

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

PLANS FOR PROPOSED
 FEDERAL AID HIGHWAY

F.A.I. 55 (INTERSTATE 55)
 SECTION: 0203-632 HB-K-1
 AT US 12/20/45 (LaGRANGE ROAD)
 WIDENING & RESURFACING
 BRIDGE REPLACEMENT
 PROJECT: IM-NHI-55-7(180)278
 COOK COUNTY
 C-91-295-92

FOR INDEX OF SHEETS, SEE SHEET NO. 2

PROJECT LOCATED IN:
 VILLAGE OF HODGKINS
 VILLAGE OF WILLOW SPRINGS

TRAFFIC DATA
 US 12/20/45
 1990 ADT: 14,700 - 36,000 VEHICLES
 2010 ADT: 15,000 - 38,000 VEHICLES
 INTERSTATE 55
 1990 ADT: 57,400 - 58,700 VEHICLES
 2010 ADT: 74,000 - 77,000 VEHICLES

POSTED SPEED LIMIT
 US 12/20/45: 45 MPH
 INTERSTATE 55: 55 MPH

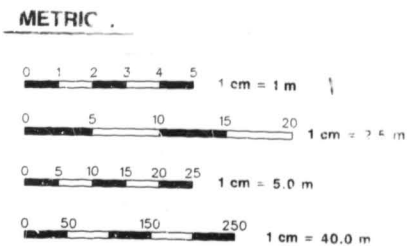
DESIGN DESIGNATION
 6900 (10) MAJOR 12 85 (CCT POSTE 20)

FBI SITE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	1
* 0203-632 HB-K-1				
D-91-295-92				



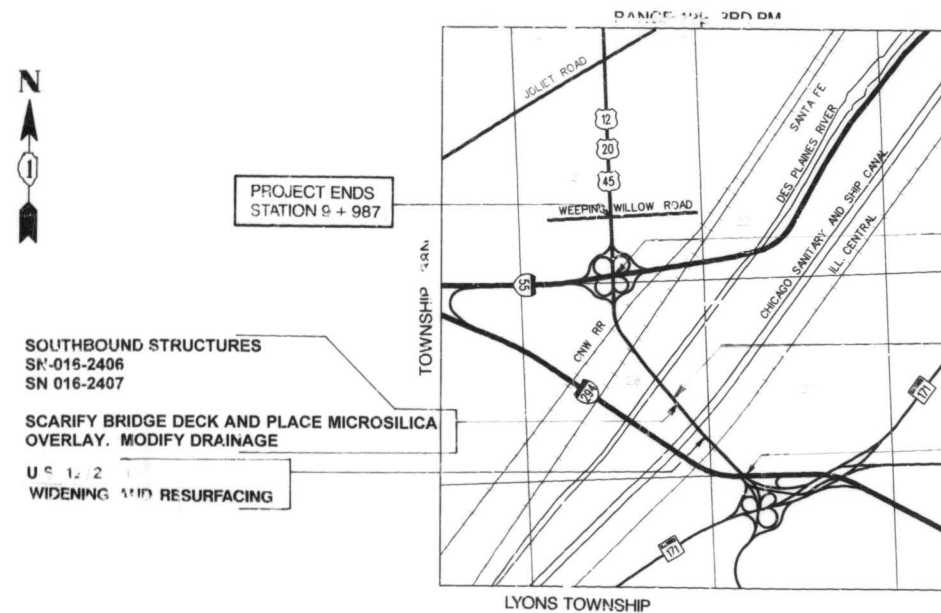
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED: *[Signature]* 10 22 94
 EXAMINED: _____ 18 _____
 PASSED: *[Signature]* 10 21 94
 APPROVED: *[Signature]* 10 21 94



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES, REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

CONTRACT NO. 82184



GROSS AND NET LENGTH OF PROJECT = 2,560 METERS = 2,560 KM

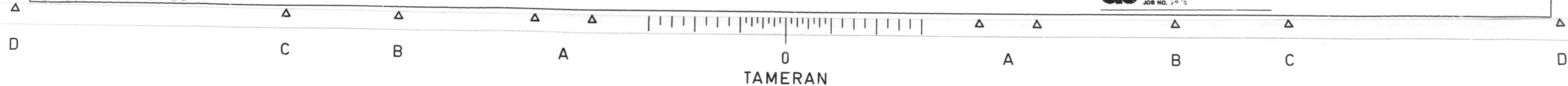


alfred benesch & company
 CONSULTING ENGINEERS
 205 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2015

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FOR UTILITIES INFORMATION, CALL
 J.U.L.I.E. (800) 892-0123

CONSULTANT PROJECT ENGINEER : RICK YOUNG (708) 705-4232



ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	X	COGK	165	2
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
X 0203-632		HB-K-1		

INDEX OF SHEETS

STANDARDS

PLAN NOTES

SHEET NUMBER	DESCRIPTION OF SHEETS	STANDARD NUMBER	DESCRIPTION
1	TITLE SHEET	1514-10	CATCH BASINS, TYPE A AND B
2	INDEX OF SHEETS, STANDARDS AND GENERAL NOTES	1527-10	MANHOLE, TYPE A
3-5	SUMMARY OF QUANTITIES	1683-5	INLET, TYPE A
6-7	SCHEDULE OF QUANTITIES	2113-4	DETAIL OF NAME PLATE FOR BRIDGES
8-16	TYPICAL SECTIONS	2122-16	PC CONCRETE MEDIANS
17-18	ALIGNMENT AND TIES	2130-15	CONCRETE CURB AND COMBINATION CONCRETE CURB AND GUTTER
19-29	PLAN AND PROFILE	2203-15	PCC BASE COURSE WITH BITUMINOUS CONCRETE BINDER AND SURFACE COURSES
30-35	DRAINAGE AND UTILITY PLAN	2217-4	GRATE, TYPE B
36	TEMPORARY EROSION CONTROL PLAN	2230-17	STEEL PLATE BEAM GUARDRAIL
37-45	SUGGESTED TRAFFIC CONTROL AND PROTECTION	2237-12	BITUMINOUS SHOULDER DETAILS ADJACENT TO RIGID PAVEMENT
46-47	DETOUR PLAN	2240-6	FLUSH INLET BOX FOR MEDIAN
48-51	PAVEMENT MARKING PLAN & LANDSCAPING	2259-8	WIDENING AND SHOULDERS FOR PAVEMENT RESURFACINGS (WITH AGGREGATE SHLDS.)
52-67	SIGNING	2298-10	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES
*68-125	BRIDGE PLANS	2299-14	DESIGN OF TRAFFIC CONTROL DEVICES
126-138	CROSS-SECTIONS	2300-4	FLAGGER TRAFFIC CONTROL SIGN
139	GORE DETAILS	2313-5	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES MULTILANE DIVIDED AND UNDIVIDED, RURAL DAY OR NIGHT OPERATIONS
140	PAVING DETAILS	2314-7	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES MULTILANE DIVIDED AND UNDIVIDED, RURAL DAY OR NIGHT OPERATIONS
*141-154	LIGHTING PLANS	2316-14	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES MULTILANE DIVIDED AND UNDIVIDED RURAL OPERATIONS EXCEEDING ONE DAYLIGHT OPERATION
155	ENTRANCE AND EXIT RAMP CLOSURE DETAILS	2319-5	SIGN PANEL MOUNTING DETAILS
156	DELETED	2320-4	SIGN PANEL ERECTION DETAILS
157	DETAIL OF STORM SEWER CONNECTION TO EXISTING SEWER	2323-14	PAVEMENT JOINTS
158	SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS	2324-9	BRIDGE APPROACH SHOULDER PAVEMENT AND DRAIN
159	DETAILS FOR STEEL PLATE BEAM GUARD RAIL AND TRAFFIC BARRIER TERMINAL TYPE 1 ADJACENT TO CURB AND GUTTER	2327-12	SUB-SURFACE DRAINS
160	CONSTRUCTING AND ADJUSTING UTILITY STRUCTURES	2336-5	TRAFFIC BARRIER TERMINAL TYPE 1
161	TRAFFIC CONTROL AND PROTECTION FOR SIDEROADS, INTERSECTIONS AND DRIVEWAYS	2337-3	TRAFFIC BARRIER TERMINAL TYPE 2
162	ONE LANE CLOSURE	2340-6	TRAFFIC BARRIER TERMINAL TYPE 5 & 5A
163	TWO LANE CLOSURE	2341-7	TRAFFIC BARRIER TERMINAL TYPE 6
164	PAVEMENT MARKING DETAILS	2362-4	CONCRETE HEADWALL FOR PIPE DRAINS
165	RECTANGULAR INDUCTION LOOP TYPICAL (METRIC)	2381-2	TEMPORARY EROSION CONTROL SYSTEMS
* INCLUDES 68A, 69A, 76A, 85A, 86A, 87A, 88A, 88B, 88C		2383-4	TEMPORARY CONCRETE BARRIER
* INCLUDES 141A, 144A, 145A, 148A		2396	TYPICAL PAVEMENT MARKINGS
		2397-1	TYPICAL APPLICATIONS, RAISED REFLECTIVE PAVEMENT MARKERS (SNOW PLOW RESISTANT)
		2419	TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES, MULTILANE DIVIDED AND UNDIVIDED, RURAL, DAY OR NIGHT OPERATIONS
		2424-1	FRAME AND GRATE, TYPE 24
		2426-4	CLASS B PATCHES
		2441-1	PCC/BITUMINOUS STABILIZATION AT STEEL PLATE BEAM GUARDRAIL
		2442-2	BRIDGE APPROACH PAVEMENT
		2443-2	BRIDGE APPROACH PAVEMENT (DRAIN DETAIL)
		2449-1	PRECAST REINFORCED CONCRETE FLARED END SECTION
		TS-2341	MAJOR GUIDE SIGN LAYOUT-ARROWS
		TS-2147	STANDARD EXTRUDED ALUMINUM SIGN PANELS

- BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL "JULIE" AT 800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE AND GAS FACILITIES. (48 HOURS NOTIFICATION IS REQUIRED).
- 3m TRANSITIONS SHALL BE USED TO MATCH PROPOSED CURB AND GUTTER AND MEDIAN ITEMS OF WORK TO EXISTING CURBS & GUTTERS AND MEDIANS IN THE FIELD, UNLESS OTHERWISE SHOWN. THE TRANSITIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PROPOSED ITEMS OF WORK SPECIFIED.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES.
- THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- THE REMOVAL OF GUARDRAIL TERMINAL SECTIONS SHALL BE INCLUDED IN THE UNIT PRICE PER LINEAL METER FOR STEEL PLATE BEAM GUARD RAIL REMOVAL.
- BARRICADES: THE CONTRACTOR SHALL PROVIDE AND INSTALL TWO (2) WEIGHTED SAND BAGS ON EACH TYPE I OR TYPE II BARRICADE USED. (ONE (1) WEIGHTED SAND BAG ACROSS EACH BOTTOM RAIL).
- WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AND ADJOINING RESIDENTIAL AREAS.
- EXISTING SLOPES SHALL BE BENCHED WITH A MINIMUM 0.5m VERTICAL RISE PRIOR TO EMBANKMENT PLACEMENT. THE COST OF BENCHING AND ADDITIONAL EMBANKMENT SHALL BE INCIDENTAL TO EMBANKMENT.
- TEMPORARY CONCRETE BARRIER MAY BE PICKED UP FROM THE IDOT NEW LENOX MAINTENANCE YARD AT: SE FRONTAGE ROAD OF INTERSTATE 80 & U.S. ROUTE 30.

10. THE DESCRIPTIONS OF PAY ITEMS IN THE SUMMARY OF QUANTITIES ARE METRIC HARD CONVERSIONS. DESCRIPTIONS OF PAY ITEMS IN THE PLANS MAY REFLECT METRIC SOFT CONVERSIONS.

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANCE ROAD)
 OVER F.A.I. 55
 INDEX OF SHEETS, STANDARDS
 AND GENERAL NOTES
 SCALE: DATE: 9/1/1994
 DRAWN BY: CHECKED BY:


alfred benesh & company
 CONSULTING ENGINEERS
 200 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2975

Rev. 12-29-94
 Rev. 12-14-94

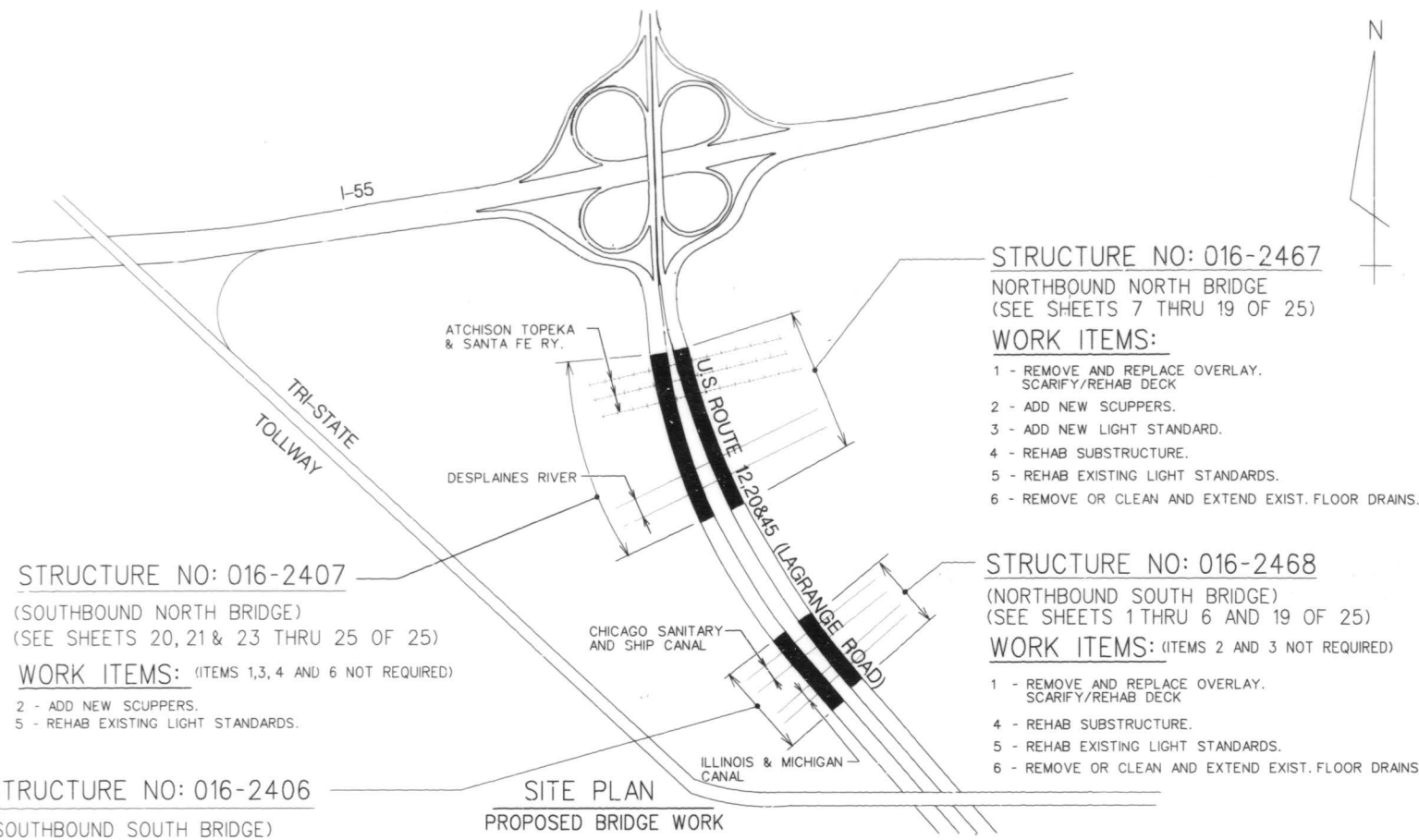


ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	96
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	

*0203-632 HB-K-1 SHEET 1A OF 25

INDEX OF SHEETS

SHEET NUMBER	DESCRIPTION OF SHEETS
1A	SITE PLAN, INDEX OF SHEETS AND BILL OF MATERIAL
1	NORTHBOUND SOUTH BRIDGE PLAN AND ELEV. SPANS 1-10
2	NORTHBOUND SOUTH BRIDGE PLAN AND ELEV. SPANS 11-13
3	NORTHBOUND SOUTH BRIDGE CONSTRUCTION STAGING
4	NORTHBOUND SOUTH BRIDGE DECK REPAIR PLAN SPANS 1-10
5	NORTHBOUND SOUTH BRIDGE DECK REPAIR PLAN SPANS 11-13
6	NORTHBOUND SOUTH BRIDGE SUBSTRUCTURE REPAIR
7	NORTHBOUND NORTH BRIDGE PLAN AND ELEV. SPANS 1-9
8	NORTHBOUND NORTH BRIDGE PLAN AND ELEV. SPANS 10-17
9	NORTHBOUND NORTH BRIDGE PLAN AND ELEV. SPANS 18-25
10	NORTHBOUND NORTH BRIDGE PLAN AND ELEV. SPANS 26-30
11	NORTHBOUND NORTH BRIDGE CONSTRUCTION STAGING
12	NORTHBOUND NORTH BRIDGE REPAIR PLAN SPANS 1-9
13	NORTHBOUND NORTH BRIDGE REPAIR PLAN SPANS 10-18
14	NORTHBOUND NORTH BRIDGE REPAIR PLAN SPANS 19-26
15	NORTHBOUND NORTH BRIDGE REPAIR PLAN SPANS 27-30
16	NORTHBOUND NORTH BRIDGE SCUPPER DETAILS
17	NORTHBOUND NORTH BRIDGE SUBSTRUCTURE REPAIR
18	NORTHBOUND NORTH BRIDGE SUBSTRUCTURE REPAIR
19	NORTHBOUND NORTH AND SOUTH BRIDGE MISCELLANEOUS DETAILS
20	SOUTHBOUND NORTH AND SOUTH BRIDGE TYPICAL DECK SECT. & NOTES
21	SOUTHBOUND NORTH AND SOUTH BRIDGE CONSTRUCTION STAGING
22	SOUTHBOUND SOUTH BRIDGE DECK REPAIR PLAN
23	SOUTHBOUND NORTH BRIDGE DECK REPAIR PLAN
24	SOUTHBOUND NORTH AND SOUTH BRIDGE SCUPPER DETAILS
25	SOUTHBOUND NORTH AND SOUTH BRIDGE MISCELLANEOUS DETAILS
25A	STEEL DRAINAGE SCUPPER DETAILS
25B	ALTERNATE CAST IRON DRAINAGE SCUPPER DETAILS
25C	GIRDER REPAIR
25D	GIRDER REPAIR



STRUCTURE NO: 016-2407
 (SOUTHBOUND NORTH BRIDGE)
 (SEE SHEETS 20, 21 & 23 THRU 25 OF 25)
WORK ITEMS: (ITEMS 1, 3, 4 AND 6 NOT REQUIRED)
 2 - ADD NEW SCUPPERS.
 5 - REHAB EXISTING LIGHT STANDARDS.

STRUCTURE NO: 016-2406
 (SOUTHBOUND SOUTH BRIDGE)
 (SEE SHEETS 20 THRU 22, 24 & 25 OF 25)
WORK ITEMS: (ITEMS 1, 3, 4 AND 6 NOT REQUIRED)
 2 - ADD NEW SCUPPERS.
 5 - REHAB EXISTING LIGHT STANDARDS.

STRUCTURE NO: 016-2467
 NORTHBOUND NORTH BRIDGE
 (SEE SHEETS 7 THRU 19 OF 25)
WORK ITEMS:
 1 - REMOVE AND REPLACE OVERLAY. SCARIFY/REHAB DECK
 2 - ADD NEW SCUPPERS.
 3 - ADD NEW LIGHT STANDARD.
 4 - REHAB SUBSTRUCTURE.
 5 - REHAB EXISTING LIGHT STANDARDS.
 6 - REMOVE OR CLEAN AND EXTEND EXIST. FLOOR DRAINS.

STRUCTURE NO: 016-2468
 (NORTHBOUND SOUTH BRIDGE)
 (SEE SHEETS 1 THRU 6 AND 19 OF 25)
WORK ITEMS: (ITEMS 2 AND 3 NOT REQUIRED)
 1 - REMOVE AND REPLACE OVERLAY. SCARIFY/REHAB DECK
 4 - REHAB SUBSTRUCTURE.
 5 - REHAB EXISTING LIGHT STANDARDS.
 6 - REMOVE OR CLEAN AND EXTEND EXIST. FLOOR DRAINS.

TOTAL BILL OF MATERIAL

ITEM	UNIT	STRUCTURE				TOTAL
		SN-016-2468	SN-016-2467	SN-016-2406	SN-016-2407	
CONCRETE SUPERSTRUCTURE	m ³	10.0	5.0	—	—	15.0
DRAINAGE SCUPPERS	EACH	—	1	9	15	25
DRAINAGE SYSTEM	L.SUM	—	0.06	—	0.94	1
DRAINAGE STRUCTURES TO BE CLEANED	EACH	18	5.3	2	19	92
FLOOR DRAIN EXTENSIONS	L.SUM	0.70	0.30	—	—	1
DECK SLAB REMOVAL (PARTIAL)	m ²	1400.0	743.0	—	—	2143.0
DECK SLAB REPAIR (FULL-DEPTH TYPE I)	m ²	100.0	355.0	—	—	455.0
DECK SLAB REPAIR (FULL-DEPTH TYPE II)	m ²	—	300.0	—	—	300.0
BITUMINOUS CONCRETE REMOVAL (DECK)	m ²	4,819.0	9,832.4	—	—	14,651.4
CONCRETE BRIDGE DECK SCARIFICATION 10mm	m ²	4,819.0	9,832.4	—	—	14,651.4
BRIDGE DECK MICROSILICA CONCRETE OVERLAY, 50mm	m ²	4,819.0	9,832.4	—	—	14,651.4
FORMED CONCRETE REPAIR (DEPTH ≤ 125mm)	m ²	17.0	57.0	—	—	74.0
EPOXY CRACK SEALING	m	34.5	5.0	—	—	39.5
REINFORCEMENT BARS, EPOXY COATED	kg	—	10	90	150	250
LIGHT STANDARD INSTALLATION	EACH	—	1	—	—	1
LIGHT STANDARD REPAIR	EACH	6	11	6	12	35
FURNISHING & ERECTING STRUCTURAL STEEL	kg	—	—	340	—	340
CLEANING EXISTING CONDUIT	L.SUM	0.16	0.34	0.16	0.34	1
REPAIR OF CONDUIT EXPANSION FITTINGS	EACH	1	5	—	—	6
FORMED CONCRETE REPAIR (DEPTH > 125mm)	m ²	2.0	6.0	—	—	8
PROTECTIVE SHIELD	m ²	2,254.0	3,890.0	—	—	6,144.0

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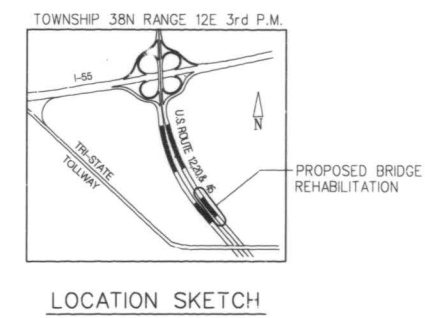
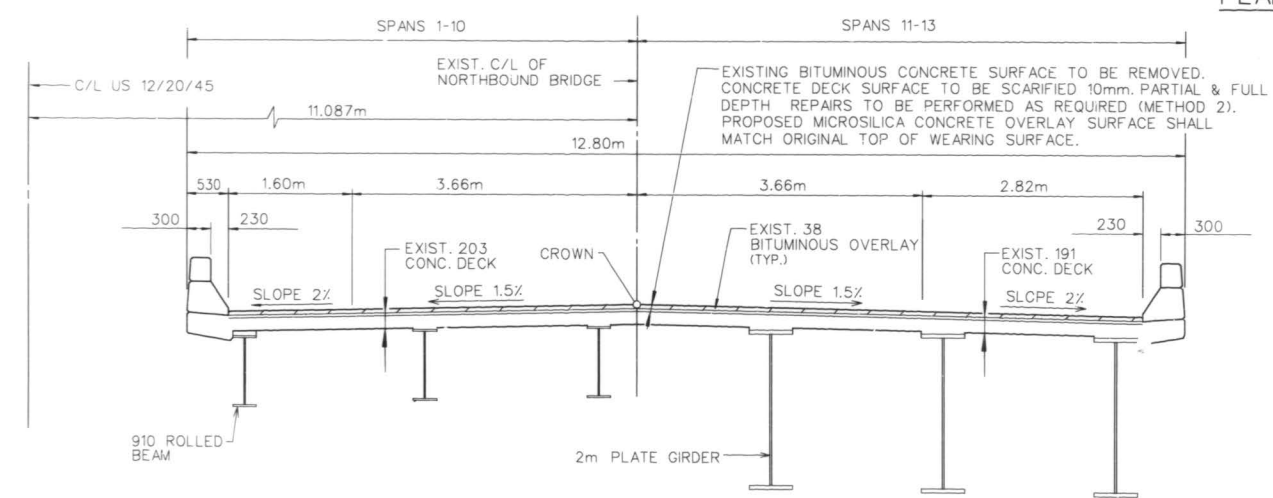
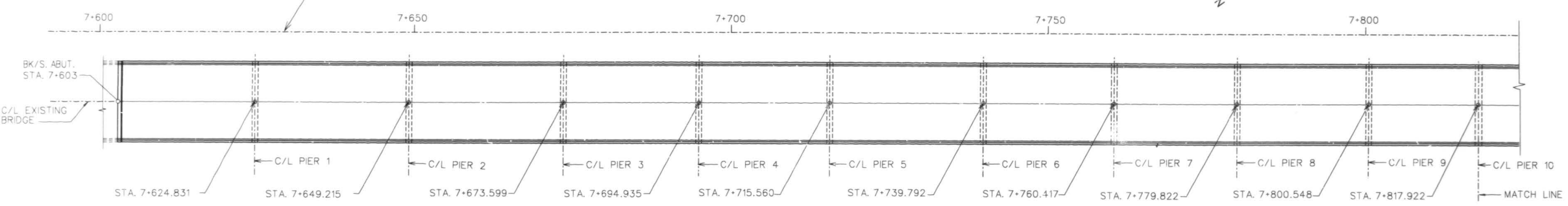
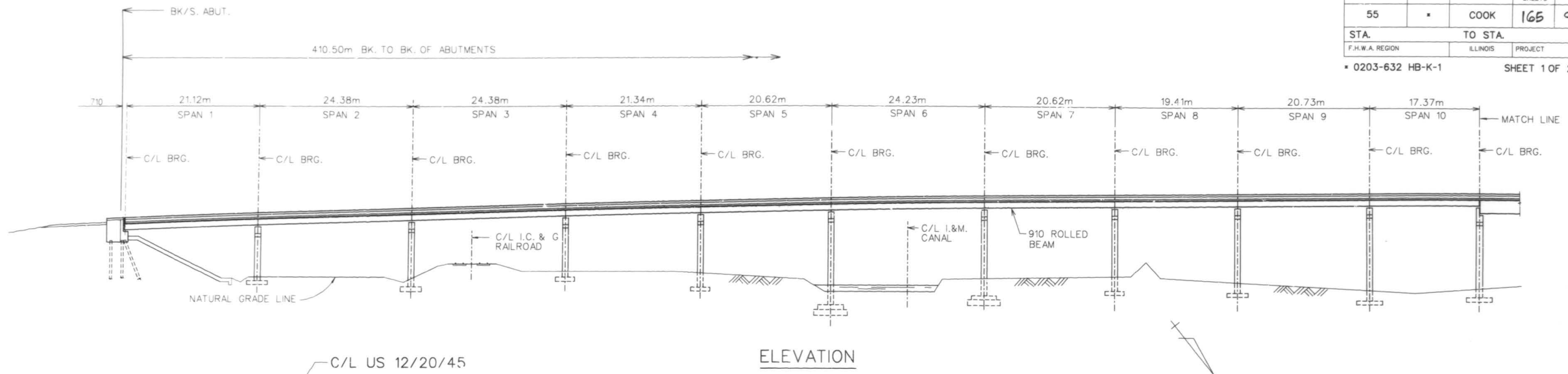
DESIGNED	S.E.
CHECKED	D.P.
DRAWN	T.S.
CHECKED	S.E.

alfred benesch & company
 CONSULTING ENGINEERS
 205 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2975

ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
SITE PLAN
 SN: 016-2407(N), 2406(S) SECTION 0203-632-HB-K-1
 SN: 016-2467(N), 2468(S) LA GRANGE ROAD
 COOK CO., IL.

REVISION 12-7-94 DWP

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	97
STA.	TO STA.			
F.H.W.A. REGION	ILLINOIS	PROJECT		
* 0203-632 HB-K-1			SHEET 1 OF 25	



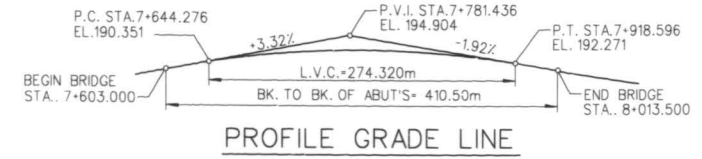
TOTAL BILL OF MATERIAL
(NORTHBOUND SOUTH BRIDGE SN-016-2468)

ITEM	UNIT	TOTAL
CONCRETE SUPERSTRUCTURE	m ³	10.0
FLOOR DRAIN EXTENSIONS	EACH	20
DECK SLAB REMOVAL (PARTIAL)	m ²	1400.0
BITUMINOUS CONCRETE REMOVAL (DECK)	m ²	4,819.0
CONCRETE BRIDGE DECK SCARIFICATION 10 mm	m ²	4,819.0
BRIDGE DECK MICROSILICA CONCRETE OVERLAY, 50 mm	m ²	4,819.0
FORMED CONCRETE REPAIR (DEPTH ≤125mm)	m ²	17.0
EPOXY CRACK SEALING	m	34.5
LIGHT STANDARD REPAIR	EACH	6
DRAINAGE STRUCTURES TO BE CLEANED	EACH	18
DECK SLAB REPAIR (FULL DEPTH TYPE 1)	m ²	100.0
CLEANING EXISTING CONDUIT	L.SUM	0.16
* REPAIR OF CONDUIT EXP. FITTING	EACH	1
FORMED CONCRETE REPAIR (DEPTH > 125mm)	m ²	2.0
PROTECTIVE SHIELD	m²	2254

NOTE:
TRAFFIC TO BE MAINTAINED UTILIZING STAGE CONSTRUCTION. SUPERSTRUCTURE TO BE REHABILITATED. SUBSTRUCTURE TO BE REPAIRED.
EXISTING BITUMINOUS CONCRETE SURFACE TO BE REMOVED. CONCRETE DECK SURFACE TO BE SCARIFIED 10mm PARTIAL AND FULL DEPTH REPAIRS TO BE PERFORMED AS REQUIRED.
THIS DECK REHABILITATION ASSUMES THAT A FUTURE WEARING SURFACE WILL NOT BE PERMITTED.
ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
* FOR REPAIR DETAILS SEE SHEET 3 OF 25 AND REFER TO SPECIAL PROVISIONS.
ALL EXPANSION JOINTS TO REMAIN. DECK OVERLAY TO BE TAPERED AS REQUIRED TO MEET TOP OF EXPANSION JOINTS.

DESIGN SPECIFICATIONS
AASHTO 1992 SPECIFICATIONS WITH 1993 INTERIM
LOADING: MS18

EXISTING STRUCTURE
STRUCTURE NO. 016-2468
BUILT IN 1976
R.C. OPEN ABUTMENTS ON CONCRETE PILES
4 BRIDGE UNITS:
1 - FOUR SPAN ROLLED BEAM UNIT
2 - THREE SPAN ROLLED BEAM UNITS
1 - THREE SPAN HAUNCHED PLATE GIRDER UNIT



DESIGNED	S.E.
CHECKED	D.P.
DRAWN	J.G.
CHECKED	S.E.

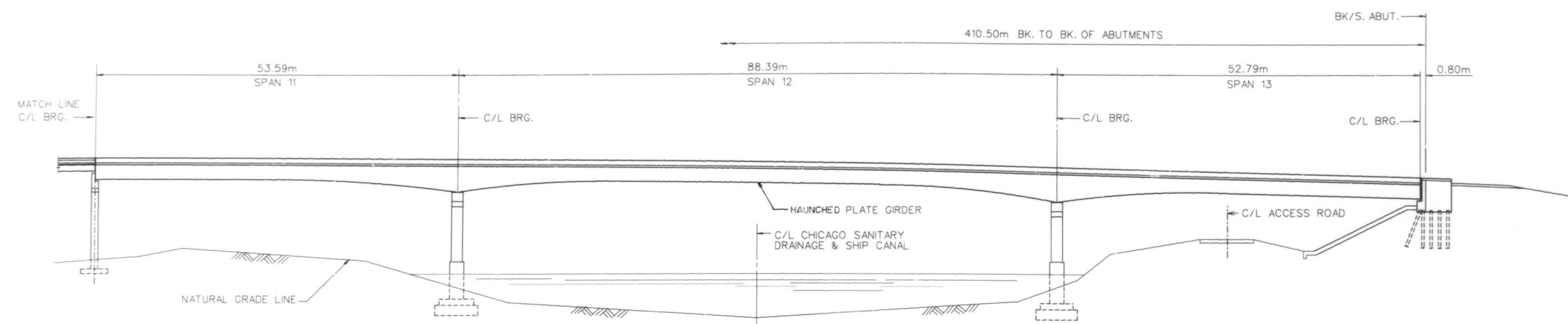
DESIGN STRESSES
f_c = 24 MPa
f_y = 400 MPa (REINFORCEMENT)

ab alfred benesch & company
CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2975

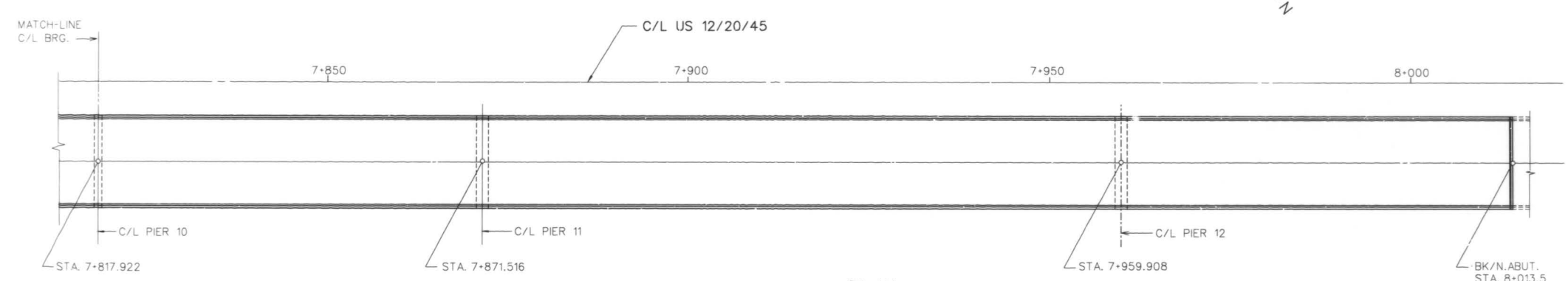
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
NORTHBOUND SOUTH BRIDGE
PLAN AND ELEVATION - SPANS 1-10
SN: 016-2468 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 7+603.000

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	1	COOK	165	98
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
0203-632 HB-K-1		SHEET 2 OF 25		



ELEVATION



PLAN

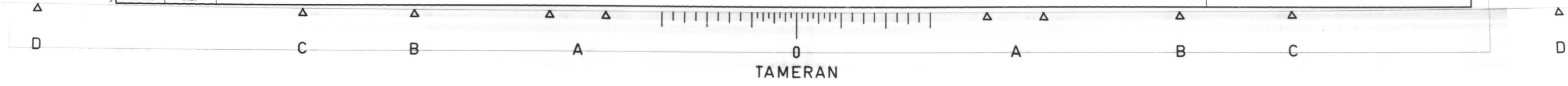
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DESIGNED	S.E.
CHECKED	D.P.
DRAWN	T.S.
CHECKED	S.E.

ab alfred benesch & company
CONSULTING ENGINEERS
300 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2975

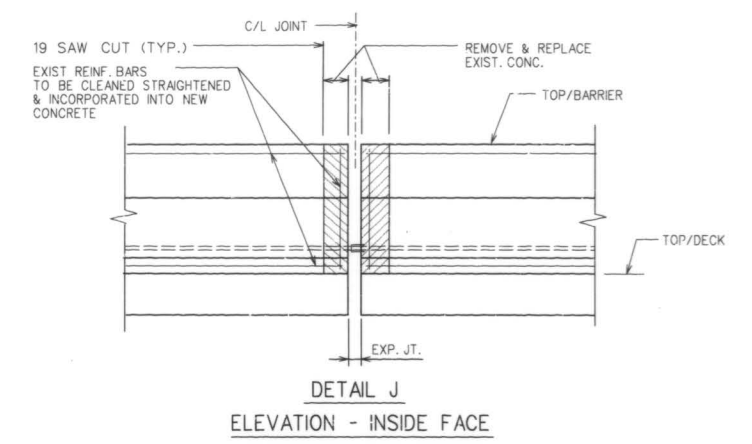
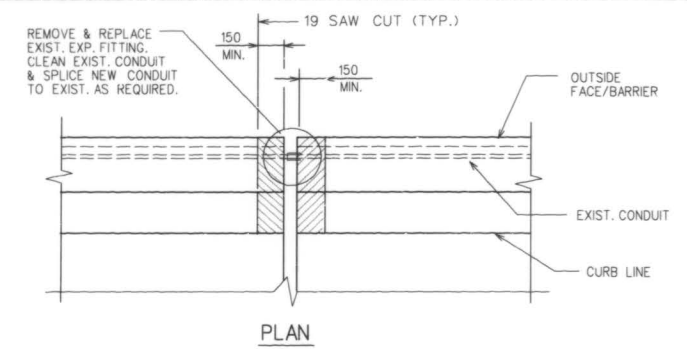
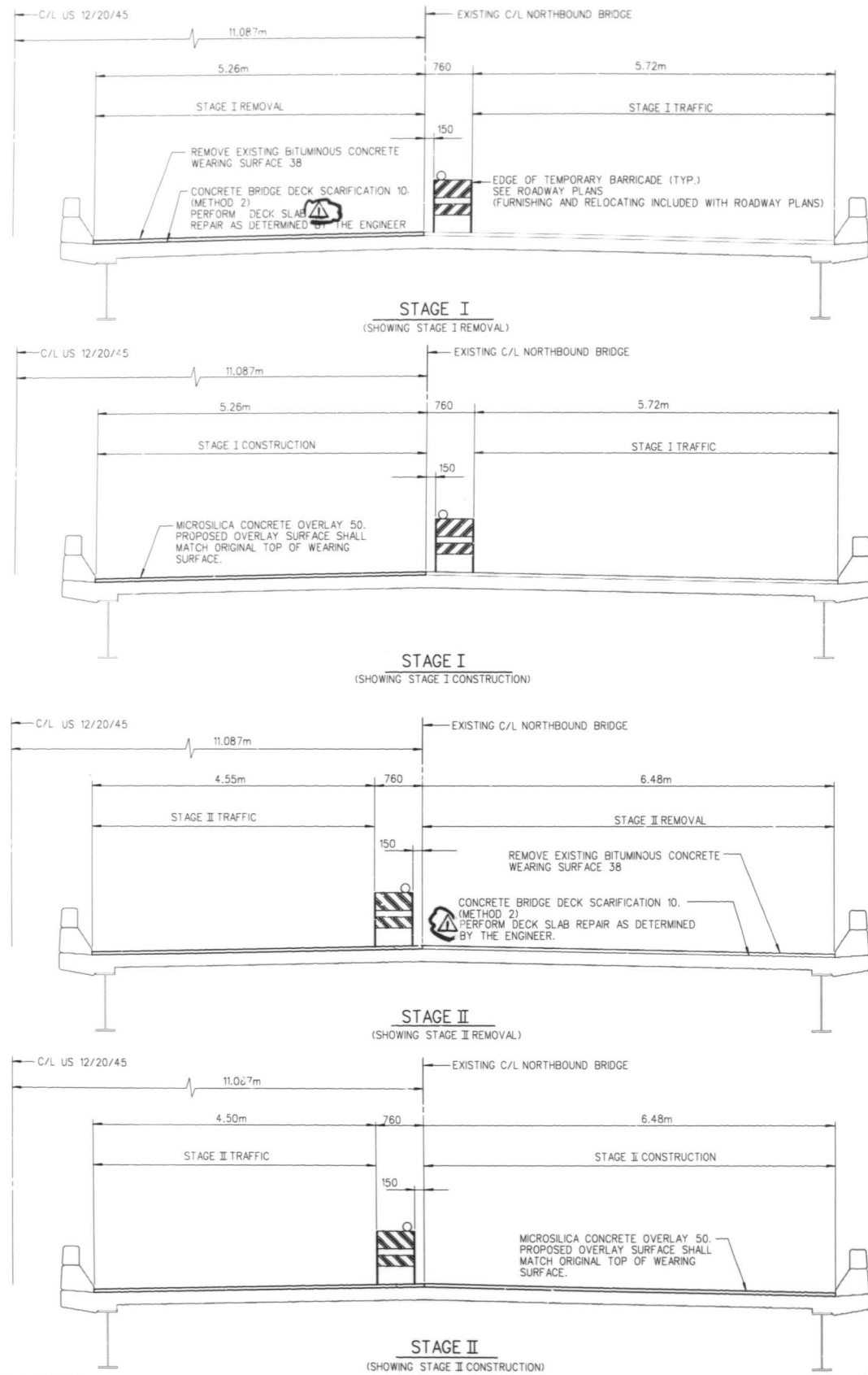
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
NORTHBOUND SOUTH BRIDGE
PLAN AND ELEVATION - SPANS 11-13
SN: 016-2468 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 7+817.922

SPLE2.DGN 9-1-94



TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	99
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
* 0203-632 HB-IC-1				SHEET 3 OF 25



REPAIR OF BLOCKED CONDUIT AT EXPANSION FITTING

ALL WORK REQUIRED FOR REPAIR OF EXISTING EXP. FITTING INCLUDING CONCRETE REMOVAL AND REPLACEMENT, CLEANING CONDUITS, REPLACEMENT OF EXISTING EXPANSION FITTINGS, CLEANING & INCORPORATING EXIST. REINFORCING AND ALL OTHER WORK AS DETAILED IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INCIDENTAL TO THE PAY ITEM "REPAIR OF CONDUIT EXPANSION FITTINGS."

NOTES

- TRAFFIC SHALL BE MAINTAINED UTILIZING STAGE CONSTRUCTION ABOUT THE CENTERLINE OF THE ROADWAY.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31M, M-42M OR M-53M GRADE 400.
- ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM, COST INCIDENTAL TO WORK BEING PERFORMED.
- ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 250.
- THE ZINC-SILICATE/ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE FINISH COAT SHALL BE INTERSTATE GREEN TO MATCH THE EXIST. GIRDERS.
- ALL EXISTING DRAINAGE SCUPPERS SHALL BE CLEANED. CLEANING SHALL INCLUDE ALL THE EXISTING DRAINAGE SYSTEMS. THIS WORK SHALL BE INCIDENTAL TO "DRAINAGE STRUCTURES TO BE CLEANED".
- ALL EXISTING FLOOR DRAINS TO REMAIN SHALL BE CLEANED. THIS WORK SHALL BE INCIDENTAL TO "FLOOR DRAIN EXTENTIONS".

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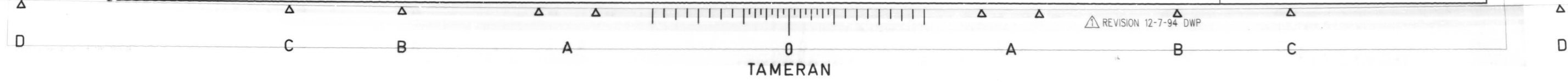
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CHECKED	D.P.
DRAWN	JG
CHECKED	S.E.

TYPICAL SECTIONS
(LOOKING UPSTATION)

ab alfred benesch & company
CONSULTING ENGINEERS
305 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60610
JOB NO. 2975

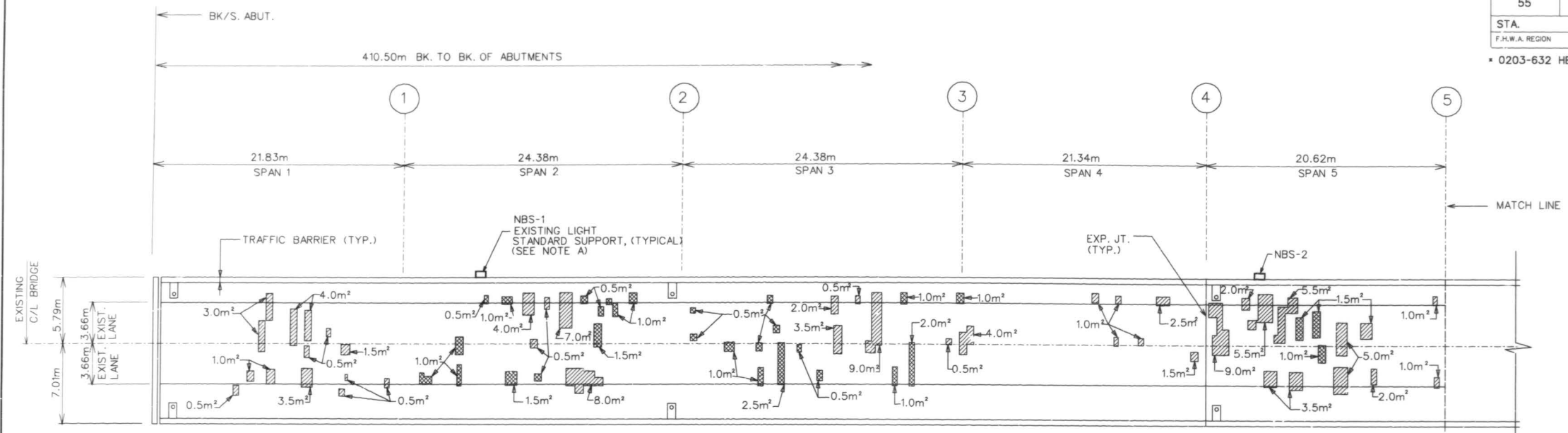
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
**NORTHBOUND SOUTH BRIDGE
CONSTRUCTION STAGING**

SN: 016-2468 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 7-603.00

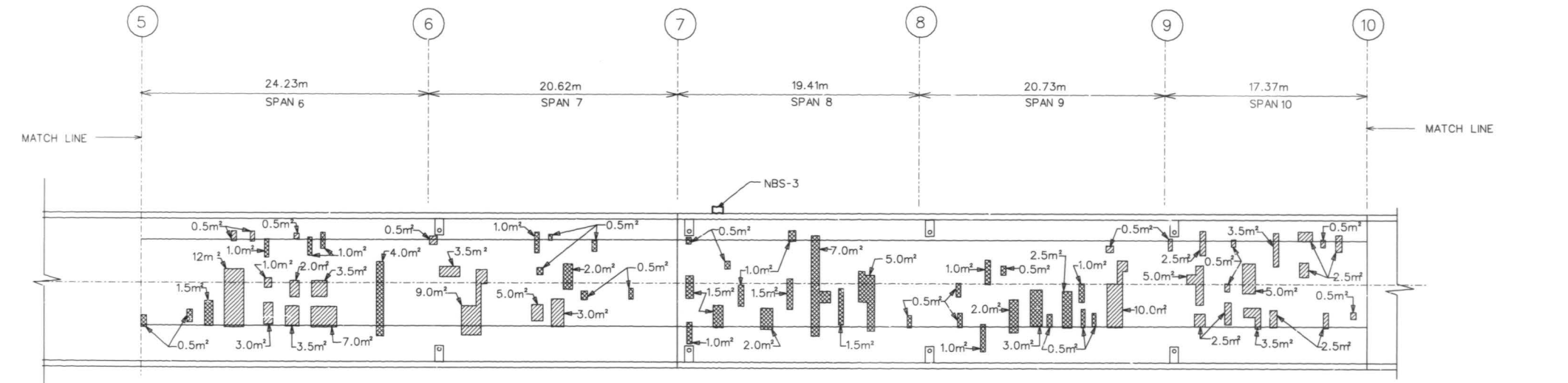


SSTAGE.DGN 12-7-94

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	100
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
* 0203-632 HB-K-1				SHEET 4 OF 25



PLAN



PLAN

LEGEND

- FLOOR DRAIN TO BE CLEANED AND DRAIN PIPE TO BE EXTENDED. SEE DETAIL, SHEET N0.19.
- DECK SLAB REMOVAL (PARTIAL).
- DECK SLAB REPAIR (FULL DEPTH TYPE 1)
- EXISTING DRAINAGE SCUPPER TO BE CLEANED.

NOTE A

EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 19, UNLESS OTHERWISE SPECIFIED.

NOTE:

PARTIAL & FULL DEPTH DECK SLAB REPAIR AREAS SHOWN HAVE BEEN ROUNDED UP TO THE NEAREST .5m²

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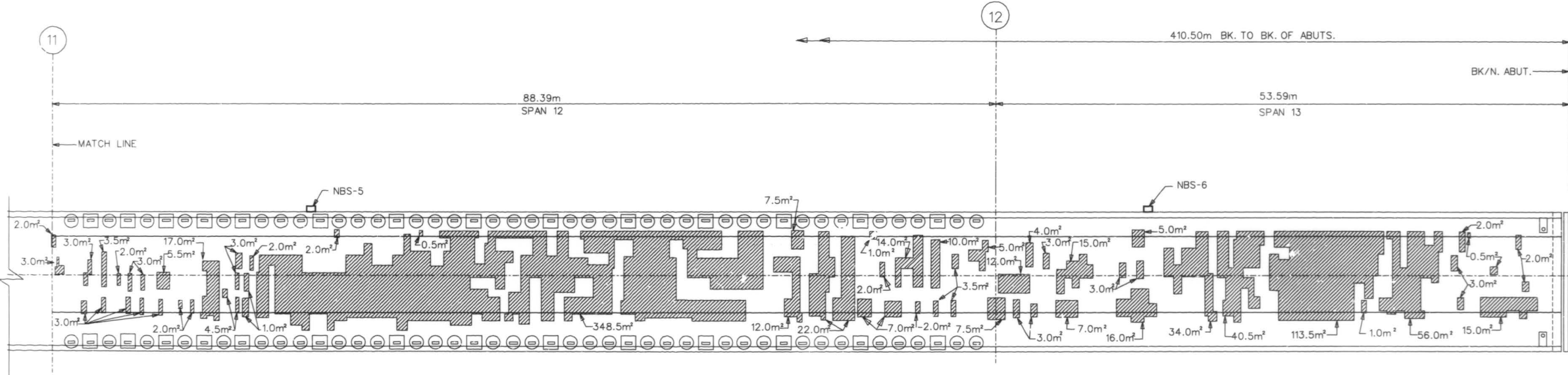
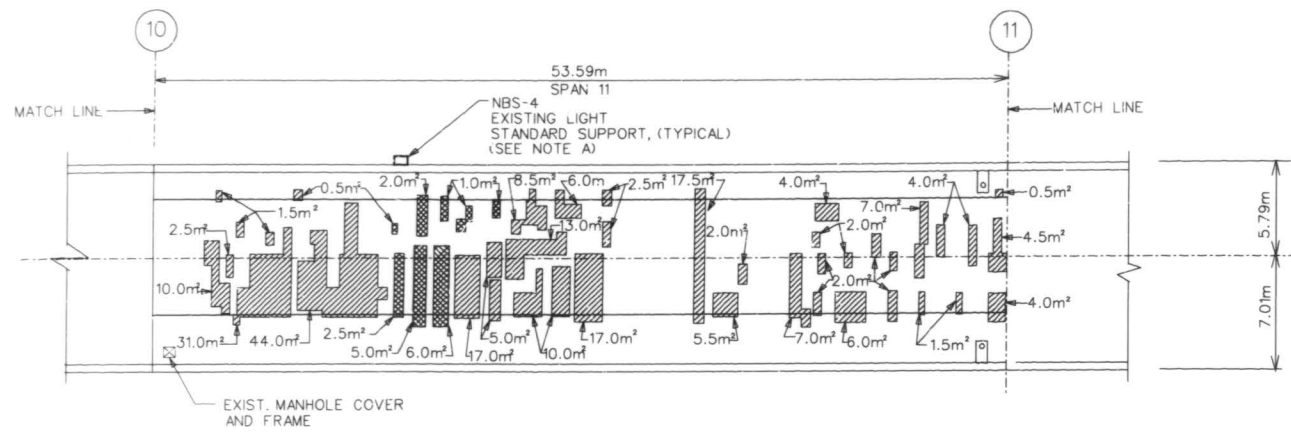
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CHECKED	DP
DRAWN	HL
CHECKED	SE

ab **alfred benesch & company**
CONSULTING ENGINEERS
200 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2975

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
NORTHBOUND SOUTH BRIDGE
DECK REPAIR PLAN - SPANS 1-10
SN: 016-2468
COOK CO., IL.
SECTION 0203-632-HB-K-1
STA. 7+603.000

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	101
STA		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
* 0203-632 HB-K-1		SHEET 5 OF 25		



PLAN

LEGEND

- FLOOR DRAIN TO BE CLEANED AND DRAIN PIPE TO BE EXTENDED. SEE DETAIL, SHEET NO.19.
- FLOOR DRAIN TO BE REMOVED.
- DECK SLAB REMOVAL (PARTIAL).
- DECK SLAB REPAIR (FULL DEPTH TYPE 1)
- EXISTING DRAINAGE SCUPPER TO BE CLEANED.

NOTE A

EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 19, UNLESS OTHERWISE SPECIFIED.

NOTES:

THE COST OF FLOOR DRAINS TO BE REMOVED INCLUDING ADJACENT AREAS OF DECK CONCRETE (FULL DEPTH) SHALL BE INCIDENTAL TO "DECK SLAB REPAIR (FULL DEPTH, TYPE 1)"

THE COST OF PLACING CONCRETE IN AREAS OF FLOOR DRAIN REMOVAL SHALL BE PAID FOR AS "CONCRETE SUPERSTRUCTURE."

THE COST OF FLOOR DRAINS TO BE CLEANED AND EXTENDED SHALL BE INCIDENTAL TO FLOOR DRAIN EXTENSIONS.

EXISTING REINFORCEMENT IN FLOOR DRAIN REMOVAL AREA SHALL BE CLEANED STRAIGHTENED AND INCORPORATED INTO NEW CONSTRUCTION.

MINIMUM FLOOR DRAIN REMOVAL AREA SHALL BE 300 x 1.0m AT DRAINS.

DESIGNED	SE
CHECKED	DP
DRAWN	HL
CHECKED	SE

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CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

SREPAIR2.DGN 9-1-94

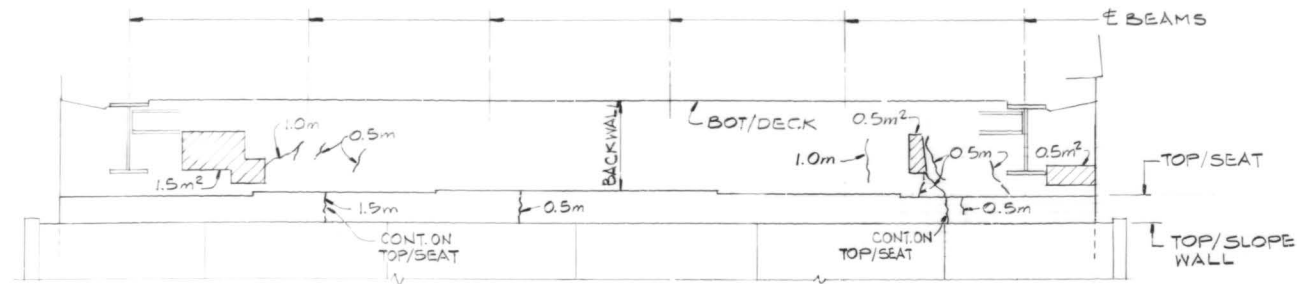
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)

**NORTHBOUND SOUTH BRIDGE
DECK REPAIR PLAN - SPANS 11-13**

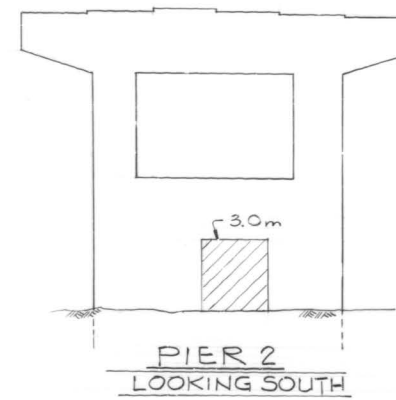
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COOK CO., IL. STA. 7+817.922

TAMERAN

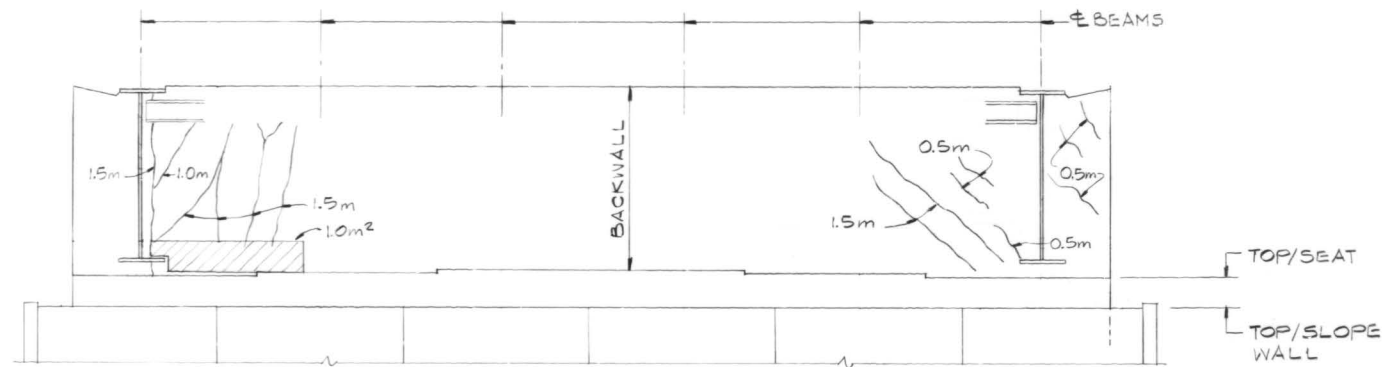
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55	x	COOK	165	102
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
x 0203-632-HB-K-1				SHEET 6 OF 25



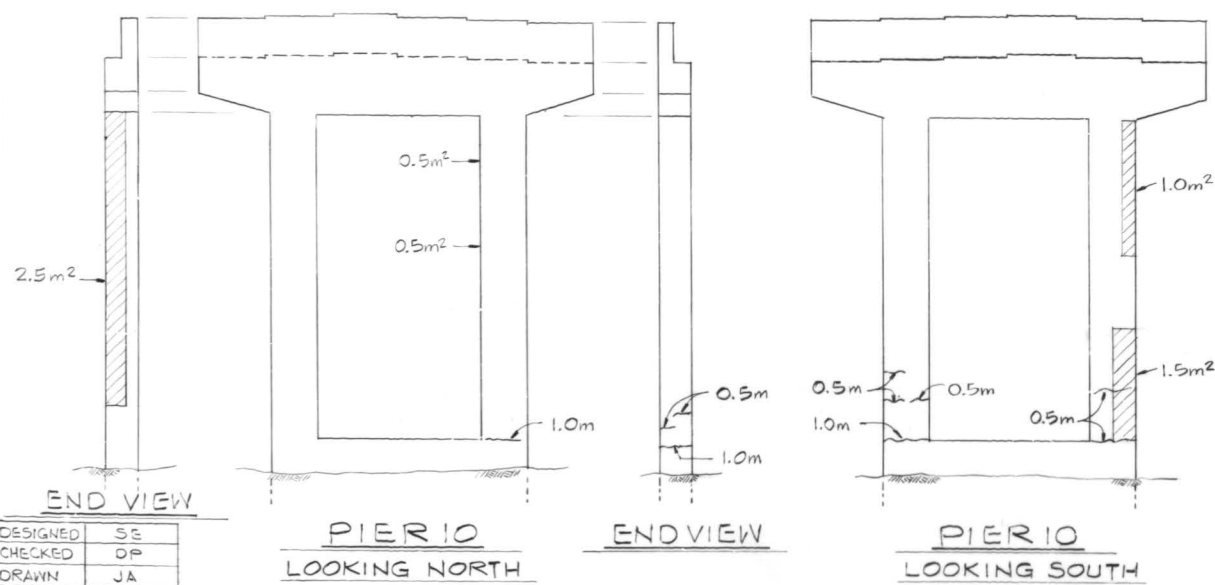
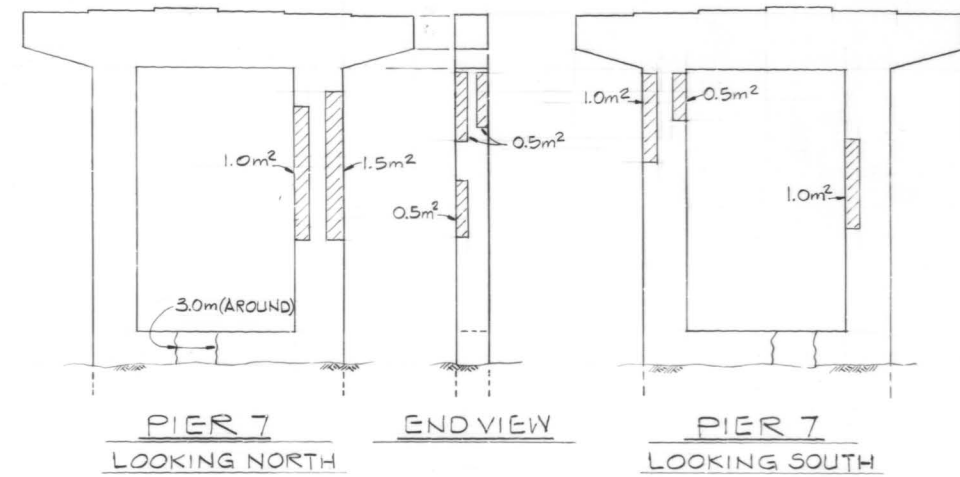
ELEVATION
SOUTH ABUTMENT - LOOKING SOUTH



LEGEND:
 FORMED CONCRETE REPAIR.
 EPOXY CRACK SEALING.



ELEVATION
NORTH ABUTMENT - LOOKING NORTH



DESIGNED	SE
CHECKED	DP
DRAWN	JA
CHECKED	SE

PIER 10
LOOKING NORTH

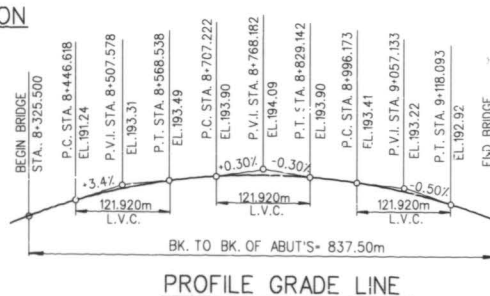
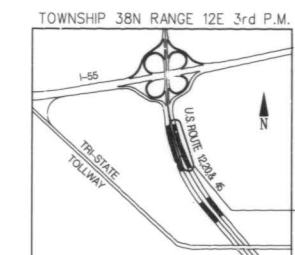
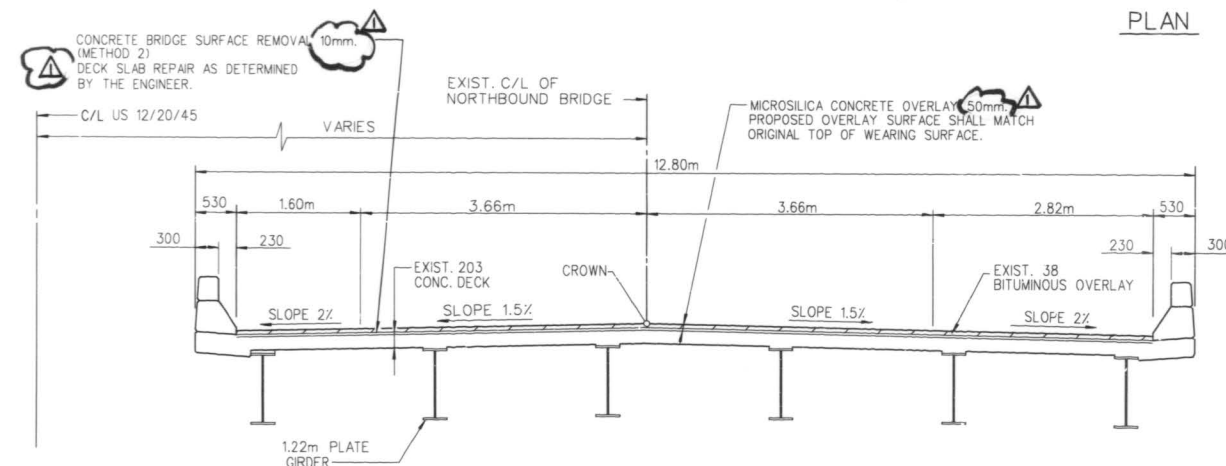
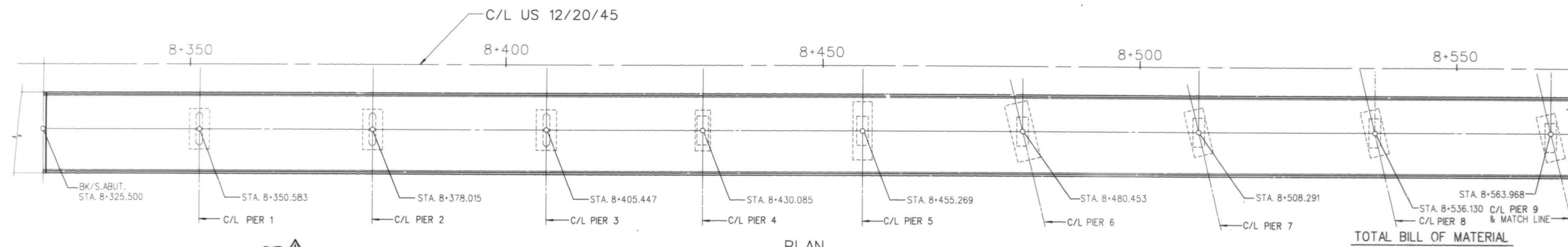
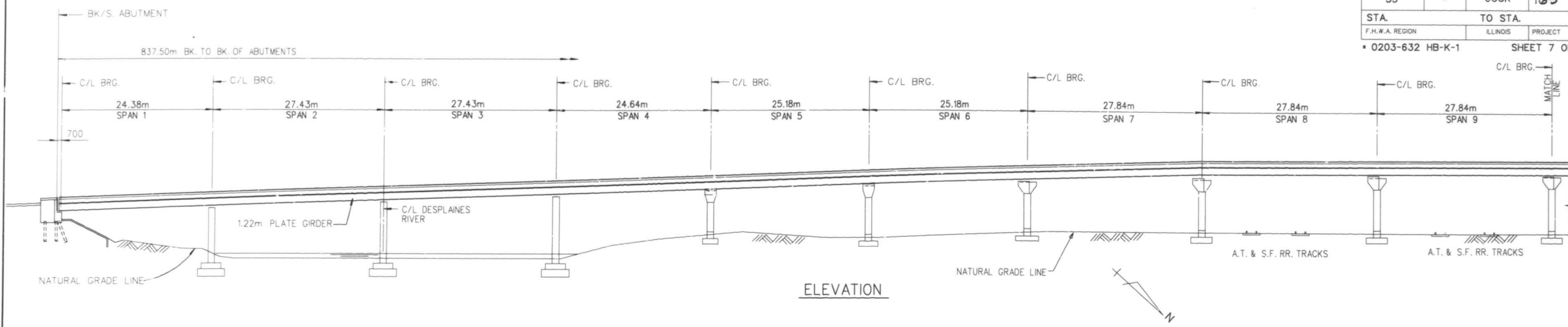
END VIEW

PIER 10
LOOKING SOUTH

9-1-94
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 U.S. 12/20/45 (LA GRANGE RD.)
 NORTHBOUND SOUTH BRIDGE
 SUBSTRUCTURE REPAIR
 SN: 016-2468 SECTION 0203-632-HB-K-1
 COOK CO., IL. STA. 7+603.000

ab alfred benesch & company
 CONSULTING ENGINEERS
 208 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2975

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	105	103
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
* 0203-632 HB-K-1		SHEET 7 OF 25		



TOTAL BILL OF MATERIAL
(NORTHBOUND NORTH BRIDGE SN-016-2467)

ITEM	UNIT	TOTAL
CONCRETE SUPERSTRUCTURE	m ³	5.0
DRAINAGE SCUPPERS	EACH	1
DRAINAGE SYSTEM	L.SUM	.06
FLOOR DRAIN EXTENSIONS	L.SUM	.30
DECK SLAB REMOVAL (PARTIAL)	m ²	743.0
DECK SLAB REPAIR (FULL-DEPTH, TYPE I)	m ²	355.0
DECK SLAB REPAIR (FULL-DEPTH, TYPE II)	m ²	300.0
BITUMINOUS CONCRETE REMOVAL (DECK)	m ²	9,832.4
CONCRETE BRIDGE DECK SCARIFICATION 10mm (METHOD 2)	m ²	9,832.4
BRIDGE DECK MICROSILICA CONCRETE OVERLAY, 50mm	m ²	9,832.4
FORMED CONCRETE REPAIR (DEPTH ≤ 125mm)	m ²	57.0
EPOXY CRACK SEALING	m	5.0
REINFORCEMENT BARS, EPOXY COATED	kg	10
LIGHT STANDARD INSTALLATION	EACH	1
LIGHT STANDARD REPAIR	EACH	11
DRAINAGE STRUCTURES TO BE CLEANED	EACH	53
CLEANING EXISTING CONDUIT	L.SUM	0.34
* REPAIR OF CONDUIT EXP. FITTING	EACH	5
FORMED CONCRETE REPAIR (DEPTH > 125mm)	m ²	6.0

NOTES:
 TRAFFIC TO BE MAINTAINED UTILIZING STAGE CONSTRUCTION. SUPERSTRUCTURE TO BE REHABILITATED. SUBSTRUCTURE TO BE REPAIRED.
 EXISTING BITUMINOUS CONCRETE SURFACE TO BE REMOVED. CONCRETE BRIDGE DECK SURFACE TO BE REMOVED BY METHOD 2. FULL DECK REPAIRS TO BE PERFORMED AS REQUIRED.
 THIS DECK REHABILITATION ASSUMES THAT A FUTURE WEARING SURFACE WILL NOT BE PERMITTED.
 ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
 * FOR REPAIR DETAILS SEE SHEET 11 AND REFER TO SPECIAL PROVISIONS.
 ALL EXPANSION JOINTS TO REMAIN. DECK OVERLAY TO BE TAPERED AS REQUIRED TO MEET TOP OF EXPANSION JOINTS.

M:\PROJ\2975\VIADUCT\NPLE1.DGN 5-18-94

DESIGNED	S.E.
CHECKED	D.P.
DRAWN	JG
CHECKED	S.E.

DESIGN SPECIFICATIONS
 AASHTO 1992 SPECIFICATIONS WITH 1993 INTERIM
LOADING: MS18
DESIGN STRESSES
 f_c = 24 MPa
 f_y = 400 MPa (REINFORCEMENT)

EXISTING STRUCTURE
 STRUCTURE NO. 016-2467
 BUILT IN 1976
 R.C. OPEN ABUTMENTS ON STEEL PILES
 10 BRIDGE UNITS:
 1 - SINGLE SPAN PLATE GIRDER UNIT
 1 - TWO SPAN PLATE GIRDER UNIT
 5 - THREE SPAN PLATE GIRDER UNITS
 3 - FOUR SPAN PLATE GIRDER UNITS

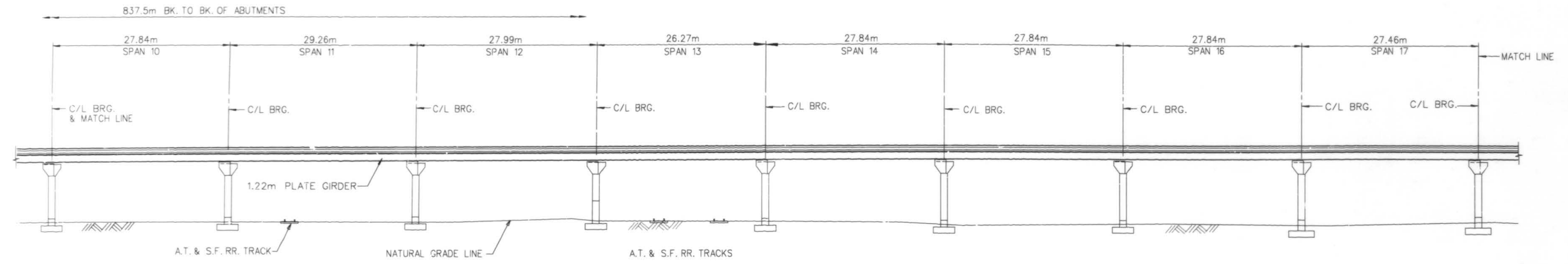
ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
 NORTHBOUND NORTH BRIDGE
 PLAN AND ELEVATION - SPANS 1-9
 SN: 016-2467 SECTION 0203-632-HB-K-1
 COOK CO., IL. STA. 8+325.000

ab NPLE1.DGN 12-7-94
 alfred benesch & company
 CONSULTING ENGINEERS
 205 NORTH MICHIGAN AVENUE, CHICAGO, IL 60601
 JOB NO. 2975

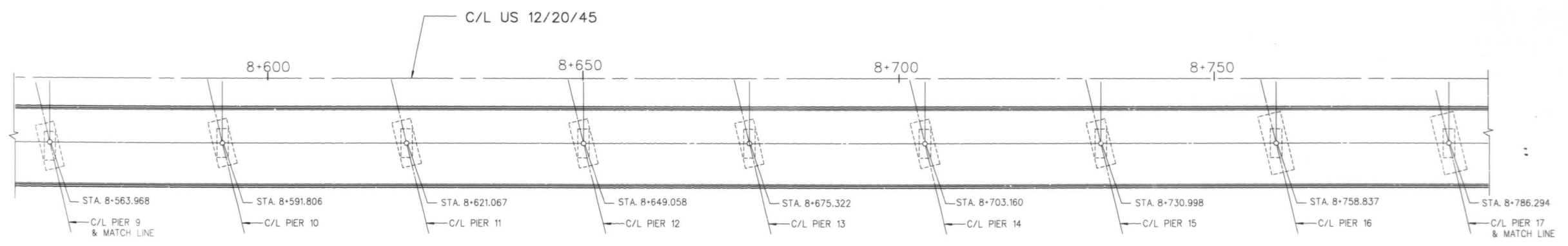
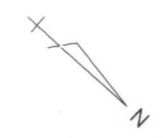
REVISION 12-7-94 DWP

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	104
STA. TO STA.		PROJECT		
F.H.W.A. REGION		ILLINOIS		
*0203-632 HB-K-1		SHEET 8 OF 25		



ELEVATION



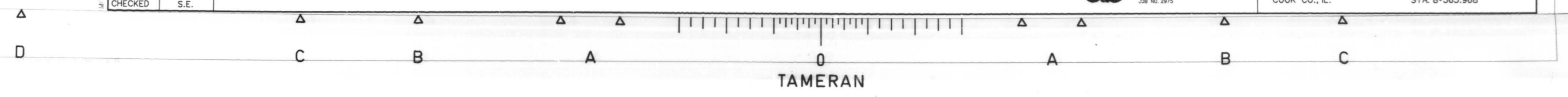
PLAN

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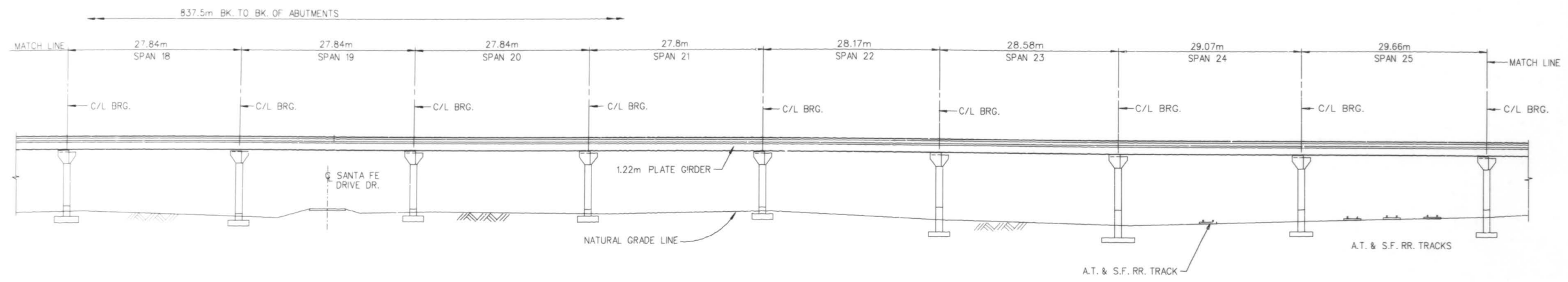
DESIGNED	S.E.
CHECKED	D.P.
DRAWN	J.G.
CHECKED	S.E.

ab alfred benesch & company
CONSULTING ENGINEERS
208 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

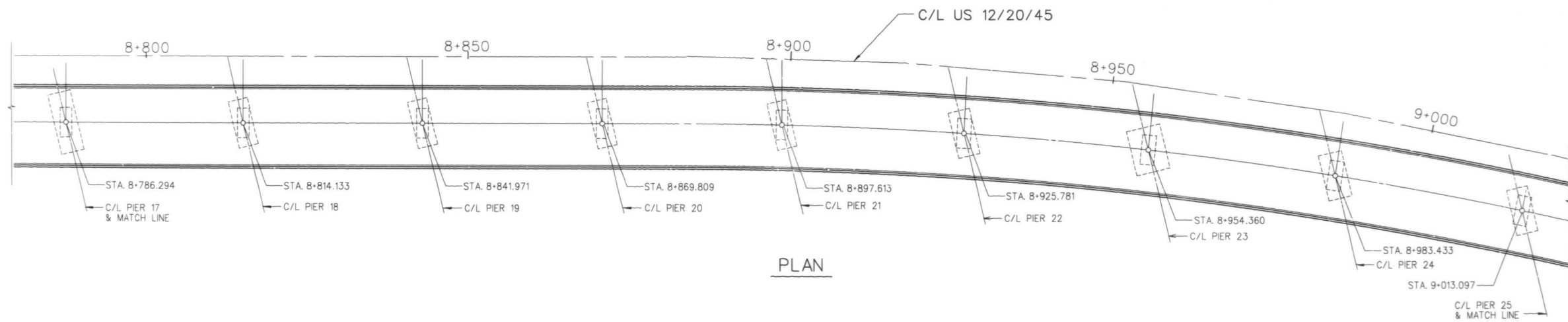
NPLE2.DGN 9-1-94
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
NORTHBOUND NORTH BRIDGE
PLAN AND ELEVATION - SPANS 10-17
SN: 016-2467 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 8+563.968



ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	105
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
*0203-7632 HB-K-1			SHEET 9 OF 25	



ELEVATION



PLAN

M:\PROJ\2975\VIADUCT\NP\LE3.DGN 5-18-94

DESIGNED	S.E.
CHECKED	D.P.
DRAWN	J.G.
CHECKED	S.E.

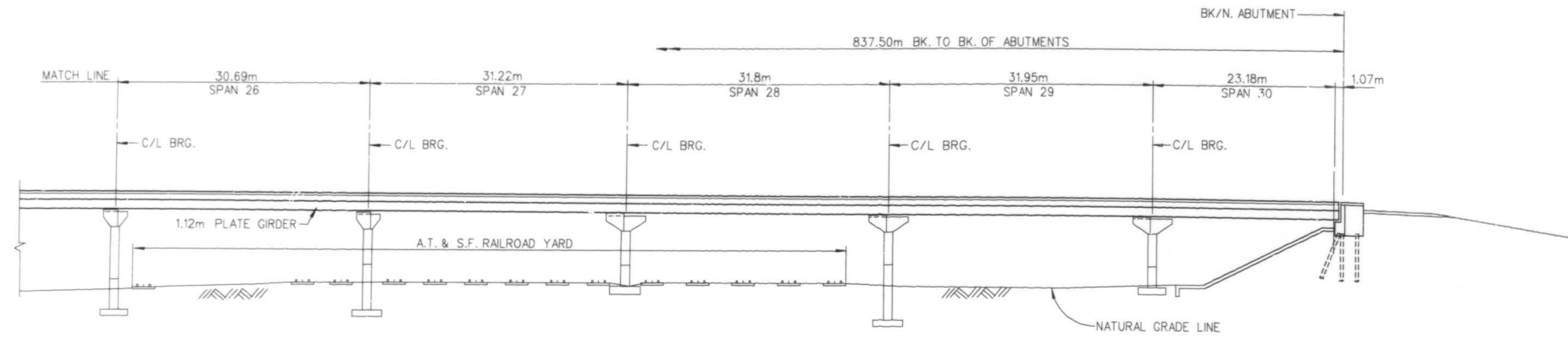
ab alfred benesch & company
CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
NORTHBOUND NORTH BRIDGE
PLAN AND ELEVATION - SPANS 18-25
SN: 016-2467 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 8+786.294

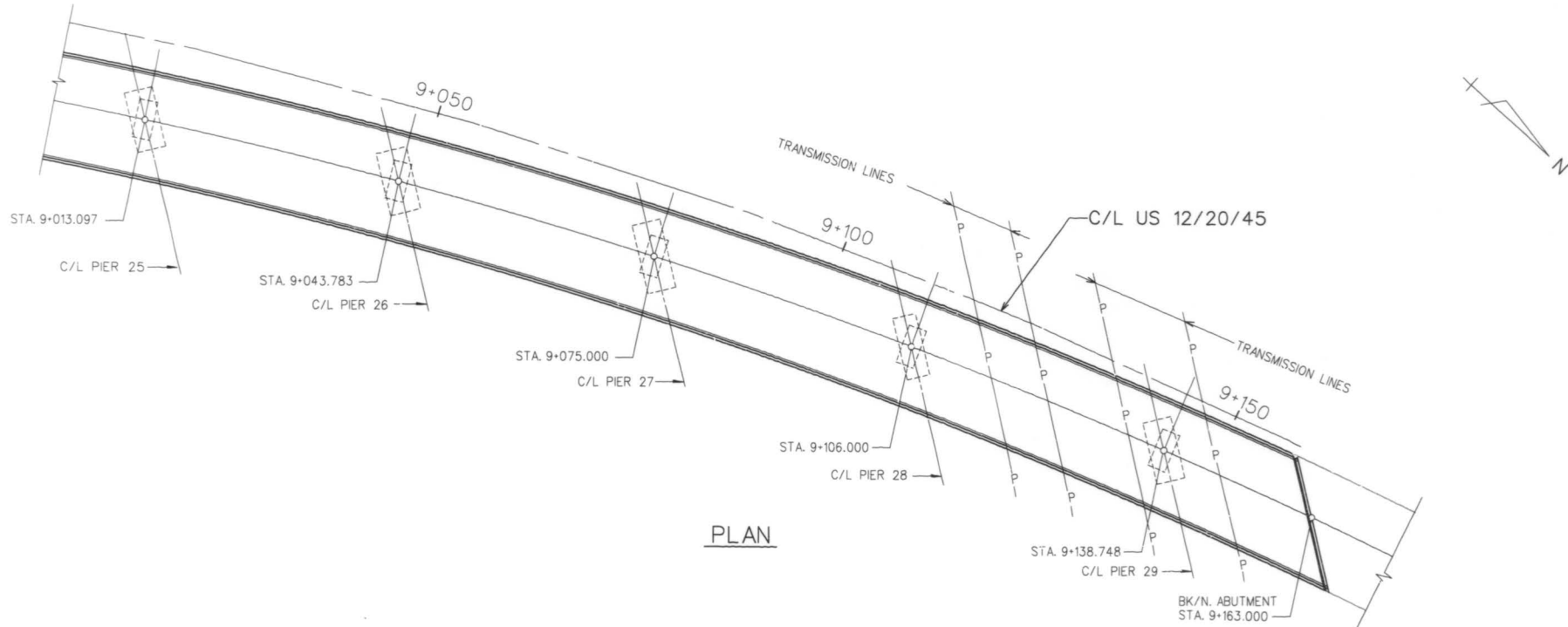
NP\LE3.DGN 9-1-94

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	1	COOK	165	106
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
0203-632 HB-K-1		SHEET 10 OF 25		



ELEVATION



PLAN

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DESIGNED	S.E.
CHECKED	D.P.
DRAWN	J.G.
CHECKED	S.E.

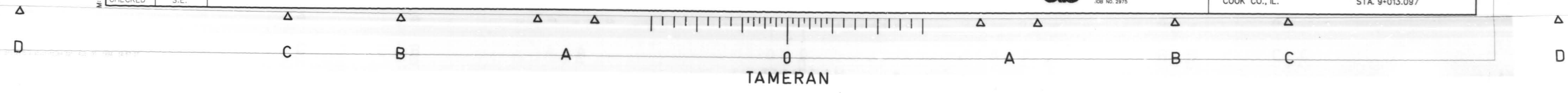
ab alfred benesch & company
CONSULTING ENGINEERS
310 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2975

NPLE4.DGN 9-1-94

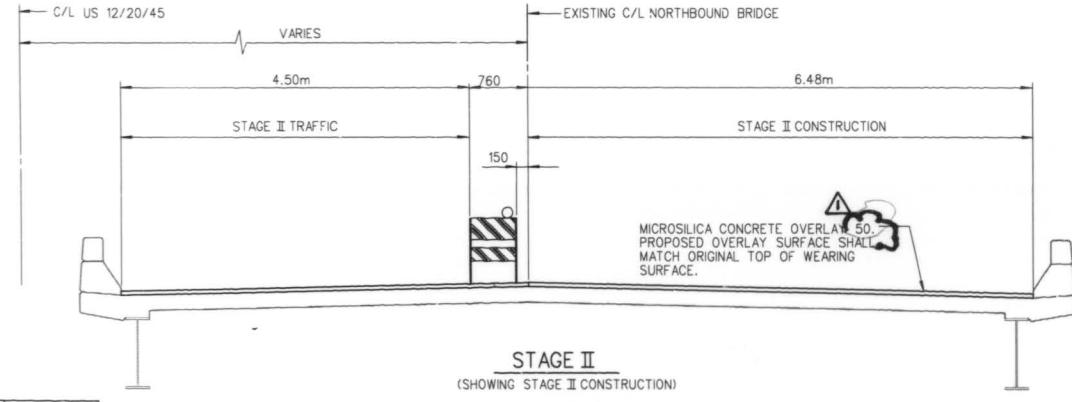
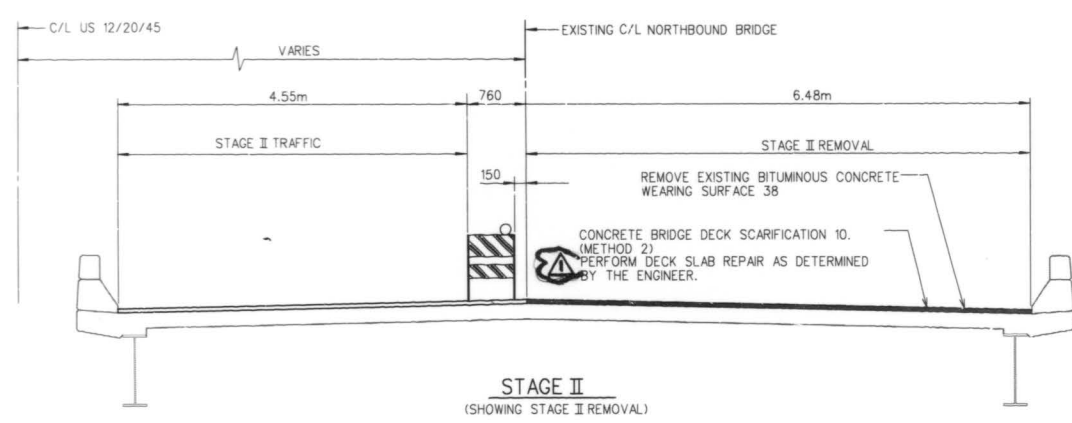
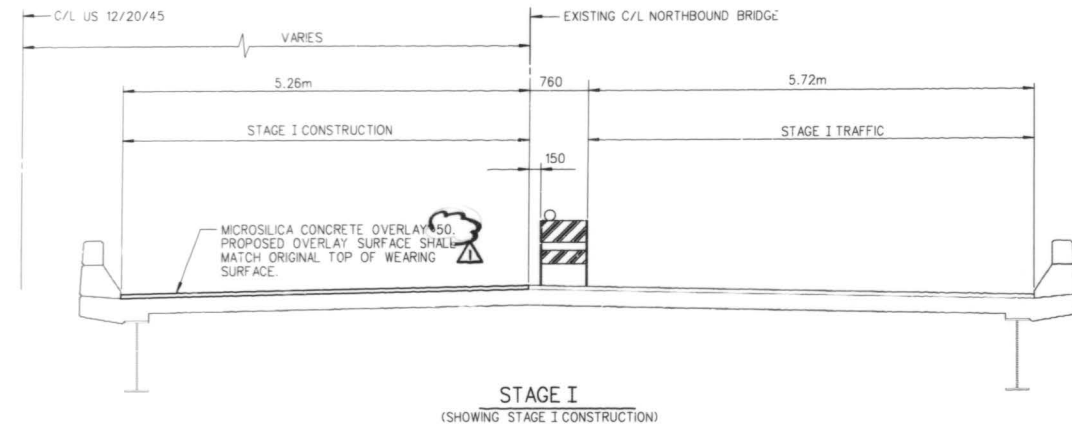
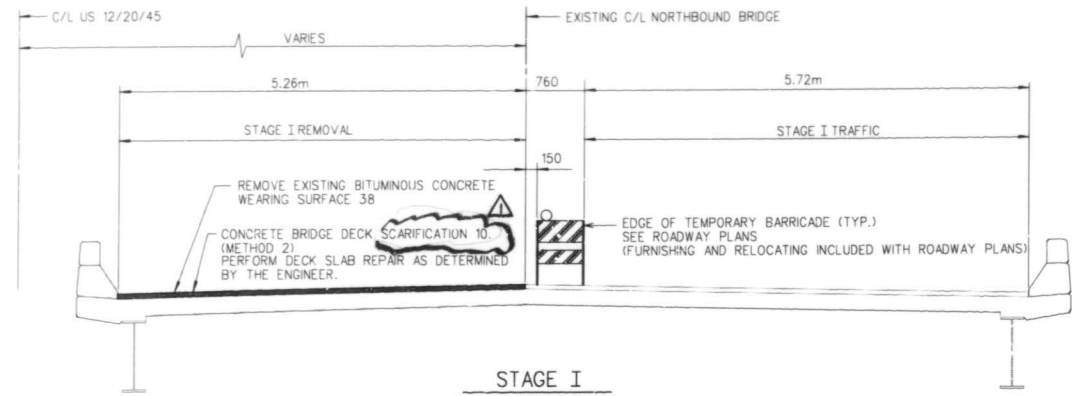
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)

**NORTHBOUND NORTH BRIDGE
PLAN AND ELEVATION - SPANS 26-30**

SN: 016-2467 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 9+013.097

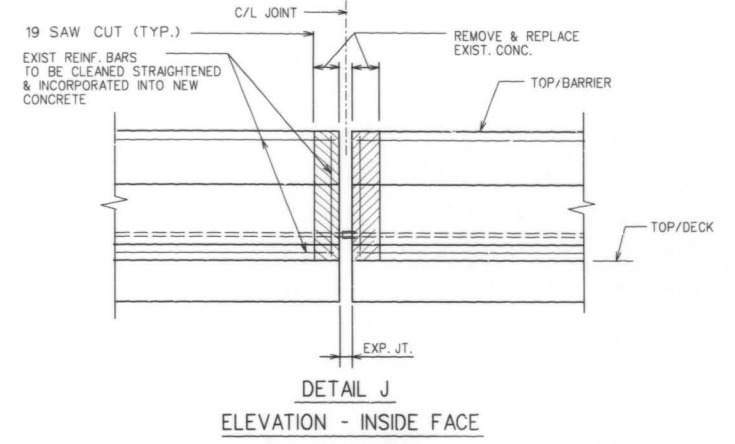
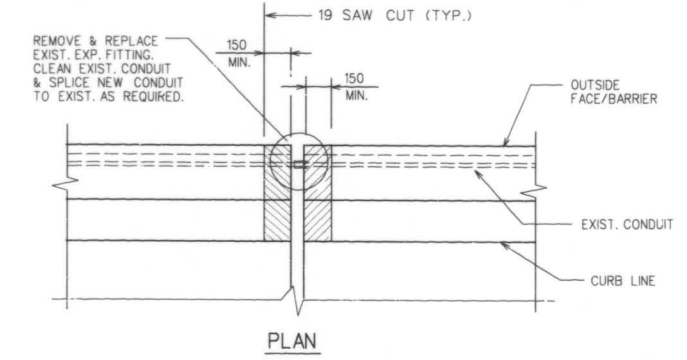


ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	105	107
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
*0203-632 HB-K-1			SHEET 11 OF 25	



TYPICAL SECTIONS
(LOOKING UPSTATION)

DESIGNED	S.E.
CHECKED	D.P.
DRAWN	T.S.
CHECKED	S.E.



REPAIR OF BLOCKED CONDUIT AT EXPANSION FITTING

ALL WORK REQUIRED FOR REPAIR OF EXISTING EXP. FITTING INCLUDING CONCRETE REMOVAL, AND REPLACEMENT, CLEANING, CONDUITS, REPLACEMENT OF EXISTING EXPANSION FITTINGS, CLEANING & INCORPORATING EXIST. REINFORCING AND ALL OTHER WORK AS DETAILED IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INCIDENTAL TO THE PAY ITEM "REPAIR OF CONDUIT EXPANSION FITTINGS."

NOTES

- TRAFFIC SHALL BE MAINTAINED UTILIZING STAGE CONSTRUCTION ABOUT THE CENTERLINE OF THE ROADWAY.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31M, M-42M OR M-53M GRADE 400.
- ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM, COST INCIDENTAL TO WORK BEING PERFORMED.
- ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 250.
- THE ZINC-SILICATE/ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE FINISH COAT SHALL BE INTERSTATE GREEN TO MATCH THE EXIST. GRIDDERS.
- ALL EXISTING DRAINAGE SCUPPERS SHALL BE CLEANED. CLEANING SHALL INCLUDE ALL THE EXISTING DRAINAGE SYSTEMS. THIS WORK SHALL BE INCIDENTAL TO "DRAINAGE STRUCTURES TO BE CLEANED".
- ALL EXISTING FLOOR DRAINS TO REMAIN SHALL BE CLEANED. THIS WORK SHALL BE INCIDENTAL TO "FLOOR DRAIN EXTENTIONS".

NSTAGE.DGN 12-7-94

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)

**NORTHBOUND NORTH BRIDGE
CONSTRUCTION STAGING**

SN: 016-2467
COOK CO., IL.

SECTION 0203-632-HB-K-1
STA. 8-325.00

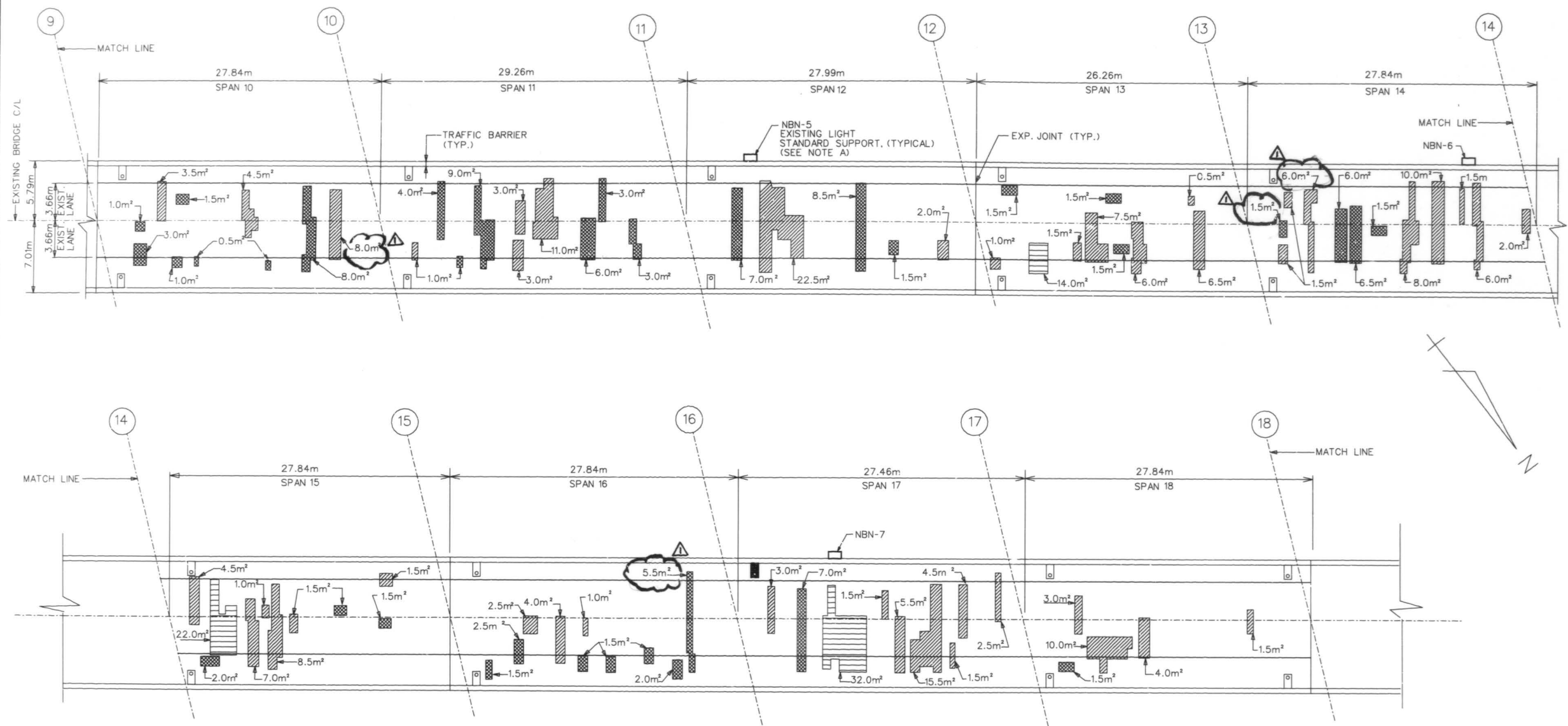
ab cifred benesch & company
CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

REVISION 12-7-94 DWP

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			165	109
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS PROJECT		

SHEET 13 OF 25



- LEGEND**
- DECK SLAB REMOVAL (PARTIAL)
 - DECK SLAB REPAIR (FULL-DEPTH TYPE I)
 - DECK SLAB REPAIR (FULL DEPTH TYPE II)
 - EXISTING DRAINAGE SCUPPER TO BE CLEANED
 - DRAINAGE SCUPPER TO BE ADDED SEE DETAIL SHEET NO. 16

NOTE A:
EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 19, UNLESS OTHERWISE SPECIFIED.

NOTES:
 DECK SLAB REPAIR AREAS SHOWN HAVE BEEN ROUNDED UP TO THE NEAREST 0.5m²

M:\PROJECTS\2944\VA\DUCT\2944\REP\REP2.DGN 6-1-94

DESIGNED	SE
CHECKED	DP
DRAWN	HL
CHECKED	SE

NREPAIR2.DGN 12-7-94

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
**NORTHBOUND NORTH BRIDGE
REPAIR PLAN - SPANS 10-18**

SN: 016-2467 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 8+563.968

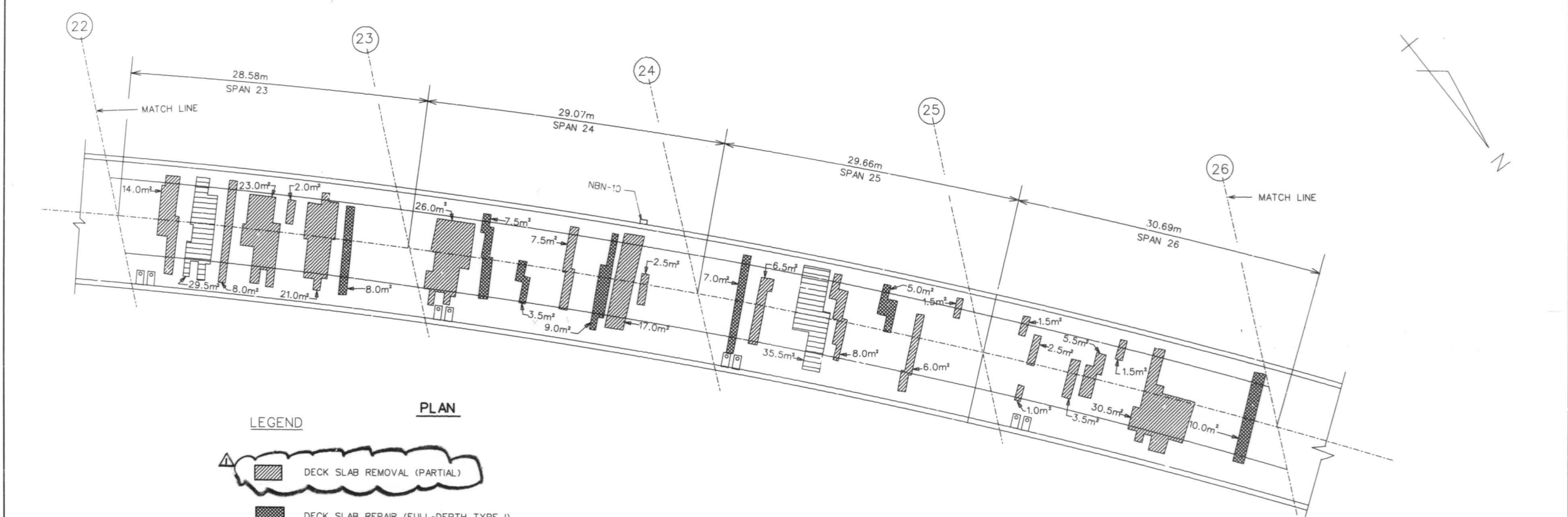
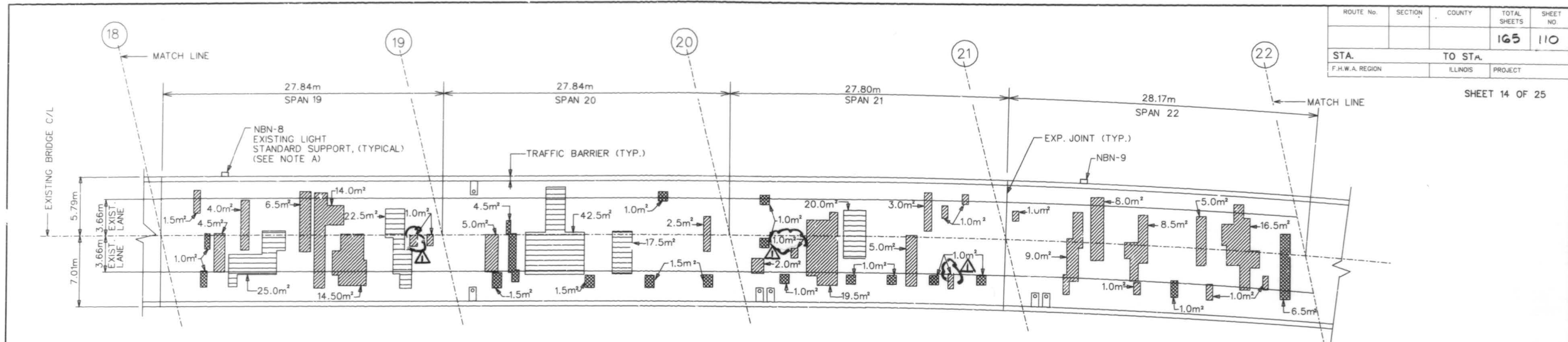
ab alfred benesch & company
CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

REVISION 12-7-94 DWP

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			165	110
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS PROJECT		

SHEET 14 OF 25



- LEGEND**
- DECK SLAB REMOVAL (PARTIAL)
 - DECK SLAB REPAIR (FULL-DEPTH TYPE I)
 - DECK SLAB REPAIR (FULL-DEPTH TYPE II)
 - EXISTING DRAINAGE SCUPPER TO BE CLEANED.

NOTE A:
EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 19, UNLESS OTHERWISE SPECIFIED.

NOTES
 DECK SLAB REPAIR AREAS SHOWN HAVE BEEN ROUNDED UP TO THE NEAREST 0.5m²

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
**NORTHBOUND NORTH BRIDGE
REPAIR PLANS - SPANS 19-26**
SN: 016-2467 SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 8+814.133

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DESIGNED	SE
CHECKED	DP
DRAWN	HL
CHECKED	SE

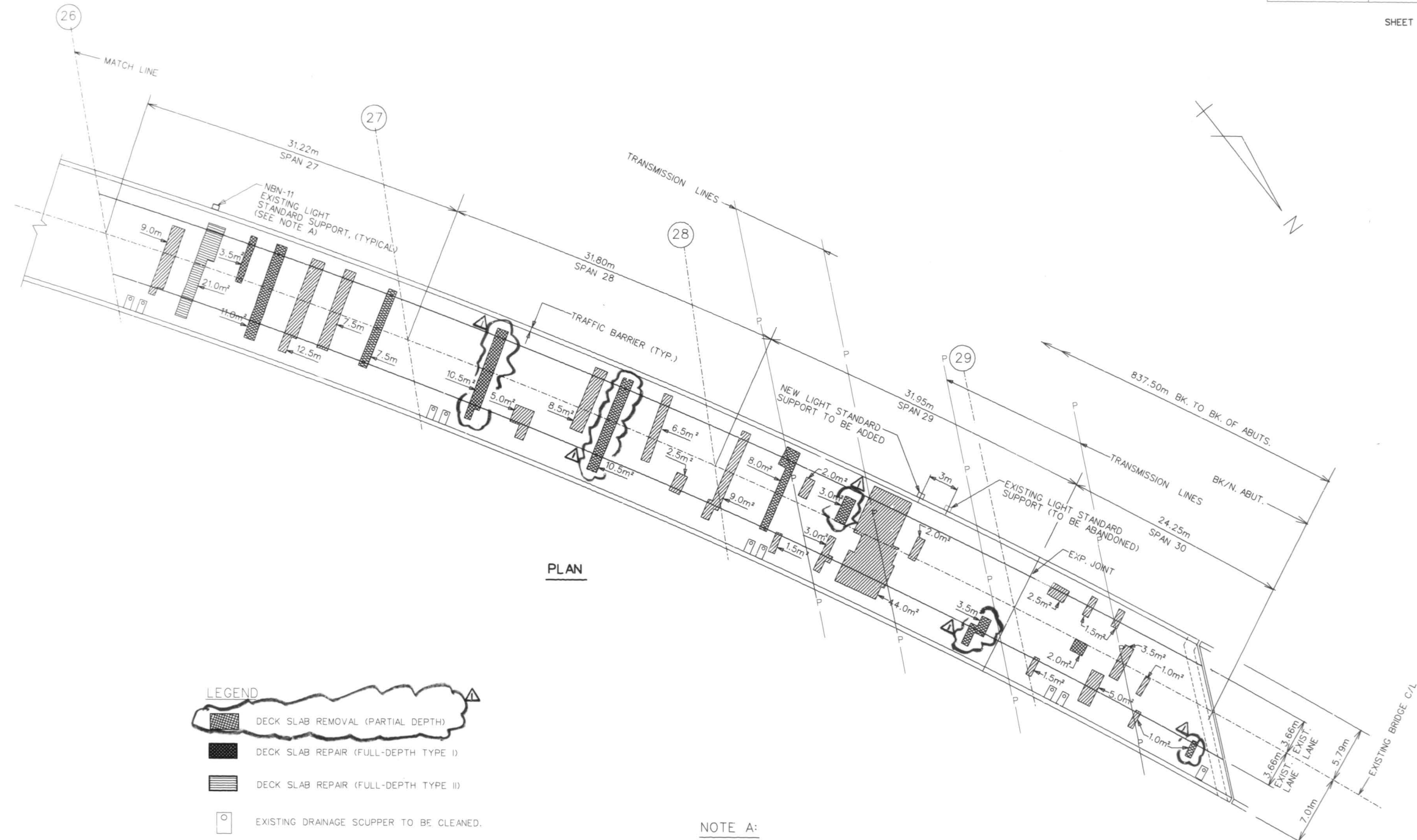
ab alfred benesch & company
CONSULTING ENGINEERS
200 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

REVISION 12-7-94 DWF

TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
			165	111
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	

SHEET 15 OF 25



PLAN

LEGEND

	DECK SLAB REMOVAL (PARTIAL DEPTH)
	DECK SLAB REPAIR (FULL-DEPTH TYPE I)
	DECK SLAB REPAIR (FULL-DEPTH TYPE II)
	EXISTING DRAINAGE SCUPPER TO BE CLEANED.

NOTE A:
 EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 19, UNLESS OTHERWISE SPECIFIED.

NOTES:
 DECK REPAIR AREAS SHOWN HAVE BEEN ROUNDED UP TO THE NEAREST 0.5m²

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DESIGNED	SE
CHECKED	DP
DRAWN	HL
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NREPAIR4.DGN 12-7-94

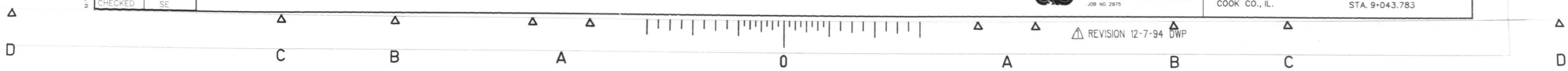
ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
**NORTHBOUND NORTH BRIDGE
 REPAIR PLAN - SPANS 27-30**

ab **alfred benesch & company**
 CONSULTING ENGINEERS
 305 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
 JOB NO. 2975

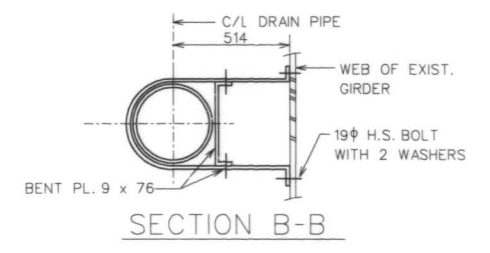
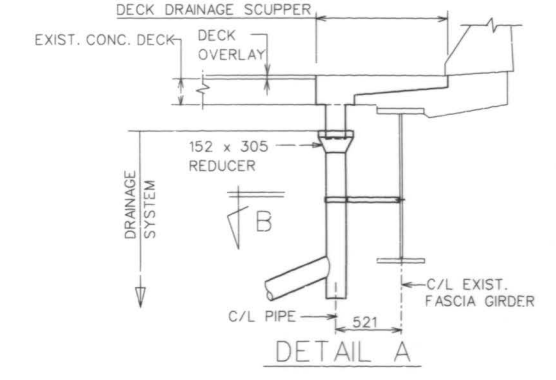
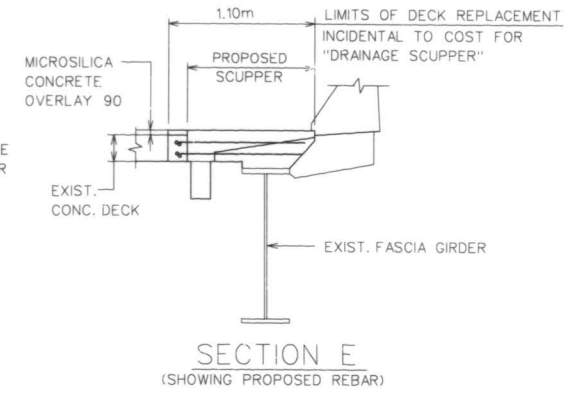
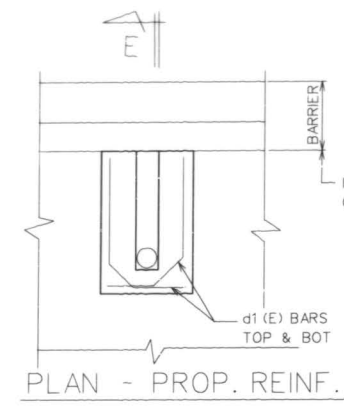
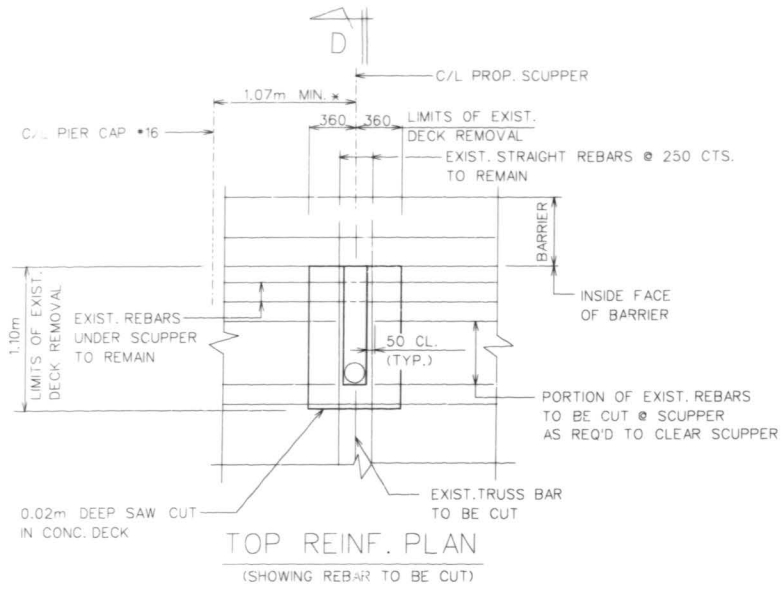
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 COOK CO., IL. STA. 9+043.783

TAMERAN

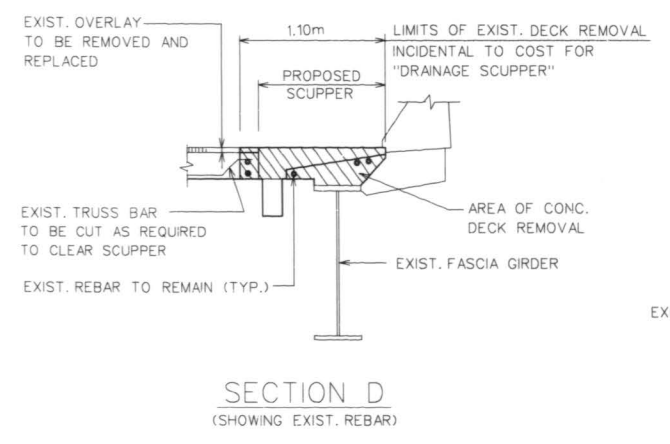
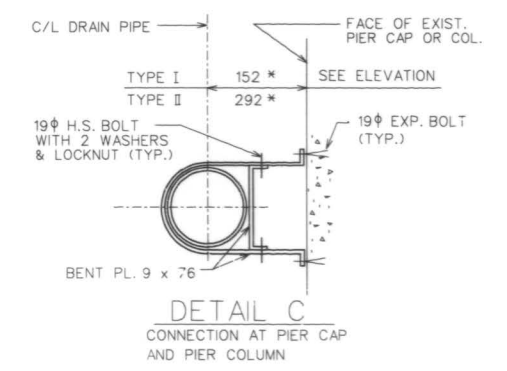
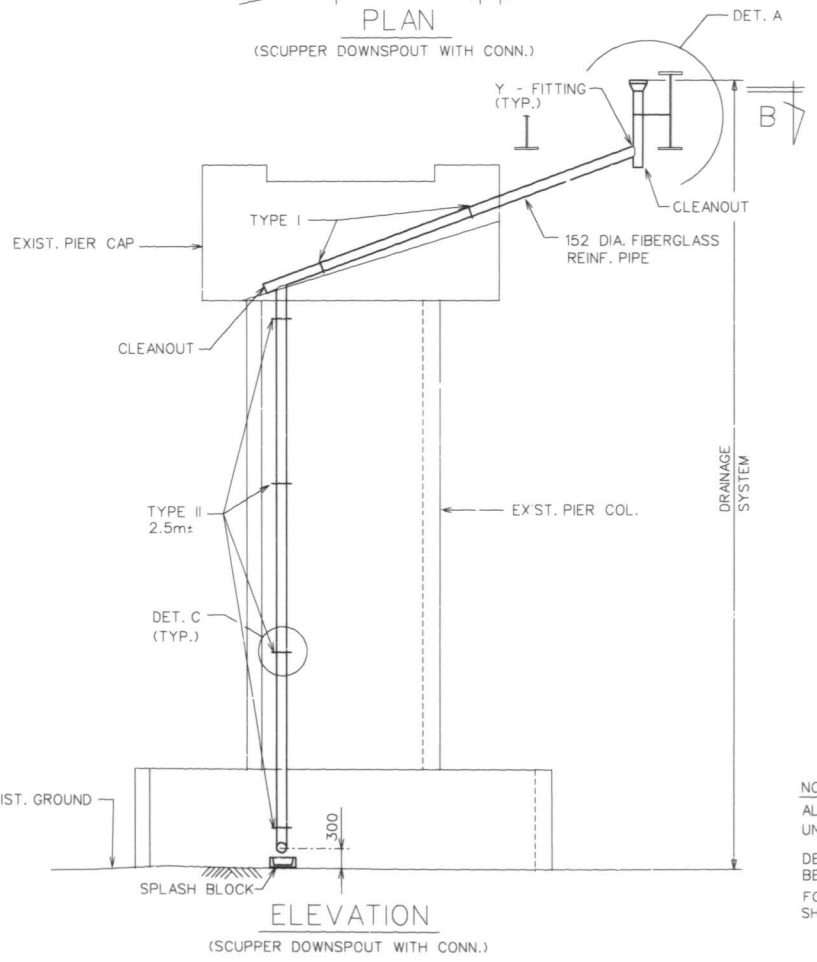
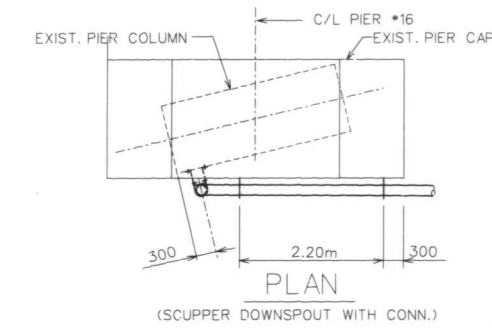
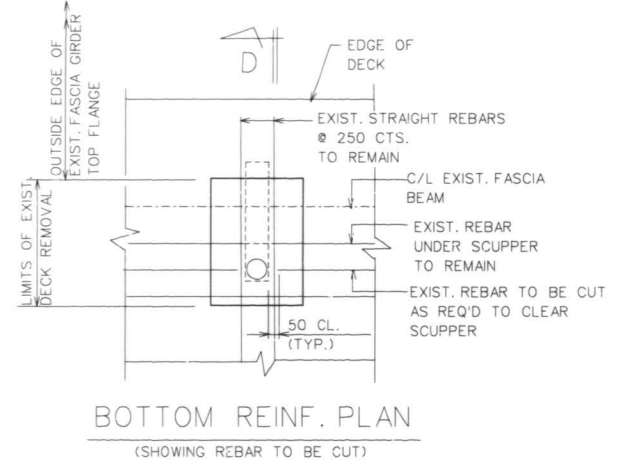
REVISION 12-7-94 DWP



ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
55	*	COOK	165	112
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
0203-632 HB-K-1		SHEET NO. 16 OF 25		



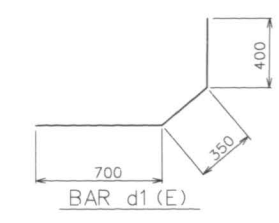
* INCREASE AS REQ'D TO INSTALL SCUPPER BETWEEN EXIST. STRAIGHT REBARS AS SHOWN ON PLAN VIEWS.



BILL OF MATERIAL (ONE SCUPPER)

BAR	No.	SIZE	LENGTH	SHAPE
d1 (E)	4	15	1.45m	

ITEM	UNIT	TOTAL
REINF. BARS, EPOXY COATED	kg	10



NOTE:
ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.
DECK DRAINAGE SCUPPER DOWNSPOUT TO BE CONSTRUCTED AS SHOWN AT PIER NO.16.
FOR DRAINAGE SCUPPER DETAILS SEE SHEET 25A AND 25B

NDRAIN2.DGN 9-1-94

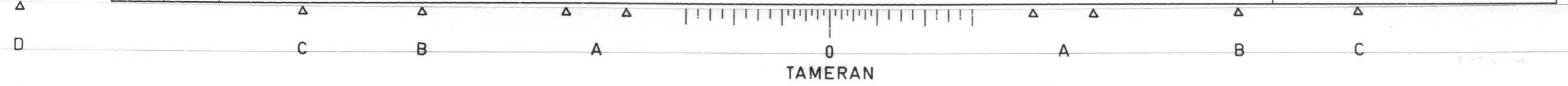
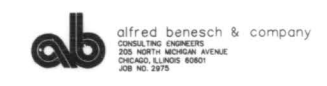
ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
NORTHBOUND NORTH BRIDGE
SCUPPER DETAILS

SN: 016-2467
COOK CO., IL.

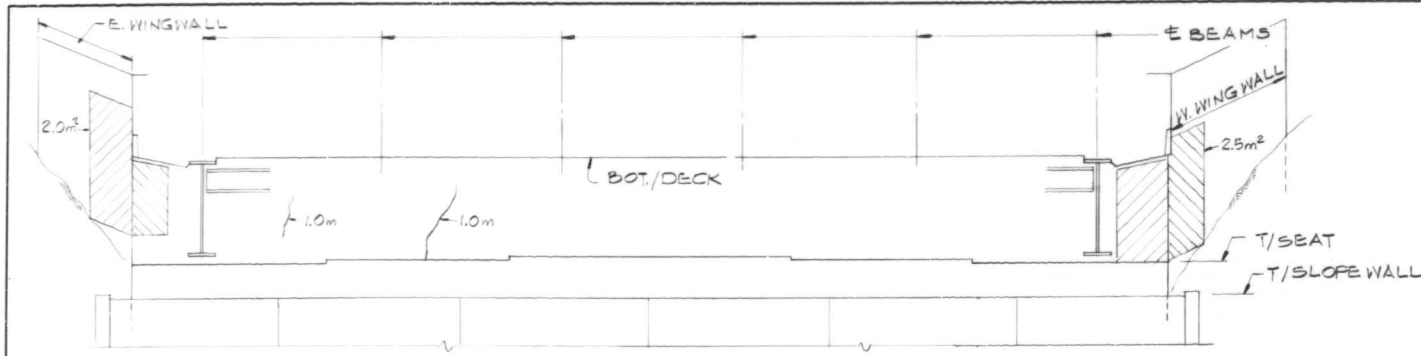
SECTION 0203-632-HB-K-1
STA. 8+325.000

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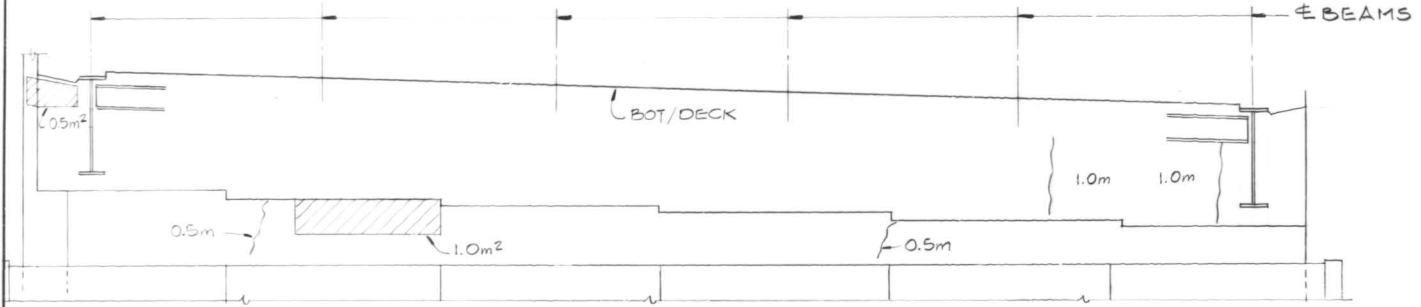
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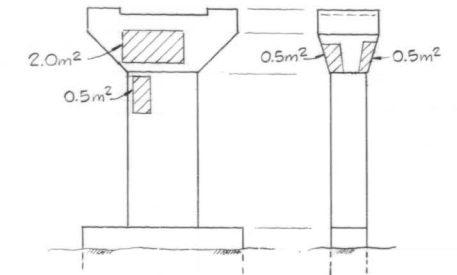
ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	x	COOK	165	113
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
x 0203-632 HB-K-1		SHEET 17 OF 25		



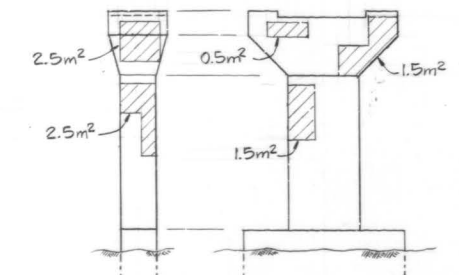
ELEVATION
SOUTH ABUTMENT - LOOKING SOUTH



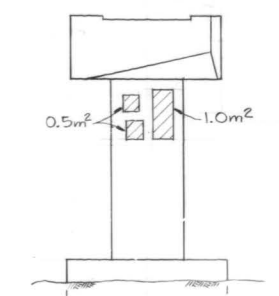
ELEVATION
NORTH ABUTMENT - LOOKING NORTH



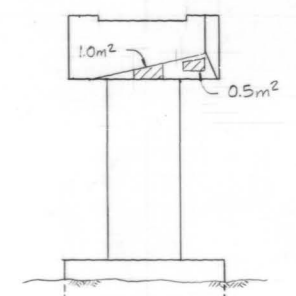
PIER 4 END VIEW
LOOKING NORTH



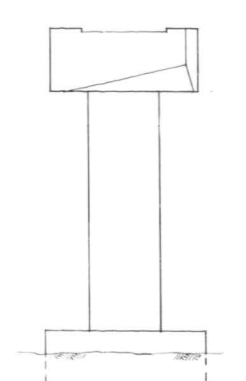
END VIEW
PIER 4
LOOKING SOUTH



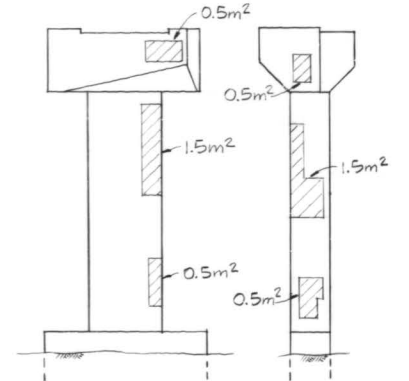
PIER 6
LOOKING NORTH



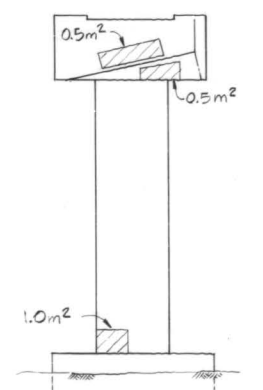
PIER 6
LOOKING SOUTH



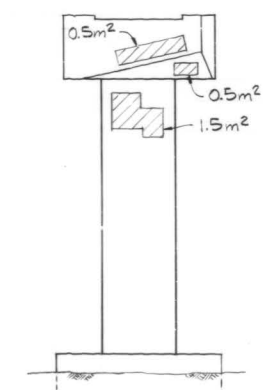
PIER 15
LOOKING NORTH



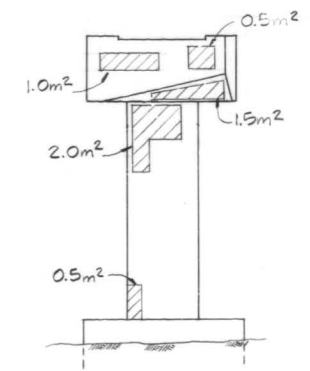
PIER 15 END VIEW
LOOKING SOUTH



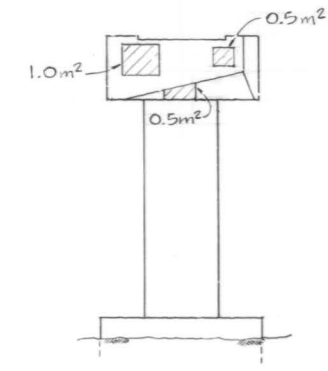
PIER 18
LOOKING NORTH



PIER 18
LOOKING SOUTH



PIER 9
LOOKING NORTH



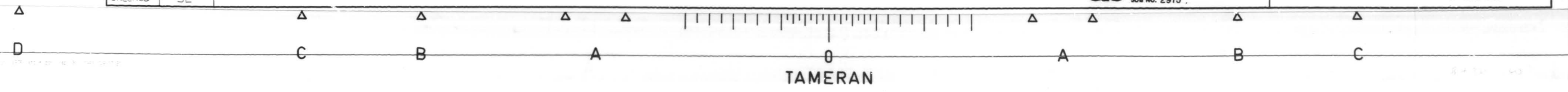
PIER 9
LOOKING SOUTH

LEGEND:
 - FORMED CONCRETE REPAIR.
 - EPOXY CRACK SEALING.

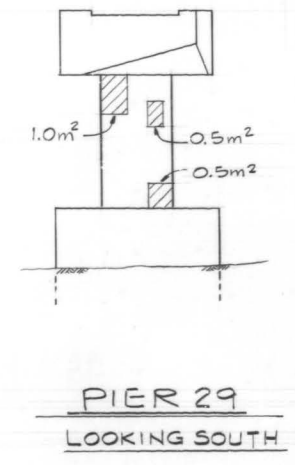
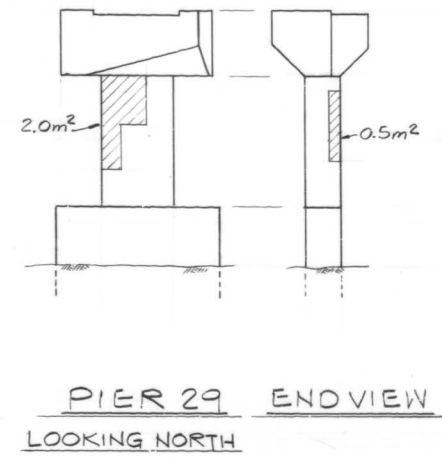
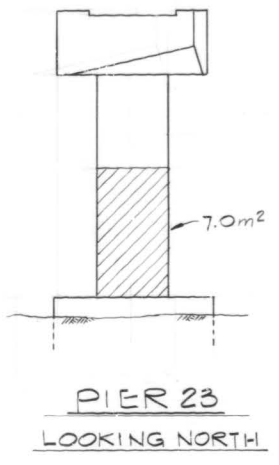
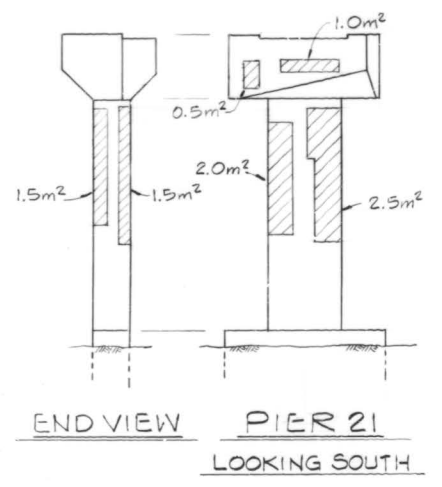
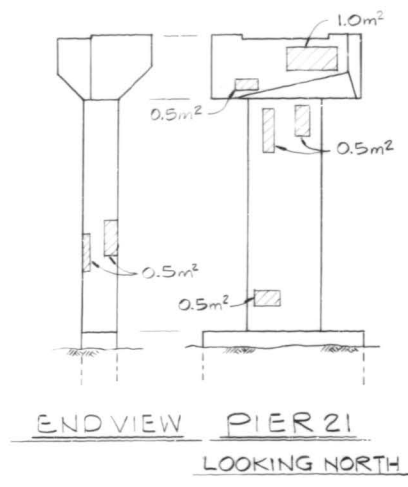
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CHECKED	DP
DRAWN	JA
CHECKED	SE

alfred benesch & company
 CONSULTING ENGINEERS
 155 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60610
 JOB NO. 2975

9-1-94
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 U.S. 12/20/45 (LAGRANGE RD.)
 NORTHBOUND NORTH BRIDGE
 SUBSTRUCTURE REPAIR
 SN: 016-2467 SECTION 0203-632-HB-K-1
 COOK CO., IL. STA. 8+325.000



ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	1	COOK	165	114
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
0203-632 HB-K-1		SHEET 18 OF 25		

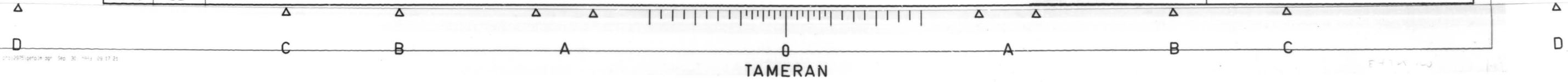


LEGEND:
 -- FORMED CONCRETE REPAIR.

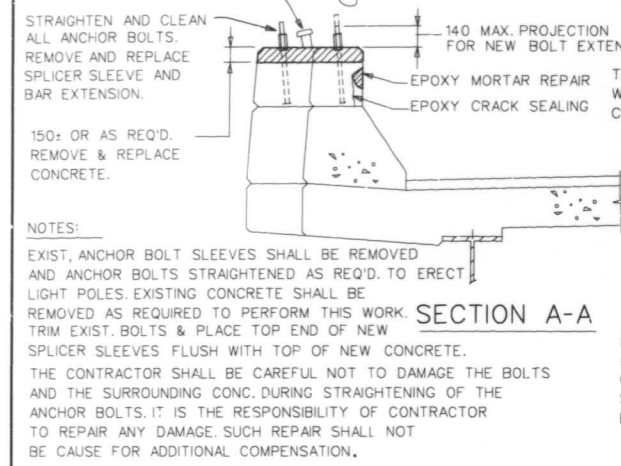
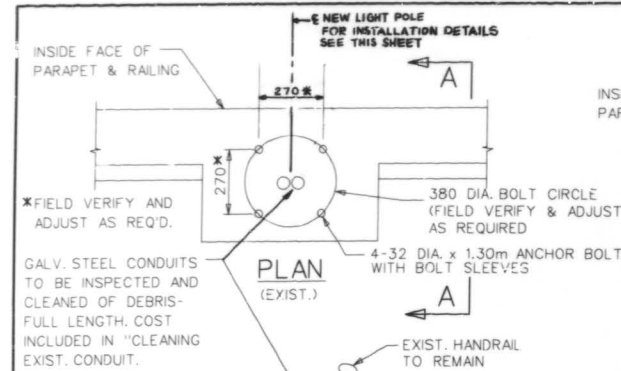
DESIGNED	SE
CHECKED	DP
DRAWN	JA
CHECKED	SE

ab **alfred benesch & company**
 CONSULTING ENGINEERS
 255 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2975

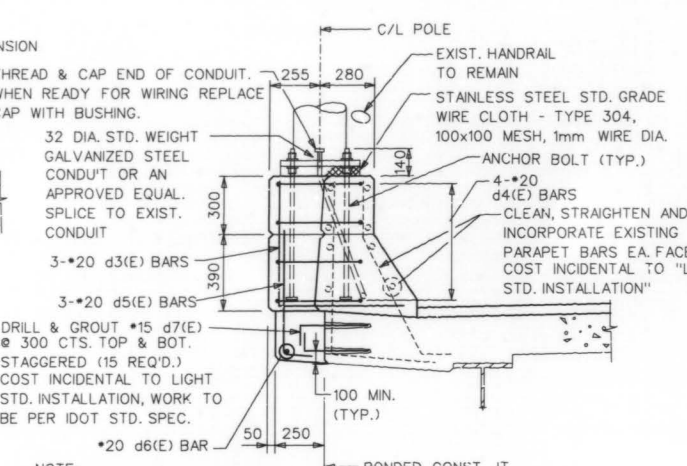
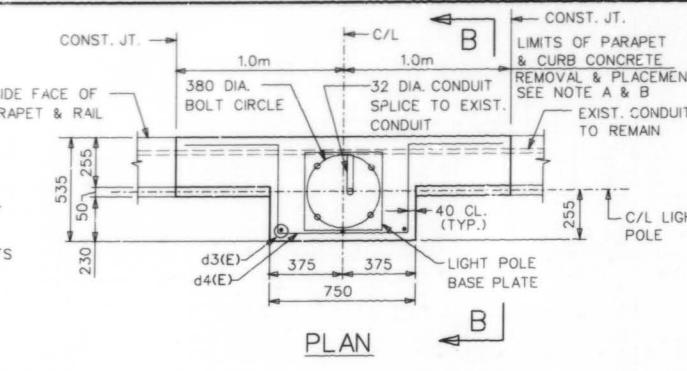
9-1-94
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 U.S. 12/20/45 (LAGRANGE RD.)
 NORTHBOUND NORTH BRIDGE
 SUBSTRUCTURE REPAIR
 SN: 016-2467 SECTION 0203-632-HB-K-1
 COOK CO., IL. STA. 8+325.000



ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	115
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
*0203-632 HB-K-1		SHEET 19 OF 25		



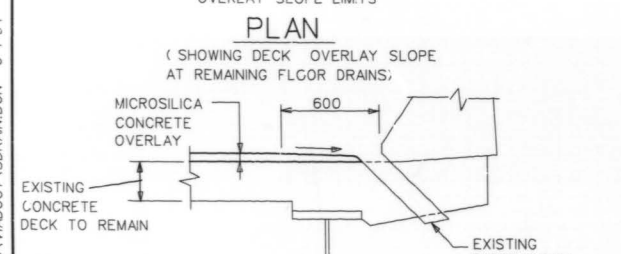
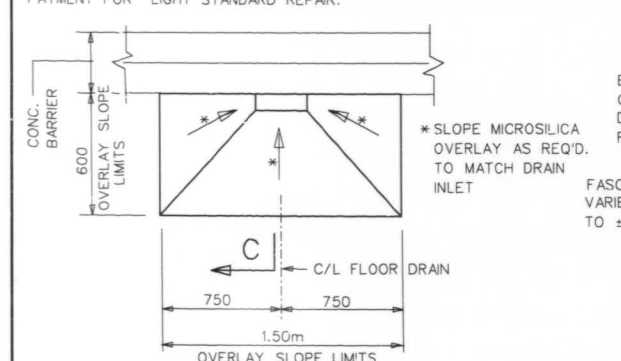
LIMITS OF EPOXY MORTAR REPAIR, EPOXY CRACK SEALING AND ANCHOR BOLT REPAIR ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER. PAYMENT IS INCIDENTAL TO "LIGHT STANDARD REPAIR."



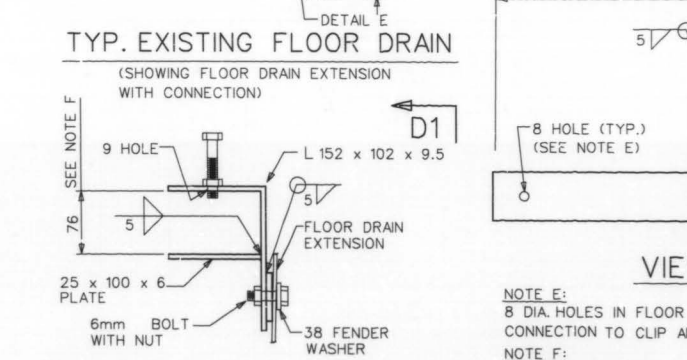
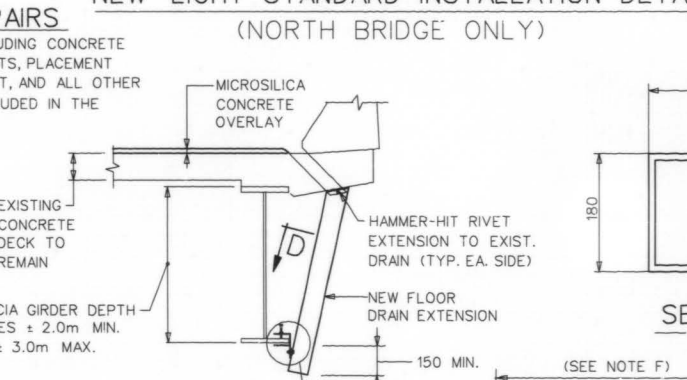
NEW LIGHT STANDARD INSTALLATION DETAILS (NORTH BRIDGE ONLY)

EXIST. LIGHT STANDARD SUPPORT REPAIRS

ALL WORK REQUIRED FOR REPAIR OF EXIST. LIGHT STANDARD SUPPORT INCLUDING CONCRETE REMOVAL, CUTTING ANCHOR BOLTS, CLEANING & STRAIGHTENING ANCHOR BOLTS, PLACEMENT OF NEW BOLT SPLICER SLEEVES & BOLT EXTENSIONS, CONCRETE PLACEMENT, AND ALL OTHER WORK AS DETAILED IN THE PLANS AND SPECIAL PROVISIONS SHALL BE INCLUDED IN THE PAYMENT FOR "LIGHT STANDARD REPAIR."

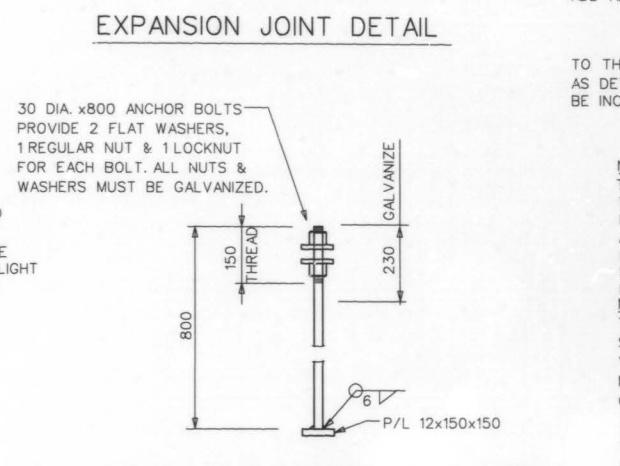
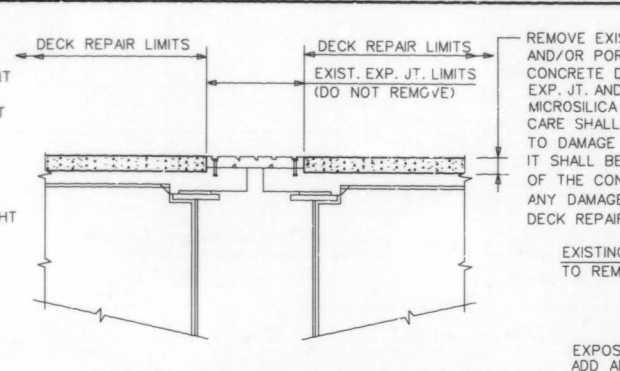


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CHECKED	DP
DRAWN	HL
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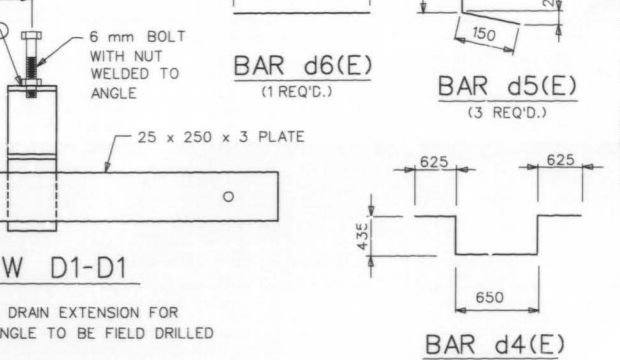
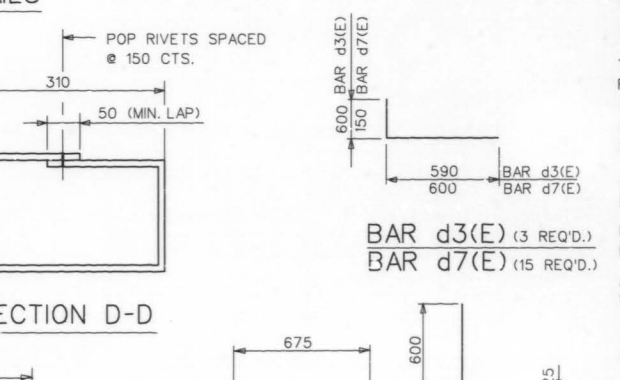


FLOOR DRAIN DETAILS

DETAIL E - CLIP ANGLE



EXPANSION JOINT DETAIL



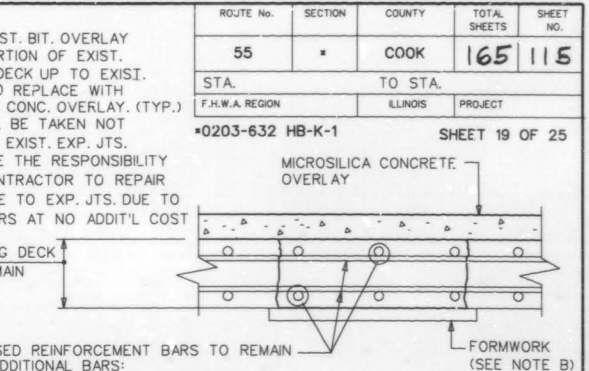
BAR d3(E) (3 REQ'D.)

BAR d7(E) (15 REQ'D.)

BAR d6(E) (1 REQ'D.)

BAR d5(E) (3 REQ'D.)

BAR d4(E) (4 REQ'D.)



EXPOSED REINFORCEMENT BARS TO REMAIN ADD ADDITIONAL BARS:

- *20 (E) FOR TOP TRANSVERSE
- *15 (E) FOR BOTTOM TRANSVERSE
- *15 (E) FOR TOP AND BOTTOM LONGITUDINAL

TO THOSE BARS WITH 25% OR MORE LOSS IN CROSS SECTION AS DETERMINED IN THE FIELD BY THE ENGINEER. THE COST OF REINF. SHALL BE INCIDENTAL TO "DECK SLAB REPAIR - FULL DEPTH".

NOTE A:

THE CONTRACTOR SHALL REMOVE CONCRETE PARAPET & CURB TO THE LIMITS SHOWN WITHOUT DAMAGING EXISTING REINFORCEMENT, EXIST. HANDRAIL & SUPPORTS, AND/OR ADJACENT PARAPET. ANY DAMAGE SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. REPLACEMENT OF HANDRAIL SUPPORT ANCHORS AND/OR FABRIC PADS SHALL BE AS REQUIRED AND AS DIRECTED BY THE ENGINEER AND INCIDENTAL TO THIS WORK.

NOTE B:

THE CONTRACTOR SHALL FURNISH, INSTALL AND REMOVE A PROTECTIVE SHIELD OR AN APPROVED EQUAL AS NEEDED TO PROTECT PEDESTRIAN, VEHICULAR OR RAILROAD TRAFFIC FROM DAMAGE DUE TO FALLING MATERIALS AND OBJECTS DURING REMOVAL OF EXISTING CONCRETE, COST INCIDENTAL TO SUBJECT REPAIR WORK.

NOTES:

FLOOR DRAIN EXTENSIONS SHALL BE FABRICATED FROM A 0.6mm ALUMINUM SHEET IN ACCORDANCE WITH ASTM: B209M ALLOY 6061-T6 OR ALUMINUM EXTRUSIONS ASTM: B221M ALLOY 6061-T6.

THE EXTERIOR SURFACES OF THE THE ALUMINUM FLOOR DRAIN EXTENSIONS SHALL BE CLEANED AND GIVEN A WASHCOAT PRE-TREATMENT IN ACCORDANCE WITH THE STEEL STRUCTURAL PAINTING COUNCIL'S SPEC. SSPC-SP1 AND SSPC-PAINT27 FOLLOWED BY THE COAT PAINTING SPECIFIED.

ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED.

THE ZINC-SILICATE /ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF DOWNSPOUTS & FLOOR EXTENSIONS EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE FINISH COAT SHALL BE INTERSTATE GREEN. THE COST OF PAINTING SHALL BE INCIDENTAL TO "DRAINAGE SCUPPERS" & "FLOOR DRAIN EXTENSIONS".

ALL NEW STRUCT. STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR250.

EPOXY COATED REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31M, M-42M OR M-53M GRADE 400.

ALL BOLTS NUTS & WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232M.

BOLTS, NUTS & WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A-307M UNLESS OTHERWISE NOTED.

ALL FIELD DRILLED HOLES SHALL BE COATED WITH AN APPROVED ZINC RICH PAINT BEFORE ERECTION.

ANCHOR BOLT EXTENSIONS, NUTS & WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-576M GR345.

ANCHOR BOLT SPLICER SLEEVES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A576M, GR345 OR APPROVED EQUAL. SPLICER SLEEVES FURNISHED SHALL PROVIDE A MINIMUM YIELD STRENGTH OF 125% OF THE ANCHOR BOLT. LENGTH & TYPE TO BE PROVIDED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

DECK REPAIR DETAILS (FULL DEPTH)

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)

NORTHBOUND NORTH AND SOUTH BRIDGE
MISCELLANEOUS DETAILS

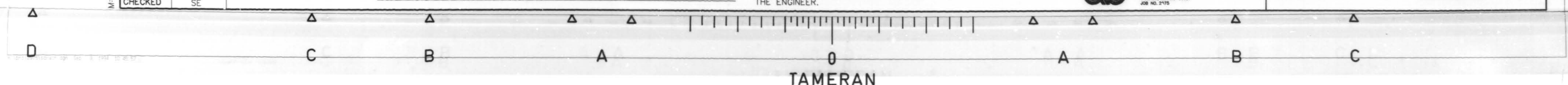
SN: 016-2467 N
SN: 016-2468 S
COOK CO., IL.

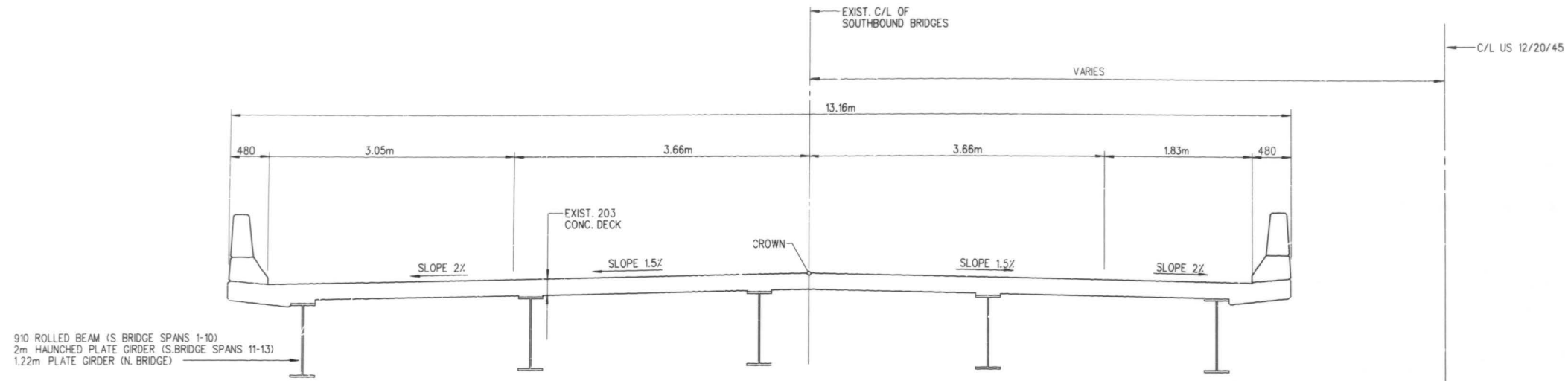
SECTION 0203-632-HB-K-1
STA. B+325.000

SDRAIN.DGN 9-1-94

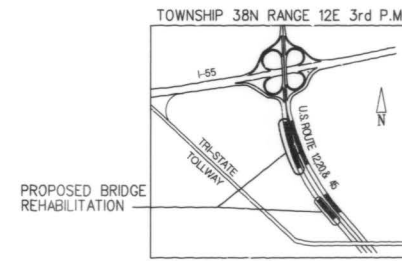
alfred benesch & company
CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE
CHICAGO, ILLINOIS 60601
JOB NO. 2175

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TYPICAL DECK SECTION
(LOOKING UPSTATION)



LOCATION SKETCH

DESIGN SPECIFICATIONS

AASHTO 1992 SPECIFICATIONS WITH 1993 INTERIM

LOADING: MS18

DESIGN STRESSES

$f'_c = 24 \text{ MPa}$
 $f_y = 400 \text{ MPa}$ (REINFORCEMENT)

EXISTING STRUCTURE

STRUCTURE NO. 016-2406 (SOUTH BRIDGE)
BUILT IN 1981

R.C. OPEN ABUTMENTS ON CONCRETE PILES
4 BRIDGE UNITS:

- 1 - FOUR SPAN ROLLED BEAM UNIT
- 2 - THREE SPAN ROLLED BEAM UNITS
- 1 - THREE SPAN HAUNCH PLATE GIRDER UNITS

STRUCTURE NO. 016-2407 (NORTH BRIDGE)
BUILT IN 1981

R.C. OPEN ABUTMENTS ON STEEL PILES
8 BRIDGE UNITS:

- 2 - THREE SPAN PLATE GIRDER UNITS
- 6 - FOUR SPAN PLATE GIRDER UNITS

TOTAL BILL OF MATERIAL

(SOUTHBOUND SOUTH BRIDGE SN:016-2406)
(SOUTHBOUND NORTH BRIDGE SN:016-2407)

ITEM	UNIT			TOTAL
		SN:016-2406	SN:016-2407	
DRAINAGE SCUPPERS	EACH	9	15	24
DRAINAGE SYSTEM	L.SUM	—	0.94	0.94
REINFORCEMENT BARS, EPOXY COATED	kg	90	150	240
LIGHT STANDARD REPAIR	EACH	6	12	18
DRAINAGE STRUCTURES TO BE CLEANED	EACH	2	19	21
FURNISHING & ERECTING STRUCTURAL STEEL	kg	340	—	340
CLEANING EXISTING CONDUIT	L.SUM	0.16	0.34	0.50

NOTES

TRAFFIC SHALL BE MAINTAINED UTILIZING STAGE CONSTRUCTION ABOUT THE CENTERLINE OF THE ROADWAY.

PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK. HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31M, M-42M OR M-53M GRADE 400.

ANY REINFORCEMENT BARS THAT ARE DAMAGED DURING CONCRETE REMOVAL SHALL BE REPLACED WITH AN APPROVED BAR SPLICER OR ANCHORAGE SYSTEM, COST INCIDENTAL TO WORK BEING PERFORMED.

ALL NEW STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR. 250.

THE ZINC-SILICATE/ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE FINISH COAT SHALL BE INTERSTATE GREEN TO MATCH THE EXIST. GIRDERS.

ALL EXISTING DRAINAGE SCUPPERS SHALL BE CLEANED. CLEANING SHALL INCLUDE ALL THE EXISTING DRAINAGE SYSTEMS. THIS WORK SHALL BE INCIDENTAL TO "DRAINAGE STRUCTURES TO BE CLEANED".

SBCEN.DGN 9-1-94

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
SOUTHBOUND NORTH AND SOUTH BRIDGE
TYPICAL DECK SECTION AND NOTES

SN: 016-2407(N)
SN: 016-2406(S)
COOK CO., IL.

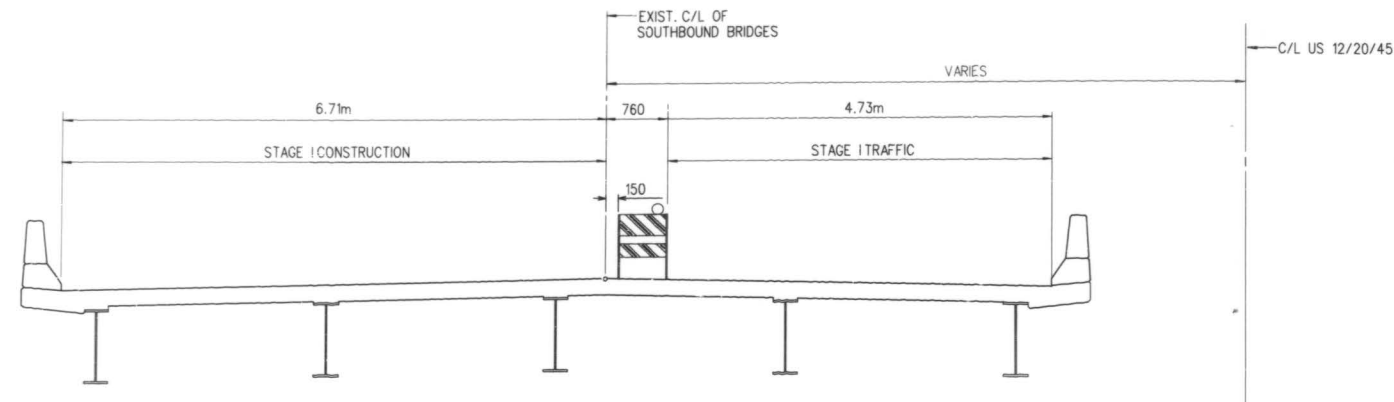
SECTION 0203-632-HB-K-1
STA. 8+325.00



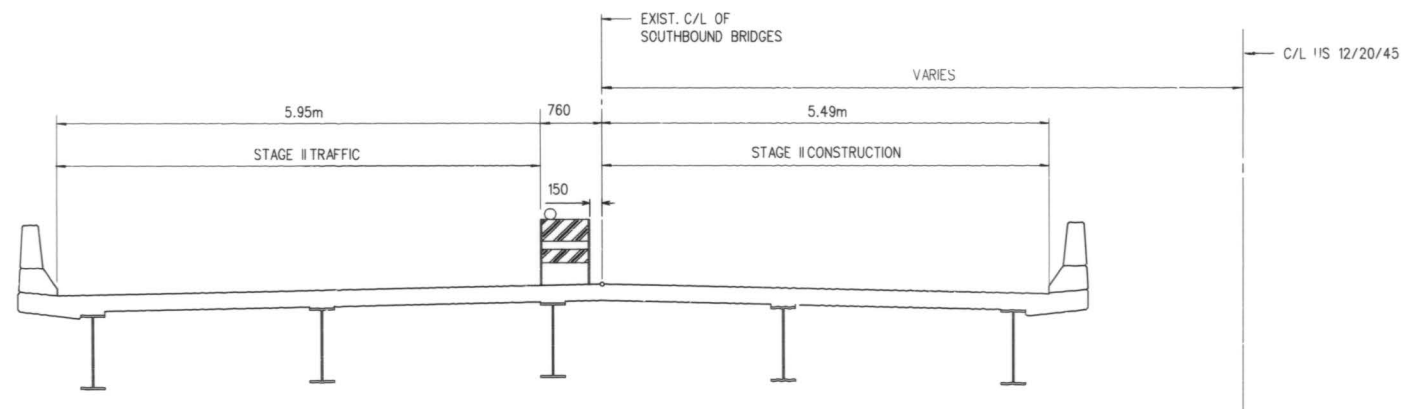
alfred benesch & company
CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO ILLINOIS 60601
JOB NO. 2975

DESIGNED	S.E.
CHECKED	D.P.
DRAWN	T.S.
CHECKED	S.E.

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	1	COOK	165	117
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
0203-632		HB-K-1	SHEET 21 OF 25	



STAGE I
(SHOWING STAGE I CONSTRUCTION)



STAGE II
(SHOWING STAGE II CONSTRUCTION)
TYPICAL SECTIONS
(LOOKING UPSTATION)

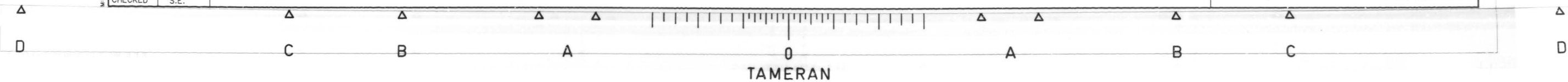
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DRAWN	T.S.
CHECKED	S.E.

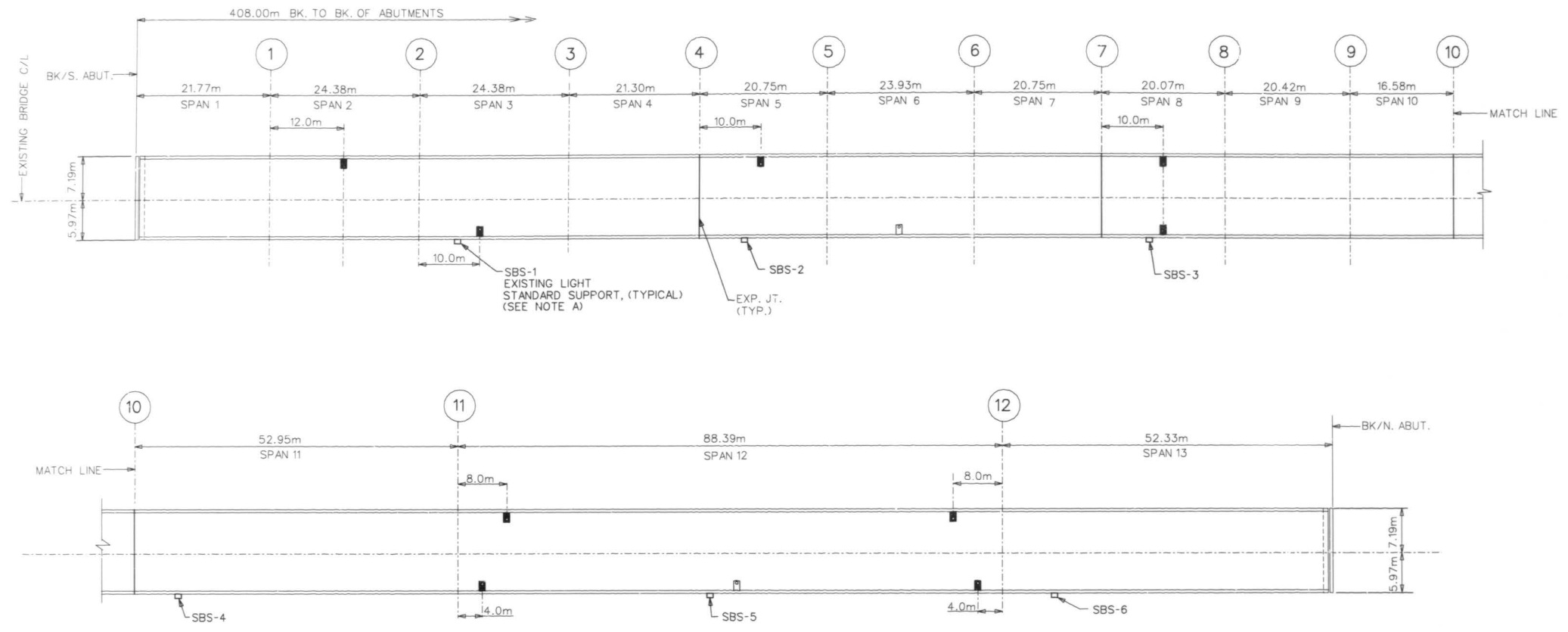
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CONSULTING ENGINEERS
205 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
JOB NO. 2975

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
SOUTHBOUND NORTH AND SOUTH BRIDGE
CONSTRUCTION STAGING
SN: 016-2407(N)
SN: 016-2406(S)
COOK CO., IL.
SECTION 0203-632-HB-K-1
STA. 8+325.000

SBSTAGE.DGN 9-1-94





ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	x	COOK	165	118
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
x 0203-632 HB-K-1		SHEET 22 OF 25		



NOTE A:
 EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 25, UNLESS OTHERWISE SPECIFIED.

LEGEND

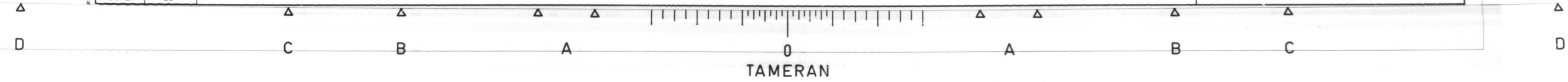
-  EXISTING DRAINAGE SCUPPER
-  DRAINAGE SCUPPER TO BE ADDED (SEE SHEET 24)

A:\PROJECTS\55\PRODUCT\BRIS1.DGN 5-19-94

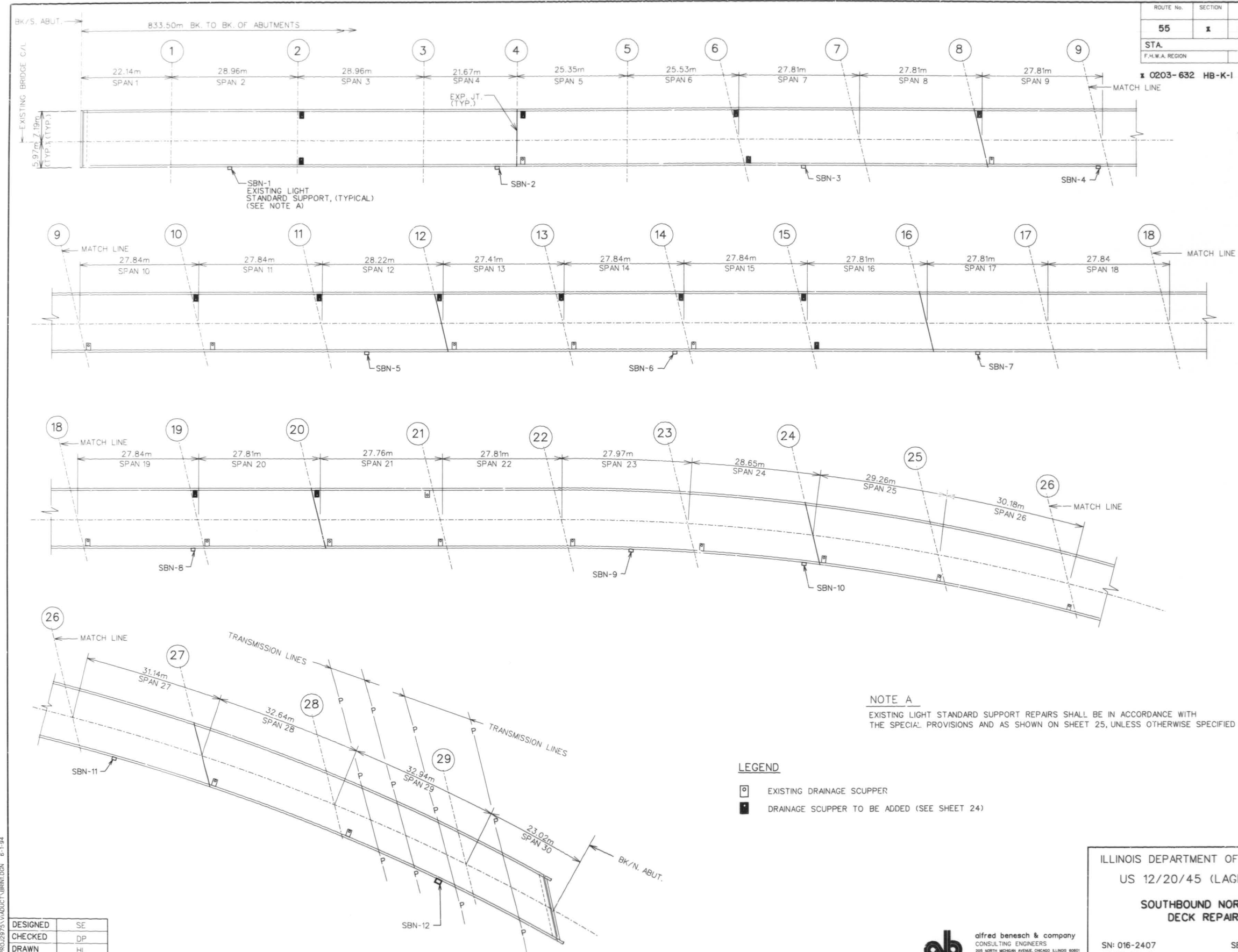
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CHECKED	DP
DRAWN	HL
CHECKED	SE

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 CONSULTING ENGINEERS
 205 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2975

BRIS1.DGN 9-1-94
 ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
 SOUTHBOUND SOUTH BRIDGE
 DECK REPAIR PLAN
 SN: 016-2406 SECTION 0203-632-HB-K-1
 COOK CO., IL. STA. 8+325.000



ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	x	COOK	165	119
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT
		x 0203-632 HB-K-1		SHEET 23 OF 25



NOTE A
 EXISTING LIGHT STANDARD SUPPORT REPAIRS SHALL BE IN ACCORDANCE WITH THE SPECIAL PROVISIONS AND AS SHOWN ON SHEET 25, UNLESS OTHERWISE SPECIFIED

- LEGEND**
- EXISTING DRAINAGE SCUPPER
 - DRAINAGE SCUPPER TO BE ADDED (SEE SHEET 24)

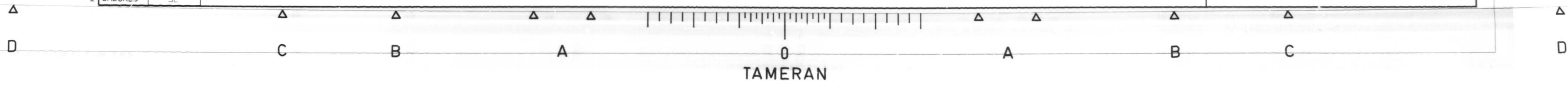
DESIGNED	SE
CHECKED	DP
DRAWN	HL
CHECKED	SE

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 205 NORTH MORGAN AVENUE, CHICAGO, ILLINOIS 60601
 JOB NO. 2975

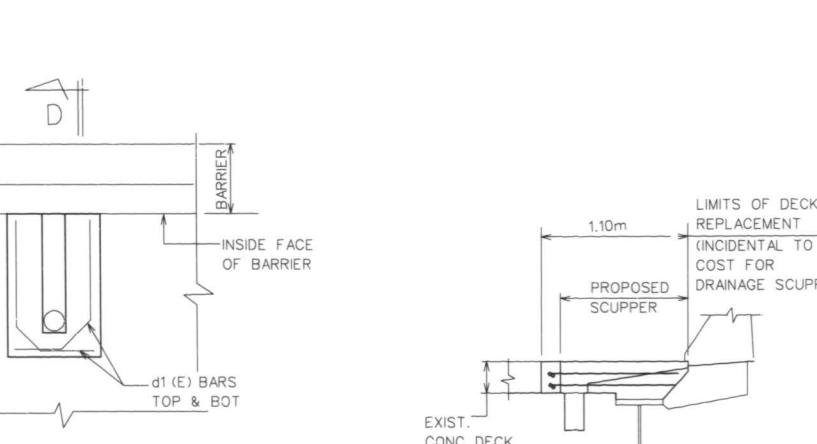
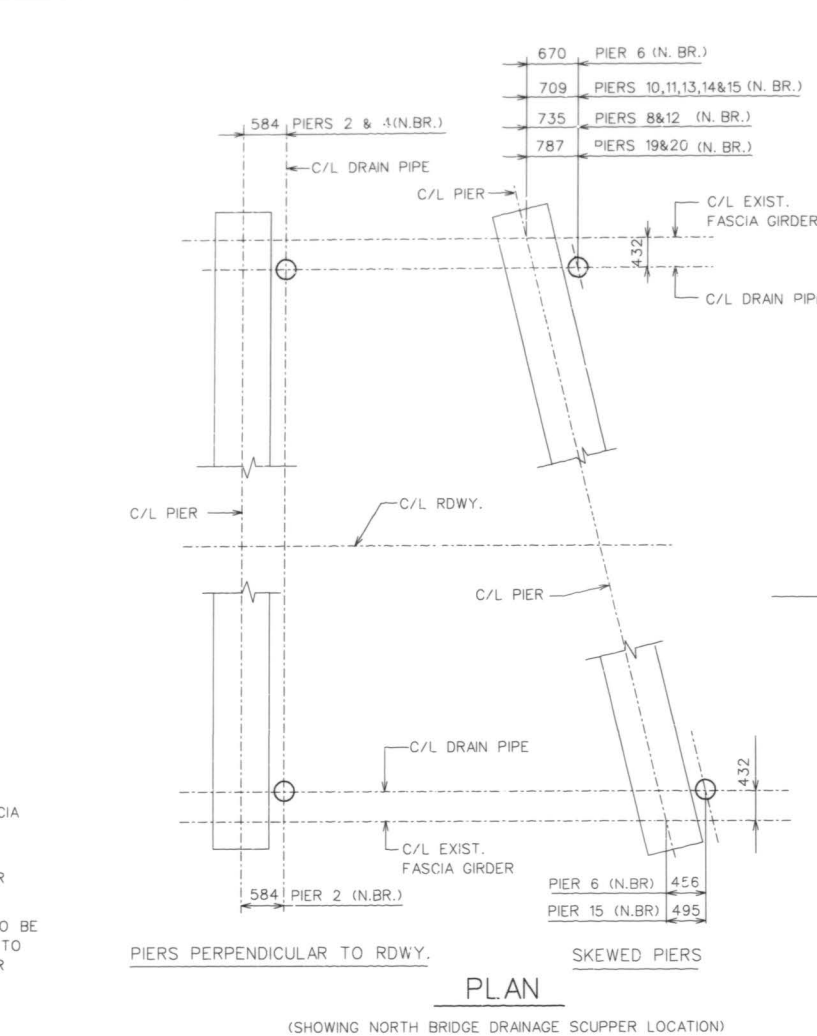
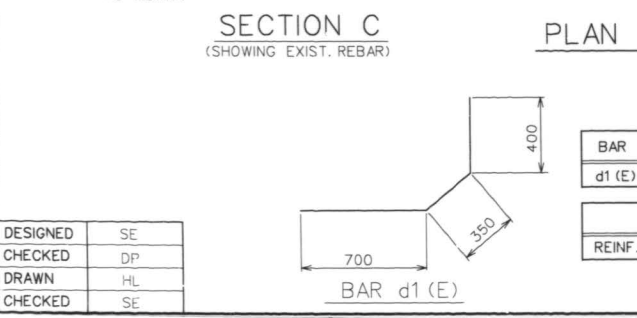
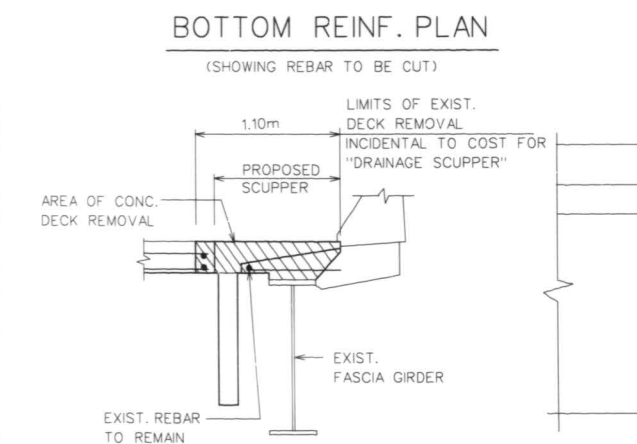
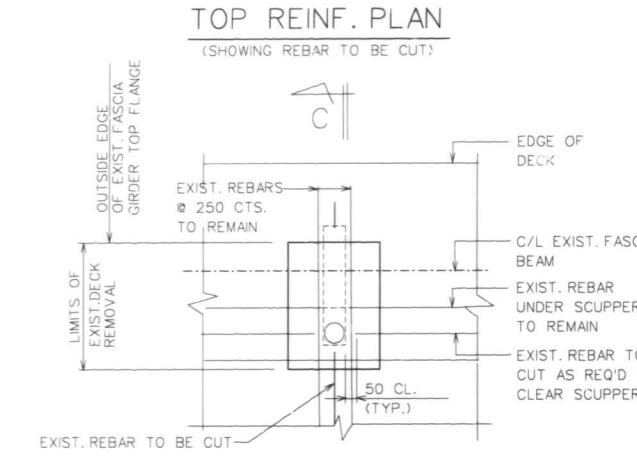
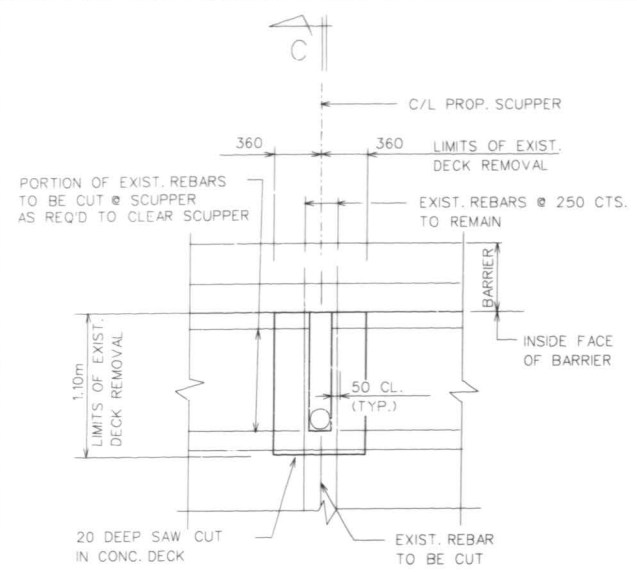
ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
**SOUTHBOUND NORTH BRIDGE
 DECK REPAIR PLAN**
 SN: 016-2407
 COOK CO., IL.
 SECTION 0203-632-HB-K-1
 STA. 8+325.000

BRIN1.DGN 9-1-94

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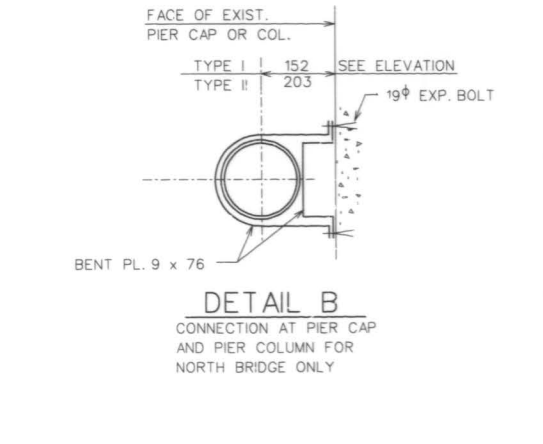
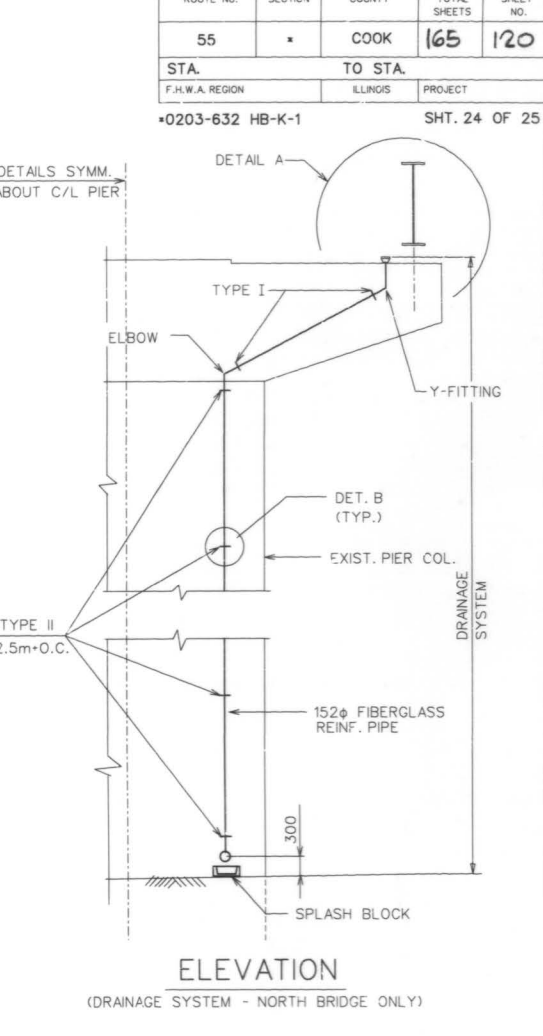
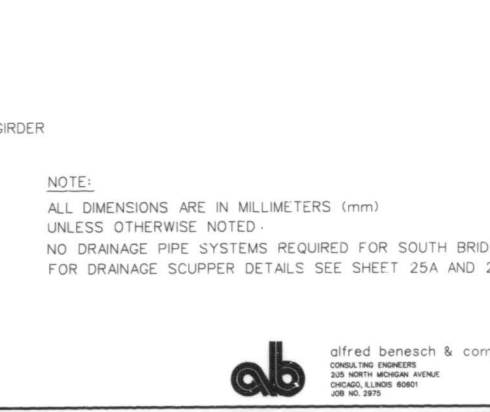
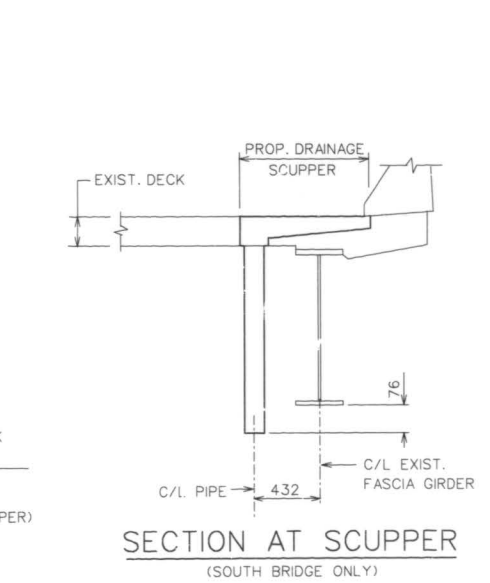
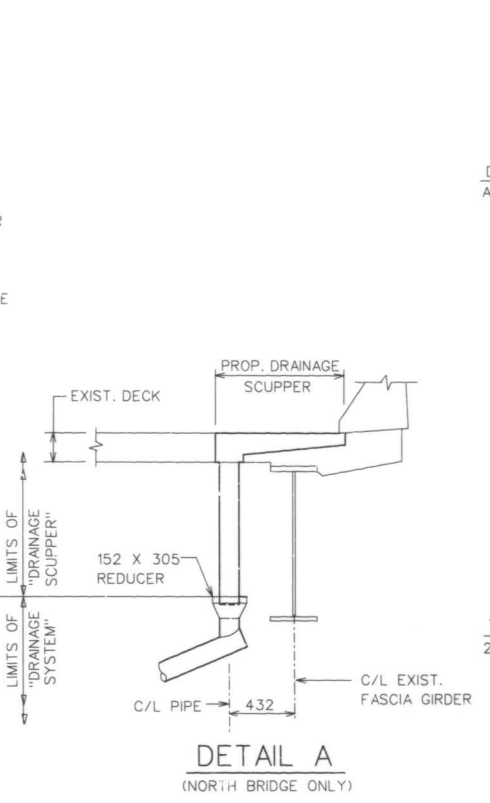
ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	120
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS	PROJECT	
*0203-632 HB-K-1			SHT. 24 OF 25	



BILL OF MATERIAL

BAR	No.	SIZE	LENGTH	SHAPE
d1 (E)	96	15	1.45m	

ITEM	UNIT	TOTAL
REINF. BARS, EPOXY COATED	kg	240



NOTE:
 ALL DIMENSIONS ARE IN MILLIMETERS (mm)
 UNLESS OTHERWISE NOTED.
 NO DRAINAGE PIPE SYSTEMS REQUIRED FOR SOUTH BRIDGE.
 FOR DRAINAGE SCUPPER DETAILS SEE SHEET 25A AND 25B.

M:\PROJ\2975\VIADUCT\SBDRAIN.DGN 5-19-94

DESIGNED	SE
CHECKED	DP
DRAWN	HL
CHECKED	SE

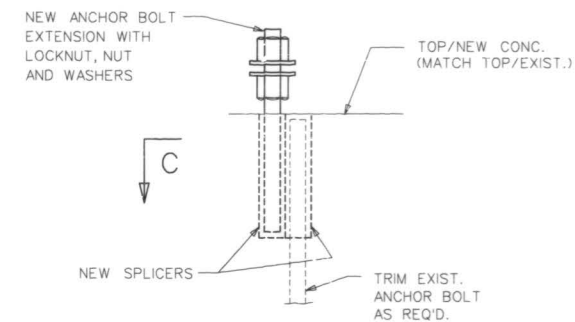
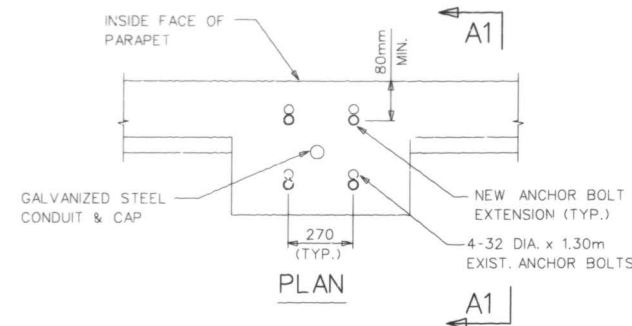
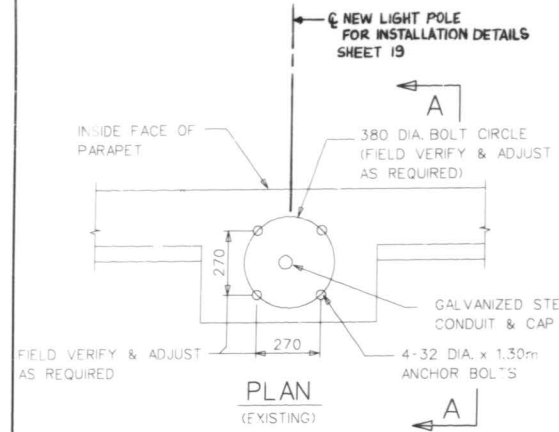
ab alfred benesch & company
 CONSULTING ENGINEERS
 238 NORTH MICHIGAN AVENUE
 CHICAGO, ILLINOIS 60601
 (312) 329-7275

ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
**SOUTHBOUND NORTH AND SOUTH BRIDGE
 SCUPPER DETAILS**
 SN: 016-2407(N)
 SN: 016-2406(S)
 COOK CO., IL.
 SECTION 0203-632-HB-K-1
 STA. 8+325.000

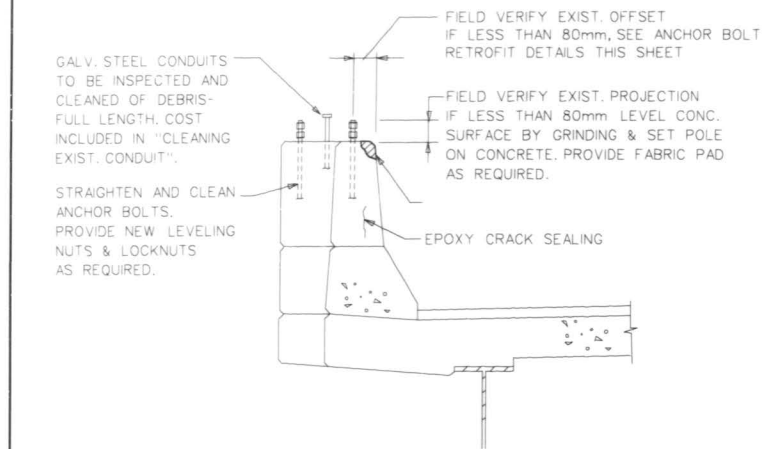
TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	*	COOK	165	121
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS		PROJECT

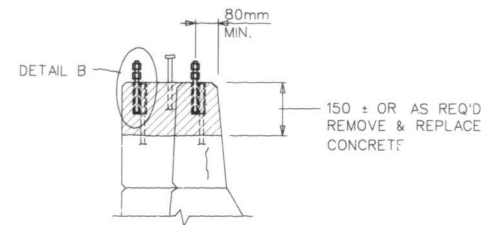
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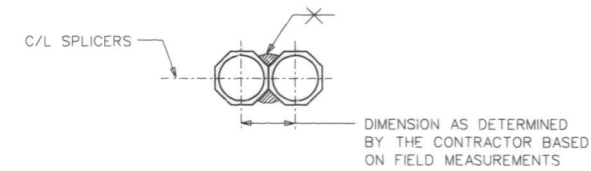
DETAIL B



SECTION A-A



SECTION A1-A1



SECTION C-C

EXIST. LIGHT STANDARD SUPPORT REPAIRS

ALL WORK REQUIRED FOR REPAIR OF EXIST. LIGHT STANDARD SUPPORT INCLUDING CONCRETE REMOVAL, CUTTING ANCHOR BOLTS, CLEANING & STRAIGHTENING ANCHOR BOLTS, GRINDING CONCRETE SURFACES, CONCRETE PLACEMENT, ANCHOR BOLT RETROFITS AND ALL OTHER WORK AS DETAILED IN THE PLANS OR SPECIAL PROVISIONS SHALL BE INCIDENTAL TO THE PAY ITEM "LIGHT STANDARD REPAIR."

NOTES:

- ANCHOR BOLTS TO BE STRAIGHTENED AS REQ'D. TO ERECT LIGHT POLES. EXISTING CONCRETE SHALL BE REMOVED AS REQUIRED TO PERFORM THIS WORK. TRIM EXISTING BOLTS AS REQUIRED.
- THE CONTRACTOR SHALL BE CAREFUL NOT TO DAMAGE THE BOLTS & THE SURROUNDING CONC. DURING STRAIGHTENING OF THE ANCHOR BOLTS. IT IS THE RESPONSIBILITY OF CONTRACTOR TO REPAIR ANY DAMAGE. SUCH REPAIR SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION.
- LIMITS OF EPOXY MORTAR REPAIR, EPOXY CRACK SEALING AND ANCHOR BOLT REPAIR ARE TO BE DETERMINED IN THE FIELD BY THE CONTRACTOR AS DIRECTED AND APPROVED BY THE ENGINEER. PAYMENT IS INCIDENTAL TO "LIGHT STANDARD REPAIR."

ANCHOR BOLT RETROFIT DETAILS

ALL DETAILS & DRAWINGS SHOWN FOR THE ANCHOR BOLT RETROFIT DETAILS ARE FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO SUBMIT PLANS, DESIGN, AND DETAIL FOR THE ANCHOR BOLT RETROFIT DETAILS TO THE ENGINEER FOR HIS WRITTEN APPROVAL. THESE PLANS, DESIGN & DETAILS SHALL BE PREPARED AND SEALED BY AN ILLINOIS LICENSED STRUCTURAL ENGINEER. COST OF THE ANCHOR BOLT RETROFIT DETAILS, INCLUDING ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY, SHALL BE INCLUDED IN COST FOR "LIGHT STANDARD REPAIRS".

NOTES:

- THE ZINC-SILICATE /ACRYLIC/ACRYLIC PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF DOWNSPOUTS EXCEPT WHERE OTHERWISE NOTED. THE COLOR OF THE FINISH COAT SHALL BE INTERSTATE GREEN.
- ALL NEW STRUCT. STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270 GR250.
- ALL DIMENSIONS ARE IN MILLIMETERS (mm) UNLESS OTHERWISE NOTED
- ALL BOLTS NUTS & WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO M-232M.
- ALL FIELD DRILLED HOLES SHALL BE COATED WITH AN APPROVED ZINC RICH PAINT BEFORE ERECTION.
- BOLTS, NUTS & WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION A-307M UNLESS OTHERWISE NOTED.
- ALL FIELD DRILLED HOLES SHALL BE COATED WITH AN APPROVED ZINC RICH PAINT BEFORE ERECTION.
- ANCHOR BOLT EXTENSIONS, NUTS & WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-576M GR345.
- ANCHOR BOLT SPLICER SLEEVES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A576M, GR345 OR APPROVED EQUAL. SPLICER SLEEVES FURNISHED SHALL PROVIDE A MINIMUM YIELD STRENGTH OF 125% OF THE ANCHOR BOLT. LENGTH & TYPE TO BE PROVIDED SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.

SDRAIN.DGN 9-1-94

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DESIGNED	SE
CHECKED	DP
DRAWN	HL
CHECKED	SE

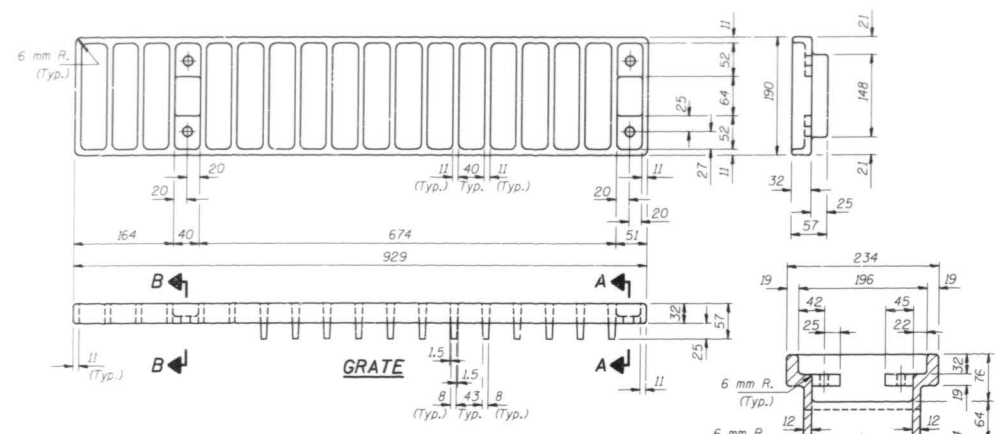
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CONSULTING ENGINEERS
265 NORTH MICHIGAN AVENUE
CHICAGO, ILLINOIS 60601
JOB NO. 2975

ILLINOIS DEPARTMENT OF TRANSPORTATION
US 12/20/45 (LAGRANGE ROAD)
**SOUTHBOUND NORTH AND SOUTH BRIDGE
MISCELLANEOUS DETAILS**

SN: 016-2406 S
SN: 016-2407 N
COOK CO., IL. SECTION 0203-632-HB-K-1
STA. 8+325.000

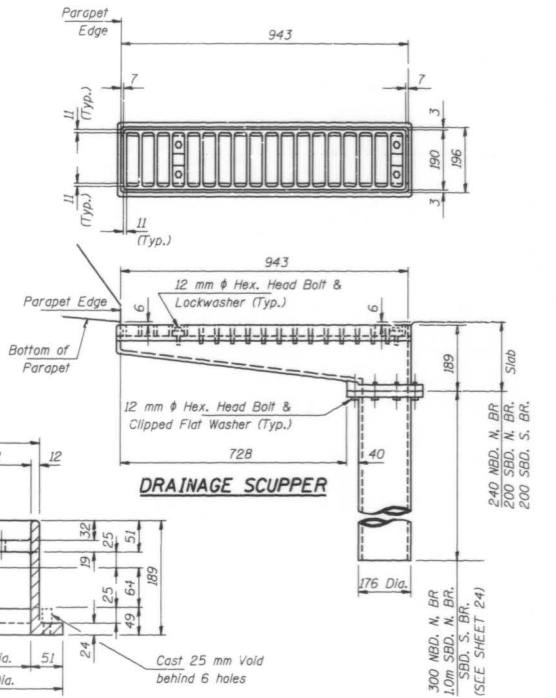
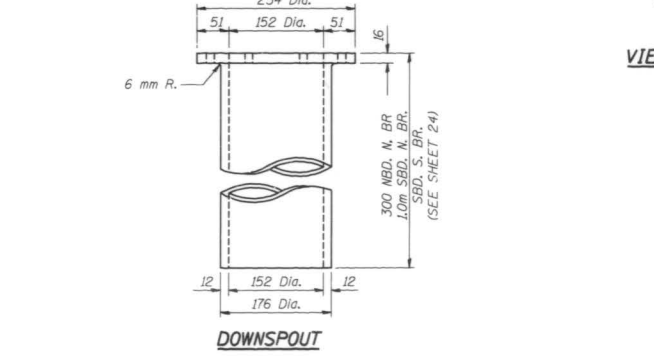
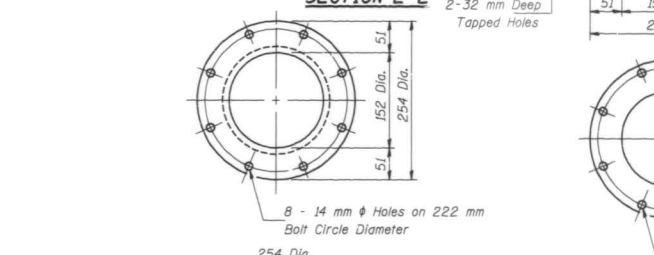
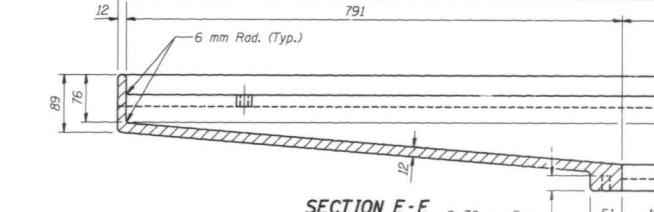
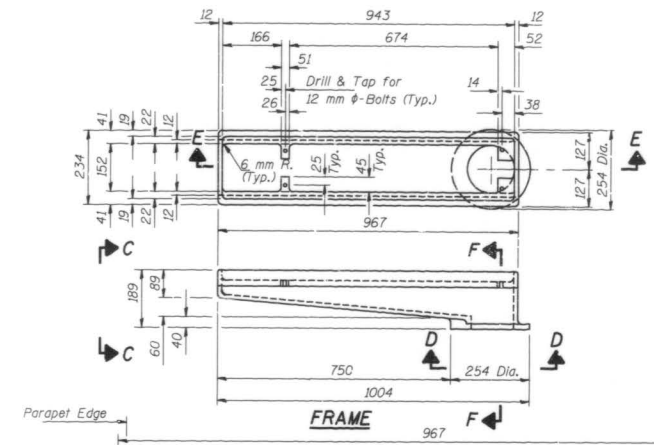
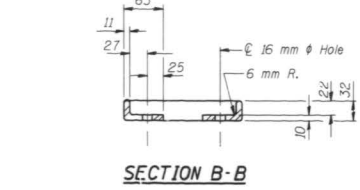
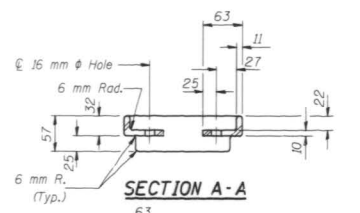
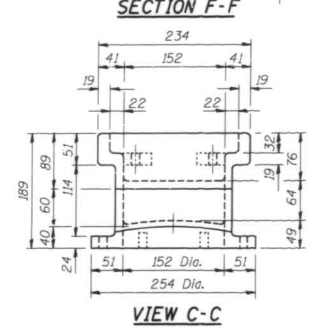
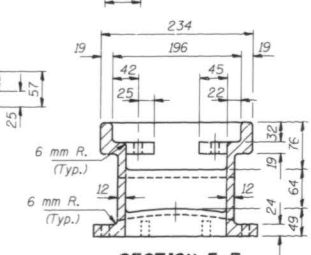
TAMERAN

ROUTE No.	SECTION	COUNTY	TOTAL SHEETS	SHEET No.
55	x	COOK	165	123
STA.		TO STA.		
F.H.W.A. REGION		ILLINOIS PROJECT		
0203-632 HB-K-1		SHT. 25B OF 25		



Notes:
 All cast iron parts shall be gray iron conforming to the requirements of AASHTO M105, Class 30.
 Bolts and washers shall conform to the requirements of ASTM A307.
 All bolts and washers shall be galvanized in accordance with AASHTO M232.
 As an alternate bolts and washers may be stainless steel conforming to the requirements of ASTM A193M, Type 304.
 Cost of the Grate, Frame, Downspout, bolts and washers including complete installation of Scupper will be paid for at the unit bid price each for "DRAINAGE SCUPPERS."
 The Contractor may use at his option steel drainage scuppers or cast iron drainage scuppers.
 All dimensions are in millimeters (mm) except as noted.

DS-4 (M) 7-1-93 (W.T. to inside of exterior stringer flange shall not be > 1.2 m)



(Sheet 2 of 2)
 ALTERNATE - CAST IRON
 DRAINAGE SCUPPER

DESIGNED	KN
CHECKED	TL
DRAWN	JG
CHECKED	DP

ab alfred benesch & company
 CONSULTING ENGINEERS
 303 NORTH MICHIGAN AVENUE CHICAGO ILLINOIS 60611
 JOB NO. 2975

ILLINOIS DEPARTMENT OF TRANSPORTATION
 US 12/20/45 (LAGRANGE ROAD)
 ALTERNATE CAST IRON DRAINAGE SCUPPER DETAILS
 SN: 016-2467 (NBD-N. BR.)
 016-2407 (SBD-N. BR.)
 016-2406 (SBD-S. BR.)
 COOK CO., IL. SECTION 0203-632-HB-K-1
 STA. 8+325.000

CISCU.P.DGN 9-1-94

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STATE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	1	COOK	165	124
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

0203-632 HB-K-1 SHEET 25C OF 25

GENERAL NOTES

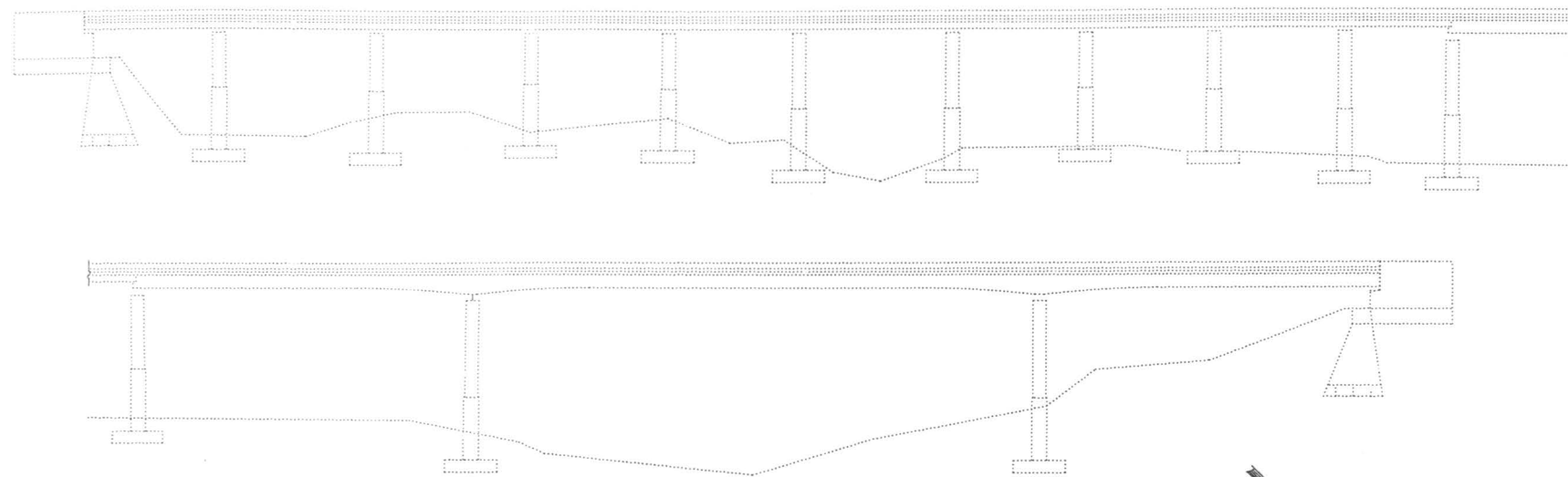
All new structural steel shall conform to AASHTO Classification M-270 Gr. 250
All new fasteners shall be high strength bolts. Holes shall be subpunched or subdrilled 18mm and reamed in the field to 21mm for 20mm high strength bolts (except as noted on the plans) after new structural steel sections are properly fitted into position.

Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

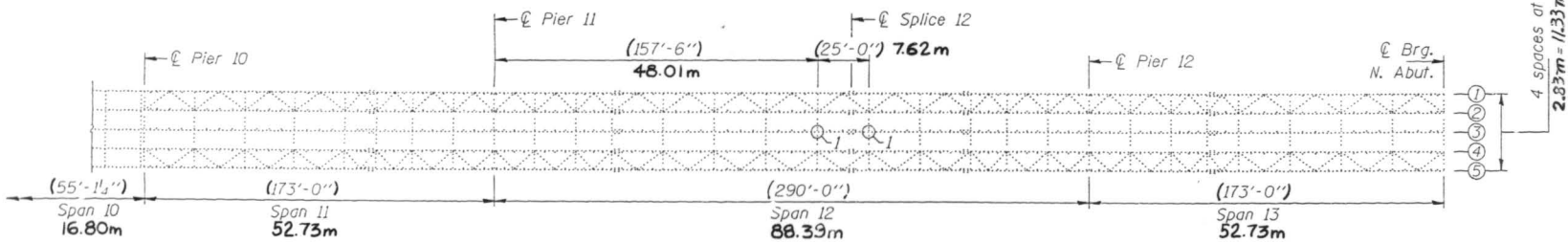
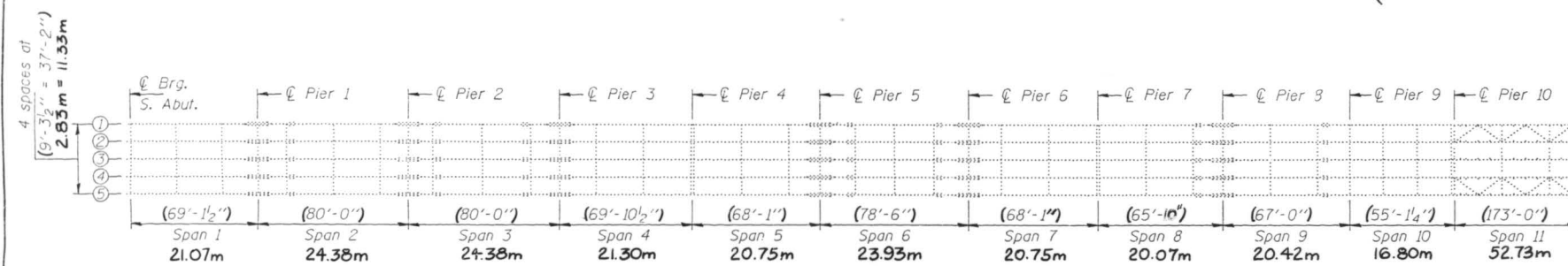
The three coat inorganic zinc silicate/acrylic/acrylic paint system shall be used for shop and field painting of the new structural steel. The color of the final top coat shall match the existing steel.

Existing Structural steel shall only be cleaned and painted as required by the applicable portions of the Special Provision "Cleaning and Painting Adjacent Areas of Existing Steel Structures".

This work shall be performed during the staged construction.



ELEVATION



PLAN

1 Check for cracks and stiffen Cross Frame to Web connections. See details on Sheet 2.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnishing and Erecting Structural Steel	Kg	340

DESIGNED <i>John Sanford</i>	JUNE 3, 1994
CHECKED <i>Nicholas J. Saville</i>	EXAMINED <i>John E. Adams</i>
DRAWN <i>Paul Sumner</i>	PASSED
CHECKED SDS <i>NJS</i>	ENGINEER OF BRIDGES AND STRUCTURES

ab **alfred benesch & company**
CONSULTING ENGINEERS
836 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60610
JOB NO. 2975

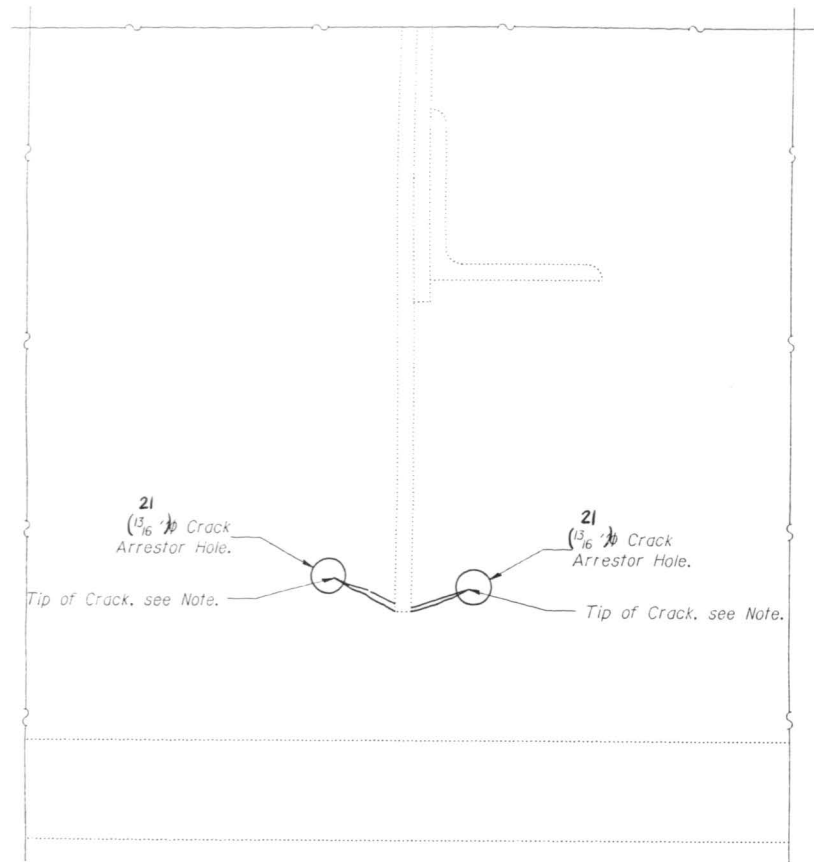
9-1-94
ILLINOIS DEPARTMENT OF TRANSPORTATION
U.S. 12/20/45 (LAGRANGE RD.)
GIRDER REPAIR
SN: 016-2467 (NBD - N. BR.)
016-2407 (SBD - N. BR.)
016-2406 (SBD - S. BR.) SECTION 0203-632-HB-K-1
COOK CO., IL. STA. 8+325.000

TAMERAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

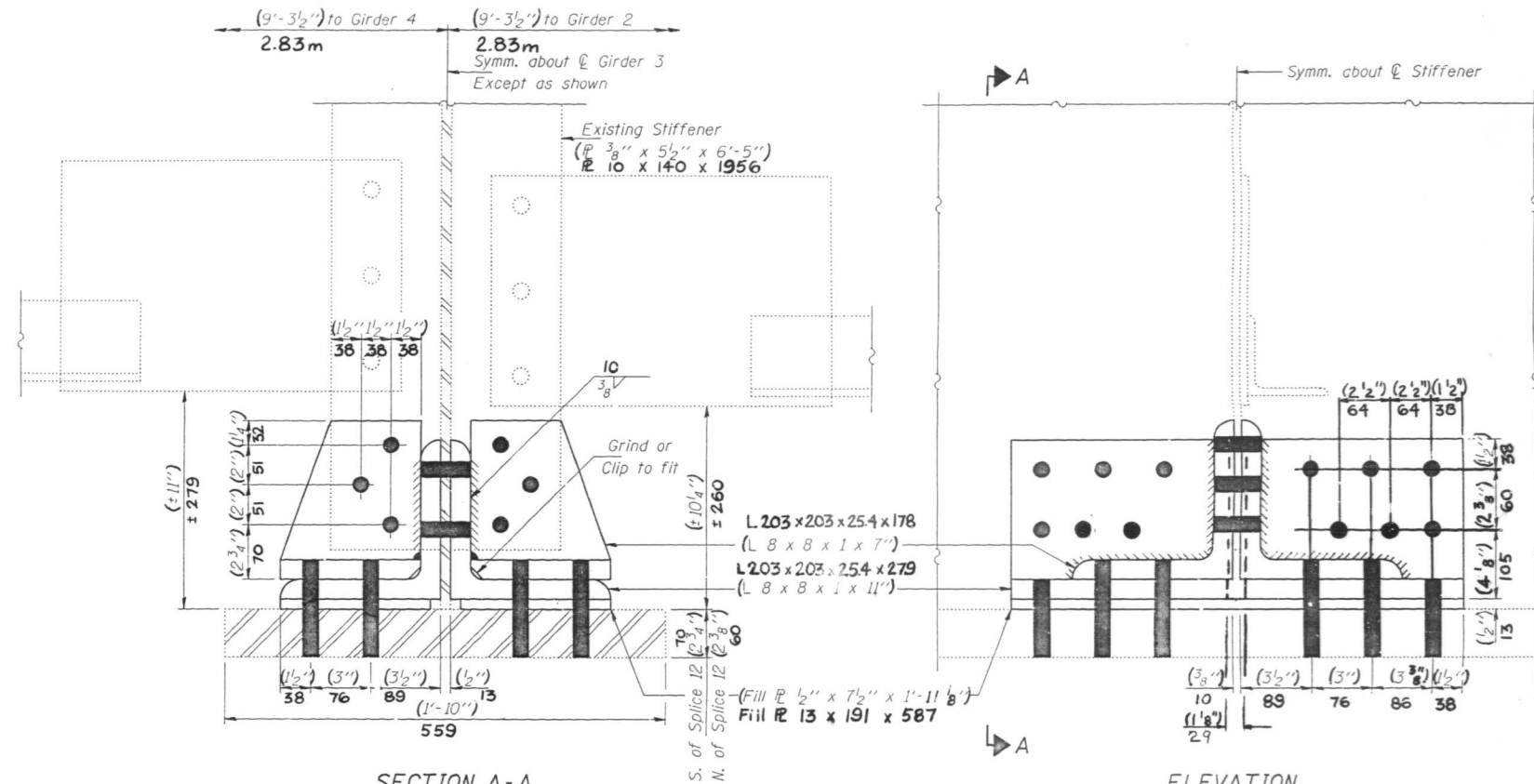
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
55	X	COOK	165	125

X 0203-632 HB-K-1 SHEET 250 OF 25



CRACK ARRESTOR HOLE DETAIL

Note: Locate crack tips using liquid dye penetrant or magnetic particle testing. Drill 21 (1 5/16") Crack Arrestor holes at the crack tips. After crack arrestor holes have been drilled, dye penetrant or magnetic particle testing shall be used to verify that the drilled holes have captured the crack tips. Cost incidental to "Furnishing and Erecting Structural Steel".



CROSS FRAME TO WEB STIFFENING DETAIL

Note: All dimensions are metric in millimeters unless otherwise specified.

DESIGNED	SDS
CHECKED	NJS
DRAWN	Paul Summer
CHECKED	SDS NJS

JUNE 3, 1954

EXAMINED *Joseph E. Adams*
ENGINEER OF STRUCTURAL SERVICES

PASSED

ENGINEER OF BRIDGES AND STRUCTURES

ILLINOIS DEPARTMENT OF TRANSPORTATION
U.S. 12/20/45 (LAGRANGE RD.)

GIRDER REPAIR

SN: 016-2467 (NBD-N.B.R.)
016-2407 (SBD-N.B.R.)
016-2406 (SBD-S.B.R.)
COOK CO., IL.

SECTION 0203-632-HB-K-1
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208 NORTH MICHIGAN AVENUE, CHICAGO, ILLINOIS 60610
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