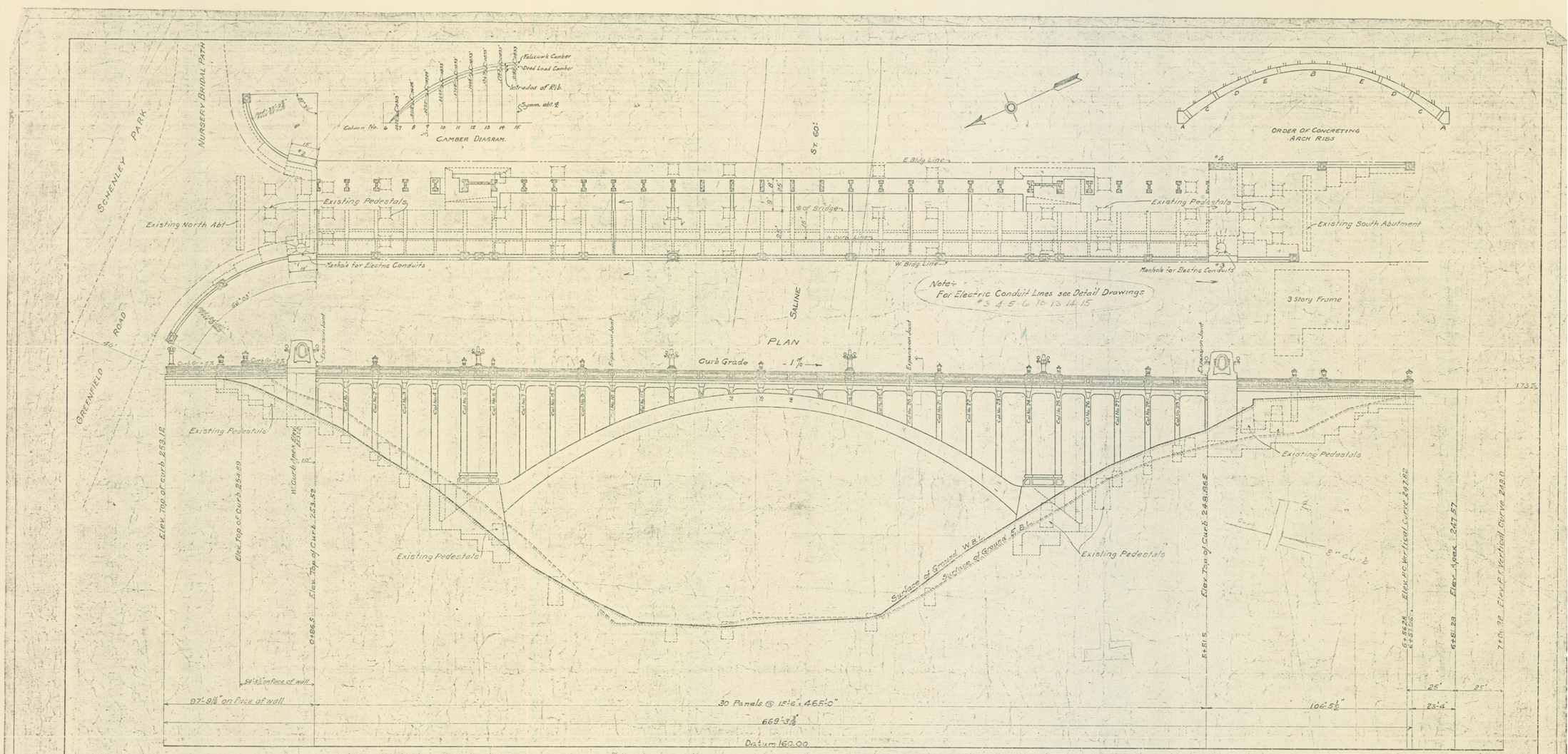
FOR INFORMATION ONLY



SPECIFICATIONS

All work under this Contract shall be done in accordance with the "Standard Contract for the Construction of Bridges, Edition of September 1921 with special reference to Part 5 of said contract, Standard Specifications for Concrete Bridges," and the following specifications.

Concrete in Arch Abutments and Column Footers shall be 1-2½-5 mix. All other concrete shall be 1-2-4 mix.

All stone work shall be Indiana Buff Select Stock Limestone.

Contractor shall remove all Existing Abutments and Pedestals to a depth of 1 Ft. below finished ground surface.

The City reserves the right to eliminate Items 2, 3, 4, 5, 6, 7, 10, and 11 entirely.

The comparison of bids for this contract shall be upon the basis of the total of the price bid as a lump sum under Item No 1. and the prices bid as Additions to the lump sum under Items No. 2 to 11 inclusive.

The same unit price shall be bid by the Contractor under Items No 3 & 5 and 6 for Additions to or for deductions from the lump sum Called for in the lump sum bid.

The bidder shall state in his proposal the number of calendar days within which he will complete all work under this contract as the time for completion is of utmost importance in this contract, the number of days proposed by the bidder for completion will be given due consideration in the awarding of the contract.

ESTIMATE

Item
1. Lump sum for doing all work shown on Contract Plans F 1036 to F 1052 Inclusive.
2. 500 Lbs. Additions to or Deductions from the Amount of Structural Steel Shown on Plans.
3. 5000 Lbs. Additions to or Deductions from the Amount of Reinforcement Shown on Plans.
4. 1 M. Ft. B.M. Sheeting and Bracing Left in Place on Written Order of Director.
5. 50 Cu. Yds. Additions to or Deductions from the Amount of 1-2-4 Concrete Shown on Plans Including Excavation.
6. 50 Cu. Yds. Additions to or Deductions from the Amount of 1-2½-5 Concrete Shown on Plans Including Excavation.
7. 5 Cu. Yds. Additions to the Amount of Broken Stone Drain Shown on Plans.
8. 100 Cu. Yds. Additional Trench Excavation.
9. 160 Lin. Ft. 15" T.C. Pipe Sewer.
10. 10 Lin. Ft. 12" T.C. Pipe Sewer.
11. 1 Additional 15"x15" Y Connection.

Nov. 7 21.
Geo. W. Bird
Geo. W. T. Bird

Drawing No. F 514
Case No. B
Pocket No. 2
Folder No. 2

Approved Sept 30, 1921
John M. Brown
Asst. Supt. Bureau
APPROVED Sept 30, 1921
Chas. M. Ruffett
Chief Engr.
APPROVED Sept 30, 1921
W. H. Brown
Director

Rev. 6-19-22
Rev. 3-22-27

DATA BY F.S. Geiler NOTE BOOK 465-483
DRAWN H. J. Powell CHECKED BY E. A. Hogel
CORRECT E. A. Chaney CORRECT
CIV. ENGR. Bridge CIV. ENGR. DESIGN

BOND $115,000.00

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
RECONSTRUCTING BRIDGE & APPROACHES

BEECHWOOD BLVD BRIDGE

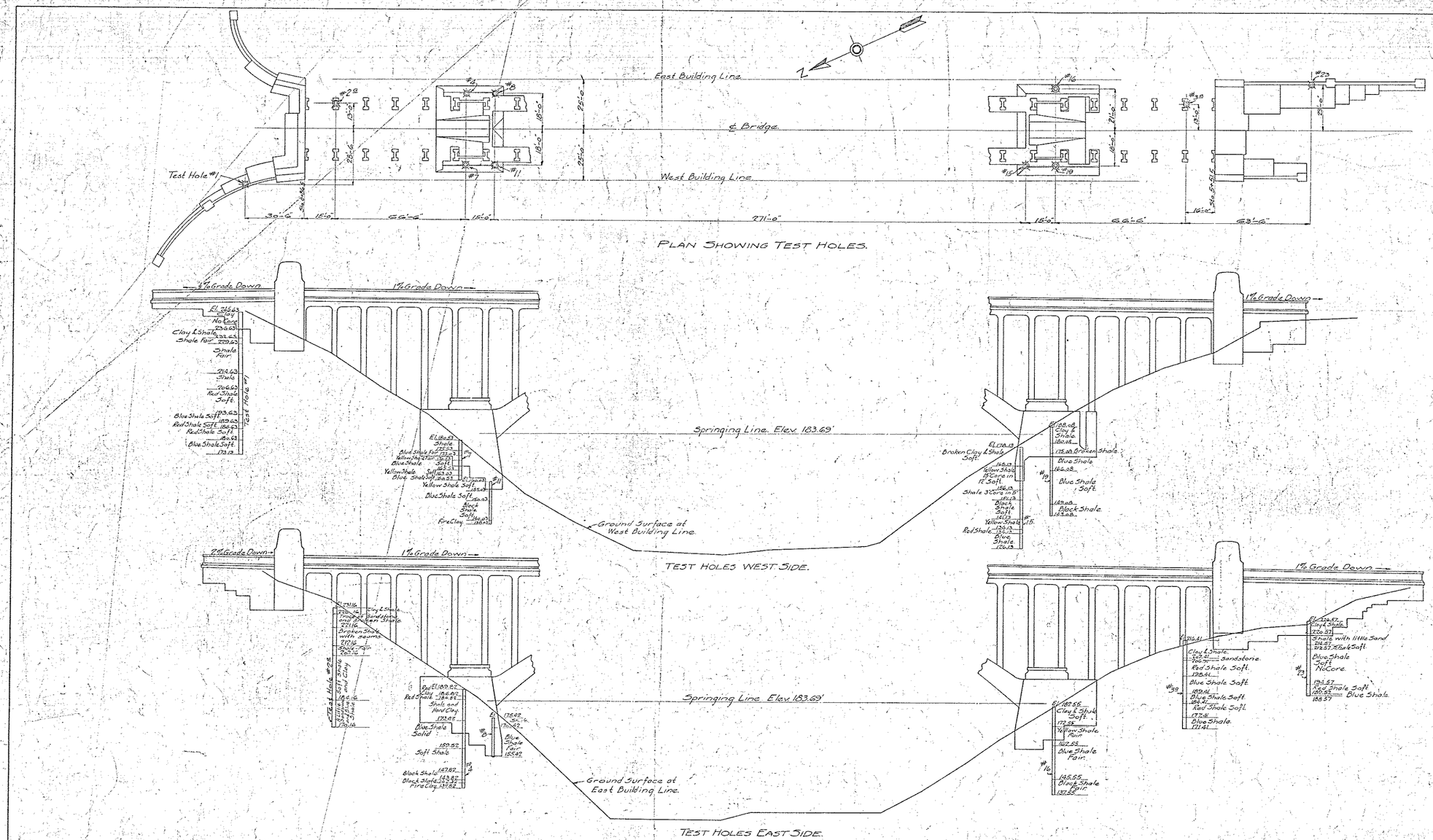
GENERAL PLAN & ELEVATION

CONTRACT NO 1 SHEET 1 OF 17

SCALES 1" = 20' DIVISION No. F-1036

SEPT. 1921 CASE No. 10 DRAWER No. 10

FOR INFORMATION ONLY



DATA BY F.C. Coder NOTE BOOK 465-489
DRAWN BY W.P. Hynde CHECKED BY Em Dougan
CORRECT C.A. Ackerman CORRECT
DIV. ENGR. DIV. ENGR. DESIGN

Drawing No. F515
Case No. B
Pocket No. 4
Folder No. 2

APPROVED Sept. 30, 1921
J. Lewis Stevenson
CITY ENGINEER
APPROVED Sept. 30, 1921
Chas. M. Ridpath
CHIEF ENGINEER
APPROVED Sept. 30, 1921
M. J. Brown
BRIDGE ENGINEER

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
RECONSTRUCTING BRIDGE & APPROACHES

BEECHWOOD BLVD BRIDGE

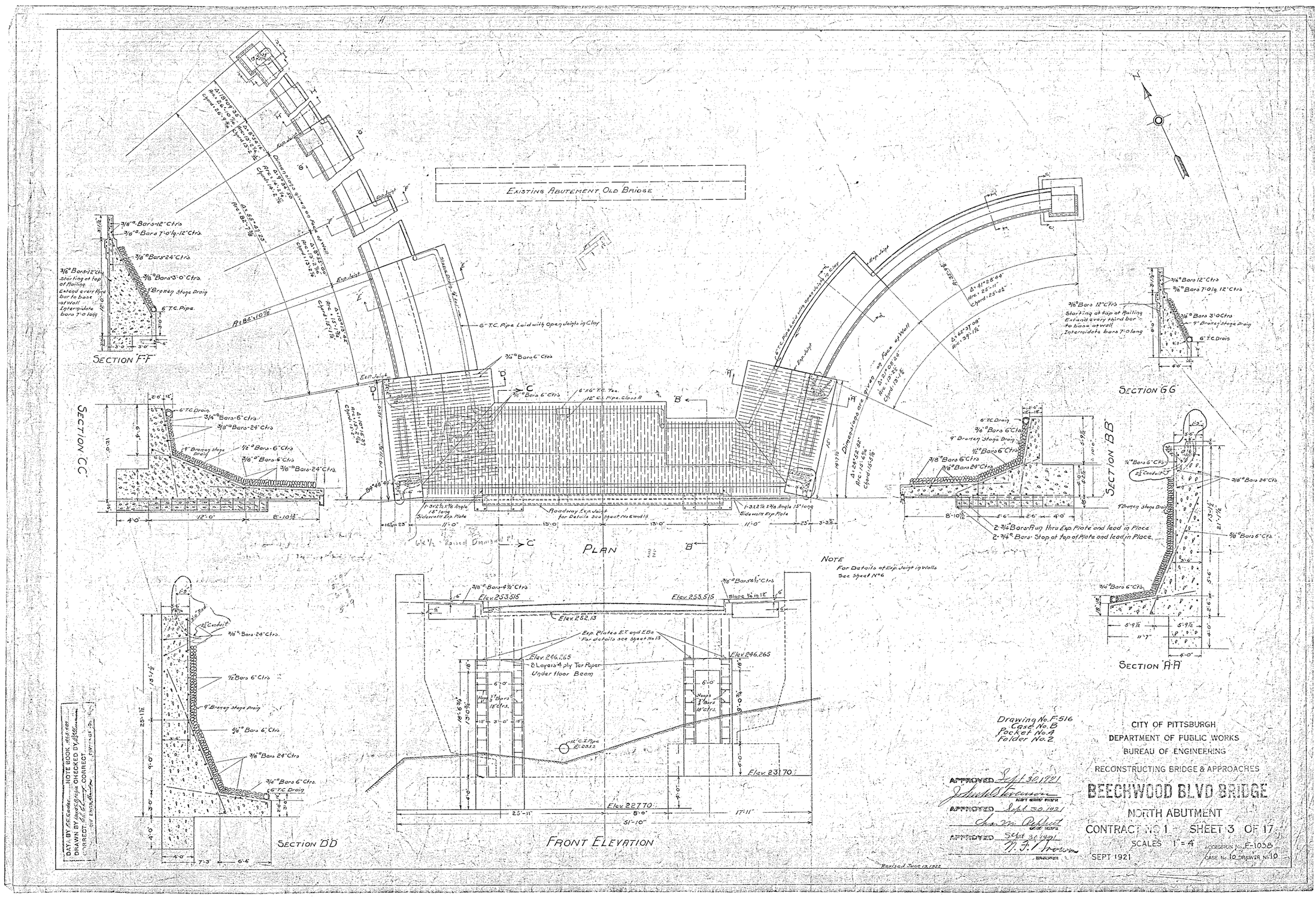
TEST BORING DATA

CONTRACT NO 1 SHEET 2 OF 17

SCALES 1" = 20' ACCESSION No. F-1037

SEPT 1921 CASE No. 10 DRAWER No. 10

FOR INFORMATION ONLY



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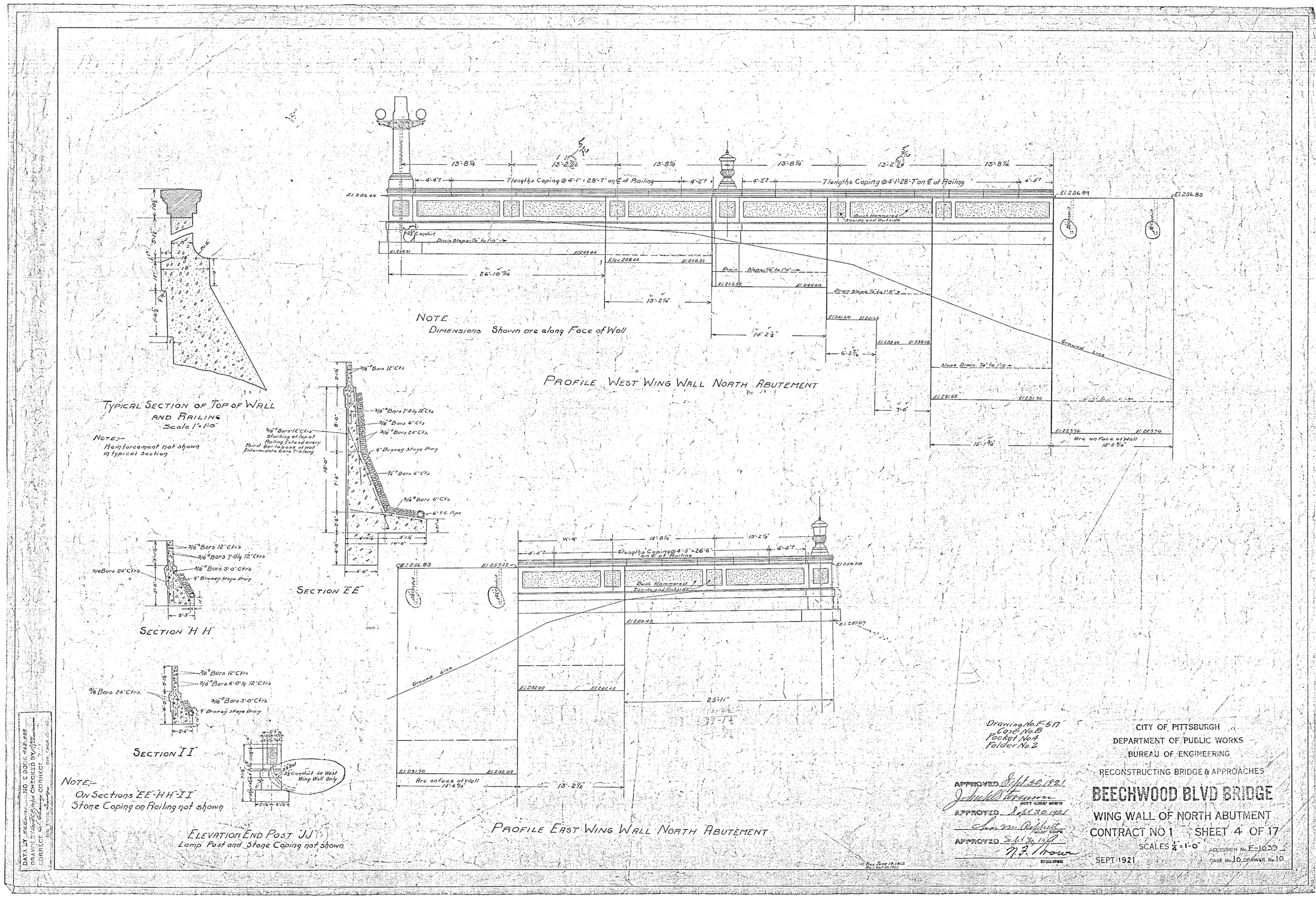

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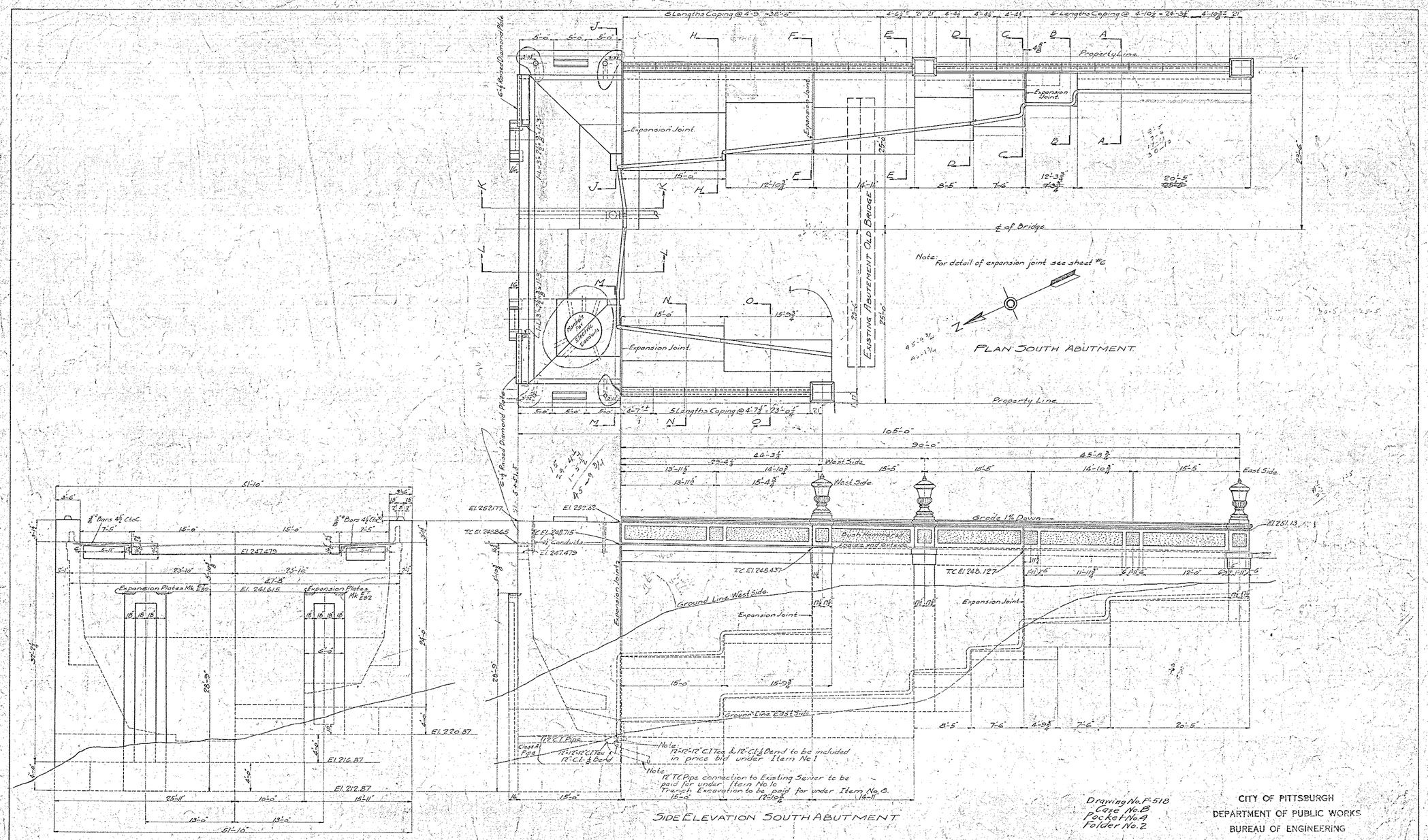

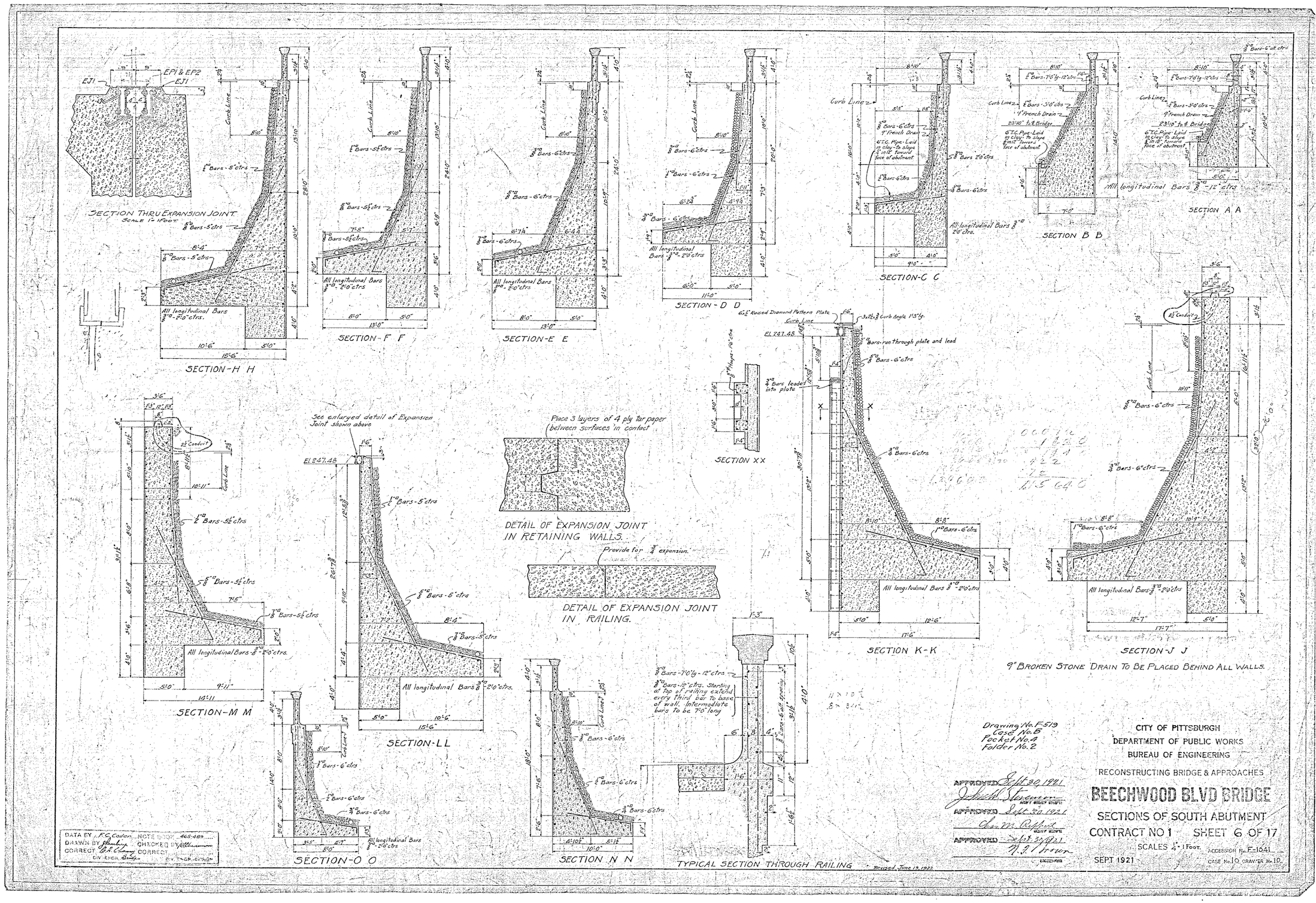

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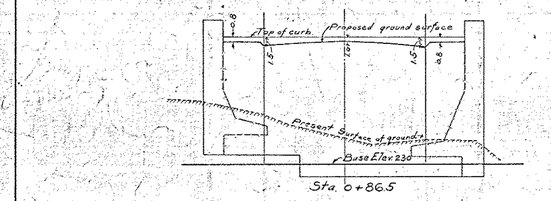
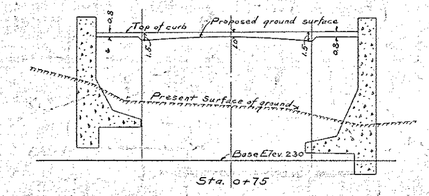
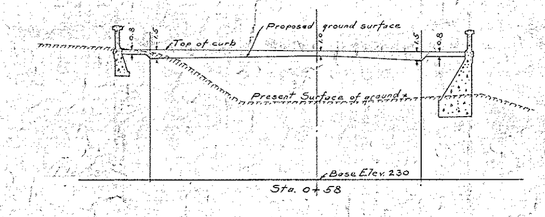
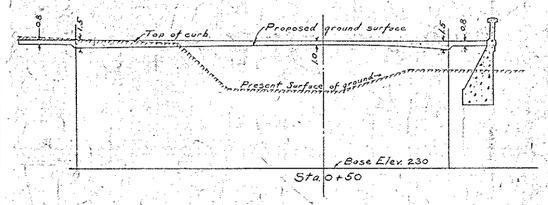
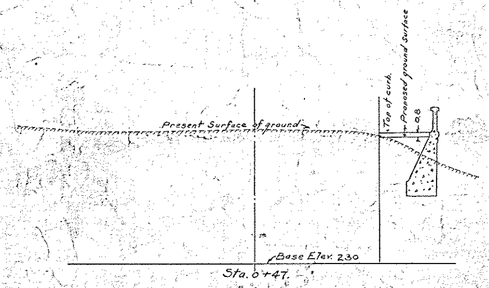


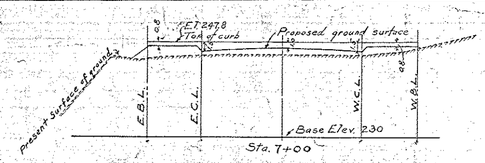


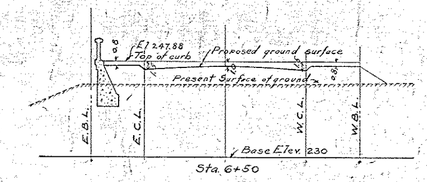


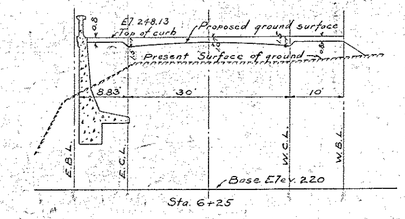


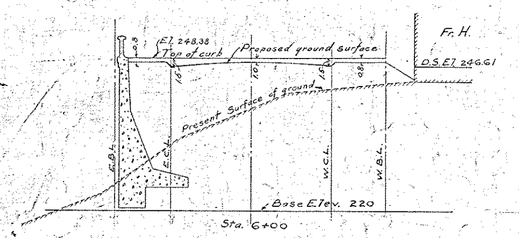


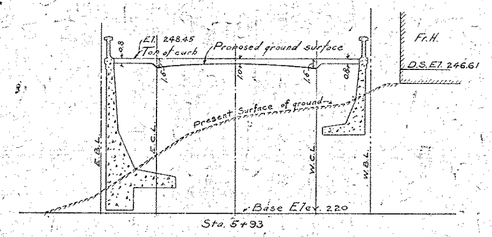
CROSS SECTIONS OF NORTH ABUTMENT.

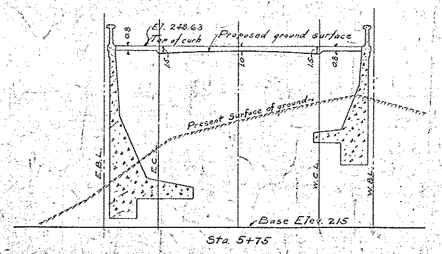












CROSS SECTIONS OF SOUTH ABUTMENT.

Note:-
Backfilling abutments to proposed ground surface, shall be included in the price bid under item #1.
Grading under this contract shall end at sta. 6+57.96

DATA BY F.C. Coder NOTE BOOK 455-489
DRAWN BY W.H.W. CHECKED BY E.H. Newman
CORRECT H.C. Gray CORRECT
DIV. ENGR. Design DIV. ENGR., DESIGN

Drawing No. F-520
Case No. B
Pocket No. A
Folder No. 2

APPROVED Sept 30, 1921
CHIEF ENGR. BUREAU OF BRIDGES
APPROVED Sept 30 1921
CHIEF ENGR. BUREAU OF ENGINEERING
APPROVED Sept 30, 1921
W. A. Brown
CITY ENGINEER

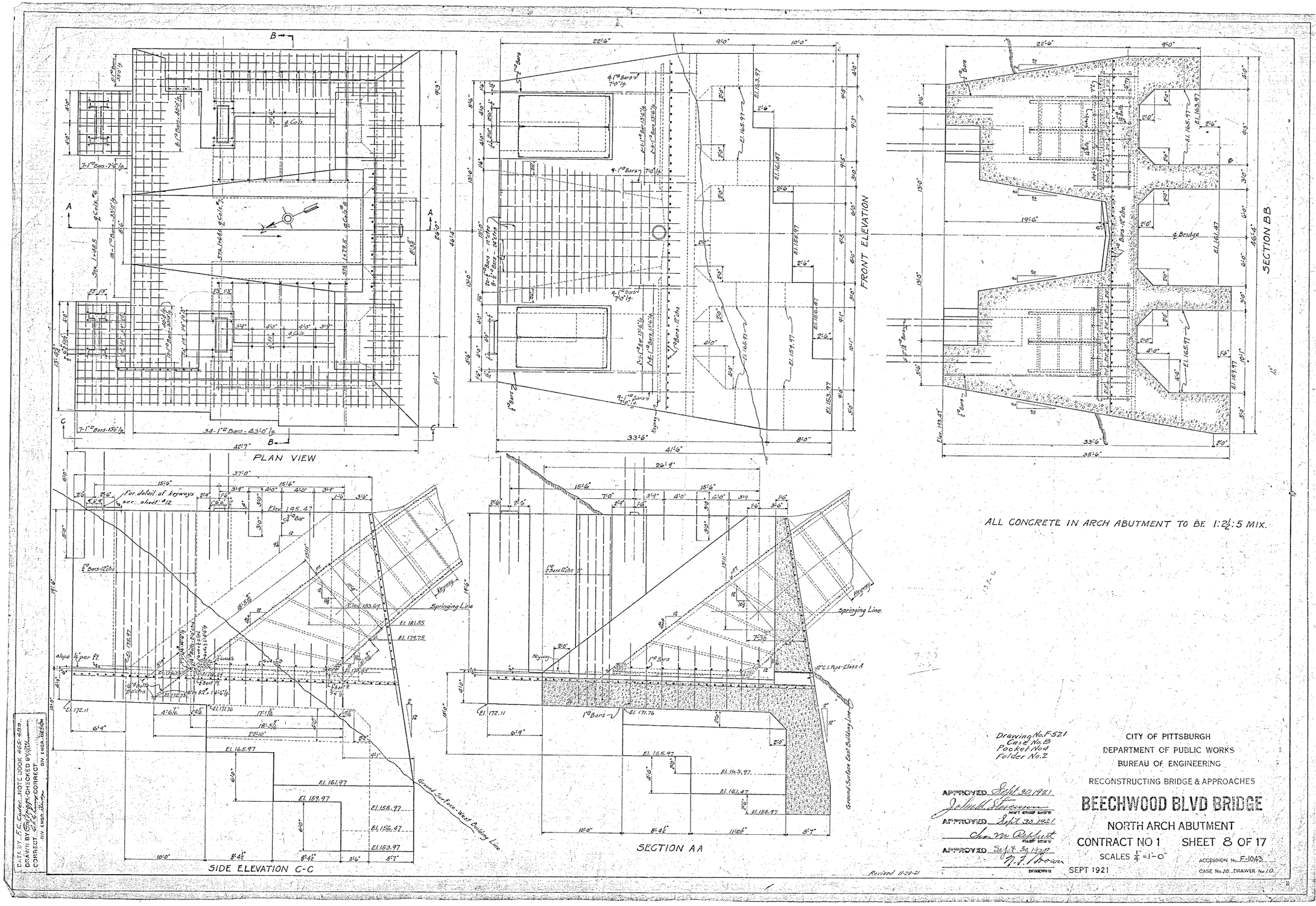
CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
RECONSTRUCTING BRIDGE & APPROACHES

BEECHWOOD BLVD BRIDGE

CROSS SECTIONS OF ABUTMENTS
CONTRACT NO 1 SHEET 7 OF 17
SCALES 1"=1'-0"
SEPT 1921
ACCESSION No. F-1042
CASE No. 10 DRAWER No. 10

26' - 8 = 18' CLEAR

FOR INFORMATION ONLY



ALL CONCRETE IN ARCH ABUTMENT TO BE 1:2½:5 MIX.

Drawing No. F-521
Case No. B
Pocket No. 4
Folder No. 2

APPROVED Sept 30 1921
J. Lewis Stevenson
CHIEF ENGINEER
APPROVED Sept 30 1921
Chas M. Ridpath
CHIEF ENGINEER
APPROVED Sept 30 1921
T. J. Brown
DIRECTOR

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

RECONSTRUCTING BRIDGE & APPROACHES

BEECHWOOD BLVD BRIDGE

NORTH ARCH ABUTMENT

CONTRACT NO 1 SHEET 8 OF 17

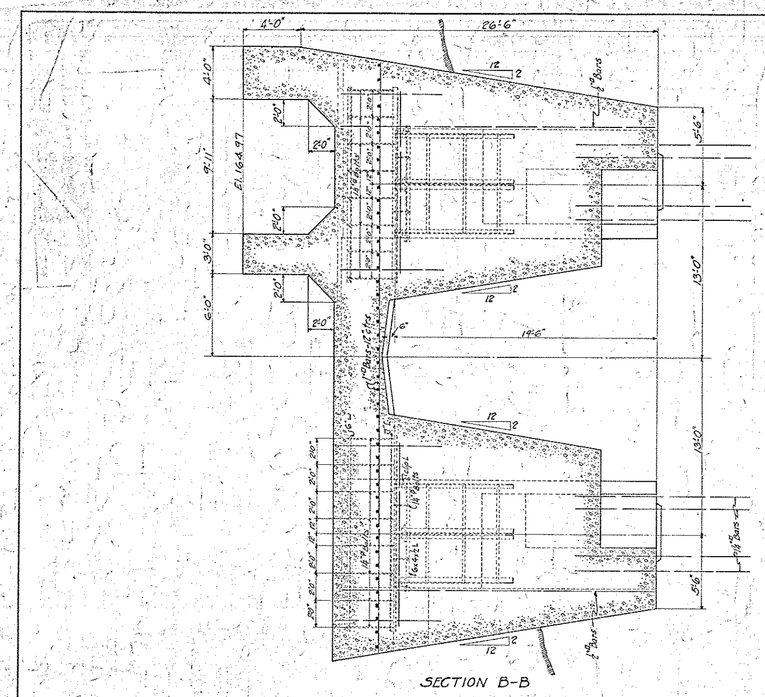
SCALES 1/4" = 1'-0"

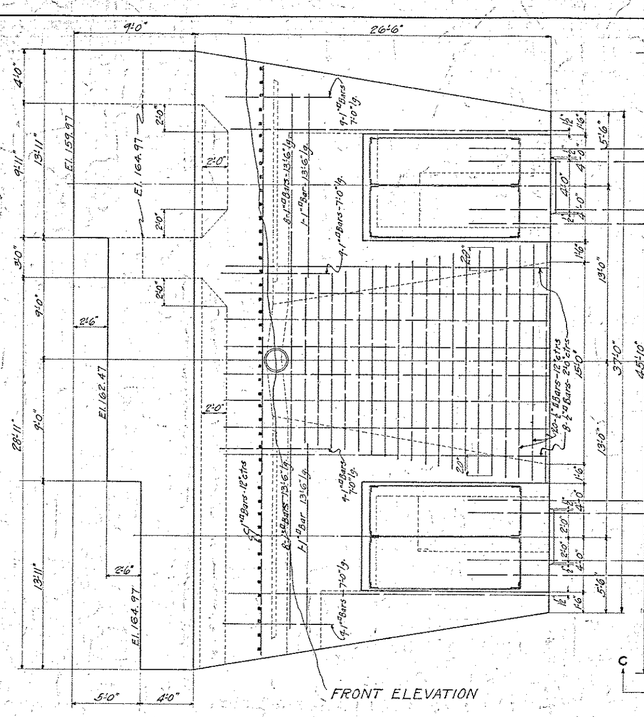
SEPT 1921

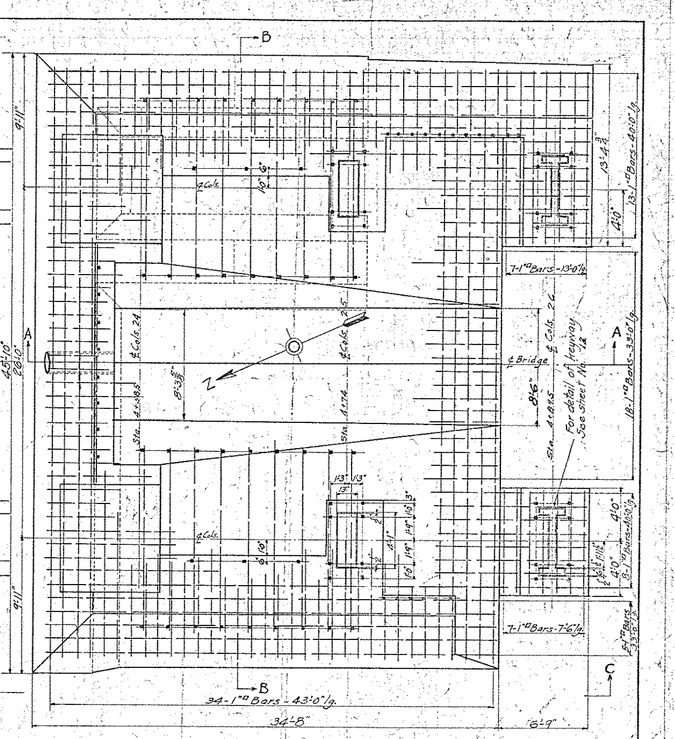
Revised 11-29-21

ACCESSION No. F-1043
CASE No. 10 DRAWER No. 10

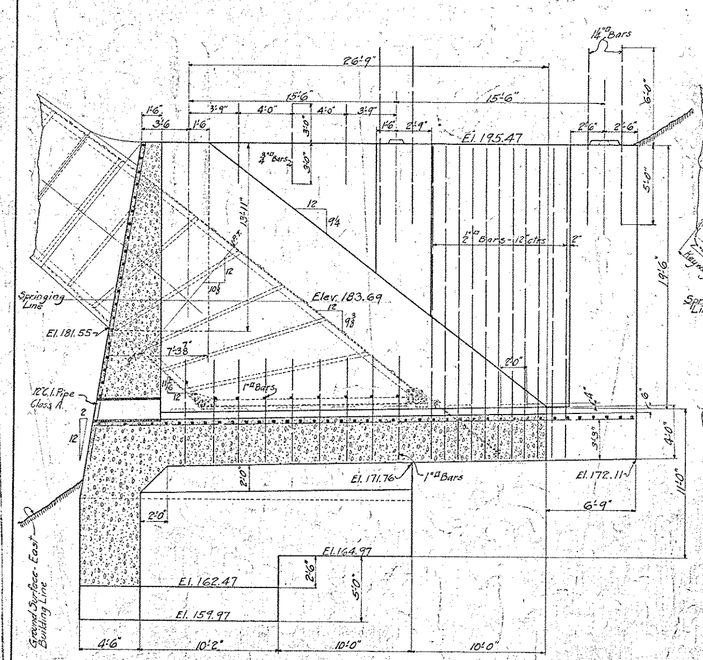
FOR INFORMATION ONLY

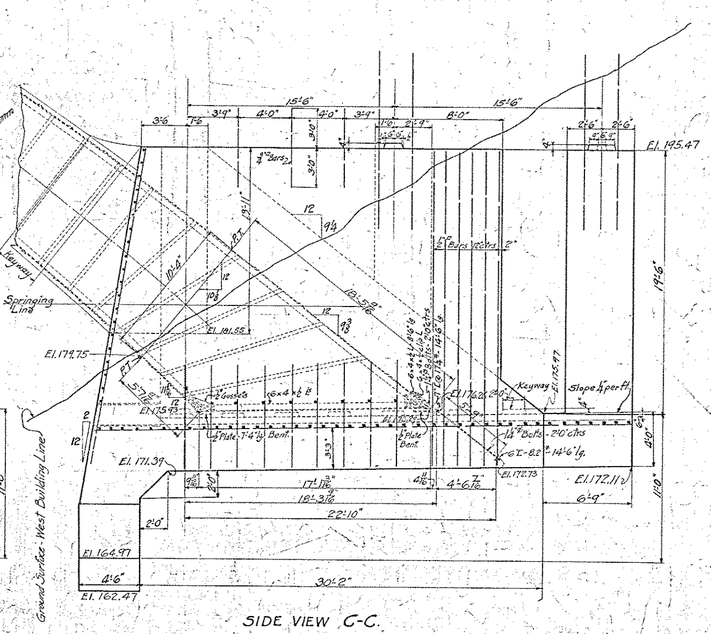






ALL CONCRETE IN ARCH ABUTMENT TO BE 1:2½:5 MIX.





Drawing No. F-522
Case No. 8
Pocket No. 4
Folder No. 2

APPROVED Sept. 30, 1921
APPROVED Sept. 30, 1921
APPROVED Sept. 30, 1921

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
RECONSTRUCTING BRIDGE & APPROACHES

BEECHWOOD BLVD BRIDGE

SOUTH ARCH ABUTMENTS

CONTRACT NO 1 SHEET 9 OF 17

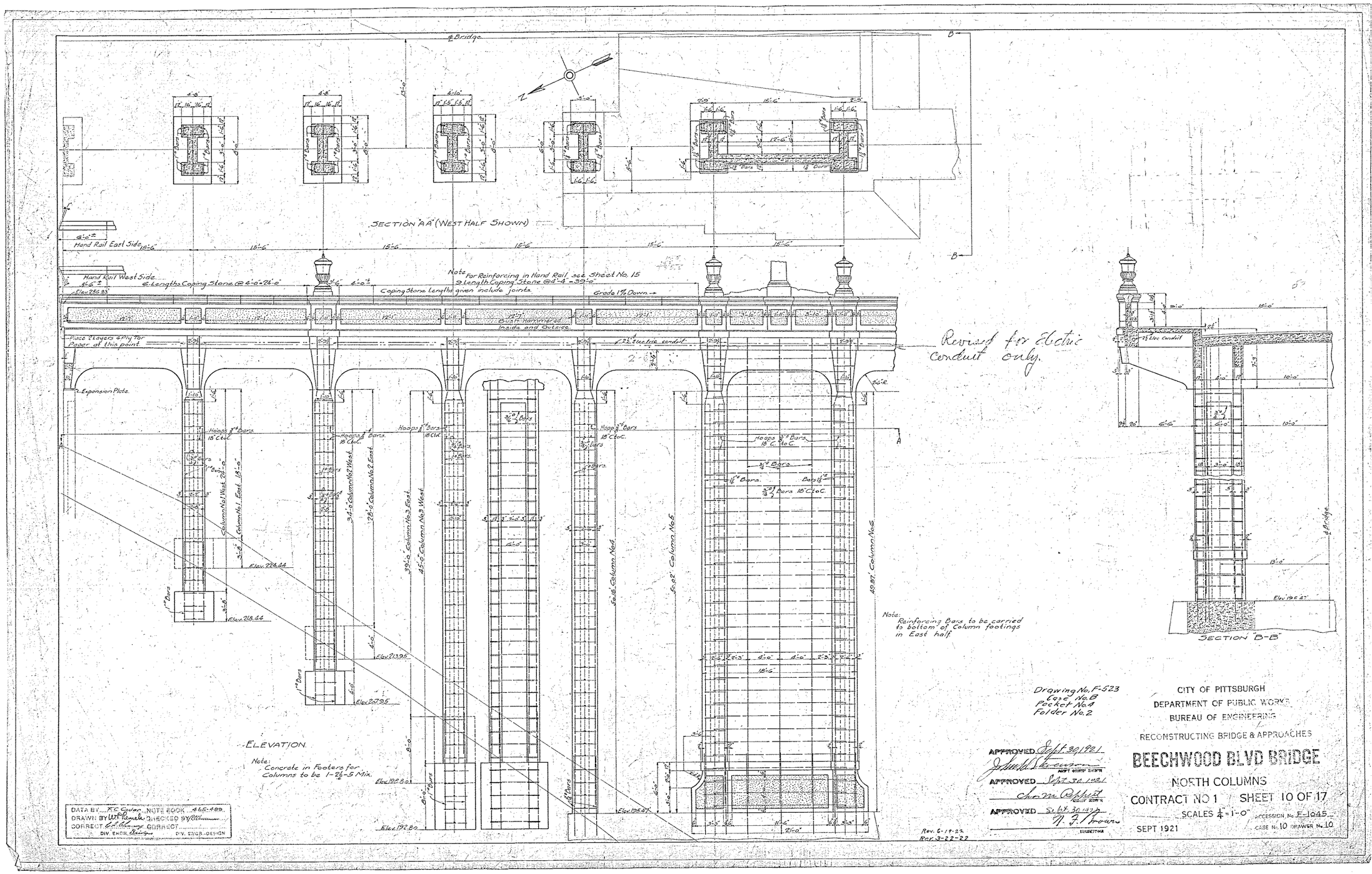
SCALES ¼"=1'-0"

SEPT 1921

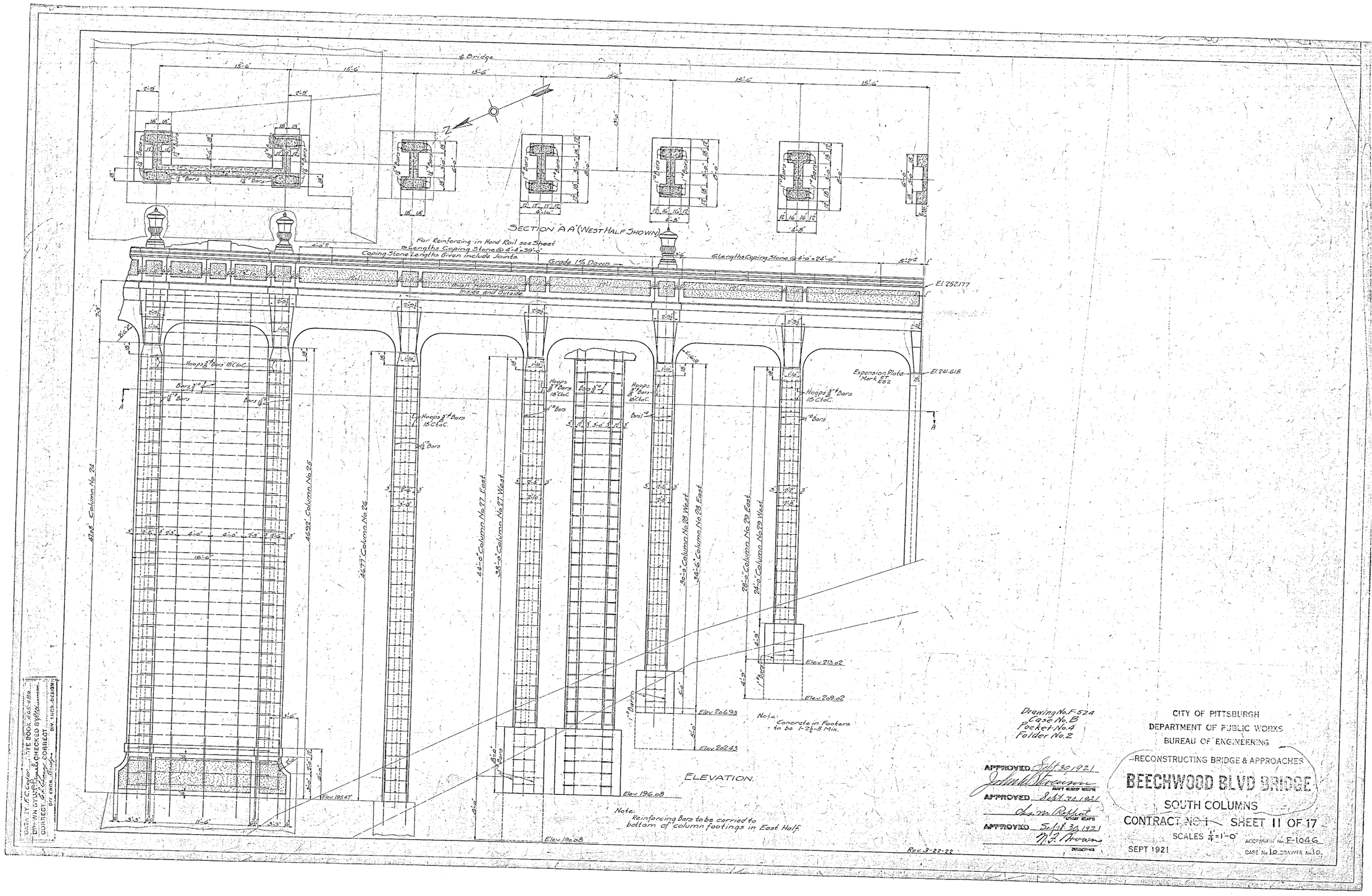
ACCESSION No. F-1044

CASE No. 10 DRAWER No. 10

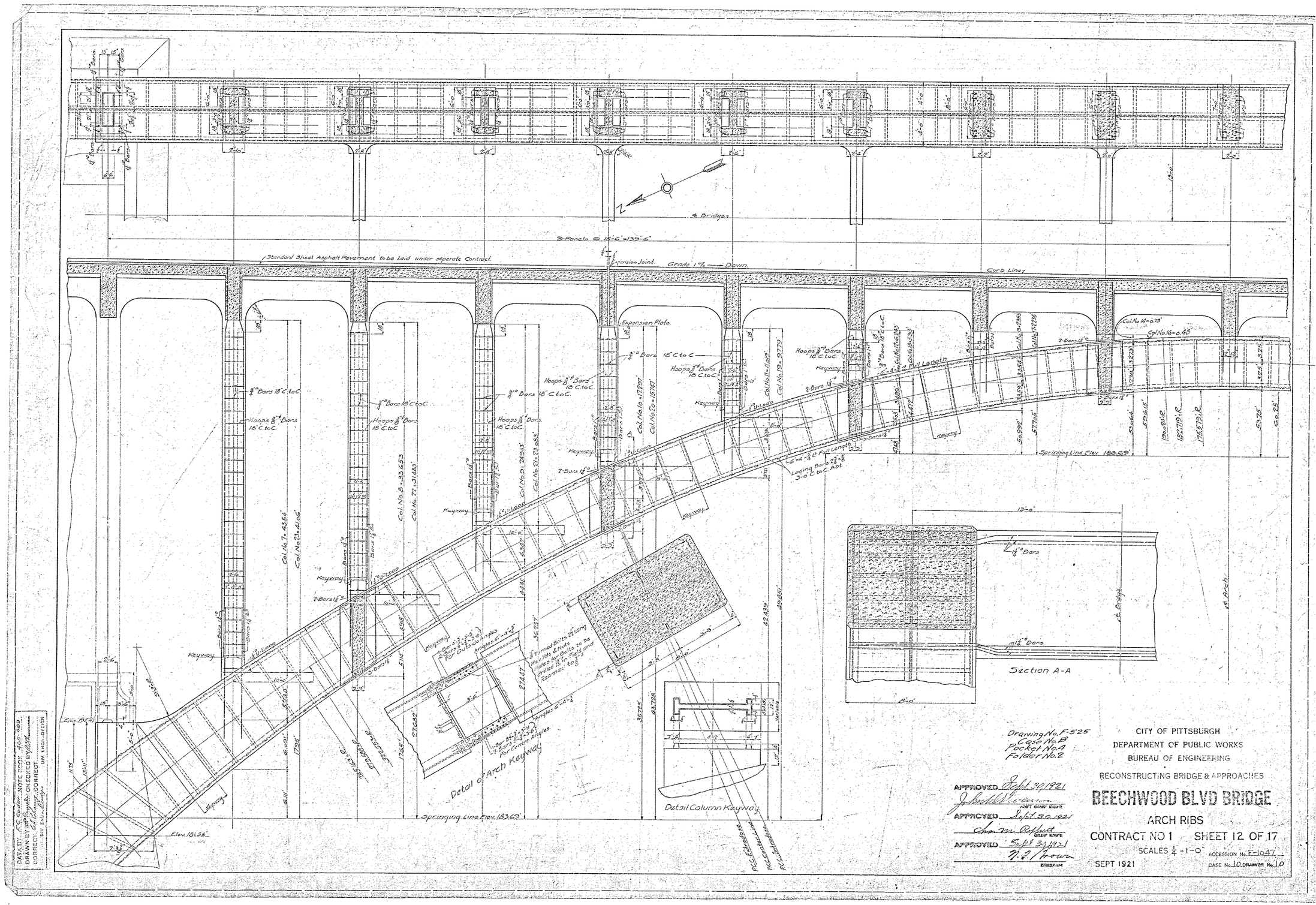
FOR INFORMATION ONLY



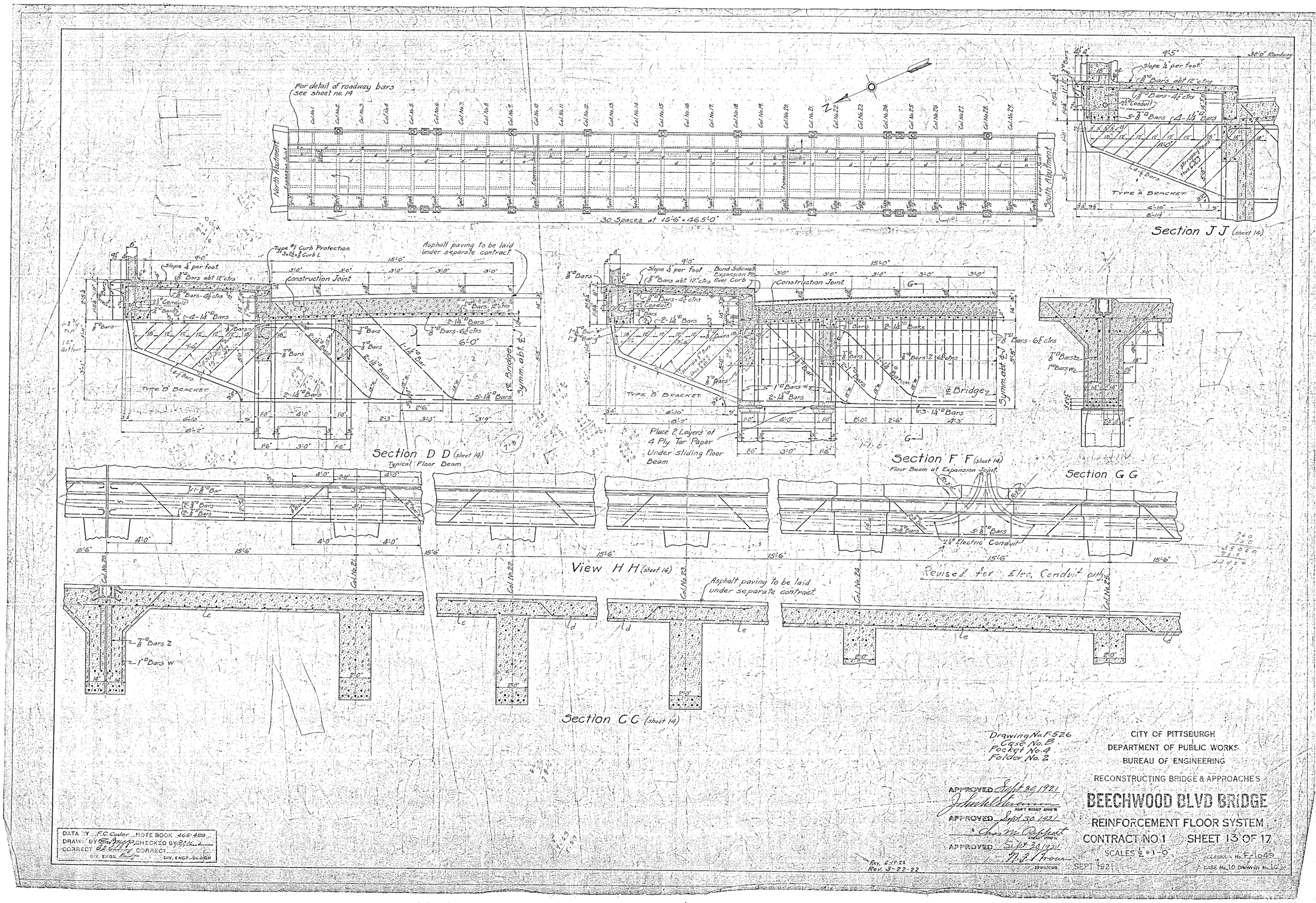
FOR INFORMATION ONLY



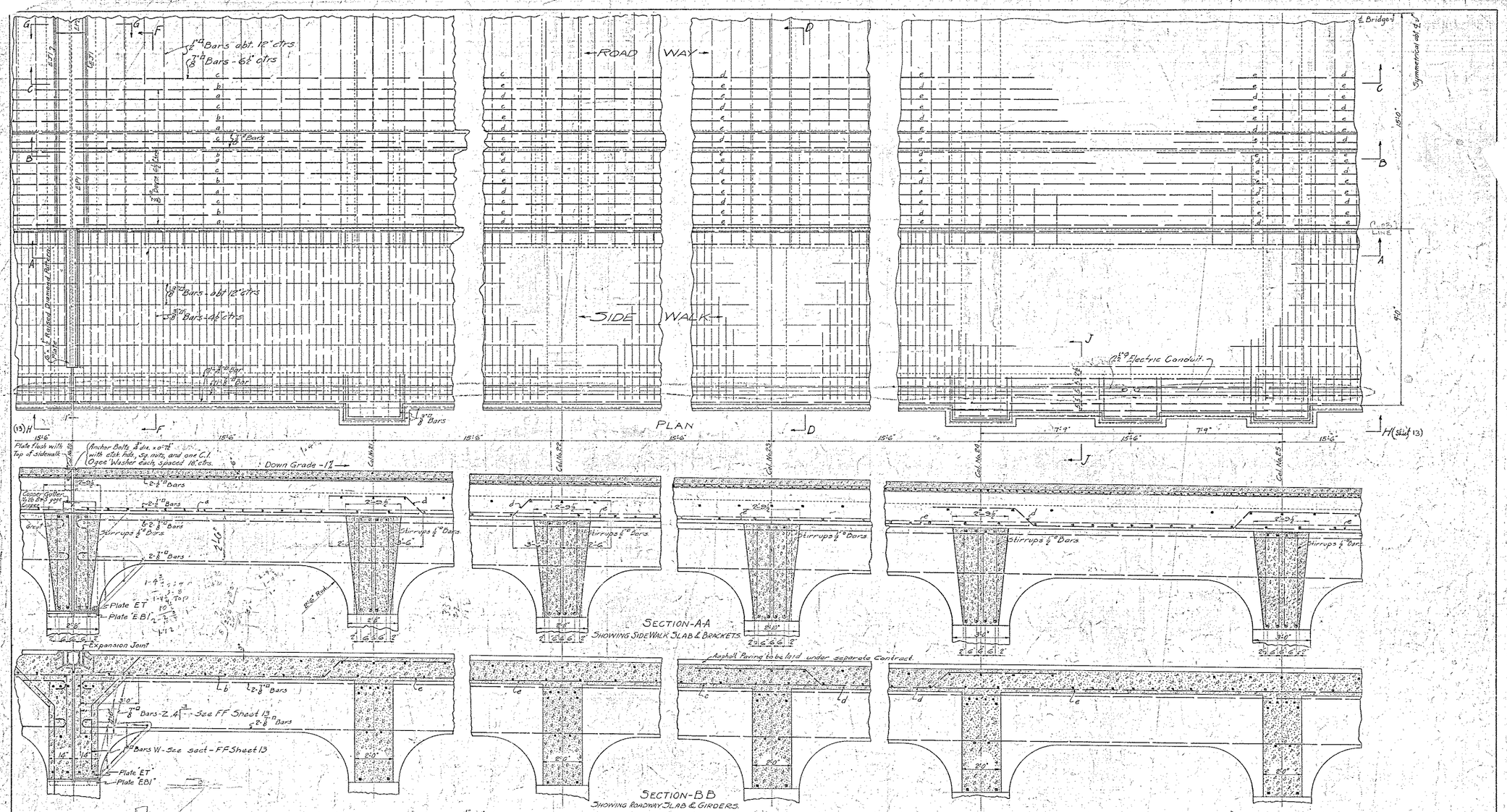
FOR INFORMATION ONLY



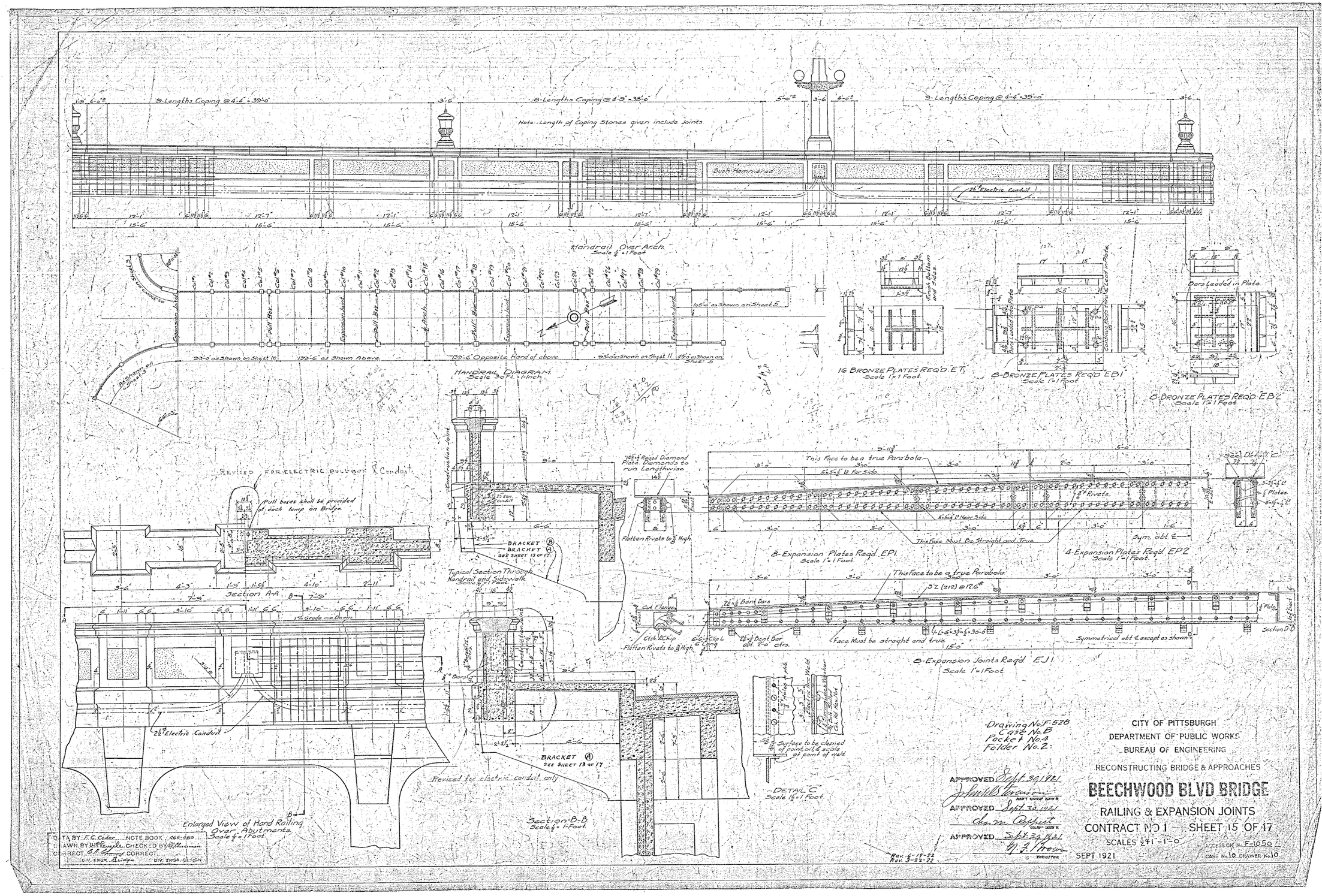
FOR INFORMATION ONLY



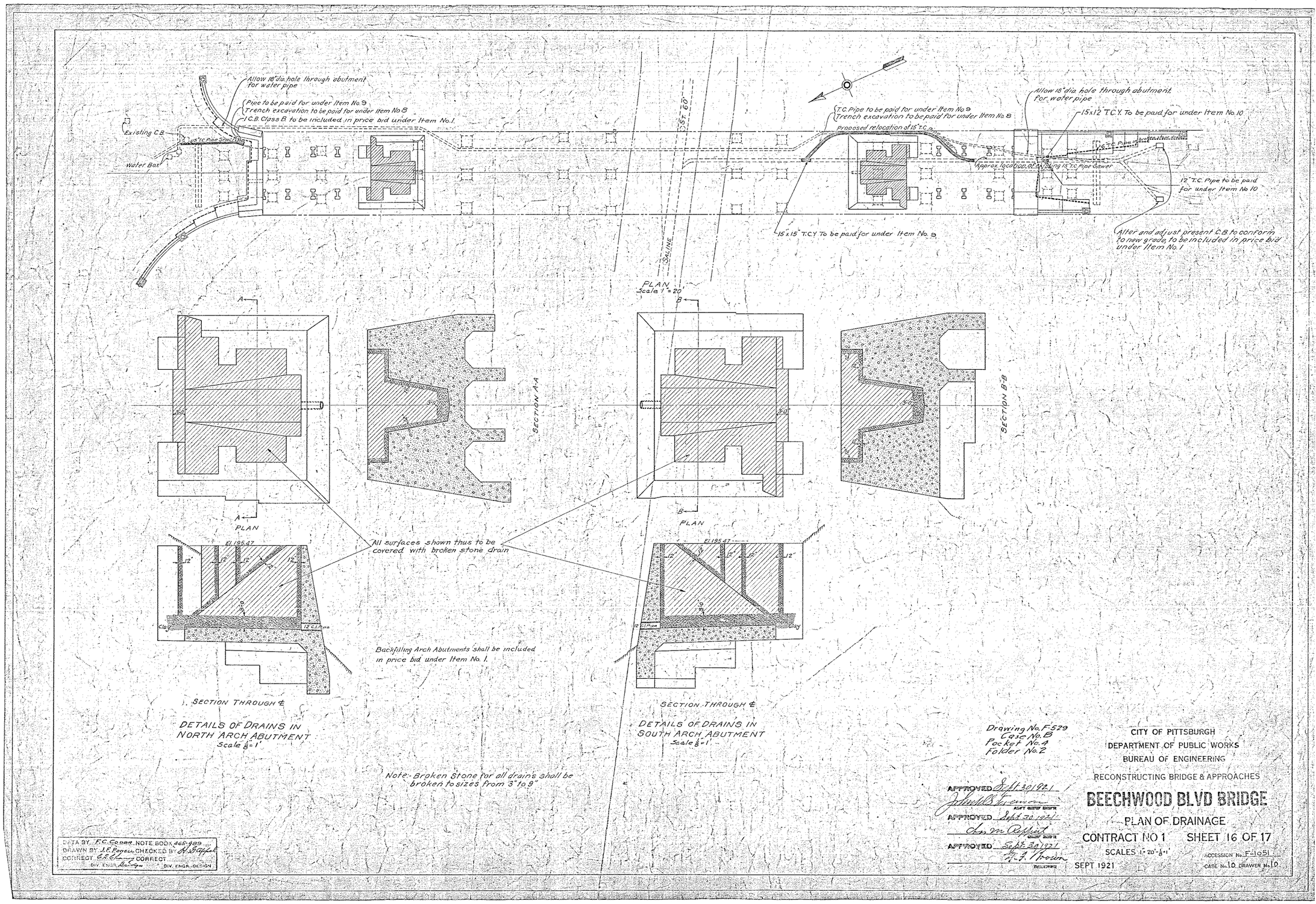
FOR INFORMATION ONLY



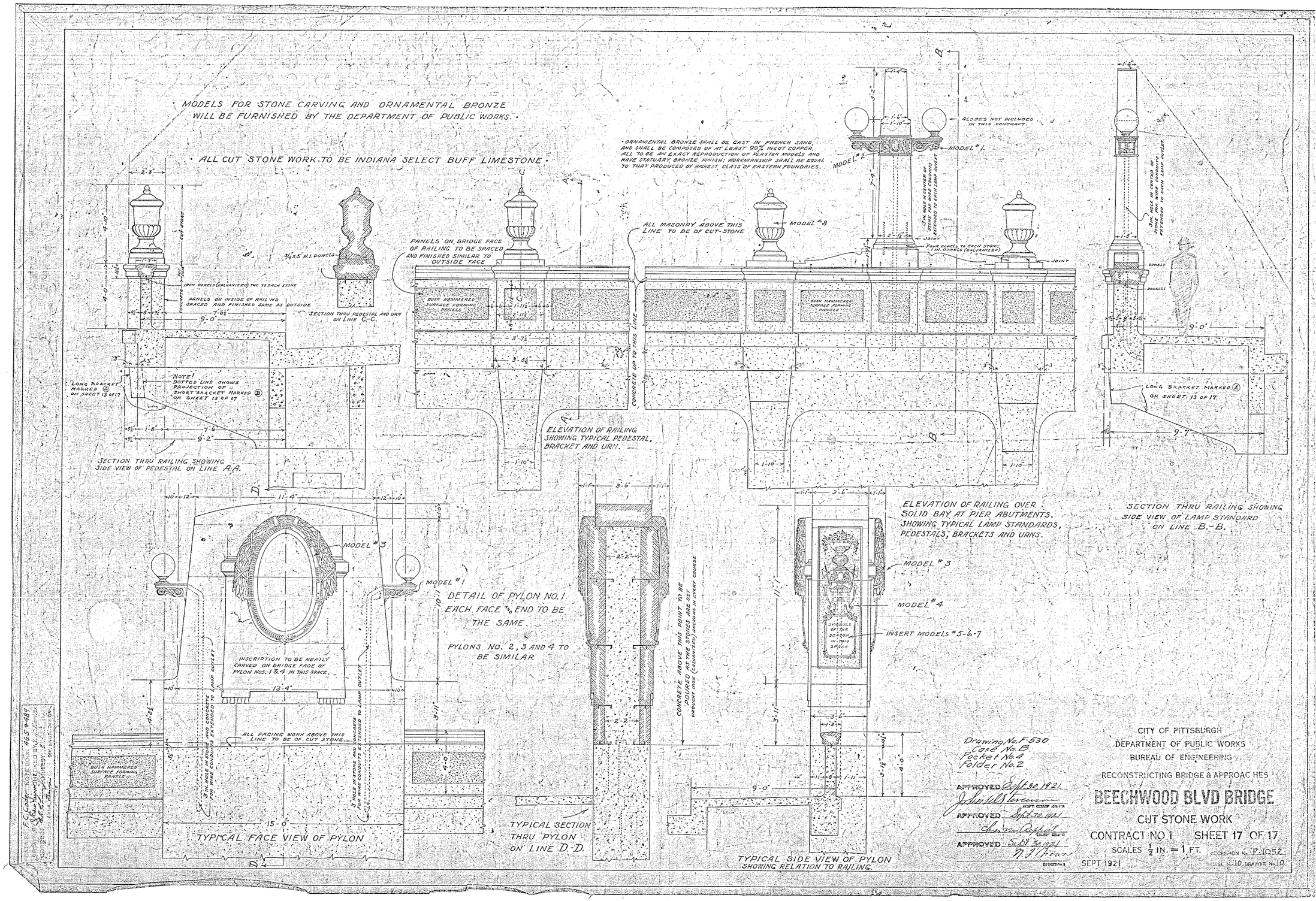
FOR INFORMATION ONLY



FOR INFORMATION ONLY



FOR INFORMATION ONLY



COPY FROM START UP MEETING 10/15/92

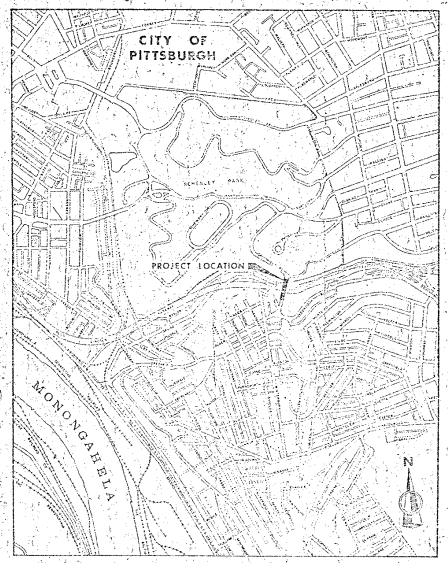
FOR INFORMATION ONLY

PROJECT NO. M-H063(1)

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
RECONSTRUCTION OF GREENFIELD AVENUE BRIDGE

SUMMARY OF QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITY
1	REMOVAL AND DISPOSAL OF CONCRETE BRIDGE SUPERSTRUCTURE INCLUDING EXISTING WOODEN PLATFORM	L.S.	LUMP SUM
C2	STRUCTURE BACKFILL	C.Y.	30
C3	SUBGRADE	S.Y.	177
C4	SUBBASE 8" DEPTH	S.Y.	177
C5	BITUMINOUS WEARING COURSE ID2 2 1/2" DEPTH SRL-H	S.Y.	2,155
6	INLET BOX	EACH	2
7	TYPE M INLET TOP UNIT	EACH	2
C8	PEDESTRIAN TRAFFIC BARRIER	L.F.	282
9	END TRANSITION PEDESTRIAN TRAFFIC BARRIER	EACH	4
C10	CEMENT CONCRETE SIDEWALK (BRIDGE) (APPROX. 180 C.Y.)	L.S.	LUMP SUM
C11	REINFORCED CEMENT CONCRETE APPROACH SLAB	S.Y.	179
C12	3 PLY MEMBRANE WATERPROOFING	S.Y.	73
C13	MEMBRANE WATERPROOFING, SPECIAL	S.Y.	1,505
C14	NO. 2B COARSE AGGREGATE	C.Y.	22
15	CLASS AA CEMENT CONCRETE (APPROX. 735 C.Y.)	L.S.	LUMP SUM
C16	CLASS A CEMENT CONCRETE	C.Y.	628
C17	MAINTENANCE AND PROTECTION OF TRAFFIC	L.S.	LUMP SUM
C18	LUMINAIRES, - 250 WATT HPS TYPE M-S-II	EACH	4
C19	LIGHT POLES 35' MOUNTING HEIGHT	EACH	4
C20	JUNCTION BOXES STAINLESS STEEL	EACH	5
C21	AWG 10 CABLE (COPPER)	L.F.	1,650
C22	2"Φ CONDUIT IN STRUCTURE	L.F.	790
C23	REINFORCING BARS	LBS.	93,832
24	REINFORCING BARS (IN SUPERSTRUCTURE APPROX. 94,700 LBS.)	L.S.	LUMP SUM
25	REINFORCING BARS EPOXY COATED (APPROX. 70,000 LBS.)	L.S.	LUMP SUM
C26	DOWEL HOLES 24" DEPTH	EACH	60
C27	PROTECTIVE FENCE	L.F.	930
C28	CLASS "C" EXCAVATION	C.Y.	284
C29	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACE	S.Y.	1,953
C30	ARMORED PREFORMED NEOPRENE COMPRESSION DAM 2" MOVEMENT	L.F.	195
31	FABRICATED STRUCTURAL STEEL (APPROX. 485,800 LBS.)	L.S.	LUMP SUM
32	DOWNSPOUTS (APPROX. 1250 FT)	L.S.	LUMP SUM
C33	BLEEDER DRAINS	EACH	48
C34	CRACK REPAIR	L.F.	1,000
(R) C35	REMOVE-D.F.I.C., 6'x' BRICK BOX, & CUT & PLUG TEE ETC.	L.S.	LUMP SUM
36	MOBILIZATION	L.S.	LUMP SUM
C37	SURFACE SPALL REPAIR (PRESSURE APPLIED CONCRETE)	BAGS	48
C38	CEMENT CONCRETE SIDEWALK APPROACH	S.Y.	225
C39	REPAVE WITH BITUMINOUS SURFACE	S.Y.	650
40	SANDBLASTING	L.S.	LUMP SUM
41	EPOXY RESIN PROTECTIVE COATING	L.S.	LUMP SUM
42	FURNISH, MAINTAIN AND REMOVE HIGHWAY PROTECTIVE STRUCTURE	L.S.	LUMP SUM
C43	CEMENT CONCRETE SPILLWAYS	C.Y.	35
C44	REMOVE AND BACKFILL EXIST. WATER VALVE BOX	EACH	3
C45	REMOVAL AND DISPOSAL OF ADDITIONAL CONCRETE BRIDGE SUPERSTRUCTURE	C.Y.	100
C46	UNFORSEEN WATER POLLUTION AND SOIL EROSION CONTROL		
C47	TRAINEES	HRS.	4000
C48	INSPECTORS FIELD OFFICE	L.S.	LUMP SUM
C49	MAINTENANCE BOND	L.S.	LUMP SUM
(R) 50	SEISMIC INSPECTION	L.S.	LUMP SUM



LOCATION MAP

0 600 1200 2400

SCALE IN FEET

INDEX OF DRAWINGS

SHEET NO.	TITLE
1	LOCATION MAP AND SHEET INDEX
2	GENERAL PLAN AND ELEVATION
3	PLAN AND ELEVATION OF EXISTING BRIDGE
4	COLUMN DETAILS - 1
4A	COLUMN DETAILS - 2
5	COLUMN DETAILS - 3
6	ABUTMENT AND APPROACH SLAB DETAILS
7	FRAMING PLAN AND CROSS SECTION
8	STEEL DETAILS
9	SLAB PLAN
10	DECK DETAILS
11	DECK DRAINAGE - 1
12	DECK DRAINAGE - 2
13	NORTH APPROACH DETAILS
14	SOUTH APPROACH DETAILS
15	ELECTRICAL DETAILS
16	MAINTENANCE AND PROTECTION OF TRAFFIC - 1
17	MAINTENANCE AND PROTECTION OF TRAFFIC - 2
18	MAINTENANCE AND PROTECTION OF TRAFFIC - 3
19	MAINTENANCE AND PROTECTION OF TRAFFIC - 4
20	MAINTENANCE AND PROTECTION OF TRAFFIC - 5
21	SURVEY INFORMATION

APPLICABLE PENNDOT STANDARD DRAWINGS

RC-23	BRIDGE APPROACH SLAB	JAN. 31, 1977
RC-34	INLETS	NOV. 15, 1977
RC-40	SLOPE PROTECTION	NOV. 15, 1977
RC-67	CONCRETE MEDIAN BARRIER	JUNE 1, 1976
BC-70	EROSION CONTROL	SEPT. 1, 1978
BC-321	ELECTRICAL DETAILS	JULY 1, 1970
BC-332	PERMANENT METAL DECK FORMS	JULY 1, 1970
BC-334	THREADED INSERT ANCHOR ASSEMBLY	JUNE 1, 1972
BC-351	BRIDGE DRAINAGE	JULY 1, 1970
BC-363	ARMORED PREFORMED NEOPRENE COMPRESSION DAM	OCT. 20, 1970

APPLICABLE CITY OF PITTSBURGH STANDARDS

E235	STANDARD BRICK MANHOLE	M158 TO	STANDARD DETAILS OF
E369	STANDARD MANHOLE COVER AND LID	M163	CONSTRUCTION FOR STREET PAVEMENT
M141A	CHAIN LINK FENCES	M164	STREET LIGHTING STANDARDS
		M174	PRESSURE APPLIED CONCRETE

NOTES:

ALL WORK DONE AND MATERIALS FURNISHED UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE CONTRACT PLANS, ACCESSION NOS. F- TO F- INCLUSIVE; THE GENERAL CONTRACT CONDITIONS, EDITION OF JULY, 1955, AND THE STANDARD SPECIFICATIONS FOR MATERIALS AND CONSTRUCTION DATED NOVEMBER, 1938; TOGETHER WITH SUPPLEMENTS AND REVISIONS THERETO DATED MARCH, 1962; SUPPLEMENTAL SPECIFICATIONS FOR CONCRETE PAVEMENT AND BASE COURSE DATED DECEMBER, 1970; SPECIFICATIONS FOR PAINTING OF BRIDGES AND VARIOUS STEEL STRUCTURES DATED NOVEMBER, 1970; SUPPLEMENTAL SPECIFICATIONS FOR BITUMINOUS MIXTURES-REVISED 1974; ALSO, CURRENT STANDARDS FOR CONSTRUCTION OF THE CITY OF PITTSBURGH; PENNSYLVANIA DEPARTMENT OF TRANSPORTATION CURRENT SPECIFICATION FORM 408 AND FORM 409; AND AS OTHERWISE STIPULATED IN THE SPECIAL SUPPLEMENTAL SPECIFICATIONS.

THE DETAILS SHOWN ON THE CONTRACT PLANS WERE MADE TO CONFORM WITH ORIGINAL BRIDGE DRAWINGS WITH THE IDEA OF MAKING THE MATERIAL FIT THE SITUATION AS IT EXISTS IN THE FIELD. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THE DIMENSIONS IN THE FIELD AND MAKE THE NECESSARY ADJUSTMENTS TO INSURE THE CORRECT FIT OF MATERIAL. NO EXTRA COMPENSATION WILL BE ALLOWED FOR THIS WORK.

REGISTERED PROFESSIONAL ENGINEER ANTHONY J. CALTA NO. 31394-E COMMONWEALTH OF PENNSYLVANIA

RECOMMENDED August 16, 19 78
Anthony J. Calta
DISTRICT ENGINEER

RECOMMENDED August 21, 19 78
Philip W. Amos
CHIEF HIGHWAY ENGINEER

APPROVED August 21, 19 78
George S. Pulaski
Acting SECT. OF TRANSPORTATION

APPROVED _____, 19__
GOVERNOR

PENNDOT REFERENCE NO. S-13264

APPROVED 8/18/78 (DATE)
B. E. Kalab
PENNSYLVANIA DEPT. OF TRANSPORTATION
BRIDGE ENGINEER

APPROVED | DATE
DESIGN DIVISION ENGR. | 8/16/78
STRUCT. CONST. DIV. ENGR. | 8/16/78
CITY ENGR. STRUCTS. | 8/16/78
DIR. ENGR. D. P. W. | 8/16/78
DIRECTOR | 8/16/78

FIELD DATA	DRAWN	SUPERV'SD.
BY		
SOL		
CHECKED	INDICATE	CID CONST.

REVISIONS

CHARACTER	DATE
REVISED ITEM 35 ADDED ITEM 50	3.2.79

PREPARED BY
MOJUESKI & MASTERS
HARRISBURG, PA

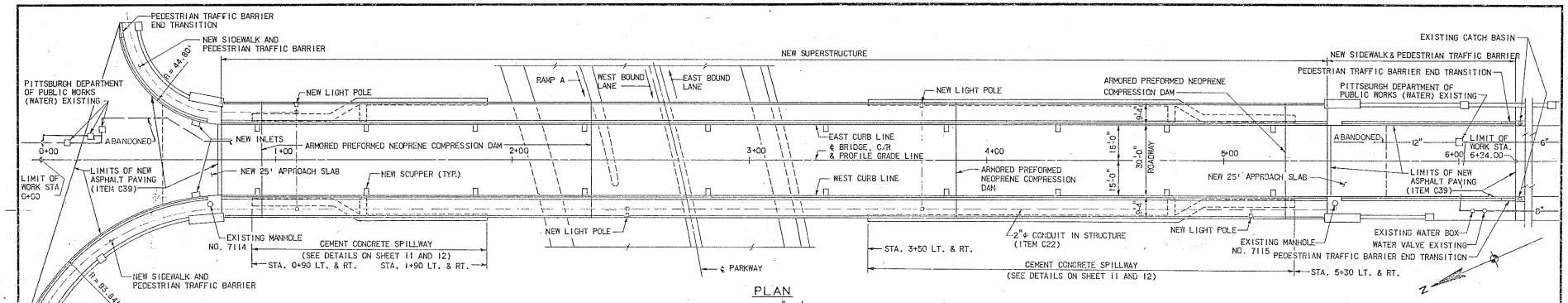
T. KOSTRI REALEY REGISTERED PROFESSIONAL ENGINEER NO. 13663 COMMONWEALTH OF PENNSYLVANIA

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

LOCATION MAP AND SHEET INDEX

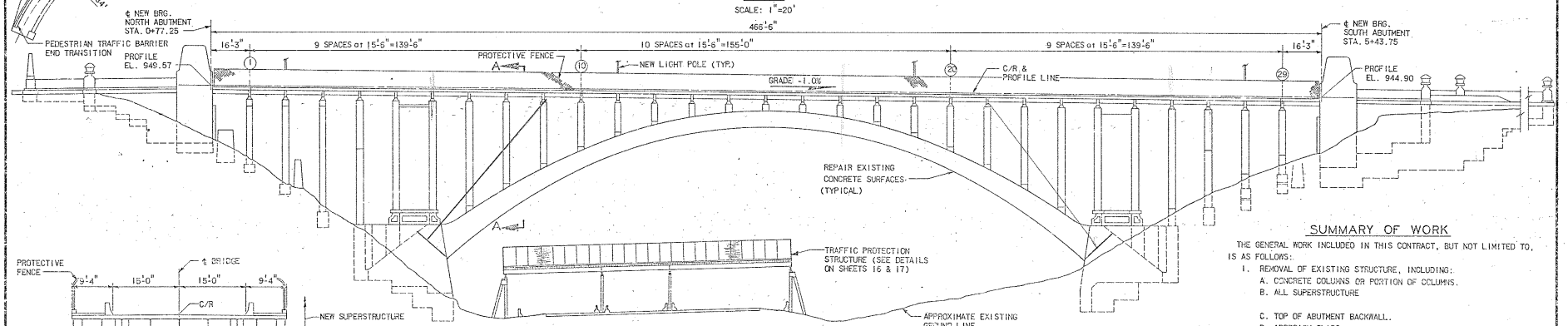
SCALES AS NOTED | SHEET NO. 1 OF 21 | ACCESSION NO. F-9620
DATE | CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

0581
140200 CALC. BOOK PG.



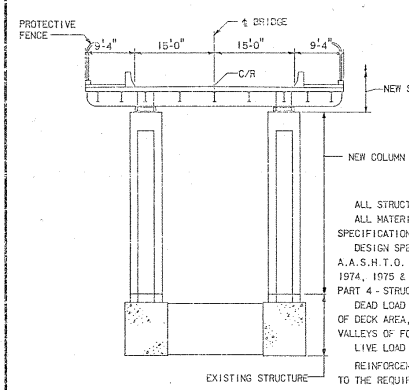
PLAN

SCALE: 1"=20'



ELEVATION

SCALE: 1"=20'



SECTION A-A

SCALE: $\frac{3}{32}$"=1'-0"

GENERAL NOTES

ALL STRUCTURAL STEEL SHALL CONFORM TO ASTM SPEC. A-36, UNLESS NOTED.

ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH PENNDOT SPECIFICATIONS FORM 408/76 AND 409/73.

DESIGN SPECIFICATIONS SHALL CONFORM TO DESIGN DIVISION OF 1973 A.A.S.H.T.O. "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", INCLUDING 1974, 1975 & 1976 INTERIM SPECIFICATIONS, AND PENNDOT DESIGN MANUAL PART 4 - STRUCTURES.

DEAD LOAD = ACTUAL WEIGHT OF STRUCTURE INCLUDES 15 LBS. PER SQ. FT. OF DECK AREA, (WEIGHT OF STAY IN PLACE FORMS + WEIGHT OF CONCRETE IN VALLEYS OF FORMS).

LIVE LOAD = HS20-44 LOADING.

REINFORCEMENT BARS SHALL BE ASTM A615 GRADE 40 AND SHALL CONFORM TO THE REQUIREMENTS OF FORM 408. BARS SHALL BE DETAILED IN ACCORDANCE WITH CURRENT "MANUAL OF STANDARD PRACTICE FOR REINFORCED CONCRETE CONSTRUCTION" AS PUBLISHED BY THE CONCRETE REINFORCING STEEL INSTITUTE. TWO INCH CONCRETE COVER SHALL BE PROVIDED ON REINFORCING BARS EXCEPT WHERE NOTED.

CLASS AA CEMENT CONCRETE SHALL BE USED IN DECK SLAB, PEDESTRIAN TRAFFIC BARRIER, BRIDGE SIDEWALK, DIAPHRAGMS, AND APPROACH SLABS

CLASS A CEMENT CONCRETE SHALL BE USED IN COLUMNS, ABUTMENT BEARING SEATS, APPROACH SIDEWALKS AND SPLASH BLOCKS.

ALL CONCRETE EDGES SHALL BE CHAMFERED 1"x1" UNLESS NOTED.

ELEVATIONS ARE REFERRED TO CITY OF PITTSBURGH DATUM.

ALL EXPANSION DAM ANCHORAGES SHALL BE WELDED TO DECK REINFORCING BARS OR BACKWALL REINFORCEMENT BARS PRIOR TO PLACING CONCRETE.

THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS IN CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM THE WORK TO MEET FIELD CONDITIONS.

THE CONTRACTOR SHALL COMPLETE ALL WORK IN A MANNER SUCH THAT ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, WILL NOT BE DAMAGED. IF THE CONTRACTOR DAMAGES ANY MATERIALS WHICH ARE TO REMAIN IN PLACE, THE DAMAGED MATERIALS SHALL BE REPAIRED OR REPLACED IN A MANNER SATISFACTORY TO THE ENGINEER AT THE EXPENSE OF THE CONTRACTOR.

EITHER PERMANENT METAL DECK FORMS OR REMOVABLE FORMS MAY BE USED IN PLACING DECK.

SUPERSTRUCTURE DIMENSIONS ARE BASED ON A NORMAL TEMPERATURE AT 68°F.

THE MANHOLES IN THE SIDEWALK AREA BEHIND BOTH ABUTMENTS WILL BE MODIFIED BY DUQUESNE LIGHT CO. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE LIGHT CO.

② INDICATES FLOORBEAM AND COLUMN LOCATIONS.

* INDICATES $\frac{7}{8}$"φ HIGH STRENGTH BOLTS ASTM A-325, UNLESS NOTED.

PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES SHALL BE APPLIED TO ALL NEW CONCRETE SURFACES OF THE PEDESTRIAN TRAFFIC BARRIER AND SIDEWALKS ON THE BRIDGE DECK AND APPROACHES, IN ACCORDANCE WITH SECTION 1019 OF FORM 408.

EPOXY RESIN PROTECTIVE COATING SHALL BE APPLIED, AFTER SANDBLAST CLEANING, TO ALL EXPOSED CONCRETE SURFACES OF THE ARCH RIBS, COLUMNS, THRUST BLOCKS, ABUTMENTS AND THE OUTSIDE FACE OF THE WINGWALLS FROM THE GROUND LINE TO THE BOTTOM OF THE STONE RAILING CAP.

SUMMARY OF WORK

THE GENERAL WORK INCLUDED IN THIS CONTRACT, BUT NOT LIMITED TO, IS AS FOLLOWS:

1. REMOVAL OF EXISTING STRUCTURE, INCLUDING:
   A. CONCRETE COLUMNS OR PORTION OF COLUMNS.
   B. ALL SUPERSTRUCTURE
   C. TOP OF ABUTMENT BACKWALL.
   D. APPROACH SLABS.
   E. SIDEWALKS AND ASPHALT ON APPROACHES.
   F. LIGHT POLES.
   G. CATCH BASINS ON NORTH APPROACH.
2. NEW CONCRETE COLUMNS OR PORTION OF COLUMNS AND NEW ABUTMENT BEARING SEATS.
3. NEW SUPERSTRUCTURE OF A REINFORCED CONCRETE SLAB ON STEEL FRAMING BETWEEN ABUTMENTS.
4. NEW CONCRETE APPROACH SLABS AND SIDEWALKS.
5. NEW BITUMINOUS WEARING COURSE ON APPROACHES AND WITH MEMBRANE WATERPROOFING ON STRUCTURE.
6. NEW DRAINAGE SYSTEM ON STRUCTURE AND NORTH APPROACH.
7. NEW LIGHTING SYSTEM ON STRUCTURE.
8. SANDBLAST CLEAN EXISTING CONCRETE AND APPLY EPOXY RESIN PROTECTIVE COATING.

APPROVED	DATE
DIVISION DIVISION ENGRS.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. & CHIEF'S	
CITY ENGR. G. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

GENERAL PLAN AND ELEVATION

FIELD DATA	DRAWN	SUPERVSD.
BY		
VOL.		
CHECKED	INSPECTD	CKD.-CONST.

REVISIONS

CHARACTER	DATE

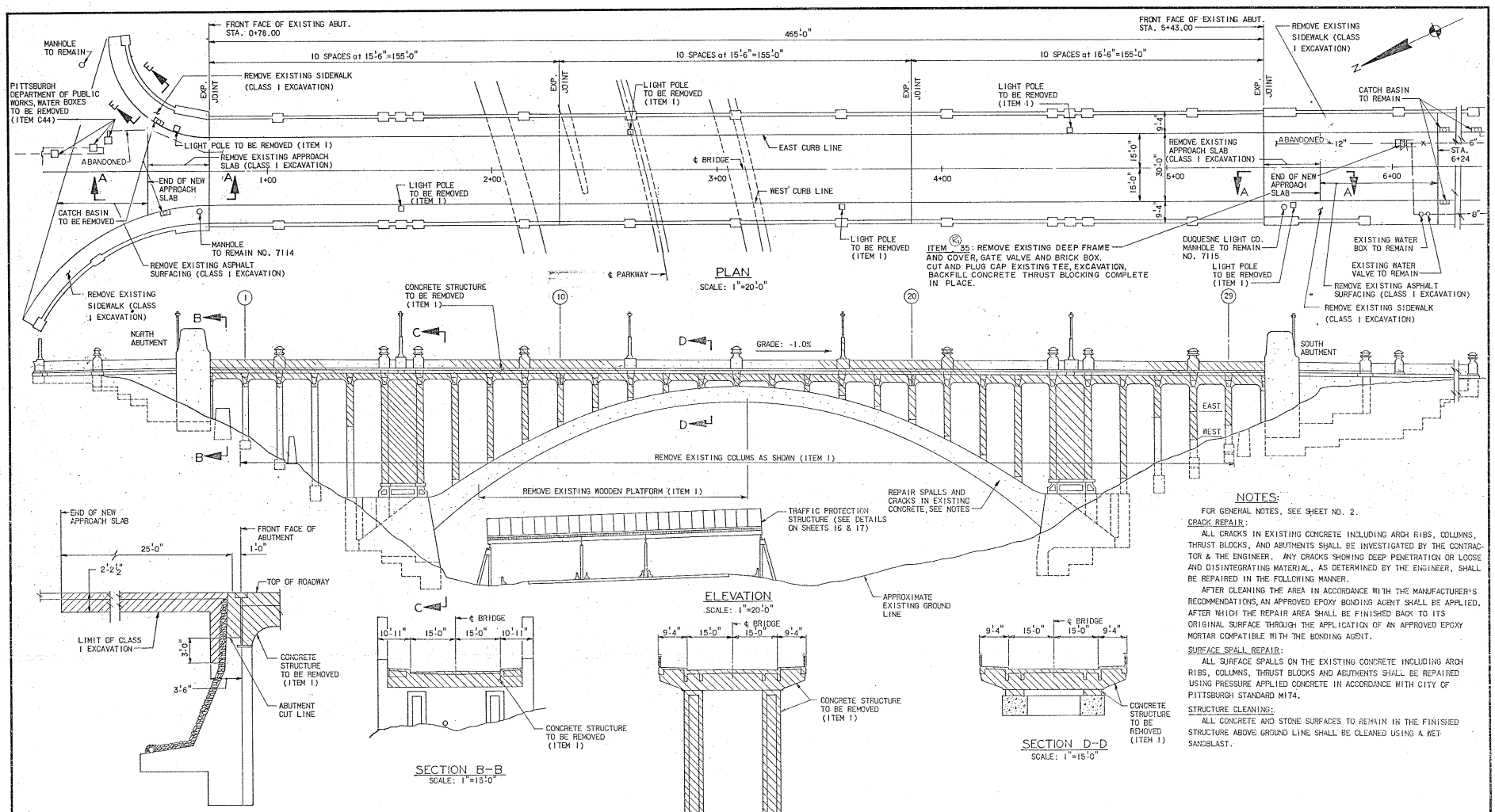
0581
040200 CALC. BOOK PG.

SCALES AS NOTED
DATE
SHEET NO. 2 OF 21
ACCESSION NO. F-9621
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

DR. CLR. CK. PCP

JOHNSON WINTERSHIT 628

5-10-3



NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.

CRACK REPAIR:

ALL CRACKS IN EXISTING CONCRETE INCLUDING ARCH RIBS, COLUMNS, THRUST BLOCKS, AND ABUTMENTS SHALL BE INVESTIGATED BY THE CONTRACTOR & THE ENGINEER. ANY CRACKS SHOWING DEEP PENETRATION OR LOOSE AND DISINTEGRATING MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE REPAIRED IN THE FOLLOWING MANNER.

AFTER CLEANING THE AREA IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AN APPROVED EPOXY BONDING AGENT SHALL BE APPLIED. AFTER WHICH THE REPAIR AREA SHALL BE FINISHED BACK TO ITS ORIGINAL SURFACE THROUGH THE APPLICATION OF AN APPROVED EPOXY MORTAR COMPATIBLE WITH THE BONDING AGENT.

SURFACE SPALL REPAIR:

ALL SURFACE SPALLS ON THE EXISTING CONCRETE INCLUDING ARCH RIBS, COLUMNS, THRUST BLOCKS AND ABUTMENTS SHALL BE REPAIRED USING PRESSURE APPLIED CONCRETE IN ACCORDANCE WITH CITY OF PITTSBURGH STANDARD M174.

STRUCTURE CLEANING:

ALL CONCRETE AND STONE SURFACES TO REMAIN IN THE FINISHED STRUCTURE ABOVE GROUND LINE SHALL BE CLEANED USING A WET SANDBLAST.

FIELD DATA	DRAWN	SUPERVSD.
BY		
VOL.		
CHECKED	INSPECTD	CKD.-CONST.

REVISIONS

CHARACTER	DATE
REVISED ITEM 35	3-2-79

PREPARED BY MODJESKI & MASTERS

0581	
040200	CALC. BOOK PG.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STRUCTS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE
PLAN AND ELEVATION OF EXISTING BRIDGE

SCALES AS NOTED

DATE

SHEET NO. 3 OF 21

ACCESSION NO. F-9622

CASE NO. E-10-3

PENNDOT REFERENCE NO. S-13264

DR. DEH | CK. PCP

JOHNSON WHITEPRINT 508

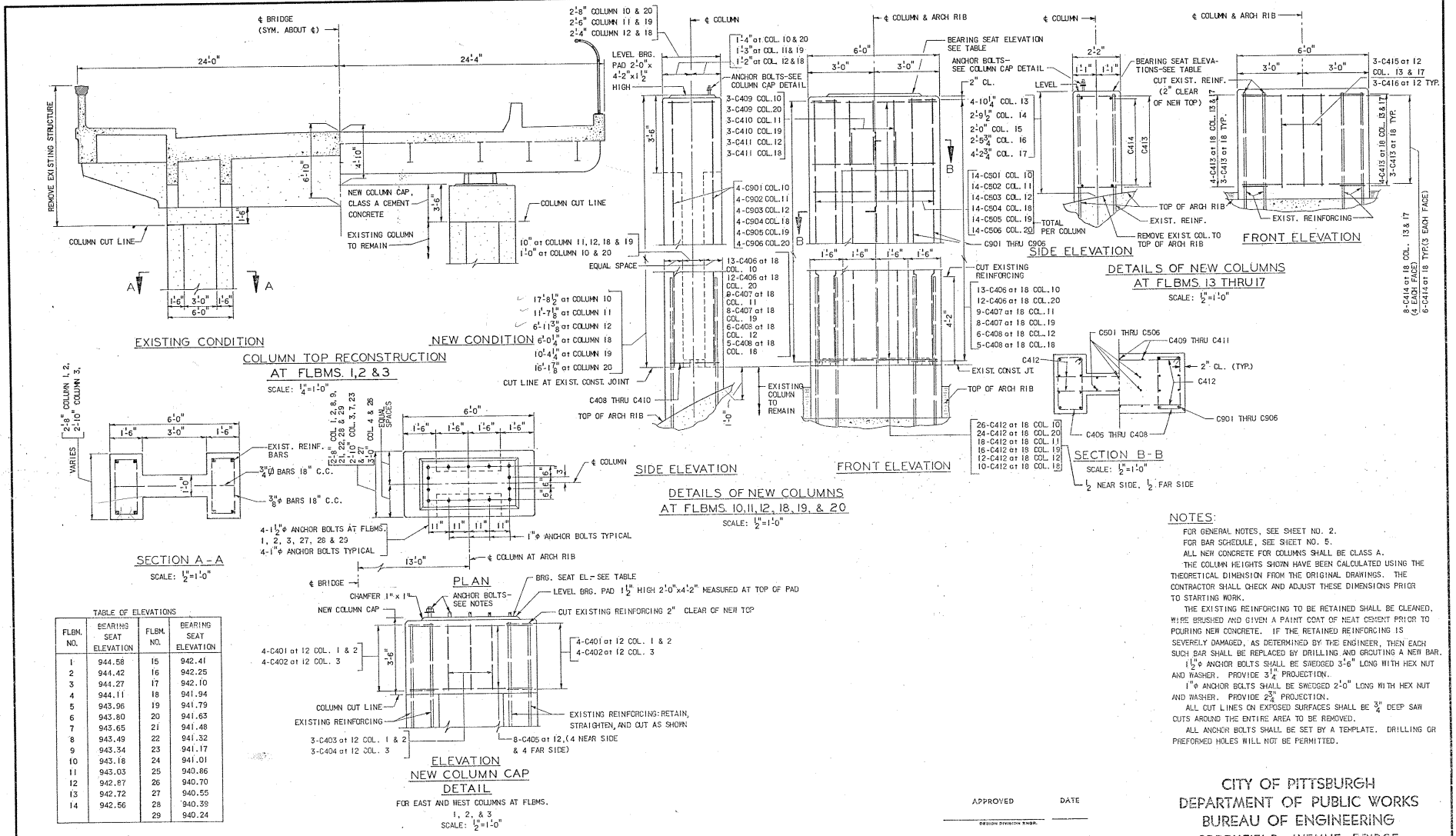


TABLE OF ELEVATIONS

FLBM. NO.	BEARING SEAT ELEVATION	FLBM. NO.	BEARING SEAT ELEVATION
1	944.58	15	942.41
2	944.42	16	942.25
3	944.27	17	942.10
4	944.11	18	941.94
5	943.96	19	941.79
6	943.80	20	941.63
7	943.65	21	941.48
8	943.49	22	941.32
9	943.34	23	941.17
10	943.18	24	941.01
11	943.03	25	940.86
12	942.87	26	940.70
13	942.72	27	940.55
14	942.56	28	940.39
		29	940.24

NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
FOR BAR SCHEDULE, SEE SHEET NO. 5.
ALL NEW CONCRETE FOR COLUMNS SHALL BE CLASS A.
THE COLUMN HEIGHTS SHOWN HAVE BEEN CALCULATED USING THE THEORETICAL DIMENSION FROM THE ORIGINAL DRAWINGS. THE CONTRACTOR SHALL CHECK AND ADJUST THESE DIMENSIONS PRIOR TO STARTING WORK.
THE EXISTING REINFORCING TO BE RETAINED SHALL BE CLEANED, WIRE BRUSHED AND GIVEN A PAINT COAT OF NEAT CEMENT PRIOR TO POURING NEW CONCRETE. IF THE RETAINED REINFORCING IS SEVERELY DAMAGED, AS DETERMINED BY THE ENGINEER, THEN EACH SUCH BAR SHALL BE REPLACED BY DRILLING AND GROUTING A NEW BAR.
1 1/2"Ø ANCHOR BOLTS SHALL BE SWEDGED 3'-6" LONG WITH HEX NUT AND WASHER. PROVIDE 3 1/4" PROJECTION.
1"Ø ANCHOR BOLTS SHALL BE SWEDGED 2'-0" LONG WITH HEX NUT AND WASHER. PROVIDE 2 3/4" PROJECTION.
ALL CUT LINES ON EXPOSED SURFACES SHALL BE 3/4" DEEP SAW CUTS AROUND THE ENTIRE AREA TO BE REMOVED.
ALL ANCHOR BOLTS SHALL BE SET BY A TEMPLATE. DRILLING OR PREFORMED HOLES WILL NOT BE PERMITTED.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

COLUMN DETAILS - I

SCALES AS NOTED
DATE
SHEET NO. 4 OF 21
ACCESSION NO. F-9623
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264
CK. PRINT #1 CWH 12/26/78
DR. CWH CK. PCP

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

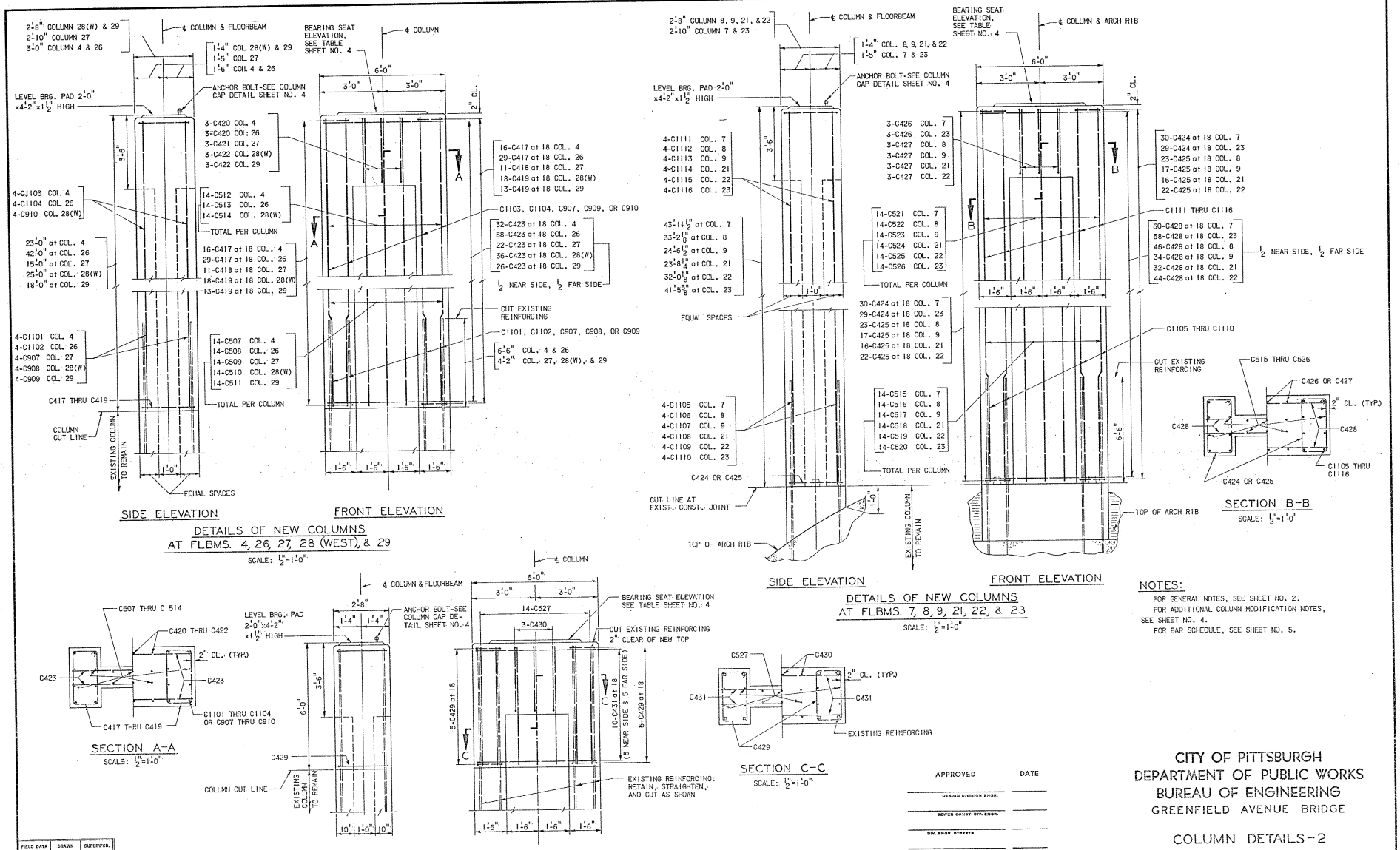
REVISIONS

CHARACTER	DATE

0581
040200 CALC. BOOK PG.

PREPARED BY MOOJESKI & MASTERS

JOHNSON WHITEPRINT 808



NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
FOR ADDITIONAL COLUMN MODIFICATION NOTES, SEE SHEET NO. 4.
FOR BAR SCHEDULE, SEE SHEET NO. 5.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

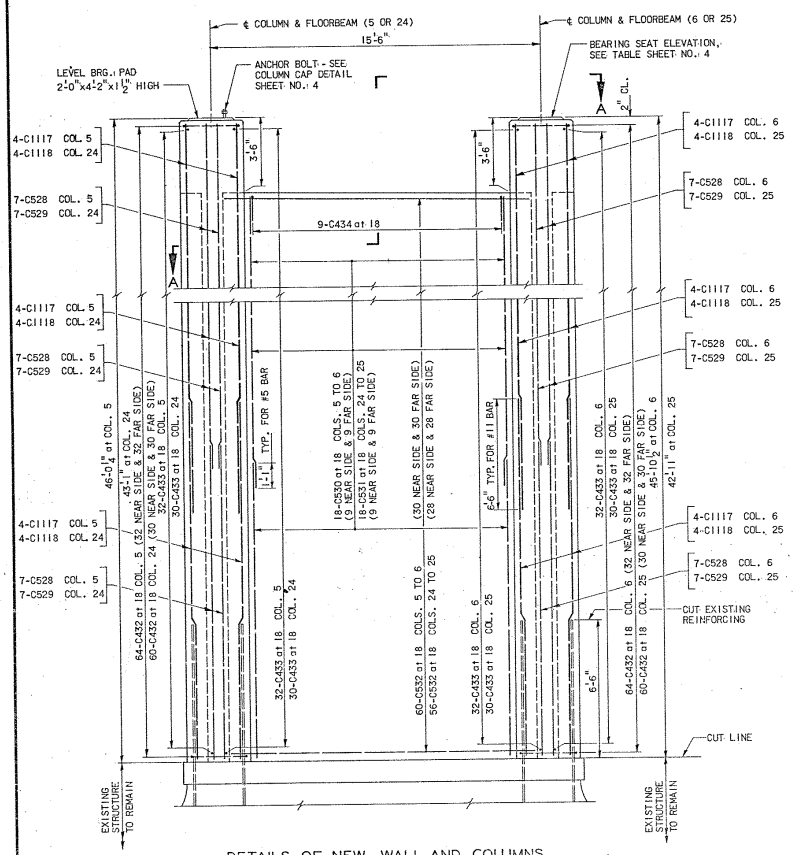
COLUMN DETAILS-2

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.
CALC. BOOK		PG.

REVISIONS

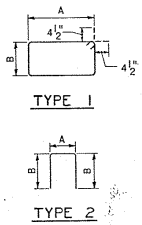
CHARACTER	DATE

SCALES AS NOTED
DATE
SHEET NO. 4A OF 21
ACCESSION NO. F-9624
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264
DR. SLH CK. CRH



DETAILS OF NEW WALL AND COLUMNS AT FLBMS. 5 TO 6 AND 24 TO 25

SCALE: ⅜"=1'-0"



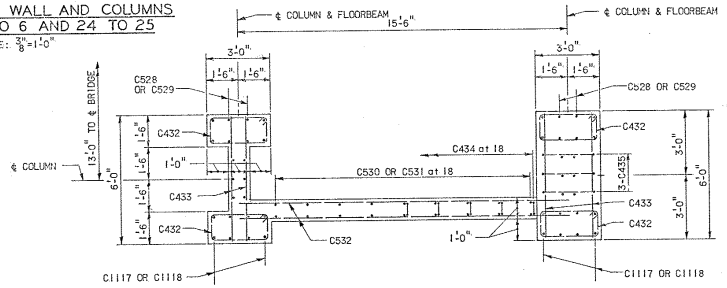
NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
FOR ADDITIONAL COLUMN MODIFICATION NOTES, SEE SHEET NO. 4.

COLUMN BAR SCHEDULE

MARK	NO.	SIZE	LENGTH	TYPE	A	B
C1101	16	11	14'-7"	STR.		
C1102	16	11	24'-1"	STR.		
C1103	16	11	14'-7"	STR.		
C1104	16	11	24'-1"	STR.		
C1105	16	11	25'-1"	STR.		
C1106	16	11	19'-8"	STR.		
C1107	16	11	15'-5"	STR.		
C1108	16	11	14'-6"	STR.		
C1109	16	11	18'-8"	STR.		
C1110	16	11	23'-10"	STR.		
C1111	16	11	25'-1"	STR.		
C1112	16	11	19'-8"	STR.		
C1113	16	11	15'-5"	STR.		
C1114	16	11	15'-6"	STR.		
C1115	16	11	19'-8"	STR.		
C1116	16	11	23'-10"	STR.		
C1117	96	11	19'-7"	STR.		
C1118	96	11	18'-7"	STR.		
C901	16	9	17'-5"	STR.		
C902	16	9	11'-3"	STR.		
C903	16	9	6'-7"	STR.		
C904	16	9	5'-8"	STR.		
C905	16	9	10'-0"	STR.		
C906	16	9	15'-10"	STR.		
C907	16	9	14'-8"	STR.		
C908	8	9	14'-5"	STR.		
C909	16	9	17'-8"	STR.		
C910	8	9	14'-5"	STR.		
C501	28	5	17'-5"	STR.		
C502	28	5	11'-3"	STR.		
C503	28	5	6'-7"	STR.		
C504	28	5	5'-8"	STR.		
C505	28	5	10'-0"	STR.		
C506	28	5	15'-10"	STR.		
C507	28	5	11'-11"	STR.		
C508	28	5	21'-5"	STR.		
C509	28	5	14'-8"	STR.		
C510	14	5	12'-11"	STR.		
C511	28	5	17'-8"	STR.		
C512	28	5	11'-11"	STR.		
C513	28	5	21'-5"	STR.		
C514	14	5	12'-11"	STR.		
C515	28	5	22'-5"	STR.		
C516	28	5	17'-0"	STR.		
C517	28	5	12'-8"	STR.		
C518	28	5	11'-9"	STR.		
C519	28	5	15'-11"	STR.		
C520	28	5	21'-2"	STR.		

MARK	NO.	SIZE	LENGTH	TYPE	A	B
C521	28	5	22'-5"	STR.		
C522	28	5	17'-0"	STR.		
C523	28	5	12'-8"	STR.		
C524	28	5	12'-9"	STR.		
C525	28	5	16'-11"	STR.		
C526	28	5	21'-2"	STR.		
C527	14	5	5'-8"	STR.		
C528	168	5	16'-0"	STR.		
C529	168	5	15'-0"	STR.		
C530	108	5	14'-10"	STR.		
C531	108	5	13'-11"	STR.		
C532	232	5	15'-6"	STR.		
C401	32	4	7'-9"	1	2'-4"	1'-2"
C402	16	4	8'-1"	1	2'-8"	1'-2"
C403	12	4	11'-5"	1	3'-0"	2'-4"
C404	6	4	11'-9"	1	3'-0"	2'-6"
C405	48	4	5'-8"	STR.		
C406	100	4	7'-9"	1	2'-4"	1'-2"
C407	68	4	7'-5"	1	2'-2"	1'-2"
C408	44	4	7'-1"	1	2'-0"	1'-2"
C409	12	4	11'-5"	1	3'-0"	2'-4"
C410	12	4	11'-1"	1	3'-0"	2'-2"
C411	12	4	10'-9"	1	3'-0"	2'-0"
C412	212	4	5'-8"	STR.		
C413	68	4	6'-9"	1	1'-10"	1'-2"
C414	68	4	5'-8"	STR.		
C415	12	4	12'-5"	1	4'-0"	1'-10"
C416	18	4	7'-11"	1	1'-9"	1'-10"
C417	180	4	8'-5"	1	2'-8"	1'-2"
C418	44	4	8'-1"	1	2'-6"	1'-2"
C419	88	4	7'-9"	1	2'-4"	1'-2"
C420	12	4	12'-1"	1	3'-0"	2'-8"
C421	6	4	11'-9"	1	3'-0"	2'-6"
C422	9	4	11'-5"	1	3'-0"	2'-4"
C423	312	4	5'-8"	STR.		
C424	236	4	8'-1"	1	2'-6"	1'-2"
C425	312	4	7'-9"	1	2'-4"	1'-2"
C426	12	4	11'-9"	1	3'-0"	2'-6"
C427	24	4	11'-5"	1	3'-0"	2'-4"
C428	548	4	5'-8"	STR.		
C429	10	4	7'-9"	1	2'-4"	1'-2"
C430	3	4	11'-5"	1	3'-0"	2'-4"
C431	10	4	5'-8"	STR.		
C432	496	4	8'-5"	1	2'-8"	1'-2"
C433	496	4	5'-8"	STR.		
C434	36	4	2'-5"	2	0'-5"	1'-0"
C435	24	4	12'-1"	1	3'-0"	2'-8"



SECTION A-A

SCALE: ⅜"=1'-0"

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

COLUMN DETAILS - 3

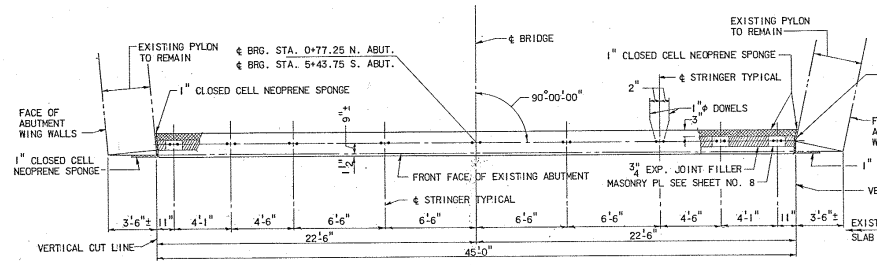
SCALES AS NOTED
DATE
SHEET NO. 5 OF 21
ACCESSION NO. E-9625
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264
DR. SLH | CK. CRH

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.
CALC. BOOK	PG.	

REVISIONS

CHARACTER	DATE

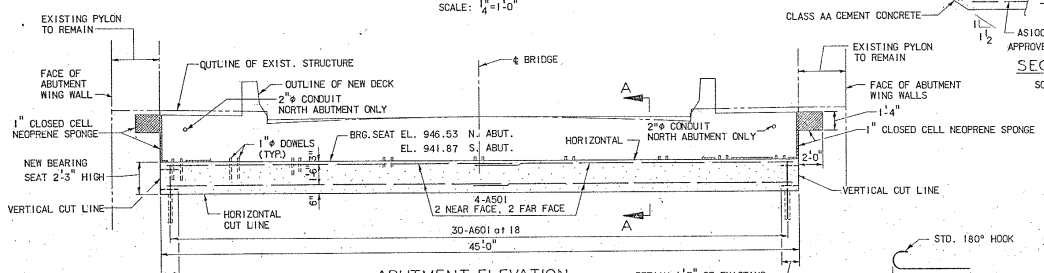
FOR INFORMATION ONLY



ABUTMENT PLAN

(NORTH ABUTMENT SHOWN; SOUTH ABUTMENT SIMILAR)

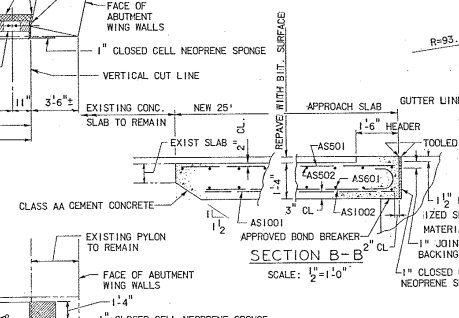
SCALE: 1/4"=1'-0"



ABUTMENT ELEVATION

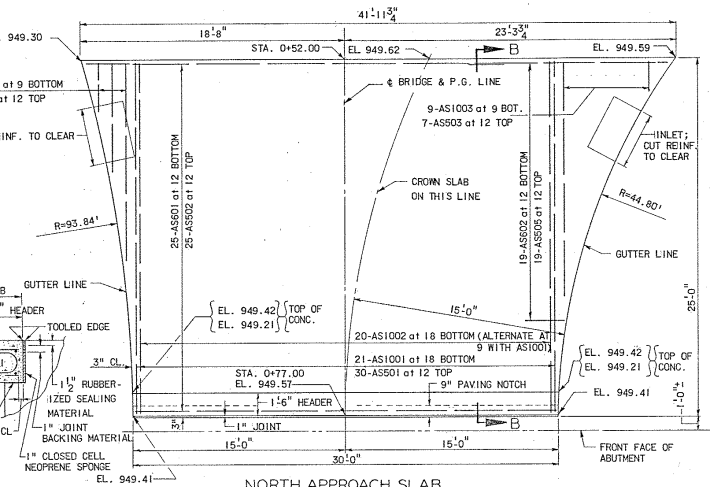
(NORTH ABUTMENT SHOWN; SOUTH ABUTMENT SIMILAR)

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



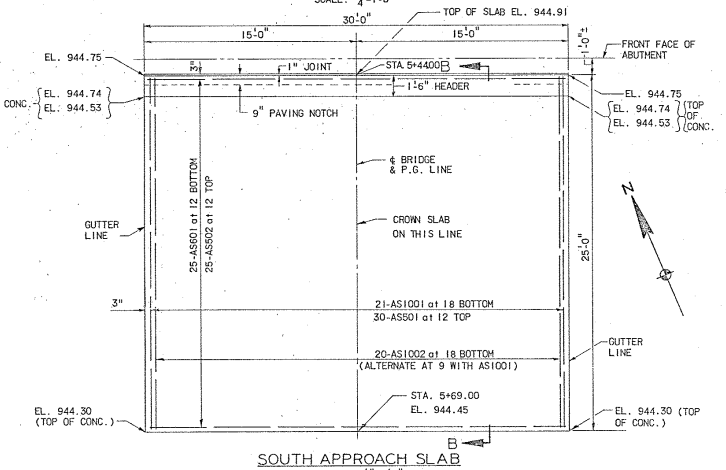
SECTION B-B

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



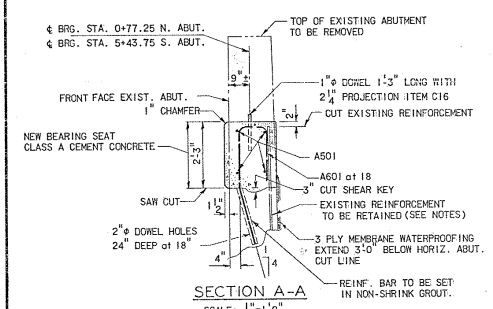
NORTH APPROACH SLAB

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



SOUTH APPROACH SLAB

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



SECTION A-A

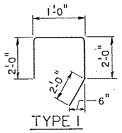
SCALE: 1/2"=1'-0"

APPROACH SLAB BAR SCHEDULE

MARK	NUMBER NORTH SLAB	NUMBER SOUTH SLAB	SIZE	LENGTH	TYPE	REMARKS
A51001	21	21	10	23'-6"	STR.	
A51002	20	20	10	24'-7"	2	
A51003	9	-	10	2'-0" to 14'-8"	STR.	LENGTH VARIES 2'-0" to 14'-8" BY 1'-7" INC, AVG = 8'-4"
A51004	5	-	10	3'-6" to 14'-6"	STR.	LENGTH VARIES 3'-6" to 14'-6" BY 2'-9" INC, AVG = 9'-0"
A5601	25	25	6	29'-6"	STR.	
A5602	19	-	6	3'-0" to 13'-6"	STR.	LENGTH VARIES 3'-0" to 13'-6" BY 7" INC, AVG = 8'-3"
A5501	30	30	5	24'-6"	STR.	
A5502	25	25	5	29'-6"	STR.	
A5503	7	-	5	3'-0" to 16'-0"	STR.	LENGTH VARIES 3'-0" to 16'-0" BY 2'-2" INC, AVG = 9'-6"
A5504	4	-	5	3'-6" to 14'-6"	STR.	LENGTH VARIES 3'-6" to 14'-6" BY 3'-8" INC, AVG = 9'-0"
A5505	19	-	5	3'-0" to 13'-6"	STR.	LENGTH VARIES 3'-0" to 13'-6" BY 7" INC., AVG. = 8'-3"

ABUT. BAR SCHEDULE

MARK	NO. NORTH ABUT.	NO. SOUTH ABUT.	SIZE	LENGTH	TYPE
A601	30	30	6	7'-0"	1
A501	8	8	5	23'-3"	STR.



TYPE 1

TYPE 2

NOTES:

FOR GENERAL NOTES SEE SHEET NO. 2.

ALL CUT LINES ON EXPOSED SURFACES SHALL BE 3/4" DEEP SAW CUTS AROUND THE ENTIRE PERIMETER OF AREA TO BE REMOVED.

THE EXISTING REINFORCING TO BE RETAINED SHALL BE CLEANED, WIRE BRUSHED AND GIVEN A PAINT COAT OF NEAT CEMENT PRIOR TO POURING NEW CONCRETE. IF THE RETAINED REINFORCING IS SEVERELY DAMAGED, AS DETERMINED BY THE ENGINEER, THEN EACH SUCH BAR SHALL BE REPLACED BY DRILLING AND GROUTING A NEW BAR.

FOR ADDITIONAL DETAILS OF ABUTMENT SECTIONS, SEE SHEET NO. 10.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

ABUTMENT AND APPROACH SLAB DETAILS

SCALES AS NOTED

DATE

SHEET NO. 6 OF 21

ACCESSION NO. E-9626

CASE NO. E-10-3

PENNDOT REFERENCE NO. S-13264

DR. CWH | CK. PCP

FIELD DATA	DRAWN	SUPERVSD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD-CONST.

REVISIONS

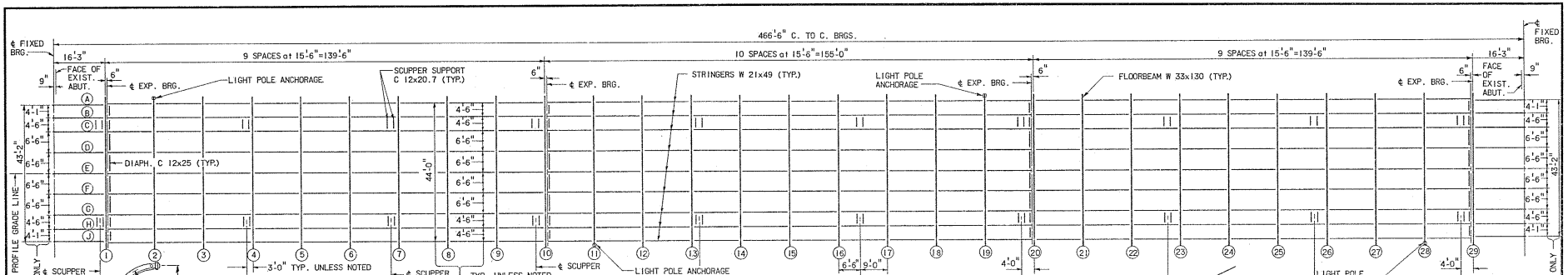
CHARACTER	DATE

0581

040200 CALC. BOOK PG.

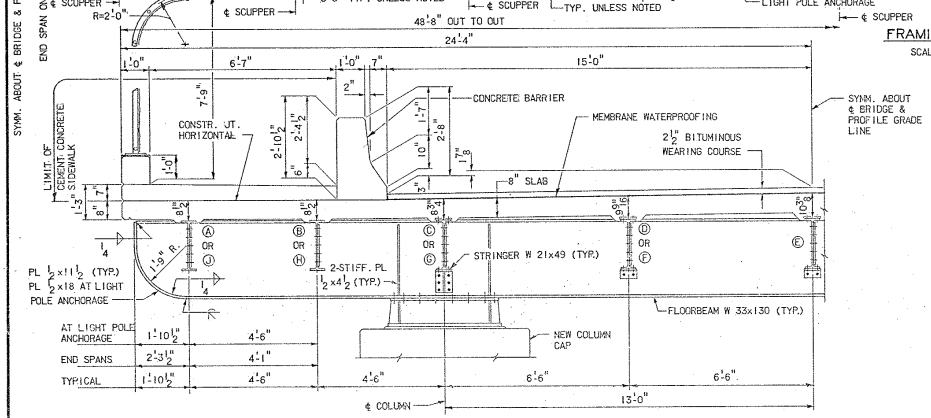
PREPARED BY: MODJESKI & MASTERS

JOHNSON WHITEPRINT 806



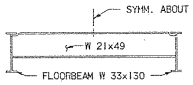
FRAMING PLAN

SCALE: 1"=15'



TYPICAL CROSS SECTION

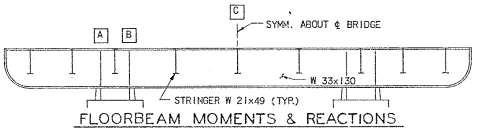
SCALE: ½"=1'-0"



STRINGER MOMENTS & REACTIONS

(SHOWN FOR TYPICAL INTERIOR ROADWAY STRINGER)

LOADING	SHEAR	MOMENT
DEAD LOAD	10	38
LIVE LOAD	21	73
IMPACT	6	22
TOTAL	37	133



FLOORBEAM MOMENTS & REACTIONS

(SHOWN FOR TYPICAL FLOORBEAM)

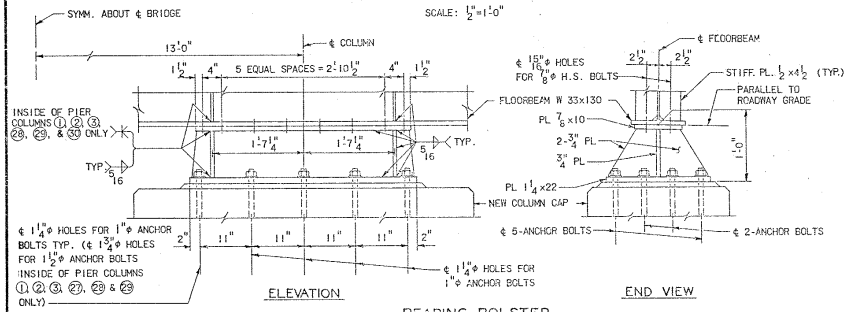
	A			B		C
	SHEAR	MOMENT	REACT.*	MOMENT*	SHEAR*	MOMENT*
DEAD LOAD	34	-223	74	-129	25	88
LIVE LOAD	—	—	48	-187	48	118
IMPACT	—	—	15	-56	15	35
SIDEWALK	2	-61	2	-4	—	-4
TOTAL	36	-284	139	-376	88	237
S.M. REQUIRED(IN^3)		170		226		142
S.M. FURNISHED(IN^3)		406		406		406

ALL STRESSES ARE SYMMETRICAL ABOUT ℄ BRIDGE.

*NOTE: VALUES SHOWN INCLUDE FRAME ACTION OF COLUMNS.

NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
Ⓐ INDICATES STRINGER A.
③ INDICATES FLOORBEAM OR COLUMN 3.
SHEARS AND REACTIONS ARE GIVEN IN KIPS.
MOMENTS ARE GIVEN IN KIP-FEET.



ELEVATION

END VIEW

BEARING BOLSTER

SCALE: 1"=1'-0"

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

FRAMING PLAN
AND CROSS SECTION

SCALES AS NOTED
DATE
SHEET NO. 7 OF 21
ACCESSION NO. F-9627
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264
DR. SLN | CK. PGP

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

0581
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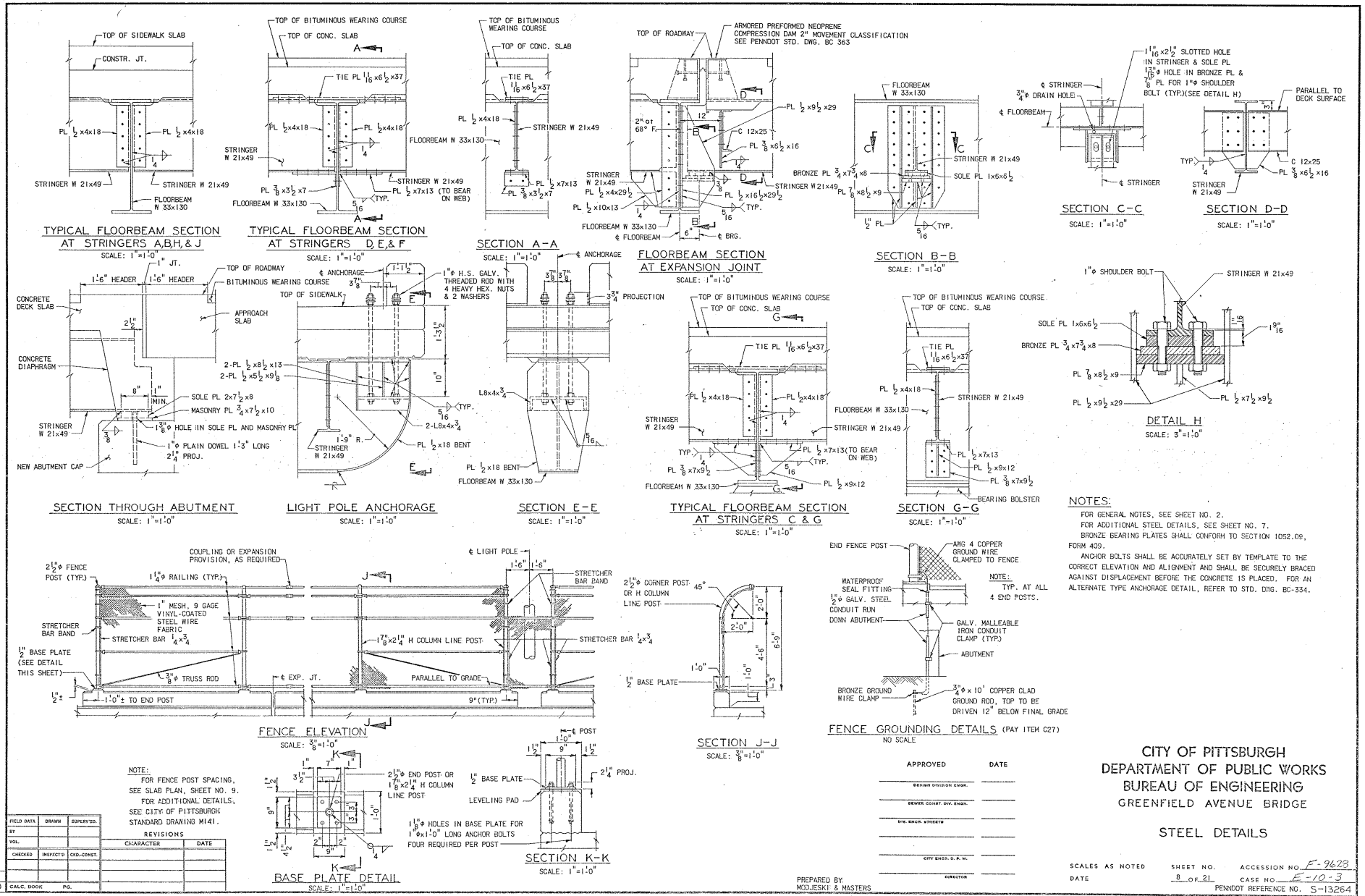
MODJESKI & MASTERS

DCC INDUSTRIES INC., PGH., PA. RECORDER 06515

S'D EWALK STRINGERS

IN TEERIOR STRINGERS



NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.

FOR ADDITIONAL STEEL DETAILS, SEE SHEET NO. 7.

BRONZE BEARING PLATES SHALL CONFORM TO SECTION 1052.09, FORM 409.

ANCHOR BOLTS SHALL BE ACCURATELY SET BY TEMPLATE TO THE CORRECT ELEVATION AND ALIGNMENT AND SHALL BE SECURELY BRACED AGAINST DISPLACEMENT BEFORE THE CONCRETE IS PLACED. FOR AN ALTERNATE TYPE ANCHORAGE DETAIL, REFER TO STD. DWG. BC-334.

NOTE:

FOR FENCE POST SPACING, SEE SLAB PLAN, SHEET NO. 9.

FOR ADDITIONAL DETAILS, SEE CITY OF PITTSBURGH STANDARD DRAWING M141.

NOTE:

TYP. AT ALL 4 END POSTS.

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

0581
040200 CALC. BOOK PG.

PREPARED BY: MODJESKI & MASTERS

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

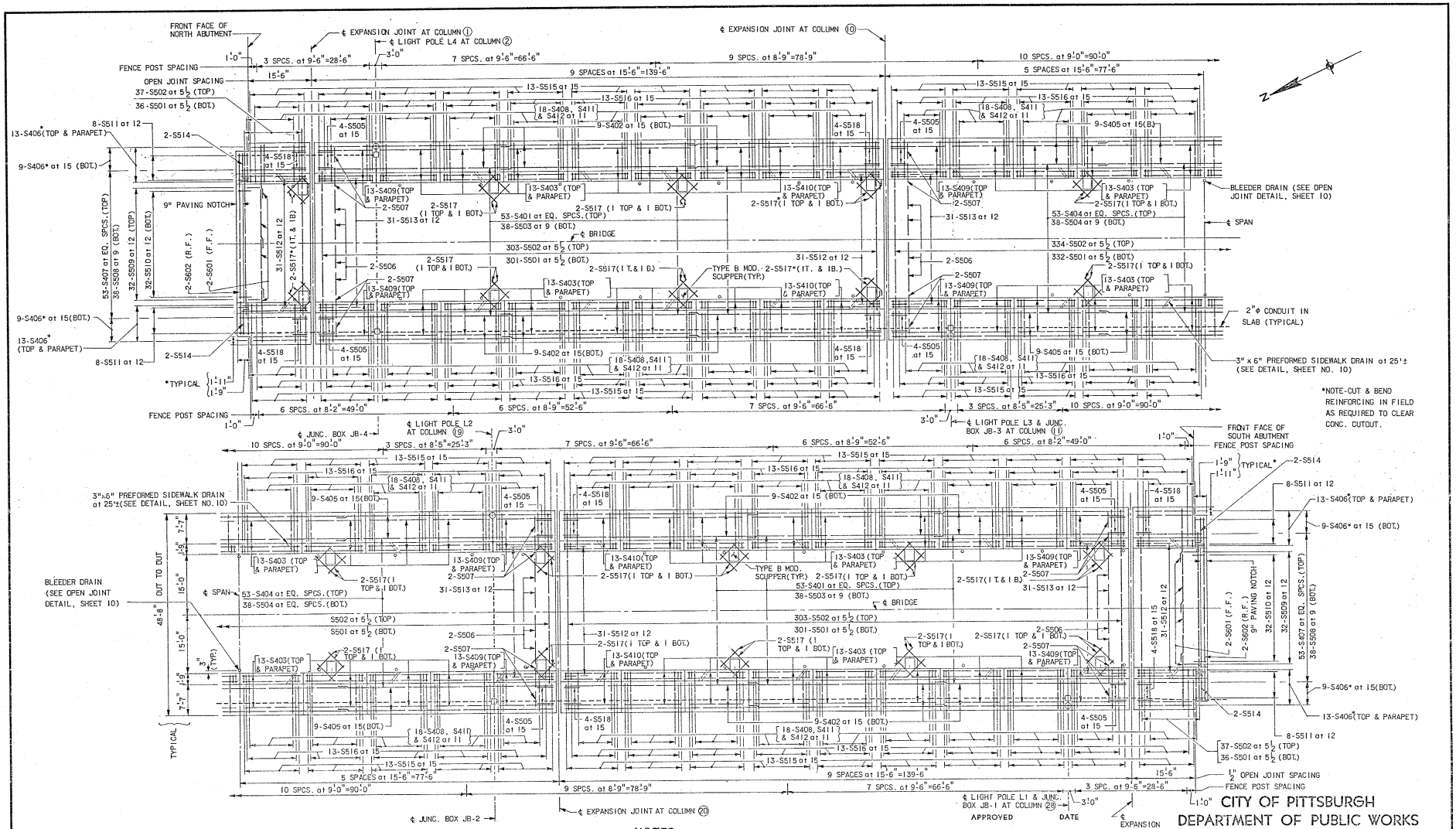
CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

STEEL DETAILS

SCALES AS NOTED
DATE
SHEET NO. 8 OF 21
ACCESSION NO. F-9628
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

DR. CH. | CK. PCP

JOHNSON WHITEPRINT 808



NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
WORK THIS SHEET WITH DECK DETAILS, SHEET NO. 10.
F.F. DENOTES FRONT FACE.
R.F. DENOTES REAR FACE.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

SLAB PLAN

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	EXD.-CONST.

REVISIONS

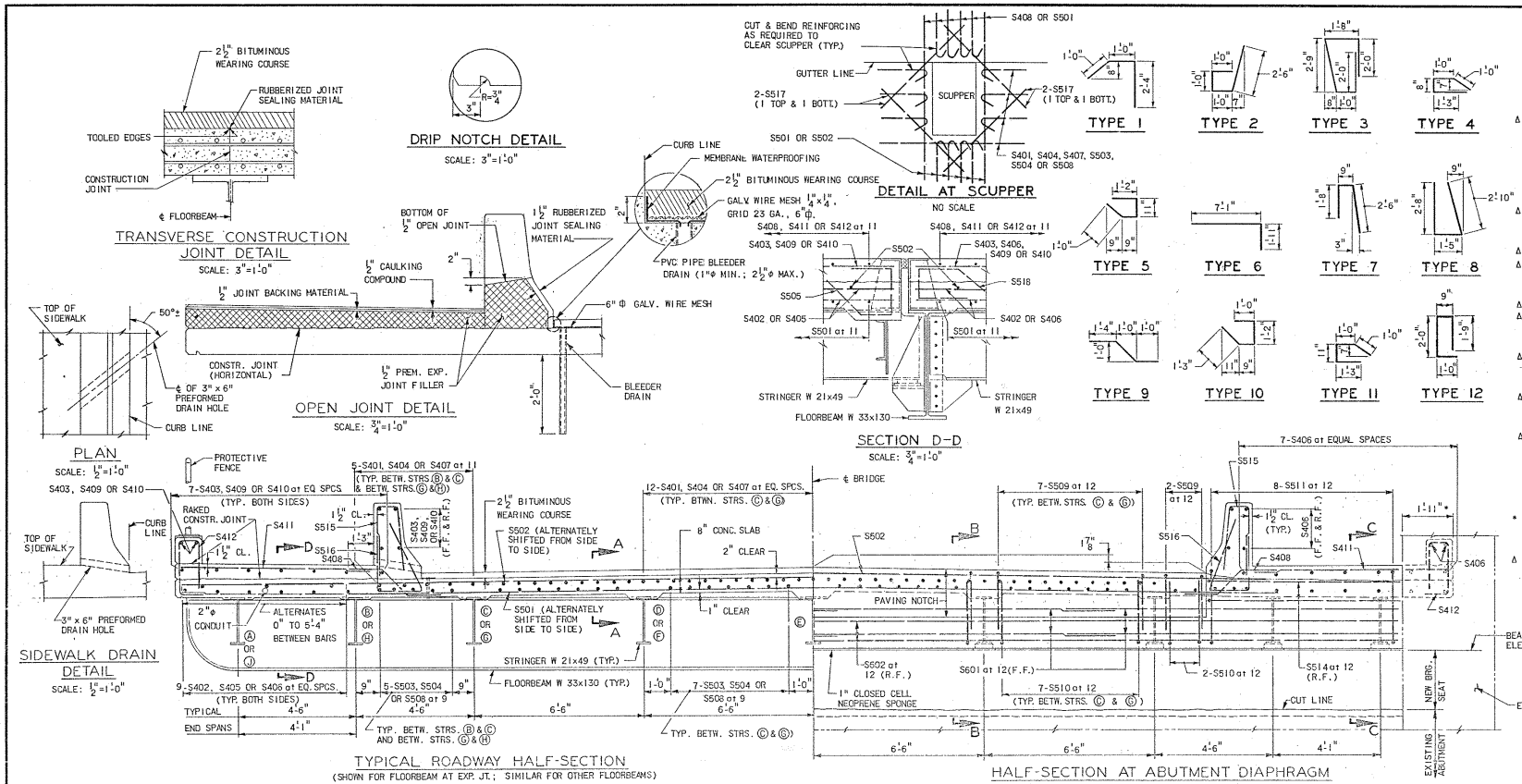
CHARACTER	DATE

0581
0402 CALC. BOOK PG.

PREPARED BY MODJESKI & MASTERS

SCALE: 3/32" = 1'-0"
DATE
SHEET NO. 9 OF 21
ACCESSION NO. F-9629
CASE NO. F-10-3
PENNDOT REFERENCE NO. S-13264
DR. LBW CK. PCP

JOHNSON WHITEPRINT 506



SLAB BAR SCHEDULE				
MARK	NUMBER	SIZE	LENGTH	TYPE
S601	16	6	12'-6"	STR.
S602	4	6	44'-6"	STR.
S501	1006	5	42'-4"	STR.
Δ S502	1014	5	43'-0"	STR.
S503	228	5	47'-6"	STR.
S504	114	5	52'-2"	STR.
S505	32	5	4'-2"	10
S506	32	5	6'-2"	STR.
S507	16	5	4'-2"	STR.
S508	76	5	17'-2"	STR.
Δ S509	64	5	4'-4"	1
S510	64	5	5'-6"	2
S511	32	5	9'-5"	3
Δ S512	124	5	3'-11"	4
Δ S513	124	5	3'-10"	5
S514	8	5	9'-0"	6
S515	780	5	4'-11"	7
Δ S516	780	5	6'-11"	8
Δ S517	160	5	4'-6"	STR.
S518	32	5	4'-2"	11
Δ S401	318	4	47'-2"	STR.
S402	108	4	47'-2"	STR.
S403	572	4	15'-2"	STR.
Δ S404	159	4	51'-10"	STR.
S405	54	4	51'-10"	STR.
S406	88	4	17'-2"	STR.
Δ S407	106	4	17'-2"	STR.
S408	1080	4	3'-9"	9
S409	104	4	14'-6"	STR.
S410	52	4	15'-0"	STR.
S411	1080	4	7'-4"	STR.
S412	1080	4	5'-6"	12

* NOTE: CUT AND BEND REINFORCING IN FIELD AS REQUIRED TO CLEAR CONCRETE CUTOUT.

Δ INDICATES REINFORCING BARS TO BE EPOXY COATED

NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
WORK THIS SHEET WITH SLAB PLAN, SHEET NO. 9.

APPROVED	DATE
DESIGN DIVISION ENGR.	
BEWER CONST. DIV. ENGR.	
DIV. ENGR. STRUCTS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

DECK DETAILS

SCALES AS NOTED
DATE
SHEET NO. 10 OF 21
ACCESSION NO. F-9630
CASE NO. F-10-3
PENNDOT REFERENCE NO. S-13264
DR. LBW CK. FCP

FIELD DATA	DRAWN	SUPERVSD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

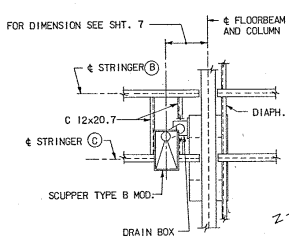
REVISIONS

CHARACTER	DATE

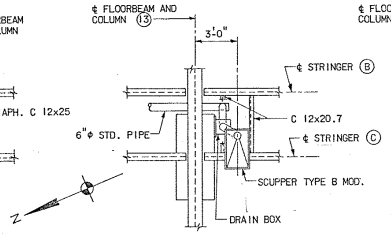
0581
0402 CALC. BOOK PG.

PREPARED BY MODJESKI & MASTERS

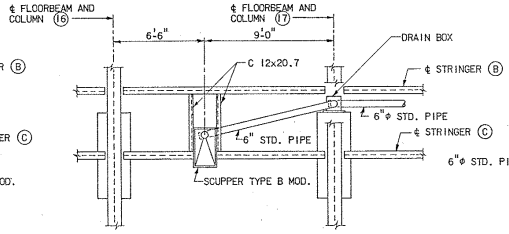
FOR INFORMATION ONLY



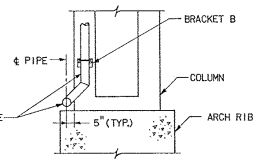
PLAN



PLAN

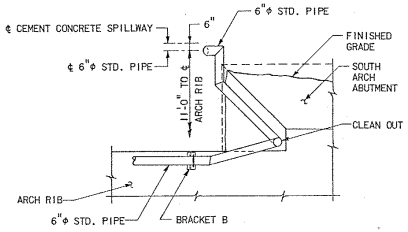


PLAN



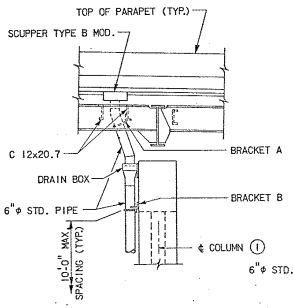
SECTION A-A

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



SECTION B-B

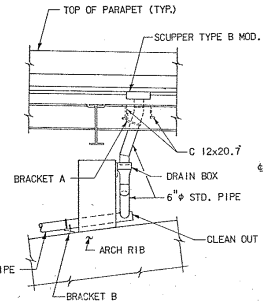
SCALE: 1/4"=1'-0"



DETAILS AT FLOORBEAM (1)

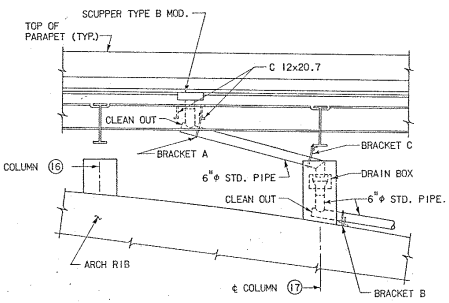
SIMILAR AT FLOORBEAM (4), (7), (10), (20), (23), (26) AND (29)

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



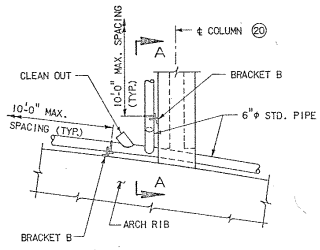
DETAILS AT FLOORBEAM (13)

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



DETAILS AT FLOORBEAMS (16) & (17)

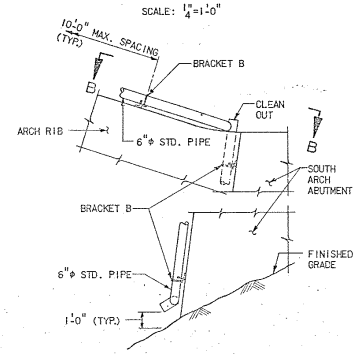
SCALE: 1/4"=1'-0"



DETAILS AT COLUMN (20)

SIMILAR AT COLUMN (7), (10) AND (23)

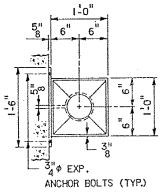
SCALE: 1/4"=1'-0"



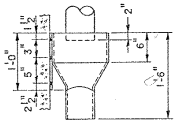
DETAILS AT SOUTH ARCH ABUTMENT

SIMILAR AT NORTH ARCH ABUTMENT

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



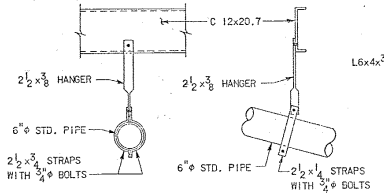
PLAN



ELEVATION

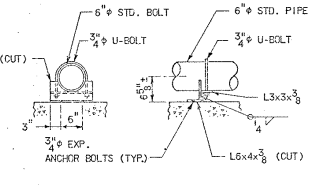
DRAIN BOX DETAILS

SCALE: 1"=1'-0"



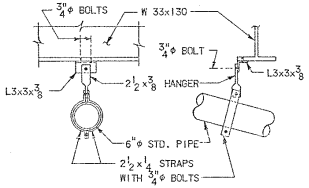
BRACKET A DETAILS

SCALE: 3/4"=1'-0"



BRACKET B DETAILS

SCALE: 3/4"=1'-0"



BRACKET C DETAILS

SCALE: 3/4"=1'-0"

NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.

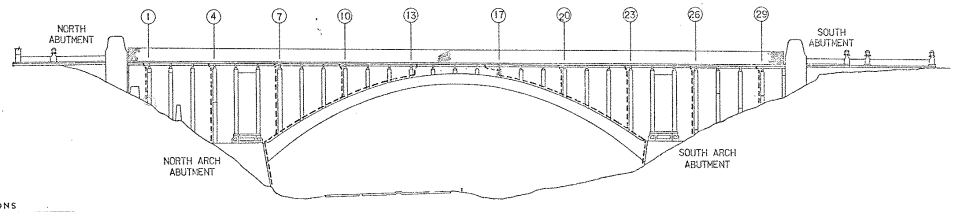
DETAILS SHOWN ARE FOR THE EAST GUTTER, WEST GUTTER SIMILAR.

FOR OTHER DRAINAGE DETAILS NOT SHOWN SEE PENNDOT STD. BC-351, RC-40 AND SHEET 12.

SCUPPERS, DRAIN BOXES, AND DRAIN PIPES SHALL BE GALVANIZED AS SPECIFIED ON BC-351.

FOR ALLOWABLE MATERIAL SPECIFICATION FOR SCUPPERS, PIPES AND ATTACHMENTS, SEE BC-351.

BOLTS FOR BRACKETS A THROUGH C SHALL BE 3/4"φ A307 BOLTS UNLESS NOTED.



ELEVATION-DRAIN PIPE LOCATIONS

SCALE: 1"=40'-0"

APPROVED	DATE
DESIGN DIVISION ENGR.	
DESIGN CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

DECK DRAINAGE - I

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

0581
04200 CALC. BOOK PG.

PREPARED BY MCOJESKI & MASTERS

SCALES AS NOTED
DATE

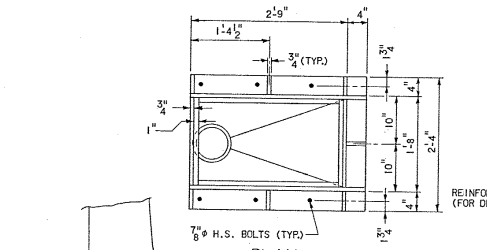
SHEET NO. 11 OF 21

ACCESSION NO. E-9631
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

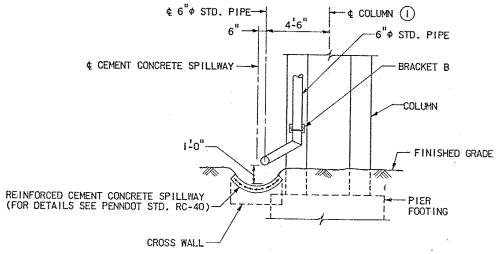
DR. GAS. CK. CON.

JOHNSON WHITEPRINT 805

FOR INFORMATION ONLY

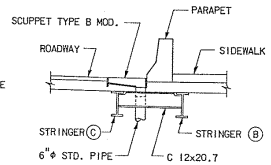


PLAN



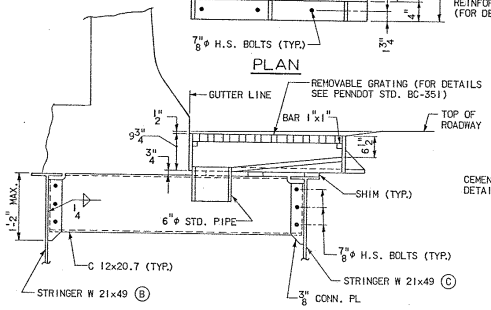
SECTION A-A

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



TYP. SECTION AT SCUPPER

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



SCUPPER (TYPE B MODIFIED)

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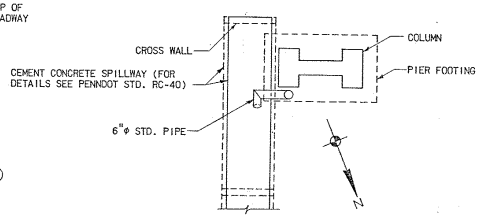


PLAN AT COLUMN (I)

SIMILAR AT COLUMN (4), (26) AND (29)

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

NOTES:

FOR GENERAL NOTES SEE SHEET 2.

FOR FURTHER DETAILS AND LOCATION OF CEMENT CONCRETE SPILLWAY SEE PENNDOT STD. RC-40 AND SHEET 2.

FOR FURTHER NOTES FOR DECK DRAINAGE SEE SHEET 11.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

DECK DRAINAGE - 2

FIELD DATA	DRAWN	SUPERVSD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

0581
040200 CALC. BOOK PG.

PREPARED BY
MOJUESKI & MASTERS

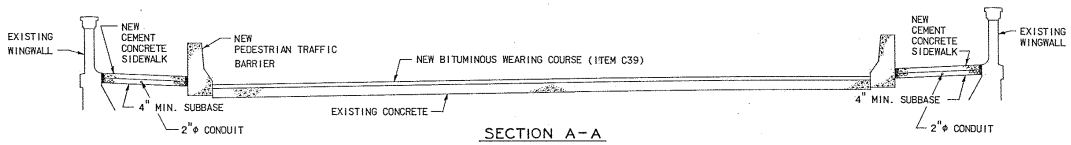
SCALES AS NOTED
DATE

SHEET NO. 12 OF 21

ACCESSION NO. F-9632
CASE NO. F-10-3
PENNDOT REFERENCE NO. S-13264

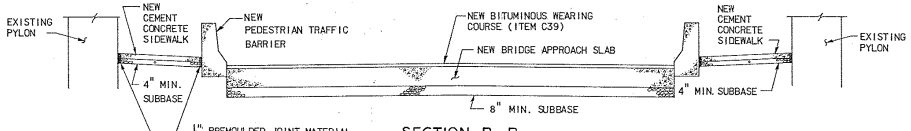
DR. GAS | CK. CWH

JOHNSON WHITEPRINT 308



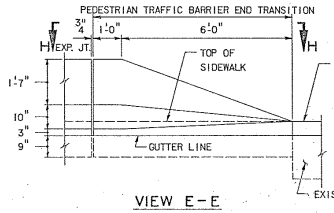
SECTION A-A

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



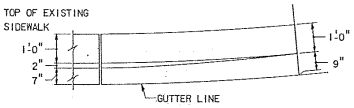
SECTION B-B

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



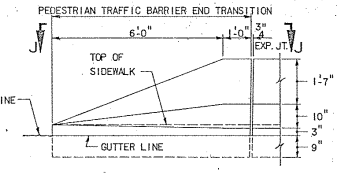
VIEW E-E

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



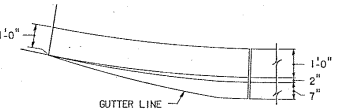
VIEW H-H

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



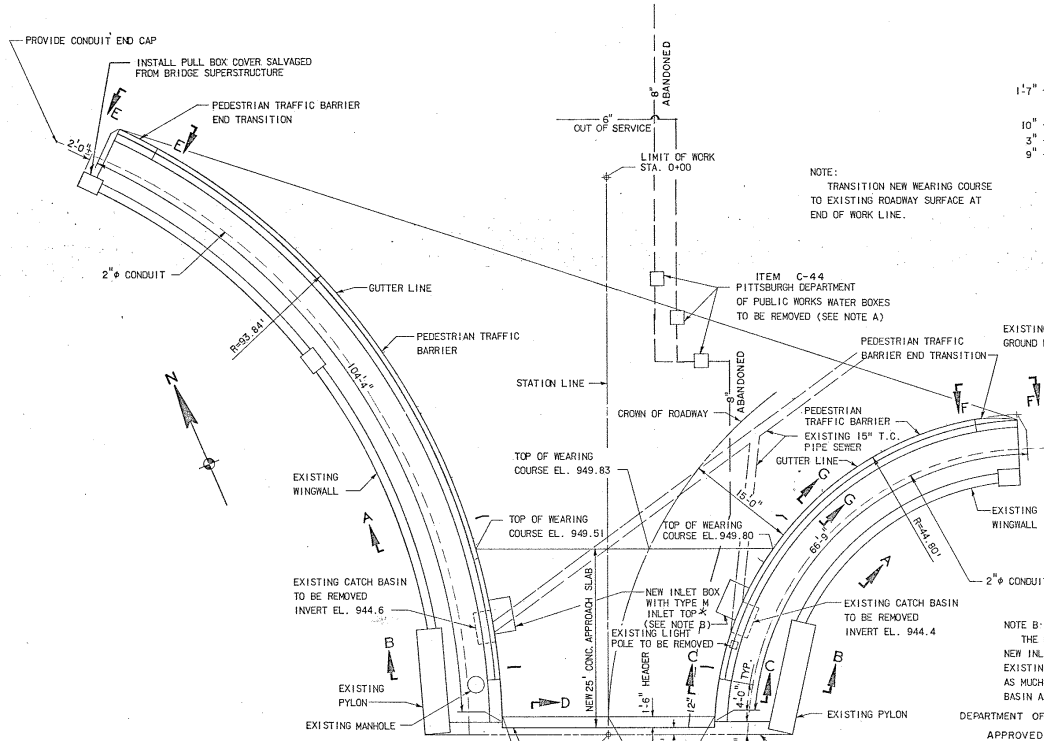
VIEW F-F

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



VIEW J-J

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



PLAN

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

NOTE:
TRANSITION NEW WEARING COURSE TO EXISTING ROADWAY SURFACE AT END OF WORK LINE.

NOTE A:
THE CONTRACTOR SHALL REMOVE EXISTING DEEP FRAMES AND COVERS AND BACKFILL BRICK BOXES WITH GRANULAR MATERIAL.

NOTE B:
THE CONTRACTOR SHALL PROVIDE NEW INLET BOXES AND TIE INTO THE EXISTING PIPE SEWER BY REMOVING AS MUCH OF THE EXISTING CATCH BASIN AS IS REQUIRED.

DEPARTMENT OF WATER NO.1654-G

	APPROVED	DATE
DISTRICT SUPERVISOR	[illegible]	1-8-79
SUPT. DIST. DIV.	[illegible]	1/5/79
ASST. DIR. OPERATION	[illegible]	1-9-79
DIRECTOR		

	APPROVED	DATE
DESIGN DIVISION ENGR.	[illegible]	1-5-79
SEWER CONST. DIV. ENGR.		
DIV. ENGR. STREETS		
CITY ENGR. O. P. W.		
DIRECTOR		

NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.
FOR SECTIONS C-C, D-D & G-G, SEE SHEET NO. 14.
CONSTRUCTION DETAILS FOR PEDESTRIAN TRAFFIC BARRIER SHOWN IN SECTION G-G SHEET 14, SHALL BE AS NOTED ON PENNDOT STANDARD RC-57.

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

NORTH APPROACH DETAILS

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VCL.		
CHECKED	INSPECT'D	EXD.-CONST.

REVISIONS

CHARACTER	DATE

0581
040200 CALC. BOOK PG.

PREPARED BY KODJESKI & MASTERS

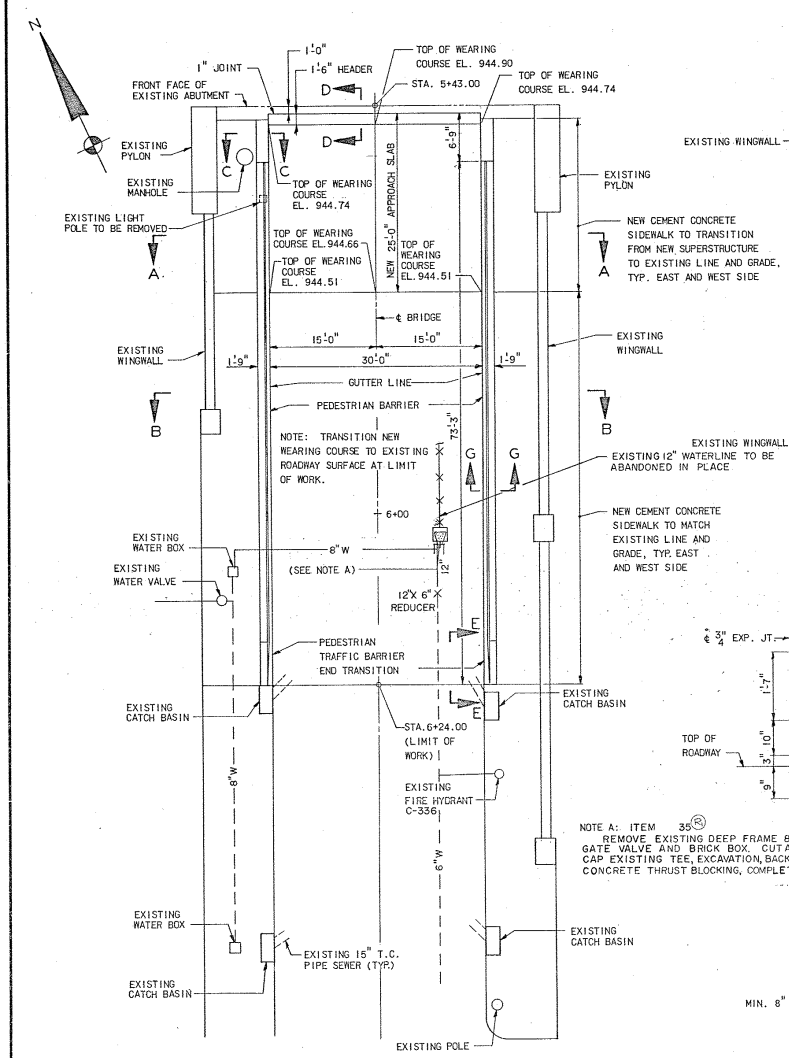
SCALES AS NOTED
DATE

SHEET NO. 13 OF 21

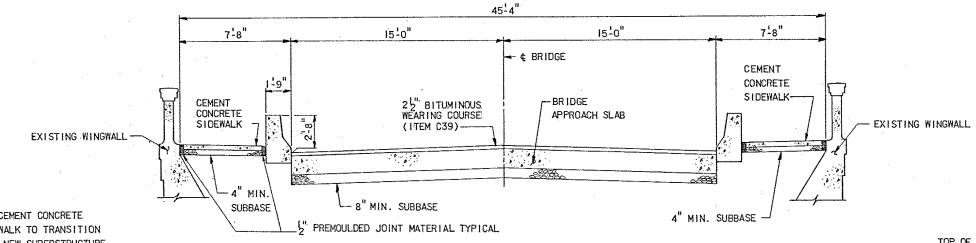
ACCESSION NO. F-9633
CASE NO. F-10-3
PENNDOT REFERENCE NO. S-13264

DR. SLH CK. PCP

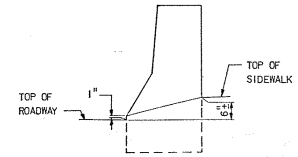
JOHNSTON WHITEPRINT 806



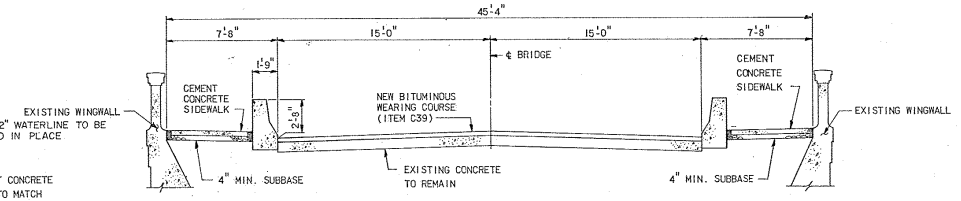
PLAN
SCALE: 1/8"=1'-0"



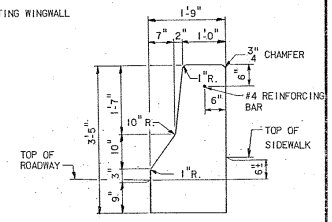
SECTION A-A
SCALE: 1/4"=1'-0"



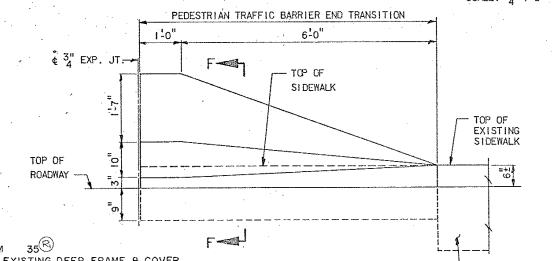
SECTION C-C
SCALE: 3/4"=1'-0"



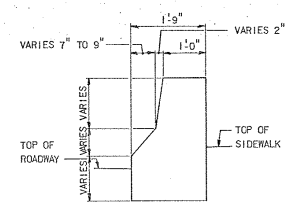
SECTION B-B
SCALE: 1/4"=1'-0"



SECTION G-G
SCALE: 3/4"=1'-0"



SECTION E-E
SCALE: 3/4"=1'-0"



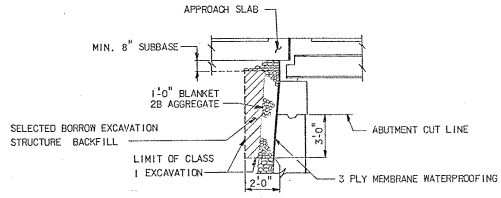
SECTION F-F
SCALE: 3/4"=1'-0"

NOTES:

FOR GENERAL NOTES, SEE SHEET NO. 2.

CONSTRUCTION DETAILS FOR PEDESTRIAN TRAFFIC BARRIER SHOWN IN SECTION G-G SHALL BE AS NOTED ON PENNDOT STANDARD RC-57.

NOTE A: ITEM 35 (R)
REMOVE EXISTING DEEP FRAME & COVER GATE VALVE AND BRICK BOX. CUT AND PLUG CAP EXISTING TEE, EXCAVATION, BACKFILL, CONCRETE THRUST BLOCKING, COMPLETE IN PLACE.



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

DEPARTMENT OF WATER NO. 1654-G

APPROVED	DATE
DISTRICT SUPERVISOR	1-5-79
SUPT. DIST. DIV.	1-8-79
ASST. DIR. OPERATIONS	1/8/79
DIRECTOR	1-9-79

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

SOUTH APPROACH DETAILS

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	EXD.-CONST.

REVISIONS

CHARACTER	DATE
REVISED ITEM 35 (R)	3-2-79

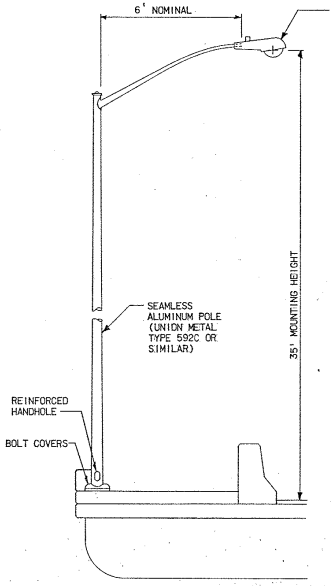
0581
040200 CALC. BOOK PG.

PREPARED BY: MODJESKI & MASTERS

SCALES AS NOTED
DATE
SHEET NO. 14 OF 21
ACCESSION NO. F-9634
CASE NO. F-10-3
PENNDOT REFERENCE NO. S-13264
DR. CH. CK. PCP

JOHNSON WHITE-PRINT 868

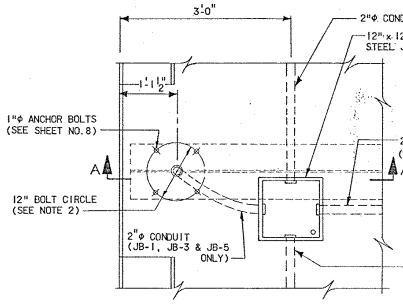
FOR INFORMATION ONLY



LIGHT POLE DETAIL

SCALE: $\frac{3}{8}$"=1'-0"

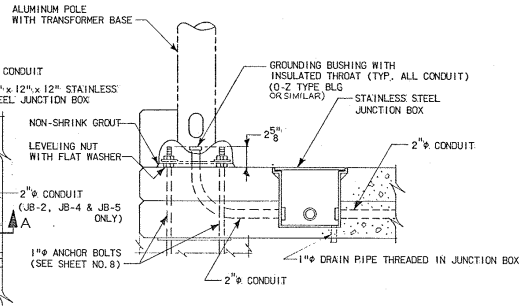
TYPICAL 4 PLACES. SEE SHEET NO. 9



JUNCTION BOX DETAIL

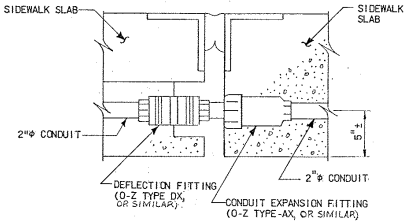
SCALE: 1"=1'-0"

TYPICAL 4 PLACES. SEE SHEET NO. 9



SECTION A-A

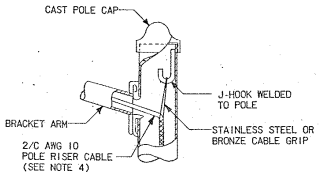
NO SCALE



CONDUIT EXPANSION JOINT DETAIL

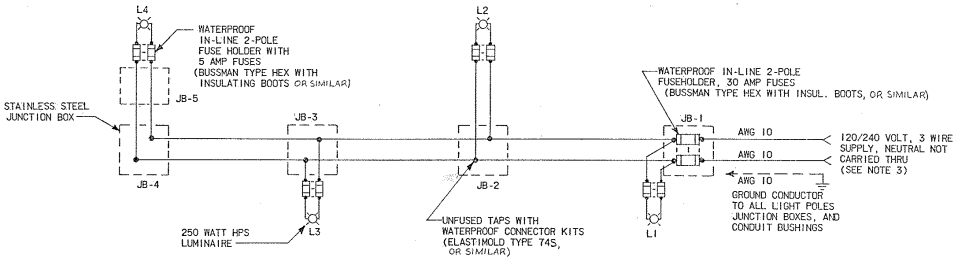
SCALE: 2"=1'-0"

SEE PENNDOT STANDARD DRAWING BC-321 FOR LOCATION OF CONDUITS AND EXPANSION JOINTS, SEE SHEET NO. 9.



POLE TOP DETAIL

NO SCALE



BRIDGE LIGHTING CIRCUIT

NO SCALE

INDIVIDUAL LIGHT POLE FUSES TO BE LOCATED IN LIGHT POLE BASES, WITH ADEQUATE WIRE TO PERMIT FUSE REPLACEMENT OUTSIDE OF POLE.

NOTES

1. ALL CONDUIT SHALL BE HOT-DIP GALVANIZED, WITH HOT DIP THREADS, COUPLINGS, FITTINGS.
2. DIMENSIONS OF ANCHOR BOLTS AND BOLT CIRCLES SHALL BE DETERMINED FROM MANUFACTURER'S TEMPLATE FOR SPECIFIC EQUIPMENT APPROVED FOR INSTALLATION.
3. CONTRACTOR SHALL EXTEND NEW LIGHTING CONDUIT TO DUQUESNE LIGHT CO. MANHOLE 7115 FOR NEW 120/240 VOLT SERVICE. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL ACTIVITIES CONCERNED WITH DUQUESNE LIGHT CO. AND SHALL CONTACT THE COMPANY 48 HOURS IN ADVANCE OF ANY ACTIVITIES.
4. ALL ELECTRICAL CONDUCTORS SHALL BE AWG 10 COPPER WITH 600 VOLT RHW-USE INSULATION, SINGLE OR MULTICONDUCTOR CABLE.
5. CONTRACTOR SHALL PROVIDE COMPLETE AND CONTINUOUS GROUNDING SYSTEM, INSTALLING GROUND ROD OR GROUND BUS AT MANHOLE AS NECESSARY.
6. THE CONTRACTOR SHALL CONTACT THE CITY OF PITTSBURGH STREET LIGHTING DEPARTMENT (MR. HYDE) PRIOR TO ORDERING POLES AND LUMINAIRES.

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

ELECTRICAL DETAILS

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

0581
040200 CALC. BOOK PG.

PREPARED BY: MOJJESKI & MASTERS

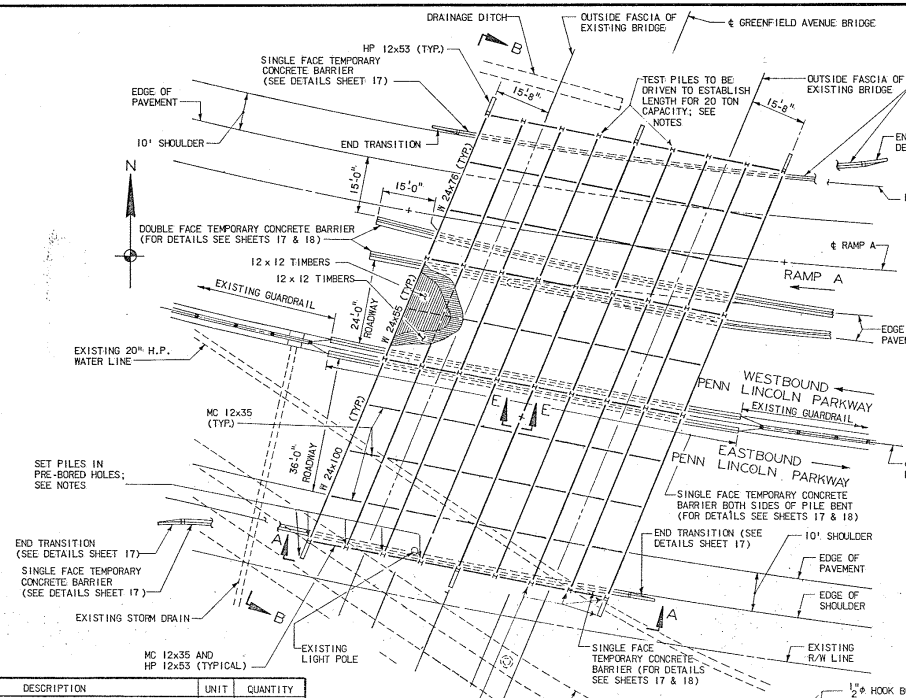
SCALES AS NOTED
DATE

SHEET NO. 15 OF 21

ACCESSION NO. F-9635
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

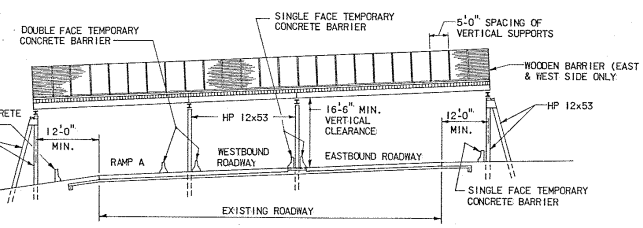
DR. LVB | CK. HAE

JOHNSON WHITEPRINT 608



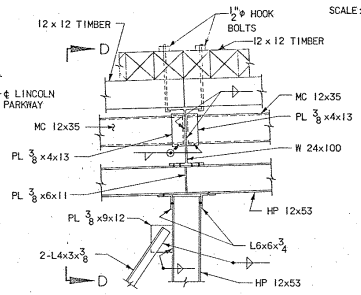
HIGHWAY PROTECTIVE STRUCTURE PLAN

SCALE: 1"=15'-0"



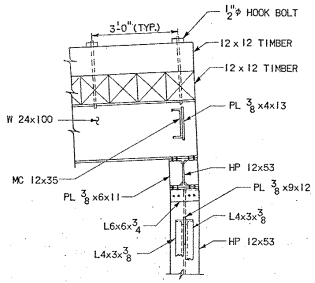
VIEW B-B

SCALE: 1"=15'-0"



DETAIL "C"

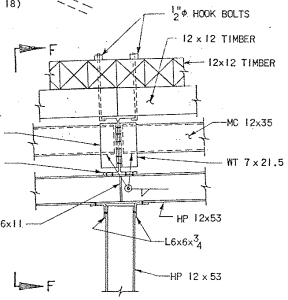
SCALE: 1½"=1'-0"



SECTION D-D

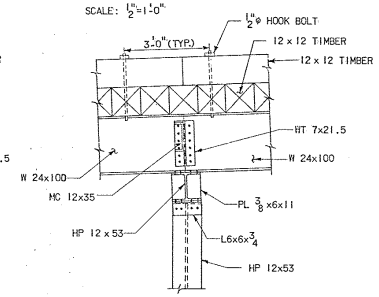
SCALE: 1½"=1'-0"

DESCRIPTION	UNIT	QUANTITY
PILES	L.F.	990
TIMBER	MBFM	230.4
FABRICATED STRUCTURAL STEEL	LBS.	152,600
EXCAVATION	C.Y.	115
BITUMINOUS WEARING COURSE ID2 2-1/2" DEPTH	S.Y.	110
COARSE AGGREGATE	C.Y.	20
PLAIN CONCRETE CEMENT PAVEMENT 4" DEPTH	S.Y.	70
TYPE B MOUNTABLE CURB	L.F.	880
SUBBASE	C.Y.	40
TERMINAL BRIDGE CONNECTIONS	EACH	4
REMOVE AND RESET LIGHT	EACH	1
GUARDRAIL REMOVED AND RESET	L.F.	180
MEDIAN BARRIER REMOVED AND RESET	L.F.	440
SINGLE FACE TEMPORARY CONCRETE BARRIER	L.F.	560
DOUBLE FACE TEMPORARY CONCRETE BARRIER	L.F.	2,380
PRE-BORED HOLES 2'-0"φ	L.F.	90
CLASS A CEMENT CONCRETE	L.Y.	10



SECTION E-E

SCALE: ½"=1'-0"



SECTION F-F

SCALE: ½"=1'-0"

NOTES:

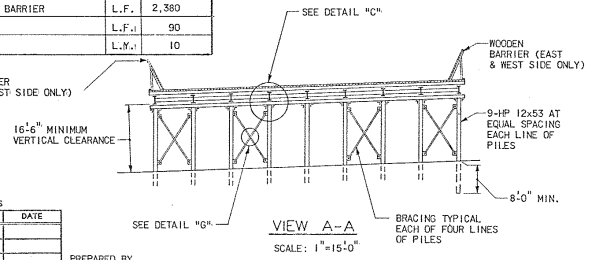
FOR GENERAL NOTES SEE SHEET 2.

FOR DETAILS OF SINGLE AND DOUBLE FACE TEMPORARY CONCRETE BARRIERS SEE STANDARD DRAWING RC-57 AND SHEETS 17 & 18.

DIMENSIONS FOR THE HIGHWAY PROTECTIVE STRUCTURE NOT SHOWN SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR.

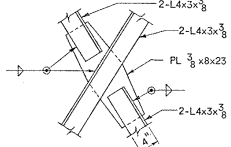
HP 12x53 COLUMNS SHALL BE DRIVEN TO A MINIMUM EMBEDMENT OF 8 FT. OR TO A 20 TON CAPACITY AS CALCULATED USING THE E.N.R. PILE CAPACITY FORMULA WITH A FACTOR OF SAFETY OF 3 IN LIEU OF THE FACTOR OF SAFETY OF 6 IN GENERAL USE.

NINE PILES, AS INDICATED ON THE PLAN, SHALL BE SET IN PRE-BORED HOLES 10 FT. DEEP, 2'-0" IN DIAMETER. AFTER THE PILE IS SET THE HOLE SHALL BE FILLED WITH CLASS A CEMENT CONCRETE.



VIEW A-A

SCALE: 1"=15'-0"



DETAIL "G"

SCALE: 1"=1'-0"

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

MAINTENANCE AND PROTECTION OF TRAFFIC - 1

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

0581 — 04200 CALC. BOOK PG.

PREPARED BY MODJESKI & MASTERS

SCALES AS NOTED

DATE

SHEET NO. 16 OF 21

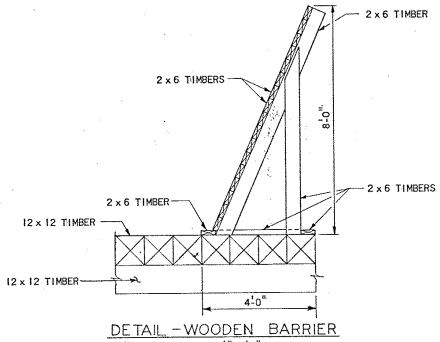
ACCESSION NO. F-9636

CASE NO. E-10-3

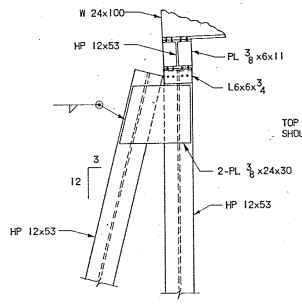
PENNDOT REFERENCE NO. S-13264

DR. GAS CK. CWH

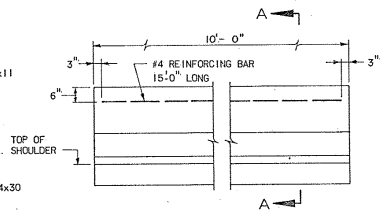
JOHNSON WHITEPRINT 608



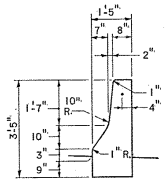
DETAIL - WOODEN BARRIER
SCALE: 1/2"=1'-0"



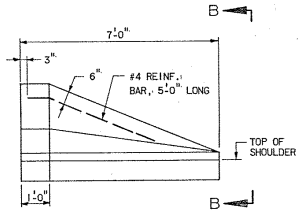
CONNECTION DETAIL AT TOP OF BATTER PILE
SCALE: 1/2"=1'-0"



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

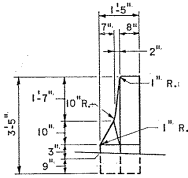


SECTION A-A
SCALE: 1/2"=1'-0"



ELEVATION - END TRANSITION
SCALE: 1/2"=1'-0"

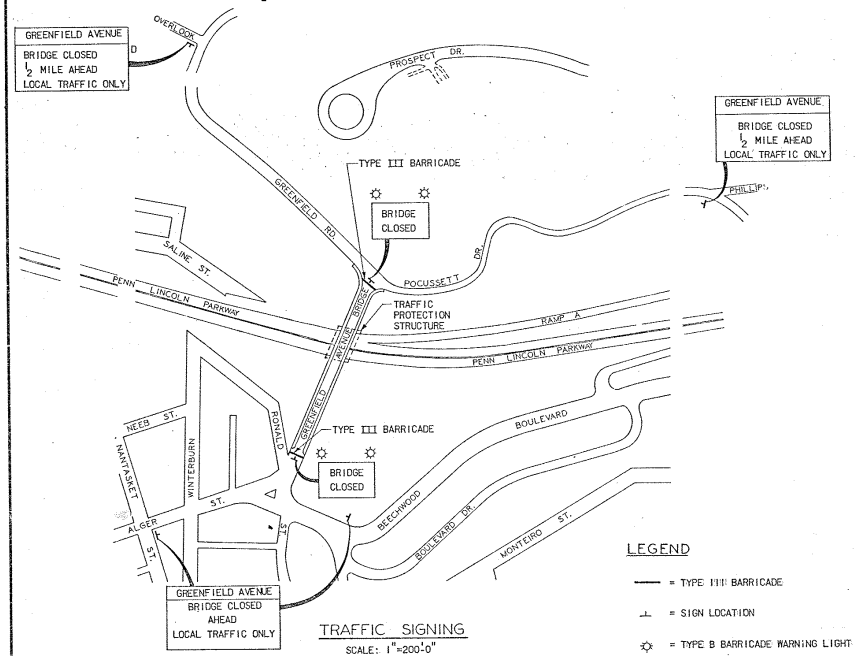
SINGLE FACE TEMPORARY CONCRETE BARRIER



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

CONSTRUCTION SIGN TABULATION

PENNDOT SIGN NO.	SIZE	LEGEND	NUMBER REQUIRED PER STAGE 1	2	3	4	5	6	7	8	9
W20-1	48"x48"	ROAD CONSTRUCTION	8	11	4	4	11	14	4	4	11
G20-2	60"x24"	END CONSTRUCTION	3	3	2	2	2	2	2	2	2
W21-8	48"x48"	WORK AREA	2	3	2		2	1	2		2
R4-7-3	36"x48"	KEEP RIGHT	1								
W4-2L	48"x48"	N/A	1		1	1			1	1	
W4-2R	48"x48"	N/A			2	1			2	1	
W20-5-1	48"x48"	LEFT LANE CLOSED	3		3	3			3	3	
W13-1	30"x30"	50 MPH	2	4	1	2	4	4	1	2	4
W13-1	30"x30"	45 MPH	2	9	3	2	4	7	3	2	4
W13-1	30"x30"	40 MPH	7		2	4			2	4	
W13-1	30"x30"	35 MPH	2		8	4			8	4	
W13-1	30"x30"	30 MPH									
W20-5	48"x48"	RIGHT LANE CLOSED			5	4			5	4	
W1-3L	48"x48"	N/A			1	1			1	1	
W6-3	48"x48"				1	2			1	2	
W3-1	48"x48"	STOP AHEAD					2				2
R1-1	48"x48"	STOP					2				2
R11-2	48"x30"	BRIDGE CLOSED						2			
R11-3-2	60"x30"	BRIDGE CLOSED 1/2 MILE AHEAD LOCAL TRAFFIC ONLY						4			
SPECIAL	60"x12"	GREENFIELD AVENUE						4			
W30-1-5	SERIES 7C	1 MILE	2	2	2	2	2	2	2	2	2
W30-1-4	SERIES 7C	1/2 MILE	2	2	2	2	2	2	2	2	2
W30-1-3	SERIES 7C	1500 FT.	2	2	2	2	2	2	2	2	2
W30-1-2	SERIES 7C	1000 FT.	3	3	3	4	3	3	3	4	3
W30-1-1	SERIES 7C	500 FT.	2	3	1	1	2	4	1	1	2
W30-1-6	SERIES 5C	AHEAD			2				2		
W-20-7	48"x48"	FLAGMAN AHEAD						2			
W-20-10	48"x48"	BE PREPARED TO STOP					2	2			2
W20-1	36"x36"	ROAD CONSTRUCTION	6	10	2	2	10	11	2	2	10
R6-10	36"x48"	TWO WAY TRAFFIC AHEAD			1	2			1	2	
W20-5	36"x36"	RIGHT LANE CLOSED			3	3			3	3	
W20-5-1	36"x36"	LEFT LANE CLOSED	3		3	3			3	3	
W13-1	24"x24"	50 MPH	2	4	1	2	4	4	1	2	4
W13-1	24"x24"	45 MPH	2	5	3	2	4	5	3	2	4
W13-1	24"x24"	40 MPH	2		2	2			2	2	
W13-1	24"x24"	35 MPH			2				2		
W4-2R	36"x36"				1	1			1	1	
W4-2L	36"x36"		1		1	1			1	1	
W30-1-1	SERIES 5C	500 FT.	1	2			2	2			2
W30-1-2	SERIES 5C	1000 FT.	2	2	2	2	2	2	2	2	2
W30-1-3	SERIES 5C	1500 FT.	2	2	2	2	2	2	2	2	2
W30-1-4	SERIES 5C	1/2 MILE	2	2	2	2	2	2	2	2	2
W30-1-5	SERIES 5C	1 MILE	2	2	2	2	2	2	2	2	2
	48"x96"	FLASHING ARROW	1		5	4			5	4	
W20-1	48"x48"	ROAD CONSTRUCTION	2	2	2	2	2	2	2	2	2
W30-1-7	SERIES 7C	TWO MILES	2	2	2	2	2	2	2	2	2



TRAFFIC SIGNING
SCALE: 1"=200'-0"

LEGEND

= TYPE III BARRICADE

= SIGN LOCATION

= TYPE B BARRICADE WARNING LIGHT

= CONSTRUCTION SIGN WITH PLAN SYMBOL

NOTES

FOR GENERAL DETAILS, SEE SHEET 2.

FOR FURTHER DETAILS OF CONCRETE BARRIER AND END TRANSITION SEE STANDARD DRAWING RC-57 AND SHEET 16.

ALL TRAFFIC CONTROL AND WARNING DEVICES UTILIZED BY THE CONTRACTOR SHALL CONFORM TO THE REQUIREMENTS OF PENNDOT BULLETIN 43; MAINTENANCE AND PROTECTION OF TRAFFIC ON CONSTRUCTION PROJECTS AND PENNDOT PUBLICATION 68; REGULATIONS GOVERNING THE DESIGN, LOCATION AND OPERATION OF ALL TRAFFIC SIGNS, SIGNALS AND MARKINGS ON AND ALONG HIGHWAYS WITHIN THE COMMONWEALTH OF PENNSYLVANIA.

BARRICADES SHALL BE SIMILAR TO PENNDOT TYPE III.

FLASHING WARNING LIGHTS SHALL BE SIMILAR TO PENNDOT TYPE B BARRICADE LIGHTS.

PAVEMENT MARKINGS SHALL BE PRESSURE SENSITIVE, TEMPORARY PAVEMENT MARKING TAPE WHICH IS PENNDOT APPROVED.

ALL BARRICADE RAILS SHALL BE REFLECTORIZED WITH ALTERNATE STRIPES OF ORANGE AND WHITE PENNDOT APPROVED REFLECTIVE SHEETING MATERIAL, CLASS II MATERIAL.

ALL CONSTRUCTION WARNING SIGNS USED ON THE PARKWAY SHALL BE OF CLASS II ORANGE SHEET REFLECTIVE MATERIAL (HIGH INTENSITY SCOT LITE).

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE
MAINTENANCE AND PROTECTION OF TRAFFIC - 2

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.

REVISIONS

CHARACTER	DATE

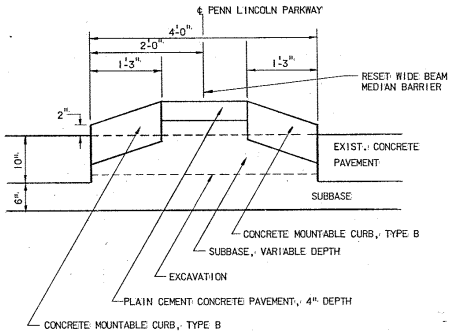
0581
04200 CALC. BOOK PG.

PREPARED BY
MOOJESKI & MASTERS

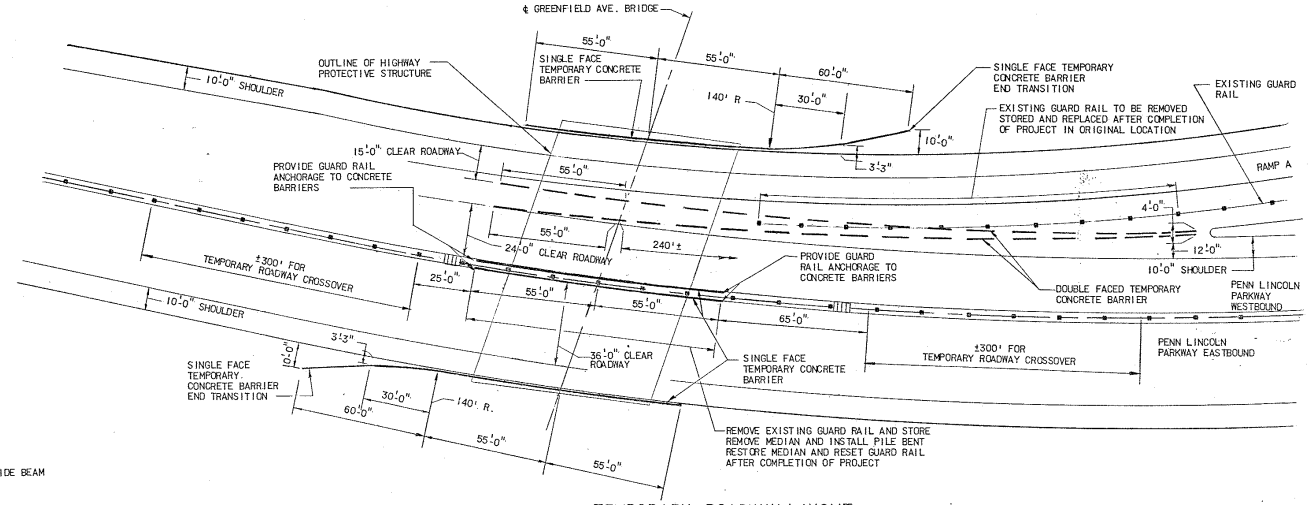
SCALES AS NOTED
DATE

SHEET NO. 17 OF 21
ACCESSION NO. F-9637
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264
DR. GAS | CK. CRH

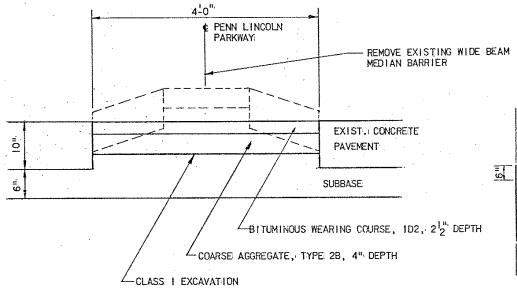
JOHNSON WHITEPRINT 666



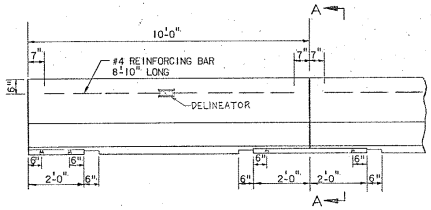
TYPICAL SECTION
RESTORATION OF MEDIAN



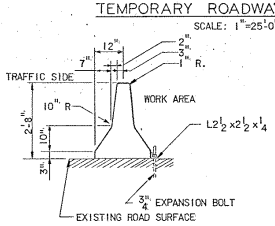
TEMPORARY ROADWAY LAYOUT
SCALE: 1"=25'-0"



TYPICAL SECTION
TEMPORARY MEDIAN CROSSOVER



ELEVATION



SECTION A-A

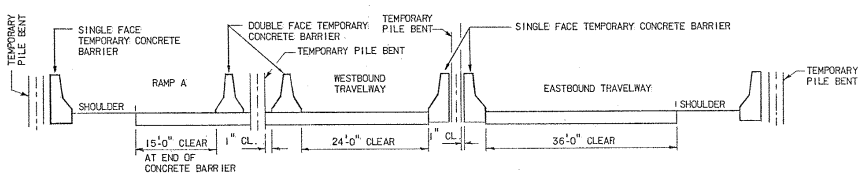
DOUBLE FACE TEMPORARY CONCRETE BARRIER

NOTES

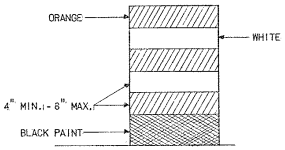
FOR GENERAL NOTES SEE SHEET 2.
FOR CONSTRUCTION STAGING SEE PROJECT SPECIAL PROVISIONS.
FOR CONSTRUCTION AND MATERIAL SPECIFICATIONS SEE PROJECT SPECIAL PROVISIONS.

TEMPORARY CROSSOVERS

STAGE 1. REMOVE EXISTING WIDE BEAM MEDIAN BARRIER AND EXISTING CONCRETE MEDIAN. CONSTRUCT TEMPORARY CROSSOVER AND PLACE DOUBLE FACE CONCRETE BARRIER IN MEDIAN OPENING.
STAGE 2. DOUBLE FACE TEMPORARY CONCRETE BARRIER IN PLACE.
STAGE 3 & 4. DOUBLE FACE TEMPORARY CONCRETE BARRIER REMOVED FROM MEDIAN OPENINGS.
STAGE 5. RESET WIDE BEAM MEDIAN BARRIER
STAGE 6. REMOVE WIDE BEAM MEDIAN BARRIER FROM MEDIAN OPENING AT COMPLETION OF GREENFIELD AVENUE BRIDGE RECONSTRUCTION.
STAGE 7 & 8. CROSSOVERS IN USE.
STAGE 9. RESTORE MEDIAN AND RESET WIDE BEAM MEDIAN BARRIER.



TYPICAL SECTION STAGE 6
WORK ZONE PENN LINCOLN PARKWAY



55 GAL. DRUM
TYPICAL DRUM STRIPING

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.
CALC. BOOK	PG.	

REVISIONS

CHARACTER	DATE

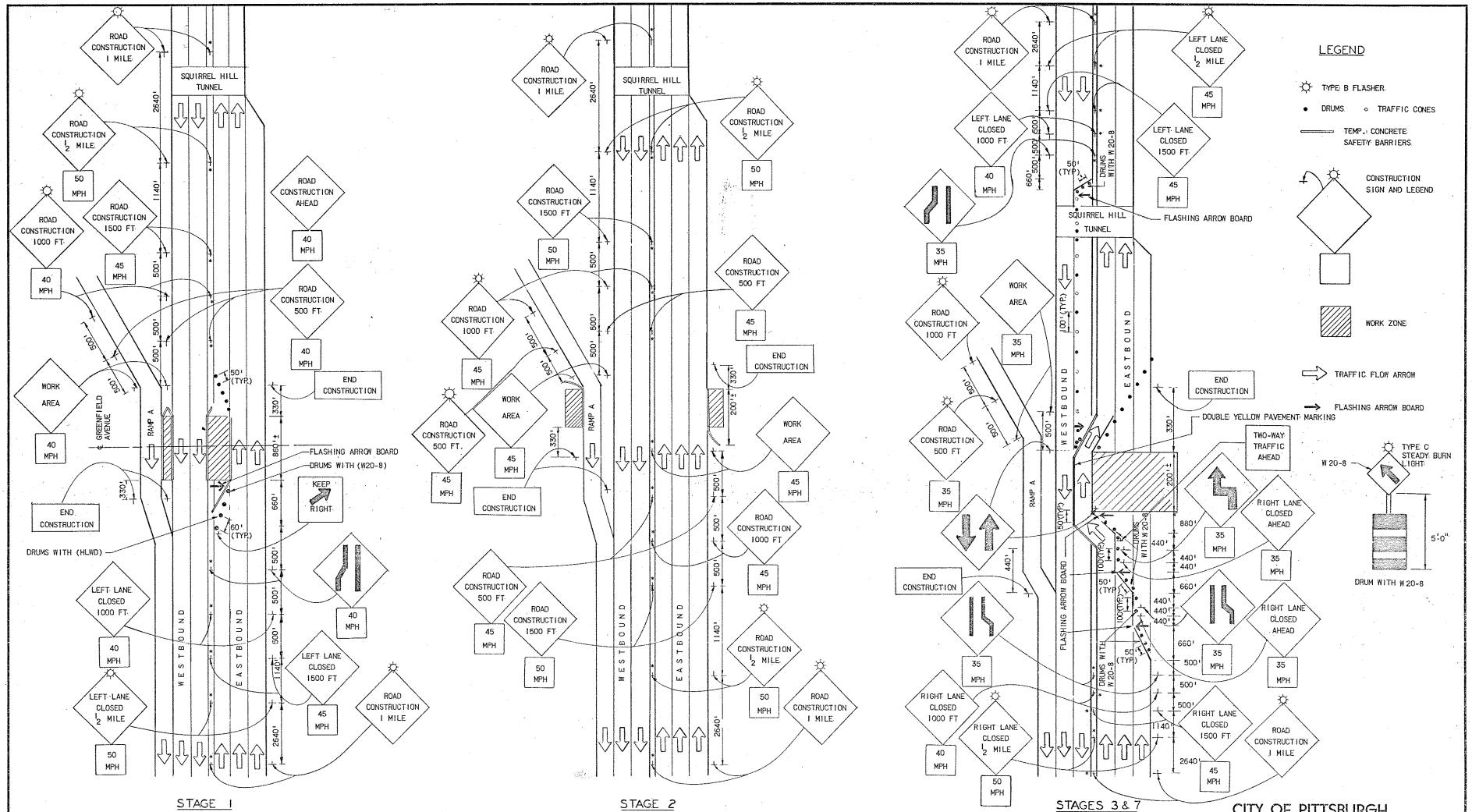
CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

GREENFIELD AVENUE BRIDGE

MAINTENANCE AND PROTECTION OF TRAFFIC - 3

SCALES AS NOTED
DATE
SHEET NO. 18 OF 21
ACCESSION NO. F-9638
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

JOHNSON WHITEPRINT 808



STAGE 1

STAGE 2

STAGES 3 & 7

NOTES

FOR GENERAL NOTES SEE SHEET 2.
FOR ADDITIONAL NOTES FOR MAINTAINANCE AND PROTECTION OF TRAFFIC SEE SHEET 18.
FOR DESCRIPTION OF STAGING SEE PROJECT SPECIAL PROVISIONS.
"ROAD CONSTRUCTION 2 MILES" ADVANCE WARNING SIGNS SHALL BE UTILIZED DURING ALL STAGES OF CONSTRUCTION.

*NOTE: FLEXIBLE SIGN SUPPORTS SHALL BE USED FOR ALL ADVANCE WARNING SIGN SERIES WITHIN THE MEDIAN. 36" x 36" SIGNS SHALL BE USED IN THE MEDIAN AREA. FLEXIBLE SIGN SUPPORTS SHALL BE "GUST-BUSTER" MANUFACTURED BY SCI-O-TECH CORPORATION, LANCASTER, PA. OR AN APPROVED EQUAL.

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.
CALC. BOOK	PG.	

REVISIONS

CHARACTER	DATE

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

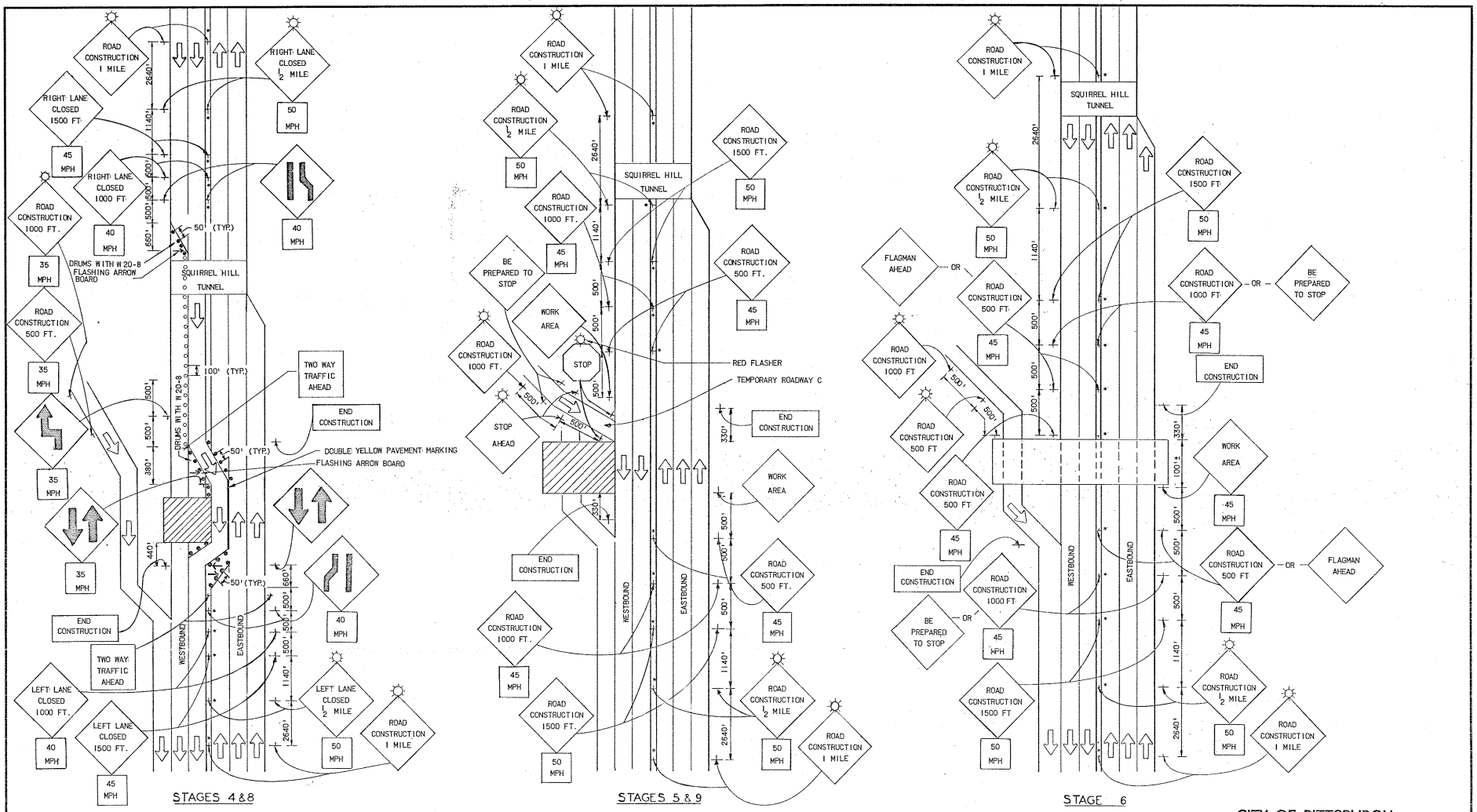
CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

GREENFIELD AVENUE BRIDGE

MAINTENANCE AND PROTECTION OF TRAFFIC - 4

SCALES AS NOTED
DATE
SHEET NO. 19 OF 21
ACCESSION NO. F-9639
CASE NO. E-10-3
S-13264

JOHNSON WHITEPRINT 908



APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.
CALC. BOOK	PG.	

REVISIONS

CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING

GREENFIELD AVENUE BRIDGE

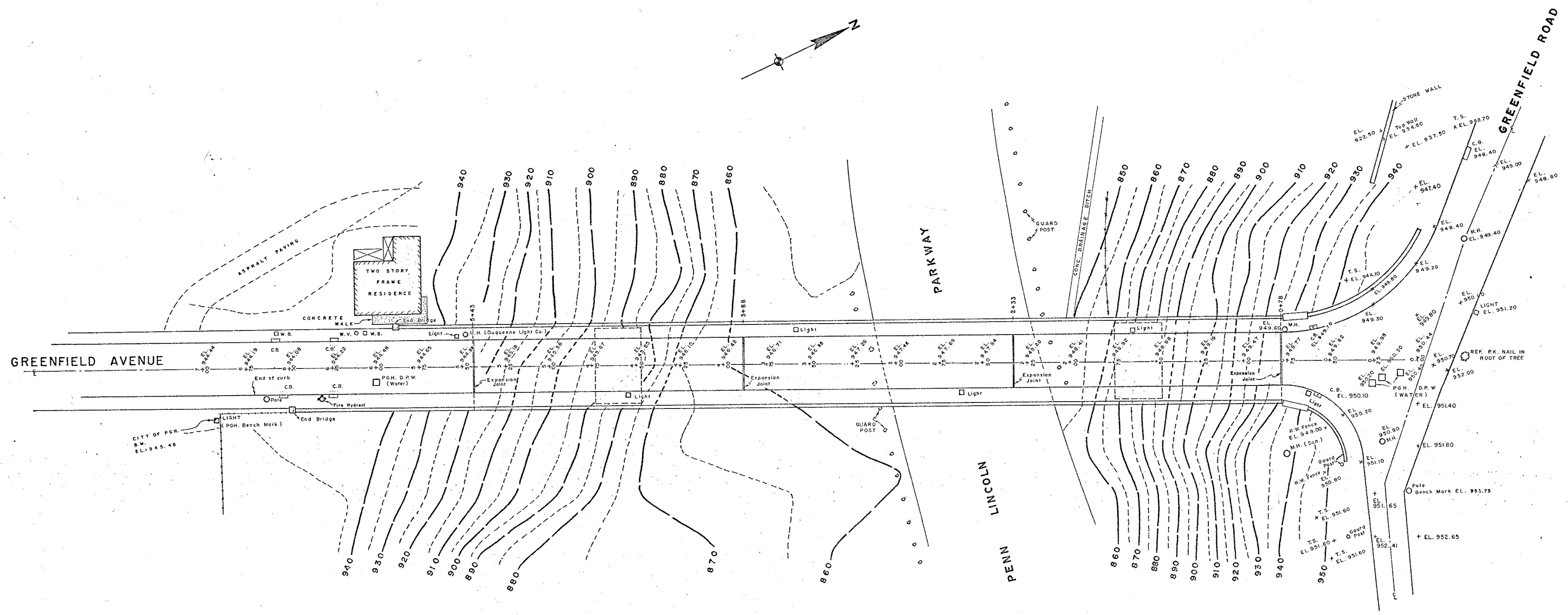
MAINTENANCE AND PROTECTION OF TRAFFIC – 5

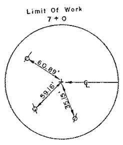
SCALES AS NOTED
DATE

SHEET NO. 20 OF 21

ACCESSION NO. F-9640
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

JOHNSON WHITEPRINT 808





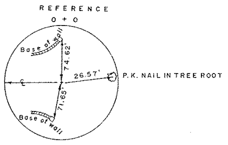
NOTE: ø = POLE-TACK

T.B.M. CITY OF PITTSBURGH
SQUARE CUT ON LIGHT POST
29.5' LEFT OF 6+94
ELEVATION = 945.48

SITE B.M. "A"
NAIL IN DUQ. LIGHT CO. POLE NO. 5051
75' LEFT OF 0+0
EL. UNADJUSTED = 953.74
ADJUSTED EL. = 953.73

SITE B.M. "B"
SQUARE CUT UNDER BRIDGE
AT ARCH
7.5' LEFT OF 4+48
EL. = 891.73

SITE B.M. "C"
SQUARE CUT UNDER BRIDGE
AT ARCH
7.0' RIGHT OF 1+71.3
EL. = 891.76



SURVEY WAS PERFORMED AND PLOTTED SEPTEMBER 1976
BY NORTH HILLS ENGINEERING COMPANY

APPROVED	DATE
DESIGN DIVISION ENGR.	
SEWER CONST. DIV. ENGR.	
DIV. ENGR. STREETS	
CITY ENGR. D. P. W.	
DIRECTOR	

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

SURVEY INFORMATION

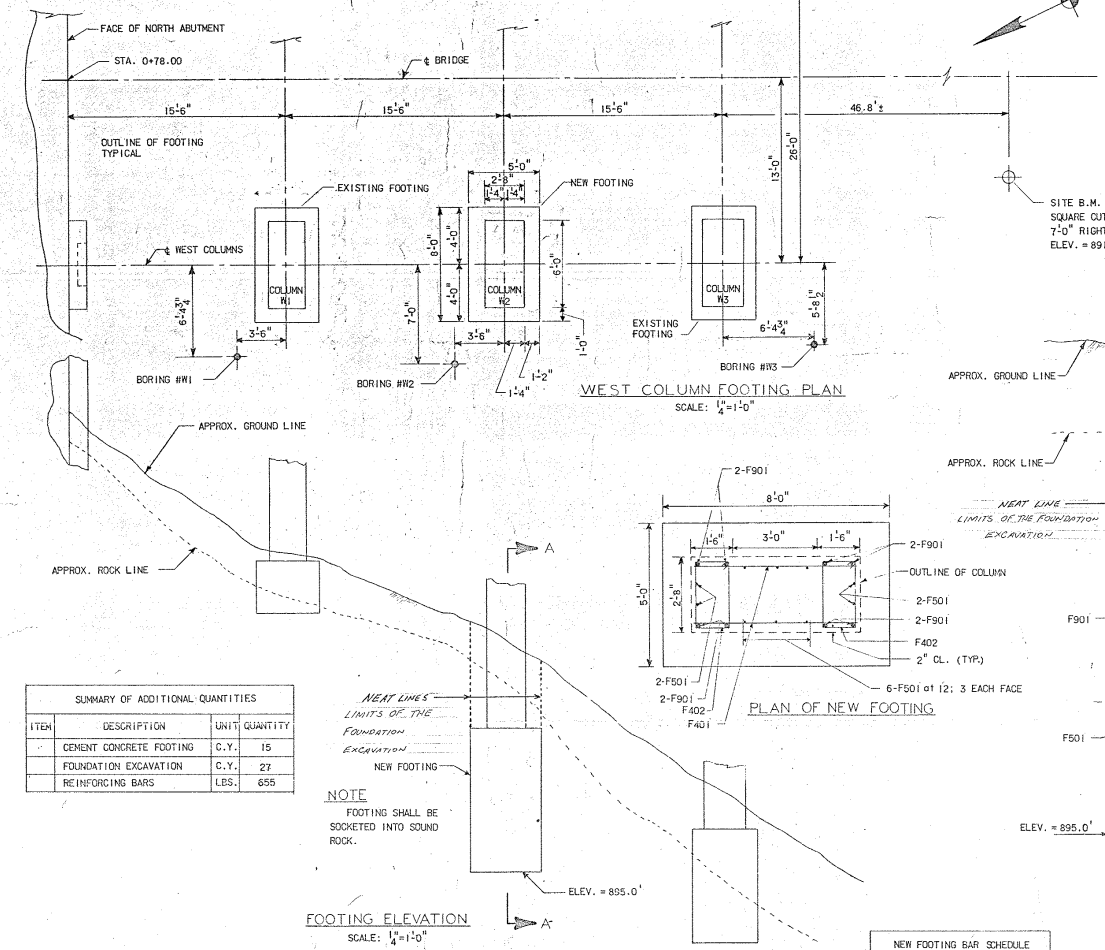
SCALE: 1" = 30'
DATE
SHEET NO. 21 OF 21
ACCESSION NO. F-9641
CASE NO. E-10-3
PENNDOT REFERENCE NO. S-13264

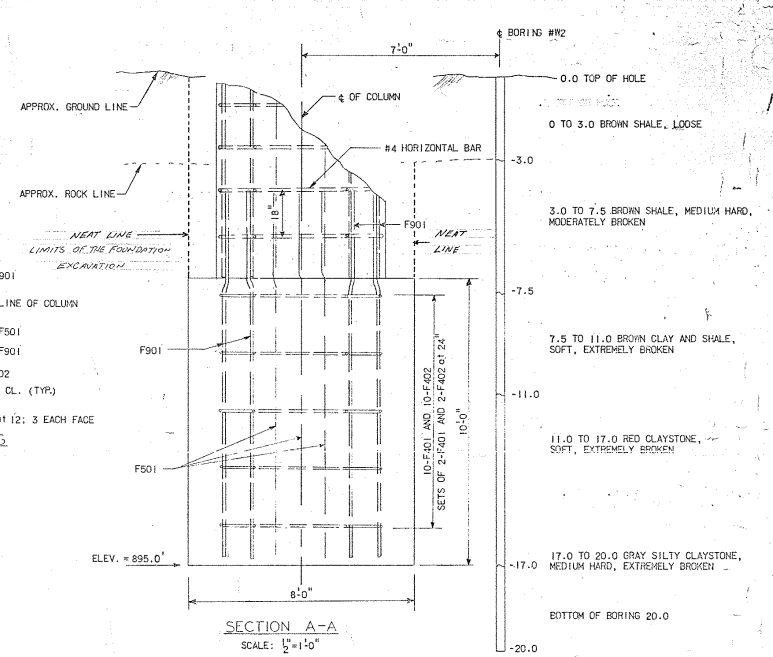
FIELD DATA	DRAWN	SUPERV'SD.
BY		
VOL.		
CHECKED	INSPECT'D	CKD.-CONST.
CALC. BOOK	PG.	

REVISIONS

CHARACTER	DATE

0581
040200





SUMMARY OF ADDITIONAL QUANTITIES			
ITEM	DESCRIPTION	UNIT	QUANTITY
	CEMENT CONCRETE FOOTING	C.Y.	15
	FOUNDATION EXCAVATION	C.Y.	27
	REINFORCING BARS	LBS.	655

NOTE

FOOTING SHALL BE SOCKETED INTO SOUND ROCK.

NEW FOOTING BAR SCHEDULE				
MARK	NO.	SIZE	LENGTH	TYPE
F901	8	9	15'-0"	STR.
F501	10	5	15'-0"	STR.
F401	10	4	6'-8"	STR.
F402	10	4	7'-9"	1

APPROVED	DATE
Robert Weller, Bridge Engrg. Design Division Engr.	2/13/81
Bureau Const. Div. Engr.	
Div. Engr. Streets	2/16/81
City Engr. O. P. W.	2/16/81
Director	2/16/81

CITY OF PITTSBURGH
DEPARTMENT OF PUBLIC WORKS
BUREAU OF ENGINEERING
GREENFIELD AVENUE BRIDGE

REVISED FOOTING-COLUMN W-2

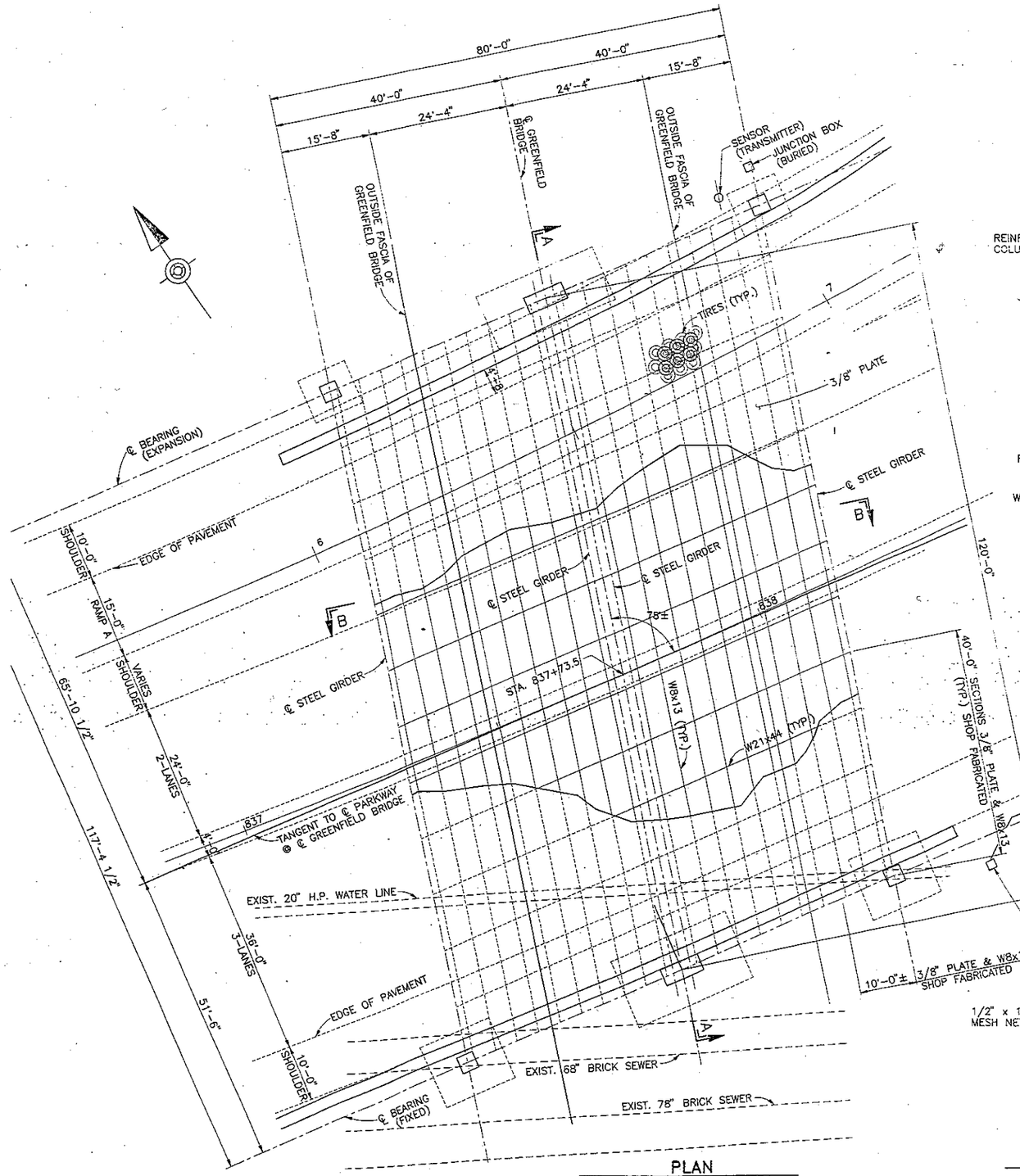
SCALES AS NOTED
DATE FEB. 6, 1981
SHEET NO. ___ OF ___
ACCESSION NO. F-9641A
CASE NO. E-10-3

FIELD DATA	DRAWN	SUPERVISED
BY		
VOL.		
CHECKED	INSPECTED	CHIEF CONST.
CALC. BOOK	PG.	

REVISIONS

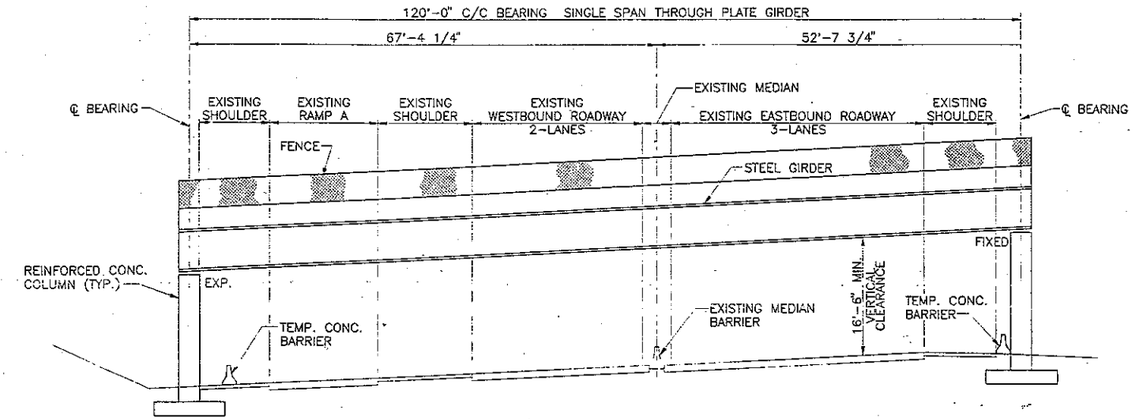
CHARACTER	DATE

FOR INFORMATION ONLY



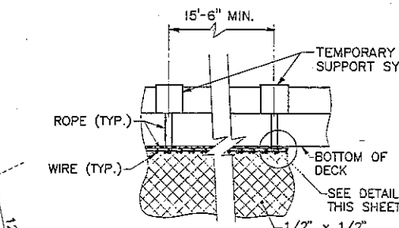
PLAN

SCALE: 1" = 10'-0"



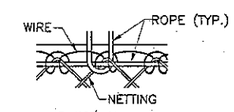
SECTION A-A

SCALE: 1" = 10'-0"



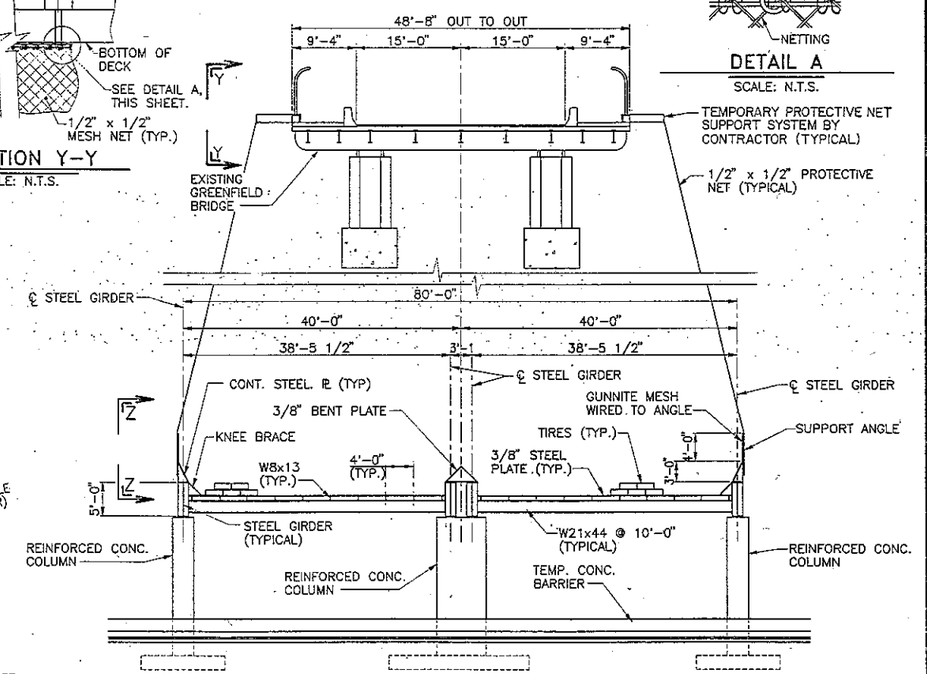
ELEVATION Y-Y

SCALE: N.T.S.



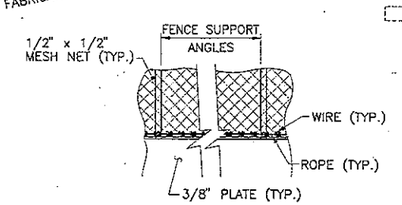
DETAIL A

SCALE: N.T.S.



SECTION B-B

SCALE: 1" = 10'-0"



ELEVATION Z-Z

SCALE: N.T.S.

NETTING NOTES:

1. PASS ROPE THROUGH ENTIRE LENGTH OF NETTING TOP AND BOTTOM.
2. SECURE EACH MESH WITH DOUBLE HITCHES TO PROPERLY SPACE MESHES.
3. ATTACH NETTING TO EACH FENCE POST ON GREENFIELD BRIDGE.

STEEL GIRDER DETAILS	BC-753	07-01-93
REINFORCEMENT BAR FABRICATION DETAILS	BC-736	07-01-93
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11	06-30-90
DESCRIPTION	DWG. NO.	APP. DATE

SUPPLEMENTAL DRAWINGS

WN	SUPERV'SD
.P.	P.C.P.

REVISIONS

CT'D	CKD.-CONST.	CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF ENGINEERING
AND CONSTRUCTION

D.E.C. PROJECT NO. 90206
GREENFIELD BRIDGE
REHABILITATION DESIGN
GENERAL PLAN AND ELEVATION
PROTECTIVE STRUCTURE

SCALE: AS NOTED SHEET NO. ACCESSION NO.

ITEM 8120 0001 TEMPORARY PROTECTIVE STRUCTURE, AS DESIGNED (For Information Only)					
DESCRIPTION	PIER (EXPANSION)	PIER (FIXED)	SUPERSTR.	TOTAL	UNIT
CLASS 3 EXCAVATION	51	84		135	CY
CLASS A CEMENT CONCRETE	76	103		179	CY
REINFORCEMENT BARS	10595	11784		22379	LB
BEARING DEVICE – FIXED		4		4	EA
BEARING DEVICE – EXPANSION	4			4	EA
FABRICATED STRUCTURAL STEEL			415,193	415,193	LB

TEMPORARY PROTECTIVE STRUCTURE GENERAL NOTES

MATERIALS AND WORKMANSHIP SPECIFICATION: PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 408/90, 1988 AASHTO/AWS BRIDGE WELDING CODE, INCLUDING CURRENT INTERMS; AND CONTRACT SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: DESIGN DIVISION I OF 1989 AASHTO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES", (INCLUDING 1991 INTERIM SPECIFICATIONS) AND AS SUPPLEMENTED BY THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION DESIGN MANUAL PART 4, STRUCTURES (INCLUDING SEPTEMBER, 1991 REVISIONS).

DESIGN IS IN ACCORDANCE WITH THE STRENGTH DESIGN METHOD (LOAD FACTOR DESIGN.)

NO LIVE LOAD IS CONSIDERED IN THIS DESIGN. THE IMPACT FORCE OF THE FALLING OBJECT IS TREATED AS A DEAD LOAD. THE DESIGN IS BASED ON A VOLUME OF CONCRETE 1.5 FT^3 WHICH IS EQUIVELANT TO 225# WEIGHT FALLING FROM 65'± TO MINIMUM 24" HEIGHT LAYERS OF RUBBER TIRES.

THE TIRES ARE USED ONLY TO REDUCE THE IMPACT FORCE ON THE TEMPORARY STRUCTURE. PROVIDE NETTING TO STOP THE REBOUNDING OBJECTS FROM FALLING TO THE HIGHWAY.

THE CONTRACTOR IS ALLOWED TO DROP A MAXIMUM VOLUME OF CONCRETE 1.5 FT^3 (225 POUNDS WEIGHT) FROM A HEIGHT NOT EXCEED 65± FEET.

PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS EXCEPT AS NOTED.

USE CLASS A CEMENT CONCRETE FOR PIERS BELOW BRIDGE SEAT CONSTRUCTION JOINTS AND ALL FOOTINGS.

PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM FOR DEFORMED BILLET–STEEL BARS FOR CONCRETE REINFORCEMENT (A615), OR AXLE STEEL (A617). DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED. GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS SECTIONAL AREA.

PROVIDE MINIMUM LAP AND EMBEDMENT LENGTHS FOR REINFORCEMENT BARS IN ACCORDANCE WITH CHAPTER 8, PART D, OF THE AASHTO 1989 SPECIFICATIONS FOR HIGHWAY BRIDGES OR 30 DIAMETERS, WHICHEVER IS GREATER.

REMOVE EXISTING FOOTINGS COMPLETELY.

ALL STRUCTURE DIMENSIONS ARE BASED ON A NORMAL TEMPERATURE OF 68° F. (20° C). ALL DIMENSIONS ARE HORIZONTAL UNLESS NOTED OTHERWISE.

PREPARE BRIDGE SEATS FOR PLATE GIRDERS TO A SMOOTH (TROWEL) FINISH TO THE INDICATED BRIDGE SEAT ELEVATION AND GRADE. ADJUST BRIDGE SEATS TO PROVIDE FULL BEARING UNDER EACH BEAM BY GROUTING AS NEEDED AND AS DIRECTED BY THE ENGINEER.

IF GIRDERS CAN BE FABRICATED IN LENGHTS LONGER THAN THE SECTIONS SHOWN ON THE PLANS BY ELIMINATING FIELD SPLICES, FIELD SPLICES MAY BE OMITTED AT THE REQUEST OF THE CONTRACTOR. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR SECURING A HAULING PERMIT. APPROVAL FOR ELIMINATION OF A FIELD SPLICE AT THE SHOP DRAWING STAGE DOES NOT OBLIGATE THE DEPARTMENT TO ISSUE A HAULING PERMIT.

ALL FASTENERS ARE 7/8"ø H.S. BOLTS EXCEPT AS NOTED.

REAMING OF FIELD SPLICES IS REQUIRED IN THE FABRICATION SHOP.

PROVIDE STRUCTURAL STEEL CONFORMING TO ASTM–A36 DESIGNATION EXCEPT WHEN NOTED OTHERWISE.

MAINTAIN 16'–6" MIN. CLEARANCE OVER I–376 AT ALL POINTS.

PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(k)8.

DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS SUCH AS FLANGE TO WEB WELDS OR FOR SHOP SPLICES OF WEBS AND FLANGES.

WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.

SET ANCHOR BOLTS TO TEMPLATE OR IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PREFORMED HOLES WITH NONSHRINK GROUT. FILL THE CLEARANCE BETWEEN ANCHOR BOLTS AND HOLES IN MASONARY PLATES WITH APPROVED NONHARDENING CAULKING COMPOUND CONFORMING TO PUBLICATION 408, SECTION 705.8

MAKE TACK WELDS WITH THE SAME TYPE OF ELECTRODE, AND INCORPORATE IN THE FINAL WELD. NO OTHER TACK WELDING WILL BE PERMITTED.

DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW, OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF THE WORK.

DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW 0 DEGREES F. PREHEAT AND MANTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70 DEGREES F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN 0 DEGREES F AND 30 DEGREES F DURING WELDING OR BURNING. EXTEND THE AREA TO BE HEATED 3" BEYOND THE WELD IN ALL DIRECTIONS.

REMOVE BY APPLICATION OF HEAT ANY MOISTURE PRESENT AT POINT OF WELD. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.

COORDINATE THE REQUIREMENTS FOR PROTECTION AND/OR RELOCATION OF UTILITIES WITH THE UTILITY OWNER PRIOR TO STARTING WORK.

VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO STARTING WORK; CONDUCT OPERATIONS IN A MANNER WHICH ENSURES THAT THE UTILITIES WILL NOT BE DISTURBED OR ENDANGERED, AND ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES DURING CONSTRUCTION. THE DEPARTMENT DOES NOT ASSUME RESPONSIBILTY FOR REIMBURSEMENT, PARTICIPATION IN DESIGN, AND/OR REVISIONS, OR LIABILITY FOR ACCURACY OF TYPE, SIZE, AND LOCATION OF ANY UTILITY.

OVER HEIGHT VEHICLE SENSOR, TRANSMITTER AND RECEIVER ARE LOCATED WITHIN THE PROJECT SITE. SENSOR MUST BE OPERATIONAL DURING ALL PHASES OF CONSTRUCTION.

USE EXTREME CAUTION WHEN PREFORMING ANY TYPE OF WORK ADJACENT TO THE TRANSMITTER SENSOR OR RECEIVER.

SPREAD FOOTINGS MAY BE ORDERED BY THE ENGINEER AT ANY ELEVATION OR OF ANY DIMENSIONS NECESSARY TO PROVIDE A PROPER FOUNDATION.

MAXIMUM ALLOWABLE FOUNDATION PRESSURE = 1.5 TON/SQ.FT.

THE COLUMNS ARE DESIGNED FOR 27 FEET HEIGHT. IF ANY VARIATIONS DURING CONSTRUCTION RESULT IN ADDITIONAL HEIGHT TO THE 27 FEET COLUMNS, A NEW DESIGN IS REQUIRED.

CONTRACTOR SHOULD VERIFY ALL PLAN DIMENSIONS IN THE FIELD PRIOR TO FABRICATION OF STRUCTURAL STEEL.

DRAWN	SUPERV'SD
J.P.	P.C.P.

REVISIONS

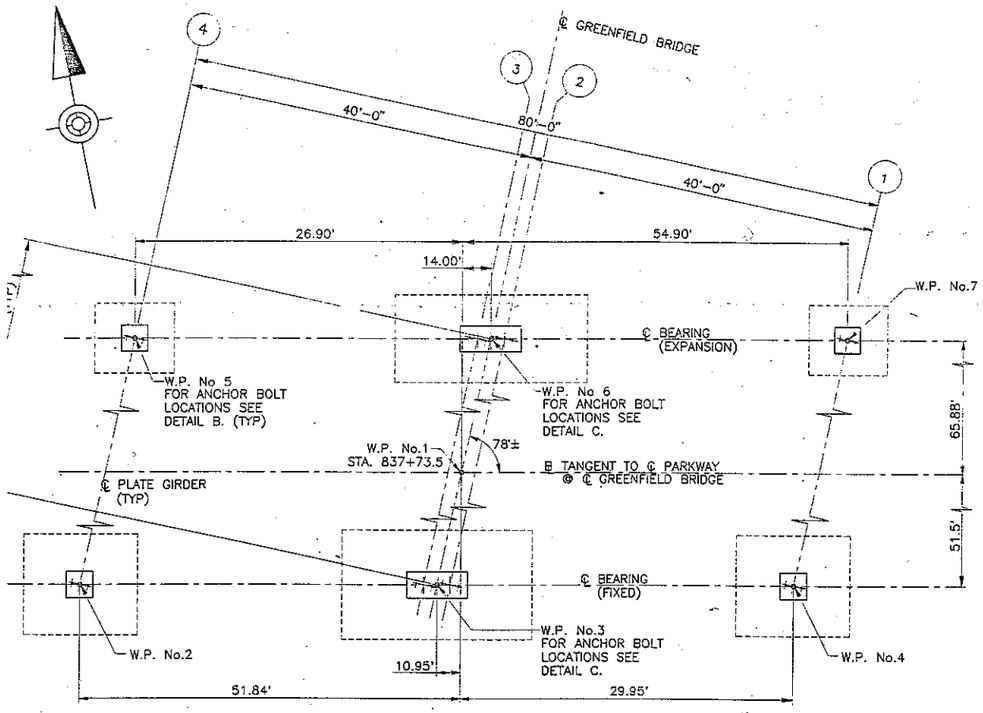
PROJECT'D	CKD.–CONST.	CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF ENGINEERING
AND CONSTRUCTION

D.E.C. PROJECT NO. 90206
GREENFIELD BRIDGE
REHABILITATION DESIGN
QUANTITIES & GENERAL NOTES
PROTECTIVE STRUCTURE

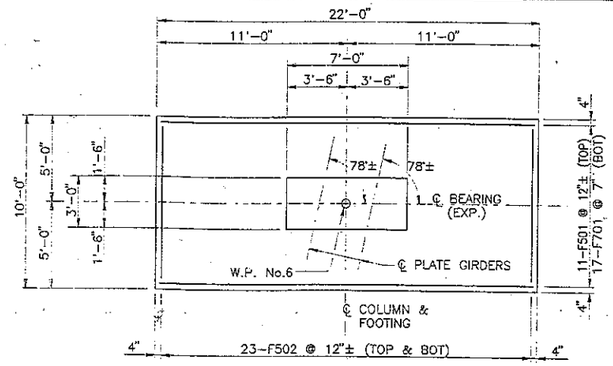
SCALE: N/A SHEET NO. ACCESSION NO.

FOR INFORMATION ONLY

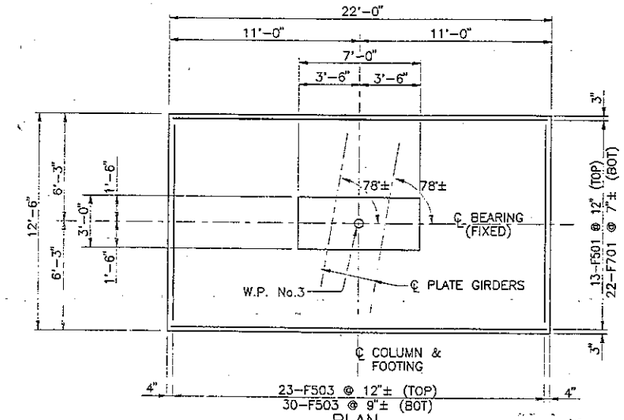


STAKE OUT & FOOTING PLAN

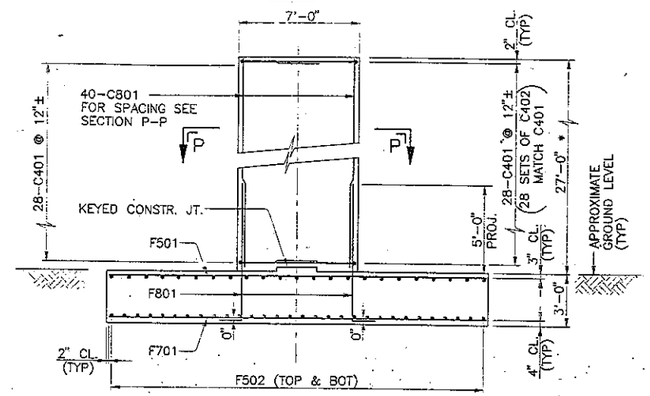
SCALE: 1/8"=1'-0"



PLAN



PLAN



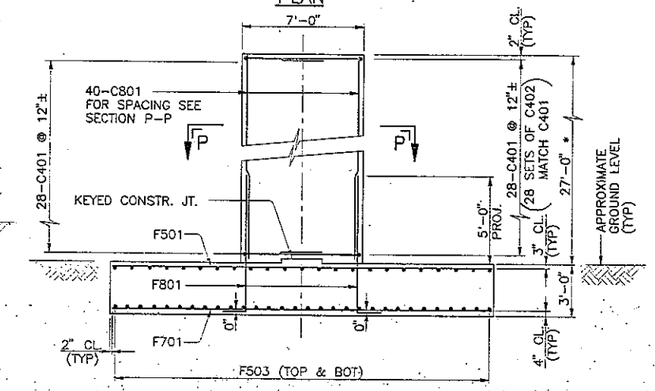
MAX. DESIGN PRESSURE = 1.0 TSF
ALLOWABLE BEARING PRESSURE = 1.5 TSF

* 27'-0" IS THE MAX. DESIGN HEIGHT

ELEVATION

EXPANSION INTERIOR COLUMN

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



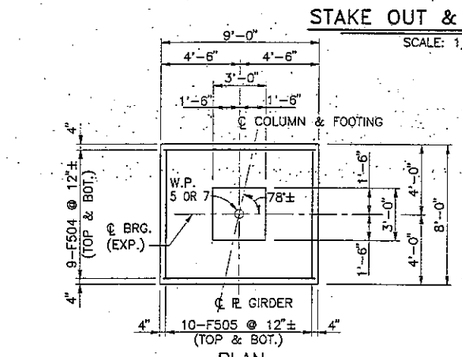
MAX. DESIGN PRESSURE = 1.22 TSF
ALLOWABLE BEARING PRESSURE = 1.5 TSF

* 27'-0" IS THE MAX. DESIGN HEIGHT

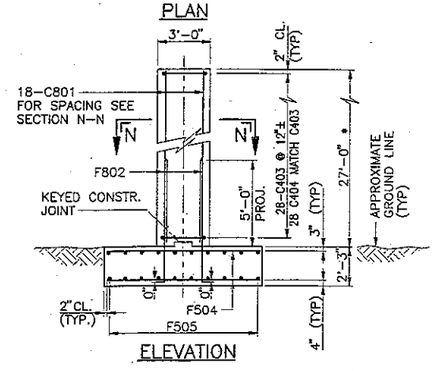
ELEVATION

FIXED INTERIOR COLUMN

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



PLAN



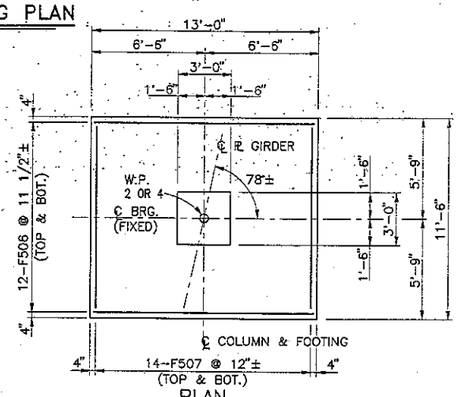
ELEVATION

MAX. DESIGN PRESSURE = 1.44 T.S.F.
ALLOWABLE BEARING PRESSURE = 1.5 T.S.F.

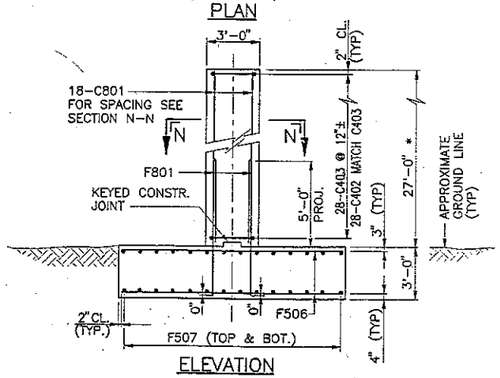
* 27'-0" IS THE MAX. DESIGN HEIGHT

EXPANSION EXTERIOR COLUMN

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



PLAN



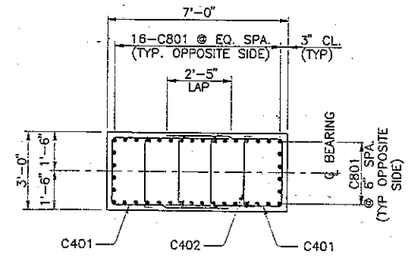
ELEVATION

MAX. DESIGN PRESSURE = 1.0 T.S.F.
ALLOWABLE BEARING PRESSURE = 1.5 T.S.F.

* 27'-0" IS THE MAX. DESIGN HEIGHT

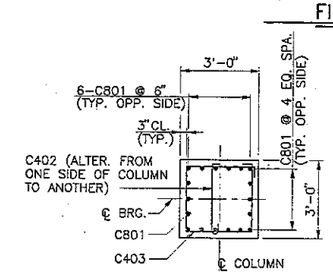
FIXED EXTERIOR COLUMN

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



SECTION P-P

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

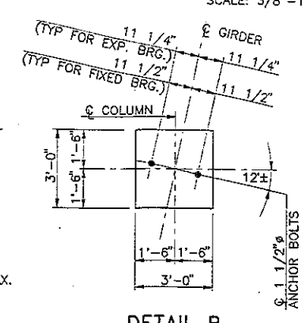


SECTION N-N

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

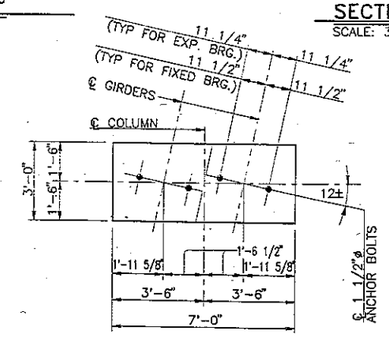
NOTES:

- FOR GENERAL PLAN & ELEVATION, SEE SHT. 23.
- FOR GENERAL NOTES, SEE SHT. 24.
- FOR BEARING PAD DETAILS, SEE SHT. 28.
- FOR ANCHOR BOLT EMBEDDING DETAILS, SEE SHT. 28.
- FOR REBAR SCHEDULE, SEE SHT. 28.



DETAIL B

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



DETAIL C

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

DRAWN	SUPERVISED
J.P.	P.C.P.

REVISIONS

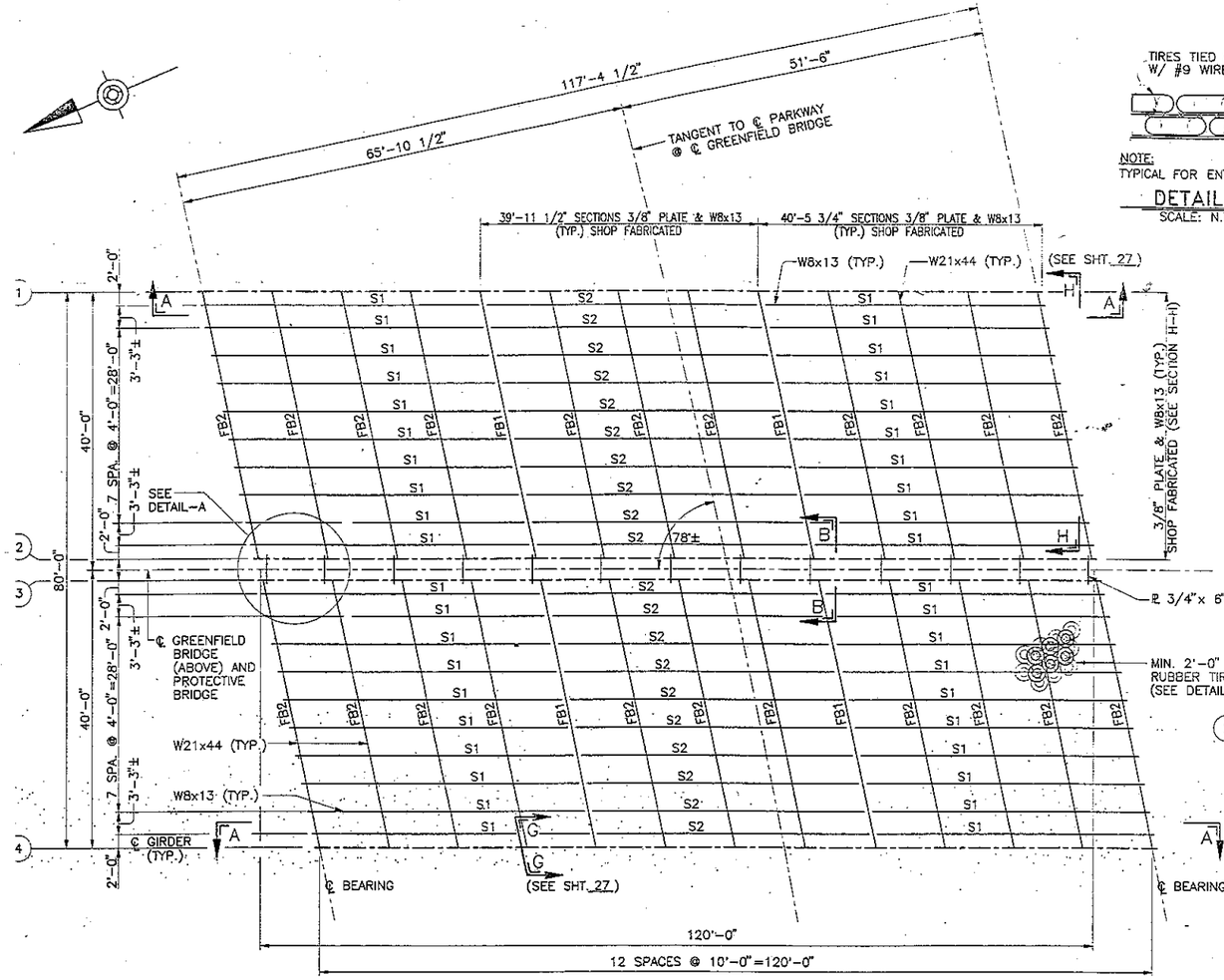
DIRECT'D	CKD.-CONST	CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF ENGINEERING AND CONSTRUCTION

D.E.C. PROJECT NO. 90206
GREENFIELD BRIDGE
REHABILITATION DESIGN
PIERS AND FOOTINGS
PROTECTIVE STRUCTURE

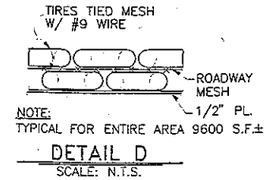
SCALE: AS NOTED | SHEET NO. | ACCESSION NO.

FOR INFORMATION ONLY



FRAMING PLAN

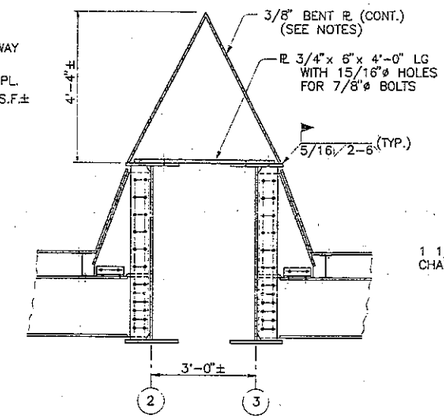
SCALE: 1" = 10'-0"



NOTE:
TYPICAL FOR ENTIRE AREA 9600 S.F.±

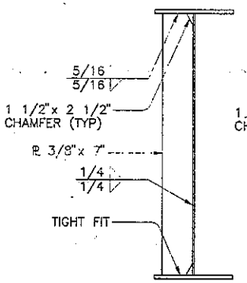
DETAIL D

SCALE: N.T.S.



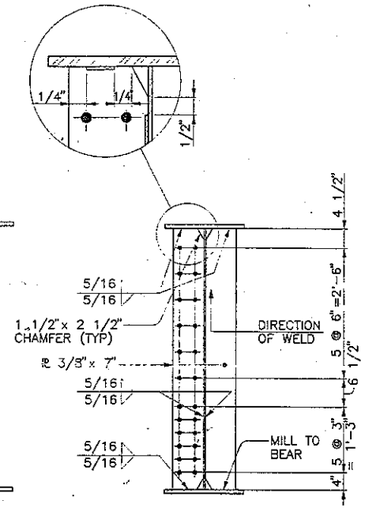
SECTION B-B

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



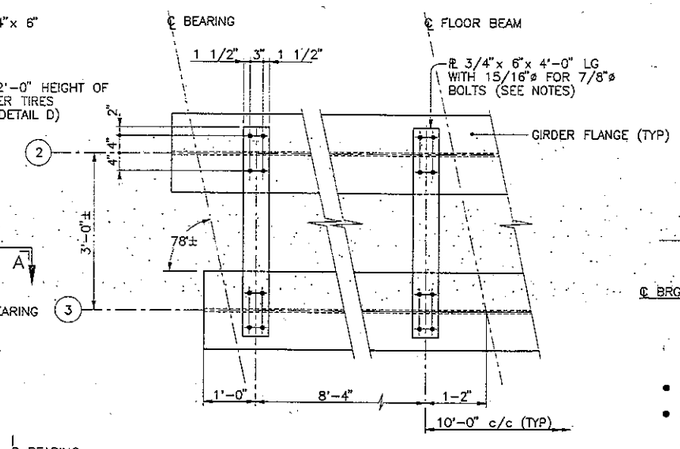
SECTION C-C

SCALE: 3/4"=1'-0"



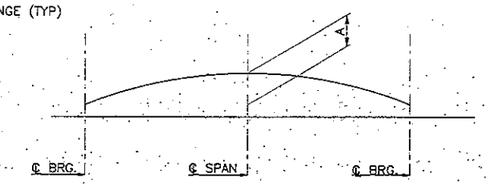
SECTION D-D

SCALE: 3/4"=1'-0"



DETAIL-A

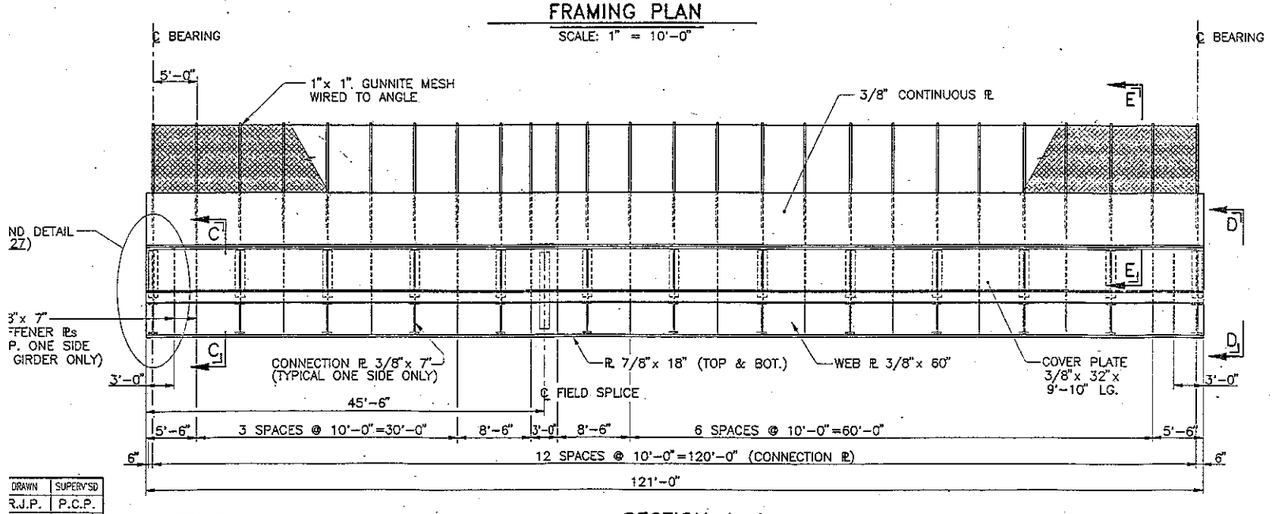
SCALE: 3/4"=1'-0"



BEAM CAMBER DIAGRAM

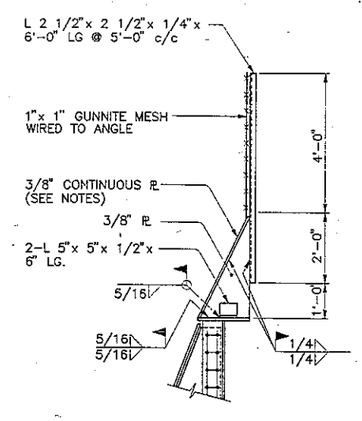
SCALE: N.T.S.

- A = ESTIMATED DEAD LOAD CHAMBER = 6.98"
- A IS THE THEORETICAL VALUE BASED ON THE ESTIMATED DEAD LOAD WHICH INCLUDES 12 LBS. PER SQUARE FOOT FOR TIRES AND 1 1/2" ADDITIONAL DEAD LOAD WITH WEIGHT DENSITY OF 96 LBS PER CUBIC FOOT.
"A" VALUE MAY VARY WITH ACTUAL LOADING CONDITIONS.



SECTION A-A

SCALE: VERTICAL - 1/4"=1'-0"
HORIZ. - 1/8"=1'-0"



SECTION E-E

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

NOTES:

- FOR GENERAL NOTES, SEE SHT. 24.
- FOR BEARING PAD DETAILS, SEE SHT. 28.
- FB - FLOOR BEAM
- S - STRINGER
- INSTALL THE 3/4"x 6"x 4'-0" LG PLATES BEFORE WELDING THE 3/8" BENT PLATE.
- PLACE THE 3/8" CONTINUOUS PLATE BEFORE WIRING THE GUNNITE MESH.

DRAWN	SUPERV'SD
R.J.P.	P.C.P.

REVISIONS

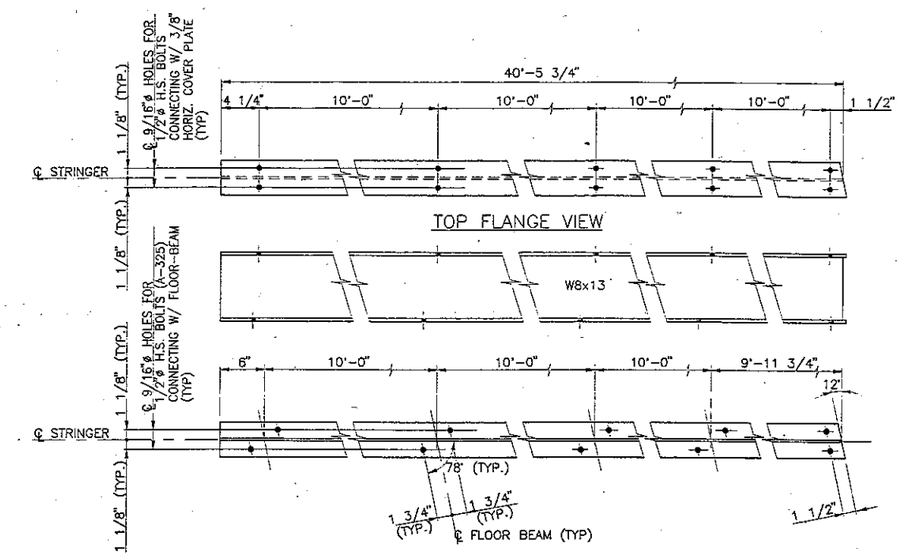
INSPECT'D	CKD.-CONST	CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF ENGINEERING
AND CONSTRUCTION

D.E.C. PROJECT NO. 90206
GREENFIELD BRIDGE
REHABILITATION DESIGN
FRAMING PLAN & TYPICAL SECTION
PROTECTIVE STRUCTURE

SCALE: AS NOTED SHEET NO. ACCESSION NO.

FOR INFORMATION ONLY

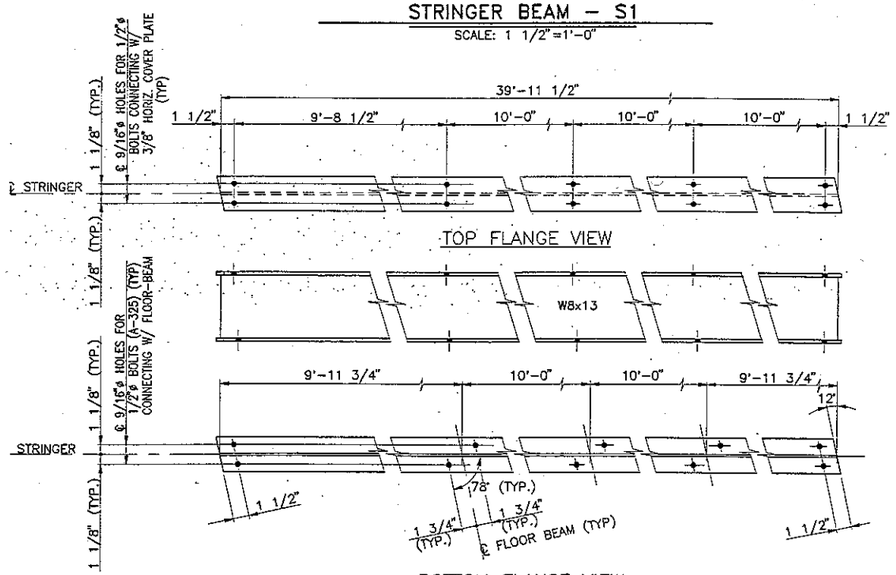


TOP FLANGE VIEW

BOTTOM FLANGE VIEW

STRINGER BEAM – S1

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

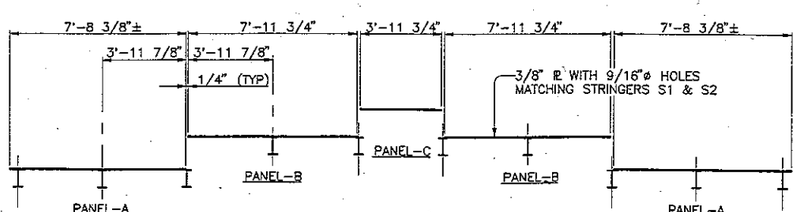


TOP FLANGE VIEW

BOTTOM FLANGE VIEW

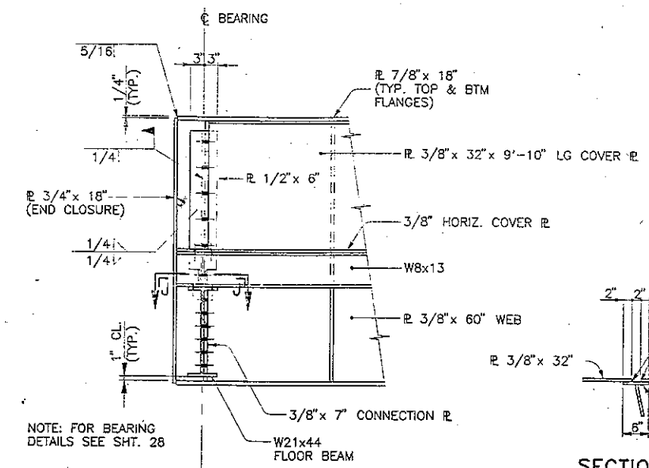
STRINGER BEAM – S2

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



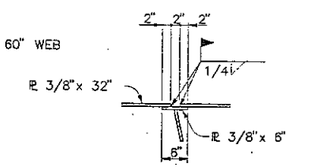
SECTION H–H (SHOP FABRICATION DETAIL, SEE SHT. 26)

SCALE: N.T.S.



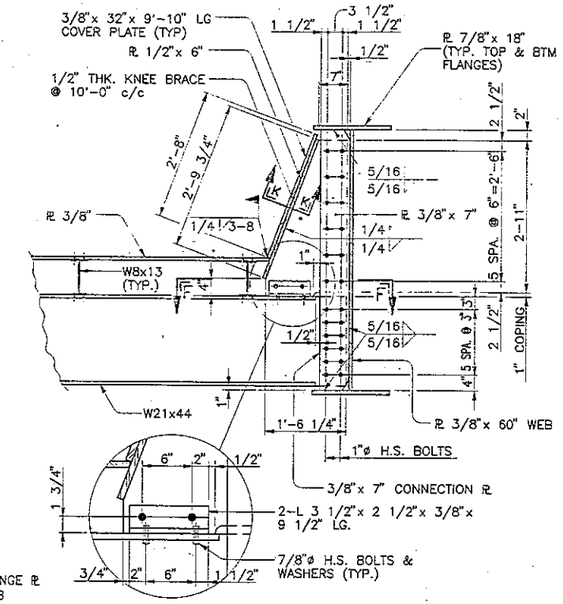
END DETAIL (SEE SHT. 26)

SCALE: 3/4"=1'-0"



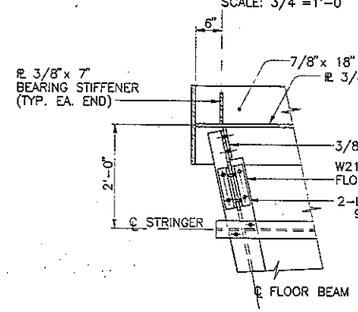
SECTION K–K

SCALE: 3/4"=1'-0"



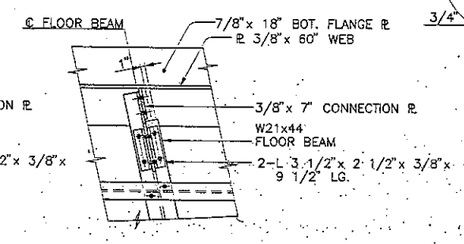
SECTION G–G (SEE SHT. 26)

SCALE: 3/4"=1'-0"



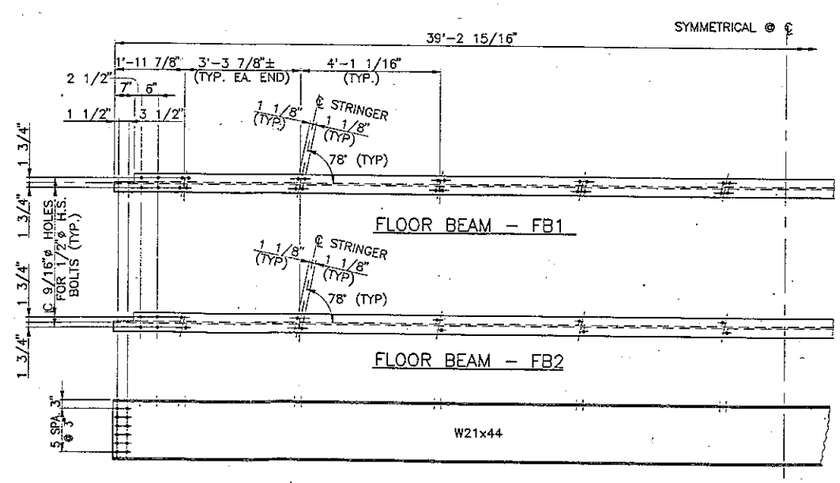
SECTION J–J

SCALE: 3/4"=1'-0"



SECTION F–F

SCALE: 3/4"=1'-0"



TYPICAL FLOOR BEAM ELEVATION

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

NOTES:

FOR GENERAL PLAN, SEE SHT. 23.

FOR GENERAL NOTES, SEE SHT. 24.

FOR BEARING PAD DETAILS, SEE SHT. 28.

USE STANDARD BOLT HOLES.

DRAWN	SUPERV'SD
J.P.	P.C.P.
INSPECT'D	CKD.-CONST

REVISIONS

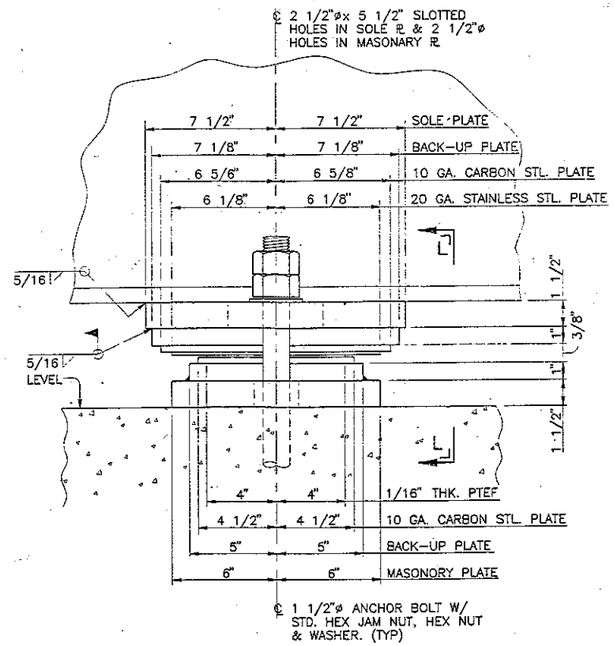
CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF ENGINEERING
AND CONSTRUCTION

D.E.C. PROJECT NO. 90206
GREENFIELD BRIDGE
REHABILITATION DESIGN
SECTIONS & DETAILS
PROTECTIVE STRUCTURE

SCALE: AS NOTED | SHEET NO. | ACCESSION NO.

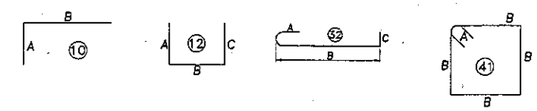
FOR INFORMATION ONLY



PARTIAL END VIEW

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	R	REMARKS
F501	5	24	21'-8"	STR.							
F502	5	46	9'-8"	STR.							
F503	5	53	12'-2"	STR.							
F504	5	36	8'-8"	STR.							
F505	5	40	7'-8"	STR.							
F506	5	48	12'-8"	STR.							
F507	5	56	11'-2"	STR.							
F701	7	39	21'-8"	STR.							
F801	8	116	9'-0"	10	1'-4"	7'-8"					
F802	8	36	8'-3"	10	1'-4"	6'-11"					
C401	4	112	11'-10"	12	4'-7"	2'-8"					
C402	4	336	3'-10"	32	6"	2'-8"	8"				
C403	4	112	11'-0 1/2"	41	4 1/2"	2'-8"					
C801	8	152	26'-10"	STR.							



REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY.

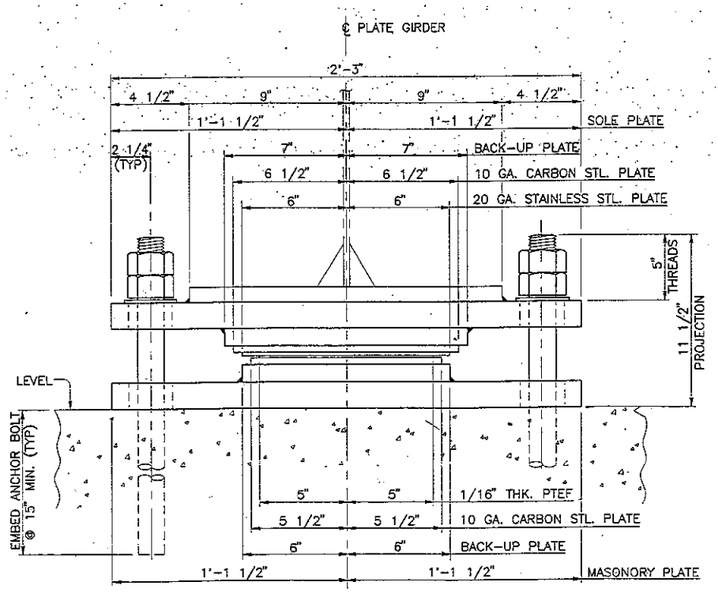
VERIFY REINFORCEMENT BAR SCHEDULE PRIOR TO BIDDING AND FABRICATION.

FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736.

FIGURE IN CIRCLES SHOW TYPES.

FY = 60 K.S.I.

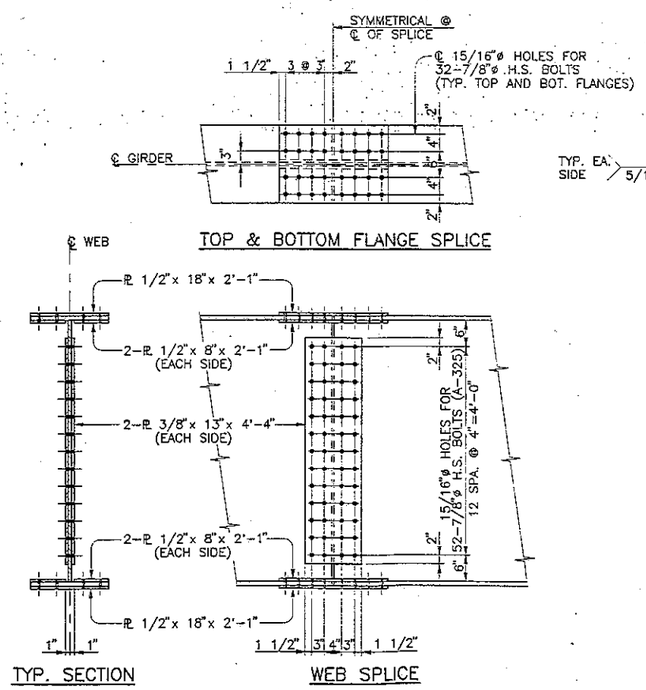
SHOW DIMENSION ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE USE STANDARD HOOKS.



SECTION L-L

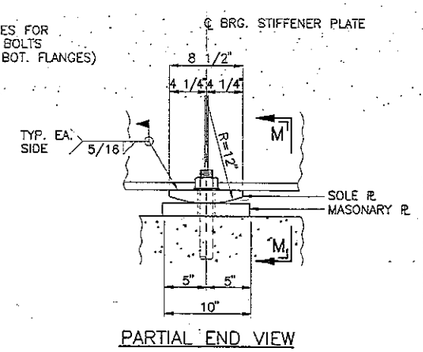
EXPANSION BEARING

SCALE: 3"=1'-0"

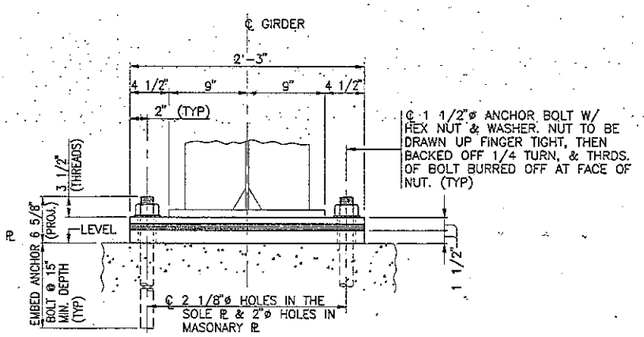


FIELD SPLICE DETAIL

SCALE: 3/4"=1'-0"



PARTIAL END VIEW



SECTION M-M

FIXED BEARING

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

NOTES:

FOR GENERAL PLAN, SEE SHT. 23.

FOR GENERAL NOTES, SEE SHT. 24.

DRAWN	SUPERV'SD
R.J.P.	P.C.P.

REVISIONS

INSPECT'D	CKD.-CONST	CHARACTER	DATE

CITY OF PITTSBURGH
DEPARTMENT OF ENGINEERING
AND CONSTRUCTION

D.E.C. PROJECT NO. 90206
GREENFIELD BRIDGE
REHABILITATION DESIGN
BEARING DEVICES, FIELD SPLICE & REBAR SCHEDULE
PROTECTIVE STRUCTURE

SCALE: AS NOTED SHEET NO. ACCESSION NO.