FORT WASHINGTON WAY 2000

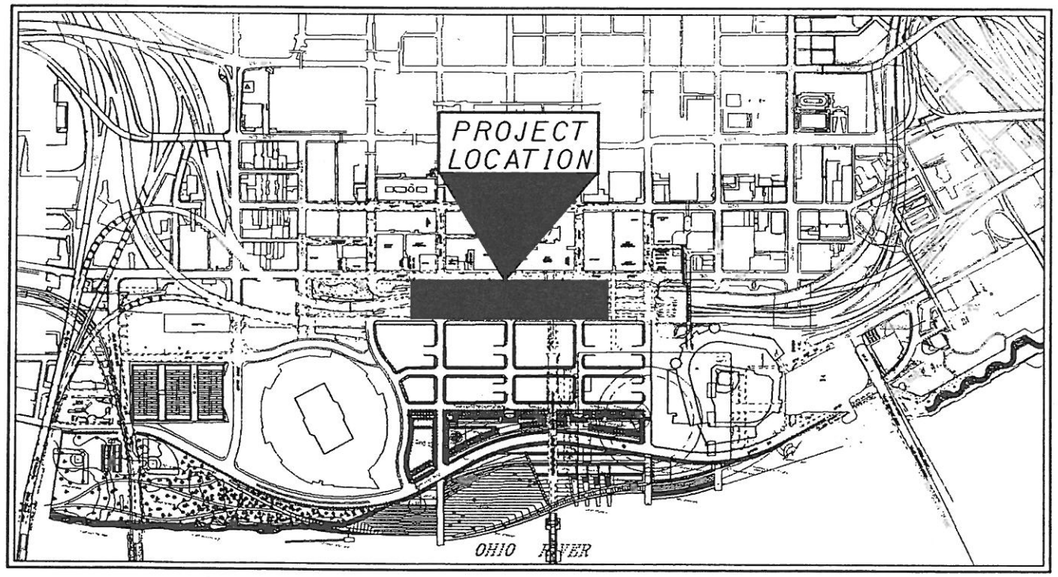
CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

metric units

PROPOSED IMPROVEMENT

FORT WASHINGTON WAY RECONSTRUCTION PROGRAM CONTRACT 26

DECK 1



LOCATION MAP

Plans Reviewed By:

PB 100 YEARS

Plans Prepared For:

City of Cincinnati
Engineering Division
Department of Public Works

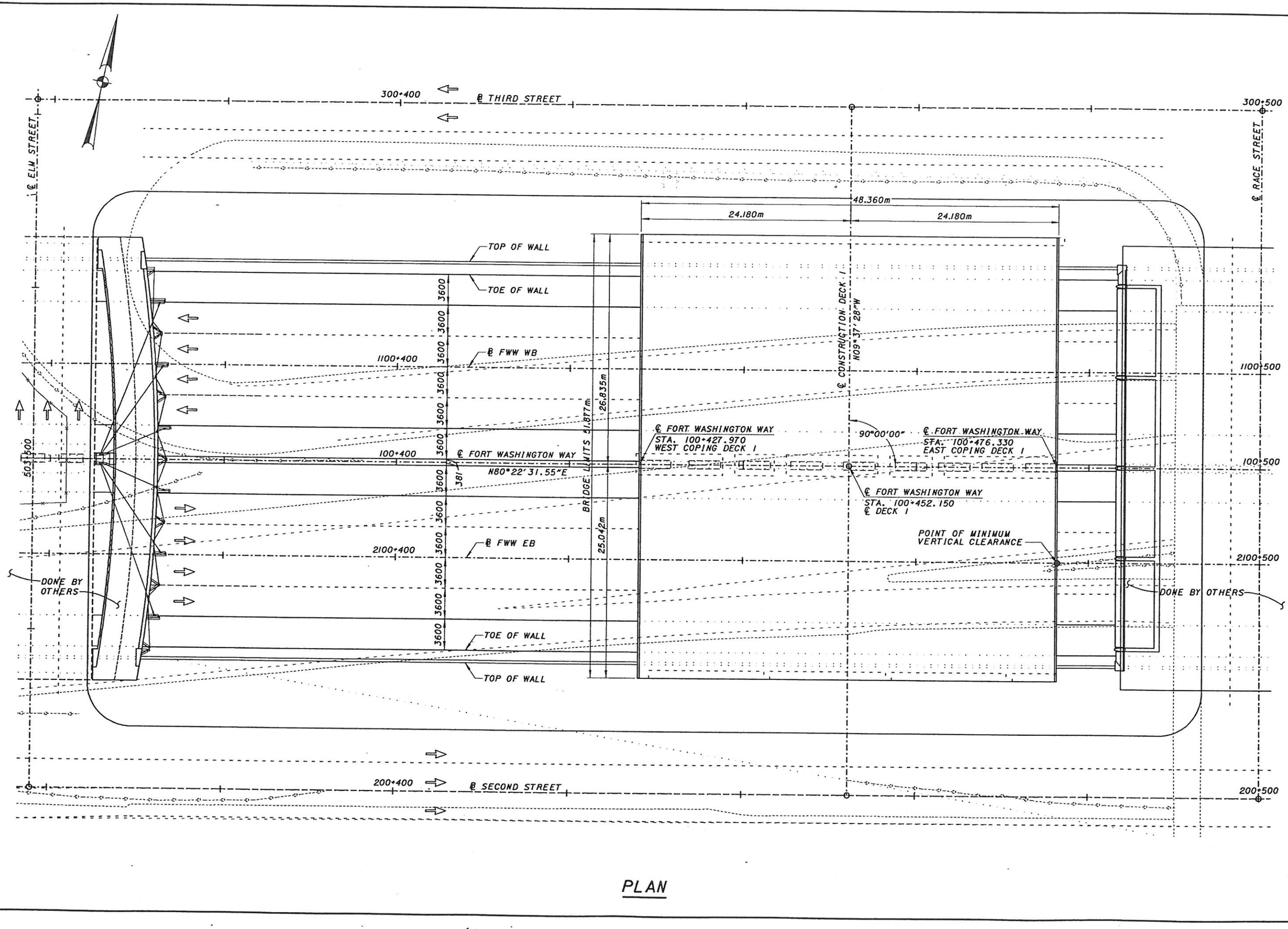
FEDERAL PROJECT NO.

PID NO.

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT

CITY OF CINCINNATI
CONTRACT No. 75X5753



PLAN

Fri Jan 12 09:39:55 2001

1/12/01

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DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202-2720

REVISED	DATE
	6-30-00
DRAWN	REVIEWED
SRL	
PREPARED	CHECKED
SRL	VR

STRUCTURE FILE NUMBER

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

SITE PLAN (SHEET 1 OF 2)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

1/19

1

BENCH MARK
SEE GENERAL NOTES SHEET NO. 13 OF 469 CONTRACT 8 DRAWINGS

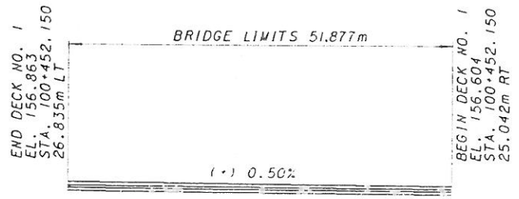
PROPOSED STRUCTURE

TYPE: 2 SPAN PRECAST PRESTRESSED BOX GIRDERS WITH INTEGRAL ABUTMENTS

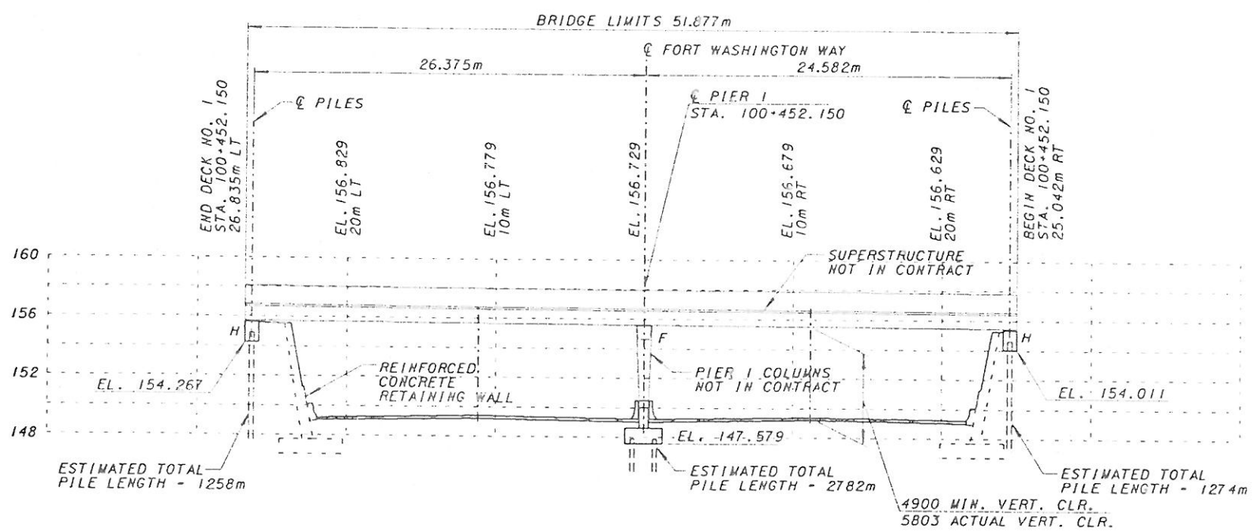
LENGTH OF SPANS: 26.375m - 24.582m
WIDTH OF STRUCTURE: 48.36m
DESIGN LOADING: 1.22m SOIL (MAX DEPTH).
SKEW ANGLE: 0°
SUPER ELEVATION: 0.00356
WEARING SURFACE: NONE
APPROACH SLAB: NOT IN CONTRACT
ALIGNMENT: TANGENT
LATITUDE: N39°-05'-54"
LONGITUDE: W84°-30'-50"

NOTES:

1. CONTRACT 26 INCLUDES THE FOLLOWING ITEMS:
   - PILES FOR ABUTMENTS AND CENTRAL PIER.
   - PILE CAPS FOR ABUTMENTS AND CENTRAL PIER.
   - PORTION OF PIER COLUMNS TO 1.4m ABOVE THE TOP OF FOOTING.
2. ITEMS NOT INCLUDED IN CONTRACT 24 ARE SHOWN FOR FUTURE REFERENCE TO ASSIST THE FUTURE ENGINEER TO DETERMINE STRUCTURE TYPE ASSUMED IN THE DESIGN OF FOUNDATIONS.



VERTICAL ALIGNMENT ALONG ℄ CONSTRUCTION DECK 1



PROFILE ALONG ℄ CONSTRUCTION DECK 1
(LOOKING UPSTATION)

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 1700
CINCINNATI, OH 45202-2739

DATE	REVISION	STRUCTURE FILE NUMBER
6-30-00		

DRAWN	REVISED
SPL	

PREPARED	CHECKED
SSL	VR

HAMILTON COUNTY
STA. 100+427.529
STA. 100+477.000

SITE PLAN (SHEET 2 OF 2)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

2/19

GENERAL NOTES

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS ;

THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS APPLY TO THIS PROJECT:
- SUPPLEMENTAL SPECIFICATION 844 : HIGH PERFORMANCE CONCRETE FOR STRUCTURES
- SUPPLEMENTAL SPECIFICATION 515 : POST-TENSIONING CONCRETE
- SUPPLEMENTAL SPECIFICATION : MASS CONCRETE

DESIGN SPECIFICATIONS ;

THIS PROJECT IS DESIGNED IN METRIC SI UNITS, ALL DIMENSIONS ARE IN MILLIMETERS (mm), AND ALL ELEVATIONS ARE IN METERS (m), UNLESS NOTED OTHERWISE.

THIS STRUCTURE CONFORMS TO ;

"STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICALS, SIXTEENTH EDITION, 1996, INCLUDING THE 1997 INTERIM SPECIFICATIONS

STATE OF OHIO "BRIDGE DESIGN MANUAL"

STATE OF OHIO "CONSTRUCTION AND MATERIAL SPECIFICATIONS", 1997.

DESIGN LOADINGS ;

DEAD LOADS ;

UNIT WEIGHT OF SOIL IN PLANTERS - 19 kN/m^3.
MAXIMUM HEIGHT OF SOIL - 1.22 METER

UNIT WEIGHT OF REINFORCED CONCRETE - 23.6 kN/m^3

WEIGHT OF THE PRESTRESSED CONCRETE BOX BEAMS INCLUDING 150 mm DECK - 13.67 kN/m^2

ADDITIONAL SUPERIMPOSED DEAD LOAD - 1.8 kN/m^2

SNOW LOAD ;

SNOW LOADING - 0.72 kN/m^2

THERMAL FORCES ;

ANTICIPATED THERMAL MOVEMENTS AND FORCES WERE CALCULATED BASED ON THE FOLLOWING :

DESIGN MEAN TEMPERATURE	- 21 DEG. C (68 DEG. F.)
TEMPERATURE RISE	- 19 DEG. C (35 DEG. F.)
TEMPERATURE FALL	- 25 DEG. C (45 DEG. F.)
COEFFICIENT OF LINEAR EXPANSION	- 0.0000108 PER DEGREE C.

SEISMIC FORCES ;

SITE HORIZONTAL ACCERATION- 0.06g. DESIGN DETAILS IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SIXTEENTH EDITION, SEISMIC PERFORMANCE CATEGORY A AND ODOT BDM, 3.1.2.1.

LOADING COMBINATIONS ;

LOAD FACTORS, ALLOWABLE OVERSTRESS AND LOADING COMBINATIONS ARE IN ACCORDANCE WITH AASHTO TABLE 3.22.1A.

CLEARANCE ;

A MINIMUM VERTICAL CLEARANCE BETWEEN THE RIDING SURFACE OF ROADWAY BELOW AND THE LOWEST POINT OF THE STRUCTURE ABOVE, IF IT ENCROACHES ONTO TRAFFIC LANES OF ROADWAY BELOW, SHALL BE 4.9 m FOR MAINLINE ROADWAYS, RAMPS AND LOCAL STREETS.

CONCRETE ;

MINIMUM 28-DAY COMPRESSIVE STRENGTH (f'c) SHALL BE AS FOLLOWS :

HIGH PERFORMANCE CONCRETE - COMPRESSIVE STRENGTH 38.0 MPa TO BE USED FOR PIER COLUMNS.

CONCRETE CLASS "C" - COMPRESSIVE STRENGTH 27.0 MPa TO BE USED FOR FOUNDATIONS AND ABUTMENTS.

CONSTRUCTION JOINTS IDENTIFIED ON THE DRAWINGS AS "ROUGHENED", SHALL BE CLEAN AND SHALL BE ROUGHENED TO A FULL AMPLITUDE OF APPROX. 6 mm.

REINFORCING STEEL ;

REINFORCING STEEL SHALL CONFORM TO THE REQUIREMENTS OF ASTM A615M, A616M OR A617M, GRADE 420 WITH MINIMUM YEILD STRENGTH OF 420 MPa.

ALL REINFORCING STEEL SHALL BE EPOXY COATED.

MINIMUM CONCRETE COVER FOR REINFORCING SHALL BE SHOWN ON THE DRAWINGS. CONCRETE COVERS SHOWN ON THE DRAWINGS DO NOT INCLUDE PLACEMENT AND FABRCATION TOLERANCES, UNLESS SHOWN AS A "MINIMUM COVER".

DESIGN METHOD:

POST-TENSIONED CONCRETE MEMBER SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO 9.13.1.2.

REINFORCING CONCRETE MEMBERS SHALL BE DESIGNED USING THE STRENGTH DESIGN METHOD.

PROTECTION OF TRAFFIC DURING DEMOLITION ;

PRIOR TO THE DEMOLITION OF THE EXISTING STRUCTURE, THE CONTRACTOR SHALL SUBMIT HIS PLANS FOR THE PROTECTION OF TRAFFIC.

END BEARING PILES DRIVEN TO BEDROCK ;

THE ABUTMENT AND PIER PILES SHALL BE DRIVEN INTO BEDROCK A MINIMUM OF 300 mm OR TO PRACTICAL REFUSAL ON BEDROCK. REFUSAL SHALL BE CONSIDERED AS OBTAINED BY PENETRATING SOFT BEDROCK FOR SEVERAL MILLIMETERS AND HAVING A RESISTANCE OF 20 BLOWS PER 25 mm OR REFUSAL SHALL BE CONSIDERED AS OBTAINED AFTER THE PILE HAS PENETRATED BEDROCK AND THE PILE HAS THEN RECEIVED AT LEAST 20 BLOWS.

PILE LOADS - THE DESIGN ALLOWABLE CAPACITY FOR HP 12x53 PILES IS 980 kN IN COMPRESION.

PILES NOT BEARING ON BEDROCK WILL NOT BE ACCEPTED. AUGER SOUNDINGS MAY BE REQUIRED IF THE PILES ENCOUNTER REFUSAL SIGNIFICANTLY ABOVE DESIGN ELEVATIONS.

PILE HAMMER ;

THE PILE HAMMER USED TO INSTALL THE PILES SHALL HAVE A STATE'S ENERGY RATING OF NOT LESS THAN 54000 JOULES. THIS REQUIREMENT DOES NOT RELIEVE THE CONTRACTOR FROM 108.05 WHICH STATES THAT THE CONTRACTOR IS TO PROVIDE SUFFICIENT EQUIPMENT FOR PROSECUTING THE REQUIRED WORK. REFER TO "ODOT'S MANUAL OF PROCEDURES FOR STRUCTURES" TO OBTAIN THE STATE'S ENERGY RATING.

STEEL POINTS;

STEEL POINTS SHALL BE USED TO PROTECT THE TIPS OF THE PROPOSED "H" PILING. THE STEEL POINTS SHALL BE FURNISHED BY THE ASSOCIATED PILE AND FITTING CORPORATION, 262 RUTHERFORD BOULEVARD, CLIFTON, NEW JERSEY 07014; INTERNATIONAL CONSTRUCTION EQUIPMENT, INC., 301 WAREHOUSE DRIVE, MATHEWS, NORTH CAROLINA 28015; OR BY A MANUFACTURE THAT CAN FINISH A STEEL POINT THAT IS ACCEPTABLE TO THE ENGINEER.

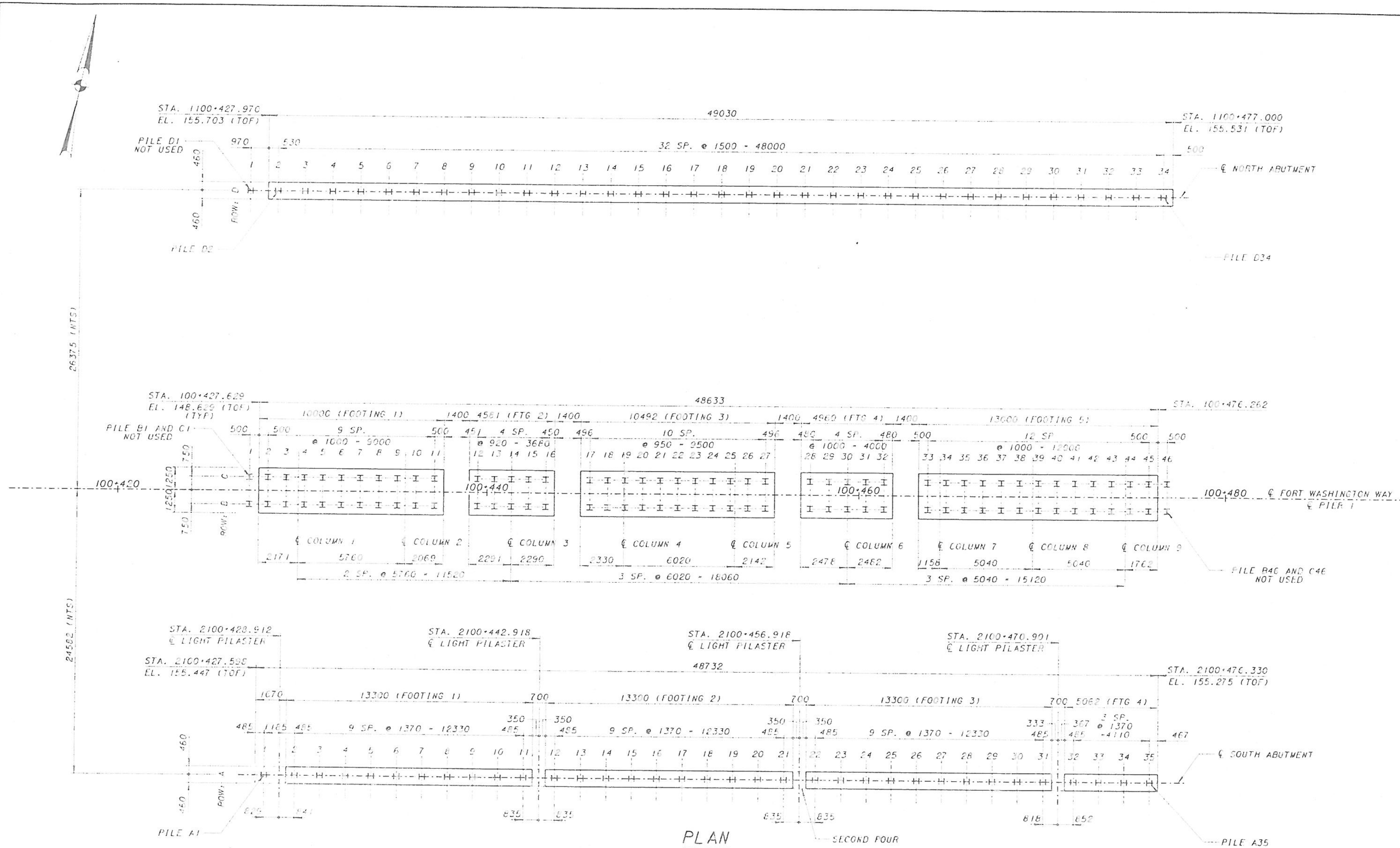
TEST PILES ;

THE LOCATION OF THE TEST PILE SHALL BE DETERMINED BY THE ENGINEER. THE TEST PILE SHALL BE SUBJECTED TO DYNAMIC LOAD TESTING IN ACCORDANCE WITH CMS 523.

PRODUCTION PILES ;

AS DIRECTED BY THE ENGINEER, PRODUCTION PILES SHALL BE DYNAMICALLY TESTED IN ACCORDANCE WITH CMS 523. THE NUMBER OF PILES AND WHICH PILES TO BE TESTED WILL BE DETERMINED BY THE ENGINEER. THE DYNAMIC TESTING SHALL BE PERFORMED DURING BOTH THE INITIAL AND RESTRIKE DRIVING. THE DYNAMIC TESTING EQUIPMENT SHOULD CONFORM TO THE REQUIREMENTS OF ASTM D-4945-89, STANDARD TEST METHOD FOR HIGH STRAIN DYNAMIC TESTING OF PILES.

DESIGN AGENCY PARSONS BRINCKERHOFF, INC. 312 ELM STREET, SUITE 2100 CINCINNATI, OH 45202-2720	REVISED	DATE 6-30-00	STRUCTURE FILE NUMBER		
PREPARED VR	DRAWN SPL	CHECKED JSH	REVIEWED		
LOCATION NAME STA. 100.427.629 STA. 100+477.000					
GENERAL NOTES DECK NUMBER 1 OVER FORT WASHINGTON WAY					
CITY OF CINCINNATI CONTRACT NO. 75X5753					



PLAN

LEGEND

H - HP 12 X 53 STEEL PILE (TYP)
DRIVEN TO ROCK
980 kN PILE CAPACITY

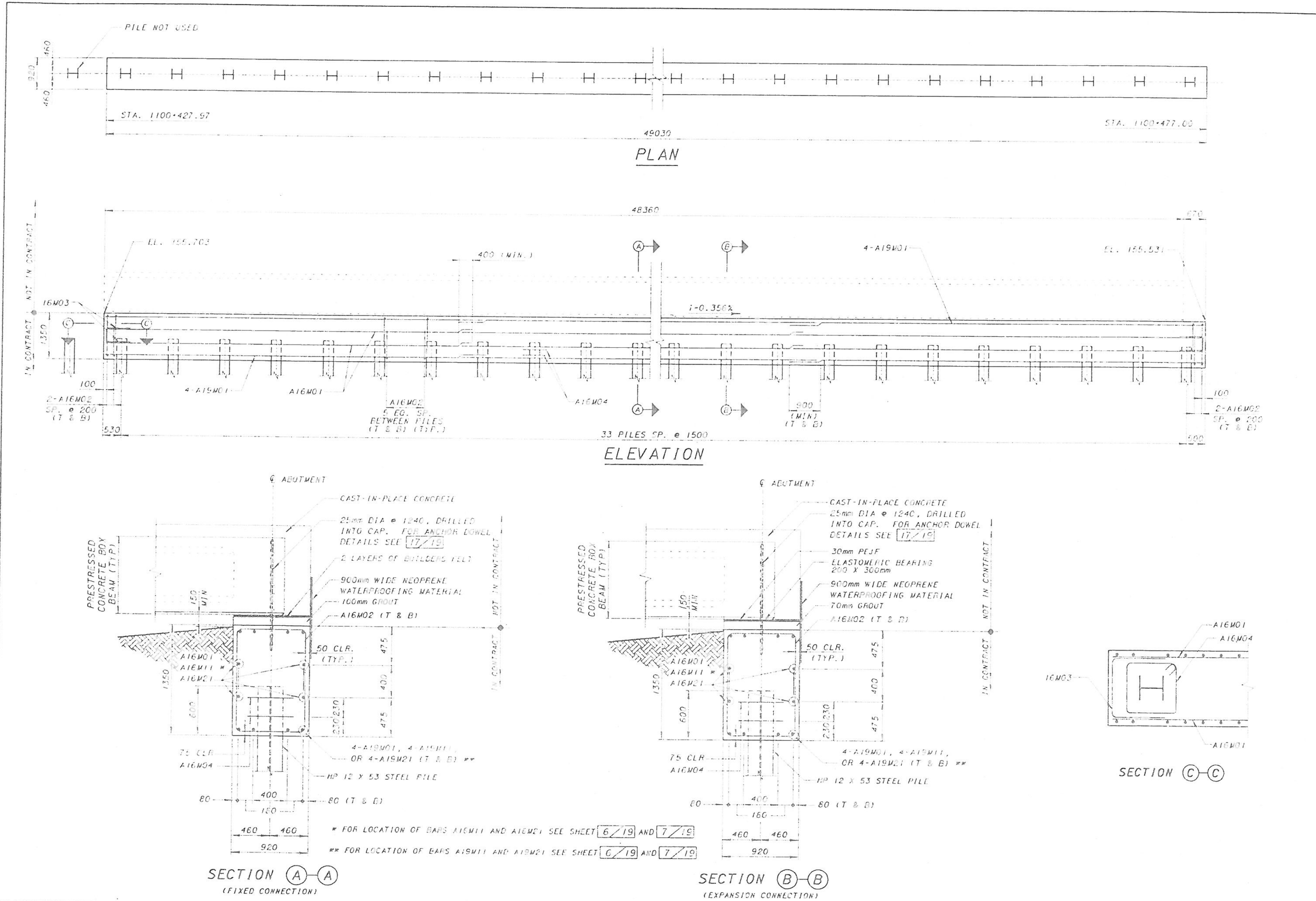
DESIGN AGENCY	PARSONS BRINCKERHOFF, INC.
PREPARED VR	CHECKED JSH
DRAWN SRL	REVIEWED
REVISED	DATE 6-30-00
STRUCTURE FILE NUMBER	

HAMILTON COUNTY
STA. 100+427.529
STA. 100+477.000

FOUNDATION LAYOUT
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

4/19



DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202-2720

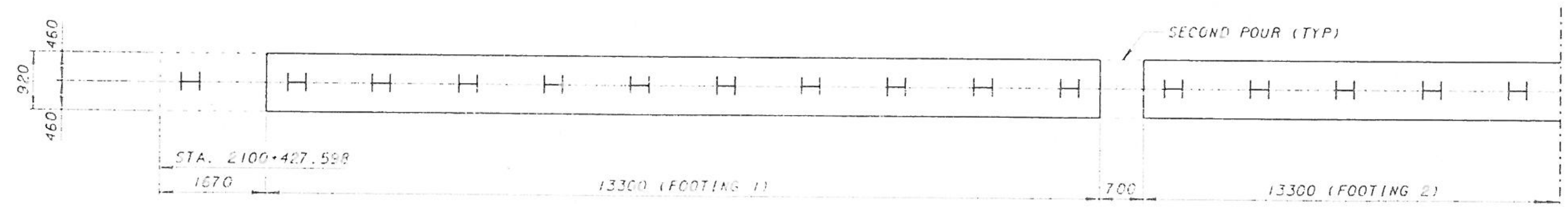
PREPARED	DRAWN	REVISED	DATE
VR	SRL		6-30-00
CHECKED	REVIEWED	STRUCTURE FILE NUMBER	
JSH			

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

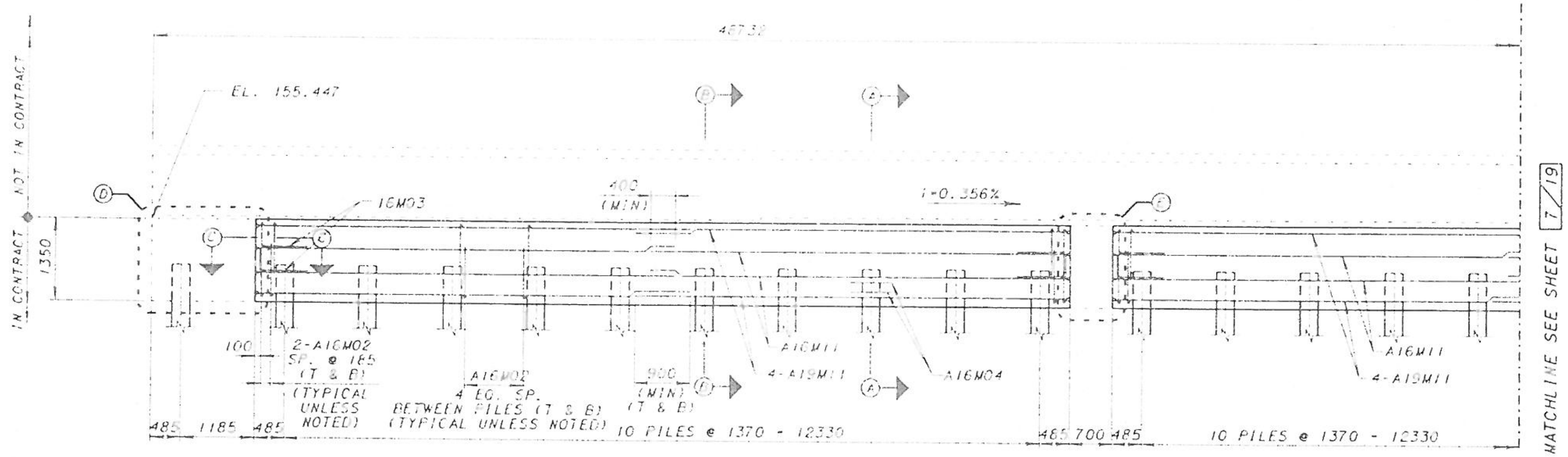
NORTH ABUTMENT REINFORCMENT
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

5/19



PLAN



ELEVATION

NOTES:

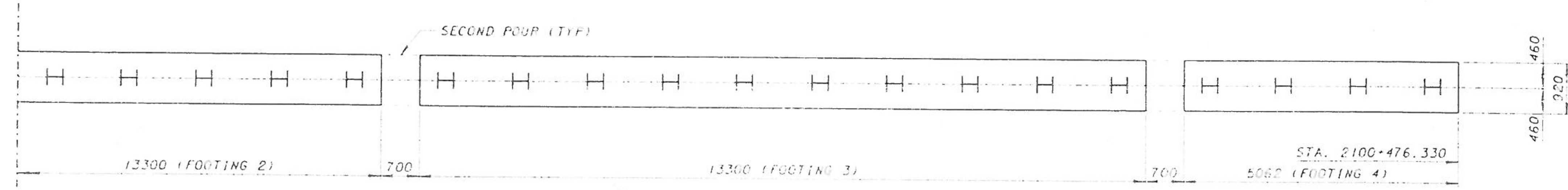
1. FOR SECTIONS A-A, B-B, AND C-C SEE SHEET 5/19

DESIGN AGENCY	PARSONS BRINCKERHOFF, INC. 119 ELM STREET, SUITE 1700 CINCINNATI, OH 45202
PREPARED VP	DRAWN SPL
REVISED	DATE 6-30-00
CHECKED JSH	REVIEWED
STRUCTURE FILE NUMBER	
HAMILTON COUNTY	STA. 100+427.629 STA. 100+477.000

SOUTH ABUTMENT REINFORCEMENT (SHEET 1 OF 2)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

6/19



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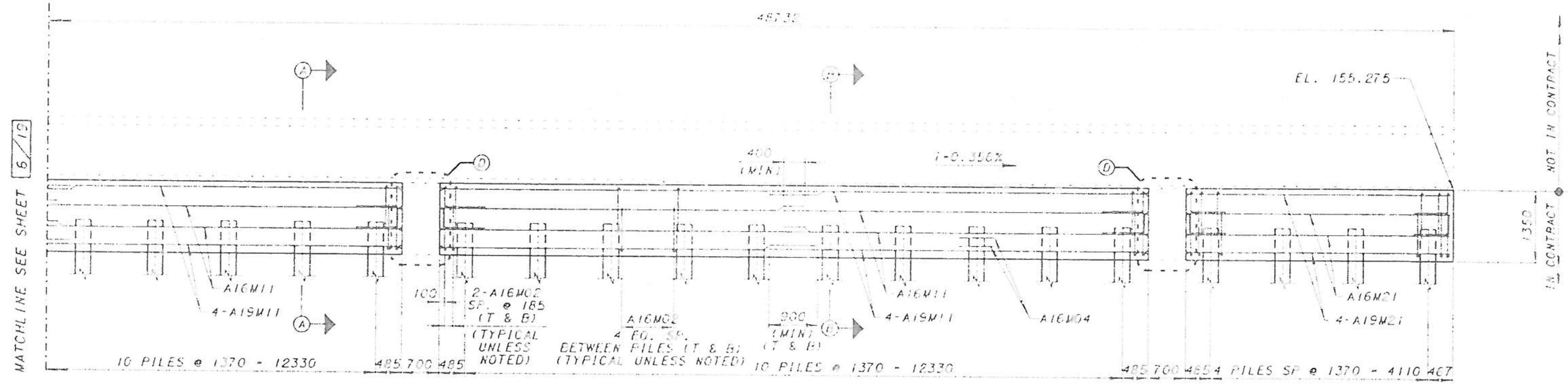
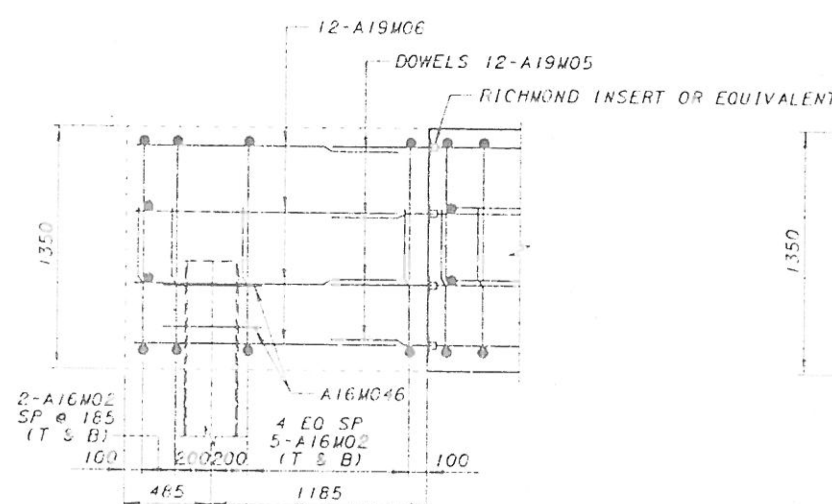
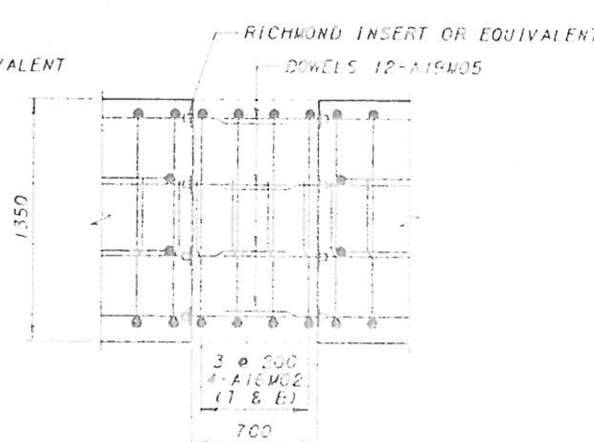


ELEVATION



DETAIL (D)



DETAIL (E)

DESIGN AGENCY PARSONS BRINCKERHOFF, INC. 312 ELM STREET, SUITE 2500 CINCINNATI, OH 45202-2739

PREPARED	DRAWN	REVISED	DATE
VR	SRL		6-30-00
CHECKED	REVIEWED	STRUCTURE FILE NUMBER	
JSH			

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

SOUTH ABUTMENT REINFORCEMENT
(SHEET 2 OF 2)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

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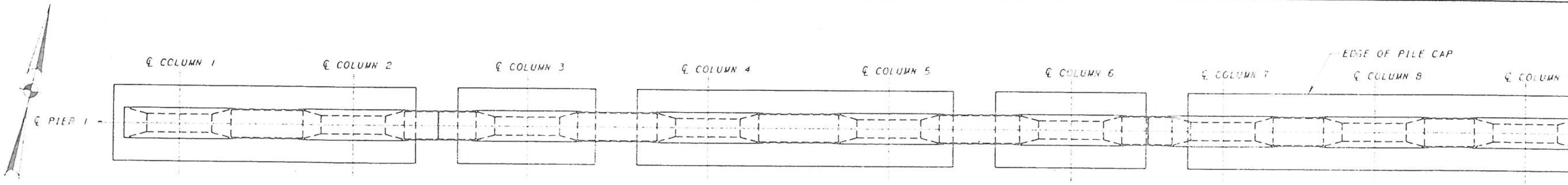
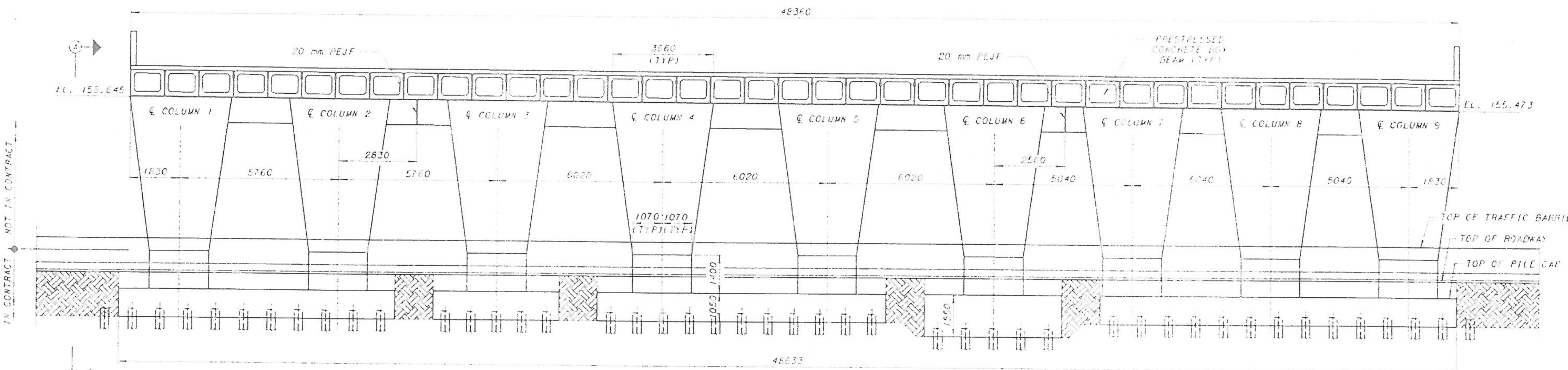
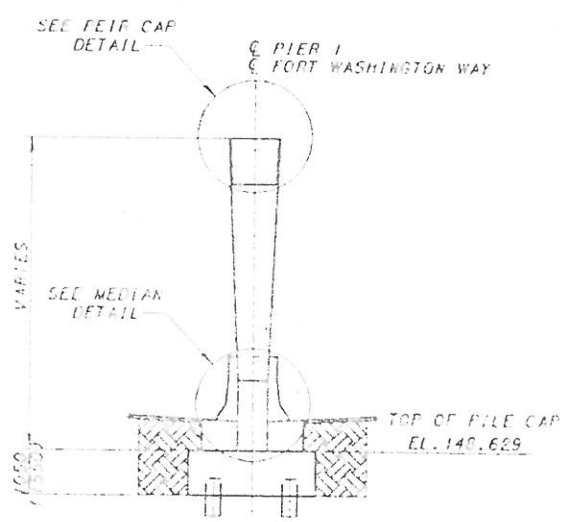


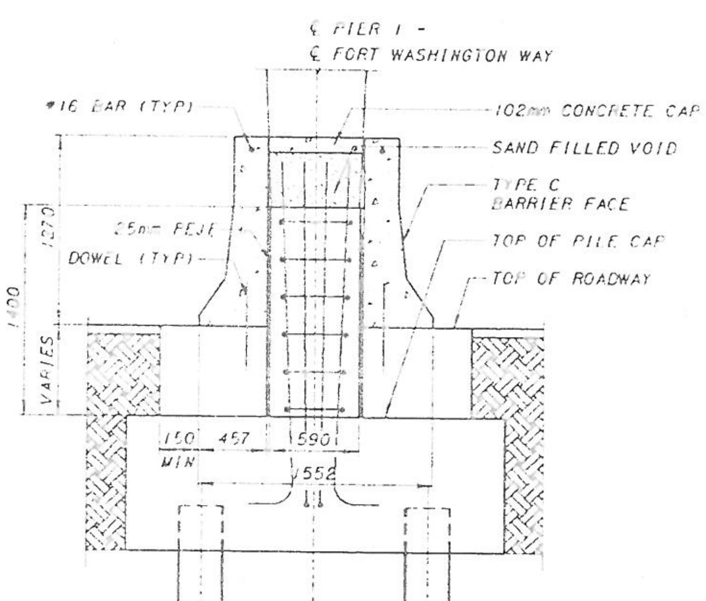
PLAN



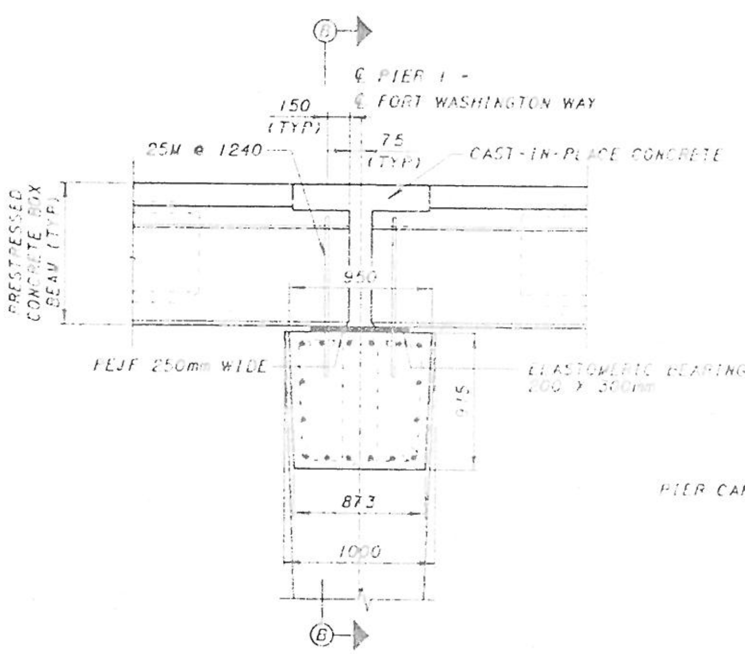
ELEVATION AT ℄ PIER 1



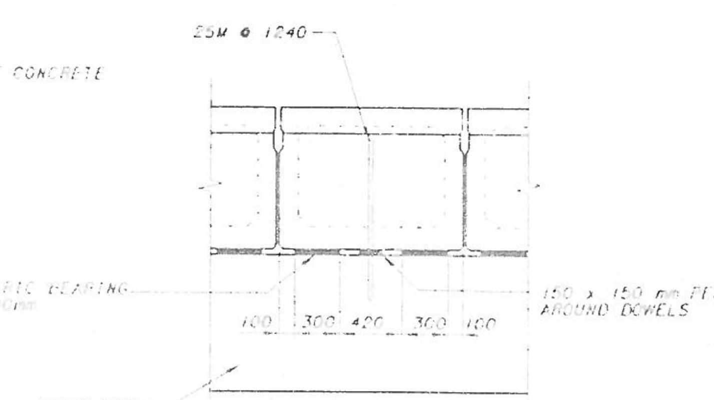
VIEW A-A



MEDIAN DETAIL



PIER CAP DETAIL



SECTION B-B

NOTES:

1. SEE NOTES 1 AND 2 ON SHEET 2/19

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202-2723

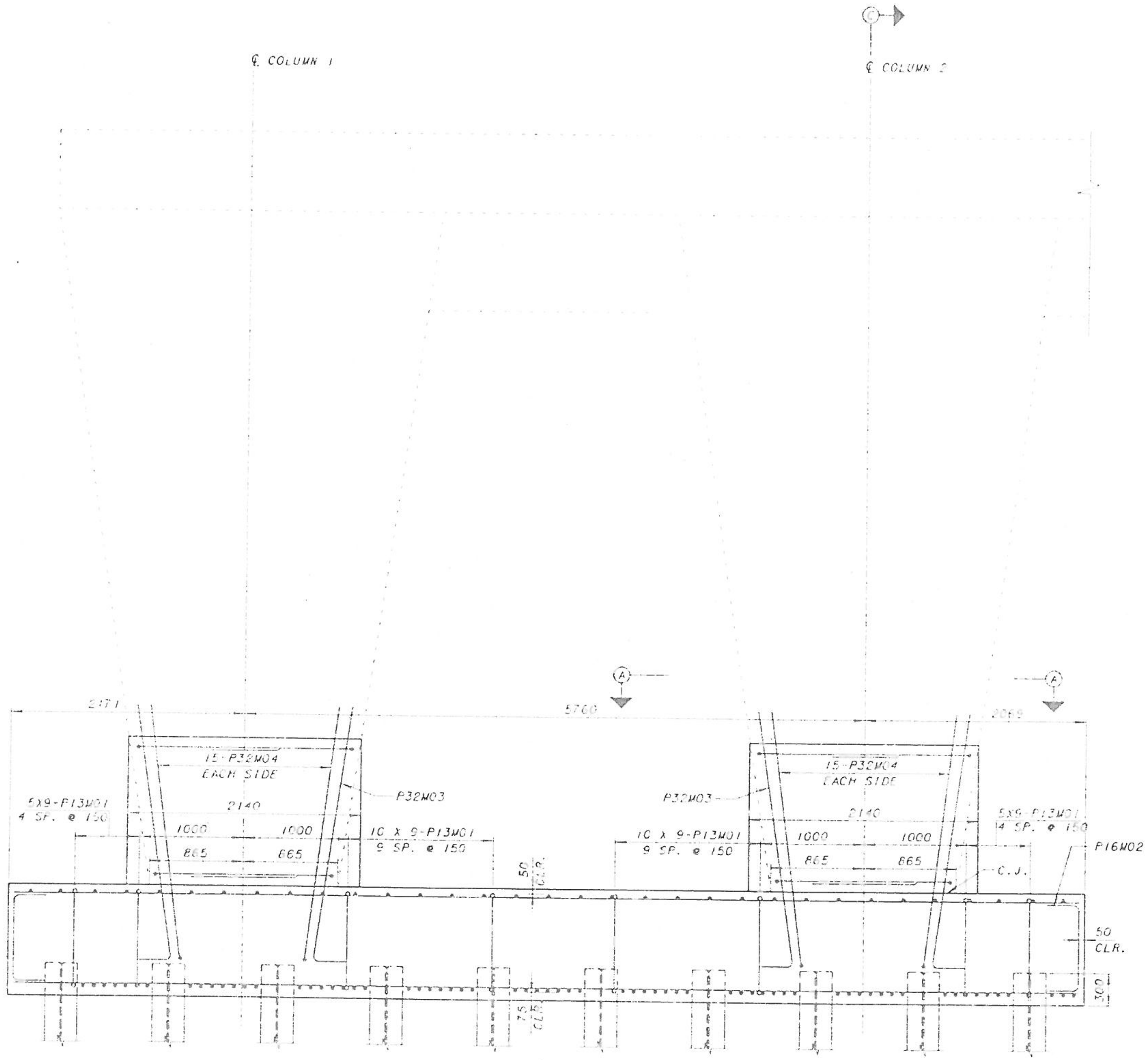
PREPARED	DRAWN	REVISED	DATE
VR	SPL		6-30-00
CHECKED	REVIEWED	STRUCTURE FILE NUMBER	
JSH			

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

PIER 1 PLAN & ELEVATION
DECK NUMBER 1
OVER FORT WASHINGTON WAY

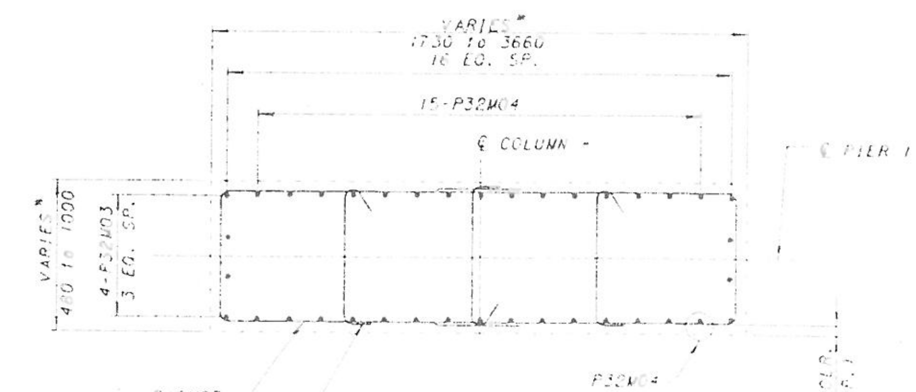
CITY OF CINCINNATI
CONTRACT NO. 75X5753

8/19

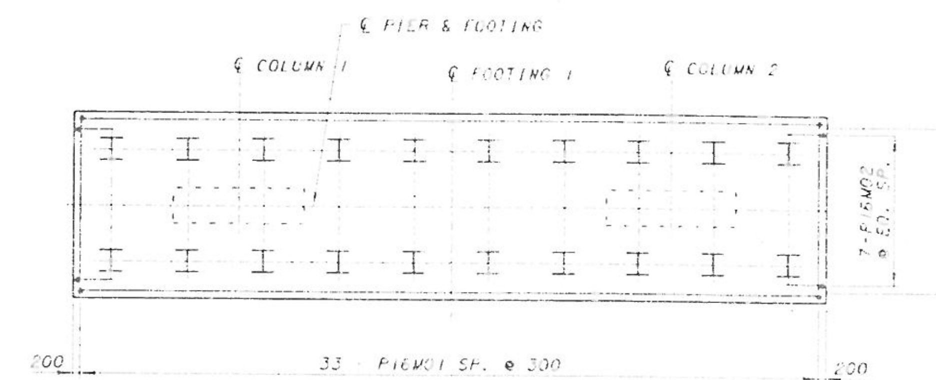


SECTION (B)-(B)

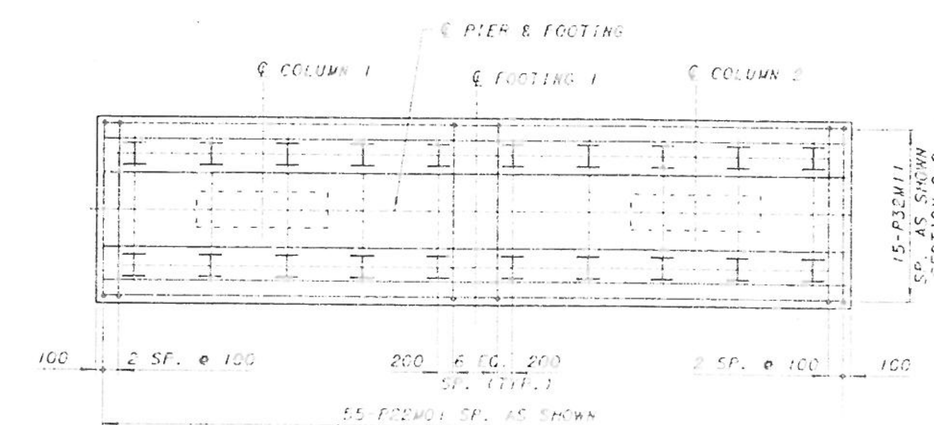
SEE SHEET 10/19 FOR LOCATION OF SECTION B-B



SECTION (A)-(A)



PLAN FOOTING 1 TOP REINFORCING



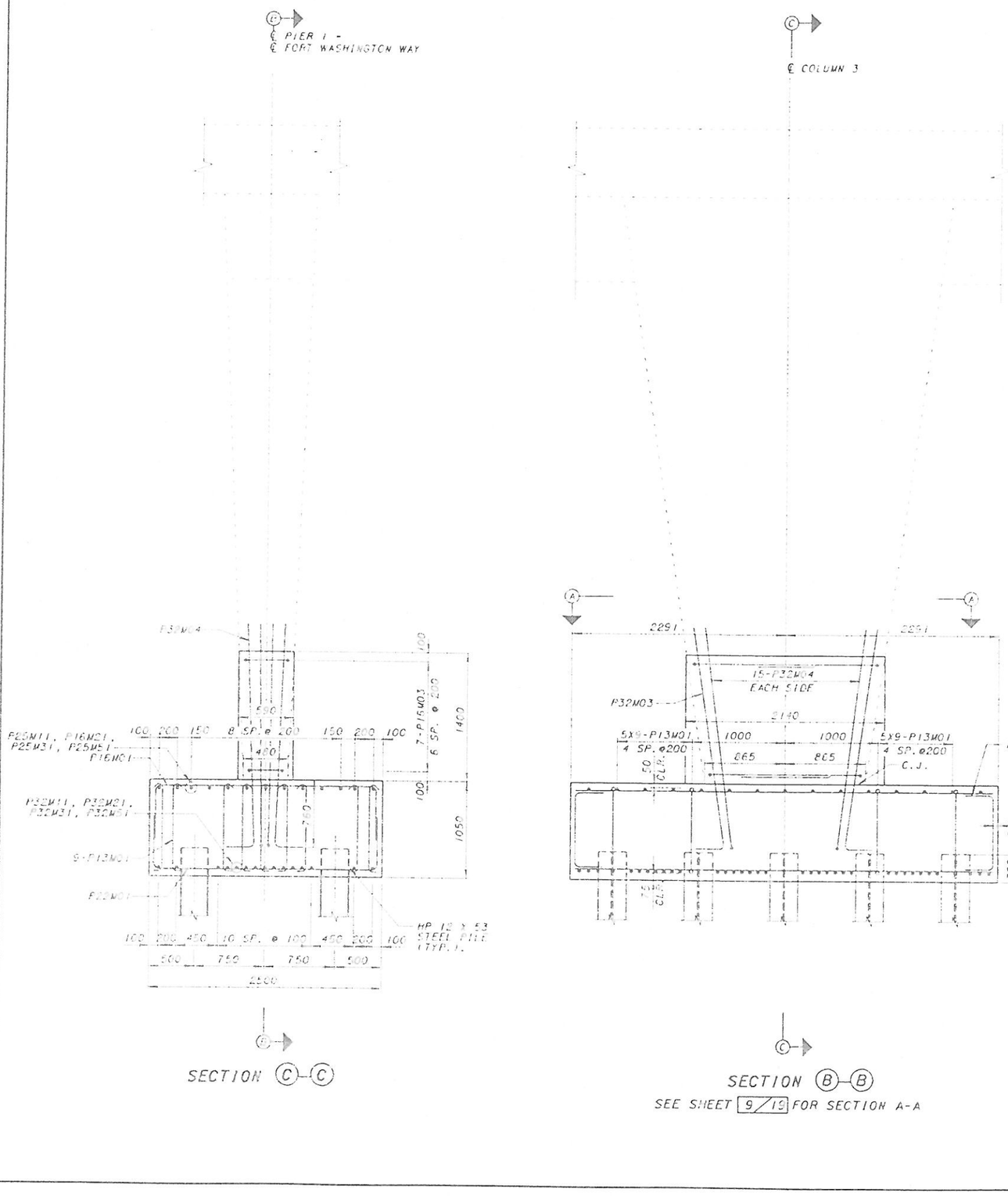
PLAN FOOTING 1 BOTTOM REINFORCING

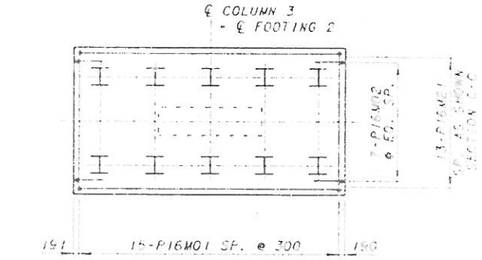
* THE SIZE OF LOWER PORTION OF THE COLUMNS IS 990 x 2140 mm. THE 480 mm & 1730 mm DIMENSIONS ARE GIVEN TO PROPERLY LOCATE THE DOWELS IN THE FOOTING.

DESIGN AGENCY PARSONS BRINCKERHOFF, INC. 312 ELM STREET, SUITE 2500 CINCINNATI, OH 45202-2739	REVISED / DATE 6-30-00	DRAWN SRL	PREPARED VR	HAMILTON COUNTY	
	STRUCTURE FILE NUMBER	REVIEWED	CHECKED JSH	STA. 100+427.629 STA. 100+477.000	

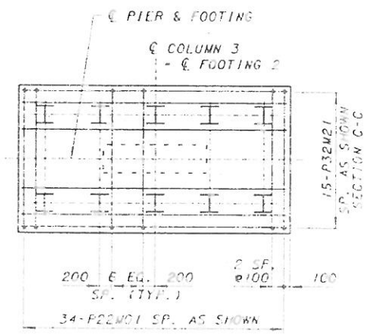
PIER 1 REINFORCEMENT (1 OF 5)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753



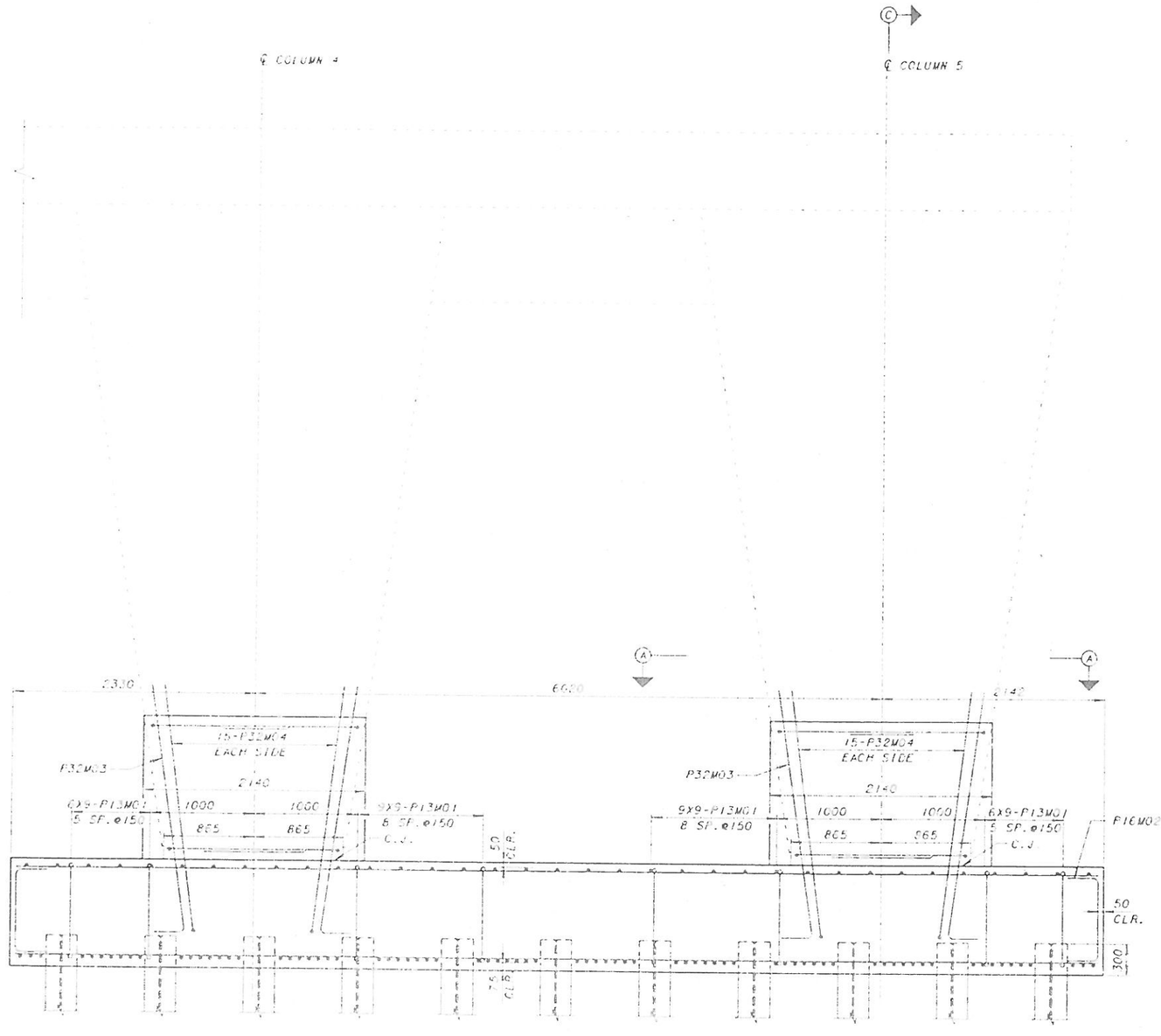


PLAN FOOTING 2 TOP REINFORCING



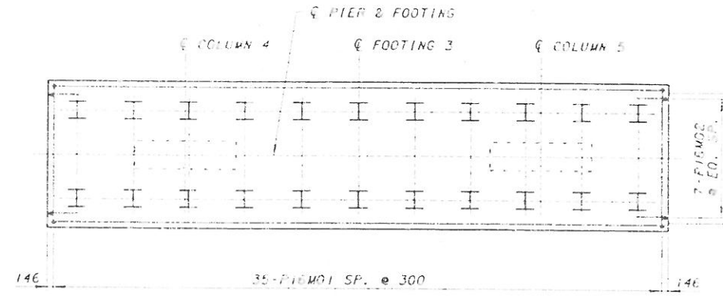
PLAN FOOTING 2 BOTTOM REINFORCING

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
ONE EAST FOURTH STREET, SUITE 1400
CINCINNATI, OH 45202-3709
DATE 6-30-00
STRUCTURE FILE NUMBER
DRAWN SRL
REVIEWED
DESIGNED KVB
CHECKED JSH
HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000
PIER 1 REINFORCEMENT (2 OF 5)
DECK HUMPER 1
OVER FORT WASHINGTON WAY
CITY OF CINCINNATI
CONTRACT NO. 75X57753
10/19
1

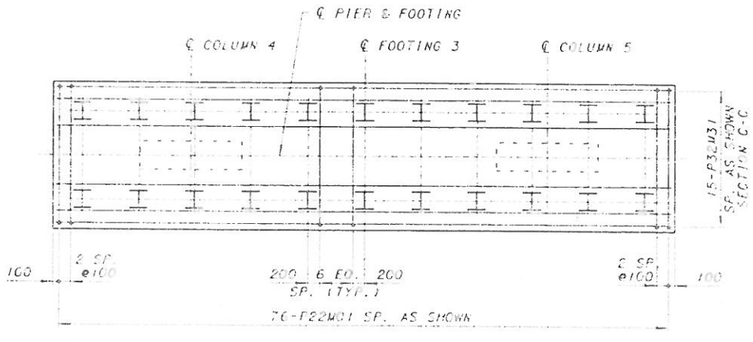


SECTION Ⓑ–Ⓑ

SEE SHEET 10/19 FOR LOCATION OF SECTION B-B
SEE SHEET 9/19 FOR SECTION A-A



PLAN FOOTING 3 TOP REINFORCING



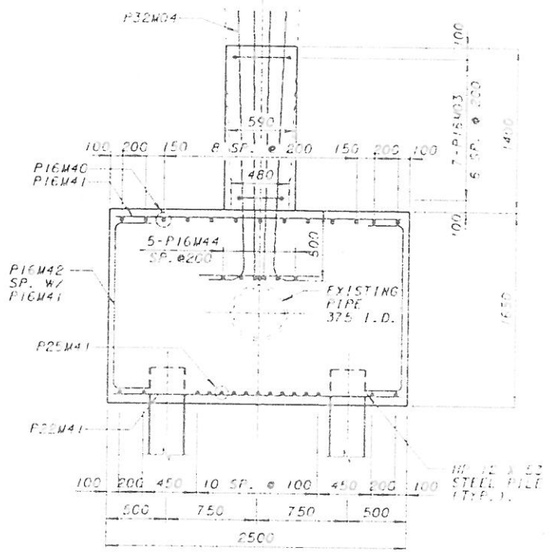
PLAN FOOTING 3 BOTTOM REINFORCING

HAMILTON COUNTY
STA. 100+22.529
STA. 100+47.001

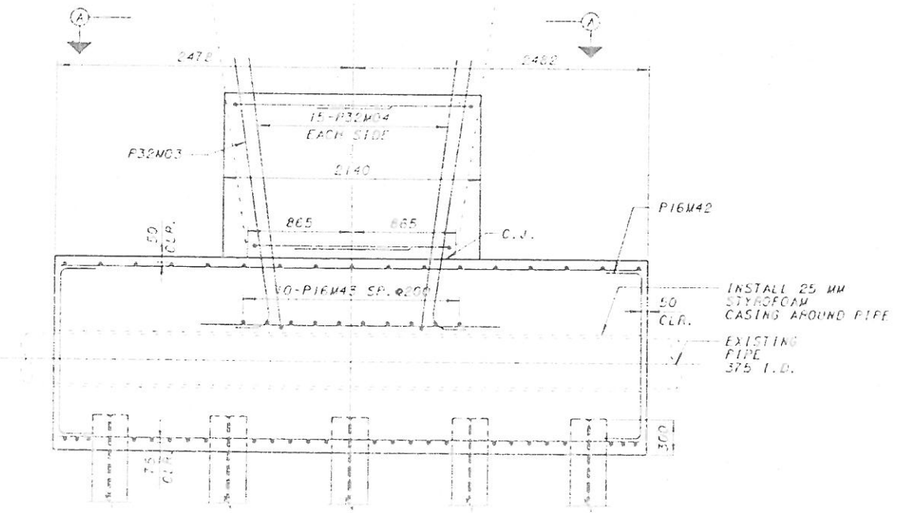
PIER 1 REINFORCEMENT (3 OF 5)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

11/19



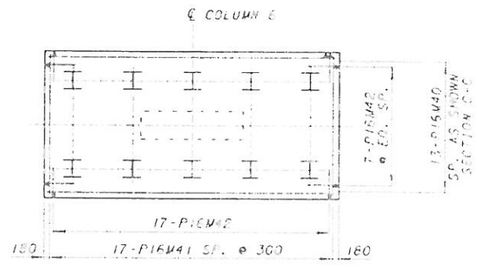
SECTION Ⓒ—Ⓒ



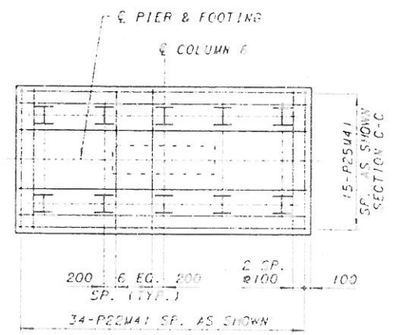
NOTE:
1. CARE SHALL BE TAKEN TO PREVENT DAMAGE OF THE PIPE WHILE POURING CONCRETE.

SECTION Ⓑ—Ⓑ

SEE SHEET 9/19 FOR SECTION A-A



PLAN FOOTING 4 TOP REINFORCING



PLAN FOOTING 4 BOTTOM REINFORCING

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202-2715

DRAWN	REVISED	DATE
SAL	STRUCTURE FILE NUMBER	6-30-00
PREPARED	CHECKED	REVIEWED
V.R	JSH	

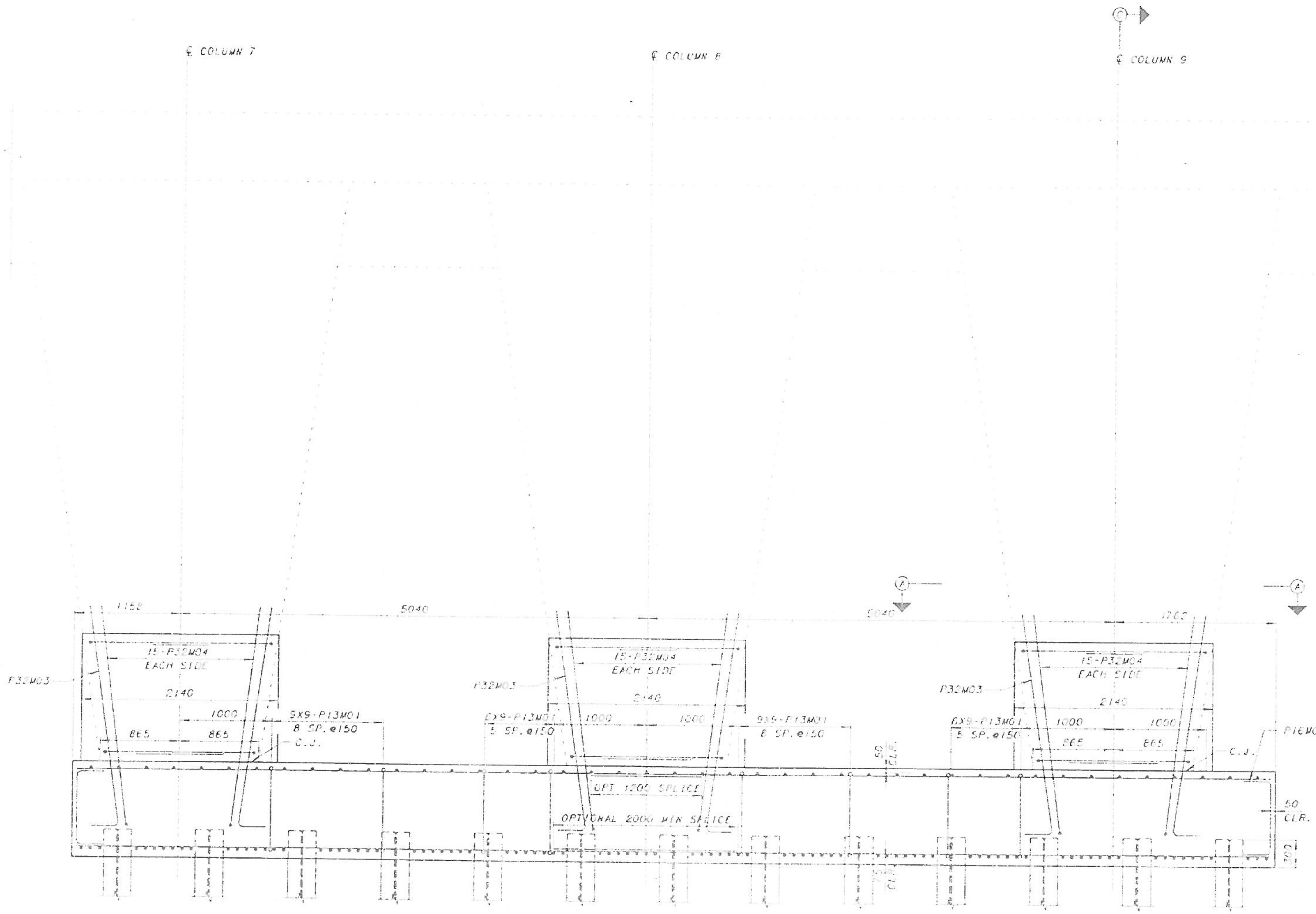
HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

PIER 1 REINFORCEMENT (4 OF 5)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

12/19

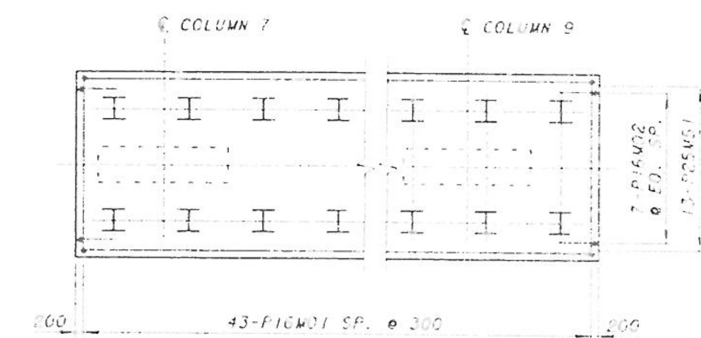
1



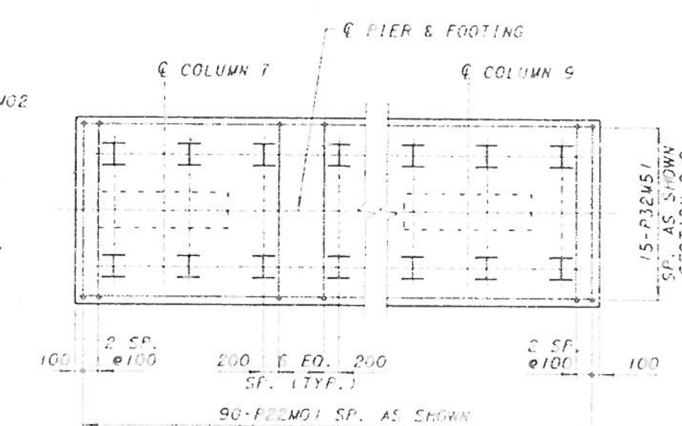
SECTION (B)-(B)

SEE SHEET 10/19 FOR LOCATION OF SECTION B-B

SEE SHEET 9/19 FOR SECTION A-A



PLAN FOOTING 5 TOP REINFORCING



PLAN FOOTING 5 BOTTOM REINFORCING

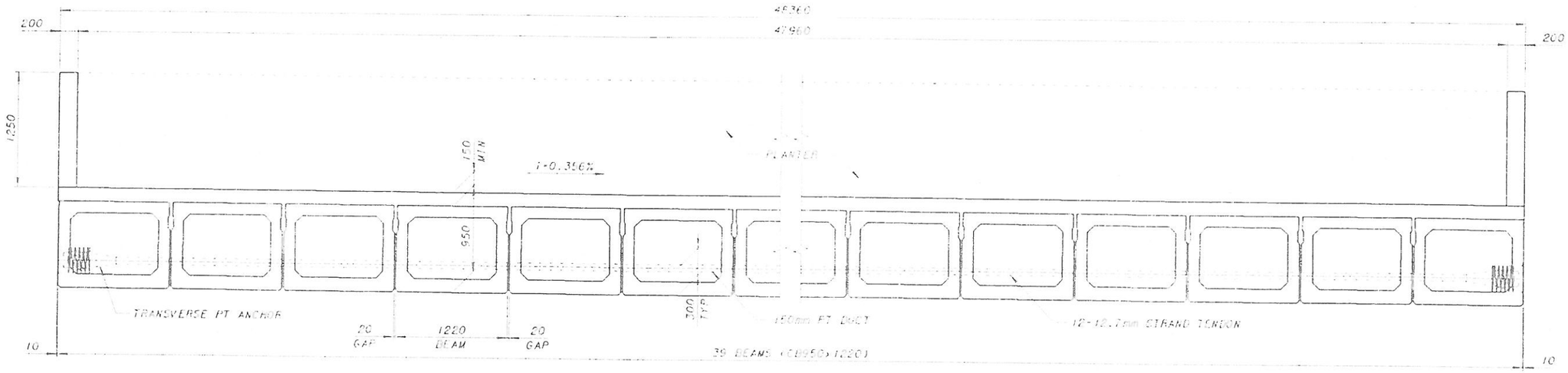
HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

PIER 1 REINFORCEMENT (5 OF 5)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

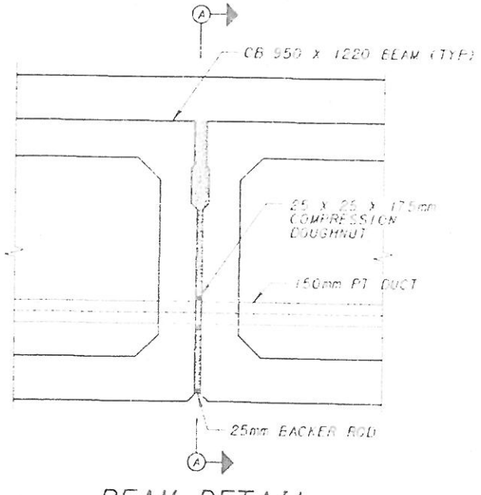
CITY OF CINCINNATI
CONTRACT NO. 75X5753

PREPARED VB | DRAWN SRL | REVISED | DATE 6-30-00 | CHECKED JSH

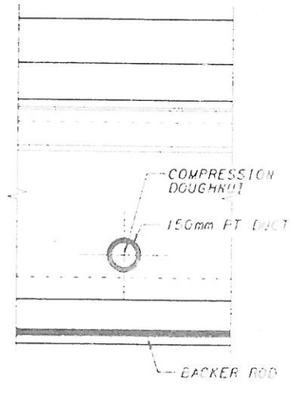
DESIGN AGENCY PARSONS BRINCKERHOFF, INC.



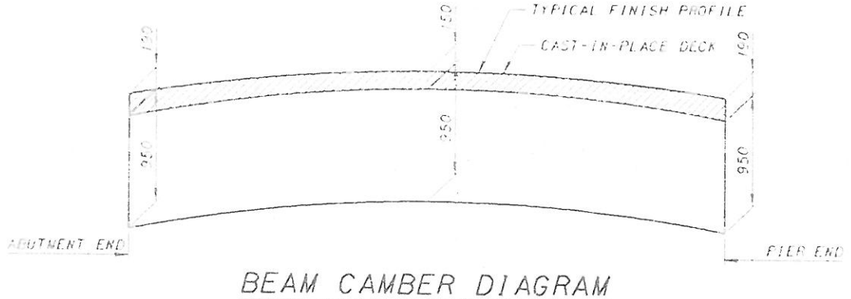
TYPICAL CROSS SECTION



BEAM DETAIL



SECTION (A)–(A)



BEAM CAMBER DIAGRAM

NOTES:

1. SEE NOTES 1 AND 2 ON SHEET 2/19

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
TAFT-STETTINIUS & HOLLISTER LLP
CINCINNATI, OH 45202-2520

DATE REVISED 6-30-00
SUBJECT TO FIELD MEASUREMENT

DRAWN SPL
DESIGNED

PREPARED V.R.
CHECKED J.S.H.

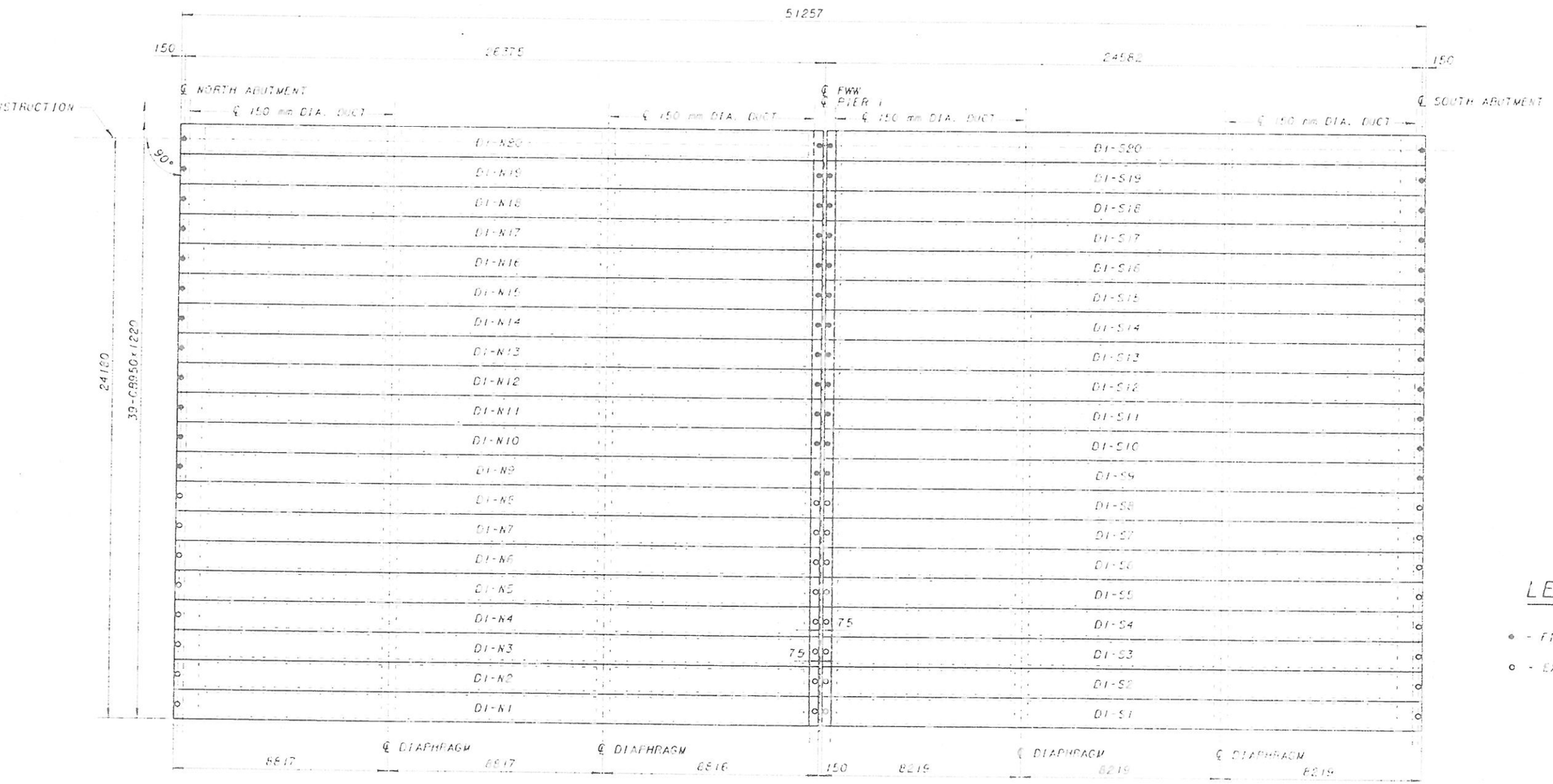
HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

SUPERSTRUCTURE SECTION
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

14/19

1
1



FRAMING PLAN

LEGEND

- ● - FIXED ANCHOR DOWELS
- ○ - EXPANSION ANCHOR DOWELS, U.N.O.

NOTES:

1. MINIMUM CONCRETE STRENGTH OF BEAMS AFTER 28 DAYS: 50.7 MPa.
   MINIMUM CONCRETE STRENGTH AT RELEASE: 37.2 MPa.
2. PRESTRESSING STRAND TO BE UNCOATED, LOW RELAXATION
   12.7 mm DIA., SEVEN WIRES(As=100 sq. mm), ASTM A416, GRADE 270,
   fs=1860 MPa, INITIAL STRESS = 0.75 fs = 1400 MPa.
3. REINFORCING STEEL TO BE ASTM A615M OR A615M GRADE 400.
4. TOP OF BEAMS ARE TO BE SCORED TRANSVERSELY AT ABOUT 75 mm CENTERS WITH A POINTED TOOL (MAX). DEPTH OF SCORING TO BE 6 mm)
5. OMIT KEYWAY ON EXTERIOR BEAMS.
6. SEE NOTES 1 AND 2 ON SHEET 2/19

DESIGN AGENT
PARSONS BRINCKERHOFF, INC.
312 WALNUT STREET, SUITE 2500
CINCINNATI, OH 45202-2230
513.

DESIGNED	DRAWN	APPROVED	DATE
V.R.	S.P.L.		6-30-00
CHECKED	REVISED		STRUCTURE FILE NUMBER
J.S.H.			

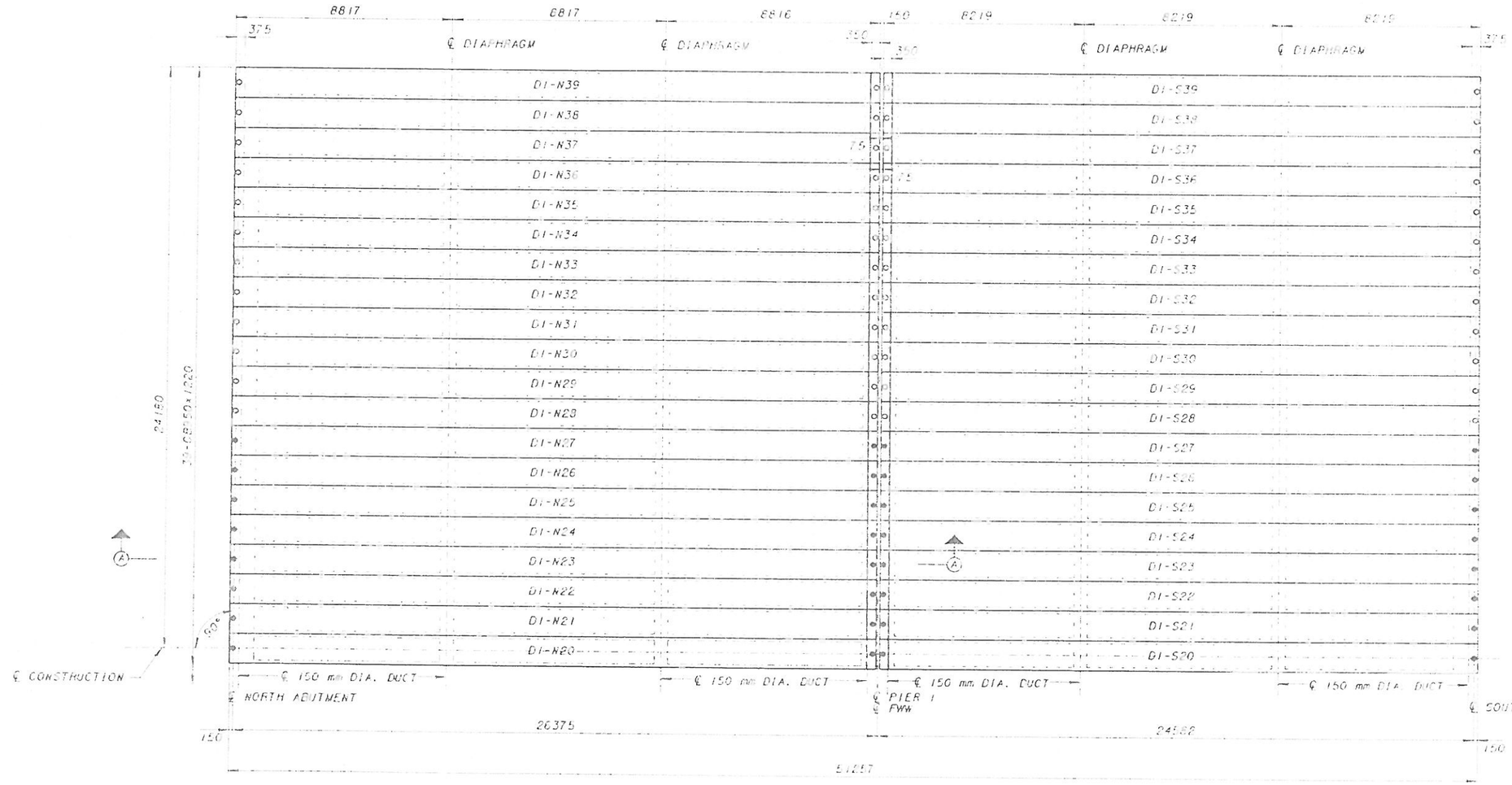
HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

FRAMING PLAN (1 OF 2)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

15/19

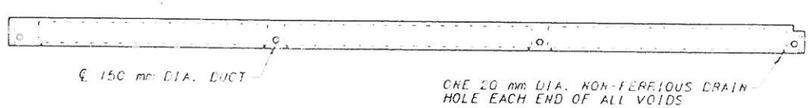
1



FRAMING PLAN

NOTES:

1. WORK TOGETHER WITH FRAMING PLAN SHEET 15/19



SECTION (A)-(A)

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 1900
CINCINNATI, OH 45202-2745

REVISED	DATE	
	5-30-00	SIGNATURE FILE NUMBER
DRAWN		
S.P.L.		REVIEWED
PREPARED		
V.R.		CHECKED
		J.S.H.

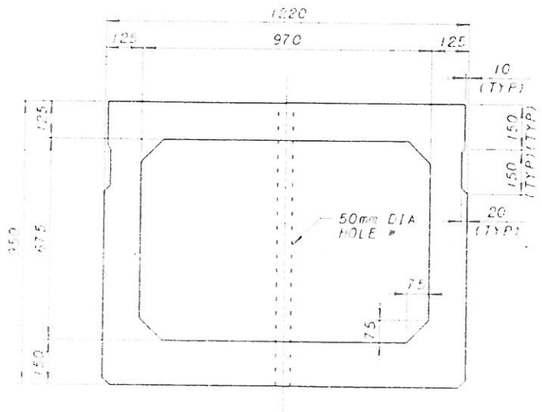
HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

FRAMING PLAN (2 OF 2)
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X57753

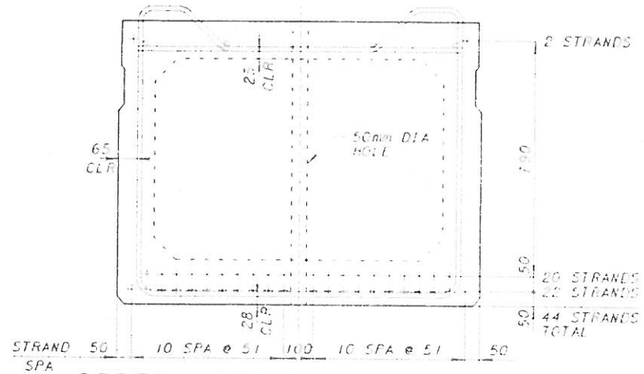
16/19

1

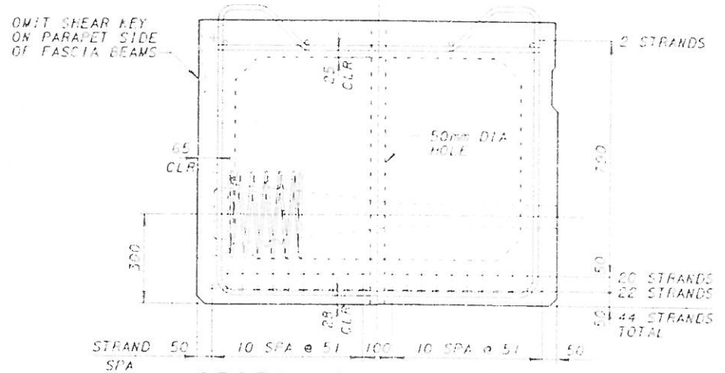


CROSS SECTION CB950x1220 BEAM

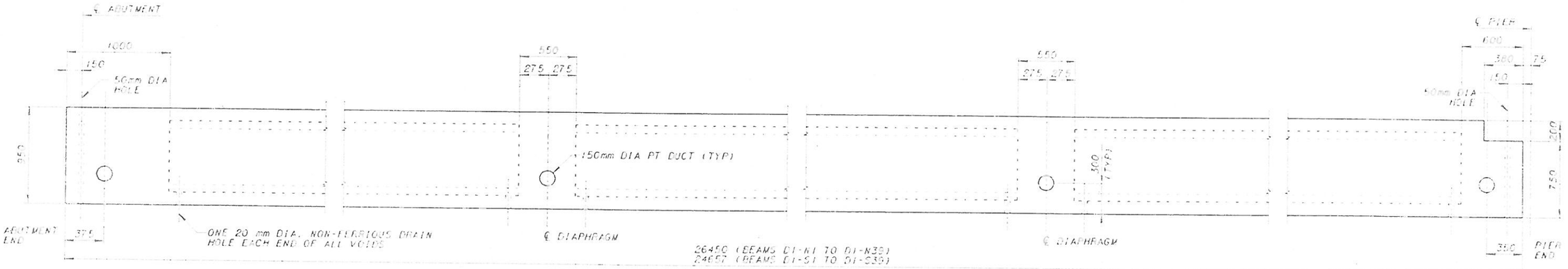
* FOR 25mm DIA SMOOTH DOWEL (L=1340)



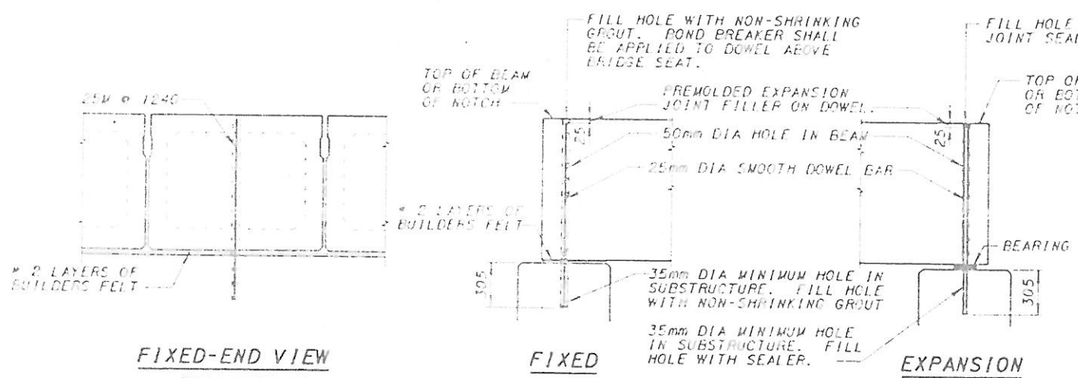
CB950x1220 TYPICAL BEAM



CB950x1220 END BEAM



ELEVATION



FIXED-END VIEW — FIXED — EXPANSION — EXPANSION-END VIEW

ANCHOR DOWELS

* TWO LAYERS OF BUILDERS FELT ARE USED AT ABUTMENTS IN CONJUNCTION WITH FIXED ANCHOR DOWELS. BEARING PADS SHALL BE USED AT CENTRAL PIER IN CONJUNCTION WITH FIXED ANCHOR DOWELS.

NOTE: DOWEL CLEARS ELASTOMERIC BEARING

DOWEL HOLE LOCATION

NOTES:

1. SEE NOTES 1 AND 2 ON SHEET 2/19

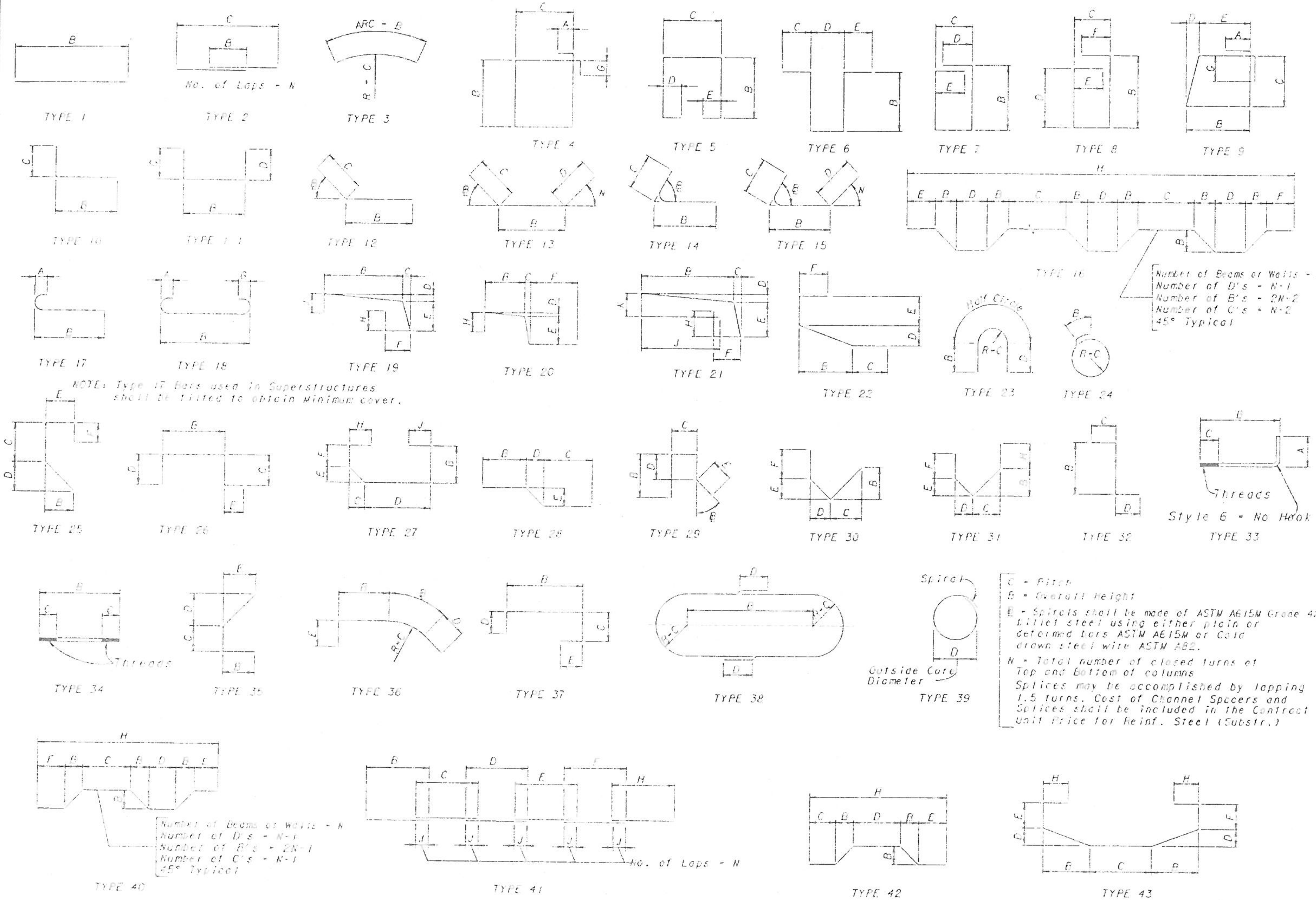
DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202 (513)
DATE
6-30-00
REVISED
DRAWN
SAL
REVIEWED
PREPARED
V.F.
CHECKED
JSH
STRUCTURE FILE NUMBER

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

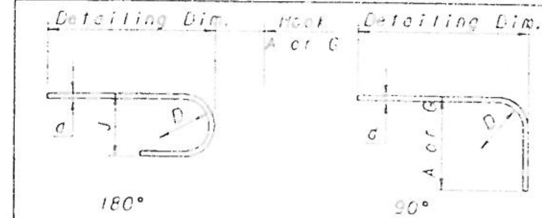
BEAM DETAILS
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

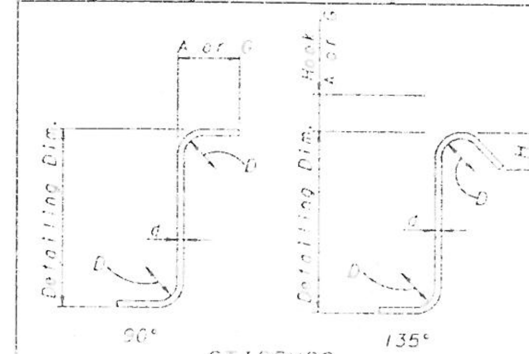
17/19



NOTE: For Bar Dimensions See REINFORCING BAR LIST Sheet.



BAR SIZE	D	180° HOOKS		90° HOOKS
		A OR G	J	A OR G
#10	60	125	80	150
#13	80	150	105	200
#16	95	175	130	250
#19	115	200	155	300
#22	135	250	180	375
#25	155	275	205	425
#29	240	375	300	475
#32	275	425	335	550
#36	305	475	375	600
#43	465	675	550	775
#57	610	925	725	1050
STYLE		1		3



STIRRUPS
(TIES SIMILAR)

RECOMMENDED STIRRUP & TIE HOOK DIMENSIONS

BAR SIZE	D	90° HOOKS	135° HOOKS	
		A or G	A or G	H*
#10	40	105	105	65
#13	50	115	115	80
#16	65	155	140	95
#19	115	305	205	115
#22	135	355	230	135
#25	155	410	270	155
STYLE		4	5	

STYLE 6 - NO HOOK

* Dimension is approximate.

Hook Styles Detailed on this sheet are for Illustration Only.

Actual Hook Style for any particular bar will be shown under A or G Heading on REINFORCING BAR LIST sheet.

All dimensions are in millimeters (mm), except as noted.

All Dimensions are out-to-out.

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202

DATE 6-30-00
REVISED
STRUCTURE FILE NUMBER
DRAWN SRL
REVIEWED
PREPARED SRL
CHECKED VR

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

STANDARD BAR BENDING DETAILS

DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

MARK	TOTAL NUMBER	LENGTH (mm)	WEIGHT (kg)	TYPE	STYLE A	STYLE G	DIMENSIONS (mm) B	C	D	E	F	H	J	K	NO N	ANG O	REMARKS
PIER FOOTING																	
P13M01	900	1005	899	18	4	5	775										
P16M01	126	3750	733	11			2400	675	675								
P16M02	56	1485	129	11			885	300	300								
P16M40	13	4860	98	1			4860										
P16M41	17	2400	63	1			2400										
P16M42	48	2085	155	11			1485	300	300								
P16M43	10	1000	16	1			1000										
P16M44	5	2500	19	1			2500										
P22M01	255	3750	3800	11			2400	750	750								
P22M41	34	2400	324	1			2400										
P25M11	13	9900	511	1			9900										
P25M21	13	4480	231	1			4480										
P25M31	13	10390	537	1			10390										
P25M41	15	4860	290	1			4860										
P25M51	13	14000	723	41			6700	7300					1200		1		
P32M11	15	9900	951	1			9900										
P32M21	15	4480	430	1			4480										
P32M31	15	10390	998	1			10390										
P32M51	15	14800	1422	41			7100	7700					2000		1		
COLUMN STUB																	
P16M03	18	3635		11			495	1570	1570								
	SETS OF	TO	700				TO										
P16M03	7	3525		11			385	1570	1570								
P16M04	27	790		18	4	5	495										
	SETS OF	TO	216				TO										
P16M04	7	680		18	4	5	385										
P32M03	72	3050	1406	12			2750	300								98	
P32M04	270	3050	5274	12			2750	300								92	
NORTH ABUTMENT																	
A16M02	392	2450	1491	11			820	815	815								
A16M03	4	2085	13	11			785	650	650								
A16M04	66	3420	350	4	5	5	785	785									
A16M01	4	50530	314	2			400	48530							4		
A19M01	8	52530	939	2			900	48930							4		
SOUTH ABUTMENT																	
A16M02	332	2450	1262	11			820	815	815								
A16M03	16	2085	52	11			785	650	650								
A16M04	68	3420	361	4	5	5	785	785									
A16M11	12	13600	253	2			400	13200							1		
A16M21	4	4960	31	1			4960										
A19M11	24	14100	756	2			900	13200							1		
A19M21	6	4960	89	1			4960										

NOTES:

1. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT ON STANDARD 90°, 135° AND 180° HOOKS.
2. DIMENSIONS ON HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOKS ARE TO BE USED.
3. ALL BENDS SHOWN ARE BENT AROUND A STANDARD MANDREL. EXCEPT WHERE RADIUS OR DIAMETER IS INDICATED.
4. ALL BARS ARE EPOXY COATED.
5. SP BARS ARE SPIRAL BARS. THE WEIGHT OF THE SPIRAL INCLUDES 11 KILOGRAMS FOR 3 ADDITIONAL COILS, 1½ COILS AT EACH END PER AASHTO 8.18.2.2.4 THE WEIGHT OF THE SPIRAL INCLUDES 13.6 KILOGRAMS FOR 3 ADDITIONAL COILS. 1½ COILS AT EACH END PER AASHTO 8.18.2.2.4. CONCRETE SPACERS OR OTHER APPROVED NON-CORROSIVE SPACING DEVICES SHALL BE USED AT SUFFICIENT INTERVALS (NEAR THE BOTTOM AND AT INTERVALS NOT EXCEEDING 3.050m) TO INSURE CONCENTRIC SPACING FOR THE ENTIRE CAGE LENGTH. SPACERS SHALL BE CONSTRUCTED OF APPROVED MATERIAL EQUAL IN QUALITY AND DURABILITY TO THE CONCRETE SPECIFIED FOR THE COLUMN. THE SPACERS SHALL HAVE ADEQUATE DIMENSIONS TO ENSURE A MINIMUM 75mm CLEAR SPACE BETWEEN THE OUTSIDE OF THE REINFORCING CAGE AND THE DESIGN DIMENSION OF THE COLUMN. CYLINDRICAL CONCRETE FEET (BOTTOM SUPPORTS) SHALL BE PROVIDED TO ENSURE THAT THE BOTTOM OF THE CAGE IS MAINTAINED AT THE PROPER DISTANCE ABOVE THE BASE.
6. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST TWO DIGITS INDICATE THE BAR SIZE NUMBER. FOR EXAMPLE, P19M01 IS A NO. 19M BAR.
7. FOR STYLE OF HOOK "A" OR "G" AND HOOK DIMNESIONS REFER TO THE STANDARD BAR BENDING DETAILS. TOTAL LENGTH AND WEIGHT OF BARS INCLUDE HOOKS.

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2100
CINCINNATI, OH 45202-2720

PREPARED VR | CHECKED JSH | DRAWN SFL | REVIEWED | REVISED | DATE 6-30-00 | STRUCTURE FILE NUMBER

HAMILTON COUNTY
STA. 100+427.629
STA. 100+477.000

REINFORCING STEEL SCHEDULE
DECK NUMBER 1
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

f:\segment\fww\bridges\wbi\contract.24\dbs402.dgn 1/12/01 Fri Jan 12 09:38:51 2001