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IDAHO TRANSPORTATION DEPARTMENT

PLAN AND PROFILE OF PROPOSED

STC-6809, N 500 W RECONSTRUCTION

FEDERAL AID PROJECT NO. A021(983)

21983

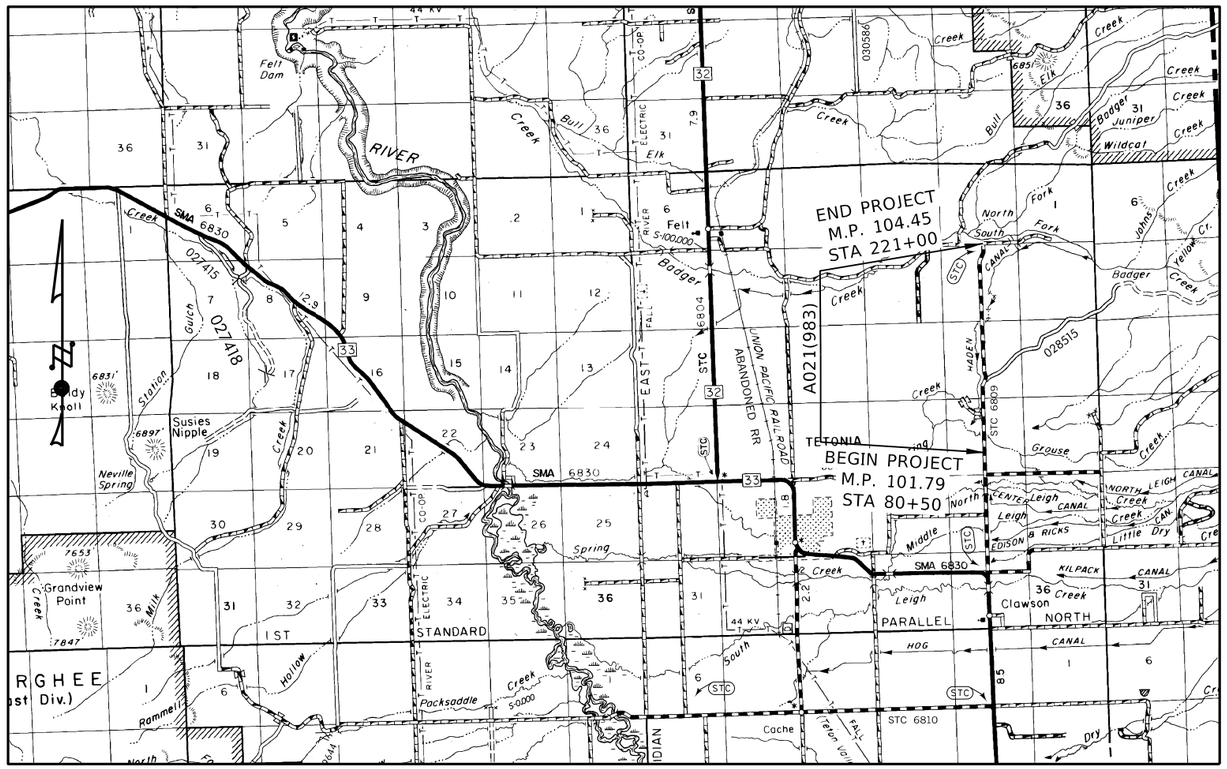
TETON COUNTY

JULY 2023

SCALES IN FEET

HORIZONTAL 50 25 0 50 100 FEET

VERTICAL 2 1 0 2 4 FEET



VICINITY MAP SCALE

1 1/2 0 1 2 MILES

A021(983)
N 500 W RECONSTRUCTION
M.P. 101.79 TO M.P. 104.45
SEGMENT CODE 002473

DESIGN DESIGNATION

ADT 2022	401
ADT 2042	565
DHV 2022	61
DHV 2042	85
D	50/50%
V	45 MPH
TRUCKS:	10%
ADT 2022	40
ADT 2042	57
DHV 2022	6
DHV 2042	9

REVISIONS			
NO.	DATE	BY	DESCRIPTION

THE DIMENSIONS SHOWN ON THE PLANS WIll BE ATTAINED WITHIN LIMITS OF PRECISION THAT GOOD CONSTRUCTION PRACTICES WILL PERMIT

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 21983_titl_001.DGN

DRAWING DATE: 20-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

CIVIL SCIENCE

PROJECT NO. A021(983)

TITLE SHEET N 500 W RECONSTRUCTION, TETON CO

ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 1 OF 41

Monica Crider
Approved for Advertising
January 24, 2025
Date Approved

SURVEY CONTROL POINTS

POINT	STATION	OFFSET	LATITUDE	LONGITUDE	MOD. ST. PLANE COORD. NORTHING	MOD. ST. PLANE COORD. EASTING	ELEVATION	REMARKS
108	N/A	N/A	43°49'28.344'' N	111°06'30.384'' W	89453.927	935301.663	6216.079	PKS; CSI CONTROL
107	N/A	N/A	43°49'28.560'' N	111°06'38.376'' W	89478.380	934717.272	6208.010	BARFSV; CSI CONTROL
105	101+31.47	490.42 RT	43°50'08.772'' N	111°06'30.924'' W	93549.638	935261.849	6206.467	BARFSV; CSI CONTROL
106	102+63.15	357.24 LT	43°50'10.212'' N	111°06'42.480'' W	93695.413	934416.503	6193.624	BARFSV; CSI CONTROL
104	137+33.33	23.02 RT	43°50'43.512'' N	111°06'36.576'' W	97069.747	934848.336	6227.782	BARFSV; CSI CONTROL
103	179+45.30	23.94 LT	43°51'25.092'' N	111°06'36.648'' W	101281.783	934844.431	6294.395	BARFSV; CSI CONTROL
102	N/A	N/A	43°52'04.944'' N	111°06'40.716'' W	105316.213	934545.891	6275.523	PKS; CSI CONTROL
101	N/A	N/A	43°52'04.980'' N	111°06'27.396'' W	105321.724	935521.133	6288.162	BARFSV; CSI CONTROL

LOCATION OF EXISTING MONUMENTS

POINT	STATION	OFFSET	MOD. ST. PLANE COORD. NORTHING	MOD. ST. PLANE COORD. EASTING	REMARKS
37	N/A	N/A	89465.903	934751.68	QUARTER CORNER 23/26
39	77+18.83	32.04 RT	91145.134	934796.436	BARA
40	80+51.51	30.05 RT	91477.813	934795.169	BARA
38	82+51.78	31.98 RT	91678.083	934797.524	BARA
36	90+04.88	35.69 RT	92430.883	934803.211	ALCAP PLS 2660
35	96+64.88	33.32 RT	93091.347	934803.75	ALCAP PLS 2660
34	99+95.38	37.01 LT	93421.612	934732.314	ALCAP PLS 2860
1	113+15.73	0.96 RT	94741.888	934792.168	QUARTER CORNER 14/23
2	140+48.57	7.15 RT	97385.096	934834.874	CENTER CORNER 14 (BENT)
3	166+63.41	1.62 RT	99999.771	934861.333	QUARTER CORNER 11/14 (BENT)
4	166+63.68	28.43 LT	100000.284	934831.287	BARA
6	173+28.06	1.15 LT	100664.419	934863.569	ALCAP PLS2860
8	179+92.39	2.91 LT	101328.749	934865.737	BARB (BENT)
7	179+92.42	32.44 LT	101328.956	934836.209	BARA PLS2860
9	185+00.82	34.25 LT	101837.358	934837.413	BARB PLS2860
10	185+29.06	54.1 LT	101865.71	934817.731	BARB PLS2860
5	193+21.09	7.6 LT	102657.462	934869.952	CENTER CORNER 11 (BENT)
11	193+21.16	29.54 LT	102657.72	934848.01	BARB PLS2860
12	199+84.75	10.7 LT	103321.128	934872.35	BARA (BENT)
13	200+74.63	41.08 LT	103411.252	934842.722	BARB YPC
14	206+47.23	43.77 LT	103983.86	934844.774	BARA
15	206+47.95	13.89 LT	103984.328	934874.656	ALCAP PLS2860
16	210+17.84	51.64 LT	104364.013	934846.071	BARA PLS2860
17	210+97.76	53.61 LT	104453.941	934876.407	BARA
18	221+01.98	281.45 LT	105311.054	934879.223	QUARTER CORNER 2/11

LOCATION OF PI'S

STATION	MOD. ST. PLANE COORD. NORTHING	MOD. ST. PLANE COORD. EASTING
77+00.00	91126.373	934764.360
89+60.71	92387.080	934767.073
91+65.58	92591.939	934769.158
95+64.02	92990.378	934770.767
100+00.00	93426.354	934769.309
113+26.70	94752.873	934791.393
124+01.22	95827.333	934802.623
129+05.25	96254.628	935081.665
133+62.06	96692.927	934822.434
145+18.88	97855.443	934831.311
163+10.17	99646.554	934856.855
171+55.87	100492.225	934863.697
188+83.95	102220.277	934873.925
210+90.46	104426.706	934892.217
214+52.63	104671.836	935179.569
216+09.86	104848.852	935168.000
216+62.31	104875.021	935166.290
221+03.23	105315.911	935160.634

BASIS OF SURVEY

HORIZONTAL DATUM FOR THE PROJECT IS BASED UPON NAD 1983 IDAHO STATE PLANE COORDINATE SYSTEM (EASTERN ZONE). ANY BEARINGS SHOWN ARE GRID BEARINGS AND ANY DISTANCES SHOWN REPRESENT GROUND DISTANCE.

MONUMENTS 1 - 34 WERE SURVEYED IN AUGUST 2020.

MONUMENTS 35 - 40 WERE SURVEYED IN NOVEMBER 2021.

NOTE:

THIS PLAT IS PLOTTED ON NAD83 MODIFIED STATE PLANE COORDINATES USING THE IDAHO STATE PLANE COORDINATE SYSTEM (ES) - EASTERN ZONE USING U.S. SURVEY FEET.

SECTION LINES HAVE NO BEARING AND ARE FOR REFERENCE PURPOSES ONLY.

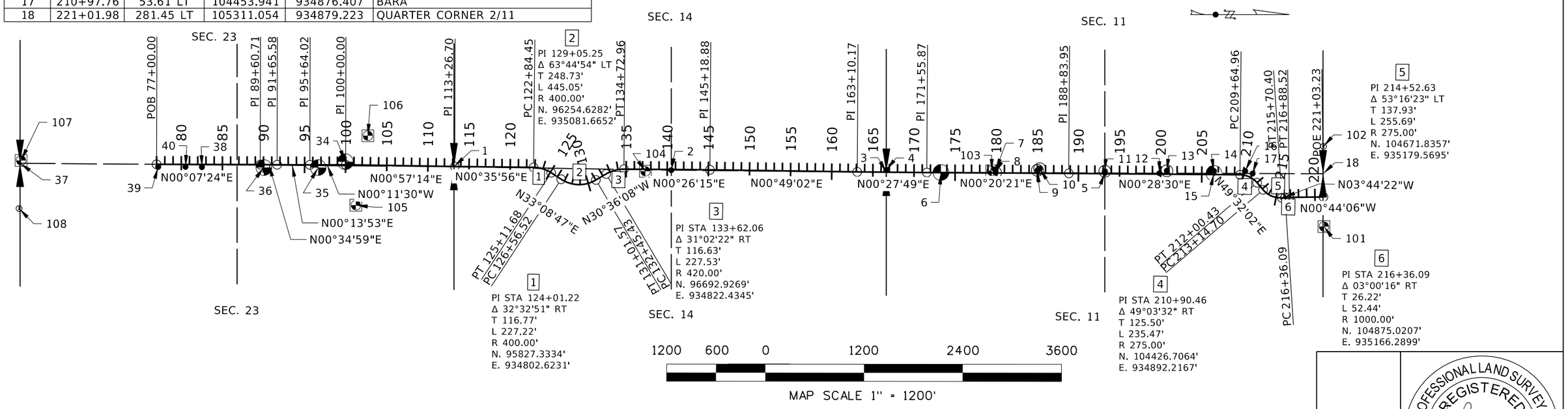
ALIGNMENT BEARINGS SHOWN, NOT SECTION LINE BEARINGS.

GENERAL NOTES

1. ALL HORIZONTAL CONTROL DATA SHOWN ON THIS PLAT IS BASED UPON NAD 83 MODIFIED STATE PLANE COORDINATES OBTAINED FROM VRS GPS OBSERVATIONS ON CONTROL POINTS 101-108.
2. THE VERTICAL DATUM IS NAVD 88 AS DETERMINED BY THE VERTICAL RESULTS OF THE VRS TIE NGS POINT "W 42S" ADJUSTED TO PUBLISHED ELEVATION.
3. THE GROUND TO GRID FACTOR IS 0.9997394564.

LEGEND

- FOUND QUARTER CORNER
- FOUND ALUMINUM CAP
- FOUND #5 REBAR
- FOUND #4 REBAR
- SET #5 REBAR CONTROL
- SET PK NAIL CONTROL



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT
DESIGN CHECKED R. RAMSEY		YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DETAILED B. BINGHAM	CADD FILE NAME 21983_RSRV_001.DGN	CIVIL SCIENCE
DRAWING CHECKED M. BARRERAS	DRAWING DATE: 14-JUL-2023	

PROJECT NO.	SURVEY CONTROL/MONUMENT SHEET	ENGLISH
A021(983)	N 500 W RECONSTRUCTION, TETON CO	COUNTY TETON
		KEY NUMBER 21983
		SHEET 2 OF 41

PROFESSIONAL LAND SURVEYOR REGISTERED 13024 07/14/2023 STATE OF IDAHO MITCH BARRERAS

CLEARANCES

	+ CLEARED UNDER PROJECT NO.	+ APPROVAL DATE
PROJECT STANDARDS	A021(983)	2/25/21
CHARTER APPROVAL ☐ AASHTO ■ 3R ☐ 1R ☐ STATE	N/A	
☐ PP ☐ OTHER	N/A	
DESIGN EXCEPTIONS:	N/A	
PUBLIC HEARING WAIVER	A021(983)	2/23/23
PUBLIC HEARING DATE (Latest hearing date held or scheduled for opportunity)	N/A	
DESIGN APPROVAL	A021(983)	4/14/23
RECLAMATION PLAN APPROVAL NO(S)	N/A	
AIRPORT	N/A	
Land Survey Monument Search and Documentation (I.C.55-1613)	A021(983)	11/19/21
R/W CERTIFICATE: Issued by ■ HQ ☐ DISTRICT	A021(983)	7/25/23
TRIBAL LANDS: ☐ AGREEMENT REQUIRED ☐ SPECIAL PROVISIONS FOR CONTRACT PROPOSAL	N/A	
BRIDGE PS & E	N/A	
ENVIRONMENTAL DECISION: TYPE ■ CAT-EX ☐ FONSI ☐ ROD	A021(983)	2/23/23
ENVIRONMENTAL RE-EVALUATION	A021(983)	8/14/24

PERMITS

		+ EXPIRATION DATE
IDAHO DEPARTMENT OF WATER RESOURCES PERMIT NO(S) S22-20348	A021(983) 9/05/23	N/A
US ARMY CORPS OF ENGINEERS 404 PERMIT NO(S) NWW-2023-00246	A021(983) 8/07/23	March 2026
OTHER	N/A	N/A

DEQ SECTION 401 WATER QUALITY CERTIFICATION ■ YES ☐ NO

NPDES GENERAL PERMIT/SWPPP REQUIRED ■ YES ☐ NO

POLLUTION PREVENTION PLAN REQUIRED ☐ YES ■ NO

AGREEMENTS (List Appropriate Name)

LOCAL: CITY	N/A	
COUNTY	N/A	
HIGHWAY DISTRICT	N/A	
ROAD CLOSURE AND MAINTENANCE	N/A	
STATE/LOCAL CONSTRUCTION Teton County	A021(983)	8/14/24

IRRIGATION DISTRICT(S): Crossing Agreement Required ☐ YES ■ NO
(Signatures Required on either Structure Drawing or Bridge Sheet)

UTILITIES: List all Utilities shown on plans

	RETAIN & PROTECT	+ APPROVAL DATES: UTILITY HEARING WAIVER	+ APPROVAL DATES: AGREEMENT	+ AGREEMENT NO.
Co. Silver Star Communications	☐	7/20/2023		
Co. Fall River Electric	■	N/A		
Co.	☐			
Co.	☐			
Co.	☐			
Co.	☐			
Co.	☐			
Co.	☐			

RAILROAD List all Railroads encroached upon

	+ AGREEMENT FOR	+ AGREEMENT: EFFECTIVE DATE	+ AGREEMENT: NO.
Co.			
Co.			

NOTES

Class A compaction is specified.

Subgrade Separation Geotextile, Type III to be used for soft spot repairs.

The contractor will be required to furnish a source for all items in the contract.

Smoothness Schedule II Required.

Asphalt pavement removal for approaches, saw cutting, and other items not itemized in the bid schedule are incidental to other bid items.

Excavation material is assumed to have a 10% shrink when it is used for Embankment.

ESTIMATING BASIS

Paving:
- Superpave Hot Mix Asphalt, Class SP-2
- Aggregate for Superpave HMA Pavement, ½-inch
- Asphalt, PG 58-34 at 5.9% by weight of mix (estimated)
- Anti-Stripping Additive at 0.5% by weight of asphalt binder (estimated)

Aggregate:
- Aggregate for Superpave HMA Pavement at 145 lb/cf, including asphalt (estimated)
- Aggregate for Untreated Base, ¾-inch Type A at 142 lb/cf, including 7% water (estimated)
- Aggregate for Granular Subbase at 135 lb/cf, including 7% water (estimated)

LEGEND

Underground Electric Cable —E—
Junction Box
Power Pole
Fence --x--x--
Bush Boundary
Tree
Mailbox
Sign
Underground Telephone Cable —T—
Underground Fiber Optic Cable —F/O—
Ditch Bottom
Concrete Guardrail
Metal Guardrail

+ ENTER "N/A" WHEN NOT APPLICABLE

++ LPA PROJECTS - DATE ENTERED BY ROADWAY DESIGN WHEN PROJECT SENT TO PS&E.

PROFESSIONAL ENGINEER LICENSED Benjamin A. Bingham 19331 07/20/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DETAILED Z. BYINGTON
DRAWING CHECKED R. RAMSEY
CADD FILE NAME 21983_csum_001.DGN
SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DRAWING DATE: 20-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO. A021(983)

PROJECT CLEARANCE SUMMARY: N 500 W RECONSTRUCTION, TETON CO

ENGLISH
COUNTY TETON
KEY NUMBER 21983

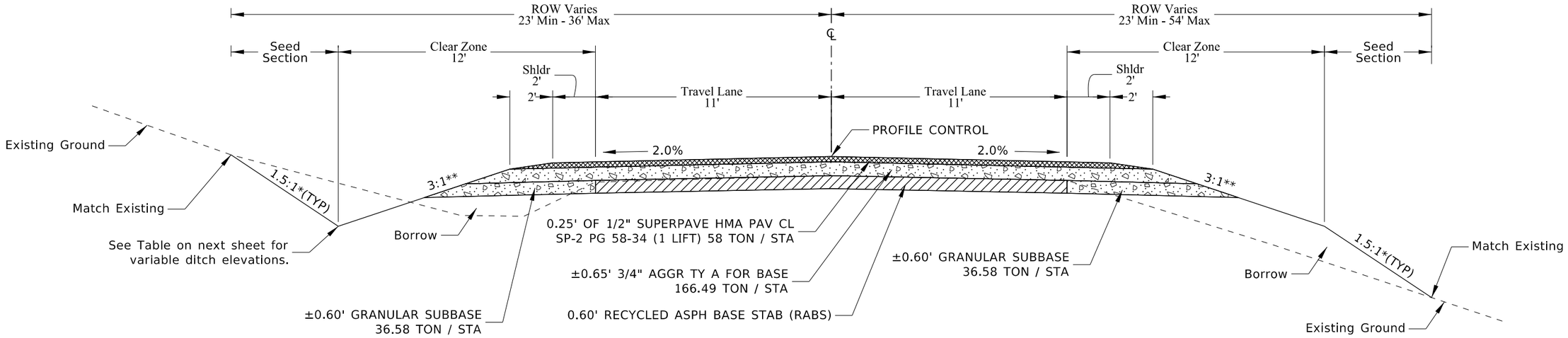
NOTE:

Existing Right-of-Way is assumed to be within the existing fence line.

Seed disturbed areas outside of 12' clear zone.

TYPICAL SECTION 1

Sta 80+50 to Sta 87+08
Sta 89+08 to Sta 221+00

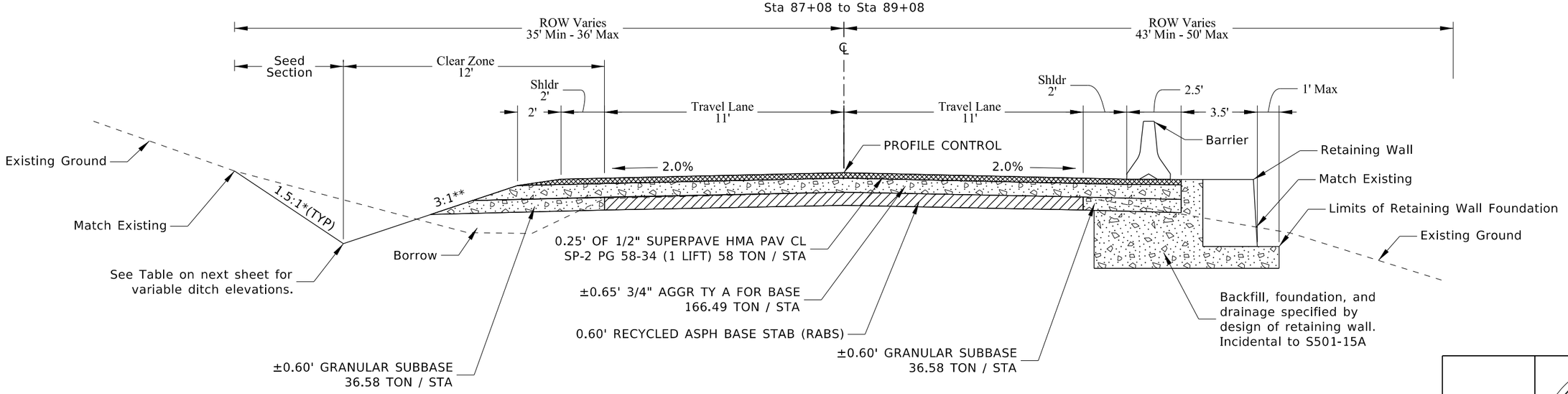


* LT Fill 1:1 from Sta 112+20 to Sta 119+20.
RT Cut 1.25:1 from Sta 113+60 to Sta 115+00.
LT Fill 4:1 from Sta 179+75 to Sta 185+25.
LT Fill 1:1 from Sta 206+50 to Sta 210+00.
RT Fill 1:1 from Sta 215+00 to Sta 216+00.

** LT Fill to fence line from Sta 157+65 to Sta 166+00.
LT Fill 4:1 from Sta 179+75 to Sta 185+25.

TYPICAL SECTION 2

Sta 87+08 to Sta 89+08



REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_typi_001.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	TYPICAL SECTION
A021(983)	N 500 W RECONSTRUCTION, TETON CO

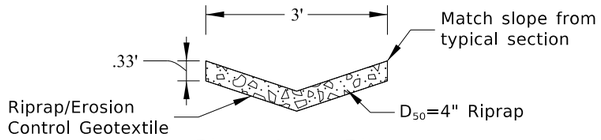
ENGLISH

COUNTY TETON
KEY NUMBER 21983
SHEET 4 OF 41

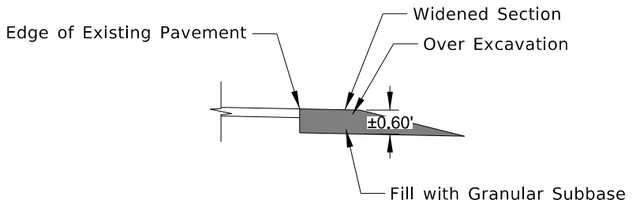
PROFESSIONAL ENGINEER LICENSED
Benjamin A. Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

Variable Ditch Elevations Table

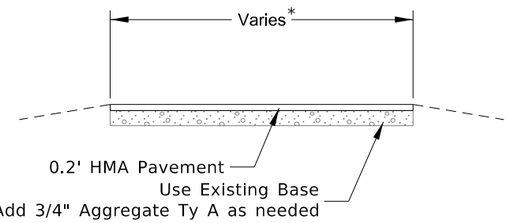
Station	Offset	Ditch Elevation
112+00	RT	6224.30
112+50	RT	6222.43
113+00	RT	6220.61
113+50	RT	6219.07
114+00	RT	6217.72
114+40	RT	6217.68
114+50	RT	6216.37
115+00	RT	6215.03
115+50	RT	6213.80
116+00	RT	6212.86
116+50	RT	6212.15
117+00	RT	6211.38
117+50	RT	6210.27
118+00	RT	6208.84
118+50	RT	6207.37
119+00	RT	6206.04
119+50	RT	6204.95
120+00	RT	6204.09
120+50	RT	6204.43
121+00	RT	6204.73
121+50	RT	6204.49
122+00	RT	6204.23
122+50	RT	6203.98
123+00	RT	6203.74
123+50	RT	6203.50
123+66	RT	6203.42
124+00	LT	6203.85
124+00	RT	6203.52
124+21	RT	6203.79
124+50	LT	6205.69
125+00	LT	6207.82
125+50	LT	6209.96
126+00	LT	6212.08
126+50	LT	6213.97
127+00	LT	6215.55
127+50	LT	6217.11
128+00	LT	6218.68
128+50	LT	6220.24
129+00	LT	6221.90
129+50	LT	6223.55
130+00	LT	6225.20
130+50	LT	6226.86
131+00	LT	6227.39
131+50	LT	6227.64
132+00	LT	6227.90
132+50	LT	6228.37
133+00	LT	6228.87
133+50	LT	6229.36
133+60	LT	6229.46
217+50	RT	6283.26
217+90	LT	6282.95
218+00	LT	6282.92
218+00	RT	6282.92
218+21	RT	6282.85
218+45	LT	6282.81
218+50	RT	6283.05
219+00	RT	6283.43



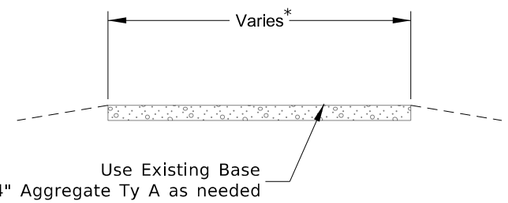
Riprap Lined Ditch



Excavation Detail for Widening



Asphalt Approach
405-245A



Gravel Approach **
405-245B

Work Includes:

1. Excavating shoulders and adding new Granular Subbase.
2. Pulverize Existing AC to a depth of 0.6'. Shape and Compact Pulverized Material.
3. Spread new Aggregate Ty A accross the width of the roadway. Depth will vary based on designed roadway profile.
4. Shape and compact to approximate design roadway crown and cross-slopes.
5. Pave Superpave HMA.

* Width and slope varies. See plans for the approach width at tie-in. Match the edge of the roadway and the existing tie-in point.

** Gravel approaches are to be paved 5' from the design edge of pavement.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DESIGN CHECKED R. RAMSEY
DETAILED B. BINGHAM
DRAWING CHECKED R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 21983_typi_002.dgn
DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

TYPICAL SECTION
N 500 W RECONSTRUCTION, TETON CO

ENGLISH

COUNTY TETON
KEY NUMBER 21983
SHEET 5 OF 41

PROFESSIONAL ENGINEER LICENSED
Benjamin A. Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

SHEET NUMBER				9 - 10	11 - 12	13 - 14	15 - 16	17 - 18	19 - 20	21 - 22	23 - 24	25 - 26	27 - 28	29 - 30	31 - 32
STATION - STATION				80+50 - 89+00	89+00 - 101+00	101+00 - 113+00	113+00 - 125+00	125+00 - 137+00	137+00 - 149+00	149+00 - 161+00	161+00 - 173+00	173+00 - 185+00	185+00 - 197+00	197+00 - 209+00	209+00 - 221+00
ITEM NO.	ITEM	UNIT	TOTAL	850	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
107-019A	SURVEY MONUMENT PRESERVATION	CA	10,000												
201-005A	CLEARING & GRUBBING	ACRE	9.7												
202-005A	SELECTIVE REMOVAL OF TREES INCLUDING STUMPS	EACH	76												76
203-006A	REMOVAL OF SIGN	EACH	12		1	1	1	1	1	1		1	1	2	2
203-123A	REMOVAL OF MISCELLANEOUS ITEMS (PIPE)	FT	442	59	152						31	77	30		93
205-005A	EXCAVATION	CY	7,182	150	190	1,080	2,598	1,226	433	213	264	121	164	297	446
205-030A	BORROW	CY	2,714												
205-060A	WATER FOR DUST ABATEMENT	MG	1,500												
205-071A	EXCAVATION AND REPAIR OF SOFT SPOTS	CY	1,000												
209-005A	SMALL DITCH	FT	28	5	12								11		
212-011A	FIBER WATTLE	FT	8,661	564	210	577	1,070	1,194	447	160	807	471	793	1,285	1,083
212-105A	WATER AND POLLUTION	CA	5,000												
301-005A	GRANULAR SUBBASE	TON	12,280												
303-021A	3/4" AGGREGATE TY A FOR BASE	TON	28,490												
308-015A	PULVERIZE EXISTING SURFACE	SY	34,345												
401-020A	CSS-1 DILUTED EMULSIFIED ASPHALT FOR TACK COAT	GAL	100												
405-245A	APPROACH (ASPHALT)	EACH	22	5	5	2	1	1	2	2		1	1	1	1
405-245B	APPROACH (GRAVEL)	EACH	11	2	2			1			1	1	1	1	2
405-425A	SUPERPAVE HMA PAVEMENT INCLUDING ASPHALT & ADDITIVES CLASS SP-2	TON	7,820												
602-035A	18" PIPE CULVERT	FT	655	42	96		56	53			48	110	60		190
602-045A	24" PIPE CULVERT	FT	7												7
602-055A	30" PIPE CULVERT	FT	21												21
602-065A	36" PIPE CULVERT	FT	168		168										
602-250A	PIPE ARCH (20" X 28")	FT	16	16											
602-250B	PIPE ARCH (47" X 71")	FT	57	57											
608-035A	18" APRON FOR PIPE	EACH	14				1	1			2	2	4		4

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED Z. BYINGTON	CADD FILE NAME 21983_RSUM_001-1.DGN
DRAWING CHECKED B. BINGHAM	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

ROADWAY SUMMARY
N 500 W RECONSTRUCTION, TETON CO

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 6 OF 41

PROFESSIONAL ENGINEER LICENSED
Benjamin A Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

SHEET NUMBER				9 - 10	11 - 12	13 - 14	15 - 16	17 - 18	19 - 20	21 - 22	23 - 24	25 - 26	27 - 28	29 - 30	31 - 32
STATION - STATION				80+50 - 89+00	89+00 - 101+00	101+00 - 113+00	113+00 - 125+00	125+00 - 137+00	137+00 - 149+00	149+00 - 161+00	161+00 - 173+00	173+00 - 185+00	185+00 - 197+00	197+00 - 209+00	209+00 - 221+00
ITEM NO.	ITEM	UNIT	TOTAL	850	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200	1200
612-005A	W-BEAM GUARDRAIL	FT	12.5	12.5											
612-050A	GUARDRAIL TERMINAL	EACH	1	1											
612-120B	GUARDRAIL TRANSITION, HIGH SPEED	EACH	1	1											
612-150A	PRECAST CONCRETE BARRIER	FT	187.5	174.3	13.2										
612-155A	CONCRETE BARRIER TERMINAL TYPE A	EACH	1		1										
616-010A	SIGNS TYPE B	SF	250		13.6	15.4	25.1	11.3	31.2	13.4		13.4	15.6	24.7	86.3
616-035A	SIGN BRACKETS & BRACE ANGLES	LB	127.1				17.0							17.0	93.1
616-050A	BREAKAWAY STEEL SIGN POST TYPE E	LB	1,207.2		49.1	50.1	93.2	132.3	96.2	48.1		41.1	50.1	93.2	553.8
616-070A	BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E	EACH	28		1	1	2	2	2	1		1	1	2	15
618-025A	STREET MONUMENT	EACH	8				1		1		1	2	1	2	
621-005A	SEEDBED PREPARATION	ACRE	1.82	0.05	0.05	0.20	0.43	0.31	0.10	0.10	0.13	0.12	0.11	0.11	0.11
621-010A	SEEDING (ROADSIDE)	ACRE	1.80	0.04	0.05	0.20	0.43	0.31	0.10	0.10	0.13	0.12	0.11	0.11	0.10
621-010B	SEEDING (WETLAND)	ACRE	0.02	0.004	0.001										0.013
624-005A	LOOSE RIPRAP	CY	62			22					14.4		5.5	14.6	5.5
626-010A	TEMPORARY TRAFFIC CONTROL SIGNS	SF	1,211												
626-050A	DRUMS	EACH	40												
626-100A	MISCELLANEOUS TEMPORARY TRAFFIC CONTROL ITEMS	CA	5,000												
626-105A	TEMPORARY TRAFFIC CONTROL MAINTENANCE	HR	140												
626-120A	FLAGGER CONTROL	HR	1,800												
626-125A	PILOT CAR	HR	700												
626-135A	WEIGHTED BASE TUBULAR MARKERS	EACH	210												
630-025A	LONGITUDINAL PAVEMENT MARKINGS - WATERBORNE	FT	112,120	6,800	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,600	9,320
634-005A	MAILBOX (TYPE A)	EACH	7	3	1			1						1	1
634-005B	MAILBOX (TYPE B)	EACH	3		1				1			1			
640-010A	RIPRAP/EROSION CONTROL GEOTEXTILE	SY	565			200					131		50	134	50
640-015A	SUBGRADE SEPARATION GEOTEXTILE	SY	3,000												
654-025A	COMPOST	ACRE	3.64	0.10	0.10	0.40	0.86	0.62	0.20	0.20	0.26	0.24	0.22	0.22	0.22
675-005A	SURVEY	LS	1												
675-010A	DIRECTED SURVEYING	CA	10,000												
677-005A	RECORD DRAWINGS	LS	1												
S501-15A	GRAVITY LARGE CONCRETE BLOCK AND SEMI-GRAVITY RETAINING WALL	SF	1,250	1,200	50										
S900-50A	CONTINGENCY AMOUNT MISCELLANEOUS WORK	CA	5,000												
S901-05A	SP MAILBOX CLUSTER (16 MAILBOXES, 2 PARCEL LOCKERS)	EACH	1							1					
Z629-05A	MOBILIZATION	LS	1												

REVISIONS

NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DESIGN CHECKED R. RAMSEY
DETAILED Z. BYINGTON
DRAWING CHECKED R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 21983_RSUM_001-2.DGN
DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

ROADWAY SUMMARY
N 500 W RECONSTRUCTION, TETON CO

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 7 OF 41

PROFESSIONAL ENGINEER LICENSED
Benjamin A Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

STATION	PIPE CULVERT (LENGTH IN FEET) PIPE SIZE (INCHES) 18"	24"	30"	36"	20"x28"	47"x71"	METAL PIPE STEEL PIPE GALVANIZED STEEL X	ALUMINIZED STEEL X	1/2" CORRUGATION DEPTH 2⅔" CORRUGATION LENGTH GAGE	COATED X	ANNULAR CORR. X	HELICAL CORR. X	ALUMINUM PIPE ___" CORRUGATION DEPTH ___" CORRUGATION LENGTH THICK. (")	COATED X	ANNULAR CORR. X	HELICAL CORR. X	CONCRETE PIPE REINFORCED CLASS II-V	IRRIGATION OR DRAINAGE X	TYPE OF BEDDING 1,2,3	RUBBER GASKET JOINTS REQUIRED X	FILL HEIGHT FT.	STR. EXC. C.Y.	COMP. BKFILL C.Y.	MINOR STRUCTURES DRAWING NUMBER	STRUCTURE EA.	CONCRETE C.Y.	METAL REINF. LBS.	TIMBER MFBM	GRATES EA.	APRONS EA.	INLETS TYPE_____ EA.	CATCH BASINS TYPE_____ EA.	REMARKS (INDICATE ELONGATION) (WHEN REQUIRED)
80+79 RT					7		X		16			X									X	N/A												Extend existing pipe.*
80+81 LT					9		X		16			X									X	N/A												Extend existing pipe.*
81+59	42						X		16			X									X	1.0												
87+01						57	X		16			X									X	2.3												
91+97	48						X		16			X									X	1.0												
95+45	48						X		16			X									X	1.0												
99+67				56			X		16			X									X	1.5												
99+72				56			X		16			X									X	1.5												
99+77				56			X		16			X									X	1.5												
123+10 LT	48						X		16			X									X	1.0												
123+57 LT	5						X		16			X									X	N/A												Extend existing pipe.*
123+65 RT	3						X		16			X									X	N/A										1		Extend existing pipe.*
136+00	53						X		16			X									X	1.2										1		
162+84	48						X		16			X									X	1.7										1		
173+28 LT	68						X		16			X									X	1.0										1		
179+93	42						X		16			X									X	1.0										2		
185+78 LT	8						X		16			X									X	N/A										1		Extend existing pipe.*
185+78 RT	10						X		16			X									X	N/A										1		Extend existing pipe.*
194+98	42						X		16			X									X	1.4										2		
209+66	42						X		16			X									X	1.0										2		
214+26 RT		7					X		16			X									X	N/A												Extend existing pipe.*
214+34 LT		0					X		16			X									X	N/A												Add apron to existing pipe.*
215+47 LT	5						X		16			X									X	N/A												Extend existing pipe.*
215+60 RT	11						X		16			X									X	N/A												Extend existing pipe.*
215+94 LT	67						X		16			X									X	1.0												
218+48	65						X		16			X									X	1.0										2		
220+06 RT			10				X		16			X									X	N/A												Extend existing pipe.*
220+10 LT			11				X		16			X									X	N/A												Extend existing pipe.*
SHEET TOTAL	655	7	21	168	16	57																										14		
PROJ. TOTAL	655	7	21	168	16	57																										14		

* Confirm existing pipe size, material, and location prior to ordering pipe and aprons.

Coordinate with the Engineer if existing conditions are different than what is depicted in the plans.
Structural excavation, compacting backfill, and existing imported material is considered incidental to the culvert item.

REVISIONS NO.	DATE	BY	DESCRIPTION

DESIGNED	B. BINGHAM
DESIGN CHECKED	R. RAMSEY
DETAILED	B. BINGHAM
DRAWING CHECKED	R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 21983_psum_001.DGN

DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

CIVIL SCIENCE

PROJECT NO.

A021(983)

PIPE CULVERT SUMMARY

N 500 W RECONSTRUCTION, TETON CO

ENGLISH

COUNTY TETON

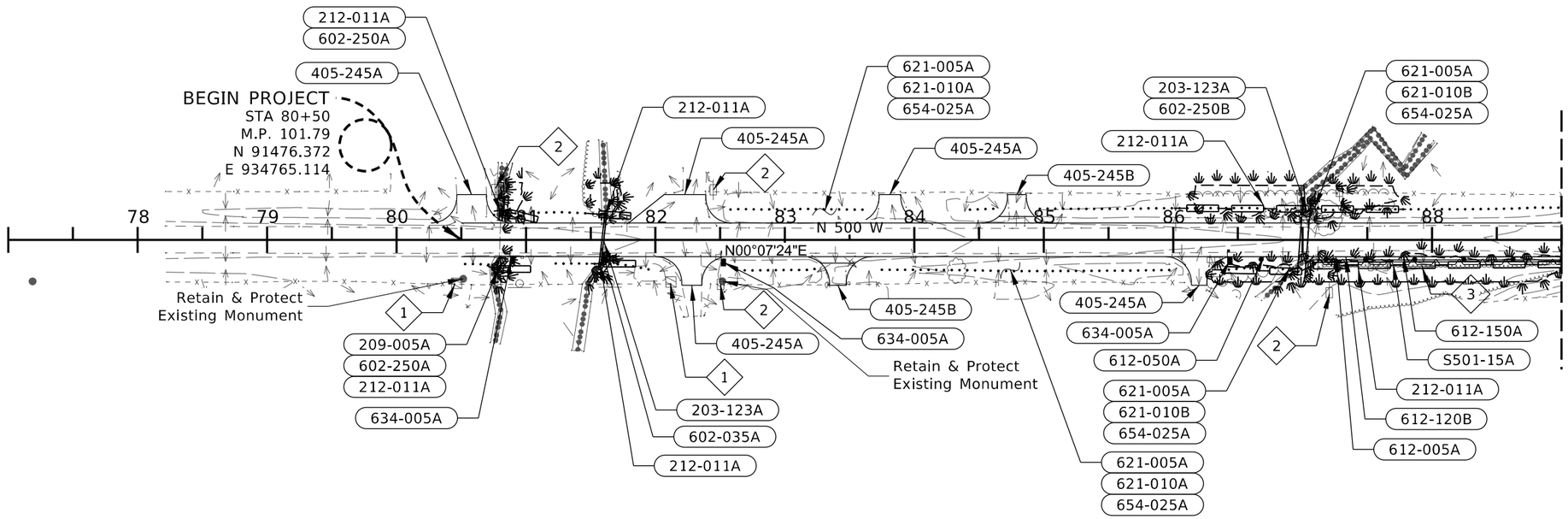
KEY NUMBER 21983

PROFESSIONAL ENGINEER LICENSED
Benjamin A Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

T.6N., R.45E., B.M.

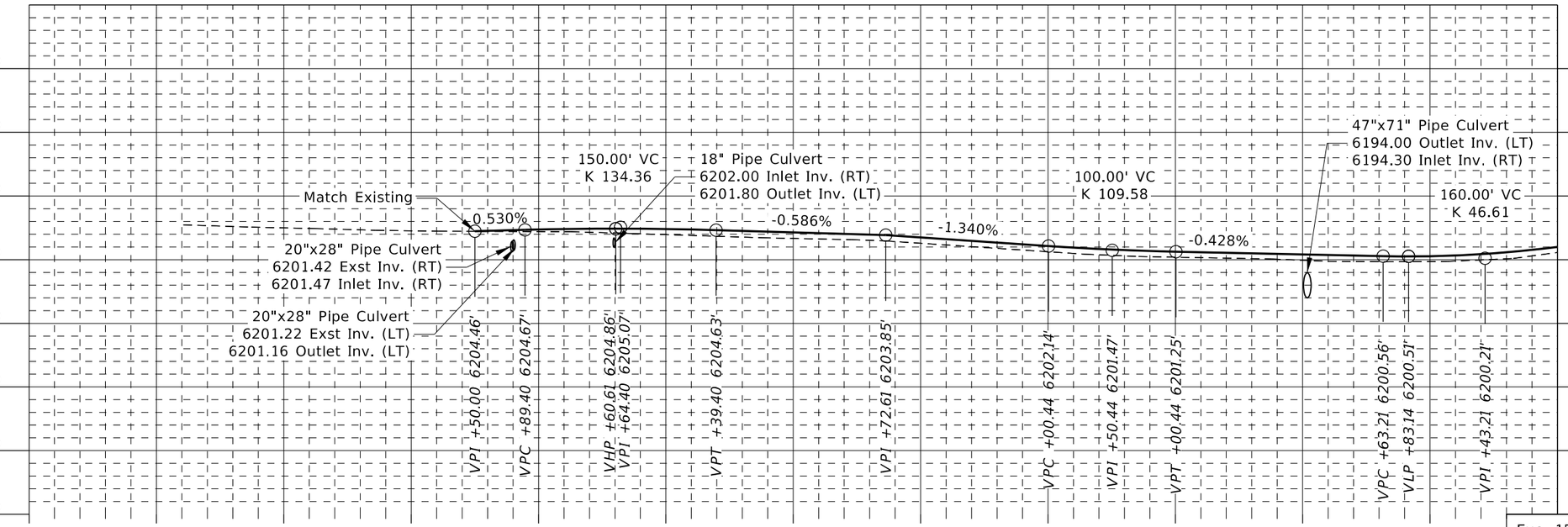
NE⁴SW⁴SEC. 23

SE⁴NW⁴SEC. 23



NW⁴SE⁴SEC. 23

SW⁴NE⁴SEC. 23



Exc. 150 C.Y.
Emb. 547 C.Y.
Borrow 412 C.Y.
Rdwy. 850 FT

203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)

27	FT	STA 81+60 15' RT
	TO	STA 81+61 12' LT
32	FT	STA 87+04 17' LT
	TO	STA 87+05 15' RT

209-005A SMALL DITCH

5	FT	STA 80+76 27' RT
	TO	STA 80+79 23' RT

212-011A FIBER WATTLE

25	FT	STA 80+79 RT
25	FT	STA 80+81 LT
25	FT	STA 81+57 RT
25	FT	STA 81+61 LT
180	FT	STA 86+00 LT
	TO	STA 87+80 LT
284	FT	STA 86+30 RT
	TO	STA 89+14 RT

405-245A APPROACH (ASPHALT)

1	EACH STA 80+58 LT W = 23'
1	EACH STA 82+23 LT W = 32'
1	EACH STA 82+28 RT W = 15'
1	EACH STA 83+81 LT W = 17'
1	EACH STA 86+20 RT W = 12'

405-245B APPROACH (GRAVEL)

1	EACH STA 83+41 RT W = 13'
1	EACH STA 84+79 LT W = 15'

602-035A 18" PIPE CULVERT

42	FT	STA 81+56.9 21.0' RT
	TO	STA 81+61.8 20.7' LT

UTILITY

1. RETAIN & PROTECT EXISTING SILVER STAR COMM.
2. RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC
3. RELOCATE EXISTING F/O BY SILVER STAR COMM.

NOTES

1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_001.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

CIVIL SCIENCE

PROJECT NO.

A021(983)

PROJECT PLAN / PROFILE SHEET

N 500 W RECONSTRUCTION,
TETON CO
STA 80+50 TO STA 89+00

ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 9 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

654-025A COMPOST

0.10 ACRE STA 80+50
TO STA 89+00

S501-15A GRAVITY LARGE CONCRETE BLOCK AND SEMI GRAVITY RETAINING WALL
1200 SF STA 87+08 RT
TO STA 89+00 RT

602-250A PIPE ARCH (20" X 28")

7 FT STA 80+79.3 15.9' RT
TO STA 80+79.0 22.9' RT
9 FT STA 80+80.5 14.4' LT
TO STA 80+80.9 23.4' LT

602-250B PIPE ARCH (47" X 71")

57 FT STA 86+98.8 28.1' RT
TO STA 87+03.2 29.0' LT

612-005A W-BEAM GUARDRAIL

12.5 FT STA 86+95.0 13.0' RT
TO STA 87+07.5 13.0' RT

612-050A GUARDRAIL TERMINAL

1 EACH STA 86+45.0 13.0' RT

612-120B GUARDRAIL TRANSITION, HIGH SPEED
1 EACH STA 87+25.7 13.0' RT

612-150A PRECAST CONCRETE BARRIER
174.3 FT STA 87+25.7 13.0' RT
TO STA 89+00.0 13.0' RT

621-005A SEED BED PREPARATION

0.05 ACRE STA 80+50
TO STA 89+00

621-010A SEEDING (ROADSIDE)

0.04 ACRE STA 80+50
TO STA 89+00

621-010B SEEDING (WETLAND)

0.004 ACRE STA 80+50
TO STA 89+00

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE
4" Double Solid Yellow Line
3400 FT STA 80+50 0' RT
TO STA 89+00 0' RT
4" Solid White Line
1700 FT STA 80+50 12' RT
TO STA 89+00 12' RT
1700 FT STA 80+50 12' LT
TO STA 89+00 12' LT

634-005A MAILBOX (TYPE A)

1 EACH STA 80+90 RT
1 EACH STA 82+50 RT
1 EACH STA 86+44 RT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_001-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

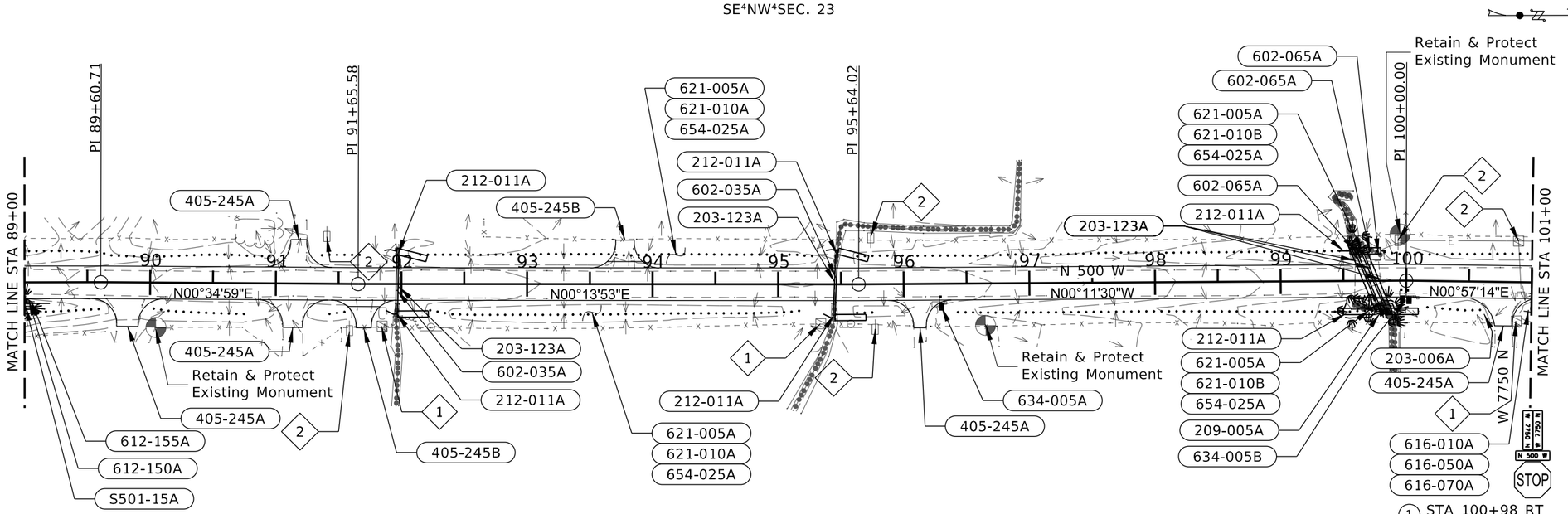
PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 80+50 TO STA 89+00

ENGLISH

COUNTY TETON
KEY NUMBER 21983
SHEET 10 OF 41

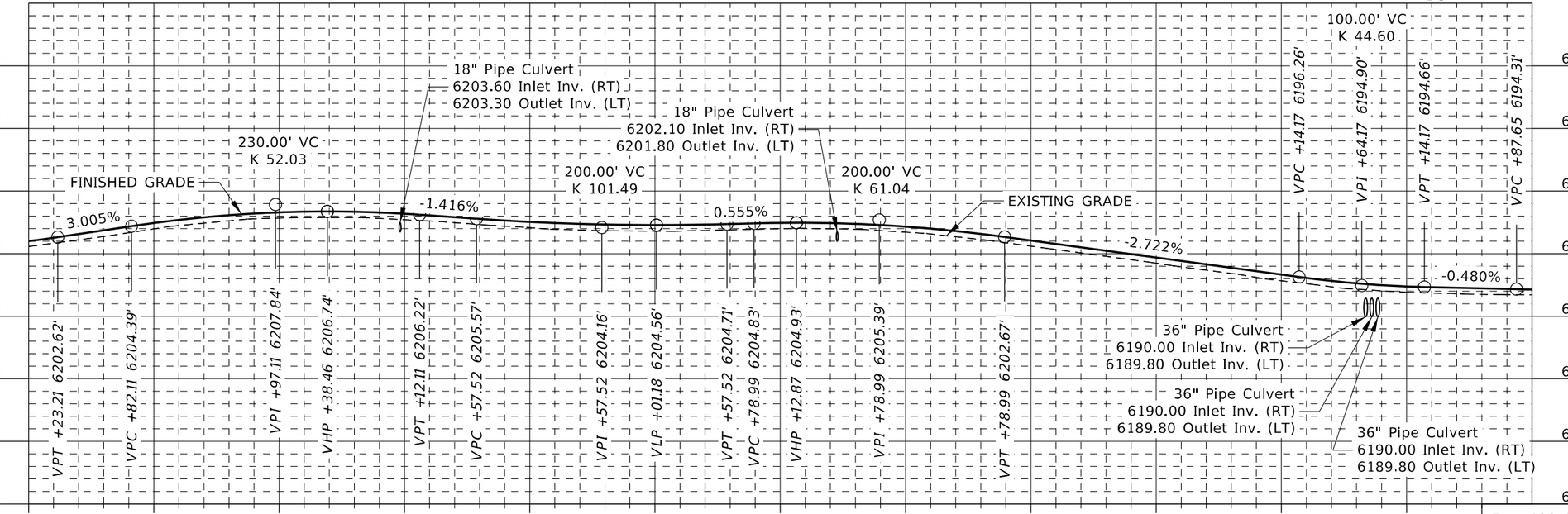
PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

T.6N., R.45E., B.M.
SE⁴NW⁴SEC. 23



① STA 100+98 RT
R1-1
D3
D3
D3

SW⁴NE⁴SEC. 23



Exc. 190 C.Y.
Emb. 697 C.Y.
Borrow 526 C.Y.
Rdwy. 1,200 FT

(203-006A) REMOVAL OF SIGN

1 EACH STA 100+55 RT

(203-123A) REMOVAL OF MISCELLANEOUS ITEMS (PIPE)

28	FT	STA 91+97 16' RT
	TO	STA 91+99 12' LT
30	FT	STA 95+45 16' RT
	TO	STA 95+45 14' LT
33	FT	STA 99+59 16' RT
	TO	STA 99+60 17' LT
30	FT	STA 99+71 16' LT
	TO	STA 99+72 14' RT
31	FT	STA 99+78 16' LT
	TO	STA 99+81 15' RT

(209-005A) SMALL DITCH

12	FT	STA 99+76 26' RT
	TO	STA 99+88 26' RT

(212-011A) FIBER WATTLE

25	FT	STA 91+96 RT
25	FT	STA 91+97 LT
25	FT	STA 95+45 RT
25	FT	STA 95+46 LT
71	FT	STA 99+40 RT
	TO	STA 100+11 RT
39	FT	STA 99+45 LT
	TO	STA 99+84 LT

(405-245A) APPROACH (ASPHALT)

1 EACH STA 89+82 RT W = 17'
1 EACH STA 91+14 RT W = 16'
1 EACH STA 91+18 LT W = 13'
1 EACH STA 96+13 RT W = 10'
1 EACH STA 100+78 RT W = 14'

(405-245B) APPROACH (GRAVEL)

1 EACH STA 91+70 RT W = 12'
1 EACH STA 93+78 RT W = 15'

UTILITY

① RETAIN & PROTECT EXISTING SILVER START COMM.

② RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES
1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
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IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 89+00 TO STA 101+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 11 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

(634-005A) MAILBOX (TYPE A)

1 EACH STA 96+30 RT

(634-005B) MAILBOX (TYPE B)

1 EACH STA 100+00 RT

(654-025A) COMPOST

0.10 ACRE STA 89+00
TO STA 101+00

(S501-15A) GRAVITY LARGE CONCRETE BLOCK AND SEMI-GRAVITY RETAINING WALL

50 SF STA 89+00 RT
TO STA 89+08 RT

(602-035A) 18" PIPE CULVERT

48 FT STA 91+96.2 24.0' RT
TO STA 91+97.0 24.0' LT
48 FT STA 95+44.6 24.0' RT
TO STA 95+46.5 24.0' LT

(602-065A) 36" PIPE CULVERT

56 FT STA 99+56.3 26.7' LT
TO STA 99+77.6 25.3' RT
56 FT STA 99+61.2 26.7' LT
TO STA 99+82.6 25.5' RT
56 FT STA 99+66.1 26.5' LT
TO STA 99+87.5 25.5' RT

(612-150A) PRECAST CONCRETE BARRIER

13.2 FT STA 89+00.0 13.0' RT
TO STA 89+13.2 13.0' RT

(612-155A) CONCRETE BARRIER TERMINAL TYPE A

1 EACH STA 89+38.2 13.0' RT

(616-010A) SIGNS TYPE B

13.6 SF STA 100+98 RT

(616-050A) BREAKAWAY STEEL SIGN POST TYPE E

49.1 LB STA 100+98 RT

(616-070A) BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E

1 EACH STA 100+98 RT

(621-005A) SEED BED PREPARATION

0.05 ACRE STA 89+00
TO STA 101+00

(621-010A) SEEDING (ROADSIDE)

0.05 ACRE STA 89+00
TO STA 101+00

(621-010B) SEEDING (WETLAND)

0.001 ACRE STA 89+00
TO STA 101+00

(630-025A) LONGITUDINAL PAVEMENT MARKING - WATERBORNE

4" Double Solid Yellow Line
4800 FT STA 89+00 0' RT
TO STA 101+00 0' RT
4" Solid White Line
2400 FT STA 89+00 12' RT
TO STA 101+00 12' RT
2400 FT STA 89+00 12' LT
TO STA 101+00 12' LT

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_002-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

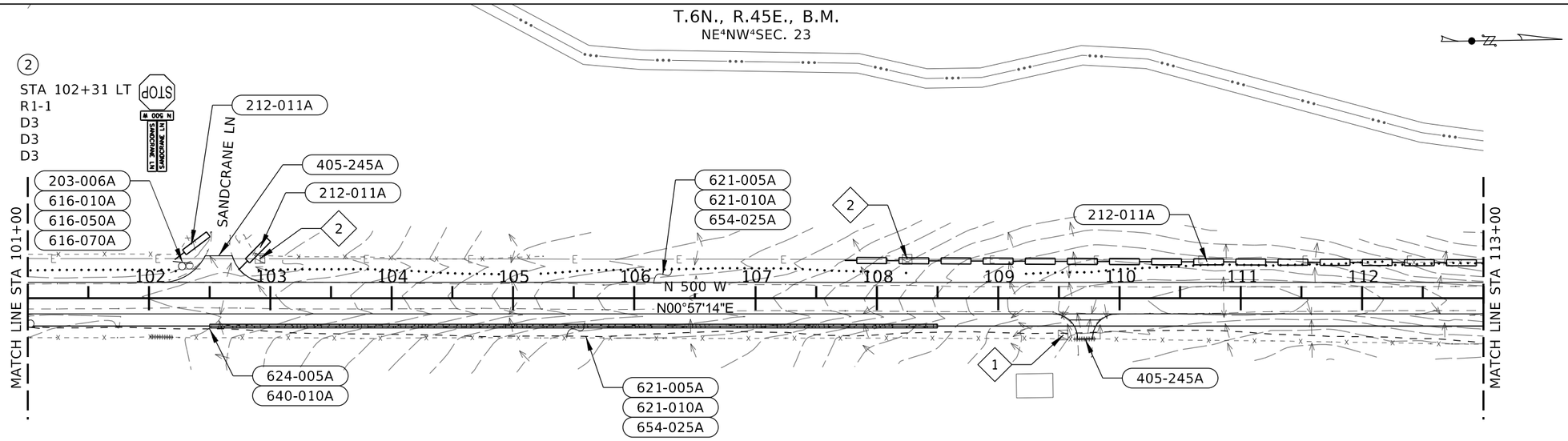
PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 89+00 TO STA 101+00

ENGLISH

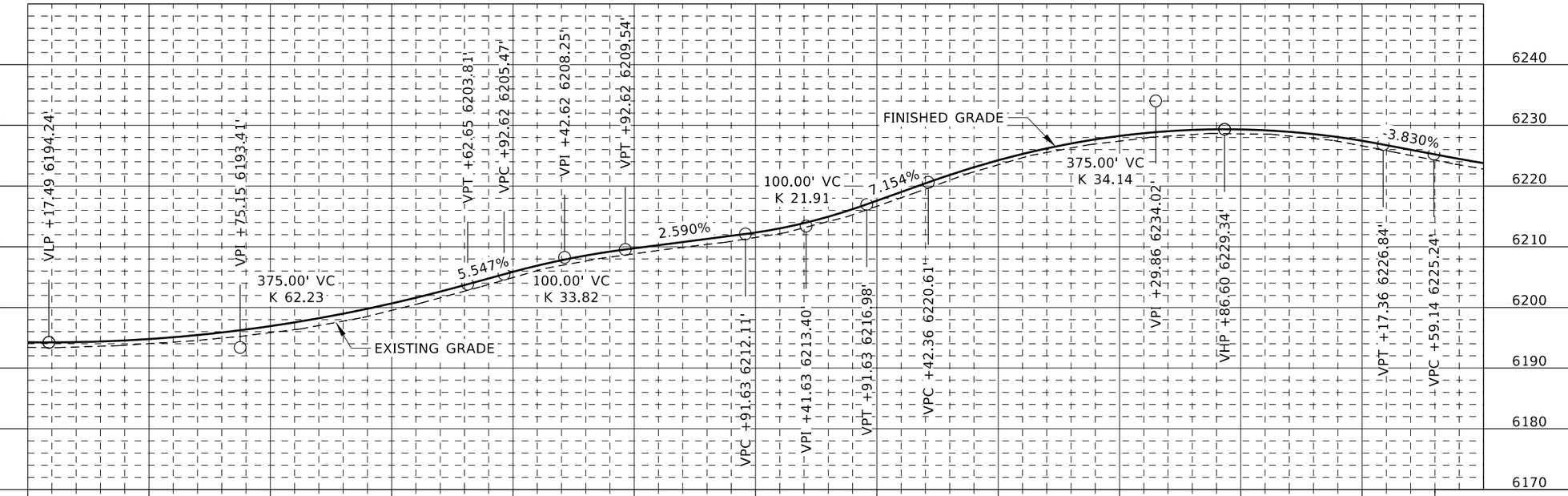
COUNTY TETON

KEY NUMBER 21983

T.6N., R.45E., B.M.
NE⁴NW⁴SEC. 23



NW⁴NE⁴SEC. 23



203-006A REMOVAL OF SIGN

1 EACH STA 102+33 LT

212-011A FIBER WATTLE

25 FT STA 102+30 LT
25 FT STA 102+80 LT
527 FT STA 107+73 LT
TO STA 113+00 LT

405-245A APPROACH (ASPHALT)

1 EACH STA 102+58 LT W = 22'
1 EACH STA 109+72 RT W = 12'

616-010A SIGN TY B

15.4 SF STA 102+31 LT

616-050A BREAKAWAY STEEL SIGN POST TYPE E
50.1 LB STA 102+31 LT

616-070A BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E

1 EACH STA 102+31 LT

621-005A SEED BED PREPARATION

0.20 ACRE STA 101+00
TO STA 113+00

621-010A SEEDING (ROADSIDE)

0.20 ACRE STA 101+00
TO STA 113+00

624-005A LOOSE RIPRAP

22 CY STA 102+50 RT
TO STA 108+50 RT

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES
1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

Exc. 1,080 C.Y.
Emb. 470 C.Y.
Excess 502 C.Y.
Rdwy. 1,200 FT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_003.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 101+00 TO STA 113+00

ENGLISH

COUNTY
TETON

KEY NUMBER
21983

SHEET 13 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE

4" Double Solid Yellow Line
4800 FT STA 101+00 0' RT
TO STA 113+00 0' RT

4" Solid White Line
2400 FT STA 101+00 12' RT
TO STA 113+00 12' RT
2400 FT STA 101+00 12' LT
TO STA 113+00 12' LT

640-010A RIPRAP/EROSION CONTROL GEOTEXTILE

200 SY STA 102+50 RT
TO STA 108+50 RT

654-025A COMPOST

0.40 ACRE STA 101+00
TO STA 113+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_003-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 101+00 TO STA 113+00

ENGLISH

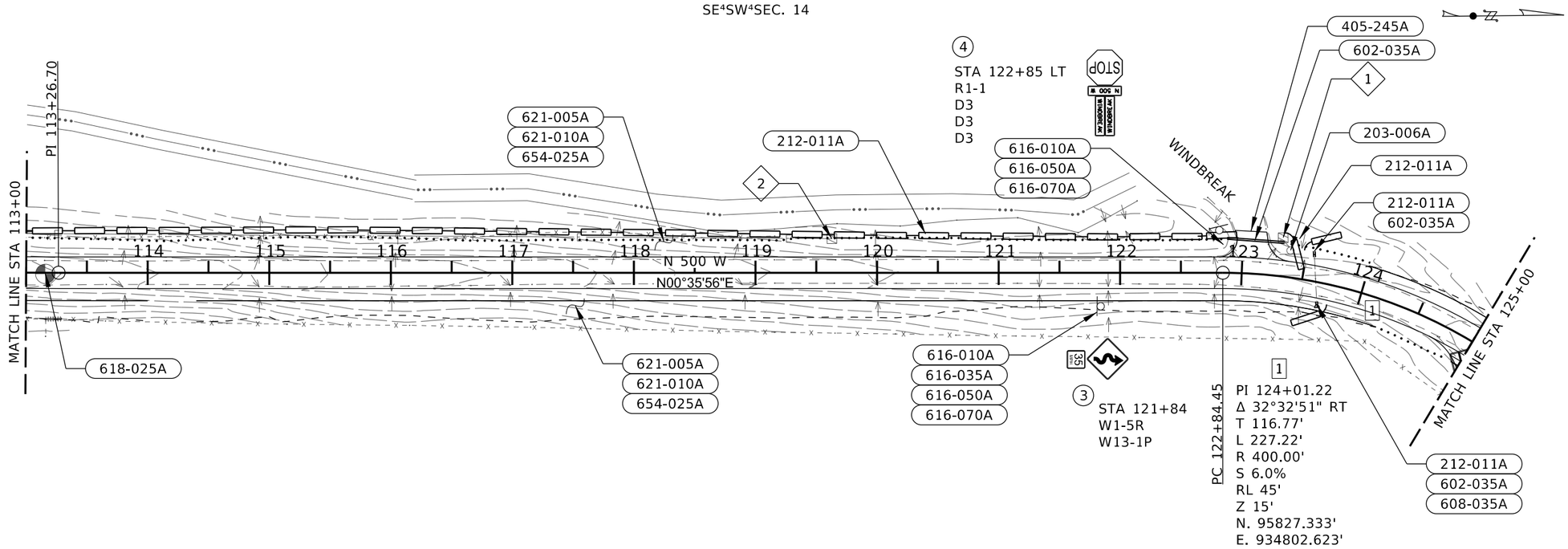
COUNTY TETON

KEY NUMBER 21983

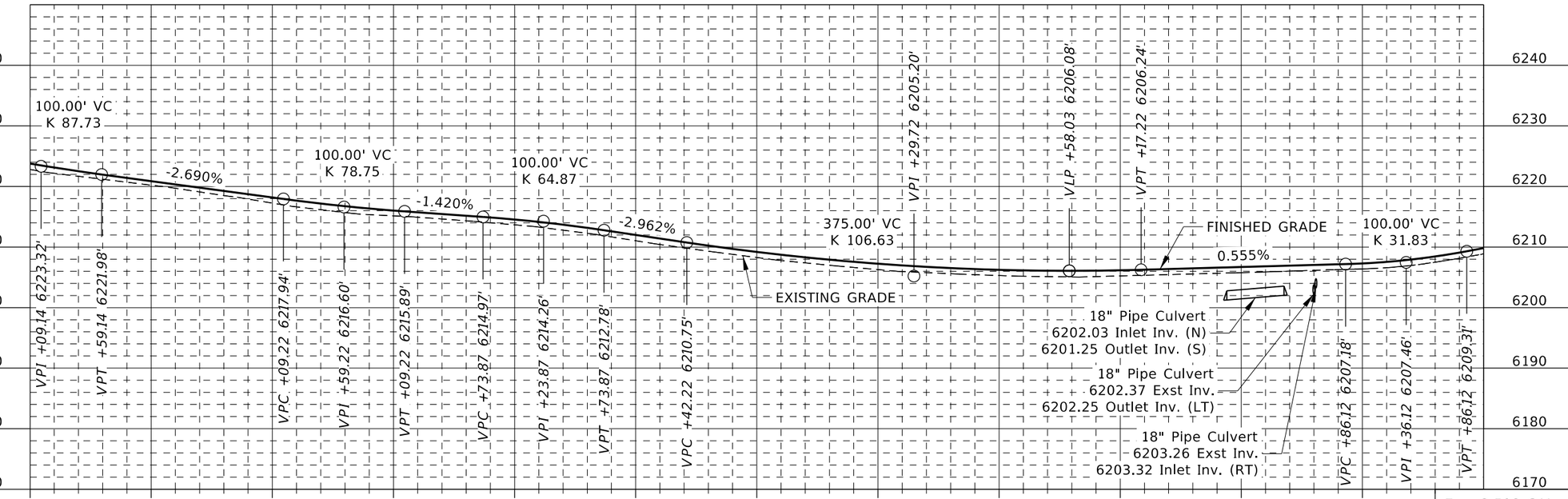
SHEET 14 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

T.6N., R.45E., B.M.
SE⁴SW⁴SEC. 14



SW⁴SE⁴SEC. 14



Exc. 2,598 C.Y.
Emb. 1,467 C.Y.
Excess 871 C.Y.
Rdwy. 1,200 FT

(203-006A) REMOVAL OF SIGN

1 EACH STA 123+37 LT

(212-011A) FIBER WATTLE

995 FT STA 113+00 LT
TO STA 122+95 LT
25 FT STA 123+23 LT
25 FT STA 123+56 LT
25 FT STA 123+66 RT

(405-245A) APPROACH (ASPHALT)

1 EACH STA 123+06 LT W = 26'

(602-035A) 18" PIPE CULV

48 FT STA 122+87.8 28.3' LT
TO STA 123+32.1 27.9' LT
5 FT STA 123+56.7 19.8' LT
TO STA 123+55.7 24.5' LT
3 FT STA 123+65.4 15.8' RT
TO STA 123+66.0 18.2' RT

(608-035A) 18" APRON FOR PIPE

1 EACH STA 123+66.0 18.2' RT

(616-010A) SIGNS TYPE B

11.3 SF STA 121+84 RT
13.8 SF STA 122+85 LT

(616-035A) BREAKAWAY STEEL SIGN POST TYPE E
17 LB STA 121+84 RT

(616-050A) BREAKAWAY STEEL SIGN POST TYPE E
39.1 LB STA 121+84 RT
54.1 LB STA 122+85 LT

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES
1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_004.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 113+00 TO STA 125+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 15 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

(616-070A) BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E
1 EACH STA 121+84 RT
1 EACH STA 122+85 LT

(618-025A) STREET MONUMENT

1 EACH STA 113+15.7 .96' RT

(621-005A) SEED BED PREPARATION

0.43 ACRE STA 113+00
TO STA 125+00

(621-010A) SEEDING (ROADSIDE)

0.43 ACRE STA 113+00
TO STA 125+00

(630-025A) LONGITUDINAL PAVEMENT MARKING - WATERBORNE
4" Double Solid Yellow Line
4800 FT STA 113+00 0' RT
TO STA 125+00 0' RT
4" Solid White Line
2400 FT STA 113+00 12' RT
TO STA 125+00 12' RT
2400 FT STA 113+00 12' LT
TO STA 125+00 12' LT

(654-025A) COMPOST

0.86 ACRE STA 113+00
TO STA 125+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DESIGN CHECKED R. RAMSEY
DETAILED B. BINGHAM
DRAWING CHECKED R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 21983_PLPR_004-2.dgn
DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

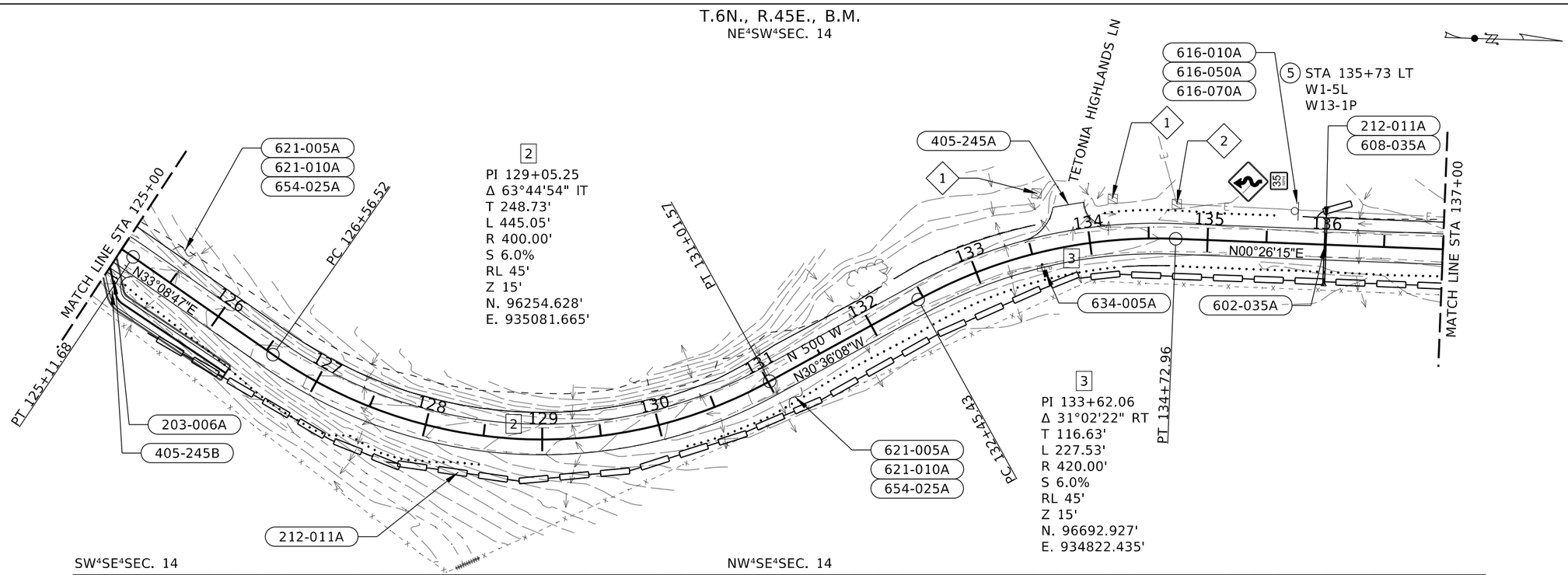
PROJECT NO.
A021(983)

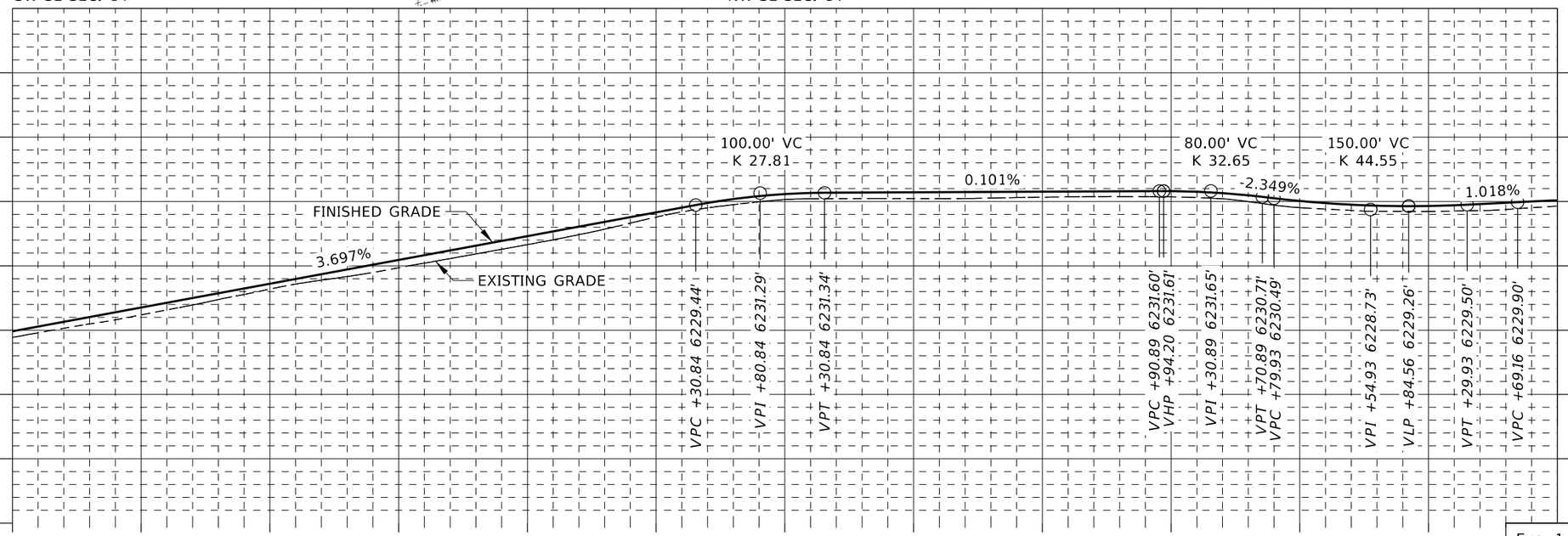
PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 113+00 TO STA 125+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 16 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

T.6N., R.45E., B.M.
NE⁴SW⁴SEC. 14





Exc. 1,226 C.Y.
Emb. 709 C.Y.
Excess 394 C.Y.
Rdwy. 1,200 FT

203-006A REMOVAL OF SIGN

1 EACH STA 125+10 RT

212-011A FIBER WATTLE

1169 FT STA 125+59 RT
TO STA 137+00 RT
25 FT STA 136+00 LT

405-245A APPROACH (ASPHALT)

1 EACH STA 133+87 LT W = 27'

405-245B APPROACH (GRAVEL)

1 EACH STA 125+05 RT W = 10'

602-035A 18" PIPE CULV

53 FT STA 136+00.0 20.4' LT
TO STA 136+00.0 32.4' RT

608-035A 18" APRON FOR PIPE

1 EACH STA 136+00.0 20.4' LT

616-010A SIGN TY B

11.3 SF STA 135+73 LT

616-050A BREAKAWAY STEEL SIGN POST TYPE E

132.3 LB STA 135+73 LT

616-070A BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E

2 EACH STA 135+73 LT

621-005A SEED BED PREPARATION

0.31 ACRE STA 125+00
TO STA 137+00

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES
1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
DESIGN CHECKED R. RAMSEY		
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_005.dgn	
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023	CIVIL SCIENCE

PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 125+00 TO STA 137+00

ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 17 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

621-010A SEEDING (ROADSIDE)

0.31 ACRE STA 125+00
TO STA 137+00

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE

4" Double Solid Yellow Line
4800 FT STA 125+00 0' RT
TO STA 137+00 0' RT

4" Solid White Line
2400 FT STA 125+00 12' RT
TO STA 137+00 12' RT
2400 FT STA 125+00 12' LT
TO STA 137+00 12' LT

634-005A MAILBOX (TYPE A)

1 EACH STA 133+55 RT

654-025A COMPOST

0.62 ACRE STA 125+00
TO STA 137+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_005-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 125+00 TO STA 137+00

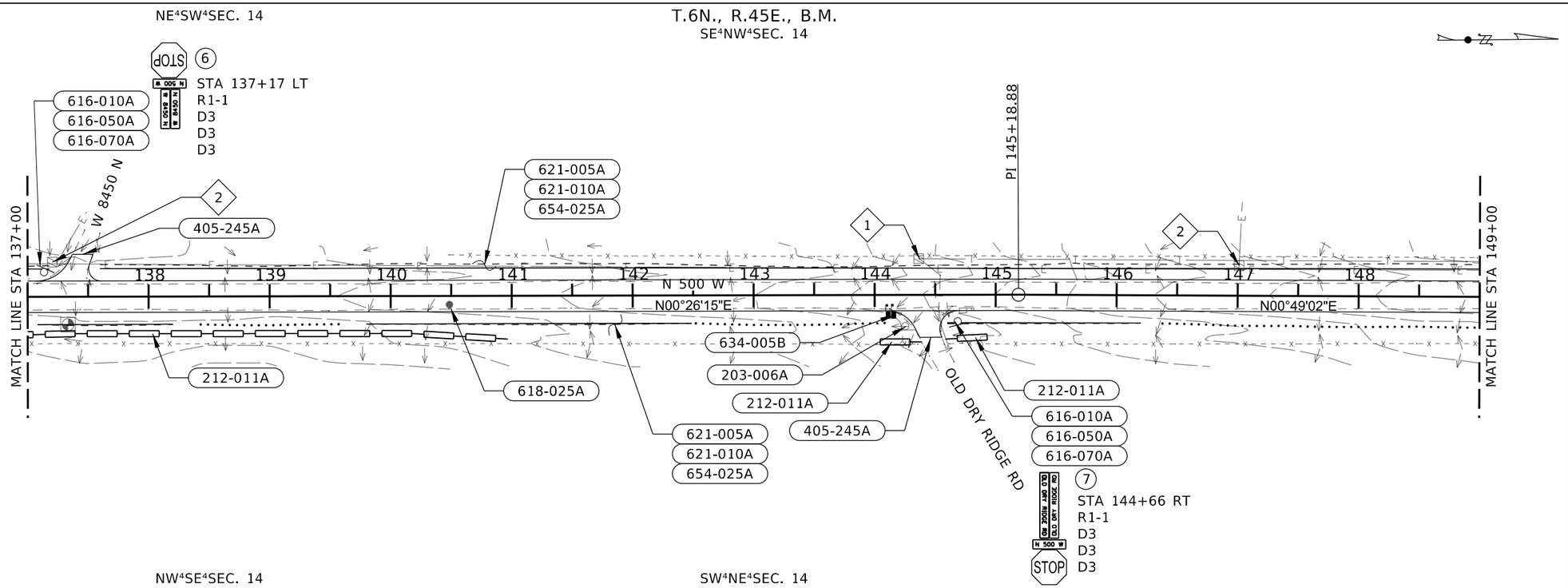
ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 18 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM



203-006A REMOVAL OF SIGN

1 EACH STA 144+25 RT

212-011A FIBER WATTLE

397 FT STA 137+00 RT
TO STA 140+97 RT
25 FT STA 144+20 RT
25 FT STA 144+70 RT

405-245A APPROACH (ASPHALT)

1 EACH STA 137+46 LT W = 17'
1 EACH STA 144+46 RT W = 18'

616-010A SIGNS TYPE B

13.6 SF STA 137+17 LT
17.6 SF STA 144+66 RT

616-050A BREAKAWAY STEEL SIGN POST TYPE E
49.1 LB STA 137+17 LT
47.1 LB STA 144+66 RT

616-070A BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E
1 EACH STA 137+17 LT
1 EACH STA 144+66 RT

618-025A STREET MONUMENT

1 EACH STA 140+48.6 7.15' RT

621-005A SEED BED PREPARATION

0.10 ACRE STA 137+00
TO STA 149+00

621-010A SEEDING (ROADSIDE)

0.10 ACRE STA 137+00
TO STA 149+00

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES
1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

Exc. 433 C.Y.
Emb. 279 C.Y.
Excess 111 C.Y.
Rdwy. 1,200 FT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_006.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 137+00 TO STA 149+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 19 OF 41

PROFESSIONAL ENGINEER
LICENSED
Benjamin A Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE

4" Double Solid Yellow Line
4800 FT FROM STA 137+00 0' RT
TO STA 149+00 0' RT

4" Solid White Line
2400 FT FROM STA 137+00 12' RT
TO STA 149+00 12' RT
2400 FT FROM STA 137+00 12' LT
TO STA 149+00 12' LT

634-005B MAILBOX (TYPE B)

1 EACH STA 144+90 RT 144+10 RT

654-025A COMPOST

0.20 ACRE STA 137+00
TO STA 149+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_006-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 137+00 TO STA 149+00

ENGLISH

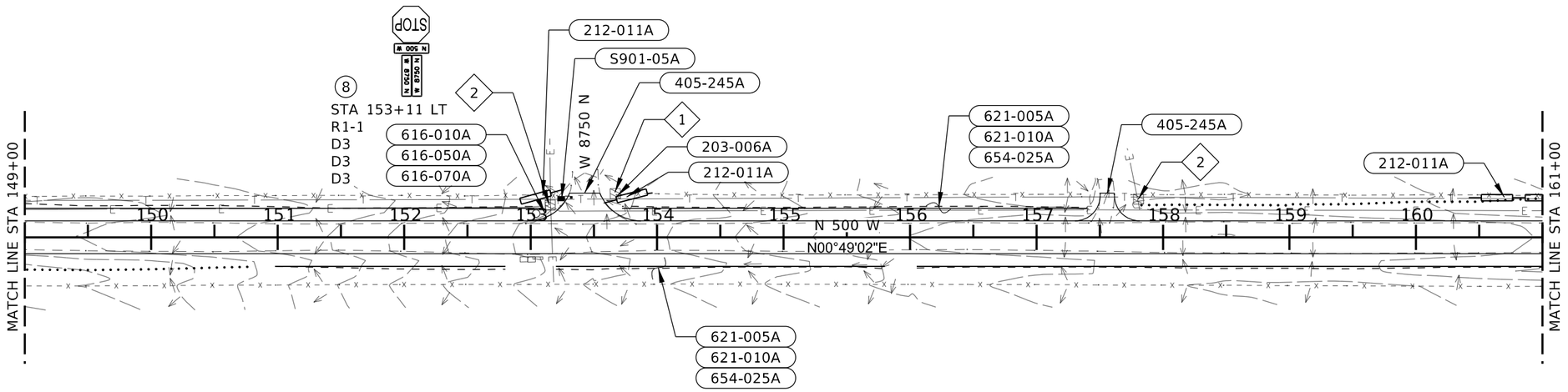
COUNTY TETON

KEY NUMBER 21983

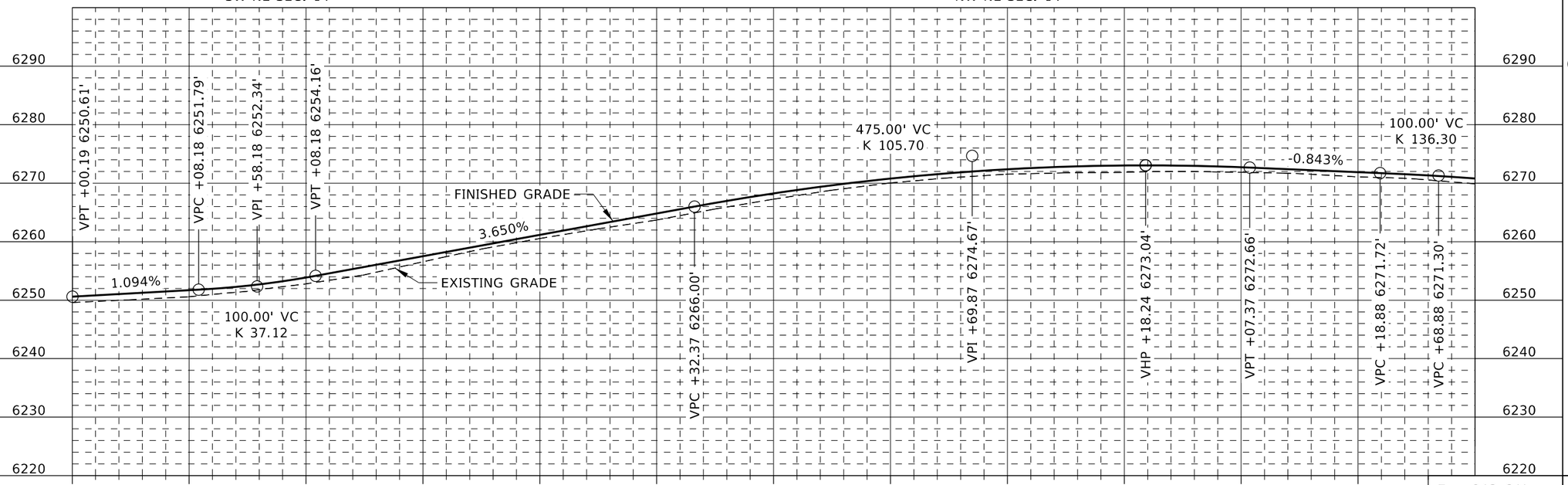
SHEET 20 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

SE⁴NW⁴SEC. 14 T.6N., R.45E., B.M. NE⁴NW⁴SEC. 14



SW⁴NE⁴SEC. 14 NW⁴NE⁴SEC. 14



Exc. 213 C.Y.
Emb. 356 C.Y.
Borrow 164 C.Y.
Rdwy. 1,200 FT

(203-006A) REMOVAL OF SIGN

1 EACH STA 153+69 LT

(212-011A) FIBER WATTLE

50 FT STA 153+00 LT
50 FT STA 153+70 LT
60 FT STA 160+40 LT
TO STA 161+00 LT

(405-245A) APPROACH (ASPHALT)

1 EACH STA 153+43 LT W = 24'
1 EACH STA 157+56 LT W = 11'

(616-010A) SIGNS TYPE B

13.4 SF STA 153+11 LT

(616-050A) BREAKAWAY STEEL SIGN POST TYPE E
48.1 LB STA 153+11 LT

(616-070A) BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E
1 EACH STA 153+11 LT

(621-005A) SEED BED PREPARATION

0.10 ACRE STA 149+00
TO STA 161+00

(621-010A) SEEDING (ROADSIDE)

0.10 ACRE STA 149+00
TO STA 161+00

(630-025A) LONGITUDINAL PAVEMENT MARKING - WATERBORNE
4" Double Solid Yellow Line
4800 FT STA 149+00 0' RT
TO STA 161+00 0' RT
4" Solid White Line
2400 FT STA 149+00 12' RT
TO STA 161+00 12' RT
2400 FT STA 149+00 12' LT
TO STA 161+00 12' LT

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES
1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_007.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 149+00 TO STA 161+00

ENGLISH

COUNTY
TETON

KEY NUMBER
21983

SHEET 21 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

654-025A COMPOST

0.20 ACRE STA 149+00
TO STA 161+00

S901-05A SP MAILBOX CLUSTER (16 MAILBOXES, 2 PARCEL LOCKERS)
1 EACH STA 153+24 LT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_007-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

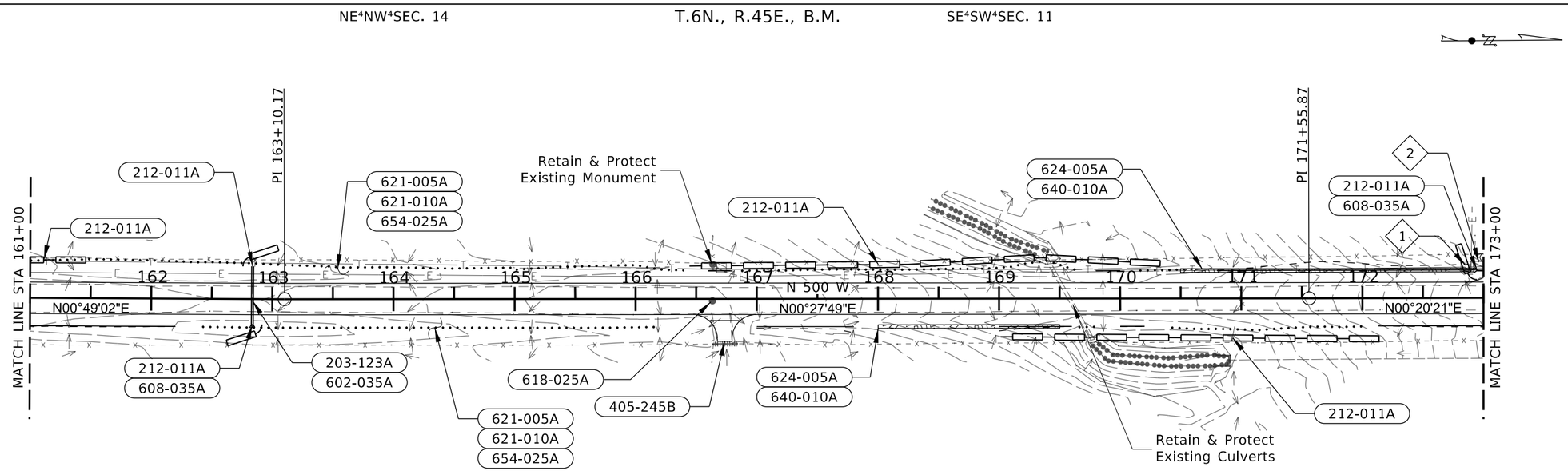
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

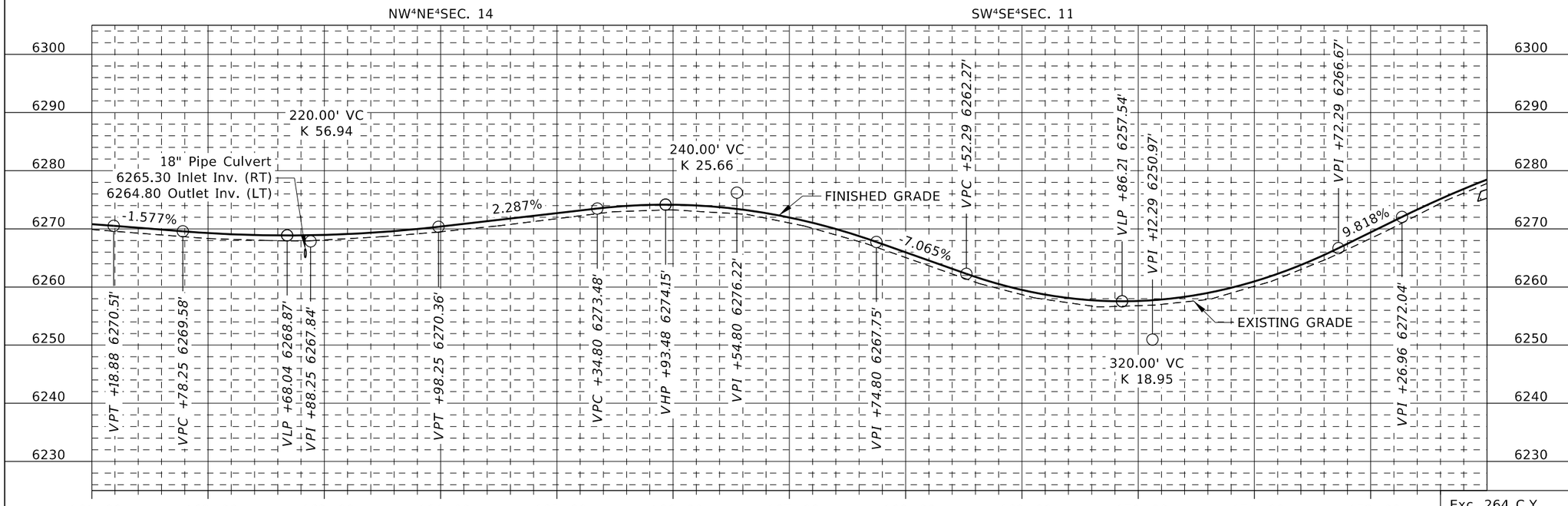
PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 149+00 TO STA 161+00

ENGLISH

COUNTY TETON
KEY NUMBER 21983
SHEET 22 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM





Exc. 264 C.Y.
Emb. 670 C.Y.
Borrow 432 C.Y.
Rdwy. 1,200 FT

(203-123A) REMOVAL OF MISCELLANEOUS ITEMS (PIPE)

31 FT STA 162+83 14' LT
TO STA 162+84 17' RT

(212-011A) FIBER WATTLE

42 FT STA 161+00 LT
TO STA 161+42 LT
25 FT STA 162+84 RT
25 FT STA 162+84 LT
376 FT STA 166+44 LT
TO STA 170+20 LT
314 FT STA 169+00 RT
TO STA 172+14 RT
25 FT STA 172+95 LT

(405-245B) APPROACH (GRAVEL)

1 EACH STA 166+73 RT W = 12'

(602-035A) 18" PIPE CULVERT

48 FT STA 162+83.6 27.0' LT
TO STA 162+83.6 21.1' RT

(608-035A) 18" APRON FOR PIPE

1 EACH STA 162+83.6 21.1' RT
1 EACH STA 172+94.6 23.0' LT

(618-025A) STREET MONUMENT

1 EACH STA 166+63.4 1.62' RT

(621-005A) SEED BED PREPARATION

0.13 ACRE STA 161+00
TO STA 173+00

(621-010A) SEEDING (ROADSIDE)

0.13 ACRE STA 161+00
TO STA 173+00

UTILITY

◇1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

◇2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES

1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_008.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 161+00 TO STA 173+00

ENGLISH

COUNTY TETON
KEY NUMBER 21983
SHEET 23 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

(624-005A) LOOSE RIPRAP

5.5 CY STA 168+00 RT
TO STA 169+50 RT
8.9 CY STA 170+50 LT
TO STA 172+92 LT

(630-025A) LONGITUDINAL PAVEMENT MARKING - WATERBORNE
4" Double Solid Yellow Line
4800 FT STA 161+00 0' RT
TO STA 173+00 0' RT
4" Solid White Line
2400 FT STA 161+00 12' RT
TO STA 173+00 12' RT
2400 FT STA 161+00 12' LT
TO STA 173+00 12' LT

(640-010A) RIPRAP/EROSION CONTROL GEOTEXTILE
50 SY STA 168+00 RT
TO STA 169+50 RT
81 SY STA 170+50 LT
TO STA 172+92 LT

(654-025A) COMPOST

0.26 ACRE STA 161+00
TO STA 173+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_008-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

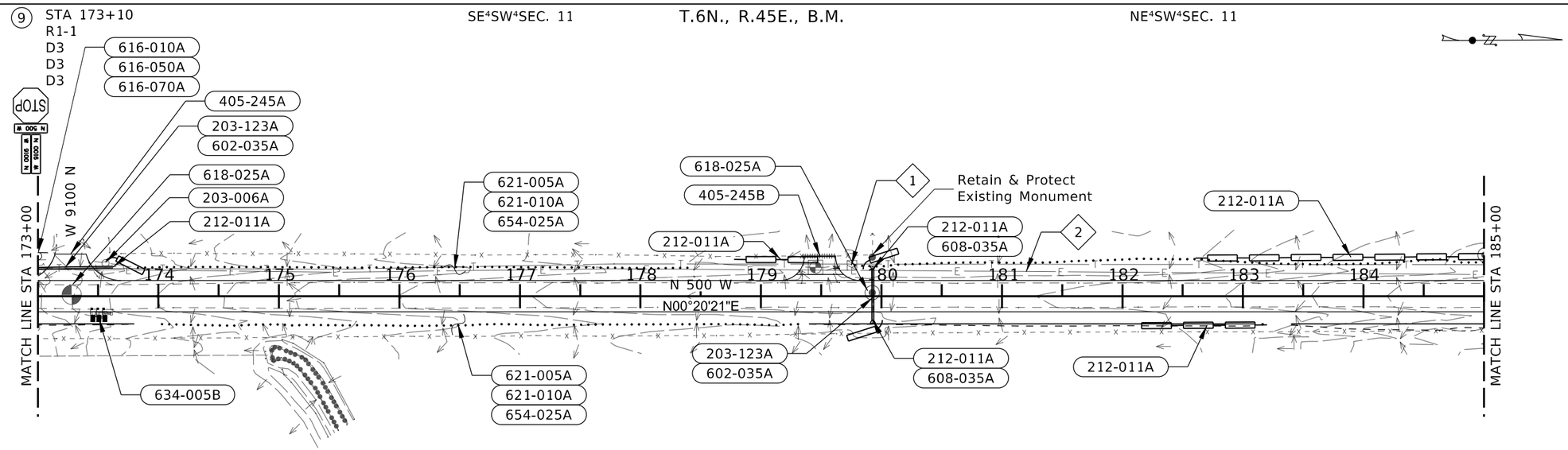
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

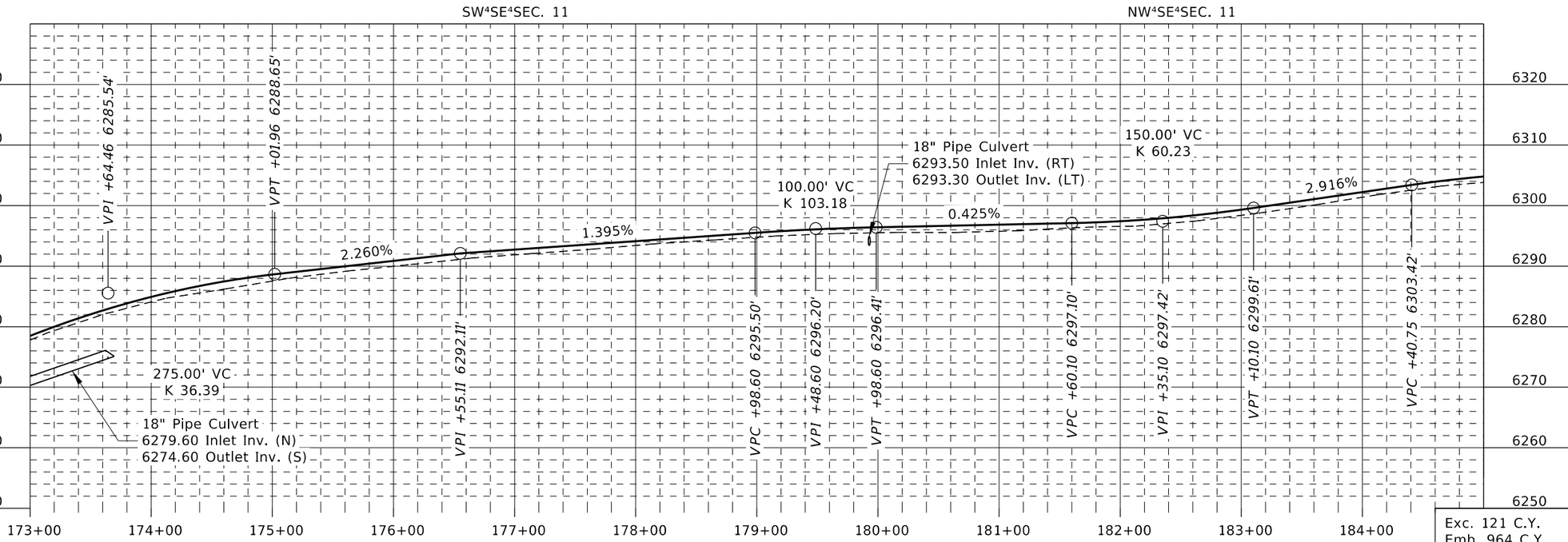
PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 161+00 TO STA 173+00

ENGLISH

COUNTY TETON
KEY NUMBER 21983
SHEET 24 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM





Exc. 121 C.Y.
Emb. 964 C.Y.
Borrow 855 C.Y.
Rdwy. 1,200 FT

(203-006A) REMOVAL OF SIGN

1 EACH STA 173+56 LT

(203-123A) REMOVAL OF MISCELLANEOUS ITEMS (PIPE)

48 FT STA 173+06 23' LT
TO STA 173+54 21' LT
29 FT STA 179+92 16' LT
TO STA 179+93 13' RT

(212-011A) FIBER WATTLE

25 FT STA 173+62 LT
56 FT STA 178+78 LT
TO STA 179+34 LT
25 FT STA 179+93 RT
25 FT STA 179+93 LT
100 FT STA 182+20 RT
TO STA 183+20 RT
240 FT STA 182+60 LT
TO STA 185+00 LT

(405-245A) APPROACH (ASPHALT)

1 EACH STA 173+27 LT W = 26'

(405-245B) APPROACH (GRAVEL)

1 EACH STA 179+49 LT W = 26'

(602-035A) 18" PIPE CULVERT

68 FT STA 172+94.6 23.0' LT
TO STA 173+62.3 24.2' LT
42 FT STA 179+92.8 22.4' LT
TO STA 179+92.8 19.8' RT

(608-035A) 18" APRON FOR PIPE

1 EACH STA 179+92.8 22.4' LT
1 EACH STA 179+92.8 19.8' RT

UTILITY

(1) RETAIN & PROTECT EXISTING SILVER STAR COMM.

(2) RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES

1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_009.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 173+00 TO STA 185+00

ENGLISH

COUNTY
TETON

KEY NUMBER
21983

SHEET 25 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

(616-010A) SIGNS TYPE B

13.4 SF STA 173+10 LT

(616-050A) BREAKAWAY STEEL SIGN POST TYPE E
41.1 LB STA 122+85 LT

(616-070A) BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E
1 EACH STA 122+85 LT

(618-025A) STREET MONUMENT

1 EACH STA 173+28.1 1.15' LT
1 EACH STA 179+92.4 2.91' LT

(621-005A) SEED BED PREPARATION

0.12 ACRE STA 173+00
TO STA 185+00

(621-010A) SEEDING (ROADSIDE)

0.12 ACRE STA 173+00
TO STA 185+00

(630-025A) LONGITUDINAL PAVEMENT MARKING - WATERBORNE
4" Double Solid Yellow Line
4800 FT STA 173+00 0' RT
TO STA 185+00 0' RT
4" Solid White Line
2400 FT STA 173+00 12' RT
TO STA 185+00 12' RT
2400 FT STA 173+00 12' LT
TO STA 185+00 12' LT

(634-005B) MAILBOX (TYPE B)

1 EACH STA 173+51 RT

(654-025A) COMPOST

0.24 ACRE STA 173+00
TO STA 185+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DESIGN CHECKED R. RAMSEY
DETAILED B. BINGHAM
DRAWING CHECKED R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 21983_PLPR_009-2.dgn
DRAWING DATE: 14-JUL-2023

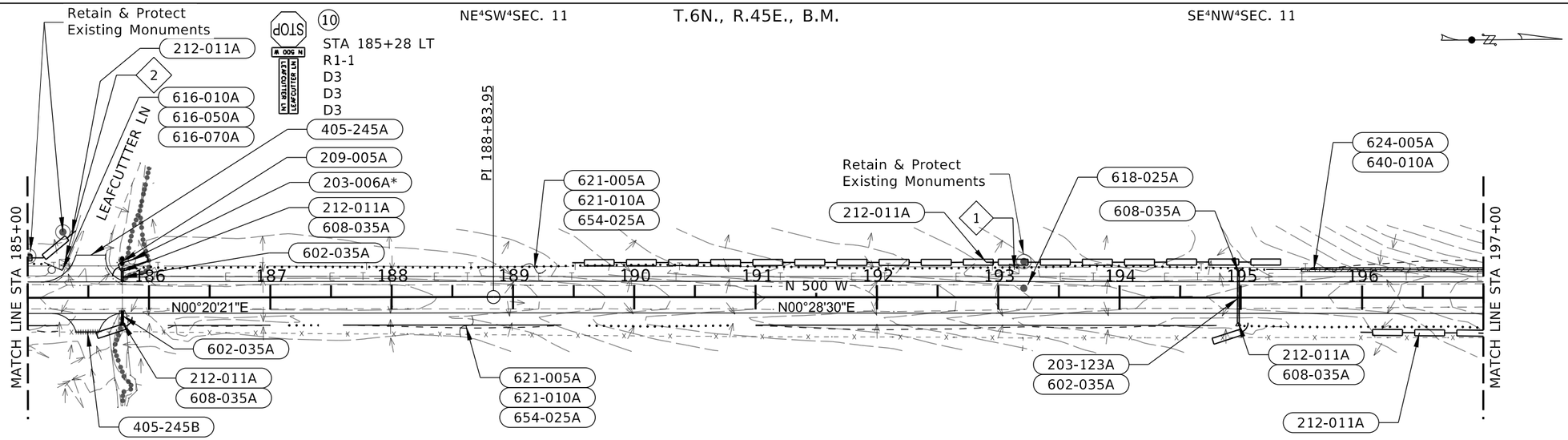
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

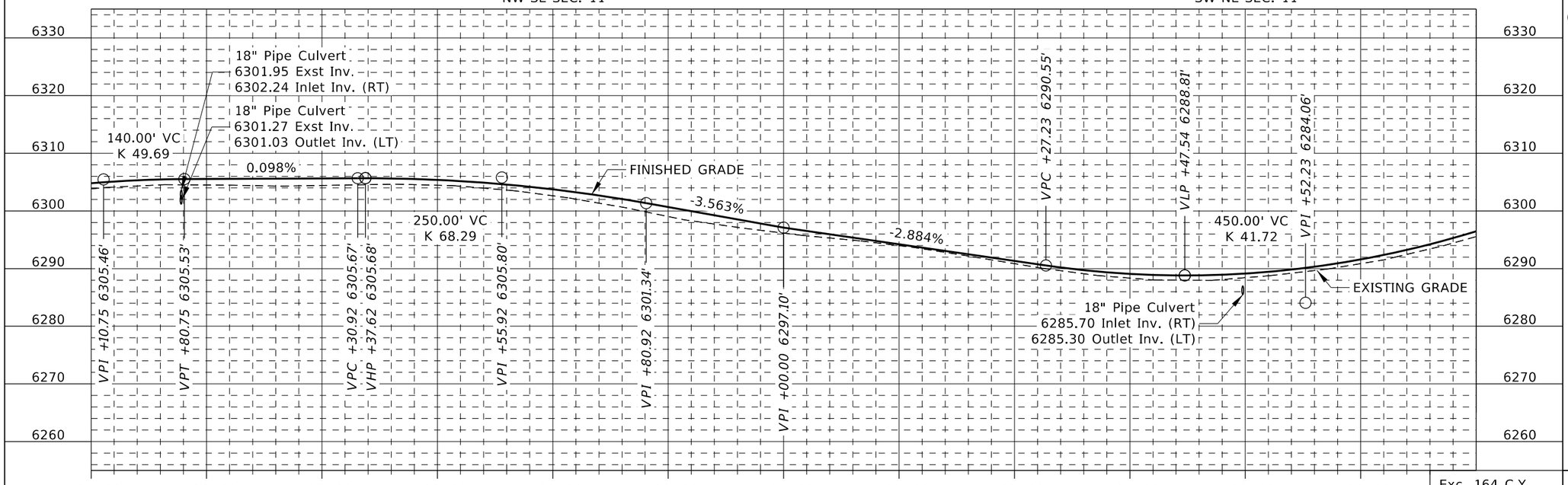
PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 173+00 TO STA 185+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 26 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM



*Return existing "Horseshoe Ln" sign to owner.



203-006A REMOVAL OF SIGN

1 EACH STA 185+86 LT

203-123A REMOVAL OF MISCELLANEOUS ITEMS (PIPE)

30 FT STA 194+97 14' LT
TO STA 194+98 15' RT

209-005A SMALL DITCH

11 FT STA 185+78 24' LT
TO STA 185+78 35' LT

212-011A FIBER WATTLE

50 FT STA 185+00 LT
TO STA 185+40 LT
25 FT STA 185+78 LT
25 FT STA 185+78 RT
568 FT STA 189+49 LT
TO STA 195+17 LT
25 FT STA 194+98 RT
100 FT STA 196+00 RT
TO STA 197+00 RT

405-245A APPROACH (ASPHALT)

1 EACH STA 185+52 LT W = 25'

405-245B APPROACH (GRAVEL)

1 EACH STA 185+50 RT W = 19'

602-035A 18" PIPE CULVERT

8 FT STA 185+78.0 13.2' LT
TO STA 185+77.9 21.5' LT
10 FT STA 185+78.1 10.4' RT
TO STA 185+78.1 20.4' RT
42 FT STA 194+98.0 21.3' LT
TO STA 194+98.0 20.8' RT

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES

1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

Exc. 164 C.Y.
Emb. 1,216 C.Y.
Borrow 1,068 C.Y.
Rdwy. 1,200 FT

PROFESSIONAL ENGINEER LICENSED Benjamin A. Bingham 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_010.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 185+00 TO STA 197+00

ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 27 OF 41

608-035A 18" APRON FOR PIPE

1 EACH STA 185+77.9 21.5' LT
1 EACH STA 185+78.1 20.4' RT
1 EACH STA 194+98.0 21.3' LT
1 EACH STA 194+98.0 20.8' RT

616-010A SIGNS TYPE B

15.6 SF STA 185+28 LT

616-050A BREAKAWAY STEEL SIGN POST TYPE E
50.1 LB STA 185+28 LT

616-070A BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E
1 EACH STA 185+28 LT

618-025A STREET MONUMENT

1 EACH STA 193+21.1 7.6 LT

621-005A SEED BED PREPARATION

0.11 ACRE STA 185+00
TO STA 197+00

621-010A SEEDING (ROADSIDE)

0.11 ACRE STA 185+00
TO STA 197+00

624-005A LOOSE RIPRAP

5.5 CY STA 195+50 LT
TO STA 197+00 LT

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE
4" Double Solid Yellow Line
4800 FT STA 185+00 0' RT
TO STA 197+00 0' RT
4" Solid White Line
2400 FT STA 185+00 12' RT
TO STA 197+00 12' RT
2400 FT STA 185+00 12' LT
TO STA 197+00 12' LT

640-010A RIPRAP/EROSION CONTROL GEOTEXTILE

50 SY STA 195+50 LT
TO STA 197+00 LT

654-025A COMPOST

0.22 ACRE STA 185+00
TO STA 197+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_010-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

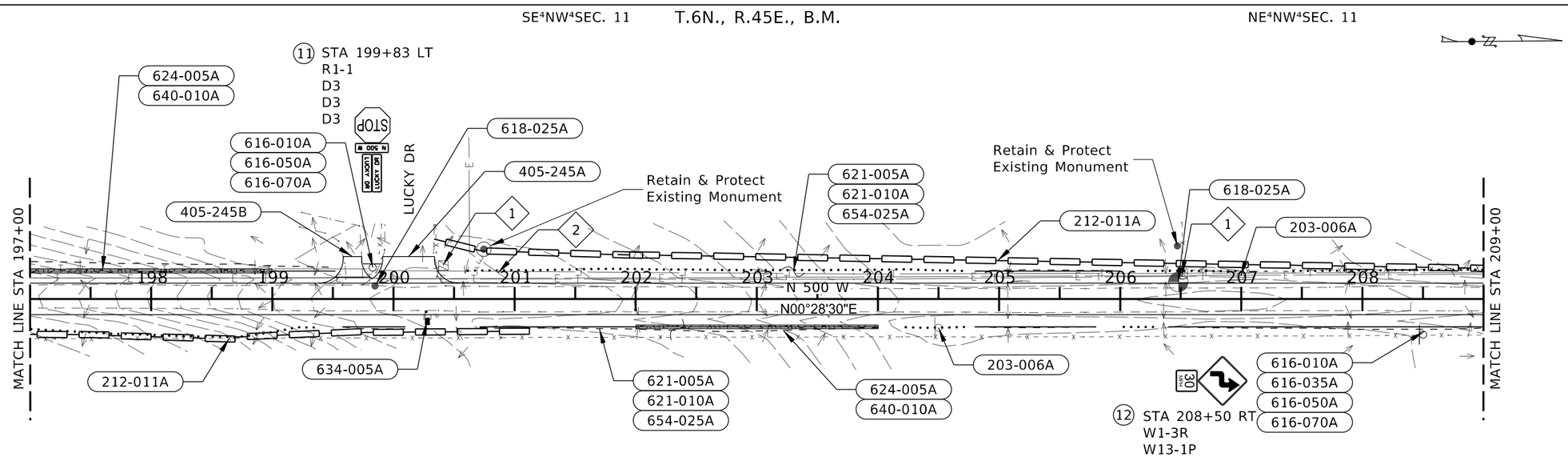
IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

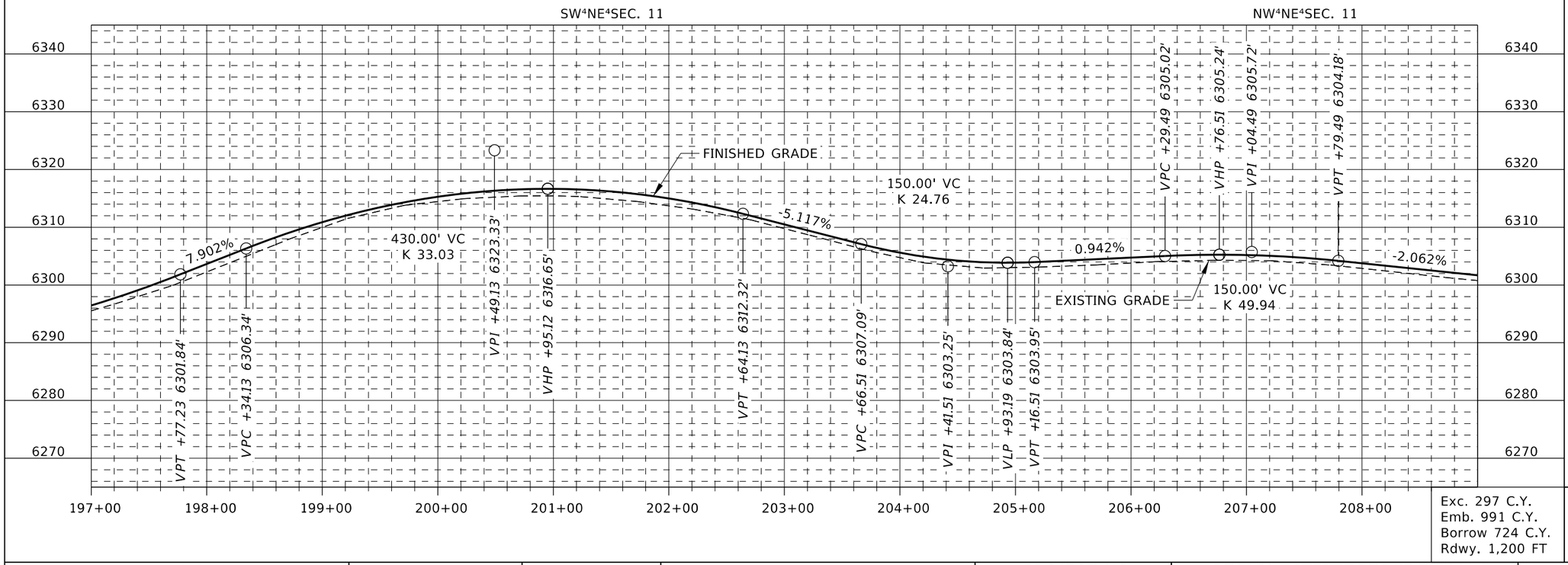
PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION, TETON CO
STA 185+00 TO STA 197+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 28 OF 41

PROFESSIONAL ENGINEER LICENSED
Benjamin A. Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM





Exc. 297 C.Y.
Emb. 991 C.Y.
Borrow 724 C.Y.
Rdwy. 1,200 FT

(203-006A) REMOVAL OF SIGN

1 EACH STA 204+50 RT
1 EACH STA 206+99 LT

(212-011A) FIBER WATTLE

410 FT STA 197+00
TO STA 201+10 RT
875 FT STA 200+33 LT
TO STA 209+00 LT

(405-245A) APPROACH (ASPHALT)

1 EACH STA 200+13 LT W = 43'

(405-245B) APPROACH (GRAVEL)

1 EACH STA 199+66 LT W = 15'

(616-010A) SIGNS TYPE B

13.4 SF STA 199+83 LT
11.3 SF STA 208+50 RT

(616-035A) SIGN BRACKETS & BRACE ANGLES

17 LB STA 208+50 RT

(616-050A) BREAKAWAY STEEL SIGN POST TYPE E

45.1 LB STA 199+83 LT
48.1 LB STA 208+50 RT

(616-070A) BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E

1 EACH STA 199+83 LT
1 EACH STA 208+50 RT

(618-025A) STREET MONUMENT

1 EACH STA 199+84.8 13.89' LT
1 EACH STA 206+47.9 13.89' LT

(621-005A) SEED BED PREPARATION

0.11 ACRE STA 197+00
TO STA 209+00

UTILITY

(1) RETAIN & PROTECT EXISTING SILVER STAR COMM.

(2) RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES

1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is vegetative cover.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED	B. BINGHAM
DESIGN CHECKED	R. RAMSEY
DETAILED	B. BINGHAM
DRAWING CHECKED	R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 21983_PLPR_011.dgn

DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

CIVIL SCIENCE

PROJECT NO. A021(983)

PROJECT PLAN / PROFILE SHEET

N 500 W RECONSTRUCTION,
TETON CO
STA 197+00 TO STA 209+00

ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 29 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

621-010A SEEDING (ROADSIDE)

0.11 ACRE STA 197+00
TO STA 209+00

624-005A LOOSE RIPRAP

7.3 CY STA 197+00 LT
TO STA 199+00 LT
7.3 CY STA 202+00 RT
TO STA 204+00 RT

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE

4" Double Solid Yellow Line
4800 FT STA 197+00 0' RT
TO STA 209+00 0' RT
4" Solid White Line
2400 FT STA 197+00 12' RT
TO STA 209+00 12' RT
2400 FT STA 197+00 12' LT
TO STA 209+00 12' LT

634-005A MAILBOX (TYPE A)

1 EACH STA 200+28 RT

640-010A RIPRAP/EROSION CONTROL GEOTEXTILE

67 SY STA 197+00 LT
TO STA 199+00 LT
67 SY STA 202+00 RT
TO STA 204+00 RT

654-025A COMPOST

0.22 ACRE STA 197+00
TO STA 209+00

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DESIGN CHECKED R. RAMSEY
DETAILED B. BINGHAM
DRAWING CHECKED R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 21983_PLPR_011-2.dgn
DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

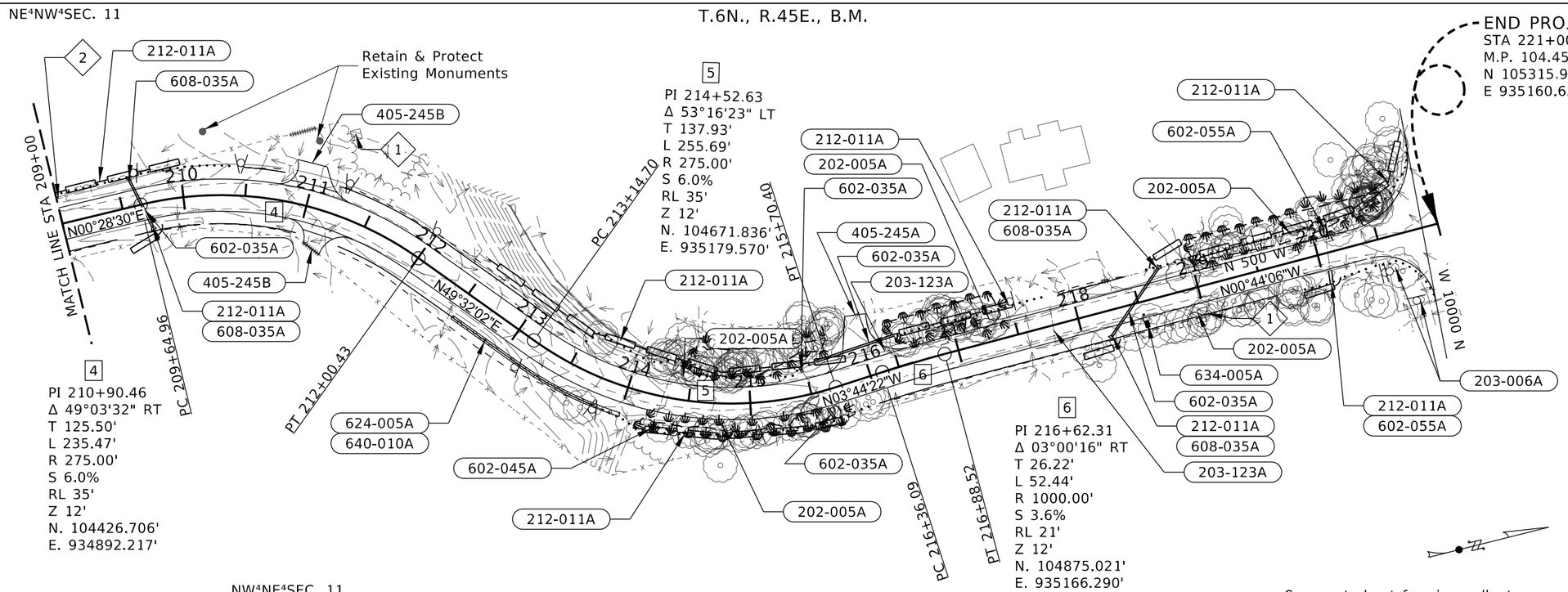
PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION,
TETON CO
STA 197+00 TO STA 209+00

ENGLISH
COUNTY TETON
KEY NUMBER 21983
SHEET 30 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

NE⁴NW⁴SEC. 11

T.6N., R.45E., B.M.



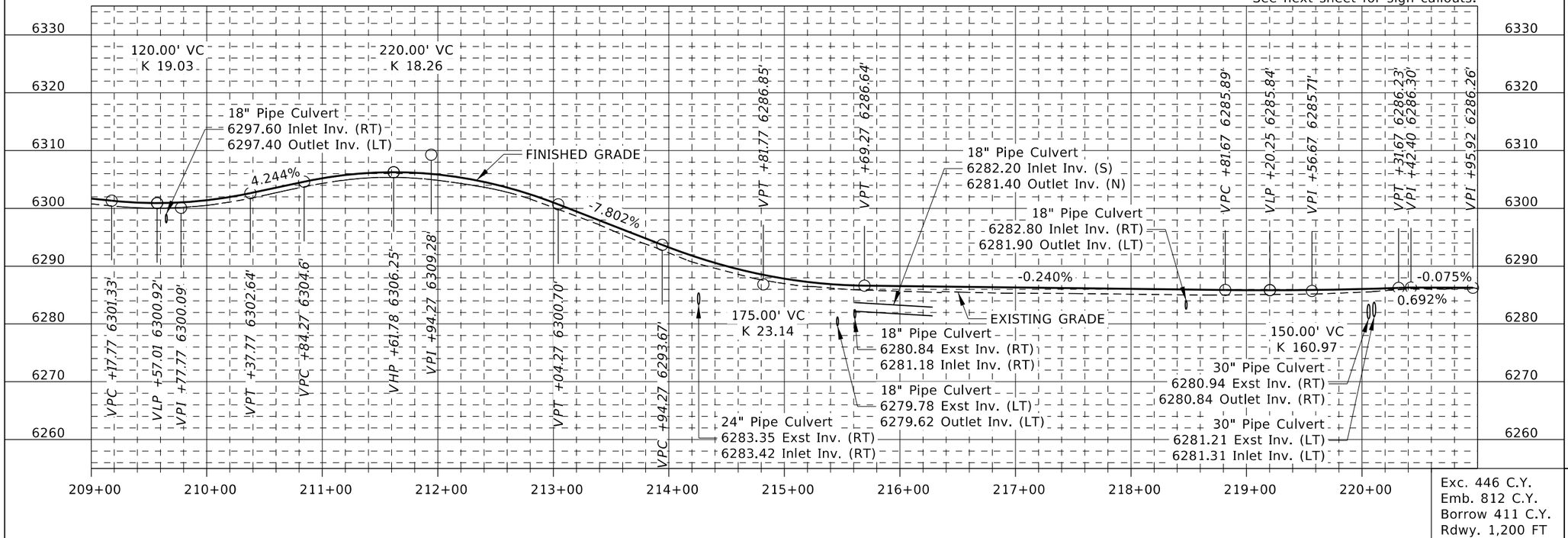
4
PI 210+90.46
Δ 49°03'32" RT
T 125.50'
L 235.47'
R 275.00'
S 6.0%
RL 35'
Z 12'
N. 104426.706'
E. 934892.217'

5
PI 214+52.63
Δ 53°16'23" LT
T 137.93'
L 255.69'
R 275.00'
S 6.0%
RL 35'
Z 12'
N. 104671.836'
E. 935179.570'

6
PI 216+62.31
Δ 03°00'16" RT
T 26.22'
L 52.44'
R 1000.00'
S 3.6%
RL 21'
Z 12'
N. 104875.021'
E. 935166.290'

NW⁴NE⁴SEC. 11

See next sheet for sign callouts.



Exc. 446 C.Y.
Emb. 812 C.Y.
Borrow 411 C.Y.
Rdwy. 1,200 FT

(202-005A) SELECTIVE REMOVAL OF TREES INCLUDING STUMPS

76	EACH	STA 214+00
	TO	STA 221+00

(203-006A) REMOVAL OF SIGN

1	EACH	STA 220+58 RT
1	EACH	STA 220+71 RT

(203-123A) REMOVAL OF MISCELLANEOUS ITEMS (PIPE)

63	FT	STA 215+66 22' LT
	TO	STA 216+29 14' LT
30	FT	STA 217+78 13' RT
	TO	STA 217+81 17' LT

(212-011A) FIBER WATTLE

100	FT	STA 209+00 LT
	TO	STA 210+00 LT
25	FT	STA 209+71 RT
333	FT	STA 212+47 LT
	TO	STA 215+80 LT
200	FT	STA 214+10 RT
	TO	STA 215+75 RT
125	FT	STA 216+23 LT
	TO	STA 217+48 LT
25	FT	STA 218+23 RT
25	FT	STA 218+72 LT
225	FT	STA 218+00 LT
	TO	STA 220+90 LT
25	FT	STA 220+05 RT

(405-245A) APPROACH (ASPHALT)

1	EACH	STA 216+03 LT W = 17'

(405-245B) APPROACH (GRAVEL)

1	EACH	STA 210+96 LT W = 25'
1	EACH	STA 211+14 RT W = 16'

UTILITY

1 RETAIN & PROTECT EXISTING SILVER STAR COMM.

2 RETAIN & PROTECT EXISTING FALL RIVER ELECTRIC

NOTES

1. Contractor to confirm all utility locations prior to construction through potholing or other means.
2. Contractor to confirm existing pipe sizes prior to ordering pipe material.
3. Existing cover is forest.
4. Trees within the 12' clear zone are to be removed. Final count is to be verified during construction.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_012.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

PROJECT PLAN / PROFILE SHEET
N 500 W RECONSTRUCTION, TETON CO
STA 209+00 TO STA 221+00

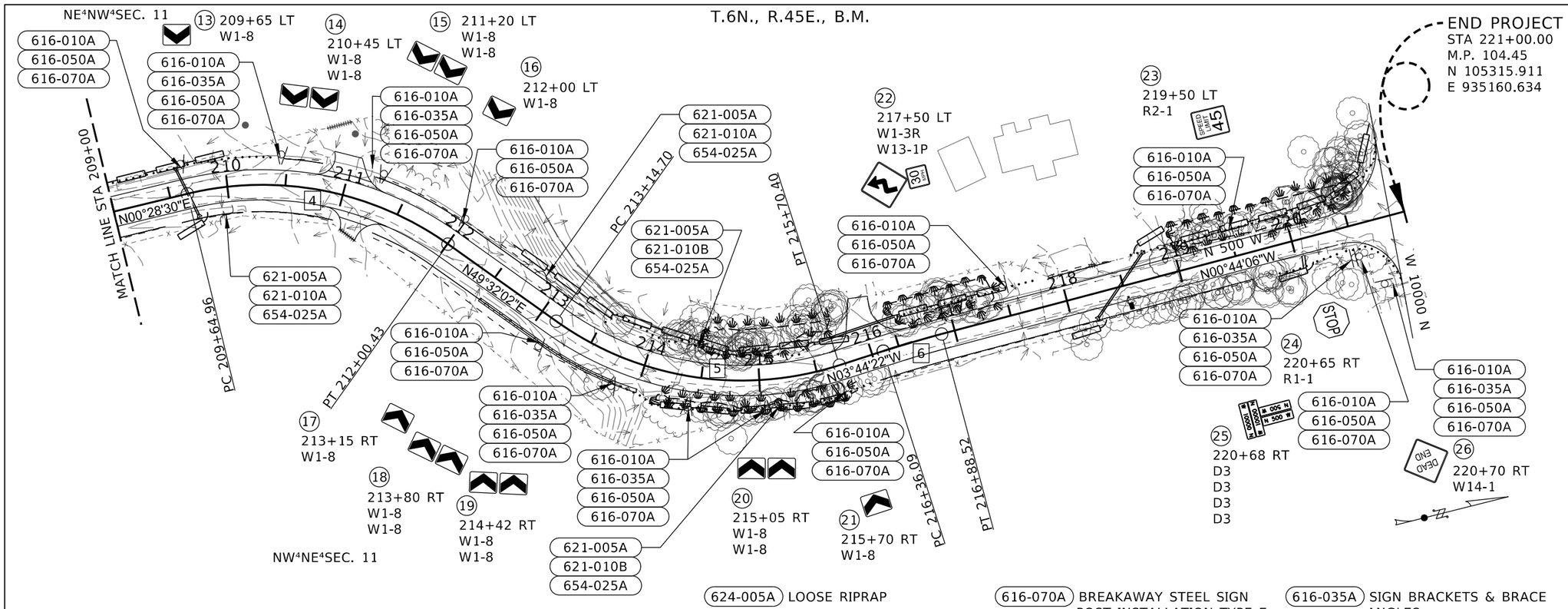
ENGLISH

COUNTY TETON

KEY NUMBER 21983

SHEET 31 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM



624-005A LOOSE RIPRAP

5.5	CY	STA 212+50 RT
	TO	STA 214+00 RT

630-025A LONGITUDINAL PAVEMENT MARKING - WATERBORNE

4" Double Solid Yellow Line

4660	FT	STA 209+00 0' RT
	TO	STA 220+65 0' RT

4" Solid White Line

2330	FT	STA 209+00 12' RT
	TO	STA 220+65 12' RT
2330	FT	STA 209+00 12' LT
	TO	STA 220+65 12' LT

634-005A MAILBOX (TYPE A)

1	EACH	STA 218+53 RT

640-010A RIPRAP/EROSION CONTROL GEOTEXTILE

50	SY	STA 212+50 RT
	TO	STA 214+00 RT

654-025A COMPOST

0.22	ACRE	STA 209+00
	TO	STA 221+00

616-070A BREAKAWAY STEEL SIGN POST INSTALLATION TYPE E

1	EACH	STA 209+65 LT
1	EACH	STA 210+45 LT
1	EACH	STA 211+20 LT
1	EACH	STA 212+00 LT
1	EACH	STA 213+15 RT
1	EACH	STA 213+80 RT
1	EACH	STA 214+42 RT
1	EACH	STA 215+05 RT
1	EACH	STA 215+70 RT
2	EACH	STA 217+50 LT
1	EACH	STA 219+50 LT
1	EACH	STA 220+65 RT
1	EACH	STA 220+68 RT
1	EACH	STA 220+70 RT

621-005A SEED BED PREPARATION

0.11	ACRE	STA 209+00
	TO	STA 221+00

621-010A SEEDING (ROADSIDE)

0.10	ACRE	STA 209+00
	TO	STA 221+00

621-010B SEEDING (WETLAND)

0.013	ACRE	STA 209+00
	TO	STA 221+00

616-035A SIGN BRACKETS & BRACE ANGLES

10.42	LB	STA 210+45 LT
10.42	LB	STA 211+20 LT
10.42	LB	STA 213+80 RT
10.42	LB	STA 214+42 RT
10.42	LB	STA 215+05 RT
24	LB	STA 220+65 RT
17	LB	STA 220+70 RT

616-050A BREAKAWAY STEEL SIGN POST TYPE E

29.6	LB	STA 209+65 LT
29.0	LB	STA 210+45 LT
24.2	LB	STA 211+20 LT
24.2	LB	STA 212+00 LT
16.9	LB	STA 213+15 RT
27.2	LB	STA 213+80 RT
36.3	LB	STA 214+42 RT
30.9	LB	STA 215+05 RT
31.5	LB	STA 215+70 RT
140.4	LB	STA 217+50 LT
47.1	LB	STA 219+50 LT
44.1	LB	STA 220+65 RT
30.3	LB	STA 220+68 RT
42.1	LB	STA 220+70 RT

602-035A 18" PIPE CULVERT

42	FT	STA 209+60.6 21.7' LT
	TO	STA 209+70.5 19.4' RT
5	FT	STA 215+47.2 18.8' LT
	TO	STA 215+45.1 23.6' LT
11	FT	STA 215+59.5 13.6' RT
	TO	STA 215+62.8 24.1' RT
67	FT	STA 215+60.6 24.5' LT
	TO	STA 216+28.3 25.7' RT
65	FT	STA 218+23.1 20.3' RT
	TO	STA 218+72.4 22.5' LT

602-045A 24" PIPE CULVERT

7	FT	STA 214+26.3 23.4' RT
	TO	STA 214+25.5 29.9' RT

602-055A 30" PIPE CULVERT

10	FT	STA 220+06.4 14.6' RT
	TO	STA 220+05.1 24.7' RT
11	FT	STA 220+09.9 12.8' LT
	TO	STA 220+11.4 23.3' LT

608-035A 18" APRON FOR PIPE

1	EACH	STA 209+60.6 21.7' LT
1	EACH	STA 209+70.5 19.4' RT
1	EACH	STA 218+23.1 20.3' RT
1	EACH	STA 218+72.4 22.5' LT

616-010A SIGNS TYPE B

3	SF	STA 209+65 LT
6	SF	STA 210+45 LT
6	SF	STA 211+20 LT
3	SF	STA 212+00 LT
3	SF	STA 213+15 RT
6	SF	STA 213+80 RT
6	SF	STA 214+42 RT
6	SF	STA 215+05 RT
3	SF	STA 215+70 RT
11.3	SF	STA 217+50 LT
5	SF	STA 219+50 LT
9	SF	STA 220+65 RT
10	SF	STA 220+68 RT
9	SF	STA 220+70 RT

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_PLPR_012-2.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	PROJECT PLAN / PROFILE SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO STA 209+00 TO STA 221+00

ENGLISH

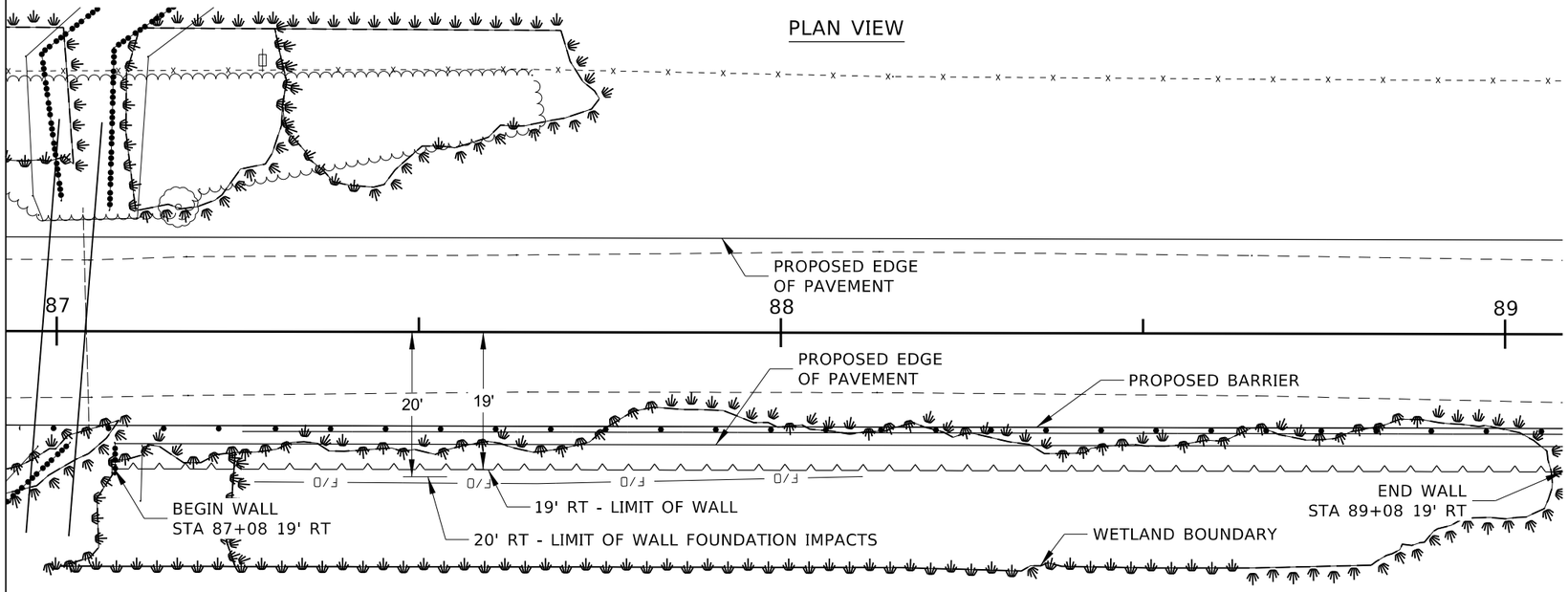
COUNTY TETON

KEY NUMBER 21983

SHEET 32 OF 41

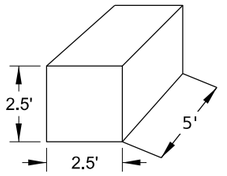
PROFESSIONAL ENGINEER LICENSED Benjamin A. Bingham 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

PLAN VIEW



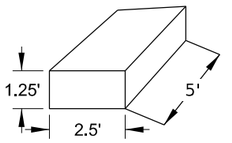
TYPICAL FULL SIZED BLOCK

N.T.S.

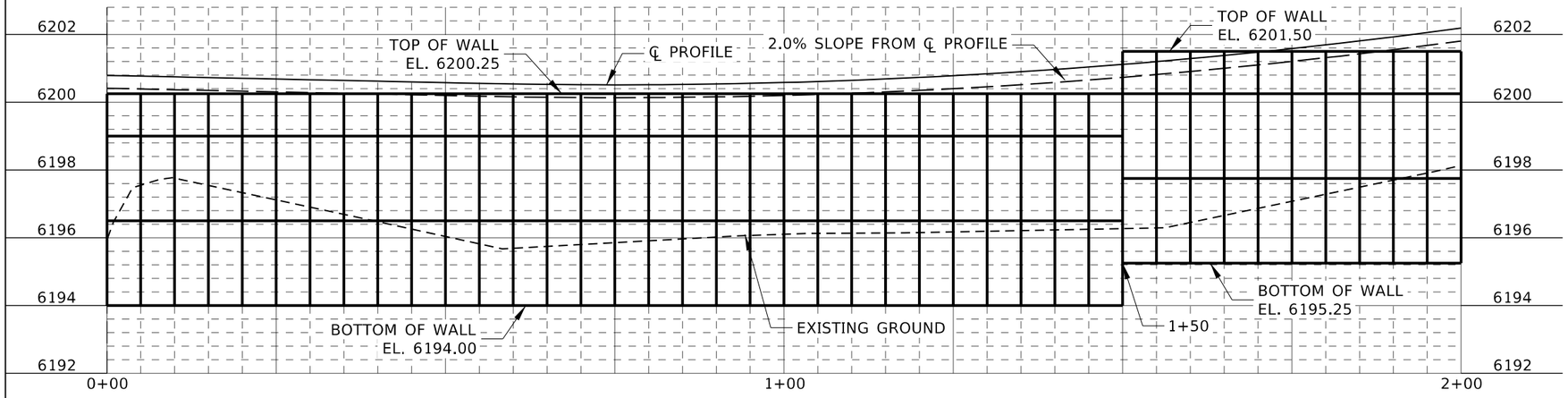


TYPICAL HALF SIZED BLOCK

N.T.S.



PROFILE VIEW

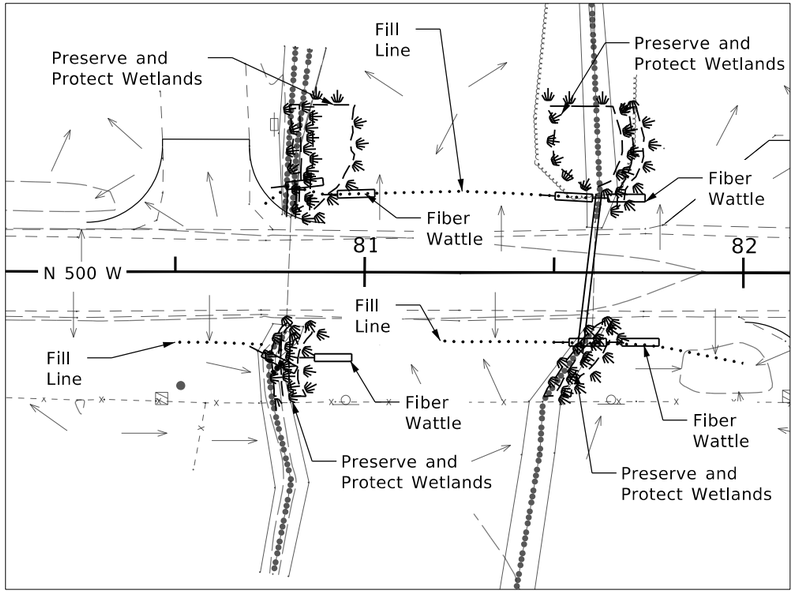


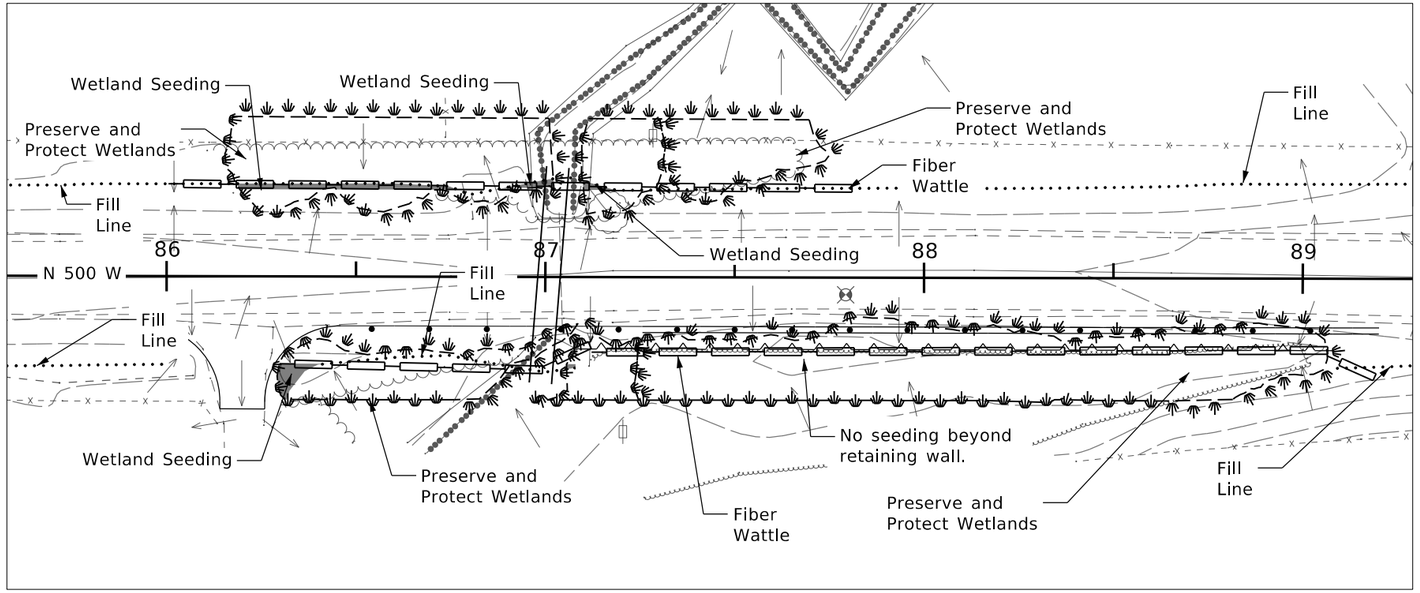
TOTAL AREA - 1,250 SF

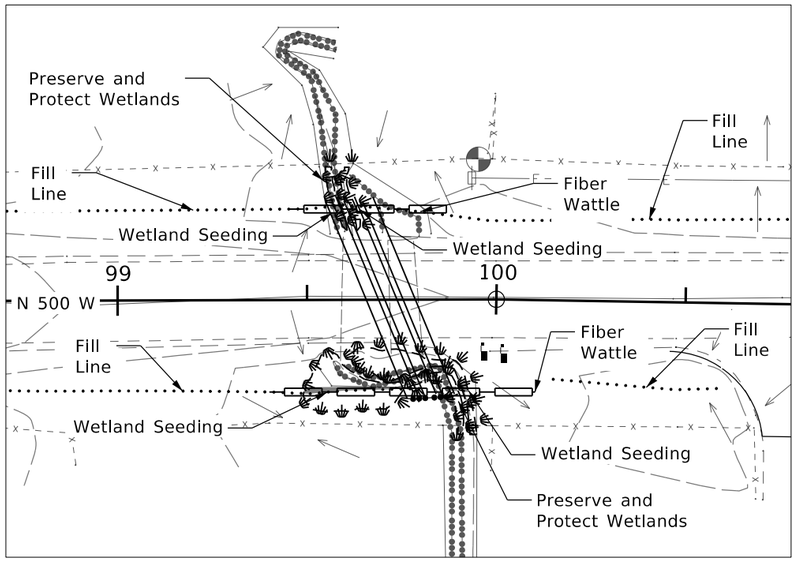
REVISIONS				DESIGNED	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT	PROJECT NO.	RETAINING WALL DETAIL SHEET	ENGLISH
NO.	DATE	BY	DESCRIPTION	B. BINGHAM		YOUR Safety→YOUR Mobility→YOUR Economic Opportunity	A021(983)	N 500 W RECONSTRUCTION, TETON CO	COUNTY TETON
				DESIGN CHECKED R. RAMSEY		CIVIL SCIENCE			KEY NUMBER 21983
				DETAILED B. BINGHAM	CADD FILE NAME 21983_rdtl_001.DGN				SHEET 33 OF 41
				DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023				

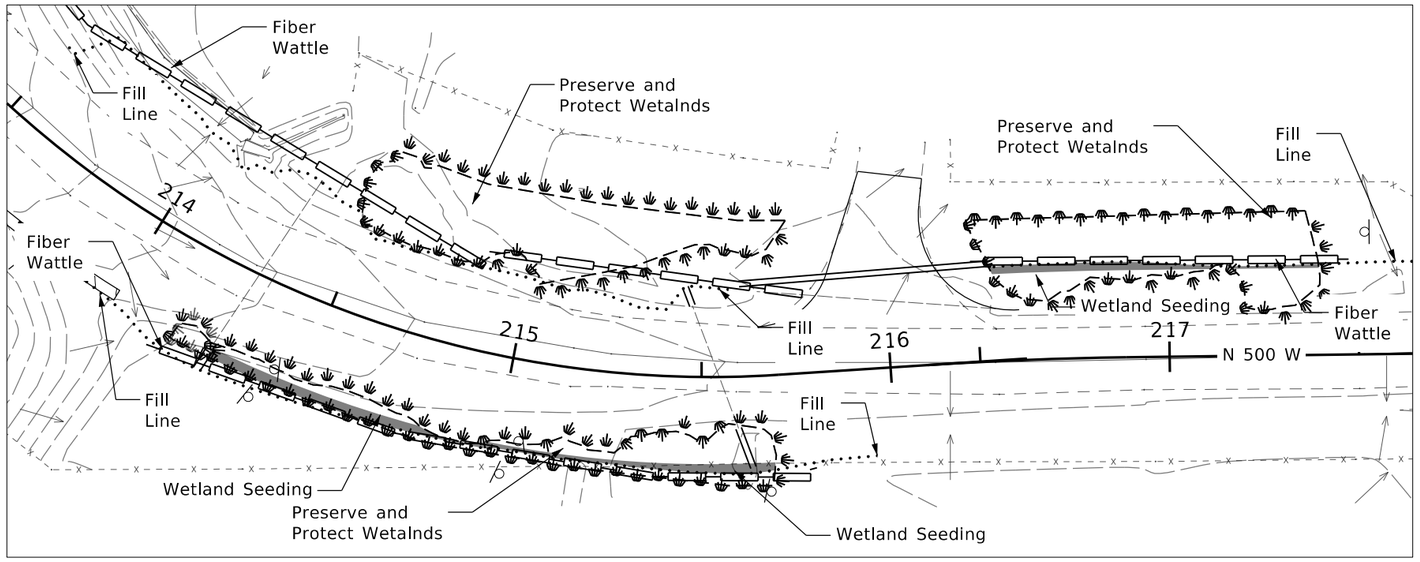
PROFESSIONAL ENGINEER LICENSED
Benjamin A Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

Seed all disturbed areas outside of 23' from centerline.









REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED	B. BINGHAM
DESIGN CHECKED	R. RAMSEY
DETAILED	Z. BYINGTON
DRAWING CHECKED	R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 21983_RDTL_002.DGN

DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

CIVIL SCIENCE

PROJECT NO.

A021(983)

SWPPP DETAIL SHEET

N 500 W RECONSTRUCTION, TETON CO

ENGLISH

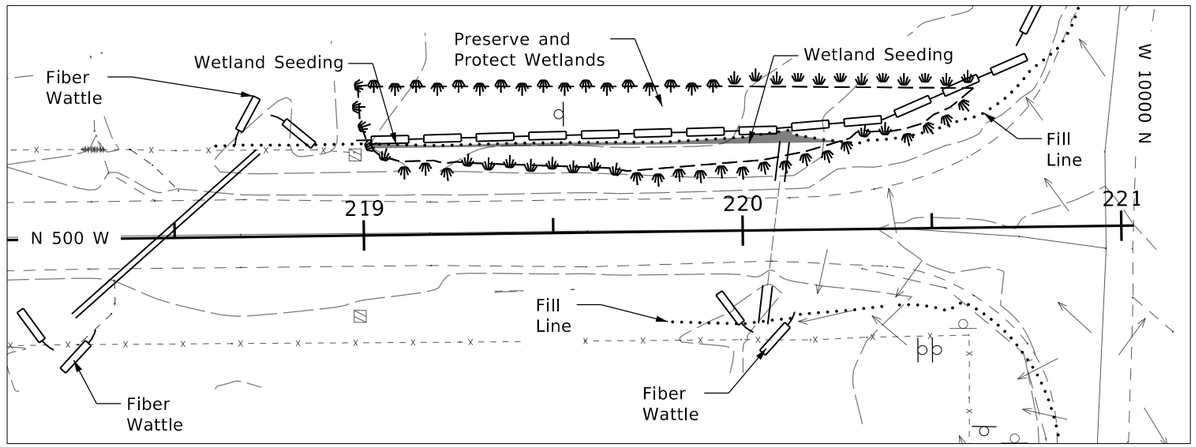
COUNTY TETON

KEY NUMBER 21983

SHEET 34 OF 41

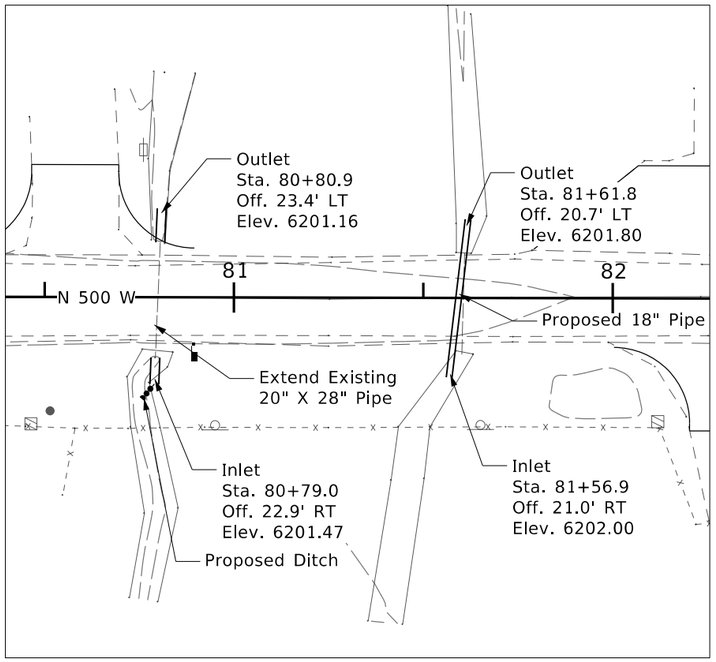
PROFESSIONAL ENGINEER LICENSED
Benjamin A. Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

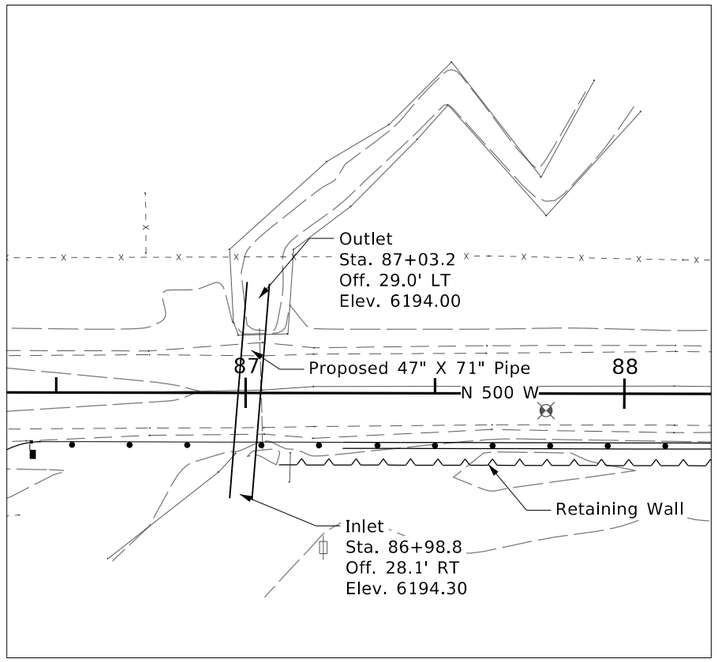
Seed all disturbed areas outside of 23' from centerline.



REVISIONS				DESIGNED	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT	PROJECT NO.	SWPPP DETAIL SHEET	ENGLISH
NO.	DATE	BY	DESCRIPTION	B. BINGHAM		YOUR Safety→YOUR Mobility→YOUR Economic Opportunity	A021(983)	N 500 W RECONSTRUCTION, TETON CO	COUNTY TETON
				DESIGN CHECKED R. RAMSEY					KEY NUMBER 21983
				DETAILED Z. BYINGTON	CADD FILE NAME 21983_RDTL_003.DGN	CIVIL SCIENCE			SHEET 35 OF 41
				DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023				

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM



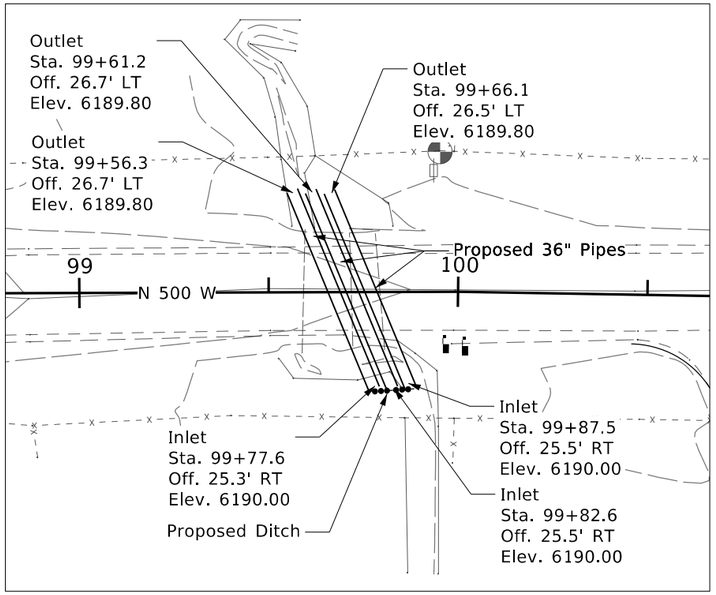


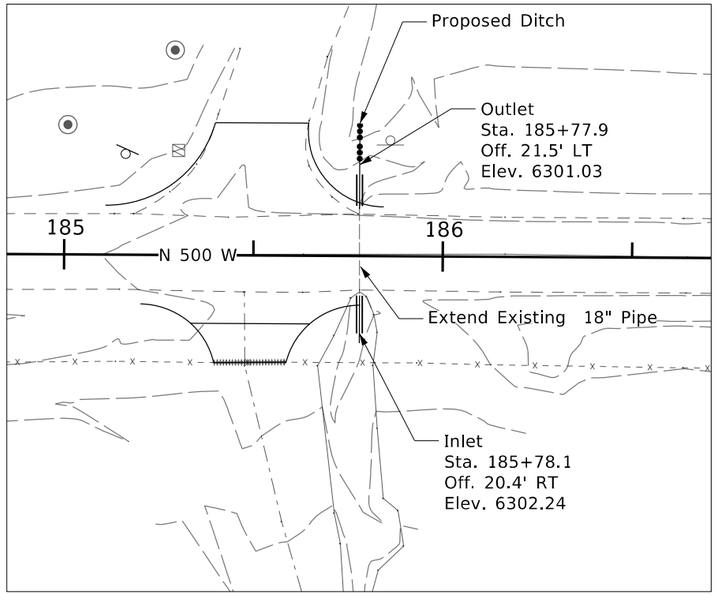
Confirm existing pipe size, material, and location prior to ordering pipe and aprons.

Coordinate with the Engineer if existing conditions are different than what is depicted in the plans.

Structural excavation, compacting backfill, and existing imported material is considered incidental to the culvert item.

Details not shown for all pipes on the project.





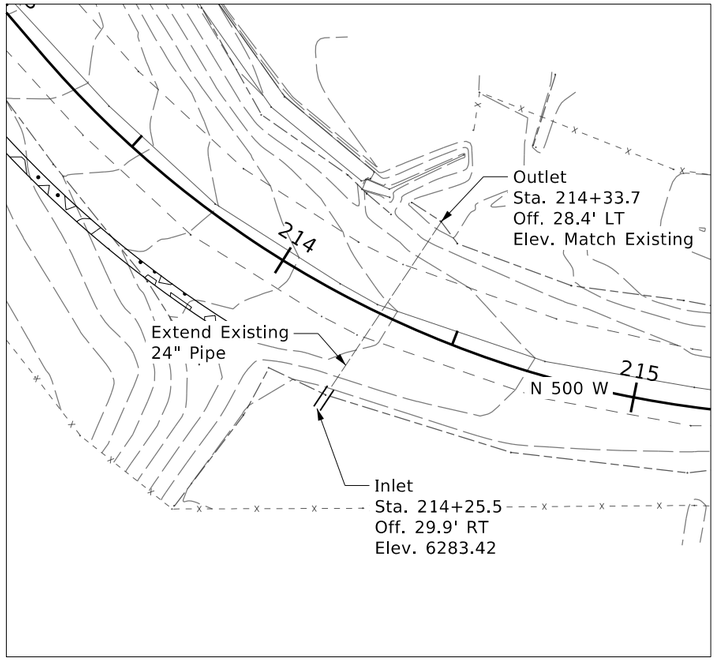
REVISIONS			
NO.	DATE	BY	DESCRIPTION

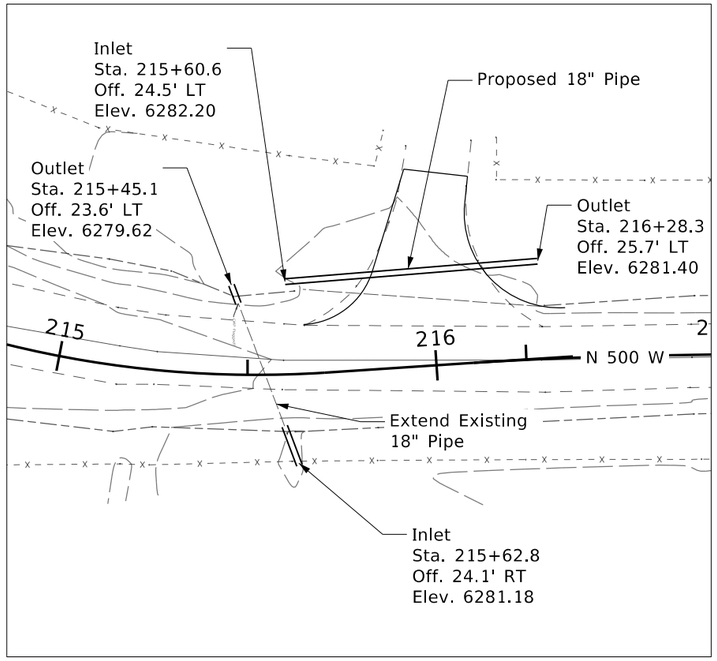
DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT YOUR Safety→YOUR Mobility→YOUR Economic Opportunity CIVIL SCIENCE
DESIGN CHECKED R. RAMSEY		
DETAILED Z. BYINGTON	CADD FILE NAME $FILE$	
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023	

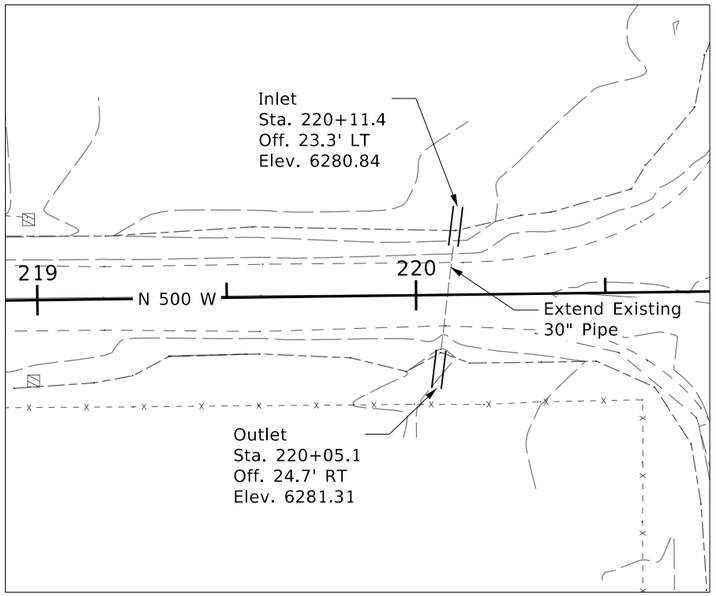
PROJECT NO.	PIPE DETAIL SHEET	
A021(983)	N 500 W RECONSTRUCTION, TETON CO	ENGLISH COUNTY TETON KEY NUMBER 21983 SHEET 36 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

Benjamin A Bingham







Confirm existing pipe size, material, and location prior to ordering pipe and aprons.

Coordinate with the Engineer if existing conditions are different than what is depicted in the plans.

Structural excavation, compacting backfill, and existing imported material is considered incidental to the culvert item.

Details not shown for all pipes on the project.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED Z. BYINGTON	CADD FILE NAME $FILE$
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	PIPE DETAIL SHEET
A021(983)	N 500 W RECONSTRUCTION, TETON CO

ENGLISH

COUNTY	TETON
KEY NUMBER	21983
SHEET	37 OF 41

PROFESSIONAL ENGINEER LICENSED
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

SIGN ASSEMBLY	STATION, OFFSET (XXX+XX.XX, RT/LT, SHLD. OR MEDIAN IF ON DIVIDED HWY)		RAMP NUMBER OR LOCAL STREET	FOUNDATION SIZE (INxIN OR INxINxIN)	POST TYPE (A-X, B-X, D-X, E-X)	OFFSET FROM SHLD. OR FACE OF CURB TO POST 1 CENTER (FT)	DISTANCE BETWEEN POSTS (IF USING 2 OR 3 POSTS, FT)	POST 1 LENGTH* (FT)	POST 2 LENGTH* (IF USING 2 OR 3 POSTS, FT)	POST 3 LENGTH* (IF USING 3 POSTS, FT)	DISTANCE FROM SHOULDER OR TOP OF CURB TO SIGN BOTTOM (FT)	SIGN TYPE (B-X, C-X, E)	SIGN DESIGNATION	SIGN SIZE† (INxIN)	SIGN AREA (SF)	SIGN BACKGROUND† COLOR	MAIN SIGN LEGEND† COLOR	SIGN BRACE WEIGHT (LBS)	SIGN BRACKET WEIGHT (LBS)	BRACKET NUMBER	NOTES (SIGN LEGEND, SIGN DESCRIPTION, ETC.)
1	100+98	RT	W 7750 N	8x8x36	E-2	13.50	N/A	12.25	N/A	N/A	5.25	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	40x9	2.5	Green	White				W 7750 N
												B	D3	40x9	2.5	Green	White				W 7750 N
2	102+31	LT	SANDCRANE LN	8x8x36	E-2	13.50	N/A	12.50	N/A	N/A	5.00	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	55x9	3.4	Green	White				SANDCRANE LN
												B	D3	55x9	3.4	Green	White				SANDCRANE LN
3	121+84	RT	N 500 W	8x8x36	E-2	14.50	N/A	9.75	N/A	N/A	4.25	B	W1-5R	36x36	9	Yellow	Black	17.00			
												B	W13-1P	18x18	2.3	Yellow	Black				35 MPH
4	122+85	LT	WINDBREAK	8x8x36	E-2	13.50	N/A	13.50	N/A	N/A	5.25	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	41x9	2.6	Green	White				WINDBREAK
												B	D3	41x9	2.6	Green	White				WINDBREAK
5	135+73	LT	N 500 W	8x8x36	E-2	13.50	1	13.75	5.50	13.75	4.25	B	W1-5L	36x36	9	Yellow	Black				Post 2 is used to mount 35 MPH Sign to the Curve Sign
												B	W13-1P	18x18	2.3	Yellow	Black				35 MPH
6	137+17	LT	W 8450 N	8x8x36	E-2	13.50	N/A	12.25	N/A	N/A	5.25	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	40x9	2.5	Green	White				W 8450 N
												B	D3	40x9	2.5	Green	White				W 8450 N
7	144+66	RT	OLD DRY RIDGE RD	8x8x36	E-2	13.50	N/A	11.75	N/A	N/A	5.00	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	72x9	4.5	Green	White				OLD DRY RIDGE RD
												B	D3	72x9	4.5	Green	White				OLD DRY RIDGE RD
8	153+11	LT	W 8750 N	8x8x36	E-2	13.50	N/A	12.00	N/A	N/A	5.00	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	39x9	2.4	Green	White				W 8750 N
												B	D3	39x9	2.4	Green	White				W 8750 N
9	173+10	LT	W 9100 N	8x8x36	E-2	13.50	N/A	10.25	N/A	N/A	5.25	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	38x9	2.4	Green	White				W 9100 N
												B	D3	38x9	2.4	Green	White				W 9100 N
10	185+28	LT	LEAFCUTTER LN	8x8x36	E-2	13.50	N/A	12.50	N/A	N/A	5.00	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	56x9	3.5	Green	White				LEAFCUTTER LN
												B	D3	56x9	3.5	Green	White				LEAFCUTTER LN
11	199+83	LT	LUCKY DR	8x8x36	E-2	13.50	N/A	11.25	N/A	N/A	5.25	B	R1-1	30x30	6.3	Red	White				
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	38x9	2.4	Green	White				LUCKY DR
												B	D3	38x9	2.4	Green	White				LUCKY DR
12	208+50	RT	N 500 W	8x8x36	E-2	16.40	N/A	11.25	N/A	N/A	4.50	B	W1-3R	36x36	9.0	Yellow	Black	17.00			
												B	W13-1P	18x18	2.3	Yellow	Black				30 MPH
13	209+65	LT	N 500 W	8x8x36	E-1	13.50	N/A	12.25	N/A	N/A	5.00	B	W1-8	18x24	3.0	Yellow	Black				
14	210+45	LT	N 500 W	8x8x36	E-1	13.50	N/A	12.00	N/A	N/A	5.25	B	W1-8	18x24	3.0	Yellow	Black		10.42		See Sign Detail
												B	W1-8	18x24	3.0	Yellow	Black				
15	211+20	LT	N 500 W	8x8x36	E-1	13.50	N/A	10.00	N/A	N/A	5.25	B	W1-8	18x24	3.0	Yellow	Black		10.42		See Sign Detail
												B	W1-8	18x24	3.0	Yellow	Black				

* POST LENGTHS ARE APPROXIMATE. FINALIZE POST LENGTHS IN THE FIELD BEFORE ASSEMBLY.
† FABRICATE SIGNS IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS AND MARKINGS (SHSM) BOOK, FHWA SHSM SUPPLEMENT, ITD SHSM SUPPLEMENT, OR AS SPECIFIED.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM
DESIGN CHECKED R. RAMSEY
DETAILED Z. BYINGTON
DRAWING CHECKED R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
CADD FILE NAME 21983_SESM_001.DGN
DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

SIGNING ERECTION SPECIFICATIONS
N 500 W RECONSTRUCTION, TETON CO

ENGLISH
COUNTY TETON
KEY NUMBER 21983

PROFESSIONAL ENGINEER LICENSED
Benjamin A Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

SIGN ASSEMBLY	STATION, OFFSET (XXX+XX.XX, RT/LT, SHLD, OR MEDIAN IF ON DIVIDED HWY)		RAMP NUMBER OR LOCAL STREET	FOUNDATION SIZE (INxIN OR INxINxIN)	POST TYPE (A-X, B-X, D-X, E-X)	OFFSET FROM SHLD. OR FACE OF CURB TO POST 1 CENTER (FT)	DISTANCE BETWEEN POSTS (IF USING 2 OR 3 POSTS, FT)	POST 1 LENGTH* (FT)	POST 2 LENGTH* (IF USING 2 OR 3 POSTS, FT)	POST 3 LENGTH* (IF USING 3 POSTS, FT)	DISTANCE FROM SHOULDER OR TOP OF CURB TO SIGN BOTTOM (FT)	SIGN TYPE (B-X, C-X, E)	SIGN DESIGNATION	SIGN SIZE† (INxIN)	SIGN AREA (SF)	SIGN BACKGROUND† COLOR	MAIN SIGN LEGEND† COLOR	SIGN BRACE WEIGHT (LBS)	SIGN BRACKET WEIGHT (LBS)	BRACKET NUMBER	NOTES (SIGN LEGEND, SIGN DESCRIPTION, ETC.)
16	212+00	LT	N 500 W	8x8x36	E-1	13.50	N/A	10.00	N/A	N/A	5.25	B	W1-8	18x24	3.0	Yellow	Black				
17	213+15	RT	N 500 W	8x8x36	E-1	13.50	N/A	7.00	N/A	N/A	5.25	B	W1-8	18x24	3.0	Yellow	Black				
18	213+80	RT	N 500 W	8x8x36	E-1	13.50	N/A	11.25	N/A	N/A	5.00	B	W1-8	18x24	3.0	Yellow	Black		10.42		See Sign Detail
												B	W1-8	18x24	3.0	Yellow	Black				
19	214+42	RT	N 500 W	8x8x36	E-1	13.50	N/A	15.00	N/A	N/A	5.00	B	W1-8	18x24	3.0	Yellow	Black		10.42		See sign detail
												B	W1-8	18x24	3.0	Yellow	Black				
20	215+05	RT	N 500 W	8x8x36	E-1	13.50	N/A	12.75	N/A	N/A	5.00	B	W1-8	18x24	3.0	Yellow	Black		10.42		See sign detail
												B	W1-8	18x24	3.0	Yellow	Black				
21	215+70	RT	N 500 W	8x8x36	E-1	13.50	N/A	13.00	N/A	N/A	5.25	B	W1-8	18x24	3.0	Yellow	Black				
22	217+50	LT	N 500 W	8x8x36	E-2	13.50	1	14.75	5.50	14.75	4.25	B	W1-3R	36x36	9.0	Yellow	Black				Post 2 is used to mount 30 MPH Sign to the Curve Sign
												B	W13-1P	18x18	2.3	Yellow	Black				30 MPH
23	219+50	LT	N 500 W	8x8x36	E-2	13.50	N/A	11.75	N/A	N/A	5.25	B	R2-1	24x30	5	White	Black				45 MPH
24	220+65	RT	N 500 W	8x8x36	E-2	14.30	N/A	11.00	N/A	N/A	5.25	B	R1-1	36x36	9	Red	White	24.00			
25	220+68	RT	W 500 N	8x8x36	E-1	13.80	N/A	12.50	N/A	N/A	8.25	B	D3	43x9	2.7	Green	White				W 10000 N
												B	D3	43x9	2.7	Green	White				W 10000 N
												B	D3	36x9	2.3	Green	White				N 500 W
												B	D3	36x9	2.3	Green	White				N 500 W
26	220+70	RT	W 10000 N	8x8x36	E-2	14.50	N/A	10.50	N/A	N/A	5.50	B	W14-1	36x36	9.0	Yellow	Black	17.00			

* POST LENGTHS ARE APPROXIMATE. FINALIZE POST LENGTHS IN THE FIELD BEFORE ASSEMBLY.
† FABRICATE SIGNS IN ACCORDANCE WITH THE FHWA STANDARD HIGHWAY SIGNS AND MARKINGS (SHSM) BOOK, FHWA SHSM SUPPLEMENT, ITD SHSM SUPPLEMENT, OR AS SPECIFIED.

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED	B. BINGHAM
DESIGN CHECKED	R. RAMSEY
DETAILED	Z. BYINGTON
DRAWING CHECKED	R. RAMSEY

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME 21983_SESM_002.DGN

DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.
A021(983)

SIGNING ERECTION SPECIFICATIONS
N 500 W RECONSTRUCTION, TETON CO

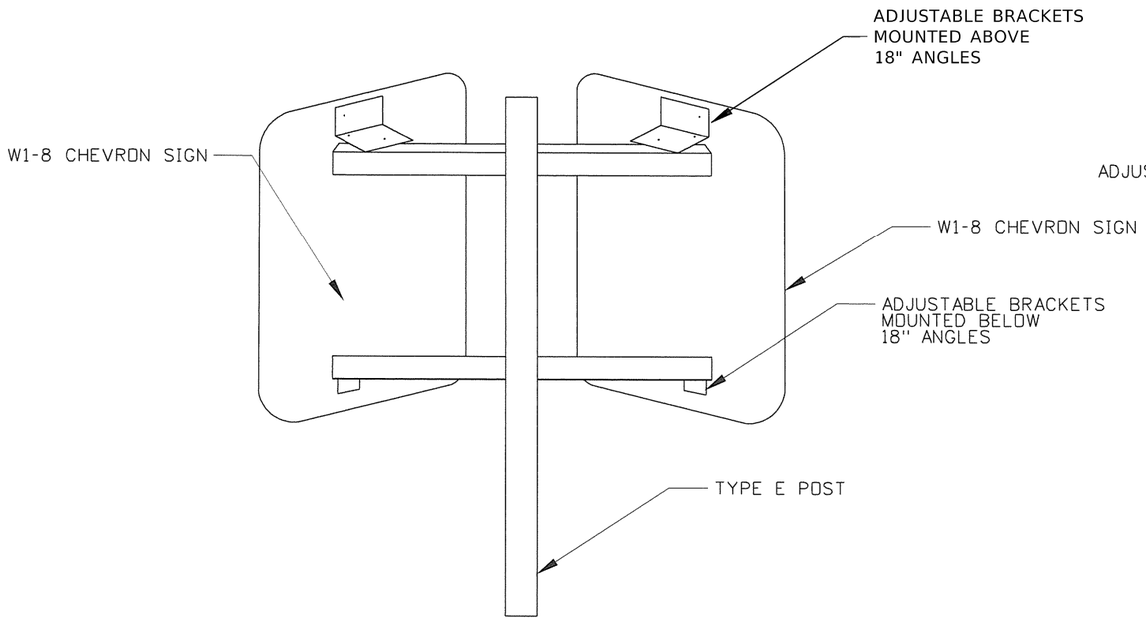
ENGLISH

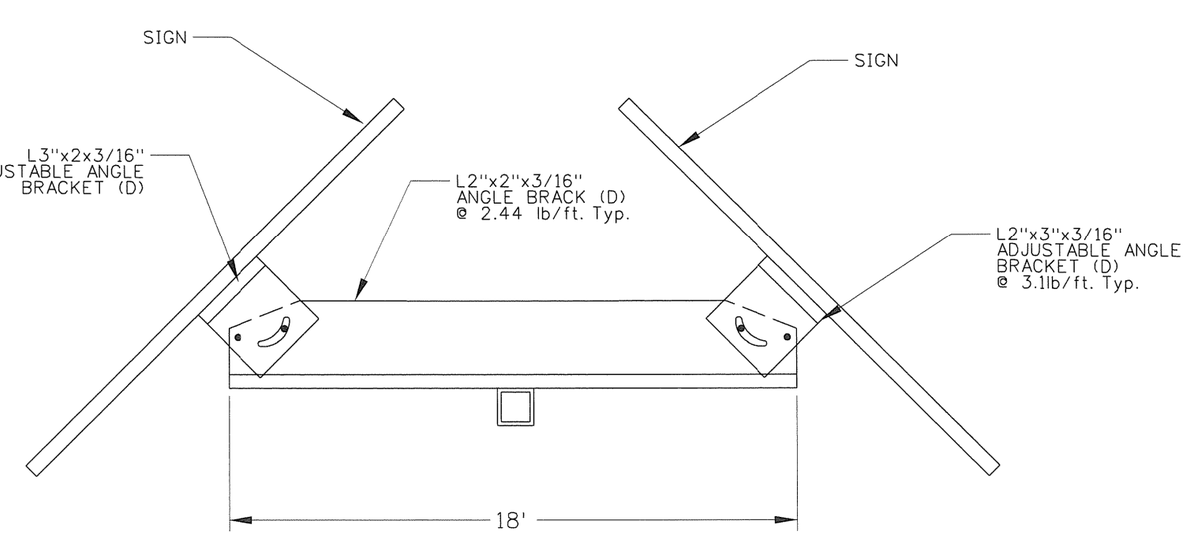
COUNTY TETON

KEY NUMBER 21983

SHEET 39 OF 41

PROFESSIONAL ENGINEER LICENSED 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM





TOP VIEW

ALL ANGLES SHOWN SHALL BE ALUMINUM OR STEEL. THE SIZES ARE THE MINIMUM ALLOWED. LARGER SIZES MAY BE USED IF APPROVED BY THE ENGINEER AT NO ADDITIONAL COST TO THE CONTRACT.

CHEVRON DOUBLE SIGN BRACKET ASSEMBLY

REVISIONS			
NO.	DATE	BY	DESCRIPTION

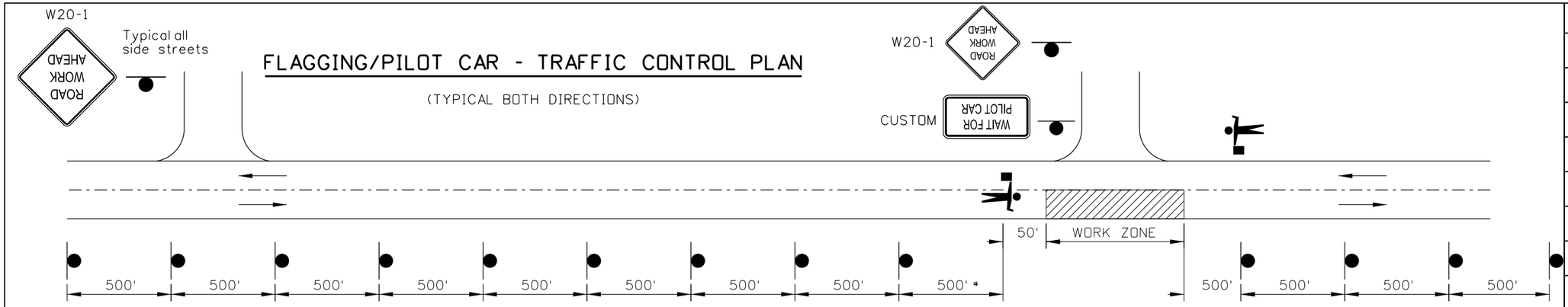
DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT YOUR Safety→YOUR Mobility→YOUR Economic Opportunity CIVIL SCIENCE
DESIGN CHECKED R. RAMSEY		
DETAILED B. BINGHAM	CADD FILE NAME 21983_sdtl_001.DGN	
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023	

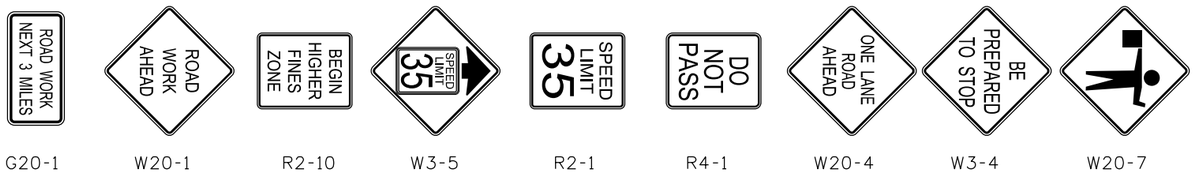
PROJECT NO.	SIGN DETAIL SHEET	
A021(983)	N 500 W RECONSTRUCTION, TETON CO	*ENGLISH* COUNTY TETON KEY NUMBER 21983 SHEET 40 OF 41

PROFESSIONAL ENGINEER LICENSED
Benjamin a Bingham
19331
07/14/2023
STATE OF IDAHO
BENJAMIN A. BINGHAM

FLAGGING/PILOT CAR - TRAFFIC CONTROL PLAN

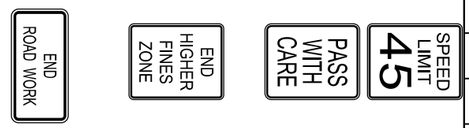
(TYPICAL BOTH DIRECTIONS)





G20-1 W20-1 R2-10 W3-5 R2-1 R4-1 W20-4 W3-4 W20-7

*INCREASE THIS DISTANCE AS NECESSARY FOR QUEUED VEHICLES.



G20-2 R2-11 R4-2 R2-1**

** MATCH SPEED LIMIT WITH ROADWAY'S ORIGINAL SPEED LIMIT

GENERAL NOTES:

Signing and flagging is for one direction only. The same signing sequence is required for both directions.

The use of adhesive type tapes and/or plastic sheeting will not be allowed when covering traffic control signs.

Flashers are required at night if flags are used in the daytime.

Shoulder Drop Off Sign will be used when shoulder drop off exceeds 3" and is within a lateral distance of 10'.

All sign number designations on this sheet refer to the ITD sign chart and may not match those listed in the MUTCD unless otherwise indicated.

All construction signing will meet or exceed the requirements of the MUTCD, as adopted by the State.

All existing signs in conflict with temporary signs, willl be covered while construction signing is in effect.

If the traffic control plan as shown does not conform to the contractor's method of operation, the contractor will submit new traffic control plans for approval.

All distances between signs are minimums and may require spacing adjustments in the field depending on prevailing conditions.

All construction signing and tubular markers will be in place prior to diversion of traffic.

All taper lengths will meet the requirements of the MUTCD. Longitudinal buffer zones will be provided behind lane closures where adequate space exists.

Additional signing may be required as directed by the Engineer.

When construction signs are not applicable they will be either covered or removed.

The contractor will maintain local traffic through the construction area.

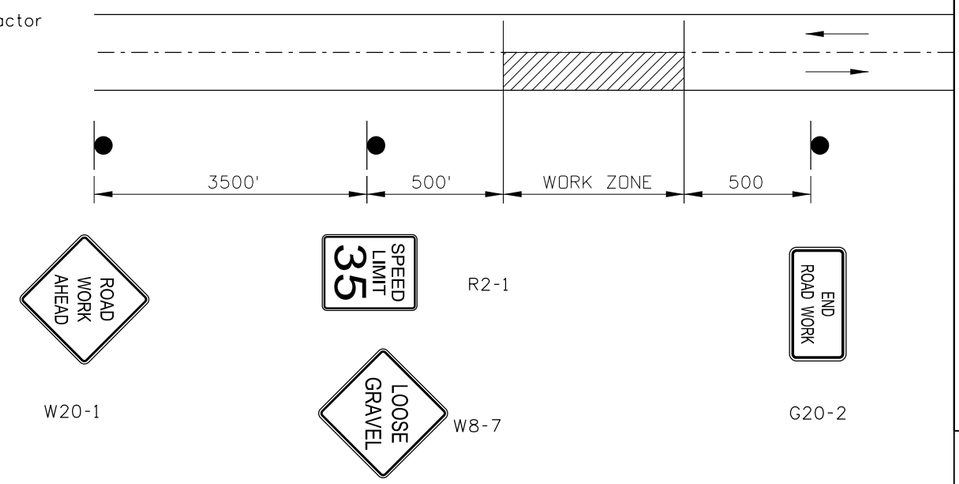
The roadway will be opened up to two-way traffic at the end of each work day.

ADDITIONAL SIGNS - PLACED AS DIRECTED (IF REQUIRED)

W8-17 W8-1 W8-7 G20-4 CUSTOM

TWO LANE OPERATION DETAIL (WEEKEND AND NON-WORKING TIMES)

(TYPICAL BOTH DIRECTIONS)



TEMPORARY TRAFFIC CONTROL SIGNS				
SIGN	SIZE IN	SF	QTY	TOTAL
CUSTOM	36x18	4.5	9	40.5
G20-1	48x24	8	4	32
G20-2	48x24	8	4	32
G20-4	36x18	4.5	1	4.5
R2-1	36x48	12	8	96
R2-10	36x48	12	4	48
R2-11	36x48	12	4	48
R4-1	36x48	12	4	48
R4-2	36x48	12	4	48
W3-4	48x48	16	4	64
W3-5	48x48	16	4	64
W8-1	48x48	16	4	64
W8-7	48x48	16	4	64
W8-17	48x48	16	4	64
W20-1	48x48	16	13	208
W20-4	48x48	16	4	64
W20-7	48x48	16	4	64

TOTAL 1,053
15% CONTINGENCY 158
GRAND TOTAL 1,211

626-010A TEMPORARY TRAFFIC CONTROL SIGNS

1,211 SF

Legend
- Direction of travel
- Flagger
- Sign

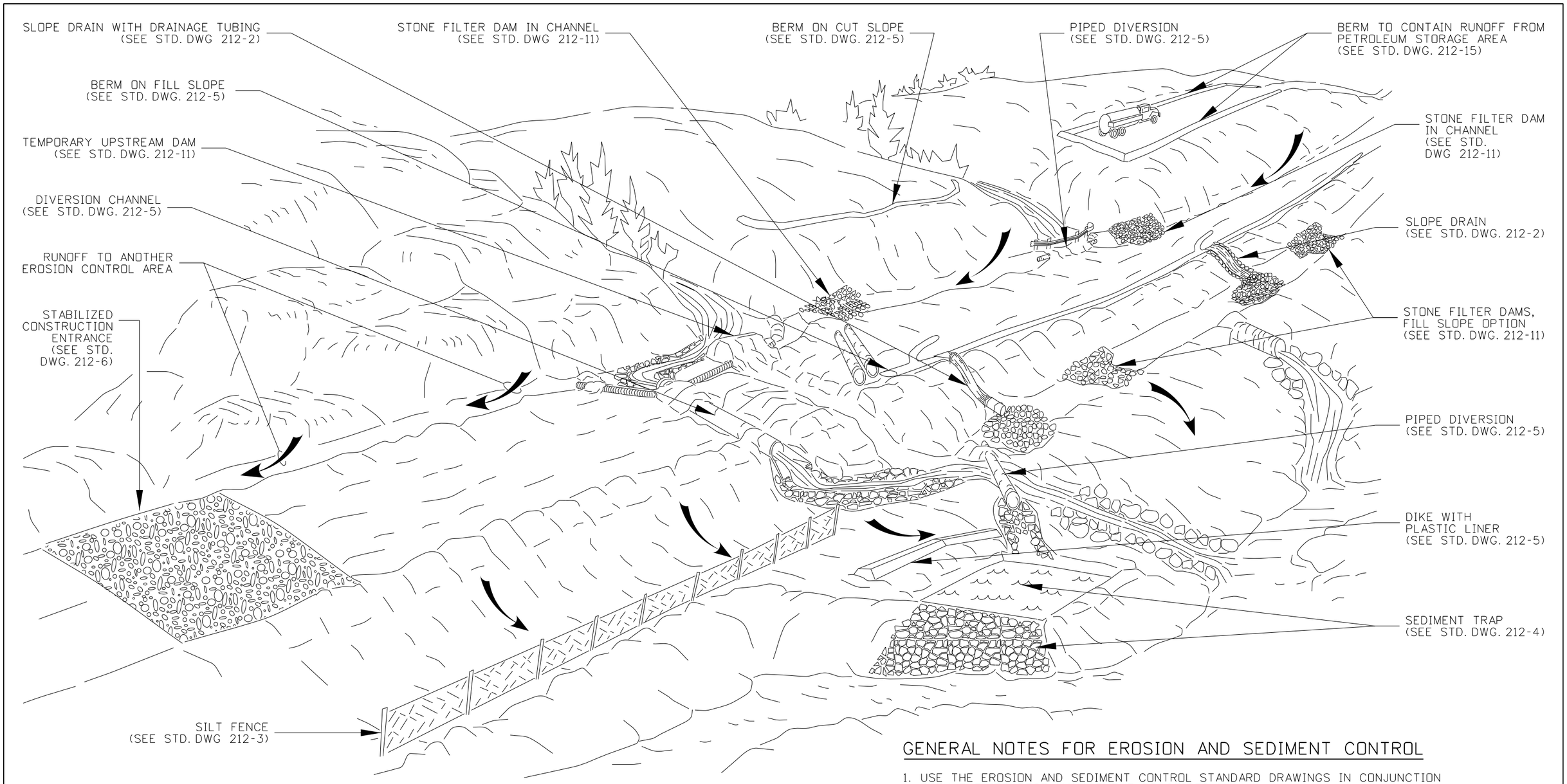
PROFESSIONAL ENGINEER LICENSED Benjamin A. Bingham 19331 07/14/2023 STATE OF IDAHO BENJAMIN A. BINGHAM

REVISIONS			
NO.	DATE	BY	DESCRIPTION

DESIGNED B. BINGHAM	SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY
DESIGN CHECKED R. RAMSEY	
DETAILED B. BINGHAM	CADD FILE NAME 21983_trcp_001.dgn
DRAWING CHECKED R. RAMSEY	DRAWING DATE: 14-JUL-2023

IDAHO TRANSPORTATION DEPARTMENT
YOUR Safety→YOUR Mobility→YOUR Economic Opportunity
CIVIL SCIENCE

PROJECT NO.	TRAFFIC CONTROL PLAN	ENGLISH
A021(983)	N 500 W RECONSTRUCTION, TETON CO	COUNTY TETON KEY NUMBER 21983 SHEET 41 OF 41



GENERAL NOTES FOR EROSION AND SEDIMENT CONTROL

1. USE THE EROSION AND SEDIMENT CONTROL STANDARD DRAWINGS IN CONJUNCTION WITH THE ITD BEST MANAGEMENT PRACTICES MANUAL.
2. THE PLACEMENT OF EROSION CONTROL MEASURES IS SITE SPECIFIC. OBTAIN THE ENGINEER'S APPROVAL OF THE EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO INSTALLATION.
3. EROSION AND SEDIMENT CONTROL MEASURES PLACEMENT AND INSTALLATION MAY BE CONTROLLED BY THE NPDES, 404 PERMIT OR CONTRACT SPECIFICATIONS.
4. DRAWING NOT TO SCALE

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER ORIGINAL SIGNED AND DATED MARCH 18, 2021 STATE OF IDAHO 13683

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	9-93	MSM	6	12-16	RDL			
2	6-96	MSM	7	02-21	TWF			
3	10-10	KEH						
4	10-11	KEH						
5	12-12	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 212-01_0421.dgn

DRAWING DATE: APRIL, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

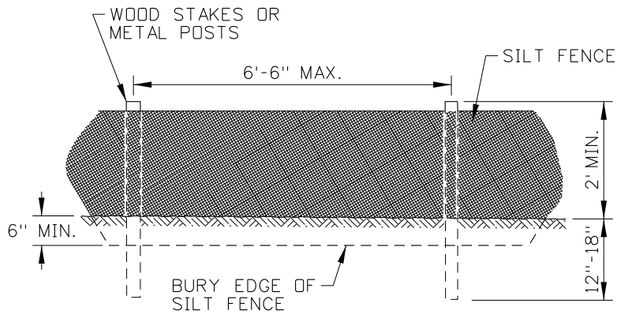
STANDARD DRAWING

EROSION AND SEDIMENT CONTROL EXAMPLE APPLICATIONS

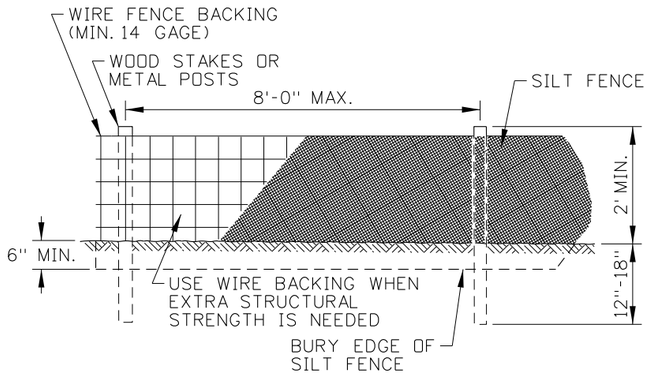
English

STANDARD DRAWING NO. 212-1

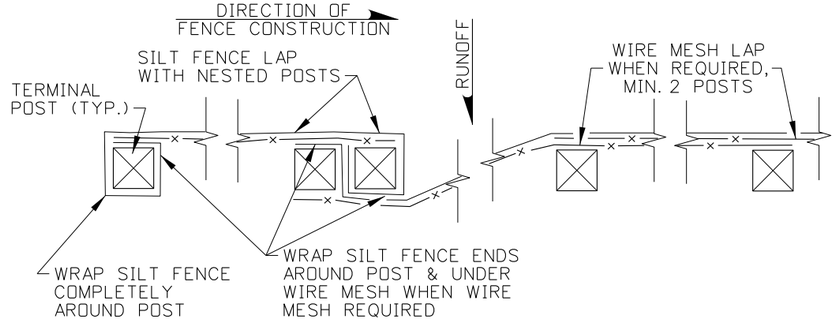
SHEET 1 OF 1



SILT FENCE (NO WIRE BACKING)



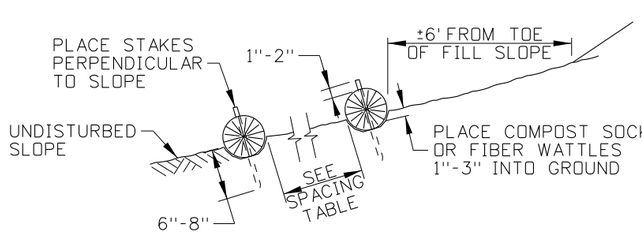
SILT FENCE (WIRE BACKING)



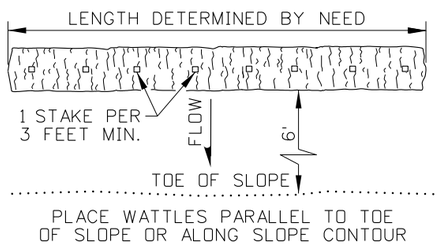
SILT FENCE LAP DETAIL

FIBER WATTLE & COMPOST SOCK SPACING TABLE				
SLOPE	WATTLE SIZE			
	6"	9"	12"	20"
1:1	5 FT	10 FT	15 FT	20 FT
2:1	10 FT	20 FT	30 FT	40 FT
3:1	15 FT	30 FT	45 FT	60 FT
4:1 OR FLATTER	20 FT	40 FT	60 FT	80 FT

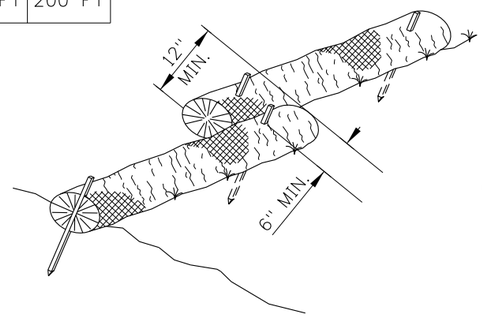
SILT FENCE SPACING TABLE			
SLOPE	SOIL TYPE		
	SILTY	CLAYS	SANDY
1:1	50 FT	75 FT	100 FT
2:1	75 FT	100 FT	125 FT
4:1	100 FT	125 FT	150 FT
10:1 OR FLATTER	125 FT	150 FT	200 FT



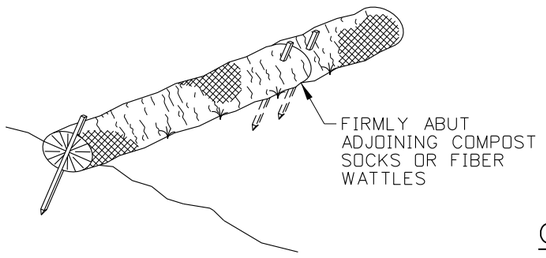
COMPOST SOCK AND FIBER WATTLE
SIDE VIEW



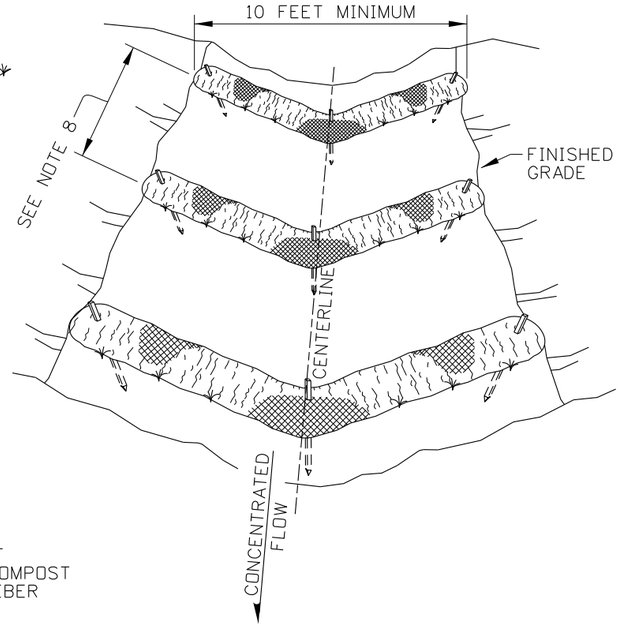
COMPOST SOCK AND FIBER WATTLE
PLAN VIEW



COMPOST SOCK AND FIBER WATTLE OVERLAPPING DETAIL



COMPOST SOCK AND FIBER WATTLE ABUTTING DETAIL



COMPOST SOCK AND FIBER WATTLE TEMPORARY CHECK DAM DETAIL

NOTES

1. SEE THE GENERAL NOTES FOR EROSION CONTROL STANDARD DRAWINGS ON 212-1.
2. THE NEED FOR TEMPORARY SEDIMENT CONTROL DEVICES ARE DETERMINED BY SITE DESIGN. SPACE SILT FENCES, COMPOST SOCKS, AND FIBER WATTLES IN ACCORDANCE WITH THE SILT FENCE SPACING TABLE AND FIBER WATTLE & COMPOST SOCK SPACING TABLE.
3. INSTALL TEMPORARY SEDIMENT CONTROL BARRIERS IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS AND SPECIFICATIONS. THE DIMENSIONS SHOWN ARE GENERAL GUIDELINES.
4. PLACE SEDIMENT BARRIERS TO FOLLOW THE SLOPE CONTOURS. USE EITHER METAL POSTS OR WOOD STAKES.
5. ENSURE RUNOFF PASSES THROUGH THE SILT FENCE AND NOT AROUND THE FENCE.
6. GROUND SILT FENCES WITH WIRE MESH IN ACCORDANCE WITH THE GROUNDING DETAIL SHOWN ON STANDARD DRAWING 610-1.
7. EXTEND OR JOIN SILT FENCE USING SILT FENCE LAP WITH NESTED POSTS.
8. SPACE CHECK DAMS ACCORDING TO THE HEIGHT OF THE DAM AND THE SLOPE OF THE CHANNEL SO THE BACKWATER FROM THE DOWNSTREAM DAM REACHES THE TOE OF THE UPSTREAM DAM.
9. ON SLOPES, TURN THE ENDS OF EACH ROW OF COMPOST SOCKS AND FIBER WATTLES UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE SOCK OR WATTLE.
10. REMOVE SEDIMENT FROM THE UPSLOPE SIDE OF SILT FENCES, COMPOST SOCKS, AND FIBER WATTLES WHEN ACCUMULATION HAS REACHED 1/2 OF THE EFFECTIVE HEIGHT OF THE BARRIER.
11. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED MARCH 18, 2021 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	09-93	MSM	6	01-13	RDL			
2	12-94	MSM	7	03-21	TWF			
3	06-96	GFK						
4	10-10	KEH						
5	10-11	KEH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 212-03_0421.dgn

DRAWING DATE: APRIL, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

TEMPORARY EROSION AND SEDIMENT CONTROL

SILT FENCE, FIBER WATTLE, AND COMPOST SOCK

REQUIRES STD. DWG. 212-1

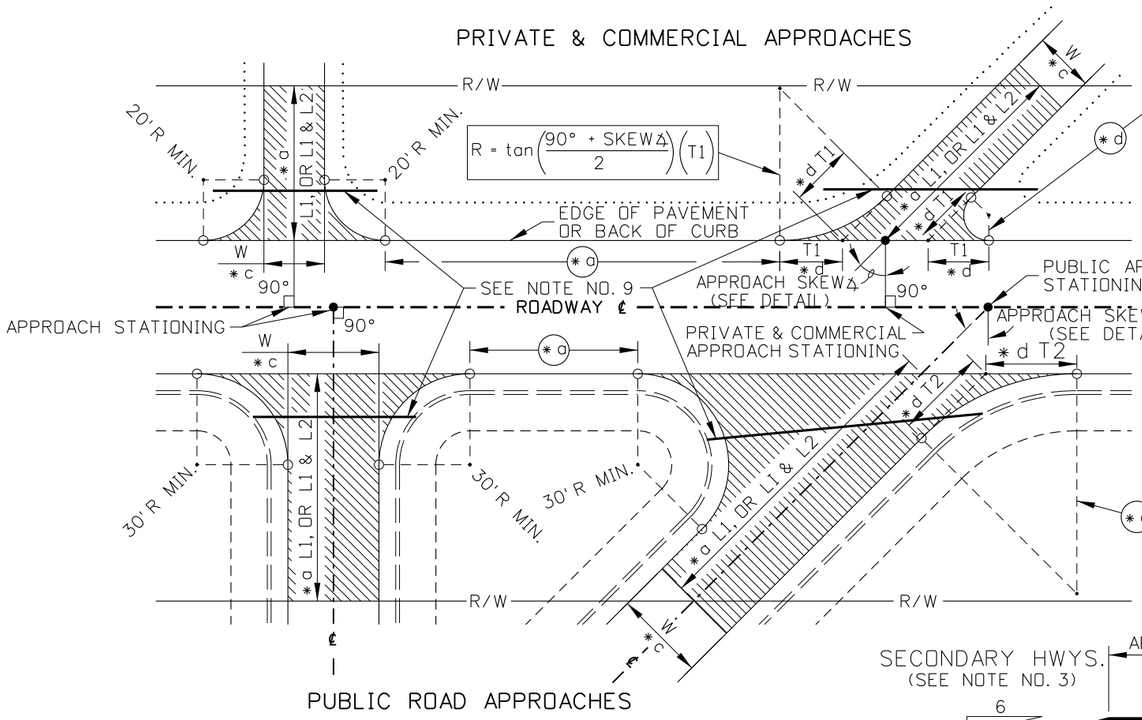
English

STANDARD DRAWING NO.

212-3

SHEET 1 OF 1

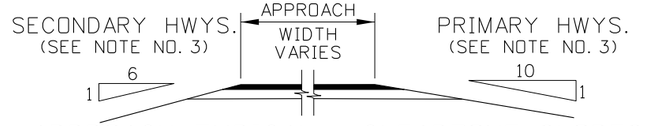
PRIVATE & COMMERCIAL APPROACHES



PUBLIC ROAD APPROACHES

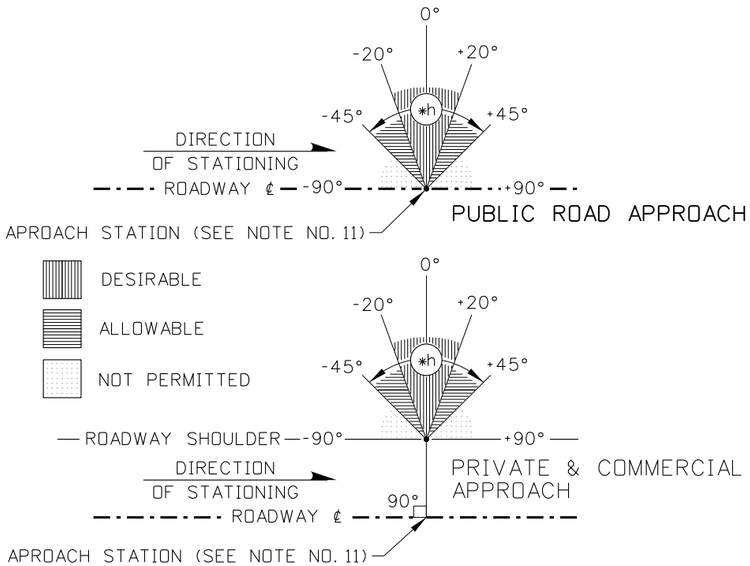
APPROACH PLAN TYPICALS

APPROACH PLAN LEGEND & APPROACH NOMENCLATURE	
CUT	– – – –
FILL	. . . . .
PROPOSED DITCH	═ ═ ═
PROPOSED CULVERT	═══
SKEW Δ	SEE NOTE NO. 10
R	RADIUS OF SHD. CURVE
T1 & T2	TANGENT OF SHD. CURVE
W	APPROACH WIDTH
G1 & G2	APPR. GRADES 1 & 2 (%)
C	CHANGE IN GRADE (%)
L1 & L2	HORZ. LENGTH OF GRADE



APPROACH TYPICAL - CLEARZONE SLOPES

(PUBLIC & PRIVATE)



APPROACH SKEW ANGLE

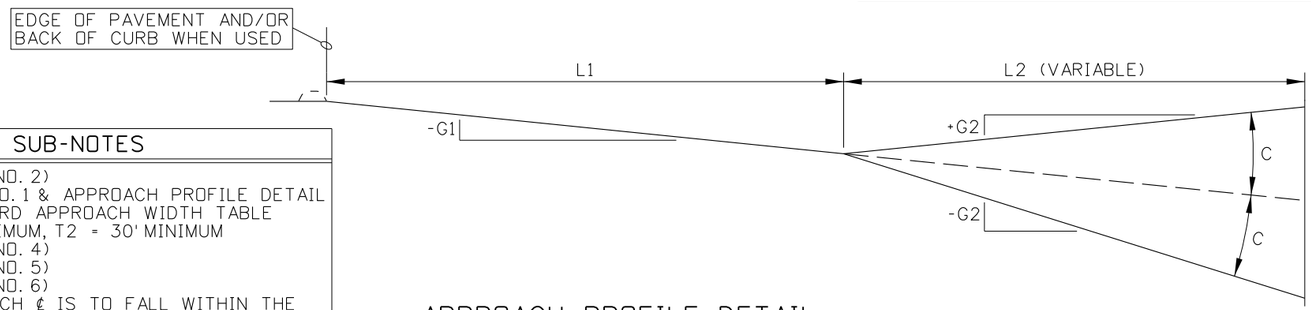
(SEE NOTE NO. 10)

APPROACH GRADE TABLE

TRAFFIC TYPE	GRADE PARAMETER G1 (RANGE)	GRADE PARAMETER G2 (MAX.)	MAX. CHANGE IN GRADE C (*e)	MINIMUM LENGTH L1
HIGH VOLUME (COMMERCIAL, INDUSTRIAL)	-2% TO -3%	±5%	±3%	40'
LOW VOLUME (COMMERCIAL, INDUSTRIAL)	-2% TO -5%	±8%	±6%	40'
SINGLE RESIDENTIAL, FARMYARD, FIELD	-2% TO -8%	±15% * g	VEHICLE CLEARANCE	10'
MULTIPLE RESIDENTIAL	-2% TO -8%	±15% * g	±6%	20'
PUBLIC ROAD	-2%	* f	±2%	20'

(*a) STANDARD APPROACH WIDTH TABLE

	POSTED SPEED (mph)	≤35		>35	
	MIN./MAX. WIDTH	MIN.	MAX.	MIN.	MAX.
APPR. TYPE	MULTIPLE RESIDENTIAL	28'	40'	28'	40'
	SINGLE RESIDENTIAL, FARMYARD, FIELD	12'	40'	20'	40'
	COMMERCIAL (ONE-WAY)	15'	30'	20'	30'
	COMMERCIAL (TWO-WAY)	25'	40'	25'	40'
	PUBLIC ROAD	28'	N/A	28'	N/A



APPROACH PROFILE DETAIL

SUB-NOTES

- *a (SEE NOTE NO. 2)
- *b SEE NOTE NO. 1 & APPROACH PROFILE DETAIL
- *c SEE STANDARD APPROACH WIDTH TABLE
- *d T1 = 20' MINIMUM, T2 = 30' MINIMUM
- *e (SEE NOTE NO. 4)
- *f (SEE NOTE NO. 5)
- *g (SEE NOTE NO. 6)
- *h THE APPROACH ℄ IS TO FALL WITHIN THE ALLOWABLE OR DESIRABLE LIMITS. THE DESIRABLE LIMIT IS CONSIDERED THE "SAFEST OPTION."

NOTES

1. RURAL PRIVATE, COMMERCIAL, AND PUBLIC APPROACHES SHALL BE PAVED TO THE RIGHT-OF-WAY LINE OR TO THE BACK OF THE SHOULDER CURVE (APPROACH RADIUS). FARMYARD AND FIELD APPROACHES THAT ARE OCCASIONALLY USED MAY BE PAVED A MINIMUM OF 5' FROM THE SHOULDER LINE. APPROACHES ON EXISTING UNPAVED HIGHWAYS ARE EXEMPT.
2. REFER TO THE ITD ADMINISTRATIVE POLICY 5005 FOR ADDITIONAL INFORMATION ON LOCATION OF APPROACHES.
3. WITHIN THE CLEARZONE THE SIDE SLOPES OF APPROACHES SHALL BE A MINIMUM OF 6:1 OF SECONDARY HIGHWAYS AND A MINIMUM OF 10:1 ON PRIMARY HIGHWAYS.
4. WHEN THE "MAXIMUM CHANGE IN GRADE" (APPROACH GRADE TABLE) "C" IS EXCEEDED, A MINIMUM 10' VERTICAL CURVE SHALL BE USED IN THE APPROACH PROFILE.
5. THE % GRADE OF "G2" SHALL BE A MAXIMUM OF 7% FOR FLAT TERRAIN, 11% FOR ROLLING TERRAIN, OR 15% FOR MOUNTAINOUS.
6. APPROACH GRADES EXCEEDING 10% ARE NOT RECOMMENDED BECAUSE EMERGENCY VEHICLES MAY BE IMPEDED.
7. THE BALLAST REQUIREMENTS OF RURAL APPROACHES SHALL BE AS SHOWN ON THE PLANS.
8. WHEN A MAILBOX TURNOUT IS INSTALLED WITH A RURAL APPROACH, STD. DWG. 405-2 IS REQUIRED.
9. ALL RURAL PRIVATE AND COMMERCIAL APPROACHES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT THE APPROACH DRAINAGE IS INDEPENDENT AND DOES NOT CONTRIBUTE TO EXISTING HIGHWAY DRAINAGE. ALL RURAL PUBLIC APPROACHES SHALL BE DESIGNED AND CONSTRUCTED TO ADDRESS BOTH THE MAIN HIGHWAY AND APPROACH DRAINAGE.
10. THE APPROACH SKEW ANGLE IS THE DEFLECTION ANGLE BETWEEN A LINE PERPENDICULAR TO THE HIGHWAY CENTERLINE AND THE APPROACH CENTERLINE.
11. RURAL PRIVATE AND COMMERCIAL APPROACHES ARE REFERENCED LEFT OR RIGHT OF THE HIGHWAY CENTERLINE STATION TO THE CENTER OF THE APPROACH OPENING WHICH IS AT THE EDGE OF PAVEMENT OR BACK OF CURB. A PUBLIC APPROACH STATION OCCURS WHERE THE PUBLIC APPROACH CENTERLINE INTERSECTS THE HIGHWAY CENTERLINE.
12. NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER * LAND SURVEYOR REGISTERED ORIGINAL SIGNED AT MILFORD MILLER STATE OF IDAHO DATE OF ORIGINAL SIGNATURE: JUNE 19, 2007 2240 MILFORD MILLER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	01-00	MSM	6	12-05	MSM			
2	01-02	MSM	7	06-07	MSM			
3	07-02	MSM						
4	10-02	MSM						
5	08-04	MSM						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 405-1_0607.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
ASSISTANT CHIEF ENGINEER (DEVELOPMENT)
ORIGINAL SIGNED BY: STEVEN HUTCHINSON
CHIEF ENGINEER

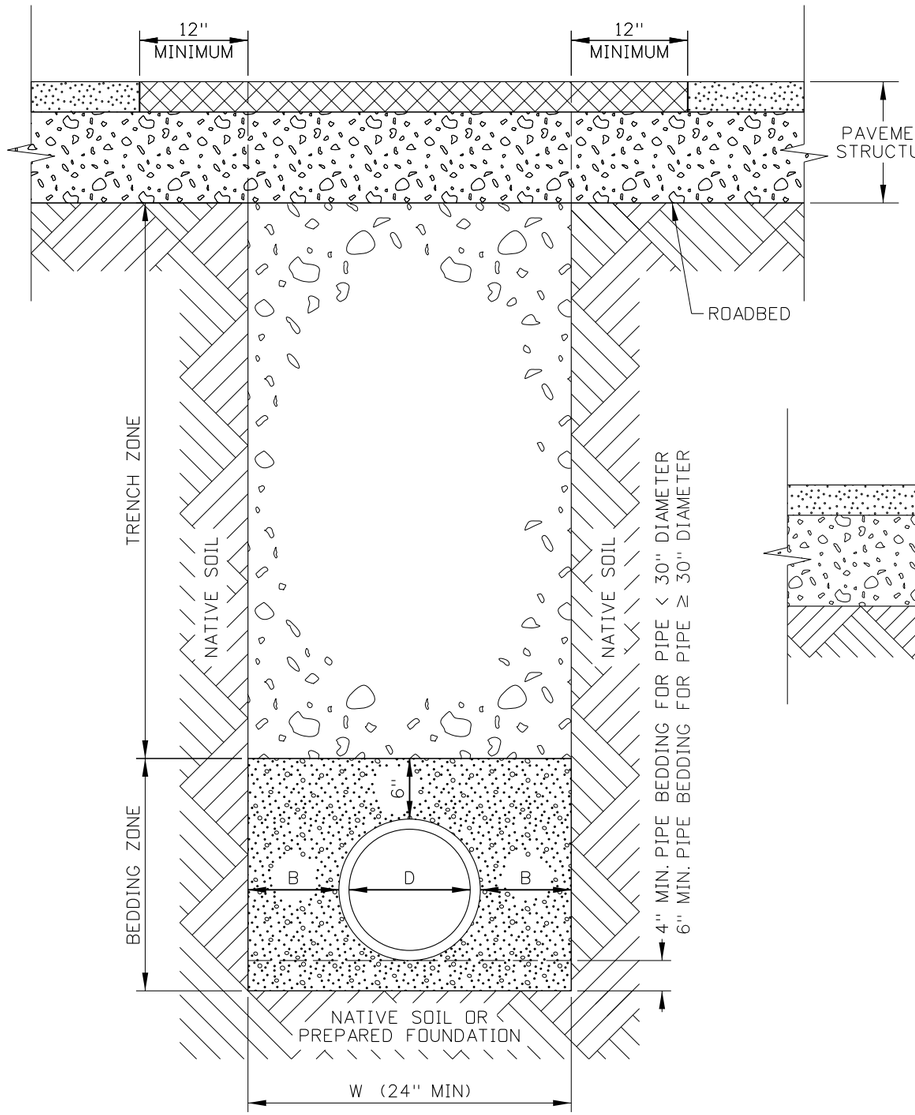
STANDARD DRAWING

RURAL APPROACHES

English

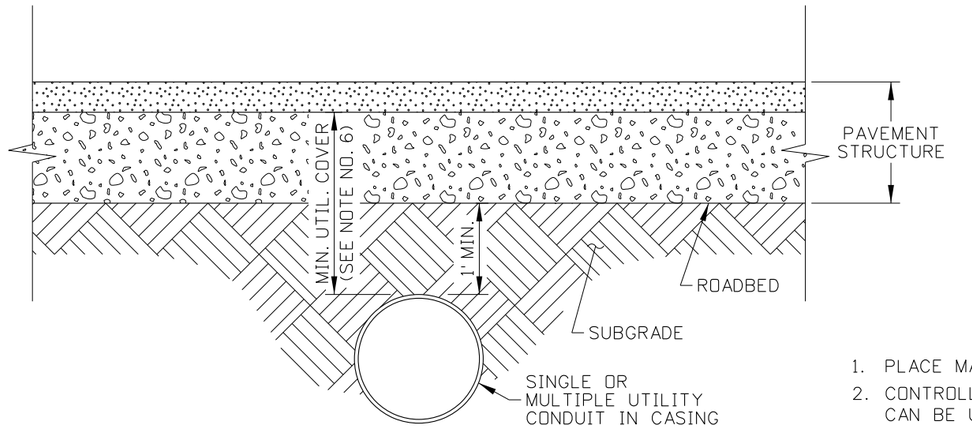
STANDARD DRAWING NO. 405-1

SHEET 1 OF 1

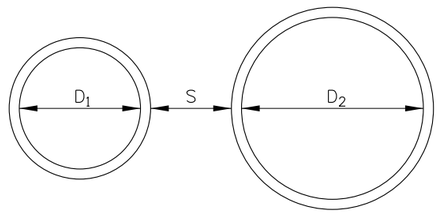


TRENCHING

MATERIALS AND COMPACTION TABLE				
PIPE LOCATION	BEDDING ZONE		TRENCH ZONE	
	MATERIAL REQUIREMENT	COMPACTION REQUIREMENT	MATERIAL REQUIREMENT	COMPACTION REQUIREMENT
INSIDE ROADWAY PRISM	COARSE AGGREGATE FOR CONCRETE SIZE NO. 1, NO. 2A, OR NO. 2B (SUBSECTION 703.02)	ENGINEER ACCEPTANCE	3/4" AGGREGATE FOR BASE (SUBSECTION 703.04) (SEE NOTE NO. 1)	CLASS A COMPACTION (SECTION 205) OR 95% OF IT-74
OUTSIDE ROADWAY PRISM	COARSE AGGREGATE FOR CONCRETE SIZE NO. 1, NO. 2A, OR NO. 2B (SUBSECTION 703.02)	ENGINEER ACCEPTANCE	GRANULAR BORROW OR NATIVE MATERIALS WITH MAXIMUM SIZE OF 6" AND FREE FROM WOOD WASTE OR DELETERIOUS MATERIALS. (SEE NOTE NO. 1)	CLASS D COMPACTION (SECTION 205)



JACKING, DRIVING, OR BORING



MULTIPLE PIPE INSTALLATION DETAIL
(SEE NOTE NO. 4)

MINIMUM DIMENSION TABLE (SEE NOTE NOS. 3 AND 4)		
D (INCHES)	B (INCHES)	S (INCHES)
≤ 6	10	24
7 TO 15	12	24
16 TO 30	18	24
> 30	24	GREATER OF 24 OR D/2

NOTES

1. PLACE MATERIAL IN ACCORDANCE WITH SECTION 210.
2. CONTROLLED DENSITY FILL (CDF) IN ACCORDANCE WITH SECTION 522 CAN BE USED IF APPROVED BY THE ENGINEER.
3. LOOSE LIFT THICKNESS DIRECTLY ON TOP OF PIPE MAY BE INCREASED WITH APPROVAL TO PREVENT DAMAGE TO PIPE DURING COMPACTION.
4. WHEN TWO DIFFERENT DIAMETER PIPES ARE INSTALLED, USE THE LARGER D DIMENSION TO DETERMINE THE S DIMENSION.
5. WHEN THE PIPE DIAMETER IS 36 INCHES OR GREATER AND THE PIPE IS INSTALLED DURING EMBANKEMENT CONSTRUCTION, USE B DIMENSION EQUAL TO THE PIPE DIAMETER.
6. PROVIDE THE FOLLOWING MINIMUM COVER DEPTHS:
   WATER: 4'
   LIQUID OR GAS PETROLEUM: 4'
   ELECTRICAL MAIN LINE: 4'
   COMMUNICATIONS OR ELECTRONICS: 2'
   UTILITY OWNERS AND LOCAL PUBLIC AGENCIES MAY HAVE DIFFERENT MINIMUM COVER DEPTHS. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE REQUIRED COVER DEPTHS.
7. PERFORM TRENCHING PER OSHA REQUIREMENTS.
8. DO NOT DISTURB THE INSTALLED PIPE OR CONDUIT, OR LEAVE VOIDS WHEN USING TRENCH BOXES OR SHIELDS.
9. DRAWINGS NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER REGISTERED ORIGINAL SIGNED BY: JOHN W. INGRAM MARCH 18, 2020 STATE OF IDAHO 6755 JOHN W. INGRAM III

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	12-15	RDL	6	03-21	TWF			
2	03-16	RDL						
3	06-17	RDL						
4	06-18	HEB						
5	11-18	TWF						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 601-1_0421.dgn

DRAWING DATE: MAY 2014

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

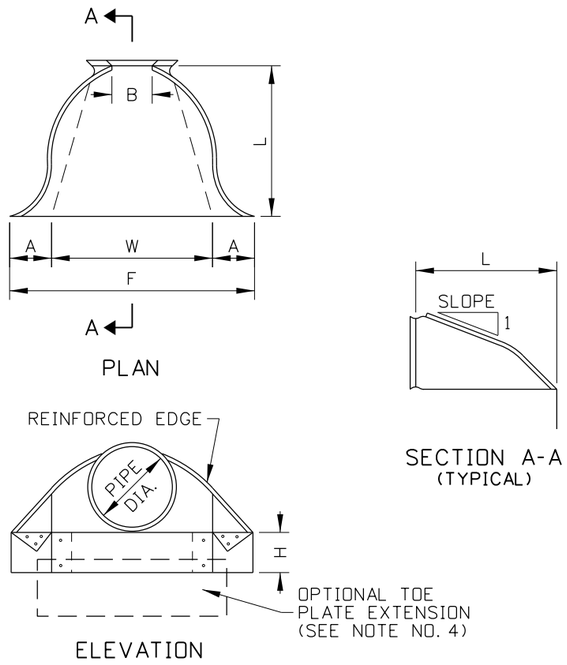
PIPE AND CONDUIT INSTALLATION

English

STANDARD DRAWING NO.

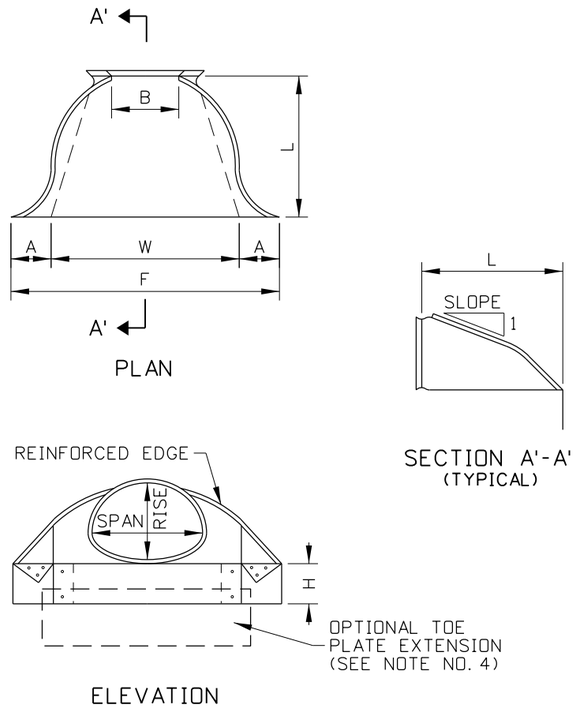
601-1

SHEET 1 OF 1



APRON FOR ROUND METAL PIPE

(GALVANIZED STEEL)



APRON FOR METAL ARCH PIPE

(GALVANIZED STEEL)

DIMENSIONS TABLE

PIPE DIA.	THICK-NESS (1000'S)	ALL DIMENSIONS ARE IN INCHES A (MIN.)	B	H (MIN.)	F (MIN.)	L ±2"	W (MAX.)	APPROX. SLOPE	BODY
12	0.064	5	7	6	22	21	24	2½:1	1 PC.
15	0.064	7	8	6	28	26	30	2½:1	1 PC.
18	0.064	7	10	6	34	31	36	2½:1	1 PC.
21	0.064	8	12	6	40	36	42	2½:1	1 PC.
24	0.064	9	13	6	46	41	48	2½:1	1 PC.
30	0.079	13	16	8	55	51	60	2½:1	1 PC.
36	0.079	11	19	9	70	60	72	2½:1	2 PC.
42	0.109	15	25	10	82	69	84	2½:1	2 PC.
48	0.109	17	29	12	88	78	90	2½:1	2 PC.
54	0.109	17	33	12	100	84	102	2:1	2 PC.
60	0.109	17	36	12	112	87	114	2½:1	3 PC.
66	0.109	17	39	12	118	87	120	2½:1	3 PC.
72	0.109	17	44	12	120	87	126	2½:1	3 PC.
78	0.109	17	48	12	130	87	132	2½:1	3 PC.
84	0.109	17	52	12	136	87	138	2½:1	3 PC.

DIMENSIONS TABLE

PIPE-ARCH SPAN IN.	PIPE-ARCH RISE IN.	THICK-NESS (1000'S)	ALL DIMENSIONS ARE IN INCHES A (MIN.)	B	H (MIN.)	F (MIN.)	L ±2"	W (MAX.)	APPROX. SLOPE	BODY
17	13	0.064	5	9	6	28	20	50	2½:1	1 PC.
21	15	0.064	6	11	6	34	24	58	2½:1	1 PC.
24	18	0.064	7	12	6	40	28	63	2½:1	1 PC.
28	20	0.064	7	16	6	46	32	70	2½:1	1 PC.
35	24	0.079	9	16	6	58	39	85	2½:1	1 PC.
42	29	0.079	11	18	8	73	46	104	2½:1	1 PC.
49	33	0.109	12	21	9	82	53	117	2½:1	2 PC.
57	38	0.109	16	26	10	88	62	130	2½:1	2 PC.
64	43	0.109	17	30	12	100	79	142	2¼:1	2 PC.
71	47	0.109	17	36	12	112	77	156	2¼:1	2 PC.
77	52	0.109	17	36	12	124	77	167	2:1	3 PC.
83	57	0.109	17	44	12	130	77	179	2:1	3 PC.

NOTES

1. ALL 3-PIECE BODIES (APRONS WITH PIPE DIA. 60 IN. & LARGER) TO HAVE 0.109 IN. SIDES AND 0.138 IN. CENTER PANELS. MULTIPLE PANEL BODIES TO HAVE LAP SEAMS WHICH ARE TO BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS.
2. THE REINFORCED EDGES OF GALVANIZED STEEL APRONS, FOR ROUND METAL PIPE SIZES 60 IN. THROUGH 84 IN. AND FOR ARCH METAL PIPE SIZES 77x62 IN. THROUGH 83x57 IN., ARE TO BE SUPPLEMENTED BY GALVANIZED STIFFENER ANGLES. THE ANGLES ARE TO BE ATTACHED BY GALVANIZED BOLTS AND NUTS.
3. ANGLE REINFORCEMENT WILL BE PLACED UNDER THE CENTER PANEL SEAMS ON ARCH PIPE SIZES 77x52 IN. THROUGH 83x57 IN.
4. A GALVANIZED TOE PLATE IS AVAILABLE AS AN ACCESSORY. WHEN SPECIFIED IT SHALL BE THE SAME GAGE AS THE APRON.
5. THE APRON SHALL BE CONNECTED TO PIPE BY USING EITHER CONNECTING BANDS, RODS, OR STRAPS.
5. NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER * LAND SURVEYOR REGISTERED ORIGINAL SIGNED AT MILFORD MILLER STATE OF IDAHO DATE OF ORIGINAL SIGNATURE MARCH 4, 2005 2240 MILFORD MILLER

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	09-64		6	06-84				
2	06-68		7	07-92	MSM			
3	04-70		8	11-01	MSM			
4	10-76		9	03-05	MSM			
5	07-78							

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 608-1_0305.dgn

DRAWING DATE: APRIL, 1961

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
ASSISTANT CHIEF ENGINEER (DEVELOPMENT)
ORIGINAL SIGNED BY: STEVEN HUTCHINSON
CHIEF ENGINEER

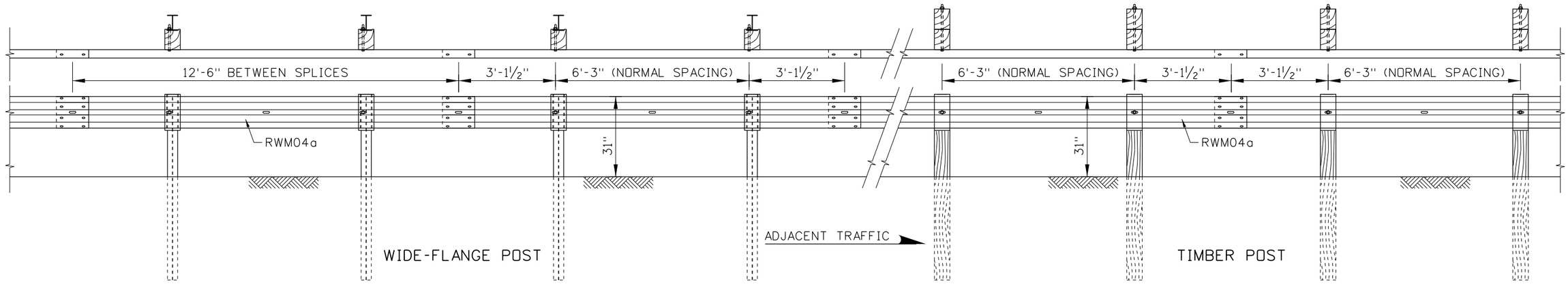
STANDARD DRAWING

GALVANIZED STEEL APRONS FOR PIPE CULVERTS

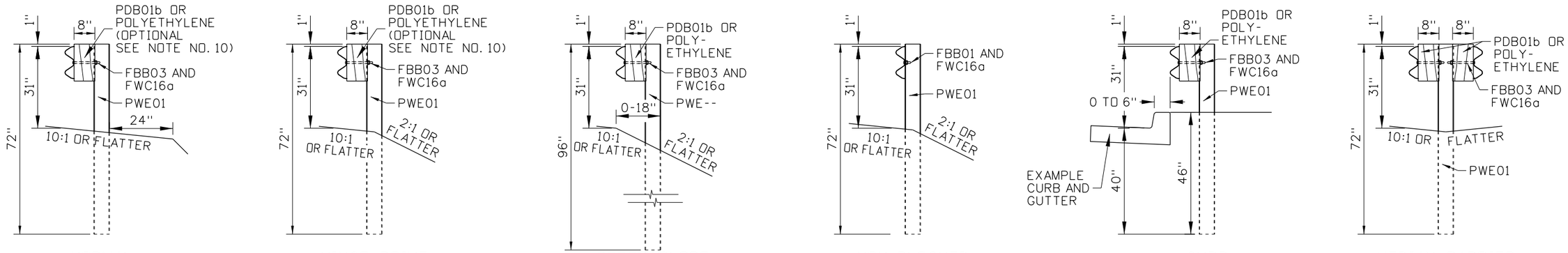
English

STANDARD DRAWING NO. 608-1

SHEET 1 OF 1

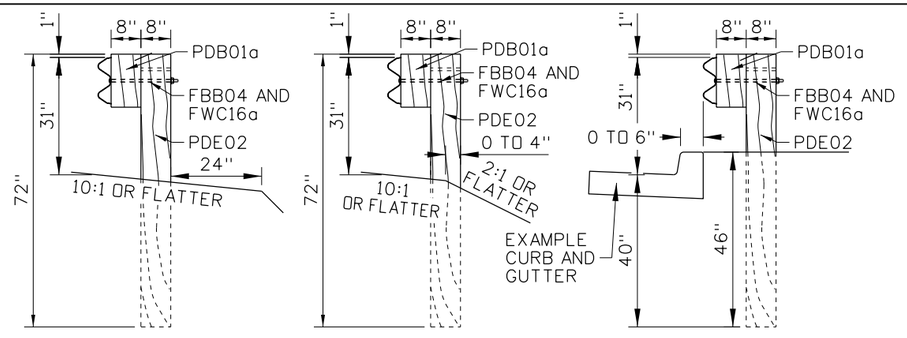


31" W-BEAM GUARDRAIL



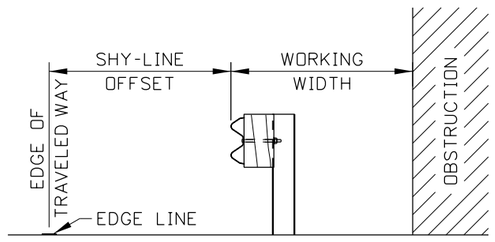
WIDE-FLANGE POST APPLICATIONS

SEE NOTE NOS. 3 AND 11



TIMBER POST APPLICATIONS

SEE NOTE NOS. 3 AND 11



PLACEMENT DETAIL

SEE NOTE NOS. 4 THROUGH 7

SHY-LINE OFFSET AND FLARE RATE TABLE			
DESIGN SPEED (MPH)	SHY-LINE OFFSET (FT)	BARRIER FLARE RATE	
		INSIDE SHY LINE	AT OR BEYOND SHY LINE
80	12	30:1	15:1
70	9	30:1	15:1
60	8	26:1	14:1
55	7	24:1	12:1
50	6.5	21:1	11:1
45	6	18:1	10:1
40	5	16:1	8:1
30	4	13:1	7:1

DEFLECTION TABLE		
APPLICATION	POST SPACING	WORKING WIDTH
NORMAL SPACING	6'-3"	54"
½ SPACING	3'-1½"	46"
¼ SPACING	1'-6¾"	38"
STEEP SLOPE	6'-3"	56"
HINGE POINT	6'-3"	78"
LONG SPAN	≤ 25'	96"

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER DATE ORIGINAL SIGNED MARCH 10, 2020 13683 STATE OF IDAHO RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

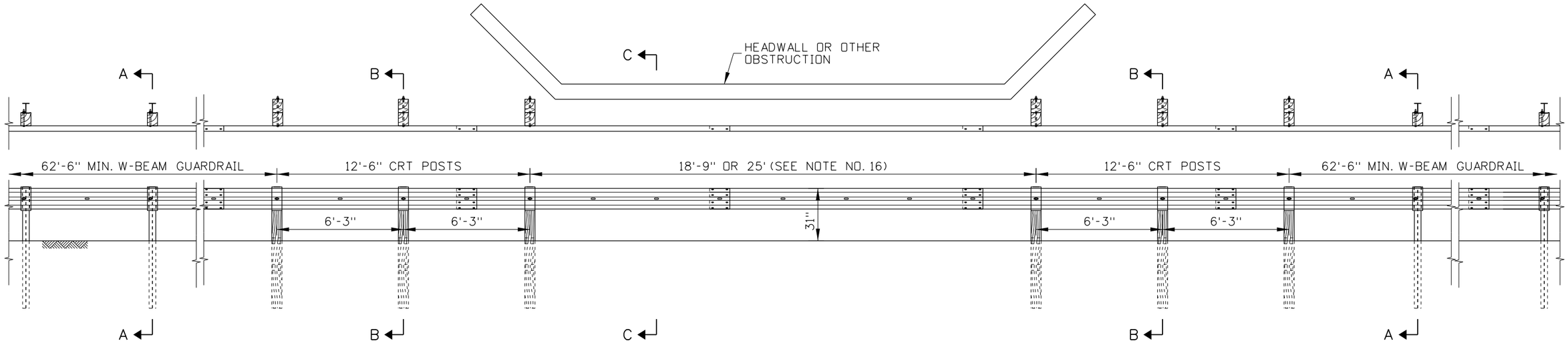
STANDARD DRAWING

31" W-BEAM GUARDRAIL

English

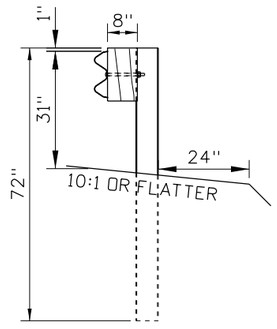
STANDARD DRAWING NO. 612-1

SHEET 1 OF 5

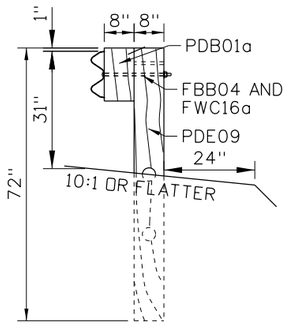


31" LONG-SPAN APPLICATION

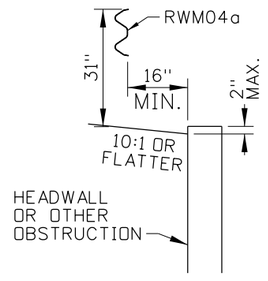
SEE NOTE NOS. 17 AND 18



SECTION A-A
WIDE-FLANGE OR TIMBER POST



SECTION B-B



SECTION C-C

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER
LICENSED
ORIGINAL SIGNED BY RYAN D. LANCASTER
DATE ORIGINAL SIGNED MARCH 10, 2021
13683
STATE OF IDAHO
RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

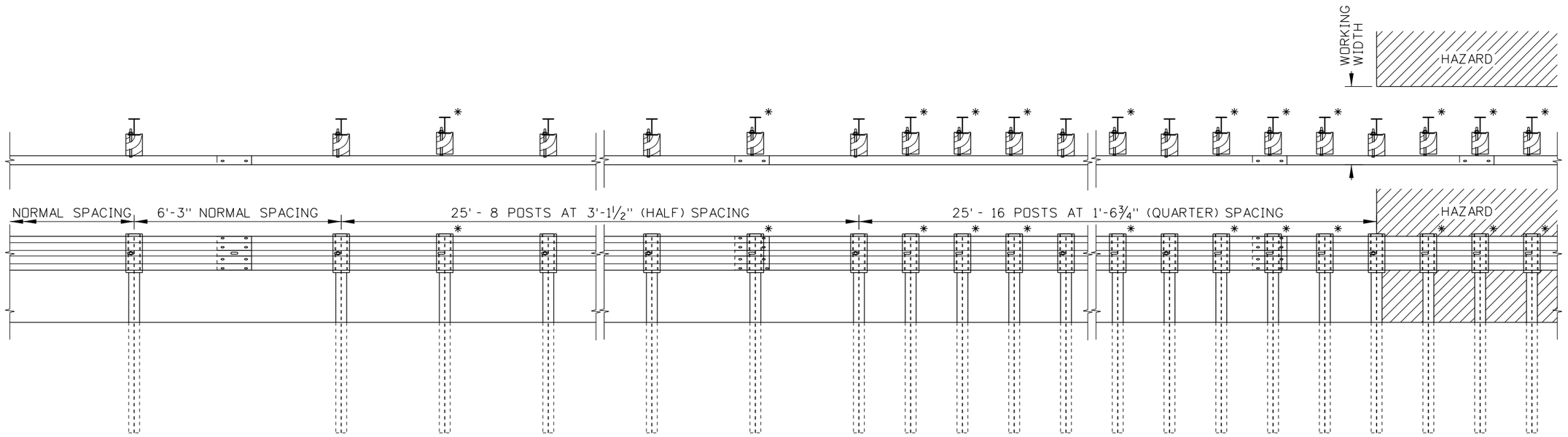
ORIGINAL SIGNED BY: KEVIN SABLAN
DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

31" W-BEAM GUARDRAIL

English

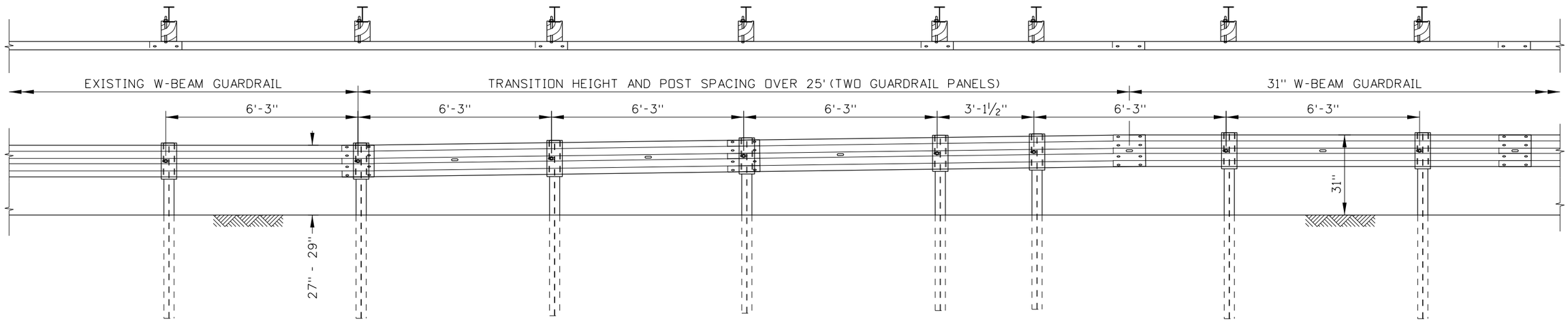
STANDARD DRAWING NO.
612-1



REDUCED POST SPACING

SEE NOTE NO. 7

LEGEND:
* EXTRA POSTS.
BOLT BLOCKOUT TO POST, BUT DO NOT BOLT TO GUARDRAIL



TRANSITION TO 31" W-BEAM GUARDRAIL

SEE NOTE NO. 19

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER DATE OF ORIGINAL SIGNATURE MARCH 10, 2020 13683 STATE OF IDAHO RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

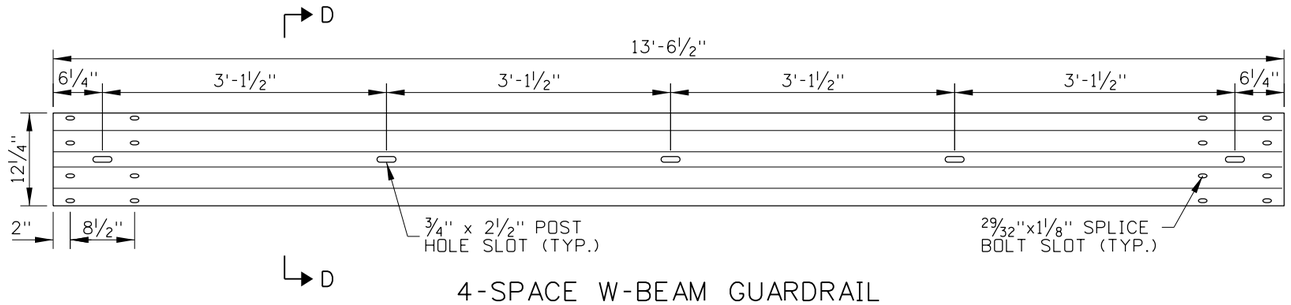
31" W-BEAM GUARDRAIL

English

STANDARD DRAWING NO.

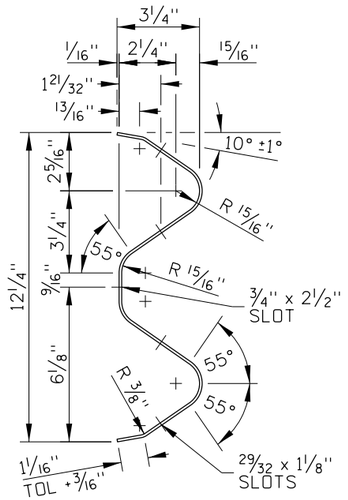
612-1

SHEET 3 OF 5



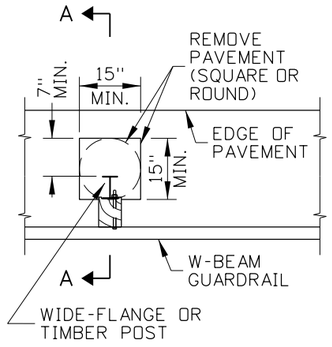
4-SPACE W-BEAM GUARDRAIL

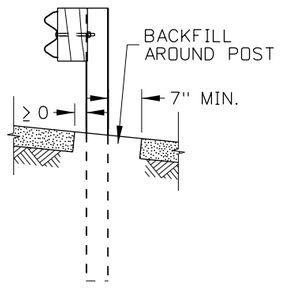
RWM04a



SECTION D-D

31" W-BEAM GUARDRAIL HARDWARE COMPONENTS TABLE		
COMPONENT DESCRIPTION	WIDE-FLANGE POST	TIMBER POST
4-SPACE W-BEAM GUARDRAIL	RWM04a	RWM04a
WIDE-FLANGE GUARDRAIL POSTS	PWE01, PWE--	-
TIMBER GUARDRAIL POSTS	-	PDE02
CRT TIMBER GUARDRAIL POST	-	PDE09
W-BEAM BLOCKOUT	PDB01b OR POLYETHYLENE	PDB01a
⅝" GUARDRAIL SPLICE BOLT AND RECESSED NUT	FBB01	FBB01
⅝" GUARDRAIL BOLT AND RECESSED NUT	FBB03	FBB04
⅝" PLAIN ROUND WASHER	FWC16a	FWC16a
16D GALVANIZED NAIL	-	N/A

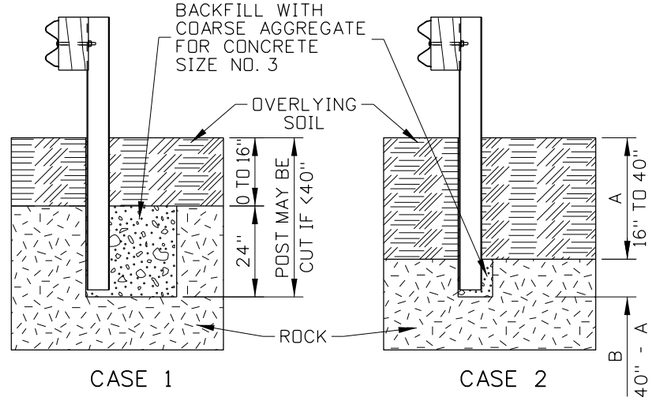




SECTION A-A

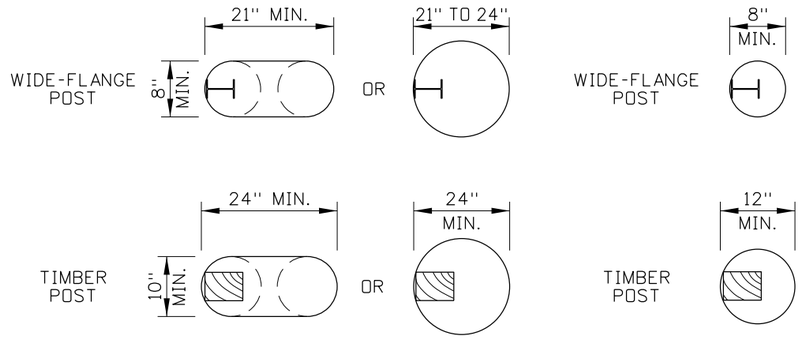
GUARDRAIL POST IN PAVEMENT

SEE NOTE NO. 9



GUARDRAIL POST IN ROCK FORMATION

SEE NOTE NO. 9



ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER DATE OF ORIGINAL SIGNATURE MARCH 10, 2021 13683 STATE OF IDAHO

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

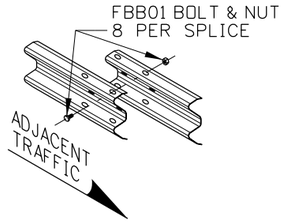
STANDARD DRAWING

31" W-BEAM GUARDRAIL

English

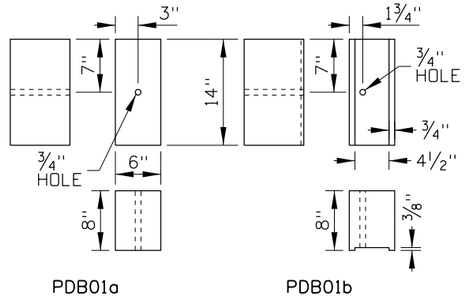
STANDARD DRAWING NO.

612-1



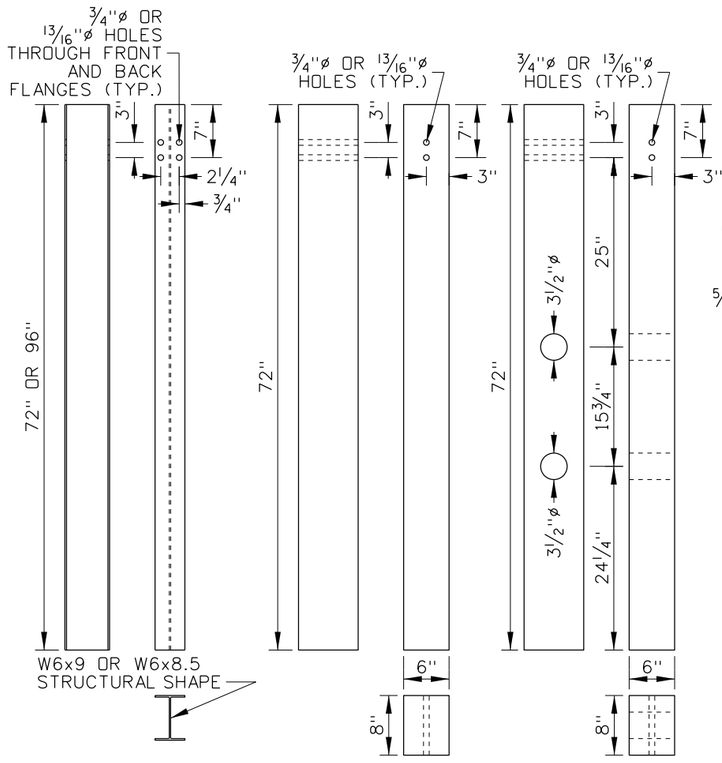
W-BEAM SPLICE DETAIL

SEE NOTE NO. 14



PDB01a PDB01b

W-BEAM TIMBER BLOCKOUTS

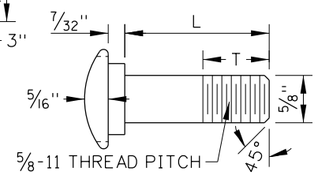


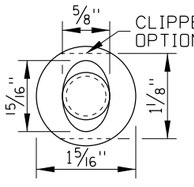
WIDE-FLANGE PWE01, PWE--

TIMBER PDE02, PDE--

CRT TIMBER POST PDE09

GUARDRAIL POSTS

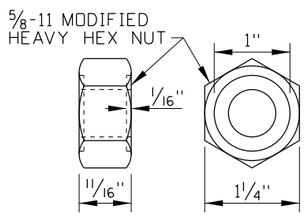




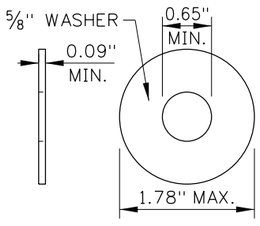
BOLT DIMENSION TABLE		
DESIGNATOR	L	T
FBB01	1¼"	1⅛"
FBB03	10"	1¾"
FBB04	18"	4"

GUARDRAIL BOLT (BUTTON-HEADED)

FBB01, FBB03, FBB04



RECESSED NUT



PLAIN ROUND WASHER

FWC16a

NOTES

1. THE 31" W-BEAM GUARDRAIL SYSTEM SHOWN IS A MASH TEST LEVEL 3 BARRIER SYSTEM.
2. PROVIDE BARRIER HARDWARE AS SHOWN AND AS SPECIFIED IN THE PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE." WHERE THE GUIDE AND PLANS CONFLICT, PROVIDE HARDWARE COMPONENTS AS SHOWN ON THE PLANS.
3. INSTALL GUARDRAIL AS SHOWN IN THE NORMAL APPLICATION UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS. THE CURB APPLICATIONS CAN BE USED WITH ANY OF THE CURB AND GUTTER OR CURB TYPES SHOWN ON THE CURB AND GUTTER STANDARD DRAWING.
4. PLACE 31" W-BEAM GUARDRAIL AS FAR FROM THE TRAVELED WAY AS PRACTICAL. WHERE PRACTICAL PROVIDE THE SHY-LINE OFFSET DISTANCE SHOWN IN THE SHY-LINE OFFSET TABLE.
5. WHERE PRACTICAL, FLARE THE 31" W-BEAM GUARDRAIL AWAY FROM THE TRAVELED WAY. SEE THE SHY-LINE OFFSET AND FLARE RATE TABLE.
6. PROVIDE ADEQUATE DEFLECTION DISTANCE TO OBSTRUCTIONS BEHIND THE GUARDRAIL BY PROVIDING THE WORKING WIDTH SHOWN ON THE PLACEMENT DETAIL AND IN THE DEFLECTION TABLE.
7. DECREASE DEFLECTION BY REDUCING POST SPACING. INTRODUCE EACH REDUCTION IN POST SPACING OVER 25' OR MORE. DO NOT BOLT THE GUARDRAIL TO THE EXTRA POSTS.
8. WIDE-FLANGE OR TIMBER POSTS MAY BE USED UNLESS OTHERWISE INDICATED ON THE PROJECT PLANS. USE THE SAME POST MATERIAL FOR THE PROJECT LENGTH (EXCEPT IN THE 31" LONG-SPAN APPLICATION).
9. REMOVE PAVEMENT AND ROCK AROUND GUARDRAIL POSTS.
10. USE TIMBER OR POLYETHYLENE BLOCKOUTS WITH WIDE-FLANGE POSTS. USE TIMBER BLOCKOUTS WITH TIMBER POSTS. USE THE SAME BLOCKOUT MATERIAL FOR THE PROJECT LENGTH (EXCEPT IN THE 31" LONG-SPAN APPLICATION). THE WIDE-FLANGE POST NORMAL APPLICATON CAN BE CONSTRUCTED WITHOUT BLOCKOUTS IF INDICATED ON THE PROJECT PLANS OR IF APPROVED BY THE ENGINEER.
11. INSTALL THE BLOCKOUT AND W-BEAM GUARDRAIL USING THE HOLE 7" FROM THE TOP OF THE POST. THE HIGHER HOLE IS RESERVED FOR FUTURE GUARDRAIL HEIGHT ADJUSTMENT.
12. NAIL TIMBER BLOCKOUTS TO TIMBER POSTS TO RESTRICT BLOCK ROTATION. NAIL THROUGH THE SIDES OF THE BLOCKOUT AND POST.
13. WHEN WIDE-FLANGE POSTS ARE USED AND WHEN PRACTICAL, INSTALL THE BOLT (FBB03) ON THE UPSTREAM SIDE OF THE POST IN RELATION TO THE ADJACENT TRAFFIC.
14. SPLICE 31" W-BEAM GUARDRAIL BETWEEN POSTS. OVERLAP SPLICES SO THAT THE EXPOSED W-BEAM EDGE IS DOWNSTREAM OF THE ADJACENT TRAFFIC.
15. BEGIN AND END 31" W-BEAM GUARDRAIL WITH A TERMINAL, ANCHOR, OR TRANSITION. CONSTRUCT TERMINALS OR TRANSITIONS USING THE SAME POST MATERIAL AS THE GUARDRAIL WHEN PRACTICAL. SOME ANCHORS AND TERMINALS ARE ONLY AVAILABLE WITH TIMBER OR WIDE-FLANGE POSTS.
16. DELINEATE GUARDRAILS WITH TYPE 9 DELINEATORS. SEE THE DELINEATOR STANDARD DRAWING FOR DELINEATOR SPACING.
17. ONE POST CAN BE OMITTED WITHOUT OTHER MODIFICATION IF APPROVED BY THE ENGINEER. THE LONG-SPAN APPLICATION CAN BE USED WHERE TWO POSTS (18'-9" SPAN) OR THREE POSTS (25' SPAN) ARE OMITTED.
18. WHEN THE LONG-SPAN APPLICATION (18'-9", OR 25') IS USED, INSTALL THREE CRT TIMBER POSTS (PDE09) WITH TIMBER BLOCKOUTS ADJACENT TO THE UPSTREAM AND DOWNSTREAM ENDS OF THE UNSUPPORTED SECTION. DO NOT NEST THE 4-SPACE W-BEAM GUARDRAIL IN THE UNSUPPORTED SECTION. INSTALL AT LEAST 62'-6" OF 31" W-BEAM GUARDRAIL UPSTREAM AND DOWNSTREAM OF THE CRT POSTS.
19. WHEN CONNECTING TO EXISTING GUARDRAIL, TRANSITION THE GUARDRAIL HEIGHT TO 31". REPLACE THE EXISTING W-BEAM GUARDRAIL IF THE TOP OF GUARDRAIL HEIGHT IS LESS THAN 27".
20. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER STATE OF IDAHO 13683 ORIGINAL SIGNED BY RYAN D. LANCASTER MARCH 10, 2020

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-19	RDL						
3	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-1_0420.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

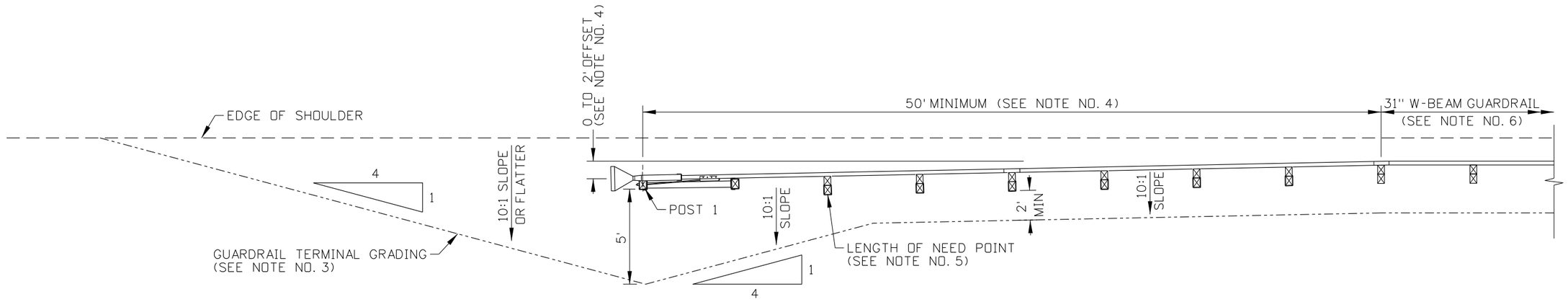
STANDARD DRAWING

31" W-BEAM GUARDRAIL

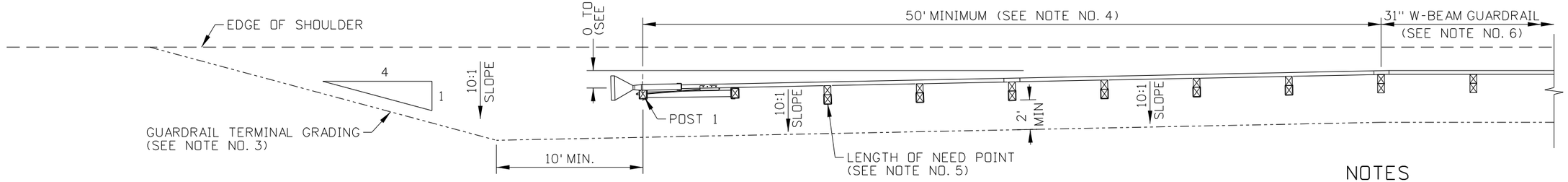
English

STANDARD DRAWING NO. 612-1

SHEET 5 OF 5



PREFERRED GRADING



ALTERNATIVE GRADING

NOTES

1. THE TANGENT TERMINAL SHOWN IS AN EXAMPLE ONLY. TANGENT TERMINAL DESIGNS VARY BY PRODUCT AND MANUFACTURER.
2. USE THE PREFERRED GRADING LAYOUT WHEN PRACTICAL. THE ALTERNATIVE GRADING LAYOUT MAY BE USED WHEN UPGRADING AN EXISTING TERMINAL WITH SITE LIMITATIONS. DISTANCES SHOWN FROM THE TERMINAL POSTS TO THE GRADING EXTENTS ARE MEASURED FROM THE BACK OF THE POST.
3. PROVIDE A 4:1 OR FLATTER SLOPE OUTSIDE OF THE GUARDRAIL TERMINAL GRADING EXTENTS WHERE PRACTICAL.
4. INSTALL THE TERMINAL IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. REFER TO THE INSTRUCTIONS FOR SYSTEM LENGTH, OFFSET, NUMBER OF POSTS, POST SPACING, AND WHEN A TANGENT TERMINAL IS TO BE INSTALLED ON A HORIZONTAL CURVE.
5. VERIFY THE LENGTH OF NEED POINT WITH MANUFACTURER INSTRUCTIONS FOR A SPECIFIC PRODUCT. ELEMENTS OF THE GUARDRAIL TERMINAL DOWNSTREAM OF THE LENGTH OF NEED POINT CAN BE INCLUDED AS PART OF THE LENGTH OF NEED.
6. PROVIDE A MINIMUM OF 12'-6" OF 31" W-BEAM GUARDRAIL BETWEEN THE GUARDRAIL TERMINAL AND A GUARDRAIL TRANSITION.
7. IF THE TANGENT TERMINAL DESIGN USES AN ANCHOR CABLE, INSTALL AN EXTRA HEX NUT ON EACH END OF THE CABLE.
8. AFFIX A TYPE 3 OBJECT MARKER TO THE TERMINAL END SECTION.
9. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO 13683 MARCH 18, 2021 RYAN D. LANCASTER

REVISIONS

NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	08-18	RDL						
2	03-21	PBH						

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CADD FILE NAME: 612-8_0421.dgn

DRAWING DATE: JUNE, 2017

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

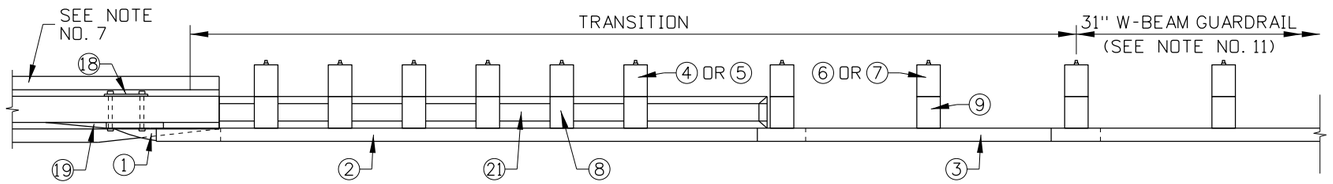
GUARDRAIL TERMINAL TANGENT

English

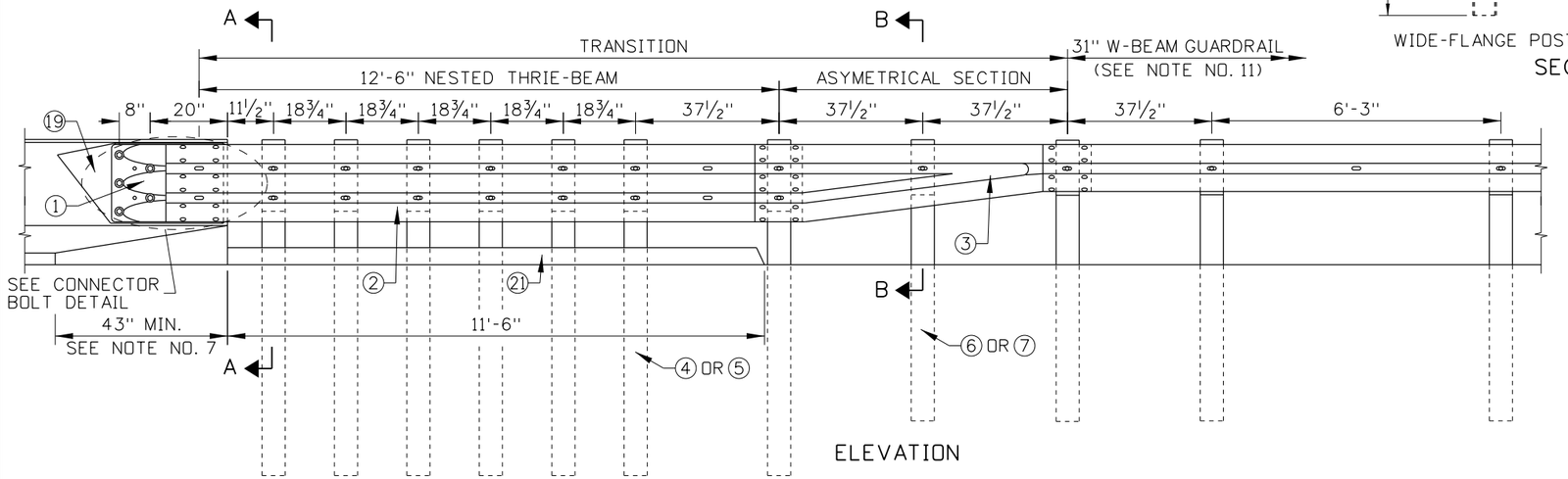
STANDARD DRAWING NO.

612-8

SHEET 1 OF 1

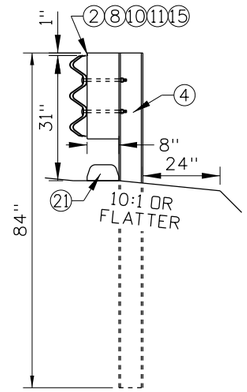


PLAN

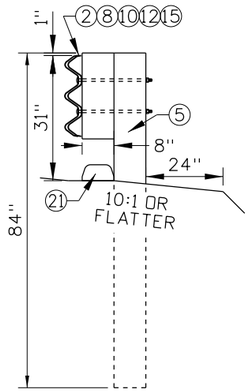


ELEVATION

HIGH SPEED GUARDRAIL TRANSITION

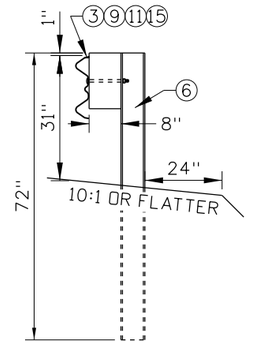


WIDE-FLANGE POST

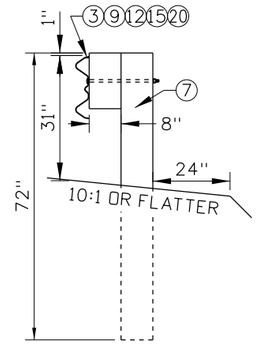


TIMBER POST

SECTION A-A

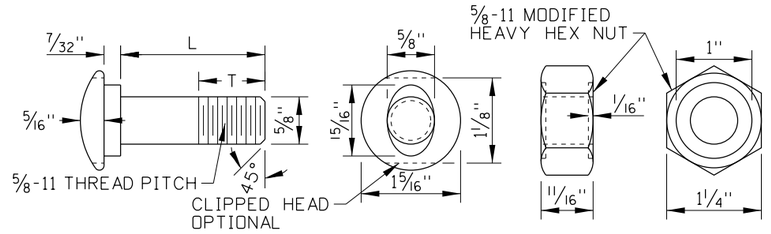


WIDE-FLANGE POST



TIMBER POST

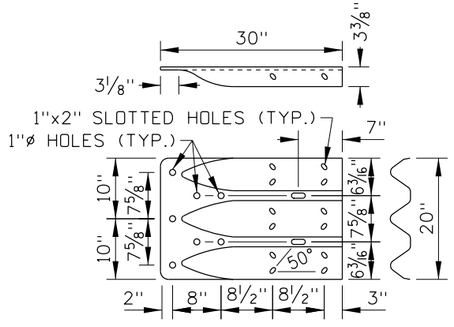
SECTION B-B



GUARDRAIL BOLT DIMENSION TABLE		
DESIGNATOR	L	T
FBB01	1¼"	1⅛"
FBB03	10"	4"
FBB04	18"	4"

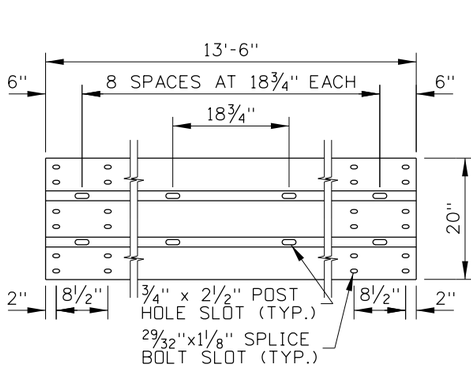
⑩⑪⑫ GUARDRAIL BOLT AND RECESSED NUT

FBB01, FBB03, FBB04



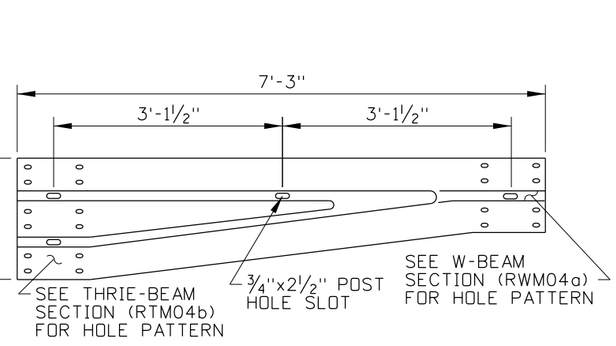
THRIE-BEAM
① TERMINAL CONNECTOR

RTE01b (10 GAUGE)



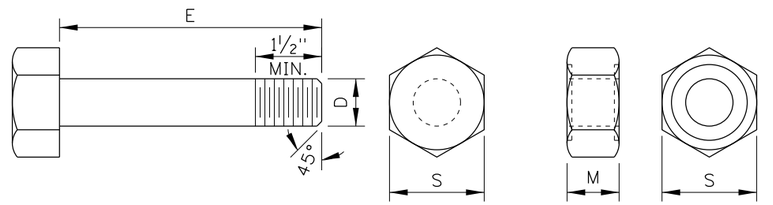
8-SPACE THRIE-
② BEAM GUARDRAIL

RTM08a OR b (12 or 10 GAUGE)



ASYMMETRICAL W-THRIE
③ BEAM TRANSITION SECTION

RWT01b (10 GAUGE)



HEX BOLT DIMENSION TABLE				
DESIGNATOR	D	E	M	S
FBX16b	⅝"	1½"	11/16"	1 1/16"
FBX22b	⅞"	15"	15/16"	1 27/64"

⑬⑭ STRUCTURAL HEX BOLT AND NUT

FBX16b, FBX22b

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED AND SEALED RYAN D. LANCASTER STATE OF IDAHO 13683 MARCH 10, 2021 DATE OF ORIGINAL SIGNATURE

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
6	05-02	MSM	11	04-06	MSM	16	08-11	RSC
7	09-03	MSM	12	11-06	MSM	17	06-17	RDL
8	11-03	MSM	13	05-07	MSM	18	08-18	RDL
9	06-04	MSM	14	11-08	JRV	19	03-19	RDL
10	11-04	MSM	15	09-10	PLR	20	02-20	RDL

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-11_0420.dgn

DRAWING DATE: JUNE, 1988

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

GUARDRAIL TRANSITION HIGH SPEED

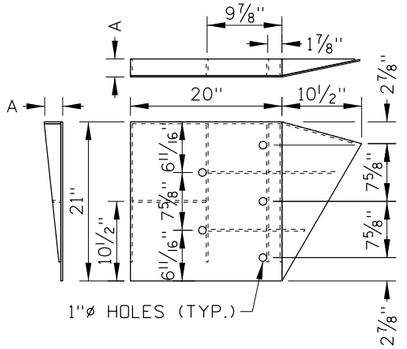
REQUIRES STANDARD DRAWING 615-1

English

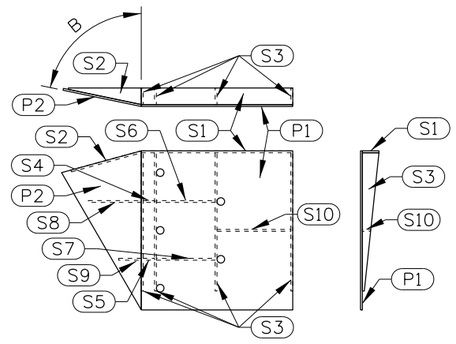
STANDARD DRAWING NO.

612-11

SHEET 1 OF 3



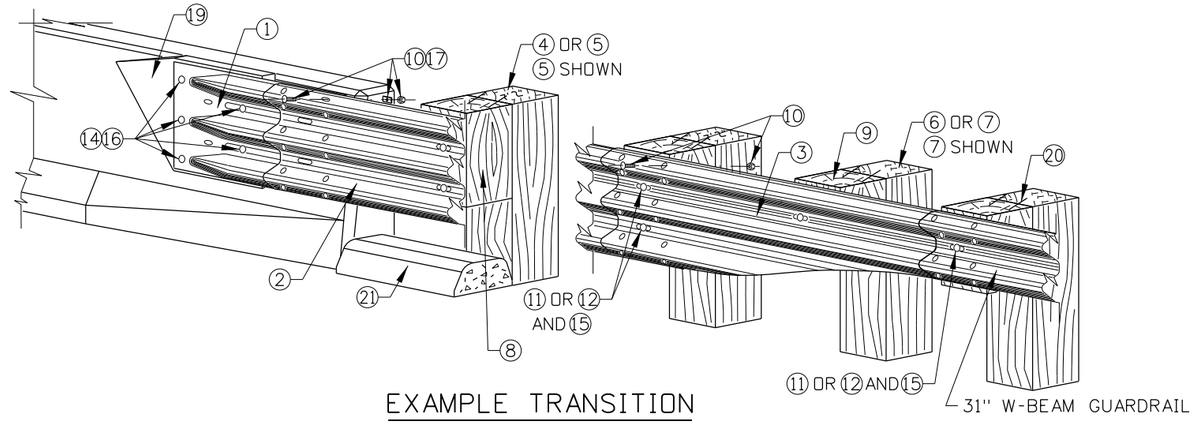
LEFT-HAND VERSION



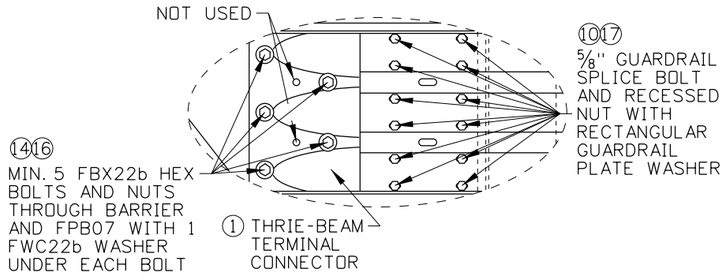
RIGHT-HAND VERSION

⑲ CONCRETE BARRIER TO THRIE-BEAM TRANSITION CONNECTOR PLATE

FPB--, ASTM A36, SEE NOTE NO. 8

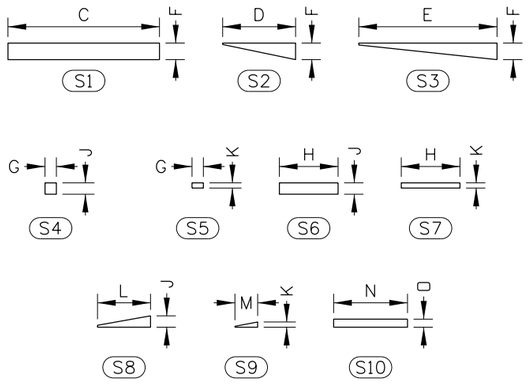


EXAMPLE TRANSITION



CONNECTOR BOLT DETAIL

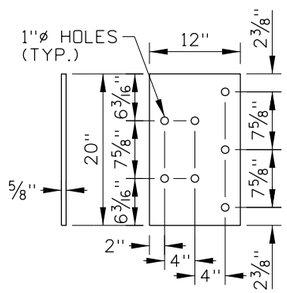
HIGH SPEED GUARDRAIL TRANSITION HARDWARE COMPONENTS TABLE				
ITEM NO.	COMPONENT DESCRIPTION	QTY.	WIDE-FLANGE POST	TIMBER POST
①	THRIE-BEAM TERMINAL CONNECTOR	1	RTE01b	RTE01b
②	8-SPACE NESTED THRIE-BEAM GUARDRAIL	2	RTM08a OR b	RTM08a OR b
③	ASYMMETRICAL W-THRIE BEAM TRANSITION SECTION	1	RWT01b	RWT01b
④	84" WIDE-FLANGE GUARDRAIL POST	7	PWE--	-
⑤	84" TIMBER GUARDRAIL POST	7	-	PDE--
⑥	72" WIDE-FLANGE GUARDRAIL POST	2	PWE01	-
⑦	72" TIMBER GUARDRAIL POST	2	-	PDE02
⑧	MODIFIED THRIE-BEAM BLOCKOUT	7	PDB-- OR POLYETHYLENE	PDB--
⑨	W-BEAM BLOCKOUT	2	PDB01b OR POLYETHYLENE	PDB01a
⑩	⅝" X 1¼" GUARDRAIL SPLICE BOLT AND RECESSED NUT	32	FBB01	FBB01
⑪	⅝" X 10" GUARDRAIL BOLT AND RECESSED NUT	16	FBB03	-
⑫	⅝" X 18" GUARDRAIL BOLT AND RECESSED NUT	16	-	FBB04
⑬	⅝" X 1½" STRUCTURAL HEX BOLT & NUT	14	FBX16b	-
⑭	⅞" X 15" STRUCTURAL HEX BOLT & NUT	5	FBX22b	FBX22b
⑮	⅝" PLAIN ROUND WASHER	16	FWC16a	FWC16a
⑯	⅞" HARDENED ROUND WASHER	10	FWC22b	FWC22b
⑰	RECTANGULAR GUARDRAIL PLATE WASHER	12	FWR03	FWR03
⑱	THRIE-BEAM TRANSITION CONNECTOR PLATE	1	FPB07	FPB07
⑲	CONCRETE BARRIER TO THRIE-BEAM TRANSITION CONNECTOR PLATE	1	FPB--	FPB--
⑳	16D GALVANIZED NAIL	4	-	N/A
㉑	CURB	1	N/A	N/A



STIFFENER DIMENSION TABLE		
DIM.	F-SHAPE / NJ SHAPE	SINGLE SLOPE SHAPE
A	2⅜"	4"
B	78°	69°
C	20"	20"
D	9⅝"	9⅝"
E	18¼"	18¼"
F	2 3/16"	3 13/16"
G	1½"	1½"
H	7¾"	7¾"
J	1½"	2 7/16"
K	11/16"	1⅛"
L	7"	7"
M	3"	3"
N	9¾"	9¾"
O	1 1/16"	1 13/16"

CONNECTOR PLATE STIFFENER DETAIL

SEE NOTE NO. 8



⑱ THRIE-BEAM TRANSITION CONNECTOR PLATE

FPB07

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
6	05-02	MSM	11	04-06	MSM	16	08-11	RSC
7	09-03	MSM	12	11-06	MSM	17	06-17	RDL
8	11-03	MSM	13	05-07	MSM	18	08-18	RDL
9	06-04	MSM	14	11-08	JRV	19	03-19	RDL
10	11-04	MSM	15	09-10	PLR	20	02-20	RDL

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-11_0420.dgn

DRAWING DATE: JUNE, 1988

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

GUARDRAIL TRANSITION HIGH SPEED

REQUIRES STANDARD DRAWING 615-1

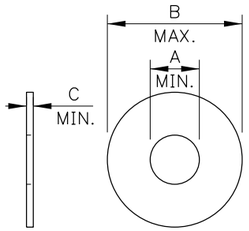
English

STANDARD DRAWING NO.

612-11

SHEET 2 OF 3

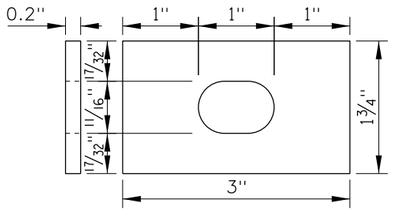
PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER DATE OF ORIGINAL SIGNATURE MARCH 10, 2020 13683 STATE OF IDAHO RYAN D. LANCASTER



WASHER DIMENSION TABLE			
DESIGNATOR	A	B	C
FWC16a	0.649"	1.780"	0.090"
FWC22b	0.938"	1.780"	0.136"

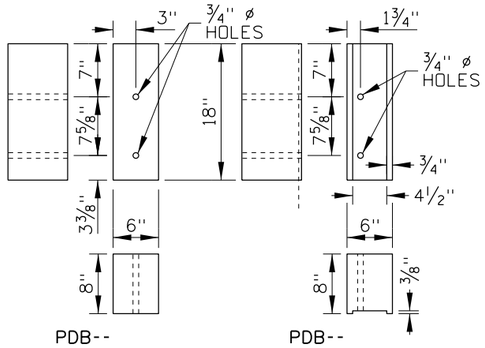
⑮⑯ ROUND WASHERS

FWC16a, FWC22b

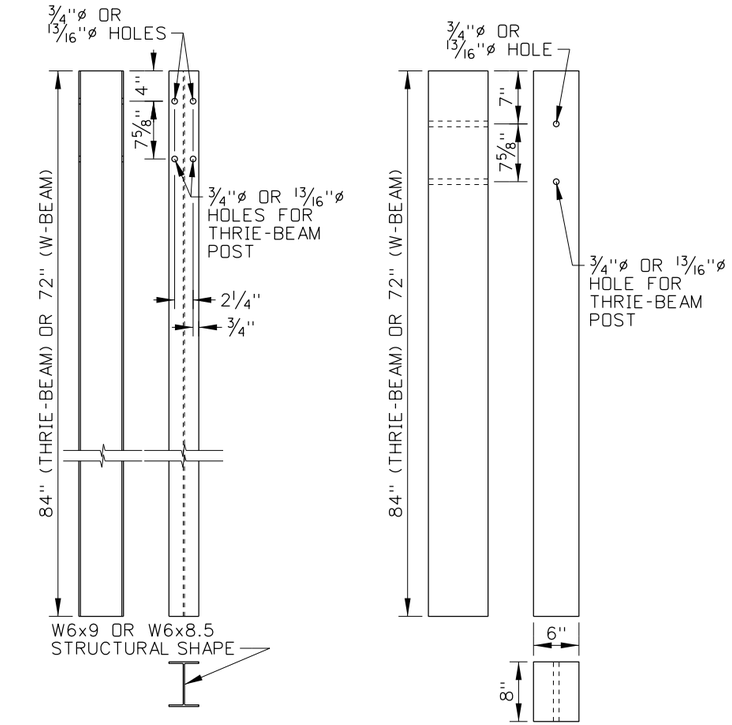


⑰ RECTANGULAR GUARDRAIL PLATE WASHER

FWR03
SEE NOTE NO. 12



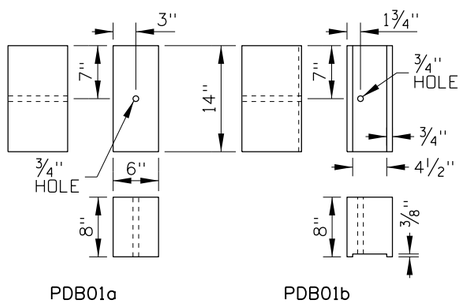
⑧ MODIFIED THRIE-BEAM TIMBER BLOCKOUTS



④⑥ WIDE-FLANGE
PWE--, PWE01

⑤⑦ TIMBER
PDE--, PDE02

TRANSITION POSTS



⑨ W-BEAM TIMBER BLOCKOUTS

NOTES

1. USE THE TRANSITION ON HIGHWAYS WHERE THE POSTED SPEED LIMIT IS 45 MPH OR HIGHER AND WHERE 31" W-BEAM GUARDRAIL JOINS A BRIDGE RAIL OR PARAPET, CAST-IN-PLACE CONCRETE BARRIER, OR PRECAST CONCRETE BARRIER. THE GUARDRAIL TRANSITION SHOWN IS CONSIDERED TO BE A MASH TEST LEVEL 3 TRANSITION.
2. PROVIDE BARRIER HARDWARE AS SHOWN AND AS SPECIFIED IN THE PUBLICATION "A GUIDE TO STANDARDIZED HIGHWAY BARRIER HARDWARE." WHERE THE GUIDE AND PLANS CONFLICT, PROVIDE HARDWARE COMPONENTS AS SHOWN ON THE PLANS.
3. WIDE-FLANGE OR TIMBER POSTS MAY BE USED UNLESS OTHERWISE INDICATED. USE THE SAME POST MATERIAL AS IN THE ADJOINING 31" W-BEAM GUARDRAIL.
4. USE TIMBER OR POLYETHYLENE BLOCKOUTS WITH WIDE-FLANGE POSTS. USE TIMBER BLOCKOUTS WITH TIMBER POSTS. USE THE SAME BLOCKOUT MATERIAL AS IN THE ADJOINING 31" W-BEAM GUARDRAIL. NAIL W-BEAM TIMBER BLOCKOUTS TO TIMBER POSTS TO RESTRICT BLOCK ROTATION.
5. WHEN WIDE-FLANGE POSTS ARE USED AND WHEN PRACTICAL, INSTALL THE BOLTS (FBB02) ON THE UPSTREAM SIDE OF THE POST IN RELATION TO THE ADJACENT TRAFFIC.
6. CONSTRUCT CURB TYPE 5 BENEATH THE THRIE-BEAM SECTION AS SHOWN. THE CURB CAN BE CAST-IN-PLACE OR PRECAST.
7. THE FOLLOWING APPLY TO VARYING BARRIER CONNECTIONS:
   A. BRIDGE RAIL OR PARAPET: SEE BRIDGE PLANS.
   B. CAST-IN-PLACE CONCRETE BARRIER: USE THE CONCRETE BARRIER TO THRIE-BEAM TRANSITION CONNECTOR PLATE.
   C. PRECAST CONCRETE BARRIER:
      I. USE THE CONCRETE BARRIER TO THRIE-BEAM TRANSITION CONNECTOR PLATE.
      II. CHAMFER THE THE FIRST 43 1/2 INCHES OF THE BARRIER THAT EXTENDS BEYOND THE FACE OF THE CURB BENEATH THE TRANSITION.
      III. USE ANCHOR PINS TO PIN DOWN THE FIRST THREE BARRIER SECTIONS.
8. THE FOLLOWING APPLY TO THE CONCRETE BARRIER TO THRIE-BEAM TERMINAL CONNECTOR PLATE:
   A. USE ASTM A36 STEEL.
   B. USE 3/16" THICK STEEL FOR FLAT PLATES P1 AND P2. USE 1/4" THICK STEEL FOR STIFFENERS S1 THROUGH S10.
   C. WELD COMPONENTS WITH E60 ROD.
   D. WELD STIFFENERS LOCATED ON THE OUTSIDE EDGES OF THE COVER PLATES WITH 3/16" CONTINUOUS BACK WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
   E. WELD STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATES WITH 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
   F. WELD RECTANGULAR AND TRIANGULAR COVER PLATES TOGETHER WITH A 3/16" CONTINUOUS BACK WELD ON BOTH SIDES.
   G. GALVANIZE CONNECTOR PLATES AFTER PUNCHING AND ASSEMBLY.
9. GALVANIZE THE THRIE-BEAM TERMINAL CONNECTOR PLATE.
10. OVERLAP SPLICES SO THE EXPOSED W-BEAM EDGE IS DOWNSTREAM OF THE ADJACENT TRAFFIC.
11. PROVIDE A MINIMUM OF 12'-6" OF 31" W-BEAM GUARDRAIL BETWEEN THE GUARDRAIL TRANSITION AND A GUARDRAIL TERMINAL OR ANCHOR.
12. INSTALL RECTANGULAR GUARDRAIL PLATE WASHERS UNDER GUARDRAIL NUTS AT THE SPLICE BETWEEN THE THRIE-BEAM GUARDRAIL AND THRIE-BEAM TERMINAL CONNECTOR.
13. DELINEATE THE TRANSITION WITH TYPE 9 DELINEATORS. SEE THE DELINEATOR STANDARD DRAWING FOR DELINEATOR SPACING.
14. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO MARCH 10, 2021 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
6	05-02	MSM	11	04-06	MSM	16	08-11	RSC
7	09-03	MSM	12	11-06	MSM	17	06-17	RDL
8	11-03	MSM	13	05-07	MSM	18	08-18	RDL
9	06-04	MSM	14	11-08	JRV	19	03-19	RDL
10	11-04	MSM	15	09-10	PLR	20	02-20	RDL

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-11_0420.dgn

DRAWING DATE: JUNE, 1988

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

GUARDRAIL TRANSITION HIGH SPEED

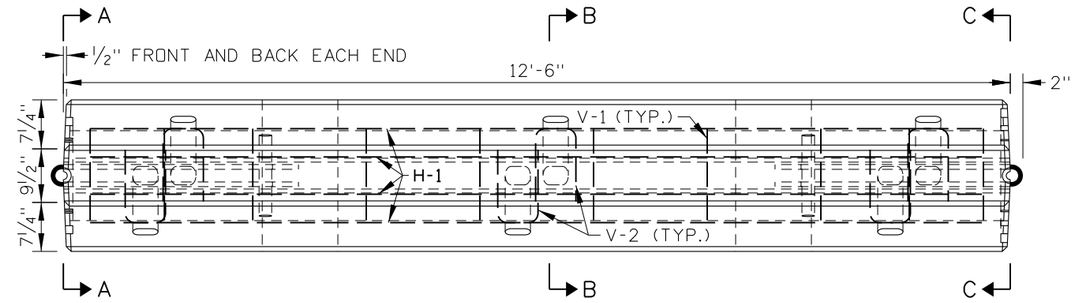
REQUIRES STANDARD DRAWING 615-1

English

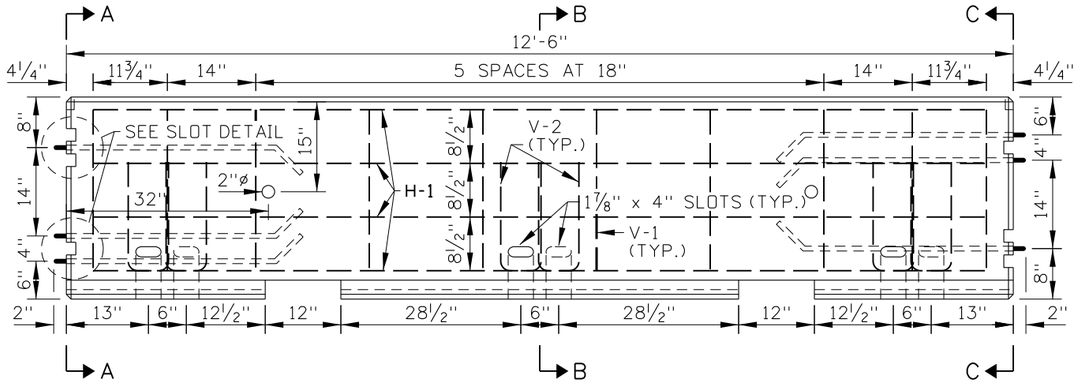
STANDARD DRAWING NO.

612-11

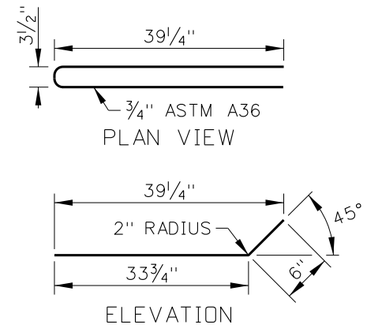
SHEET 3 OF 3



PLAN

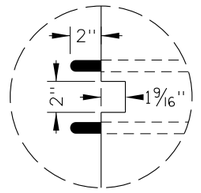


ELEVATION

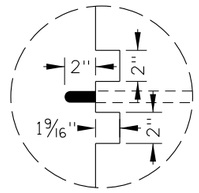


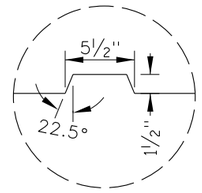
END LOOP BAR DETAIL

REINFORCING STEEL TABLE				
MARK	LOCATION	BAR SIZE	NUMBER OF BARS	SKETCH
H-1	HORIZONTAL BAR. TIED INSIDE V-1 BARS.	NO. 4	8	11'-10"
V-1	VERTICAL BAR.	NO. 4	10	6⅜", 10¾", 6½", 3"ø (TYP.), 10¾", 14⅞", 27" — 7' TOTAL BAR LENGTH
V-2	VERTICAL BAR AROUND SLOTS.	NO. 4	6	22", 6⅜", 3"ø — 4' TOTAL BAR LENGTH

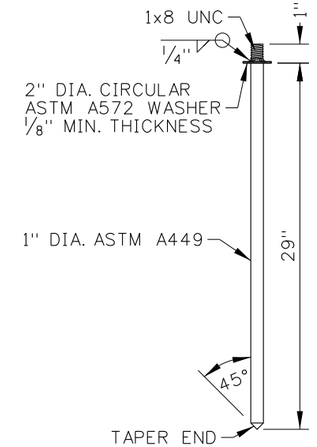


SLOT DETAIL

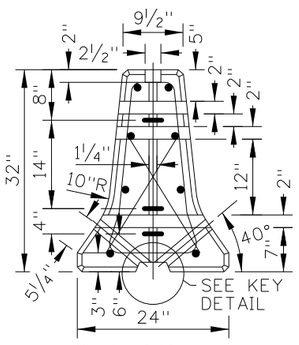




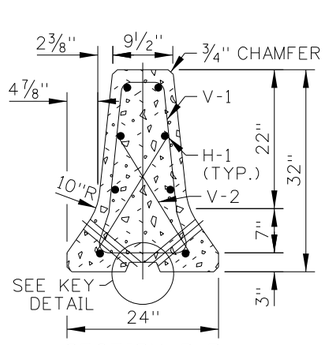
KEY DETAIL



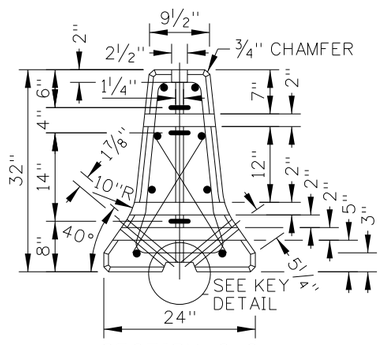
CONNECTING PIN DETAIL



SECTION A-A



SECTION B-B



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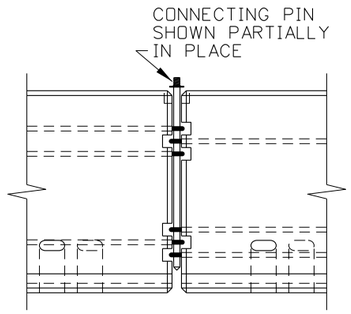
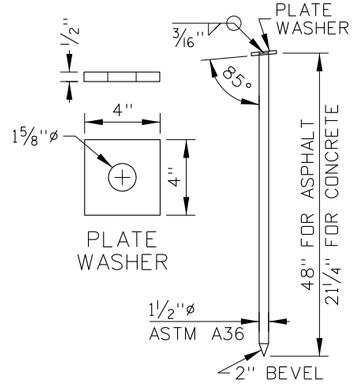


CONNECTION DETAIL



ANCHOR PIN DETAIL

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-20	RDL						
2	03-21	PBH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-18_0421.dgn

DRAWING DATE: MARCH, 2019

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

PRECAST CONCRETE BARRIER

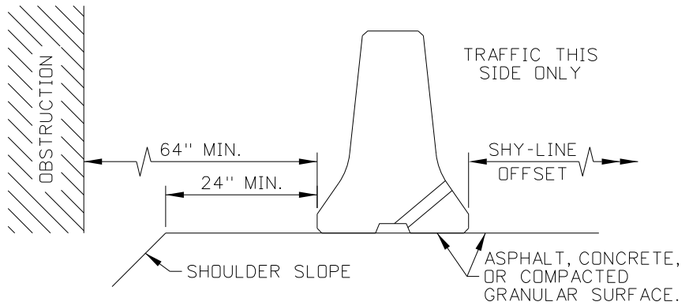
English

STANDARD DRAWING NO.

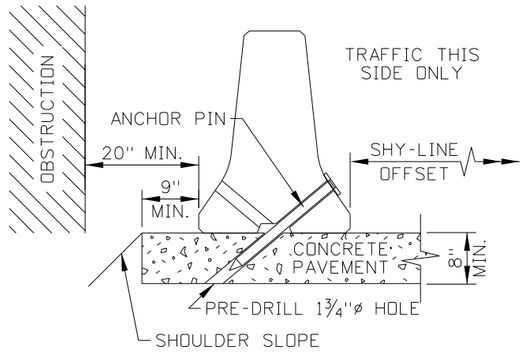
612-18

SHEET 1 OF 3

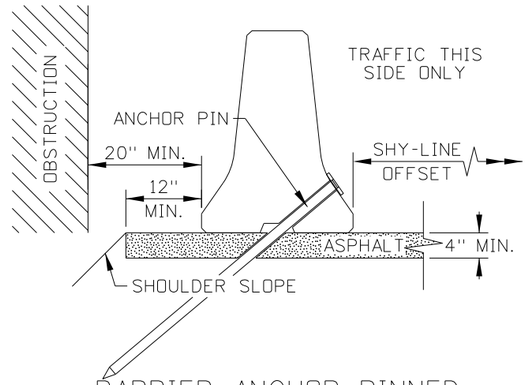
PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER 13683 STATE OF IDAHO ORIGINAL SIGNED DATED MARCH 18, 2021 RYAN D. LANCASTER



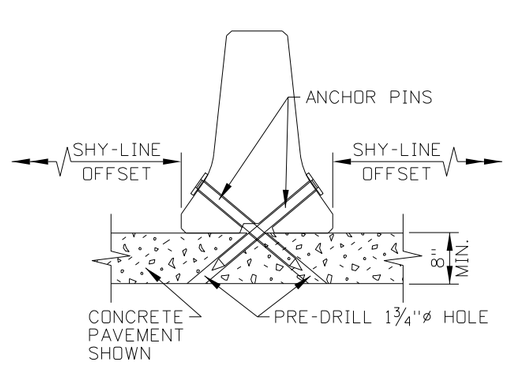
FREE-STANDING BARRIER



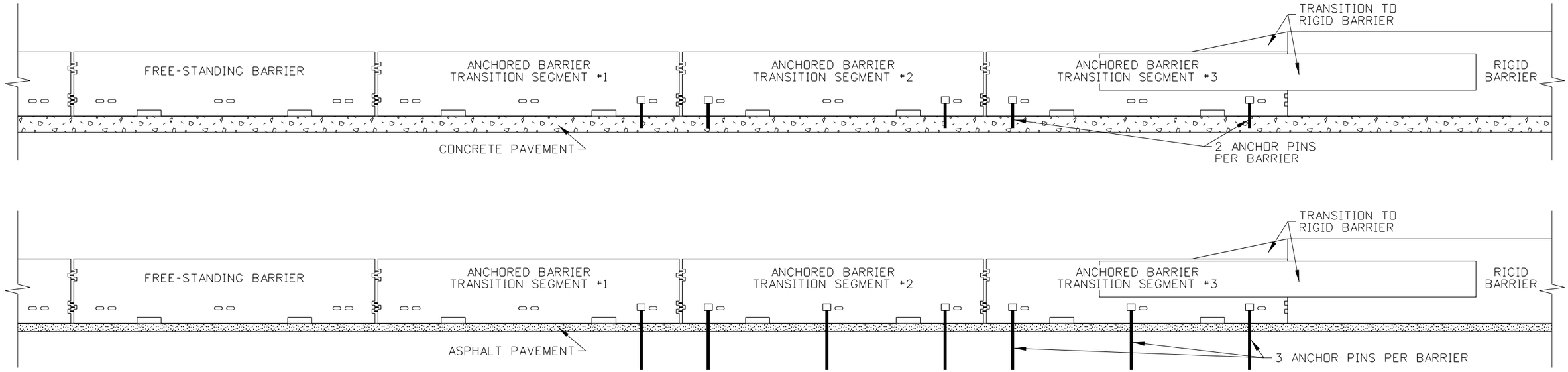
BARRIER ANCHOR PINNED TO CONCRETE PAVEMENT



BARRIER ANCHOR PINNED TO ASPHALT PAVEMENT



MEDIAN BARRIER ANCHOR PINNED



TRANSITION FROM FREE-STANDING TO ANCHOR PINNED AND FROM ANCHOR PINNED TO RIGID BARRIER

(SEE NOTE NOS. 5 THROUGH 8)

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED AND DATED FOR ORIGINAL SIGNATURE AND DATE SEE ORIGINAL STORED AT ITD MARCH 18, 2021 13683 STATE OF IDAHO RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-20	RDL						
2	03-21	PBH						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-18_0421.dgn

DRAWING DATE: MARCH, 2019

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

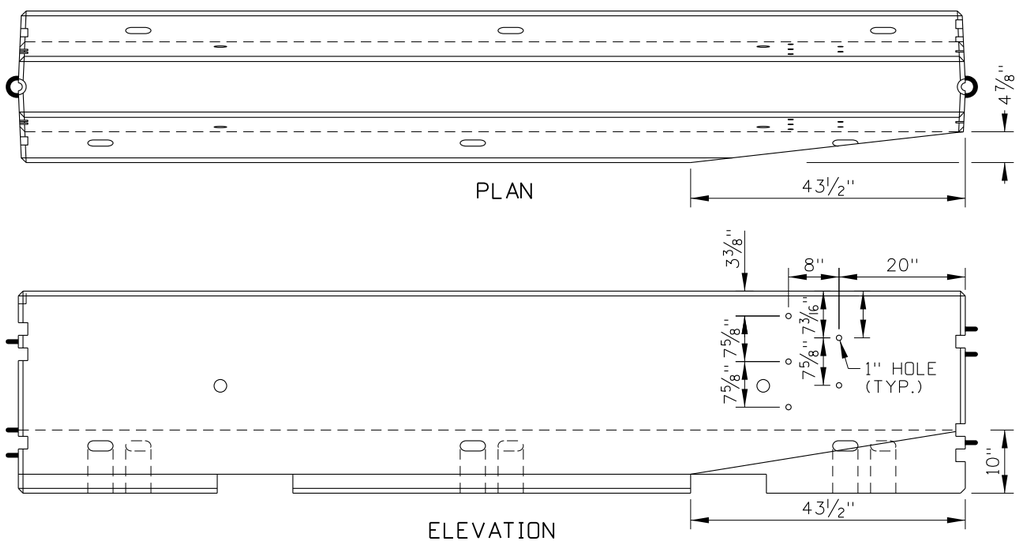
PRECAST CONCRETE BARRIER

English

STANDARD DRAWING NO.

612-18

CONCRETE BARRIER SHY-LINE OFFSET AND FLARE RATE TABLE				
DESIGN SPEED (MPH)	SHY-LINE OFFSET (FT)	BARRIER FLARE RATE		
		INSIDE SHY LINE	AT OR BEYOND SHY LINE	
			NOT STAKED	STAKED
70	9	30:1	15:1	20:1
60	8	26:1	14:1	18:1
55	7	24:1	12:1	16:1
50	6.5	21:1	11:1	14:1
45	6	18:1	10:1	12:1
40	5	16:1	8:1	10:1
30	4	13:1	7:1	8:1



CHAMFERED BARRIER FOR GUARDRAIL TRANSITIONS

(SEE NOTE NO. 8)

NOTES

1. THE PRECAST CONCRETE BARRIER SHOWN IS A MASH TEST LEVEL 3 LONGITUDINAL BARRIER SYSTEM. THE BARRIER USES THE F-SHAPE CROSS SECTION.
2. PRECAST USING CLASS 50AF CONCRETE. CHAMFER TOP, BOTTOM, AND ENDS ¾". PROVIDE 2" MINIMUM CONCRETE COVER OVER REINFORCING STEEL. A 2" WHITE PVC SLEEVE MAY BE USED TO FORM THE LIFTING HOLE. IF USED, LEAVE THE PVC SLEEVE IN PLACE.
3. PIN CONNECT BARRIER UNITS. PRECAST CONCRETE BARRIERS MAY BE ANGLED APPROXIMATELY 7° AT CONNECTIONS.
4. PROVIDE THE CALCULATED LENGTH OF NEED UPSTREAM FROM HAZARDS AND PROVIDE AT LEAST THREE PRECAST CONCRETE BARRIER SEGMENTS DOWNSTREAM OF HAZARDS. DO NOT INSTALL FEWER THAN SIX BARRIER SEGMENTS.
5. THE PRECAST CONCRETE BARRIER CAN BE INSTALLED FREE-STANDING OR ANCHOR PINNED TO PAVEMENT.
   A. IF FREE-STANDING, ANCHOR THE TWO BARRIER SEGMENTS NEAREST THE END (NOT COUNTING A CONCRETE BARRIER TERMINAL) WITH ANCHOR PINS AS DESCRIBED IN NOTE 5B.
   B. IF ANCHOR PINNED, USE TWO PINS IN EACH BARRIER SEGMENT INSTALLED ON CONCRETE PAVEMENT AND USE THREE PINS IN EACH BARRIER SEGMENT INSTALLED ON ASPHALT PAVEMENT. IF ANCHOR PINNED IN A MEDIAN, INSTALL ANCHOR PINS ON BOTH SIDES OF THE BARRIER (4 TOTAL ON CONCRETE PAVEMENT, 6 TOTAL ON ASPHALT PAVEMENT). PRE-DRILL ANCHOR PIN HOLES IN CONCRETE PAVEMENT USING THE SLOT AS A GUIDE.
6. WHEN TRANSITIONING FROM FREE-STANDING TO ANCHOR PINNED BARRIER, INSTALL ONE ANCHOR PIN IN THE SLOT OF THE LAST FREE-STANDING SEGMENT CLOSEST TO THE FIRST ANCHOR PINNED SEGMENT.
7. WHEN TRANSITIONING FROM FREE-STANDING BARRIER TO RIGID BARRIER (SUCH AS CAST-IN-PLACE CONCRETE BARRIER OR BRIDGE RAIL/PARAPET), TRANSITION FIRST TO ANCHOR PINNED PRECAST BARRIER (MINIMUM THREE SEGMENTS), THEN TO THE RIGID BARRIER. CUT OFF THE END LOOPS OF THE LAST SEGMENT OF PRECAST BARRIER IN THE F-SHAPE TO SINGLE SLOPE TRANSITION.
8. WHEN TRANSITIONING FROM FREE-STANDING BARRIER TO W-BEAM GUARDRAIL, ANCHOR PIN THE LAST THREE PRECAST CONCRETE BARRIER SEGMENTS AND CONNECT TO A GUARDRAIL TRANSITION. CHAMFER THE LAST 43½ INCHES OF THE BARRIER AND DRILL FIVE 1" DIAMETER HOLES AS SHOWN.
9. FLARE THE UPSTREAM END OF THE BARRIER IN ACCORDANCE WITH THE CONCRETE BARRIER SHY-LINE OFFSET AND FLARE RATE TABLE.
10. TERMINATE THE BARRIER WITH A CRASHWORTHY END TREATMENT OR TRANSITION TO ANOTHER BARRIER SYSTEM. ACCEPTABLE END TREATMENTS INCLUDE TAPERING THE BARRIER OUTSIDE OF THE CLEAR ZONE, TRANSITIONING TO W-BEAM GUARDRAIL, A CRASH CUSHION, A PRECAST CONCRETE BARRIER TERMINAL, OR TRANSITION TO A BRIDGE RAIL OR PARAPET. WHEN CONNECTING THE F-SHAPE PRECAST CONCRETE BARRIER TO A NEW JERSEY SHAPE PRECAST CONCRETE BARRIER, USE THE F-SHAPE TO NEW JERSEY SHAPE TRANSITION.
11. DRAWINGS NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER STATE OF IDAHO 13683 MARCH 18, 2021 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY	
1	02-20	RDL							
2	03-21	PBH							

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-18_0421.dgn

DRAWING DATE: MARCH, 2019

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

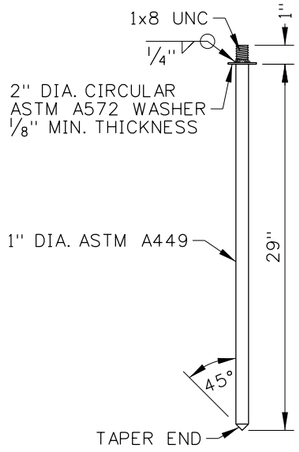
STANDARD DRAWING

PRECAST CONCRETE BARRIER

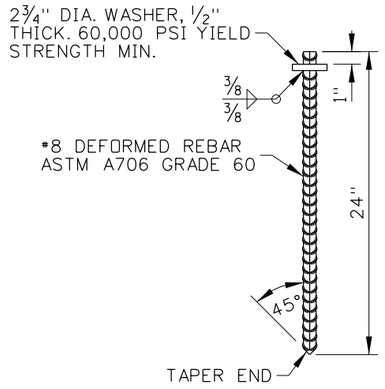
English

STANDARD DRAWING NO. 612-18

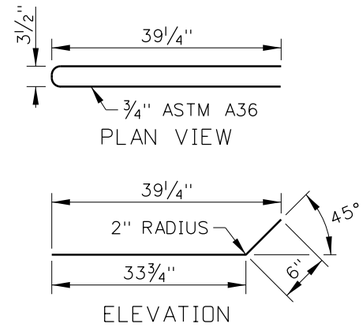
SHEET 3 OF 3



CONNECTING PIN DETAIL

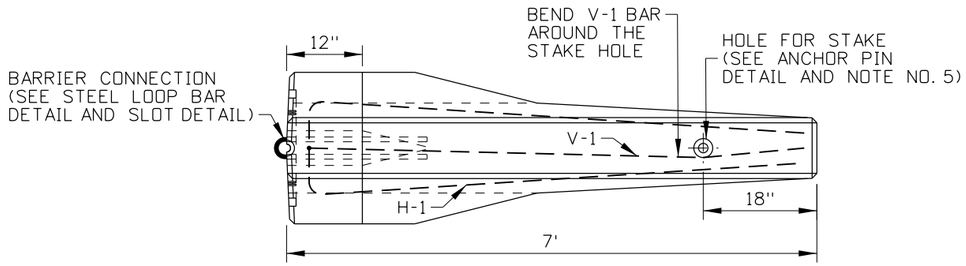


ANCHOR PIN DETAIL



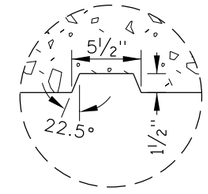
END LOOP BAR DETAIL

TERMINAL TYPE A REINFORCING STEEL TABLE				
MARK	LOCATION	BAR SIZE	NUMBER OF BARS	SKETCH
H-1	HORIZONTAL BAR.	NO. 5	1	6'-2", 10", 14'-6" TOTAL BAR LENGTH
V-1	VERTICAL BAR.	NO. 5	1	8", 28", 6'-3", 9'-2" TOTAL BAR LENGTH

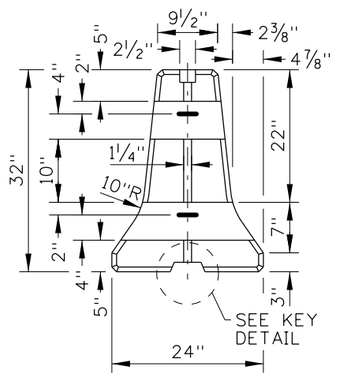


PLAN

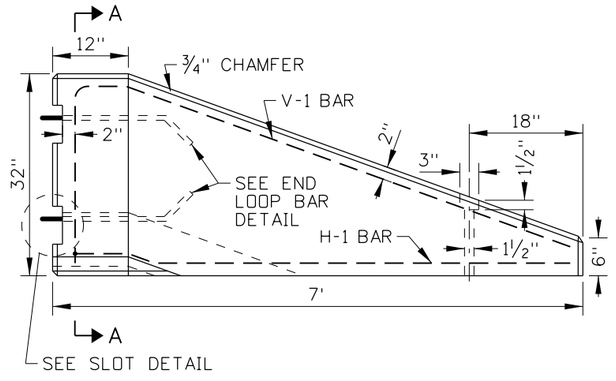
SLOT DETAIL



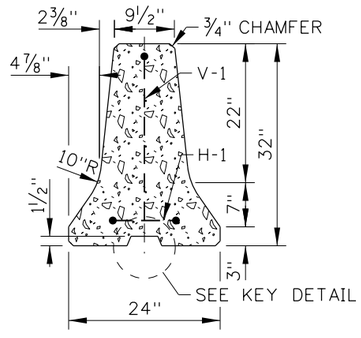
KEY DETAIL



END VIEW



ELEVATION



SECTION A-A

TERMINAL TYPE A

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
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2	08-86	GB	7	09-93	MSM	12	11-14	RDL
3	06-87	GB	8	02-96	MSM	13	03-19	RDL
4	04-89	GB	9	01-00	MSM	14	02-20	PBH
5	01-91	GB	10	12-04	MSM			

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-20_0420.dgn

DRAWING DATE: NOVEMBER, 1974

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

PRECAST CONCRETE BARRIER TERMINALS

English

STANDARD DRAWING NO.

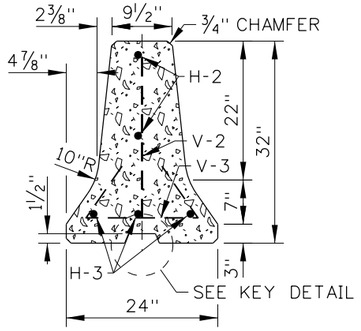
612-20

SHEET 1 OF 2

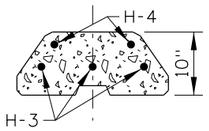
ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER 13683 STATE OF IDAHO

ORIGINAL SIGNED BY RYAN D. LANCASTER MARCH 10, 2020

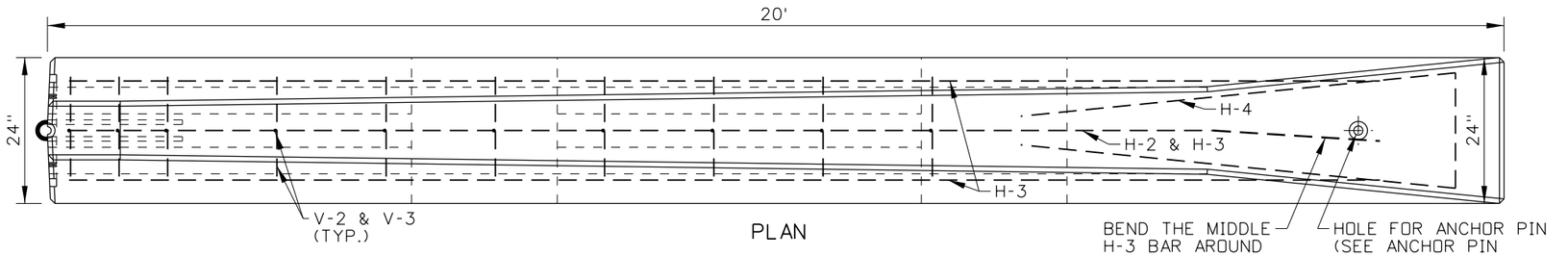


SECTION B-B
ALSO SEE END VIEW ON SHEET 1

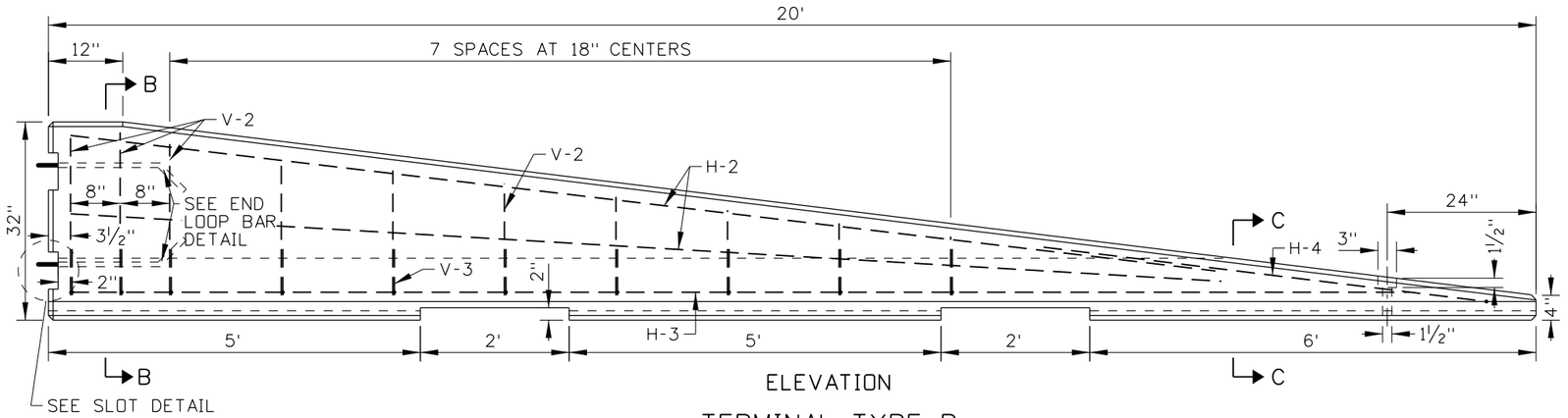


SECTION C-C

TERMINAL TYPE B REINFORCING STEEL TABLE				
MARK	LOCATION	BAR SIZE	NUMBER OF BARS	SKETCH
H-2	HORIZONTAL BAR. TIED TO V-1 BARS.	NO. 5	2	15'-6"
H-3	HORIZONTAL BAR. TIED TO V2 BARS.	NO. 5	3	18'
H-4	HORIZONTAL BAR. AT END OF BARRIER ALONG TOP SLOPE.	NO. 5	1	6'-0", 85°, 22" — 13'-10" TOTAL BAR LENGTH
V-2	VERTICAL BAR.	NO. 5	10	L (IN.) / QTY.: 26/2, 25/1, 23/1, 21/1, 18/1, 16/1, 14/1, 12/1, 10/1 — L
V-3	VERTICAL BAR. TIE TO V-1 AND H-2 BARS.	NO. 5	10	3'-2" TOTAL BAR LENGTH — 55°, 10", 18"



PLAN



ELEVATION

NOTES

1. THE TYPE A TERMINAL MAY BE USED ON THE TRAILING END OF PRECAST CONCRETE BARRIER IF THE TERMINAL IS OUTSIDE OF THE CLEAR-ZONE OF TRAVEL LANES IN THE OPPOSING DIRECTION.
2. THE TYPE B TERMINAL MAY BE USED WITHIN THE CLEAR-ZONE WHEN TRAFFIC SPEEDS ARE 40 MPH OR LESS AND THE AVAILABLE SPACE IS LIMITED BY RIGHT-OF-WAY CONSTRAINTS OR THE OTHER ROADSIDE FEATURES THAT PRECLUDE USING A GUARDRAIL TERMINAL OR CRASH CUSHION.
3. PRECAST TYPE A TERMINAL WITH CLASS 30AF OR HIGHER STRENGTH CONCRETE. PRECAST TYPE B TERMINAL WITH CLASS 50AF CONCRETE. CHAMFER TOP, BOTTOM, AND ENDS 3/4". PROVIDE 2" MINIMUM CONCRETE COVER OVER REINFORCING STEEL.
4. PIN CONNECT THE TERMINALS TO CONCRETE BARRIERS.
5. ANCHOR PIN THE TERMINALS AT THE TAPERED END. ENSURE THE ANCHOR PIN DOES NOT PROTRUDE BEYOND THE EXTERIOR OF THE TERMINAL SURFACE.
6. DRAWING NOT TO SCALE.

TERMINAL TYPE B

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER — LICENSED — ORIGINAL SIGNED BY RYAN D. LANCASTER — DATE OF ORIGINAL SIGNATURE MARCH 10, 2020 — 13683 — STATE OF IDAHO — RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	01-86	GB	6	12-92	MSM	11	09-10	PLR
2	08-86	GB	7	09-93	MSM	12	11-14	RDL
3	06-87	GB	8	02-96	MSM	13	03-19	RDL
4	04-89	GB	9	01-00	MSM	14	02-20	PBH
5	01-91	GB	10	12-04	MSM			

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 612-20_0420.dgn

DRAWING DATE: NOVEMBER, 1974

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

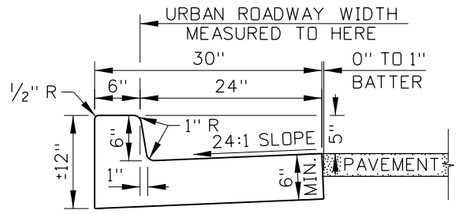
STANDARD DRAWING

PRECAST CONCRETE BARRIER TERMINALS

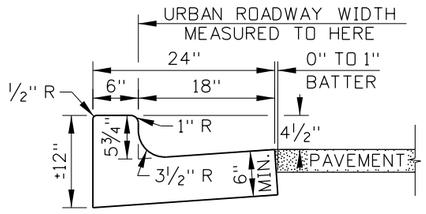
English

STANDARD DRAWING NO.

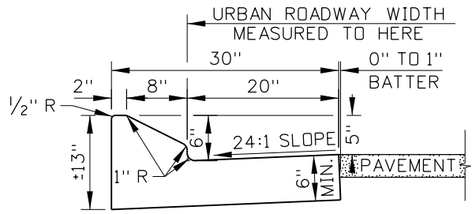
612-20



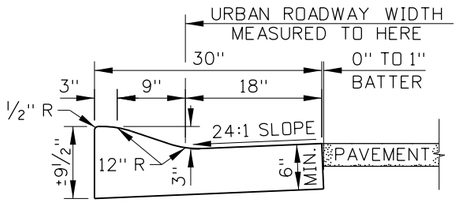
CURB AND GUTTER TYPE 1



CURB AND GUTTER TYPE 2
(SEE NOTE NO. 4)



CURB AND GUTTER TYPE 3



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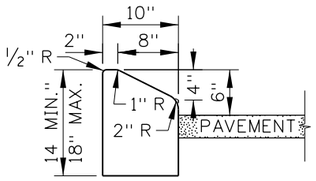
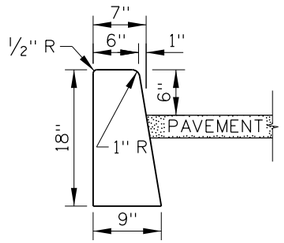


CURB TYPE 1



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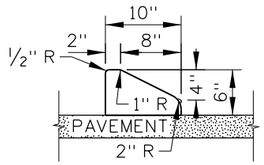
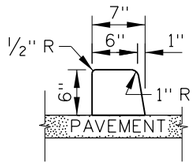
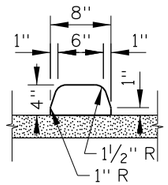


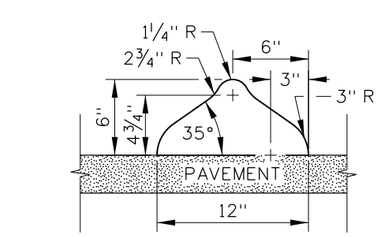
CURB TYPE 3
(SEE NOTE NO. 3)



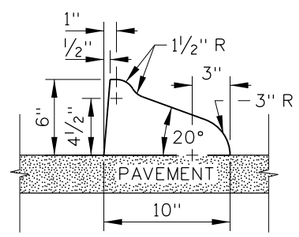
CURB TYPE 4
(SEE NOTE NO. 3)



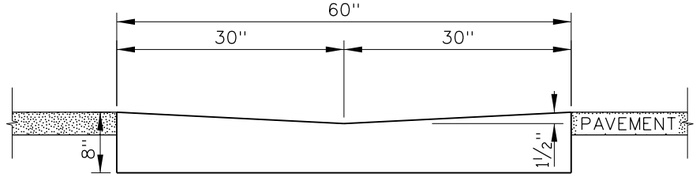
CURB TYPE 5
(SEE NOTE NO. 3)



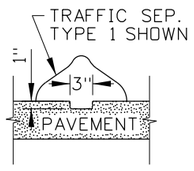
TRAFFIC SEPARATOR TYPE 1
(SEE NOTE NO. 3)



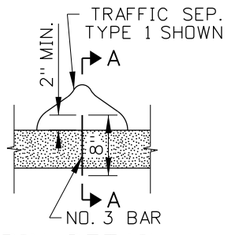
TRAFFIC SEPARATOR TYPE 2
(SEE NOTE NO. 3)



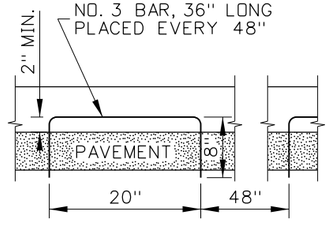
GUTTER TYPE 1



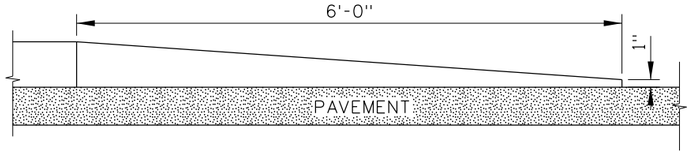
KEY DETAIL
(SEE NOTE NO. 3)



PIN DETAIL
(SEE NOTE NO. 3)



SECTION A-A



CURB TERMINUS DETAIL
(SEE NOTE NO. 5)

NOTES

1. TRANSITION BETWEEN DIFFERENT TYPES OVER 10 FEET.
2. PROVIDE 4 INCHES OF AGGREGATE BASE UNDER CURB AND GUTTER, CURB, OR GUTTER UNLESS THE CURB IS PLACED ON PAVEMENT.
3. PORTLAND CEMENT CONCRETE CURB OR TRAFFIC SEPARATOR ON ASPHALT CONCRETE PAVEMENT:

   PROVIDE A KEY IN THE PAVEMENT AT THE CENTERLINE OF THE CURB OR TRAFFIC SEPARATOR. SEE THE KEY DETAIL.

   CONCRETE CURBS OR TRAFFIC SEPARATORS MAY BE PINNED TO THE PAVEMENT STRUCTURE IN LIEU OF THE KEY. DRILL THE PAVEMENT AND PLACE PINS BEFORE THE CURB OR TRAFFIC SEPARATOR IS CONSTRUCTED. SEE THE PIN DETAIL.

   PORTLAND CEMENT CONCRETE CURB OR TRAFFIC SEPARATOR ON PORTLAND CEMENT CONCRETE PAVEMENT:

   USE AN EPOXY BONDING AGENT. NO KEY IS NEEDED.

   ASPHALT CONCRETE CURB OR TRAFFIC SEPARATOR ON ASPHALT CONCRETE PAVEMENT:

   NO KEY IS NEEDED. ENSURE THAT THE CURB IS BONDED TO THE PAVEMENT.
4. ENSURE THAT THE GUTTER SLOPE DOES NOT EXCEED 5 PERCENT AT CURB RAMPS.
5. TAPER THE LAST 6 FEET OF CURB AND GUTTER TYPES 1, 2, 3, AND 4 AND CURB TYPES 1 AND 2 DOWN TO A 1 INCH HEIGHT. TAPER CURB TYPES 3, 4, AND 5 AND TRAFFIC SEPARATORS TYPES 1 AND 2 DOWN TO A 1 INCH HEIGHT AT A 1:1 SLOPE.
6. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER
LICENSED
ORIGINAL SIGNED
RYAN D. LANCASTER
AUGUST 22, 2018
13683
STATE OF IDAHO

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-76		6	12-04	MSM	11	07-18	RDL
2	12-90	GB	7	06-05	MSM			
3	09-93	MSM	8	07-10	JAW			
4	12-94	MSM	9	11-14	RDL			
5	12-01	MSM	10	06-17	RDL			

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 615-1_0818.dgn

DRAWING DATE: APRIL, 1961

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

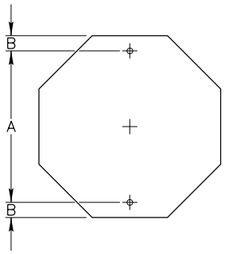
CURB AND GUTTER

English

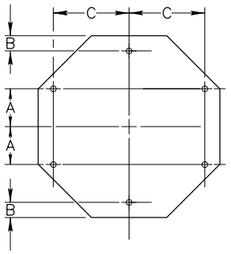
STANDARD DRAWING NO.

615-1

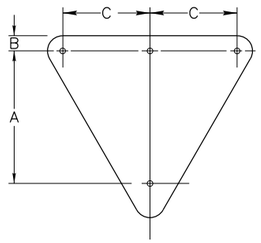
SHEET 1 OF 1



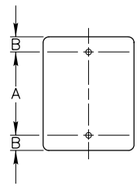
SIGN SIZE	A	B
30"X30"	24"	3"



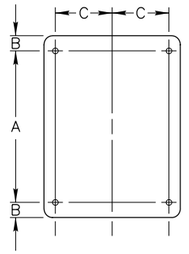
SIGN SIZE	A	B	C
36"X36"	8"	3"	12"
48"X48"	10"	—	20"



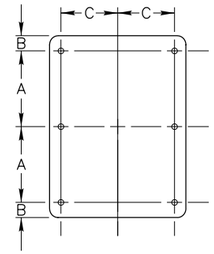
SIGN SIZE	A	B	C
30"X30"	18"	3"	—
36"X36"	23"	3"	—
48"X48"	25"	3"	17"
60"X60"	35"	4"	23"



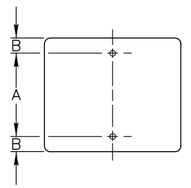
SIGN SIZE	A	B
6"X12"	9"	1½"
6"X18"	15"	1½"
9"X12"	9"	1½"
12"X18"	15"	1½"
12"X30"	24"	3"
12"X36"	32"	2"
18"X24"	18"	3"
24"X30"	24"	3"
24"X36"	30"	3"
30"X36"	30"	3"



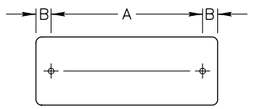
SIGN SIZE	A	B	C
36"X36"	30"	3"	15"
36"X48"	42"	3"	15"
48"X30"	24"	3"	15"
48"X36"	30"	3"	15"
60"X36"	30"	3"	21"



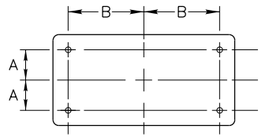
SIGN SIZE	A	B	C
48"X60"	27"	3"	15"



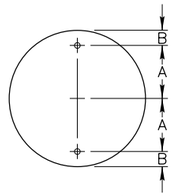
SIGN SIZE	A	B
12"X6"	3"	1½"
18"X9"	6"	1½"
18"X12"	9"	1½"
18"X18"	15"	1½"
21"X15"	12"	1½"
24"X6"	3"	1½"
24"X10"	7"	1½"
24"X12"	9"	1½"
24"X18"	15"	1½"
24"X24"	18"	3"
30"X18"	12"	3"
30"X24"	18"	3"
30"X30"	24"	3"
36"X24"	18"	3"
36"X30"	24"	3"
42"X24"	18"	3"
42"X30"	24"	3"
42"X36"	30"	3"



SIGN SIZE	A	B
30"X15"	24"	3"
36"X12"	30"	3"
36"X18"	24"	6"
48"X12"	42"	3"
48"X18"	42"	3"
54"X18"	48"	3"



SIGN SIZE	A	B
48"X24"	9"	20"



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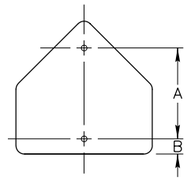
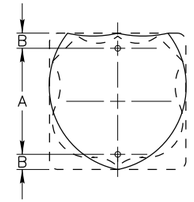


SIGN SIZE	A	B
30"X30"	21"	3"
36"X36"	24"	3"



SIGN SIZE	A	B
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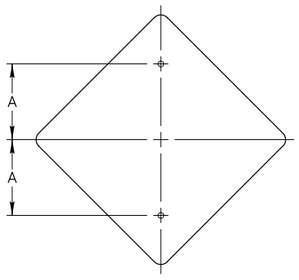
30"X24"	18"	3"



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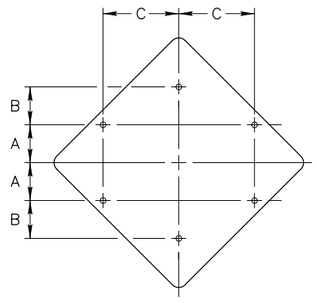
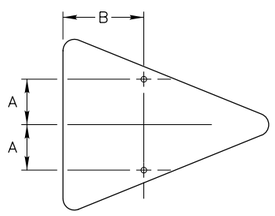
24"X24"	12"
30"X30"	15"



SIGN SIZE	A	B	C
36"X36"	8"	10"	12"
48"X48"	10"	—	20"



SIGN SIZE	A	B
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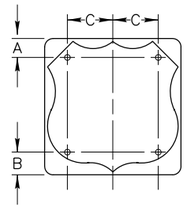
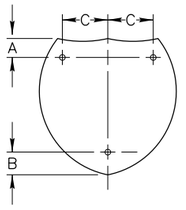


SIGN SIZE	A	B	C
36"X36"	5"	6"	12"



SIGN SIZE	A	B	C
36"X36"	5"	6"	12"
45"X36"	5"	6"	16"

NOTES:

1. ALL MOUNTING HOLES SHALL BE ⅜" DIAMETER.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER STATE OF IDAHO 13683 MANUAL SIGNATURE OR AUTHENTICATED ELECTRONIC SIGNATURE 1, 2017 RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	12-01	NQB						
2	06-07	HEB						
3	07-14	HEB						
4	05-17	HEB						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 616-1_0517.dgn

DRAWING DATE: DECEMBER, 1994

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

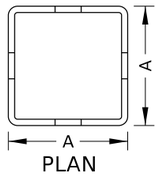
STANDARD DRAWING

PUNCHING SCHEDULE FOR TYPE "B" OR TYPE "E" SIGNS

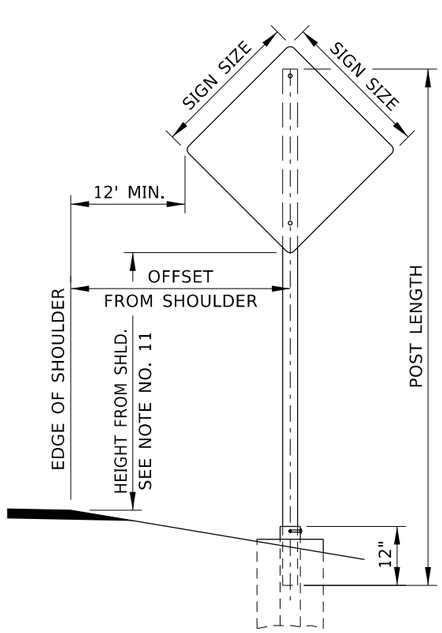
English

STANDARD DRAWING NO. 616-1

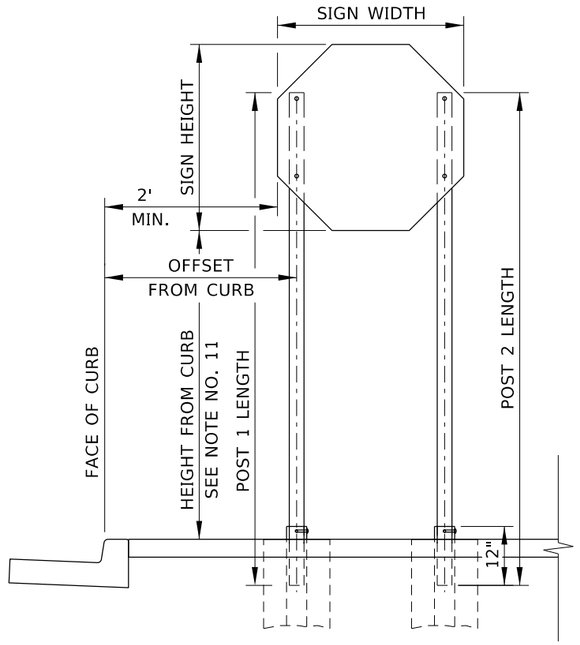
SHEET 1 OF 1



PLAN

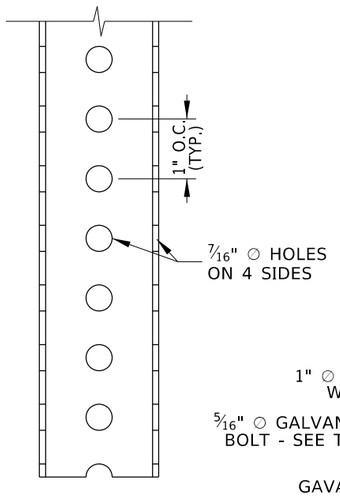


ONE POST

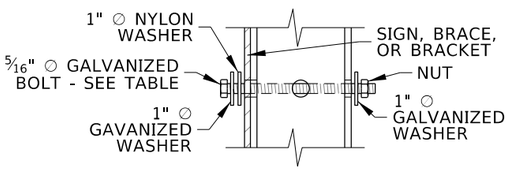


TWO POSTS

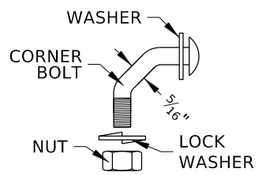
SIGN ASSEMBLY MEASUREMENTS



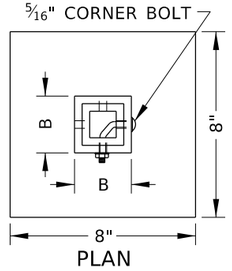
ELEVATION



SIGN BOLT



CORNER BOLT

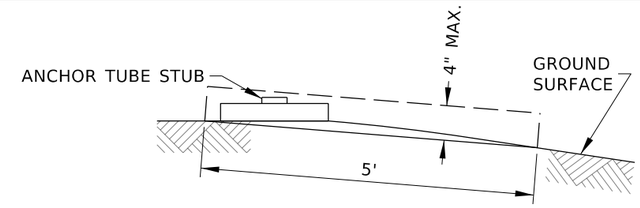


PLAN

FASTENER DETAILS

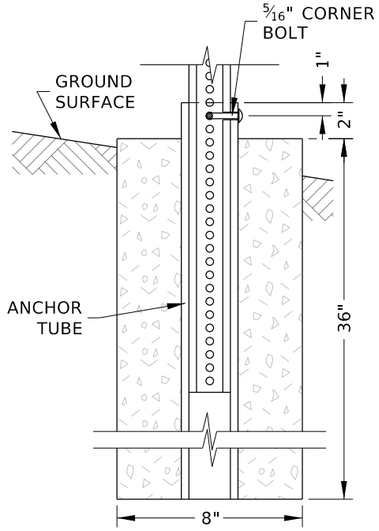
SEE NOTE NO. 10

SIGN POST AND FOUNDATION TABLE										
TYPE E PERFORATED STEEL TUBE POST					FOUNDATION		ANCHOR TUBE			FASTENERS
POST TYPE	PERFORATED STEEL TUBE POST SIZE		POST WEIGHT (LB/FT)	MAXIMUM SIGN LOAD (SFxFT)	SIZE (INxINxIN)	CONCRETE (CY)	B (IN)	GAUGE	POST WEIGHT (LB/FT)	SIGN BOLT LENGTH (IN)
	A (IN)	GAUGE								
E-1	2	12	2.42	43	8x8x36	0.05	2½x2½	7	5.59	2½
E-2	2½	12	4.01	91	8x8x36	0.05	3x3	7	6.87	3



FOUNDATION AND STUB HEIGHT DETAIL

SEE NOTE NO. 15



ELEVATION

FOUNDATION

SEE NOTE NOS. 12 & 13

NOTES

1. USE TYPE E - PERFORATED STEEL TUBE POSTS - WITH TYPE B - SHEET ALUMINUM AND TYPE E - HDO PLYWOOD SIGNS.
2. SEE THE TRAFFIC MANUAL TO CALCULATE SIGN LOAD PER POST.
3. SEE PROJECT SIGN SUMMARY FOR SIGN ASSEMBLY DIMENSIONS.
4. USE ONE OR MORE TYPE E - PERFORATED STEEL TUBE POST. DO NOT MIX E-1 AND E-2 POSTS ON THE SAME SIGN ASSEMBLY.
5. POST 1 IS CLOSEST TO THE HIGHWAY, WHETHER INSTALLED ON THE RIGHT OR LEFT SIDE.
6. A BREAKAWAY DEVICE MUST BE INSTALLED IF THREE POSTS ARE USED. REFER TO THE ITD QUALIFIED PRODUCTS LIST FOR BREAKAWAY DEVICES.
7. TYPE E - PERFORATED STEEL TUBE POSTS - DO NOT NEED TO BE SHIELDED BY GUARDRAIL OR BARRIER. WHEN PERFORATED STEEL POSTS ARE INSTALLED BEHIND GUARDRAIL OR BARRIER, ENSURE THE POSTS ARE OUTSIDE OF THE GUARDRAIL OR BARRIER WORKING WIDTH.
8. SIGNS CAN BE MOUNTED BACK-TO-BACK IF THE SHAPE OF STOP, YIELD, OR WARNING SIGNS ARE NOT SHIELDED.
9. SIGNS ARE INSTALLED WITH OR WITHOUT BRACES DEPENDENT ON SIGN SIZE AND APPLICATION.
10. TYPE B - SHEET ALUMINUM - OR TYPE E - HDO PLYWOOD - SIGNS CAN BE AFFIXED TO THE POST OR THROUGH BRACES OR BRACKETS.
11. INSTALL SIGNS AT THE FOLLOWING HEIGHTS:
    A. IF INSTALLED IN A RURAL AREA, 5 FEET ABOVE THE PAVEMENT ELEVATION OR 4 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN.
    B. IF INSTALLED IN THE VICINITY OF A CURB OR IN A BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA WHERE PARKING OR PEDESTRIAN MOVEMENTS ARE LIKELY, 7 FEET ABOVE THE PAVEMENT ELEVATION OR 6 FEET IF A SUPPLEMENTARY PLAQUE IS INSTALLED BELOW THE SIGN. IF INSTALLED LOWER THAN 7 FEET, ENSURE SIGNS DO NOT PROJECT MORE THAN 4 INCHES INTO THE PEDESTRIAN FACILITY.
12. PRECAST FOUNDATION OR CAST FOUNDATION IN PLACE. ENSURE THE BOTTOM OF THE FOUNDATION IS KEPT OPEN TO DRAIN. IF THE ANCHOR TUBE IS PERFORATED, ENSURE THE INSIDE OF THE ANCHOR REMAINS OPEN.
13. IF SOLID BEDROCK IS ENCOUNTERED WITHIN THE FOUNDATION DEPTH, DRILL A 4.5 INCH VERTICAL HOLE AND SOCKET THE ANCHOR TUBE. FILL DRILLED HOLES WITH GROUT, TYPE B, CLASS 1. ENSURE THE INSIDE OF THE ANCHOR TUBE REMAINS OPEN. WHEN INSTALLED IN BEDROCK, ENSURE THE E-1 POST IS EMBEDDED 18 INCHES DEEP AND THE E-2 POST IS EMBEDDED 24 INCHES.
14. WHEN THE SIGN IS INSTALLED ON A BACKSLOPE, ENSURE THE SIGN POST IS AT LEAST 5' HIGHER THAN THE GROUND SURFACE.
15. ENSURE NO PART OF THE FOUNDATION OR SIGN POST STUB PROJECTS MORE THAN 4 IN. ABOVE ANY 5 FT. CHORD ALIGNED PERPENDICULARLY TO THE EDGE OF THE HIGHWAY BETWEEN A POINT ON THE GROUND SURFACE ON ONE SIDE OF THE SUPPORT TO A POINT ON THE GROUND SURFACE ON THE OTHER SIDE OF THE SUPPORT.
16. DRAWING NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER ORIGINAL SIGNED BY DATE ORIGINAL SIGNED MARCH 1, 2023 STATE OF IDAHO 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-92	JEC	6	05-15	HEB			
2	12-94	HEB	7	12-16	HEB			
3	06-99	HEB	8	02-23	RDL			
4	12-01	NQB						
5	12-13	HEB						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 616-7_0423.dgn

DRAWING DATE: JULY, 1991

IDAHO TRANSPORTATION DEPARTMENT

YOUR Safety→YOUR Mobility→YOUR Economic Opportunity

BOISE IDAHO

ORIGINAL SIGNED BY: MONICA CRIDER

HIGHWAY DESIGN ENGINEER

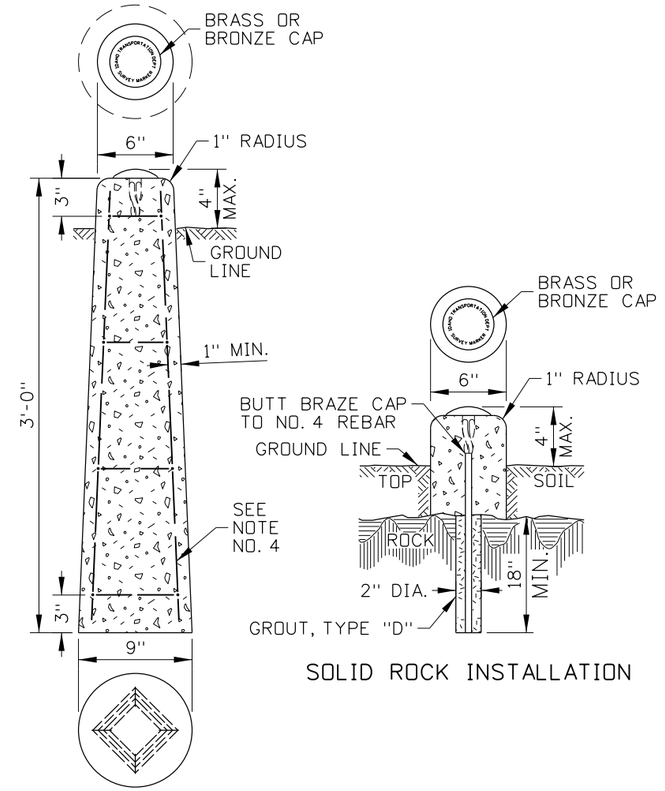
STANDARD DRAWING

STEEL SIGN POST AND FOUNDATION TYPE E - PERFORATED STEEL TUBE POST

ENGLISH

STANDARD DRAWING NO. 616-7

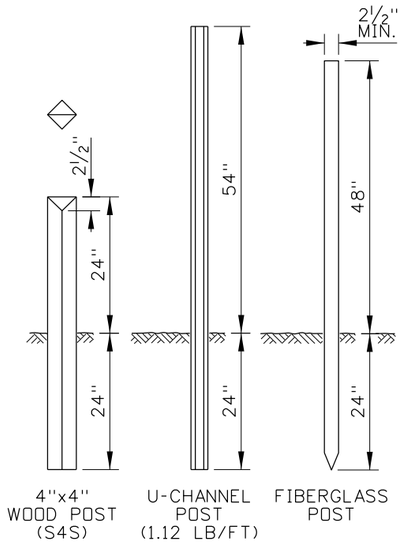
SHEET 1 OF 1



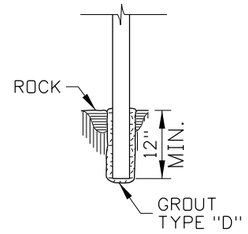
EARTH INSTALLATION

SOLID ROCK INSTALLATION

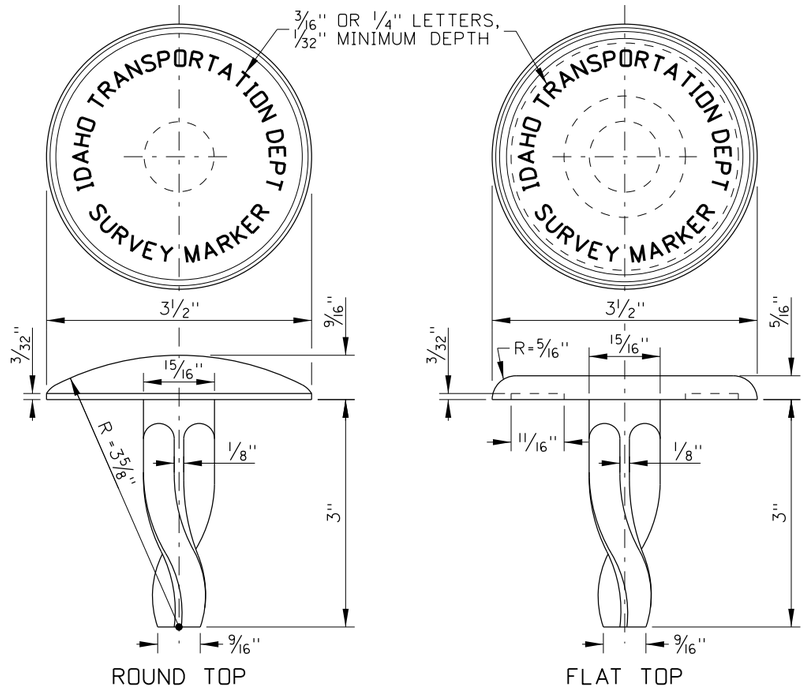
MONUMENT MARKER



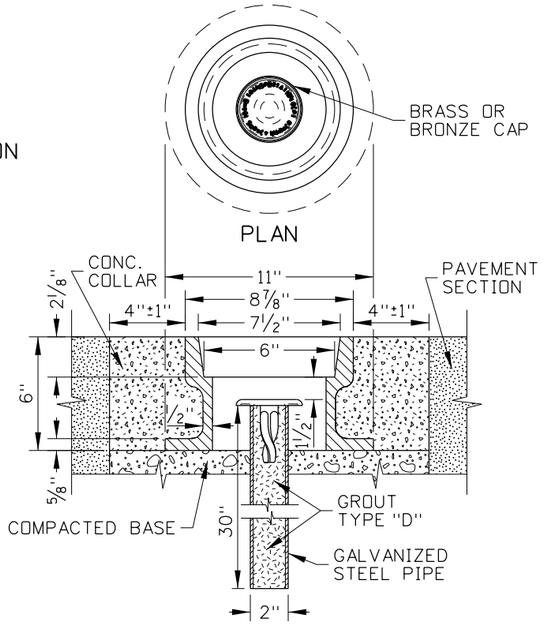
WITNESS POSTS



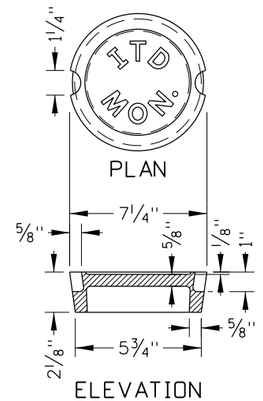
WITNESS POST SOLID ROCK INSTALLATION DETAIL



BRASS OR BRONZE CAP DETAILS



CASING



COVER DETAIL

NOTES

1. SURVEY MONUMENTS CAN BE PRECAST OR CAST-IN-PLACE. SET THE BRASS CAP IN THE TOP CENTER OF THE MONUMENT.
2. USE ROUND TOP MARKERS FOR VERTICAL CONTROL, HORIZONTAL CONTROL, OR BOTH. USE FLAT TOP MARKERS FOR HORIZONTAL CONTROL.
3. ENSURE THAT HORIZONTAL CONTROL MARKERS ARE PLACED WITHIN ½" OF THE POINT ESTABLISHED. THE VERTICAL CONTROL POINT IS THE HIGHEST POINT OF THE ROUND TOP CAP.
4. REINFORCE EARTH INSTALLATION MONUMENT MARKER WITH FOUR NO. 2 BARS, 33½" LONG, AND PLACED AN EQUAL DISTANCE APART. TIE WITH NO. 8 WIRE AT 10" INTERVALS.
5. USE CASING WHEN THE MONUMENT IS PLACED IN PAVEMENT. THE MONUMENT MAY BE PLACED CLOSER TO THE GROUND OR IN CASING IN AREAS THAT ARE MOWED. OTHER CASING DESIGNS MAY BE USED WITH APPROVAL FROM THE ENGINEER.
6. MACHINE COVER AND CASING CONTACT SURFACES TO A TRUE BEARING ALL AROUND.
7. THE MONUMENT MARKER MAY BE USED AS A RIGHT-OF-WAY MARKER, PROJECT MARKER, REFERENCE MARKER, CONTROL POINT, OR PROPERTY CORNER.
8. STAMP THE MONUMENT CAP ACCORDING TO ITS PURPOSE. "ROW" FOR RIGHT-OF-WAY MARKER, "PRJ" FOR PROJECT MARKER, "REF" FOR REFERENCE MARKER, "CTL" FOR CONTROL POINT, OR "COR" FOR PROPERTY CORNER.
9. PLACE THE WITNESS POSTS AS CLOSE TO THE MARKERS AS PRACTICAL. WHEN SOLID ROCK IS ENCOUNTERED, GROUT THE WITNESS POST AS SHOWN IN THE WITNESS POST SOLID ROCK INSTALLATION DETAIL.
10. DRAWINGS NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER
LICENSED
ORIGINAL SIGNED BY
RYAN D. LANCASTER
DATE ORIGINAL SIGNED
DECEMBER 8, 2021
13683
STATE OF IDAHO
RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	05-62		6	01-68		11	06-02	MSM
2	06-62		7	09-72		12	12-04	MSM
3	05-65		8	07-90	GB	13	11-06	MSM
4	09-66		9	09-93	MSM	14	12-12	RDL
5	04-67		10	05-95	MSM	15	11-15	RDL

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 618-1_1215.dgn

DRAWING DATE: APRIL, 1961

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: TED E. MASON *for*

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

MARKER POSTS, WITNESS POSTS, AND STREET MONUMENTS

English

STANDARD DRAWING NO.

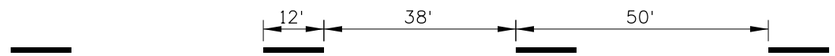
618-1

SHEET 1 OF 1

LONGITUDINAL PAVEMENT MARKING LINES

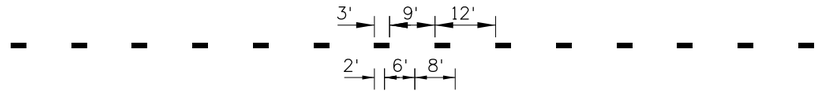
SOLID LINE
COLOR: WHITE OR YELLOW
WIDTH: NORMAL (4" TO 6") OR WIDE (2X NORMAL WIDTH)

DOUBLE LINE
COLOR: WHITE OR YELLOW
WIDTH: NORMAL (4" TO 6" LINE, 3" GAP, 4" TO 6" LINE)



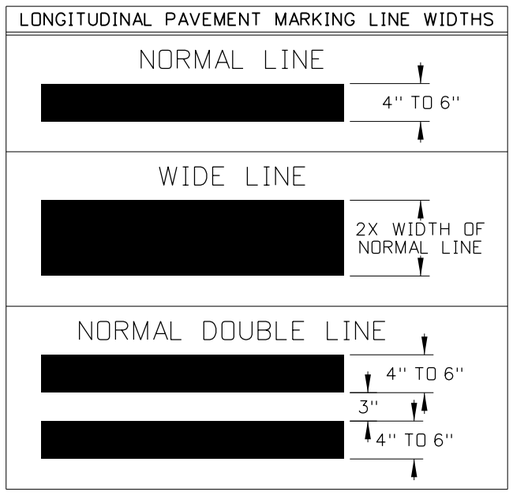
BROKEN LINE
COLOR: WHITE OR YELLOW
WIDTH: NORMAL (4" TO 6")

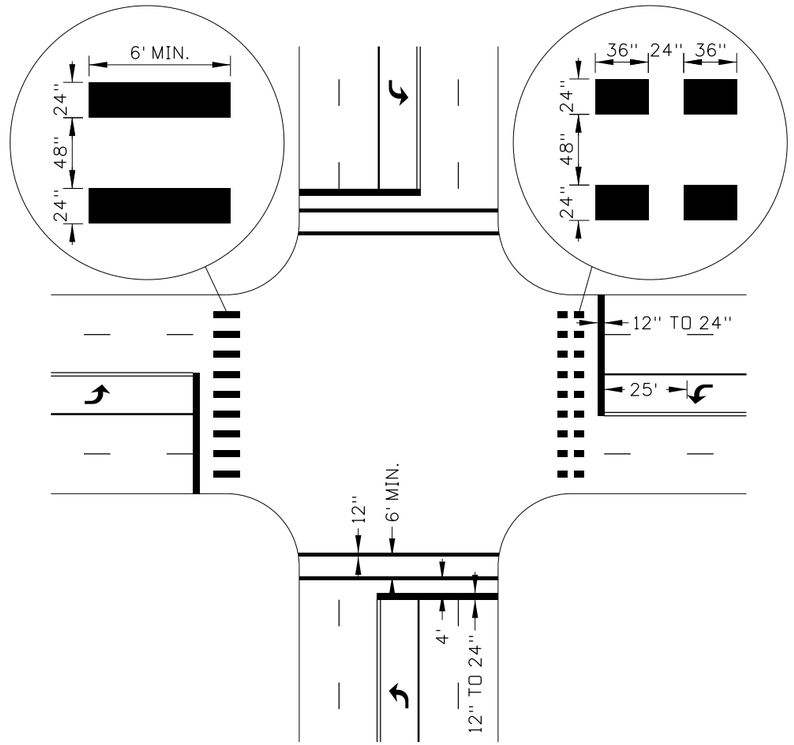
COMBINATION SOLID AND BROKEN LINE
COLOR: YELLOW
WIDTH: NORMAL (4" TO 6" LINE, 3" GAP, 4" TO 6" LINE)



DOTTED LINE
3' LINE SEGMENT, 9' GAP OR 2' LINE SEGMENT, 6' GAP (SEE NOTE NO. 2)
COLOR: WHITE OR YELLOW
WIDTH: NORMAL (4" TO 6") OR WIDE (2X NORMAL WIDTH)

LONGITUDINAL PAVEMENT MARKING LINE WIDTHS





EXAMPLE STOP LINE AND CROSSWALK DETAIL

NOTES

1. USE WHITE AND YELLOW PAVEMENT MARKINGS AS FOLLOWS:
   WHITE:
   A. THE SEPARATION OF TRAFFIC TRAVELING IN THE SAME DIRECTION.
   B. THE RIGHT-HAND EDGE OF THE HIGHWAY.
   YELLOW:
   A. THE SEPARATION OF TRAFFIC TRAVELING IN OPPOSITE DIRECTIONS.
   B. THE LEFT-HAND EDGE DIVIDED HIGHWAYS, ONE-WAY STREETS, OR RAMPS.
   C. TWO-WAY LEFT-TURN LANES.
2. USE LONGITUDINAL PAVEMENT MARKINGS AS FOLLOWS:
   A. USE SOLID LINES TO INDICATE THE LEFT OR RIGHT EDGE OF TRAVEL WAY OR TO DISCOURAGE LANE CHANGING.
   B. USE DOUBLE LINES TO PROHIBIT PASSING OR LANE CHANGING.
   C. USE BROKEN LINES TO INDICATE PASSING OR LANE CHANGING ARE PERMITTED. USE THE 12' LINE SEGMENT, 38' GAP PATTERN FOR ALL SPEEDS.
   D. USE COMBINATION SOLID AND BROKEN LINES TO PROHIBIT PASSING IN ONE DIRECTION WHILE PERMITTING PASSING IN THE OPPOSITE DIRECTION OR TO INDICATE A TWO-WAY LEFT-TURN LANE.
   E. USE DOTTED LINES AS FOLLOWS:
      3' LINE SEGMENT, 9' GAP:
      I. TO SEPARATE A THROUGH LANE AND A LANE THAT BECOMES A MANDATORY EXIT OR TURN LANE (DROPPED LANE).
      II. TO SEPARATE THROUGH LANES AND TURN LANES OR RAMPS.
      III. TO SEPARATE A THROUGH LANE AND AN AUXILIARY LANE 2 MILES OR LESS IN LENGTH BETWEEN FREEWAY ENTRANCE RAMP AND EXIT RAMPS OR 1 MILE OR LESS IN LENGTH BETWEEN INTERSECTIONS.
      2' LINE SEGMENT, 6' GAP:
      I. AS A LANE LINE EXTENSION THROUGH AN INTERSECTION.
3. USE 12' VEHICULAR TRAVEL LANES UNLESS OTHERWISE INDICATED. MEASURE LANE WIDTHS FROM THE CENTER OF LINE TO THE CENTER OF LINE.
4. THE PAVEMENT MARKING APPLICATION EXAMPLES PRESENTED SHOW COMMON APPLICATION. MODIFY AS NEEDED TO ACCOMODATE OTHER SITUATIONS.
5. METHODS FOR DETERMINING TURN-LANE LENGTH ARE DESCRIBED IN THE ITD TRAFFIC MANUAL.
6. USE 15W FOR POSTED SPEED LIMITS OF 45 MPH OR GREATER. USE 8W FOR POSTED SPEED LIMITS OF 40 MPH OR LESS. W IS THE OFFSET WIDTH IN FEET.
7. USE DISTANCE L WHEN PRACTICAL. USE THE FOLLOWING EQUATION TO DETERMINE L:
   L = WS
   WHERE:
   W = OFFSET WIDTH IN FEET
   S = POSTED SPEED LIMIT
8. USE LANE-USE ARROWS AND WORD PAVEMENT MARKINGS AS SHOWN. SOME MARKINGS ARE OPTIONAL.
   A. USE TWO OR MORE LANE-USE ARROWS UNLESS THE TURN-LANE LENGTH IS LESS THAN 75 FEET. IF SHORTER THAN 75 FEET, THE DOWNSTREAM ARROW CAN BE OMITTED.
   B. USE TWO-WAY LEFT-TURN ARROW MARKINGS NEAR THE BEGINNING OF A TWO-WAY LEFT-TURN LANE AND EVERY ½ MILE THEREAFTER.
9. BREAK EDGE AND LANE LINES AT INTERSECTIONS WITH MINOR ROADS. CONTINUE EDGE AND LANE LINES THROUGH DRIVEWAY APPROACHES.
10. ON TWO-LANE HIGHWAYS, PAINT THE CENTERLINE IN ONE DIRECTION IN ASCENDING STATION/MILEPOST DIRECTION AS SHOWN.
11. DRAWINGS NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED BY RYAN D. LANCASTER ON MARCH 17, 2020 STATE OF IDAHO 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 630-1_0420.dgn

DRAWING DATE: DECEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

STANDARD DRAWING

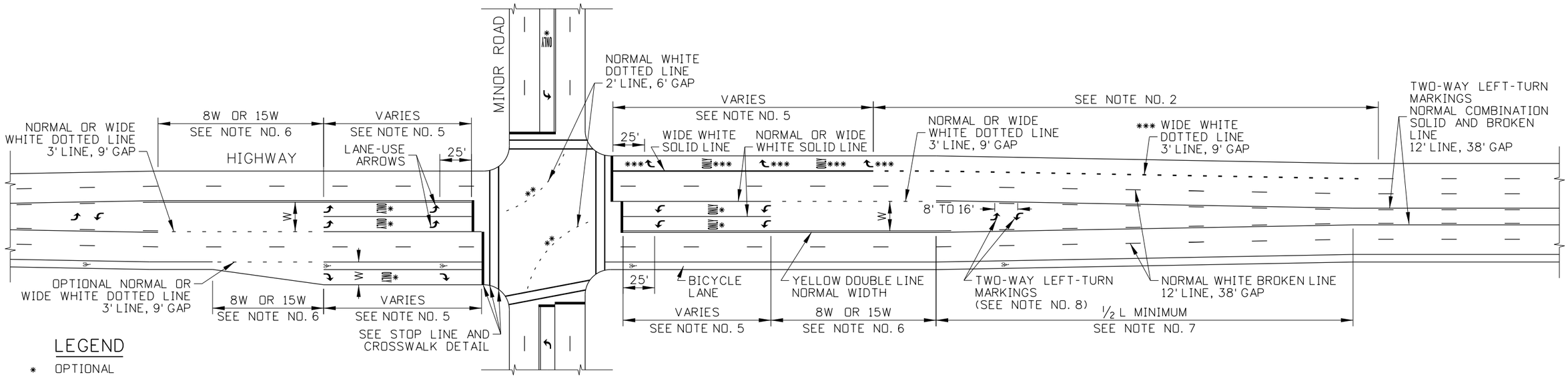
PAVEMENT MARKINGS

English

STANDARD DRAWING NO.

630-1

SHEET 1 OF 4



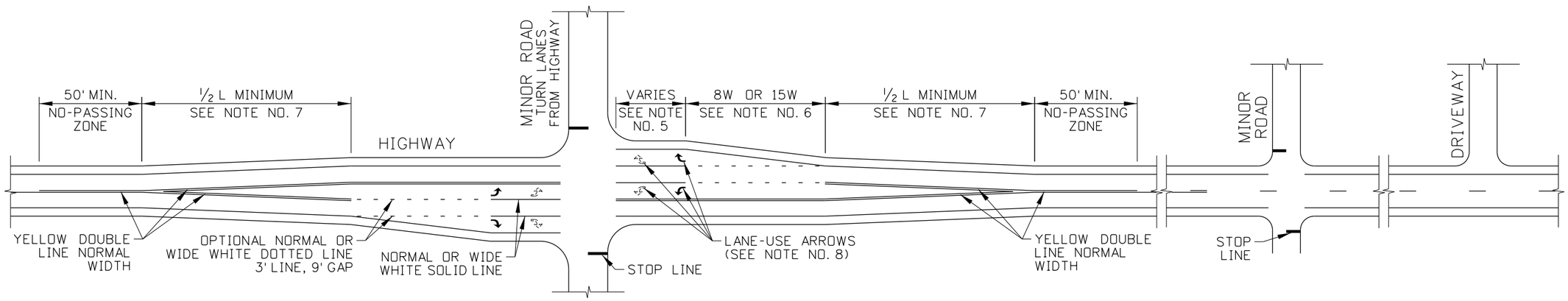
LEGEND

* OPTIONAL

** DOTTED LANE LINE EXTENSION (2' SEGMENT, 6' GAP)

*** REQUIRED WHERE THROUGH LANE BECOMES MANDATORY TURN LANE

EXAMPLE URBAN HIGHWAY PAVEMENT MARKINGS



EXAMPLE RURAL HIGHWAY PAVEMENT MARKINGS

SEE NOTE NO. 9

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER — LICENSED — ORIGINAL SIGNED BY RYAN D. LANCASTER — DATE OF ORIGINAL SIGNATURE MARCH 17, 2020 — 13683 — STATE OF IDAHO — RYAN D. LANCASTER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 630-1_0420.dgn

DRAWING DATE: DECEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

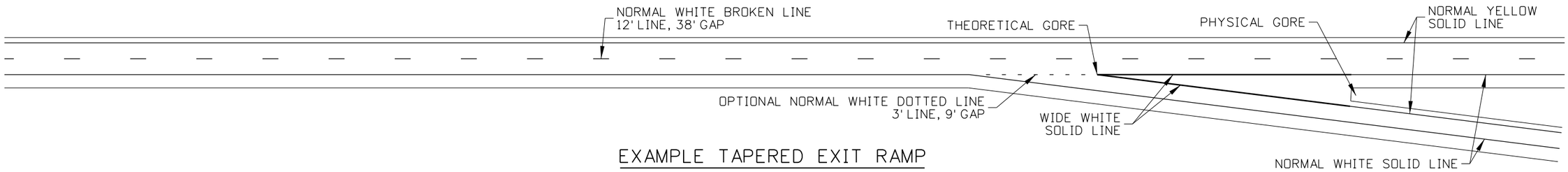
STANDARD DRAWING

PAVEMENT MARKINGS

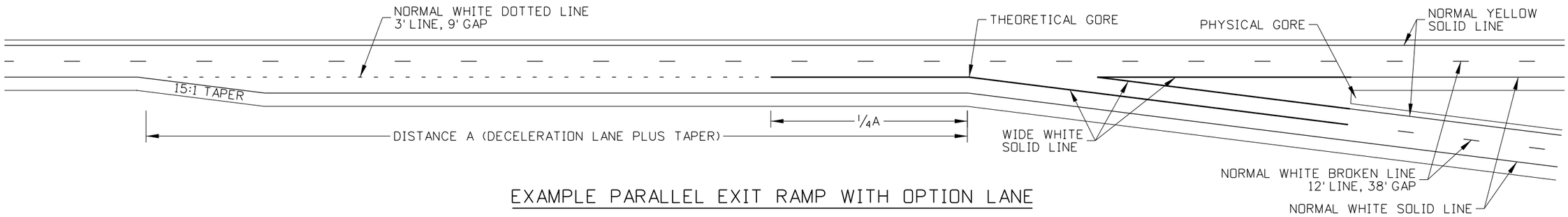
English

STANDARD DRAWING NO.

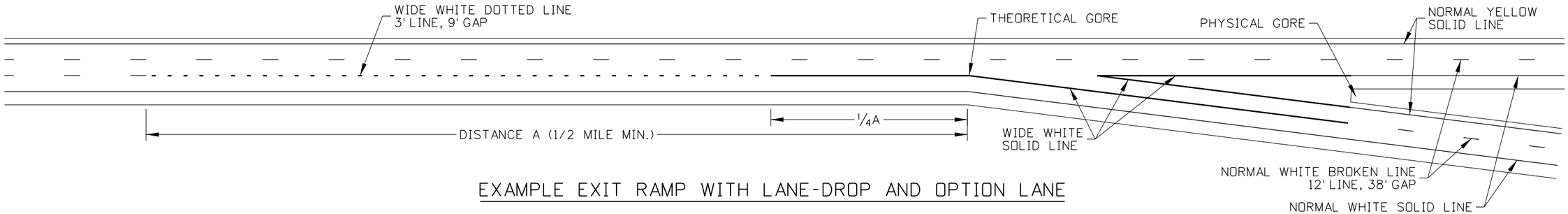
630-1



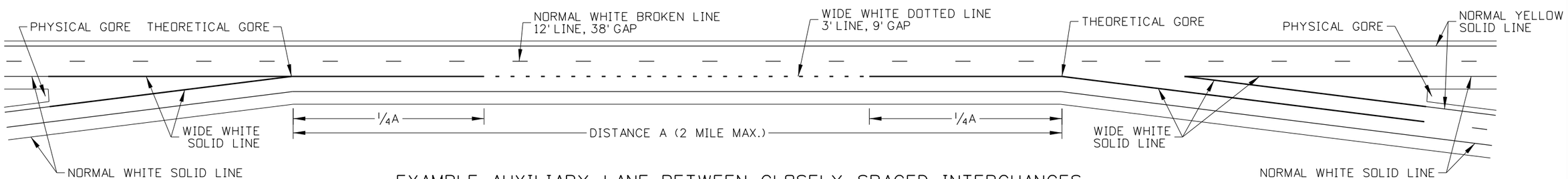
EXAMPLE TAPERED EXIT RAMP



EXAMPLE PARALLEL EXIT RAMP WITH OPTION LANE



EXAMPLE EXIT RAMP WITH LANE-DROP AND OPTION LANE



EXAMPLE AUXILIARY LANE BETWEEN CLOSELY SPACED INTERCHANGES

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER STATE OF IDAHO MARCH 17, 2020 13683 RYAN D. LANCASTER

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 630-1_0420.dgn

DRAWING DATE: DECEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

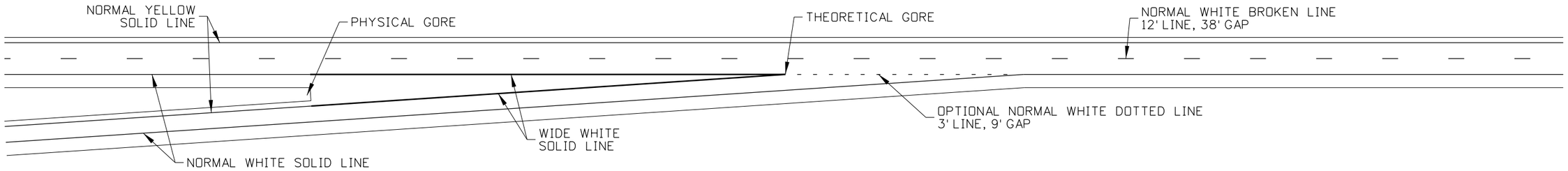
STANDARD DRAWING

PAVEMENT MARKINGS

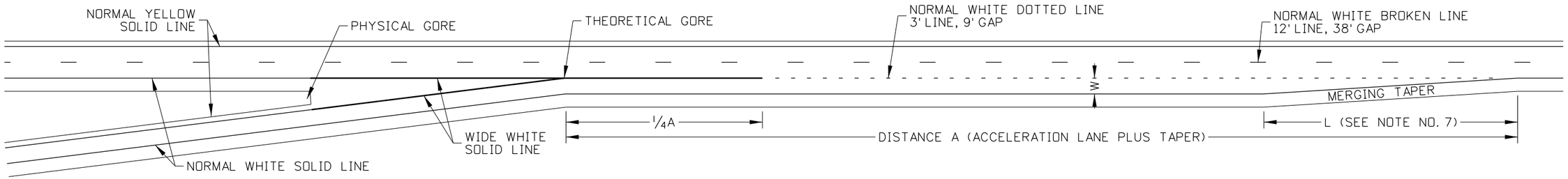
English

STANDARD DRAWING NO.

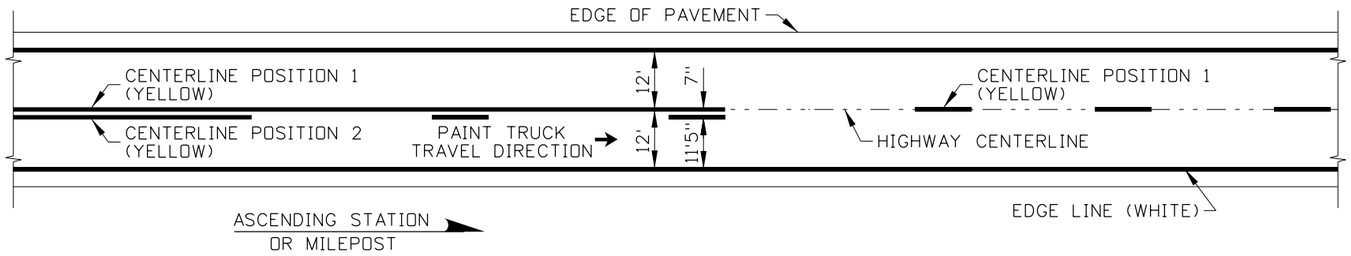
630-1



EXAMPLE TAPERED ENTRANCE RAMP

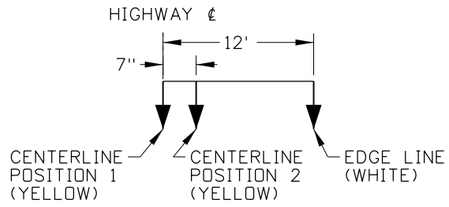


EXAMPLE PARALLEL ENTRANCE RAMP



PAVEMENT MARKINGS
ON TWO-WAY HIGHWAYS

SEE NOTE NO. 10 AND
PAINT TRUCK SETUP DETAIL



PAINT TRUCK SETUP DETAIL

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER LICENSED ORIGINAL SIGNED RYAN D. LANCASTER STATE OF IDAHO MARCH 17, 2021 13683

REVISIONS									
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	03-20	RDL						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 630-1_0420.dgn

DRAWING DATE: DECEMBER, 2016

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: KEVIN SABLAN

DESIGN/TRAFFIC SERVICES ENGINEER

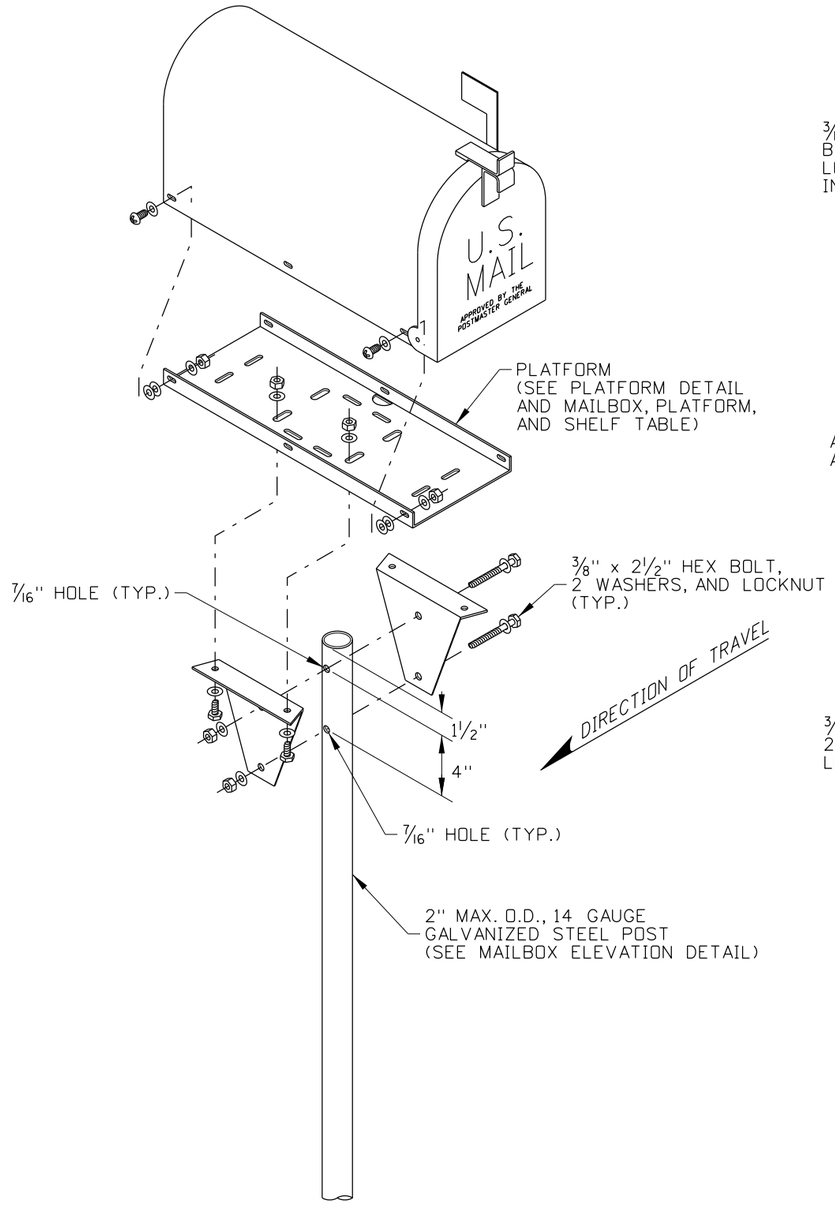
STANDARD DRAWING

PAVEMENT MARKINGS

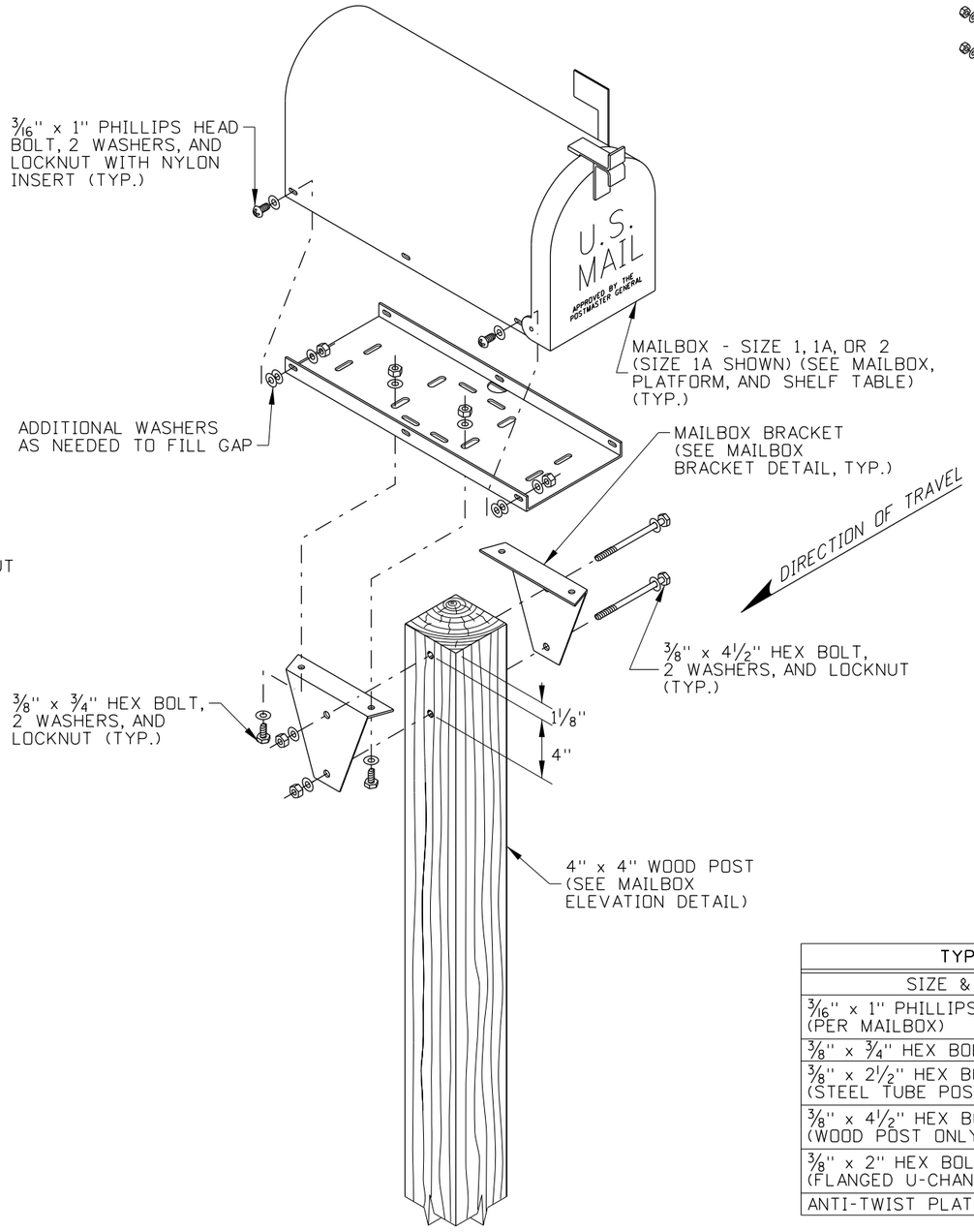
English

STANDARD DRAWING NO.

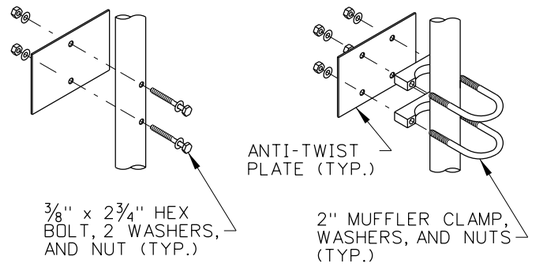
630-1

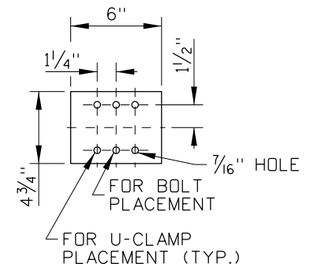


TYPE A ASSEMBLY
STEEL TUBE POST



TYPE A ASSEMBLY
WOOD POST





ANTI-TWIST PLATE DETAIL

TYPE A ASSEMBLY FASTENERS TABLE			
SIZE & TYPE	QUANTITY	WASHERS	LOCKNUTS
3/16" x 1" PHILLIPS HEAD BOLTS (PER MAILBOX)	4 MIN.	8 MIN.	4 MIN.
3/8" x 3/4" HEX BOLT (BRACKET)	4	8	4
3/8" x 2 1/2" HEX BOLT (STEEL TUBE POST ONLY)	2	4	2
3/8" x 4 1/2" HEX BOLT (WOOD POST ONLY)	2	4	2
3/8" x 2" HEX BOLT (FLANGED U-CHANNEL POST ONLY)	2	4	2
ANTI-TWIST PLATE ASSEMBLY	SEE ANTI-TWIST PLATE DETAIL		

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PROFESSIONAL ENGINEER LICENSED RYAN D. LANCASTER 13683 STATE OF IDAHO
ORIGINAL SIGNED BY RYAN D. LANCASTER JANUARY 31, 2013

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	7-92	MSM	6	7-10	MGL			
2	7-02	MSM	7	11-11	TEM			
3	7-05	MSM	8	01-13	RDL			
4	12-05	MSM						
5	10-08	JRV						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 634-1_0113.dgn

DRAWING DATE: SEPTEMBER, 1993

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER

ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

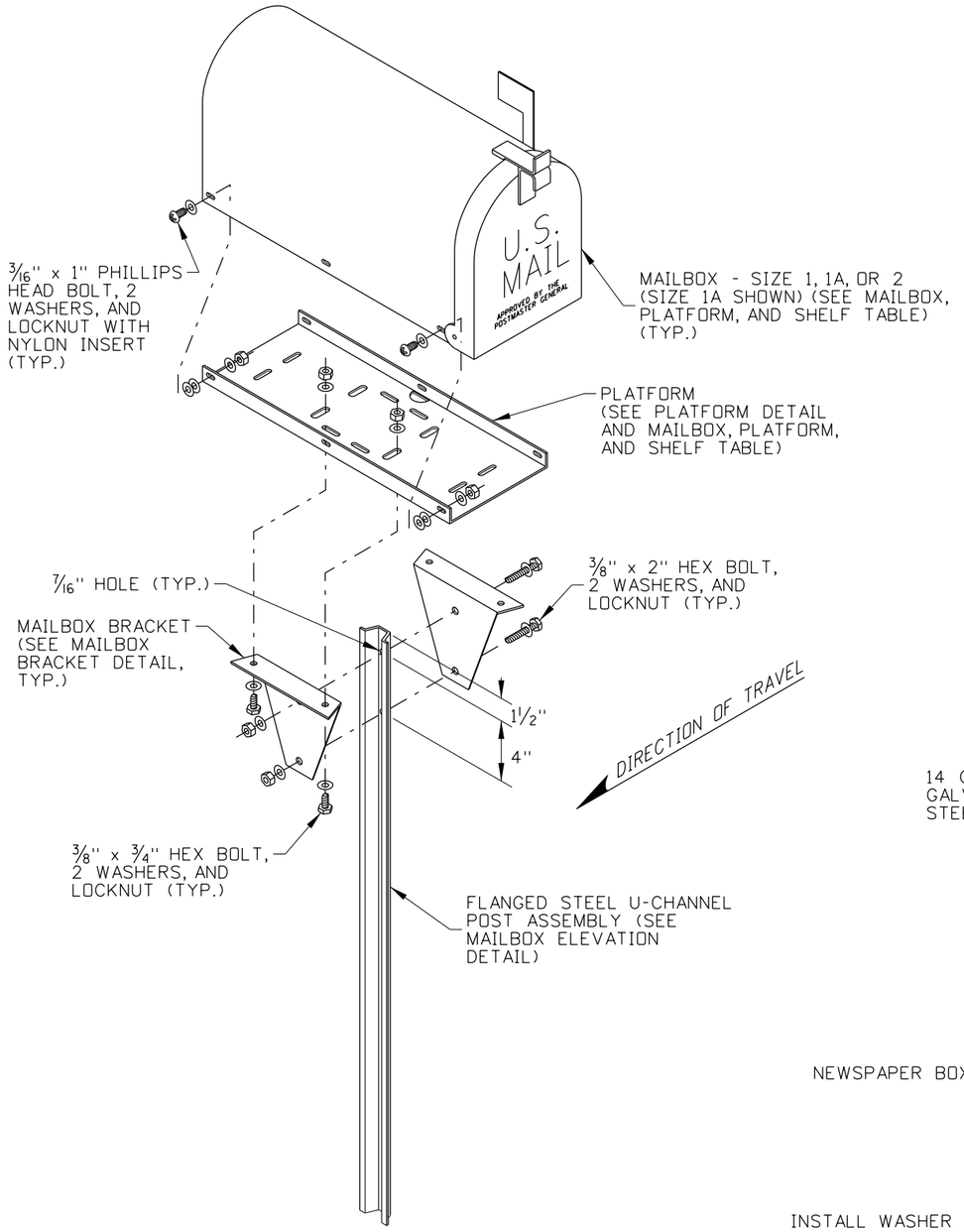
MAILBOXES

English

STANDARD DRAWING NO.

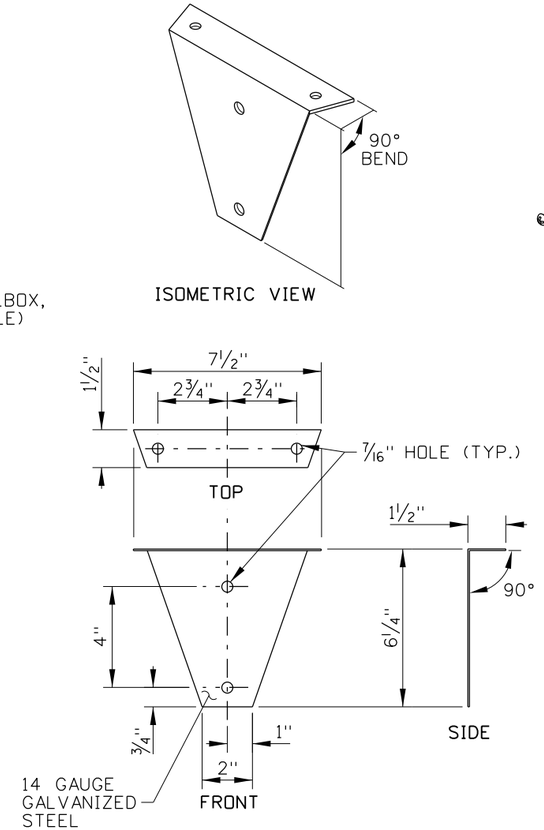
634-1

SHEET 1 OF 5

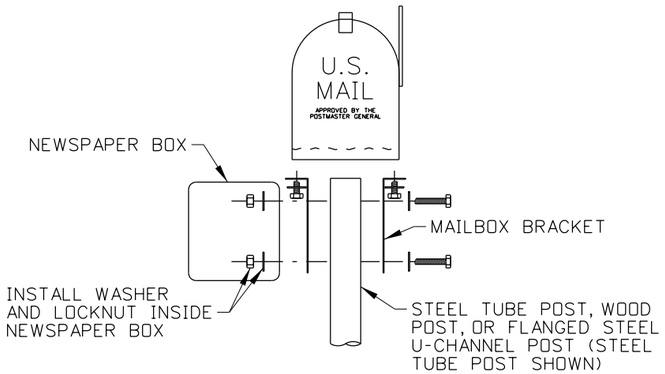


TYPE A ASSEMBLY

FLANGED STEEL U-CHANNEL POST
(2 LB/FT)

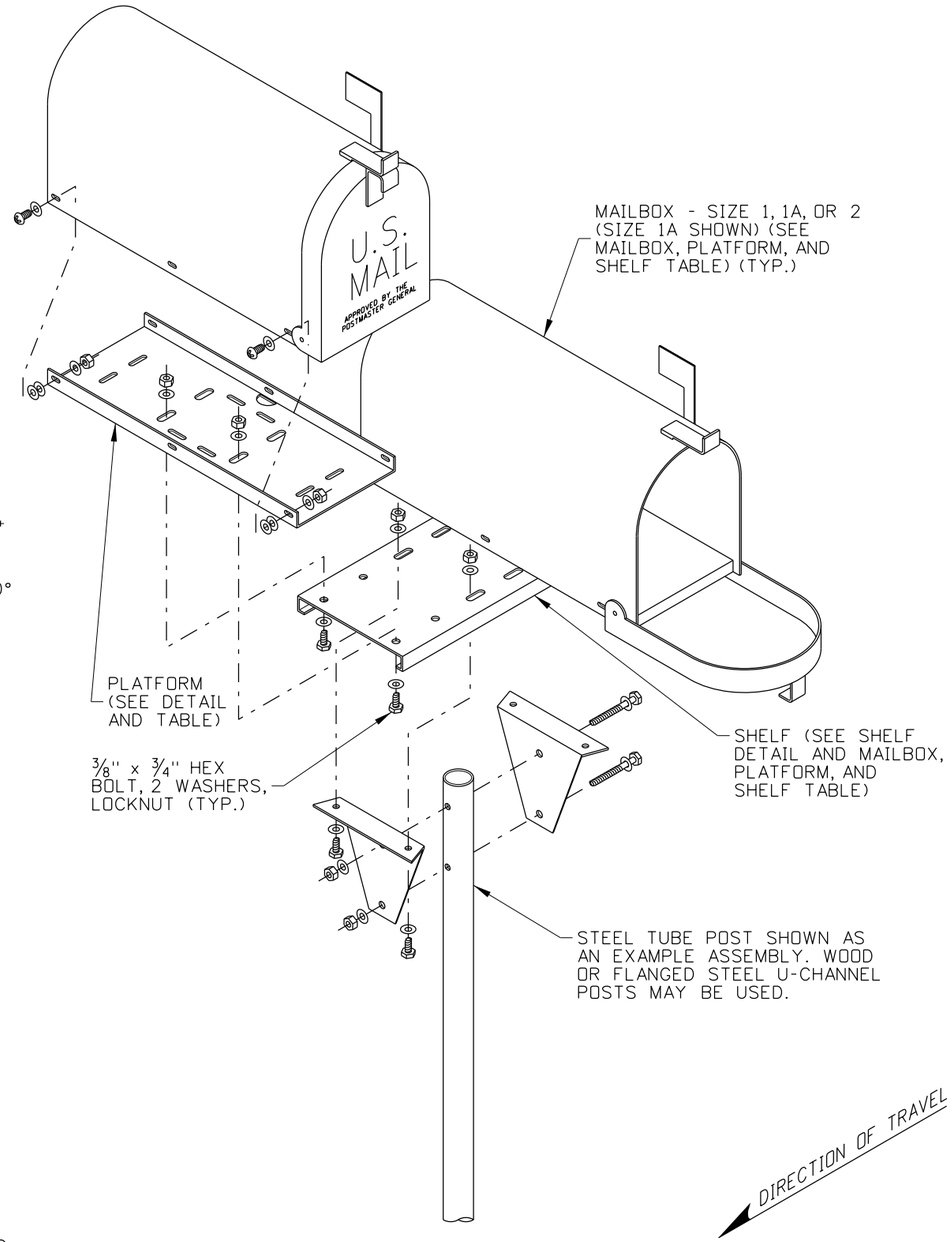


MAILBOX BRACKET DETAIL



NEWSPAPER BOX DETAIL

TYPE A ASSEMBLY



TYPE A ASSEMBLY

DOUBLE MAILBOX ASSEMBLY

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REVISIONS								
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4	12-05	MSM						
5	10-08	JRV						

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BOISE IDAHO

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ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

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MAILBOXES

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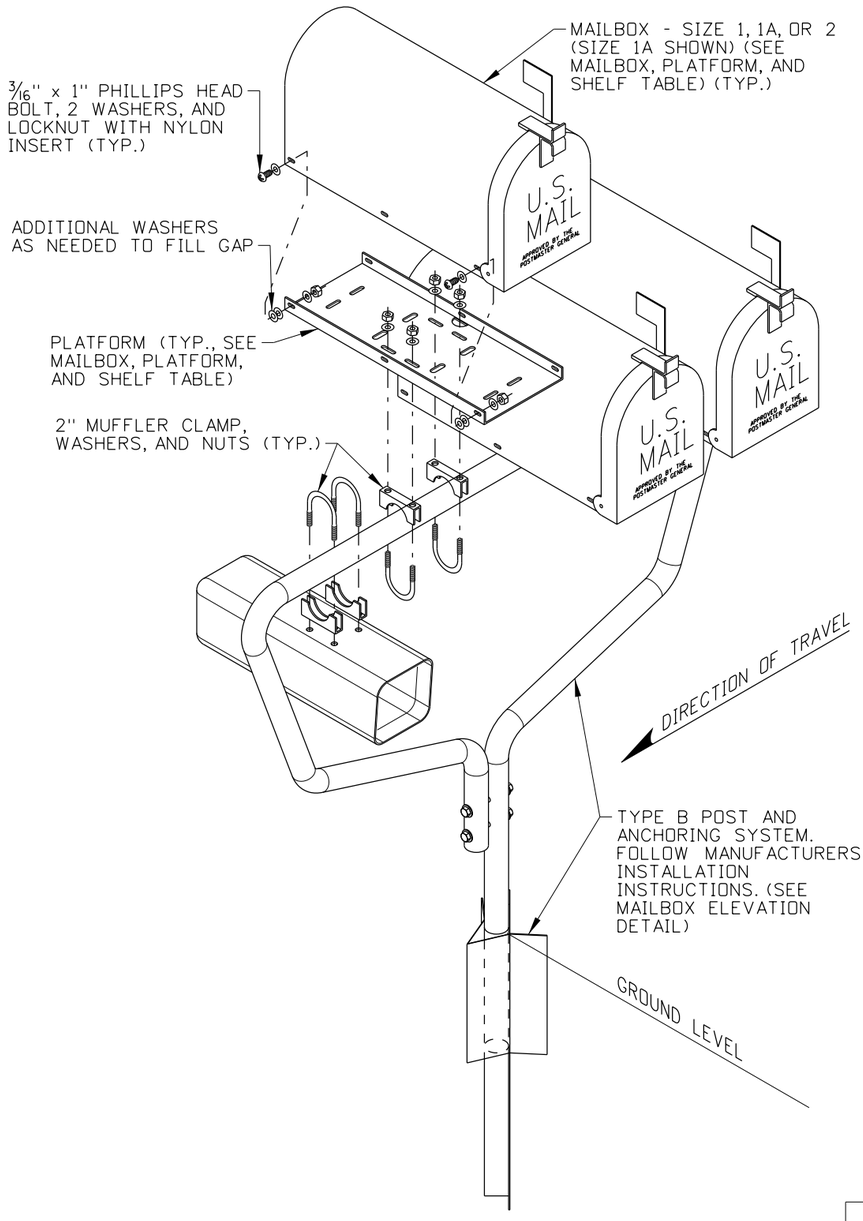
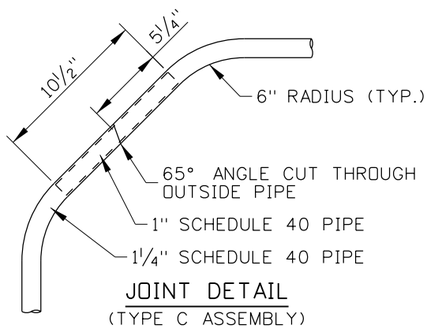
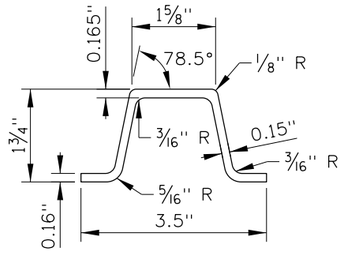


TYPE B ASSEMBLY

TYPE B ASSEMBLY FASTENERS TABLE			
SIZE & TYPE	QUANTITY	WASHERS	LOCKNUTS/NUTS
3/16" x 1" PHILLIPS HEAD BOLT (PER MAILBOX)	4 MIN.	8 MIN.	4 MIN.
2" MUFFLER CLAMP (PER MAILBOX)	2	4	4
2" MUFFLER CLAMP (PER NEWSPAPER BOX)	2	4	2
3/8" x 4 3/4" HEX BOLT (WOOD POST ONLY)	2	4	2
TYPE 2 POST AND ANCHORING SYSTEM	SEE MANUFACTURERS INSTALLATION INSTRUCTIONS		

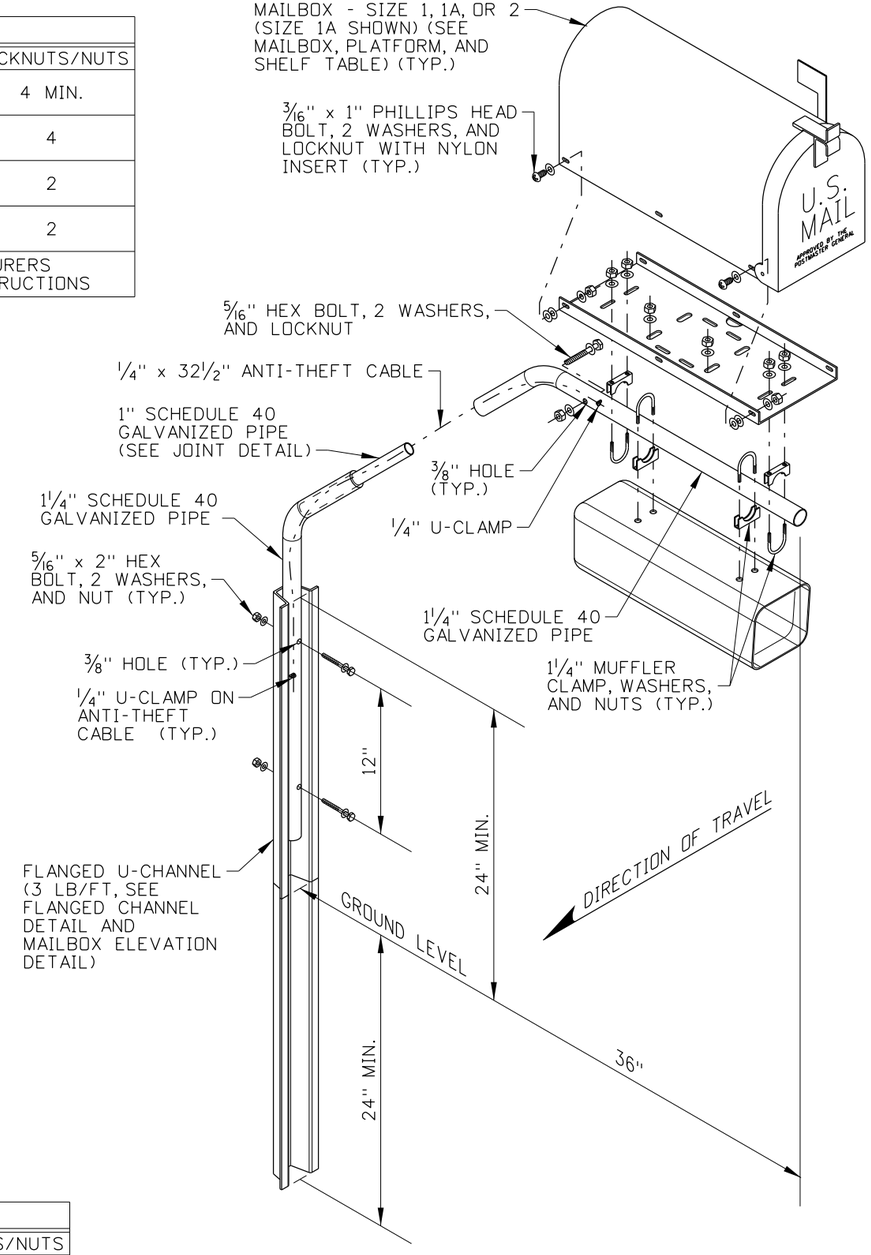


JOINT DETAIL
(TYPE C ASSEMBLY)



FLANGED CHANNEL DETAIL
3 LB/FT
(TYPE C ASSEMBLY)

TYPE C ASSEMBLY FASTENERS TABLE			
SIZE & TYPE	QUANTITY	WASHERS	LOCKNUTS/NUTS
3/16" x 1" PHILLIPS HEAD BOLT	4 MIN.	8 MIN.	4 MIN.
1 1/4" MUFFLER CLAMP	2	4	4
5/16" x 2" HEX BOLT	3	6	3
1/4" U-CLAMP	2	0	4



TYPE C ASSEMBLY

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BOISE IDAHO

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HIGHWAYS PROGRAM OVERSIGHT ENGINEER
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

STANDARD DRAWING

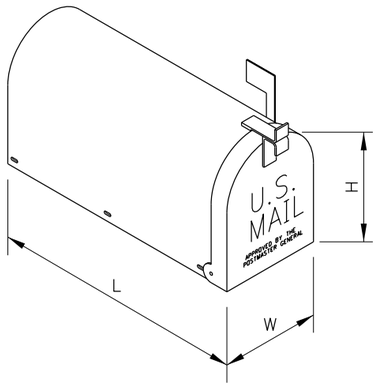
MAILBOXES

English

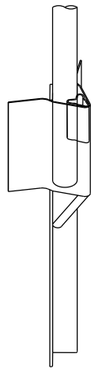
STANDARD DRAWING NO. 634-1

SHEET 3 OF 5

MAILBOX, PLATFORM, AND SHELF TABLE						
MAILBOX SIZE	MAILBOX DIMENSIONS			PLATFORM DIMENSION		SHELF DIM.
	L	W	H	L_P	W_P	L_S
1	19''	6½''	8½''	17''	6''	15''
1-A	21''	8''	10½''	19''	7½''	16½''
2	23½''	11½''	13½''	21''	11''	20''

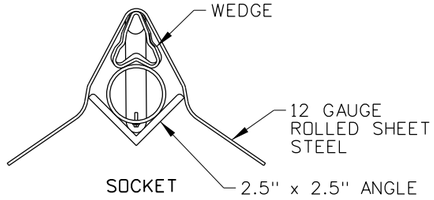


MAILBOX DIMENSIONS



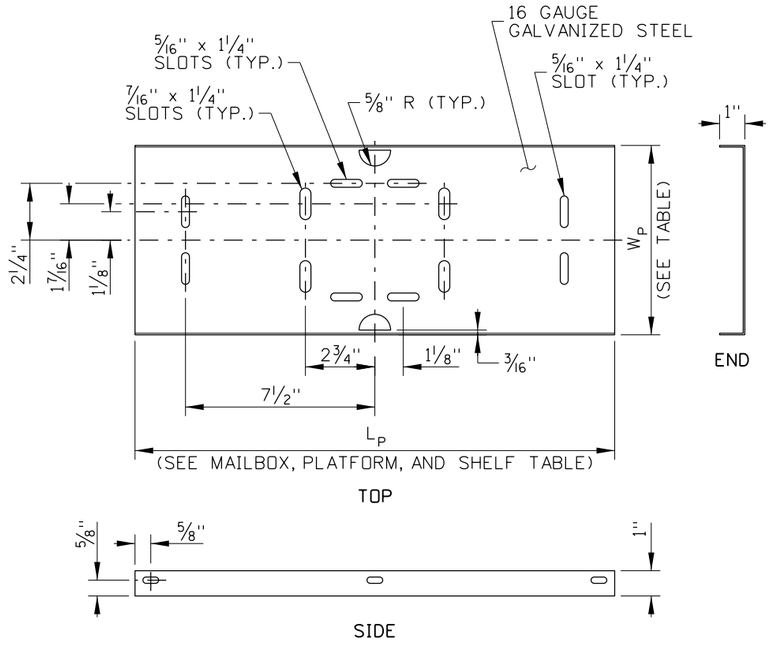
ISOMETRIC VIEW

WEDGE

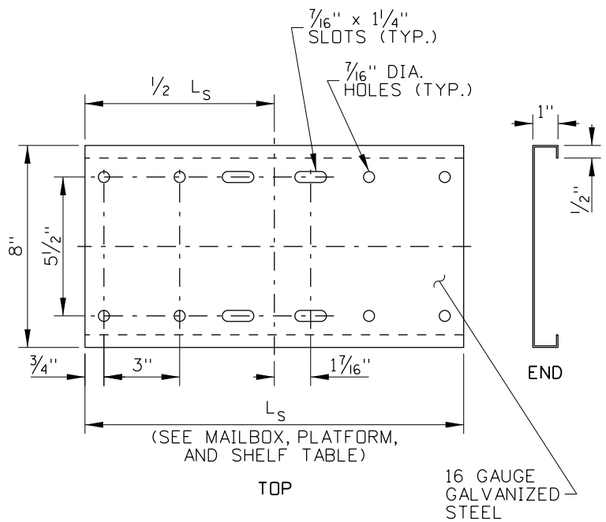


SOCKET AND WEDGE MAILBOX SUPPORT SYSTEM DETAIL

FOR USE WITH TYPE B ASSEMBLY
MAY BE USED WITH TYPE A - STEEL TUBE POST ASSEMBLY
(SEE MANUFACTURER'S INSTALLATION INSTRUCTIONS)



PLATFORM DETAIL
(ONE-PIECE)



SHELF DETAIL
(FOR TYPE A DOUBLE MAILBOX ASSEMBLIES)

NOTES

1. CONSTRUCT MAILBOX ASSEMBLIES IN ACCORDANCE WITH SECTION 634 - MAILBOX OF THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.

2. SEE STANDARD DRAWING 405-2 FOR MAILBOX PLACEMENT.

3. INSTALL THE MAILBOXES AND ASSEMBLIES WITH THE FASTENERS SHOWN IN THE ASSEMBLY FASTENER TABLES. SOME PLATFORM SLOTS AND HOLES MAY REMAIN UNUSED.

4. CENTER THE MAILBOX ON THE PLATFORM AND ENSURE THAT THE MAILBOX DOOR OPENS. SPACING OF MAILBOX MOUNTING HOLES MAY VARY BETWEEN MANUFACTURERS AND ADDITIONAL HOLES MAY BE DRILLED IN THE MAILBOX, PLATFORM, OR BOTH TO ATTACH THE MAILBOX TO THE PLATFORM.

5. COMMERCIALLY AVAILABLE MAILBOXES AND MAILBOX ASSEMBLIES MAY BE SUBSTITUTED FOR THOSE SHOWN IF THEY MEET THE REQUIREMENTS OF THE U.S. POSTMASTER GENERAL AND HAVE SUCCESSFULLY PASSED THE TESTING REQUIREMENTS OF MASH OR NCHRP 350. ADJUSTABLE PLATFORM ALTERNATIVES AND THE SOCKET AND WEDGE MAILBOX SUPPORT SYSTEM ARE EXAMPLES OF COMMERCIALLY AVAILABLE PROPRIETARY SYSTEMS THAT MAY BE ACCEPTABLE ALTERNATIVES. OBTAIN THE ENGINEER'S APPROVAL BEFORE INSTALLING ALTERNATIVE MAILBOXES OR ASSEMBLIES AND INSTALL IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

6. USE AN ANTI-TWIST PLATE, SHOWN ON THE ANTI-TWIST PLATE DETAIL. A SOCKET AND WEDGE MAILBOX SUPPORT SYSTEM MAY BE USED IN LIEU OF AN ANTI-TWIST PLATE. IF THE SOCKET AND WEDGE SYSTEM IS USED, FOLLOW THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

7. THE TYPE C ASSEMBLY SHOULD BE USED IN HEAVY SNOW AREAS OR AREAS WHERE SNOW PLOW DAMAGE TO MAILBOXES HAS BEEN OBSERVED OR IS ANTICIPATED.

8. WHEN USED IN HEAVY SNOW AREAS, ONLY ONE MAILBOX IS RECOMMENDED FOR TYPE A ASSEMBLIES. THE TYPE A ASSEMBLY WITH WOOD POSTS IS RECOMMENDED FOR USE IN HEAVY SNOW AREAS. A SNOW SHIELD MAY BE INSTALLED AS SHOWN ON STANDARD DRAWING 634-2.

9. MAILBOX SIZES 1, 1A, AND 2, SHOWN IN THE MAILBOX, PLATFORM, AND SHELF TABLE MAY BE INSTALLED ON THE TYPE A DOUBLE MAILBOX ASSEMBLY IN ANY COMBINATION OF SIZES. WHEN MORE THAN ONE SIZE IS TO BE INSTALLED, USE THE SHELF SIZE FOR THE LARGER MAILBOX.

10. THE TYPE B ASSEMBLY IS A PROPRIETARY SYSTEM THAT MAY BE USED FOR THE INSTALLATION OF TWO OR MORE MAILBOXES. ON TYPE B MAILBOX ASSEMBLIES, INSTALL A MAXIMUM OF FIVE SIZE 1 MAILBOXES, FOUR SIZE 1A MAILBOXES, OR THREE SIZE 2 MAILBOXES. WHEN MORE THAN ONE SIZE IS TO BE INSTALLED, LIMIT THE NUMBER OF MAILBOXES TO THE MAXIMUM NUMBER FOR THE LARGEST SIZE USED.

11. DO NOT INSTALL THE MAILBOX ASSEMBLY IN A CONCRETE FOUNDATION. AN EXCEPTION MAY BE MADE FOR MASH OR NCHRP 350 APPROVED ALTERNATIVE MAILBOX ASSEMBLIES IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

12. ENSURE THAT PLATFORM, SHELF, AND BRACKETS ARE GALVANIZED IN ACCORDANCE WITH AASHTO M 232.

13. IF USED, ATTACH THE NEWSPAPER BOX TO THE SUPPORT, DIRECTLY UNDER THE MAILBOX. ENSURE THAT NEWSPAPER BOXES DO NOT EXTEND BEYOND THE FRONT OF THE MAILBOX WHEN THE MAILBOX DOOR IS CLOSED. IN HEAVY SNOW AREAS, LOCATE THE NEWSPAPER BOX ON THE TRAILING SIDE OF THE MAILBOX POST. SEE THE NEWSPAPER BOX DETAIL FOR INSTALLATIONS ON TYPE A MAILBOX ASSEMBLIES.

14. ROUND OR GRIND THE CORNERS OF PLATFORMS, SHELVES, BRACKETS, OR OTHER HARDWARE THAT HAS SHARP PROTRUDING EDGES.

15. NOT TO SCALE.

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REVISIONS									
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4	12-05	MSM						
5	10-08	JRV						

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IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
HIGHWAYS PROGRAM OVERSIGHT ENGINEER
ORIGINAL SIGNED BY: TOM COLE
CHIEF ENGINEER

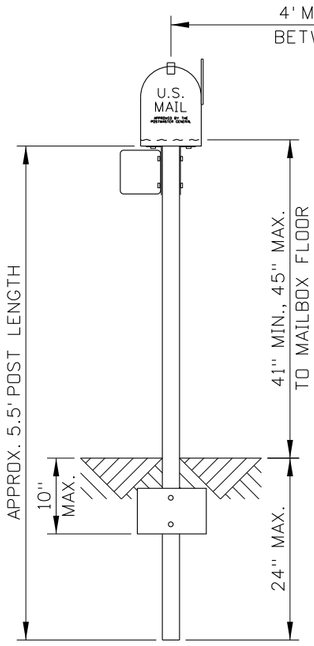
STANDARD DRAWING

MAILBOXES

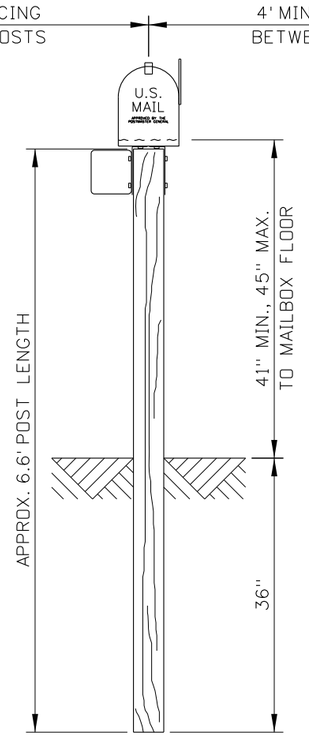
English

STANDARD DRAWING NO. 634-1

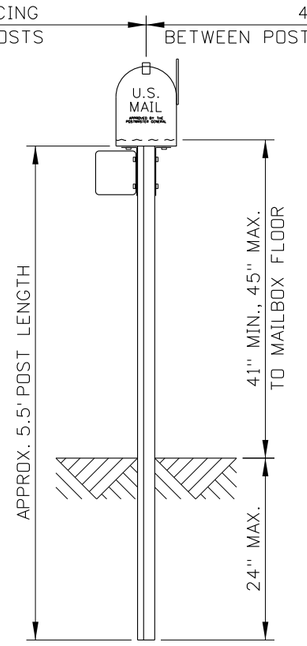
SHEET 4 OF 5



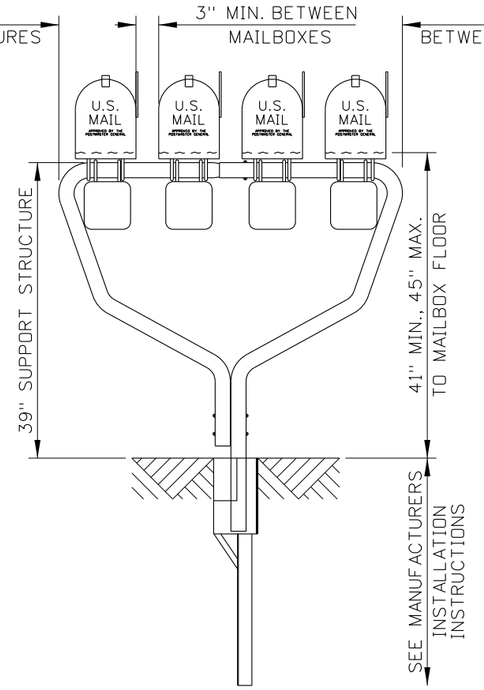
TYPE A ASSEMBLY
STEEL TUBE POST



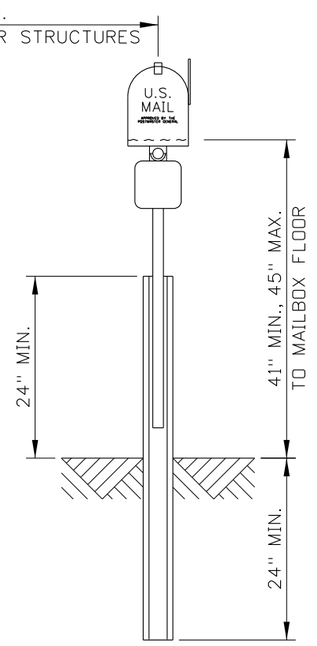
TYPE A ASSEMBLY
WOOD POST



TYPE A ASSEMBLY
FLANGED STEEL U-CHANNEL POST



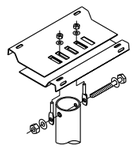
TYPE B ASSEMBLY



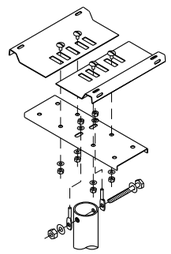
TYPE C ASSEMBLY

DIRECTION OF TRAVEL

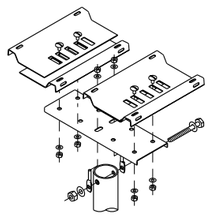
MAILBOX ELEVATION DETAIL



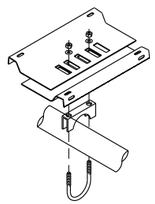
SINGLE MAILBOX ASSEMBLY
(FOR MAILBOXES
SIZES 1 AND 1A)



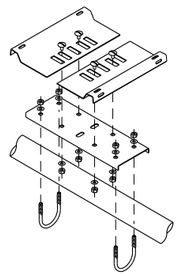
SINGLE MAILBOX ASSEMBLY
(FOR MAILBOX SIZE 2)



DOUBLE MAILBOX ASSEMBLY
(FOR MAILBOXES
SIZES 1 AND 1A)



SINGLE MAILBOX ASSEMBLY
(FOR MAILBOXES
SIZES 1 AND 1A ON
TYPE B ASSEMBLIES)



SINGLE MAILBOX ASSEMBLY
(FOR MAILBOX
SIZE 2 ON TYPE B
ASSEMBLIES)

ADJUSTABLE PLATFORM ALTERNATIVES

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STANDARD DRAWING

MAILBOXES

English

STANDARD DRAWING NO.

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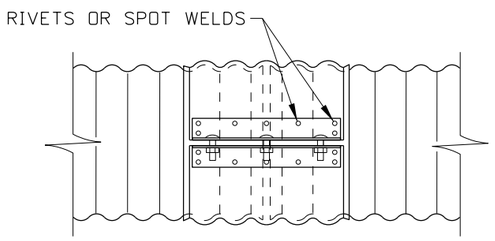
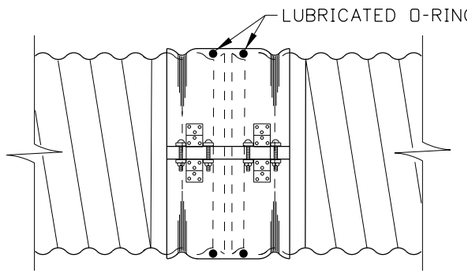
SHEET 5 OF 5



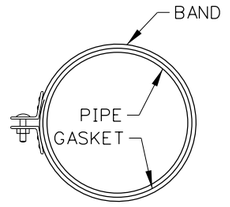
TYPES 1-A & 2-A

ANNULAR COUPLING BAND



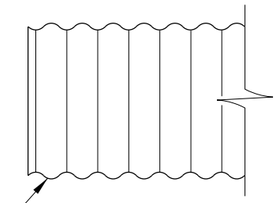
DOUBLE BAR AND STRAP-TYPE 3

HUGGER COUPLING BAND

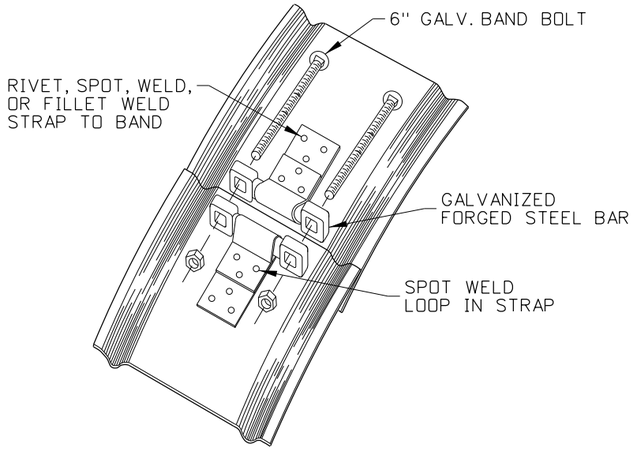


TYPE 1

SINGLE PIECE BAND



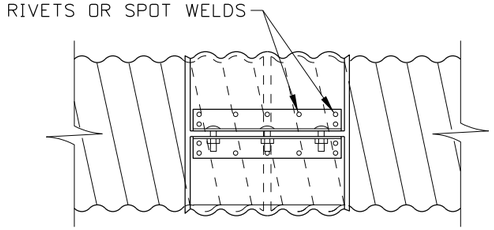
ANNULAR CMP



BAND TYPE 3

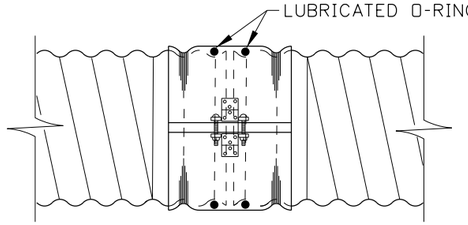
BAR & STRAP COUPLING

(SINGLE STRAP)



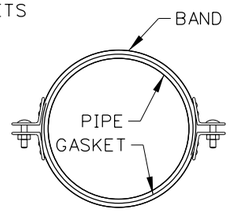
TYPES 1-B & 2-B

HELICAL COUPLING BAND



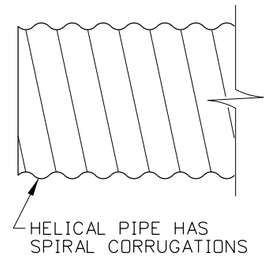
SINGLE BAR AND STRAP-TYPE 3

HUGGERL COUPLING BAND



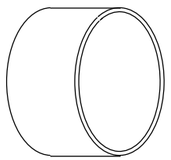
TYPE 2

TWO PIECE BAND

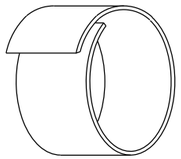


HELICAL CMP

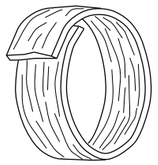
O-RING GASKET



SLEEVE GASKET

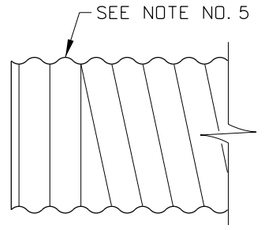


STRIP GASKET



MASTIC SEALANT GASKET

STANDARD CORRUGATED STEEL PIPE GASKET TYPES



REFORMED HELICAL CMP

NOTES

1. THE REFORMED ENDS OF HELICAL CORRUGATED METAL PIPE MADE TO ACCEPT ANNULAR COUPLING BANDS SHALL BE UNIFORM AND SMOOTH IN APPEARANCE. PIPE WITH IRREGULAR REFORMED ENDS ARE NOT ACCEPTABLE.
2. SLEEVE AND STRIP GASKETS FOR COUPLING BANDS TYPE 1-A AND 1-B SHALL EXCEED THE WIDTH OF THE BAND BY A MINIMUM OF 1/4" ON BOTH EDGES. THE GASKETS SHALL FIT SNUGGLY AROUND THE PIPES PRIOR TO INSTALLATION OF THE BAND.
3. ALL WELDS AND/OR EXPOSED FERROUS METAL ON COUPLING BANDS AND BAND CONNECTING HARDWARE SHALL BE REPAIRED IN ACCORDANCE WITH AASHTO M 36.
4. STEEL BAND THICKNESS SHALL BE AT LEAST 1/2 THE THICKNESS OR GAUGE OF THE PIPE. ALUMINUM BANDS SHALL BE THE SAME THICKNESS AS THE PIPE.
5. THE JOINTS FOR SIPHONS AND SEWERS SHALL BE WATERTIGHT AND PRESSURE TESTED PRIOR TO ACCEPTANCE, AS REQUIRED IN THE STANDARD SPECIFICATIONS.
6. TO PREVENT GALVANIC ACTION WHEN BANDS AND PIPES ARE OF AN UNLIKE METAL, THE BANDS SHALL BE ASPHALT COATED.
7. GASKET MATERIALS ARE NOT TO BE ALTERED, SEWN, OR PATCHED. THE USE OF SEALANTS AND/OR LUBRICANTS WITH BAND GASKETS MUST BE AS THE MANUFACTURER SPECIFIES. THE QUALITY AND CHEMICAL COMPOSITION OF SEAL ANTS AND LUBRICANTS WILL BE AS THE MANUFACTURER REQUIRES. CONTACT THE MANUFACTURER FOR DETAILS.
8. SPOT WELDED OR FILLET WELDED STRAPS ON BANDS SHALL BE OF EQUAL STRENGTH TO RIVETED STRAPS.
9. ALL RECOMMENDATIONS IN THE PIPE COUPLING BAND TABLE ARE TO BE CONSIDERED MINIMAL.
10. NOT TO SCALE.

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER * LAND SURVEYOR REGISTERED MILFORD MILLER ORIGINAL SIGNED MARCH 4, 2005 STATE OF IDAHO 2240 MILFORD MILLER

REVISIONS								
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY
1	02-76		6	03-05	MSM			
2	02-77							
3	09-93	MSM						
4	12-95	MSM						
5	06-02	MSM						

SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY

CADD FILE NAME: 706-6_0305.dgn

DRAWING DATE: APRIL, 1961

IDAHO TRANSPORTATION DEPARTMENT

BOISE IDAHO

ORIGINAL SIGNED BY: LOREN THOMAS
ASSISTANT CHIEF ENGINEER (DEVELOPMENT)
ORIGINAL SIGNED BY: STEVEN HUTCHINSON
CHIEF ENGINEER

STANDARD DRAWING

CORRUGATED METAL PIPE WATERTIGHT COUPLING BANDS

English

STANDARD DRAWING NO. 706-6

SHEET 1 OF 2

PIPE COUPLING BAND TABLE						PIPE CORRUGATION STYLE			SIPHON	CULVERT *	IRRIGATION	SEWER	UNDERDRAIN
COUPLING TYPE	CORRUGATIONS	PIPE SIZE	COUPLING WIDTH	COUPLING BOLTS (NO.) DIA.	GASKET TYPE	ANNULAR PIPE	REFORMED HELICAL	HELICAL PIPE					
TYPE 1-A ANNULAR COUPLING BAND	1½" x ¼" & 2⅜" x ½"	6"-10"	7" (1 PIECE)	(3) ⅜"	SLEEVE	X	X		X	X	X	X	X
	2⅜" x ½" & 3" x 1"	12"-15"	7" (1 PIECE)	(3) ½"	SLEEVE	X	X		X	X	X	X	X
	2⅜" x ½" & 3" x 1"	18"-24"	12" (1 PIECE)	(3) ½"	SLEEVE	X	X		X	X	X	X	X
	2⅜" x ½" & 3" x 1"	30"-42"	24" (1 PIECE)	(5) ⅝"	SLEEVE	X	X			X	X		X
TYPE 1-B HELICAL COUPLING BAND	1½" x ¼" & 2⅜" x ½"	6"-10"	7" (1 PIECE)	(3) ⅜"	SLEEVE OR STRIP			X		X	X		X
	2⅜" x ½" & 3" x 1"	12"-15"	7" (1 PIECE)	(3) ½"	SLEEVE OR STRIP			X		X	X		X
	2⅜" x ½" & 3" x 1"	18"-24"	12" (1 PIECE)	(3) ½"	SLEEVE OR STRIP			X		X	X		X
	2⅜" x ½" & 3" x 1"	30"-42"	24" (1 PIECE)	(5) ⅝"	SLEEVE OR STRIP			X		X	X		X
TYPE 2-A ANNULAR COUPLING BAND	1½" x ¼" & 2⅜" x ½"	6"-10"	7" (1 PIECE)	(4) ⅜"	SLEEVE, STRIP OR MASTIC	X	X		X	X	X	X	X
	2⅜" x ½" & 3" x 1"	12"-15"	7" (1 PIECE)	(4) ⅜"	SLEEVE, STRIP OR MASTIC	X	X		X	X	X	X	X
	2⅜" x ½" & 3" x 1"	18"-24"	12" (1 PIECE)	(6) ½"	SLEEVE, STRIP OR MASTIC	X	X		X	X	X	X	X
	2⅜" x ½" & 3" x 1"	30"-42"	24" (1 PIECE)	(8) ½"	SLEEVE, STRIP OR MASTIC	X	X		X	X	X	X	X
TYPE 2-B HELICAL COUPLING BAND	1½" x ¼" & 2⅜" x ½"	6"-10"	7" (1 PIECE)	(4) ⅜"	SLEEVE, STRIP OR MASTIC			X		X	X		X
	2⅜" x ½" & 3" x 1"	12"-15"	7" (1 PIECE)	(4) ⅜"	SLEEVE, STRIP OR MASTIC			X		X	X		X
	2⅜" x ½" & 3" x 1"	18"-24"	12" (1 PIECE)	(6) ½"	SLEEVE, STRIP OR MASTIC			X		X	X		X
	2⅜" x ½" & 3" x 1"	30"-42"	24" (1 PIECE)	(8) ½"	SLEEVE, STRIP OR MASTIC			X		X	X		X
TYPE 3 HUGGER COUPLING BAND	2⅜" x ½" & 3" x 1"	12"-48" (GALV.)	7½" (STRAP)	(2) 6" x ½"	O-RING	X	X			X	X	X	X
	2⅜" x ½" & 3" x 1"	54"-96" (GALV.)	10½" (2 STRAP)	(4) 6" x ⅝"	O-RING	X	X			X	X	X	X
	2⅜" x ½" & 3" x 1"	102"-144" (GALV.)	12" (3 STRAP)	(6) 6" x ⅞"	O-RING	X	X			X	X	X	X

* WATERTIGHT BANDS ARE NOT REQUIRED ON CULVERT INSTALLATIONS UNLESS SPECIFIED BY THE PLANS OR SPECIAL PROVISIONS

ORIGINAL STORED AT: ITD, Headquarters 3311 West State Boise, Idaho

PROFESSIONAL ENGINEER * LAND SURVEYOR REGISTERED ORIGINAL SIGNED BY MILFORD MILLER MARCH 4, 2005 ORIGINAL SIGNED STATE OF IDAHO 2240 MILFORD MILLER

REVISIONS									SCALES SHOWN ARE FOR 11" X 17" PRINTS ONLY	IDAHO TRANSPORTATION DEPARTMENT	ORIGINAL SIGNED BY: LOREN THOMAS ASSISTANT CHIEF ENGINEER (DEVELOPMENT) ORIGINAL SIGNED BY: STEVEN HUTCHINSON CHIEF ENGINEER	STANDARD DRAWING CORRUGATED METAL PIPE WATERTIGHT COUPLING BANDS	English STANDARD DRAWING NO. 706-6
NO.	DATE	BY	NO.	DATE	BY	NO.	DATE	BY					
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2	02-77												
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