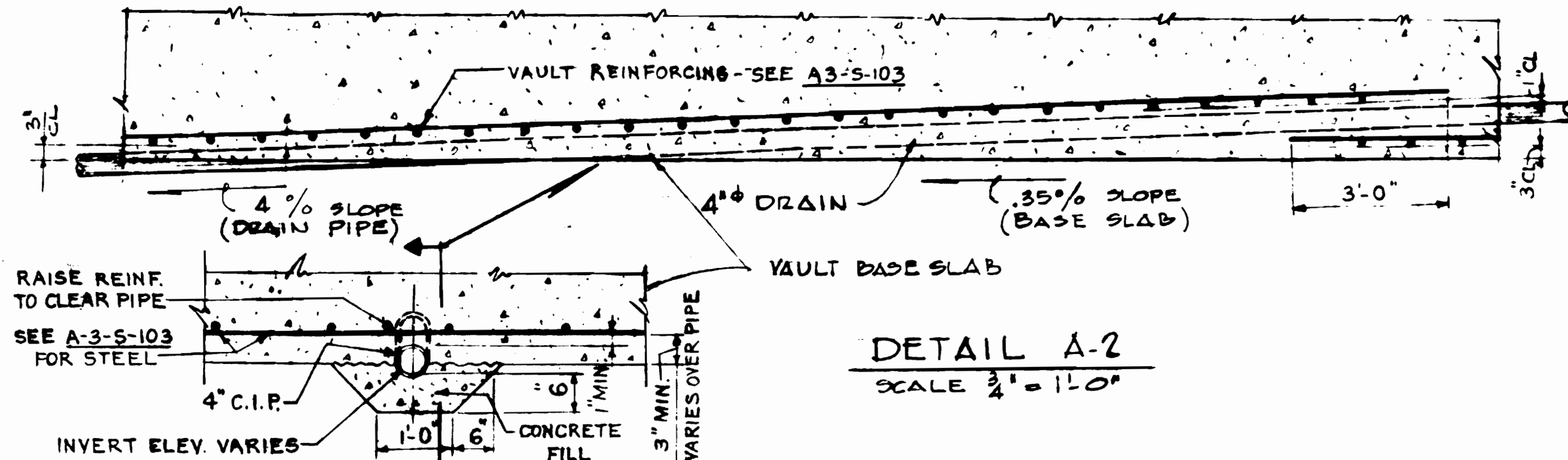
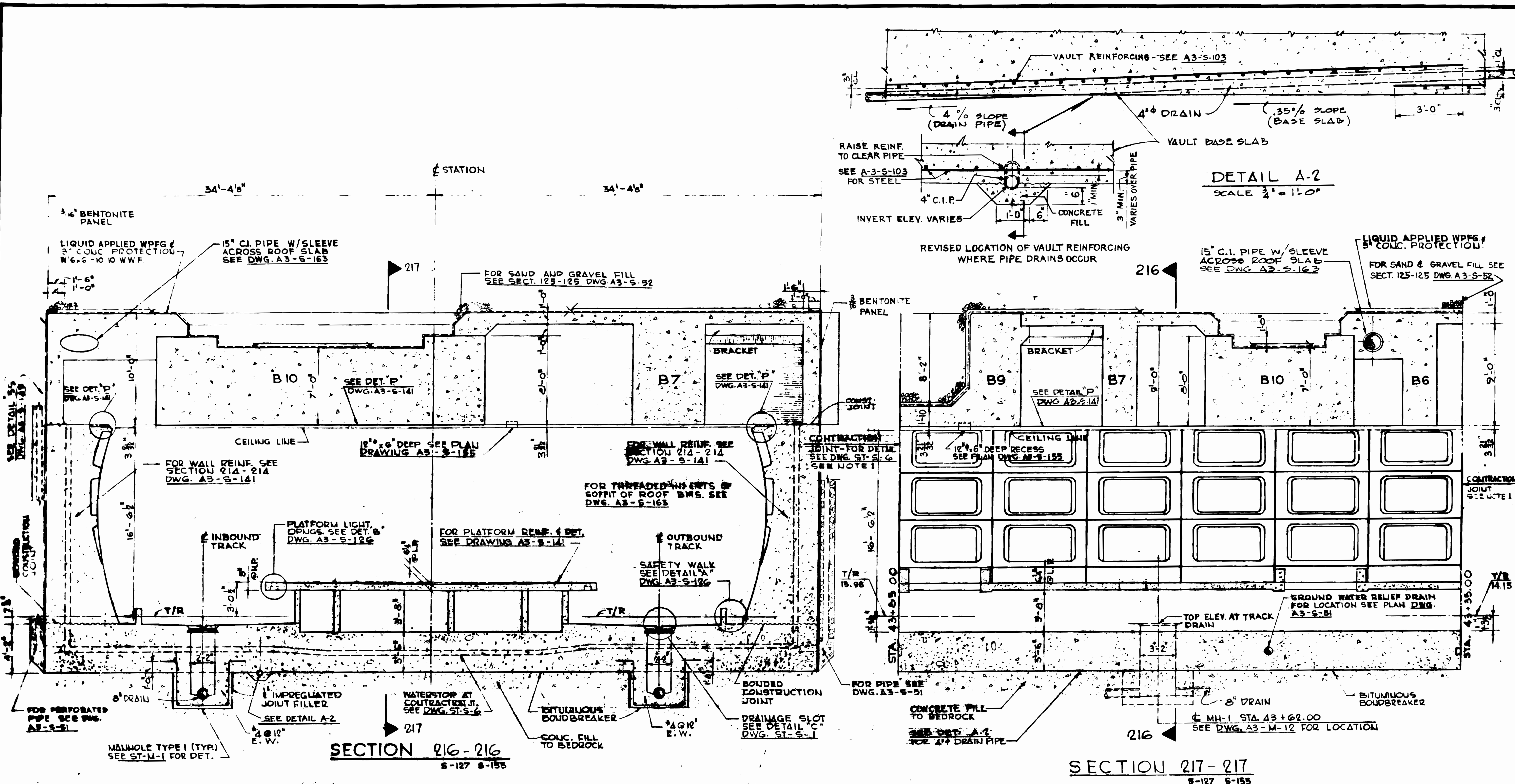
SUBMITTED: [Signature] APPROVED: [Signature]

**CONNECTICUT AVENUE ROUTE**

PART ROOF SLAB BELOW "L" STREET  
STRUCTURE UNIT A436

SCALE: 1" = 1'-0"

DRAWING NO. **A3-S-155** MIO-213



NOTE: FOR GENERAL NOTES & LOCATION OF STRUCTURE UNIT - SEE KEY PLAN DWG. A3-S-2

NOTE: CONTRACTION JOINTS SHOWN ON SECTIONS OCCUR ONLY IN VAULT WALLS AND BASE SLAB.

AS BUILT  
4/12/76

FOR REFERENCE ONLY

NO.	BY	DATE	DESCRIPTION
1	Y.A./A.H.	8-1-76	ISSUED FOR PERFORATED PIPE
2	A.C./R.V.	8-1-76	ISSUED FOR PERFORATED PIPE
3	E.K.	8-1-76	ISSUED FOR PERFORATED PIPE
4	H.C.B.	8-1-76	ISSUED FOR PERFORATED PIPE



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

RUMMEL, KLEPPER & KAHN - CONSULTING ENGINEERS  
SLOTTION DESIGNERS

MILLS, PETTYGROVE & MILLS  
ARCHITECTS & ENGINEERS

DELEUW, CATHEN & COMPANY  
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES  
GENERAL ARCHITECTURAL CONSULTANT

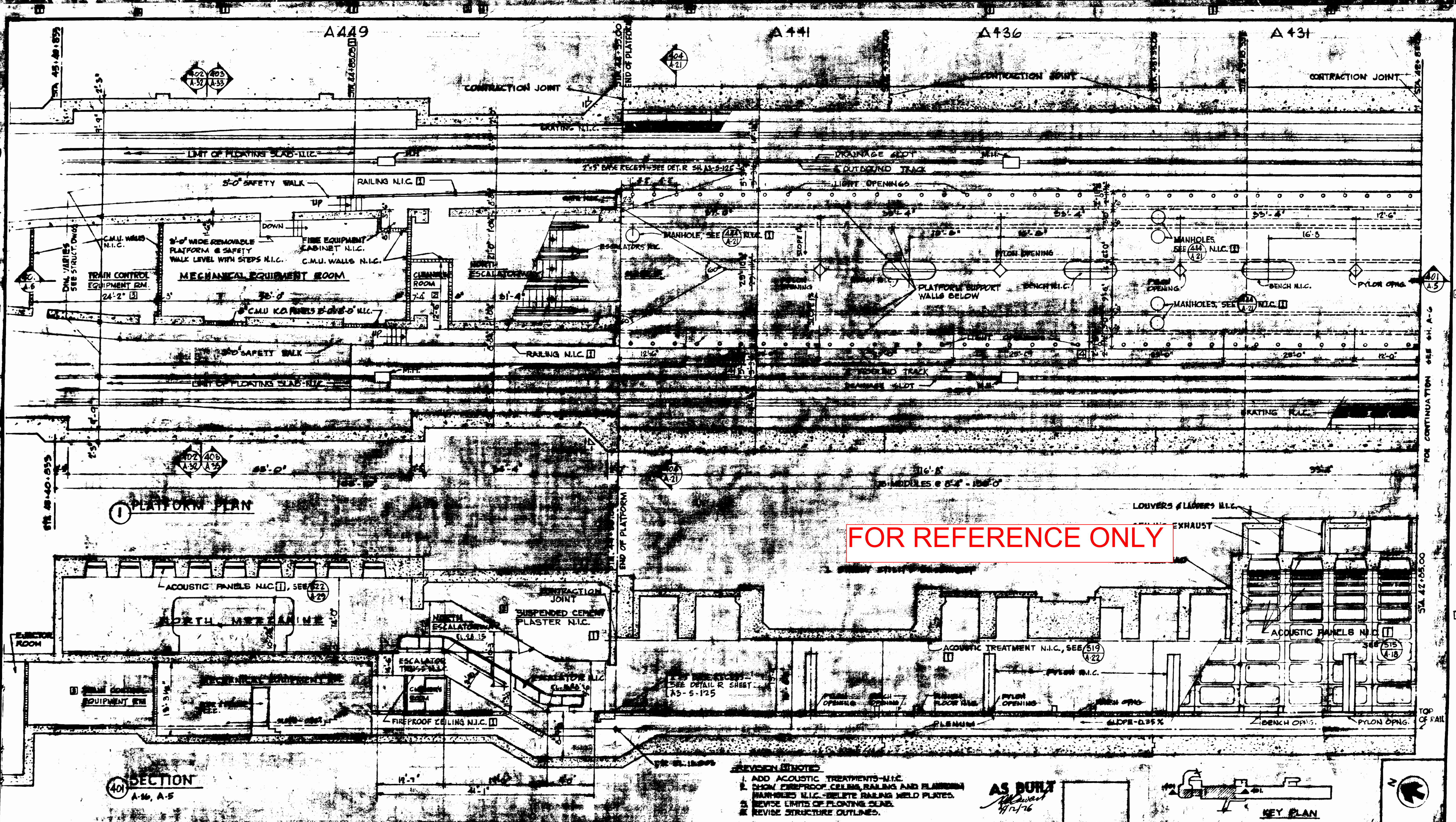
**CONNECTICUT AVENUE ROUTE**

**STRUCTURE UNIT - A 436**

DATE: 8-1-76

DWG. NO: A3-S-102

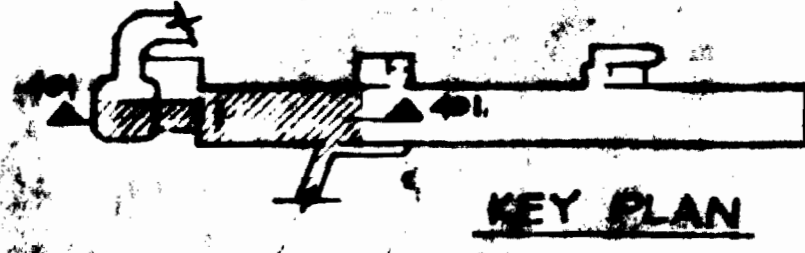
PROJECT NO: MIO-214



FOR REFERENCE ONLY

- REVISIONS:
1. ADD ACOUSTIC TREATMENTS-N.I.C.
  2. SHOW FIREPROOF CEILING, RAILING AND PLASTERING
  3. MANHOLES N.I.C.-DELETE RAILING WELD PLATES.
  4. REVISE LIMITS OF FLOATING SLAB.
  5. REVISE STRUCTURE OUTLINES.

AS BUILT  
*M. J. [Signature]*



REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY
1	SEE REVISION (1) NOTED TO 24	1-25-72	WJG
2	REVISED PER PCO # 86	8-7-72	WGB
3	PCO # 87 REVISED T.C. RM. SIZE	11-17-72	JMK
4	AS BUILT PER PCO # 81	5-7-75	WFL

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
 SECTION DESIGNERS

DE LEUW, CATHY & COMPANY  
 GENERAL ENGINEERING CONSULTANT

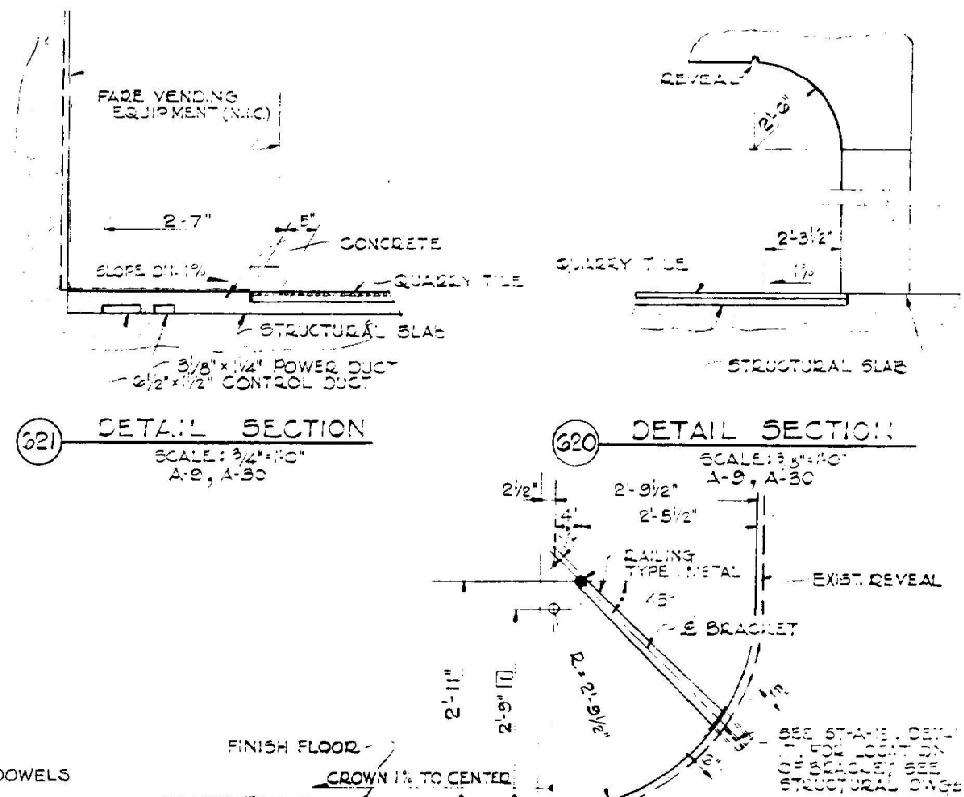
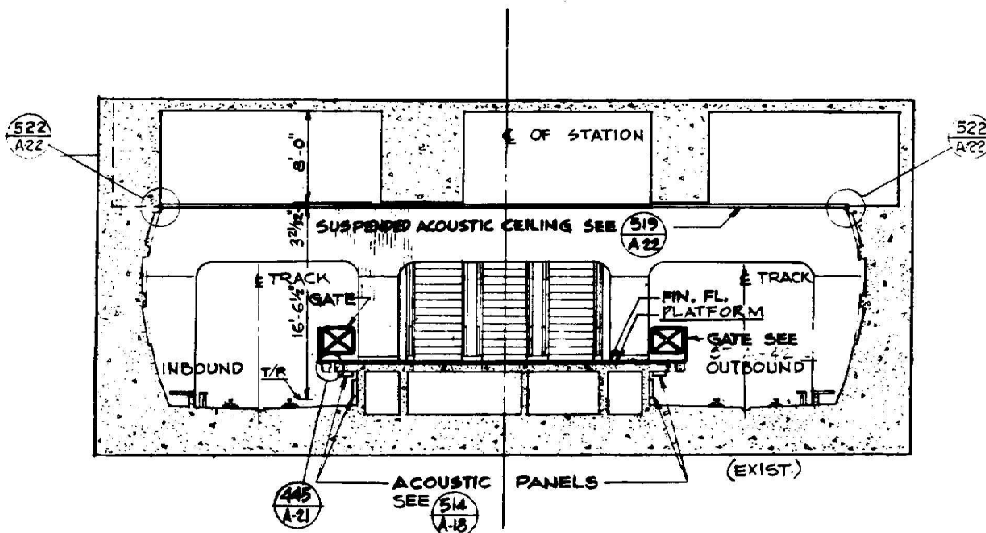
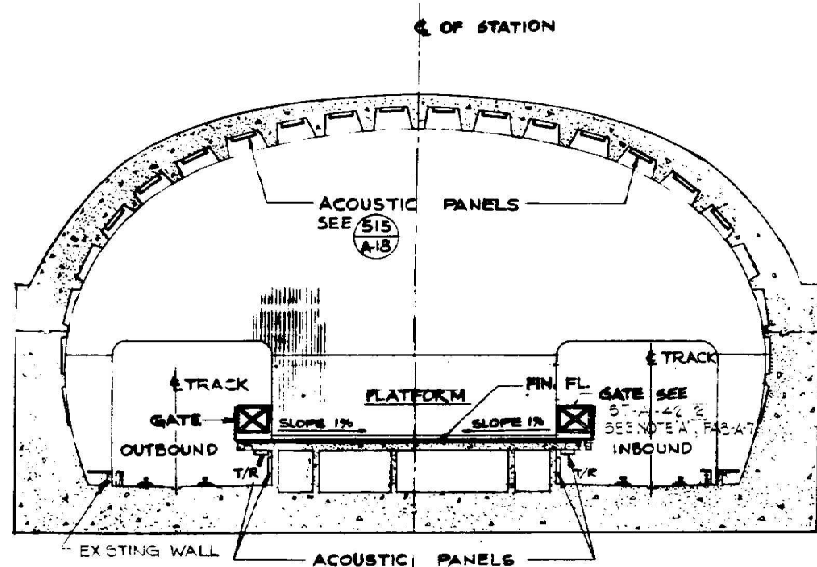
HARRY WEBER & ASSOCIATES  
 GENERAL ARCHITECTURAL CONSULTANT

CONNECTICUT AVENUE ROUTE  
 PLATFORM PLAN & STATION SECTION  
 STA. 42+85 TO STA. 45+29.75

SCALE: 1" = 10'-0"

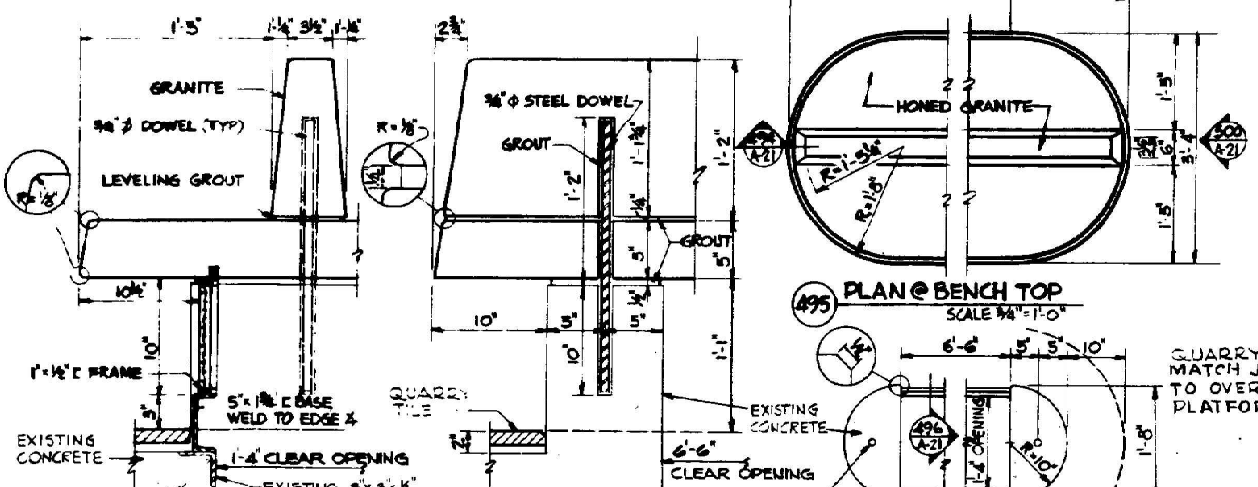
DRAWING NO. A3-A-5 MIO-302

**FOR REFERENCE ONLY**



**409 SECTION A-7**

**404 SECTION A-5**

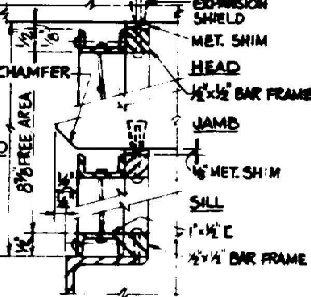


**493 BENCH SECTION SCALE 1/2\"/>**

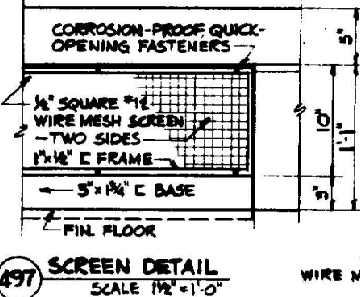
**494 BENCH SECTION SCALE 1/2\"/>**

**495 PLAN @ BENCH TOP SCALE 3/4\"/>**

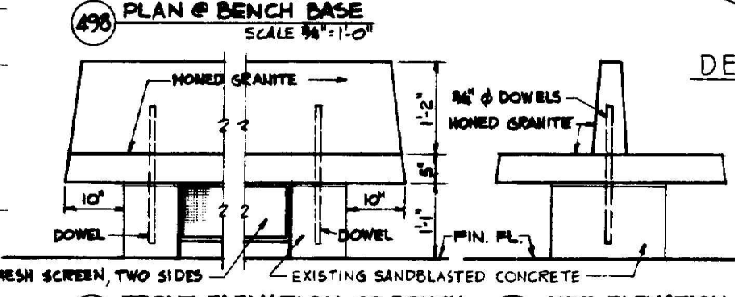
**496 PLAN @ BENCH BASE SCALE 3/4\"/>**



**497 SCREEN DETAIL SCALE 1/2\"/>**

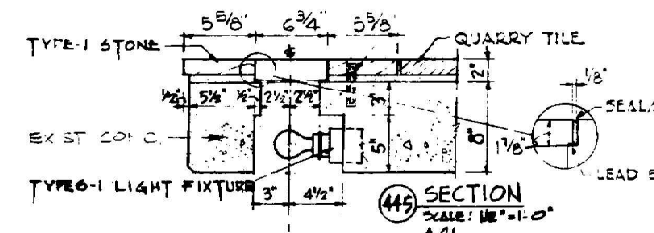


**498 SCREEN DETAIL SCALE 1/2\"/>**

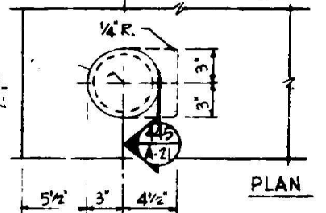


**499 FRONT ELEVATION OF BENCH SCALE 3/4\"/>**

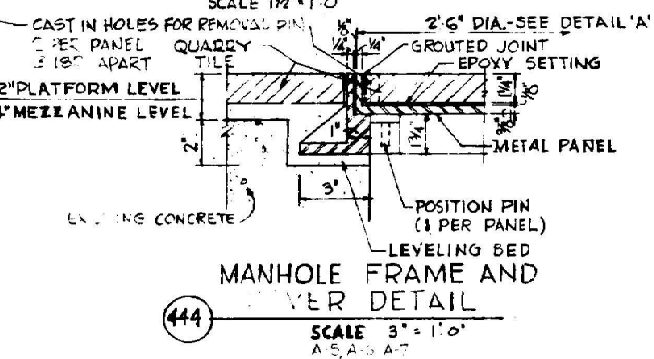
**500 SIDE ELEVATION SCALE 3/4\"/>**



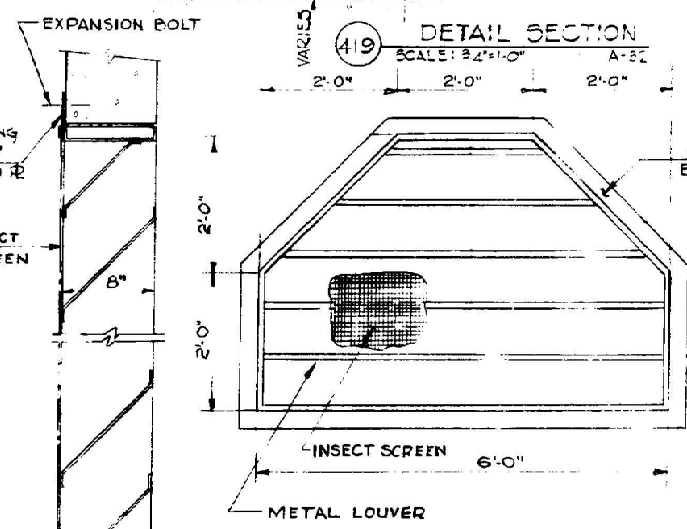
**445 SECTION SCALE 1/2\"/>**



**PLATFORM EDGE PART. PLAN SCALE 1/2\"/>**

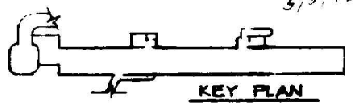


**444 MANHOLE FRAME AND COVER DETAIL SCALE 3\"/>**



**471 TYPICAL LOUVER DETAIL AND SECTION NO SCALE**

A5, A6, A7



**KEY PLAN**

DESIGNED		DATE		REFERENCE DRAWINGS		REVISIONS		DESIGNED BY	DATE	DESCRIPTION
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION						
72715		72715		51-A-15	HANDRAIL DETAILS	3-74	WGB	REVISED PER PCD# 16		
72722		72722		51-A-42	DOUBLE SWING GATE-END PLATFORM	4-74	JNK	REVISED PER PCD# 2		

Design by *Daniel S. DeLoew #486*

**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

RUMMEL, KLEPPER & KAHL - CONSULTING ENGINEERS  
SECTION DESIGNERS

MILLS, PETTICORD & MILLS  
ARCHITECTS & ENGINEERS

DE LEUW, CATHY & COMPANY  
GENERAL ENGINEERING CONSULTANT

HARRY WEESSE & ASSOCIATES  
GENERAL ARCHITECTURAL CONSULTANT

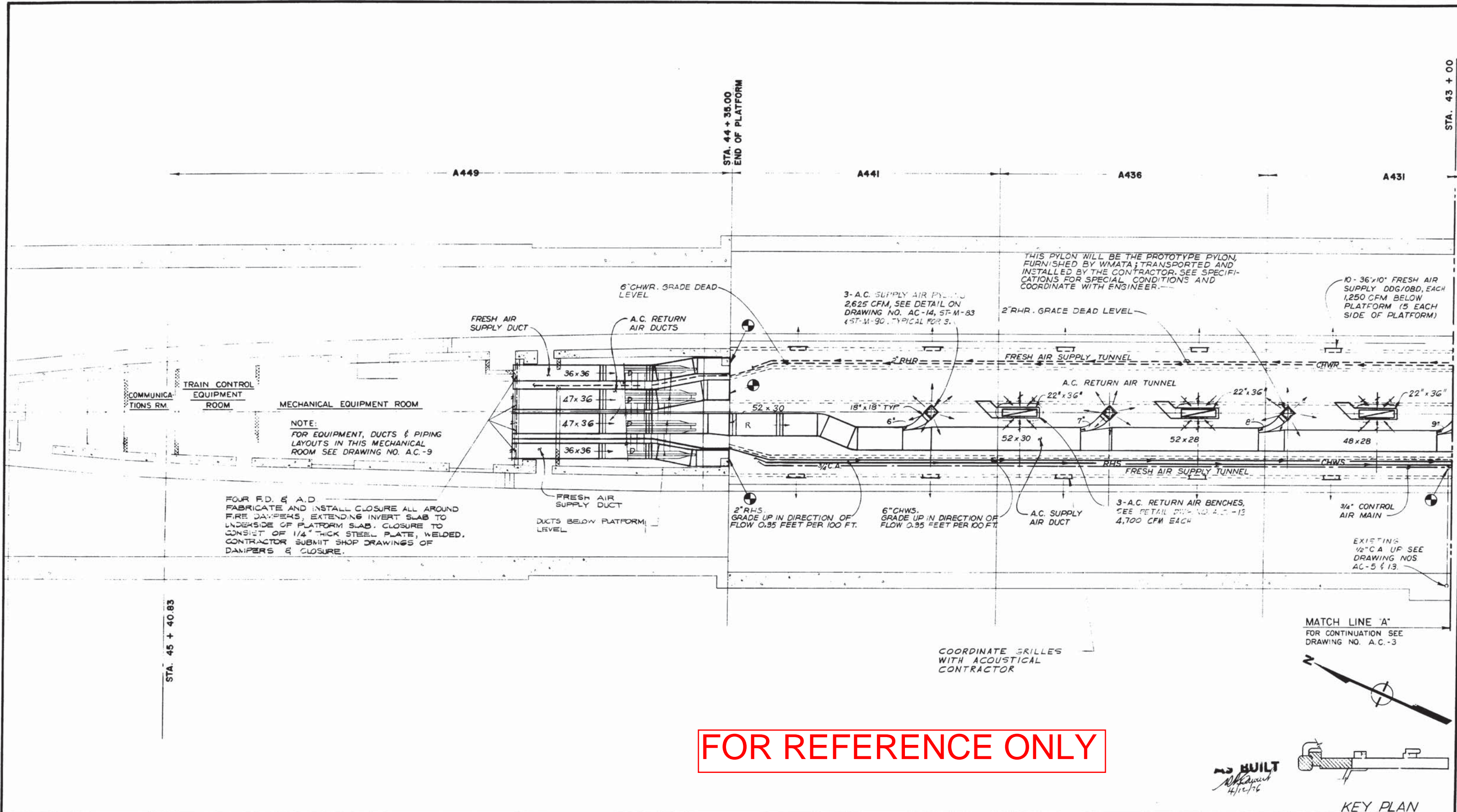
SUBMITTED *A. N. [Signature]* APPROVED *J. A. [Signature]*

**CONNECTICUT AVENUE ROUTE STATION SECTIONS & DETAILS**

SCALE 1/8" = 1'-0" AND AS NOTED

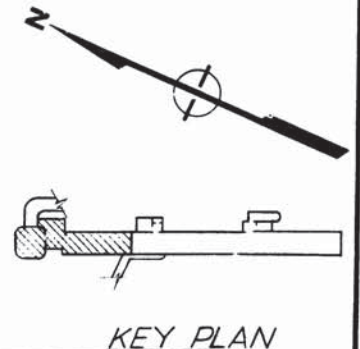
DRAWING NO. **FA3-A-21** **M80-26**



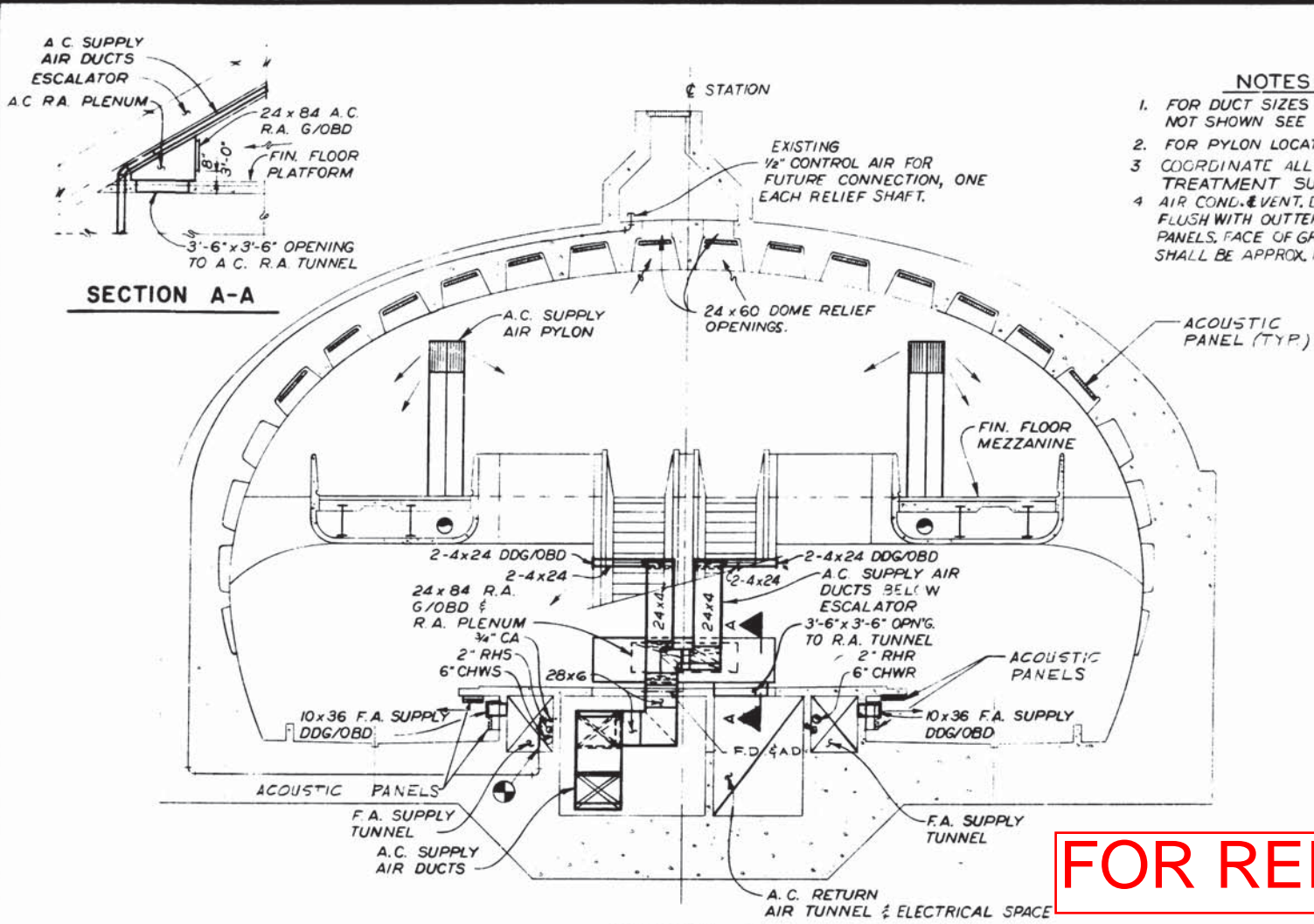


**FOR REFERENCE ONLY**

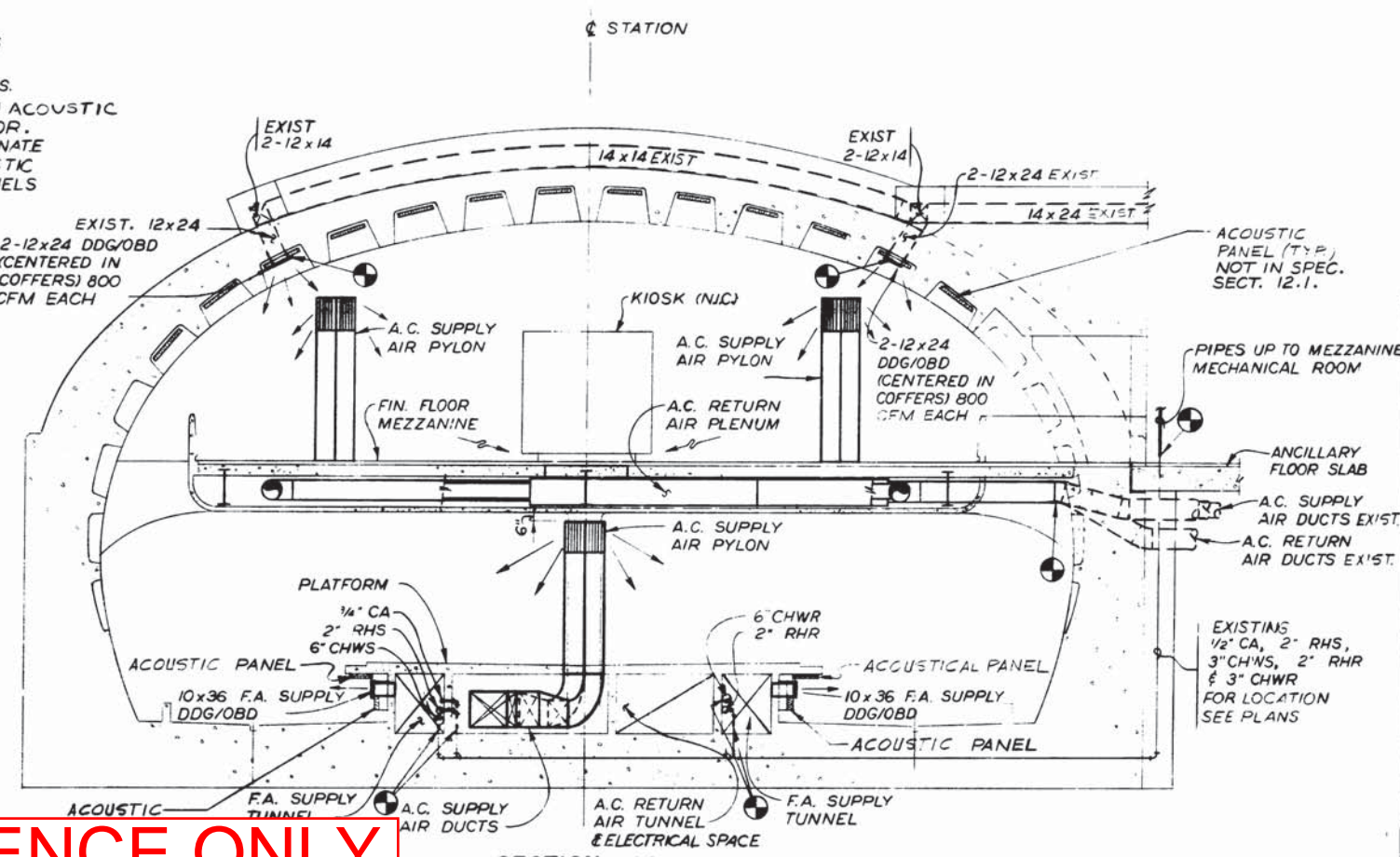
*AS BUILT*  
4/12/76



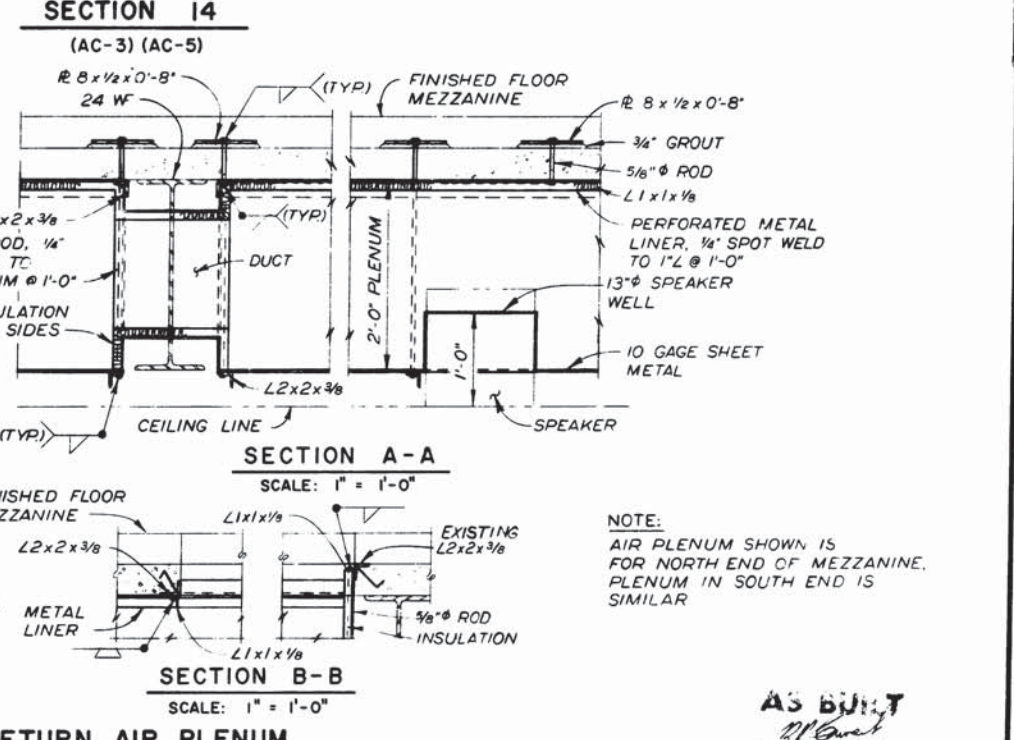
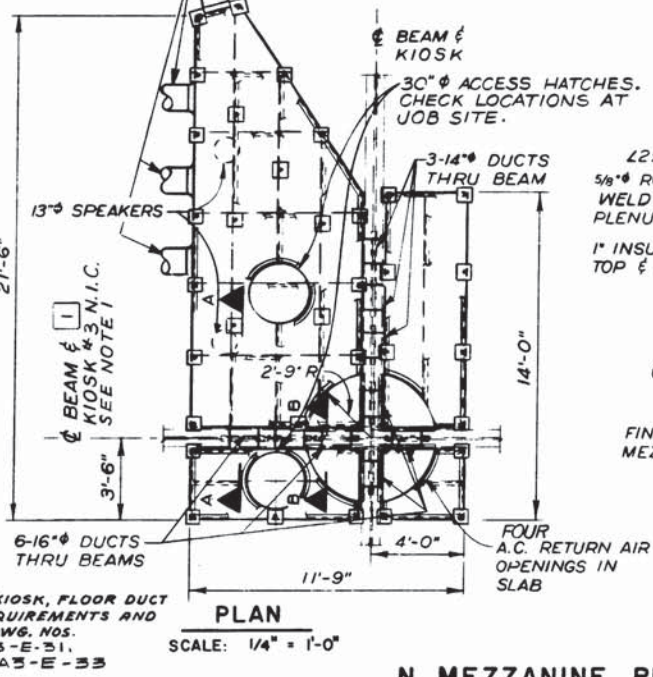
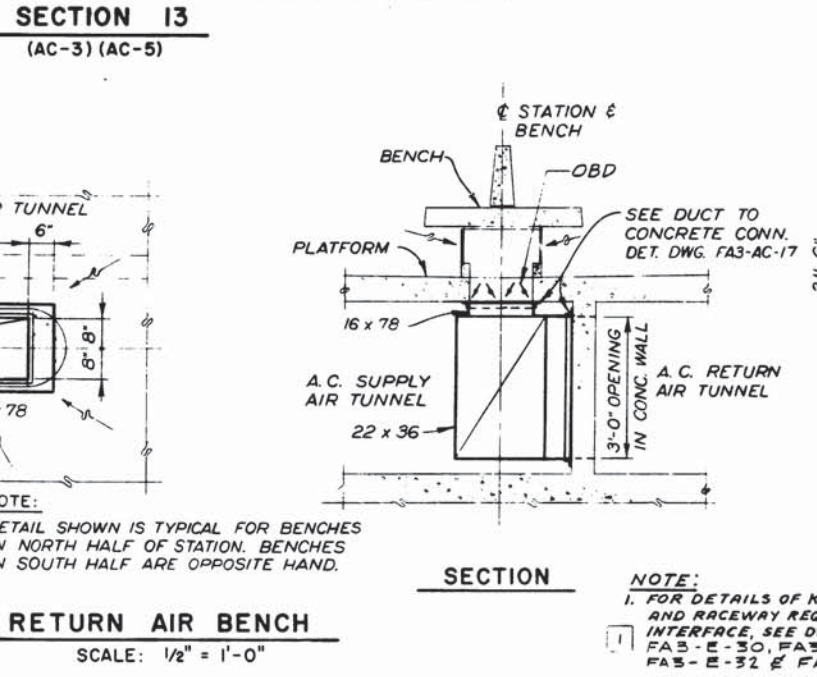
DESIGNED S. P. GUPTA DATE 7-18-69 DRAWN M. SULLIVAN DATE 7-18-69 CHECKED <i>[Signature]</i> DATE 6-2-71 APPROVED <i>[Signature]</i> DATE	REFERENCE DRAWINGS		REVISIONS			WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY		CONNECTICUT AVENUE ROUTE FARRAGUT NORTH STATION AIR CONDITIONING NORTH END PLATFORM PLAN STA. 43 + 00 TO STA. 45 + 40.83	
	NUMBER FA3-AC-3 FA3-AC-9 FA3-AC-14 FA3-M-20 ST-M-83 ST-M-90	DESCRIPTION CENTER PART PLATFORM PLAN NORTH END PLATFORM MECH. ROOM PLANS AND SECTIONS SUPPLY AIR DUCT CONNECTIONS TO PYLONS AND BELL MOUTH FITTING DETAILS AIR CONDITIONING-HEATING-VENTILATION OF ANCILLARY SPACES TRACK LEVEL STANDARD MECHANICAL DWG AIR CONDITIONING PYLON STANDARD MECHANICAL DWG AIR CONDITIONING PYLON	DATE      	BY      		DESCRIPTION      	DE LEUW, CATHER & COMPANY CONSULTING ENGINEERS <i>[Signature]</i>	DE LEUW, CATHER & COMPANY GENERAL ENGINEERING CONSULTANT HARRY WEESE & ASSOCIATES GENERAL ARCHITECTURAL CONSULTANT APPROVED <i>[Signature]</i>	SCALE 1" = 1'-0"



- NOTES**
1. FOR DUCT SIZES & AIR VOLUMES NOT SHOWN SEE PLANS.
  2. FOR PYLON LOCATIONS SEE PLANS.
  3. COORDINATE ALL GRILLES WITH ACQUSTIC TREATMENT SUB-CONTRACTOR.
  4. AIR COND. EVENT. DUCTS TO TERMINATE FLUSH WITH OUTER FACE OF ACQUSTIC PANELS, FACE OF GRILLES AND PANELS SHALL BE APPROX. FLUSH.



**FOR REFERENCE ONLY**

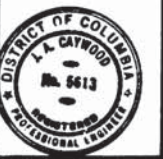


**N. MEZZANINE RETURN AIR PLENUM**

AS BUILT

DESIGNED	S.P. GUPTA	7-18-89
DRAWN	M. SULLIVAN	7-18-89
CHECKED	[Signature]	6-2-91
APPROVED	[Signature]	6-2-91

REFERENCE DRAWINGS		REVISIONS	
NUMBER	DESCRIPTION	DATE	BY
FA3-AC-3	CENTER PART PLATFORM PLAN	2-21-75	D.S.G.
FA3-AC-5	NORTH END MEZZANINE PLAN		
FA3-AC-17	S.E. ENTRANCE PLANS & SECTIONS		



**WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY**

**DE LEUW CATHER & COMPANY**  
CONSULTING ENGINEERS

**DE LEUW, CATHER & COMPANY**  
GENERAL ENGINEERING CONSULTANT

**HARRY WEESE & ASSOCIATES**  
GENERAL ARCHITECTURAL CONSULTANT

SUBMITTED: [Signature]

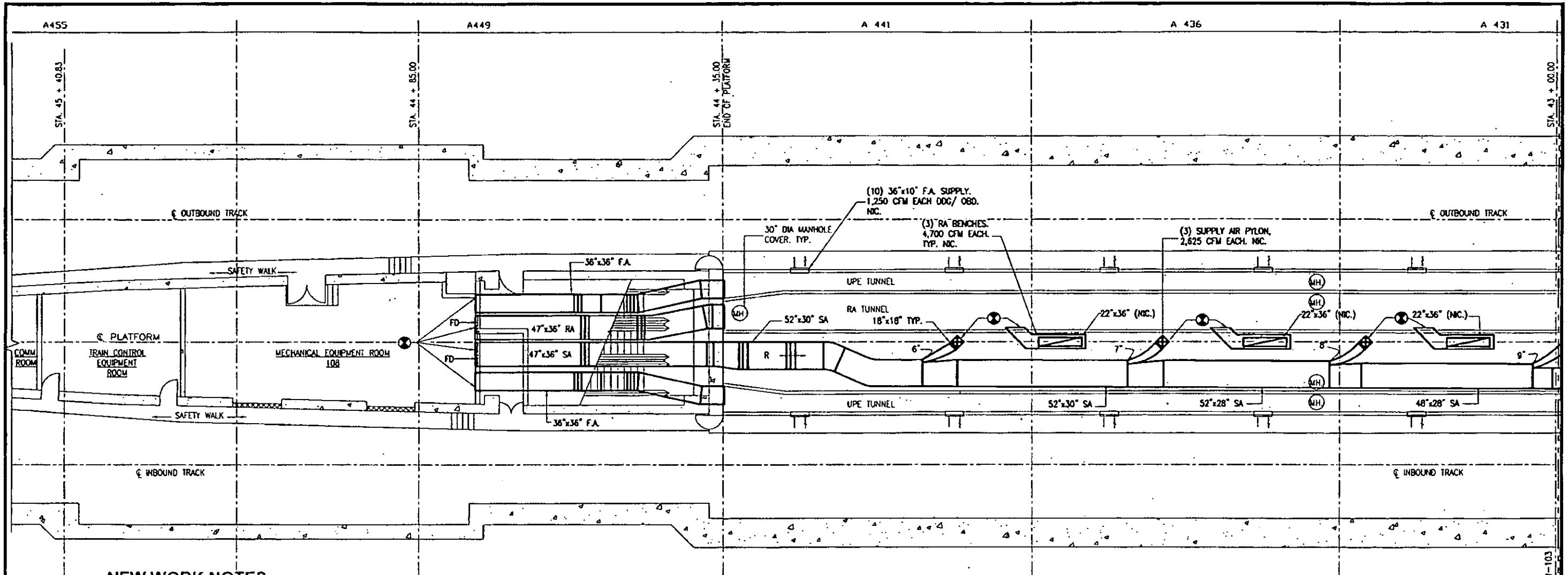
APPROVED: [Signature]

**CONNECTICUT AVENUE ROUTE**  
**FARRAGUT NORTH STATION AIR CONDITIONING**  
**SECTIONS & DETAILS**

SCALE: 3/16" = 1'-0" AND AS NOTED

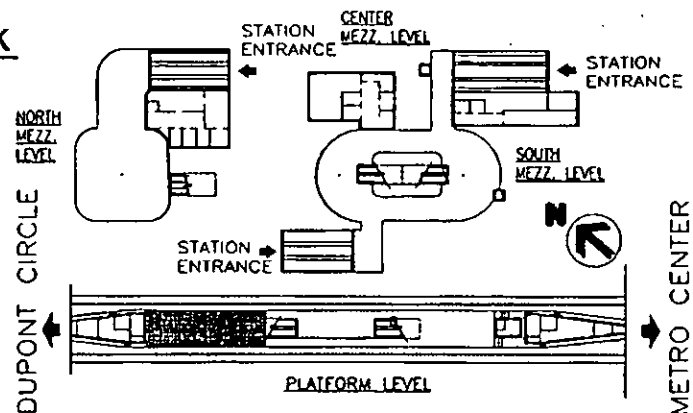
DRAWING NO. **FA3-AC-13**

**M80-74**



**NEW WORK NOTES:**  
 FOR NEW WORK NOTES SEE A02-M-104

**NORTH END UNDER PLATFORM SUPPLY AND RETURN DUCTWORK**



**FOR REFERENCE ONLY**

FOR CONTINUATION SEE DRAWING A02-M-103

FQ8143 R1-803-M  
 CONTRACT NO.  
**FQ8143**

DESIGNED	M. TALGHAM	DATE	REFERENCE DRAWINGS		REVISIONS	
			NUMBER	DESCRIPTION	DATE	DESCRIPTION
DRAWN	P. RAMOS	DATE				
CHECKED	J. BURGANS	DATE				
APPROVED	J. RISHER	DATE				



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY  
 OFFICE OF INFRASTRUCTURE RENEWAL PROGRAM  
 APPROVED *Mark H. Magnusson*  
 SUBMITTED PROJECT MANAGER

REHABILITATION OF RED LINE METRO SYSTEM  
 DUPONT CIRCLE TO SILVER SPRING  
 A02 FARRAGUT NORTH STATION  
 MECHANICAL NEW WORK PLAN, UNDER PLATFORM DUCTWORK  
 SCALE 1/8"=1'-0" 2 10 20 40 80 160  
 DRAWING NO. **A02-M-102**