FORT WASHINGTON WAY 2000

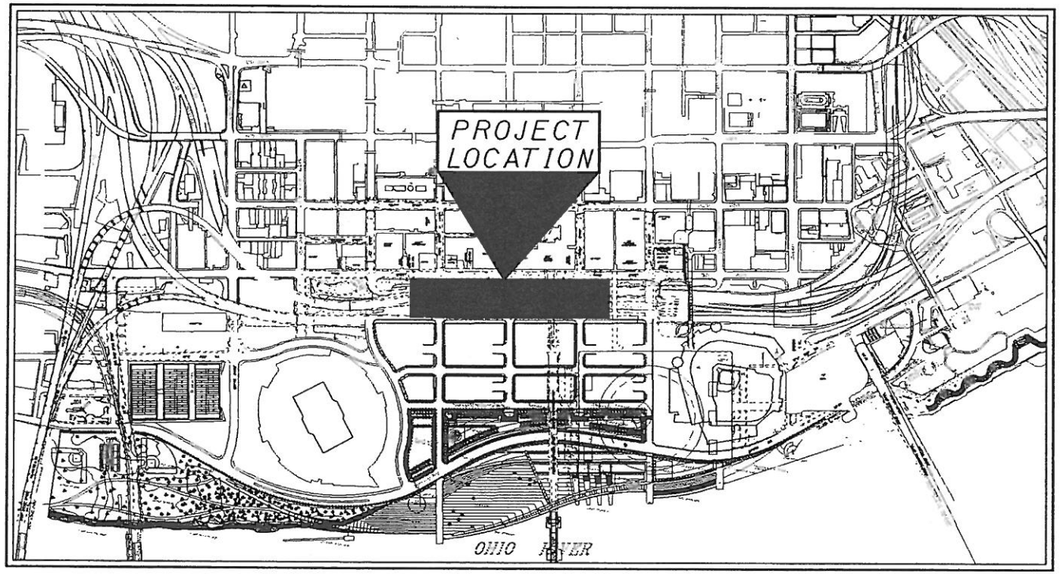
CITY OF CINCINNATI
DEPARTMENT OF PUBLIC WORKS
DIVISION OF ENGINEERING

metric units

PROPOSED IMPROVEMENT

FORT WASHINGTON WAY RECONSTRUCTION PROGRAM CONTRACT 26

DECK 3



LOCATION MAP

Plans Reviewed By:

PB 100 YEARS

Plans Prepared For:

City of Cincinnati
Engineering Division
Department of Public Works

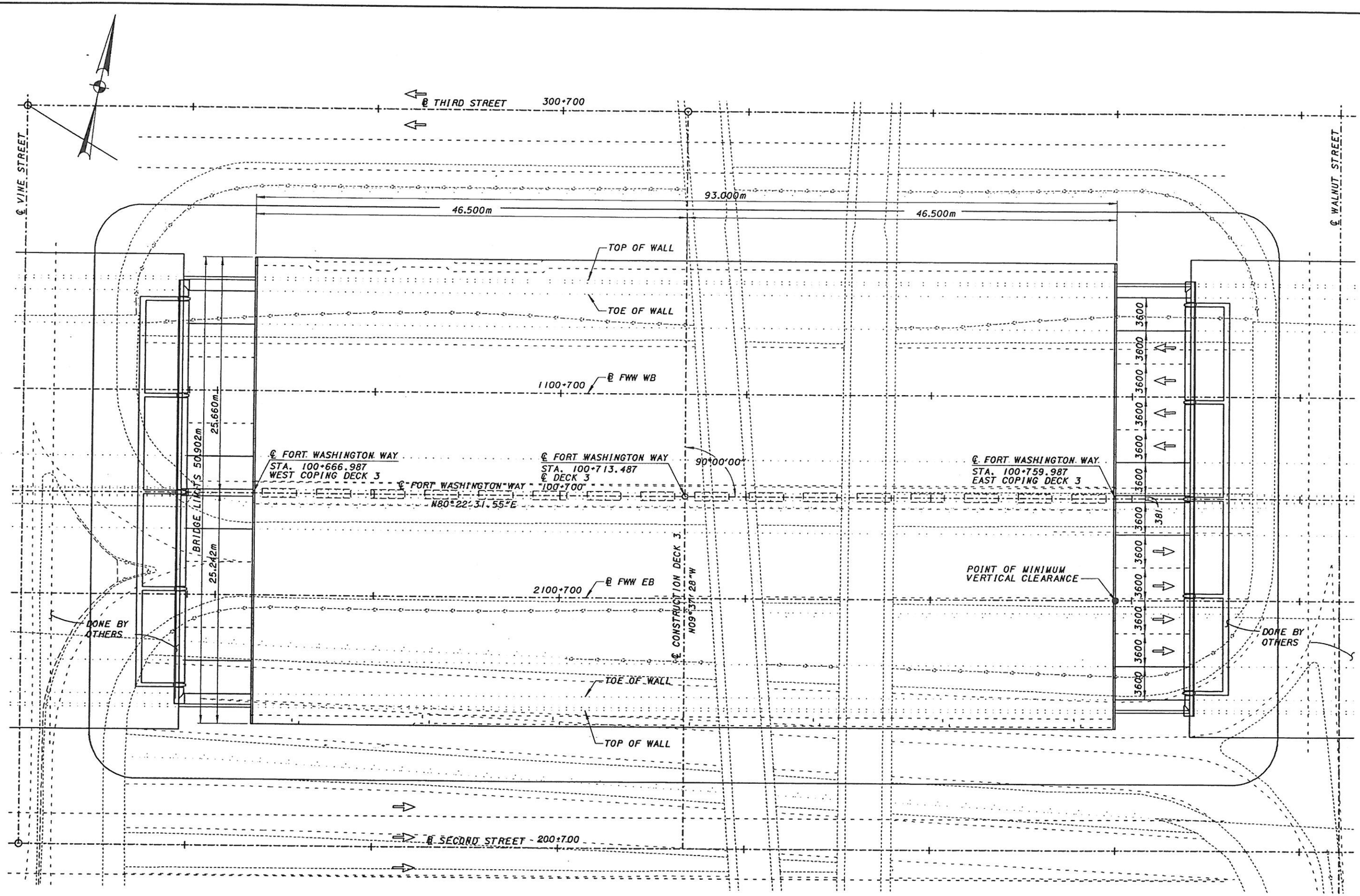
FEDERAL PROJECT NO.

PID NO.

CONSTRUCTION PROJECT NO.

RAILROAD INVOLVEMENT

CITY OF CINCINNATI
CONTRACT No. 75X5753



PLAN

1/12/01 Fri Jan 12 10:04:18 2001

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DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202-2751

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

SITE PLAN (SHEET 1 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

1/19

1-1

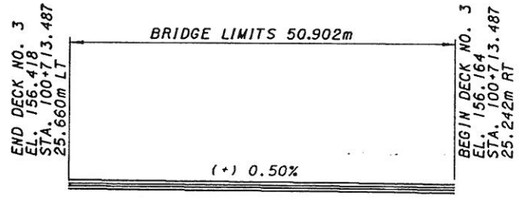
BENCH MARK
SEE GENERAL NOTES SHEET NO. 13 OF 469 CONTRACT 8 DRAWINGS

PROPOSED STRUCTURE

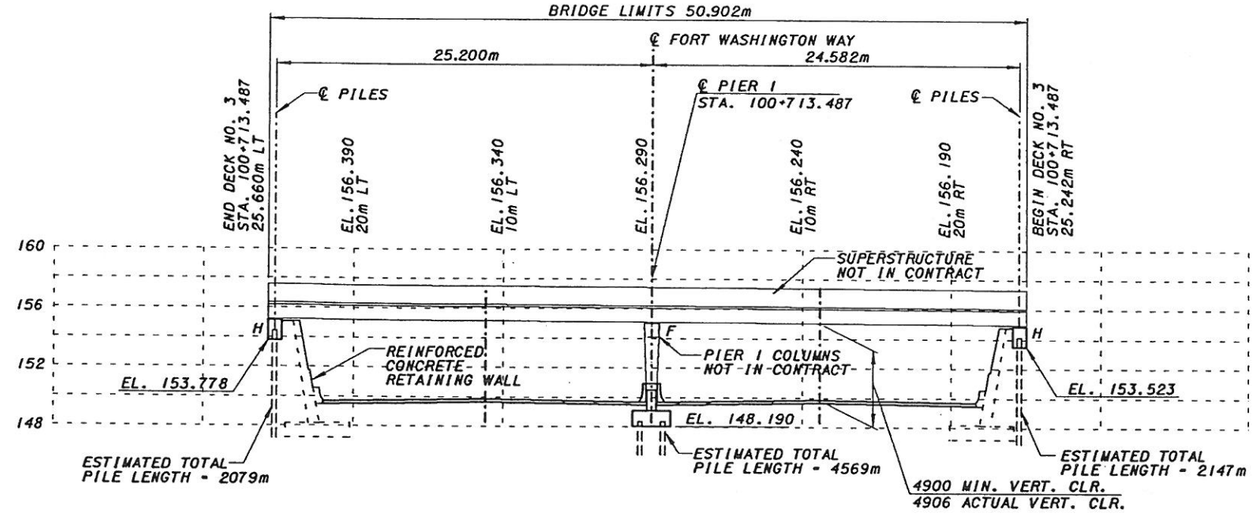
TYPE: 2 SPAN PRECAST PRESTRESSED BOX GIRDERS WITH INTEGRAL ABUTMENTS
LENGTH OF SPANS: 25.2m - 24.582m
WIDTH OF STRUCTURE: 93.0m
DESIGN LOADING: 1.22m SOIL (MAX DEPTH).
SKEW ANGLE: 0°
SUPER ELEVATION: 0.00619
WEARING SURFACE: NONE
APPROACH SLAB: NOT IN CONTRACT
ALIGNMENT: TANGENT
LATITUDE: N39°-05'-54"
LONGITUDE: W84°-30'-39"

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 3



PROFILE ALONG ℄ CONSTRUCTION DECK 3

(LOOKING UPSTATION)

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 1800
CINCINNATI, OH 45202-2720
PBQ&D

REVISED	DATE
	6-30-00

STRUCTURE FILE NUMBER

DRAWN	REVIEWED
SRL	

PREPARED	CHECKED
SRL	VR

HAMILTON COUNTY
STA. 100+666.987
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SITE PLAN (SHEET 2 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

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 - 19kN/m³,
MAXIMUM HEIGHT OF SOIL - 1.22 METER

UNIT WEIGHT OF REINFORCED CONCRETE - 23.6 kN/m³

WEIGHT OF THE PRESTRESSED CONCRETE BOX BEAMS INCLUDING 150 mm DECK - 13.67 kN/m²

ADDITIONAL SUPERIMPOSED DEAD LOAD - 1.8 kN/m²

SNOW LOAD :
SNOW LOADING - 0.72 kN/m²

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 2500
CINCINNATI, OH 45202-2720

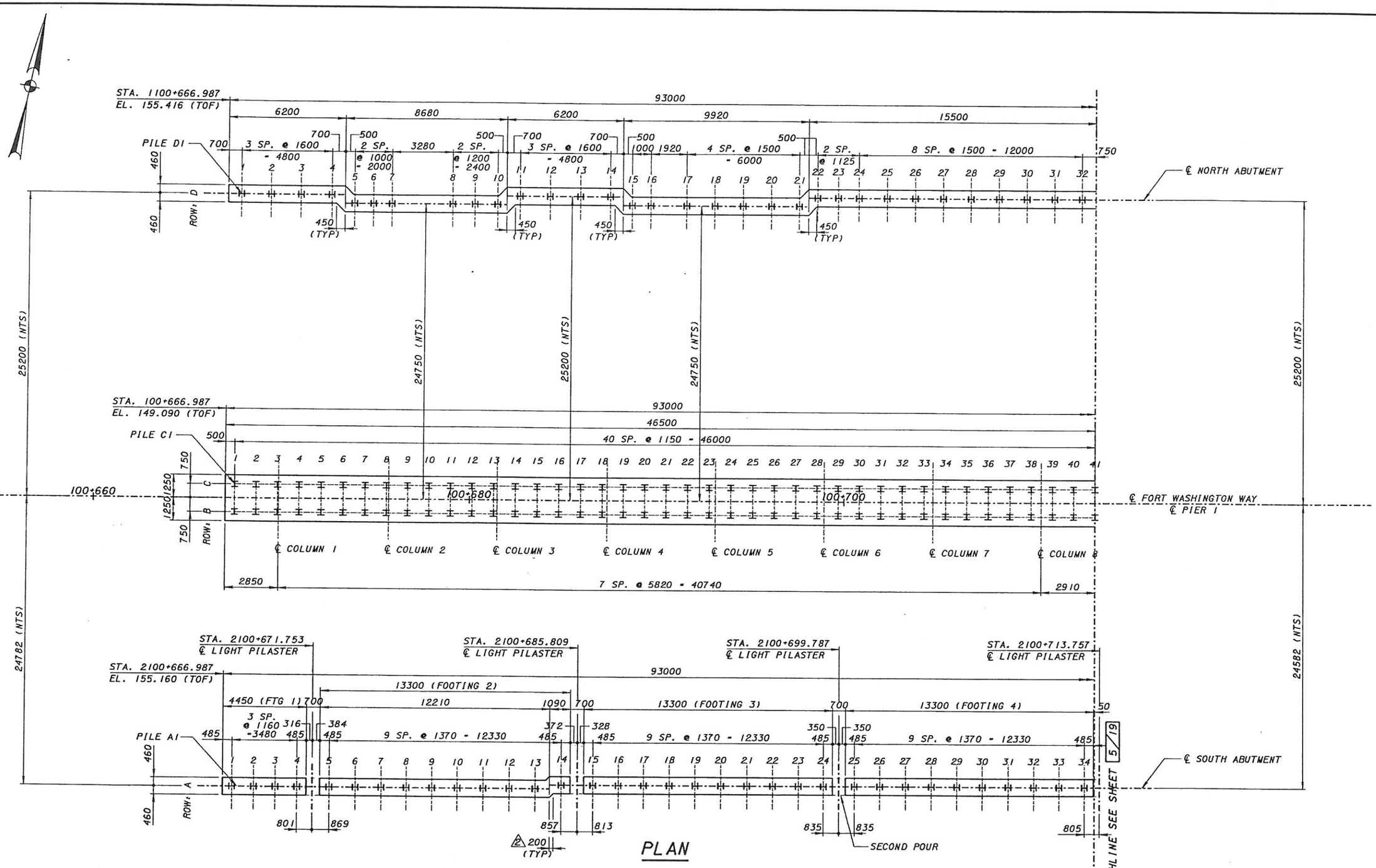
REVISED	DATE
	6-30-00
STRUCTURE FILE NUMBER	

DRAWN	PREPARED
SRL	VR
REVIEWED	CHECKED
	JSH

LOCATION NAME
STA. 100.666.987
STA. 100+759.987

GENERAL NOTES
DECK NUMBER 3
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.
312 ELM STREET, SUITE 1500
CINCINNATI, OH 45202-2721

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

FOUNDATION LAYOUT (1 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

4/19

1/12/01 Fri Jan 12 10:02:25 2001

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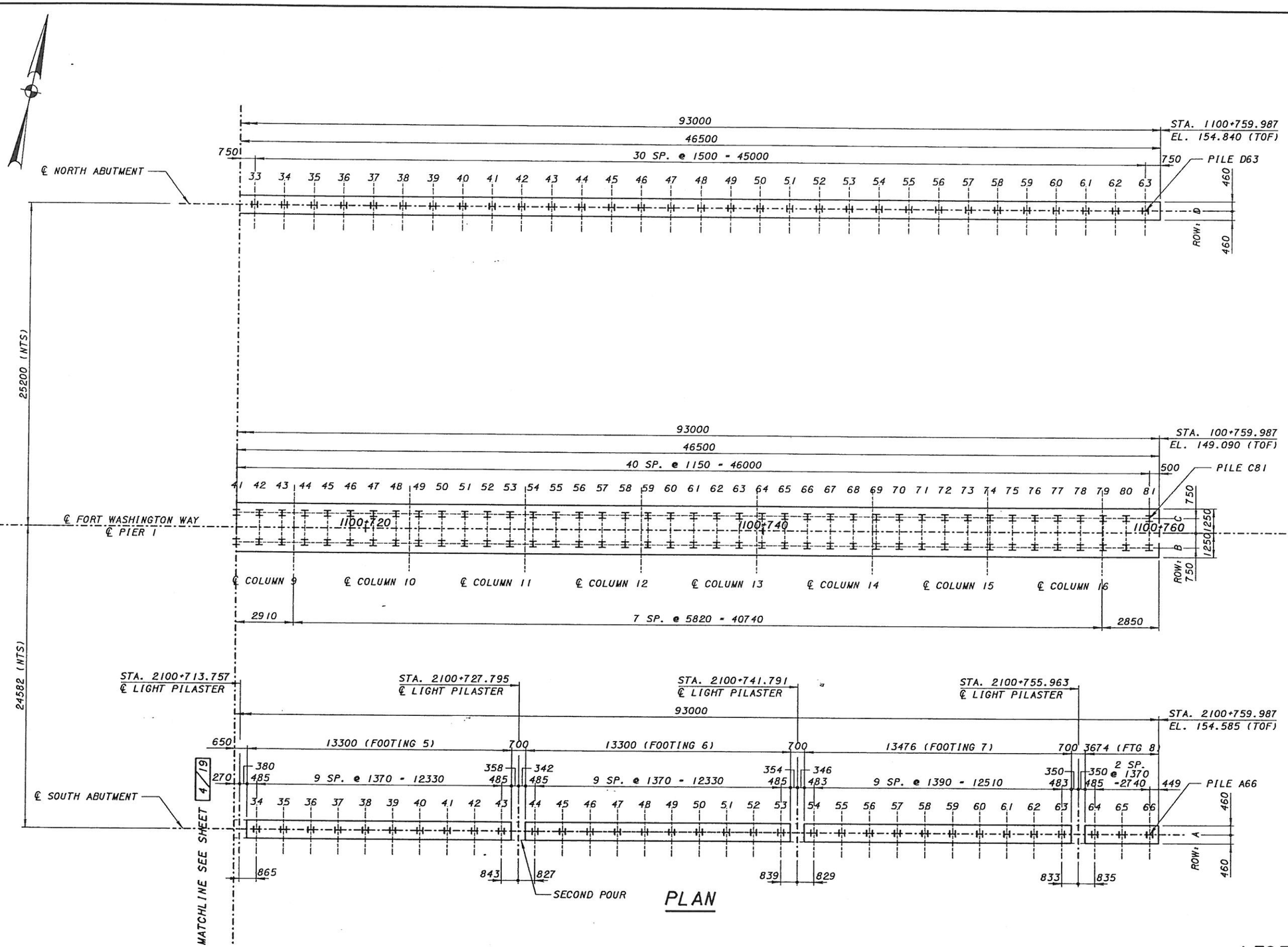

PLAN

LEGEND

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

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

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

FOUNDATION LAYOUT (2 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

5/19

1/1

1/12/01 Fri Jan 12 10:02:26 2001

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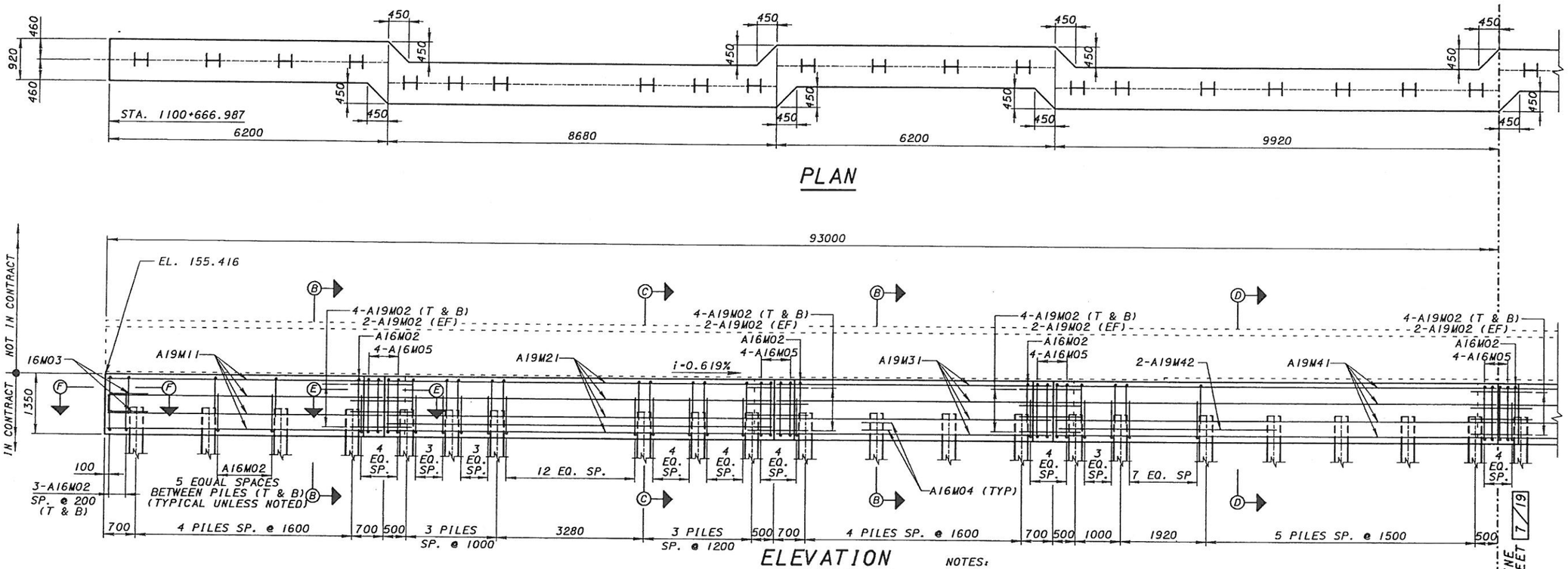
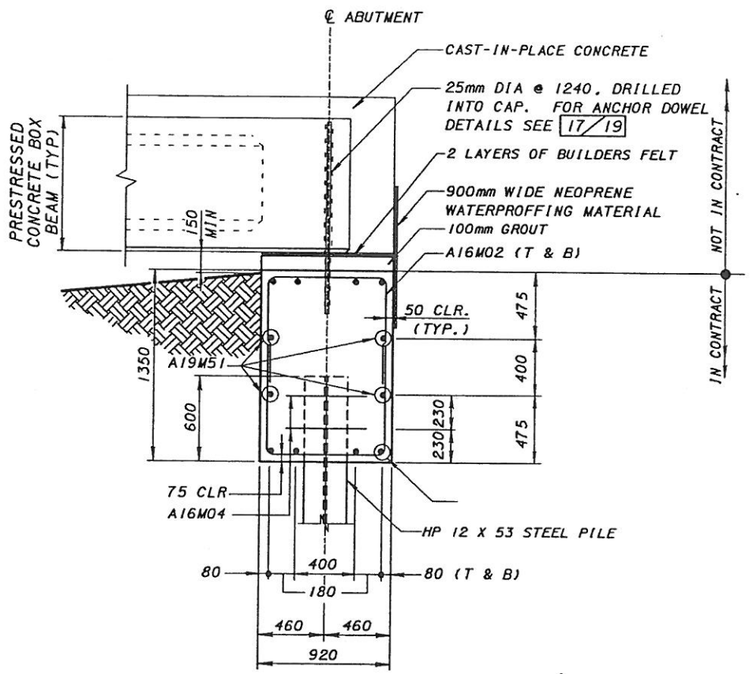
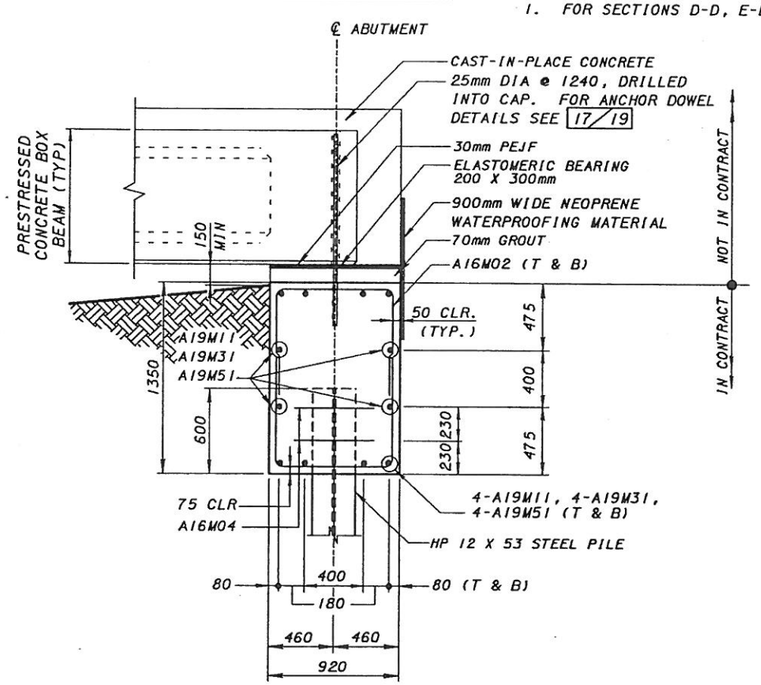
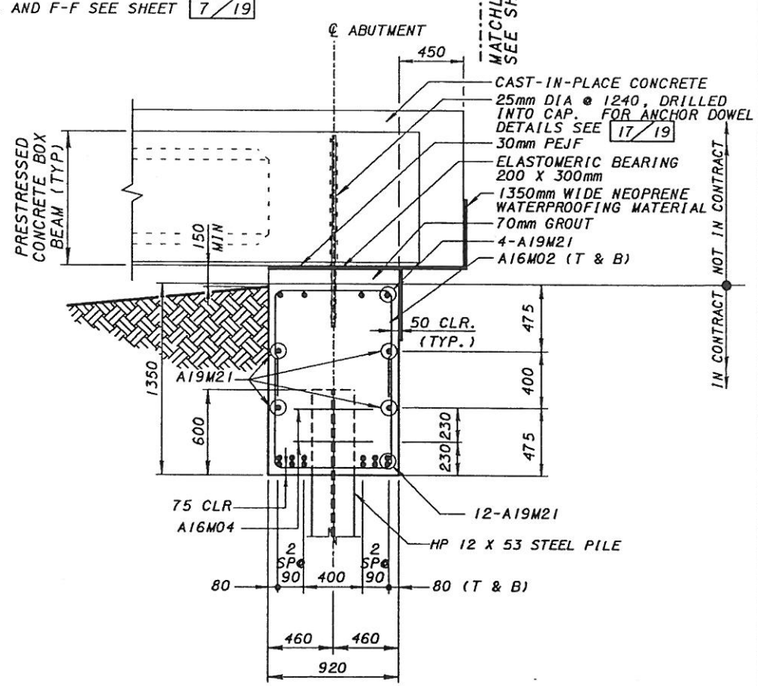




SECTION (A)–(A)
(FIXED CONNECTION)



SECTION (B)–(B)
(EXPANSION CONNECTION)



SECTION (C)–(C)
(EXPANSION CONNECTION)

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2200
CINCINNATI, OH 45202-2720

REVISED
DATE 6-30-00
STRUCTURE FILE NUMBER

DRAWN SRL
REVIEWED

PREPARED VR
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HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

NORTH ABUTMENT REINFORCEMENT
(SHEET 1 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

6/19

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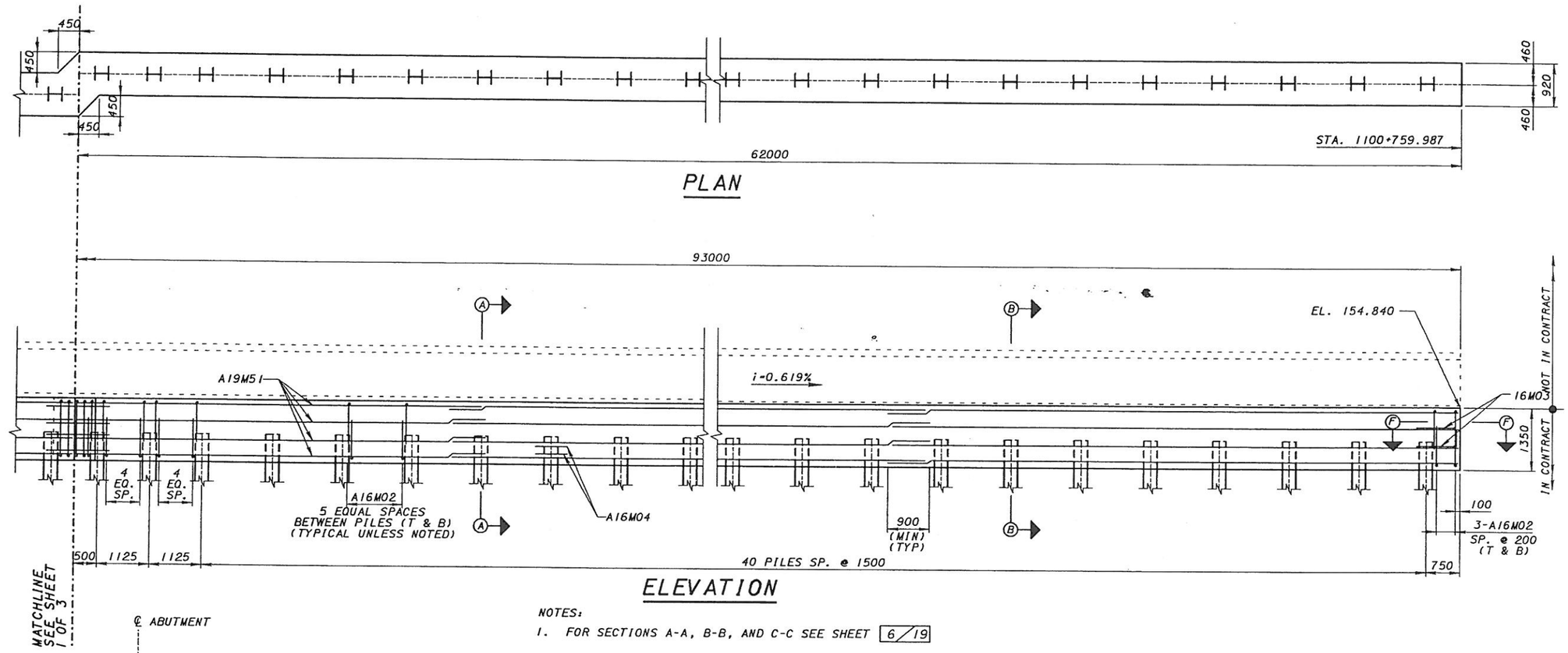
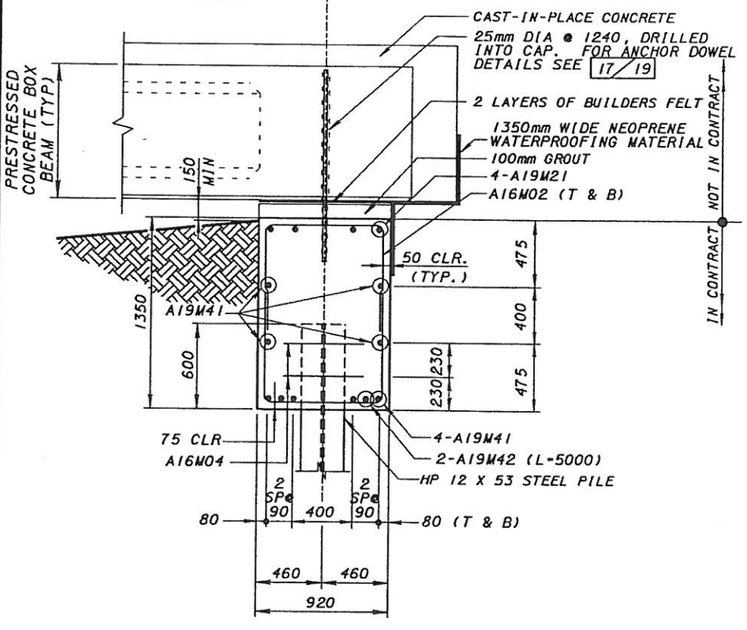


NOTES:

1. FOR SECTIONS A-A, B-B, AND C-C SEE SHEET 6/19



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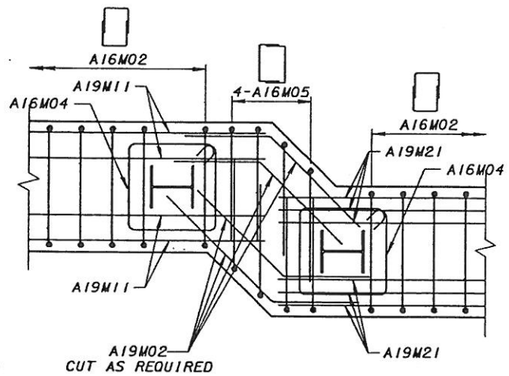
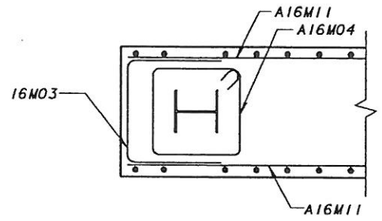


SECTION (E)-(E)



SECTION (F)-(F)

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

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

HAMILTON COUNTY
STA. 100+666.987
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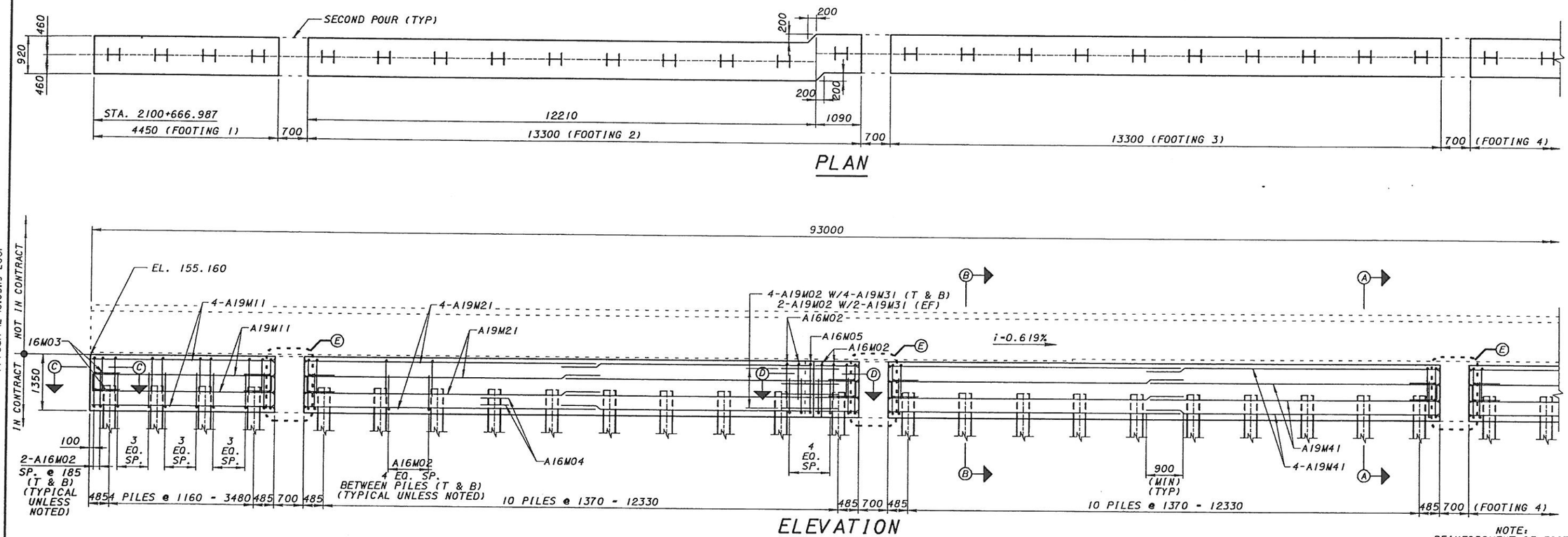
NORTH ABUTMENT REINFORCEMENT
(SHEET 2 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

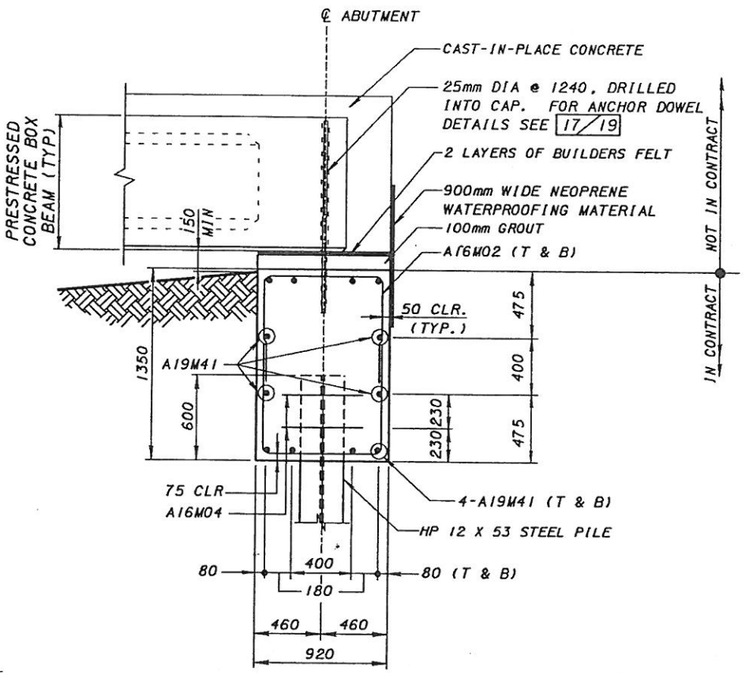
7/19



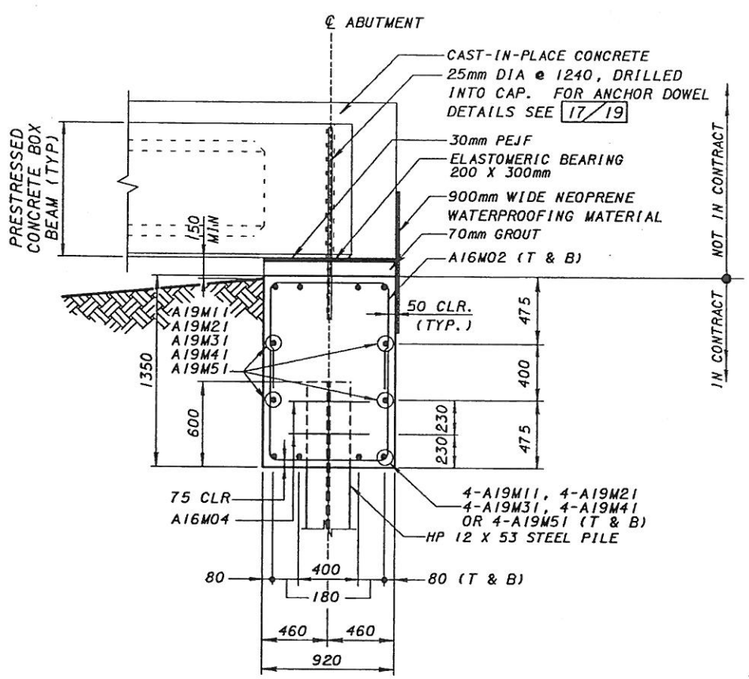
PLAN

ELEVATION

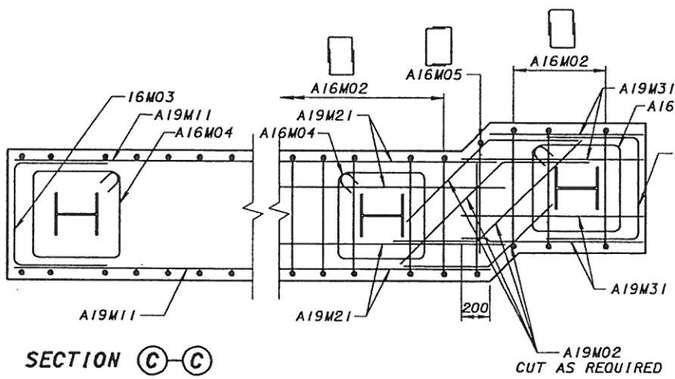
NOTE:
REINFORCMENT OF FOOTING
4, 5, AND 6 IS IDENTICAL
TO FOOTING 3



SECTION (A)–(A)
(FIXED CONNECTION)



SECTION (B)–(B)
(EXPANSION CONNECTION)



SECTION (C)–(C)

SECTION (D)–(D)

NOTES:
1. FOR SECTION E-E SEE SHEET 9/19

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 1900
CINCINNATI, OH 45202-2720

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

SOUTH ABUTMENT REINFORCEMENT
(SHEET 1 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO.75X5753

8/19

1-1

Fri Jan 12 10:03:19 2001
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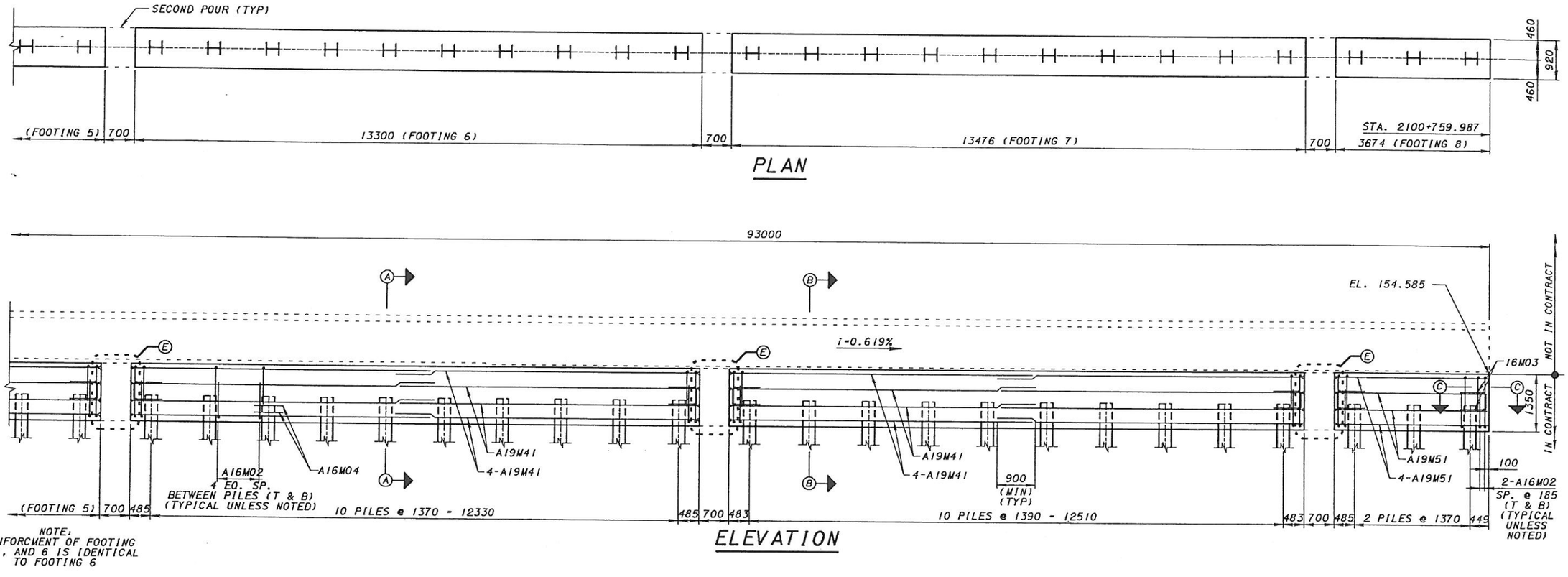
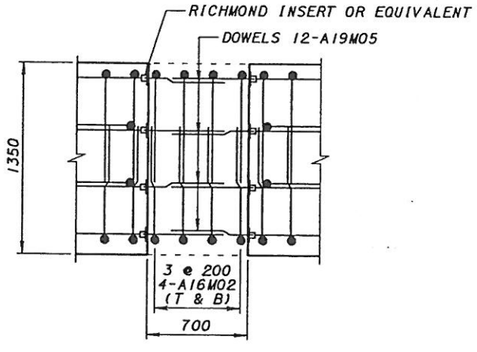


PLAN

ELEVATION

NOTE:
REINFORCMENT OF FOOTING 4, 5, AND 6 IS IDENTICAL TO FOOTING 6



DETAIL (E)

NOTES:
1. FOR SECTIONS A-A, B-B, C-C, AND D-D SEE SHEET 8/19

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2300
CINCINNATI, OH 45202-2720

DATE REVISED 6-30-00
STRUCTURE FILE NUMBER

DRAWN SRL
REVIEWED

PREPARED VR
CHECKED JSH

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

SOUTH ABUTMENT REINFORCEMENT
(SHEET 2 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO.75X5753

9/19

1-1

1/12/01 Fri Jan 12 10:03:17 2001

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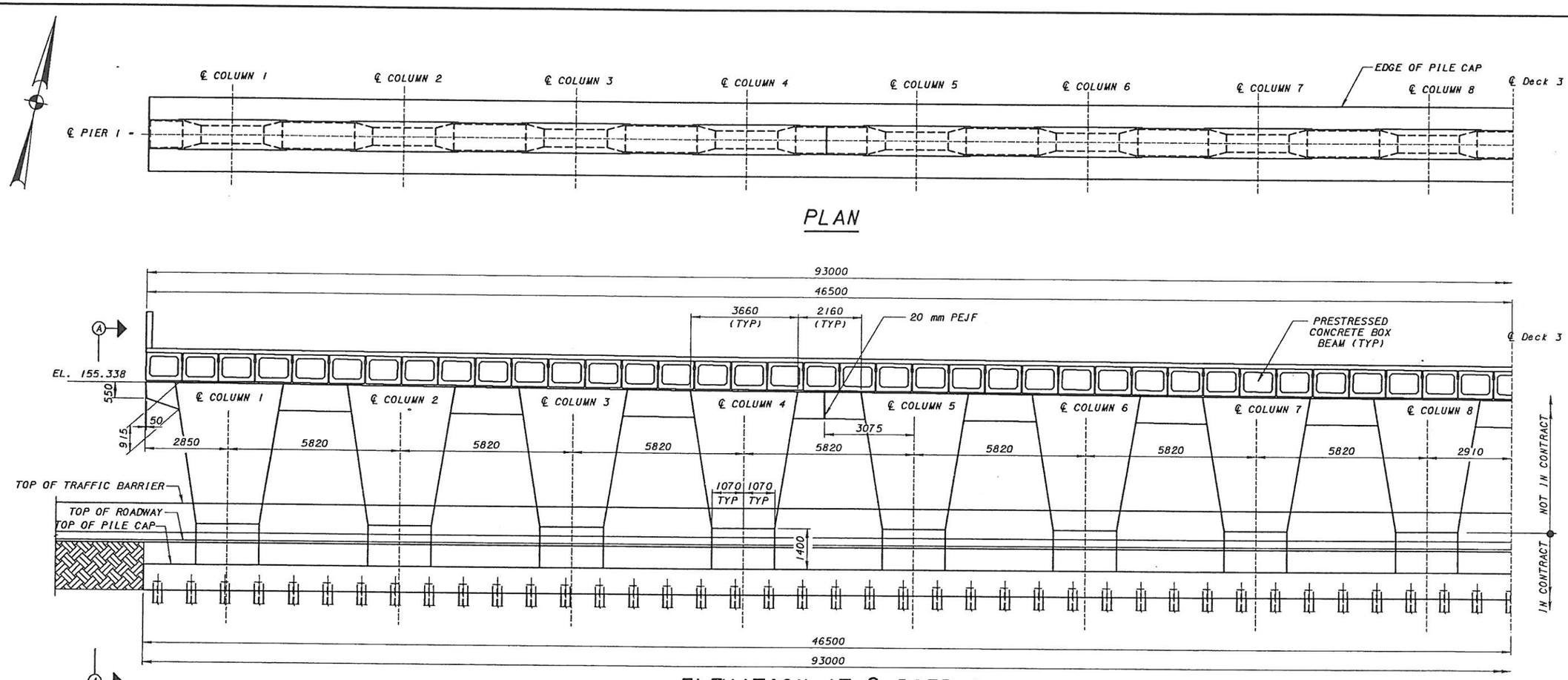
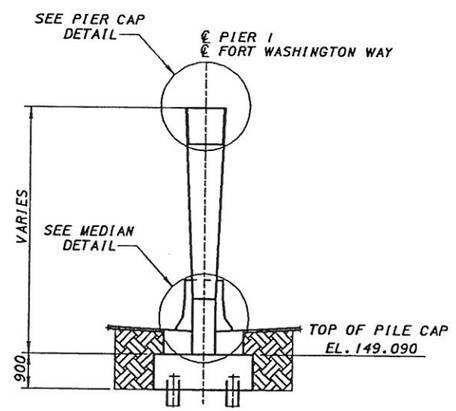
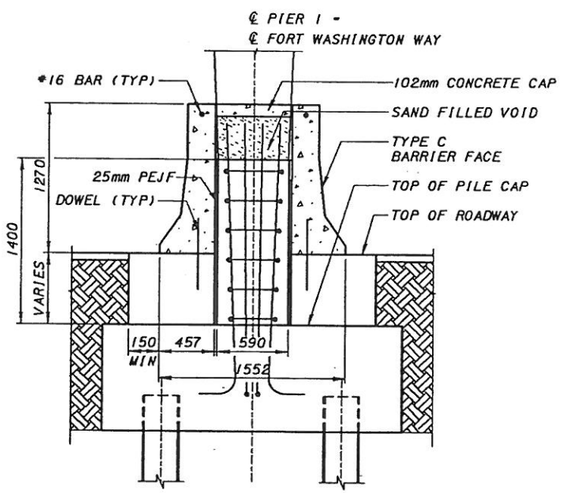


PLAN

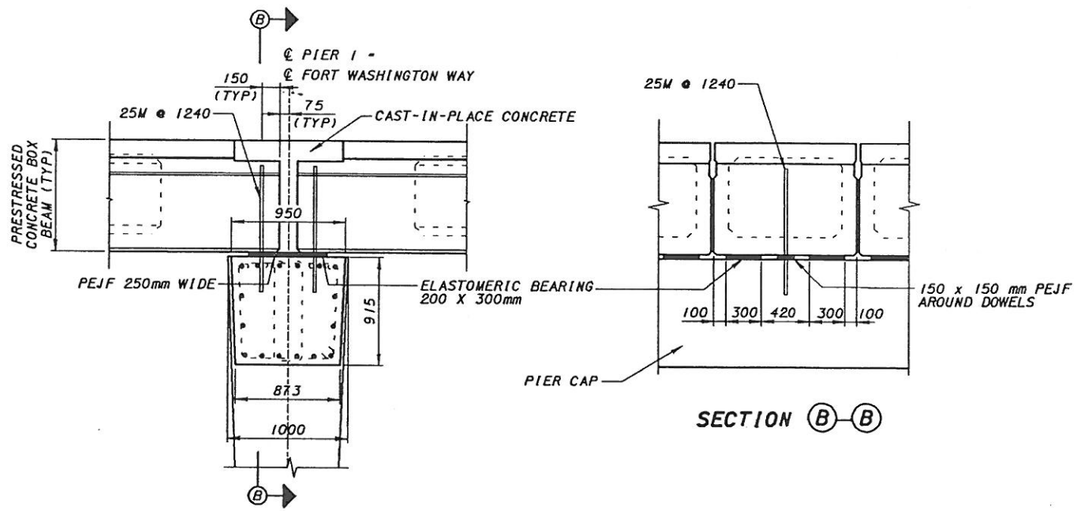
ELEVATION AT ℄ PIER 1



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 45202-2763

REVISED	DATE
	6-30-00

STRUCTURE FILE NUMBER

DRAWN	REVIEWED
SAL	

PREPARED	CHECKED
VR	JSH

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

PIER 1 PLAN & ELEVATION (1 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

10/19

1/12/01 Fri Jan 12 10:03:50 2001

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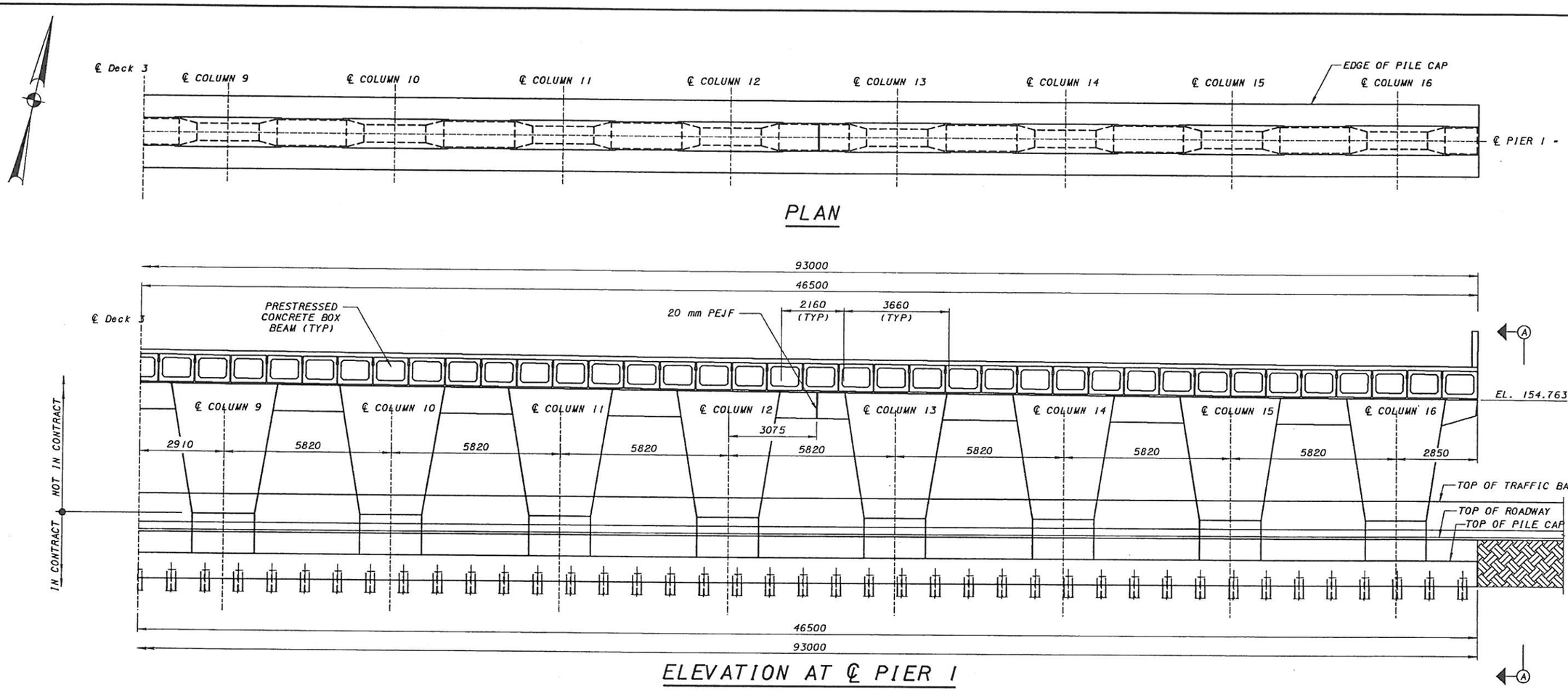

PLAN

ELEVATION AT ℄ PIER 1

NOTES:
1. FOR SECTION A-A SEE SHEET 10/19

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

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

PIER 1 PLAN & ELEVATION (2 OF 2)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

11/19

1/12/01 Fri Jan 12 10:03:52 2001

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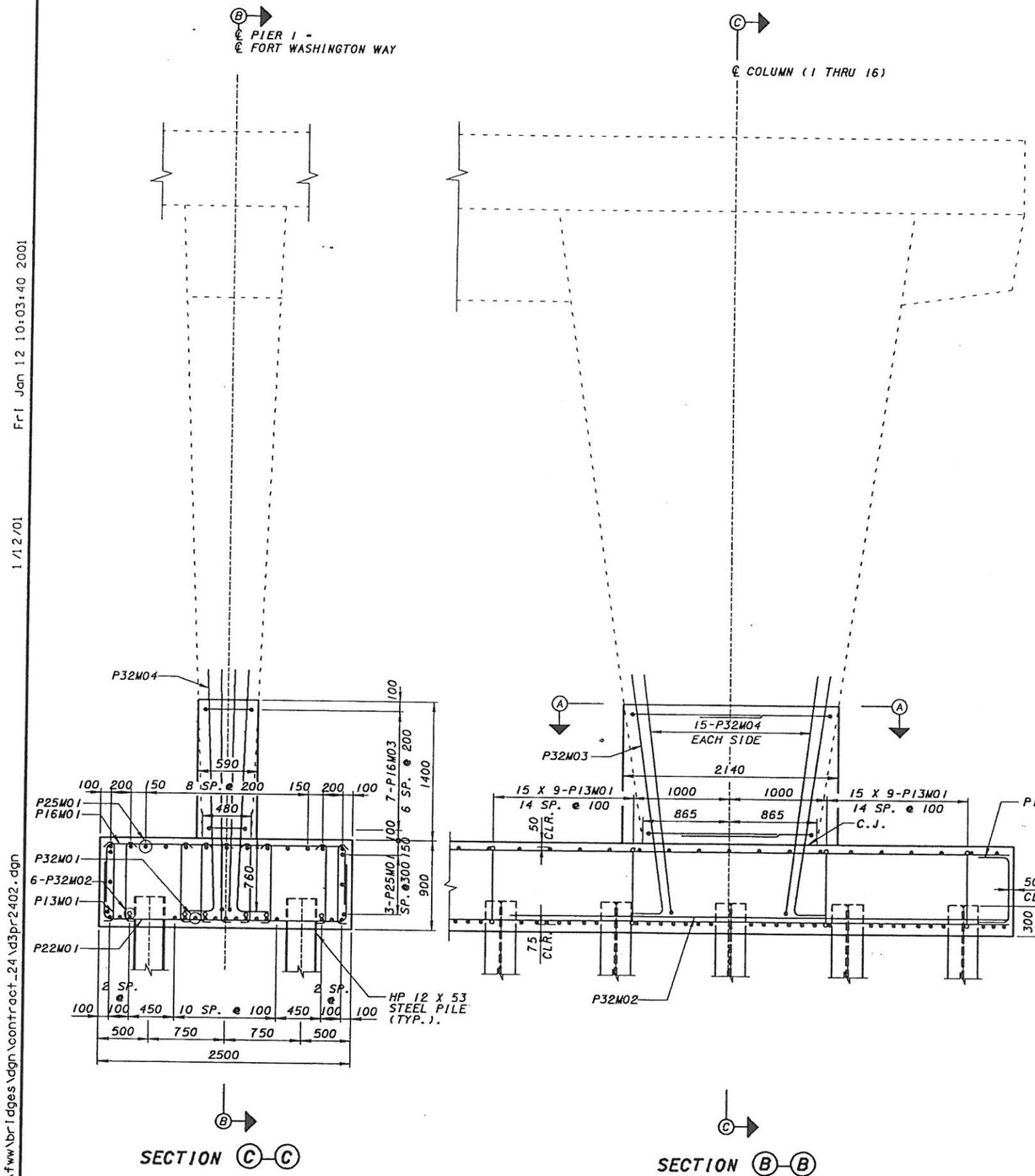
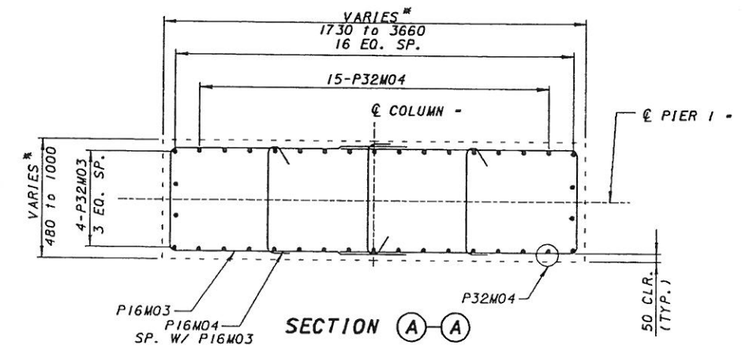
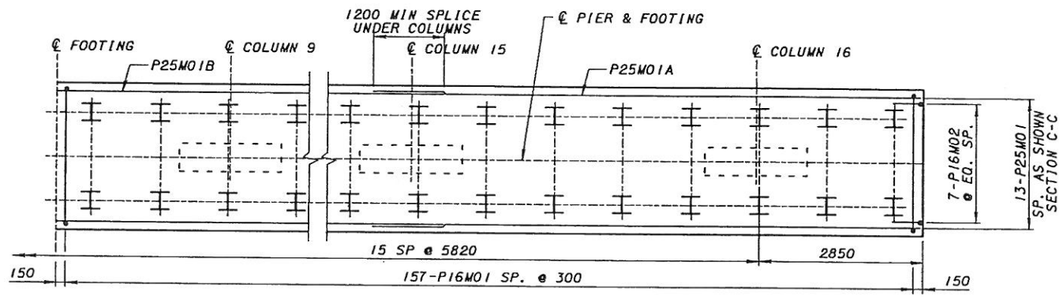
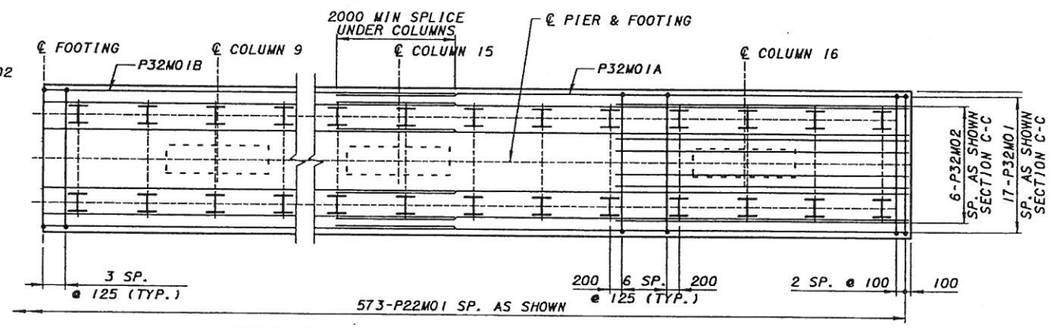






HALF PLAN FOOTING TOP REINFORCING



HALF PLAN FOOTING BOTTOM REINFORCING

* THE SIZE OF LOWER PORTION OF THE COLUMNS IS 590 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 45202-2720

DATE REVISED 6-30-00
STRUCTURE FILE NUMBER

DRAWN SRL
REVIEWED

PREPARED VR
CHECKED JSH

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

PIER 1 REINFORCEMENT

DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X57753

12/19

1

1/12/01 Fri Jan 12 10:03:40 2001

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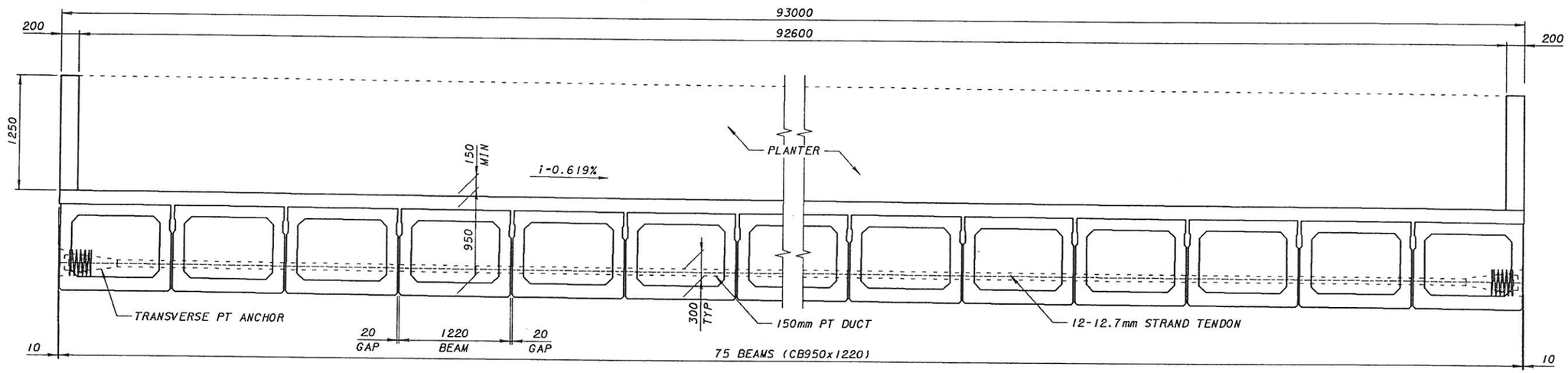
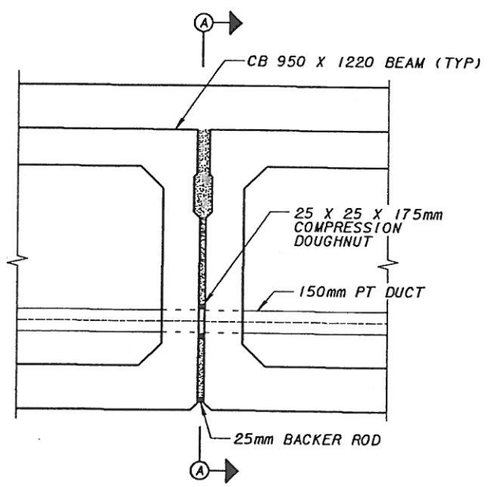
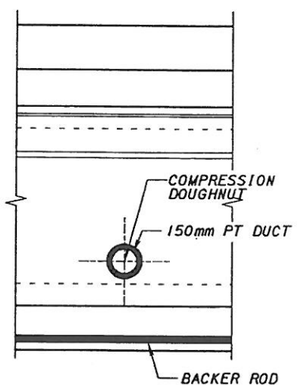


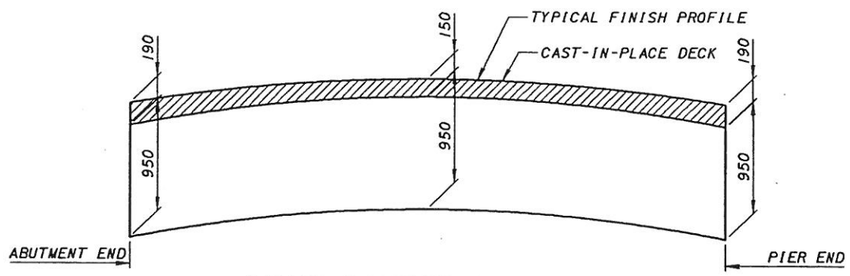
TYPICAL CROSS SECTION



BEAM DETAIL



SECTION (A)-(A)



BEAM CAMBER DIAGRAM

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

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 1600
CINCINNATI, OH 45202-2720

REVISED	DATE
	6-30-00
DRAWN	STRUCTURE FILE NUMBER
SRL	3106012
PREPARED	REVIEWED
VR	
CHECKED	
JSH	

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

SUPERSTRUCTURE SECTION
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

13/19

1

1/12/01 Fri Jan 12 10:04:12 2001

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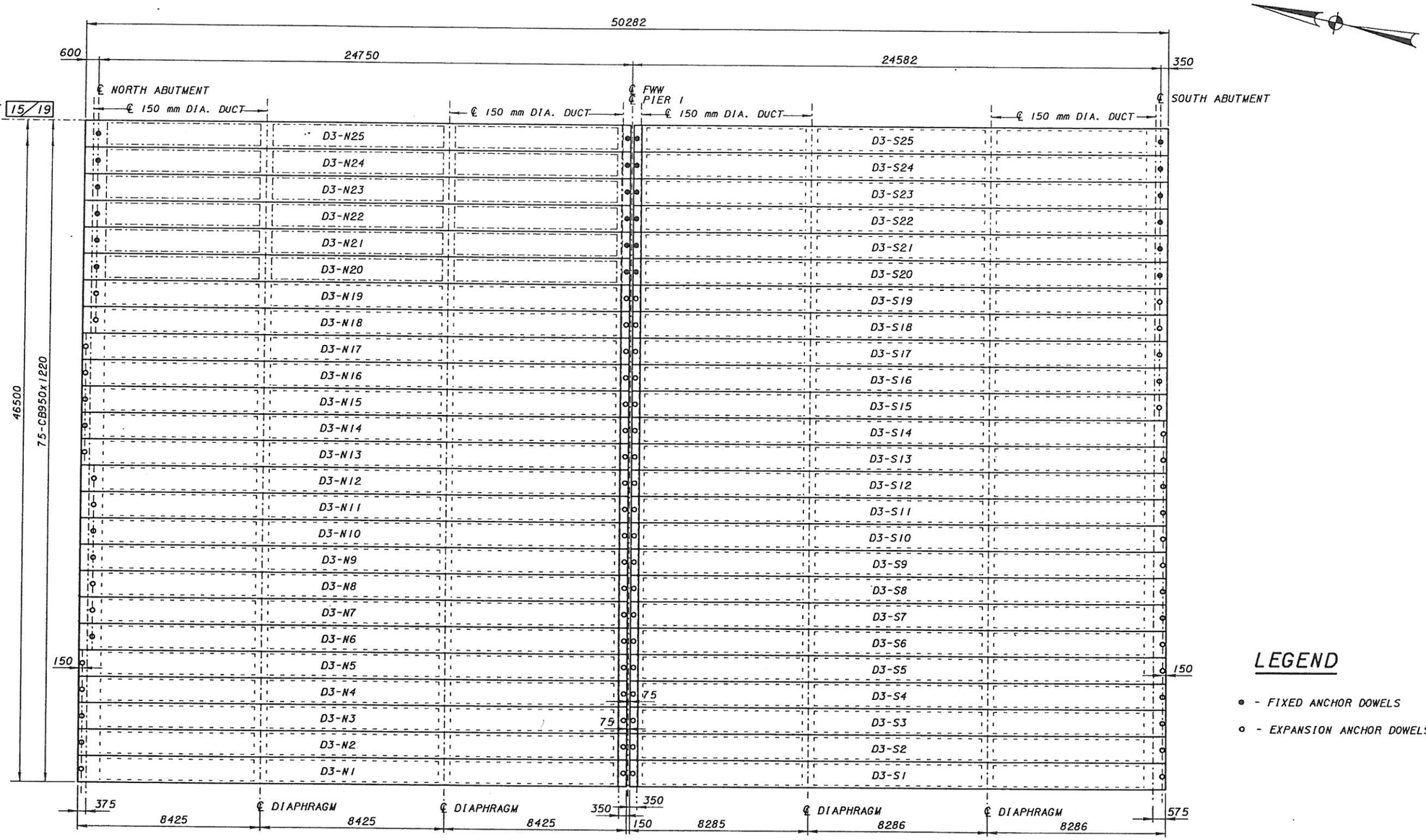

FRAMING PLAN

LEGEND

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

NOTES:

1. MINIMUM CONCRETE STRENGTH OF BEAMS AFTER 28 DAYS: 58.7 MPa, MINIMUM CONCRETE STRENGTH AT RELEASE: 37.2 MPa.
2. PRESTRESSING STRAND TO BE UNCOATED, LOW RELAXATION 12.7 mm DIA., SEVEN WIRES(As=108 sq. mm), ASTM A416, GRADE 270, fs=1860 MPa, INITIAL STRESS = 0.75 fs = 1400 MPa.
3. REINFORCING STEEL TO BE ASTM A615M OR A617M 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 AGENCY
PARSONS BRINCKERHOFF, INC.
312 ELM STREET, SUITE 2500
CINCINNATI, OH 45202-2750

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

FRAMING PLAN (1 OF 3)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO.75X5753

14/19

1/1

1/12/01 Fri Jan 12 10:02:42 2001

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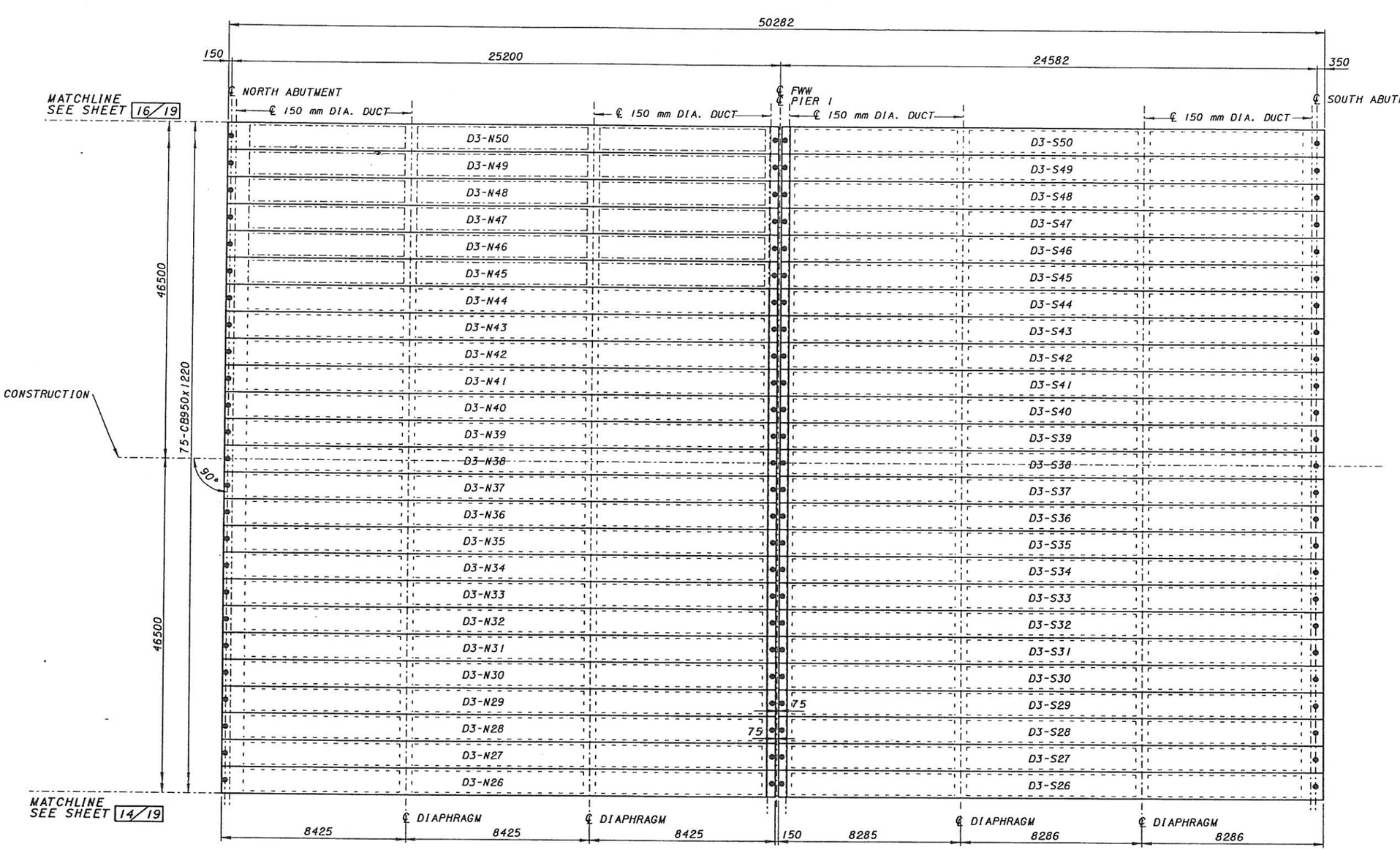

FRAMING PLAN

NOTES:
1. WORK TOGETHER WITH FRAMING PLAN SHEET 14/19 AND 16/19

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1/12/01 Fri Jan 12 10:02:51 2001

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

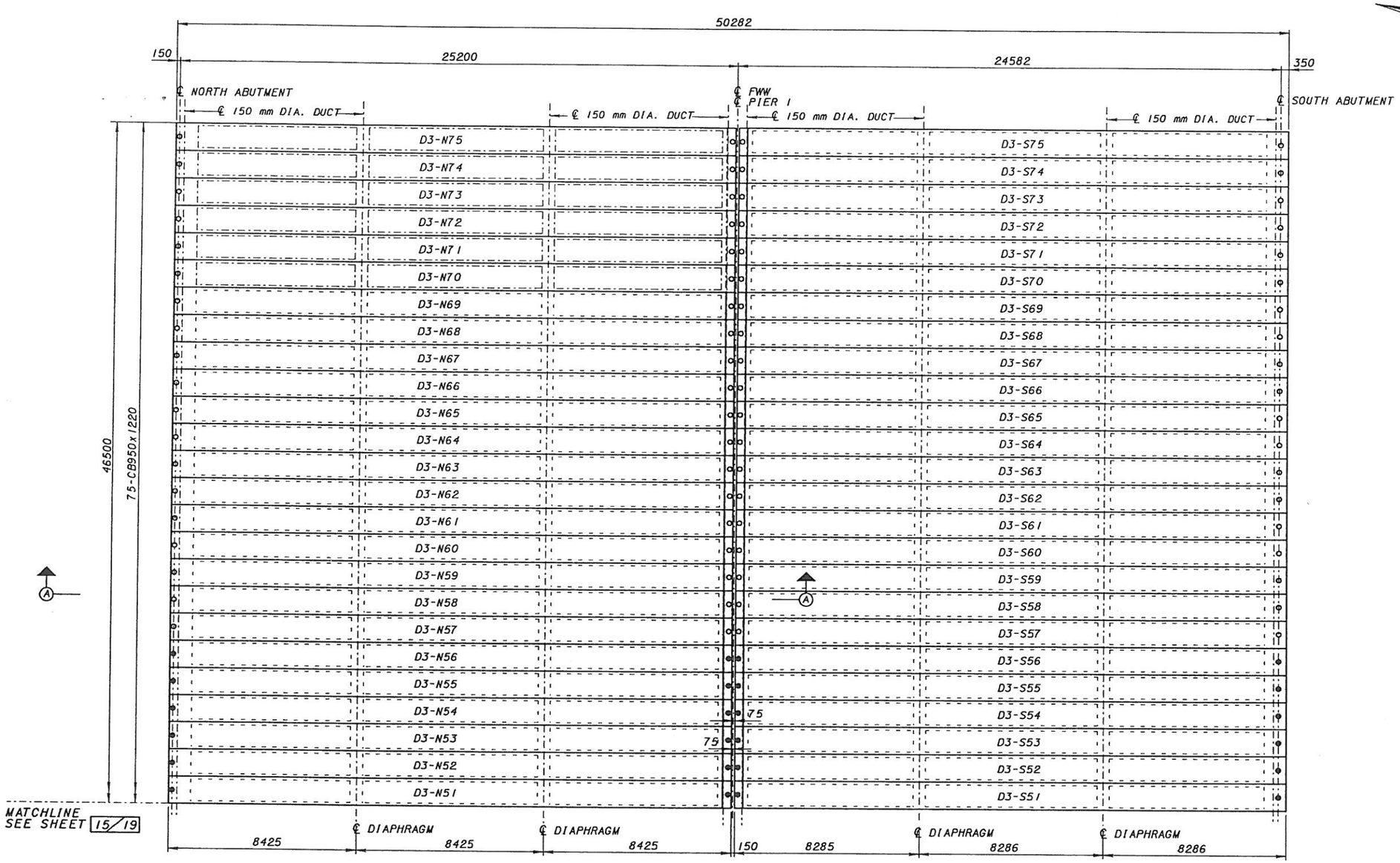
DRAWN	REVISED	DATE
SRL		6-30-00
PREPARED	REVIEWED	STRUCTURE FILE NUMBER
VR		
CHECKED		
JSH		

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

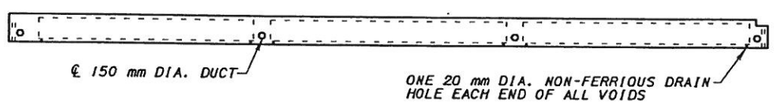
FRAMING PLAN (2 OF 3)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X57753

15/19



FRAMING PLAN



SECTION (A)-(A)

NOTES:

1. WORK TOGETHER WITH FRAMING PLAN SHEET 14/19 AND 15/19

DESIGN AGENCY
PARSONS BRINCKERHOFF, INC.
312 WALNUT STREET, SUITE 2500
CINCINNATI, OH 45202-4250

REVISED	DATE
	6-30-00
DRAWN	REVIEWED
SAL	
PREPARED	CHECKED
VR	JSH

STRUCTURE FILE NUMBER

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

CITY OF CINCINNATI
CONTRACT NO. 75X5753

FRAMING PLAN (3 OF 3)
DECK NUMBER 3
OVER FORT WASHINGTON WAY

16/19

1/12/01 Fri Jan 12 10:02:55 2001

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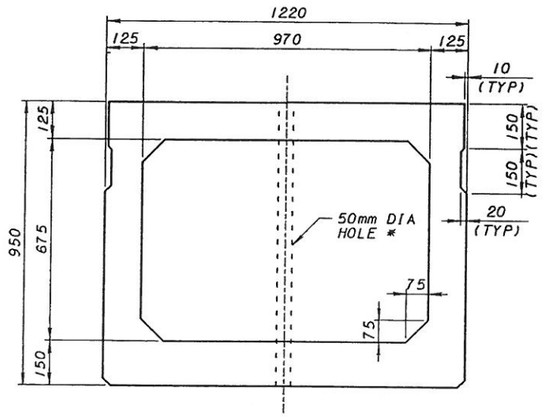
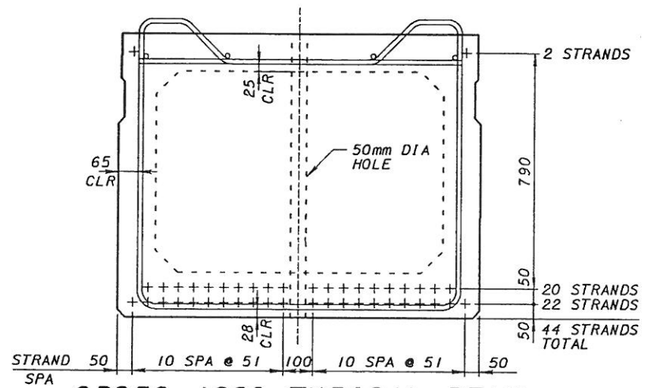
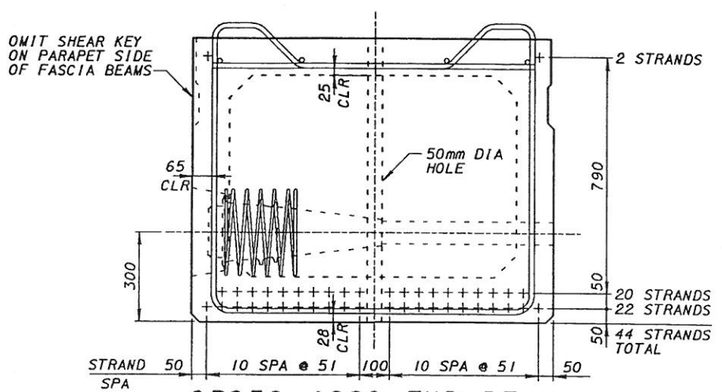


CROSS SECTION CB950x1220 BEAM

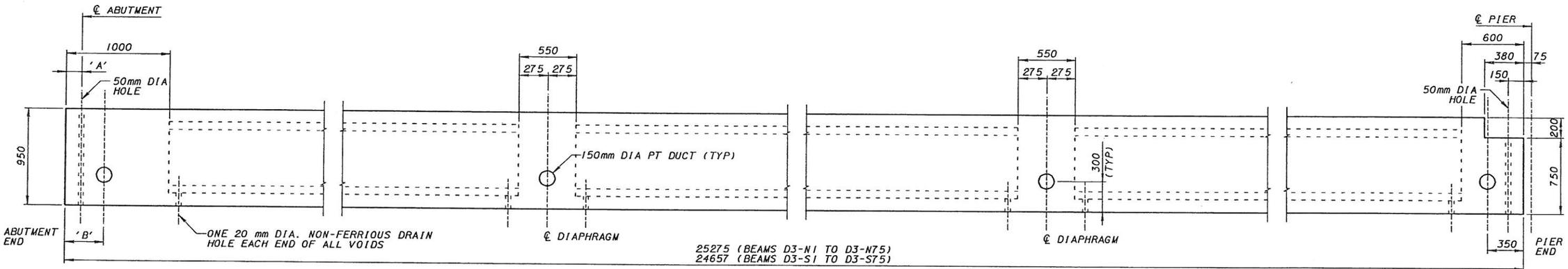
* FOR 25mm DIA SMOOTH DOWEL (L-1340)



CB950x1220 TYPICAL BEAM

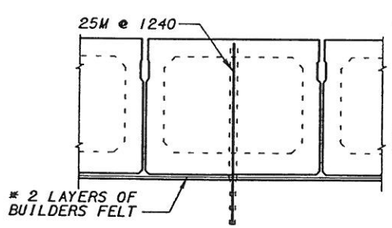


CB950x1220 END BEAM

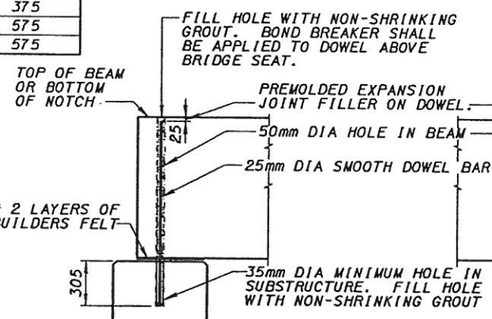


ELEVATION

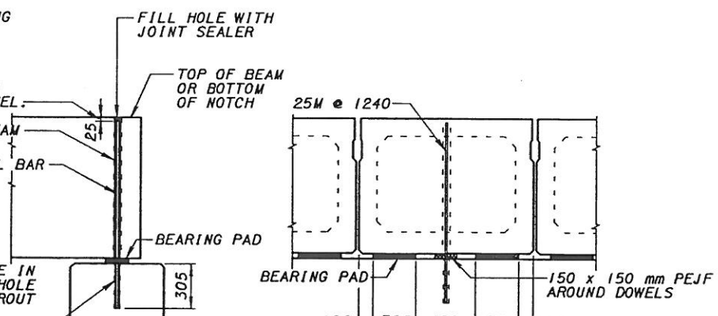
GIRDER VARIABLES		
GIRDER	DIM 'A'	DIM 'B'
D3-N1 TO D3-N5	150	375
D3-N6 TO D3-N12	600	375
D3-N13 TO D3-N17	150	375
D3-N18 TO D3-N25	600	375
D3-N26 TO D3-N75	150	375
D3-S1 TO D3-S14	150	575
D3-S15 TO D3-S75	350	575



FIXED-END VIEW



FIXED



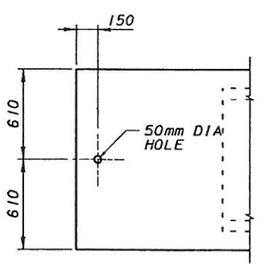
EXPANSION

EXPANSION-END VIEW

NOTE: DOWEL CLEARS ELASTOMERIC BEARING

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.



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 45202-2720

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

BEAM DETAILS
DECK NUMBER 3
OVER FORT WASHINGTON WAY

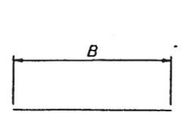
CITY OF CINCINNATI
CONTRACT NO.75X5753

17/19

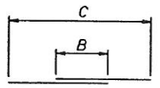
1

f:\segment\fww\bridges\dgn\contract_24\d3bm2401.dgn

1/12/01 Fri Jan 12 10:03:29 2001

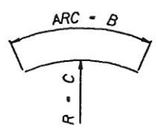


TYPE 1

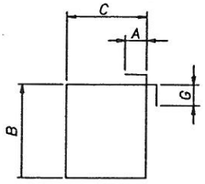


No. of Laps - N

TYPE 2



TYPE 3



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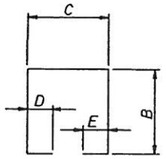
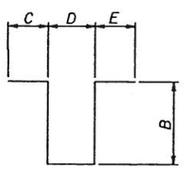


TYPE 5



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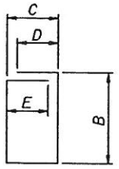

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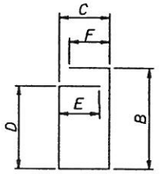

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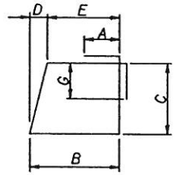

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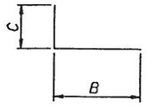

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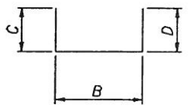
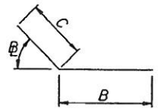
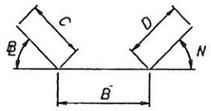


TYPE 11



TYPE 12



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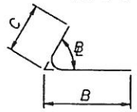

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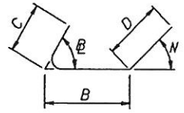
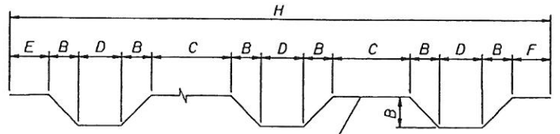
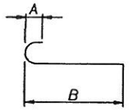


TYPE 15

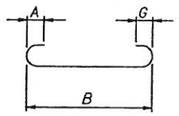


TYPE 16

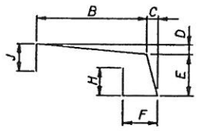
Number of Beams or Walls - N
Number of D's - N-1
Number of B's - 2N-2
Number of C's - N-2
45° Typical



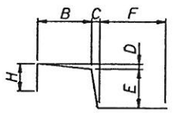
TYPE 17



TYPE 18



TYPE 19



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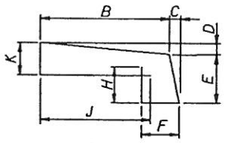

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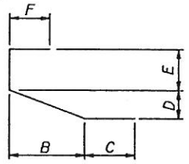
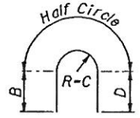


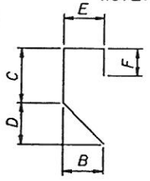
TYPE 22



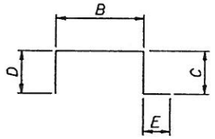
TYPE 23

TYPE 24

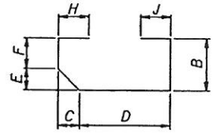
NOTE: Type 17 Bars used in Superstructures shall be tilted to obtain Minimum cover.



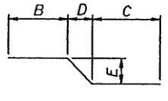
TYPE 25



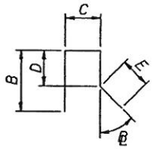
TYPE 26



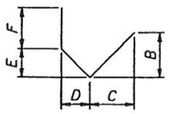
TYPE 27



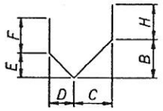
TYPE 28



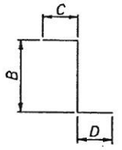
TYPE 29



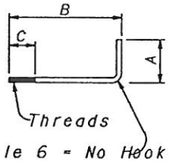
TYPE 30



TYPE 31

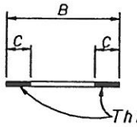


TYPE 32

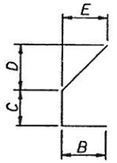


Style 6 - No Hook

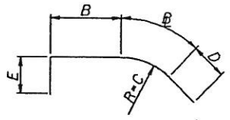
TYPE 33



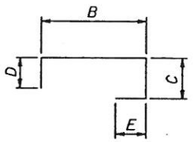
TYPE 34



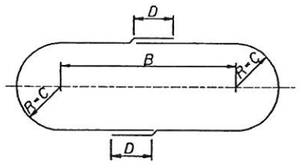
TYPE 35



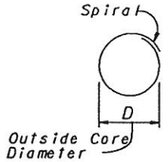
TYPE 36



TYPE 37

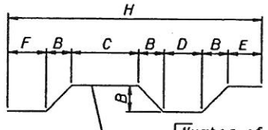


TYPE 38



TYPE 39

C - Pitch
B - Overall Height
@ - Spirals shall be made of ASTM A615M Grade 420 billet steel using either plain or deformed bars ASTM A615M or Cold drawn steel wire ASTM A82.
N - Total number of closed turns at Top and Bottom of columns
Splices may be accomplished by lapping 1.5 turns. Cost of Channel Spacers and Splices shall be included in the Contract Unit Price for Reinf. Steel (Substr.)



Number of Beams or Walls - N
Number of D's - N-1
Number of B's - 2N-1
Number of C's - N-1
45° Typical

TYPE 40

TYPE 41

TYPE 42

TYPE 43

NOTE: For Bar Dimensions See REINFORCING BAR LIST Sheet.

180° 90°

BAR SIZE	D	180° HOOKS A OR G	180° HOOKS J	90° HOOKS 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

90° 135°

STIRRUPS
(TIES SIMILAR)

RECOMMENDED STIRRUP & TIE HOOK DIMENSIONS

BAR SIZE	D	90° HOOKS A or G	135° HOOKS A or G	135° HOOKS 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 1600
CINCINNATI, OH 45202-2720

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

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

STANDARD BAR BENDING DETAILS

DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753

18/19

1/12/01

Fri Jan 12 10:04:25 2001

f:\segment\fww\bridges\dgn\contract_24\d3bs2401.dgn

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	4320	1005	4316	18	4	5	775										
P16M01	314	3600	1754	11			2400	600	600								
P16M02	14	1335	29	11			735	300	300								
P22M01	573	3600	6275	11			2400	600	600								
P25M01-A	19	91260	6890	2			1200	76860							12		
P25M01-B	38	9570	1445	1			9170										
P32M01-A	17	101660	11068	2			2000	77660							12		
P32M01-B	34	9570	2084	1			9570										
P32M02	12	5000	384	1			5000										
COLUMN STUB																	
P16M03	32	3635		11			495	1570	1570								
	SETS OF	TO	1245				TO										
P16M03	7	3525		11			385	1570	1570								
P16M04	48	790		18	4	5	495										
	SETS OF	TO	383				TO										
P16M04	7	680		18	4	5	385										
P32M03	128	3050	2500	12			2750	300								98	
P32M04	480	3050	9375	12			2750	300								92	
NORTH ABUTMENT																	
A16M02	694	2450	2639	11			820	815	815								
A16M03	4	2085	13	11			785	650	650								
A16M04	126	3420	669	4	5	5	785	785									
A16M05	32	2895	144	11			1225	835	835								
A19M02	48	1600	172	12			600	1000								45	
A19M11	12	6100	164	1			6100										
A19M21	20	8580	384	1			8580										
A19M31	12	6100	164	1			6100										
A19M41	12	9820	263	1			9820										
A19M42	2	5000	22	1			5000										
A19M51	12	66400	1781	2			900	61900							5		
SOUTH ABUTMENT																	
A16M02	646	2450	2456	11			820	815	815								
A16M03	32	2085	104	11			785	650	650								
A16M04	132	3420	701	4	5	5	785	785									
A16M05	2	2895	9	11			1225	835	835								
A19M02	12	1600	43	12			600	1000								45	
A19M11	12	4350	117	1			4350										
A19M21	12	12110	325	1			12110										
A19M31	12	990	27	1			990										
A19M41	48	14100	1513	2			900	13200							1		
A19M41	12	14275	383	2			900	13375							1		
A19M51	12	3570	96	1			3570										

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 1600
CINCINNATI, OH 45202-2720

DATE 6-30-00
REVISED
STRUCTURE FILE NUMBER 3106012
DRAWN SRL
REVIEWED
PREPARED SRL
CHECKED VR

HAMILTON COUNTY
STA. 100+666.987
STA. 100+759.987

REINFORCING STEEL SCHEDULE
DECK NUMBER 3
OVER FORT WASHINGTON WAY

CITY OF CINCINNATI
CONTRACT NO. 75X5753