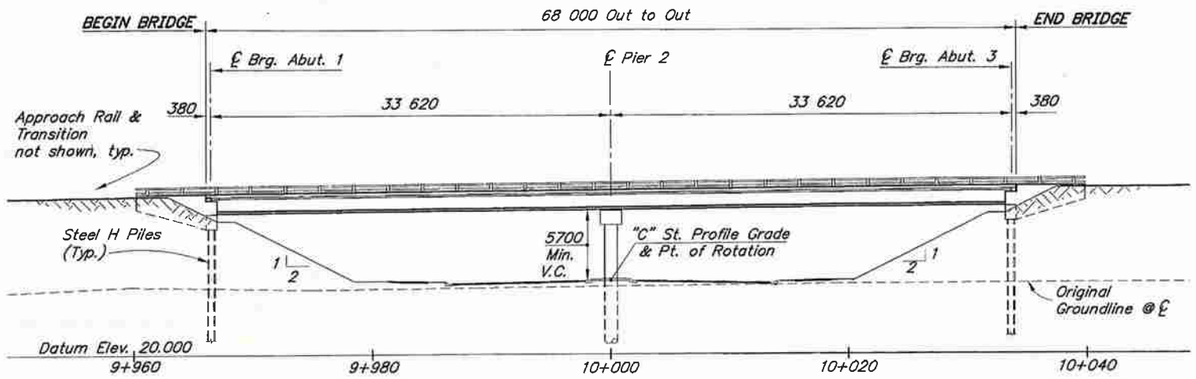
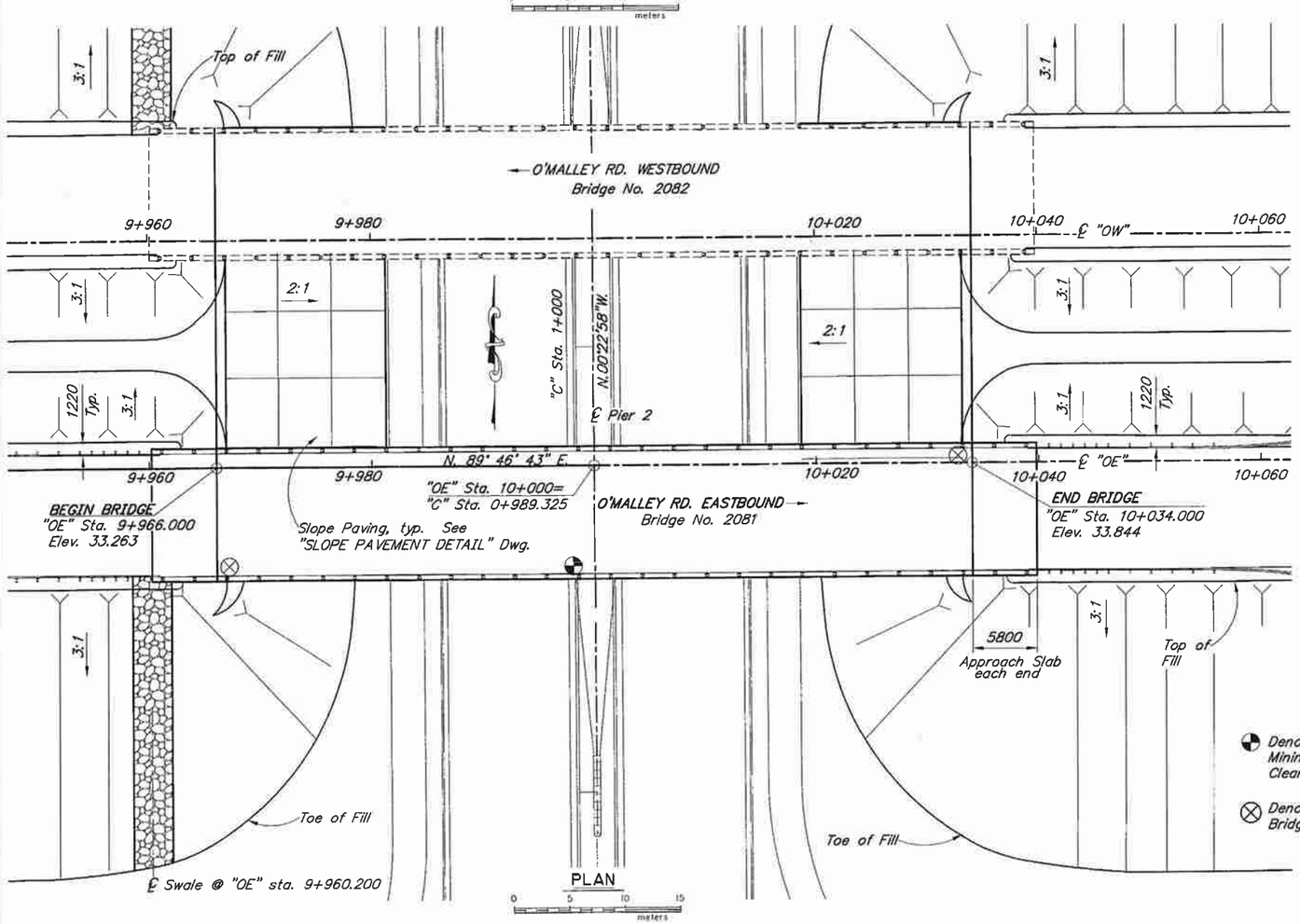
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P1	P21



ELEVATION

0 5 10 15 meters

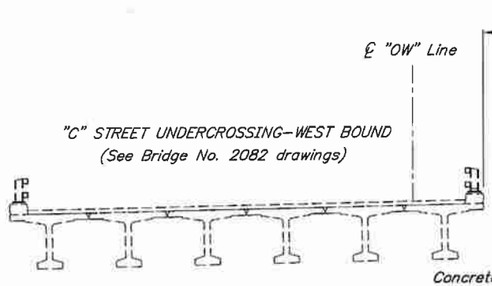


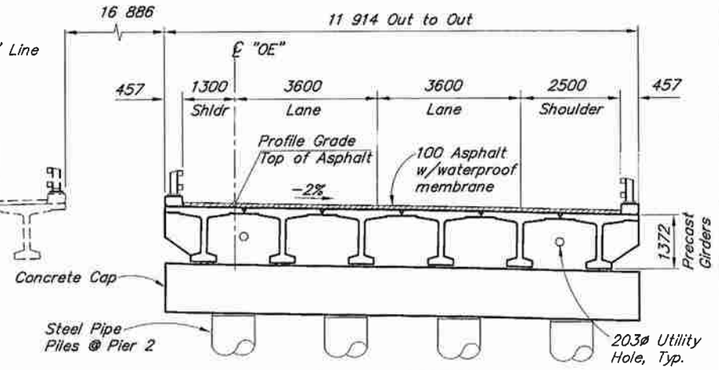
PLAN

0 5 10 15 meters

Denotes location of Minimum Vertical Clearance

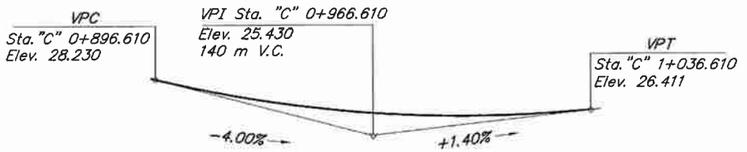
Denotes location of Bridge No. Plate





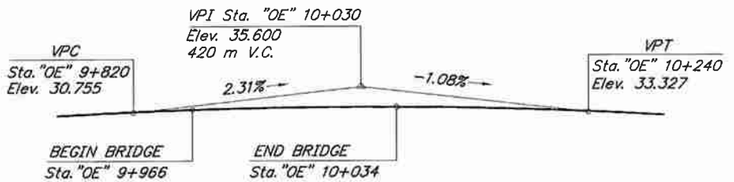
TYPICAL SECTION

0 1000 2000 3000 millimeters



GRADE DATA-"C" LINE C STREET

No Scale



GRADE DATA-O'MALLEY EASTBOUND "OE" LINE

No Scale

DRAWING INDEX

TITLE	DWG. NO.
GENERAL LAYOUT	1
SITE PLAN	2
ABUTMENTS	3
PIER	4
FRAMING PLAN	5
TYPICAL SECTION	6
GIRDERS	7
GIRDER DETAILS	8
STEEL BRIDGE RAILING	9
THRIE BEAM TRANSITION	10
SLOPE PAVING DETAILS	11

NOTES:

1. For General Notes & Estimate of Quantities see SITE PLAN.
2. Stationing and Elevations are in meters, all other dimensions are in millimeters.

DESIGNED BY: Loren Gehring, P.E.	CHECKED: Travis Arndt	LAYOUT BY: Loren Gehring	CHECKED BY: T. Arndt
DRAWN BY: C. Anderson	CHECKED: T. Arndt	SPECIFICATIONS BY: L. Gehring	PLANS & SPEC. COMPARED: T. Arndt
QUANTITIES BY: Loren Gehring	CHECKED: T. Arndt	APPROVAL RECOMMENDED BY: Richard Pratt, P.E.	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

49TH STATE OF ALASKA — Loren K. Gehring — No. CE 10155 — REGISTERED ENGINEER

"C" STREET UNDERCROSSING–EASTBOUND

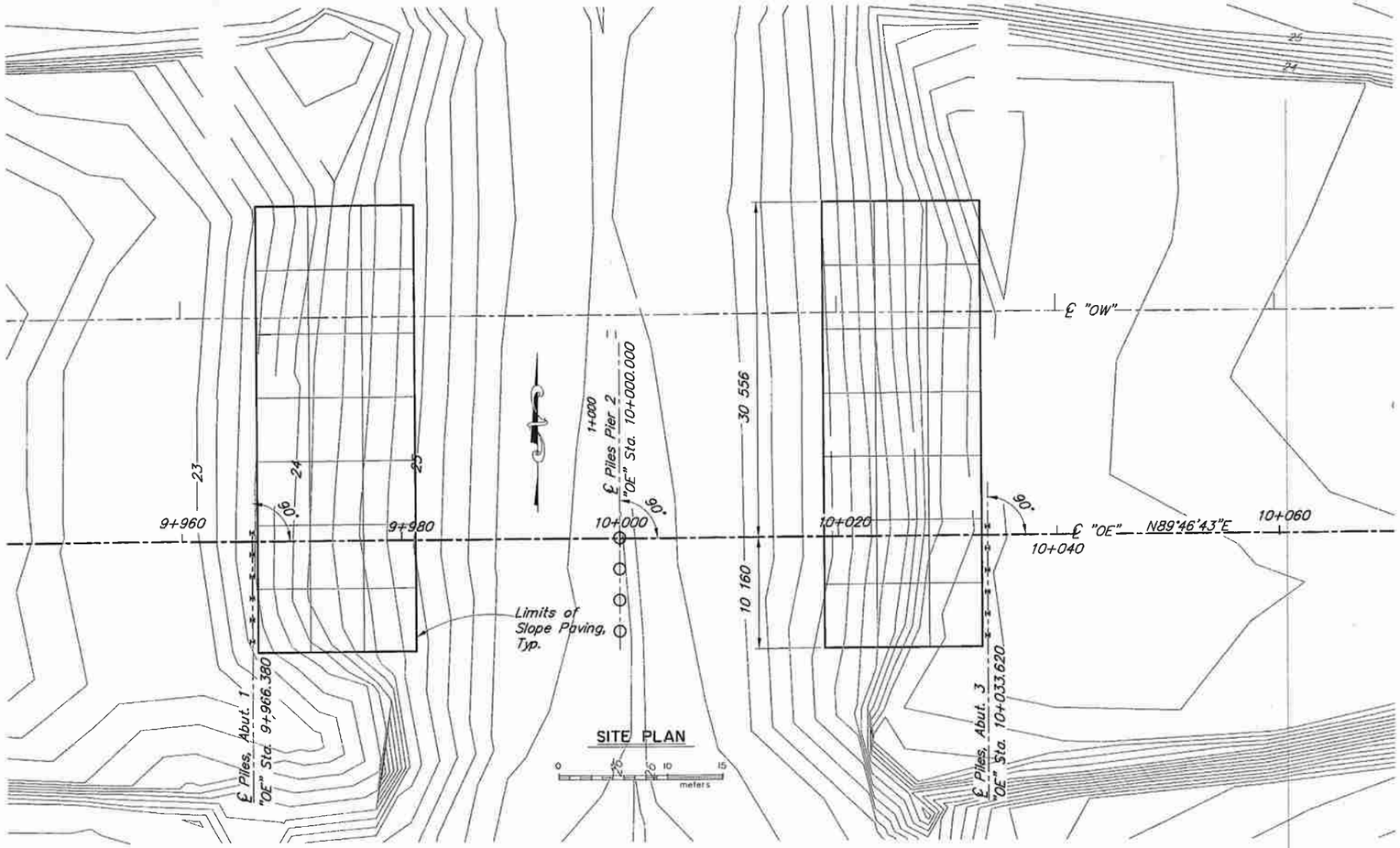
O'MALLEY ROAD

GENERAL LAYOUT

BRIDGE NO. 2081

DWG. NO. 1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P2	P21



GENERAL NOTES

DESIGN: .....AASHTO LRFD Bridge Design Specifications, 1998 edition, with latest Interim Specifications.

CONSTRUCTION:.....State of Alaska DOT/PF Standard Specifications for Highway Construction, 1998, with Special Provisions.

LIVE LOAD:.....HL-93

DEAD LOAD:.....Includes 2.23 kPa for all wearing surfacing.

SEISMIC PARAMETERS:.....Acceleration Coefficient, a = 0.45g
Site Coefficient, s = 1.2
Liquefaction Potential = High
AASHTO 90% probability of not being exceeded in 50 years

REINFORCED CONCRETE:.....ASTM A706M, Fy = 420 MPa
Class A, f'c = 28 MPa
50 Clear to all reinforcing unless otherwise noted.

PRESTRESSED CONCRETE:.....See "GIRDERS" Dwg.

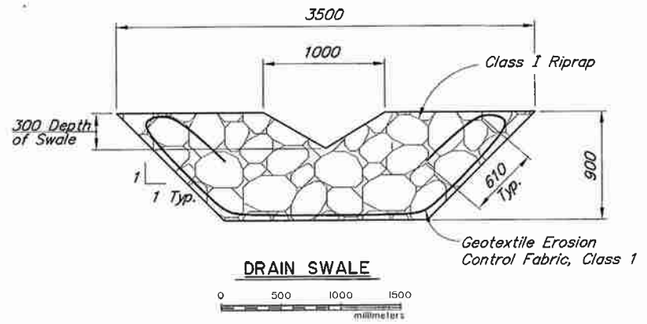
STRUCTURAL STEEL:.....ASTM A709M, Grade 250.
Galvanize all structural steel unless otherwise noted.

PILING:.....H-Piles: ASTM A709M, Grade 345 W/ Supplemental Impact Test requirements for Non Fracture Critical Zone 2.

Pipe Piles: API(5L) PSL2, Grade X52.
Pile Tip Protection required. See Special Provisions.

LOCATION	PILE TYPE	MINIMUM TIP ELEV.	DESIGN LOAD kN	ULTIMATE LOAD kN	ULTIMATE UPLIFT kN
ABUTMENT 1	HP 360x174	5.3	700	1575	475
PIER 2	1067Øx22 wall pipe	7.7	1540	5980	1313
ABUTMENT 3	HP 360x174	5.3	700	1575	475

NOTE:
Min. Tip Elevation required for lateral & vertical capacity.



ESTIMATE OF QUANTITIES

ITEM NO.	ITEM	UNIT	SUBST.	SUPERST.	TOTAL
501(1)	Class A Concrete	LS-m3	120.9	69.6	190.5
501(7)	Slope Paving	LS-m2	1250		1250
502(1)	Prestressed Concrete Structural Member (34 meterx1.372 deep deck Bulb Tee Girders)	LS-Ea		12	12
503(1)	Reinforcing Steel	LS-kg	15 915		15 915
503(2)	Epoxy Coated Reinforcing Steel	LS-kg		7040	7040
505(5A)	Furnish Structural Steel Piles (1067 dia. x 22 wall Pipe Piles)	LS-M	92		92
505(5B)	Furnish Structural Steel Piles (HP360 x 174 Piles)	LS-M	308		308
505(6A)	Drive Structural Steel Piles (1067 dia. x 22 wall Pipe Piles)	Ea	4		4
505(6B)	Drive Structural Steel Piles (HP360 x 174)	Ea	12		12
507(1)	Steel Bridge Railing	LS-m		159.2	159.2
508(1)	Waterproofing Membrane	LS-m2		876	876
606(12)	Guardrail/Bridge Rail Connection	Ea		4	4
611(1)	Riprap, Class I	M3	60		60
631(2)	Geotextile, Erosion Control, Class I	M2	141		141

Item numbers are for reference only. Quantities shown are not necessarily the pay quantities nor the total quantity of the particular item.

DESIGNED BY: Loren Gehring	CHECKED: T. Arndt	HYDRAULICS BY: N/A	CHECKED BY: N/A	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION
DRAWN BY: C. Anderson	CHECKED: Loren Gehring	FOUNDATIONS REVIEWED BY: N/A		
QUANTITIES BY: Loren Gehring	CHECKED: T. Arndt			

STATE OF ALASKA 49TH — Loren K. Gehring No. CE 10155 — REGISTERED PROFESSIONAL ENGINEER — 9/24/04

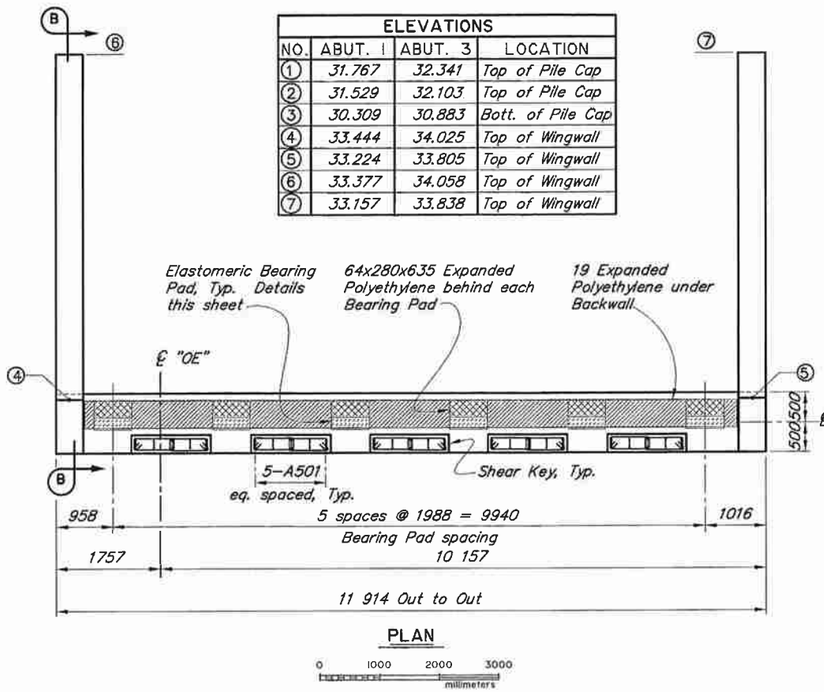
"C" STREET UNDERCROSSING-EASTBOUND

O'MALLEY ROAD

SITE PLAN

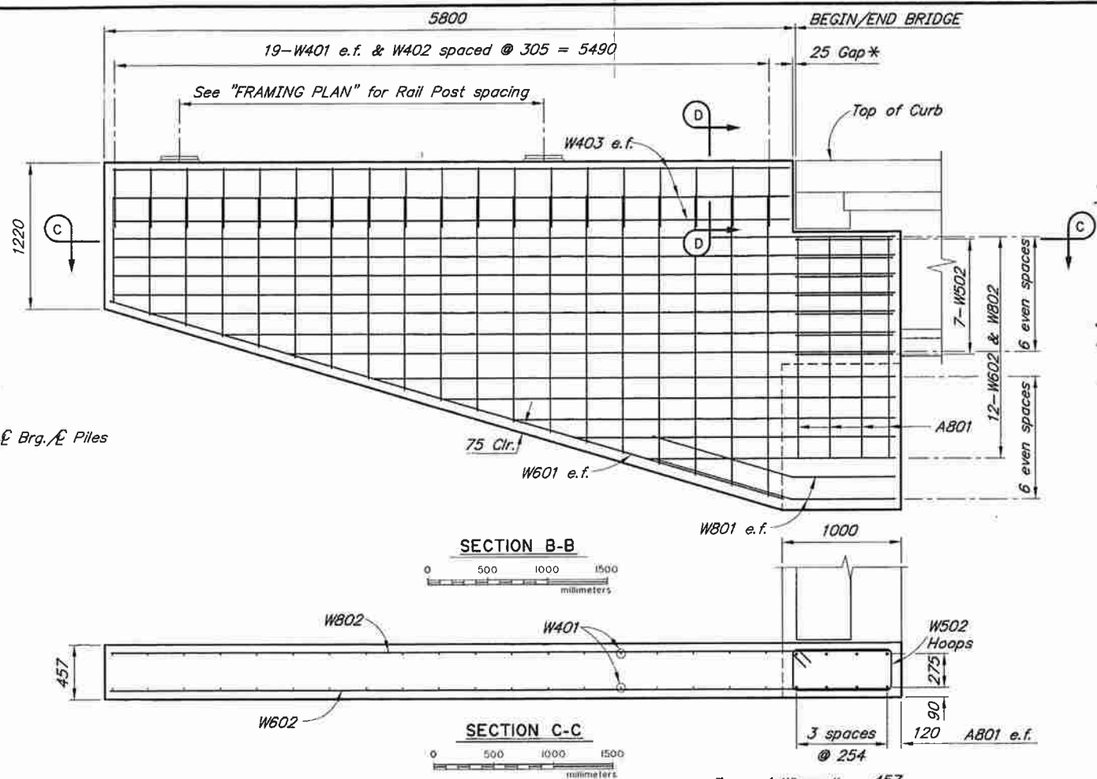
BRIDGE NO. 2081
DWG. NO. 2

ELEVATIONS			
NO.	ABUT. 1	ABUT. 3	LOCATION
①	31.767	32.341	Top of Pile Cap
②	31.529	32.103	Top of Pile Cap
③	30.309	30.883	Bott. of Pile Cap
④	33.444	34.025	Top of Wingwall
⑤	33.224	33.805	Top of Wingwall
⑥	33.377	34.058	Top of Wingwall
⑦	33.157	33.838	Top of Wingwall



PLAN

0 1000 2000 3000 millimeters

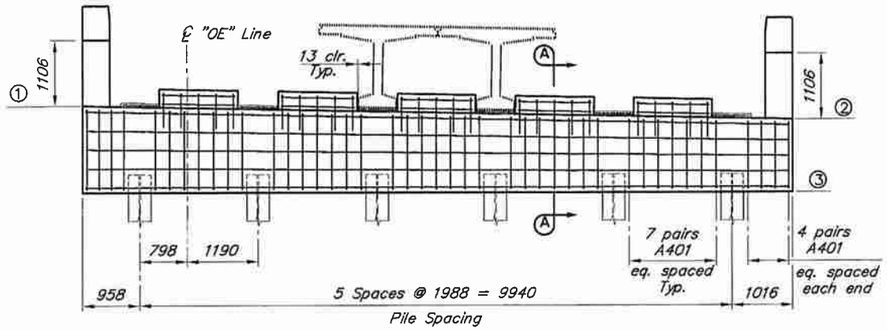


SECTION B-B

0 500 1000 1500 millimeters

SECTION C-C

0 500 1000 1500 millimeters

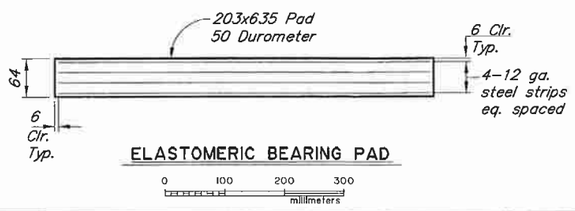


ELEVATION

LOOKING UPSTATION AT ABUT. 3

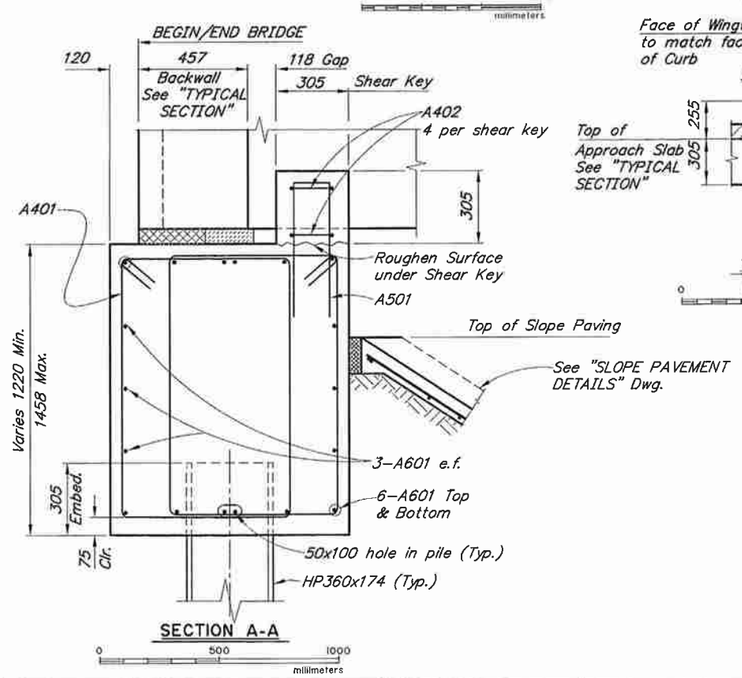
ABUT. 1 SIMILAR

0 1000 2000 3000 millimeters



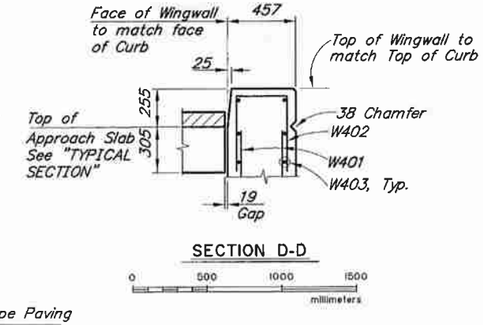
ELASTOMERIC BEARING PAD

0 100 200 300 millimeters



SECTION A-A

0 500 1000 millimeters



SECTION D-D

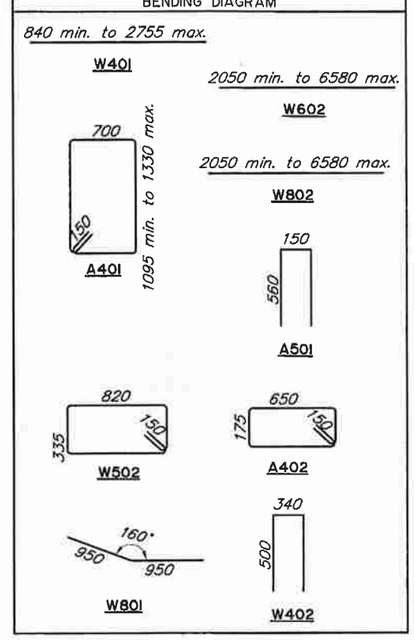
0 500 1000 1500 millimeters

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P3	P21

REINFORCING STEEL ONE ABUTMENT

MARK	SIZE	NO.	LENGTH	TYPE
A401	4	86	Varies	Bent
A402	4	20	1950	Bent
A501	5	25	1270	Bent
a A601	6	18	11 814	–
A801	8	16	1830	–
a W401	4	76	Varies	–
W402	4	38	1340	Bent
W403	4	12	5675	–
W502	5	14	2340	Bent
W601	6	4	5820	–
a W602	6	24	Varies	–
W801	8	8	1900	Bent
a W802	8	24	Varies	–

BENDING DIAGRAM



a – Length does not include splices. Minimum lap splice length is 305 for no. 4 bar, 1000 for no. 6 bar, 1300 for no. 8 bar.

e.f. denotes each face

* Fill gap at face and top of curb with pourable bridge deck expansion joint seal per approved products list, or approved equal.

DESIGNED BY: Loren K. Gehring, P.E.	CHECKED: T. Arndt	
DRAWN BY: C. Anderson	CHECKED: T. Arndt	
QUANTITIES BY: Loren Gehring	CHECKED: T. Arndt	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Jan 22, 5/14/04 Loren K. Gehring No. CE 10155

"C" STREET UNDERCROSSING–EASTBOUND

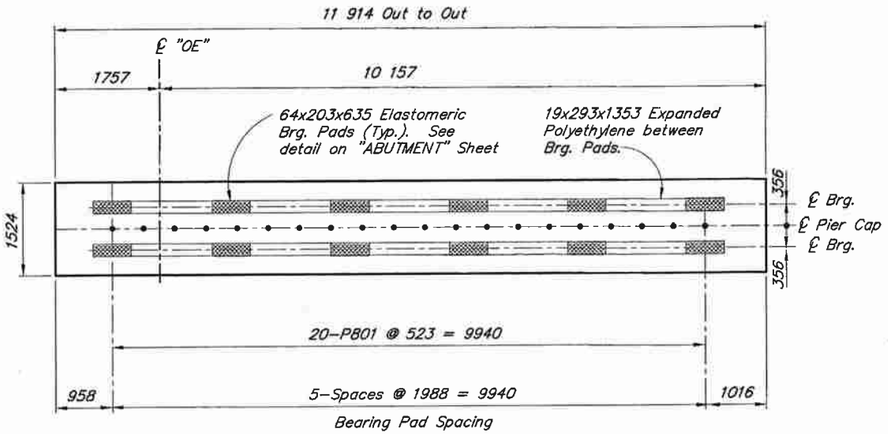
O'MALLEY ROAD

ABUTMENTS

BRIDGE NO. 2081

DWG. NO. 3

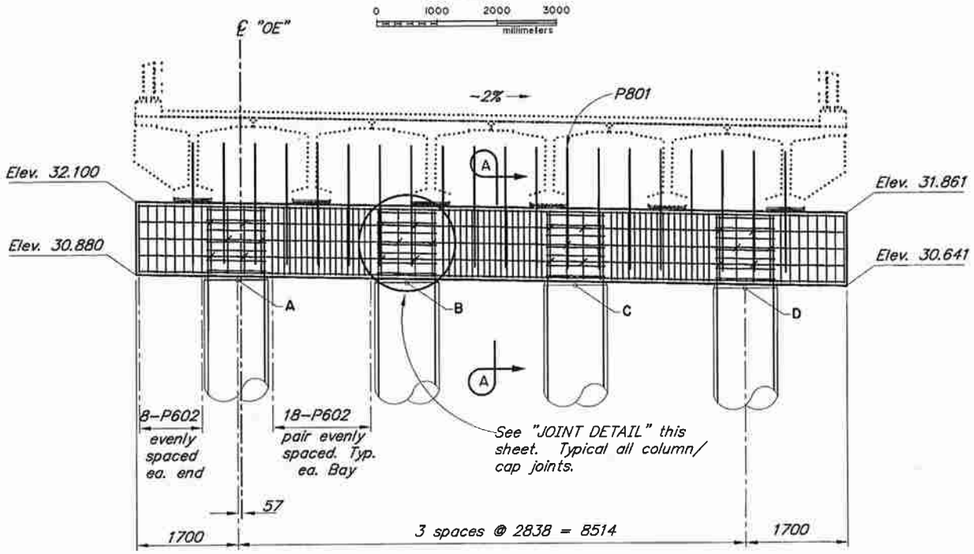
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P4	P21



Bearing Pad Spacing

PLAN

0 1000 2000 3000 millimeters

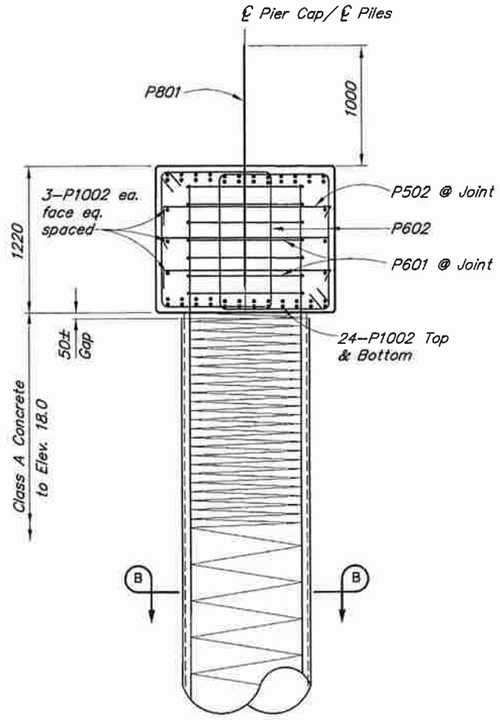


Piling Spacing

ELEVATION

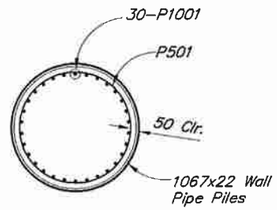
0 1000 2000 3000 millimeters

TOP OF PILE CUTOFF	
PILE	ELEVATION
A	30.79
B	30.73
C	30.68
D	30.62



SECTION A-A

0 500 1000 1500 millimeters



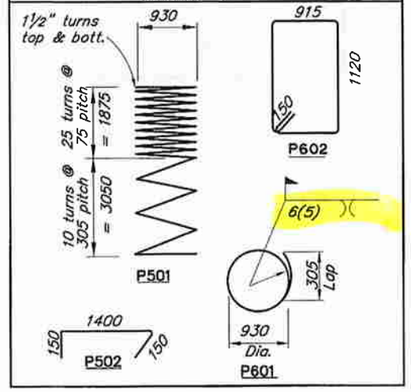
SECTION B-B

0 500 1000 1500 millimeters

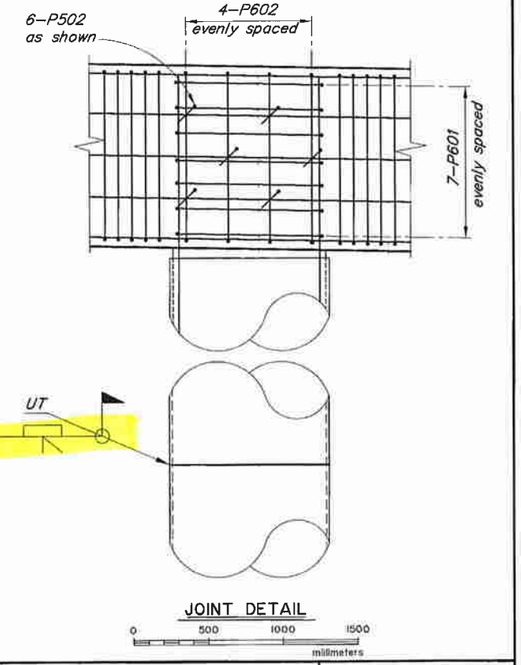
REINFORCING STEEL ONE PIER

MARK	SIZE	NO.	LENGTH	TYPE
P501	5	4	111 000	Spiral
P502	5	24	1700	Bent
P601	6	28	3227	Bent
P602	6	172	4370	Bent
P801	8	20	2000	–
P1001	10	120	6095	–
P1002	10	54	11 814	–

BENDING DIAGRAM



a – Length does not include splices. Lap Splice length for No. 10 bar is 2210.



JOINT DETAIL

0 500 1000 1500 millimeters

DESIGNED BY: Loren Gehring	CHECKED: T. Arndt		
DRAWN BY: C. Anderson	CHECKED: T. Arndt		
QUANTITIES BY: Loren Gehring	CHECKED: T. Arndt		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH 5/4/04 Loren K. Gehring No. CE 10155 REGISTERED

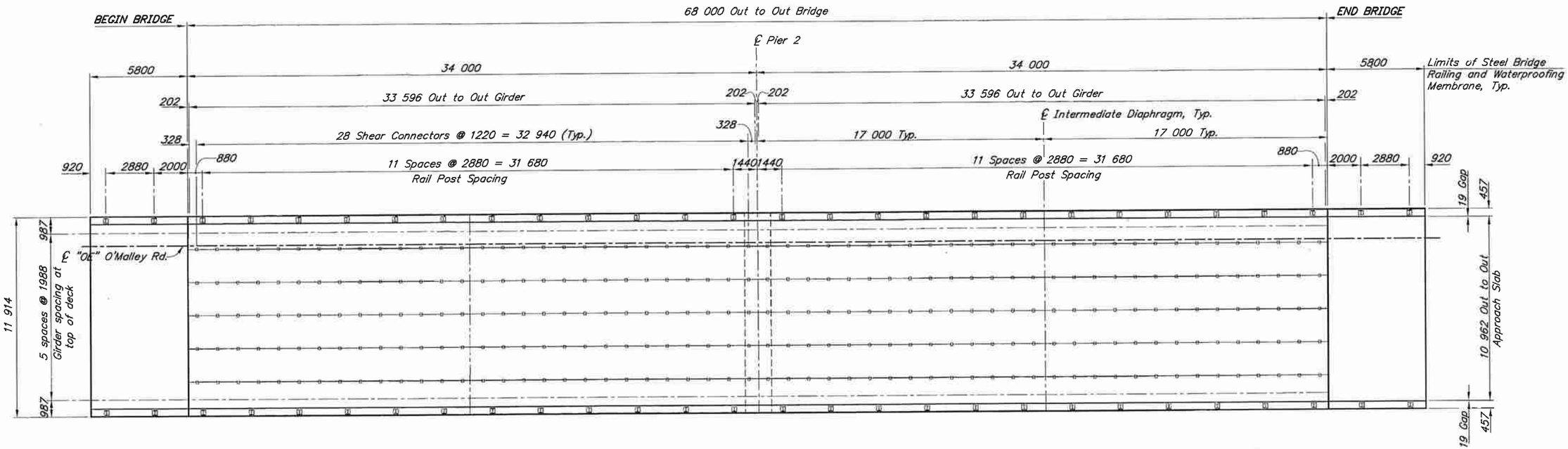
"C" STREET UNDERCROSSING–EASTBOUND

O'MALLEY ROAD

PIER

BRIDGE NO. 2081
DWG. NO. 4

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P5	P21



FRAMING PLAN

0 500 1000
millimeters

DESIGNED BY: Loren Gehring	CHECKED: Todd Boris	
DRAWN BY: C. Anderson	CHECKED: Todd Boris	
QUANTITIES BY: Loren Gehring	CHECKED: Todd Boris	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH — Loren K. Gehring No. CE 10155 — REGISTERED PROFESSIONAL ENGINEER

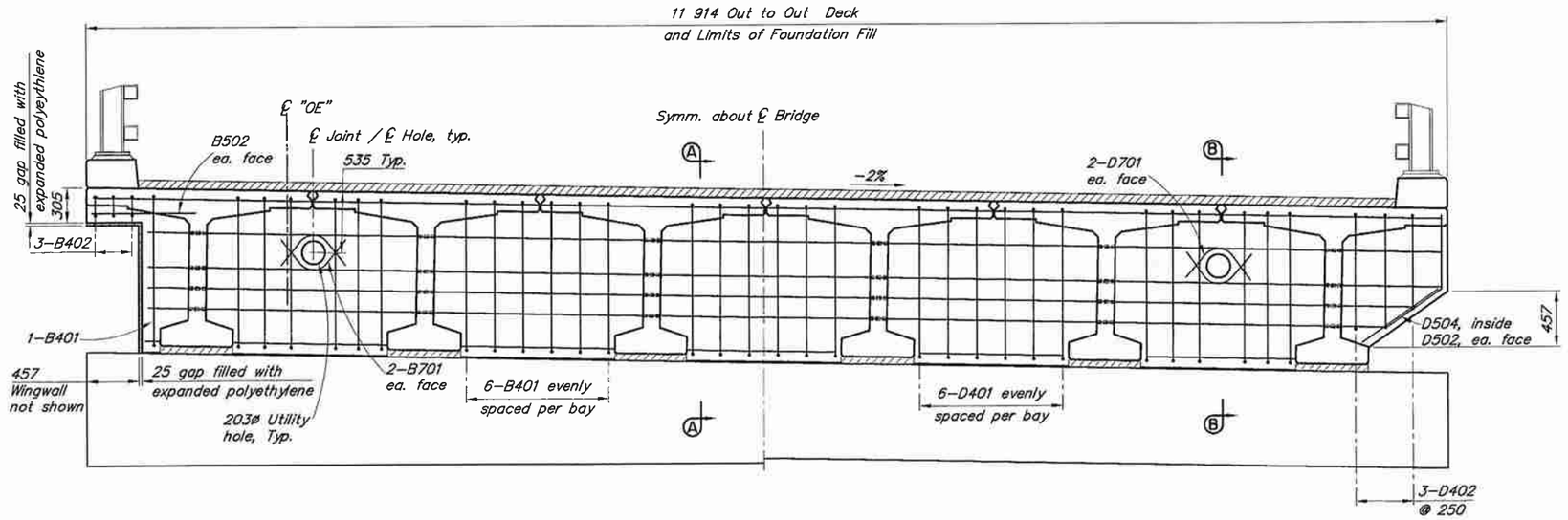
"C" STREET UNDERCROSSING–EASTBOUND

O'MALLEY ROAD

FRAMING PLAN

BRIDGE NO. 2081
DWG. NO. 5

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P6	P21

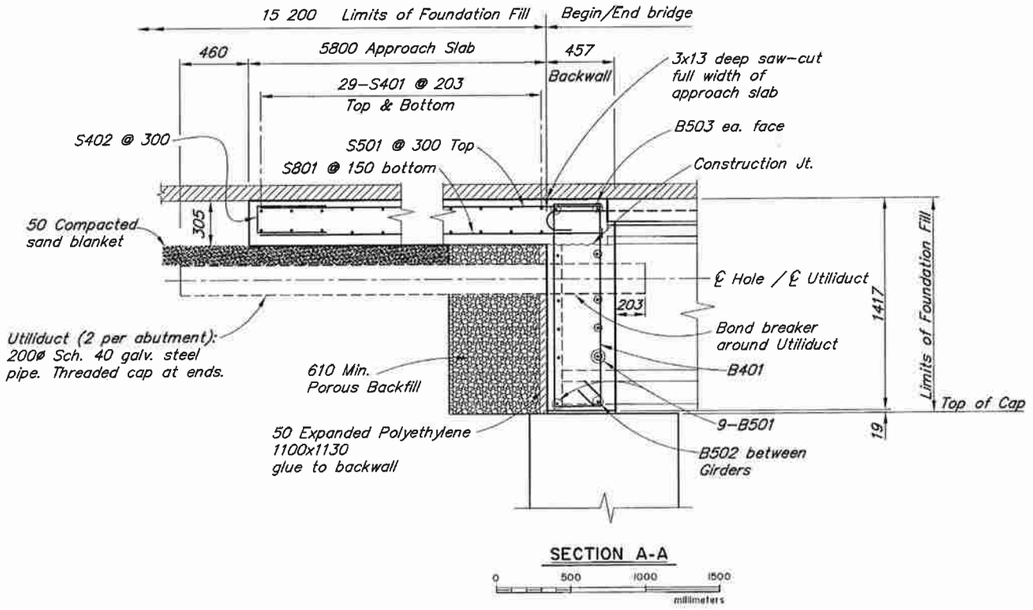


AT ABUTMENT BACKWALL

TYPICAL SECTION

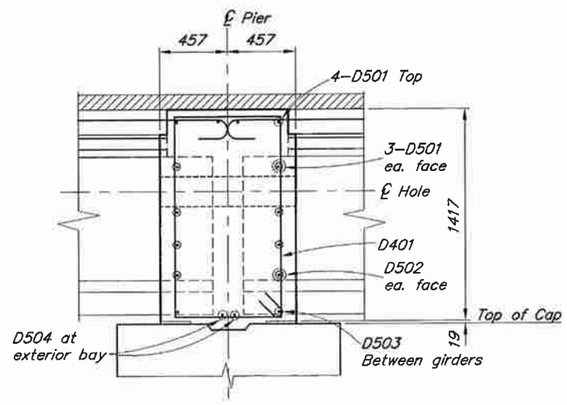
AT PIER DIAPHRAGM

0 500 1000 1500 millimeters



SECTION A-A

0 500 1000 1500 millimeters



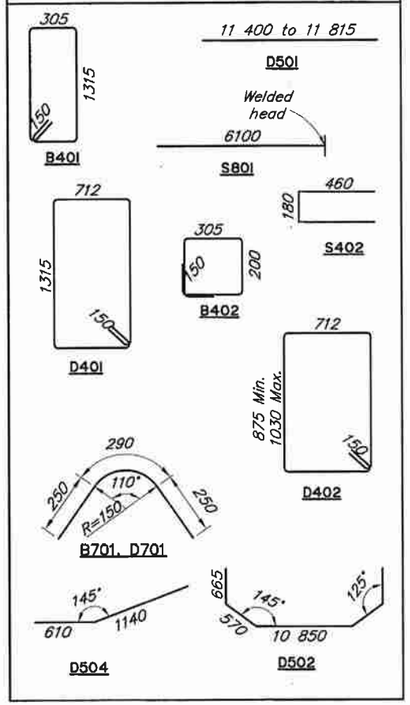
SECTION B-B

0 500 1000 1500 millimeters

REINFORCING STEEL

	MARK	SIZE	NO.	LENGTH	TYPE
	a ONE BACKWALL				
	B401	4	32	3540	Bent
	B402	4	6	1310	Bent
b	B501	5	9	10 850	–
	B502	5	5	1255	–
b	B503	5	2	11 815	–
	B701	7	8	790	Bent
	a PIER DIAPHRAGM				
	D401	4	30	4360	Bent
	D402	4	6	Varies	Bent
b	D501	5	10	Varies	–
b	D502	5	2	13 344	Bent
	D503	5	10	1255	–
	D504	5	4	1750	Bent
	D701	7	8	790	Bent
	a ONE APPROACH SLAB				
b	S401	4	58	10 860	–
	S402	4	37	1100	Bent
	S501	5	37	6100	–
	S801	8	73	6100	Headed

BENDING DIAGRAM

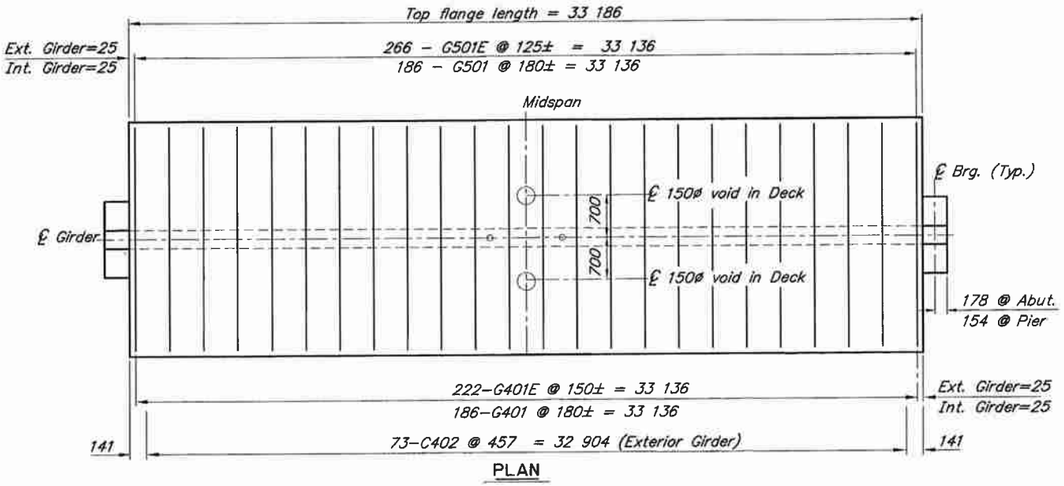


a – Epoxy coat all reinforcing steel.
b – Length does not include splices. Minimum lap splice length is 420 for no. 4 bar, 645 for no. 5 bar.

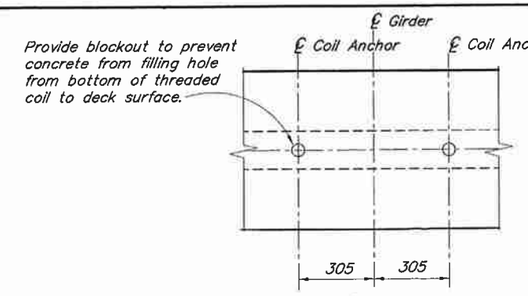
DESIGNED BY: L. Gehring	CHECKED: T. Arndt	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION	"C" STREET UNDERCROSSING–EASTBOUND O'MALLEY ROAD TYPICAL SECTION
DRAWN BY: C. Anderson	CHECKED: T. Arndt		BRIDGE NO. 2081 DWG. NO. 6
QUANTITIES BY: L. Gehring	CHECKED: T. Arndt		

STATE OF ALASKA — 49TH — Loren K. Gehring — No. CE 10155 — REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P7	P21



PLAN



PLAN

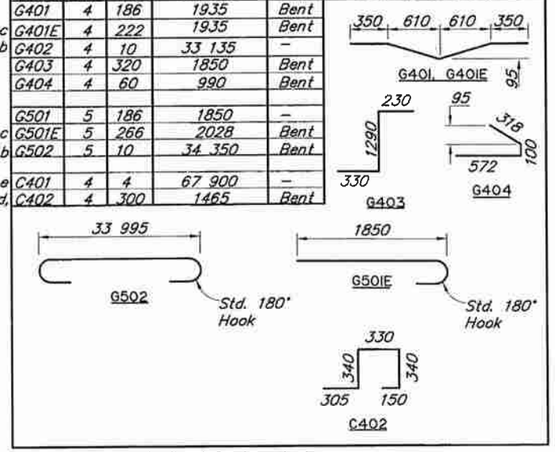
COIL ANCHOR LAYOUT

No Scale

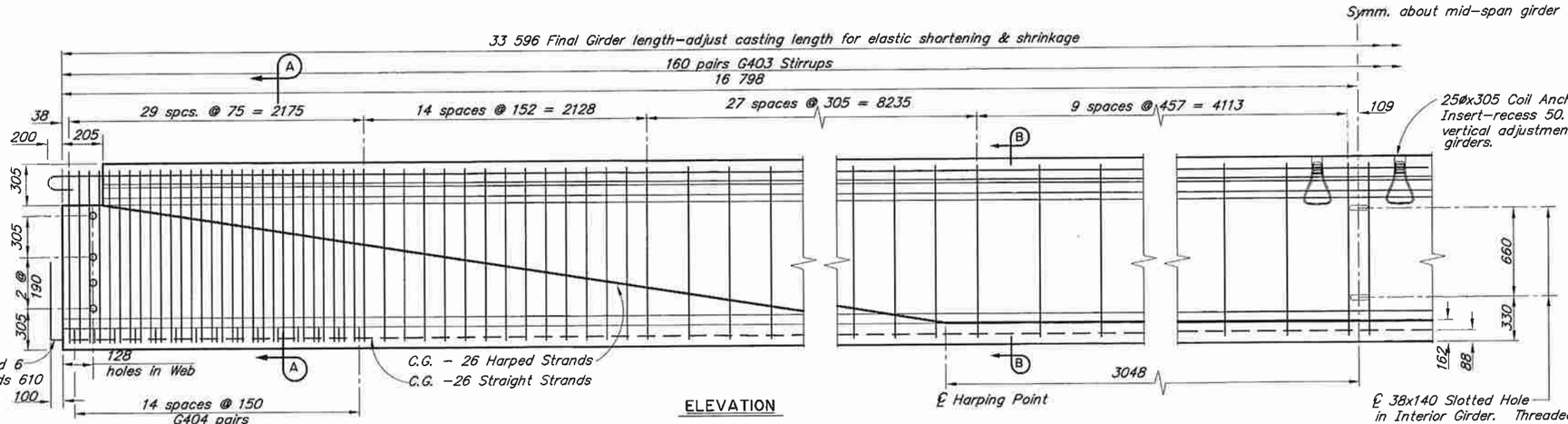
a - REINFORCING STEEL-ONE GIRDER

	MARK	SIZE	NO.	LENGTH	TYPE
	G401	4	186	1935	Bent
c	G401E	4	222	1935	Bent
b	G402	4	10	33 135	–
	G403	4	320	1850	Bent
	G404	4	60	990	Bent
	G501	5	186	1850	–
c	G501E	5	266	2028	Bent
b	G502	5	10	34 350	Bent
b,c,e	C401	4	4	67 900	–
c,d	C402	4	300	1465	Bent

BENDING DIAGRAM



a – Epoxy coat all reinforcing steel.
b – Length does not include splices. Minimum lap splice length is: 610 for No. 4 bars & 610 for No. 5 bars.
c – Exterior girder only.
d – Total quantity shown. Ship 8 loose for field installation.
e – Total quantity shown. Ship all loose for field installation.



ELEVATION

GIRDER NOTES:

Use normal weight concrete with the following strengths: At Stress Transfer f'_{ci} = 45 MPa; At 28 Days f'_c = 52 MPa

Use 13 ø low relaxation prestressing strands having an ultimate strength of 1860 MPa, and an area of 98.7 mm²

Design is based on the following Steel Stresses:
Pretensioning – Jacking Stress 1303 MPa
After Initial Losses 1172 MPa
After Losses 965 MPa

25 mm clear on all reinforcing except as noted.

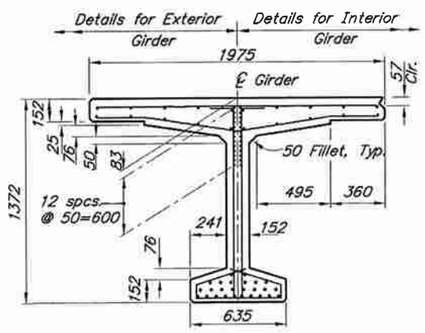
Galvanize all structural steel except for Shear Connectors.

Deflect forms to compensate for camber – see Specifications.

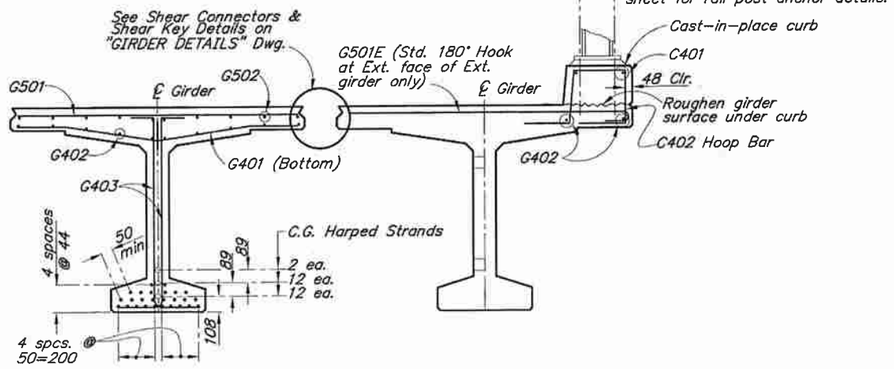
Finish top flange with magnesium float finish.

Omit shear key, shear key connectors & 150ø void in deck on the outside flange of exterior girders.

See "FRAMING PLAN" dwg. for rail post spacing and shear connector spacing.



SECTION A-A



SECTION B-B

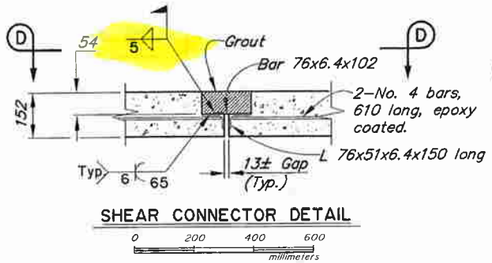
EXTERIOR GIRDER

NO SCALE

DESIGNED BY: Loren Gehring	CHECKED: Todd Boris	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES BRIDGE SECTION	"C" STREET UNDERCROSSING–EASTBOUND O'MALLEY ROAD GIRDERS
DRAWN BY: C. Anderson	CHECKED: Todd Boris		BRIDGE NO. 2081 DWG. NO. 7
QUANTITIES BY: Loren Gehring	CHECKED: Todd Boris		

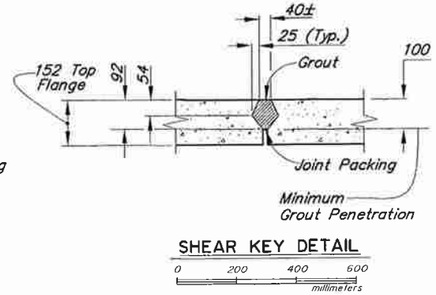
STATE OF ALASKA 49TH — Loren K. Gehring — No. CE 10155 — PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P8	P21



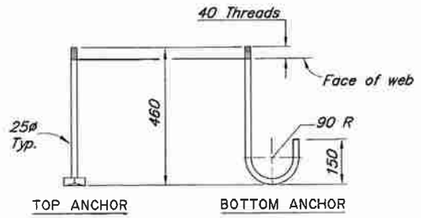
SHEAR CONNECTOR DETAIL

0 200 400 600 millimeters



SHEAR KEY DETAIL

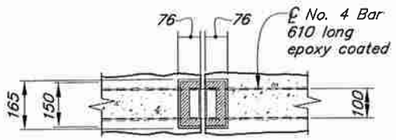
0 200 400 600 millimeters



GALVANIZED, ASTM A307M

ANCHOR DETAIL

0 200 400 600 millimeters



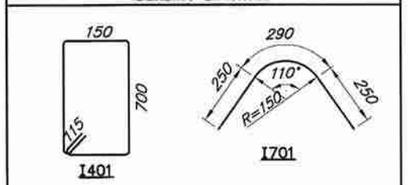
VIEW D-D

0 200 400 600 millimeters

[a] REINFORCING STEEL
ONE INTERMEDIATE DIAPHRAGM

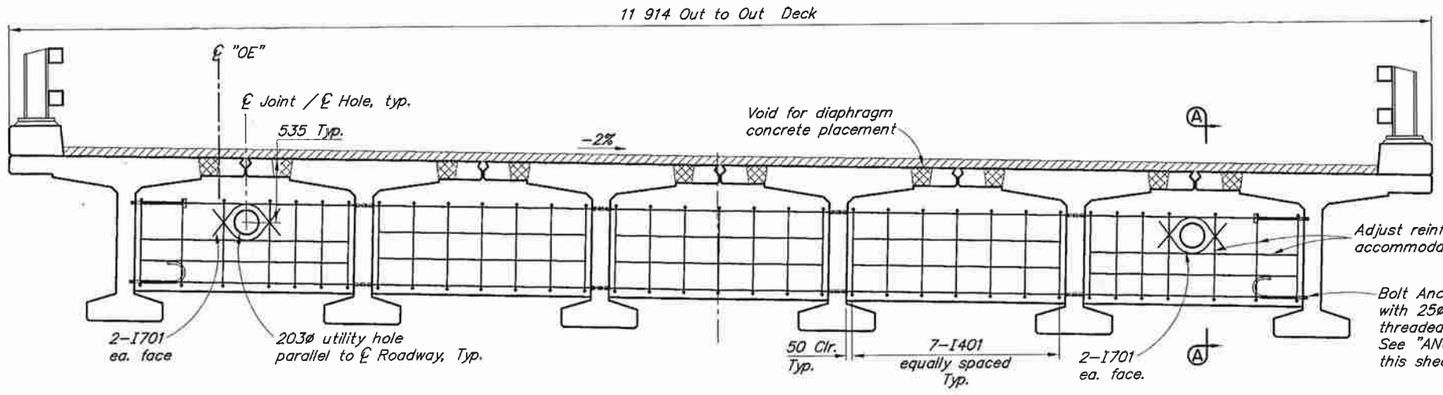
MARK	SIZE	NO.	LENGTH	TYPE
I401	4	35	1930	Bent
I402	4	20	1785	–
[b] I501	5	4	9675	–
I701	7	8	790	Bent

BENDING DIAGRAM



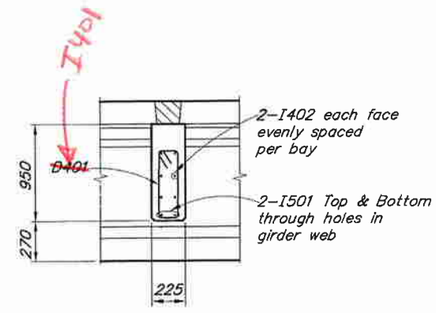
[a] – Epoxy coat all reinforcing steel.

[b] – Length does not include splices. Minimum lap splice length is 610 for no. 5 bar.



TYPICAL SECTION AT INTERMEDIATE DIAPHRAGM

0 500 1000 1500 millimeters



SECTION A-A

0 500 1000 1500 millimeters

DESIGNED BY: Loren Gehring	CHECKED: T. Arndt		
DRAWN BY: C. Anderson	CHECKED: T. Arndt		
QUANTITIES BY: Loren Gehring	CHECKED: T. Arndt		

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Loren K. Gehring No. CE 10155 Registered Engineer

"C" STREET UNDERCROSSING–EASTBOUND

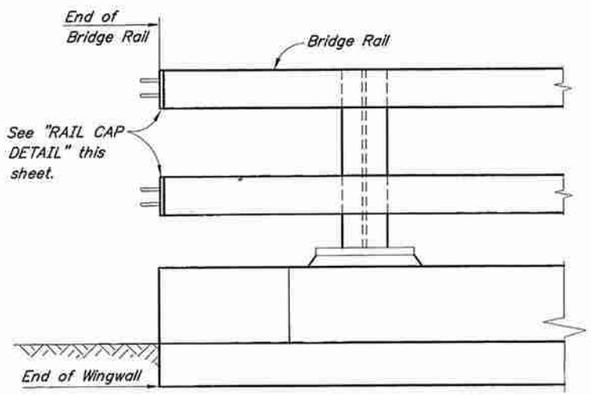
O'MALLEY ROAD

GIRDER DETAILS

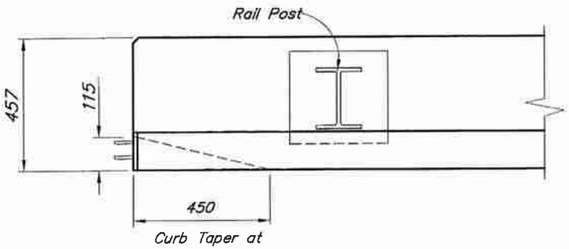
BRIDGE NO. 2081

DWG. NO. 8

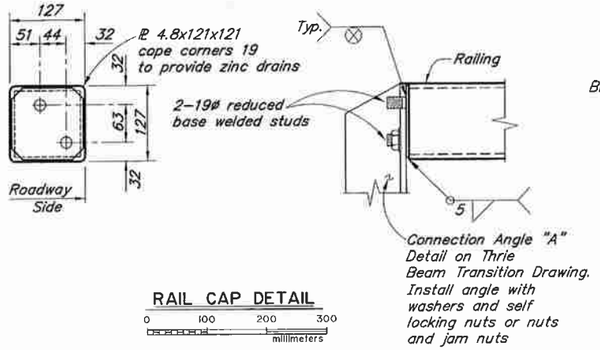
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P9	P21



ELEVATION

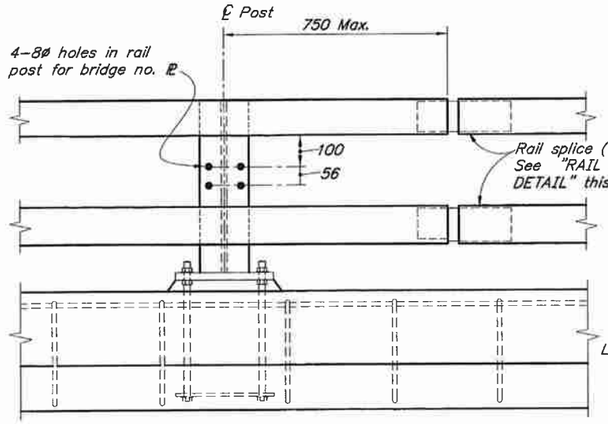


PLAN



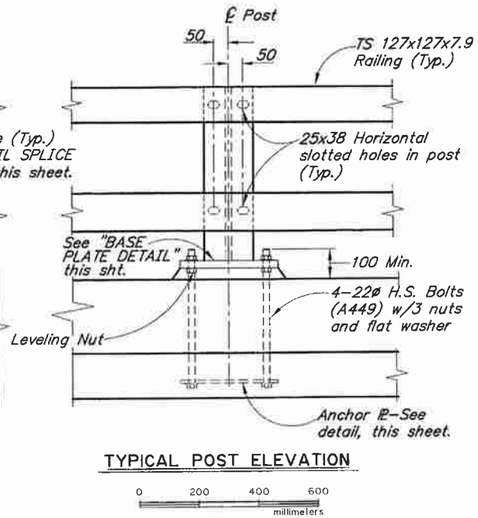
RAIL CAP DETAIL

0 100 200 300 millimeters



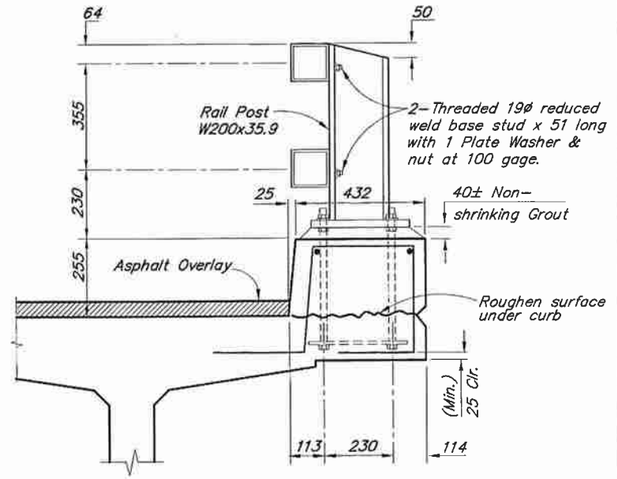
EXPANSION JOINT

0 200 400 600 millimeters



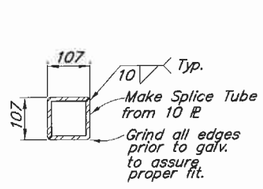
TYPICAL POST ELEVATION

0 200 400 600 millimeters



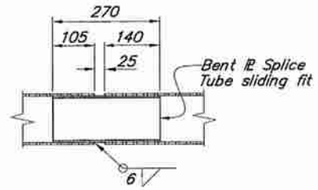
TYPICAL SECTION

0 200 400 600 millimeters



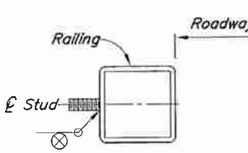
SPLICE TUBE

0 100 200 300 millimeters



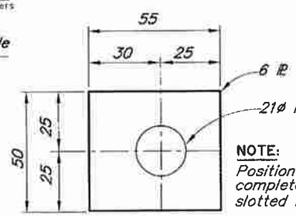
RAIL SPLICE DETAIL

0 100 200 300 millimeters



RAILING STUD DETAIL

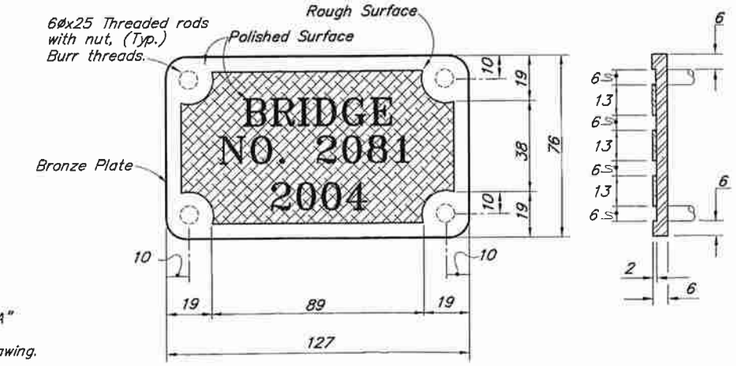
0 100 200 300 millimeters



NOTE:
Position washer to completely cover slotted hole.

PLATE WASHER

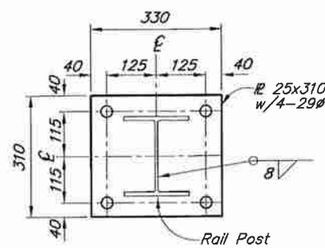
0 50 100 millimeters



BRONZE BRIDGE NO. PLATE

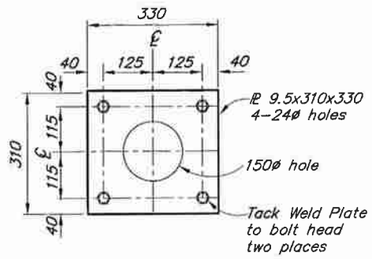
(See Note 2)

0 50 100 millimeters



BASE PLATE DETAIL

0 100 200 300 millimeters



ANCHOR PLATE DETAIL

0 100 200 300 millimeters

NOTES

1. Locate bridge number plates on right hand side of approaching traffic near each end as shown (2 total).
2. Furnish bridge number plates. Use bronze that conforms to A.S.T.M. B98-90, Alloy "A" or "B". Use "Century" type style lettering. Use studs and nuts that conform to UNS C65100 or C65500. Braze 6ø threaded rod to back of plate with nut - 4 required. Use locking nuts or lock washers on all machine bolts.
3. Provide railing expansion joints at 15 000 maximum intervals. Railing shall be continuous over 2 posts minimum. Expansion joint required at panel spanning Begin Bridge & End Bridge locations.
4. Use grout with a minimum 24 hour f'c of 21 MPa.
5. See Bridge plans for rail post spacing.

DESIGNED BY: Loren Gehring	CHECKED: Derek Soden
DRAWN BY: C. Anderson	CHECKED: Derek Soden
QUANTITIES BY: Loren Gehring	CHECKED: Derek Soden

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Loren K. Gehring No. CE 10155

"C" STREET UNDERCROSSING-EASTBOUND

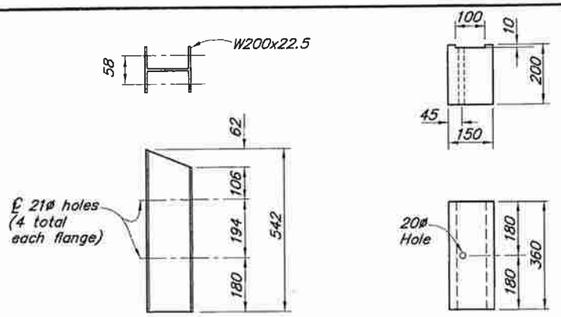
O'MALLEY ROAD

STEEL BRIDGE RAILING

BRIDGE NO. 2081

DWG. NO. 9

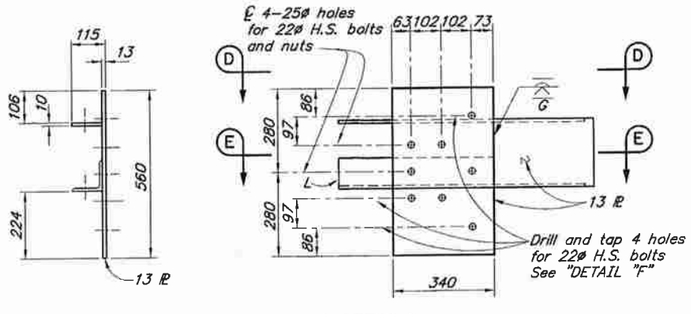
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P10	P21



THRIE BEAM BLOCKOUT

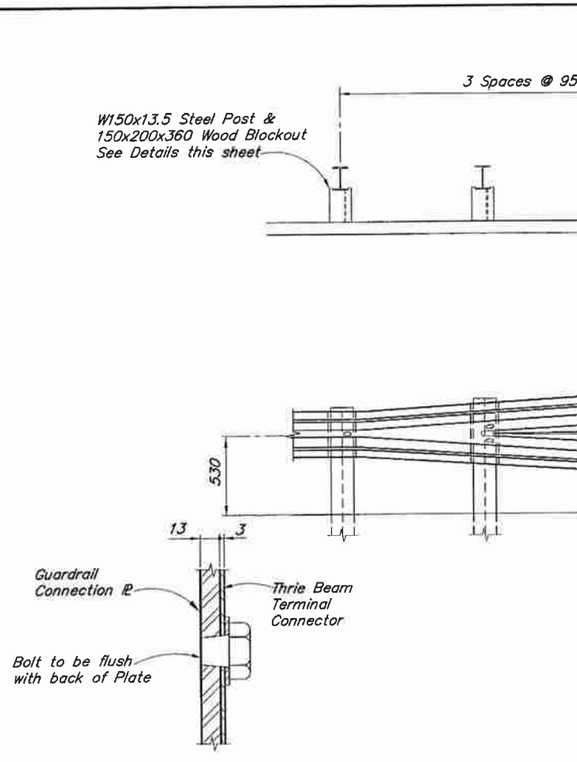
WOOD BLOCKOUT

0 200 400 600 millimeters



GUARDRAIL CONNECTION PLATE DETAILS

0 200 400 600 millimeters



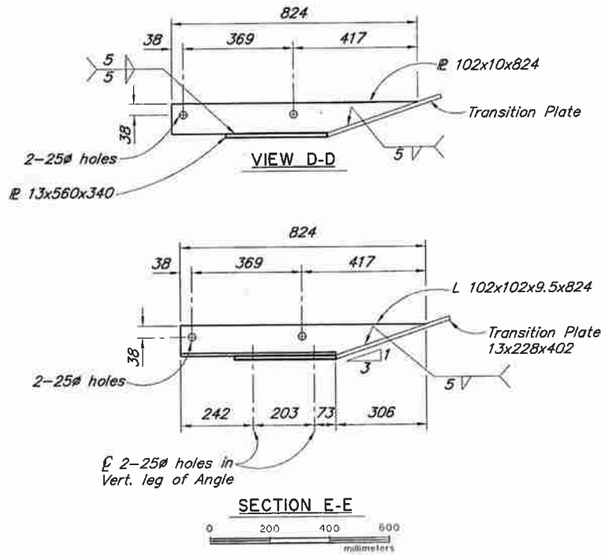
TRANSITION PLAN

TRANSITION ELEVATION

0 500 1000 1500 millimeters

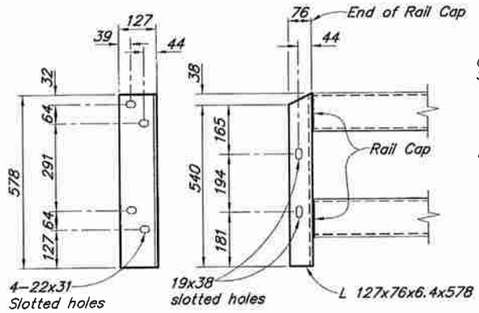
DETAIL "F"

No Scale



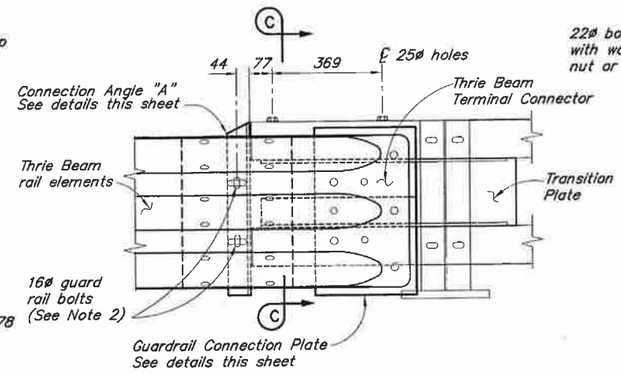
SECTION E-E

0 200 400 600 millimeters



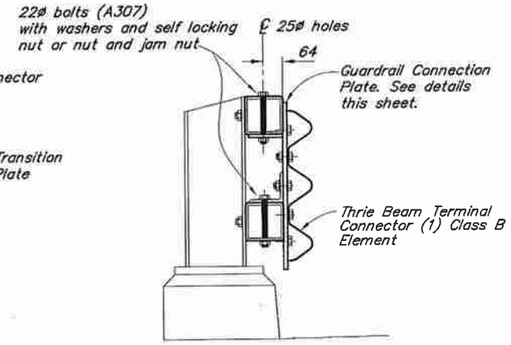
CONNECTION ANGLE "A"

0 200 400 600 millimeters



ELEVATION - TRANSITION CONNECTION

0 200 400 600 millimeters



SECTION C-C

0 200 400 600 millimeters

TRANSITION NOTES

1. Thrie Beam transition to follow roadway alignment.
2. Lap thrie beam sections to prevent snags for oncoming traffic.

DESIGNED BY: Loren Gehring	CHECKED: Derek Soden	
DRAWN BY: C. Anderson	CHECKED: Derek Soden	
QUANTITIES BY: Loren Gehring	CHECKED: Derek Soden	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA — 49TH — Loren K. Gehring — No. CE 10155 — REGISTERED PROFESSIONAL ENGINEER

"C" STREET UNDERCROSSING–EASTBOUND

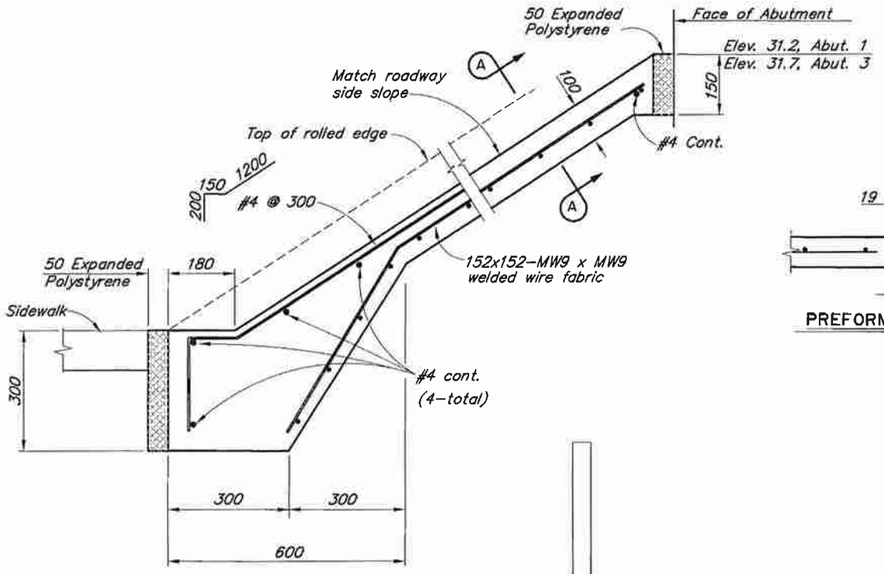
O'MALLEY ROAD

THRIE BEAM TRANSITION

BRIDGE NO. 2081

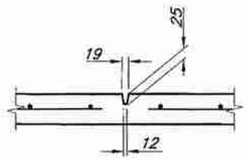
DWG. NO. 10

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	MGE-0527(14)/54281	2004	P11	P21

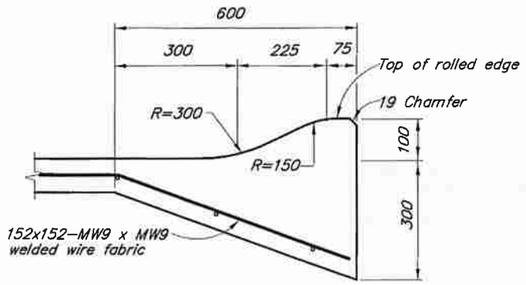


TYPICAL SECTION

0 100 200 300 millimeters

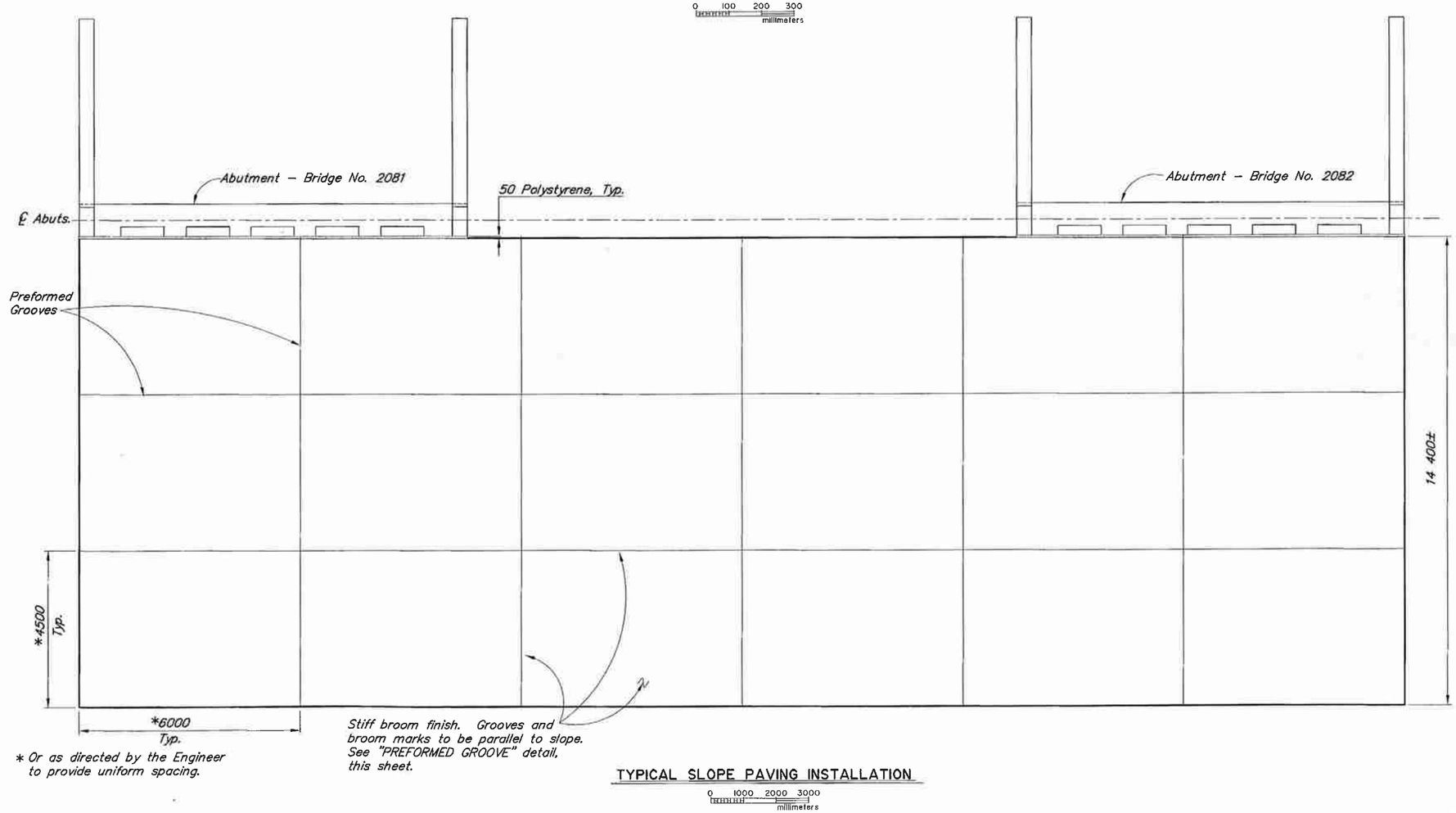


PREFORMED GROOVE



SECTION A-A

0 100 200 300 millimeters



* Or as directed by the Engineer to provide uniform spacing.

Stiff broom finish. Grooves and broom marks to be parallel to slope. See "PREFORMED GROOVE" detail, this sheet.

TYPICAL SLOPE PAVING INSTALLATION

0 1000 2000 3000 millimeters

DESIGNED BY: T. Arndt	CHECKED: P. Glassel	
DRAWN BY: C. Anderson	CHECKED: T. Arndt	
QUANTITIES BY: T. Arndt	CHECKED: P. Glassel	

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BRIDGE SECTION

STATE OF ALASKA 49TH Elmer E. Marx III No. CE 9490 REGISTERED PROFESSIONAL ENGINEER

"C" STREET UNDERCROSSING–EASTBOUND

O'MALLEY ROAD

SLOPE PAVEMENT DETAILS

BRIDGE NO. 2081
DWG. NO. 11