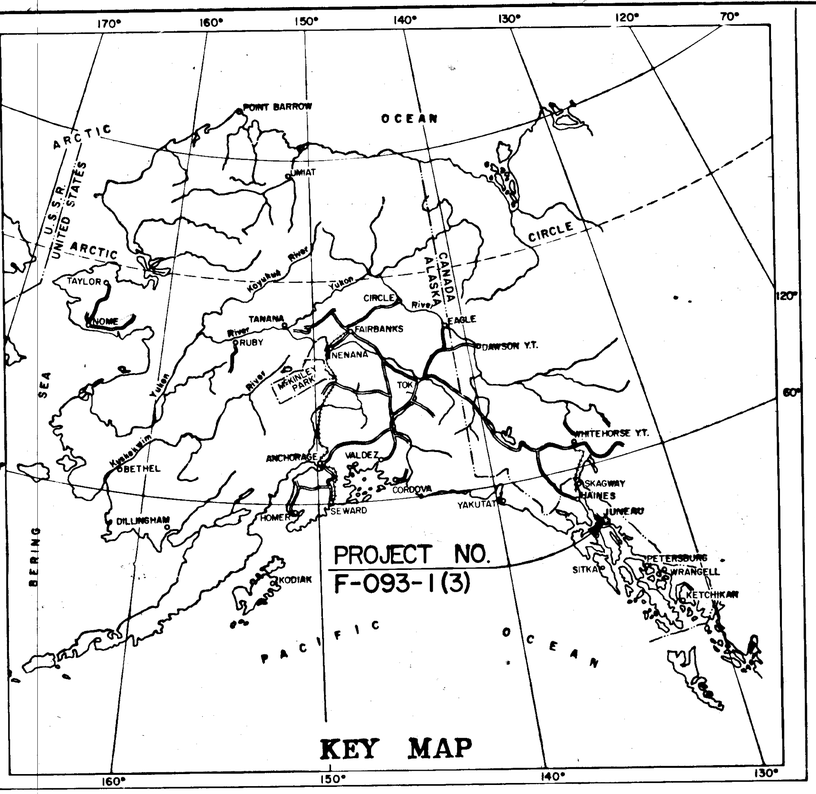
STATE	ROUTE DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530	1971	1	

STATE OF ALASKA
DEPARTMENT OF HIGHWAYS

PLAN AND PROFILE
~~PROPOSED~~ HIGHWAY PROJECT
AS BUILT

F-093-1(3)
JUNEAU OUTER DRIVE PHASE II
X-31530
WHITTIER STREET
GRADING, DRAINAGE, BRIDGE
ILLUMINATION, SIGNALIZATION
& PAVING

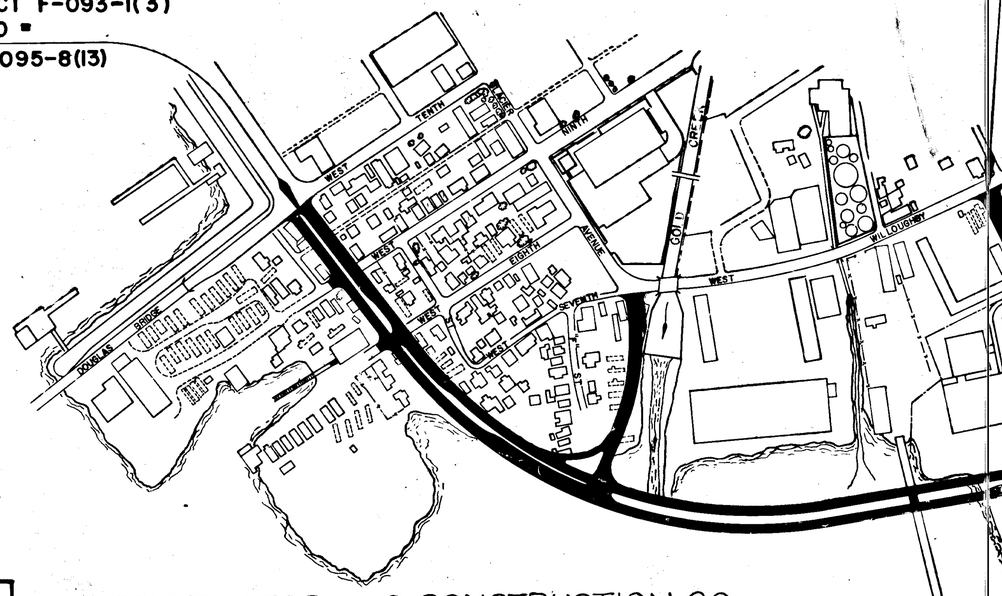


BEGINNING OF PROJECT F-093-1(3)
STA. "L" 43+14.20 =
END OF PROJECT F-095-8(13)
STA. "L" 43+14.20

DESIGN	DESIGNATION
ADT (1971) =	11060
ADT (1995) =	22650
DHV (12%) =	2720
D =	45-55
T =	5%
V =	35,25 MPH

PROJECT SUMMARY

WIDTH of ROADBED	=	VARIES 70' to 37'
WIDTH of PAVEMENT	=	VARIES DUAL 25' to 34'
LENGTH of GRADING	=	3,416.69' = 0.647 mi.
LENGTH of PAVING	=	3,416.69' = 0.647 mi.
LENGTH of BRIDGE	=	120.06 = 0.023 mi.
LENGTH of PROJECT	=	~~3,536.75'~~ 3,537.62 = 0.670 mi.



CONTRACTOR: A+G CONSTRUCTION CO.
ENGINEER: VERN V. HIRSCH, P.E.
CONSTRUCTED: SEPTEMBER 1971 TO
DECEMBER 1973

END OF PROJECT NO. X-31530
STA. "C" 17+63.11



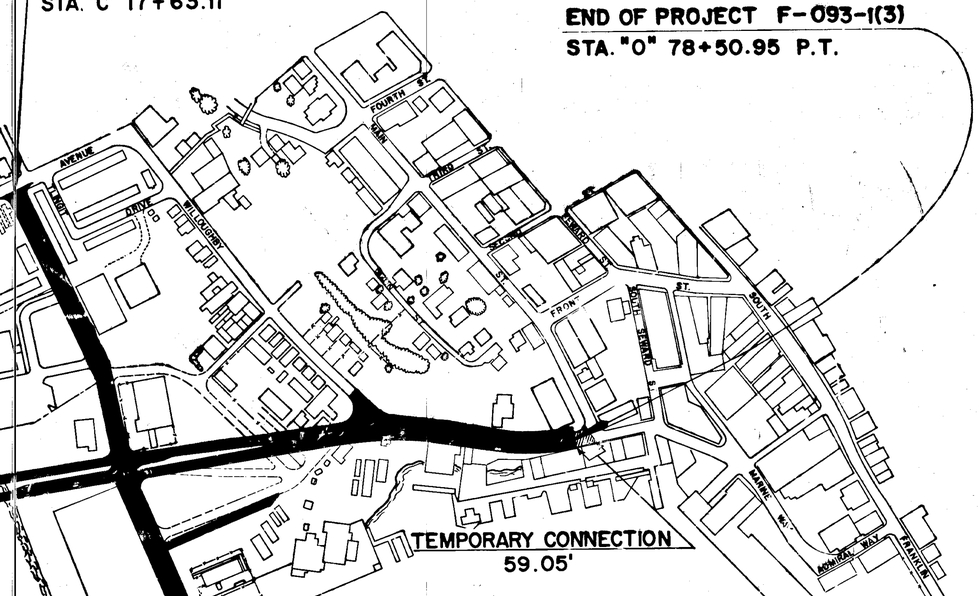
Sheet 32 is 11X17
Sheet 35 is 11X17
Sheet 38 is 11X17

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2 4	TYPICAL SECTIONS
5 - 7	ESTIMATE OF QUANTITIES
8 - 10	SUMMARY TABLES
11 - 20	PLAN & PROFILE SHEETS
21 - 22	INTERSECTION
23 - 25	DRAINGE PROFILES
26 - 29	OIL DOCK CROSSING
30 - 32	RETAINING WALL DETAILS
33	UTILITY DETAILS
34	RANGER STATION MODIFICATION
35	MONUMENT SUMMARY
36-49	ILLUMINATION, SIGNING & PAVEMENT MARKINGS
50-52	SIGNALIZATION PLANS
53-72	POWER & TELEPHONE PLANS
73-81	BRIDGE PLANS
S1 - S15	SEWER INTERCEPTOR PLANS

The following standard drawings apply to this project:
A-1, D-1a, D-1b, D-2, D-3, D-4, D-5, D-7, M-1, M-2, R-1, R-5, T-1, T-4, T-7, T-9, T-13, T-15, T-16 (Sheets 1&2), T-18, T-19, T-20, T-30 (Sheets 1 & 2), T-31, T-51, T-52, T-53, T-54, T-70, T-71, T-72, T-80, U

END OF PROJECT F-093-1(3)
STA. "O" 78+50.95 P.T.



TEMPORARY CONNECTION
59.05'

BEGINNING OF PROJECT NO X-31530
STA. "C" 6+08.83

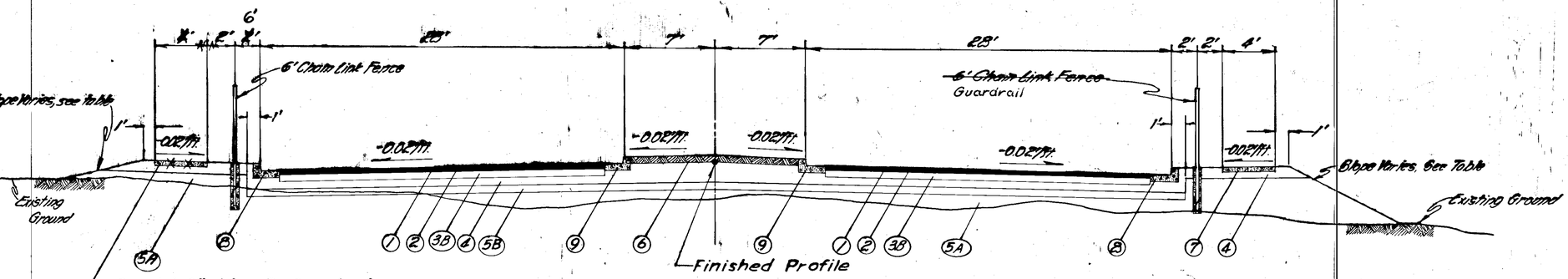
STATE OF ALASKA
DEPARTMENT OF HIGHWAYS

APPROVED:

Warren E. Wild P.E. DATE 6/
SOUTHEASTERN DISTRICT ENGINEER

DATE 6/
COMMISSIONER OF HIGHWAYS

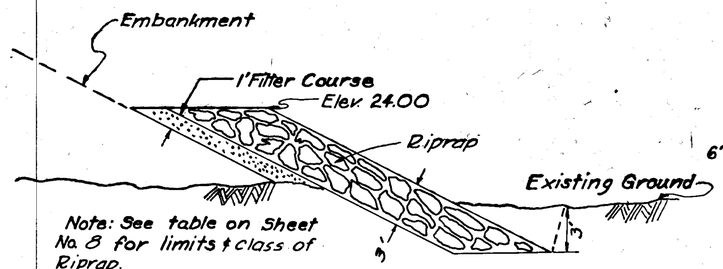
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	2.	97



~~Special 6" sidewalk, See sheets S-2, S-3, & S-11 (Sewer access embankment widening, See sheet S-11)~~ Sidewalk deleted

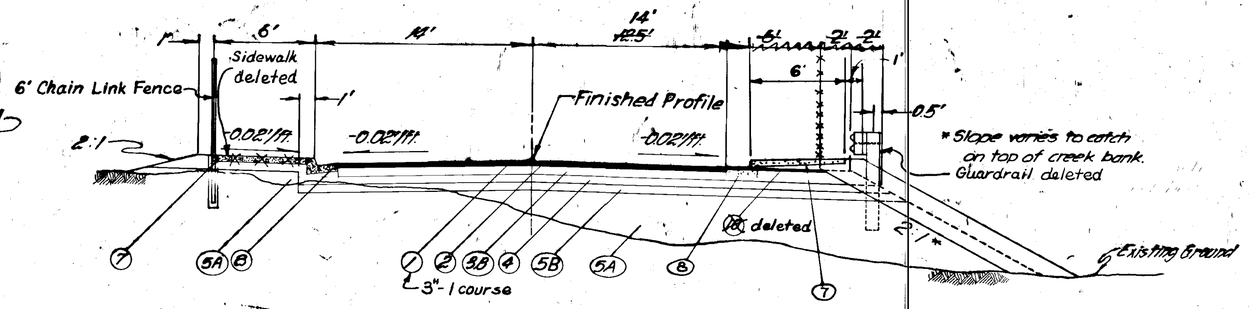
TYPICAL SECTION OF IMPROVEMENT
"L" STA. 43+14.20 To "L" STA. 50+00.00

Note: See table on sheet 3 for slope limits.
See table on sheet 8 for limits of fence.

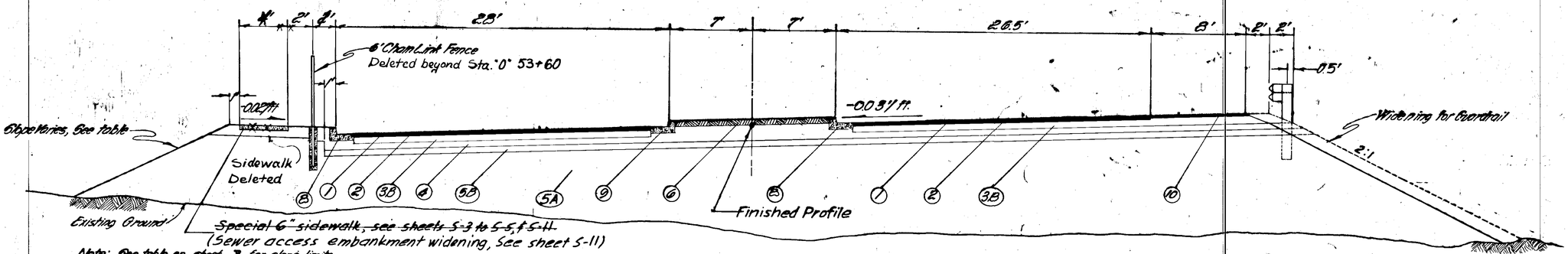


Note: See table on Sheet No. 8 for limits & class of Riprap.

RIPRAP DETAIL



TYPICAL SECTION OF IMPROVEMENT
GLACIER AVENUE ACCESS
"B" STA. 11+00.00 To "B" STA. 15+02.88



~~Special 6" sidewalk, see sheets S-3 to S-5, & S-11~~ (Sewer access embankment widening, See sheet S-11)

Note: See table on sheet 3 for slope limits.
See table on sheet 8 for limits of fence.

Note: See table on sheet 8 for limits of guardrail and riprap.

TYPICAL SECTION OF IMPROVEMENT
"L" STA. 50+00.00 To "0" STA. 61+00.00

TYPICAL SECTIONS AND GENERAL NOTES

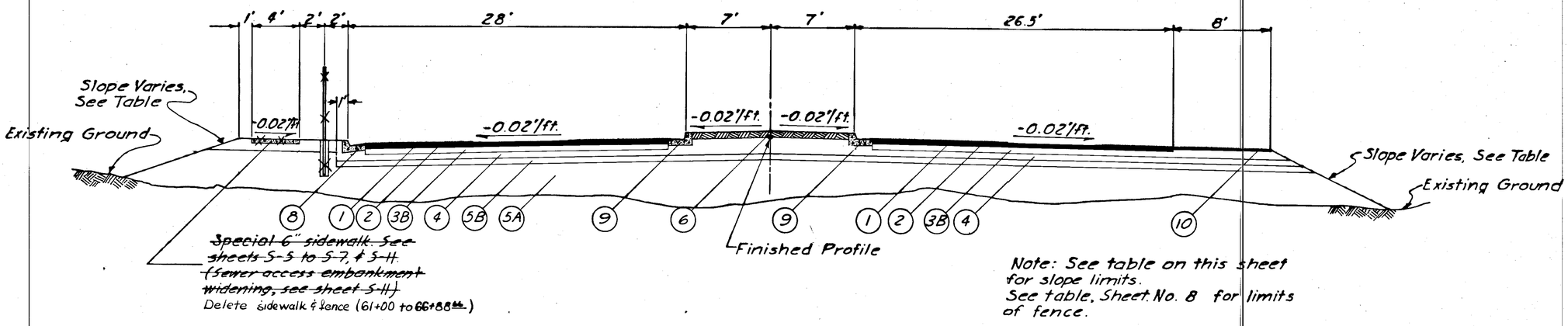
GENERAL NOTES

1. Grades and alignment as shown are subject to minor revisions.
2. Storm inlet locations and culvert pipe lengths and locations are subject to revision.
3. All encroaching buildings, trailers, and utility poles within the right-of-way, with the exception of specified structures, will be removed by others prior to the start of construction.
4. Miscellaneous and minor right-of-way encroachments such as fences and abandoned foundations, shall be removed as directed by the Engineer. All piling within the slope limits shall be cut off flush at ground level.
5. All drainage conduit installed below elevation 180 shall be bituminous coated asbestos bonded galvanized corrugated steel pipe
6. No unclassified excavation on this project is considered suitable for use as topsoil.
7. A butt-type joint shall be used to match new with existing pavement and sidewalk at locations shown on the plans.
8. The following maximum application rates shall be used for Section 618, Seeding Class I:
   - Seed 2.5 lbs. per 1000 s.f.
   - Fertilizer 15 lbs. (max) per 1000 s.f.
   - Ground Limestone 100 lbs (max) per 1000 s.f.
   - Mulch: Deleted
   - ~~Wood Cellulose 30 lbs. per 1000 s.f. fiber~~
   - ~~or~~
   - ~~Dried peat 60 lbs per 1000 s.f.~~
9. Existing water meters within the construction limits will be moved by others.
10. The portion of the Juneau Motors building within the right-of-way left of Sta. "0" 78+00 will be removed by others not later than December 15, 1971. Until then, the contractor shall appropriately schedule operations in this area.

(1) 3"-2 Course hot bituminous concrete pavement
(2) Prime coat – Width varies
(3B) 6" Crushed aggregate base, Grading D-1
(4) 6" Subbase, Grading B
(5A) Useable unclassified excavation and/or borrow
(5B) 6" Minimum selected material
(6) 6" Topsoil and seed
(7) 4" Concrete sidewalk
(8) Curb and gutter type 2A
(9) Curb and gutter type 2B
(10) 1½"-1 course hot bituminous concrete pavement

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-095-1(3)	1971	3	97

TYPICAL SECTIONS



Note: See table on this sheet for slope limits.
See table, Sheet No. 8 for limits of fence.

LABELING INDEX

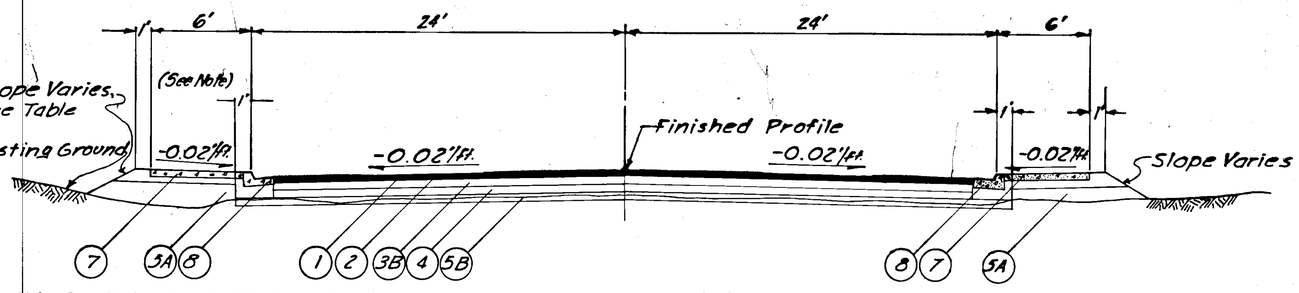
1. 3"-2 Course Hot Bituminous Concrete Pavement
2. Prime Coat - Width Varies
3B. 6" Crushed Aggregate Base, Grading D-1
4. 6" Subbase, Grading B
5A. Useable Unclassified Excavation and/or Borrow
5B. 6" Minimum Selected Material
6. 6" Topsoil and Seed
7. 4" Concrete Sidewalk
8. Curb and Gutter, Type 2A
9. Curb and Gutter, Type 2B
10. 1½" - 1 Course Hot Bituminous Concrete Pavement

TYPICAL SECTION OF IMPROVEMENT

"0" STA. 61+00.00 TO "0" STA. 66+88.66

TRANSITION SECTION

"0" STA. 66+88.66 TO "0" STA. 71+50.00



Note: Substitute sidewalk utility trench for sidewalk section where indicated on sheets 58-60

TYPICAL SECTION OF IMPROVEMENT

"0" STA. 71+50.00 TO "0" STA. 78+50.95

TABLE OF SLOPES

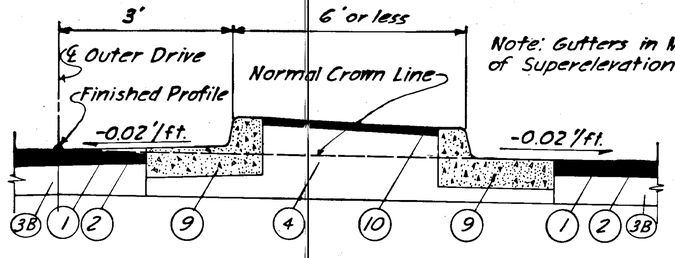
Station	Cut Slope	Fill Slope Left	Fill Slope Right
"L" 43+14.20			
	3:1	4:1	4:1
"L" 49+00			
	3:1	2:1	2:1
"0" 65+00			
	3:1	4:1	4:1
"0" 72+60			
	3:1	2:1	2:1
"0" 73+60			
	3:1	*	2:1
"0" 76+50			
	3:1	4:1	1½:1①
"0" 77+90			
	3:1	4:1	*
"0" 78+50.95			

* Abutting building (existing or future)
① Grade driveway into existing bldg. right of Sta. "0" 77+50

SUPERELEVATION TABLE

Station	Lt. Lane Slope	Rt. Lane Slope
"L" 43+14.20	-2%	-1%
"L" 45+63.11	-2%	-2%
"L" 47+63.11	-3%	+3%
"L" 60+01.29	-3%	+3%
"0" 62+01.29	-2%	-2%
"0" 65+00	-2%	-2%
"0" 66+53	-1%	-2%
"0" 67+35	-1%	-2%
"0" 68+85	-2%	-2%
"0" 70+58.97	-2%	-2%
"0" 72+58.97	+3%	-3%
"0" 74+82.57	+3%	-3%
"0" 76+40.00	-2%	-2%
"0" 78+40.00	-2%	-2%
"0" 79+10.00	0%	0%
"0" 79+10.31	0%	0%

Note: All Superelevations pivot about ℄. Cross slopes transition lineally between successive stations.



Note: Gutters in Median and High Side of Superelevation Slope with Pavement.

Note: All Median areas where width is 6' or less shall receive 1½" Hot Bituminous Pavement over 4" Crushed aggregate Base Course.

NARROW MEDIAN CROWN SECTION

KRUPPEL & KOOEN CO.

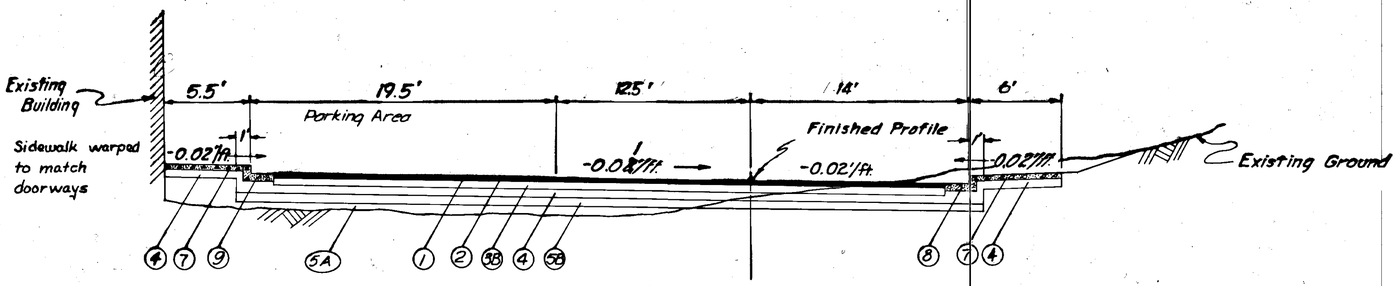
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	X-31530	1971	4	97

WHITTIER STREET
TYPICAL SECTIONS

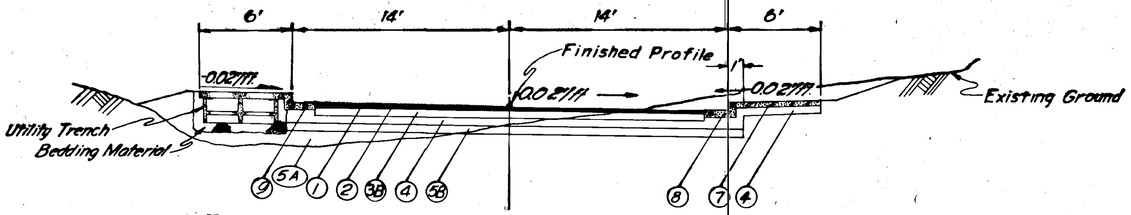
SLOPE TABLE FOR WHTTIER ST.

Station	Cut Slope	Fill Slope Left	Fill Slope Right
"C" 6+08.83			
	2:1	*	3:1
"C" 9+10			
	2:1	4:1	4:1
"C" 10+80			
	2:1	4:1	4:1
"C" 15+00			
	3:1	4:1	4:1
"C" 17+63.11			

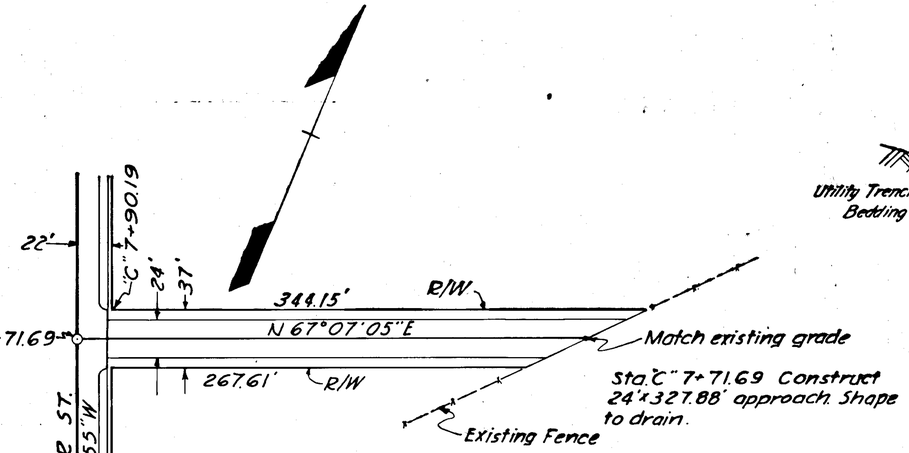
* Abutting Building



TYPICAL SECTION OF IMPROVEMENT
STA "C" 6+08.83 To STA "C" 9+43.38

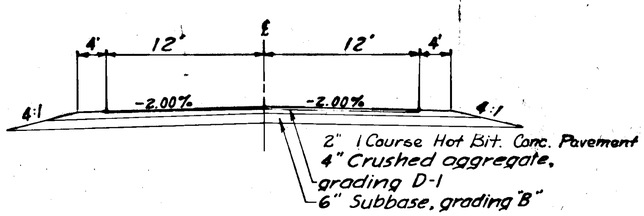


TYPICAL SECTION OF IMPROVEMENT
STA "C" 10+69.41 To STA "C" 12+24.13

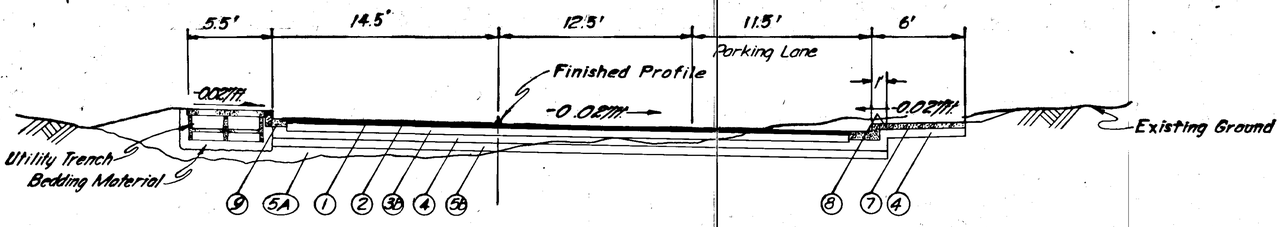


TYPICAL PLAN OF APPROACH
STA."C" 7+71.69

TRANSITION SECTION
STA."C" 12+24.13 to STA."C" 12+79.92



TYPICAL SECTION OF APPROACH
STA. "C" 7+71.69



TYPICAL SECTION OF IMPROVEMENT
STA "C" 12+79.92 To STA "C" 17+63.11 E.O.P.

LABELING INDEX

(1) 3"-2 Course Hot Bituminous Concrete Pavement
(2) Prime Coat - Width Varies
(3A) 4" Crushed Aggregate Base, Grading D-1
(3B) 6" Crushed Aggregate Base, Grading D-1
(4) 6" Subbase, Grading B
(5A) Useable Unclassified Excavation and/or Borrow
(5B) 6" Minimum Selected Material
(6) 6" Topsoil and Seed
(7) 4" Concrete Sidewalk
(8) Curb & Gutter Type 2A
(9) Curb & Gutter Type 2B
(10) 1½"-1 Course Hot Bituminous Concrete Pavement

HERCULENE® DRAFTING FILM

ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530	1971	5	9

ITEM No	ITEM	UNIT	SHEET NUMBERS 11	12	13	14	15	16	17	18	55	58	F-093-1(3) Bridge	F-093-1(3) Subtotal	19	20	X-31530 Subtotal	TOTAL
1	Furnishing and Maintaining Engineering Facilities	L.S.												All Req'd				All Req'd
110(1)	Mobilization	L.S.												All Req'd				All Req'd
111(1)	Erosion Control	C.S.												All Req'd				All Req'd
112(1)	Training Programs IAW FHWA Order, Interim 7-2(2)	C.S.												All Req'd				All Req'd
202(1)	Removal of Structures and Obstructions	L.S.												All Req'd				All Req'd
202(2)	Removal of Concrete Pavement	S.Y.						790	1199					1989				1989
202(3)	Removal of Concrete Sidewalk	S.Y.	59					192	345					596		137	137	733
202(4)	Removal of Manholes	Ea.		1			1							2				2
202(5)	Removal of Sewer Cleanouts	Ea.							1					1				1
202(6)	Removal of Inlets and Catch Basins	Ea.						1	5		1	1		8				8
202(7)	Removal of Valve Boxes	Ea.					1	4	5					10				10
202(8)	Removal of Fire Hydrants	Ea.					1	1						2				2
202(9)	Removal of Sewer Line	L.F.		10	198	368		31	284					891				891
202(10)	Removal of Water Line	L.F.					81							81	289		289	370
203(3)	Unclassified Excavation	C.Y.	1019	131	102		1516	1567	668	141				5144	1096	1673	2769	7913
203(5)	Borrow	Ton	196	30,463	61,198	97,207	287			2175				191,526				191,526
207(1)	Class I Excavation for Structures	C.Y.							347					347				347
304(1)	Crushed Aggregate Base Course, Grading D-1	Ton	1151	1305	1057	1174	1561	1210	674	534				8666	653	894	1547	10,213
307(1)	Subbase, Grading B	Ton	1948	2009	1762	2073	2363	1863	772	744				13,534	803	1135	1938	15,472
403(1)	Hot Bituminous Pavement	Ton	599	593	469	508	750	591	295	234				4039	293	412	705	4744
403(2)	120-150 Penetration Asphalt Cement	Ton	36	36	28	30	45	35	18	14				242	18	25	43	285
408(2)	MC-30 Liquid Asphalt, Prime Coat	Ton	4	4	3	3	5	3	2	1				25	2	2	4	29
601(1)	Class "A" Concrete	L.S.											All Req'd	All Req'd				All Req'd
602(1)	Reinforcing Steel	L.S.											All Req'd	All Req'd				All Req'd
602(2)	Welded Wire Fabric	L.S.											All Req'd	All Req'd				All Req'd
603(10E)	18" Asbestos Bonded, Bituminous Coated, Galvanized Corrugated Steel Pipe 16 Ga.	L.F.	34	403			578	191	109					1315	114		114	1429
603(10H)	30" Asbestos Bonded, Bituminous Coated, Galvanized Corrugated Steel Pipe 16 Ga.	L.F.		146										146				146
603(10O)	72" Asbestos Bonded, Bituminous Coated, Galvanized Corrugated Steel Pipe 10 Ga.	L.F.				200								200				200
603(26A)	8" Pipe Conduit	L.F.					69							69	418		418	487
603(26E)	18" Pipe Conduit	L.F.	604	153	272	193	90	394	88	42				1836	120	405	525	2361
603(26G)	24" Pipe Conduit	L.F.	232											232				232
603(26I)	36" Pipe Conduit	L.F.		110										110				110
603(31K)	48" Corrugated Steel Pipe	L.F.				112								112				112
603(32)	End Section for 48" Pipe Culvert	Ea.				2								2				2
603(35A)	4" State-Furnished Aluminum Conduit	L.F.	470	440		230								1140				1140
603(35C)	12" State-Furnished Corrugated Steel Pipe	L.F.	252	220		115								587				587
603(35E)	18" State-Furnished Corrugated Steel Pipe	L.F.	110											110				110
604(1A)	Concrete Manhole	Ea.		1		1	1		1					4				4
604(1B)	Corrugated Steel Pipe Manhole	Ea.				2								2				2
604(2A)	Inlet, Type "A"	Ea.	3	1	6	3	1	3	1	1	1	1		21	1	3	4	25
604(2B)	Inlet, Type "B"	Ea.	2	3			3	2	2					12				12
604(4)	Adjust Existing Manhole	Ea.						1						1		2	2	3
604(5)	Reconstruct Existing Manhole	Ea.				1								1				1
606(1)	Beam-Type Guard Rail, Type I Post	L.F.		312	380	473	104			275				1544				1544
607(3)	6' Chain Link Fence	L.F.	732	726	451	606	878	682		125				4200				4200
607(5)	6' x 6' Drive Gates	Ea.				6								6				6
607(7)	Relocation of Fence	L.F.					30							30	73		73	103
608(1)	Concrete Sidewalk (4" Depth)	S.Y.	188		23		154	423	189	180				1157	230	311	541	1698
608(4)	Concrete Sidewalk (6" Depth)	S.Y.	234	225	115	219	292	252	28	89				1454	10	42	52	1506
609(3)	Curb and Gutter, Type II	L.F.	1806	1583	1165	1493	1990	1665	702	513				10,917	854	1095	1949	12,866
610(2)	Structural Plate Pipe-Arch, 7'-11" Span x 5'-7" Rise, 10 Ga.	L.F.				130								130				130
611(1A)	Riprap, Class II	Ton		11	2107	217								2335				2335
611(1B)	Riprap, Class III	Ton		2115	2457	4716	209							9497				9497
611(2)	Filter Course	Ton		706	830	1590	71							3197				3197
614(1)	Survey Monuments	Ea.	2		1	1	1	4	1	1				11		3	3	14
614(2)	Monument Cases	Ea.	2		1	1	1	2	2	1				10		8	8	18
615(1)	Standard Signs	Ea.	24	5	9	4	13	10	3	4				72	3	5	8	80
618(1A)	Seeding, Class I	M.S.F.	1	3	8	6	3	1		1				23				23
620(2)	Topsoil	M.S.F.	1	3	8	6	3	1		1				23				23

ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530 X-31970	1971	6	9

ITEM No	ITEM	UNIT	SHEET NUMBERS 11	12	13	14	15	16	17	18	F-093-1(3) Bridge	F-093-1(3) Subtotal	19	20	X-31530 Subtotal	X-31970	TOTAL
630(2)	Treated Timber Piles, Furnished and Driven	L.F.				90						90					90
630(4)	Cast-in-Place Concrete Piles	L.F.									2396	2396					2396
632(1)	Prestressed Concrete Box Beams	Ea.									63	63					63
634(1)	Metal Bridge Railing	L.F.									240	240					240
635(3)	Timber	L.S.										All Req'd					All Req'd
640(2A)	4" Ductile Iron Water Conduit	L.F.						23				23					23
640(2B)	6" Ductile Iron Water Conduit	L.F.				100	70	155	33	8		366		296	296		662
640(2C)	8" Ductile Iron Water Conduit	L.F.			146	68	620	622	366	418		2240					2240
640(4A)	1½" Galvanized Steel Water Service Pipe	L.F.					27					27					27
640(4B)	2" Galvanized Steel Water Service Pipe	L.F.					50	22	207			279					279
640(5A)	1" Copper Water Service Pipe	L.F.							13			13					13
640(6)	Install Fire Hydrant	Ea.					2	1		1		4					4
640(7)	Fire Hydrant Relocation	Ea.											1		1		1
640(11)	Adjust Valve Box	Ea.						1	3			4	2	5	7		11
640(12)	Install Valve Box	Ea.			1	2	7	5	1	4		20	2		2		22
645(1B)	6" Asbestos Cement Sewer Conduit	L.F.											95		95		95
645(1C)	8" Asbestos Cement Sewer Conduit	L.F.					35	10	208			253					253
645(2B)	6" Ductile Iron Sewer Conduit	L.F.					110		268			378					378
645(2C)	8" Ductile Iron Sewer Conduit	L.F.		8	200	172		58	78			516					516
~~645(2D)~~	~~12" Ductile Iron Sewer Conduit~~	~~L.F.~~				~~196~~						~~196~~					~~196~~
645(3)	Adjust Existing Sewer Cleanout	Ea.											3		3		3
660(3)	Highway Lighting System Complete	L.S.										All Req'd			All Req'd		All Req'd
660(7)	Traffic Signal System Complete	L.S.										All Req'd					All Req'd
660(9)	Furnish Only Standards With Mast Arms	Ea.														2	2
670(1)	Painted Traffic Markings	L.S.										All Req'd					All Req'd
682(1)	Oil Line Relocation	L.S.										All Req'd					All Req'd
685(1)	Ranger Station Modifications	L.S.										All Req'd					All Req'd

ESTIMATE OF QUANTITIES

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.
ALASKA	F-093-1(3) X-31530	1971	7

ITEM No	ITEM	UNIT	SHEET NUMBERS 53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	TOTAL
680(1A)	Telephone Cable, 600 Pr 22 PIC	L.F.																				143	143
680(1B)	Telephone Cable, 300 Pr 22 PIC	L.F.																				1196	1196
680(1C)	Telephone Cable, 200 Pr 22 PIC	L.F.																				923	923
680(1D)	Telephone Cable, 100 Pr 22 PIC	L.F.																				580	580
680(1E)	Telephone Cable, 50 Pr 22 PIC	L.F.																				495	495
680(1F)	Telephone Cable, 25 Pr 22 PIC	L.F.																				207	207
680(1G)	Telephone Cable, 6 Pr 22 PIC	L.F.																				160	160
680(2A)	Telephone Splice, 600 Pr	Ea.																					
680(2B)	Telephone Splice, 300 Pr	Ea.																				2	2
680(2C)	Telephone Splice, 200 Pr	Ea.																				3	3
680(2D)	Telephone Splice, 100 Pr	Ea.																				1	1
680(2E)	Telephone Splice, 50 Pr	Ea.																				2	2
																						2	2
680(3)	Terminal Pole Assemblies	Ea.																					
680(4)	Pedestal Terminal Assemblies	Ea.																				2	2
680(5)	Ground System	L.S.																				1	1
680(6)	Retirement of Existing Facilities	L.S.																					All Req'd
																							All Req'd
681(1)	Relocation of Poles	Ea.			3	3		3		3													
681(2A)	Conductor, 350 MCM, 15 KV, Shielded Copper	L.F.																					12
681(2B)	Conductor, #2, 15 KV, Shielded Copper	L.F.																		3015			3015
681(2C)	Conductor, 500 MCM, 600 V, RHW, Copper	L.F.																		4769			4769
681(2D)	Conductor, 350 MCM, 600 V, RHW, Copper	L.F.																		140			140
681(2E)	Conductor, 250 MCM, 600 V, RHW, Copper	L.F.																		1005			1005
681(2F)	Conductor, 4/0, 600 V, RHW, Copper	L.F.																		340			340
681(2G)	Conductor, #2, 600 V, RHW, Copper	L.F.																		135			135
																				1438			1438
681(3)	Terminal Pole Assembly	Ea.																					
681(4)	Switch Units, 15 KV, Dual	Ea.				1	2		1											1			1
681(5)	Pad Transformers (Installation Only)	Ea.				1																	4
681(6)	Retirement of Existing Facilities	L.S.																					1
																							All Req'd
684(1A)	Vaults, 4'-0" W x 4'-0" L x 4'-0" D	Ea.							2														2
684(1B)	Vaults, 4'-0" W x 6'-0" L x 4'-0" D	Ea.				2	4																6
684(1C)	Vaults, 4'-0" W x 6'-0" L x 6'-0" D	Ea.							2														2
684(2)	Handholes	Ea.				1	6																7
684(3A)	Type 1 Trench	L.F.			192	224	120	192	80	176													984
684(3B)	Type 2 Trench	L.F.				32		40	16	56													144
684(3C)	Type 3 Trench	L.F.				48		48	40	112													248
684(3D)	Type 4 Trench	L.F.			64	320	136			8													528
684(4A)	Trench Cover, Type A	L.F.			240	591	121																952
684(4B)	Trench Cover, Type B	L.F.					120	280	144	344													888
684(5)	Baffle, Power Section	L.F.			64			56	40	112													272
684(6A)	2 - 5" Plastic Conduit Encasement	L.F.							114														114
684(6B)	4 - 5" Plastic Conduit Encasement	L.F.							174														174
684(6C)	10 - 5" Plastic Conduit Encasement	L.F.							60														60
684(6D)	12 - 5" Plastic Conduit Encasement	L.F.							28														28
684(7A)	1¼" Rigid Steel Conduit	L.F.				160																	160
684(7B)	1½" Rigid Steel Conduit	L.F.				40	24																64
684(7C)	2" Rigid Steel Conduit	L.F.				102	76																178
684(7D)	2½" Rigid Steel Conduit	L.F.				55																	55
684(7E)	3" Rigid Steel Conduit	L.F.				128	1548			124													1800
684(7F)	4" Rigid Steel Conduit	L.F.					266	104	22														392
684(7G)	5" Rigid Steel Conduit	L.F.							16														16
684(8)	2½" Aluminum Conduit	L.F.				63																	63
684(9)	Retirement of Existing Conduit	L.S.																					All Req'd

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530	1971	8	97

SUMMARY TABLES

MAJOR STRUCTURES TO BE DEMOLISHED AND REMOVED BY CONTRACTOR

Station	Offset	Description
"L" 44+40	50' Lt.	Shed
~~"L" 44+90~~	~~50' Lt.~~	~~House~~ Deleted see C.O. #5
"L" 47+75	40' Lt.	House
"L" 56+00	℄ & Rt.	Old construction equipment
"O" 65+80	℄	Shed (on skids)
"O" 71+75	20' Lt.	Garage
"O" 72+50	30' Rt.	Warehouse
40" 73+70	-25' Rt.	~~House~~ Deleted see C.O. #5
"O" 75+25	70' Rt.	Building
"O" 75+90	40' Rt.	Warehouse
"O" 75+90	50' Rt.	Portion of dock from R/W to back of warehouse.

Note: These structures are shown on the plans with a shaded pattern.

"L" 46+00	℄	Shed See CO #5
"L" 52+36	55' Lt.	Portion of house see CO #5

BASIS OF ESTIMATE

ITEM NO.	QUANTITIES
203(5)	1.87 Tons per cubic yd.
304(1)	1.96 Tons per cubic yd.
307(1)	1.96 Tons per cubic yd.
403(1)	112 lb. per sq.yd (1in. depth)
403(2)	6.0% of 403(1)
408(2)	0.25 gal. per sq. yd.
611(1A)	1.80 Tons per cubic yd.
611(1B)	1.80 Tons per cubic yd.

REMOVAL OF VALVE BOXES

Station	Side	
	Lt.	Rt.
"O" 66+68		15'
"O" 71+49		15'
"D" 10+50		12'
"O" 74+68	23'	
"O" 74+84	22'	
"O" 75+50	21'	
"O" 76+33	21'	
"O" 76+40	21'	
"O" 76+70	21'	
"O" 77+52	13'	

REMOVAL OF INLETS

Stations	Side	
	Lt.	Rt.
"D" 10+52		14'
"O" 75+07		3'
"O" 75+09	24'	
"O" 77+21		7'
"O" 77+24	20'	
"O" 78+11		24'

RIPRAP TABLE

Stations From	Stations To	Class	Riprap (Tons)	Filter (Tons)	Side Lt.	Side Rt.	
"L" 50+00	"L" 54+62	III	3,155	1,051 C.O.#4		X	
"L" 61+22	"L" 61+28	II	16			X	②
"L" 54+36	"L" 55+86	II	2107		X	X	①
"L" 56+70	"O" 63+50	III	6,342	2,146		X	
"O" 60+91	"O" 60+99	II	13			X	②
"O" 61+88	"O" 62+00	II	92		X		
"O" 62+06	"O" 62+20	II	112		X		
	Totals		11,832	3,197			

① Gold Creek slope protection.

② Pad at culvert outlets. Incidental to item 611(1) class II riprap.
See Memo from S.E. Dist. Design Eng. to S.E. Dist. Const. Eng. dated 01-31-73

"L" 55+86	"L" 56+70	III	535	150	Rt.

GUARDRAIL TABLE

Stations From	Stations To	Length (L.F.)	Side Lt.	Side Rt.	
~~"O" 50+00~~ "O" 47+83	~~"O" 54+58.03~~	~~712.5~~ 475.00		X	
~~"O" 55+92~~ 81	~~"O" 61+84.75~~	~~612.5~~ 406.25		X	
"O" 62+18	~~"O" 64+04~~ 63+68	~~187.50~~	150.0	X	Deleted
~~"O" 11+70~~	~~"B" 14+35~~	~~275.00~~		X	See C.O. #12
"L" 43+56	"L" 44+81	165.00		X	
"L" 45+57	"L" 46+69	112.50		X	
	Total	~~1543.75~~			

Across 9th St. Left Side 25.00
Across 8th St. Left Side 25.00

CULVERT SUMMARY

Station	Size	Type
"L" 51+25	30" X 146'	16 ga. ①
"O" 60+95	72" X 200'	10 ga. ①
"O" 61+93.74	71" X 57" X 130'	S.P.P.A.
"O" 62+13.73	48" X 112'	C.S.P. *

* End section Lt. & Rt.

① Asbestos bonded, bituminous coated, galvanized corrugated steel pipe.

CHAIN LINK FENCE

Location From	Location To	Side Lt.	Side Rt.	Length L.F.	
"L" 43+44	"L" 46+85	X		341	
"L" 43+50	"L" 44+86		X	136	
"L" 45+54	"L" 46+72		X	118	
"L" 46+91	"B" 11+57	X		691	
"L" 47+72	"L" 50+25		X	264	
"B" 11+~~57~~ 44	"O" 66+37	X		~~1,315~~ 1304	See C.O. #9
"O" 61+86	"O" 62+19	X		56 *	
"O" 61+92	"O" 62+25		X	56 *	
"O" ~~66+03~~ 67+68	"O" 66+~~42~~ 16		X	~~239~~ 48	See CO #12
"O" 67+45	"O" 72+41	X		496	
"O" 67+53	"O" 72+41		X	488	
	Totals			4,200	

* See Sheet No. 26 of Standard Oil Dock Crossing for details.

CURB CUTS

Station	Side Lt.	Side Rt.	Type
~~"O" 62+04~~	~~X~~		~~12' Wide~~
"O" 74+01	X		40' Wide
"O" 74+20		X	I
"O" 74+53		X	I
"O" 75+58	X		40' Wide
"O" 75+~~87~~ 92		X	II
"O" 76+77	X		30' Wide
"O" 77+55		X	II
"O" 77+60	X		I
"O" 78+22		X	I
"D" 11+08		X	36' Wide
"D" 11+46	X		I
"C" 6+53		X	I
"C" 8+19	X		I
"C" 8+60	X		I
"C" 8+87	X		I
"C" 9+39	X		II
"C" 11+50		X	I
"C" 12+48		X	I
"C" 13+07		X	30' Wide
"C" 14+94		X	I
"C" 15+25	X		I
"C" 15+85	X		I
"C" 16+46	X		I
"O" 75+05		X	I
"O" 75+56		X	I
"D" 11+95		X	II

KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-35130	1971	9	97

WATER MAIN INSTALLATION & REMOVAL

SIZE	TYPE	LENGTH (L.F.)	WORK	FROM / TO STATION	OFFSET	REMARKS
1½"	?	108 ±	Abandon	"L" 48+34 / "L" 48+51	60' Rt. / 47' Lt.	Cap end / do.
3"/4"	?	88 ±	Abandon	"L" 49+30 / "L" 49+34	48' Lt. / 36' Rt.	do. / do.
8"	D.I.	55~~8~~ 02	Install	"B" 15+18 / "L" 53+30	18' Lt. / 47' Rt.	Connect to existing C.I. W.M. w/tapping tee / Cap end
6"	D.I.	100	Install	"O" 62+28 / "O" 62+33	45' Lt. / 55' Rt.	do. / do.
8"	D.I.	438	Install	"O" 62+32 / "O" 66+69	49' Rt. / 32' Rt.	Connect to new 6" D.I. W.M. / do.
3" & 8"	G.I. & W.S.	370	Remove & dispose of	"C" 6+21 / "O" 66+68	27' Lt. / 14' Rt.	Retain existing tee / Cut line to left of existing cross & valve
8"	D.I.	18~~0~~	Install	"O" 66+68 / "O" 66+69	14' Rt. / 32' Rt.	Connect to existing 8" C.I. W.M. / Connect to new cross
6"	D.I.	352	Install	"C" 6+21 / "O" 66+70	27' Lt. / 34' Rt.	Connect to existing tee / Connect to new cross
8"	C.I.	563 ±	Abandon	"O" 66+68 / "O" 72+32	13' Rt. / 15' Rt.	
8"	D.I.	1,19~~2~~ 31	Install	"O" 66+70 / "O" 78+57	34' Rt. / 26' Rt.	Connect to new cross / Cap end
6"	D.I.	23	Install	"O" 71+48 / "O" 71+60	12' Rt. / 30' Rt.	Cut existing 6" C.I. W.M. & connect / Connect to new 8" D.I. W.M.
8"	D.I.	~~22~~ 21	Install	"O" 72+08 / "O" 72+33	29' Rt. / 15' Rt.	do. / Cut existing 8" C.I. W.M. & connect
6"	Steel	521 ±	Abandon	"D" 10+63 / "O" 78+52	12' Rt. / 7' Lt.	Cap end / Cap end
4"	Steel	100 ±	Abandon	"O" 72+95 / "D" 10+50	31' Rt. / 12' Rt.	
6"	D.I.	~~29~~ 27	Install	"O" 78+54 / "O" 78+54	6' Lt. / 26' Rt.	Connect to existing 6" C.I. W.M. / Connect to new 8" D.I. W.M.
?	?	84 ±	Abandon	"B" 11+27 / "B" 12+00	14' Rt. / 25' Lt.	Cap end

INSTALL WATER SERVICE CONNCTIONS

See Sheet 33

STATION	Lt./Rt.	LIN. Ft. FROM MAIN	SIZE & TYPE	REMARKS
"B" 12+72	Lt.	8~~4~~	8"	Install D.I. W.M., cap end
"C" 6+25	Lt.		?	Reconnect existing service
"C" 10+62	Lt.	~~50~~ 58~~2~~	2"	Extend & connect existing service
~~"O" 67+60~~	~~Rt.~~	~~27~~	~~1½"~~	~~do.~~
"O" 71+96	Rt.	~~23~~ 27	4"	do.
"O" 73+88	Lt.	~~73~~ 72	6"	Install D.I. W.M., cap end
"O" 74+76	Lt.	22~~4~~	2"	Tap from F.H. main, reconnect existing service
"O" 75+22	Lt.	~~50~~ 63	2"	Extend & connect existing service
"O" 75+~~70~~ 67	Rt.	~~7~~ 9	1"	Cap end
"O" 76+05	Lt.	~~50~~ 63	2"	Extend & connect existing service
"O" 76+67	Lt.	~~50~~ 57~~4~~	2"	do.
"O" 76+80	Rt.	~~6~~ 8	1"	Cap end
"O" 78+~~17~~ 02	Lt.	~~57~~ 58	2"	Install new service

WATER MAIN APPURTENANCES

STATION	OFFSET	ITEM OF WORK
"B" 11+~~15~~62	~~42~~ 32' Lt.	Install 8" G.V.
"B" 11+72	27' Lt.	Install F.H., 6" G.V. & ~~8~~ 25 L.F. of 6" D.I. W.M.
"B" 12+73	24' Lt.	Install 8" G.V.
"B" 15+13	19' Lt.	Install 8" G.V.
"L" 53+30	44' Rt.	Install 6" G.V.
"O" 62+32	42~~5~~ Rt.	Install 6" G.V.
"O" 62+32	~~55~~ 51 Rt.	Install 6" G.V.
"C" 6+16	℄	Remove F.H. & G.V., cap lateral at main. ~~Salvage F.H.~~
~~"C" 6+18~~	~~27' Lt.~~	~~Adjust V.B.~~
"C" 6+23	27' Lt.	Install 6" G.V.
~~"C" 6+26~~	~~29' Lt.~~	~~Adjust V.B.~~
"C" 6+28	20' Lt.	Install F.H. (~~Salvaged from ℄ "C" 6+16~~), 6" G.V. & 7 L.F. of 6" D.I. W.M.
"C" 10+60	28' Lt.	Install 2" G.V. in new service line
~~"C" 13+36~~	~~17' Rt.~~	~~Adjust V.B.~~
"C" 14+10	13' Rt.	do.
"C" 14+25	12' Lt.	do.
"C" 14+35	13' Rt.	do.
"C" 14+27	11' Lt	do.
"C" 15+04	15' Rt.	do.
"C" 17+60	52' Rt.	do.
"O" 66+53	23' Rt.	Remove F.H.
"O" 66+66	33' Rt.	Install 8" G.V.
"O" 66+69	29' Rt.	Install 8" G.V.
"C" 15+22	17' Rt	Adjust VB.
"O" 66+72	43' Rt.	Install 6" G.V.
"O" 66+85	41' Rt.	Install 8" G.V.
"O" 67+47	43' Rt.	Install F.H., 6" G.V. & 3 L.F. of 6" D.I. W.M.
"O" 71+58	26' Rt.	Install 6" G.V.
"O" 71+95	33' Rt.	Install 4" G.V. in service line
"O" 72+14	27' Rt.	Install 8" G.V.
"O" 72+~~24~~15	29' Rt.	Install 8" G.V.
"D" 10+67	10' Rt.	Adjust V.B.
"O" 74+79	31' Lt.	Remove F.H.
"O" 74+79	~~31' Lt.~~ 33' Lt.	Install F.H., 6" G.V. & ~~59~~ 67 L.F. of 6" D.I. W.M.
"O" 73+96	27' Rt.	Install V.B & 6" G.V.
"O" 77+50	27' Rt.	Install 8" G.V.
"O" 78+61	5' Lt.	Adjust V.B.
"O" 78+65	6' Lt.	do.
"O" 78+69	6' Lt.	do.
"O" 64+70	51' Rt.	Install F.H., 6" G.V. & 4 L.F. of 6" D.I.W.M.
"C" 7+03	Lt	Install Valve Box
"C" 7+29	Lt	do
"C" 8+94	Lt	do

Abbreviations :

- C.I. --- Cast Iron
- D.I. --- Ductile Iron
- F.H. --- Fire hydrant
- G.V. --- Gate valve
- V.B. --- Valve box
- W.M. --- Water main
- W.S. --- Water service

Notes :

1. Corporation & curb stops, and miscellaneous fittings are incidental to other items of work.
2. All new gate valves shall be installed in approved valve boxes.
3. Where grade is unspecified, conduit sleeves shall be laid flat.
4. All conduit sleeves shall be plugged at each end.

SUMMARY TABLES

INSTALL CONDUIT SLEEVES FOR FUTURE UNDERGROND UTILITIES

STATION & OFFSET		LIN. Ft.	SIZE	REMARKS	KEY
"L" 43+22 (63' Lt.) / "L" 43+27 (64' Rt.)	TO	127	12"	Invert elev. 22.0	2
"L" 45+14 (60' Rt.) / "L" 45+21 (50' Lt.)	TO	110	~~18"~~ 24"	Invert elev. 20.0 See CO #2	4
~~"L" 45+28 (60' Rt.)~~ / ~~"L" 45+35 (50' Lt.)~~	TO	~~110~~	~~24"~~	Invert elev. 18.0, grade as existing sewer Deleted See CO #2	5
"L" 45+31 (60' Rt.) / "L" 45+38 (50' Lt.)	TO	110	4"	Invert elev 22.0	1
"L" 45+33 (60' Rt.) / "L" 45+40 (50' Lt.)	TO	110	4"	do.	1
"L" 45+37 (60' Rt.) / "L" 45+44 (50' Lt.)	TO	110	18"	Invert elev. 21.0	3
~~"L" 47+07 (73' Rt.)~~ / ~~"L" 47+15 (48' Lt.)~~	TO	~~122~~	~~24"~~	Invert elev. 20.5, grade as existing sewer Deleted, See CO #2	5
"L" 47+21 (73' Rt.) / "L" 47+28 (48' Lt.)	TO	122	18"	Invert elev. 20.5	4
"L" 47+30 (78' Rt.) / "L" 47+41 (47' Lt.)	TO	125	4"	Invert elev. 21.5	1
"L" 47+32 (78' Rt.) / "L" 47+43 (47' Lt.)	TO	125	4"	do.	1
"L" 47+34 (78' Rt.) / "L" 47+45 (47' Lt.)	TO	125	12"	Invert elev. 21.0	2
"L" 48+92 (62' Rt.) / "L" 49+00 (47' Lt.)	TO	110	18"	Invert elev. 19.0	4
"L" 48+95 (63' Rt.) / "L" 49+03 (47' Lt.)	TO	110	4"	Invert elev. 22.5	1
"L" 48+97 (63' Rt.) / "L" 49+05 (47' Lt.)	TO	110	4"	do.	1
~~"L" 48+99 (63' Rt.)~~ / ~~"L" 49+07 (47' Lt.)~~	TO	~~110~~	~~12"~~	Invert elev. 22.0 Deleted see CO #15	2
"L" 58+84		110	12"		2
~~"L" 49+03 (63' Rt.)~~ / ~~"L" 49+11 (47' Lt.)~~	TO	~~110~~	~~36"~~	Invert elev. 18.0 Deleted see CO #2	6
"L" 52+26 (59' Lt.) / "L" 52+26 (51' Rt.)	TO	110	4"	Invert elev. 23.5	1
"L" 52+28 (59' Lt.) / "L" 52+28 (51' Rt.)	TO	110	4"	do.	1
"L" 52+30 (59' Lt.) / "L" 52+30 (51' Rt.)	TO	110	12"	Invert elev. 23.0	2
"O" 61+80 (65' Lt.) / "O" 61+86 (50' Rt.)	TO	115	4"	Invert elev. 24.0	1
"O" 61+82 (65' Lt.) / "O" 61+88 (50' Rt.)	TO	115	4"	do.	1
"O" 61+84 (65' Lt.) / "O" 61+90 (50' Rt.)	TO	115	12"	Invert elev. 23.5	2

KEY

		TOTAL
1.	4" State-Furnished Aluminum Conduit	1140 L.F.
2.	12" State-Furnished Corrugated Steel Pipe	587 L.F.
3.	18" State-Furnished Corrugated Steel Pipe	110 L.F.
4.	18" Pipe Conduit	342 L.F.
5.	24" Pipe Conduit	232 L.F.
6.	36" Pipe Conduit	110 L.F.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-35130	1971	10	97

SUMMARY TABLES

SEWER MAIN INSTALLATION & REMOVAL

SIZE	TYPE	LENGTH (L.F.)	WORK	FROM / TO STATION	OFFSET	REMARKS
4"	?	77 ±	Abandon	"L" 48+26	60' Rt.	Plug end
				"L" 48+46	48' Lt.	do.
4"	?	100 ±	Abandon	"L" 49+00	48' Lt.	do.
				"L" 49+29	34' Rt.	
8"	A.C.	208	Remove & dispose of	"L" 52+95	79' Lt.	
				"L" 53+98	101' Rt.	
8"	D.I.	208 6	Install	"L" 52+45	79' Lt.	Connect to new M.H.
				"L" 53+98	101' Rt.	Connect to existing 6" A.C. outfall
~~12"~~	~~A.C.~~	~~196~~	~~Remove & dispose of~~	~~"O" 60+15~~	~~73' Lt.~~	
				~~"L" 59+65~~	~~116' Rt.~~	
~~12"~~	~~D.I.~~	~~196~~	~~Install~~	~~"O" 60+15~~	~~73' Lt.~~	~~Connect to existing M.H.~~
				~~"L" 59+65~~	~~116' Rt.~~	~~Connect to existing 12" A.C. Outfall~~
12"	A.C.	203	Abandon	"O" 60+15	73' Lt.	Plug M.H. opening
				"O" 62+17	65' Lt.	do.
12"	A.C.	172	Remove & Dispose of	"O" 62+17	65' Lt.	
				"O" 62+26	106' Rt.	
8"	D.I.	172 103	Install	"O" 62+17	65' Lt.	Connect to new M.H.
				"O" 62+26	106' Rt.	Connect to existing 12" A.C. outfall
6"	A.C.	103 ±	Abandon	"C" 9+43	16' Lt.	
				"O" 66+63	43' Lt.	
8"	A.C.	28 ±	Abandon	"O" 66+63	43' Lt.	
				"C" 10+75	17' Lt.	
8"	A.C.	354	Install	"O" 66+45	44' Lt.	Connect to new M.H. -- Install pipe in 30" radius sweep
				"C" 10+75 ~~66+49~~	17' Lt.	Connect to ~~existing~~ 8" ~~A.C.~~ sewer line
6"	A.C.	95	Install	~~"C" 6+07~~ 5+97	15' Lt.	Plug end.
				"C" 7+02 13	15' Lt.	Connect to existing 6" A.C. sewer line.
8"	D.I.	18	Install	"O" 66+49	46' Lt	Connect to new 8" AC sewer line
				"C" 10+75	17' Lt	Connect to existing 8" AC sewer line
6"	D.I.	~~110~~ 108	Install	"C" 9+43	16' Lt.	Connect to existing 6" A.C. sewer line.
				"O" 66+45	44' Lt.	Connect to new M.H.
8"	A.C.	315	Remove & dispose of	"O" 74+68	5' Rt.	
				"O" 77+85	9' Rt.	
8"	D.I.	18	Install	"O" 74+72	5' Rt.	Connect to new diversion structure (sheet S-7)
				"O" 74+90	3' Rt.	
8"	A.C.	~~23~~ 28 4	Install	"O" 74+90	3' Rt.	
				"O" 75+11	1' Rt.	
8"	D.I.	20 2	Install	"O" 75+11	1' Rt.	
				"O" 75+31	℄	
8"	A.C.	~~55~~ 49 4	Install	"O" 75+31	℄	
				"O" 75+88	1' Lt.	
						Install new sewer line, type of materials as indicated.
8"	D.I.	28	Install	"O" 75+88	1' Lt.	
				"O" 76+16	1' Lt.	
8"	A.C.	40 9	Install	"O" 76+16	1' Lt.	
				"O" 76+56	2' Lt.	
8"	D.I.	30	Install	"O" 76+56	2' Lt.	
				"O" 76+86	2' Lt.	
8"	A.C.	~~100~~ 99 2	Install	"O" 76+86	2' Lt.	
				"O" 77+85	9' Rt.	Connect to new M.H.
?	?	84 ±	Abandon	"B" 11+25	13' Rt.	
				"B" 12+00	28' Lt.	Plug end

SEWER MAIN APPURTENANCES

STATION	OFFSET	ITEM OF WORK
"L" 52+95	79' Lt.	Install M.H., connect to existing 6" A.C. S.S.
"L" 53+00	71' Lt.	Remove existing M.H.
"O" 60+15	73' Lt.	Reconstruct existing M.H. to elev. 16.0 (top)
"O" 62+17	65' Lt.	Install M.H. connect to existing S.S. lines (top elev. 22.0)
"O" 66+45	44' Lt.	Install M.H., connect to existing & new S.S. lines
		~~replace with~~ & AC
"O" 66+63	43' Lt.	Remove existing M.H., ~~splice together existing 12" S.S.~~
~~"C" 7+01~~	~~16' Lt.~~	~~Adjust sewer cleanout~~
~~"C" 7+18~~	~~35' Lt.~~	~~do.~~
~~"C" 8+54~~	~~19' Lt.~~	~~do.~~
"C" 12+01	℄	Adjust M.H.
"C" 9+42	16' Lt.	Install MH. See C.O. #3
"C" 13+34	2' Lt.	do.
"O" 73+42	22' Lt.	Adjust M.H.
"O" 77+85	9' Rt.	Install M.H.
"O" 77+88	10' Rt.	Remove cleanout

INSTALL SEWER SERVICE CONNECTIONS

See Sheets 16 & 17

STATION	Lt./Rt.	LIN. Ft. FROM MAIN	SIZE & TYPE	REMARKS
"O" 74+77	Lt.	40	8" D.I.	Plug end
"O" 75+31 25	Rt.	~~33~~ 36	6" D.I.	Plug end
"O" 75+37	Lt.			Reconnect existing service to main
"O" 75+88 77	Rt.	~~33~~ 36	6" D.I.	do.
"O" 76+27 20	Rt.	38	6" D.I.	do.
"O" 76+~~70~~ 80	Lt.	~~32~~ 38	6" D.I.	Extend & connect existing service.
"O" 76+~~85~~ 87	Rt.	~~40~~ 36	6" D.I.	Plug end
"O" ~~77+71~~ 78+05	~~Rt.~~ Lt	~~38~~ 28	6" D.I.	Replace existing service, reconnect.
"O" 78+12 77+75	~~Lt.~~ Rt	~~54~~ 27	6" D.I.	do.
"O" 77+85	Lt	12	6" AC	Connect to new 6" DI see sheet 17

Abbreviations :

- A.C. --- Asbestos - cement
- D.I. --- Ductile iron
- M.H. --- Manhole
- S.S. --- Sanitary sewer
- C.O. --- Cleanout

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	11	97

HORIZONTAL CONTROL

Bearing base is taken as N 38°43'20"W from Alaska tidelands survey No. 3 R.M.C. 31 to R.M.C. 32

VERTICAL CONTROL

Vertical datum is based on U. S. C. &G. S. Bench mark No. 15 elevation of 24.70 (U. S. C. &G. S. gives an elevation for B. M. No. 15 of 24.75 M. L. L. W.)

Note: Plug both ends of all conduit sleeves for future utilities.

BEGINNING OF PROJECT
F-093-1(3)
STA. "L" 43+14.20

Embankment 1124 Cu Yds. (Includes 699 Cu Yds. Selected Material)
Excavation 1019 Cu Yds.
Borrow 196 Tons

Top of Fire Hydrant at 9th and Harbor Way. Elevation 27.25'

Top of Fire Hydrant at 8th and "G" Street. Elevation 26.94'

"G" LINE
NINTH STREET

"A" LINE
EIGHTH STREET

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	12	97

"G" STREET

7TH ST.

MATCH LINE 11+43.00

MATCH LINE 53+69.21

* 943

* 524

Shed

Removed

Removed

Replace existing 8" A.C. with 8" D.I. (See Sheet 13 for Continuation)

Remove existing manhole. Install Sanitary Sewer manhole 79' Lt. of Sta. "L" 52+95 and connect sewer mains.

Note: Plug both ends of all conduit sleeves for future utilities.

2-6'x6' drivegates

Plug

Cap

R/W

Delete Sidewalk

Move 6' Fence back to 6' from curb face

Install 36"x110' CMP Sleeve

Abandon

Install 18" x 110' CMP Sleeve

Install 12"x 110' Conduit

Install 2-4"x110' Conduit

Install 2 4"x110' Conduits

Abandon

Shed

See CO #15 Install 12"x110' Conduit

Remove Existing Metal Guardrail

50' Flare; See Std. Dwg. M-1

Type II Riprap 6'x12'x2' Pad

Embankment 16,421 Cu. Yds. (Includes 790 Cu. Yds. Selected Material)
Excavation 131 Cu. Yds.
Borrow 30,463 Tons

Profile Grade

+0.200%

Existing Ground

Install 18"CMP at Sta. "L" 48+96 for future Water Main Invert elevation 19.0'

Install 36"CMP at Sta. "L" 49+08 for future Sanitary Sewer. Invert elevation 18.0'

See Drainage Profile Sheet No. 23

48+00 49+00 50+00 51+00 52+00 53+00

30 20 10 0

K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	13	97

5508
Install ~~556~~ L.F. of 8" D.I. Water Main. (See Sheet 18 for Continuation)

For Intersection Detail, See Sheet No. 21

See Sheet No. 18 MATCH LINE "B" 11+00

Install 208 L.F. of 8" D.I. Sanitary Sewer. Remove & Dispose of existing 8" A.C. Sewer.

MATCH LINE "L" 53+00

MATCH LINE "L" 59+00

"L" Δ=61°58'33" D=5°00' Lt. T=687.30' L=1,238.18' See Superelevation table sheet No. 3

"L" 53+61.14 = "B" 10+00.00

Install 8" G.V.

Cap

See sheet no. 79 for detail of bridge guardrail connection.

Delete sidewalk & fence, topsoil & seed

Reconnect to existing outfall

Top of Dike

Embankment	32,828	Cu Yds. (Includes 672 Cu Yds. Select Material)
Excavation	102	Cu Yds.
Borrow	61,198	Tons

Begin Bridge Sta. "L" 54+58.71
Profile Elev. 28.08

End Bridge Sta. "L" 55+78.73
Profile Elev. 28.56
+0.400%

Profile Grade

Proposed 8" D.I. Water Main

Abandoned Sewer

Existing Sewer

See Bridge Plans, sheets 73-81

Existing Ground

Dike removed by contractor

See Drainage Profile Sheet No. 24

53+00 54+00 55+00 56+00 57+00 58+00

30 20 10 0 -10

K&E MATE 1. PLAN-PROFILE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	14	97

Install 12'x110' conduit Sta 58+84

Delete sidewalk & fence

R/W

MATCH LINE "L" 58+00

46.0'

59

Topsoil & seed

~~Install 196 L.F. of 12" D.I. Sanitary Sewer. Remove & dispose of existing 12" A.C. Sewer~~ left in place

43.0'

Reconstruct Manhole to elev. 16.0' (top)

Plug

0.07% Ascending

2'x60'-12" CMP PT. Bev. 1.72

Sta 60+22 Rt. 11.0' Install Type I Headwall and Toehold See Std. D-5

and D-2 Increase rebar cover to 3" Min.

Sta 61+94 to 61+96 Lt. ~~Install 2'x39' Class II riprap pad~~

Abandon

Sta. 62+02 to 62+16 Lt. Install 2'x41' Class II riprap pad.

Plug

See Sheets 26-29 For Dock Crossing Plans

Install new manhole (top elev. 22.0) & Connect new sewer mains

Cap

Construct Class II riprap protection apron of 72" culvert Sta. "0" 60+95 from 2' below pipe to 5' above pipe, 26' wide & 3' thick

N 70° 58' 25" E ~~687.97'~~ 686.94'

Standard Oil Dock

"0" 62+04 80.0' Rt.

MATCH LINE "0" 63+00

Install ~~172~~ 172 L.F. of 8" D.I. Sanitary Sewer. Remove & Dispose of existing 12" A.C. Sewer.

Install 12"X115' Conduit

Install 2-4"X 115' Conduit

Install 100 L.F. of 6" D.I. W.M.

Install 6" G.V. (42% & 45° Rt.) +51.00

Cap

Install 438 L.F. of 8" D.I. W.M. (See Sheet 15 for Continuation)

Note: Plug both ends of all conduit sleeves for future utilities.

Embankment 51,982 Cu. Yds. (Includes 166 Cu. Yds. Selected Material)
Excavation 0
Borrow 97,207 Tons

Reconnect to existing outfall.

4'2"x8'x2' Class B Riprap Pad III

Sta 0"60+95 Install 72"x200' Pipe Conduit

~~Reconnect to existing outfall~~ No existing outfall

Profile Grade

+0.400%

-0.57%

12" Future Conduit

Equation: 60+00.11 Back = 60+01.72 Ahead

MH Rim Elev. 10.60+15.00

12" Sewer Pipe to be abandoned

Existing Ground

Existing Sewer

Proposed 8" Water Main

Existing Sewer

See Drainage Profile Sheet No. 27

58+00 59+00 60+00 61+00 62+00 63+00

30 20 10 0

K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	15	97

Sidewalk Utility Trench

12" A.C. Replaced with 8" A.C. by Contractor. Remove existing MH, reconnect 12" A.C. sewer. Install MH in existing 12" A.C. line, Install 35 L.F. of 8" A.C. sewer in 30' R sweep.

R.C.A. Alascom Install 2" G.V. Install 2" Water Service And Connect to Existing

See Sheet No. 19 MATCH LINE "C" 10+80

N. G. ARMORY

Note: Relocate existing 4' chain-link fence to 0.5 ft. behind sidewalk Sta "C" 10+50 to "C" 11+62.

Sidewalk removed area seeded

Delete sidewalk & fence

Install 3' fence

Delete 6' Fence and widen S.W. to 5' Top soil & seed in strip Lt & Rt. 66+88 Sta "C"

3' chain fence

MATCH LINE "D" 63+00

MATCH LINE "D" 69+00

45.14' Lt. +28.06

45.00' Lt. +44.71

43.0' +28.51

43.21' +49.68

45.0' +35.00

44.19' +28.22

P25 with 18"x18"x8" 45° Wye & 45° Elbow Mark in back of sidewalk

45° Wye with 45° elbow mark at back of sidewalk

Abandon

"D" 66+88.66 R.I. = "C" 10+00.00

N 81°09'53" E 571.19'

N 79°58'45" E 687.37'

Shed

4" CL Exist 4" C.I.

Remove Hydrant

Butt fence against bldg.

Emergency Panel See Sheet No. 33

11¼° Bend

Abandon

Remove Valve And Connect 8 L.F. of 8" D.I. to existing main. Remove & Dispose of existing Water Main.

Install 8" G.V.

WHITTIER STREET

Install 1192 L.F. of 8" D.I. W.M. (See Sheets 16 & 17 for Cont.)

Extend And Connect Existing ~~1½"~~ Service

25' Guardrail Flare See Std. Dwg. M-1

Install hydrant, 4 L.F. of 6" D.I.W.M. & 6" G.V.

Install 438 L.F. of 8" D.I.W.M. (See sheet No. 14 for Continuation)

Install 110 L.F. of 6" D.I. Sanitary sewer

Install M.H. 16' Lt. of Sta "C" 9+42

Existing 3" Galv. Iron Water Main

Existing 8" Wood Stave Water Main.

Install 352 L.F. of D.I. Water Main Remove and Dispose of existing Water Main.

Portion of F&G bldg. removed by others

Fish & Game Bldg.

Abond Coax Cable

Existing Top of Fill

Note: See sheet No. 21 intersection details.

Install Hydrant, 3 L.F. of 6" D.I.W.M. & 6" G.V.

Symbol Denotes Approximate Location of Ductile Iron Sewer

U.S.C. 3566

MATCH LINE "C" 9+10 See Sheet No 19

Embankment	9,452	Cu. Yds. (Includes 926 Cu. Yds. Selected Material)
Excavation	1,516	Cu. Yds.
Borrow	287	Tons
① Includes	721	Cu. Yds. Excess Excavation from Sta. "L" 69+00 to 75+00
② Includes	768	Cu. Yds. Excess Excavation from Sta. "C" 6+08.33 to 9+10
③ Includes	1214	Cu. Yds. Excess Excavation from Sta. "C" 12+00 to 17+63.11
④ Includes	79	Cu. Yds. Excess Excavation from Sta. "L" 75+00 to 78+30.95

U.S.C.&G.S. B.M. 16
65' Left Sta. "D" 65+85
~~Elevation~~ 25.48'
Removed by others

8" D.I.W.M. 8"x8"x8"x8" exist. to remain

Remove existing 8"x8"x6" tee

Cap & abandon

New 90° Elbow

New 11¼° bend

Cap & abandon

New 8" D.I.U.M.

DETAIL "B"

8" G.V. 8" D.I. 8"x8"x8"x6" Cross 45° Bend 8" D.I. 6" G.V. 6" D.I.

DETAIL "A"

Profile Grade

-0.57%

M.H. 59' Lt. of "D" 63+37.00

12" Sewer Pipe

Existing Ground

Abond Coax Cable

Proposed 8" Ductile Iron Water Main Invert Depth 5' Below Grade

3" Telephone Conduit

8" Water Pipe

See Drainage Profile Sheet No. 24

63+00 64+00 65+00 66+00 67+00 68+00 69+00

30 20 10 0

K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOT SHEE
ALASKA	F-093-1(3)	1971	16	97

Grade the area surrounding the Nat. Guard Armory to a smooth and uniform surface. Place a .3" compacted layer of base course grading D-1 in that area. Area will be as staked by the engineer Approx. 600 Tons required.

Sidewalk Utility Trench

Sta "D" 11+57 L.B. End of Sidewalk

Forest Service Bldg.

Bovard's Liquor Store

Post and chain fence

36.10' Lt. +61.91

34.06' Lt. +63.46

Install 3' fence

R/W

P/L

Delete 6' fence, widen S.W. to 5' Lt. Rt to 72+50±. Top & and seed, utility stripe

MATCH LINE "D" 69+00

NB 1°09'53"E 570.39'

Garage

H

L.9

L.10

L.11

L.12

L.13

L.14

L.15

Juneau Hilton Site

Adjust V.B.

Cut & Cap

Cap

Adjust M.H.

Abandon

Install 73 L.F. of 6" D.I.W.M.

Install 8" D.I. Sanitary Sewer

Install curb stop and V.B. @ existing water service

Install 2" Water Service connect to existing line

Install fire hydrant, 53 L.F. of 6" D.I. W.M. & 6" G.V.

Remove existing hydrant.

Plug

Diversion Structure see Str. No. S-3

Install G.V.

Delete

Install 1" copper water service & V.B. @ 0+73+03

Reconnect existing water service & install 8"x8"x6" Tee & V.B.

Δ=16°24'57"
D=6°00' Pt
T=137.74'79'
L=273.60'70'

See Superelevation Table Sheet No. 5

J. Sherman Tanner

#114

#116

Install 8"x8"x6" Tee.

Note: See sheet No. 22 for intersection details.

Install 1192 L.F. of 8" D.I.W.M. (See Sheets 15-17 for continuation).

USS 3566

Warehouse

Sign

Abandon

Cut

Fill

Install 6" G.V.

Install 8"x8"x6" Lateral

Install 8" G.V.

Install 8" D.I.W.M. Connect to existing 8" W.M.

Reconnect existing service

Tee

National Marine Fisheries Fence

59.55

"D" 2+56.69 P.C.

"D" 73+75.90 P.O.T.

"D" 10+00.00 L.1

N 45°46'20" W

WILLOUGHBY AVENUE

"D" 73+96.71 P.I.

MATCH LINE "D" 75+00

(20 L.F.) Symbol Denotes Approximate Location & Length of Ductile Iron Sewer.

Remove & Dispose of 315 L.F. of existing 8" A.C. Install 315 L.F. of 8" Sanitary Sewer Conduit is A.C. except where indicated. (See sheet 17 for continuation)

Embankment 846 Cu Yds. (Includes 676 Cu Yds Selected Material)
Excavation 1,567 Cu Yds. @
Borrow 0 Tons
@ Includes 721 Cu. Yds. Excess Excavation moved to Sta. "D" 63+00 to 69+00

"D" LINE
WILLOUGHBY AVENUE

Elev. 26.13'
Elev. 26.89'
Elev. 25.16'
Elev. 25.25'
+1.854%
Profile Grade -2.062%
"D" 10+00 = "D" 73+75.90
+41.10
+25.00
No V.C.
No V.C.
200' V.C.
+0.500%
+0.413%
Profile Grade
Existing Ground
8" Water Pipe
3" Telephone Conduit
Proposed 8" Ductile Iron Water Main
18" Sewer Pipe
6" C.I. Water
+53.00
See Drainage Profile Sheet No. 25

69+00 70+00 71+00 72+00 73+00 74+00 75+00

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOT SHE
ALASKA	F-093-1(3)	1971	17	97

Sidewalk Utility Trench

Reconnect existing sewer

Stub out cap & mark end

Extend And Connect 2" Services Install V&VB flexable couplings

stub out cap & mark end

Extend And Connect 2" Service.

Capitol Motor Supply

Juneau Motors

See Superelevation Table Sheet No. 3

Temp. 1½" Hot Bituminous Sidewalk

Match existing sidewalk

MAIN STREET

Orpheum Hotel

MARINE WAY

END TEMPORARY CONNECTION
STA. "0" 79+10

Temp. 1½" Hot Bituminous Sidewalk to match existing

Adjust V.B's Install 8"x8"x6" Tee & Cap @ Line

Plug both ends
Exist. 4" W to Alaska Air
Exist. 6" W to Alaska Air
Install 99 L.F. of 6" D.I.W.M. for temporary crossover. Connect to existing 6" C.I. Water Main.

END OF PROJECT
F-093-1(3)
STA. "0" 78+50.95 P. T.
BEGIN TEMPORARY CONNECTION

Install New 2" Service

Abandon Plug

Cut & Cap

Remove "Clean-Out" Install MH

Install V&VB use flexible coupling

Stub Out 1" Cap Service

Sherman Tanner

Warehouse

Install V&VB

added at contractors expence

Existing Top of Bank

Install 1" Service

Class II Riprap

Fuel Inlets

Install 8" GV

Retaining Wall (See sheet #30)

Alaska Airlines

Install 1192 L.F. of 8" D.I. W.M. (See Sheets 15 & 16 for cont.)

Dock

Southeast Skyways

Remove and dispose of 315 LF of existing 8" AC

Install 315 L.F. of 8" Sanitary Sewer, Conduit is A.C. except where indicated. (See Sheet 16 for Continuation.)

Remove existing and rebuild new timber approach

20 L.F. Symbol Denotes Approximate Location and Length of Ductile Iron. Sewer.

See sheet No. 17 for intersection details

Embankment 589 Cu Yds. (Includes 325 Cu Yds. Selected Material)
Excavation 668 Cu Yds. ①
Borrow 0 Tons
① Includes 79 Cu. Yds. excess excavation moved to Sta. "0" 63+00 to "0" 69+00

R.M.C. 9 (Brass Cap)
19' Right Station "0" 77+78
Elevation 25.93'

Elev. 27.90 300' V.C.

Elev. 27.30 End V.C.

+0.413%

-0.402%

Existing Ground

8" Sewer

6" C.I. water

Proposed 8" D.I. Water Main

EQUATION
78+52.83 BK =
78+52.52 Ahd

See Drainage Profile Sheet No. 25

75+00 76+00 77+00 78+00 79+00 80+00

PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.

4B 7024 HERCULENE DRAFTING FILM

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	18	97

550.8
Install ~~536~~ L.F. of 8" Dr. ~~Water~~ Main
See Sheet 13 for Continuation

53+30

60.63
53+61.46 P.O.C.
"B" 10+00.00
.30

N 21° 59' 13" E ~ 157.14'

See intersection detail sheet No. 21

MATCH LINE "8" 11+00

F STREET

L19 524 L5 601 L6 L7 537 L4 L2 ASHA 65

Δ = 28° 45' 53"
D = 10° Lt.
T = 146.92'
L = 287.65'
R = 572.96'
See Superelevation Table sheet No. 3

"8" 14+79 P.I.

Connect 8" W.M. to existing main with tapping tee.

Install 8" G.V. & V.B.

Install 6" G.V. & V.B.

Install Hydrant & 8 L.F. 6" D.I.W.M.

Install 8 L.F. of 8" D.I.W.M. & 8" G.V. Cap end

Plug Cap

install 4' gate

Delete Sidewalk

Delete Guardrail

"8" 13+04.06 P.I.

N 03° 05' 18" W
+69.14
300'

6" Topsoil and seed

topsoil & seed

N 6° 46' 40" W
58.0'

"8" 67.88
24.00' Rt.

"8" 14+10.00
24.00' Rt.

"8" 13+60.00
12.5' Rt.

11th St.

GLACIER AVENUE

8" C.I. WEST WILLOUGHBY AVENUE

Match Existing Pavement

"8" 15+02.88

GOLD CREEK

Embankment 1304 Cu. Yds. (Includes 298 Cu. Yds. Selected Material)
Excavation 141 Cu. Yds.
Borrow 2,175 Tons

Top of Fire Hydrant at the end of "F" Street. Elevation 27.06'.

Top of Fire Hydrant at 7th and Glacier Avenue. Elevation 29.36'.

El. 22.69
El. 28.69
El. 29.91
El. 29.88

-3.000%
-0.500%
+0.500%

+33.50
200'
+49.50

Existing 4" Water Line
(Abond)
"F" St utilities
Existing 8" Sanitary Sewer
Proposed 8" Ductile Iron Water Main
Verify Location In The Field

See Drainage Profile Sheet No. 23

10+00 11+00 12+00 13+00 14+00 15+00

30 20 10

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOT SHE
ALASKA	X-31530	1971	19	97

Sidewalk Utility Trench

Install new relocated hydrant 6"G.V. ±7 L.F. of 6" D.I.W.M.

FISH and GAME

Adjust V.B.

Install 95 L.F. of 6" A.C. Sewer Conduit

Install 6"G.V. Reconnect service

R/W

Slope Limits

R.C.O.

Install 352 L.F. of 6" D.I.W.M. Remove and dispose of existing water main (See sheet 15 for continuation)

Reconnect existing water services and install valve box

Relocate existing hydrant to Sta. "C" 6+28. (20' Lt.), remove G.V. and cap lateral. Remove existing hydrant

Adjust C.O.'s and install valve boxes

11¼° Bend

New 6" AC from C.O. @ 7+17 back N 22°52'55" W ~ 391.17'

6" AC Existing from C.O. @ 7+17 ahead

"D" 6+88.66 = "C" 10+00.00

Plug

45°

COAST GUARD DOCK

WHITTIER STREET

Paving Limit

6"P

Slope Limits

EL PT

COAST GUARD

Existing 6"

Sta "C" 7+71.69 See detail sheet No. 4 for approach road

MATCH LINE

Note: Relocate existing 4' chain-link fence to 0.5 ft behind sidewalk Sta. "C" 10+50 to "C" 11+62.

RCA

TOWER

4" concrete sidewalk

6" CONCRETE DRIVEWAY

N 75°23'05" W ~ 224.13'

Slope Limits

NATIONAL GUARD ARMORY

BEGINNING OF PROJECT
X-31530
STA. "C" 6+08.83

U.S.C.& G.S. B.M. 15
21' Left Station "C" 6+19.
Elevation 24.70'

Emb. = 328 cu. yds. (Includes 328 cu. yds. of Selected Material)
Exc. = 1,096 cu. yds. ①
Borrow = 0
① Includes 768 cu. yds. excess Exc. moved to Sta. "L" 63+00 to 69+00

Elev. 24.06
Elev 23.53 No V.C.
Profile Grade
Elev. 24.19 No V.C.
Elev. 25.49 Outer Drive
Elev. 25.14 No V.C.
Elev. 25.56 No V.C.
-0.500%
+0.500%
+1.940%
-0.996%
+0.500%
-0.500%
Plug
8" Water Pipe
Oil Tank
6" Sewer Pipe
3" Electrical Conduit
Existing Ground
3" Electrical Conduit
8" Water Pipe
8" A.C. Sewer
+25.33
+12.92
+63.92
+35.15
+18.58
40
30
20
10
6+00
7+00
8+00
9+00
10+00
11+00
12+00

See Drainage Profile Sheet No. 25

K&E MADE IN U.S.A. PLAN-PROFILE KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	X-31530	1971	20	97

Sidewalk Utility Trench

ALASKA STATE MUSEUM

DRIFTWOOD LODGE

HERMLES LIQUOR

GEORGE BROS. REALTY

WILLOUGHBY AVENUE

WHITTIER STREET

N25°20'W ~ 538.98'

8" S.D. @ "C" 12+06

"C" 12+00

Adjust MH

R=35'

R=40' Δ=92°47'10"

R=33' Δ=40°

R=1' Δ=90°

55'R

20'R

Storm drain

Sump

12" AC pipe

Slope Limits

4" Sidewalk tie to exist.

Adjust MH

Adjust V.B.

Adjust V.B.

Adjust V.B.

Adjust V.B.

TP

Curb Face N15°23'05"W

N14°35'48"W ~ 55.29 (ROW Only)

Match Line "C" 12+24.13

"C" Δ=9°56'55"

NATIONAL GUARD

2"D-1 and 2" hot bit. pavement placed on "Public Safety Parking area.

Public Safety Building

Topsoil & seed

construct steps from sidewalk to existing walks in 5 locations at Channel Apts.

Fire Hydrant installed by city

CHANNEL APARTMENTS

Adjust V.B.

END OF PROJECT
X-31530
STA "C" 17+63.11

Emb. = 459 cu. yds. (Includes 459 cu. yd. Selected Material)
Exc. = 1673 cu. yds. ①
Borrow = 0
① Includes 1214 cu. yds. excess Exc. moved to Sta. "L" 63+00 to 69+00.

Elev. 24.45' 150' V.C.

Profile Grade

-0.500%

+0.525%

Elev. 25.47' 200' V.C.

Elev. 28.66'

+1.78

+1.158

8" A.C. Sewer

3" Electrical Conduit

8" Water Line

3" Electrical Conduit

Existing Ground

+1.50

+63.11

See Drainage Profile Sheet No. 25

12+00 13+00 14+00 15+00 16+00 17+00

K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	21	97

INTERSECTION DETAILS

Median Curb Curve Data:
Δ = 10°43'13"
D = 20°00'
T = 26.88'
R = 286.48

Median Curb Curve Data:
Δ1 = 13°49'11" Δ2 = 8°18'36"
D1 = 20°00' D2 = 20°00'
T1 = 34.72' T2 = 20.81'
R1 = 286.48 R2 = 286.48

Median Curb Curve Data:
Δ1 = 13°48'26" Δ2 = 8°19'05"
D1 = 20°00' D2 = 20°00'
T1 = 34.69' T2 = 20.83'
R1 = 286.48 R2 = 286.48

10th STREET

10th ST. INTERSECTION

8th ST. INTERSECTION

MEDIAN CONTROL DETAIL

Median Curb Curve Data
Δ1+Δ2 = 10°43'13"
D1+D2 = 20°00' Lt. + Rt.
T1+T2 = 26.88'
R1+R2 = 286.48'

WHITTIER STREET

WHITTIER ST. INTERSECTION

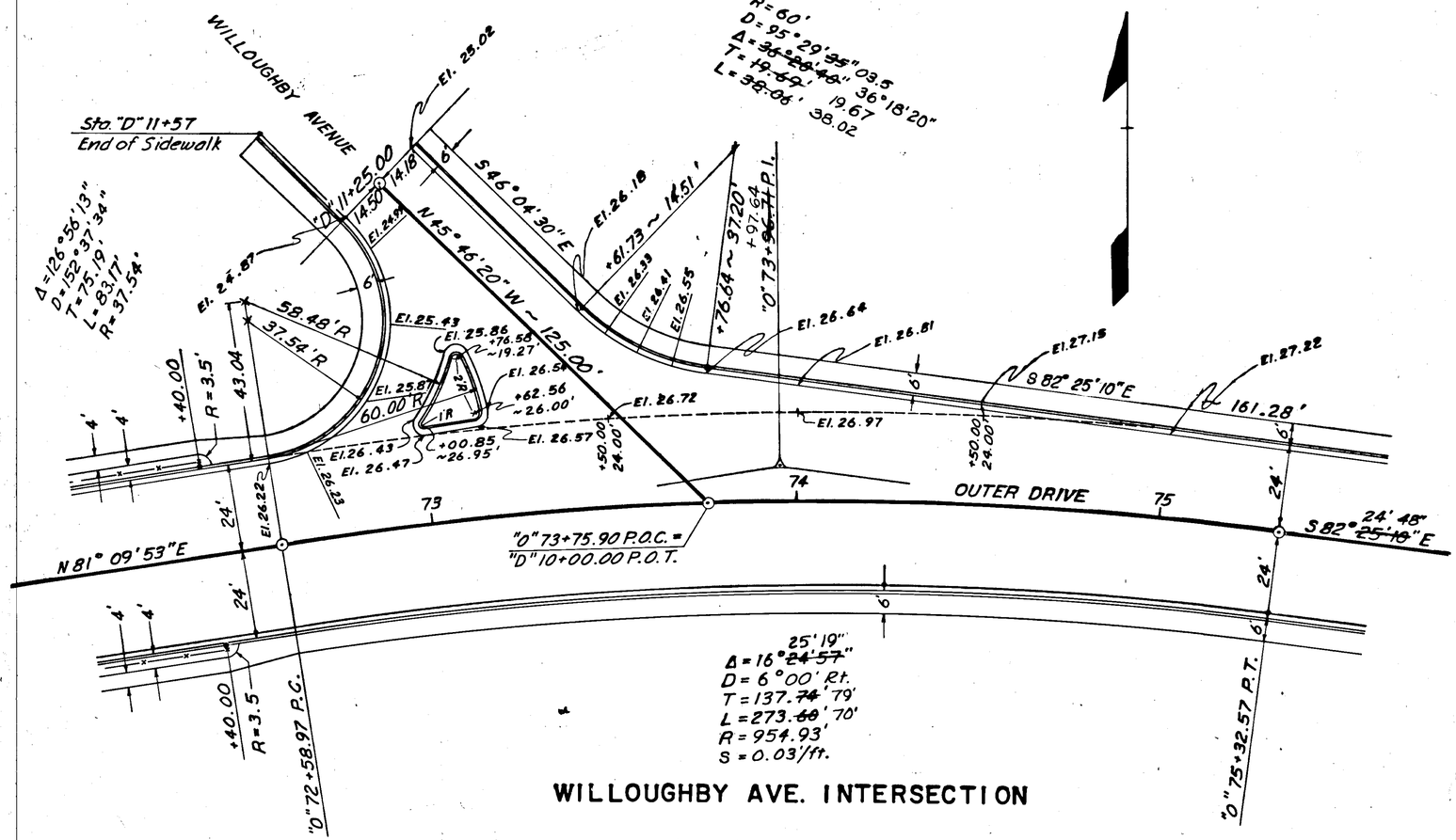
GLACIER AVENUE

GLACIER AVE. INTERSECTION

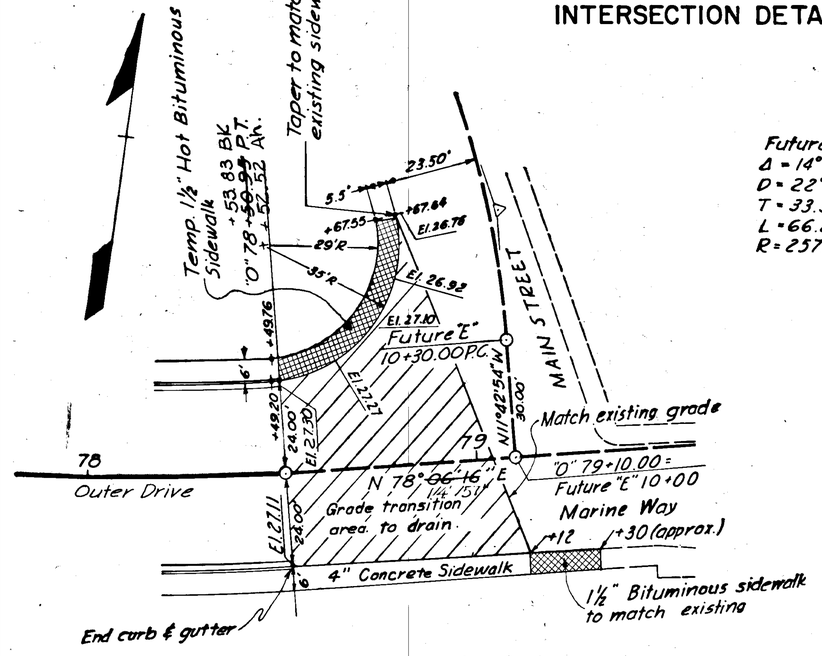
MEDIAN CONTROL DETAIL

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	22	97

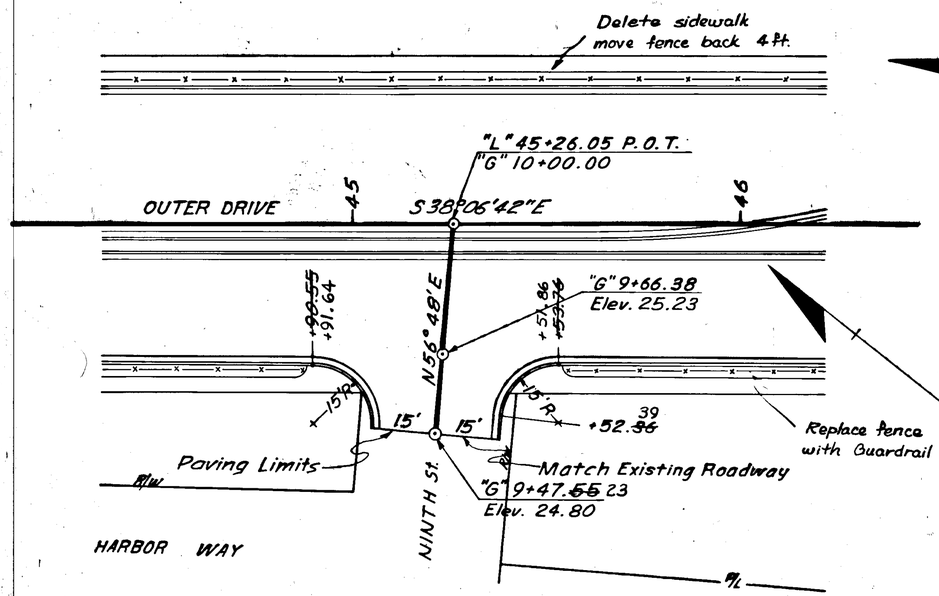
INTERSECTION DETAILS



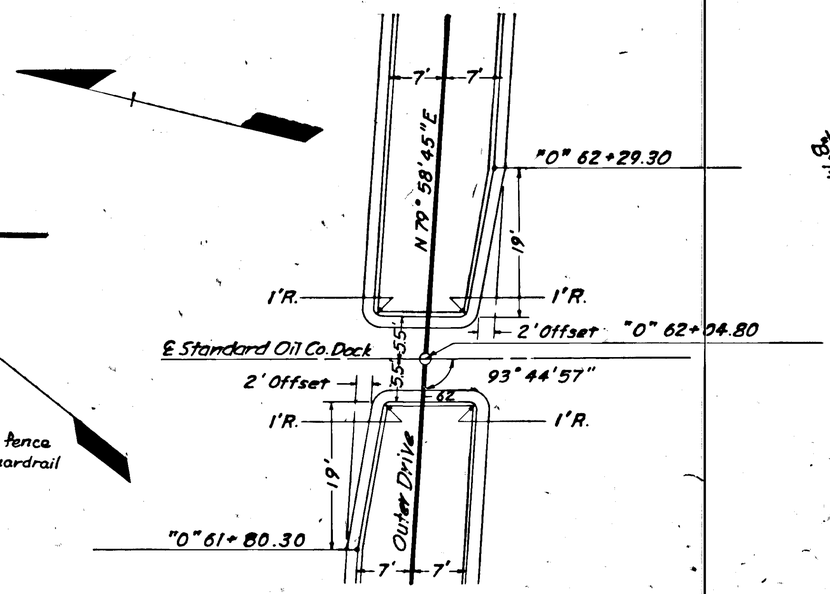
WILLOUGHBY AVE. INTERSECTION



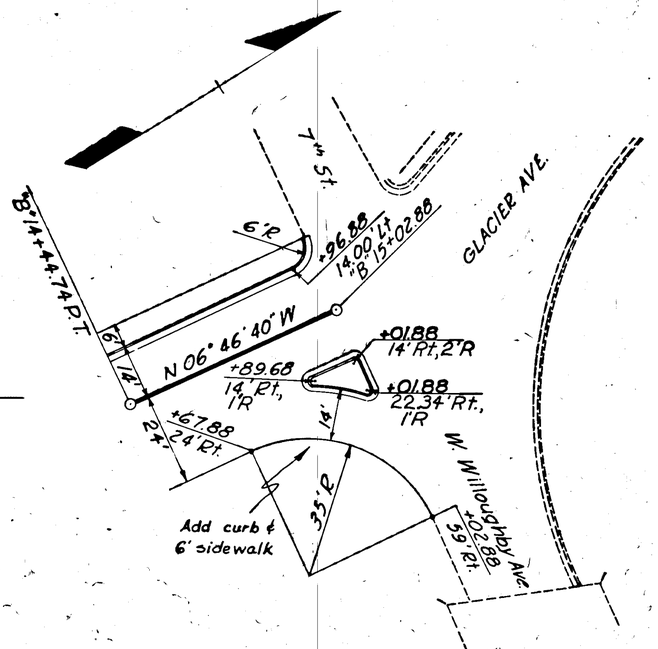
MAIN STREET INTERSECTION



NINTH ST. INTERSECTION



MEDIAN DETAIL AT OIL DOCK CROSSING



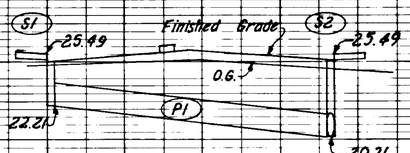
GLACIER AVE. INTERSECTION

KRUPPEL & DOBEN CO.

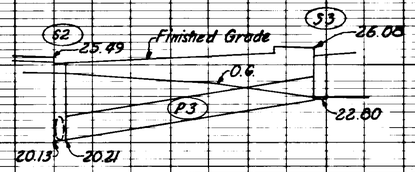
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	23	97

DRAINAGE PROFILES

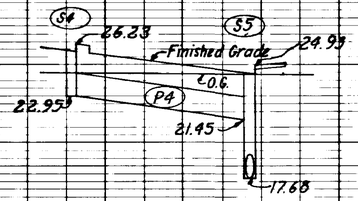
Note: All Storm Drain Conduits are 18", except where indicated.



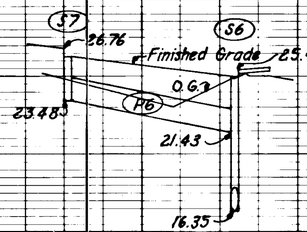
Sta. "L" 45+63.11



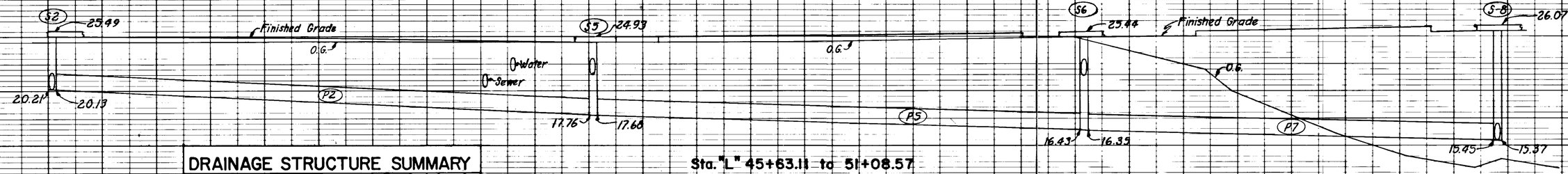
Sta. "L" 45+63.11 to 46+12.45



Sta. "L" 47+54.00 to 47+63.11



Sta. "L" 49+50



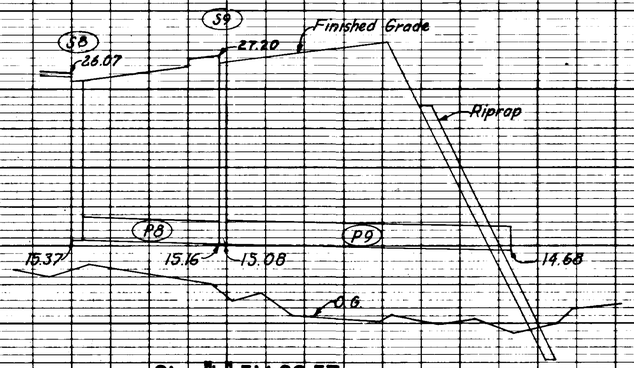
Sta. "L" 45+63.11 to 51+08.57

DRAINAGE STRUCTURE SUMMARY

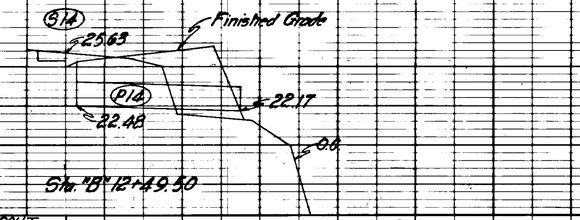
Inlet No.	Inlet Type	Location Station	Location Offset *	Top of Curb Elev.	Invert Elev.
S1	A	"L" 45+63.11	35' Rt.	25.49	22.21
S2	B	"L" 45+63.11	35' Lt.	25.49	20.13
S3	A	"L" 46+12.45	7' Rt.	26.08	22.80
S4	A	"L" 47+54.00	7' Rt.	26.23	22.95
S5	B	"L" 47+63.11	35' Lt.	24.93	17.68
S6	B	"L" 49+50.00	35' Lt.	25.44	16.35
S7	A	"L" 49+50.00	7' Rt.	26.76	23.48
S8	B	"L" 51+08.57	35' Lt.	26.07	15.37
S9	B.	"L" 51+08.57	0.8' Rt.	27.20	15.08
				26.01	
S14	A	"B" 12+49.50	14' Lt.	~~25.63~~	22.48

** Top of inlet elev.

* Offset measured to curb face



Sta. "L" 51+08.57



Sta. "B" 12+49.50

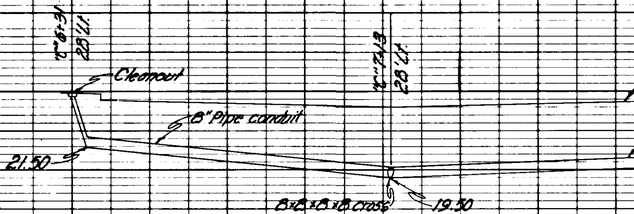
PIPE SUMMARY

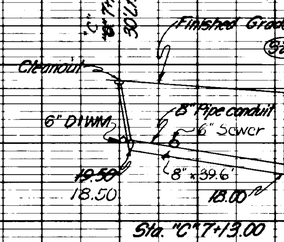
Pipe No.	Design Length	From Inlet No.	From Inv. Elev.	To Inlet No.	To Inv. Elev.
P1	68	S1	22.21	S2	20.21
P2	197	S2	20.13	S5	17.76
P3	64	S3	22.80	S2	20.21
P4	47	S4	22.95	S5	21.45
P5*	179	S5	17.68	S6	16.43
P6	43	S7	23.48	S6	21.43
P7*	150	S6	16.35	S8	15.45
P8*	36	S8	15.37	S9	15.16
P9*	73	S9	15.08	Outfall	14.68
P14	56	S14	22.48	Outfall	22.17

* Asbestos-bonded, bituminous coated, galvanized corrugated steel pipe.

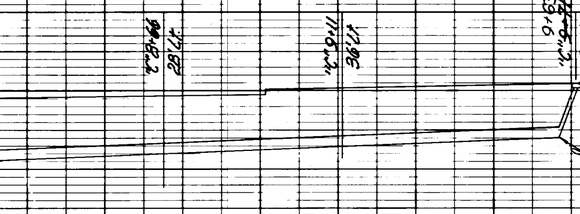
DOWNSPOUT CONNECTIONS

Station	Offset
"C" 6+25	37.5 Lt.
"C" 6+73	37.5 Lt.
"C" 7+14	37.5 Lt.
"C" 7+47	37.5 Lt.
"C" 7+93	37.5 Lt.
"C" 8+35	37.5 Lt.
"C" 8+66	37.5 Lt.
"C" 9+11	37.5 Lt.
"C" 9+55	37.5 Lt.
"C" 9+66	37.5 Lt.





Sta. "C" 7+13.00



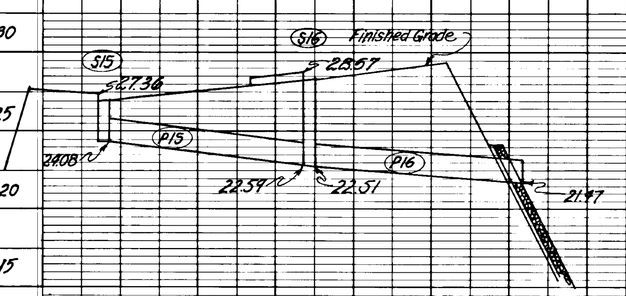
Sta. "C" 6+31 to "C" 9+71

PLATE 1 PLAN-PROFILE GRADE STAKING
EUGENE DIETZGEN CO.

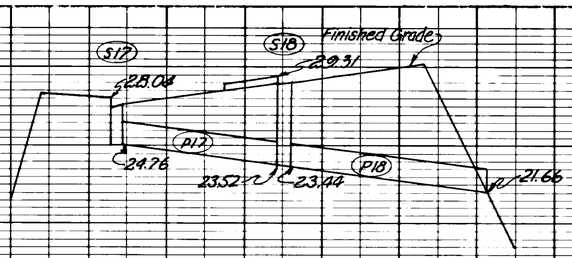
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	24	97

DRAINAGE PROFILES

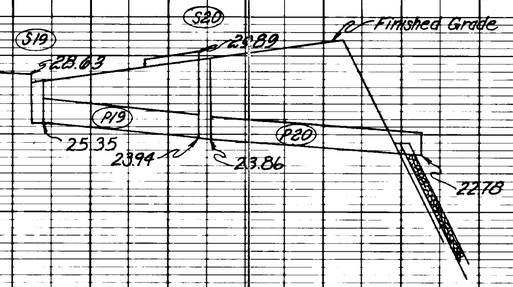
NOTE: All Storm Drain Conduits are 18".



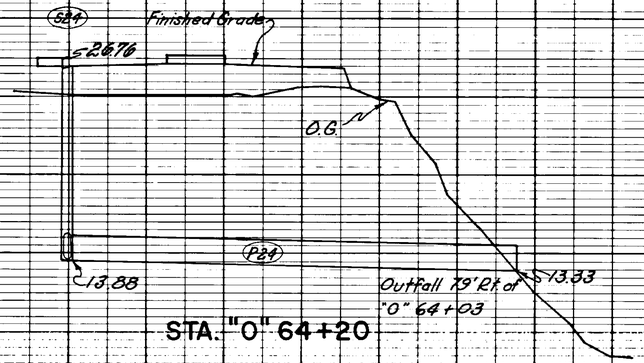
STA. "L" 54+16



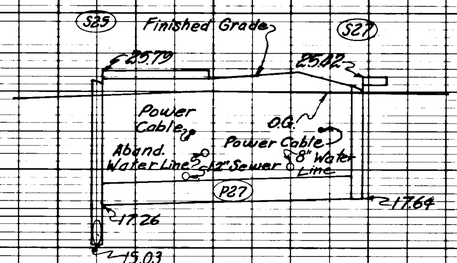
STA. "L" 56+00



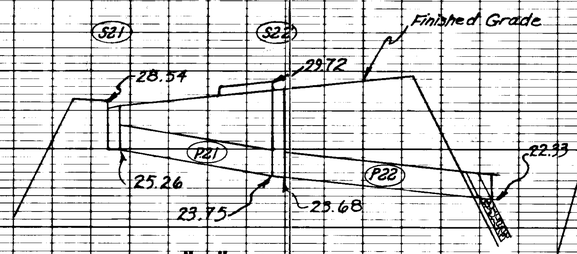
STA. "L" 57+50



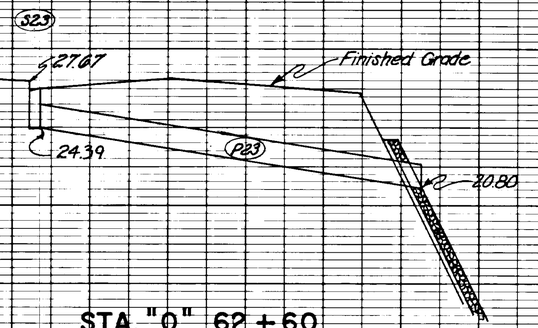
STA. "0" 64+20



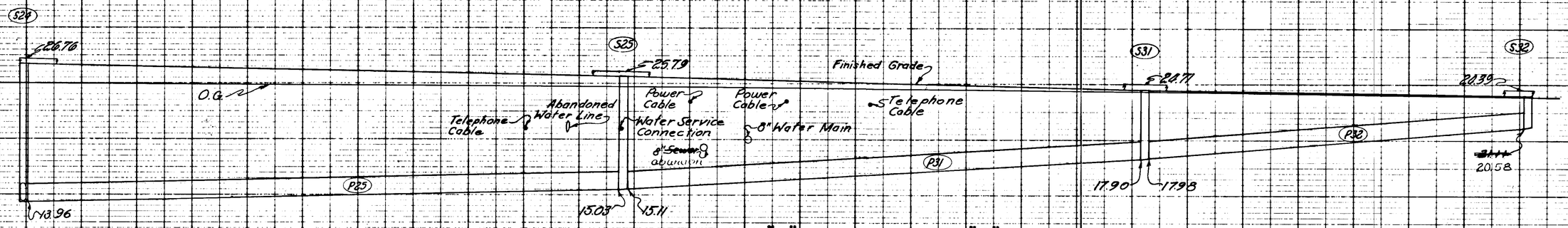
STA. "0" 66+36.50
TO STA. "C" 10+62



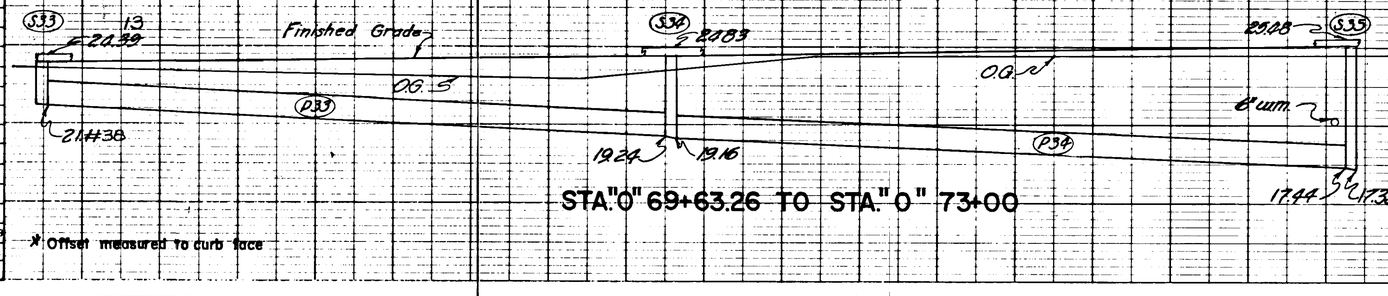
STA. "0" 60+60



STA. "0" 62+60



STA. "0" 64+20 TO STA. "0" 69+63.26



STA. "0" 69+63.26 TO STA. "0" 73+00

PIPE SUMMARY

PIPE NO.	DESIGN Lgth.	From Inlet No.	From Inv. Elev.	To Inlet No.	To Inv. Elev.
P 15	~~42~~ 43	S 15	24.08	S 16	22.59
P 16	~~48~~ 60	S 16	22.51	Outfall	21.47
P 17	40	S 17	24.76	S 18	23.52
P 18	~~48~~ 66	S 18	23.44	Outfall	21.66
P 19	40	S 19	25.35	S 20	23.94
P 20	~~54~~ 60	S 20	23.86	Outfall	22.78
P 21	~~41~~ 40	S 21	25.26	S 22	23.75
P 22	54	S 22	23.68	Outfall	22.33
P 23	98	S 23	24.39	Outfall	20.80
P 24*	114	S 24	13.88	Outfall	13.33
P 25*	~~214~~ 210	S 25	15.03	S 24	13.96
P 27*	~~64~~ 57	S 27	17.64	S 25	17.26
P 31*	~~186~~ 180	S 31	17.90	S 25	15.11
P 32	~~136~~ 112	S 32	21.11	S 31	17.98
P 33	~~160~~ 181	S 33	21.11	S34	19.24
P 34	172	S 34	19.16	S35	17.44

* Asbestos-bonded, bituminous coated, galvanized corrugated steel pipe.

DRAINAGE STRUCTURE SUMMARY

Inlet No.	Inlet Type	Location Station	Location Offset *	Top of Curb Elev.	Invert Elev.
S 15	A	"L" 54+30	35' Lt.	27.36	24.08
S 16	A	"L" 54+16	7' Rt.	28.~~57~~.62	22.51
S 17	A	"L" 56+00	35' Lt.	28.04	24.76
S 18	A	"L" 56+00	7' Rt.	29.~~31~~.06	23.44
S 19	A	"L" 57+50	35' Lt.	28.63	25.35
S 20	A	"L" 57+50	7' Lt.	29.~~89~~.94	23.86
S 21	A	"0" 60+60	35' Lt.	28.54	25.26
S 22	A	"0" 60+60	7' Rt.	29.~~72~~.68	23.68
S 23	A	"0" 62+60	35' Lt.	27.67	24.39
S 24	B	"0" 64+20	35' Lt.	26.76	13.88
S 25	B	"0" 66+35.5	35' Lt.	25.~~79~~.83	15.03
S 27	B	"0" 10+62	14' Rt.	25.42	17.64
S 31	A	"0" 68+25	31.7' Lt.	24.~~71~~.63	17.90
S 32	A	"0" 69+~~63.26~~	28.4' Lt.	24.39	~~21.11~~ 20.58
S 33	A	"0" 69+~~63.26~~	28.4' Rt.	24.~~39~~ 13	21.~~11~~ 38
S 34	A	"0" 71+25	24.6' Rt.	24.83	19.16

* Offset measured to curb face

PLATE 1-PLAN-PROFILE O.P.R.&B.F. STANDARD

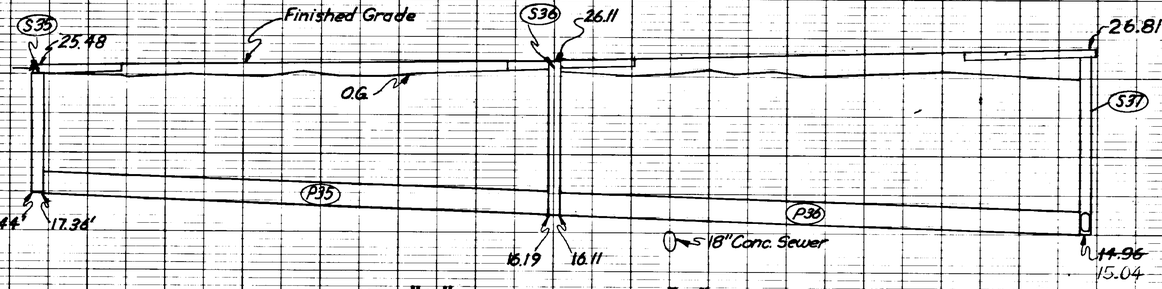
1964 B.A.CEPROOF FILM - MADE AND PRINTED IN U.S.A.

EUGENE DIETZGEN CO.

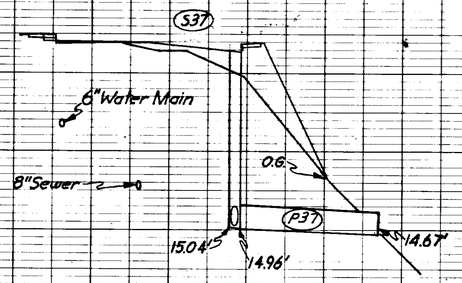
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530	1971	25	97

DRAINAGE PROFILES

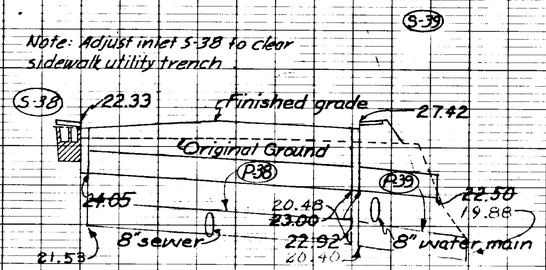
Note: All Storm Drain Conduits are 18" except where indicated



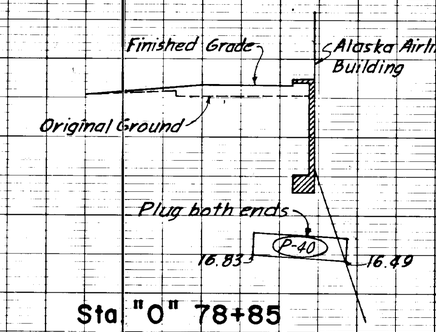
Sta. "0" 73+00 to Sta. "0" 75+75



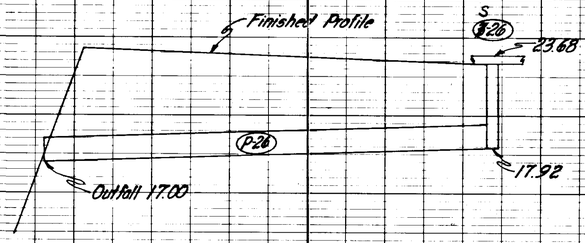
Sta. "0" 75+75



Sta. "0" 76+58 to Sta. "0" 77+08



Sta. "0" 78+85



Sta. "C" 5+97 to Sta. "C" 7+12.92

PIPE SUMMARY

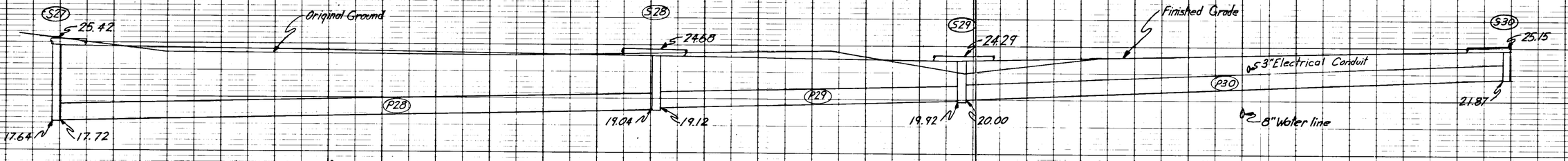
PIPE NO.	DESIGN LENGTH	FROM INLET #	FROM INV. EL	TO INLET #	TO INV. EL	
P 26*	114'	S 26	17.92	OUTFALL	17.00	
P 28	226'	S 28	19.04	S 27	17.72	
P 29	114'	S 29	19.92	S 28	19.12	
P 30	200'	S 30	21.87	S 29	20.00	
P 35*	130'	S 35	17.36	S 36	16.19	
P 36*	134'	S 36	16.11	S 37	15.04	
P 37*	36'	S 37	14.96	OUTFALL	14.67	
P 38	68'	S 38	24.05	S 39	23.00	20.48
P 39	20'	S 39	22.92	OUTFALL	22.50	19.88
P 40	24'	Ø	16.83	——	16.49	

* Asbestos-bonded, bituminous coated, galvanized corrugated steel pipe.

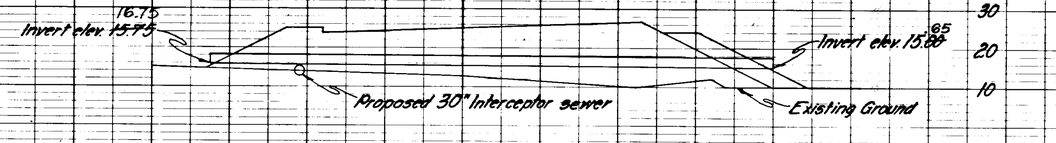
Ø For future connection

DRAINAGE STRUCTURE SUMMARY

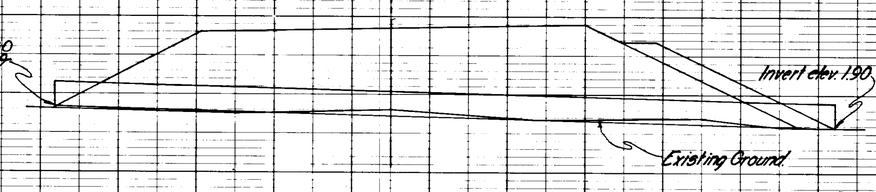
INLET NO.	INLET TYPE	LOCATION STATION	LOCATION OFFSET	TOP OF CURB ELEV.	INVERT ELEV.	
S 26	A	"C" 7+12.92	14' Rt.	23.68	17.92	
S 28	A	"C" 12+81	24' Rt.	24.68	19.04	
S 29	A	"C" 13+98.17	24' Rt.	24.29	19.92	
S 30	A	"C" 16+00	24' Rt.	25.15	21.87	
S 35	B	"0" 73+00.0	24.0 Rt.	25.48	17.36	
S 36	B	"0" 74+35.0	24.0 Rt.	26.11	16.11	
S 37	B	"0" 75+75.0	24.0 Rt.	26.81	14.96	
S 38	A	"0" 76+58.0	24.0 Lt.	27.33	24.05	21.53
See C.O. #3 S 39	A	"0" 77+08.0	24.0 Rt.	27.42	22.92	19.90
S 40	A	Willow Way				



Sta. "C" 10+62 to Sta. "C" 16+00



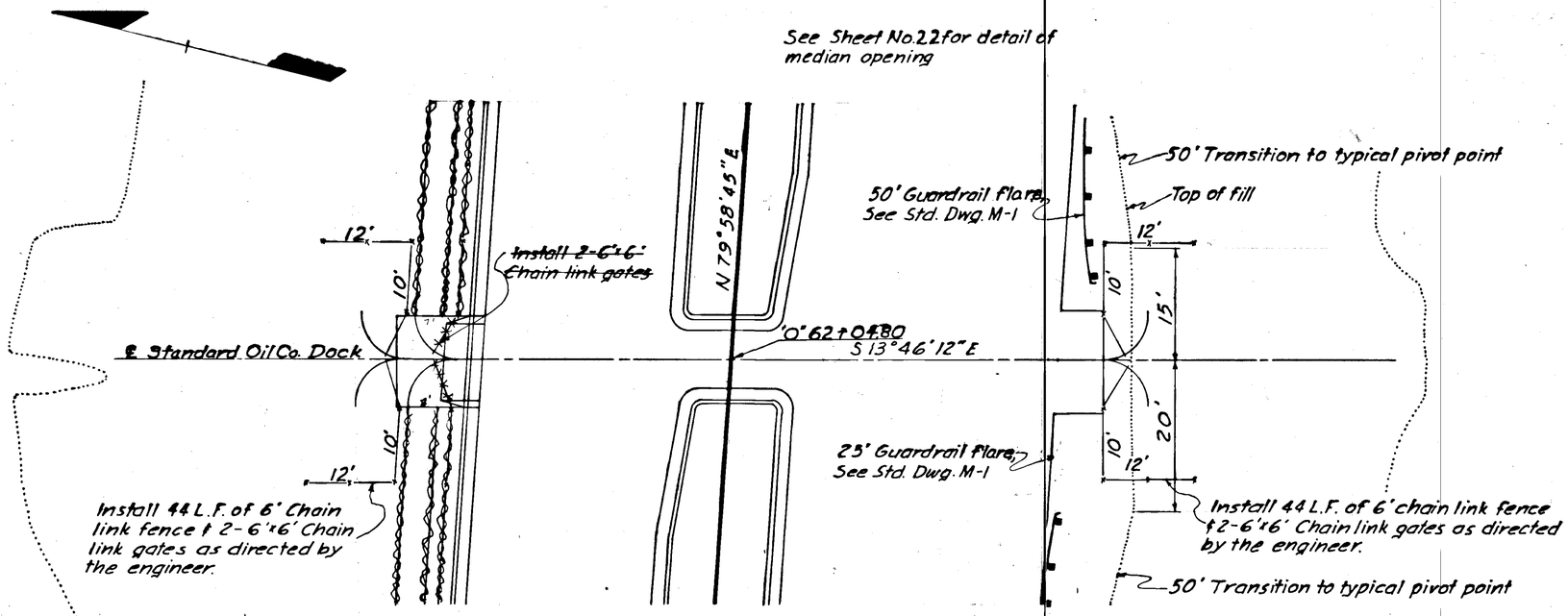
Profile of 30" x 146' Pipe Conduit
Sta. "L" 51+25



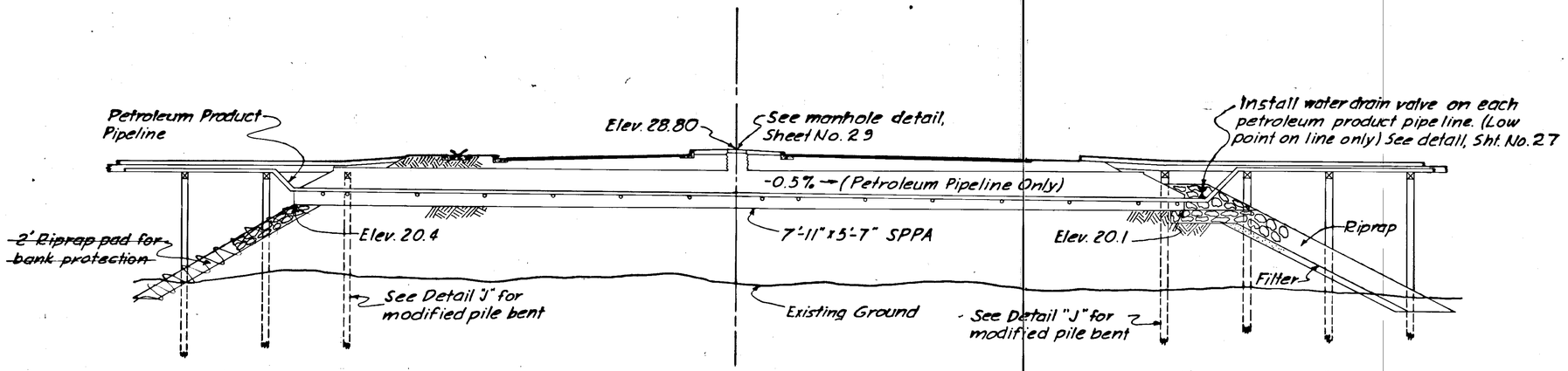
Profile of 72" x 200' Pipe Conduit
Sta. 60+95

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	26	97

OIL DOCK CROSSING GENERAL LAYOUT



PLAN VIEW OF DOCK ACCESS



SECTION THRU 7'-11"X5'-7"SPPA

See Sheet No.27 for plan view of sleeve placement

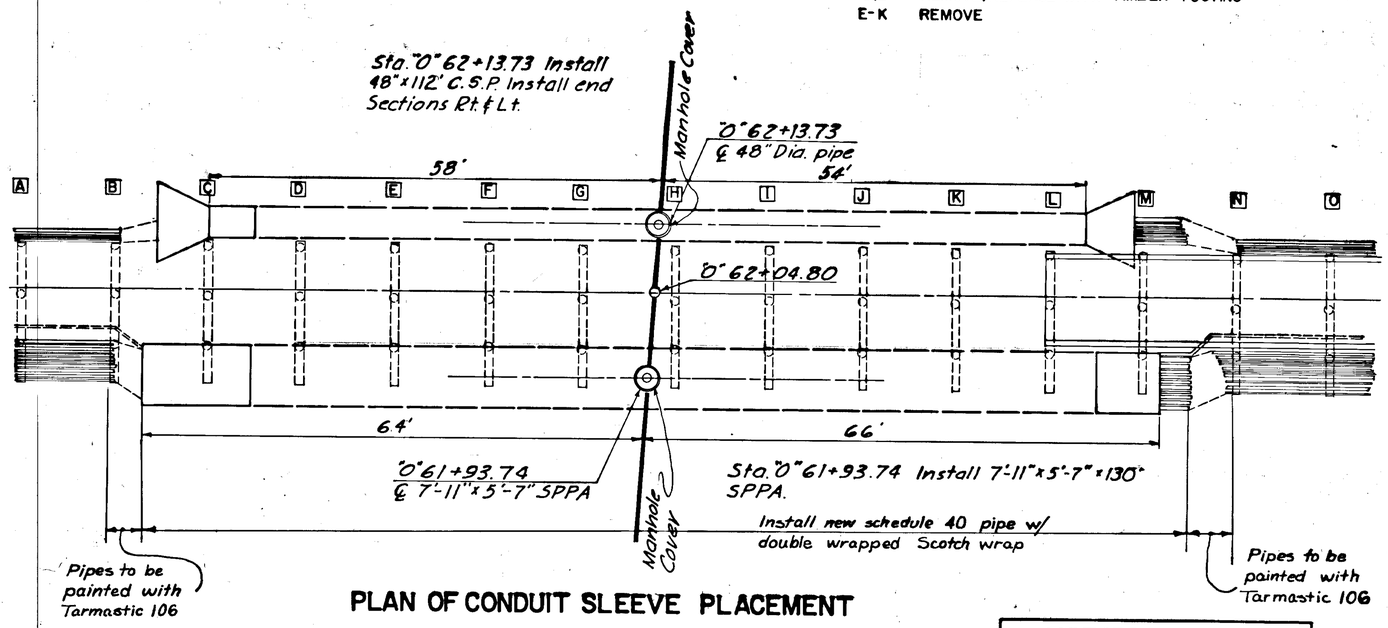
KRUPPEL & KNUDSEN CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	27	97

OIL DOCK CROSSING

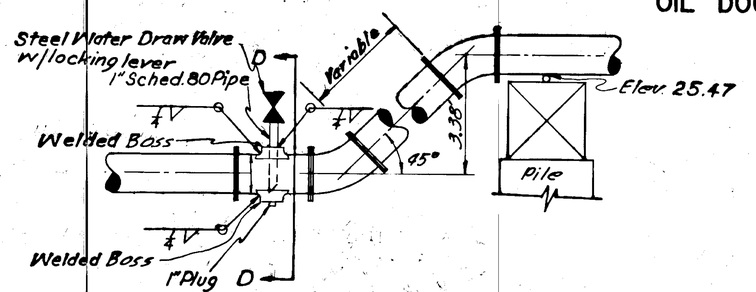
PILE BENT

A,B,N,O	REMAIN IN PLACE
C,M	SHORTEN CAP, RESET PILE (SEE DETAIL)
D,L	REMOVE, REPLACE WITH TIMBER FOOTING
E-K	REMOVE



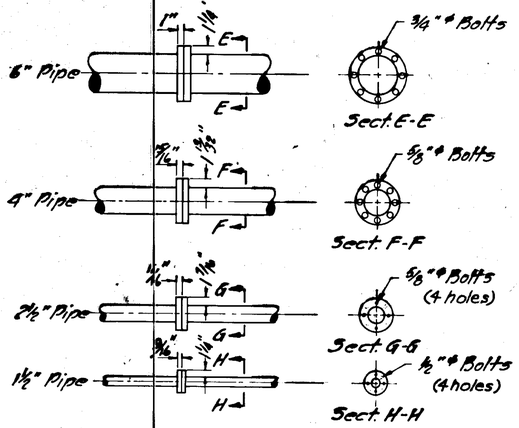
PLAN OF CONDUIT SLEEVE PLACEMENT

TREATED TIMBER			
Size	No.	Length	Total
2" x 12"	4	13'	52'
3" x 12"	24	12'	288'
3" x 12"	2	16'	32'
3" x 12"	2	20'	40'
4" x 12"	18	13'	234'
8" x 8"	4	13'	52'
12" x 12"	2	13'	26'



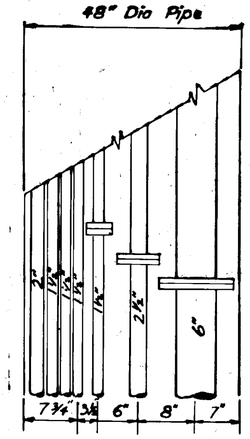
TYPICAL FLANGED-DRAIN & 45° BEND

SECTION D-D

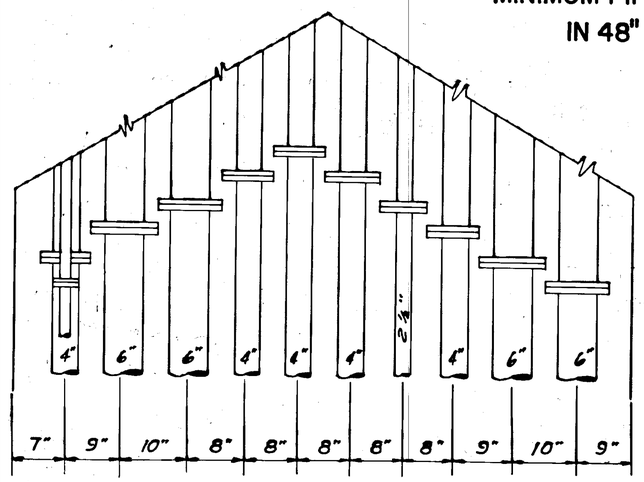


Note: Use Standard Flanged Fittings

TYPICAL FLANGE CONNECTION

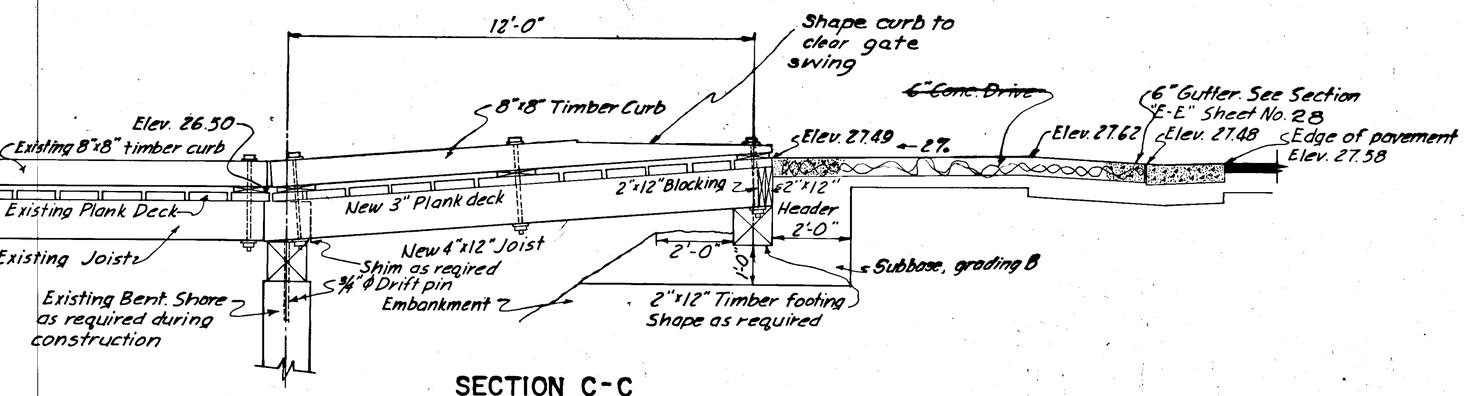


MINIMUM PIPE SPACING IN 48" CMP



Note: Adjacent flanges shall be staggered.

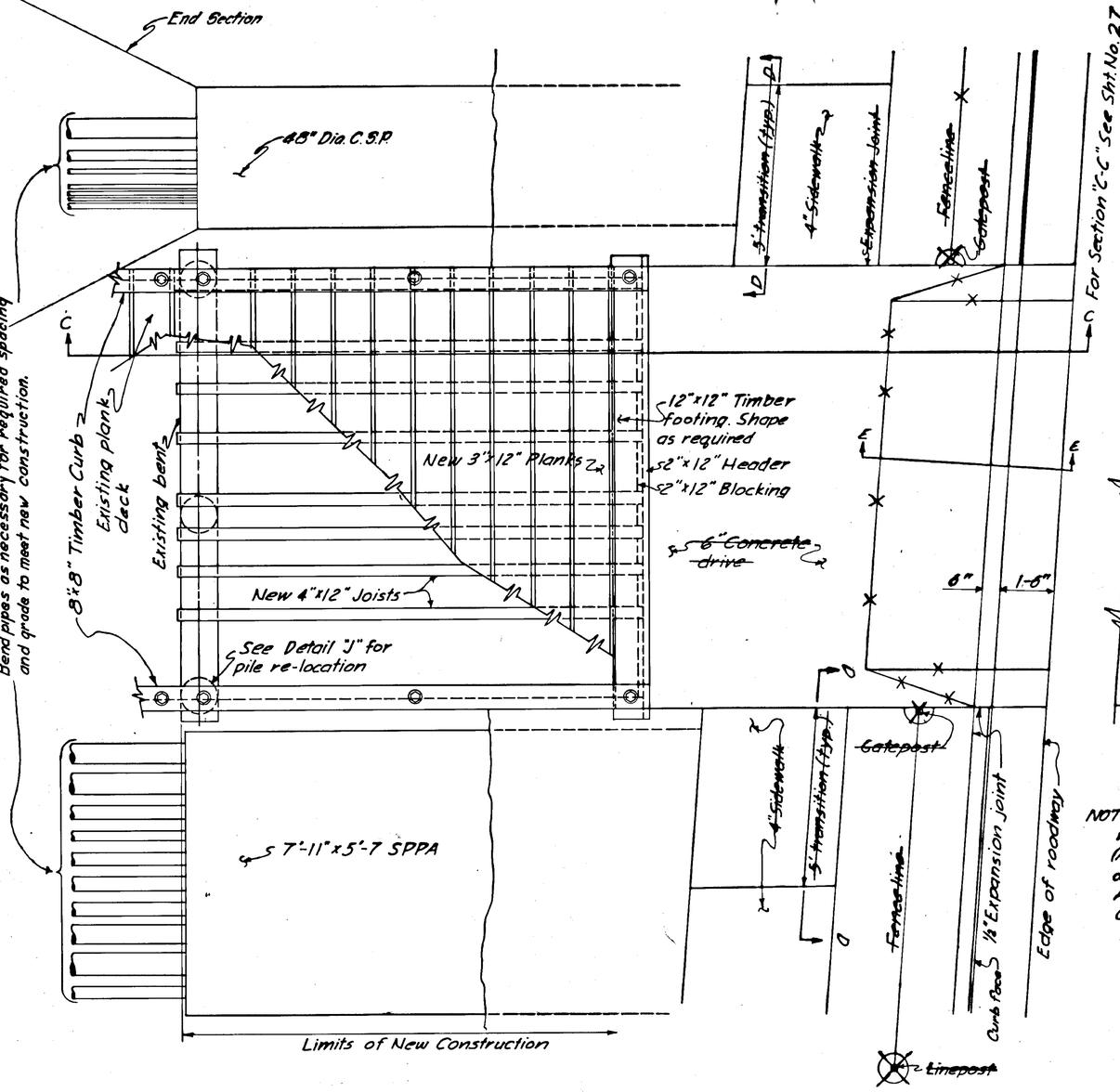
MINIMUM PIPE SPACING IN 7'11" x 5'7" SPPA



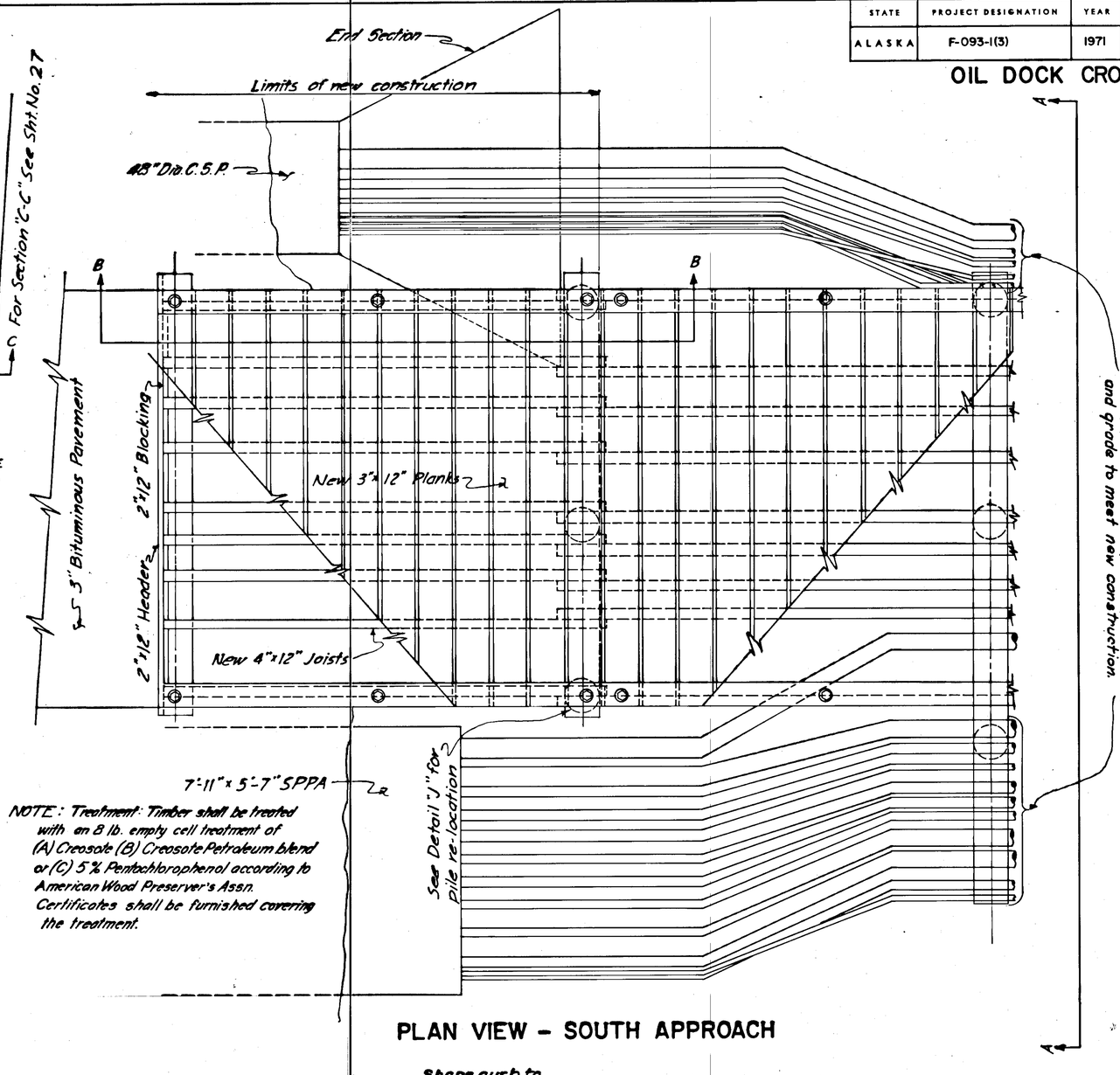
SECTION C-C

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	28	97

OIL DOCK CROSSING

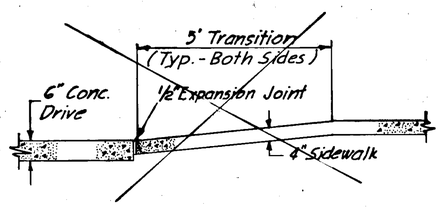


PLAN VIEW - NORTH APPROACH

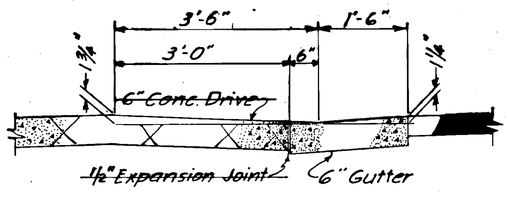


NOTE: Treatment: Timber shall be treated with an 8 lb. empty cell treatment of (A) Creosote (B) Creosote Petroleum blend or (C) 5% Pentachlorophenol according to American Wood Preserver's Assn. Certificates shall be furnished covering the treatment.

PLAN VIEW - SOUTH APPROACH

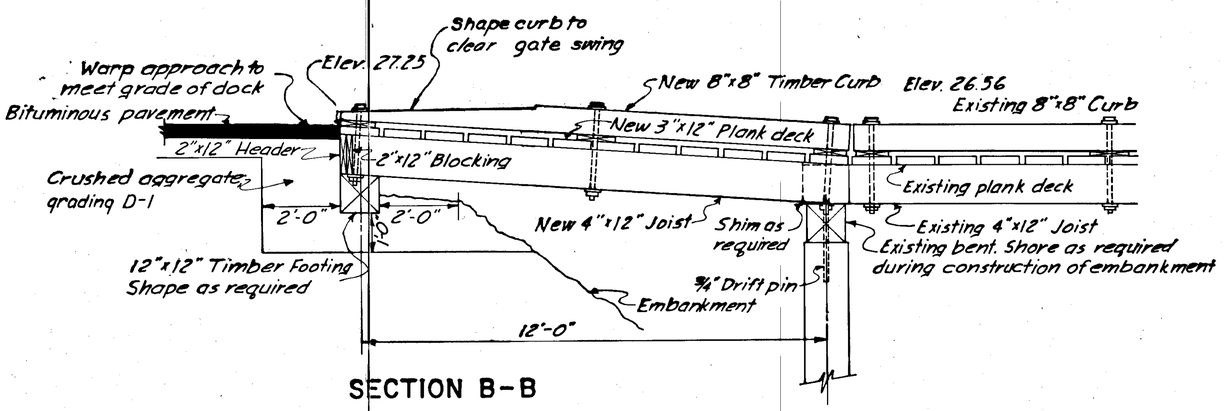


SECTION D-D



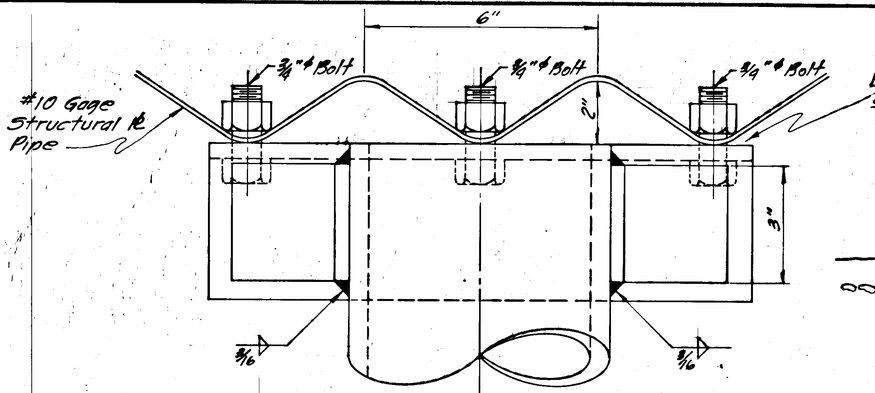
SECTION E-E

Note: Drive will be paid for as 6" Concrete Sidewalk.

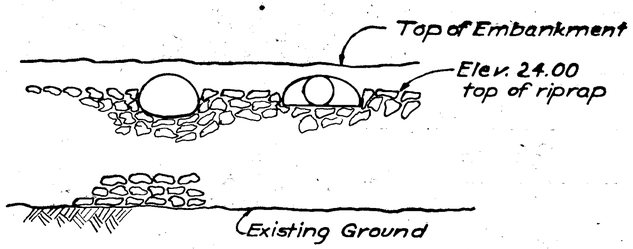


SECTION B-B

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	29	97

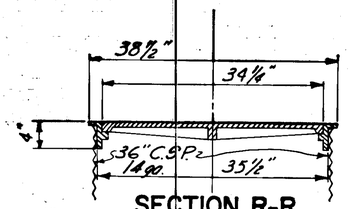


Length of bolts vary. Place pipe supports in S.P.P.A. and C.S.P. to maintain grade on product pipelines.

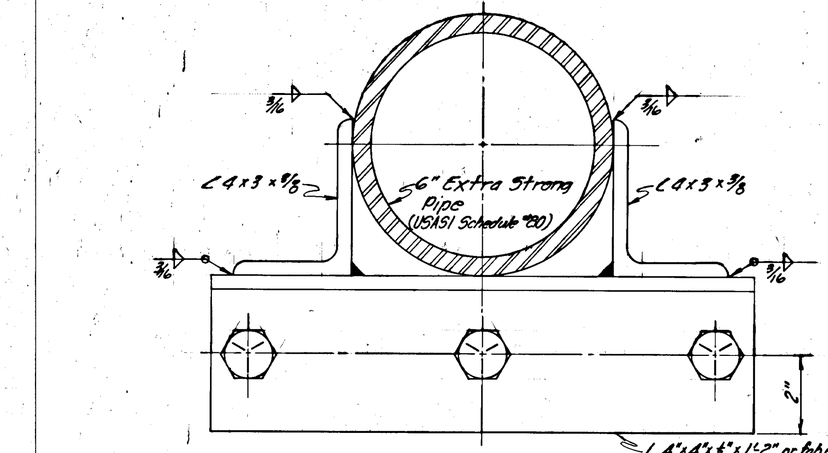


RIPRAP DETAIL (ELEVATION)

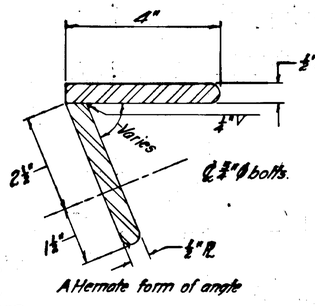
Note: Place riprap by hand under dock & around culvert outlets. Install 2' riprap pad at pipe outlets & warp to provide drainage



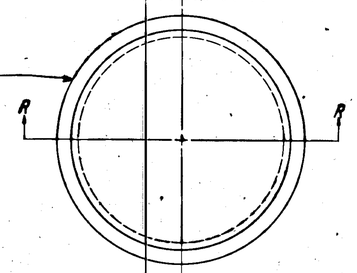
SECTION R-R



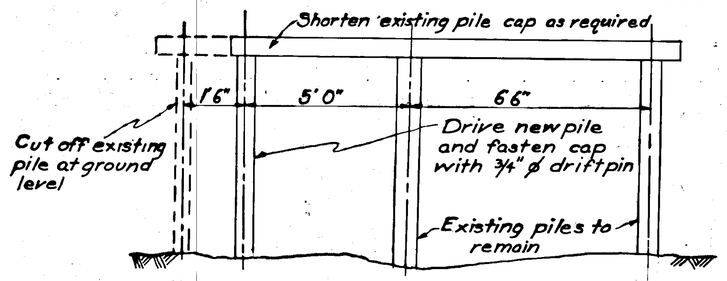
6" PIPE SUPPORT



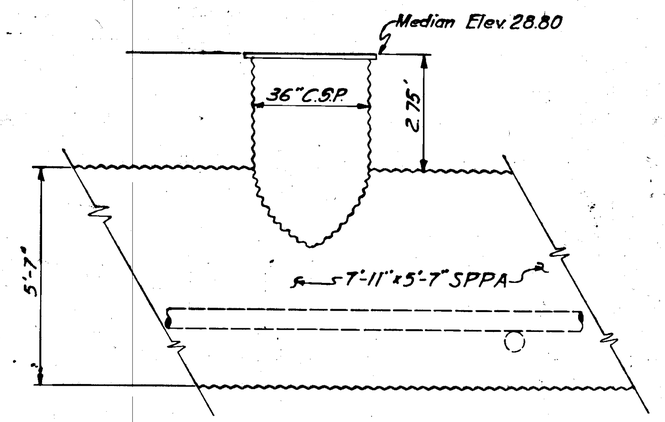
Light-duty frame and solid lid Min. wt. 280 lbs.



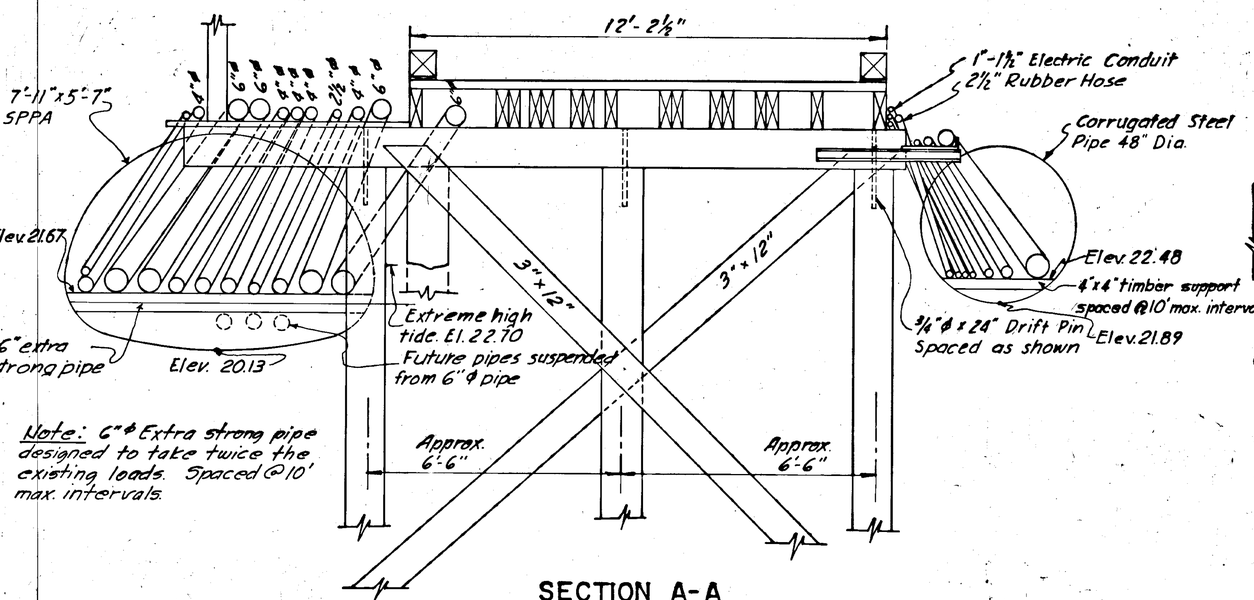
OIL DOCK CROSSING



DETAIL "J"

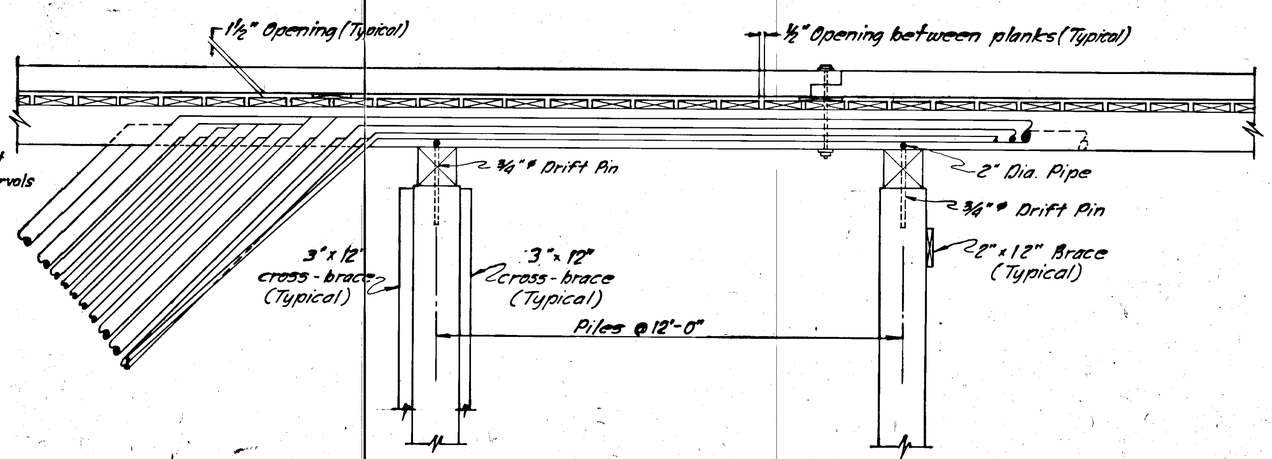


MANHOLE & COVER DETAIL



Note: 6"ø Extra strong pipe designed to take twice the existing loads. Spaced @10' max. intervals.

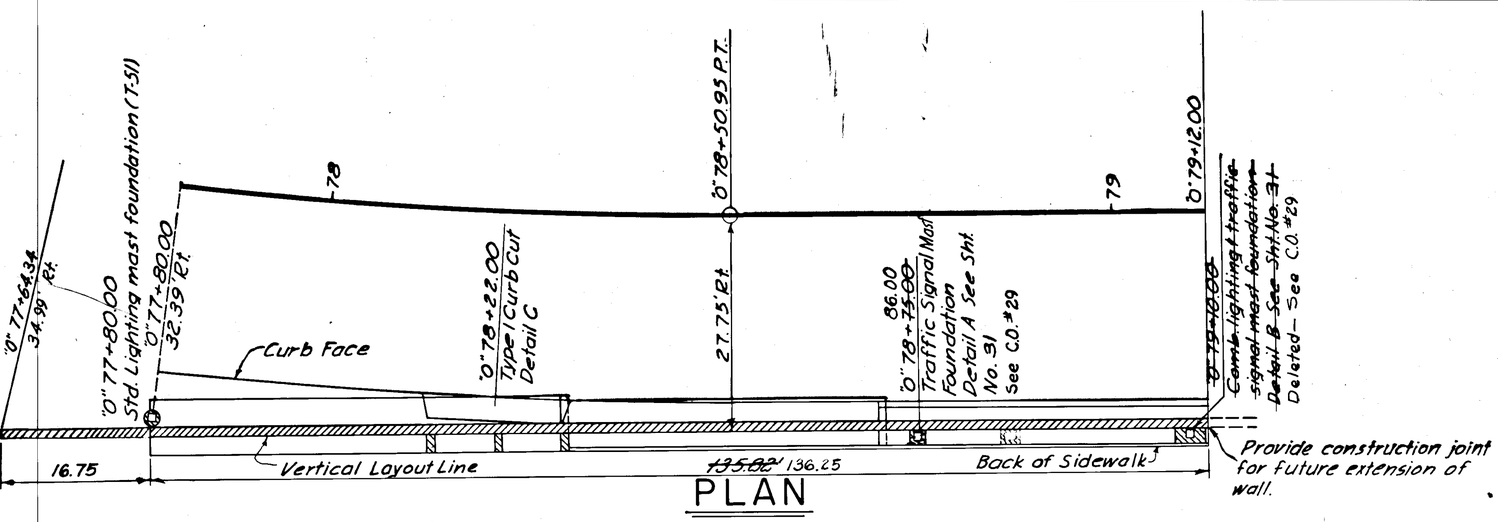
SECTION A-A



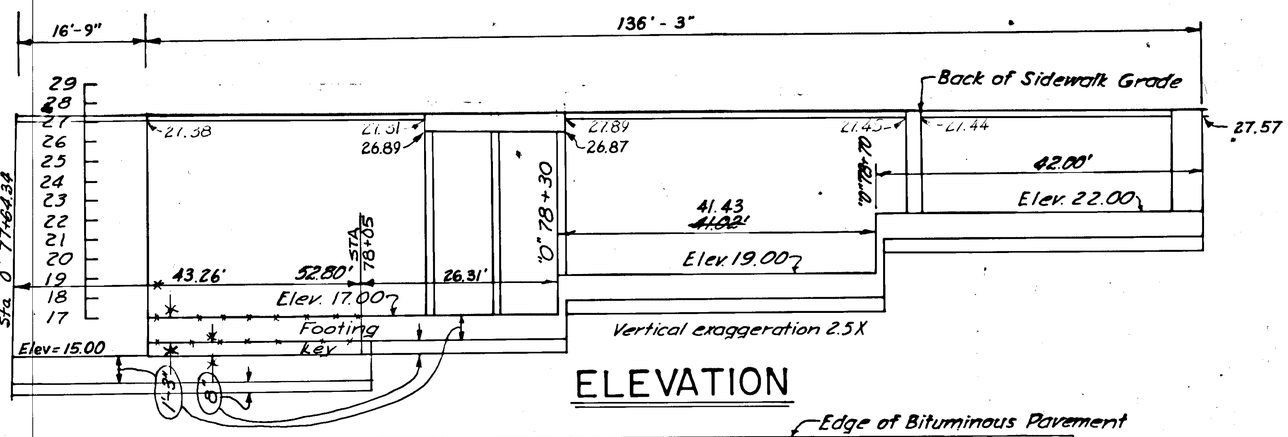
ELEVATION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	30	97

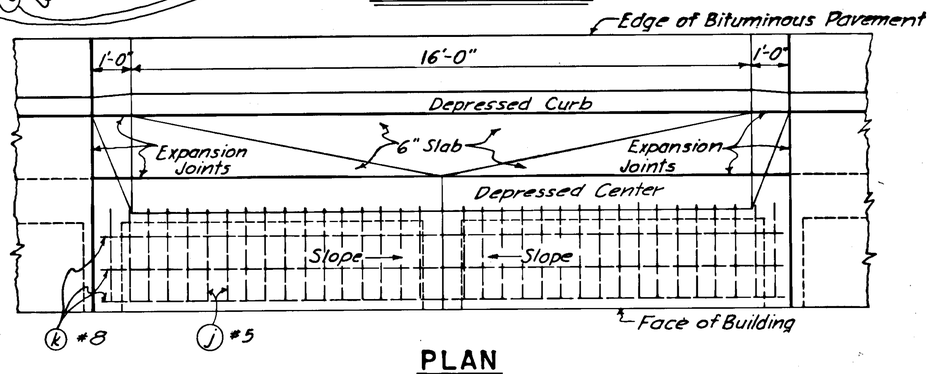
RETAINING WALL DETAILS



PLAN

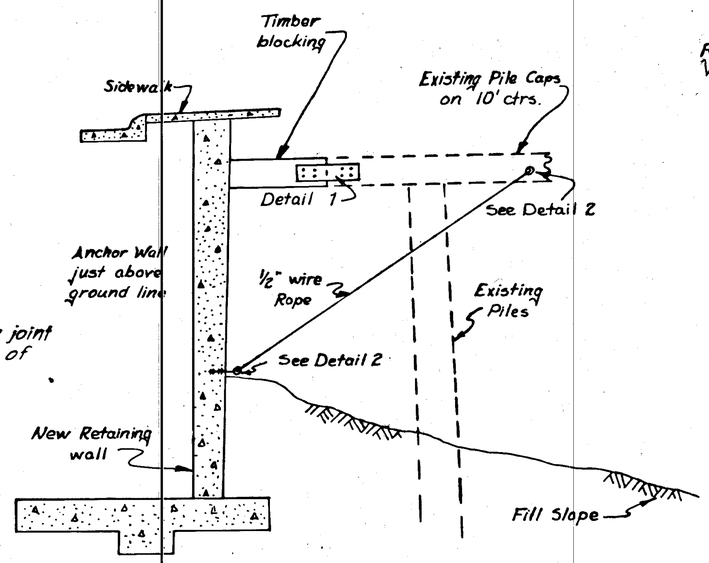


ELEVATION



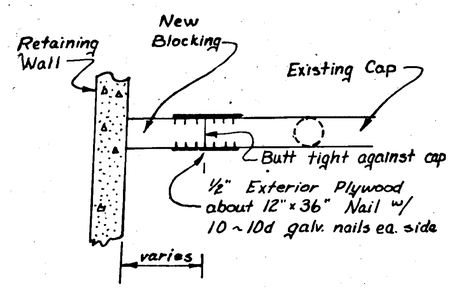
PLAN

DETAIL C

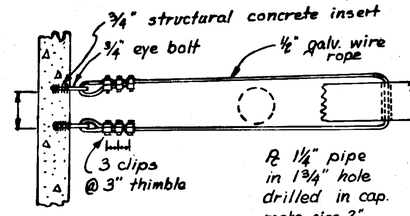


PROFILE

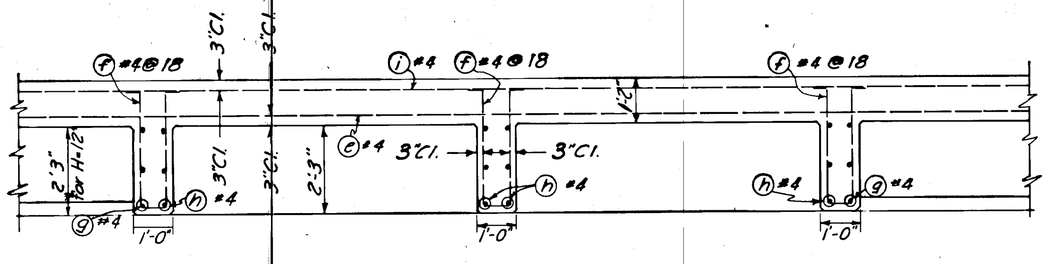
PILE CAP TIE - ALASKA AIRLINES



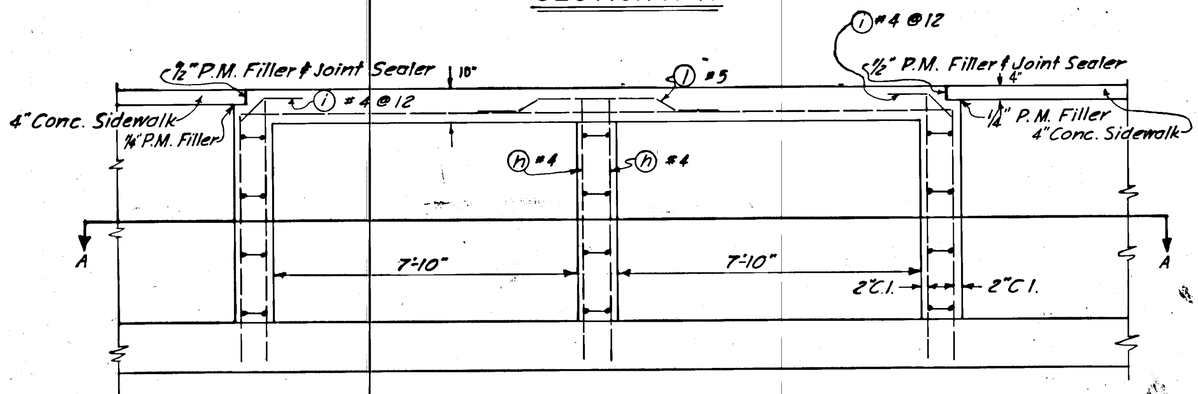
DETAIL 1



DETAIL 2



SECTION A-A



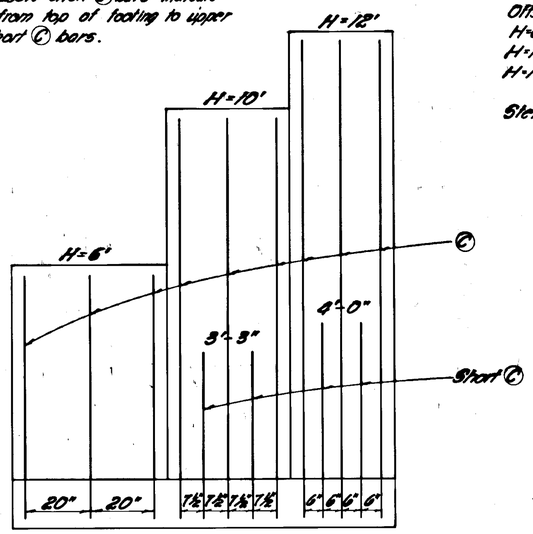
ELEVATION

KEUFFEL & ESSER CO.

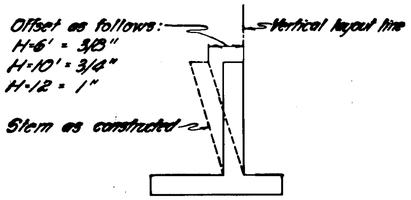
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	31	97

RETAINING WALL DETAILS

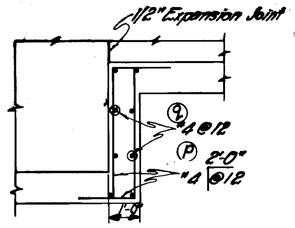
Numbers above short Ⓒ bars indicate distance from top of footing to upper end of short Ⓒ bars.



ELEVATION



WALL OFFSET



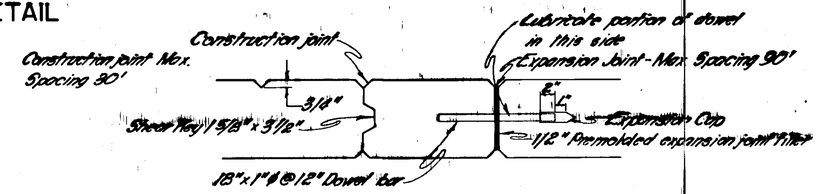
TYPICAL FOOTING STEP DETAIL

Design H	W	C	B	Ⓒ bars	short Ⓒ bars	Ⓔ bars
6'	4'-10"	1'-11"	2'-11"	#5 @ 20		#5 @ 20
10'	6'-2"	1'-11"	4'-3"	#6 @ 15	#5 @ 15	#7 @ 15
12'	7'-2"	2'-3"	4'-11"	#7 @ 12	#7 @ 12	#7 @ 12

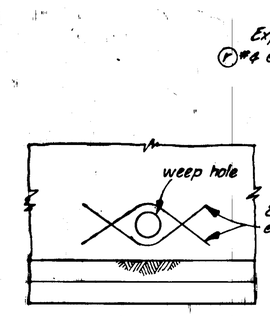
TABLE OF REINFORCING STEEL DIMENSIONS AND DATA

Location			Length	Concrete (Cu. Yds.)	Reinforcing Steel (Lbs.)	Class I Excavation for Structures Cu. Yds.
From Sta.	To Sta.	L/R				
"0"+77+80.00	"0"+79+12.00	Rt.	135.82 ft.	98 c.y.	7,486 lbs.	347

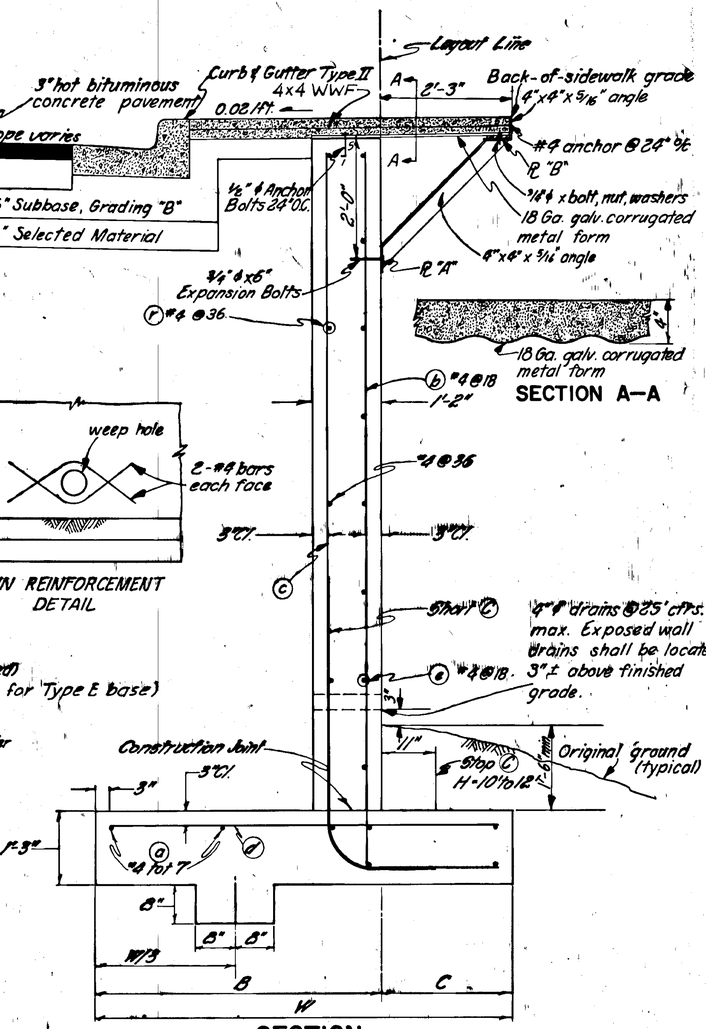
QUANTITIES



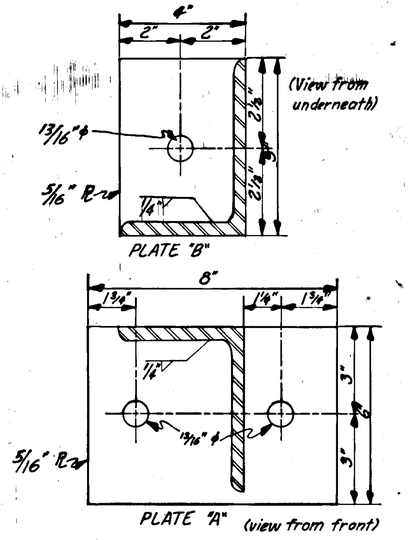
TYPICAL JOINT DETAILS



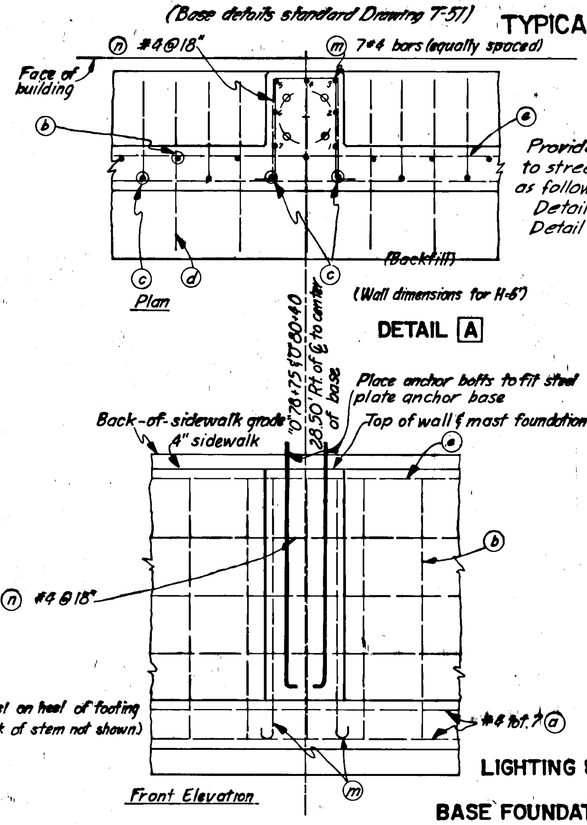
DRAIN REINFORCEMENT DETAIL

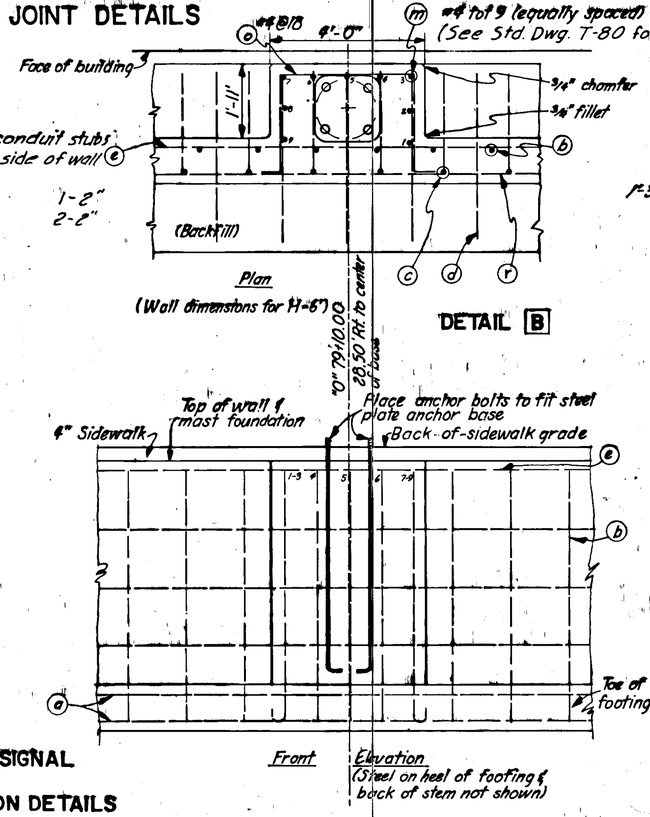


SECTION



SIDEWALK BRACKET FASTENING DETAILS





LIGHTING & SIGNAL BASE FOUNDATION DETAILS

GENERAL NOTES

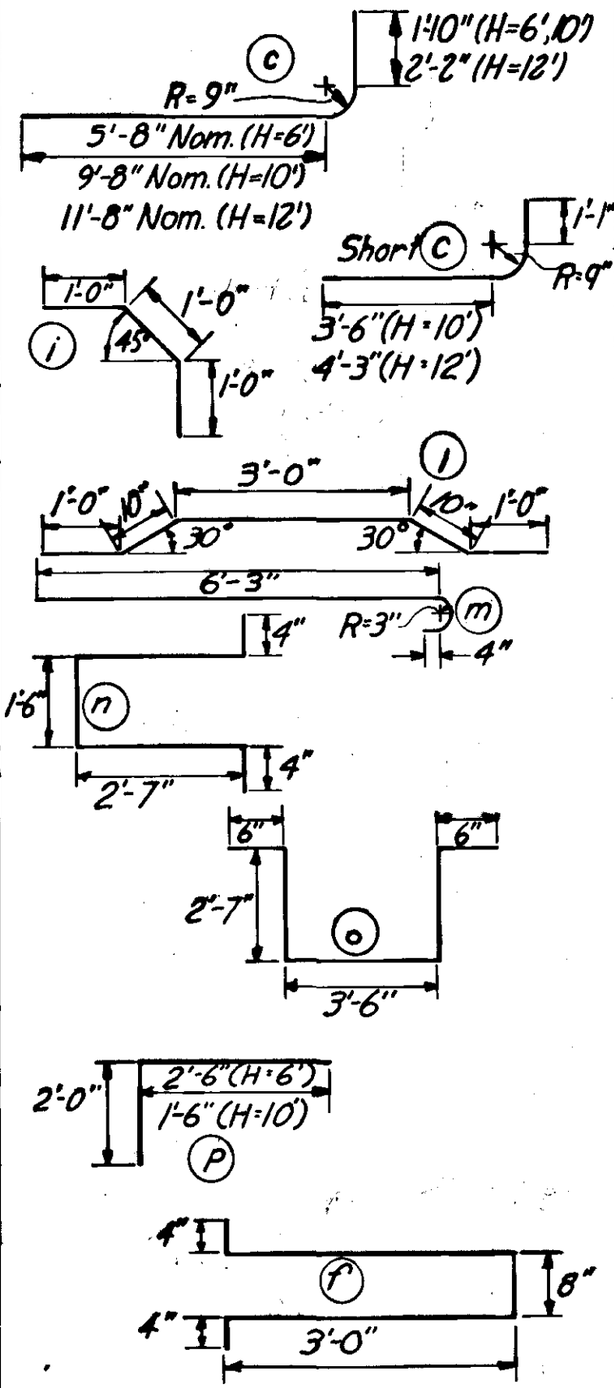
1. All reinforcing bars shall have a 3-inch minimum clear distance to face of concrete.
2. Contraction joints shall have a maximum spacing of 30 feet.
3. Expansion joints shall have a maximum spacing of 90 feet.
4. Footing step detail shall be used wherever there is a change in footing elevation. Construction joints shall be installed at each footing step.
5. All structural steel and hardware shall be galvanized.
6. Design data: fc=1200 psi
   f'c=3000 psi
   fs=20,000 psi
   n=10
   earth=120 pcf

STATE	PROJECT NUMBER	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	32	97

REINFORCING STEEL

BAR	SIZE	SPACING (INCHES)	QUANTITY	LENGTH (ft.-in.)	TOTAL WT. (Lbs.)
(a)	4	Varies	7	143	669
H=6' (b)	4	18	29	6-5	114
H=10' (b)	4	18	29	10-5	184
H=12' (b)	4	18	36	12-5	271
H=6' (c) *	5	20	26	8-8	214
H=10' (c) *	6	15	33	12-8	581
H=12' (c) *	7	12	53	15-0	1499
H=10' short (c) *	6	15	33	5-9	285
H=12' short (c) *	7	12	53	6-6	704
H=6' (d)	5	20	26	4-4	117
H=10' (d)	7	15	33	5-8	382
H=12' (d)	7	12	53	6-8	723
H=6' (e)	4	18	4	44-0	118
H=10' (e)	4	18	7	43-0	201
H=12 (e)	4	18	8	55-6	296
(f) *	4	18	24	7-4	118
H=12' (g)	4	12	6	12-3	49
H=12' (h)	4	12	12	12-9	102

BENDING DIAGRAM



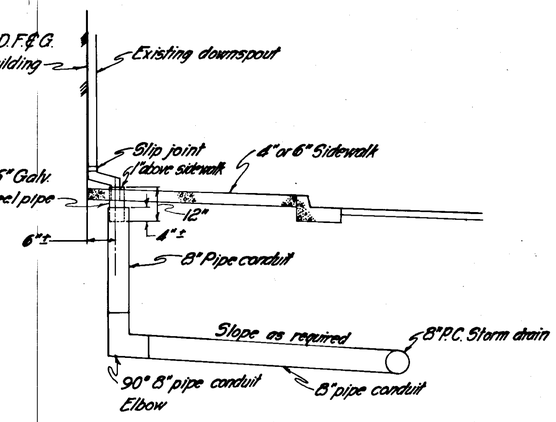
RETAINING WALL DETAILS

BAR	SIZE	SPACING (INCHES)	QUANTITY	LENGTH (ft.-in)	TOTAL WT. (Lbs.)
(i) *	4	12	6	3-0	12
(j)	5	6	95	2-6	91
(k)	8	10	3	17-6	140
(l) *	5	12	3	6-8	21
(m) *	4	See Details A & B	16	7-5	79
(n) *	4	18	4	7-4	20
(o) *	4	18	4	9-8	26
H=6' (p) Footing Step *	4	12	5	4-6	15
H=10' (p) Footing Step *	4	12	6	3-6	14
H=6' (q) Footing Step *	4	Varies	8	4-4	23
H=10' (q) Footing Step *	4	Varies	8	5-8	30
H=6 (r)	4	36	3	44-0	88
H=10 (r)	4	36	4	43-0	115
H=12 (r)	4	36	5	55-6	185

Total Reinforcing Steel 7,486 lbs.

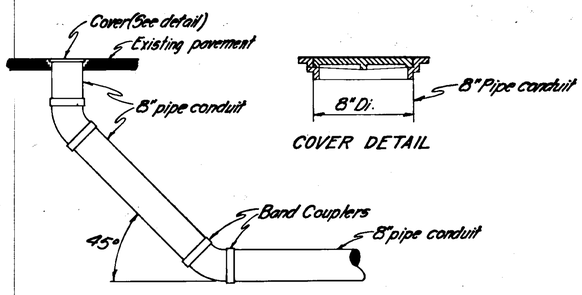
* See bending detail

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	33	97



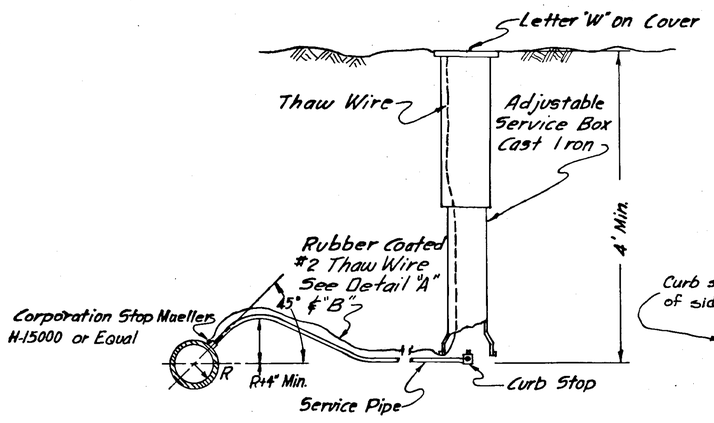
SECTION

TYPICAL DOWNSPOUT - STORM DRAIN CONNECTION AT A.D.F.&G. BUILDING

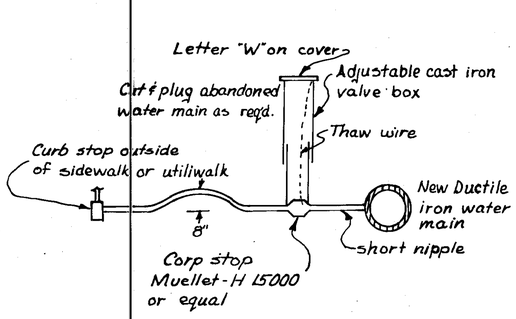


COVER DETAIL

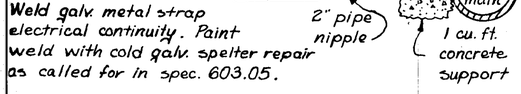
STORM DRAIN CLEANOUT DETAIL



WATER SERVICE CONN. DETAIL

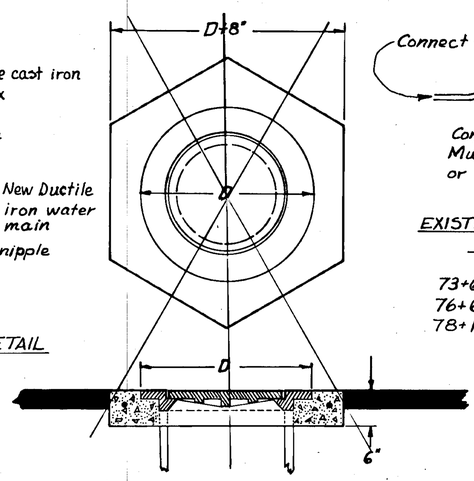


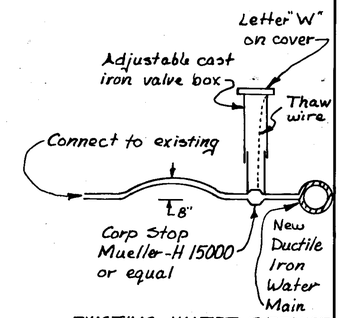
WATER SERVICE CONN. DETAIL
for
73+03 Rt - 1" Service
*75+22 Lt - 2" Service
75+67 Rt - 1" Service
*76+05 Lt - 2" Service
76+80 Rt - 1" Service
* Do not connect



Weld galv. metal strap electrical continuity. Paint weld with cold galv. spelter repair as called for in spec. 603.05.

FLEXIBLE WATER SERVICE CONN. DETAIL
for
75+22, 76+02, 76+67, 78+02

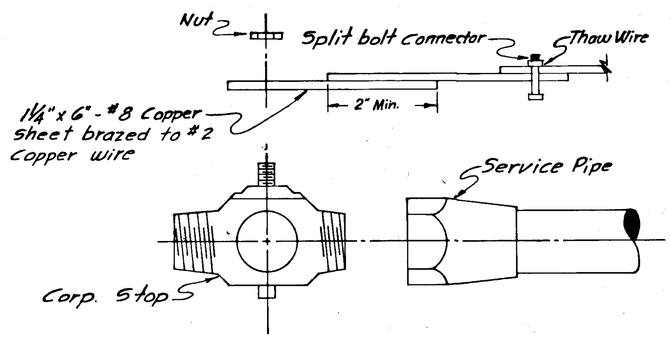




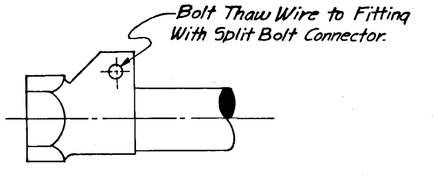
EXISTING WATER SERVICE CONN. DETAIL
for
73+65 Rt - 1" Service
76+67 Lt - 2" Service
78+17 Lt - 2" Service

All manhole, valve box, and sewer cleanout covers falling within the pavement limits shall be adjusted to grade and encased in class A concrete.

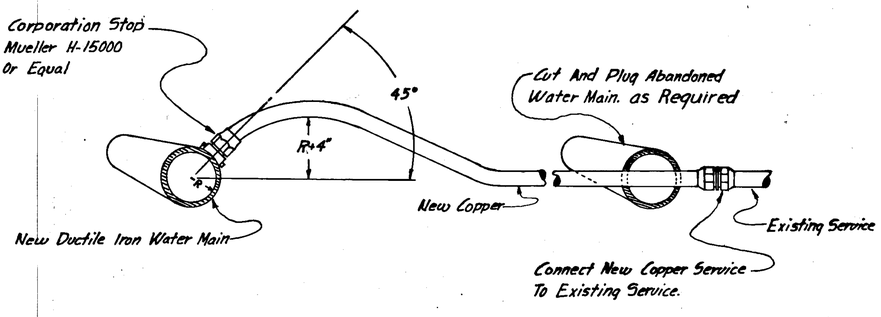
CONCRETE ENCASEMENT DETAIL



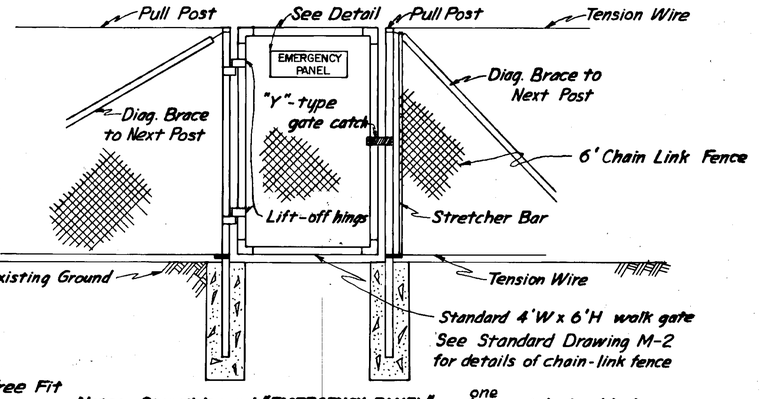
THAW WIRE CONNECTION DETAIL "A"

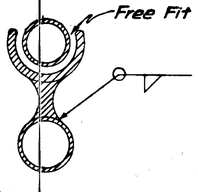


ALT. THAW WIRE CONNECTION DETAIL "B"



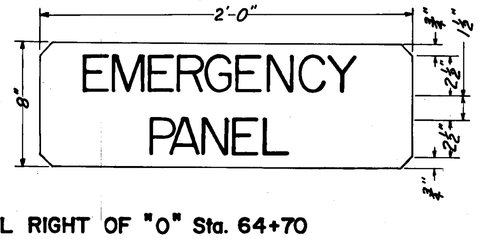
EXISTING SERVICE CONNECTION DETAIL





"Y" TYPE GATE CATCH DETAIL (SECTION)

Note: Stencil legend "EMERGENCY PANEL" on ~~two~~ one metal sign blanks (white background with black lettering) and fasten back-to-back through fence fabric with rivets or bolts at each corner.

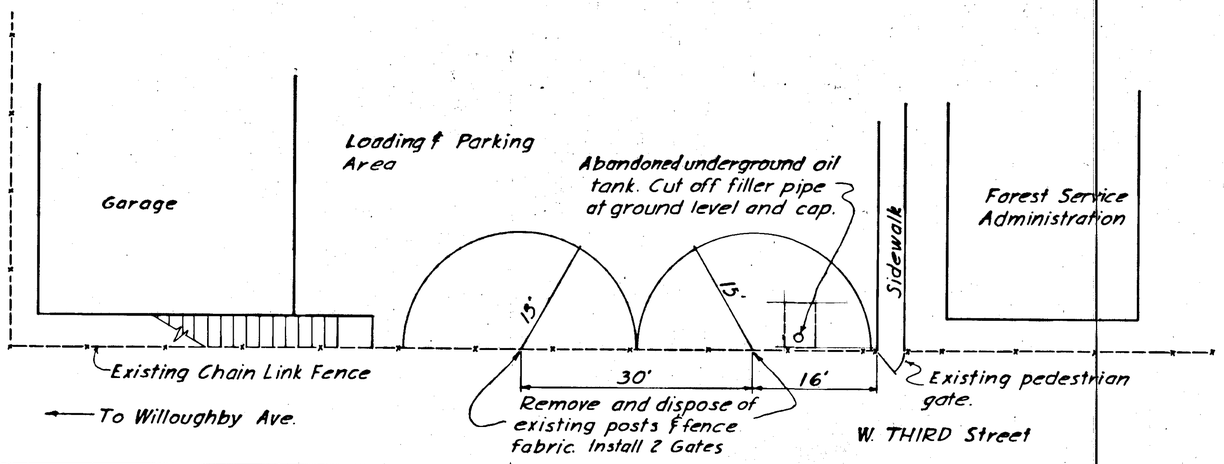


EMERGENCY PANEL RIGHT OF "O" Sta. 64+70

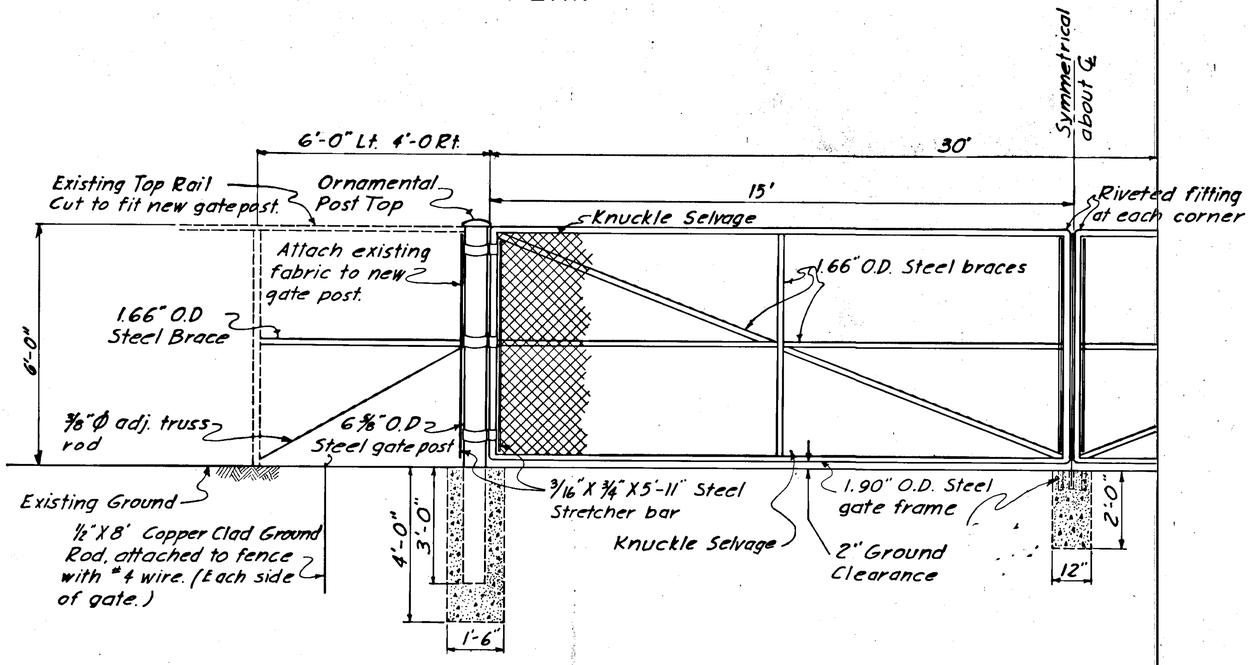
(Emergency panel is incidental to the cost of chain-link fence)

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	34	97

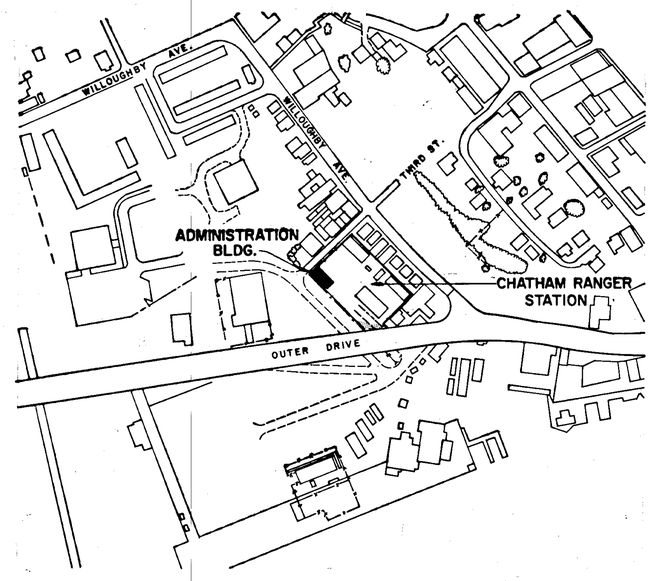
RANGER STATION MODIFICATIONS



PLAN



ELEVATION



VICINITY MAP

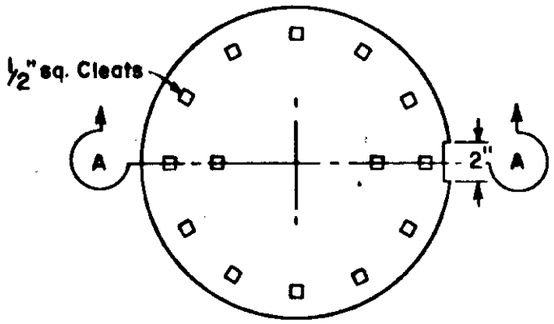
NOTES:

1. Gates to be furnished with all required fittings, hinges, positive type latching devices including provision for padlocking, center plunger rod, catch, and keepers, as specified by the Chain Link Fence Manufacturers Institute. Install gates and hardware as recomended by manufacturer.
2. Crown all footings 1" above ground.
3. If necessary, grade existing ground to allow 2" clearance below gate swing.
4. Ditch as necessary or construct dry well to handle existing drainage interrupted by construction of project, as directed by the Engineer.

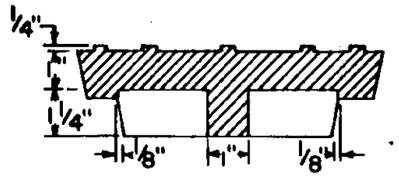
PEL & ERKEN CO.

STANDARD BRASS CAP MONUMENT & MONUMENT CASE

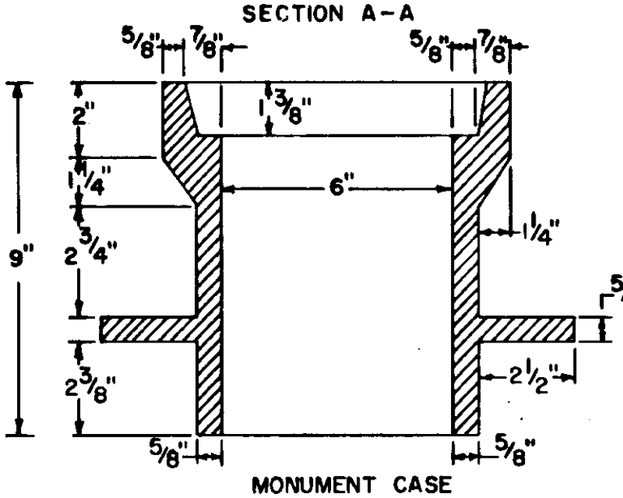
STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEET
ALASKA	F-093-1(3) X-31530	1971	35	97



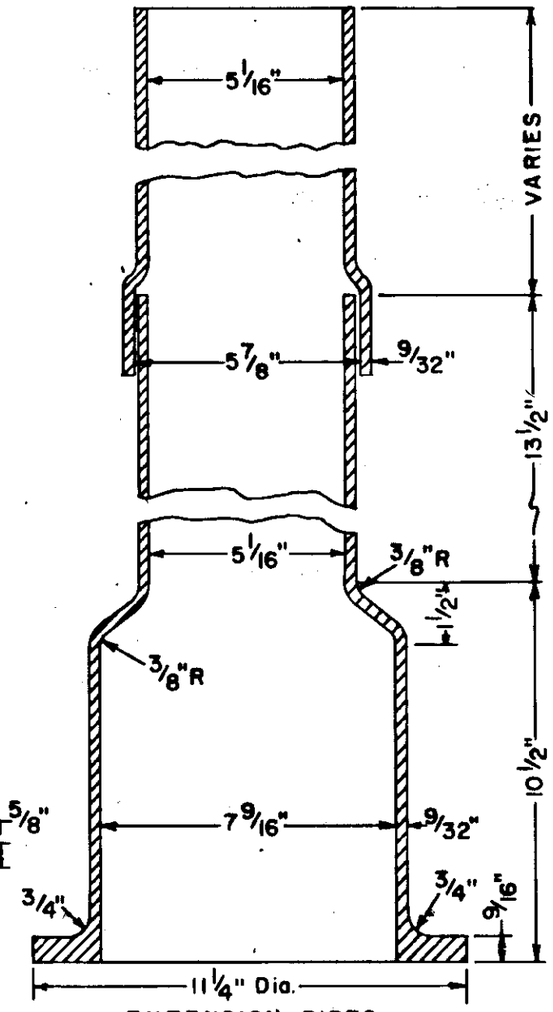
PLAN VIEW—COVER



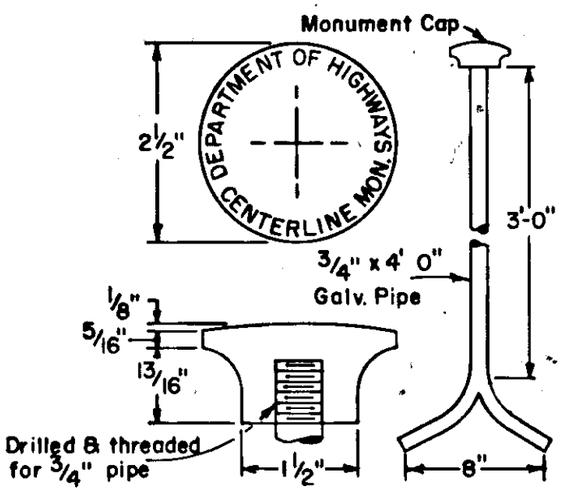
SECTION A-A



MONUMENT CASE



EXTENSION PIPES



MONUMENT CAP

NOTE:

Where monument cases are to be placed in a bituminous paved or surfaced road, the top of the case shall be the same elevation as the top of the roadway.

Where monument cases are to be placed in a gravel surfaced roadway the top of the case shall be placed 1'-0" below the top of the surface of the roadway.

In solid rock, drill 2" ø hole a minimum of 1'-0", fill with mortar and set cap. ¾"x 9" galv. pipe, designated length when set in mortar. The top of the monument shall be the same elevation as the bottom of the monument case.

SUMMARY OF BRASS CAP MONUMENTS & MONUMENT CASES

STATION	MON	MON CASE	EXTEN PIPE	REMARKS
"L" 47+25.70	1	1		P.O.T. @ ℄
"L" 47+63.11	1	1		P.C. @ ℄
"L" 53+61.14	1	1		P.O.C. @ ℄
"O" 60+01.29	1	1		P.T. @ ℄
"O" 66+88.66	1	1		P.I.
"O" 73+28.39		1		USS 3566
			RMC 1	6.00' Lt.
"O" 73+96.71	1	1		P.I.
"O" 77+55.39	1	1		P.I.
"O" 77+75.11	1	1	RMC 9	19.86' Rt.
"O" 78+50.95	1	1		P.T.
"B" 13+04.05	1	X		P.I.
"C" 12+24.13	1	1		P.I.

STATION	MON	MON CASE	EXTEN PIPE	REMARKS
"C" 12+55.53		1		Cor. Museum Lot 20.03' Lt.
"C" 15+15.95		1		Cor. Museum Lot 20.03' Lt.
"C" 16+80.95		1		Cor. Geo. Bros. Lot 20.03' Lt.
"C" 16+80.95		1		Cor. Geo. Bros. Lot 7.03' Lt.
"C" 17+57.96		1		Cor. Geo. Bros. Lot 7.03' Lt.
"C" 17+57.96	1	1		Cor. Channel Apt. Lot 30.00' Rt.
"C" 17+63.11	1	1		P.O.T. @ ℄
"C" 70+61.91	1			Cor. Lot 3 USS 3566, 36.10' Lt.
"C" 70+63.46	1			Cor. Lot 3 USS 3566, 34.06' Lt.
"C" 71+22.70	1			Cor. Lot 3 USS 3566, 31.80' Lt.

STATE	PROJECT DESIGNATION	YEAR		
ALASKA	F-093-1(3) X-31530	1971	36	97

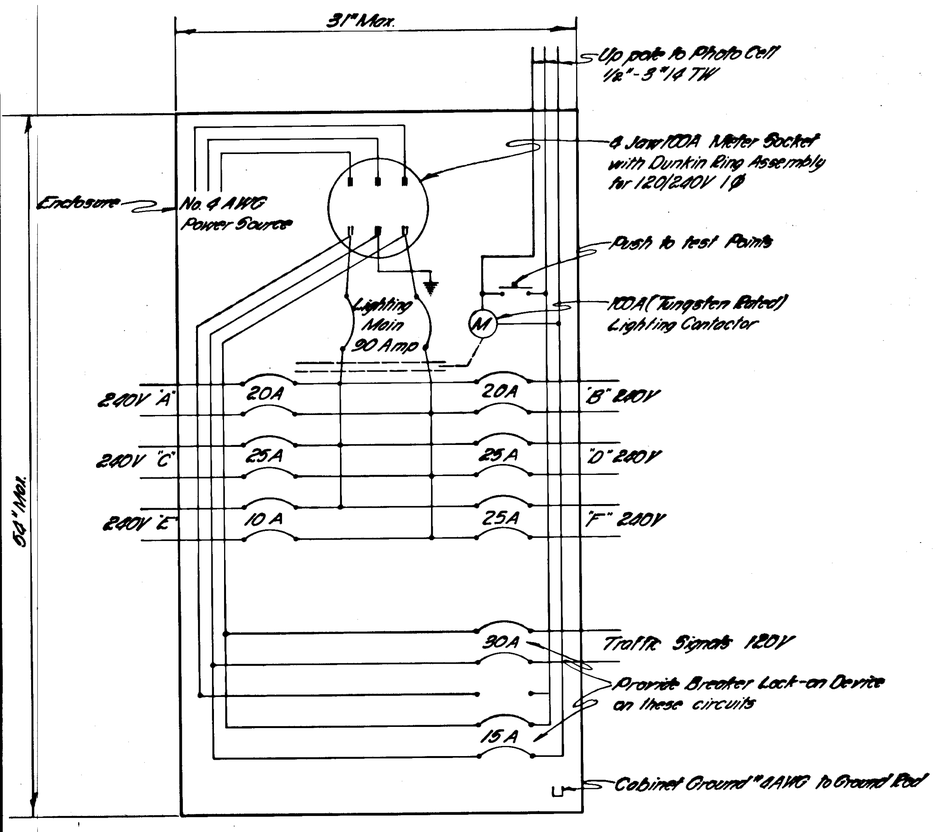
SUMMARY OF STANDARD SIGNS

TYPE	SIZE	DESCRIPTION	SHEET NUMBER 39	40	41	42	43	44	45	46	47	TOTAL
R1-1	30"x30"	Stop	2		*		2	1		1	5	~~10~~ 11
R1-2	36"x36"x36"	Yield		1				1		1		3
R3-2	24"x30"	No Left Turn	1							1		+ 2
R3-3	24"x24"	No Turns				2						2
R3-7L	30"x30"	Left Lane Must Turn Left							1			1
R3-7R	30"x30"	Right lane Must Turn Right	1									1
R4-8R	24"x30"	Keep Right						1				1
R5-1	24"x24"	Do Not Enter	3		2		2					7
R6-1L	36"x12"	One Way	2		*		2					~~5~~ 4
R6-1R	36"x12"	One Way	3				2					5
R7-4LR	12"x18"	No Stopping or Standing	2	2	2	2	1	2	2	2	3	18
R9-5	12"x18"	No Pedestrian Crossing	1									1
R10-7	5" x 7"	Push Button for Walk Signal	2									2
Type 1	18"x18"	Nine Button Object Marker						1				1
W16-4R	48"x36"	Through Traffic Merge Right						1				1
M1-2	24"x24"	ALASKA 7	2	2								4
D1-2		Auke Bay - Downtown (Detailed)	1									1
D1-12 D3-2	SEE SHEET NO. 49	↑Auke Bay 12← Douglas Tenth St. → (Detailed)	1									1
D1-2		Downtown Auke Bay (Detailed)			*							+
D3-2		←Museum (Detailed)					1					1
D3-2		Museum → (Detailed)					1					1
D1-2		←Downtown, AukeBay →(Detailed)						1				1
D3-1	30"x 8"	Outer Drive (Detailed)	2		1		2	1				6
D3-1	30"x 8"	Eighth St. (Detailed)	1									1
D3-1	30"x 8"	Glacier Ave. (Detailed)			1							1
D3-1	30"x 8"	Whittier St. (Detailed)					2					2
D3-1	30"x 8"	Willoughby Ave. (Detailed)						1				1
D3-1	30"x 8"	Ninth St. (Detailed)	1									1

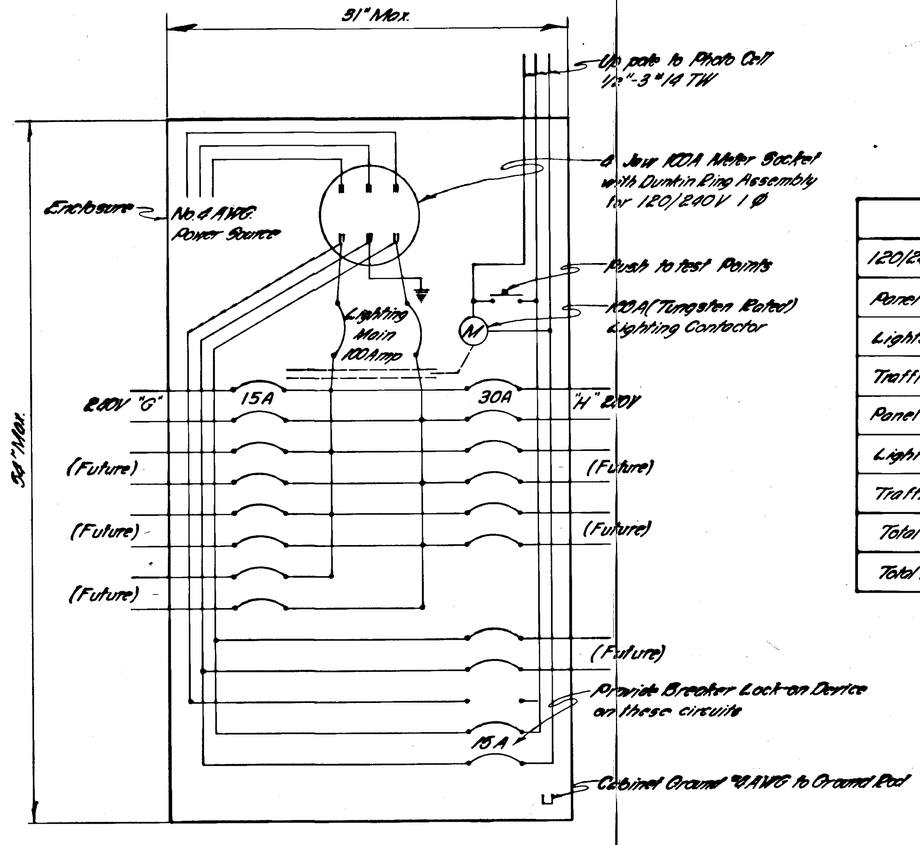
TYPE	SIZE	DESCRIPTION	SHEET NUMBER	TOTAL

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530	1971	37	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



METERING & DISTRIBUTION CENTER NO.3



METERING & DISTRIBUTION CENTER NO.4

DISTRIBUTION PANEL LOAD SCHEDULE-WATTS							
120/240 1Ø Panel with 120A Main AC Breaker-All Breakers 2 Pole							
Panel 3 Circuits	A	B	C	D	E	F	Traffic Signals
Lights – Wattage	2065	2065	2655	2655	885	2360	
Traffic Signals							1170
Panel 4 Circuits	G	H					
Lights – Wattage	1180	2950					
Traffic Signals							
Total Panel 3 = 13,855 watts or 58 Amp/Line @ 240V. (120V. for T.S.)							
Total Panel 4 = 4,130 watts or 18 amp/Line @ 240 V.							

GENERAL PAVEMENT MARKING NOTES

1. See Standard Drawings T-30 and T-31 for locations, dimensions, and layout stencils of pavement markings.

GENERAL SIGNING NOTES

1. See Standard Drawings T-1, T-2, T-7, T-18, T-19, and T-20 for sign placement and other details.
2. All signs indicated to be attached to light standards shall be banded with stainless steel straps using flared leg sign brackets, or equal.
3. Caution shall be used when driving sign posts to avoid hitting buried lighting interconnect cables and other underground utilities.

GENERAL ILLUMINATION NOTES

1. All luminaires shall be ANSI/IES medium distribution, cutoff, types II or III, mounted 30-ft. above the roadway in accordance with Standard Drawing T-51. All lamps shall be 250-watt high-pressure sodium type.
2. Metering and Distribution Center #4 shall be installed on relocated utility pole left of Sta. "O" 77+95.
3. All luminaire base footings shall be Type II, 9' deep x 2' diameter, as shown on Standard Drawing T-53.
4. All conduit shall be 2" diameter, unless otherwise noted.
5. All interconnecting conductor shall be #6 AWG.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3) X-31530	1971	38	97

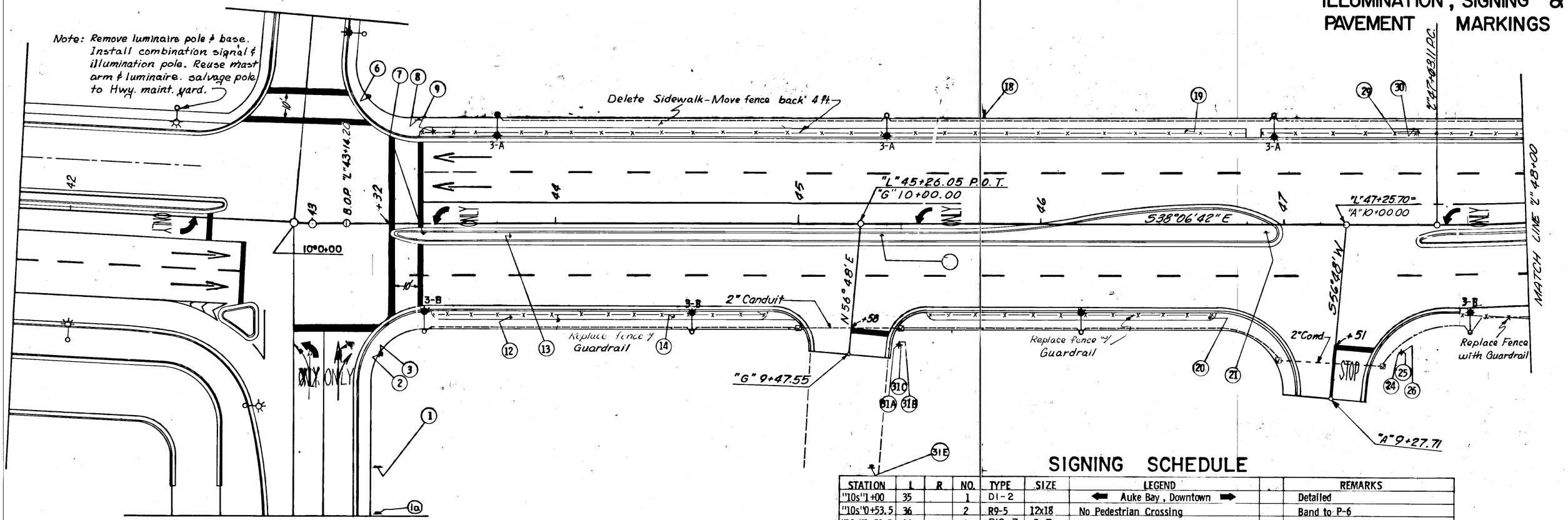
SYMBOLS: ILLUMINATION, SIGNING, TRAFFIC MARKINGS, & SIGNALIZATION

	EXISTING	PROPOSED
SIGNAL FACE—VEHICULAR		
SIGNAL FACE—WITH BACKPLATE		
SIGNAL FACE—PEDESTRIAN		
TYPE "A" BASE		
TYPE "B" BASE		
TYPE "C" BASE		
TYPE I JUNCTION BOX		
TYPE II JUNCTION BOX		
TYPE "D" BASE (SIGNAL CONTROLLER)		
POST MOUNTED SIGNAL WITH SIGN		
INDUCTION LOOP DETECTOR (SIZE TO SCALE)		
PUSHBUTTON DETECTOR		
MAST ARM MOUNTED SIGNAL WITH OVERHEAD SIGN		
LUMINAIRE (MAST ARM MOUNTED)		
METERING & DISTRIBUTION CENTER (POWER SUPPLY)		
DIRECT BURIAL CABLE		
RIGID METAL CONDUIT		

NUMBER & SIZE CABLE	3-2C#12	GREEN RIGHT ARROW	RT.
POST NO.	4	DOWN LIGHT (SIGNS)	D.L.
SIGNAL FACE NO.	2	DON'T WALK	DW
DETECTOR NO.	7	WALK	W
JUNCTION BOX NO.	3	12 INCH LENS	$\underline{12}$
RED	R	TUNNEL VISOR	IGI
YELLOW	Y	TUNNEL VISOR EQUIPPED WITH LOUVERS	IYE
CIRCULAR GREEN	G	ALL INDICATIONS—TUNNEL VISORS	IR-Y-GI
GREEN STRAIGHT AHEAD ARROW	S	SPECIFIC INDICATIONS SHIELDED	IR-YE-$\underline{L}$
GREEN LEFT ARROW	L		
SIGN (FACING)			
SOLID WHITE STRIPE			
BROKEN WHITE STRIPE			
SOLID YELLOW			
LANE USE MARKINGS (TO SCALE)			
STOP LINE (TO SCALE)			

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	39	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



ILLUMINATION SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX L	JUNCTION BOX R
"L"43+46		44	8	III	3-B		
"L"43+76	44		8	III	3-A		
"L"44+56		44	8	III	3-B		
"L"45+36	44		8	III	3-A		
"L"46+16		44	8	III	3-B		
"L"46+96	44		8	III	3-A		
"L"46+98							55
"L"47+41							58
"L"47+76		44	8	III	3-B		
"L"45+01							43
"L"45+43							43

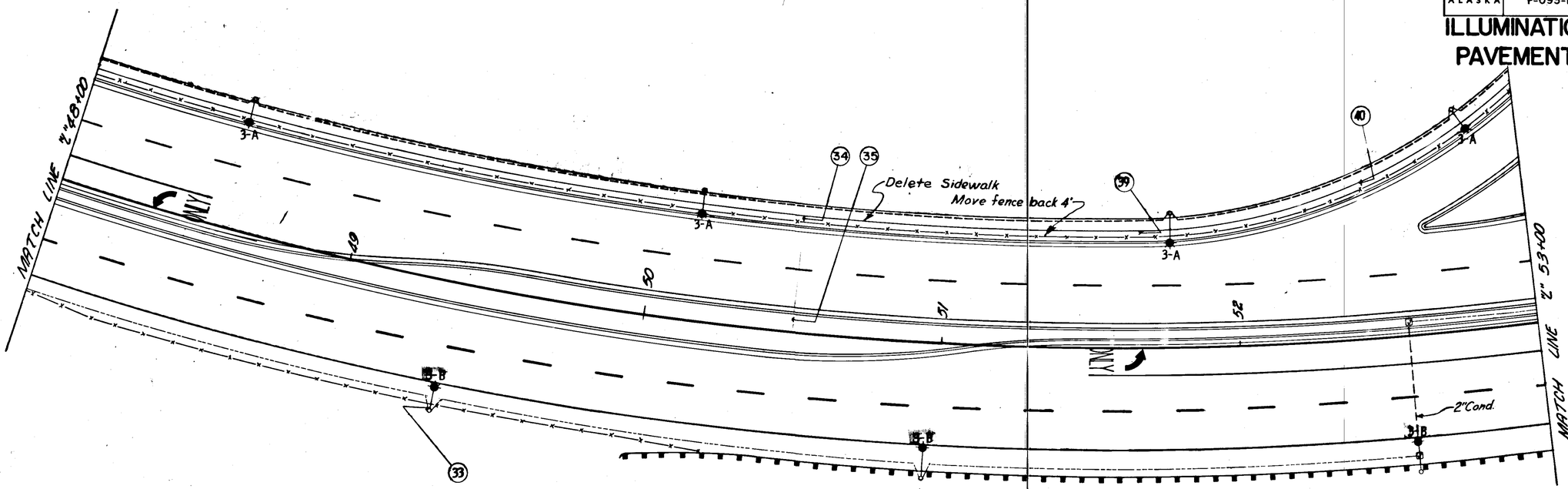
NOTE : Offset is to Center of Poles.

SIGNING SCHEDULE

STATION	L	R	NO.	TYPE	SIZE	LEGEND	REMARKS
"10s"1+00	35		1	D1-2		⬅ Auke Bay, Downtown ➡	Detailed
"10s"0+53.5	36		2	R9-5	12x18	No Pedestrian Crossing	Band to P-6
"10s"0+53.5	36		3	R10-7	5x7	Push Button for Walk Signal	Band to P-6 above push button
"10s"1+40	35		1a	R3-7R	30x30	Rt Lane must turn Rt.	
"10n"0+54		25.5	6	R10-7	5x7	Push Button for Walk Signal	Band to P-4 above push button
"L" 43+46		3.5	7	R6-1R	36x12	One Way	
"L" 43+44	43		8	R6-1L	36x12	One Way	
"L" 43+48	38.0		9	R5-1	24x24	Do Not Enter	
"L" 43+82		38.5	12	M1-2	24x24	Alaska 7	
"L" 43+82		5	13	M1-2	24x24	Alaska 7	
"L" 44+49		38.5	14	R7-4LR	12x18	No Stopping or Standing	
"L" 45+47	45		18	D1-12 / D3-2	Combined	⬆ Auke Bay 12 ⬅ Douglas Tenth St. ➡	Detailed
"L" 46+60	38.5		19	R7-4LR	12x18	No Stopping or Standing	
"L" 46+71		38.0	20	R5-1	24x24	Do Not Enter	
"L" 46+92.5		3	21	R6-1R	36x12	One Way	
		52	24	R1-1	30x30	Stop	
"L" 47+48		52	25	D3-1	30x8	Eighth St.	Above No. 26
"L" 47+48		52	26	D3-1	30x8	Outer Drive	Above No. 24
"L" 47+55.29	38.5		29	R5-1	24x24	Do Not Enter	
"L" 47+53.29	38.5		30	R6-1L	36x12	One Way	
"L" 45+30		100	31E	R3-2	24x30	No Left Turn	
"L" 45+52		50	31A	R1-1	30x30	Stop	
"L" 45+52		50	31B	D3-1	30x8	Ninth St.	Above No. 31A
"L" 45+52		50	31C	D3-1	30x8	Outer Drive	Above No. 31B
"L"45+35		5	31D	R6-1R	36x12	One Way	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	40	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



ILLUMINATION SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX L	JUNCTION BOX R
"L"48+56	44		8	III	3-A		
"L"49+36		44	8	III	3-B		
"L"50+16	44		8	III	3-A		
"L"50+96		45.5	8	III	3-B		
"L"51+76	45		8	III	3-A		
"L"52+56		45.5	8	III	3-B		
"L"52+56						5	
"L"52+56							45
"L"52+79	74		8	II	3-A		

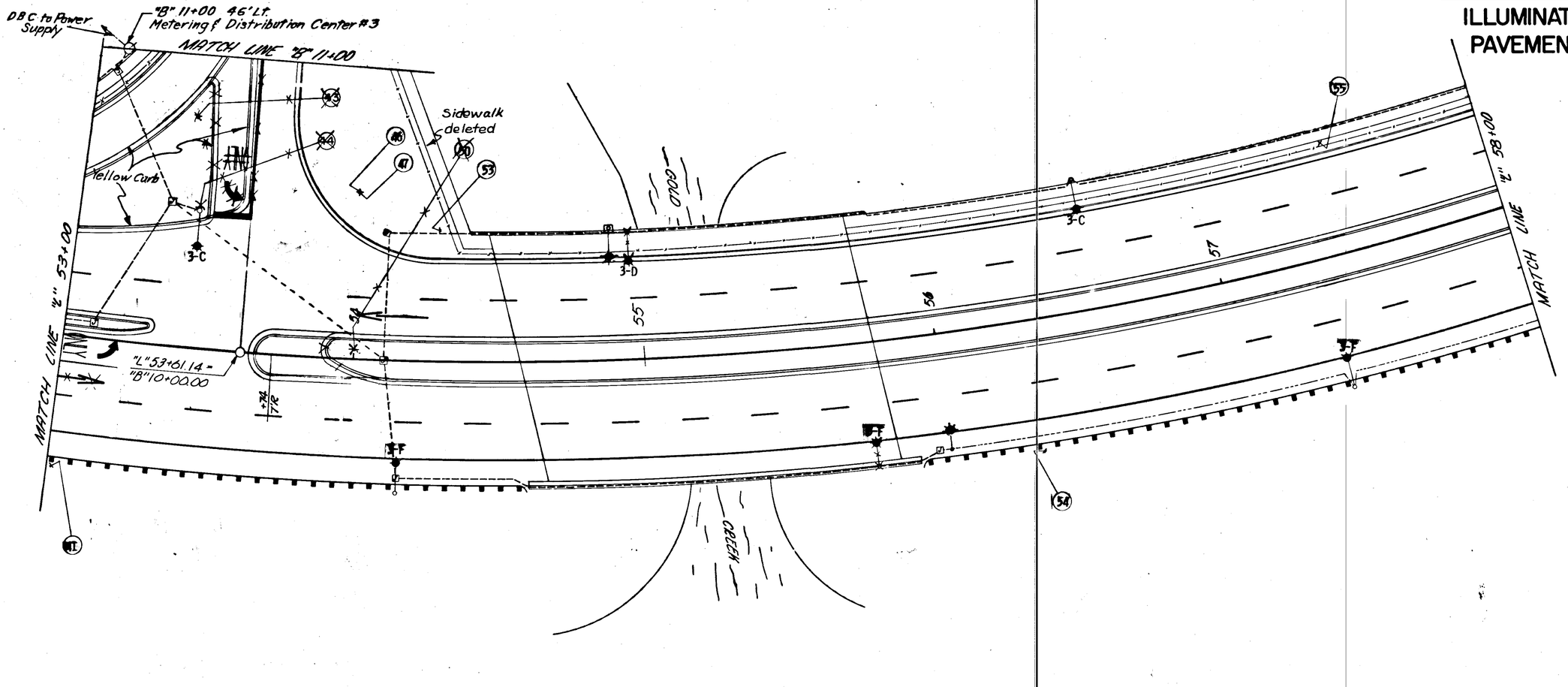
NOTE : Offset is to Center of Poles.

SIGNING SCHEDULE

STATION	L	R	NO.	TYPE	SIZE	LEGEND	REMARKS
"L"49+36		44	33	R7-4LR	12x18	No Stopping or Standing	Band to light pole
"L" 50+50	38.5		34	M1-2	24x24	Alaska 7	
"L"50+50	4		35	M1-2	24x24	Alaska 7	
"L"51+67	38.5		39	R7-4LR	12x18	No Stopping or Standing	
"L"52+45	52.5		40	R1-2	36x36x36	Yield	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	41	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



ILLUMINATION SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX L	JUNCTION BOX R
"B"10+91						48	
"L"53+10						5	
"B"10+47	17.5		12	III	3-C		
"B"10+49.5						27.5	
"L"54+10							℄
"L"54+10						45	
"L"54+16		45.5	8	III	3-F		
"L"54+16							40
~~"L"54+96~~ 90	~~42~~ 44		8	III	3-D		
"L"55+76 95		~~42~~45	8	III	3-F		
"L"56+56	44		8	III	3-C		
"L"57+36		45.5	8	III	3-F		
"L" 55+96							40

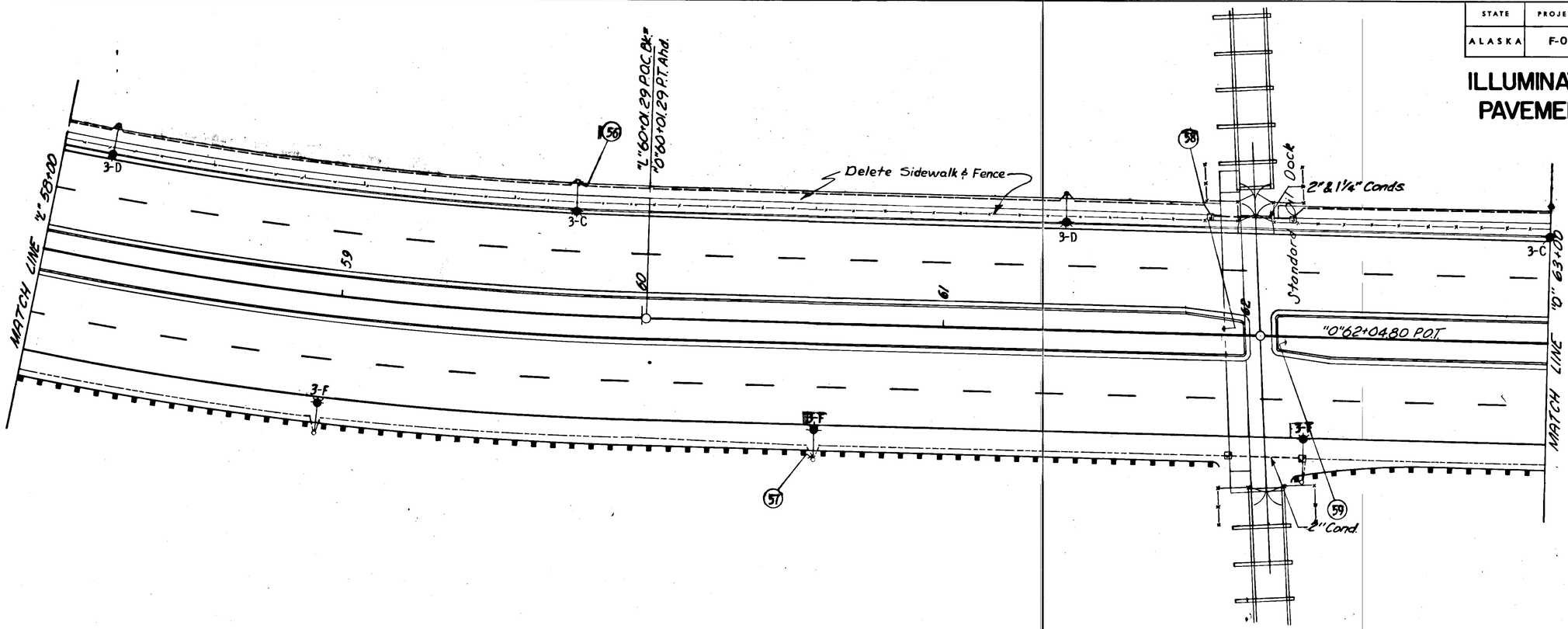
NOTE: Offset is to center of poles.

SIGNING SCHEDULE

STATION	L	R	NO.	TYPE	SIZE	LEGEND	REMARKS
"L"53+02		45	41	R5-1	24x24	Do Not Enter	
~~"B"10+49.5~~	~~20~~		~~43~~	~~D1-2~~		~~⬅ Downtown, Auke Bay ➡~~	~~Detailed~~
~~"B"10+49.5~~	~~17.5~~		~~44~~	~~R1-1~~	~~30x30~~	~~Stop~~	~~Band to light pole~~
"L"53+96	57		46	D3-1	30x8	Glacier Ave.	Above No. 47
"L"53+96	57		47	D3-1	30x8	Outer Drive	
~~"L"54+00~~	~~3~~		~~50~~	~~R6-1L~~	~~36x12~~	~~One Way~~	
"L"54+29	37		53	R5-1	24x24	Do Not Enter	
"L"56+31		45	54	R7-4LR	12x18	No Stopping or Standing	
"L"57+45	38.5		55	R7-4LR	12x18	No Stopping or Standing	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	42	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



ILLUMINATION SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX L	JUNCTION BOX R
"L" 58+16	44		8	III	3-D		
"L" 58+96		45.5	8	III	3-F		
"L" 59+76	44		8	III	3-C		
"O" 60+58		45.5	8	III	3-F		
"O" 61+40	44		8	III	3-D		
"O" 61+88						40	
"O" 61+95							40
"O" 62+16						39	
"O" 62+20		48	15	III	3-F		
"O" 62+20							40
"O" 63+00	44		8	III	3-C		

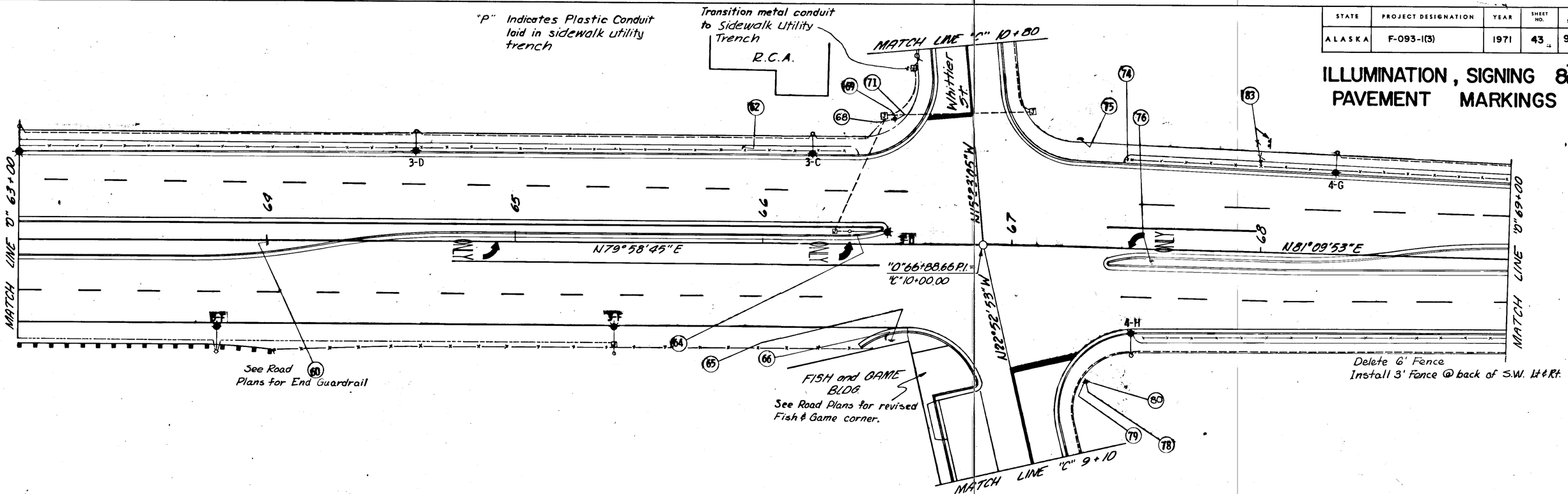
NOTE : Offset is to Center of Poles.

SIGNING SCHEDULE

STATION	L	R	NO	TYPE	SIZE	LEGEND	REMARKS
"L" 59+76	44		56	R7-4LR	12x18	No Stopping or Standing	Band to light pole
"O" 60+58		45.5	57	R7-4LR	12x18	No Stopping or Standing	Band to light pole
"O" 61+93	2		58	R3-3	24x24	No Turns	
"O" 62+13		2	59	R3-3	24x24	No Turns	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	43	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



ILLUMINATION SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX L	JUNCTION BOX R
"O" 63+80		45.5	8	III	3-F		
"O" 64+60	44		8	III	3-D		
"O" 65+40		46	12	III	3-F		
"O" 66+20	44		8	III	3-C		
"O" 66+29						5	
"O" 66+35	5		15	II	3-D		
"C" 10+51							24.5
"C" 10+55						35	
"C" 10+~~91~~ 68						~~33~~ 23	
"O" 67+49		37	4	III	~~4-H~~		
"O" 68+30	40.5		8	III	4-G		

NOTE : Offset is to Center of Poles.

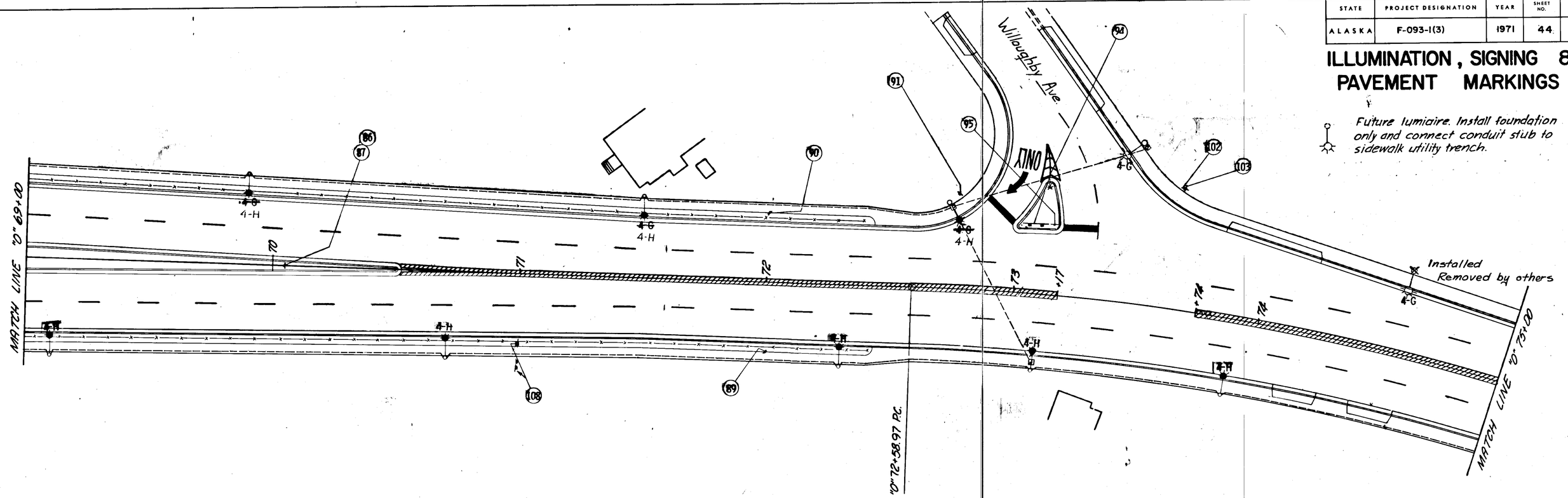
SIGNING SCHEDULE

STATION	L	R	NO.	TYPE	SIZE	LEGEND	REMARKS
"O" 64+00		1	60	D3-2		⬅ Museum	Detailed
"O" 65+97	38.5		62	R7-1LR	12x18	No Stopping or Standing	
"O" 66+37.5	3.5		64	R6-1R	36x12	One Way	
"O" 66+52		38.5	65	R6-1L	36x12	One Way	
"O" 66+50		37.5	66	R5-1	24x24	Do Not Enter	
"C" 10+53	31		68	R1-1	30x30	STOP	below 71
"C" 10+53	31		69	D3-1	30x8	Outer Drive	~~Band to Light Pole~~
"C" 10+53	31		71	D3-1	30x8	Whittier St.	below 69
"O" 67+29	37		74	R5-1	24x24	Do Not Enter	
"O" 67+27.5	43		75	R6-1L	36x12	One Way	
"O" 67+56.5		4	76	R6-1R	36x12	One Way	
"C" 9+37.5		28.5	78	D3-1	30x8	Outer Drive	
"C" 9+37.5		28.5	79	D3-1	30x8	Whittier St.	below 78
"C" 9+37.5		28.5	80	R-	30x30	STOP	below 79
"O" 68+00	~~42~~ 36		83	D3-2		Museum ➡	Detailed

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	44	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS

Future luminaire. Install foundation only and connect conduit stub to sidewalk utility trench.



ILLUMINATION - SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX. L	JUNCTION BOX. R
"D"69+10	-	39	8	III	4-H		
"D"69+90	36.5		8	III	4-G		
"D"70+70		35	8	III	4-H		
"D"71+50	33		8	III	4-G		
"D"72+30		33	8	III	4-H		
"D"72+73	35		8	III	4-G		
"D"72+75						33	
"D"73+10		31	8	III	4-H		
"D"73+10							28
"D"10+68		21	8	III	4-G		
"D"10+68							18
"D"73+90		31	8	III	4-H		
"D"74+55	33		8	III	4-G		

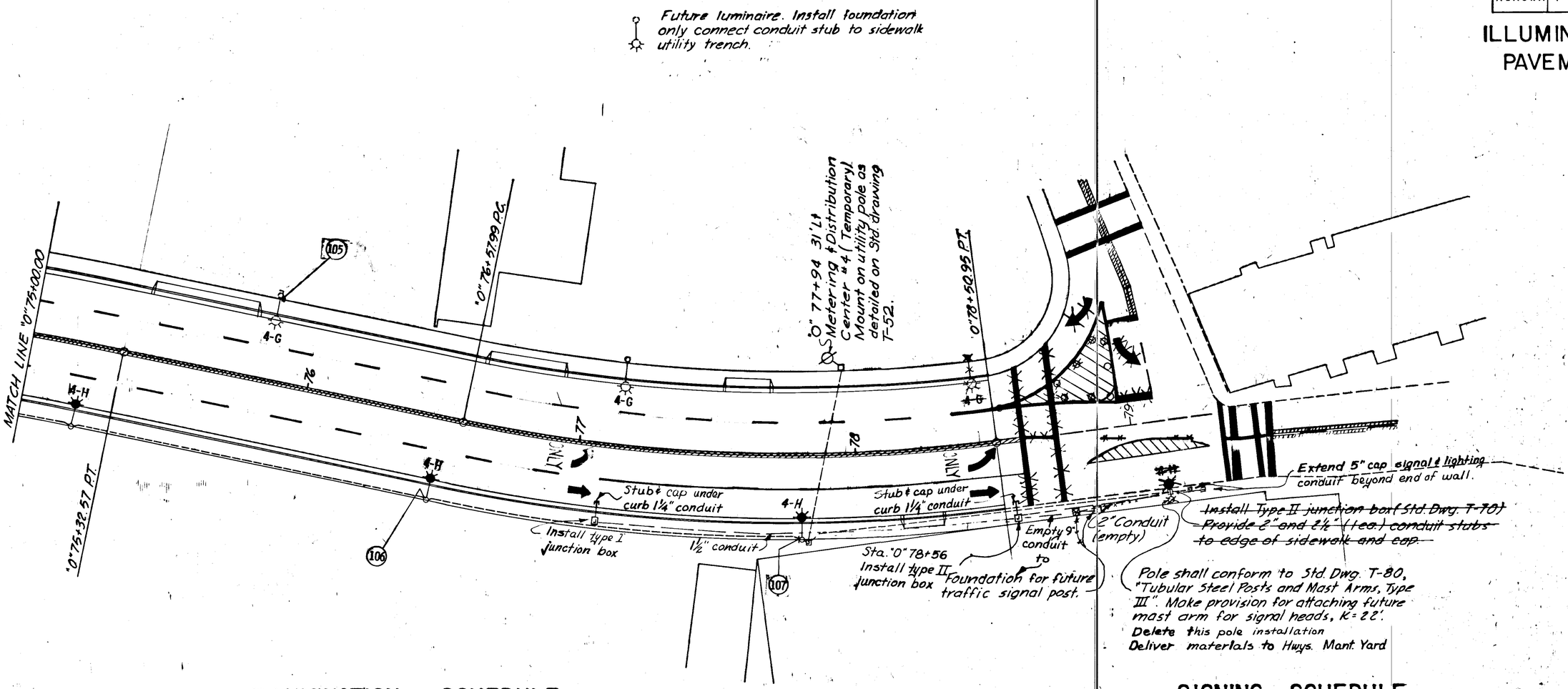
NOTE: Offset is to Center of Poles.

SIGNING SCHEDULE

STATION	L	R	NO.	TYPE	SIZE	LEGEND	REMARKS
"D"70+05		℄	86	R4-8R	24x30	Keep Right	Above No. 87
"D"70+05		℄	87	W14-6	18x18	9 Button	
"D"72+00		28	89	R7-4LR	12x18	No Stopping or Standing	
"D"72+00	28		90	R7-4LR	12x18	No Stopping or Standing	
"D"72+78	37		91	R1-2	36x36x36	Yield	
"D"73+~~11~~08	~~43~~30		94	D1-2		⬅ Downtown, Auke Bay ➡	Detailed
"D"73+14	28		95	R1-1	30x30	Stop	
"D" 73+63	47		102	D3-1	30x8	Outer Drive	Above No. 101
"D" 73+63	47		103	D3-1	30x8	Willoughby Ave.	Above No. 102
"D" 71+00		~~30~~ 36	108	W16-4R	48x36	Through Traffic Merge Right	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	45	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS



ILLUMINATION SCHEDULE

STATION	POLE OFFSET LT	POLE OFFSET RT	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX LT	JUNCTION BOX RT
"0" 75+20		30	8	III	4-H		
"0" 75+85	31		8	III	4-G		
"0" 76+50		30	8	III	4-H		
"0" 77+15	31		8	III	4-G		
"0" 77+80		30	8	III	4-H		
"0" 77+83							31
"0" 78+45	31		8	III	4-G		
~~"0" 79+15~~							~~25.5~~ ~~(See note above on plan)~~
~~"0" 79+10~~		~~28.5'~~		~~III~~	~~4-H~~		

~~*Joint use Signal and Lighting~~

NOTE: Offset is to Center of Poles.

SIGNING SCHEDULE

STATION	LT	RT	NO.	TYPE	SIZE	LEGEND	HT.	REMARKS
"0" 75+85	30		105	R7-4LR	12X18	No Stopping or Standing	7'	~~Band to Light Pole~~
"0" 76+50		30	106	R7-4LR	12X18	No Stopping or Standing	7'	Band to Light Pole
"0" 77+80		30	107	R3-7L	30X30	Left Lane Must Turn Left	7'	Band to Light Pole.

~~Note Construct temporary channelization as shown with 10 - 5 gallon drums. See standard T-15 for details of drums.~~

KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOT. SHE
ALASKA	F-093-1(3)	1971	46	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS

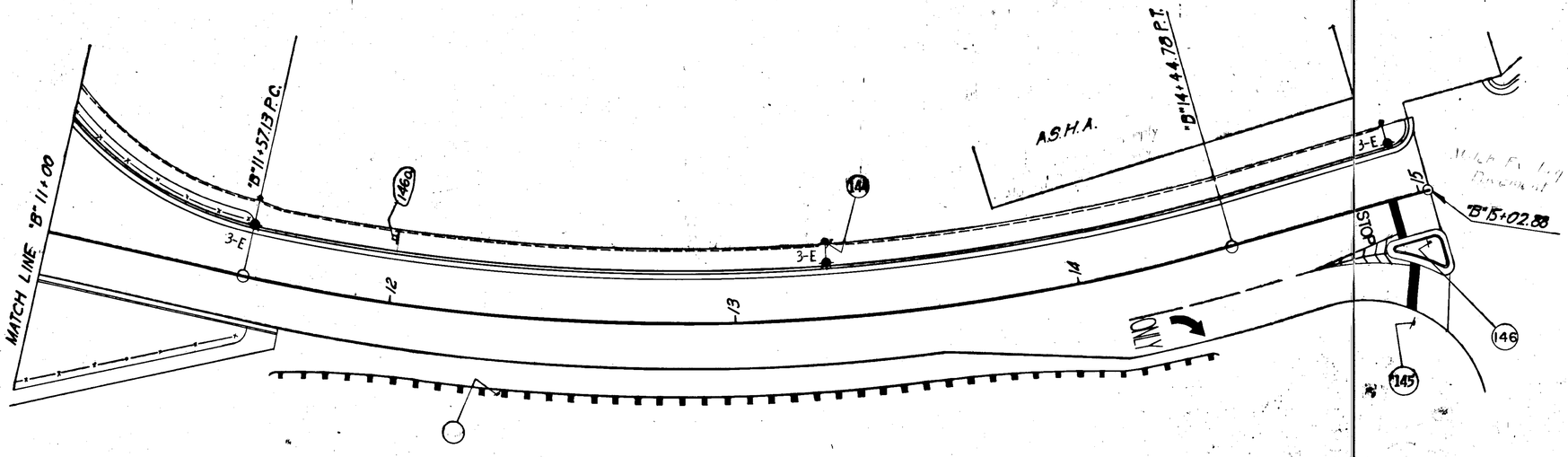
SIGNING SCHEDULE

STATION	Lt	Rt	No.	TYPE	SIZE	LEGEND		REMARKS
"B" 12+33		22	143	R7-4LR	12X18	No Stopping or Standing		
"B" 13+27	22		144	R7-4LR	12X18	No Stopping or Standing		Band to Light pole
"B" 14+89		36	145	R1-2	36x36x36	Yield		
"B" 14+99		15	146	R1-1	30x30	Stop		
"B" 12+00	19		146a	R3-2	24x30	No Left Turn		

ILLUMINATION SCHEDULE

STATION	POLE OFFSET Lt	POLE OFFSET Rt	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX LT	JUNCTION BOX RT
"B" 11+57	22		8	II	3-E		
"B" 13+27	22		6	II	3-E		
"B" 14+97	22		6	II	3-E		

NOTE: Offset is to Center of Poles.

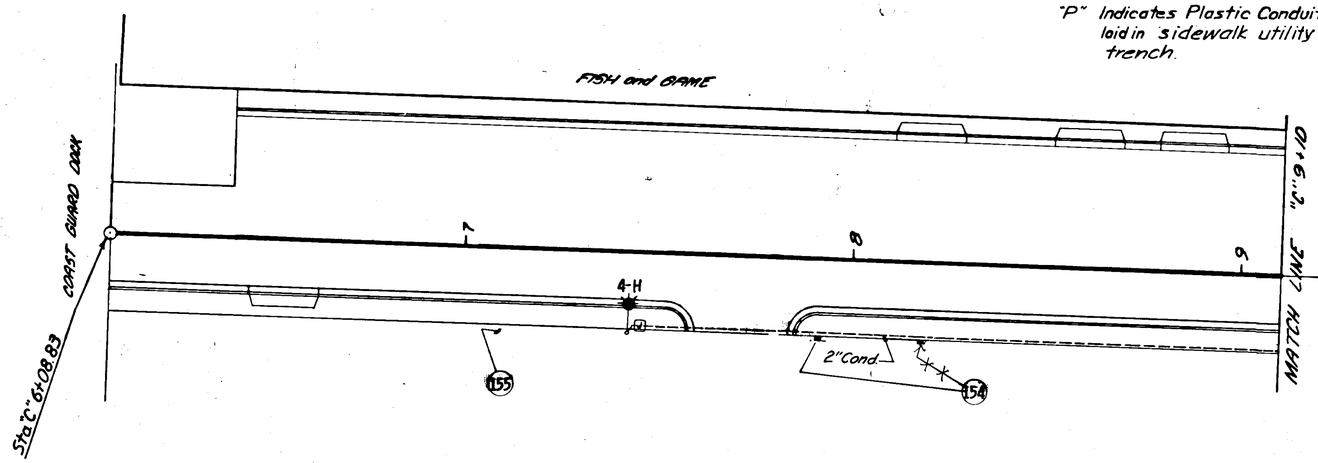


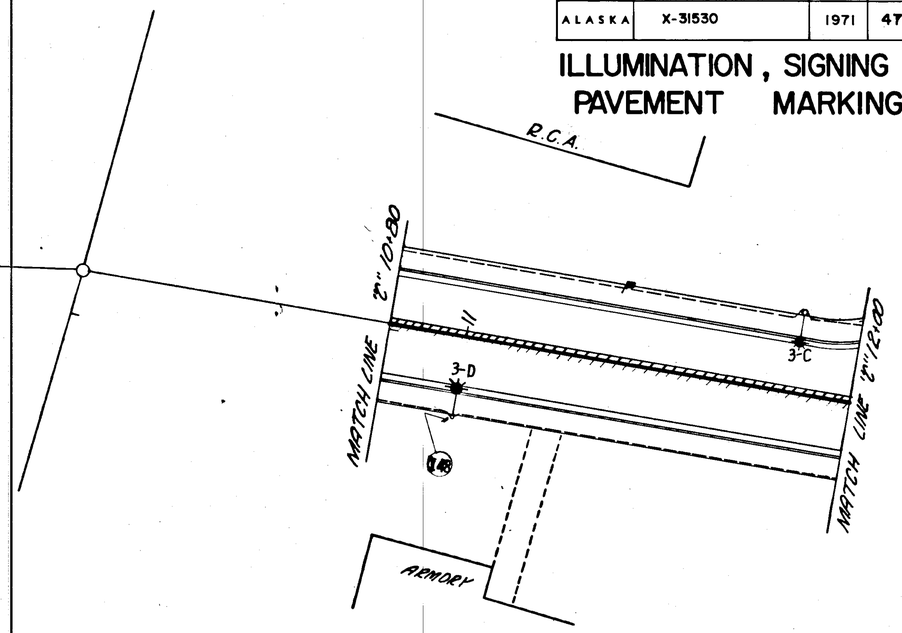
KEUFFEL & ESSER CO.

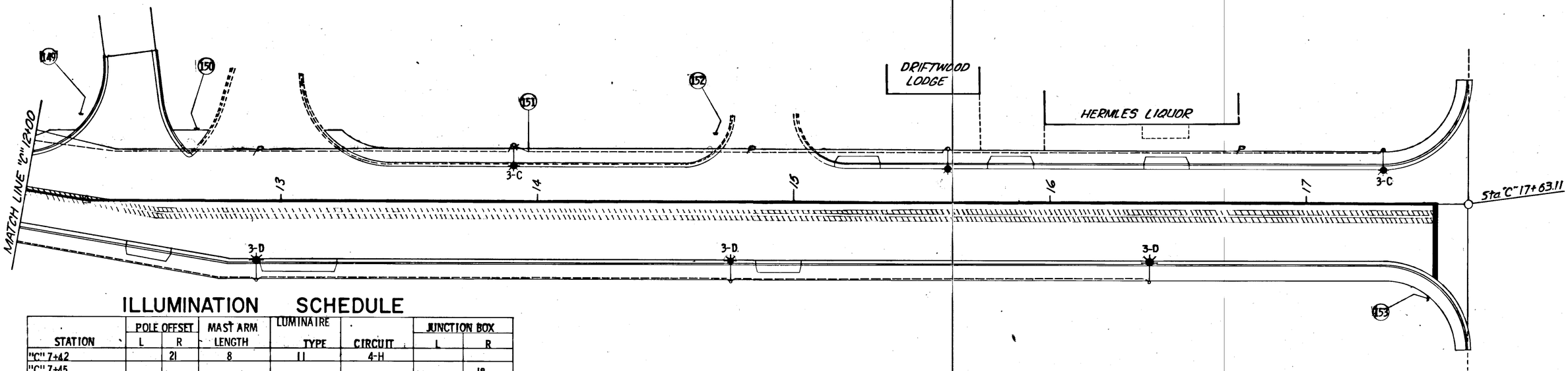
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	X-31530	1971	47	97

ILLUMINATION, SIGNING & PAVEMENT MARKINGS

"P" Indicates Plastic Conduit laid in sidewalk utility trench.







ILLUMINATION SCHEDULE

STATION	POLE OFFSET L	POLE OFFSET R	MAST ARM LENGTH	LUMINAIRE TYPE	CIRCUIT	JUNCTION BOX L	JUNCTION BOX R
"C" 7+42		21	8	II	4-H		
"C" 7+45							18
"C" 11+85	21		8	II	3-C		
"C" 13+91	21.5		8	III	3-C		
"C" 15+60	21.5		8	III	3-C		
"C" 17+30	21.5		8	III	3-C		
"C" 11+00		21.5	8	III	3-D		
"C" 12+90		31.0	8	III	3-D		
"C" 14+76		31.0	8	III	3-D		
"C" 16+38		31.0	8	III	3-D		

NOTE: Offset is to Center of Poles.

SIGNING SCHEDULE

STATION	L	R	NO.	TYPE	SIZE	LEGEND	REMARKS
"C" 11+00		20	148	R7-4LR	12x18	No Stopping or Standing	Band to light pole
"C" 12+16	33		149	R1-1	30x30	Stop	
"C" 12+67	28		150	R1-1	30x30	Stop	
"C" 13+91	21		151	R7-4LR	12x18	No Stopping or Standing	Band to light pole
"C" 14+70	27		152	R1-1	30x30	Stop	
"C" 17+47		36	153	R1-1	30x30	Stop	
"C" 8+[illegible]00		20	154	R1-1	30x30	Stop	
"C" 7+09		20	155	R7-4LR	12x18	No Stopping or Standing	

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	48	97

SPECIAL STANDARD SIGN DETAILS
D3-1 SIGNS

4 INCH, SERIES "B" CAPITALS;——INCH, LOWER CASE — **3 INCH, SERIES "B" CAPITALS**

Letter	W		I		L		L		O		U		G		H		B		Y			A		V
Letter Width	2.50		0.50		1.50		1.60		1.81		1.69		1.69		1.69		1.69		2.12			1.58		1.38
Space Width		0.40		0.50		0.40		0.40		0.50		0.50		0.50		0.50		0.40		1.60			0.00	
Cumulative Width	2.50	2.90	3.40	3.90	5.40	5.80	7.30	7.70	9.51	10.01	11.70	12.20	13.89	14.39	16.08	16.58	18.27	18.67	20.79	22.39		23.97	23.97	25.35

4 INCH, SERIES "C" CAPITALS;——INCH, LOWER CASE — **3 INCH, SERIES "C" CAPITALS**

Letter	W		H		I		T		T		I		E		P				S		T
Letter Width	3.00		2.19		0.56		2.00		2.00		0.56		2.00		2.19				1.65		1.50
Space Width		0.67		0.84		0.67		0.22		0.67		0.84		0.67		4.00				0.50	
Cumulative Width	3.00	3.67	5.86	6.70	7.26	7.93	9.93	10.15	12.15	12.82	13.38	14.22	16.22	16.89	19.08	23.08			24.73	25.23	26.73

4 INCH, SERIES "C" CAPITALS;——INCH, LOWER CASE — **3 INCH, SERIES "C" CAPITALS**

Letter	G		L		A		C		I		E		P				A		V	
Letter Width	2.19		2.00		2.50		2.19		0.56		2.00		2.19				1.58		1.38	
Space Width		0.84		0.22		0.67		0.67		0.84		0.67		1.86				0.11		
CumulativeWidth	2.19	3.03	5.03	5.25	7.75	8.42	10.61	11.28	11.84	12.68	14.68	15.35	17.54	19.40			20.98	21.09	22.47	

4 INCH, SERIES "C" CAPITALS;——INCH, LOWER CASE — **3 INCH, SERIES "C" CAPITALS**

Letter	E		I		C		H		T		H						S		T	
Letter Width	2.00		0.56		2.19		2.19		2.00		2.19						1.65		1.50	
Space Width		0.67		0.84		0.84		0.67		0.67				4.00				0.50		
Cumulative Width	2.00	2.67	3.23	4.07	6.26	7.10	9.29	9.96	11.96	12.63	14.82			18.82			20.47	20.97	22.47	

4 INCH, SERIES "C" CAPITALS;——INCH, LOWER CASE — **3 INCH, SERIES "C" CAPITALS**

Letter	N		I		N		T		H		S		T								
Letter Width	2.19		0.56		2.19		2.00		2.19		1.65		1.50								
Space Width		0.84		0.84		0.47		0.67		4.00		0.50									
Cumulative Width	2.19	3.03	3.59	4.43	6.62	7.29	9.29	9.96	12.15	16.15	17.80	18.30	19.80								

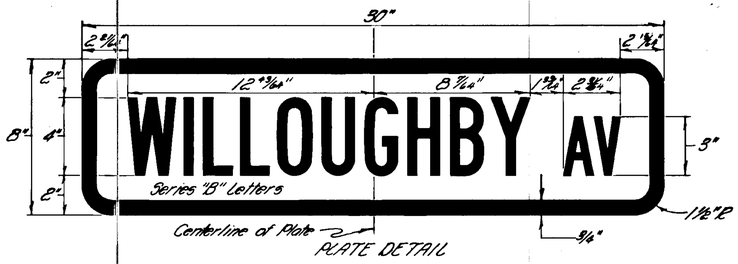
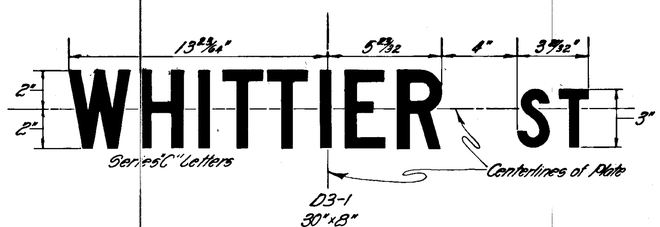
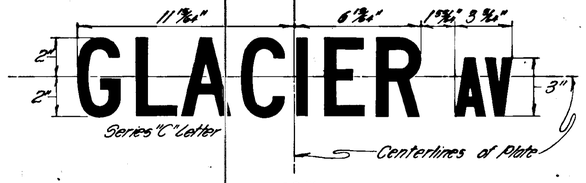


PLATE DETAIL
D3-1
30"x8"

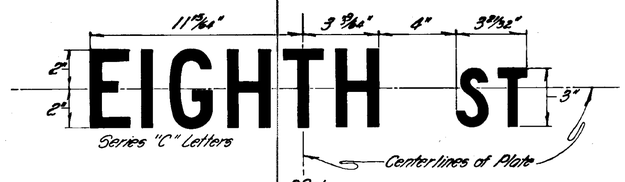


D3-1
30"x8"

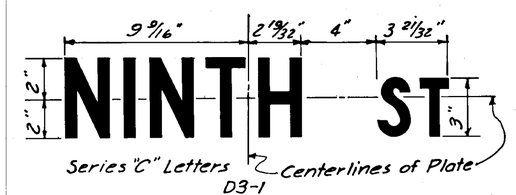


D3-1
30"x8"

NOTE: 1. Reflectorized white legend and border on reflectorized green background.
2. Drill no holes. For mounting bracket and bracket detail see Standard Sheet No. T-2.
3. Each plate shall be furnished with sign legend on both sides of plate.



D3-1
30"x8"



D3-1
30"x8"

UPPER CASE to UPPER CASE

Initial Letter	SECOND LETTER: A,V,W,X 8.5	B,D,E,F,H,I,K,L,M,N,P,R,U 4.8	C,G,O,Q,S 9.0	J	T,7	Y	Z,1	3,6	*Last Letter of Word
A	7.67	8.41	7.76	7.48	7.53	7.62	8.28		6.12
B	6.60	7.35	6.69	6.41	6.50	6.55	7.20		4.86
C	6.49	7.24	6.54	6.30	6.35	6.44	7.10		4.80
D	6.50	7.21	6.55	6.27	6.36	6.41	7.11		4.86
E	6.31	7.06	6.36	6.12	6.17	6.26	6.92		4.62
F	5.85	6.57	5.94	5.96	5.71	5.80	6.46		4.44
G	6.49	7.24	6.54	6.30	6.35	6.44	7.10		4.80
H	7.22	7.97	7.26	7.03	7.08	7.17	7.83		4.92
I	3.50	4.25	3.54	3.31	3.36	3.45	4.11		1.20
J	5.79	7.67	6.96	6.73	6.78	6.87	7.53		4.62
K	6.40	7.15	6.45	6.17	6.26	6.31	7.01		5.04
L	5.98	6.73	6.03	5.75	5.84	5.89	6.59		4.62
M	8.54	9.29	8.58	8.35	8.40	8.49	9.15		6.24
N	7.34	8.09	7.38	7.15	7.20	7.29	7.95		5.04
O	6.68	7.38	6.73	6.45	6.54	6.59	7.29		5.04
P	6.56	7.27	6.61	6.33	6.42	6.47	7.17		4.92
Q	6.68	7.38	6.73	6.45	6.54	6.59	7.29		5.04
R	6.56	7.27	6.61	6.33	6.42	6.47	7.17		4.92
S	6.42	7.17	6.47	6.19	6.28	6.33	7.03		4.92
T	5.91	6.66	6.00	5.72	5.77	5.86	6.52		4.50
U	7.28	8.03	7.32	7.09	7.14	7.23	7.89		4.98
V	7.07	7.82	7.16	6.88	6.93	7.02	7.68		5.52
W	8.03	8.78	8.12	7.84	7.89	7.98	8.63		6.48
X	7.61	8.36	7.70	7.42	7.47	7.56	8.22		6.06
Y	7.56	8.31	7.61	7.33	7.42	7.47	8.17		6.06
Z	7.08	7.83	7.17	6.89	6.94	7.03	7.69		4.92
1	4.08		4.13		3.94		4.69	4.22	1.79
2	6.12		6.17		5.98		6.73	6.26	4.62
3	6.36		6.45		6.26		6.96	6.50	4.62
4	7.26		7.30		7.11		7.86	7.40	5.15
5	6.17		6.26		6.03		6.78	6.31	4.62
6	6.17		6.26		6.03		6.78	6.31	4.62
7	6.01		6.12		5.89		6.64	6.17	4.62
8	6.26		6.31		6.12		6.87	6.36	4.62
9	6.26		6.31		6.12		6.87	6.36	4.62
0	6.44		6.49		6.30		7.05	6.54	4.80

*Neat Letter or Numeral Width
Spacing based on 6"U.C. & 4½" L.C.

Factors for other size letters

Upper Case	Lower Case	Factor
6"	4 1/2"	1.000
8"	6"	1.333

LOWER CASE to LOWER CASE

Initial Letter	SECOND LETTER: a,c,d,e,g,o,q 6.0	b,h,i,k,l,m,n,p,r,u 6.0	f,w 5.6	j 5.1	s,t,v,y 5.5	x 5.6	z 5.7		*Last Letter of Word
a	5.66	6.12	5.56	5.14	5.51	5.61	5.70		3.83
b	5.18	5.70	5.09	4.67	5.04	5.14	5.23		3.87
c	5.23	5.70	5.14	4.72	5.09	5.19	5.28		3.83
d	5.61	6.08	5.52	5.09	5.47	5.56	5.66		3.78
e	5.23	5.70	5.14	4.72	5.09	5.19	5.28		3.83
f	3.79	4.31	3.69	3.27	3.65	3.72	3.84		2.48
g	5.66	6.12	5.56	5.14	5.51	5.61	5.70		3.83
h	5.61	6.08	5.52	5.09	5.51	5.56	5.66		3.78
i	2.96	3.42	2.86	2.44	2.81	2.91	3.00		1.13
j	3.95	4.41	3.85	3.43	3.80	3.90	3.99		2.12
k	5.05	5.57	4.95	4.53	4.91	5.00	5.10		3.74
l	2.96	3.42	2.86	2.44	2.81	2.91	3.00		1.13
m	8.22	8.69	8.13	7.70	8.11	8.17	8.27		6.39
n	5.66	6.12	5.56	5.14	5.51	5.61	4.95		3.83
o	5.27	5.79	5.18	4.76	5.13	5.23	5.32		3.96
p	5.09	5.61	5.00	4.58	4.95	5.05	5.14		3.78
q	5.70	6.17	5.61	5.18	5.56	5.65	5.75		3.87
r	3.82	4.33	3.77	3.30	3.68	3.76	3.86		2.93
s	5.05	5.57	4.95	4.53	4.91	5.00	5.09		3.74
t	4.38	4.89	4.23	3.86	4.23	4.33	4.42		3.02
u	5.66	6.12	5.56	5.14	4.39	5.61	5.70		3.83
v	5.72	6.23	5.63	5.20	5.58	5.67	5.76		4.55
w	7.16	7.63	7.07	6.65	7.02	7.11	7.21		5.94
x	5.90	6.37	5.81	5.39	5.76	5.86	5.94		4.64
y	5.65	6.50	5.90	5.47	5.85	5.94	6.03		4.82
z	5.28	5.79	5.18	4.76	5.13	5.23	5.32		3.92

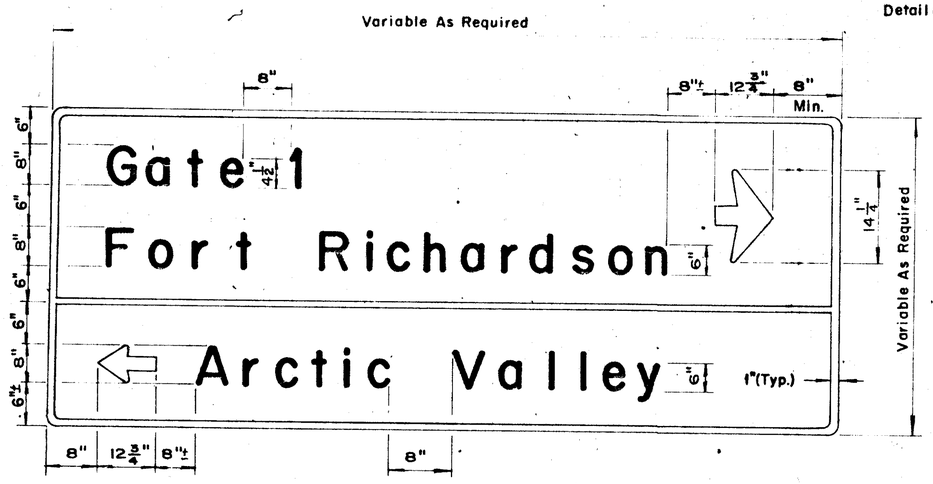
*Neat Letter or Numeral Width
Spacing based on 6"U.C. & 4½" L.C.

UPPER CASE to LOWER CASE

Initial Letter	SECOND LETTER: a,c,d,e,g,o,q 6.0	b,h,i,k,l,m,n,p,r,u 6.0	f,w 5.6	j 5.1	s,t,v,y 5.5	x 5.6	z 5.7	*Last Letter of Word
A	7.53	7.71	7.43	7.01	7.25	7.06	7.58	
B	6.55	7.02	6.45	5.99	6.41	6.17	6.60	
C	6.39	6.77	6.26	5.83	6.21	6.21	6.44	
D	6.41	6.88	6.36	5.85	6.27	6.27	6.45	
E	6.21	6.59	6.08	5.65	6.03	6.03	6.12	6.26
F	5.19	5.94	5.38	5.19	5.28	5.28	5.33	5.57
G	6.39	6.77	6.26	5.83	6.21	6.21	6.30	6.44
H	6.98	7.13	6.89	6.51	6.84	6.84	6.94	7.03
I	3.26	3.64	3.17	2.79	3.12	3.12	3.22	3.31
J	6.64	6.78	6.54	6.17	6.40	6.40	6.50	6.68
K	6.26	6.82	6.17	6.75	6.12	6.12	6.21	6.35
L	5.84	6.40	5.75	5.33	5.70	5.70	5.79	5.93
M	8.30	8.68	8.21	7.83	8.16	8.16	8.26	8.35
N	7.10	7.48	7.01	6.63	6.96	6.96	7.06	7.15
O	6.59	7.06	6.54	6.03	6.45	6.45	6.54	6.63
P	6.38	6.61	6.28	5.67	6.14	6.14	6.23	6.33
Q	6.59	7.06	6.54	6.03	6.45	6.45	6.54	6.63
R	6.47	6.94	6.42	5.91	6.33	6.33	6.42	6.51
S	6.33	6.84	6.23	5.86	6.19	6.19	6.28	6.38
T	5.63	6.28	5.53	5.34	5.63	5.63	5.72	5.81
U	7.00	7.14	6.90	6.53	6.76	6.76	6.86	7.04
V	6.55	7.21	6.65	6.41	6.79	6.79	6.88	6.98
W	7.89	8.07	7.79	7.37	7.61	7.42	7.61	7.94
X	7.47	7.65	7.37	6.95	7.19	7.00	7.19	7.52
Y	6.81	7.56	7.00	6.72	6.77	6.77	6.90	7.28
Z	6.80	7.17	6.75	6.23	6.70	6.70	6.80	6.89

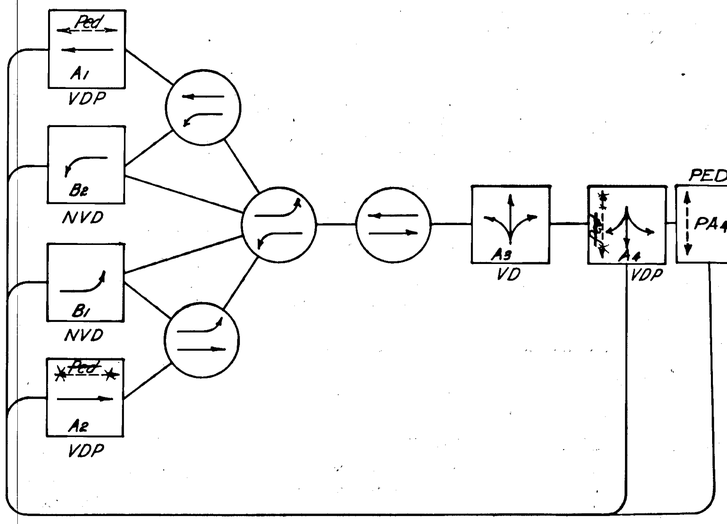
*Neat Letter or Numeral Width
Spacing based on 6"U.C. & 4½" L.C.

Variable As Required


8"
8"
12¾"
8"
Min.
Gate 1
Fort Richardson
Arctic Valley
6"
6"
8"
8"
8

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	50	97

SIGNALIZATION - TENTH ST.



PHASE DIAGRAM

Note: Provide pre-emption device to eliminate detector calls on P.A. whenever there are detector calls on PA4.

LEGEND

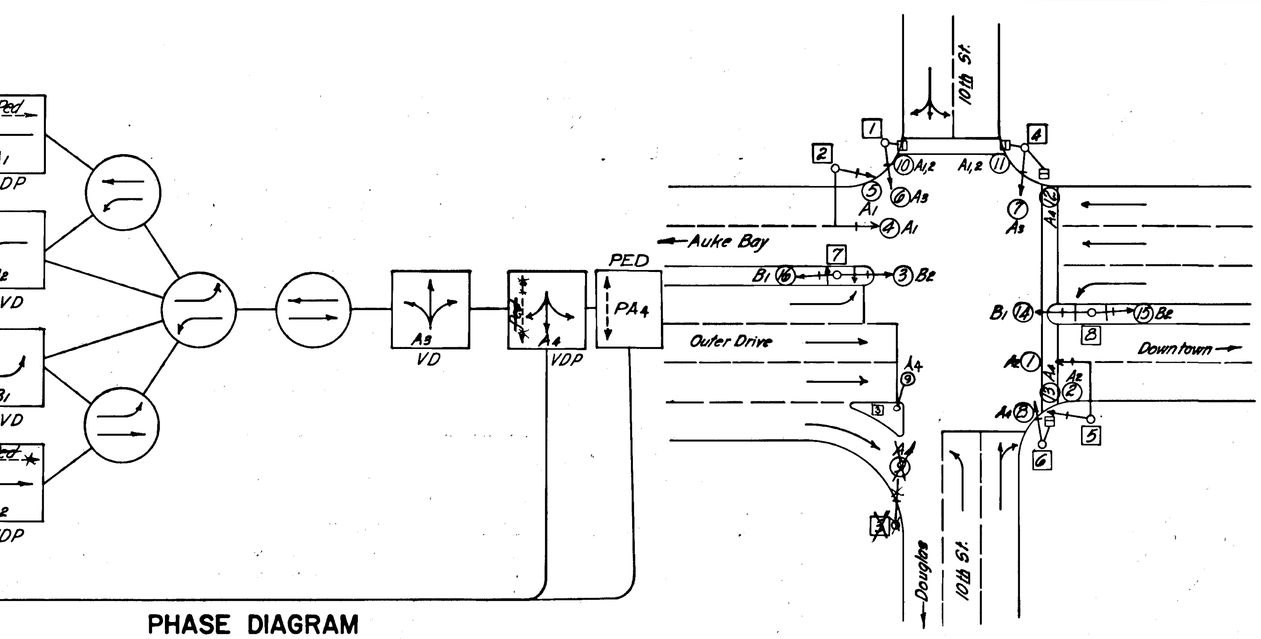
- Protected Vehicular Movement
- Partially Restricted Vehicular Movement
- Actuated Pedestrian Movement
- G Detector Switching (Function No.)
- RW Right of Way Interval
- Ø Traffic Phase
- R Red
- Y Yellow
- G Circular Green
- LR, Ly-Lg Left Arrows; Red, Yellow, Green.
- W Walk
- DW Solid Don't Walk
- FDW Flashing Don't Walk
- ⑥ Signal Face
- ---- Existing
- → Existing
- or ○ Existing to be Relocated.

FLASHING OPERATIONS	
Outer Drive Approaches	F Y
All Other Approaches	F R

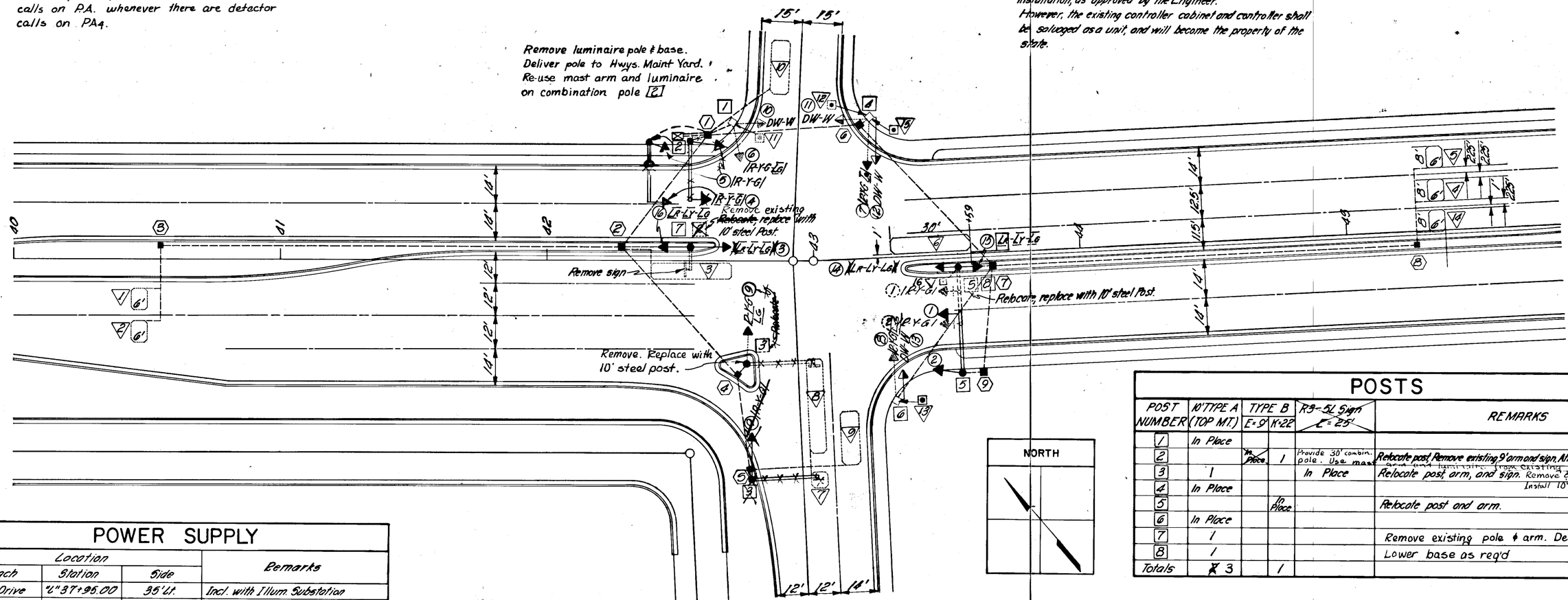
CONTROLLER TYPE	F-4M*

* Replace existing Type F-4 M

NOTE: Existing signalization equipment shall become the property of the contractor and he may elect to use existing equipment or to provide new equipment for any part of the complete installation, as approved by the Engineer. However, the existing controller cabinet and controller shall be salvaged as a unit, and will become the property of the state.



Remove luminaire pole & base. Deliver pole to Hwys. Maint Yard. Re-use mast arm and luminaire on combination pole [2]



NORTH

POWER SUPPLY

Location			Remarks
Approach	Station	Side	
Outer Drive	"L" 37+95.00	35' Lt.	Incl. with Illum. Substation
			Connection has been Completed

POSTS

POST NUMBER	10' TYPE A (TOP MT.)	TYPE B E=9	TYPE B K-22	R3-5L Sign E=25'	REMARKS
1	In Place				
2		In Place	1	Provide 30' combin. pole. Use mast arm and luminaire from existing salvaged standard.	Relocate post. Remove existing 9' arm and sign. Attach State-furnished 22' arm.
3	1			In Place	Relocate post, arm, and sign. Remove & salvage to Hwy Maint. Yd. Install 10' Type A post
4	In Place				
5			In Place		Relocate post and arm.
6	In Place				
7	1				Remove existing pole & arm. Deliver to Hwy. Maint Yd.
8	1				Lower base as req'd
Totals	~~3~~		1		

SIGNALIZATION — TENTH ST.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	51	97

SIGNAL HEADS

SIGNAL HEAD	POST	LENS SIZE	INDICATIONS	TYPE MOUNTING (Std. Dwg. T-71)	PHASE	LOUVERS	HEIGHT	REMARKS
1	5	12"	R-Y-G	Mast Arm	A2	No	17'	
2	5	8"	R-Y-G	S-1	A2	No	10'	
3	7	12"	LR-LY-LG	T-1	B2	~~Yes~~ No	10'	Use programed visibility signal heads
4	2	12"	R-Y-G	Mast Arm	A1	No	17'	
5	2	8"	R-Y-G	S-1	A1	No	10'	
6	1	8", 12"	R-Y-G-LG	T-1	A3	No	10'	In Place
7	4	8", 12"	R-Y-G-LG	T-1	A3	No	10'	In Place
8	6	8", 12"	R-Y-G-LG	T-1	A4	No	10'	In Place - add LG
9	3	8", 12"	R-Y-G-LG	T-1	A4	No	10'	~~Relocate~~ In place - add LG
10	1	Ped	W-DW	SW-1	A1,2	No	7'	In Place
11	4	Ped	W-DW	SW-2	A1,2	No	7'	In Place
12	4	Ped	W-DW	SW-2	A4	No	7'	
13	6	Ped	W-DW	SW-1	A4	No	7'	
14	8	12"	LR-LY-LG	T-1	B1	~~Yes~~ No	10'	Use programed visibility signal heads
15	8	12"	LR-LY-LG	S-1	B2	No	*	See Std. Dwg. T-71
16	7	12"	LR-LY-LG	S-1	B1	No	*	See Std. Dwg. T-71

Notes: All signal faces, including existing, shall be equipped with tunnel visors and backplates. All existing signals shall be painted olive green to match new equipment.

CONDUCTOR CABLE

From	To	Dist. C-C	Power 1C #4	Control 2C #12	Control 5C #12	Control 7C #12	Lc #12 1C #14		Remarks
Ø	⊠	466	1,000						2 Cables In Place
3	⊠	235		256			96		1 In Place
3	⊠	235		256			120		2 In Place
2	⊠	62		81			242		3 In Place
7	⊠	135		160			~~250*~~	340*	6 Install
5	⊠	158		181			124		7 In Place
5	⊠	158		181			304		8 In Place
5	⊠	158		181			224		9 In Place
1	⊠	10		35			216		10 In Place
8	⊠	294		325*			~~456*~~	146*	4 Install
8	⊠	294		325*			~~422*~~	122*	5 Install
8	⊠	294		325*			~~98*~~	98*	14 Install
1	⊠	21		46		46			10 6 In Place
1	⊠	21		46					O.L. In Place
1	⊠	21		42					11 In Place
					110*				
2	⊠	~~48~~ 34			~~80~~*				4 5 Install
3	⊠	~~208~~ 166			~~166+76~~*				9 Connect
4	⊠	68		96					15 Install
4	⊠	68			200				7 11 12 Install 12
6	⊠	68		96					13 In Place
4	⊠	68		100					O.L. In Place
5	⊠	190			252				1 2 Install
6	⊠	204				240			2 13 Install 13
6	⊠	204		240					O.L. In Place
6	⊠	204		235					13 Install
7	⊠	90			152*				3 16 Install
8	⊠	154		154*	216*				14 15 Install
SUB-Total				975	~~156~~ 478		~~616~~	706	
Cutting, Etc: -5%				~~50~~ 56	~~8~~ 24		~~31~~	35	
Total				~~1,025~~ 1185	~~164~~ 501		~~647~~	741	

Note: Quantities are approximate. Contractor may utilize existing conductor if suitable or may elect to furnish new material.

*To Be Installed

RIGID METAL CONDUIT

From	To	Dist. C-C (ft)	In Trench Rigid 1½"	2"	2½"	3"	Remarks
1	⊠	11	13			26	In Place
1	6	56		59		59	In Place
1	1	10		11			In Place
1	10	29	30				In Place
1	2	53				53	In Place
2	7	26		28			In Place
2	3	173	173				In Place
2	4	65		65			In Place
3	1 2	13	14				In Place
4	3	5	7				In Place, ~~Abandon~~
4	5	35	35				In Place
5	7 8 9	3	4				In Place
6	4	5		7			In Place
6	7	73			73		In Place
7	8	160	160*	~~14~~			Install
7	6 19	23		~~24~~*			Install
7	8	V3		27			In Place
7	6	62		62			In Place
8	14 5 4	3	4*				Install
1	2	7		~~7~~* 20			Install
~~5~~	~~3~~	~~5~~		~~5~~*			~~Install~~
7	9	40		42*			Install
9	5	8		9*			Install
Totals			164	~~97~~ 85			

Note: Reset conduit into 7 and 8 as required.

BASES AND JUNCTION BOXES

Location Appr.	Station	Side	No. Post	Det.	Junct. Box	Footing Type A	B	D		Junct. Bx. Type I	II	Remarks
SR 10 N	0+50	24.5'L	1	V		1						In Place
Outer Dr.	42+54	5'L	7				1					In Place, Install Type A Slip Base Adapter.
SR 10 S	0+37.5	19'R	3				1					Install type A Slip Base Adapter. In Place, Abandon
SR 10 N	0+54	25.5'R	4	V 9		1						Install 9
Outer Dr.	43+54	5'R	8				1					In Place, Install Type A Slip Base Adapter. Reset to New Grade
SR 10 S	0+53.5	36'L	6	9		1						Install 19
Outer Dr.	40+44	15'R		V								In Place
Outer Dr.	40+44	27'R		2								In Place
Outer Dr.	42+39	4'R		3								In Place
Outer Dr.	45+32	℄		14								Install 4
Outer Dr.	45+32	12'L		4								Install 4
Outer Dr.	45+32	23'L		5								Install 5
Outer Dr.	43+47	4'L		6								Install 6
SR 10 S	0+85	6'L		7								In Place
SR 10 S	0+72	6'L		8								In Place
SR 10 S	0+77	18.5'L		9								In Place
SR 10 N	0+82	7.5'L		10								In Place
Outer Dr.	42+60	47'L			1						1	In Place
Outer Dr.	42+28	5'L			2						1	In Place
Outer Dr.	40+55	5'L			3					1		In Place
SR 10 S	0+42	23'L			4					1		In Place
SR 10 S	0+77	20'R			5					1		In Place
SR 10 N	0+51	22.5'R			6						1	In Place
Outer Dr.	43+67	5'R			7						1	In Place, Reset to new Grade
Outer Dr.	45+26	5'R			8					1*		Install 8
Outer Dr.	42+49	46'L	⊠ Control					1				In Place
Outer Dr.	42+~~54~~ 29	44.5'L	2			1*						Install
~~SR 10 S~~	~~0+81~~	~~19'R~~	~~3~~			~~1~~*						~~Install~~
Outer Dr.	43+54	44.5'R	5	16		1*						Install
Outer Dr.	43+62	44.5'R			9					1*		Install 9
Totals						~~2~~ 12				2		

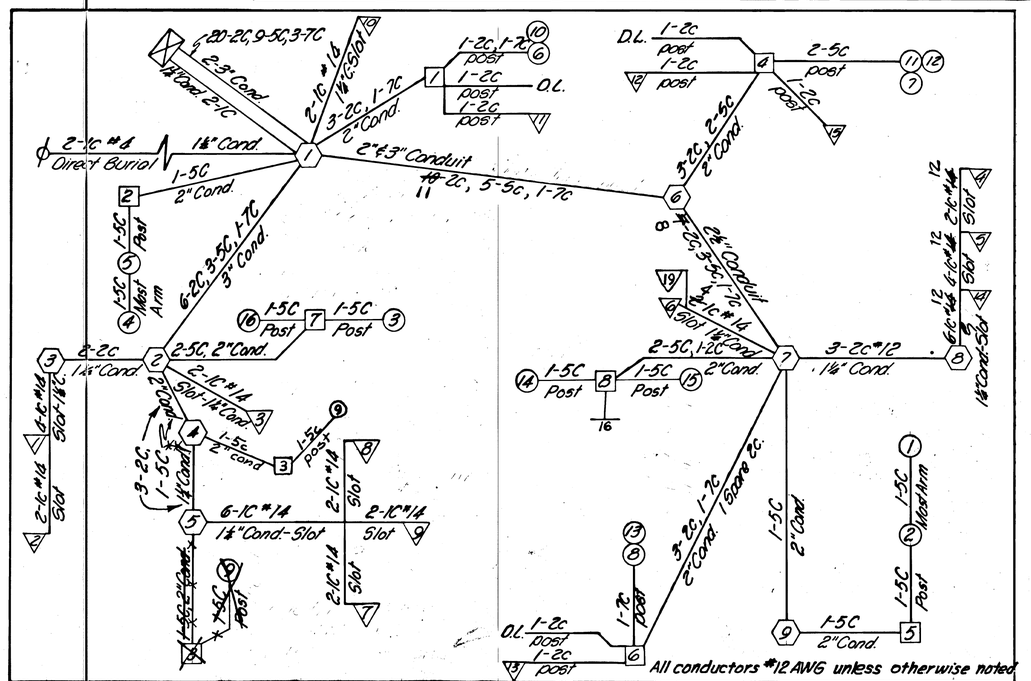
DETECTORS

No. Post	No. Det.	Phase Assoc.	Ped. Push Button	Induction Loop - Power Supply & Sensor	Remarks
	1	A2		1*	Loop in Place
	2	A2		1*	Loop in Place
	3	B1		1	In Place
	4	A1		1	Install 4
	5	A1		1	Install 5
	6	B2		1	Install 6
	7	A3		1	In Place
	8	A3		1	In Place
	9	~~A3~~		~~1~~	~~In Place~~
	10	A4		1	In Place
1	11	A1p, ~~B2p~~	1		In Place
4	12	A1p, ~~B2p~~	1		In Place
6	13	A4p	1		Install 13
	14	B2		1	Install 14
4	15	A4p	1		Install 15
8	16	A4p	1		Install
	17	B2		1	Install
Total			~~2~~ 3	~~6~~ 7	

Disconnect & do not use

*Furnish Power Supply & Sensor

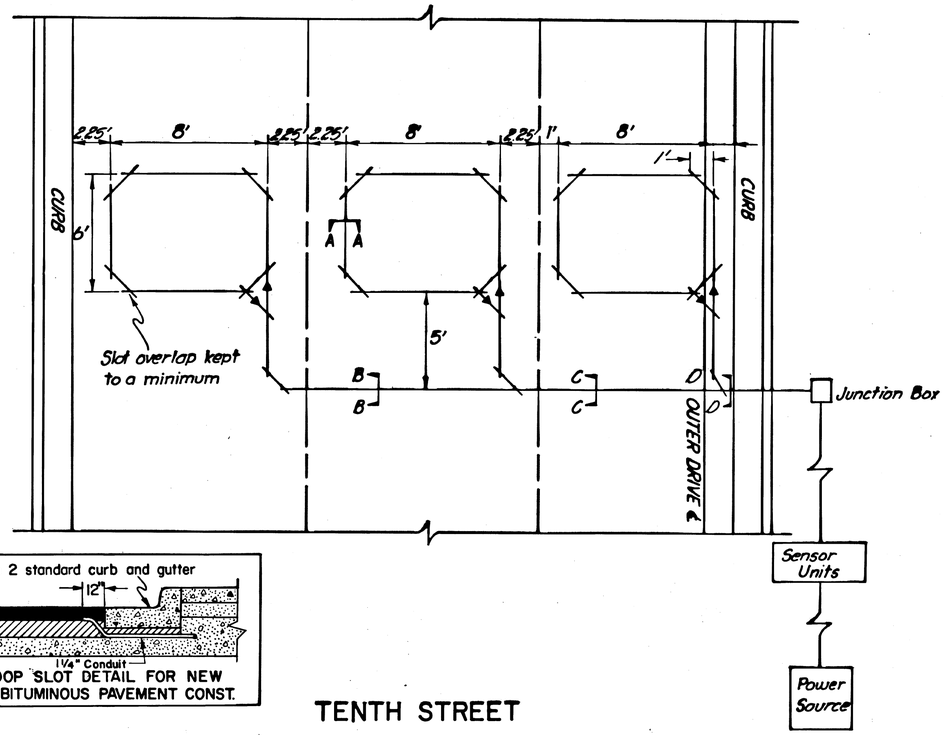
Note: (1) Neutral from pedestrian push button shall be separate from signal light neutral.
(2) Branch signal light neutrals may be spliced in junction boxes.
(3) Loop detector 19 is 6'x6'

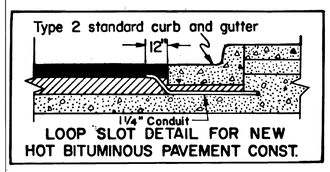


All conductors #12 AWG unless otherwise noted.

WIRING DIAGRAM

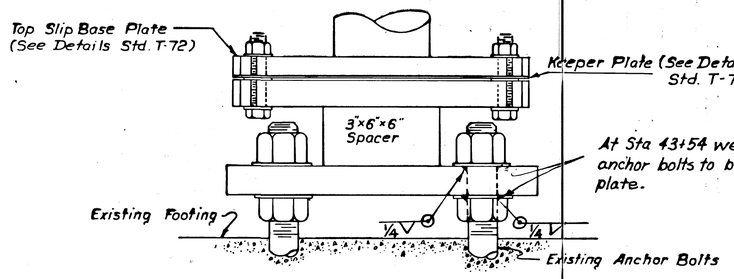
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	52	97



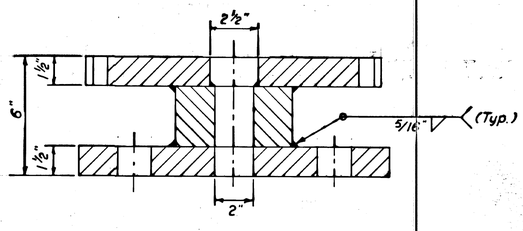


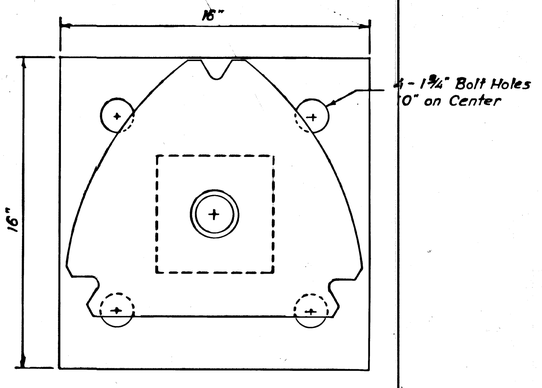
LOOP SLOT DETAIL FOR NEW HOT BITUMINOUS PAVEMENT CONST.

TENTH STREET



SLIP BASE INSTALLATION
STA. 42+54, ~~&~~ STA. 43+54 ℄
STA "SR10S" 0+37.5

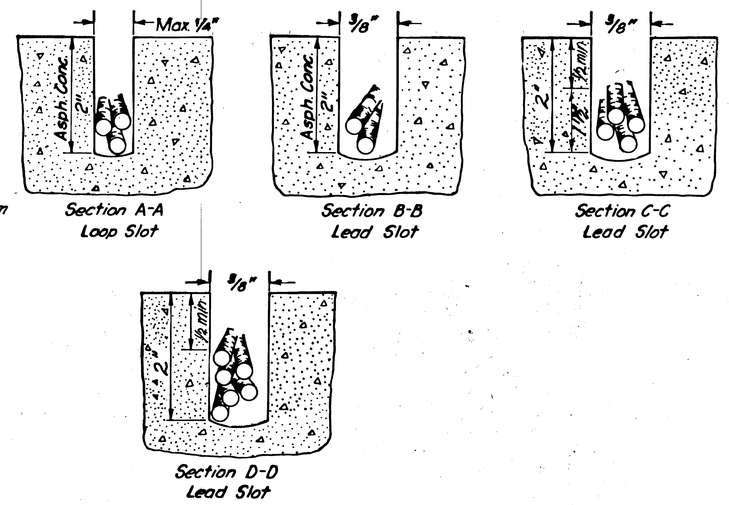




BOTTOM SLIP BASE PLATE ADAPTOR *

* Note: Bottom Slip Base Plate Adaptor to Replace Bottom Slip Base Plate on Std T-72. Refer to Std T-72 for Additional Information.

LOOP DETECTOR DETAILS



GENERAL DETECTOR NOTES

1. All loops and lead slots to be cut by power concrete saw.
2. The width of the saw cut at sections B-B, C-C and D-D shall not be less than 1/8" inch larger than 2 times the outside diameter of the conductor used and the depth shall provide for approximately one half inch of AASHO M-200 Type A asphalt crack filler above the conductors.

See special provisions for loop wire specs.

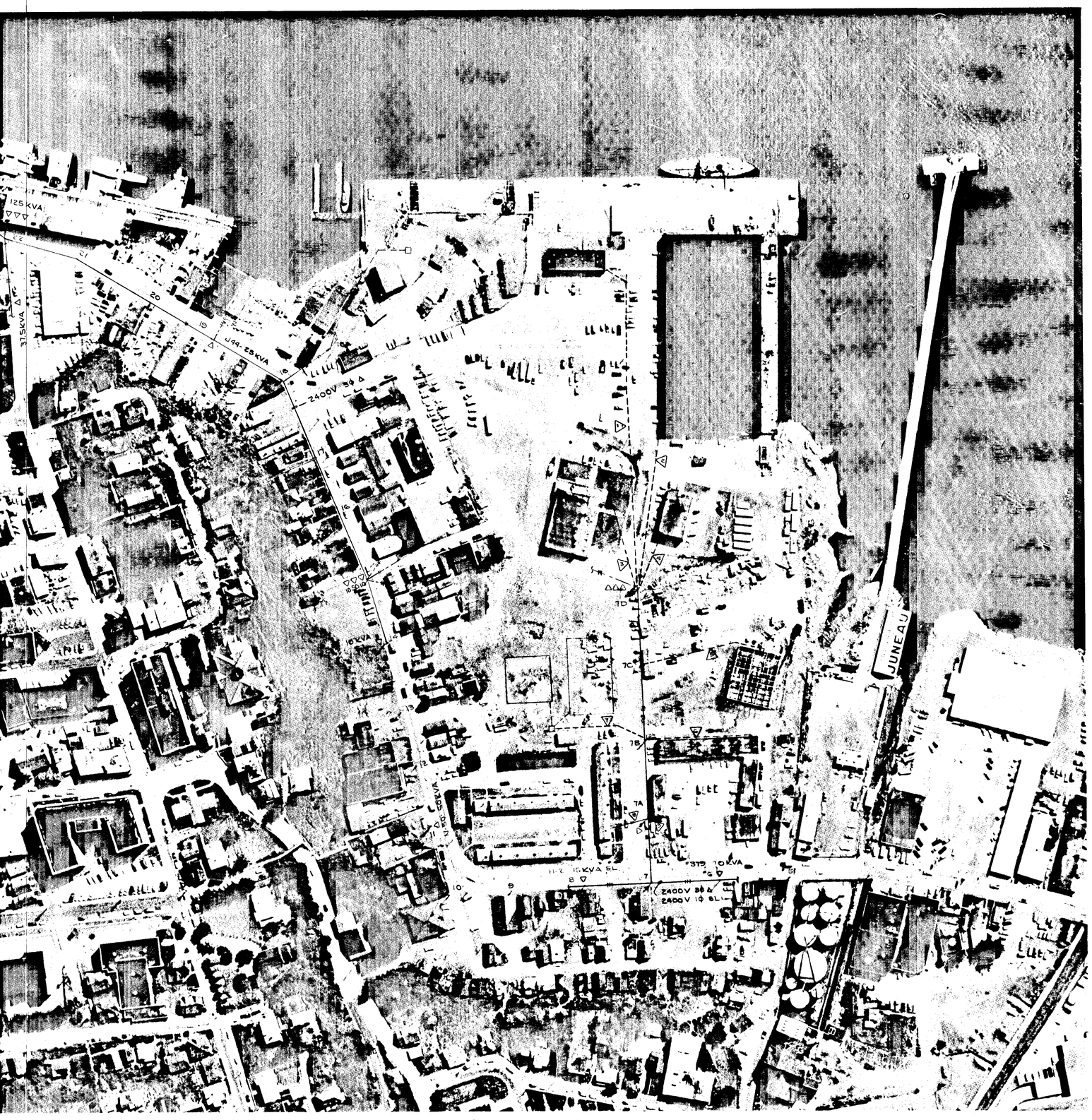
3. ~~The loops shall be single-conductor #14 AWG type TH, THW, or THWN stranded wire, high density polyethylene insulation and neoprene jacketed.~~
4. The number of turns of conductors in each loop shall be three (3) unless otherwise specified by the manufacturer.
5. The conductors shall be placed into slots with a wooden device or any other such device to avoid damaging the insulation.
6. Leads from individual loops shall be twisted three (3) turns per foot from each loop to the controller cabinet. Loops shall be non twisted coils.
7. All conductors shall be tagged in the junction box as shown.
8. Insulation test for each loop to ground shall not read less than 10 megohms, and shall be made before and after the slot has been filled.
9. The 2c #12 control cable shall be connected to L-1 and L-2 with a water tight splice in the junction box, and there shall be no loops of wire in the junction box.
10. Power supply & sensor units to be housed in the controller cabinet unless otherwise specified.

GENERAL SIGNALIZATION NOTES

1. Separate conduits must be used for traffic signal control cable and 240 volt lighting cable.

2. ~~Fire pre-emption equipment shall be furnished by the State and shall be installed with the traffic signals by the contractor and as approved by the project engineer.~~

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	53	97



1" = 100' PHOTO JULY 5 1967

SCHEDULE I

#	LOCATION	CABLE	TYPE	CONDUIT	TRANS.	SVC.	REMARKS
1	COAST GUARD			2"	1-150 150	120/208 3φ	
2	SUBPORT	3#6 VCL	5KV LEAD	—	3-37.5 112.5	"	DIRECT BURIAL
3	ARMORY	3#6	5KV	2"	3-25 75	"	GE # SI 58008
4	ACS	3#4	5KV SH.	2"	3-37.5 112.5	"	GE # SI 58042
5	MUSEUM	3#4	5KV SH.	3"	3-50 150	"	
6	DRIFTWOOD	3#2	5KV SH.	2½"	1-112.5 112.5	"	
7	TEENAGE	2#2	5KV SH.	2"	1-75 75	115/230 1φ	
8	CHANNEL APTS.					"	SECONDARY OVHD
9	HOME LIQUOR			2½"		"	" "

PRIMARY OVERHEAD
" UNDERGROUND
SECONDARY OVERHEAD

SYMBOLS

—P—	P	POWER
—T—	T	TELEPHONE
		PITCHED DOWN
		EXISTING UTILITY POLE
		NEW OR RELOCATED UTILITY POL
		CONNECTED TO EXISTING
		RELOCATED
		TRANSFORMER, POLE MOUNTED
		TRANSFORMER, PAD MOUNTED
	KO	KNOCKOUT
	EHH	ELECTRICAL HANDHOLE
	THH	TELEPHONE HANDHOLE
	SL	STREETLIGHTING
		REMOVED

EXISTING POWER DISTRIBUTION

1" = 100'-0"

STATE OF ALASKA 49TH NO. REGISTERED PROFESSIONAL ENGINEER

E-1

STATE	PROJECT DESIGNATION	YEAR	SHEET No.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	54	97



1" = 100' PHOTO JULY 9, 1967

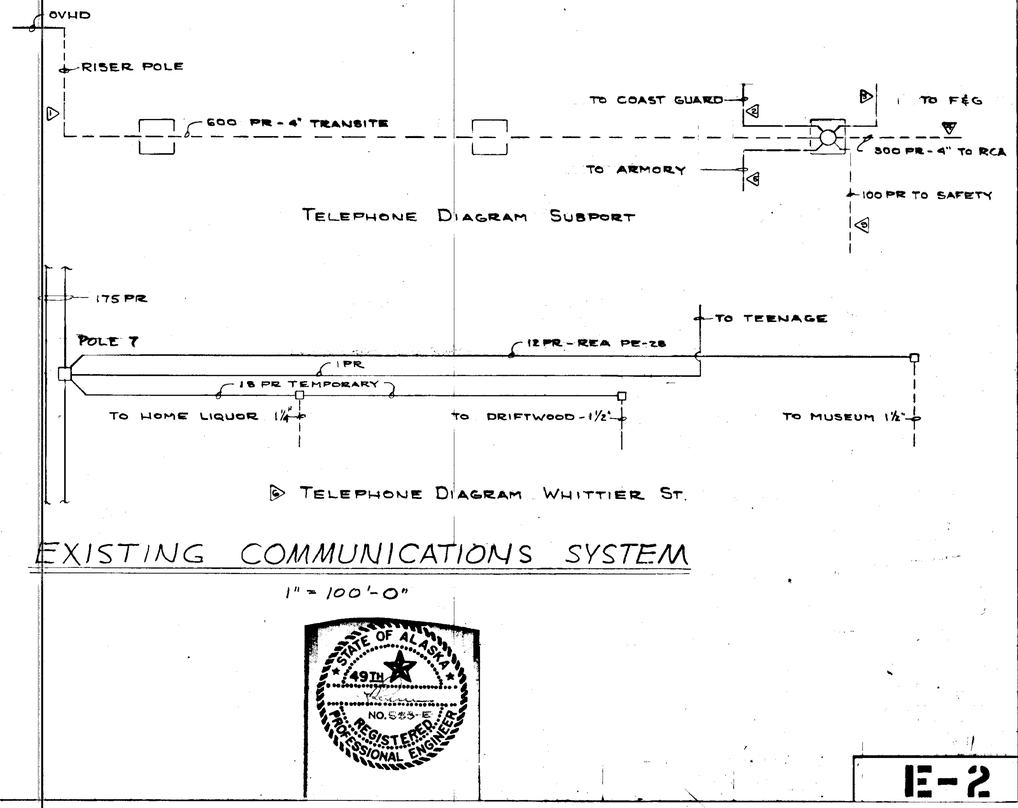
LEGEND – EXISTING COMMUNICATIONS

TELEPHONE	OVHD	———
	UN-GR	- - - - - -
R.C.A.	OVHD	——·——
	UN-GR	- - - - - - -
B.C. CABLE		——B——

SCHEDULE

*	SERVICE	PAIRS	TYPE	CONDUIT	PR./UTIL*	REMARKS
△	AREA - DIST	600	LEAD		255	
△	COAST GUARD	50		2"	17	
△	FISH & GAME				10	
△	RCA	300	LEAD	4"	263	
△	ARMORY	12			9	
▷	AREA - DIST					SEE DIAGRAM BELOW
△	RCA	52 & 152	LEAD		180	
◁	B.C. CABLE	CATV	——	——		
▷	DEPT OF SAFETY	100				DIRECT BURIAL

* AS OF 7/1/69



TELEPHONE DIAGRAM SUBPORT

▷ TELEPHONE DIAGRAM WHITTIER ST.

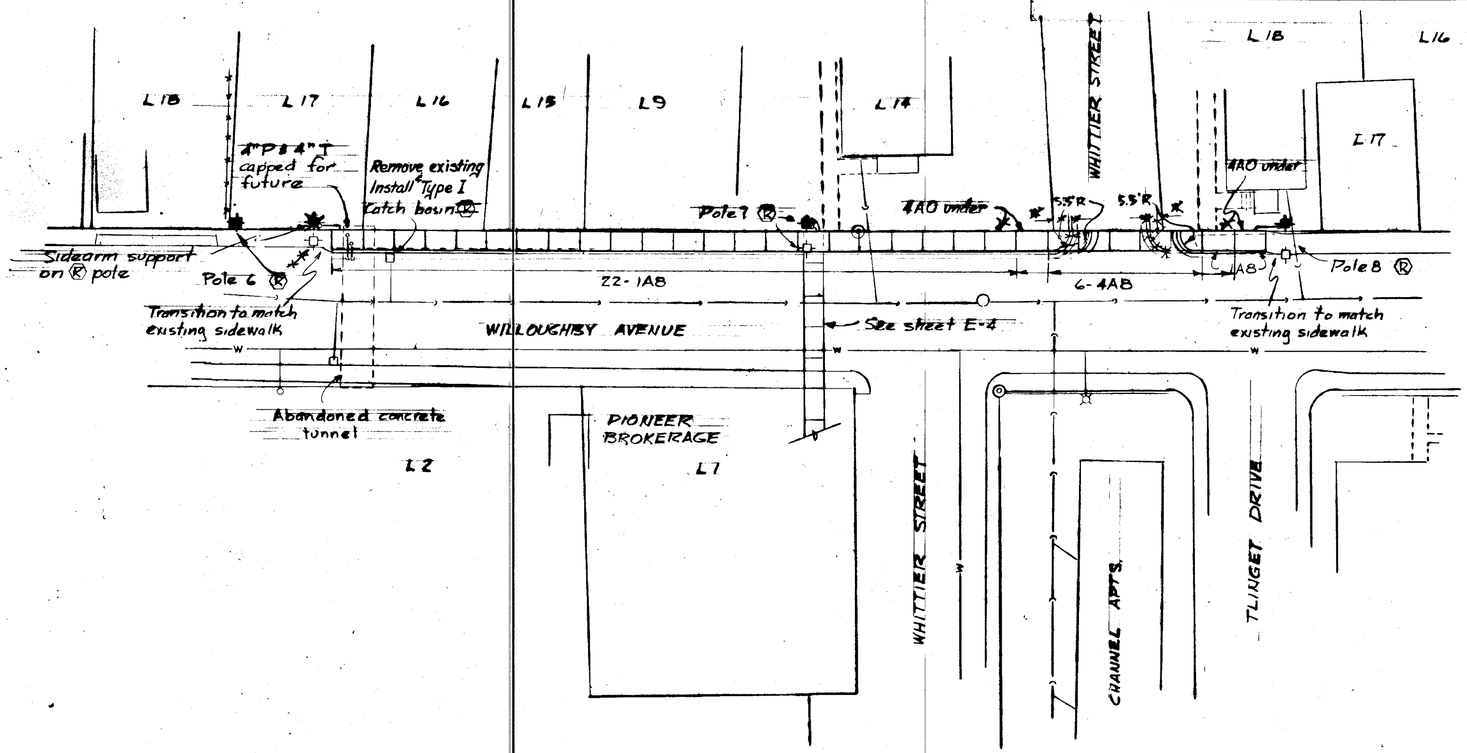
EXISTING COMMUNICATIONS SYSTEM

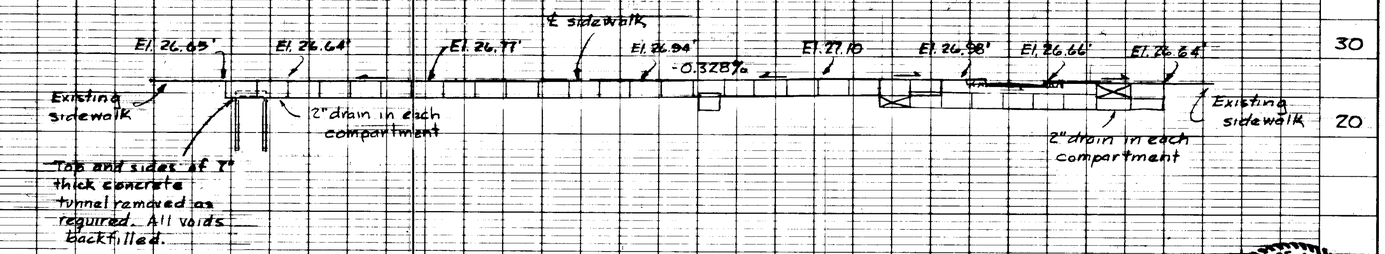
1" = 100'-0"

STATE OF ALASKA 49TH NO. 5553-E REGISTERED PROFESSIONAL ENGINEER

E-2

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	55	97





STATE OF ALASKA
49TH
No. 5554-E
REGISTERED PROFESSIONAL ENGINEER

E-3

K+E PLATE 1, PLAN-PROFILE
REUFFEL & ESSER CO.
48 7024 HERCULENE DRAFTING FILM 26701
MADE IN U.S.A.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	X-31530	1971	56	97

Bevelled ends

2" steel T & 2" street P capped for future 30" below grade

Feeder 7 © 3 transformers in Museum

3"P

1½"T

Remove existing 3-#4 5 KV & replace with 3-#2 15KV & 1-#2 600V.

ALASKA STATE MUSEUM

Existing 2½"P & feeder 5

DRIFTWOOD LODGE

Exist. 1½" T (Alum.) connected to utiliwalk

Switch SW-1 See detail Sheet E-9

Pioneer Brokerage loan center pole. Extend conduit up 10' and provide weatherhead splice new services

GEORGE BROS REALTY

HOME LIQUOR

© panel 6' above floor

Feeder 17

© 2½"P (Alum.)

3-#2in 2" RMC

Pole 7T

4A3 under

Splice the 3-#2 to the 3-#4 in utiliwalk

8-4A8

See Detail No. 1 Sheet E-16

See Sheet E-3

Pole 7D

P T

R=35'

R40 Δ=32°47'

R=35' Δ=40°

R=1' Δ=90°

+34.14 +19.49 PC to BSW →

+43.54 52.60

+53.25 38.89

+79.70 35.49

+86.05 42.85

15-4A8

Existing 1½"T connected to utiliwalk

Existing 3"P connected to utiliwalk

Slope Limits

Pole 7C

4A0 under

4A4 under 4A0 under 14-1A8

Pole 7B

10-4A8

3-1A8

4-3-3A8

2-1A8

2A8

1½"T © 1¼"

3-3A8

2A8

8-1A8

+31.70

N25°20'W ~ 538.98'

WHITTIER STREET

2" connected to utiliwalk

4A0 under

2-2"T

3"

3"

Primary: 2-#2 15KV-2½"P

2½" RMC

℄ 7+63.11

Secondary: 2-#250 MCM & 1-#4/0 Neutral 1-2½"(Alum)

+31.82

+32.44

+32.50

R=31.50

AVENUE

WILLOUGHBY

MATCH LINE ℄ 12+00

Abandoned P cables

"C" 12+26.3 Δ=9°56'55"

NATIONAL GUARD

3"P capped for future

© 2"T

Slope Limits

PUBLIC SAFETY BUILDING

Existing 2" conduit below floor

© T panel

THH-1

6½"T

© 10' above grade

2-#500 MCM & 1-#250 MCM neutral in 3"

Transformer pad See detail Sheet E-17

CHANNEL APARTMENTS

© 400A, 3-pole disconnect

3" 10' above ground

Existing feeder 6 & 2"P to transformer near Teen Age Club

1¼"T to new pedestal near Teen Age Club transformer. 1¼"T from Club connected.

El. 24.89'

SW#1

℄ sidewalk

+0.525%

El. 27.00

2" drain in each compartment

2" drain in each compartment

2" drain in each compartment

12" sewer

Elev. 24.15' 150' V.C.

Profile Grade

-0.500%

+0.525%

Elev. 26.06'

Existing Ground

3" Electrical Conduit

8" Water Line

2" Electrical Conduit

100.00

+63.11

12+00 13+00 14+00 15+00 16+00 17+00

STATE OF ALASKA 49TH NO. 53 REGISTERED PROFESSIONAL ENGINEER

E-4

K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOTAL SHEETS
ALASKA	X-31530	1971	57	97

2"T & 3"P capped for future

THH-4
EHH-3
See sheet E-10

FISH and GAME Feeder 13
© transformers

3"P
3"T
3"P
3"P

3"© 3"P

Exist. oil tank and piping

CO

W

N 22°52'55"W ~ 391.17'

WHITTIER STREET

P26

S26

8

9

66

66

3" P

3"T

2"T

W

CO

CO

"6+08.83

COAST GUARD

COAST GUARD

SD

Slope Limits

EL PT

3"P & 3"T connected to conduit by others

+81.50
R=6'

+18.50
R=6'

Feeder 15
© transformer

COAST GUARD

© T. panel

Switch SW-3
See detail
Sheet E-10

3" T & 4" P capped for future

3' 4"

Abandon Exist. M.H.

Feeders 9A 3#2 15KV
9B 1#2 600KV
serving RCA Bldg.

Feeder 9
© transformers
3-#2-15 KV
1-#2-600 V
in 3" steel cable
not connected

200 Pr Splice &
300 Pr Splice
© RCA manhole
Vault by others
~~3 existing 4"T. Remove unused cable and install T2 & T4 cables.~~

RCA BLDG.
3-4" T's
by others

Junction box
approx. 3' above
grade

~~Connected to 3"P furnished by others~~

3"P

4AB under

Switch SW-2. See detail Sheet E-9

4" conc.

3"P

Slope Limits

13-4A8

4A5

2 LF 3" steel cap

4 4" T

3-4" T

Abandon power cables

4A4 under

P3" steel

T3" steel

15-1B8

22-3"T

EL

SS

N 15°23'05"W ~ 224.13'

4A8

Abandon power cables

P28

4" P capped for future

THH-2

3"

Slope Limits

Connected to 3" P furnished by others

MATCH LINE E"12+00

© telephone handhole

Feeder 10
© transformers

NATIONAL GUARD ARMORY

U.S.C.& G.S. B.M. 15
21' Left Station "C" 6+19.
Elevation 24.70'.

Elev. 24.91'

Elev. 24.79'

THH-4
EHH-3

2" drain hole in bottom of each compartment

SW-3
See Sheet E-10

EHH-2
El. 25.95'

2" drain hole in bottom of EHH-1 & THH-3

SW-2

El. 26.46'

℄ sidewalk

℄ Elev. 25.49 Outer Drive

Elev. 24.06
Elev. 23.53 No V.C.
Elev. 24.79 No V.C.
Elev. 25.14 No V.C.
Elev. 25.56 No V.C.

Profile Grade

-0.500%
+0.500%
+1.940%
-0.996%
+0.500%
-0.500%

8" Water Pipe
Oil Tank
6" Sewer Pipe
3" Electrical Conduit
Existing Ground
3" Electrical Conduit
8" Water Pipe

+03.83
+12.92
+63.92
+95.15
+18.58

30
20
40
30
20
10

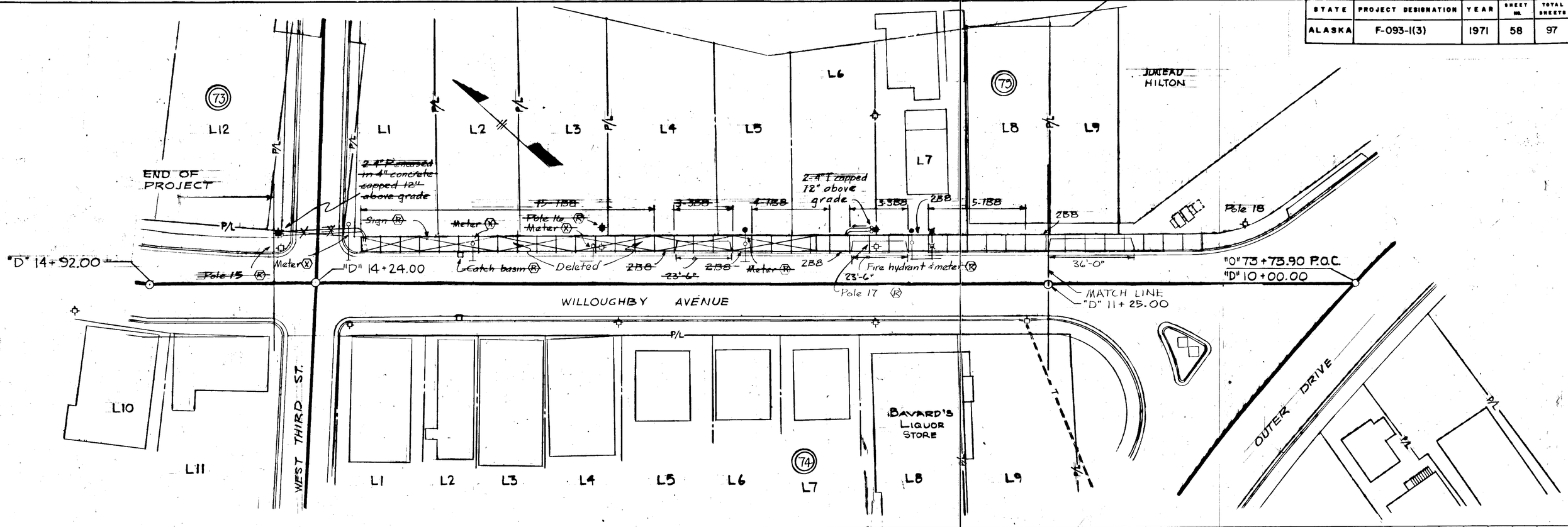
6+00
7+00
8+00
9+00
10+00
11+00
12+00

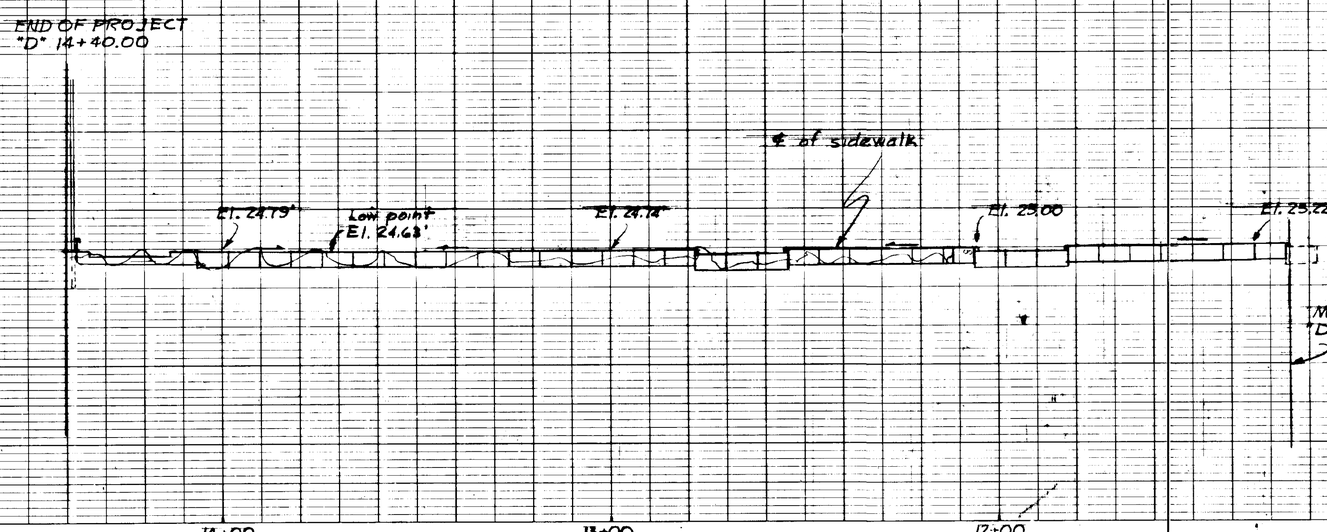
STATE OF ALASKA
49TH
No. 555-E
REGISTERED PROFESSIONAL ENGINEER

E-5

K+E

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	58	97





K+E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.
48 7024 HERCULENE DRAFTING FILM 29701
MADE IN U.S.A.

REGISTERED PROFESSIONAL ENGINEER NO. 5554

E-6

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOT SHEE
ALASKA	F-093-1(3)	1971	59	97

FOREST SERVICE BLDG.

BAVARD'S LIQUOR STORE

2-5"T & 2-5"P capped for future. See detail Sheet E-12

L8 L9 L10 L11 L13 L14 L15 L1 L2 L3 L4 L5

MATCH LINE "0"69+00

OUTER DRIVE

N81°09'33"E - 570.3'

USS 3566

Garage

Warehouse

T&P manholes See detail Sheet E-12

Top 5"P&T capped for future. See detail Sheet E-12

Bottom 5"P&T capped for future

Pole 18

Pole 18A

#114

#108

Switch SW-4 See detail Sheet E-11

S-388

N45°46'20"W

WILLOUGHBY AVENUE

2-4" Steel duct

Pipe encasement See detail Sheet E-14

Encased in concrete

18" Concrete

9-188

2-8B

10"
Δ=16°24'57"
D=6°00'00"
T=137.74'
L=273.60'

"D" 10+00.00 P.O.C.
"O" 73+75.90 P.O.C.

"O" 73+96.71 P.T.

"O" 74+23.00 P.C.

"O" 72+58.42 P.C.

JUNEAU HILTON

J. SHERMAN TANNER

MATCH LINE "0"75+00

STATE OF ALASKA 49TH NO. 555-E REGISTERED PROFESSIONAL ENGINEER

"D" LINE
WILLOUGHBY AVENUE

Elev. 26.13'
Elev. 26.89'
Elev. 25.16'
+1.854%
Profile Grade -2.062%
"D" 10+00 = "O" 73+75.90
+41.10
+25.00

Elev. 24.00 No V.C.
Elev. 25.25' No V.C.
Profile Grade
+0.500%
+0.413%
Existing Ground
8" Water Pipe
3" Telephone Conduit
6" Water Pipe
18" Sewer Pipe
+5.00

MATCH LINE "D" 11+25.00
Pipe encasement
℄ of sidewalk

10+00 11+00

69+00 70+00 71+00 72+00 73+00 74+00 75+00

E-7

K&E PLATE 1, PLAN-PROFILE KEUFFEL & ESSER CO.

3/24/71

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	60	97

JUNEAU HILTON

L15

(75)

P/L

L16

P/L

0+78+57.99 P.C.

L17

CAPITOL MOTOR SUPPLY

Δ=19°17'44"
D=10°00'
T=97.40'
L=192.96'
R=572.96'

L18

L19

JUNEAU MOTORS

0+78+50.95 P.T.

Pole 19 (R)

MATCH LINE 0+75+00

4-1B8

2B8

6-3B8

Pole 20 (R)

7-1B8

2B8

S82°25'10"E

WILLOUGHBY AVENUE

5-3B8

4-1B8

2B8

2B8

3-3B8

2B8

Pole 21 (R)

#40 under

7-1B8

2B8

P/L

3"T & 3"P capped for future

All utilwalk sections & tops tapered 0.42 inches each end for curve.

END OF PROJECT

L5

0+73+33.37 P.T.

WAREHOUSE

DOCK

(76)

Existing top of Bank

P/L

P/L

L6

J. SHERMAN TANNER

P/L

DOCK

0+77+55.39 P.T.

ALASKA AIRLINES

L6

Pole 22

El. 27.65'

El. 27.51'

℄ sidewalk

El. 27.31'

El. 27.47'

El. 27.72'

2" drain in each compartment

2" drain in each compartment

Finished Profile

℄ street

Elev. 27.90'
200' V.C.

+0.413%

-0.402%

Existing Ground

75+00

76+00

77+00

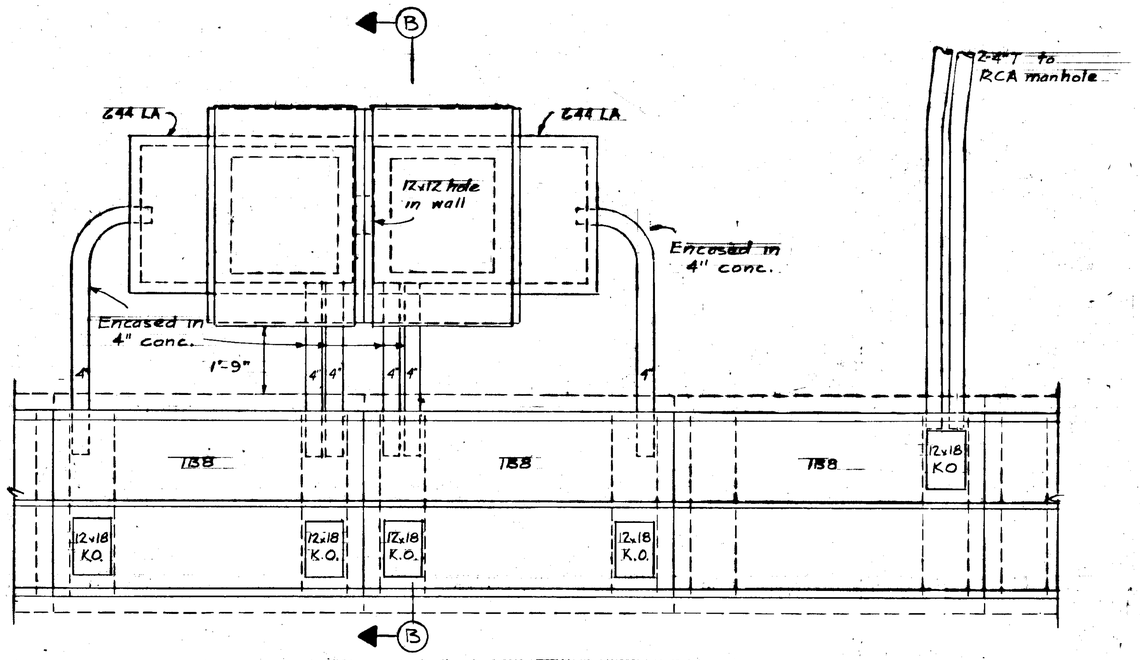
78+00

K+E PLATE 1, PLAN-PROFILE
KEUFFEL & ESSER CO.
46 7024 HERCULENE DRAFTING FILM 29701
MADE IN U.S.A.

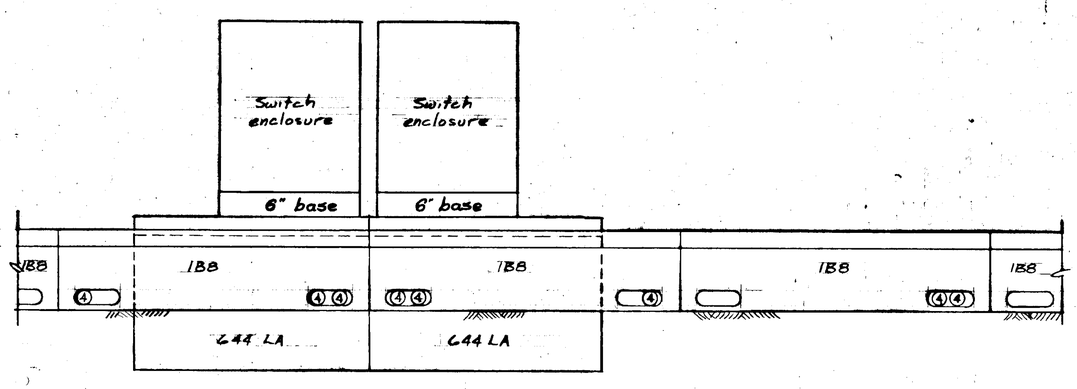
STATE OF ALASKA
1971
No. 5554-E
REGISTERED PROFESSIONAL ENGINEER

E-8

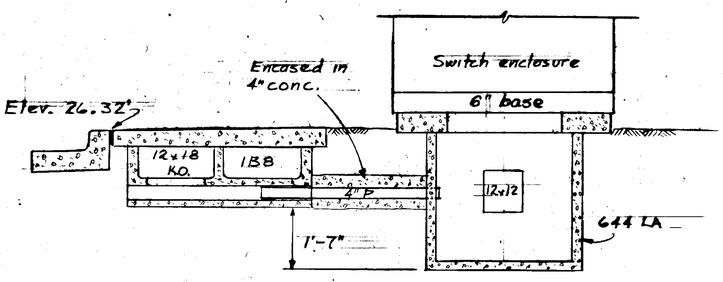
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	61	97



PLAN



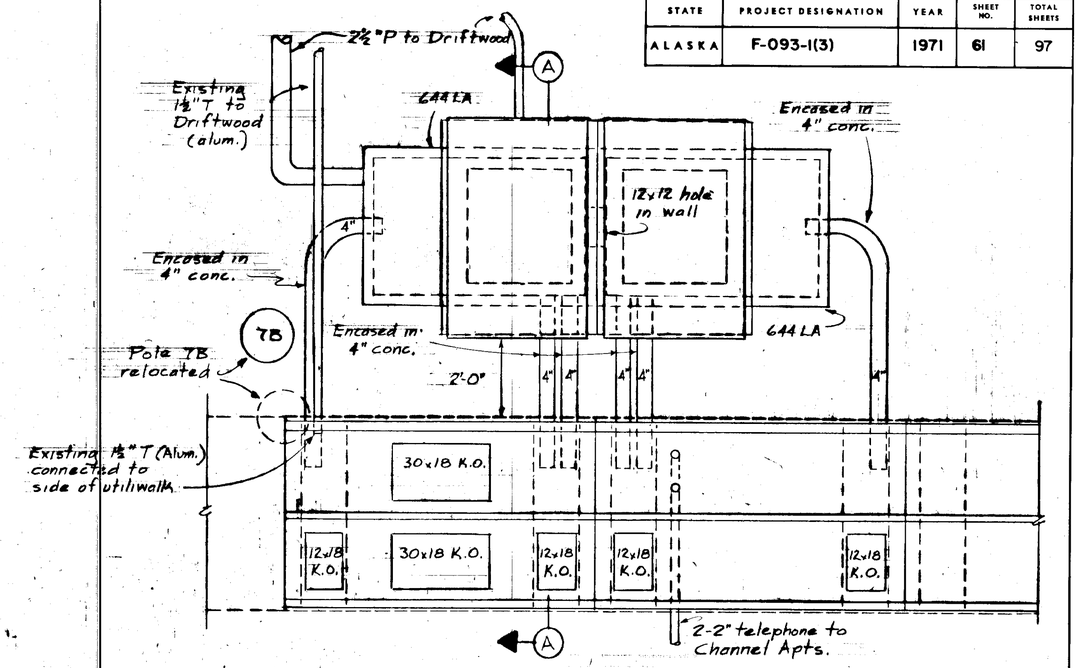
ELEVATION



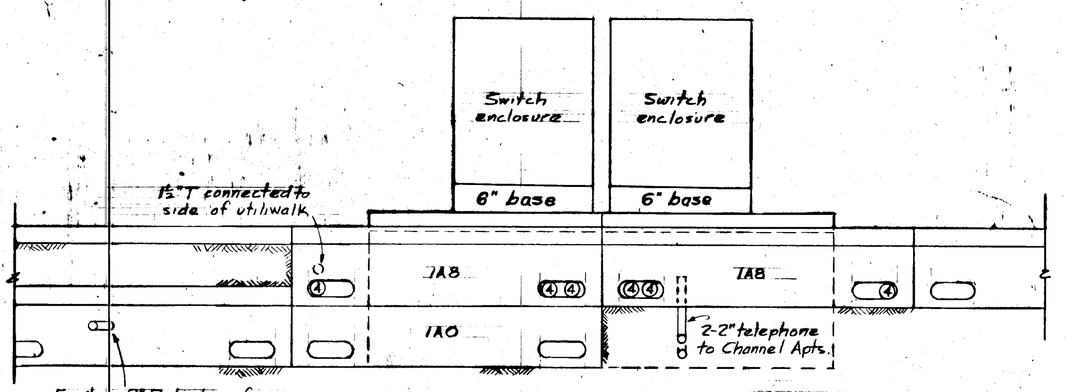
SECTION B-B

DETAIL • SWITCH NO. 2

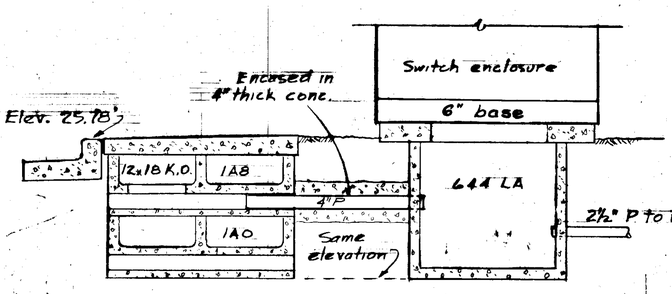
1/2" = 1'-0"



PLAN



ELEVATION



SECTION A-A

DETAIL • SWITCH NO. 1

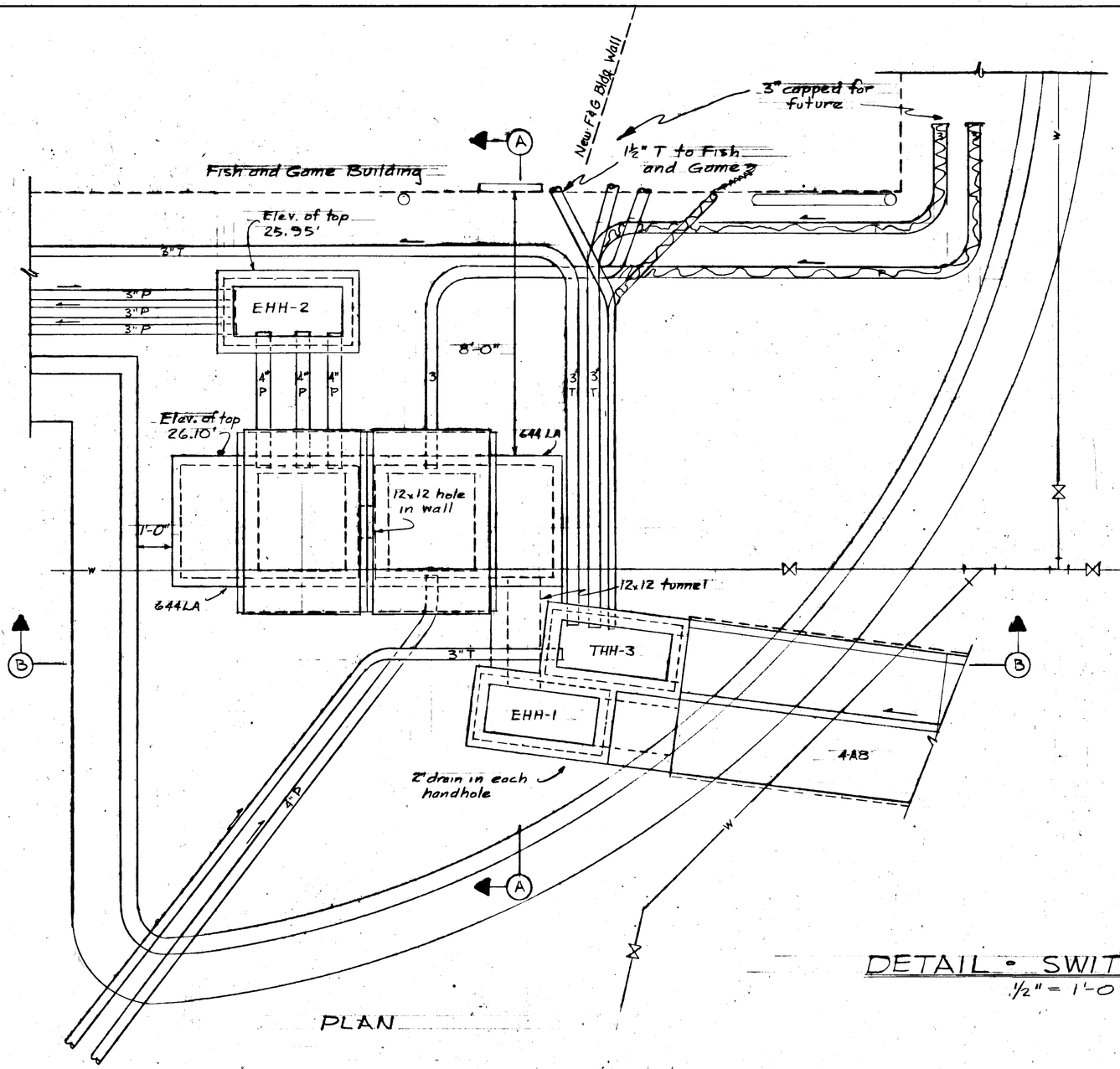
1/2" = 1'-0"

STATE OF ALASKA
49TH
NO. 1853 E
REGISTERED PROFESSIONAL ARCHITECT

E-9

...FFEL & KASER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	62	97

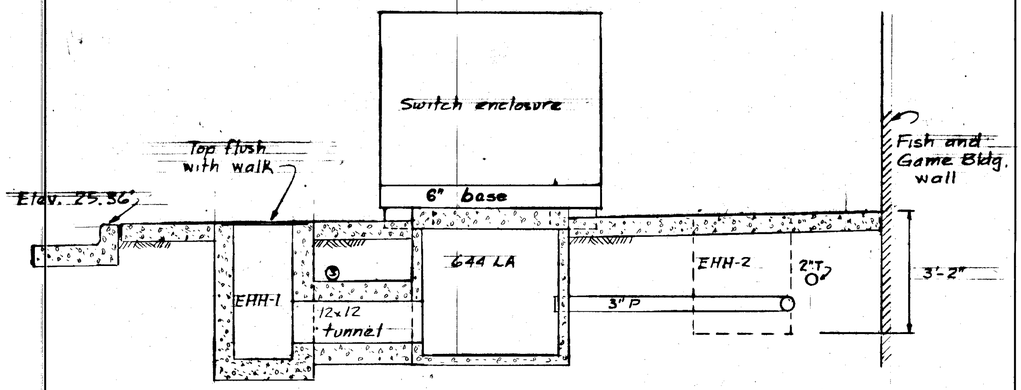


PLAN

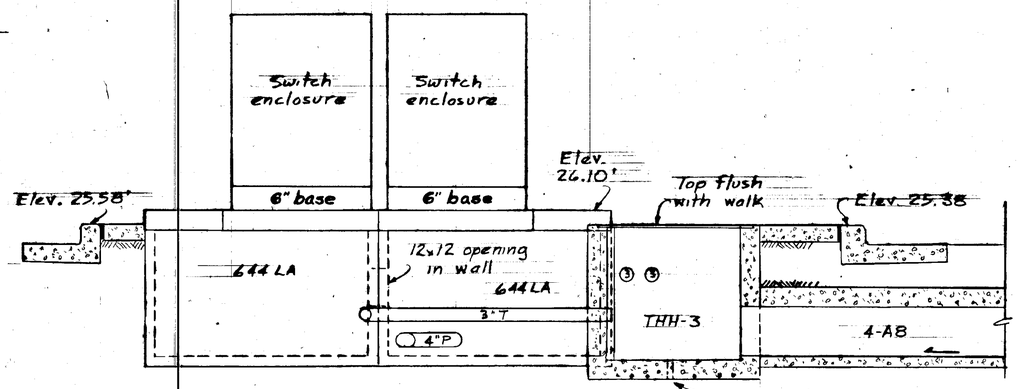
3"T and 4"P capped for future See sheet E-5

DETAIL - SWITCH NO. 3

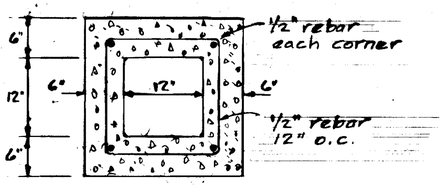
½" = 1'-0"



SECTION A-A

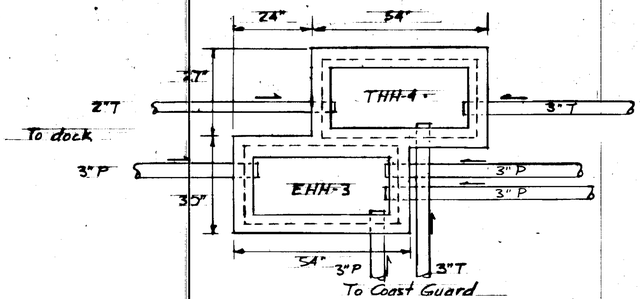


SECTION B-B



SECTION - 12x12 TUNNEL

1" = 1'-0"



PLAN - HANDHOLES EHH-3 & THH-4

½" = 1'-0"

STATE OF ALASKA 49TH NO. 5894-E REGISTERED PROFESSIONAL ENGINEER

E-10

BUTTEL & BIBER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	63	97

JUNEAU HILTON HOTEL

El. 27.5'

Future Transf. Vault

Concrete enclosure

2-5"P

Steel conduit

Concrete encased plastic conduit

El. 27.5'

Concrete enclosure

2-5"P

2-4"P steel

Steel conduit

20' Radius

2-5"P

Plastic conduit

Concrete enclosure

2-4"P steel

Plastic conduit

Existing pole 18

Concrete enclosure
See detail Sheet E-14

80' R

47.76'

40'
Curb Cut

6'-0"

6'-0"

4'-0"
Future Vault

Conc. Conduit Cover
245

Conc. Conduit Cover
#45-5496

Elev. 24²

5"P

5"P

Conc. Encl.

3'-6"

4'-0"

Conc. Conduit Vault
#660-LA

SECTION "C-C"
½" = 1'-0"

5" plastic conduit

1.68'

3"

#4 Continuous
4" ± To Each End.

5"C - 1½" Inter-Spacer
Carlon #5289PH
5'-0" o.c.

5"C - 1½" Base Spacer
Carlon #5288PH
5'-0" o.c.

#4 rebar Thru Void

1½"x1½" Wood Separator

1.55'

1½"

SECTION "A-A"
No Scale

11½"

5" plastic conduit

1½"

1.55'

#4 rebar Thru Void

SECTION "B-B"
No Scale

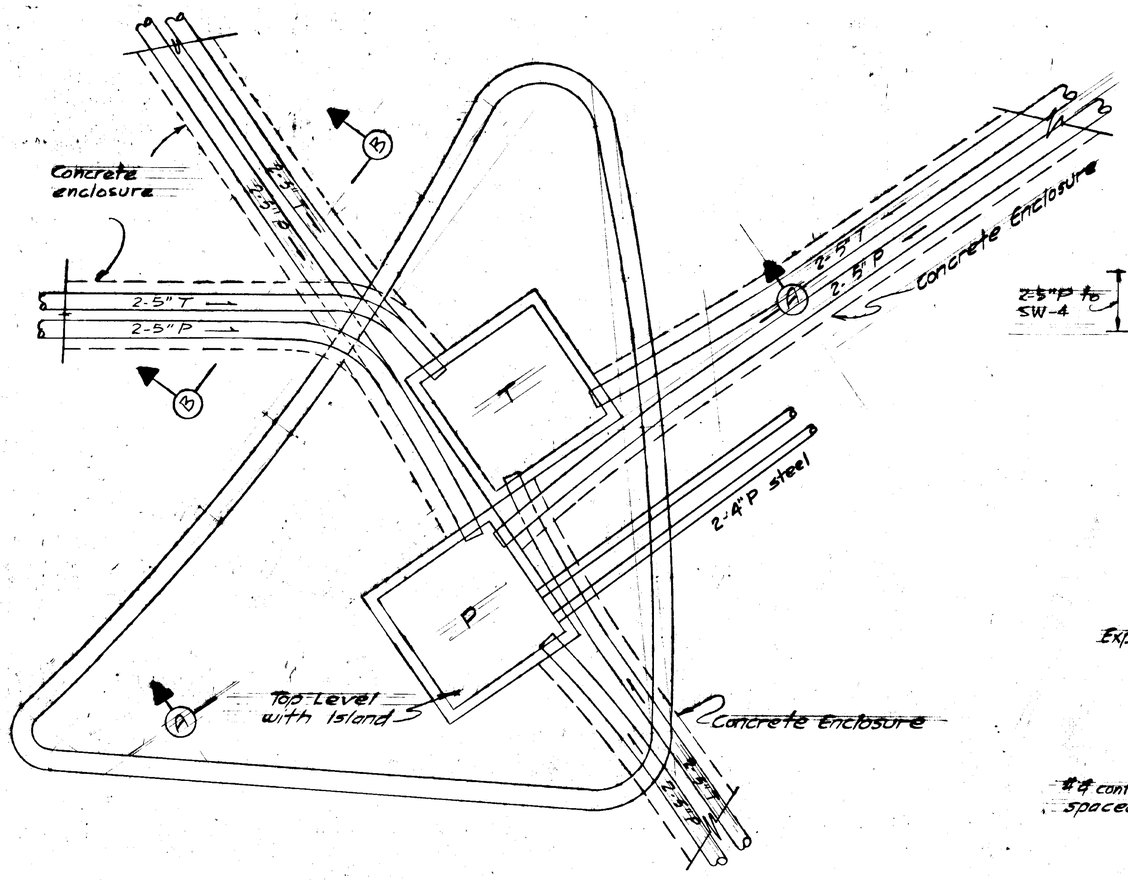
DETAIL - SWITCH NO. 4
½" = 1'-0"

STATE OF ALASKA
49TH
REGISTERED
No. 5555-E
PROFESSIONAL ENGINEER

E-11

UFFEL & ESSER CO.

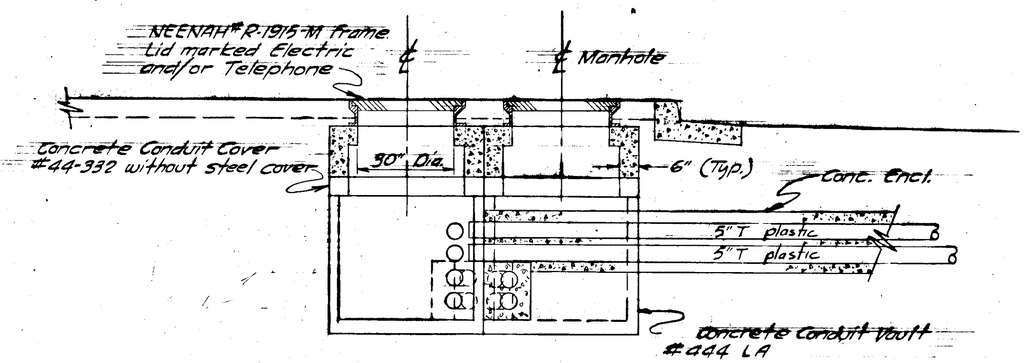
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	64	97



ISLAND • WILLOUGHBY & OUTER DRIVE

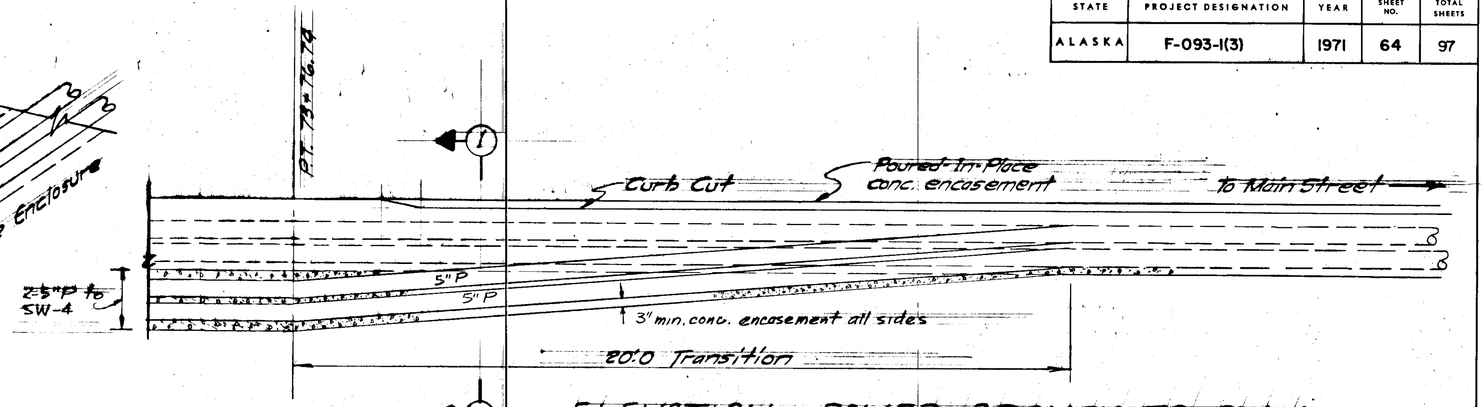
½" = 1'-0"

All conduit plastic type



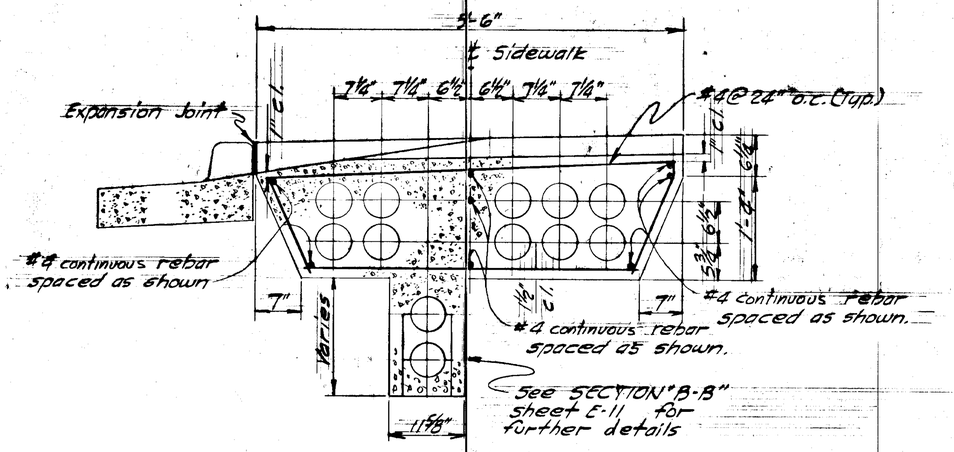
SECTION "A-A"

½" • 1'-0"



ELEVATION • POWER BRANCH TO SW-4

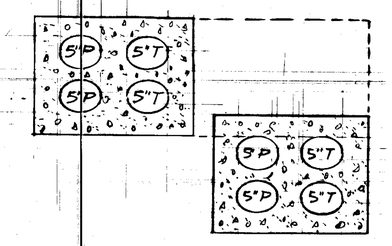
½" = 1'-0"



SECTION "1-A"

1" = 1'-0"

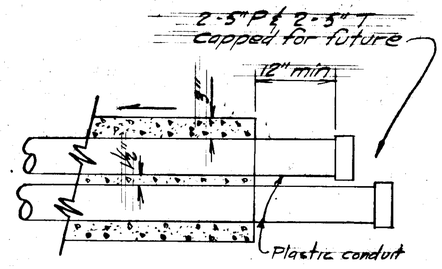
All conduit 5" plastic type



SECTION B-B

1" = 1'-0"

All conduit plastic type



ELEVATION

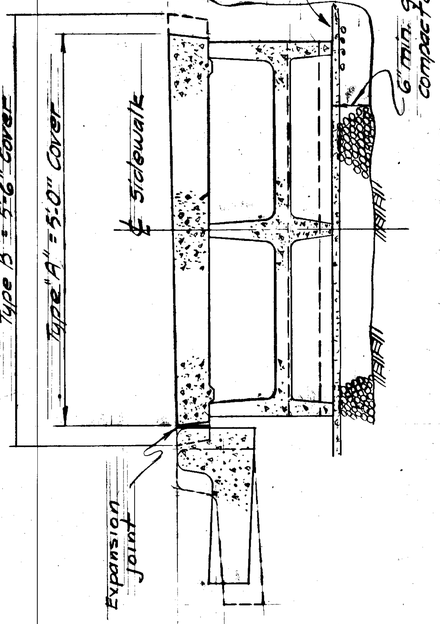
TYPICAL BRANCH CONC. ENCASED • CAPPED FOR FUTURE

1" = 1'-0"

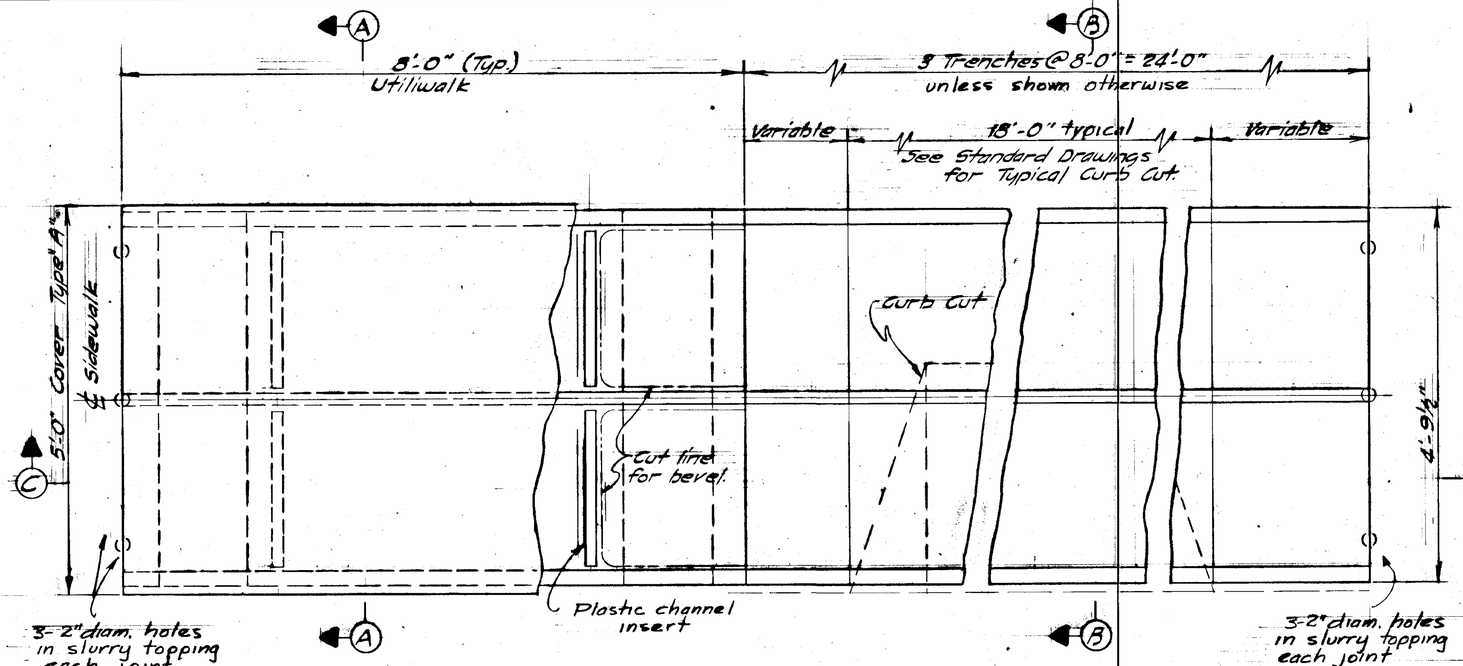
STATE OF ALASKA 49th NO. 6226-E REGISTERED PROFESSIONAL ENGINEER

E-12

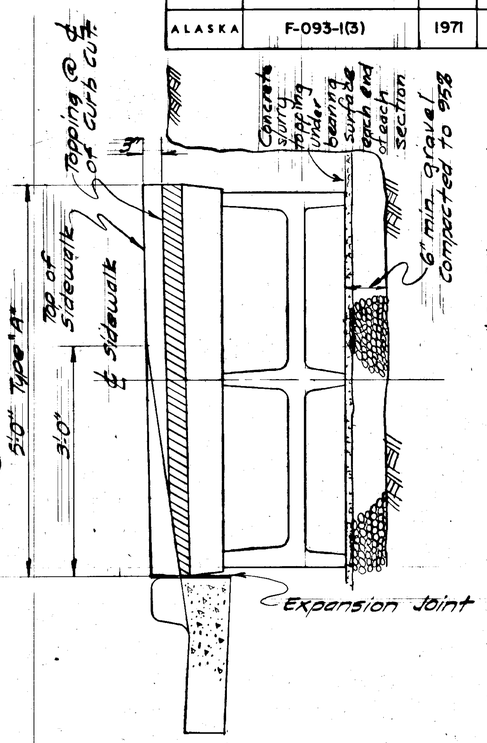
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	65	97



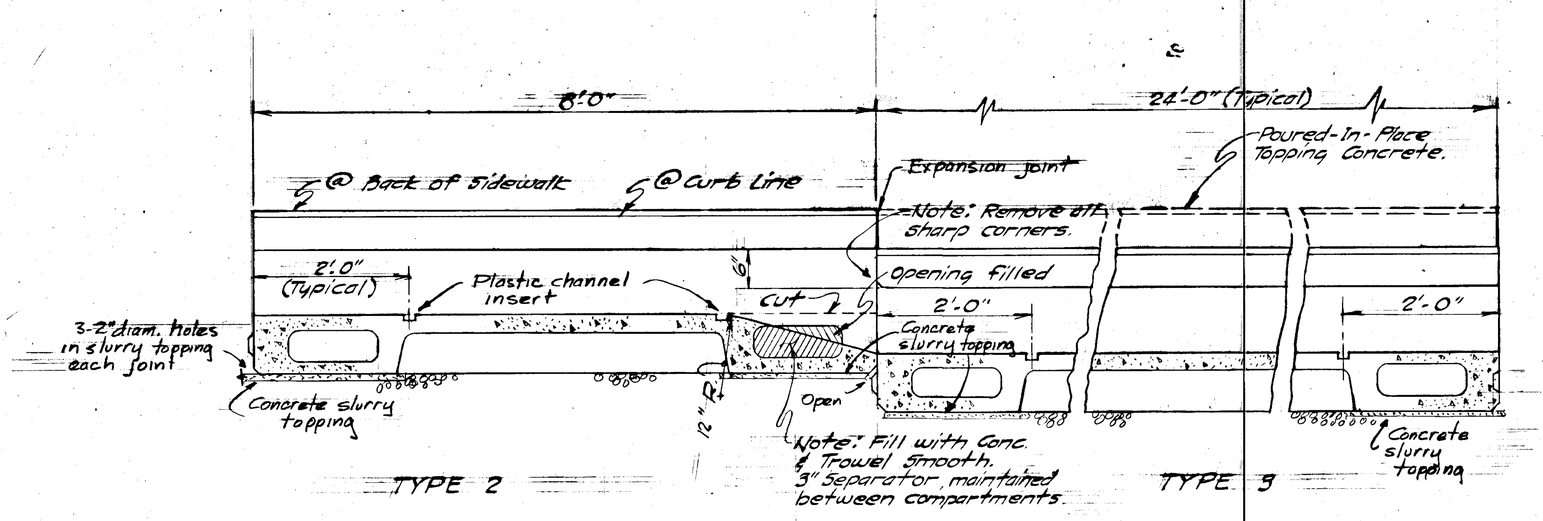
SECTION "A-A"
1" = 1'-0"



PLAN
1" = 1'-0"



SECTION "B-B"
1" = 1'-0"



TYPE 2 TYPE 3

SECTION "C-C"

DETAIL of TYPICAL CURB CUT

1" = 1'-0"

Cover type

Trench type — (1) (B) (4) — Length of cover (ft.-approx.)

TRENCH TYPE

1	Straight section
2	Bevelled one end
3	Curb cut section
4	Undercrossing

COVER TYPE

	WIDTH OF COVER	WIDTH OF TRENCH
A	5'-0"	4'-9½"
B	5'-6"	4'-9½"

UTILIWALK DESIGNATION

No Scale

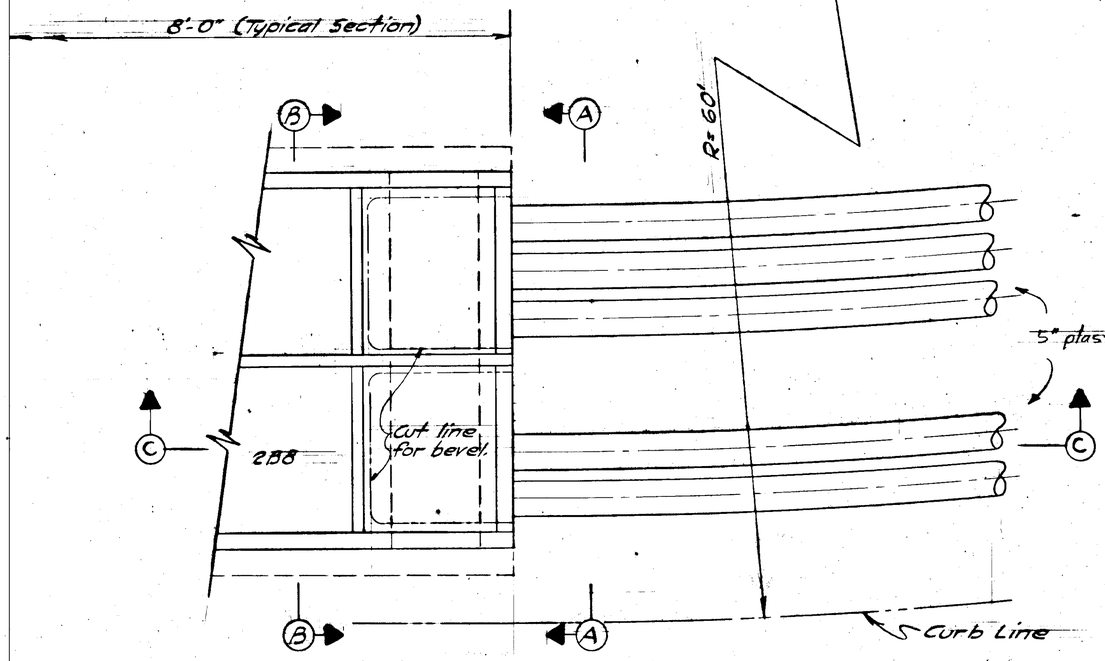
NOTE: Both ends of joining utilwalk sections to be bevelled equally on all junctions at offsets in alignment.

STATE OF ALASKA 49TH NO. 5551-E REGISTERED PROFESSIONAL ENGINEER

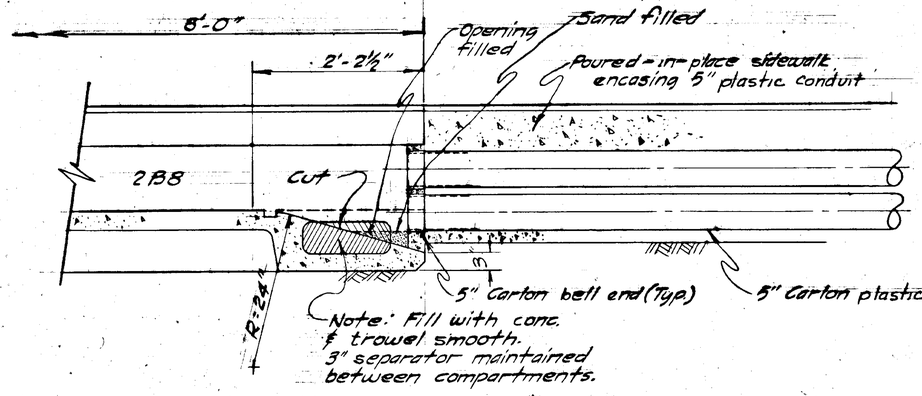
E-13

KEUFFEL & ESSER CO.

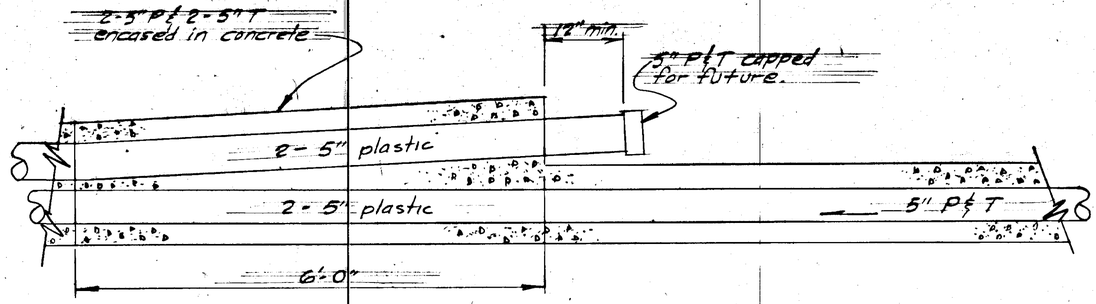
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	66	97



PLAN



SECTION "C-C"



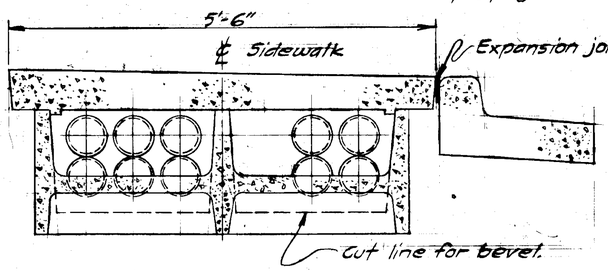
ELEVATION

FUTURE CONNECTION to SOUTH SIDE OF OUTER DRIVE @ WILLOUGHBY

1" = 1'-0"

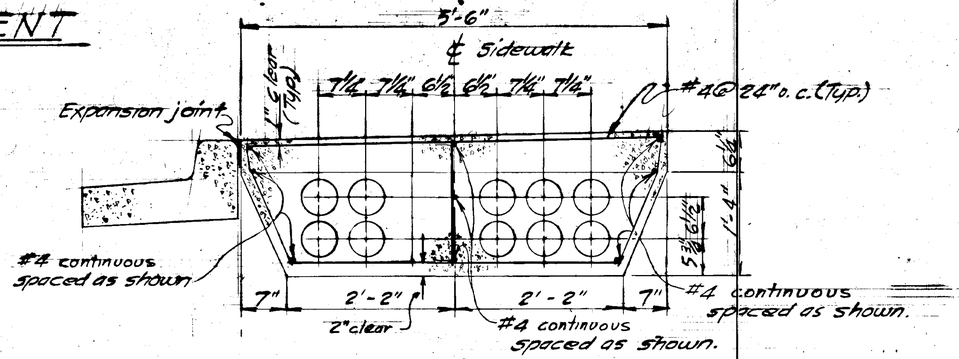
DETAIL of PIPE ENCASEMENT

1" = 1'-0"



SECTION "B-B"

1" = 1'-0"



SECTION "A-A"

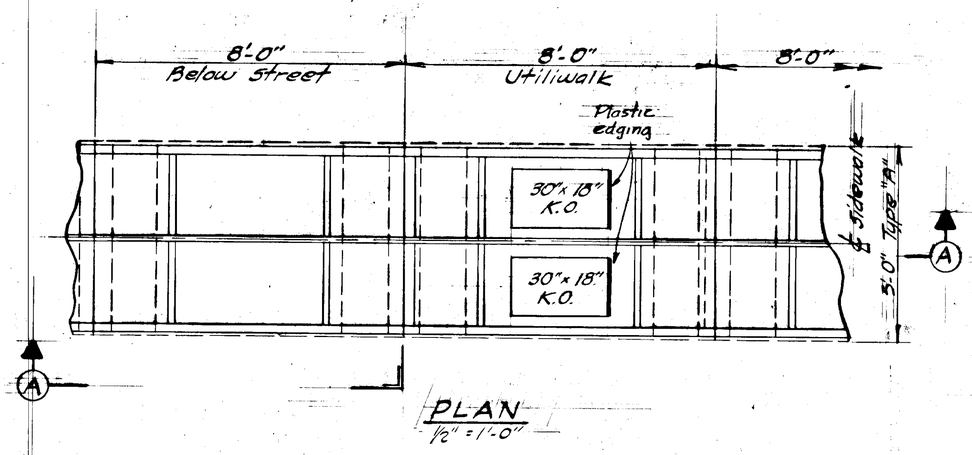
1" = 1'-0"

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER NO. S

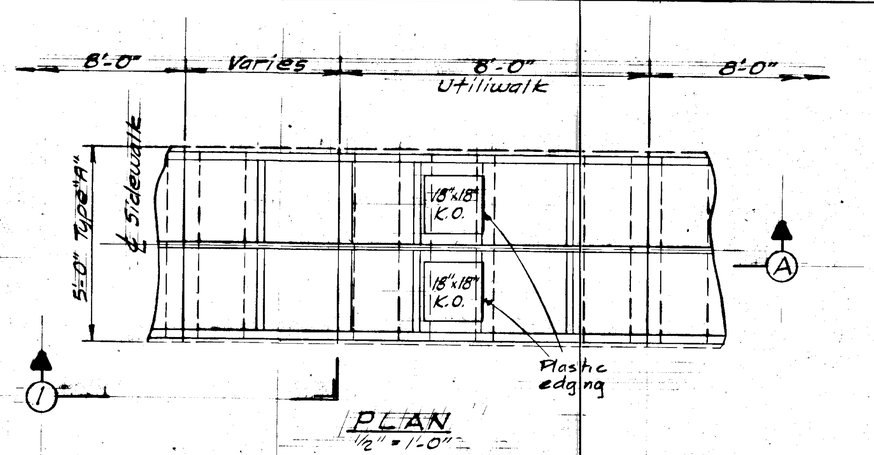
E-14

KEUFFEL & ESSER CO.

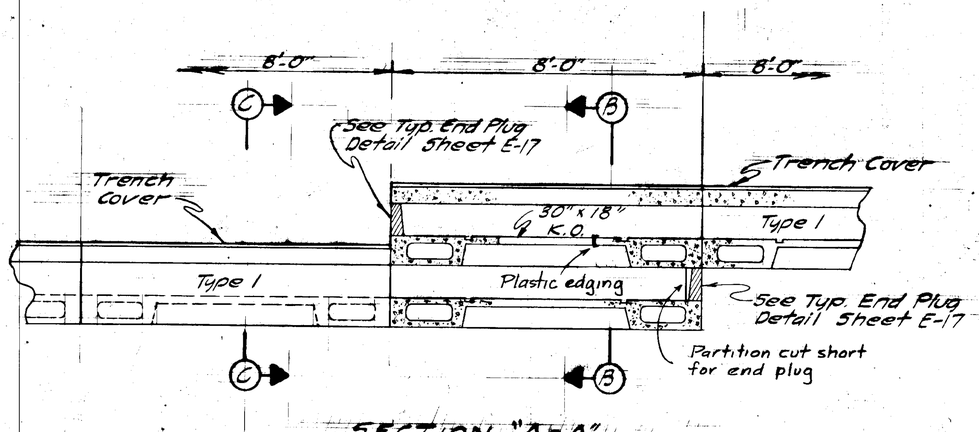
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	67	9



PLAN
1/2" = 1'-0"



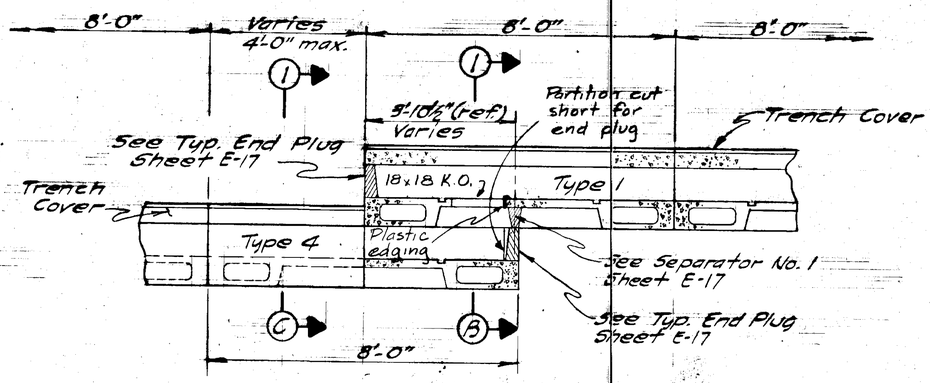
PLAN
1/2" = 1'-0"



SECTION "A-A"

DETAIL - STREET UNDERCROSSING

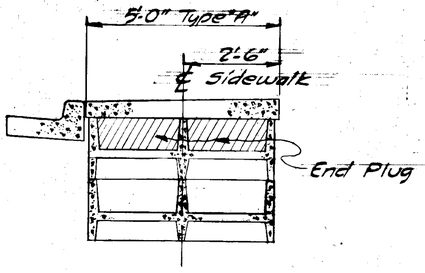
1/2" = 1'-0"



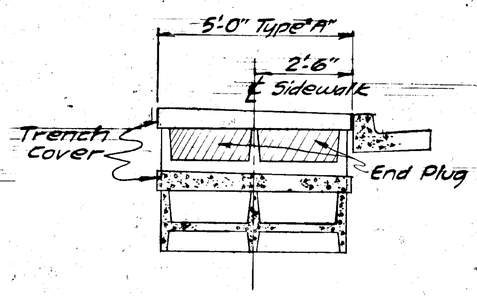
SECTION "1-A"

DETAIL - OFFSET UNDERCROSSING

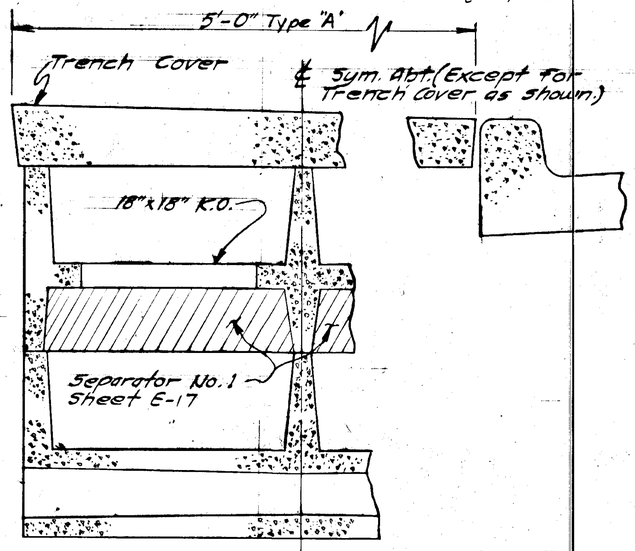
1/2" = 1'-0"



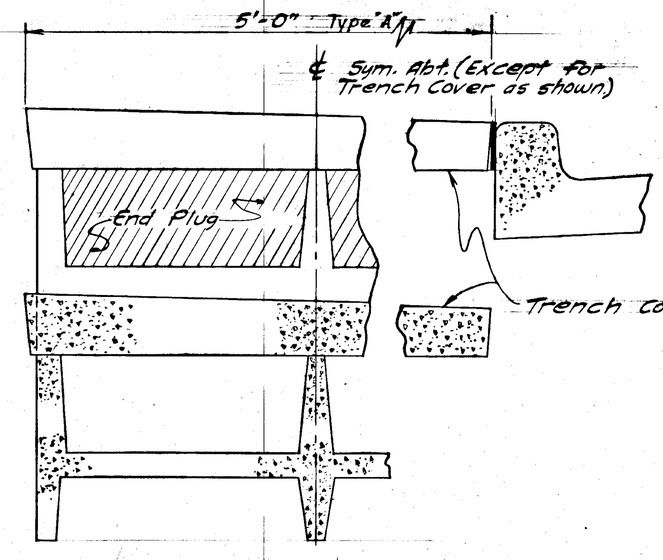
SECTION "B-B"
1/2" = 1'-0"



SECTION "C-C"
1/2" = 1'-0"



SECTION "1-B"
1½" = 1'-0"

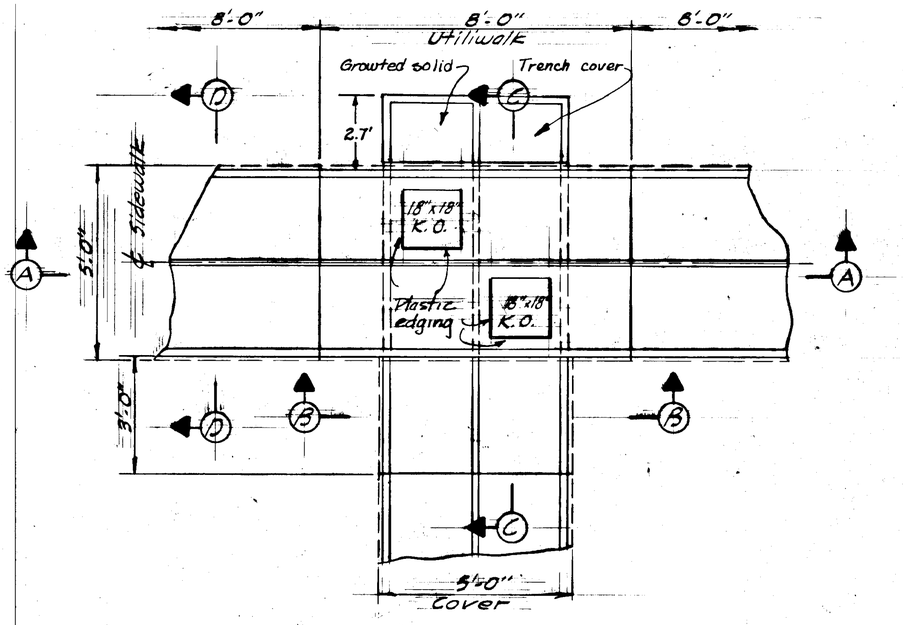


SECTION "1-C"
1½" = 1'-0"

STATE OF ALASKA 49TH
No. 5553-E
REGISTERED PROFESSIONAL ENGINEER

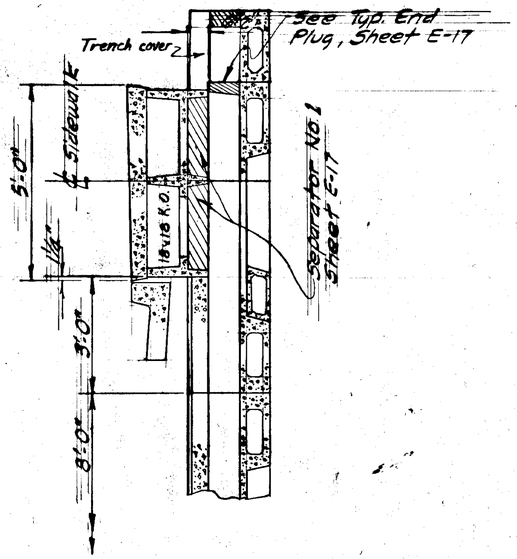
KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	68	97



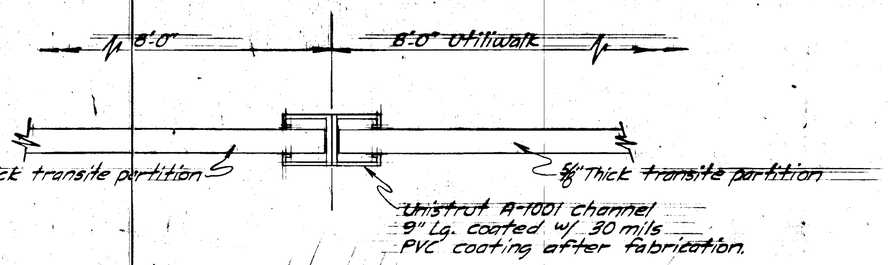
PLAN

1/2" = 1'-0"

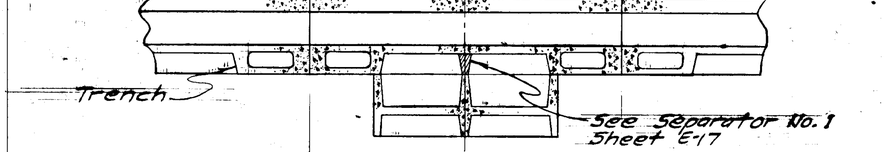


SECTION "C-C"

1/2" = 1'-0"



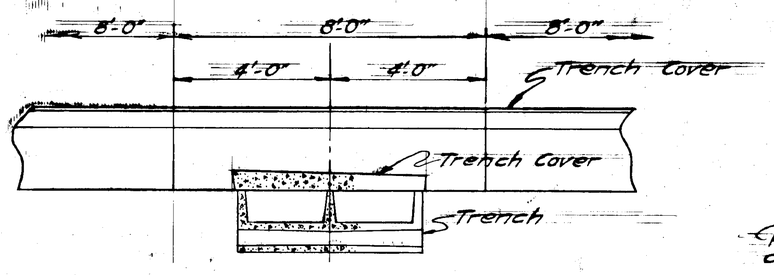
PLAN



SECTION "A-A"

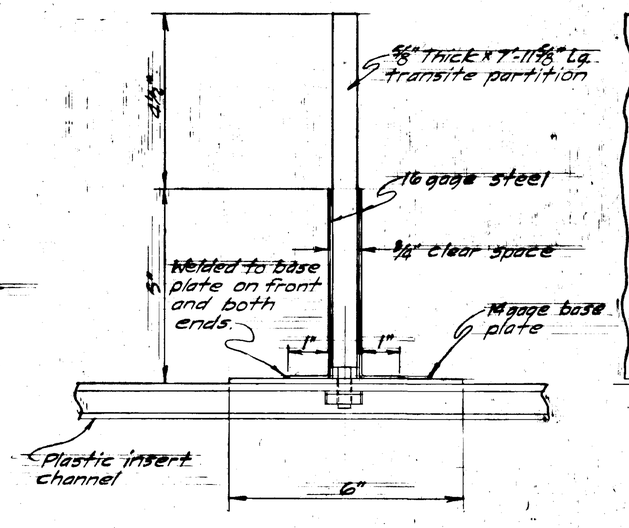
DETAIL NO. 1

1/2" = 1'-0"

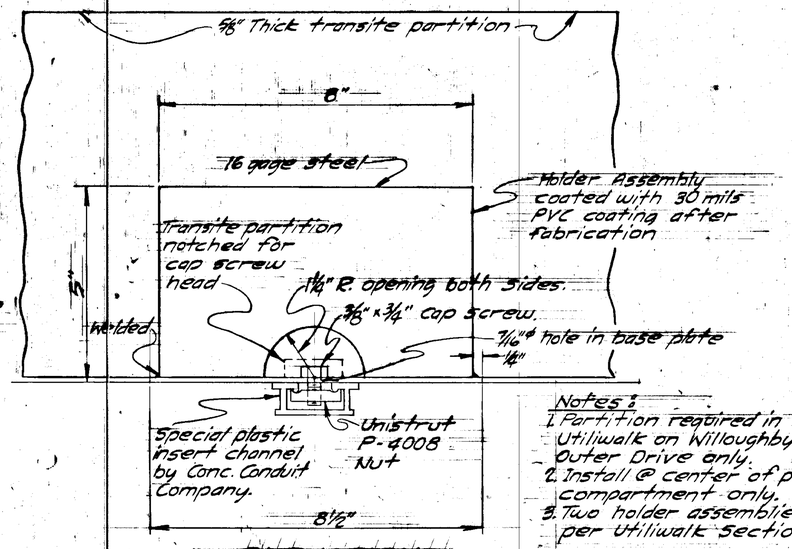


SECTION "B-B"

1/2" = 1'-0"



SECTION



ELEVATION

DETAIL - PARTITION HOLDER ASSEMBLY

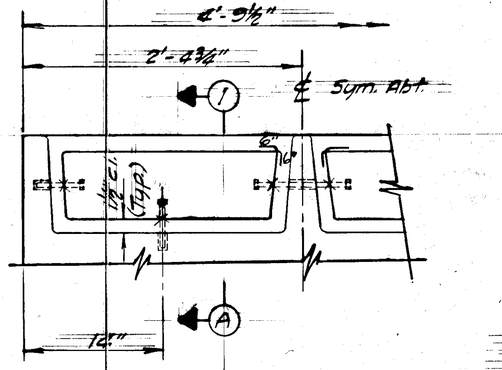
6" = 1'-0"

Notes:
1. Partition required in Type 3 & 4 Utiliwalk on Willoughby and Outer Drive only.
2. Install @ center of power compartment only.
3. Two holder assemblies required per Utiliwalk Section.

STATE OF ALASKA 49TH NO. 5555-E REGISTERED PROFESSIONAL ENGINEER

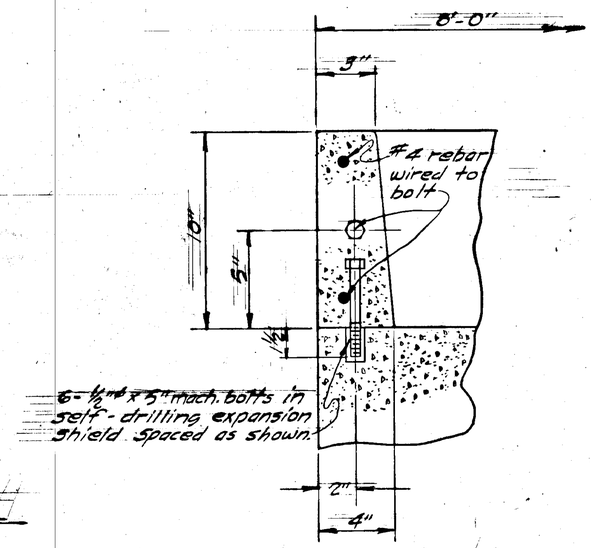
E-16

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	69	97



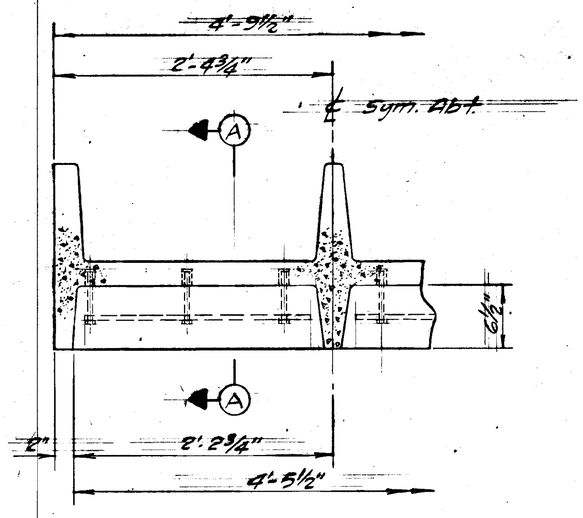
TYPICAL END PLUG

1½" = 1'-0"



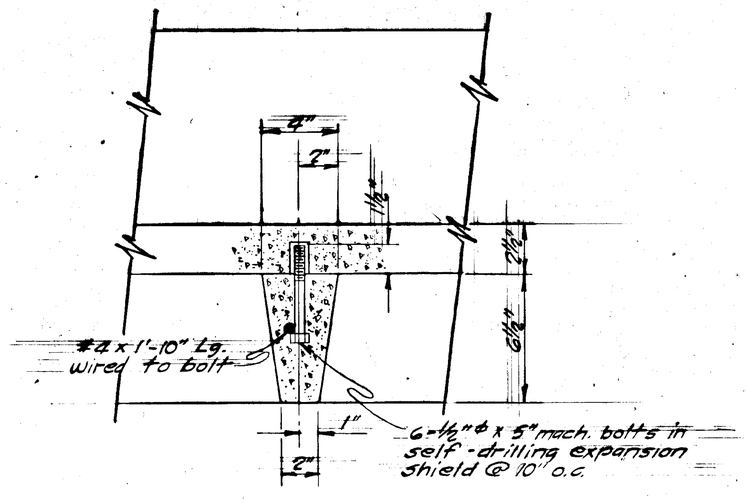
SECTION "1-A"

3" = 1'-0"



ELEVATION

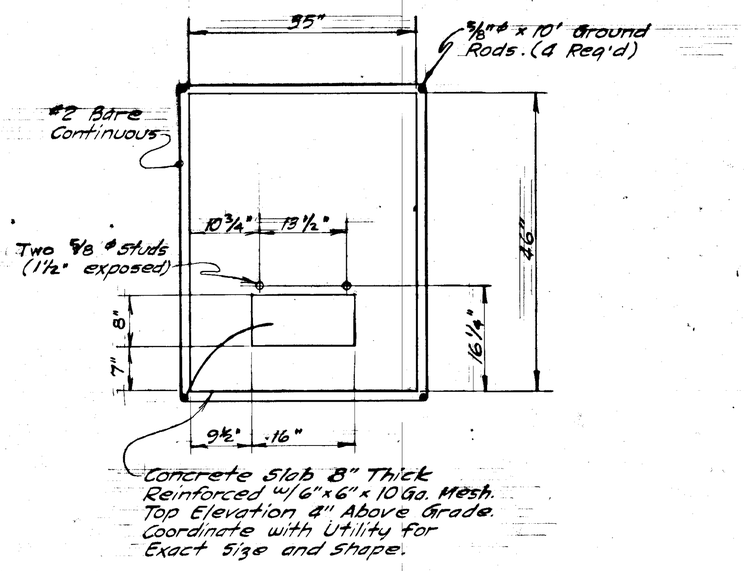
1½" = 1'-0"



SECTION "A-A"

3" = 1'-0"

DETAIL - TRANSVERSE SEPARATOR



DETAIL - TRANSFORMER PAD

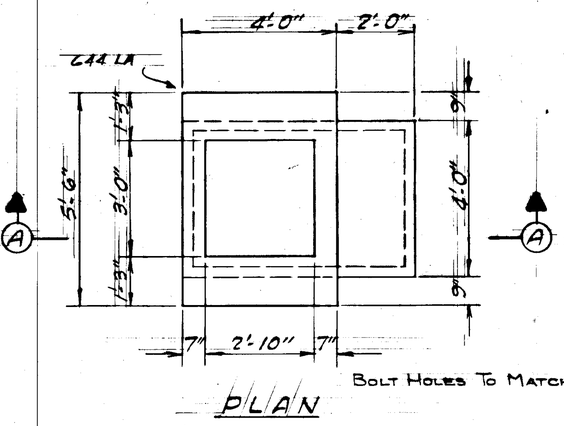
No Scale

STATE OF ALASKA 49TH NO. 6455-E REGISTERED PROFESSIONAL ENGINEER

E-17

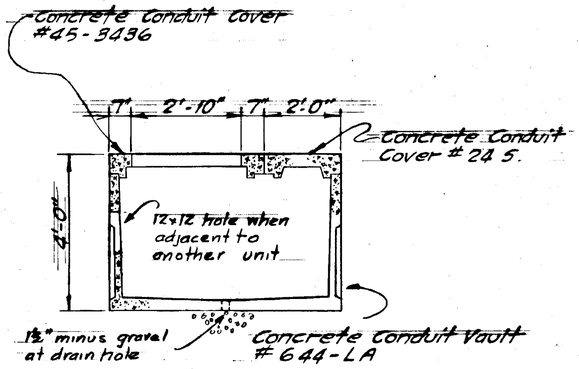
KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	70	97

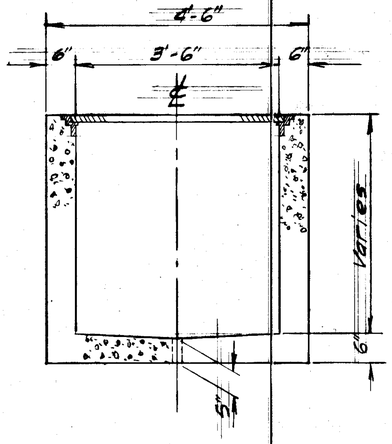


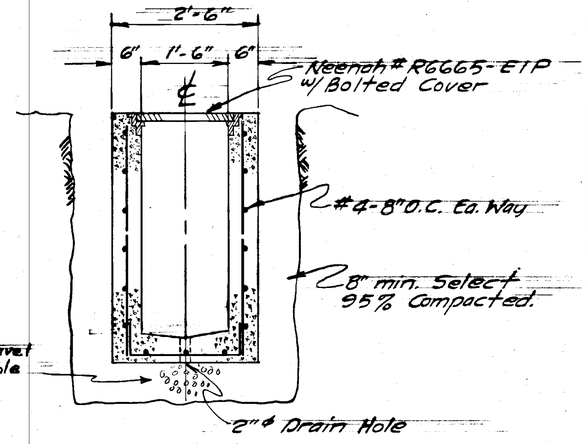
BOLT HOLES TO MATCH

PLAN



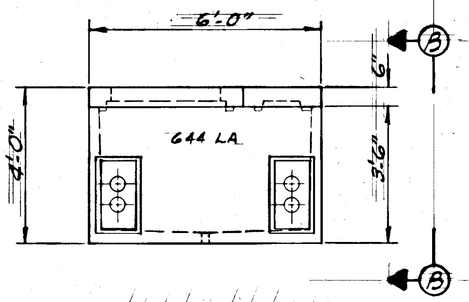
SECTION "A-A"



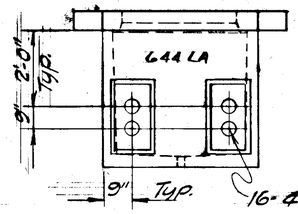


DETAIL of TYPICAL HAND HOLE

3/4" = 1'-0"



ELEVATION



VIEW "B-B"

DETAIL of TYPICAL SWITCHGEAR BASE

1/2" = 1'-0"

Typical for SW-1, SW-2, & SW-3. SW-4 vault 6'-0" high

HANDHOLE SCHEDULE

NO.	STATION	L/R ℄	DEPTH INSIDE	
EHH-1	C 9+59	L 22.0'	3'-6"	
EHH-2	C 9+51	L 34.5'	2'-8"	
EHH-3	C 6+82	L 34.0'	3'-6"	
THH-1	C 15+44.5'	R 33.5'	4'-6"	
THH-2	C 10+86.0'	R 23.0'	4'-0"	
THH-3	C 9+61.0'	L 24.0'	3'-6"	
THH-4	C 6+84	L 36.5'	3'-6"	

POLE SCHEDULE

POLE	RELOCATE (APPROX.)	2400V, 3℗, Δ EXTEND OVHD	2400V, 3℗, Δ EXTEND UDR	2400V, 3℗, Δ REDUCE OVHD	2400V, 3℗, Δ REDUCE UDR	115/230V, 1℗&3℗ EXTEND OVHD	115/230V, 1℗&3℗ EXTEND UDR	115/230V, 1℗&3℗ REDUCE OVHD	115/230V, 1℗&3℗ REDUCE UDR	GUY EXT.	GUY RED.	TELEPHONE EXTEND OVHD	TELEPHONE EXTEND UDR	TELEPHONE REDUCE OVHD	TELEPHONE REDUCE UDR	RCA	REMARKS
6E	5' NW							1℗						1 PR			
7E	5' NW	3℗				1℗SL		2-1℗			3/8"	SEE 5		3-1PR		EXTEND 524 152 PR	ADJUST 2-3/8" GUYS
7A	3' SW					1℗		1℗	2½"						1¼"		AND REMOVE POLE
7B	3' SW		2"		2½"							1 PR			1½"		AND REMOVE POLE
7C	3' SW				3"										1½"		AND REMOVE POLE
7D	—																WARP 3-2" & 1-3" AND REMOVE 3 TRANSFORMERS & POLES
8E	5' NW							2-1℗ TRI.		1/4"-5"				1 PR			
~~15E~~	~~5'~~ No change					SEE 3											
~~16E~~	~~5'~~																
17E	5'							1℗									ADJ. TEL. CABLE CROSSING #5 PR
18E	NO CHANGE																
19E	30'																
20E	6' N							1℗									
21E	25' N									SEE 4							
22E	—																TEMP GUY PER REA STDS. UNTIL 21 RELOCATED

NOTE:
1. AT CONTRACTOR'S OPTION, WILLOUGHBY OVERHEAD OF POLES 6,7,&8 MAY BE SIDE ARM SUPPORTS PER REA STANDARDS.
2. ABOVE SCHEDULE INCLUDES ONLY RELOCATED SERVICES AND DOES NOT INDICATE SERVICES ON ALIGNMENT.
3. EXTEND 1-TRIPLEX, 1-1℗, AND 1-3℗ SERVICES.
4. REPLACE EXISTING 1/4" GUY TO ALASKA COASTAL BLDG. WITH 3/8".
5. EXTEND 5': 7-1PR, 1-12 PR, 1-18 PR.

ELECTRICAL SCHEDULE

FEEDER	CONDUCTOR	FROM	TO	APPROX. TOT. LF	SERVICES	REMARKS
1a	3-#350 MCM - 15KV	POLE 7	SW-1	930	FEEDER	
1b	1-#350 MCM-600 V	POLE 7	SW-1	310	NEUTRAL	
2a	3-#350 MCM - 15 KV	SW-1	SW-2	1410	FEEDER	
2b	1-#350 MCM-600 V	SW-1	SW-2	470	NEUTRAL	
3a	3-#350 MCM - 15KV	SW-2-4	SW-3	675	FEEDER	
3b	1-#350 MCM-600 V	SW-2	SW-3	225	NEUTRAL	
4	2-#2 - 15 KV	SW-1-1	CHANNEL PAD	460	PAD TRANSF.	
5	——	SW-1-2	EXIST.	—	DRIFTWOOD	
6	——	SW-1-3	EXIST.	—	TEENAGE TR.	
7a	3-#2- 15 KV	SW-1-4	TRANSFORM.	1314 ~~1860~~	MUSEUM	
7b	1-#2- 600V	SW-1-4	TRANSFORM	~~355~~ 438	MUSEUM	
8	——	SW-2-1	SPARE		——	
9a	3-#2- 15 KV	SW-2-2	TRANSFORM.	861	RCA	
9b	1-#2- 600V	SW-2-2	TRANSFORM.	287	RCA	
10a	3-#2- 15 KV	SW-2-3	ARMORY TR.	471	ARMORY	
10b	1-#2- 600 V	SW-2-3	ARMORY TR	157	ARMORY	
11	FUTURE	SW-2-4	——		——	
12	——	SW-3-1	SPARE	—	——	
13a	3-#2- 15 KV	SW-3-2	SUBPORT TR	711	SUBPORT	
13b	1-#2- 600 V	SW-3-2	SUBPORT TR	237	SUBPORT	
14		SW-3-3	SPARE	——	——	
15a	3-#2- 15 KV	SW-3-4	C.G. TRANSF.	1206	COAST GUARD	
15b	1-#2- 600V	SW-3-4	C.G. TRANSF.	402	COAST GUARD	
16a	2-#500 MCM - 600 V	CHANNEL PAD	CHANNEL APTS	140	FEEDER	
16b	1-#250 MCM 600 V	CHANNEL PAD	CHANNEL APTS	70	NEUTRAL	
17a	2-#250 MCM - 600 V	CHANNEL PAD	HOME LIQ. DISC	270	FEEDER	
17b	1-#4/0 - 600 V	CHANNEL PAD	HOME LIQ. DISC	135	NEUTRAL	
20a	3-#4/0 600 V	Channel Pad	Utilitywalk	195	Feeder & Neutral	
20b	3 #2 600 V	Utilitywalk	Pioneer Brokerage	180	" " "	

STATE OF ALASKA 49TH NO. REGISTERED PROFESSIONAL ENGINEER

E-18

KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	71	97

SW-3

TAP	SVC	CABLE	TO	FUSE
1	SPARE	—	FUTURE	—
2	3φ	3"#2	SUBPORT B.	50 K
3	SPARE	—	FUTURE	—
4	3φ	3"#2	COAST GD.	65 K

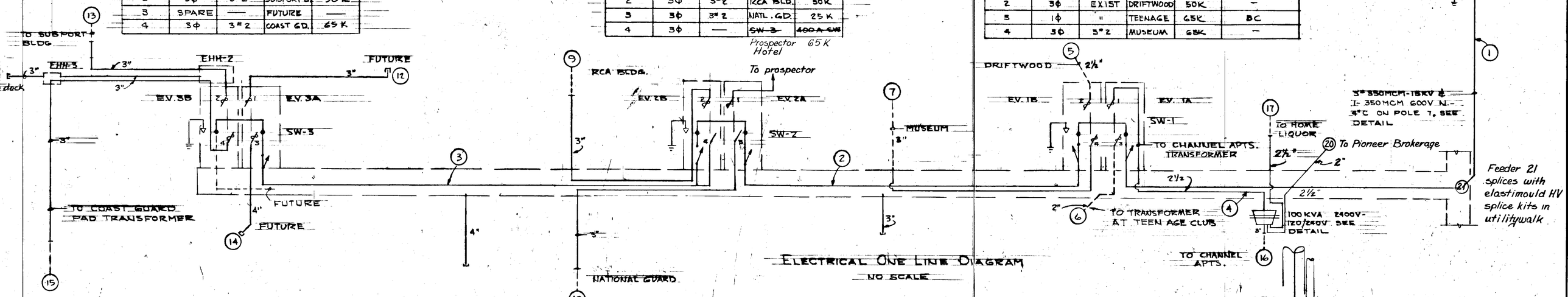
SW-2

TAP	SVC	CABLE	TO	FUSE
1	SPARE	—	FUTURE	—
2	3φ	3"#2	RCA BLD.	50K
3	3φ	3"#2	NATL. GD.	25 K
4	3φ	—	~~SW-3~~	~~400 A SW~~

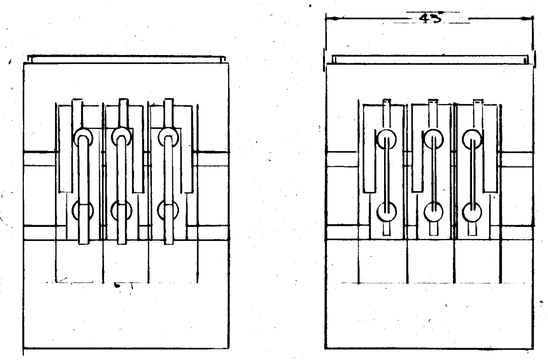
Prospector 65 K Hotel

SW-1

TAP	SVC	CABLE	TO	FUSE	PHASE CONN.
1	1φ	2"#2	CHNL. TRNS.	65 K	AB
2	3φ	EXIST	DRIFTWOOD	50K	—
3	1φ	"	TEENAGE	65K	BC
4	3φ	3"#2	MUSEUM	65K	—

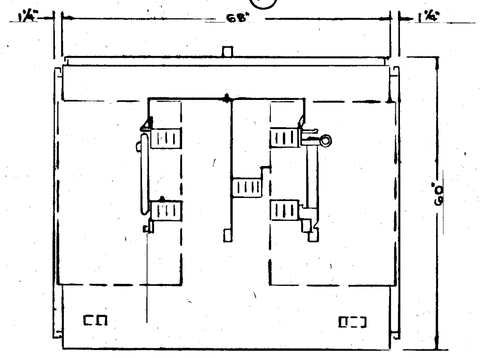


ELECTRICAL ONE LINE DIAGRAM
NO SCALE



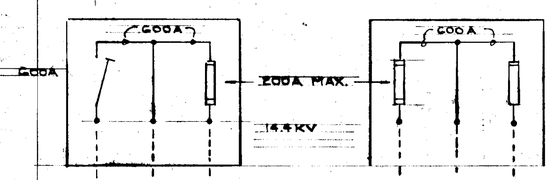
OPEN REAR VIEW
3/4" = 1'-0"

OPEN FRONT VIEW
3/4" = 1'-0"

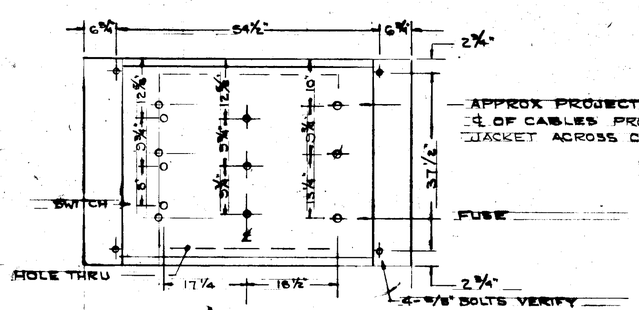


OPEN R.H. SIDE VIEW
3/4" = 1'-0"

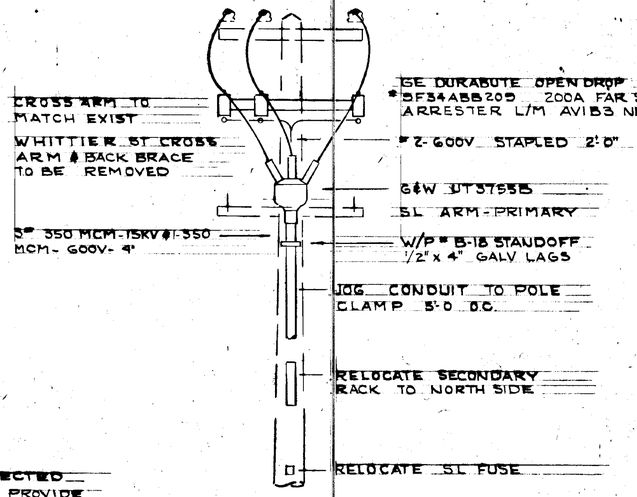
14.4 Kv ONE BAY HEAVY DUTY PAD MOUNT SWITCH/FUSE UNITS S&C ELECTRIC Co. DWG CD-82442-S5 & CD-51012-S5 OR EQUAL



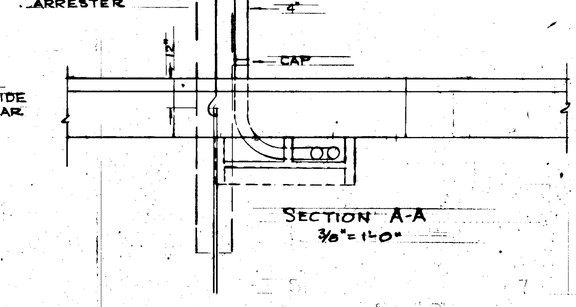
ONE LINE DIAGRAMS
NO SCALE



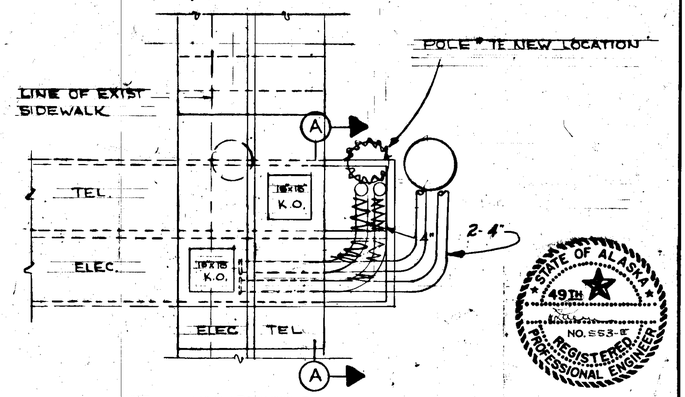
BASE PLAN
3/4" = 1'-0"



POLE 7
3/8" = 1'-0"



SECTION A-A
3/8" = 1'-0"

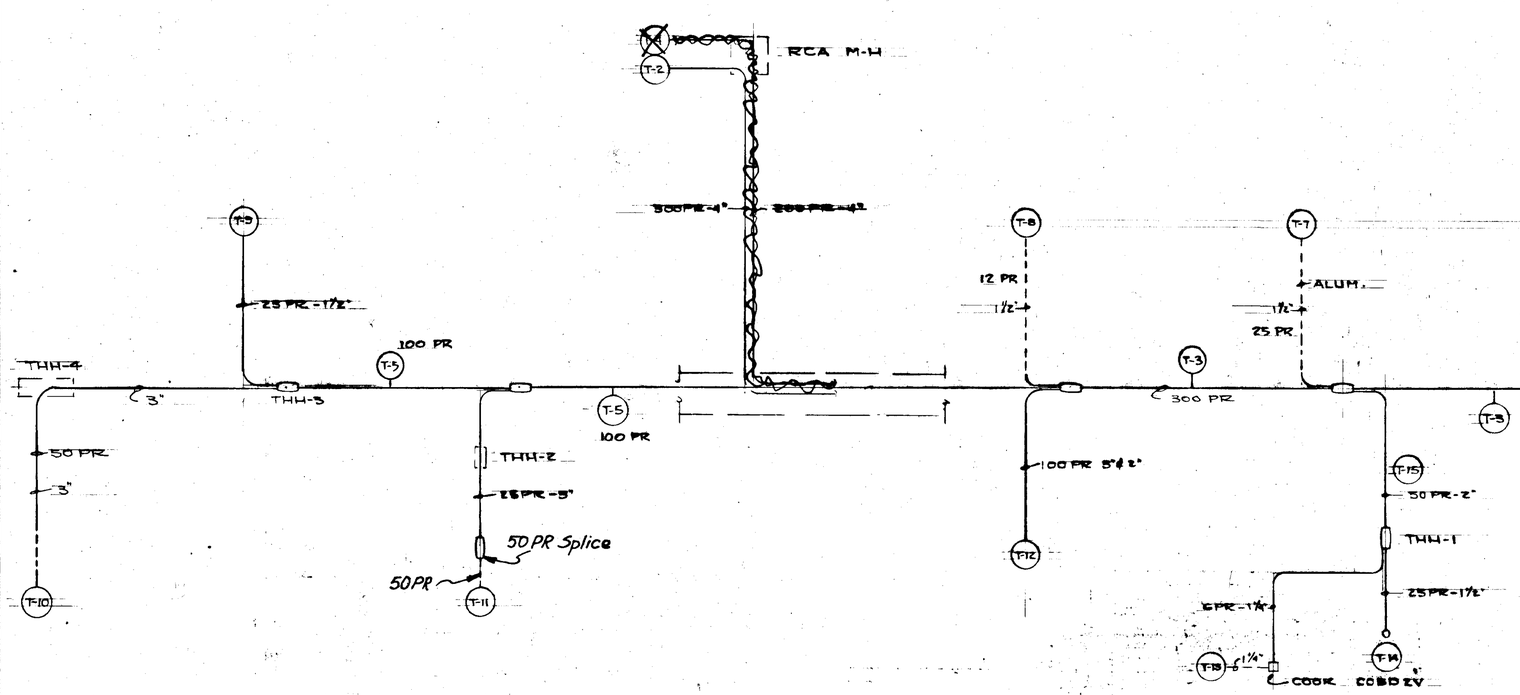


PLAN AT POLE 7
3/8" = 1'-0"

STATE OF ALASKA 49TH REGISTERED PROFESSIONAL ENGINEER NO. S 53-E

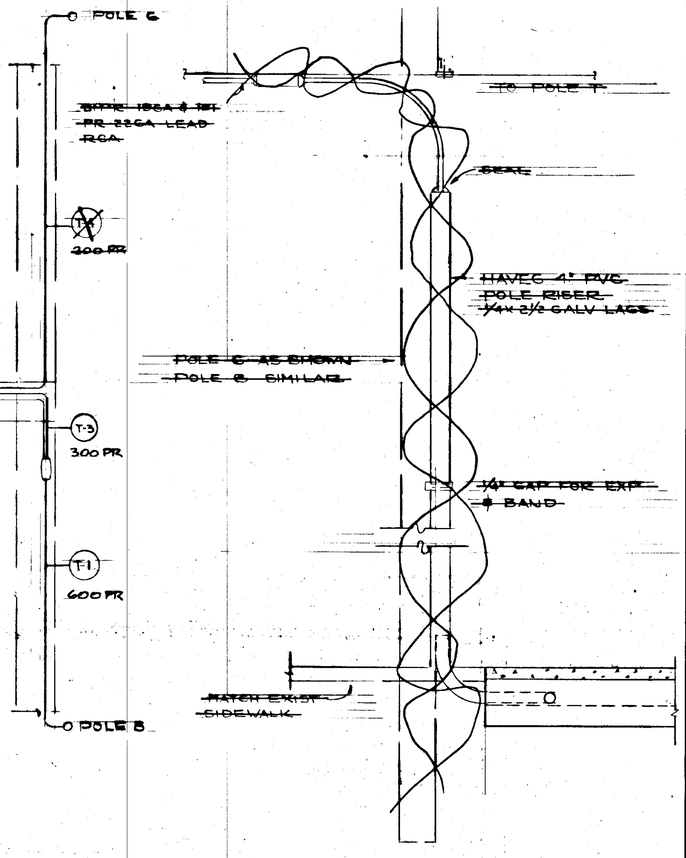
E-19

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	72	97



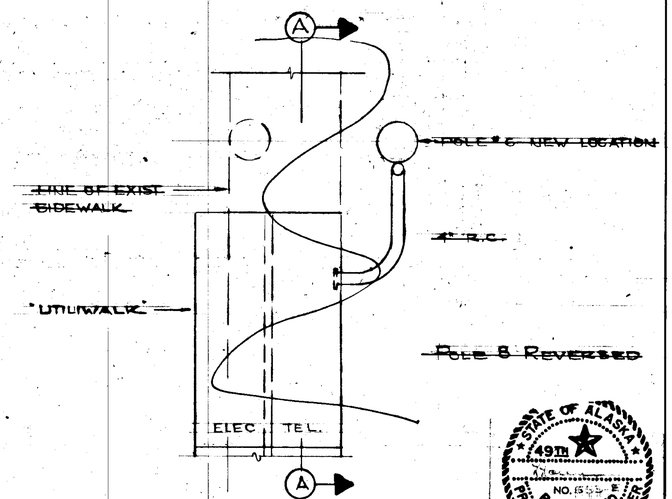
TELEPHONE DIAGRAM

NO SCALE



~~SECTION A-A~~

~~3/8" = 1'-0"~~



~~PLAN AT POLE 6~~

~~3/8" = 1'-0"~~

TELEPHONE SCHEDULE

CABLE	NO. PAIRS	GAUGE	TYPE	FROM	TO	APPROX L.F.	SERVICE	REMARKS
T-1	600	22	POLYETHYLENE P-22	POLE 8E	UTILIWALK	143	TRUNK	
T-2	300	22		UTILIWALK	RCA MAIN FRAME	786	EXPRESS	SEE NOTE 1
T-3	300	22		UTILIWALK	STA. C 14+00	410	LOCAL	
~~T-4~~	~~200~~	~~22~~		~~RCA MAIN FRAME~~	~~POLE 6 E~~	~~923~~	~~EXPRESS~~	~~SEE NOTE 1~~
T-5	100	22		STA. C 9+50	STA. C 14+00	450	LOCAL	
T-6	6	—	—			0	HOME LIQUOR	CONNECT EXIST. 6PR. IN 1¼"
T-7	25	—	—			0	DRIFTWOOD	CONNECT EXIST. 25PR. IN 1½"
T-8	12	—	—			0	MUSEUM	CONNECT EXIST. 12PR. IN 1½"
T-9	25	22	POLYETHYLENE P-22	THH-3	FISH & GAME	25	FISH & GAME	CONNECT AT JUNCTION INSIDE
T-10	50	22		THH-3 & -4	TEL. CAB.	440	COAST GUARD	& CONNECT AT TEL. CAB.
T-11	25	22		UTILIWALK	POLE MANHOLE	150	ARMORY	& CONNECT EXIST. 25PR
T-12	100	22		UTILIWALK	DEPT. OF SAFETY	130	DEPT. OF SAFETY	CONNECT AT TEL. CABINET
T-13	6	22		THH-1	OUTDOOR TERM.	160	TEEN AGE CLUB	RECONNECT EXIST. 1¼"
T-14	25	22		THH-1	CHANNEL APTS.	32	CHANNEL APTMTS.	10' VERT. RISER (CONN. BY OTHERS)
T-15	50	22		UTILIWALK	THH-1	55	LOCAL	

NOTE 1 REMOVE 300 PR OLD CABLE FROM EXIST 4"C. & ROUTE T-2 & ~~T-4~~ TO MAIN FRAME

STATE OF ALASKA 49TH NO. 6555 REGISTERED PROFESSIONAL ENGINEER

E-20

UPPEL & REBEN CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-1	97

CITY AND BOROUGH OF JUNEAU, ALASKA

JUNEAU-DOUGLAS SEWERAGE PROJECT

SCHEDULE 1 - OUTER DRIVE FACILITIES

MAYOR

JOSEPH A. McLEAN

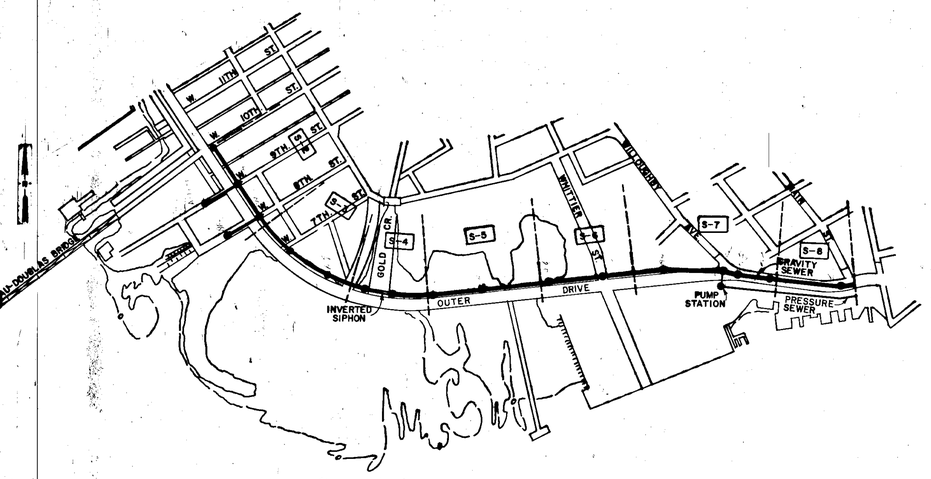
ASSEMBLY MEMBERS	ASSEMBLY MEMBERS	OFFICIALS	TITLE
HUNT GRUENING	B.W. MATHENY	RONALD L. USHER	CITY-BOROUGH MANAGER
VIRGINIA KLINE	GEORGE ROGERS	BILL BUTLER	DIRECTOR OF PUBLIC WORKS
ROBERT LOESCHER	ROBERT SAVIKKO	JOSEPH KOZLOVSKI	DIRECTOR OF PLANNING
GREG MACHYOWSKI	ROBERT L. THOMAS	WAYNE TROWBRIDGE	CITY-BOROUGH ENGINEER

SHEET INDEX

SHEET NO.	TITLE
S-1	TITLE SHEET, INDEX
S-2	INTERCEPTOR SEWER
S-3	INTERCEPTOR SEWER
S-4	INTERCEPTOR SEWER
S-5	INTERCEPTOR SEWER
S-6	INTERCEPTOR SEWER
S-7	INTERCEPTOR SEWER, PRESSURE SEWER
S-8	INTERCEPTOR SEWER, PRESSURE SEWER
S-9	WHITTIER STREET SEWER
S-10	WHITTIER STREET SEWER
S-11	TYHCAL EMBANKMENT SECTIONS
S-12	GOLD CREEK INVERTED SIPHON
S-13	SIPHON AND DIVERSION STRUCTURES
S-14	STANDARD DETAILS AND SPECIAL MANHOLES
S-15	TIDE CHARTS

ABBREVIATIONS

SLIDE GATE	S.G.
GRAVITY SEWER	SEWER
CLASS	CL.
MANHOLE	M.H.
ON CENTER	O.C.
GALVANIZED IRON PIPE	G.I.P.
INVERT	INV.
ELEVATION	EL. and ELEV.
SHEET	SHT.
OUTSIDE DIAMETER	O.D.
INSIDE DIAMETER	I.D.
MINIMUM	MIN.
MAXIMUM	MAX.
MATERIAL	MAT'L.
REQUIRED	REQ'D.
NOT-TO-SCALE	N.T.S.
SPECIAL	SPEC.
NOT IN SECTION	N.I.S.
ASBESTOS-CEMENT	A.C.
ALTERNATE	ALT.



LOCATION MAP

SCALE - 1" = 405'

GENERAL NOTES

INTERCEPTOR SEWER PROJECT

1. THE CONTRACTOR'S ATTENTION IS DRAWN TO THE FACT THAT THE INTERCEPTOR SEWER PROJECT AS FOUND ON SHEETS S-1 THROUGH S-12 ARE GENERALLY PREPARED UPON HIGHWAY PLANS. THESE SHEETS SHOULD BE USED FOR INFORMATION RELATIVE TO THE INTERCEPTOR SEWER AND ITS DIRECTLY RELATED WORK. INFORMATION WHICH IS SHOWN WHICH DOES NOT DIRECTLY INVOLVE THE INTERCEPTOR PROJECT SHALL NOT BE RELIED UPON FOR CONSTRUCTION INFORMATION. THE CONTRACTOR SHALL REFER TO THE APPROPRIATE SECTION OF THE HIGHWAY PLANS FOR THIS INFORMATION.

2. THE SEWER PROFILES ARE SHOWN USING THE ROADWAY CENTERLINE PROFILE AND STATIONING. THE APPROXIMATE DISTANCE BETWEEN MANHOLES IS SHOWN ON THE PLANS. VARIATION IN PROFILE CAN BE ARRIVED AT BY REFERING TO THE APPROPRIATE TYPICAL SECTIONS AS SHOWN IN THESE PLANS OR IN THE HIGHWAY PLANS.

3. ALL SHEET NUMBERS ON THE PLANS AND SECTION NUMBERS IN THE SPECIFICATIONS WHICH INVOLVE THE INTERCEPTOR SEWER ARE PROCEEDED BY AN S.

4. TOLERANCES OF CONSTRUCTION

   (A) DESIGN ELEVATION ± 0.04 FEET
   (B) DESIGN ALIGNMENT ± 0.08 FEET

5. ALL SEWERS, PRESSURE AND GRAVITY, WHICH DO NOT TERMINATE IN A MANHOLE SHALL BE PLUGGED TIGHT WITH BRICK AND MORTAR OR BY OTHER APPROVED METHODS. THE PLUGGED END OF SAID SEWER SHALL BE MARKED WITH A 2" X 4" REDWOOD POST. THE POST WILL EXTEND VERTICALLY FROM THE PIPE END TO A POINT BELOW THE FINISHED GROUND SURFACE (1 FOOT ±).

EXCEPT THE MAXIMUM DEFLECTION PER PIPE JOINT AS SPECIFIED IN THE SPECIFICATION FOR THIS PROJECT OR AS RECOMMENDED BY THE MANUFACTURER SHALL NOT BE EXCEEDED.

STATE OF ALASKA
1971
REGISTERED PROFESSIONAL ENGINEER

RUFFEL & RINER CO.

ESTIMATE OF QUANTITIES (SEWER INTERCEPTOR)

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-1A	97

ITEM No	ITEM	UNIT	SHEET NUMBERS TOTAL
03(5)	Borrow	Ton	5666
~~07(1)~~	~~Subbase, Grading "B"~~	~~Ton~~	~~307~~
46(1)	Standard Manhole Type I	Ea.	7
46(2)	Standard Manhole Type II	Ea.	9
46(3)	Special Manhole No. 1	L.S.	All Req'd
46(4)	Special Manhole No. 2	L.S.	All Req'd
46(5)	Special Manhole No. 3	L.S.	All Req'd
46(6)	Gold Creek Inverted Siphon	L.S.	All Req'd
46(7)	Diversion Structure	L.S.	All Req'd
46(8)	24" Pressure Sewer	L.F.	630
46(9)	Rodhole	Ea.	1
46(10)	6" Lateral Sewer	L.F.	26
46(11)	8" Gravity Sewer	L.F.	45
46(12)	10" Gravity Sewer	L.F.	729
46(13)	12" Gravity Sewer	L.F.	218
46(14)	18" Gravity Sewer	L.F.	712
46(15)	21" Gravity Sewer	L.F.	210
46(16)	27" Gravity Sewer	L.F.	1306
46(17)	30" Gravity Sewer	L.F.	1352
46(18)	Air Release Assembly	Ea.	1

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-2	

HORIZONTAL CONTROL

Bearing base is taken as N 38°43'20"W from Alaska tidelands survey No. 3 R.M.C. 31 to R.M.C. 32

VERTICAL CONTROL

Vertical datum is based on U.S.C.&G.S. Bench mark No. 15 elevation of 24.70 (U.S.C.&G.S. gives an elevation for B.M. No. 15 of 24.75 M.L.L.W.)

BEGINNING OF PROJECT
F-093-1(3)
STA. "L" 43+14.20

END SPEC. SIDEWALK
SPECIAL SIDEWALK
SPECIAL SIDEWALK
21" SEWER
SPEC. M.H. No. 1
STD M.H. TYPE II
Install 12"X127' Conduit
To Be Abandoned With Urban Renewal
Shed
Gar.
Install 18"X110' CMP Sleeve
10" Stand
Paving Limits
See Sheet No. 22 for Detail
HARBOR WAY
Embankment 1124 Cu.Yds. (Includes 899 Cu.Yds. Selected Material)
Excavation 1019 Cu.Yds.
Borrow 196 Tons
Borrow 58.72 Tons
Subbase, Grading B 51.94 Tons
8" C.I. Water Main
18" SEWER
To Be Abandoned With Urban Renewal
"L" 45+26.05 P.O.T.
"G" 10+00.00
Install 18"X122' CMP Sleeve
Install 24"X110' CMP Sleeve
Install 2-4"X110' Conduit
Install 12"X110' Conduit
Match Existing Roadway
"G" 9+47.55
STD. M.H. TYPE I
Top of Fire Hydrant at 9th and Harbor Way. Elevation 27.25'
EIGHTH STREET
M.H. A-11
27" SEWER
STD. M.H. TYPE II
Install 24"X122' CMP Sleeve
12" SEWER
N 55°48' E
Paving Limit
See Sheet No. 22 for Detail.
STD. M.H. TYPE I
SPECIAL SIDEWALK
"L" 47+25.70
"A" 10+00.00
VARIES
MATCH LINE 2"=40'-0" SEE SHEET S-3.
Match Existing Roadway
"A" 9+27.71
Install 2-4"X125' Conduit
Install 12"X125' Conduit
Top of Fire Hydrant at 8th and "G" Street. Elevation 26.94'
Profile Grade
-0.400%
+0.400%
PLUG OPENING FOR FUTURE 21" SEWER
212.5 - 21" CLASS III (CL.4000) @ .0012
Install 24" CMP of Sta. "L" 45+30 at same grade as existing Water Main
Sanitary Sewer.
187' - 27" CLASS III (CL.5000) @ .001
Existing Ground
Install 24" CMP of Sta. "L" 47+12 at same grade as existing Sanitary Sewer.
201.2' - 18" CLASS III (CL.3000) @ .0067
Sta. "L" 47+25 at same grade as existing Water Main
See Drainage Profile Sheet No.
"L" LINE
NINTH STREET
"A" LINE
EIGHTH STREET
REDWOOD 2x4 LOCATION MARKER TO 1'-0" BELOW GROUND SURFACE (TYP.)
PLUG OPENING FOR FUTURE 18" SEWER
PLUG OPENING FOR FUTURE 12" SEWER
PLUG
130' - 18" CLASS IV (CL5500) @ .0025
130' - 12" CLASS IV (CL5500) @ .003
+2.28%
+2.00%
+1.37%
-2.00%
INV.O.C.
NOV.C.
STA. "L" 43+15 INV.EL. 13.97
STA. "L" 44+55 INV.EL. 14.57
STA. "L" 45+38 INV.EL. 14.23
STA. "L" 45+00 INV.EL. 14.00
STA. "L" 48+25 INV.EL. 10.41
STA. "G" 10+41 INV.EL. 14.20
STA. "G" 10+30 INV.EL. 14.30
INV.EL. 14.34
STA. "A" 9+11 INV. 14.32
STA. "A" 9+27.71 INV.EL. 13.72
INV.EL. 13.32
STA. "A" 10+41 INV. 14.15
STA. "L" 47+13 INV.EL. 13.13
"G" 9 Elev.
"G" 9 Elev.
"G" 10 Elev.
"A" Elev.
"L" 47 Elev.
Elev. 25.52
25.66
25.70
M.H. A-13
M.H. A-12
M.H. A-11
M.H. A-12.1
M.H. A-11.1
M.H. A-11.2
9+00
9+50
10+00
44+00
45+00
46+00
47+00
48+00

STATE OF ALASKA 49TH STATE
No. 1351-E
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES
INTERCEPTOR SEWER

DES.	DWN.	CHK.	DATE
WKE	PRS.	WKE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-3	97

END SEWER ACCESS EMBANKMENT & SPECIAL SIDEWALK AT "B" 12+00 * ON GLACIER AVENUE

Replace existing 6" A.C. with 8" D.I. (See Sheet 11 for Continuation)
Remove existing manhole. Install Sanitary Sewer manhole 79' Lt. of Sta. "L" 52+95 and connect sewer mains.

"6" STREET
7TH ST.
#929
#943
#931
#945
#520
#514
Shed
Plug & Cap
27" SEWER
M.H. A-10
STD. M.H. TYPE II
SPECIAL SIDEWALK
M.H. A-9
STD. M.H. TYPE II
Install 30"x54" Pipe Conduit
Install 36"X110' CMP Sleeve
Abandon
Install 18" X110' CMP Sleeve
Install 2 4"X110' Conduits
Install 12"X110' Conduit
Install 2-4"X110' Conduit
Install 12"X110' Conduit
Cap
SEE SHEET S-2 MATCH LINE
SEE SHEET S-4 MATCH LINE
Class II Riprap 6'x20'x2' Pad

Embankment	16,421 Cu. Yds.	(Includes 790 Cu. Yds. Selected Material)
Excavation	131 Cu. Yds.	
Borrow	30,463 Tons	
Borrow	1185.58 Tons	
Subbase, Grading B	110.81 Tons	

M.H. A-10
M.H. A-9
Profile Grade
+0.400%
27" (CL 5000) CLASS III @ .001
Install 18"CMP at Sta. "L" 48+96
Install 36"CMP at Sta. "L" 49+08
230± 233' ± 27" (CL 5000) CLASS IV @ .0015
Existing Ground
232' 278' ± 27" (CL 5000) CLASS IV @ .0015
STA. 49+17.59 INV. EL. 12.93
STA. 51+59 INV. EL. 12.58
REFER TO DRAINAGE PLANS FOR FINAL LOCATION OF DRAIN.
See Drainage Profile Sheet No.

48+00 49+00 50+00 51+00 52+00 53+00

STATE OF ALASKA 49TH
No. 1351-E REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES
INTERCEPTOR SEWER

DES	DWN.	CHK.	DATE
WKE	P.R.S.	WKE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-4	97

Install 336 L.F. of 8" D.I. Water Main. (See Sheet 18 for Continuation)

Install 208 L.F. of 8" D.I. Sanitary Sewer. Remove & Dispose of existing 6" A.C. Sewer.

See Sheet No. 18 MATCH LINE "B" 11+00

MATCH LINE SEE SHEET S-3 "L" 53+00

MATCH LINE SEE SHEET S-3 "L" 58+00

END SPECIAL SIDEWALK AT "B" 11+69.14

LIMITS OF PAYMENT

GOLD CREEK INVERTED SIPHON LUMP SUM ITEM

L=1,238.18'

See Superelevation table sheet No.

INVERTED SIPHON 12 SEE DETAILS, SHT. S-10

GRAVITY SEWER

END SEWER ACCESS EMBANKMENT AND SPECIAL SIDEWALK

27" SEWER

END SPECIAL S/DEWALK

4 STRUCT. 5'-0" LT. OF 54+38.18 (Rad) STRUCTURE A-8

4 STRUCT. 5'-0" LT. OF 56+06.73 (Rad) STRUCTURE A-7

VARIES

N 21°39'18" E

157.78'

46'

57

55

"L" 53+61.14

"B" 10+00.00

Install 8" G.I. Plug

Reconnect to existing outfall

Top of Dike

R/W

GOLD

Embankment 32,828 Cu Yds. (Includes 672 Cu Yds Select Material)
Excavation 102 Cu Yds.
Borrow 61,198 Tons
Borrow 1275.90 Tons
Subbase, Grading B 31.17 Tons

STRUCTURE A-8

STRUCTURE A-7

Begin Bridge Sta 2"50+58.00
Profile Elev. 23.08

End Bridge Sta 2"55+79.09
Profile Elev. 23.56

+0.300%

Profile Grade

Proposed 8" D.I. Water Main

27" (CL 5000) CLASS IV @ .0015

See Bridge Plans

ALT. MAT'L., SPECIAL A.C. SEWER PIPE (MIN. C.S. 6750 #/FT.)
190.6± 27" CLASS IV @ .0015

Abandoned Sewer

38±' x 27" class IV @ 0.0015

Sta 2"54+00 Inv. Elev. = 12.15

INV. ELEV. 12.18

INV. ELEV. 10.72

12" ϕ 20" INVERTED SIPHON SEE DETAILS SHT. S-10 12

Existing Ground

See Drainage Profile Sheet No.

STATE OF ALASKA — No. 1351 - E — REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

INTERCEPTOR SEWER

DES.	DWN.	CHK.	DATE
WKE	P.R.S.	WKE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

53+00 54+00 55+00 56+00 57+00 58+00

30 20 10 0 -10

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-5	97

STD. M.H. TYPE II

SEWER ACCESS EMBANKMENT

SPECIAL SIDEWALK

27" SEWER

2'-6" O.D. I.P. LAMP

Reconstruct Manhole to elev. 12.0 ± (top)

Plug

SEE DETAIL

+3' SEWER STUB

Provide Type I Headwall and Collar per std. plan 670.05 and Drop increaser rebar cover to 4" Min.

Abandon

STD. M.H. TYPE II

30" SEWER

See Sheets For Dock Crossing Details

Constr. New Manhole And Connect Sewer Mains.

Plug

Install 196 L.F. of 12" D.I. Sanitary Sewer. Remove existing 12" A.C. Sewer.

M.H. A-5

N 70° 58' 29" E ~ 687.37'

"O" 62+048.00 P.T.

Standard

Install 172 L.F. of 8" D.I. Sanitary Sewer. Remove & Dispose of existing 12" A.C. Sewer.

Install 100 L.F. of 6" D.I. W.M.

Install 12" X 115' Conduit

Install 6" G.V.

+51.00

Install 2-4" X 115' Conduit

Plug

Install 438 L.F. of 8" D.I. W.M. (See Sheet 13 for Continuation)

SEE SHEET S-4 MATCH LINE "O" 58+00

MATCH LINE "O" 63+00 SEE SHEET S-6

Reconnect to existing outfall.

Class II Riprap Pad.

Sta "O" 60+95 Install 72" x 200' Pipe Conduit

Reconnect to existing outfall

Embankment	51,982 Cu. Yds. (Includes 766 Cu. Yds. Selected Material)
Excavation	0
Borrow	97,207 Tons
Borrow	2990.65 Tons
Subbase, Grading B	86.37 Tons

M.H. A-4

+0.40%

ALT. MAT'L, SPECIAL A.C. PIPE (MIN. CRUSHING STRENGTH = 6750 #/FT.)
~~230'~~ ± 27" CLASS IV @ .0015
~~233.9~~

Existing Ground

Existing Sewer

STA. 58+02.3
INV. ELEV. 10.43

INV. ELEV. 10.06

STA. 60+40
INV. ELEV. 9.69

M.H. A-5

Profile Grade

-0.57%

ALT. MAT'L. SPECIAL A.C. SEWER PIPE (MIN. C.S. = 7500 #/FT.)
~~256'~~ ± 30" CLASS IV @ .0015
~~260.5~~

Proposed 6" Water Main

Existing Sewer

See Drainage Profile Sheet No.

38 ± 8"
~~37'-11"~~ CLASS W (CL + 0.00)

@ .010

INSTALL PLUG AND LOCATION MARKER

STUB DETAIL

INV. 9.69
STA. 60+40
IND. EL. 11.05

INV. 11.39

INV. 11.74

58+00 59+00 60+00 61+00 62+00 63+00

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

INTERCEPTOR SEWER

DES	DWN.	CHK.	DATE
WKE	P.R.S.	WKE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-6	97

N. G. ARMORY

SEWER ACCESS EMBANKMENT

SPECIAL SIDEWALK

CONNECT TO EXISTING M.H. AS SHOWN IN PROFILE. CONNECTION SHALL BE INCIDENTAL TO INSTALLATION OF 12" SEWER. PLUG NEW 12" SEWER IN EXIST. M.H.

END SPECIAL SEWER ACCESS EMBANKMENT

STD. M.H. TYPE II

30" SEWER

M.H. A-4

R.C.A. Alascom

Install 2" Water Service And Connect to Existing

See Sheet No. MATCH LINE "C" 10+30

Adjust MH

8" C.I.

ROTATE M.H. AS REQ'D TO LOCATE M.H. CASTING IN SIDEWALK

SPECIAL SIDEWALK

Protect exist. box cleanout

STD. M.H. TYPE II

30" SEWER (ON SW. ℄)

"D" 66+88.66 P.I.= "C" 10+00.00

N81°09'53"E ~ 570.31'

VARIES

SEE SHEET B-5 MATCH LINE "D" 63+00

MATCH LINE "D" 69+00 SEE SHEET S-7

N 79°58'45"E ~ 687.37'

Exist. 4" C.I. Remove Hydrant

11¼° Bend

Abandon Remove Valve And Connect 8 L.F. of 6" D.I. to existing main. Remove & Dispose of existing Water Main.

WHITTIER STREET

45° Bend

Install 1192 L.F. of 8" D.I. W.M. (See Sheets 14 & 15 for Cont)

Extend And Connect Existing 1 1/2" Service

Install Hydrant, 3 L.F. of 6" D.I. W.M. & 6" G.V.

Symbol Denotes Approximate Location of Ductile Iron Sewer

Install 438 L.F. of 8" D.I. W.M. (See Sheet 12 for Continuation).

3" Galv. Iron Water Main Connect to existing A.C. Sanitary Sewer 8" Wood Stave

Install 352 L.F. of 6" D.I.W.M. Remove & Dispose of existing Water Main. (See Sheet for details).

MATCH LINE See Sheet No.

"C" 9+10

Install 110 L.F. of 8" D.I. Sanitary Sewer. Remove & Dispose of existing A.C. Pipe.

U.S.C. & G.S. 3566

Existing Top of Fill

Abd'd Coax Cable

WHARF

6" G.V. 6" D.I. 8"x6"x6" Tee 8" Nipple 8"x6"x6" Lateral 8" D.I. 8" D.I. 8" G.V. 6" G.V. 6" D.I.

DETAIL "A"

U.S.C.&G.S. B.M. 16
65' Left Sta. "D" 65+85
Elevation 25.48'

Embankment 4452 Cu. Yds. (Includes 926 Cu. Yds. Selected Material)*
Excavation 1,516 Cu. Yds.
Borrow 436 Tons
*Includes 721 Cu. Yds. Excess Excavation From Sta. "L" 69+00 to 75+00
*Includes 768 Cu. Yds. Excess Excavation From Sta. "C" 6+08.33 to 9+10
*Includes 1214 Cu. Yds. Excess Excavation From Sta. "C" 12+00 to 17+63.11

Borrow 155.21 Tons
SUBBASE, GRADING B 25.97 TONS

Profile Grade

-0571%

Existing Ground

M.H. 59' Lt. of "D" 63+37.00

12" Sewer Pipe

Aband Coax Cable

ALT. MAT'L., SPECIAL A.C. SEWER PIPE (MIN. C.S. = 7500 #/FT.)
370' 374' ± 30" CLASS IV @ .001

3" Telephone Conduit

ALT. MAT'L., SPECIAL A.C. SEWER PIPE (MIN. C.S. = 7500 #/FT.)
8" Water Pipe Existing 308' ± 30" CLASS IV @ .001

STA 63+36 INV. ELEV. 9.45

STA 67+10 INV. ELEV. 9.07

See Drainage Profile Sheet No.

Invert Depth 5' Below Grade

Proposed Concrete Manhole

Exist. M.H.

NBW M.H. A-4

13 ± 48" ℄ 12" CLASS II (CL 4000) @ .264

INV. EL. 10.17 Lt. STA. 63+36

INV. EL. 15.90

INV. EL. 11.14 Lt. STA. 63+36

INV. EL. 9.44

16 ± 30 20 10 0

M.H. CONNECT. DETAIL

63+00 64+00 65+00 66+00 67+00 68+00 69+00

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

INTERCEPTOR SEWER

DES	DWN.	CHK.	DATE
WKE	P.R.S.	WKE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-7	97

SEE SHEET S-6 MATCH LINE "0" 69+00

Forest Service Bldg.

Sta "D" 71+57 L.B End of Sidewalk

End special sidewalk at Sta. "D" 71+15

Bavard's Liquor Store

SPECIAL SIDEWALK

30" SEWER ON SW ℄

M.H. A-2 STD. M.H. TYPE II

30" SEWER

M.H. A-1 STD. M.H. TYPE II

Garage

VARIES

70

71

N81°09'53"E 570.31'

Abandon

Warehouse

Special M.H. No. 2

Install 1192 L.F. of 8" D.I.W.M. (See Sheets 13 & 15 for continuation).

USS 3566

(20 L.F.) Symbol Denotes Approximate Location & Length of Ductile Iron Sewer See Detail Sheet No.

Install 23 L.F. of 6" D.I.W.M. Connect to existing 8" W.M. Install 6"G.V. & 8"x8"x6" Lateral

Install 4"G.V. & 8"x8"x4" Tee

Install 28 L.F. of 8" D.I. W.M. Connect to existing 8" W.M. Install 8"x8"x8" Lateral Install 8"G.V.

8" Sewer at M.H. Inv. El. 13.2 at cap Inv. El. 16.00 cap load "D" 72+66.0 56' Rt.

50' Rt. Sta. 72+81

4" C.I.

6" C.I.

8" C.I.

MH A-1 31.5' Rt. of 72+88

LIFT STA. SITE

PLUG & INSTALL (LOCATION MARKERS)

45° Bend 28' Rt. Sta. 73+03.5

30' Rt. Sta. 73+05

Install 6"x6" x6" Tee

"D" 73+90.90 P.O.C.

L.1

L.2

L.3

L.4

L.5

L.8

L.9

L10

L11

L12

L13

Travelodge Site

Adjust V.B.

Cut & Cap

Install 8" D.I. Sanitary Sewer. Connect to existing M.H.

Install 2" Water Service

Install 73 L.F. of 6" D.I.W.M.

Hydrant

Remove existing

Abandon 18" Sewer

24" PRESSURE SEWER

Plug

45° Bend

78.4° Bend (Special Fitting)

11½° Bend

REPLACE EXIST. M.H. WITH DIVERSION STRUCT. AND RECONNECT EXIST. SEWERS

SEE PROFILE FOR DETAILS

Install 315 L.F. of 8" Sanitary Sewer Conduit type A.C. except where indicated. (See Sheet 15 for continuation.)

MATCH LINE "0" 75+00 - SEE SHEET S-8.

Install 8"x8"x6" Tee

J. Sherman Tanner

"D" 73+06.71 P.I.

N45°46'20"W

WILLOUGHBY AVENUE

"D" 73+75.90 P.O.C.

Δ=16°24'57"
D=6°00' Rt.
T=137.76'
L=273.60'

See Superelevation Table Sheet No.

"D" LINE
WILLOUGHBY AVENUE

Embankment 846 Cu Yds. (Includes 676 Cu Yds Selected Material)
Excavation 1,567 Cu Yds.@
Borrow 0 Tons
@Includes 721 Cu. Yds. Excess Excavation moved to Sta. "L" 83+00 to 69+00

13.7' ± 20" 90° ± 24" PRESS. SEWER

PLUG 18.40 INV. EL. = 7.8

ALT. MAT'L., SPECIAL A.C. SEWER PIPE (MIN. C.S. = 7500 #/FT.) 66' ± 30" CLASS IV @.0014

PLUG

PROFILE LIFT STATION CONNECTION

Sta. 71+06 Inv El. 8.26

8.25

Elev. 24.00 No U.C.

Elev. 26.13

Elev. 26.89

Elev. 25.16'

Elev. 26.25' No U.C.

+1.854%

Profile Grade -2.062%

"D" 10+00 = "D" 73+75.90

+41.10

+2500

+5000

+0.500%

10+00

11+00

M.H. A-2

M.H. A-1

M.H. B-1

M.H. B-2

Profile Grade

STA. 71+00 INV. EL. 8.68

ALT. MAT'L., SPECIAL A.C. PIPE (MIN. C.S. = 7500 #/FT.) 30" CLASS IV @ .001

Friction Clamp

8" Water Pipe

3" Telephone Conduit

219 ± 30' CLASS IV @ .001

1978

Proposed 8" Ductile Iron Water Main

20"-88.3° 24" PRESSURE SEWER @ -.026

INV. ELEV. = EL. 6.2 @ 11¼° FITTING

INV. ELEV. = 14.6

45° 78.4° FITTING

8" W.M. CL. IV (CL 4000) @ .006

INV. PRESS. SEWER 4.5' BELOW FINISH HWY. CENTERLINE GRADE

97.7 ± 12" ± 16" CLASS IV (CL 4000) @ .0016

PROFILE DIVERSION STRUCTURE CONNECTION

+0.213%

45°

D.W. STRUCT. INV. EL. 4.10

INV. EL. 13.05 STA. 74+70 INV. EL. 12.24

12" 10" 18° ± 18" CLASS IV (CL 4000) @ .02 .07

Sta. 72+86 Inv 8.48 Inv 9.48

Sta. 73+79 Inv El. 11.24 Inv El. 11.24

Sta. 73+98 Inv El. 12.38

Sta. 74+70 Inv. El. 12.58 M.H. B-2

See Drainage Profile Sheet No.

LIMITS OF REQ'D. SHEETING & BRACING

69+00 70+00 71+00 72+00 73+00 74+00 75+00

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SECHEDULE I. OUTER DRIVE FACILITIES

INTERCEPTOR SEWER, PRESSURE SEWER

DES	DWN.	CHK.	DATE
WJE	P.R.S.	WJE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE OF ALASKA REGISTERED ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-8	97

SEE SHEET S-7 MATCH LINE "0"75+00

L15 (75) L16 L17 L18 L19 L5 L6 (76) (77)

Extend And Connect 2" Services

Capitol Motor Supply

Juneau Motors

Temp. Hot Asp Sidewalk

Δ: 19°17'44"
D: 10°00'
T: 9.740'
L: 192.96'
R: 572.96'
See Superelevation Table Sheet No.

"0"78+50.95 P.T.

"0"76+57.99 P.C.

18" SEWER

64.1 PRESSURE SEWER ~ S82°25'10"E ~ 125.42'

WILLOUGHBY AVENUE

FROM P.C. OFFSET DISTANCE VARIES

Extend And Connect 2" Service.

Sign

Install New 2" Service

Abandon

Cap & Plug

6" Steel

STD. H. TYPE I

18" SEWER

24" PRESSURE SEWER

Adjust V.B.'s
Install 8"X8"X6"
Cap 8" Line

TRACER WIRE PLUGS LOCATION MARKERS

Stub Out 1" Cap Service
Sherman Tanner

Warehouse

Dock

Existing Top of Bank
Install 1" Service

Fuel Inlets

Install 8" G.V.

Retaining Wall

Alaska Airlines

Dock

Cargo Bldg.

MAIN STREET

Orpheum Hotel

MARINE WAY

6" C.I.

Install 33 L.F. of 6" D.I. W.M. for temporary crossover. Connect to existing 6" steel Water Main.

Install 315 L.F. of 8" Sanitary Sewer, Conduit is A.C. except where indicated. (See Sheet 14 for Continuation.)

Install 192 L.F. of 8" D.I. W.M. (See Sheets 13 & 14 for cont.)

20 L.F. ..... Symbol Denotes Approximate Location and Length of Ductile Iron. See Detail Sheet No.

"0"77+55.39 P.T.

M.H. 8-3 STA. 78+25

10.5 ± (BEND)

"0"78+68

95 ± (ABAND.)

END OF PROJECT
F-093-1(3)
STA. 78+50.95 P.T.

18" Q CONC. SEWER

20" Ø FORCE MAIN

AIR RELEASE ASSEMBLY

PLAN
N.T.S.

4" G.I.P. SLEEVE

CIRCUIT WOOD WEDGES

1"-90° ELBOW

1" CORPORATION VALVE.

1" UNION

1" GATE VALVE

1"-90° ELBOW-ANCHOR IN CONCRETE

1"-90° ELBOW AND 12" PIPE STUB INSTALLED IN DIRECTION OF DOWNSTREAM SEWER

AIR RELEASE ASSEMBLY
MANHOLE B-3, STATION "0"78+25 - 1 REQ'D.
NOT TO SCALE

Embankment 812 Cu. Yds. (Includes 325 Cu. Yds. Selected Material)
Excavation 582 Cu. Yds.
Borrow 430 Tons

R.M.C. 9 (Brass Cap)
19' Right Station "0" 77+78
Elevation 25.93'

Elev. 27.90
200' V.C.

M.H. B-3

+0.413%

485 ± 20" PRESSURE SEWER ~ INV. 4.5' BELOW FINISH H'WY CENTERLINE GRADE

357 ± 18" CLASS IV (CL 4000) @ .0016

8" Sewer

Proposed 8" D.I. W.M.

56.2 ± 18" CL. IV @ .0016

6" C.I. water

2"x4" REDWOOD LOCATION MARKERS (TYPICAL)

PLUG

STA. 78+22 END INV. EL. 13.24

STA. 78+2.5 INV. EL. 13.15

STA. "0"78+99

LIMITS OF REQ'D SHEETING & BRACING

75+00 76+00 77+00 78+00

REVISED 6-4-71 - WK

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

INTERCEPTOR SEWER, PRESSURE SEWER

DES	DWN.	CHK.	DATE
WKE	P.R.S.	WKE	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE OF ALASKA 49TH
No. 1351-E
REGISTERED PROFESSIONAL ENGINEER

STATE	PROJECT DESIGNATION	YEAR	SHEET	TOTAL SHEETS
ALASKA	X-31530	1971	S-9	97

Install relocated hydrant, 6"G.V. ±7 L.F. of 6" D.I.W.M.

FISH and GAME

Install 6"G.V. Reconnect service

Slope Limits

Install 352 L.F. of 6" D.I.W.M. Remove and dispose of existing water main (See sheet 15 for continuation)

R/W

C.O.

SD

Adjust V.B.

Install 95 L.F. of 6" A.C. Sewer Conduit

Plug

Relocate existing hydrant to Sta. "C" 6+28.1 (20' Lt.), remove G.V. and cap lateral.

Adjust C.O.'s

INSTALL SPECIAL M.H. No. 3 @ STATION "C" 7+71.19

CUT EXISTING SEWER AND FORM INVERT & CONSTRUCT M.H. AS REQ'D FOR STD. M.H. #1

Adjust C.O.

11½° Bend

N 22°52'55" W ~ 391.17'

WHITTIER STREET

SEE PROFILE, THIS SHEET

Paving Limit

6'2

6" SEWER

Slope Limits

R/W

P26

S26

COAST GUARD DOCK

COAST GUARD

COAST GUARD

Sta. "C" 7+71.69 See detail sheet No. 4 for approach road

+52.19

+91.19

MATCH LINE SEE SHEET

"0" 66+88.66 = "C" 10+00.00

RCA

Slope Limits

TOWER

EL

R/W

N 15°23'05" W ~ 224.13'

P28

10" SEWER

Slope Limits

MATCH LINE SEE SHEET

NATIONAL GUARD READY

BEGINNING OF PROJECT
X-31530
STA. "C" 6+08.83

U.S.C.&G.S. B.M. 15
21' Left Station "C" 6+19.
Elevation 24.70'

LIMITS OF PAYMENT FOR LATERAL SEWER PIPE

2x4 REDWOOD STAKE @ END OF PIPE. EXTEND TO TOP OF PIPE.

EXISTING GRADE

5'

6' MIN

⅛ FT. MIN. UNIFORM GRADE

INVERT @ UPPER END OF ⅛ BEND LEVEL WITH OUTSIDE TOP OF MAIN.

INVERT

MAIN SEWER

ELEVATION
NO SCALE

PUBLIC ROAD OR EASEMENT

PROPERTY LINE

6" PIPE

⅛ BEND

WYE

PLUG END

MAIN SEWER

PIPE MATERIAL SHALL CONFORM TO REQUIREMENTS FOR GRAVITY SEWER PIPE.

PLAN
NO SCALE

COST OF WYE AND REDWOOD MARKER ARE INCIDENTAL TO THE LATERAL SEWER AND NO SEPARATE PAYMENT WILL BE MADE.

1'-3"

3"

6"

C.I. FRAME & COVER. IN ROADWAYS, SET COVER IN SAME MANNER AS MANHOLE COVERS. OUT OF ROADWAYS, SET COVER 1" ABOVE FINISH GRADE, AS SHOWN. COVER & FRAME SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW.

CONCRETE COLLAR

ASPHALTIC JOINT MAT'L.

PIPE RISER

6" DIA. PIPE MATERIAL SHALL CONFORM TO REQUIREMENTS FOR GRAVITY SEWER PIPE.

LONG RADIUS ⅛ BEND

WYE

PLUG

RODHOLE
NO SCALE

NOTE: THE SANITARY SEWER WORK ON THIS SHEET INCLUDES SPECIAL MANHOLE NO. 3 (STA. 7+71.19), 45' OF 8" SEWER (STA. 7+71.19) AND 10" SEWER (BETWEEN STA. 10+37 AND STA. 12+00)

Emb. = 328 cu. yds. (Includes 328 cu. yds. of Selected Material)
Exc. = 1,096 cu. yds. ①
Borrow = 0
① Includes 768 cu. yds. excess Exc. moved to Sta. "L" 63+00 to 69+00

TYPICAL LATERAL SEWER DETAILS

45'-8" SEWER CLASS Ø .004

4x4 REDWOOD LOCATION MARKER

PLUG

SPECIAL M.H. No. 3 INVERT ELEV. 14.67 EXIST. SEWER

ELEV. OF EXIST. INVERT + 0.10

Elev. 24.06

Elev. 23.63 No V.C.

Profile Grade

-0.500%

+0.500%

+1.940%

-0.096%

+0.500%

-0.500%

Plug

8" Water Pipe

Oil Tank

Sewer Pipe

3" Electrical Conduit

Existing Ground

Elev. 24.79 No V.C.

Q Elev 26.49 Outer Drive

Elev. 25.14 M.H. A-3 No V.C.

Elev. 25.56 No V.C.

3" Electrical Conduit

197' @ 0.5% 10" (CL 3300) @ .0104

8" Water Pipe

STA. 10+37.2 ± 35.15 INV. ELEV. 10.75

+03.83

+12.92

+63.92

+18.5

See Drainage Profile Sheet No. 25

6+00 7+00 8+00 9+00 10+00 11+00

40 30 20 10

STATE OF ALASKA 49TH
No. 1351-E
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE 1. OUTER DRIVE FACILITIES

WHITTIER STREET SEWER

DES:	DWN:	CHK:	DATE:
WKE	Ken Fish	C.W.D.	5-21-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO	TOTAL SHEETS
ALASKA	X-31530	1971	S-10	97

M.H. A-3.1 - TYP I M.H, LOCATE 7.0'± LEFT OF STA. "C" 12+34.

SEE SHEET S-9 Match Line

Adjust MH

Curb Face N15°25'05"W 30.08

N14°35'48"W - 55.29 (ROW Only)

"C" 12+21.13 Δ=9°56'46"

NATIONAL GUARD

ALASKA STATE MUSEUM

R=33' Δ=40°

R=40 Δ=32°42'

10+14~19+89 FG to BSW +65

R=33'

35'R

213+49.50 60' LT

20'R

Slope Limits

R/W

25' 39' R=1' Δ=90°

2.70 6.49' 6.02 2.85'

Adjust MH

10" SEWER

M.H. A-3.2

DRIFTWOOD LODGE

20'R

13'-6" LATERAL SEWER SEE DET, SHEET S-9 (TYP)

HERMLES LIQUOR

GEORGE BROS REALTY

R=31.80'

16' ℄ R/W

13'-6" LATERAL SEWER

WILLOUGHBY AVENUE

TYPE I M.H. LOCATE 7.0' ± LT. OF STA. "C" 15+22.0

INSTALL RODHOLE SEE DET, SHT. S-9.

Adjust V.B.

P28 S28 P29 S29 P30 S30

24.00 179.92

300'

+31.82

N74°24'26"W 30.44

R=31.80'

Adjust V.B.

+75.00

Public Safety Building

CHANNEL APARTMENTS

END OF PROJECT
X-31530
STA "C" 17+63.11

NOTE: THE SANITARY SEWER WORK ON THIS SHEET INCLUDES 10" SEWER (BETWEEN STA. 12+00 AND STA. 17+60), 2 TYPE I MANHOLES (STA. 12+34 AND STA. 15+22), 26' OF 6" LATERAL SEWER (STA. 15+22 AND STA. 16+82) AND RODHOLE (STA. 17+60).

Emb. = 459 cu.yds. (Includes 459 cu.yd. Selected Material)
Exc. = 1673 cu.yds. ①
Borrow = 0
① Includes 1214 cu.yds. excess Exc. moved to Sta. "L" 63+00 to 69+00.

M.H. A-3.1
STA. 12+34
INV EL. 12.86

8" A.C. Sewer

-0.500%

3" Electrical Conduit

295' @ 10" (CL 2400) @ .003

Elev. 24.15' 150' V.C.

Profile Grade

8" Water Line

M.H. A-3.2
STA. 15+22.00
INV EL. 18.72

+0.525%

Existing Ground

3" Electrical Conduit

2353' @ 10" (CL 2400) @ .003

INSTALL RODHOLE SEE DET. SHEET S-9

PLUG.

STA. 17+60.00
INV EL. 43.11

30
20
10

+00

12+00 13+00 14+00 15+00 16+00 17+00

See Drainage Profile Sheet No. 25

STATE OF ALASKA 49TH
No. 1351-E
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I - OUTER DRIVE FACILITIES

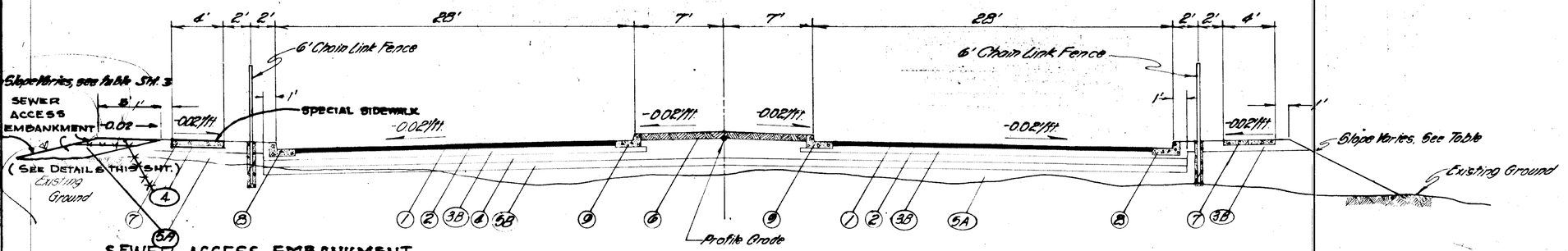
WHITTIER STREET SEWER

DES.	DWN.	CHK.	DATE
WKE	Van Kirk	G.W.D.	5-20-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

K&E

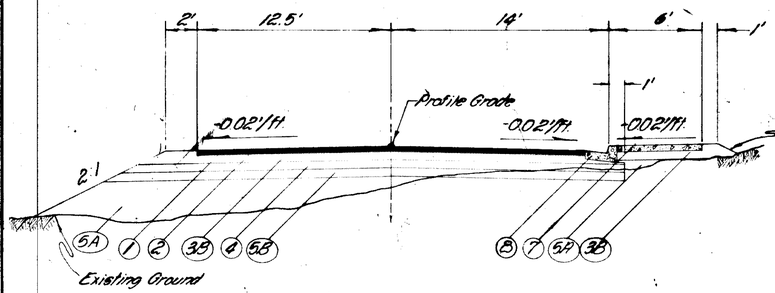
STATE	PROJECT NO	YEAR	SHEET NO	TO SH
ALASKA	F-093-1(3)	1970	S-11	



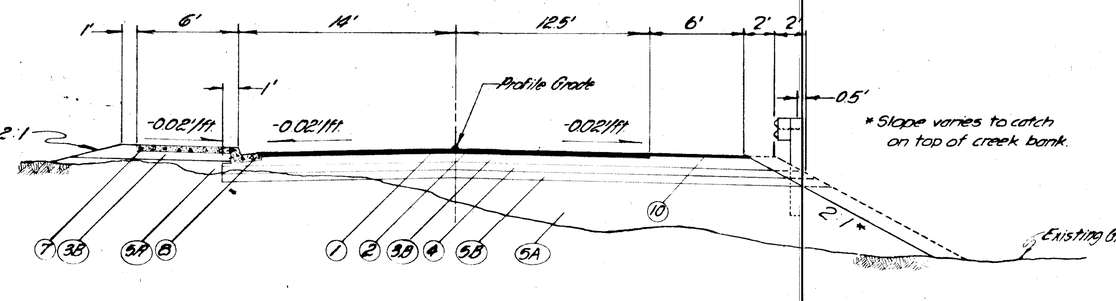
SEWER ACCESS EMBANKMENT
"L" 45+00 TO "L" 50+00

TYPICAL SECTION OF IMPROVEMENT
"L" STA. 43+14.20 To "L" STA. 50+00.00

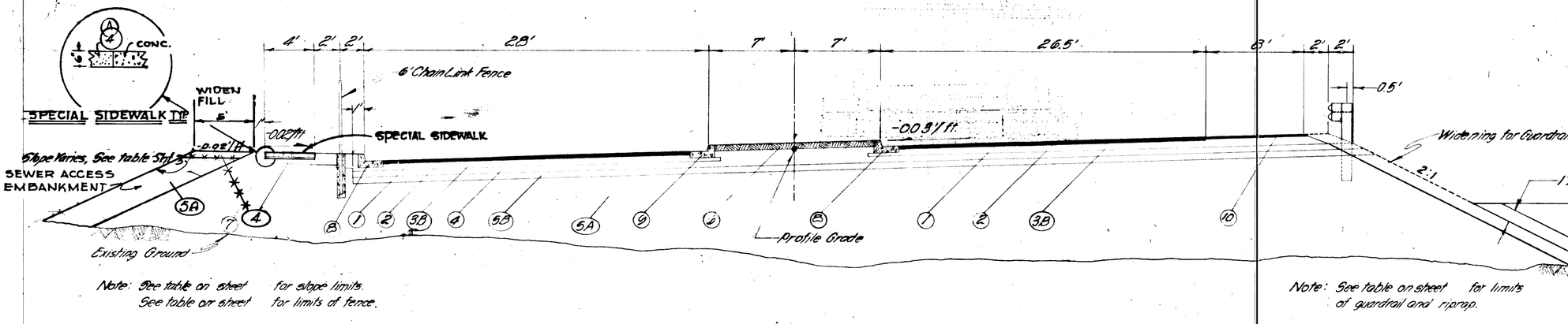
Note: See table on sheet for slope limits.
See table on sheet for limits of fence.



TYPICAL SECTION OF IMPROVEMENT
8th. STREET ACCESS
"A" STA. 5+93.92 To "A" STA. 9+25.00



TYPICAL SECTION OF IMPROVEMENT
GLACIER AVENUE ACCESS
"B" STA. 11+00.00 To "B" STA. 15+02.88



Note: See table on sheet for slope limits.
See table on sheet for limits of fence.

Note: See table on sheet for limits of guardrail and riprap.

SEWER ACCESS EMBANKMENT
"L" 50+00 TO "O" 64+50

TYPICAL SECTION OF IMPROVEMENT
"L" STA. 50+00.00 To "O" STA. 61+00.00

GENERAL NOTES

1. Grades and alignments shown on these plans are subject to minor revisions.
2. Culvert lengths and locations are approximate only and are subject to minor revisions.
3. All encroaching buildings within the right-of-way shall be removed to the existing ground level by others. P.E.L.E.P. poles to be removed by others prior to construction.
4. Miscellaneous and minor right-of-way encroachments, within the construction limits, such as fences, abandoned foundations, etc., shall be removed by the contractor as directed by the engineer. This work shall be considered incidental to item 202(1).
5. All waste and/or surplus material encountered on this project will be disposed of by the contractor at locations of his own choice and as approved by the engineer.
6. No unclassified excavation on this project is considered suitable for use as topsoil.
7. A butt type joint shall be used to match new pavement with existing pavement at locations shown on the plans.
8. At the option of the contractor, corrugated galvanized steel pipe, corrugated aluminum pipe, or reinforced concrete pipe may be furnished for pay item 603(26), pipe conduit.
9. Prime coat shall extend 1/2 foot beyond edge of pavement in areas where no curb and gutter are to be constructed.

LABELING INDEX

1. 3"-2 Course Hot Bituminous Concrete Pavement.
2. Prime Coat - Width Varies.
3A. 4" Crushed Aggregate Base, Grading D-1.
3B. 6" Crushed Aggregate Base, Grading D-1.
4. 6" Subbase, Grading B
5A. Useable Unclassified Excavation and/or Borrow
5B. 6" Minimum Selected Material
6. 6" Topsoil and Seed
7. 4" Concrete Sidewalk
8. Curb & Gutter Type 2A
9. Curb & Gutter Type 2B
10. 1 1/2" - 1 Course Hot Bituminous Concrete Pavement

STATE OF ALASKA
49TH
No. 1351-E
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

TYPICAL EMBANKMENT SECTIONS

DES	DWN.	CHK.	DATE
WKE	D.V.H.	P.R.S.	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-12	97

REFER TO SECT "J" THIS SHEET

AS SHOWN IN SECT "J" THIS SHT. USE NATIVE BACKFILL MATERIAL WHERE NOT WITHIN THE ROADWAY EMBANKMENT

12" ~~RIVER CROSSING PIPE~~
20" ~~RIVER CROSSING PIPE~~
Coal tar coated steel pipe

CLASS "B" CONC. UNDISTURBED NATIVE MAT'L.

Shop assembled Steel form in conc. encasement

4'-0"

SECTION H
SCALE - 3/8"=1'-0"

SURFACE MAT'L AS SPECIFIED ELSEWHERE

APPROVED UNCLASSIFIED MAT'L PLACED AS SPECIFIED FOR TYP. TRENCH, DETAIL "H" SHEET S-12.

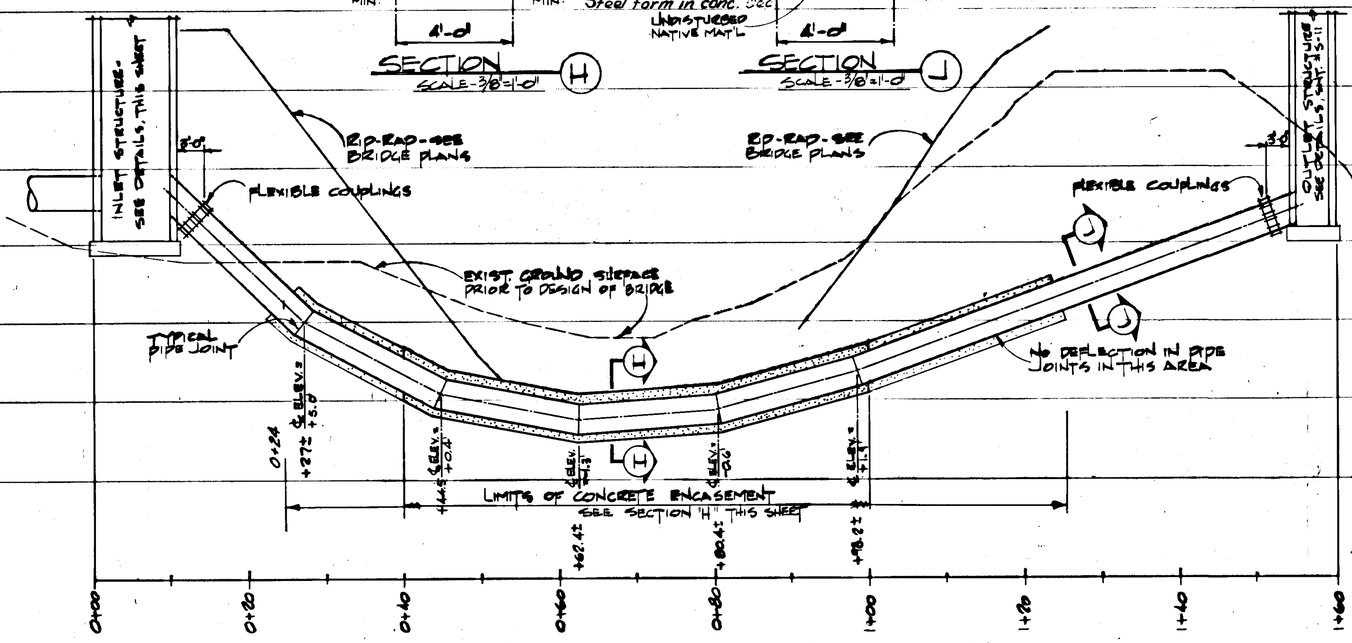
12" ~~RIVER CROSSING PIPE~~
20" ~~RIVER CROSSING PIPE~~ Coal tar coated Steel pipe

BEDDING MATERIAL WHERE PIPE IS NOT ENCASED IN CONCRETE

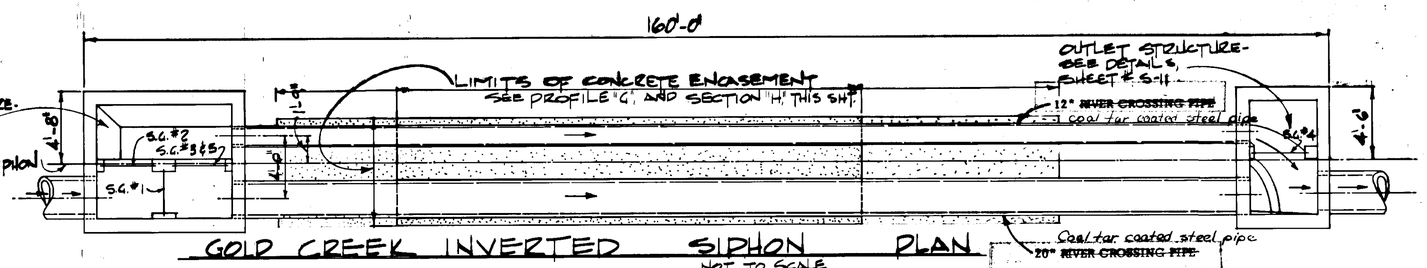
UNDISTURBED NATIVE MAT'L

4'-0"

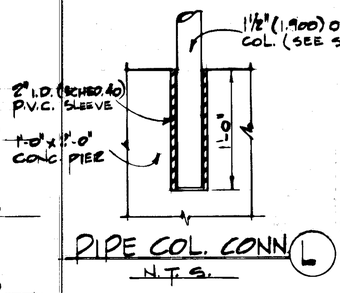
SECTION J
SCALE - 3/8"=1'-0"



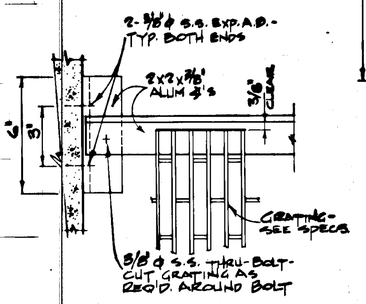
PROFILE OF GOLD CREEK INVERTED SIPHON (G)
VERTICAL SCALE - 1"=5'-0" HORIZ. SCALE - 1"=10'-0"



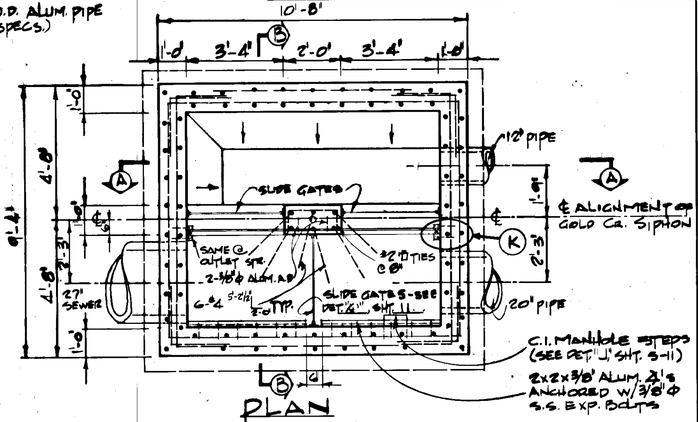
GOLD CREEK INVERTED SIPHON PLAN
NOT TO SCALE

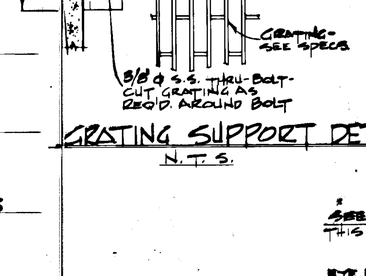


PIPE COL. CONN (L)
N.T.S.



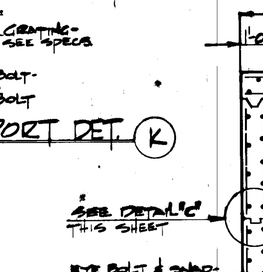
GRATING SUPPORT DET. (K)
N.T.S.



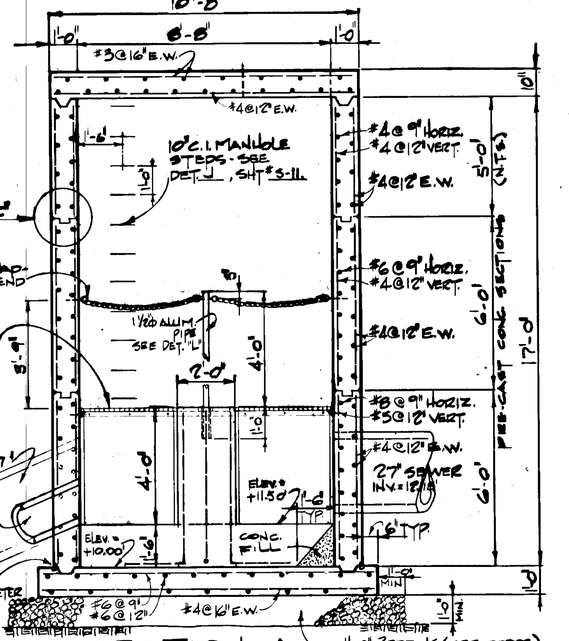


TYP. GRATING PLAN (F)
N.T.S.

NOTE: DIMENSIONS SHOWN ALLOW FOR A ⅜" SPACE CLEAR ON EACH SIDE OF GRATING.

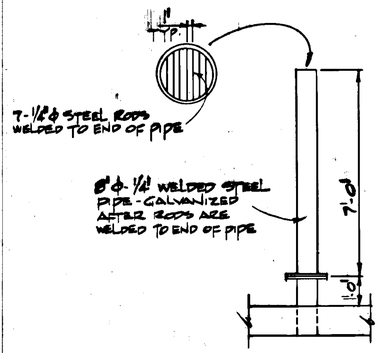


SECTION B

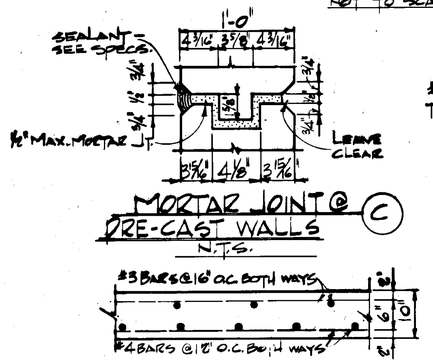


SECTION A

INVERTED SIPHON INLET STRUCTURE DETAILS
SCALE - 3/8"=1'-0"

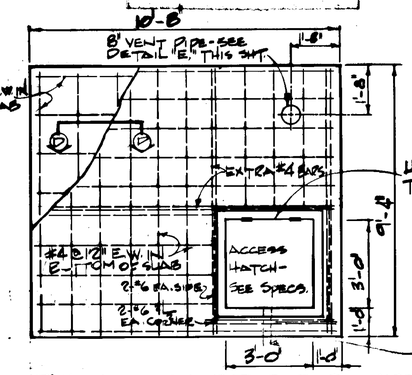


INLET VENT (E)
SCALE - 3/8"=1'-0"

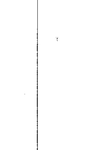


MORTAR JOINT @ PRE-CAST WALLS (C)
N.T.S.

TOP REINFORCING (D)
N.T.S.



PLAN OF INLET TOP REINFORCING
SCALE - 3/8"=1'-0"



STATE OF ALASKA
69TH
No. 1351-E
REGISTERED PROFESSIONAL ENGINEER

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I, OUTER DRIVE FACILITIES

GOLD CREEK INVERTED SIPHON

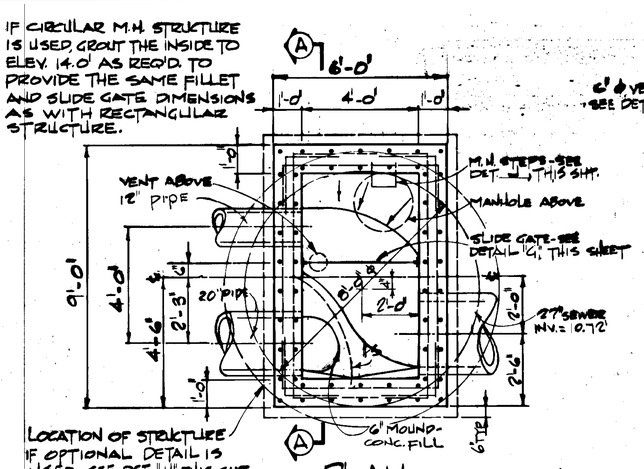
DES.	DWN.	CHK.	DATE
LIKE	[illegible]	GWD	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

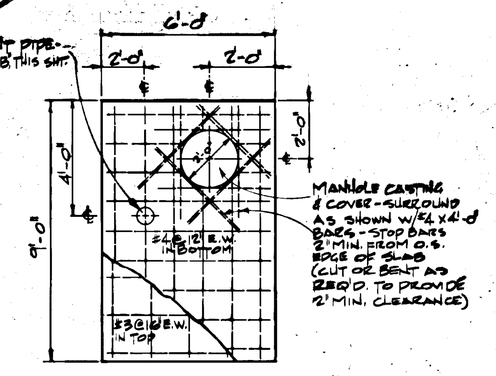
KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOT. SHEE
ALASKA	F-093-1(3)	1971	S-13	97

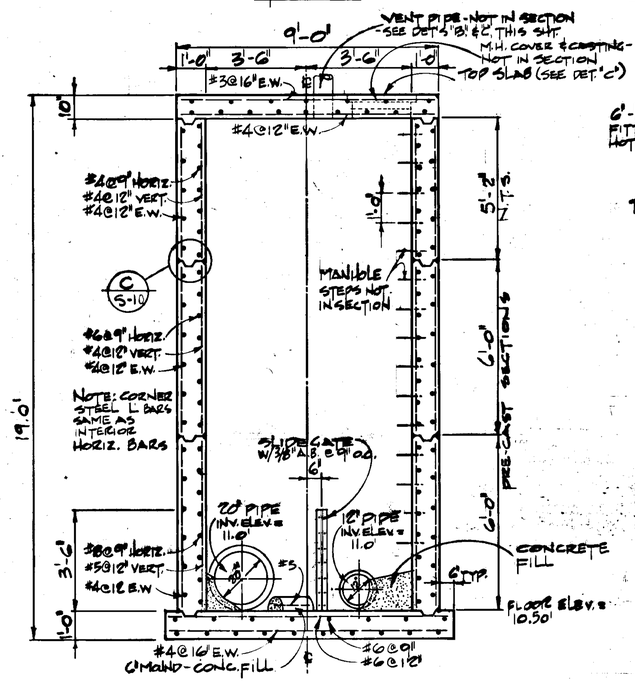
IF CIRCULAR M.H. STRUCTURE IS USED, GROUT THE INSIDE TO ELEV. 14.0' AS REQ'D. TO PROVIDE THE SAME FILLET AND SLIDE GATE DIMENSIONS AS WITH RECTANGULAR STRUCTURE.



PLAN



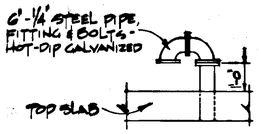
TOP SLAB PLAN (C)



SECTION A

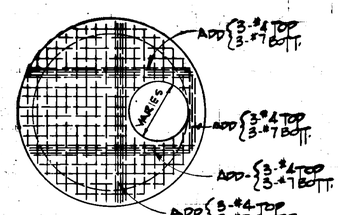
INVERTED SIPHON OUTLET STRUCTURE

SCALE - 3/8" = 1'-0"

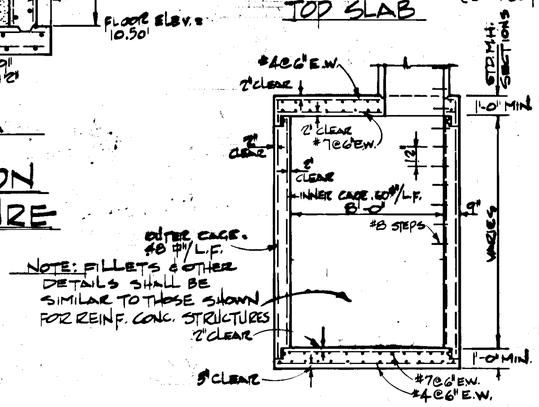


VENT PIPE DETAIL (B)

SCALE - 3/8" = 1'-0"



TOP SLAB

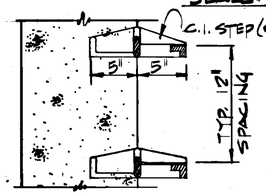


NOTE: FILLETS & OTHER DETAILS SHALL BE SIMILAR TO THOSE SHOWN FOR REINF. CONC. STRUCTURES

SECTION

OPTIONAL OUTLET AND DIVERSION STRUCTURE (H)

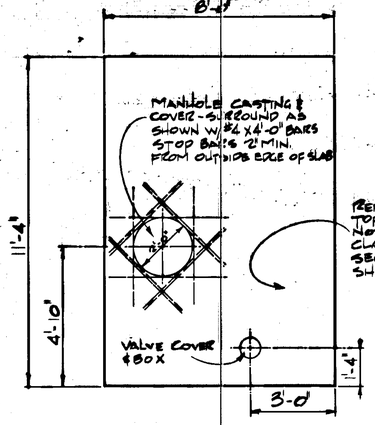
NO SCALE



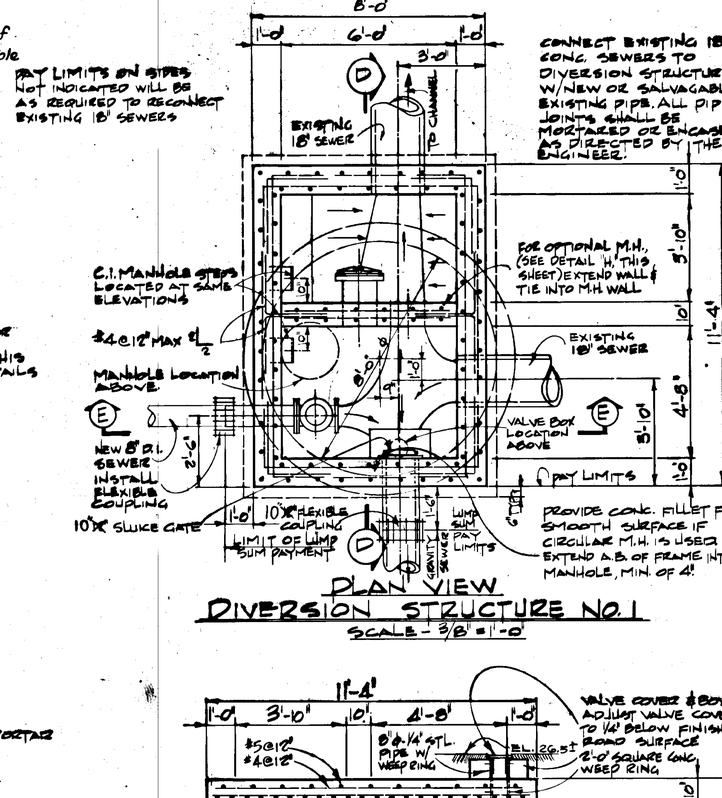
TYP MANHOLE STEP DETAIL (J)

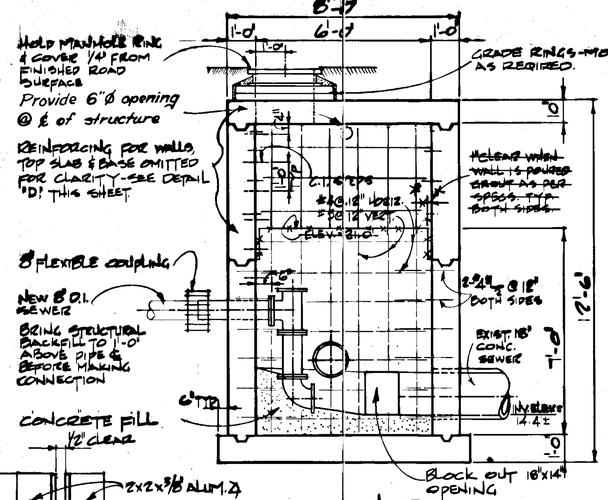
NO SCALE

Note: The circular M.H. option was used, with the following exceptions to the plans: The center wall was moved 10' toward the center of structure and extended to top of structure; and a second manhole cover provided if one on each side of wall.



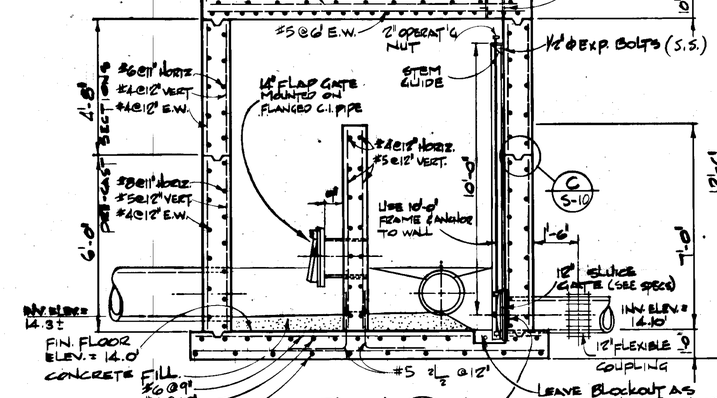
TOP SLAB (F)





SLIDE GATES & GUIDES (G)

NOT TO SCALE



SLIDE GATE DATA		
GATE NO.	HEIGHT	WIDTH
1	3'-11"	3'-1"
2	4'-4"	3'-3"
3	4'-4"	3'-3"
4	3'-6"	3'-11"
5	10"	3'-3"

GATE NO. 5 SHALL HAVE 2-1"Ø HOLES IN PLACE OF THE LIFTING HOLE.

STATE OF ALASKA 49TH No. 1351-E REGISTERED PROFESSIONAL ENGINEER

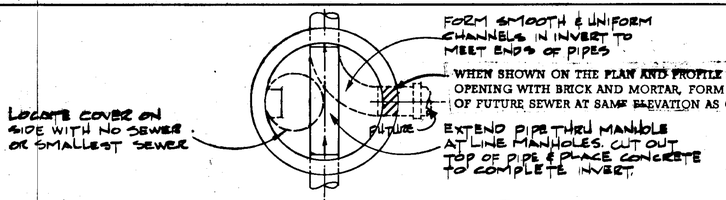
CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

SIPHON AND DIVERSION STRUCTURES

DES	DWN.	CHK.	DATE	CLAIR A. HILL & ASSOCIATES CONSULTING ENGINEERS
LKE	Clair Bush	GWD	4-16-71	

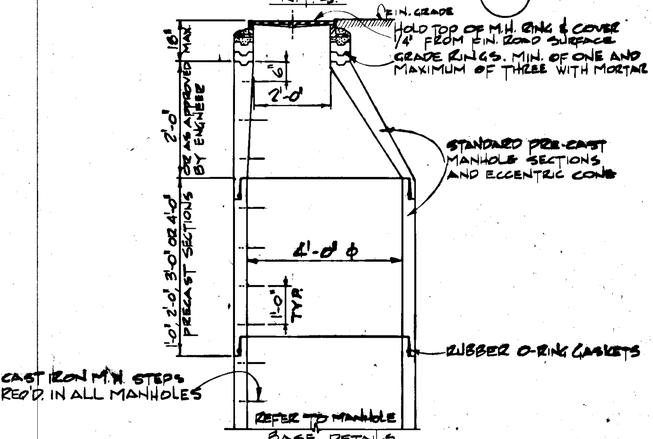
KEUFFEL & ESSER CO.

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-14	97



STANDARD FILLET (C)

N.T.S.



MANHOLE RISER DETAIL (A)

SCALE - 1/2" = 1'-0"

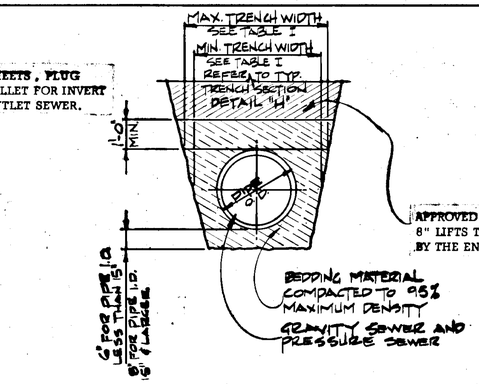
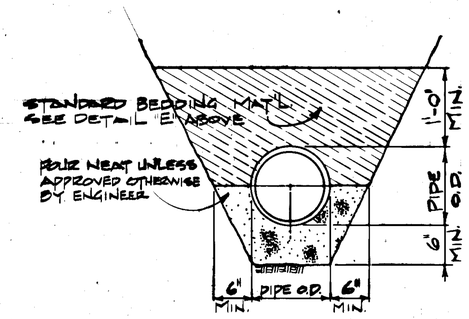


TABLE I		
Allowable Trench Widths (In)		
Pipe I.D.	Min.	Max.
0 - 12"	28"	39"
16"	36"	48"
18"	42"	51"
21"	45"	54"
27"	51"	60"
30"	54"	66"

APPROVED UNCLASSIFIED EXCAVATION/OR BORROW PLACED AND COMPACTED IN 8" LIFTS TO 95 PERCENT OF MAXIMUM DENSITY UNLESS OTHERWISE APPROVED BY THE ENGINEER, OR AS SPECIFIED IN SPECIFICATION SECTION 203.07.

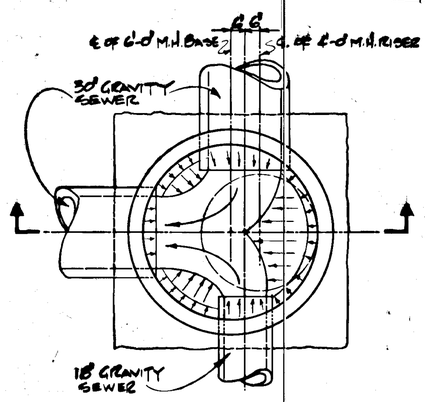
TYPICAL PIPE BEDDING DETAIL (E)

NOT TO SCALE



TYPICAL CONCRETE PIPE CRADLE DETAIL (F)

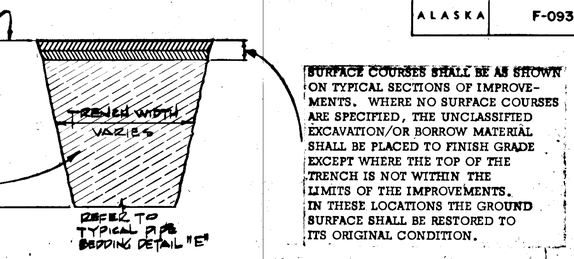
NOT TO SCALE



PLAN

DETAILS - SPECIAL MANHOLE NO. 2 (J)

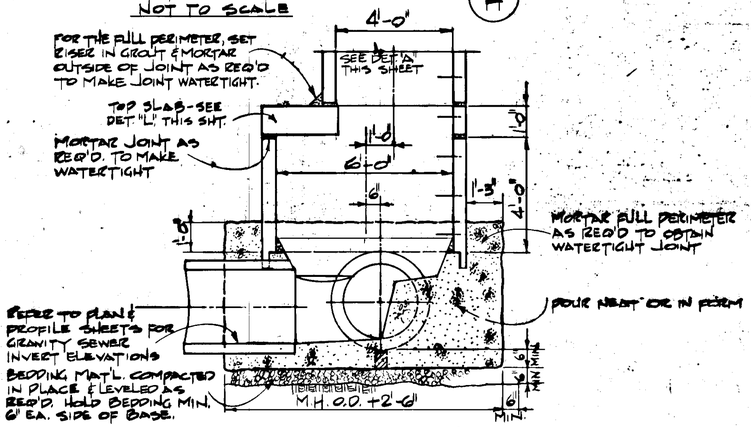
SCALE - 3/8" = 1'-0"

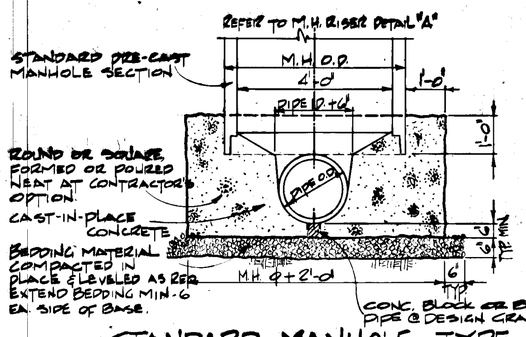


SURFACE COURSES SHALL BE AS SHOWN ON TYPICAL SECTIONS OF IMPROVEMENTS. WHERE NO SURFACE COURSES ARE SPECIFIED, THE UNCLASSIFIED EXCAVATION/OR BORROW MATERIAL SHALL BE PLACED TO FINISH GRADE EXCEPT WHERE THE TOP OF THE TRENCH IS NOT WITHIN THE LIMITS OF THE IMPROVEMENTS. IN THESE LOCATIONS THE GROUND SURFACE SHALL BE RESTORED TO ITS ORIGINAL CONDITION.

TYPICAL TRENCH DETAIL (H)

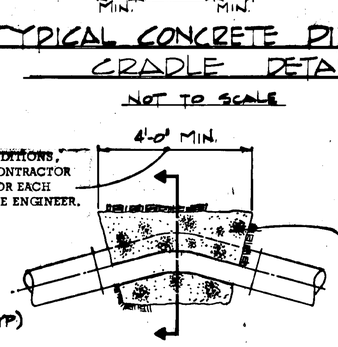
NOT TO SCALE

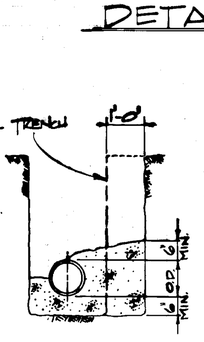




STANDARD MANHOLE TYPE I. (B)

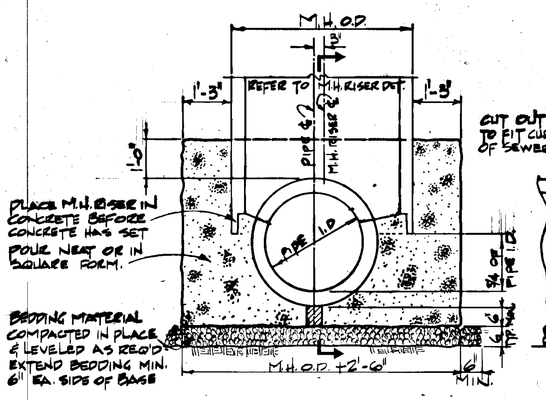
SCALE - 1/2" = 1'-0"

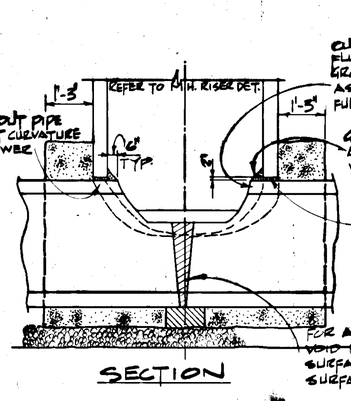




PLAN SECTION

TYPICAL THRUST BLOCK DETAILS (G)





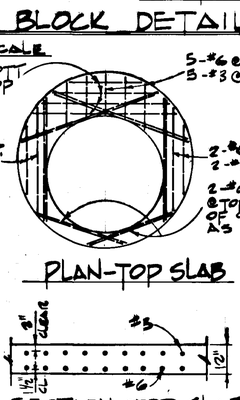
SECTION

CUT OFF ALL STEEL FLUSH WITH SURFACE- GROUT CUT EDGES OF PIPE AS REQ'D FOR SMOOTH SURFACE, FULL PERIMETER OF OPENING

GROUT FULL PERIMETER AS REQ'D TO MAKE WATER TIGHT.

SUPPORT M.H. SECTION ON WEDGE UNTIL CONC. BASE HAS SET. THEN REMOVE WEDGE & GROUT 2" VOID FULL

NOT TO SCALE



PLAN-TOP SLAB

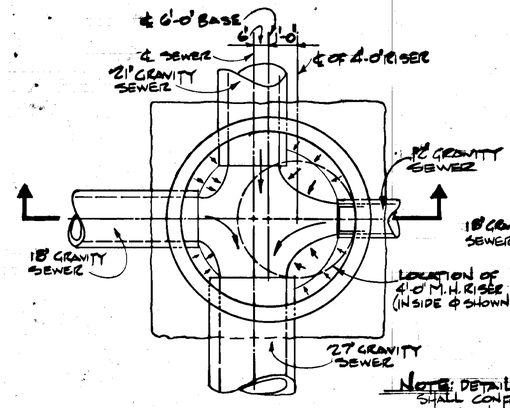
SECTION-TOP SLAB

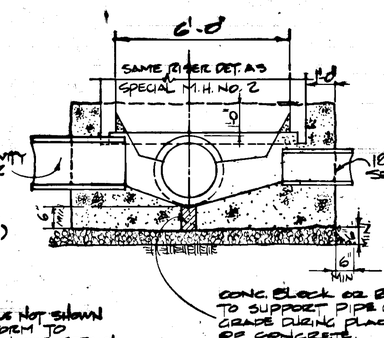
NOTE: NIFE'S STANDARD SECTION MAY BE SUBMITTED FOR APPROVAL AND IF FOUND TO BE ACCEPTABLE, MAY BE USED AS AN ALTERNATE.

NOTE: CUT STEEL TO PROVIDE 2" CLEAR TO OUTSIDE SURFACE AND 1½" CLEAR TO INSIDE SURFACE.

TOP SLAB @ SPECIAL M.H. NO. 2 (L)

NO SCALE





NOTE: DETAILS NOT SHOWN SHALL CONFORM TO THOSE SHOWN FOR SPECIAL M.H. NO. 2.

PLAN SECTION

DETAILS - SPECIAL MANHOLE NO. 1 (K)

SCALE - 3/8" = 1'-0"

STATE OF ALASKA 6TH No. 3524 REGISTERED PROFESSIONAL ENGINEER

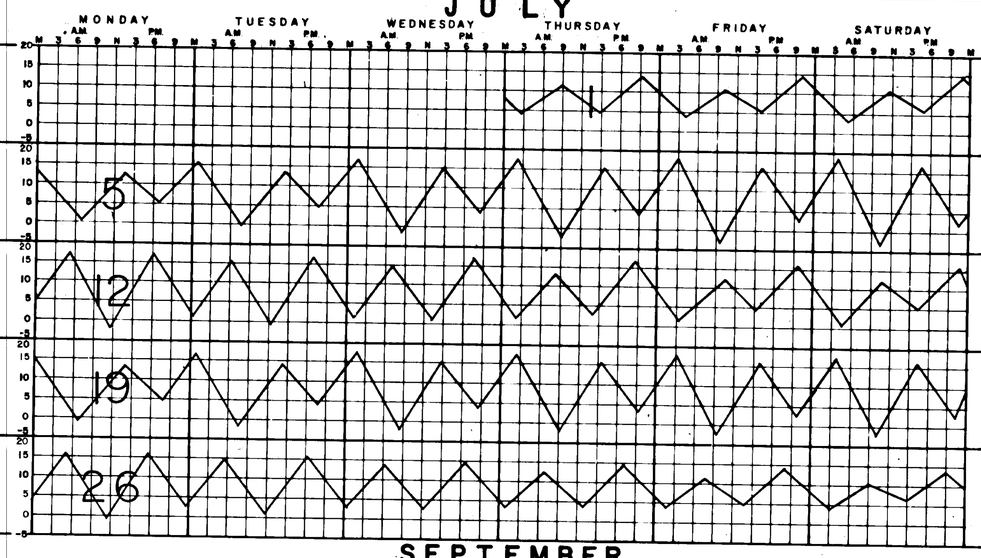
CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT
SCHEDULE I. OUTER DRIVE FACILITIES

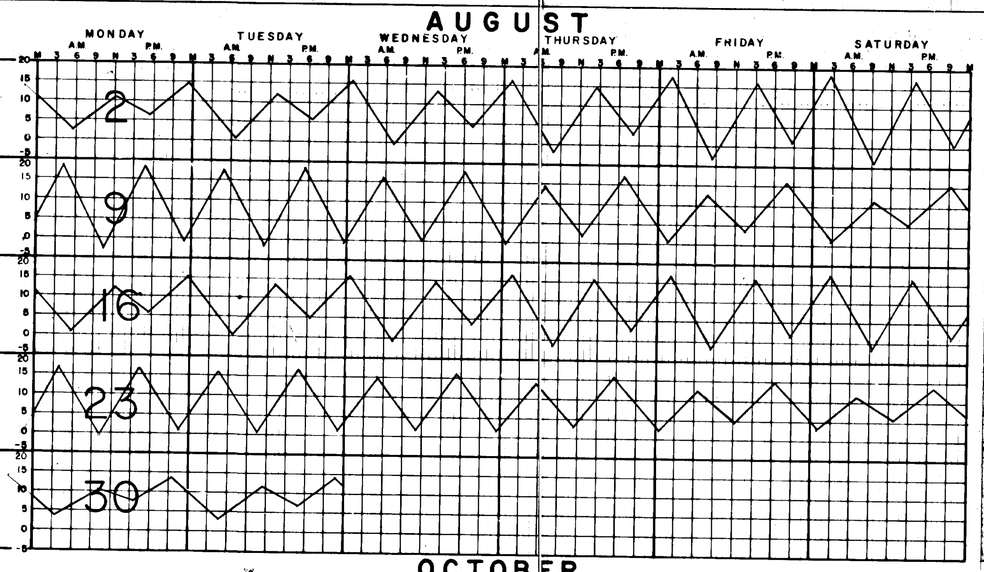
STANDARD DETAILS & SPECIAL MANHOLES

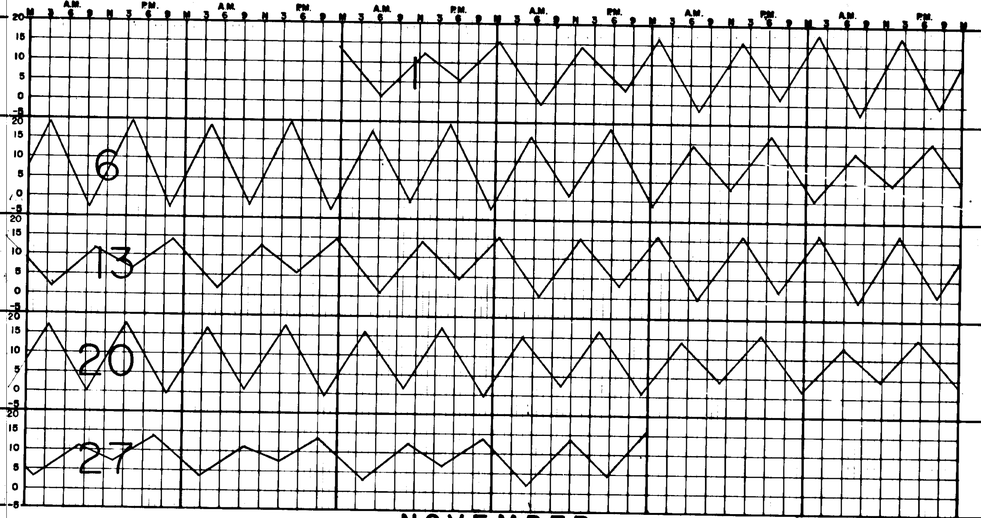
DES	DWN	CHK.	DATE
WJE	[illegible]	[illegible]	4-16-71

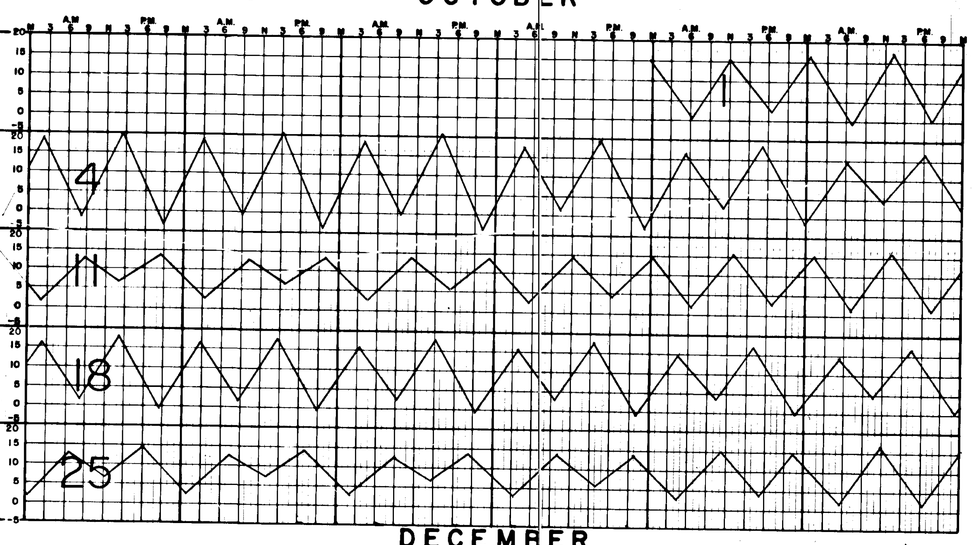
CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS

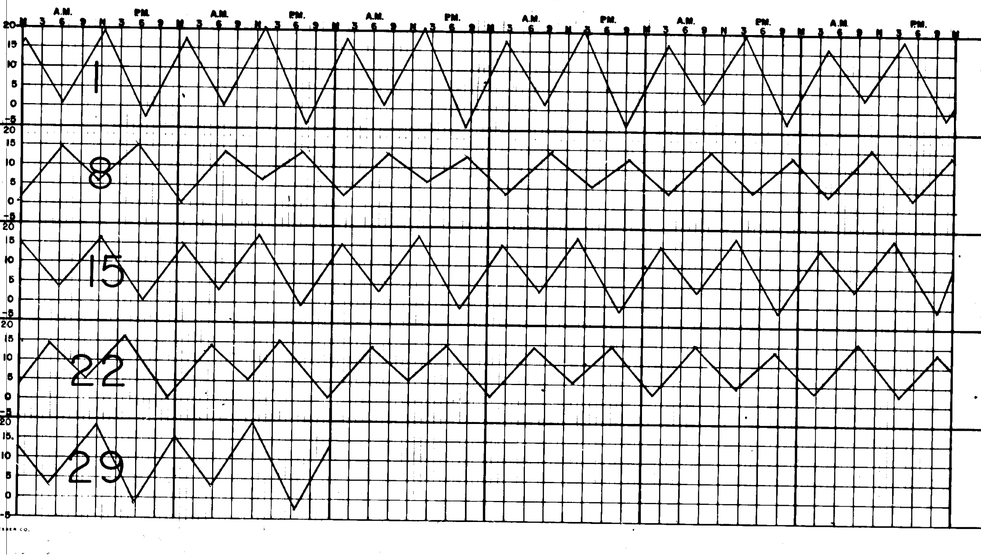
KEUFFEL & ESSER CO.

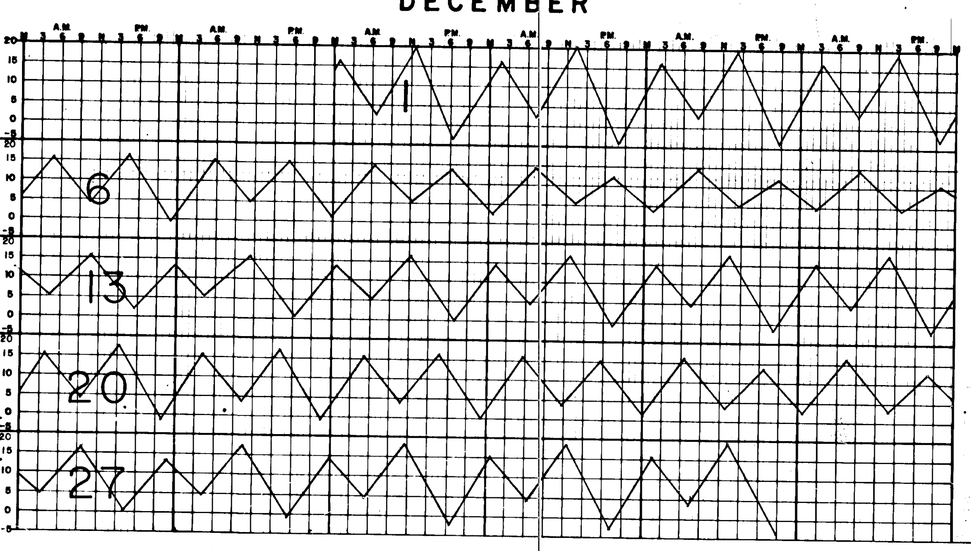












STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	F-093-1(3)	1971	S-15	97

NOTES

1. THESE TIDE CHARTS FOR THE INDICATED MONTHS OF 1971 ARE PROVIDED FOR THE INFORMATION OF THE CONTRACTOR, AND THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR CORRECTNESS.
2. THE INFORMATION CONTAINED IN THESE CHARTS IS BASED ON THE 1971 CHEVRON TIDE TABLES, PUBLISHED BY STANDARD OIL COMPANY OF CALIF. THE HIGH AND LOW WATER SURFACE ELEVATIONS FOR EACH TIDE CYCLE ARE AS SHOWN. THESE HIGH AND LOW WATER SURFACE ELEVATIONS ARE CONNECTED BY A STRAIGHT LINE WHICH DOES NOT TRULY REPRESENT THE ACTUAL WATER SURFACE BETWEEN THESE POINTS.
3. TIDE CHARTS FOR SUNDAYS ARE NOT INCLUDED.
4. TIMES ARE DAYLIGHT SAVINGS TIME UNTIL 2:00 A.M., OCTOBER 31, 1971, AND ARE PACIFIC STANDARD TIME THEREAFTER.

CITY AND BOROUGH OF JUNEAU
JUNEAU-DOUGLAS SEWERAGE PROJECT

SCHEDULE I OUTER DRIVE FACILITIES

TIDE CHARTS

DES.	DWN.	CHK.	DATE
—	Van Kirk	GWD	4-16-71

CLAIR A. HILL & ASSOCIATES
CONSULTING ENGINEERS