STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU, ALASKA

MENDENHALL LOOP ROAD/ STEPHEN RICHARDS DRIVE/ HALOFF WAY RECONSTRUCTION & SIGNALIZATION

HRO-0003(58)
PROJECT NO. 67623

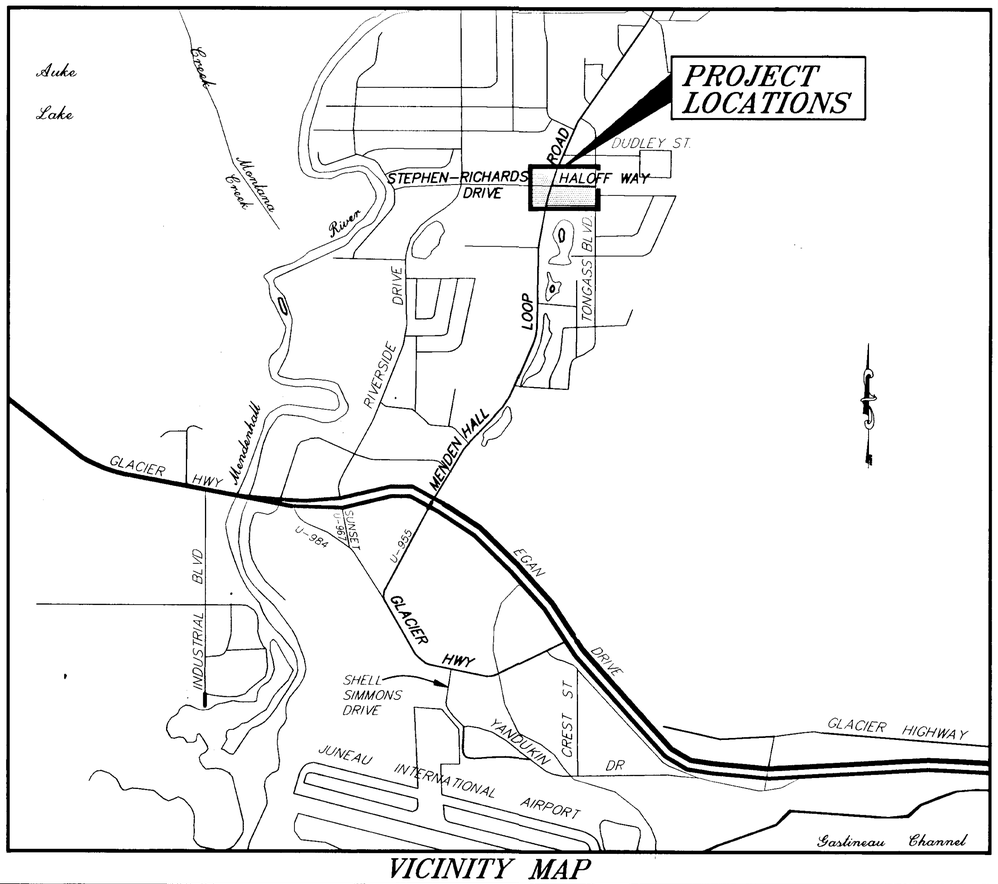
INDEX OF SHEETS

DESIGN DESIGNATION

	HALOFF WAY	MENDENHALL LOOP ROAD
ADT 1997	1580	18,940
ADT 2020	2490	29,860
DHV 12% (2020)	300	3,550
% T	3%	3%

PROJECT SUMMARY

	HALOFF WAY	MENDENHALL LOOP ROAD
LENGTH OF PROJECT	290m	260m
LENGTH OF GRADING	194.51m	193m
LENGTH OF PAVING	194.51m	193m
WIDTH OF PAVING	10.03m TO 13.68m	0.304m TO 3.04m



VICINITY MAP

THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

A-1[M], C-01.03[M], C-02.01[M], C-04.11[M], D-01.02[M], D-05.10[M], D-20.03[M], D-22.00[M], D-23.00[M], D-24.00[M], D-26.02[M], D-35.00[M], I-20.12[M], L-03.03[M], L-10.03[M], L-11.00[M], L-12.00[M], L-20.01[M], L-23.01[M], L-30.02[M], M-13.01[M], M-16.01[M], M-20.12[M], M-23.12[M], S-00.00[M], S-05.00[M], S-20.00[M], S-30.01[M], T-20.00[M], T-21.02[M], T-22.02[M], T-30.00[M], T-31.00[M], T-34.01[M], T-40.00[M], T-52.12[M].

AS-BUILT PLANS

CONTRACTOR: Channel Construction
PROJECT ENGINEER: Al Culbreath
BEGIN DATE: 2-29-00
END DATE: 7-31-00

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

APPROVED _____ Date 9/8/99
Regional Preconstruction Engineer

APPROVED _____ Date 9-8-99
Director, S.E. Region

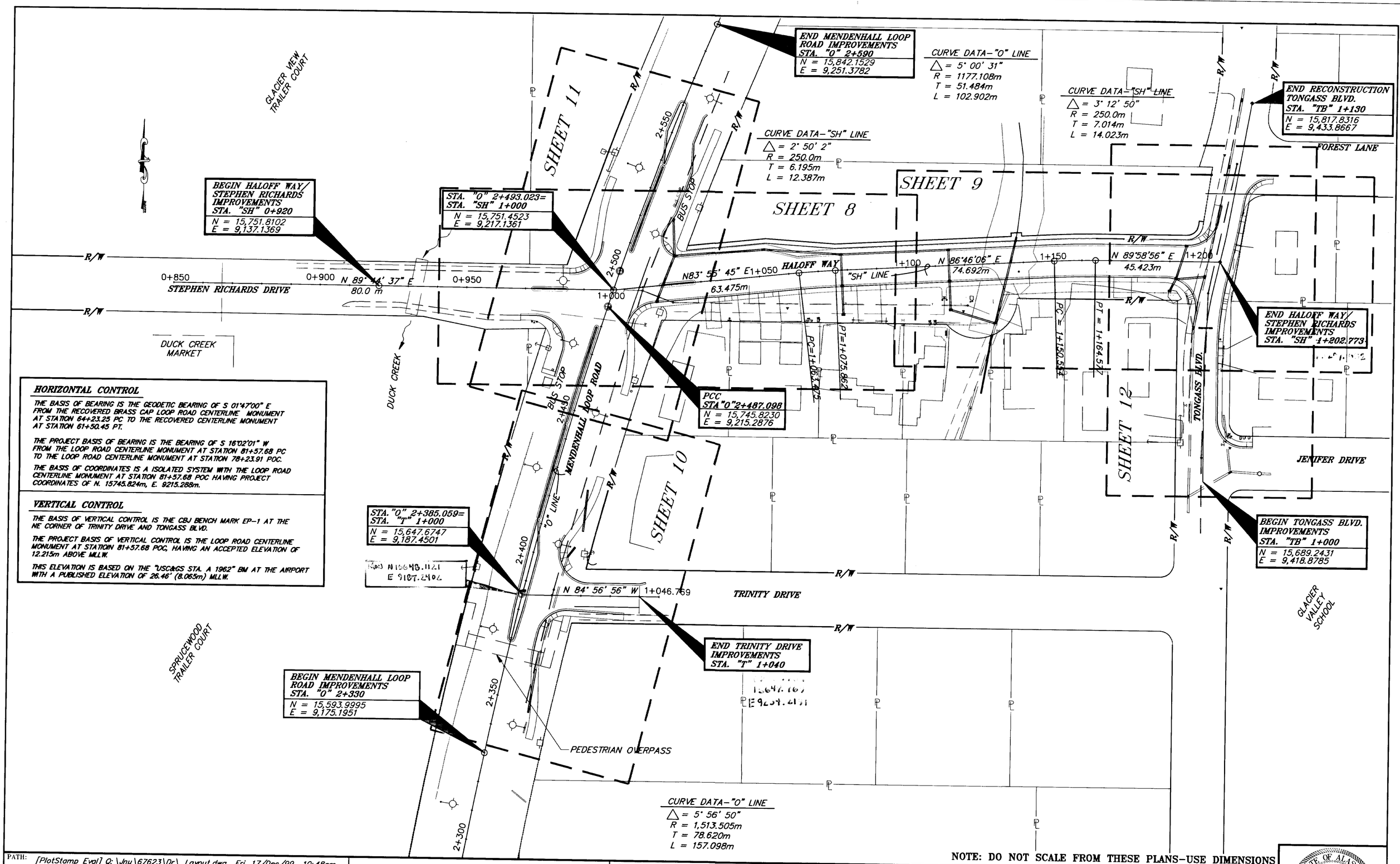
PROJECT NUMBER: 67623

DATE: September, 1999

SHEET 1 OF 44

ENGINEER'S SEAL
STATE OF ALASKA
David O. Saliver
CE-8307
REGISTERED PROFESSIONAL ENGINEER

PATH: O:\JNU\67623\DR\-TSHT PLOT: METRIC SCALE 1=1(F) 1=2(H)



HORIZONTAL CONTROL

THE BASIS OF BEARING IS THE GEODETIC BEARING OF S 01°47'00" E FROM THE RECOVERED BRASS CAP LOOP ROAD CENTERLINE MONUMENT AT STATION 64+23.25 PC TO THE RECOVERED CENTERLINE MONUMENT AT STATION 61+50.45 PT.

THE PROJECT BASIS OF BEARING IS THE BEARING OF S 16°02'01" W FROM THE LOOP ROAD CENTERLINE MONUMENT AT STATION 81+57.68 PC TO THE LOOP ROAD CENTERLINE MONUMENT AT STATION 78+23.91 POC.

THE BASIS OF COORDINATES IS A ISOLATED SYSTEM WITH THE LOOP ROAD CENTERLINE MONUMENT AT STATION 81+57.68 POC HAVING PROJECT COORDINATES OF N. 15745.824m, E. 9215.288m.

VERTICAL CONTROL

THE BASIS OF VERTICAL CONTROL IS THE CBJ BENCH MARK EP–1 AT THE NE CORNER OF TRINITY DRIVE AND TONGASS BLVD.

THE PROJECT BASIS OF VERTICAL CONTROL IS THE LOOP ROAD CENTERLINE MONUMENT AT STATION 81+57.68 POC, HAVING AN ACCEPTED ELEVATION OF 12.215m ABOVE MLLW.

THIS ELEVATION IS BASED ON THE "USC&GS STA. A 1962" BM AT THE AIRPORT WITH A PUBLISHED ELEVATION OF 26.46' (8.065m) MLLW.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr_Layout.dwg Fri, 17/Dec/99 10:48am
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BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

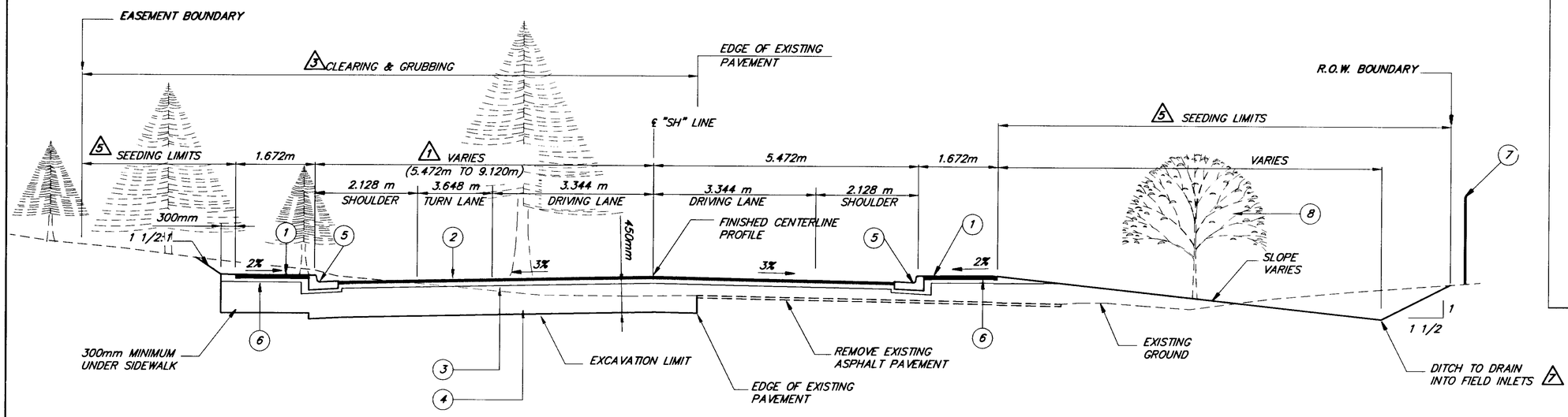
JUNEAU ALASKA

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO–0003(58) ~ PROJECT NO. 67623

PLAN LAYOUT

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: K. KLEMMETSON	DATE: 1999
CHECKED BY: C. MORROW	SHEET 2 OF 44

STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



TYPICAL SECTION – HALOFF WAY
STA. "SH" 1+008.750 TO STA. "SH" 1+203.388

LEGEND

1. 38mm ASPHALT CONCRETE PAVEMENT
2. 75mm ASPHALT CONCRETE PAVEMENT
3. 150mm AGGREGATE BASE COURSE
4. BORROW, TYPE A
5. CONCRETE CURB & GUTTER, STANDARD
6. 100mm CRUSHED AGGREGATE BASE COURSE
7. 1800mm WOOD FENCE, SEE SHEET 5 FOR LOCATIONS AND SHEET 44 FOR DETAILS
8. TREE, SEE SHEET 6 FOR LOCATIONS
9. CONCRETE CURB & GUTTER, EXPRESSWAY
10. 200mm ASPHALT CONCRETE PAVEMENT

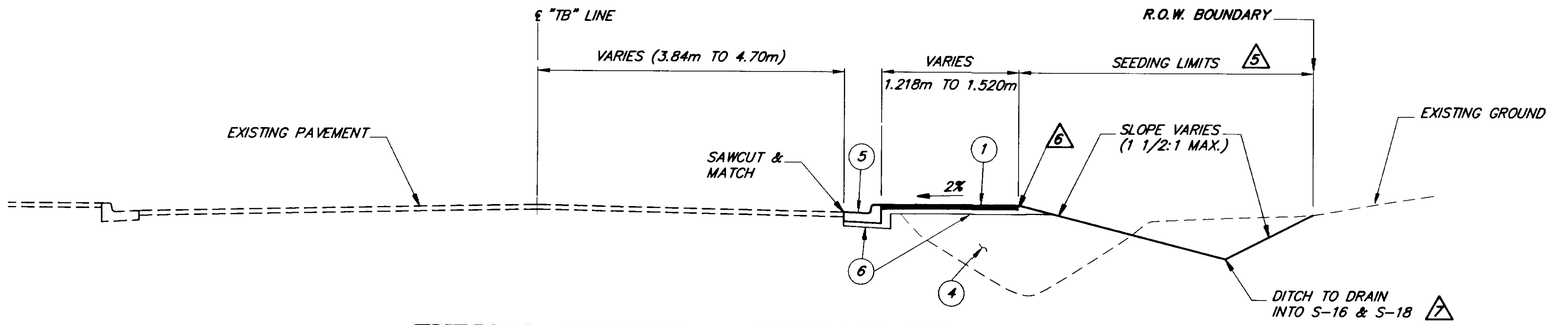
1 9.120m BETWEEN STA. "SH" 1+008.750 AND STA. "SH" 1+052.541.
5.472m BEWEEN STA. "SH" 1+063.400 AND STA. "SH" 1+203.388.

3 VEGETATION BEYOND THE EDGE OF PAVEMENT CONSISTS OF SHRUBS AND TREES UP TO 700mm IN DIAMETER.

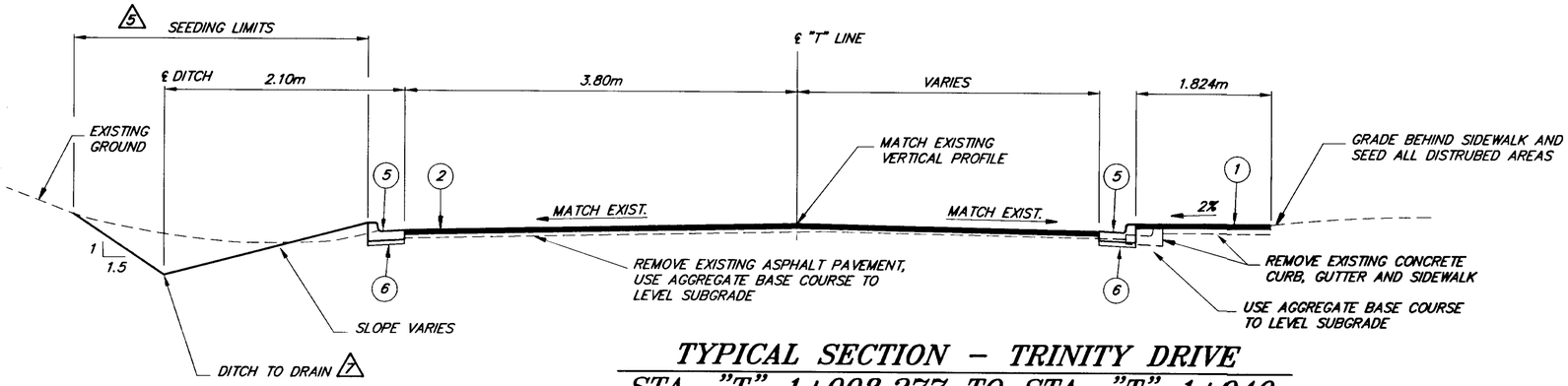
5 50mm OF TOPSOIL SHALL BE APPLIED TO SLOPE SURFACE PRIOR TO SEEDING.

6 CURB, TYPE I MAYBE REQUIRED BEHIND THE SIDEWALK BETWEEN STA. "TB" 1+075 AND STA. "TB" 1+099 TO KEEP EMBANKMENT WITHIN THE R.O.W. BOUNDARY.

7 SEE PLAN SHEETS 8, 9, 10, 11 & 12 FOR LOCATION AND ELEVATION OF DITCHES. EXISTING DITCHES MAY REQUIRE FILLING IN ORDER FOR NEW DITCH TO DRAIN.



TYPICAL SECTION – TONGASS BLVD.
STA. "TB" 1+012.121 TO STA. "TB" 1+106.095



TYPICAL SECTION – TRINITY DRIVE
STA. "T" 1+008.277 TO STA. "T" 1+040

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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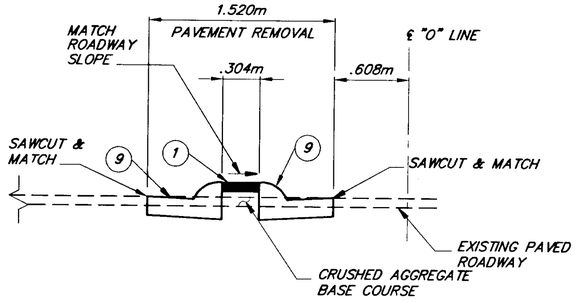
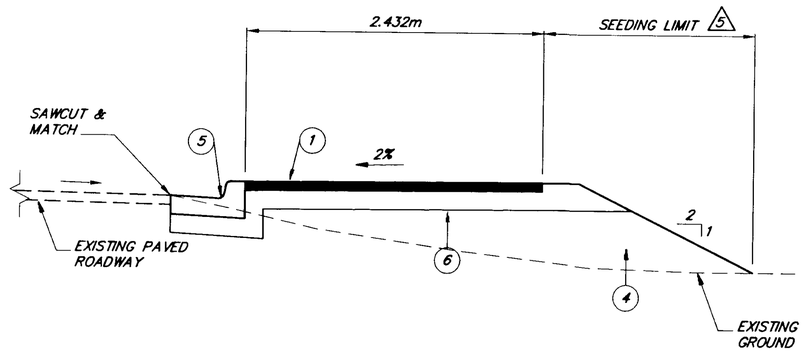
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TYPICAL SECTIONS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 3 OF 44

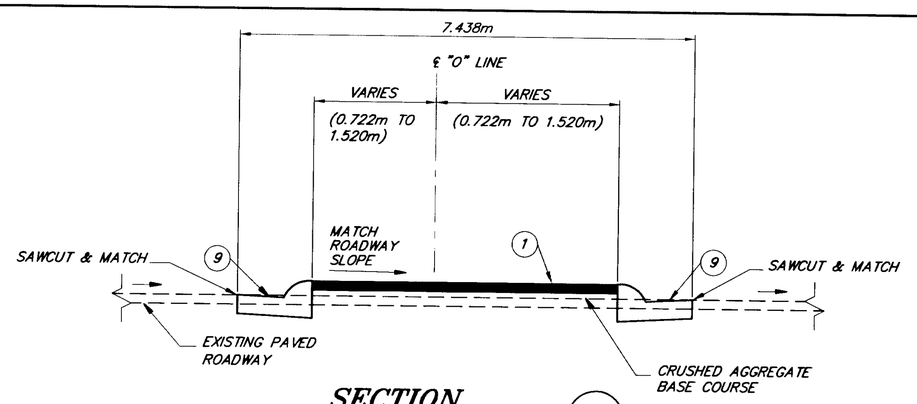
STATE OF ALASKA
49th
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



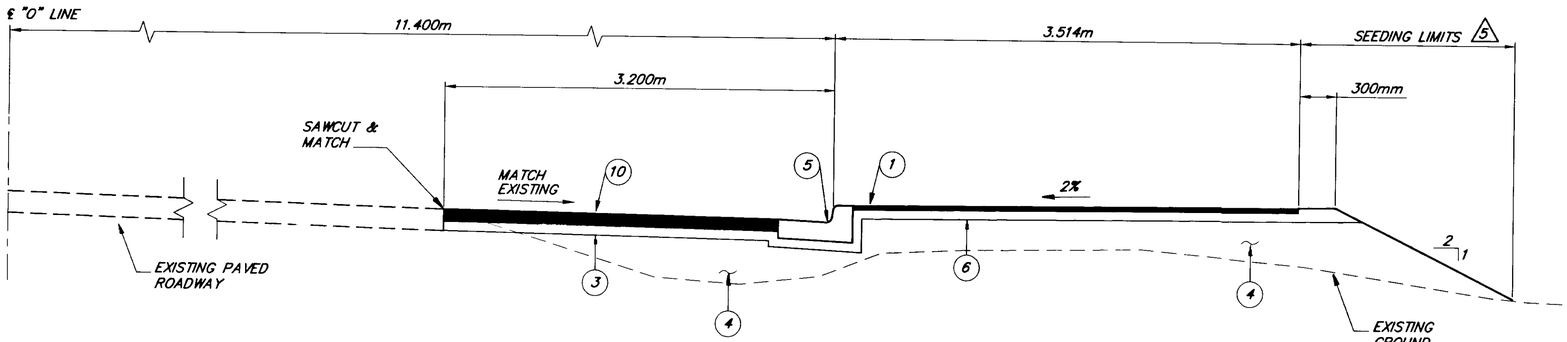
SECTION A — ISLAND



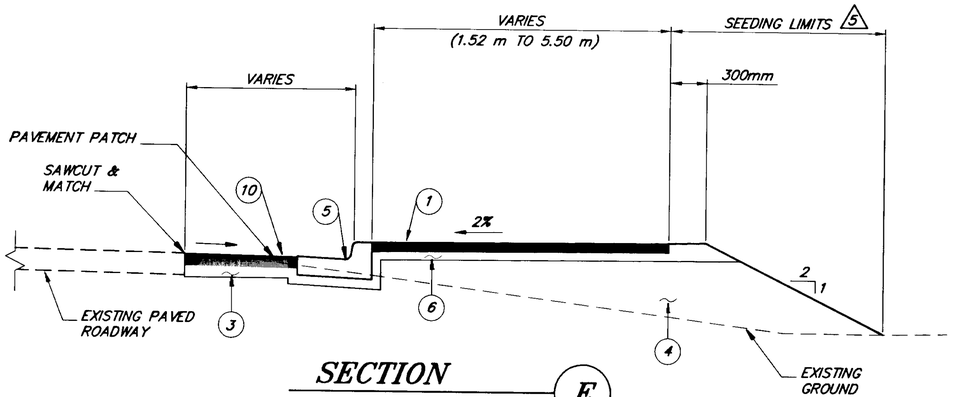
SECTION B — BIKEPATH



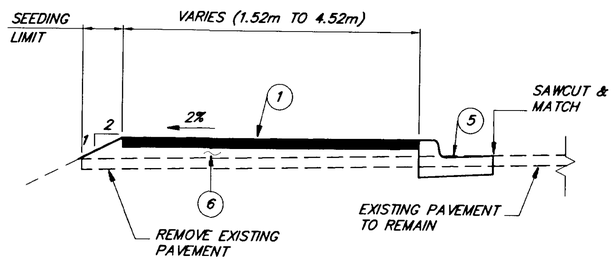
SECTION C — ISLAND



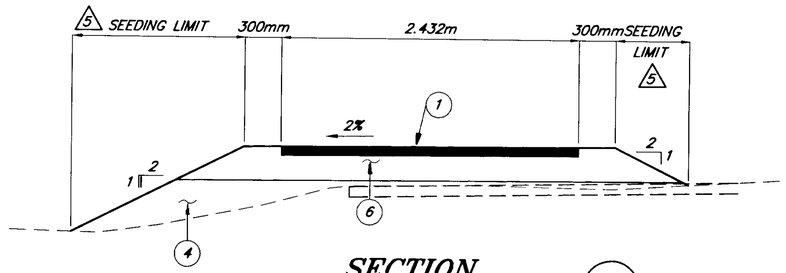
SECTION D — BUS PULLOUT



SECTION E — BUS PULLOUT SIDEWALK



SECTION F — BUS PULLOUT SIDEWALK



SECTION G — BIKEPATH

LEGEND

1. 38mm ASPHALT CONCRETE PAVEMENT
2. 75mm ASPHALT TREATED BASE
3. 150mm CRUSHED AGGREGATE BASE COURSE
4. BORROW, TYPE A
5. CONCRETE CURB & GUTTER, STANDARD
6. 100mm CRUSHED AGGREGATE BASE COURSE
7. 1800mm WOOD FENCE, SEE SHEET 5 FOR LOCATIONS AND SHEET 44 FOR DETAILS
8. TREE, SEE SHEET 6 FOR LOCATIONS
9. CONCRETE CURB & GUTTER, EXPRESSWAY
10. 200mm ASPHALT CONCRETE PAVEMENT

△5 50mm OF TOPSOIL SHALL BE APPLIED TO SLOPE SURFACE PRIOR TO SEEDING.

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DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TYPICAL SECTIONS

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 4 OF 44

STATE OF ALASKA
David D. Saldivar
CE-8307
PROFESSIONAL ENGINEER

ESTIMATE OF QUANTITIES

ITEM No.	ITEM	UNIT	TOTAL
120(1)	DBE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
201(3B)	CLEARING AND GRUBBING	LUMP SUM	ALL REQUIRED
202(1)	REMOVAL OF STRUCTURES & OBSTRUCTIONS	LUMP SUM	ALL REQUIRED
202(2)	REMOVAL OF PAVEMENT	SQUARE METER	1800
202(4)	REMOVAL OF CULVERT PIPE	METER	83.6
202(9)	REMOVAL OF CURB AND GUTTER	METER	30
202(12)	DOUBLE MAILBOX INSTALLATION	EACH	9
203(3)	UNCLASSIFIED EXCAVATION	CUBIC METER	1800
203(6A)	BORROW, TYPE "A"	MEGAGRAM	2050
301(1)	AGGREGATE BASE COURSE	MEGAGRAM	1500
401(1)	ASPHALT CONCRETE, TYPE II ; CLASS A	MEGAGRAM	500
401(2)	ASPHALT CEMENT, GRADE PG 58-28	MEGAGRAM	30
402(1)	STE-1 ASPHALT FOR TACK COAT	MEGAGRAM	1
511(1)	ROCKERY WALL	SQUARE METER	14
603(1-300)	300mm CSP	METER	229.14
603(1-450)	450mm CSP	METER	82.59
603(1-600)	600mm CSP	METER	30.1
603(22)	CURB DRAIN	EACH	6
603(23)	SADDLE TEE FOR ROOF DRAIN STUB-OUT	EACH	10
603(24)	150mm ROOF DRAIN STUB-OUT	METER	50
603(25)	CULVERT GRATE	EACH	1
604(1)	STORM SEWER MANHOLE	EACH	1
604(4)	ADJUST EXISTING MANHOLE	EACH	2
604(5A)	INLET, TYPE "A"	EACH	10
604(8)	FIELD INLET	EACH	4
604(9)	ADJUST EXISTING INLET	EACH	1
607(7)	WOOD FENCE	METER	214.30
608(3)	ASPHALT SIDEWALK	SQUARE METER	1900
608(7)	RED CONCRETE LANDING	SQUARE METER	24
609(1)	CURB, TYPE I	METER	25
609(2A)	STANDARD CURB & GUTTER, TYPE I	METER	710
609(2B)	EXPRESSWAY CURB & GUTTER, TYPE I	METER	400
615(1)	STANDARD SIGN	SQUARE METER	15.80
615(2)	REMOVE & RELOCATE EXISTING SIGN	EACH	2
615(5)	DELINEATOR, FLEXIBLE	EACH	24
615(6)	SALVAGE SIGN	EACH	26
621(1)	TREE	EACH	13
627(10)	ADJUSTMENT OF VALVE BOX	EACH	14
635(1)	INSULATION BOARD	CUBIC METER	2.7
639(1)	RESIDENCE DRIVEWAY	EACH	8
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
641(2)	EROSION AND POLUTION CONTROL	CONTINGENT SUM	ALL REQUIRED
641(3)	EROSION AND POLUTION CONTROL	LUMP SUM	ALL REQUIRED
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642(3)	THREE PERSON SURVEY PARTY	HOUR	5
642(4)	SET PRIMARY MONUMENT	EACH	7
642(10)	MONUMENT CASE	EACH	7
642(11)	ADJUST EXISTING MONUMENT CASE	EACH	1
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643(4)	CONSTRUCTION SIGN	DAY	1000
643(5)	TYPE II BARRICADE	DAY	350
643(6)	TYPE III BARRICADE	DAY	350
643(7)	TRAFFIC CONE/TUBULAR MARKER	DAY	6500
643(9)	DRUM	DAY	100
643(15)	FLAGGING	HOUR	1000
660(1)	TRAFFIC SIGNAL SYSTEM COMPLETE	LUMP SUM	ALL REQUIRED
660(3)	HIGHWAY LIGHTING SYSTEM COMPLETE	LUMP SUM	ALL REQUIRED
660(14)	UNINTERRUPTIBLE POWER SYSTEM COMPLETE	LUMP SUM	ALL REQUIRED
660(15)	SIGNAL CABINET SHOP TESTING	CONTINGENT SUM	ALL REQUIRED
661(1)	LOAD CENTER, TYPE 1	EACH	1
661(3)	LOAD CENTER, TYPE 2	EACH	1
670(1)	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED
670(8)	RECESSED PAVEMENT MARKER	EACH	75
670(9)	REMOVAL OF PAVEMENT MARKINGS	LUMP SUM	ALL REQUIRED
680(1)	GUY POLE	LUMP SUM	ALL REQUIRED

WOOD FENCE SUMMARY

FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	LENGTH	HEIGHT	REMARKS
"O" 2+447.296	18.894m RT.	"SH" 1+015.513	11.749m RT.	40.75m	* 1.83m	
"SH" 1+015.513	11.749m RT.	"SH" 1+031.541	13.455m RT.	16.12m	* 1.83m	
"SH" 1+037.541	14.094m RT.	"SH" 1+041.373	14.503m RT.	3.85m	1.83m	
"SH" 1+049.510	15.369m RT.	"SH" 1+055.430	16.000m RT.	5.95m	1.83m	
"SH" 1+063.520	16.861m RT.	"SH" 1+082.497	18.172m RT.	18.17m	1.83m	
"SH" 1+091.497	18.681m RT.	"SH" 1+123.000	20.464m RT.	31.55m	1.83m	
"SH" 1+133.000	10.644m RT.	"SH" 1+170.500	10.644m RT.	36.90m	1.83m	
"SH" 1+163.681	13.235m RT.	"SH" 1+192.654	13.240m RT.	28.93m	* 1.83m	
"SH" 1+177.500	10.644m RT.	"SH" 1+192.754	10.644m RT.	15.25m	* 1.83m	
"TB" 1+063.180	6.880m RT.	"TB" 1+080.200	5.833m RT.	16.83m	1.22m	
			TOTAL =	214.30m		
"SH" 1+015.513	11.749m RT.	"O" 2+447.296	18.894m RT.	45m		
"SH" 1+015.513	11.749m RT.	"SH" 1+031.2	11.00m RT.	15.9m		
"SH" 1+037.25	10.85m RT.	"SH" 1+041.62	10.95m RT.	4.37m		
"SH" 1+050.00	10.60m RT.	"SH" 1+055.60	10.45m RT.	5.58m		
"SH" 1+063.60	10.25m RT.	"SH" 1+068.00	10.15m RT.	3.95m		
"SH" 1+068.00	10.15m RT.	"SH" 1+082.50	10.90m RT.	14.74m		
"SH" 1+091.40	11.20m RT.	"SH" 1+122.80	13.03m RT.	31.8m		
"SH" 1+133.85	13.60m RT.	"SH" 1+137.05	11.00m RT.	4.26m		
"SH" 1+137.05	11.00m RT.	"SH" 1+175.50	10.80m RT.	38.45m		"SH" 1+154 Connect Existing R.C.
"SH" 1+182.50	10.60m RT.	"SH" 1+192.90	10.70m RT.	10.40m		to new installation 11.2m RT. to 14.47m LT.
"SH" 1+192.90	10.70m RT.	"SH" 1+194.80	11.23m RT.	1.90m		* = 5.27m
TB 1+063.180	6.88m RT.	TB 1+081.63	5.8m RT.	18.06m		TOTAL = 197.44 Installed
			TOTAL =	194.17m		

* FENCE HEIGHT SHALL BE STEP-DOWN TO 0.90m HEIGHT AT THE INTERSECTION.
SEE SHEET 44 FOR DETAILS

BASIS OF ESTIMATE

ITEM No.	ITEM	QUANTITY
203(6)	BORROW, TYPE "A"	2.17 Mg/m3 (1.80 TON/CY)
301(1)	CRUSHED AGGREGATE BASE COURSE	2.32 Mg/m3 (1.96 TON/CY)
401(1)	ASPHALT CONCRETE, TYPE II, CLASS A	2.48 kg/m2 PER mm (116 LB/SY/IN DEPTH)
401(2)	ASPHALT CONCRETE, PG 58-28	6% OF 401(1)
402(1)	STE-1 ASPHALT FOR TACK COAT	0.363 L, 923L/Mg (0.08 GAL/SY, 240 GAL./TON)

660(1A)	Traffic Signal System Modification	LS	ALL REQ'D
660(3A)	Adjust Existing Electrolier	EA	ALL REQ'D

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PATH: Q:\Jnu\67623\Dr\-Est.dwg 10/28/99 08:35:56 AM AM ADT
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RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
ESTIMATE OF QUANTITIES

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: K. KLEMMETSON	DATE: 1999
CHECKED BY: C. MORROW	SHEET 5 OF 44

STATE OF ALASKA
19th
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER

PIPE SUMMARY

PIPE NO.	TYPE	DIAMETER (mm)	LENGTH (m)	FROM STRUCTURE	INVERT	TO STRUCTURE	INVERT	REMARKS
P-1	CMP	450	14.80	"O" 2+361.512, 10.643m RT.	10.89	"O" 2+346.629, 11.526m RT.	10.85	CONNECT TO EXISTING WITH 22.5° ELBOW
P-2	CMP	450	~~8.59~~ 7.0	"O" 2+406.372, 14.367m RT.	11.06	"O" 2+400.361, 11.681m RT.	11.01	CONNECT TO EXISTING WITH 45° ELBOW
P-3	CMP	450	~~14.11~~ 14.10	"O" 2+425.389, 12.179m RT.	11.25	"O" 2+411.342, 14.438m RT.	11.11	~~CURB DRAIN, SEE SHEET 41 FOR DETAILS~~
P-4	SCH 40	75	~~3.12~~ 3.15	"O" 2+390, 1.558m LT.		"O" 2+390, 1.558m RT.		CURB DRAIN, SEE SHEET 41 FOR DETAILS
P-5	SCH 40	75	~~0.61~~ .82	"O" 2+430, 1.672m LT.		"O" 2+430, 1.064m LT.		CURB DRAIN, SEE SHEET 41 FOR DETAILS
P-6	SCH 40	75	~~0.61~~ .18	"O" 2+460, 1.672m LT.		"O" 2+460, 1.064m LT.		CURB DRAIN, SEE SHEET 41 FOR DETAILS
~~P-7~~	~~SCH 40~~	~~75~~	~~5.05~~	"O" 2+471, 10.601m LT.		"O" 2+469.653, 15.460m LT.		~~CURB DRAIN, SEE SHEET 41 FOR DETAILS~~
P-8	SCH 40	75	0.61 .80	"O" 2+520, 1.064m RT.		"O" 2+520, 1.672m RT.		CURB DRAIN, SEE SHEET 41 FOR DETAILS
P-9	CMP	300	~~14.93~~ 14.90	S-1	~~11.75~~	11.62 S-2	~~11.51~~	11.46
P-10	CMP	300	~~16.59~~ 16.50	S-2	~~11.50~~	11.46 S-3	11.41	
P-11	CMP	300	~~65.25~~ 65.1	S-3	~~11.40~~	11.42 S-5	~~11.14~~	11.28
P-12	CMP	300	10.64 10. .0	S-4	~~11.30~~	11.32 S-5	~~11.16~~	11.26
P-13	CMP	~~300~~ 150	~~11.32~~ 10. .0	S-6	11.15	S-5	11.12	
P-14	CMP	300	~~34.68~~ 34. .0	S-5	~~11.11~~	11.25 S-10	~~11.00~~	11.05
P-15	CMP	300	~~14.90~~ 15.0	S-7	11.00	S-8	10.75	CONNECT TO EXISTING FIELD INLET.
P-16	CMP	300	~~10.64~~ 11. .0	S-9	~~11.20~~	11.16 S-10	~~11.05~~	11.10
P-17	CMP	300	~~20.80~~ 20. .0	S-10	~~10.99~~	11.053 S-11	10.90	
P-18	CMP	600	~~18.41~~ 18.40	"SH" 1+137.804, 8.442m LT.	~~10.94~~	11.02 S-11	10.90	~~10.88~~ INSTALL GRATE @ INLET END, SEE SHEET 42 FOR DETAILS.
P-19	CMP	600	11.70 12.0	S-11	~~10.87~~	10.96 S-8	10.85	10.86
P-17A	CMP	300	18.10	"SH" 1+153.00	10.06 RT.	11.46		
P-21	CMP	300	~~11.67~~ 11.60	S-14	11.20	S-13	~~11.01~~	11.30
P-22	CMP	300	17.72 17.50	S-13	~~11.00~~	11.28 S-15	10.90	CONNECT TO EXISTING CURB INLET.
P-23	CMP	~~450~~ 300	~~7.65~~ 7.60	S-16	~~11.19~~	11.03 S-17	~~11.10~~	11.85
P-24	CMP	~~450~~ 300	~~21.53~~ 21. .50	S-17	~~11.09~~	11.04 S-18	~~10.90~~	11.66
~~P-25~~	~~CMP~~	~~450~~	~~17.91~~	~~S-18~~	~~10.89~~	S-19	~~10.72~~	CONNECT TO EXISTING CURB INLET.
P-1A			5.7m	"O" 2+342 RT.				
P-1B			6.4m	"O" 2+320 RT.				
P-25A	CMP	300	7.5m	S-18				"TB" 1+016 Connect to existing Pipe

TREE SUMMARY

STATION	OFFSET LT	OFFSET RT	TREE TYPE	TREE VARIETY	REMARKS
"SH" 1+025		~~10m~~	~~Service Berry~~	Laevis	~~Shubert Cherry~~
"SH" 1+052		10m	Crimson Linden	Glenleven	Maydey Tree
"SH" 1+068		10m	~~Service Berry~~	Laevis	Shubert Cherry
"SH" 1+075		10m	Crimson Linden	Glenleven	Maydey Tree
"SH" 1+098		10m	~~Service Berry~~	Laevis	Shubert Cherry
"SH" 1+109		~~10m~~	~~Crimson Linden~~	Glenleven	Maydey Tree
"SH" 1+119		~~10m~~	~~Service Berry~~	Laevis	Shubert Tree
"SH" 1+138		~~9m~~	~~Crimson Linden~~	Glenleven	Maydey Tree
"SH" 1+146		~~9m~~	~~Service Berry~~	Laevis	Shubert Cherry
"SH" 1+154		~~9m~~	~~Crimson Linden~~	Glenleven	Maydey Tree
"SH" 1+167		~~9m~~	~~Service Berry~~	Laevis	Shubert Cherry
"SH" 1+180		~~9m~~	~~Crimson Linden~~	Glenleven	Maydey Tree
"SH" 1+187		~~9m~~	~~Service Berry~~	Laevis	Shubert Cherry
					* OFFSET OF TREES Varies

STRUCTURE RELOCATION

STATION	OFFSET LT	OFFSET RT	REMARKS
"SH" 1+030		17.7m	RELOCATE APPROX. 25m OF EXISTING CHAIN LINK FENCE TO THE PROPERTY LINE OF 8758/8760 HALOFF WAY, KNOWN AS LOT 5 OF HALOFF WAY SUBDIVISION.
"SH" 1+191.50		11.8m	REMOVE AND DISPOSE EXISTING CONCRETE PAD. RELOCATE GARBAGE BIN TO STA. "TB" 1+015, 14m LT.
"SH" 1+130.40		12.7m	RELOCATE EXISTING 1.4m x 2.4m (1.5m HIGH) GARBAGE SHED AT LOCATION PER OWNER'S DIRECTION.

DRAINAGE STRUCTURE SUMMARY

STRUCTURE NO.	STATION	OFFSET (m)	TOP OF GRATE/LID	STRUCTURE INVERT	REMARKS
S-1	"O" 2+525.366	10.944 RT.	12.40	11.29	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
* S-2	"SH" 1+021.671	9.285 LT.	11.94	11.04	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
* S-3	"SH" 1+014.476	5.016 RT.	12.05	10.94	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-4	"SH" 1+080	5.016 LT.	12.03	10.84	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
* S-5	"SH" 1+080	5.016 RT.	12.03	10.65	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-6	"SH" 1+081	16.60 RT.	11.60	10.52	TYPE 'A' FIELD INLET
S-7	"SH" 1+114.905	19.392 RT.	11.50	10.54	TYPE 'A' FIELD INLET
S-8	"SH" 1+129.778	20.221 RT.	11.66		EXISTING FIELD INLET TO REMAIN.
S-9	"SH" 1+114.677	5.016 LT.	11.81	10.74	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-10	"SH" 1+114.677	5.016 LT.	11.88	10.53	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-11	"SH" 1+135.000	9.75 RT.	11.60	10.41	1.2m STORM DRAIN MANHOLE FIELD INLET
S-13	"SH" 1+192.281	5.549 RT.	11.94	10.54	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-14	"SH" 1+195.591	5.016 LT.	11.98	10.74	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-15	"SH" 1+198.657	22.45 RT.	12.06		EXISTING CURB INLET TO REMAIN.
S-16	"TB" 1+049.612	7.266 RT.	12.00	10.73	TYPE 'A' FIELD INLET
S-17	"TB" 1+042.196	4.202 RT.	12.00	10.63	TYPE 'A' CURB INLET WITH TYPE 'B' HOOD
S-18	"TB" 1+020.774	7.614 RT.	11.75	10.43	TYPE 'A' FIELD INLET
S-19	"TB" 1+003.141	9.274 RT.	12.00		EXISTING CURB INLET TO REMAIN.

* STEEL PLATE 5/8" PLACED ON TOP TYPE "A" INLET IN PLACE 6" REDUCING SLAB. TYPE "B" FRAME & HOOD TO BE PLACED ON TOP OF STEEL PLATE. RAM NECK ASPHALT SEAL PLACED BETWEEN METAL SURFACES. PLATE ATTACHED WITH RED HEAD TO INLET BOX.

MAILBOX INSTALLATION

STATION	OFFSET LT	OFFSET RT	REMARKS
"SH" 1+038.70		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+052		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+053		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+075.5		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+076.5		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+120		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+121		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+136		X	DOUBLE MAILBOX, WOOD POST
"SH" 1+137		X	DOUBLE MAILBOX, WOOD POST
"TB" 1+015		X	DOUBLE MAILBOX, WOOD POST

NOTE:
STATION AND OFFSET FOR CURB INLETS ARE MEASURED TO EDGE OF GUTTER AND FIELD INLETS ARE MEASURED TO CENTER OF STRUCTURE.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: Q:\Jnu\67623\Dr\-Sum1.dwg 10/28/99 08:32:20 AM AM ADT
PLOT: FULL=1 or HALF=2

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
SUMMARY OF QUANTITIES

DESIGNED BY:	PROJECT NO.
D. SALDIVAR	67623
DRAWN BY:	DATE:
K. KLEMMETSON	1999
CHECKED BY:	SHEET 6 OF 44
C. MORROW	

STATE OF ALASKA
49th
Odvid D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER

CULVERT REMOVAL

FROM		TO		SIZE	LENGTH	REMARKS
STATION	OFFSET	STATION	OFFSET			
"0" 2+400.36	11.68m RT.	"0" 2+401.62	11.66m RT.	450mm	1.30m	
"SH" 1+80.95	16.92m RT.	"SH" 1+092.93	17.93m RT.	300mm	12.0m	
"SH" 1+110.02	19.06m RT.	"SH" 1+129.78	20.22m RT.	300mm	19.8m	
"SH" 1+134.57	9.80m RT.	"SH" 1+129.78	20.22m RT.	600mm	11.5m	
"SH" 1+195.68	10.62m RT.	"SH" 1+198.201	22.39m RT.	300mm	12.0m	
"TB" 1+003.14	9.27m RT.	"TB" 1+022.647	6.98m RT.	450mm	19.6m	
"TB" 1+038.88	6.30m RT.	"TB" 1+046.668	6.53m RT.	300mm	7.4m	
				TOTAL=	83.6m	

DRIVEWAY SUMMARY

STATION	OFFSET		WIDTH	REMARKS
	LT	RT		
"SH" 1+034.541		X	3.00m	
"SH" 1+045.441		X	7.00m	
"SH" 1+055.437 7.50	X		6.00m	
"SH" 1+059.425		X	7.00m	"SH" 1+074.03 LT.
"SH" 1+086.997		X	8.00m	
"SH" 1+106.241	X		8.00m	"SH" 1+116.697 LT.
"SH" 1+128.000		X	8.00m	"SH" 1+161.60 LT.
"SH" 1+174.000		~~X~~	6.00m	"SH" 1+179.03 RT.
"TB" 1+044.339		X	5.50m	
"TB" 1+086.032		X	8.00m	

INSULATION BOARD SUMMARY

STATION	OFFSET		QUANTITY	REMARKS
	LT	RT		
"SH" 1+015.12		3.72	0.30m³	
"SH" 1+022.36	13.73		0.30m³	
"SH" 1+077.98		11.55	0.30m³	
"SH" 1+078.02		14.59	0.30m³	
"SH" 1+098.20		18.16	0.30m³	
"SH" 1+125.86		20.00	0.30m³	
"TB" 1+008.07		8.75	0.30m³	
"TB" 1+015.04		8.09	0.30m³	
"TB" 1+030.12		6.12	0.30m³	

UTILITY ADJUSTMENT

STATION	OFFSET		REMARKS
	LT	RT	
"SH" 1+010		1.0 RT.	ADJUST SANITARY SEWER MANHOLE TO GRADE
"0" 2+389.54		9.96m	ADJUST SANITARY SEWER MANHOLE TO GRADE.
"0" 2+461.01	11.19m		ADJUST J-BOX TO GRADE.
"SH" 1+019.87		6.09m	ADJUST SANITARY SEWER MANHOLE TO GRADE.
"SH" 1+129.78		20.22m	ADJUST FIELD INLET TO GRADE.
"TB" 1+015.089		8.85m	ADJUST VALVE BOX.
"SH" 1+010		10m	ADJUST SANITARY SEWER MANHOLE TO GRADE.

MONUMENT ADJUSTMENT

STATION	OFFSET		REMARKS
	LT	RT	
"0" 2+385.381	0.342 m		

CURB CUT SUMMARY

STATION	OFFSET (m)		CURB CUT TYPE	WIDTH (m)	REMARKS
	LT	RT			
"0" 2+380.866		11.206	III	3 m	WHEEL CHAIR RAMP.
"0" 2+399.069		10.236	III	3 m	WHEEL CHAIR RAMP.
"0" 2+474.694	13.414		V	3 m	WHEEL CHAIR RAMP.
"0" 2+489.807		10.236	III	3 m	WHEEL CHAIR RAMP.
"0" 2+496.330	11.307		III	3 m	WHEEL CHAIR RAMP.
"0" 2+512.334		12.366	V	3 m	WHEEL CHAIR RAMP.
"SH" 1+034.541		5.624	II	5 m	DRIVEWAY
"SH" 1+045.441		5.624	II	7 m	DRIVEWAY
"SH" 1+055.437	7.487		II	7 m	DRIVEWAY
"SH" 1+059.425		5.624	II	7 m	DRIVEWAY "SH" 1+074.03 LT.
"SH" 1+086.997		5.624	II	8 m	DRIVEWAY
"SH" 1+106.241		5.624	II	8 m	DRIVEWAY "SH" 1+116.697 LT.
"SH" 1+128.000		5.624	II	8 m	DRIVEWAY "SH" 1+161.60 LT.
"SH" 1+174.000		5.624	II	6 m	DRIVEWAY "SH" 1+179.03 LT.
"SH" 1+198.094		11.553	III	1.5 m	WHEELCHAIR RAMP
"SH" 1+202.228	7.728		III	1.5 m	WHEELCHAIR RAMP
"TB" 1+012.121		16.862	IV	1.5 m	WHEELCHAIR RAMP
"TB" 1+015.437		6.827	III	1.5 m	WHEELCHAIR RAMP
"TB" 1+044.339		4.787	II	5.5 m	DRIVEWAY
"TB" 1+062.352		4.191	I	1.5 m	WHEELCHAIR RAMP
"TB" 1+086.032		3.992	II	8.0 m	DRIVEWAY
"TB" 1+102.712		5.845	III	1.5 m	WHEELCHAIR RAMP

NOTE:
STATION AND OFFSET ARE MEASURED TO BACK OF CURB, EXCEPT WHERE NOTED.

REMOVAL OF STRUCTURES & OBSTRUCTIONS

STATION	OFFSET		REMARKS
	LT	RT	
"SH" 1+064.66		17.07m	REMOVE MAILBOXES.
"SH" 1+066.09		17.08m	REMOVE MAILBOXES.
"SH" 1+068.82		17.02m	REMOVE MAILBOXES.
"SH" 1+107.23		19.86m	REMOVE MAILBOXES.
"SH" 1+109.01		19.83m	REMOVE MAILBOXES.
"SH" 1+038.52		13.06m	REMOVE GUARDPOST (1).
"SH" 1+112.68		10.62m	REMOVE GUARDPOST (2).
"SH" 1+136.20		6.81m	REMOVE EXISTING FENCE.
"SH" 1+138.42		12.41m	REMOVE EXISTING FENCE.
"TB" 1+015.49		8.88m	REMOVE GUARDPOST (2).

MONUMENTS

STATION	OFFSET		REMARKS
	LT	RT	
"SH" 0+971.253		0.92 m	
"SH" 1+000.000			CENTERLINE MONUMENT
"SH" 1+063.475			PC
"SH" 1+075.862			PT
"SH" 1+150.554			PC
"SH" 1+164.577			PT
"SH" 1+200.000			POT

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q: \Jnu\67623\Dr\-Sum2.dwg Fri, 17/Dec/99 11:05am
PLOT: FULL=1 or HALF=2

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
SUMMARY OF QUANTITIES

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 7 OF 44

STATE OF ALASKA
49th
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER


BEGIN RECONSTRUCTION
SAWCUT & MATCH
STA. "SH" 1+008.875
MENDENHALL LOOP ROAD
PT
STA. "SH" 1+024.468
9.272m LT.
ANGLE POINT
STA. "SH" 1+052.640
9.272m LT.
ANGLE POINT
STA. "SH" 1+063.495
5.624m LT.
CURVE DATA
Δ = 2°50'02"
R = 250.00 m
T = 6.195 m
L = 12.387 m
MATCH LINE
STA. "SH" 1+100
R/W
STA. "SH" 1+045.441=
STA. 0+000
STA. "SH" 1+059.425=
STA. 0+000
STA. "SH" 1+034.541=
STA. 0+000
N 83°55'45" E
63.475m
HALOFF WAY
STA. "SH" 1+086.997=
STA. 0+000
"SH" LINE
STEPHEN RICHARDS DRIVE
STA. "O" 2+493.023=
STA. "SH" 1+000
PCC = 2+487.098
STA. "SH"
11.116m RT
OBLITERATE EXISTING
PAVED ROADWAY
END PAVING
STA. 0+016
DITCH TO DRAIN
BEGIN DITCH
STA. "O" 1+037.04
11.56m RT.
ELEV. 12.04
SAWCUT & MATCH
STA. 0+014.50
SAWCUT & MATCH
STA. 0+016
END PAVING
STA. 0+018
END DITCH
STA. "O" 1+078
16.76m RT.
ELEV. 11.50
BEGIN DITCH
STA. "O" 1+092.50
17.64m RT.
ELEV. 11.54
RELOCATE EXISTING CHAIN
LINK FENCE ALONG THE
WEST PROPERTY BOUNDARY
PAVEMENT REMOVAL OUTSIDE OF
ROADWAY/BIKEPATH/DRIVEWAY
IMPROVEMENTS
LEGEND
EASEMENT BOUNDARY
TEMPORARY CONSTRUCTION
PERMIT BOUNDARY
R/W RIGHT-OF-WAY BOUNDARY
HIGH POINT ELEV = 12.256
HIGH POINT STA = 1+050.441
PVI STA = 1+050
PVI ELEV = 12.300
A.D. = -1.177
K = 25.478
L = 30.00m
30.000m VC
STA. "O" 2+493.023=
STA. "SH" 1+000.000
ELEV. 12.456
BEGIN CONSTRUCTION
SAWCUT & MATCH
STA. "SH" 1+008.875
ELEV. 12.270
PVI STA = 1+017
PVI ELEV = 12.100
BVCS: 1+035
BVCE: 12.209
EVCS: 1+065
EVCE: 12.214
FINISHED CENTERLINE PROFILE
EXISTING PROFILE
-2.094%
0.606%
-0.571%
DATUM ELEV
8.000
1+000
1+020
1+040
1+060
1+080
1+100

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-PPSETUP.dwg Fri, 17/Dec/99 11:32am
PLOT: SCALE: 100(F) OR 200(H) VIEWS: P1, PF1, TB1

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
STA. "SH" 1+000 TO STA. "SH" 1+100

DESIGNED BY: D. SALDIVAR
DRAWN BY: B. BENNETT
CHECKED BY: C. MORROW

PROJECT NO. 67623
DATE: 1999

STATE OF ALASKA
49th
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER

LEGEND

- EASEMENT BOUNDARY
- TEMPORARY CONSTRUCTION PERMIT BOUNDARY
- R/W — RIGHT-OF-WAY BOUNDARY

CURVE DATA
Δ = 3°12'50"
R = 250.00 m
T = 7.014m
L = 14.023 m

MATCH LINE STA. "SH" 1+100

ELECTRICAL-TRANSFORMER

TELEPHONE PED.

1.52m SIDEWALK

S-9

P-16

STA. "SH" 1+128= STA. 0+000

1+100

N 86°46'06" E
74.693m

LINE

STA. "SH" 1+113.425
11.116m RT.

S-10

STA. "SH" 1+111.925
11.116m RT.

R=1m TYP.

P-17

S-11

4.0m 4.0m

S-7

P-15

MB MB

S-8

ITCH
" 1+092.50
RT.
.54

END DITCH
STA. "O" 1+114.91
19.39m RT.
ELEV. 11.40

SAWCUT & MATCH
STA. 0+023

OF

5.016m 5.016m

℄ "SH" LINE

1+150

PC = 1+150.554

PT = 1+164.577

90° 90°

STA. "SH" 1+174= STA. 0+000

HALOFF WAY

N 89°58'56" E
42.505 m

1+200

P-18

P-21

S-13

1.520m

DITCH TO DRAIN

3.0m 3.0m 3.0m 3.0m

P-22

END DITCH
STA. "SH" 1+135.31
9.75m RT.
ELEV. 11.40

BEGIN DITCH
STA. "SH" 1+168.5
9.80m RT.
ELEV. 11.60

END PAVING
STA. 0+012.50

R=8.5m R=10.0m

RADIUS POINT
STA. "SH" 1+188.414
15.644m RT.

RADIUS POINT
STA. "SH" 1+188.960
15.624m RT.

SAWCUT & MATCH
STA. "SH" 1+197.774
24.388m RT.

2.037m

S-15

S-16

S-17

PAVEMENT REMOVAL OUTSIDE OF ROADWAY/BIKEPATH/DRIVEWAY IMPROVEMENTS

SAWCUT & MATCH
STA. "SH" 1+206.951
19.162m LT.

RADIUS POINT
STA. "SH" 1+196.091
15.624m LT.

RADIUS POINT
STA. "SH" 1+195.468
15.644m LT.

2.15m

R=10.0m R=8.5m

S-14

R/W

℄ "TB" LINE

PT= 1+087.377

1+100

PC= 1+080.994

N 13°12'01" E
13.892m

PT=1+067.102

1+050

PC = 1+038.968

STA. "SH" 1+207.082=
STA. "TB" 1+075.001
N 15,763.7911
E 9,423.6933

SAWCUT & MATCH
STA. "SH" ~~1+202.773~~ 1+203.38

TONGASS AVE.NUE

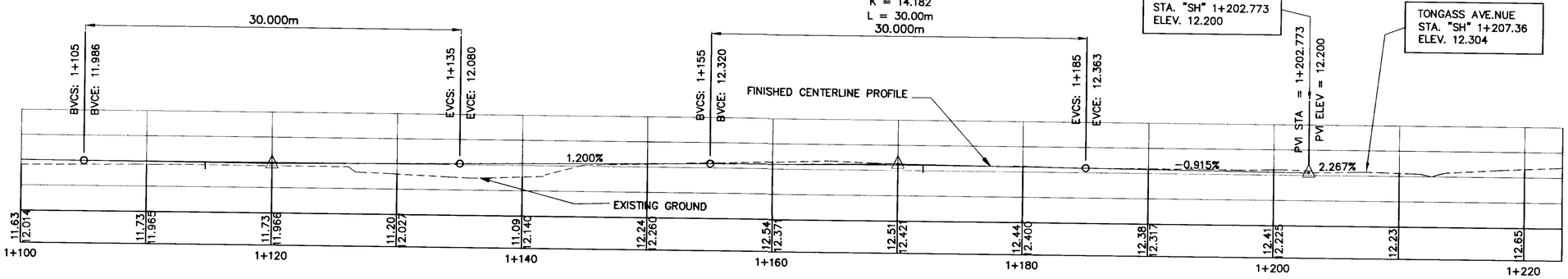
PL

LOW POINT ELEV = 11.958
LOW POINT STA = 1+114.677
PVI STA = 1+120
PVI ELEV = 11.900
A.D. = 1.771
K = 16.935

HIGH POINT ELEV = 12.422
HIGH POINT STA = 1+172.018
PVI STA = 1+170
PVI ELEV = 12.500
A.D. = −2.115
K = 14.182
L = 30.00m

SAWCUT & MATCH
STA. "SH" 1+202.773
ELEV. 12.200

TONGASS AVE.NUE
STA. "SH" 1+207.36
ELEV. 12.304



NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH:	[PlotStamp Eval] Q:\Jnu\67623\Dr\–PPSETUP.dwg Fri, 17/Dec/99 11:35am		
PLOT:	SCALE: 100(F) OR 200(H)	VIEWS: P2, PF2, TB2	
BY:	DATE:	DESCRIPTION OF CHANGE:	

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

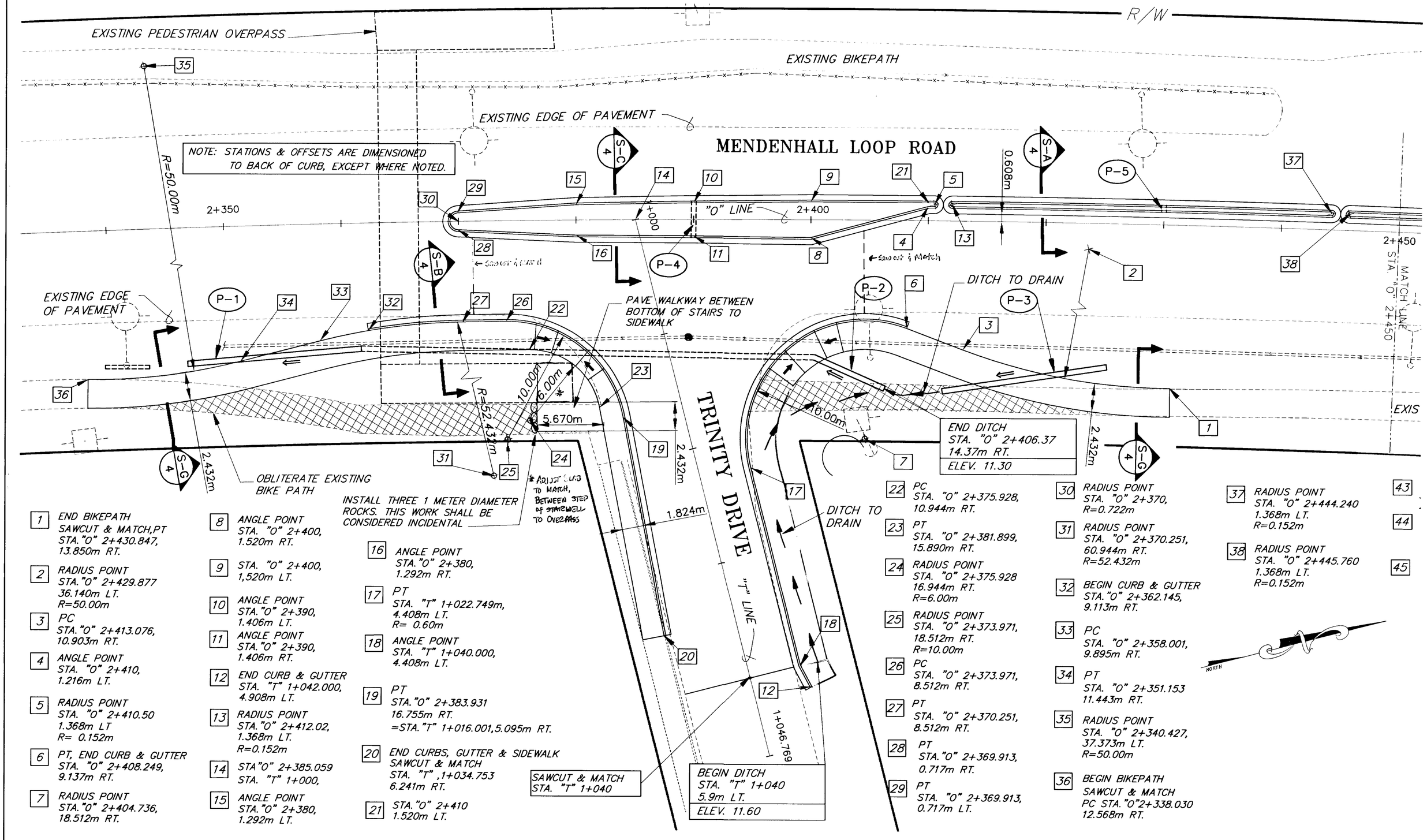
JUNEAU ALASKA

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO–0003(58) ~ PROJECT NO. 67623

STA. "SH" 1+100 TO STA. "SH" 1+210

DESIGNED BY:	D. SALDIVAR	PROJECT NO.	67623
DRAWN BY:	B. BENNETT	DATE:	1999
CHECKED BY:	C. MORROW	SHEET 9 OF 44	

STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



1 END BIKEPATH
SAWCUT & MATCH, PT
STA. "0" 2+430.847,
13.850m RT.

2 RADIUS POINT
STA. "0" 2+429.877
36.140m LT.
R=50.00m

3 PC
STA. "0" 2+413.076,
10.903m RT.

4 ANGLE POINT
STA. "0" 2+410,
1.216m LT.

5 RADIUS POINT
STA. "0" 2+410.50
1.368m LT
R= 0.152m

6 PT, END CURB & GUTTER
STA. "0" 2+408.249,
9.137m RT.

7 RADIUS POINT
STA. "0" 2+404.736,
18.512m RT.

8 ANGLE POINT
STA. "0" 2+400,
1.520m RT.

9 STA. "0" 2+400,
1,520m LT.

10 ANGLE POINT
STA. "0" 2+390,
1.406m LT.

11 ANGLE POINT
STA. "0" 2+390,
1.406m RT.

12 END CURB & GUTTER
STA. "T" 1+042.000,
4.908m LT.

13 RADIUS POINT
STA. "0" 2+412.02,
1.368m LT.
R=0.152m

14 STA "0" 2+385.059
STA. "T" 1+000,

15 ANGLE POINT
STA. "0" 2+380,
1.292m LT.

16 ANGLE POINT
STA. "0" 2+380,
1.292m RT.

17 PT
STA. "T" 1+022.749m,
4.408m LT.
R= 0.60m

18 ANGLE POINT
STA. "T" 1+040.000,
4.408m LT.

19 PT
STA. "0" 2+383.931
16.755m RT.
=STA. "T" 1+016.001,5.095m RT.

20 END CURBS, GUTTER & SIDEWALK
SAWCUT & MATCH
STA. "T" ,1+034.753
6.241m RT.

21 STA. "0" 2+410
1.520m LT.

22 PC
STA. "0" 2+375.928,
10.944m RT.

23 PT
STA. "0" 2+381.899,
15.890m RT.

24 RADIUS POINT
STA. "0" 2+375.928
16.944m RT.
R=6.00m

25 RADIUS POINT
STA. "0" 2+373.971,
18.512m RT.
R=10.00m

26 PC
STA. "0" 2+373.971,
8.512m RT.

27 PT
STA. "0" 2+370.251,
8.512m RT.

28 PT
STA. "0" 2+369.913,
0.717m RT.

29 PT
STA. "0" 2+369.913,
0.717m LT.

30 RADIUS POINT
STA. "0" 2+370,
R=0.722m

31 RADIUS POINT
STA. "0" 2+370.251,
60.944m RT.
R=52.432m

32 BEGIN CURB & GUTTER
STA. "0" 2+362.145,
9.113m RT.

33 PC
STA. "0" 2+358.001,
9.895m RT.

34 PT
STA. "0" 2+351.153
11.443m RT.

35 RADIUS POINT
STA. "0" 2+340.427,
37.373m LT.
R=50.00m

36 BEGIN BIKEPATH
SAWCUT & MATCH
PC STA. "0" 2+338.030
12.568m RT.

37 RADIUS POINT
STA. "0" 2+444.240
1.368m LT.
R=0.152m

38 RADIUS POINT
STA. "0" 2+445.760
1.368m LT.
R=0.152m

43

44

45

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] Q: \jnu\67623\Dr\–Intersections.dwg Fri, 17/Dec/99 11:45am
PLOT: Plot: Full=1 or Half=2 Views: MLR1, T1

BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

MENDENHALL LOOP ROAD

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 10 OF 44

STATE OF ALASKA
David D Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER

39 BEGIN BIKEPATH, CURB & GUTTER SAWCUT & MATCH STA."O" 2+493.624, 15.977m LT.

40 RADIUS POINT STA."SH" 0+972.827, RAD.= 0.152m

41 RADIUS POINT STA."SH" 0+983.827, RAD.= 0.152m

42 END SIDEWALK, CURB & GUTTER SAWCUT & MATCH STA. "SH" 0+968.511, 9.189m RT.

43 PT STA. "O" 2+476.506, 22.454m LT.

44 RADIUS POINT STA."O" 2+467.567, 19.607m LT.

45 PC STA. "O" 2+467.558, 10.107m LT.

46 BEGIN SIDEWALK, CURB & GUTTER STA. "O" 2+459.086, 10.115m LT.

47 STA. "O" 2+493.023= STA."SH" 1+000

48 RADIUS POINT STA."O" 2+479.235, 1.368 m LT. RAD.= 0.152m

49 PC STA."O" 2+482.256, 11.095m RT.

50 PC, BEGIN CURB & GUTTER STA. "O" 2+480.463, 9.171m RT.

51 PT STA. "O" 2+477.714, 10.209m RT.

52 PC BEGIN BIKEPATH STA. "O" 2+460.198, 13.350m RT.

53 PC STA. "O" 2+479.235 1.520m LT.

54 RADIUS POINT STA. "O" 2+460.421, 36.651m LT. R= 50.0m

55 RADIUS POINT STA. "SH" 1+016.451, R=0.152m

56 RADIUS POINT STA."SH" 1+027.451, R=0.152m

57 PC STA "O" 2+479.235 1.216m LT.

58 PT STA. "O" 2+493.396, 14.428m RT.

59 PT STA. "O" 2+491.985, 15.036m RT.

60 RADIUS POINT STA. "O" 2+484.966 18.098m RT. R=7.5m

61 RADIUS POINT STA. "O" 2+484.067 18.512m RT. R=10.00m

62 RADIUS POINT STA. "O" 2+467.960, 21.626m RT. R=7.00m

63 END CURB & GUTTER STA. "O" 2+560, 9.120m RT.

64 PC STA. "O" 2+560, 1.064m RT.

65 RADIUS POINT STA."O" 2+560, R=1.064m

66 PC STA. "O" 2+560, 1.064m LT.

67 ANGLE POINT STA. "O" 2+558.775, 8.512 m RT.

68 END BIKEPATH SAWCUT & MATCH STA. "O" 2+556.684, 15.552m RT.

69 ANGLE POINT STA."O" 2+546.910, 8.512 m RT.

70 ANGLE POINT STA. "O" 2+550, 1.520m RT.

71 ANGLE POINT STA. "O" 2+550, 1.520m LT.

72 ANGLE POINT STA."O" 2+540, 1.216m RT.

73 ANGLE POINT STA."O" 2+543.349 12.900m RT.

74 ANGLE POINT STA. "O" 2+537.882, 15.200m RT.

75 ANGLE POINT STA."O" 2+540.178, 11.552m RT.

76 ANGLE POINT STA "O" 2+524.786, 11.552m RT.

77 PT STA."O" 2+515.290 15.200m RT.

78 RADIUS POINT STA."O" 2+517.364 15.728m RT. R=6.00m

79 RADIUS POINT STA. "O" 2+515.290, 17.20m RT. R=2.00m

80 PC STA."O" 2+513.456 18.059m RT.

81 PC STA."O" 2+511.867, 18.306m RT.

82 RADIUS POINT STA. "O" 2+507.651, 1.368m RT. R=0.152m

83 PC STA."O" 2+493.813, 15.388 m LT.

84 PT STA. "O" 2+503.642, 10.895m LT.

85 RADIUS POINT STA. "O" 2+503.178, 18.512m LT. R=10.00m

86 RADIUS POINT STA. "O" 2+502.243, 18.26m LT. R=7.50m

87 PT STA. "O" 2+505.053, 8.694m LT.

88 END CURB & GUTTER STA. "O" 2+507.165, 9.109m LT.

89 PC STA."O" 2+515.829, 10.854m LT.

90 RADIUS POINT STA. "O" 2+526.139, 38.097m RT.

91 END BIKEPATH SAWCUT & MATCH PT STA. "O" 2+ 528.688, 11.840m LT.

92 PT STA."O" 2+507.651 1.216m RT.

93 PT STA. "O" 2+507.651, 1.520m RT.

94 ANGLE POINT STA. "O" 2+517.346, 9.728m RT.

95 RADIUS POINT STA. "O" 2+537.978, 1.368m RT. R=0.152m

96 RADIUS POINT STA. "O" 2+539.500, 1.368m RT. R=0.152m

NOTE: STATIONS & OFFSETS ARE DIMENSIONED TO BACK OF CURB, EXCEPT WHERE NOTED.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\jnu\67623\Dr\-Intersections.dwg Fri, 17/Dec/99 11:44am		
PLOT: Plot: Full=1 or Half=2 Views: MLR2, T2		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA

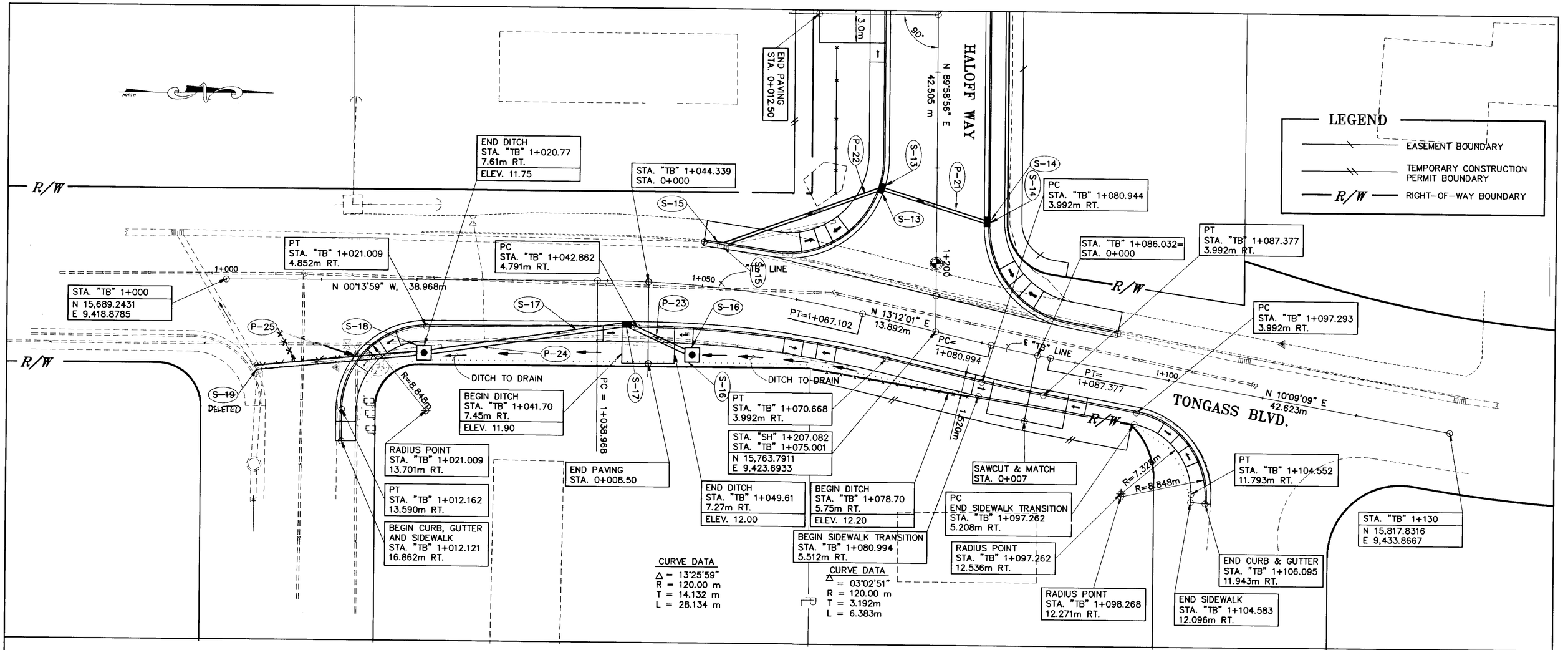
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION

FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

MENDENHALL LOOP ROAD

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 11 OF 44

STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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BY:	DATE:	DESCRIPTION OF CHANGE:

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

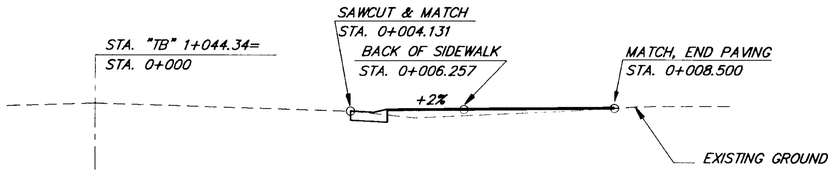
JUNEAU ALASKA

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

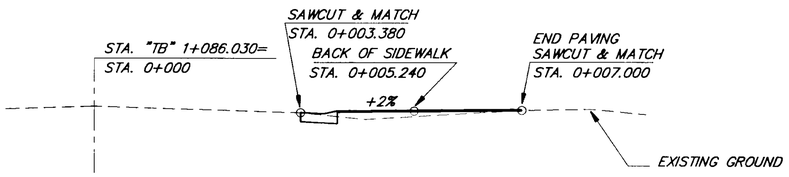
TONGASS AVENUE

DESIGNED BY: *D. SALDIVAR*	PROJECT NO. *67623*
DRAWN BY: *B. BENNETT*	DATE: *1999*
CHECKED BY: *C. MORROW*	SHEET *12* OF *44*

STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



DRIVEWAY – STA. "TB" 1+044.34



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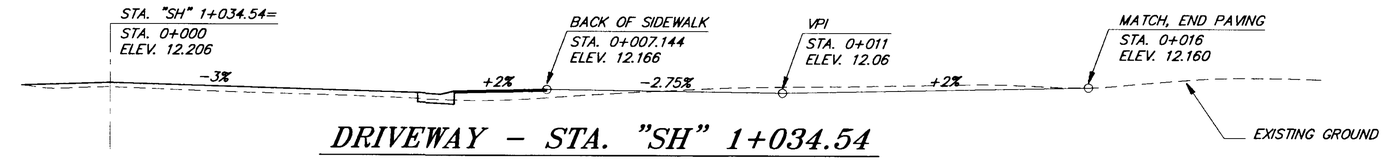

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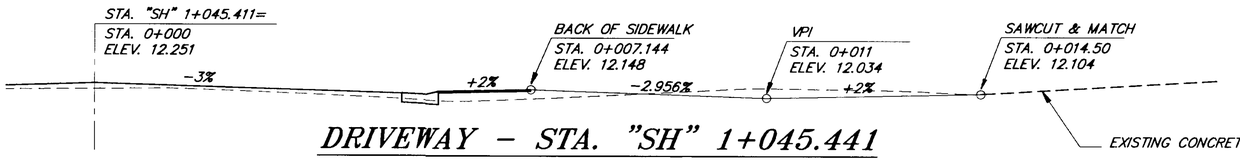

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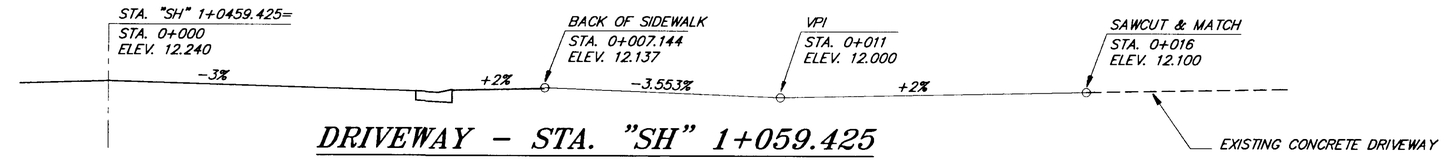
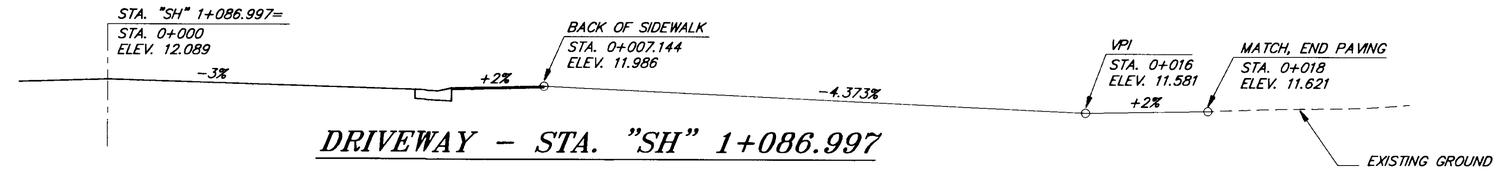


DRIVEWAY – STA. "SH" 1+059.425



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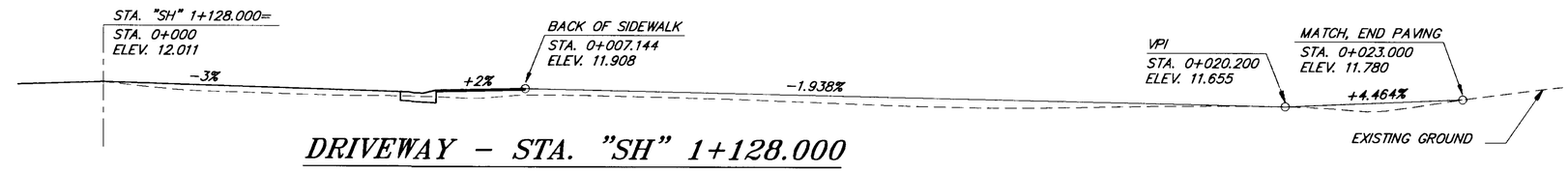
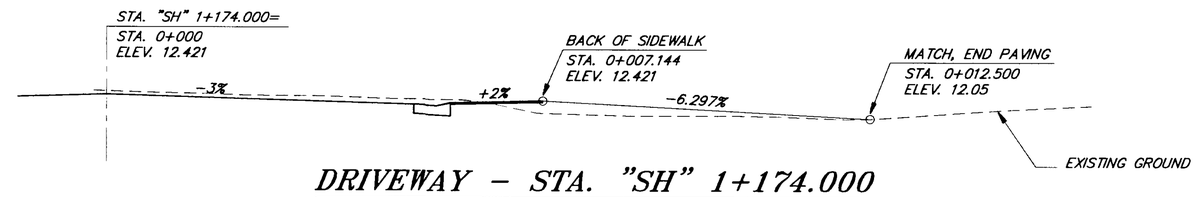


DRIVEWAY – STA. "SH" 1+128.000



DRIVEWAY – STA. "SH" 1+174.000

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-typsec3.dwg Fri, 17/Dec/99 01:42pm		
PLOT: FULL=1 or HALF=2		
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

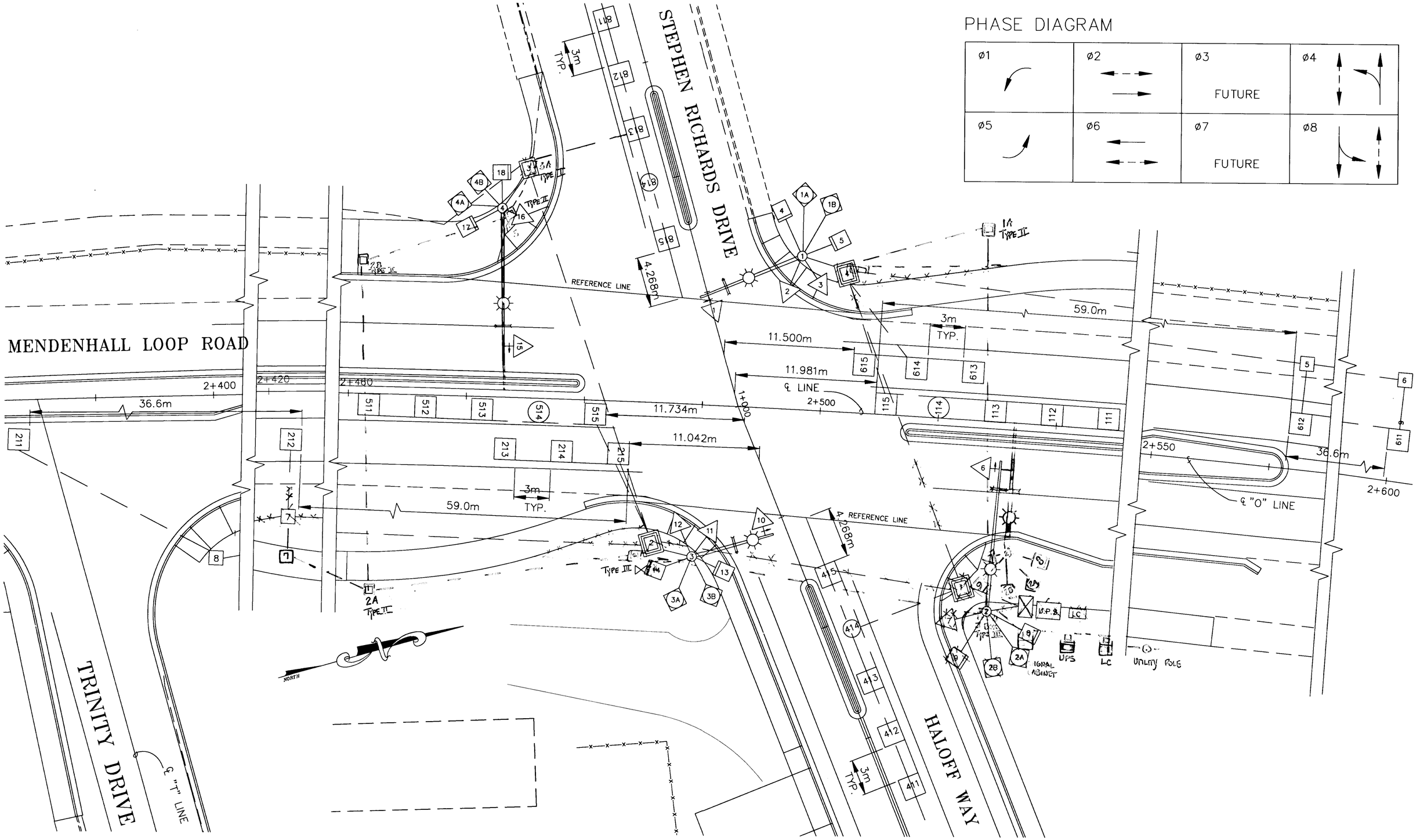
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
DRIVEWAY PROFILE

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 13 OF 44

STATE OF ALASKA
49th
David D Saldivar
CE-8367
REGISTERED PROFESSIONAL ENGINEER

PHASE DIAGRAM

ø1	ø2	ø3 FUTURE	ø4
ø5	ø6	ø7 FUTURE	ø8



NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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PLOT:	Views: INTER4, S1T	Plot: Full=1 or Half=2	
BY:	DATE:	DESCRIPTION OF CHANGE:	

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

SIGNALIZATION SCHEMATIC

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 14 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER

LOOP DETECTOR SUMMARY

LOOP No.	LOOP DECTECTOR DET. No.	LOOP DECTECTOR CHAN. No.	390 CJ CONTROLLER CHAN. No.	390 CJ CONTROLLER PHASE	FUNCTION TYPE	STATION	OFFSET	SIZE M	REMARKS
111	3	1	Veh 1	1	Presence		RIGHT	1.8x1.8	111–113 & 115 CONNECTED IN SERIES, SEE TYPICAL WIRING DETAIL.
112	3	1	Veh 1	1	Presence		RIGHT	1.8x1.8	
113	3	1	Veh 1	1	Presence		RIGHT	1.8x1.8	
114	3	2	Veh 1	1	Presence		RIGHT	BIKE	
115	3	1	Veh 1	1	Presence		RIGHT	1.8x1.8	
211	1	1	Veh 2	2	Ext		RIGHT	1.8x1.8	213–215 CONNECTED IN SERIES, SEE TYPICAL WIRING DETAIL.
212	1	1	Veh 2	2	Ext		RIGHT	1.8x1.8	
213	1	2	Veh 3	2	EC/DC		RIGHT	1.8x1.8	
214	1	2	Veh 3	2	EC/DC		RIGHT	1.8x1.8	
215	1	2	Veh 3	2	EC/DC		RIGHT	1.8x1.8	
411	1	3	Veh 4	4	Presence		RIGHT	1.8x1.8	411–413 & 415 CONNECTED IN SERIES, SEE TYPICAL WIRING DETAIL.
412	1	3	Veh 4	4	Presence		RIGHT	1.8x1.8	
413	1	3	Veh 4	4	Presence		RIGHT	1.8x1.8	
414	1	4	Veh 4	4	Presence		RIGHT	BIKE	
415	1	3	Veh 4	4	Presence		RIGHT	1.8x1.8	
511	2	1	Veh 5	5	Presence		LEFT	1.8x1.8	511–513 & 515 CONNECTED IN SERIES, SEE TYPICAL WIRING DETAIL.
512	2	1	Veh 5	5	Presence		LEFT	1.8x1.8	
513	2	1	Veh 5	5	Presence		LEFT	1.8x1.8	
514	2	2	Veh 5	5	Presence		LEFT	BIKE	
515	2	1	Veh 5	5	Presence		LEFT	1.8x1.8	
611	2	3	Veh 6	6	Ext		LEFT	1.8x1.8	613–615 CONNECTED IN SERIES, SEE TYPICAL WIRING DETAIL.
612	2	3	Veh 6	6	Ext		LEFT	1.8x1.8	
613	2	4	Veh 7	6	EC/DC		LEFT	1.8x1.8	
614	2	4	Veh 7	6	EC/DC		LEFT	1.8x1.8	
615	2	4	Veh 7	6	EC/DC		LEFT	1.8x1.8	
811	4	1	Veh 8	8	Presence		LEFT	1.8x1.8	811–813 & 815 CONNECTED IN SERIES, SEE TYPICAL WIRING DETAIL.
812	4	1	Veh 8	8	Presence		LEFT	1.8x1.8	
813	4	1	Veh 8	8	Presence		LEFT	1.8x1.8	
814	4	2	Veh 8	8	Presence		LEFT	BIKE	
815	4	1	Veh 8	8	Presence		LEFT	1.8x1.8	

NOTES:

1. EACH LOOP SHALL HAVE IT'S OWN SEPARATE LEAD–IN CABLE.
2. USE 6–PAIR MULTI–CONDUCTOR LEAD–IN CABLE FROM FIRST JUNCTION BOX TO THE CABINET.
3. LOOPS SHALL BE CENTERED IN LANES.
4. EC/DC = EXTENDED CALL / DELAYED CALL.

SIGNAL HEAD SUMMARY

SIGNAL HEAD NO.	POLE	PHASE	INDICATION	LENS SIZE	MOUNTING TYPE	FACING	REMARKS
1	1	4	R–Y–G	300mm	ASTRO BRAC	WB	
2	1	2 & 5	R–Y–G–LY–LG	300mm	S–2	NB	MUTCD CONFIG M
3	1	4	R–Y–G	300mm	S–2	WB	MUTCD CONFIG A
4	1	6	PED. SYMBOL		CLAMSHELL MOUNT	NB	
5	1	4	PED. SYMBOL		CLAMSHELL MOUNT	WB	Aluminum Angle Bracket mounted behind Clamshell Mount (adjust to align w/ crosswalk)
6	2	5 &2	R–LY–Y–LG–G	300mm	ASTRO BRAC AB 109	NB	MUTCD CONFIG S
7	2	2	R–Y–G	300mm	S–1	NB	
8	2	4	PED. SYMBOL		CLAMSHELL MOUNT	EB	
9	2	2	PED. SYMBOL		CLAMSHELL MOUNT	NB	
10	3	8	R–Y–G	300mm	ASTRO BRAC	EB	
11	3	1 & 6	R–Y–G–LY–LG	300mm	S–2	SB	MUTCD CONFIG M
12	3	8	R–Y–G	300mm	S–2	EB	MUTCD CONFIG A
13	3	2	PED. SYMBOL		CLAMSHELL MOUNT	SB	
14	3	8	PED. SYMBOL		CLAMSHELL MOUNT	EB	
15	4	1 & 6	R–LY–Y–LG–G	300mm	ASTRO BRAC AB 109	SB	MUTCD CONFIG S
16	4	6	R–Y–G	300mm	S–1	SB	
17	4	8	PED. SYMBOL		CLAMSHELL MOUNT	WB	
18	4	6	PED. SYMBOL		~~CLAMSHELL MOUNT~~ S–1	SB	

NOTE:
1. FOR THIS TABLE, MENDENHALL LOOP IS CONSIDERED AS ORIENTED NORTH/SOUTH
2. INSTALL PELCO ASTRO BRAC OR EQUAL WITH 50mm GALVANIZED STEEL NIPPLE, AND STAINLESS STEEL HARDWARE.
3. ALL SIGNAL HEADS SHALL BE LED SIGNALS.
4. FOR SIGNAL HEADS 2 AND 11, SEE MOUNTING DETAIL ON SHEET 25.

SIGNAL POLE SUMMARY

POLE No.	STATION	OFFSET	FEATURES	MAST ARM LENGTH	LUMINAIRE MAST ARM LENGTH	REMARKS
1	"0" 2+498	13.0 LT.	STANDARD W/ LUMINAIRE	8.0m	3.05m	250 WATT, MC TYPE III LUMINAIRE
~~2~~	"0" 2+515	16.0 RT.	STANDARD W/ LUMINAIRE	17.0m	6.2m	~~250~~ WATT, MC TYPE III LUMINAIRE
3	"0" 2+489	12.8 RT.	STANDARD W/ LUMINAIRE	7.5m	3.05m	250 WATT, MC TYPE III LUMINAIRE
~~4~~	"0" 2+473	16.0 LT.	STANDARD W/ LUMINAIRE	14.0m	4.57m	~~250~~ WATT, MC TYPE III LUMINAIRE
2	"0" 2+215.44	11.00 LT	STANDARD W/ LUMINAIRE	11.1m	3.05m	250 WATT, MC TYPE III LUMINAIRE
4	"0" 2+473	16.0 LT	STANDARD W/ LUMINAIRE	14.9m	4.57m	250 WATT, MC TYPE III LUMINAIRE

PEDESTRIAN PUSH BUTTONS

POLE NO.	BUTTON NO.	STREET CROSSING	PHASE	FACING *
1	1A	MENDENHALL LOOP	2	SOUTH
1	1B	S. RICHARDS/HALOFF	4	EAST
2	2A	MENDENHALL LOOP	4	WEST
2	2B	S. RICHARDS/HALOFF	6	SOUTH
3	3A	S. RICHARDS/HALOFF	8	WEST
3	3B	MENDENHALL LOOP	6	NORTH
4	4A	MENDENHALL LOOP	8	EAST
4	4B	S. RICHARDS/HALOFF	2	NORTH

* NOTE: FOR THIS TABLE, MENDENHALL LOOP IS CONSIDERED AS ORIENTED NORTH/SOUTH.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH:	[PlotStamp Eval] Q:\Jnu\67623\Dr\-srhtable.dwg Mon, 20/Dec/99 09:03am		
PLOT:	FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:	

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO–0003(58) ~ PROJECT NO. 67623
SIGNAL SUMMARY

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 15 OF 44

STATE OF ALASKA 49th Michael Lukshin CE–8737 REGISTERED PROFESSIONAL ENGINEER

SUMMARY OF LOAD CENTER: 1

LOAD CENTER TYPE 1

LOCATION DATA: "O" 2+528.50, 18.00 RT.

LOAD CENTER:
POWER SOURCE: POWER POLE, "O" 2+530.50, 18.00 RT.
PHOTOELECTRIC CONTROL: YES

SERVICE VOLTAGE 1 PHASE, 3-WIRE, 120/240 VOLTS, 60 Hz.

INTERRUPTING CAPACITY OF CIRCUIT BREAKERS-SERIES RATED 10,000 AIC
PROVIDE METER SOCKET? YES SERVICE AMPS 125

MAIN BREAKER A: 120/240 VOLT, 2 POLE, 100 AMPHERES

CONTACTOR: 600 VOLT, 12 POLE, 30 AMPHERES

LOAD PANEL A SUMMARY

CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER AMPS	BREAKER POLES
A1	PHOTO ELECTRIC CONTROL	0.10	15A	2
A2	TRAFFIC SIGNAL SYSTEM	5.54	60A	1
A3	INTERSECTION LIGHTING	0.30	15A	2
A4	SPARE	–	20A	2
A5	SPARE	–	20A	2
A6	SPACE	–	–	–
	TOTAL DEMAND LOAD:	5.94		

SUMMARY OF LOAD CENTER: 2

LOAD CENTER TYPE 2

LOCATION DATA: "SH" 1+195.16, 64.28 RT.

LOAD CENTER:
POWER SOURCE: POWER POLE, "SH" 1+195.16, 61.17 RT.
PHOTOELECTRIC CONTROL: YES

SERVICE VOLTAGE 1 PHASE, 3-WIRE, 120/240 VOLTS, 60 Hz.

INTERRUPTING CAPACITY OF CIRCUIT BREAKERS-SERIES RATED 10,000 AIC
PROVIDE METER SOCKET? YES SERVICE AMPS 125

MAIN BREAKER A: 120/240 VOLT, 2 POLE, 100 AMPHERES

CONTACTOR: 600 VOLT, 12 POLE, 30 AMPHERES

LOAD PANEL A SUMMARY

CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER AMPS	BREAKER POLES
B1	PHOTO ELECTRIC CONTROL	0.10	15A	2
B2	LUMINAIRES 2	0.30	15A	2
B3	LUMINAIRES 1, 2, 4	1.00	15A	2
B4	SPARE	–	20A	2
B5	SPARE	–	20A	2
B6	SPACE	–	–	–
	TOTAL DEMAND LOAD:	1.40		

LOAD CENTER SUMMARY

NO.	STATION	OFFSET	TYPE	REMARKS
1	"O" 2+528.50	18.00 RT.	1	OWNER IS DOT/PF
2	"SH" 1+195.16	64.28 RT.	2	OWNER IS CBJ

JUNCTION BOX SUMMARY

NO.	STATION	OFFSET	TYPE	REMARKS
1	"O" 2+515	12.0 RT.	III	LIGHTING 1A "O" 2+515.98, 11.152 RT. Ex. JB Existing
2	"O" 2+486	11.5 RT.	III	LIGHTING 2A "O" 2+486. 16.6 Ex. JB Existing
3	"O" 2+473	16.2 LT.	II	LIGHTING 3A "O" 2+471 11.6 Ex. JB Existing
4	"O" 2+507	12.0 LT.	III	LIGHTING
5	"O" 2+561	12.0 LT.	1A	TRAFFIC
6	"O" 2+597	12.0 LT.	1A	TRAFFIC
7	"O" 2+424	12.0 LT.	1A	TRAFFIC
8	"O" 2+388	12.0 RT.	1A	TRAFFIC
9	"SH" 1+070.68	6.20 RT.	1A	LIGHTING
10	"SH" 1+133.40	6.20 RT.	1A	LIGHTING
11	"SH" 1+196	6.20 RT.	1A	LIGHTING
12	"SH" 1+193.62	7.50 RT.	1A	LIGHTING
13	"SH" 1+195.49	22.74 RT.	1A	LIGHTING
14	"SH" 1+192.18	64.275 RT.	II	LIGHTING

ELECTROLIER SUMMARY

POLE NO.	STATION	OFFSET	MASTARM	NEW POLE AND BASE	RELOCATE EXISTING LUMINAIRE	REMARKS
1	"SH" 1+070.68	7.67 RT.	4.57m	X		NEW 250 WATT, MC TYPE III FIXTURE
2	"SH" 1+133.40	7.67 RT.	4.57m		X	RELOCATE FROM "O" 2+515.98, 11.152 RT.
3	"SH" 1+195.87	7.67 LT.	4.57m		X	RELOCATE FROM "O" 2+471.71, 11.474 LT.
4	"SH" 1+195.19	22.71 RT.	1.52m		X	RELOCATE FROM "SH" 0+982.83, 7.696 LT.

NOTE:

1. THE CONTRACTOR MAY USE THE EXISTING LUMINAIRE POLE FOUNDATION IF APPROVED BY THE ENGINEER.

LOAD CENTER NOTES

1. CONTRACTOR SHALL HAVE METERS INSTALLED, AND PAY ANY FEES REQUIRED BY THE LOCAL UTILITY. THE STATE WILL ACCEPT MONTHLY BILLING WHEN THE PROJECT IS ACCEPTED FOR LOAD CENTER No. 1 ONLY. THE CITY & BOROUGH OF JUNEAU WILL ACCEPT MONTHLY BILLING FOR LOAD CENTER No. 2 ONLY AFTER FINAL PROJECT COMPLETION.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-lumin1.dwg Mon, 20/Dec/99 09:05am
PLOT: FULL=1 or HALF=2

BY:	DATE:	DESCRIPTION OF CHANGE:

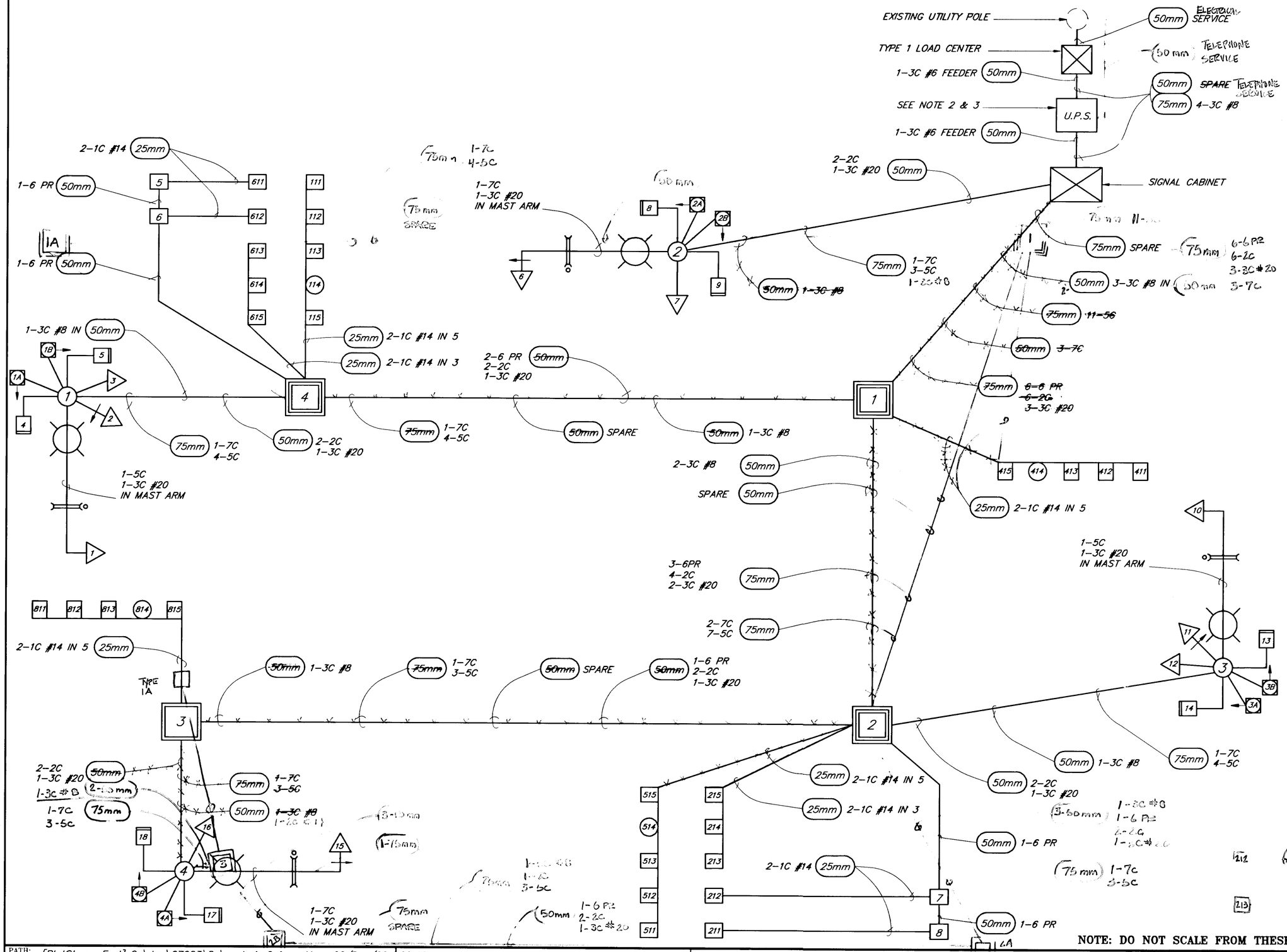
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
ELECTROLIER SUMMARY

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 16 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER



LEGEND

2	TYPE IA J-BOX
2	TYPE II J-BOX
2	TYPE III J-BOX
50mm	RIGID METAL CONDUIT X"=DIAMETER IN mm
	OPTICOM DETECTOR
515	LOOP DETECTOR
514	BICYCLE LOOP DETECTOR

LOW VOLTAGE SIGNAL CONDUCTOR

1C #14:	LOOP WIRES
2C #14:	LOOP LEAD-IN
2C:	PEDESTRIAN PUSH BUTTON
6PR:	MULTI-LOOP LEAD-IN
3C #20:	PROPRIETARY OPTICOM CABLE

120 VOLT SIGNAL CONDUCTOR

5C:	PEDESTRIAN AND STANDARD SIGNAL HEADS
7C:	5 SECTION SIGNAL HEADS

LIGHTING AND POWER CONDUCTOR

3C#X:	LIGHTING OR SIGNAL POWER

THE NUMBER PRECEEDING THE CABLE DESIGNATION INDICATED THE NUMBER OF CABLES TO BE INSTALLED.

NOTES

1. A BARE STRANDED GROUND CONDUCTOR SHALL BE INSTALLED IN ALL CONDUIT AND ATTACHED TO POLES, CONDUIT AND BUSHINGS, ETC.
2. THE BATTERIES FOR THE UNINTERTUPTABLE POWER SUPPLY (U.P.S.) SHALL NOT BE INSTALLED IN THE SAME CABINETS AS THE LOAD CENTER NOR THE SIGNAL CABINET.
3. INSTALLATION AND WIRING REQUIREMENTS FOR THE U.P.S. SHALL BE PER THE MANUFACTURER AND THE PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL INSTALL ALL NECESSARY WIRING AND CONDUIT TO COMPLETE THE TRAFFIC SIGNAL SYSTEM.
4. STREET LIGHTING CONDUCTOR DOES NOT ENTER THE CONTROLLER CABINET.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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PLOT: FULL=1 or HALF=2		DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
BY: / DATE: / DESCRIPTION OF CHANGE:		SOUTHEAST REGION
RECORD OF REVISIONS		

JUNEAU ALASKA

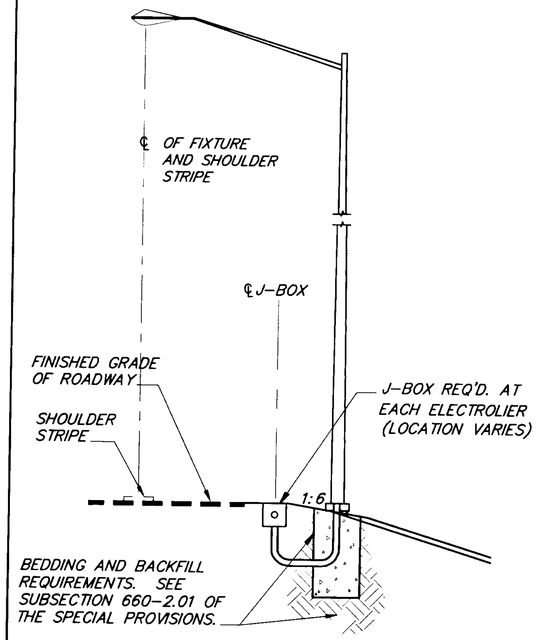
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION

FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

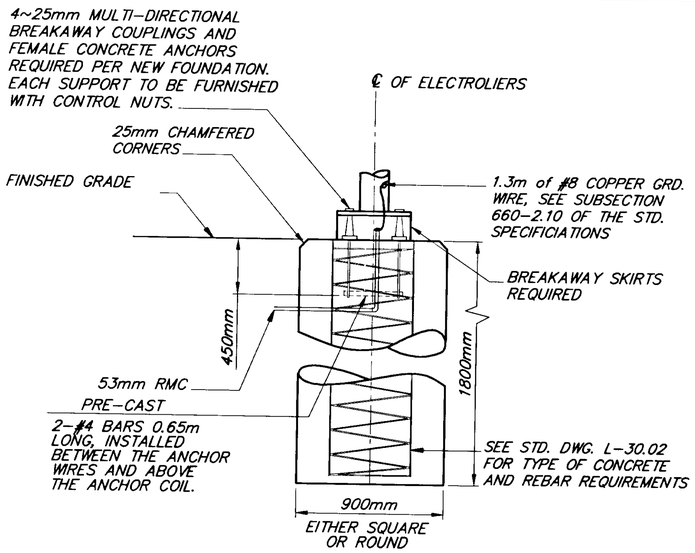
WIRING DIAGRAM SCHEMATIC

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 17 OF 44

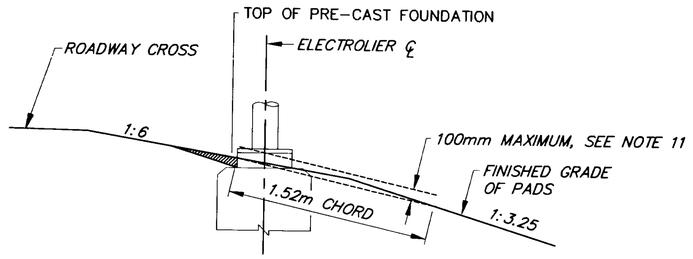
STATE OF ALASKA 49th — Michael Lukshin CE-8737 — REGISTERED PROFESSIONAL ENGINEER



TYPICAL SECTION FOR ELECTROLIER

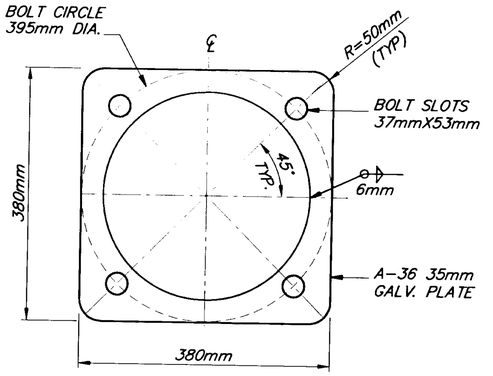


FOUNDATION WITH BREAKAWAY COUPLINGS



INDICATES EMBANKMENT MATERIAL TO BE REMOVED FROM AROUND BREAKAWAY SKIRTS

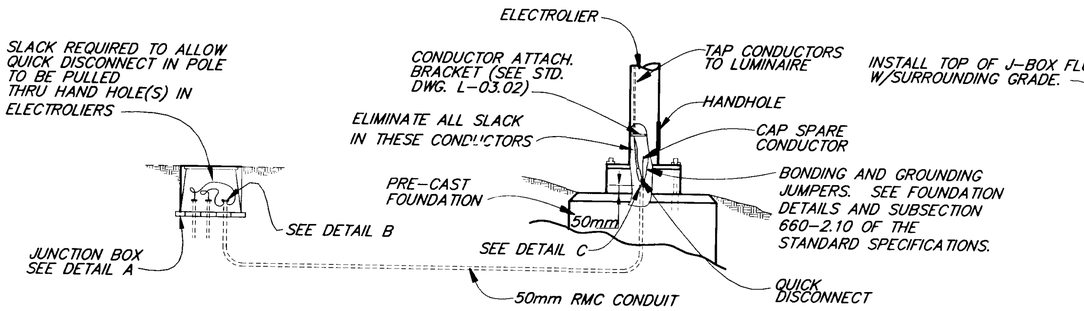
FOUNDATION INSTALLATION DETAIL



ANCHOR BASE DETAIL

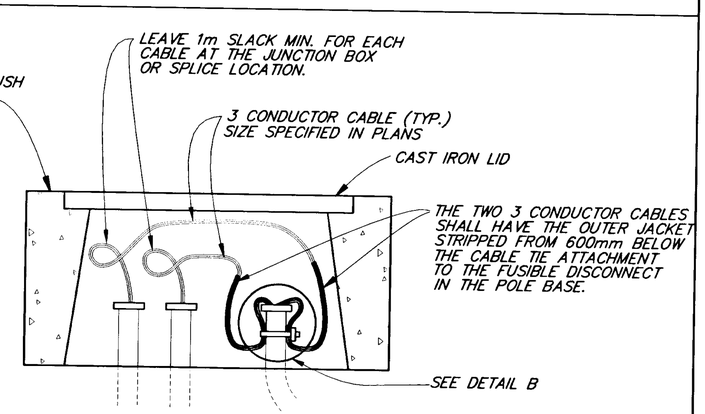
ILLUMINATION GENERAL NOTES

1. ALL WIRING SHALL BE ENCASED IN 50mm DIA. RIGID METAL CONDUIT.
2. EACH ELECTROLIER SHALL HAVE A J-BOX INSTALLED ADJACENT TO THE FOUNDATION AS SHOWN IN THE POLE AND J-BOX WIRING DETAIL.
3. ALL JUNCTION BOXES SHALL BE TYPE I-A, EXCEPT AT LOAD CENTERS, SEE STANDARD DRAWING L-23.01.
4. A BARE STRANDED GROUND CONDUCTOR SHALL BE INSTALLED THROUGH ALL CONDUITS. THE GROUND CONDUCTOR SHALL BE ATTACHED TO ALL CONDUIT END BUSHINGS AND POLES.
5. NEW ELECTROLIER FOUNDATIONS MAY BE PRE-CAST. PRE-CAST FOUNDATIONS SHALL BE TRANSPORTED USING A DEVICE THAT SPREADS THE LOAD EVENLY BETWEEN THE ANCHOR BOLTS.
6. INSTALL THE PHOTOELECTRIC CELL ON TOP OF THE NEAREST ELECTROLIER POLE.
7. ILLUMINATION CIRCUIT WIRES SHALL BE NO. 8 AWG. 3-CONDUCTOR CABLE AS SPECIFIED IN STANDARD SPECIFICATION 660-2.08.
8. LUMINAIRES SHALL BE 240 VOLT, 250 WATT, HIGH PRESSURE SODIUM, MEDIUM DISTRIBUTION, CUT-OFF, IES TYPE III AND SHALL BE HAVE MAGNETIC REGULATOR BALLASTS, AND HPS LAMPS WITH A 24,000 HOUR RATED LIFE.
9. INSTALL 1 SPARE 50mm RIGID METAL CONDUIT FROM THE LOAD CENTER TO THE FIRST JUNCTION BOX.
10. NON-BREAKAWAY PORTIONS OF FOUNDATIONS SHALL NOT PROTRUDE MORE THAN 100 mm ABOVE ANY 1.5 m CHORD STARTING AND ENDING ON THE FINISHED GRADE OF THE ELECTROLIER PADS.
11. LUMINAIRE MASTARMS SHALL BE 4.6m LONG UNLESS NOTED ELSEWHERE.
12. NEW LUMINAIRES SHALL HAVE A 10.7m MOUNTING HEIGHT.

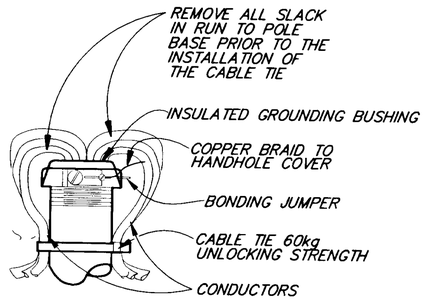


LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS

(BREAKAWAY COUPLINGS)

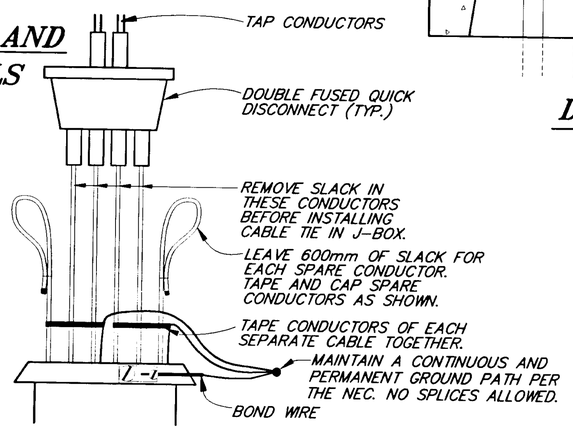


DETAIL A



DETAIL B

(IN J-BOX)



DETAIL C

(IN POLE BASE)

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-signalpole.dwg Mon, 20/Dec/99 10:42am
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BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
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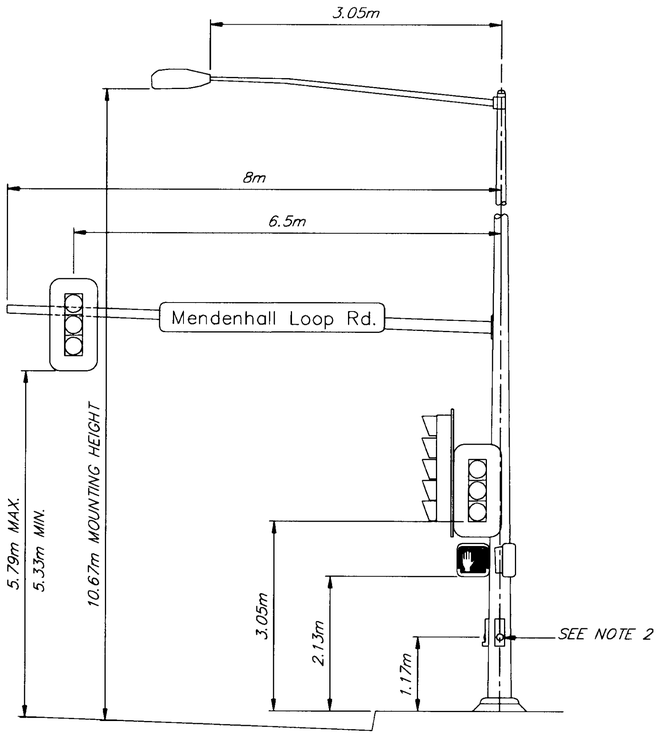
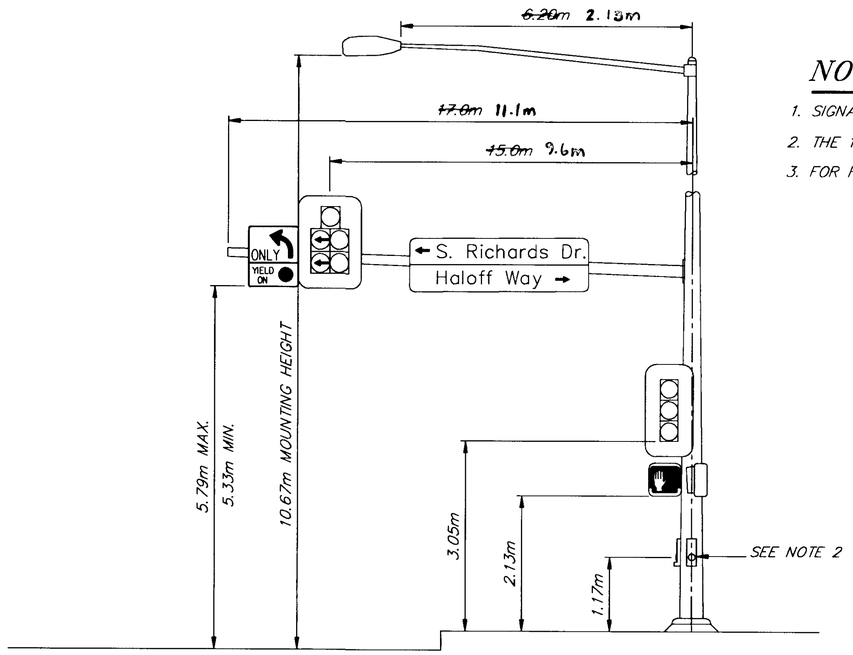
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
ILLUMINATION DETAILS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 18 OF 44

STATE OF ALASKA
19th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER



SIGNAL POLE NO. 1 DETAIL
WESTBOUND

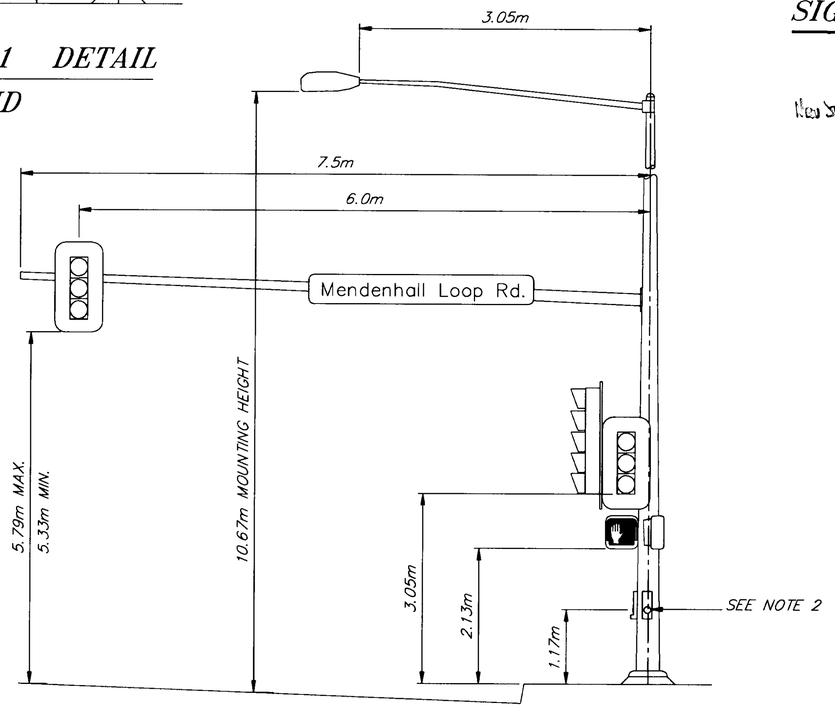


SIGNAL POLE NO. 2 DETAIL
NORTHBOUND

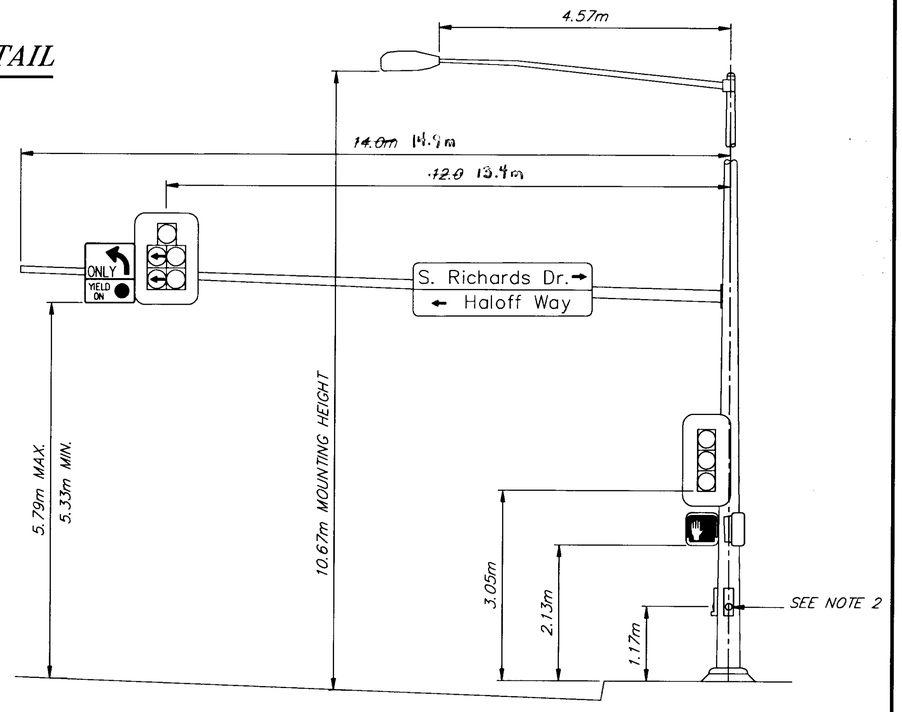
New Station: 24516.44, 11.0m Lt.

NOTES:

1. SIGNAL POLES, MAST ARMS AND LUMINARES SHALL BE DESIGNED FOR 167 KPH WIND SPEED.
2. THE 1.17m DIMENSION IS TO THE CENTER OF THE BUTTON.
3. FOR FOUNDATION DETAILS, SEE STANDARD DRAWING T-52-12M.



SIGNAL POLE NO. 3 DETAIL
EASTBOUND



SIGNAL POLE NO. 4 DETAIL
SOUTHBOUND

SAME LOCATIONS

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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PLOT: FULL=4 or HALF=8		
BY:	DATE:	DESCRIPTION OF CHANGE:

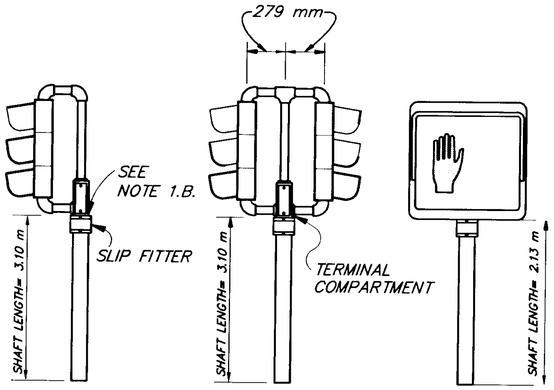
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
POLE DETAILS

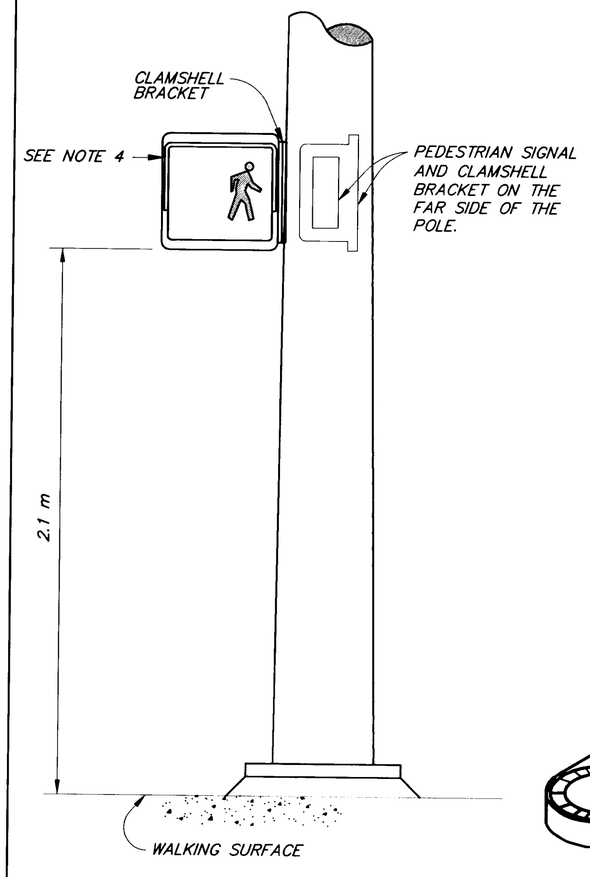
DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 19 OF 44

STATE OF ALASKA
49th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER

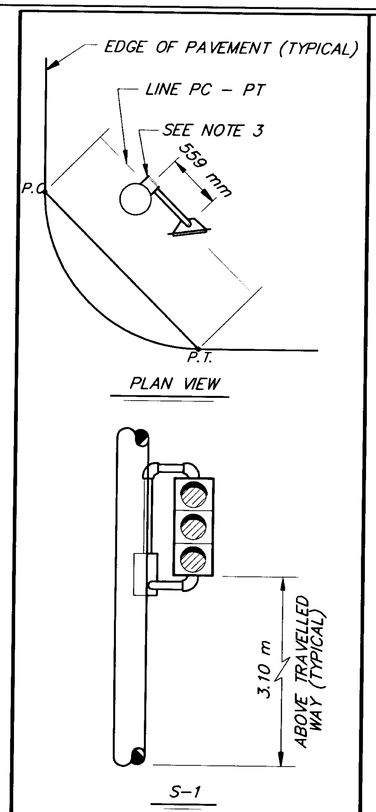


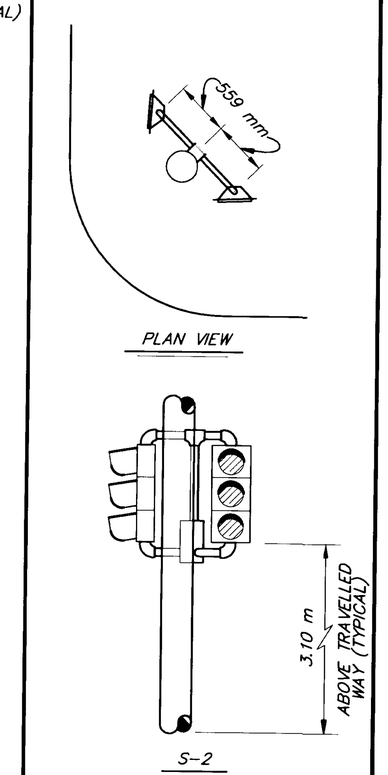
POST MOUNTED SIGNALS

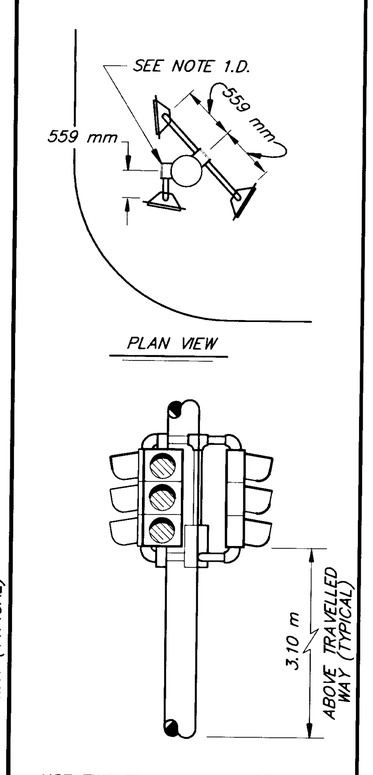
(SHOWN WITHOUT BACKPLATE)



PEDESTRIAN HARDWARE

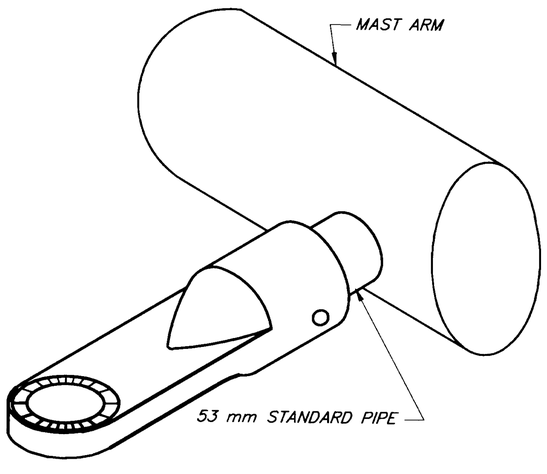






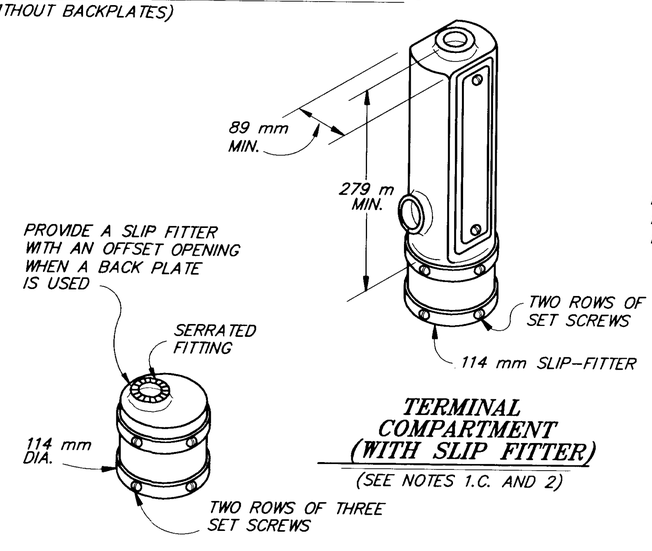
SIDE MOUNTED SIGNAL FRAMES WITH VEHICULAR SIGNALS

(SHOWN WITHOUT BACKPLATES)



ELEVATOR PLUMBIZER

(SEE NOTE 1.A.)



TERMINAL COMPARTMENT (WITH SLIP FITTER)

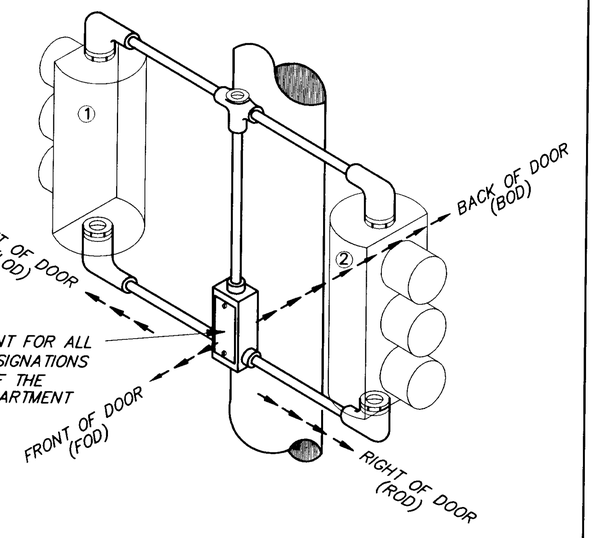
(SEE NOTES 1.C. AND 2)

SLIP FITTER

(SEE NOTE 1.B.)

TRAFFIC SIGNAL HARDWARE NOTES:

1. INSTALL THE SIGNAL FACES SHOWN IN THE PLANS AS DETAILED ON THIS SHEET.
   - A. USE ELEVATOR PLUMBIZERS TO INSTALL FACES ON MAST ARMS AND WHENEVER TWO INCH PIPE TENONS ARE SPECIFIED. INSTALL THE PLUMBIZER BETWEEN THE RED AND YELLOW SIGNAL INDICATIONS.
   - B. USE SLIP FITTERS TO INSTALL PEDESTRIAN SIGNALS ON THE TOP OF POSTS.
   - C. USE SIGNAL FRAMES TO INSTALL SIGNAL FACES ON THE SIDES OF POLES AND WHEN SIGNAL FACES ARE POST TOP MOUNTED.
   - D. USE A SECOND SIGNAL FRAME TO INSTALL THE THIRD FACE WHEN THREE SIDE MOUNTED SIGNAL FACES ARE SHOWN.
   - E. USE CLAMSHELL BRACKETS TO INSTALL ALL PEDESTRIAN SIGNALS, EXCEPT WHEN ONE IS POST TOP MOUNTED.
2. FURNISH ALL SIGNAL FRAMES WITH TERMINAL COMPARTMENTS.
3. WHEN INSTALLING TERMINAL COMPARTMENTS, SANDWICH THE POLE BETWEEN THE TERMINAL COMPARTMENT AND THE EDGE OF PAVEMENT. POSITION THE TERMINAL COMPARTMENT WHERE A LINE PARALLEL TO THE LINE BETWEEN THE P.C. AND P.T. OF THE RADIUS RETURN IS TANGENT TO THE POLE.
4. INSTALL PEDESTRIAN SIGNALS SO THE POLES TO WHICH THEY ARE ATTACHED ARE BETWEEN THE PEDESTRIAN SIGNAL AND THE THROUGH TRAFFIC LANE THAT PARALLELS THE CROSSWALK.
5. FIELD DRILL THE HOLES NEEDED FOR ATTACHING ALL SIGNAL HARDWARE. USE HOLE SAWS WHEN DRILL BITS ARE NOT AVAILABLE. TREAT THE BARE STEEL SURFACES IN ACCORDANCE WITH SECTION 660–2.14, GALVANIZING, OF THE STANDARD SPECIFICATIONS.
6. PROVIDE SOLID BACKPLATES SIZED FOR THE NUMBER OF SIGNAL SECTIONS AND MOUNTING TYPE, SO THAT NO LIGHT IS VISIBLE BETWEEN THE BACKPLATE AND THE SIGNAL FACE.
7. ATTACH ALL BACKPLATES USING STAINLESS STEEL SCREWS WITH A STAINLESS FLAT WASHER INSTALLED UNDER EACH HEAD. PROVIDE SCREWS THAT ARE SELF TAPPING AND SELF LOCKING TYPE. COAT THE THREADS WITH AN ANTI-SEIZING COMPOUND BEFORE INSTALLING THEM.
8. BEFORE INSTALLING THE MACHINE SCREWS THAT SECURE THE VISORS, COAT THE THREADS WITH AN ANTI-SEIZING COMPOUND.



FRAMEWORK DESCRIPTION

HEAD NO. ① OFFSET L.O.D.
HEAD NO. ② OFFSET R.O.D.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

RECORD OF REVISIONS		
PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\–signhd.dwg Mon, 20/Dec/99 10:45am		
PLOT: FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

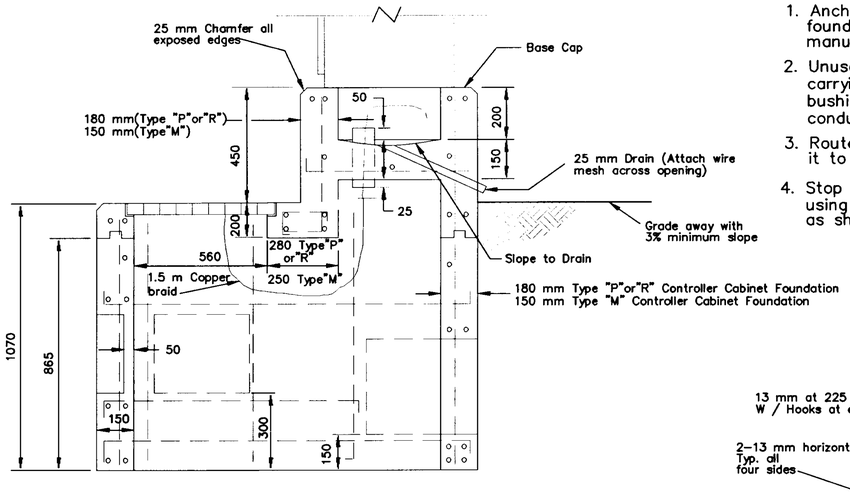
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO–0003(58) PROJECT NO. 67623
TRAFFIC SIGNAL HARDWARE DETAILS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67758
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 20 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER

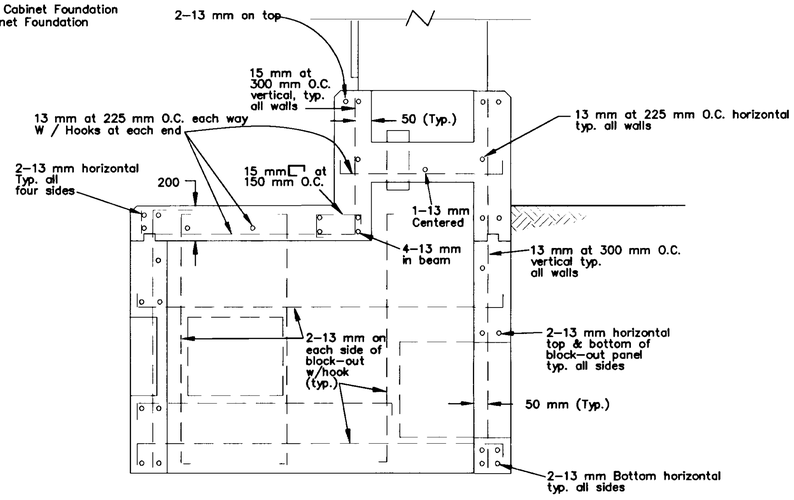
GENERAL NOTES:

1. Anchor bolts shall not protrude more than 38 mm above the top of the foundation. Anchor bolt dimensions shall be as specified by the cabinet manufacturer.
2. Unused conduit stubs shall be sealed with watertight caps. Stubs carrying conductors shall be sealed with watertight sealing bushings designed to seal around conductors and against the conduit walls.
3. Route the 1.5m copper grounding jumper through the 53 mm pipe nipple, and attach it to the grounding bushing on the feeder cable conduit.
4. Stop horizontal & vertical steel at the block-out panels & the joint using 90 degree hooks. Use 2 extra 13 mm horizontal & vertical bars all sides as shown.



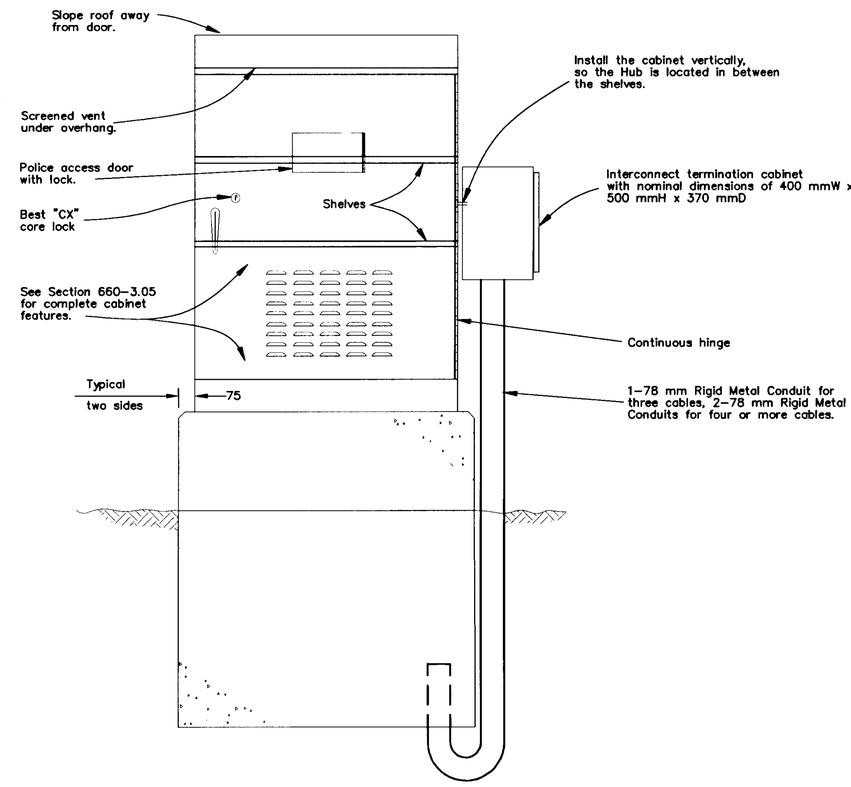
SECTION A-A

NOTE: See Section "B-B" for rebar details.



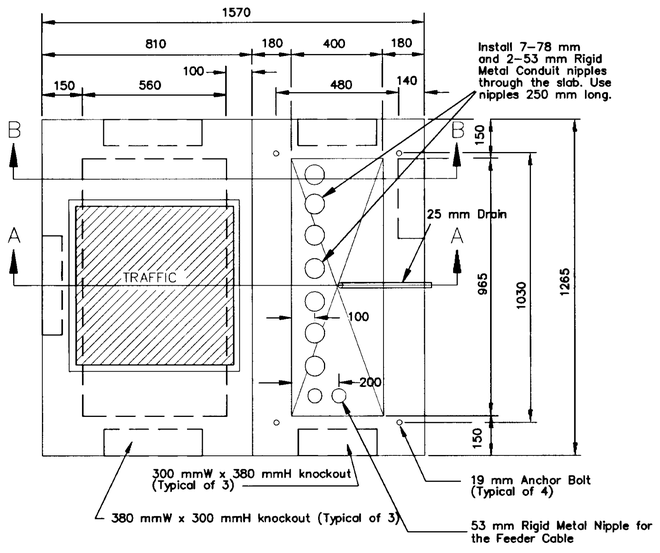
SECTION B-B

NOTE: See Section "A-A" for dimensional details & notes.

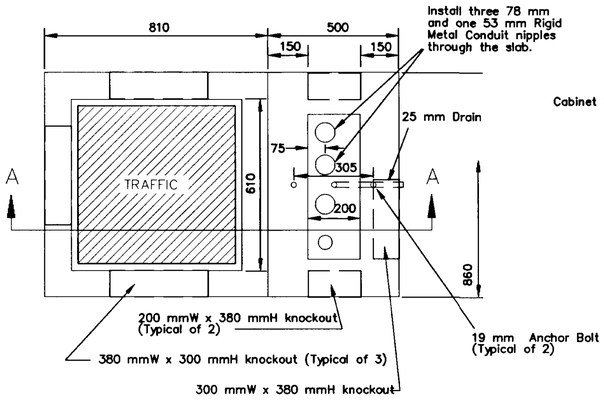


INTERCONNECT CABLE TERMINATION CABINET

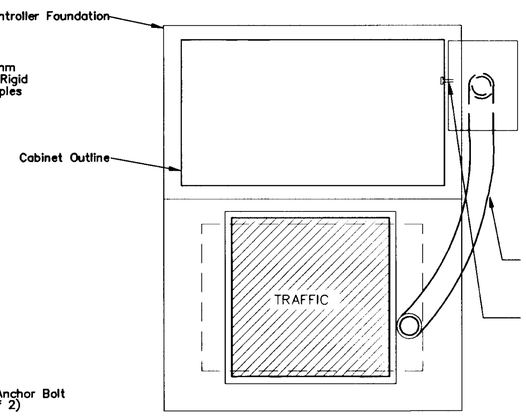
ELEVATION



TYPE "P" or "R" CONTROLLER CABINET FOUNDATION



TYPE "M" CONTROLLER CABINET FOUNDATION



PLAN VIEW

INTERCONNECT TERMINATION CABINET NOTES:

1. Material: Aluminum 0.080 T-5052 H-32
2. No ventilating louvres are required.
3. Install best lock.
4. Install two 25 Pr. terminal blocks (Amphenal – M 66 Systems), Telephone 31 D Type Split Block (6 Terminal-3 Left, 3 Right). Install one block on right side of cabinet. Install one block on left side of cabinet.
5. Install the interconnect cable Termination cabinet when called for in the plans or whenever 3 or more interconnect cables are to be terminated.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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PLOT:	FULL=1 or HALF=2		
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STATE OF ALASKA
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JUNEAU *ALASKA*

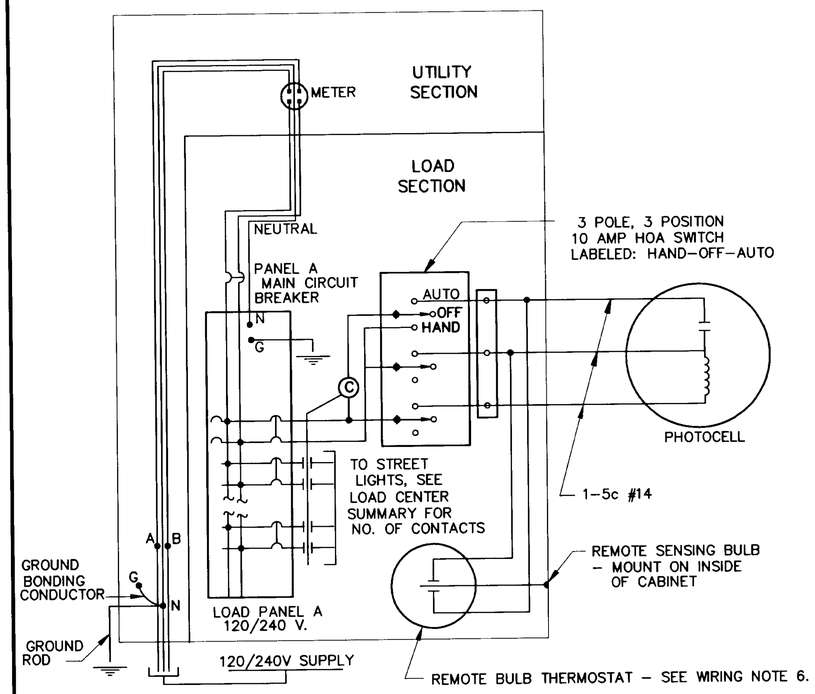
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION

FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

CONTROLLER CABINET FOUNDATIONS

DESIGNED BY:	PROJECT NO.
M. LUKSHIN	*67623*
DRAWN BY:	DATE:
B. BENNETT	*1999*
CHECKED BY:	SHEET *21* OF *44*
R. PURVES	

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER

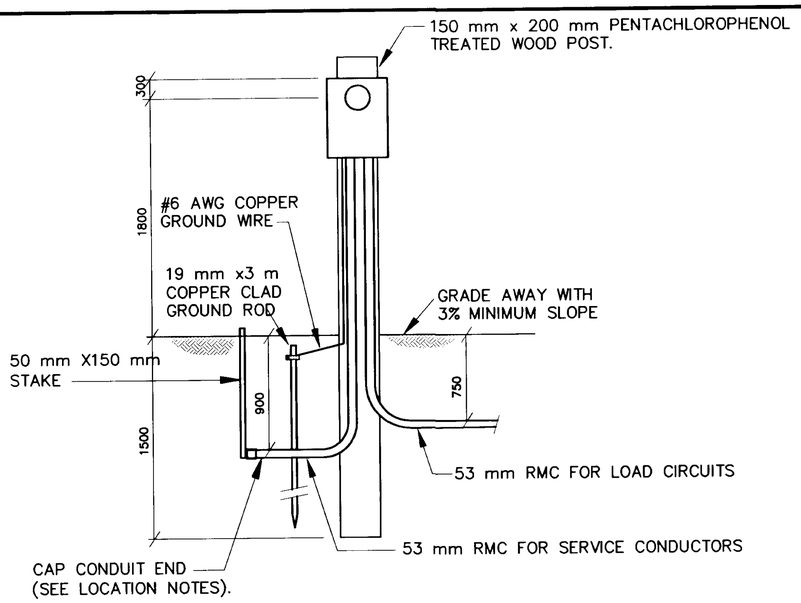


LOAD CENTER ONE LINE DIAGRAM AND SELECTOR SWITCH WIRING

TYPE 2 & 3 LOAD CENTERS – USED FOR LIGHTING WITH PHOTOELECTRIC AND THERMOSTATIC CONTROLS

WIRING NOTES:

1. THE TYPE 2 AND 3 LOAD CENTERS ARE INTENDED FOR USE WITH 120/240 VOLT SERVICES ONLY, WHEN ALL LOAD CABLES WILL FIT INTO ONE TWO INCH CONDUIT.
2. PROVIDE LOAD PANELS SIZED FOR THE NUMBER OF DOUBLE POLE CIRCUIT BREAKERS SHOWN IN THE LOAD CENTER SUMMARIES, ALLOWING SPACE FOR TWO SPARE DOUBLE POLE BREAKERS.
3. INSTALL TWO SPARE DOUBLE POLE 20 AMPERE BREAKERS IN ALL LOAD PANELS.
4. THE VOLTAGE OF THE CONTROL CIRCUIT AND CONTACT COIL IS 240 VOLT.
5. PROVIDE A REMOTE BULB THERMOSTAT WHEN METAL HALIDE LAMPS ARE INCLUDED IN THE LIGHTING CIRCUITS. THE CONTACTS SHALL CLOSE AT –9C WHEN THE TEMPERATURE IS FALLING, AND OPEN AT –23C WHEN THE TEMPERATURE IS RISING. PROVIDE A THERMOSTAT RATED FOR OPERATION FROM –34C TO +32 C.
6. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE LOAD CENTER COMPLIES WITH ALL LOCAL UTILITY ASSOCIATION REQUIREMENTS.



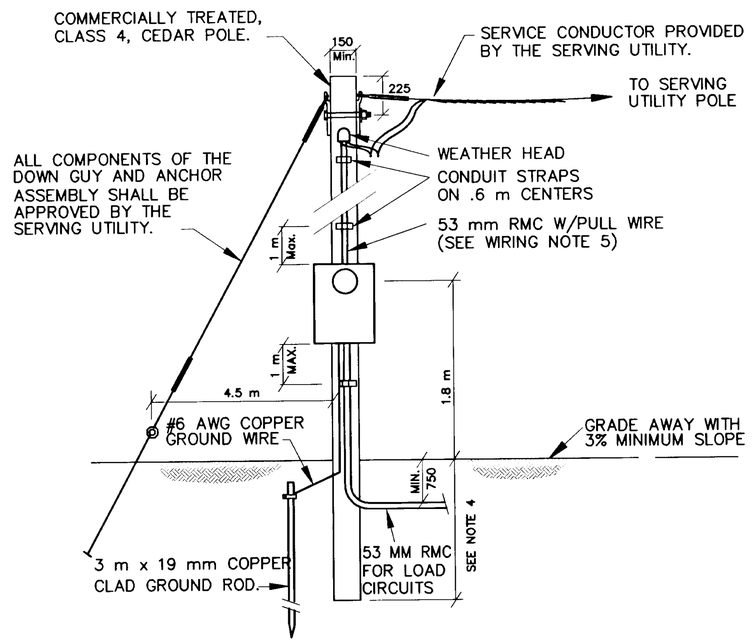
TYPE 2 LOAD CENTER

TYPE 2 & 3 LOAD CENTER NOTES:

1. SIZE THE TYPE 2 AND 3 LOAD CENTER CABINETS TO HOLD THE EQUIPMENT SHOWN IN THE WIRING DIAGRAM AND DETAILED IN EACH LOAD CENTER SUMMARY, ALLOWING SPACE FOR WIRING PER THE NATIONAL ELECTRICAL CODE.

   INSTALLING A METER BASE AND MAIN BREAKER IN A SEPARATE ENCLOSURE IS ALLOWABLE. HOWEVER IN THIS CASE, FURNISH A BREAKER PANEL WITH A MAIN BREAKER.
2. WIRE ALL TYPE 2 AND 3 LOAD CENTERS PER THE WIRING DIAGRAM INDICATED ON THIS DETAIL SHEET.
3. INSTALL POLES OF SUFFICIENT LENGTH TO PROVIDE THE FOLLOWING MINIMUM GROUND TO SERVICE CONDUCTOR CLEARANCE:
   A. 6.4 METERS, IF THE SERVICE CONDUCTORS ARE LOCATED ABOVE ROADWAYS OR PARKING AREAS.
   B. 8.5 METERS, IF THE SERVICE CONDUCTORS ARE LOCATED WITHIN 6.1 METERS OF A RAILROAD TRACK.
   C. 5.5 METERS IN ALL OTHER CIRCUMSTANCES.
4. SET THE BUTT END OF TYPE 3 LOAD CENTER POLES TO THE FOLLOWING MINIMUM DEPTH:
   A. 10 PERCENT OF ITS LENGTH PLUS 0.6 METER, OR 1.5 METER, WHICHEVER IS GREATER, IF IT IS INSTALLED IN EARTH OTHER THAN SOLID ROCK OR MUSKEG.
   B. 10 PERCENT OF ITS LENGTH, OR 1.2 METERS, WHICHEVER IS GREATER, IF IT IS INSTALLED IN SOLID ROCK.
   C. CONSIDER MUSKEG TO BE AIR, AND SET THE BUTT ENDS TO THE DEPTH GIVEN IN A OR B, WHICHEVER APPLIES, IN THE UNDERLYING EARTH OR ROCK.

   WHENEVER MORE THAN 0.6 METERS OF EARTH OVERLAYS ROCK, OR THE DIAMETER OF THE DRILLED HOLE IN ROCK EXCEEDS TWICE THE DIAMETER OF THE POLE AT THE GROUND LINE, CONSIDER THE INSTALLATION AS EARTH.
5. ATTACH ALL CONDUITS TO THE POSTS AND POLES USING TWO HOLE RIGID METAL CONDUIT STRAPS LOCATED PER THE NATIONAL ELECTRIC CODE.
6. ATTACH ALL GROUND CONDUCTORS TO THE POSTS AND POLES USING CABLE STAPLES LOCATED ON 0.3 METER CENTERS.



TYPE 3 LOAD CENTER

LOCATION NOTES:

1. INSTALL A 53 mm MINIMUM SIZE RIGID METAL CONDUIT WITH PULLROPE TO WITHIN 0.6 METER OF THE POWER SOURCE AT A MINIMUM DEPTH OF 1.0 METER. INSTALL A CAP ON AND MARK THE BURIED END OF THE CONDUIT WITH A 50mm BY 150 mm STAKE.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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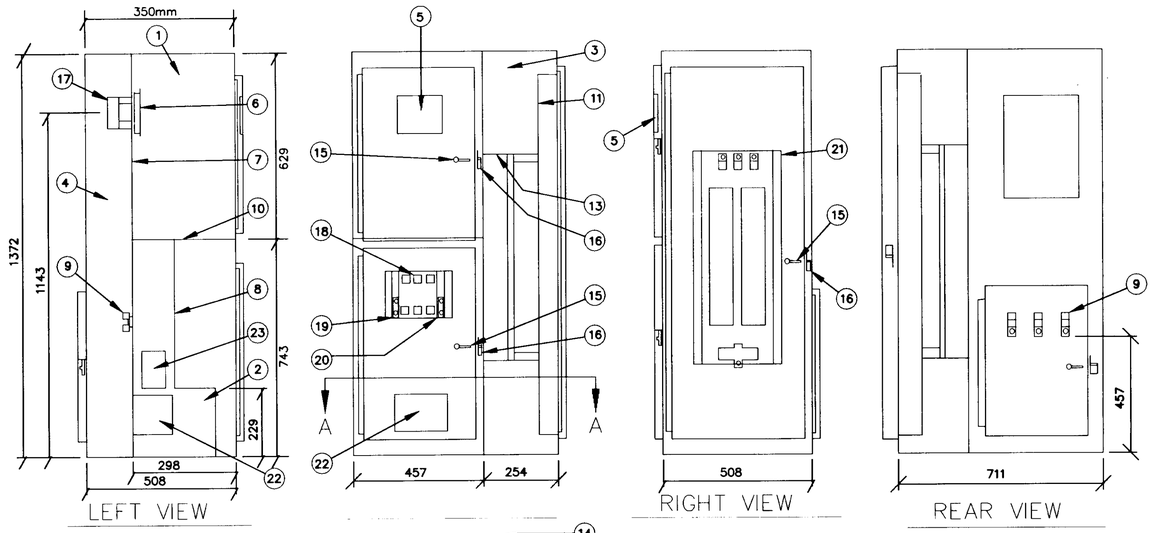
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TYPE 2 & 3 LOAD CENTER DETAILS

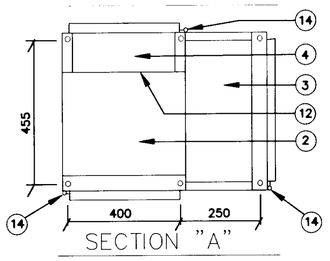
DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 22 OF 44

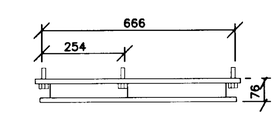
STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER



EQUIPMENT LEGEND

1. METER SECTION
2. LOAD SECTION (MAIN)
3. LOAD SECTION (DISTRIBUTION)
4. SERVICE PULL SECTION
5. METER READING WINDOW
6. METER SOCKET COVER
7. TEST SECTION COVER
8. DEAD FRONT
9. UTILITY LANDING LUGS
10. METER SECTION BARRIER
11. PANEL BOARD DEADFRONT
12. EQUIPMENT CHASSIS
13. MOUNTING PAN
14. STAINLESS STEEL PIN HINGE
15. COIN LATCH
16. HASP FOR PADLOCK
17. METER SOCKET KIT ASS'Y.
18. MAIN BREAKER(S)
19. NEUTRAL BAR
20. GROUND BAR
21. PANEL BOARD INTERIOR
22. ALTERNATE CONTACTOR LOCATION
23. CABLE OPENING



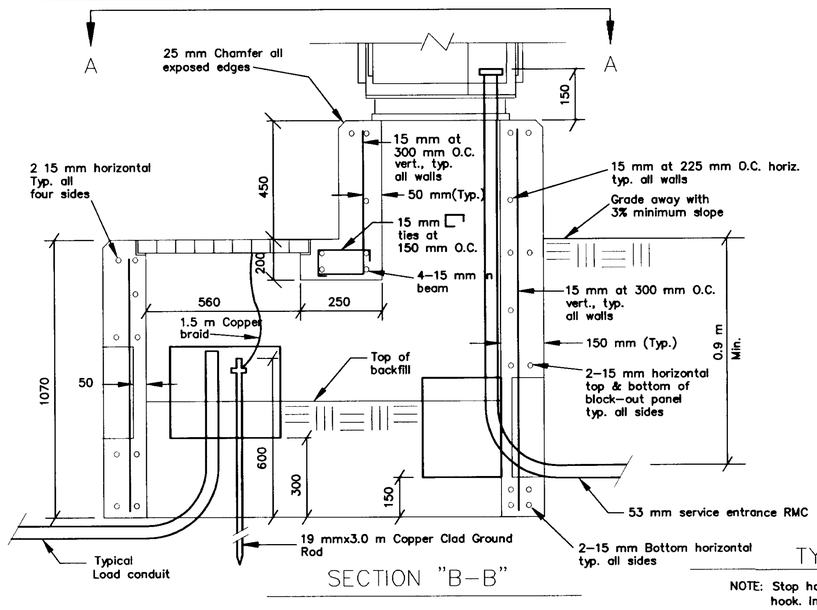


MOUNTING BASE

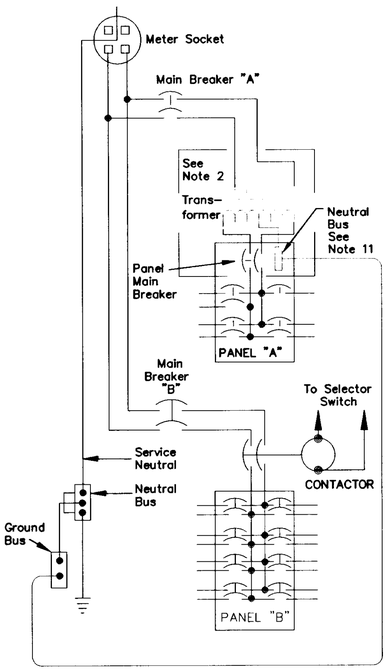
TYPE 1 LOAD CENTER CABINET SECTION / ELEVATION

FOUNDATION AND LOCATION NOTES:

1. INSTALL THE BASE SO THE CAST IRON COVER IS FLUSH WITH THE PAVEMENT, SIDEWALK, OR FINISHED GRADE. GRADE AWAY FROM THE BASE WITH A MINIMUM SLOPE OF 3%. USE A PRE-MOULDED BITUMINOUS JOINT BETWEEN THE BASE AND CONCRETE SIDEWALK OR PAVING.
2. EXCAVATE 1525 mm BELOW FINISH GRADE FOR THE BASE AND INSTALL A DRAIN CONSISTING OF 450 mm OF COARSE CONCRETE AGGREGATE AS APPROVED BY THE ENGINEER. BACK-FILL AROUND THE BASE IN 150 mm LIFTS WITH SELECTED MATERIAL TYPE "A".
3. BACKFILL INSIDE THE FOUNDATION TO WITHIN 610 mm OF THE LID AFTER ALL OF THE CONDUITS ARE INSTALLED, USING COARSE AGGREGATE. TERMINATE THE ENDS OF ALL LOAD CONDUITS A MINIMUM OF 150 mm ABOVE THE COARSE CONCRETE AGGREGATE SURFACE AND A MINIMUM OF 300 mm BELOW THE LID.
4. PROVIDE ANCHOR BOLTS OR EXPANSION ANCHORS IN THE BASE FOR MOUNTING THE CABINET PER THE MANUFACTURER'S SHOP DRAWINGS. ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO EITHER ASTM A307 OR A449 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153.
5. USE GRADE 60 REINFORCING STEEL CONFORMING TO ASTM A615.
6. USE CLASS "A" CONCRETE CONFORMING TO SECTION 501 OF THE SPECIFICATIONS.
7. FINISH THE BASE ACCESS OPENING WITH A 501 mm SQUARE IRON FRAME AND COVER, WEIGHING APPROXIMATELY 127KG. PROVIDE COVERS INSCRIBED WITH THE LEGEND "LIGHTING" FOR THOSE LOAD CENTERS WITH STREET LIGHTING CIRCUITS ONLY, AND "TRAFFIC" FOR THOSE LOAD CENTERS WITH A TRAFFIC SIGNAL CIRCUIT.
8. THE BASE MAY BE PRECAST. IF IT IS PRECAST, INSTALL 4 EACH 19 mm FERRULE LOOP INSERTS FOR LIFTING, TWO ON EACH LONG SIDE.



SECTION "B–B"

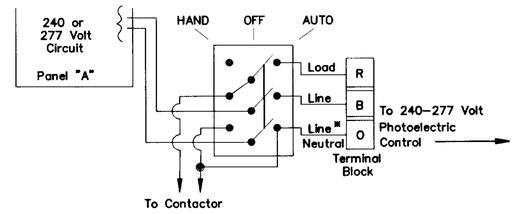


WIRING DIAGRAM

Type 1 Load Center

WIRING NOTES:

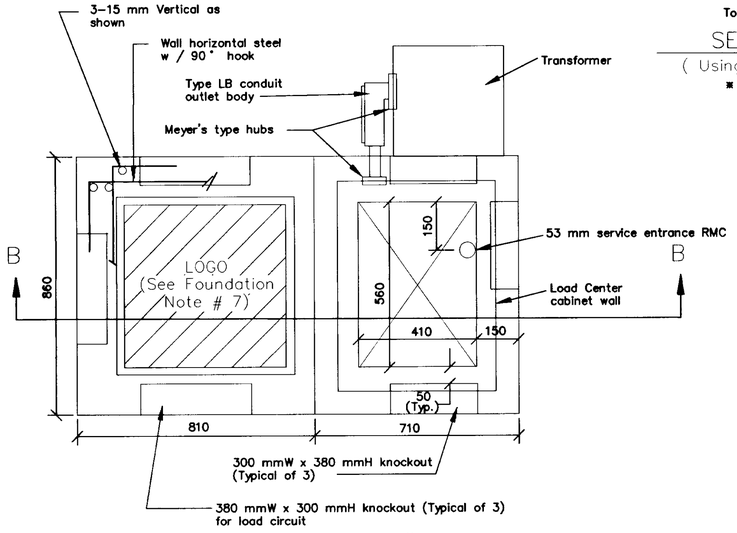
1. THE TYPE I LOAD CENTER IS INTENDED FOR USE WITH ALL 480 VOLT SERVICES AND THOSE 240 VOLT SERVICES, WHENEVER THE LOAD CONDUCTORS WILL NOT FIT INTO ONE TWO INCH CONDUIT.
2. THE SERVICE VOLTAGE IS SHOWN IN EACH LOAD CENTER SUMMARY. INSTALL A TRANSFORMER AND A PANEL WITH MAIN BREAKER WHENEVER A TRAFFIC SIGNAL CIRCUIT IS SPECIFIED AND 120 VOLTS IS NOT AVAILABLE.
3. PROVIDE LOAD PANELS SIZED FOR THE NUMBER OF DOUBLE POLE CIRCUIT BREAKERS SHOWN IN THE LOAD CENTER SUMMARIES, ALLOWING SPACE FOR TWO SPARE DOUBLE POLE BREAKERS.
4. INSTALL TWO SPARE DOUBLE POLE 20 AMPERE BREAKERS IN ALL LOAD PANELS.
5. THE CONTROL CIRCUIT AND CONTACTOR COIL RATING IS EITHER 240 OR 277 VOLT, AS DETERMINED BY THE SERVICE VOLTAGE.
6. INSTALL THE TRANSFORMER, WHEN CALLED FOR IN THE LOAD CENTER SUMMARY, ON WALL BRACKETS ATTACHED TO THE SIDE OF THE FOUNDATION. INSTALL THE WALL BRACKETS TO ENSURE THE BOTTOM OF THE TRANSFORMER IS IN THE SAME PLANE AS THE TOP OF THE FOUNDATION.
7. THE INTERRUPTING CAPACITY OF LOAD CENTER CIRCUIT BREAKERS SHALL BE 10,000 AIC AT 240 VOLTS AND 14,000 AIC AT 480 VOLTS, UNLESS OTHERWISE NOTED. LOAD CENTER INTERRUPTION RATING MAY BE A SERIES RATING.
8. MEYERS TYPE HUBS ARE UL LISTED AS A GROUNDING CONDUIT FITTINGS FOR WET LOCATIONS.
9. METALLIC CONDUITS, MUST BE GROUNDED AT EACH END. PROVIDE INSULATED THROAT GROUNDING BUSHINGS.
10. GROUND CONDUCTORS TO BE COPPER SIZED PER NEC TABLES 250–94 AND 250–95, UNLESS NOTED AS LARGER; #8 AWG MINIMUM.
11. IF PANEL–A IS DERIVED FROM A TRANSFORMER PER NOTE #2 , PROVIDE A SEPARATE NEUTRAL BUS AND BOND TO LOAD CENTER GROUND BUS.
12. SEE LOAD CENTER SUMMARIES FOR CIRCUIT AND COMPONENT DESCRIPTIONS AND RATINGS.



SELECTOR SWITCH WIRING

(Using 10 Amp, 3 Pole, 3 Position Switch)

* GROUNDED NEUTRAL IF SERVICE IS 240/480 VOLT SINGLE PHASE, OR 277/480 VOLT THREE–PHASE UNGROUNDED LINE IF SERVICE IS 120/240 VOLT SINGLE–PHASE.



VIEW "A–A"

(PLAN VIEW)

TYPE 1 LOAD CENTER BASE

NOTE: Stop horizontal & vertical steel at block–out panels & optional joint using hook. Install 2 extra 15 mm horizontal & vertical bars on all sides of each knockout.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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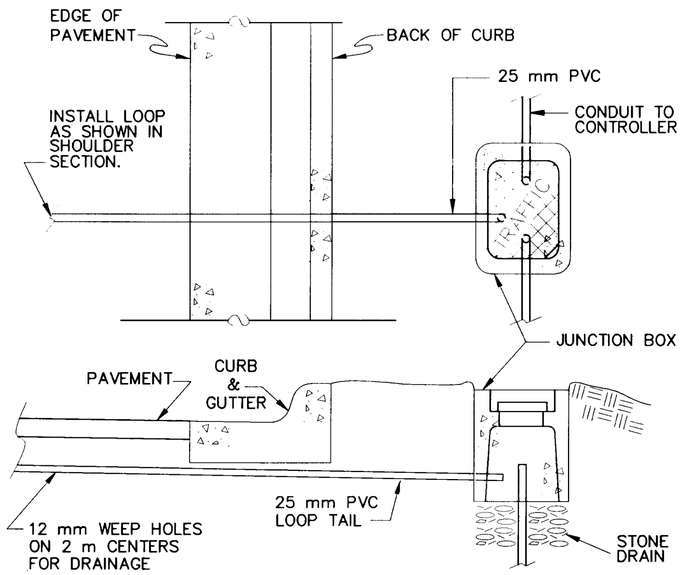
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION

FED. NO. HRO–0003(58) ~ PROJECT NO. 67623

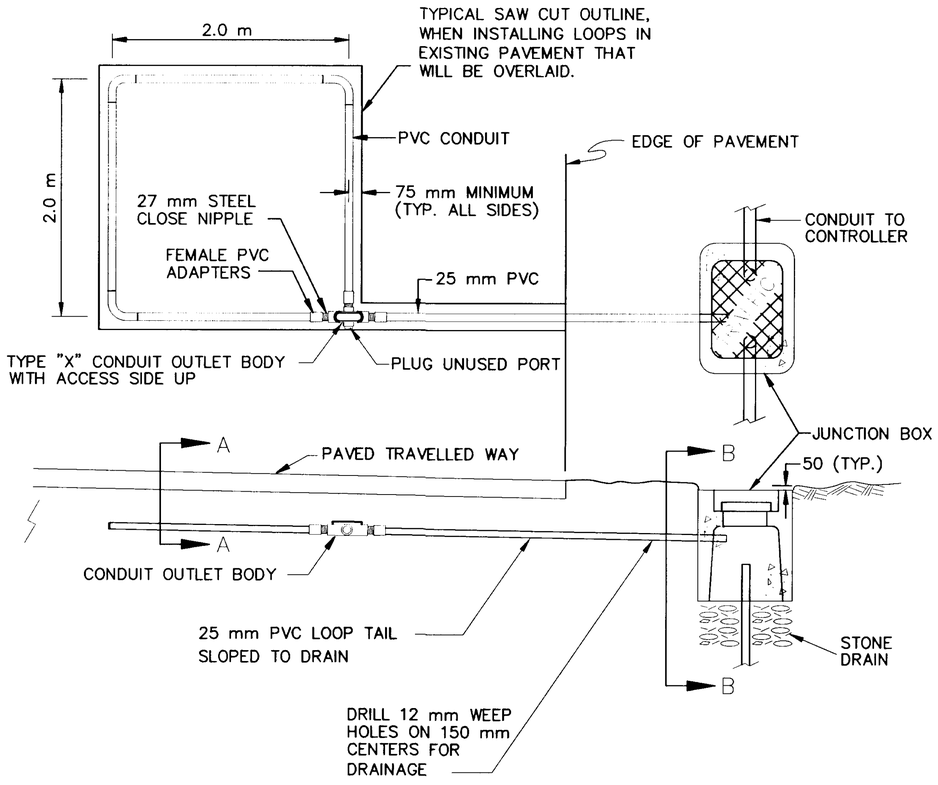
TYPE I LOAD CENTER DETAILS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 23 OF 44

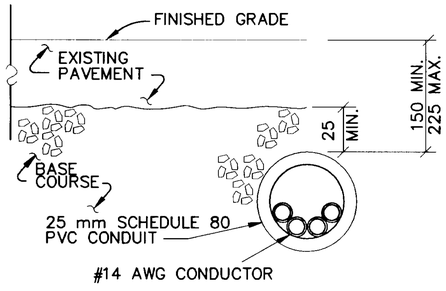
STATE OF ALASKA 49th Michael Lukshin CE–8737 REGISTERED PROFESSIONAL ENGINEER



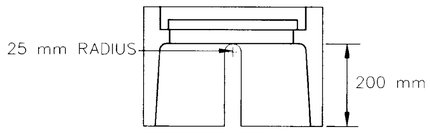
CURB SECTION



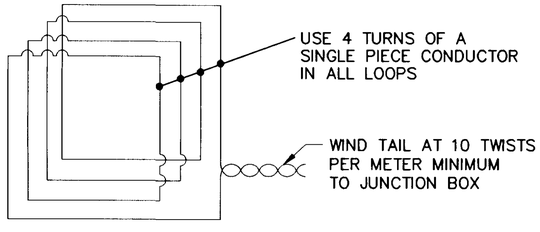
SHOULDER SECTION



SECTION A–A



VIEW B–B



LOOP WIRING DETAIL

1. EACH LOOP DETECTOR SHALL CONSIST OF A SINGLE PIECE OF #14 AWG CONDUCTOR INSTALLED IN 25 mm SCHEDULE 80 PVC CONDUIT. FORM ALL LOOPS 2 METERS SQUARE, SOLVENT WELD ALL PVC TO PVC JOINTS. USE TYPE X OUTLET BODIES THAT ARE MADE OF HOT DIP GALVANIZED STEEL TO JOIN THE LOOPS AND TAILS.
2. INSTALL 4 TURNS OF CONDUCTOR IN ALL LOOPS AND PROVIDE TAILS THAT EXTEND TO THE JUNCTION BOX SPECIFIED ON THE PLANS. USE #14 AWG CONDUCTOR IN A POLYETHYLENE TUBE CONFORMING TO IMSA SPECIFICATION 51–5. WIND THE TAIL CONDUCTORS TOGETHER AT A RATE OF 10 TWISTS PER METER.
3. INSTALL ALL LOOP DETECTORS PRIOR TO OVERLAYING EXISTING PAVEMENT OR PAVING A NEW ROADWAY.
4. INSTALL ALL LOOP DETECTORS SLOPED TO DRAIN INTO THE JUNCTION BOX THE LOOP TAIL ENTERS.
5. NO MINIMUM CLEARANCE IS REQUIRED BETWEEN A LOOP AND A TAIL OR BETWEEN TAILS. LOOP TAILS SHALL NOT CROSS LOOP CONDUITS.
6. TEST ALL LOOP DETECTORS FOR CONTINUITY AND INSULATION INTEGRITY PRIOR TO SEALING THE LOOPS UNDER ASPHALT.
7. WHEN INSTALLING LOOP DETECTORS IN EXISTING PAVEMENT, CUT THE ASPHALT WITH A SAW AND REMOVE ALL ASPHALT WITHIN THE SAW CUT. MATCH EXISTING PAVEMENT THICKNESS WHEN REPAIRING THE CUTOUT.
8. WHERE EXISTING PAVEMENT WILL NOT BE OVERLAID, ENCLOSE ALL LOOPS THAT ENTER A COMMON JUNCTION BOX WITHIN A TRAPEZOIDAL SAW CUT. CUT TO WITHIN 300 mm OF THE LANE AND EDGE LINES, PRESERVING THESE PAVEMENT MARKINGS; REMOVE THE ASPHALT TO THE LIP OF THE GUTTER WHEN THERE ARE NO EDGE LINES. CUT ACROSS LANE LINES WHEN LOOPS IN ADJACENT LANES ARE SIDE BY SIDE. CUT TRENCHES A MINIMUM OF 1 METER WIDE WHEN INSTALLING LOOP TAILS ACROSS A LANE; TRENCHES CROSSING A SHOULDER ONLY MAY BE A MINIMUM 300 mm WIDE.
9. HEAT AND TACK COAT THE EDGES OF EXISTING PAVEMENT PRIOR TO PAVING THE CUTOUTS. COMPACT THE ASPHALT MIXTURE WITH A SELF PROPELLED STEEL WHEELED ROLLER. THE ASPHALT MIX SHALL CONFORM TO SECTION 401 OF THE SPECIFICATIONS, AND APPROVED FOR USE BY THE ENGINEER.
10. MAINTAIN THE REPLACEMENT ASPHALT MIX AT A TEMPERATURE OF 108° C UNTIL THE TIME OF APPLICATION; IF NECESSARY, STORE THE MIX IN AN INSULATED BOX TO MAINTAIN THE SPECIFIED TEMPERATURE.
11. ALL WORK ASSOCIATED WITH INSTALLING LOOP DETECTORS IS CONSIDERED PART OF THE TRAFFIC SIGNAL ITEM AND WILL NOT BE MEASURED SEPARATELY OR PAID FOR DIRECTLY. THIS WORK INCLUDES BUT IS NOT LIMITED TO: LOOP MATERIALS, JUNCTION BOXES, CONDUIT, LOOP LEAD IN CABLE, TESTING, SPLICING, CONDUCTOR LABELING AND SAW CUTTING. ASPHALT REMOVAL AND INSTALLATION OF NEW ASPHALT SHALL BE PAID UNDER THEIR RESPECTIVE PAY ITEMS.
12. TO ESTABLISH THE REFERENCE LINES, EXTEND THE RIGHT EDGES OF THE OUTERMOST THROUGH LANES ACROSS THE INTERSECTION. IF THE ROADWAY GEOMETRY IS CURVED, EXTEND THE CURVE THROUGH THE INTERSECTION.

TYPICAL PVC CONDUIT ENCASED LOOP DETECTOR INSTALLATION

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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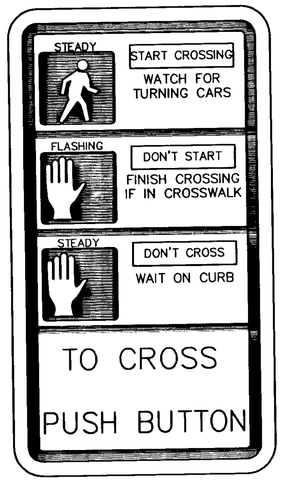
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO–0003(58) PROJECT NO. 67623

LOOP DETECTOR DETAILS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67758
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 24 OF 44

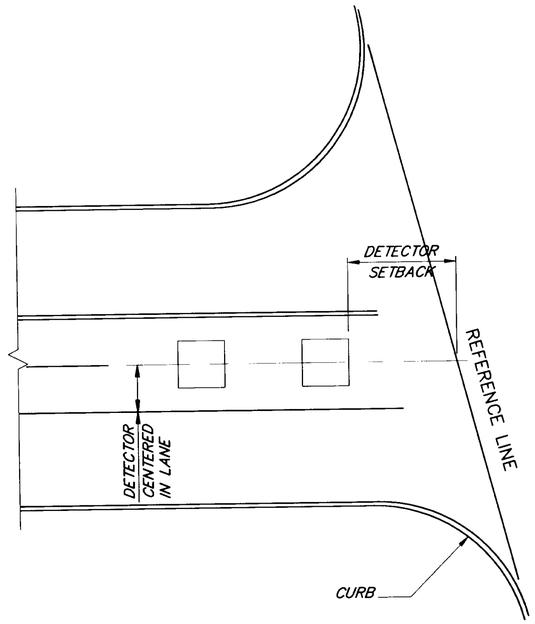
STATE OF ALASKA 49th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER



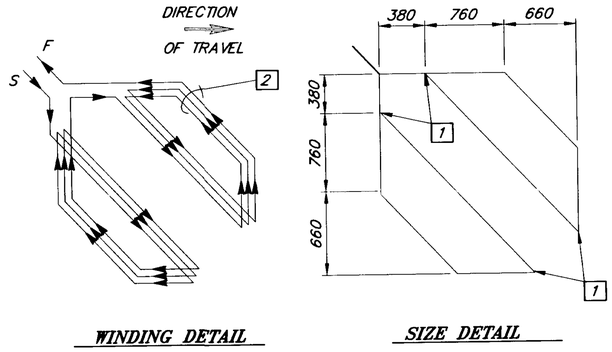
229mm x 406mm
SPECIAL
BLACK ON
NON-REFLECTORIZED WHITE
SIGN LEGEND AND GRAPHICS ARE
PROPORTIONAL TO THOSE SHOWN ABOVE

SPECIAL PEDESTRIAN SIGN

1. BAND SIGNS TO POLES ABOVE PEDESTRIAN PUSH BUTTON FRAMES.
2. INSTALL ONE SIGN PER POLE. IF TWO BUTTONS, INSTALL AT 45 DEGREES BETWEEN THE TWO.
3. SIGNS SHALL BE PAID UNDER 615(1) STANDARD SIGNS.



DETECTOR PLACEMENT

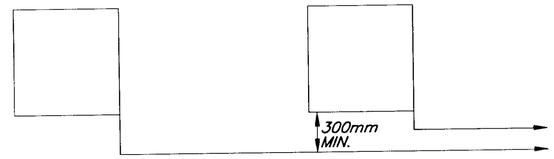


WINDING DETAIL

SIZE DETAIL

BIKE LOOP DETECTOR CONFIGURATION

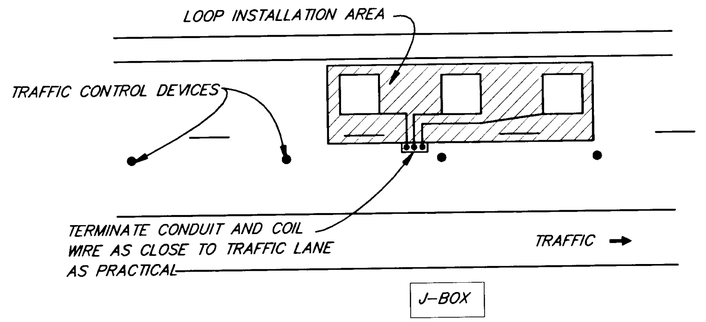
1. ROUND CORNERS OF ACUTE ANGLE SAWCUTS TO PREVENT DAMAGE TO CONDUCTORS.
2. INSTALL 3 TURNS WHEN ONLY ONE BIKE LOOP IS ON A SENSOR UNIT CHANNEL.
   INSTALL 5 TURNS WHEN ONE BIKE LOOP IS CONNECTED IN SERIES WITH 3 ADDITIONAL 1.8m x 1.8m LOOPS ON A SENSOR UNIT CHANNEL.
3. A PREFORMED BIKE LOOP IN A SIMILAR CONFIGURATION MAY BE SUBSTITUTED.



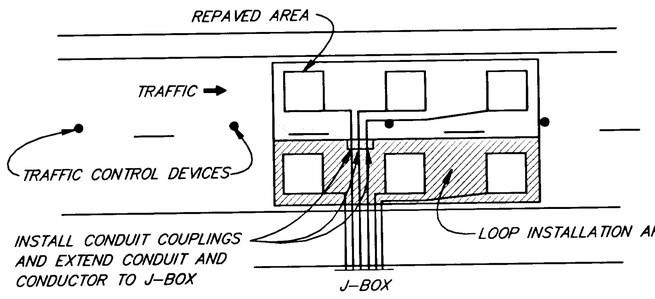
TYPICAL PLAN VIEW OF MULTIPLE LOOP INSTALLATION

GENERAL NOTES

1. ALL NEW CONDUIT EXCEPT FOR THE LOOP DETECTORS SHALL BE RIGID METAL (RMC).



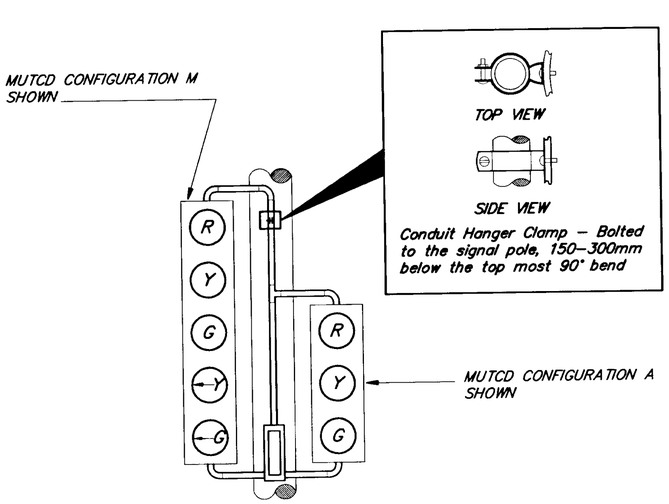
FAR LANE LOOP INSTALLATION



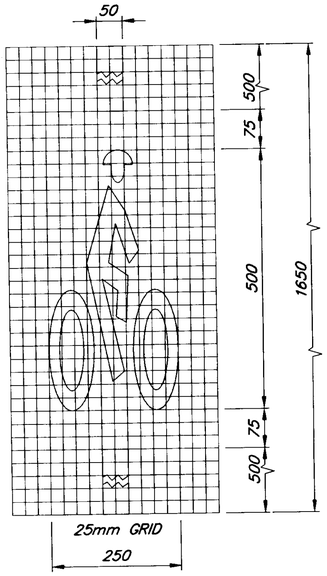
NEAR LANE LOOP INSTALLATION

ADJACENT LANE

LOOP INSTALLATION DETAIL



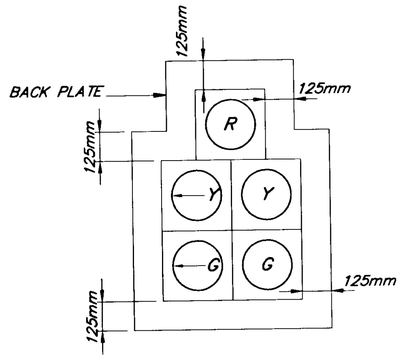
TYPICAL POST MOUNTING OF TWO UNEQUAL SIZE SIGNAL HEADS (FOR CLARITY, BACK PLATES NOT SHOWN)



A=0.19 m²

BICYCLE LOOP DETECTOR SYMBOL

NOTE:
1. INSTALL BICYCLE LOOP DETECTOR SYMBOL DIRECTLY OVER EACH BICYCLE LOOP.
2. MINOR VARIATIONS IN DIMENSIONS MAY BE ACCEPTED BY THE ENGINEER.



5-SECTION SIGNAL CLUSTER HEAD CONFIGURATION (MUTCD configuration S)

NOTES

1. WHEN LOOP LEAD-IN CONDUIT EXTENDS ACROSS OTHER TRAFFIC LANES WHICH WILL BE OPEN TO TRAFFIC WHILE THE LOOPS ARE BEING INSTALLED, THE CONDUIT SHALL BE EXTENDED AS FAR TOWARD THE OPEN LANE AS POSSIBLE AND EXTRA LOOP CONDUCTOR SHALL BE COILED AT THE EDGE OF THE LANE. THE CONDUIT AND CONDUCTOR SHALL BE EXTENDED ACROSS THE LANE TO THE ROADSIDE J-BOX WHEN THE ADJACENT LANE IS CLOSED TO TRAFFIC AND ITS PAVEMENT IS REMOVED.
2. WHEN LOOP LEAD-IN CONDUIT EXTENDS ACROSS OTHER TRAFFIC LANES, LOOP INSTALLATION SHALL START WITH THE LANE FURTHEST FROM THE J-BOX THE CONDUIT WILL TERMINATE IN.
3. ALTHOUGH PAVED-OVER LOOPS ARE SHOWN, THE SAME CONSTRUCTION SEQUENCE APPLIES TO LOOPS IN A NARROW SLOT.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] 20/Dec/99 Q:\Jnu\67623\Dr\-mdet5.dwg		
PLOT: FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
MISCELLANEOUS DETAILS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 25 OF 44

STATE OF ALASKA 49th
Michael Lukshin CE-8737
REGISTERED PROFESSIONAL ENGINEER

STANDARD SIGNING SCHEDULE

No.	STATION	OFFSET LT.	OFFSET RT.	CODE NO. (ASDS)	LEGEND	FACING TRAFFIC	SIZE	AREA S.M	POST SIZE	TYPE	EMBEDMENT TYPE	REMARKS
1	"0" 2+372		10.585	R2-1	Speed Limit 40	SB	0.762 x 0.914	0.69	64mm	PST	Soil	Mount on existing Luminare Pole
2	"0" 2+377		12.90	R1-2	Yield	NB	0.609 x 0.609	0.37	50mm	PST	Soil	Install on existing Bike Path
3	"0" 2+390		℄	R3-5R	↱ Only	CL	0.762 x 0.914	0.69	64mm	PST	Soil	Mount on Asphalt Island ⚠
4	"0" 2+398		13.67	D3-1	Mendenhall Loop Rd.	WB	1.371 x 0.203	0.28		PST		Mount above Trinity Dr. sign
5	"0" 2+398		13.67	R1-1	Trinity Dr.	WB	0.762 x 0.203	0.15		PST		Mount above Stop sign
6	"0" 2+398		13.67	D3-1	Stop	WB	0.762 x 0.762	0.58	64mm	PST	Soil	
7	"0" 2+400		11.29	R1-2	Yield	SB	0.609 x 0.609	0.37	50mm	PST	Soil	Install on existing Bike Path
8	"0" 2+474	15.00		D3-1B	Mendenhall Loop Rd.	WB	2.74 x 0.457	1.25				Mount on Mast Arm (Pole No. 1, see sheet 19) ⚠
9	"0" 2+485		13.50	SPECIAL DETAIL "A"	← Stephen Richards Dr. Haloff Way →	FACING TRAFFIC	SB	3.048 x 0.609	1.860			Mount on Mast Arm (Pole No. 2, see sheet 19) ⚠
10	"0" 2+485		13.50	R10-13	25 EB		SB	0.762 x 0.914	0.69			Mount on Mast Arm (Pole No. 4, see sheet 19) ⚠
11	"0" 2+95		13.50	R10-13	30 NB		NB	0.762 x 0.914	0.69			Mount on Mast Arm (Pole No. 2, see sheet 19) ⚠
												Mount on Mast Arm (Pole No. 1, see sheet 19)
12	"0" 2+495	13.50		SPECIAL DETAIL "B"	Stephen Richards Dr. → ← Haloff Way		NB	3.048 x 0.609	1.860			Mount on Mast Arm (Pole No. 4, see sheet 19) ⚠
13	"0" 2+517		15.00	D3-1B	Mendenhall Loop Rd.		EB	2.743 X 0.457	1.25			Mount on Mast Arm (Pole No. 3, see sheet 19) ⚠
14	"0" 2+550		9.0	R2-1	Speed Limit 40		NB	0.762 x 0.914	0.69	64mm	PST	
15	"0" 2+540		12.0	R7-107	Bus Stop No Parking		CL	0.457 x 0.304	0.14	50mm	PST	Soil	Relocate existing CBJ sign and install above the new bus stop sign
16	"0" 2+580		10.80	R1-2	Yield		NB	0.609 x 0.609	0.37	50mm	PST	Soil	
17	"SR" 0+940		9.37	R7-107	No Parking Any Time ⟷		CL	0.457 x 0.304	0.14	50mm	PST	Soil	⚠
18	"SR" 0+940	9.37		R7-107	No Parking Any Time ⟷		CL	0.457 x 0.304	0.14	50mm	PST	Soil	⚠
19	"SR" 0+970	7.750		R2-1	Speed Limit 30		EB	0.762 x 0.914	0.69	64mm	PST		
20	"SR" 1+070		8.144	R7-107	No Parking Any Time ⟷		CL	0.457 x 0.304	0.14	50mm	PST	Soil	⚠
21	"SR" 1+099		8.144	R2-1	Speed Limit 25		WB	0.762 x 0.914	0.69	64mm	PST	Soil	
22	"SR" 1+104	8.144		R7-107	No Parking Any Time ⟷		CL	0.457 x 0.304	0.14	50mm	PST	Soil	⚠
23	"SR" 1+120		8.144	R7-107	No Parking Any Time ⟷		CL	0.457 x 0.304	0.14	50mm	PST	Soil	⚠
24	"SR" 1+130	8.144		R2-1	Speed Limit 25		NB	0.762 x 0.914	0.69	64mm	PST	Soil	
25	"SR" 1+150	8.144		R7-107	No Parking Any Time ⟷		CL	0.457 x 0.304	0.14	50mm	PST	Soil	⚠
26	"SR" 1+190		10.60	D3-1	Tongass Blvd		EB	0.9144 x 0.203	0.19				Mount above Haloff Way sign
27	"SR" 1+190		10.60	D3-1	Haloff Way		EB	0.9144 x 0.203	0.19				Mount above Stop sign
28	"SR" 1+190		10.60	R1-1	Stop		EB	0.762 x 0.762	0.58	64mm	PST	Soil	

SALVAGE EXISTING SIGNS

No.	STATION	OFFSET LT.	OFFSET RT.	LEGEND	REMARKS
29	"0" 2+300		10.65	Center Lane Only	Mounted on existing Luminare Pole
30	"0" 2+310	10.65		Center Lane Only	Mounted on existing Luminare Pole
31	"0" 2+372		10.58	Speed Limit 40	Mounted on existing Luminare Pole
32	"0" 2+377		11.15	Yield	Existing Bike Path Signs
33	"0" 2+398		13.80	Mendenhall Loop Rd.	
34	"0" 2+398		13.80	Trinity Dr.	
35	"0" 2+398		13.80	Stop	
36	"0" 2+400		10.73	Yield	Existing Bike Path Signs
37	"0" 2+452		10.89	Center Lane Only	Mounted on existing Luminare Pole
38	"0" 2+472	11.47		Yield	Existing Bike Path Signs
39	"0" 2+475	13.70		Mendenhall Loop Rd.	
40	"0" 2+475	13.70		Stephens Richards Dr.	
41	"0" 2+475	13.70		Stop	
42	"0" 2+480		8.85	Yield	Existing Bike Path Signs
43	"0" 2+500	9.02		Yield	Existing Bike Path Signs
44	"0" 2+500		15.71	Mendenhall Loop Rd.	
45	"0" 2+500		15.71	Haloff Way	
46	"0" 2+500		15.71	Stop	
47	"0" 2+510		13.80	Yield	Existing Bike Path Signs
48	"0" 2+513		13.00	Bus Stop & No Parking	
49	"0" 2+515		10.51	Speed Limit 40	Mounted on existing Luminare Pole
51	"0" 2+580	13.70		Yield	Existing Bike Path Signs
52	"SR" 0+940	9.37		No Parking Any Time	
53	"SR" 0+940		9.37	No Parking Any Time	
54	"SR" 0+970	7.750		Speed Limit 30	
55	"SR" 1+040		8.85	End of Road & No parking	

FLEXIBLE DELINEATORS SUMMARY

STATION	OFFSET (m) LT.	OFFSET (m) RT.	TYPE	REMARKS
"0" 2+370			A	
"0" 2+380	1.00		A	
"0" 2+380		1.00	A	
"0" 2+400	1.25		A	
"0" 2+400		1.25	A	
"0" 2+479	1.368		A	
"0" 2+508		1.368	A	
"0" 2+540		1.368	A	
"0" 2+550		1.25	A	
"0" 2+550	1.25		A	
"0" 2+560		0.75	A	
"0" 2+560	0.75		A	
"0" 2+362.15		8.50	B	
"0" 2+408.22		8.50	B	
"0" 2+480.50		8.50	B	
"0" 2+516.25		10.10	B	
"0" 2+467.56	10.40		B	
"0" 2+507.20	8.50		B	
"0" 2+550		8.80	B	
"0" 2+558.75		8.80	B	
"SH" 0+973			A	
"SH" 0+983			A	
"SH" 1+017			A	
"SH" 1+027			A	

⚠ New sign shall be mounted on the new signal pole mast arm.(see Standard Drawing S21.02)
⚠ Shall be facing toward the roadway centerline
⚠ Use a multidirectional sign base made by Transpo Industries or equal.

SIGN RELOCATION SUMMARY

FROM STATION	FROM OFFSET	TO STATION	TO OFFSET	LEGEND	REMARKS
"0" 2+517	11.59m RT.	"0" 2+550	9.70m RT.	ADOPT A HIGHWAY LITTER CONTROL LITTER CONTROL AND JUNEAU ASSOCIATION OF PROFESSIONAL MORTGAGE WOMEN	INSTALL TO NEW POST.
"TB" 1+013.45	10.39m RT.	"TB" 1+014.87	10.49m RT.	STOP	

GENERAL SIGNING NOTES

1. SIGN LOCATIONS ARE APPROXIMATE ONLY AND ARE SUBJECT TO MINOR REVISIONS.
2. SEE STD. DWG. S-30.01 FOR POST SLEEVE TYPE SOIL EMBEDMENT.
3. ALL SIGN POSTS SHALL BE TELESCOPING PERFORATED GALVANIZED SQUARE STEEL POSTS.
4. ALL SIGNS SHALL BE 2mm THICK EXCEPT AS NOTED IN THE STANDARD SIGN SCHEDULE.
5. ALL NEW SIGNS SHALL BE UNFRAMED EXCEPT AS NOTED IN THE STANDARD SIGN SCHEDULE.
6. ALL D3-1 STREET SIGNS HAVE THE LEGEND ON BOTH SIDES, AND BE THE BLADE EXTRUDED TYPE.
7. SIGNS SHALL BE INSTALLED SO THAT THE BOTTOM OF THE SIGN PANEL IS 2.1 meter ABOVE THE ROADWAY SURFACE.
8. ALL EXISTING SIGNS TO BE REMOVED OR REPLACED SHALL BE DISMANTLED BY THE CONTRACTOR AND STOCKPILED AT THE STATE OF ALASKA D.O.T./P.F. MAINTENANCE STATION AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE CONSIDERED INCIDENTAL TO 615(6).
9. PRIOR TO INSTALLING POSTS, THE CONTRACTOR SHALL LOCATE AND PROTECT ALL EXISTING AND NEW UNDERGROUND UTILITIES, INCLUDING BUT NOT LIMITED TO PIPELINES, INTERCONNECT CABLES, SIGNAL SYSTEMS, LIGHTING SYSTEMS, STORM AND SANITARY SEWERS, WATER SYSTEMS AND TELEPHONE AND ELECTRICAL CABLES. ALL EXISTING UTILITIES ARE NOT NECESSARILY SHOWN ON THE PLANS.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

RECORD OF REVISIONS

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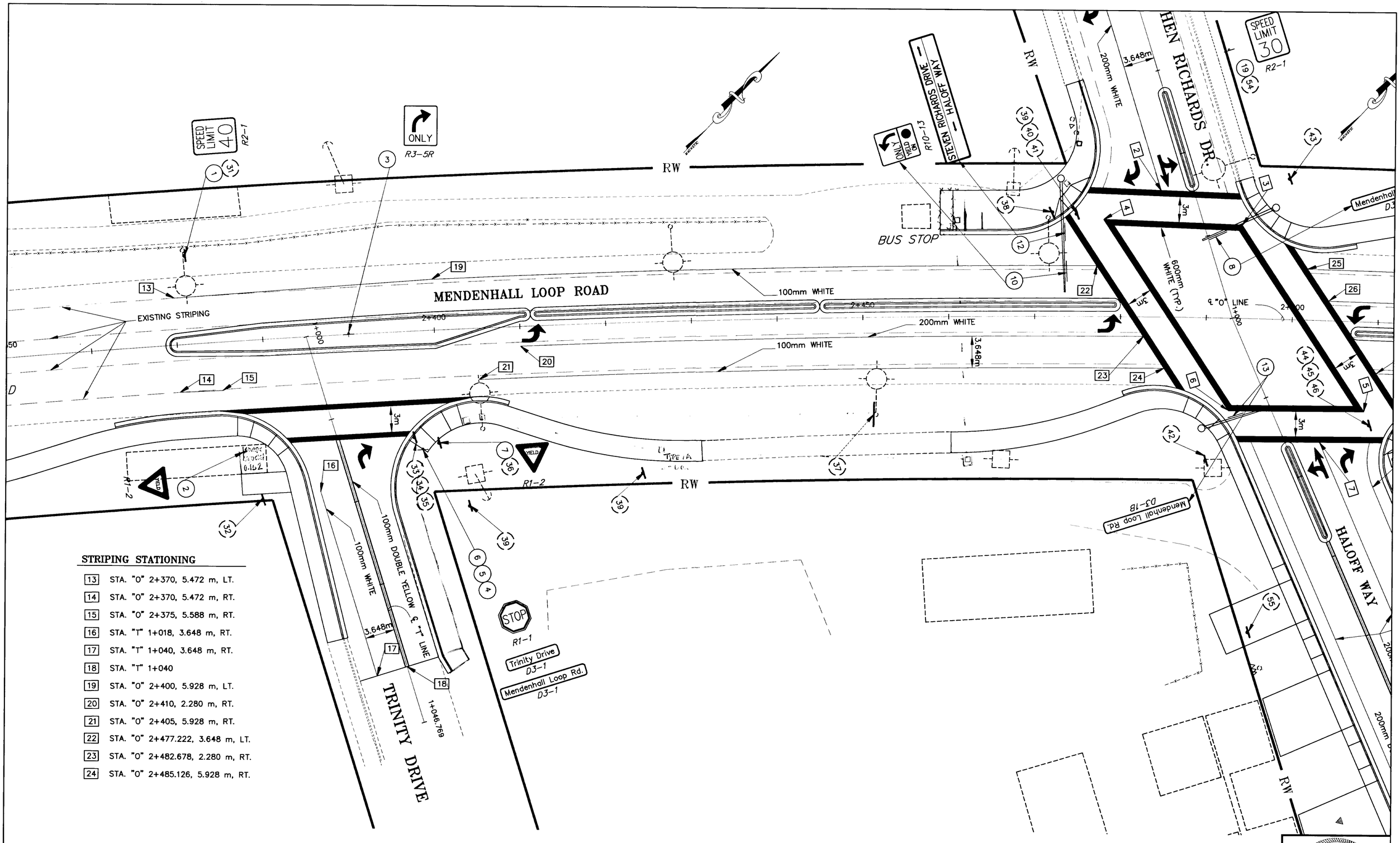
PLOT: FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
SIGNING SUMMARIES

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 26 OF 44

STATE OF ALASKA
19th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER



STRIPING STATIONING

- 13 STA. "O" 2+370, 5.472 m, LT.
- 14 STA. "O" 2+370, 5.472 m, RT.
- 15 STA. "O" 2+375, 5.588 m, RT.
- 16 STA. "T" 1+018, 3.648 m, RT.
- 17 STA. "T" 1+040, 3.648 m, RT.
- 18 STA. "T" 1+040
- 19 STA. "O" 2+400, 5.928 m, LT.
- 20 STA. "O" 2+410, 2.280 m, RT.
- 21 STA. "O" 2+405, 5.928 m, RT.
- 22 STA. "O" 2+477.222, 3.648 m, LT.
- 23 STA. "O" 2+482.678, 2.280 m, RT.
- 24 STA. "O" 2+485.126, 5.928 m, RT.

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

RECORD OF REVISIONS		
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BY:	DATE:	DESCRIPTION OF CHANGE:

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU *ALASKA*

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

SIGNING, STRIPING & LIGHTING

DESIGNED BY: *M. LUKSHIN*	PROJECT NO. *67623*
DRAWN BY: *B. BENNETT*	DATE: *1999*
CHECKED BY: *R. PURVES*	SHEET *27* OF *44*

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER

STRIPING STATIONING

1. STA. "SH" 0+960, 3.648 m, RT.
2. STA. "SH" 0+983.461, 3.648 m, RT.
3. STA. "O" 2+493.921, 10.801 m, LT.
4. STA. "O" 2+478.004, 11.255 m, LT.
5. STA. "O" 2+508.677, 10.375 m, RT.
6. STA. "O" 2+492.806, 10.695 m, RT.
7. STA. "SH" 1+017.190, 3.648 m, LT.
8. STA. "SH" 1+024.227, 7.296 m, LT.
25. STA. "O" 2+501.620, 5.928 m, LT.
26. STA. "O" 2+504.161, 2.280 m, LT.
27. STA. "O" 2+509.951, 5.928 m, RT.
28. STA. "O" 2+540, 2.280 m, LT.
29. STA. "O" 2+550, 2 280 m, LT.
30. STA. "O" 2+550, 2.280 m, RT.
31. STA. "O" 2+560, 5.928 m, LT.
32. STA. "O" 2+560, 2.280 m, LT.
33. STA. "O" 2+560, 2.280 m, RT.
34. STA. "O" 2+560, 5.928 m, RT.
35. STA. "O" 2+580, 5.472 m, LT.
36. STA. "O" 2+580, 1.824 m, LT.
37. STA. "O" 2+580, 1.824 m, RT.
38. STA. "O" 2+580, 5.472 m, RT.

STEPHEN RICHARDS DR.
℄ "SH" LINE
RW
SPEED LIMIT 30 R2-1
200mm WHITE
3.648m
STEVEN RICHARDS DRIVE — HALOFF WAY —
ONLY R10-13
BUS STOP
Mendenhall Loop Rd. D3-1B
3m
600mm WHITE (TYP.)
℄ "O" LINE
1+000
2+000
2+450
2+500
2+550
2+600
100mm WHITE
MENDENHALL LOOP ROAD
EXISTING STRIPING
HALOFF WAY
Mendenhall Loop Rd. D3-1B
R10-13
R7-107
PARKING
SPEED LIMIT 40 R2-1

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

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BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
SIGNING, STRIPING & LIGHTING

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 28 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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BY:	DATE:	DESCRIPTION OF CHANGE:

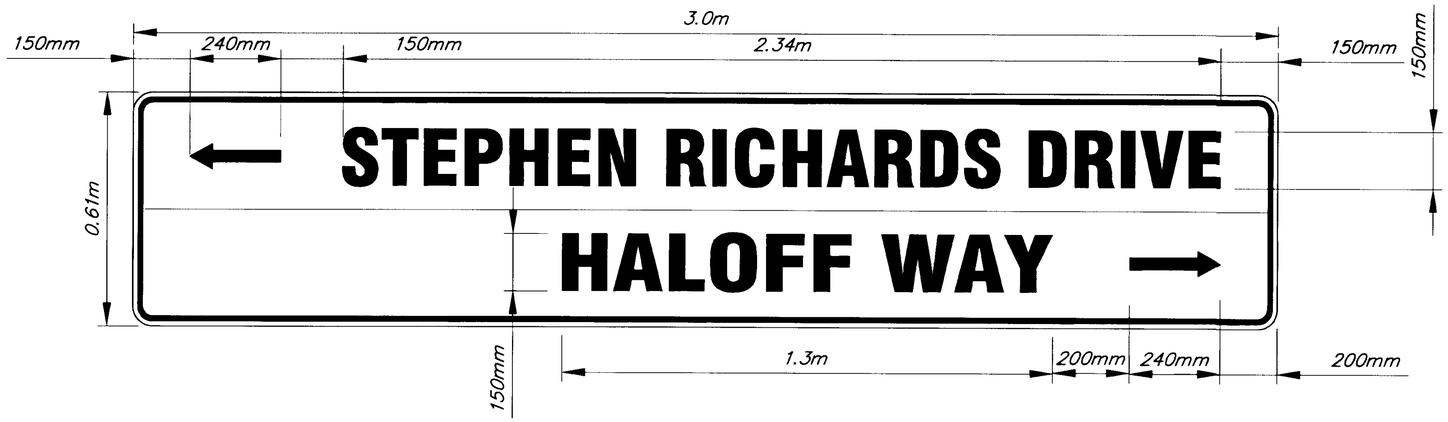
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

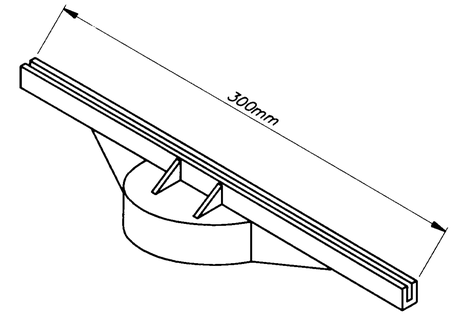
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
SIGNING, STRIPING & LIGHTING

DESIGNED BY: M. LUKSHIN
DRAWN BY: B. BENNETT
CHECKED BY: R. PURVES
PROJECT NO. 67623
DATE: 1999
SHEET 29 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER



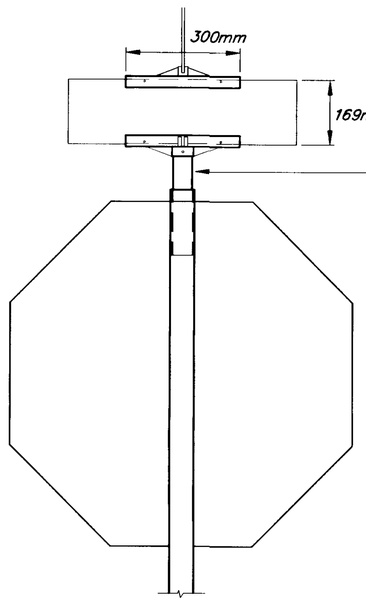
SPECIAL SIGN "A"



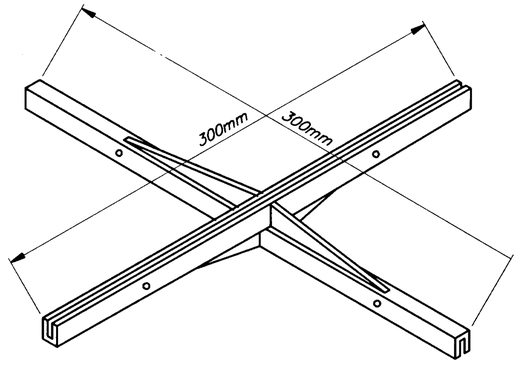
TYPICAL HEAVY DUTY SIGN TO POST BRACKET

SIGN NOTES

1. SIGNS SHALL HAVE GREEN BACKGROUND WITH WHITE LEGEND. LETTERING SHALL BE AS SHOWN ON THE PLAN.
2. SPECIAL SIGN "A" IS SHOWN. SPECIAL SIGN "B" SHALL HAVE THE ARROWS POINTING IN THE OPPOSITE DIRECTION.
3. SIGNS SHALL CONFORM TO THE ALASKA SIGN DESIGN SPECIFICATIONS (ASDS). LETTERING SHALL BE 102 mm HIGH AND SERIES B.



SIGN POST DETAIL



TYPICAL HEAVY DUTY SIGN TO SIGN CROSS BRACKET

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] Q: \Jnu\67623\Dr\–sign2.dwg Mon, 20/Dec/99 11:32am		
PLOT: FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:

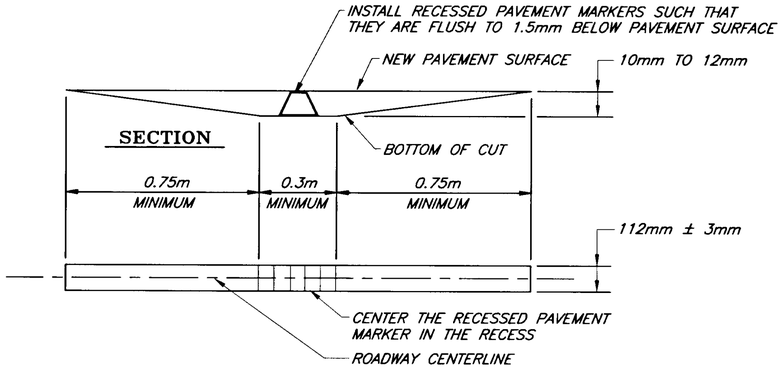
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
SIGN DETAILS

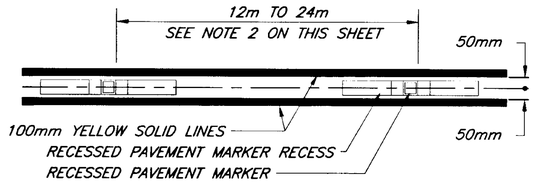
DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 30 OF 44

STATE OF ALASKA 49th MICHAEL LUKSHIN Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER

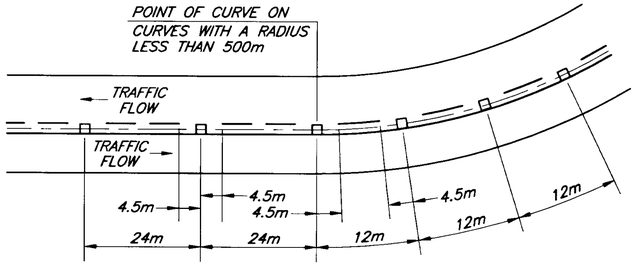


PLAN

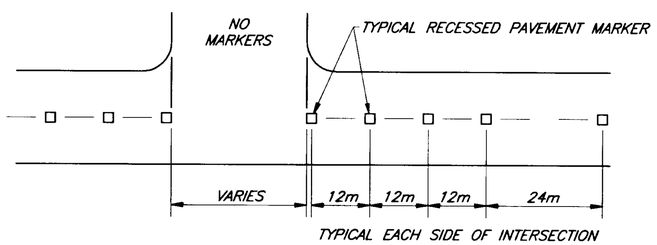
RECESSED PAVEMENT MARKER DETAIL



RECESSED PAVEMENT MARKER INSTALLATION DETAILS



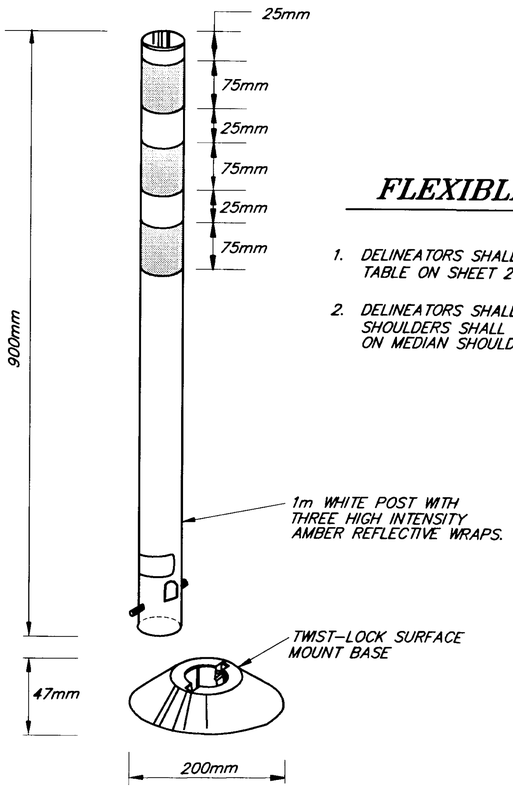
RECESSED PAVEMENT MARKER DETAIL FOR CURVES WITH A RADIUS LESS THAN 500m



RECESSED PAVEMENT MARKER DETAIL FOR INTERSECTION APPROACHES

RECESSED PAVEMENT MARKER NOTES

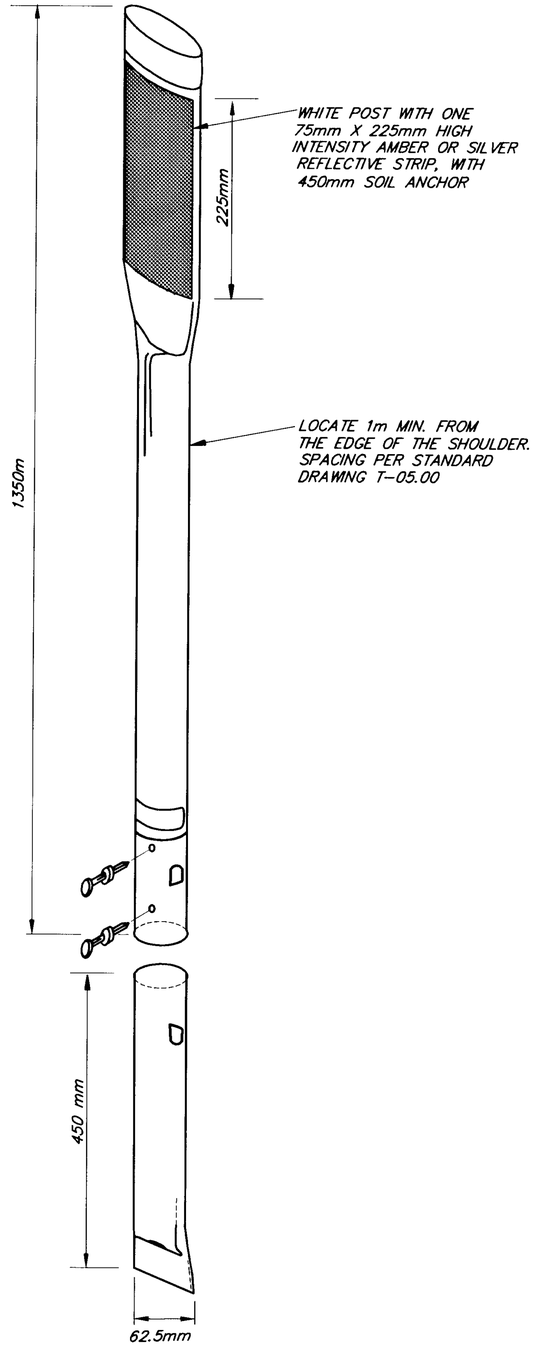
1. RECESSED PAVEMENT MARKERS (R.P.M.'s) SHALL BE INSTALLED BETWEEN THE B.O.P. AND THE E.O.P.
2. R.P.M.'s SHALL BE SPACED AT 24m ON TANGENT SECTIONS OF ROADWAY AND ON CURVES WITH A RADIUS GREATER THAN 500m. ON CURVES WITH A RADIUS OF 500m OR LESS THE R.P.M.'s SHALL BE SPACED AT EVERY 12m. SEE DETAILS ON THIS SHEET.
3. ON ALL ROADWAY SECTIONS WITH DOUBLE LINES (EITHER BROKEN OR SOLID) R.P.M.'s SHALL BE PLACED BETWEEN THE LINES, ON SECTIONS OF ROADWAY WITH SINGLE BROKEN LINES THE R.P.M.'s SHALL BE PLACED ON THE CENTERLINE BETWEEN THE STRIPES.
4. THE LOCATIONS OF ALL PASSING AND NO-PASSING ZONES SHALL BE VERFIED IN THE FIELD BY THE ENGINEER.



TYPE "A" FLEXIBLE DELINEATOR DETAILS

FLEXIBLE DELINEATORS NOTES:

1. DELINEATORS SHALL BE INSTALLED AT LOCATIONS SHOWN IN THE SUMMARY TABLE ON SHEET 26.
2. DELINEATORS SHALL BE WHITE IN COLOR. DELINATORS INSTALLED ON OUTSIDE SHOULDERS SHALL HAVE WHITE REFLECTIVE SHEETING. DELINEATORS INSTALLED ON MEDIAN SHOULDERS SHALL HAVE YELLOW REFLECTIVE SHEETING.



TYPE "B" FLEXIBLE DELINEATOR DETAILS

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

RECORD OF REVISIONS		
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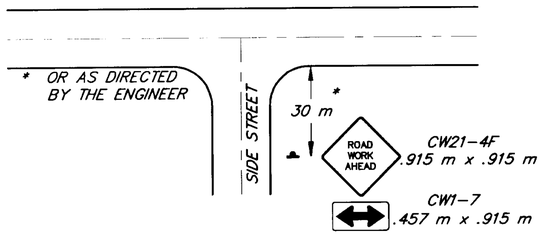
PLOT: FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:

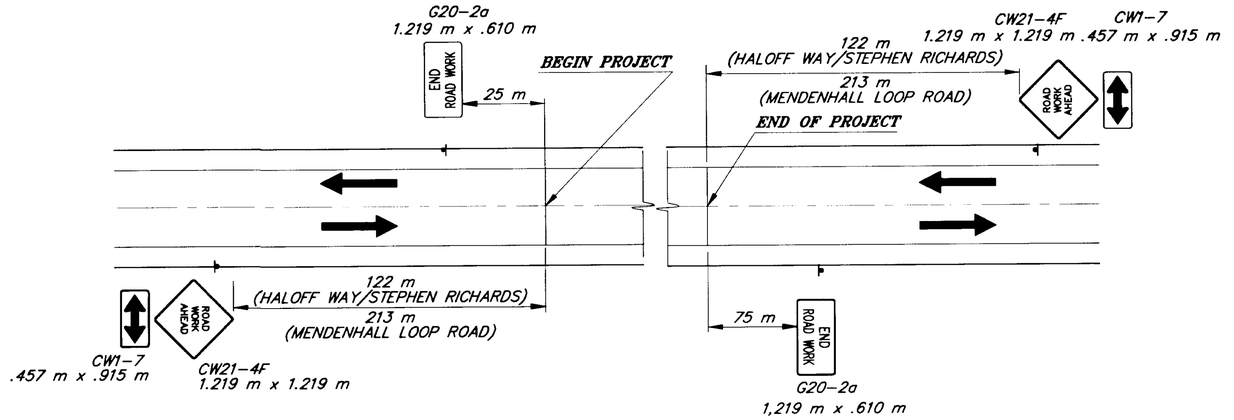
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
RECESSED PAVEMENT MARKER DETAILS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 31 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER





PERMANENT CONSTRUCTION SIGNING

TRAFFIC CONTROL NOTES

1. IT IS THE INTENT OF THIS TRAFFIC CONTROL PLAN (TCP) TO ILLUSTRATE SOME BUT NOT ALL OF THE TRAFFIC CONTROL CONFIGURATIONS THAT WILL BE REQUIRED BY THIS PROJECT. TRAFFIC CONTROL PLANS FOR CONFIGURATIONS NOT COVERED BY THIS TCP SHALL BE DEVELOPED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
2. TWO WAY TRAFFIC WILL BE MAINTAINED AT ALL TIMES.
3. TRAFFIC LANES SHALL BE A MINIMUM OF 3 meter WIDE.
4. TEMPORARY PAVEMENT MARKINGS WILL BE REQUIRED AS DESCRIBED IN SECTION 643-3.09 OF THE SPECIFICATIONS.
5. ACCESS TO BUSINESSES AND HOMES WILL BE OPENED AT THE END OF THE DAILY WORK SHIFT.
6. THE CONTRACTOR SHALL KEEP THE PUBLIC INFORMED OF HIS CONSTRUCTION ACTIVITIES THROUGH THE USE OF THE LOCAL NEWS MEDIA. NEWS RELEASES SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THEIR RELEASE. NEWS RELEASES WILL BE REQUIRED BUT NOT LIMITED TO, THE ONSET OF WORK, GRINDING, PAVING, AND CHANGES IN THE LANE CONFIGURATIONS.
7. IF TRAFFIC DELAYS BECOME LONGER THAN 3 MINUTES AVERAGE PER VEHICLE, THE PROJECT ENGINEER MAY REQUIRE NIGHTTIME OPERATIONS.
8. NO WORK ON MENDENHALL LOOP ROAD OR STEPHEN RICHARDS DRIVE SHALL OCCUR BETWEEN 6:30 A.M. TO 8:00 A.M AND BETWEEN 4:00 P.M. TO 6:00 P.M.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-tcp1.dwg Mon, 20/Dec/99 11:35am		
PLOT: FULL=1 or HALF=2		
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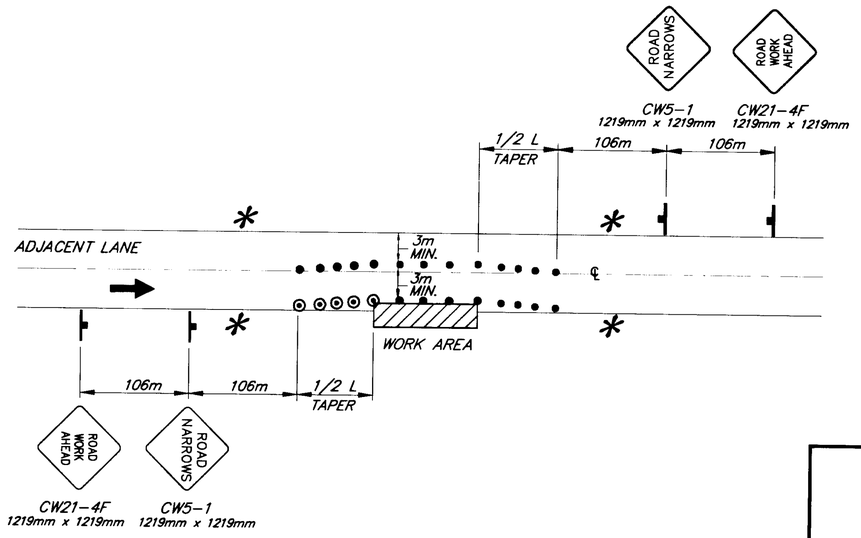
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TRAFFIC CONTROL PLAN

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 32 OF 44

STATE OF ALASKA
49th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER



ROADWAY ENCROACHMENT

NOTE: IF ONLY ONE LANE IS EFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 3m TO CENTERLINE) THE SIGNS AND CENTERLINE CONES FOR THE OPPOSING LANE MAY BE DELETED.

LEGEND

- SIGN
- CONE
- DRUM
- TYPE III BARRICADE
- FLAGGING STATION
- HI-LEVEL WARNING DEVICE

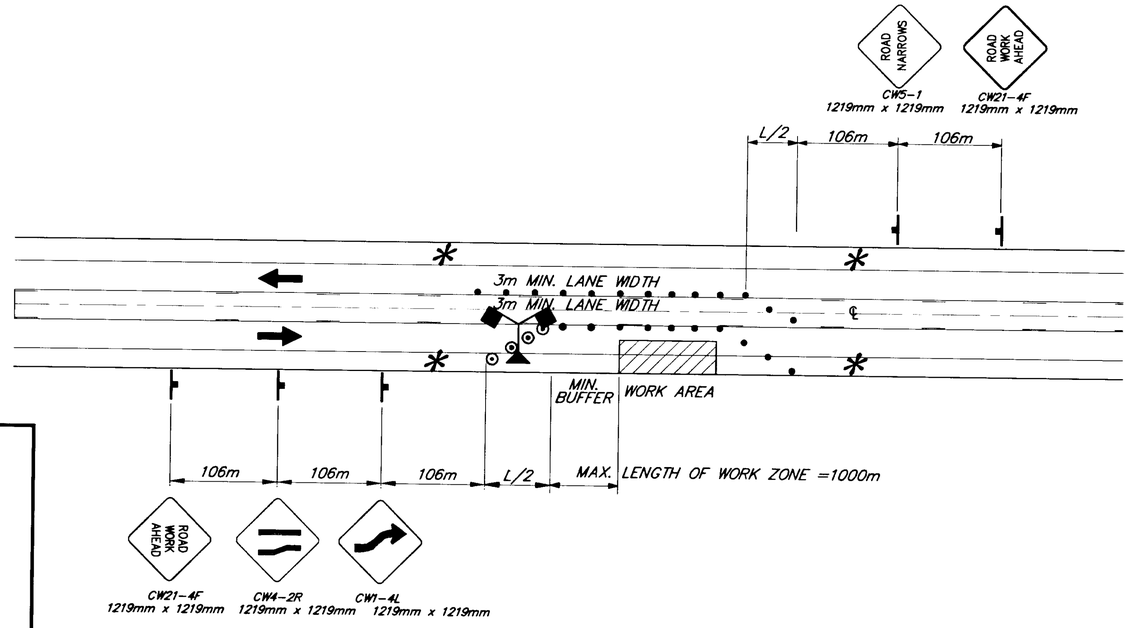
* NO PARKING WITHIN 60m OF CONES

$L = W \times T$

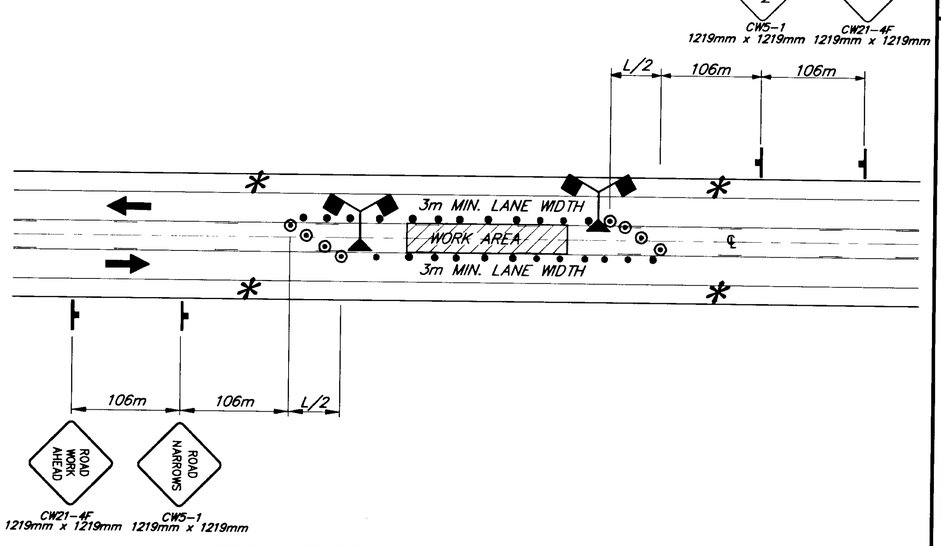
WHERE:
L= LENGTH OF TAPER
W= WIDTH OF OFFSET
T= TAPER FACTOR

TCP TABLE SETUP

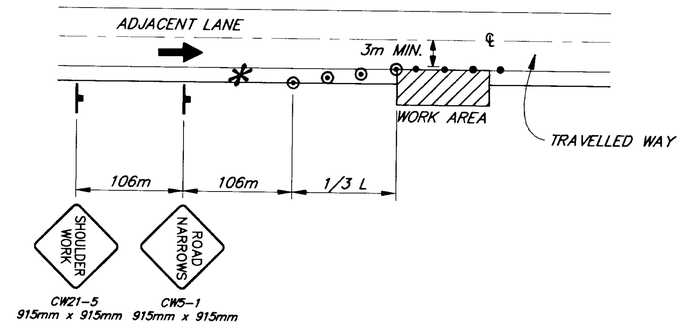
SPEED (KILOMETERS PER HOUR)	SPEED (MILES PER HOUR)	BUFFER/ LENGTH (m)	CONE/DRUM SPACING (m)	TAPER FACTOR (T)
25	16	9	5	4:1
30	19	11	6	6:1
35	22	14	7	8:1
40	25	17	8	10:1
45	28	21	9	13:1
50	31	26	10	16:1
55	34	35	11	19:1
60	37	43	12	23:1
65	40	52	13	27:1
70	43	62	14	32:1
75	47	75	15	47:1
80	50	85	16	50:1
85	53	98	17	53:1
90	56	110	18	56:1



TWO-WAY TRAFFIC USING CENTER LANE



TWO-WAY TRAFFIC CENTER LANE CLOSURE



SHOULDER WORK

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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PLOT: FULL=1 or HALF=2

BY:	DATE:	DESCRIPTION OF CHANGE:

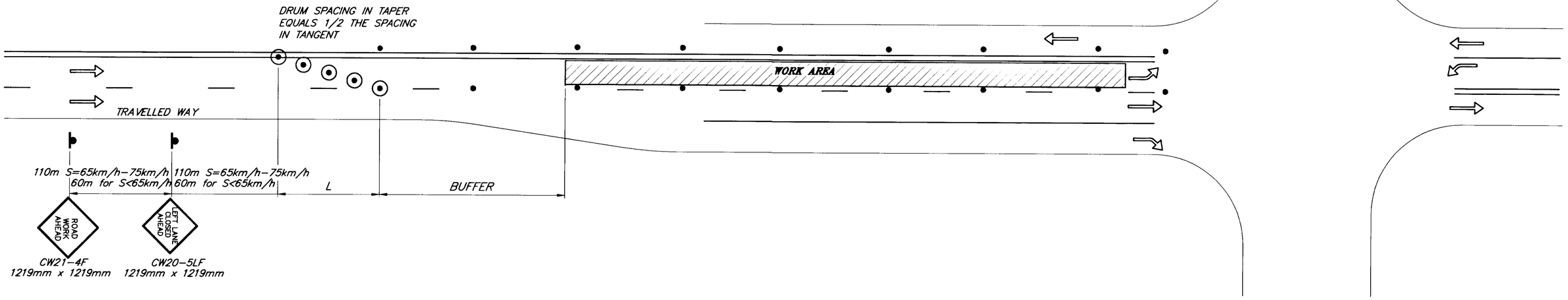
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TRAFFIC CONTROL PLAN

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 33 OF 44

STATE OF ALASKA
49th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER



TYPICAL LANE CLOSURE ON UNDIVIDED HIGHWAY

$L = W \times T$

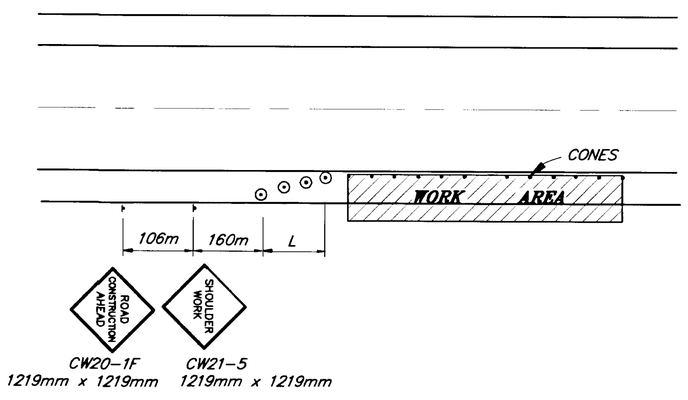
WHERE:
L= LENGTH OF TAPER
W= WIDTH OF OFFSET
T= TAPER FACTOR

TCP TABLE SETUP

SPEED (KILOMETERS PER HOUR)	SPEED (MILES PER HOUR)	BUFFER/ LENGTH (m)	CONE/DRUM SPACING (m)	TAPER FACTOR (T)
25	16	9	5	4:1
30	19	11	6	6:1
35	22	14	7	8:1
40	25	17	8	10:1
45	28	21	9	13:1
50	31	26	10	16:1
55	34	35	11	19:1
60	37	43	12	23:1
65	40	52	13	27:1
70	43	62	14	32:1
75	47	75	15	47:1
80	50	85	16	50:1
85	53	98	17	53:1
90	56	110	18	56:1

LEGEND

- ..... SIGN
- ..... CONE
- ..... DRUM
- ..... FLAGGING STATION



SHOULDER WORK

(NO ENCROACHMENT INTO TRAVELLED WAY)

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-tcp3.dwg Mon, 20/Dec/99 11:37am
PLOT: FULL=1 or HALF=2

BY:	DATE:	DESCRIPTION OF CHANGE:

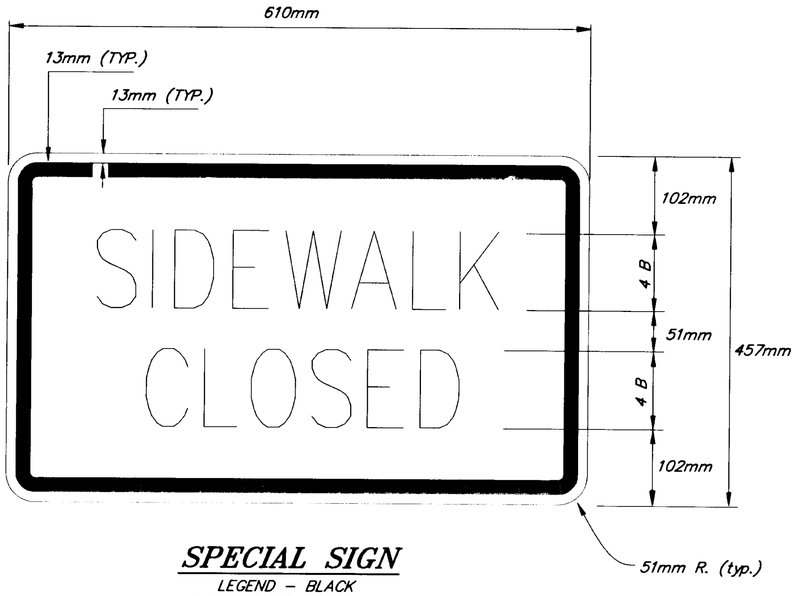
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TRAFFIC CONTROL PLAN

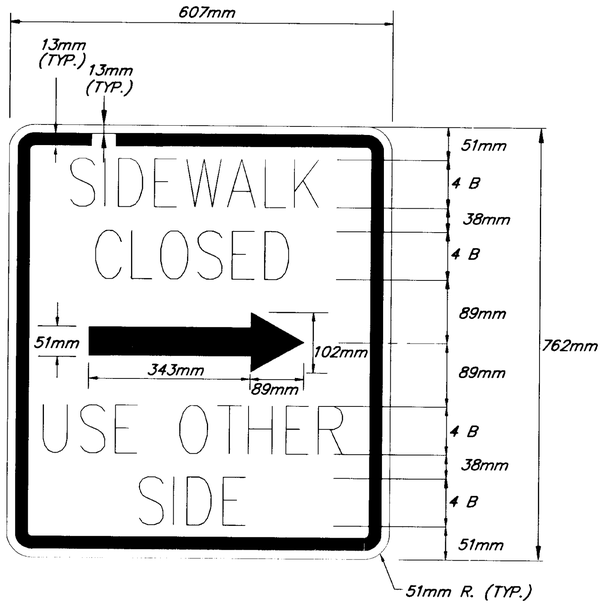
DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 34 OF 44

STATE OF ALASKA 49th Michael Lukshin CE-8737 REGISTERED PROFESSIONAL ENGINEER



SPECIAL SIGN

LEGEND – BLACK
BACKGROUND – ORANGE



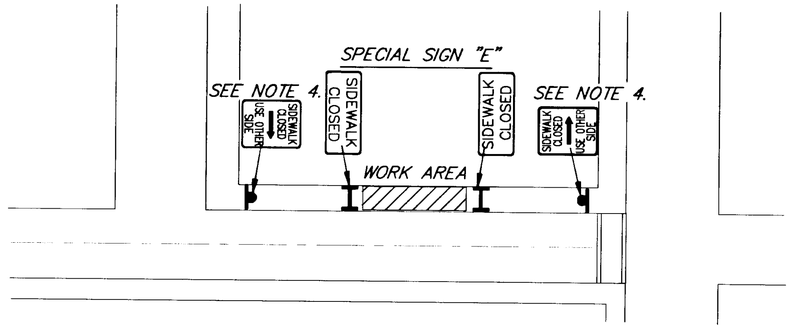
SPECIAL SIGN "C" (RIGHT ARROW)
SPECIAL SIGN "D" (LEFT ARROW)

SIGN NOTES:

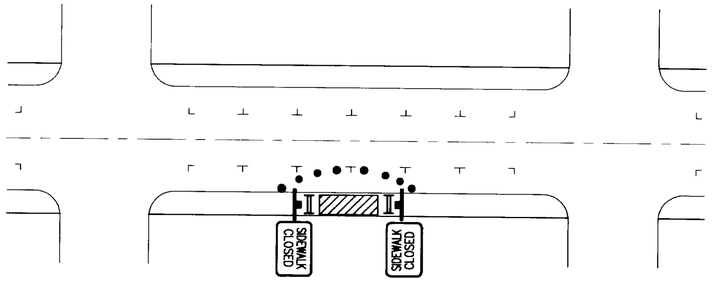
1. SIGNS SHALL HAVE WHITE BACKGROUND WITH BLACK LEGEND. LETTERING SHALL BE AS SHOWN ON THE PLAN.
2. SPECIAL SIGN "C" IS SHOWN. SPECIAL SIGN "D" SHALL HAVE THE ARROW POINTING IN THE OPPOSITE DIRECTION.
3. SIGNS SHALL CONFORM TO THE ALASKA SIGN DESIGN SPECIFICATIONS (ASDS). LETTERING SHALL BE 102 mm HIGH AND SERIES B.
4. WHERE IT IS IMPRACTICAL TO WALK AROUND THE CLOSED PORTION OF THE SIDEWALK, SPECIAL SIGNS "C" OR "D" SHALL BE SET UP AT THE NEAREST EXISTING CROSSWALK.

LEGEND

- ..... SIGN
- ..... CONE
- ..... DRUM
- ..... FLAGGING STATION

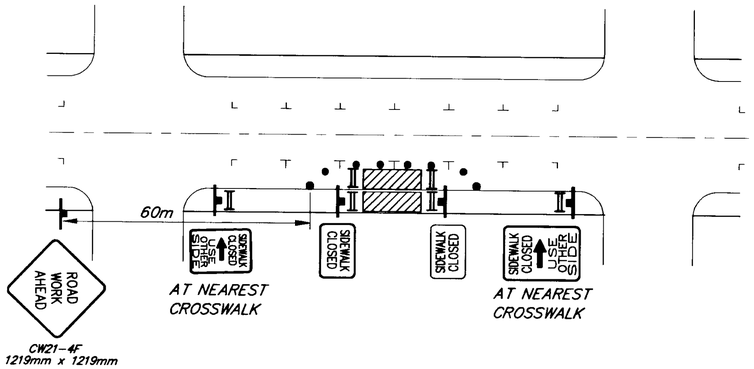


EXISTING SIDEWALK RECONSTRUCTION



SIDEWALK CLOSURE BYPASS WALKWAY

(NO WORK in PROGRESS)



CW21-4F
1219mm x 1219mm

SIDEWALK CLOSURE NO ROADWAY ENCROACHMENT

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-tcp2.dwg Mon, 20/Dec/99 11:43am		
PLOT: FULL=1 or HALF=2		
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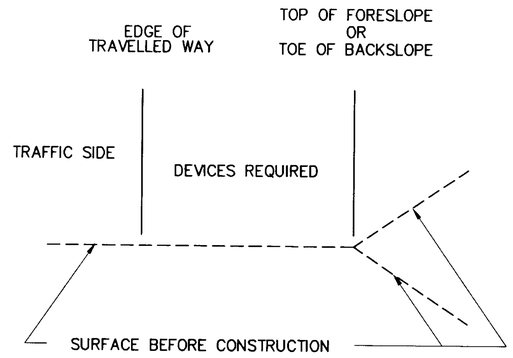
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

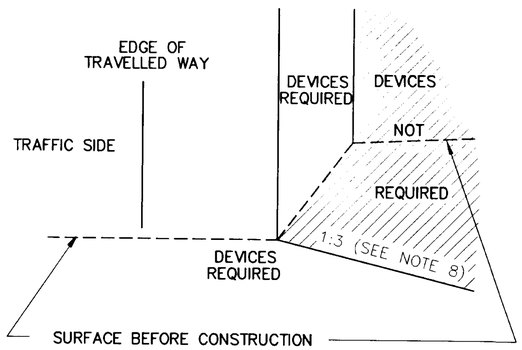
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TRAFFIC CONTROL PLAN

DESIGNED BY: K. MATTSON	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 35 OF 44

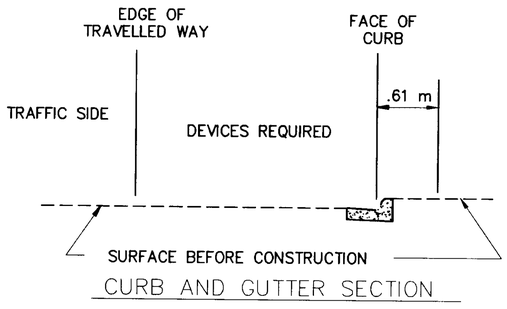
STATE OF ALASKA
49th
Michael Lukshin
CE-8737
REGISTERED PROFESSIONAL ENGINEER



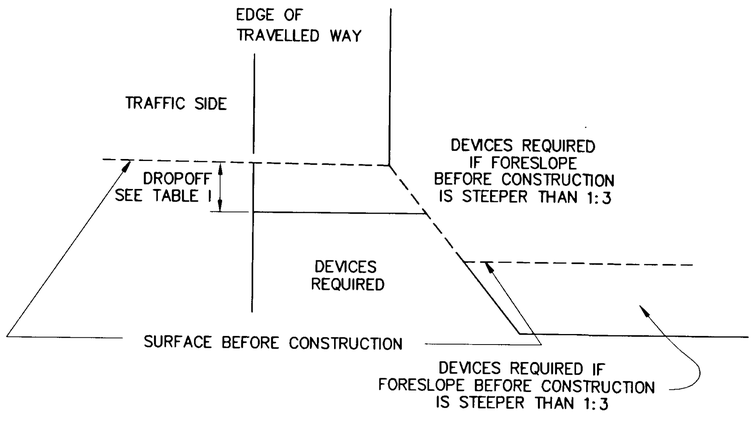
EMBANKMENT SECTION



BACKSLOPE SECTION



CURB AND GUTTER SECTION



FORESLOPE SECTION

LEGEND

- WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE REQUIRED
- WORK AREA WHERE TRAFFIC CONTROL DEVICES ARE NOT REQURED
- SURFACE BEFORE CONSTRUCTION
- CONSTRUCTION AREA BOUNDARY

* TABLE 1
TRAFFIC CONTROL DEVICES REQUIRED FOR DROPOFFS ADJACENT TO TRAVELLED WAY

ROADWAY TYPE	DROPOFF ≤ 51	51 < DROPOFF < 305	DROPOFF ≥ 305
AVERAGE DAILY TRAFFIC > 4000 OR SPEED > 64 kmh	TUBULAR CANDLES	TYPE 2 BARRICADES OR DRUMS	TEMPORARY PORTABLE CONCRETE BARRIER OR TEMPORARY GUARDRAIL
ALL OTHER ROADWAYS	NONE REQUIRED	TYPE 2 BARRICADES OR DRUMS	TYPE 2 BARRICADES OR DRUMS

* SPACE TUBULAR CANDLES, BARRICADES AND DRUMS IN ACCORDANCE THE ALASKA TRAFFIC MANUAL.

GENERAL NOTES:

1. TRAFFIC CONTROL DEVICES REQUIRED BY THE GUIDELINES ON THIS SHEET ARE INTENDED FOR CONDITIONS WHICH WILL BE IN PLACE LONGER THAN THREE DAYS. FOR CONDITIONS WHICH WILL BE IN PLACE LESS THAN THREE DAYS LESSER REQUIREMENTS MAY APPLY. IN EITHER CASE, AN APPROVED TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO BEGINNING WORK.
2. THE GROUND CROSS SECTION AT A LOCATION BEFORE CONSTRUCTION DETERMINES WHETHER TRAFFIC CONTROL DEVICES ARE NEEDED AT THE SAME LOCATION DURING CONSTRUCTION.
3. GUARDRAIL EXISTING AT A LOCATION BEFORE CONSTRUCTION SHALL REMAIN IN PLACE DURING CONSTRUCTION OR APPROVED ALTERNATE DEVICES INSTALLED.
4. INSTALL TRAFFIC CONTROL DEVICES BETWEEN THE EDGE OF TRAVELLED WAY AND THE WORK AREA ON ANY ROADWAY OPENED TO TRAFFIC WHEN REQUIRED BY THIS DRAWING.
5. EXISTING ROADWAY ALIGNMENTS

   INSTALL TRAFFIC CONTROL DEVICES WHEN WORK OCCURS IN THE DEVICES REQUIRED AREAS SHOWN ON THIS DRAWING.
6. DETOURS, TEMPORARY ROADWAYS, OR NEW ROADWAYS NOT YET COMPLETE.

   INSTALL TRAFFIC CONTROL DEVICES WHEN ANY OF THE FOLLOWING CONDITIONS EXIST:

   A. THE HORIZONTAL OR VERTICAL CURVATURE IS MORE SEVERE THAN BEFORE CONSTRUCTION BEGAN.

   B. THE ROADWAY OR SHOULDER WIDTH IS LESS THAN BEFORE CONSTRUCTION BEGAN.

   C. THE BACKSLOPE OR FORESLOPE IS STEEPER THAN BEFORE CONSTRUCTION BEGAN.

   D. THE HEIGHT OF THE FORESLOPE IS GREATER THAN BEFORE CONSTRUCTION BEGAN.
7. DROPOFFS

   INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL AND TABLE 1.
8. ON ANY NEWLY CONSTRUCTED SLOPE STEEPER THAN 1:4 TO 1:3 PROVIDE A 3 METER FLAT RECOVERY AREA AT THE TOE OF SLOPE OR INSTALL TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE FORESLOPE SECTION DETAIL.
9. TRAFFIC CONTROL DEVICE REQUIREMENTS

   A. ON ROADWAYS WITH A SPEED LIMIT GREATER THAN 64 KILOMETERS PER HOUR OR AVERAGE DAILY TRAFFIC VOLUME GREATER THAN 4000 VEHICLES PER DAY INSTALL TEMPORARY PORTABLE CONCRETE BARRIER, TEMPORARY GUARDRAIL OR ON MULTI-LANE ROADWAYS CLOSE THE LANE CLOSEST TO THE WORK AREA AND INSTALL DRUMS SPACED IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.

      TERMINATE RUNS OF TEMPORARY PORTABLE CONCRETE BARRIER USING ONE OF THE FOLLOWING THREE METHODS:

      I.) TEMPORARY CRASH ATTENUATOR.

      II.) RIGID TO SEMI-RIGID GUARDRAIL TRANSITION WITH SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.

      III.) FLARE THE ENDS OF THE TEMPORARY BARRIER AWAY FROM THE ROADWAY AT A RATE OF 1:15 ON A TRANSVERSE SLOPE OF 1:10 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE AND INSTALL A SLOPING END TREATMENT, PER STANDARD DRAWING G-45.01[M].

      TERMINATE RUNS OF TEMPORARY GUARDRAIL USING EITHER OF THE FOLLOWING TWO METHODS:

      I.) SLOTTED RAIL TERMINAL OR OTHER APPROVED CRASHWORTHY END TREATMENT.

      II.) FLARE THE ENDS OF THE TEMPORARY GUARDRAIL AWAY FROM THE ROADWAY AT A RATE OF 1:15 ON A TRANSVERSE SLOPE OF 1:10 OR FLATTER TO THE OUTSIDE EDGE OF THE CLEAR ZONE.

   B. ON ALL OTHER ROADWAYS INSTALL TYPE II BARRICADES OR DRUMS WHEN DEVICES ARE REQUIRED. SPACE THE BARRICADES OR DRUMS IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL.

RECORD OF REVISIONS		
BY:	DATE:	DESCRIPTION OF CHANGE:

PATH: [PlotStamp Eval] Q: \Jnu\67623\Dr\mtcdvice.dwg Mon, 20/Dec/99 11:44am
PLOT: FULL=1 or HALF=2

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
TRAFFIC CONTROL DEVICES

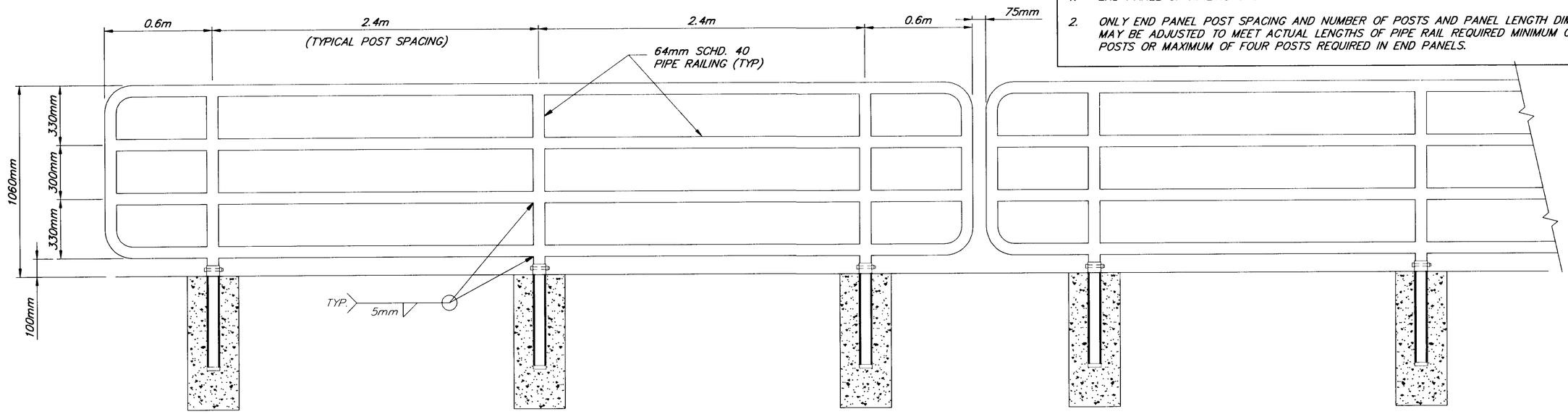
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

DESIGNED BY: M. LUKSHIN	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: R. PURVES	SHEET 36 OF 44

STATE OF ALASKA 49th
Michael Lukshin CE-8737
REGISTERED PROFESSIONAL ENGINEER

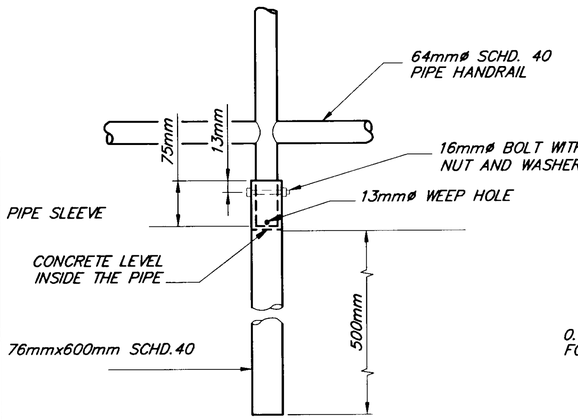
NOTES:

1. END PANEL OF RAILING SHOWN. INTERIOR SAME SIZE AND SAME DETAILS.
2. ONLY END PANEL POST SPACING AND NUMBER OF POSTS AND PANEL LENGTH DIMENSIONS MAY BE ADJUSTED TO MEET ACTUAL LENGTHS OF PIPE RAIL REQUIRED MINIMUM OF TWO POSTS OR MAXIMUM OF FOUR POSTS REQUIRED IN END PANELS.



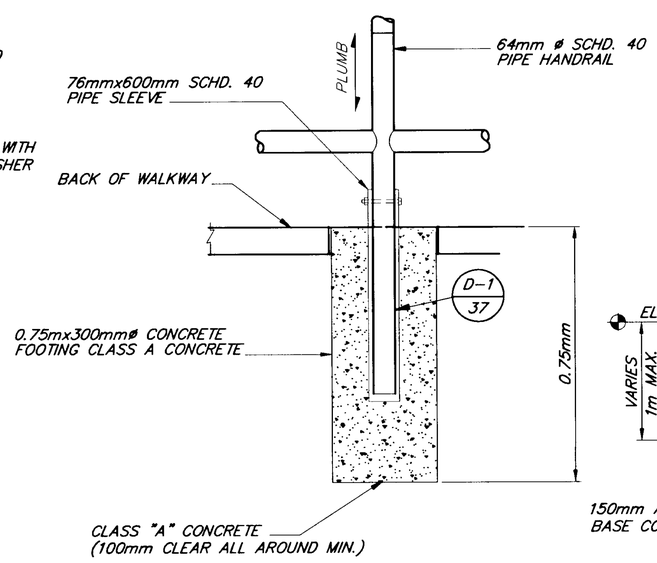
PEDESTRIAN BARRIER DETAILS

NO SCALE



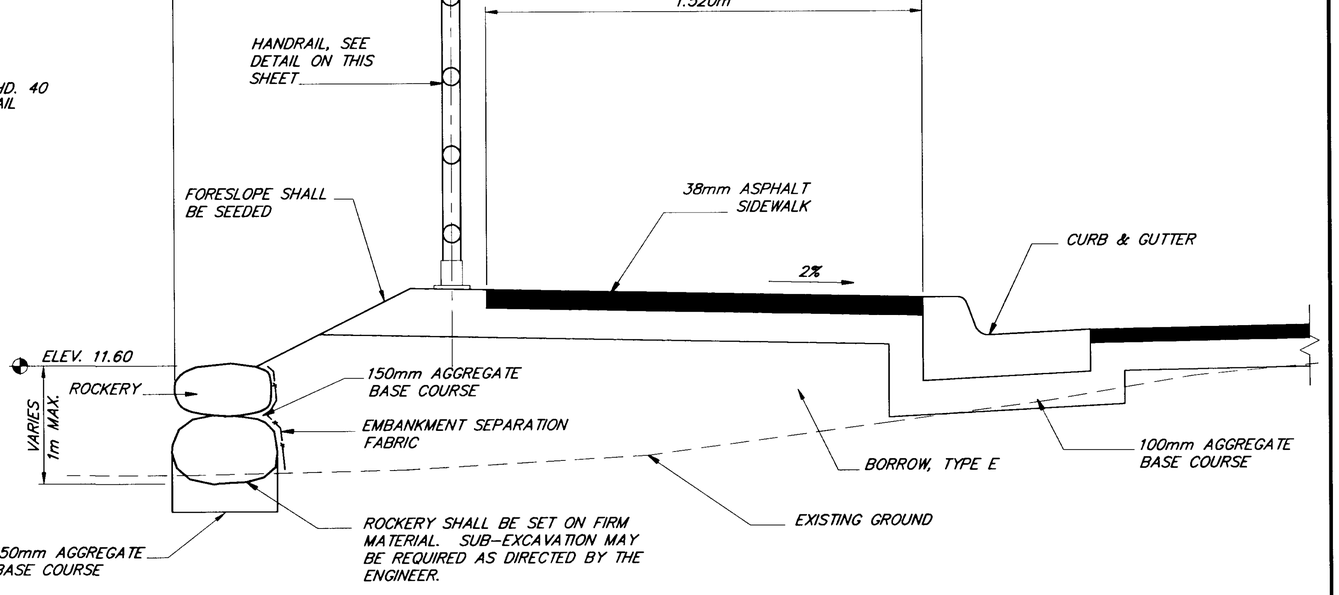
PIPE SLEEVE DETAIL (1)

NO SCALE



SECTION (A)

NO SCALE



ROCKERY DETAIL

STA. "SH" 1+127.15 TO STA. "SH" 1+145.30

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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PLOT: FULL=1 or HALF=2		
BY:	DATE:	DESCRIPTION OF CHANGE:

RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

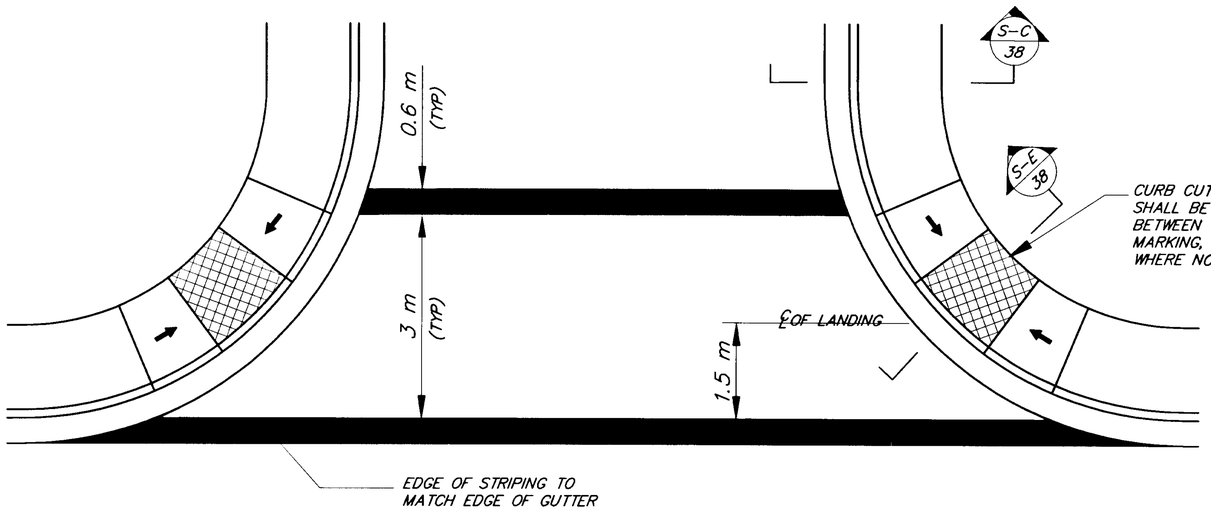
JUNEAU ALASKA

MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623

PEDESTRIAN BARRIER DETAIL

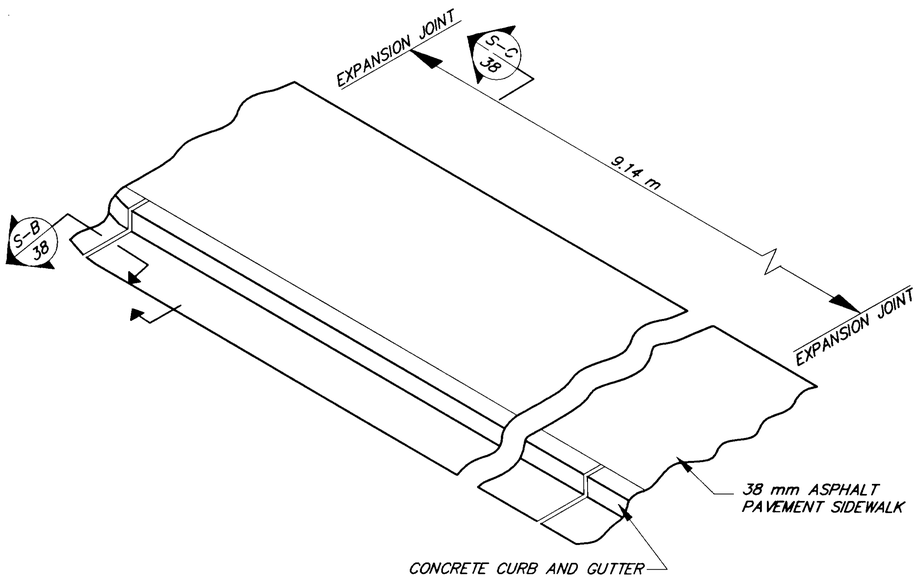
DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 37 OF 44

STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



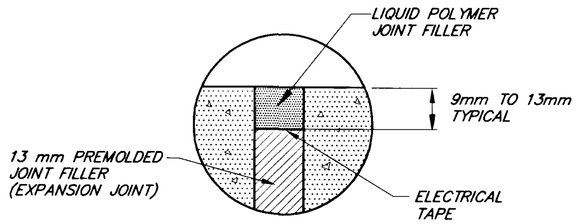
PARALLEL CURB RAMP

CORNER LOCATION



TYPICAL SIDEWALK, CURB & GUTTER JOINT DETAIL

N.T.S.



SECTION B
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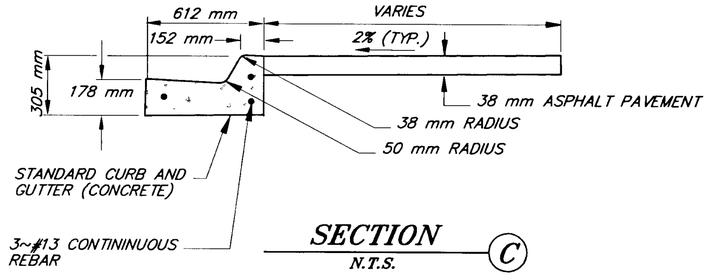
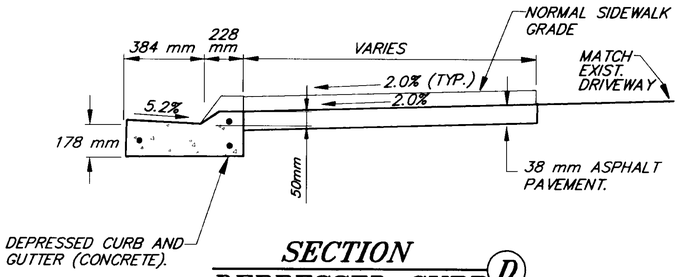
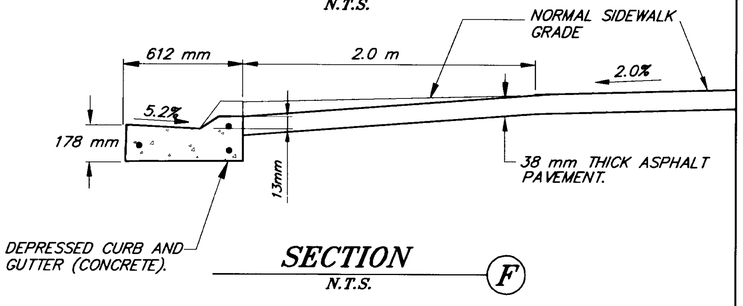


SECTION C
N.T.S.



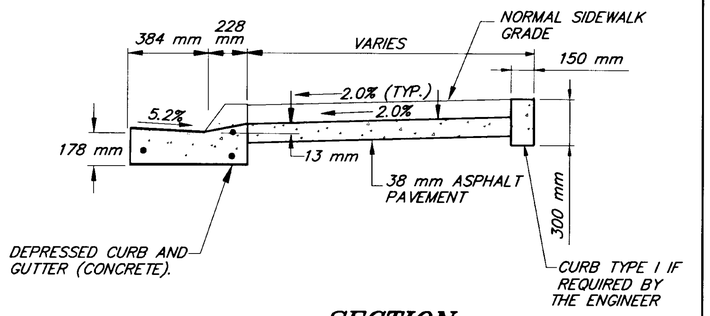
SECTION D
DEPRESSED CURB
N.T.S.



SECTION F
N.T.S.

SIDEWALK, CURB AND GUTTER NOTES

1. CURB AND GUTTER EXPANSION JOINTS SHALL BE AT EACH END OF THE CURB RETURNS AND IMMEDIATELY PRECEEDING AND FOLLOWING ALL CURB CUTS. THEREAFTER, THEY SHALL BE PLACED AT 9.14 m MAXIMUM.
2. CURB CUTS FOR RESIDENTIAL DRIVEWAYS AND CURB RETURNS SHALL NOT EXCEED THE MAXIMUM ALLOWABLE SLOPE OF 12:1.
3. ALL CURB RETURNS SHALL BE WHEELCHAIR ACCESSIBLE AS SHOWN ON THE SIDEWALK DETAIL SHEETS.
4. IF EXISTING JOINT IS WITHIN 610mm OF RECONSTRUCTION AREAS, REMOVE AT JOINT INSTEAD OF SAWCUTTING. THIS DOES NOT APPLY TO NEW CONSTRUCTION.
5. LANDINGS SHALL BE CONTAINED WITHIN THE MARKED CROSSWALK.
6. SEE CURB CUT SUMMARY ON SHEET 7 FOR STATION AND OFFSET.



SECTION E
DEPRESSED CURB
N.T.S.

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RECORD OF REVISIONS

STATE OF ALASKA
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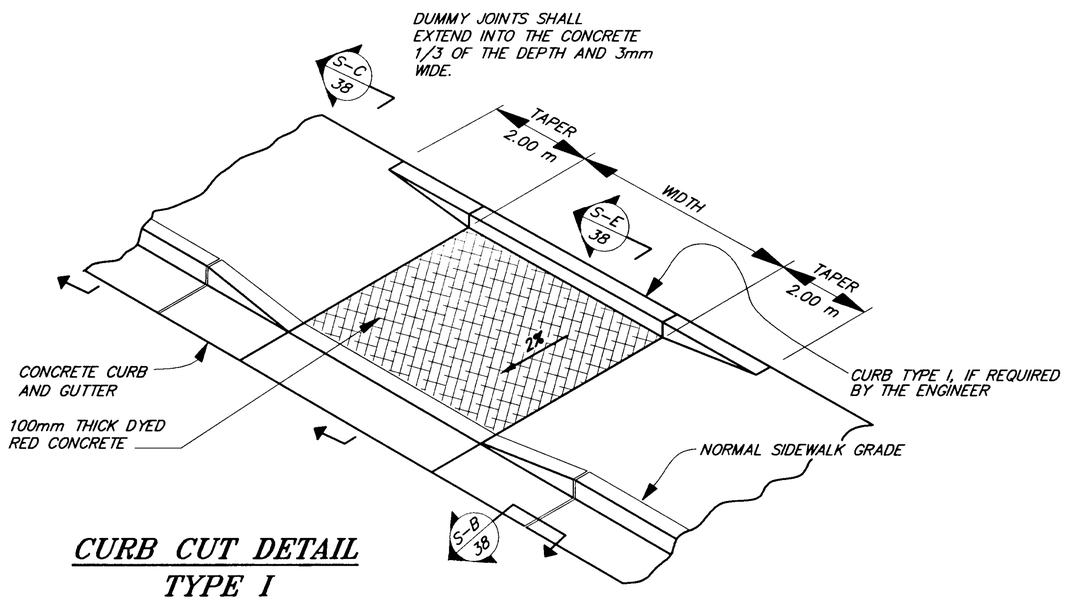
SOUTHEAST REGION

JUNEAU ALASKA
JNU–MENDENHALL LOOP ROAD/ STEPHEN RICHARDS DRIVE/HALOFF WAY RECONSTRUCTION & SIGNALIZATION
FED NO. HRO–003(58) ~ PROJECT NO. 67623

SIDEWALK DETAILS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 38 OF 44

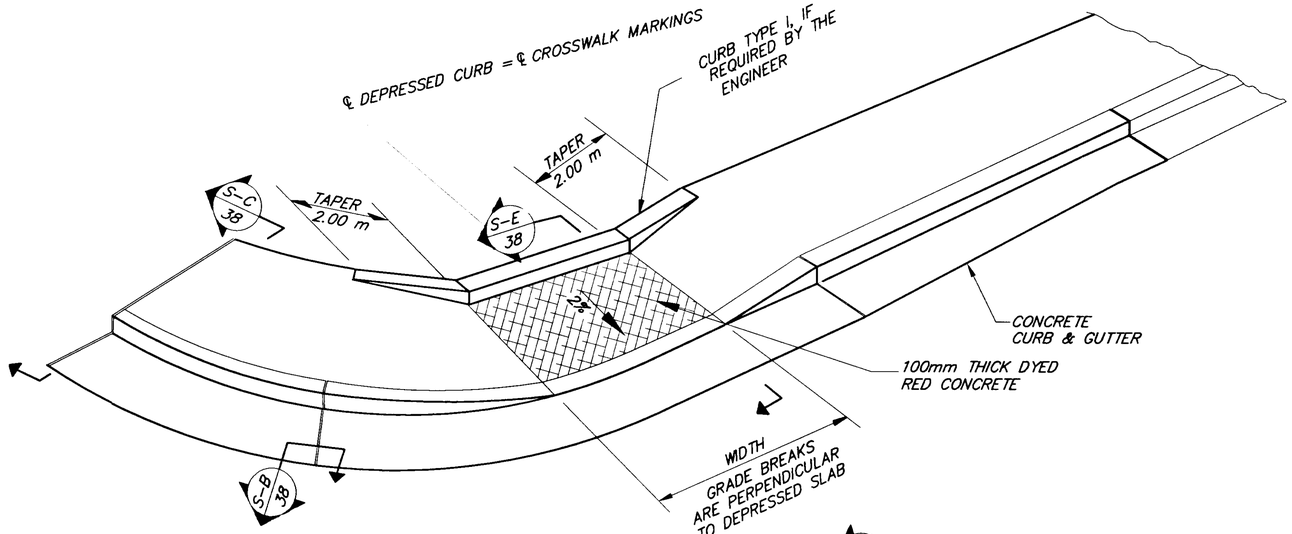
STATE OF ALASKA
49th
David D. Saldivar
CE–8307
REGISTERED PROFESSIONAL ENGINEER



CURB CUT DETAIL TYPE I

(A PERPENDICULAR CURB RAMP)

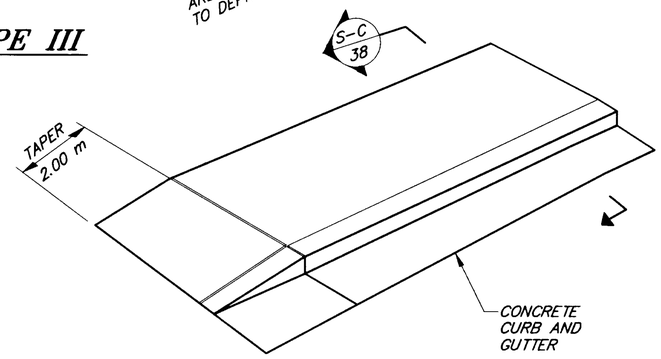
N.T.S.



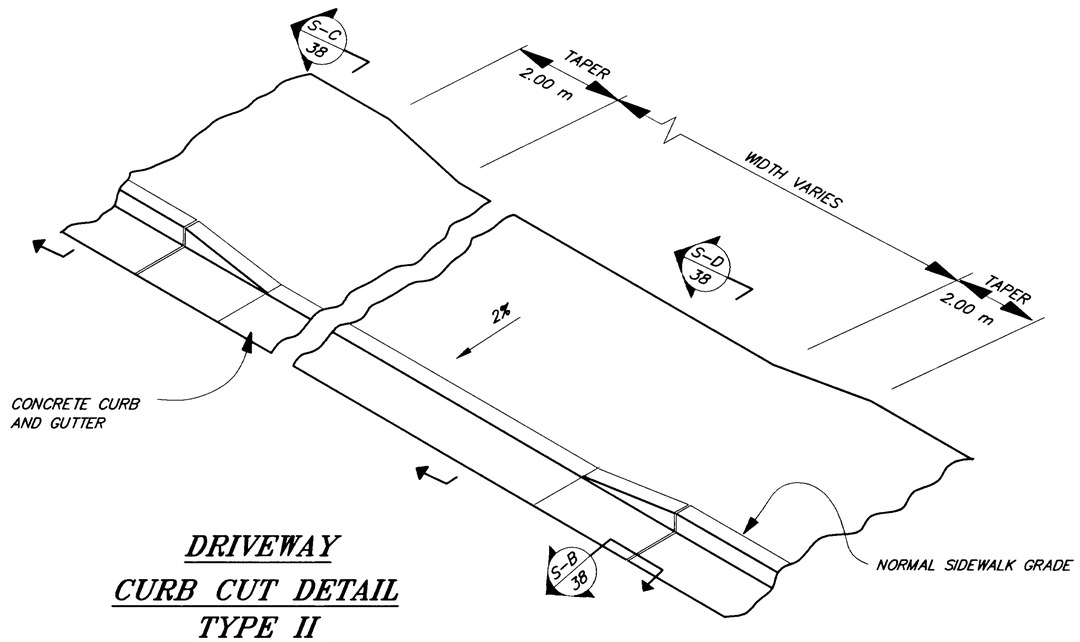
CURB CUT – TYPE III

(PARALLEL CURB RAMP)

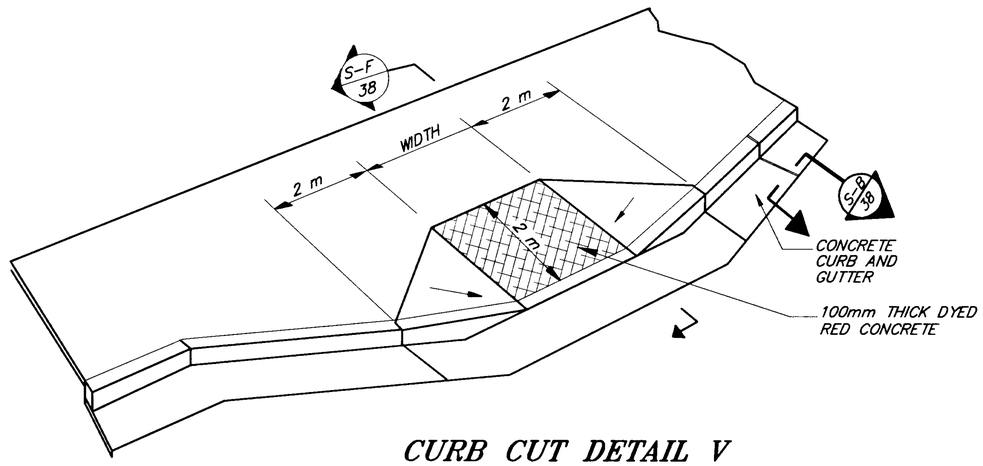
NOTE:
CURB CUT SUMMARIES IS ON SHEET 7.



CURB CUT DETAIL TYPE IV



DRIVEWAY CURB CUT DETAIL TYPE II



CURB CUT DETAIL V

NOTE: DO NOT SCALE FROM THESE PLANS–USE DIMENSIONS

ENGINEER'S SEAL

STATE OF ALASKA
David D. Saldivar
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PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-Mdet1.dwg Mon, 20/Dec/99 01:10pm
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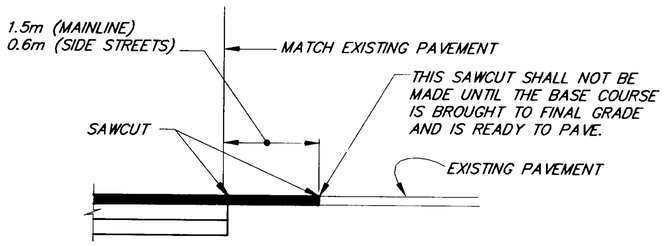
RECORD OF REVISIONS

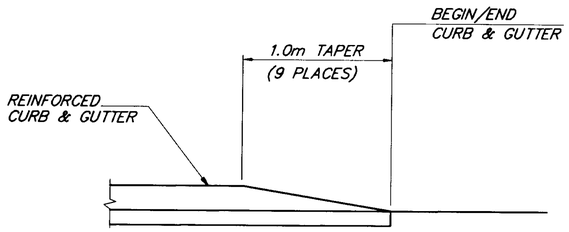
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
JNU– MENDENHALL LOOP ROAD/STEPHEN RICHARDS DRIVE/ HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-003(53) ~ PROJECT NO. 67623
SIDEWALK DETAILS

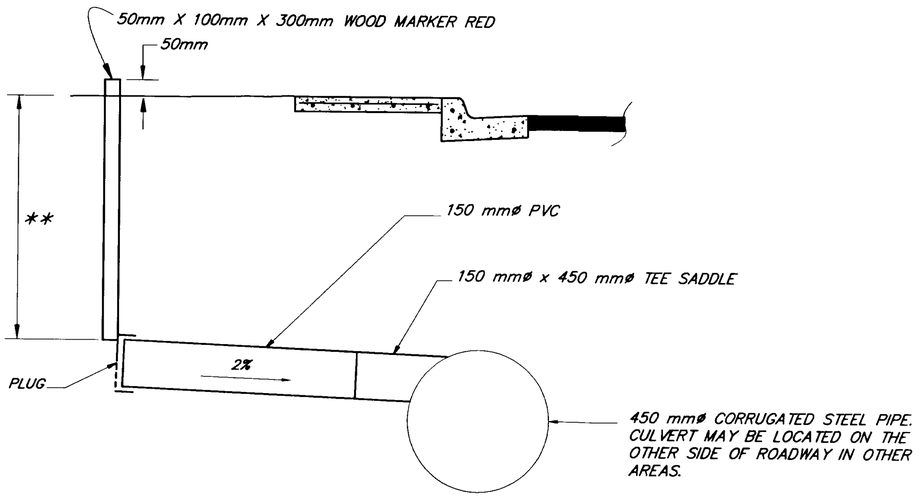
DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: K. KLEMMETSON	DATE: 1999
CHECKED BY: C. MORROW	SHEET 39 OF 44



PAVEMENT JOINT DETAIL

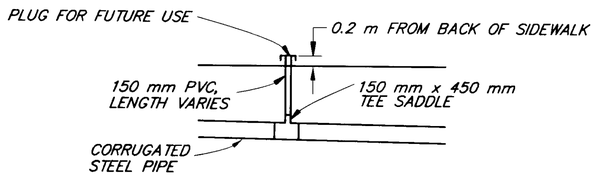


CURB AND GUTTER END TREATMENT

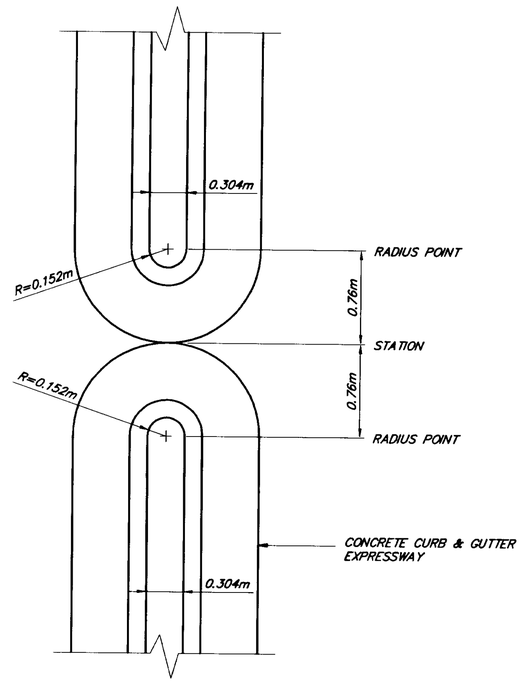


ROOF DRAIN STUBOUT PROFILE DETAIL

** STUBOUT SHALL BE INSTALLED AS DEEP AS POSSIBLE AND STILL PROVIDE A 2% GRADE.



ROOF DRAIN STUBOUT PLAN DETAIL



CURB OPENING DETAIL

STATION "0" 2+411.260
STATION "0" 2+445.000
STATION "0" 2+538.740

RECORD OF REVISIONS		
BY:	DATE:	DESCRIPTION OF CHANGE:
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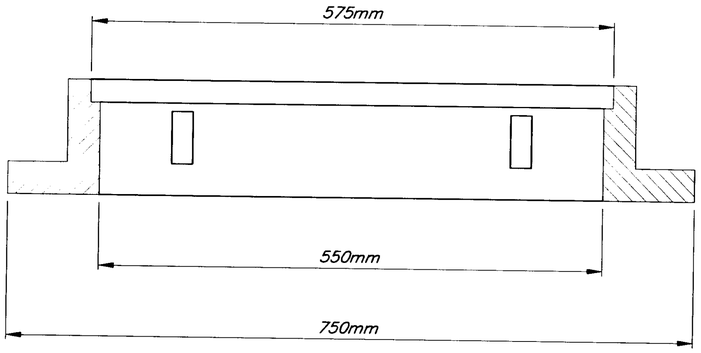
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU — ALASKA
JNU-MENDENHALL LOOP ROAD/ STEPHEN RICHARDS DRIVE/ HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-003(53) ~ PROJECT No. 67623
MISCELLANEOUS DETAILS

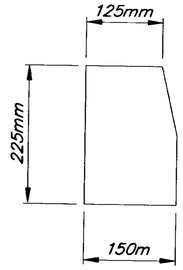
NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: K. KLEMMETSON	DATE: 1999
CHECKED BY: C. MORROW	SHEET 40 OF 44

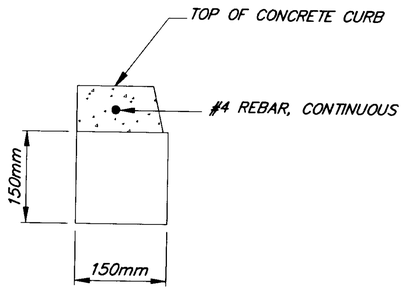
STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



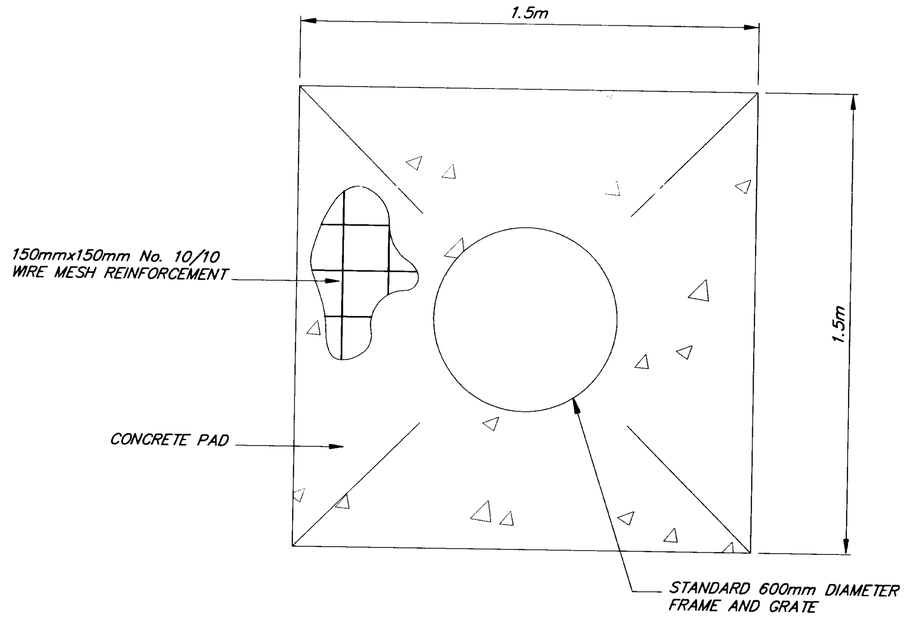
FRONT VIEW



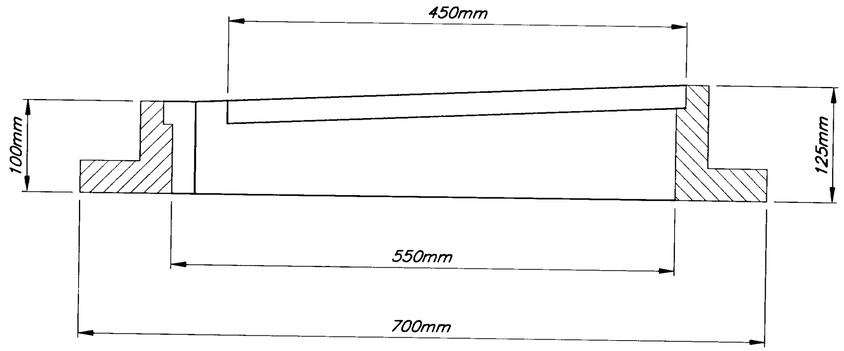
TYPE A HOOD



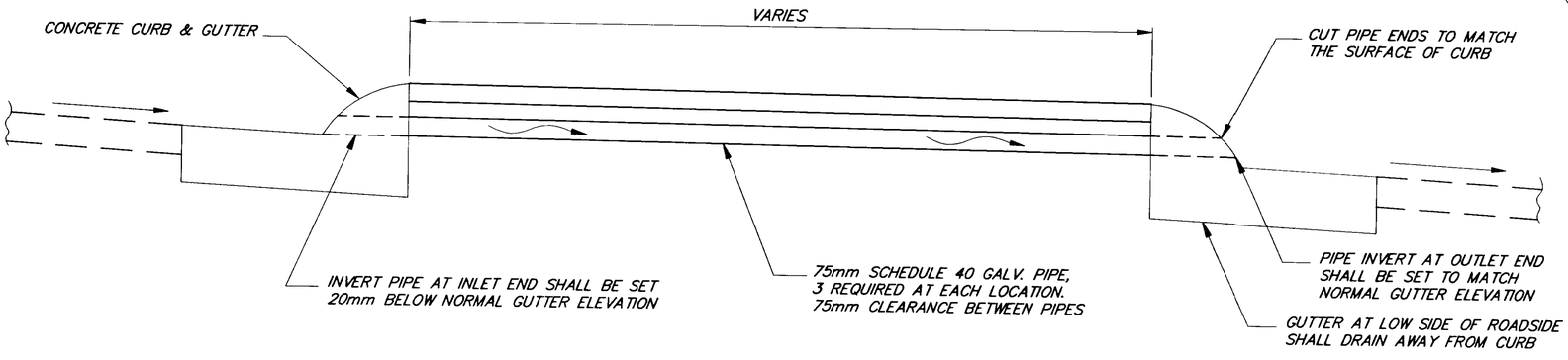
TYPE B HOOD



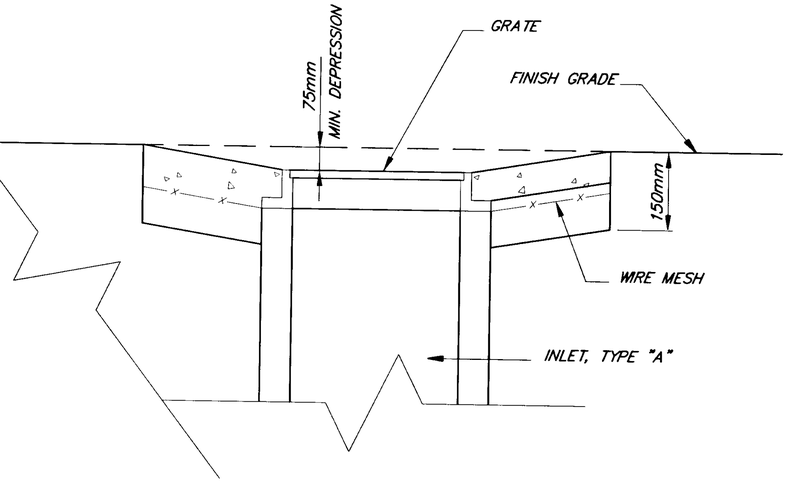
PLAN VIEW



SIDE VIEW



CURB DRAIN PIPE



ELEVATION VIEW

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RECORD OF REVISIONS

STATE OF ALASKA
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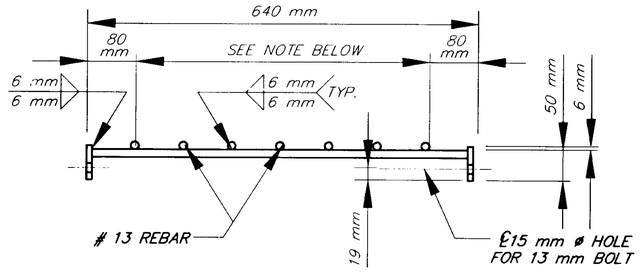
SOUTHEAST REGION

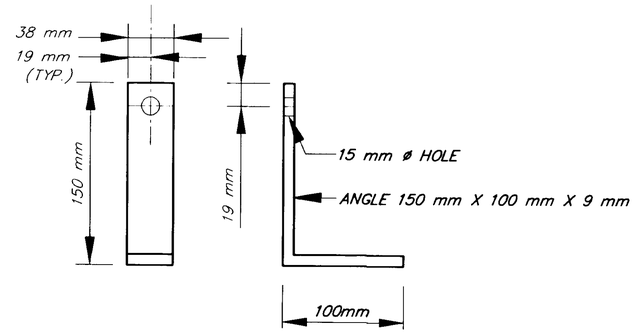
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
MISCELLANEOUS DETAILS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 41 OF 44

STATE OF ALASKA
A9111
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



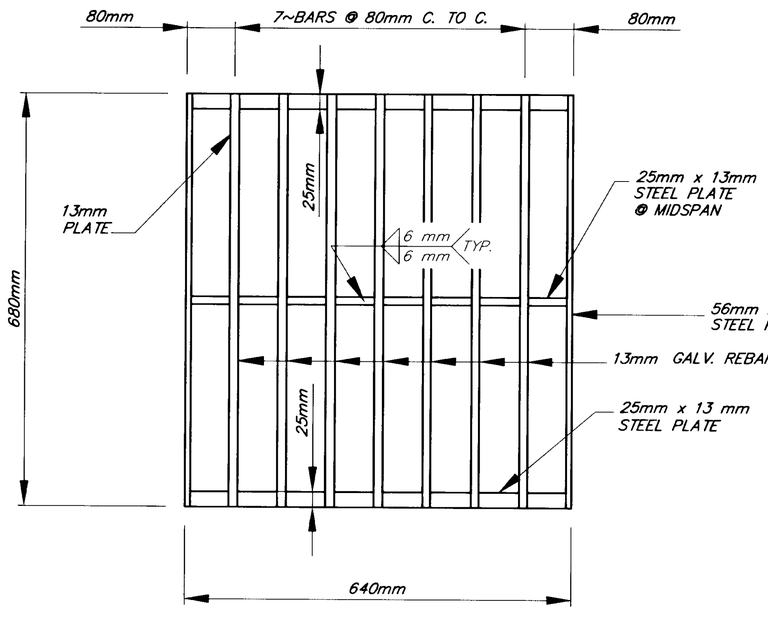
ELEVATION



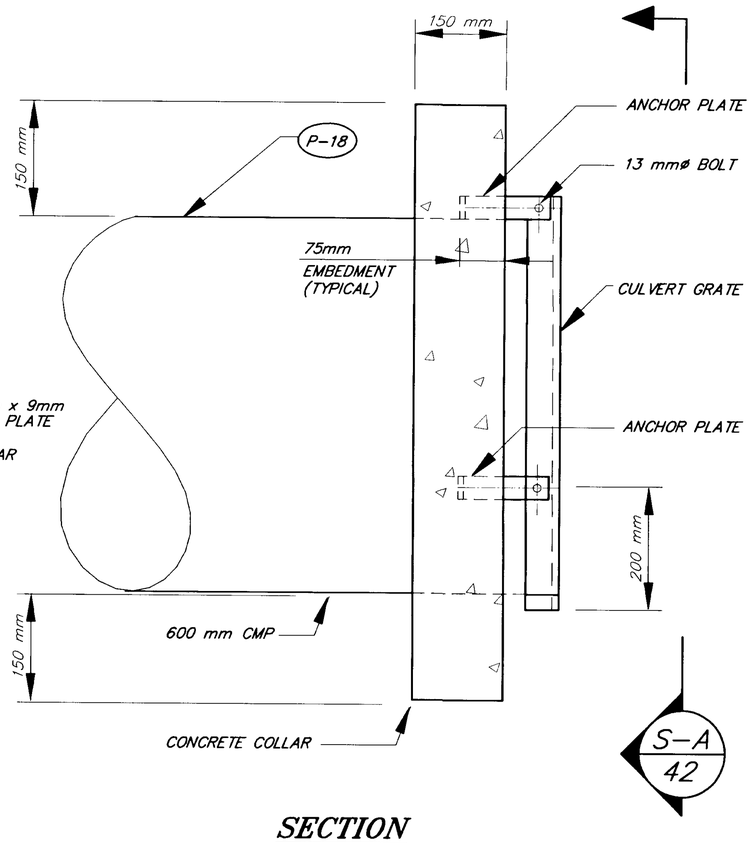
ANCHOR PLATE

NOTES

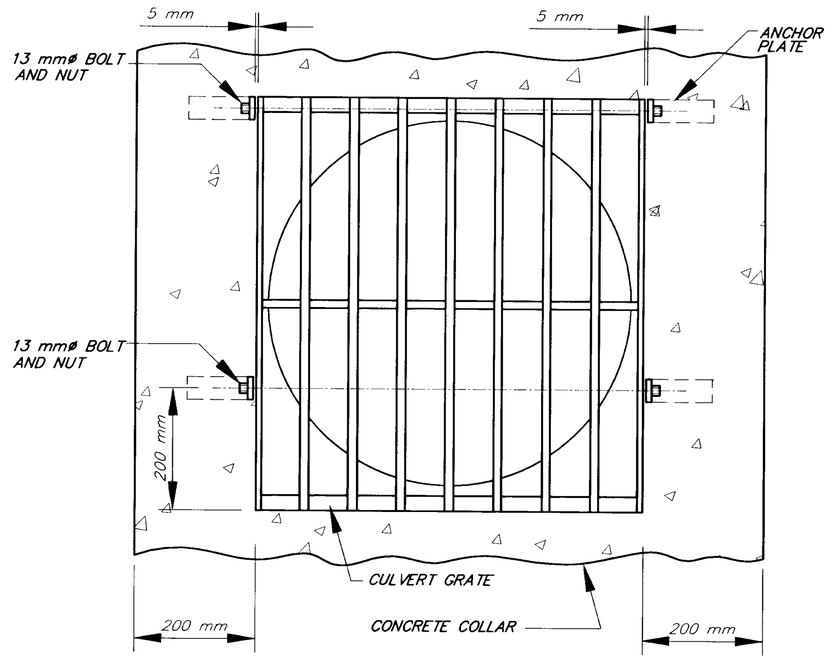
1. CULVERT GRATE AND ANCHOR PLATE SHALL BE A-36 STEEL AND GALVANIZED AFTER FABRICATION
2. BOLTS AND NUTS SHALL BE A325 AND GALVANIZED.
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.



PLAN
CULVERT GRATE



SECTION
CULVERT GRATE



SECTION 4

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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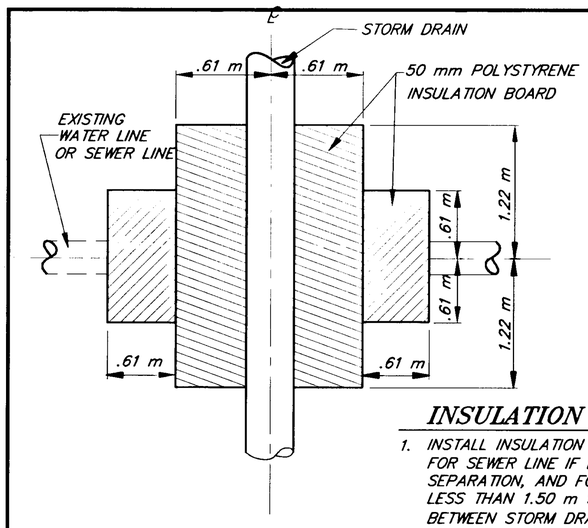
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
CULVERT GRATE DETAILS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: K. KLEMMETSON	DATE: 1999
CHECKED BY: C. MORROW	SHEET 42 OF 44

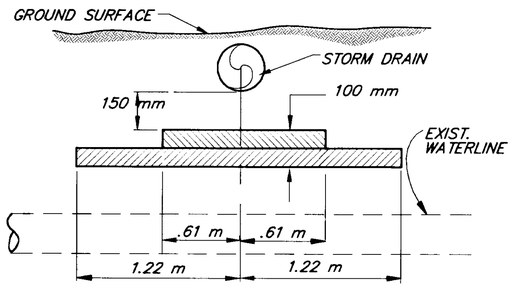
STATE OF ALASKA
49TH
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



PLAN
N.T.S.

INSULATION NOTES:

1. INSTALL INSULATION AS SHOWN, FOR SEWER LINE IF LESS THAN 1.15 m SEPARATION, AND FOR WATER LINE IF LESS THAN 1.50 m SEPARATION, BETWEEN STORM DRAIN AND LINE.
2. WRAP AROUND INSULATION WITH R-FACTOR EQUAL TO 100 mm RIGID BOARD MAY BE SUBSTITUTED IF APPROVED BY THE ENGINEER.

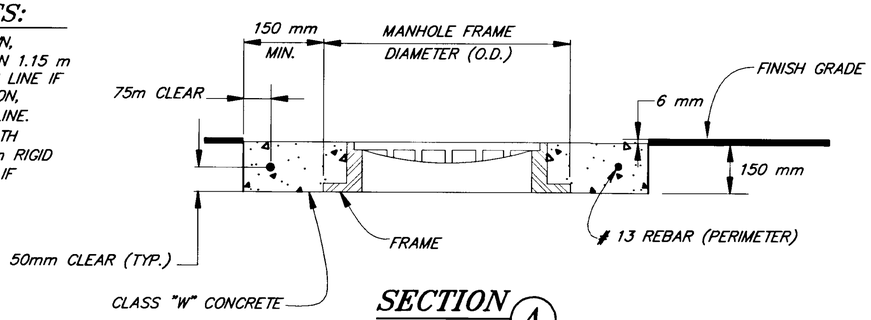


SECTION
N.T.S.

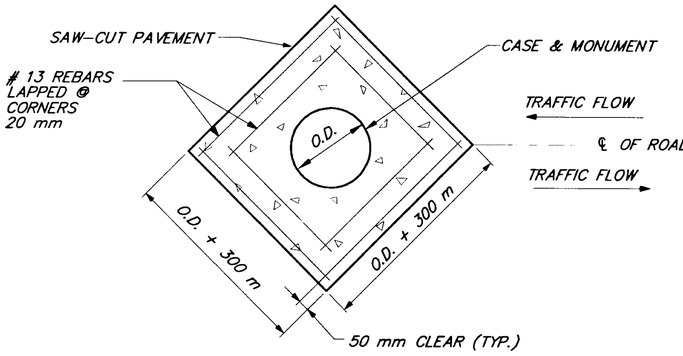
RIGID INSULATION

ADJUSTMENT NOTES:

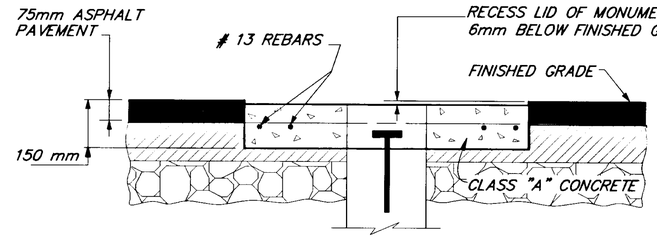
1. MANHOLE ADJUSTMENT SHALL BE MADE WITH GRADE RINGS NOT EXCEEDING 300mm TOTAL HEIGHT BETWEEN BOTTOM OF MANHOLE FRAME AND TOP OF MANHOLE CONE.
2. NEW STEP(S) AS DETAILED IN STD. DRAWINGS D-20.02 SHALL BE INSTALLED ON THE EXISTING MANHOLE IF THE FIRST STEP EXCEED 0.90m FROM THE TOP OF MANHOLE FRAME, FOR MANHOLE RECONSTRUCTION/ADJUSTMENT.
3. ANY RECONSTRUCTED OR ADJUSTED MANHOLES MUST CONFORM TO STANDARD DIMENSIONS.
4. CONCRETE ENCASEMENT IS NOT REQUIRED IF MANHOLE, INLETS OR VALVE BOX IS LOCATED IN THE SIDEWALK.



SECTION (A)

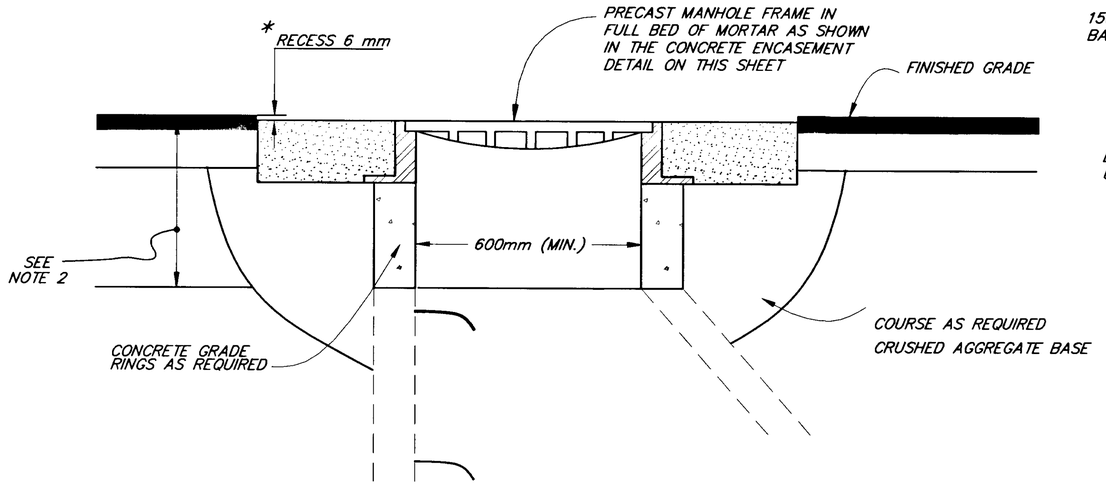


PLAN

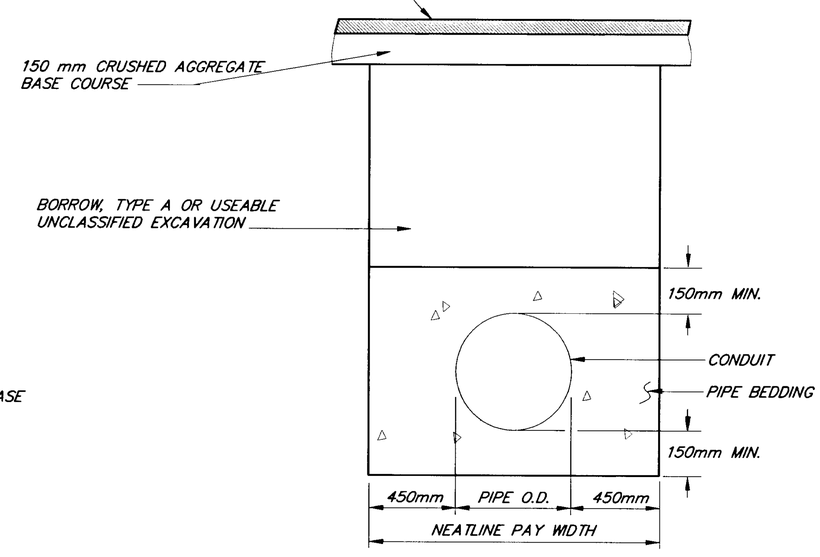


SECTION

MONUMENT ENCASEMENT DETAIL



ADJUST STORM/SEWER MANHOLE (1)



STORM DRAIN BEDDING/BACKFILL DETAIL

N.T.S.

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

PATH: [PlotStamp Eval] Q:\Jnu\67623\Dr\-Msum2.dwg Mon, 20/Dec/99 01:34pm
PLOT: FULL=1 or HALF=2

BY:	DATE:	DESCRIPTION OF CHANGE:

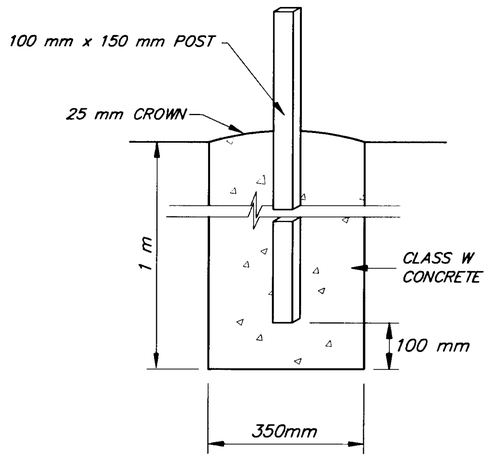
RECORD OF REVISIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES
SOUTHEAST REGION

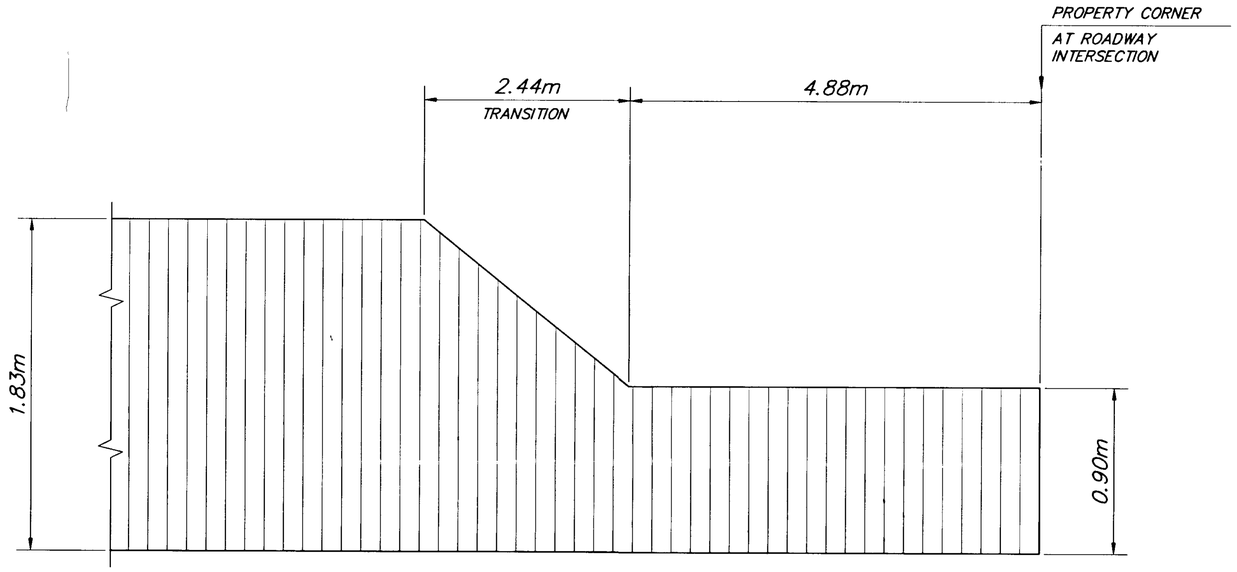
JUNEAU ALASKA
MENDENHALL LOOP ROAD / STEPHEN RICHARDS DRIVE / HALOFF WAY
RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
MISCELLANEOUS DETAILS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: K. KLEMMETSON	DATE: 1999
CHECKED BY: C. MORROW	SHEET 43 OF 44

STATE OF ALASKA
49th
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER



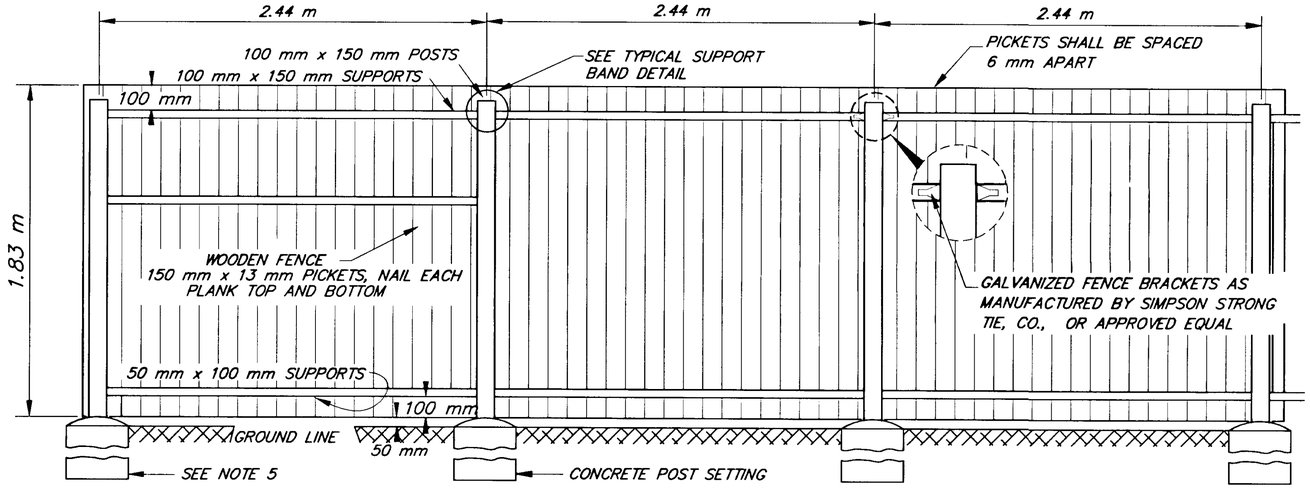
CONCRETE POST SETTING



FENCE HEIGHT TRANSITION AT ROADWAY INTERSECTION

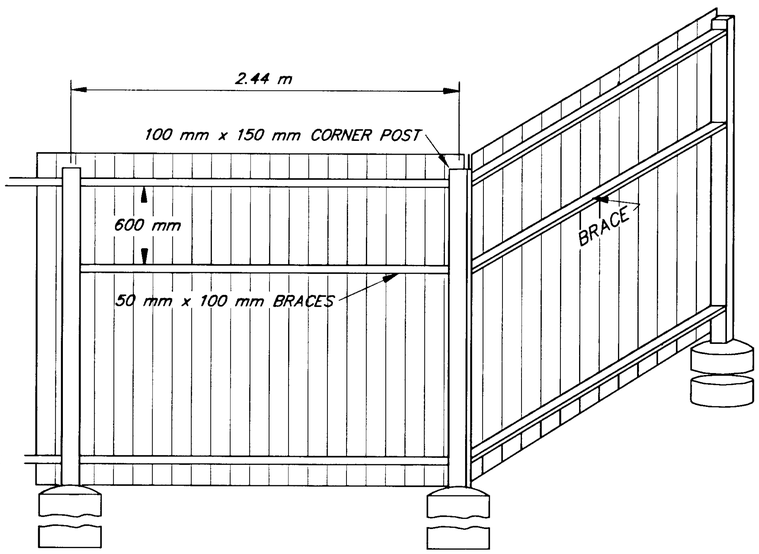
GENERAL NOTES

1. POSTS SHALL BE SPACED EQUAL DISTANCES APART. MAXIMUM SPACING SHALL BE 2.44 m UNLESS DIRECTED OTHERWISE BY THE ENGINEER.
2. SUPPORTS AND BRACES SHALL BE SECURELY FASTENED TO POST WITH TRUSS BANDS.
3. WOOD FENCING SHALL BE PRESSURE TREATED WITH CCA TO 0.4 PCF RETENTION.
4. SURFACES SHALL BE SMOOTH AND UNIFORM IN APPEARANCE.
5. LINE POST SHALL BE SET IN CONCRETE UNLESS SHOWN OTHERWISE ON THE PLANS.
6. DETAILS SHOWN ARE TO INDICATE GENERAL DESIGN ONLY. DIMENSIONS MAY VARY SLIGHTLY.
7. GATE PRODUCT SHALL BE OF THE SAME DESIGN AND HEIGHT OF LINE FENCE PRODUCT.
8. LATCHES SHALL OPERATE FROM BOTH SIDES. THE GATE SHALL AUTOMATICALLY SWING SHUT AND LATCH.
9. CONCRETE FOOTINGS SHALL BE CLASS W CONCRETE.
10. CONCRETE FOOTINGS SHALL BE OF THE SAME DEPTH AS END POSTS FOR GATE POSTS.
11. GATE FRAME, HINGES, LATCHES AND OTHER GATE APPURTENANCES SHALL BE HOT DIPPED GALVANIZED AND OF SUFFICIENT STRENGTH.
12. FENCE HEIGHT SHALL BE STEP-DOWN TO 0.90m AT THE INTERSECTION AS DETAILED.



TYPICAL BRACE POST

TYPICAL FENCE SECTION



TYPICAL CORNER OR TERMINAL POST

NOTE: DO NOT SCALE FROM THESE PLANS-USE DIMENSIONS

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BY:	DATE:	DESCRIPTION OF CHANGE:

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STATE OF ALASKA
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RECONSTRUCTION & SIGNALIZATION
FED. NO. HRO-0003(58) ~ PROJECT NO. 67623
FENCE DETAILS

DESIGNED BY: D. SALDIVAR	PROJECT NO. 67623
DRAWN BY: B. BENNETT	DATE: 1999
CHECKED BY: C. MORROW	SHEET 44 OF 44

STATE OF ALASKA
David D. Saldivar
CE-8307
REGISTERED PROFESSIONAL ENGINEER