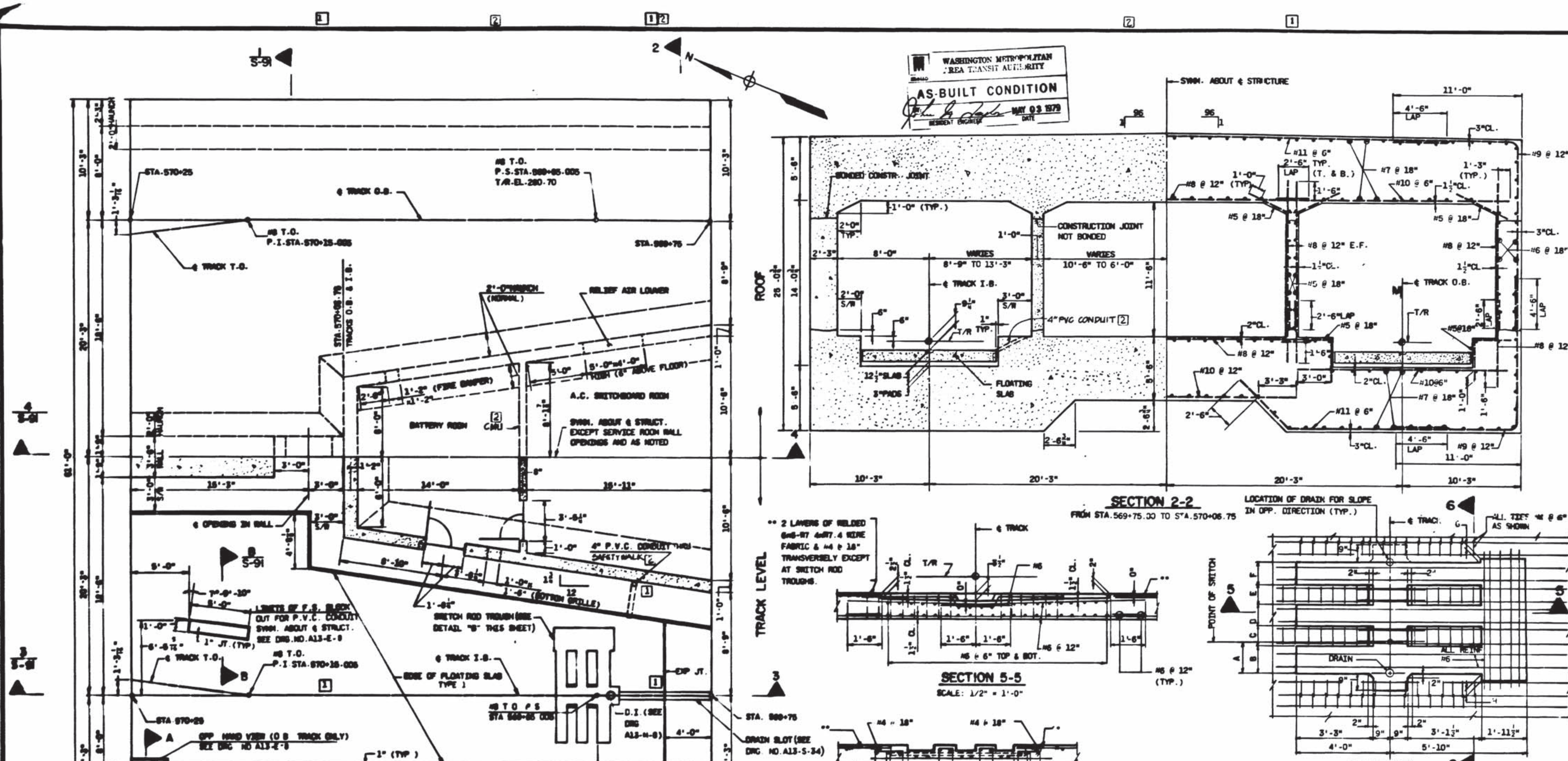


NOTE: FOR FLOATING SLAB DETAILS SEE DWG. NOS. A13-S-173 & A13-S-174.
FOR WATERPROOFING DETAILS SEE DWG. NO ST-S-6.
SEE ARCH. DETAILS IN DWG. NOS. A13-A-3, A13-A-10, A13-A-13, A13-A-15, A13-A-16.

[1] ALL PLANS DRAWN FOR RIGHT HAND TURNOUT. LEFT HAND TURNOUT SHALL BE OPPOSITE HAND.

T.O. NO.	A	B	C	D	E	F	G	H
4-Y	15½"	14"	9"	11"	9"	11"	7"	2"
8	14"	14"	10"	11"	10"	11"	2"	4"

DIMENSIONS OF RECESSED TROUGH FOR SWITCH RODS

NOTE:
SEE DWG.NO.A13-M-2 FOR DETAILS OF OPENINGS IN WALLS.
FOR ELECTRICAL BONDING OF REINF. STEEL SEE DWG. NO. ST-S-7.
FOR LOCATION OF ALL ELECTRICAL CONDUIT AND RELATED EQUIPMENT. SEE DWG. NOS A13-E-4, A13-E-8, A13-E-22, A13-E-6, A13-E-29, A13-E-12 AND A13-E-16.

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-1	KEY PLAN AND ELEV.
A13-S-91	SECTIONS AND DETAILS UNIT A5700
A13-S-30	PLAN AND SECT. UNIT A5800 (DRAINAGE SLOT)
A13-S-173	FLOATING SLAB DETAILS
A13-S-174	FLOATING SLAB DETAILS

REVISIONS		
DATE	BY	DESCRIPTION
9/13/76	C.P.L.	[1] ADDED DRAIN, EXP. JT., 4" P.V.C. CONDUIT & OMITTED DRAIN SLOT PER P.C.O. 47
3/2/79	MAP	[2] REV. PER FIELD COND AS-BUILT.

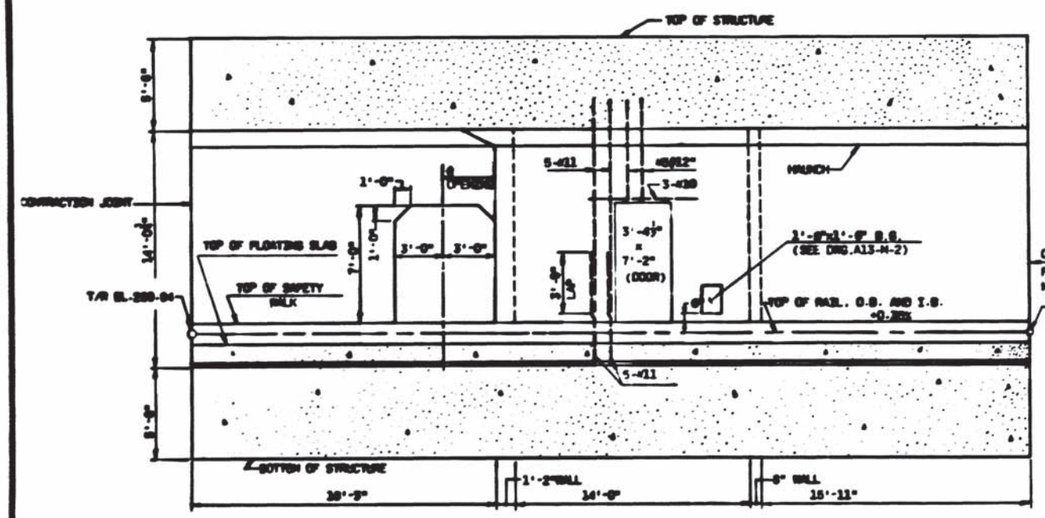
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

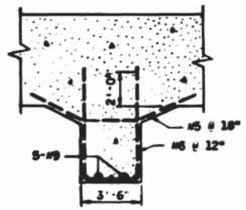
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
PLAN AND SECTIONS
UNIT A5700

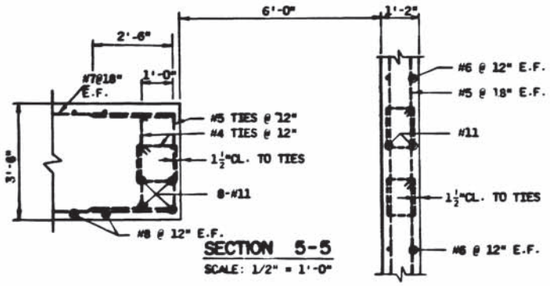
SCALE ¼" = 1'-0" AND AS NOTED
DRAWING NO. A13-S-5
M220-234



SECTION 3-3 (S-5)



SECTION 6-6



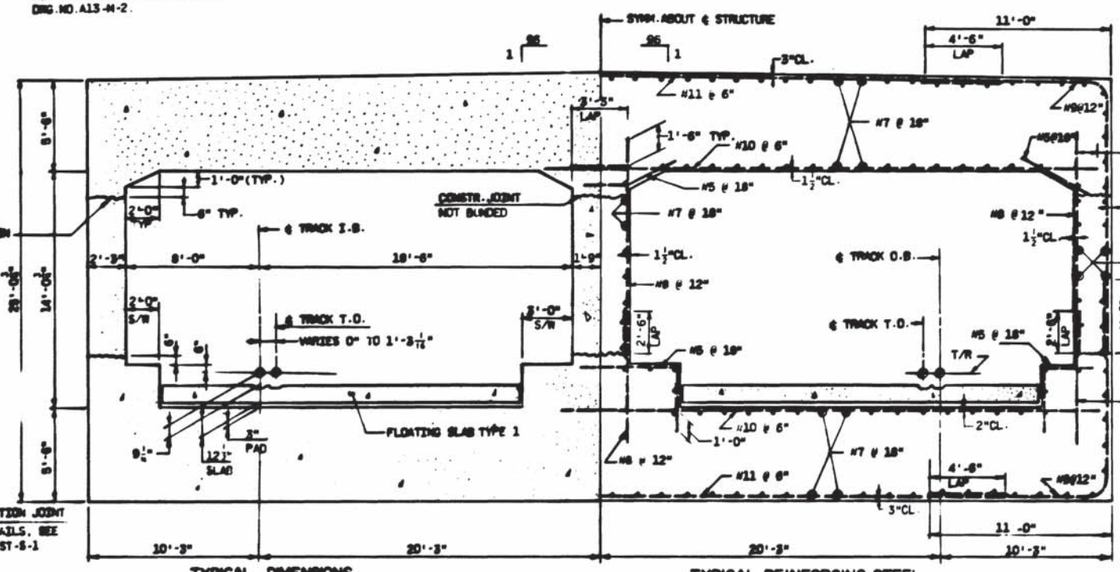
SECTION 5-5
SCALE: 1/2" = 1'-0"

CONSTRUCTION JOINT
FOR DETAILS SEE DRG. NO.ST-S-1

T/R EL.280.66

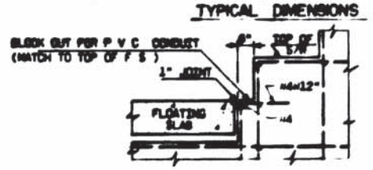
NOTE:
FOR WATERPROOFING DETAILS SEE DRG.NO.ST-S-6.
FOR ROOF OPENING DETAILS SEE DRG.NO.A13-M-2.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — DATE MAY 03 1979



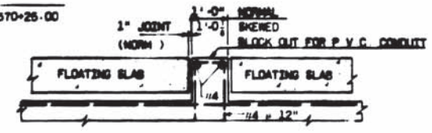
SECTION 1-1 (S-5)
FROM STA.570+06.75 TO STA.570+26.00

TYPICAL REINFORCING STEEL

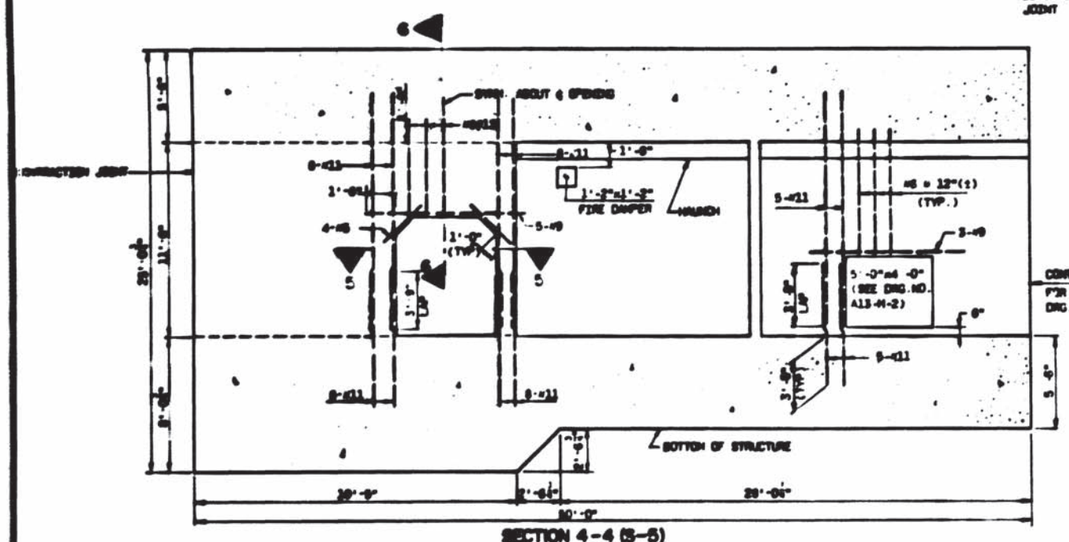


SECTION A-A (S-5, S-43, S-6, & S-49)
TYP. BLOCK OUT FOR P.V.C. CONDUIT
SCALE 1/2" = 1'-0"

TYPICAL DIMENSIONS



SECTION B-B (S-5)
TYP. BLOCK OUT FOR P.V.C. CONDUIT
SCALE 1/2" = 1'-0"



SECTION 4-4 (S-5)

REFERENCE DRAWINGS		REVISIONS		
NUMBER	DESCRIPTION	DATE	BY	DESCRIPTION
1-1-1	KEY PLAN AND ELEV.			
1-1-5	PLAN AND MACHINE UNIT 6788			
1-10-2	SERVICE ROOMS H.V.A.C. PLAN			

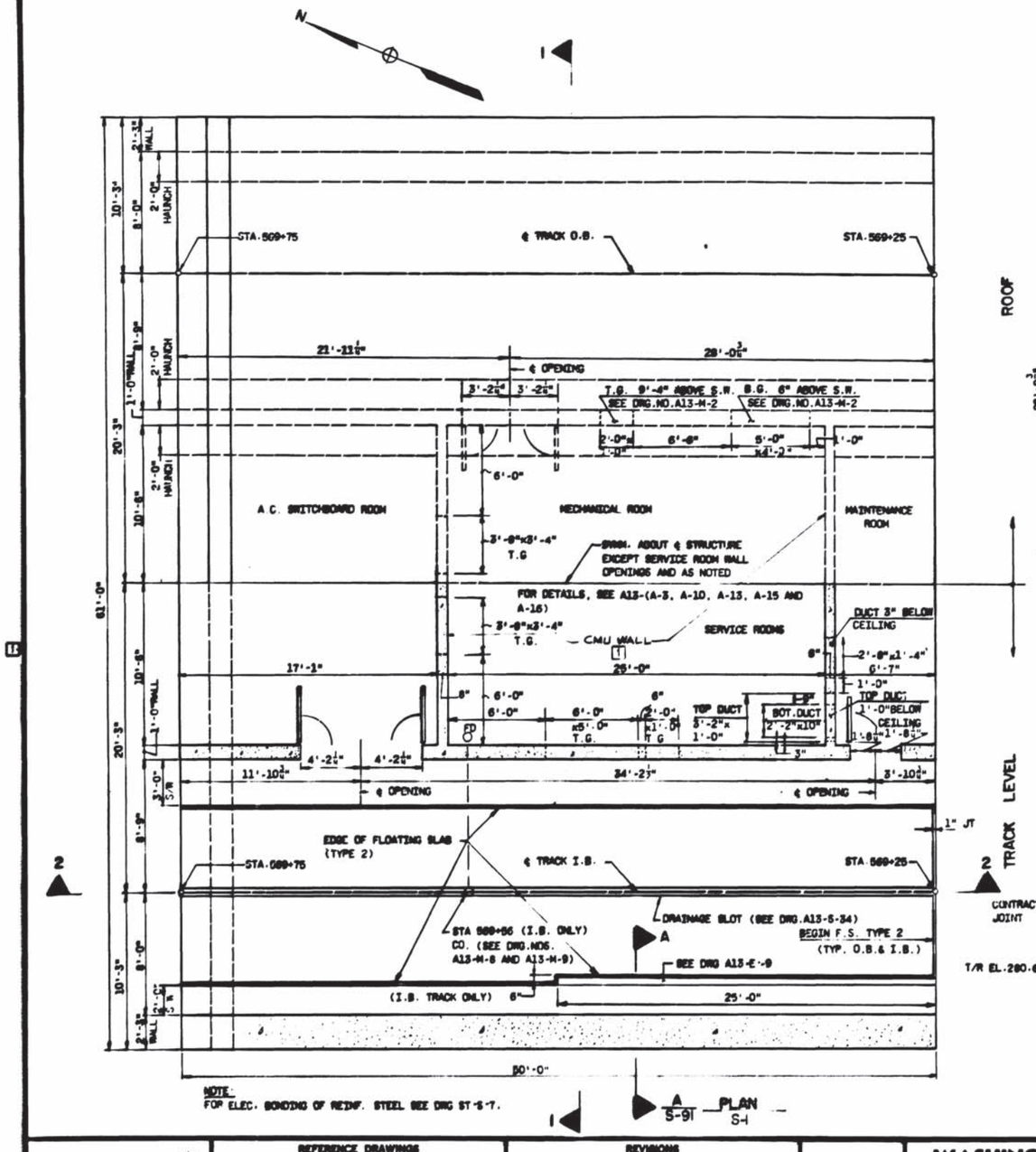
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

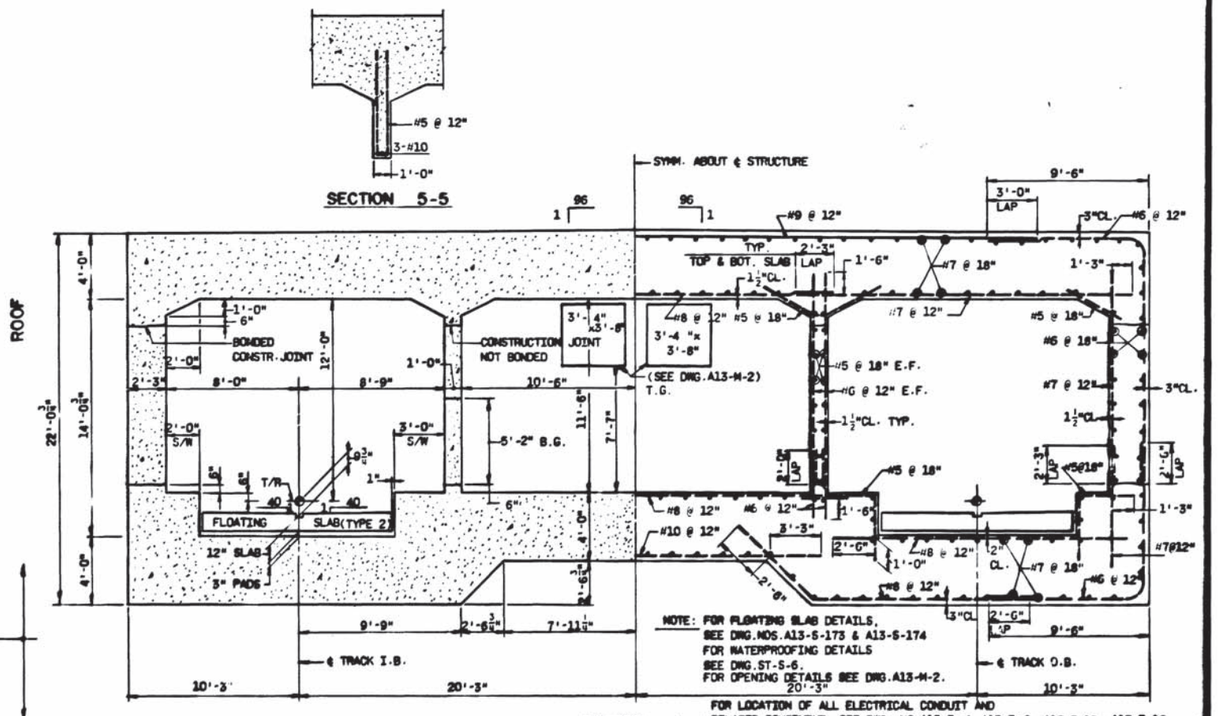
SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

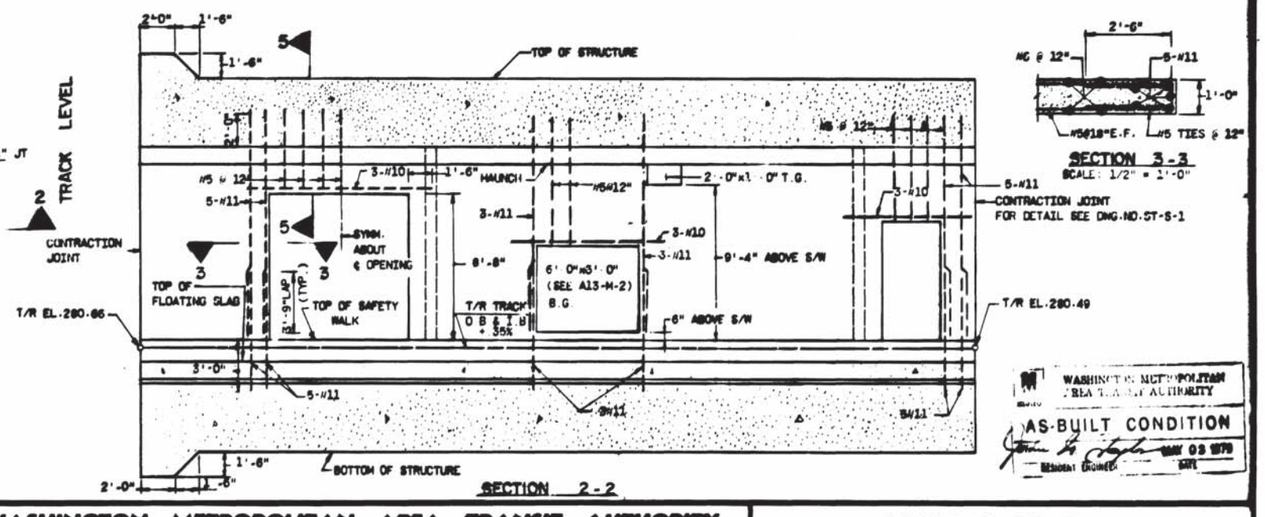
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
SECTIONS AND DETAILS
UNIT A5700

SCALE 1/2"=1'-0" AND AS NOTED
DRAWING NO. A13-S-91
M220-235







WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

MAY 03 1979

DESIGNED	J.F.H. SMITH	1/76
DRAWN	J.F.H. SMITH	1/76
CHECKED	T. ANDRZEJEWSKI	6/75
APPROVED	Ted Andrzejewski	6/75

REFERENCE DRAWINGS		
NUMBER	DESCRIPTION	
A13-S-1	KEY PLAN AND ELEV.	
A13-S-36	PLAN AND SECT. UNIT ABOVE (DRAINAGE SLOT)	
A13-S-173	FLOATING SLAB DETAILS	
A13-S-174	FLOATING SLAB DETAILS	
A13-M-2	SERVICE ROOMS H.V.A.C. PLAN	
A13-M-9	SERVICE ROOMS - PLUMBING PLAN AND DETAILS	

REVISIONS		
DATE	BY	DESCRIPTION
4/20/79	BAB	1 REV PER FIELD COND. AS BUILT

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

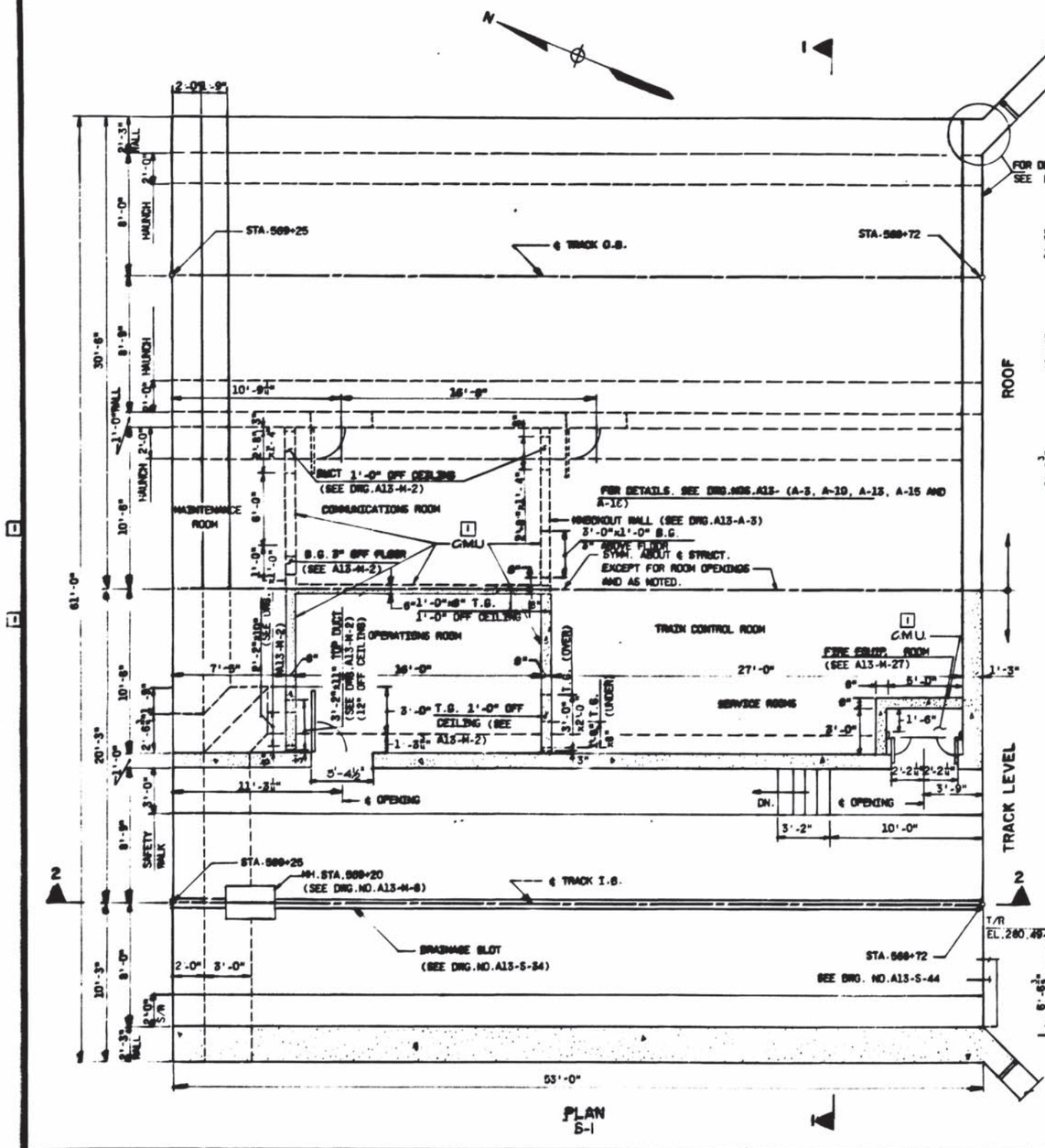
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

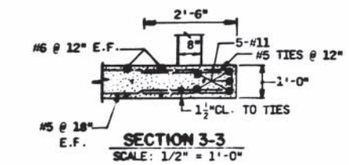
ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
PLAN AND SECTIONS
UNIT A5695

SCALE 1/4"-1'-0" AND AS NOTED

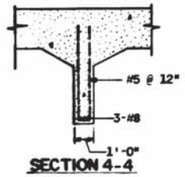
DRAWING NO. A13 - S - 49

M220-236



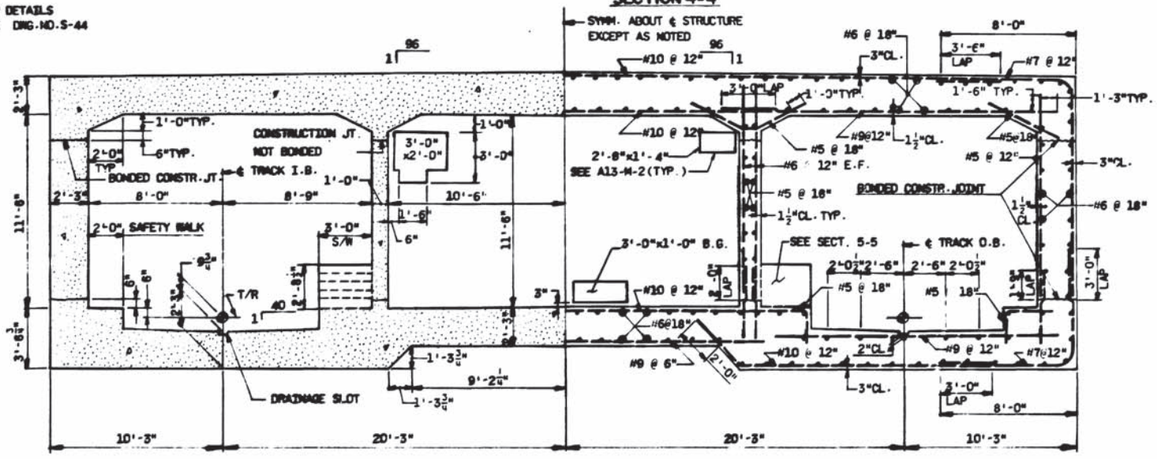


SECTION 3-3
SCALE: 1/2" = 1'-0"



SECTION 4-4

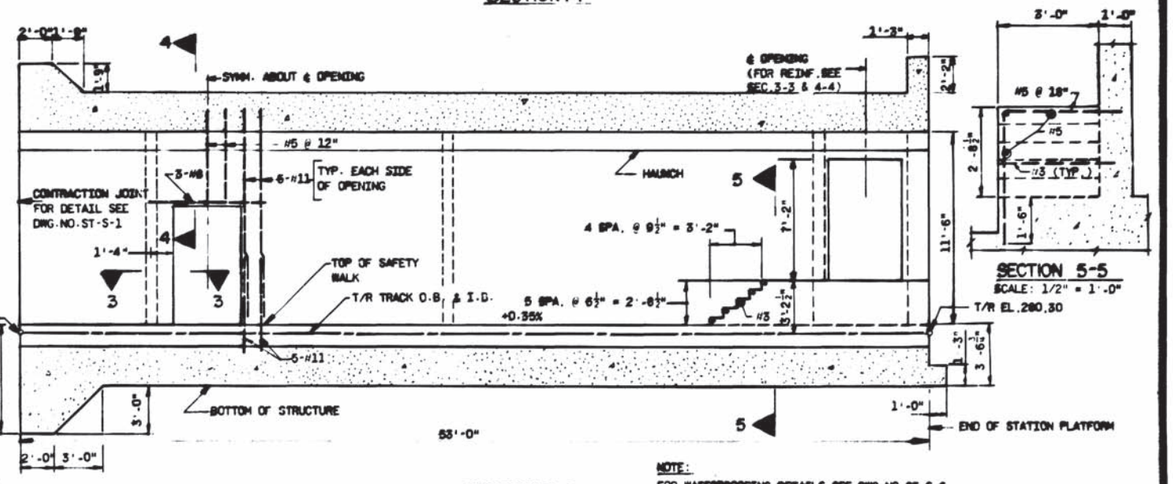
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER
MAY 03 1979
DATE



TYPICAL DIMENSIONS

TYP REINFORCING STEEL

SECTION 1-1



SECTION 2-2

SECTION 5-5
SCALE: 1/2" = 1'-0"

NOTE:
FOR WATERPROOFING DETAILS SEE DWG.NO.ST-S-6.
FOR LOCATION OF ALL ELECTRICAL CONDUIT AND RELATED EQUIPMENT, SEE DWG NO A13-E-4, A13-E-12, A13-E 9, A13-E 22 AND A13-E-16
FOR ELEC. BONDING OF REINF. STEEL SEE DWG.NO. ST-S-7.

DESIGNED	J.F.M. SMITH	11/76
DRAWN	J.F.M. SMITH	11/76
CHECKED	T. ANDRZEJEWSKI	7/76
APPROVED	Ted. Andrzejewski	10/25

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-1	KEY PLAN AND ELEV.
A13-S-56	PORTAL PLAN AND SECTIONS UNIT A5690
A13-A-3	PARTIAL PLATFORM PLAN AND DETAILS
A13-M-2	SERVICE ROOMS H.V.A.C. PLAN
A13-M-8	CWT AND OYSER DRAINAGE, KEY PLAN
A13-M-9	SERVICE ROOMS - PLUMBING PLAN AND DETAILS

REVISIONS		
DATE	BY	DESCRIPTION
5 20 79	THUY	1 REVISED PER FIELD COND. "AS-BUILT"

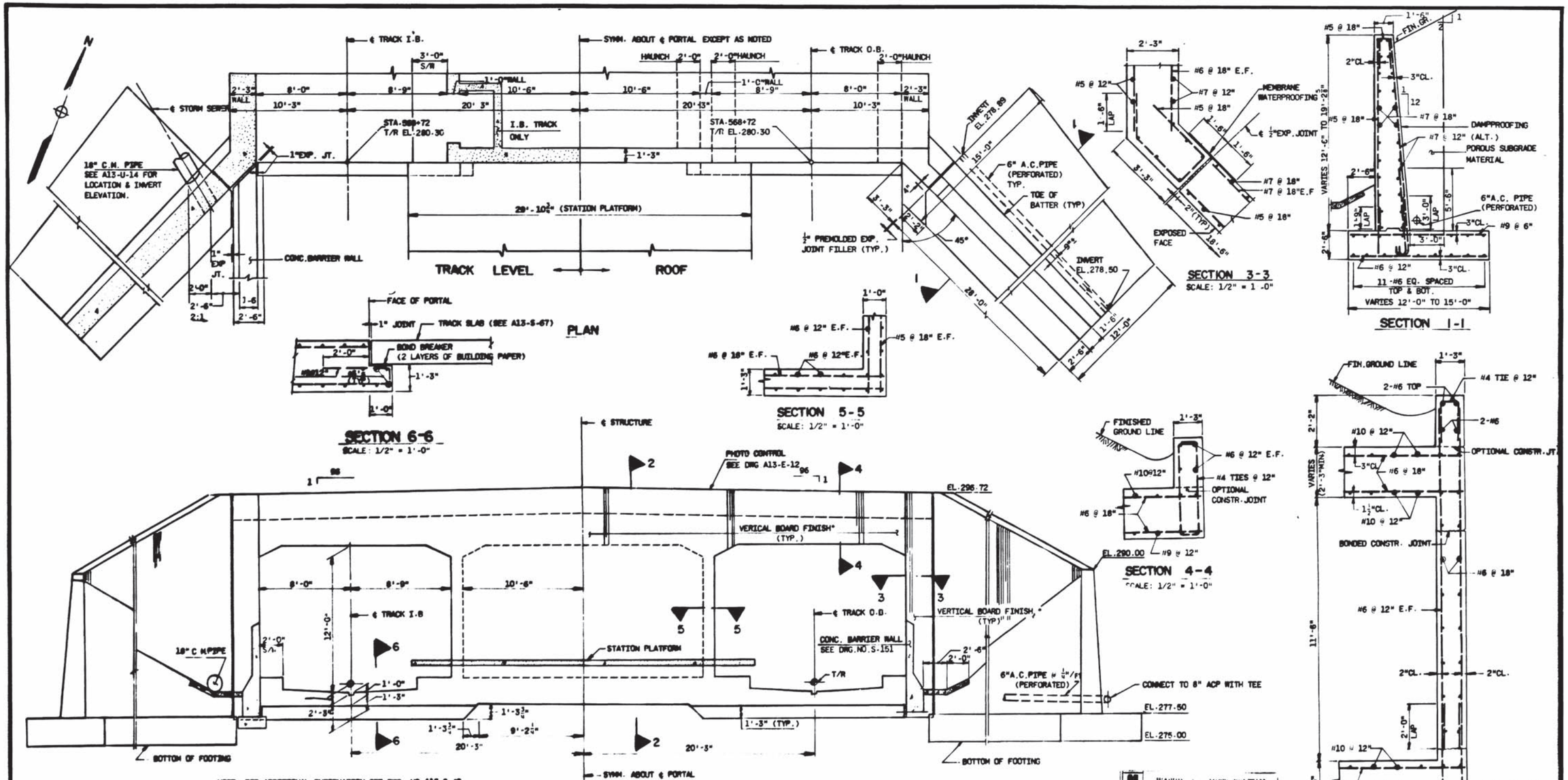
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
PLAN AND SECTIONS
UNIT A5690

SCALE 1/4"=1'-0" 0 1 2 3 4 5
DRAWING NO. A13-S-40
M220-237



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

MAY 03 1979

DATE

DESIGNED	J.F.H. SMITH	11/76
DRAWN	J.F.H. SMITH	11/76
CHECKED	J. [illegible]	7/79
APPROVED	[illegible]	10/76

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-1	KEY PLAN AND ELEV.
A13-S-60	PLAN AND SECTIONS NOS. 1 & 6060
A13-S-3	PARTIAL PLATFORM PLAN AND DETAILS
A13-S-162	TYPICAL EXCAVATION DIAGRAMS
A13-S-151	CONCRETE WALL DETAILS

REVISIONS		
DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

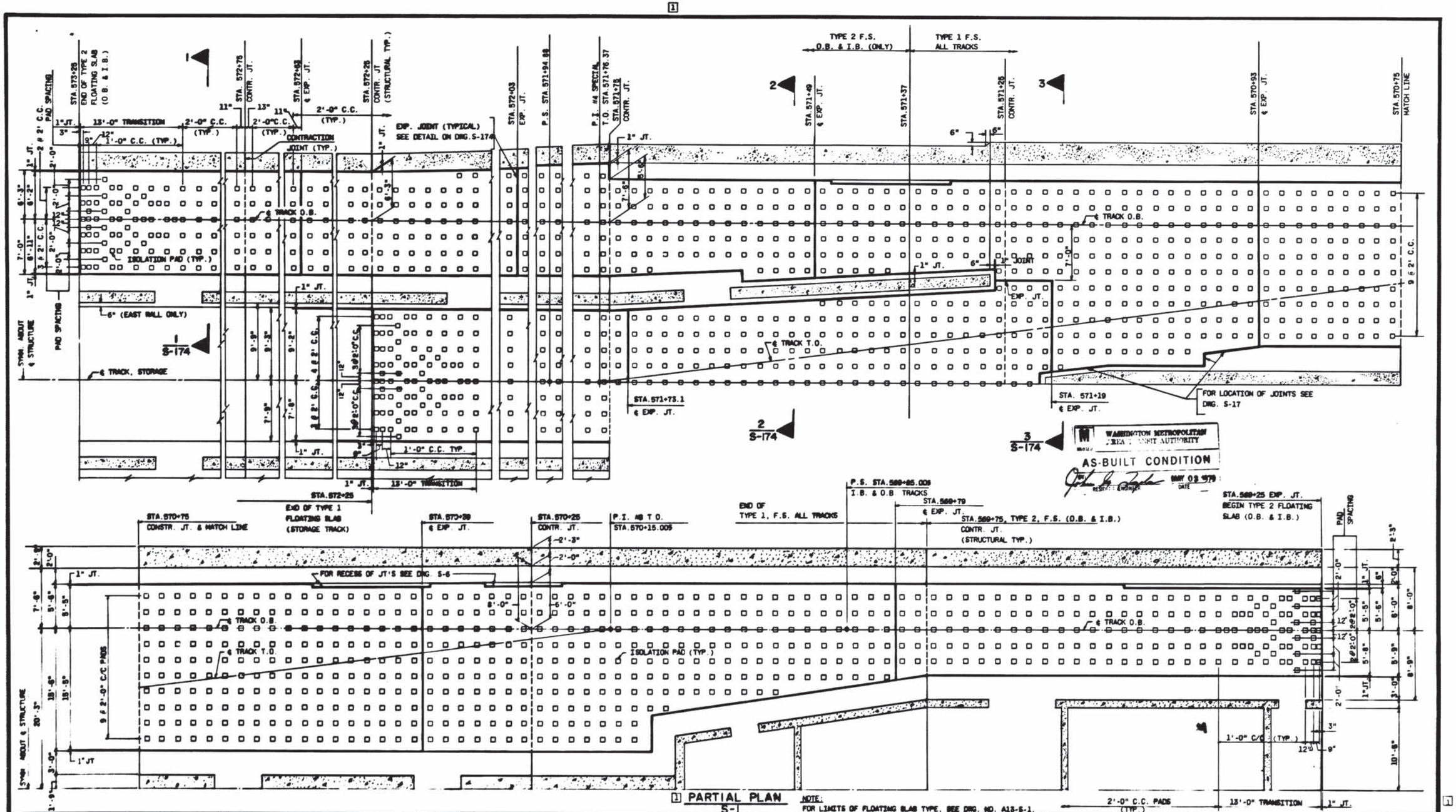
APPROVED

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
PORTAL PLAN AND SECTION
UNIT A5690

SCALE 1/4" = 1'-0" 0 1 2 3 4 5 AND AS NOTED

DRAWING NO. A13-S-44

M220-238



1 PARTIAL PLAN

NOTE: FOR LIMITS OF FLOATING SLAB TYPE, SEE DWG. NO. A13-S-1.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

MAY 03 1979

DESIGNED	J.F.M. SMITH	10/76
DRAWN	G. PADDELFORD	10/76
CHECKED	CHRIS LEE	10/76
APPROVED	T.O.	10/76

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-1	KEY PLAN AND ELEVATION
A13-S-173	FLOATING SLAB DETAILS
1-M-91	DRAINAGE DETAILS FOR FLOATING SLAB

REVISIONS

DATE	BY	DESCRIPTION
10/15/76	G.P.	1 THIS DRAWING REPLACES VOIDED DWG. NO A13-S-173 PER P.C.O. #7

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS

SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

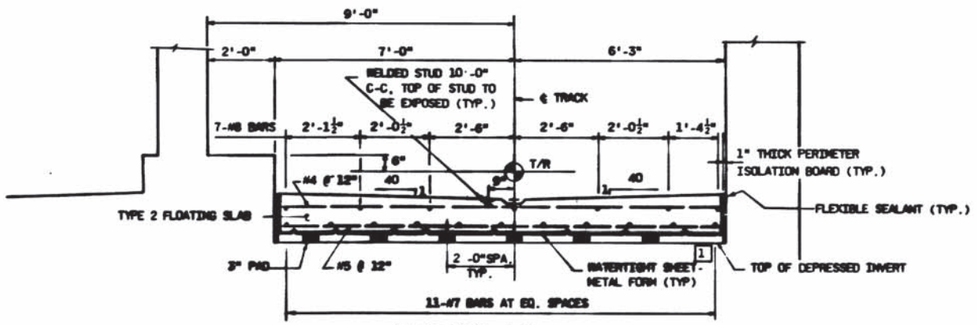
APPROVED

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
FLOATING SLAB DETAILS

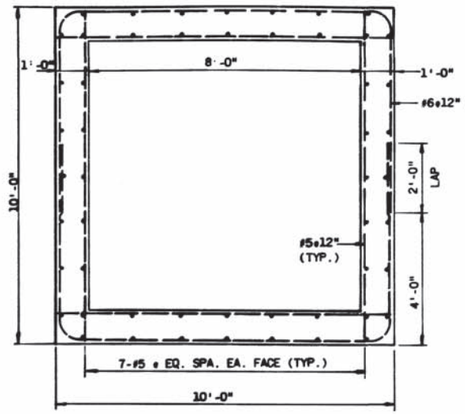
SCALE 3/16" = 1'-0"

DRAWING NO. A13-S-173

M220-239



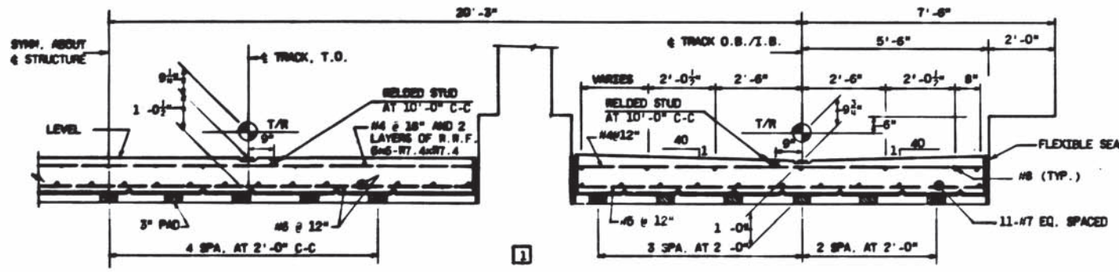
SECTION 1-1
S-173



SECTION 12-12
S-90

NOTES:

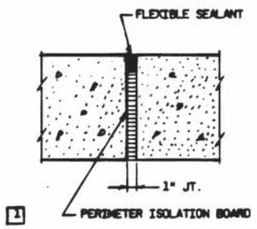
1. THE SWITCH ROD TROUGH DETAILS ARE SHOWN ON DRG. NO. A13-S-5.
2. FOR LOCATION AND EXTENT OF FLOATING SLABS AND EXPANSION JOINTS, SEE KEY PLAN DRG. NO. A13-S-1.
3. FOR ANCHORAGE CLEARANCE ENVELOPES SEE DRG. NO. A13-S-36.
4. FOR MATERIALS AND INSTALLATION OF FLOATING SLAB, VIBRATION ISOLATION PADS AND PERIMETER ISOLATION BOARD, SEE "GENERAL PROVISIONS AND STANDARD SPECIFICATIONS FOR CONSTRUCTION PROJECT."
5. FOR LAYOUT OF VIBRATION ISOLATION PADS UNDER FLOATING SLAB, SEE DRG. NO. A13-S-173.
6. VIBRATION ISOLATION PADS SHALL HAVE THE FOLLOWING SIZES:
   FIBERGLASS PADS - 6"x6" BY 3" THICK
   RUBBER PADS - 5"x5" BY 3" THICK



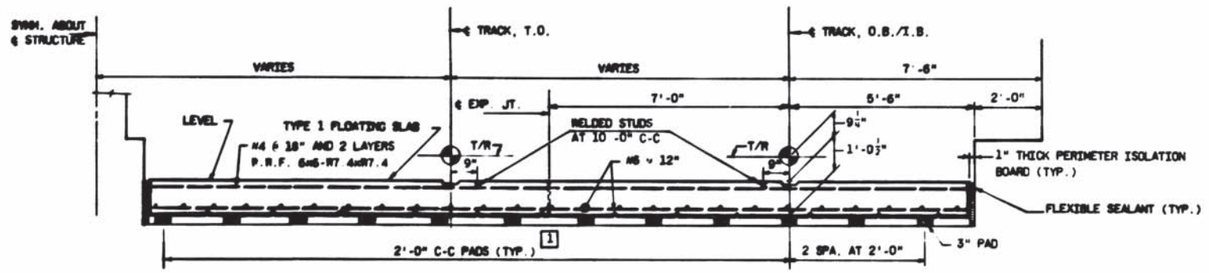
TYPE 1 FLOATING SLAB

SECTION 2-2
S-173

TYPE 2 FLOATING SLAB



FLOATING SLAB EXPANSION JOINT
NO SCALE



SECTION 3-3
S-173

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS BUILT CONDITION
MAY 03 1978

DESIGNED	J.F.H. SMITH	6/75 DATE
DRAWN	A.W. HOOVER	6/75 DATE
CHECKED	T. [illegible]	7/75 DATE
APPROVED	[signature]	10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-173	FLOATING SLAB DETAILS
ST-S-7	ELECTRICAL BONDING OF REINF. STEEL

REVISIONS

DATE	BY	DESCRIPTION
10/15/76	G.P.	1 FL. SLAB NOTES CHANGED, ADDED EXP. JT., PAD SPACING PER P.C.O.#7

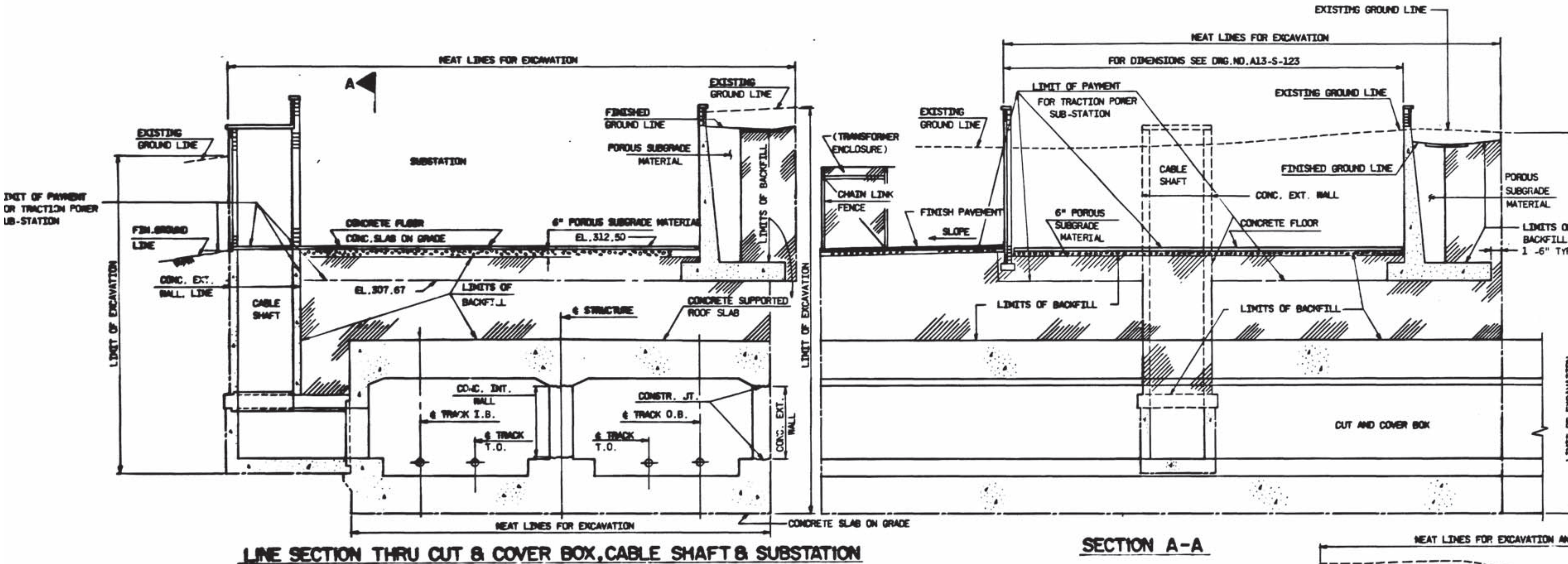
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

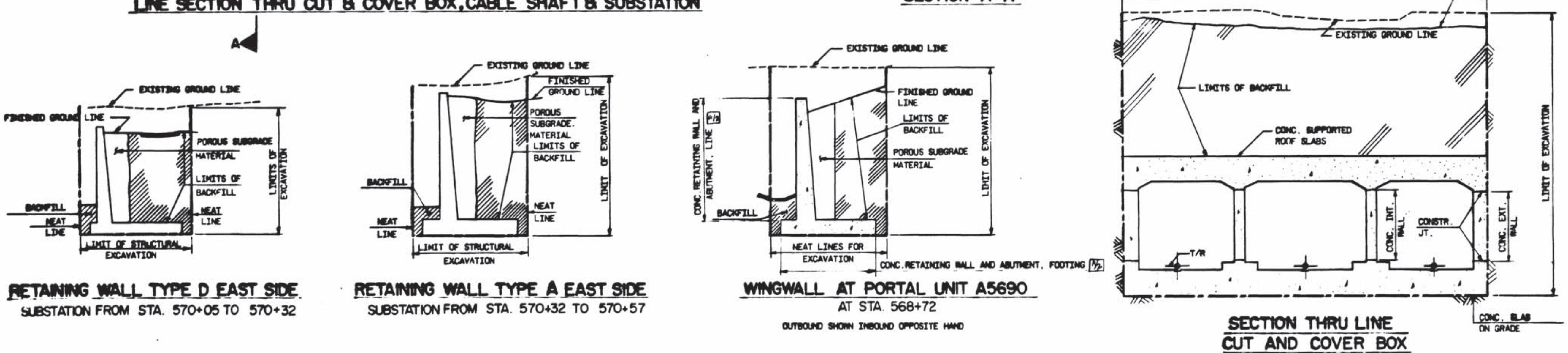
SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □
APPROVED [signature]

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
FLOATING SLAB DETAILS

SCALE ½" = 1'-0" | DRAWING NO. A13 - S - 174 | M220-240





CUT AND COVER LINE STRUCTURES

NOTES:

(1) LINE STRUCTURES ARE DEFINED BY THE LIMITS AND NEAT LINES.

(2) LINE CONCRETE IS DEFINED BY THE LIMITS AND NEAT LINES SHOWN ON THIS DRAWING. LINE CONCRETE CONSISTS OF CUT AND COVER BOX.
LINE CONCRETE SHALL BE DESIGNATED AS FOLLOWS:
(A) CONCRETE SLAB ON GRADE, LINE
(B) CONCRETE EXTERIOR WALLS, LINE
(C) CONCRETE INTERIOR WALLS, LINE
(D) CONCRETE SUPPORTED ROOF SLAB, LINE

(3) REINFORCING STEEL FOR LINE CONCRETE STRUCTURES SHALL INCLUDE ALL REINFORCING STEEL FOR THE DESIGNATED ITEMS AS ONE UNIT PRICE ITEM.

(4) SAFETY HATCH, LANDING PLATFORM AND METAL LADDER FOR CABLE SHAFT SHALL BE INCLUDED IN THE LUMP SUM QUANTITIES FOR THE GROSVENOR SUB-STATION.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — MAY 03 1979 — DATE

DESIGNED	C.P. LEE	6/75
DRAWN	A. PARRELLI	6/75
CHECKED	A.H. PATEL	7/75
APPROVED		

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-162	TYPICAL EXCAVATION DIAGRAMS
A13-S-123	FOUNDATION PLAN - GROSVENOR SUBSTATION

REVISIONS

DATE	BY	DESCRIPTION
2-12-76	C.L.	A1 ADDED CONCRETE PAY LIMIT

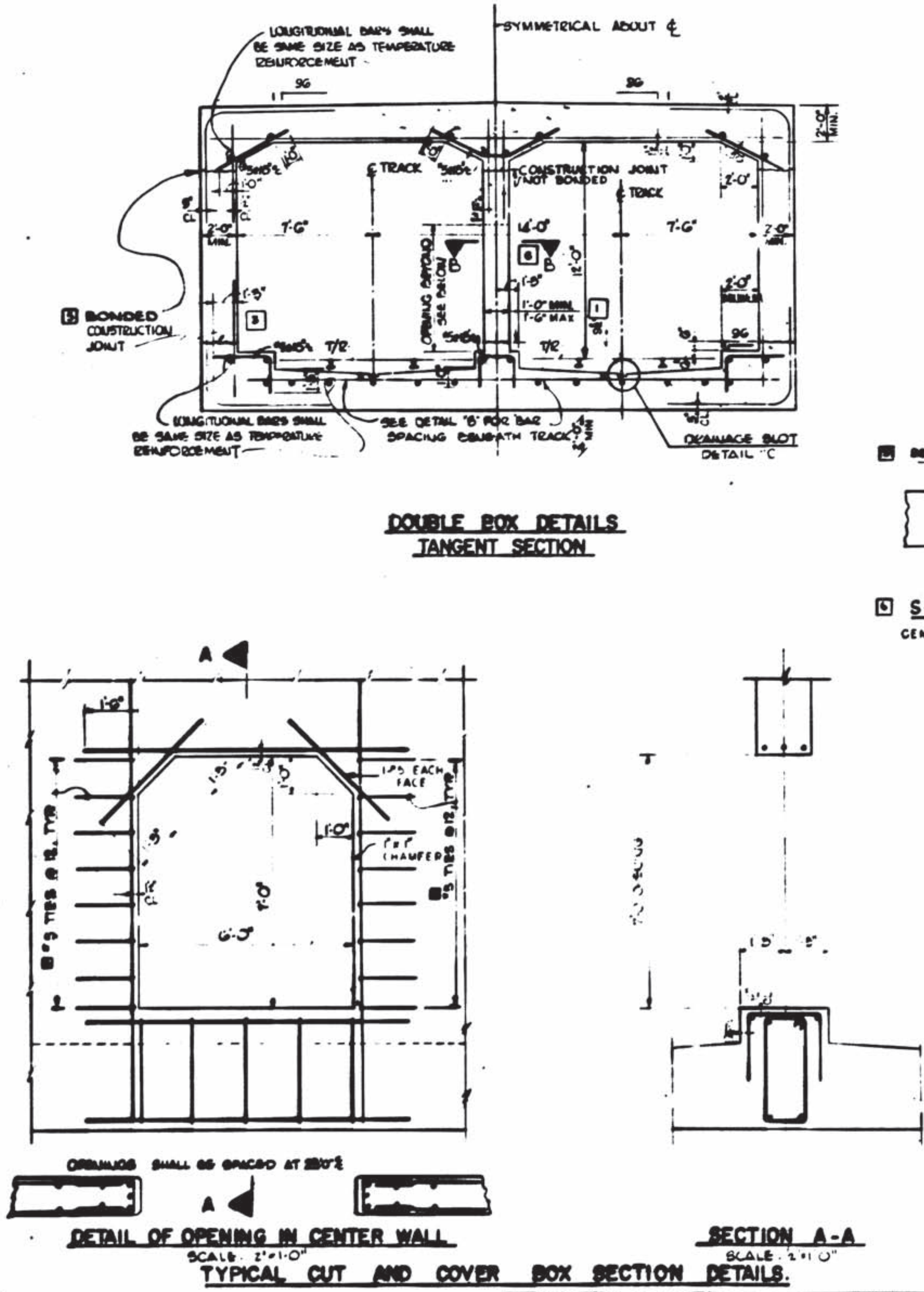
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

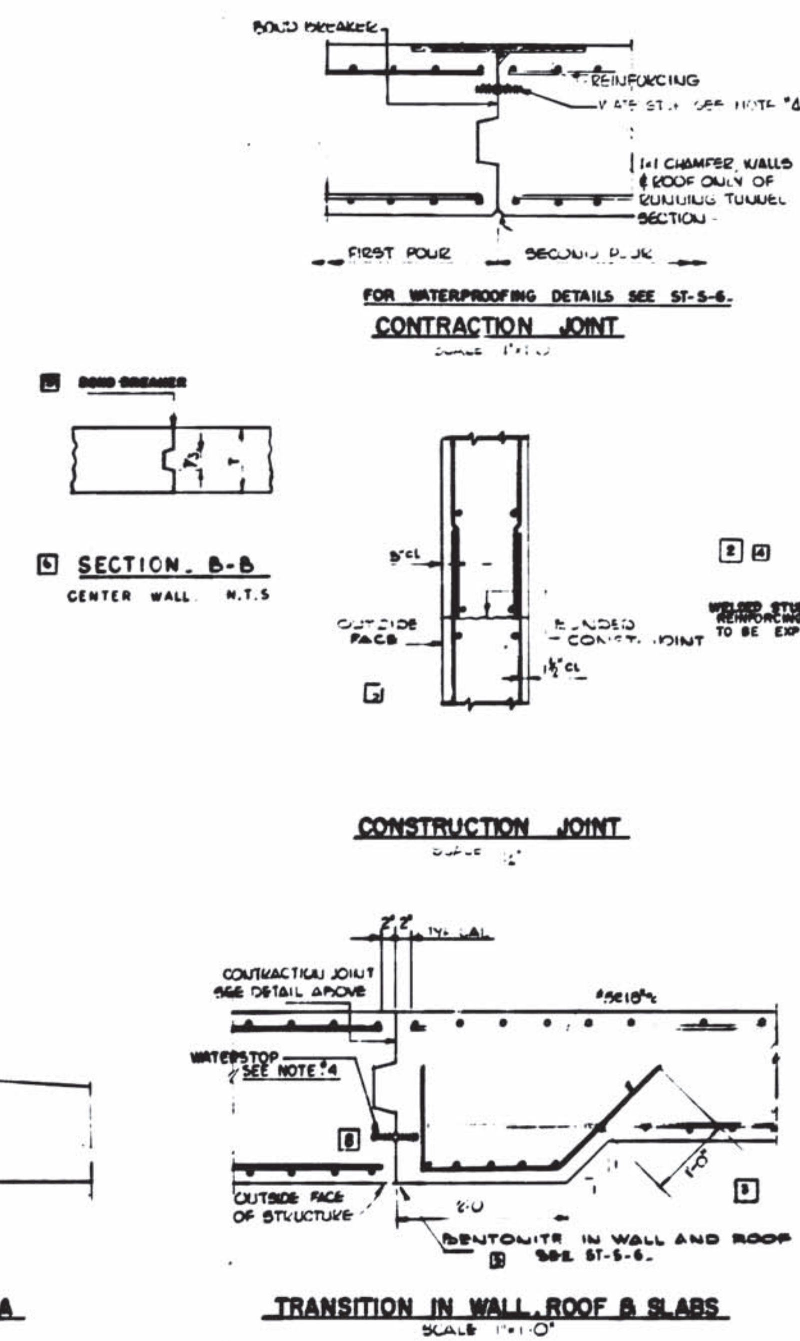
SECTION DESIGNER: BUCHART-HORN CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

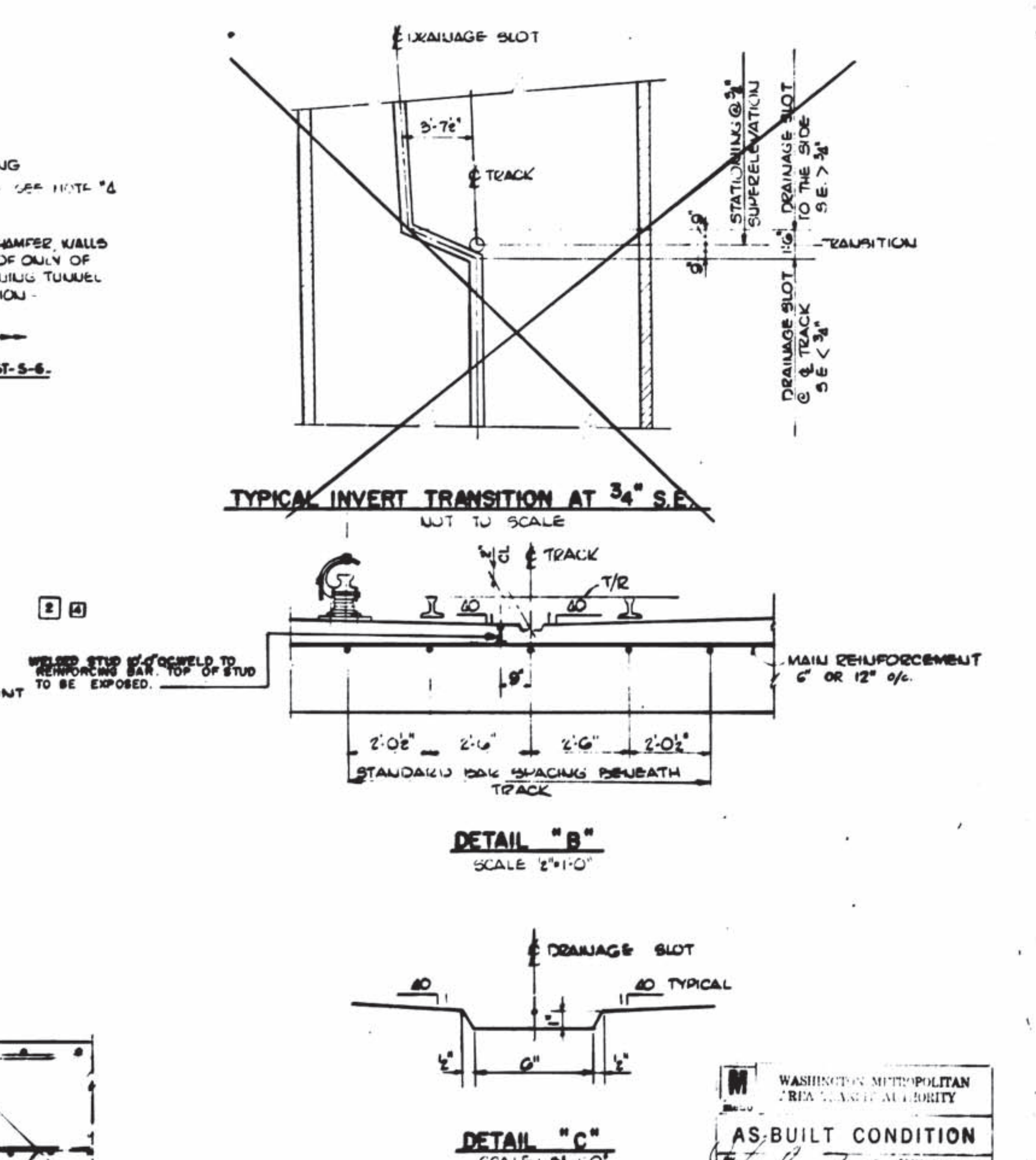
DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
CUT AND COVER STRUCTURE
LIMITS OF PAYMENT
TYPICAL EXCAVATION AND BACKFILL DIAGRAMS

SCALE: 1/8" = 1'-0"
DRAWING NO. A13-S-175
M220-241







TYPICAL JOINT DETAILS

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — DATE MAY 03 1979

NOTES:

1.

2. BENTONITE WATERPROOFING TREATMENT SHALL BE APPLIED AS SHOWN TO CONTRACTION JOINTS OF WALLS AND ROOF ONLY.
3. CONCRETE PROTECTION FOR REINFORCING STEEL IS AS SHOWN ON DETAILS.
4. WATERSTOP TO BE 6"X1/2" POLYVINYLCHLORIDE. WATERSTOP AND BONDBREAKER ARE TYPICAL FOR OUTSIDE WALLS, ROOF AND INVERT.
5. BENTONITE PANELS ON ROOF SHALL BE PROTECTED BY A 4'-0" WIDE PANEL OF 1/8" HARDBOARD BEFORE BACKFILLING.

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
ST-S-6	CUT & COVER WATERPROOFING DETAILS
ST-S-7	ELECTRICAL BONDING OF REINFORCING STEEL

DATE	BY	DESCRIPTION
9-30-71		8 RELOCATED WATERSTOP
3-31-71		7 GENERAL
8-1-69		6 SECTION "B-B" ADDED
5-29-68	J.A.S.	1 REVISED INV DIM & CONTR JOINT, ADDED CONC PROTECTION FOR REINF DIMENSIONS
7-11-68	J.A.S.	2 ADDED NELSON STUDS AT INVERT
8-29-68	W.H.S.	3 REVISED REINF DIMENSIONS
3-13-69		4 TIES, STUDS, & NOTE 1
6-27-69		5 GENERAL
		DELETED NOTE 1.
		REVISED NOTE-SEC. B-B
		NOTE 4

REVISIONS

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED ________ 1-10-69

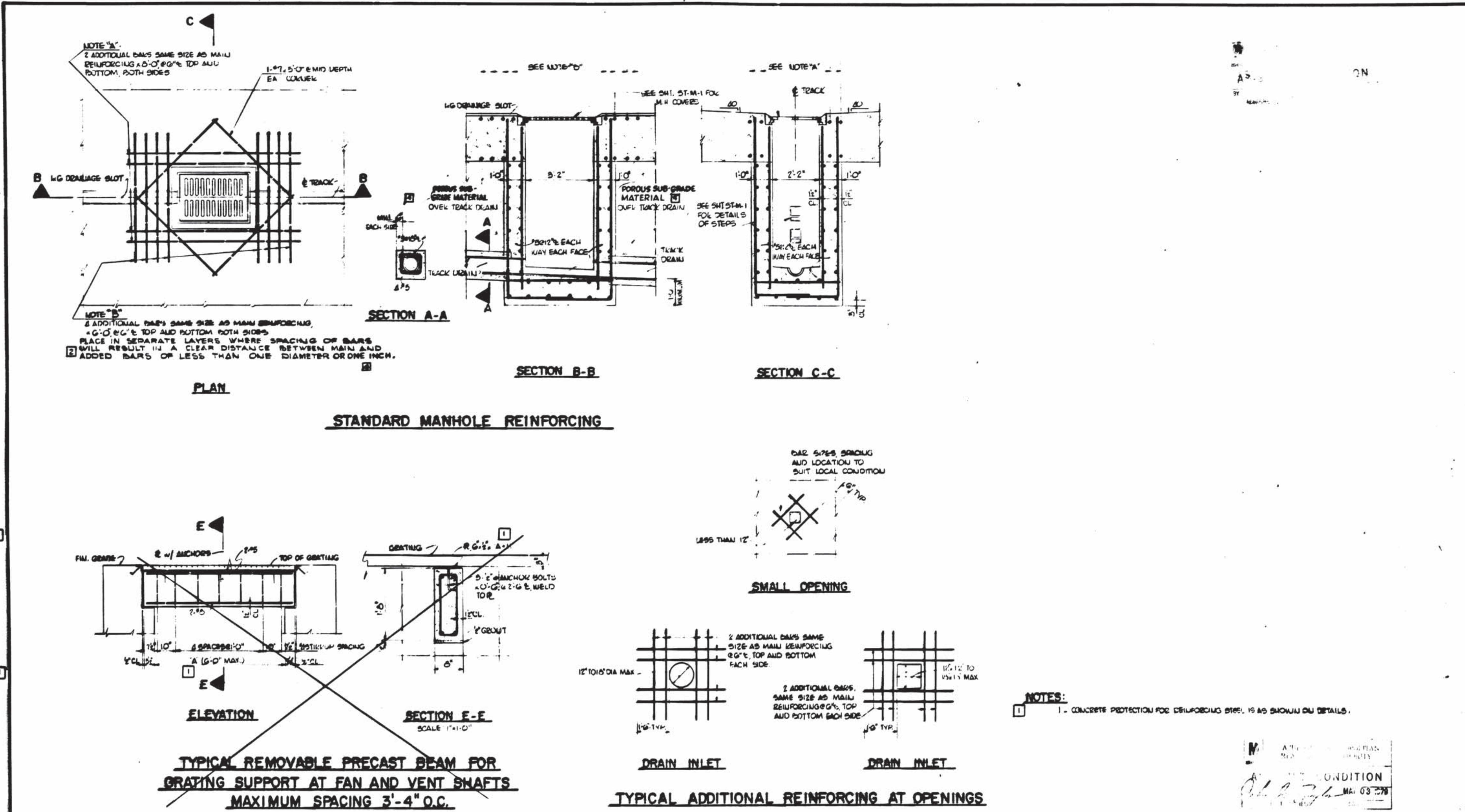
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

APPROVED ________

STRUCTURAL STANDARD DRAWING
CUT AND COVER SECTIONS
TYPICAL DETAILS AND REINFORCEMENT
SECTION NO. A13

SCALE 1/4"=1'-0" AND AS NOTED
DRAWING NO. ST-S-1
M220-242



DESIGNED	C.A. BELLAN	1-28-66
DRAWN	J.A. BRADY	1-28-66
CHECKED	[signature]	
APPROVED	[signature]	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
ST-M-1	DRAINAGE DETAILS AND CASTINGS
ST-M-9	FRAMES AND GRATINGS

REVISIONS

DATE	BY	DESCRIPTION
5-28-68	J.A.S.	1 REVISED PRECAST BEAM DIMENSION, ADDED CONC. PROTECTION FOR REINF DIMENSIONS
8-1-69	[signature]	2 NOTE "B" EXPANDED
9-28-70	[signature]	3 DETAIL FOR SWITCH ROD RECESSES DELETED
2/12/74	[signature]	4 REVISED NOTES - SECTION B-B

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED [signature]
Rev. T. Dodge 1-10-69

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

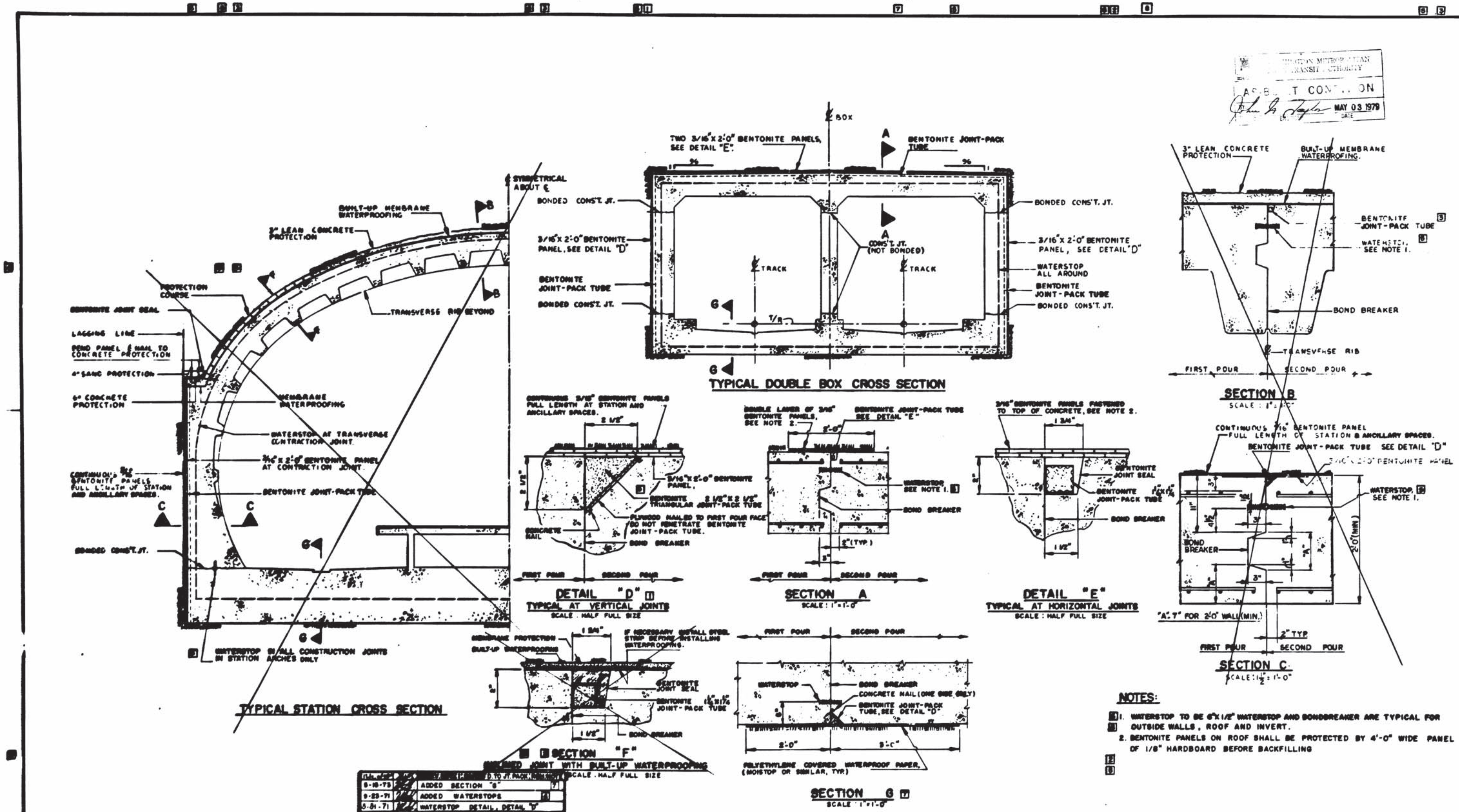
APPROVED [signature]

STRUCTURAL STANDARD DRAWING
DRAINAGE AND VENTILATION STRUCTURES
TYPICAL DETAILS AND REINFORCEMENT
SECTION NO. A13

SCALE 1/2" = 1'-0" AND AS NOTED

DRAWING NO. ST-S-4

M220-243



NOTES:

1. WATERSTOP TO BE 6"X 1/2" WATERSTOP AND BONDBREAKER ARE TYPICAL FOR OUTSIDE WALLS, ROOF AND INVERT.
2. BENTONITE PANELS ON ROOF SHALL BE PROTECTED BY 4'-0" WIDE PANEL OF 1/8" HARDBOARD BEFORE BACKFILLING

DATE	BY	DESCRIPTION
9-16-73		ADDED SECTION "G"
9-23-71		ADDED WATERSTOPS
5-31-71		WATERSTOP DETAIL, DETAIL "D" AND SECTIONS
1-6-69	J.A.S.	DETAIL "F" TYPICAL AT VERTICAL JOINTS
3-5-69		NOTE-3 ADDED AND ACOUSTIC SLABS REMOVED
6-1-69		DETAIL "F" ADDED-NOTE REVISED
10-69		GENERAL

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
ST-S-7	ELECTRICAL BONDING OF REINFORCING STEEL

DESIGNED C. A. SELLAM 1-6-69
DRAWN J.A. SEWEY, JR.
CHECKED
APPROVED

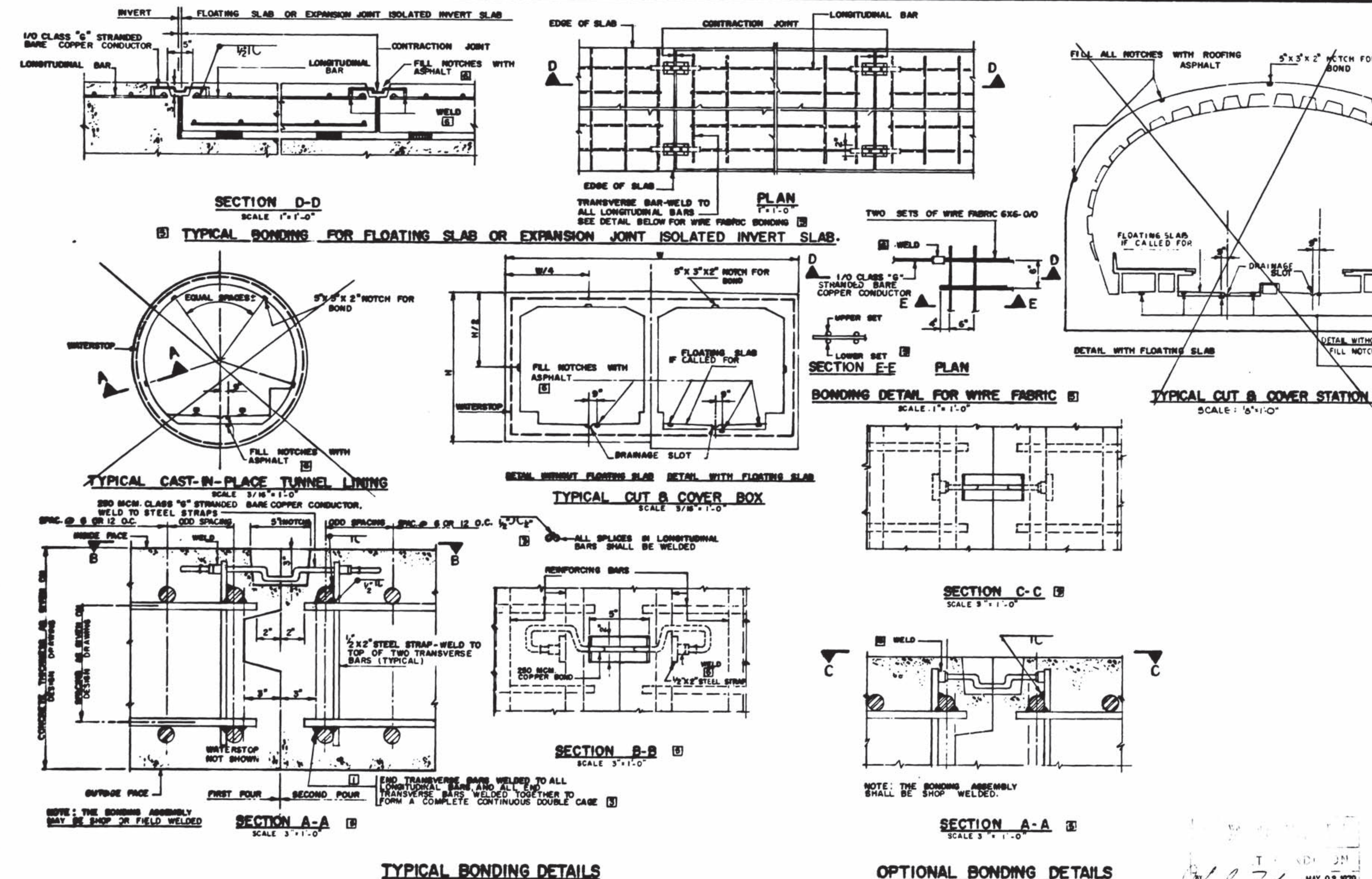
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

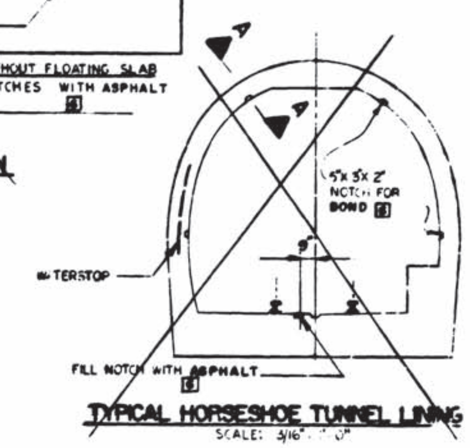
APPROVED ________ 1-10-69

DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT
APPROVED

STRUCTURAL STANDARD DRAWING
CUT AND COVER
WATERPROOFING DETAILS
SECTION NO. A13

SCALE 1/4"=1'-0" AND AS NOTED
DRAWING NO. ST-S-6
M220-244





NOTES

1. BONDS SHALL BE LOCATED AT THE CONTRACTION JOINT AT EACH END OF A STRUCTURAL UNIT.
2. BOND LOCATIONS SHOWN ARE APPROXIMATE. ADJUST AS REQUIRED TO AVOID ELECTRICAL CONDUITS, ETC.
3. [3] TYPICAL BONDING DETAILS SHALL APPLY TO ROCK TUNNELS WITH CONCRETE LININGS
4. [6] AT AN UNDERGROUND TUNNEL LOCATION ADJACENT TO EACH TRACTION SUBSTATION INSTALL 2-250 MCM COPPER BONDS, ONE ENDOF EACH WELDED TO REINFORCING STEEL. ROUTE OTHER ENDS OF BONDS INTO A 12"x16"x4" JUNCTION BOX, FROM JUNCTION BOX ROUTE ONE 2" PVC CONDUIT TO THE TRACTION SUBSTATION FOR FUTURE STRAY CURRENT CORROSION CONTROL CABLING. JUNCTION BOX TO BE CONVENIENTLY LOCATED FOR SIMPLEST CONDUIT ROUTING.
5. [3] ALL UNDERGROUND STRUCTURES SHALL HAVE THE PERIMETER ELEMENTS BONDED BY METHODS SIMILAR TO THOSE INDICATED ON THIS DRAWING TO FORM A COMPLETE CONTINUOUS DOUBLE CAGE, AND ADJACENT UNITS SHALL BE BONDED TOGETHER. WHERE IT IS NECESSARY TO PLACE THE COPPER CONDUCTOR IN EARTH IT SHALL [6] BE INSULATED.

DESIGNED	S.A. BELLAN	2-3-68
DRAWN	RINALDI	7-11-68
CHECKED	[signature]	7-15-68
APPROVED	[signature]	7-15-68

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
ST-S-6	CUT AND COVER WATERPROOFING DETAILS [5]

REVISIONS

DATE	BY	DESCRIPTION
10-9-68	JAS	[1] REVISED BONDING NOTE
3-21-69	[initials]	[2] GENERAL REVISION
10-22-69	[initials]	[3] NOTE 5 AND BAR WELDING ADDED
7-22-70	[initials]	[4] OPTIONAL BONDING DETAILS
1-20-71	[initials]	[5] ADD REF TO ST-S-6 REVISED NOTE 3 REV. TYP. BOND DET. ADD. TYP. BOND FOR FLOAT SLAB.
12/2/74	[initials]	[6] SUBSTITUTE "WELD" FOR CADWELD & ASPHALT FOR BITUMASTIC MATERIAL, REV. NOTES 4 & 5

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED [signature] 1-10-69

DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT

APPROVED [signature]

STRUCTURAL STANDARD DRAWING
ELECTRICAL BONDING OF REINFORCING STEEL SECTIONS & DETAILS
SECTION NO. A13

SCALE: AS NOTED | DRAWING NO. ST-S-7 | M220-245

LOADS

STRUCTURES		DEAD LOADS (DL)	LIVE LOADS (LL) AND OTHER LOADS — VERTICAL	LIVE LOADS (LL) AND OTHER LOADS — HORIZONTAL	DESIGN LOADING COMBINATIONS & ALLOWABLE UNIT STRESSES
DECK STRUCTURE	DECK ELEMENTS (E G DECKING AND HORIZONTAL SUPPORTING FRAMEWORK)	OWN WEIGHT	ROADWAY LOADS 1 BASIC LOADING (LL) AS 20-44 APPLICABLE REFERENCES * ART 1 2 5 1 2 7 1 2 8, 1 3 1 TO 1 3 7 2 IMPACT (I) ART 1 2 12 3 SIDEWALK AND SIXTH TRAFFIC LANES AS SHOWN ON DRAWINGS OR SPECIFIED 4 ART 1 2 8 (REDUCTION IN LOAD INTENSITY) DOES NOT APPLY OPERATING LOADS FROM CONSTRUCTION EQUIPMENT (LL) WITH NOT LESS THAN 50% IMPACT SIDEWALK AND PEDESTRIAN ISLAND LOADS (LL) 250 PSF OR VEHICULAR LOADS WHICHEVER ARE GREATER	LONGITUDINAL FORCES (LF) ART 1.2.13. EXCEPT REFERENCE TO ART 1.2.8 WIND LOADS (W) 20 PSF ON EXPOSED AREA OF VEHICLES AND EQUIPMENT, BUT NOT LESS THAN 100 LBS PER LINEAR FOOT OF DECK STRUCTURE APPLIED NORMAL TO THE DIRECTION IN WHICH LENGTH IS MEASURED LATERAL EARTH (E) AND HYDROSTATIC (H) PRESSURE SAME AS FOR EXCAVATION RETAINING STRUCTURES	LOADING SHALL CONSIST OF THE FOLLOWING DL + LL + I + E + H AT 100% OF UNIT STRESS OR DL + LL + I + E + H + LF + W AT 125% OF UNIT STRESS WHICHEVER IS GREATER NOTE THE VALUE OF LL IS THE MAXIMUM TOTAL LIVE LOAD OBTAINED BY COMBINING THE VARIOUS LIVE LOADS THAT MIGHT EXIST AT ONE TIME
		UTILITY FACILITIES TO BE SUPPORTED ARE SHOWN ON THE UTILITY PLANS			
	RAILINGS	OWN WEIGHT	(LL) ART 1.2.11(C)		
	CURBS AND SIDEWALKS		150 PSF	(LL) ART 1 2 11 (B)	
EXCAVATION - RETAINING STRUCTURE	WALL SYSTEM (ELEMENTS IN CONTACT WITH EARTH EXCEPT LAGGING)	OWN WEIGHT AND REACTIONS FROM DEAD LOADS OF DECK STRUCTURE AND BRACING SYSTEM	REACTIONS FROM ALL LIVE LOADS EXCLUDING IMPACT ON DECK STRUCTURE (LL)	LATERAL EARTH PRESSURE DUE TO WEIGHT OF SOIL AND SURCHARGE (E) HYDROSTATIC PRESSURE (H) AXIAL LOADS FROM END BULKHEAD WHERE APPLICABLE (E) AND (H)	D L + LL + E + H AT 120% OF UNIT STRESS
	BRACING SYSTEM — MAIN MEMBERS (MEMBERS CARRYING DIRECT LOADS INCLUDING STRUTS AND WALES)			SIMPLE BEAM REACTIONS FROM WALL SYSTEMS (E AND H) AXIAL LOADS FROM END WALLS WHERE APPLICABLE (E) AND (H)	DL + LL + E + H AT 100% OF UNIT STRESS
	BRACING SYSTEM — SECONDARY BRACING		AXIAL LOAD EQUAL TO 2% OF THE DESIGN AXIAL LOAD IN THE BRACED MAIN MEMBER		120% OF UNIT STRESS

* REFERENCES ARE TO ARTICLES IN "THE STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ELEVENTH EDITION OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS 1973 [1] [3]

CRITERIA

1 TEMPORARY EARTH RETAINING AND DECK STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH THE REQUIREMENTS SHOWN ON THIS DRAWING ON THE DRAWING TITLED "LATERAL PRESSURES FOR THE DESIGN OF TEMPORARY EARTH RETAINING STRUCTURES" AND APPLICABLE SPECIFICATIONS [1]

2 UNLESS MODIFIED BY THE CONTRACT DRAWINGS AND SPECIFICATIONS THE STRUCTURAL DESIGN SHALL BE GOVERNED BY THE CURRENT EDITIONS OF THE FOLLOWING MANUALS CODES OR SPECIFICATIONS [3] [2] [1]

ROADWAY DECK: [3] "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS" EXCEPT DEFLECTION DUE TO LIVE LOAD PLUS IMPACT SHALL NOT EXCEED L/800 OF THE SPAN.

[1] TEMPORARY RETAINING STRUCTURES AND OTHER TEMPORARY STRUCTURES

STEEL: "SPECIFICATIONS FOR THE DESIGN FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION

WELDING: [3] "STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOCIETY" D1.1. [3]

REINFORCED CONCRETE: "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" OF THE AMERICAN CONCRETE INSTITUTE

LUMBER: "NATIONAL DESIGN SPECIFICATION FOR STRESS-GRADE LUMBER AND ITS FASTENINGS" OF THE NATIONAL FOREST PRODUCTS ASSOCIATION

3 THE CONTRACTOR SHALL SUBMIT FOR REVIEW BY THE ENGINEER COMPLETE COMPUTATIONS AND WORKING DRAWINGS FOR TEMPORARY STRUCTURES THE DESIGN SHALL BE IN ACCORDANCE WITH THE GIVEN LOADS ON THIS SHEET AND GOOD ENGINEERING PRACTICE AND WILL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR

4 EARTH RETAINING STRUCTURES SHALL BE ANALYZED FOR THE VARIOUS CONDITIONS THAT MAY OCCUR DURING THE LIFE OF THE STRUCTURE SUCH AS THE SEVERAL STAGES OF EXCAVATION CONST., INSTALLATION, REMOVAL AND RELOCATION OF STRUTS THE WORKING DRAWINGS SHALL SHOW CONSTRUCTION SEQUENCE AND DETAILS OF POSTING, DIAGONAL LACING, WEB STIFFENERS ETC

5 WHERE THE LOADING CONDITIONS ON OPPOSITE SIDES OF AN EXCAVATION ARE NOT EQUAL THE STABILITY OF THE TEMPORARY RETAINING STRUCTURE SHALL BE ANALYZED TO TAKE THIS CONDITION INTO ACCOUNT

6 SOLDIER BEAMS MAY BE CONSIDERED FULLY BRACED IN THE PLANE OF THE WALL

7 THE LOADS IN WALES AND STRUTS FOR FLEXIBLE OR RIGID WALL SYSTEMS SHALL BE COMPUTED BY ASSUMING THE WALL TO BE HINGED AT A SUPPORT POINT BELOW THE BOTTOM OF THE EXCAVATION AND AT EACH STRUT EXCEPT THE TOP ONE

8 STRUTS SHALL BE PRESTRESSED TO 50% OF THEIR MAXIMUM DESIGN LOAD

9. ALL COMPRESSION MEMBER CONNECTIONS IN ADDITION TO BEING DESIGNED FOR THEIR COMPRESSIVE LOADS SHALL BE DESIGNED FOR TENSION AND SHEAR EQUAL TO A MINIMUM OF 10% OF THE COMPRESSIVE LOAD UNLESS ACTUAL TENSION AND SHEAR LOADS ARE GREATER

10 WHERE THE BOTTOM OF THE TRACK-DRAIN TRENCH IS BELOW A 1-VERTICAL TO 2-HORIZONTAL INFLUENCE LINE FROM THE BOTTOM OF THE INVERT AT THE SIDE OF EXCAVATION ADEQUATE BRACING TO RESIST LATERAL PRESSURES SHALL BE INSTALLED IN THE TRACK-DRAIN TRENCH

11 THE CONTRACTOR MAY SUBMIT ALTERNATIVE TEMPORARY EARTH-SUPPORT STRUCTURES FOR REVIEW BY THE ENGINEER

MAY 03 '79

DESIGNED A RICHARDS 9-28-78
DRAWN
CHECKED
APPROVED

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION
3-30-79		[1] CHANGE NOTES 1 AND 2, DATE OF AASHO REFERENCE AND TITLE REVISED
7-11-79		[3] CHANGE ROADWAY DECK IN CRITERIA 2
		REFERENCE

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

APPROVED BY

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

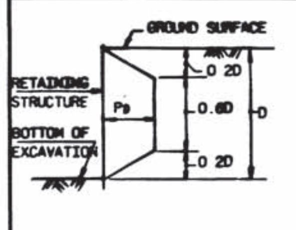
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

APPROVED

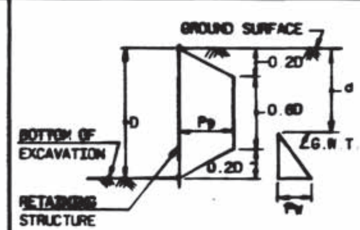
STRUCTURAL STANDARD DRAWING
CRITERIA FOR THE DESIGN OF TEMPORARY STRUCTURES [1]
SECTION NO. A13

SCALE: NONE
DRAWING NO.: ST-S-9
M220-246

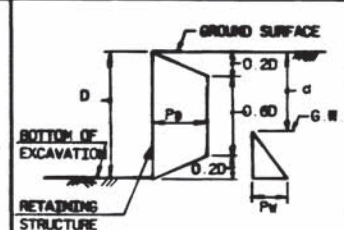
LATERAL PRESSURE DUE TO WEIGHT OF SOIL AND WATER



SHAPE OF PRESSURE DIAGRAM (FROM STA.568+72 TO STA.576+00)



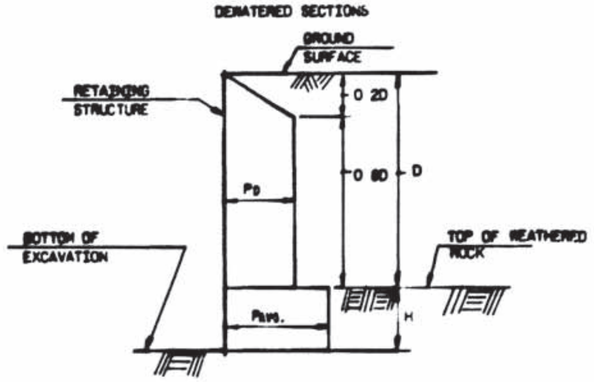
SHAPE OF PRESSURE DIAGRAM



SHAPE OF PRESSURE DIAGRAM

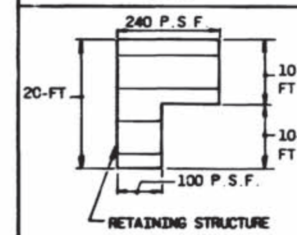
LOCATION	TOTAL DEPTH OF EXCAVATION	DEPTH TO BOTTOM OF EXCAVATION OR TOP OF WEATHERED ROCK	HEIGHT OF WEATHERED ROCK	DEPTH FROM GROUND SURFACE TO GROUND WATER TABLE (G.W.T.)	DEWATERED SECTIONS			SECTIONS NOT DEWATERED: FLEXIBLE				SECTIONS NOT DEWATERED: RIGID			
STATION TO STATION	D+H (FT.)	D (FT.)	H (FT.)	d (FT.)	MAIN BRACING MEMBERS Pp (PSF)	SOLDIER BEAMS Pp (PSF)	ROCK PRESSURE Pavg (PSF)	MAIN BRACING MEMBERS Pp (PSF)	SHEETING Pp (PSF)	HYDROSTATIC PRESSURE Pw (PSF)	ROCK PRESSURE Pavg (PSF)	MAIN BRACING MEMBERS Pp (PSF)	WALL Pp (PSF)	HYDROSTATIC PRESSURE Pw (PSF)	ROCK PRESSURE Pavg (PSF)
568+72 TO 569+75	40	40	—	> 40	1275	(A) 1020 (B) 765	—	1165	(A) 935 (B) 700	—	—	1465	1465	—	—
569+75 TO 571+25	55	55	—	> 55	1750	(A) 1400 (B) 1050	—	1605	(A) 1285 (B) 965	—	—	2045	2045	—	—
571+25 TO 574+25	60	60	—	56	1930	(A) 1545 (B) 1160	—	1765	(A) 1415 (B) 1060	250	—	2250	2250	250	—
574+25 TO 576+00	50	50	—	42	1600	(A) 1280 (B) 960	—	1450	(A) 1160 (B) 870	500	—	1850	1850	500	—
576+00 TO 577+25	43	35	8	32	985	(A) 785 (B) 590	1600	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
577+25 TO 578+75	42	22	20	31	625	(A) 500 (B) 375	1785	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE
578+75 TO 580+75	38	28	10	26	780	(A) 625 (B) 470	1560	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE	NOT APPLICABLE

SHAPE OF PRESSURE DIAGRAM (FROM STA 576+00 TO STA 580+75) DEWATERED SECTIONS



ADDITIONAL LATERAL PRESSURE DUE TO SURCHARGE LOADS

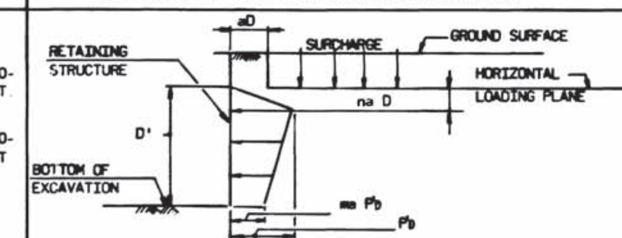
TRAFFIC AND CONSTRUCTION EQUIP LOADS



THIS LATERAL PRESSURE IS BASED ON AN ASSUMED TRAFFIC AND CONSTRUCTION EQUIPMENT SURCHARGE OF 600 P.S.F
FOR MORE SEVERE CONSTRUCTION LOADING SPECIAL ANALYSIS MUST BE MADE

BUILDING FOR CONSTRUCTION LOADS

DISTRIBUTION OF HORIZ PRESSURE ON VERTICAL PLANE

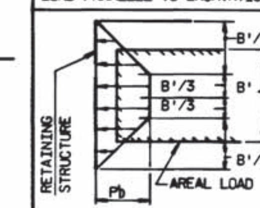


PARAMETERS	n	m	P'b
ISOLATED (INDIVIDUAL) FOOTING CONSIDERED AS POINT LOAD.	0.6	0.4	$(2.1 - 1.8a)\,Q'/D'^2$
CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PARALLEL TO RETAINING STRUCTURE	0.4	0.25	$(1.1 - 0.5a)\,Q'/D'$
AREAL LOAD	0.4	0.25	$(0.8 - 0.5a)\,Q'/D'$
CONTINUOUS FOOTING CONSIDERED AS LINE LOAD PERPENDICULAR TO RETAINING WALL	0.6	0.4	$(1.4 - 1.2a)\,Q'/D'^2$

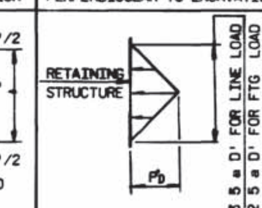
HORIZONTAL PRESSURESON RETAINING STRUCTURES NEED NOT BE CONSIDERED FOR SURCHARGE LYING AT A DISTANCE a = 1 FROM THE RETAINING STRUCTURE.

DISTRIBUTION OF HORIZ PRESSURE IN PLAN

AREAL LOAD OR FINITE LINE LOAD PARALLEL TO EXCAVATION



FOOTING LOAD OR LINE LOAD PERPENDICULAR TO EXCAVATION



DEFINITION OF SYMBOLS:

- a D' = DISTANCE FROM RETAINING STRUCTURE TO: (1) FOOTING LOAD (2) PARALLEL LINE LOAD, (3) LEADING EDGE OF AREAL LOAD, (4) PERPENDICULAR LINE LOAD (FT.)
- B' = LENGTH OF AREAL LOAD IN DIRECTION PARALLEL TO THE SIDE OF EXCAVATION (FT.)
- d = DEPTH FROM GROUND SURFACE TO G.W.T (FT.).
- D' = DEPTH FROM HORIZONTAL LOADING PLANE TO BOTTOM OF EXCAVATION (FT.)
- G.W.T = GROUND WATER TABLE
- Pp = CALCULATED LATERAL EARTH PRESSURE TO BE USED IN DESIGN OF TEMPORARY RETAINING STRUCTURES (PSF). USE THE BUOYANT WEIGHTS FOR SOIL BELOW THE G.W.T. FOR COMPUTING Pp.
- P'b = CALCULATED MAXIMUM LATERAL PRESSURE DUE TO SURCHARGE (PSF)
- Q' = A SURCHARGE (1) PARALLEL TO RETAINING STRUCTURE AND AREAL LOAD (PLF) (2) FROM ISOLATED FOOTING (LBS) (3) PERPENDICULAR TO A RETAINING STRUCTURE (1-a) D'W (LBS).
- W' = LINEAR LINE LOAD (PLF) EXTENDING TO DISTANCE = D' PERPENDICULAR TO RETAINING STRUCTURE
- a,n,m, = DIMENSIONLESS FACTORS
- Pw = HYDROSTATIC PRESSURE (PSF)
- D = DEPTH FROM GROUND SURFACE TO BOTTOM OF EXCAVATION OR TOP OF WEATHERED ROCK, WHERE APPLICABLE (FT.)
- H = DEPTH FROM TOP OF WEATHERED ROCK TO BOTTOM OF EXCAVATION (FT.)
- P AVG = CALCULATED AVERAGE LATERAL ROCK PRESSURE TO BE USED IN DESIGN OF TEMPORARY RETAINING STRUCTURES (PSF).

NOTES:

1. CALCULATIONS ARE BASED ON THE ASSUMPTION THAT THE EXCAVATION IS DEWATERED, WHEN CONSTRUCTED WITH SOLDIER BEAMS AND LAGGING, OR WHEN OTHER POSITIVE METHODS OF DRAINING THE SOIL ARE USED
2. LOADS FROM STRUCTURES NOT UNDERPINNED ARE TO BE DETERMINED BY THE CONTRACTOR AND REVIEWED BY THE ENGINEER
3. FOR EVALUATION OF THE LATERAL PRESSURE UNDER A GIVEN SET OF CONDITIONS, LATERAL PRESSURE FROM SURCHARGE LOADS SHALL BE SUPERPOSED ON LATERAL PRESSURE FROM SOIL WEIGHT (TRAPEZOIDAL DIAGRAM) AND WATER (TRIANGULAR DIAGRAM)
4. IF ANY LOADINGS OCCUR WHICH ARE NOT DESCRIBED HEREON, ADEQUATE MEASURES MUST BE TAKEN FOR THESE CONDITIONS, SUBJECT TO REVIEW BY THE ENGINEER
5. PRESSURE TABULATED PRECEEDED BY (A) TO BE USED FOR EXCAVATION SUPPORT DESIGN. PRESSURE TABULATED PRECEEDED BY (B) TO BE USED FOR STRUT REMOVAL DESIGN FOLLOWING CONSTRUCTION OF INVERT SLAB
6. HYDROSTATIC PRESSURES SHALL BE INCREASED AS REQUIRED IF G.W.T. IS FOUND TO BE AT A HIGHER ELEVATION THAN INDICATED IN THE ABOVE TABLE
7. USE MIN. 3 INCHES OF LAGGING THICKNESS UP TO 25 FEET EXCAVATION FROM GROUND SURFACE AND USE MIN. 4 INCHES OF LAGGING THICKNESS FOR OVER 25 FEET EXCAVATION FROM GROUND SURFACE. IF SOLDIER PILE SPACING IS GREATER THAN 7 FEET OR THE PRESENCE OF UNUSALLY HEAVY CONSTRUCTION SURCHARGE OR PARTICULARILY SOFT COHESIVE SOILS ARE ANTICIPATED, GREATER LAGGING THICKNESS MAY BE REQUIRED
8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR APPROVAL OF EXCAVATION SUPPORT METHOD TO RESIST LATERAL PRESSURES. THE CONTRACTOR IS ADVISED THAT DESIGN PRESSURES INDICATED HEREIN ARE MINIMUM
9. MATERIALS SHOWN BY THE BORING LOGS TO HAVE STANDARD PENETRATION RESISTANCE OF 60 OR MORE BLOWS PER FOOT, ARE GENERALLY CEMENTED AND CONTAIN ROCK-LIKE REMNANTS. THE CONTRACTOR IS ADVISED THAT EXCAVATION SUPPORT USING FLEXIBLE SHEET PILE CONSTRUCTION METHODS (SECTIONS NOT DEWATERED) MAY NOT BE POSSIBLE

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
BY [signature] RESIDENT ENGINEER MAY 03 1979 DATE

DESIGNED	J.F.M. SMITH	6/75 DATE
DRAWN	J.F.M. SMITH	6/75 DATE
CHECKED	C.P. LEE	6/75 DATE
APPROVED	[signature]	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION

REVISIONS

DATE	BY	DESCRIPTION

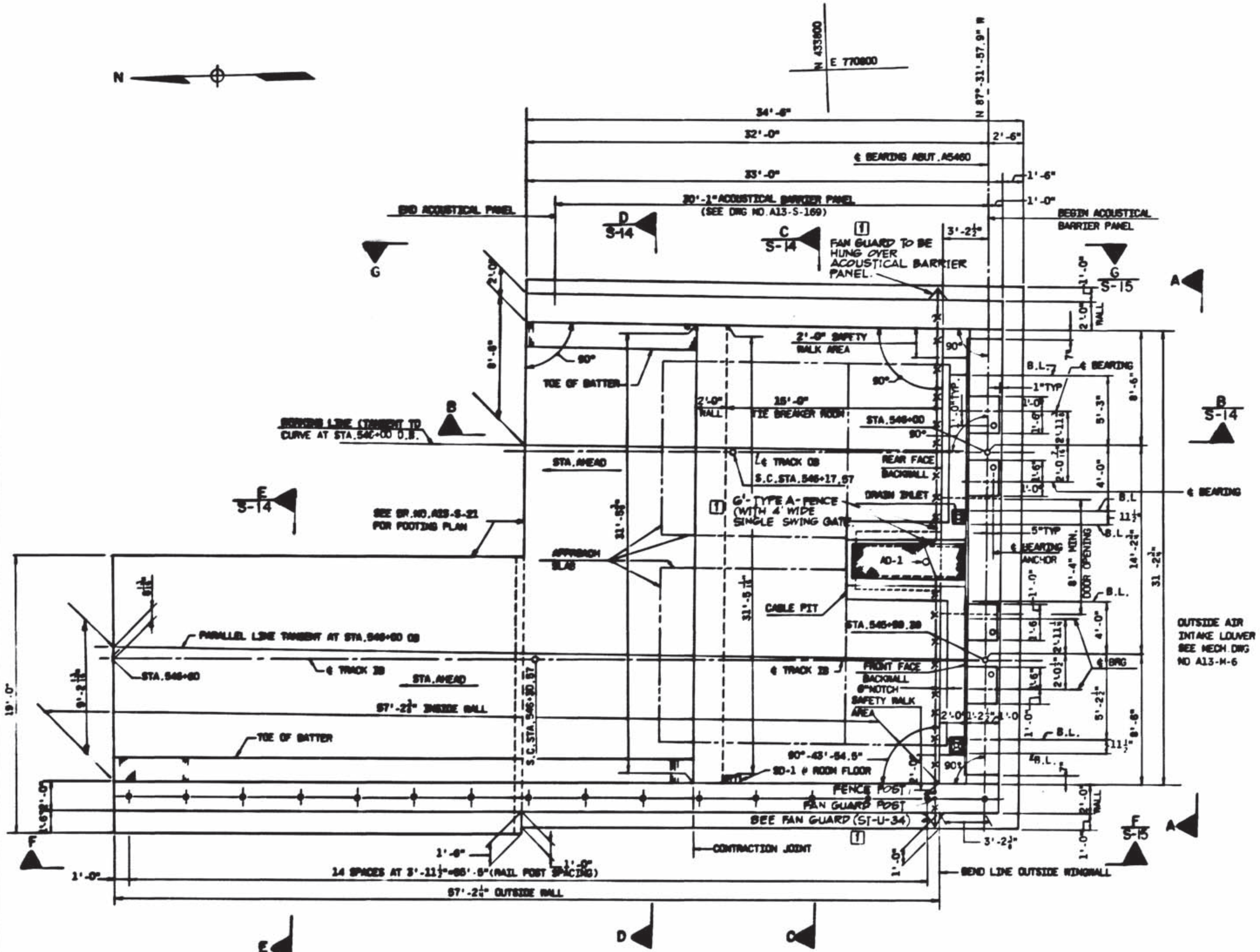
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

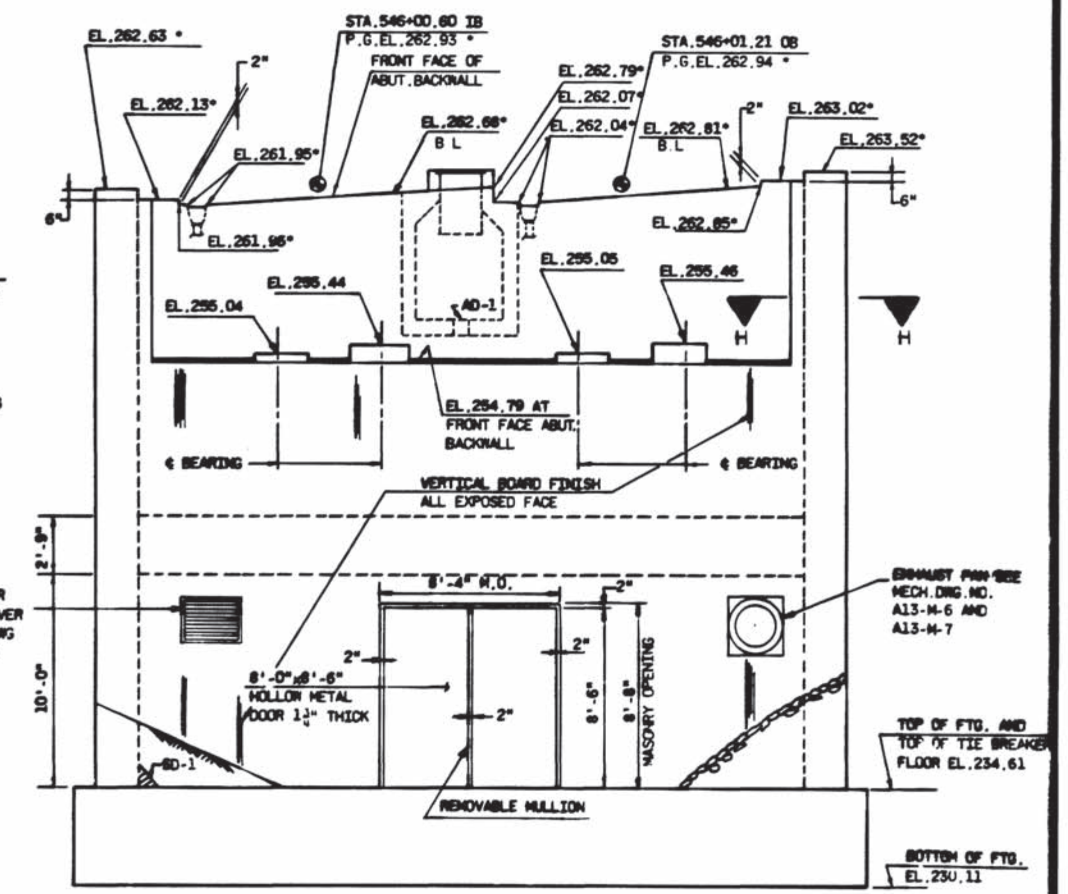
DE LEUW, CATHER & COMPANY GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
LATERAL PRESSURES FOR THE DESIGN OF TEMPORARY EARTH RETAINING STRUCTURES

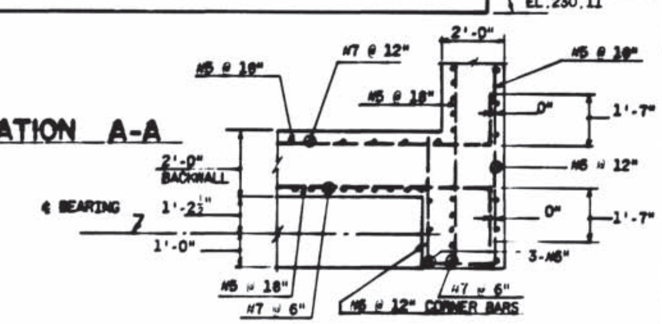
SCALE: NO SCALE
DRAWING NO. A13-S-172
M220-247



PLAN ABUTMENT A5460 AND TIE BREAKER STATION



ELEVATION A-A



SECTION H-H (TYP.)

SCALE: 3/8" = 1'-0"

NOTE:
* INDICATES ELEVATIONS TAKEN AT FRONT FACE OF ABUTMENT BACKWALL
B.L. INDICATES BREAK LINE TOP OF ABUT. BACKWALL
FOR DRAINAGE DETAILS SEE DWG. NO. A13-M-21.
FOR PVC TRACTION POWER CONDUITS LOCATION SEE DWG. NO. A13-E-44.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
DATE

DESIGNED	C.P. LEE	3/75
DRAWN	G. PANDOLFINO	3/75
CHECKED	Y.C. PAO	8/75
APPROVED	[signature]	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-2	KEY PLAN AND ELEV. STA. 547+00 TO STA. 560+00
A13-S-15	WINGWALL ELEVATIONS AND DETAILS ABUT. A5460
A13-S-18	GENERAL PLAN AND CABLE PIT DETAILS ABUT. A5460
A13-S-21	FOOTING PLAN ABUTMENT A5460
A13-S-166	PLAN AND DETAILS APPROACH SLAB ABUT. A5460
A13-S-19	SECTION ABUT. AND TIE BREAKER STATION

REVISIONS

DATE	BY	DESCRIPTION
[illegible]	[illegible]	1 REV PER FIELD COND. AS-BUILT

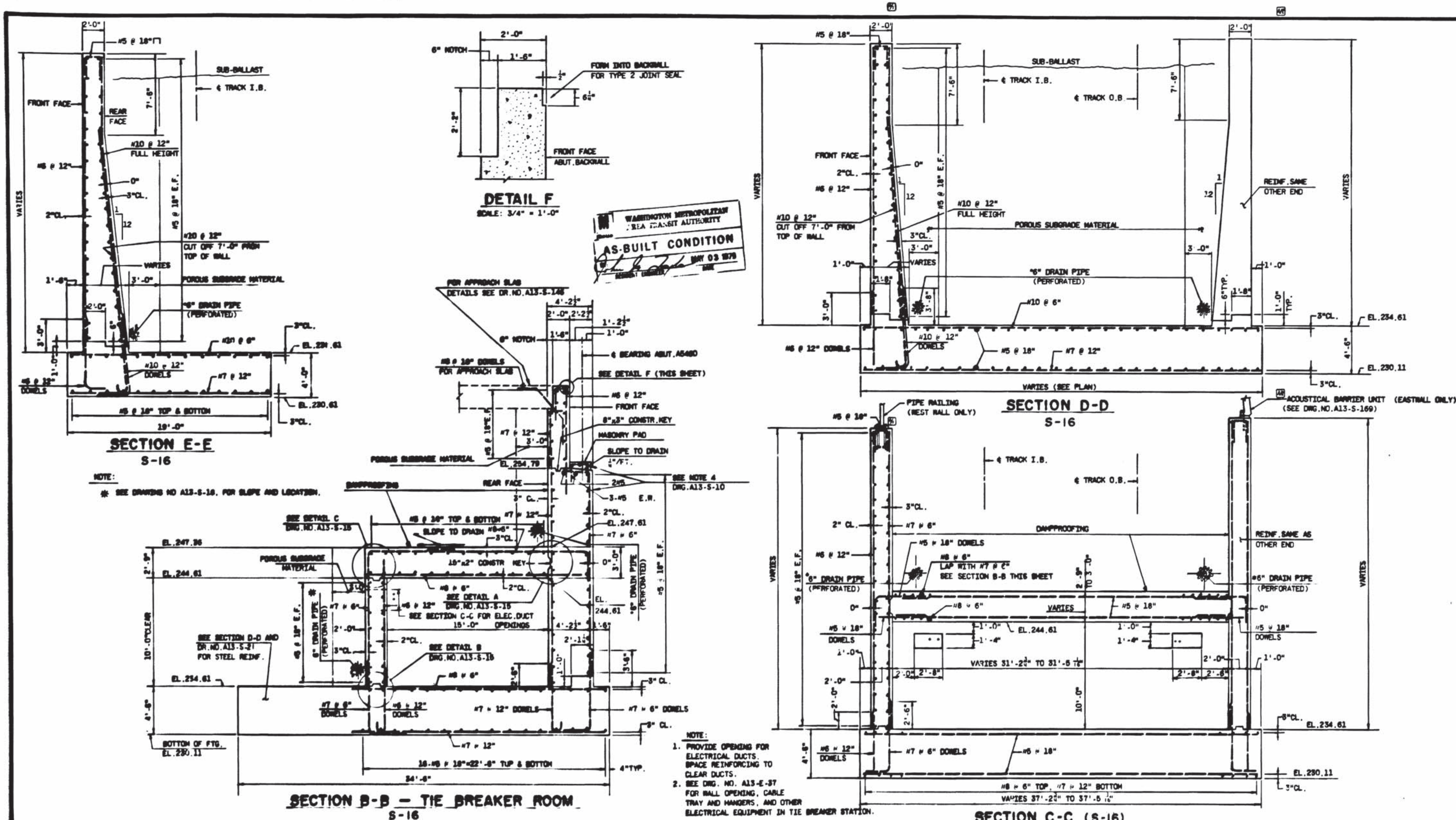
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
PLAN AND ELEVATION ABUT. AND TIE BREAKER STATION
ABUTMENT A5460 O.B. AND I.B.

SCALE: ¼" = 1'-0" AND AS NOTED
DRAWING NO. A13-S-16
M220-248



DESIGNED	C.P. LEE	4/75
DRAWN	G. PASSOLFINO	4/75
CHECKED	Y.C. PAN	5/75
APPROVED	Ted. Andrews	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-16	PLAN & ABUT A5460 TIE BREAKER STATION
A13-S-37	TIE BREAKER STATION
A13-S-18	GENERAL PLAN & CABLE P'T DETAILS ABUT. A5460

REVISIONS

DATE	BY	DESCRIPTION
C.L.		REVISED RAIL POST ANCHORAGE DETAIL
2-12-76	C.L.	REVISED KEY NOTE TO ACOUSTICAL BARRIER UNIT

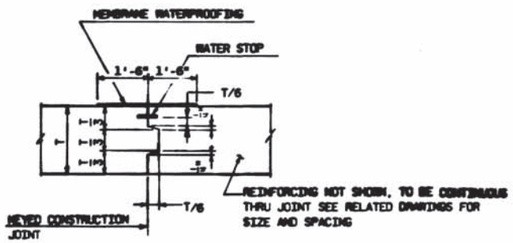
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

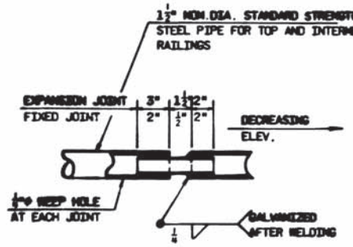
ROCKVILLE ROUTE
AERIAL STRUCTURE
SECTION ABUT. & TIE BREAKER STATION
ABUTMENT A5460 O.B. AND I.B.

SCALE $\frac{1}{4}$" = 1'-0"
DRAWING NO. A13-S-14
M220-249



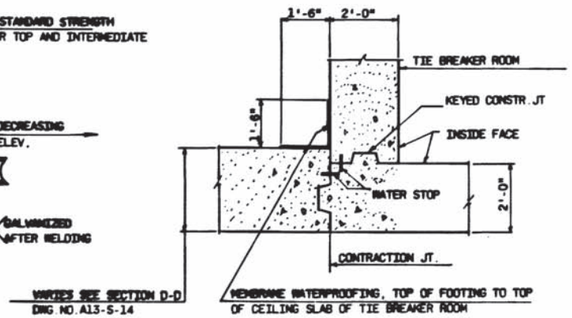
TYPICAL KEY DETAIL AT CONSTRUCTION JT.

NO SCALE



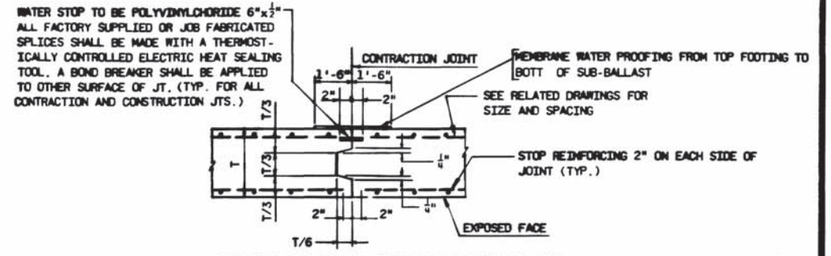
DETAIL A

NO SCALE



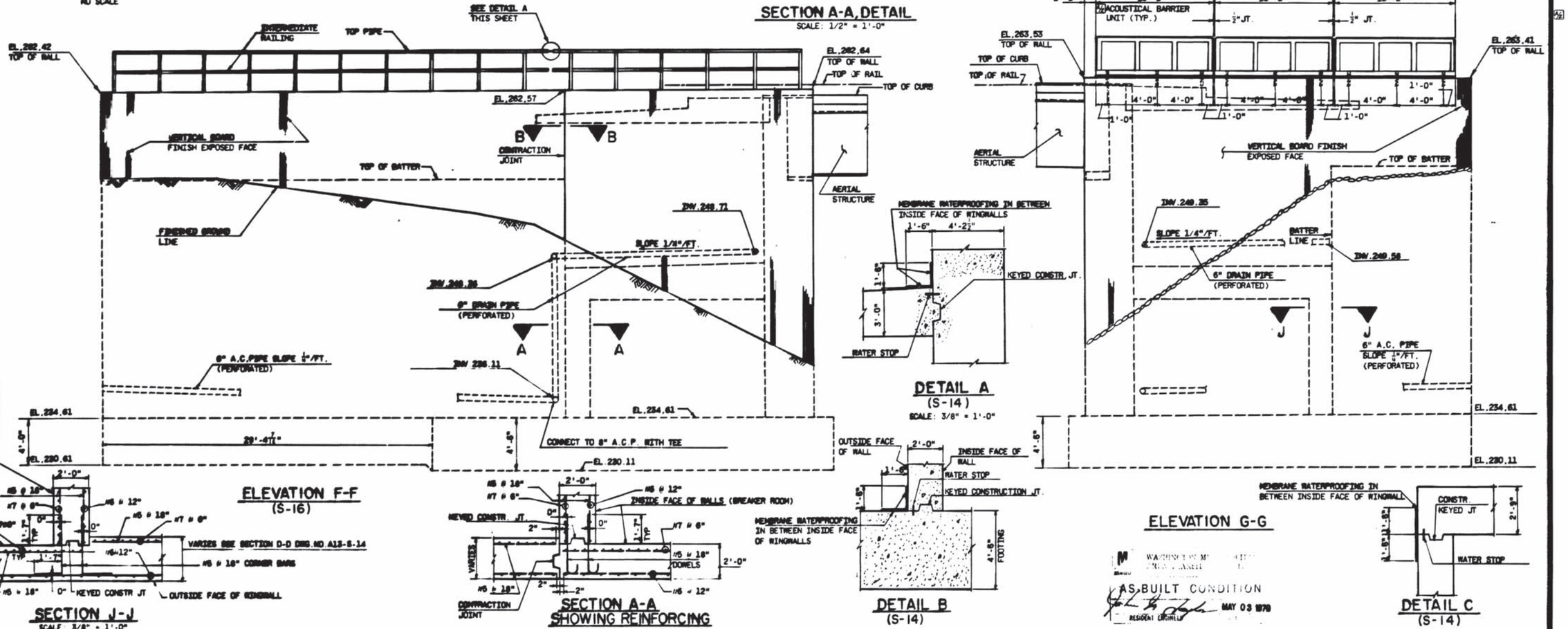
SECTION A-A, DETAIL

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



SECTION B-B, CONTRACTION JT.

NO SCALE



ELEVATION F-F

(S-16)

SECTION J-J

SCALE: 3/8" = 1'-0"

SECTION A-A SHOWING REINFORCING

DETAIL A

(S-14)

SCALE: 3/8" = 1'-0"

DETAIL B

(S-14)

ELEVATION G-G

AS-BUILT CONDITION

MAY 03 1978

RESIDENT ENGINEER

DETAIL C

(S-14)

DESIGNED	C.P.LEE	6/75
DRAWN	G.PARSONS/MB	6/75
CHECKED	Y.C.PAN	6/75
APPROVED	Ted Quackenbush	10/75

REFERENCE DRAWINGS		
NUMBER	DESCRIPTION	
A13-S-16	PLAN & ELEV. ABUT. A5460 & TIE BREAKER STA.	
A13-S-14	SECTION ABUT & TIE BREAKER STATION	

REVISIONS			
DATE	BY		DESCRIPTION
1-12-76	C.L.	MC	OMITTED ACOUSTICAL MATERIAL AND REVISED KEY WORD.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

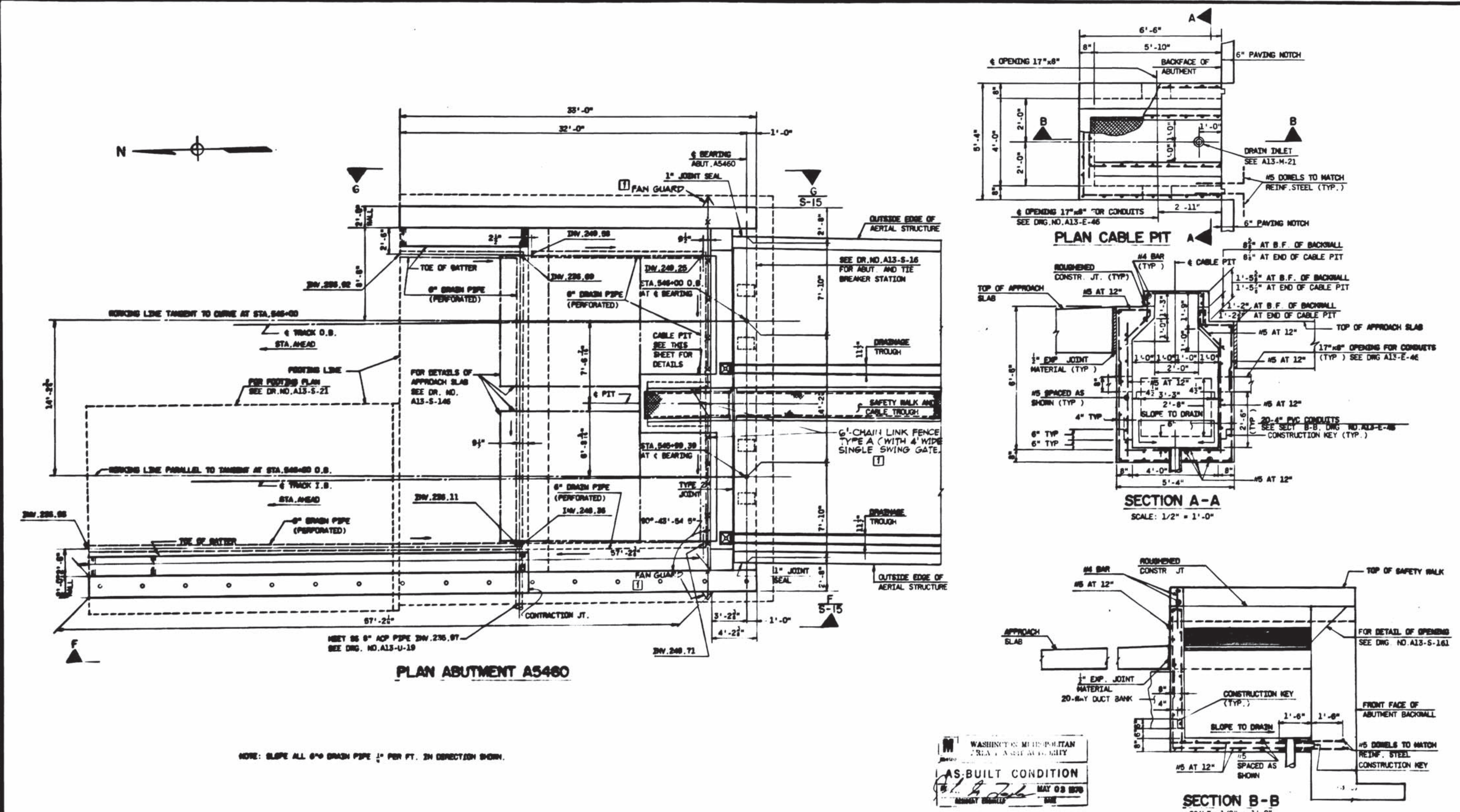
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
WINGWALL ELEVATIONS AND DETAILS
ABUTMENT A5460 O.B. AND I.B.

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

DRAWING NO. A13-S-15

M220-250



DESIGNED	C.P.LEE	4/75
DRAWN	G.PANDOLFINO	4/76
CHECKED	T.C.PAN	8/75
APPROVED		

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-2	KEY PLAN AND ELEV. STA. 647+00 TO STA. 536+00
A13-S-16	PLAN AND ELEV. ABUT. AND TIE BREAKER STATION
A13-S-21	FOOTING PLAN, ABUTMENT A5460
A13-S-15	WINGWALL ELEVATIONS AND DETAILS ABUT. A5460
A13-S-146	PLAN AND DETAILS APPROACH SLAB, ABUT. A5460

REVISIONS

DATE	BY	DESCRIPTION
[illegible]	[illegible]	1 REVISED PER FIELD CONDITION "AS-BUILT"

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

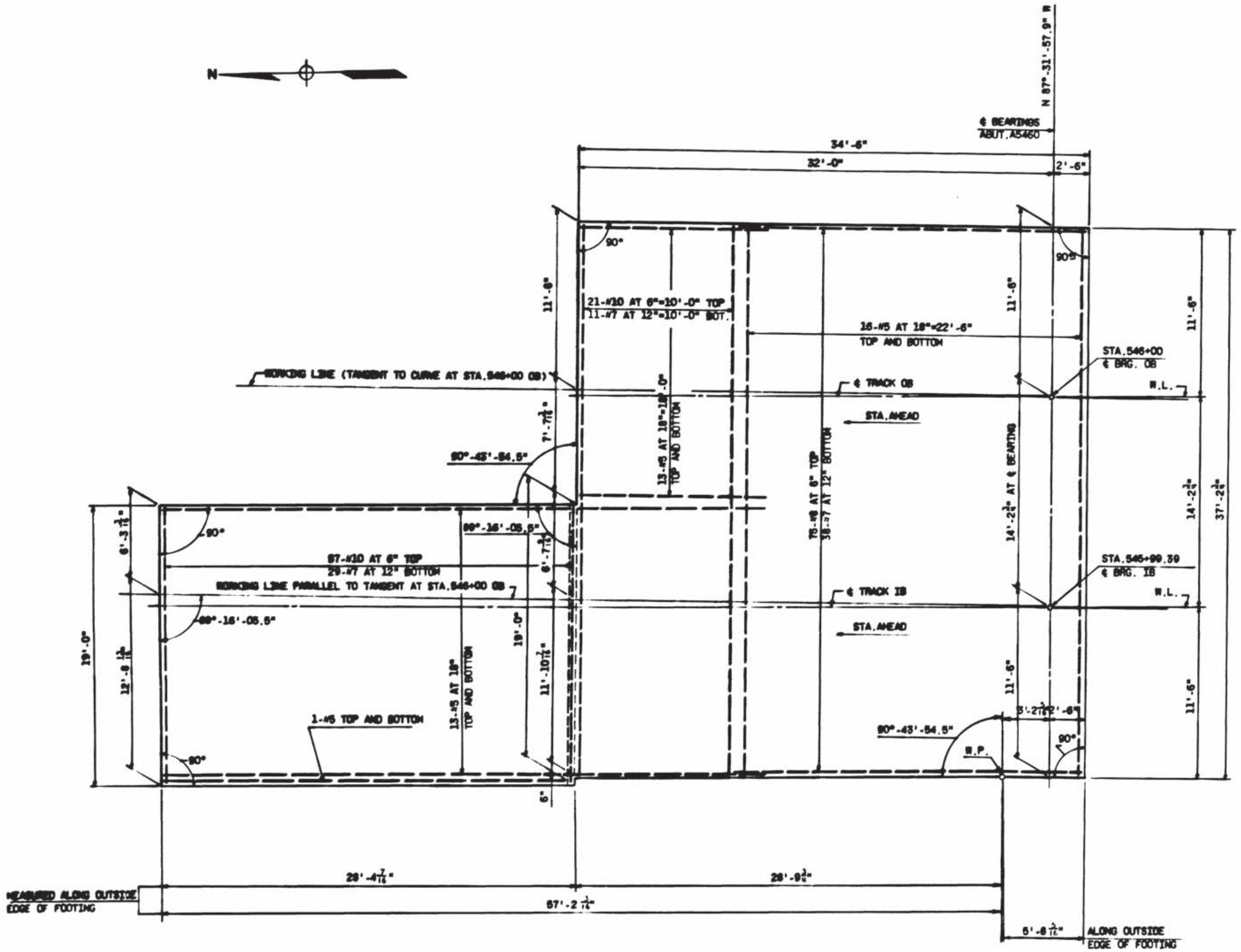
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
GENERAL PLAN & CABLE PIT DETAILS
ABUTMENT A5460 OB AND IB

SCALE: 1/4" = 1'-0" AND AS NOTED

DRAWING NO. A13-S-18

M220-251



FOOTING PLAN

NOTES:

O.B. = OUTBOUND
I.B. = INBOUND
W.L. = WORKING LINE

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — MAY 03 1979 DATE

DESIGNED	C.P. LEE	4/75
DRAWN	G. PANDOLFINO	4/75
CHECKED	Y.C. PAN	5/76
APPROVED	[signature]	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-16	PLAN - ELEVATION ABUT A5460
A13-S-14	SECTIONS ABUT. AND WALLS
A13-S-15	WINGWALL ELEVATIONS AND DETAILS

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

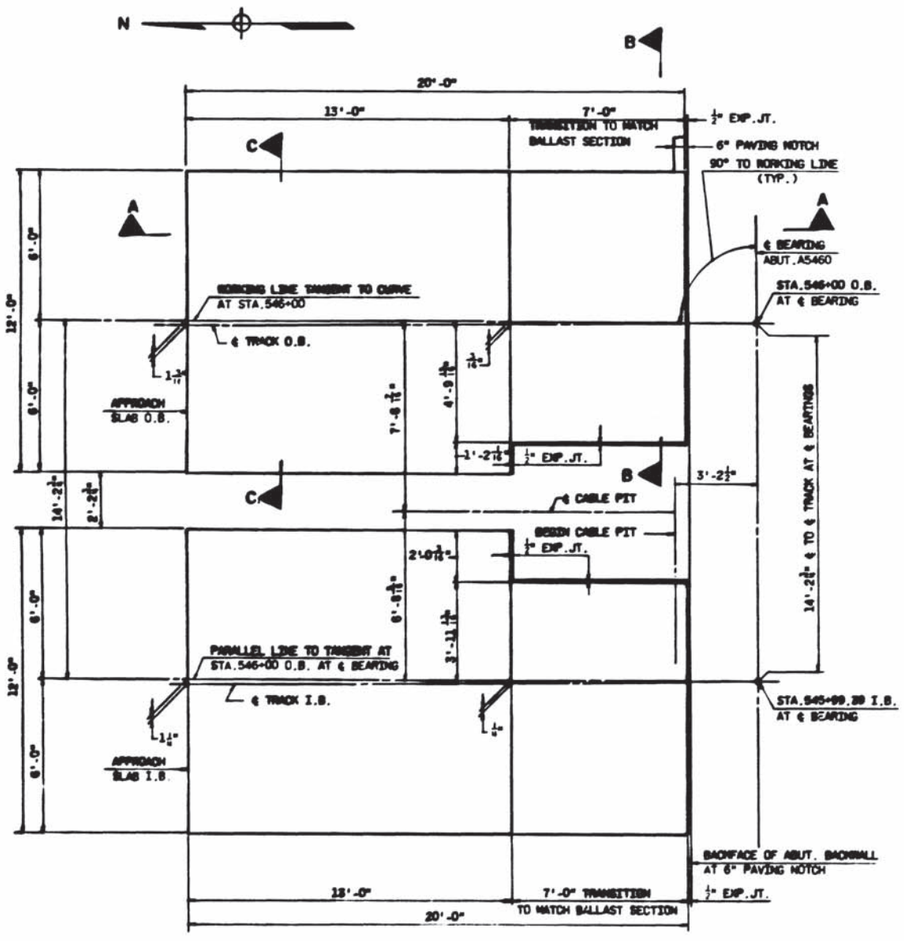
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
FOOTING PLAN
ABUTMENT A5460 O.B. AND I.B.

SCALE $\frac{1}{4}$" = 1'-0"

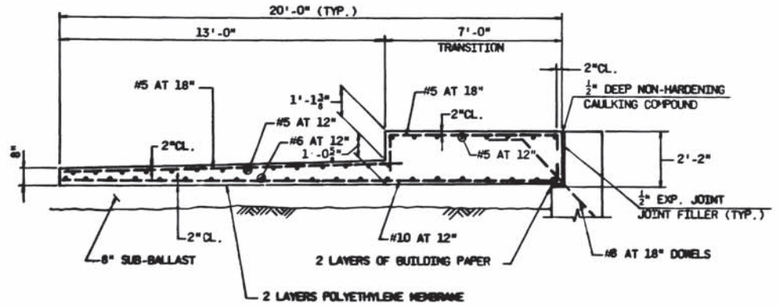
DRAWING NO. A13-S-21

M220-252



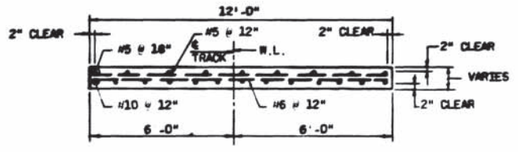
PLAN APPROACH SLAB

SCALE: 3/8" = 1'-0"



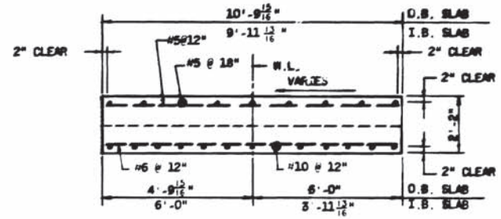
SECTION A-A (TYP.)

SCALE: 3/8" = 1'-0"



SECTION C-C (TYP.)

SCALE: 3/8" = 1'-0"



SECTION B-B (TYP.)

SCALE: 3/8" = 1'-0"

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY-03-1976
RESIDENT ENGINEER — DATE

DESIGNED	L.P.LEE	6/75
DRAWN	L.PARROTT/HB	6/76
CHECKED	Y.C.PAN	6/75
APPROVED		6/76

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-16	PLAN & ELEV. ABUT A5460 & TIE BREAKER STA.
A13-S-14	GENERAL PLAN & CABLE PIT DETAILS

REVISIONS

DATE	BY	DESCRIPTION

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER

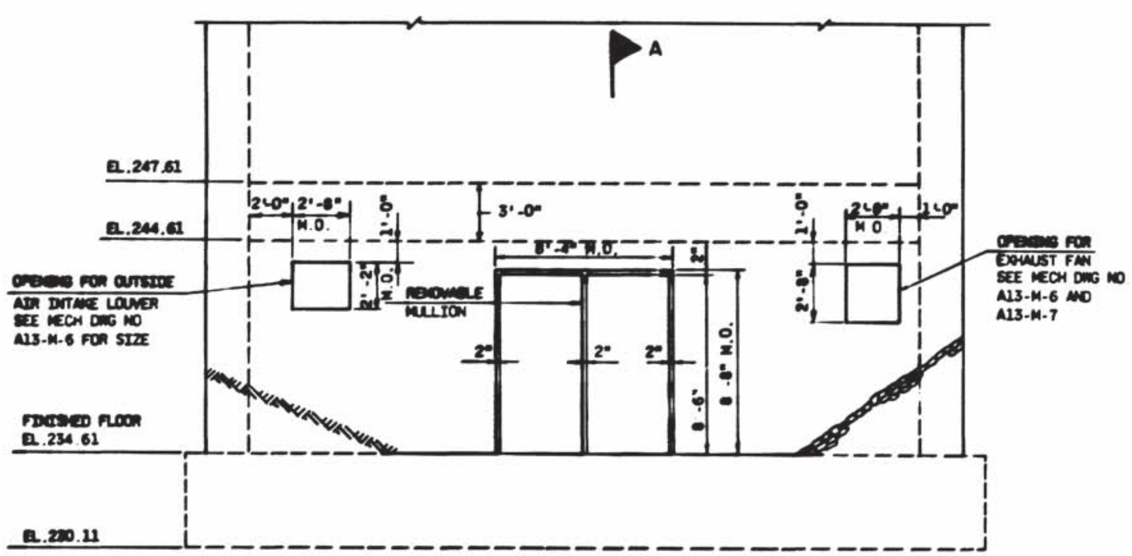
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT □
APPROVED

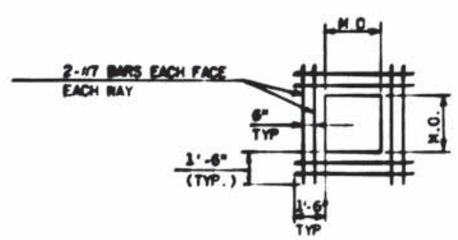
ROCKVILLE ROUTE
AERIAL STRUCTURE
PLAN AND DETAILS APPROACH SLAB ABUTMENT A5460 O.B. AND I.B.

SCALE: 3/8"=1'-0" (0 1 2 3)
DRAWING NO.: A13-S-146
M220-253



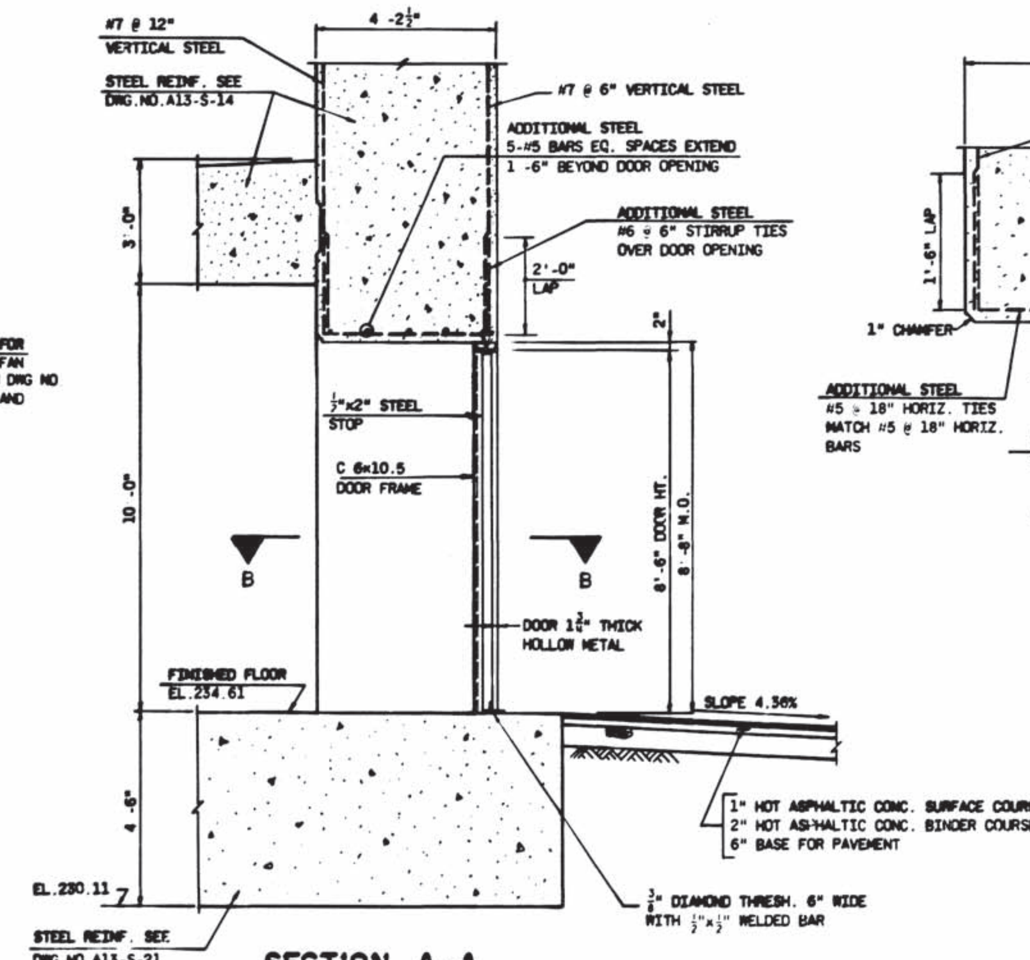
SOUTH ELEVATION

SCALE: 1/4" = 1'-0"



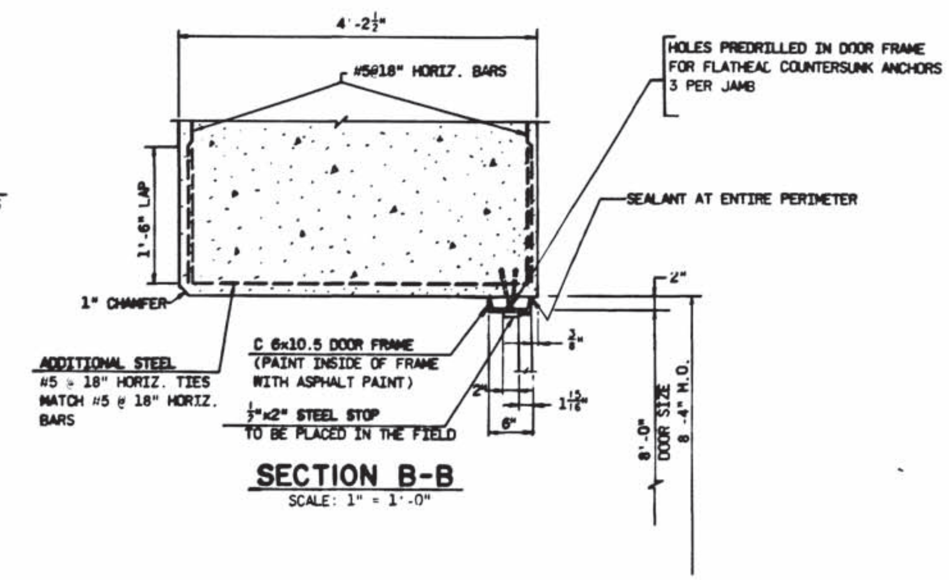
ADDITIONAL REINFORCING AROUND OPENINGS

NO SCALE



SECTION A-A

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



SECTION B-B

SCALE: 1" = 1'-0"

NOTES:

NO ARCHITECTURAL FINISHES FOR INTERIOR FACES OF WALLS OF TIE BREAKER STATION SHALL BE REQUIRED. HOLLOW METAL DOOR SHALL BE PAINTED ACCORDING TO SECTION 910 OF GENERAL PROVISIONS AND STANDARD SPECIFICATIONS FOR CONSTRUCTION PROJECTS, AND SHALL BE PAID UNDER PAY ITEM 153, ARCHITECTURAL FINISHES.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER
MAY 03 1979
DATE

DESIGNED	C.P.LEE	6/75
DRAWN	G.PANDOLFINO	6/75
CHECKED	Y.C.PAN	6/75
APPROVED	[signature]	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-16	PLAN AND ELEV. ABUT AND TIE BREAKER STATION
A13-M-6	SUBSTATION & TIE BREAKER STATION-H.V.A.C. PLAN
A13-M-7	SCHEDULES

REVISIONS

DATE	BY	DESCRIPTION
1-12-76	C.L.	ADDED NOTES FOR WALLS AND DOOR FINISHES

STATE OF MARYLAND

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

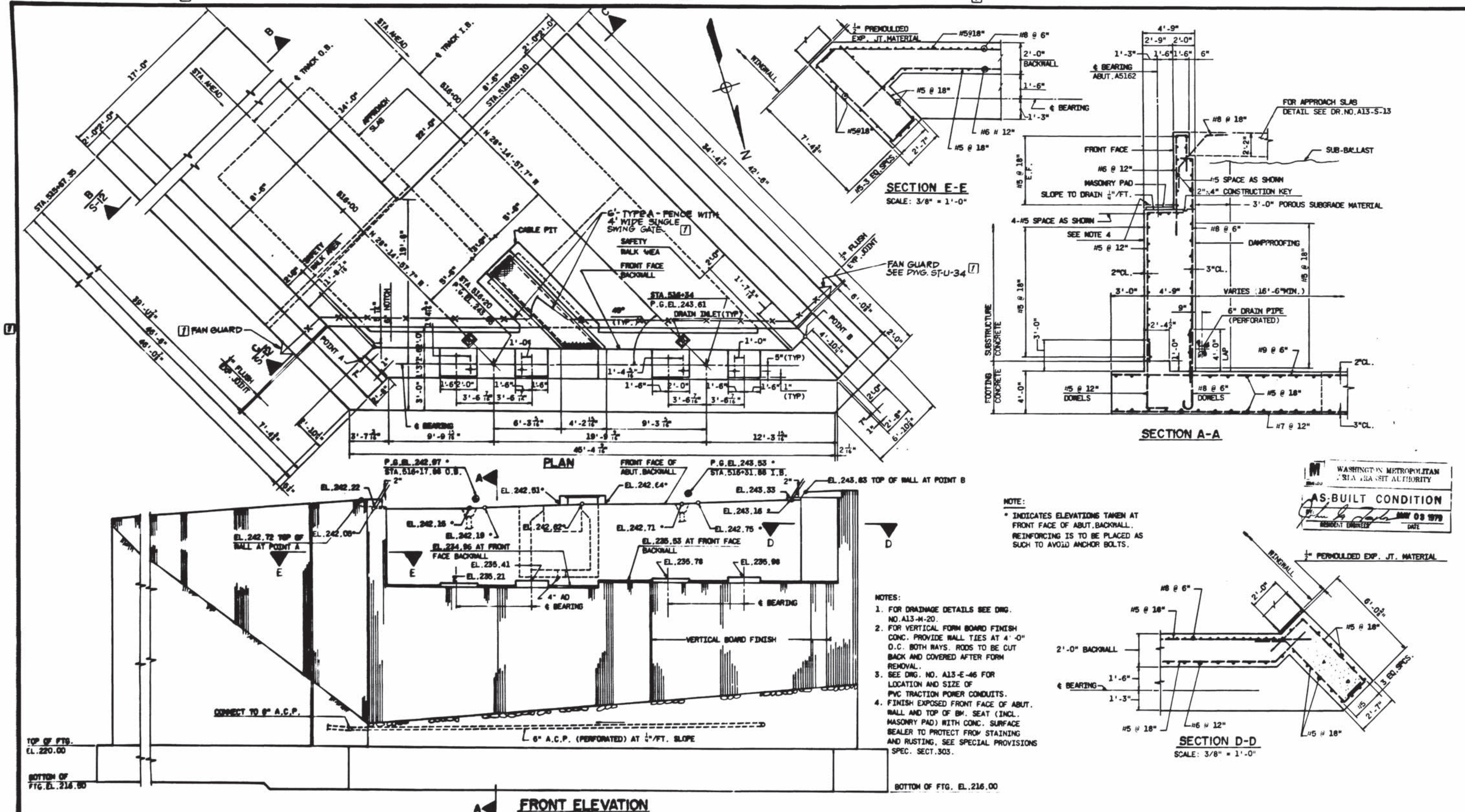
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
TIE BREAKER STATION AT ABUT. A5460
ELEVATION AND SECTIONS

SCALE: ¼"=1'-0" AND AS NOTED

DRAWING NO. A13-S-163

M220-254



NOTE:

* INDICATES ELEVATIONS TAKEN AT FRONT FACE OF ABUT.BACKWALL. REINFORCING IS TO BE PLACED AS SUCH TO AVOID ANCHOR BOLTS.

NOTES:

1. FOR DRAINAGE DETAILS SEE DRG. NO.A13-M-20.
2. FOR VERTICAL FORM BOARD FINISH CONC. PROVIDE WALL TIES AT 4'-0" O.C. BOTH WAYS. RODS TO BE CUT BACK AND COVERED AFTER FORM REMOVAL.
3. SEE DRG. NO. A13-E-46 FOR LOCATION AND SIZE OF PVC TRACTION POWER CONDUITS.
4. FINISH EXPOSED FRONT FACE OF ABUT. WALL AND TOP OF BM. SEAT (INCL. MASONRY PAD) WITH CONC. SURFACE SEALER TO PROTECT FROM STAINING AND RUSTING, SEE SPECIAL PROVISIONS SPEC. SECT.303.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

MAY 03 1979

RESIDENT ENGINEER — DATE

DESIGNED	C.P.LEE	3/75
DRAWN	G.PANDOLFINO	3/75
CHECKED	V.C.PAN	6/75
APPROVED	[signature]	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-7	KEY PLAN AND ELEVATION, STA.547+00 TO 536+00
A13-S-11	GEN.PLAN AND WINGWALL ELEV. ABUT.A5162
A13-S-12	FOOTING PLAN AND WINGWALL SEC.ABUT.A5162
A13-S-13	APPROACH SLAB AND CABLE PIT DETAILS
A13-M-20	DRAINAGE PLAN AND ELEV. ABUT.A5162
A13-S-113	BEARING ASSEMBLIES

REVISIONS

DATE	BY	DESCRIPTION
5/2/79	TS	1 REV. PER FIELD COND, AS-BUILT

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER

BUCHART-HORN

CONSULTING ENGINEERS AND PLANNERS

SUBMITTED [signature]

DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT

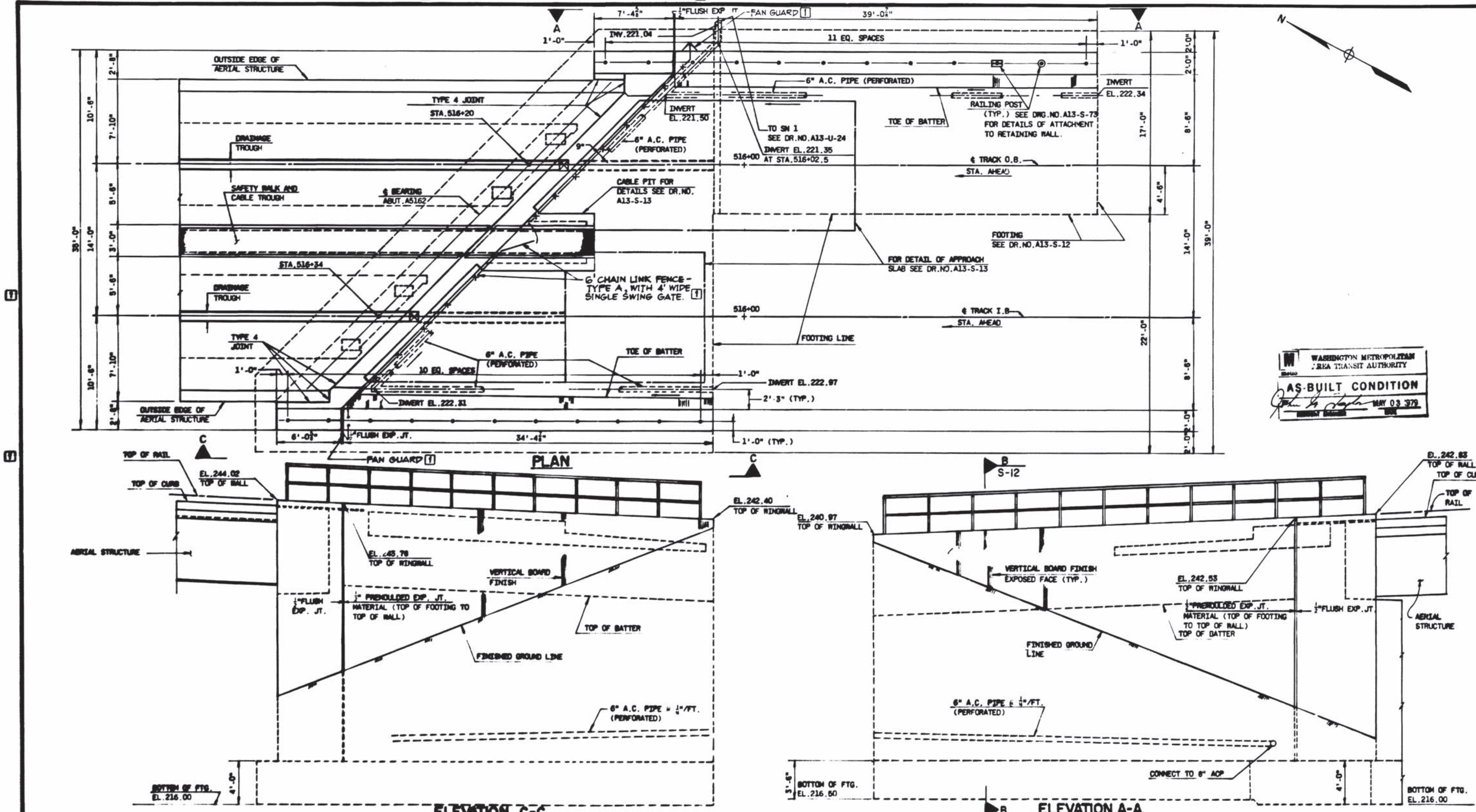
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
PLAN & ELEVATION
ABUTMENT A5162 O.B. AND I.B.

SCALE $\frac{1}{4}$" = 1'-0" AND AS NOTED

DRAWING NO. A13-S-10

M220-255



DESIGNED	G.P.LEE	3/75
DRAWN	G.PANDOLFINO	3/76
CHECKED	Y.C.PAN	6/75
APPROVED	(signature)	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-10	PLAN AND ELEVATION ABUT. A5162
A13-S-12	FOOTING PLAN AND WINGWALL SECTIONS
A13-S-13	APPROACH SLAB AND CABLE PIT DETAILS

REVISIONS

DATE	BY	DESCRIPTION
3-22-79		1 REV PER FIELD COND. AS-BUILT

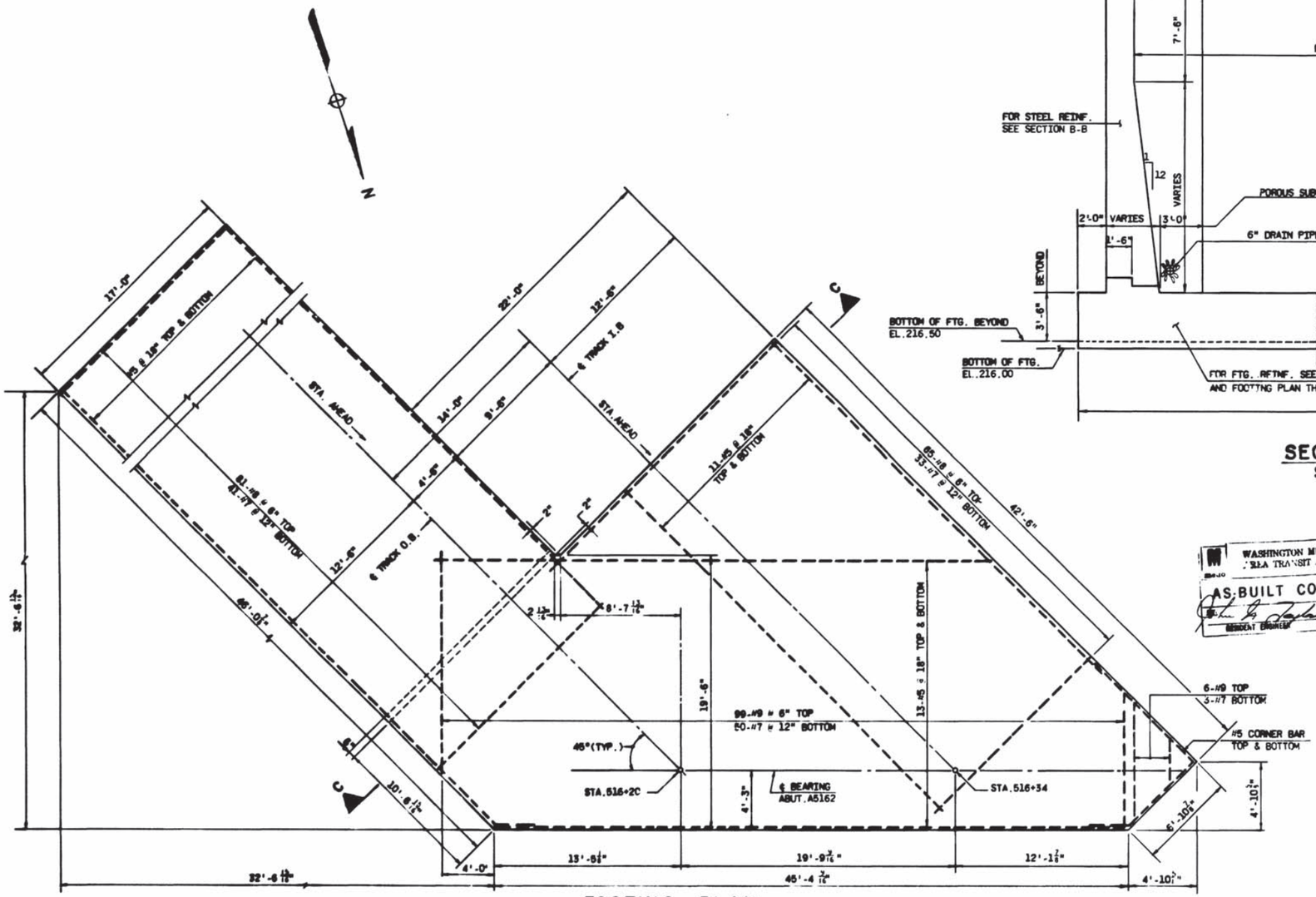
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED: (signature)

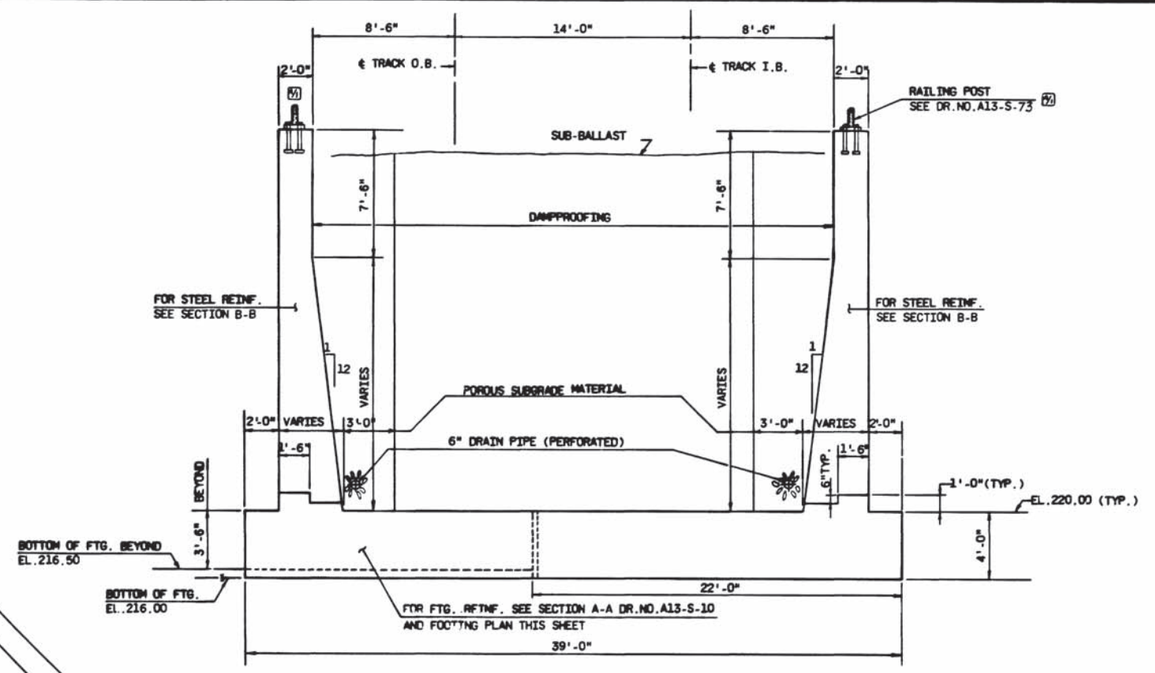
DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT
APPROVED: (signature)

ROCKVILLE ROUTE
AERIAL STRUCTURE
GENERAL PLAN AND WINGWALL ELEVATIONS
ABUTMENT A5162 O.B. AND I.B.

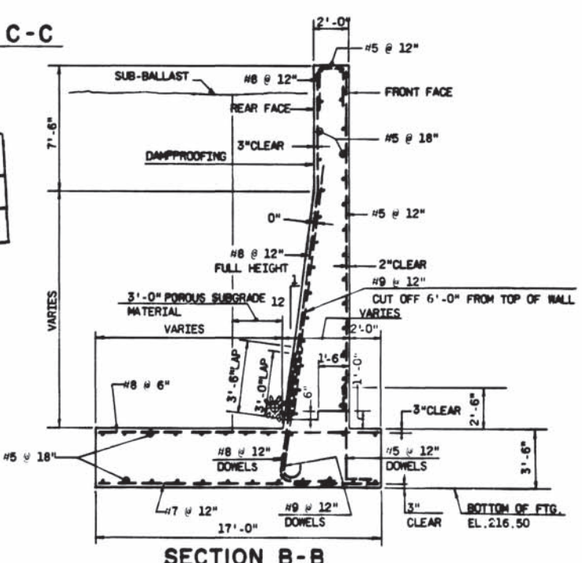
SCALE: 1/4"=1'-0" AND AS NOTED
DRAWING NO. A13-S-11
M220-256



FOOTING PLAN



SECTION C-C
S-10, S-12



SECTION B-B
S-10, S-11

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 08 1979
RESIDENT ENGINEER DATE

DESIGNED	L.P.LEE	2/75
DRAWN	S.P.BROOKS/F.HO	2/75
CHECKED	Y.C.PAN	2/75
APPROVED	Ted Buchanan	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-10	PLAN AND ELEVATION ABUT A5162
A13-S-11	GEN. PLAN AND WINGWALL SECTIONS

REVISIONS

DATE	BY	DESCRIPTION
6 6	1-19-76	(1) REVISED HAND RAIL TWO NO. AND RAIL POST ANCHORAGE DETAILS

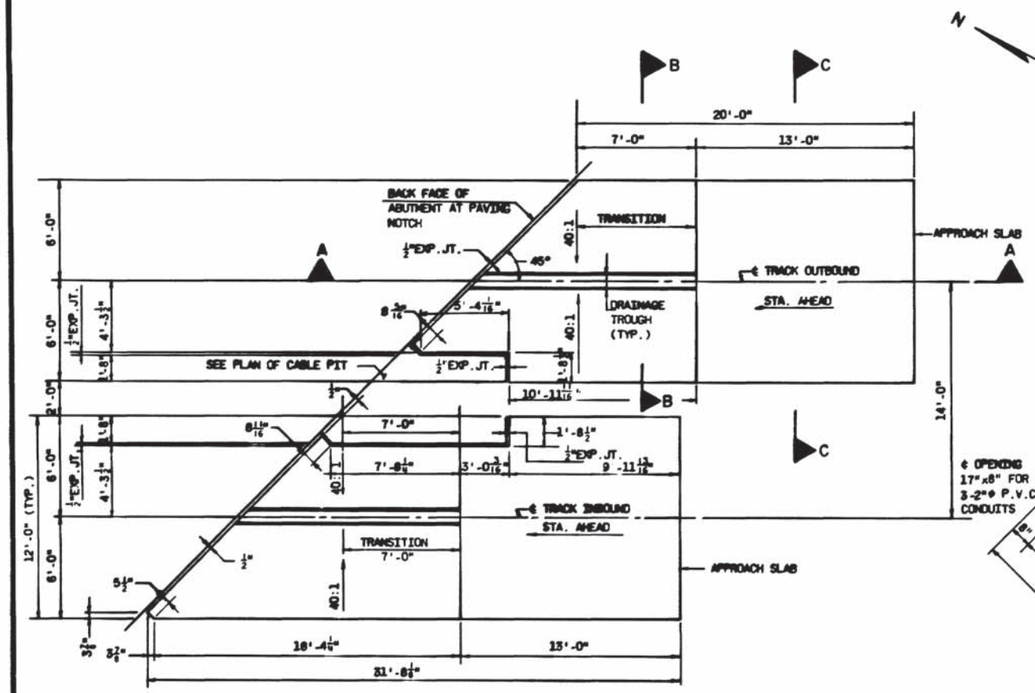
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
FOOTING PLAN AND WINGWALL SECTIONS
ABUTMENT A5162 OB AND IB

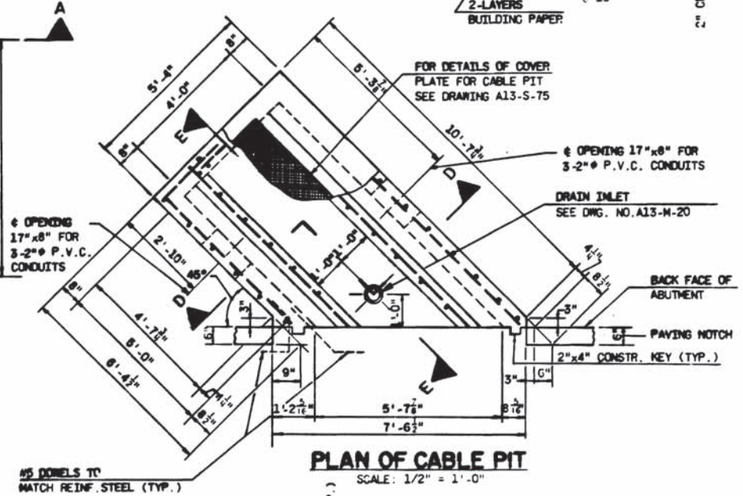
SCALE 1/4"=1'-0" 0 1 2 3 4 5
DRAWING NO. A13-S-12
M220-257



PLAN APPROACH SLAB (ABUTMENT A-5162)

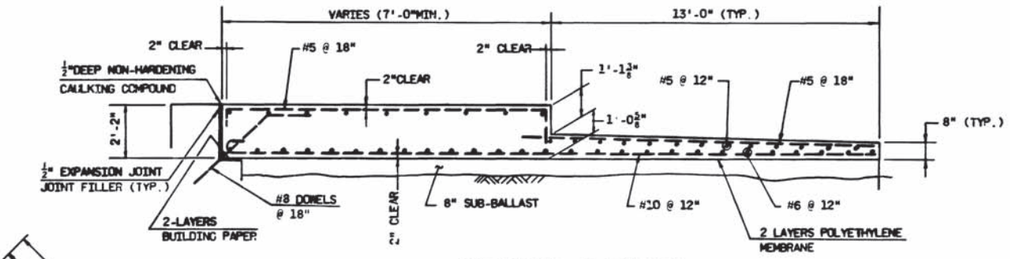
SCALE: 1/4" = 1'-0"

NOTE:
FOR PLAN & ELEVATION OF ABUTMENT A-5162 SEE DRAWING A13-S-10



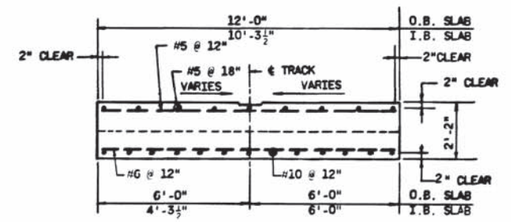
PLAN OF CABLE PIT

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



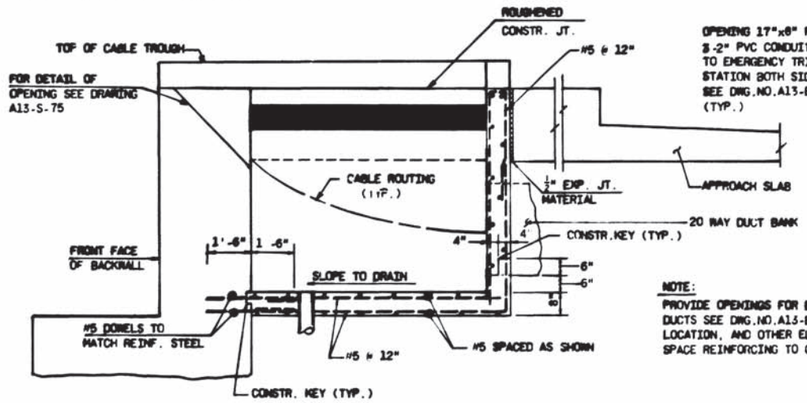
SECTION A-A (TYP.)

SCALE: 3/8" = 1'-0"



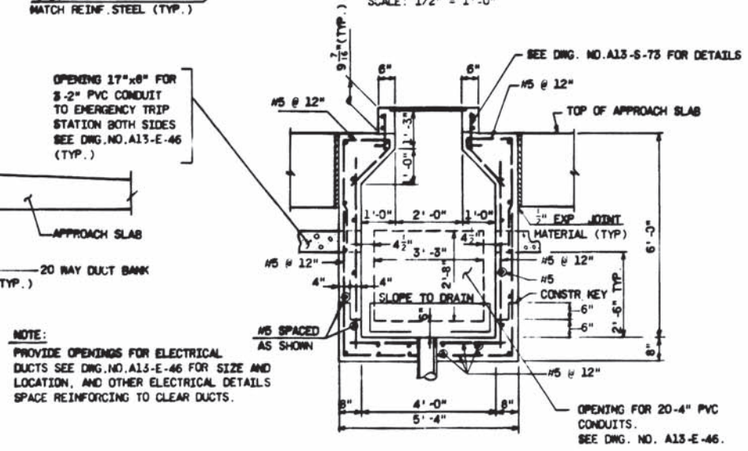
SECTION B-B (TYP.)

SCALE: 3/8" = 1'-0"



SECTION E-E

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

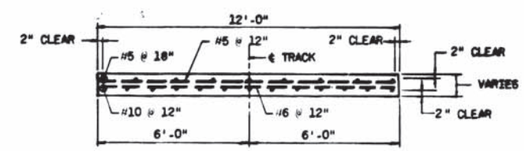


NOTE:
PROVIDE OPENINGS FOR ELECTRICAL DUCTS SEE DWG. NO. A13-E-46 FOR SIZE AND LOCATION, AND OTHER ELECTRICAL DETAILS SPACE REINFORCING TO CLEAR DUCTS.

SECTION D-D

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

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER
MAY 03 1979
DATE



SECTION C-C (TYP.)

SCALE: 3/8" = 1'-0"

DESIGNED	C.P.LEE	3/75
DRAWN	G.PAMBOLFIDO	3/75
CHECKED	Y.C.PAN	5/75
APPROVED	Ted Ruchart	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-10	PLAN AND ELEVATION ABUT. A5162
A13-S-75	SAFETY WALK AND CABLE TROUGH DETAILS

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANTS □
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
APPROACH SLAB & CABLE PIT DETAILS
ABUTMENT A5162 O.B. AND I.B.

SCALE 1/4" = 1'-0" AND AS NOTED

DRAWING NO. A13-S-13

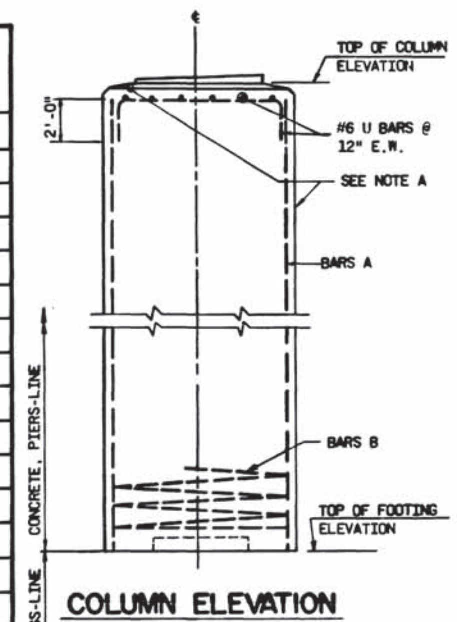
M220-258

1

COLUMN SCHEDULE

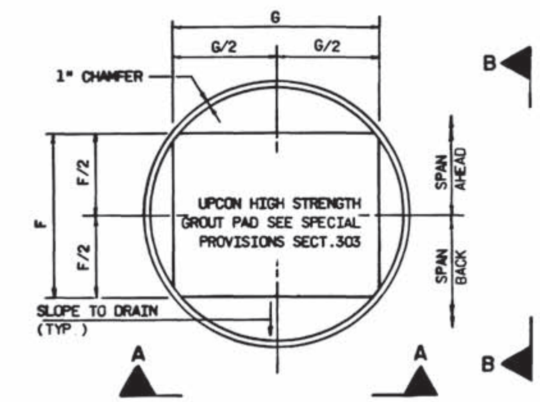
PIER NO. OR FRAME NO.	STATION I.B.	STATION O.B.	DIM. 'C' ℄ TO ℄ TRACK	OFFSET DIM. 'D'	OFFSET DIM. 'E'	TOP OF COLUMN ELEV.	TOP OF FOOTING ELEV.	BOTTOM FOOTING ELEV.	COLUMN DIA.	H	BEARING ℄ PIER OR ℄ FRAME	BARS A	BARS B [1]	PITCH	DIM. F	DIM. G	REMARKS
A5186	518+64	518+64	14'-0"	7'-0"	7'-0"	244.72	211.00	205.00	6'-6"	5 3/4"	S 61°-45'-2.3" W	30 #18	5/8"φ	3 5/8"	4'-2"	5'-0"	
A5199	519+92.05	519+92	14'-0 7/16"	7'-0 3/16"(+)	7'-0 3/16"(+)	249.73	217.00	212.00	6'-6"	6 1/2"	S 61°-57'-22.3" W	17 #18	5/8"φ	3 5/8"	4'-2"	5'-0"	
A5212	521+20.33	521+20	14'-2 1/16"	7'-1"(+)	7'-1"(+)	253.89	227.00	221.00	6'-6"	8 1/8"	S 63°-05'-43-2" W	24 #18	5/8"φ	3 5/8"	4'-2"	5'-0"	
A5238	523+85.53	523+84	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	259.68	221.00	216.00	7'-6"	9 3/8"	S 67°-55'-39.5" W	44 #18	5/8"φ	3 5/8"	4'-2"	6'-3"	
A5248	524+86.02	524+84	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	261.88	223.00	218.00	6'-6"	8 3/4"	S 69°-54'-47.1" W	22 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5258	525+84.51	525+82	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	262.52	225.00	220.00	6'-6"	8 5/8"	S 71°-51'-32.1" W	36 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5268	526+82.98	526+80	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	262.63	225.00	220.00	6'-6"	8 5/8"	S 73°-48'-16.7" W	24 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5279	527+95.54	527+92	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	262.27	232.00	227.00	6'-6"	8 3/4"	S 76°-01'-42.1" W	33 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5290	529+08.10	529+04	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	261.87	241.00	236.00	6'-6"	8 3/4"	S 78°-15'-7.6" W	19 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5302	530+20.65	530+16	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	261.48	239.00	234.00	6'-6"	8 3/4"	S 80°-28'-33.2" W	20 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5313	531+33.20	531+28	14'-2 7/8"	7'-1 7/16"	7'-1 7/16"	261.08	239.00	234.00	6'-6"	8 3/4"	S 82°-41'-58.2" W	19 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5324	532+45.74	532+40	14'-2 13/16"	7'-1 3/8"(+)	7'-1 3/8"(+)	260.70	239.00	234.00	6'-6"	8 1/8"	S 84°-52'-14.5" W	20 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5335	533+58.13	533+52	14'-1 9/16"	7'-0 3/4"(+)	7'-0 3/4"(+)	260.33	235.00	230.00	6'-6"	6 3/8"	S 86°-25'-45" W	13 #18	5/8"φ	3 5/8"	3'-8"	5'-4 1/2"	
A5345	534+60.31	534+54	14'-0 5/16"	7'-0 1/8"(+)	7'-0 1/8"(+)	260.00	232.00	227.00	6'-0"	5 1/4"	S 87°-11'-1.6" W	23 #18	5/8"φ	3 5/8"	3'-8"	4'-9"	
A5356	535+56	535+56	14'-0"	7'-0"	7'-0"	259.62	233.00	228.00	6'-0"	4 3/8"	S 87°-20'-6.9" W	17 #18	5/8"φ	3 5/8"	3'-8"	4'-9"	
A5366	536+58.02	536+58	14'-0 1/8"	7'-0 1/16"	7'-0 1/16"	259.30	233.00	228.00	6'-0"	4 7/8"	S 87°-24'-27.2" W	23 #18	5/8"φ	3 5/8"	3'-8"	4'-9"	
A5376	537+60.19	537+60	14'-1 5/16"	7'-0 5/8"(+)	7'-0 5/8"+	256.41	232.00	227.00	6'-6"	6 3/8"	S 88°-06'-33" W	18 #18	5/8"φ	3 5/8"	4'-8"	4'-10"	
A5392	539+20.63	539+20	14'-2 7/16"	7'-1 3/16"+	7'-1 3/16"+	255.62	226.00	219.00	7'-6"	8 1/8"	N 89°-19'-17.1" W	44 #18	5/8"φ	3 5/8"	4'-8"	5'-10"	
A5403	540+31.36	540+30	14'-2 3/8"	4'-7 3/16"	9'-7 3/16"	255.32	225.00	219.00	7'-0"	7 1/8"	N 87°-10'-54.8" W	32 #18	5/8"φ	3 5/8"	4'-8"	5'-10"	
A5435	543+80	543+80	14'-0"	7'-0"	7'-0"	254.33	222.00	217.00	6'-6"	4 3/4"	N 85°-03'-24.2" W	19 #18	5/8"φ	3 5/8"	4'-8"	4'-10"	
A5447	544+74.87	544+75	14'-1 1/8"	7'-0 9/16"	7'-0 9/16"	255.41	226.00	221.00	6'-6"	5 7/8"	N 85°-35'-08.5" W	28 #18	5/8"φ	3 5/8"	4'-2"	5'-0"	
.																	
A5174 WEST	517+33.92	517+42	16'-2"	57'-10"	-	237.00	218.50	214.00	7'-0"	4"	S 31°-45'-02.2" W	28-#18	5/8"φ	3 5/8"	-	-	
A5174 EAST				-	49'-0"	239.38	209.50	205.00	7'-0"	4"		28-#14	5/8"φ	3 5/8"	-	-	
A5225 WEST	522+45.94	522+82	15'-10"	45'-2"	-	252.65	222.50	217.00	7'-0"	4"	S 39°-18'-24" W	34-#18	5/8"φ	3 5/8"	-	-	
A5225 EAST				-	52'-0"	253.48	218.00	213.00	7'-0"	4"		28-#14	5/8"φ	3 5/8"	-	-	
A5419 WEST	541+91.82	541+90	14'-0 1/2"	19'-11 1/2"	-	254.25	223.00	217.00	7'-0"	4"	N 85°-18'-23.1" W	34-#18	5/8"φ	3 5/8"	-	-	
A5419 EAST				-	31'-0"	254.24	223.00	217.00	7'-0"	4"		34-#14	5/8"φ	3 5/8"	-	-	

NOTE:
FOR LOCATION OF DIMENSIONS C,D & E, SEE DWG.NO. A13-S-144 PIER FOOTING DETAILS



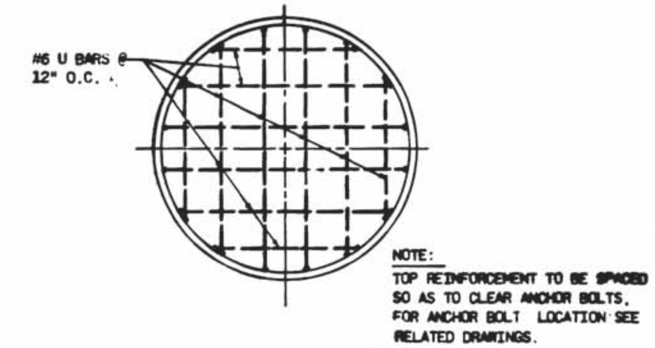
COLUMN ELEVATION

NOTE A:
FINISH EXPOSED CONC. COLUMN SURFACE ALL AROUND WITH CONC. SURFACE SEALER TO PROTECT FROM STAINING AND RUSTING. SEE SPECIAL PROVISIONS SPEC. SECT.303.



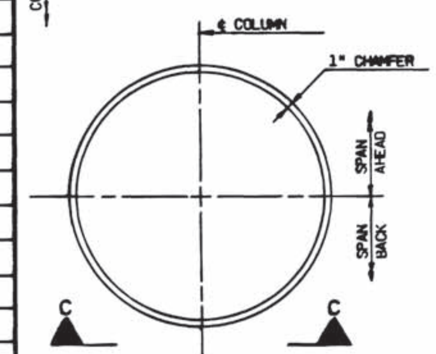
COLUMN PLAN

NOTE:
COPE THE GROUT PAD AT CHAMFER LINE WHERE IT EXTENDS BEYOND THE COLUMN LINE.



NOTE:
TOP REINFORCEMENT TO BE SPACED SO AS TO CLEAR ANCHOR BOLTS. FOR ANCHOR BOLT LOCATION SEE RELATED DRAWINGS.

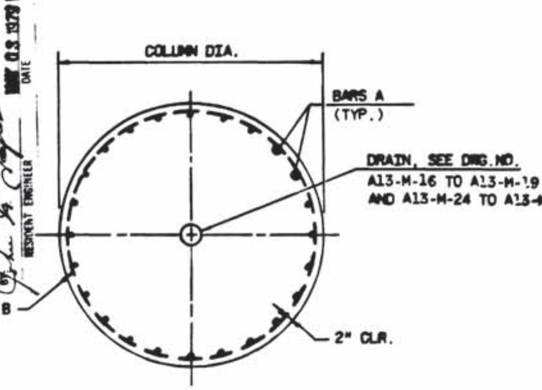
TYPICAL TOP REINFORCEMENT



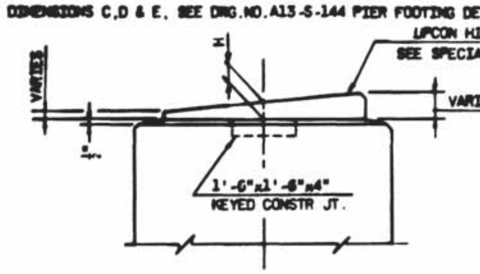
COLUMN PLAN

FOR FRAME A5174, A5225 AND A5419

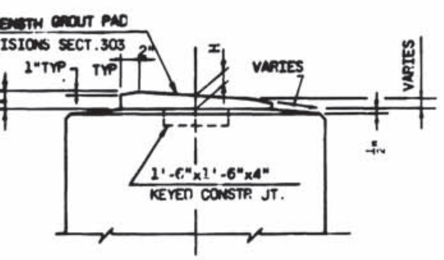
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER
DATE



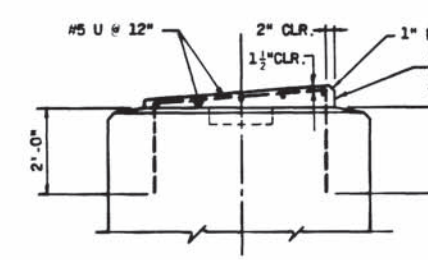
TYPICAL COLUMN SECTION



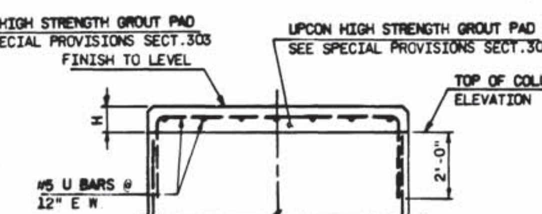
SECTION A-A



SECTION B-B



GROUT PAD REINFORCEMENT DETAIL



SECTION C-C

DESIGNED	Y.C.PAN	6/75
DRAWN	A.W.HOOVER	6/75
CHECKED	E.P.BASAVARAJAN	7/75
APPROVED	(signature)	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-2	KEY PLAN AND ELEV. STA.547+00 TO 536+00
A13-S-3	" " " " STA.536+00 TO 525+00
A13-S-4	" " " " STA.525+00 TO 515+20
A13-S-144	PIER FOOTING DETAILS
A13-S-145	PIER FOOTING SCHEDULE AND UTIL.PROV.DETAIL

REVISIONS

DATE	BY	DESCRIPTION
10/15/76	G.P.	[1] BAR DESIGNATION CHANGED PER P.C.O.#6

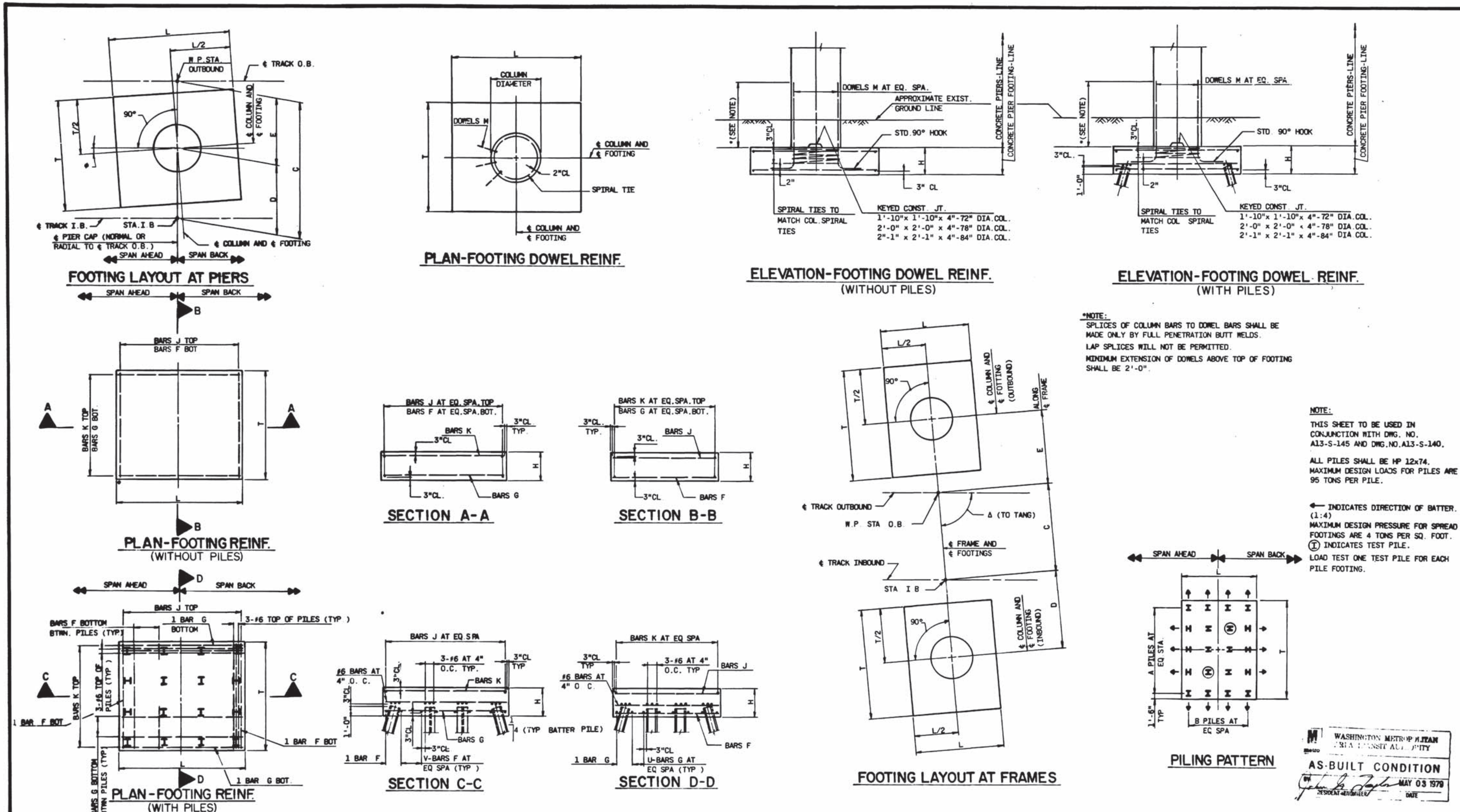
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED (signature)

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED (signature)

ROCKVILLE ROUTE
AERIAL STRUCTURE
COLUMN SCHEDULE AND DETAILS

SCALE: NO SCALE
DRAWING NO. A13-S-140
M220-259



*NOTE:
SPLICES OF COLUMN BARS TO DOWEL BARS SHALL BE MADE ONLY BY FULL PENETRATION BUTT WELDS.
LAP SPLICES WILL NOT BE PERMITTED.
MINIMUM EXTENSION OF DOWELS ABOVE TOP OF FOOTING SHALL BE 2'-0".

NOTE:
THIS SHEET TO BE USED IN CONJUNCTION WITH DWG. NO. A13-S-145 AND DWG.NO.A13-S-140.

ALL PILES SHALL BE HP 12x74. MAXIMUM DESIGN LOADS FOR PILES ARE 95 TONS PER PILE.

← INDICATES DIRECTION OF BATTER. (1:4)
MAXIMUM DESIGN PRESSURE FOR SPREAD FOOTINGS ARE 4 TONS PER SQ. FOOT.
(I) INDICATES TEST PILE.
LOAD TEST ONE TEST PILE FOR EACH PILE FOOTING.

DESIGNED	Y.C.PAN	4/75 DATE
DRAWN	A.W.HOOVER	4/75 DATE
CHECKED	K.P.SADANANDAN	7/75 DATE
APPROVED	[signature]	10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-2	KEY PLAN AND ELEV. STA.547+00 TO 536+00
A13-S-3	" " " " STA.536+00 TO 525+00
A13-S-4	" " " " STA.525+00 TO 515+20
A13-S-145	PIER FOOTING SCHEDULE AND UTIL.PROV.DETAILS
A13-S-140	COLUMN SCHEDULE AND DETAILS

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

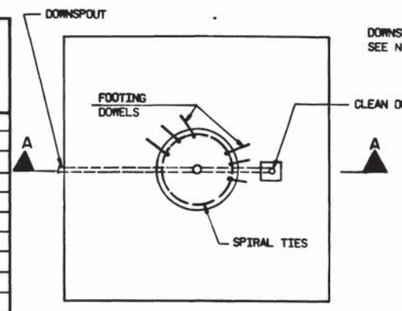
ROCKVILLE ROUTE
AERIAL STRUCTURE
PIER FOOTING DETAILS

SCALE: NO SCALE | DRAWING NO. A13-S-144 | M220-260

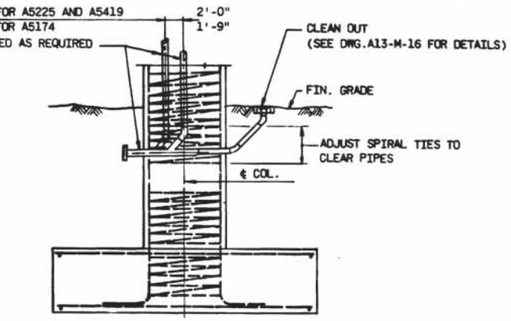
FOOTING SCHEDULE

PIER NO. OR FRAME NO.	STATION O.B.	ANGLE φ	ANGLE Δ	BOTTOM FOOTING ELEVATION	FOOTING DIMENSIONS T	L	H	PILING NO. OF PILES A	B	COLUMN DIA.	FOOTING REINFORCEMENT V	BARS-F	U	BARS-G	BARS J	BARS K	DOWELS M	ACTUAL DESIGN LOAD (TONS/SQ.FT.)
A5186	518+64.00	15°	-	205.00	23'-0"	29'-0"	6'-0"	-	-	6'-6"		58-#10		52-#11	29-#7	23-#7	30-#18	4.02
A5199	519+92.00	0°	-	212.00	21'-0"	20'-0"	5'-0"	-	-	6'-6"		40-#9		42-#9	20-#6	21-#6	17-#18	3.53
A5212	521+20.00	24°	-	221.00	27'-0"	26'-0"	6'-0"	-	-	6'-6"		52-#11		54-#11	26-#8	27-#8	24-#18	3.92
A5238	523+84.00	31°	-	216.00	31'-0"	31'-0"	5'-0"	5	5	7'-6"	10	#14	10	#14	31-#6	31-#6	44-#18	95*
A5248	524+84.00	0°	-	218.00	23'-0"	23'-0"	5'-0"	-	-	6'-6"		46-#10		46-#10	23-#8	23-#8	22-#18	3.93
A5258	525+82.00	0°	-	220.00	23'-0"	27'-0"	5'-0"	-	-	6'-6"		54-#10		54-#11	27-#9	23-#9	36-#18	3.95
A5268	526+80.00	0°	-	220.00	23'-0"	23'-0"	5'-0"	-	-	6'-6"		46-#10		46-#10	23-#8	23-#8	24-#18	3.93
A5279	527+92.00	0°	-	227.00	26'-0"	25'-0"	5'-0"	-	-	6'-6"		54-#11		52-#11	25-#8	26-#8	33-#18	3.88
A5290	529+04.00	0°	-	236.00	25'-0"	23'-0"	5'-0"	-	-	6'-6"		46-#11		50-#10	23-#7	25-#7	19-#18	3.70
A5302	530+16.00	0°	-	234.00	25'-0"	25'-0"	5'-0"	-	-	6'-6"		50-#11		50-#11	25-#7	25-#7	20-#18	3.88
A5313	531+28.00	0°	-	234.00	25'-0"	23'-0"	5'-0"	-	-	6'-6"		46-#11		50-#10	23-#7	25-#7	19-#18	3.70
A5324	532+40.00	0°	-	234.00	25'-0"	25'-0"	5'-0"	-	-	6'-6"		50-#11		50-#11	25-#7	25-#7	20-#18	3.88
A5335	533+52.00	0°	-	230.00	22'-0"	22'-0"	5'-0"	-	-	6'-6"		44-#10		44-#10	22-#7	22-#7	13-#18	3.83
A5345	534+54.00	0°	-	227.00	22'-0"	25'-0"	5'-0"	-	-	6'-0"		50-#10		44-#11	25-#7	22-#7	23-#18	3.94
A5356	535+56.00	0°	-	228.00	22'-0"	22'-0"	5'-0"	-	-	6'-0"		44-#10		44-#10	22-#7	22-#7	17-#18	3.83
A5366	536+58.00	0°	-	228.00	22'-0"	25'-0"	5'-0"	-	-	6'-0"		50-#10		44-#11	25-#7	22-#7	23-#18	3.94
A5376	537+60.00	0°	-	227.00	22'-0"	21'-0"	5'-0"	-	-	6'-6"		42-#10		44-#9	21-#6	22-#6	18-#18	3.81
A5392	539+20.00	0°	-	219.00	27'-0"	33'-0"	7'-0"	-	-	7'-6"		66-#10		54-#14	33-#10	27-#10	44-#18	4.00
A5403	540+30.00	8°	-	219.00	26'-0"	26'-0"	6'-0"	-	-	7'-0"		52-#11		52-#11	26-#9	26-#9	32-#18	3.98
A5435	543+50.00	0°	-	217.00	19'-0"	15'-0"	5'-0"	5	4	6'-6"	6	#11	6	#8	15-#6	19-#6	19-#18	75.5*
A5447	544+75.00	0°	-	221.00	25'-0"	25'-0"	5'-0"	-	-	6'-6"		50-#11		50-#11	25-#8	25-#8	28-#18	3.90
A5174 WEST	517+42.00		60°	214.00	21'-0"	18'-0"	4'-6"	-	-	7'-0"		36-#9		42-#9	18-#6	21-#6	28-#18	3.90
A5174 EAST				205.00	18'-0"	18'-0"	4'-6"	-	-	7'-0"		36-#9		36-#9	18-#6	18-#6	28-#14	3.53
A5225 WEST	522+52.00		64°	217.00	27'-0"	21'-0"	5'-6"	-	-	7'-0"		42-#11		54-#9	21-#9	27-#6	34-#18	3.92
A5225 EAST				213.00	15'-0"	18'-0"	5'-0"	3	4	7'-0"	5	#9	9	#9	18-#6	15-#6	28-#14	74.2*
A5419 WEST	541+90.00		90°	217.00	27'-0"	24'-0"	6'-0"	5	4	7'-0"	10	#11	8	#10	24-#6	27-#6	34-#18	95.0*
A5419 EAST				217.00	21'-0"	24'-0"	6'-0"	4	4	7'-0"	10	#7	8	#10	24-#6	21-#6	34-#14	86.0*

NOTE:
THIS SHEET TO BE USED IN CONJUNCTION WITH DWG.NO.A13-S-144.
* INDICATES TONS PER PILE.

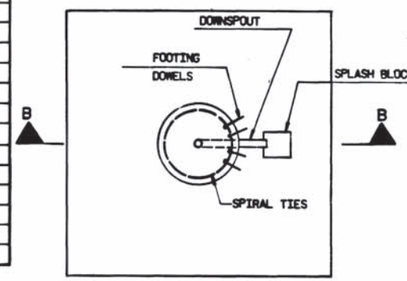


PLAN

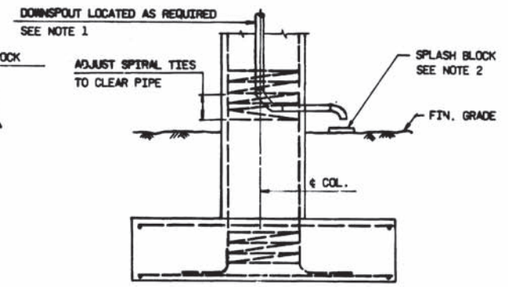


SECTION A-A [1]

PIER NOS. A5174, A5186, A5199, A5212, A5238, A5248, A5258, A5335, A5345, A5356, A5366, A5376, A5392, A5403, A5419, A5447



PLAN



SECTION B-B [1]

PIER NOS. A5225, A5279, A5290, A5302, A5313, A5324, A5435

NOTES:

1. FOR SIZE AND LOCATION OF DOWNSPOUT SEE DWG. NO. A13-M-16, A13-M-17, A13-M-18, A13-M-19, A13-M-24, A13-M-25, AND A13-M-26.
2. FOR SIZE AND LOCATION OF SPLASH BLOCK SEE DWG. NO. A13-U-22.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
BY _____ RESIDENT ENGINEER
MAY 03 '78 DATE

DESIGNED	Y.C.PAN	4/76 DATE
DRAWN	G.PAPAGLFINO	8/75 DATE
CHECKED	K.P.SADANANDAN	7/75 DATE
APPROVED	Fred Andrejk	10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-144	PIER FOOTING DETAILS

REVISIONS

DATE	BY	DESCRIPTION
10-11-76	GMS	[1] CHANGED PIER NOTATIONS A5225, A5324 & A5435 FROM SEC. A-A TO SEC. B-B PER PCO8

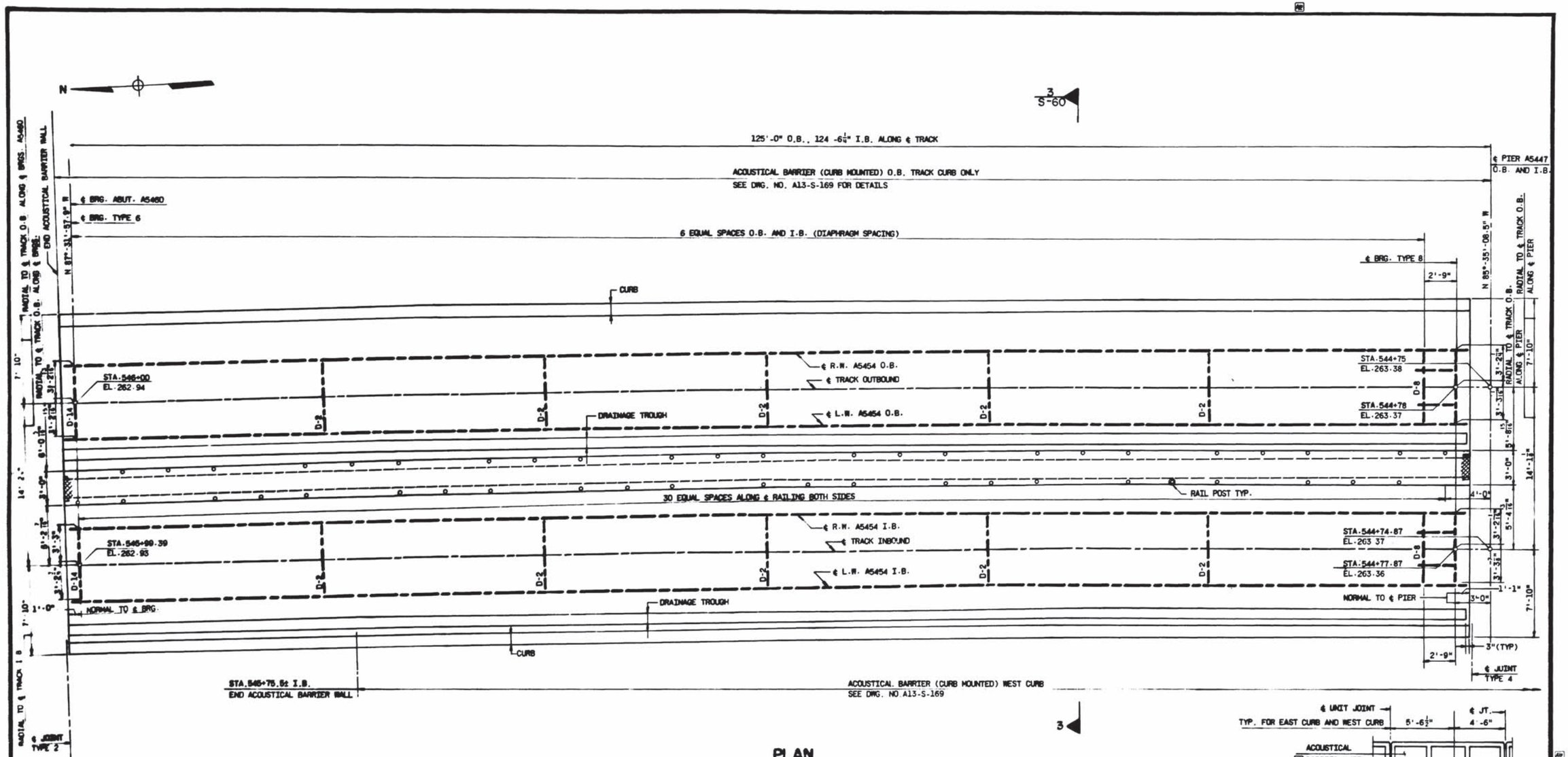
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED _____

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □
APPROVED _____

ROCKVILLE ROUTE
AERIAL STRUCTURE
PIER FOOTING SCHEDULE AND UTILITY PROVISION DETAIL

SCALE	DRAWING NO.	
NO SCALE	A13-S-145	M220-261



PLAN

PARTIAL ELEVATION
UNIT A5454 OB. & IB.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
RESIDENT ENGINEER — DATE

DESIGNED	C.P.LEE	12/74
DRAWN	G.PARSOLI'80	12/74
CHECKED	A.M.PATEL	5/75
APPROVED		10/78

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-00	BOX GIRDER SCHEDULE
A13-S-113	BEARING ASSEMBLIES
A13-S-109	ACOUSTICAL BARRIER ELEV., SECT. & DET.

REVISIONS		
DATE	BY	DESCRIPTION
2-12-76	C.L.	AR OMITTED ACOUSTICAL MATERIAL AND REVISED KEY WORD

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT □
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5454 OB. AND I.B.
PLAN

SCALE 1/4"=1'-0" (0 1 2 3 4 5)
DRAWING NO. A13-S-63
M220-262

PLAN

PARTIAL ELEVATION EAST SIDE
UNIT A5441

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER
MAY 03 1979
DATE

DESIGNED	C.P.LEE	12/74
DRAWN	G.PANDOLFINO	12/74
CHECKED	A.M.PATEL	8/75
APPROVED	Ted Andrea	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-93	BOX GIRDER SCHEDULE
A13-S-169	ACOUSTICAL BARRIER ELEV., SECT.& DETAIL

REVISIONS

DATE	BY	DESCRIPTION
2-12-76	C.L.	AE OMITTED ACOUSTICAL MATERIAL AND REVISED KEY WORD

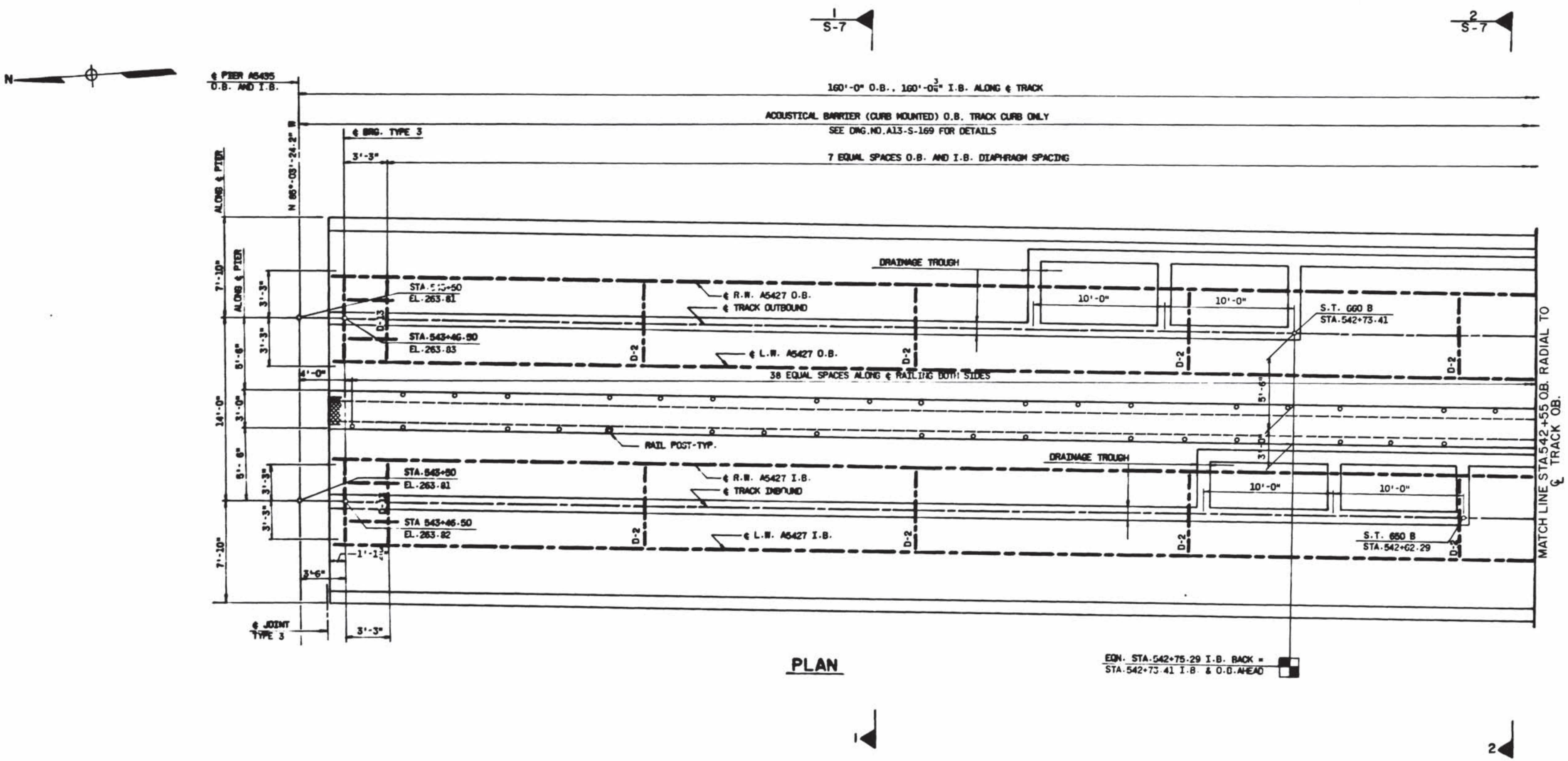
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY ■
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES ☐
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5441 O.B. AND I.B.
PLAN

SCALE ¼" = 1'-0"
DRAWING NO. A13-S-56
M220-263



PLAN

1
2

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS BUILT CONDITION
MAY 03 1979
RESIDENT ENGINEER
DATE

DESIGNED	C.P.LEE	12/76
DRAWN	G.PANDOLFINO	12/76
CHECKED	A.M.PATEL	6/76
APPROVED	[signature]	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAIL
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	BOX GIRDER SCHEDULE
A13-S-169	ACOUSTICAL BARRIER ELEV. SECT.& DETAILS

REVISIONS

DATE	BY	DESCRIPTION

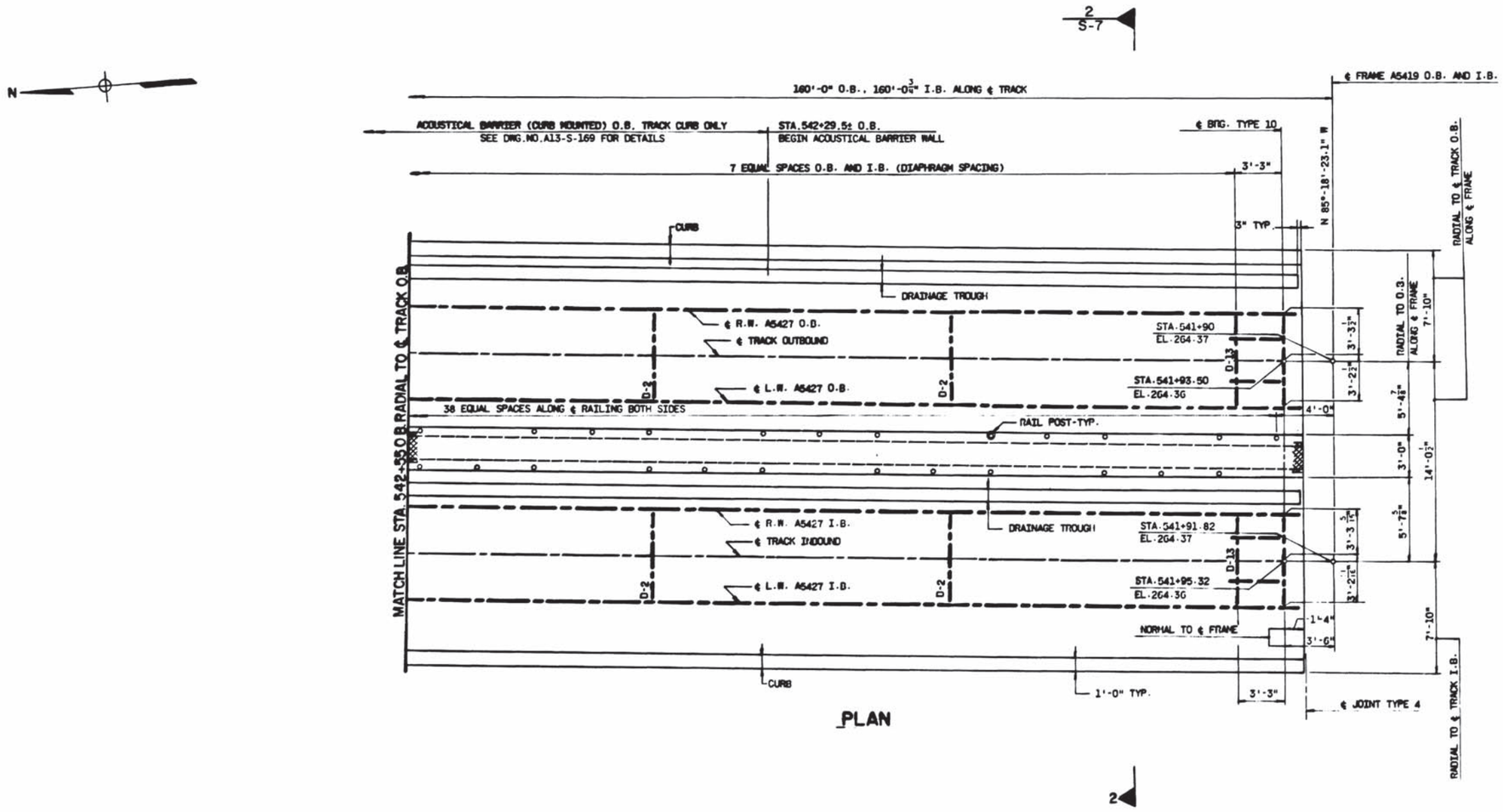
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5427 O.B. AND I.B.
PARTIAL PLAN

SCALE ¼"=1'-0"
DRAWING NO. A13-S-62
M220-264



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
RAILWAY ENGINEER — DATE

DESIGNED	C.P.LEE	12/74 DATE
DRAWN	G.PAPADOPOULOS	12/74 DATE
CHECKED	A.M.PATEL	6/75 DATE
APPROVED	[signature]	10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	BOX GIRDER SCHEDULE
A13-S-169	ACOUSTICAL BARRIER ELEV., SECT. & DET.

REVISIONS

DATE	BY	DESCRIPTION

STATE OF MARYLAND

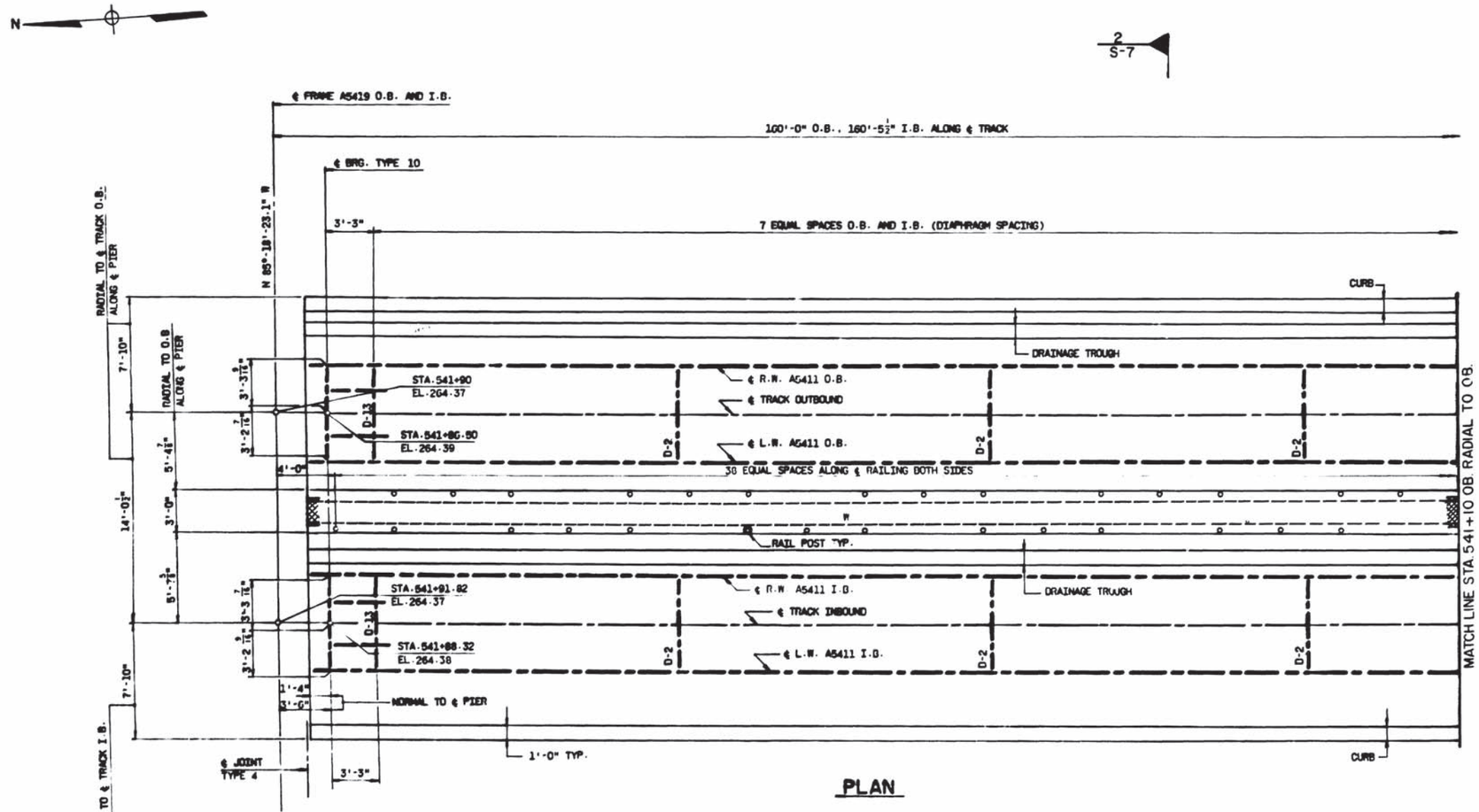
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY ■
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES □
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5427 O.B. AND I.B.
PARTIAL PLAN

SCALE 1" = 1'-0" 0 1 2 3 4 5
DRAWING NO. A13 - S - 61
M220-265



PLAN

2

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
DATE

DESIGNED	C.P. LEE	12/74
DRAWN	G. PARSOLFINO	12/74
CHECKED	A.M. PATEL	/75
APPROVED	Ted. Quadrupani	10/75

REFERENCE DRAWINGS		
NUMBER	DESCRIPTION	
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS	
A13-S-112	BEARING ASSEMBLIES	
A13-S-110	DIAPHRAGM DETAILS	
A13-S-88	BOX GIRDER SCHEDULE	

REVISIONS		
DATE	BY	DESCRIPTION

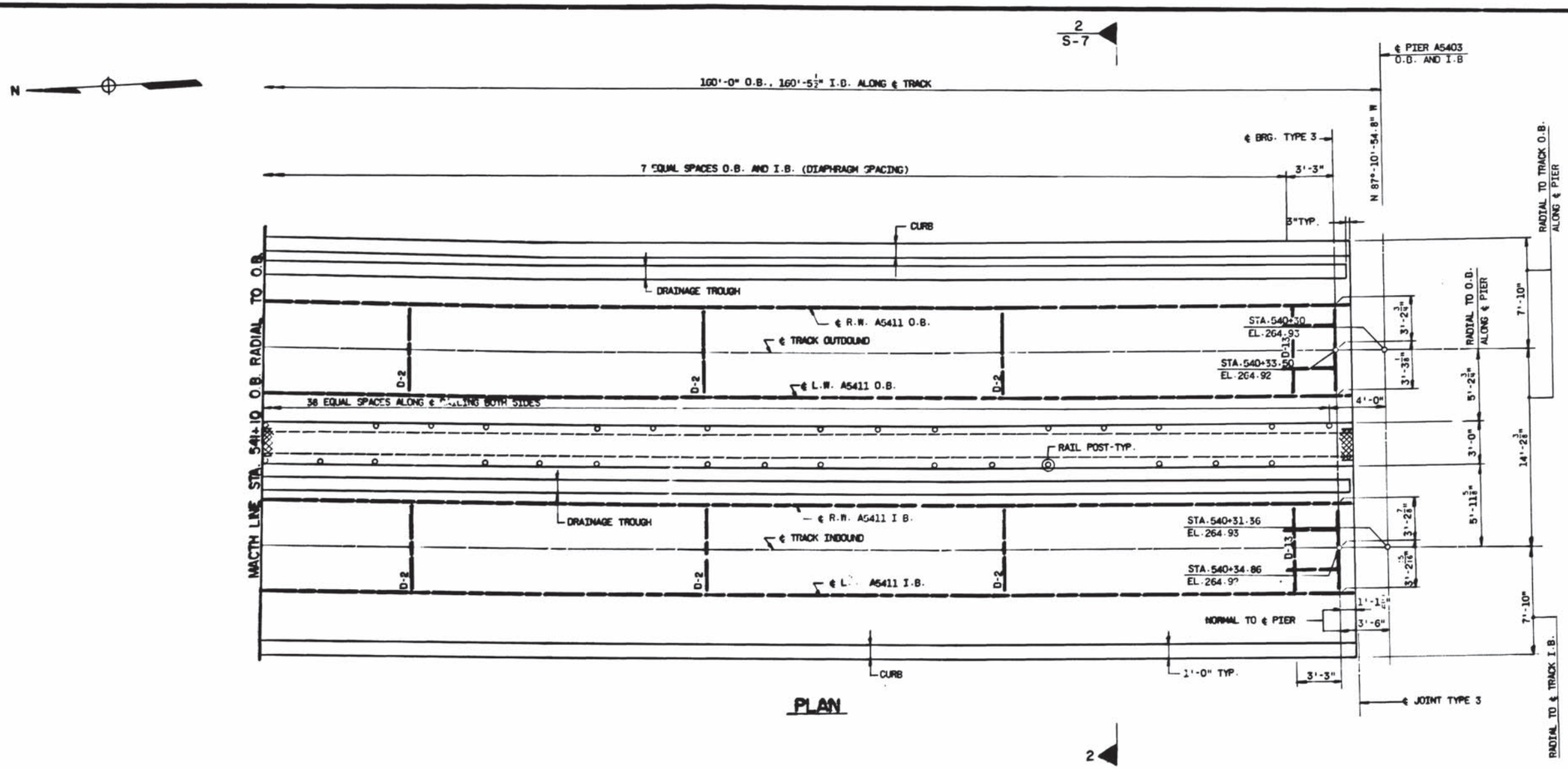
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5411 O.B. AND I.B.
PARTIAL PLAN

SCALE 1/4"=1'-0"
DRAWING NO. A13-S-55
M220-266



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

RESIDENT ENGINEER — DATE MAY 03 1979

DESIGNED	C.P.LEE	12/74 DATE
DRAWN	G PANDOLFINO	12/74 DATE
CHECKED	A.M.PATEL	1/75 DATE
APPROVED	Fred Ambrosi	10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A1 1-80	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■

HARRY WEEBE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □

APPROVED

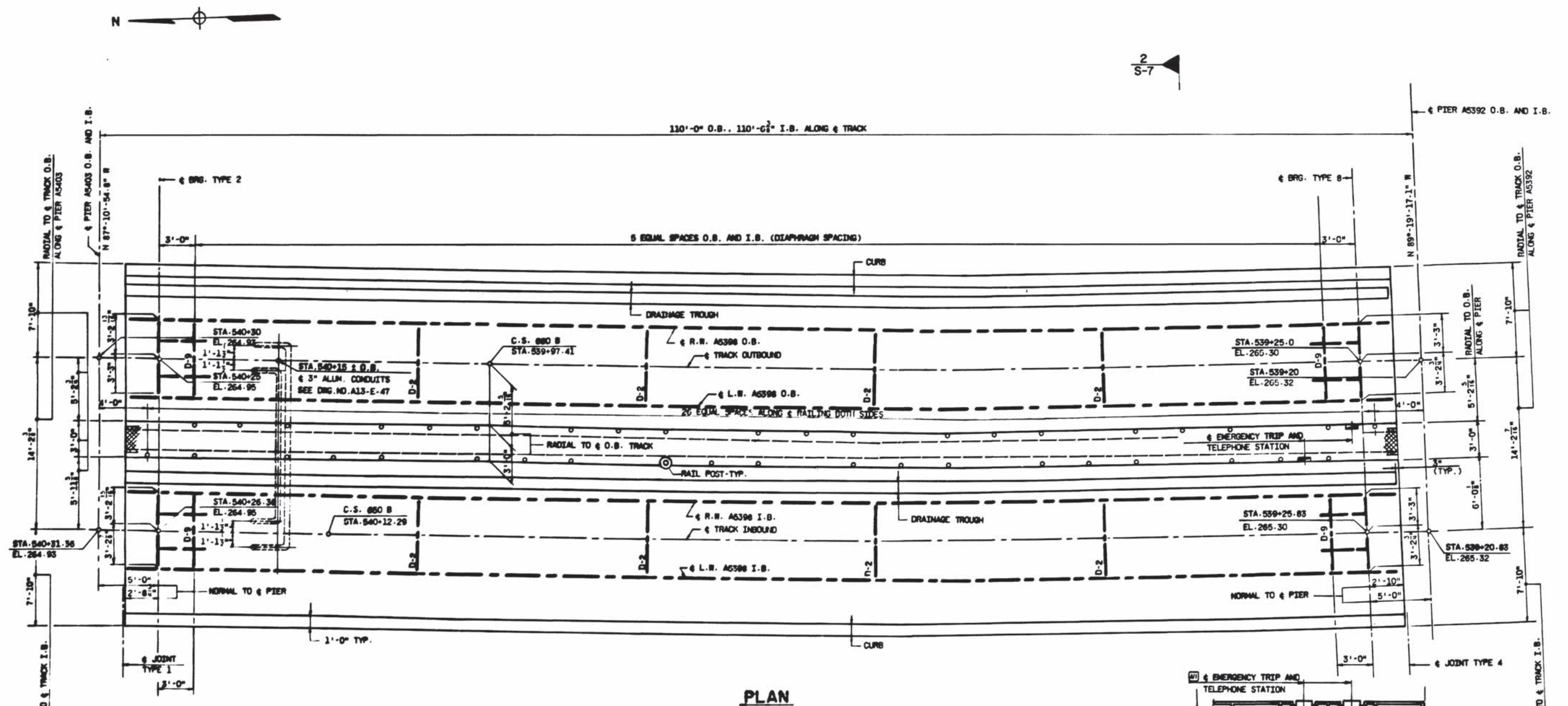
ROCKVILLE ROUTE

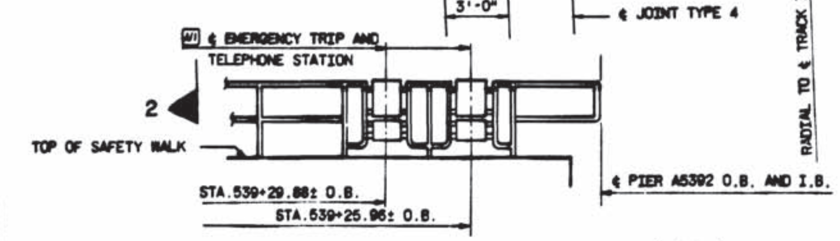
AERIAL STRUCTURE
UNIT A 5411 O.B. AND I.B.
PARTIAL PLAN

SCALE 1/4"=1'-0"

DRAWING NO. A13-S-54

M220-267





PARTIAL ELEVATION
UNIT A5398 O.B. & I.B.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — MAY 03 1979 — DATE

DESIGNED	C.P.LEE	12/75
DRAWN	G.PANDOLFINO	12/75
CHECKED	A.M.PATEL	5/75
APPROVED	[signature]	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-89	BOX GIRDER SCHEDULE
A13-S-109	TYP RAILING DETAILS AND EMERGENCY TRIP AND TELEPHONE STATION

REVISIONS

DATE	BY	DESCRIPTION
1-23-76	A.P.	A/1 REVISED EMERGENCY TRIP STATION LOCATION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

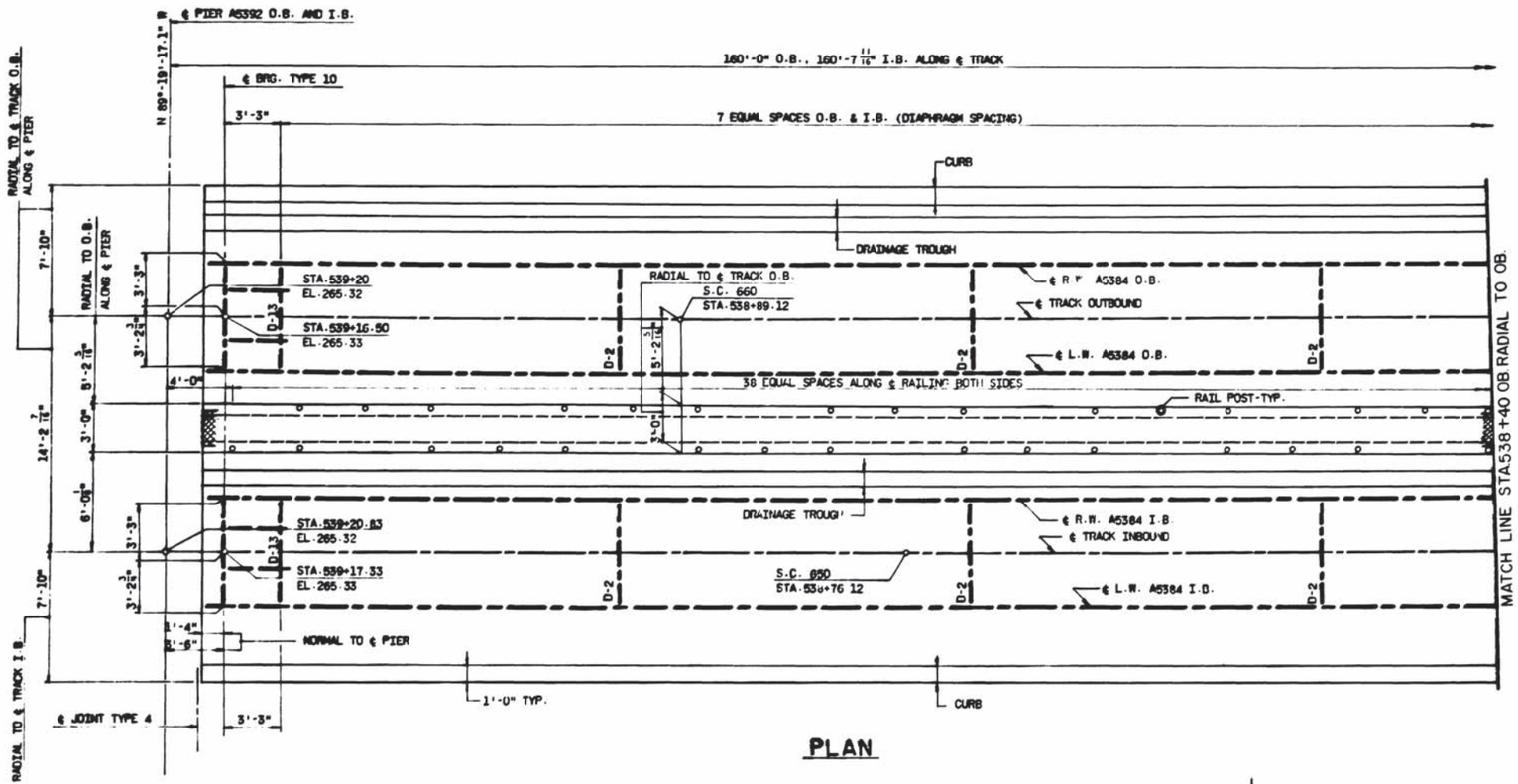
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5398 O.B. AND I.B.
PLAN

SCALE ¼" = 1'-0"
DRAWING NO. A13-S-48
M220-268

N

2
S-7



PLAN

2

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — DATE MAY 08 '79

DESIGNED	C.P.LEE	12/78 DATE
DRAWN	G. PARSELHO	12/78 DATE
CHECKED	A.M. PATEL	5/79 DATE
APPROVED		10/79 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

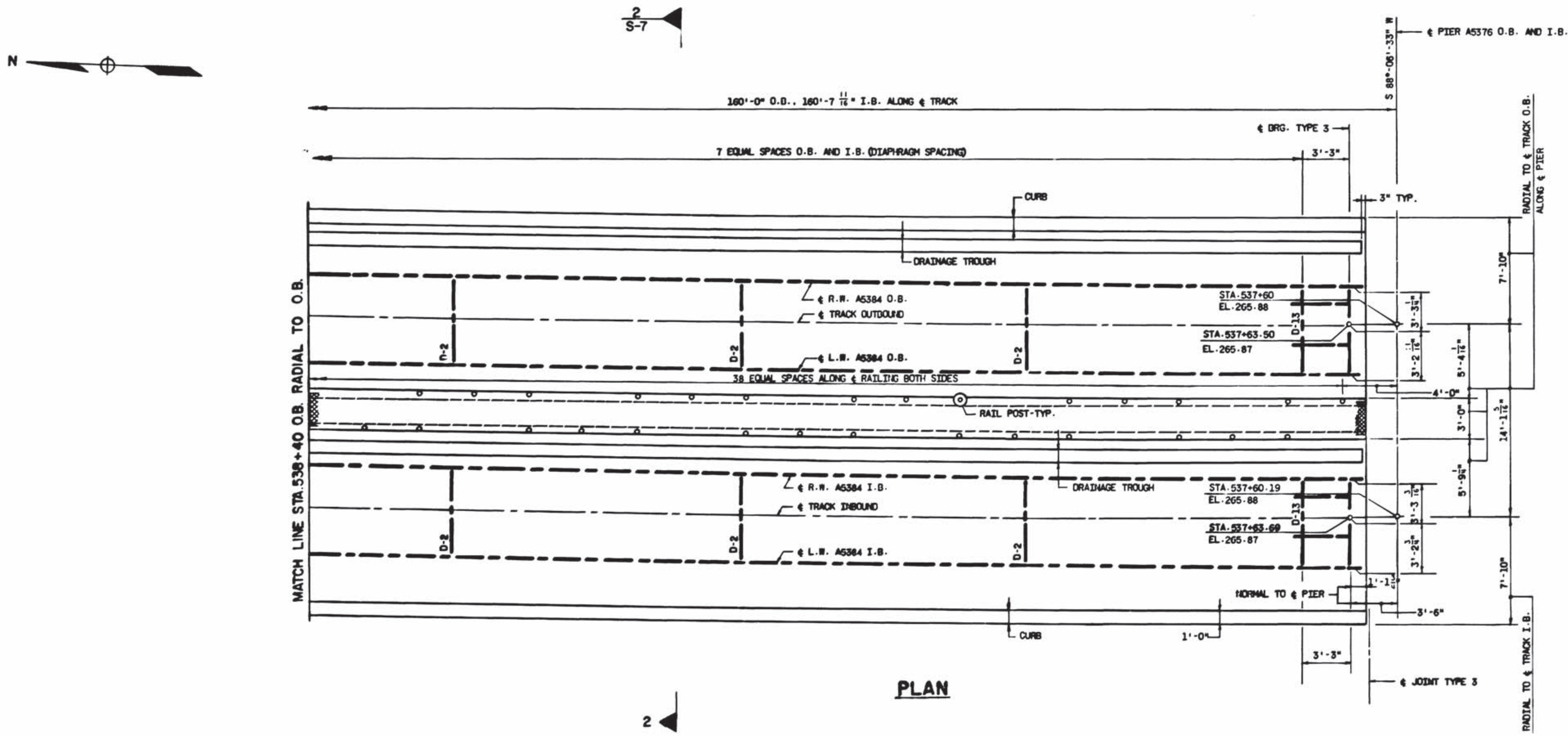
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY ■
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES □
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5384 O.B AND I.B.
PARTIAL PLAN

SCALE 1" = 4'-0"
DRAWING NO A13-S-47
M220-269



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
RESIDENT ENGINEER DATE

DESIGNED	C.P. LEE	12/74
DRAWN	G. PANDOLFINO	12/74
CHECKED	A.N. PATEL	6/75
APPROVED	[signature]	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-46	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

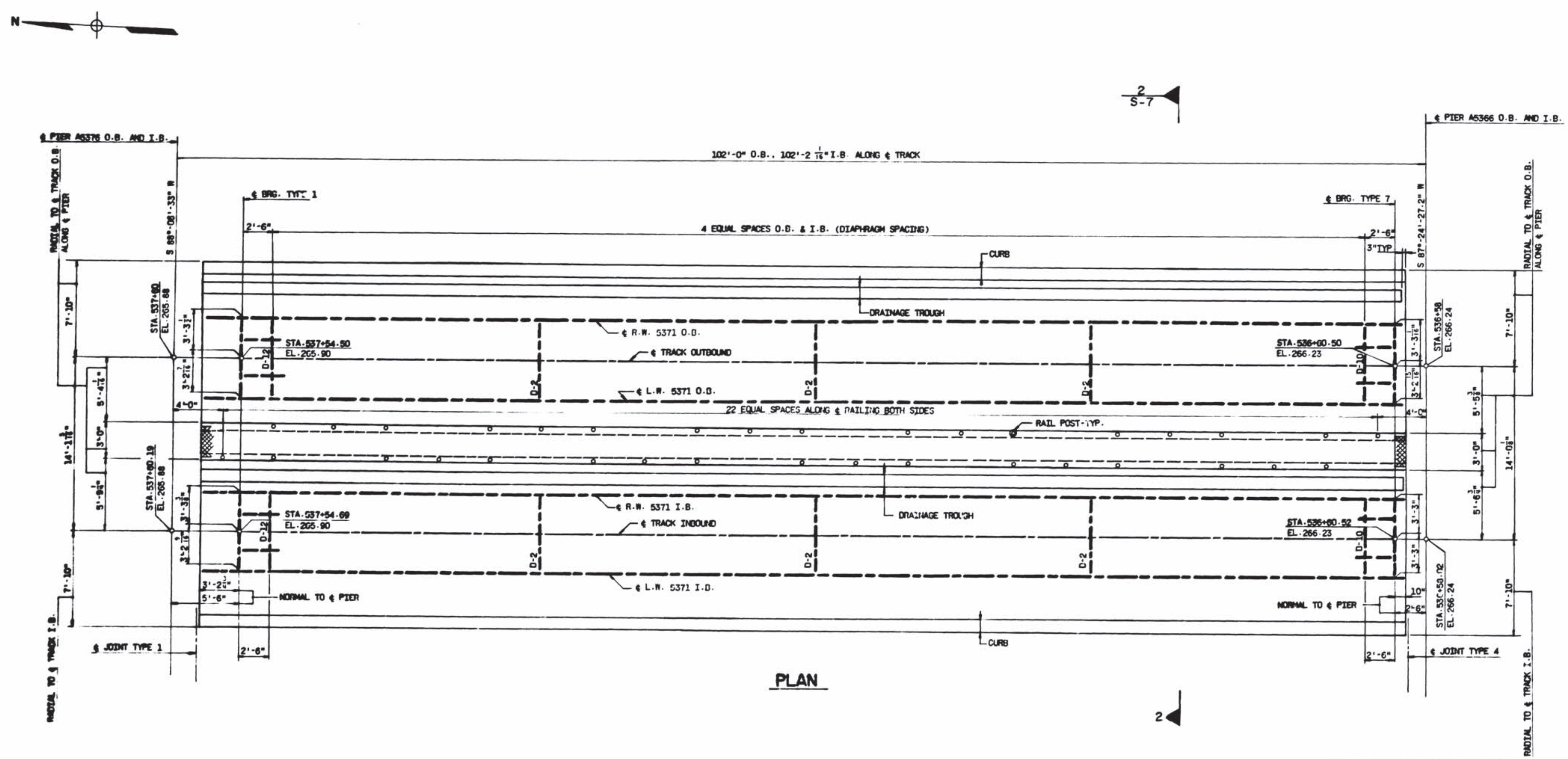
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5384 O.B. AND I.B.
PARTIAL PLAN

SCALE 1/4" = 1'-0"
DRAWING NO. A13-S-46
M220-270



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

RESIDENT ENGINEER — DATE 03 '79

DESIGNED	C.P. LEE	12/76
DRAWN	G. PANDOLFINO	12/76
CHECKED	A.M. PATEL	6/76
APPROVED		

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-03	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

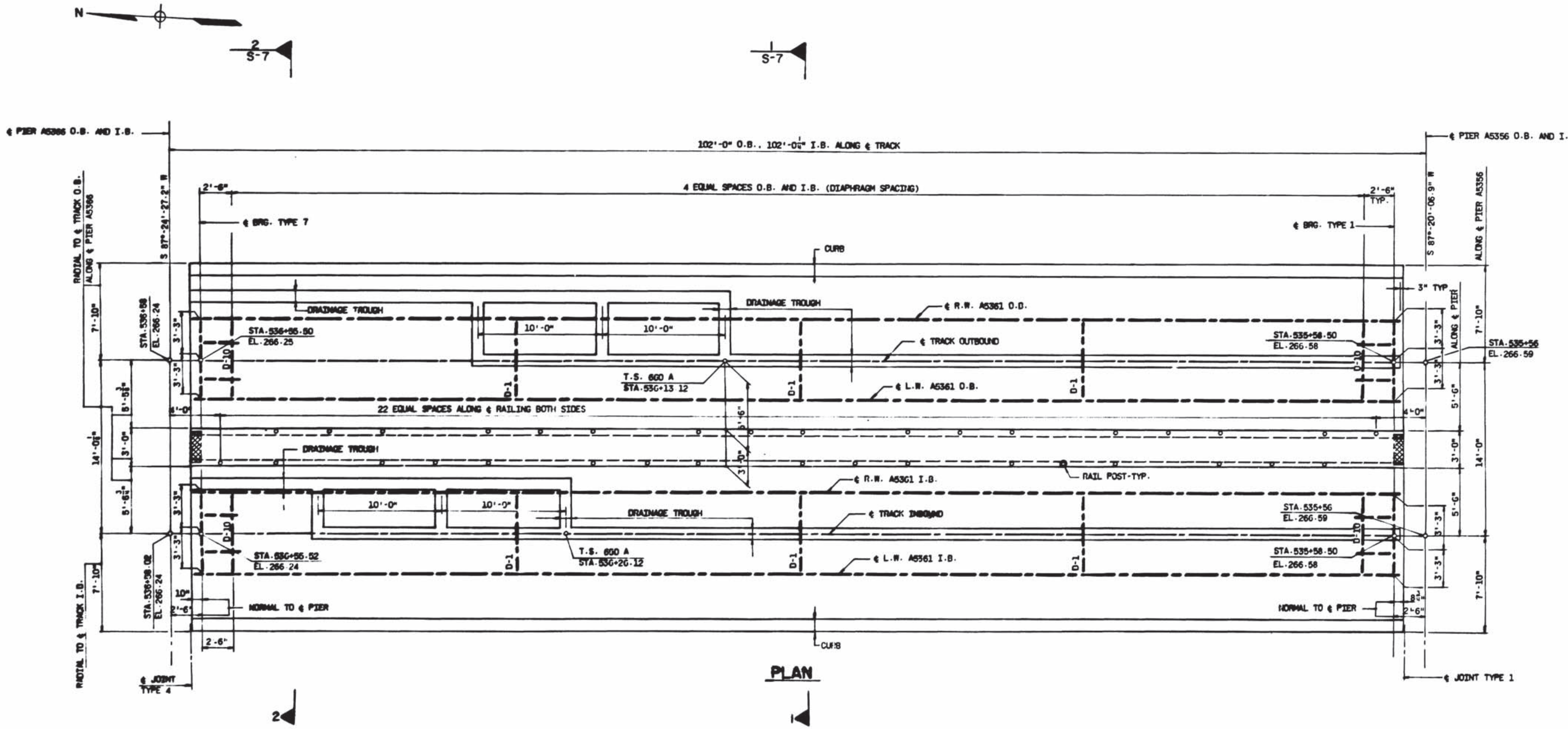
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5371 O.B. AND I.B.
PLAN

SCALE 1/4"=1'-0"

DRAWING NO. A13-S-41

M220-271



DESIGNED	C.P. LEE	12/74
DRAWN	G.PANDOLFINO	12/74
CHECKED	A.N. PATEL	6/75
APPROVED	[signature]	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-98	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

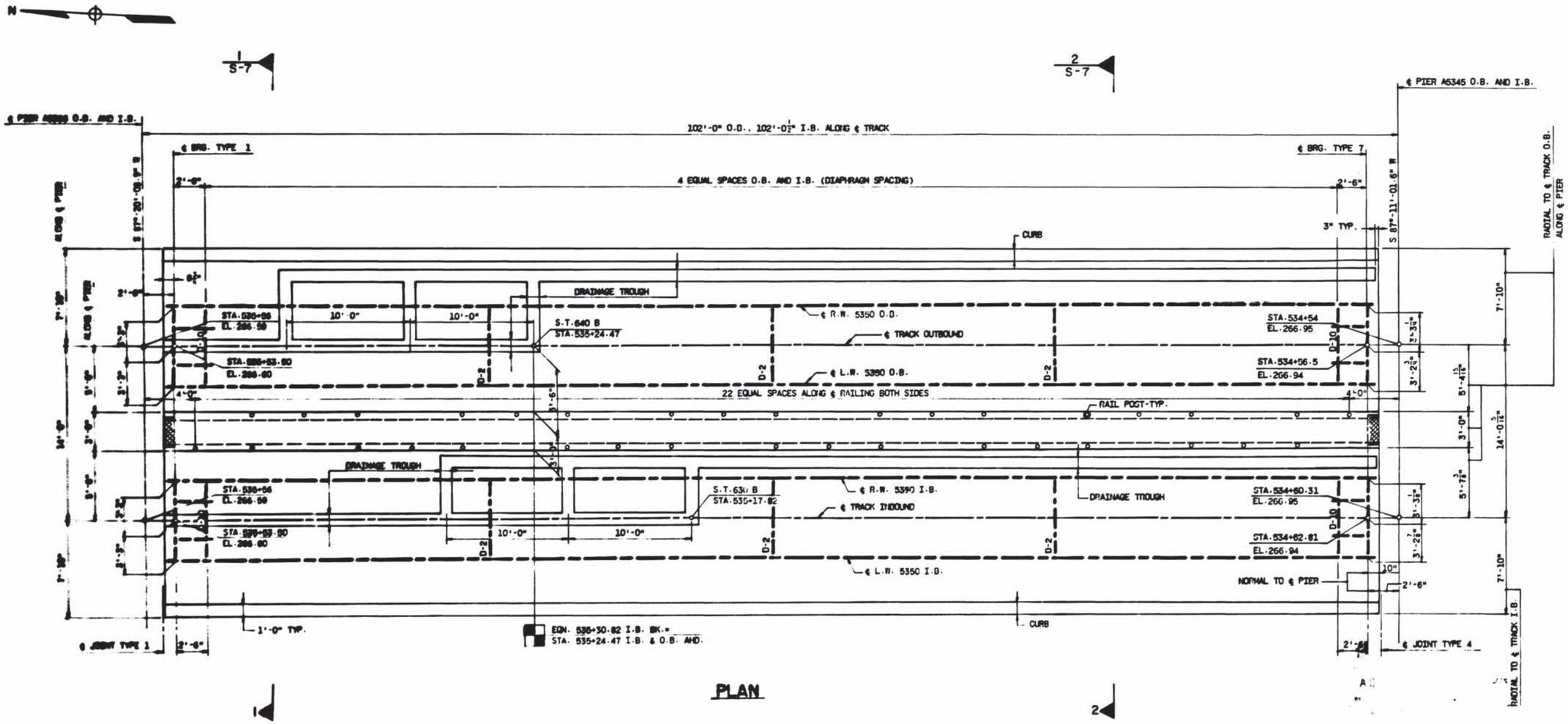
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5361 O.B. AND I.B.
PLAN

SCALE ¼" = 1'-0"
DRAWING NO. A13-S-39
M220-272



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

RESIDENT ENGINEER — DATE MAY 03 1978

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A-S-37	SAFETY WALK AND CABLE TROUGH DETAILS
A-S-38	BEARING ASSEMBLIES
A-S-39	DIAPHRAGM DETAILS
A-S-40	BOX GIRDER SCHEDULE

REVISIONS		
DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANTS

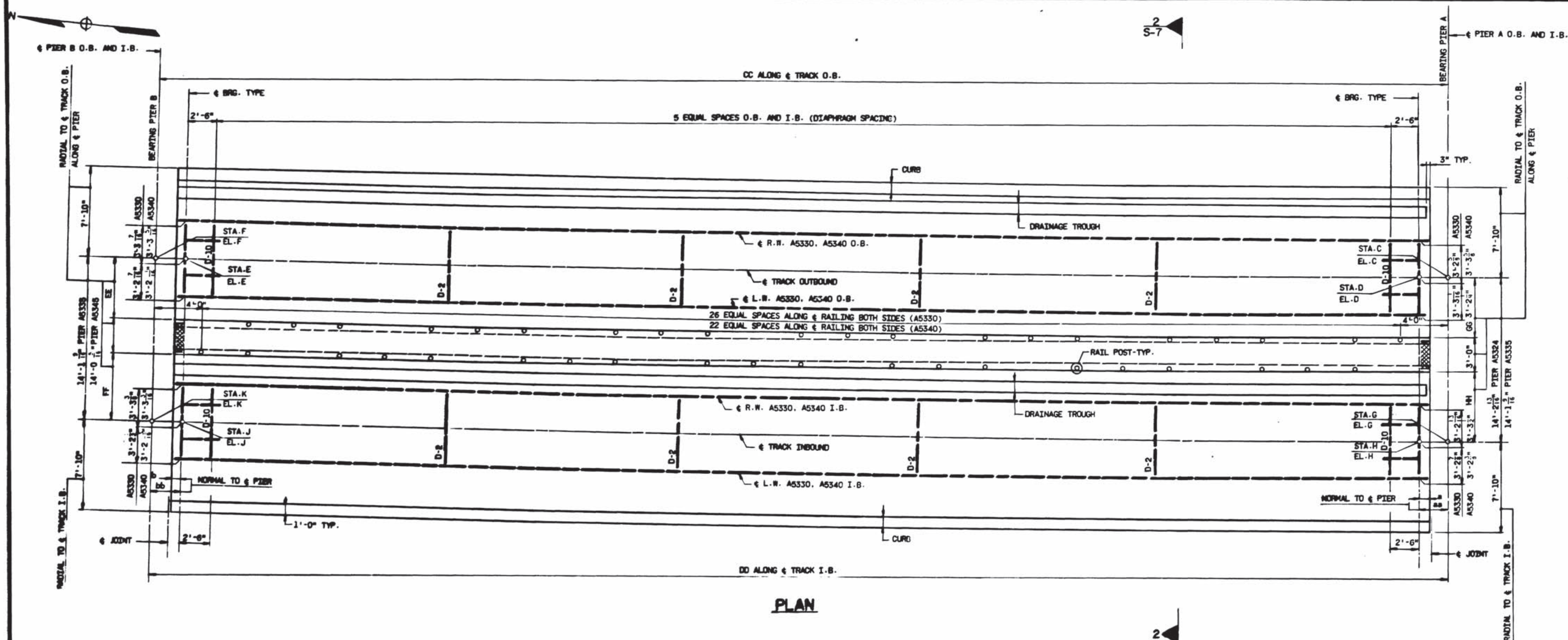
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5350 O.B. AND I.B.
PLAN

SCALE 1"=10' 0 1 2 3 4 5

DRAWING NO. A13-S-38

M220-273



PLAN

UNIT	PIER A	PIER B	STA.C	STA.D	STA.E	STA.F	STA.G	STA.H	STA.J	STA.K	EL. C	EL. D	EL. E	EL. F	EL. G	EL. H	EL. J	EL. K	PIER A a	PIER A aa	PIER B b	PIER B bb	CC	DD	EE	FF	GG	HH	BEARING PIER A	BEARING PIER B	TYPE OF JT. PIER A	TYPE OF JT. PIER B	BRG. TYPE PIER A	BRG. TYPE PIER B
A5330 *	A5324 *	A5336 *	532+40	532+42.80	533+49.80	533+52	532+45.74	532+48.24	533+56.63	533+58.13	267.70	267.69	267.32	267.31	267.70	267.69	267.32	267.31	0'-10"	2'-6"	0'-8 3/4"	2'-6"	112'-0"	112'-4 11/16"	5'-3 7/16"	5'-10 1/8"	5'-1 3/4"	6'-1 1/16"	S84°-52'-14.5"W	S86°-25'-45"W	4	1	7	1
A5340 *	A5335 *	A5346 *	533+82	533+84.80	534+51.80	534+54	533+58.13	533+60.63	534+57.81	534+60.31	267.31	267.30	266.96	266.96	267.31	267.30	266.96	266.95	0'-8 3/4"	2'-6"	0'-10"	2'-6"	102'-0"	102'-2 3/16"	5'-4 15/16"	5'-7 3/8"	5'-3 7/16"	5'-10 1/8"	S86°-25'-45"W	S87°-11'-01.6"W	1	4	1	7

* O.B. & I.B.

DESIGNED C.P. LEE 12/74 DATE
DRAWN G. PASSOLFINO 12/74 DATE
CHECKED A.H. PATEL 5/75 DATE
APPROVED 10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

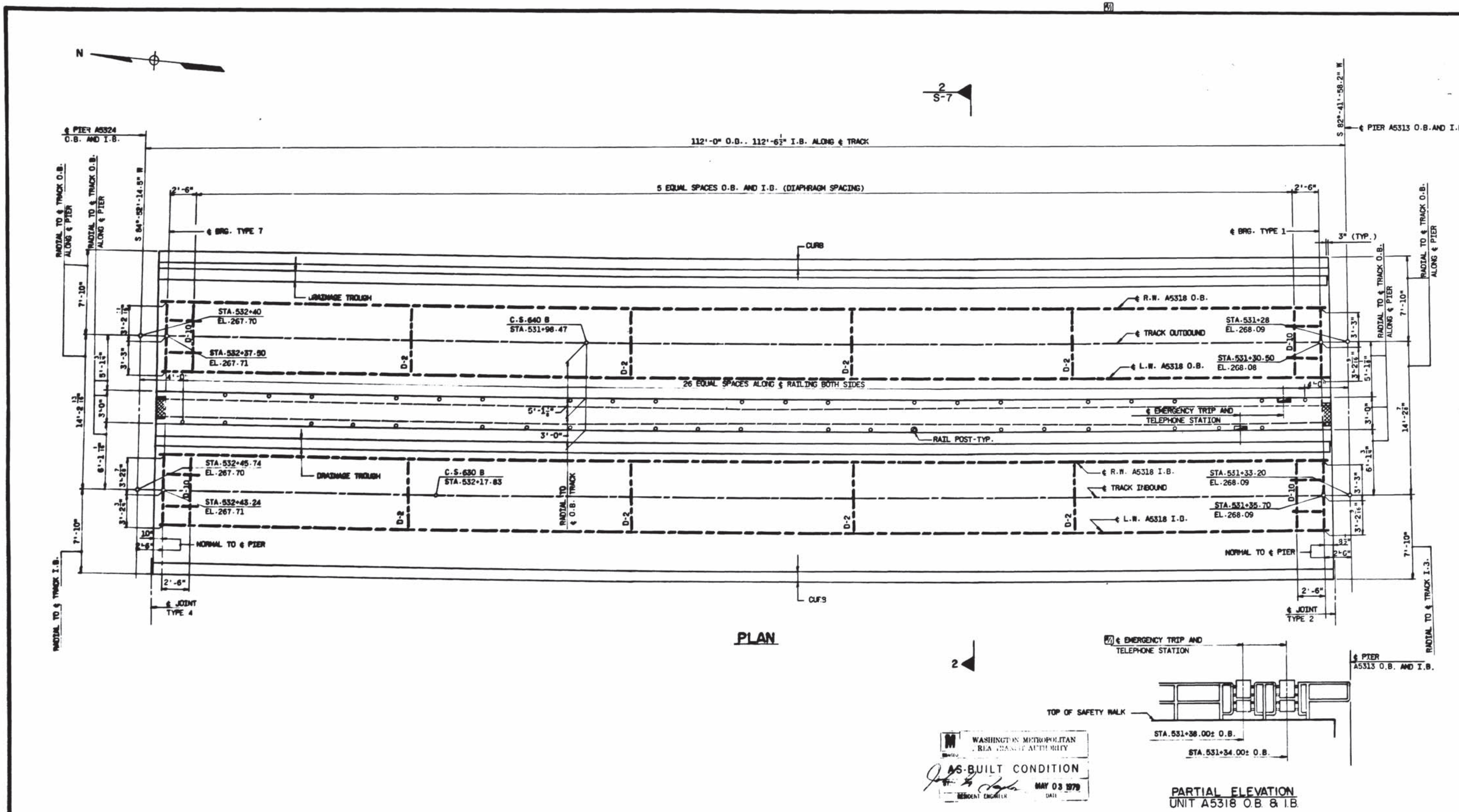
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNITS A5330, A5340 O.B. AND I.B.
PLAN

SCALE 1/4" = 1'-0" 0 1 2 3 4 5
DRAWING NO. A13-S-45
M220-274



DESIGNED C.P. LEE 12/74
DRAWN G. PANDOLFINO 12/74
CHECKED A.M. PATEL 5/75
APPROVED [signature]

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	BOX GIRDER SCHEDULE
A13-S-168	TYP RAILING DETAILS AND EMERGENCY TRIP AND TELEPHONE STATION

REVISIONS

DATE	BY	DESCRIPTION
1-23-76	A.P.	REVISED EMERGENCY TRIP STATION LOCATION

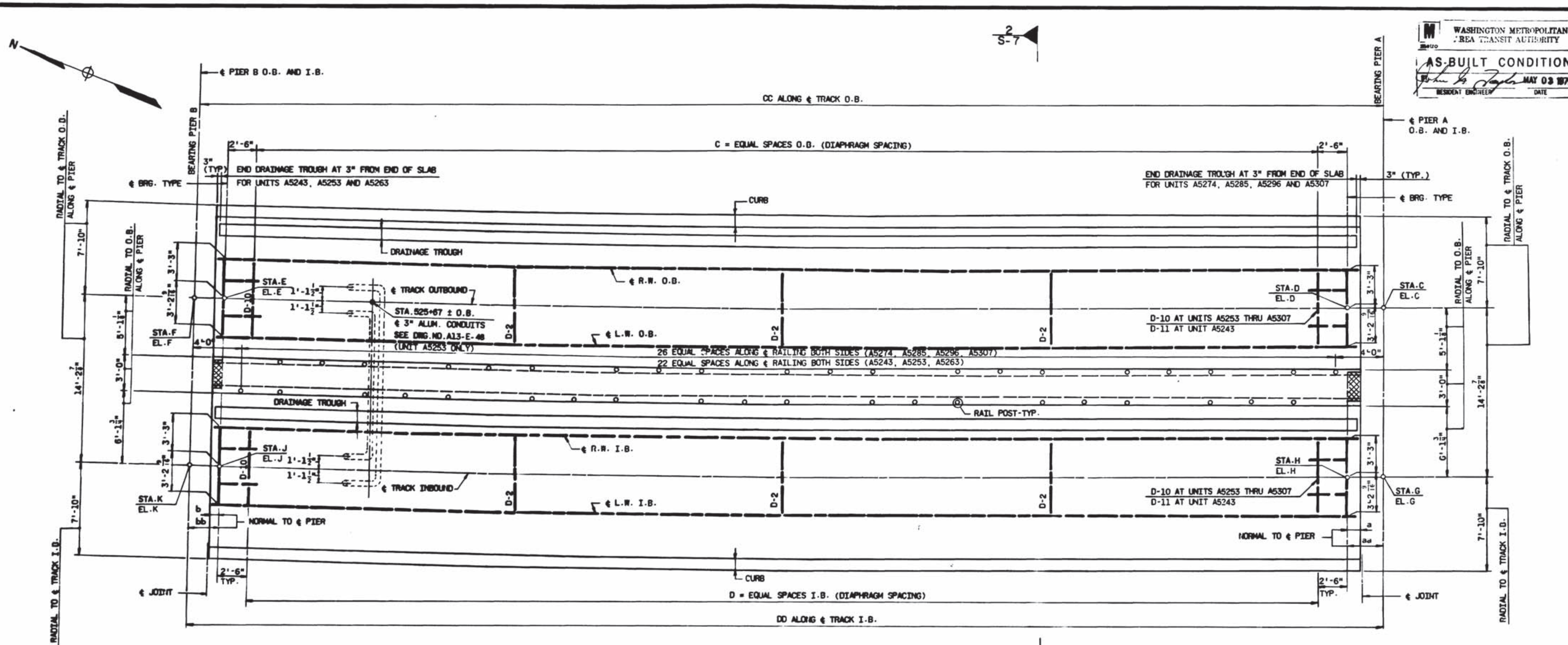
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5318 O.B. AND I.B.
PLAN

SCALE ¼" = 1'-0"
DRAWING NO. A13-S-35
M220-275



PLAN

UNIT	PIER A	PIER B	STA.C	STA.D	STA.E	STA.F	STA.G	STA.H	STA.J	STA.K	EL.C	EL.D	EL.E	EL.F	EL.G	EL.H	EL.J	EL.K	PIER A a	PIER A aa	PIER B b	PIER B bb	CC	DD	BEARING PIER A	BEARING PIER B	TYPE OF JOINT PIER A	TYPE OF JOINT PIER B	BRG. TYPE PIER A	BRG. TYPE PIER B	DIAPH.SPA. C	DIAPH.SPA. D
A5243 OB:IB	A5238 OB:IB	A5248 OB:IB	523+84	523+87.75	524+81.5	524+84	523+85.53	523+89.28	524+83.52	524+86.02	267.68	267.73	268.85	268.87	267.72	267.77	268.88	268.90	1'-10"	3'-9"	0'-8 3/4"	2'-6"	100'-0"	100'-5 7/8"	S67°55'-39.5"W	S69°-54'-47.1"W	4	1	7	1	4	4
A5253 OB:IB	A5248 OB:IB	A5258 OB:IB	524+84	524+86.5	525+79.5	525+82	524+86.02	524+88.52	525+82.01	525+84.51	268.87	268.89	269.50	269.51	268.90	268.93	269.53	269.53	0'-8 3/4"	2'-6"	0'-10"	2'-6"	98'-0"	98'-5 7/8"	S69°54'-47.1"W	S71°-51'-32.1"W	1	4	1	7	4	4
A5263 OB:IB	A5258 OB:IB	A5268 OB:IB	525+82	525+84.5	526+77.5	526+80	525+84.51	525+87.01	526+80.49	526+82.99	269.51	269.52	269.63	269.62	269.53	269.54	269.64	269.64	0'-10"	2'-6"	0'-8 3/4"	2'-6"	98'-0"	98'-5 3/4"	S71°51'-32.1"W	S73°-48'-16.7"W	4	1	7	1	4	4
A5274 OB:IB	A5268 OB:IB	A5279 OB:IB	526+80	526+82.5	527+89.5	527+92	526+82.99	526+85.49	527+93.04	527+95.54	269.62	269.62	269.28	269.27	269.64	269.63	269.29	269.28	0'-8 1/2"	2'-6"	0'-10"	2'-6"	112'-0"	112'-6 5/8"	S73°48'-16.7"W	S76°-01'-42.1"W	2	4	1	7	5	5
A5285 OB:IB	A5279 OB:IB	A5290 OB:IB	527+92	527+94.5	529+01.5	529+04	527+95.54	527+98.04	529+05.60	529+08.10	269.27	269.26	268.88	268.88	269.28	269.27	268.89	268.88	0'-10"	2'-6"	0'-8 1/2"	2'-6"	112'-0"	112'-6 3/4"	S76°01'-42.1"W	S78°-15'-07.6"W	4	2	7	1	5	5
A5296 OB:IB	A5290 OB:IB	A5302 OB:IB	529+04	529+06.5	530+13.5	530+16	529+08.10	529+10.60	530+18.15	530+20.65	268.88	268.87	268.49	268.48	268.88	268.87	268.50	268.49	0'-8 1/2"	2'-6"	0'-10"	2'-6"	112'-0"	112'-6 5/8"	S78°15'-07.6"W	S80°-28'-33.2"W	2	4	1	7	5	5
A5307 OB:IB	A5302 OB:IB	A5313 OB:IB	530+16	530+18.5	531+25.5	531+28	530+20.65	530+23.15	531+30.70	531+33.20	268.48	268.47	268.10	268.09	268.49	268.48	268.10	268.09	0'-10"	2'-6"	0'-8 1/2"	2'-6"	112'-0"	112'-6 5/8"	S80°28'-33.2"W	S82°-41'-58.2"W	4	2	7	1	5	5

DESIGNED	C.P.LEE	12/74 DATE
DRAWN	G.PANNOLFINO	12/74 DATE
CHECKED	A.M.PATEL	5/75 DATE
APPROVED	Tad Andrzejewski (signature)	10/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	JOX GIRDER SCHEDULE
A13-S-93	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED (signature)

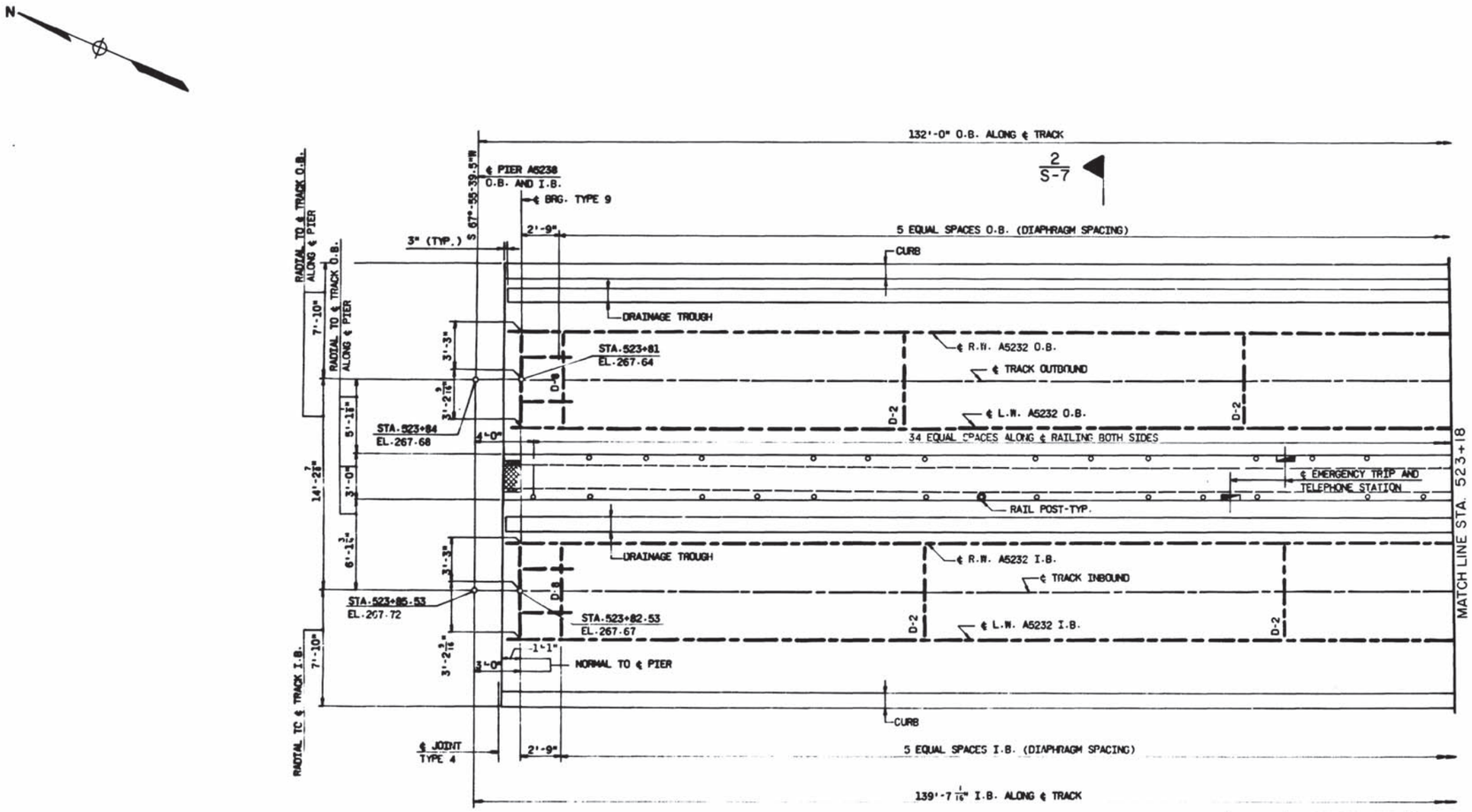
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED (signature)

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5243, A5253, A 5263, A5274, A 5285
A5296, A5307 O.B. AND I.B.
PLAN

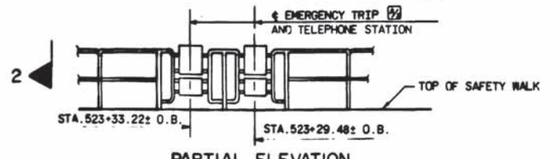
SCALE 1/4"=1'-0"

DRAWING NO. A13-S-33

M220-276



PLAN



PARTIAL ELEVATION
UNIT A5232 O.B. & I.B.

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS BUILT CONDITION
RESIDENT ENGINEER — DATE MAY 03 1979

DESIGNED	C.P.LEE	12/75
DRAWN	G.PADDOLF180	12/75
CHECKED	A.M.PATEL	5/75
APPROVED	Ted Antonopoulos	12/75

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-09	BOX GIRDER SCHEDULE
A13-S-160	TYP RAILING DETAILS AND EMERGENCY TRIP AND TELEPHONE STATION

REVISIONS		
DATE	BY	DESCRIPTION
1-23-76	A.P.	REVISED EMERGENCY TRIP STATION LOCATION

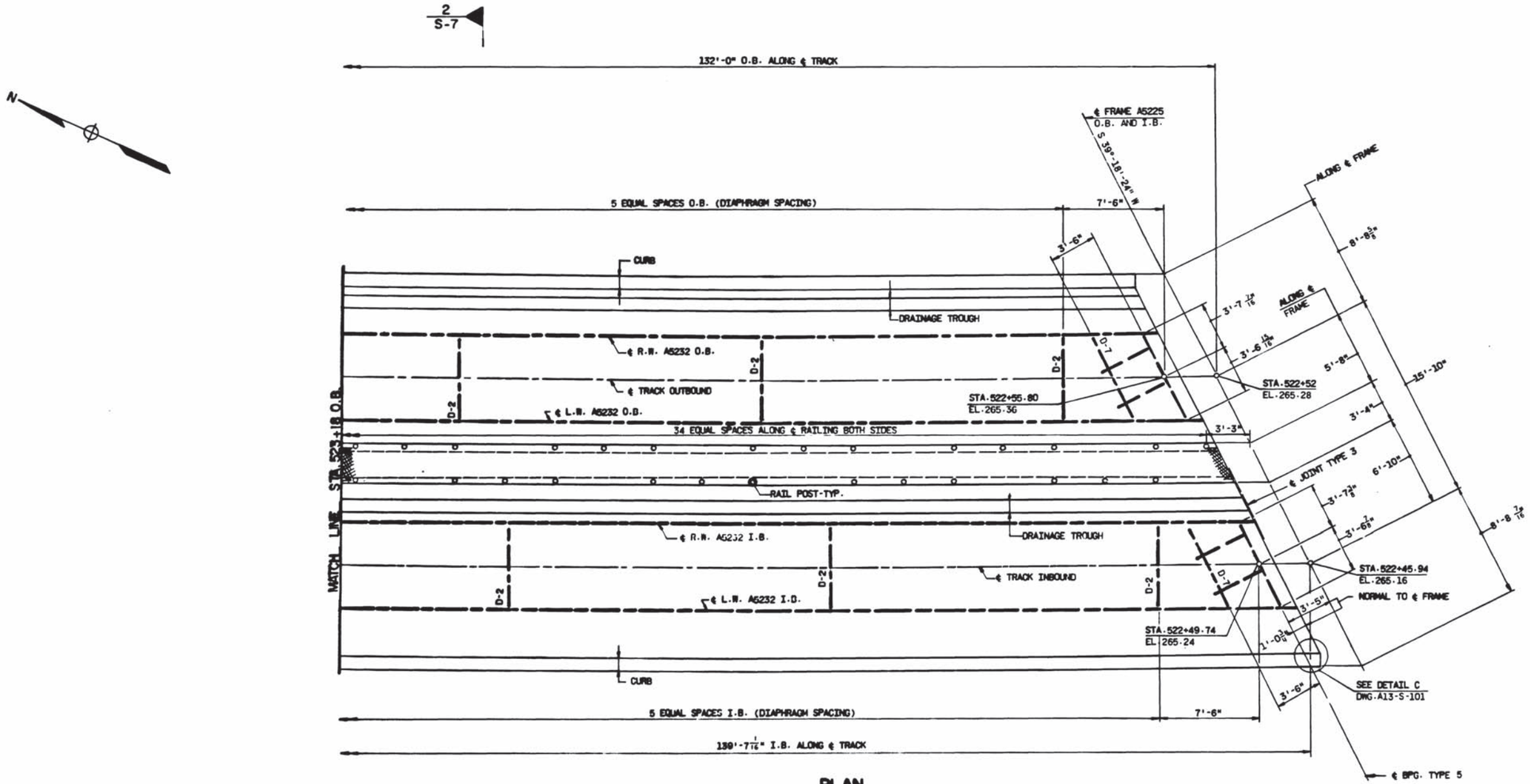
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5232 O.B. AND I.B.
PARTIAL PLAN

SCALE 1/4"=1'-0"
DRAWING NO. A13-S-32
M220-277



PLAN

2

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS BUILT CONDITION
RESIDENT ENGINEER MAY 03 1979 DATE

DESIGNED	C.P.LEE	12/78 DATE
DRAWN	G.PAPPOLETIS	12/78 DATE
CHECKED	A.M.PATEL	5/79 DATE
APPROVED		8/22 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-93	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

STATE OF MARYLAND REGISTERED PROFESSIONAL ENGINEER

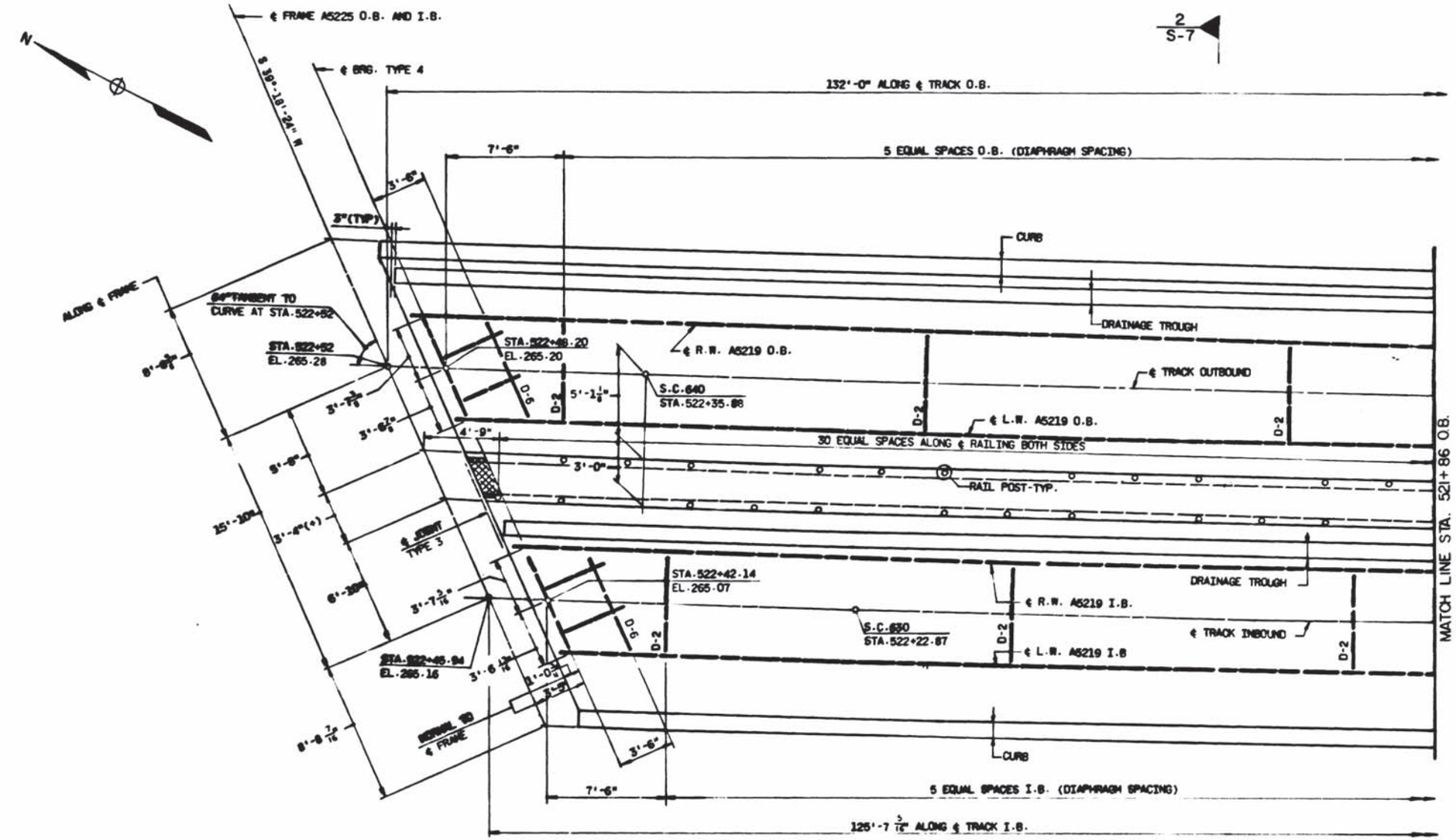
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY ■
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES □
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5232 O.B. AND I.B.
PARTIAL PLAN

SCALE 1"=1'-0" 0 1 2 3 4 5
DRAWING NO. A13-S-31
M220-278



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — DATE: MAY 02 1979

DESIGNED	C.P. LEE	1/75
DRAWN	G. PANDOLFINO	1/75
CHECKED	A.M. PATEL	8/75
APPROVED		10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-76	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-93	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

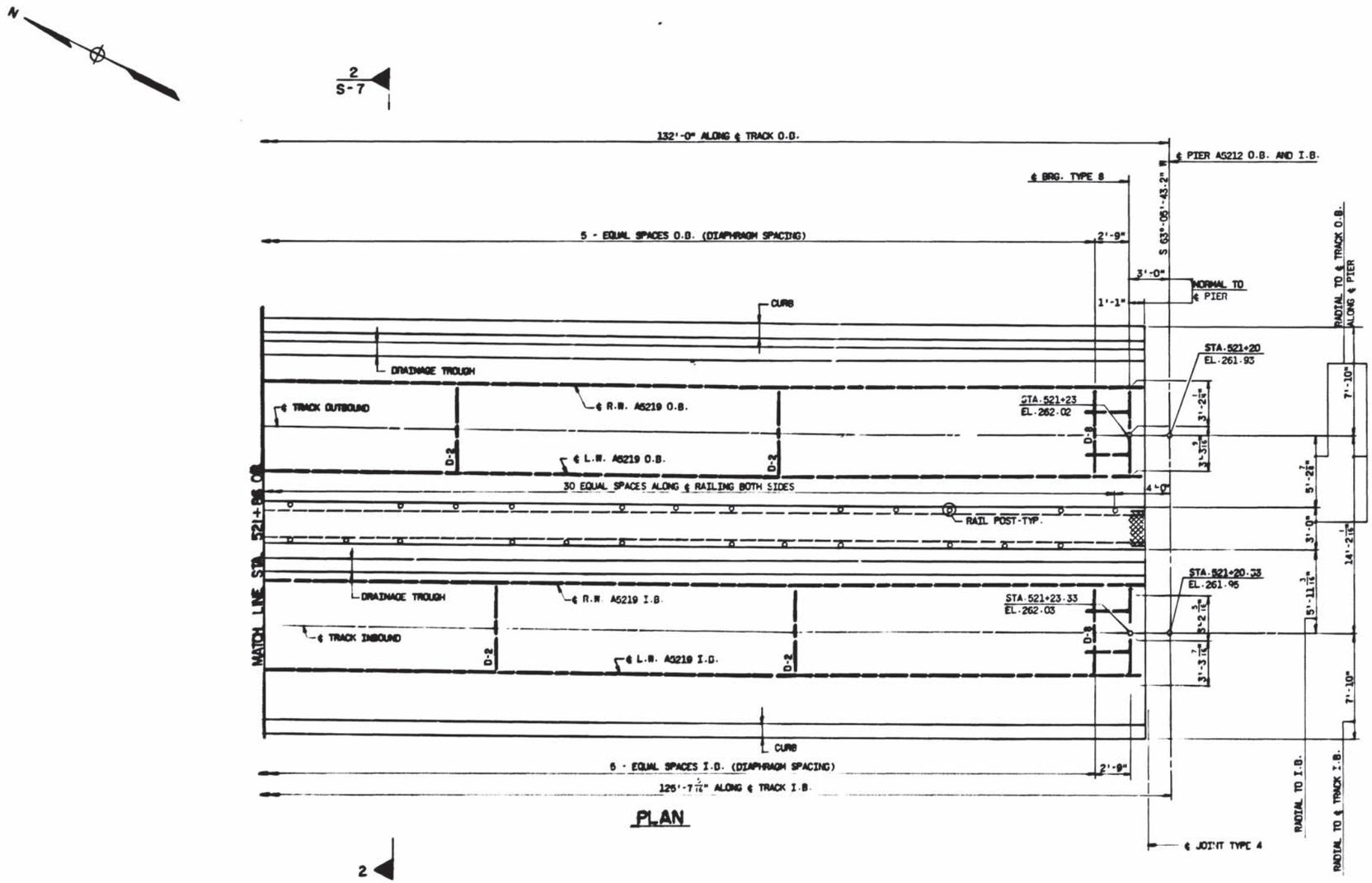
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5219 O.B. AND I.B.
PARTIAL PLAN

SCALE 1" = 1'-0" (0 1 2 3 4 5)
DRAWING NO. A13-S-30
M220-279



PLAN

2

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

GENERAL ENGINEER — DATE MAY 03 1979

DESIGNED	C.P. LEE	1/76
DRAWN	C. PARDOLFINO	1/76
CHECKED	A.H. PATEL	1/76
APPROVED		DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-78	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-89	30K GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

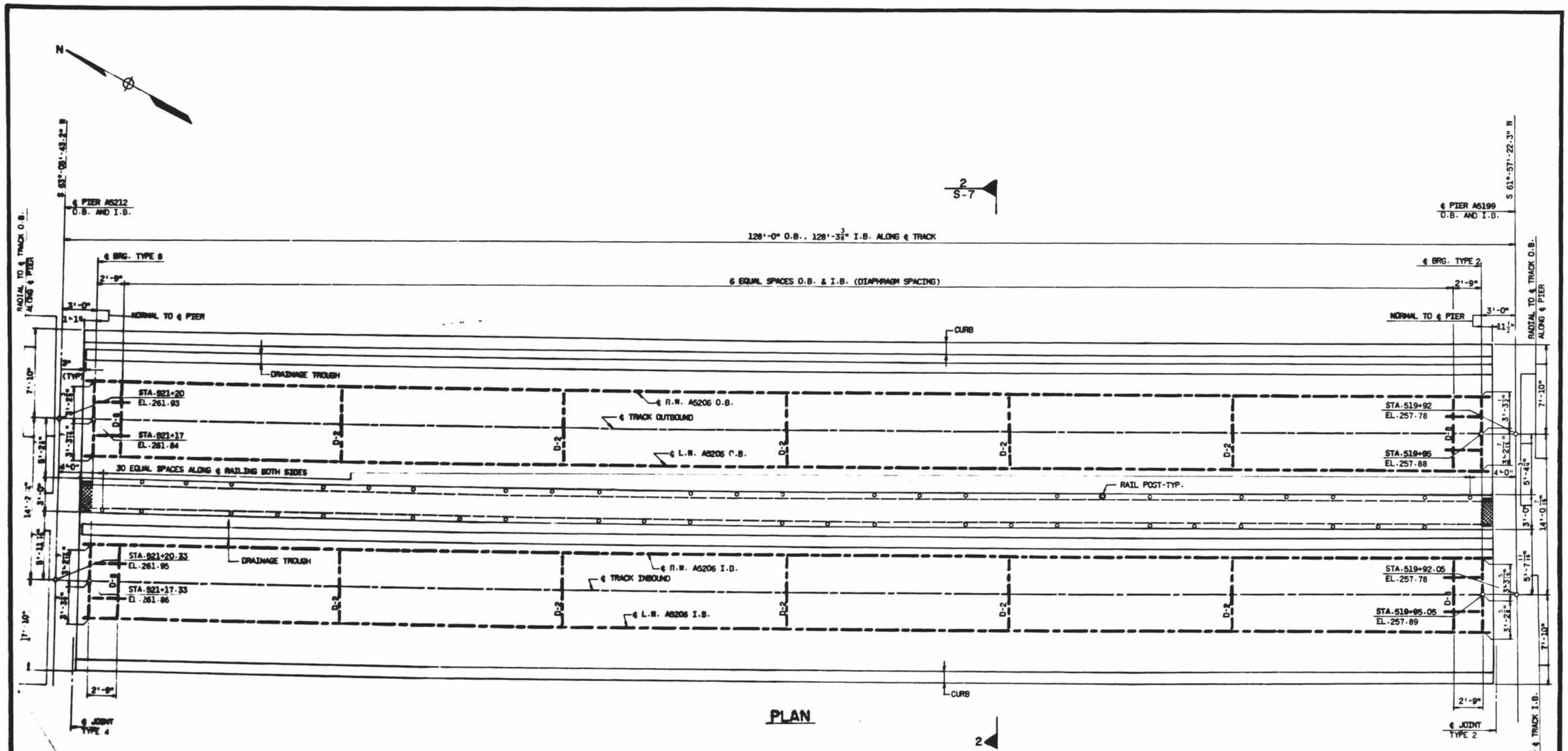
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5219 O.B. AND I.B.
PARTIAL PLAN

SCALE 1" = 10'-0"

DRAWING NO. A13-S-29

M220-280



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

RESIDENT ENGINEER — DATE: MAY 03 1979

DESIGNED	C.P.LEE	1/75
DRAWN	G.PARROLI 100	1/75
CHECKED	A.M.PATEL	4/75
APPROVED		DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-72	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-88	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT

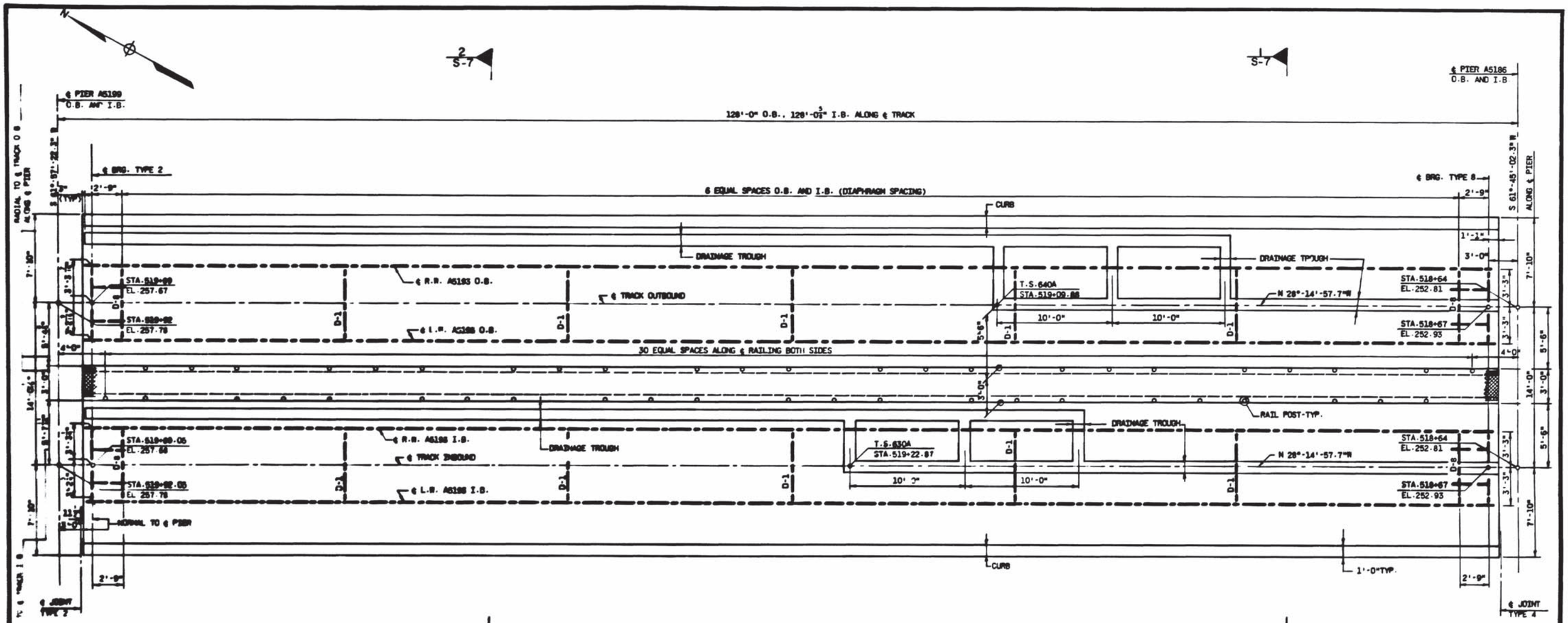
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5206 O.B. AND I.B.
PLAN

SCALE 1/4"=1'-0" (0 1 2 3 4 5)

DRAWING NO. A13-S-28

M220-281



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
RESIDENT ENGINEER

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-111	BEARING ASSEMBLIES
A13-S-116	DIAPHRAGM DETAILS
A13-S-89	SIGN GIRDER SCHEDULE

REVISIONS		
DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT

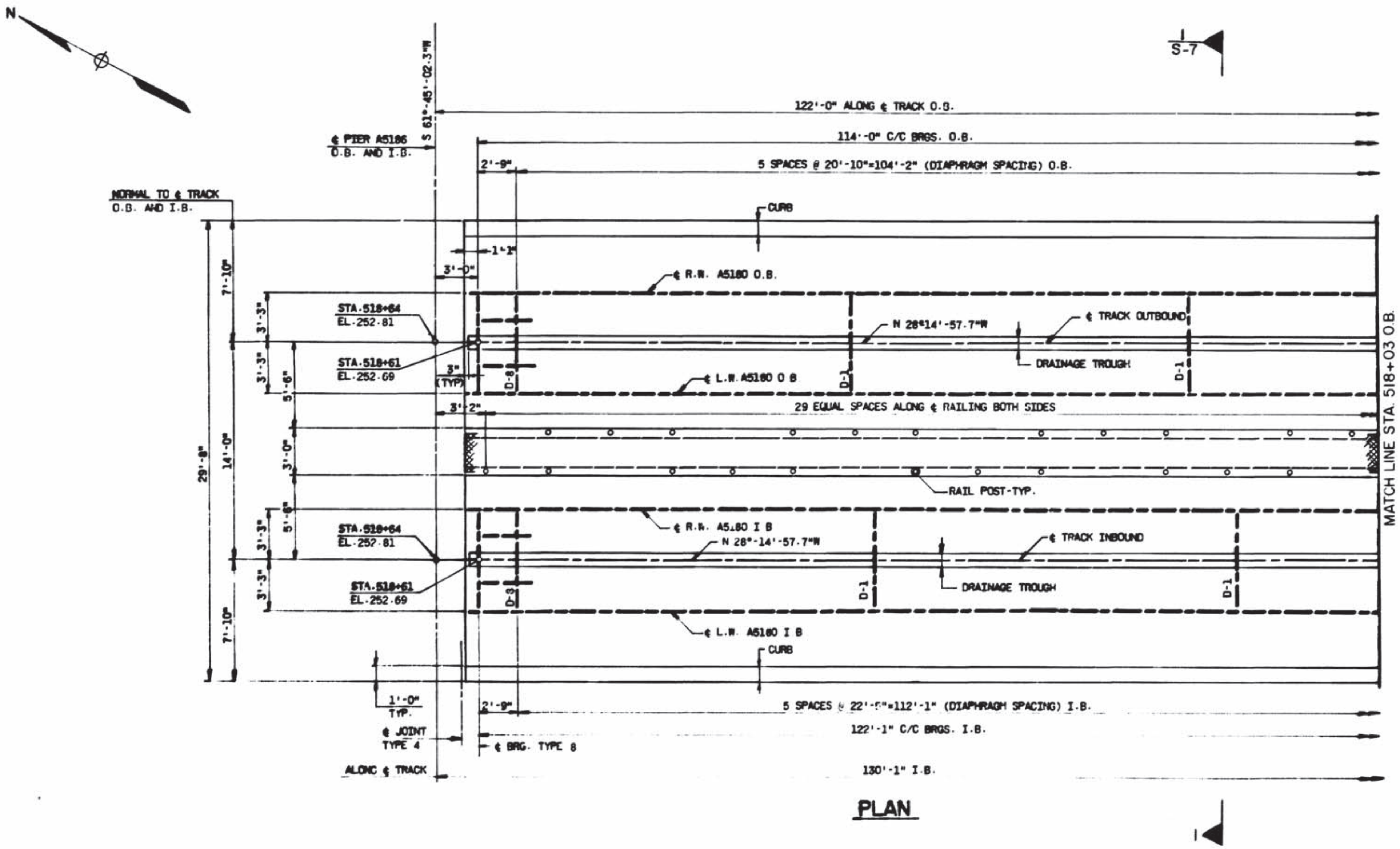
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A 5193 O.B. AND I.B.
PLAN

SCALE 1"=10' 0 1 2 3 4

DRAWING NO. A13-S-27

M220-282



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER MAY 09 1978 DATE

DESIGNED	C.P. LEE	1/75
DRAWN	G. PARDOLFINO	1/75
CHECKED	A.N. PATEL	4/75
APPROVED	[signature]	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-93	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

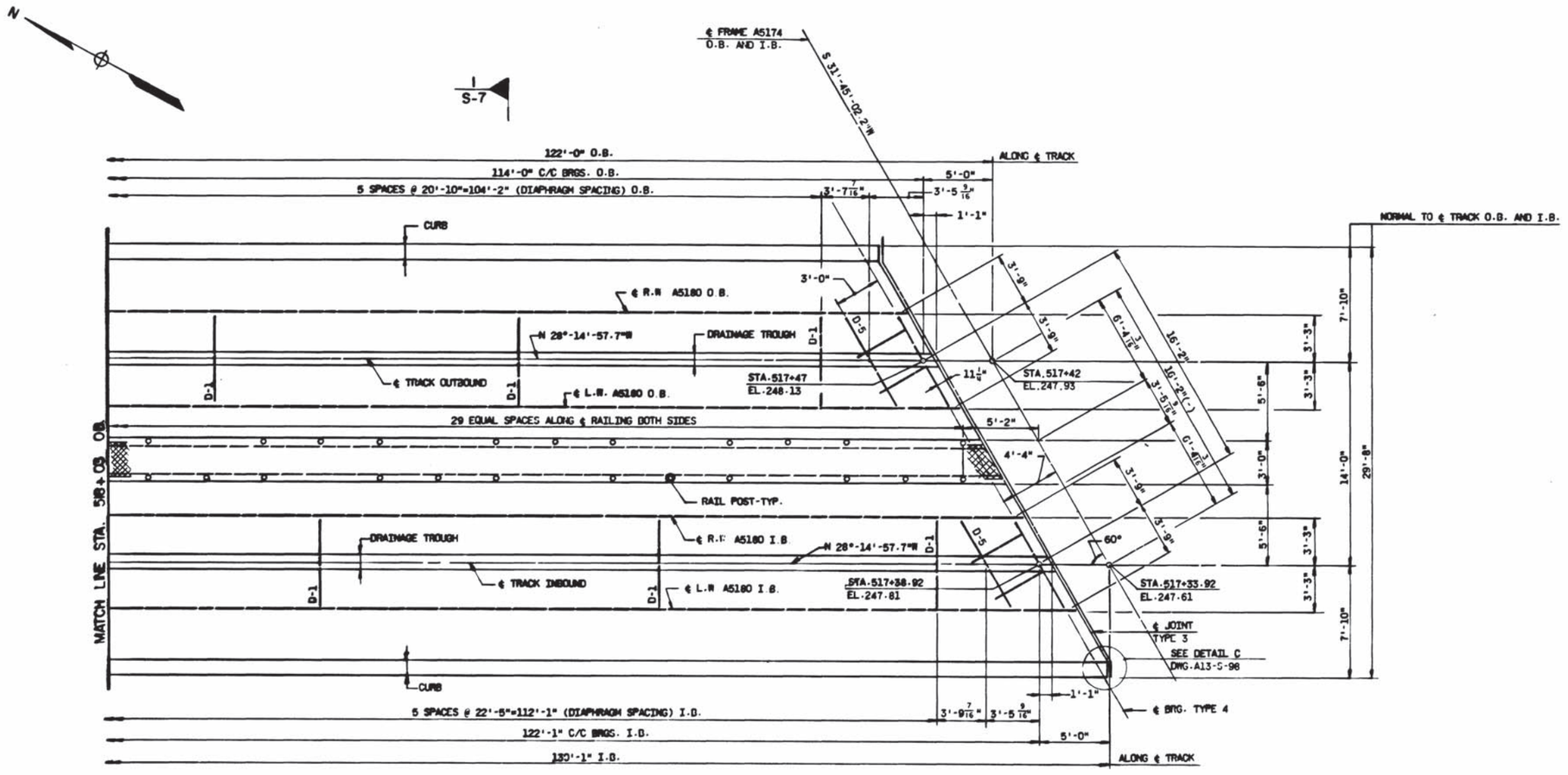
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5180 O.B. AND I.B.
PARTIAL PLAN

SCALE
DRAWING NO. A13-S-26
M220-283



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
RESIDENT ENGINEER — DATE

DESIGNED	C.P.LEE	1/76
DRAWN	G.PANDOLFINO	1/76
CHECKED	A.M.PATEL	4/75
APPROVED		10/76

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-74	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-111	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-93	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

STATE OF MARYLAND — REGISTERED PROFESSIONAL ENGINEER

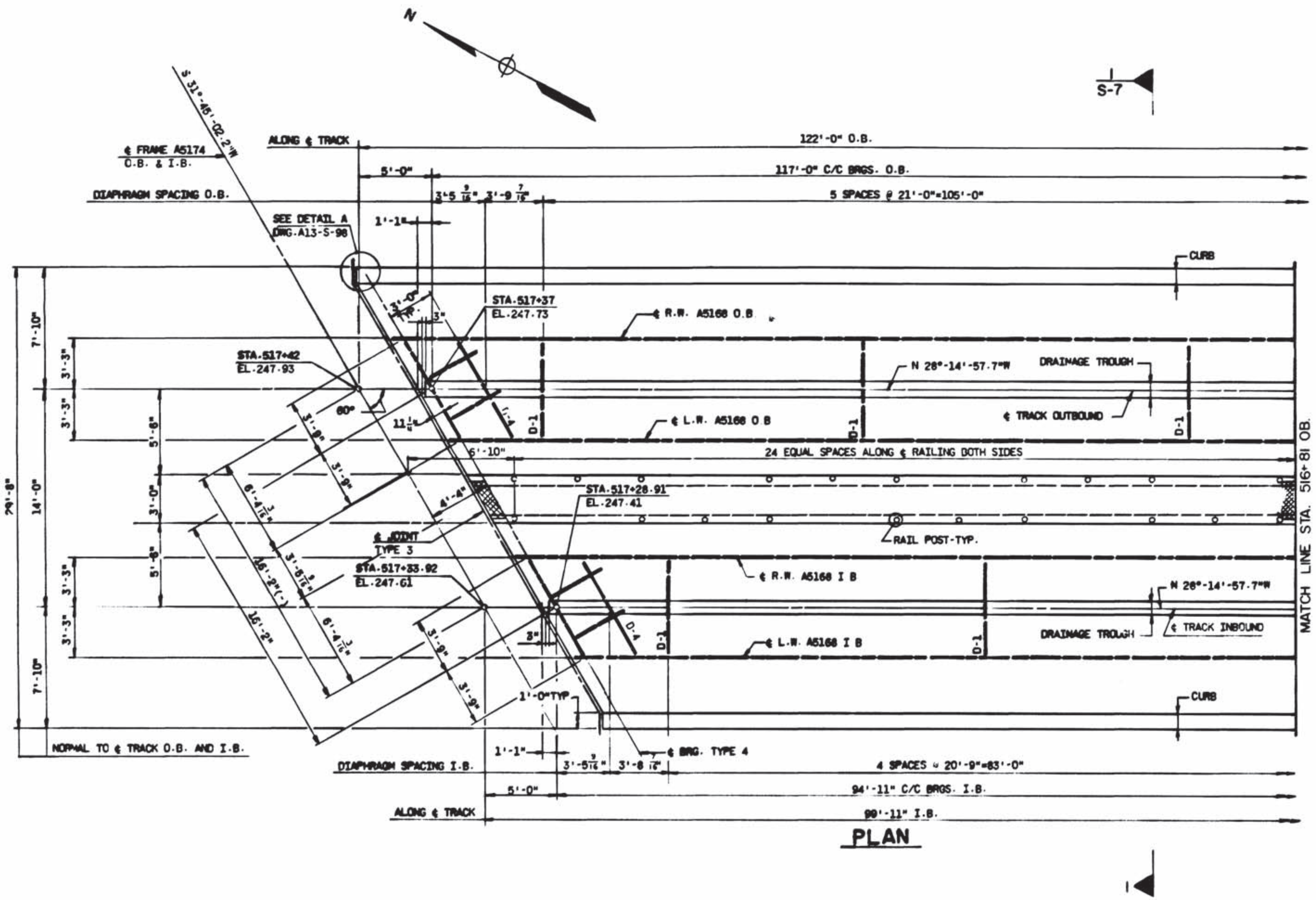
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5180 O.B. AND I.B.
PARTIAL PLAN

SCALE 1/4"=1'-0"
DRAWING NO. A13-S-25
M220-284



PLAN

DESIGNED	C.P. LEE	1/75
DRAWN	G. PANDOLFINO	1/75
CHECKED	A.M. PATEL	8/75
APPROVED	[signature]	10/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-74	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-112	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-98	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

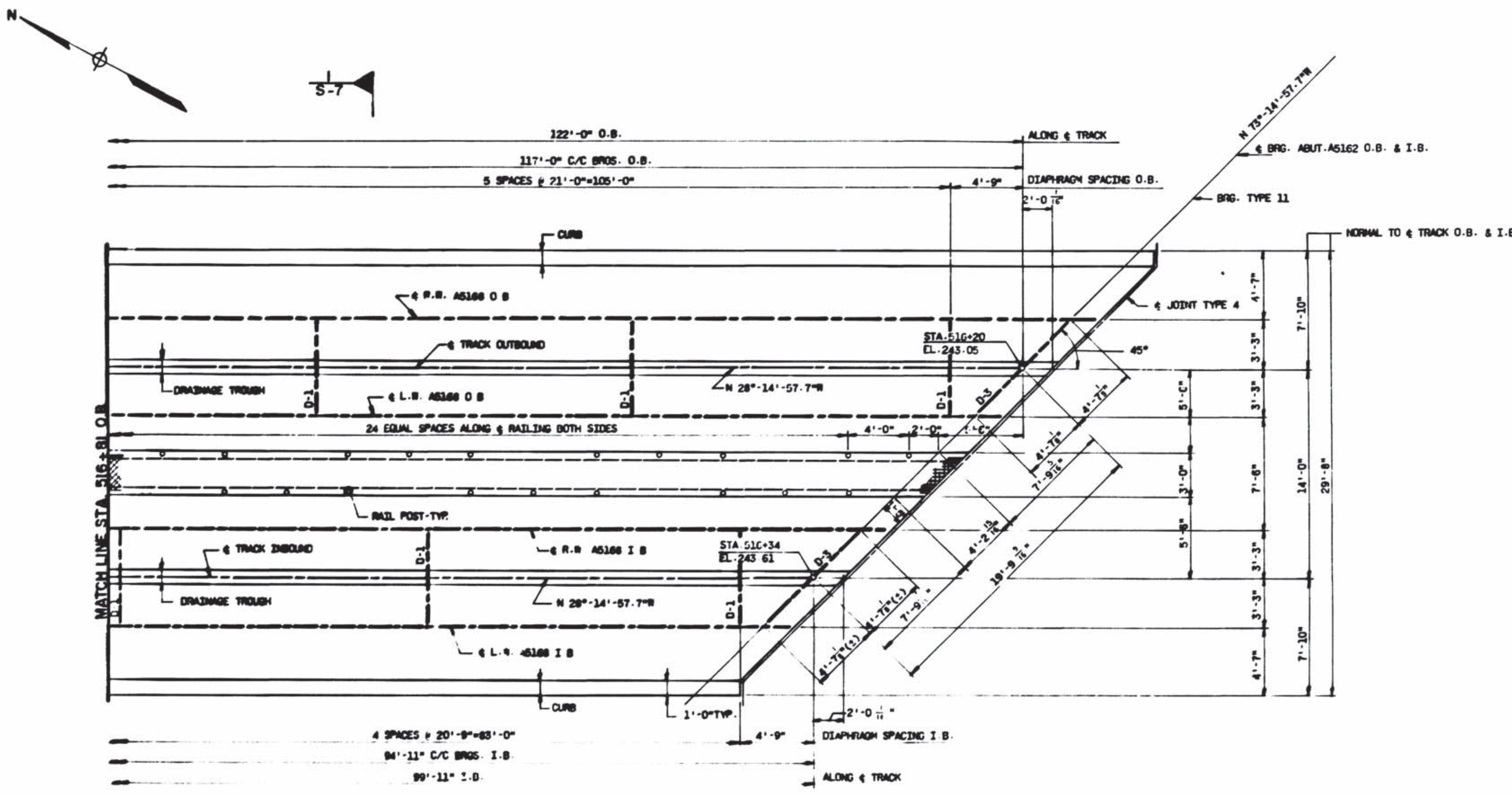
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY — GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES — GENERAL ARCHITECTURAL CONSULTANT
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5168 O.B. AND I.B.
PARTIAL PLAN

SCALE $\frac{1}{4}$"=1'-0"
DRAWING NO. A13-S-24
M220-285



PLAN

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

AS-BUILT CONDITION

RESIDENT ENGINEER — DATE MAY 03 1979

DESIGNED	C.P. LEE	1/75
DRAWN	G. PANDOLFINO	1/75
CHECKED	A.H. PATEL	5/75
APPROVED	[signature]	

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-73	SAFETY WALK AND CABLE TROUGH DETAILS
A13-S-113	BEARING ASSEMBLIES
A13-S-110	DIAPHRAGM DETAILS
A13-S-89	BOX GIRDER SCHEDULE

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
UNIT A5168 O.B. AND I.B.
PARTIAL PLAN

SCALE 1/4"=1'-0" 0 1 2 3 4 5

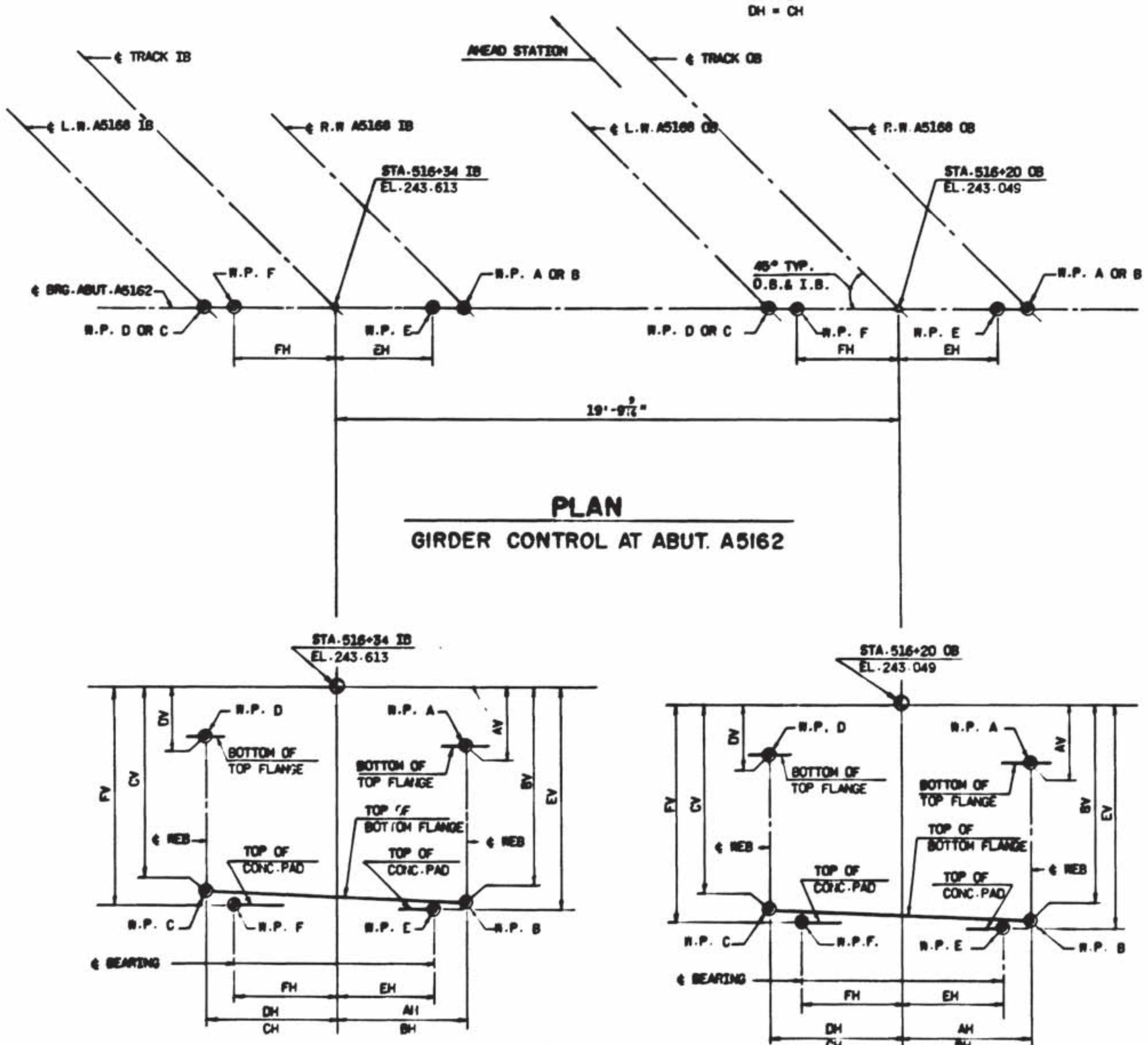
DRAWING NO. A13-S-23

M220-286

ABUT. NUMBER	TRACK	STATION	ELEVATION	DIMENSIONS (FEET)									
				AV	BV	CV	DV	EV	FV	AH	DH	EH	FH
A5162	OB	516+20.00	243.049	2.054	7.554	7.294	1.794	7.837	7.637	4.596	4.596	3.536	3.536
	IB	516+34.00	243.613	2.054	7.554	7.294	1.794	7.837	7.637	4.596	4.596	3.536	3.536

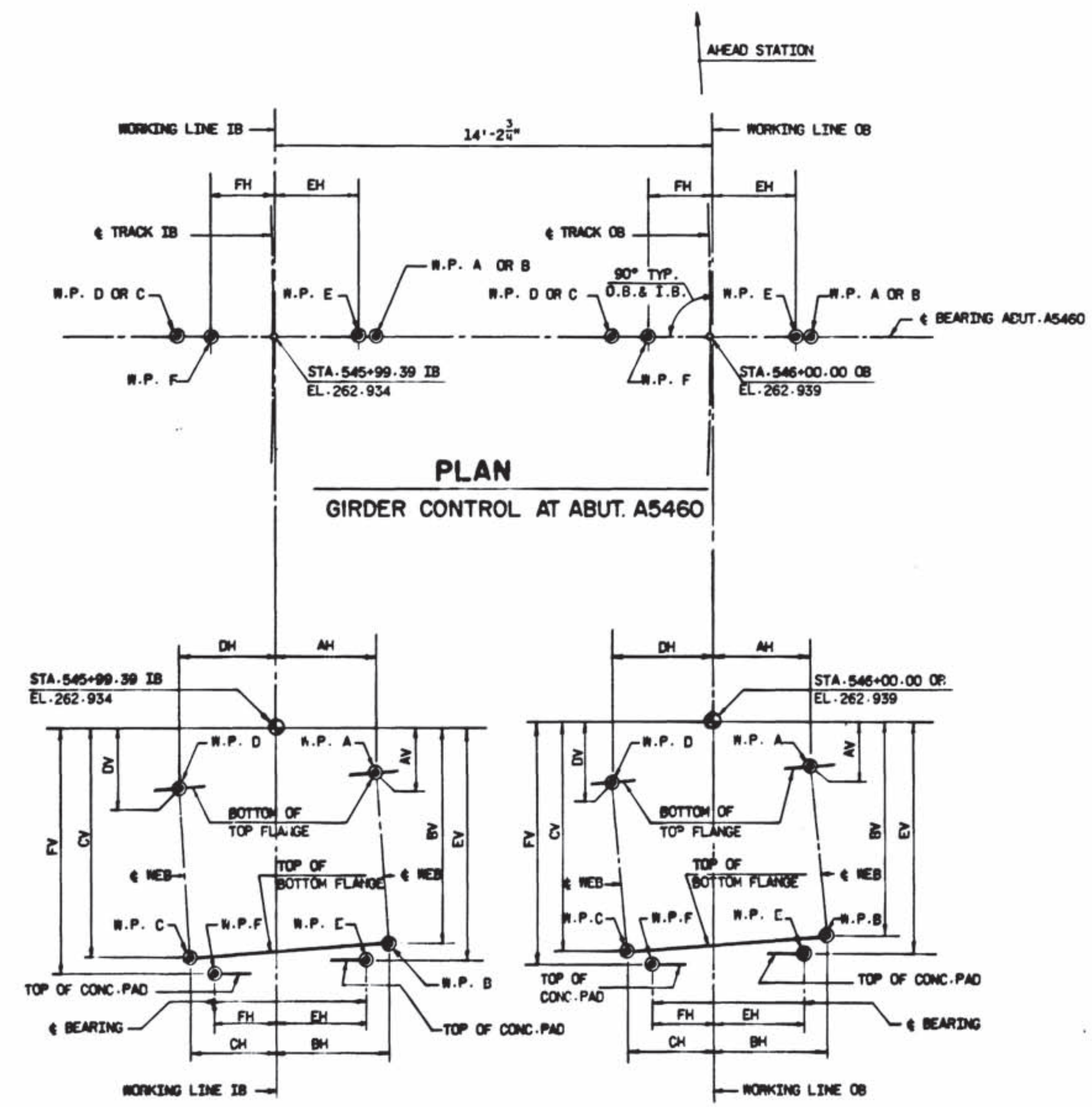
NOTE:
AH = BH
DH = CH

ABUT. NUMBER	TRACK	STATION	ELEVATION	DIMENSIONS (FEET)											
				AV	BV	CV	DV	EV	FV	AH	BH	CH	DH	EH	FH
A5460	OB	546+00.00	262.939	1.422	6.903	7.440	1.959	7.480	7.893	3.234	3.689	2.789	3.244	2.946	2.037
	IB	545+99.39	262.934	1.441	6.924	7.437	1.954	7.499	7.893	3.249	3.683	2.797	3.231	2.940	2.044



PLAN
GIRDER CONTROL AT ABUT. A5162

ELEVATION



PLAN
GIRDER CONTROL AT ABUT. A5460

ELEVATION

NOTE:
OB = OUTBOUND
IB = INBOUND
W.P. = WORKING POINT
R.W = RIGHT WEB
L.W. = LEFT WEB

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
RESIDENT ENGINEER — MAY 0? 1978 — DATE

DESIGNED	C.P. LEE	3/75 DATE
DRAWN	G. PANDOLFINO	3/75 DATE
CHECKED	A.M. PATEL	6/75 DATE
APPROVED	[signature]	?/75 DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-10	PLAN AND ELEV. ABUT. A5162 OB AND IB
A13-S-16	PLAN AND ELEV. ABUT. AND TIE BREAKER STATION ABUT. A5460 OB AND IB

REVISIONS

DATE	BY	DESCRIPTION

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

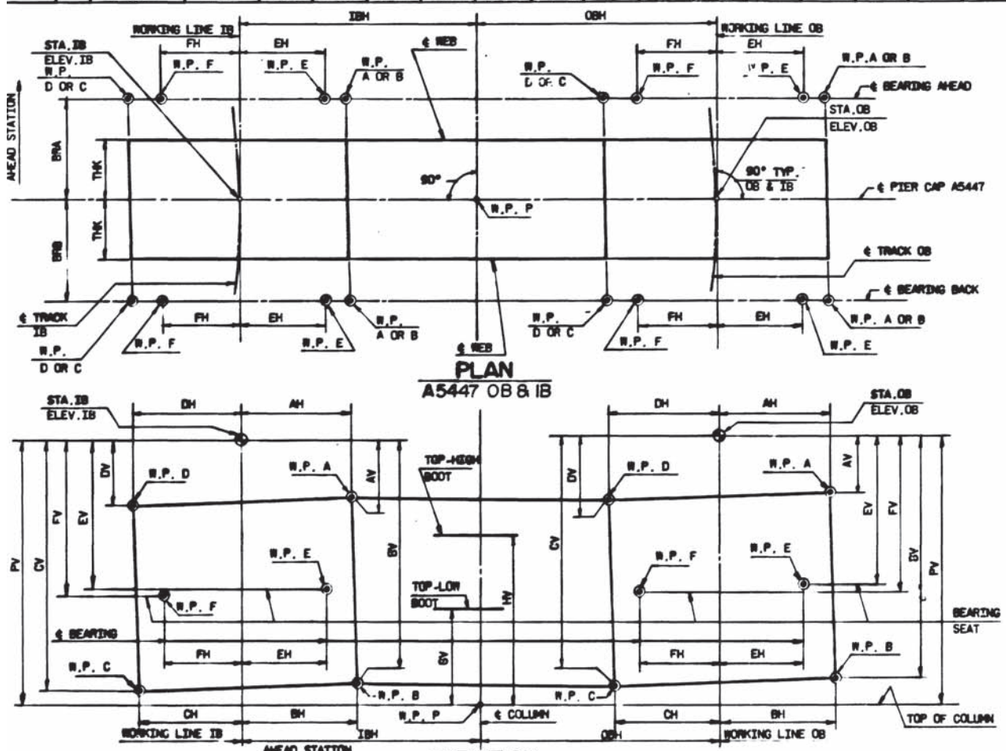
SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

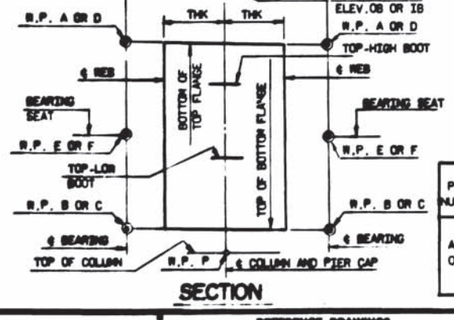
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
BOX GIRDER GEOMETRY CONTROL
AT ABUTMENTS A5162 AND A5460

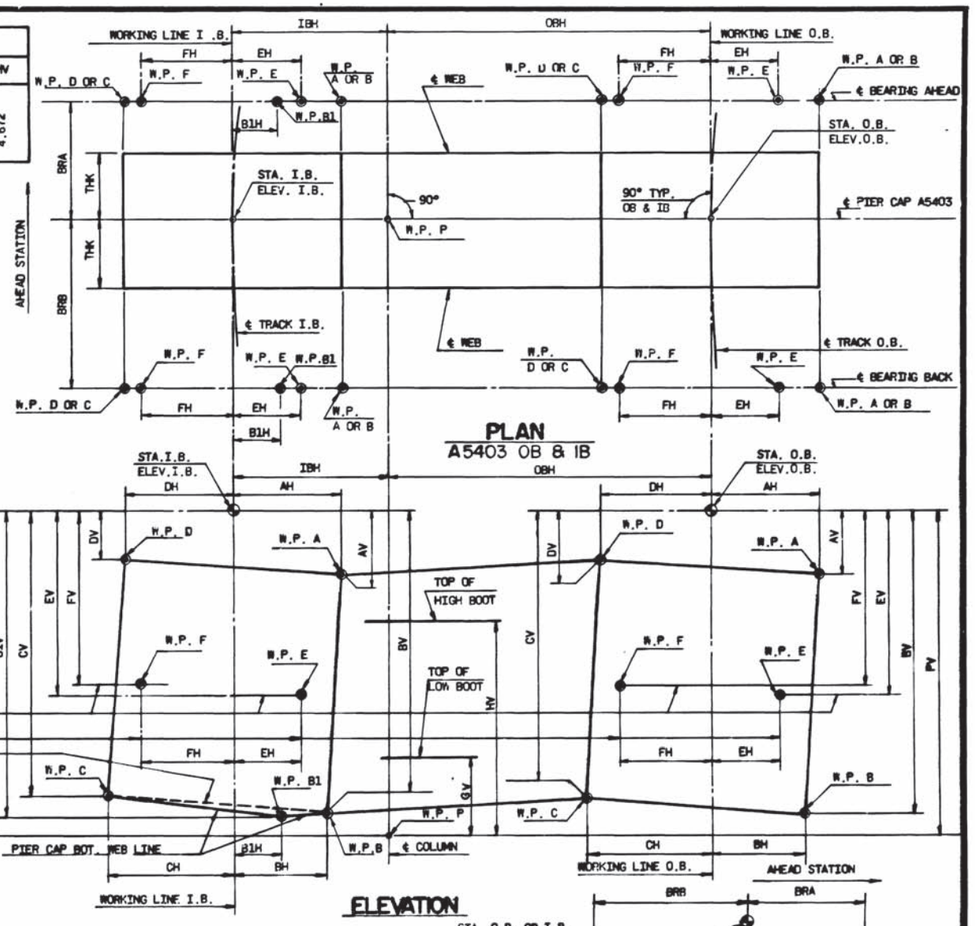
SCALE: NO SCALE
DRAWING NO. A13-S-121
M220-287

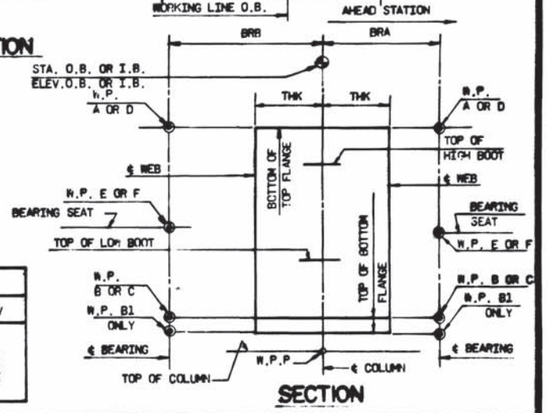
PIER NUMBER	OB AND IB	STATION AND ELEVATION	℄ BEARING LOCATION	DIMENSION (FEET)																			
				AV	BV	CV	DV	EV	FV	PV	AH	BH	CH	DH	EH	FH	BRA	BRB	THK	OBH	IBH	GV	HV
A5447 OB:IB	OB	544+75.00	BACK	1.664	7.160	7.401	1.905	4.481	4.663	7.985	3.183	3.388	3.108	3.312	2.525	2.359	3.000	3.000	1.75	7.046	7.046	2.672	4.672
		263.377	AHEAD	1.673	7.169	7.424	1.928	4.492	4.684		3.184	3.400	3.095	3.311	2.531	2.346							
	IB	544+74.87	BACK	1.661	7.157	7.402	1.906	4.479	4.663	7.959	3.173	3.381	3.114	3.322	2.517	2.365							
		263.370	AHEAD	1.671	7.167	7.425	1.929	4.491	4.684		3.167	3.385	3.110	3.328	2.515	2.360							





NOTE:
O.B. = OUTBOUND
I.B. = INBOUND
W.P. = WORKING POINT
WORKING LINE A-B DENOTES LINE BETWEEN W.P. A AND W.P. D (TYPICAL FOR ALL WORKING POINTS)





WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1979
DATE
RESIDENT ENGINEER

PIER NUMBER	OB AND IB	STATION AND ELEVATION	℄ BEARING LOCATION	DIMENSION (FEET)																				
				AV	BV	B1V	CV	DV	EV	FV	PV	AH	BH	B1H	CH	DH	EH	FH	BRA	BRB	THK	OBH	IBH	GV	HV
A5403 OB:IB	OB	540+30.00	BACK	1.926	8.910	-	8.468	1.484	5.490	5.168	9.612	3.240	2.764	-	3.721	3.245	2.015	2.714	3.500	5.000	2.000	9.606	4.589	2.899	5.899
		264.934	AHEAD	1.952	8.937	-	8.510	1.525	5.525	5.213		3.230	2.770	-	3.716	3.256	2.022	2.713							
	IB	540+31.36	BACK	1.929	8.911	8.993	8.448	1.466	5.489	5.152		3.248	2.749	1.339	3.735	3.236	2.001	2.714							
		264.928	AHEAD	1.956	8.940	9.020	8.493	1.509	5.525	5.199	9.606	3.244	2.763	1.339	3.722	3.241	2.014	2.707							

DESIGNED	C.P.LEE	3/75
DRAWN	G.PANDOLFINO	3/75
CHECKED	A.M.PATEL	6/75
APPROVED		6/75

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-140	COLUMN SCHEDULE AND DETAILS

REVISIONS

DATE	BY	DESCRIPTION

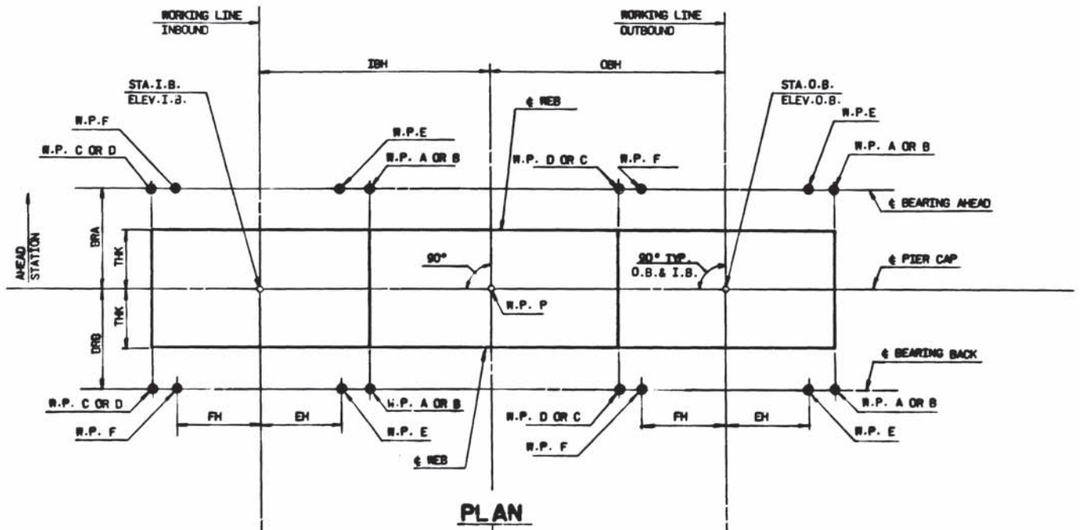
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

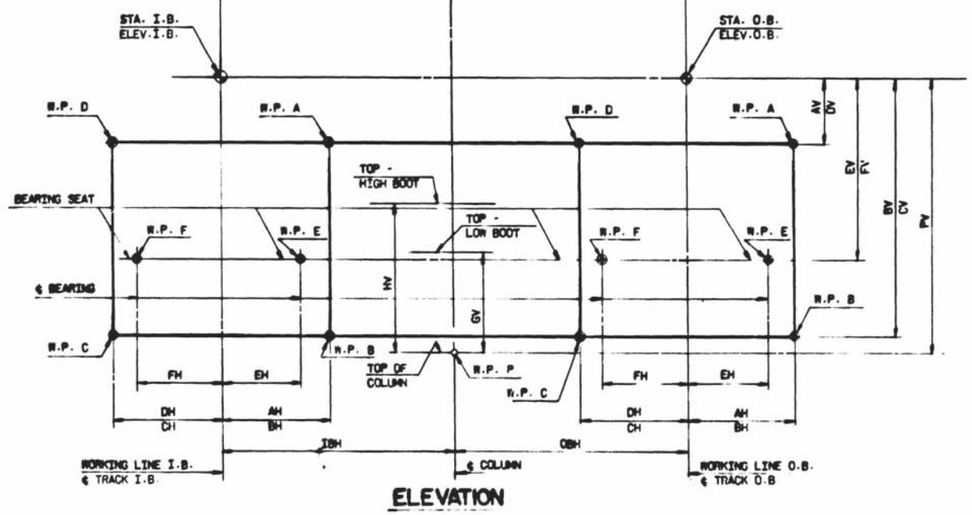
DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT
APPROVED

ROCKVILLE ROUTE
AERIAL STRUCTURE
PIER CAP GEOMETRY LAYOUT
PIERS A5403 AND A5447

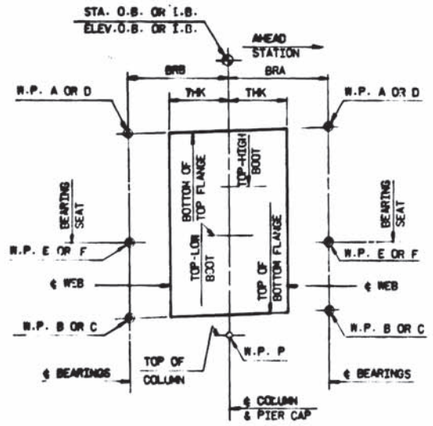
SCALE: NO SCALE
DRAWING NO.: A13-S-119
M220-288



PLAN



ELEVATION



SECTION

PIER NUMBER	STATION AND ELEVATION	℄ BEARING LOCATION	DIMENSIONS (FEET)												
			AV	BV	EV	PV	AH	EH	BRA	BRB	THK	OBH	IBH	GV	HV
A5186 OB: IB	518+64 252.81	BACK	2.044	7.544	4.836	8.086	3.250	2.50	3.000	3.000	1.750	7.000	7.000	2.662	4.662
		AHEAD	1.804	7.304	4.596		3.250	2.50							
A5356 OB: IB	535+56 266.59	BACK	1.915	6.415	4.550	6.975	3.250	2.50	2.500	2.500	1.500	7.000	7.000	2.551	3.551
		AHEAD	1.933	6.433	4.568		3.250	2.50							
A5435 OB: IB	543+50 263.81	BACK	1.912	8.912	5.558	9.485	3.250	2.50	4.500	3.500	2.000	7.000	7.000	2.559	5.559
		AHEAD	1.940	8.940	5.581		3.250	2.50							

NOTE:
OB - DENOTES OUTBOUND TRACK
IB - DENOTES INBOUND TRACK
WORKING LINE A-B DENOTES LINE BETWEEN W.P. A AND W.P. B
(TYP. FOR ALL WORKING POINTS)
AV = DV
BV = CV
EV = FV
AH = BH = CH = DH
EH = FH
W.P. = WORKING POINT

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
BY [signature] RESIDENT ENGINEER
MAY 03 1978 DATE

DESIGNED	C.P.LEE	3/75 DATE
DRAWN	S.PANDOLFINO	3/75 DATE
CHECKED	A.M.PATEL	6/75 DATE
APPROVED	[signature]	10/75 DATE

REFERENCE DRAWINGS	
NUMBER	DESCRIPTION
A13-S-140	COLUMN SCHEDULE AND DETAILS

REVISIONS		
DATE	BY	DESCRIPTION

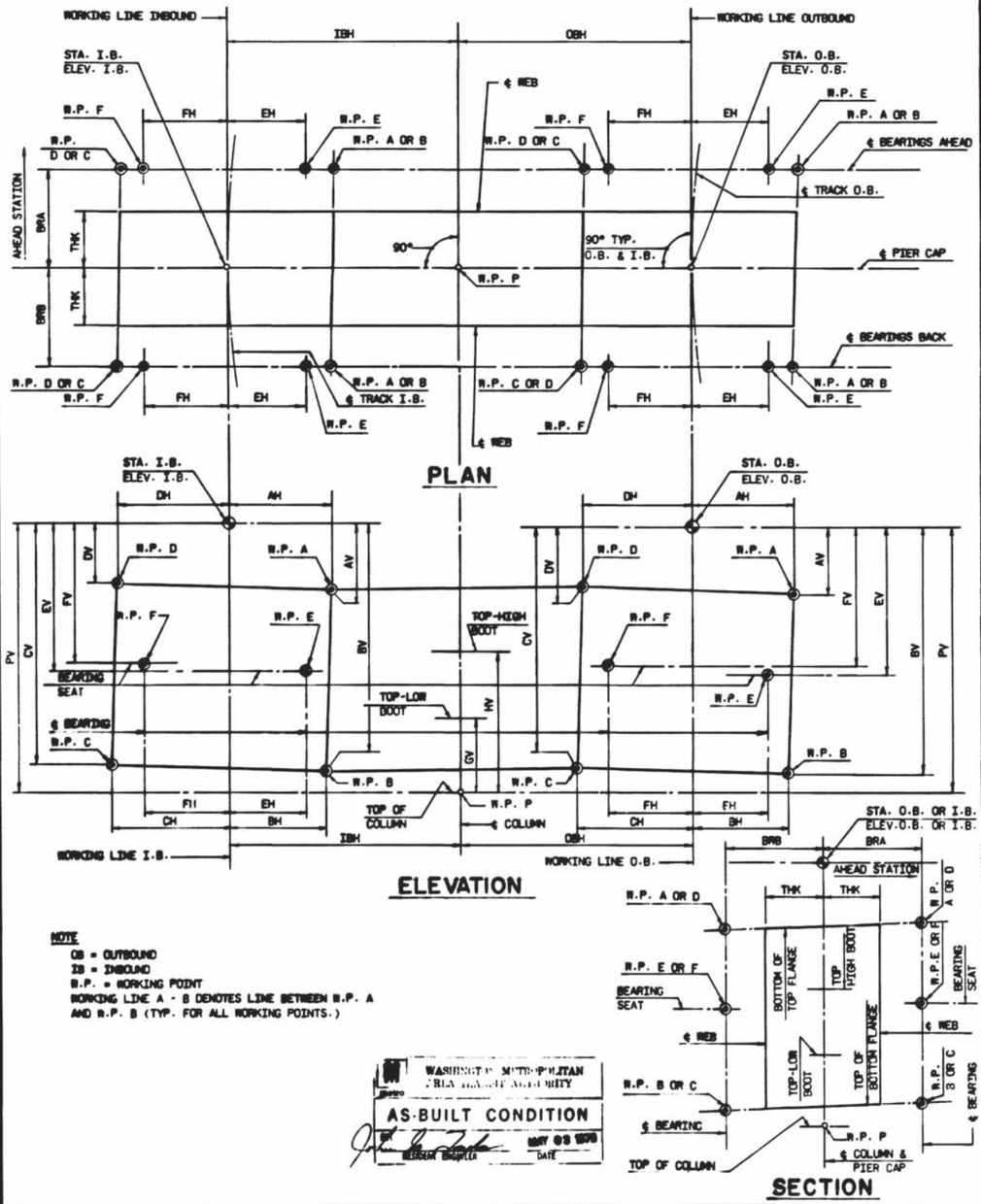
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED [signature]

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □
APPROVED [signature]

ROCKVILLE ROUTE
AERIAL STRUCTURE
PIER CAP GEOMETRY LAYOUT
PIERS A5186, A5356, A5435

SCALE	DRAWING NO.	
NO SCALE	A13-S-92	M220-289



NOTE
OB = OUTBOUND
IB = INBOUND
W.P. = WORKING POINT
WORKING LINE A - B DENOTES LINE BETWEEN W.P. A AND W.P. B (TYP. FOR ALL WORKING POINTS.)

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
AS-BUILT CONDITION
MAY 03 1978
DESIGNER — DATE

PIER NUMBER	O.B. AND I.B.	STATION AND ELEVATION	℄ BEARING LOCATION	DIMENSIONS (FEET)																	
				AV	BV	CV	DV	EV	FV	PV	AH	BH	CH	DH	EH	FH	BRA	BRB	THK	OBH	IBH	GV	HV
A5199 08:IB	O.B.	519+92.00	BACK	2.011	7.509	7.341	1.843	4.900	4.772	8.042	3.285	3.142	3.355	3.213	2.393	2.527							
		257.776	AHEAD	1.797	7.295	7.114	1.616	4.684	4.547		3.293	3.140	3.358	3.204	2.390	2.523							
	I.B.	513+92.05	BACK	2.008	7.507	7.354	1.885	4.899	4.783	8.049	3.274	3.144	3.354	3 225	2.394	2.533	3.030	3.000	1.750	7.017	7.017	2.735	4.735
		257.783	AHEAD	1.794	7.293	7.126	1.628	4.684	4.557		3.276	3.135	3.363	3.222	2 385	2.535							
A5212 08:IB	O.B.	521+20.00	BACK	2.027	7.514	7.074	1.587	4.748	4.423	8.041	3.199	2.826	3.659	3.286	2.078	2.705							
		261.929	AHEAD	1.855	7.342	6.889	1.402	4.574	4.240		3.191	2.807	3.677	3.294	2.059	2.717	3.000	3.000	1.750	7.086	7.086	2.847	4.847
	I.B.	521+20.33	BACK	2.030	7.517	7.067	1 580	4.749	4.418	8.059	3.205	2.825	3.660	3.279	2 077	2.701							
		261.947	AHEAD	1.857	7 343	6.880	1.394	4.574	4.233		3.193	2.801	3.683	3.291	2.053	2.718							
A5238 08:IB	O.B.	523+84.00	BACK	2.030	7.498	6.805	1.336	4.693	4.194	8.003	3.251	2.665	3.798	3.212	1.919	2.728							
		267.680	AHEAD	1.932	7.400	6.707	1.238	4.595	4.096		3.252	2.666	3.797	3.211	1.920	2.727	3.750	3.000	1.750	7.121	7.121	2.919	4.919
	I.B.	523+85.53	BACK	2.029	7.497	6.804	1.335	4.692	4.193	8.039	3.251	2.665	3.798	3.212	1.919	2.728							
		267.716	AHEAD	1.931	7.399	6.706	1.237	4.594	4.095		3.252	2.666	3.797	3.211	1.920	2.727							
A5248 08:IB	O.B.	524+84.00	BACK	2.009	6.483	5.790	1.315	4.525	4.018	6.990	3.251	2.771	3.692	3.212	2.025	2.702							
		268.869	AHEAD	1.963	6.437	5.744	1.269	4.479	3.972		3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7.121	2.894	3.894
	I.B.	524+86.02	BACK	2.009	6.483	5.790	1.315	4.525	4.018	7.025	3.251	2.771	3.692	3.212	2.025	2.702							
		268.904	AHEAD	1.963	6.437	5.744	1.269	4.479	3.972		3.251	2.771	3.692	3.212	2.025	2.702							
A5258 08:IB	O.B.	525+82.00	BACK	1.995	6.469	5.776	1.301	4.418	3.910	6.983	3.251	2.771	3.692	3.212	2.025	2.702							
		269.506	AHEAD	1.976	6.450	5.757	1.282	4.399	3.891		3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7.121	2.884	3.884
	I.B.	525+84.51	BACK	1.995	6.469	5.776	1.301	4.418	3.910	7.011	3.251	2.771	3.692	3.212	2.025	2.702							
		269.534	AHEAD	1.976	6.450	5.757	1.282	4.399	3.891		3.251	2.771	3.692	3.212	2.025	2.702							
A5268 08:IB	O.B.	526+80.00	BACK	1.982	6.456	5.763	1.288	4.498	3.991	6.990	3.251	2.771	3.692	3.212	2.025	2.702							
		269.622	AHEAD	1.990	6.464	5.771	1.296	4.506	3.999		3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7.121	2.884	3.884
	I.B.	526+82.99	BACK	1.982	6.456	5.763	1.288	4.498	3.991	7.006	3.251	2.771	3.692	3.212	2.025	2.702							
		269.638	AHEAD	1.990	6 464	5.771	1.296	4.506	3.999		3.251	2.771	3.692	3.212	2.025	2.702							
A5279 08:IB	O.B.	527+92.00	BACK	1.977	6.451	5.758	1.283	4.400	3.892	7.002	3.251	2.771	3.692	3.212	2.025	2.702							
		269.267	AHEAD	1.995	6.469	5.776	1.301	4.418	3.910		3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7.121	2.898	3.898
	I.B.	527+95.54	BACK	1.977	6.451	5.758	1.283	4.400	3.892	7.011	3.251	2.771	3.692	3.212	2.025	2.702							
		269.276	AHEAD	1.995	6.469	5.776	1.301	4.418	3.910		3.251	2.771	3.692	3.212	2.025	2.702							
A5290 08:IB	O.B.	529+04.00	BACK	1.977	6.451	5.758	1.283	4.493	3.986	7.004	3.251	2.771	3.692	3.212	2.025	2.702							
		268.875	AHEAD	1.995	6.469	5.776	1.301	4.511	4.004		3.251	2.771	3.692	3.212	2.025	2.702							
	I.B.	529+08.10	BACK	1.977	6.451	5.758	1.283	4.493	3.986	7.011	3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7.121	2.894	3.894
		268.882	AHEAD	1.995	6.469	5.776	1.301	4.511	4.004		3.251	2.771	3.692	3.212	2.025	2.702							
A5302 08:IB	O.B.	530+16.00	BACK	1.977	6.451	3.758	1.283	4.400	3.892	7.006	3.251	2.771	3.692	3.212	2.025	2.702							
		268.483	AHEAD	1.995	6.469	5.776	1.301	4.418	3.910		3.251	2.771	3.692	3.212	2.025	2.702							
	I.B.	530+20.65	BACK	1.977	6.451	5.758	1.283	4.400	3.892	7.011	3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7.121	2.895	3.895
		268.488	AHEAD	1.995	6.469	5.776	1.301	4.418	3.910		3.251	2.771	3.692	3.212	2.025	2.702							
A5313 08:IB	O.B.	531+28.00	BACK	1.977	6.451	5.758	1.283	4.493	3.986	7.007	3.251	2.771	3.692	3.212	2.025	2.702							
		268.091	AHEAD	1.994	6.468	5.775	1.300	4.510	4.003		3.251	2.771	3.692	3.212	2.025	2.702							
	I.B.	531+33.20	BACK	1.977	6.451	5.758	1.283	4.493	3.986	7.010	3.251	2.771	3.692	3.212	2.025	2.702	2.500	2.500	1.500	7.121	7 121	2.895	3.895
		268.094	AHEAD	1.994	6.468	5.775	1.300	4.510	4 003		3.251	2.771	3.692	3.212	2.025	2.702							
A5324 08:IB	O.B.	532+40.00	BACK	1.960	6.440	5.830	1.350	4.401	3.952	7.001	3.224	2.801	3.670	3.248	2.054	2.708							
		267.699	AHEAD	1.976	6.457	5.857	1.376	4.419	3.977		3.218	2.803	3.670	3.254	2.056	2.711							
	I.B.	532+45.74	BACK	1.965	6.444	5.809	1.331	4.401	3.935	7.002	3.237	2.798	3.671	3.232	2.051	2.701	2.500	2.500	1.500	7.116	7.116	2.892	3.892
		267.700	AHEAD	1.981	6.460	5.837	1.358	4.420	3.961		3.235	2.803	3.667	3.235	2.057	2.700							
A5335 08:IB	O.B.	533+52.00	BACK	1.926	6.419	6.047	1.554	4.507	4.229	6.978	3.289	3.032	3.458	3.200	2.263	2.578							
		267.307	AHEAD	1.943	6.436	6.075	1.582	4.526	4.255		3.303	3.052	3.438	3.187	2.304	2.561							
	I.B.	533+58.13	BACK	1.927	6.420	6.045	1.552	4.508	4.227	6.978	3.277	3.018	3.472	3.212	2.269	2.591	2.500	2.500	1.500	7.065	7.065	2.730	3.730
		267.307	AHEAD	1.943	6.436	6.073	1.580	4.526	4.254	[1]	3.296	3.044	3.446	3.194	2.295	2.569	[1]						
A5345 03:IB	O.B.	534+54.00	BACK	1.892	6.390	6.235	1.736	4.413	4.295	6.947	3.276	3.169	3.329	3.222	2 419	2.525							
		266 950	AHEAD	1 908	6 407	6.262	1.763	4.431	4.321		3.270	3.170	3.328	3.228	2.420	2.528	2.500	2.500	1.500	7.013	7.013	2.621	3.621
	I.B.	534+60.31	BACK	1.889	6.388	6.249	1.750	4.413	4.307	6.946	3.262	3.166	3.332	3.236	2.417	2.533							
		266 949	AHEAD	1.905	6.404	6.277	1.778	4.431	4.334		3.261	3.173	3.326	3.238	2.423	2.531							
A5366 08:IB	O.B	536+58.00	BACK	1.881	6.380	6.305	1.805	4.413	4.355	6.940	3.251	3.199	3.301	3.248	2.449	2.524							
		266.237	AHEAD	1.899	6.398	6.314	1.815	4.430	4.366		3.255	3.196	3.303	3.245	2.446	2.523							
	I.B.	536+58.02	BACK	1.877	6.377	6.319	1.819	4.412	4.367	6.938	3.249	3.209	3.290	3 250	2.459	2.520	2.500	2.500	1.500	7.008	7.008	2.593	3.593
		266.235	AHEAD	1.896	6.396	6.328	1.829	4.430	4.378		3.248	3.201	3.299	3.252	2.451	2.525							
A5376 08:IB	O.B.	537+60.00	BACK	1.896	8.891	8.639	1.644	5.494	5 306	9.468	3.295	3.024	3.471	3.200	2.274	2.575							
		265.879	AHEAD	1.930	8 924	8.656	1.662	5.535	5.336		3.273	2.985	3.510	3.222	2.235	2.601							
	I.B.	537+60.19	BACK	1.895	8 891	8.638	1.643	5.494	5.305	9.466	3.293	3.021	3.474	3.202	2 271	2.578	3.500	5.500	2.000	7.056	7.056	2 693	5.804
		265.877	AHEAD	1.930	8 924	8.654	1.660	5.535	5.334		3.262	2.971	3.524	3.233	2.221	2.613							
A5392 08:IB	O.B.	539+ 20.00	BACK	1.940	8 920	8.429	1.449	5.310	4.955	9.495	3.252	2.723	3.758	3.229	1 975	2.718							
		265.319	AHEAD	1.969	8 949	8.453	1.478	5.402	5.040		3.254	2.725	3.756	3.227	1.978	2.720	5.000	3.500	2.000	7.101	7.101	2.804	5.804
	I.B.	539+20.83	BACK	1.939	8.919	8.428	1.448	5.309	4.954	9.491	3.252	2 723	3 758	3.229	1.975	2.718							
		265 315	AHEAD	1.969	8.949	8.458	1 478	5.402	5.040		3.254	2 725	3.756	3.227	1.978	2.720							

[f] [f]

[1]

DESIGNED	C.P.LEE	3/76	DATE
DRAWN	G.PARROTTINO	3/76	DATE
CHECKED	A.M.PATEL	3/76	DATE
APPROVED	T. Andropoli	3/15	DATE

REFERENCE DRAWINGS

NUMBER	DESCRIPTION
A13-S-140	COLUMN SCHEDULE AND DETAILS

REVISIONS

DATE	BY	DESCRIPTION
3-22-78	TS	[1] REVISED PIER FIELD CONDITION "AS-BUILT"

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

SECTION DESIGNER
BUCHART-HORN
CONSULTING ENGINEERS AND PLANNERS
SUBMITTED

DE LEUW, CATHER & COMPANY
GENERAL ENGINEERING CONSULTANT ■
HARRY WEESE & ASSOCIATES
GENERAL ARCHITECTURAL CONSULTANT □
APPROVED

ROCKVILLE ROUTE
PIER CAP GEOMETRY LAYOUT
PIERS A5199, A5212, A5238, A5248, A5258, A5268, A5279, A5290, A5302, A5313, A5324, A5335, A5345, A5366, A5376, A5392

SCALE: NO SCALE
DRAWING NO.: A13-S-106
M220-290