

# State of Alaska

Department of Transportation  
and Public Facilities  
Southeast Region

## WRANGELL, ALASKA

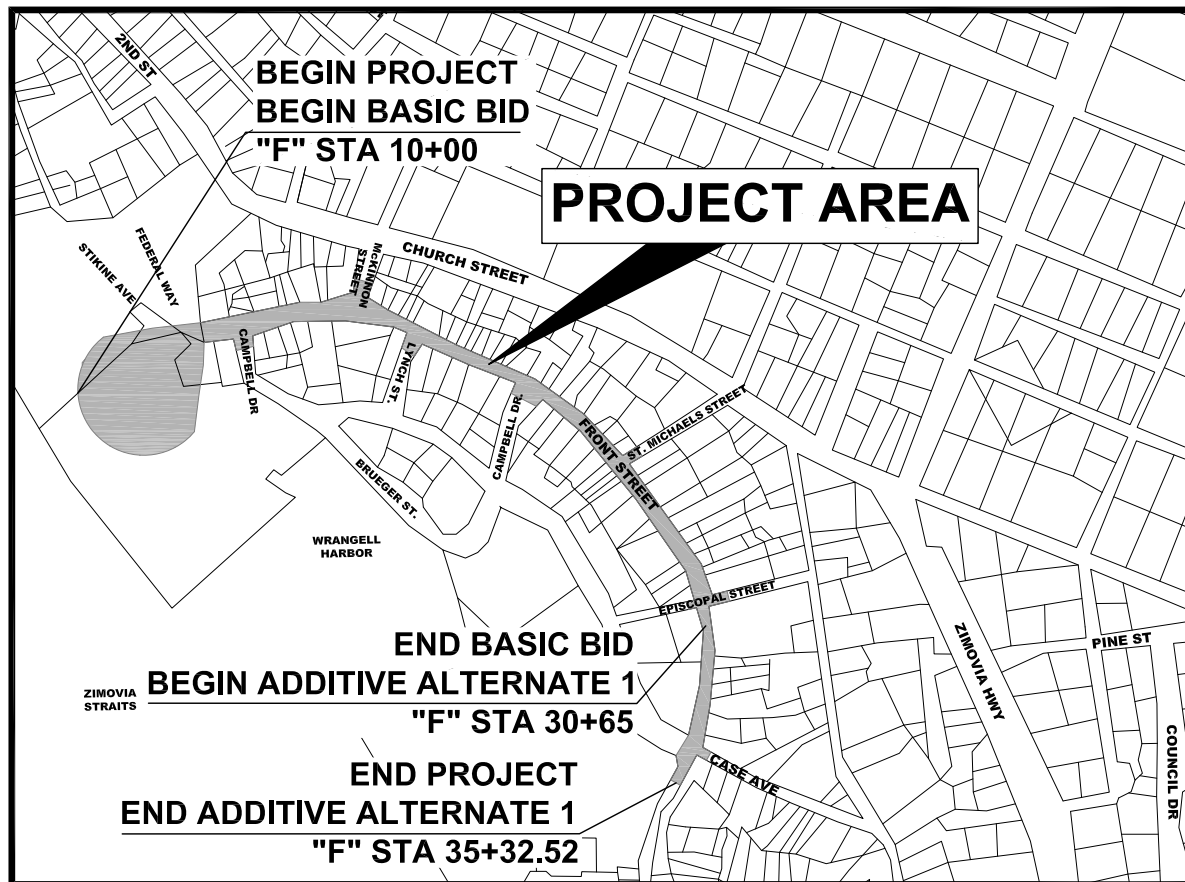
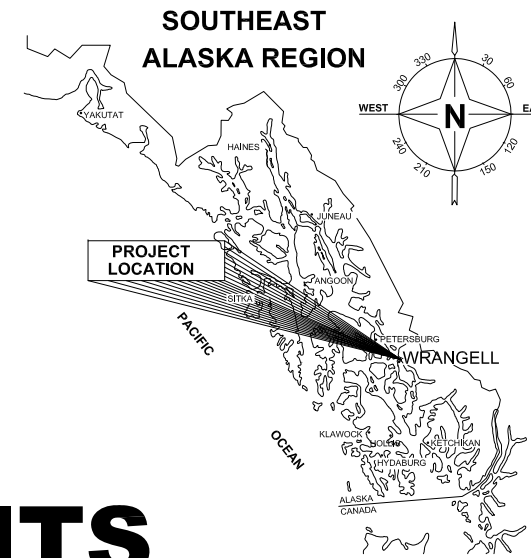
# WRANGELL ROAD IMPROVEMENTS

PROJECT No. 68828 HPRM-003(135)

&

# WRANGELL UTILITY IMPROVEMENTS

PROJECT No. 67789



VICINITY MAP

### DESIGN DESIGNATION

ADT 2010 = 400 < ADT < 2000  
V<sub>0</sub> = 25 MPH

### PROJECT SUMMARY

LENGTH OF BASE BID MAINLINE PAVING = 2,025 FT  
LENGTH OF ADD. ALT. 1 MAINLINE PAVING = 410 FT  
WIDTH OF BASE BID MAINLINE PAVING = 26 FT  
WIDTH OF ADD. ALT. 1 MAINLINE PAVING = 26 FT  
LENGTH OF PROJECT = 2,435 FT

### THE FOLLOWING STANDARD DRAWINGS APPLY TO THIS PROJECT:

C-03.10, D-01.02, D-20.03, D-22.01, D-23.01, D-24.00, D-26.02, D-35.00,  
D-36.00, E-13.00, I-20.13, I-21.01, I-22.01, I-30.10, L-03.10, L-23.01,  
L-25.00, S-05.01, S-30.03, T-20.02, T-21.02, U-03.00

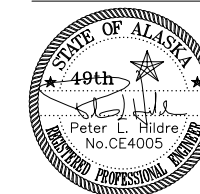
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A2	PROJECT LAYOUT PLAN, LEGEND & ABBREVIATIONS
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U7-U11	UTILITY DETAILS

PATH: S:\LIB\70112\DESIGN\SHEETS A-CU70112-A1.DWG TAB:A1

Tuesday, January 26, 2010 12:35:18 PM  
PLOT: PSPACE OR MSPACE: 1=1(F)

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
SOUTHEAST REGION



PLANS DEVELOPED BY: DOWL HKM  
RECOMMENDED FOR APPROVAL:

REGIONAL PRE-CONSTRUCTION ENGINEER DATE  
CHUCK CORREA, P.E.

APPROVED:  
DIRECTOR, SOUTHEAST REGION DATE  
GARY L. DAVIS

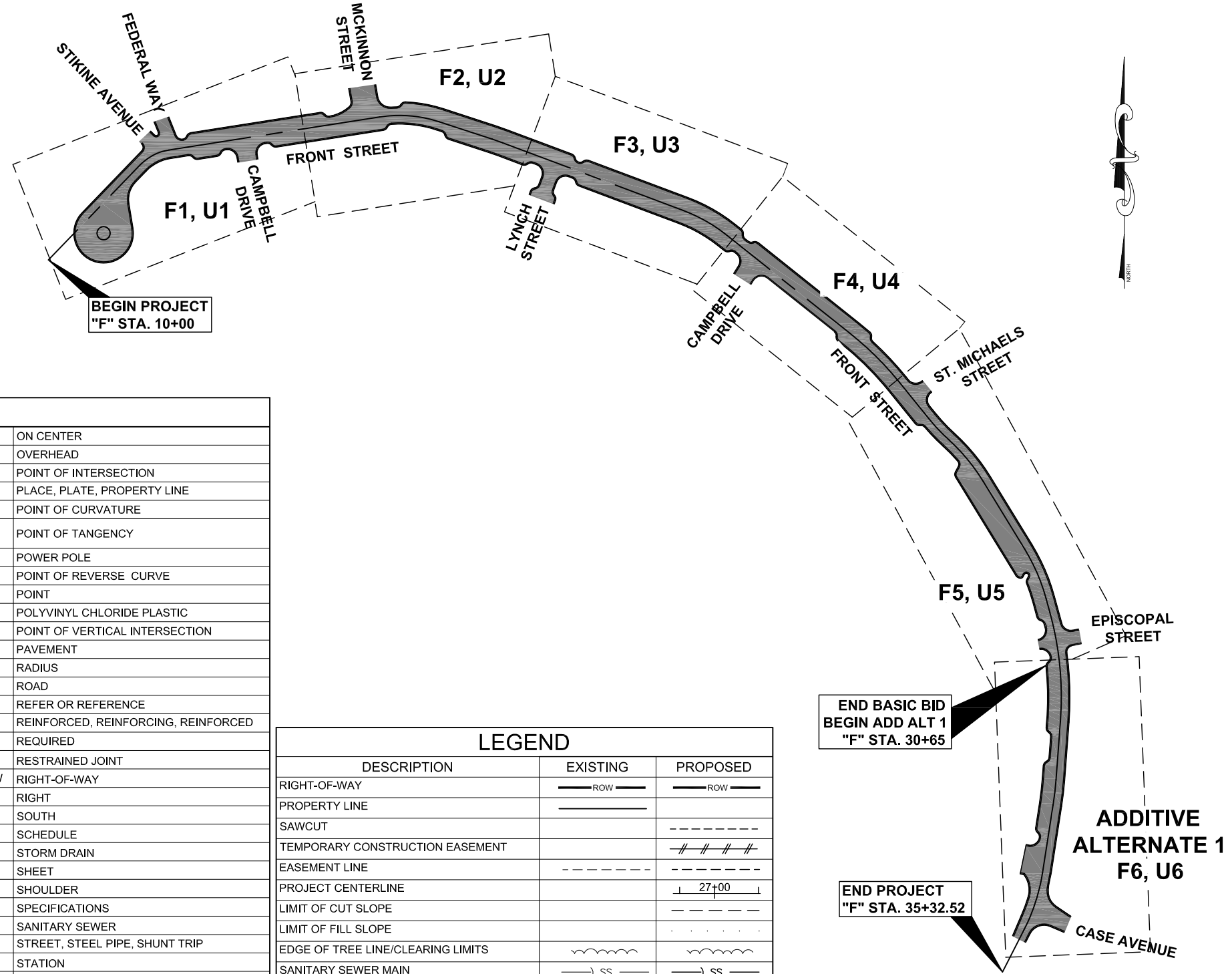
CERTIFIED TRUE & CORRECT AS-BUILT OF ACTUAL FIELD CONDITION:

CONSTRUCTION PROJECT MANAGER DATE

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	68828 HPRM-003(135) & 67789	2011	A1	117

### UTILITY LOCATES

ENTITY	CONTACT	PHONE
WRANGELL PUBLIC WORKS DEPARTMENT	CARL JOHNSON	874-3904
GCI	DON McCONACHIE	874-2392
ALASKA POWER & TELEPHONE	DOUG McMURREN	874-3000



### ABBREVIATIONS

@	AT	ENGR	ENGINEER	OC	ON CENTER
&	AND	EOP	EDGE OF PAVEMENT	OH	OVERHEAD
AC	ASPHALT CONCRETE, ASBESTOS CEMENT	EPP	EDGE OF PAVED PATHWAY	PI	POINT OF INTERSECTION
ACI	AMERICAN CONCRETE INSTITUTE	EXP	EXPOSED, EXPANSION	PL	PLACE, PLATE, PROPERTY LINE
ADOT	ALASKA DEPARTMENT OF TRANSPORTATION	EXST, EX	EXISTING	PC, POC	POINT OF CURVATURE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	FDN	FOUNDATION	POT, PT	POINT OF TANGENCY
APPROX	APPROXIMATE	FG	FINISH GRADE	PP	POWER POLE
BF	BOTTOM FLARE	FH	FIRE HYDRANT	PRC	POINT OF REVERSE CURVE
BM	BENCH MARK	FL	FLOW LINE (ELEV)	PT	POINT
BOP	BOTTOM OF PIPE	FT	FOOT OR FEET	PVC	POLYVINYL CHLORIDE PLASTIC
BOT	BOTTOM	FTG	FOOTING	PVI	POINT OF VERTICAL INTERSECTION
BRG	BEARING	F	DEGREE FAHRENHEIT	PVMT	PAVEMENT
BRR	BOTTOM RAMP RUN	GB	GRADE BREAK	R, RAD	RADIUS
C	HAZEN WILLIAMS FRICTION COEFFICIENT, CHANNEL (BEAM)	GV	GATE VALVE	RD	ROAD
CC	CURB CUT	HDPE	HIGH DENSITY POLYETHYLENE	REF	REFER OR REFERENCE
C&G	CURB AND GUTTER	HORIZ	HORIZONTAL	REINF	REINFORCED, REINFORCING, REINFORCED
CB	CATCH BASIN	HP CPP	HIGH PERFORMANCE CORRUGATED POLYPROPYLENE PIPE	REQD	REQUIRED
CBMH	CATCH BASIN MANHOLE	ID	INSIDE DIAMETER	RJ	RESTRAINED JOINT
CJ	CONSTRUCTION JOINT	IV	INVERT ELEVATION	ROW, R/W	RIGHT-OF-WAY
CL	CENTER LINE	IF	INSIDE FACE	RT	RIGHT
CLR	CLEAR	IN	INCH	S	SOUTH
CMP	CORRUGATED METAL PIPE	INVT, INV	INVERT	SCH	SCHEDULE
COL	COLUMN	J, JB	JUNCTION BOX	SD	STORM DRAIN
CONC	CONCRETE	JT	JOINT	SH, SHT	SHEET
CONN	CONNECTION	L	LEFT, LENGTH	SHLD	SHOULDER
CONT	CONTINUOUS, CONTINUATION	LB	POUNDS	SPECS	SPECIFICATIONS
CPP	CORRUGATED POLYETHYLENE PIPE, TYPE S	LB/CU FT	POUNDS PER CUBIC FOOT	SS	SANITARY SEWER
CPLG	COUPLING	LF	LINEAR FEET	ST	STREET, STEEL PIPE, SHUNT TRIP
CSP	CORRUGATED STEEL PIPE	LG	LONG	STA	STATION
CTE	CONNECT TO EXISTING	LT	LEFT	STD	STANDARD
CTRD	CENTERED	MAX	MAXIMUM	TBC	TOP BACK OF CURB
CTR	CENTER	ME	MATCH EXISTING	TBG	TOP BACK OF GUTTER
CU	CUBIC, COPPER	MISC	MISCELLANEOUS	TSW	TOP OF SIDEWALK
CY	CUBIC YARD	MJ	MECHANICAL JOINT	TCE	TEMPORARY CONSTRUCTION EASEMENT
DET	DETAIL	MTE	MATCH TO EXISTING	T	TELEPHONE
DI	DROP INLET, DUCTILE IRON	MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES	TW	TOP OF WALL
DIA	DIAMETER	MDC	DEPRESSED CURB	TYP	TYPICAL
DIAG	DIAGONAL	N	NORTH	V	VENT, VOLT, VALVE, VACUUM
DIP	DUCTILE IRON PIPE	NC, NIC	NOT IN CONTRACT	VB	VALVE BOX
DOT&PF	DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES	NO	NUMBER, NUMBERING	VC	VERTICAL CURVE
DWG	DRAWING	NTS	NOT TO SCALE	VERT, VT	VERTICAL
E	EAST			VPI	VERTICAL POINT OF INTERSECTION
EA	EACH			W	WEST, WATER
ECS	EDGE OF CONCRETE SIDEWALK			WL	WATER LINE
EL	ELEVATION				

### LEGEND

DESCRIPTION	EXISTING	PROPOSED
RIGHT-OF-WAY	— ROW —	— ROW —
PROPERTY LINE	—	—
SAWCUT		----
TEMPORARY CONSTRUCTION EASEMENT		#####
EASEMENT LINE		----
PROJECT CENTERLINE		— 27+00 —
LIMIT OF CUT SLOPE		----
LIMIT OF FILL SLOPE		----
EDGE OF TREE LINE/CLEARING LIMITS	~~~~~	~~~~~
SANITARY SEWER MAIN	— SS —	— SS —
WATER MAIN	— W —	— W —
WATER SERVICE	— WS —	— WS —
STORM DRAIN	— SD —	— SD —
RIPRAP	▨▨▨▨	▨▨▨▨
OVERHEAD ELECTRIC	— OE —	
UNDERGROUND ELECTRIC	— UE —	
STORM DRAIN CATCH BASIN	▨▨▨▨	▨▨▨▨
STORM DRAIN MANHOLE	⊙	⊙
SANITARY SEWER MANHOLE	⊙	⊙
WATER VALVE	⊙	⊙
DOOR	⊙	⊙
PRIVATE SIGN	▨▨▨▨	
LANDSCAPE AREA		▨▨▨▨

END BASIC BID  
BEGIN ADD ALT 1  
"F" STA. 30+65




END PROJECT  
"F" STA. 35+32.52

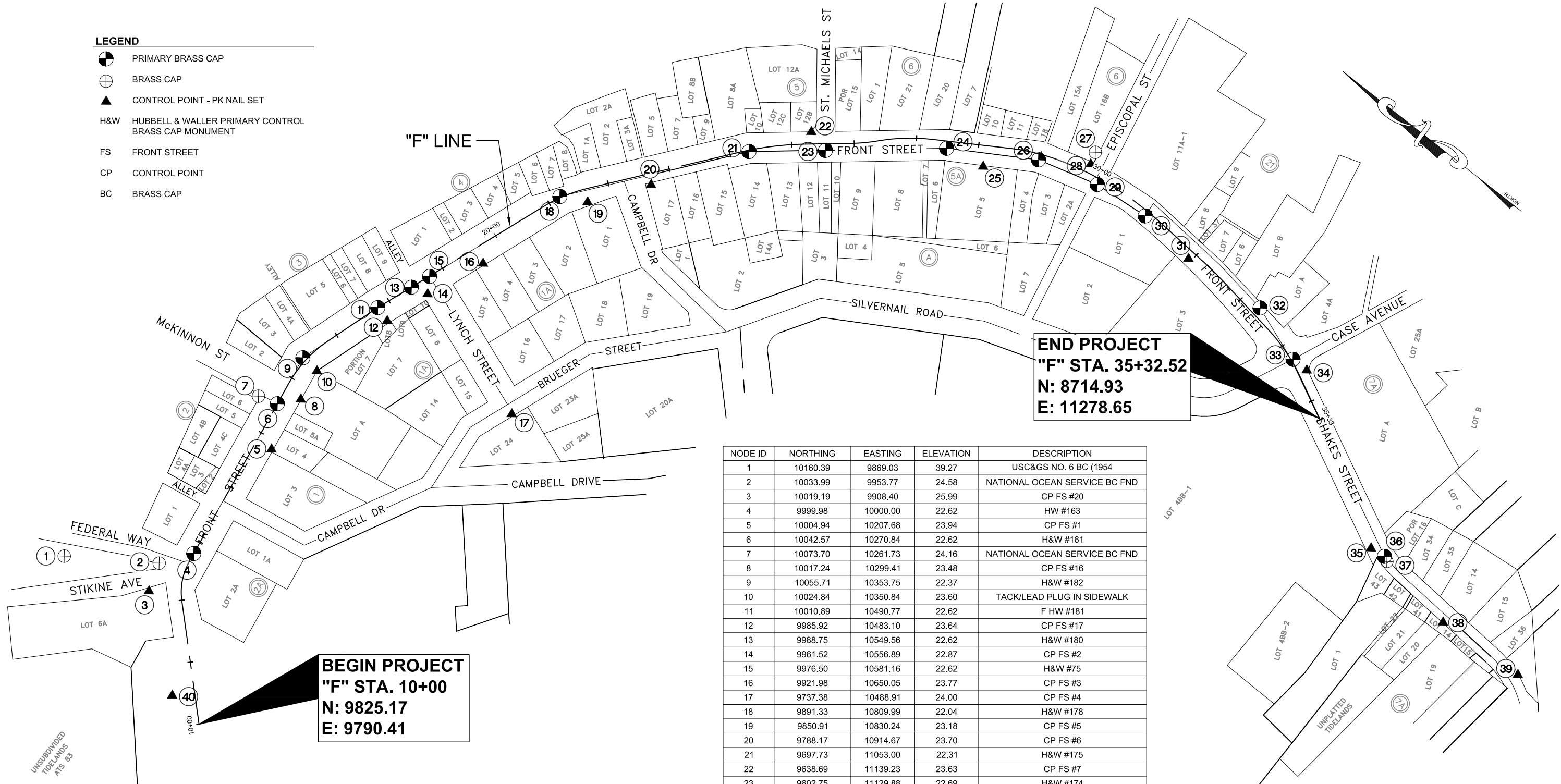
ADDITIVE  
ALTERNATE 1  
F6, U6

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789	
<h3>PROJECT LAYOUT PLAN, LEGEND &amp; ABBREVIATIONS</h3>	
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>
PATH: S:\LIB\70112\DESIGN\SHEETS A-CU\70112-A2.DWG TAB: A2 Thursday, March 24, 2011 5:20:48 PM	YEAR: 2011 SHEET NO.: <b>A2</b> TOTAL SHEETS: 117

**LEGEND**

-  PRIMARY BRASS CAP
-  BRASS CAP
-  CONTROL POINT - PK NAIL SET
- H&W HUBBELL & WALLER PRIMARY CONTROL BRASS CAP MONUMENT
- FS FRONT STREET
- CP CONTROL POINT
- BC BRASS CAP



**BEGIN PROJECT**  
**"F" STA. 10+00**  
**N: 9825.17**  
**E: 9790.41**

**END PROJECT**  
**"F" STA. 35+32.52**  
**N: 8714.93**  
**E: 11278.65**

NODE ID	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	10160.39	9869.03	39.27	USC&GS NO. 6 BC (1954)
2	10033.99	9953.77	24.58	NATIONAL OCEAN SERVICE BC FND
3	10019.19	9908.40	25.99	CP FS #20
4	9999.98	10000.00	22.62	HW #163
5	10004.94	10207.68	23.94	CP FS #1
6	10042.57	10270.84	22.62	H&W #161
7	10073.70	10261.73	24.16	NATIONAL OCEAN SERVICE BC FND
8	10017.24	10299.41	23.48	CP FS #16
9	10055.71	10353.75	22.37	H&W #182
10	10024.84	10350.84	23.60	TACK/LEAD PLUG IN SIDEWALK
11	10010.89	10490.77	22.62	F HW #181
12	9985.92	10483.10	23.64	CP FS #17
13	9988.75	10549.56	22.62	H&W #180
14	9961.52	10556.89	22.87	CP FS #2
15	9976.50	10581.16	22.62	H&W #75
16	9921.98	10650.05	23.77	CP FS #3
17	9737.38	10488.91	24.00	CP FS #4
18	9891.33	10809.99	22.04	H&W #178
19	9850.91	10830.24	23.18	CP FS #5
20	9788.17	10914.67	23.70	CP FS #6
21	9697.73	11053.00	22.31	H&W #175
22	9638.69	11139.23	23.63	CP FS #7
23	9602.75	11129.88	22.69	H&W #174
24	9452.36	11252.03	21.99	H&W #396
25	9388.36	11264.95	23.04	CP FS #8
26	9325.33	11328.00	0.00	C HW 397
27	9261.33	11393.54	25.40	BC MON - TOTEM PARK
28	9255.44	11373.89	23.94	CP FS #9
29	9227.08	11354.88	22.81	H&W #399
30	9135.89	11362.62	20.65	H&W #400
31	9039.13	11351.29	22.39	CP FS #10
32	8900.64	11360.01	21.80	H&W #296
33	8808.60	11327.97	22.10	H&W #295
34	8780.45	11327.53	22.93	CP FS #11
35	8524.11	11166.99	22.88	CP FS #12
36	8499.40	11170.14	21.93	H&W # (NUMBER UNKNOWN)
37	8491.24	11166.01	22.18	P1 BC MON
38	8360.42	11144.72	23.47	CP FS #13
39	8214.61	11152.48	24.49	CP FS #14
40	9887.00	9800.02	23.22	CP FS #15


**VERTICAL CONTROL**

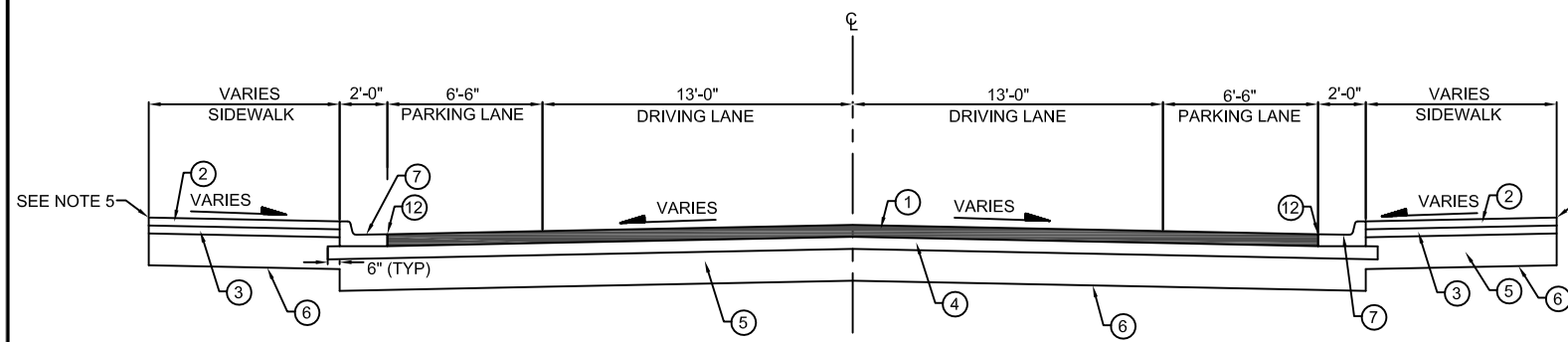
THE BASIS OF VERTICAL DATUM UTILIZED FOR THIS PLAN WAS BENCH MARK No. 6 (1954) AS REPORTED BY THE U.S.C.&G.S. S.E. ALASKA HAVING AN ACCEPTED ELEVATION OF 39.27 M.L.L.W., POINT No. 1 ON THE PLAN. THIS IS LOCATED IN THE POST OFFICE LAWN ON BEDROCK.

**HORIZONTAL CONTROL**

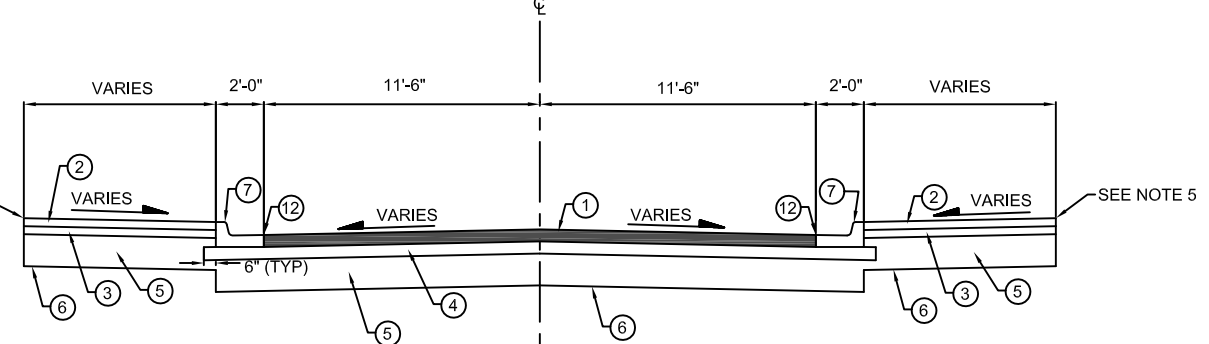
THE BASIS OF BEARING (HORZ. CONTROL) FOR THIS PLAN IS A LINE OF SIGHT BETWEEN HUBBELL & WALLER (H&W) BRASS CAP #163 AND #182 (POINTS No. 4 & 9 ON THIS PLAN), WITH AN ACCEPTED BEARING AND MEASURED DISTANCE OF N 81°03'00" E AND 358.11 FT. REFERENCE HUBBELL & WALLER BRASS CAP DATA FROM A.T.S. #83, WRANGELL TIDELANDS ADDITION, RECORDED AS PLAT No. 65-87, WRANGELL RECORDING DISTRICT.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

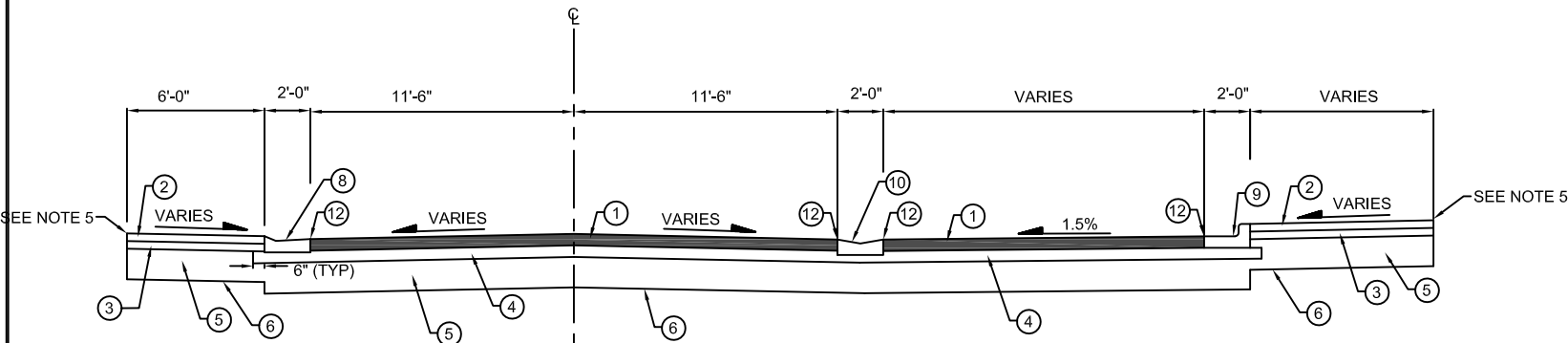
CHECKED BY: G. SCHEFF  PLANS DEVELOPED BY: R&M ENGINEERING, INC. DESIGNED BY: G. SCHEFF DRAWN BY: T. SIEKAWITZ		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  <b>WRANGELL ROAD AND UTILITY                  IMPROVEMENTS                  PROJECT # 68828 &amp; 67789</b>  <b>SURVEY                  CONTROL PLAN</b>												
PATH: S:\LIB\70112\DESIGN\SHEETS A-CU70112-A3.DWG TAB: A3 Thursday, March 24, 2011 5:31:52 PM		PROJECT DESIGNATION <b>68828 HPRM-003(135)                  &amp; 67789</b>	YEAR 2011	SHEET NO. <b>A3</b>	TOTAL SHEETS 117									
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION							
REVISIONS														
NO.	DATE	DESCRIPTION												



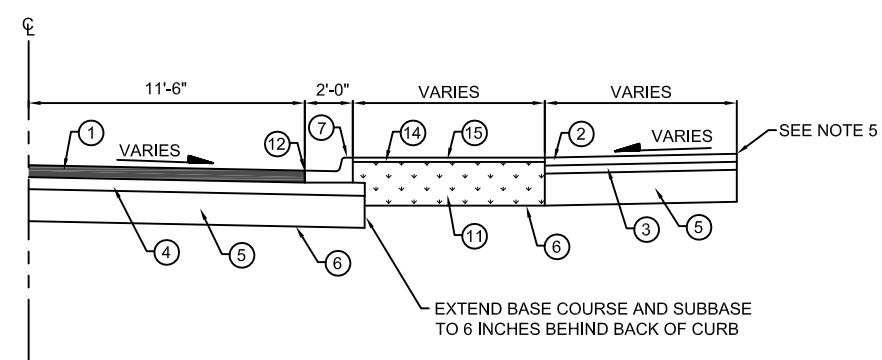
**TYPICAL SECTION WITH PARKING LANES**  
 "F" LINE STA 11+82 TO 26+75  
 "F" LINE STA 29+85 TO EOP



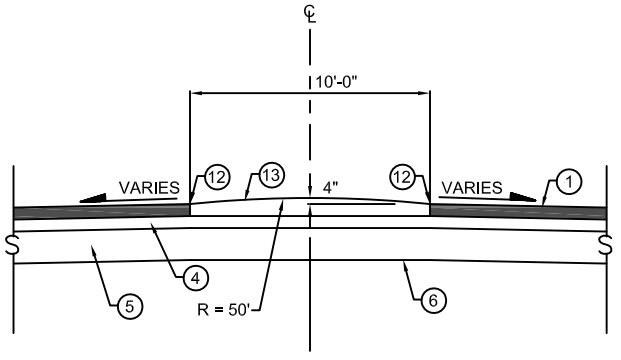
**TYPICAL SECTION WITHOUT PARKING LANES**  
 "F" LINE STA 11+82 TO 26+75  
 "F" LINE STA 29+85 TO EOP



**TYPICAL SECTION ON-STREET ANGLED PARKING**  
 "F" LINE STA 26+75 TO 29+85



**TYPICAL SECTION BULB-OUT W/ LANDSCAPE AREA**



**TYPICAL SECTION TURN-AROUND CENTER ISLAND**

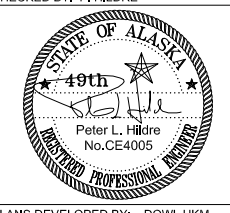
**LEGEND**

- ① 6" CLASS A-A CONCRETE PAVEMENT
- ② 4" CONCRETE SIDEWALK - SEE NOTE 1
- ③ 4" OF 2" MINUS/D-1 BASE COURSE - SEE NOTE 2
- ④ 6" OF 2" MINUS/D-1 BASE COURSE - SEE NOTE 3
- ⑤ 16" OF 10" MINUS SHOT ROCK BORROW
- ⑥ SUBCUT LIMITS AND GEOTEXTILE SEPARATION FABRIC
- ⑦ STANDARD CURB AND GUTTER - SEE NOTE 4
- ⑧ MODIFIED DEPRESSED CURB AND GUTTER
- ⑨ SPILL CURB AND GUTTER
- ⑩ GUTTER
- ⑪ 22" PLANTING SOIL
- ⑫ CURB AND GUTTER JOINT
- ⑬ CLASS A-A CONCRETE
- ⑭ GEOTEXTILE SEPARATION FABRIC
- ⑮ 2" OF AGGREGATE BASE COURSE, GRADING D-1

- NOTES**
1. 6" CONCRETE SIDEWALK SHALL BE USED AS SHOWN ON THE "G" SHEETS.
  2. THIS LAYER SHALL BE 2" TO 3" OF 2-INCH MINUS SHOT ROCK WITH 1" TO 2" TOP LAYER OF BASE COURSE, GRADING D-1 FOR A TOTAL THICKNESS OF 4". ALTERNATIVELY, THE 2-INCH SHOT ROCK MAY BE EXCLUDED, AND BASE COURSE, GRADING D-1 MAY BE USED FOR THE FULL 4" DEPTH UNDER SIDEWALKS.
  3. THIS LAYER SHALL BE 4" TO 5" OF 2-INCH MINUS SHOT ROCK WITH 1" TO 2" TOP LAYER OF BASE COURSE, GRADING D-1 FOR A TOTAL THICKNESS OF 6".
  4. STANDARD CURB AND GUTTER SHALL BE REPLACED WITH MODIFIED DEPRESSED CURB AND GUTTER AND MOUNTABLE CURB AND GUTTER AS NOTED ON THE "G" SHEETS.
  5. IN NEARLY ALL CASES THE BACK OF SIDEWALK IS EITHER AGAINST AN EXISTING BUILDING, OR WITHIN 6-INCHES OR LESS OF EXISTING GROUND. CUT AND FILL SLOPES BEHIND THE BACK OF SIDEWALK WILL NOT BE REQUIRED UNLESS SPECIFICALLY NOTED ON THE "G" SHEETS.

- TESTING AND ACCEPTANCE NOTES**
- WHEN WAQTC FOP FOR AASHTO T180 IS SPECIFIED, METHOD D WILL BE PERFORMED UNLESS OTHERWISE STATED.
  - WHEN WAQTC FOP FOR AASHTO T27/T 11 IS SPECIFIED, METHOD A OR B WILL BE PERFORMED ON ALL CRUSHED AGGREGATE AND ON MATERIAL CONTAINING 3/4-INCH NOMINAL MAXIMUM SIZE AGGREGATE OR LESS.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>	
PLANS DEVELOPED BY: DOWL HKM	DESIGNED BY: T. LOCKHART	YEAR: 2011	
DRAWN BY: J. KEMP		SHEET NO. <b>B1</b>	
PATH: S:\LIB\70112\DESIGN\SHEETS A-CU70112-B.DWG		TOTAL SHEETS: 117	
TAB: B1 Thursday, March 24, 2011 5:19:06 PM		PROJECT DESIGNATION: <b>68828 HPRM-003(135) &amp; 67789</b>	
REVISIONS		YEAR: 2011	
NO.	DATE	DESCRIPTION	

**ESTIMATE OF QUANTITIES - BASIC BID**

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
202(2)	REMOVAL OF PAVEMENT	SQUARE YARD	102
202(2A)	REMOVAL OF CONCRETE PAVEMENT	SQUARE YARD	8,477
202(3)	REMOVAL OF SIDEWALK	SQUARE YARD	2,912
202(4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	2,693
202(6)	REMOVAL OF MANHOLE	EACH	16
202(8)	REMOVAL OF INLET	EACH	38
203(1)	COMMON EXCAVATION	CUBIC YARD	8,119
203(2A)	ROCK EXCAVATION	LINEAR FOOT	400
203(19)	BORROW, 10-INCH MINUS SHOT ROCK	LUMP SUM	ALL REQUIRED
203(28)	CONTAMINATED SOIL SPECIAL HANDLING	CONTINGENT SUM	ALL REQUIRED
301(2A)	2-INCH MINUS/D-1 BASE COURSE	LUMP SUM	ALL REQUIRED
501(12)	CLASS A-A CONCRETE PAVEMENT, 6-INCHES THICK	SQUARE YARD	8,554
603(21-12)	12-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	1,357
603(21-18)	18-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	635
603(21-24)	24-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	29
603(21-36)	36-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	1,036
603(22)	CPP SADDLE TEE	EACH	10
603(23-12)	12-INCH HP CORRUGATED POLYPROPYLENE PIPE	LINEAR FOOT	105
603(23-18)	18-INCH HP CORRUGATED POLYPROPYLENE PIPE	LINEAR FOOT	351
603(23-24)	24-INCH HP CORRUGATED POLYPROPYLENE PIPE	LINEAR FOOT	140
603(25-6)	6-INCH POLYVINYL CHLORIDE PIPE	LINEAR FOOT	669
603(25-8)	8-INCH POLYVINYL CHLORIDE PIPE	LINEAR FOOT	137
604(1A)	STORM SEWER MANHOLE, TYPE I	EACH	11
604(1B)	STORM SEWER MANHOLE, TYPE II	EACH	4
604(1C)	STORM SEWER MANHOLE, TYPE V	EACH	8
604(2A)	SANITARY SEWER MANHOLE, TYPE I	EACH	2
604(3A)	RECONSTRUCT EXISTING TYPE I SANITARY SEWER MANHOLE	EACH	3
604(3B)	RECONSTRUCT EXISTING TYPE II SANITARY SEWER MANHOLE	EACH	1
604(4)	ADJUST EXISTING MANHOLE	EACH	6
604(5A)	INLET, TYPE A	EACH	36
604(8A)	MANHOLE, OIL SEPARATOR AT CITY PIER	LUMP SUM	ALL REQUIRED
604(8B)	MANHOLE, OIL SEPARATOR AT CITY MARKET	LUMP SUM	ALL REQUIRED
608(1a)	CONCRETE SIDEWALK, 4 INCHES THICK	SQUARE YARD	2,528
608(1b)	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	1,335
608(1C)	STEEL REINFORCED CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	175
608(1D)	CURVILINEAR GLASS-SEEDED FINISH	SQUARE YARD	976
608(1E)	BORDER STRIP GLASS-SEEDED FINISH	SQUARE YARD	184
608(9)	DETECTABLE WARNING TILE	SQUARE FOOT	268
609(2)	CURB AND GUTTER, TYPE I	LINEAR FOOT	4,712
615(1)	STANDARD SIGN	SQUARE FOOT	172
620(5)	PLANTING SOIL, 24-INCH DEPTH	SQUARE YARD	324
626(1A)	SANITARY SEWER CONDUIT, 8-INCH PVC	LINEAR FOOT	110
626(1B)	SANITARY SEWER CONDUIT, 8-INCH HP PVC	LINEAR FOOT	67
626(2A)	REPLACE/REGRADE SANITARY SEWER SERVICE LATERAL	EACH	41
626(3)	SANITARY SEWER SERVICE CLEANOUT	EACH	25
626(4)	RELOCATE SANITARY SEWER SERVICE LATERAL WITH SADDLE	EACH	9
627(1A)	8-INCH HDPE WATER CONDUIT	LINEAR FOOT	559
627(1B)	10-INCH HDPE WATER CONDUIT	LINEAR FOOT	1,795
627(3)	INSTALL VALVE BOX	EACH	31
627(5)	FIRE HYDRANT INSTALLATION	EACH	7
627(7)	FIRE HYDRANT REMOVAL	EACH	7
627(8A)	1-INCH WATER SERVICE CONNECTION	EACH	54
627(8B)	6-INCH WATER SERVICE CONNECTION	EACH	17
627(9A)	INSTALL 8-INCH GATE VALVE	EACH	10
627(9B)	INSTALL 10-INCH GATE VALVE	EACH	13
630(1)	GEOTEXTILE, SEPARATION	SQUARE YARD	12,420
635(2)	INSULATION BOARD	BOARD	17
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640(4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641(1)	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED
641(3)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641(5)	EROSION, SEDIMENT, AND POLLUTION CONTROL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
641(9)	SEDIMENT CAPTURE DEVICE	LUMP SUM	ALL REQUIRED
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642(3)	THREE PERSON SURVEY PARTY	hour	50
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
643(29)	TEMPORARY PEDESTRIAN WALKWAY	LUMP SUM	ALL REQUIRED
644(1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644(2)	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
644(6)	VEHICLES	LUMP SUM	ALL REQUIRED

**ESTIMATE OF QUANTITIES - BASIC BID CONT'D**

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
644(15)	NUCLEAR TESTING EQUIPMENT STORAGE SHED	EACH	1
644(16)	STORAGE CONTAINER	EACH	1
645(1)	TRAINING PROGRAM, 2 TRAINEES/APPRENTICES	LABOR HOUR	400
646(1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
648(1)	ARCHEOLOGICAL MONITOR	hour	160
660(8)	TEMPORARY ILLUMINATION SYSTEM COMPLETE	LUMP SUM	ALL REQUIRED
660(14)	HIGHWAY ILLUMINATION SYSTEM DEMOLITION COMPLETE	LUMP SUM	ALL REQUIRED
660(15)	4-INCH PVC SCHEDULE 80 CONDUIT	LINEAR FOOT	1,850
660(16)	2-INCH PVC SCHEDULE 80 CONDUIT	LINEAR FOOT	200
660(17)	POWER AND TELEPHONE UTILITY FACILITIES DEMOLITION COMPLETE	LUMP SUM	ALL REQUIRED
660(18)	POWER AND TELEPHONE UTILITY FACILITIES IMPROVEMENTS COMPLETE	LUMP SUM	ALL REQUIRED
661(2)	LOAD CENTER, TYPE 1A	EACH	3
670(1)	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED
675(1)	MSE GEOTEXTILE RETAINING WALL	SQUARE FOOT	1,448

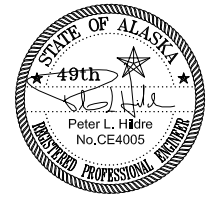
**ESTIMATE OF QUANTITIES - ADDITIVE ALTERNATE 1**

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
202(2A)	REMOVAL OF CONCRETE PAVEMENT	SQUARE YARD	1,592
202(3)	REMOVAL OF SIDEWALK	SQUARE YARD	311
202(4)	REMOVAL OF CULVERT PIPE	LINEAR FOOT	507
202(8)	REMOVAL OF INLET	EACH	13
203(1)	COMMON EXCAVATION	CUBIC YARD	1,419
203(2A)	ROCK EXCAVATION	LINEAR FOOT	100
203(19)	BORROW, 10-INCH MINUS SHOT ROCK	LUMP SUM	ALL REQUIRED
203(28)	CONTAMINATED SOIL SPECIAL HANDLING	CONTINGENT SUM	ALL REQUIRED
301(2A)	2-INCH MINUS/D-1 BASE COURSE	LUMP SUM	ALL REQUIRED
501(12)	CLASS A-A CONCRETE PAVEMENT, 6-INCHES THICK	SQUARE YARD	1,577
603(21-12)	12-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	243
603(21-18)	18-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	38
603(21-24)	24-INCH CORRUGATED POLYETHYLENE PIPE	LINEAR FOOT	270
603(23-18)	18-INCH HP CORRUGATED POLYPROPYLENE PIPE	LINEAR FOOT	81
603(23-24)	24-INCH HP CORRUGATED POLYPROPYLENE PIPE	LINEAR FOOT	34
603(25-6)	6-INCH POLYVINYL CHLORIDE PIPE	LINEAR FOOT	94
604(1A)	STORM SEWER MANHOLE, TYPE I	EACH	7
604(3A)	RECONSTRUCT EXISTING TYPE I SANITARY SEWER MANHOLE	EACH	1
604(4)	ADJUST EXISTING MANHOLE	EACH	3
604(5A)	INLET, TYPE A	EACH	5
608(1a)	CONCRETE SIDEWALK, 4 INCHES THICK	SQUARE YARD	470
608(1b)	CONCRETE SIDEWALK, 6 INCHES THICK	SQUARE YARD	63
608(1E)	BORDER STRIP GLASS-SEEDED FINISH	SQUARE YARD	89
608(9)	DETECTABLE WARNING TILE	SQUARE FOOT	32
609(2)	CURB AND GUTTER, TYPE 1	LINEAR FOOT	840
615(1)	STANDARD SIGN	SQUARE FOOT	47
620(5)	PLANTING SOIL, 24-INCH DEPTH	SQUARE YARD	30
626(1A)	SANITARY SEWER CONDUIT, 8-INCH PVC	LINEAR FOOT	50
626(1C)	SANITARY SEWER CONDUIT, 12-INCH HP PVC	LINEAR FOOT	56
626(2A)	REPLACE/REGRADE SANITARY SEWER SERVICE LATERAL	EACH	10
626(3)	SANITARY SEWER SERVICE CLEANOUT	EACH	2
627(1B)	10-INCH HDPE WATER CONDUIT	LINEAR FOOT	444
627(3)	INSTALL VALVE BOX	EACH	4
627(5)	FIRE HYDRANT INSTALLATION	EACH	1
627(7)	FIRE HYDRANT REMOVAL	EACH	1
627(8A)	1-INCH WATER SERVICE CONNECTION	EACH	10
627(8B)	6-INCH WATER SERVICE CONNECTION	EACH	2
627(9B)	INSTALL 10-INCH GATE VALVE	EACH	3
630(1)	GEOTEXTILE, SEPARATION	SQUARE YARD	1,796
635(2)	INSULATION BOARD	BOARD	6
640(1)	MOBILIZATION AND DEMOBILIZATION	LUMP SUM	ALL REQUIRED
640(4)	WORKER MEALS AND LODGING, OR PER DIEM	LUMP SUM	ALL REQUIRED
641(1)	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LUMP SUM	ALL REQUIRED

**ESTIMATE OF QUANTITIES - ADDITIVE ALTERNATE 1 CONT'D**

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	QUANTITY
641(3)	TEMPORARY EROSION, SEDIMENT, AND POLLUTION CONTROL	LUMP SUM	ALL REQUIRED
641(5)	EROSION, SEDIMENT, AND POLLUTION CONTROL PRICE ADJUSTMENT	CONTINGENT SUM	ALL REQUIRED
642(1)	CONSTRUCTION SURVEYING	LUMP SUM	ALL REQUIRED
642(3)	THREE PERSON SURVEY PARTY	hour	10
643(2)	TRAFFIC MAINTENANCE	LUMP SUM	ALL REQUIRED
643(3)	PERMANENT CONSTRUCTION SIGNS	LUMP SUM	ALL REQUIRED
643(15)	FLAGGING	CONTINGENT SUM	ALL REQUIRED
644(1)	FIELD OFFICE	LUMP SUM	ALL REQUIRED
644(2)	FIELD LABORATORY	LUMP SUM	ALL REQUIRED
644(6)	VEHICLES	LUMP SUM	ALL REQUIRED
646(1)	CPM SCHEDULING	LUMP SUM	ALL REQUIRED
648(1)	ARCHEOLOGICAL MONITOR	hour	40
660(3)	HIGHWAY LIGHTING SYSTEM COMPLETE	LUMP SUM	ALL REQUIRED
660(8)	TEMPORARY ILLUMINATION SYSTEM COMPLETE	LUMP SUM	ALL REQUIRED
660(14)	HIGHWAY ILLUMINATION SYSTEM DEMOLITION COMPLETE	LUMP SUM	ALL REQUIRED
660(15)	4-INCH PVC SCHEDULE 80 CONDUIT	LINEAR FOOT	450
660(16)	2-INCH PVC SCHEDULE 80 CONDUIT	LINEAR FOOT	130
670(1)	PAINTED TRAFFIC MARKINGS	LUMP SUM	ALL REQUIRED

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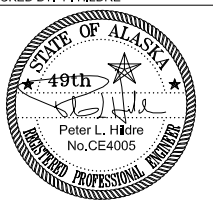
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		<p align="center"><b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b></p>	
PLANS DEVELOPED BY: DOWL HKM		DESIGNED BY: T. LOCKHART	
DRAWN BY: J. KEMP		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	
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TAB: C1 Tuesday, March 29, 2011 3:03:04 PM		2011	<b>C1</b>
REVISIONS		TOTAL SHEETS	117
NO.	DATE	DESCRIPTION	

202(2) REMOVAL OF PAVEMENT - BASIC BID				
SHEET	FROM STATION	TO STATION	AREA (SY)	REMARKS
F1	10+76	12+66	765	LT
F1	12+40	12+68	87	LT AND RT
F3	18+57	18+95	84	RT
F4	22+14	22+42	31	RT
F5	25+89	26+45	102	RT
202(2) REMOVAL OF PAVEMENT - ADDITIVE ALTERNATE 1				
SHEET	FROM STATION	TO STATION	AREA (SY)	REMARKS
F6	31+65	32+88	177	RT

202(2A) REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT - BASIC BID				
SHEET	FROM STATION	TO STATION	AREA (SY)	REMARKS
F1	10+40	14+70	1395.0	
F2	14+70	18+28	1787.8	
F3	18+28	21+78	1676.7	
F4	21+78	25+17	1271.5	
F5	25+17	30+65	2345.1	
202(2A) REMOVAL OF PORTLAND CEMENT CONCRETE PAVEMENT - ADDITIVE ALTERNATE 1				
SHEET	FROM STATION	TO STATION	AREA (SY)	REMARKS
F6	30+65	EOP	1591.6	

202(3) REMOVAL OF SIDEWALK - BASIC BID					
SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
F1	11+80	12+19	RT	26.5	
F1	12+06	12+20	LT	14.5	
F1	12+39	12+49	LT	20.0	
F1	12+42	13+60	RT	119.6	
F1	12+67	14+70	LT	226.3	
F1	13+91	14+70	RT	84.3	
F2	14+70	15+51	LT	100.4	
F2	14+70	18+28	RT	401.8	
F2	15+91	18+28	LT	309.8	
F3	18+28	18+56	RT	60.3	
F3	18+28	21+78	LT	399.8	
F3	18+96	19+03	RT	27.2	
F3	18+96	21+78	RT	288.2	
F4	21+78	22+13	RT	37.5	
F4	21+78	25+17	LT	234.9	
F5	25+17	25+42	LT	16.6	
F5	25+65	29+90	LT	337.7	
F5	26+87	29+08	RT	173.7	
F5	30+11	30+65	LT	32.1	
202(3) REMOVAL OF SIDEWALK - ADDITIVE ALTERNATE 1					
SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
F6	30+65	34+12	LT	198.8	
F6	33+67	34+81	RT	76.1	
F6	34+38	34+75	LT	35.5	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES																		
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		<b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>																		
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REVISIONS																				
NO.	DATE	DESCRIPTION																		
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<b>68828 HPRM-003(135) &amp; 67789</b>	2011	<b>D1</b>	117																	

**202(4) REMOVAL OF CULVERT PIPE - BASIC BID**

SHEET	FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH	MATERIAL	REMARKS
F1	12+49	44' LT	12+63	51' LT	22	12" DI	
F1	12+49	44' LT	12+74	19' LT	39	12"DI	
F1	12+74	19' LT	12+87	18' LT	13	6"PVC	
F1	NOT FOUND*		12+74	19' RT	113	18"CMP	*REMOVE ALL PIPE WITHIN ROAD SUBCUT LIMITS
F1	12+74	19' LT	12+74	19' RT	38	12"CMP	
F1	12+74	19' RT	13+48	19' RT	75	18"CMP	
F1	13+48	19' RT	13+66	19' LT	41	12"CMP	
F1	13+66	19' LT	13+66	30' LT	11	12"CMP	
F1	13+48	19' RT	14+01	19' RT	52	18"CMP	
F1/F2	14+63	19' LT	15+48	22' LT	85	12"CMP	
F2	15+48	22' LT	15+63	26' RT	50	24"CMP	
F2	15+48	22' LT	15+48	54' LT	32	24"CMP	
F2	15+48	22' LT	15+91	22' LT	43	8"CMP	
F2	15+63	26' RT	15+71	18' RT	11	18"CMP	
F2	15+71	18' RT	16+31	14' RT	57	18"CMP	
F2	15+91	22' LT	15+96	30' LT	11	18"CMP	
F2	16+31	14' RT	16+41	23' LT	39	12"CMP	
F2	16+31	14' RT	16+70	19' RT	36	18"CMP	
F2	16+70	19' RT	16+73	19' LT	38	12"CMP	
F2	16+73	19' LT	17+54	19' LT	82	12"CMP	
F2	18+20	23' RT	18+07	30' RT	20	12"CMP	
F3	18+56	32' LT	18+61	18' LT	14	12"CMP	
F3	18+50	19' RT	18+61	18' LT	39	12"CMP	
F3	18+50	19' RT	18+60	18' RT	9	12"CMP	
F3	18+56	61' RT	18+60	18' RT	43	18"CMP	CUT 18"CMP AT 18+56, 61' RT FOR CONNECTION TO S-26.
F3	18+60	18' RT	19+05	18' RT	46	12"CMP	
F3	18+60	19' LT	19+08	19' LT	48	12"CMP	
F3	20+20	19' LT	21+54	16' LT	139	12"CMP	
F3	20+45	19' RT	21+55	19' RT	104	12"CMP	
F3	21+54	16' LT	21+55	19' RT	36	30"CMP	
F3	21+54	16' LT	21+55	27' LT	11	30"CMP	
F3/F4	21+55	19' RT	22+45	20' RT	89	30"CMP	
F4	21+95	16' LT	22+43	16' LT	48	12"CMP	
F4	22+43	16' LT	22+45	20' RT	36	12"CMP	
F4	22+45	20' RT	22+71	7' RT	28	30"CMP	
F4	22+45	20' RT	22+46	32' RT	12	12"CMP	
F4	22+71	7' RT	24+54	9' RT	183	30"CMP	
F4	24+54	9' RT	24+60	16' LT	26	12"CMP	
F4/F5	24+54	9' RT	25+84	13' RT	128	30"CMP	
F5	25+43	17' LT	25+43	26' LT	8	12"CMP	
F5	25+43	17' LT	25+78	13' LT	35	12"CMP	
F5	25+78	89' RT	25+84	13' RT	76	32"CMP	
F5	25+78	13' LT	25+84	13' RT	27	12"CMP	
F5	25+84	13' RT	27+77	9' RT	193	18"CMP	
F5	26+83	7' LT	26+83	19' LT	12	12"CMP	
F5	26+83	7' LT	27+75	11' LT	94	12"CMP	
F5	27+75	11' LT	27+75	19' LT	8	12"CMP	
F5	27+75	11' LT	27+77	9' RT	20	12"CMP	
F5	27+75	11' LT	28+77	11' LT	102	12"CMP	
F5	27+77	9' RT	27+77	16' RT	7	12"CMP	
F5	27+79	32' RT	27+79	41' RT	9	12"CMP	
F5	28+77	11' LT	29+02	11' LT	25	12"CMP	
F5	29+02	11' LT	29+05	20' LT	9	12"CMP	
F5	29+83	21' LT	29+89	18' LT	7	12"CMP	
F5	29+89	18' LT	29+89	32' LT	14	12"CMP	CUT 24"CMP AT 29+89, 32' LT
F5	29+89	18' LT	30+13	12' LT	26	18"CMP	
F5	29+89	18' LT	29+90	36' RT	54	24"CMP	
F5	29+91	26' LT	30+10	27' LT	20	12"CMP	

**202(4) REMOVAL OF CULVERT PIPE - ADDITIVE ALTERNATE 1**

SHEET	FROM STATION	OFFSET	TO STATION	OFFSET	LENGTH	MATERIAL	REMARKS
F6	30+73*	16' LT	31+01	18' LT	30	18"CMP	*END NOT FOUND
F6	31+01	13' LT	31+01	22' LT	9	12"CMP	
F6	31+01	18' LT	31+51	20' LT	50	18"CMP	
F6	31+51	20' LT	32+81	18' LT	131	18"CMP	
F6	31+99	27' RT*	32+00	20' LT	47	12"CMP	*END NOT FOUND
F6	32+81	13' LT	32+81	20' LT	7	12"CMP	
F6	32+81	18' LT	34+02	21' LT	124	18"CMP	
F6	34+02	21' LT	34+13	35' LT	18	12"CMP	
F6	34+13	46' LT	34+37	48' LT	27	18"CMP	
F6	34+37	48' LT	34+37	54' LT	6	18"CMP	
F6	34+37	48' LT	34+42	20' LT	29	18"CMP	
F6	34+42	20' LT	34+66	10' LT	29	18"CMP	CUT AT 34+66, 10' LT

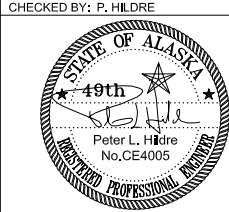
**202(6) REMOVAL OF MANHOLE - BASIC BID**

SHEET	MANHOLE	STATION	OFFSET	REMARKS
U1	B-1	12+02.8	24.3' RT	TYPE I SANITARY SEWER MANHOLE. SEE NOTE 1
U1	B-1A	12+15.7	18.5' RT	TYPE I WATER MANHOLE. SEE NOTE 1
U1	A-2	12+45.3	14.5' LT	REMOVE EXISTING TYPE I SANITARY MANHOLE AT LOCATION OF NEW MANHOLE A-2
F2		15+48.7	21.7' LT	TYPE I STORM DRAIN MANHOLE
F2		15+63.5	26.1' RT	TYPE I STORM DRAIN MANHOLE, SEE NOTE 2
F3		21+54.8	16.1' LT	TYPE I STORM DRAIN MANHOLE
F3		21+55.1	19.4' RT	TYPE I STORM DRAIN MANHOLE
F4		22+45.6	20.1' RT	TYPE I STORM DRAIN MANHOLE
F4		22+71.0	7.4' RT	TYPE I STORM DRAIN MANHOLE
F4		24+54.7	9.3' RT	TYPE I STORM DRAIN MANHOLE
F5		25+84.0	12.9' RT	TYPE I STORM DRAIN MANHOLE
F5		27+77.7	8.9' RT	TYPE I STORM DRAIN MANHOLE
F5		29+89.5	17.8' LT	TYPE I STORM DRAIN MANHOLE
U5	B-2	27+90.0	16.1' LT	TYPE I MANHOLE, 6'-0" BASE, 3'-0" ECCENTRIC CONE. SEE NOTE 1
U5	B-3	29+06.2	14.8' LT	TYPE I MANHOLE, 4'-0" BASE, 1'-0" RISER, 2'-6" ECCENTRIC CONE. SEE NOTE 1
U5	B-4	30+01.9	5.9' LT	TYPE I MANHOLE, 4'-0" BASE, 3'-0" CONCENTRIC CONE. SEE NOTE 1

**NOTES:**

- 1) PLUG ENDS OF INLET/OUTLET PIPES WITH NON-SHRINK GROUT
- 2) SMASH END OF EXISTING 24"CMP OUTFALL AND PLUG EXISTING 24"CMP INLET TO STORM DRAIN MANHOLE AT 15+66, 39'RT WITH NON-SHRINK GROUT. WORK SHALL BE SUBSIDIARY TO MANHOLE REMOVAL.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES												
	<b>WRANGELL ROAD AND UTILITY                  IMPROVEMENTS                  PROJECT # 68828 &amp; 67789</b>												
<b>SUMMARY SHEETS</b>													
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP													
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REVISIONS													
NO.	DATE	DESCRIPTION											
YEAR 2011	SHEET NO. <b>D2</b>												
TOTAL SHEETS 117													

202(8) REMOVAL OF INLET - BASIC BID			
SHEET	STATION	OFFSET	REMARKS
F1	12+48.8	43.4' LT	
F1	12+64.4	51.2' LT	
F1	12+74.6	19.7' LT	
F1	12+74.4	19.4' RT	
F1	12+87.3	19.4' LT	
F1	13+48.9	19.4' RT	
F1	13+66.2	20.1' LT	
F1	14+01.3	19.4' RT	
F1	14+63.6	19.6' LT	
F2	15+91.7	22.9' LT	
F2	15+71.8	19.3' RT	
F2	16+31.9	14.9' RT	
F2	16+42.1	23.9' LT	
F2	16+70.8	19.7' RT	
F2	16+73.5	19.8' LT	
F2	17+54.7	19.4' LT	
F3	18+50.6	20.1' RT	
F3	18+61.2	19.3' RT	
F3	18+60.1	19.2' RT	
F3	19+05.8	19.2' RT	
F3	19+08.9	17.6' LT	
F3	20+20.1	19.4' LT	
F3	20+44.6	19.4' RT	
F4	21+95.8	17.0' LT	
F4	22+43.1	17.0' LT	
F4	24+60.8	17.1' LT	
F5	25+42.8	17.6' LT	
F5	25+78.4	14.2' LT	
F5	26+36.9	42.6' RT	
F5	26+83.3	7.5' LT	
F5	27+77.6	17.1' RT	
F5	27+75.7	11.8' LT	
F5	27+78.5	31.8' RT	
F5	28+77.7	10.9' LT	
F5	29+02.2	11.0' LT	
F5	29+90.5	25.9' LT	
F5	30+11.2	27.0' LT	
F5	30+13.9	12.5' LT	

202(8) REMOVAL OF INLET - ADDITIVE ALTERNATE 1			
SHEET	STATION	OFFSET	REMARKS
F6	31+01.9	18.3' LT	
F6	31+02.0	14.4' LT	
F6	31+51.6	21.1' LT	
F6	31+52.3	16.0' LT	
F6	32+00.3	14.3' LT	
F6	32+38.8	14.1' LT	
F6	32+81.3	13.7' LT	
F6	32+81.6	19.3' LT	
F6	34+02.3	21.2' LT	
F6	34+12.5	34.9' LT	
F6	34+13.4	46.1' LT	
F6	34+36.9	48.3' LT	
F6	34+43.6	20.8' LT	

203(1) COMMON EXCAVATION - BASIC BID				
SHEET	FROM STATION	TO STATION	VOLUME (CY)	REMARKS
F1	BOP	14+70	2490	
F2	14+70	18+28	1293	
F3	18+28	21+78	1254	
F4	21+78	25+17	1081	
F5	25+17	30+65	2001	

203(1) COMMON EXCAVATION - ADDITIVE ALTERNATE 1				
SHEET	FROM STATION	TO STATION	VOLUME (CY)	REMARKS
F6	30+65	EOP	1419	

203(19) BORROW, 10-INCH MINUS SHOT ROCK - BASIC BID				
SHEET	FROM STATION	TO STATION	VOLUME (CY)	REMARKS
F1	BOP	14+70	1548	*SEE NOTE BELOW
F2	14+70	18+28	1107	*SEE NOTE BELOW
F3	18+28	21+78	1079	*SEE NOTE BELOW
F4	21+78	25+17	828	*SEE NOTE BELOW
F5	25+17	30+65	1362	*SEE NOTE BELOW

203(19) BORROW, 10-INCH MINUS SHOT ROCK - ADDITIVE ALTERNATE 1				
SHEET	FROM STATION	TO STATION	VOLUME (CY)	REMARKS
F6	30+65	EOP	1018	*SEE NOTE BELOW

\*THE PAY UNIT OF THE 10-INCH MINUS SHOT ROCK BORROW IS LUMP SUM AND SHALL BE BASED ON THE IN PLACE, NEATLINE QUANTITIES SHOWN HERE. THE NEATLINE QUANTITIES SHOWN HERE ARE BASED ON THE TYPICAL SECTIONS SHOWN ON SHEET B1 AND THE BACK OF SIDEWALK AND SAWCUT LOCATIONS SHOWN ON THE G SHEETS. NO DEDUCTIONS IN QUANTITIES WERE MADE FOR THE SLOPES AND SETBACKS DETAILED ON SHEET E3 FOR SAWCUTS.

301(2A) 2-INCH MINUS/D-1 BASE COURSE - BASIC BID				
SHEET	FROM STATION	TO STATION	VOLUME (CY)	REMARKS
F1	BOP	14+70	541	*SEE NOTE BELOW
F2	14+70	18+28	389	*SEE NOTE BELOW
F3	18+28	21+78	378	*SEE NOTE BELOW
F4	21+78	25+17	285	*SEE NOTE BELOW
F5	25+17	30+65	486	*SEE NOTE BELOW

301(2A) 2-INCH MINUS/D-1 BASE COURSE - ADDITIVE ALTERNATE 1				
SHEET	FROM STATION	TO STATION	VOLUME (CY)	REMARKS
F6	30+65	EOP	356	*SEE NOTE BELOW


\*THE PAY UNIT OF THE 2-INCH MINUS/D-1 BASE COURSE IS LUMP SUM AND SHALL BE BASED ON THE IN PLACE, NEATLINE QUANTITIES SHOWN HERE. THE NEATLINE QUANTITIES SHOWN HERE ARE BASED ON THE TYPICAL SECTIONS SHOWN ON SHEET B1 AND THE BACK OF SIDEWALK AND SAWCUT LOCATIONS SHOWN ON THE G SHEETS. NO DEDUCTIONS IN QUANTITIES WERE MADE FOR THE SETBACKS DETAILED ON SHEET E3 FOR SAWCUTS.

501(12) CLASS A-A CONCRETE PAVEMENT, 6-INCHES THICK - BASIC BID				
SHEET	FROM STATION	TO STATION	AREA (SY)	REMARKS
F1	10+45.2	14+70.0	2239.5	
F2	14+70.0	18+28.0	1591.7	
F3	18+28.0	21+78.0	1599.5	
F4	21+78.0	25+17.0	1095.8	
F5	25+17.0	30+65.0	2027.5	

501(12) CLASS A-A CONCRETE PAVEMENT, 6-INCHES THICK - ADDITIVE ALTERNATE 1				
SHEET	FROM STATION	TO STATION	AREA (SY)	REMARKS
F6	30+65.0	EOP	1576.3	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES													
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		<b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>													
PATH: S:\LIB\70112\DESIGN\SHEETS\DUJ70112 -D1-D3.DWG TAB: D3 Friday, March 25, 2011 3:52:52 PM		<b>SUMMARY SHEETS</b>													
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION							PROJECT DESIGNATION <b>68828 HPRM-003(135)          &amp; 67789</b>	
REVISIONS															
NO.	DATE	DESCRIPTION													
YEAR	2011	SHEET NO.	<b>D3</b>												
TOTAL SHEETS			117												



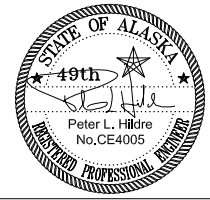
**603(21-12) 12-INCH CORRUGATED POLYETHYLENE PIPE - BASIC BID**

SHEET	PIPE NUMBER	BEGINNING			END			APPROXIMATE LENGTH	SLOPE	REMARKS		
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION				OFFSET	INVERT
F1	P-2	S-1			17.68	S-2		18.09	41.2	0.010		
F1	P-3	S-1			19.31	S-3		19.86	55.3	0.010		
F1	P-4	S-2			18.19	S-4		18.81	62.3	0.010		
F1	P-10	S-8			20.11	S-9		20.38	26.7	0.010		
F1	P-12	S-13			20.19	S-11		20.49	30.0	0.010		
F1	P-13	S-12			20.85		13+65.8	30.1' LT	20.89	9.6	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F1	P-14	S-14			20.55	S-12		20.80	61.5	0.004		
F1	P-15	S-15			19.71	S-13		20.09	38.0	0.010		
F1	P-16	S-15			20.20	S-14		20.45	41.0	0.006		
F2	P-19	S-17			20.43	S-16		20.63	20.2	0.010		
F2	P-26	S-21			19.98	S-20		20.31	33.5	0.010		
F2/F3	P-29	S-25			19.96	S-23		20.18	54.8	0.004		
F2	P-30	S-24			19.45		18+07.1	30.1' RT	19.53	20.3	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F3	P-32	S-25			19.96		18+55.6	30.5' LT	21.10	10.1	0.110	CTE CB WITH ALL FITTINGS/ELBOWS NECESSARY
F3	P-34	S-25			19.96	S-30		20.25	72.2	0.004		
F3	P-35	S-29			20.17	S-26		20.33	40.7	0.004		
F3	P-37	S-28			19.91	S-29		20.07	40.9	0.004		
F3	P-38	S-28			19.91	S-31		20.16	62.7	0.004		
F3	P-39	S-34			19.15	S-32		19.46	76.9	0.004		
F3	P-40	S-36			18.38	S-33		18.80	104.4	0.004		
F3	P-41	S-35			18.80	S-34		19.05	63.7	0.004		
F4	P-45	S-38			19.50	S-37		19.62	30.6	0.004		
F4	P-46	S-38			18.45		22+46.0	32.3' RT	18.47	4.4	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F4	P-46A	S-40			18.01	S-38		18.30	29.4	0.010		
F4	P-47	S-40			20.08	S-39		20.22	34.6	0.004		
F4	P-47A	S-40			17.10		22+69.4	19.5' RT	17.17	7.2	0.010	CAP END AND INSTALL MARKER POST
F4	P-49B	S-40A			16.60		23+40.9	19.5' RT	16.67	7.0	0.010	CAP END AND INSTALL MARKER POST
F4	P-50	S-42			19.66	S-41		19.78	30.7	0.004		
F4	P-52	S-43			19.63	S-44		19.77	35.7	0.004		
F5	P-54	S-45			20.53		25+42.6	25.5' LT	20.54	3.7	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F5	P-59	S-49			20.70			20.90	19.9	0.010	CTE CB, PLUG EXISTING 12" CMP OUTFALL	
F5	P-60	S-49			20.30	S-50		20.50	50.2	0.004		
F5	P-62	S-50			20.60			20.63	7.0	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY	
F5	P-63	S-51			19.70			19.73	7.0	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY	
F5	P-64	S-52			19.50	S-51		19.60	25.0	0.004		
F5	P-65	S-51			19.70	S-53		19.84	36.0	0.004		
F5	P-67	S-55			20.60	S-54		20.70	25.5	0.004		
F5	P-68	S-54			20.80		29+04.0	20.2' LT	20.83	7.9	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F5	P-70	S-56			19.80		29+82.8	20.8' LT	19.83	7.3	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F5	P-72	S-56			20.18	S-58		20.40	21.8	0.010		

**603(21-12) 12-INCH CORRUGATED POLYETHYLENE PIPE - ADDITIVE ALTERNATE 1**

SHEET	PIPE NUMBER	BEGINNING			END			APPROXIMATE LENGTH	SLOPE	REMARKS		
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION				OFFSET	INVERT
F6	P-75	S-59			20.00		31+01.0	21.4' LT	20.04	8.9	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F6	P-78	S-60			20.70		31+51.0	21.1' LT	20.73	8.7	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F6	P-79	S-61			18.00		31+49.3	27.6' RT	18.03	7.1	0.004	CAP END AND INSTALL MARKER POST
F6	P-80	S-60			18.56	S-62		18.76	50.3	0.004		
F6	P-82	S-62			19.00		31+99.6	20.3' LT	19.03	7.8	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F6	P-83	S-63			19.40		32+80.9	20.0' LT	19.43	7.5	0.004	CTE 12" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F6	P-84	S-64			19.17	S-63		19.30	33.0	0.004		
F6	P-85	S-64			18.01		32+80.7	30.4' RT	18.05	9.9	0.004	CAP END AND INSTALL MARKER POST
F6	P-88	S-65			18.60	S-70		18.96	88.8	0.004		
F6	P-92	S-70			19.00	S-69		19.08	20.6	0.004		

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
	<b>WRANGELL ROAD AND UTILITY                  IMPROVEMENTS                  PROJECT # 68828 &amp; 67789</b>
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP	
PATH: S:\LIB\70112\DESIGN\SHEETS DJ70112 -D4-D7.DWG TAB: D4 Friday, March 25, 2011 4:03:19 PM	
REVISIONS NO. DATE DESCRIPTION	PROJECT DESIGNATION <b>68828 HPRM-003(135)                  &amp; 67789</b>
YEAR 2011	SHEET NO. <b>D4</b>
TOTAL SHEETS 117	


603(21-18) 18-INCH CORRUGATED POLYETHYLENE PIPE - BASIC BID												
SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F1	P-8	S-7			20.41	S-6			20.63	22.4	0.010	
F1	P-9	S-8			20.01	S-7			20.31	35.5	0.008	
F2	P-24	S-18			18.23	S-21			18.54	77.7	0.004	
F2	P-27	S-21			18.64	S-22			18.79	37.1	0.004	
F2	P-28	S-22			18.89	S-24			19.35	114.3	0.004	
F2/F3	P-31	S-24			19.45	S-27			19.60	36.6	0.004	
F4	P-49	S-40A			16.22	S-40			16.96	73.3	0.010	
F4	P-49A	S-42			15.53	S-40A			16.12	59.0	0.010	
F4	P-51	S-43			14.74	S-42			15.43	69.0	0.010	
F4/F5	P-53	S-48			13.54	S-43			14.64	109.7	0.010	
603(21-18) 18-INCH CORRUGATED POLYETHYLENE PIPE - ADDITIVE ALTERNATE 1												
SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F6	P-89	S-66			18.75	S-67			18.88	31.5	0.004	
F6	P-91	S-68			19.15		34+37.1	54.3' LT	19.17	6.0	0.004	CTE 18" CMP WITH ALL FITTINGS/ELBOWS NECESSARY

603(22) CPP SADDLE TEE - BASIC BID				
SHEET	STATION	OFFSET	SIZE	REMARKS
F2	14+79.7	20.3' RT	36"	SADDLE FOR 6" PVC LATERAL
F2	15+21.1	20.6' RT	36"	SADDLE FOR 6" PVC LATERAL
F2	15+23.1	20.6' RT	36"	SADDLE FOR 6" PVC LATERAL
F2	16+31.2	20.9' RT	18"	SADDLE FOR 6" PVC LATERAL
F3	20+65.9	20.4' LT	12"	SADDLE FOR 6" PVC LATERAL
F3	21+09.8	19.3' LT	12"	SADDLE FOR 6" PVC LATERAL
F3	21+32.7	23.4' RT	12"	SADDLE FOR 6" PVC LATERAL
F4	23+41.0	14.9' RT	18"	SADDLE FOR 6" PVC LATERAL
F5	25+63.1	25.1' RT	18"	SADDLE FOR 6" PVC LATERAL
F5	26+95.2	24.3' RT	36"	SADDLE FOR 6" PVC LATERAL

603(21-24) 24-INCH CORRUGATED POLYETHYLENE PIPE - BASIC BID												
SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F2	P-20	S-17			18.10		15+48.2	53.8 LT	18.17	16.6	0.004	CTE 24" CMP
F5	P-71	S-56			17.20		29+88.7	32.0 LT	17.25	11.4	0.004	CTE 24" CMP
603(21-24) 24-INCH CORRUGATED POLYETHYLENE PIPE - ADDITIVE ALTERNATE 1												
SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F6	P-76	S-59			16.53	S-60			16.82	48.7	0.006	
F6	P-81	S-61			17.13	S-64			17.91	129.9	0.006	
F6	P-86	S-64			18.01	S-65			18.55	90.8	0.006	

603(21-36) 36-INCH CORRUGATED POLYETHYLENE PIPE - BASIC BID												
SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F1	P-1	OUTFALL	10+20.1	20.3' RT	10.82	S-1			11.36	27.2	0.020	REMOVE/REPLACE RIPRAP TO PROTECT OUTFALL
F1	P-5	S-1			11.46	S-5			13.40	162.3	0.012	
F1	P-7	S-5			13.50	S-10			14.51	83.8	0.012	
F1	P-11	S-10			14.61	S-15			15.85	124.0	0.010	
F1	P-17	S-15			15.90	S-18			17.51	160.9	0.010	
F3	P-42	S-35			18.80		21+55.6	27.1' LT	18.82	6.1	0.004	CTE 30" CMP WITH ALL FITTINGS/ELBOWS NECESSARY
F5	P-57	S-47			11.54	S-48			12.17	63.3	0.010	
F5	P-58	S-48			12.27	S-49			12.82	68.2	0.008	
F5	P-61	S-49			12.92	S-52			13.89	121.6	0.008	
F5	P-66	S-52			13.99	S-55			15.00	125.7	0.008	
F5	P-69	S-55			15.05	S-57			15.79	92.3	0.008	

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CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>  <b>SUMMARY SHEETS</b>	
DESIGNED BY: T. LOCKHART		DRAWN BY: J. KEMP	
PATH: S:\LIBU70112\DESIGN\SHEETS DJU70112 -D4-D7.DWG			
TAB: D5 Friday, March 25, 2011 4:03:27 PM			
REVISIONS		PROJECT DESIGNATION	YEAR
NO.	DATE	DESCRIPTION	SHEET NO.
			2011
		<b>68828 HPRM-003(135) &amp; 67789</b>	<b>D5</b>
			TOTAL SHEETS
			117

**603(23-12) 12-INCH HP CORRUGATED POLYPROPYLENE PIPE - BASIC BID**

SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F3	P-36	S-27			19.70	S-28			19.81	28.4	0.004	
F5	P-55	S-46			19.95	S-45			20.10	38.1	0.004	
F5	P-56	S-48			19.70	S-46			19.85	38.4	0.004	

**603(23-18) 18-INCH HP CORRUGATED POLYPROPYLENE PIPE - BASIC BID**

SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F1	P-6	S-5			19.64	S-8			19.91	67.5	0.004	
F2	P-21	S-19			17.81	S-17			18.00	47.9	0.004	
F2	P-22	S-18			17.59	S-19			17.76	41.5	0.004	
F3	P-33	S-27			19.70	S-25			19.86	40.4	0.004	
F3	P-43	S-36			18.28	S-35			18.70	41.5	0.010	
F3/F4	P-44	S-40			17.06	S-36			18.18	112.0	0.010	

**603(23-18) 18-INCH HP CORRUGATED POLYPROPYLENE PIPE - ADDITIVE ALTERNATE 1**

SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F6	P-87	S-65			18.45	S-66			18.65	49.3	0.004	
F6	P-90	S-67			18.98	S-68			19.10	30.7	0.004	

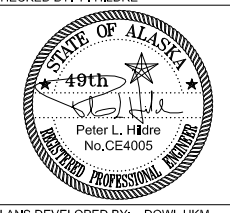
**603(23-24) 24-INCH HP CORRUGATED POLYPROPYLENE PIPE - BASIC BID**

SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F5	P-73	S-57			16.97	S-56			17.10	33.7	0.004	
F5/F6	P-74	S-57			15.84	S-59			16.48	106.0	0.006	

**603(23-24) 24-INCH HP CORRUGATED POLYPROPYLENE PIPE - ADDITIVE ALTERNATE 1**

SHEET	PIPE NUMBER	BEGINNING				END				APPROXIMATE LENGTH	SLOPE	REMARKS
		STRUCTURE / PIPE	STATION	OFFSET	INVERT	STRUCTURE / PIPE	STATION	OFFSET	INVERT			
F6	P-77	S-60			16.87	S-61			17.07	33.5	0.006	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES									
	<b>WRANGELL ROAD AND UTILITY                  IMPROVEMENTS                  PROJECT # 68828 &amp; 67789</b>									
	<b>SUMMARY SHEETS</b>									
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP										
PATH: S:\LIBU70112\DESIGN\SHEETS\DUJ70112 -D4-D7.DWG TAB: D6 Friday, March 25, 2011 4:03:32 PM										
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REVISIONS										
NO.	DATE	DESCRIPTION								
YEAR 2011	SHEET NO. <b>D6</b>	TOTAL SHEETS 117								







**608(1b) CONCRETE SIDEWALK, 6-INCHES THICK - BASIC BID**

SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
F1	10+58	11+08	RT	52.17	
F1	10+39	10+84	LT	86.50	
F1	11+52	12+24	LT	126.69	
F1	12+22	12+85	RT	148.91	
F1	12+42	12+49	LT	7.18	
F1	12+71	12+84	LT	9.43	
F1	13+55	13+71	LT	14.58	
F1	13+53	13+60	RT	4.66	
F1	13+91	13+99	RT	6.00	
F2	14+81	15+25	RT	47.56	
F2	15+35	15+49	LT	13.37	
F2	15+66	15+78	RT	10.67	
F2	15+91	16+22	LT	28.43	
F2	16+09	19+17	RT	3.68	
F2	16+60	16+86	RT	41.03	
F2	16+70	16+86	LT	17.76	
F2	17+89	18+13	RT	21.11	
F3	18+39	18+57	LT	25.58	
F3	18+56	18+63	RT	6.09	
F3	18+88	18+96	RT	5.87	
F3	19+06	19+12	RT	4.38	
F3	19+06	19+12	LT	3.37	
F3	19+45	19+60	RT	14.61	
F3	19+62	19+78	LT	14.22	
F3	21+15	22+26	LT	6.66	
F3	21+54	21+62	LT	5.82	
F4	21+93	21+99	LT	3.11	
F4	21+93	21+99	RT	3.16	
F4	22+06	22+11	RT	1.67	
F4	22+06	22+22	LT	25.78	
F4	22+46	22+56	RT	4.19	
F4	22+77	22+95	RT	12.00	
F4	22+94	23+76	LT	128.07	
F4	23+62	23+86	RT	16.00	
F4	23+97	24+21	LT	37.51	
F4	24+79	24+90	LT	10.06	
F4	24+96	25+08	RT	18.40	
F5	25+29	25+53	RT	37.33	
F5	25+72	25+78	RT	3.11	
F5	25+29	25+39	LT	2.73	
F5	25+67	25+78	LT	4.98	
F5	25+93	27+83	LT	129.46	
F5	26+19	26+48	RT	63.33	
F5	26+90	26.97	RT	13.16	
F5	28+40	28+51	LT	5.40	
F5	29+00	29+10	LT	6.89	
F5	29+14	29+40	RT	15.98	
F5	29+80	29+88	LT	3.31	
F5	29+85	29+95	RT	2.93	
F5	30+00	30+25	RT	54.82	
F5	30+12	30+21	LT	4.46	

**608(1b) CONCRETE SIDEWALK, 6-INCHES THICK - ADDITIVE ALTERNATE 1**

SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
F6	31+59	31+78	RT	12.67	
F6	32+73	32+89	LT	10.67	
F6	33+11	33+39	LT	18.39	
F6	33+98	34+05	LT	2.71	
F6	34+08	34+15	LT	7.66	
F6	34+40	34+75	LT	4.64	
F6	34+59	34+65	RT	5.51	

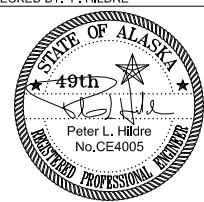
**608(1C) STEEL REINFORCED CONCRETE SIDEWALK, 6-INCHES THICK - BASIC BID**

SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
N1	23+94.6	24+51.2	RT	59	
N2	27+51.0	29+00.9	RT	116	

**608(1D) CURVILINEAR GLASS-SEEDED FINISH - BASIC BID**

SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
E8	10+55	11+51	RT	27.7	
E8	11+51	12+05	RT	38.8	
E8	11+98	12+05	RT	2.3	
E8	10+46	10+84	LT	19.1	
E8	10+86	11+40	LT	25.6	
E8	11+50	12+05	LT	38.9	
E8	11+83	12+01	LT	15.7	
E9	12+05	12+20	RT	4.1	
E9	12+05	12+66	RT	43.8	
E9	12+35	12+72	RT	32.8	
E9	12+88	13+45	RT	27.6	
E9	14+05	14+32	RT	10.7	
E9	14+38	14+50	RT	5.8	
E9	12+05	12+14	LT	6.7	
E9	12+15	12+23	LT	10.9	
E9	12+79	12+95	LT	5.5	
E9	12+92	13+64	LT	35.2	
E9	13+74	14+46	LT	32.4	
E9	14+47	14+50	LT	0.4	
E10	14+50	15+06	RT	27.7	
E10	15+08	15+37	RT	13.7	
E10	15+40	15+97	RT	24.2	
E10	15+97	16+18	RT	6.2	
E10	16+17	16+54	RT	11.7	
E10	14+50	15+39	LT	47.4	
E10	16+03	16+20	LT	6.9	
E10	16+22	16+60	LT	19.8	
E10	16+31	16+48	LT	10.5	
E10	16+57	16+90	LT	20.4	
E11	16+92	17+09	RT	6.7	
E11	17+06	17+81	RT	33.1	
E11	17+86	18+01	RT	5.1	
E11	18+02	18+47	RT	18.4	
E11	18+43	18+52	RT	5.0	
E11	18+98	19+14	RT	10.9	
E11	19+21	19+25	RT	0.5	
E11	16+90	17+04	LT	7.8	
E11	17+07	17+75	LT	28.7	
E11	17+76	17+92	LT	7.2	
E11	17+90	18+44	LT	28.5	
E11	18+56	18+88	LT	12.2	
E11	18+84	19+01	LT	5.3	
E11	19+00	19+24	LT	10.4	
E12	19+25	19+79	RT	21.7	
E12	19+81	20+01	RT	7.0	
E12	20+08	21+11	RT	57.7	
E12	21+07	21+41	RT	15.7	
E12	21+38	21+75	RT	11.5	
E12	19+26	20+05	LT	31.3	
E12	20+06	20+63	LT	22.4	
E12	20+61	21+20	LT	18.8	
E12	20+22	21+52	LT	7.4	
E12	21+53	21+75	LT	7.1	
E13	21+75	21+80	RT	0.7	
E13	21+82	22+00	RT	8.1	
E13	21+75	21+88	LT	4.0	
E13	21+93	22+17	LT	10.2	

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	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
	<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 &amp; 67789</b>	
	<b>SUMMARY SHEETS</b>	
	PLANS DEVELOPED BY: DOWL HKM	DESIGNED BY: T. LOCKHART
DRAWN BY: J. KEMP		

PATH: S:\LIB\70112\DESIGN\SHEETS DJ70112 -D8-D10.DWG  
 TAB: D10 Friday, March 25, 2011 5:02:35 PM

REVISIONS			PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION				
			<b>68828 HPRM-003(135) &amp; 67789</b>	2011	<b>D10</b>	117





**615(1) STANDARD SIGN - ADDITIVE ALTERNATE 1**

SHEET	POST NO.	STA.	OFFSET	TYPE	LEGEND	SIZE (IN)		AREA (SQ FT)	SIGN FACING	POST NO., SIZE, & TYPE	THICKNESS (IN)		REMARKS
						WIDTH	HEIGHT				FRAMED		
											YES	NO	
H4	29	31+17	RT	R7-108	2 HR PARKING	12	18	1.50	E	1-2.5 PST		0.125	
H4	30	31+97	RT	W3-1A	STOP AHEAD (SYMBOL)	30	30	6.25	N	1-2.5 PST		0.125	
H4	31	33+00	LT	R2-1	SPEED LIMIT 15	30	36	7.50	S	1-2.5 PST		0.125	
H4	32	33+95	RT	R1-1	STOP	30	30	6.25	N	1-2.5 PST		0.125	
H4	33	34+00	LT	D3-1	CASE AVE	26	8	1.44	SW/NE	1-2.5 PST		0.125	
				D3-1	FRONT ST.	28	8	1.56	NW/SE			0.125	
				W11-2	ADVANCE PED CROSSING	30	30	6.25	SE			0.125	
				W16-7PL	DIAGONAL PLATE LEFT	24	12	2.00	SE			0.125	
H4	34	34+72	RT	R2-1	SPEED LIMIT 15	30	36	7.50	N	1-2.5 PST		0.125	
H4	35	34+72	LT	R1-1	STOP	30	30	6.25	S	1-2.5 PST		0.125	

**620(5) PLANTING SOIL, 24-INCH DEPTH - BASIC BID**

SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
F1	12+07	12+11	LT	8.9	SEE NOTE 1
F1	12+41	12+45	LT	23.4	SEE NOTE 1
F1	13+30	13+58	RT	15.9	SEE NOTE 1
F1	13+93	14+23	RT	17.0	SEE NOTE 1
F2	15+02	15+41	LT	21.6	SEE NOTE 1
F2	16+17	16+54	RT	29.8	SEE NOTE 1
F3	18+32	18+63	RT	17.9	SEE NOTE 1
F3	18+56	18+63	RT	15.8	SEE NOTE 1
F3	18+90	19+06	RT	11.1	SEE NOTE 1
F3	18+88	18+96	RT	16.0	SEE NOTE 1
F4	22+22	22+45	LT	14.1	SEE NOTE 1
F5	25+84	26+19	RT	31.5	SEE NOTE 1
F5	26+48	26+86	RT	50.9	SEE NOTE 1
F5	29+86	30+00	RT	19.6	SEE NOTE 1
F5	30+25	30+59	RT	30.0	SEE NOTE 1

**620(5) PLANTING SOIL, 24-INCH DEPTH - ADDITIVE ALTERNATE 1**

SHEET	FROM STATION	TO STATION	OFFSET	AREA (SY)	REMARKS
F6	33+81	34+75	RT	29.1	SEE NOTE 1

1) 24-INCH DEPTH INCLUDES 22-INCHES OF PLANTING SOIL, GEOTEXTILE SEPARATION, AND 2-INCHES OF BASE COURSE, GRADING D-1.

**626(1A) SANITARY SEWER CONDUIT, 8-INCH PVC - BASIC BID**

SHEET	PIPE NUMBER	BEGINNING				END				LENGTH	SLOPE	REMARKS
		STRUCTURE	STATION	OFFSET	INVERT	STRUCTURE	STATION	OFFSET	INVERT			
U1	SS-1		11+41.7	19.0 LT	17.44	A-1	11+44.7	19.0 LT	17.42	3.0	0.004	CAP END
U1	SS-2	A-1	11+44.7	19.0 LT	17.32	A-2	12+45.4	15.3 LT	16.89	107.0	0.004	

**626(1A) SANITARY SEWER CONDUIT, 8-INCH PVC - ADDITIVE ALTERNATE 1**

SHEET	PIPE NUMBER	BEGINNING				END				LENGTH	SLOPE	REMARKS
		STRUCTURE	STATION	OFFSET	INVERT	STRUCTURE	STATION	OFFSET	INVERT			
U6	SS-7	A-15	34+15.6	4.4 RT	15.6		34+70.0	6.3 RT	CTE	49.6	ME	

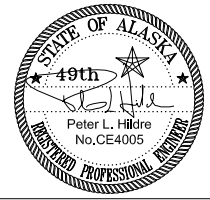
**626(1B) SANITARY SEWER CONDUIT, 8-INCH HP PVC - BASIC BID**

SHEET	PIPE NUMBER	BEGINNING				END				LENGTH	SLOPE	REMARKS
		STRUCTURE	STATION	OFFSET	INVERT	STRUCTURE	STATION	OFFSET	INVERT			
U3	SS-5	A-6	18+52.8	14.3 LT	15.20	A-6-A	18+63.4	51.0 RT	18.50	66.2	0.050	REPLACE EXISTING 8"AC WITH HP PVC

**626(1C) SANITARY SEWER CONDUIT, 12-INCH HP PVC - ADDITIVE ALTERNATE 1**

SHEET	PIPE NUMBER	BEGINNING				END				LENGTH	SLOPE	REMARKS
		STRUCTURE	STATION	OFFSET	INVERT	STRUCTURE	STATION	OFFSET	INVERT			
U6	SS-6	A-15	34+15.6	4.4 RT	15.60		34+22.2	50.3 LT	CTE	55.1	ME	

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	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES				
	WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789				
	SUMMARY SHEETS				
	PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>		YEAR 2011	SHEET NO. <b>D12</b>
PATH: S:\LIB\70112\DESIGN\SHEETS\DJ70112 -D11-D13.DWG TAB: D12 Friday, March 25, 2011 5:11:14 PM					

**626(2A) REPLACE/REGRADE SANITARY SEWER SERVICE LATERAL - BASE BID**

SHEET	AT MAIN		AT PROPERTY LINE		APPROXIMATE LENGTH	REMARKS
	STATION	OFFSET	STATION	OFFSET		
U1	11+78.3	14.0' LT	11+79.4	21.5' LT	8'	INSTALL NEW 8"X6" PVC SERVICE WYE
U1	12+02.1	10.4' LT	11+96.0	32.9' RT	44'	INSTALL NEW 8"X6" PVC SERVICE WYE
U1	13+12.2	13.5' LT	13+12.1	30.4' LT	17'	SEE NOTE 1
U1	14+14.8	13.1' LT	14+14.7	30.1' LT	17'	SEE NOTE 1
U1	14+55.8	12.7' LT	14+55.7	30.1' LT	17'	SEE NOTE 1
U2	15+01.8	12.3' LT	15+01.7	30.1' LT	18'	SEE NOTE 1
U2	15+08.3	12.3' LT	15+08.3	29.86'	42'	SEE NOTE 1
U2	16+01.0	12.2' LT	16+00.0	30.6' LT	18'	SEE NOTE 1
U2	16+65.7	13.2' LT	16+67.1	30.8' LT	18'	SEE NOTE 1
U2	17+24.5	12.0' LT	17+24.5	30.0' RT	42'	SEE NOTE 1
U2	17+42.5	11.9' LT	17+42.5	30.0' LT	18'	SEE NOTE 1
U2	17+71.5	11.7' LT	17+71.5	30.0' LT	18'	SEE NOTE 1
U2	18+22.0	13.2' LT	18+22.0	30.1' RT	43'	SEE NOTE 1
U3	18+82.3	13.55' LT	18+82.2	30.5' RT	44'	SEE NOTE 1
U3	18+99.3	13.1' LT	18+99.3	29.9' LT	17'	SEE NOTE 1
U3	19+34.3	12.2' LT	19+34.4	29.9' LT	18'	SEE NOTE 1
U3	19+76.3	11.1' LT	19+76.4	30.0' LT	19'	TWO SERVICES UTILIZE SAME WYE. SEE NOTE 2
U3	19+89.2	10.8' LT	19+89.2	30.3' RT	41'	SEE NOTE 1
U3	20+07.2	10.3' LT	20+07.3	30.0' LT	20'	SEE NOTE 1
U3	20+19.2	10.0' LT	20+19.4	30.0' LT	20'	SEE NOTE 1
U3	20+27.2	9.8' LT	20+27.4	30.0' LT	20'	SEE NOTE 1
U3	20+49.7	9.2' LT	20+49.9	30.0' LT	21'	SEE NOTE 1
U3	20+62.2	8.9' LT	20+62.3	30.0' LT	21'	SEE NOTE 1
U3	20+74.7	8.6' LT	20+74.5	30.1' RT	39'	SEE NOTE 1
U3	21+04.7	8.3' LT	21+03.5	30.5' LT	22'	SEE NOTE 1
U3	21+69.3	16.5' LT	21+73.5	26.3' RT	43'	TWO SERVICES UTILIZE SAME WYE. SEE NOTE 2
U4	22+66.6	15.2' LT	22+66.6	27.5' LT	12'	SEE NOTE 1
U4	22+95.6	15.3' LT	22+95.6	27.5' LT	12'	SEE NOTE 1
U4	23+92.6	15.3' LT	23+92.6	27.5' LT	12'	SEE NOTE 1
U4	24+21.3	15.4' LT	24+22.0	21.5' RT	37'	SEE NOTE 1
U4	24+68.7	11.4' LT	24+69.9	22.4' LT	11'	SEE NOTE 1
U4	24+98.0	8.6' LT	24+98.5	20.1' LT	11'	SEE NOTE 1
U4	25+06.8	8.1' LT	25+05.1	29.3' RT	37'	SEE NOTE 1
U5	25+39.6	7.4' LT	25+39.1	29.6' RT	37'	SEE NOTE 1
U5	25+60.2	7.1' LT	25+60.2	29.6' RT	37'	SEE NOTE 1
U5	26+04.4	6.1' LT	26+03.3	29.7' RT	36'	SEE NOTE 1
U5	26+43.5	1.6' LT	26+45.3	15.5' LT	14'	SEE NOTE 1
U5	26+58.3	0.4' RT	26+54.0	34.9' RT	39'	SEE NOTE 1
U5	27+16.6	1.0' RT	27+20.3	34.5' RT	34'	SEE NOTE 1
U5	28+91.3	17.8' RT	28+93.0	31.4' RT	14'	SEE NOTE 1
U5	30+40.9	11.7' RT	30+36.6	19.0' LT	31'	SEE NOTE 1

**626(2A) REPLACE/REGRADE SANITARY SEWER SERVICE LATERAL - ADDITIVE ALTERNATE 1**

SHEET	AT MAIN		AT PROPERTY LINE		APPROXIMATE LENGTH	REMARKS
	STATION	OFFSET	STATION	OFFSET		
U6	31+62.5	0.6' LT	31+62.3	27.6' RT	23'	SEE NOTE 1
U6	31+64.5	0.6' LT	31+64.6	20.6' LT	20'	SEE NOTE 1
U6	31+78.0	0.6' LT	31+78.1	20.5' LT	20'	SEE NOTE 1
U6	32+22.5	0.4' LT	32+22.5	20.1' LT	20'	SEE NOTE 1
U6	32+27.0	0.4' LT	32+26.3	29.6' RT	25'	SEE NOTE 1
U6	32+37.0	0.7' LT	32+36.1	29.9' RT	26'	SEE NOTE 1
U6	32+41.5	0.9' LT	32+41.4	20.3' LT	19'	SEE NOTE 1
U6	32+93.2	1.3' LT	32+93.2	20.0' LT	19'	SEE NOTE 1
U6	33+33.0	2.5' RT	33+33.1	20.0' LT	23'	SEE NOTE 1
U6	33+65.8	5.7' RT	33+67.5	20.0' LT	26'	SEE NOTE 1

NOTES:  
 1) REPLACE EXISTING SERVICE FROM THE 6 INCH PVC WYE AT THE MAIN TO THE PROPERTY LINE AND CONNECT TO EXISTING. GRADE AS NECESSARY TO AVOID CONFLICTS WITH PROPOSED WATER AND STORM DRAIN CONDUITS. INSTALL CLEANOUT.  
 2) UTILIZE EXISTING WYE FOR ONE SERVICE AND INSTALL 15" SADDLE TEE FOR SECOND SERVICE AS PER 626(4) RELOCATE SANITARY SEWER SERVICE LATERAL WITH SADDLE.

**626(3) SANITARY SEWER SERVICE CLEANOUT - BASE BID**

SHEET	AT PROPERTY LINE		REMARKS
	STATION	OFFSET	
U1	14+51.8	12.8' LT	SEE NOTE 1
U2	15+15.5	29.5' LT	SEE NOTE 1
U2	15+19.8	12.2' LT	SEE NOTE 1
U2	16+25.8	33.6' LT	SEE NOTE 1
U2	17+01.6	30.0' LT	SEE NOTE 1
U2	17+87.5	30.0' LT	SEE NOTE 1
U3	19+18.2	30.0' LT	SEE NOTE 1
U3	21+15.0	26.2' LT	SEE NOTE 1
U3	21+46.9	26.9' LT	SEE NOTE 1
U4	21+80.4	27.5' LT	SEE NOTE 1
U4	22+10.9	27.5' LT	SEE NOTE 1
U4	22+56.6	27.5' LT	SEE NOTE 1
U4	22+90.6	14.5' RT	SEE NOTE 1
U4	23+22.3	14.5' RT	SEE NOTE 1
U4	23+35.6	27.5' LT	SEE NOTE 1
U4	23+61.6	14.6' RT	SEE NOTE 1
U4	23+66.1	27.6' LT	SEE NOTE 1
U4	24+30.2	27.8' LT	SEE NOTE 1
U5	25+23.3	19.5' LT	SEE NOTE 1
U5	26+75.6	12.9' LT	SEE NOTE 1
U5	27+28.8	16.1' LT	SEE NOTE 1
U5	27+68.9	18.5' LT	SEE NOTE 1
U5	27+82.7	34.0 RT	SEE NOTE 1
U5	28+44.7	34.0 RT	SEE NOTE 1
U5	29+26.7	32.3' RT	SEE NOTE 1

**626(3) SANITARY SEWER SERVICE CLEANOUT - ADDITIVE ALTERNATE 1**

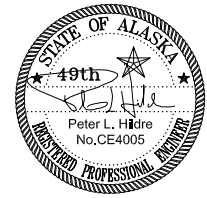
SHEET	AT PROPERTY LINE		REMARKS
	STATION	OFFSET	
U6	31+07.9	21.1' LT	SEE NOTE 1
U6	31+35.1	20.8' LT	SEE NOTE 1

NOTES:  
 1) IF THE ENGINEER DETERMINES THAT THE ENTIRE SERVICE NEEDS TO BE REPLACED, THE WORK SHALL BE PAID FOR AND PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF PAY ITEM 626(2A) REPLACE/REGRADE SANITARY SEWER SERVICE LATERAL.

**626(4) RELOCATE SANITARY SEWER SERVICE WITH SADDLE - BASE BID**

SHEET	AT MAIN		AT PROPERTY LINE		APPROXIMATE LENGTH	REMARKS
	STATION	OFFSET	STATION	OFFSET		
U1	13+10.0	13.5' LT	13+10.0	46.0' RT	60'	10" SADDLE TEE. CTE NORTHLAND SERVICES LATERAL
U3	19+76.3	11.1' LT	19+76.4	30.0' LT	19'	15" SADDLE TEE
U3	21+69.3	16.5' LT	21+73.5	26.3' RT	43'	15" SADDLE TEE
U5	27+92.0	6.4' LT	27+90.4	18.3' LT	12'	15" SADDLE TEE
U5	27+93.0	6.2' LT	27+91.6	18.2' LT	12'	15" SADDLE TEE
U5	28+48.1	9.0' RT	28+55.1	17.5' LT	27'	15" SADDLE TEE
U5	28+86.0	17.0' RT	28+91.3	17.3' LT	35'	15" SADDLE TEE
U5	29+09.8	19.8' RT	29+13.2	19.1' LT	39'	15" SADDLE TEE
U5	29+61.3	20.8' RT	29+59.9	17.6' LT	38'	15" SADDLE TEE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
	WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789  <b>SUMMARY SHEETS</b>
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>
PATH: S:\LIB\70112\DESIGN\SHEETS DJ70112 -D11-D13.DWG TAB: D13 Friday, March 25, 2011 5:11:20 PM	YEAR: 2011 SHEET NO.: <b>D13</b> TOTAL SHEETS: 117

627(1A) 8-INCH HDPE WATER CONDUIT - BASIC BID						
SHEET	BEGINNING		END		APPROXIMATE LENGTH	REMARKS
	STATION	OFFSET	STATION	OFFSET		
U1	10+36.9	19.3' LT	10+42.9	18.5' LT	6.1	CTE TO ANGLE POINT
U1	10+42.9	18.5' LT	10+45.4	15.2' LT	4.1	ANGLE POINT TO ANGLE POINT
U1	10+45.4	15.2' LT	12+19.2	5.8' RT	174.0	ANGLE POINT TO PC
U1	12+19.2	5.8' RT	12+63.2	2.4' RT	42.3	PC TO VALVE CLUSTER
U1	12+63.2	2.4' RT	12+59.4	55.1' LT	58.2	FEDERAL WAY
U1	13+83.4	2.0' RT	13+83.4	33.0' RT	31.0	CAMPBELL DRIVE
U2	15+65.8	2.0' RT	15+64.8	53.7' LT	56.1	MCKINNON STREET
U3	18+71.9	2.0' RT	18+73.9	56.0' RT	54.8	LYNCH STREET
U4	22+23.0	2.0' RT	22+27.4	33.3' RT	33.2	CAMPBELL DRIVE
U5	25+63.5	6.0' RT	25+61.6	24.6' LT	31.3	ST. MICHAEL'S STREET
U5	29+97.3	6.2' RT	29+93.0	30.9' LT	38.0	EPISCOPAL STREET LT
U5	30+02.5	5.6' RT	30+05.2	35.0' RT	29.5	EPISCOPAL STREET RT

627(1B) 10-INCH HDPE WATER CONDUIT - BASIC BID						
SHEET	BEGINNING		END		APPROXIMATE LENGTH	REMARKS
	STATION	OFFSET	STATION	OFFSET		
U1	12+63.2	2.4' RT	12+72.4	2.0' RT	9.2	VALVE CLUSTER TO PT
U1	12+72.4	2.0' RT	14+70.0	2.0' RT	197.6	PT TO MATCHLINE
U2	14+70.0	2.0' RT	15+89.5	2.0' RT	119.5	MATCHLINE TO PC
U2	15+89.5	2.0' RT	16+83.8	2.0' RT	93.5	PC TO PT
U2	16+83.8	2.0' RT	17+70.8	2.0' RT	87.0	TANGENT
U2	17+70.8	2.0' RT	17+87.7	2.0' RT	16.8	PC TO PT
U2	17+87.7	2.0' RT	18+28.0	2.0' RT	40.3	PT TO MATCHLINE
U3	18+28.0	2.0' RT	20+88.6	2.0' RT	260.6	MATCHLINE TO PC
U3	20+88.6	2.0' RT	21+67.2	2.0' RT	78.0	PC TO PT
U3	21+67.2	2.0' RT	21+78.0	2.0' RT	10.8	PT TO MATCHLINE
U4	21+78.0	2.0' RT	23+98.4	2.0' RT	220.4	MATCHLINE TO PC
U4	23+98.4	2.0' RT	25+16.4	5.2' RT	117.3	PC TO PT
U4	25+16.4	5.2' RT	25+17.0	5.2' RT	0.6	PT TO MATCHLINE
U5	25+17.0	5.2' RT	27+68.4	8.2' RT	249.4	MATCHLINE TO PC
U5	27+68.4	8.2' RT	29+42.3	9.1' RT	171.9	PC TO PT
U5	29+42.3	9.1' RT	29+99.3	5.9' RT	56.3	PT TO PC
U5	29+99.3	5.9' RT	30+53.8	6.6' RT	54.0	PC TO PT
U5	30+53.8	6.6' RT	30+65.0	8.0' RT	11.2	PT TO MATCHLINE

627(1B) 10-INCH HDPE WATER CONDUIT - ADDITIVE ALTERNATE 1						
SHEET	BEGINNING		END		APPROXIMATE LENGTH	REMARKS
	STATION	OFFSET	STATION	OFFSET		
U6	30+65.0	8.0' RT	34+18.6	7.2' LT	353.2	MATCHLINE TO PC
U6	34+18.6	7.2' LT	34+56.6	12.0' LT	39.8	PC TO PT
U6	34+30.7	9.9' LT	34+29.9	53.7' LT	43.9	CASE AVENUE
U6	34+56.6	12.0' LT	34+61.2	12.0' LT	4.8	PT TO ANGLE POINT
U6	34+61.2	12.0' LT	34+62.1	13.0' LT	1.3	ANGLE POINT TO CTE

627(3) INSTALL VALVE BOX - BASIC BID				
SHEET	STATION	OFFSET	FUNCTION	REMARKS
U1	10+46.4	15.1' LT	8"GV	
U1	10+55.3	13.9' LT	TRACING WIRE	
U1	12+60.6	2.7' RT	8"GV	
U1	12+63.1	0.1' LT	8"GV	
U1	12+63.2	2.4' RT	TRACING WIRE	
U1	12+65.8	2.2' RT	10"GV	
U1	13+81.1	2.0' RT	10"GV	
U1	13+83.4	2.0' RT	TRACING WIRE	
U1	13+83.4	3.5' RT	8"GV	
U1	13+85.7	2.0' RT	10"GV	
U2	15+63.3	2.0' RT	10"GV	
U2	15+65.8	2.0' RT	TRACING WIRE	
U2	15+65.8	0.2' RT	8"GV	
U2	15+67.8	2.0' RT	10"GV	
U3	18+69.3	2.0' RT	10"GV	
U3	18+71.9	2.0' RT	TRACING WIRE	
U3	18+71.9	3.8' RT	8"GV	
U3	18+74.0	2.0' RT	10"GV	
U4	22+21.1	2.0' RT	10"GV	
U4	22+23.0	2.0' RT	TRACING WIRE	
U4	22+23.1	4.1' RT	8"GV	
U4	22+25.0	2.0' RT	10"GV	
U5	25+61.2	6.0' RT	10"GV	
U5	25+63.5	6.0' RT	TRACING WIRE	
U5	25+63.4	3.5' RT	8"GV	
U5	25+65.1	6.1' RT	10"GV	
U5	29+99.2	5.9' RT	10"GV	
U5	30+01.5	7.6' RT	TRACING WIRE	
U5	30+00.8	3.1' RT	8"GV	
U5	30+03.4	5.5' RT	10"GV	
U5	30+05.9	7.9' RT	8"GV	

627(3) INSTALL VALVE BOX - ADDITIVE ALTERNATE 1				
SHEET	STATION	OFFSET	FUNCTION	REMARKS
U6	34+28.5	9.5' LT	10"GV	
U6	34+30.6	12.4' LT	10"GV	
U6	34+30.7	9.9' LT	TRACING WIRE	
U6	34+33.0	10.3' LT	10"GV	

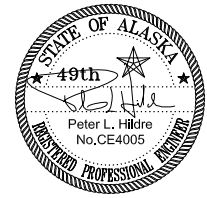
627(5) FIRE HYDRANT INSTALLATION - BASIC BID					
SHEET	AT MAIN		AT HYDRANT		REMARKS
	STATION	OFFSET	STATION	OFFSET	
U1	10+51.9	14.4' LT	10+53.3	27.3' LT	
U1	13+40.1	2.0' RT	13+40.1	17.0' RT	
U2	16+30.6	2.0' RT	16+30.6	16.8' RT	
U3	18+97.9	2.0' RT	18+97.9	16.5' RT	
U4	22+26.5	2.0' RT	22+26.5	18.5' LT	
U5	25+86.3	6.4' RT	25+86.1	18.5' LT	
U5	29+87.6	7.1' RT	29+89.4	26.3' RT	

627(5) FIRE HYDRANT INSTALLATION - ADDITIVE ALTERNATE 1					
SHEET	AT MAIN		AT HYDRANT		REMARKS
	STATION	OFFSET	STATION	OFFSET	
U6	33+90.7	1.2' LT	33+94.0	17.7' RT	

627(7) FIRE HYDRANT REMOVAL - BASIC BID			
SHEET	STATION	OFFSET	REMARKS
U1	10+51	27' LT	
U1	12+89	23' LT	
U2	16+44	19' RT	
U3	18+65	23' LT	
U4	22+45	26' LT	
U5	26+02	20' LT	
U5	29+65	22' LT	

627(7) FIRE HYDRANT REMOVAL - ADDITIVE ALTERNATE 1			
SHEET	STATION	OFFSET	REMARKS
U6	32+65	21' LT	

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CHECKED BY: P. HILDRE  PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  <b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>  <b>SUMMARY SHEETS</b>																				
PATH: S:\LIBU70112\DESIGN\SHEETS\DJ70112 -D14-D16.DWG TAB: D14 Friday, March 25, 2011 5:14:18 PM																					
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	REVISIONS			NO.	DATE	DESCRIPTION							<table border="1"> <tr> <td style="width: 40%;">PROJECT DESIGNATION</td> <td style="width: 10%;">YEAR</td> <td style="width: 10%;">SHEET NO.</td> <td style="width: 40%;">TOTAL SHEETS</td> </tr> <tr> <td style="text-align: center;"><b>68828 HPRM-003(135) &amp; 67789</b></td> <td style="text-align: center;">2011</td> <td style="text-align: center;"><b>D14</b></td> <td style="text-align: center;">117</td> </tr> </table>	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS	<b>68828 HPRM-003(135) &amp; 67789</b>	2011	<b>D14</b>	117
REVISIONS																					
NO.	DATE	DESCRIPTION																			
PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS																		
<b>68828 HPRM-003(135) &amp; 67789</b>	2011	<b>D14</b>	117																		

**627(8A) 1-INCH WATER SERVICE CONNECTION - BASIC BID**

SHEET	AT MAIN		AT PROPERTY LINE		REMARKS
	STATION	OFFSET	STATION	OFFSET	
U1	10+48.6	14.8' LT	10+47.6	27.3' LT	CTE APPROXIMATELY 10' FROM MAIN
U1	12+23.3	5.5' RT	12+20.2	24.3' LT	
U1	12+37.3	4.5' RT	12+38.4	30.4' RT	
U1	13+08.0	2.0' RT	13+06.0	42.7' RT	CTE SERVICE AT APPROXIMATELY 13' BEYOND ROW
U1	13+14.4	2.0' RT	13+14.4	30.0' LT	
U1	14+16.1	2.0' RT	14+16.1	30.1' LT	
U1	14+57.4	2.0' RT	14+57.4	30.1' LT	
U2	15+17.0	2.0' RT	15+17.0	30.1' LT	
U2	15+19.5	2.0' RT	15+19.5	30.1' LT	
U2	15+24.3	2.0' RT	15+24.3	29.9' RT	
U2	15+75.4	2.0' RT	15+75.4	29.8' RT	
U2	17+20.0	2.0' RT	17+20.0	30.0' LT	
U2	17+29.7	2.0' RT	17+29.7	30.0' RT	
U2	18+03.9	2.0' RT	18+03.9	30.0' LT	
U3	18+71.9	35.1' RT	19+01.2	35.1' RT	LYNCH STREET SERVICE
U3	19+10.1	2.0' RT	19+10.1	29.9' LT	
U3	19+33.3	2.0' RT	19+33.3	29.9' LT	
U3	19+92.7	2.0' RT	19+92.7	30.3' RT	
U3	20+23.1	2.0' RT	20+23.1	30.0' LT	
U3	20+79.5	2.0' RT	20+79.5	27.8' LT	
U3	20+83.8	2.0' RT	20+83.8	27.4' LT	
U3	20+97.5	2.0' RT	20+97.5	29.9' RT	
U3	21+08.0	2.0' RT	21+08.0	26.1' LT	
U3	21+11.0	2.0' RT	21+11.0	26.1' LT	RELOCATE EXISTING SERVICE AS REQ'D TO INSTALL ELECTROLIER
U3	21+30.9	2.0' RT	21+30.9	27.3' LT	
U3	21+66.8	2.0' RT	21+66.9	27.5' LT	
U3	21+76.0	2.0' RT	21+76.0	26.0' RT	
U4	22+09.1	2.0' RT	22+09.1	27.5' LT	
U4	22+60.1	2.0' RT	22+60.1	27.5' LT	
U4	22+86.9	2.0' RT	22+86.9	19.5' RT	
U4	22+92.7	2.0' RT	22+92.7	27.5' LT	
U4	23+24.2	2.0' RT	23+24.2	27.5' LT	
U4	23+42.8	2.0' RT	23+42.8	19.5' RT	
U4	23+82.5	2.0' RT	23+82.5	27.5' LT	
U4	23+94.6	2.0' RT	23+92.9	21.6' RT	
U4	24+05.8	2.0' RT	24+05.9	27.5' LT	
U4	24+42.5	3.1' RT	24+43.1	26.1' LT	
U4	24+95.6	4.6' RT	24+96.0	20.3' LT	
U4	25+08.3	5.0' RT	25+08.7	29.4' RT	INSTALL VALVE BOX IN BKSW
U5	25+27.7	5.4' RT	25+25.0	19.2' LT	
U5	25+37.4	5.6' RT	25+37.4	29.6' RT	INSTALL VALVE BOX IN BKSW, SEE NOTE 1
U5	25+58.12	6.0' RT	25+58.1	29.6' RT	INSTALL VALVE BOX IN BKSW, SEE NOTE 1
U5	26+03.2	6.9' RT	26+01.9	29.6' RT	
U5	26+13.1	7.5' RT	26+15.9	18.9' LT	
U5	27+22.2	13.5' RT	27+19.9	14.9' LT	
U5	27+55.1	9.8' RT	27+53.2	18.6' LT	
U5	27+96.6	5.9' RT	27+96.6	18.1' LT	SUPPORT POWER POLE AS REQUIRED TO CTE
U5	28+68.3	7.4' RT	28+69.8	32.3' RT	
U5	28+71.6	7.6' RT	28+70.0	18.0' LT	
U5	28+84.6	8.2' RT	28+84.7	16.9' LT	
U5	29+07.4	8.8' RT	29+07.5	19.7' LT	
U5	29+11.0	8.9' RT	29+10.7	31.2' RT	
U5	29+15.7	9.0' RT	29+15.1	31.6' RT	
U5	29+63.5	8.5' RT	29+62.5	18.0' LT	

**627(8A) 1-INCH WATER SERVICE CONNECTION - ADDITIVE ALTERNATE 1**

SHEET	AT MAIN		AT PROPERTY LINE		REMARKS
	STATION	OFFSET	STATION	OFFSET	
U6	31+30.3	11.3' RT	31+30.2	27.8' RT	
U6	31+60.2	11.4' RT	31+60.3	20.6' LT	
U6	31+86.5	11.5' RT	31+86.6	20.4' LT	
U6	31+89.1	11.5' RT	31+89.2	20.4' LT	
U6	32+35.5	11.4' RT	32+34.5	20.3' LT	
U6	33+40.8	3.8' RT	33+39.0	20.0' LT	
U6	33+80.2	0.4' RT	33+77.7	20.3' LT	
U6	33+85.6	0.3' LT	33+81.7	28.9' LT	
U6	33+88.5	0.8' LT	33+84.5	28.5' LT	
U6	34+16.1	6.6' LT	34+26.4	29.8' RT	


**627(8B) 6-INCH WATER SERVICE CONNECTION - BASIC BID**

SHEET	AT MAIN		AT PROPERTY LINE		REMARKS
	STATION	OFFSET	STATION	OFFSET	
U1	10+73.9	11.4' LT	10+69.4*	83.6' RT*	*STATION AND OFFSET ARE FOR CONNECTION POINT OUTSIDE ROW
U1	12+20.9	5.7' RT	12+17.3	22.8' LT	
U1	12+87.4	2.0' RT	12+80.0	47.0' RT	USE TWO 45-DEGREE BENDS TO AVOID PLANTER/SIGN. CTE AT FACE OF BUILDING.
U1	13+06.0	2.0' RT	13+00.6	43.7' RT	CTE 2" COPPER SERVICE NEAR CORNER OF BUILDING. ROUTE AROUND S-10.
U1	13+52.8	2.0' RT	13+52.8	29.7' LT	
U2	14+77.1	2.0' RT	14+77.1	29.9' RT	
U2	14+92.4	2.0' RT	14+99.3	16.6' LT	CAP END AND COORDINATE WORK WITH OWNER-INSTALLED DELUGE SYSTEM.
U2	16+25.2	2.0' RT	16+25.2	27.0' RT	
U2	17+05.2	2.0' RT	17+05.2	30.0' LT	
U3	18+46.9	2.0' RT	18+45.9	29.9' LT	CTE 4"AC IN ALLEY
U3	18+71.9	43.9' RT	19+00.9	43.9' RT	LYNCH STREET SERVICE
U3	18+71.9	40.3' RT	18+50.9	40.3' RT	LYNCH STREET SERVICE
U3	19+31.3	2.0' RT	19+31.3	29.9' LT	
U3	19+58.0	2.0' RT	19+58.0	30.3' RT	
U3	20+89.7	2.0' RT	20+89.8	30.1' RT	
U4	23+40.8	2.0' RT	23+40.8	27.5' LT	
U4	24+03.8	2.0' RT	23+99.7	30.3' RT	
U5	28+60.0	7.0' RT	28+60.9	32.7' RT	

**627(8B) 6-INCH WATER SERVICE CONNECTION - ADDITIVE ALTERNATE 1**

SHEET	AT MAIN		AT PROPERTY LINE		REMARKS
	STATION	OFFSET	STATION	OFFSET	
U6	32+28.0	11.5' RT	32+28.3	29.7' RT	
U6	32+99.6	7.0' RT	32+97.6	20.0' LT	

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
	<p align="center"><b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> PROJECT # 68828 &amp; 67789</p> <p align="center"><b>SUMMARY SHEETS</b></p>
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>
PATH: S:\LIB\70112\DESIGN\SHEETS\DJ70112 -D14-D16.DWG TAB: D15 Friday, March 25, 2011 5:14:24 PM	YEAR: 2011 SHEET NO.: <b>D15</b> TOTAL SHEETS: 117

627(9A) INSTALL 8-INCH GATE VALVE - BASIC BID			
SHEET	STATION	OFFSET	REMARKS
U1	10+46.4	15.1 LT	
U1	12+60.6	2.7' RT	
U1	12+63.1	0.1' LT	
U1	13+83.4	3.5' RT	
U2	15+65.8	0.2' RT	
U3	18+71.9	3.8' RT	
U4	22+23.1	4.1' RT	
U5	25+63.4	3.5' RT	
U5	30+00.8	3.1' RT	
U5	30+05.9	7.9' RT	

627(9B) INSTALL 10-INCH GATE VALVE - BASIC BID			
SHEET	STATION	OFFSET	REMARKS
U1	12+65.8	2.2' RT	
U1	13+81.1	2.0' RT	
U1	13+85.7	2.0' RT	
U2	15+63.3	2.0' RT	
U2	15+67.8	2.0' RT	
U3	18+69.3	2.0' RT	
U3	18+74.0	2.0' RT	
U4	22+21.1	2.0' RT	
U4	22+25.0	2.0' RT	
U5	25+61.2	6.0' RT	
U5	25+65.1	6.1' RT	
U5	29+99.2	5.9' RT	
U5	30+03.4	5.5' RT	

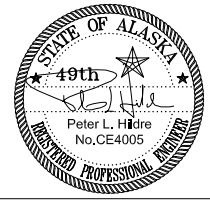
627(9B) INSTALL 10-INCH GATE VALVE - ADDITIVE ALTERNATE 1			
SHEET	STATION	OFFSET	REMARKS
U6	34+28.5	9.5' LT	
U6	34+30.6	12.4' LT	
U6	34+33.0	10.3' LT	

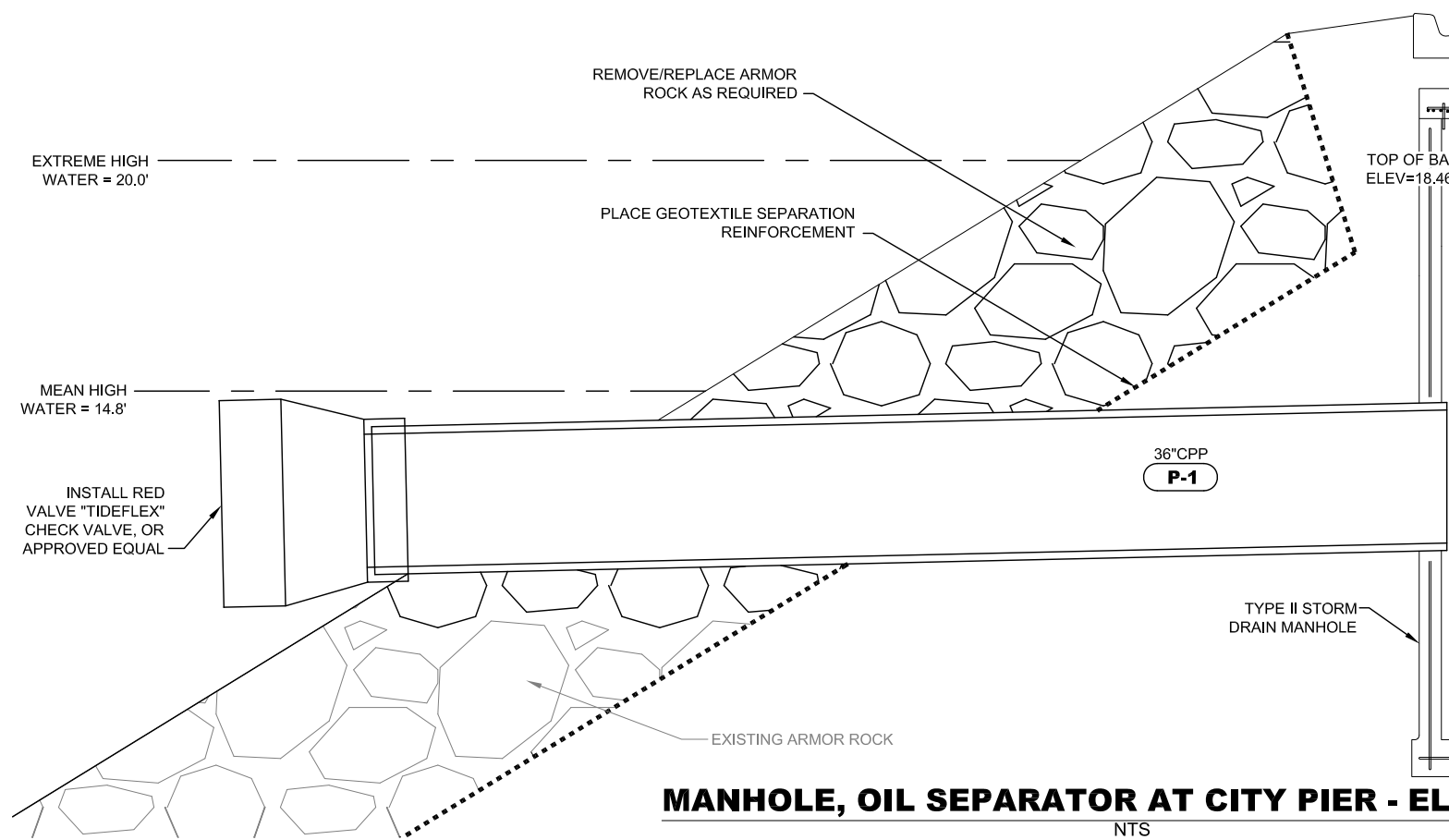
635(2) CONDUIT INSULATION - BASIC BID				
SHEET	APPROXIMATE LOCATION		NUMBER OF BOARDS	REMARKS
	STATION	OFFSET		
U1	10+45	15' LT	2	1 BOARD AGAINST PIER ABUTMENT, 1 OVER WATER CONDUIT
U1	12+63	9' LT	2	2'X8'X4" BETWEEN 8" WATER MAIN AND 18" STORM DRAIN
U1	13+83	RT	5	1 BOARD BETWEEN 8" WATER MAIN AND 36" STORM DRAIN, 4 BOARDS OVER 8" WATER MAIN LEG
U1	14+30	2' RT	2	2'X8'X4" BETWEEN 10" WATER MAIN AND 12" STORM DRAIN
U5	30+05	RT	4	4 BOARDS OVER 8" WATER MAIN LEG
U5	30+39	5' RT	2	2'X8'X4" BETWEEN 10" WATER MAIN AND 24" STORM DRAIN

635(2) CONDUIT INSULATION - ADDITIVE ALTERNATE 1				
SHEET	APPROXIMATE LOCATION		NUMBER OF BOARDS	REMARKS
	STATION	OFFSET		
U6	33+88	1' LT	2	2'X8'X4" BETWEEN 10" WATER MAIN AND 18" STORM DRAIN
U6	34+17	6.8' LT	2	2'X8'X4" BETWEEN 10" WATER MAIN AND 18" STORM DRAIN
U6	33+88	1' LT	2	2'X8'X4" BETWEEN 10" WATER MAIN AND 18" STORM DRAIN

675(1) MSE GEOTEXTILE RETAINING WALL - BASIC BID						
SHEET	FROM STATION	OFFSET	TO STATION	OFFSET	AREA (SF)	REMARKS
F4	23+94.6	30.5' RT	24+51.2	30.6' RT	368	WALL I - SNO BUILDING
F5	27+51.0	40.9' RT	29+00.9	38.8' RT	1080	WALL II - CITY MARKET

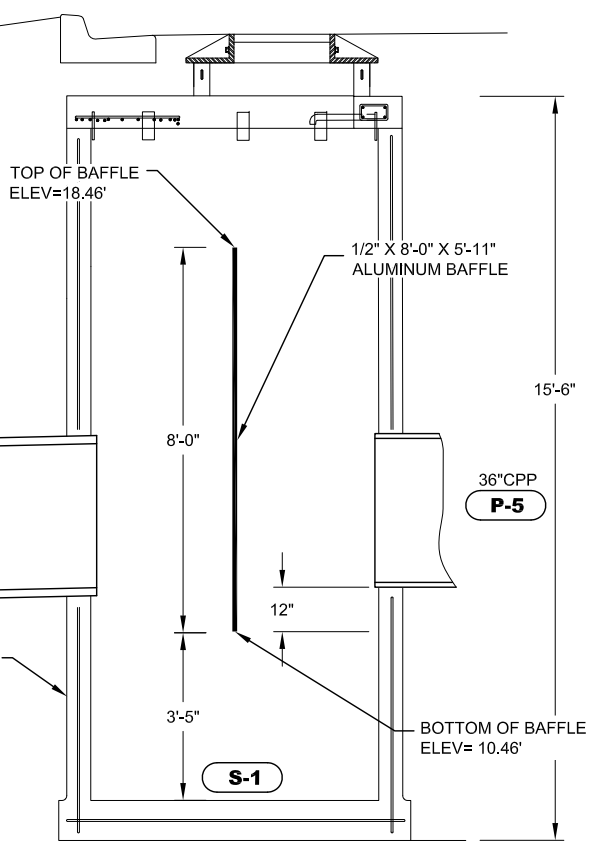
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE  PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  <b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>  <b>SUMMARY SHEETS</b>			
PATH: S:\LIB\70112\DESIGN\SHEETS\DJ70112 -D14-D16.DWG TAB: D16 Tuesday, March 29, 2011 2:45:09 PM		PROJECT DESIGNATION <b>68828 HPRM-003(135)          &amp; 67789</b>	YEAR <b>2011</b>	SHEET NO. <b>D16</b>	TOTAL SHEETS <b>117</b>



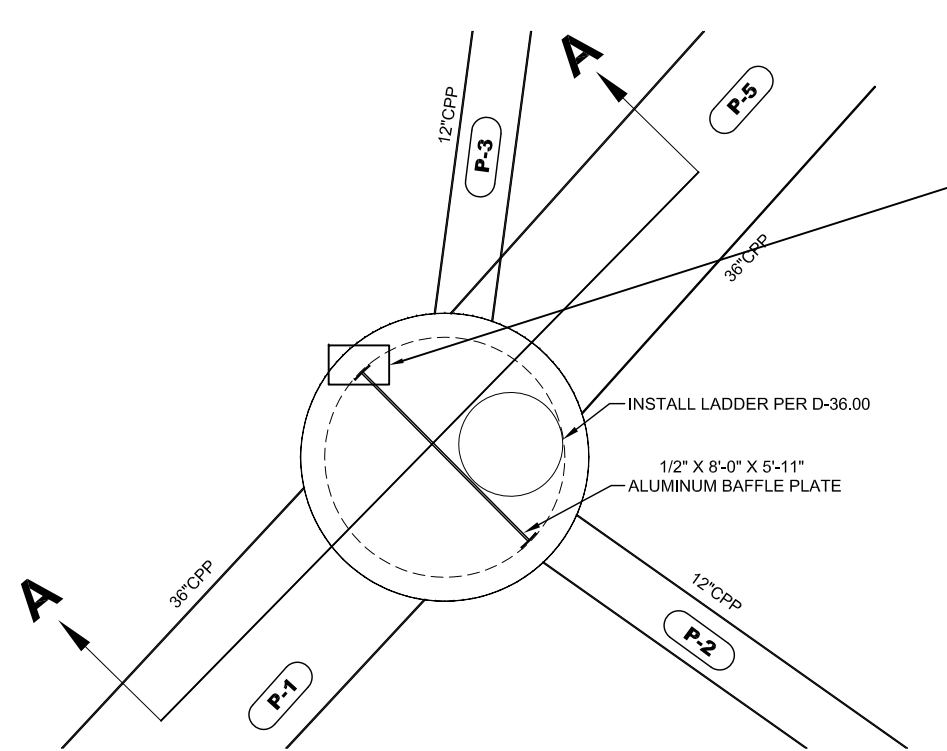
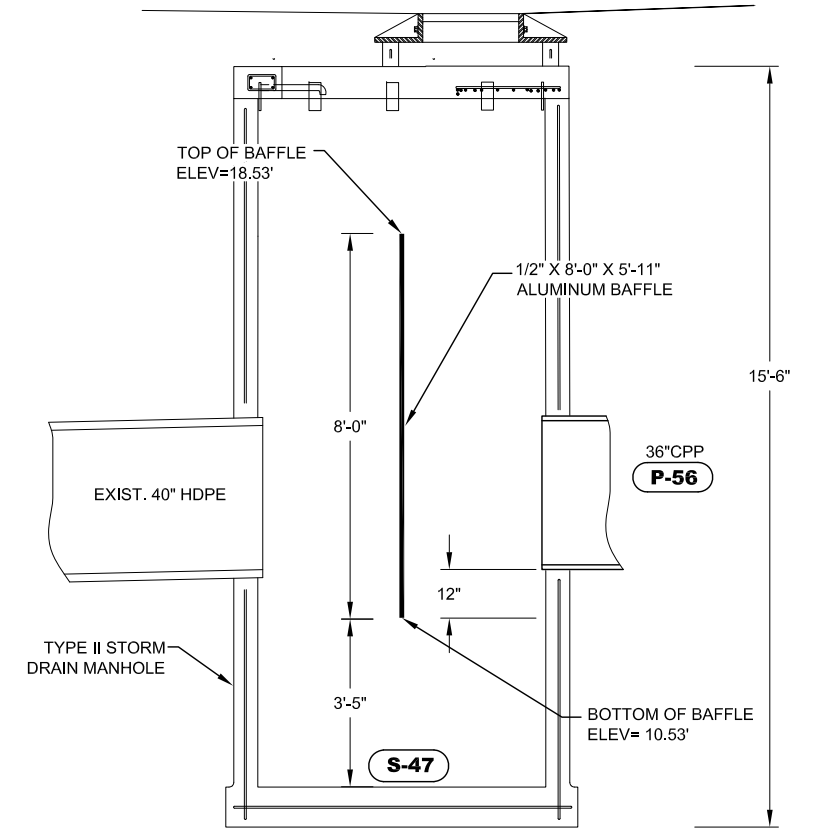
**MANHOLE, OIL SEPARATOR AT CITY PIER - ELEVATION**

NTS



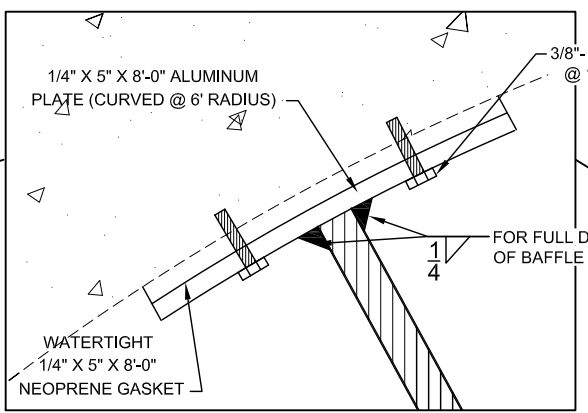
**MANHOLE, OIL SEPARATOR AT CITY MARKET - ELEVATION**

NTS



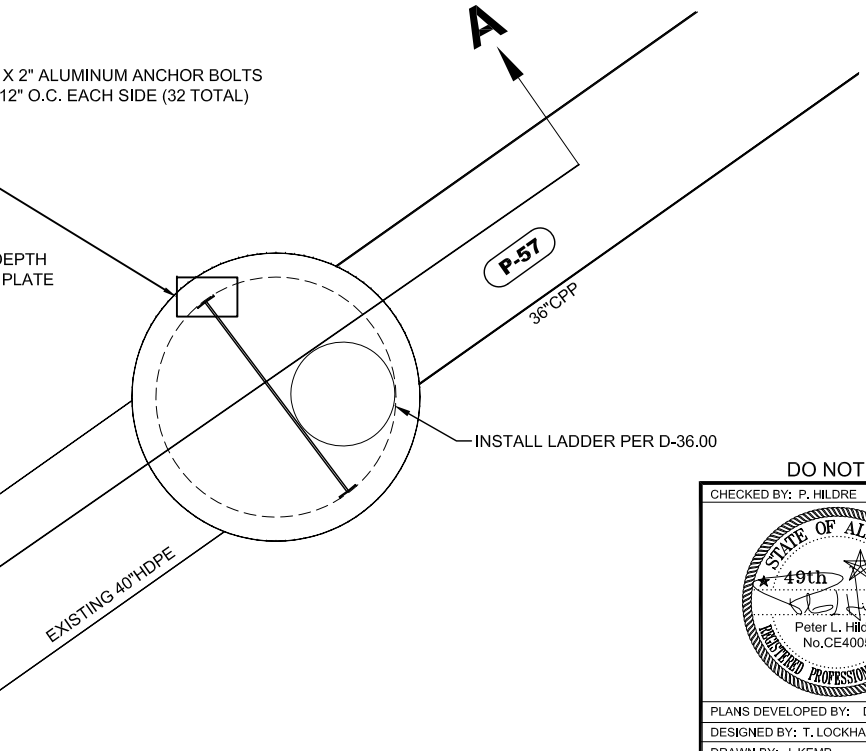
**MANHOLE, OIL SEPARATOR AT CITY PIER - PLAN**

NTS



**DETAIL**

NTS

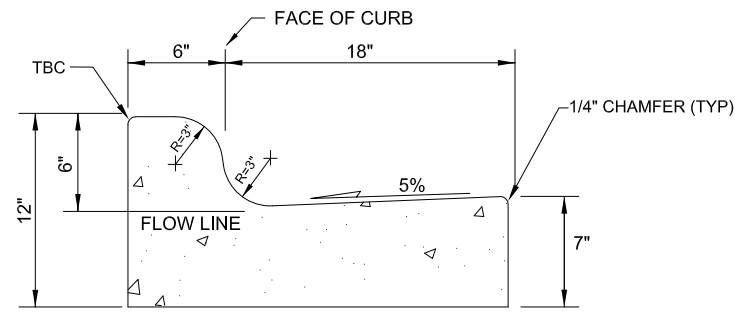


**MANHOLE, OIL SEPARATOR AT CITY MARKET - PLAN**

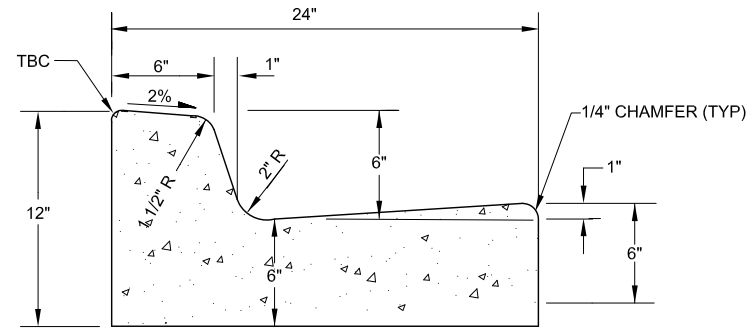
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DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

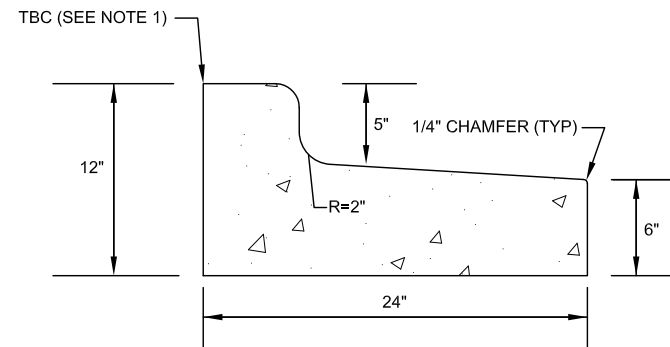
CHECKED BY: P. HILDRE 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		<b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>	
PATH: S:\LIB\70112\DESIGN\SHEETS\EJ70112-E1-E4.DWG TAB: E1 Friday, March 25, 2011 3:48:13 PM		<b>MANHOLE OIL SEPARATOR          DETAILS</b>	
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68828 HPRM-003(135)          &amp; 67789</b>	YEAR 2011
		SHEET NO. <b>E1</b>	TOTAL SHEETS 117



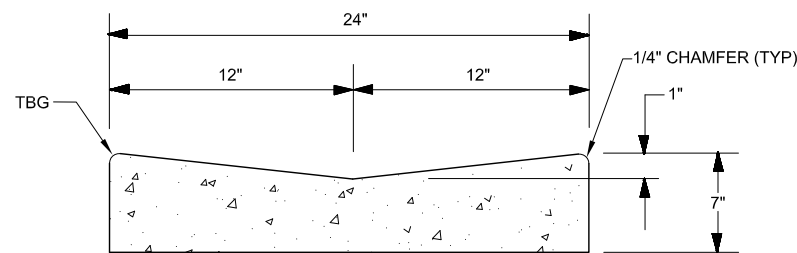
**MOUNTABLE CURB & GUTTER**



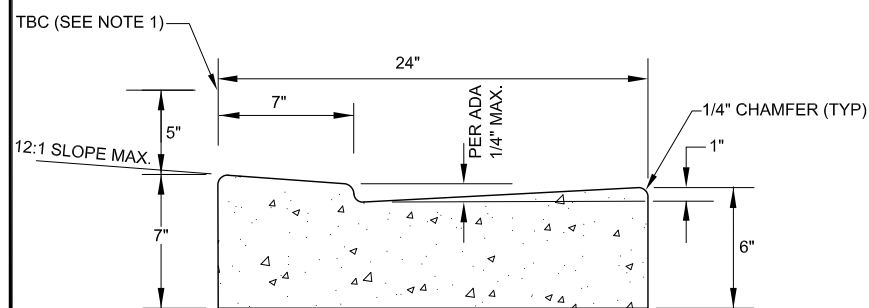
**STANDARD CURB & GUTTER**



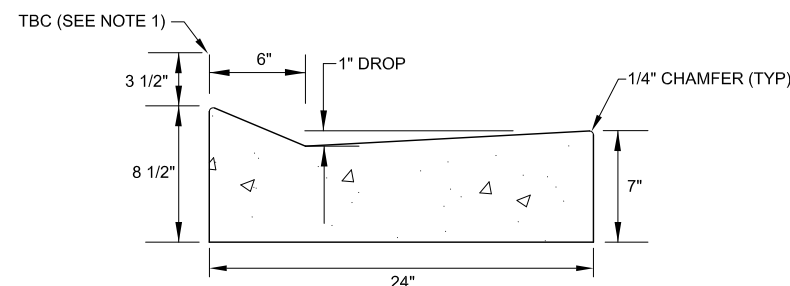
**SPILL CURB & GUTTER**



**GUTTER**



**DEPRESSED CURB & GUTTER  
(USED AT CURB CUTS AND ADA RAMPS)**

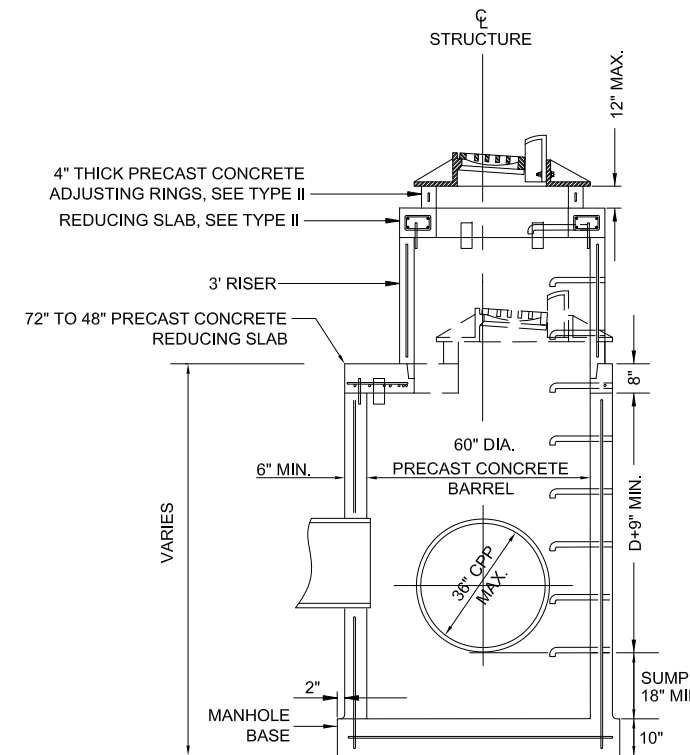


**MODIFIED DEPRESSED CURB & GUTTER**

**CURB & GUTTER DETAILS**

- NOTES:**
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC) FOR A STANDARD CURB AND GUTTER FULL 12" HEIGHT, UNLESS OTHERWISE NOTED. THE ACTUAL HEIGHT OF THE CURB WILL BE LESS THAN THE GRADE PROVIDED ON THE G SHEETS AT DRIVEWAY AND ACCESS RAMP DEPRESSIONS, AND WHERE MODIFIED DEPRESSED CURB IS EMPLOYED.
  - FINISHED GRADE AT CENTERLINE ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG.
  - SEE TYPICAL SECTIONS FOR OTHER GRADING INFORMATION.

N.T.S.



**STORM DRAIN MANHOLE, TYPE V**

**GENERAL NOTES:**

- ALL DRAINAGE STRUCTURES AND APPURTENANCES SHALL MEET THE REQUIREMENTS OF ASTM C-478.
- MINIMUM STEEL REQUIRED FOR BARREL AS PER ASTM C-478 SHALL BE EMBEDDED IN BASE SO THAT THE FIRST BARREL SECTION IS CONNECTED TO THE BASE BY CONTINUOUS STEEL.
- ALL BLOCKOUTS SHALL BE FORMED.
- STEPS SHALL BE PLACED 12" O.C. ON THE UNOBSTRUCTED SIDE OF THE STRUCTURE, 19" FROM TOP OF CASTING AND 18" MAXIMUM FROM MANHOLE BASE.
- ON STORM DRAIN MANHOLE, TYPE V STRUCTURES, PRIMARY PIPES NOT TO EXCEED 36" CORRUGATED POLYETHYLENE PIPE WITH INCLUDED ANGLE BETWEEN PIPES NO LESS THAN 150°.

**REDUCING SLAB NOTES:**

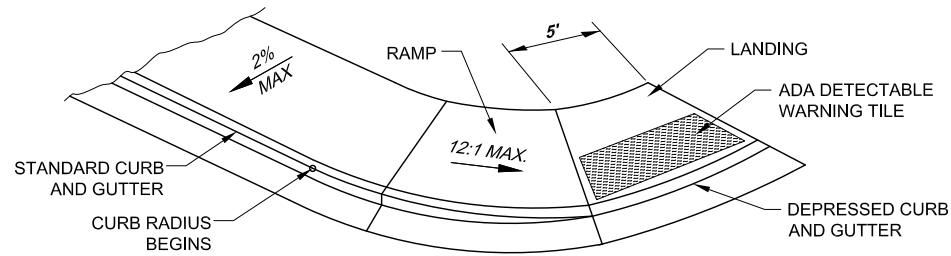
- USE NO. 5 FOR ALL REBAR EXCEPT STIRRUPS AND HOOPS.
- ALL REBAR SHALL BE SPACED AT 5" CENTERS UNLESS OTHERWISE NOTED.
- MAINTAIN A MINIMUM OF 1 1/2" OF CONCRETE COVER OVER ALL REBAR.
- TABS WILL BE 1/2"x3"x7" GALVANIZED STEEL PLATES. EVENLY SPACE 8 TABS AROUND EACH SLAB. INSERT TABS 4" INTO CONCRETE, 6 1/2" FROM OUTSIDE EDGE OF SLAB.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 &amp; 67789</b>	
PLANS DEVELOPED BY: DOWL HKM		PROJECT DESIGNATION	
DESIGNED BY: T. LOCKHART		<b>68828 HPRM-003(135) &amp; 67789</b>	
DRAWN BY: J. KEMP		YEAR	SHEET NO.
PATH: S:\LIB\70112\DESIGN\SHEETS\EJ70112-E1-E4.DWG		2011	<b>E2</b>
TAB: E2 Friday, March 25, 2011 3:48:36 PM		TOTAL SHEETS	117

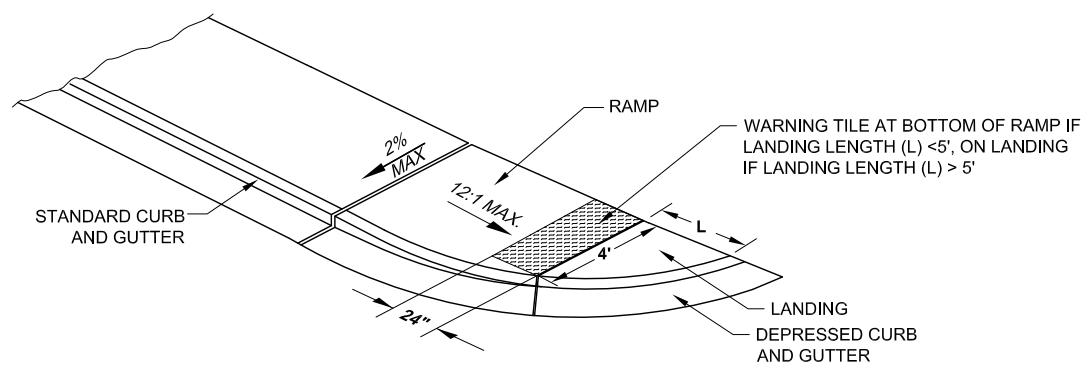
# SIDEWALK, CURB AND GUTTER NOTES

1. CONCRETE SIDEWALK, CURB AND GUTTER EXPANSION JOINTS SHALL BE AT EACH END OF CURB RETURNS AND IMMEDIATELY PRECEDING AND FOLLOWING ALL CURB CUTS. THEREAFTER, THEY SHALL BE PLACED AT 30' MAXIMUM.
2. CONCRETE SIDEWALK DUMMY JOINTS SHALL EXTEND INTO CONCRETE 1/3 THE DEPTH AND 1/8" WIDE AT 5' MAXIMUM INTERVALS BETWEEN EXPANSION JOINTS.
3. ALL JOINTS AND SEAMS SHALL BE EDGED.
4. WHERE THE ROADWAY IS SUPERELEVATED OR IS NOT CROWNED USING A CONTINUOUS CROSS-SLOPE, THE GUTTER PAN ON THE HIGH SIDE OF THE ROADWAY SHALL MATCH THE SLOPE OF THE ROADWAY AND DRAIN TOWARD THE CENTER OF THE ROADWAY.
5. STEEL TROWELING FINISH REQUIRED PRIOR TO BROOM FINISHING ON ALL SURFACES.
6. CURING COMPOUND SHALL BE APPLIED TO THE CONCRETE. APPLICATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.



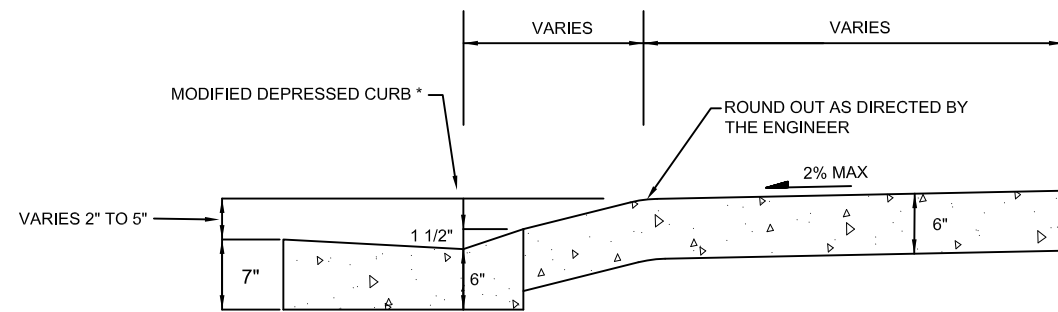
**RADIAL SIDEWALK TERMINATION DETAIL**

N.T.S.



**RADIAL SIDEWALK TERMINATION DETAIL**

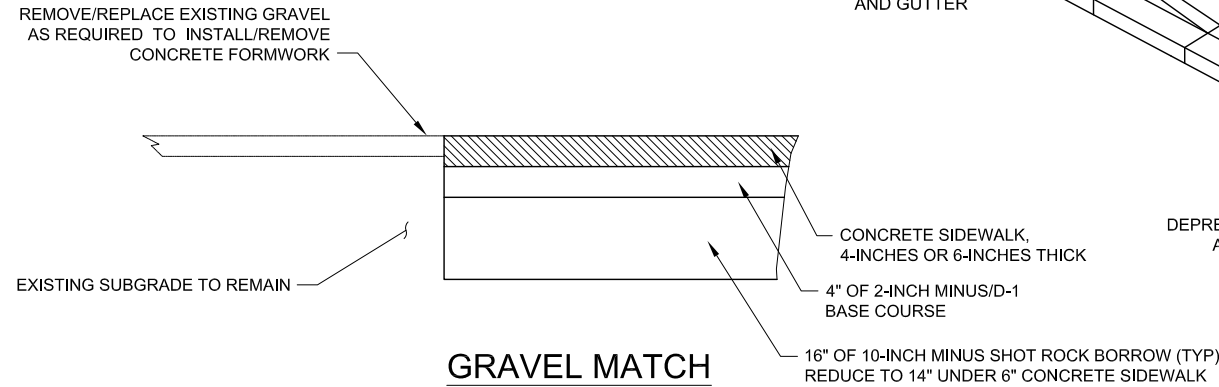
N.T.S.



\* SOME DRIVEWAYS WILL NOT REQUIRE THESE FULL GRADE ADJUSTMENTS, BUT MAY REQUIRE A LESSER ADJUSTMENT TO BE DETERMINED BY THE ENGINEER. ALL DRIVEWAY CURBING AND SIDEWALK SECTIONS SHALL BE CONSTRUCTED AS DIRECTED BY THE ENGINEER.

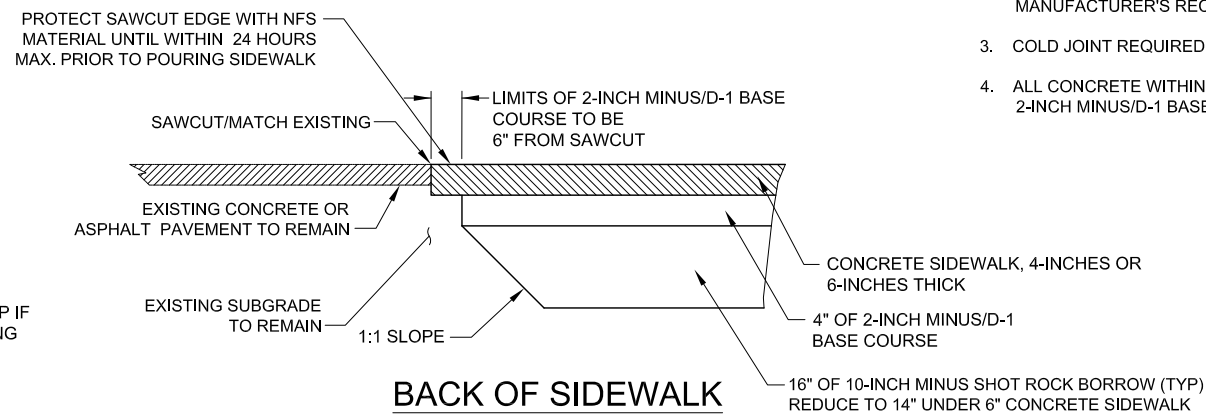
**SIDEWALK GRADE BREAK SECTION**

NTS



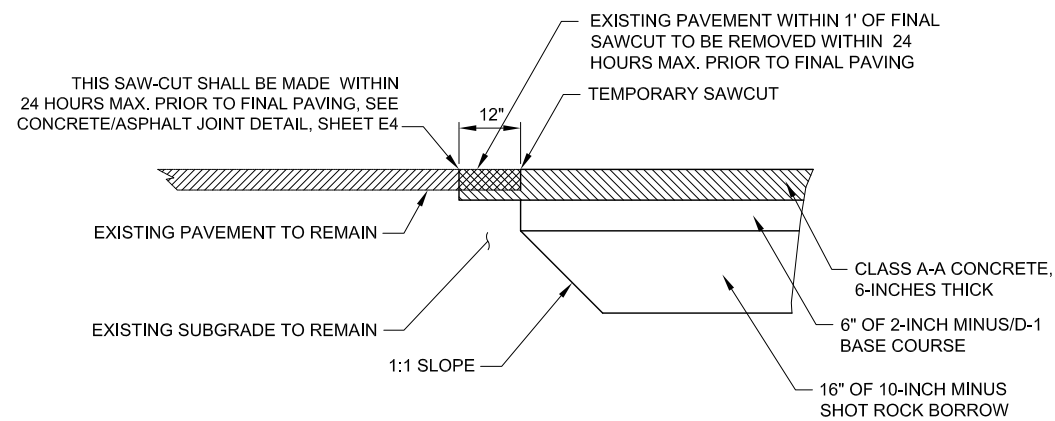
**GRAVEL MATCH DETAIL**

N.T.S.



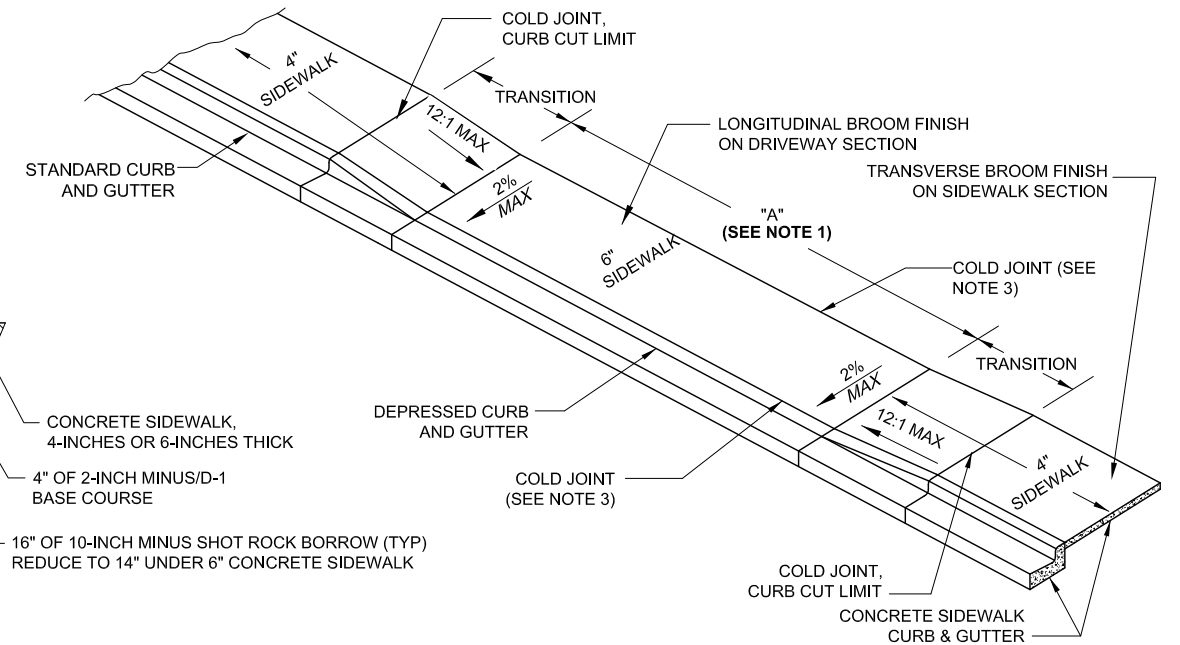
**BACK OF SIDEWALK SAWCUT DETAIL**

N.T.S.



**STREET CONCRETE/ASPHALT PAVEMENT MATCH DETAIL**

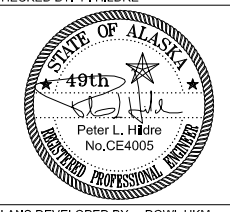
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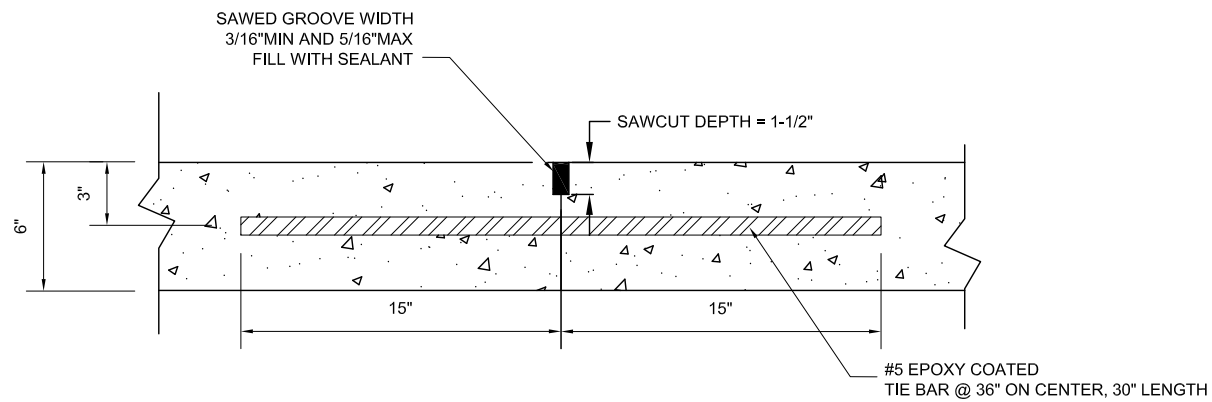
**NOTES:**

1. "A" EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE.
2. CURING COMPOUND SHALL BE APPLIED TO THE CONCRETE. APPLICATION SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS.
3. COLD JOINT REQUIRED BETWEEN SIDEWALK AND DRIVEWAY AND BETWEEN SIDEWALK AND CURB.
4. ALL CONCRETE WITHIN THE CURB CUT LIMITS SHALL BE 6" THICK AND SHALL BE POURED ON A 4" BASE OF 2-INCH MINUS/D-1 BASE COURSE PER NOTE 2 ON SHEET B1.

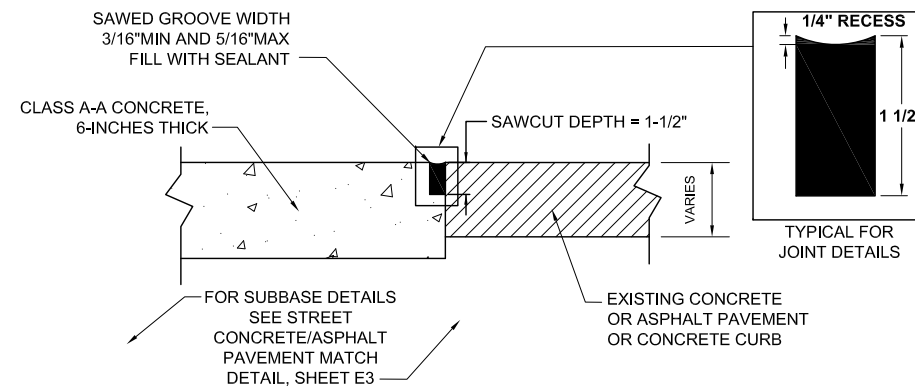
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES			
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>			
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP					
PATH: S:\LIB\70112\DESIGN\SHEETS\EJ70112-E1-E4.DWG TAB: E3 Friday, March 25, 2011 3:48:38 PM		<b>SIDEWALK AND TRANSITION DETAILS</b>			
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR 2011	SHEET NO. <b>E3</b>	TOTAL SHEETS 117

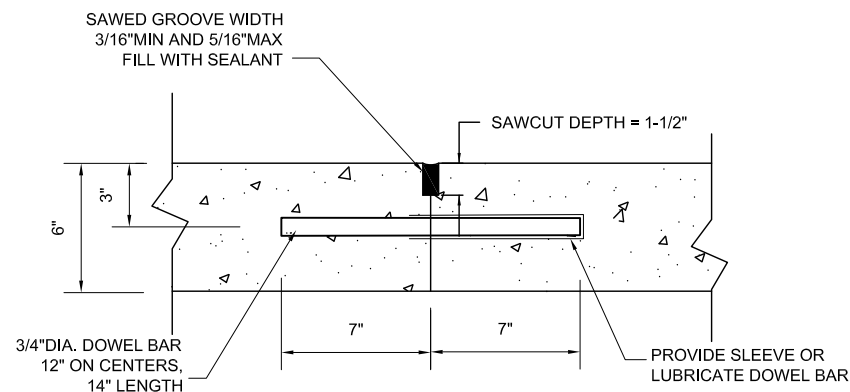




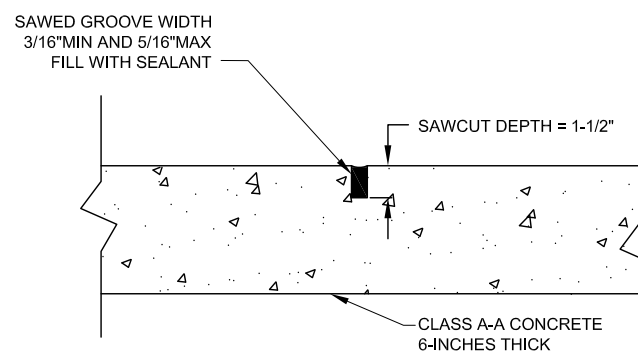
**CENTERLINE LONGITUDINAL JOINT DETAIL**  
NTS



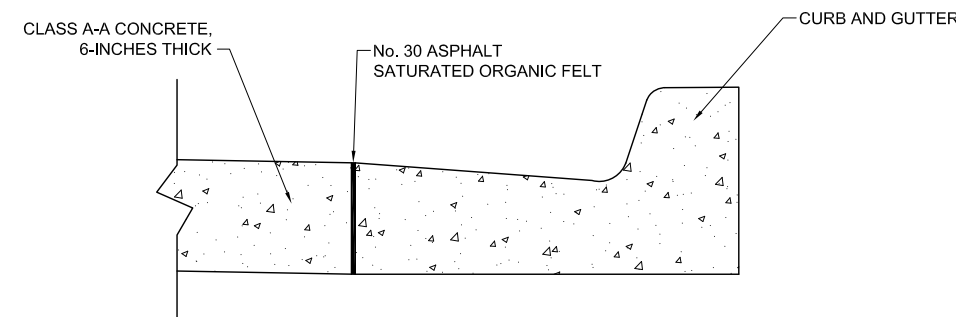
**CONCRETE/ASPHALT JOINT DETAIL**  
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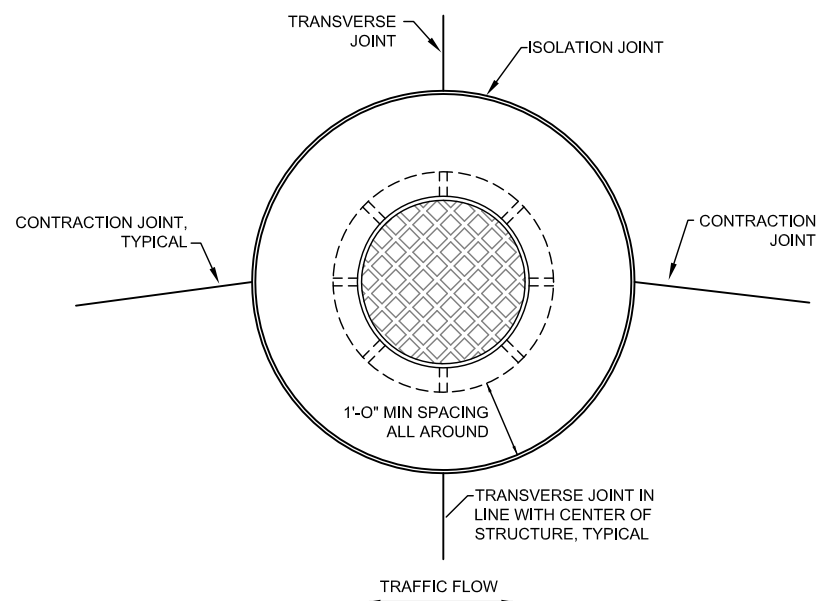
**TRANSVERSE CONSTRUCTION JOINT DETAIL**  
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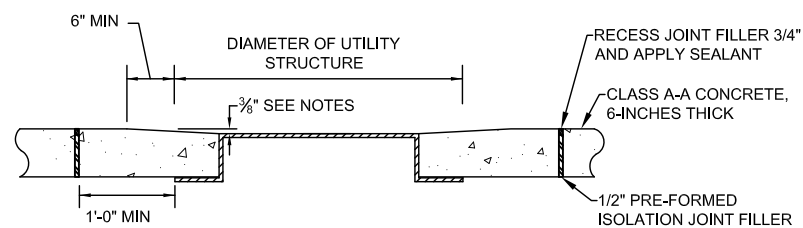
**CONTRACTION JOINT DETAIL**  
NTS



**CURB AND GUTTER JOINT**  
NTS



**UTILITY STRUCTURE ISOLATION JOINT AND DEPRESSION**  
NTS

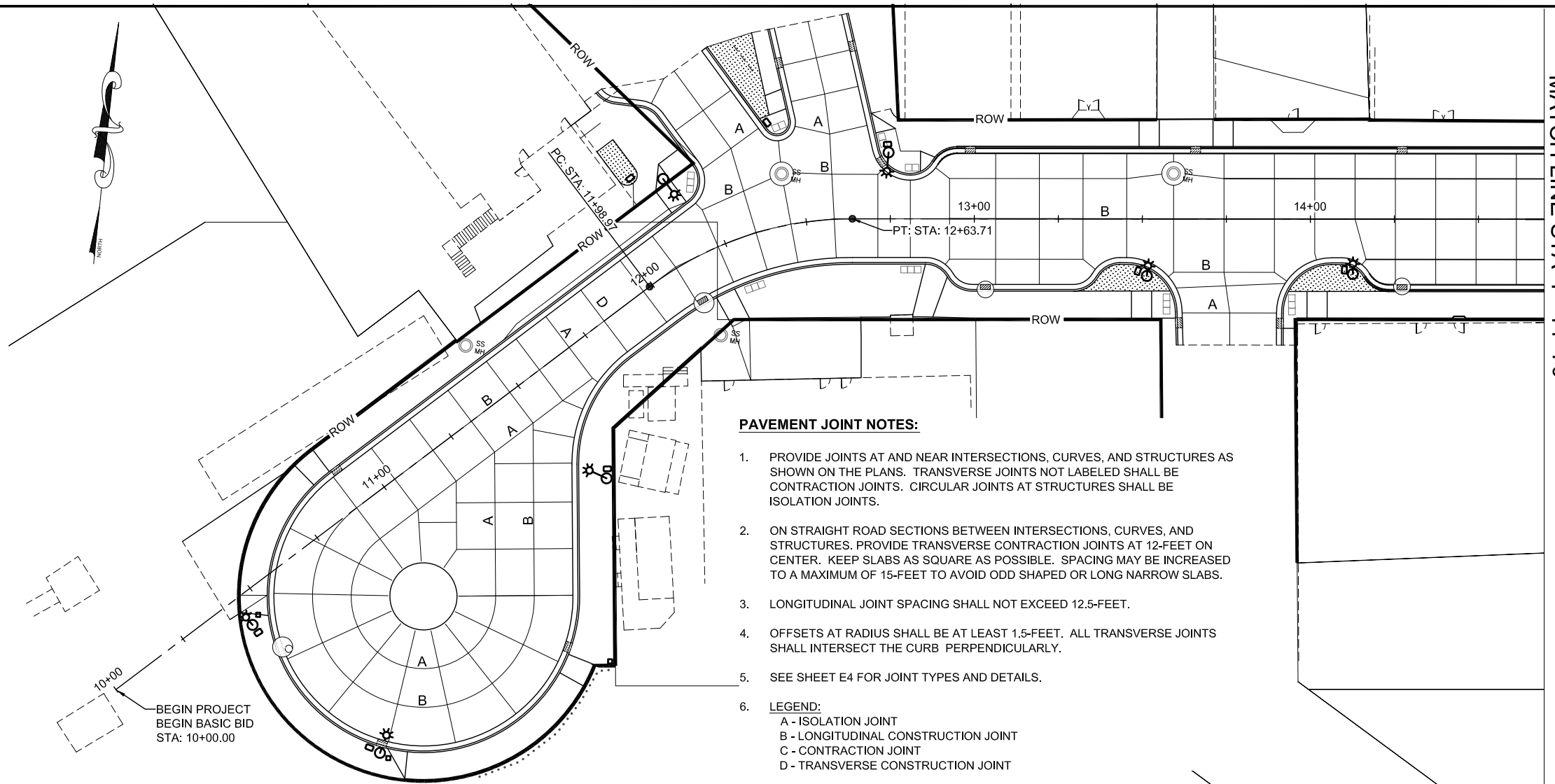


**NOTES:**

- TOP OF MANHOLE COVER LUGS AND/OR EMBOSSED LETTERING, IF HIGHER THAN FRAME, SHALL BE 3/8" MINIMUM TO 1/2" MAXIMUM BELOW FINISH GRADE OF CONCRETE PAVEMENT. TAPER CONCRETE TO MEET STRUCTURE RIM.
- THIS DETAIL SHALL ALSO APPLY TO ELECTRICAL VAULT FRAME AND COVERS, VALVE BOXES AND CLEANOUTS. FOR STRUCTURES LESS THAN 1'-0" DIA., OMIT ISOLATION JOINT.
- NO CONCRETE SHALL EXTEND OVER, UNDER, THROUGH, OR BETWEEN SECTIONS OF THE JOINT FILLER. AFTER CONCRETE HARDENS, RECESS TOP OF FILLER 3/4" FOR SEALANT.
- MANHOLE FRAME AND COVER SHALL CONFORM TO THE GRADE AND CROSS SLOPE OF STREET. VALVE BOXES IN SIDEWALK AREAS SHALL BE FLUSH WITH SURFACE AND SHALL HAVE AN ADA APPROVED SURFACE.

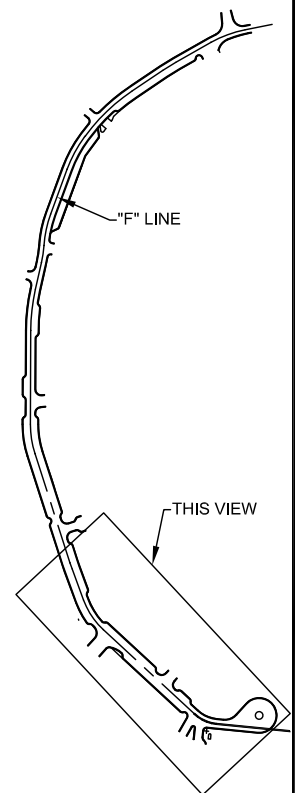
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CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>	
PLANS DEVELOPED BY: DOWL HKM		PROJECT DESIGNATION	
DESIGNED BY: T. LOCKHART		68828 HPRM-003(135)	
DRAWN BY: J. KEMP		& 67789	
PATH: S:\LIB\70112\DESIGN\SHEETS\EJ70112-E1-E4.DWG		YEAR	SHEET NO.
TAB: E4 Friday, March 25, 2011 3:48:43 PM		2011	E4
REVISIONS		TOTAL SHEETS	117
NO.	DATE	DESCRIPTION	



- PAVEMENT JOINT NOTES:**
1. PROVIDE JOINTS AT AND NEAR INTERSECTIONS, CURVES, AND STRUCTURES AS SHOWN ON THE PLANS. TRANSVERSE JOINTS NOT LABELED SHALL BE CONTRACTION JOINTS. CIRCULAR JOINTS AT STRUCTURES SHALL BE ISOLATION JOINTS.
  2. ON STRAIGHT ROAD SECTIONS BETWEEN INTERSECTIONS, CURVES, AND STRUCTURES. PROVIDE TRANSVERSE CONTRACTION JOINTS AT 12-FEET ON CENTER. KEEP SLABS AS SQUARE AS POSSIBLE. SPACING MAY BE INCREASED TO A MAXIMUM OF 15-FEET TO AVOID ODD SHAPED OR LONG NARROW SLABS.
  3. LONGITUDINAL JOINT SPACING SHALL NOT EXCEED 12.5-FEET.
  4. OFFSETS AT RADIUS SHALL BE AT LEAST 1.5-FEET. ALL TRANSVERSE JOINTS SHALL INTERSECT THE CURB PERPENDICULARLY.
  5. SEE SHEET E4 FOR JOINT TYPES AND DETAILS.
  6. **LEGEND:**  
 A - ISOLATION JOINT  
 B - LONGITUDINAL CONSTRUCTION JOINT  
 C - CONTRACTION JOINT  
 D - TRANSVERSE CONSTRUCTION JOINT

BEGIN PROJECT  
BEGIN BASIC BID  
STA: 10+00.00



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

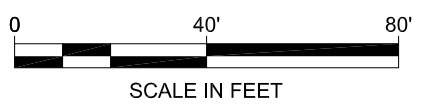
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

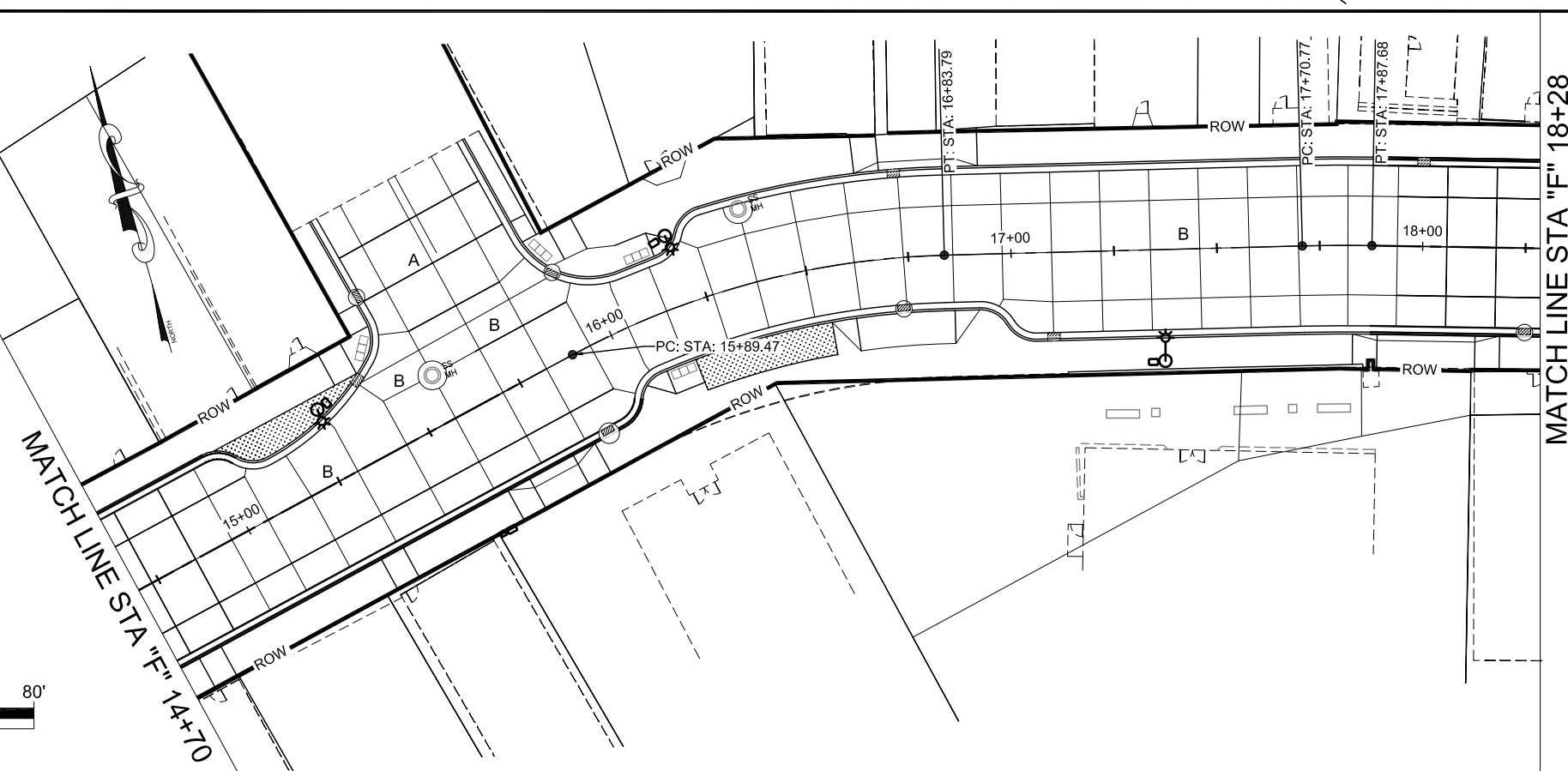
**JOINT LAYOUT**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

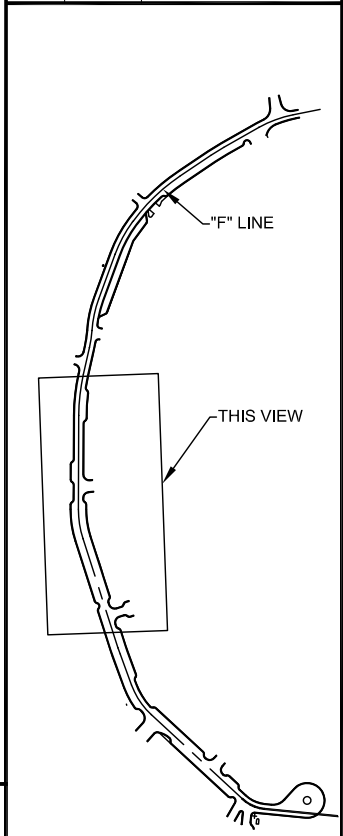
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E5</b>	<b>117</b>



SCALE IN FEET



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



**PLAN LEGEND**

CHECKED BY:



PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

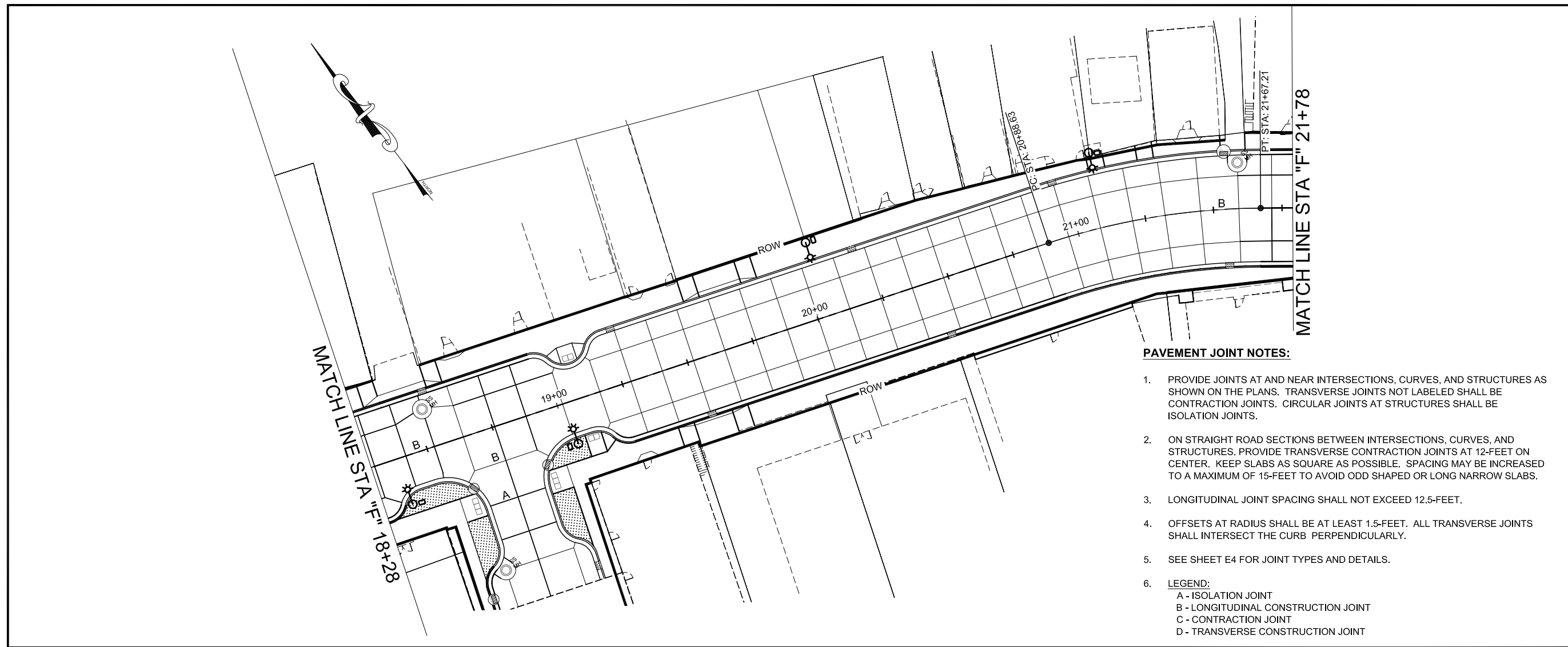
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**JOINT LAYOUT**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

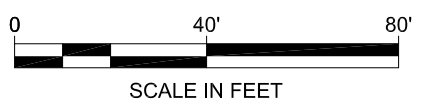
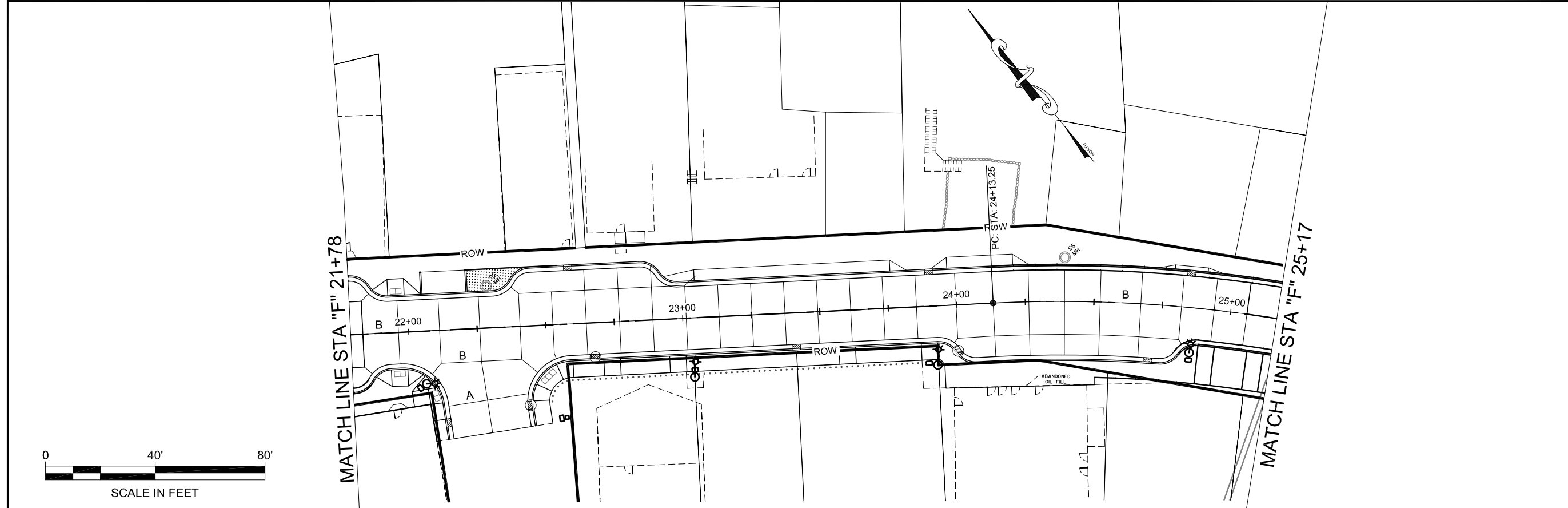
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

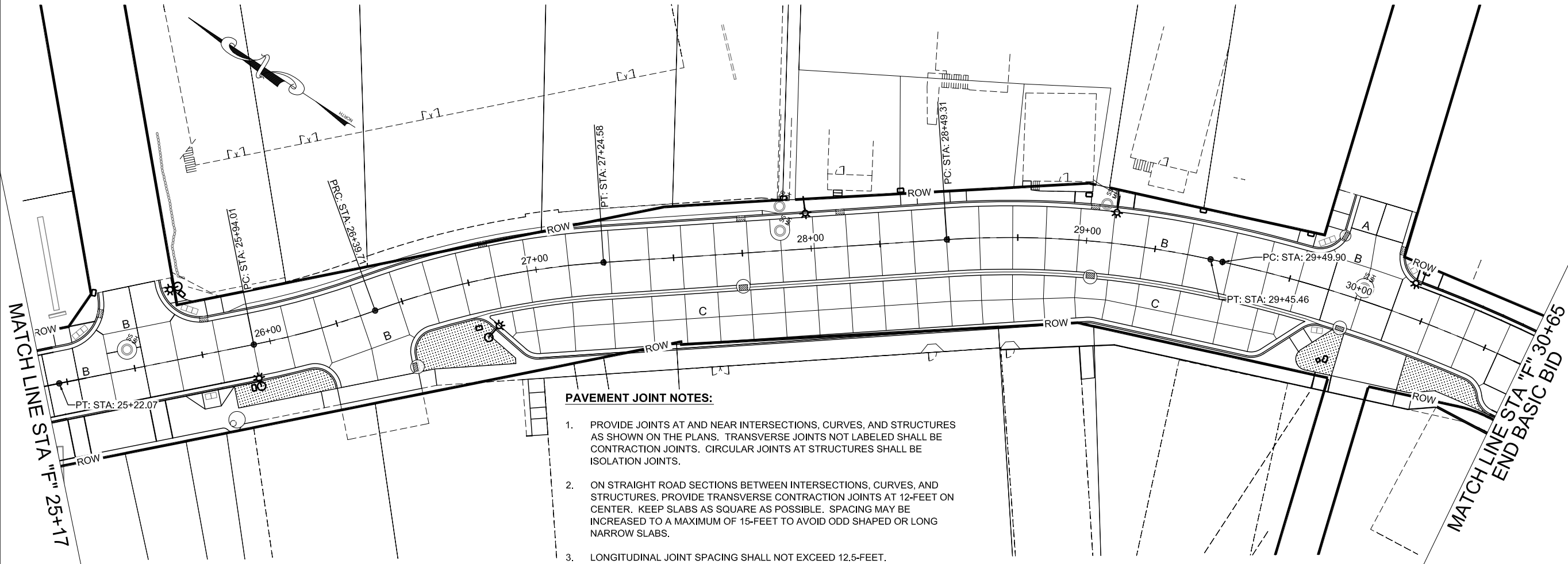
SHEET NUMBER	TOTAL SHEETS
<b>E6</b>	<b>117</b>



**PAVEMENT JOINT NOTES:**

1. PROVIDE JOINTS AT AND NEAR INTERSECTIONS, CURVES, AND STRUCTURES AS SHOWN ON THE PLANS. TRANSVERSE JOINTS NOT LABELED SHALL BE CONTRACTION JOINTS. CIRCULAR JOINTS AT STRUCTURES SHALL BE ISOLATION JOINTS.
2. ON STRAIGHT ROAD SECTIONS BETWEEN INTERSECTIONS, CURVES, AND STRUCTURES, PROVIDE TRANSVERSE CONTRACTION JOINTS AT 12-FEET ON CENTER. KEEP SLABS AS SQUARE AS POSSIBLE. SPACING MAY BE INCREASED TO A MAXIMUM OF 15-FEET TO AVOID ODD SHAPED OR LONG NARROW SLABS.
3. LONGITUDINAL JOINT SPACING SHALL NOT EXCEED 12.5-FEET.
4. OFFSETS AT RADIUS SHALL BE AT LEAST 1.5-FEET. ALL TRANSVERSE JOINTS SHALL INTERSECT THE CURB PERPENDICULARLY.
5. SEE SHEET E4 FOR JOINT TYPES AND DETAILS.
6. **LEGEND:**  
A - ISOLATION JOINT  
B - LONGITUDINAL CONSTRUCTION JOINT  
C - CONTRACTION JOINT  
D - TRANSVERSE CONSTRUCTION JOINT

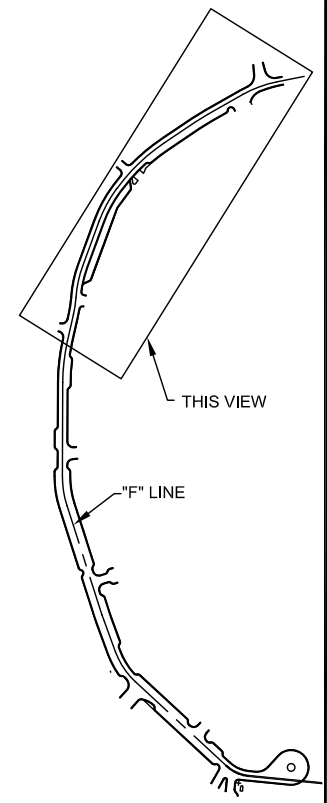
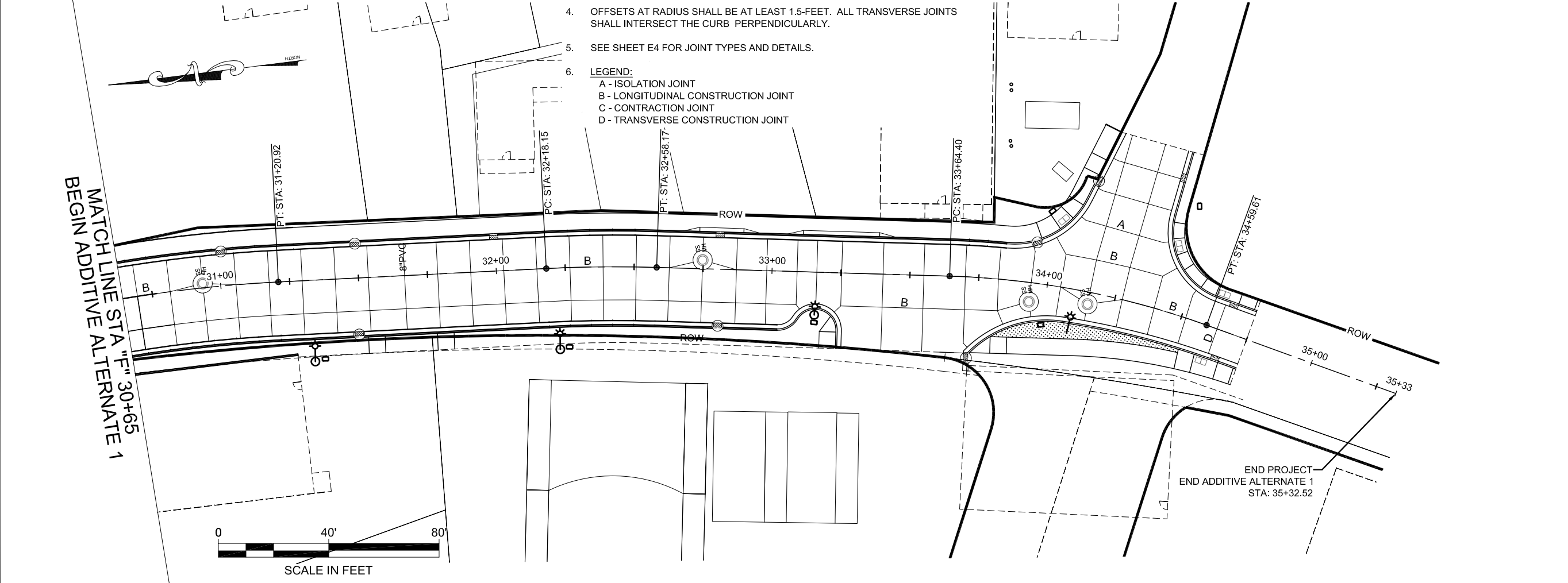




**PAVEMENT JOINT NOTES:**

1. PROVIDE JOINTS AT AND NEAR INTERSECTIONS, CURVES, AND STRUCTURES AS SHOWN ON THE PLANS. TRANSVERSE JOINTS NOT LABELED SHALL BE CONTRACTION JOINTS. CIRCULAR JOINTS AT STRUCTURES SHALL BE ISOLATION JOINTS.
2. ON STRAIGHT ROAD SECTIONS BETWEEN INTERSECTIONS, CURVES, AND STRUCTURES, PROVIDE TRANSVERSE CONTRACTION JOINTS AT 12-FOOT ON CENTER. KEEP SLABS AS SQUARE AS POSSIBLE. SPACING MAY BE INCREASED TO A MAXIMUM OF 15-FOOT TO AVOID ODD SHAPED OR LONG NARROW SLABS.
3. LONGITUDINAL JOINT SPACING SHALL NOT EXCEED 12.5-FOET.
4. OFFSETS AT RADIUS SHALL BE AT LEAST 1.5-FOET. ALL TRANSVERSE JOINTS SHALL INTERSECT THE CURB PERPENDICULARLY.
5. SEE SHEET E4 FOR JOINT TYPES AND DETAILS.

6. **LEGEND:**
- A - ISOLATION JOINT
  - B - LONGITUDINAL CONSTRUCTION JOINT
  - C - CONTRACTION JOINT
  - D - TRANSVERSE CONSTRUCTION JOINT



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**JOINT LAYOUT**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

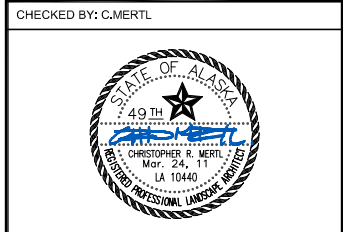
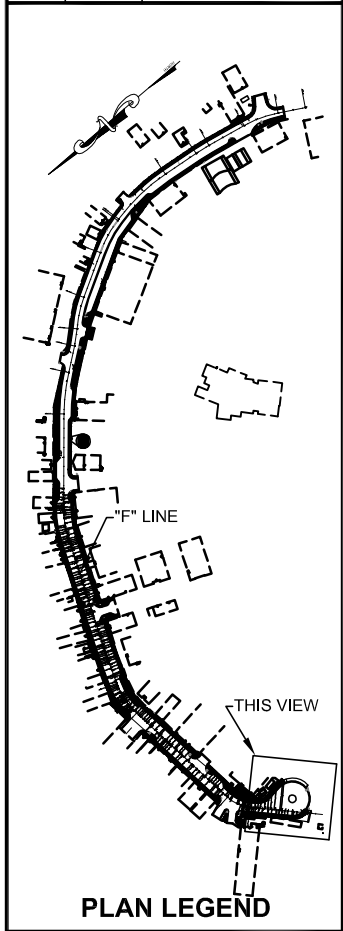
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E7</b>	<b>117</b>

PATH: J:\DOW 10-01 WRANGELL ROAD\CAD\IG SHEET LAYOUT.DWG

MIKE RUTLEDGE

TAB: E8 3/24/2011 12:45 PM

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



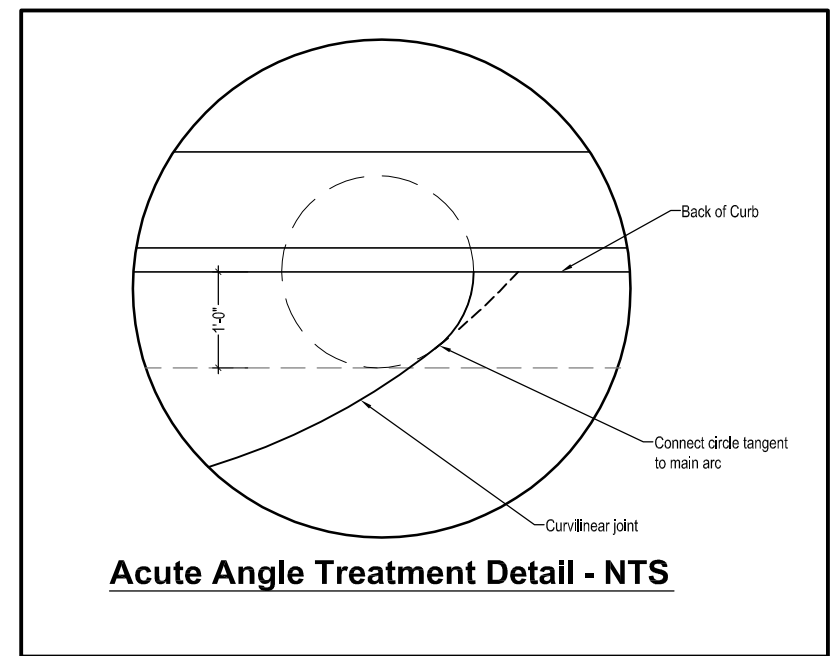
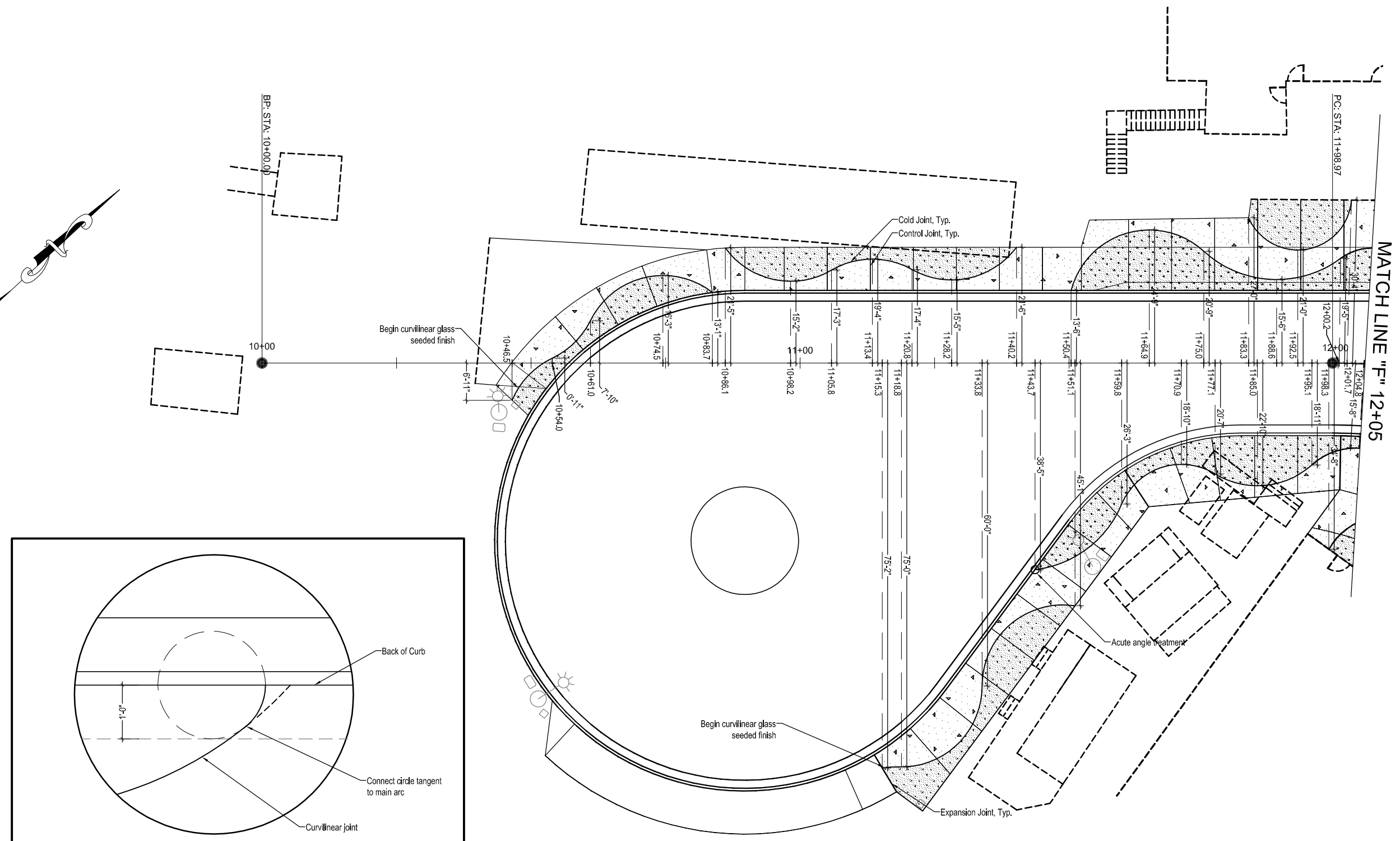
PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 SIDEWALK SURFACING**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E8</b>	<b>117</b>



**Legend**

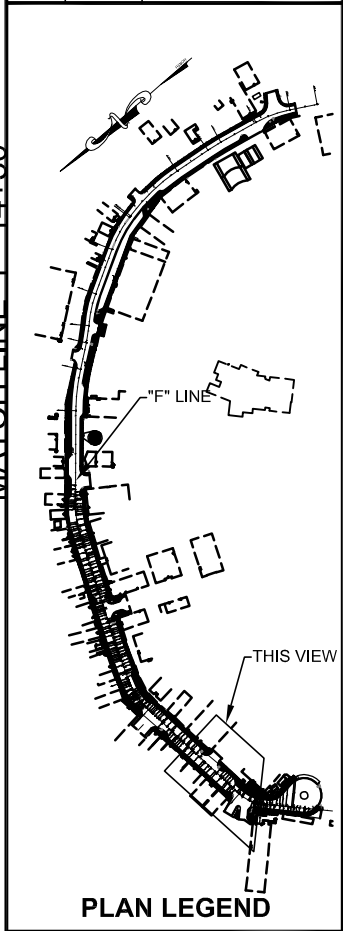
Glass seeded concrete paving

Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

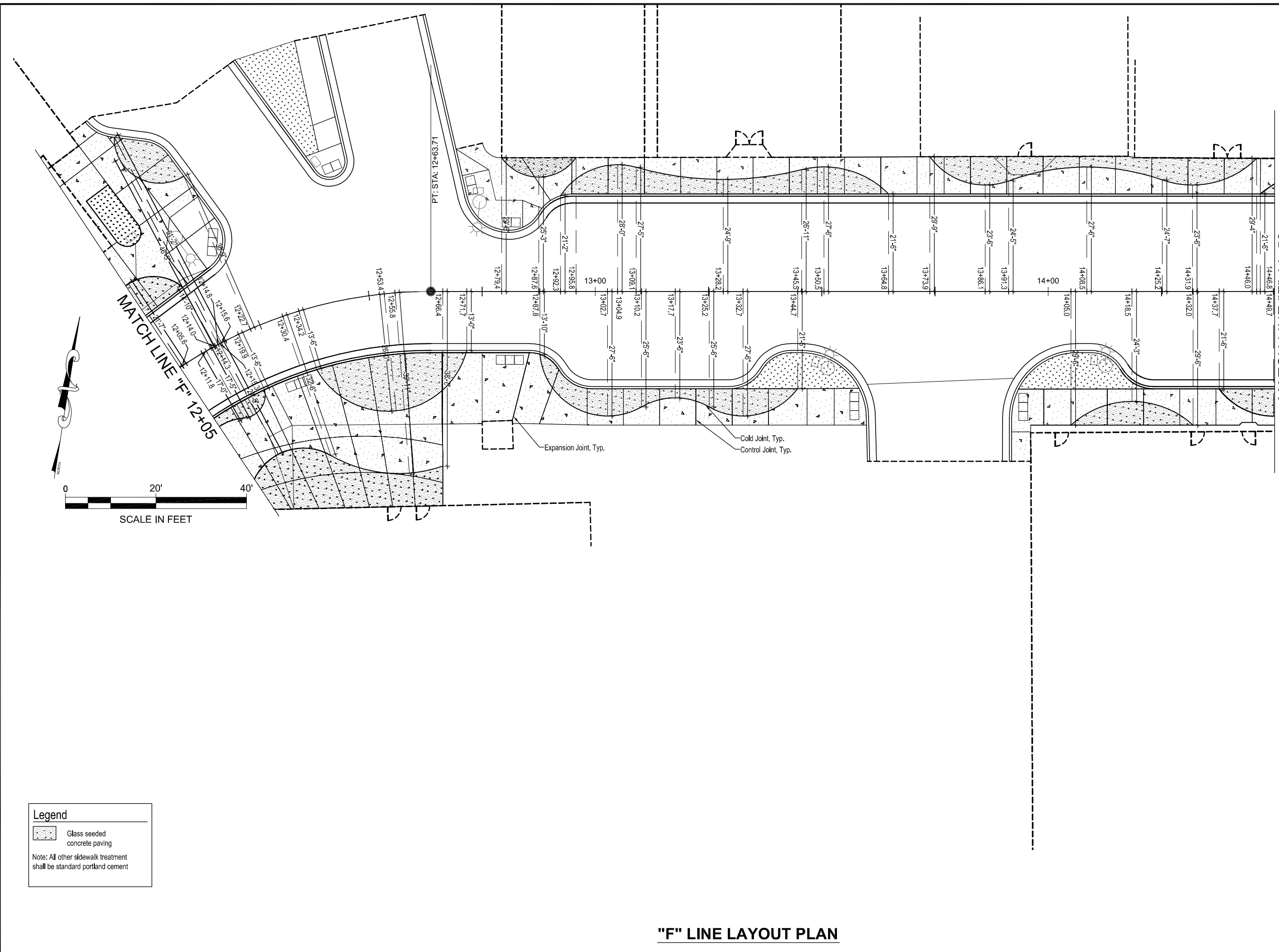


PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS  
 SIDEWALK  
 SURFACING**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E9</b>	<b>117</b>



MATCH LINE "F" 12+05

MATCHLINE "F" 14+50



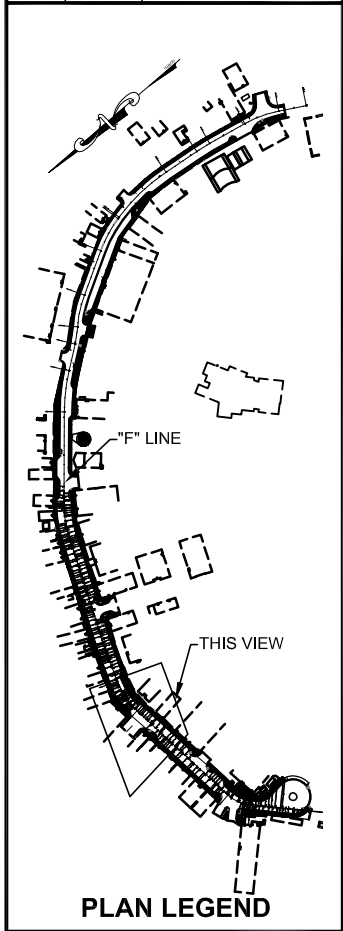
**Legend**

Glass seeded concrete paving

Note: All other sidewalk treatment shall be standard portland cement

**"F" LINE LAYOUT PLAN**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

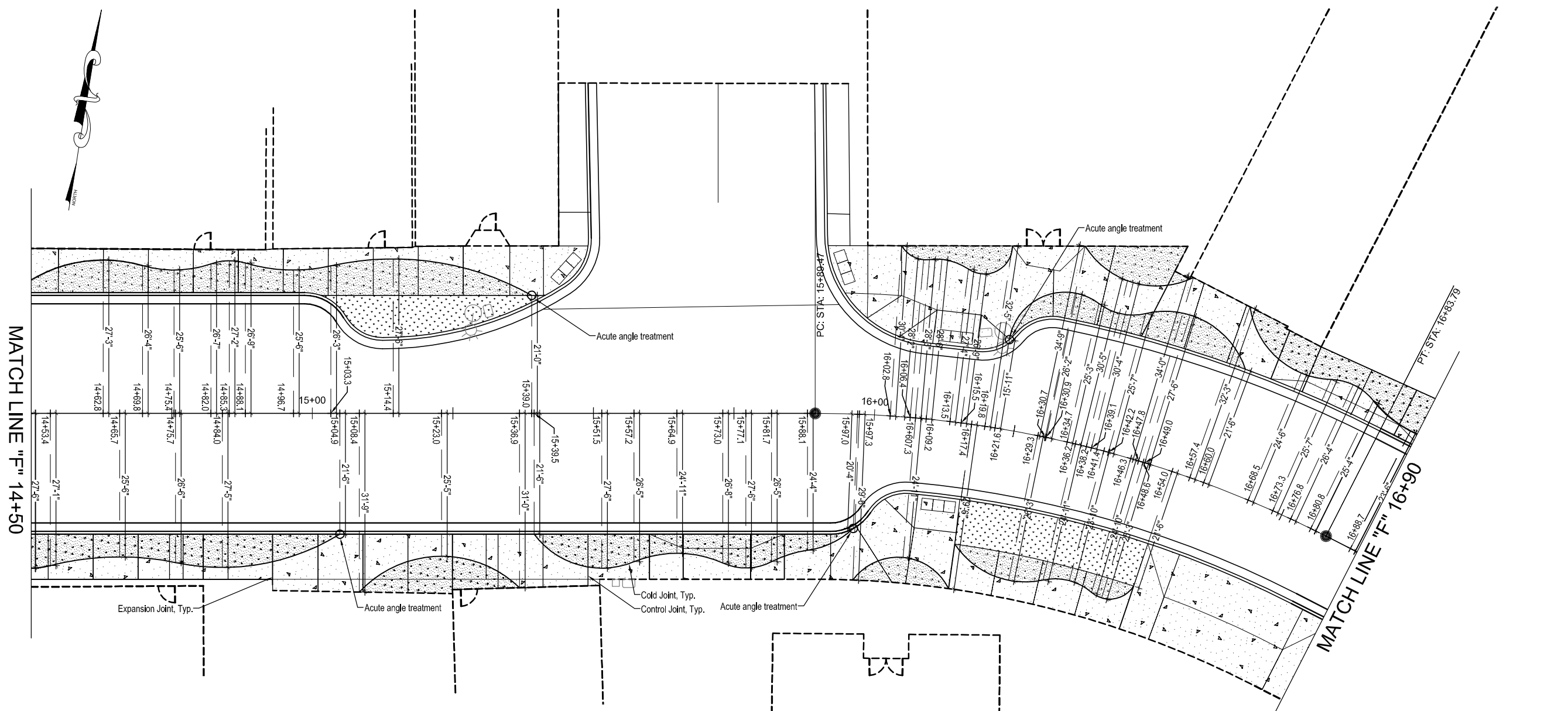


PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

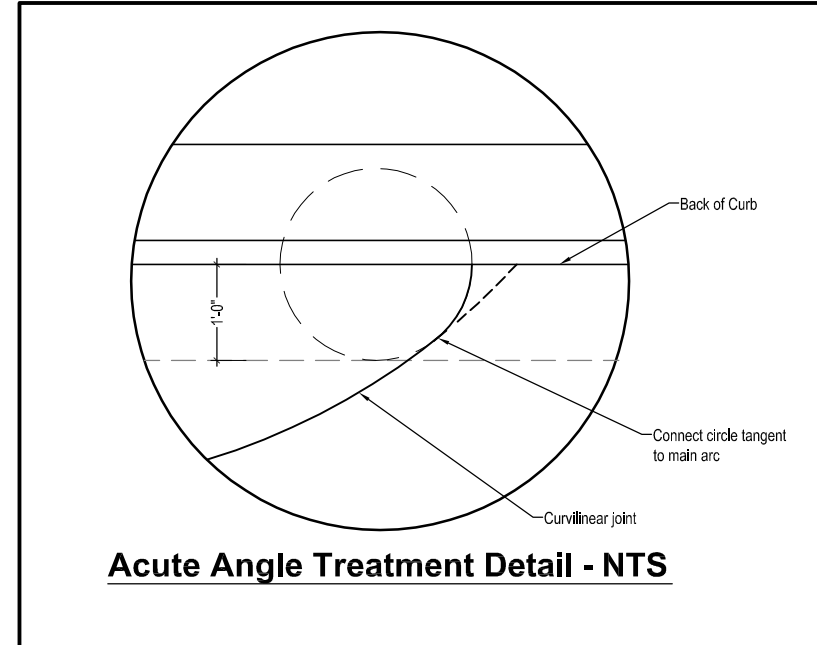
**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 SIDEWALK SURFACING**  
 68828 HPRM-003(135) & 67789

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E10</b>	<b>117</b>



MATCH LINE "F" 14+50

MATCH LINE "F" 16+90



**Legend**

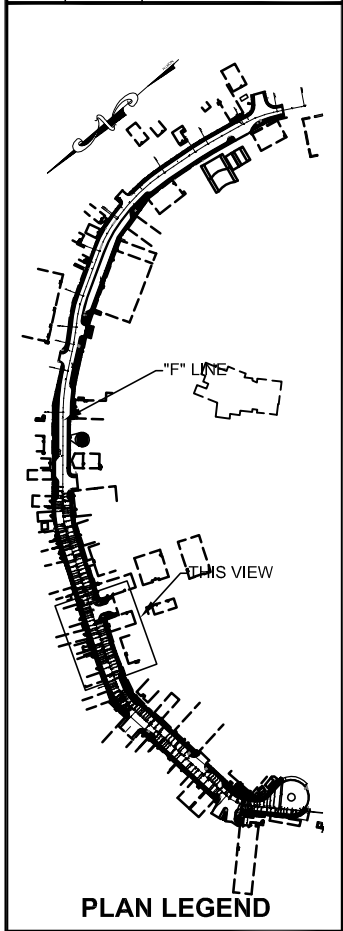
Glass seeded concrete paving

Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

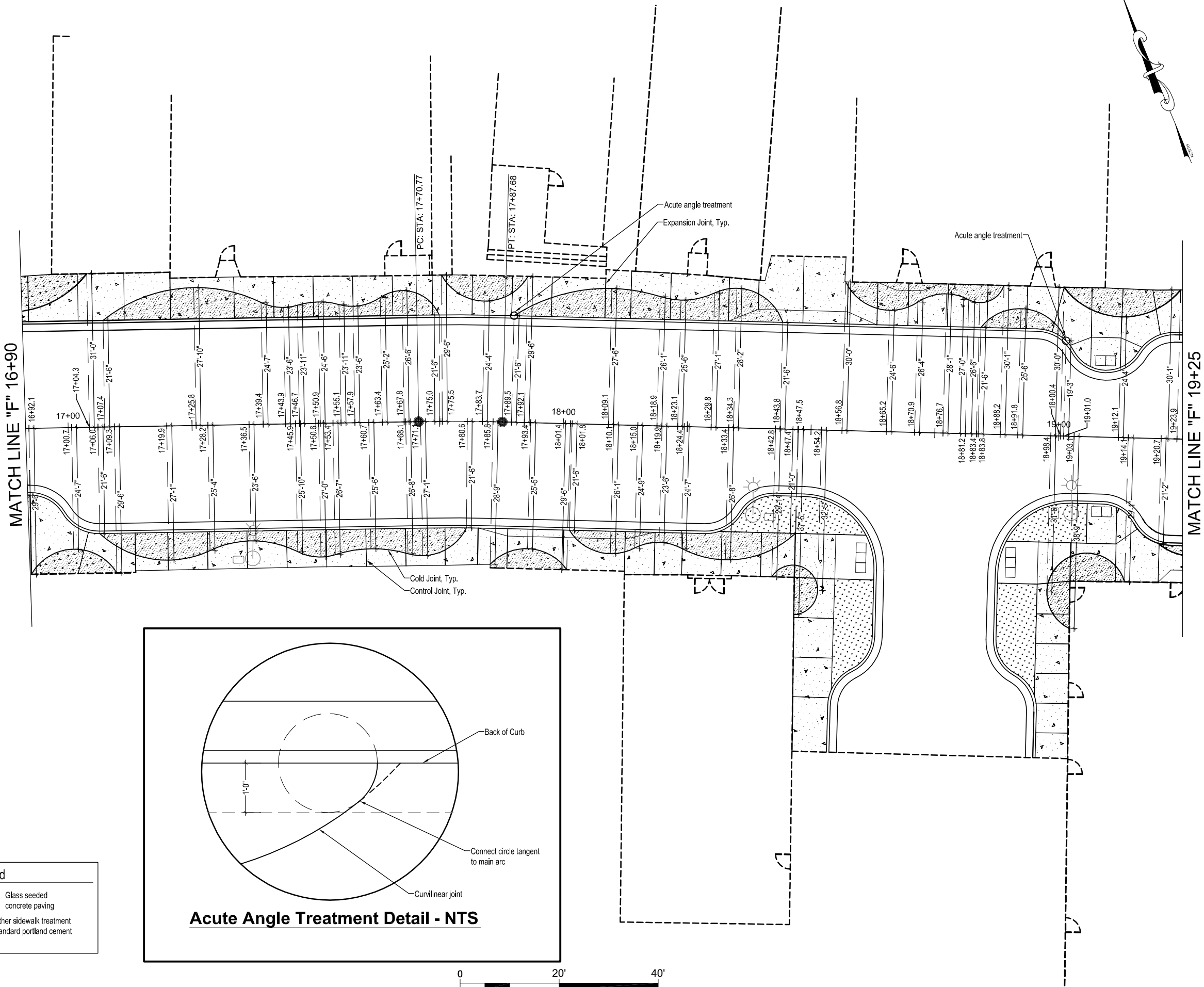


PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

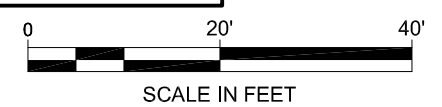
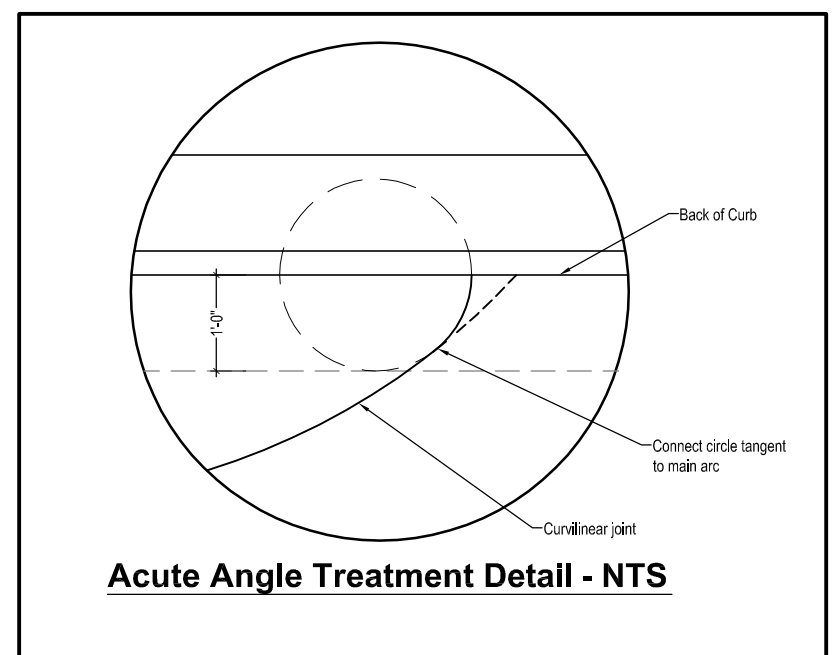
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 SIDEWALK SURFACING**  
 68828 HPRM-003(135) & 67789

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E11</b>	<b>117</b>



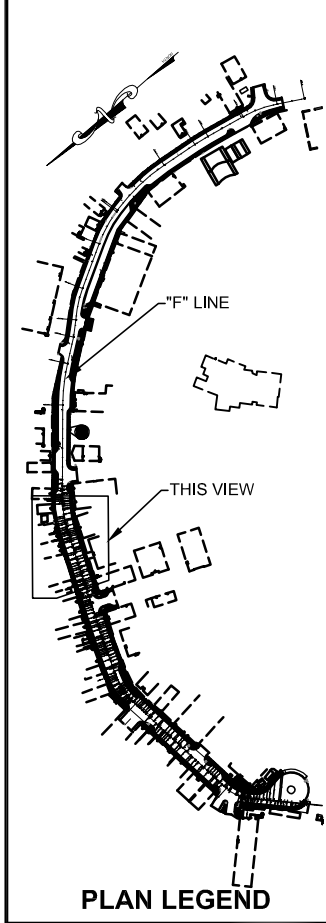
**Legend**  
 Glass seeded concrete paving  
 Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL



PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

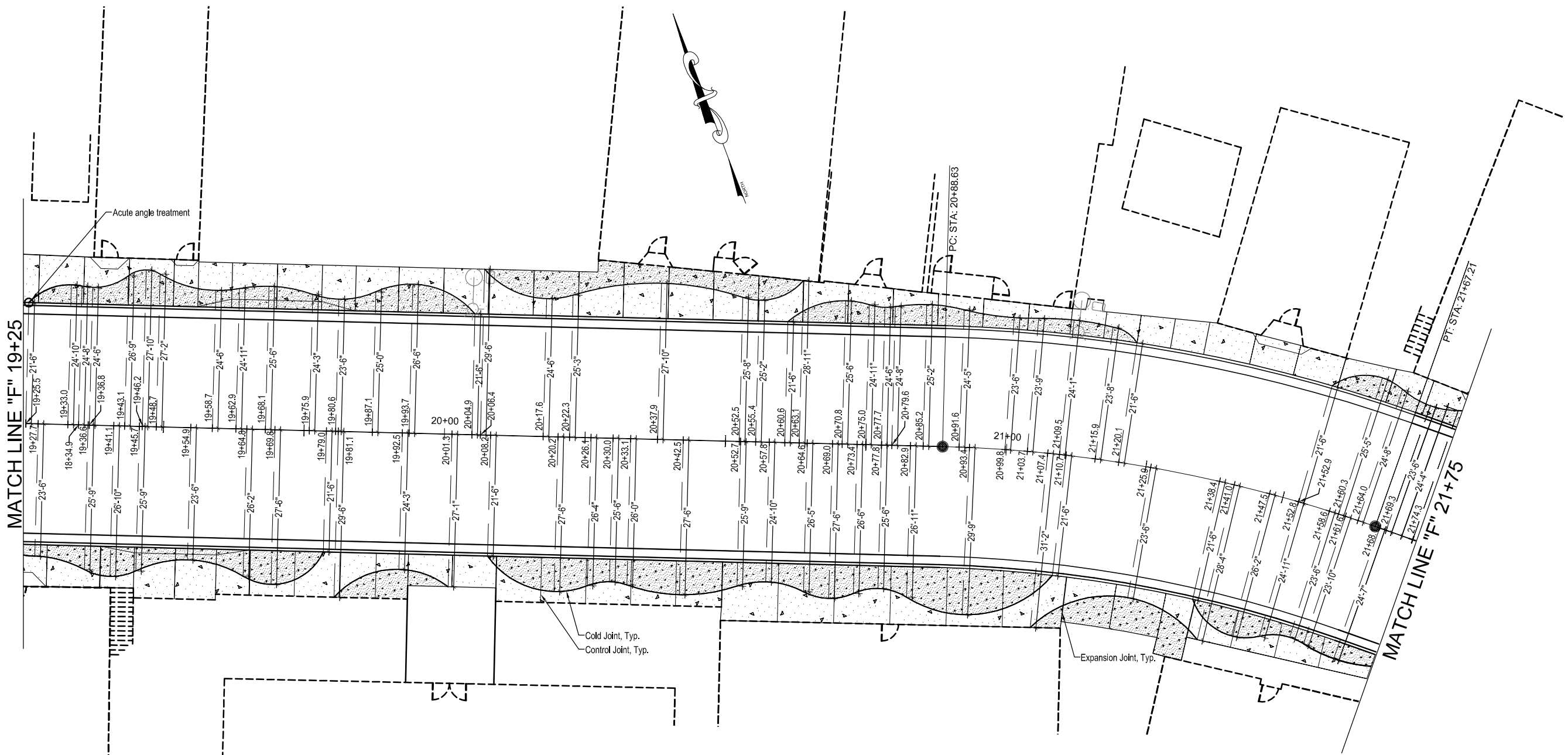
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 SIDEWALK SURFACING**  
 68828 HPRM-003(135) & 67789

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E12</b>	<b>117</b>

MATCH LINE "F" 19+25

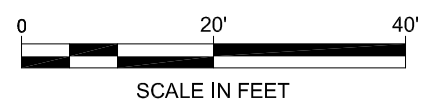
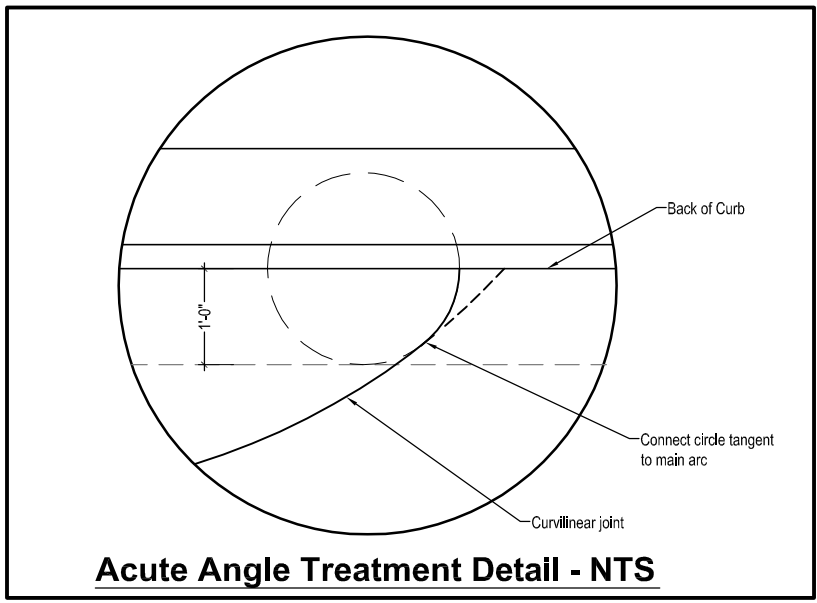
MATCH LINE "F" 21+75



**Legend**

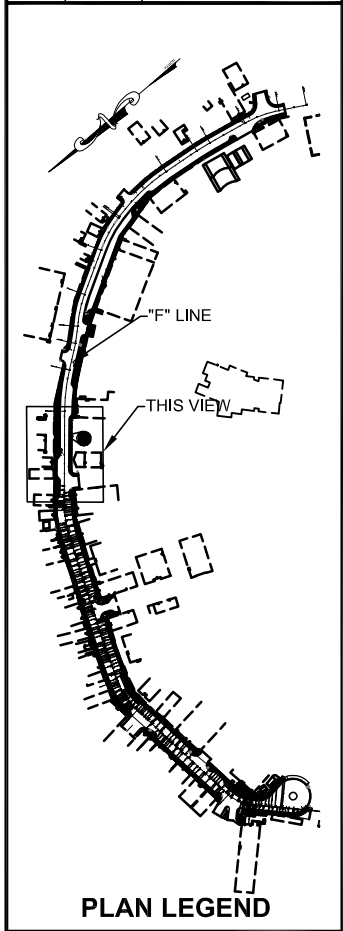
Glass seeded concrete paving

Note: All other sidewalk treatment shall be standard portland cement

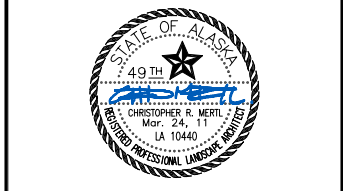


**"F" LINE LAYOUT PLAN**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

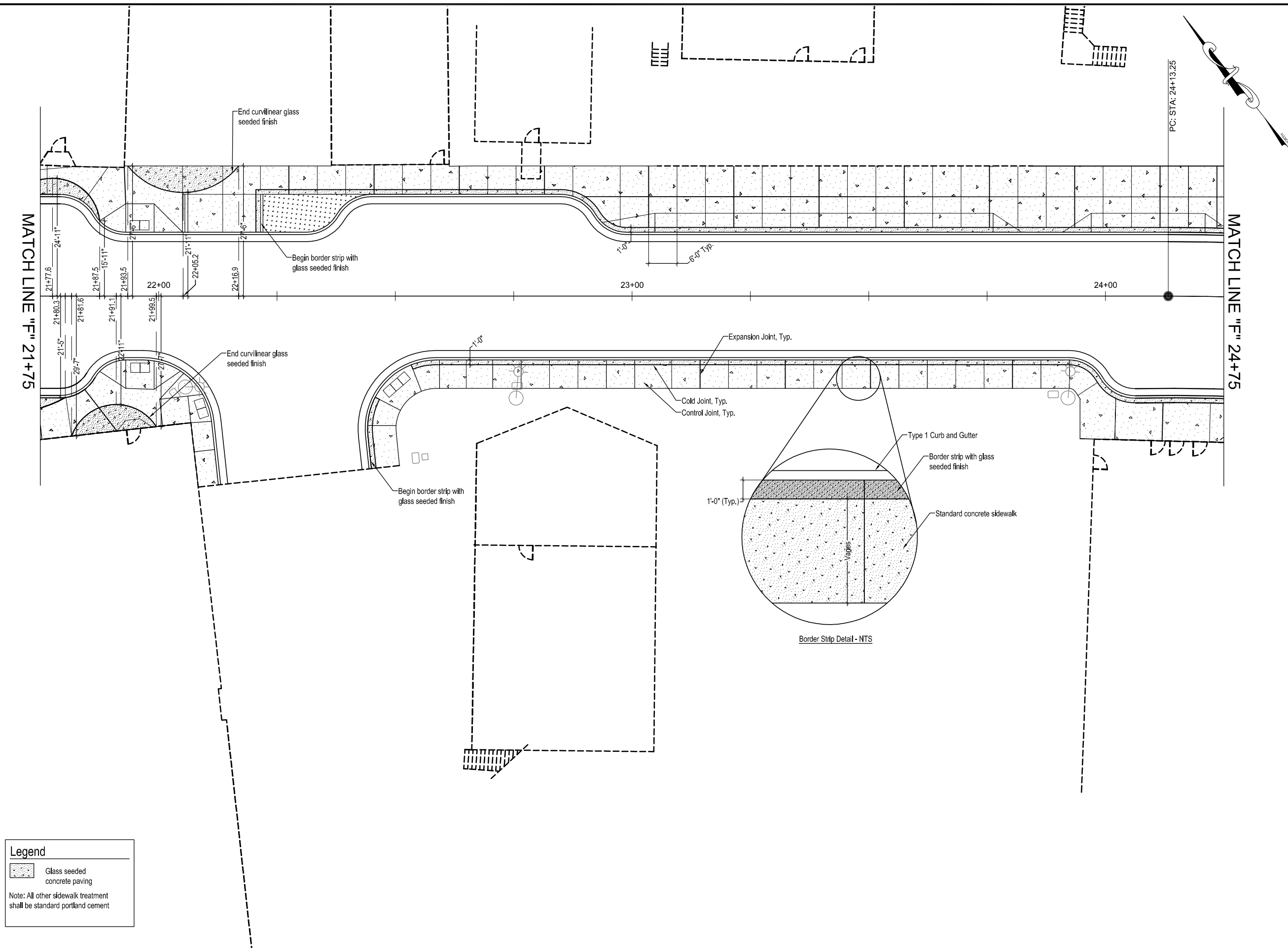



PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 SIDEWALK SURFACING**  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E13</b>	<b>117</b>

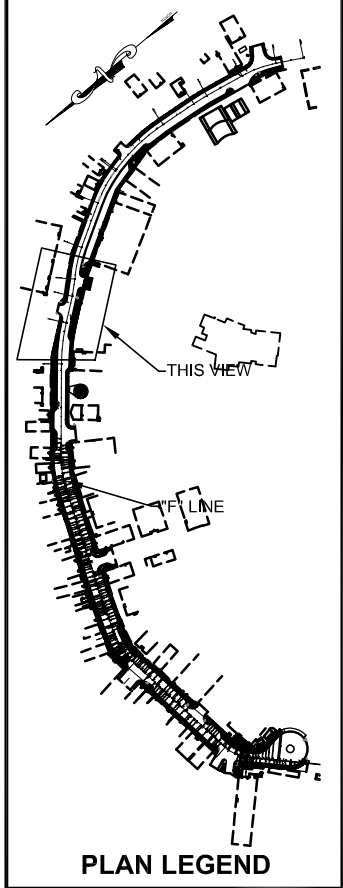


**Legend**  
 Glass seeded concrete paving  
 Note: All other sidewalk treatment shall be standard portland cement

**"F" LINE LAYOUT PLAN**



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL



PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

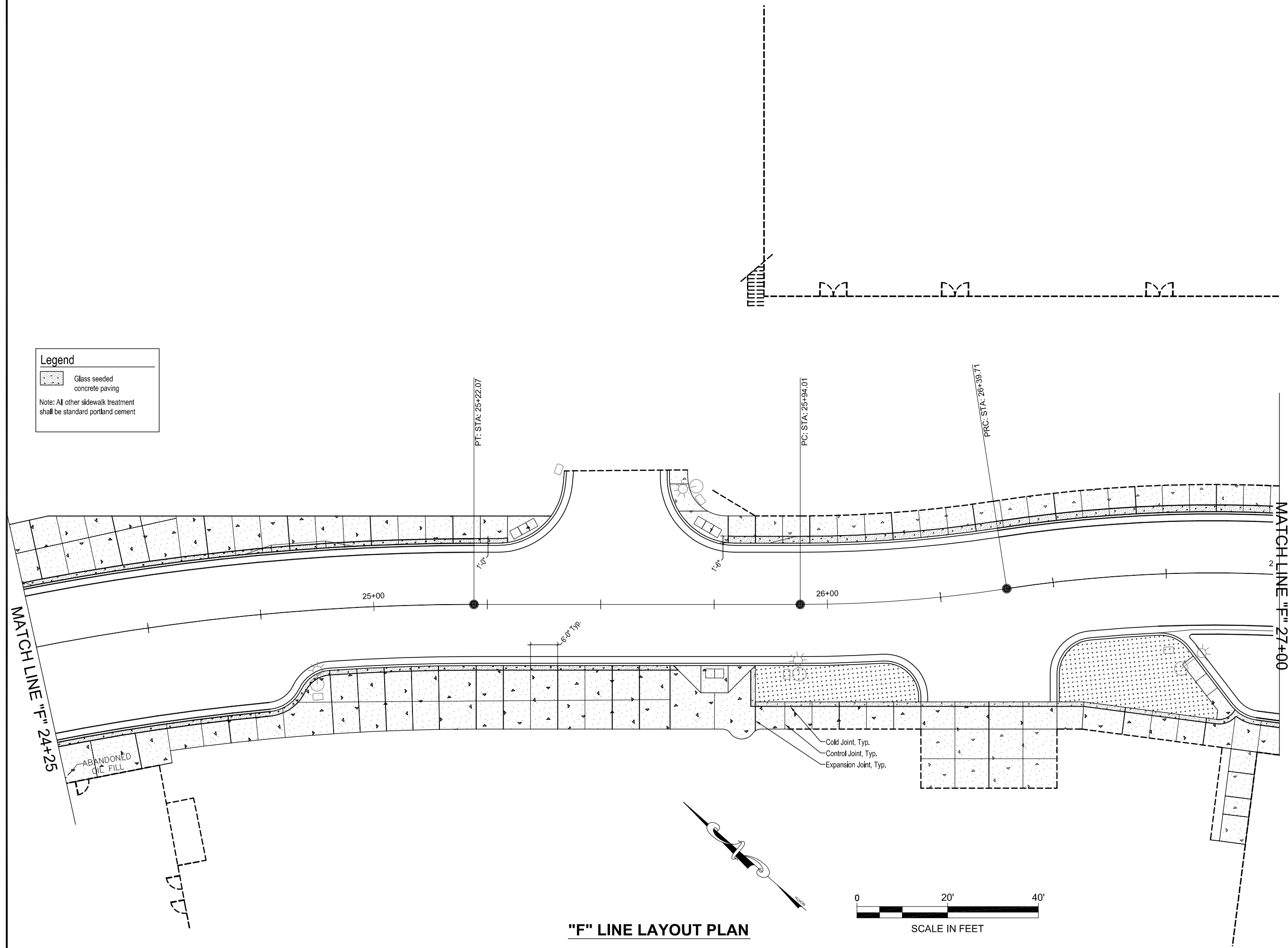
**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS  
 SIDEWALK  
 SURFACING**  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E14</b>	<b>117</b>

**Legend**

Glass seeded concrete paving

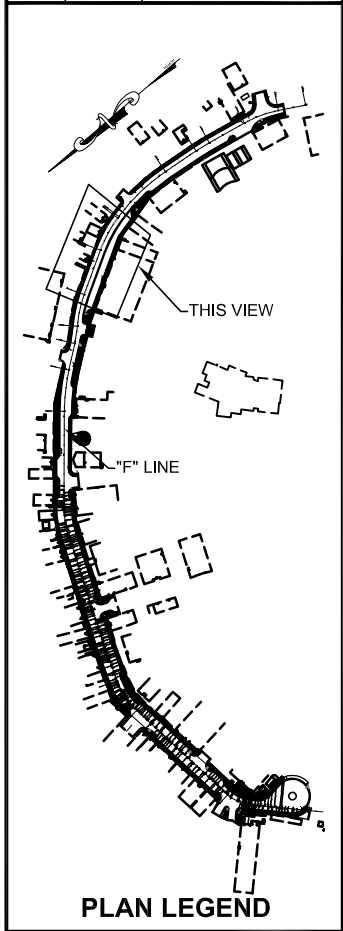
Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

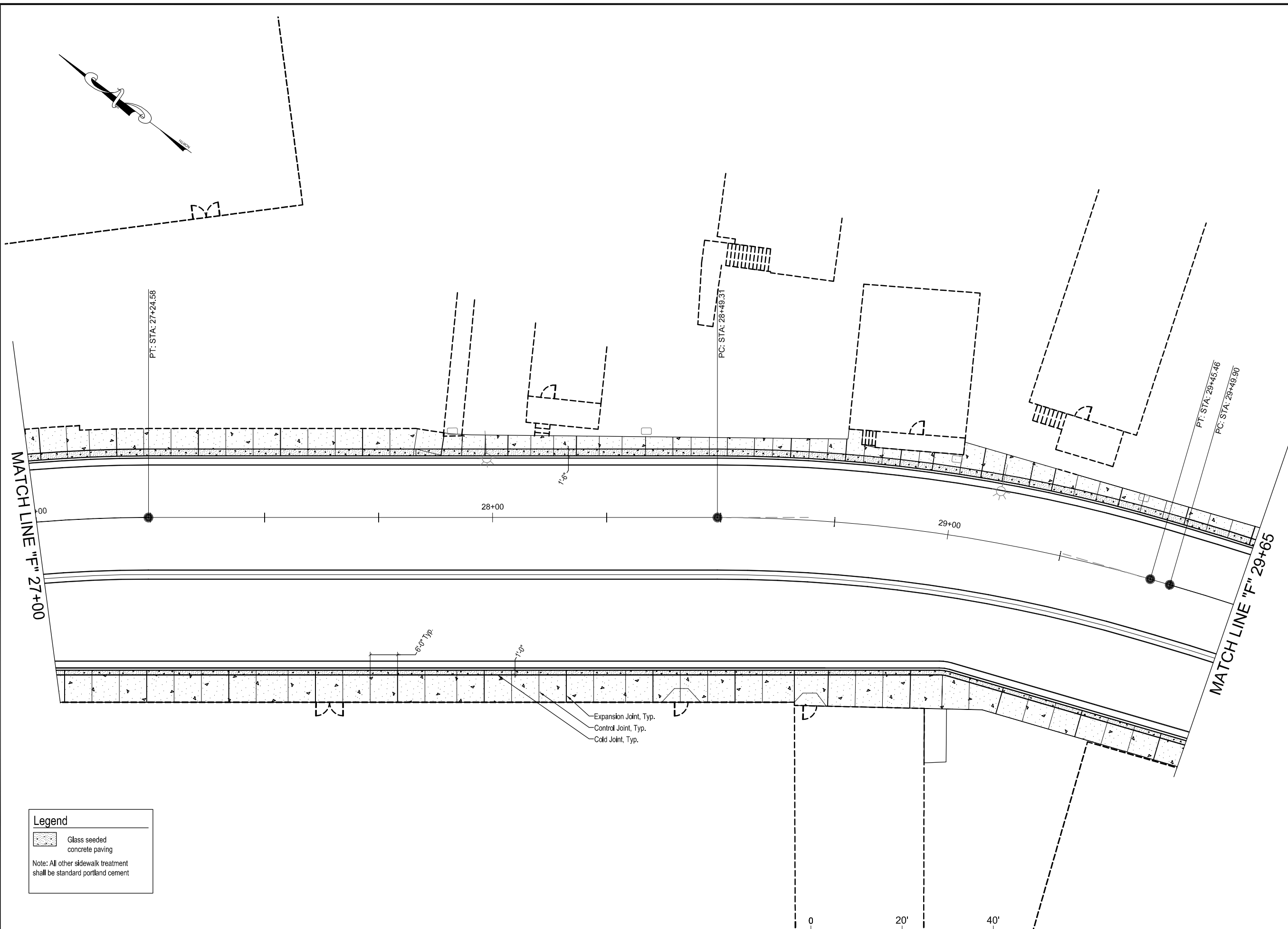


PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS  
 SIDEWALK  
 SURFACING**  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E15</b>	<b>117</b>



**Legend**

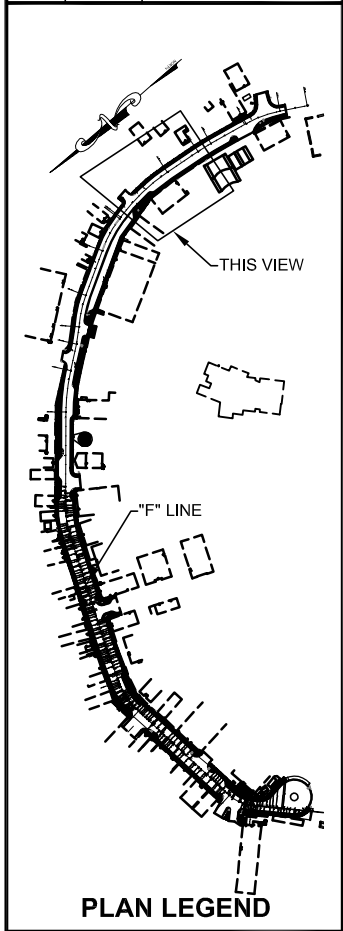
Glass seeded concrete paving

Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

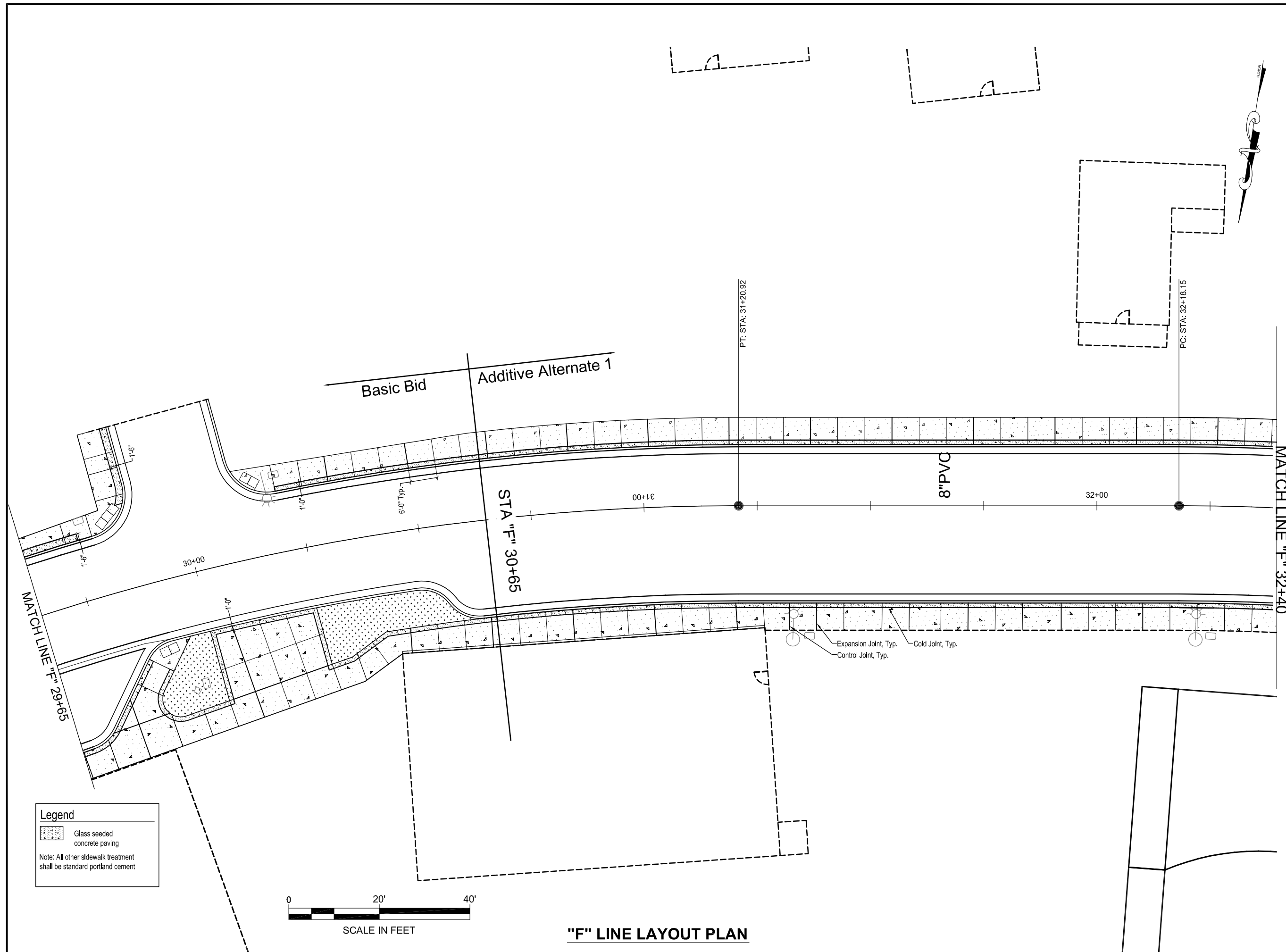


PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS  
 SIDEWALK  
 SURFACING**  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E16</b>	<b>117</b>

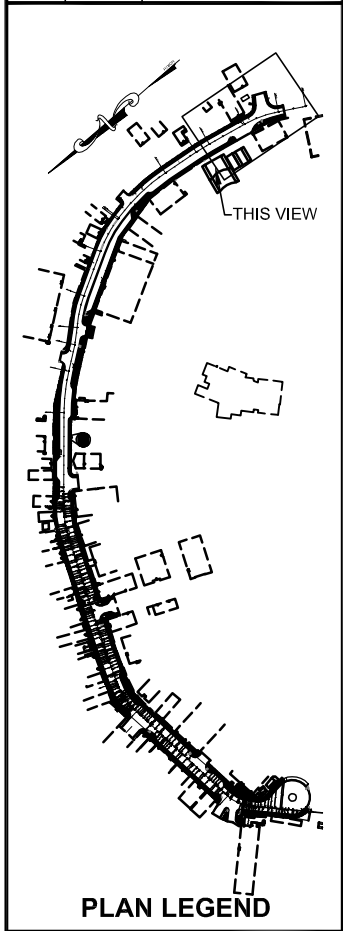


**Legend**  
 Glass seeded concrete paving  
 Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: C.MERTL

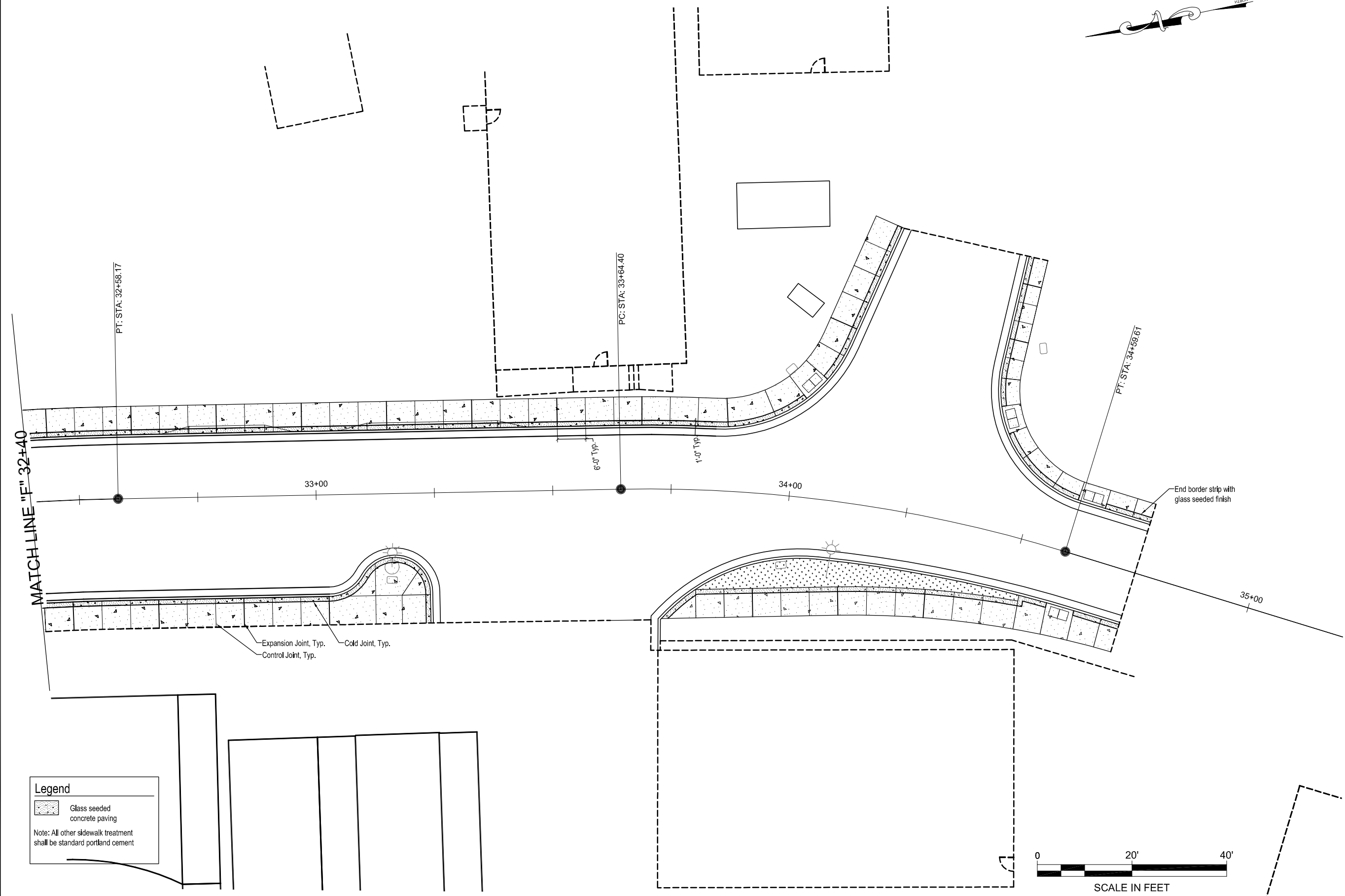


PLANS DEVELOPED BY: CORVUS DESIGN  
 DESIGNED BY: C. MERTL  
 DRAWN BY: M. RUTLEDGE

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS  
 SIDEWALK  
 SURFACING**  
**68828 HPRM-003(135)  
 & 67789**

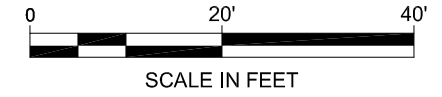
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>E17</b>	<b>117</b>



**Legend**

Glass seeded concrete paving

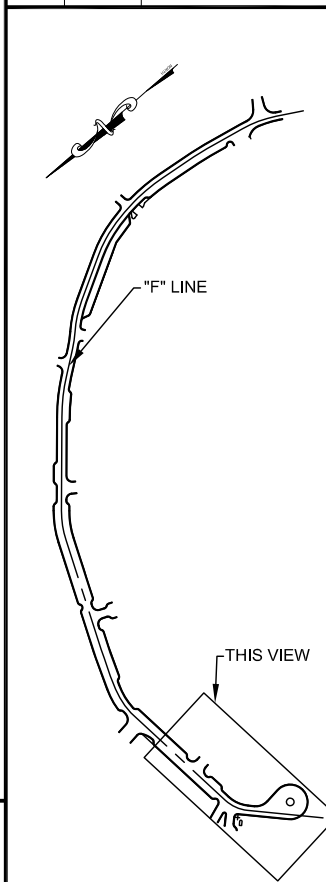
Note: All other sidewalk treatment shall be standard portland cement



**"F" LINE LAYOUT PLAN**

**Additive Alternate 1**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

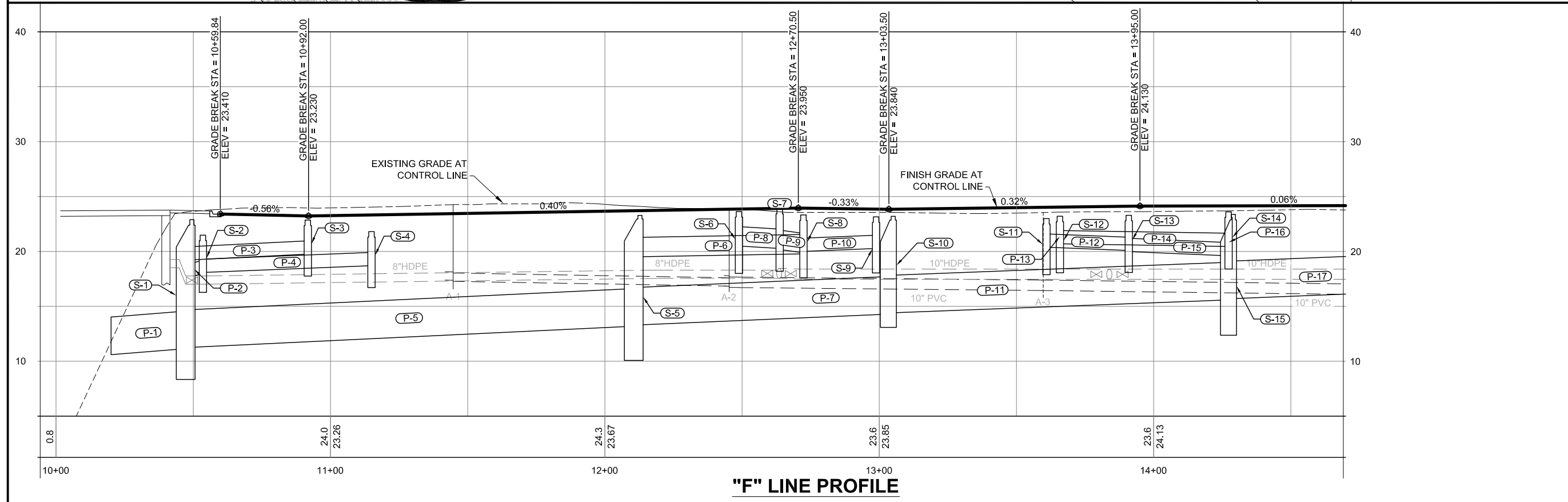
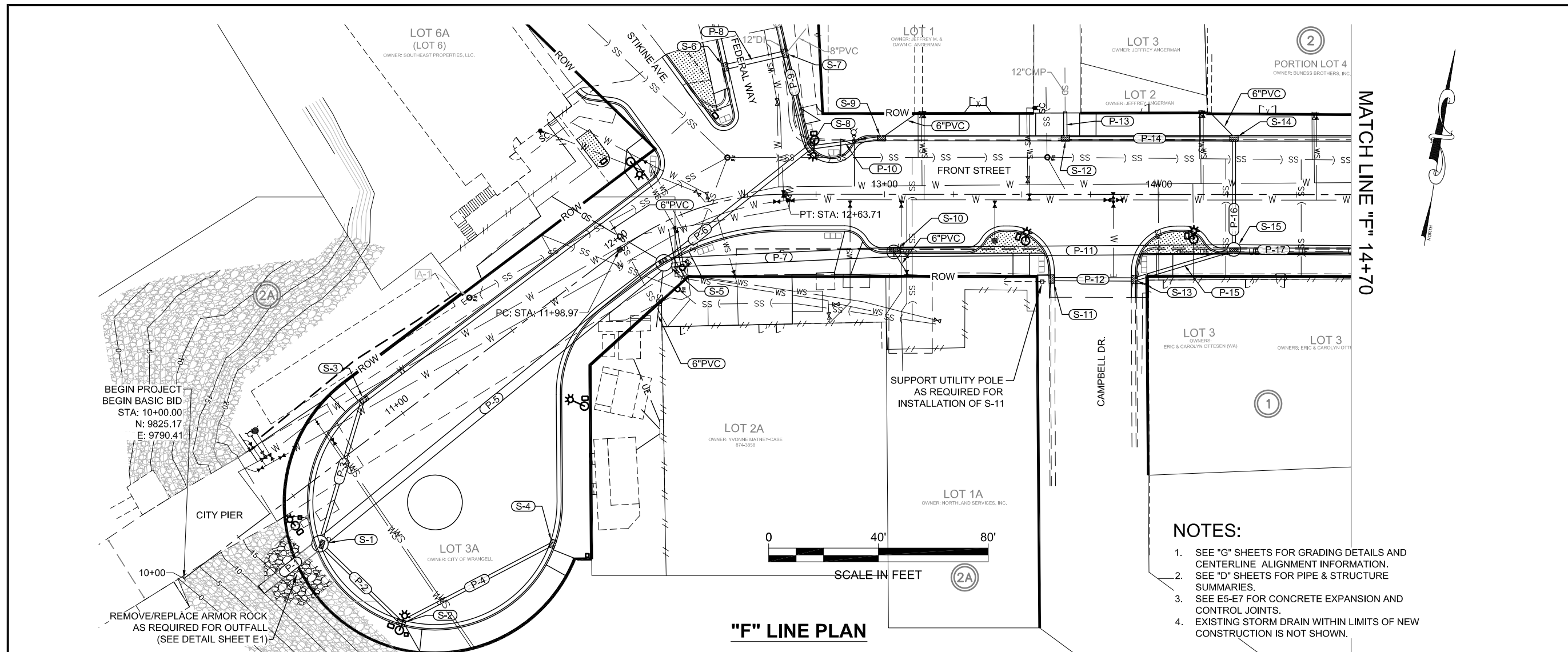
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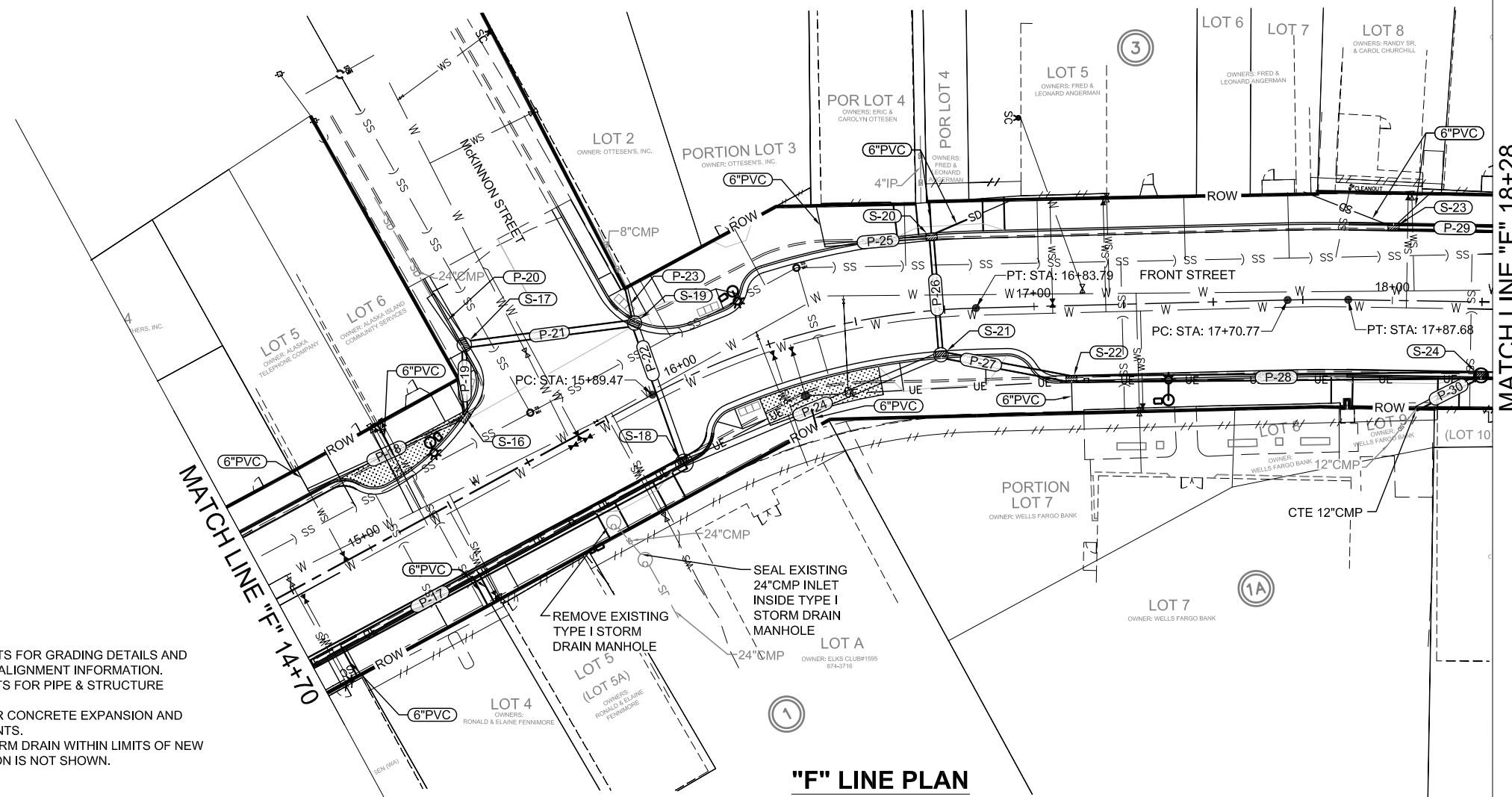
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET**  
**PLAN & PROFILE**

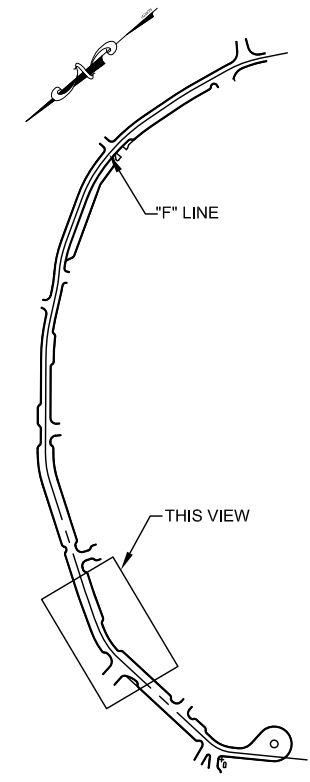
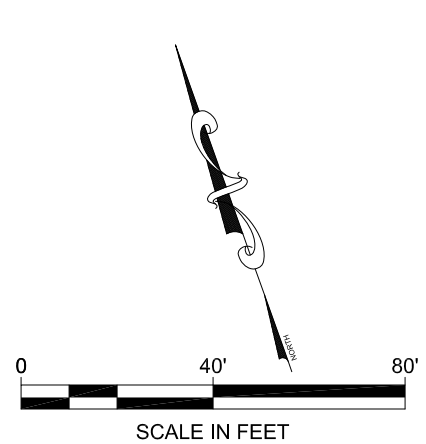
PROJECT DESIGNATION  
**68828 HPRM-003(135)**  
**& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>F1</b>	<b>117</b>





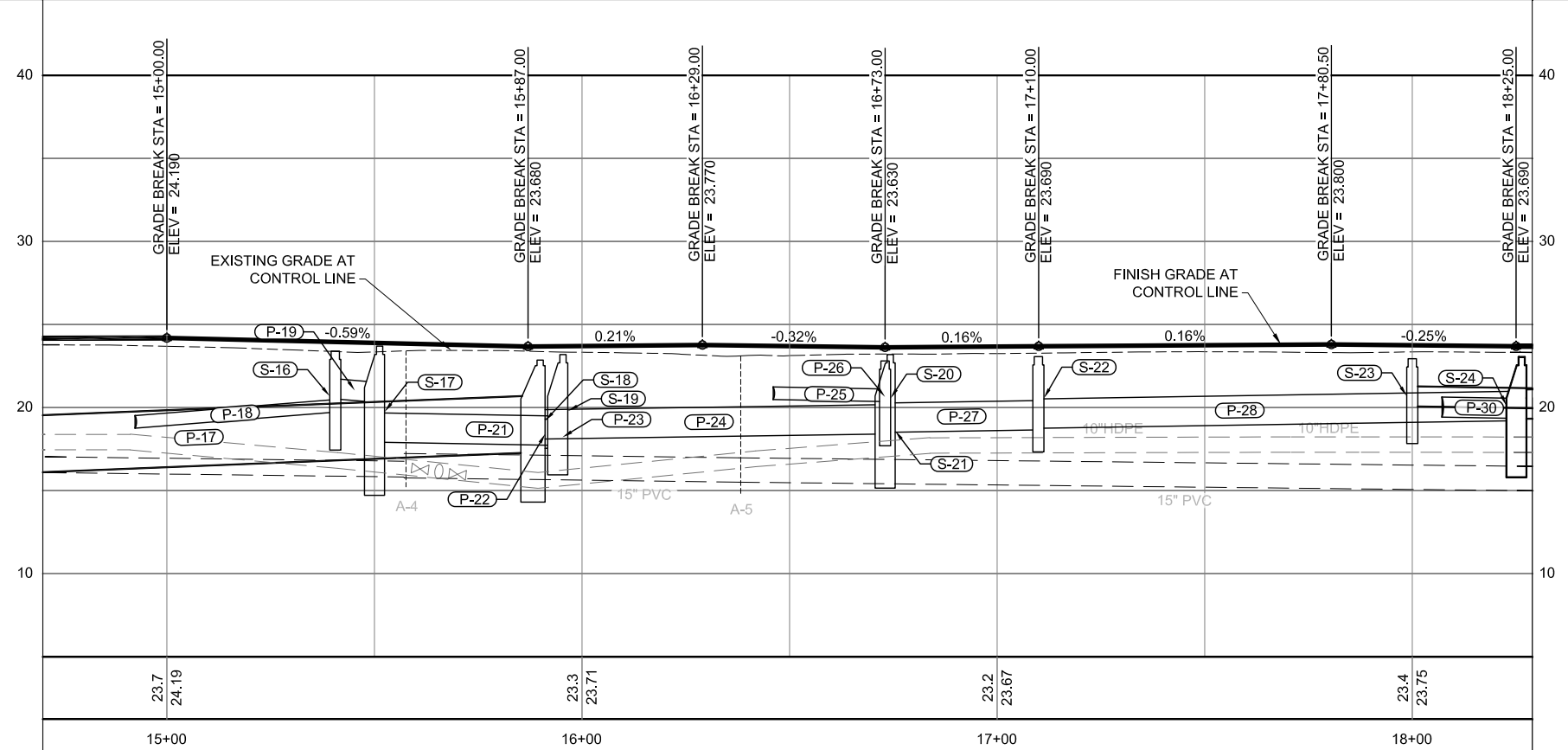
MATCH LINE "F" 18+28



**NOTES:**

1. SEE "G" SHEETS FOR GRADING DETAILS AND CENTERLINE ALIGNMENT INFORMATION.
2. SEE "D" SHEETS FOR PIPE & STRUCTURE SUMMARIES.
3. SEE E5-E7 FOR CONCRETE EXPANSION AND CONTROL JOINTS.
4. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.

**"F" LINE PLAN**



**"F" LINE PROFILE**

**PLAN LEGEND**

CHECKED BY:

Peter L. Hildre  
No. CE4005  
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

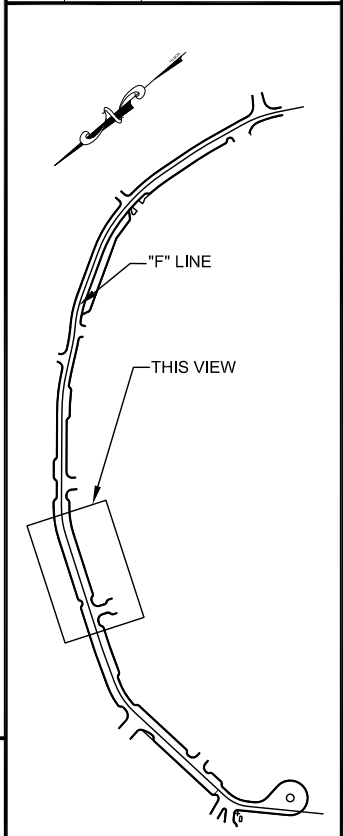
**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 FRONT STREET  
 PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>F2</b>	<b>117</b>

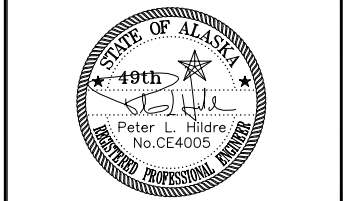


RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



**PLAN LEGEND**

CHECKED BY:



PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

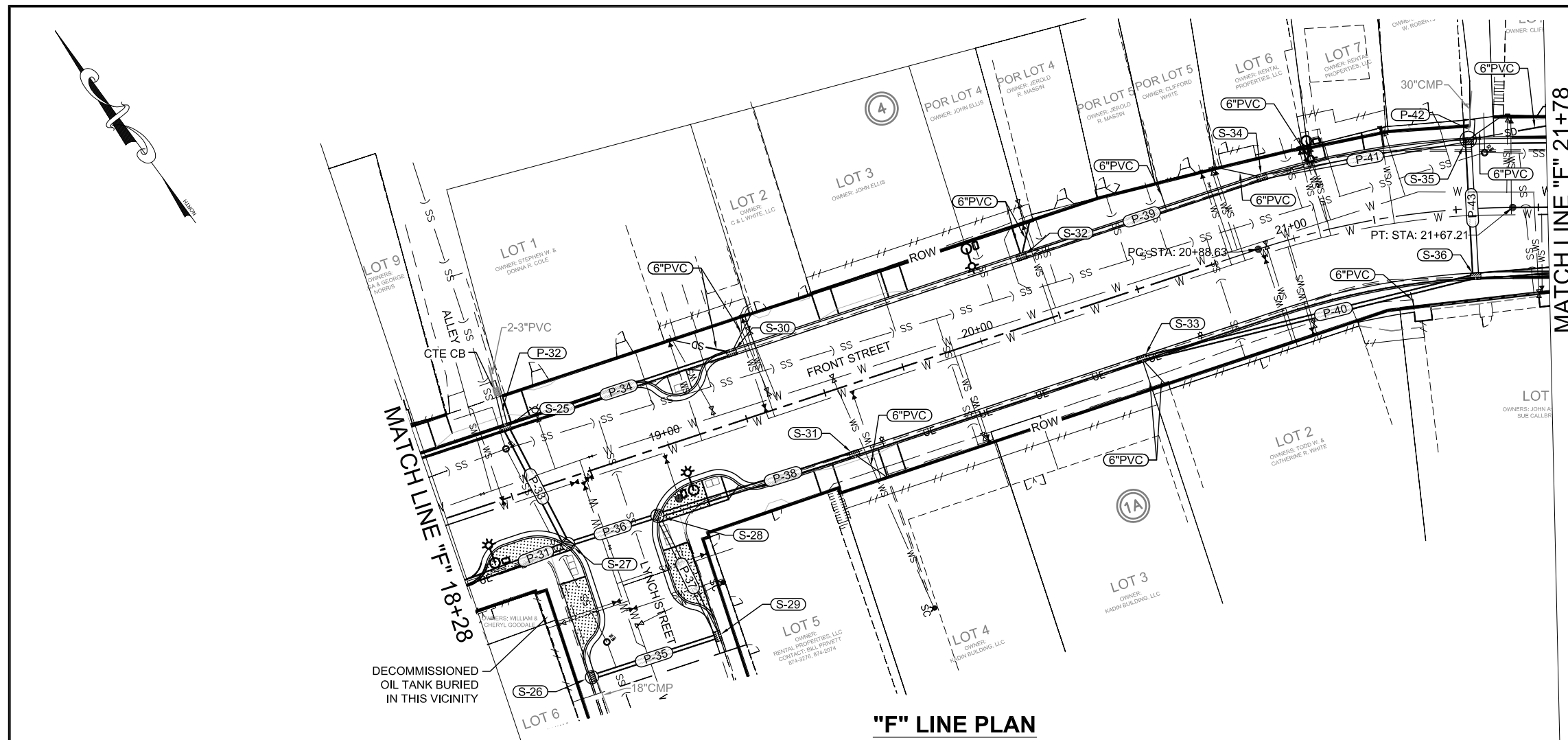
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
FRONT STREET  
PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

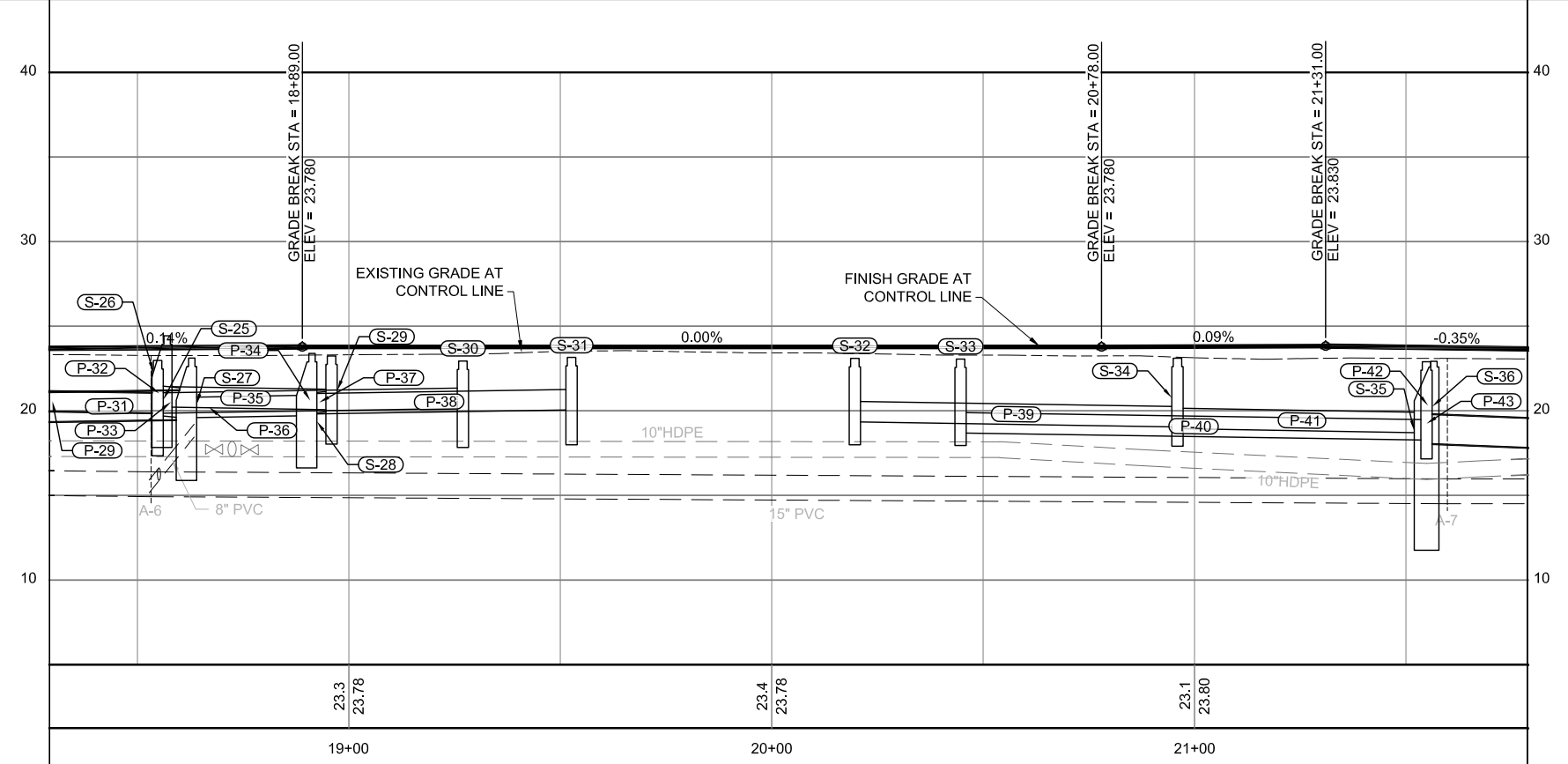
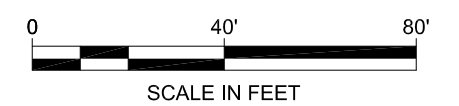
SHEET NUMBER	TOTAL SHEETS
<b>F3</b>	<b>117</b>



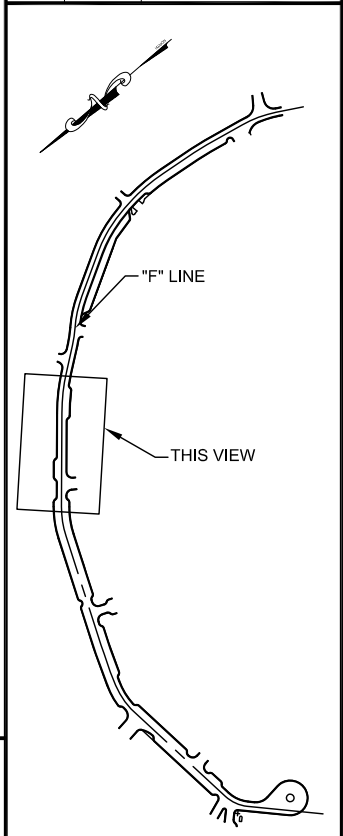
**"F" LINE PLAN**

**NOTES:**

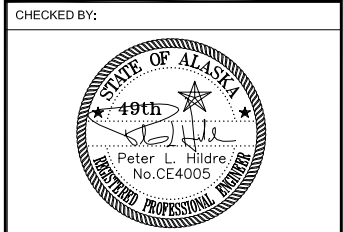
1. SEE "G" SHEETS FOR GRADING DETAILS AND CENTERLINE ALIGNMENT INFORMATION.
2. SEE "D" SHEETS FOR PIPE & STRUCTURE SUMMARIES.
3. SEE E5-E7 FOR CONCRETE EXPANSION AND CONTROL JOINTS.
4. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.



**"F" LINE PROFILE**



**PLAN LEGEND**



PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

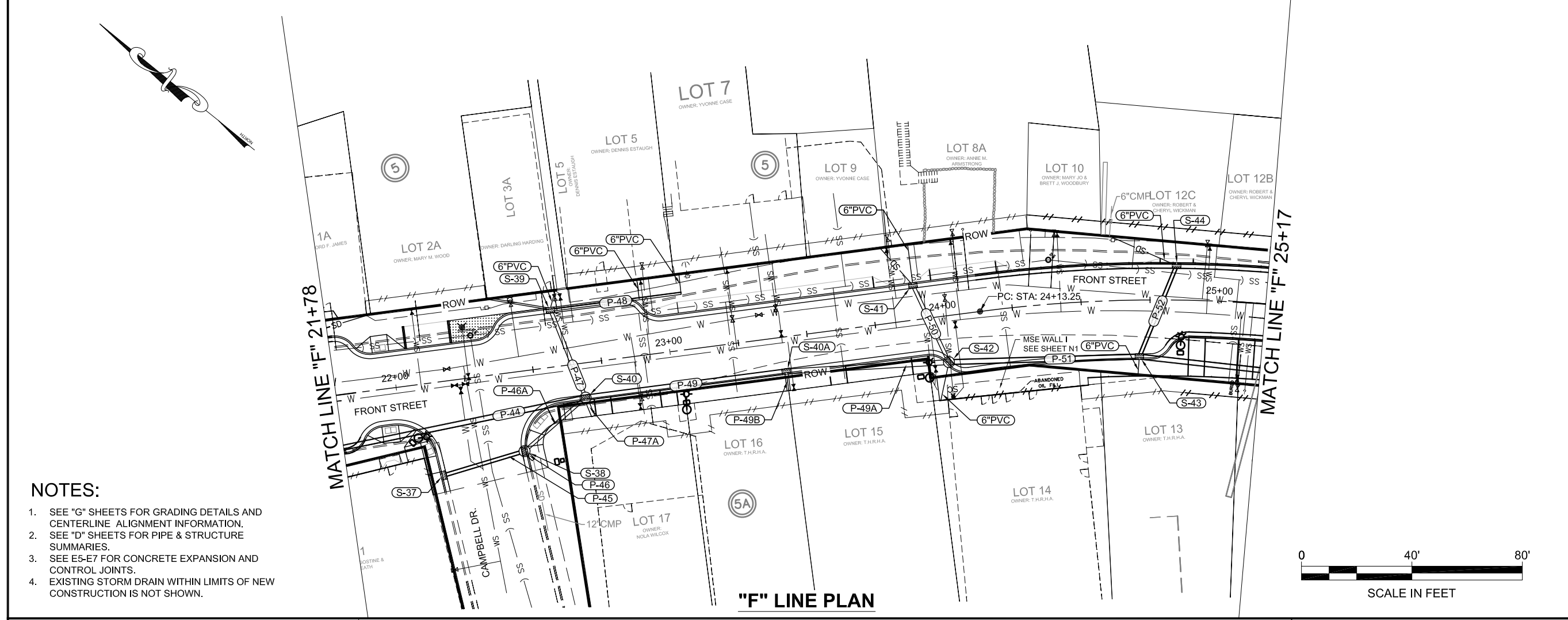
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS  
 FRONT STREET  
 PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

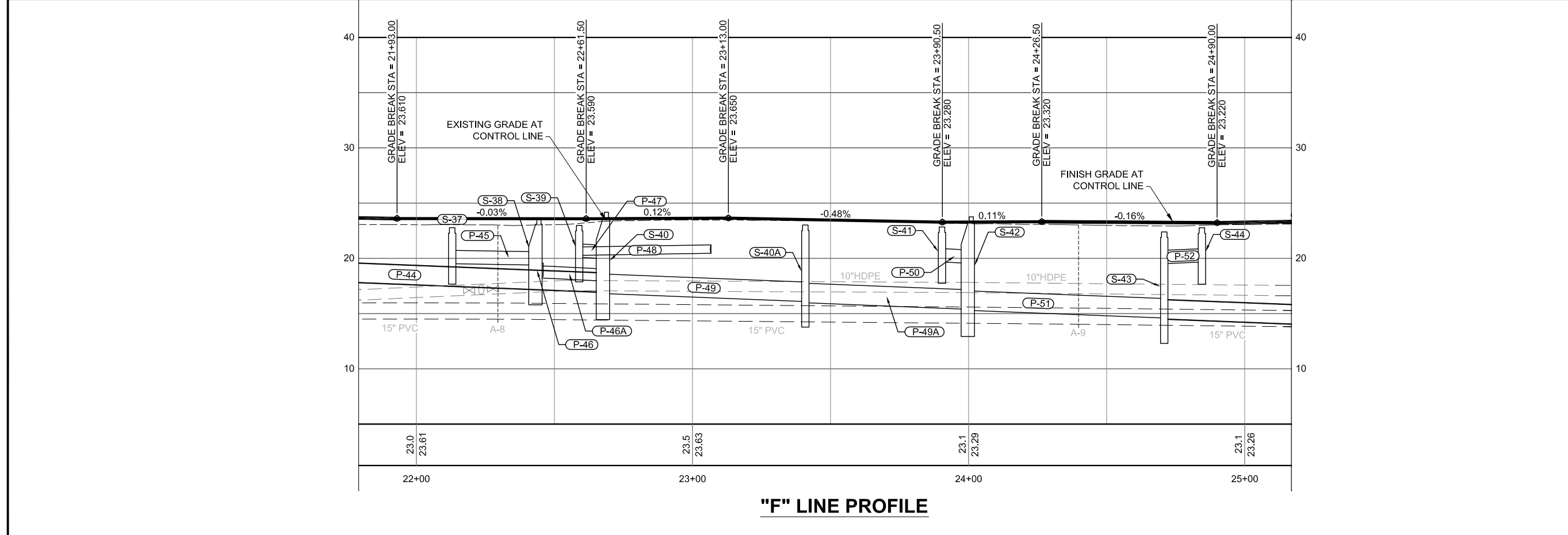
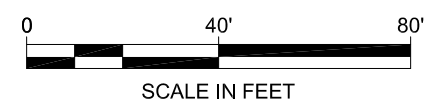
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

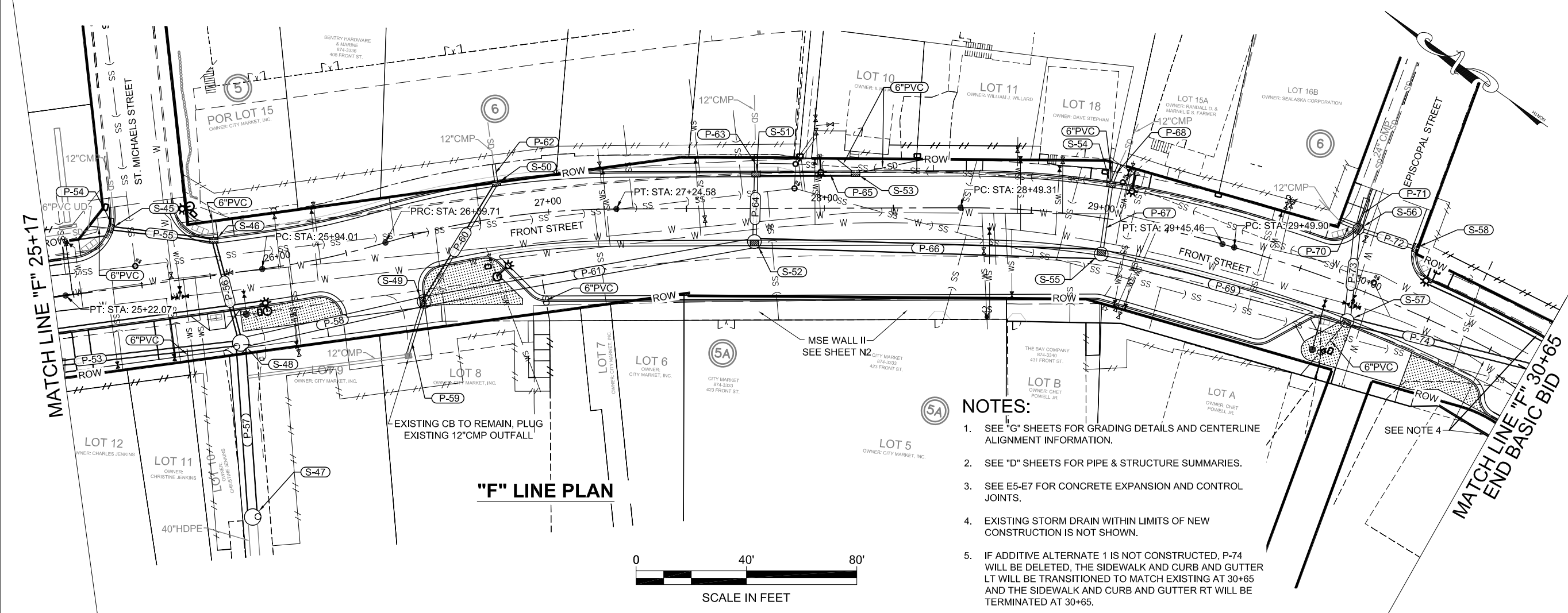
SHEET NUMBER	TOTAL SHEETS
<b>F4</b>	<b>117</b>



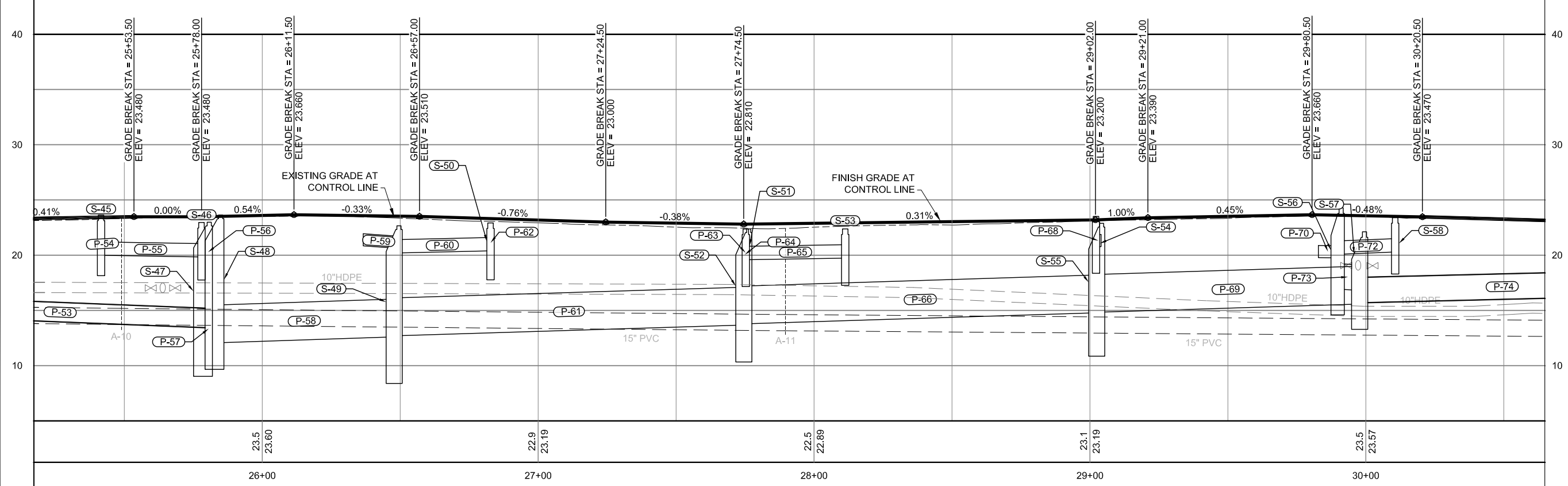
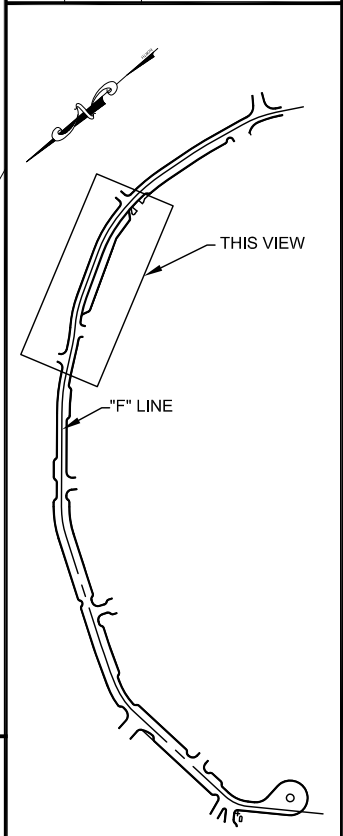
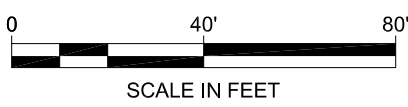
**NOTES:**

1. SEE "G" SHEETS FOR GRADING DETAILS AND CENTERLINE ALIGNMENT INFORMATION.
2. SEE "D" SHEETS FOR PIPE & STRUCTURE SUMMARIES.
3. SEE E5-E7 FOR CONCRETE EXPANSION AND CONTROL JOINTS.
4. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.





- NOTES:**
1. SEE "G" SHEETS FOR GRADING DETAILS AND CENTERLINE ALIGNMENT INFORMATION.
  2. SEE "D" SHEETS FOR PIPE & STRUCTURE SUMMARIES.
  3. SEE E5-E7 FOR CONCRETE EXPANSION AND CONTROL JOINTS.
  4. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  5. IF ADDITIVE ALTERNATE 1 IS NOT CONSTRUCTED, P-74 WILL BE DELETED, THE SIDEWALK AND CURB AND GUTTER LT WILL BE TRANSITIONED TO MATCH EXISTING AT 30+65 AND THE SIDEWALK AND CURB AND GUTTER RT WILL BE TERMINATED AT 30+65.



**"F" LINE PROFILE**

**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

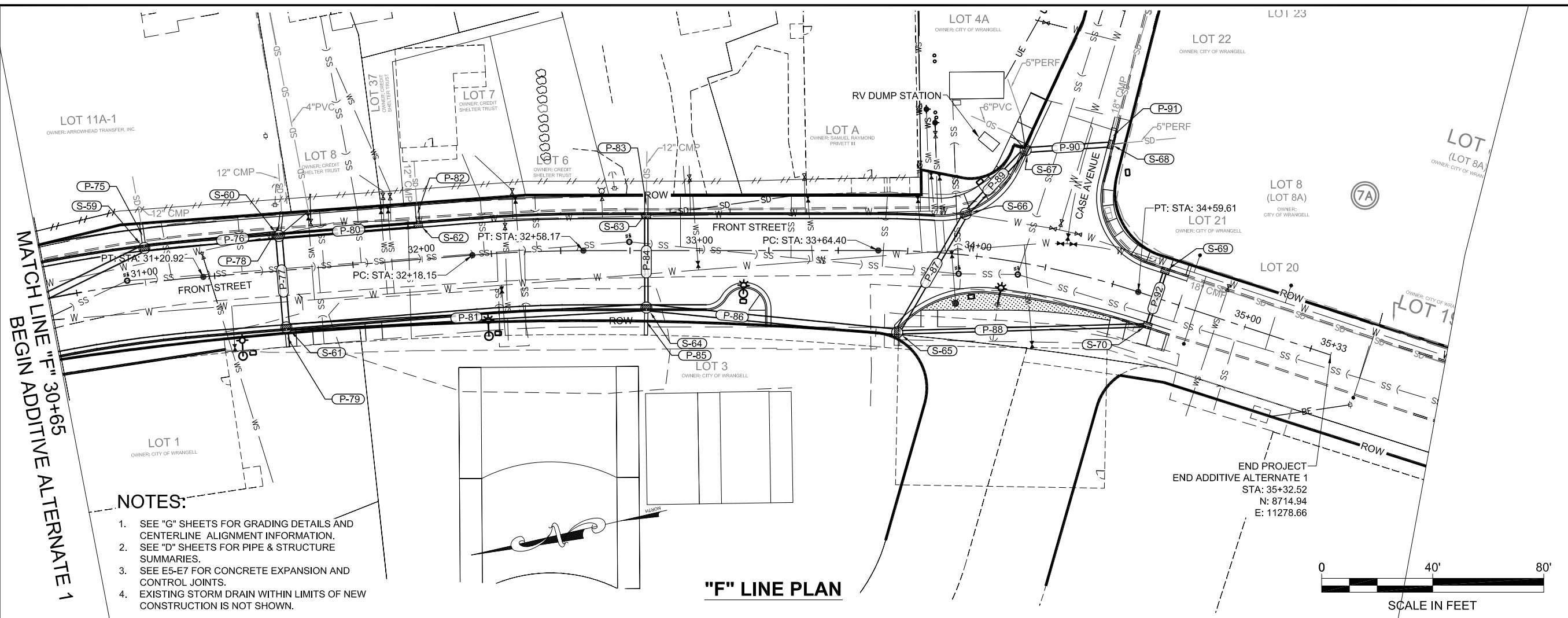
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 FRONT STREET  
 PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

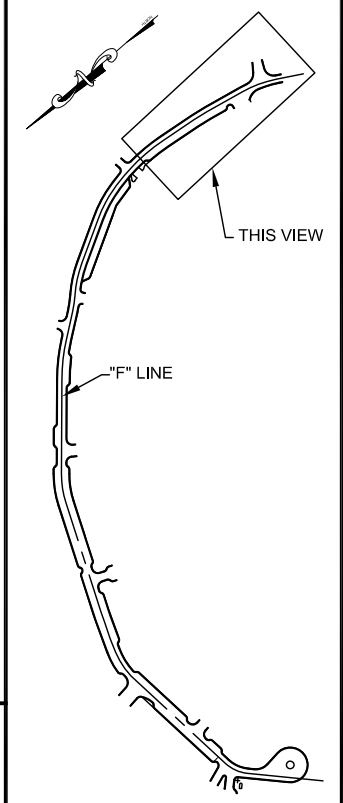
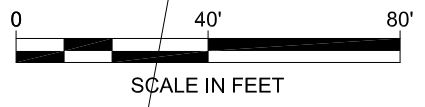
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>F5</b>	<b>117</b>



- NOTES:**
1. SEE "G" SHEETS FOR GRADING DETAILS AND CENTERLINE ALIGNMENT INFORMATION.
  2. SEE "D" SHEETS FOR PIPE & STRUCTURE SUMMARIES.
  3. SEE E5-E7 FOR CONCRETE EXPANSION AND CONTROL JOINTS.
  4. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.

**"F" LINE PLAN**



**PLAN LEGEND**

CHECKED BY:

Peter L. Hildre  
 No. CE4005  
 REGISTERED PROFESSIONAL ENGINEER

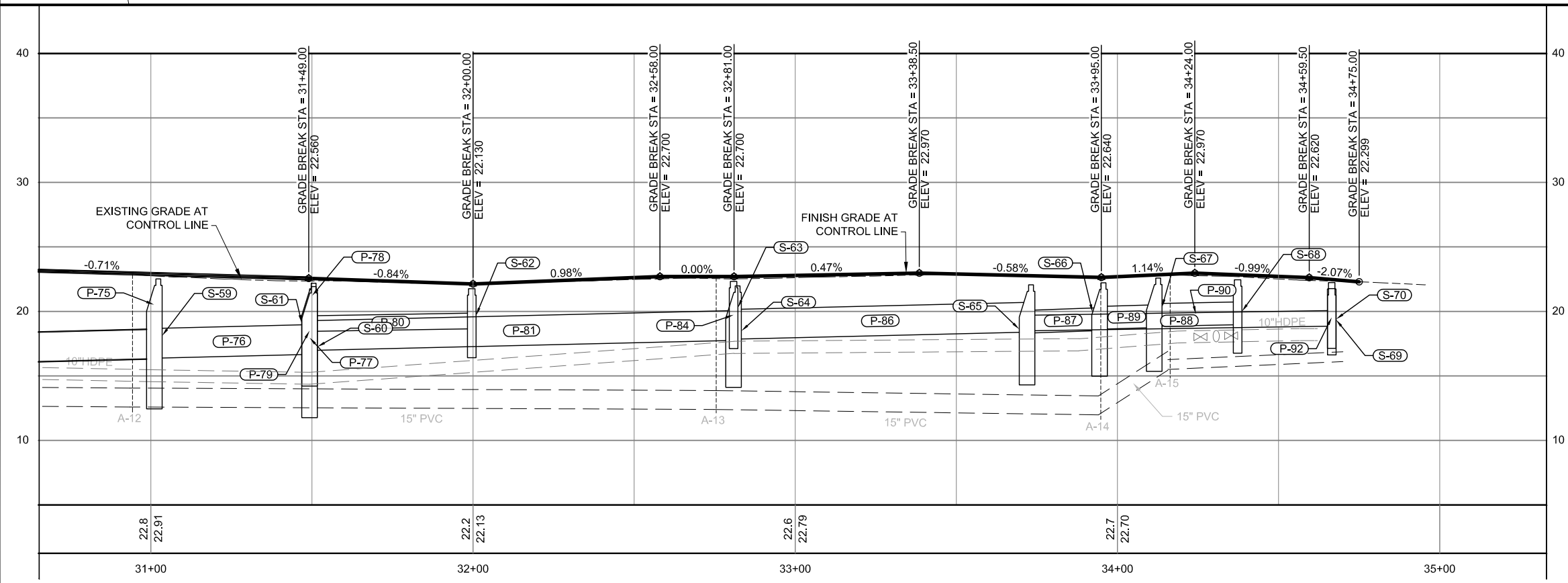
PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 FRONT STREET  
 PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

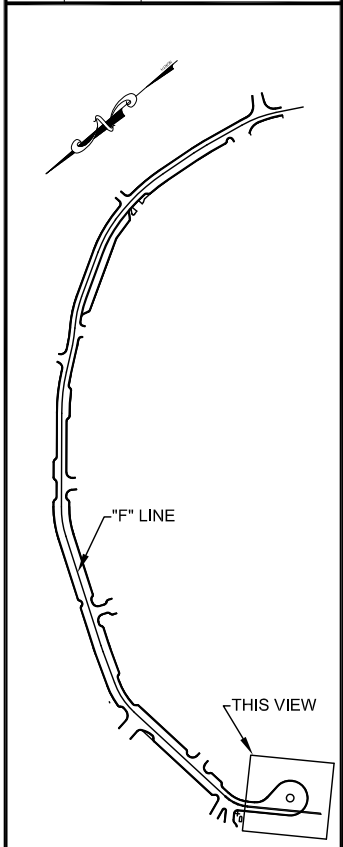
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>F6</b>	<b>117</b>



**"F" LINE PROFILE**

**ADDITIVE ALTERNATE 1**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM  
DESIGNED BY:  
DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

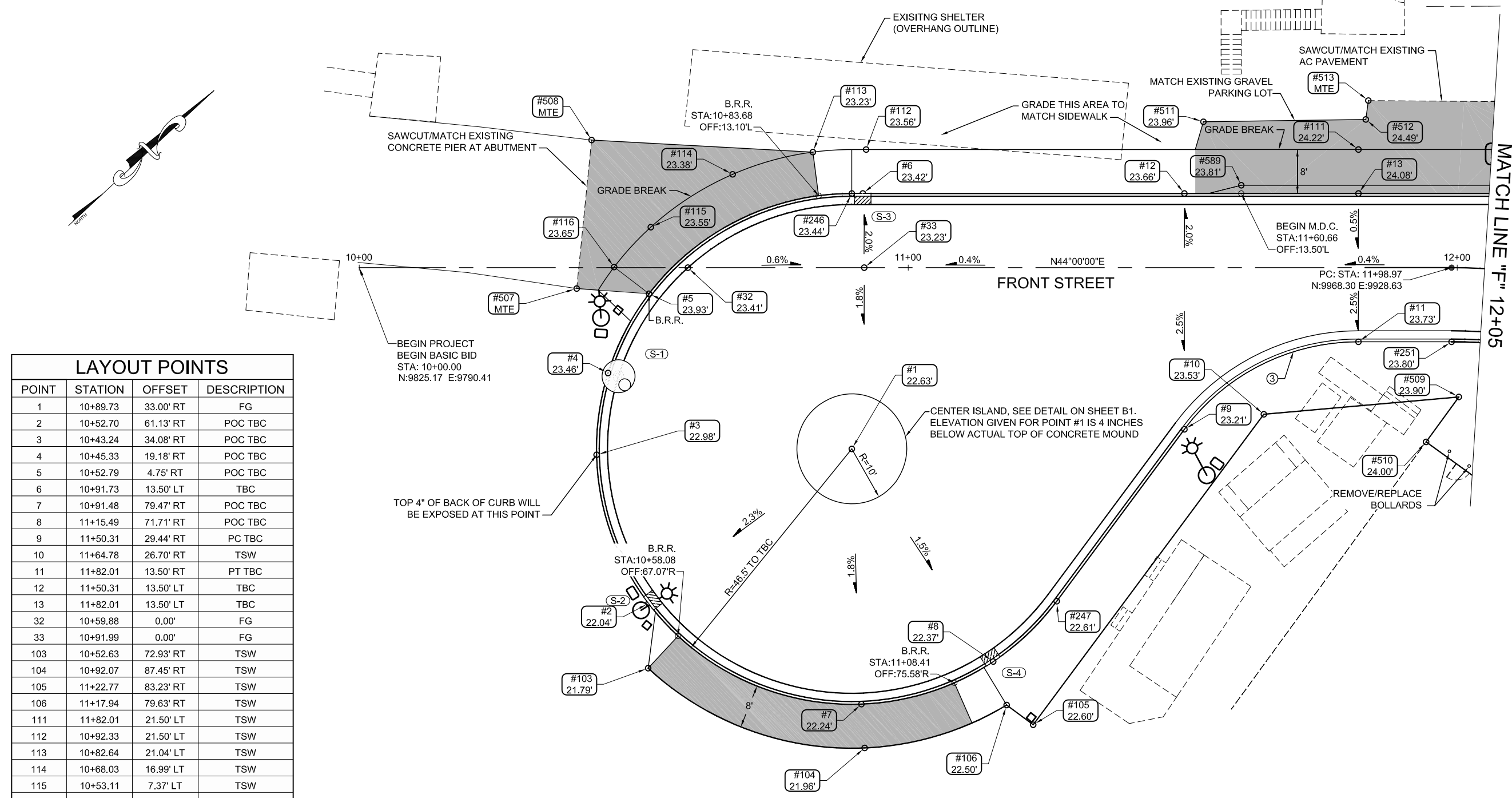
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

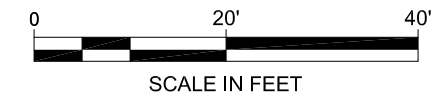
SHEET NUMBER	TOTAL SHEETS
<b>G1</b>	<b>117</b>



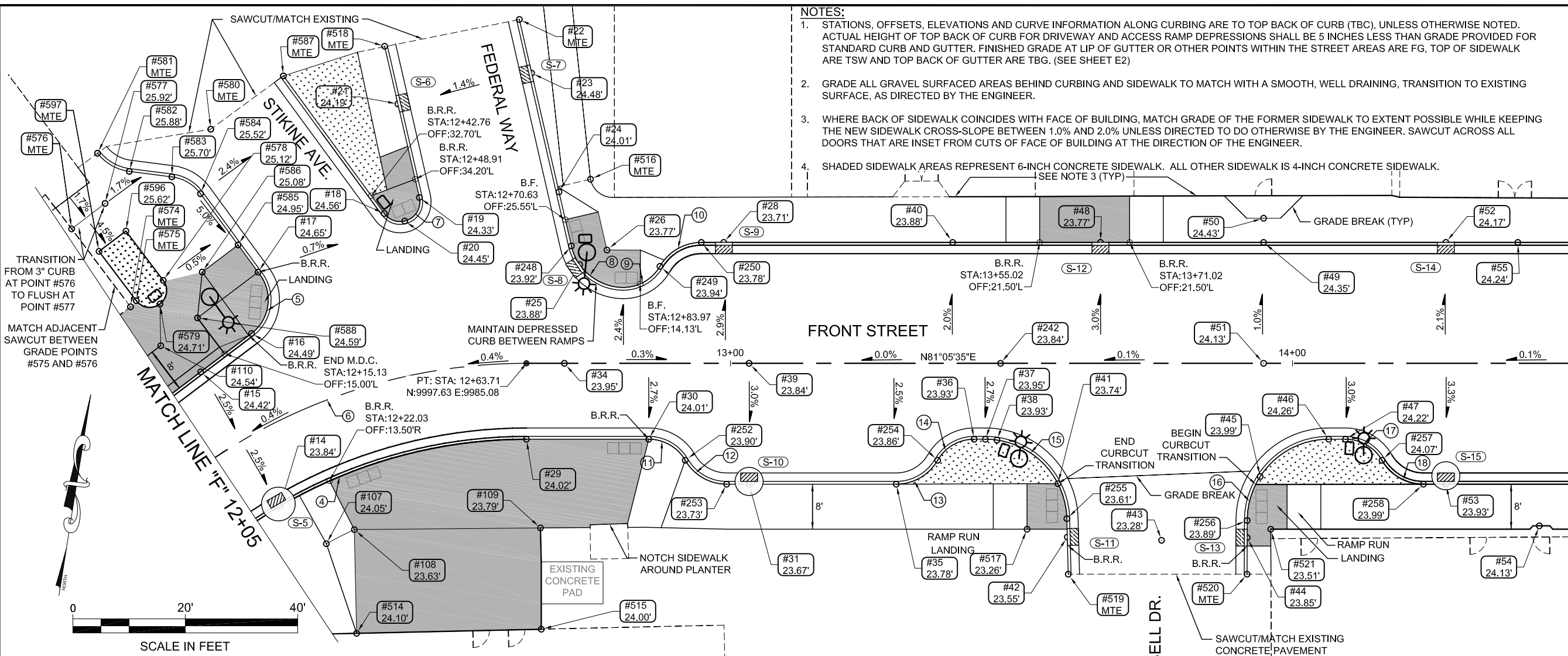
LAYOUT POINTS			
POINT	STATION	OFFSET	DESCRIPTION
1	10+89.73	33.00' RT	FG
2	10+52.70	61.13' RT	POC TBC
3	10+43.24	34.08' RT	POC TBC
4	10+45.33	19.18' RT	POC TBC
5	10+52.79	4.75' RT	POC TBC
6	10+91.73	13.50' LT	TBC
7	10+91.48	79.47' RT	POC TBC
8	11+15.49	71.71' RT	POC TBC
9	11+50.31	29.44' RT	PC TBC
10	11+64.78	26.70' RT	TSW
11	11+82.01	13.50' RT	PT TBC
12	11+50.31	13.50' LT	TBC
13	11+82.01	13.50' LT	TBC
32	10+59.88	0.00'	FG
33	10+91.99	0.00'	FG
103	10+52.63	72.93' RT	TSW
104	10+92.07	87.45' RT	TSW
105	11+22.77	83.23' RT	TSW
106	11+17.94	79.63' RT	TSW
111	11+82.01	21.50' LT	TSW
112	10+92.33	21.50' LT	TSW
113	10+82.64	21.04' LT	TSW
114	10+68.03	16.99' LT	TSW
115	10+53.11	7.37' LT	TSW
116	10+46.44	0.11' LT	TSW
246	10+89.73	13.50' LT	PC TBC
247	11+27.05	60.73' RT	PT TBC
251	11+98.97	13.50' RT	PC TBC
507	10+39.62	3.80' RT	TSW MTE
508	10+42.33	23.23' LT	TSW MTE
509	12+00.70	23.53' RT	TSW
510	11+94.33	31.73' RT	TSW
511	11+53.77	26.56' LT	TSW
512	11+83.35	26.98' LT	TSW
513	11+83.81	30.42' LT	TSW MTE
589	11+60.66	15.00' LT	TSW

- NOTES:**
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - SEE "F" SHEETS FOR ROW LINE.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
3	36.80	39.50	53°23'08"	S17° 18' 26"W - 35.49



**"F" LINE GRADING PLAN**

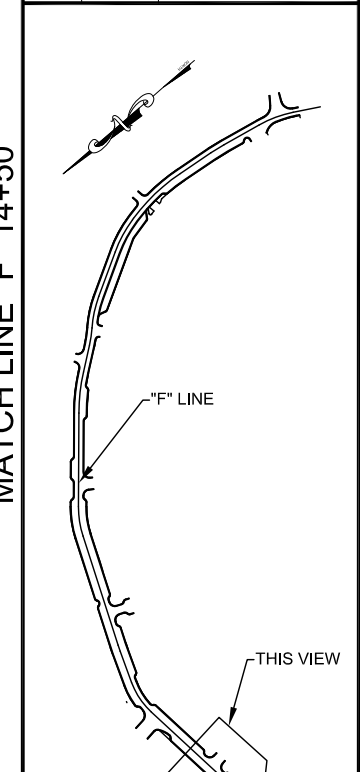


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KEMP, JENNIFER

TAB: G2 3/25/2011 3:03 PM

RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

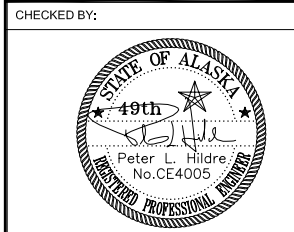


LAYOUT POINTS				LAYOUT POINTS (CONT.)				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
14	12+10.52	13.50' RT	POC TBC	43	13+76.71	31.48' RT	FG	258	14+23.28	21.50' RT	PT TBC
15	12+10.52	14.26' LT	TBC	44	13+91.93	31.00' RT	TBC	514	12+11.07	39.87' RT	TSW
16	12+20.23	16.11' LT	PC TBC	45	13+94.25	20.14' RT	POC TBC	515	12+66.35	47.29' RT	TSW
17	12+24.73	25.64' LT	PT TBC	46	14+06.44	13.50' RT	PT TBC	516	12+75.11	32.73' LT	MTE
18	12+44.01	29.13' LT	PC TBC	47	14+09.42	13.50' RT	PC TBC	517	13+52.77	29.50' RT	TSW
19	12+49.11	30.88' LT	PT TBC	48	13+65.83	21.50' LT	TBC	518	12+47.72	58.40' LT	MTE
20	12+46.60	27.16' LT	POC TBC	49	13+94.85	21.50' LT	TBC	519	13+60.10	37.50' RT	MTE
21	12+48.19	47.90' LT	TBC	50	13+94.85	25.80' LT	TSW	520	13+91.91	37.50' RT	MTE
22	12+62.93	61.16' LT	MTE	51	13+94.85	0.00' RT	FG	521	13+96.13	29.50' RT	TSW
23	12+64.65	51.60' LT	TBC	52	14+27.28	21.50' LT	TBC	574	12+06.78	30.66' LT	MTE
24	12+69.50	30.48' LT	TBC	53	14+27.28	21.50' RT	TBC	575	12+07.89	31.02' LT	PC TSW MTE
25	12+73.19	17.55' LT	POC TBC	54	14+43.91	28.90' RT	TSW	576	12+05.86	47.98' LT	TSW
26	12+78.03	20.15' LT	TSW	55	14+40.08	21.50' LT	TBC	577	12+10.88	48.71' LT	TSW
27	12+80.97	13.50' LT	PCC TBC	107	12+15.44	23.32' RT	TSW	578	12+12.42	31.69' LT	PT TSW
28	12+98.82	21.50' LT	TBC	108	12+22.70	23.20' RT	TSW	579	12+10.42	28.34' LT	MTE
29	12+63.71	13.50' RT	PT TBC	109	12+66.21	29.29' RT	TSW	580	12+25.97	52.36' LT	MTE
30	12+85.47	13.50' RT	PC TBC	110	12+09.77	22.21' LT	TSW	581	12+13.01	57.13' LT	MTE
31	13+03.32	21.50' RT	TBC	242	13+48.05	0.00'	FG	582	12+15.23	51.59' LT	PT TBC
34	12+70.46	0.00'	FG	248	12+71.71	20.87' LT	PC TBC	583	12+19.47	47.34' LT	PC TBC
35	13+29.50	21.50' RT	PC TBC	249	12+87.46	17.25' LT	PRC TBC	584	12+21.80	42.49' LT	PT TBC
36	13+43.36	13.50' RT	PT TBC	250	12+94.82	21.50' LT	PT TBC	585	12+23.63	31.48' LT	TBC
37	13+45.35	13.50' RT	PC TBC	252	12+91.96	17.25' RT	PRC TBC	586	12+17.65	29.76' LT	TSW
38	13+47.42	13.65' RT	POC TBC	253	12+99.32	21.50' RT	PT TBC	587	12+35.84	57.17' LT	MTE
39	13+03.32	0.00'	FG	254	13+36.86	17.25' RT	PRC TBC	588	12+14.08	22.90' LT	MTE
40	13+39.54	21.50' LT	TBC	255	13+59.85	27.62' RT	PT TBC	596	12+11.39	42.60' LT	TSW
41	13+58.26	21.40' RT	POC TBC	256	13+91.94	27.96' RT	PC TBC	597	12+07.20	41.98' LT	MTE
42	13+59.93	30.90' RT	TBC	257	14+15.91	17.25' RT	PRC TBC				

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
4	56.00	86.50	37°05'35"	S62° 32' 47"W - 55.03
5	11.68	7.50	89°13'02"	N0° 36' 31"W - 10.53
6	64.74	100.00	37°05'35"	S62° 32' 47"W - 63.61
7	9.57	3.50	156°40'11"	N56° 28' 51"E - 6.86
8	12.78	9.50	77°03'11"	S60° 22' 50"E - 11.83
9	7.85	7.50	60°00'00"	N51° 05' 35"E - 7.50
10	8.90	8.50	60°00'00"	S51° 05' 35"W - 8.50
11	7.85	7.50	60°00'00"	N68° 54' 25"W - 7.50
12	8.90	8.50	60°00'00"	S68° 54' 25"E - 8.50
13	8.90	8.50	60°00'00"	N51° 05' 35"E - 8.50
14	7.85	7.50	60°00'00"	S51° 05' 35"W - 7.50
15	22.40	14.50	88°30'42"	N54° 39' 04"W - 20.24
16	22.73	14.50	89°50'00"	S36° 10' 35"W - 20.48
17	7.85	7.50	60°00'00"	N68° 54' 25"W - 7.50
18	8.90	8.50	60°00'00"	S68° 54' 25"E - 8.50

**"F" LINE GRADING PLAN**

**PLAN LEGEND**



CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

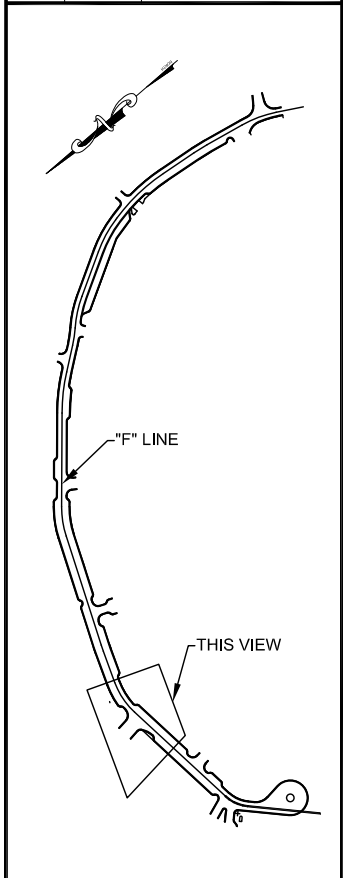
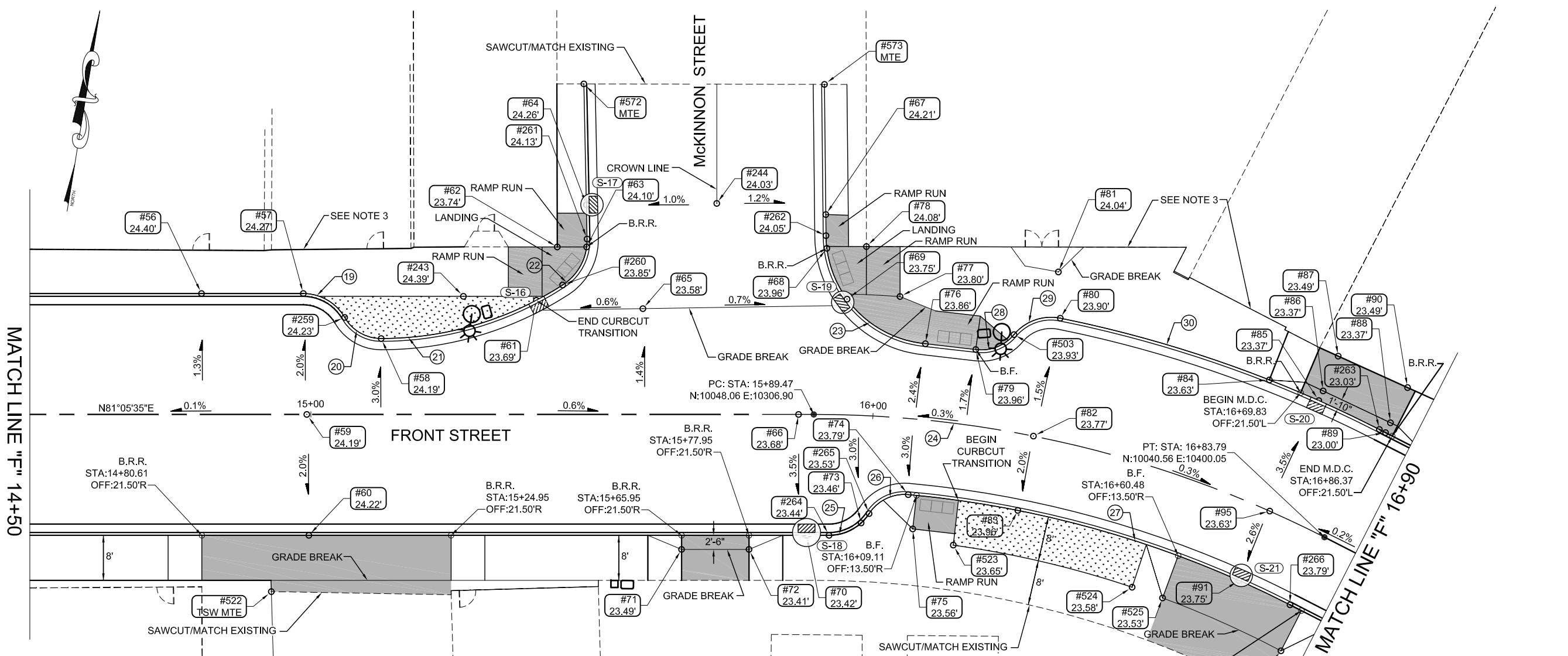
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>G2</b>	<b>117</b>



LAYOUT POINTS				LAYOUT POINTS CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
56	14+80.55	21.50' LT	TBC	84	16+64.40	21.50' LT	POC TBC
57	14+98.66	21.50' LT	PC TBC	85	16+73.00	21.50' LT	POC TBC
58	15+12.51	13.50' LT	PCC TBC	86	16+73.00	23.39' LT	TSW
59	14+99.28	0.00'	FG	87	16+72.96	30.12' LT	TSW
60	14+99.65	21.50' RT	TBC	88	16+85.00	23.46' LT	TSW
61	15+40.11	20.29' LT	POC TBC	89	16+85.02	21.50' LT	TBC
62	15+43.84	29.78' LT	TSW	90	16+84.87	30.41' LT	TSW
63	15+49.07	29.78' LT	POC TBC	91	16+73.00	13.50' RT	POC TBC
64	15+49.01	37.27' LT	TBC	95	16+72.99	0.00'	FG
65	15+59.07	18.81' LT	FG	243	15+27.14	21.00' LT	TSW
66	15+86.76	0.00'	FG	244	15+72.21	37.53' LT	FG
67	15+91.29	35.56' LT	TBC	259	15+06.02	17.25' LT	PRC TBC
68	15+91.50	29.55' LT	POC TBC	260	15+44.80	23.02' LT	PCC TBC
69	15+94.84	20.58' LT	POC TBC	261	15+49.14	31.20' LT	PT TBC
70	15+88.19	21.50' RT	TBC	262	15+91.35	31.80' LT	PC TBC
71	15+65.95	24.00' RT	TSW	263	16+83.79	21.50' LT	PT TBC
72	15+77.95	24.00' RT	TSW	264	15+92.52	21.48' RT	PC TBC
73	15+98.79	19.10' RT	POC TBC	265	16+00.25	17.37' RT	PRC TBC
74	16+07.51	13.50' RT	PCC TBC	266	16+83.79	13.50' RT	PT TBC
75	16+09.00	19.50' RT	TSW	503	16+22.43	17.14' LT	PRC TBC
76	16+08.11	13.50' LT	PT TBC	522	14+92.97	31.51' RT	MTE
77	16+03.34	21.50' LT	TSW	523	16+17.37	21.50' RT	TSW
78	15+97.61	30.04' LT	TSW	524	16+54.04	21.50' RT	TSW
79	16+16.55	13.50' LT	PC TBC	525	16+60.48	21.50' RT	TSW
80	16+29.33	21.50' LT	PCC TBC	526	16+86.06	21.51' RT	TSW
81	16+27.63	29.50' LT	TSW	572	15+48.57	58.78' LT	MTE
82	16+28.80	0.00'	FG	573	15+90.94	58.70' LT	MTE
83	16+28.65	13.50' RT	POC TBC				

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
19	8.90	8.50	60°00'00"	N68° 54' 25"W - 8.50
20	7.85	7.50	60°00'00"	S68° 54' 25"E - 7.50
21	34.12	59.50	32°51'36"	N64° 39' 47"E - 33.66
22	9.67	9.50	58°19'59"	N19° 04' 00"E - 9.26
23	28.62	19.50	84°06'09"	S51° 31' 58"E - 26.12
24	94.32	200.00	27°01'12"	N85° 23' 49"W - 93.45
25	8.45	8.50	56°56'25"	N52° 37' 23"E - 8.10
26	8.13	7.50	62°06'37"	S55° 12' 29"W - 7.74
27	71.12	186.50	21°51'00"	N82° 48' 43"W - 70.69
28	7.62	7.50	58°13'36"	N59° 46' 46"E - 7.30
29	9.18	8.50	61°50'48"	S61° 35' 22"W - 8.74
30	60.31	221.50	15°36'01"	N79° 41' 13"W - 60.12

- NOTES:
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - WHERE BACK OF SIDEWALK COINCIDES WITH FACE OF BUILDING, MATCH GRADE OF THE FORMER SIDEWALK TO EXTENT POSSIBLE WHILE KEEPING THE NEW SIDEWALK CROSS-SLOPE BETWEEN 1.0% AND 2.0% UNLESS DIRECTED TO DO OTHERWISE BY THE ENGINEER. SAWCUT ACROSS ALL DOORS THAT ARE INSET FROM CUTS OF FACE OF BUILDING AT THE DIRECTION OF THE ENGINEER.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.



**"F" LINE GRADING PLAN**

**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

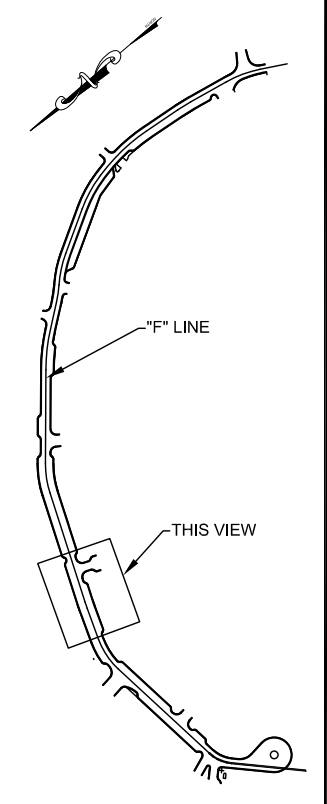
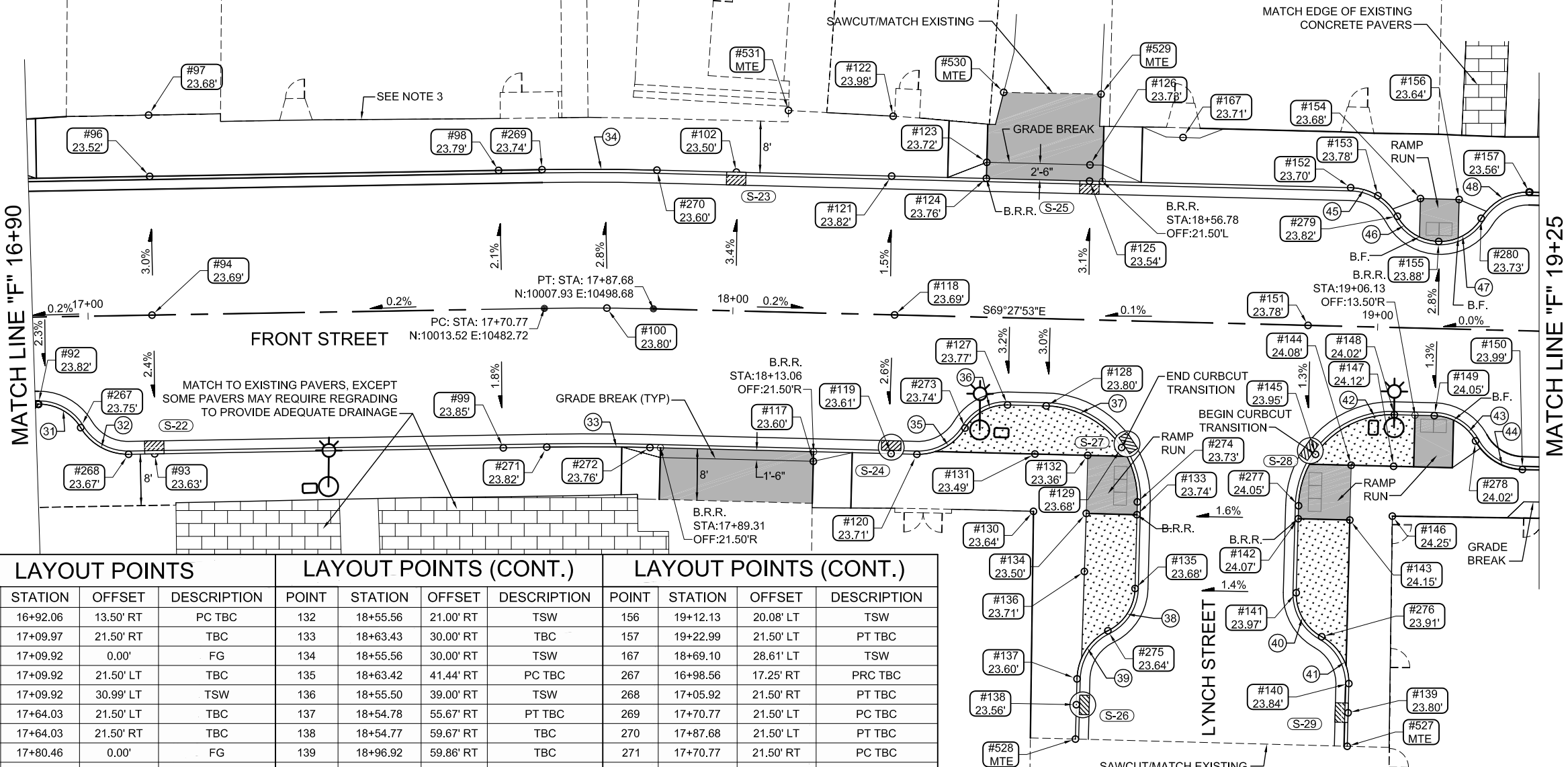
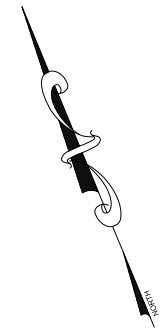
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>G3</b>	<b>117</b>

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
31	7.85	7.50	60°00'00"	N41° 53' 13"W - 7.50
32	8.90	8.50	60°00'00"	S41° 53' 13"E - 8.50
33	16.00	378.50	2°25'20"	N70° 40' 33"W - 16.00
34	17.82	421.50	2°25'20"	N70° 40' 33"W - 17.82
35	8.90	8.50	60°00'00"	N80° 32' 07"E - 8.50
36	7.85	7.50	60°00'00"	S80° 32' 07"W - 7.50

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
37	22.80	14.50	90°04'34"	N24° 25' 36"W - 20.52
38	8.19	7.50	62°32'42"	N51° 53' 02"E - 7.79
39	9.32	8.50	62°48'52"	S51° 44' 57"W - 8.86
40	8.28	7.50	63°17'03"	S11° 01' 51"E - 7.87
41	8.84	8.00	63°17'03"	N11° 01' 51"W - 8.39
42	22.76	14.50	89°55'26"	S65° 34' 24"W - 20.49

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
43	7.85	7.50	60°00'00"	N39° 27' 53"W - 7.50
44	8.90	8.50	60°00'00"	S39° 27' 53"E - 8.50
45	8.90	8.50	60°00'00"	N39° 27' 53"W - 8.50
46	7.85	7.50	60°00'00"	S39° 27' 53"E - 7.50
47	7.85	7.50	60°00'00"	N80° 32' 07"E - 7.50
48	8.90	8.50	60°00'00"	S80° 32' 07"W - 8.50



LAYOUT POINTS				LAYOUT POINTS (CONT.)				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
92	16+92.06	13.50' RT	PC TBC	132	18+55.56	21.00' RT	TSW	156	19+12.13	20.08' LT	TSW
93	17+09.97	21.50' RT	TBC	133	18+63.43	30.00' RT	TBC	157	19+22.99	21.50' LT	PT TBC
94	17+09.92	0.00'	FG	134	18+55.56	30.00' RT	TSW	167	18+69.10	28.61' LT	TSW
96	17+09.92	21.50' LT	TBC	135	18+63.42	41.44' RT	PC TBC	267	16+98.56	17.25' RT	PRC TBC
97	17+09.92	30.99' LT	TSW	136	18+55.50	39.00' RT	TSW	268	17+05.92	21.50' RT	PT TBC
98	17+64.03	21.50' LT	TBC	137	18+54.78	55.67' RT	PT TBC	269	17+70.77	21.50' LT	PC TBC
99	17+64.03	21.50' RT	TBC	138	18+54.77	59.67' RT	TBC	270	17+87.68	21.50' LT	PT TBC
100	17+80.46	0.00'	FG	139	18+96.92	59.86' RT	TBC	271	17+70.77	21.50' RT	PC TBC
102	18+00.00	21.50' LT	TBC	140	18+96.93	55.33' RT	PC TBC	272	17+87.68	21.50' RT	PT TBC
117	18+13.06	23.00' RT	TSW	141	18+88.42	41.48' RT	PT TBC	273	18+36.44	17.25' RT	PRC TBC
118	18+25.08	0.00'	FG	142	18+88.43	30.00' RT	TBC	274	18+63.44	28.02' RT	PT TBC
119	18+25.08	21.50' RT	TBC	143	18+96.44	30.00' RT	TSW	275	18+59.37	48.09' RT	PRC TBC
120	18+29.08	21.50' RT	PC TBC	144	18+96.44	21.50' RT	TSW	276	18+92.54	48.18' RT	PRC TBC
121	18+24.08	21.50' LT	TBC	145	18+90.87	19.96' RT	POC TBC	277	18+88.44	27.98' RT	PC TBC
122	18+24.08	30.78' LT	TSW	146	19+03.02	29.23' RT	TSW	278	19+15.63	17.25' RT	PRC TBC
123	18+38.78	24.00' LT	TSW	147	19+03.02	21.50' RT	TSW	279	19+02.64	17.25' LT	PRC TBC
124	18+38.78	21.50' LT	TBC	148	19+02.94	13.50' RT	PT TBC	280	19+15.63	17.25' LT	PRC TBC
125	18+54.78	21.50' LT	TBC	149	19+09.13	13.50' RT	PC TBC	527	18+96.92	65.05' RT	MTE
126	18+54.78	24.00' LT	TSW	150	19+22.99	21.50' RT	PT TBC	528	18+54.76	65.00' RT	MTE
127	18+42.94	13.50' RT	PT TBC	151	18+89.21	0.00'	FG	529	18+56.22	35.01' LT	MTE
128	18+48.94	13.50' RT	PC TBC	152	18+95.28	21.50' LT	PC TBC	530	18+41.12	34.90' LT	MTE
129	18+60.79	19.65' RT	POC TBC	153	18+99.53	20.36' LT	POC TBC	531	18+07.83	31.26' LT	MTE
130	18+47.38	29.88' RT	TSW	154	19+06.13	20.08' LT	TSW				
131	18+47.38	21.00' RT	TSW	155	19+09.13	13.50' LT	PCC TBC				

- NOTES:
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - WHERE BACK OF SIDEWALK COINCIDES WITH FACE OF BUILDING, MATCH GRADE OF THE FORMER SIDEWALK TO EXTENT POSSIBLE WHILE KEEPING THE NEW SIDEWALK CROSS-SLOPE BETWEEN 1.0% AND 2.0% UNLESS DIRECTED TO DO OTHERWISE BY THE ENGINEER. SAWCUT ACROSS ALL DOORS THAT ARE INSET FROM CUTS OF FACE OF BUILDING AT THE DIRECTION OF THE ENGINEER.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.

**"F" LINE GRADING PLAN**



PLAN LEGEND

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

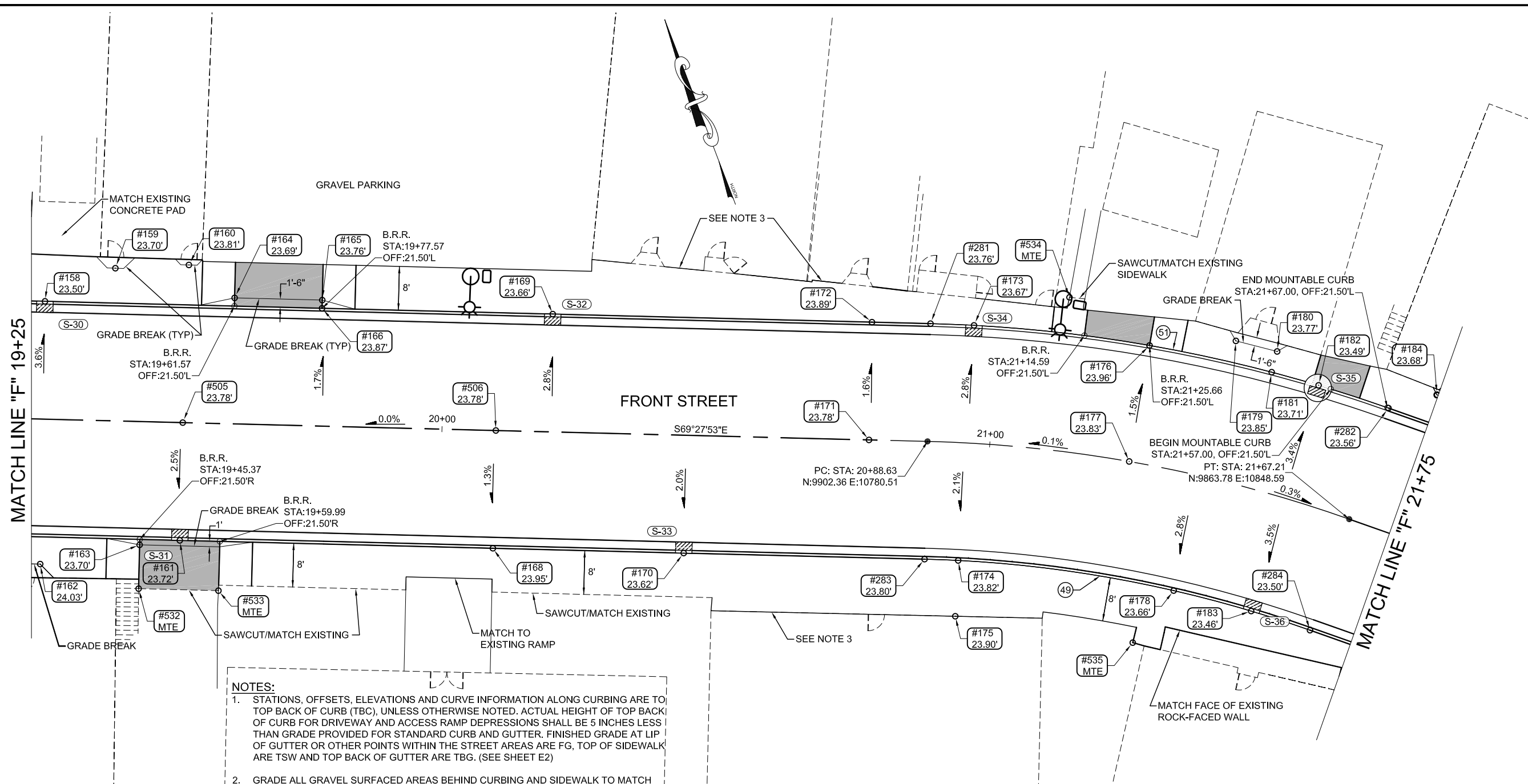
**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>G4</b>	<b>117</b>

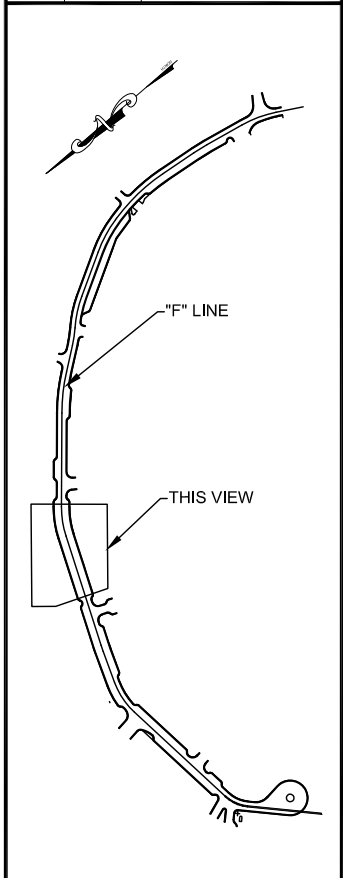




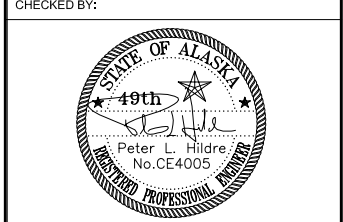
- NOTES:**
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - WHERE BACK OF SIDEWALK COINCIDES WITH FACE OF BUILDING, MATCH GRADE OF THE FORMER SIDEWALK TO EXTENT POSSIBLE WHILE KEEPING THE NEW SIDEWALK CROSS-SLOPE BETWEEN 1.0% AND 2.0% UNLESS DIRECTED TO DO OTHERWISE BY THE ENGINEER. SAWCUT ACROSS ALL DOORS THAT ARE INSET FROM CUTS OF FACE OF BUILDING AT THE DIRECTION OF THE ENGINEER.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
49	71.82	228.50	18°00'31"	N60° 27' 38"W - 71.52
50	78.58	250.00	18°00'31"	N60° 27' 38"W - 78.25
51	85.33	271.50	18°00'31"	N60° 27' 38"W - 84.98

LAYOUT POINTS				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
158	19+26.99	21.50' LT	TBC	177	21+25.66	0.00'	FG
159	19+39.67	27.87' LT	TSW	178	21+38.85	21.50' RT	POC TBC
160	19+53.07	28.80' LT	TSW	179	21+39.62	25.47' LT	TSW
161	19+52.68	21.50' RT	TBC	180	21+46.67	25.41' LT	TSW
162	19+27.32	26.46' RT	TSW	181	21+46.67	21.50' LT	POC TBC
163	19+45.37	22.50' RT	TSW	182	21+54.86	21.50' LT	POC TBC
164	19+61.57	23.00' LT	TSW	183	21+54.86	21.50' RT	POC TBC
165	19+77.57	23.00' LT	TSW	184	21+74.75	26.71' LT	TSW
166	19+77.57	21.50' LT	TBC	281	20+88.63	21.50' LT	PC TBC
168	20+09.83	21.50' RT	TBC	282	21+67.21	21.50' LT	PT TBC
169	20+19.68	21.50' LT	TBC	283	20+88.63	21.50' RT	PC TBC
170	20+44.66	21.50' RT	TBC	284	21+67.21	21.50' RT	PT TBC
171	20+77.95	0.00'	FG	505	19+52.68	0.00'	FG
172	20+77.95	21.50' LT	TBC	506	20+09.83	0.00'	FG
173	20+95.95	21.50' LT	POC TBC	532	19+45.39	30.50' RT	MTE
174	20+95.35	21.50' RT	POC TBC	533	19+59.96	30.50' RT	MTE
175	20+95.35	31.70' RT	TSW	534	21+11.35	28.08' LT	MTE
176	21+25.66	21.50' LT	POC TBC	535	21+32.93	32.37' RT	MTE



**PLAN LEGEND**



PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

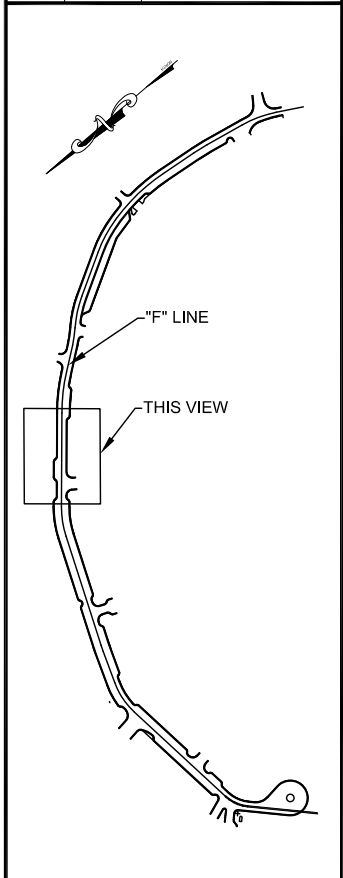
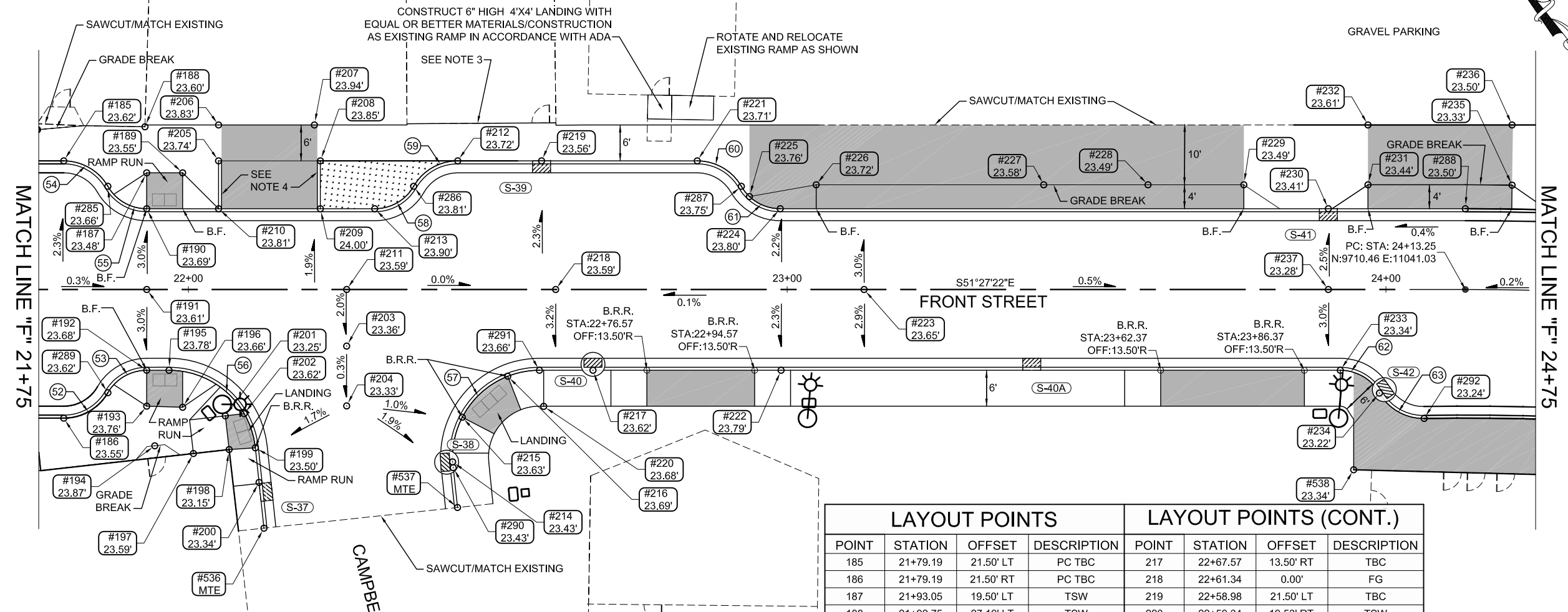
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>G5</b>	<b>117</b>



**"F" LINE GRADING PLAN**

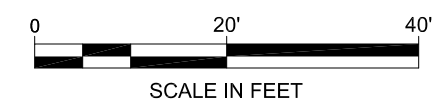


- NOTES:**
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED (SEE G SHEETS). FINISHED GRADE AT CENTERLINE ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - WHERE BACK OF SIDEWALK COINCIDES WITH FACE OF BUILDING, MATCH GRADE OF THE FORMER SIDEWALK TO EXTENT POSSIBLE WHILE KEEPING THE NEW SIDEWALK CROSS-SLOPE BETWEEN 1.0% AND 2.0% UNLESS DIRECTED TO DO OTHERWISE BY THE ENGINEER. SAWCUT ACROSS ALL DOORS THAT ARE INSET FROM CUTS OF FACE OF BUILDING AT THE DIRECTION OF THE ENGINEER.
  - POUR 6-INCH WIDE CURB WALL INTEGRALLY WITH SIDEWALK. TRANSITION FROM 6-INCH HEIGHT AT TOP BACK OF CURB TO THE SIDEWALK GRADES AT POINTS 205 AND 208.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.

CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
52	8.90	8.50	60°00'00"	S81° 27' 22"E - 8.50
53	7.85	7.50	60°00'00"	N81° 27' 22"W - 7.50
54	8.90	8.50	60°00'00"	N21° 27' 22"W - 8.50
55	7.85	7.50	60°00'00"	S21° 27' 22"E - 7.50
56	21.23	14.50	83°53'29"	N9° 30' 38"W - 19.38
57	24.55	14.50	97°00'17"	S80° 02' 29"W - 21.72
58	7.85	7.50	60°00'00"	S81° 27' 22"E - 7.50
59	8.90	8.50	60°00'00"	N81° 27' 22"W - 8.50
60	8.90	8.50	60°00'00"	N21° 27' 22"W - 8.50
61	7.85	7.50	60°00'00"	S21° 27' 22"E - 7.50
62	7.88	7.50	60°12'27"	N21° 21' 08"W - 7.52
63	9.05	8.50	61°01'51"	S21° 45' 50"E - 8.63

LAYOUT POINTS				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
185	21+79.19	21.50' LT	PC TBC	217	22+67.57	13.50' RT	TBC
186	21+79.19	21.50' RT	PC TBC	218	22+61.34	0.00'	FG
187	21+93.05	19.50' LT	TSW	219	22+58.98	21.50' LT	TBC
188	21+92.75	27.19' LT	TSW	220	22+59.34	19.53' RT	TSW
189	21+99.05	19.50' LT	TSW	221	22+84.98	21.50' LT	PC TBC
190	21+93.05	13.50' LT	PT TBC	222	22+98.98	13.50' RT	TBC
191	21+93.05	0.00'	FG	223	23+12.84	0.00'	FG
192	21+93.05	13.50' RT	PT TBC	224	22+98.84	13.50' LT	PT TBC
193	21+93.05	19.50' RT	TSW	225	22+93.70	15.54' LT	POC TBC
194	21+94.39	26.12' RT	TSW	226	23+04.84	17.50' LT	TSW
195	21+96.77	13.50' RT	PC TBC	227	23+42.84	17.50' LT	TSW
196	21+99.04	19.68' RT	TSW	228	23+60.27	17.50' LT	TSW
197	22+00.85	27.41' RT	TSW	229	23+76.27	17.50' LT	TSW
198	22+06.81	26.74' RT	TSW	230	23+90.37	13.50' LT	TBC
199	22+11.19	26.46' RT	PT TBC	231	23+97.00	17.50' LT	TSW
200	22+11.81	32.24' RT	TBC	232	23+97.00	27.50' LT	TSW
201	22+06.16	21.12' RT	TSW	233	23+92.37	13.50' RT	PC TBC
202	22+09.33	20.75' RT	POC TBC	234	23+98.90	17.31' RT	PRC TBC
203	22+26.44	9.45' RT	FG	235	24+20.80	17.50' LT	TSW
204	22+26.44	19.45' RT	FG	236	24+20.65	27.56' LT	TSW
205	22+05.05	21.50' LT	TSW TW	237	23+90.37	0.00'	FG
206	22+05.05	27.50' LT	TSW	285	21+86.55	17.25' LT	PRC TBC
207	22+21.05	27.50' LT	TSW	286	22+37.62	17.25' LT	PRC TBC
208	22+22.05	21.50' LT	TSW TW	287	22+92.35	17.25' LT	PRC TBC
209	22+22.05	13.50' LT	TBC TW	288	24+13.25	13.50' LT	PC TBC
210	22+05.05	13.50' LT	TBC TW	289	21+86.55	17.25' RT	PRC TBC
211	22+26.44	0.00'	FG	290	22+44.24	29.77' RT	PC TBC
212	22+44.98	21.50' LT	PT TBC	291	22+58.63	13.50' RT	PT TBC
213	22+31.13	13.50' LT	PC TBC	292	24+06.38	21.55' RT	PRC TBC
214	22+44.13	28.80' RT	POC TBC	536	22+12.62	39.89' RT	MTE
215	22+45.74	21.35' RT	POC TBC	537	22+44.95	36.43' RT	MTE
216	22+53.34	14.50' RT	POC TBC	538	23+94.61	30.13' RT	TSW

**"F" LINE GRADING PLAN**



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

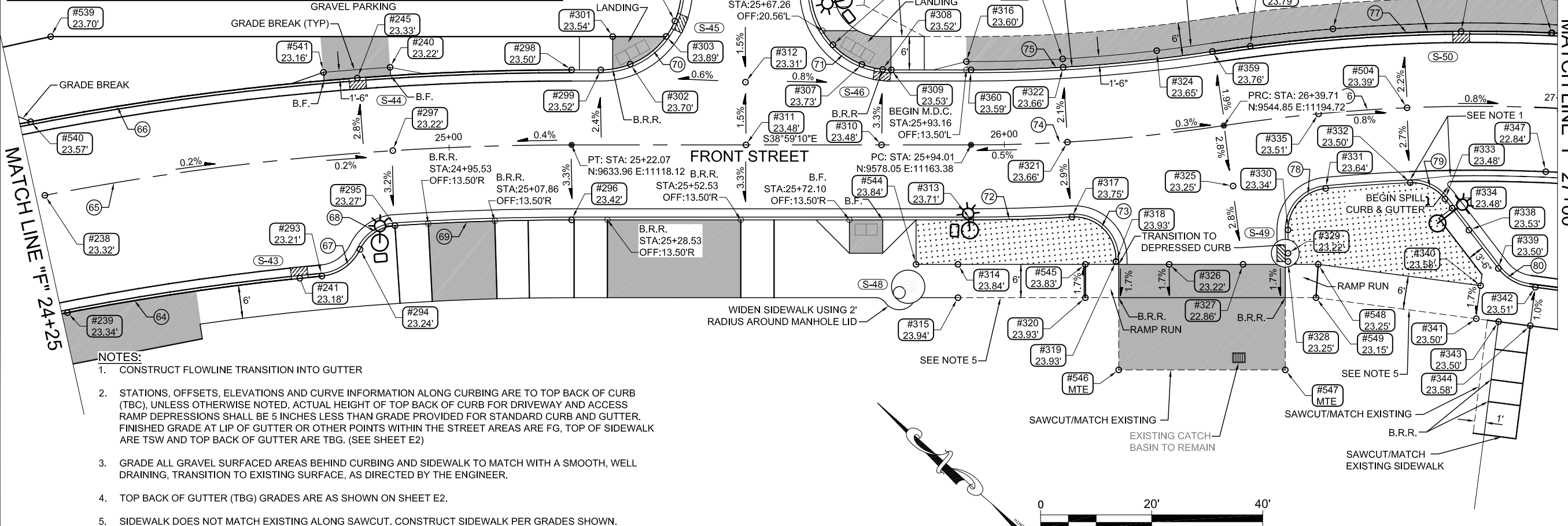
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>G6</b>	<b>117</b>

LAYOUT POINTS				LAYOUT POINTS (CONT.)				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
238	24+26.64	0.00'	FG	320	26+12.84	28.15' RT	TSW	540	24+26.64	13.50' LT	TBC
239	24+26.64	21.50' RT	POC TBC	321	26+11.39	0.00'	FG	541	24+78.63	15.00' LT	TSW
240	24+90.32	15.00' LT	TSW	322	26+11.39	13.50' LT	POC TBC	542	25+65.18	29.62' LT	MTE
241	24+70.84	21.50' RT	POC TBC	323	26+11.39	15.00' LT	TSW	543	25+42.02	29.44' LT	MTE
245	24+84.47	13.50' RT	POC TBC	324	26+29.29	15.00' LT	TSW	544	25+84.10	21.50' RT	TSW
293	24+75.02	21.50' RT	PRC TBC	325	26+39.71	11.00' RT	FG	545	26+13.19	22.16' RT	TSW
294	24+82.58	17.30' RT	PRC TBC	326	26+27.17	23.47' RT	TSW	546	26+17.39	41.54' RT	MTE
295	24+89.36	13.50' RT	PT TBC	327	26+39.37	25.21' RT	TSW	547	26+44.73	45.11' RT	MTE
296	25+22.07	13.50' RT	PT TBC	328	26+48.16	25.84' RT	COR TBC	548	26+54.01	26.95' RT	TSW
297	24+89.85	0.00'	FG	329	26+48.36	24.35' RT	TBC	549	26+52.87	32.88' RT	TSW
298	25+22.07	13.50' LT	PT TBC	330	26+48.91	20.19' RT	PC TBC				
299	25+27.33	13.50' LT	PC TBC	331	26+56.92	13.50' RT	PT TBC				
300	25+40.67	22.31' LT	POC TBC	332	26+72.88	13.50' RT	PC TBC				
301	25+29.47	19.50' LT	TSW	333	26+79.38	16.62' RT	PT TBC				
302	25+32.64	14.53' LT	POC TBC	334	26+80.70	18.30' RT	TBC				
303	25+39.10	19.53' LT	POC TBC	335	26+56.92	0.00'	FG				
304	25+41.77	26.69' LT	PT TBC	336	26+46.30	13.50' LT	POC TBC				
305	25+65.18	28.78' LT	PC TBC	337	26+60.74	15.00' LT	TSW				
306	25+69.14	18.03' LT	POC TBC	338	26+83.92	22.29' RT	TBC				
307	25+74.36	14.50' LT	POC TBC	339	26+89.74	29.16' RT	PC TBC				
308	25+78.10	13.58' LT	POC TBC	340	26+86.22	32.29' RT	TSW				
309	25+79.66	13.50' LT	PT TBC	341	26+85.35	38.24' RT	TSW				
310	25+77.88	0.00'	FG	342	26+97.26	32.36' RT	PT TBC				
311	25+53.47	0.00'	FG	343	26+89.96	38.73' RT	TSW				
312	25+53.39	11.30' LT	FG	344	26+96.53	39.31' RT	TSW				
313	25+94.01	13.50' RT	PC TBC	347	26+98.37	11.50' RT	TBG				
314	25+91.66	21.50' RT	TSW	350	26+98.37	13.50' LT	POC TBC				
315	25+91.66	27.50' RT	TSW	358	26+82.74	13.50' LT	POC TBC				
316	25+93.16	15.00' LT	TSW	359	26+39.71	13.50' LT	PRC TBC				
317	26+11.39	13.50' RT	PRC TBC	360	25+94.01	13.50' LT	PC TBC				
318	26+18.34	22.06' RT	TBC	504	26+72.88	0.00'	FG				
319	26+18.34	22.06' RT	END TBC	539	24+32.75	27.90' LT	FG				

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
64	65.98	478.50	7°54'03"	N48° 19' 44"W - 65.93
65	108.82	500.00	12°28'12"	N45° 13' 16"W - 108.61
66	111.76	513.50	12°28'12"	N45° 13' 16"W - 111.54
67	8.78	8.50	59°10'53"	S73° 58' 09"E - 8.39
68	7.96	7.50	60°49'31"	N73° 08' 50"W - 7.59
69	31.83	486.50	3°44'54"	N40° 51' 38"W - 31.82
70	21.47	14.50	84°49'29"	S81° 23' 55"E - 19.56
71	23.56	14.50	93°04'51"	S7° 33' 15"W - 21.05
72	18.16	313.50	3°19'11"	S40° 38' 46"E - 18.16
73	12.22	7.50	93°19'11"	N4° 21' 14"E - 10.91
74	45.70	300.00	8°43'38"	S43° 20' 59"E - 45.65
75	43.64	286.50	8°43'38"	S43° 20' 59"E - 43.60
76	84.87	300.00	16°12'33"	N39° 36' 32"W - 84.59
77	88.69	313.50	16°12'33"	N39° 36' 32"W - 88.39
78	11.07	7.50	84°33'36"	N86° 42' 23"W - 10.09
79	7.18	7.50	54°52'22"	N13° 56' 26"W - 6.91
80	6.68	8.50	45°00'00"	S9° 00' 15"E - 6.51

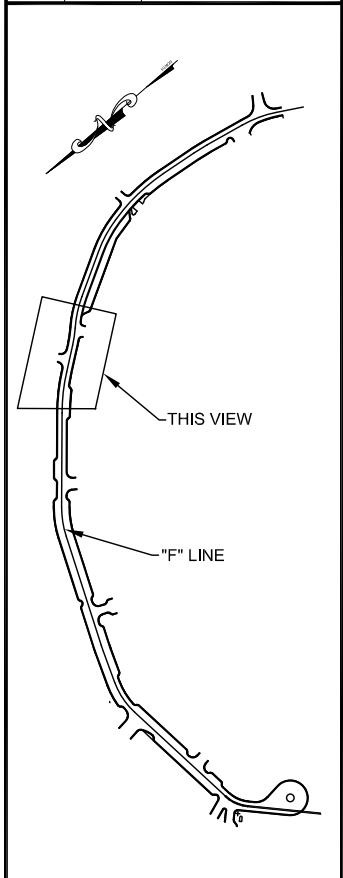


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KEMP, JENNIFER

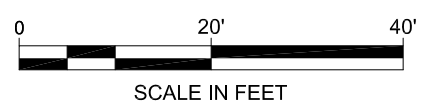
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RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

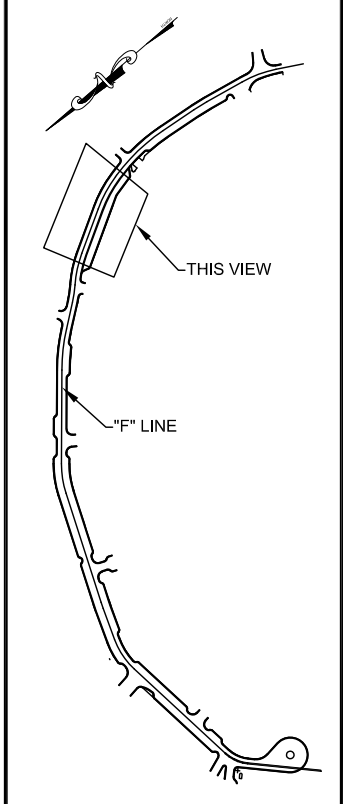
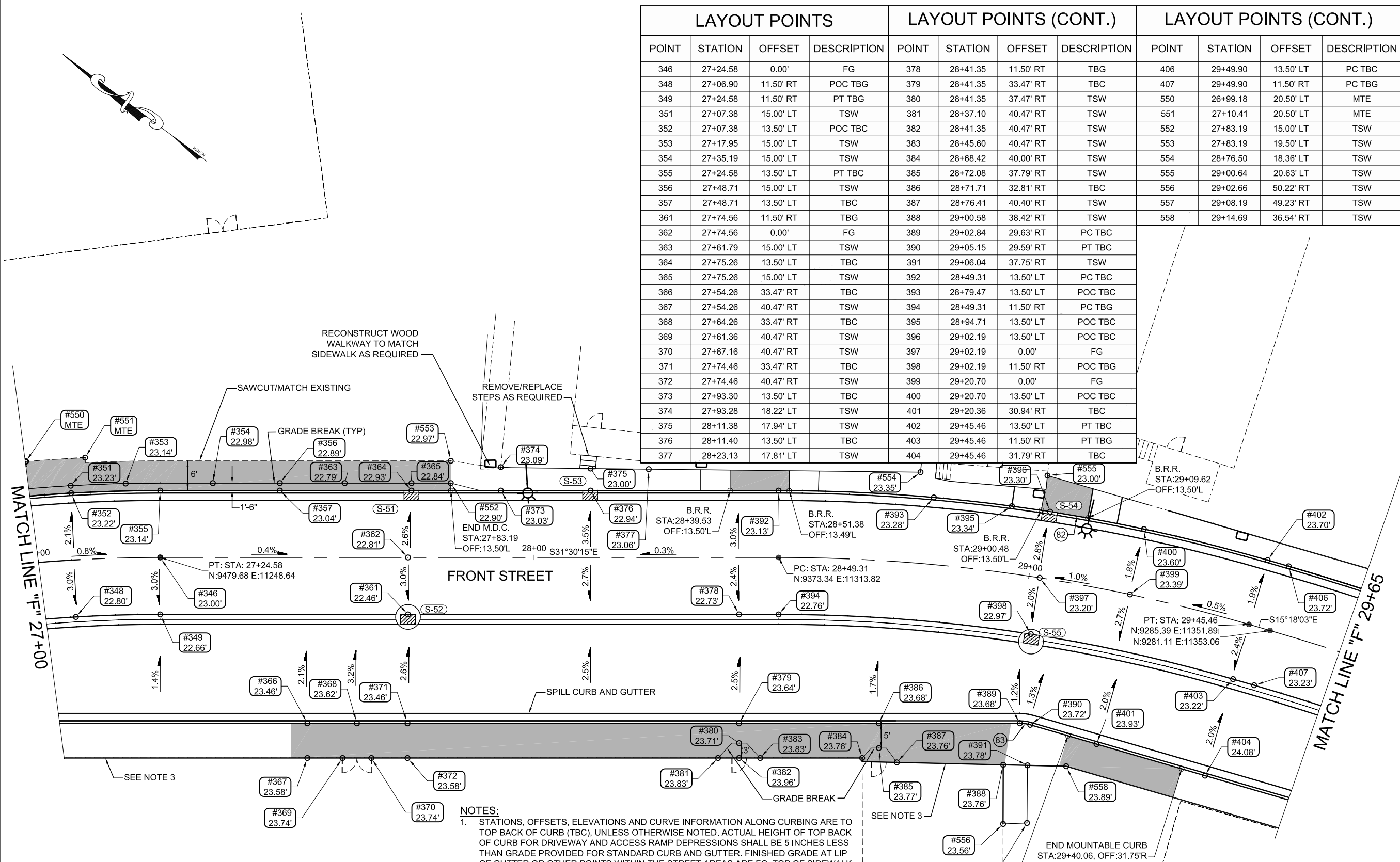


- NOTES:
- CONSTRUCT FLOWLINE TRANSITION INTO GUTTER
  - STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - TOP BACK OF GUTTER (TBG) GRADES ARE AS SHOWN ON SHEET E2.
  - SIDEWALK DOES NOT MATCH EXISTING ALONG SAWCUT. CONSTRUCT SIDEWALK PER GRADES SHOWN.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.

"F" LINE GRADING PLAN

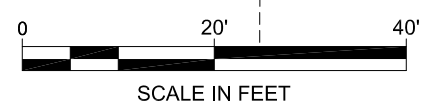


LAYOUT POINTS				LAYOUT POINTS (CONT.)				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
346	27+24.58	0.00'	FG	378	28+41.35	11.50' RT	TBG	406	29+49.90	13.50' LT	PC TBC
348	27+06.90	11.50' RT	POC TBG	379	28+41.35	33.47' RT	TBC	407	29+49.90	11.50' RT	PC TBG
349	27+24.58	11.50' RT	PT TBG	380	28+41.35	37.47' RT	TSW	550	26+99.18	20.50' LT	MTE
351	27+07.38	15.00' LT	TSW	381	28+37.10	40.47' RT	TSW	551	27+10.41	20.50' LT	MTE
352	27+07.38	13.50' LT	POC TBC	382	28+41.35	40.47' RT	TSW	552	27+83.19	15.00' LT	TSW
353	27+17.95	15.00' LT	TSW	383	28+45.60	40.47' RT	TSW	553	27+83.19	19.50' LT	TSW
354	27+35.19	15.00' LT	TSW	384	28+68.42	40.00' RT	TSW	554	28+76.50	18.36' LT	TSW
355	27+24.58	13.50' LT	PT TBC	385	28+72.08	37.79' RT	TSW	555	29+00.64	20.63' LT	TSW
356	27+48.71	15.00' LT	TSW	386	28+71.71	32.81' RT	TBC	556	29+02.66	50.22' RT	TSW
357	27+48.71	13.50' LT	TBC	387	28+76.41	40.40' RT	TSW	557	29+08.19	49.23' RT	TSW
361	27+74.56	11.50' RT	TBG	388	29+00.58	38.42' RT	TSW	558	29+14.69	36.54' RT	TSW
362	27+74.56	0.00'	FG	389	29+02.84	29.63' RT	PC TBC				
363	27+61.79	15.00' LT	TSW	390	29+05.15	29.59' RT	PT TBC				
364	27+75.26	13.50' LT	TBC	391	29+06.04	37.75' RT	TSW				
365	27+75.26	15.00' LT	TSW	392	28+49.31	13.50' LT	PC TBC				
366	27+54.26	33.47' RT	TBC	393	28+79.47	13.50' LT	POC TBC				
367	27+54.26	40.47' RT	TSW	394	28+49.31	11.50' RT	PC TBG				
368	27+64.26	33.47' RT	TBC	395	28+94.71	13.50' LT	POC TBC				
369	27+61.36	40.47' RT	TSW	396	29+02.19	13.50' LT	POC TBC				
370	27+67.16	40.47' RT	TSW	397	29+02.19	0.00'	FG				
371	27+74.46	33.47' RT	TBC	398	29+02.19	11.50' RT	POC TBG				
372	27+74.46	40.47' RT	TSW	399	29+20.70	0.00'	FG				
373	27+93.30	13.50' LT	TBC	400	29+20.70	13.50' LT	POC TBC				
374	27+93.28	18.22' LT	TSW	401	29+20.36	30.94' RT	TBC				
375	28+11.38	17.94' LT	TSW	402	29+45.46	13.50' LT	PT TBC				
376	28+11.40	13.50' LT	TBC	403	29+45.46	11.50' RT	PT TBG				
377	28+23.13	17.81' LT	TSW	404	29+45.46	31.79' RT	TBC				



CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
81	96.15	340.00	16°12'13"	N23° 24' 09"W - 95.83
82	99.97	353.50	16°12'13"	N23° 24' 09"W - 99.64
83	2.12	7.50	16°14'00"	N23° 23' 16"W - 2.12

- NOTES:
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG. TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - TRIM BOTTOM PIECE OF 1X6 HORIZONTAL CEDAR SIDING AS REQUIRED TO MAINTAIN A SIDEWALK CROSS-SLOPE BETWEEN 1% AND 2% FOR THE ENTIRE LENGTH OF BOTH THE CITY MARKET AND BAY COMPANY BUILDINGS. THE BOTTOM OF THE CEDAR SIDING SHALL BE WITHIN 1/4" OF THE TOP BACK OF SIDEWALK.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.



**"F" LINE GRADING PLAN**

**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM  
DESIGNED BY:  
DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>G8</b>	<b>117</b>

LAYOUT POINTS				LAYOUT POINTS (CONT.)				LAYOUT POINTS (CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
408	29+66.67	31.54' RT	PC TBC	429	30+25.61	26.41' RT	TSW	559	30+12.22	19.83' LT	TSW
409	29+72.96	28.81' RT	PT TBC	430	30+63.01	19.50' LT	TSW	560	29+88.99	35.88' LT	MTE
410	29+97.75	13.50' RT	TBC	431	30+47.72	13.50' RT	PC TBC	561	30+10.41	36.46' LT	MTE
411	29+80.53	0.00'	FG	432	30+54.51	17.30' RT	PRC TBC	562	29+99.86	13.50' RT	TBC
412	29+80.00	13.50' LT	PC TBC	433	30+62.07	21.50' RT	PRC TBC	563	30+24.57	13.50' RT	TBC
413	29+82.76	18.62' LT	TSW	434	30+00.00	11.50' LT	FG	564	30+32.46	31.46' RT	TSW
414	29+88.83	20.72' LT	POC TBC	435	30+20.59	0.00'	FG	565	29+84.68	11.50' RT	POC TBG
415	29+88.14	18.72' LT	POC TBC	436	31+01.08	13.50' LT	POC TBC				
416	29+89.08	22.98' LT	PT TBC	437	31+49.26	13.50' LT	TBC				
417	30+11.52	22.45' LT	PC TBC	438	31+20.92	13.50' LT	PT TBC				
418	30+11.56	21.89' LT	POC TBC	439	31+20.92	21.50' RT	PT TBC				
419	30+20.59	13.50' LT	PRC TBC	440	31+01.09	21.50' RT	POC TBC				
420	29+84.81	16.11' RT	PC TBC	441	31+49.26	21.50' RT	TBC				
421	29+90.72	13.50' RT	PT TBC	442	31+49.26	0.00'	FG				
422	29+89.53	20.03' RT	TSW	443	31+58.53	27.50' RT	TSW				
423	29+86.20	23.73' RT	PC TSW	444	31+77.54	27.50' RT	TSW				
424	30+30.50	25.68' RT	TSW	445	31+99.61	13.50' LT	TBC				
425	29+89.73	30.32' RT	PT TSW	446	31+99.61	0.00'	FG				
426	30+39.26	21.50' RT	TSW	447	31+99.61	21.50' RT	TBC				
427	30+00.32	29.43' RT	TSW	448	32+18.15	13.50' LT	PC TBC				
428	29+95.23	13.50' RT	TSW	449	32+18.15	21.50' RT	PC TBC				

CURVE TABLE				
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
84	6.68	8.50	45°00'00"	S37° 46' 16"E - 6.51
85	9.42	4.00	135°00'00"	S52° 13' 44"W - 7.39
86	6.50	7.50	49°38'55"	N35° 26' 48"W - 6.30
87	171.02	500.00	19°35'53"	N5° 30' 06"W - 170.19
88	14.82	9.50	89°22'37"	S56° 32' 23"E - 13.36
89	46.57	486.50	5°29'03"	N6° 49' 57"W - 46.55
90	14.28	9.50	86°08'53"	S35° 52' 26"W - 12.98
91	103.04	513.50	11°29'50"	N1° 27' 05"W - 102.87
92	7.96	7.50	60°49'31"	N26° 19' 20"E - 7.59
93	8.78	8.50	59°10'53"	S27° 08' 39"W - 8.39
94	56.32	478.50	6°44'38"	N0° 55' 31"E - 56.29
95	38.30	478.50	4°35'12"	N6° 35' 26"E - 38.29
96	40.03	500.00	4°35'12"	N6° 35' 26"E - 40.01
97	41.11	513.50	4°35'12"	N6° 35' 26"E - 41.09

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KEMP, JENNIFER

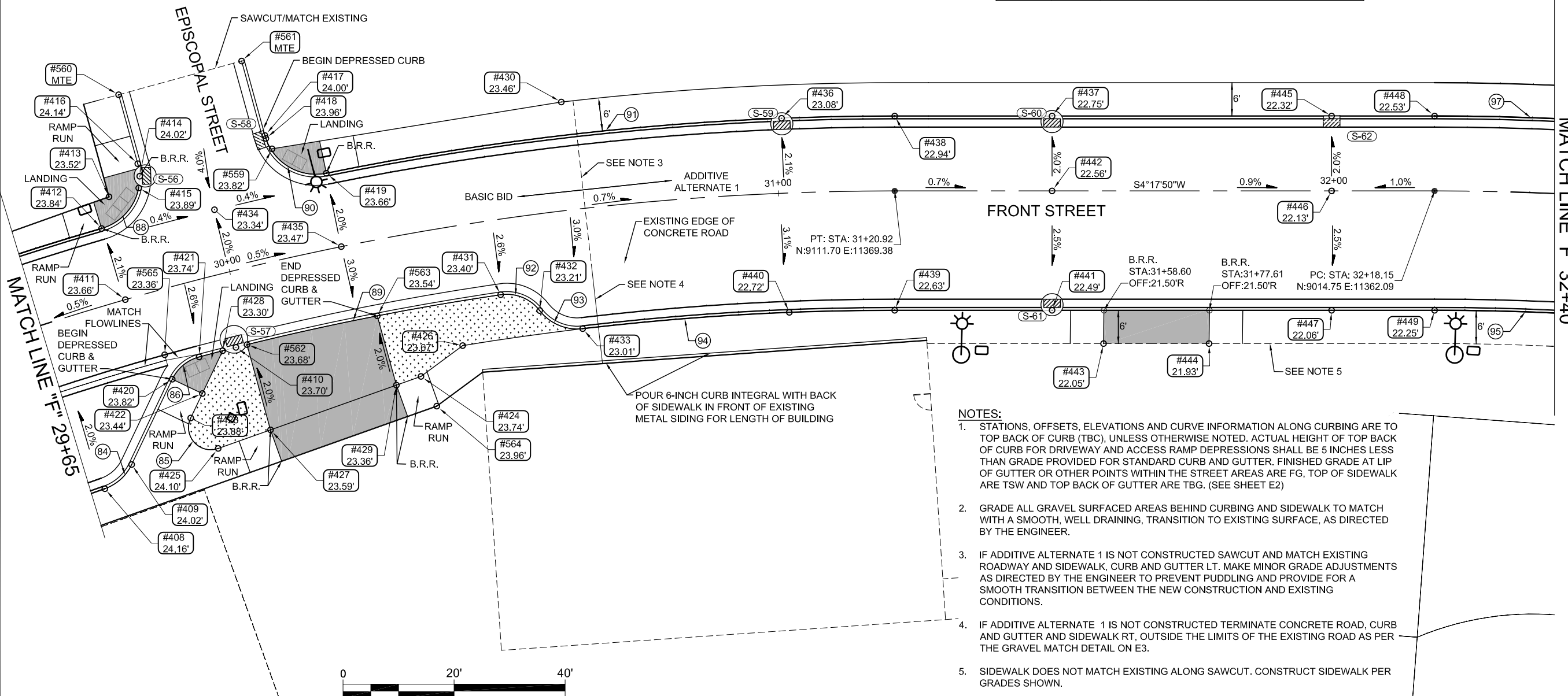
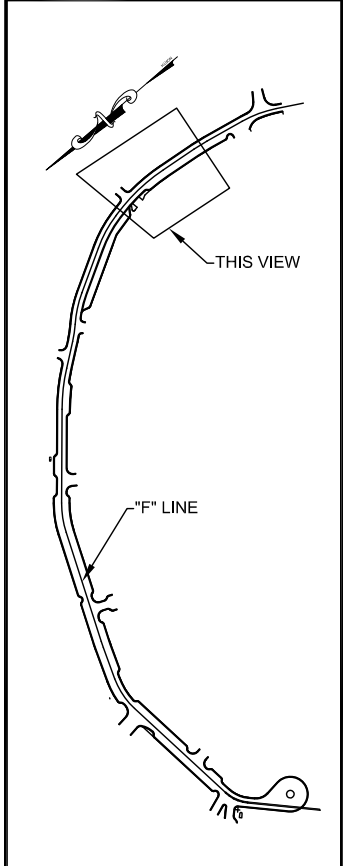
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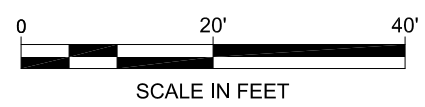
ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



- NOTES:**
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - IF ADDITIVE ALTERNATE 1 IS NOT CONSTRUCTED SAWCUT AND MATCH EXISTING ROADWAY AND SIDEWALK, CURB AND GUTTER LT. MAKE MINOR GRADE ADJUSTMENTS AS DIRECTED BY THE ENGINEER TO PREVENT PUDDLING AND PROVIDE FOR A SMOOTH TRANSITION BETWEEN THE NEW CONSTRUCTION AND EXISTING CONDITIONS.
  - IF ADDITIVE ALTERNATE 1 IS NOT CONSTRUCTED TERMINATE CONCRETE ROAD, CURB AND GUTTER AND SIDEWALK RT, OUTSIDE THE LIMITS OF THE EXISTING ROAD AS PER THE GRAVEL MATCH DETAIL ON E3.
  - SIDEWALK DOES NOT MATCH EXISTING ALONG SAWCUT. CONSTRUCT SIDEWALK PER GRADES SHOWN.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.



"F" LINE GRADING PLAN

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

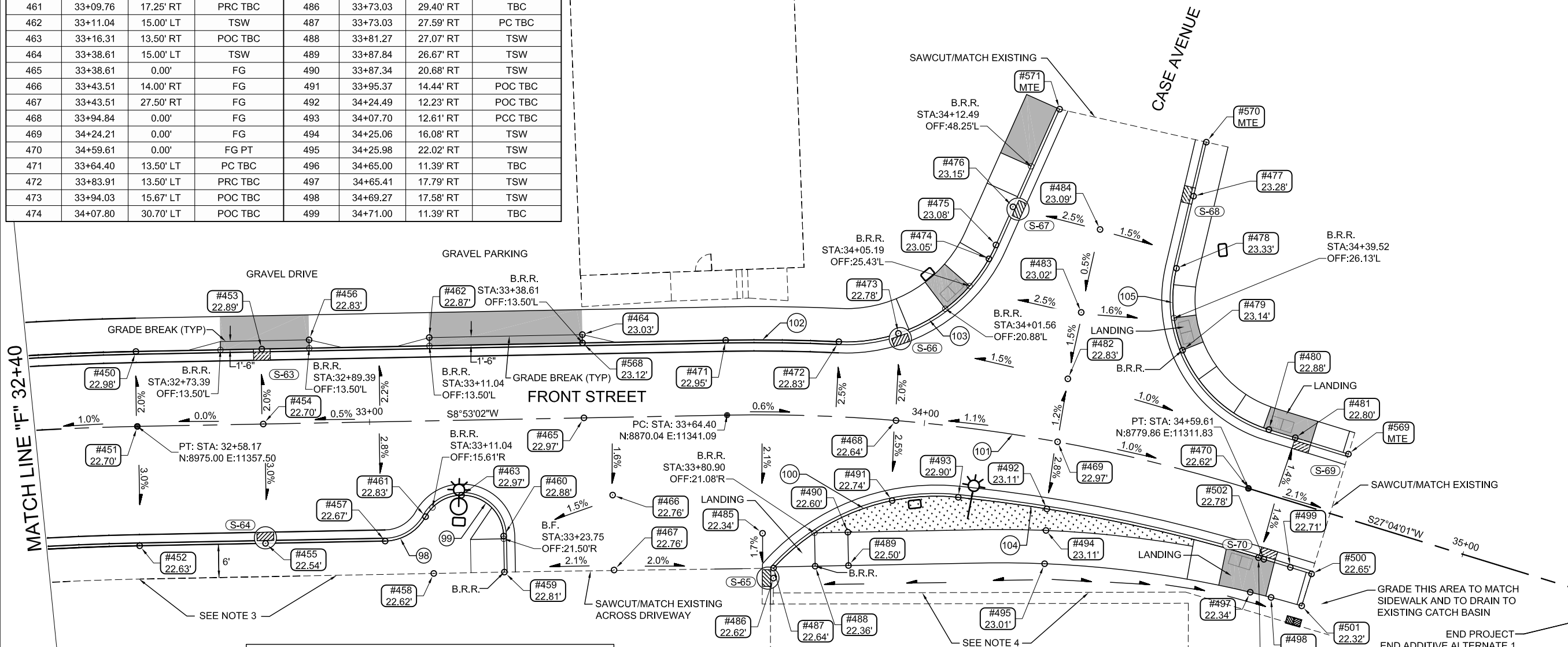
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>G9</b>	<b>117</b>

LAYOUT POINTS				LAYOUT POINTS CONT.)				LAYOUT POINTS CONT.)			
POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION	POINT	STATION	OFFSET	DESCRIPTION
450	32+58.17	13.50' LT	PT TBC	475	34+08.65	33.35' LT	PT TBC	500	34+75.00	11.39' RT	TBC MTE
451	32+58.17	0.00'	FG PT	476	34+10.55	40.56' LT	TBC	501	34+75.00	17.41' RT	TSW MTE
452	32+58.17	21.50' RT	PT TBC	477	34+38.13	48.30' LT	TBC	502	34+66.02	11.39' RT	PT TBC
453	32+80.85	13.50' LT	TBC	478	34+38.06	34.95' LT	PC TBC	568	34+38.06	34.95' LT	PC TBC
454	32+80.85	0.00'	FG	479	34+42.16	20.85' LT	POC TBC	569	34+42.16	20.85' LT	POC TBC
455	32+80.85	21.50' RT	TBC	480	34+60.02	11.20' LT	PT TBC	570	34+60.02	11.20' LT	PT TBC
456	32+89.39	15.00' LT	TSW	481	34+65.00	11.20' LT	TBC	571	34+65.00	11.20' LT	TBC
457	33+02.40	21.50' RT	PC TBC	482	34+24.00	11.50' LT	FG				
458	33+11.04	27.50' RT	TSW	483	34+24.22	23.71' LT	FG				
459	33+23.75	27.50' RT	END TBC	484	34+24.80	39.00' LT	FG				
460	33+23.75	21.00' RT	PT TBC	485	33+70.83	21.33' RT	FG				
461	33+09.76	17.25' RT	PRC TBC	486	33+73.03	29.40' RT	TBC				
462	33+11.04	15.00' LT	TSW	487	33+73.03	27.59' RT	PC TBC				
463	33+16.31	13.50' RT	POC TBC	488	33+81.27	27.07' RT	TSW				
464	33+38.61	15.00' LT	TSW	489	33+87.84	26.67' RT	TSW				
465	33+38.61	0.00'	FG	490	33+87.34	20.68' RT	TSW				
466	33+43.51	14.00' RT	FG	491	33+95.37	14.44' RT	POC TBC				
467	33+43.51	27.50' RT	FG	492	34+24.49	12.23' RT	POC TBC				
468	33+94.84	0.00'	FG	493	34+07.70	12.61' RT	PCC TBC				
469	34+24.21	0.00'	FG	494	34+25.06	16.08' RT	TSW				
470	34+59.61	0.00'	FG PT	495	34+25.98	22.02' RT	TSW				
471	33+64.40	13.50' LT	PC TBC	496	34+65.00	11.39' RT	TBC				
472	33+83.91	13.50' LT	PRC TBC	497	34+65.41	17.79' RT	TSW				
473	33+94.03	15.67' LT	POC TBC	498	34+69.27	17.58' RT	TSW				
474	34+07.80	30.70' LT	POC TBC	499	34+71.00	11.39' RT	TBC				



MATCH LINE "F" 32+40

CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING & DISTANCE
98	8.90	8.50	60°00'00"	S21° 06' 58"E - 8.50
99	19.63	7.50	150°00'00"	N23° 53' 02"E - 14.49
100	36.96	39.50	53°36'28"	N10° 59' 10"W - 35.62
101	95.21	300.00	18°10'59"	N17° 58' 31"E - 94.81
102	20.39	313.50	3°43'33"	N10° 44' 48"E - 20.38
103	35.30	29.50	68°34'06"	S21° 40' 29"E - 33.23
104	56.25	286.50	11°14'57"	N21° 26' 32"E - 56.16
105	36.87	24.50	86°13'13"	S70° 10' 37"W - 33.49

- NOTES:**
- STATIONS, OFFSETS, ELEVATIONS AND CURVE INFORMATION ALONG CURBING ARE TO TOP BACK OF CURB (TBC), UNLESS OTHERWISE NOTED. ACTUAL HEIGHT OF TOP BACK OF CURB FOR DRIVEWAY AND ACCESS RAMP DEPRESSIONS SHALL BE 5 INCHES LESS THAN GRADE PROVIDED FOR STANDARD CURB AND GUTTER. FINISHED GRADE AT LIP OF GUTTER OR OTHER POINTS WITHIN THE STREET AREAS ARE FG, TOP OF SIDEWALK ARE TSW AND TOP BACK OF GUTTER ARE TBG. (SEE SHEET E2)
  - GRADE ALL GRAVEL SURFACED AREAS BEHIND CURBING AND SIDEWALK TO MATCH WITH A SMOOTH, WELL DRAINING, TRANSITION TO EXISTING SURFACE, AS DIRECTED BY THE ENGINEER.
  - SIDEWALK DOES NOT MATCH EXISTING ALONG SAWCUT. CONSTRUCT SIDEWALK PER GRADES SHOWN.
  - SAWCUT AT 2' FROM FACE OF BUILDING AND FENCE LINE AND REMOVE EXISTING CONCRETE. GRADE AREA TO DRAIN AS SHOWN WITH HIGH POINT NEAR POINT #495. BEGIN SUBCUT AT BACK OF SIDEWALK.
  - SHADED SIDEWALK AREAS REPRESENT 6-INCH CONCRETE SIDEWALK. ALL OTHER SIDEWALK IS 4-INCH CONCRETE SIDEWALK.



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KEMP, JENNIFER

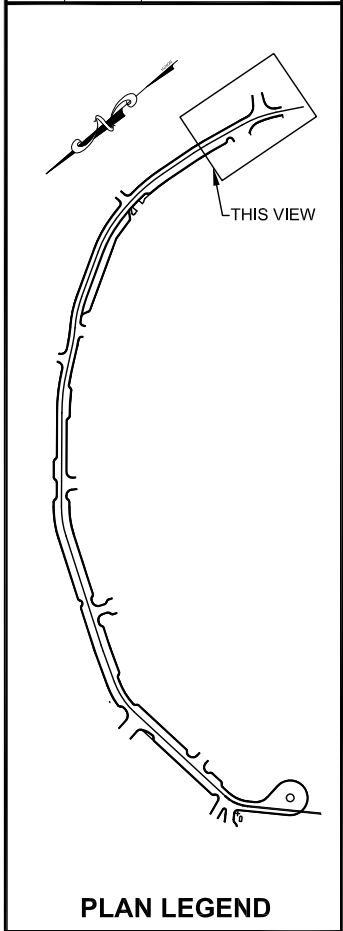
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ADDENDUM NUMBER

ATTACHMENT NUMBER

RECORD OF REVISIONS

No.	DATE	DESCRIPTION



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

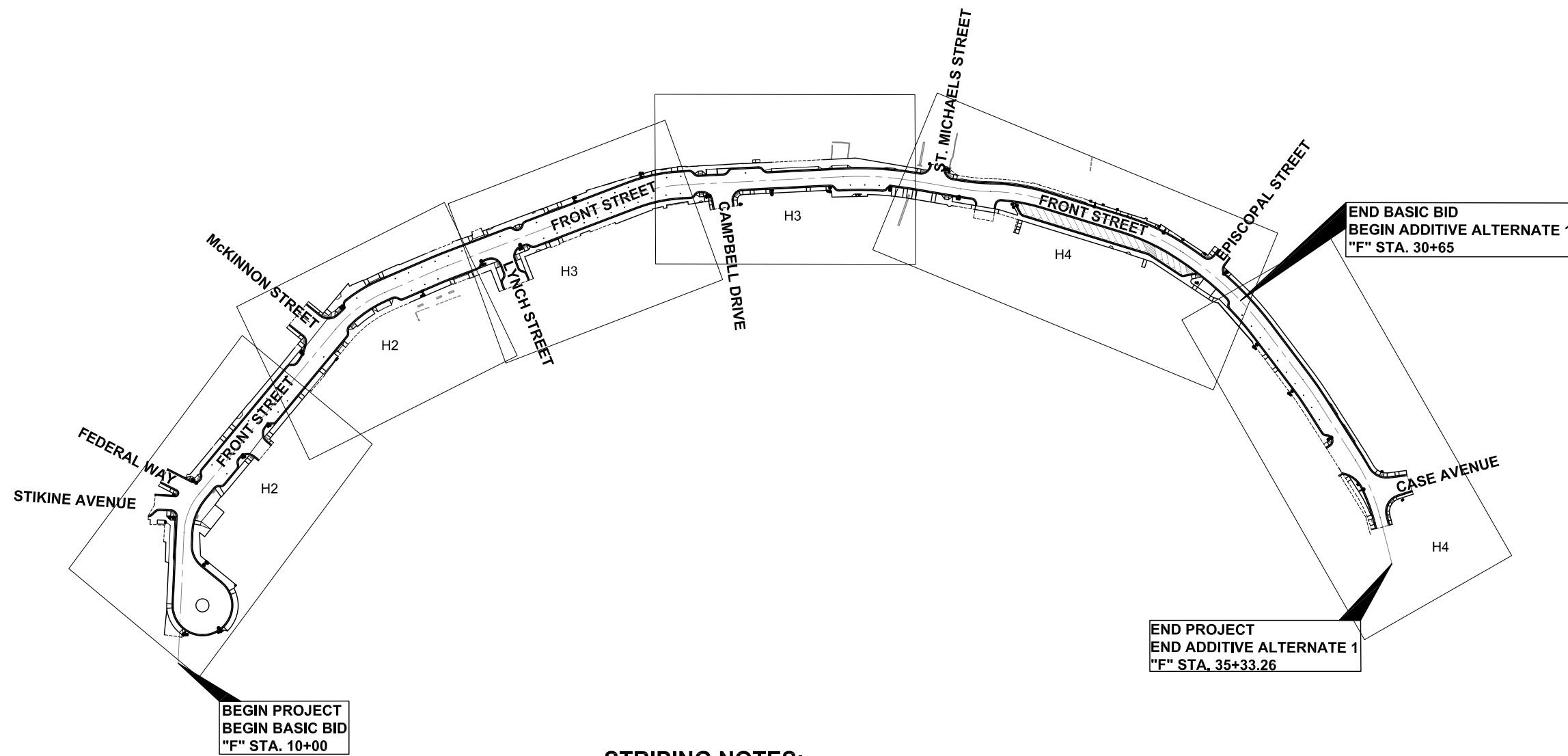
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**GRADING PLAN**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

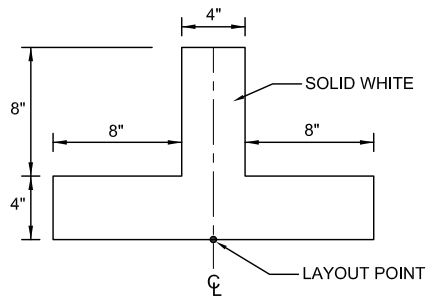
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>G10</b>	<b>117</b>

**"F" LINE GRADING PLAN**




**STRIPING NOTES:**

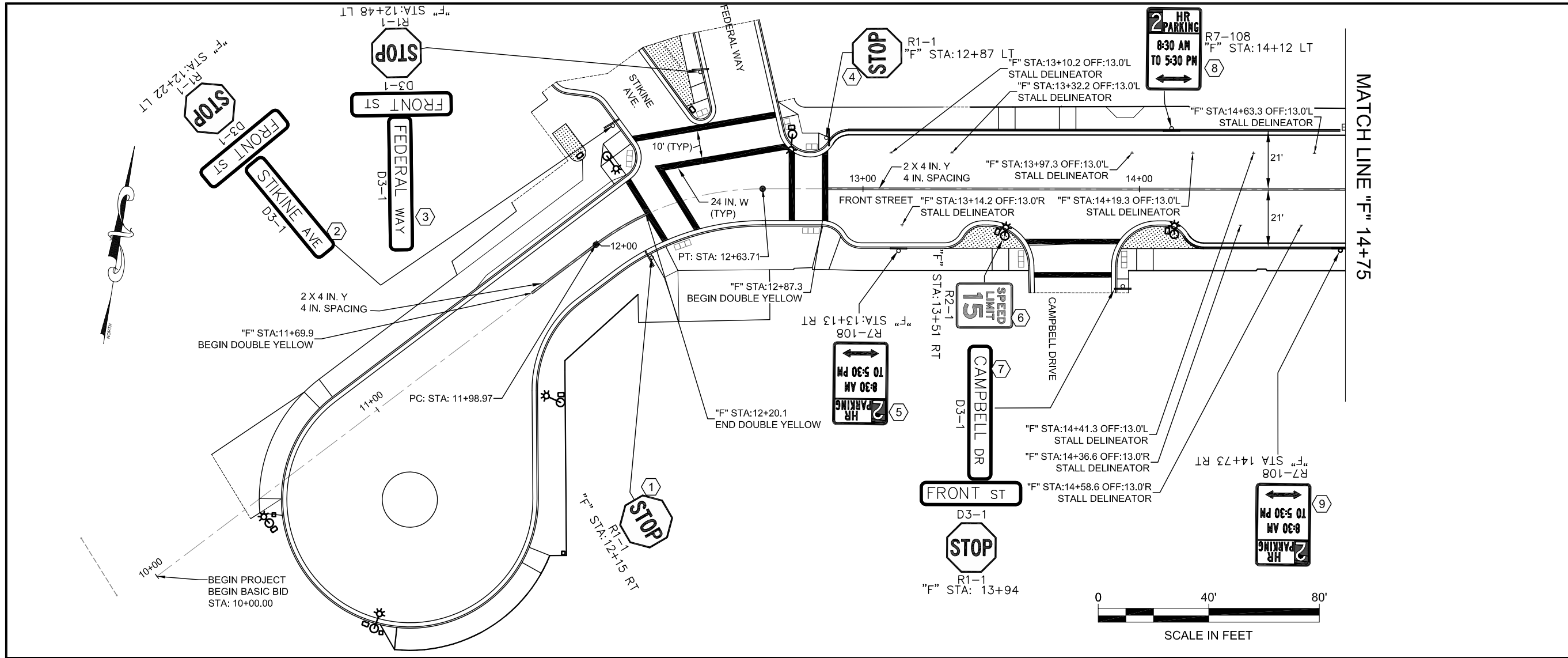
1. SEE STANDARD DETAIL T20.02 FOR 18" SOLID YELLOW CROSS HATCH AND SOLID WHITE CHEVRON MARKINGS.
2. SEE D12 FOR SIGN SUMMARY.



**STALL DELINEATOR DETAIL**

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES												
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		<b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>												
PATH: S:\LIB\70112\DESIGN\SHEETS\HJ70112-H1-4.DWG TAB: H1 Friday, March 25, 2011 9:08:57 AM		<b>SIGNING AND STRIPING CONTROL          SHEET INDEX, LEGEND AND NOTES</b>												
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				PROJECT DESIGNATION <b>68828 HPRM-003(135)          &amp; 67789</b>	YEAR <b>2011</b>	SHEET NO. <b>H1</b>	TOTAL SHEETS <b>117</b>
REVISIONS														
NO.	DATE	DESCRIPTION												

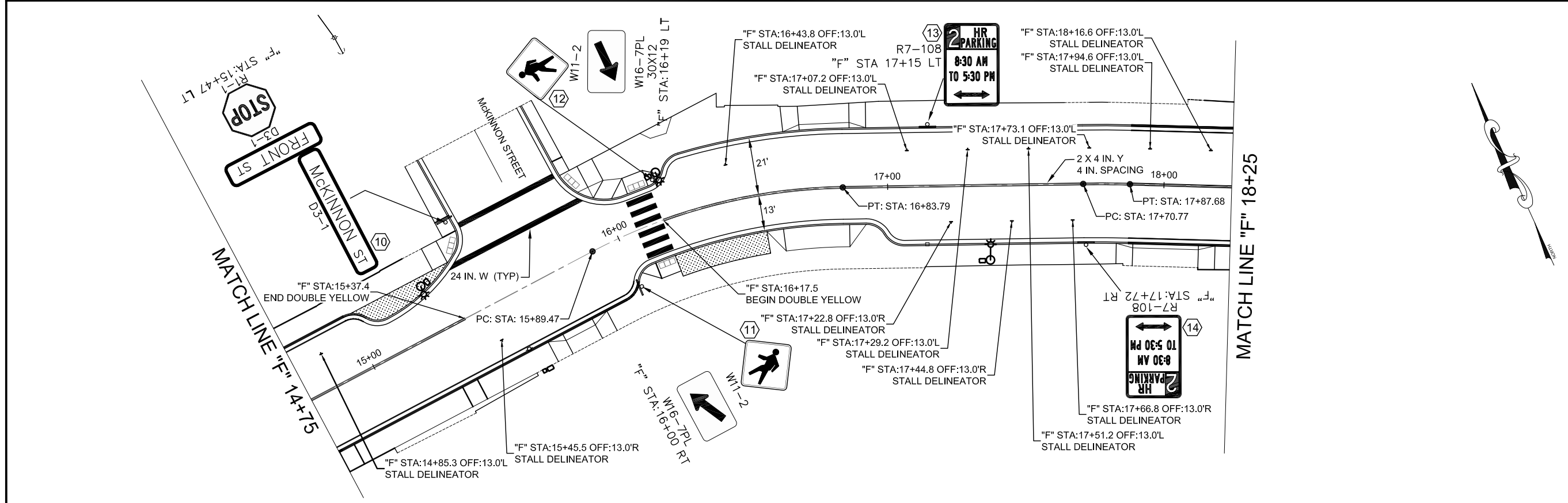
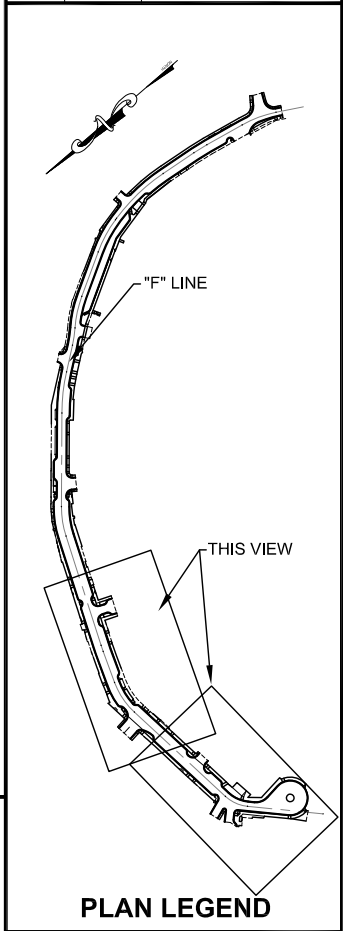


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HJ70112-H14.DWG

KEMP, JENNIFER

TAB: H2 3/25/2011 9:09 AM

RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGEL ROAD AND UTILITY IMPROVEMENTS**

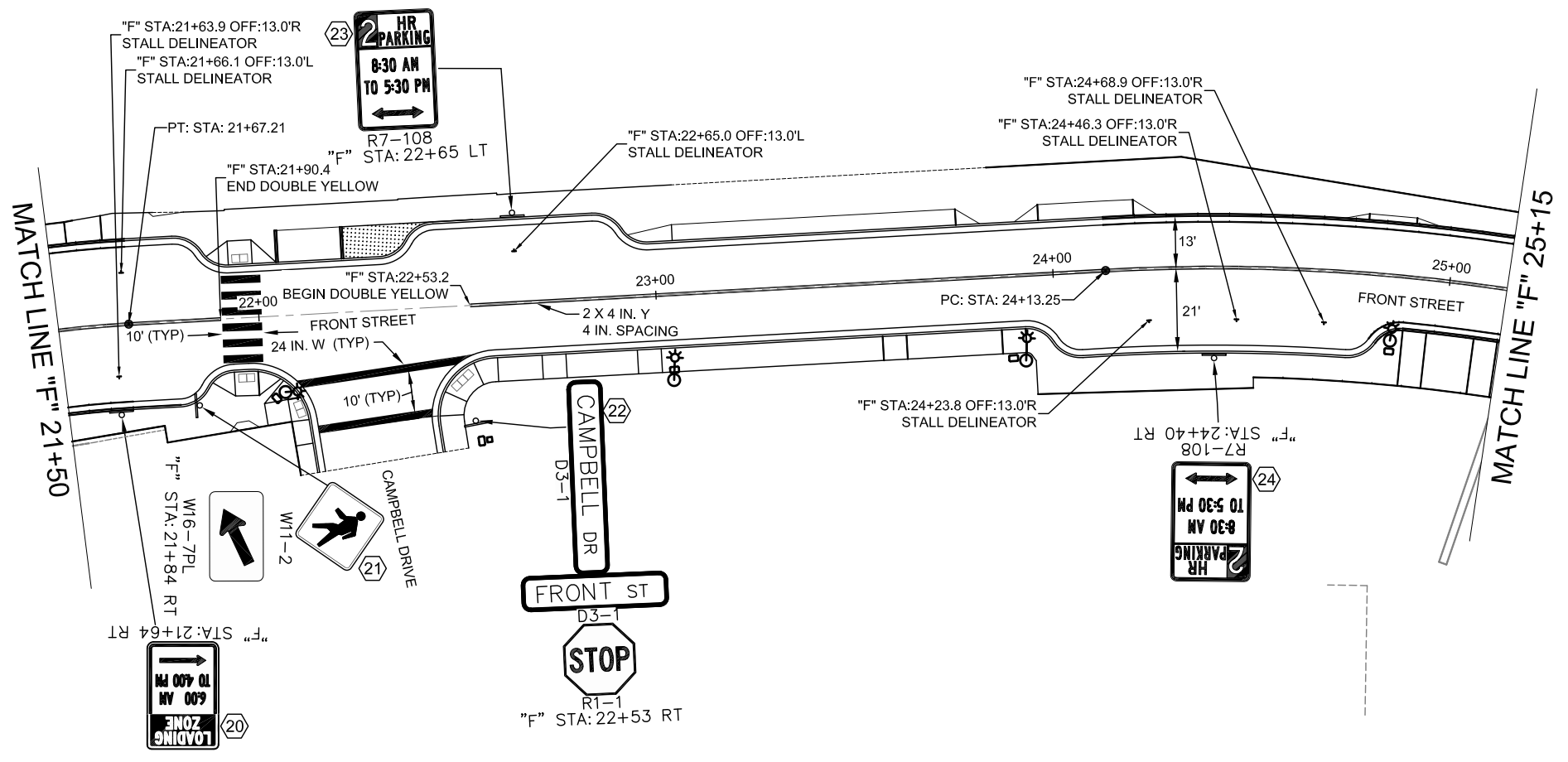
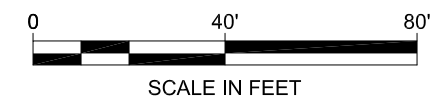
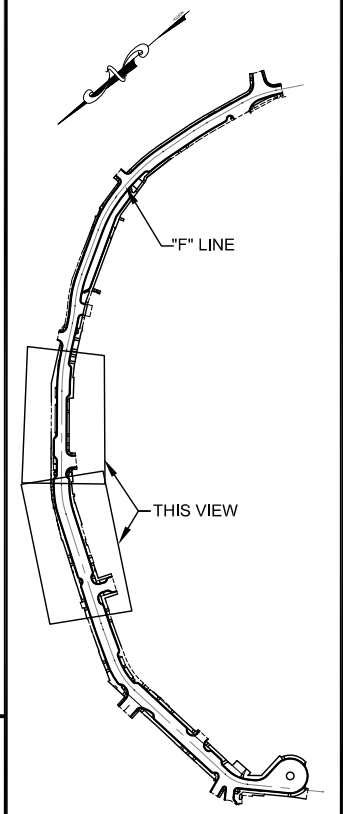
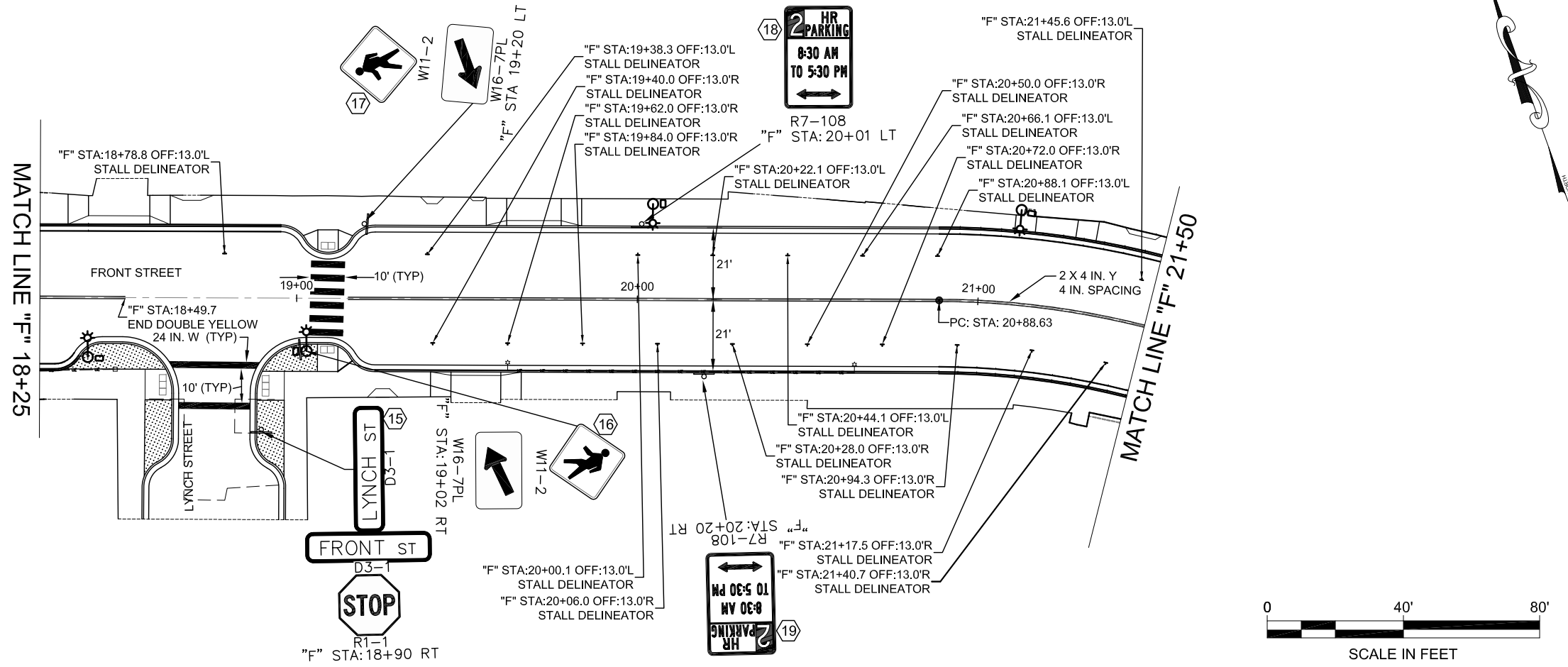
SIGNING AND STRIPING  
B.O.P. TO STA. "F" 18+25

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>H2</b>	<b>117</b>





**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

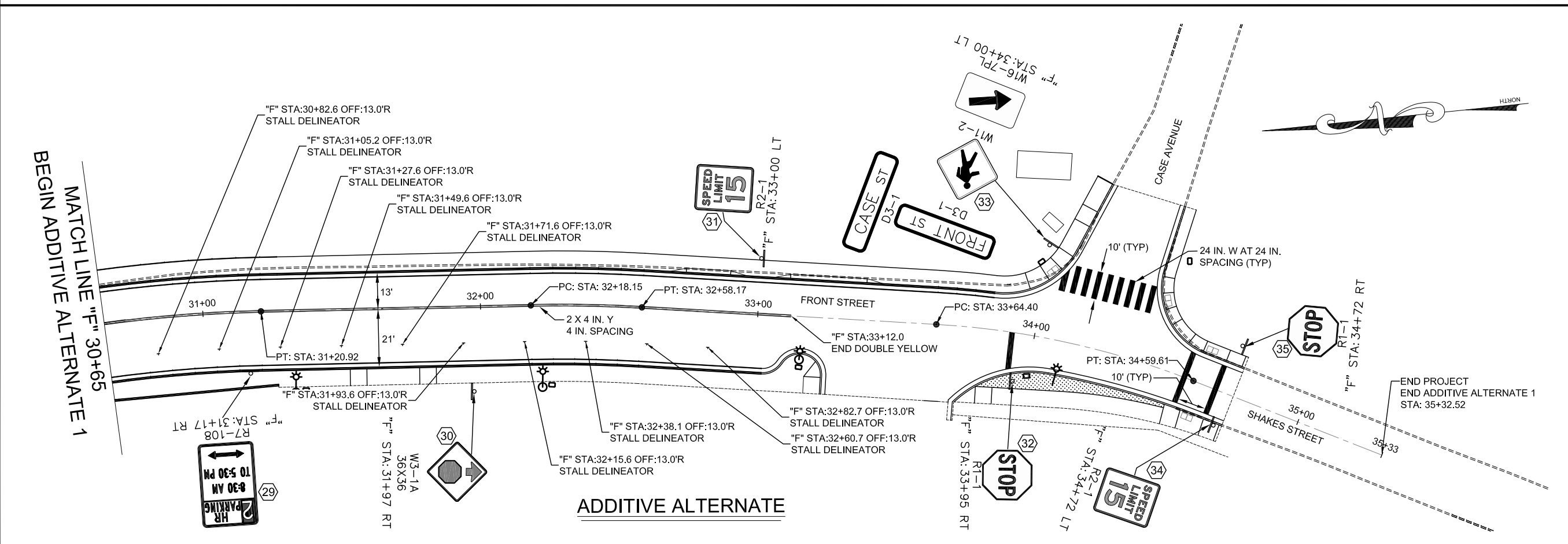
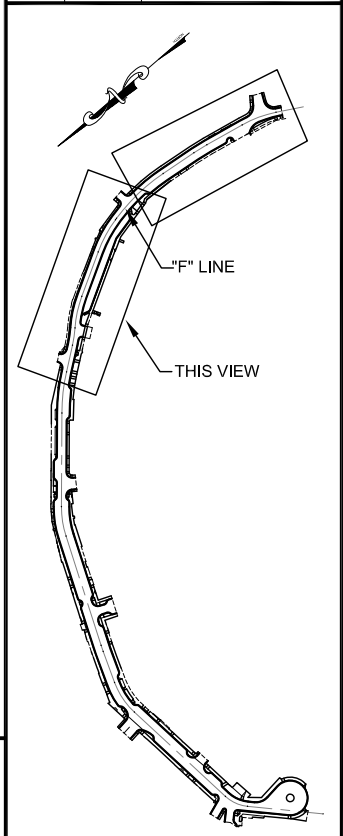
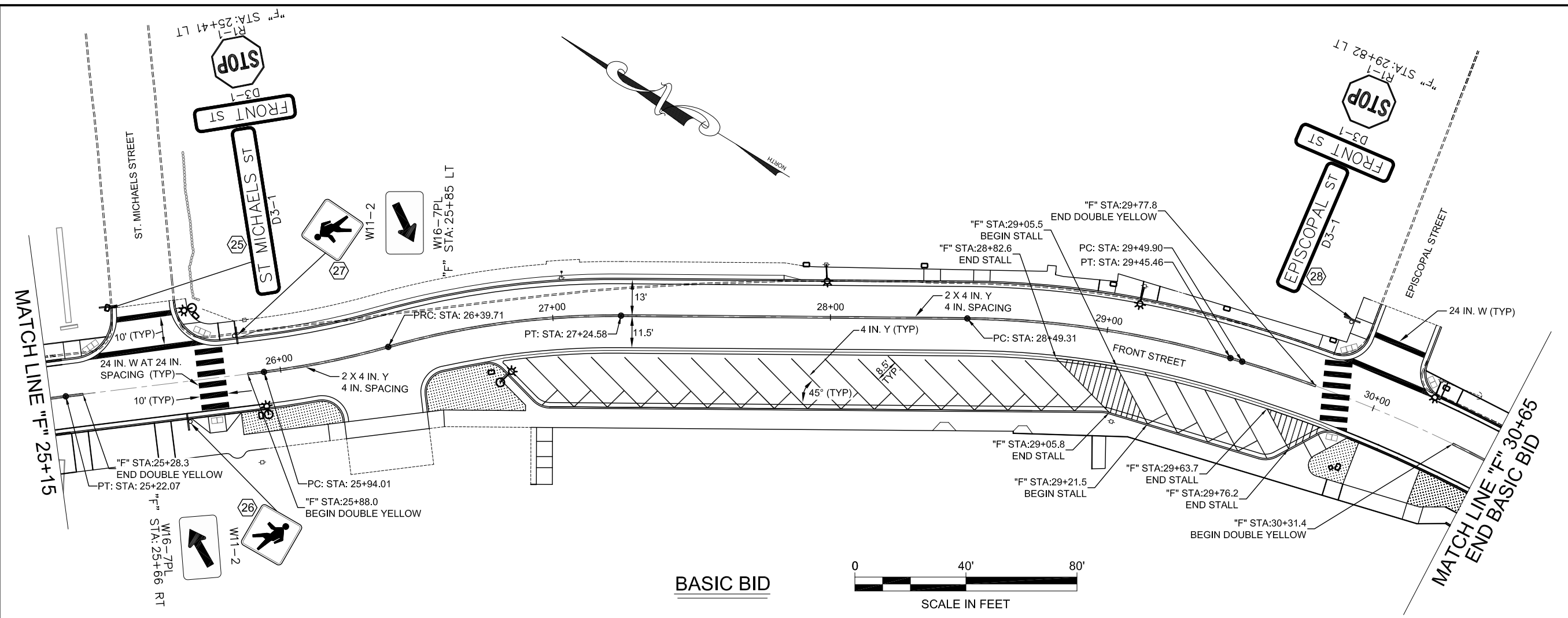
**WRANGLE ROAD AND UTILITY IMPROVEMENTS**

SIGNING AND STRIPING  
STA. "F" 18+25 TO STA. "F" 25+15

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>H3</b>	<b>117</b>



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

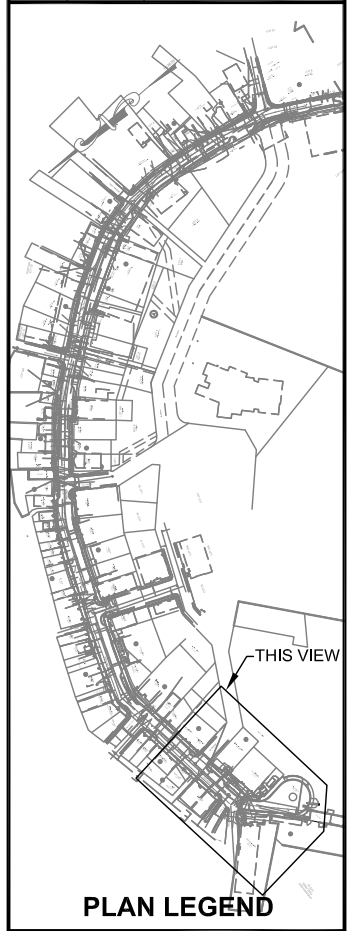
SIGNING AND STRIPING  
STA. "F"25+15 TO E.O.P.

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>H4</b>	<b>117</b>

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

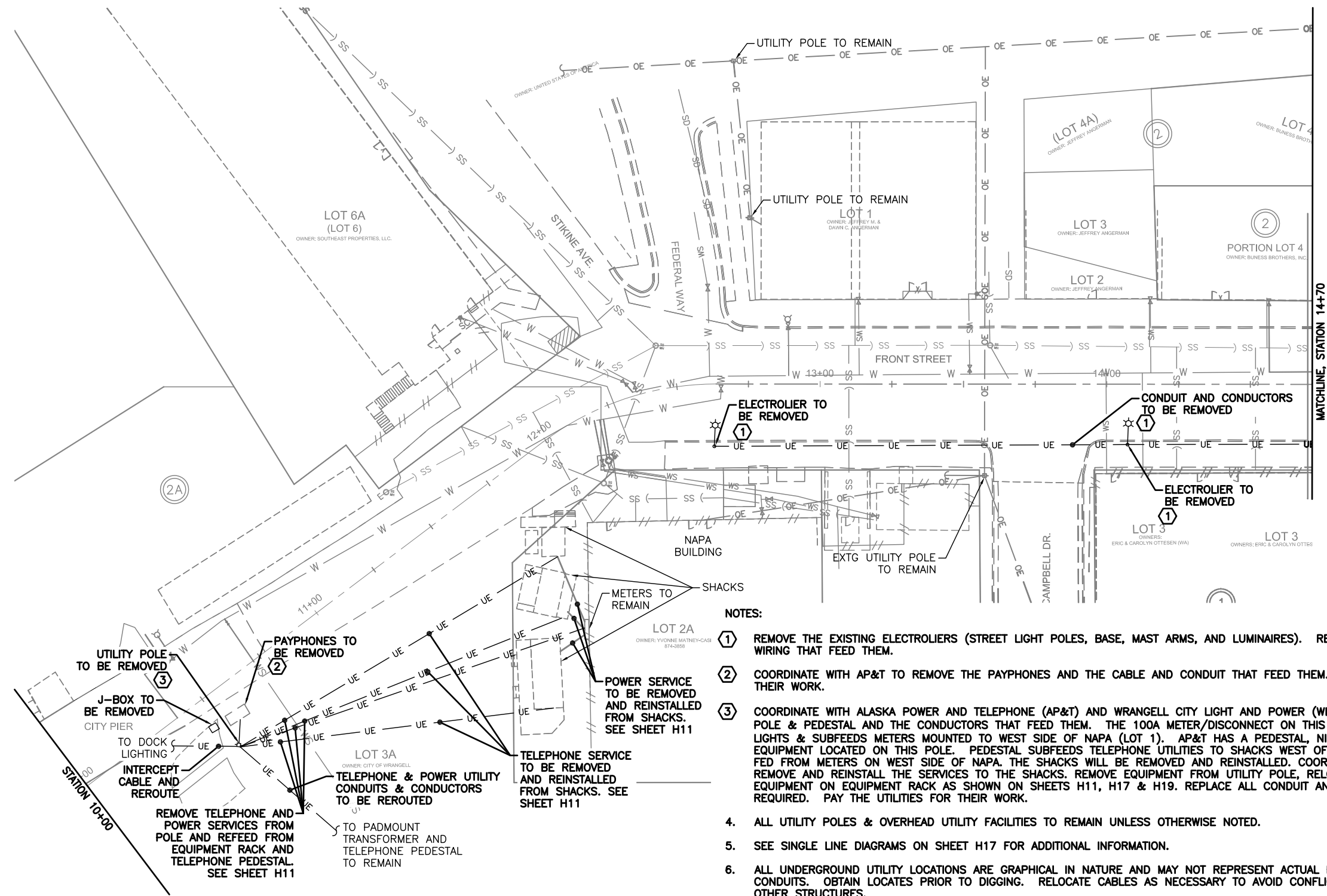
DESIGNED BY: MGM

DRAWN BY: MHW

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL DEMOLITION**  
**STA. 10+00 TO 14+70 BASE BID**

PROJECT DESIGNATION	
<b>68828 HPRM-003(135) &amp; 67789</b>	
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H5</b>	<b>117</b>

**FRONT STREET ELECTRICAL DEMOLITION STA. 10+00 TO 14+70 - BASE BID**

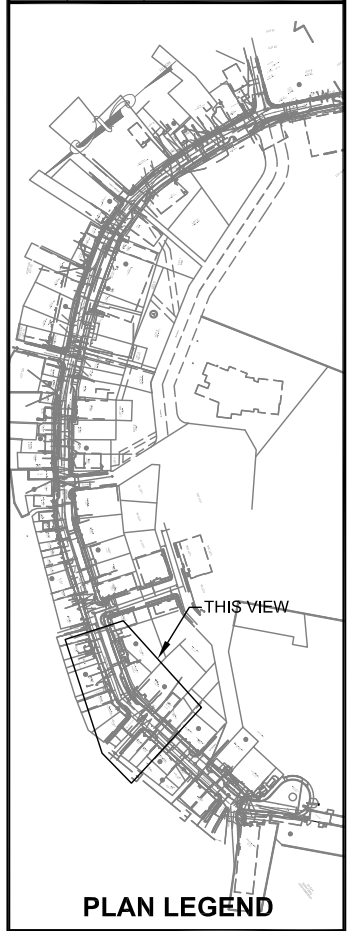


- NOTES:**
- 1 REMOVE THE EXISTING ELECTROLIERS (STREET LIGHT POLES, BASE, MAST ARMS, AND LUMINAIRES). REMOVE THE CONDUIT AND WIRING THAT FEED THEM.
  - 2 COORDINATE WITH AP&T TO REMOVE THE PAYPHONES AND THE CABLE AND CONDUIT THAT FEED THEM. PAY THE UTILITY FOR THEIR WORK.
  - 3 COORDINATE WITH ALASKA POWER AND TELEPHONE (AP&T) AND WRANGELL CITY LIGHT AND POWER (WL&P) TO REMOVE THIS POLE & PEDESTAL AND THE CONDUCTORS THAT FEED THEM. THE 100A METER/DISCONNECT ON THIS POLE FEEDS THE DOCK LIGHTS & SUBFEEDS METERS MOUNTED TO WEST SIDE OF NAPA (LOT 1). AP&T HAS A PEDESTAL, NID, AND MOBILE HOTSPOT EQUIPMENT LOCATED ON THIS POLE. PEDESTAL SUBFEEDS TELEPHONE UTILITIES TO SHACKS WEST OF NAPA. THE SHACKS ARE FED FROM METERS ON WEST SIDE OF NAPA. THE SHACKS WILL BE REMOVED AND REINSTALLED. COORDINATE WITH UTILITIES TO REMOVE AND REINSTALL THE SERVICES TO THE SHACKS. REMOVE EQUIPMENT FROM UTILITY POLE, RELOCATE AND REFEED EQUIPMENT ON EQUIPMENT RACK AS SHOWN ON SHEETS H11, H17 & H19. REPLACE ALL CONDUIT AND CONDUCTORS AS REQUIRED. PAY THE UTILITIES FOR THEIR WORK.
  4. ALL UTILITY POLES & OVERHEAD UTILITY FACILITIES TO REMAIN UNLESS OTHERWISE NOTED.
  5. SEE SINGLE LINE DIAGRAMS ON SHEET H17 FOR ADDITIONAL INFORMATION.
  6. ALL UNDERGROUND UTILITY LOCATIONS ARE GRAPHICAL IN NATURE AND MAY NOT REPRESENT ACTUAL ROUTING OF CABLES AND CONDUITS. OBTAIN LOCATES PRIOR TO DIGGING. RELOCATE CABLES AS NECESSARY TO AVOID CONFLICTS WITH PIPING AND OTHER STRUCTURES.

**LEGEND**

— UE —	EXTG UNDERGROUND ELECTRICAL CONDUCTORS	GND	GROUND
— OE —	EXTG OVERHEAD ELECTRICAL CONDUCTORS	GRS	GALVANIZED RIGID STEEL
	EXISTING ELECTROLIER MOUNTED ON UTILITY POLE OR ELECTROLIER POLE	J-BOX	JUNCTION BOX
	ELECTROLIER WITH 3' MAST ARM	LGT	LIGHT
	ELECTROLIER WITH 6' MAST ARM	LTG	LIGHTING
	TYPE 1A J-BOX	NEC	NATIONAL ELEC CODE
CKT	CIRCUIT	OH	OVERHEAD
ELEC	ELECTRIC OR ELECTRICAL	REC	RECEPTACLE
EXTG	EXISTING	TYP	TYPICAL
GFI	GROUND FAULT INTERRUPTER	UG	UNDERGROUND
		W/	WITH

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

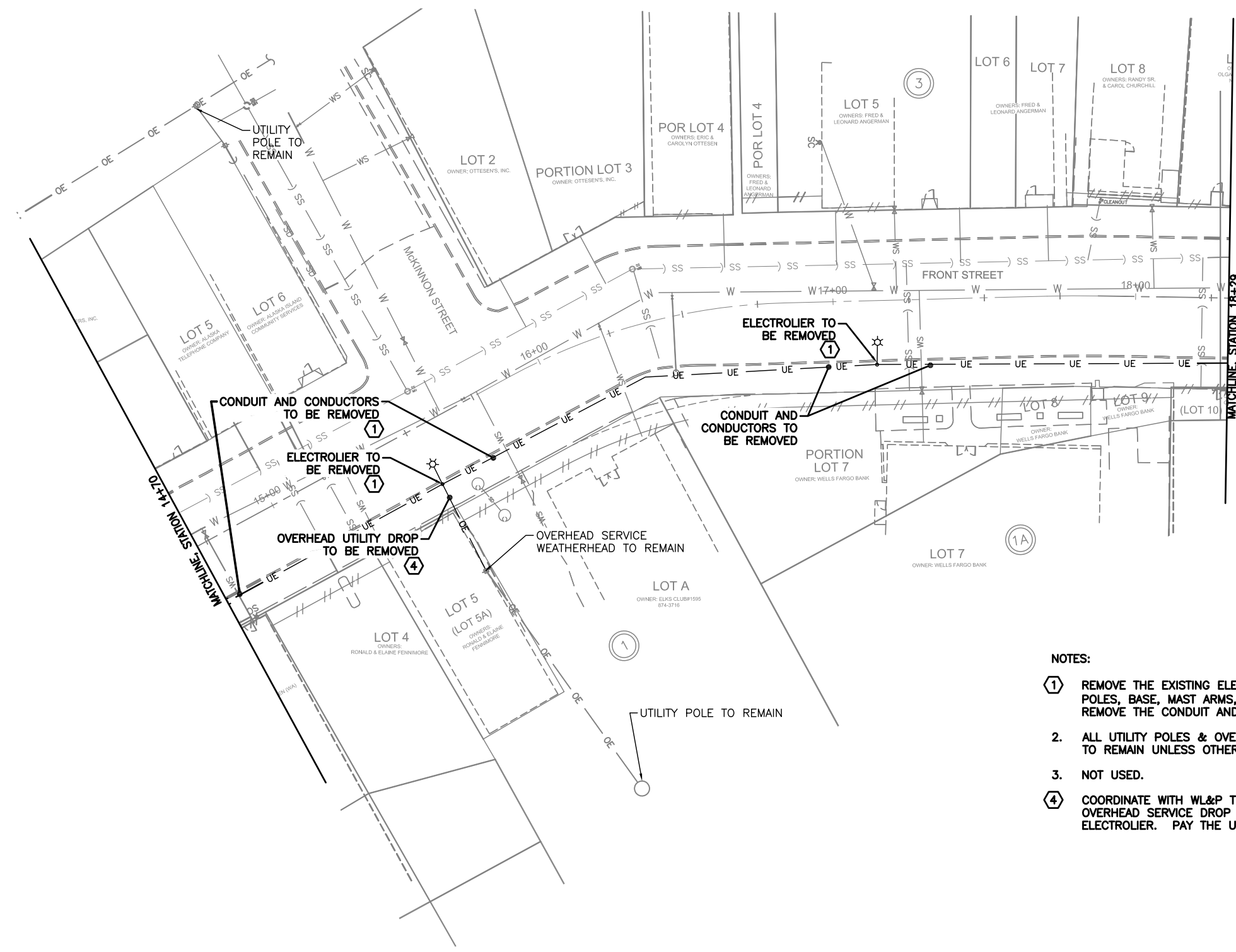
DESIGNED BY: MGM

DRAWN BY: MHW

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL DEMOLITION**  
**STA. 14+70 TO 18+29 BASE BID**

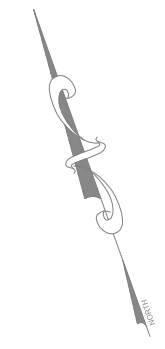
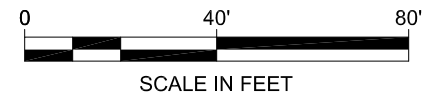
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H6</b>	<b>117</b>

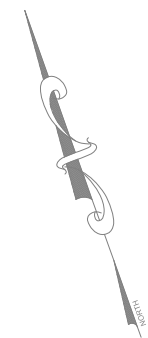
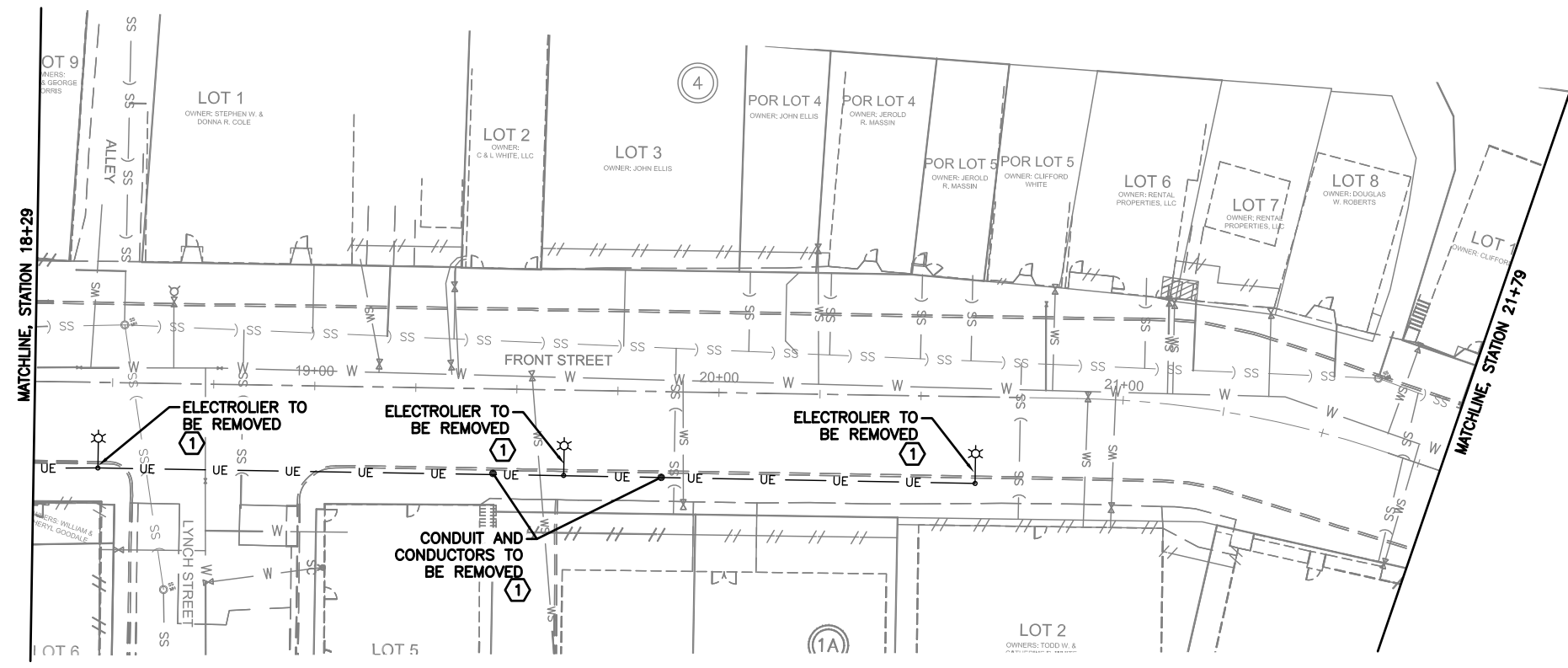
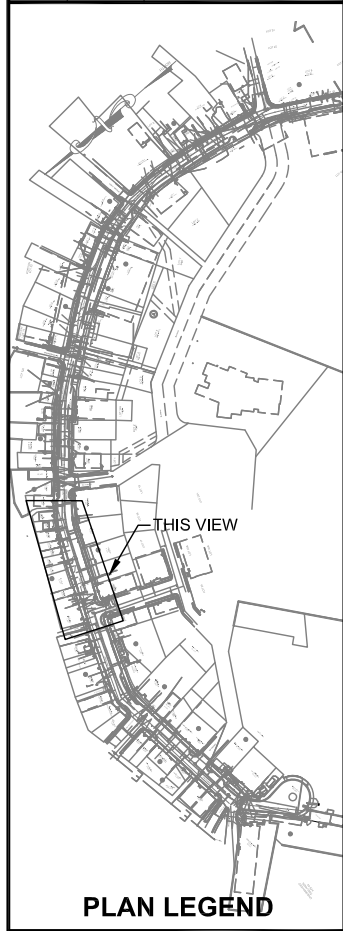


- NOTES:**
- ① REMOVE THE EXISTING ELECTROLIERS (STREET LIGHT POLES, BASE, MAST ARMS, AND LUMINAIRES). REMOVE THE CONDUIT AND WIRING THAT FEED THEM.
  - 2. ALL UTILITY POLES & OVERHEAD UTILITY FACILITIES TO REMAIN UNLESS OTHERWISE NOTED.
  - 3. NOT USED.
  - ④ COORDINATE WITH WL&P TO REMOVE THE EXISTING OVERHEAD SERVICE DROP TO THE EXISTING ELECTROLIER. PAY THE UTILITY FOR THEIR WORK

**FRONT STREET ELECTRICAL DEMOLITION STA. 14+70 TO 18+29 - BASE BID**

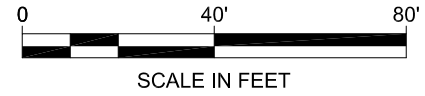


No.	DATE	DESCRIPTION



NOTES:  
 ① REMOVE THE EXISTING ELECTROLIERS (STREET LIGHT POLES, BASE, MAST ARMS, AND LUMINAIRES). REMOVE THE CONDUIT AND WIRING THAT FEED THEM.

**FRONT STREET ELECTRICAL DEMOLITION STA. 18+29 TO 21+79 - BASE BID**



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

DESIGNED BY: MGM

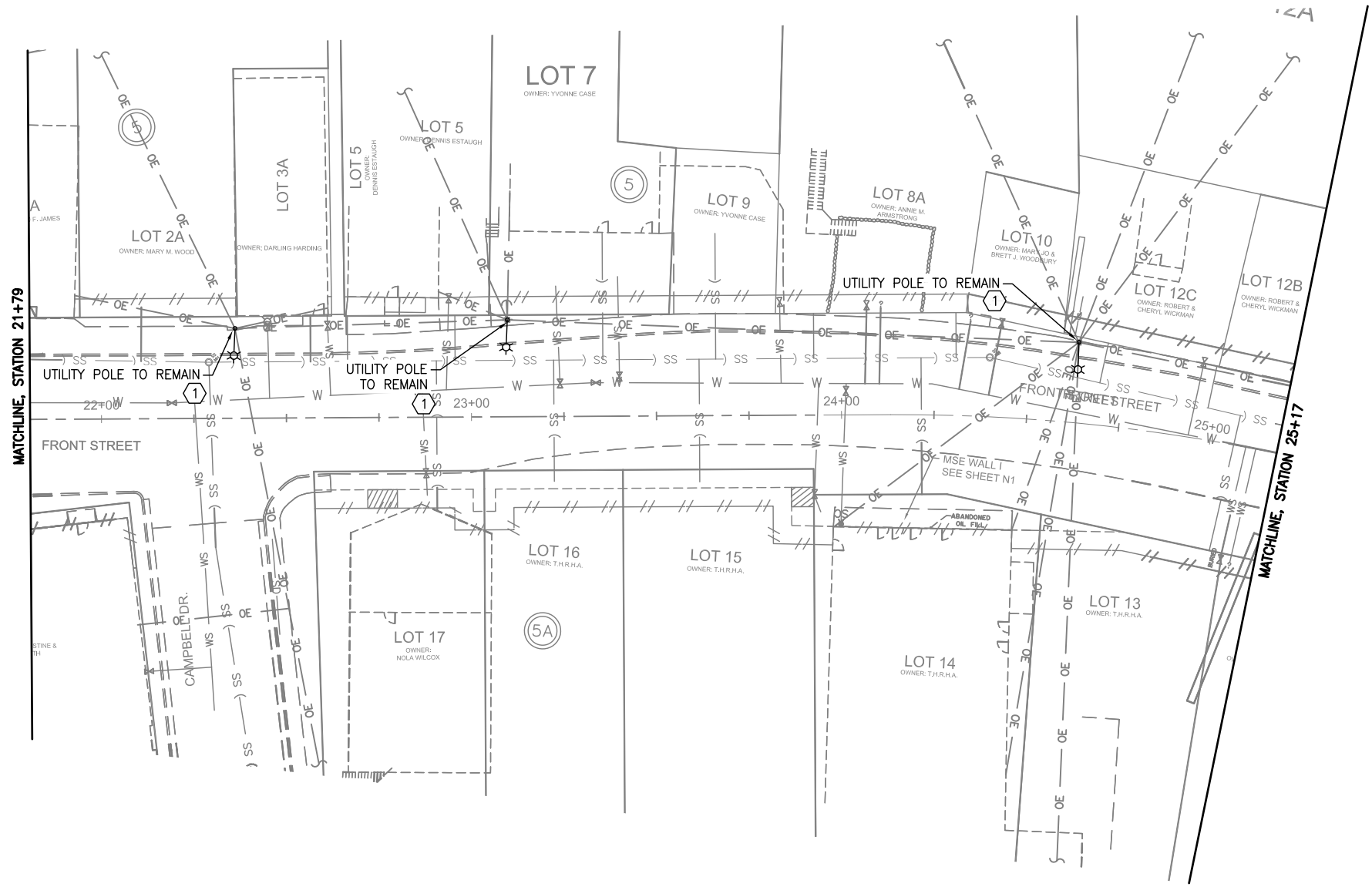
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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL DEMOLITION STA. 18+29 TO 21+79 BASE BID**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

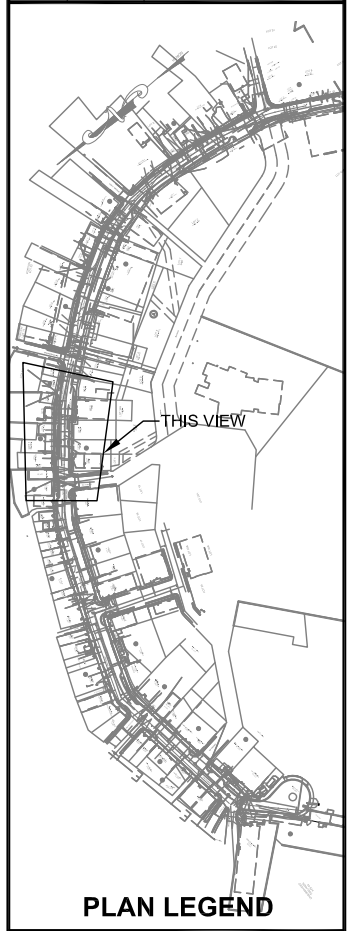
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H7</b>	<b>117</b>

No.	DATE	DESCRIPTION



NOTES:

1. COORDINATE WITH WP&L TO REMOVE THE EXISTING LUMINAIRE AND MAST ARM FROM THEIR POLE.
2. ALL UTILITY POLES & OVERHEAD UTILITY FACILITIES TO REMAIN UNLESS OTHERWISE NOTED.



PLAN LEGEND

CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

DESIGNED BY: MGM

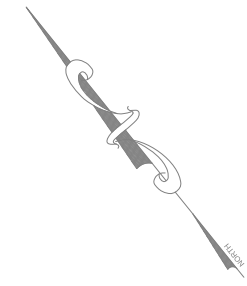
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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL DEMOLITION STA. 21+79 TO 25+17 BASE BID**

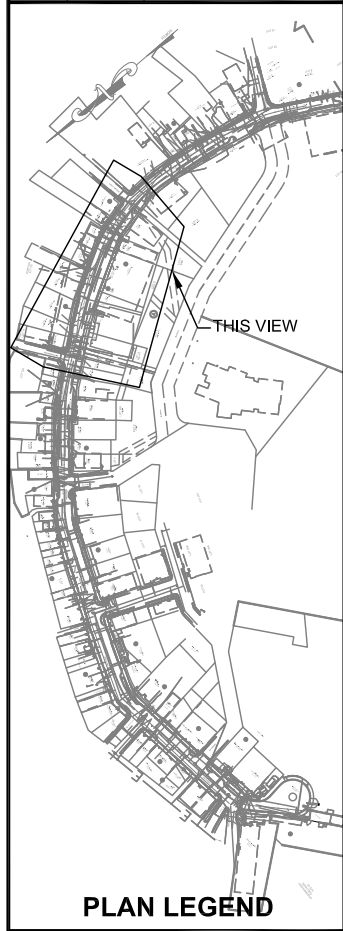
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H8</b>	<b>117</b>

**FRONT STREET ELECTRICAL DEMOLITION STA. 21+79 TO 25+17 - BASE BID**



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

DESIGNED BY: MGM

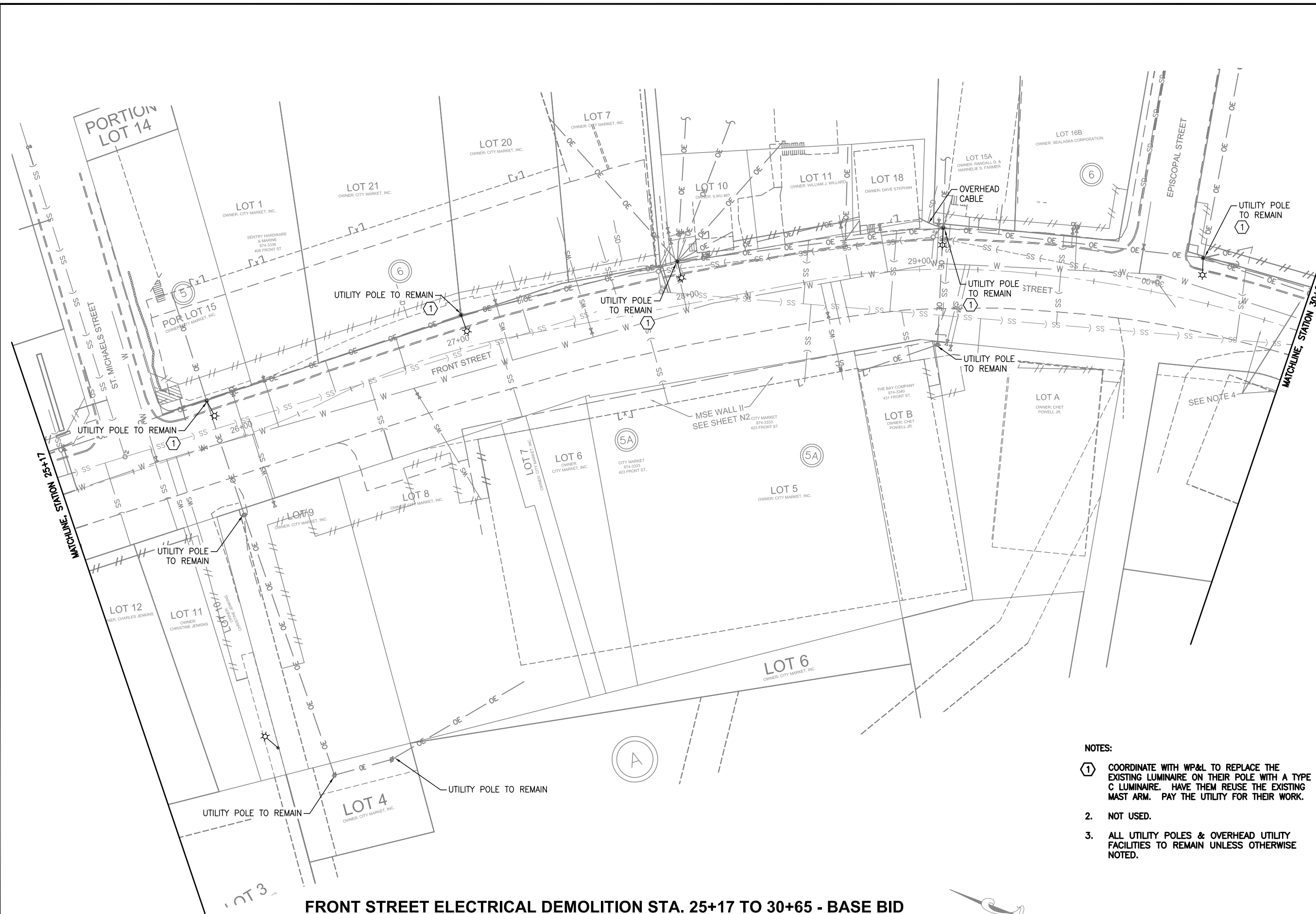
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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

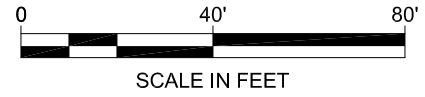
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL DEMOLITION STA. 25+17 TO 30+65 BASE BID**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H9</b>	<b>117</b>



**FRONT STREET ELECTRICAL DEMOLITION STA. 25+17 TO 30+65 - BASE BID**



- NOTES:**
1. COORDINATE WITH WP&L TO REPLACE THE EXISTING LUMINAIRE ON THEIR POLE WITH A TYPE C LUMINAIRE. HAVE THEM REUSE THE EXISTING MAST ARM. PAY THE UTILITY FOR THEIR WORK.
  2. NOT USED.
  3. ALL UTILITY POLES & OVERHEAD UTILITY FACILITIES TO REMAIN UNLESS OTHERWISE NOTED.

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

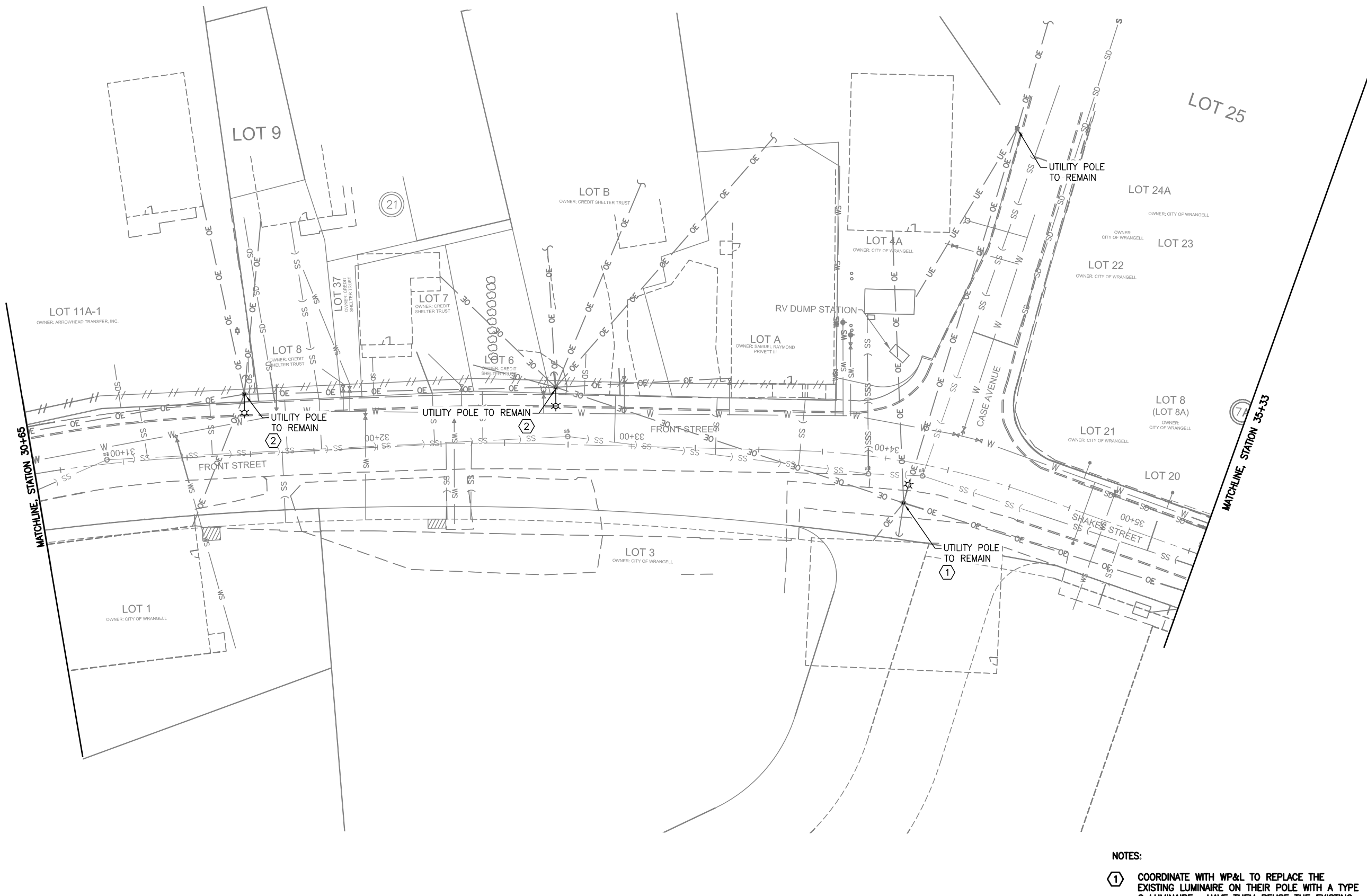
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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL DEMOLITION STA. 30+65 TO 35+33 ADDITIVE ALTERNATE 1**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H10</b>	<b>117</b>



**FRONT STREET ELECTRICAL DEMOLITION STA. 30+65 TO 35+33 - ADDITIVE ALTERNATE 1**



- NOTES:**
- ① COORDINATE WITH WP&L TO REPLACE THE EXISTING LUMINAIRE ON THEIR POLE WITH A TYPE C LUMINAIRE. HAVE THEM REUSE THE EXISTING MAST ARM. PAY THE UTILITY FOR THEIR WORK.
  - ② COORDINATE WITH WP&L TO REMOVE THE EXISTING LUMINAIRE ON THEIR POLE.
  - 3. ALL UTILITY POLES & OVERHEAD UTILITY FACILITIES TO REMAIN UNLESS OTHERWISE NOTED.





ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

DESIGNED BY: MGM

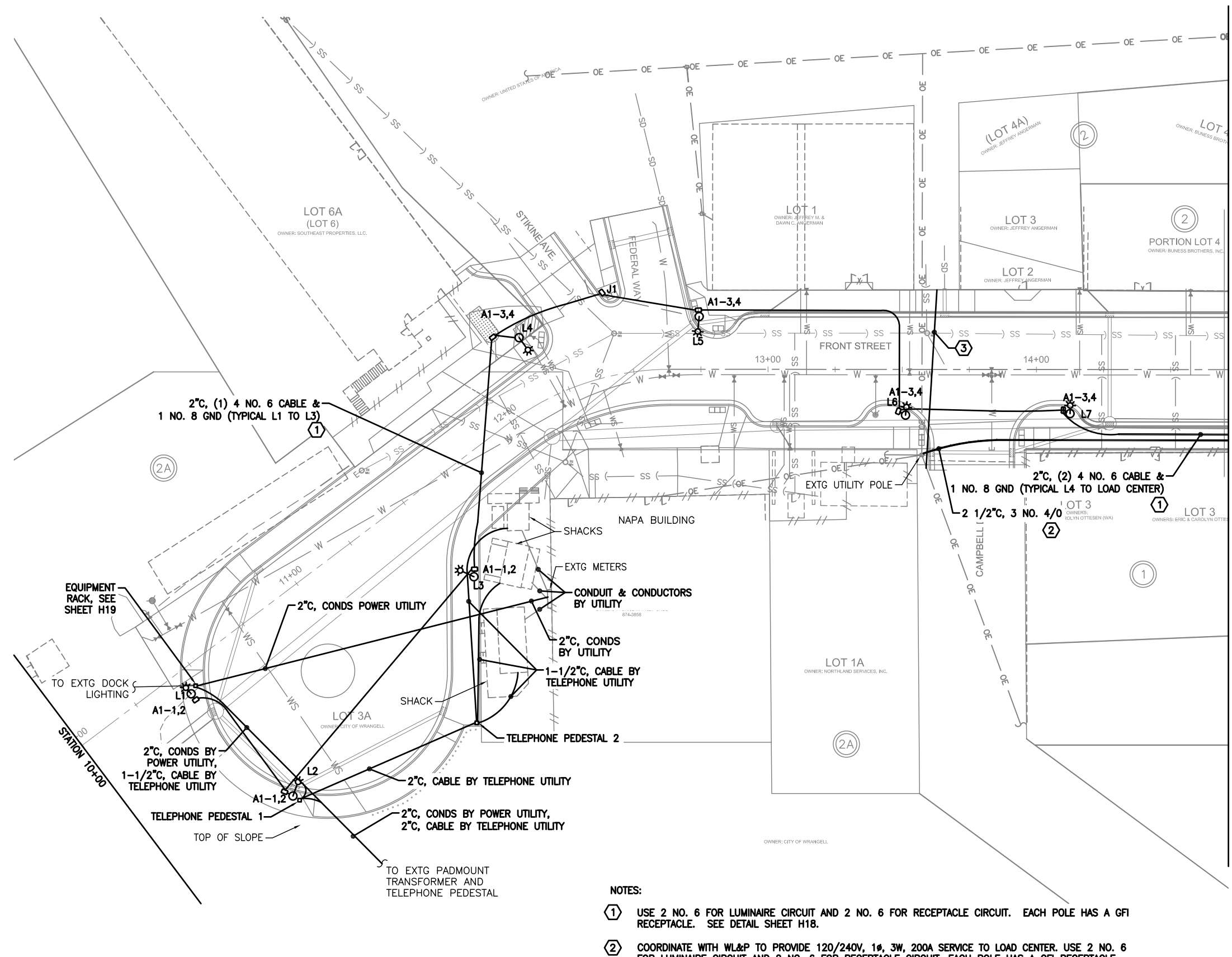
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STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

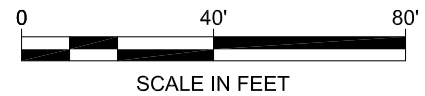
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL STA. 10+00 TO 14+70 BASE BID**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H11</b>	<b>117</b>



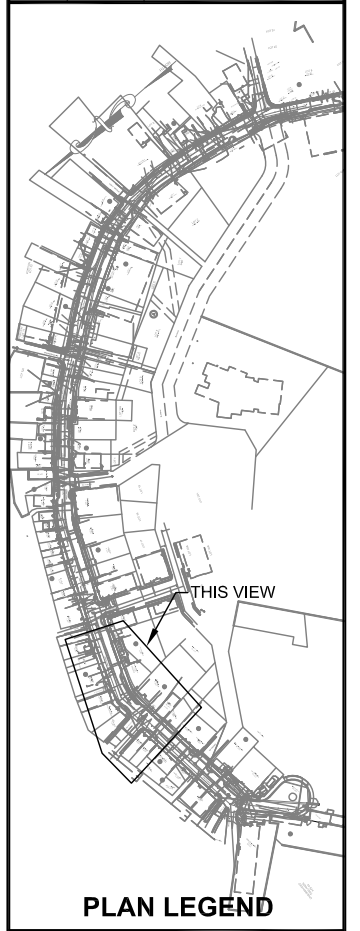
**FRONT STREET ELECTRICAL STA. 10+00 TO 14+70 - BASE BID**



**NOTES:**

- ① USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18.
  - ② COORDINATE WITH WL&P TO PROVIDE 120/240V, 1Ø, 3W, 200A SERVICE TO LOAD CENTER. USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18. ROUTE CONDUIT 10' UP POLE ON STANDOFFS. UTILITY WILL PROVIDE CONDUCTORS AND TERMINATE THEM IN METER BASE.
  - ③ (4) 4" C, POWER UTILITY SPARE,  
(2) 4" C, TELEPHONE UTILITY SPARE,  
(2) 4" C, CABLE UTILITY SPARE,  
CAP CONDUITS. PLACE UTILITY MARKER BALL AT END OF CONDUIT.
2. COORDINATE WITH UTILITY TO RELOCATE SERVICES AS SHOWN. INTERCEPT AND EXTEND CONDUIT AS NEEDED TO ROUTE UTILITIES TO LOCATIONS AS SHOWN. COORDINATE WITH UTILITIES TO PULL NEW CONDUCTORS IN CONDUIT. PAY UTILITIES FOR THEIR WORK. CONDUIT BY CONTRACTOR, ALL OTHER UTILITY WORK BY UTILITIES.

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

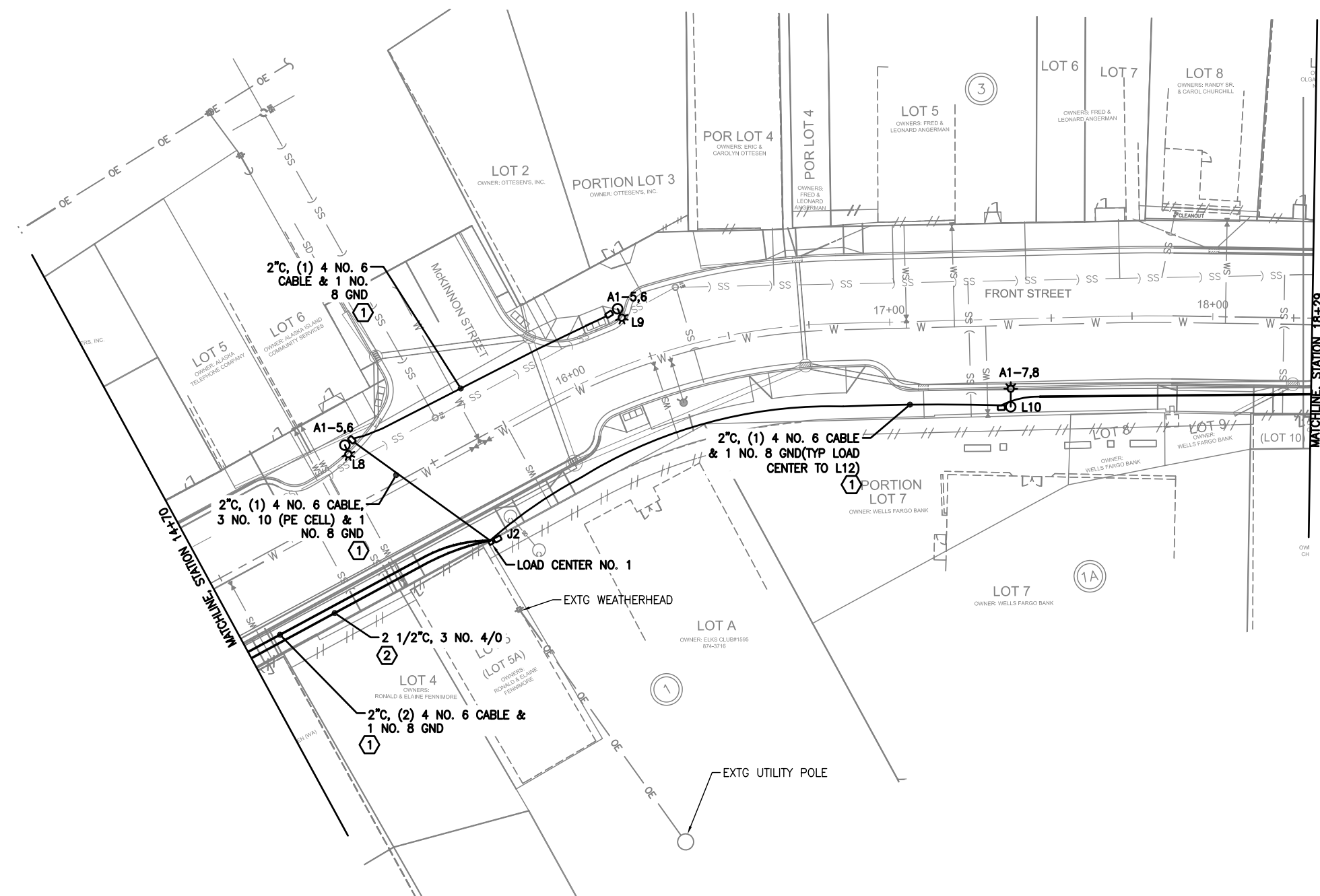
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STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL STA. 14+70 TO 18+29 BASE BID**

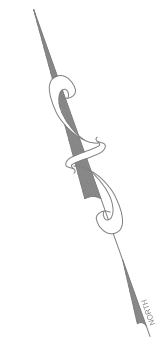
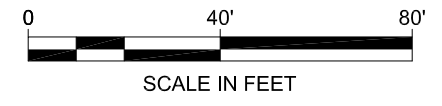
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H12</b>	<b>117</b>

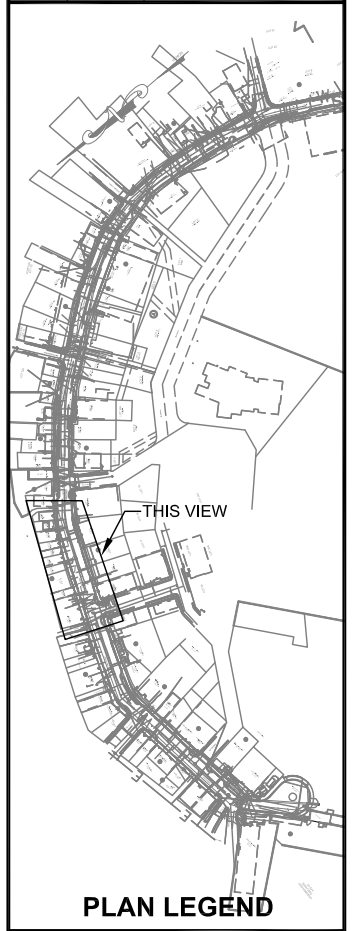
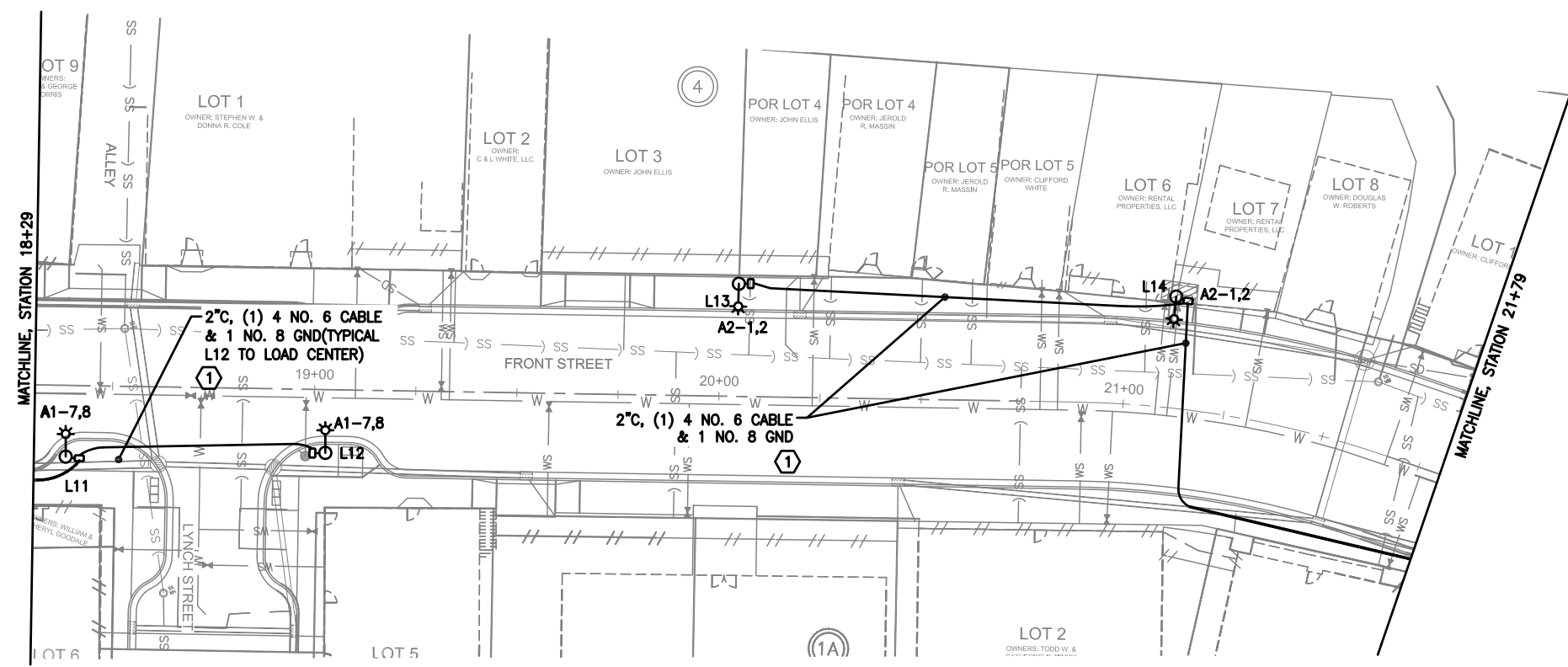


- NOTES:
- ① USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18.
  - ② COORDINATE WITH WL&P TO PROVIDE 120/240V, 1φ, 3W, 200A SERVICE TO LOAD CENTER. ROUTE CONDUIT 10' UP POLE ON STANDOFFS. UTILITY WILL PROVIDE CONDUCTORS AND TERMINATE THEM IN METER BASE.

**FRONT STREET ELECTRICAL STA. 14+70 TO 18+29 - BASE BID**

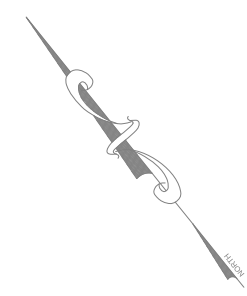
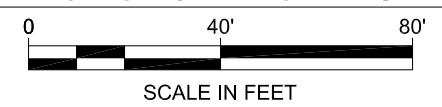


ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



NOTES:  
 ① USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18.

**FRONT STREET ELECTRICAL STA. 18+29 TO 21+79 - BASE BID**



CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

DESIGNED BY: MGM

DRAWN BY: MHW

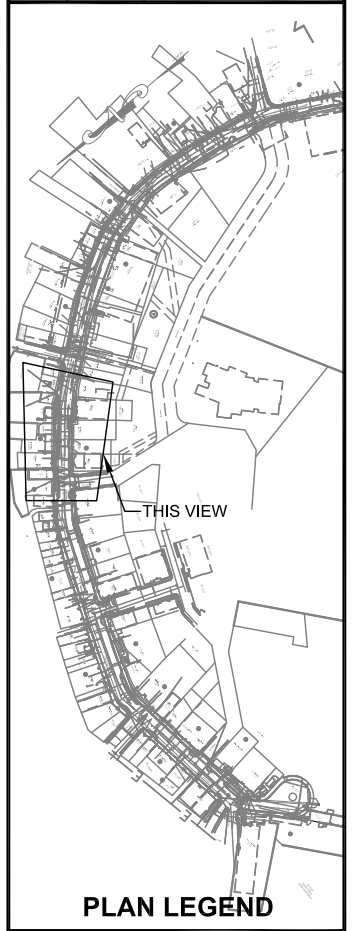
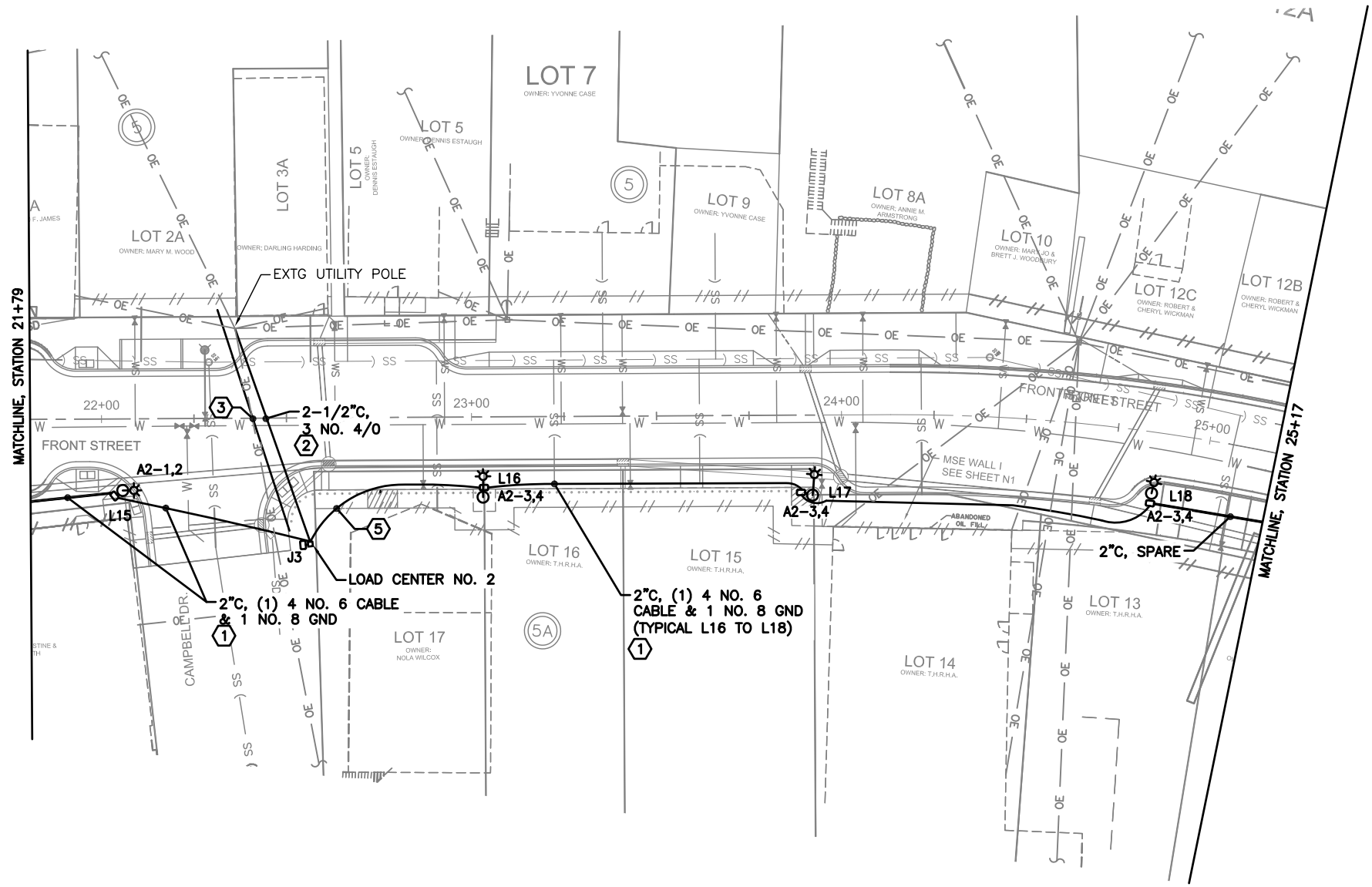
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL STA. 18+29 TO 21+79 BASE BID**

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>H13</b>	<b>117</b>

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



PLAN LEGEND

CHECKED BY: MGM



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC

DESIGNED BY: MGM

DRAWN BY: MHW

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
FRONT STREET ELECTRICAL STA. 21+79 TO 25+17 BASE BID

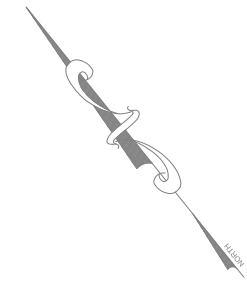
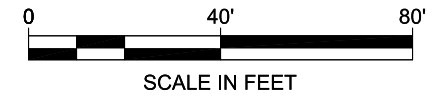
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H14</b>	<b>117</b>

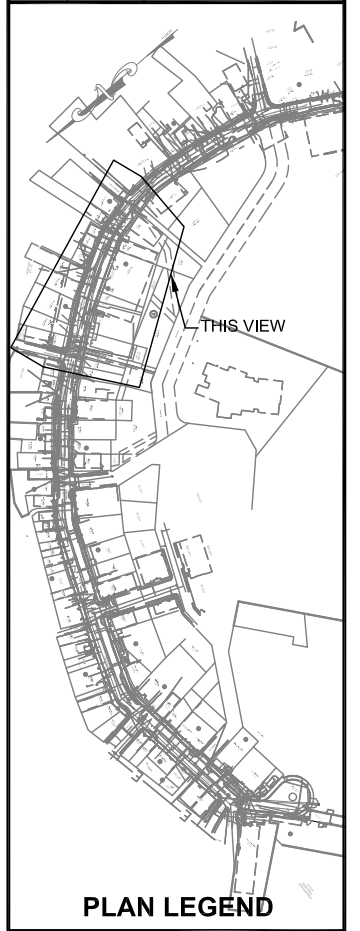
NOTES:

- ① USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18.
- ② COORDINATE WITH WL&P TO PROVIDE 120/240V, 1 $\phi$ , 3W, 200A SERVICE TO LOAD CENTER. ROUTE CONDUIT 10' UP POLE ON STANDOFFS. UTILITY WILL PROVIDE CONDUCTORS AND TERMINATE THEM IN METER BASE.
- ③ (4) 4°C, POWER UTILITY SPARE,  
(2) 4°C, TELEPHONE UTILITY SPARE,  
(2) 4°C, CABLE UTILITY SPARE,  
CAP CONDUITS. PLACE UTILITY MARKER BALL AT END OF CONDUIT.
- 4. NOT USED.
- ⑤ (1) 2°C, (1) 4 NO. 6 CABLE, 3 NO. 10 (PE CELL), & 1 NO. 8 GND.

**FRONT STREET ELECTRICAL STA. 21+79 TO 25+17 - BASE BID**



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



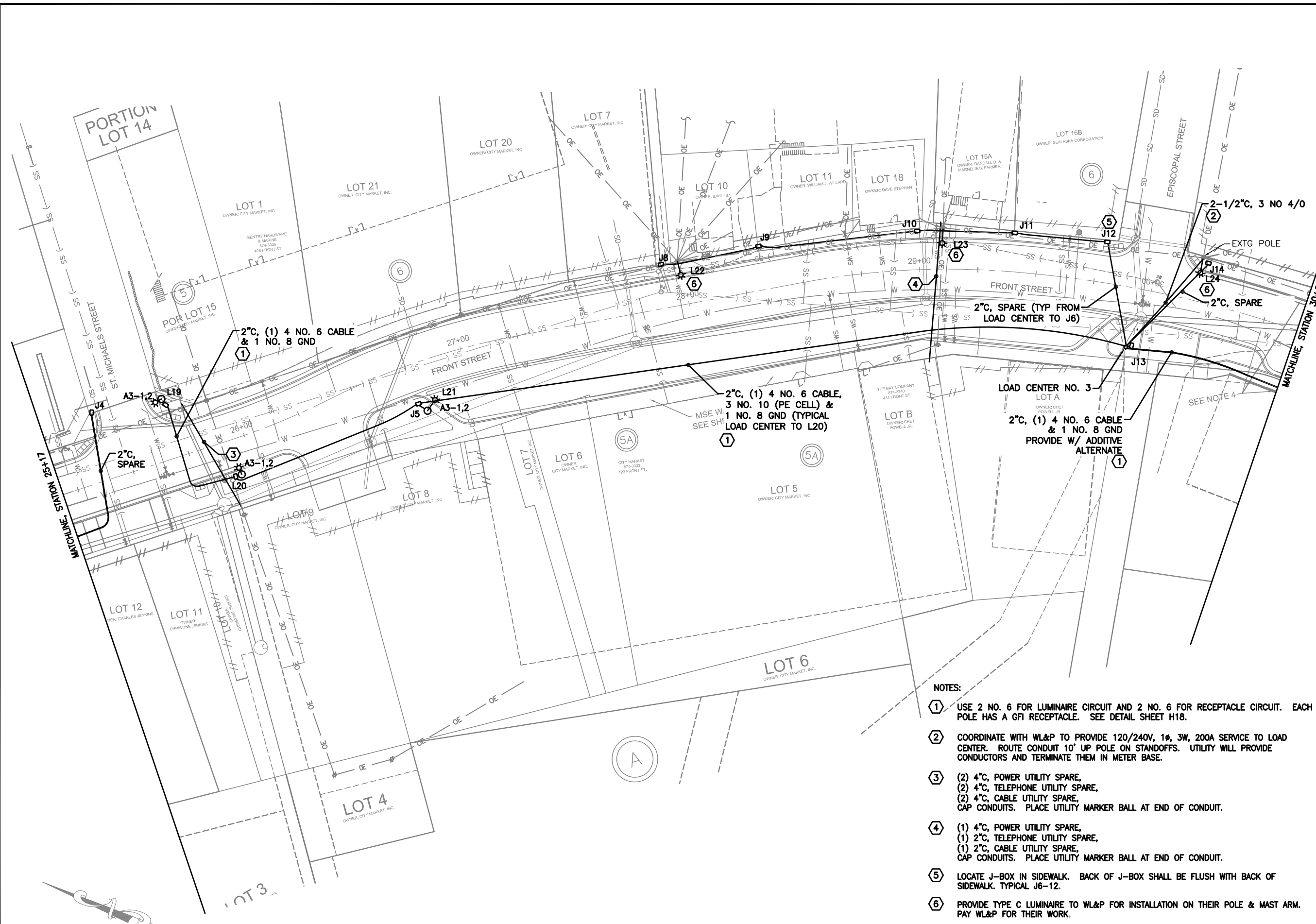
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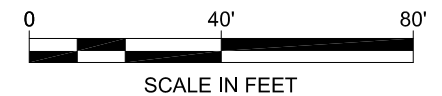
PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC  
 DESIGNED BY: MGM  
 DRAWN BY: MHW

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL STA. 25+17 TO 30+65 BASE BID**

PROJECT DESIGNATION	
<b>68828 HPRM-003(135) &amp; 67789</b>	
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H15</b>	<b>117</b>



- NOTES:
- ① USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18.
  - ② COORDINATE WITH WL&P TO PROVIDE 120/240V, 1Ø, 3W, 200A SERVICE TO LOAD CENTER. ROUTE CONDUIT 10' UP POLE ON STANDOFFS. UTILITY WILL PROVIDE CONDUCTORS AND TERMINATE THEM IN METER BASE.
  - ③ (2) 4" C, POWER UTILITY SPARE,  
 (2) 4" C, TELEPHONE UTILITY SPARE,  
 (2) 4" C, CABLE UTILITY SPARE,  
 CAP CONDUITS. PLACE UTILITY MARKER BALL AT END OF CONDUIT.
  - ④ (1) 4" C, POWER UTILITY SPARE,  
 (1) 2" C, TELEPHONE UTILITY SPARE,  
 (1) 2" C, CABLE UTILITY SPARE,  
 CAP CONDUITS. PLACE UTILITY MARKER BALL AT END OF CONDUIT.
  - ⑤ LOCATE J-BOX IN SIDEWALK. BACK OF J-BOX SHALL BE FLUSH WITH BACK OF SIDEWALK. TYPICAL J6-12.
  - ⑥ PROVIDE TYPE C LUMINAIRE TO WL&P FOR INSTALLATION ON THEIR POLE & MAST ARM. PAY WL&P FOR THEIR WORK.



**FRONT STREET ELECTRICAL STA. 25+17 to 30+65 - BASE BID**

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



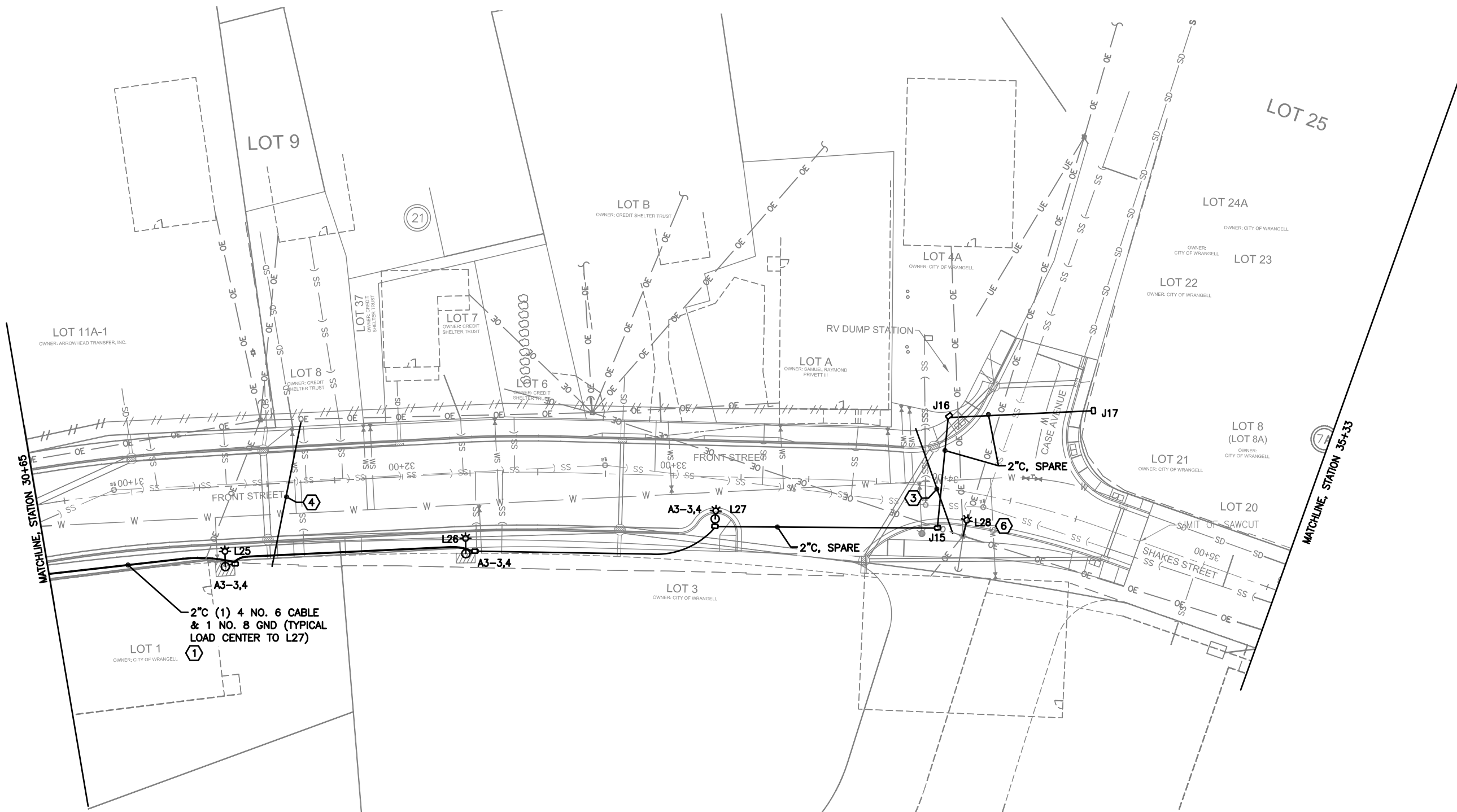
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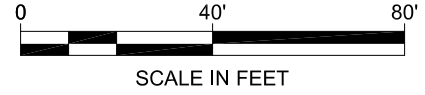
PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC  
DESIGNED BY: MGM  
DRAWN BY: MHW

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**FRONT STREET ELECTRICAL STA. 30+65 TO 35+33 ADDITIVE ALTERNATE 1**

PROJECT DESIGNATION	
<b>68828 HPRM-003(135) &amp; 67789</b>	
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>H16</b>	<b>117</b>

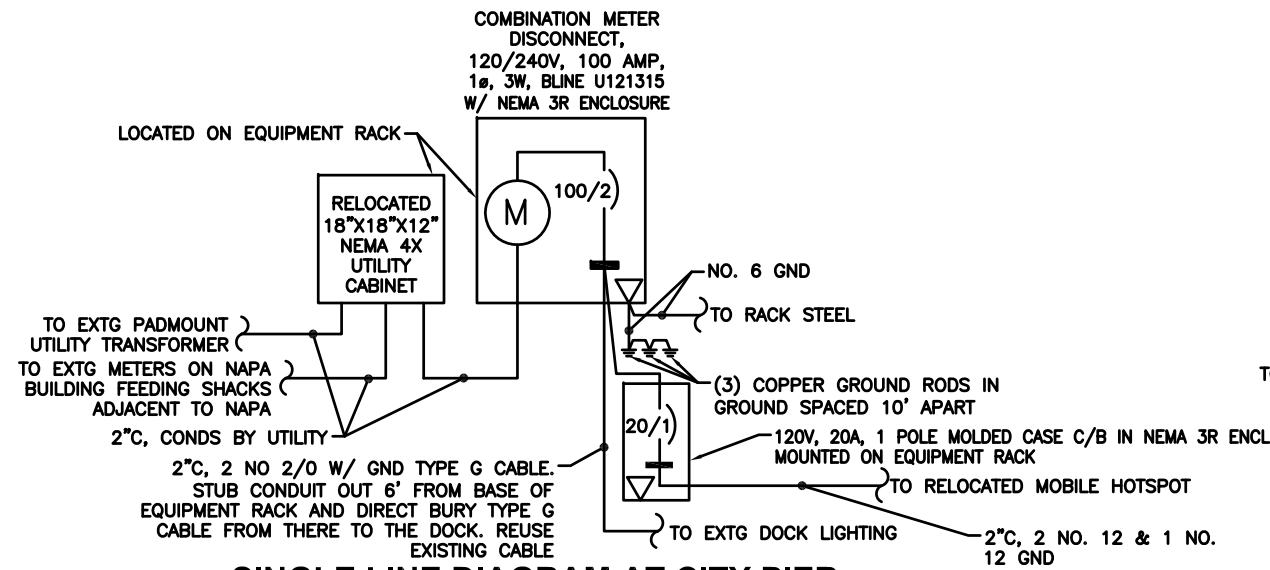


**FRONT STREET ELECTRICAL STA. 30+65 TO 35+33 - ADDITIVE ALTERNATE 1**

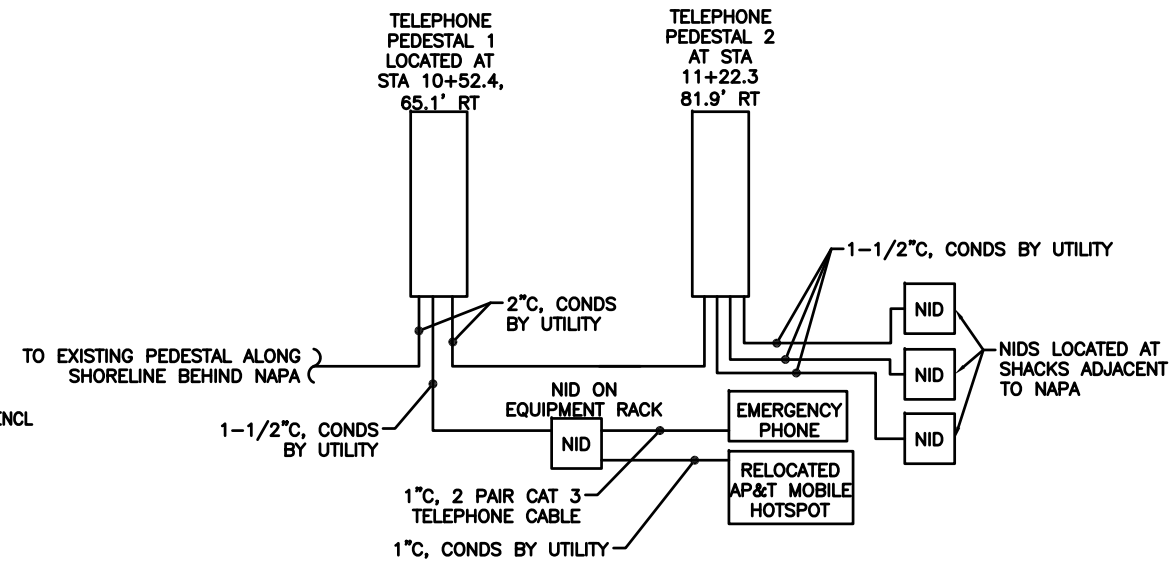


- NOTES:**
- ① USE 2 NO. 6 FOR LUMINAIRE CIRCUIT AND 2 NO. 6 FOR RECEPTACLE CIRCUIT. EACH POLE HAS A GFI RECEPTACLE. SEE DETAIL SHEET H18.
  2. NOT USED
  - ③ (2) 4" C, POWER UTILITY SPARE,  
(2) 4" C, TELEPHONE UTILITY SPARE,  
(2) 4" C, CABLE UTILITY SPARE,  
CAP CONDUITS. PLACE UTILITY MARKER BALL AT END OF CONDUIT.
  - ④ (1) 4" C, POWER UTILITY SPARE,  
(1) 2" C, TELEPHONE UTILITY SPARE,  
(1) 2" C, CABLE UTILITY SPARE,  
CAP CONDUITS. PLACE UTILITY MARKER BALL AT END OF CONDUIT.
  5. NOT USED.
  - ⑥ PROVIDE TYPE C LUMINAIRE TO WL&P FOR INSTALLATION ON THEIR POLE & MAST ARM. PAY WL&P FOR THEIR WORK.

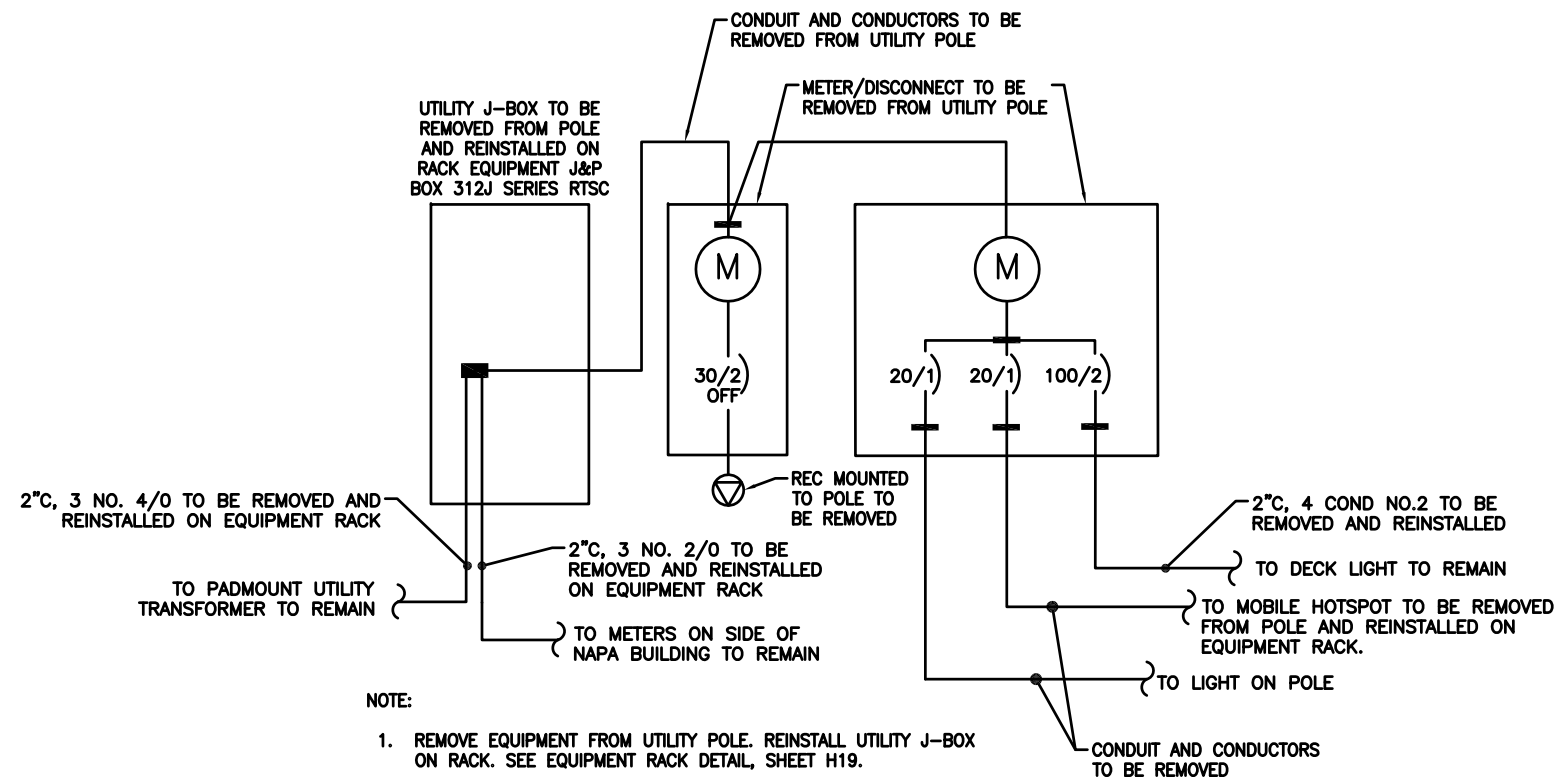
2" C (1) 4 NO. 6 CABLE & 1 NO. 8 GND (TYPICAL LOAD CENTER TO L27)



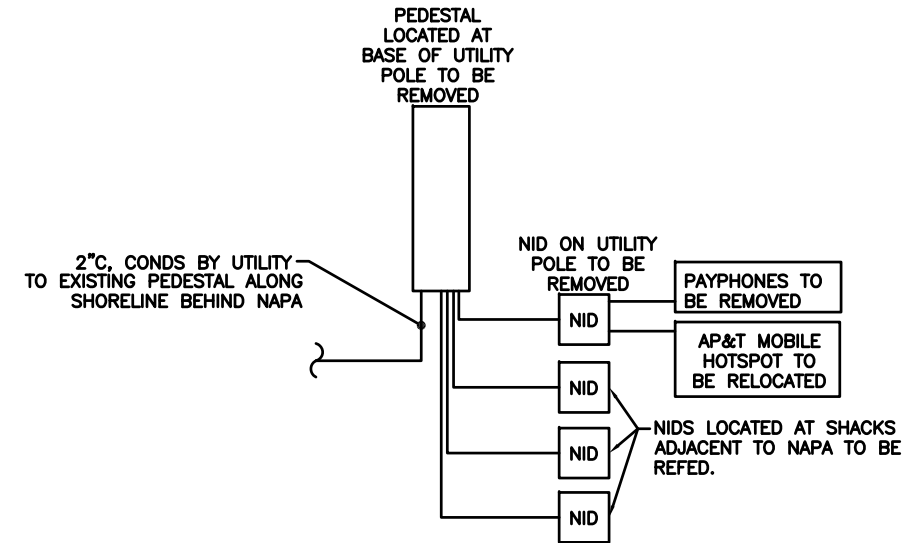
**SINGLE LINE DIAGRAM AT CITY PIER**  
(AT EQUIPMENT RACK AT STATION 10+47, 10' RT) NO SCALE



**TELEPHONE SINGLE LINE DIAGRAM**  
NO SCALE



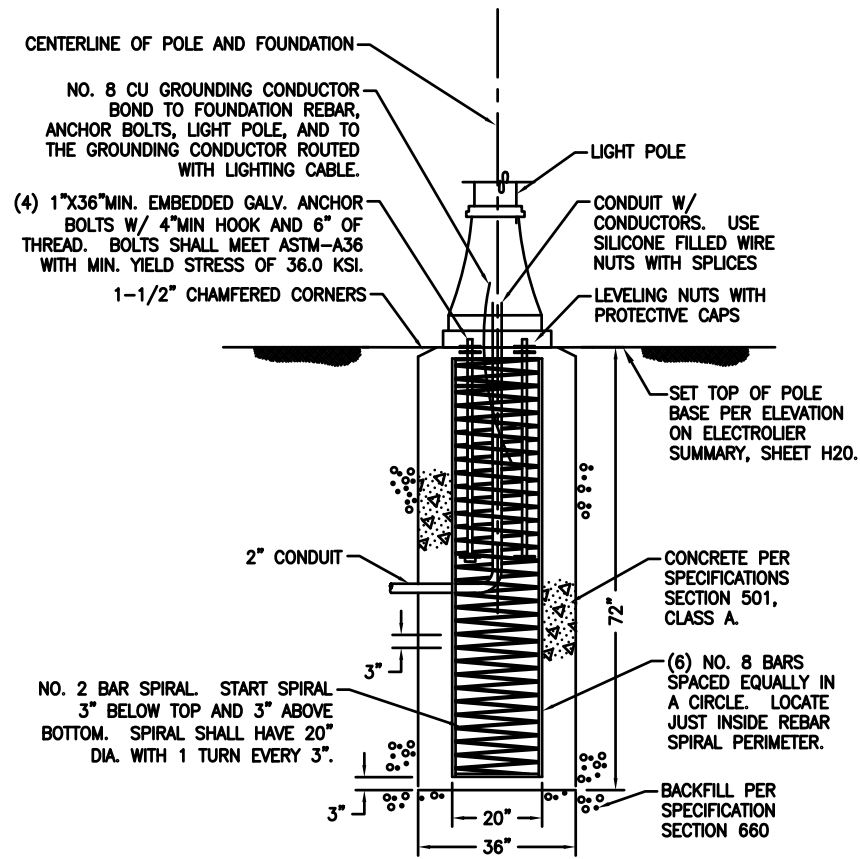
**EXISTING SINGLE LINE DIAGRAM AT CITY PIER**  
(AT UTILITY POLE, STA 10+50, 10' RT) NO SCALE



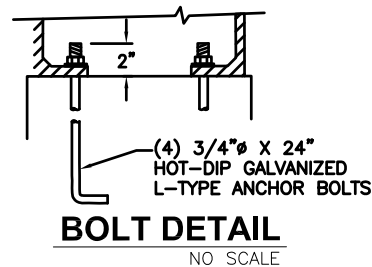
**EXTG TELEPHONE SINGLE LINE DIAGRAM**  
NO SCALE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

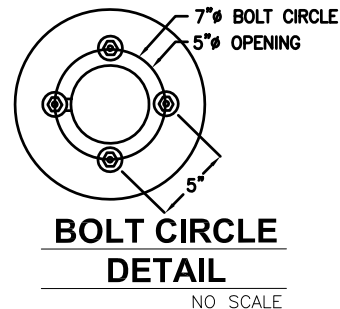
CHECKED BY: M. MORRIS 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES			
PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC DESIGNED BY: M. MORRIS DRAWN BY: M. WARNER		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 &amp; 67789</b>  <b>SINGLE LINE DIAGRAMS</b>			
PATH: Y:\129 DOWL ENGINEERING\03 WRANGELL ROAD IMPROVEMENTS\PSE WRANGELL ROAD ELEC.DWG TAB: H17 Thursday, March 24, 2011 1:47:42 PM					
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR <b>2011</b>	SHEET NO. <b>H17</b>	TOTAL SHEETS <b>117</b>



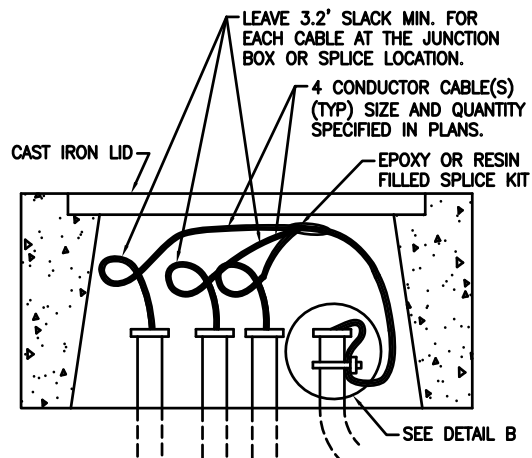
**POLE BASE DETAIL**  
NO SCALE



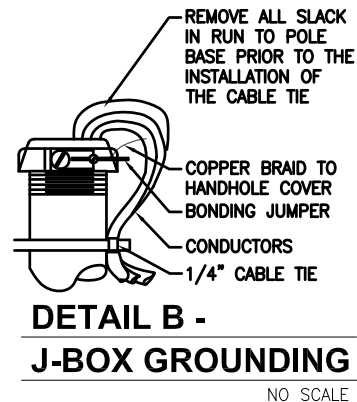
**BOLT DETAIL**  
NO SCALE



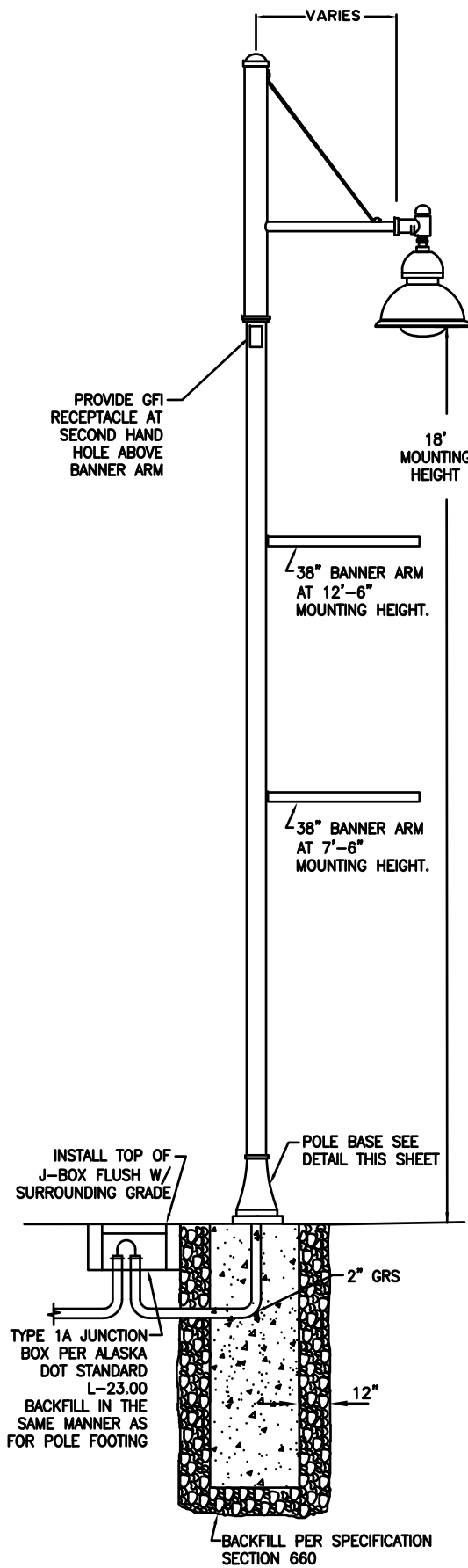
**BOLT CIRCLE DETAIL**  
NO SCALE



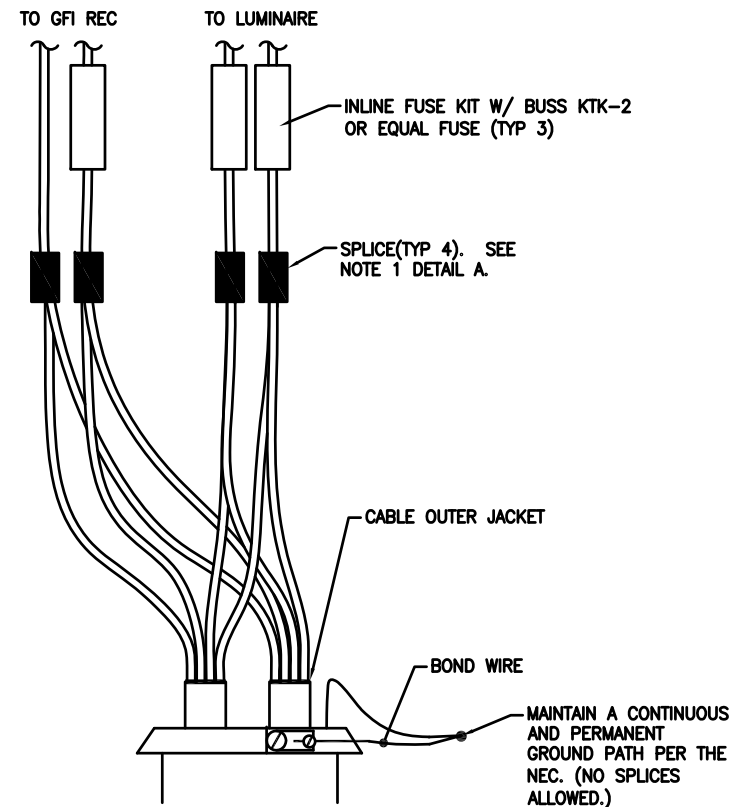
**DETAIL A - J-BOX**  
NO SCALE



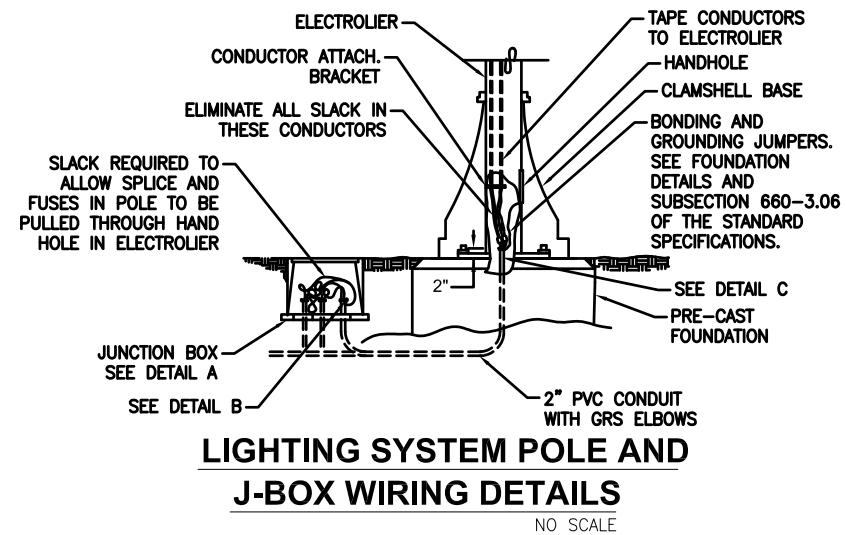
**DETAIL B - J-BOX GROUNDING**  
NO SCALE



**ELECTROLIER MOUNTING DETAIL**  
NO SCALE



**DETAIL C - POLE WIRING DETAIL**  
NO SCALE

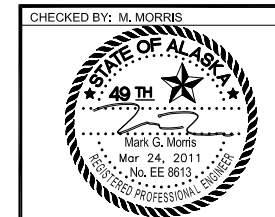


**LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS**  
NO SCALE

**NOTES:**

1. PROVIDE FUSE KITS IN EACH POLE BASE.
2. PROVIDE GROUNDING BUSHINGS ON CONDUIT.
3. WHERE POLE IS LOCATED ON SIDEWALK, LOCATE TOP OF BASE FLUSH WITH SUBGRADE. EXTEND THE ANCHOR BOLTS AN ADDITIONAL LENGTH (COORDINATE WITH SIDEWALK DETAIL) TO ALLOW THE SIDEWALK TO BE INSTALLED OVER THE POLE BASE.
4. SPLICE IN J-BOX ONLY WHEN CIRCUIT BRANCHES IN TWO DIRECTIONS (3 OR MORE CONDUIT PLUS CONDUIT TO LIGHT POLE). OTHERWISE SPLICE CABLES IN LIGHT POLE PER DETAIL C. USE RESIN FILLED SPLICE KITS WHEN SPLICING IN J-BOXES.
5. BOND GROUNDING CONDUCTORS THAT ARE IN CONDUIT TO GROUNDING BUSHINGS AND TO J-BOX LID BONDING JUMPER.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC  
DESIGNED BY: M. MORRIS  
DRAWN BY: M. WARNER

PATH: Y:\129 DOWL ENGINEERING\03 WRANGELL ROAD IMPROVEMENTS\PSF WRANGELL ROAD ELEC.DWG  
TAB: H18 Thursday, March 24, 2011 1:47:47 PM

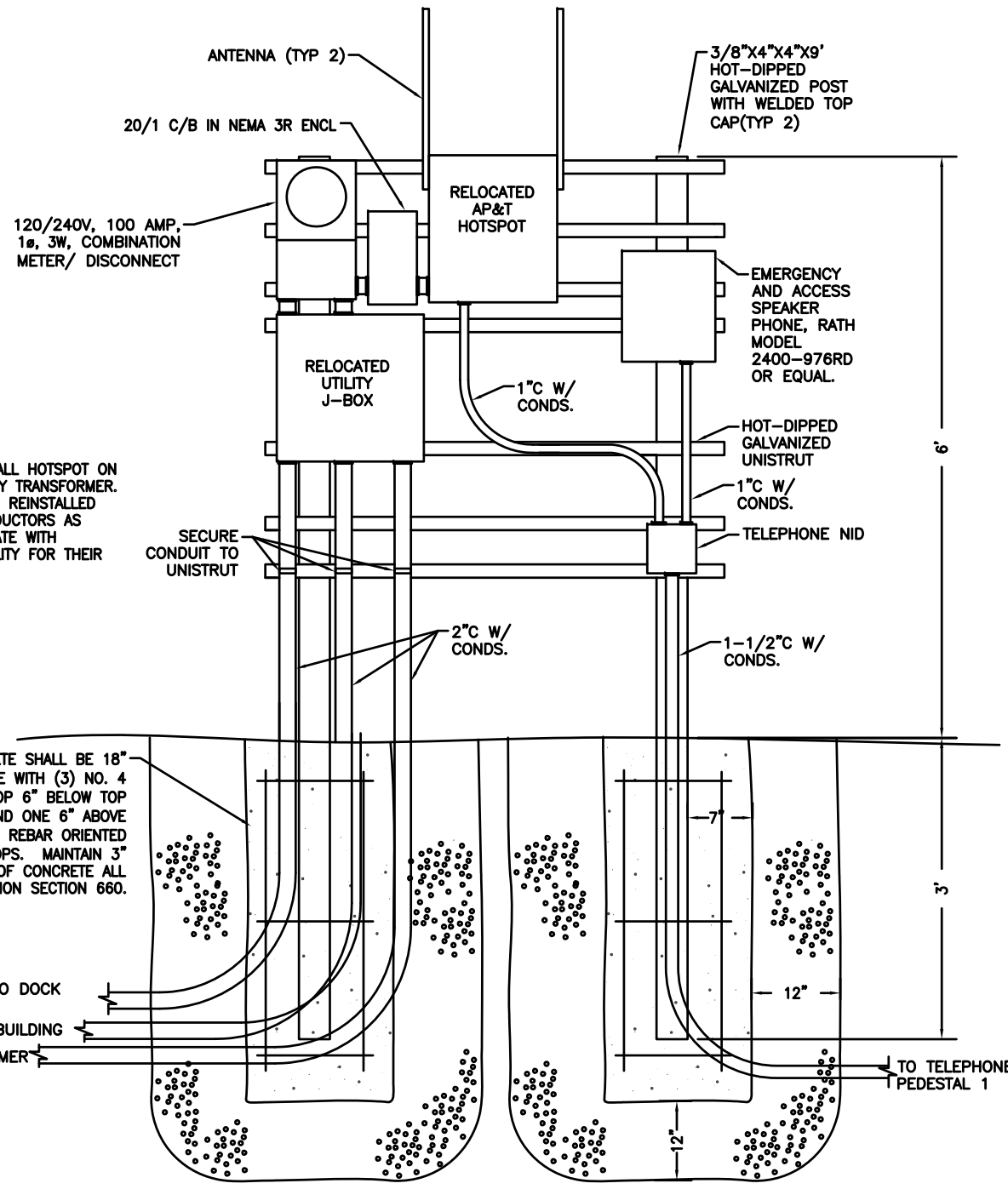
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789**

**ELECTROLIER AND J-BOX DETAILS.**

REVISIONS			PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR <b>2011</b>	SHEET NO. <b>H18</b>	TOTAL SHEETS <b>117</b>
NO.	DATE	DESCRIPTION				





**NOTE:**

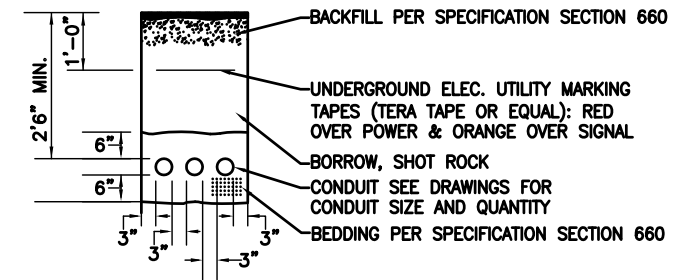
REINSTALL UTILITY J-BOX ON RACK. REINSTALL HOTSPOT ON RACK. RE-FEED UTILITY J-BOX FROM UTILITY TRANSFORMER. RE-FEED METERS ON NAPA BLDG. RE-FEED REINSTALLED HOTSPOT. PROVIDE NEW CONDUIT AND CONDUCTORS AS REQUIRED FOR THE ABOVE WORK. COORDINATE WITH WRANGELL POWER AND LIGHT. PAY THE UTILITY FOR THEIR WORK.

BURY POST 3' MIN. IN CONCRETE. CONCRETE SHALL BE 18" DIAMETER AND SHALL BE 4000 PSI. REINFORCE WITH (3) NO. 4 REBAR HOOPS 12" IN DIAMETER. PLACE A HOOP 6" BELOW TOP OF CONCRETE, ONE CENTERED VERTICALLY AND ONE 6" ABOVE BOTTOM OF CONCRETE. PROVIDE (4) NO. 4 REBAR ORIENTED VERTICALLY AND EVENLY SPACED AROUND HOOPS. MAINTAIN 3" CLEARANCE BETWEEN REBAR AND OUTSIDE OF CONCRETE ALL SIDES. BACKFILL PER SPECIFICATION SECTION 660.

2" C, 2 NO 2/0 W/ GND TYPE G CABLE TO DOCK LIGHTING.  
 2" C, W/ CONDUCTORS TO METERS ON NAPA BUILDING  
 2" C, W/ CONDUCTORS TO UTILITY TRANSFORMER

**EQUIPMENT RACK DETAIL**

NO SCALE

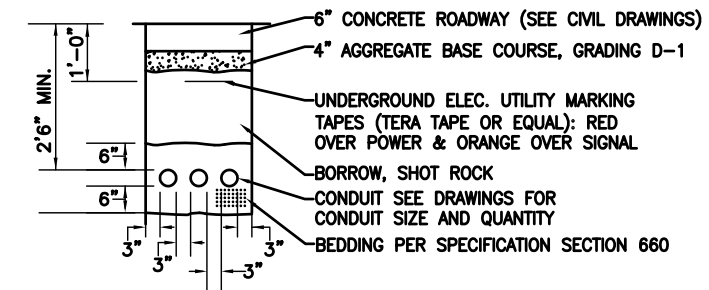


**NOTE:**

1. ALL DIMENSIONS ARE MINIMUM.

**TRENCH DETAIL - NON-PAVED AREAS**

NO SCALE

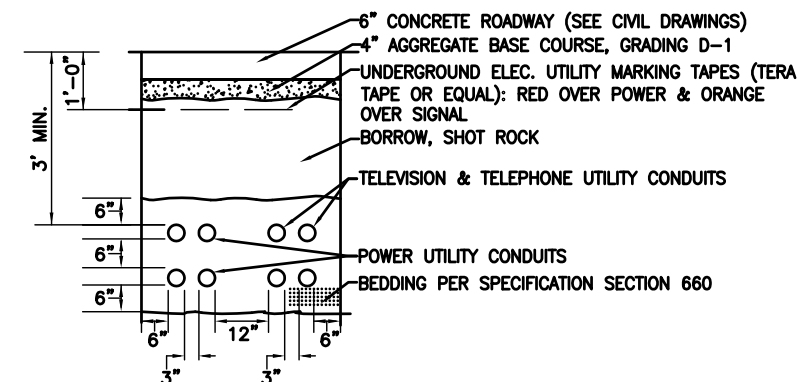


**NOTES:**

1. ALL DIMENSIONS ARE MINIMUM.
2. SEE CIVIL DRAWINGS FOR TYPICAL SECTIONS UNDER PAVED AREAS.
3. WHERE UTILITY CONDUITS ARE BURIED, SEPARATE TV AND TELEPHONE UTILITY CONDUITS 12". INCREASE BURIAL DEPTH TO 36" FOR ALL UTILITY CONDUITS. SEE UTILITY TRENCH DETAIL, THIS SHEET.

**TRENCH DETAIL - PAVED AREAS**

NO SCALE



**NOTES:**

1. ALL DIMENSIONS ARE MINIMUM.
2. SEE CIVIL DRAWINGS FOR TYPICAL SECTIONS UNDER PAVED AREAS.

**UTILITY TRENCH DETAIL**

NO SCALE

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: M. MORRIS 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC DESIGNED BY: M. MORRIS DRAWN BY: M. WARNER		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 &amp; 67789</b>  <b>TRENCH &amp; EQUIPMENT RACK DETAILS</b>	
PATH: Y:\129 DOWL ENGINEERING\03 WRANGELL ROAD IMPROVEMENTS\PSE WRANGELL ROAD ELEC.DWG TAB: H19 Thursday, March 24, 2011 1:47:52 PM			
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR <b>2011</b>
		SHEET NO. <b>H19</b>	TOTAL SHEETS <b>117</b>

ELECTROLIER SUMMARY							
LUM. NO.	MAST-ARM LENGTH	LUMINAIRE MOUNTING HEIGHT	STATION	OFFSET	POLE BASE ELEVATION	LUMINAIRE TYPE	REMARKS
L1	3'	18'	10+49.1	6.4' RT	23.80	A	
L2	6'	18'	10+64.0	79.3' RT	22.05	B	
L3	6'	18'	11+54.4	37.8' RT	23.29	B	
L4	6'	18'	12+16.9	25.2' LT	24.84	B	
L5	6'	18'	12+74.4	19.7' LT	23.85	B	
L6	3'	18'	13+51.7	17.0' RT	23.83	A	
L7	3'	18'	14+12.5	16.4' RT	24.10	A	
L8	3'	18'	15+34.0	19.5' LT	23.98	A	PROVIDE PHOTOCELL WITH LUMINAIRE
L9	3'	18'	16+20.4	17.3' LT	23.92	A	
L10	6'	18'	17+36.8	27.1' RT	23.79	B	
L11	6'	18'	18+38.7	17.5' RT	23.70	A	
L12	6'	18'	19+03.4	15.5' RT	24.04	A	
L13	6'	18'	20+04.5	28.0' LT	23.77	B	
L14	6'	18'	21+10.9	27.7' LT	23.92	B	
L15	3'	18'	22+06.1	19.2' RT	23.39	B	
L16	6'	18'	22+75.5	21.5' RT	23.64	A	PROVIDE PHOTOCELL WITH LUMINAIRE
L17	6'	18'	23+92.6	21.5' RT	23.35	A	
L18	3'	18'	24+86.8	16.3' RT	23.19	A	
L19	3'	18'	25+71.8	26.6' LT	24.69	B	
L20	3'	18'	25+93.8	15.5' RT	23.60	B	PROVIDE PHOTOCELL WITH LUMINAIRE
L21	3'	24'	26+77.8	21.1' RT	23.43	B	
L22	6'	30'	27+98.3	19.0' LT	N/A	C	(1)
L23	6'	30'	29+10.2	17.9' LT	N/A	C	(1)
L24	6'	30'	30+18.3	18.9' LT	N/A	C	(1)
L25	6'	18'	31+32.9	29.5' RT	22.57	A	PROVIDE WITH ADDITIVE ALTERNATE
L26	6'	18'	32+22.0	29.5' RT	22.39	A	PROVIDE WITH ADDITIVE ALTERNATE
L27	3'	18'	33+15.8	15.5' RT	22.91	A	PROVIDE WITH ADDITIVE ALTERNATE
L28	6'	30'	34+10.0	16.1' RT	N/A	C	(1) PROVIDE WITH ADDITIVE ALTERNATE

JUNCTION BOX SUMMARY					
NO.	STATION	OFFSET	TYPE	ELEV	REMARKS
J1	12+44.1	31.1' LT	1A	24.53	
J2	15+56.3	30.3' RT	1A	23.74	
J3	22+54.8	34.2' RT	1A	23.64	
J4	25+40.9	29.8' LT	1A	25.17	
J5	26+75.0	17.0' RT	1A	23.30	
J6					NOT USED
J7					NOT USED
J8	27+91.2	18.9' LT	1A	22.87	
J9	28+33.7	19.0' LT	1A	23.12	
J10	28+99.7	16.8' LT	1A	23.20	
J11	29+39.5	16.8' LT	1A	23.70	
J12	29+78.0	17.7' LT	1A	24.34	
J13	29+96.1	24.4' RT	1A	23.76	
J14	30+20.9	17.2' LT	1A	23.72	
J15	33+99.7	14.7' RT	1A	22.78	PROVIDE WITH ADDITIVE ALTERNATE
J16	33+99.0	25.6' LT	1A	23.02	PROVIDE WITH ADDITIVE ALTERNATE
J17	34+43.9	32.1' LT	1A	23.38	PROVIDE WITH ADDITIVE ALTERNATE

- SUMMARY NOTES:
- (1) FURNISH LUMINAIRE TO WL&P FOR INSTALLATION ON EXISTING UTILITY POLE MAST ARM.
2. PROVIDE 6" MINIMUM HORIZONTAL CLEARANCE BETWEEN ELECTROLIER BASE AND OTHER BURIED PIPES, STORM DRAINS, ETC. CONSULT WITH ENGINEER BEFORE ADJUSTING THE LOCATION OF ANY ELECTROLIER.

ELECTROLIER SCHEDULE						
TYPE	DESCRIPTION	LUMINAIRE DISTRIBUTION	LUMINAIRE MANUFACTURER	POLE MANUFACTURER	LAMP	REMARKS
A	DECORATIVE EURO STYLED, POLE MOUNTED LUMINAIRE WITH PRISMATIC GLASS REFRACTOR, ALUMINUM CUT-OFF REFLECTOR, CAST ALUMINUM HOUSING, AND TOOL-LESS ENTRY. PROVIDE WITH DECORATIVE POLE WITH LUMINAIRE MAST ARM, CLAM SHELL BASE, 38" BANNER ARM, GFI RECEPTACLE, WITH LARGE IN-USE WET LOCATION COVER. HOT DIP GALVANIZED AND PAINTED DARK GREEN.	TYPE 3 CUT-OFF	HOLOPHANE GB-175PM-MC-1NS-73N-N-LAMP *	FOR A 36" MAST ARM: HOLOPHANE AB-SR10CSBCA/CS-LS(MOD)36/1-CA/CS-(1)BA38H/1/BO-CA/CS-FGIUL-SCSH	175W MH, 10K HRS AVG LIFE, 13,500 INITIAL LUMENS, 4000K, 65 CRI	PROVIDE 36" OR 72" MAST ARM WHERE SHOWN ON ELECTROLIER SUMMARY. PROVIDE (2) MAST ARMS ON POLE WHERE SHOWN ON ELECTROLIER SUMMARY.
B		TYPE 2 CUT-OFF	HOLOPHANE GB-175PM-MC-1NS-72N-N-LAMP *	FOR A 72" MAST ARM: HOLOPHANE AB-SR10CSBCA/CS-LS(MOD)72/1-CA/CS-(1)BA38H/1/BO-CA/CS-FGIUL-SCSH	175W MH, 10K HRS AVG LIFE, 13,500 INITIAL LUMENS, 4000K, 65 CRI	PROVIDE 36" OR 72" MAST ARM WHERE SHOWN ON ELECTROLIER SUMMARY. PROVIDE (2) MAST ARMS ON POLE WHERE SHOWN ON ELECTROLIER SUMMARY.
C	DECORATIVE EURO STYLED, MAST ARM MOUNTED LUMINAIRE WITH PRISMATIC GLASS REFRACTOR, ALUMINUM CUT-OFF REFLECTOR, CAST ALUMINUM HOUSING, AND TOOL-LESS ENTRY.	TYPE 2 CUT-OFF	HOLOPHANE GB-320PM-MA-1NS-72N-N-LAMP *	N/A	320W MH, 20K HRS AVG LIFE, 30,000 INITIAL LUMENS, 4100K, 62 CRI	PROVIDE LUMINAIRE WITH POLE ARM MOUNT BRACKET FOR A 2" MAST ARM CONNECTION. FURNISH LUMINAIRE TO WL&P TO MOUNT ON THEIR EXISTING MAST ARM.

NOTE:

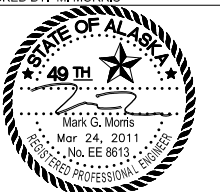
\* PROVIDE THE LUMINAIRES SHOWN OR APPROVED EQUAL. A SUBSTITUTE LUMINAIRE SHALL HAVE EQUIVALENT PHOTOMETRIC PERFORMANCE AS WELL AS THE SAME QUALITY, FEATURES, FUNCTIONALITY, ATTRIBUTES, ETC. AS THE SPECIFIED LUMINAIRE INCLUDING THE REQUIREMENTS SHOWN ON THE PLANS AND INCLUDED IN THE SPECIFICATIONS. IF IT DOES NOT, IT WILL BE REJECTED AS AN EQUAL TO THE SPECIFIED LUMINAIRE. PHOTOMETRIC FILES SHALL BE PROVIDED (\*.IES) ALONG WITH CATALOG CUT SHEETS DURING SUBMITTALS AND THE LIGHTING DESIGN WILL BE CHECKED BY THE DESIGNER USING THE SUBSTITUTE LUMINAIRE. IF AN EQUIVALENT LIGHT LEVEL AND UNIFORMITY AS WELL AS GLARE CONTROL IS NOT ACHIEVED, THE SUBSTITUTE LUMINAIRE WILL BE REJECTED AS AN EQUAL TO THE SPECIFIED LUMINAIRE.

ELECTROLIER JUNCTION BOX SUMMARY				
NO.	STATION	OFFSET	TYPE	REMARKS
L1	10+41.5	10.2' RT	1A	
L2	10+67.0	80.8' RT	1A	
L3	11+56.1	35.7' RT	1A	
L4	12+17.0	25.2' LT	1A	
L5	12+74.4	19.7' LT	1A	
L6	13+49.0	15.6' RT	1A	
L7	14+10.0	15.2' RT	1A	
L8	15+31.3	18.3' LT	1A	
L9	16+17.6	16.5' LT	1A	
L10	17+33.9	27.3' RT	1A	
L11	18+42.2	17.8' RT	1A	
L12	18+99.8	15.6' RT	1A	
L13	20+07.5	28.1' LT	1A	
L14	21+13.1	26.9' LT	1A	
L15	22+03.4	20.7' RT	1A	
L16	23+03.0	21.7' RT	1A	
L17	23+89.0	20.7' RT	1A	
L18	24+86.8	19.0' RT	1A	
L19	25+72.0	23.1' LT	1A	
L20	26+16.0	15.5' RT	1A	
L21	26+75.0	17.0' RT	1A	
L25	31+36.6	28.7' RT	1A	PROVIDE WITH ADDITIVE ALTERNATE
L26	32+25.6	28.7' RT	1A	PROVIDE WITH ADDITIVE ALTERNATE
L27	33+15.7	18.3' RT	1A	PROVIDE WITH ADDITIVE ALTERNATE

ILLUMINATION GENERAL NOTES

- EACH NEW ELECTROLIER SHALL HAVE A J-BOX INSTALLED ADJACENT TO THE FOUNDATION AS SHOWN IN THE POLE AND J-BOX WIRING DETAIL UNLESS NOTED OTHERWISE.
- PROVIDE JUNCTION BOXES PER SUMMARIES THIS SHEET. SEE STANDARD DRAWING L-23.01 AND DETAILS ON SHEET H18.
- NEW ELECTROLIER FOUNDATIONS SHALL BE PRE-CAST. PRE-CAST FOUNDATIONS SHALL BE LIFTED AND TRANSPORTED USING A DEVICE THAT DISTRIBUTES THE LOAD EVENLY BETWEEN THE ANCHOR BOLTS. SEE SHEET H18 FOR FOUNDATION DETAIL.
- ILLUMINATION CIRCUIT WIRES SHALL BE NO. 6 AWG. 4-CONDUCTOR CABLE WITH COPPER CONDUCTORS, XHHW INSULATION, AND AN OVERALL PVC JACKET.
- PROVIDE ELECTROLIERS PER DETAILS ON SHEET H18 AND PER ELECTROLIER SUMMARY TABLE ON THIS SHEET.
- COORDINATE WITH GENERAL CONTRACTOR TO ADJUST JUNCTION BOXES SO THAT THE TOP OF EACH JUNCTION BOX IS FLUSH WITH FINISHED GRADE.
- PROVIDE GROUNDING BUSHING ON CONDUIT ENTERING J-BOXES, POLES, AND AS REQUIRED PER THE NEC.
- SIZE POLE WITH MAST ARM AND LUMINAIRE AS REQUIRED FOR SUSTAINED WINDS OF 100 MPH AND GUSTS TO 120 MPH.
- STATION AND OFFSET INFORMATION GIVEN TO CENTER OF LIGHT POLE BASE AND CENTER OF J-BOX. POLE BASE ELEVATION GIVEN TO TOP OF LIGHT POLE CONCRETE FOUNDATION.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

 CHECKED BY: M. MORRIS STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 &amp; 67789</b>  <b>ELECTROLIER AND J-BOX SCHEDULES</b>	
PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC DESIGNED BY: M. MORRIS DRAWN BY: M. WARNER		PATH: Y:\129 DOWL ENGINEERING\03 WRANGELL ROAD IMPROVEMENTS\PSE WRANGELL ROAD ELEC.DWG TAB: H20 Thursday, March 24, 2011 1:47:57 PM	
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR SHEET NO. TOTAL SHEETS <b>2011 H20 117</b>

SUMMARY OF LIGHTING LOAD CENTER: NO. 1				
LOAD CENTER TYPE 1A				
LOAD CENTER: LOCATION DATA: STA. 15+54+00, 30.15' RT				
POWER SOURCE: UTILITY POLE ADJACENT LOAD CENTER				
PHOTOELECTRIC CONTROL: YES, MOUNT ON ELECTROLIER L8				
SERVICE VOLTAGE 1 PHASE, 3-WIRE, 240 VOLTS, 60 Hz.				
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS--SERIES RATED 10,000 AIC				
PROVIDE METER SOCKET? YES SERVICE AMPS 200A				
MAIN BREAKER A: 240 VOLT, 2 POLE, 200A				
PANEL A RATING: 120/240, 1Ø, 3W, 200A, 24CKT				
CONTACTOR: 240 VOLT, 2 POLE, 200A				
LOAD PANEL A SUMMARY				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
1	LUMINAIRES L1, L2, L3	0.6	30A	2
2	RECEPTACLES L1, L2, L3	0.6	20A	1
3	LUMINAIRES L4, L5, L6, L7	0.8	30A	2
4	RECEPTACLES L4, L5, L6, L7	0.8	20A	1
5	LUMINAIRES L8, L9	0.4	30A	2
6	RECEPTACLES L8, L9	0.4	20A	1
7	LUMINAIRES L10, L11, L12	0.6	30A	2
8	RECEPTACLES L10, L11, L12	0.6	20A	1
9	PHOTO ELECTRIC CONTROL	0.1	15A	1
10	SPARE	0.0	30A	2
11	SPARE	0.0	20A	1
12	SPARE	0.0	30A	2
13	SPARE	0.0	20A	1
14	SPARE	0.0	30A	2
15	SPARE	0.0	20A	1
16	SPARE	0.0	30A	2
17	SPARE	0.0	30A	2
TOTAL DEMAND LOAD:		4.9 KVA, 20.4 AMPS		

SUMMARY OF LIGHTING LOAD CENTER: NO. 2				
LOAD CENTER TYPE 1A				
LOAD CENTER: LOCATION DATA: STA. 22+56.75, 33.97' RT				
POWER SOURCE: UTILITY POLE ADJACENT LOAD CENTER				
PHOTOELECTRIC CONTROL: YES, MOUNT ON ELECTROLIER L16				
SERVICE VOLTAGE 1 PHASE, 3-WIRE, 240 VOLTS, 60 Hz.				
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS--SERIES RATED 10,000 AIC				
PROVIDE METER SOCKET? YES SERVICE AMPS 200A				
MAIN BREAKER A: 240 VOLT, 2 POLE, 200A				
PANEL A RATING: 120/240, 1Ø, 3W, 200A, 24CKT				
CONTACTOR: 240 VOLT, 2 POLE, 200A				
LOAD PANEL A SUMMARY				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
1	LUMINAIRES L13, L14, L15	0.6	30A	2
2	RECEPTACLES L13, L14, L15	0.6	20A	1
3	LUMINAIRES L16, L17, L18	0.6	30A	2
4	RECEPTACLES L16, L17, L18	0.6	20A	1
5	PHOTO ELECTRIC CONTROL	0.1	15A	1
6	SPARE	0.0	30A	2
7	SPARE	0.0	20A	1
8	SPARE	0.0	30A	2
9	SPARE	0.0	20A	1
10	SPARE	0.0	30A	2
11	SPARE	0.0	20A	1
12	SPARE	0.0	30A	2
13	SPARE	0.0	20A	1
14	SPARE	0.0	30A	2
15	SPARE	0.0	20A	1
16	SPARE	0.0	30A	2
17	SPARE	0.0	30A	2
TOTAL DEMAND LOAD:		2.5 KVA, 10.4 AMPS		

SUMMARY OF LIGHTING LOAD CENTER: NO. 3				
LOAD CENTER TYPE 1A				
LOAD CENTER: LOCATION DATA: STA. 29+94.43, 25.54' RT				
POWER SOURCE: UTILITY POLE ADJACENT LOAD CENTER				
PHOTOELECTRIC CONTROL: YES, MOUNT ON ELECTROLIER L20				
SERVICE VOLTAGE 1 PHASE, 3-WIRE, 240 VOLTS, 60 Hz.				
INTERRUPTING CAPACITY OF CIRCUIT BREAKERS--SERIES RATED 10,000 AIC				
PROVIDE METER SOCKET? YES SERVICE AMPS 200A				
MAIN BREAKER A: 240 VOLT, 2 POLE, 200A				
PANEL A RATING: 120/240, 1Ø, 3W, 200A, 24CKT				
CONTACTOR: 240 VOLT, 2 POLE, 200A				
LOAD PANEL A SUMMARY				
CIRCUIT NUMBER	DESCRIPTION	KVA LOAD	BREAKER	
			AMPS	POLES
1	LUMINAIRES L19, L20, L21	0.6	30A	2
2	RECEPTACLES L19, 20	0.4	20A	1
3	LUMINAIRES L25, L26, L27	0.6	30A	2
4	RECEPTACLES L25, L26, L27	0.6	20A	1
5	PHOTO ELECTRIC CONTROL	0.1	15A	1
6	SPARE	0.0	30A	2
7	SPARE	0.0	20A	1
8	SPARE	0.0	30A	2
9	SPARE	0.0	20A	1
10	SPARE	0.0	30A	2
11	SPARE	0.0	20A	1
12	SPARE	0.0	30A	2
13	SPARE	0.0	20A	1
14	SPARE	0.0	30A	2
15	SPARE	0.0	20A	1
16	SPARE	0.0	30A	2
17	SPARE	0.0	30A	2
TOTAL DEMAND LOAD:		2.3 KVA, 10 AMPS		

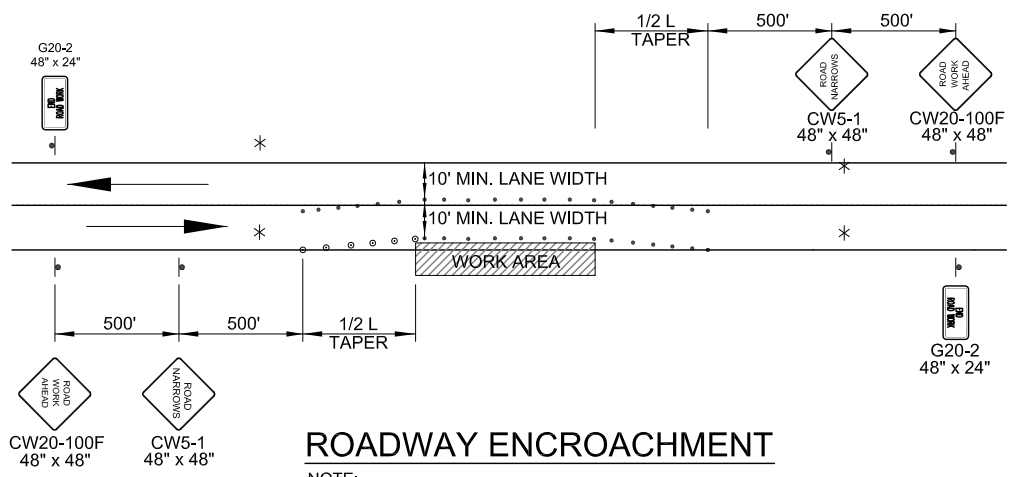
NOTES:

1. STATION AND OFFSET INFORMATION GIVEN TO CENTER OF LOAD CENTER.
2. PROVIDE TYPE 1A LOAD CENTERS PER STANDARD DRAWING L-25.00. PROVIDE A J-BOX NEXT TO LOAD CENTER. ROUTE 3" INTO J-BOX FOR FUTURE LOADS.
3. EXCAVATE AND BACKFILL 12" MIN ALL SIDES OF LOAD CENTER PER SPECIFICATION SECTION 204.
4. MODIFY UTILITY CONDUIT SIZE FROM 2" AS SHOWN ON STANDARD DRAWING L-25.00 TO 2-1/2".

LOAD CENTER SUMMARY			
NO.	STATION	OFFSET	REMARKS
1	15+54.00	30.15' RT	THIS LOAD CENTER POWERS ELECTROLIERS L1-L12 IN BASE BID.
2	22+56.75	33.97' RT	THIS LOAD CENTER POWERS ELECTROLIERS L13-L18 IN BASE BID.
3	29+94.43	25.54' RT	THIS LOAD CENTER POWERS ELECTROLIERS L19 & L20 IN BASE BID AND L25-L27 IN ADDITIVE ALTERNATE. PROVIDE LOAD CENTER WITH ALL CIRCUIT BREAKERS SHOWN IN BASE BID.

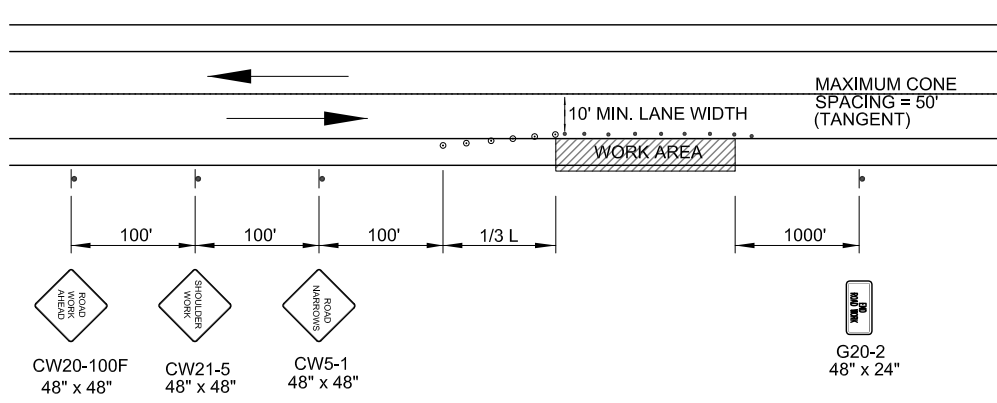
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
CHECKED BY: M. MORRIS PLANS DEVELOPED BY: MORRIS ENGINEERING GROUP, LLC DESIGNED BY: M. MORRIS DRAWN BY: M. WARNER		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 &amp; 67789</b>  <b>LOAD CENTER DETAILS</b>	
PATH: Y:\129 DOWL ENGINEERING\03 WRANGELL ROAD IMPROVEMENTS\PSE WRANGELL ROAD ELEC.DWG TAB: H21 Thursday, March 24, 2011 1:48:02 PM			
REVISIONS NO. DATE DESCRIPTION		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR SHEET TOTAL 2011 H21 117

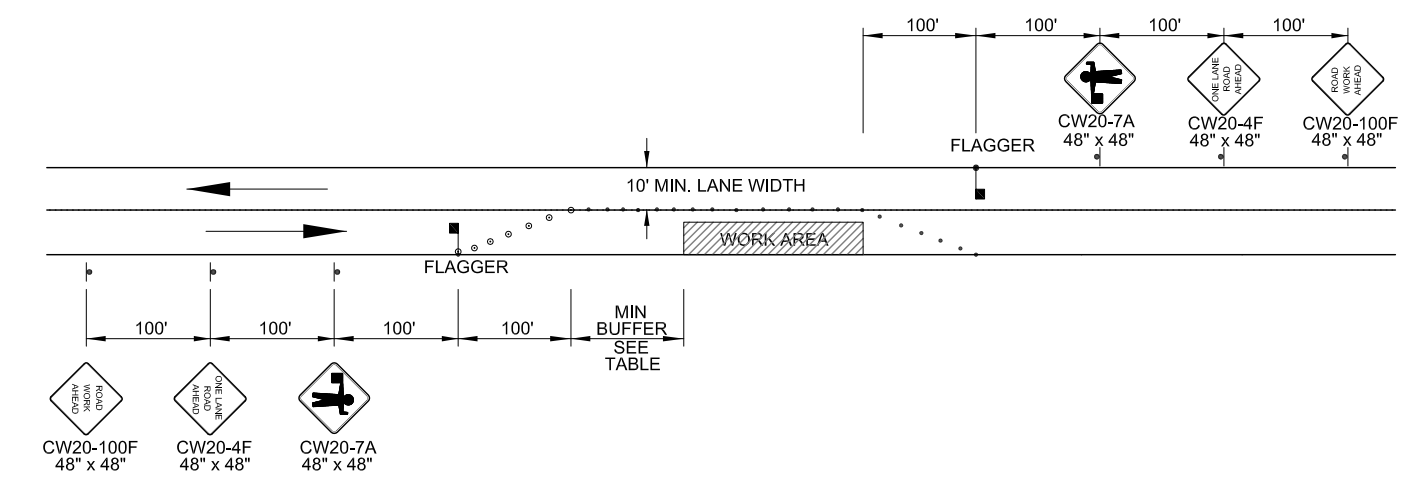


**ROADWAY ENCROACHMENT**

NOTE:  
IF ONLY ONE LANE IS AFFECTED BY ROAD WORK (THAT IS, THE CONES ALONG THE WORK AREA ARE NO CLOSER THAN 10' TO CENTERLINE) THE CENTERLINE CONES FOR THE OPPOSING LANE SHALL BE DELETED.



**SHOULDER WORK**



**TWO LANE ROAD - SINGLE LANE CLOSURE**

DOUBLE FLAGGER

**CONSTRUCTION SYMBOL LEGEND**

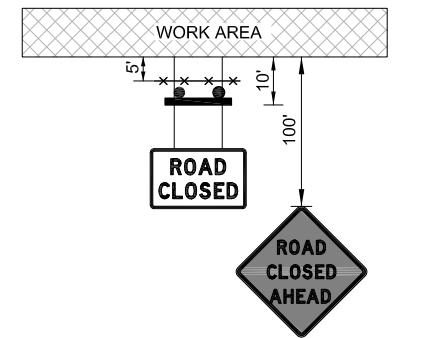
- TYPE III BARRICADE
- SAFETY FENCE
- SIGN
- CONSTRUCTION SIGN ID
- CONE
- DRUM
- DIRECTION OF TRAFFIC
- WORK AREA

**WRANGELL CRUISE SHIP SCHEDULE FOR 2011**

DOA	TOA	TOD
05/30/11 MON	12:00	19:00
06/14/11 TUE	12:00	21:00
06/20/11 MON	07:00	17:00
07/08/11 FRI	10:00	18:00
07/10/11 SUN	14:00	19:00
07/14/11 THUR	07:00	17:00
08/01/11 MON	10:00	18:00
08/12/11 FRI	07:00	17:00

**CONSTRUCTION SIGN LEGEND**

- ROAD CLOSED AHEAD S1 CW20-3F 48"x48"
- ROAD WORK AHEAD S2 CW20-100F 48"x48"
- DETOUR S3 M4-10 48"x18"
- ROAD CLOSED S4 R11-2 48"x30"
- DETOUR S5 M4-9A (L) 30"x24"
- DETOUR S6 M4-9R 48"x36"
- DETOUR S7 M4-9L 48"x36"
- DETOUR S8 M4-103 48"x36"
- DO NOT ENTER S9 R5-1 24"x24"
- DETOUR S10 M4-9A (R) 30"x24"
- DETOUR S11 M4-9A 30"x24"

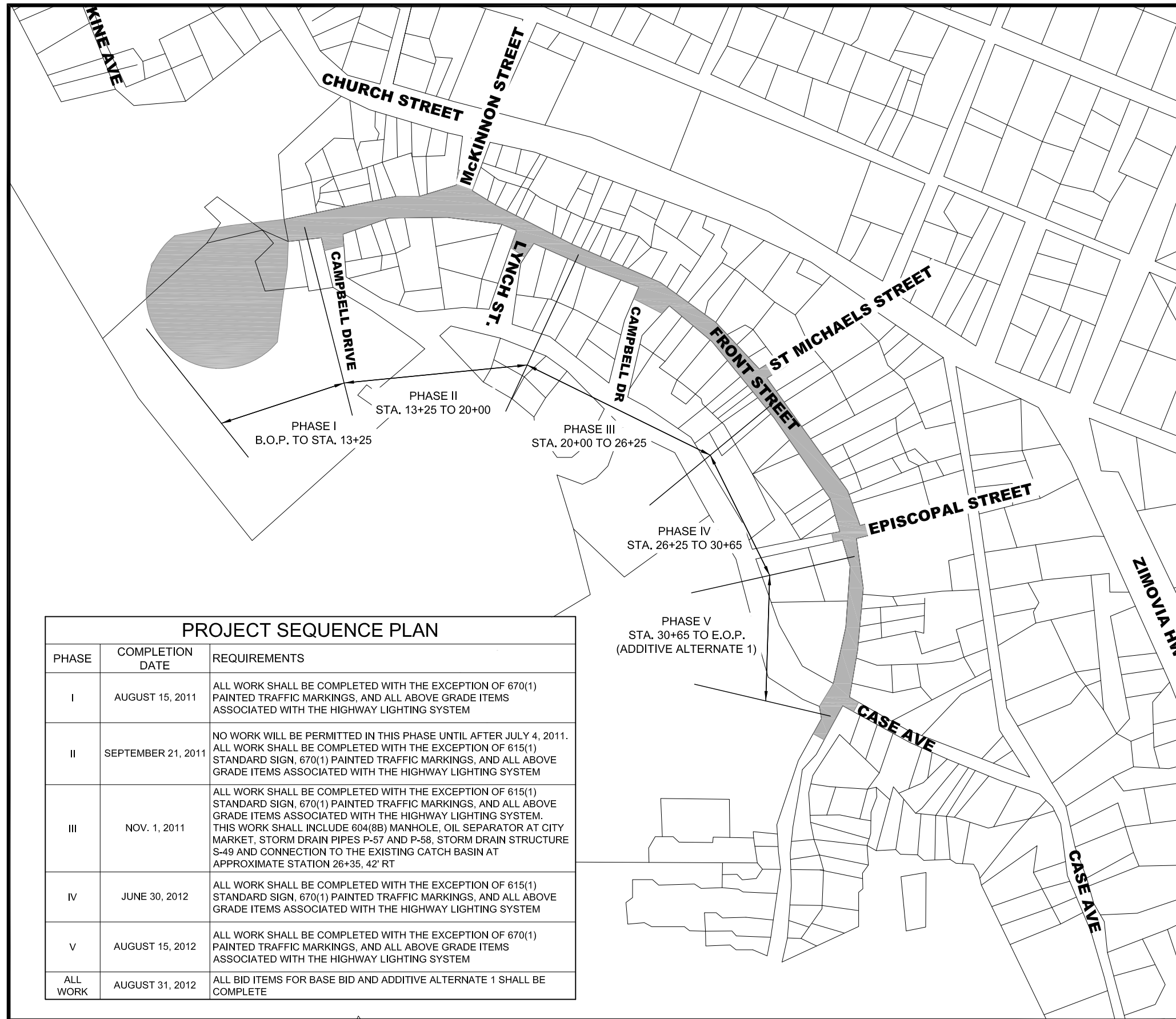


**GENERAL NOTES**

1. THESE PLANS DETAIL WORK REQUIRED FOR THE WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT. OTHER TEMPORARY TRAFFIC CONTROL MEASURES MAY BE REQUIRED FOR INTERMITTENT CONSTRUCTION OPERATIONS. THESE OPERATIONS SHALL BE SIGNED IN ACCORDANCE WITH THE ALASKA TRAFFIC MANUAL. THE FINAL TRAFFIC CONTROL PLAN SHALL BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE DOT&PF.
2. ALL SIGNS SHOWN SHALL BE FABRICATED IN ACCORDANCE WITH THE ALASKA SIGN SPECIFICATIONS.
3. ORANGE CONSTRUCTION SIGNS SHALL USE TYPE VIII OF IX FLUORESCENT SHEETING AS DETAILED IN SECTION 615-2.01.
4. TYPE "A" FLASHING WARNING LIGHTS SHALL BE USED TO MARK THE TYPE III BARRICADES, TYPE II BARRICADES, DRUMS, AND ROAD CLOSURE ADVANCED SIGNING AT NIGHT. WHEN BARRICADES OR DRUMS ARE USED FOR CHANNELIZING TRAFFIC, TYPE "C" STEADY BURN WARNING LIGHTS SHALL BE USED.
5. TRAFFIC SIGNS SHALL BE DESIGNED FOR 20 MPH.
6. TRAVEL LANES AND PEDESTRIAN CROSSINGS WITHIN THE PROJECT LIMITS SHALL BE FLAGGED WHEN CROSSED BY CONSTRUCTION EQUIPMENT.
4. TRAFFIC LANES SHALL BE A MINIMUM OF 10' WIDE.
5. CONTRACTOR SHALL SUBMIT A DETAILED SCHEDULE FOR WORK TO BE COMPLETED DURING EACH PHASE, TEN DAYS BEFORE BEGINNING ANY WORK.
6. ACTUAL CONSTRUCTION ZONE SPEED LIMIT SHALL BE 20 MPH OR TO BE ESTABLISHED BY THE DOT&PF.
7. CONTRACTOR SHALL COORDINATE CONSTRUCTION PHASING WITH DOT&PF PERSONNEL AND IN ACCORDANCE WITH THE DOT&PF APPROVED TRAFFIC CONTROL PLAN.
8. THE CONTRACTOR MAY CLOSE A ROADWAY ENTIRELY FOR UP TO 8 HOURS WITH THE FOLLOWING CONDITIONS: A 48 HOUR NOTICE MUST BE PROVIDED TO ALL AFFECTED RESIDENTS. FRONT STREET MAY NOT BE CLOSED, EXCEPT BETWEEN THE HOURS OF 9PM AND 6AM. ALTERNATE ACCESS SHALL BE MAINTAINED TO NEIGHBORHOOD STREETS WHEN POSSIBLE.
9. DELAYS SHALL NOT BE LONGER THAN 10 MINUTES, UNLESS THE ROADWAY IS CLOSED.
10. TRAFFIC CONTROL PLANS ARE SCHEMATIC IN NATURE. CONTRACTOR SHALL SUPPLY BARRIERS, MARKERS, AND SIGNAGE FOR TRAFFIC CONTROL OPERATIONS AS REQUIRED BY THE ALASKA TRAFFIC MANUAL STANDARDS AND MUTCD. ALL MATERIALS ARE SUBSIDIARY TO THEIR RESPECTIVE TRAFFIC CONTROL PAY ITEM.
11. THERE ARE 8 CRUISE SHIPS SCHEDULED FOR THE SUMMER OF 2011 AS SHOWN IN THE SCHEDULE ON THIS SHEET. CRUISE SHIPS WILL DOCK AT THE CITY PIER NEAR THE BEGINNING OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO COORDINATE BUS STAGING WITH THE CITY AND BOROUGH OF WRANGELL AND ALLOW FOR THE SAFE PASSAGE OF TOURISTS THROUGH THE CONSTRUCTION SITE.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES			
		WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789			
PLANS DEVELOPED BY: DOWL HKM					
DESIGNED BY: T. LOCKHART		TRAFFIC CONTROL PLAN DETAILS, LEGEND AND GENERAL NOTES			
DRAWN BY: J. KEMP					
PATH: S:\LIBU70112\DESIGN\SHEETS JJU70112 J1-J3.DWG					
TAB: J1 Tuesday, March 29, 2011 2:28:30 PM					
REVISIONS		PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE	DESCRIPTION	2011	J1	117
68828 HPRM-003(135) & 67789					



**PROJECT SEQUENCE PLAN**

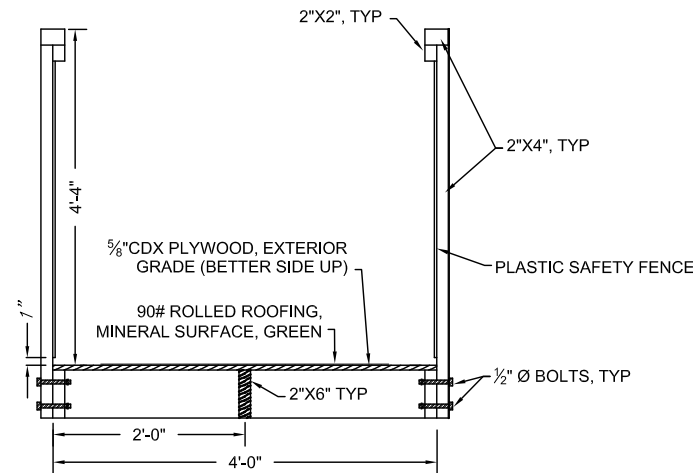
PHASE	COMPLETION DATE	REQUIREMENTS
I	AUGUST 15, 2011	ALL WORK SHALL BE COMPLETED WITH THE EXCEPTION OF 670(1) PAINTED TRAFFIC MARKINGS, AND ALL ABOVE GRADE ITEMS ASSOCIATED WITH THE HIGHWAY LIGHTING SYSTEM
II	SEPTEMBER 21, 2011	NO WORK WILL BE PERMITTED IN THIS PHASE UNTIL AFTER JULY 4, 2011. ALL WORK SHALL BE COMPLETED WITH THE EXCEPTION OF 615(1) STANDARD SIGN, 670(1) PAINTED TRAFFIC MARKINGS, AND ALL ABOVE GRADE ITEMS ASSOCIATED WITH THE HIGHWAY LIGHTING SYSTEM
III	NOV. 1, 2011	ALL WORK SHALL BE COMPLETED WITH THE EXCEPTION OF 615(1) STANDARD SIGN, 670(1) PAINTED TRAFFIC MARKINGS, AND ALL ABOVE GRADE ITEMS ASSOCIATED WITH THE HIGHWAY LIGHTING SYSTEM. THIS WORK SHALL INCLUDE 604(8B) MANHOLE, OIL SEPARATOR AT CITY MARKET, STORM DRAIN PIPES P-57 AND P-58, STORM DRAIN STRUCTURE S-49 AND CONNECTION TO THE EXISTING CATCH BASIN AT APPROXIMATE STATION 26+35, 42' RT
IV	JUNE 30, 2012	ALL WORK SHALL BE COMPLETED WITH THE EXCEPTION OF 615(1) STANDARD SIGN, 670(1) PAINTED TRAFFIC MARKINGS, AND ALL ABOVE GRADE ITEMS ASSOCIATED WITH THE HIGHWAY LIGHTING SYSTEM
V	AUGUST 15, 2012	ALL WORK SHALL BE COMPLETED WITH THE EXCEPTION OF 670(1) PAINTED TRAFFIC MARKINGS, AND ALL ABOVE GRADE ITEMS ASSOCIATED WITH THE HIGHWAY LIGHTING SYSTEM
ALL WORK	AUGUST 31, 2012	ALL BID ITEMS FOR BASE BID AND ADDITIVE ALTERNATE 1 SHALL BE COMPLETE

**NOTES:**

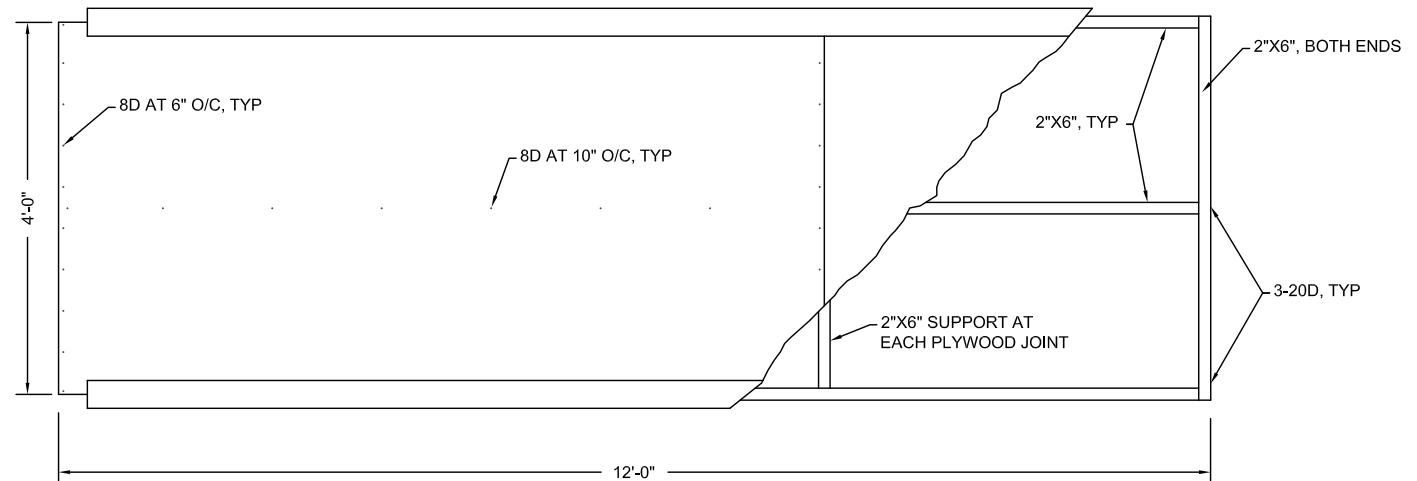
1. PRIOR TO WINTER SHUTDOWN THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PUT DOWN A TEMPORARY 4-INCH LIFT OF CLASS A CONCRETE BETWEEN THE END OF NEW CONSTRUCTION AND THE EXISTING ROAD AND SIDEWALK SURFACES THAT DOES NOT EXCEED 2% SLOPE IN ANY DIRECTION.
2. IF THE CONTRACTOR IS UNABLE TO COMPLETE A PHASE PRIOR TO WINTER SHUTDOWN, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PUT DOWN A 4-INCH LIFT OF TEMPORARY CLASS A CONCRETE TO HANDLE TRAFFIC FOR THE DURATION OF THE WINTER.
3. THE CONTRACTOR WILL NOT BE PERMITTED TO PERFORM WORK WITHIN MORE THAN TWO CONTIGUOUS PHASES AT THE SAME TIME, AND SHALL BE REQUIRED TO OBTAIN PERMISSION FROM THE ENGINEER PRIOR TO BEGINNING WORK IN MORE THAN ONE PHASE AT A TIME.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

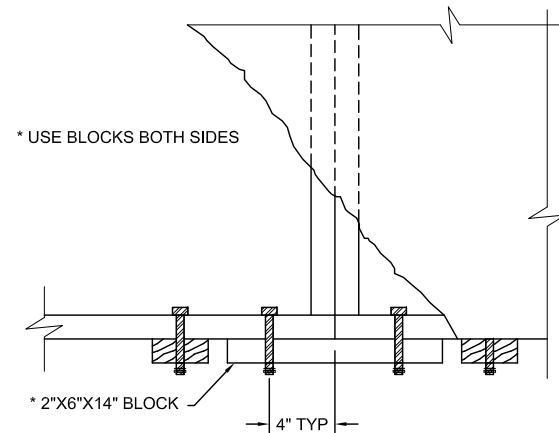
CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES												
		<p><b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> PROJECT # 68828 &amp; 67789</p> <p><b>CONSTRUCTION PHASING</b></p>												
				<p>PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP</p>										
<p>PATH: S:\LIB\70112\DESIGN\SHEETS JJ70112 J1-J3.DWG TAB: J2 Tuesday, March 29, 2011 3:53:43 PM</p>														
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				<p>PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b></p>	<p>YEAR 2011</p>	<p>SHEET NO. <b>J2</b></p>	<p>TOTAL SHEETS 117</p>
REVISIONS														
NO.	DATE	DESCRIPTION												



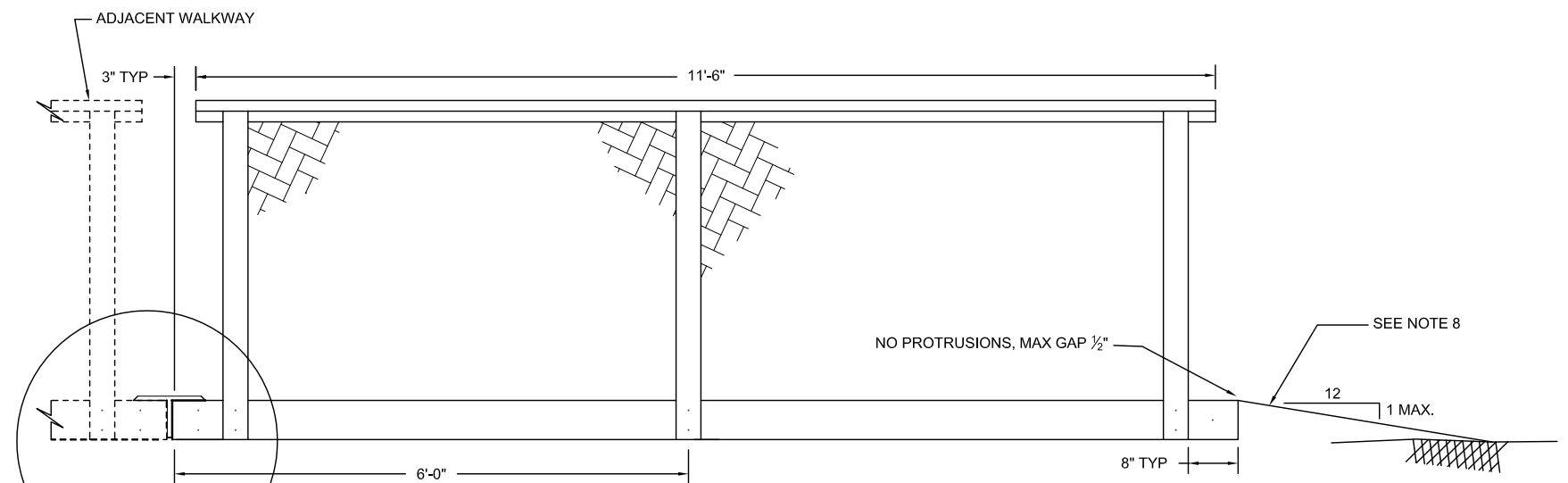
**PEDESTRIAN WALKWAY SECTION**  
NTS



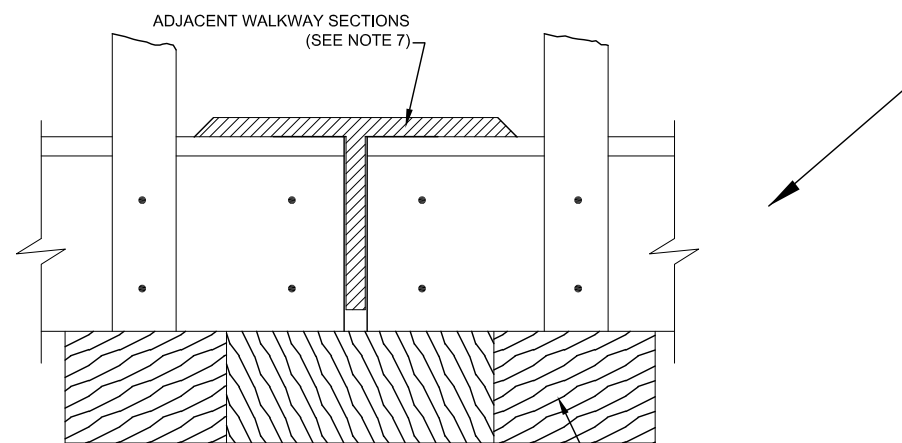
**PEDESTRIAN WALKWAY PLAN**  
NTS



**CONNECTION DETAIL PLAN**  
NTS



**PEDESTRIAN WALKWAY ELEVATION**  
NTS



**CONNECTION DETAIL ELEVATION**  
NTS

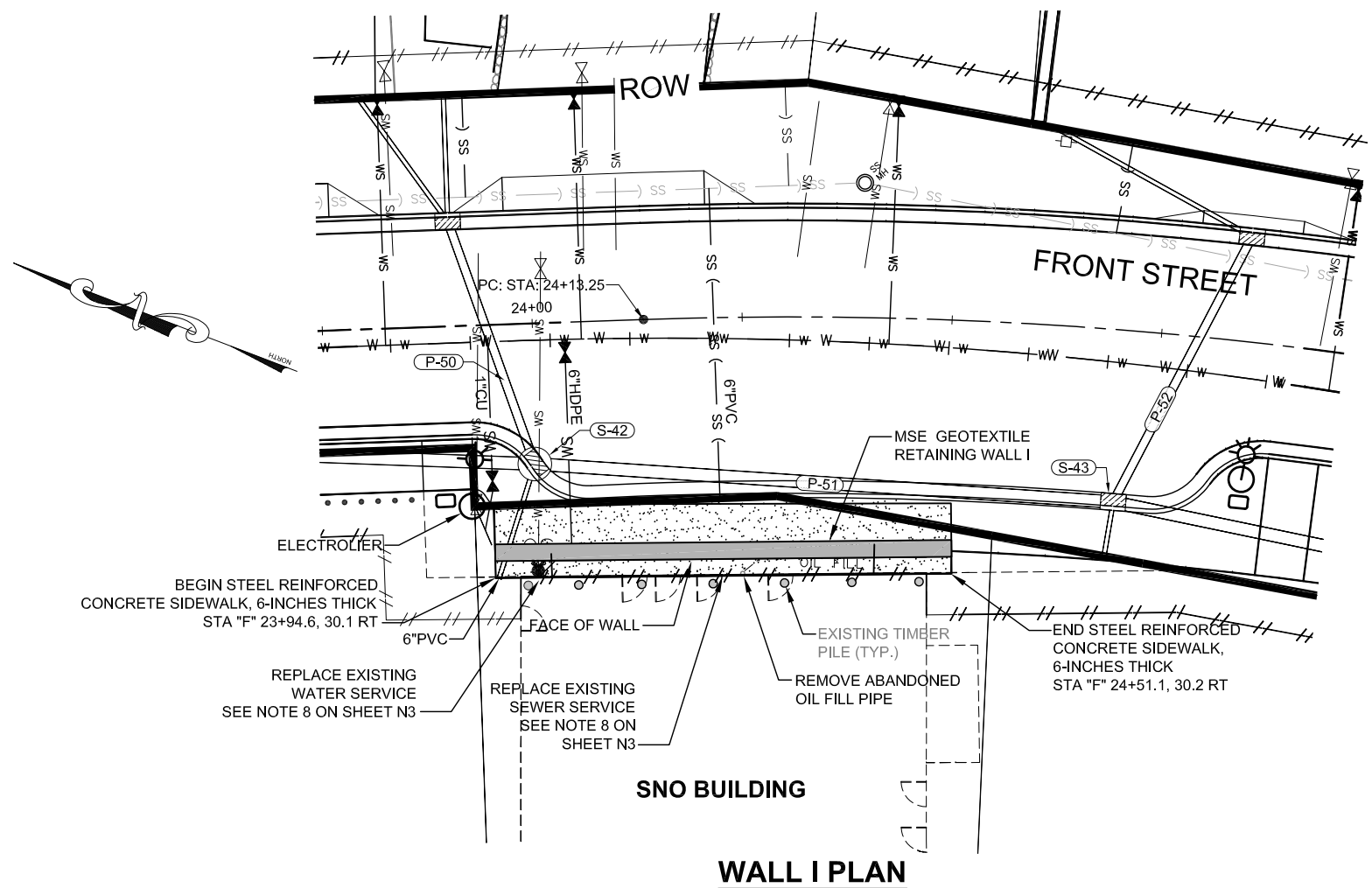
**NOTES:**

1. ALL MATERIALS USED IN PEDESTRIAN WALKWAY SHALL BE NEW.
2. ALL BOLTS AND NUTS SHALL BE 1/2" DIAMETER.
3. ALL WOOD USED SHALL BE STAINED WITH OLYMPIC SOLID, CAPE COD GREY, OR EQUIVALENT.
4. ALL NAIL AND SCREW HEADS SHALL BE FLUSH WITH SURFACE WITH NO PROTRUDING NAIL POINTS.
5. INNER RAIL SHALL BE REMOVED WHERE WALKWAY IS PLACED ADJACENT TO BUILDINGS AND TO ACCESS DOORWAYS.
6. SUPPORT WALKWAYS TO CARRY A UNIFORM LOAD OF 100 PSF.
7. USE WT 6X26.5 TEE TO COVER GAP BETWEEN SECTIONS. GRIND FLANGE EDGES TO 45°.
8. CONSTRUCT PLYWOOD OR METAL RAMP TO SUPPORT 100 PSF UNIFORM LOAD. COVER RAMP WITH SAME ROOFING PAPER USED ON WALKWAY, OR OTHER NON-SKID MATERIAL APPROVED BY THE ENGINEER.
9. EXISTING CONCRETE SIDEWALK SECTIONS SHALL BE SAWCUT AND LEFT IN PLACE, AS DESCRIBED IN SECTION 02721-TEMPORARY PEDESTRIAN WALKWAYS, ARTICLE 3.1, PARAGRAPH B.

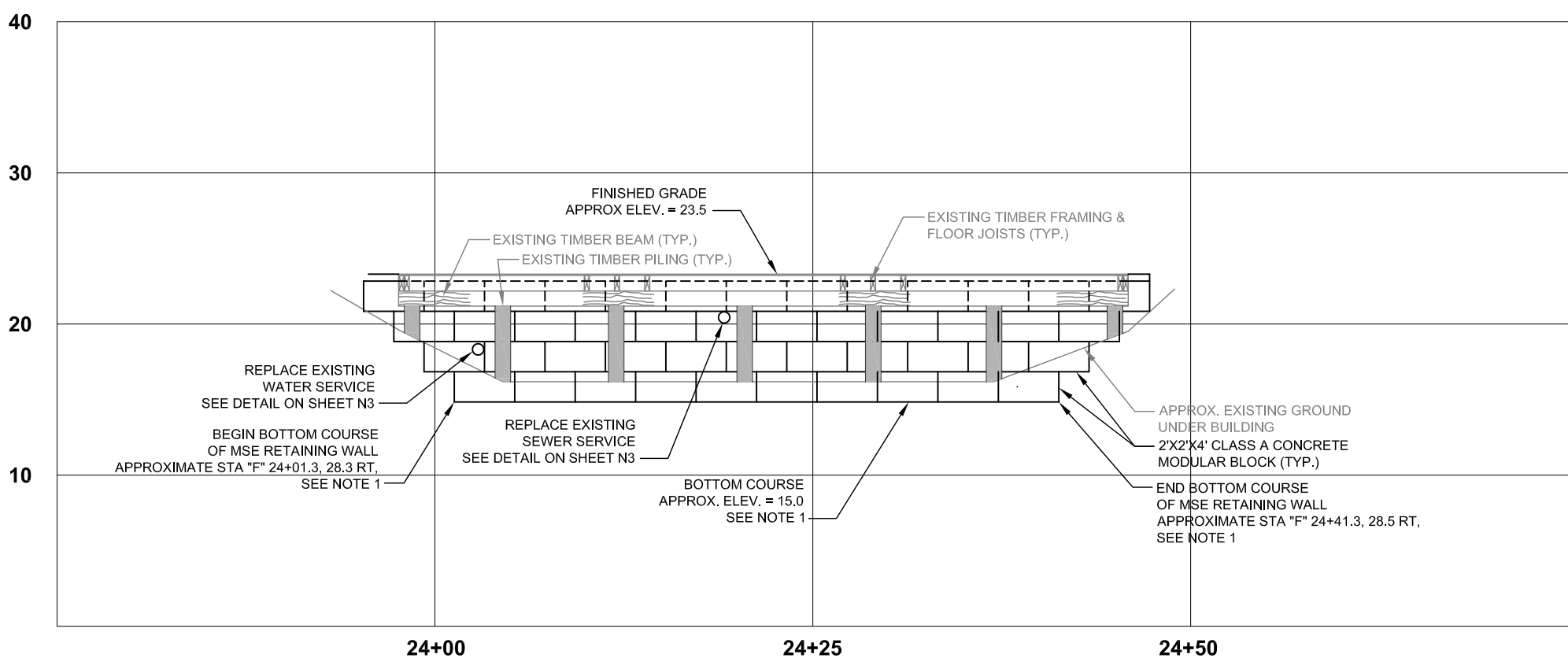
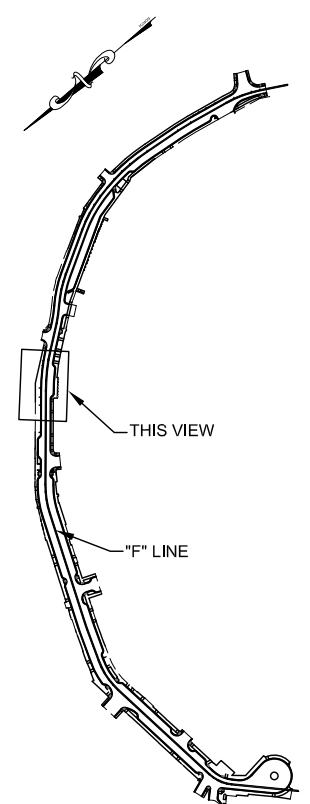
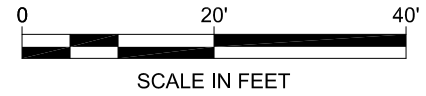
DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES												
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b> <b>TEMPORARY PEDESTRIAN WALKWAY DETAIL</b>												
				PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP										
PATH: S:\LIB\70112\DESIGN\SHEETS JJ70112 J1-J3.DWG TAB: J3 Tuesday, March 29, 2011 2:30:23 PM														
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				PROJECT DESIGNATION <b>68828 HPRM-003(135)</b> <b>&amp; 67789</b>	YEAR 2011	SHEET NO. <b>J3</b>	TOTAL SHEETS 117
REVISIONS														
NO.	DATE	DESCRIPTION												

FOUNDATION BLOCKING AS REQ'D FOR LEVELING AND STABILITY. SIZE AS REQ'D



**NOTE:**  
 PLAN VIEW DISPLAYED FOR REFERENCE ONLY. REFER TO APPROPRIATE SHEETS FOR ROADWAY AND UTILITY CONSTRUCTION PARAMETERS.



- CONSTRUCTION NOTES:**
1. ACTUAL EXCAVATION LIMITS AND STEPPING OF BOTTOM COURSE TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE ENGINEER.
  2. CONTRACTOR SHALL CONDUCT A BUILDING INSPECTION SURVEY WITH THE BUILDING OWNER AND ENGINEER PRIOR TO BEGINNING WORK AND AGAIN UPON COMPLETION OF WORK.



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

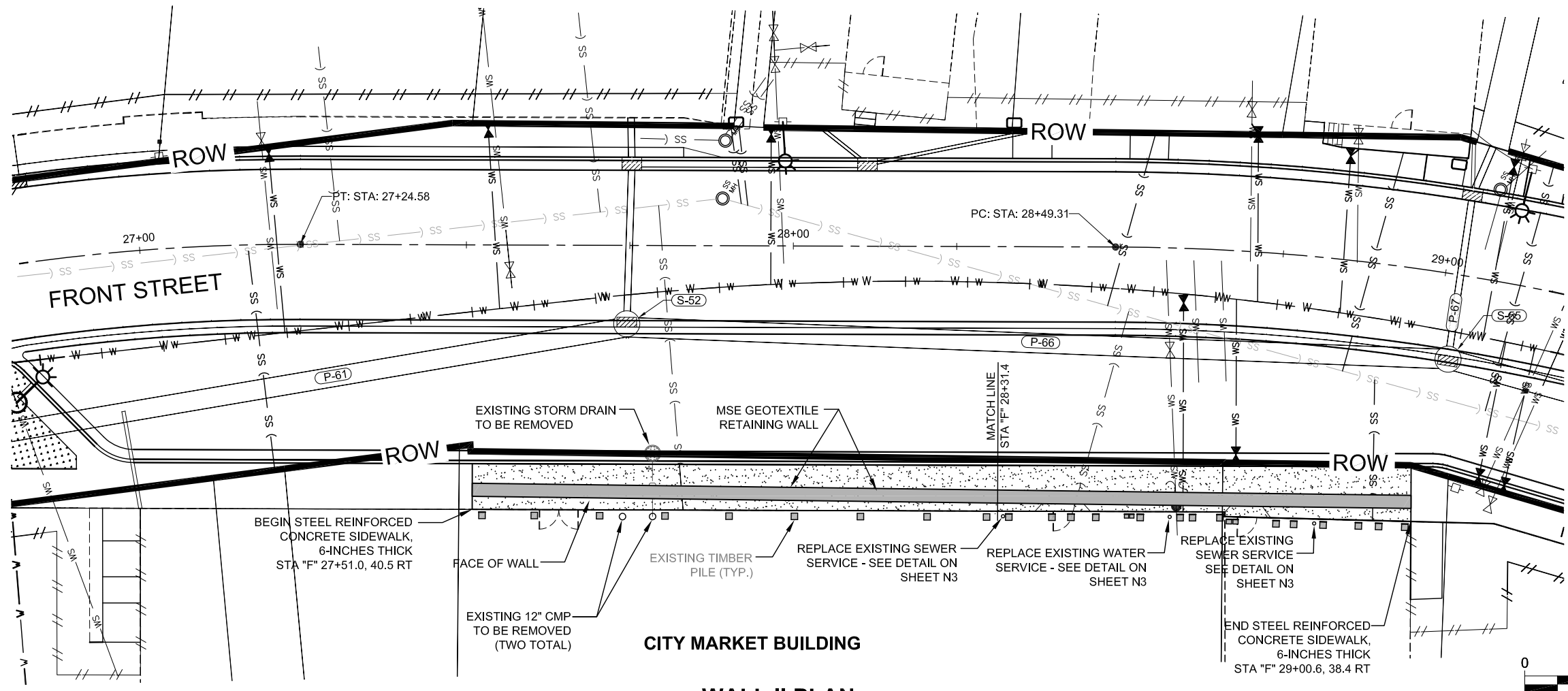
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**MSE WALL I**

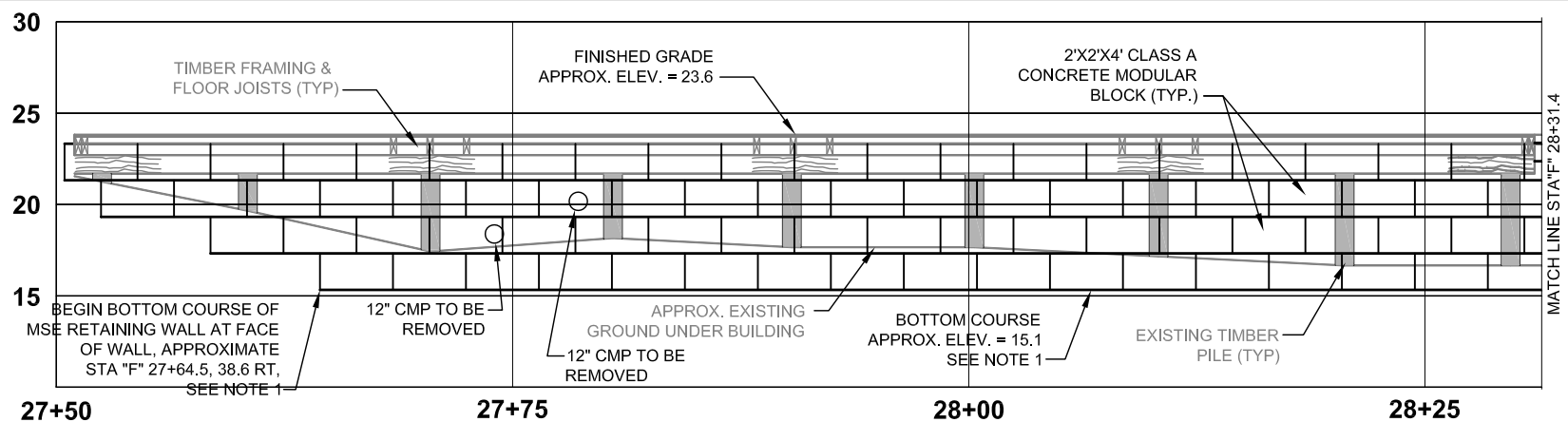
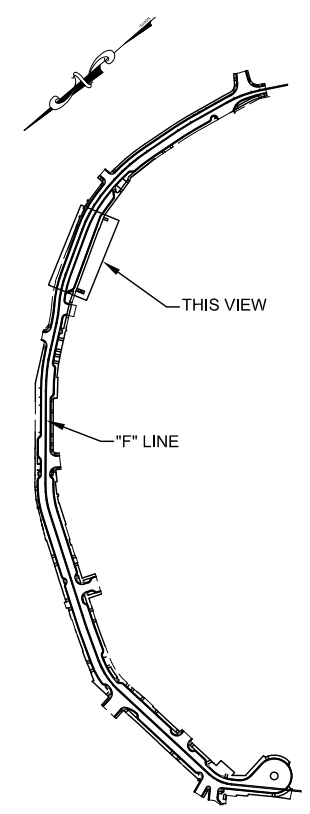
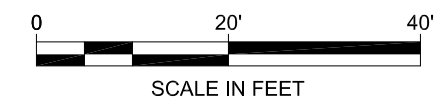
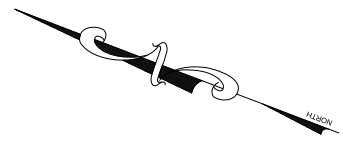
PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>N1</b>	<b>117</b>



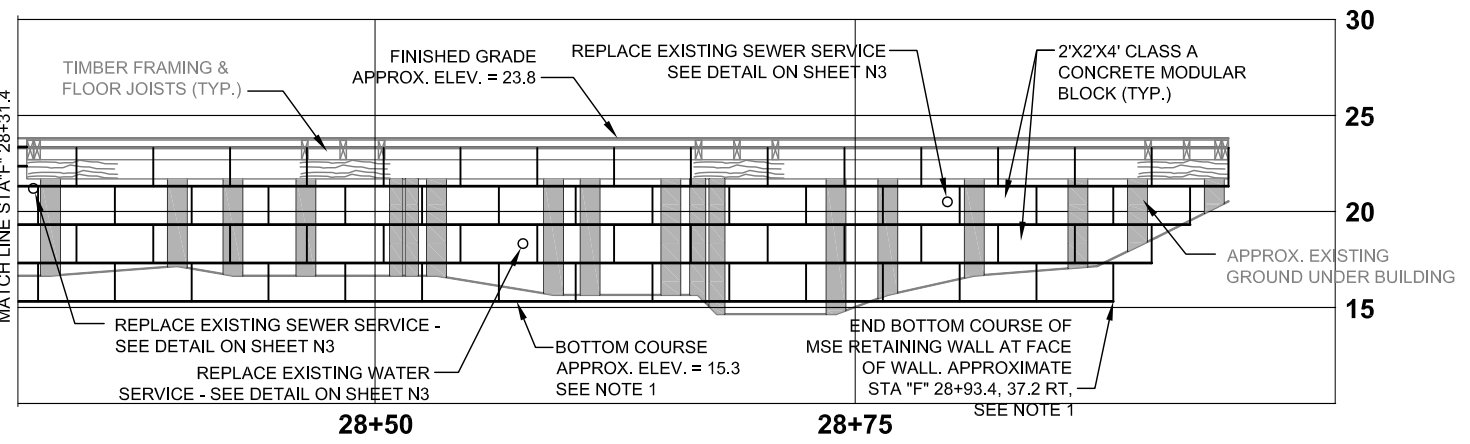
**NOTE:**  
 PLAN VIEW DISPLAYED FOR REFERENCE ONLY. REFER TO APPROPRIATE SHEETS FOR ROADWAY AND UTILITY CONSTRUCTION PARAMETERS.



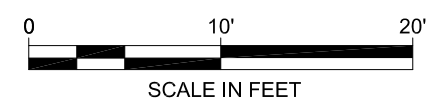
**CONSTRUCTION NOTES:**

1. ACTUAL EXCAVATION LIMITS AND STEPPING OF BOTTOM COURSE TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE ENGINEER.
2. CONTRACTOR SHALL CONDUCT A BUILDING INSPECTION SURVEY WITH THE BUILDING OWNER AND ENGINEER PRIOR TO BEGINNING WORK AND AGAIN UPON COMPLETION OF WORK.

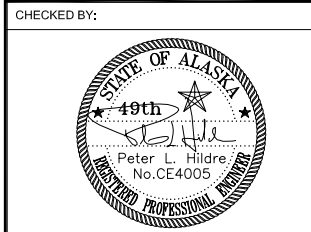
**WALL IIA PROFILE**



**WALL IIB PROFILE**



**PLAN LEGEND**



PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

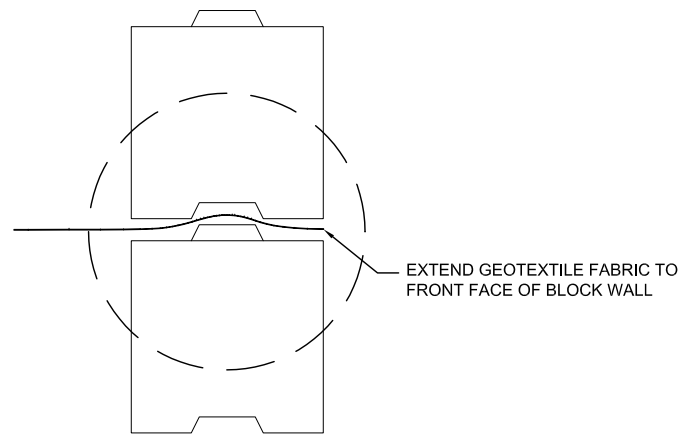
**MSE WALL II**  
 PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>N2</b>	<b>117</b>



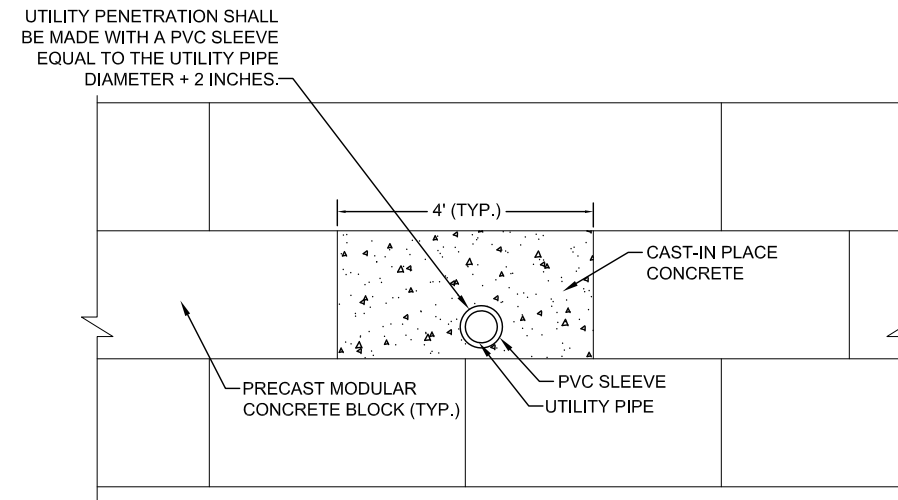
## MSE GEOTEXTILE RETAINING WALL GENERAL NOTES

1. INSTALL GEOTEXTILE REINFORCEMENT IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. GENERALLY PERMANENT WALL CONSTRUCTION REQUIRES THE GEOTEXTILE REINFORCEMENT TO BE UNROLLED PERPENDICULAR TO THE WALL FACE (I.E. MACHINE-DIRECTION PERPENDICULAR TO THE WALL FACE). MINIMUM OVERLAP LENGTH IS 3 FEET.
2. LEVELING COURSE SHALL CONSIST OF AGGREGATE BASE COURSE, GRADING D-1, SHALL BE 12" THICK AND SHALL EXTEND 12" IN FRONT OF AND AND BEHIND THE MODULAR CONCRETE BLOCKS.
3. THE GRADE OF THE LEVELING COURSE SHALL BE BASED UPON THE FINISHED GRADE OF THE REINFORCED CONCRETE SIDEWALK, MINUS THE 6-INCH SIDEWALK AND THE NUMBER OF MODULAR BLOCK COURSES TIMES 2 FEET. THE TOP OF THE LEVELING COURSE SHALL NOT BE MORE THAN 24 INCHES BELOW THE EXISTING GRADE UNDER THE BUILDING. THE MAXIMUM WALL HEIGHT SHALL BE 8 FEET. THE NUMBER OF MODULAR BLOCK COURSES SHALL BE AS DETERMINED BY THE ENGINEER.
4. CONTRACTOR SHALL CONDUCT A BUILDING INSPECTION SURVEY WITH THE BUILDING OWNER AND ENGINEER PRIOR TO BEGINNING WORK, AND AGAIN UPON COMPLETION OF WORK.
5. USE HAND OPERATED COMPACTION EQUIPMENT WITHIN 2 FEET OF BACK OF WALL.
6. PROVIDE PREFORMED JOINT FILLER BETWEEN BUILDINGS AND CONCRETE SIDEWALK.
7. STRUCTURES HAVE BEEN DESIGNED FOR OPERATIONAL LOADS ON THE COMPLETED STRUCTURES. DURING CONSTRUCTION, PROTECT THE STRUCTURE BY BRACING OR OTHER MEANS.
8. UTILITY SERVICE PENETRATIONS SHALL BE INSTALLED PER THE DETAIL ON THIS SHEET.
9. BACKFILL MATERIAL SHALL MEET THE REQUIREMENTS OF SECTION 703-2.09, GRADE B.
10. DIMENSIONS, ELEVATIONS AND DETAILS OF EXISTING CONSTRUCTION HAVE BEEN OBTAINED FROM FIELD INVESTIGATIONS AND AS - CONSTRUCTED DOCUMENTS. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS NECESSARY TO PROPERLY COORDINATE NEW AND EXISTING CONSTRUCTION, AND SHALL NOTIFY THE ENGINEER OF ALL VARIATIONS IN THE DETAILS, DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION WITH THAT SHOWN ON THE DRAWINGS.
11. CLEAN AND PREPARE ALL EXISTING SURFACES WHICH WILL BE IN CONTACT WITH NEW CONSTRUCTION AS INDICATED AND AS ACCEPTABLE TO THE ENGINEER.
12. PROTECT EXISTING MATERIALS FROM DAMAGE DURING CONSTRUCTION.
13. FURNISH AND INSTALL TEMPORARY SHORING OR BRACING AS NECESSARY TO PROVIDE SUPPORT AND STABILITY FOR EXISTING WALLS AND FRAMING DURING DEMOLITION AND CONSTRUCTION.
14. USE CLASS A CONCRETE UNLESS OTHERWISE NOTED. CLASS A,  $F_c = 4000$  PSI.
15. REINFORCING STEEL SHALL BE ASTM A706,  $F_y = 60,000$  PSI.
16. CONSTRUCT IN ACCORDANCE WITH THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2004 WITH LATEST STANDARD MODIFICATIONS AND STANDARD SPECIFICATIONS.
17. VERTICAL SPACING BETWEEN GEOGRID REINFORCING LAYERS IS 24".
18. COORDINATE WORK WITH THE PROPERTY OWNER IN ACCORDANCE WITH SECTION 675-3.01. ALLOW PROPERTY OWNER ACCESS TO THE UNDERSIDE OF THE BUILDING FOR UP TO 30 DAYS BETWEEN COMPLETION OF THE GEOTEXTILE RETAINING WALL AND CONSTRUCTION OF THE REINFORCED CONCRETE SIDEWALK.



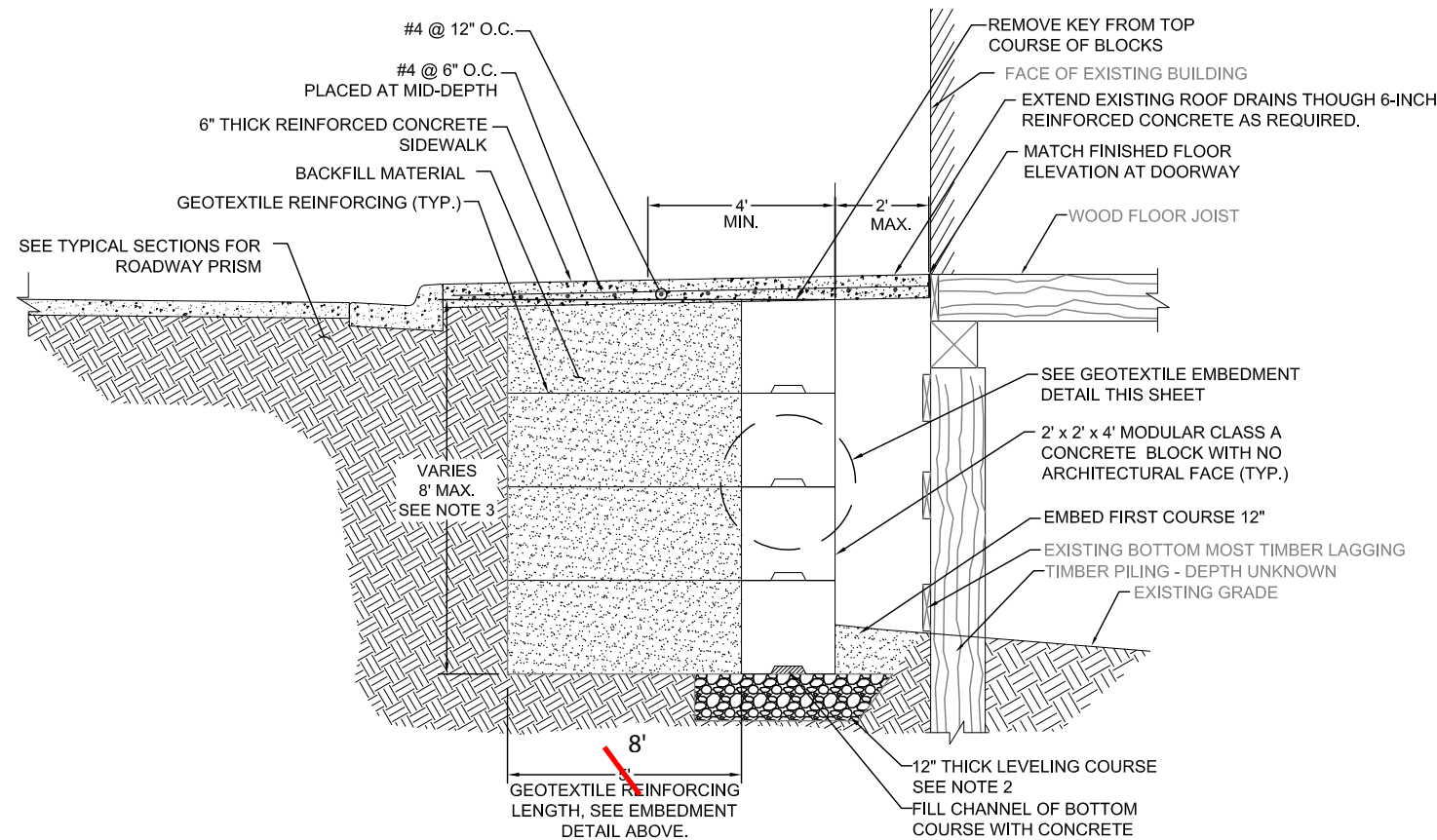
**GEOTEXTILE EMBEDMENT DETAIL**

N.T.S.



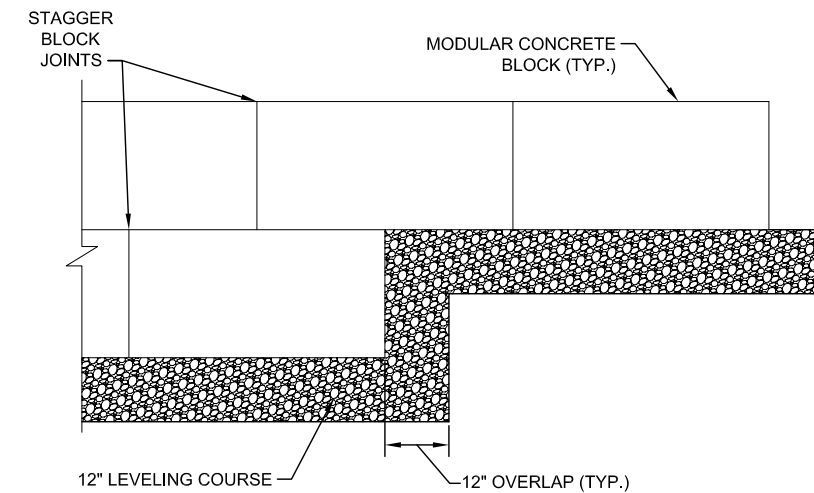
**UTILITY PENETRATION DETAIL**

N.T.S.



**TYPICAL MSE GEOTEXTILE RETAINING WALL SECTION**


N.T.S.



**TYPICAL STEP DETAIL**

N.T.S.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES		
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>		
PLANS DEVELOPED BY: DOWL HKM		PROJECT DESIGNATION		
DESIGNED BY: T. LOCKHART		<b>68828 HPRM-003(135)</b>		
DRAWN BY: J. KEMP		<b>&amp; 67789</b>		
PATH: S:\LIB\70112\DESIGN\SHEETS NU70112-N1-N3.DWG		YEAR	SHEET NO.	TOTAL SHEETS
TAB: N3 Tuesday, March 29, 2011 1:25:03 PM		2011	<b>N3</b>	117
REVISIONS				
NO.	DATE	DESCRIPTION		

**CERTIFICATE OF OWNERSHIP AND DEDICATION**

WE HEREBY CERTIFY THAT WE ARE THE OWNERS OF THE PROPERTY SHOWN AND DESCRIBED HEREON AND THAT WE HEREBY ADOPT THIS PLAN OF SUBDIVISION WITH OUR FREE CONSENT AND DEDICATE ALL STREETS, ALLEYS, WALKS, PARKS AND OTHER OPEN SPACES TO PUBLIC OR PRIVATE USE AS NOTED.

DATE \_\_\_\_\_ MAYOR, CITY OF WRANGELL

**NOTARY'S ACKNOWLEDGMENT**

U.S. OF AMERICA  
STATE OF ALASKA  
CITY AND BOROUGH OF WRANGELL

THIS IS TO CERTIFY THAT ON THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_, BEFORE ME, THE UNDERSIGNED A NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA, DULY COMMISSIONED AND SWORN, PERSONALLY APPEARED TO ME KNOWN TO BE THE IDENTICAL INDIVIDUAL(S) MENTIONED AND WHO EXECUTED THE WITHIN PLAT AND \_\_\_\_\_ ACKNOWLEDGED TO ME THAT \_\_\_\_\_ SIGNED THE SAME FREELY AND VOLUNTARILY FOR THE USES AND PURPOSES THEREIN SPECIFIED.

WITNESS MY HAND AND NOTARY SEAL THE DAY AND YEAR IN THIS CERTIFICATE FIRST HEREIN WRITTEN.

NOTARY PUBLIC IN AND FOR THE STATE OF ALASKA  
MY COMMISSION EXPIRES \_\_\_\_\_

**CERTIFICATE STATE OF ALASKA  
(FIRST JUDICIAL DISTRICT)ss**

I THE UNDERSIGNED, BEING DULY APPOINTED AND QUALIFIED, AND AN ACTING ASSESSOR FOR THE CITY AND BOROUGH OF WRANGELL, HEREBY CERTIFY, THAT ACCORDING TO THE RECORDS IN MY POSSESSION, THE FOLLOWING DESCRIBED PROPERTY IS CARRIED ON THE TAX RECORDS OF THE CITY AND BOROUGH OF WRANGELL, IN THE NAME OF \_\_\_\_\_

AND THAT ACCORDING TO THE RECORDS IN MY POSSESSION, ALL TAXES ASSESSED AGAINST SAID LANDS ARE PAID IN FULL; THAT CURRENT TAXES FOR THE YEAR 20\_\_\_\_ WILL BE DUE ON OR BEFORE AUGUST 15, 20\_\_\_\_ DATED THIS DAY OF \_\_\_\_\_

ASSESSOR CITY AND BOROUGH OF WRANGELL

**CERTIFICATE OF APPROVAL BY THE PLANNING COMMISSION**

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF WRANGELL PLANNING COMMISSION, AND THAT SAID PLAT HAS BEEN APPROVED BY THE COMMISSION BY PLAT RESOLUTION NO. \_\_\_\_\_ DATED \_\_\_\_\_, 20\_\_\_\_, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT MAGISTRATE, EX-OFFICIO RECORDER, WRANGELL, ALASKA.

DATE \_\_\_\_\_ CHAIRMAN, PLANNING COMMISSION

SECRETARY

**CERTIFICATE OF APPROVAL BY THE ASSEMBLY**

I HEREBY CERTIFY THAT THE SUBDIVISION PLAT SHOWN HEREON HAS BEEN FOUND TO COMPLY WITH THE SUBDIVISION REGULATIONS OF THE CITY AND BOROUGH OF WRANGELL ASSEMBLY AS RECORDED IN MINUTE BOOK \_\_\_\_\_ PAGE \_\_\_\_\_ DATED \_\_\_\_\_, 20\_\_\_\_, AND THAT THE PLAT SHOWN HEREON HAS BEEN APPROVED FOR RECORDING IN THE OFFICE OF THE DISTRICT COURT, EX OFFICIO RECORDER, WRANGELL, ALASKA.

DATE \_\_\_\_\_ MAYOR, CITY AND BOROUGH OF WRANGELL  
ATTEST:

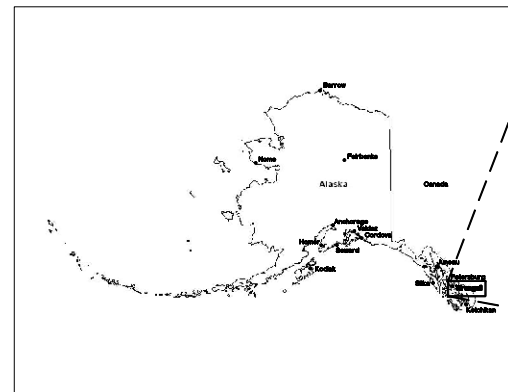
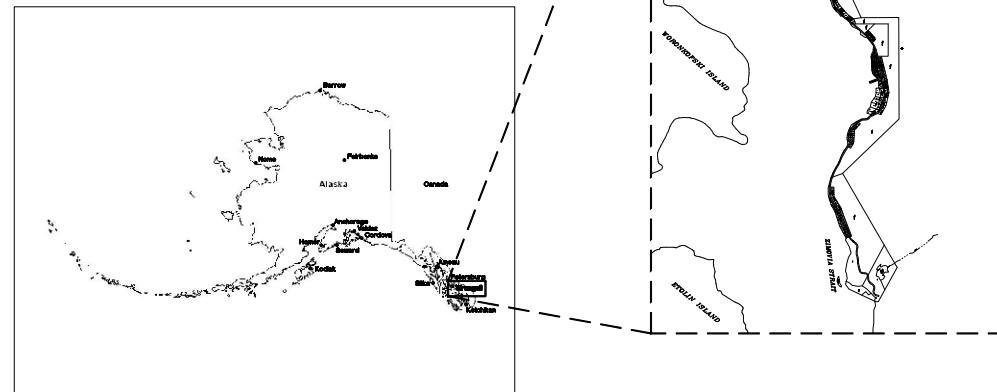
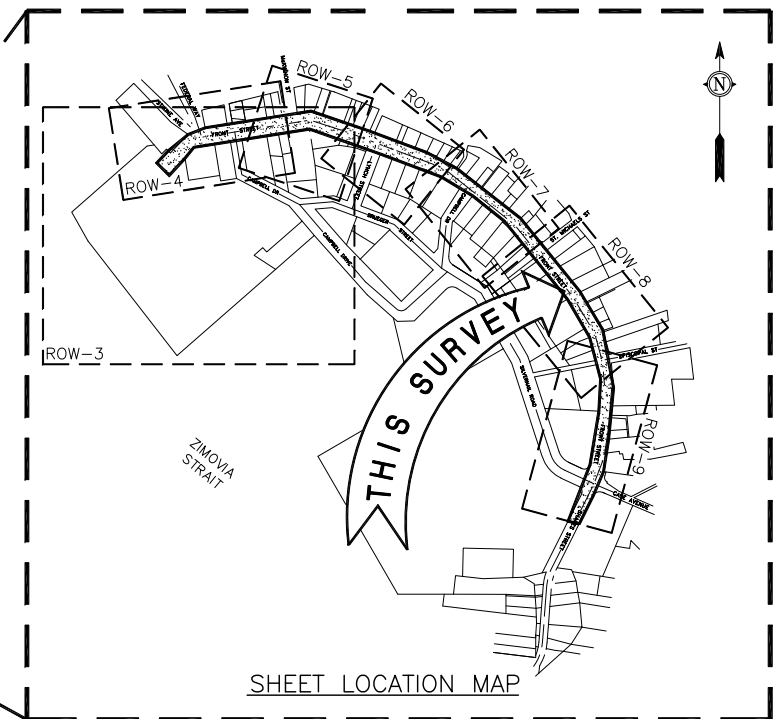
CITY CLERK

# WRANGELL ROAD AND UTILITY IMPROVEMENTS FRONT STREET RIGHT-OF-WAY SURVEY

**SURVEY SHEET INDEX**

SHEET	DESCRIPTION
*A-3	SURVEY CONTROL SHEET
R-1	TITLE SHEET, SHEET INDEX
R-2	PARTIAL ROW PLAN, DETAIL SCHEDULE
R-3	PARTIAL ROW PLAN, DETAILS
R-4	PARTIAL ROW PLAN, DETAILS
R-5	PARTIAL ROW PLAN, DETAILS
R-6	PARTIAL ROW PLAN, DETAILS
R-7	PARTIAL ROW PLAN, DETAILS
R-8	PARTIAL ROW PLAN, DETAILS
R-9	DETAILS

\*FOR PROJECT SURVEY CONTROL PLEASE SEE SHEET A3



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

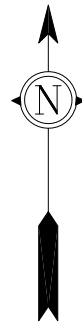


CHECKED BY: GREGORY SCHMITT  
RAM-ENGINEERING-KETCHIKAN  
DESIGNED BY: T. SIEKAWITZ  
RAM-ENGINEERING-KETCHIKAN  
DRAWN BY: T. SIEKAWITZ  
RAM-ENGINEERING-KETCHIKAN

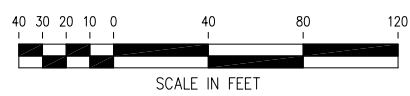
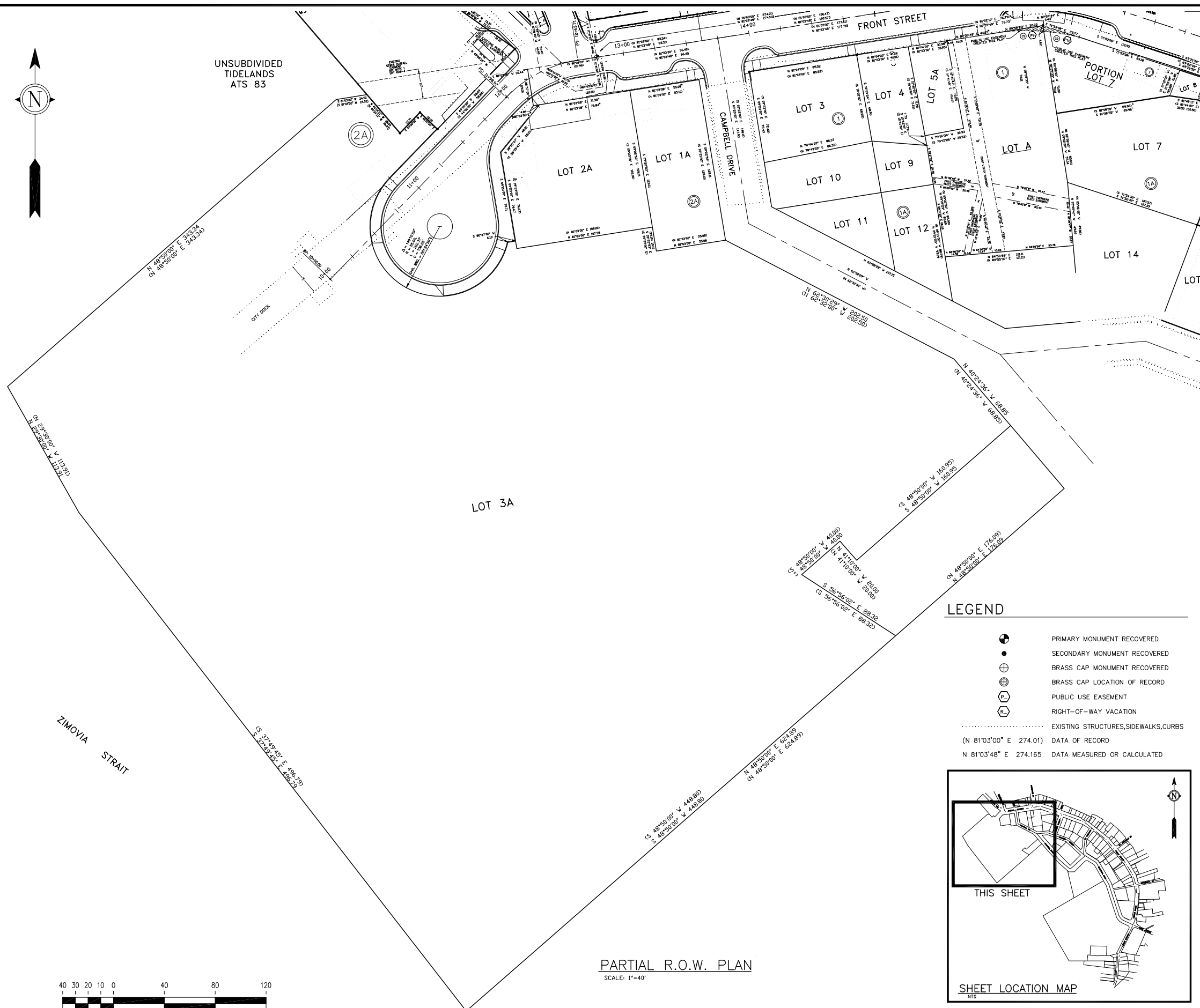
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
RIGHT-OF-WAY MAPPING**

PATH: C:\FRONT-STREET-JAN-2011-ROW\RM-FRONT-STREET-ROW-MAR-2011-E.DWG	STATE ALASKA
TAB: R1	
REVISIONS	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>
NO. DATE DESCRIPTION	YEAR SHEET NO. TOTAL SHEETS 2011 R1 117



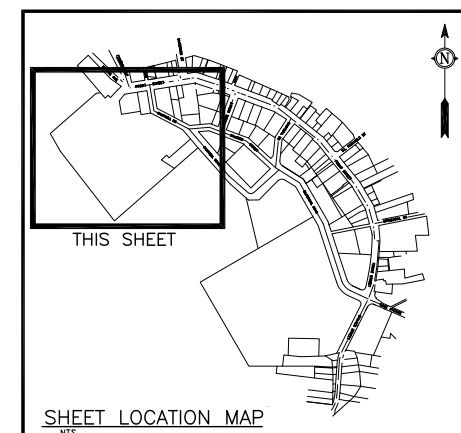
UNSUBDIVIDED  
TIDELANDS  
ATS 83



PARTIAL R.O.W. PLAN  
SCALE: 1"=40'

LEGEND

- PRIMARY MONUMENT RECOVERED
- SECONDARY MONUMENT RECOVERED
- BRASS CAP MONUMENT RECOVERED
- BRASS CAP LOCATION OF RECORD
- PUBLIC USE EASEMENT
- RIGHT-OF-WAY VACATION
- EXISTING STRUCTURES, SIDEWALKS, CURBS
- (N 81°03'00" E 274.01) DATA OF RECORD
- (N 81°03'48" E 274.165) DATA MEASURED OR CALCULATED



-PARTIAL RIGHT-OF-WAY VACATION  
 -PUBLIC ACCESS EASEMENT CREATED

R.O.W. VACATION AND PUBLIC USE EASEMENT SCHEDULE								
	LOT NO.	BLOCK NO.	LOT S.F. ORIG.	LOT S.F. NEW	R.O.W. S.F. VACATION	PUBLIC USE EASEMENT	DETAIL SHEET NO.	
	1	2	(5020.7)	5146.2	125.5		R-3	
	2	2	(550.0)	568.6	18.6		R-3	
	4	2	(2891.9)	2956.7	64.8		R-3	
	5	2	(2071.4)	2095.2	23.8		R-4	
	6	2	(2183.4)	2244.7	61.3		R-4	
	2	3	(2910.9)	2924.3	13.4		R-4	
	POR 3	3	(4132.9)	4150.5	17.6		R-4	
	POR 4	3	(2508.3)	2520.3	12.0		R-4	
	POR 4	3	(1043.9)	1043.9	NO CHANGE		R-4	
	5	3	(5503.3)	5515.8	12.5		R-4	
	6	3	(1255.0)	1262.0	7.0		R-4	
	7	3	(1647.1)	1658.1	11.0		R-4	
	2	4	(1179.1)	1182.9	3.8		R-5	
	POR 5	4	(953.6)	965.8	12.2		R-5	
	POR 5	4	(1060.1)	1098.2	38.2		R-5	
	P1	6	4	(1600.5)	1631.4	30.9	7.86	R-5
	7	4	(1469.6)	1469.6		46.01	R-5	
	8	4	(1426.6)	1426.6		40.7	R-6	
	15	5	(4643.1)	4643.1		99.7	R-7	
	1	6	(5274.3)	5274.3		55.6	R-7	
	21	6	(8551.4)	8551.4		397.3*	R-7	
	20	6	(5520.6)	5520.6		179.5	R-7	
	7	6	(10328.8)	10328.8		40.2	R-7	
	A	1	(15772.0)	15772.0		57.6	R-4	
	POR 7	1	(4393.0)	4393.0		53.8	R-4	
	9	1	(358.4)	361.2	2.8		R-5	
	P1	10	1	(393.2)	410.5	17.3	30.6	R-5
	6	1A	(3861.6)	3861.6		282.8	R-5	
	P13	5	1A	(4808.9)	4871.6	62.7	305.8	R-5
	1	1A	(9137.5)	9137.5		177.0	R-6	
	17	5A	(4813.5)	4813.5		247.7	R-6	
	13	5A	(4926.9)	4926.9		49.5	R-6	
	14	5A	(6462.7)	6462.7		492.4	R-6	
	15	5A	(6232.5)	6232.5		319.7	R-6	
	16	5A	(4049.8)	4049.8		205.6	R-6	
	5	5A	(9321.4)	(9321.4)		965.5	R-9	
	6	5A	(1016.5)	(1016.5)		209.1	R-9	
	7	5A	(2551.3)	(2551.3)		59.6	R-9	
	8	5A	(14117.4)	(14117.4)		83.6	R-9	
	A	5A	(9321.4)	(9321.4)		412.7**	R-7	
	B	5A	(1016.5)	(1016.5)		287.8	R-7	

\*TOTAL INCLUDES 128.8 S.F. EXIST UTILITY EASEMENT CONVERTED TO UTILITY/PUBLIC USE EASEMENT.  
\*\*TOTAL INCLUDES 182.4 S.F. OF EXIST UTILITY EASEMENT BEING CONVERTED TO UTILITY AND PUBLIC USE EASEMENT.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

## WRANGELL ROAD AND UTILITY IMPROVEMENTS

# RIGHT-OF-WAY MAPPING

CHECKED BY: GREGORY SCHEFF  
R&M-ENGINEERING-KETCHIKAN

DESIGNED BY: T. SIEKAWITCH  
R&M-ENGINEERING-KETCHIKAN

DRAWN BY: T. SIEKAWITCH  
R&M-ENGINEERING-KETCHIKAN

STATE  
ALASKA

PATH: C:\FRONT-STREET-JAN-2011-ROW\RM-FRONT-STREET-ROW-MAR-2011-E.DWG

TAB: R2 MARCH 03, 2011

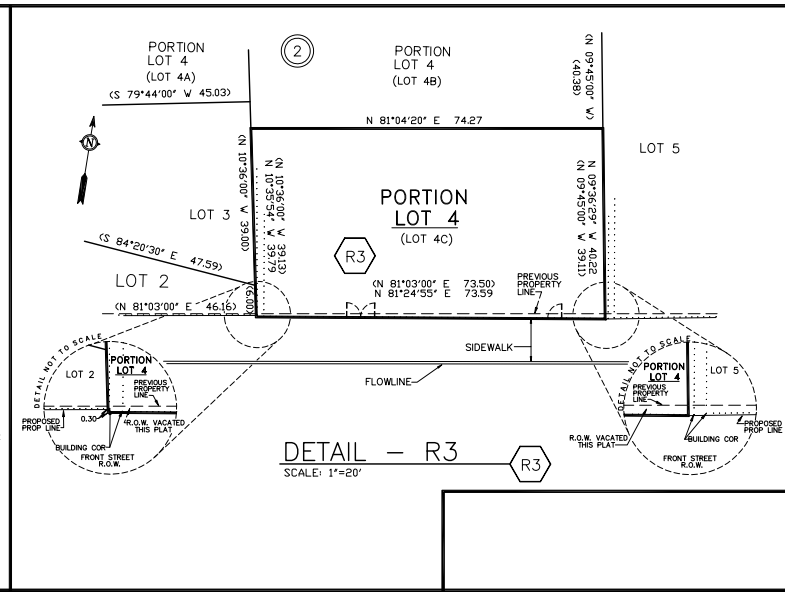
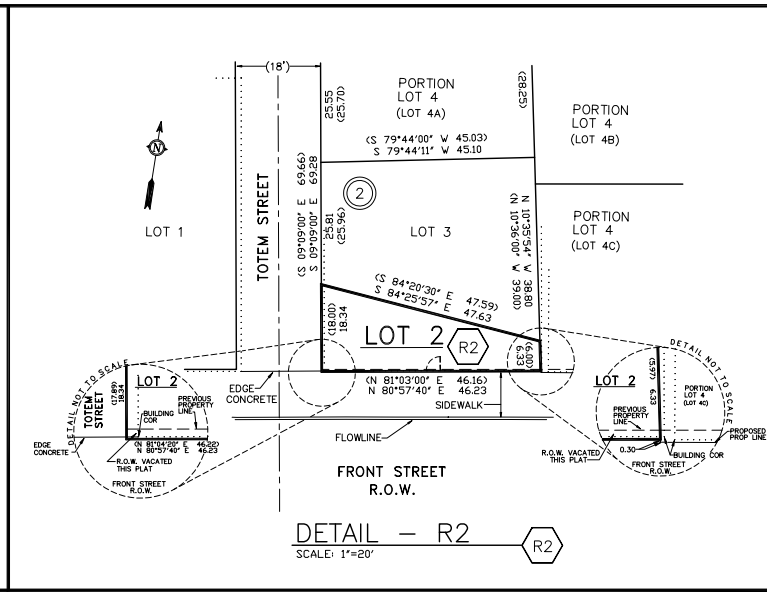
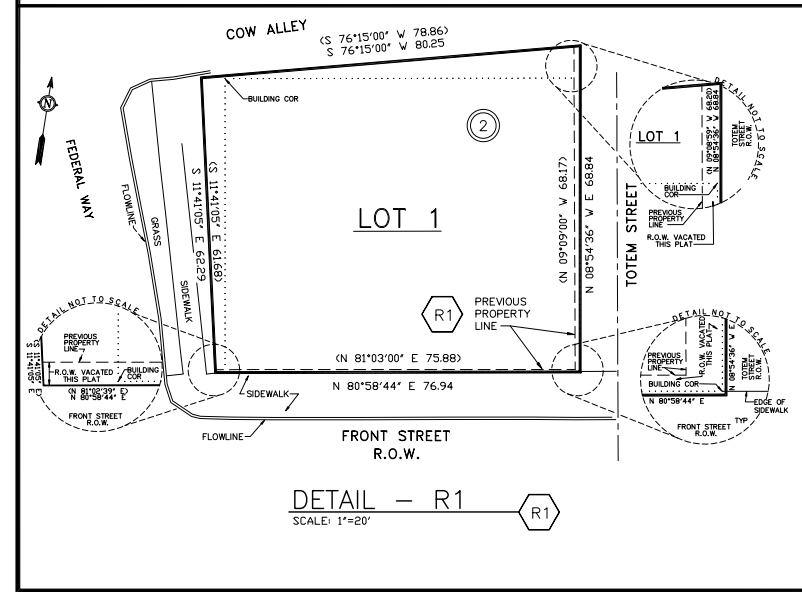
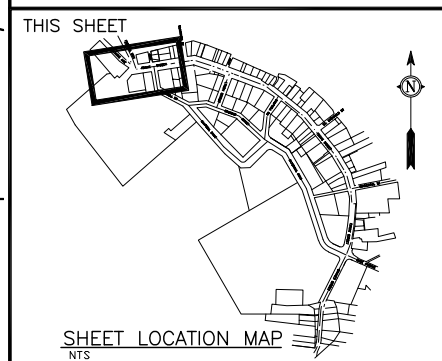
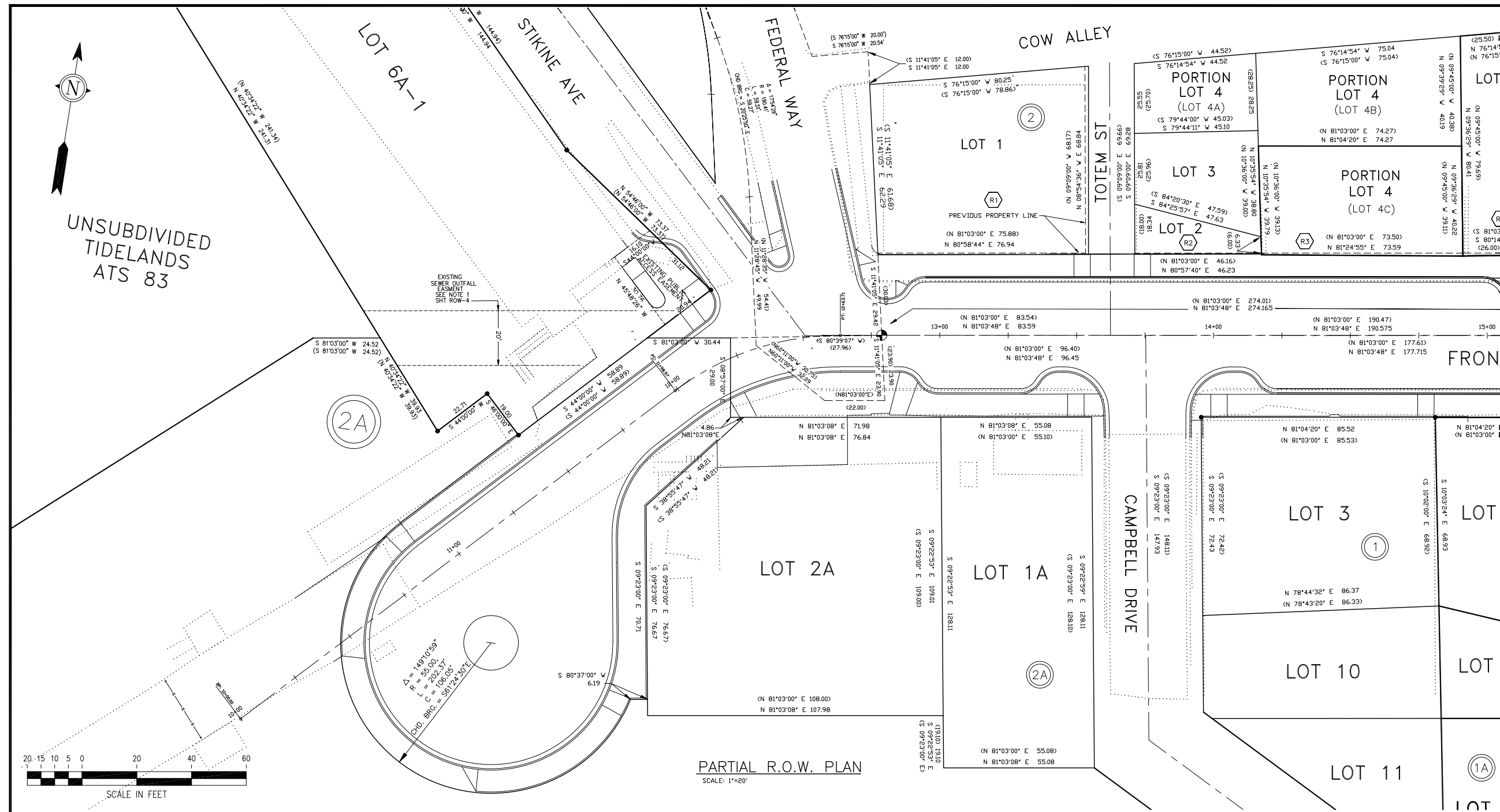
PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

YEAR: 2011

SHEET NO.: R2

TOTAL SHEETS: 117

**SHEET NOTES**  
 1. EXISTING SEWER OUTFALL EASEMENT WILL BE VACATED UPON THE COMPLETION, ACCEPTANCE AND RECORDING OF THIS PLAN WHEN THE FRONT STREET PROJECT IS COMPLETED.



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

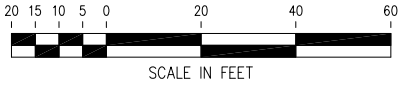
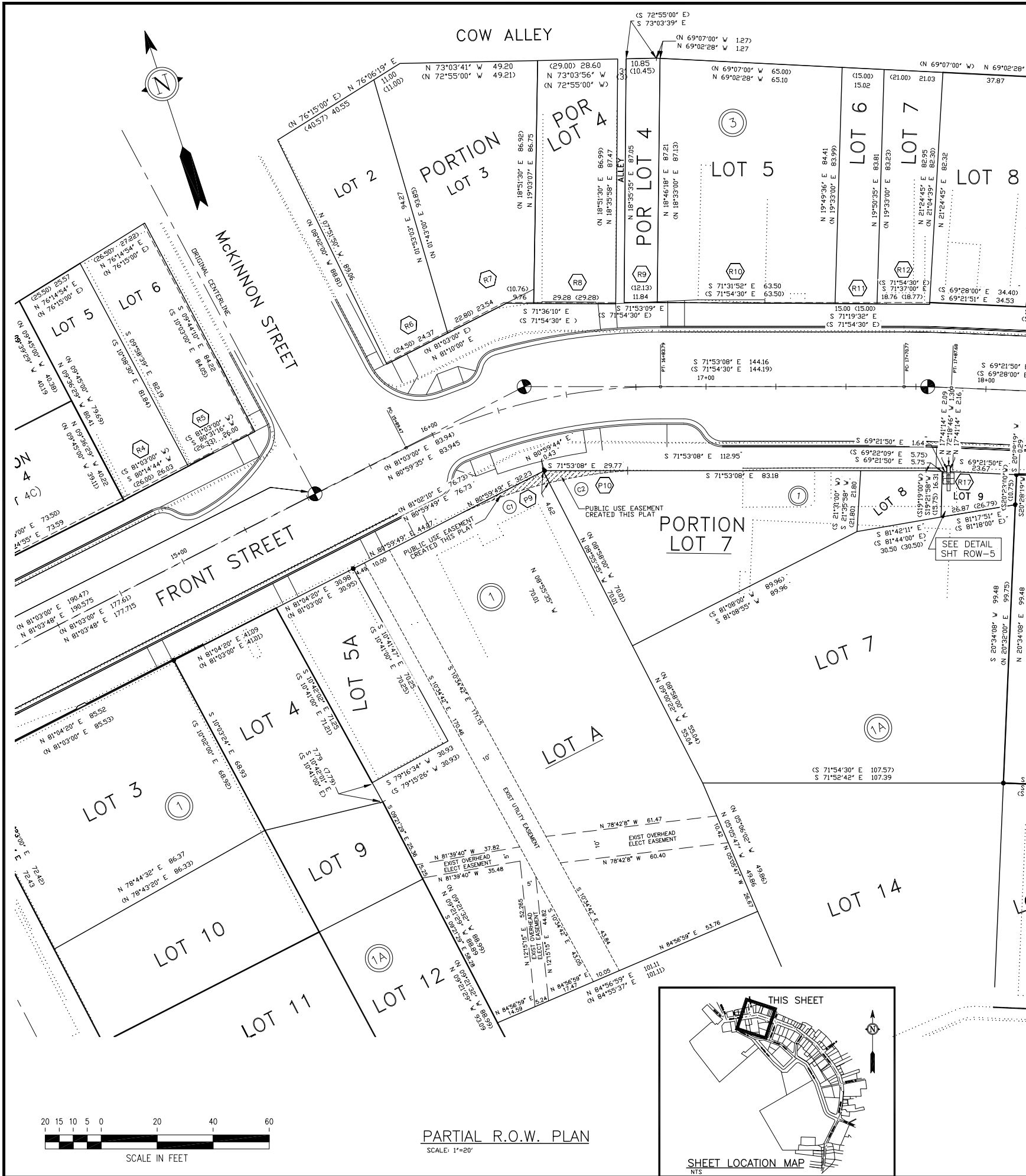
**RIGHT-OF-WAY MAPPING**

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

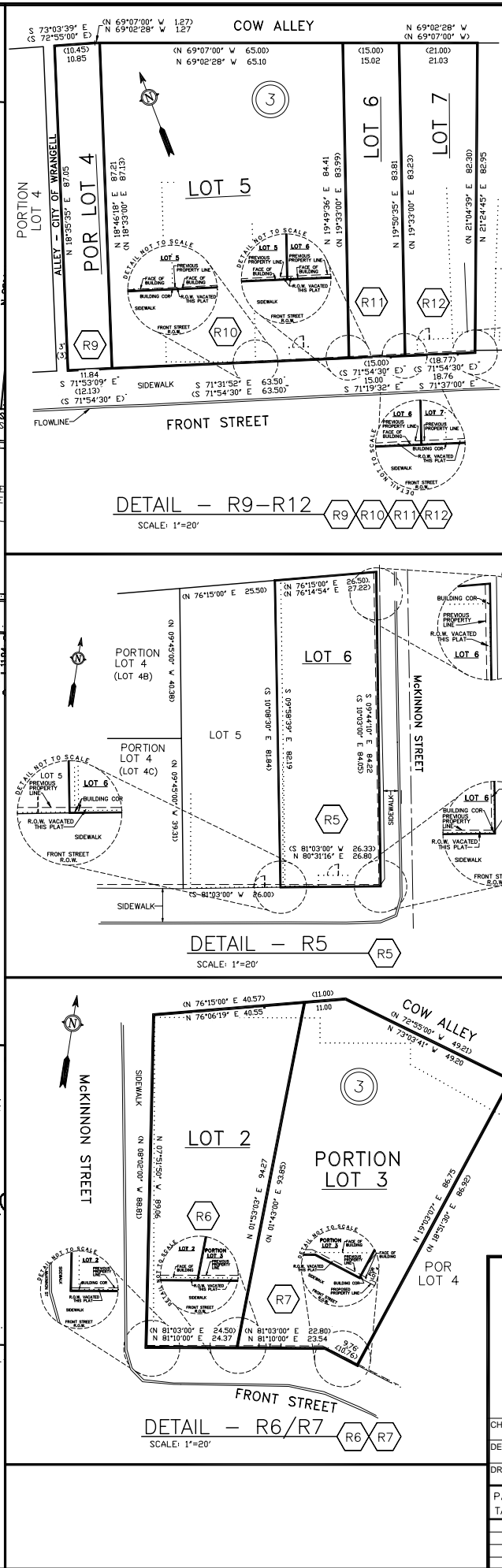
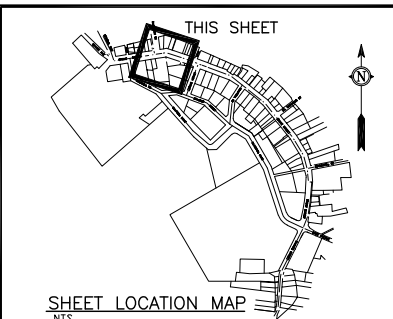
CHECKED BY: GREGORY SCHEFF  
 DESIGNED BY: T. SIEKAWITZ  
 DRAWN BY: T. SIEKAWITZ

PATH: C:\FRONT-STREET-JAN-2011-ROW\RM-FRONT-STREET-ROW-MAR-2011-E.DWG  
 TAB: R3 MARCH 03, 2011

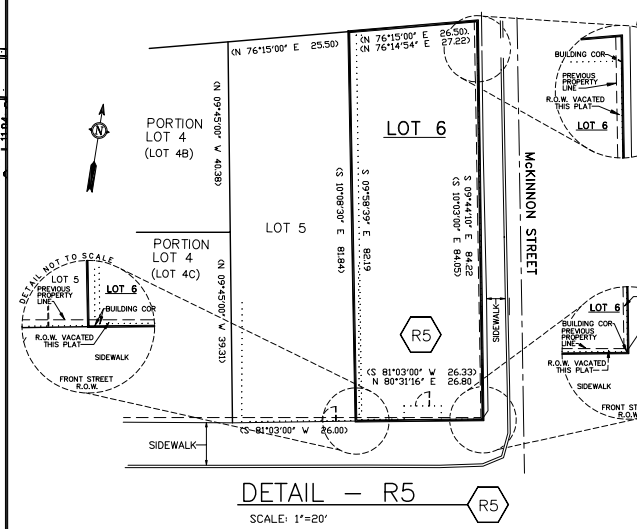
REVISIONS		PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
NO.	DATE				
		<b>68828 HPRM-003(135) &amp; 67789</b>	2011	R3	117



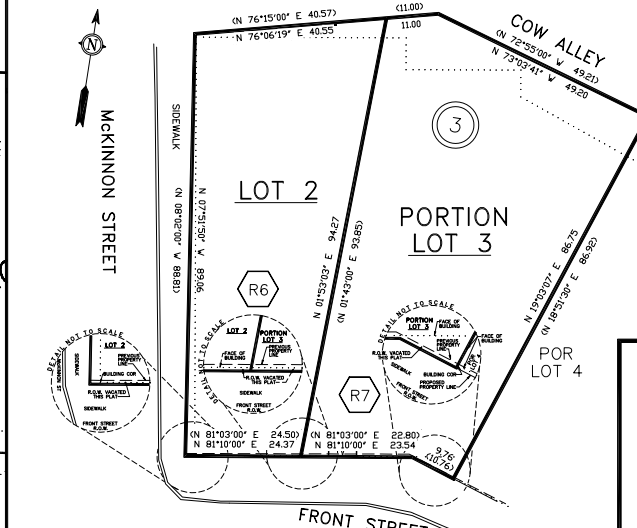
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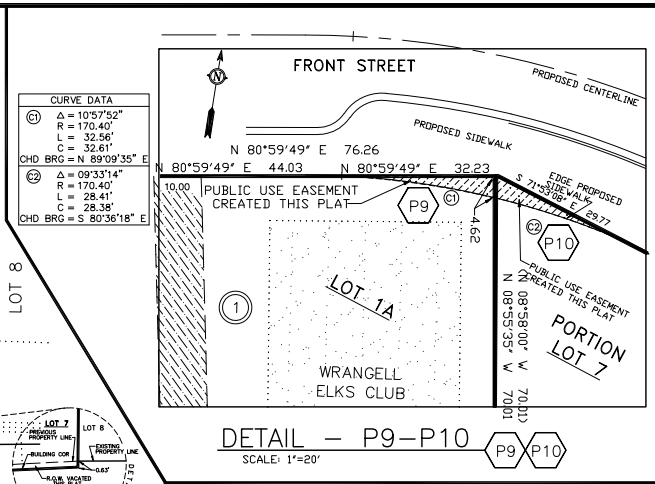
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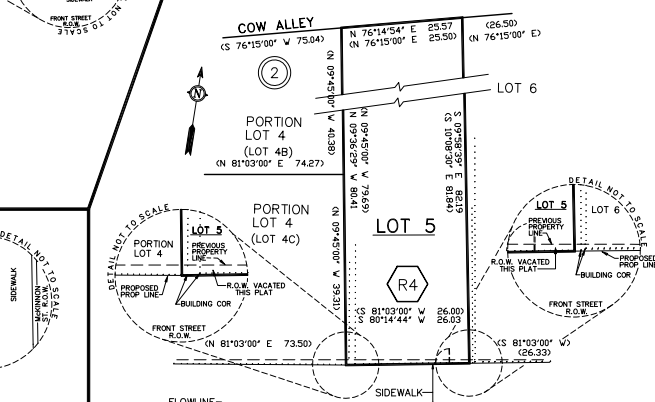
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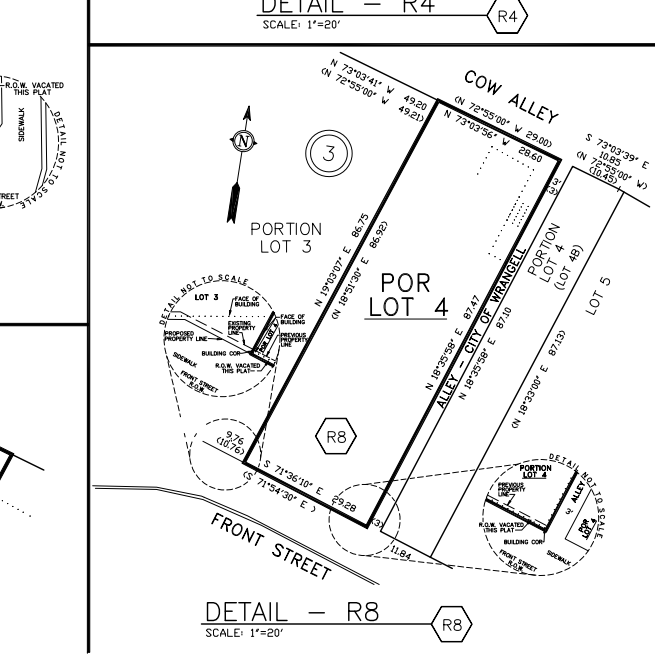
DETAIL - R6/R7  
SCALE: 1"=20'



DETAIL - P9-P10  
SCALE: 1"=20'



DETAIL - R4  
SCALE: 1"=20'



DETAIL - R8  
SCALE: 1"=20'

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC UTILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**RIGHT-OF-WAY MAPPING**

CHECKED BY: GREGORY SCHEFF  
R&M-ENGINEERING-KETCHIKAN

DESIGNED BY: T. SIEKAWITZ  
R&M-ENGINEERING-KETCHIKAN

DRAWN BY: T. SIEKAWITZ  
R&M-ENGINEERING-KETCHIKAN

PATH: C:\FRONT-STREET-JAN-2011-ROWRM-FRONT-STREET-ROW-MAR-2011-E.DWG  
TAB: R4 MARCH 03, 2011

STATE ALASKA

NO.	DATE	REVISIONS DESCRIPTION	YEAR	SHEET NO.	TOTAL SHEETS
			2011	R4	117

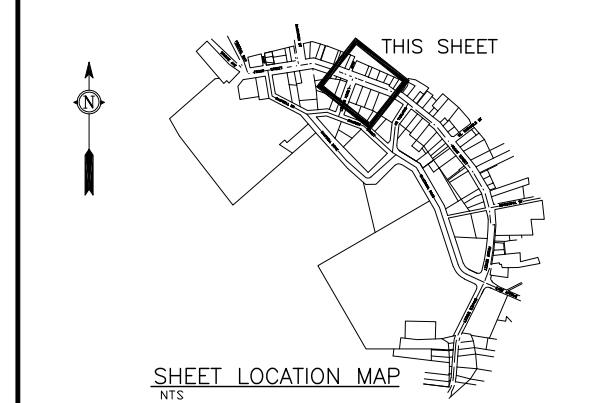
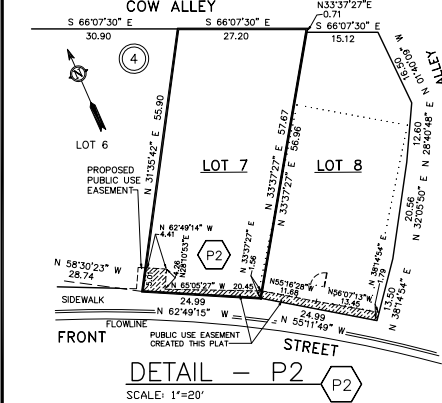
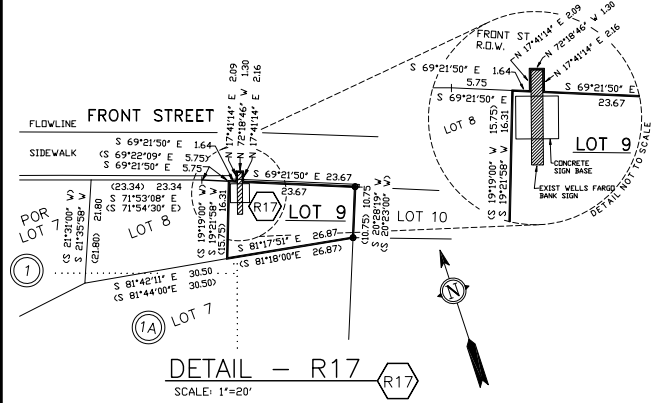
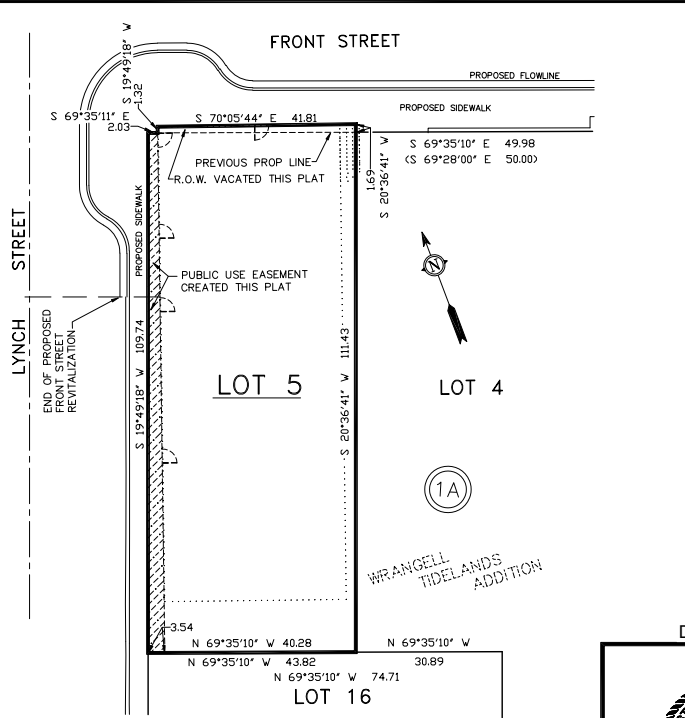
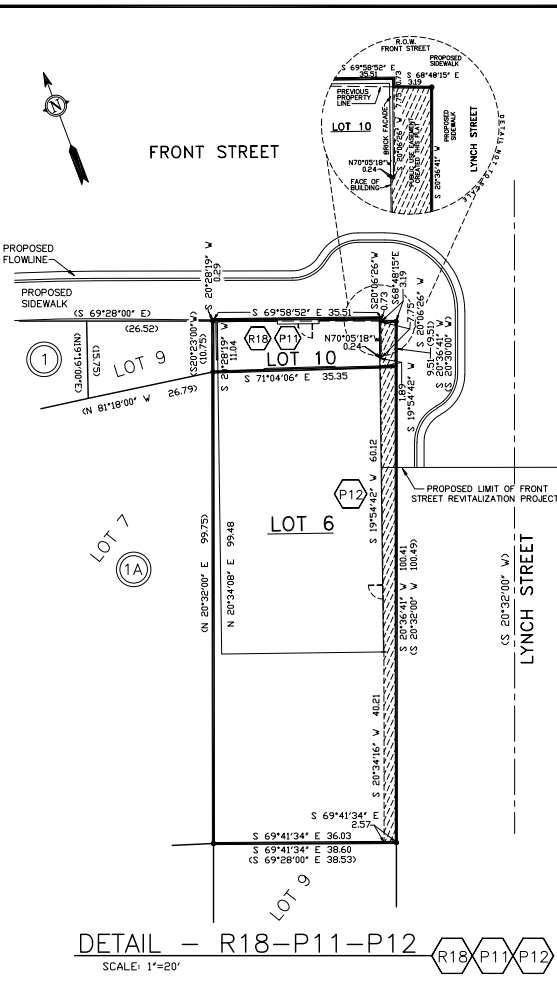
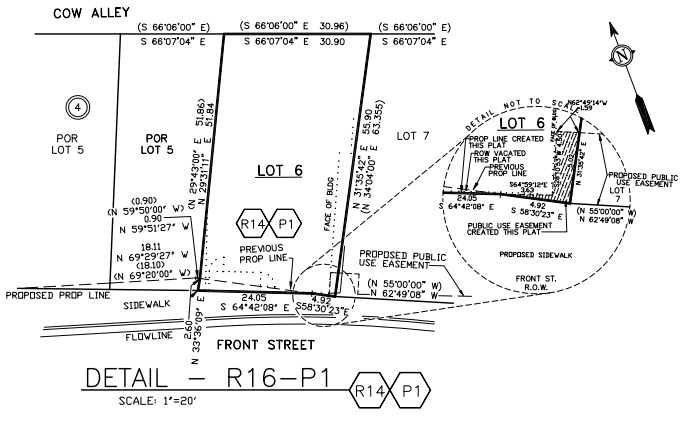
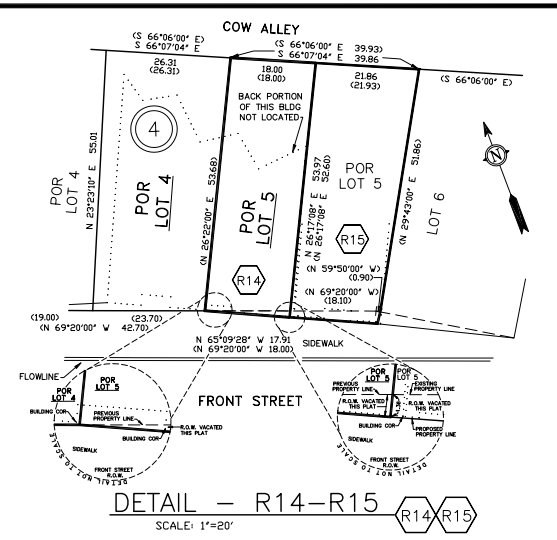
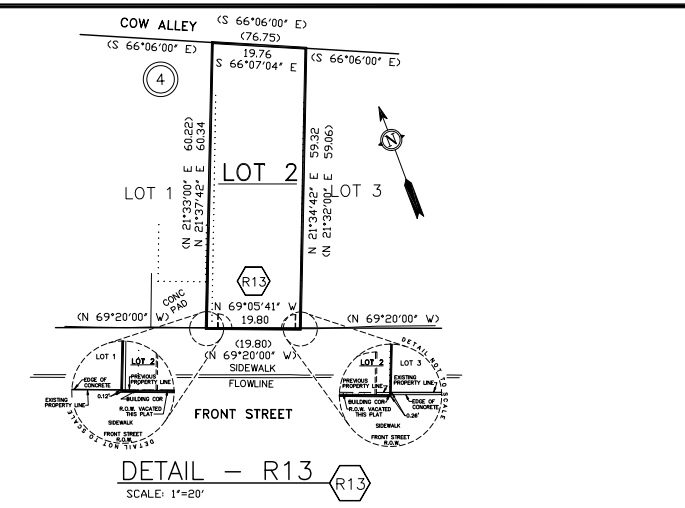
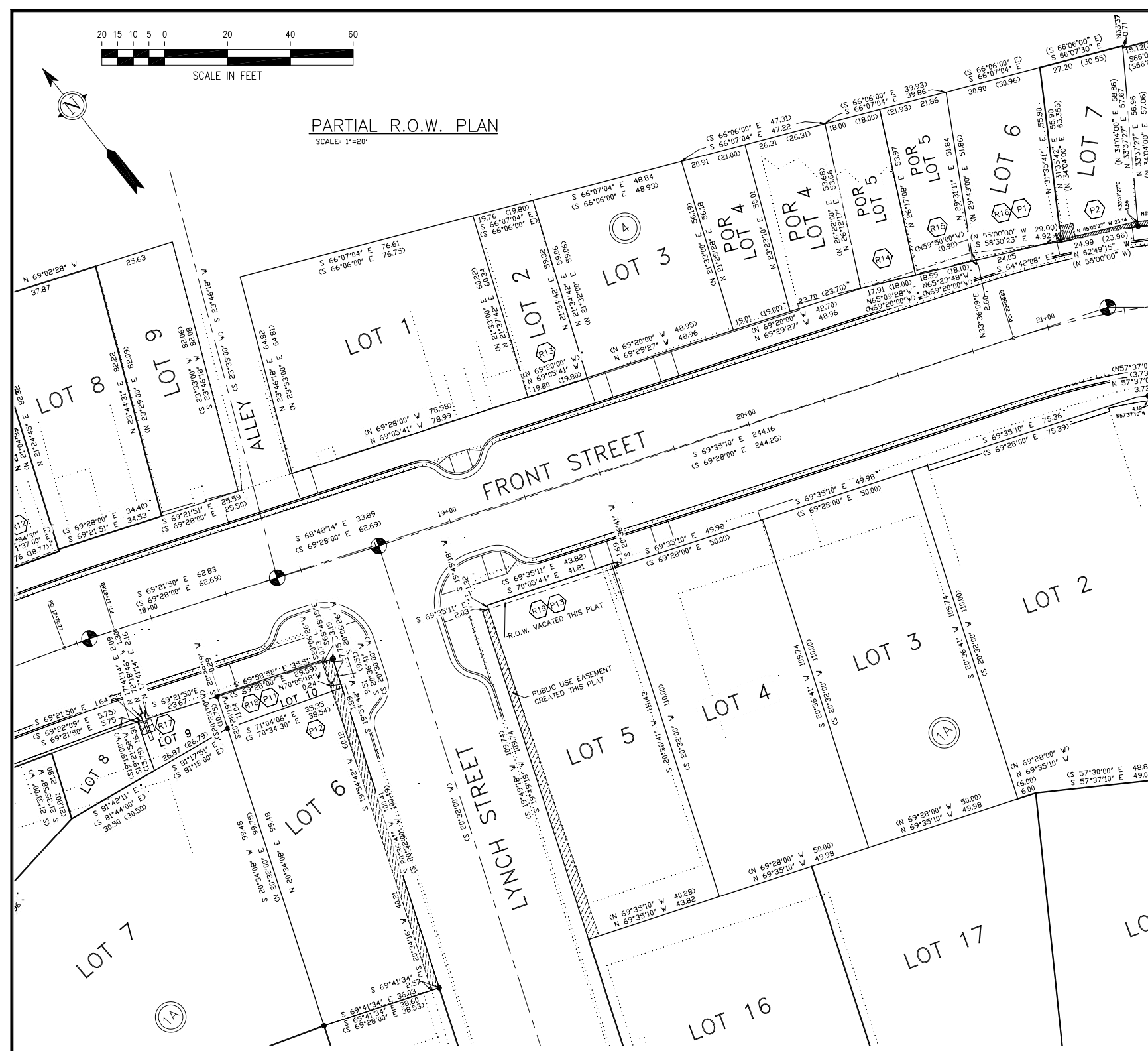
PROJECT DESIGNATION: **68828 HPRM-003(135) & 67789**



SCALE IN FEET

PARTIAL R.O.W. PLAN

SCALE: 1"=20'



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



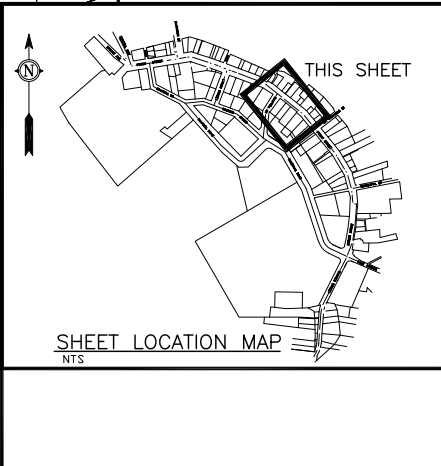
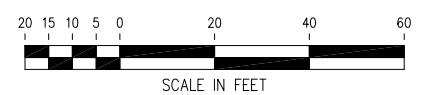
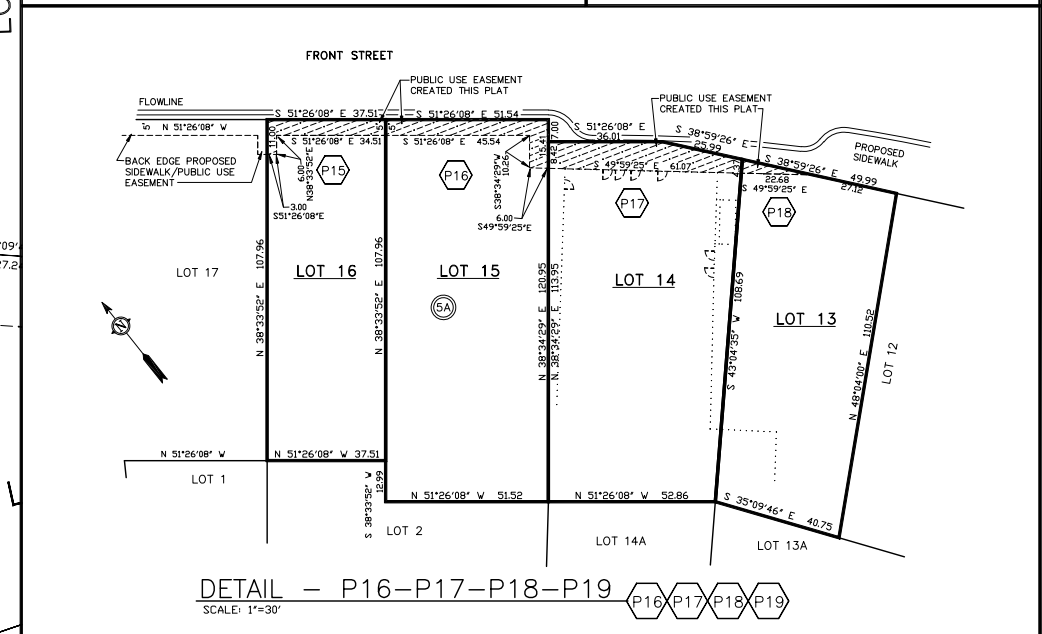
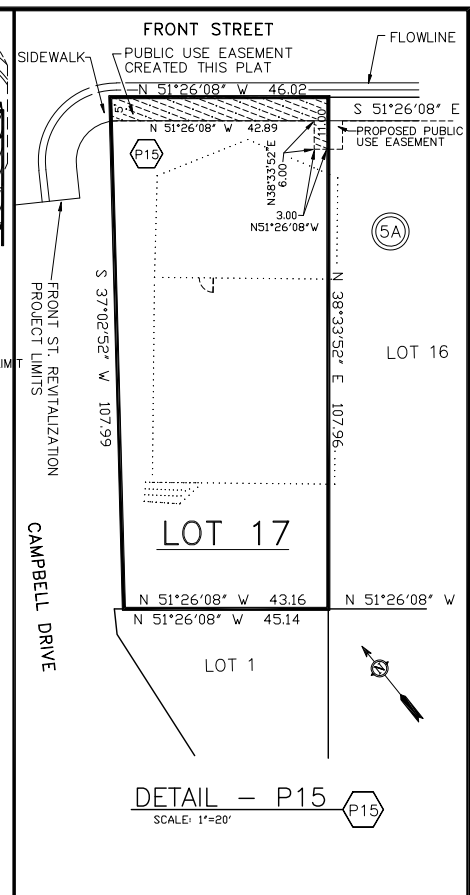
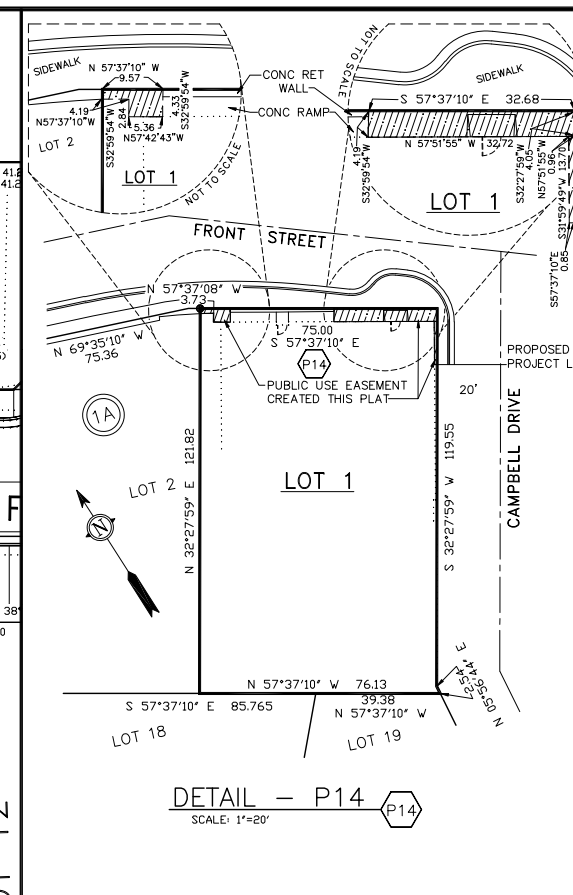
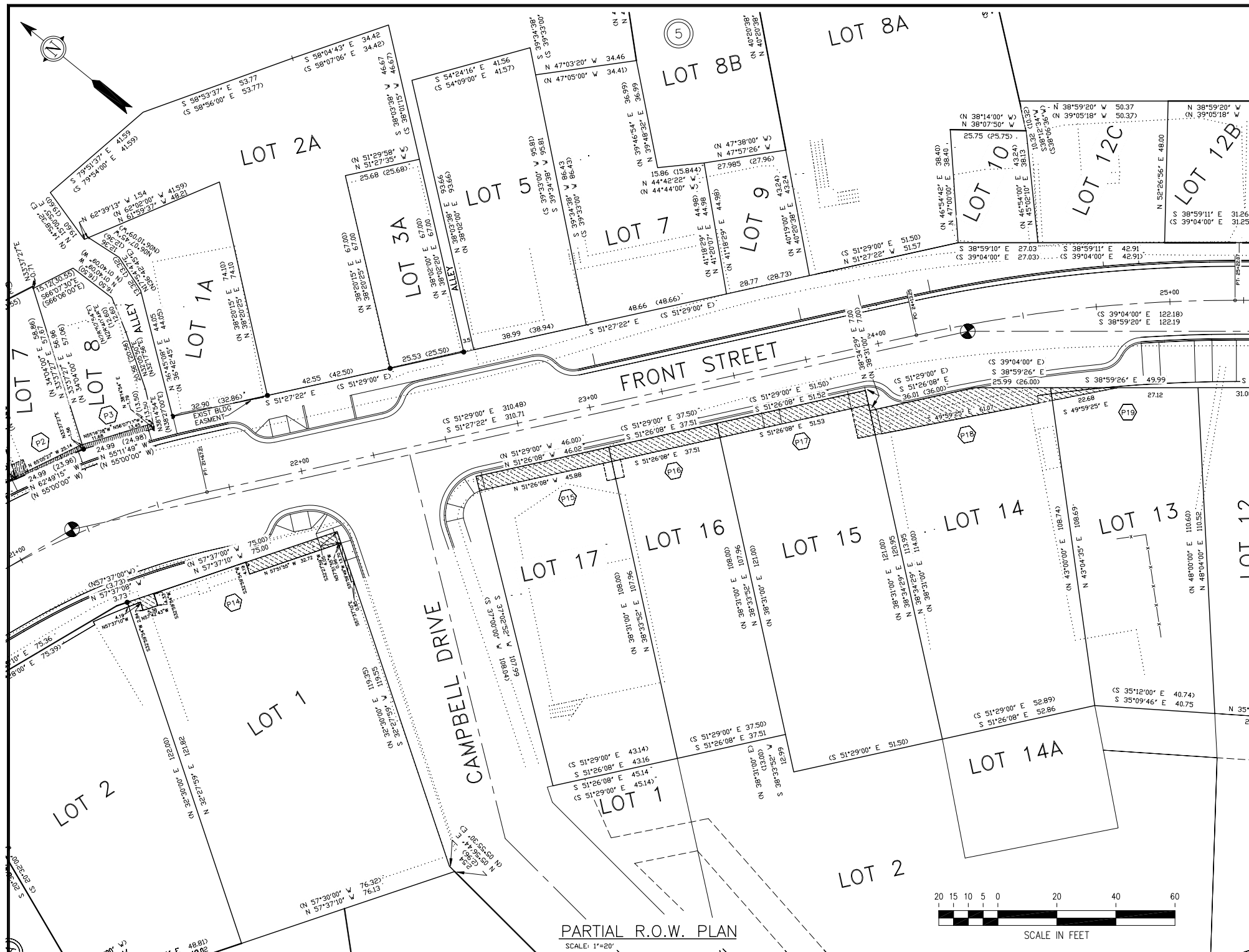
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
AND PUBLIC FACILITIES

WRANGELL ROAD AND UTILITY IMPROVEMENTS

RIGHT-OF-WAY MAPPING

CHECKED BY: GREGORY SCHEFF  
DESIGNED BY: T. SIEKAWITZ  
DRAWN BY: T. SIEKAWITZ

PATH: C:\FRONT-STREET-JAN-2011-ROW\RM-FRONT-STREET-ROW-MAR-2011-E.DWG		STATE	ALASKA
TAB: R5		DATE:	MARCH 03, 2011
PROJECT DESIGNATION		YEAR	2011
88828 HPRM-003(135) & 67789		SHEET NO.	R5
REVISIONS		DESCRIPTION	TOTAL SHEETS
NO.	DATE	DESCRIPTION	117



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**RIGHT-OF-WAY MAPPING**

CHECKED BY: GREGORY SCHEFF  
DESIGNED BY: T. SIEKAWITZ  
DRAWN BY: T. SIEKAWITZ

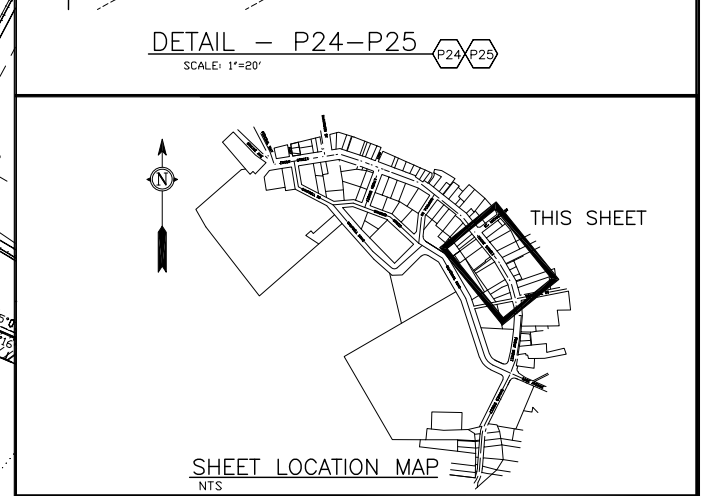
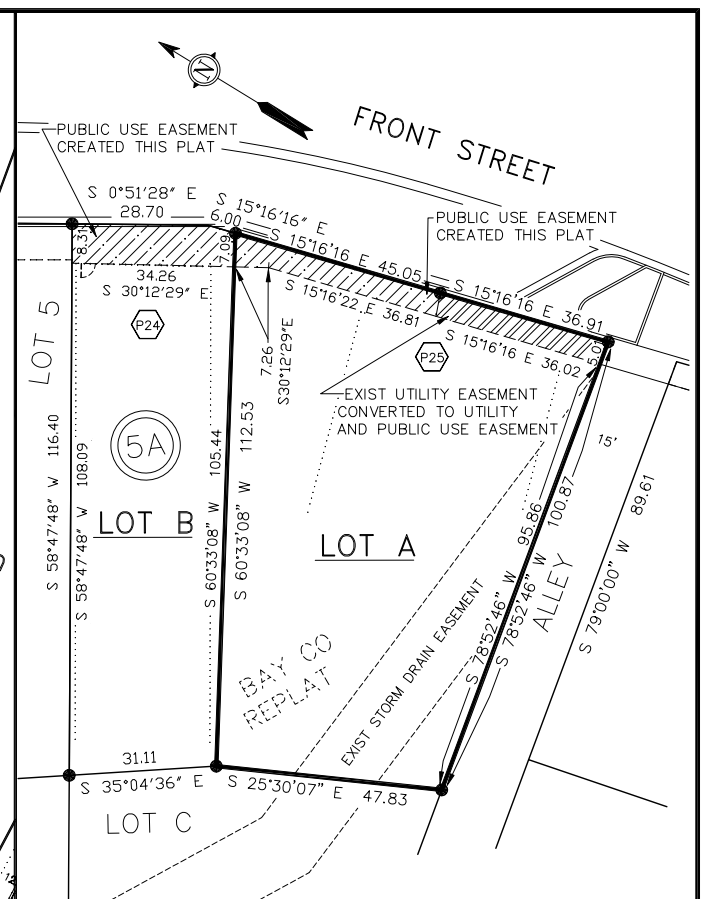
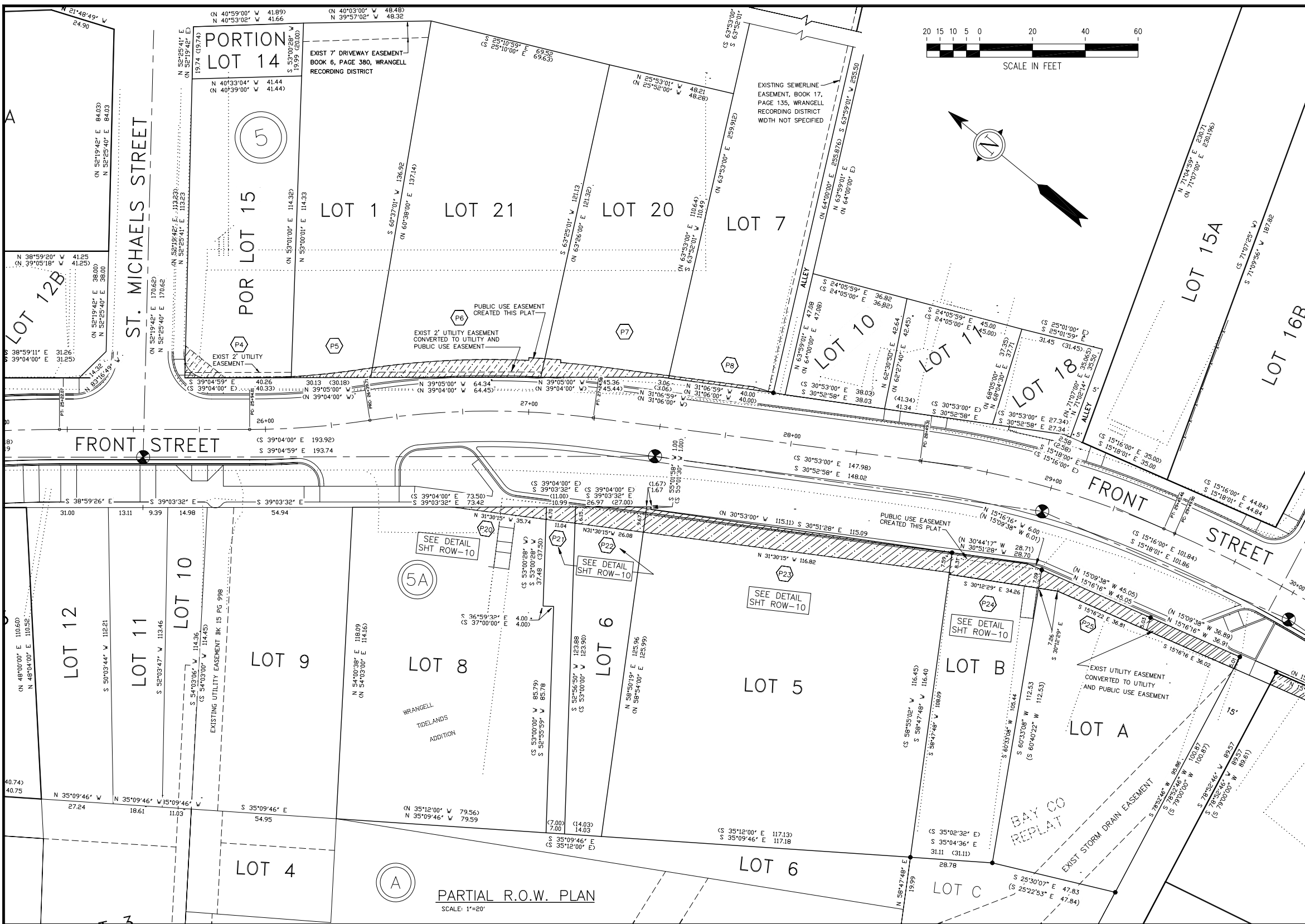
STATE OF ALASKA PROFESSIONAL ENGINEER  
Gregory G. Scheff  
No. 6700  
Professional Seal

PATH: C:\FRONT-STREET-JAN-2011-ROW\RM-FRONT-STREET-ROW-MAR-2011-E.DWG  
TAB: R6 MARCH 03, 2011

NO.	DATE	REVISIONS DESCRIPTION

PROJECT DESIGNATION: **68828 HPRM-003(135) & 67789**

YEAR: 2011 SHEET NO.: R6 TOTAL SHEETS: 117



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

CHECKED BY: GREGORY SCHEFF  
R&M-ENGINEERING-KETCHIKAN

DESIGNED BY: T. SIEKAWITCH  
R&M-ENGINEERING-KETCHIKAN

DRAWN BY: T. SIEKAWITCH  
R&M-ENGINEERING-KETCHIKAN

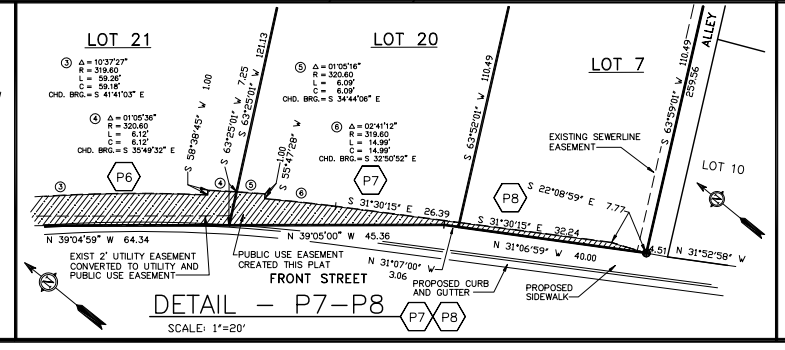
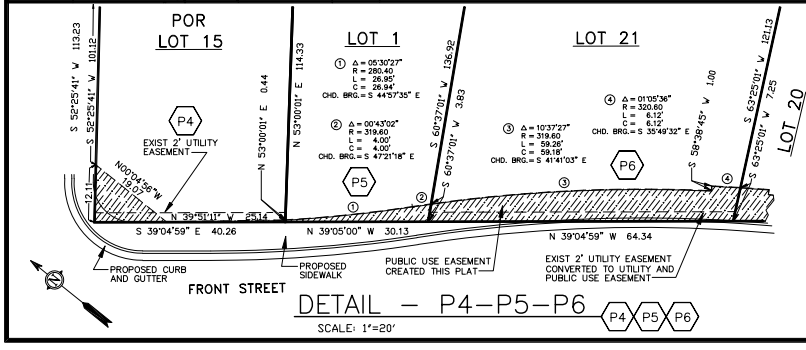
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TAB: R7 MARCH 03, 2011

## WRANGELL ROAD AND UTILITY IMPROVEMENTS

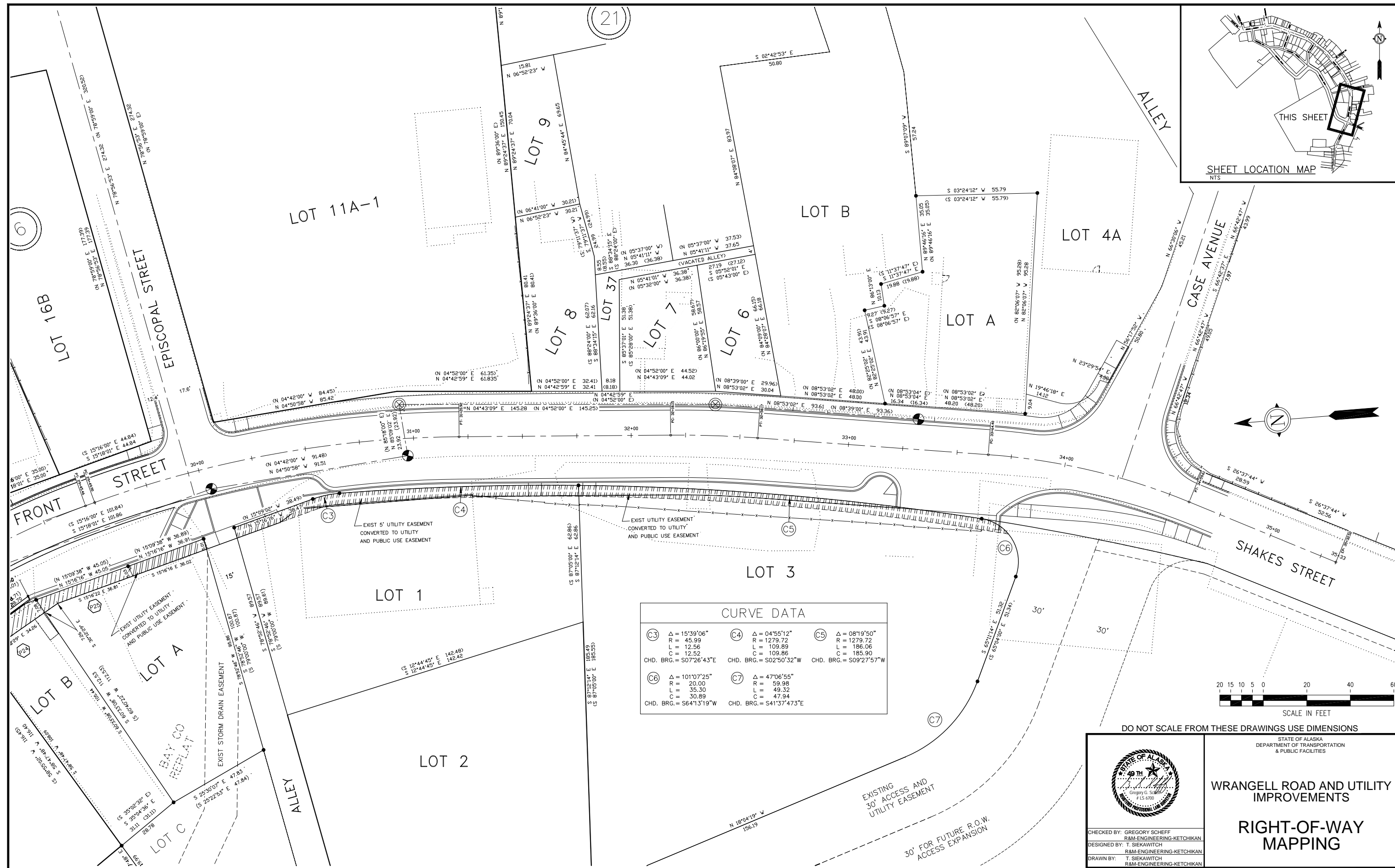
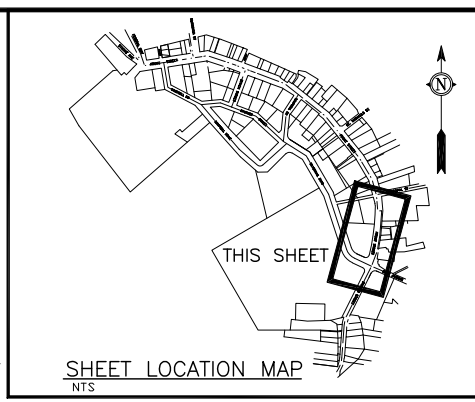
# RIGHT-OF-WAY MAPPING

STATE  
ALASKA

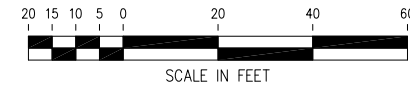
REVISIONS			PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR 2011	SHEET NO. R7	TOTAL SHEETS 117
NO.	DATE	DESCRIPTION				







CURVE DATA		
(C3) $\Delta = 15^{\circ}39'06''$ $R = 45.99$ $L = 12.56$ $C = 12.52$ CHD. BRG. = $S07^{\circ}26'43''E$	(C4) $\Delta = 04^{\circ}55'12''$ $R = 1279.72$ $L = 109.89$ $C = 109.86$ CHD. BRG. = $S02^{\circ}50'32''W$	(C5) $\Delta = 08^{\circ}19'50''$ $R = 1279.72$ $L = 186.06$ $C = 185.90$ CHD. BRG. = $S09^{\circ}27'57''W$
(C6) $\Delta = 101^{\circ}07'25''$ $R = 20.00$ $L = 35.30$ $C = 30.89$ CHD. BRG. = $S64^{\circ}13'19''W$	(C7) $\Delta = 47^{\circ}06'55''$ $R = 59.98$ $L = 49.32$ $C = 47.94$ CHD. BRG. = $S41^{\circ}37'47''E$	



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS



STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**

**RIGHT-OF-WAY MAPPING**

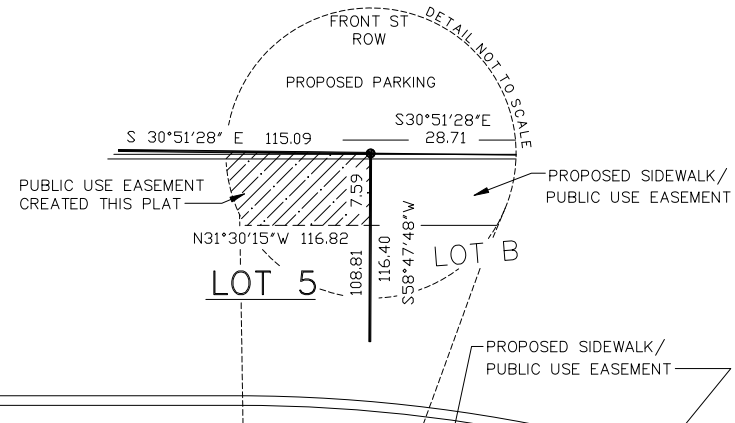
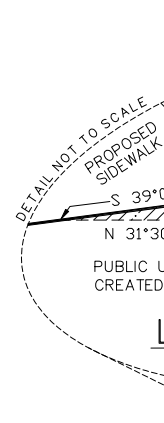
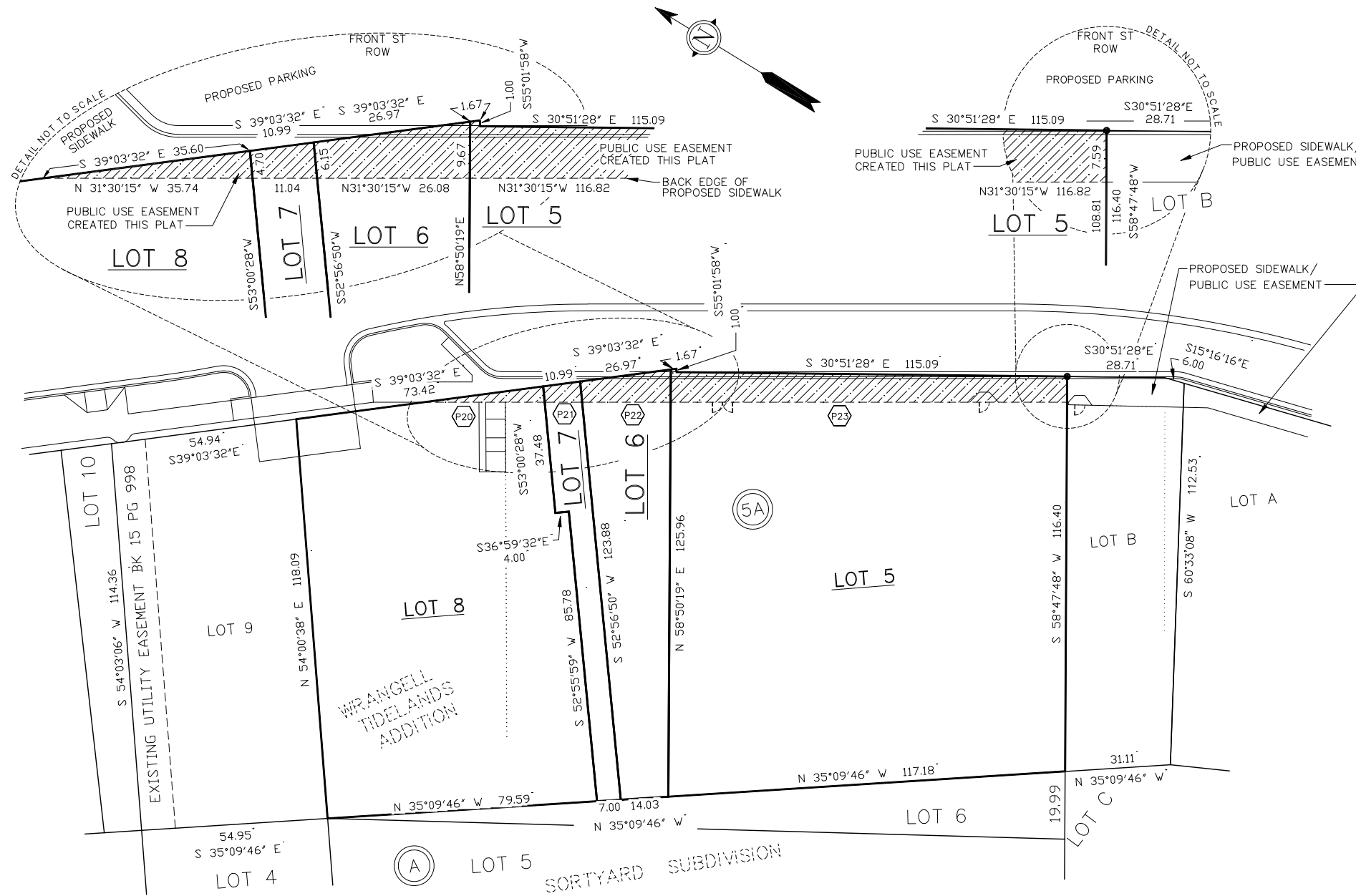
CHECKED BY: GREGORY SCHEFF  
 R&M-ENGINEERING-KETCHIKAN  
 DESIGNED BY: T. SIEKAWITCH  
 R&M-ENGINEERING-KETCHIKAN  
 DRAWN BY: T. SIEKAWITCH  
 R&M-ENGINEERING-KETCHIKAN

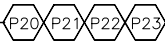
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 TAB: R8 MARCH 03, 2011

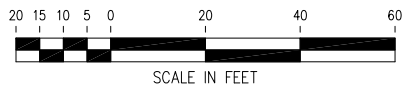
REVISIONS		
NO.	DATE	DESCRIPTION

PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
<b>68828 HPRM-003(135) &amp; 67789</b>	2011	R8	117


PARTIAL R.O.W. PLAN  
SCALE: 1"=20'

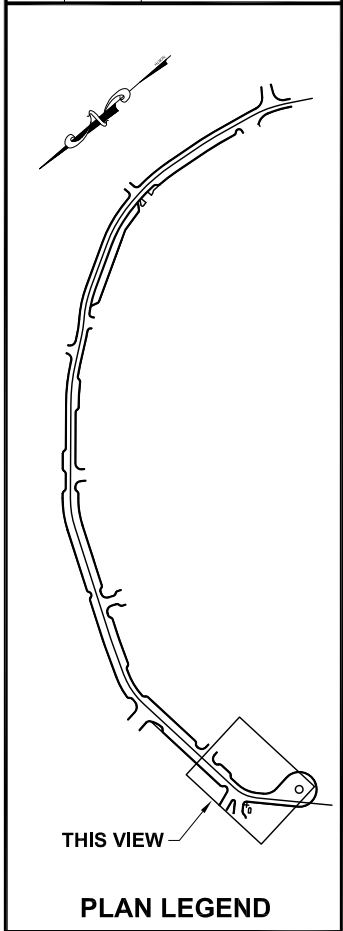
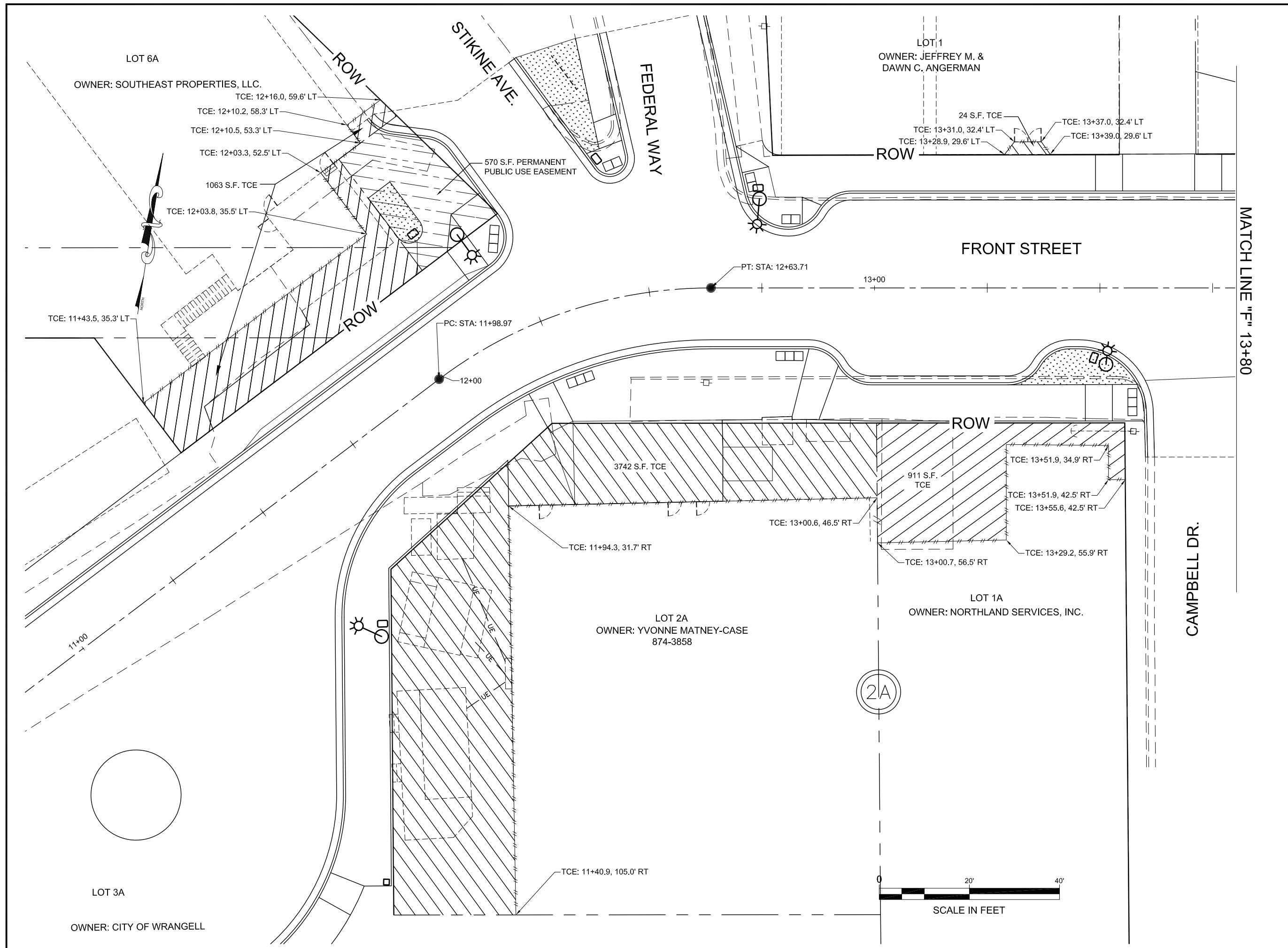


DETAIL - P20-P21-P22-P23 



DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

	STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES										
	<b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS</b>										
<b>RIGHT-OF-WAY          MAPPING</b>											
CHECKED BY: GREGORY SCHEFF R&M-ENGINEERING-KETCHIKAN DESIGNED BY: T. SIEKAWITCH R&M-ENGINEERING-KETCHIKAN DRAWN BY: T. SIEKAWITCH R&M-ENGINEERING-KETCHIKAN											
PATH: C:\FRONT-STREET-JAN-2011-ROWRM-FRONT-STREET-ROW-MAR-2011-E.DWG TAB: R9 MARCH 03, 2011		STATE <b>ALASKA</b>									
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS			NO.	DATE	DESCRIPTION				PROJECT DESIGNATION <b>68828 HPRM-003(135)          &amp; 67789</b>	YEAR 2011
REVISIONS											
NO.	DATE	DESCRIPTION									
SHEET NO. <b>R9</b>		TOTAL SHEETS 117									



CHECKED BY:

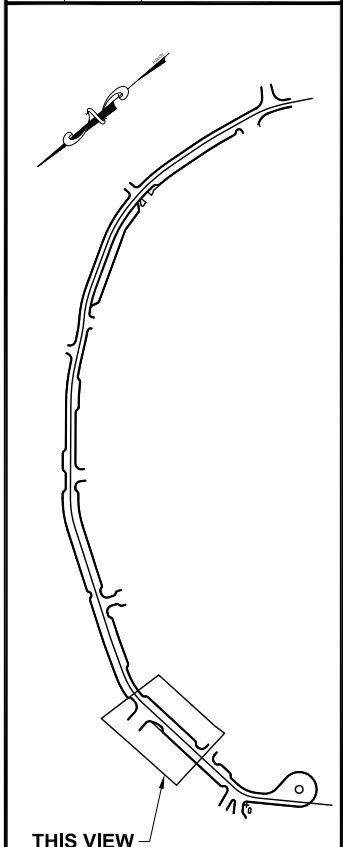
PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS**  
 TEMPORARY  
 CONSTRUCTION  
 EASEMENTS

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>R10</b>	<b>117</b>

RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



THIS VIEW  
**PLAN LEGEND**

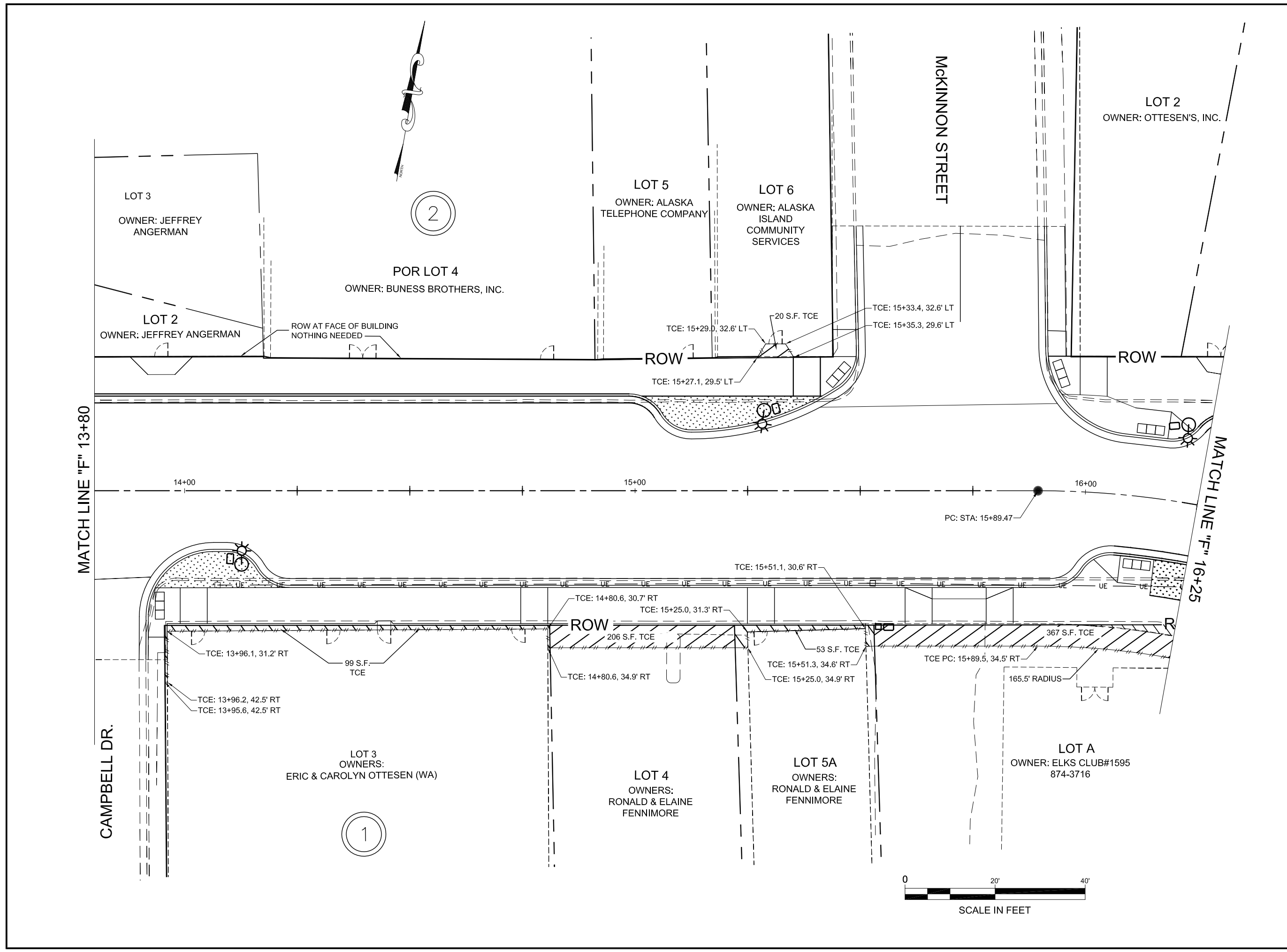
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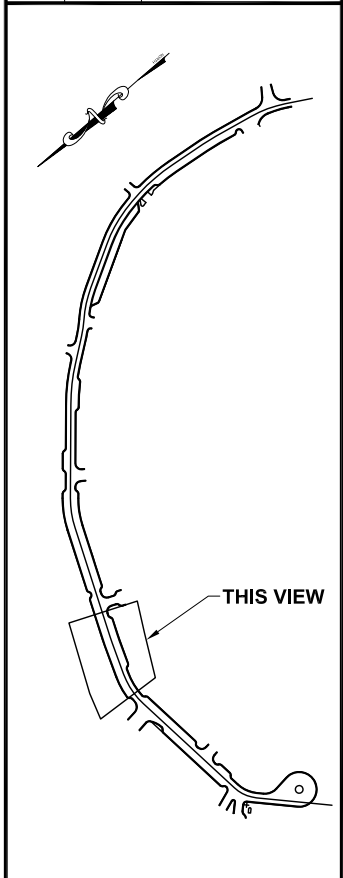
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DESIGNED BY:  
DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY  
IMPROVEMENTS**  
TEMPORARY  
CONSTRUCTION  
EASEMENTS

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>R11</b>	<b>117</b>





**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

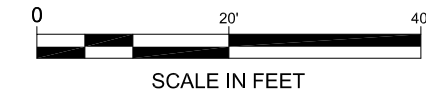
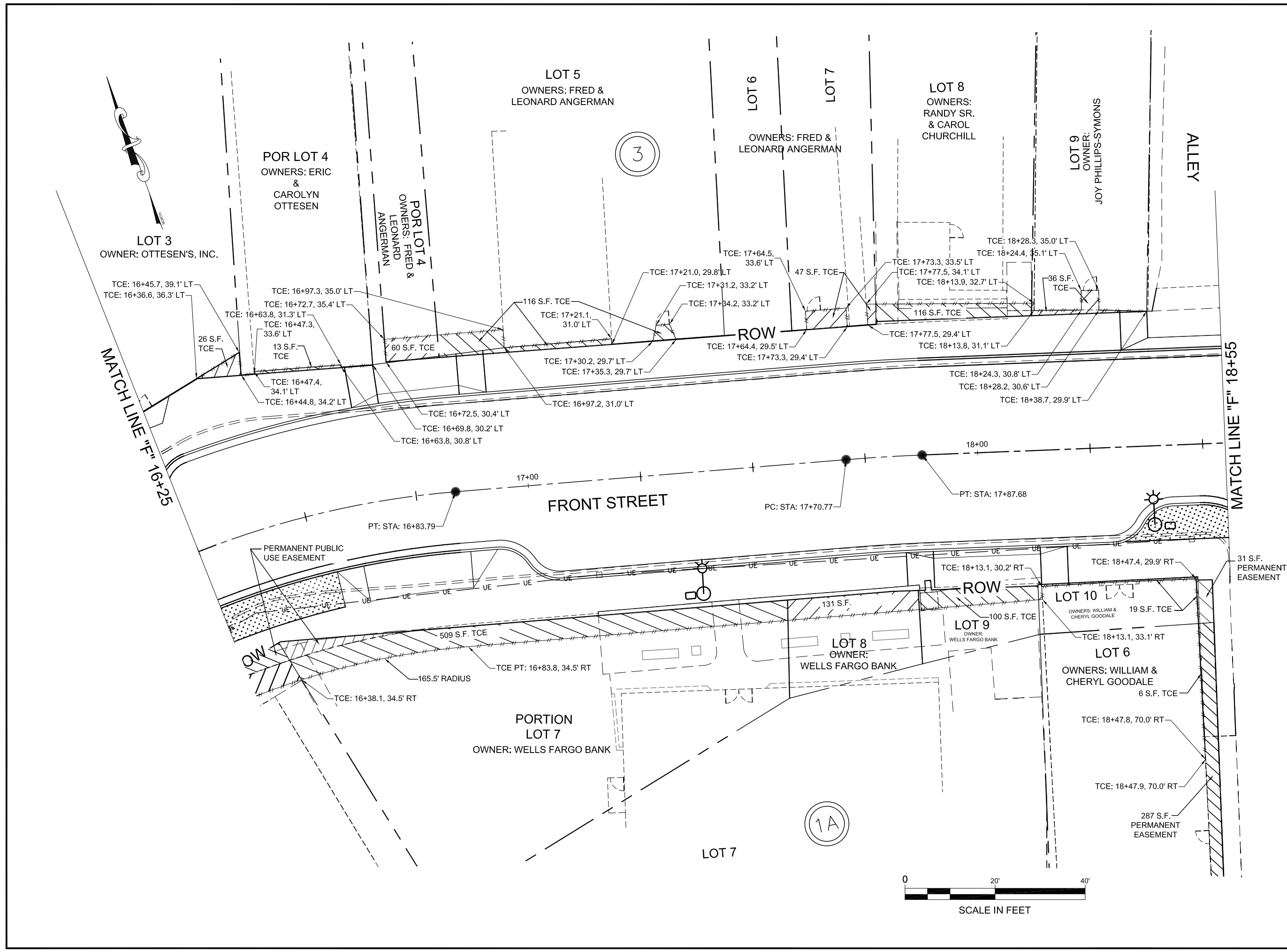
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS**

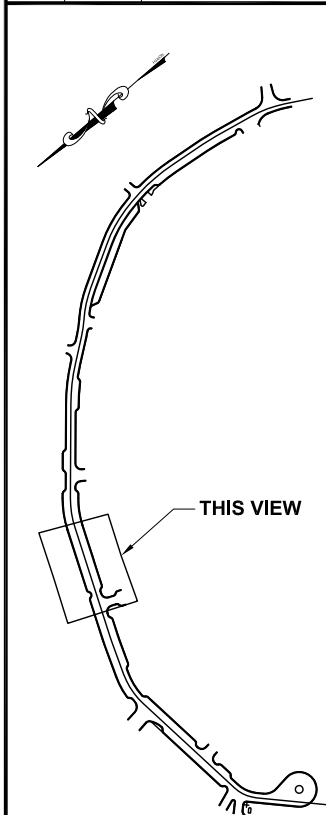
TEMPORARY  
 CONSTRUCTION  
 EASEMENTS

PROJECT DESIGNATION

<b>68828 HPRM-003(135) &amp; 67789</b>	
STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>R12</b>	<b>117</b>



ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



**PLAN LEGEND**

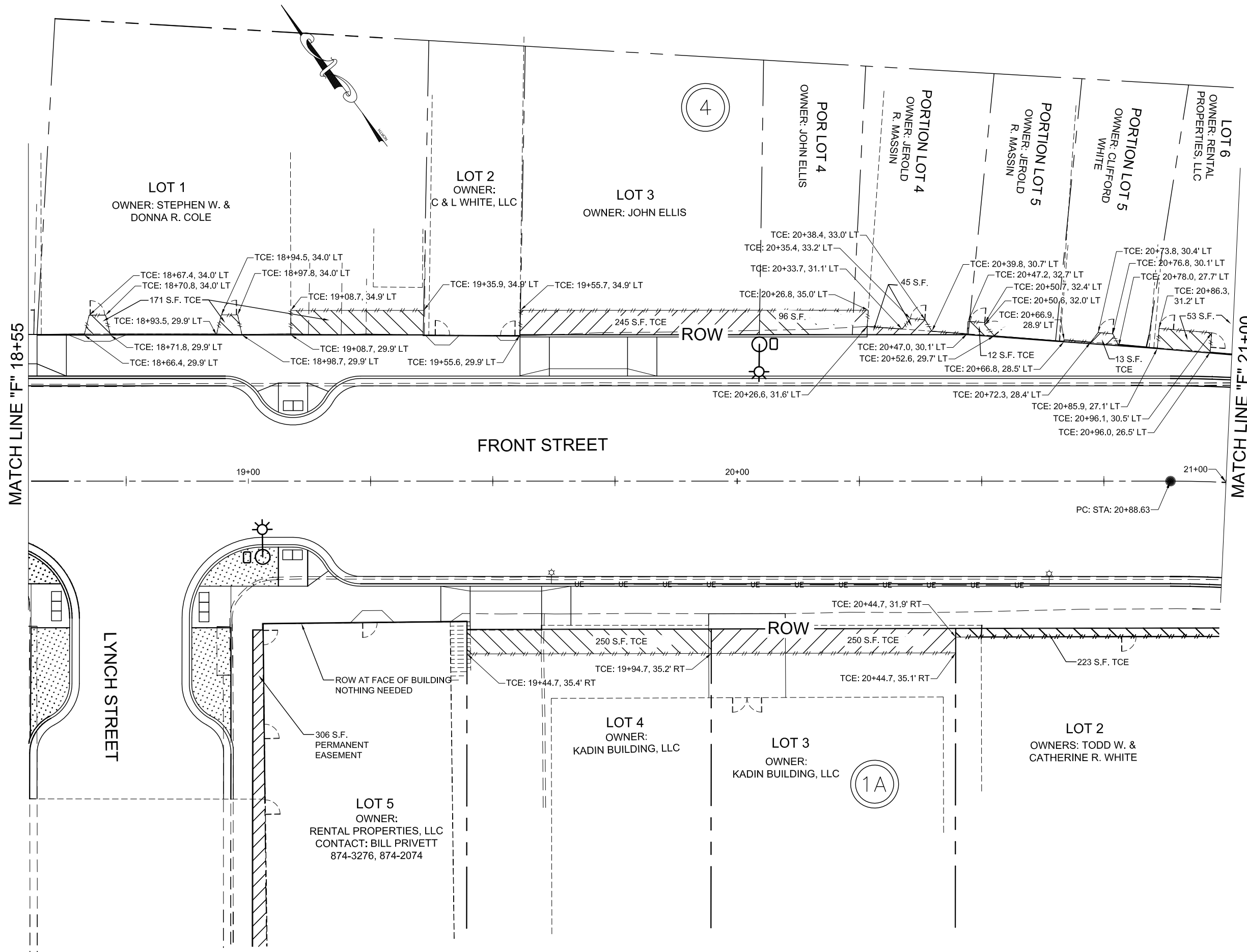
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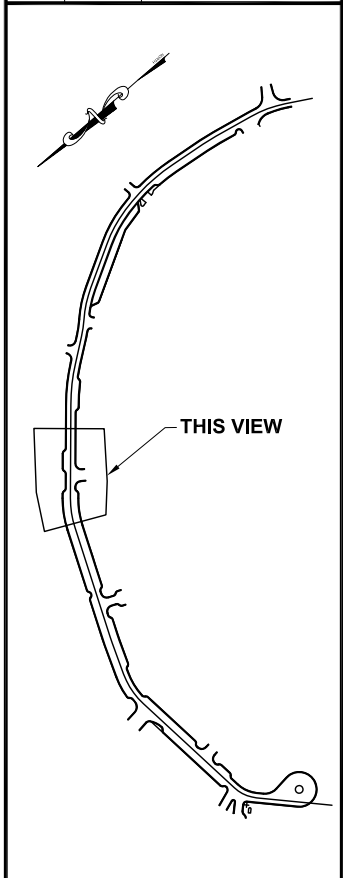
PLANS DEVELOPED BY: DOWL HKM  
DESIGNED BY:  
DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY  
IMPROVEMENTS**  
TEMPORARY  
CONSTRUCTION  
EASEMENTS

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>R13</b>	<b>117</b>





**PLAN LEGEND**

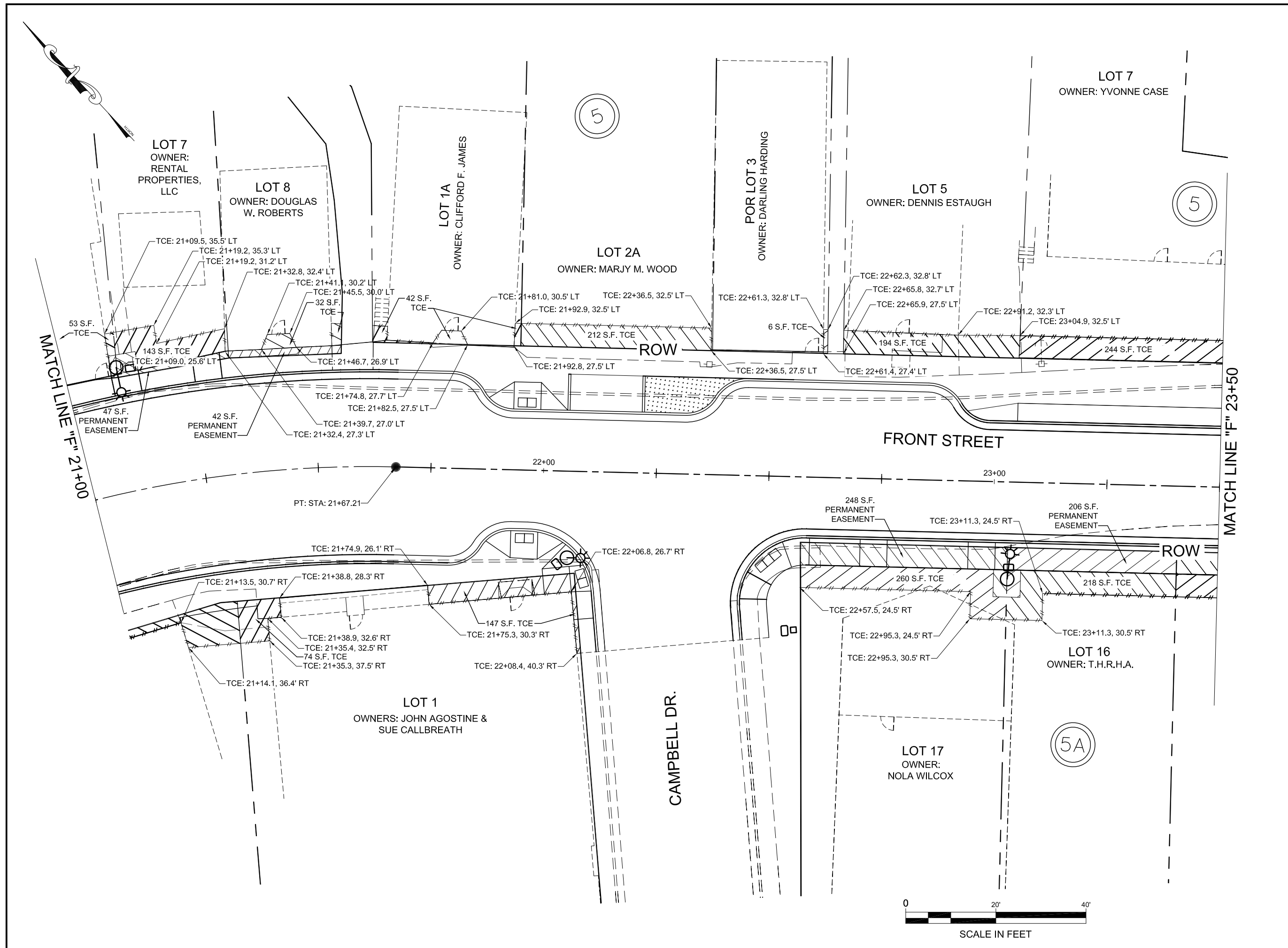
CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS**  
 TEMPORARY  
 CONSTRUCTION  
 EASEMENTS

PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
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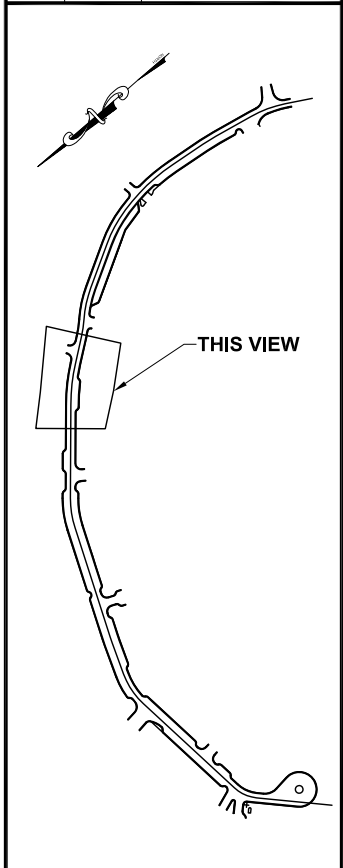


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KEMP, JENNIFER

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ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



**PLAN LEGEND**

CHECKED BY:

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

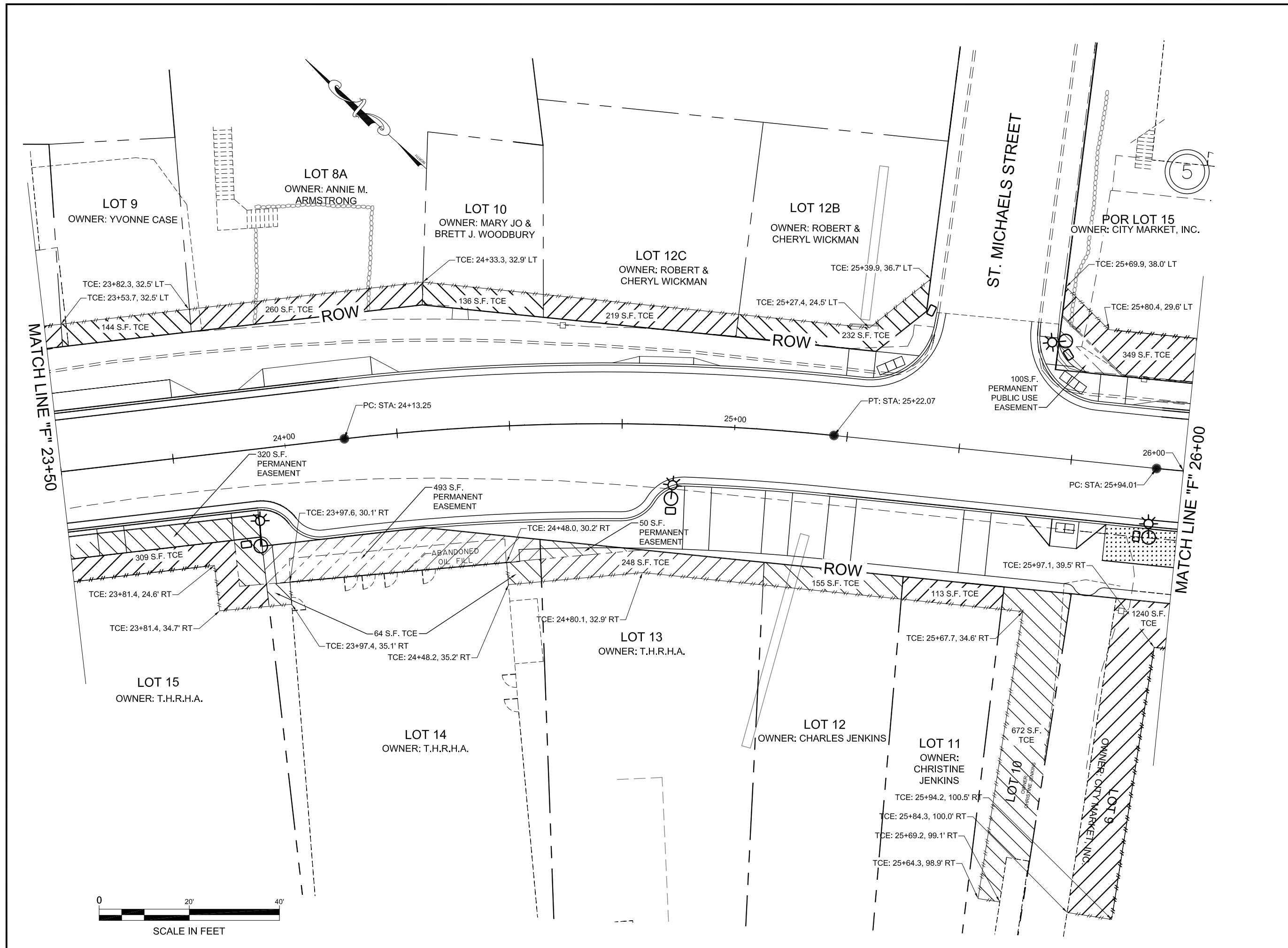
**WRANGELL ROAD AND UTILITY  
IMPROVEMENTS**

TEMPORARY  
CONSTRUCTION  
EASEMENTS

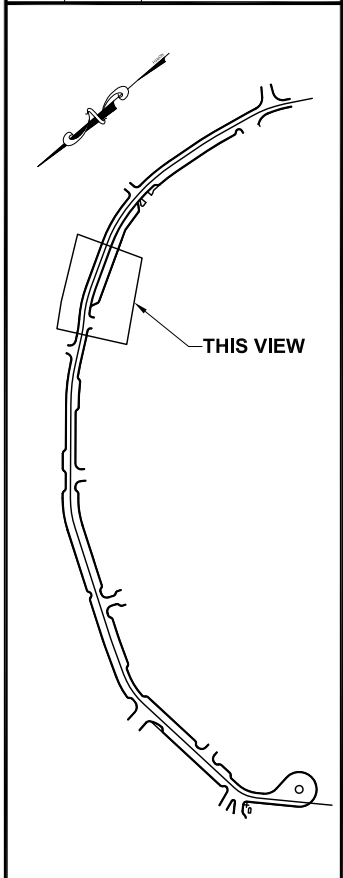
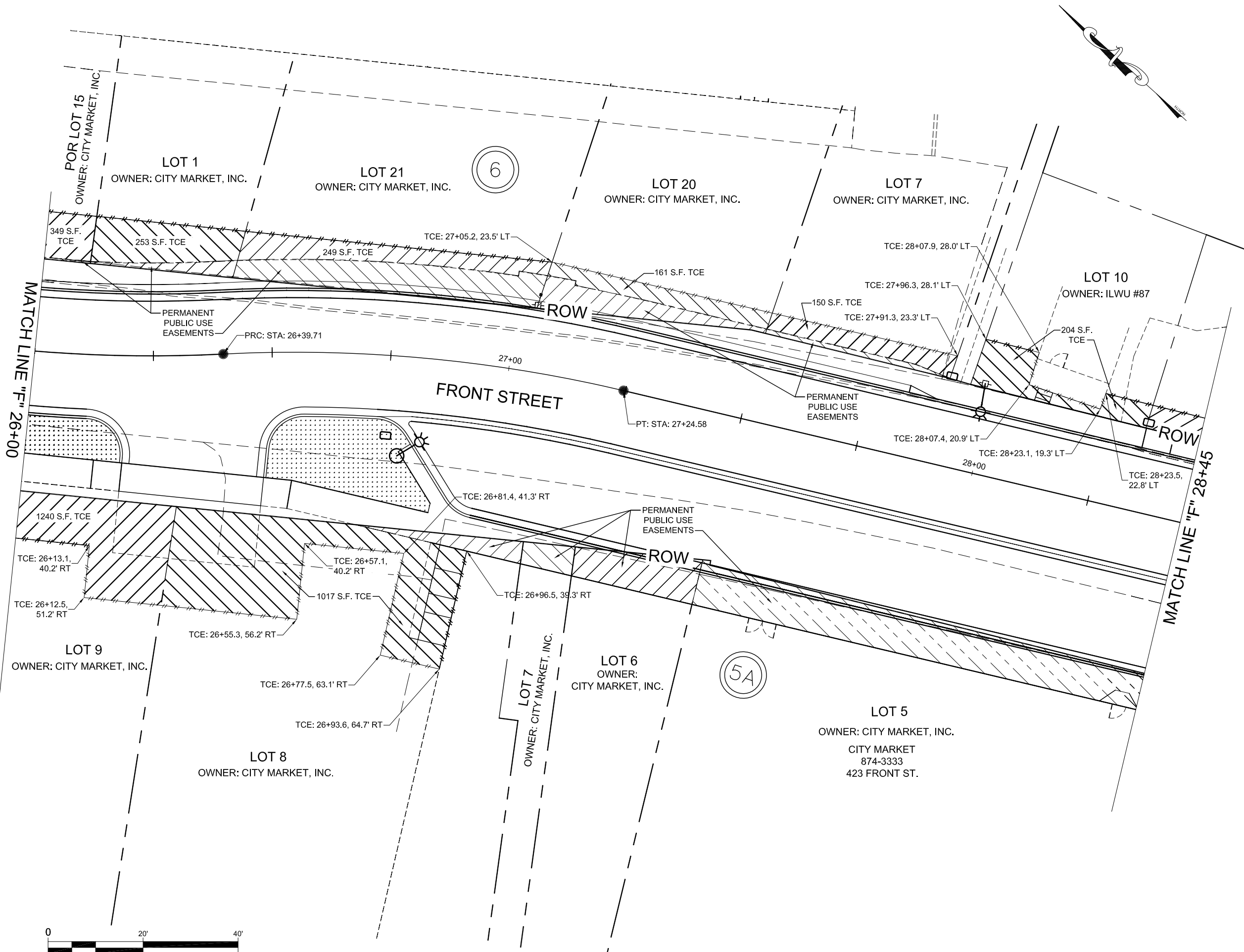
PROJECT DESIGNATION

**68828 HPRM-003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>R15</b>	<b>117</b>







**PLAN LEGEND**

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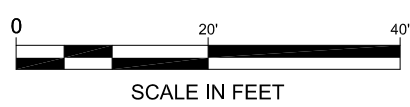
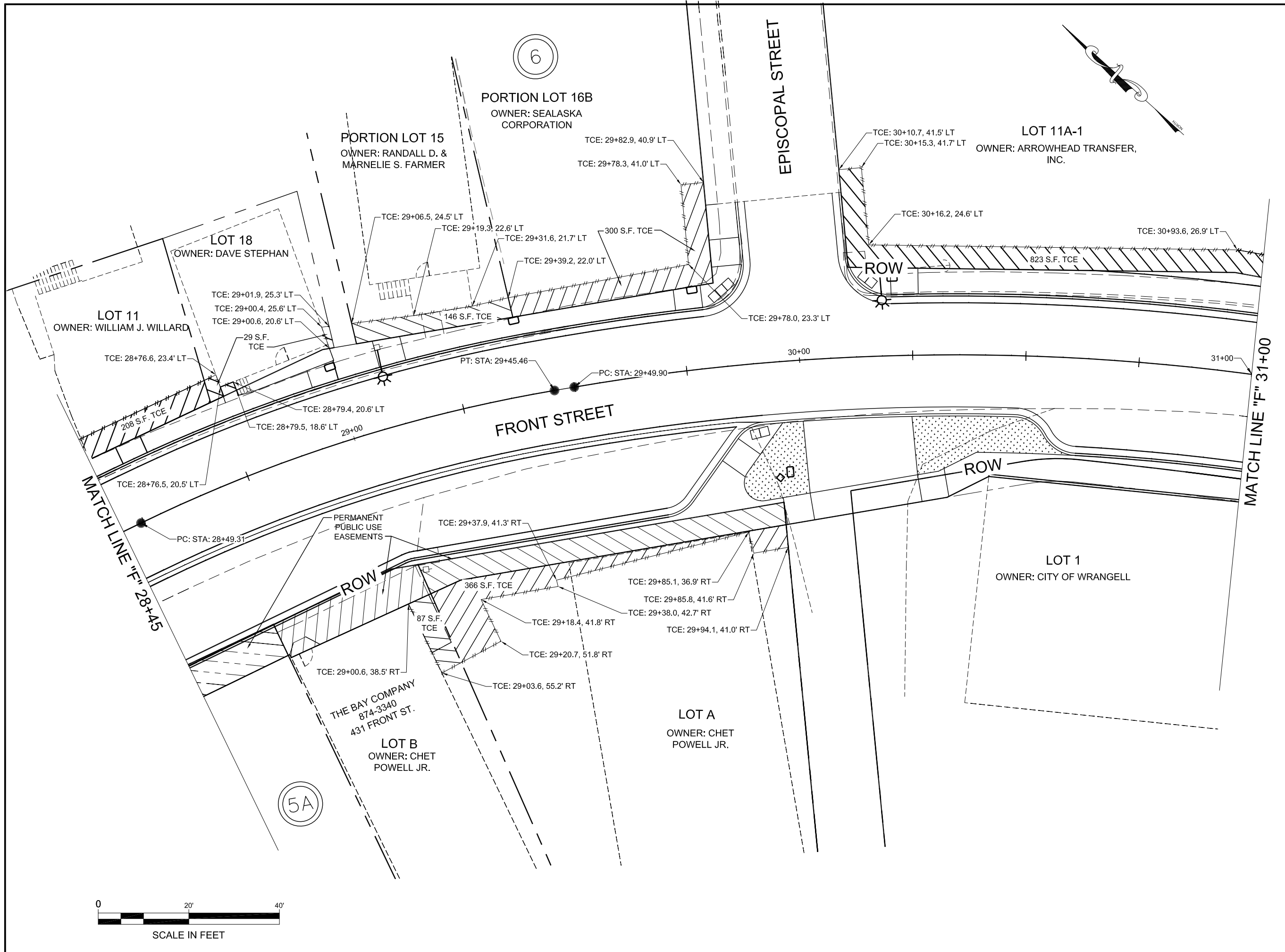
The seal is circular with 'STATE OF ALASKA' at the top and 'REGISTERED PROFESSIONAL ENGINEER' at the bottom. In the center, it says '49th' and 'Peter L. Hildre No. CE4005'.

PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY:  
 DRAWN BY:

STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY  
 IMPROVEMENTS**  
 TEMPORARY  
 CONSTRUCTION  
 EASEMENTS

PROJECT DESIGNATION  
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 & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
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RJ70112-R11 TO R19.DWG

KEMP, JENNIFER

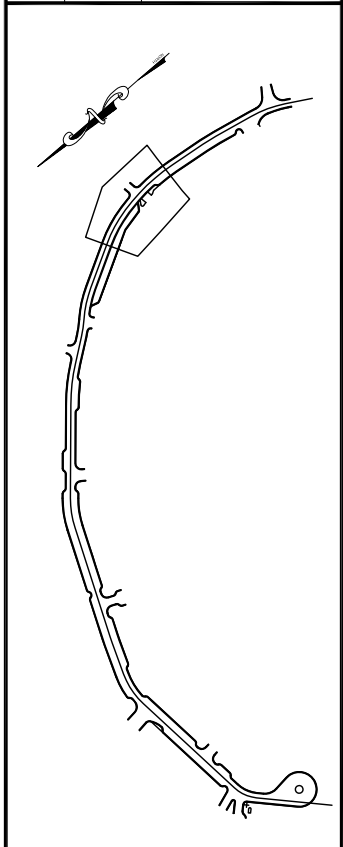
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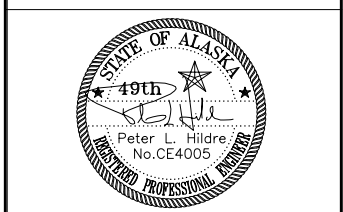
ATTACHMENT NUMBER

RECORD OF REVISIONS

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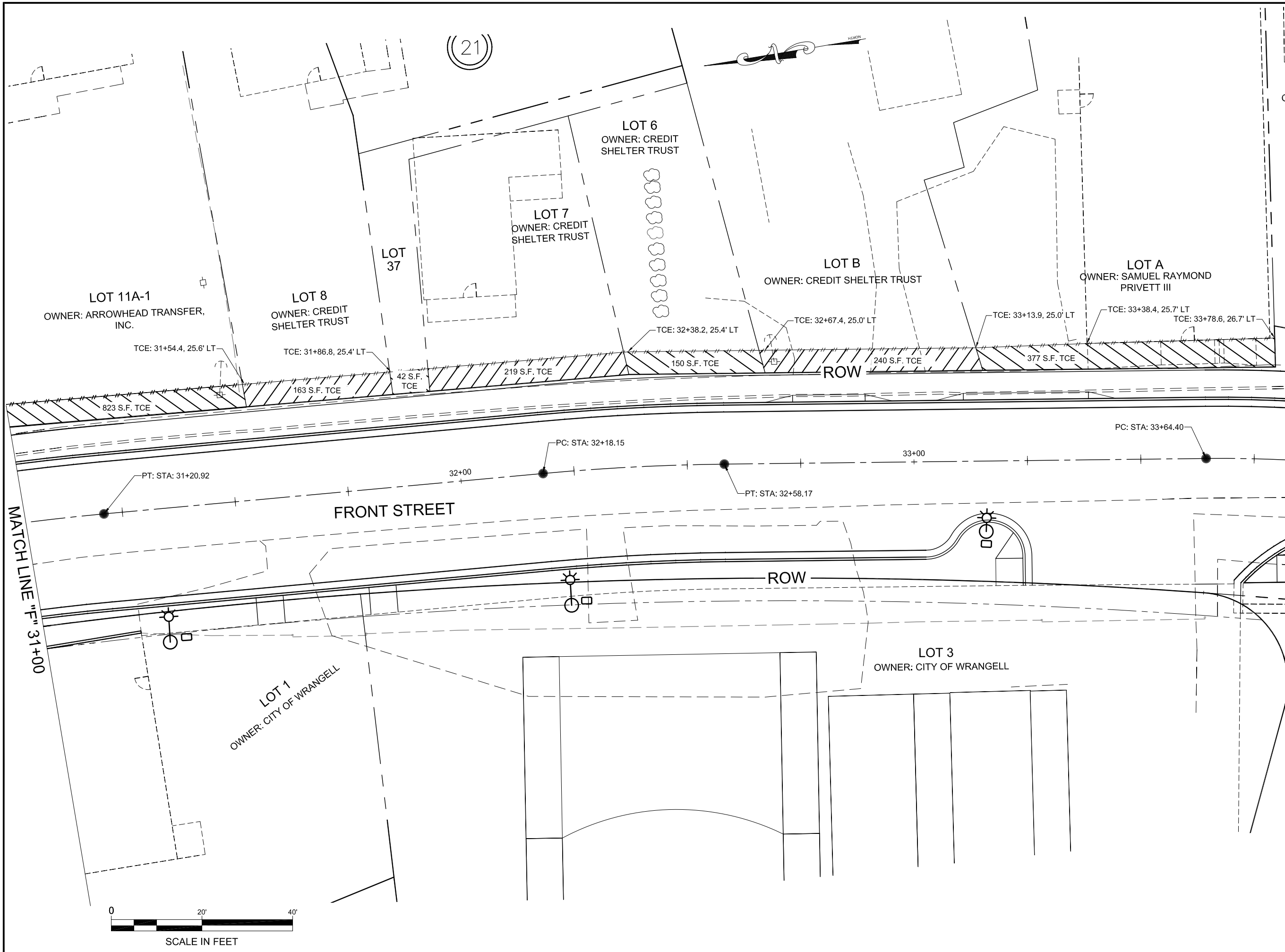
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IMPROVEMENTS**

TEMPORARY  
CONSTRUCTION  
EASEMENTS

PROJECT DESIGNATION

**68828 HPRM-003(135)  
& 67789**

STATE	YEAR
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SHEET NUMBER	TOTAL SHEETS
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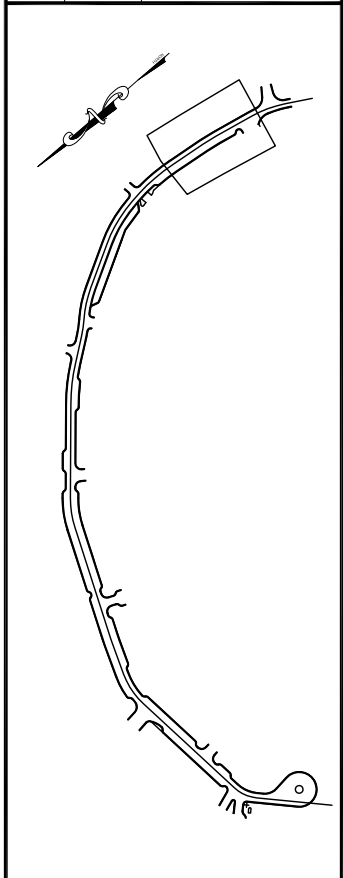


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ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



CHECKED BY:

STATE OF ALASKA  
49th  
Peter L. Hildre  
No. CE4005  
REGISTERED PROFESSIONAL ENGINEER

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

DRAWN BY:

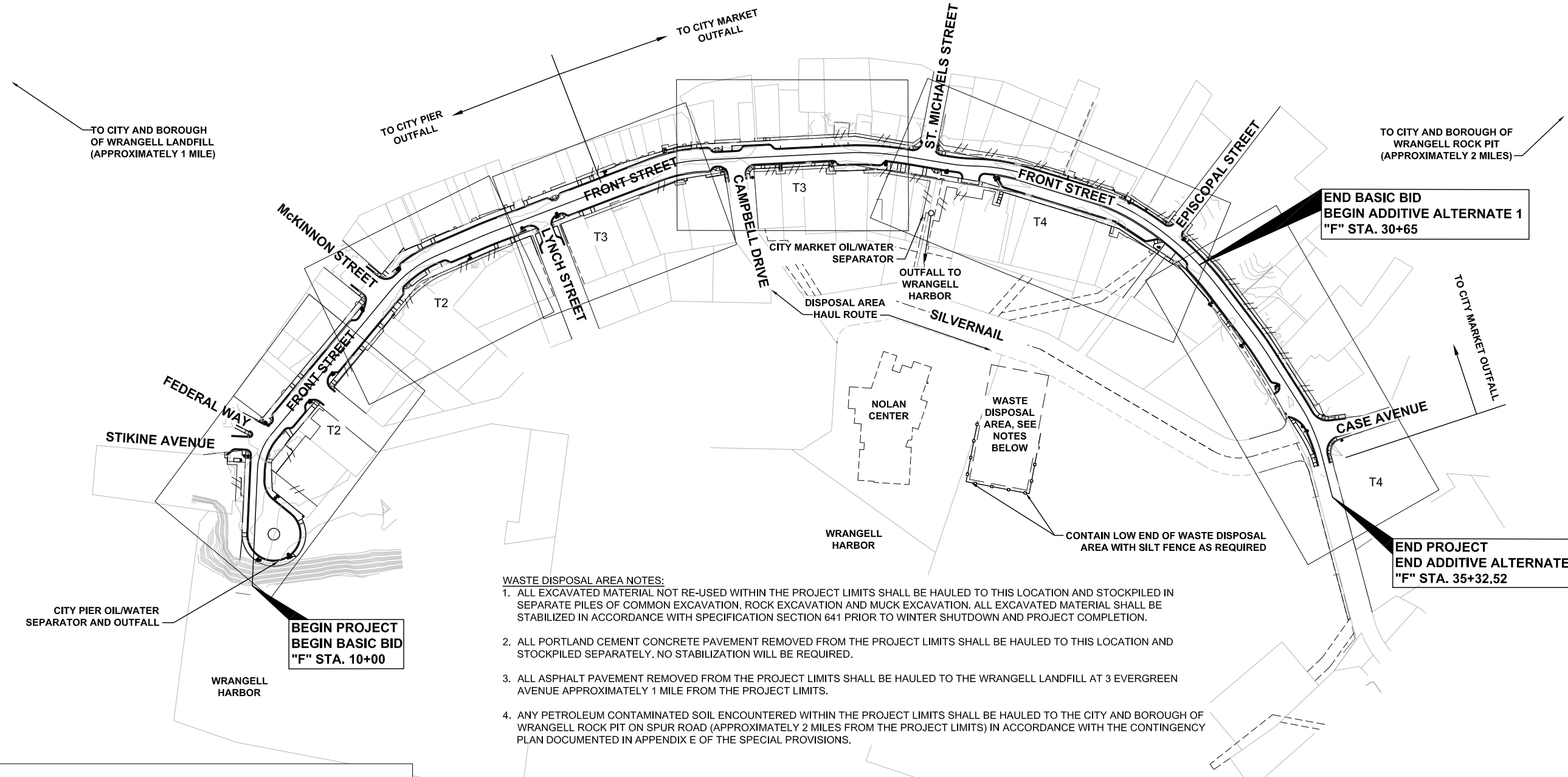
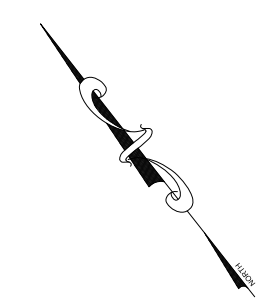
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY  
IMPROVEMENTS  
TEMPORARY  
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<b>ALASKA</b>	<b>2011</b>
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<b>R18</b>	<b>117</b>

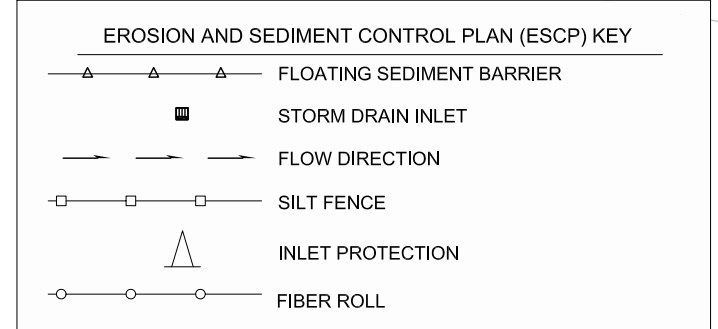


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BEGIN ADDITIVE ALTERNATE 1  
"F" STA. 30+65**

**END PROJECT  
END ADDITIVE ALTERNATE 1  
"F" STA. 35+32.52**

**BEGIN PROJECT  
BEGIN BASIC BID  
"F" STA. 10+00**

- WASTE DISPOSAL AREA NOTES:**
1. ALL EXCAVATED MATERIAL NOT RE-USED WITHIN THE PROJECT LIMITS SHALL BE HAULED TO THIS LOCATION AND STOCKPILED IN SEPARATE PILES OF COMMON EXCAVATION, ROCK EXCAVATION AND MUCK EXCAVATION. ALL EXCAVATED MATERIAL SHALL BE STABILIZED IN ACCORDANCE WITH SPECIFICATION SECTION 641 PRIOR TO WINTER SHUTDOWN AND PROJECT COMPLETION.
  2. ALL PORTLAND CEMENT CONCRETE PAVEMENT REMOVED FROM THE PROJECT LIMITS SHALL BE HAULED TO THIS LOCATION AND STOCKPILED SEPARATELY. NO STABILIZATION WILL BE REQUIRED.
  3. ALL ASPHALT PAVEMENT REMOVED FROM THE PROJECT LIMITS SHALL BE HAULED TO THE WRANGELL LANDFILL AT 3 EVERGREEN AVENUE APPROXIMATELY 1 MILE FROM THE PROJECT LIMITS.
  4. ANY PETROLEUM CONTAMINATED SOIL ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE HAULED TO THE CITY AND BOROUGH OF WRANGELL ROCK PIT ON SPUR ROAD (APPROXIMATELY 2 MILES FROM THE PROJECT LIMITS) IN ACCORDANCE WITH THE CONTINGENCY PLAN DOCUMENTED IN APPENDIX E OF THE SPECIAL PROVISIONS.

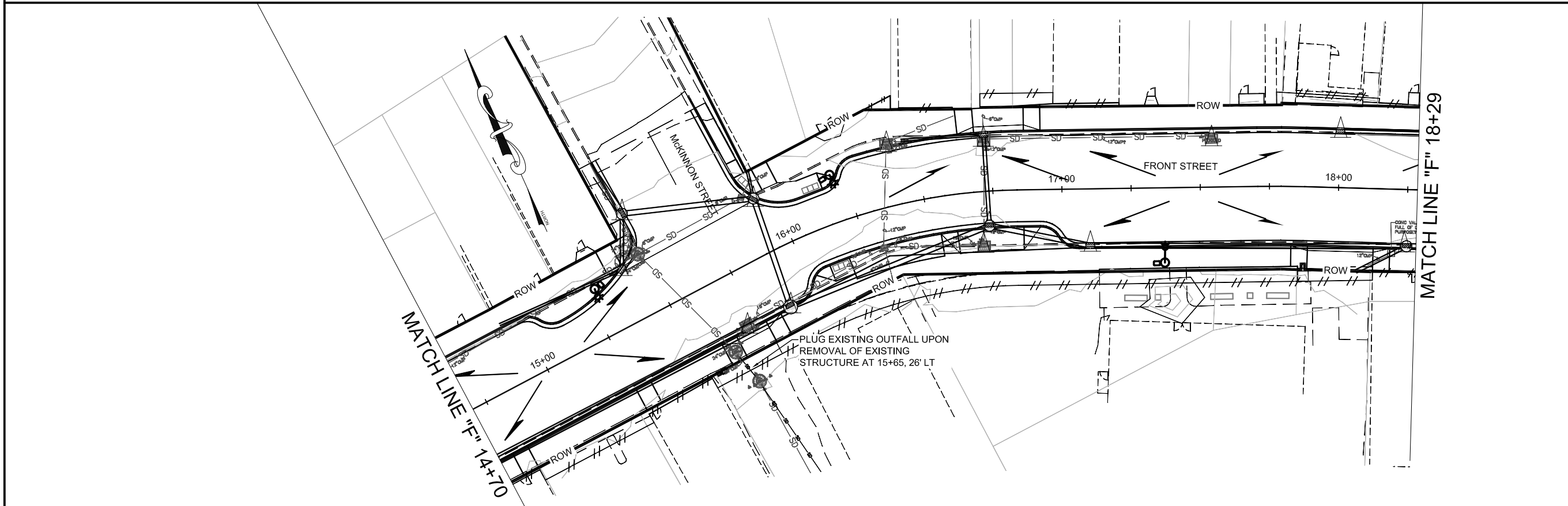
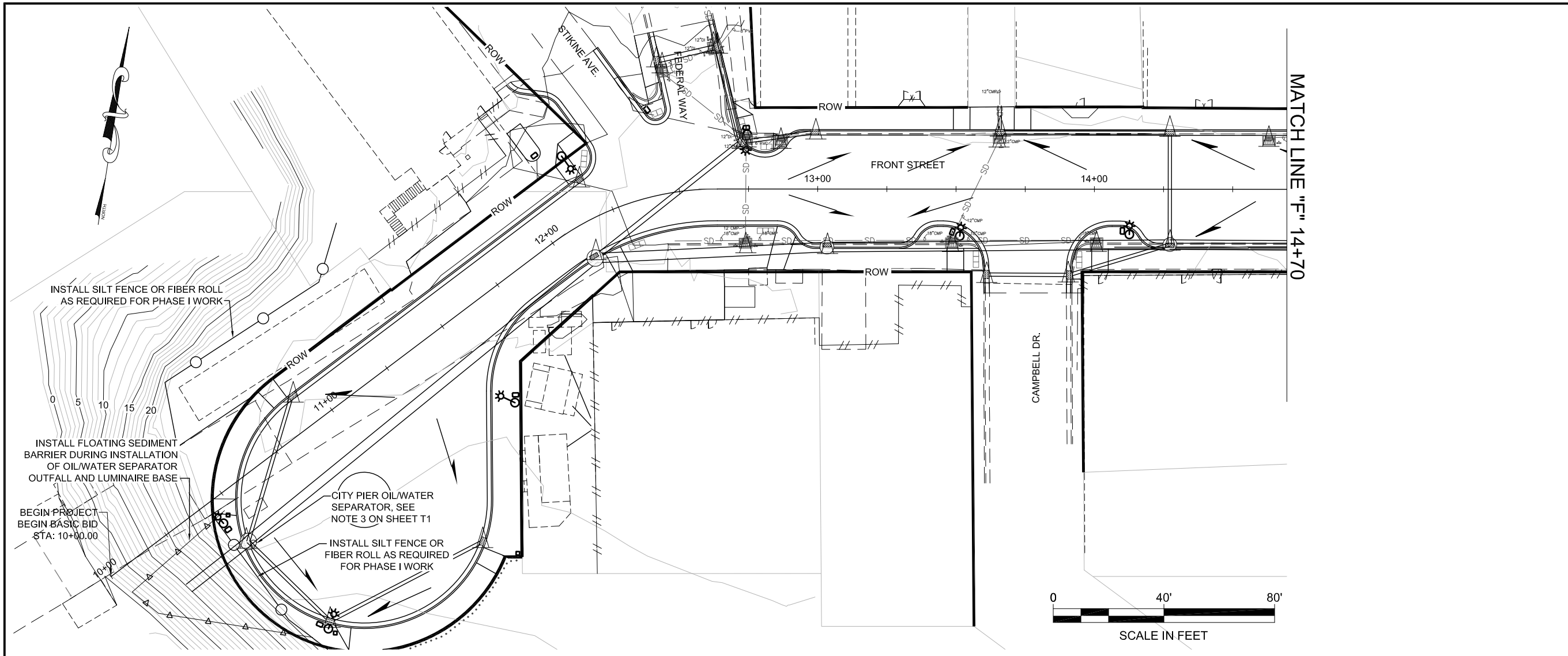


**EROSION SEDIMENT CONTROL PLAN NOTES:**

1. EXISTING CATCH BASINS SHALL BE PROTECTED UNTIL SUCH TIME WHEN THEY ARE REMOVED.
2. PROTECT ALL NEWLY INSTALLED CATCH BASINS.
3. ALL STORM WATER ENTERING THE NEW STORM DRAIN SYSTEM FROM WITHIN THE PROJECT LIMITS SHALL BE TREATED WITH A SUITABLE SEDIMENT CAPTURE DEVICE IN ACCORDANCE WITH SPECIAL PROVISION SECTION 641-3.03 DEWATERING PRIOR TO LEAVING THE PROJECT LIMITS THROUGH EITHER THE CITY PIER OR CITY MARKET OIL/WATER SEPARATORS.
4. IDENTIFY AND CLEARLY MARK LOCATIONS WHERE VEHICLES WILL ENTER AND EXIT THE CONSTRUCTION SITE. INSTALL STABILIZING MEASURES AT THESE LOCATIONS. THESE MEASURES SHALL INCLUDE, BUT ARE NOT LIMITED TO, A WHEEL WASH DOWN. DIVERT RUNOFF FROM WASH AREAS TO A SUITABLE SETTLING AREA - DO NOT DISCHARGE WASH WATER TO A STREAM OR STORM DRAIN. SWEEP EXIT AREAS REGULARLY TO CAPTURE SEDIMENT NOT ELIMINATED BY THE WASH DOWN SYSTEM.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES												
		<p align="center"><b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b></p> <p align="center">EROSION AND SEDIMENT CONTROL SHEET INDEX, LEGEND, AND NOTES</p>												
				PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP										
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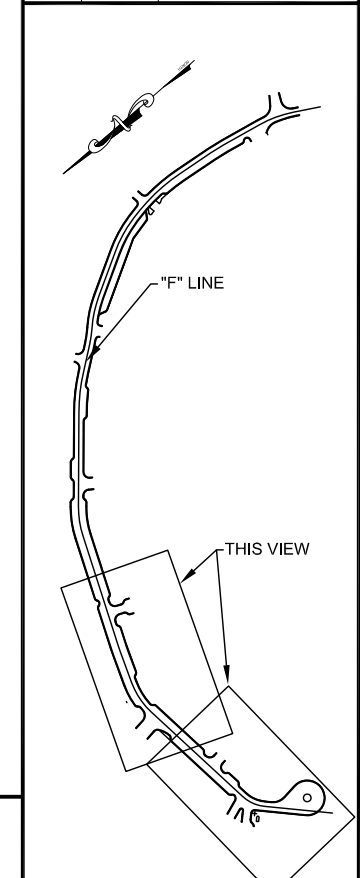


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KEMP, JENNIFER

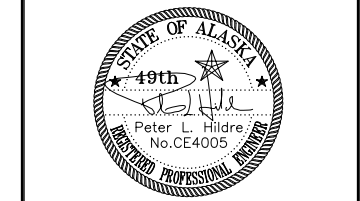
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RECORD OF REVISIONS		
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PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

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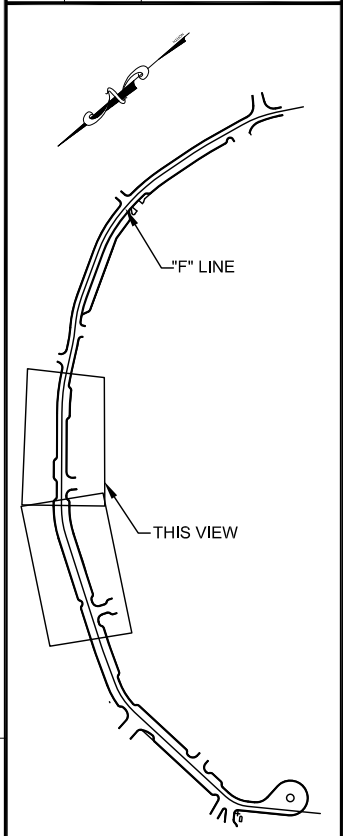
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DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
EROSION AND SEDIMENT CONTROL

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>T2</b>	<b>117</b>

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION



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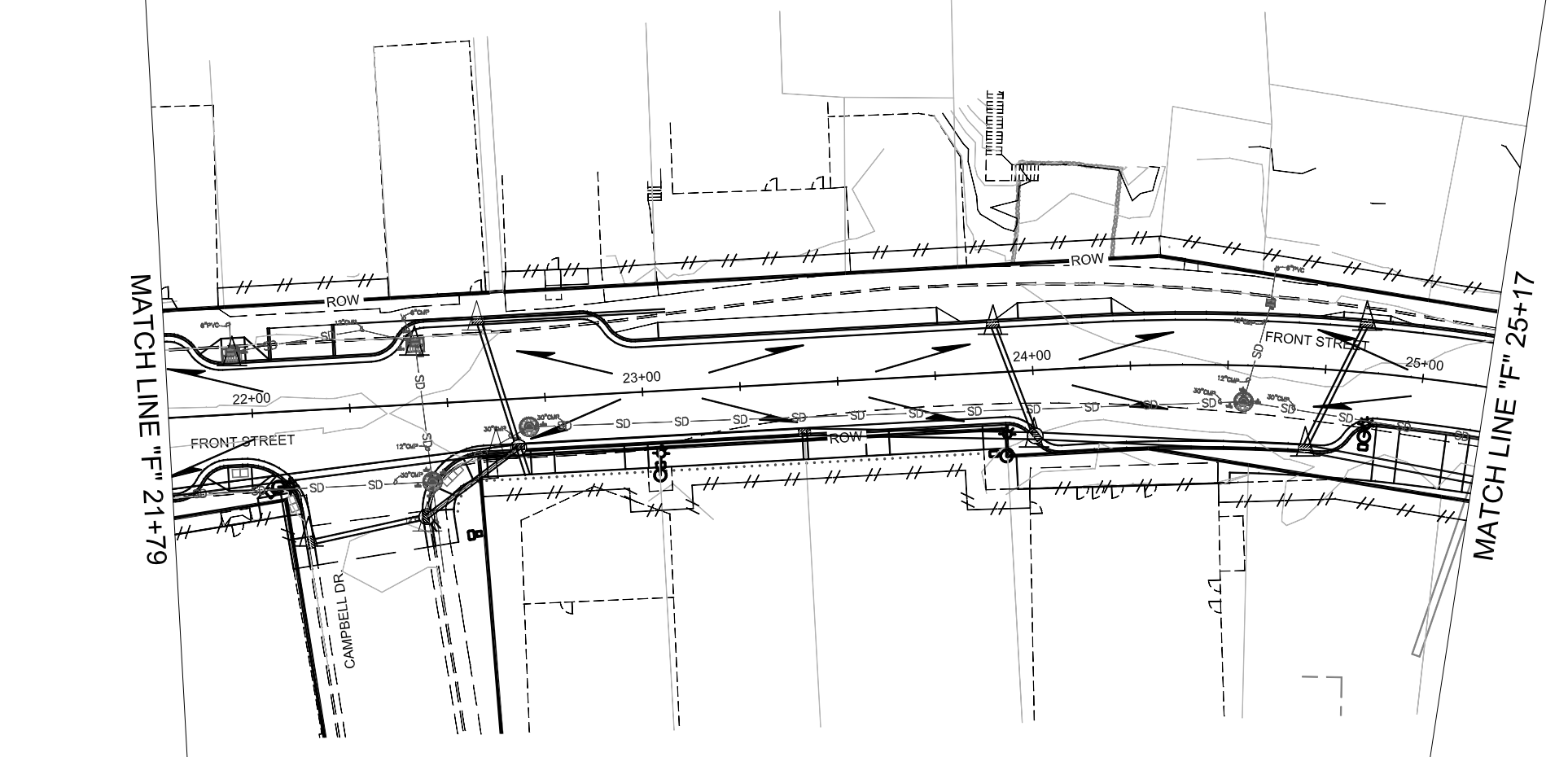
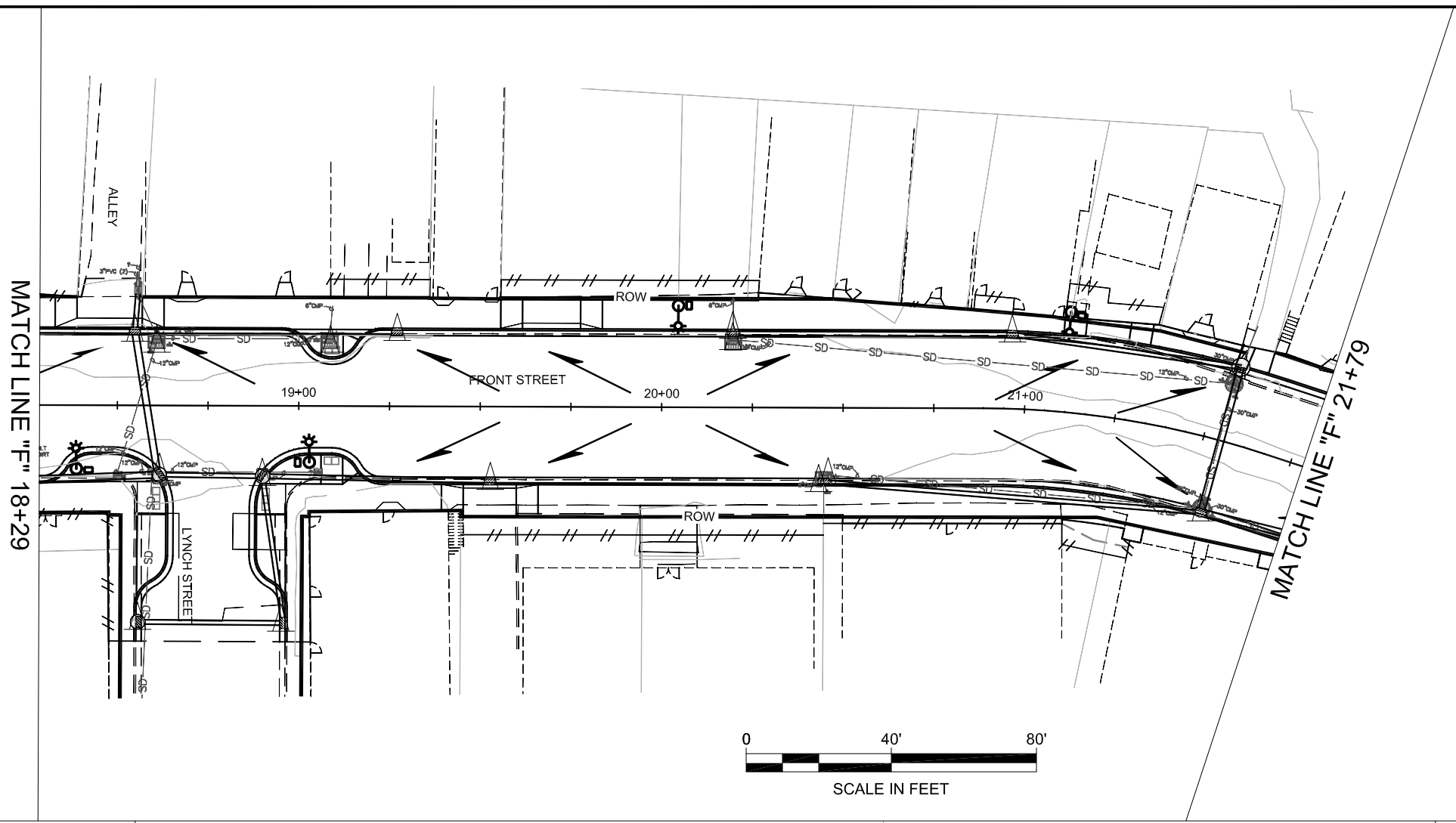
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 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 EROSION AND SEDIMENT CONTROL**

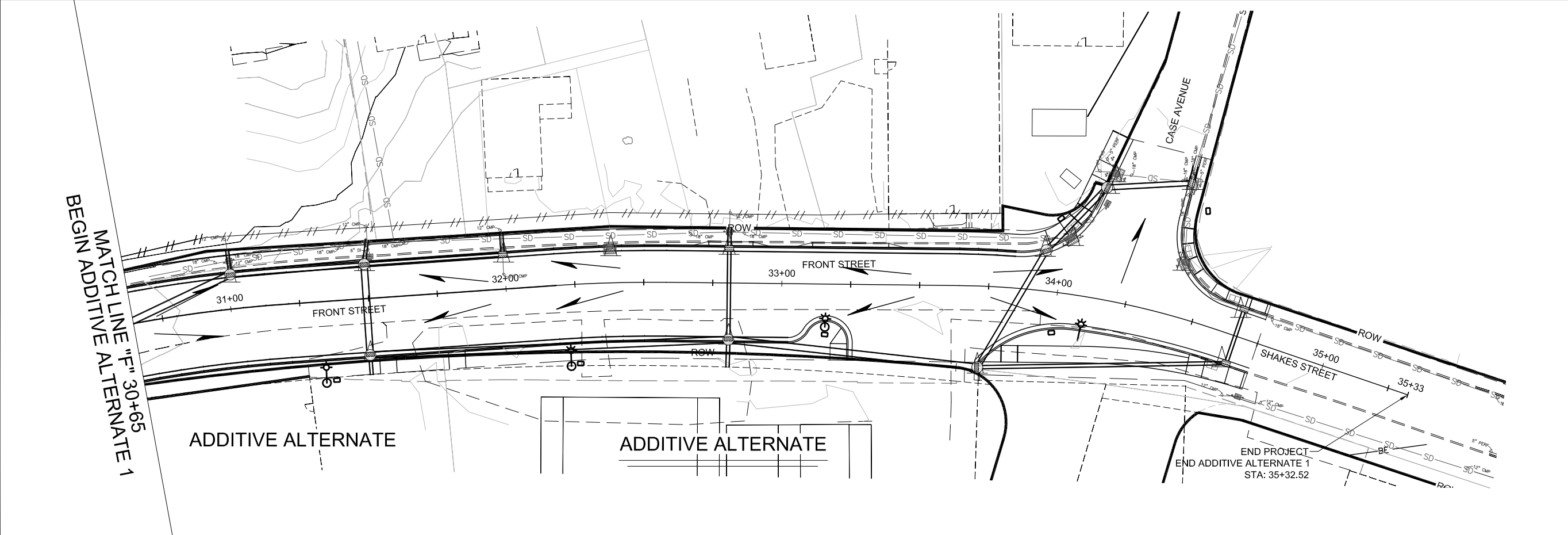
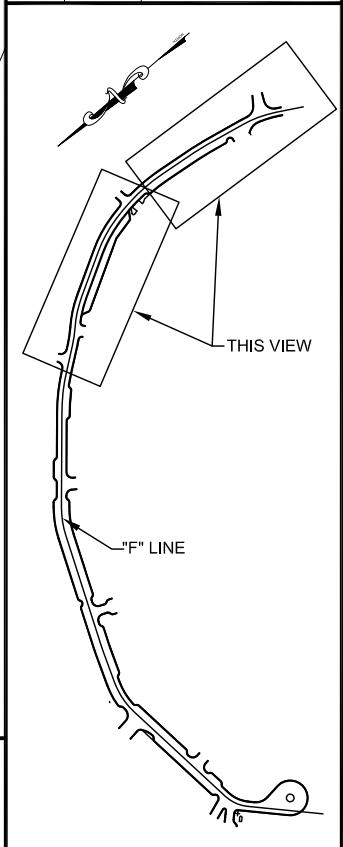
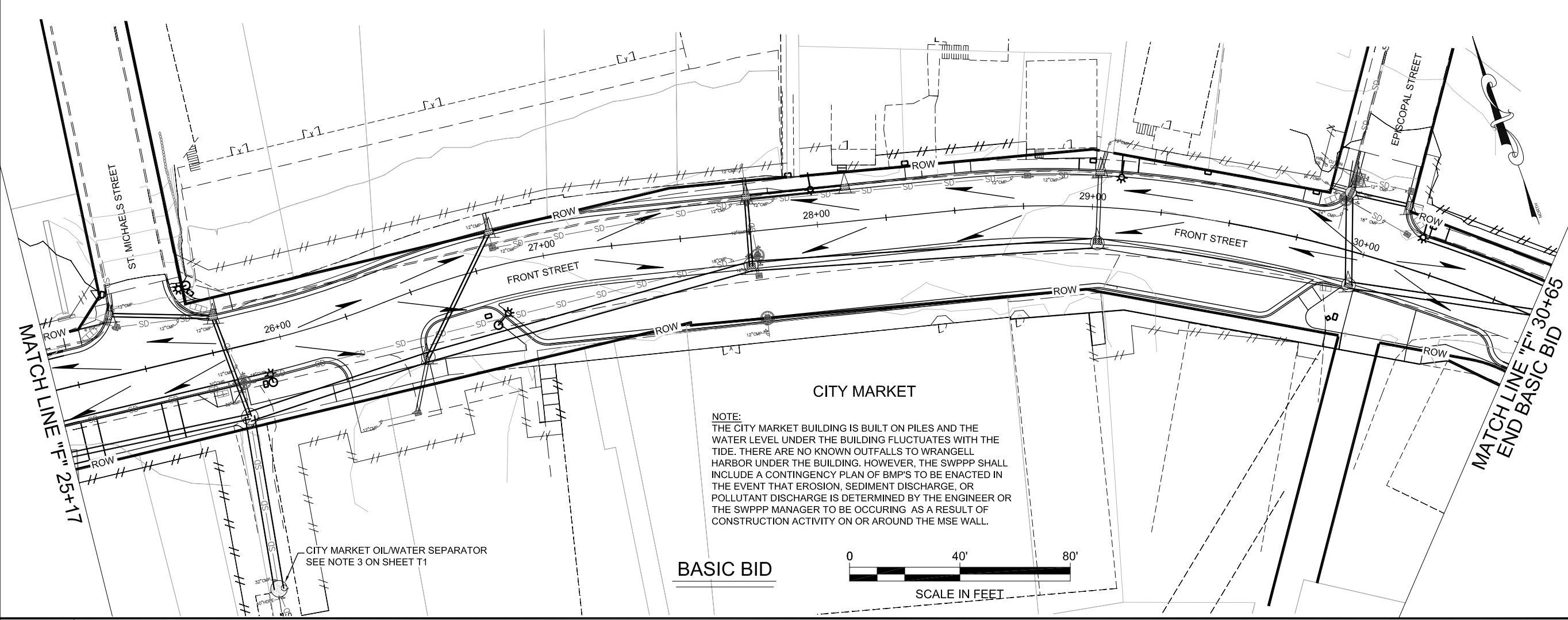
PROJECT DESIGNATION  
**68828 HPRM-003(135)  
 & 67789**

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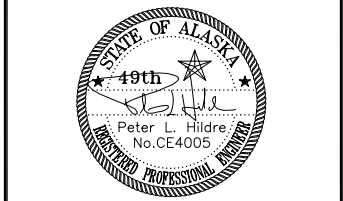


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PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY:

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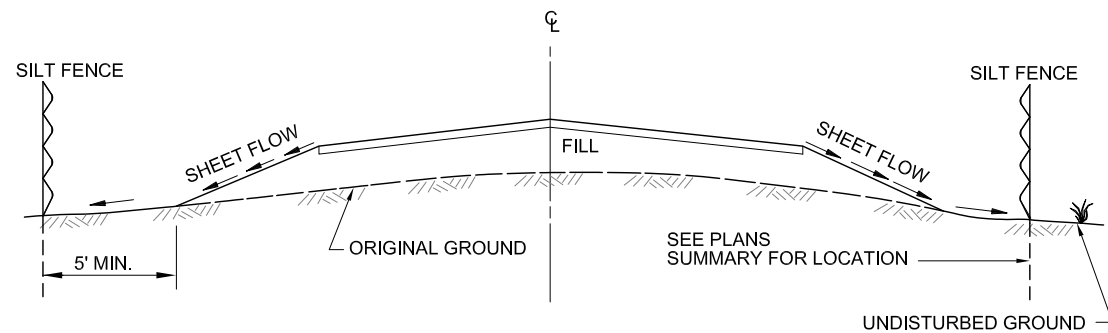
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 DEPARTMENT OF TRANSPORTATION  
 & PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
 EROSION AND SEDIMENT CONTROL

PROJECT DESIGNATION  
**68828 HPRM-003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

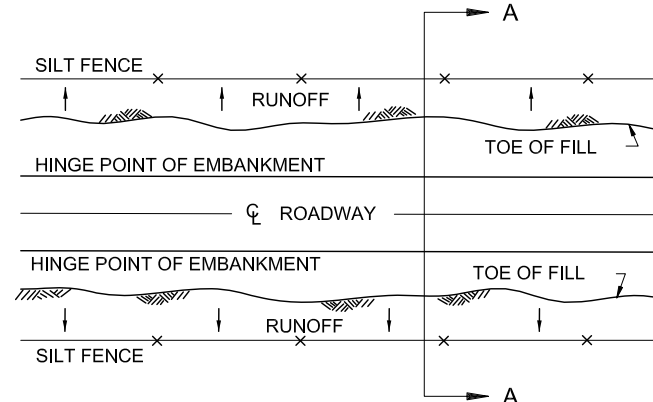
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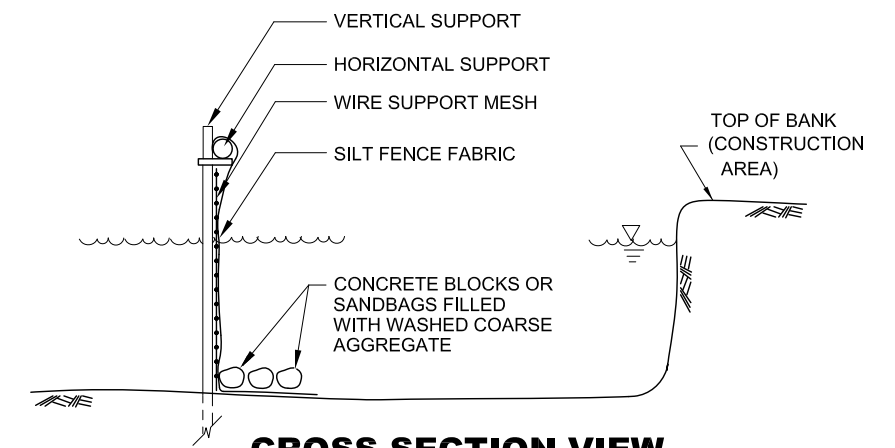
**SECTION A-A**

**GENERAL NOTES:**

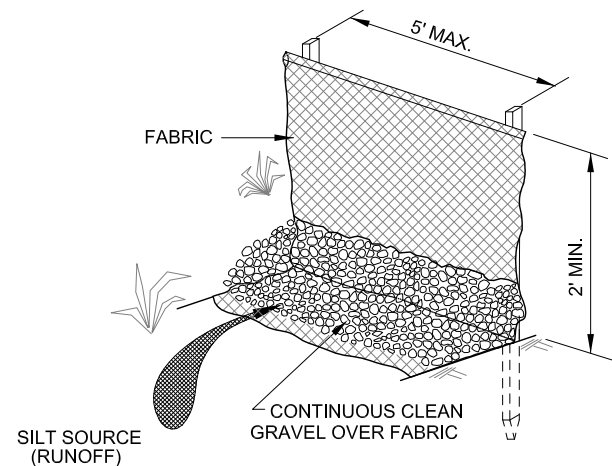
1. INSTALLATION AND APPLICATION SHALL BE IN ACCORDANCE WITH THE ADOT/PF SEDIMENT AND EROSION CONTROL MANUAL (<http://www.dot.state.ak.us>).
2. SILT FENCE FABRIC SHALL BE OVERLAPPED 6" AT FENCE SUPPORTS.
3. SILT FENCE FABRIC SHALL BE TAUT, NOT LOOSE OR FOLDED.
4. THE CONTRACTOR SHALL INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT.
5. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.



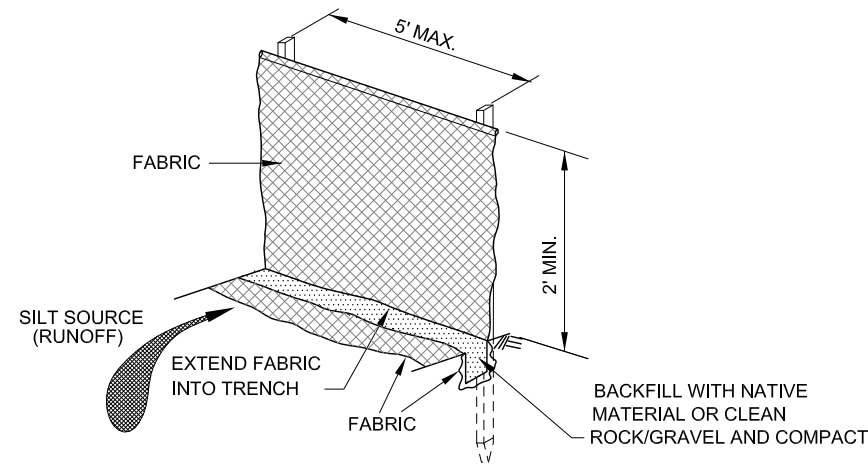
**PLAN VIEW**



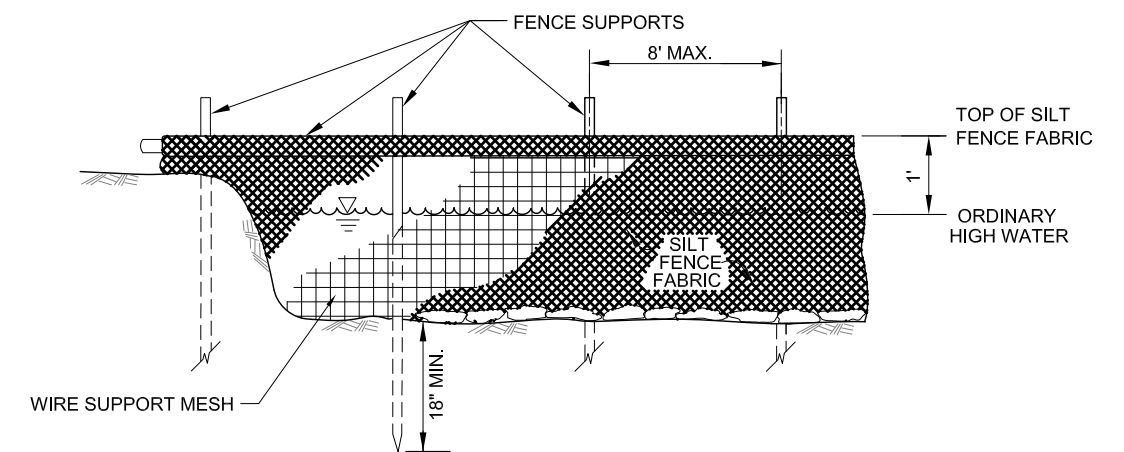
**CROSS SECTION VIEW**



**BACKFILL ALTERNATE**



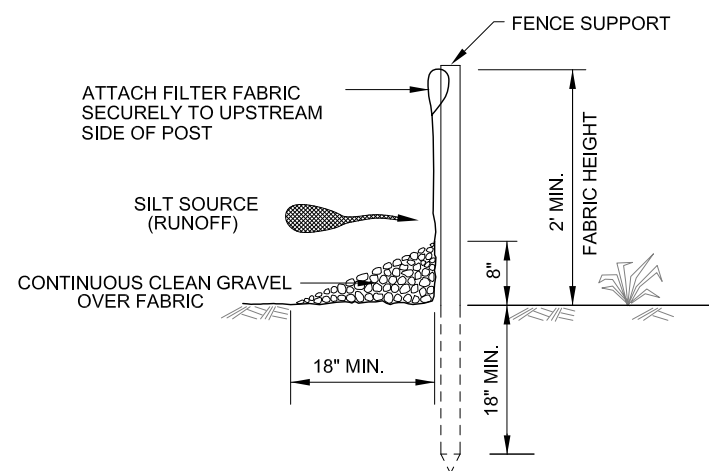
**TRENCH ALTERNATE**



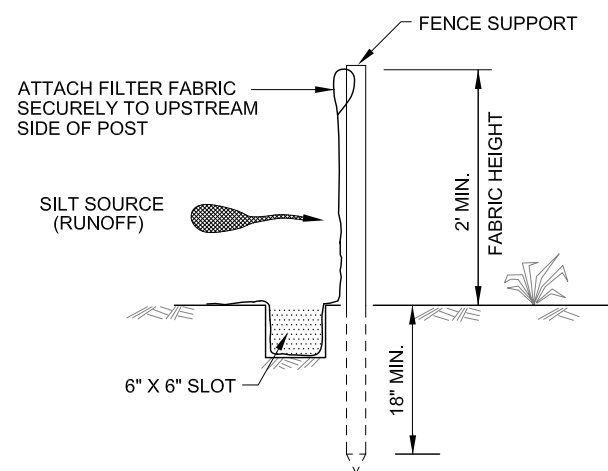
**TYPICAL**

**FOR USE IN WATER**

1. SECURE THE ENDS OF SILT FENCE TO THE BANK.
2. SILT FENCE FRAMEWORK SHALL BE NOMINAL 2" X 2" WOOD, 3" DIAMETER WOOD, #6 REBAR WITH PVC SLEEVES, 3/4" IRON PIPE, OR OTHER POSTS CAPABLE OF SUPPORTING THE INSTALLATION, AS APPROVED BY THE ENGINEER.
3. THE WIRE MESH SUPPORT SHALL BE WWF 6" X 6", W1 X W1 OR AS APPROVED BY THE ENGINEER.
4. FENCE ANCHORED IN STANDING WATER SHALL HAVE THE BOTTOM ANCHORED WITH SANDBAGS OR CONCRETE BLOCKS AS DETAILED ABOVE.



**BACKFILL CROSS SECTION**



**TRENCH CROSS SECTION**

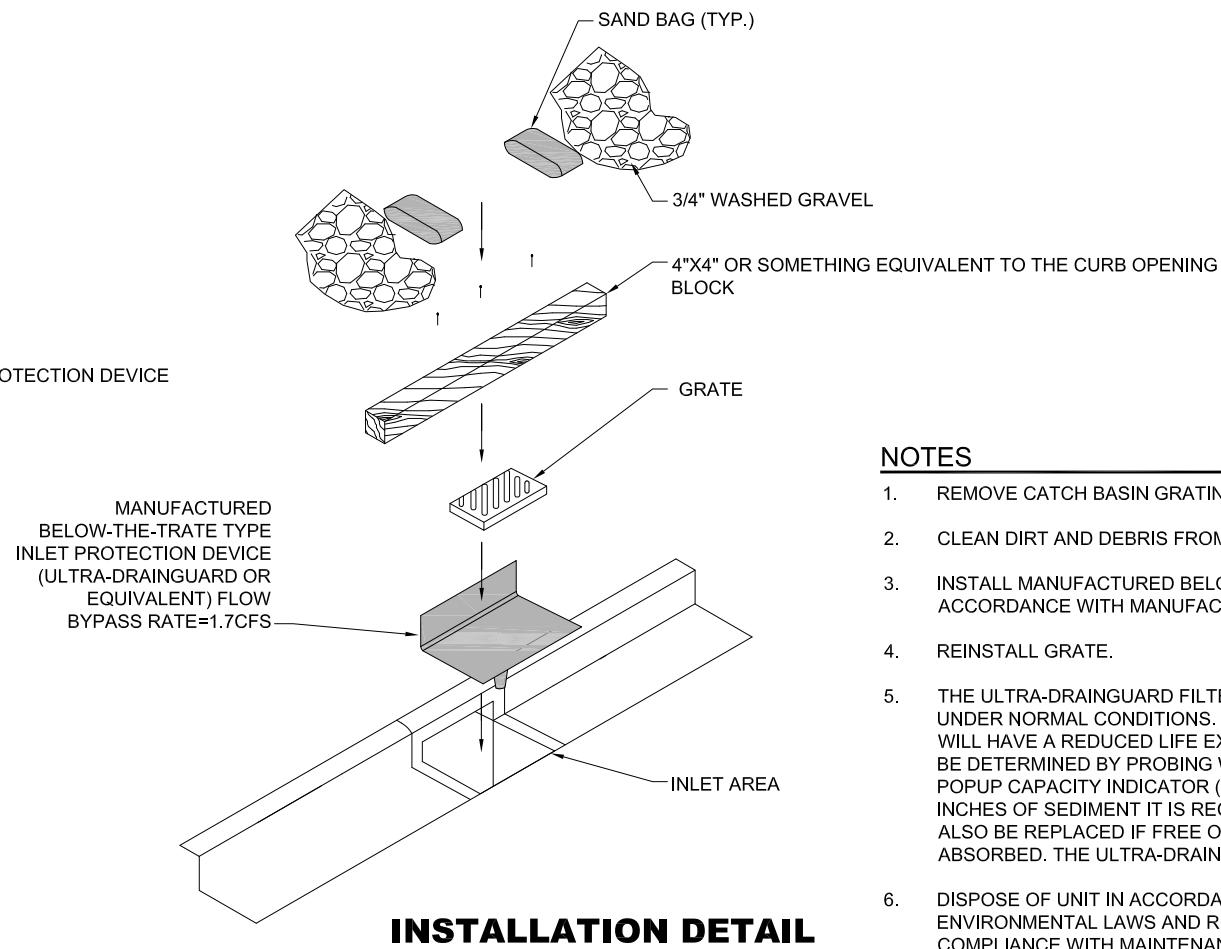
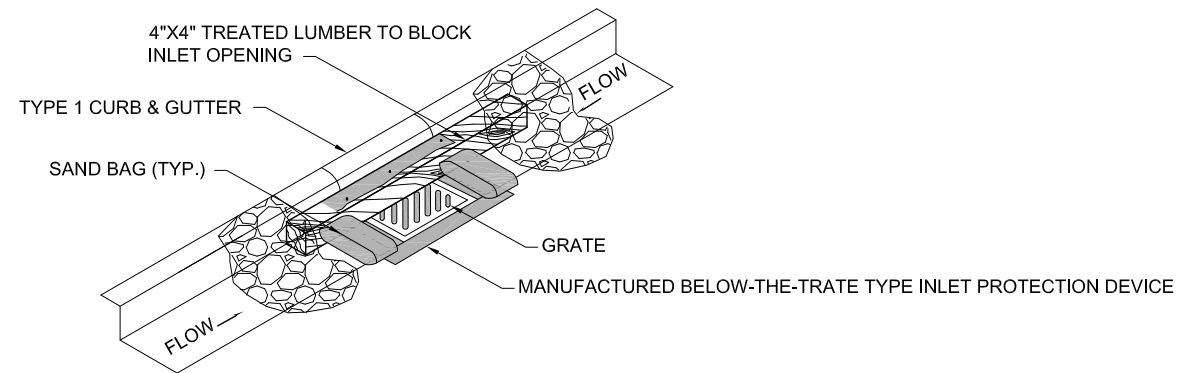
**FOR USE ON LAND**

1. FENCE SHALL BE PLACED AT LEAST 5' FROM THE TOE OF EMBANKMENT OR EXCAVATION AREAS, OR AS DIRECTED BY THE ENGINEER.
2. ACCUMULATION OF SEDIMENT BEHIND SILT FENCE SHALL BE REMOVED WHEN IT REACHES A HEIGHT OF 1/3 THE HEIGHT OF THE FENCE. REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

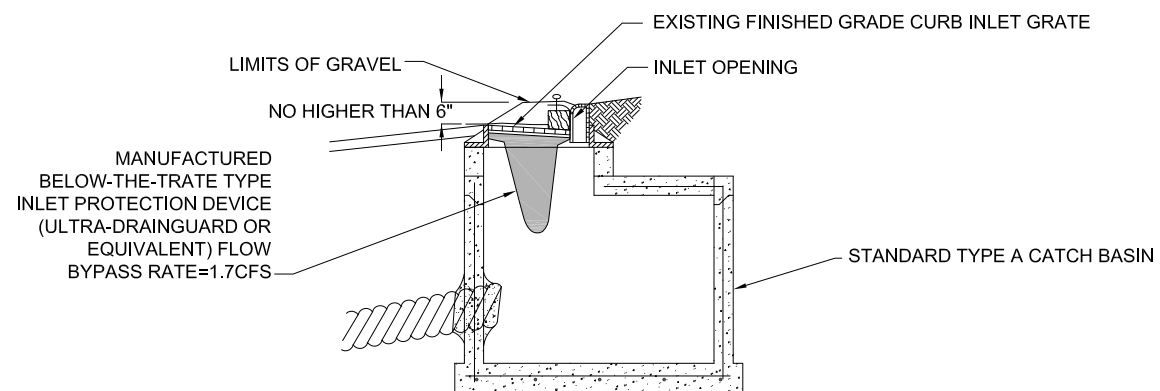
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		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>  <b>SILT FENCE DETAILS</b>												
				PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP										
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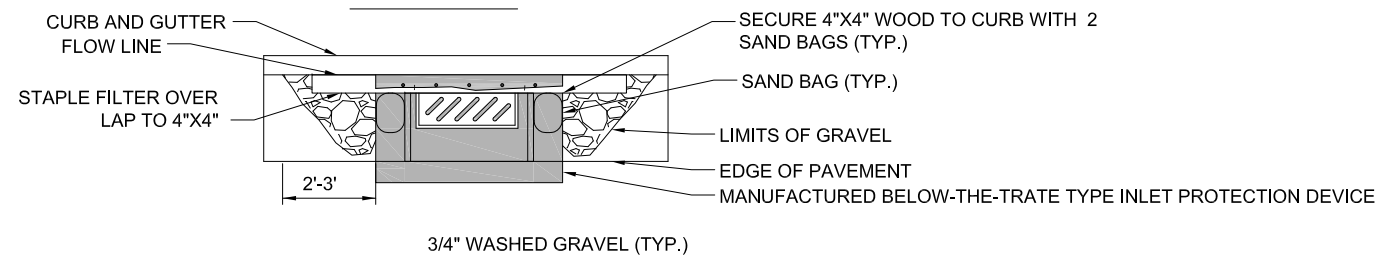


**NOTES**

1. REMOVE CATCH BASIN GRATING.
2. CLEAN DIRT AND DEBRIS FROM GRATING EDGE.
3. INSTALL MANUFACTURED BELOW-THE-GRATE TYPE INLET PROTECTION DEVICE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
4. REINSTALL GRATE.
5. THE ULTRA-DRAINGUARD FILTERS ARE DESIGNED TO BE USED FOR 3 TO 6 MONTHS UNDER NORMAL CONDITIONS. WHERE HEAVY CONTAMINATION IS PRESENT THE UNIT WILL HAVE A REDUCED LIFE EXPECTANCY. THE ACCUMULATION OF SEDIMENT CAN BE DETERMINED BY PROBING WITH A MEASURING STICK OR WITH THE OPTIONAL POPUP CAPACITY INDICATOR (P/N 9236) WHEN THE UNIT HAS COLLECTED ABOUT 6 INCHES OF SEDIMENT IT IS RECOMMENDED THAT IT BE REPLACED. THE UNIT SHOULD ALSO BE REPLACED IF FREE OIL CAN BE SEEN FLOATING AND IS NOT BEING ABSORBED. THE ULTRA-DRAINGUARD SHOULD BE INSPECTED ON A REGULAR BASIS.
6. DISPOSE OF UNIT IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL ENVIRONMENTAL LAWS AND REGULATIONS. THE USER IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH MAINTENANCE AND DISPOSAL LAWS AND REGULATIONS. THE MANUFACTURER OR SELLER ASSUMES NO RESPONSIBILITY FOR PROPER OR IMPROPER MAINTENANCE OR DISPOSAL.

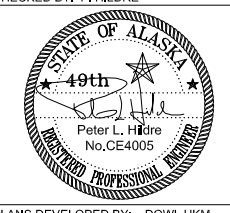


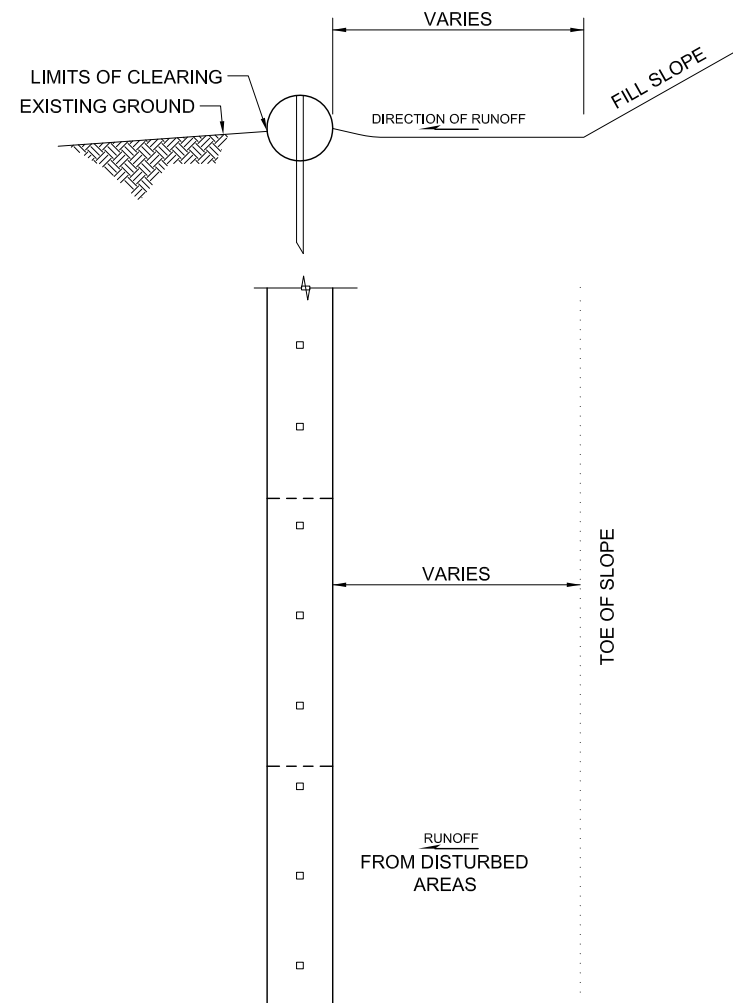
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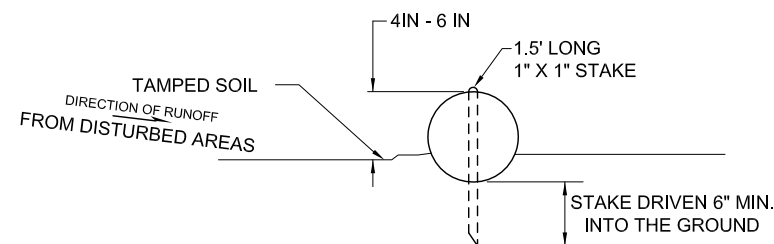
**PLAN VIEW**

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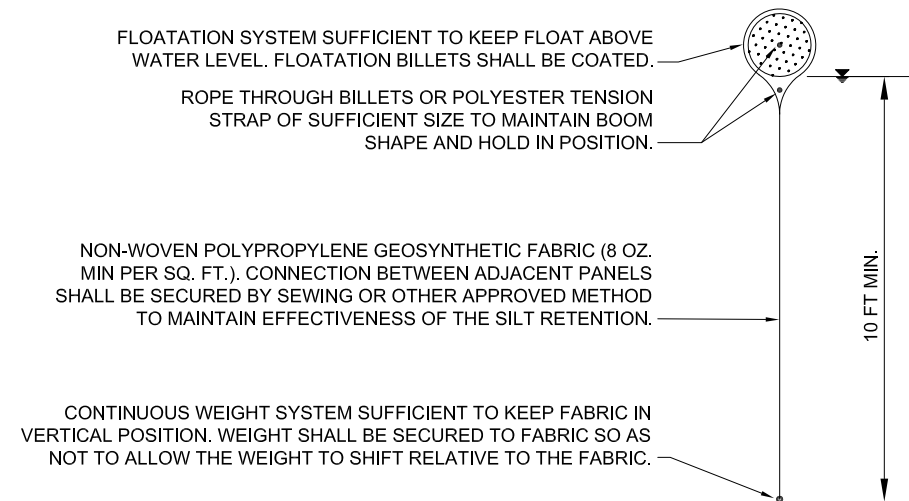
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<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	REVISIONS			NO.	DATE	DESCRIPTION				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 40%;">PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b></td> <td style="width: 10%;">YEAR 2011</td> <td style="width: 10%;">SHEET NO. <b>T6</b></td> <td style="width: 40%;">TOTAL SHEETS 117</td> </tr> </table>	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR 2011	SHEET NO. <b>T6</b>	TOTAL SHEETS 117
REVISIONS														
NO.	DATE	DESCRIPTION												
PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR 2011	SHEET NO. <b>T6</b>	TOTAL SHEETS 117											



PLAN  
INSTALLATION OF A FIBER ROLL  
AT TOE OF FILL



INSTALLATION TYPICAL  
**FIBER ROLL**



**FLOATING SEDIMENT BARRIER**

NOTES:

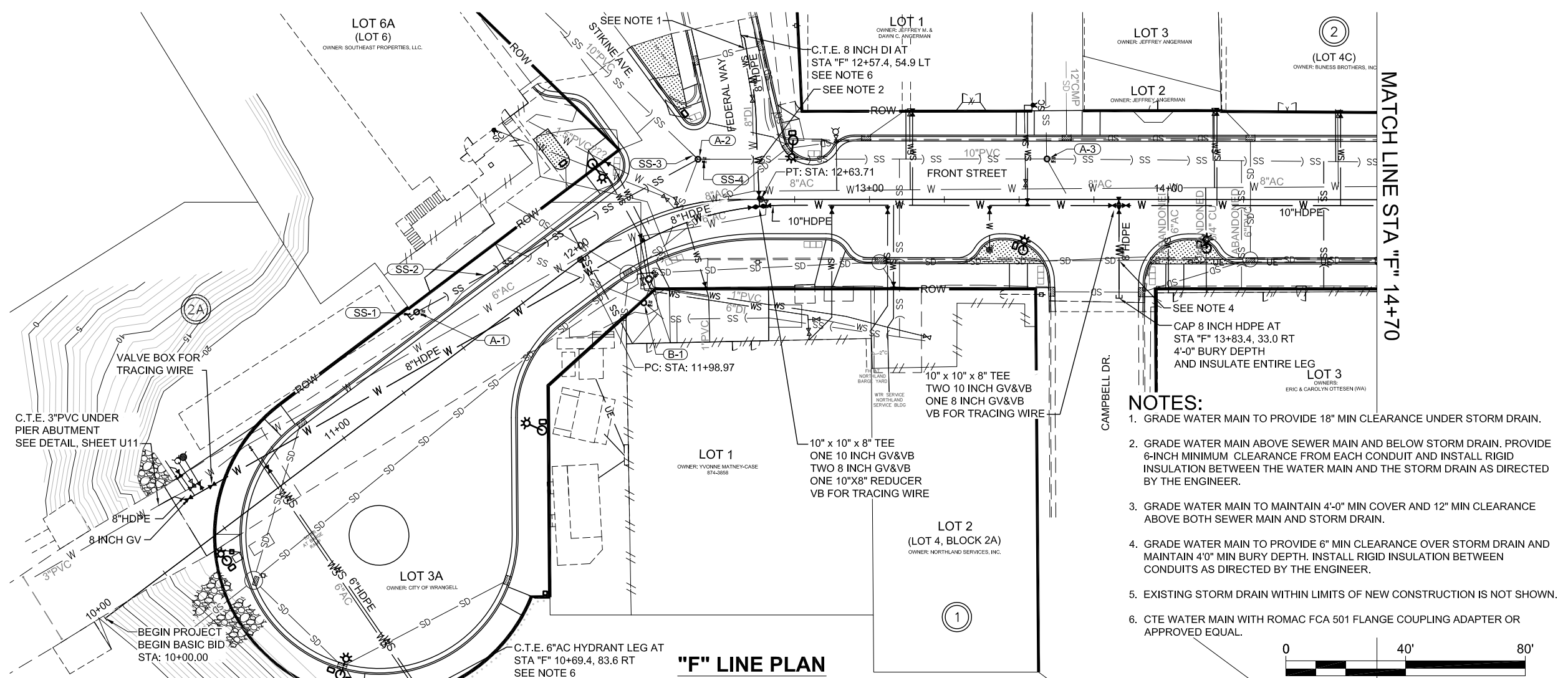
NOTES:

1. PERFORM MINOR HAND TRENCHING TO PROVIDE A STABLE FOUNDATION FOR THE FIBER ROLLS.
2. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE FIBER ROLLS SHALL BE OVERLAPPED; NOT ABUTTED.
3. SPACE STAKES AT 2 FT. MAXIMUM SPACING TO SECURE FIBER ROLLS.
4. INTERTWINE EACH STAKE WITH THE NETTING AND DRIVE STAKE APPROXIMATELY 6 IN. INTO THE GROUND WITH THE TOP OF STAKE BEING FLUSH WITH THE TOP OF THE FIBER ROLL.
5. TAMP SOIL ADJACENT TO UPSTREAM SIDE TO ASSURE WATER IS FORCED THROUGH THE FIBER ROLL RATHER THAN UNDER IT.

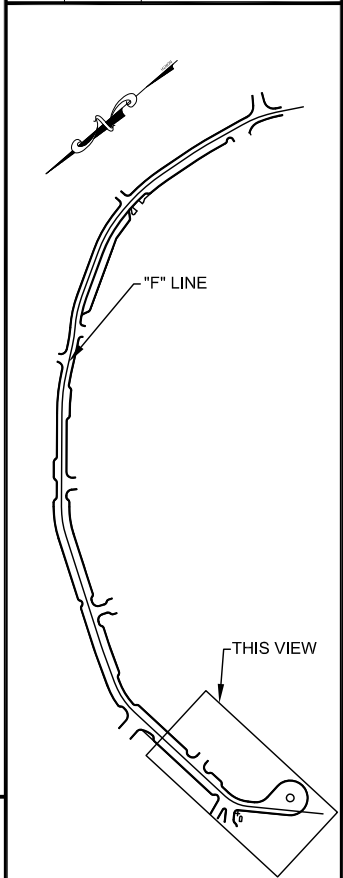
1. GENERAL REQUIREMENTS SHOWN. FINAL DESIGN BY CONTRACTOR. CONTRACTOR SHALL SUBMIT BOOM AND ANCHOR DESIGN FOR ENGINEER'S APPROVAL AT LEAST 14 DAYS PRIOR TO PLANNED INSTALLATION.
2. PLACE AND SECURE BOOM APPROXIMATELY 10' SEAWARD OF TOE OF ALL SLOPES. MONITOR AND MAINTAIN POSITION AND INTEGRITY DURING ALL FILL PLACEMENT OPERATIONS.
3. REMOVE AND DISPOSE BOOM UPON COMPLETION OF ALL FILL PLACEMENT.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES		
		WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789		
		<b>FIBER ROLL &amp; FLOATING SEDIMENT BARRIER DETAILS</b>		
PLANS DEVELOPED BY: DOWL HKM		PATH: S:\LIB\70112\DESIGN\SHEETS TUJ70112 T5-T7.DWG		
DESIGNED BY: T. LOCKHART		TAB: T7 Friday, March 25, 2011 3:45:47 PM		
DRAWN BY: J. KEMP		REVISIONS		
NO.	DATE	DESCRIPTION	PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	YEAR 2011
			SHEET NO. <b>T7</b>	TOTAL SHEETS 117



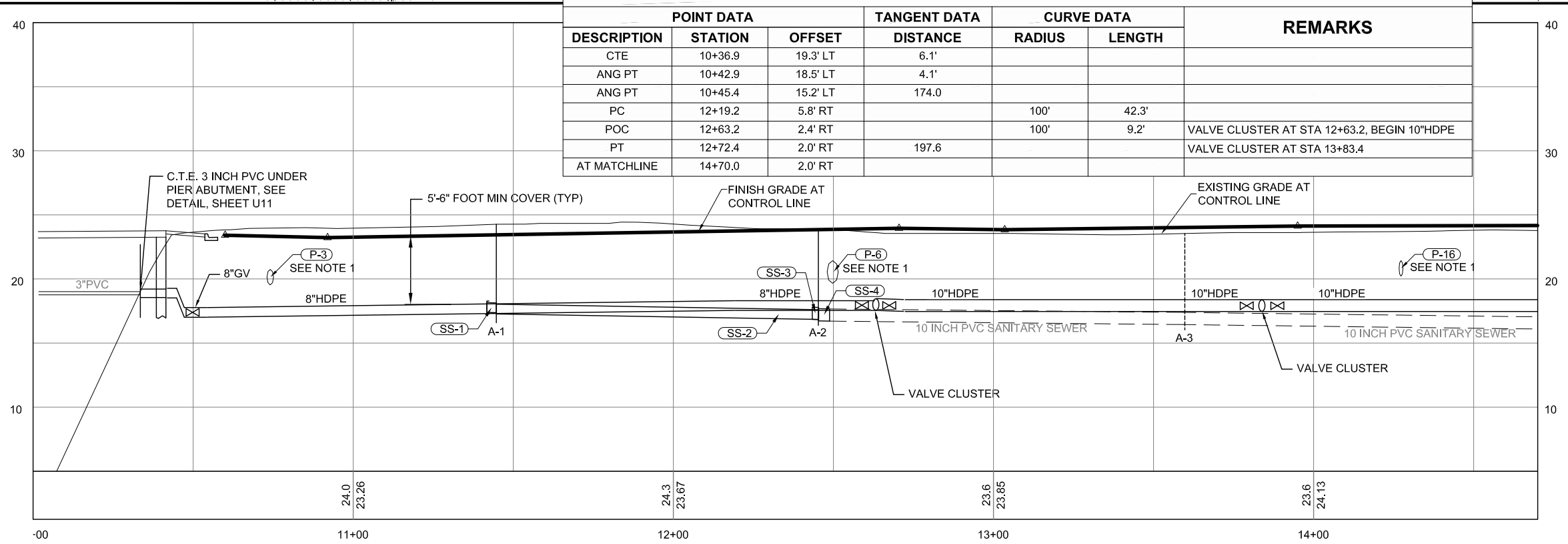
- NOTES:**
1. GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN.
  2. GRADE WATER MAIN ABOVE SEWER MAIN AND BELOW STORM DRAIN. PROVIDE 6-INCH MINIMUM CLEARANCE FROM EACH CONDUIT AND INSTALL RIGID INSULATION BETWEEN THE WATER MAIN AND THE STORM DRAIN AS DIRECTED BY THE ENGINEER.
  3. GRADE WATER MAIN TO MAINTAIN 4'-0" MIN COVER AND 12" MIN CLEARANCE ABOVE BOTH SEWER MAIN AND STORM DRAIN.
  4. GRADE WATER MAIN TO PROVIDE 6" MIN CLEARANCE OVER STORM DRAIN AND MAINTAIN 40" MIN BURY DEPTH. INSTALL RIGID INSULATION BETWEEN CONDUITS AS DIRECTED BY THE ENGINEER.
  5. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  6. CTE WATER MAIN WITH ROMAC FCA 501 FLANGE COUPLING ADAPTER OR APPROVED EQUAL.



**"F" LINE PLAN**

**WATER MAIN ALIGNMENT TABLE**

DESCRIPTION	POINT DATA		TANGENT DATA	CURVE DATA		REMARKS
	STATION	OFFSET	DISTANCE	RADIUS	LENGTH	
CTE	10+36.9	19.3' LT	6.1'			
ANG PT	10+42.9	18.5' LT	4.1'			
ANG PT	10+45.4	15.2' LT	174.0			
PC	12+19.2	5.8' RT		100'	42.3'	
POC	12+63.2	2.4' RT		100'	9.2'	VALVE CLUSTER AT STA 12+63.2, BEGIN 10"HDPE
PT	12+72.4	2.0' RT	197.6			VALVE CLUSTER AT STA 13+83.4
AT MATCHLINE	14+70.0	2.0' RT				



**"F" LINE PROFILE**

**PLAN LEGEND**

CHECKED BY: P. HILDRE

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY: T. LOCKHART

DRAWN BY: J. KEMP

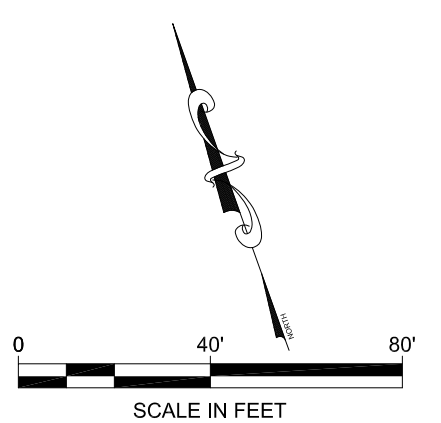
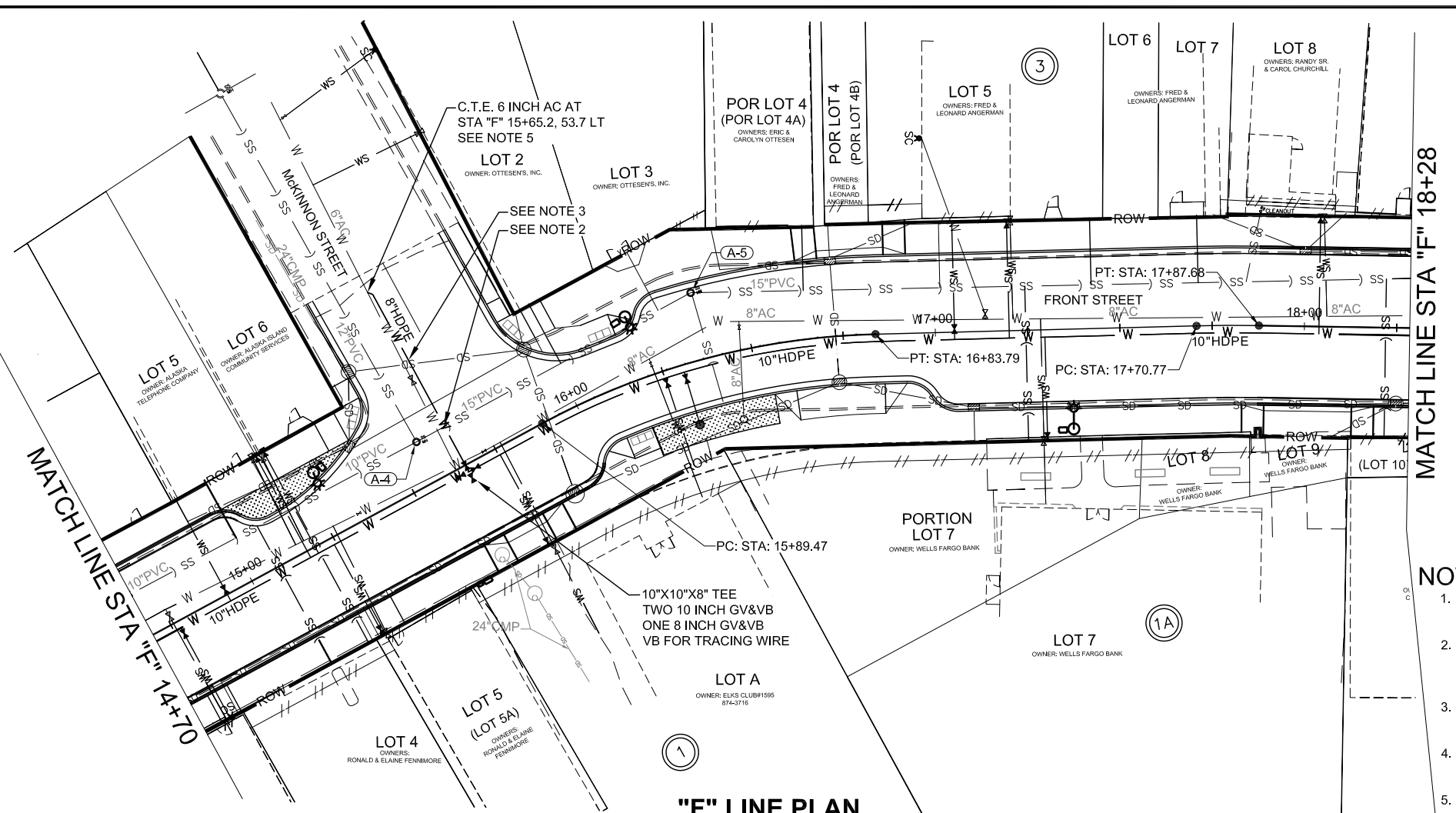
STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
UTILITIES  
PLAN & PROFILE**

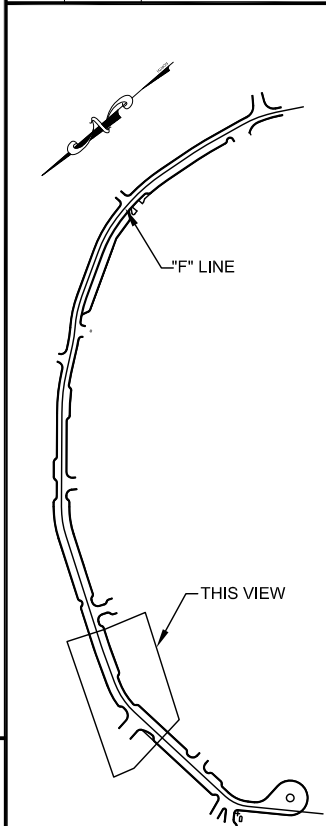
PROJECT DESIGNATION  
**68828 HPRM -003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>U1</b>	<b>117</b>

ADDENDUM NUMBER		
ATTACHMENT NUMBER		
RECORD OF REVISIONS		
No.	DATE	DESCRIPTION

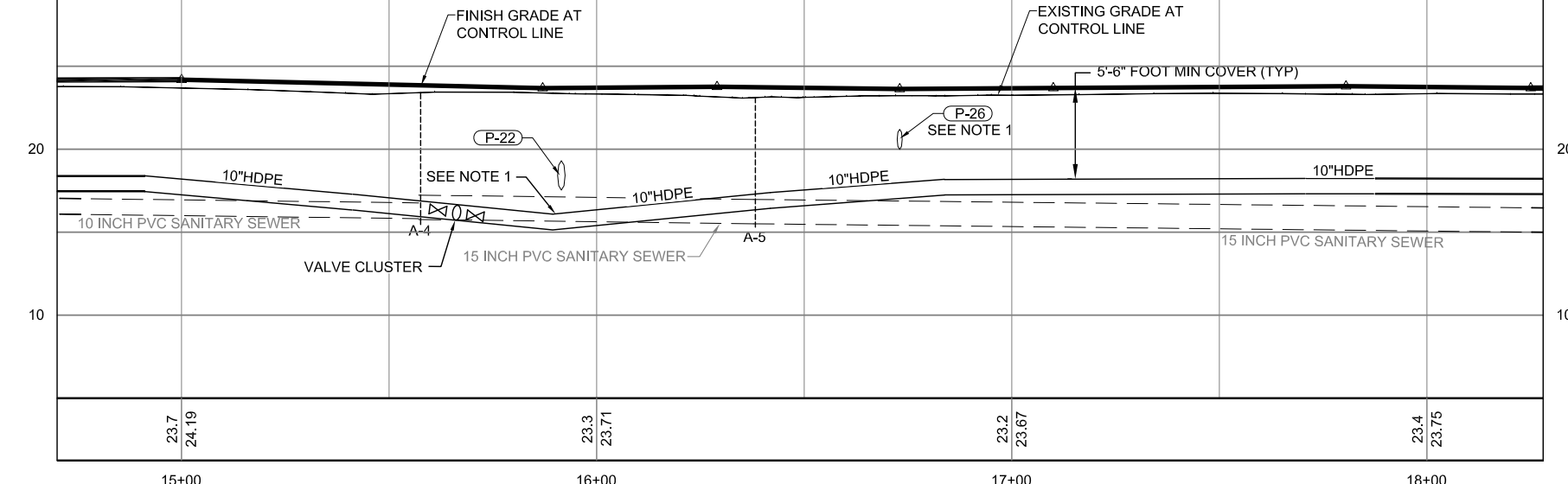


- NOTES:**
- GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN.
  - GRADE WATER MAIN TO MAINTAIN 4'-0" MIN COVER AND 18" MIN CLEARANCE ABOVE SANITARY SEWER MAIN WITH FITTINGS AND ELBOWS AS REQUIRED.
  - GRADE WATER MAIN TO MAINTAIN 4'-0" MIN COVER AND 12" MIN CLEARANCE ABOVE STORM DRAIN.
  - EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  - CTE WATER MAIN WITH ROMAC FCA 501 FLANGE COUPLING ADAPTER OR APPROVED EQUAL.



**WATER MAIN ALIGNMENT TABLE**

DESCRIPTION	POINT DATA		TANGENT DATA	CURVE DATA		REMARKS
	STATION	OFFSET	DISTANCE	RADIUS	LENGTH	
AT MATCHLINE	14+70.0	2.0' RT	119.5'			VALVE CLUSTER AT STA 15+65.7
PC	15+89.5	2.0' RT		198'	93.5'	
PT	16.83.8	2.0' RT	87.0'			
PC	17+70.8	2.0' RT		398'	16.8'	
PT	17+87.7	2.0' RT	40.3			
AT MATCHLINE	18+28.0	2.0' RT				



**"F" LINE PROFILE**

**PLAN LEGEND**

CHECKED BY: P. HILDRE



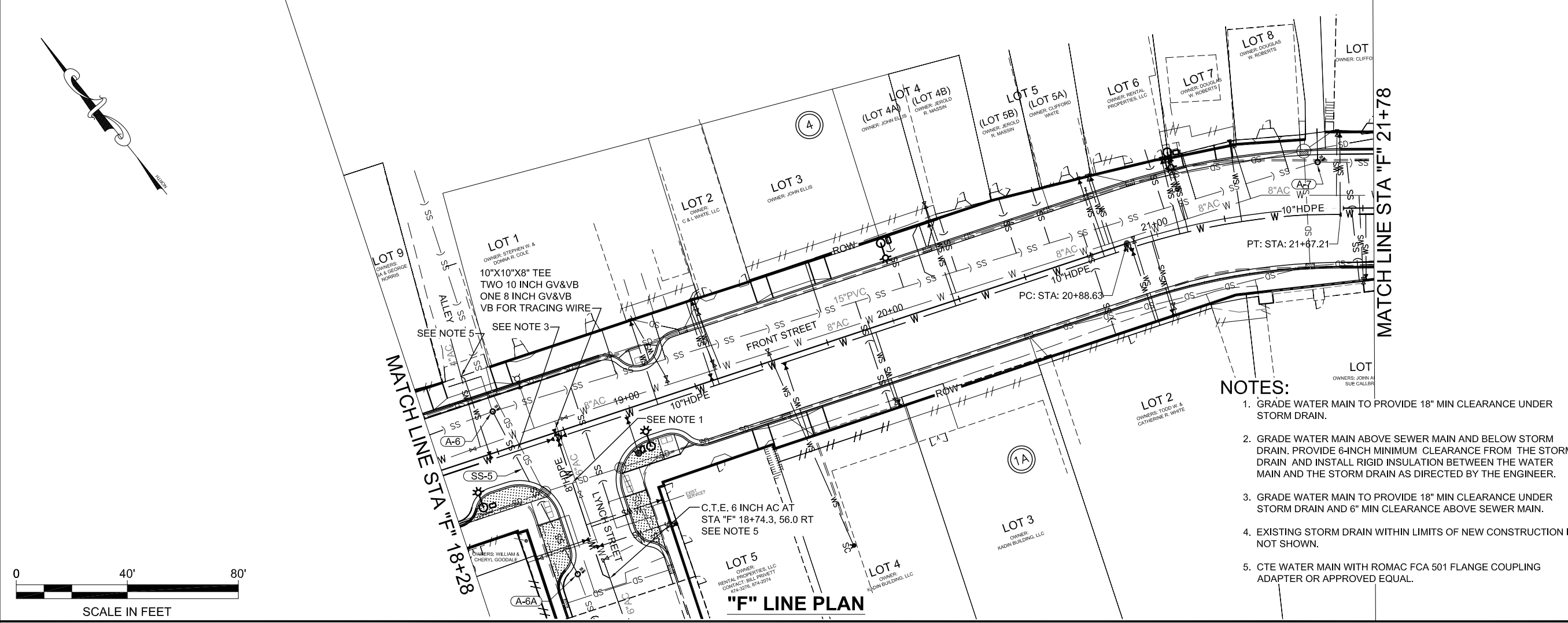
PLANS DEVELOPED BY: DOWL HKM  
DESIGNED BY: T. LOCKHART  
DRAWN BY: J. KEMP

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
UTILITIES  
PLAN & PROFILE

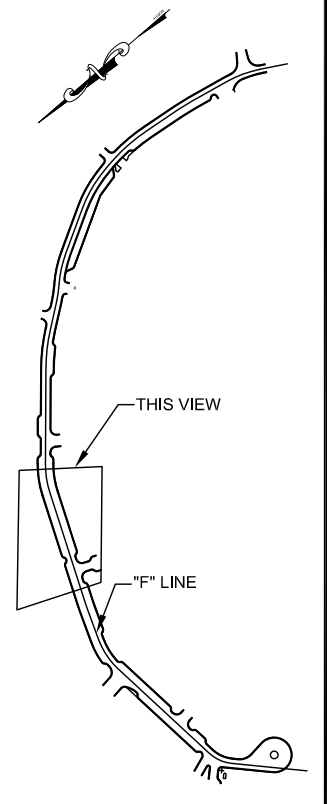
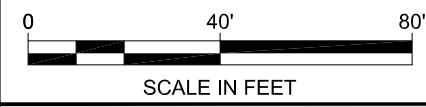
PROJECT DESIGNATION  
**68828 HPRM -003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>

SHEET NUMBER	TOTAL SHEETS
<b>U2</b>	<b>117</b>

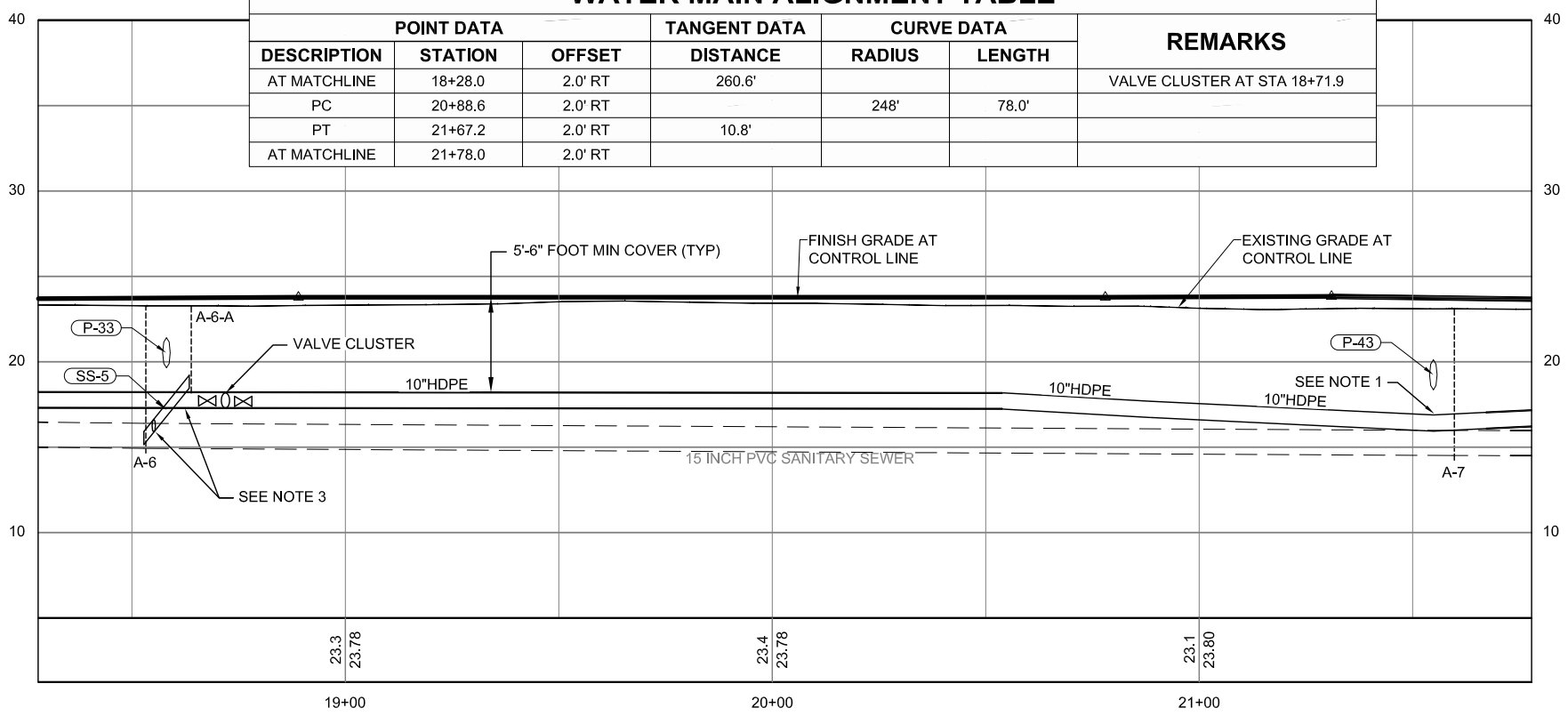


- NOTES:**
- GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN.
  - GRADE WATER MAIN ABOVE SEWER MAIN AND BELOW STORM DRAIN. PROVIDE 6-INCH MINIMUM CLEARANCE FROM THE STORM DRAIN AND INSTALL RIGID INSULATION BETWEEN THE WATER MAIN AND THE STORM DRAIN AS DIRECTED BY THE ENGINEER.
  - GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN AND 6" MIN CLEARANCE ABOVE SEWER MAIN.
  - EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  - CTE WATER MAIN WITH ROMAC FCA 501 FLANGE COUPLING ADAPTER OR APPROVED EQUAL.



**WATER MAIN ALIGNMENT TABLE**

DESCRIPTION	POINT DATA		TANGENT DATA	CURVE DATA		REMARKS
	STATION	OFFSET	DISTANCE	RADIUS	LENGTH	
AT MATCHLINE	18+28.0	2.0' RT	260.6'			VALVE CLUSTER AT STA 18+71.9
PC	20+88.6	2.0' RT		248'	78.0'	
PT	21+67.2	2.0' RT	10.8'			
AT MATCHLINE	21+78.0	2.0' RT				



**"F" LINE PROFILE**

**PLAN LEGEND**

CHECKED BY: P. HILDRE

PLANS DEVELOPED BY: DOWL HKM

DESIGNED BY: T. LOCKHART

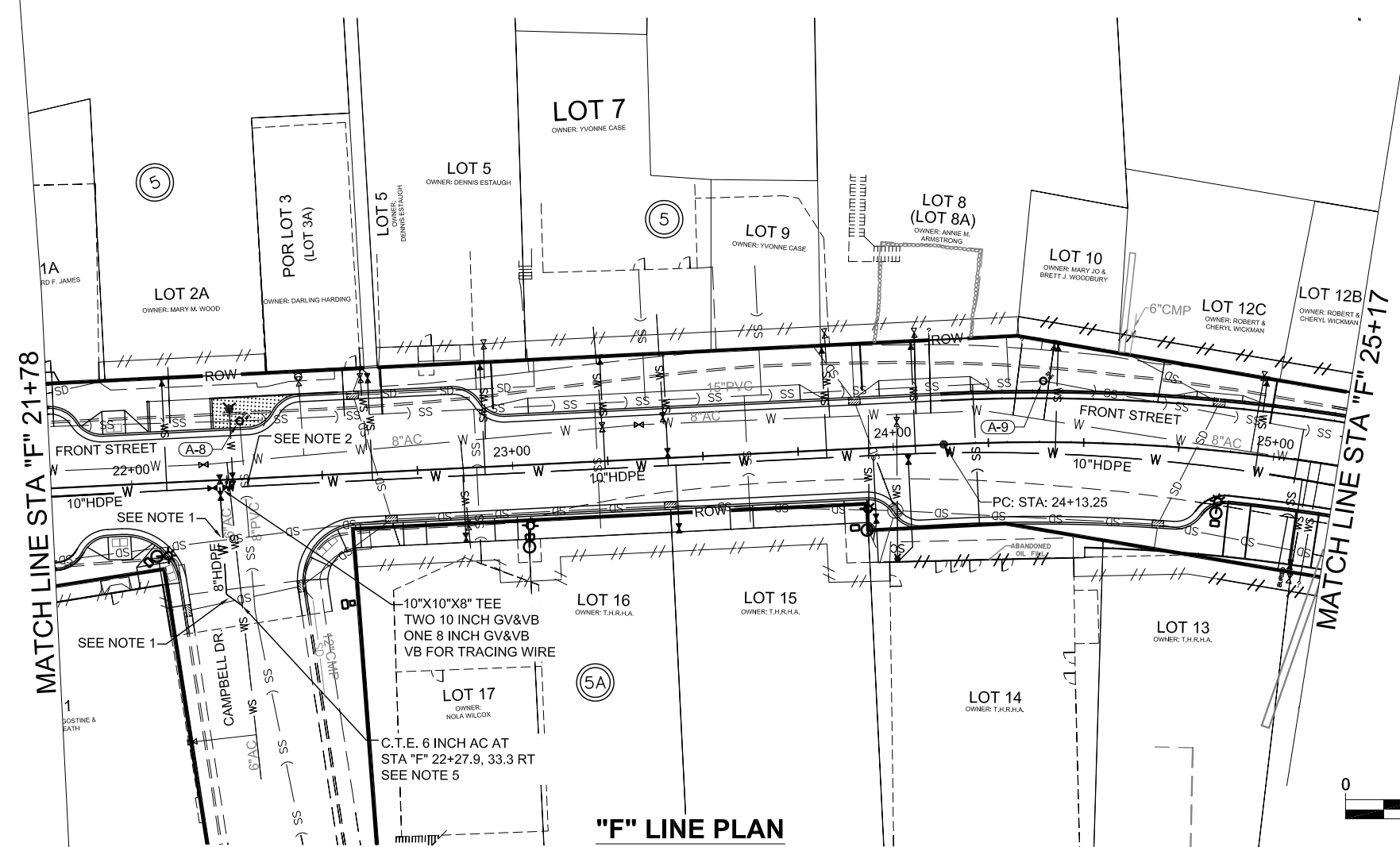
DRAWN BY: J. KEMP

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

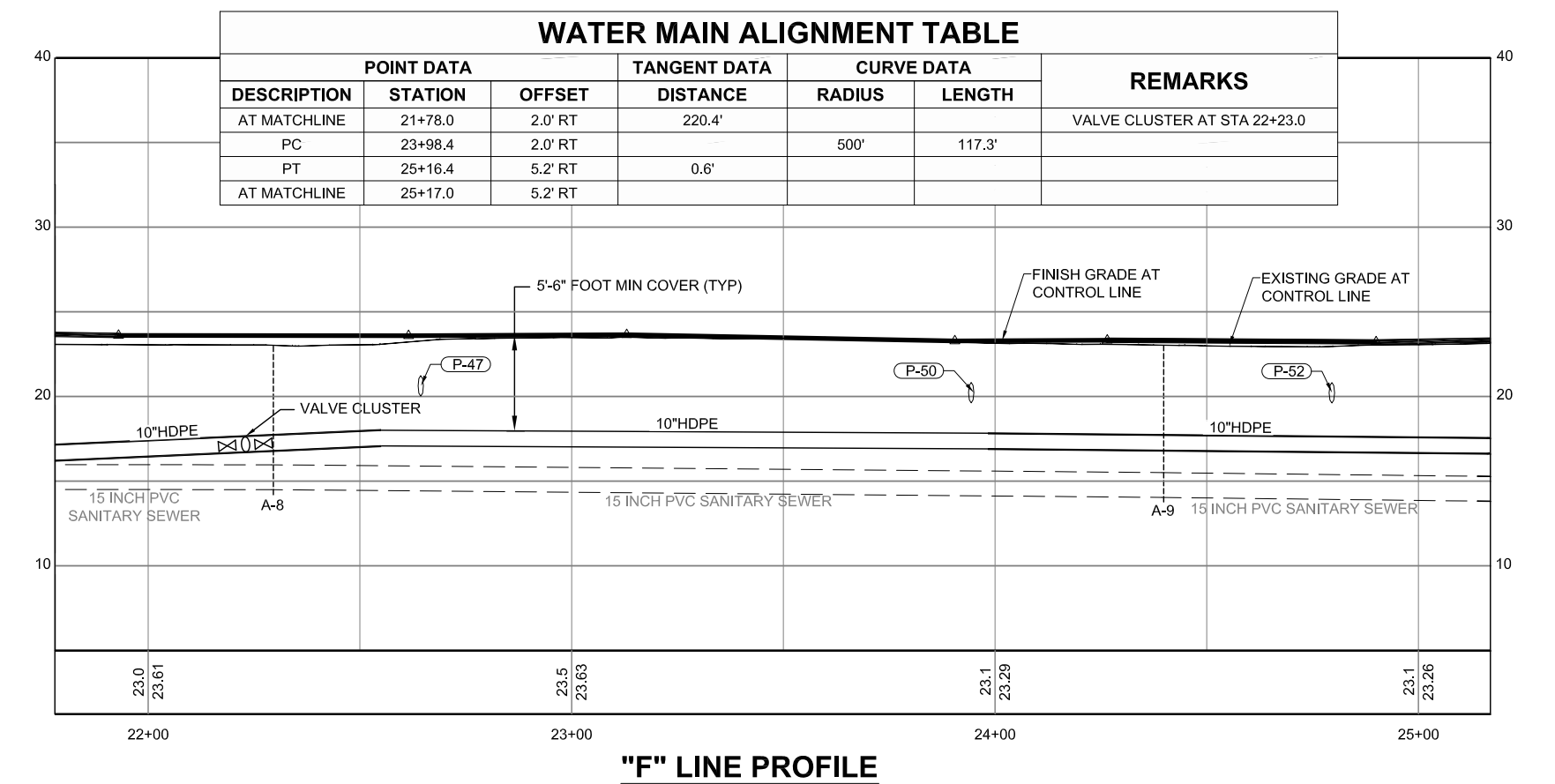
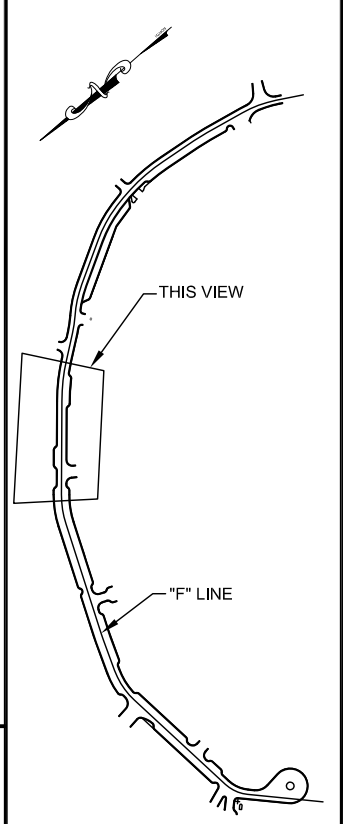
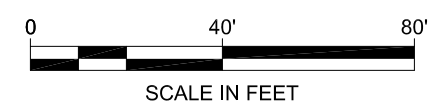
**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
UTILITIES  
PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM -003(135)  
& 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>U3</b>	<b>117</b>



- NOTES:**
1. GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN.
  2. GRADE WATER MAIN ABOVE SEWER MAIN AND PROVIDE 6-INCH MINIMUM CLEARANCE.
  3. GRADE WATER MAIN UNDER STORM DRAIN TO PROVIDE 6" MIN CLEARANCE AND INSTALL RIGID INSULATION BETWEEN THE TWO CONDUITS AS DIRECTED BY THE ENGINEER.
  4. EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  5. CTE WATER MAIN WITH ROMAC FCA 501 FLANGE COUPLING ADAPTER OR APPROVED EQUAL.



STATE OF ALASKA  
49th  
Peter L. Hildre  
No. CE4005  
REGISTERED PROFESSIONAL ENGINEER

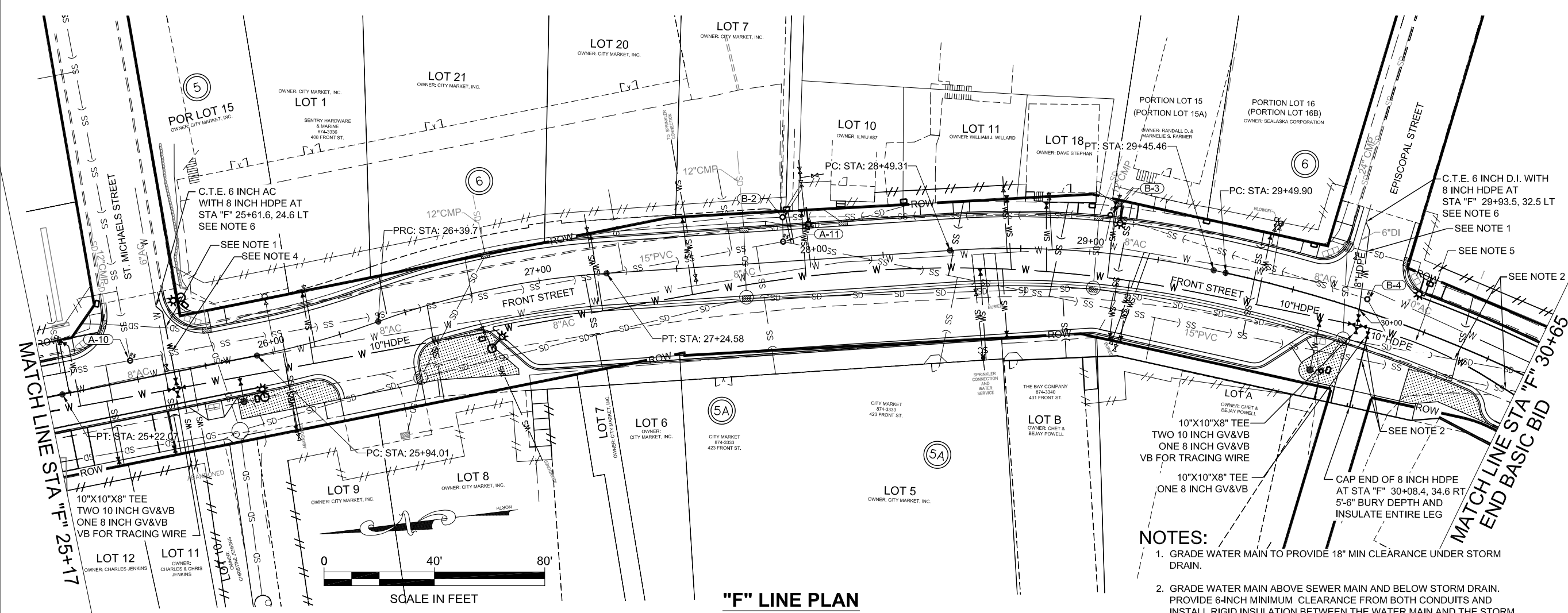
PLANS DEVELOPED BY: DOWL HKM  
DESIGNED BY: T. LOCKHART  
DRAWN BY: J. KEMP

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
UTILITIES  
PLAN & PROFILE

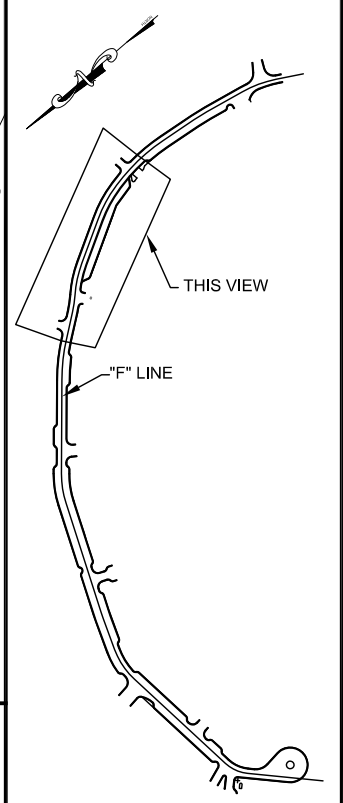
PROJECT DESIGNATION  
**68828 HPRM -003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>U4</b>	<b>117</b>



**"F" LINE PLAN**

- NOTES:**
- GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN.
  - GRADE WATER MAIN ABOVE SEWER MAIN AND BELOW STORM DRAIN. PROVIDE 6-INCH MINIMUM CLEARANCE FROM BOTH CONDUITS AND INSTALL RIGID INSULATION BETWEEN THE WATER MAIN AND THE STORM DRAIN AS DIRECTED BY THE ENGINEER.
  - EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  - GRADE WATER MAIN TO MAINTAIN 4'-0" MIN COVER AND PROVIDE 18" MIN CLEARANCE OVER SEWER MAIN AT CROSSING.
  - IF ADDITIVE ALTERNATE 1 IS NOT CONSTRUCTED, INSTALL 45-DEGREE ELBOW IN 10"HDPE LINE AT APPROXIMATE STATION 30+20, 4.5 RT AND STATION 30+35, 5.5 LT AND CONNECT TO EXISTING 10"AC MAIN AT STATION 30+55 LT.
  - CTE WATER MAIN WITH ROMAC FCA 501 FLANGE COUPLING ADAPTER OR APPROVED EQUAL.



**PLAN LEGEND**

CHECKED BY: P. HILDRE



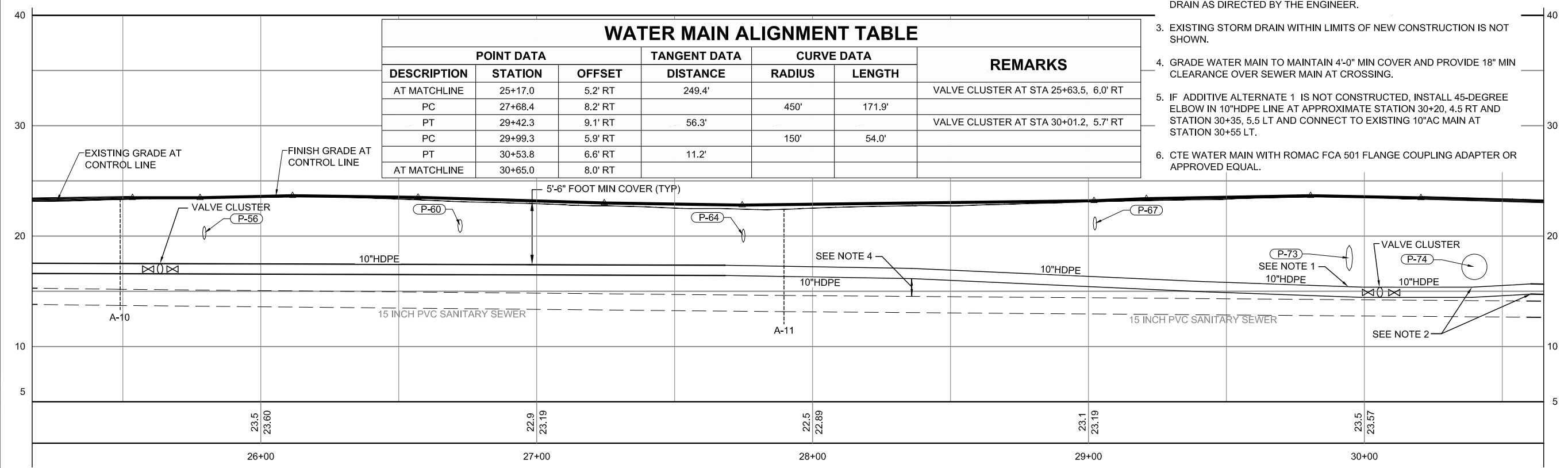
PLANS DEVELOPED BY: DOWL HKM  
DESIGNED BY: T. LOCKHART  
DRAWN BY: J. KEMP

STATE OF ALASKA  
DEPARTMENT OF TRANSPORTATION  
& PUBLIC FACILITIES

**WRANGELL ROAD AND UTILITY IMPROVEMENTS  
UTILITIES  
PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM -003(135)  
& 67789**

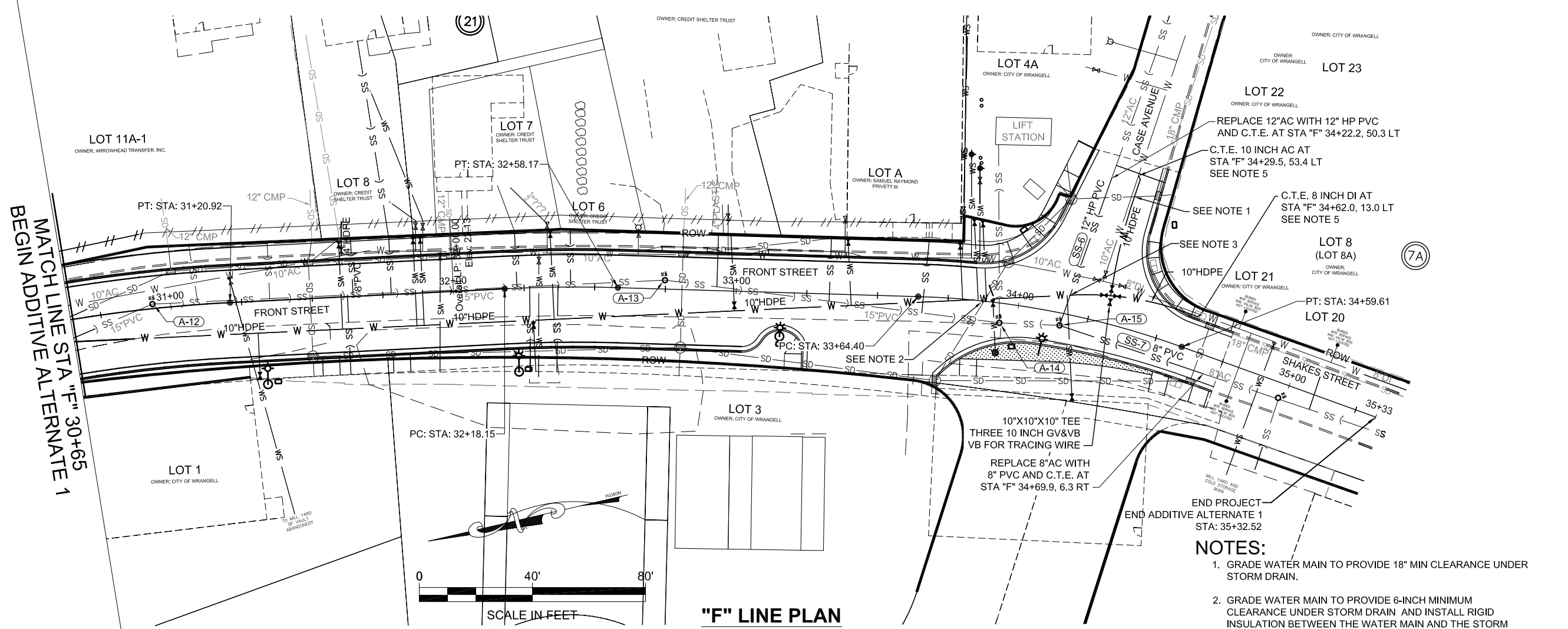
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<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>U5</b>	<b>117</b>



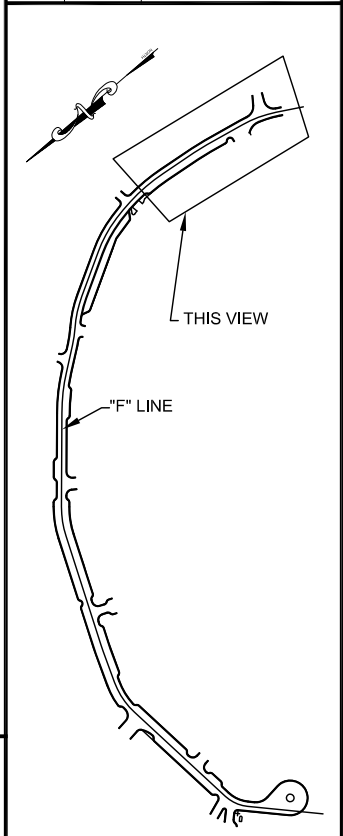
**"F" LINE PROFILE**

**WATER MAIN ALIGNMENT TABLE**

DESCRIPTION	POINT DATA		TANGENT DATA	CURVE DATA		REMARKS
	STATION	OFFSET	DISTANCE	RADIUS	LENGTH	
AT MATCHLINE	25+17.0	5.2' RT	249.4'			VALVE CLUSTER AT STA 25+63.5, 6.0' RT
PC	27+68.4	8.2' RT		450'	171.9'	
PT	29+42.3	9.1' RT	56.3'			VALVE CLUSTER AT STA 30+01.2, 5.7' RT
PC	29+99.3	5.9' RT		150'	54.0'	
PT	30+53.8	6.6' RT	11.2'			
AT MATCHLINE	30+65.0	8.0' RT				



**"F" LINE PLAN**



**PLAN LEGEND**

CHECKED BY: P. HILDRE  
  
 STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
 WRANGELL ROAD AND UTILITY IMPROVEMENTS  
 UTILITIES PLAN & PROFILE

PLANS DEVELOPED BY: DOWL HKM  
 DESIGNED BY: T. LOCKHART  
 DRAWN BY: J. KEMP

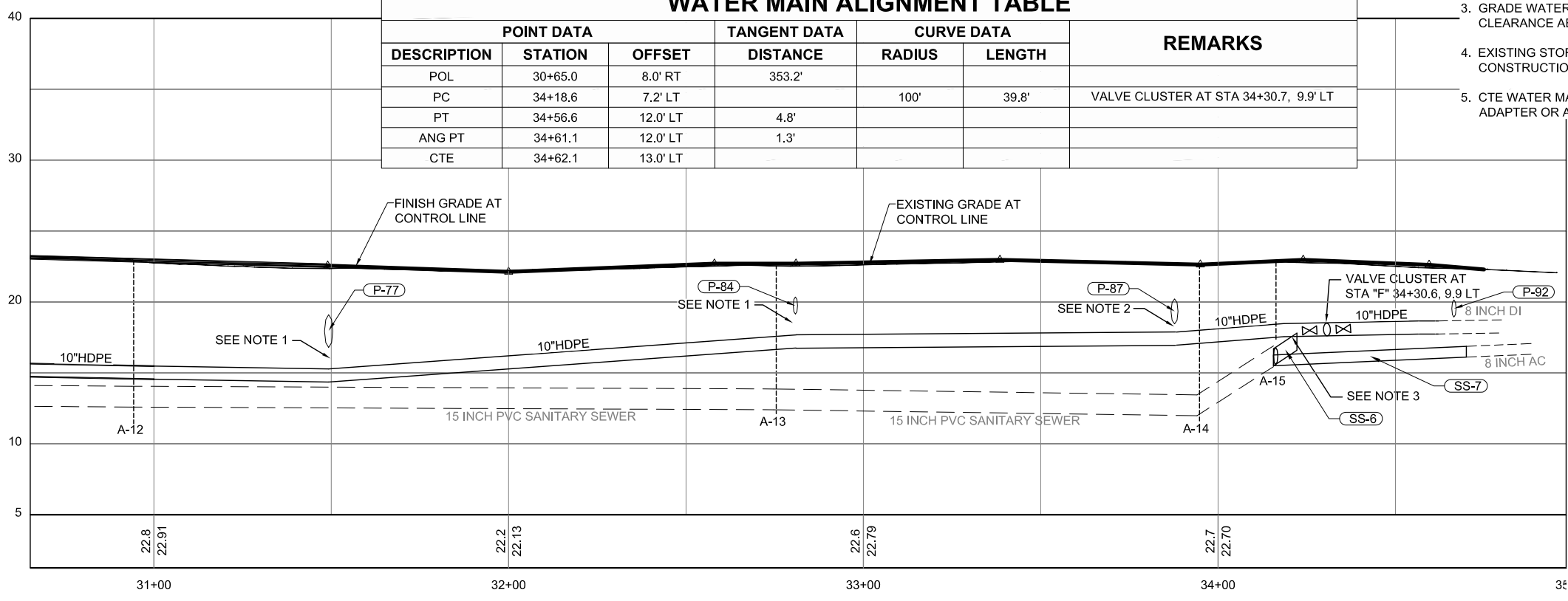
STATE OF ALASKA  
 DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES  
**WRANGELL ROAD AND UTILITY IMPROVEMENTS**  
**UTILITIES**  
**PLAN & PROFILE**

PROJECT DESIGNATION  
**68828 HPRM -003(135) & 67789**

STATE	YEAR
<b>ALASKA</b>	<b>2011</b>
SHEET NUMBER	TOTAL SHEETS
<b>U6</b>	<b>117</b>

WATER MAIN ALIGNMENT TABLE						REMARKS
DESCRIPTION	STATION	OFFSET	TANGENT DATA DISTANCE	CURVE DATA RADIUS	CURVE DATA LENGTH	
POL	30+65.0	8.0' RT	353.2'			
PC	34+18.6	7.2' LT		100'	39.8'	VALVE CLUSTER AT STA 34+30.7, 9.9' LT
PT	34+56.6	12.0' LT	4.8'			
ANG PT	34+61.1	12.0' LT	1.3'			
CTE	34+62.1	13.0' LT				

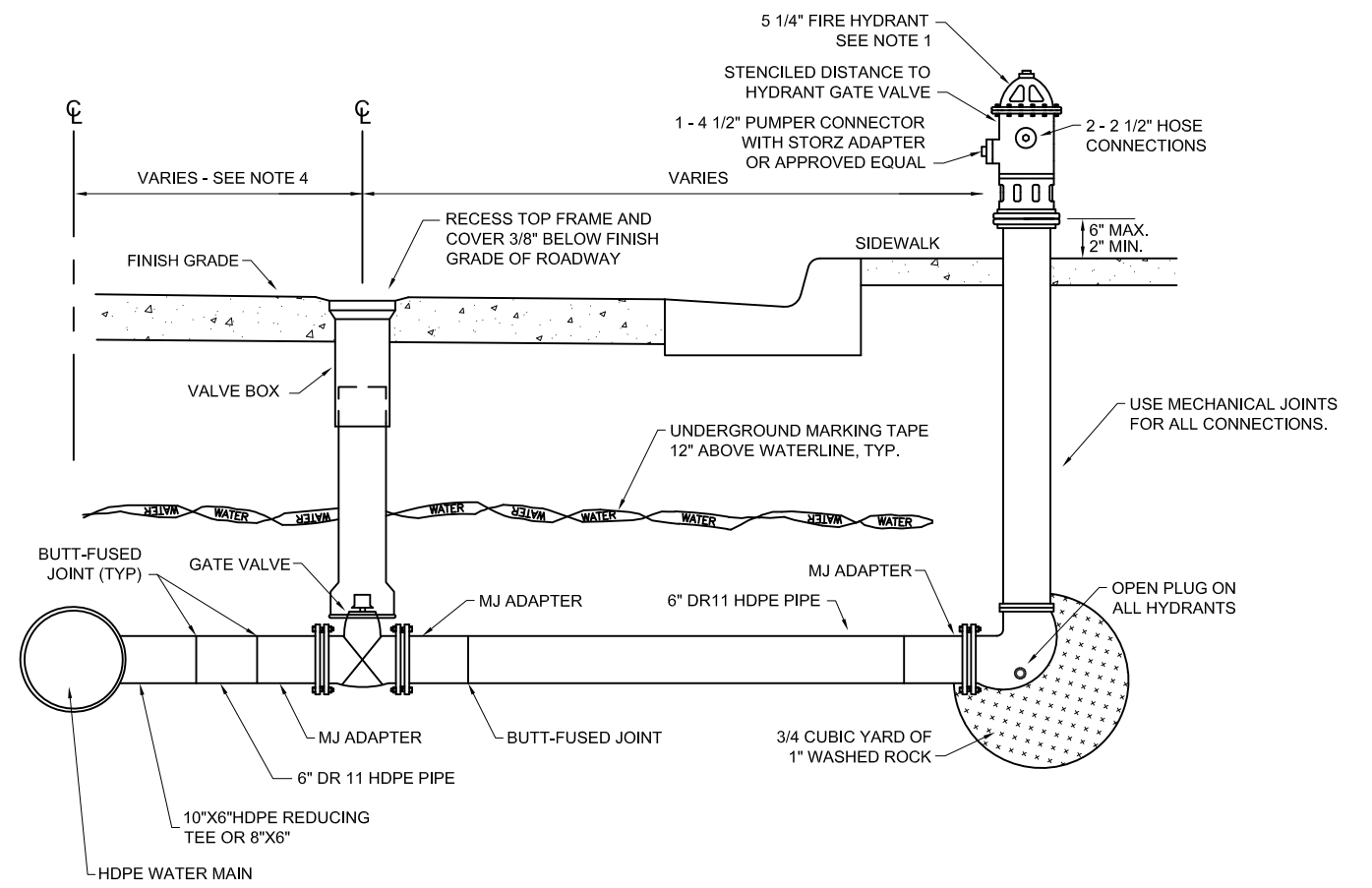
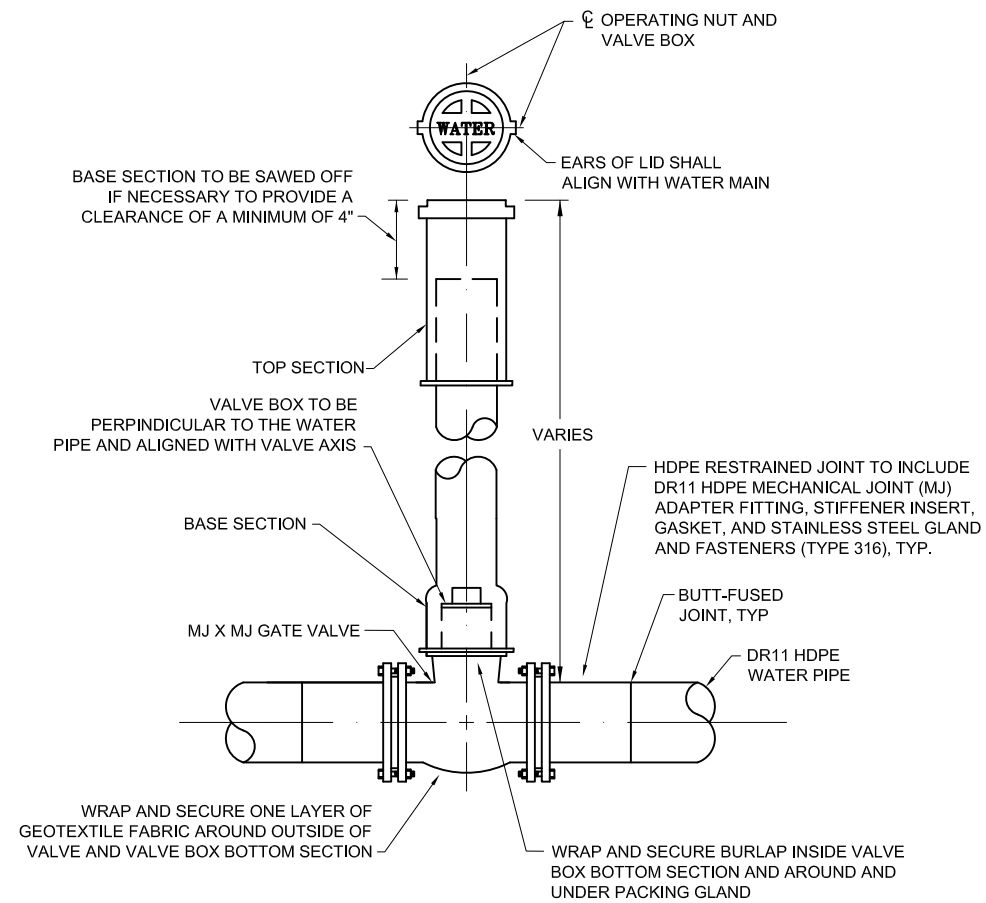
- NOTES:**
- GRADE WATER MAIN TO PROVIDE 18" MIN CLEARANCE UNDER STORM DRAIN.
  - GRADE WATER MAIN TO PROVIDE 6-INCH MINIMUM CLEARANCE UNDER STORM DRAIN AND INSTALL RIGID INSULATION BETWEEN THE WATER MAIN AND THE STORM DRAIN AS DIRECTED BY THE ENGINEER.
  - GRADE WATER MAIN TO MAINTAIN 4'-0" MIN COVER AND 6" MIN CLEARANCE ABOVE SS-6.
  - EXISTING STORM DRAIN WITHIN LIMITS OF NEW CONSTRUCTION IS NOT SHOWN.
  - CTE WATER MAIN WITH ROMAC FCA 501 FLANGE COUPLING ADAPTER OR APPROVED EQUAL.



**"F" LINE PROFILE**

**ADDITIVE ALTERNATE 1**





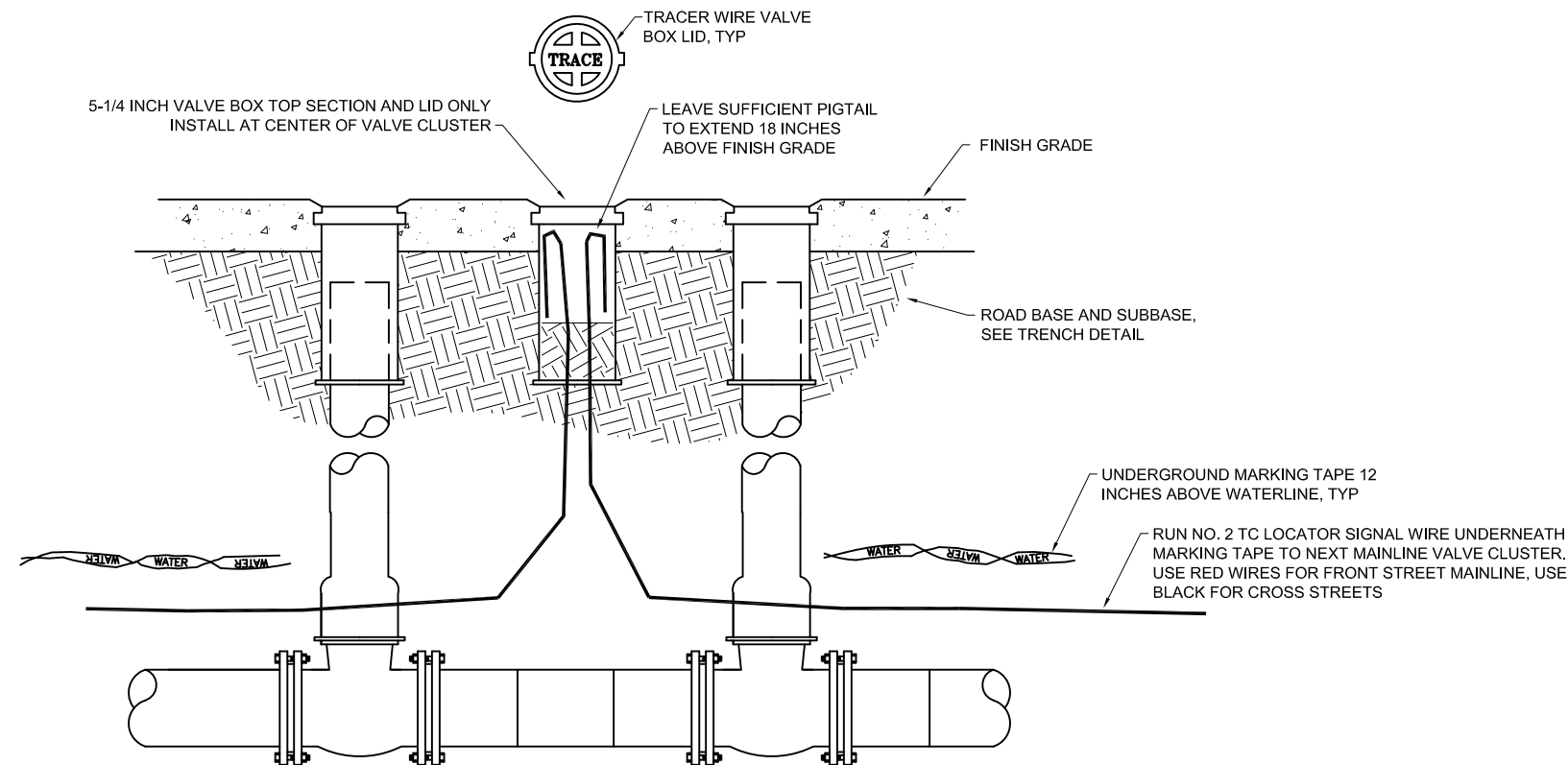
**HYDRANT SERVICE**

**MAIN LINE VALVES & HYDRANT AUXILIARY VALVES**

**HYDRANT NOTES**

1. FIRE HYDRANT SHALL BE EITHER A CLOW VALVE MEDALLION F-2545, OR A MUELLER SUPER CENTURION 250.
2. FIRE HYDRANTS SHALL BE THREE-WAY AND FURNISHED WITH TWO 2 1/2 - INCH HOSE NOZZLES AND ONE 4 1/2 - INCH PUMPER NOZZLE WITH A STORZ ADAPTER. FIRE HYDRANTS SHALL BE LEFT HAND OPENING (COUNTER CLOCKWISE). OPERATING AND NOZZLE NUTS SHALL BE NATIONAL STANDARD PENTAGONAL WITH WEATHER CAP. HOSE NOZZLE THREADING SHALL BE IN CONFORMANCE WITH NFPA NO. 194 FOR NATIONAL (AMERICAN) STANDARD FIRE HOSE COUPLING SCREW THREADS.
3. PAINTING AND COATING SHALL BE IN ACCORDANCE WITH AWWA C-520. AFTER INSTALLATION, THE FIRE HYDRANT SECTION FROM THE TRAFFIC FLANGE TO THE TOP OF THE OPERATING NUT SHALL BE PAINTED "FIRE HYDRANT RED" WITH WORDING STENCILED IN BLACK.
4. LOCATE HYDRANT VALVE IN THE STREET AND AS CLOSE TO THE MAIN AS POSSIBLE WITHOUT LOCATING IN THE WHEEL PATH.
5. PROVIDE THE FOLLOWING SPARE PARTS FOR EVERY GROUP OF TEN (AND FRACTION THEREOF) OF FIRE HYDRANT ASSEMBLIES INSTALLED ON THE PROJECT:

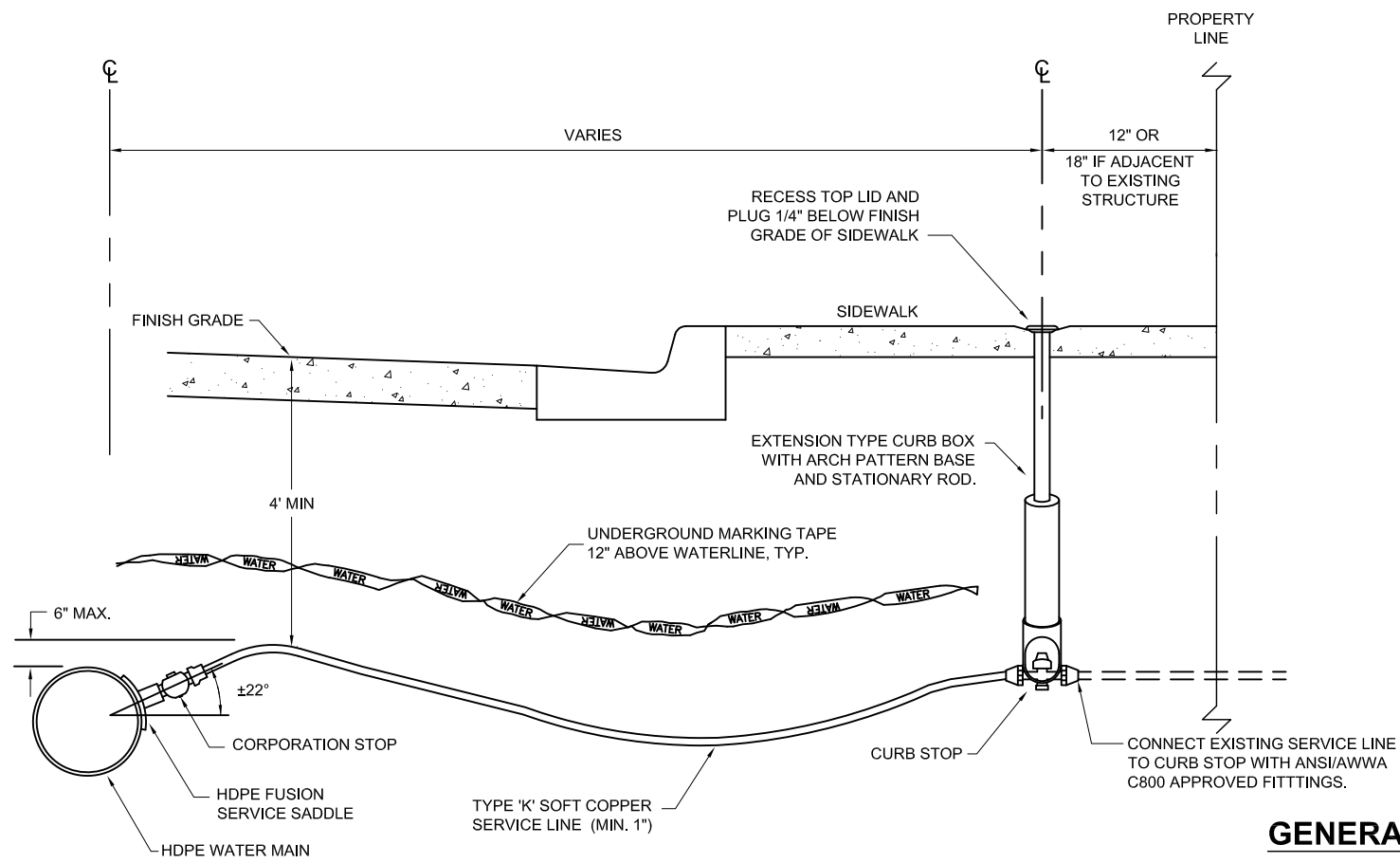
- BREAK FLANGE REPAIR KIT ONE EACH
- VALVE SEAT RUBBER ONE EACH
- COVER GASKET ONE EACH
- O-RINGS ONE SET



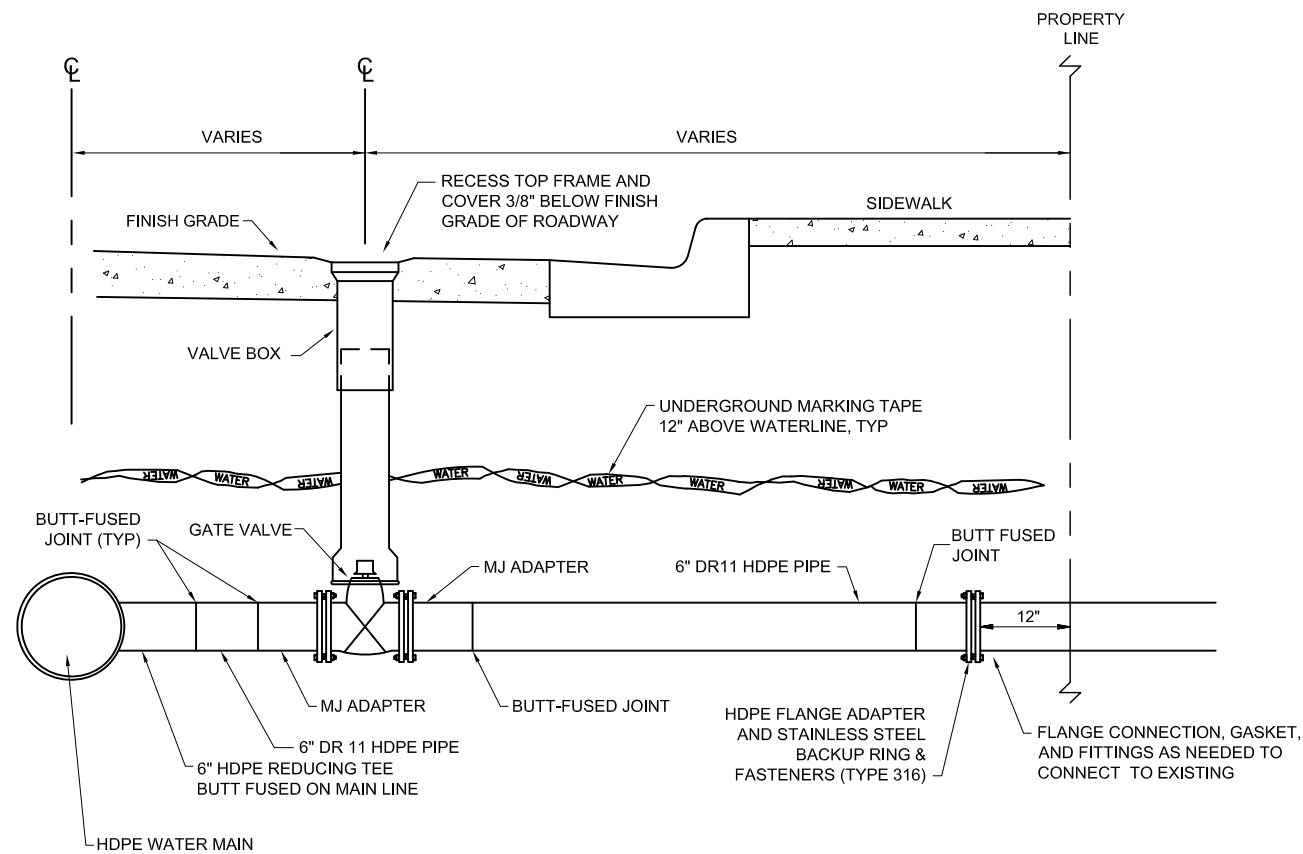
**TRACER WIRE SYSTEM**

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

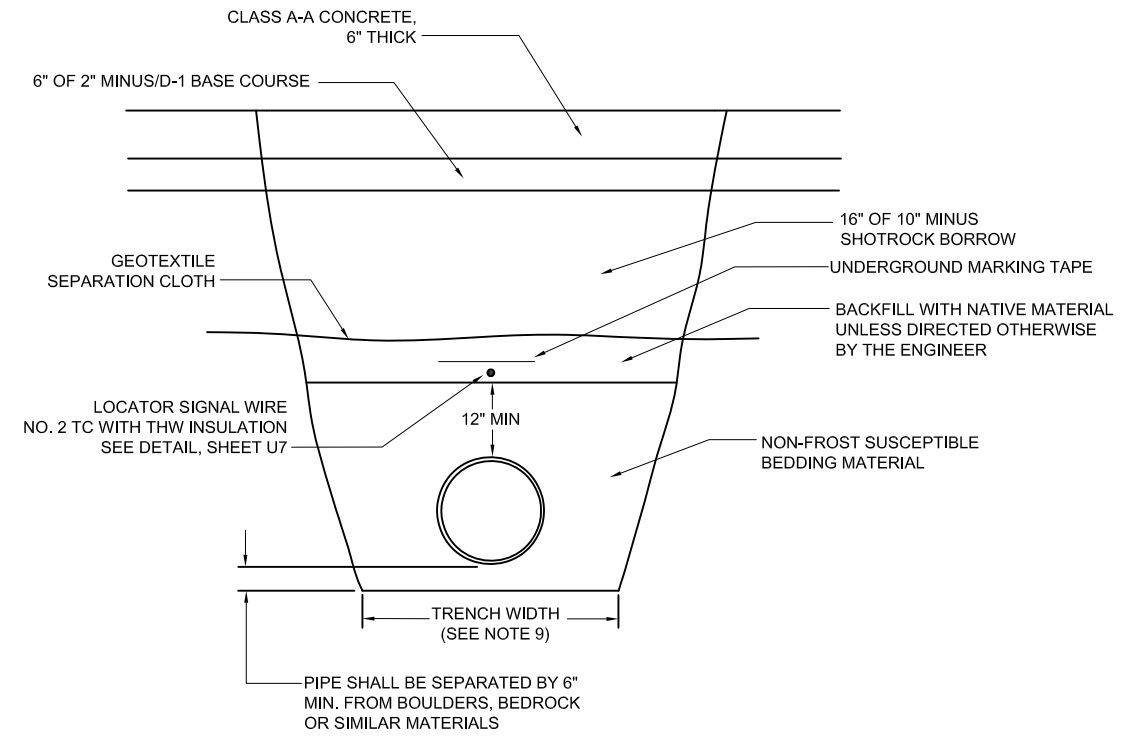
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				PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP								
PATH: S:\LIB\70112\DESIGN\SHEETS UNJ70112-U7-U11.DWG TAB: U7 Friday, March 25, 2011 9:30:57 AM												
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>	
REVISIONS												
NO.	DATE	DESCRIPTION										
YEAR	SHEET NO.	TOTAL SHEETS										
2011	<b>U7</b>	117										



**1 INCH WATER SERVICE CONNECTION**



**6 INCH WATER SERVICE CONNECTION**

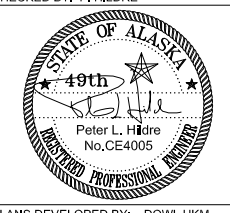


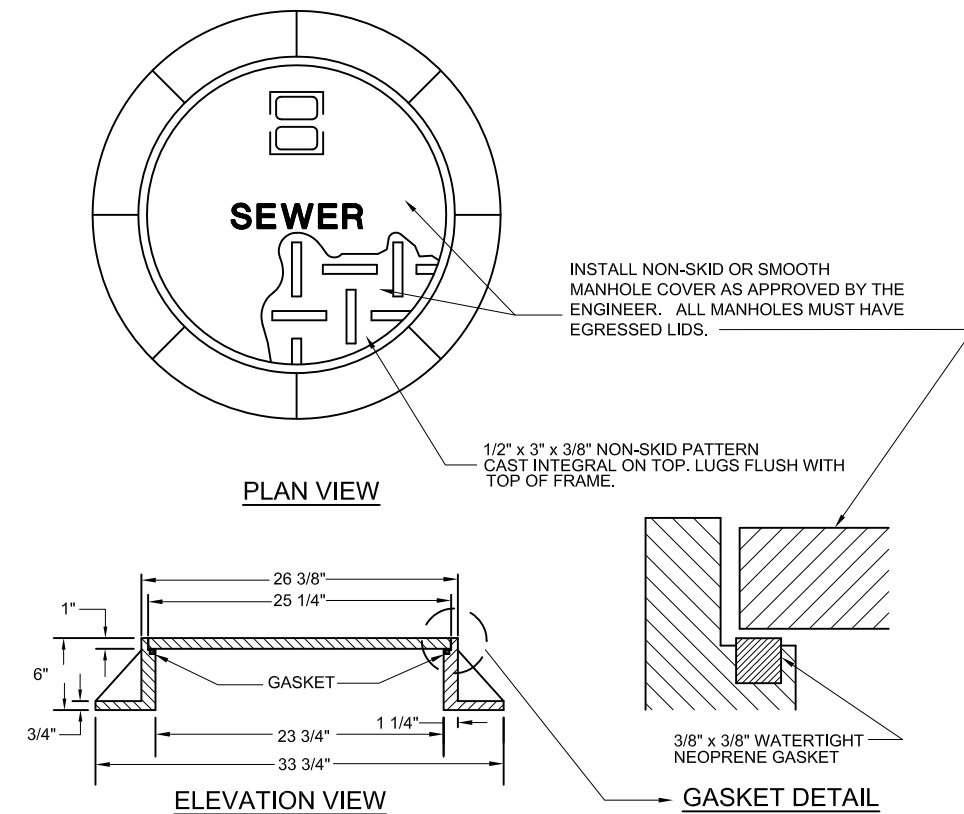
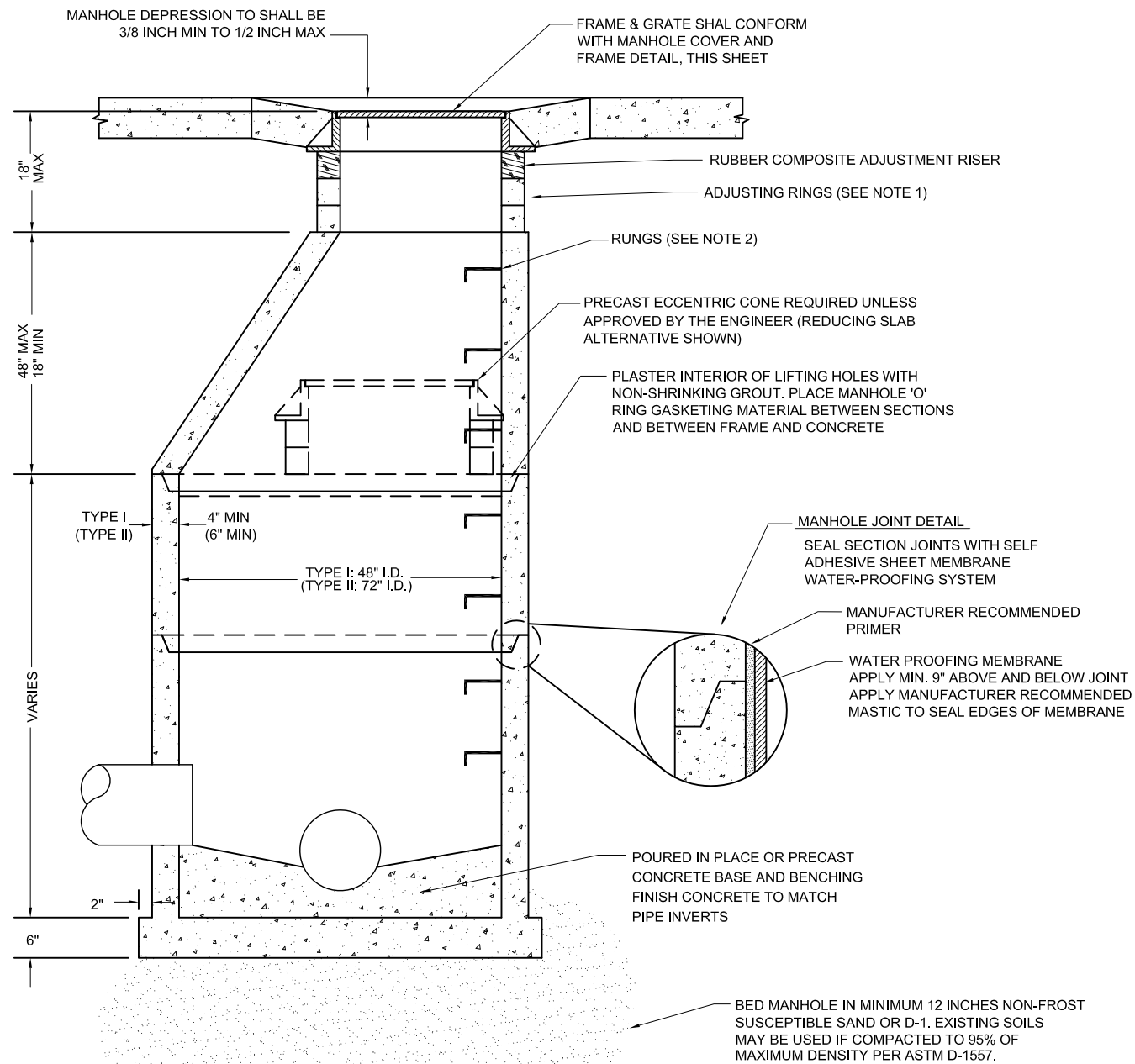
**WATER TRENCH DETAIL**

**GENERAL NOTES**

1. UNDERGROUND MARKING TAPE SHALL BE BLUE, SIX INCH WIDE, FOUR MIL THICK, POLYETHYLENE TAPE WITH BLACK LETTERING AND THE FOLLOWING WORDING: "CAUTION: WATERLINE BURIED BELOW." MARKING TAPE SHALL BE INSTALLED 12 INCHES ABOVE THE TOP OF ALL WATER PIPE.
2. TERMINATE RED FRONT STREET MAINLINE TRACER WIRE IN DESIGNATED VALVE BOX AS PER LOCATOR SIGNAL WIRE SYSTEM DETAIL, SHEET U8. TERMINATE ONE END OF BLACK CROSS STREET TRACING WIRE AT THE POINT OF CONNECTION TO EXISTING MAIN AT 12 INCHES ABOVE PIPE FOR FUTURE USE; TERMINATE OTHER END IN DESIGNATED TRACER WIRE VALVE BOX AT MAINLINE VALVE CLUSTER. PLACE TRACER WIRE 12 INCHES ABOVE TOP OF PIPE, ENSURE PLACEMENT DOES NOT DEVIATE MORE THAN 4 INCHES IN ANY DIRECTION.
3. EXISTING WATER PIPES AND APPURTENANCES TO BE REMOVED OR ABANDONED SHALL BE AS DESIGNATED ON THE DRAWINGS OR DIRECTED BY THE ENGINEER. ABANDONED WATER SERVICES SHALL BE CRIMPED CLOSED AT THE CUT ENDS. ABANDONED WATER PIPES 4 INCHES AND LARGER SHALL BE REMOVED AS SHOWN ON THE DRAWINGS, OR MECHANICALLY PLUGGED IF NOT REQUIRED TO BE REMOVED.
4. PROVIDE FOUR DETAILED REPAIR MANUALS FOR THE GATE VALVES SUPPLIED AND ONE STANDARD PACKING KIT FOR EVERY GROUP OF TEN (AND FRACTION THEREOF) OF EACH SIZE OF GATE VALVE.
5. SERVICE SADDLES SHALL BE HDPE FITTINGS DESIGNED FOR USE WITH DR11 HDPE PIPE AND HEAT FUSED TO MAIN LINE.
6. CORPORATION STOPS SHALL BE 85-5-5-5 ASTM B62 BRASS, BALL TYPE VALVE, MANUFACTURED AND TESTED IN ACCORDANCE WITH ANSI/AWWA C800, WITH A MAXIMUM WORKING PRESSURE OF AT LEAST 300 PSI. INLET THREAD DETERMINED BY SERVICE SADDLE. OUTLET SHALL BE COMPRESSION CONNECTION. INSTALL CORPORATION STOPS DIRECTLY TO THE SERVICE SADDLE.
7. CURB STOPS SHALL BE 85-5-5-5 ASTM B62 BRASS, REGULAR PATTERN BALL VALVE, MANUFACTURED AND TESTED IN ACCORDANCE WITH ANSI/AWWA C800, WITH A MAXIMUM WORKING PRESSURE OF AT LEAST 175 PSI. INLET AND OUTLET SHALL BE COMPRESSION CONNECTION.
8. CUT SERVICE PIPE LEAVING A SMOOTH, EVEN, AND SQUARE END ON THE PIPE MATERIAL. REAM THE CUT ENDS TO THE FULL DIAMETER OF THE PIPE. DISINFECT AND FLUSH ALL SERVICE PIPE AND APPURTENANCES AT THE TIME OF INSTALLATION. ACTIVATE THE CORP STOP AND FLUSH THROUGH THE CURB STOP PRIOR TO BACKFILLING THE SERVICE LINE.
9. MINIMUM TRENCH WIDTH SHALL BE NOMINAL PIPE DIAMETER PLUS 3 FEET.
10. BEDDING & BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM PROCTOR DENSITY WITHIN THE RIGHT OF WAY AND THROUGHOUT THE DEPTH OF EACH LIFT. LIFT DEPTH SHALL BE 12 INCHES MAX. UNLESS OTHERWISE APPROVED BY THE ENGINEER.

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE  STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES		WRANGELL ROAD AND UTILITY IMPROVEMENTS PROJECT # 68828 & 67789 UTILITY DETAILS									
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		PROJECT DESIGNATION <b>68828 HPRM-003(135) &amp; 67789</b>									
PATH: S:\LIB\70112\DESIGN\SHEETS UJ70112-U7-U11.DWG TAB: U8 Friday, March 25, 2011 9:30:59 AM		YEAR 2011	SHEET NO. <b>U8</b>								
<table border="1"> <thead> <tr> <th colspan="3">REVISIONS</th> </tr> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>		REVISIONS			NO.	DATE	DESCRIPTION				TOTAL SHEETS 117
REVISIONS											
NO.	DATE	DESCRIPTION									



**NOTES:**

1. FRAME MUST BE MACHINED TO FIT WATERTIGHT NEOPRENE GASKET.
2. COVER SHALL BE AN EGRESSED LID, WATER TIGHT WITH NO HOLES, HAVE THE WORD "SEWER" CAST IN, AND HAVE AN INTEGRAL POCKET LIFT HANDLE.
3. FRAME AND COVER SHALL BE DUCTILE IRON.
4. FRAME AND COVER SHALL BE OF A TYPE THAT WILL NOT CREATE A HAZARD FOR BICYCLE TRAFFIC.

**MANHOLE COVER & FRAME**

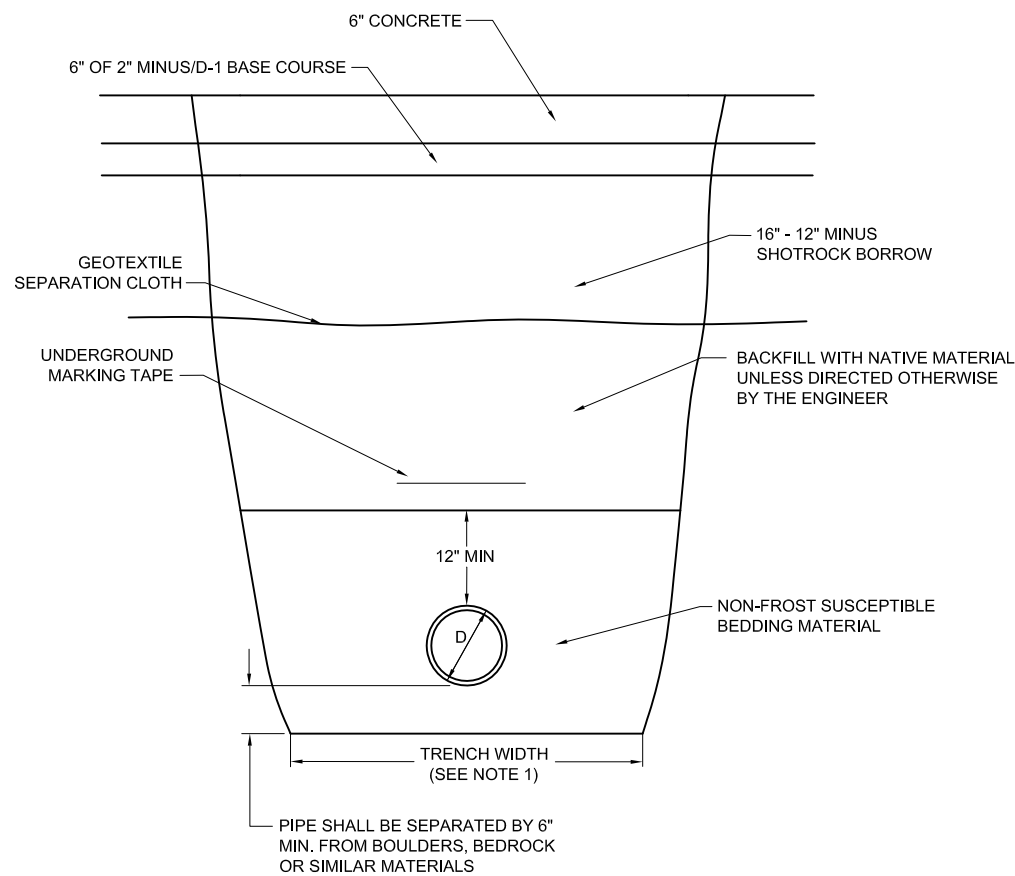
**NOTES:**

1. USE NO MORE THAN ONE 4 INCH ADJUSTING RING ON NEW MANHOLES, AND NO MORE THAN THREE 4 INCH RINGS ON RECONSTRUCTIONS. FINAL ADJUSTING RINGS SHALL BE RUBBER COMPOSITE ADJUSTMENT RISER TO MEET FINAL GRADE. USE POLYURETHANE SELF-LEVELING CONCRETE CRACK SEALANT FOR ADJUSTMENT RISER INSTALLATION.
2. PLACE RUNGS ON NEW MANHOLES 12 INCHES O.C. ON UNOBSTRUCTED SIDE OF MANHOLE. LAST RUNG SHALL BE 18 INCHES MAX. FROM BOTTOM OF MANHOLE; TOP RUNG SHALL BE 6 INCHES MAX. FROM TOP OF CONE. IF UNOBSTRUCTED SIDE IS NOT AVAILABLE, PLACE LAST RUNG 6 INCHES OVER SMALLEST PIPE. RUNGS SHALL BE POLYETHYLENE 14 INCH LADDER STEPS MEETING ASTM D4101.
3. REFER TO ASTM C478 FOR DESIGN REQUIREMENTS AND MINIMUM STEEL FOR BARREL. FIRST BARREL SECTION SHALL BE IMBEDDED IN BASE. BLOCKOUTS SHALL BE FORMED.
4. WHERE EXISTING MANHOLES ARE RAISED TO THE NEW ROAD GRADE, A RUNG SHALL BE ADDED IF THE DISTANCE FROM THE TOP OF THE FRAME TO THE FIRST RUNG EXCEEDS 36 INCHES.
5. ALL RECONSTRUCTED OR ADJUSTED MANHOLES SHALL BE POWER WASHED INSIDE AND OUTSIDE, INTERIOR JOINTS SHALL BE RE-GROUTED. EXTERIOR SHALL BE WATERPROOFED FROM OUTFALL PIPE INVERT TO TOP OF CONE. FRAMES AND COVERS SHALL BE ADJUSTED TO GRADE.

**SANITARY SEWER MANHOLE TYPES I & II**

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

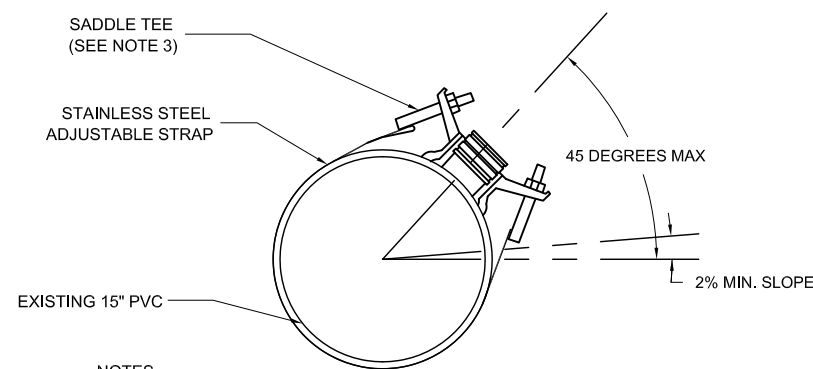
CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>	
PLANS DEVELOPED BY: DOWL HKM		PROJECT DESIGNATION	
DESIGNED BY: T. LOCKHART		<b>68828 HPRM-003(135)</b>	
DRAWN BY: J. KEMP		<b>&amp; 67789</b>	
PATH: S:\LIB\70112\DESIGN\SHEETS\UJ70112-U7-U11.DWG		YEAR	SHEET
TAB: U9 Friday, March 25, 2011 9:31:02 AM		2011	<b>U9</b>
		TOTAL SHEETS	117



**NOTES**

1. MINIMUM TRENCH WIDTH SHALL BE NOMINAL PIPE DIAMETER PLUS 3 FEET.
2. BEDDING & BACKFILL SHALL BE COMPACTED TO 95% OF MAXIMUM PROCTOR DENSITY WITHIN THE RIGHT-OF-WAY AND THROUGHOUT THE DEPTH OF EACH LIFT. LIFT DEPTH SHALL BE 12 INCHES MAX UNLESS OTHERWISE APPROVED BY THE ENGINEER.

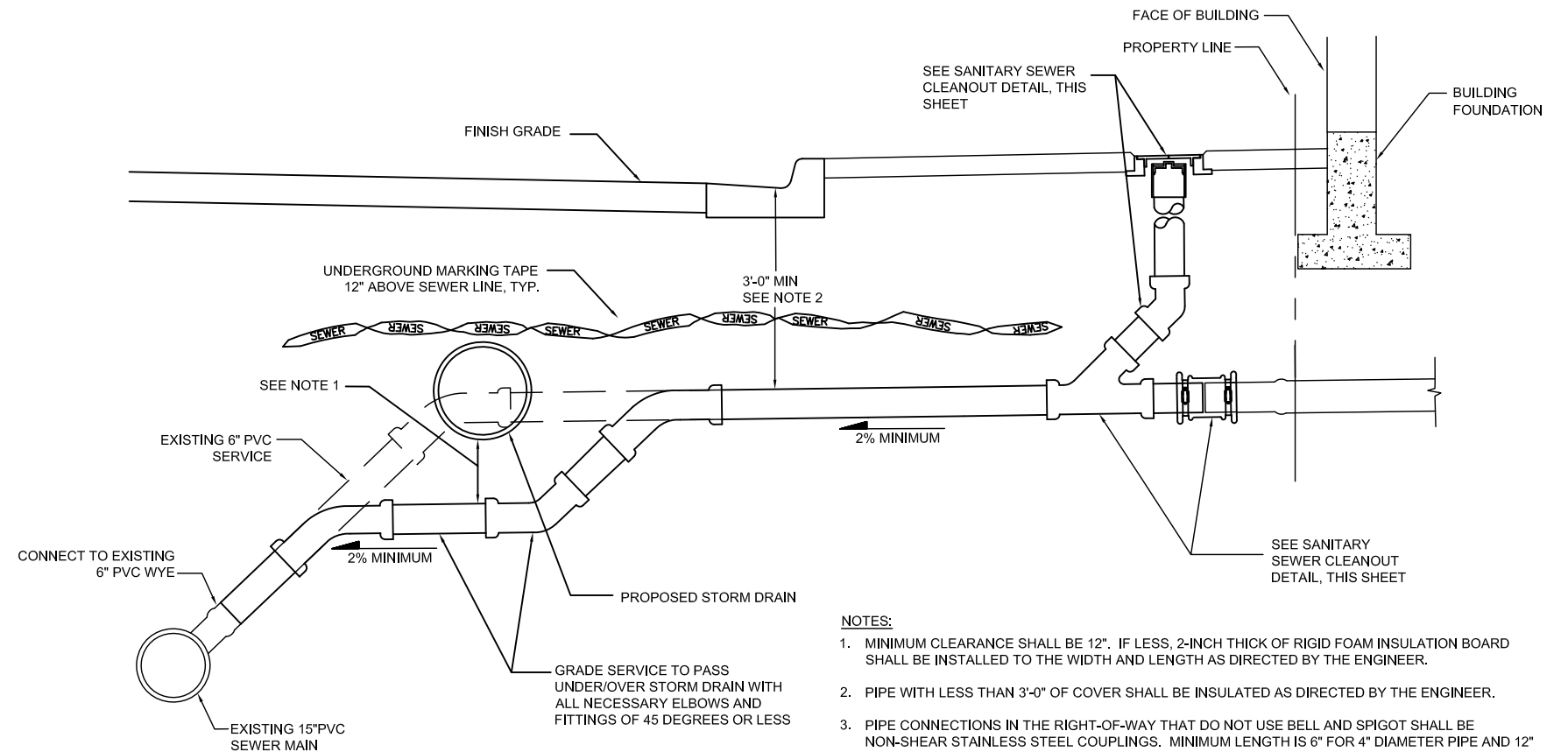
**STORM AND SEWER TRENCH DETAIL**



**NOTES**

1. DIAMETER OF HOLE CUT IN SEWER MAIN SHALL NOT EXCEED 0.25" LARGER THAN THE SADDLE TEE CONNECTION. TEE SHALL BE CENTERED OVER CUT IN PIPE AND CLAMPED WITH METAL BAND SO TEE GASKET FORMS A WATER-TIGHT SEAL.
2. WATER AND DEBRIS SHALL NOT BE ALLOWED TO ENTER THE SEWER MAIN DURING THE TAPPING OPERATION.
3. SEWER SADDLE COMPONENTS SHALL MEET OR EXCEED THE FOLLOWING:  
 CASTINGS: DUCTILE IRON PER ASTM 536, GRADE 65-45-12  
 ADJUSTABLE STRAP: 3-1/2 INCH WIDE, STAINLESS STEEL PER ASTM A 240, TYPE 304.  
 GASKET: SBR PER ASTM D 2000 MBA 710, COMPOUNDED FOR WATER AND SEWER SERVICE.  
 HARDWARE: STAINLESS STEEL, TYPE 304

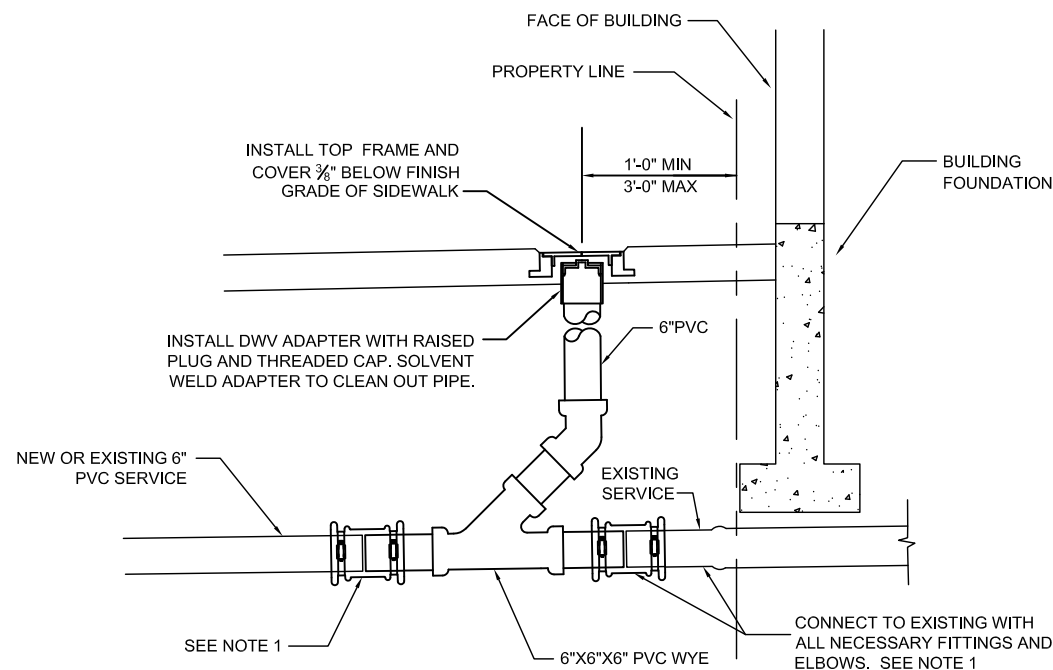
**SADDLE TEE**



**NOTES:**

1. MINIMUM CLEARANCE SHALL BE 12". IF LESS, 2-INCH THICK OF RIGID FOAM INSULATION BOARD SHALL BE INSTALLED TO THE WIDTH AND LENGTH AS DIRECTED BY THE ENGINEER.
2. PIPE WITH LESS THAN 3'-0" OF COVER SHALL BE INSULATED AS DIRECTED BY THE ENGINEER.
3. PIPE CONNECTIONS IN THE RIGHT-OF-WAY THAT DO NOT USE BELL AND SPIGOT SHALL BE NON-SHEAR STAINLESS STEEL COUPLINGS. MINIMUM LENGTH IS 6" FOR 4" DIAMETER PIPE AND 12" FOR 6" DIAMETER PIPE. RUBBER COUPLINGS ARE NOT ALLOWED.
4. UNDERGROUND MARKING TAPE SHALL BE GREEN, FOUR INCH WIDE, FOUR MIL THICK, POLYETHYLENE TAPE WITH BLACK LETTERING AND THE FOLLOWING WORDING: "CAUTION: SEWER LINE BURIED BELOW." INSTALL MARKING TAPE 12 INCHES ABOVE THE TOP OF ALL SEWER PIPE.

**SEWER SERVICE LATERAL**



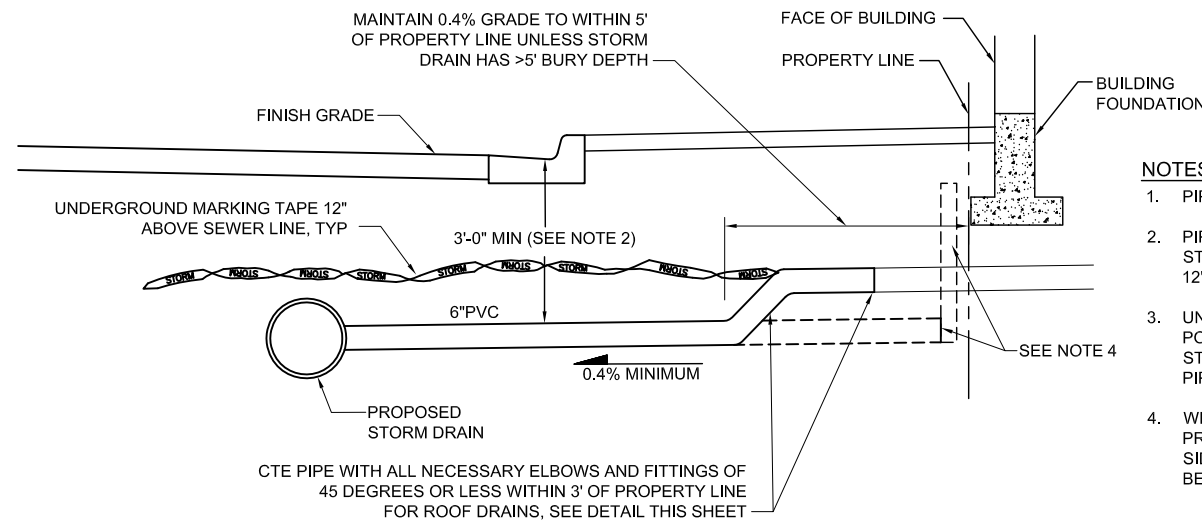
**NOTES**

1. ALL PIPE CONNECTIONS THAT CANNOT BE MADE WITH 6" PVC BELL AND SPIGOT SHALL BE STAINLESS STEEL NON-SHEAR COUPLINGS. MINIMUM LENGTH IS 6" FOR 4" DIAMETER PIPE AND 12" FOR A 6" DIAMETER PIPE. RUBBER COUPLINGS ARE NOT ALLOWED.

**SANITARY SEWER CLEANOUT**

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

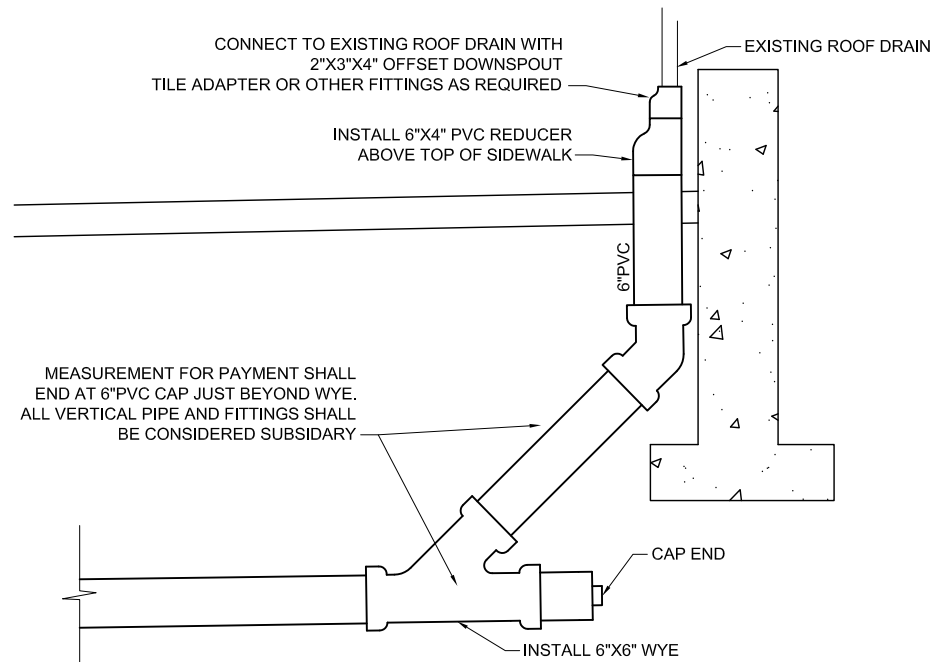
CHECKED BY: P. HILDRE		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES	
		<b>WRANGELL ROAD AND UTILITY IMPROVEMENTS</b> <b>PROJECT # 68828 &amp; 67789</b>	
PLANS DEVELOPED BY: DOWL HKM		PROJECT DESIGNATION	
DESIGNED BY: T. LOCKHART		<b>68828 HPRM-003(135)</b>	
DRAWN BY: J. KEMP		<b>&amp; 67789</b>	
PATH: S:\LIB\70112\DESIGN\SHEETS UJ70112-U7-U11.DWG		YEAR	SHEET
TAB: U10 Friday, March 25, 2011 9:31:05 AM		2011	<b>U10</b>
REVISIONS		TOTAL SHEETS	117
NO.	DATE	DESCRIPTION	



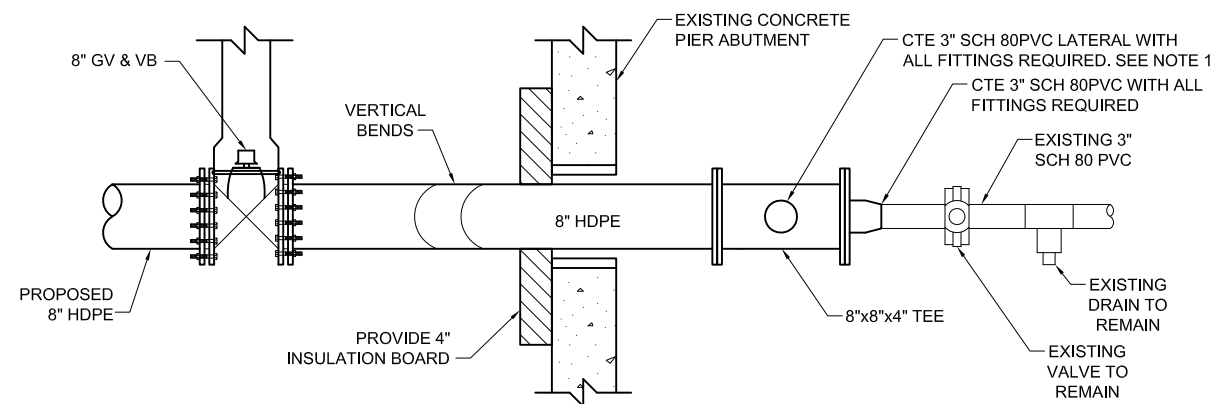
**NOTES:**

1. PIPE WITH LESS THAN 3'-0" OF COVER SHALL BE INSULATED AS DIRECTED BY THE ENGINEER.
2. PIPE CONNECTIONS IN THE RIGHT-OF-WAY THAT DO NOT USE BELL AND SPIGOT SHALL BE STAINLESS STEEL NON-SHEAR COUPLINGS. MINIMUM LENGTH IS 6" FOR 4" DIAMETER PIPE AND 12" FOR 6" DIAMETER PIPE. RUBBER COUPLINGS ARE **NOT** ALLOWED.
3. UNDERGROUND MARKING TAPE SHALL BE GREEN, FOUR INCH WIDE, FOUR MIL THICK, POLYETHYLENE TAPE WITH BLACK LETTERING AND THE FOLLOWING WORDING: "CAUTION: STORM LINE BURIED BELOW." INSTALL MARKING TAPE 12 INCHES ABOVE THE TOP OF ALL STORM PIPE.
4. WHERE THERE IS NO EXISTING STORM DRAIN TO CONNECT TO, CAP END AND INSTALL 4"x4" PRESSURE TREATED MARKER POST. WHERE MARKER POST IS UNDER THE CONCRETE SIDEWALK, CUT POST AT 12 INCHES BELOW TOP OF SIDEWALK. WHERE MARKER POST IS BEYOND THE LIMITS OF THE SIDEWALK, BRING MARKER POST TO GRADE.

**STORM DRAIN SERVICE LATERAL**



**CTE ROOF DRAIN DETAIL**

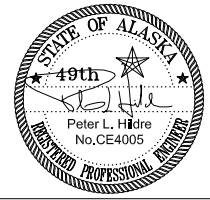


**NOTES:**

1. REMOVE AND DISPOSE OF ALL 6-INCH DI PIPE AND FITTINGS AND REPLACE WITH HDPE AS SHOWN. EXISTING 3\"/>

**CITY PIER WATER CONNECTION DETAIL**

DO NOT SCALE FROM THESE DRAWINGS USE DIMENSIONS

CHECKED BY: P. HILDRE 		STATE OF ALASKA DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES												
PLANS DEVELOPED BY: DOWL HKM DESIGNED BY: T. LOCKHART DRAWN BY: J. KEMP		<b>WRANGELL ROAD AND UTILITY          IMPROVEMENTS          PROJECT # 68828 &amp; 67789</b>												
PATH: S:\LIB\70112\DESIGN\SHEETS UJ70112-U7-U11.DWG TAB: U11 Friday, March 25, 2011 9:31:09 AM		<b>UTILITY DETAILS</b>												
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REVISIONS														
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