

INDICATES WING NUMBER

STATE PROJECT NUMBER

1360-11-70

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS20
INVENTORY RATING: HSXX
OPERATING RATING: HSXX
WIS. STD. PERMIT VEHICLE (Wis-SPV): XXX KIPS

MATERIAL PROPERTIES
CONCRETE MASONRY SUPERSTRUCTURE $f'_c = 4,000$ PSI
ALL OTHERS $f'_c = 3,500$ PSI
HIGH STRENGTH BAR STEEL
REINFORCEMENT GRADE 60 $f_y = 60,000$ PSI

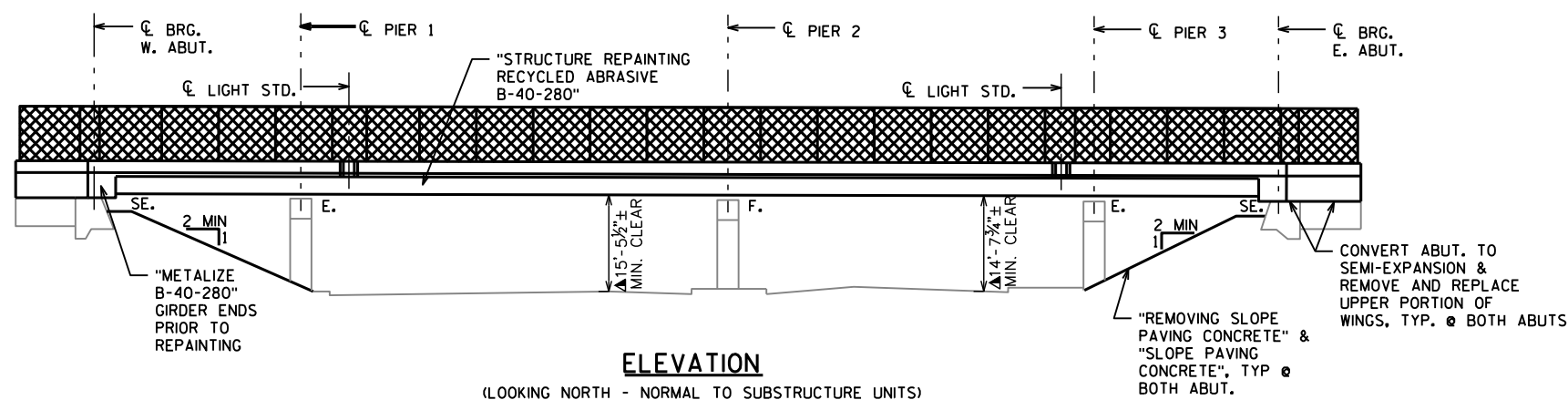
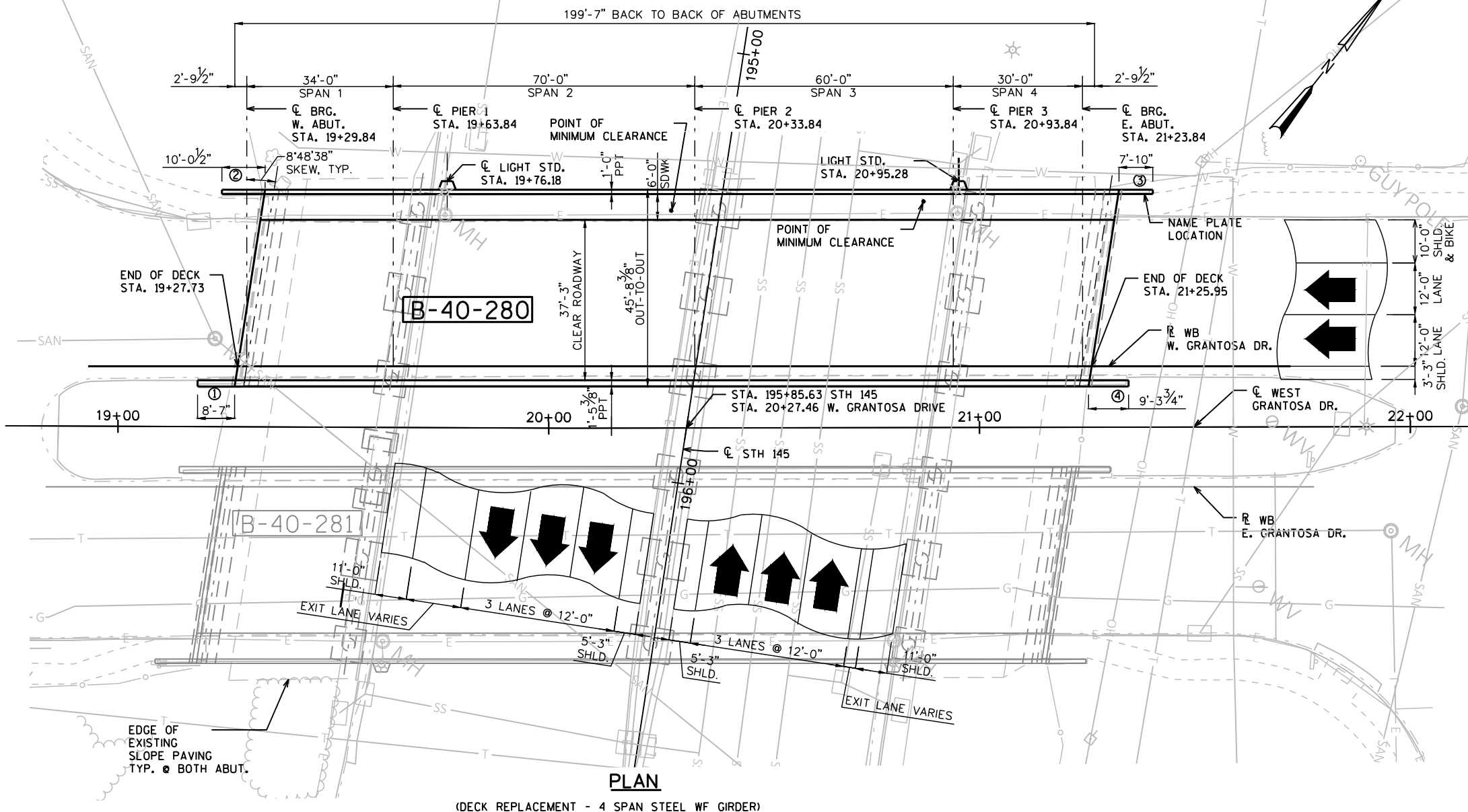
SCOPE OF WORK: B-40-280

1. DECK REPLACEMENT
2. CONCRETE SURFACE REPAIRS
3. ABUTMENT CONVERSION TO SEMI-EXPANSION
4. REPAINT STEEL GIRDERS AND PIER BEARINGS
5. TOP OF WINGWALL/ABUTMENT BACKWALL REPLACEMENT

TRAFFIC DATA

GRANTOSA DRIVE
AADT = 9,000 (2020)
9,900 (2040)
RDS = 35 MPH

STH 145
AADT=26,400 (2020)
RDS = 60 MPH



LEGEND

▲ PER LIDAR SURVEY (MAY 2019)

BUREAU OF STRUCTURES CONTACT:
BILL DREHER (608) 266-8489

CONSULTANT CONTACT
KEVIN WOOD (414) 259-1500

NO.	DATE	REVISION	BY
GRÄEF One Honey Creek Corporate Center 125 South 84th Street, Suite 401 Milwaukee, WI 53214-1470 414 / 259 1500 414 / 259 0037 fax www.graef-usa.com			
ACCEPTED _____ CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-40-280			
WB W. GRANTOSA DRIVE OVER STH 145			
COUNTY	MILWAUKEE	TOWN/CITY/VILLAGE	MILWAUKEE
DESIGN SPEC.			
DESIGNED BY	WAR	REHABILITATION DESIGN CK'D. KGW	N/A DRAWN BY. TMM PLANS CK'D. KGW
GENERAL PLAN & ELEVATION			SHEET 1 OF 2

I.D. 1360-11-00

DATE: NOVEMBER 2018

SCALE = 1:25

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET. ELEVATIONS ARE REFERENCE TO THE NAVD 88 2012.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

EXISTING STRUCTURE B-40-280 IS A 4 SPAN CONTINUOUS STEEL GIRDER BRIDGE WITH AN EXISTING OUT-TO-OUT WIDTH OF 45'-6" AND A BACK-TO-BACK OF ABUTMENT LENGTH OF 199'-7". SEE SHEET 1 FOR "SCOPE OF WORK".

"PIGMENTED SURFACE SEALER" TO BE APPLIED TO THE TOP AND INSIDE FACES OF PARAPETS INCLUDING PARAPETS ON ABUTMENT WINGS.

"PROTECTIVE SURFACE SEALER" SHALL BE APPLIED TO THE TOP OF DECK AND SIDEWALK.

THE SUPERSTRUCTURE CONCRETE QUANTITY INCLUDES VOLUME FOR THE AVERAGE ESTIMATED HAUNCH AND OVERHANG TRIANGULAR AREA.

BRIDGE IS TO BE CLOSED TO TRAFFIC DURING CONSTRUCTION.

VARIATIONS OF THE NEW GRADE LINE OVER BY 1/4" MUST BE SUBMITTED BY THE FIELD ENGINEER TO THE STRUCTURES DESIGN SECTION OF REVIEW.

CONCRETE SURFACE REPAIR AS DIRECTED BY THE FIELD ENGINEER. QUANTITIES SHOWN ON PLANS ARE APPROXIMATE.

ALL CONCRETE REMOVAL NOT COVERED WITH A CONCRETE OVERLAY SHALL BE DEFINED BY A 1 INCH DEEP SAW CUT.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS SHOWN OR NOTED OTHERWISE.

THE TOP LAYER OF BAR STEEL REINFORCEMENT IN THE DECK SHALL BE PLACED WITH 2½" OF CLEAR COVER.

CONCRETE EXPANSION BOLTS AND INSERTS TO BE FURNISHED AND PLACED BY THE CONTRACTOR UNDER THE BID PRICE FOR CONCRETE MASONRY.

THE UPPER LIMITS OF 'EXCAVATION FOR STRUCTURES BRIDGES B-40-280" SHALL BE THE EXISTING GROUNDLINE.

BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REPRESENT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURES TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATIONS FOR STRUCTURES.

THE FIRST DIGIT OF A THREE DIGIT AND THE FIRST TWO DIGITS OF A FOUR DIGIT BAR MARK SIGNIFIES THE BAR SIZE. BEVEL ALL EXPOSED EDGES OF CONCRETE 3/4" UNLESS OTHERWISE NOTED.

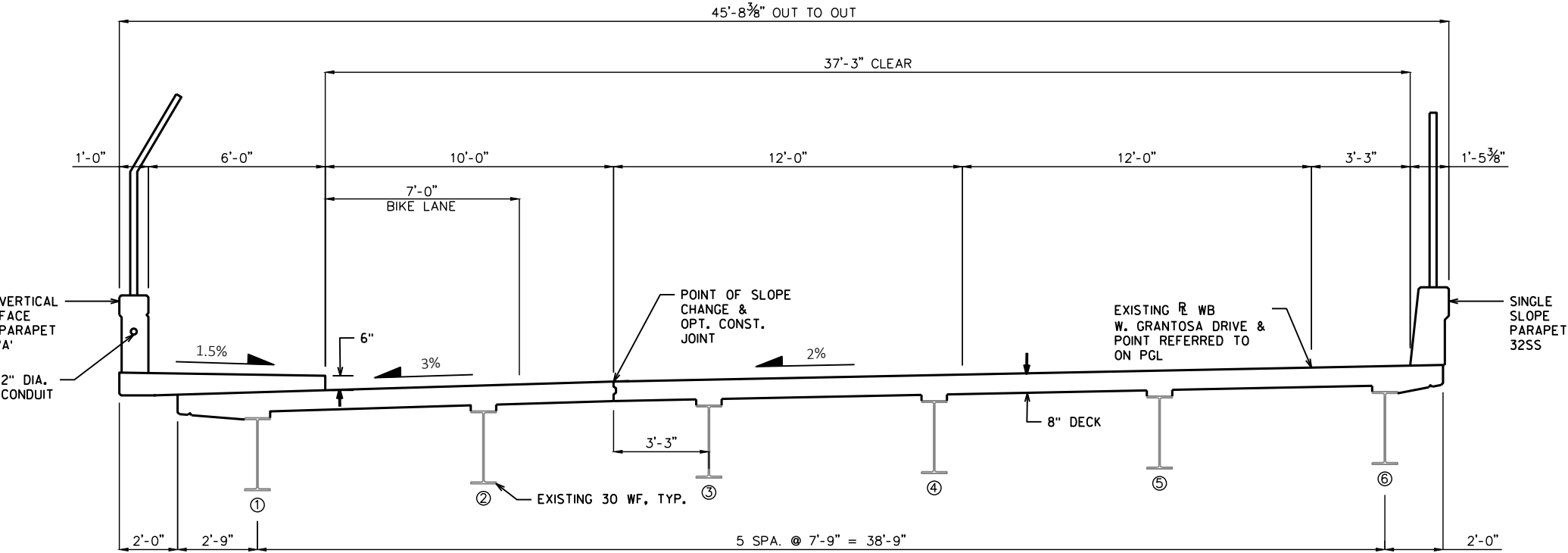
UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

METALIZE 5 FEET AT EACH GIRDER END PRIOR TO REPAINTING.

THE CONTRACTOR SHALL SUPPLY A NEW NAME PLATE IN ACCORDANCE WITH SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS AND THE STANDARD DETAIL DRAWINGS. NAME PLATE TO SHOW ORIGINAL CONSTRUCTION YEAR OF 1965.

ALL STRUCTURAL STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED UNDER BID THE BID ITEM FOR "STRUCTURAL REPAINTING RECYCLED ABRASIVE B-40-280". THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS STIFFENERS, AND CONNECTIONS. PAINT COLOR TO BE AMS STANDARD COLOR NO. 25240 (BLUE).

BENCHMARKS NEEDED



PROPOSED SECTION

(LOOKING EAST)

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	BID ITEM	UNITS	W. ABUT.	E. ABUT.	PIER 1	PIER 2	PIER 3	SUPER.	TOTALS
203.0200	REMOVING OLD STRUCTURE STA. 19+29.64	LS							1
203.0210.S	ABATEMENT OF ASBESTOS CONTAINING MATERIAL B-40-280	LS							1
204.0175	REMOVING CONCRETE SLOPE PAVING	SY							
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-40-280	LS							1
210.1500	BACKFILL STRUCTURE TYPE A	TON							
502.0100	CONCRETE MASONRY BRIDGES	CY							
502.3200	PROTECTIVE SURFACE TREATMENT	SY							
502.3210	PIGMENTED SURFACE SEALER	SY							
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH							
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB							
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH							
506.7050.S	REMOVING BEARINGS B-40-280	EACH							
509.1500	CONCRETE SURFACE REPAIR	SF							
513.4091	RAILING TUBULAR SCREENING B-40-280	LF							
517.0900.S	PREPARATION AND COATING OF TOP FLANGES B-40-280	LS							1
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY							
517.1800.S	STRUCTURE REPAINTING RECYCLED ABRASIVE B-40-280	LS							1
517.4500.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-40-280	LS							1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH							1
604.0400	SLOPE PAVING CONCRETE	SY							
652.0130	CONDUIT RIGID METALLIC 2 1/2-INCH	LF							
652.0230	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2 1/2-INCH	LF							
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH							2
657.6005	ANCHOR ASSEMBLIES LIGHT POLES ON STRUCTURES	EACH							2
SPV.0105.XX	METALIZING B-40-280	LS							1
NON BID ITEMS									
	NAME PLATE	EACH							1
	PREFORMED JOINT FILLER	SIZE							1/2"
	CORK FILLER	SIZE							3/4"

FOR INFORMATIONAL PURPOSES ONLY: APPROXIMATELY 10,659 SF OF STRUCTURAL STEEL, SEE GENERAL NOTES.

PGL
R WB W. GRANTOSA DRIVE

PGL
S TH 145

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-40-280			
	DRAWN BY	WAR	PLANS CK'D. KGW
CROSS SECTION & QUANTITIES			SHEET 2 OF 2

SCALE =

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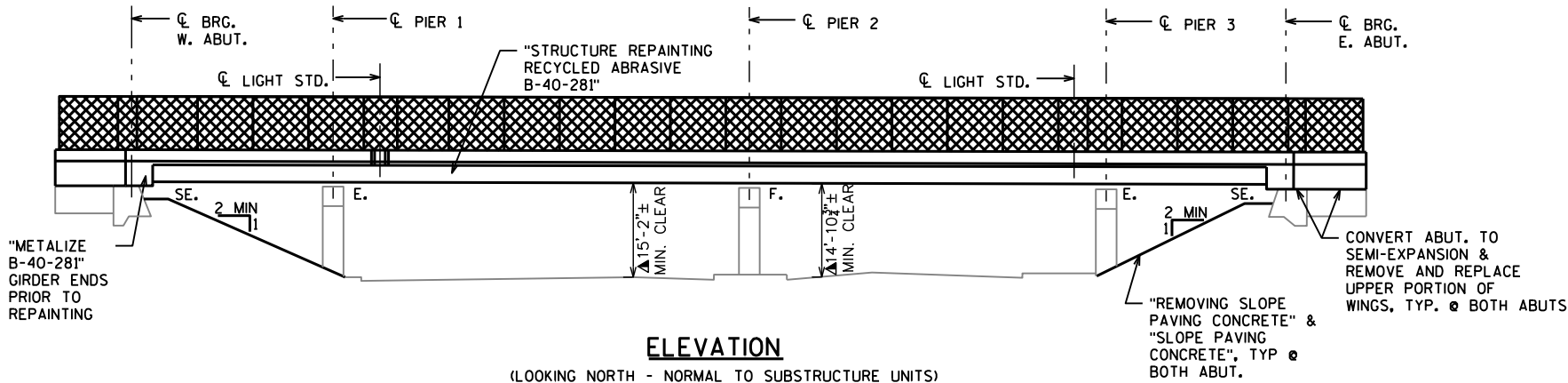
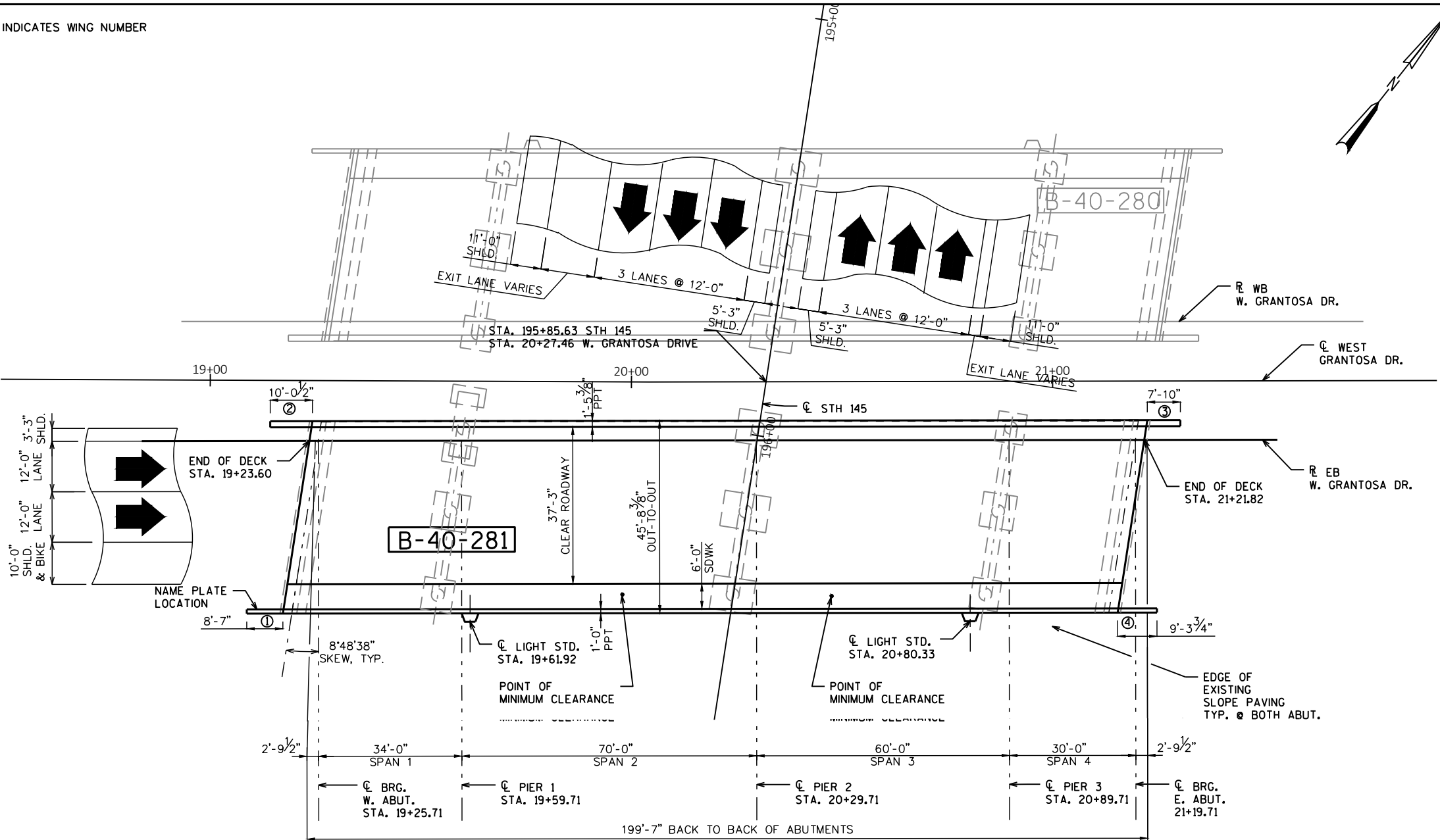
SCOPE OF WORK: B-40-281

1. DECK REPLACEMENT
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GENERAL PLAN & ELEVATION			SHEET 1 OF 2

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PGL
R EB W. GRANTOSA DRIVE

Q STH 145

45'-8³/₈" OUT TO OUT

37'-3"

1'-5³/₈" 3'-3" 12'-0" 12'-0" 10'-0" 6'-0" 1'-0"

7'-0" BIKE LANE

2% 3% 1.5%

POINT OF SLOPE CHANGE & OPT. CONST. JOINT

EXISTING R EB W. GRANTOSA DRIVE & POINT REFERRED TO ON PGL

SINGLE SLOPE PARAPET 32SS

VERTICAL FACE PARAPET 'A'

2" DIA. CONDUIT

8" DECK

(4) FIRE, POLICE, & TRAFFIC CONTROL DUCTS (TO REMAIN)

(6) ABANDONED ELECTRICAL DUCTS (TO BE REMOVED)

4" GAS MAIN (TO REMAIN)

EXISTING 30 WF, TYP.

2'-0" 2'-9" 2'-0"

5 SPA. @ 7'-9" = 38'-9"

① ② ③ ④ ⑤ ⑥

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STRUCTURE B-40-281			
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CROSS SECTION & QUANTITIES			SHEET 2 OF 2

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