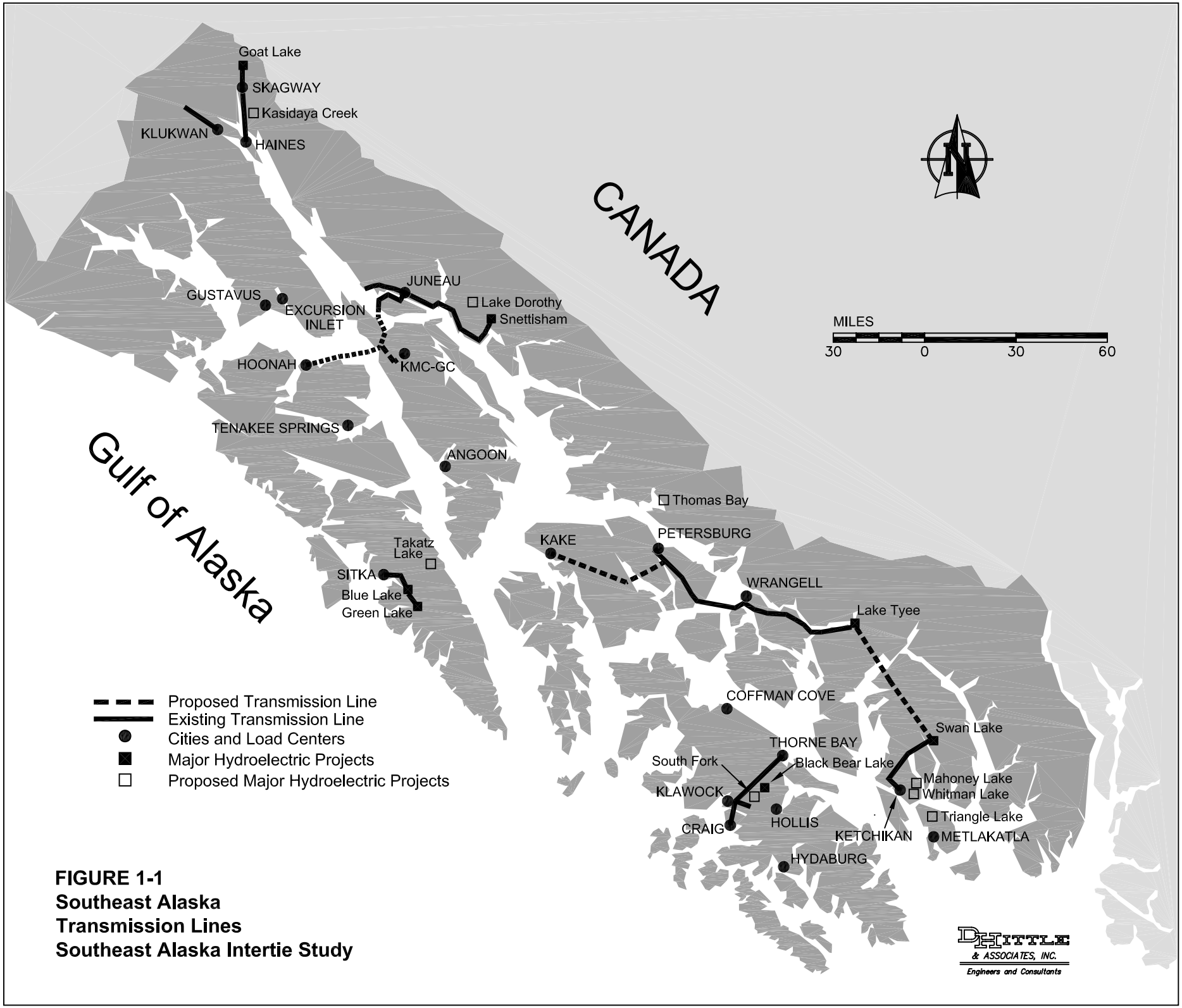



**FIGURE 1-1**
**Southeast Alaska**
**Transmission Lines**
**Southeast Alaska Intertie Study**


## LEGEND

- Proposed Route
- Submarine Cable
- Existing Transmission Line
- Submarine Cable Termination

3mi 0 3mi 6mi

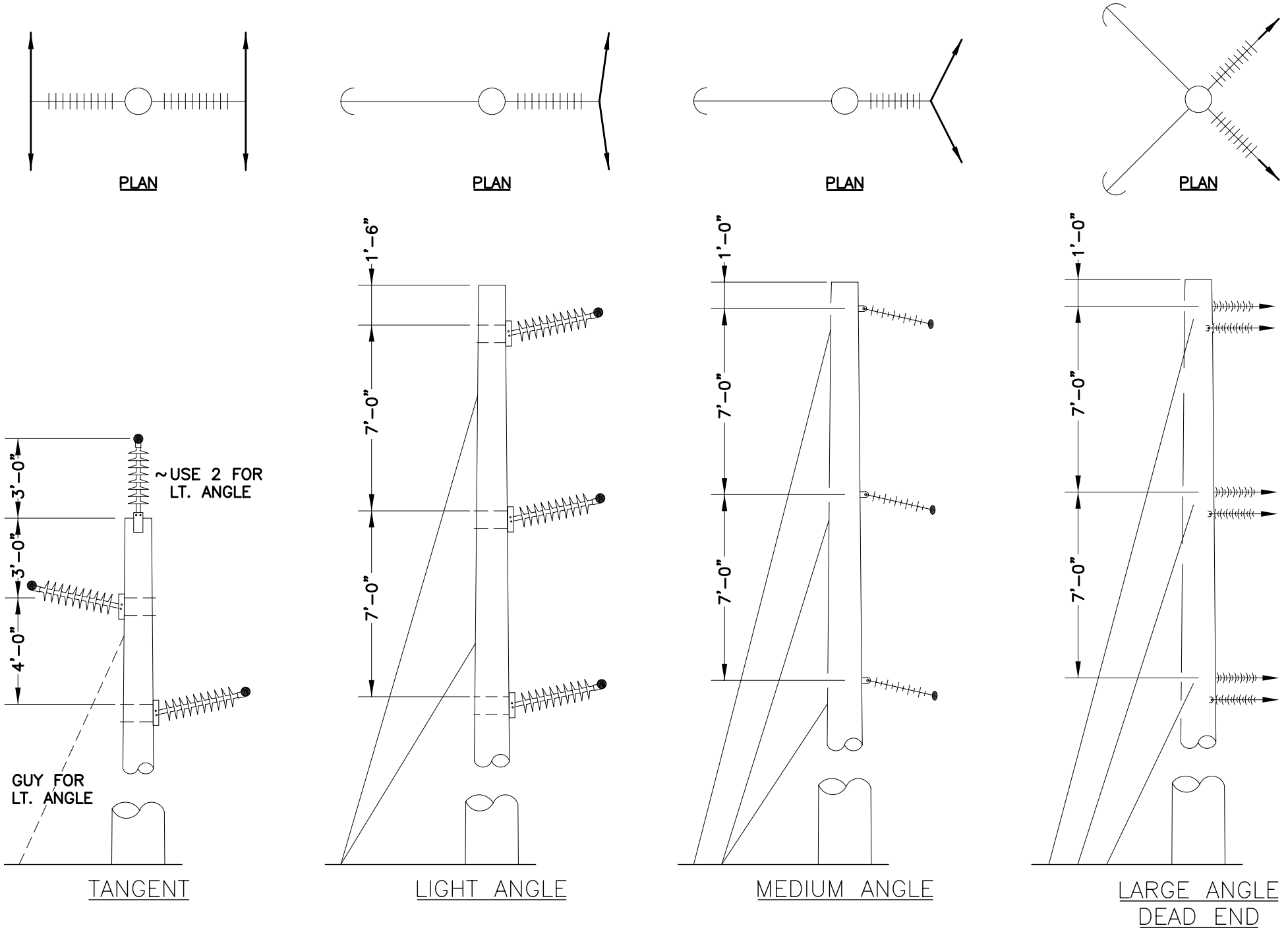
| REV. | REVISION DESCRIPTION | DATE |
|---|---|---|
| | | |

DITTLE & ASSOCIATES, INC.
Engineers and Consultants
19101 36TH AVE. W., SUITE 209
LYNNWOOD, WA 98036
(425) 672-9651

SOUTHEAST CONFERENCE
SOUTHEAST ALASKA
INTERTIE STUDY

JUNEAU TO HOONAH INTERTIE
PROPOSED ROUTE
FIGURE 2-1

| DWN BY: | JLK | DSN BY: | JLH | CHK BY: | JLH | DATE: | 4/04/03 | FILE: | HoonahJuneau | SHEET: | 1 | REV: | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|




NOT TO SCALE

PETERSBURG TO KAKE INTERTIE – 69kV SINGLE WOOD POLE

PREPARED BY: COMMONWEALTH ASSOCIATES INC.

FIGURE 2–2

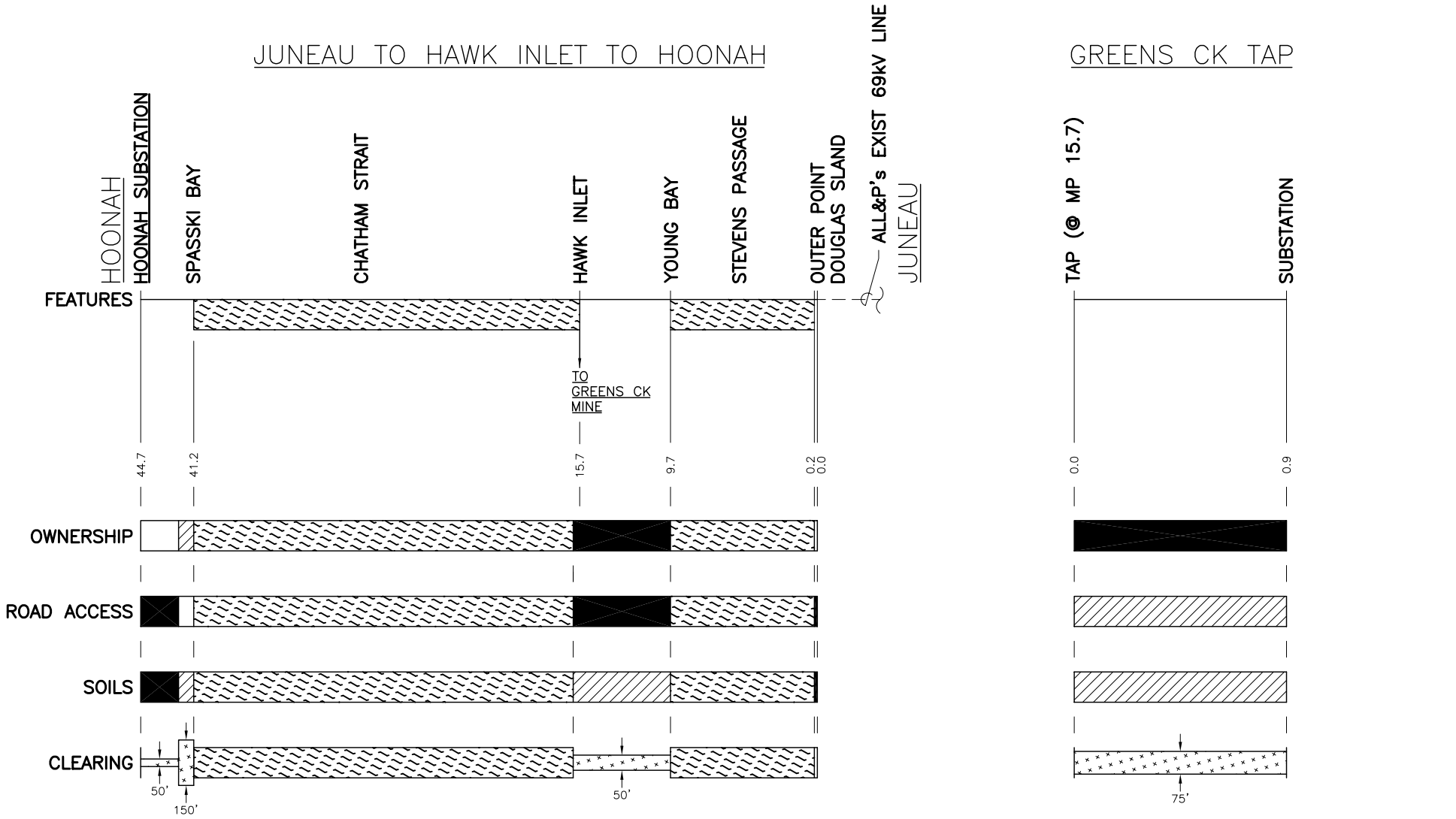
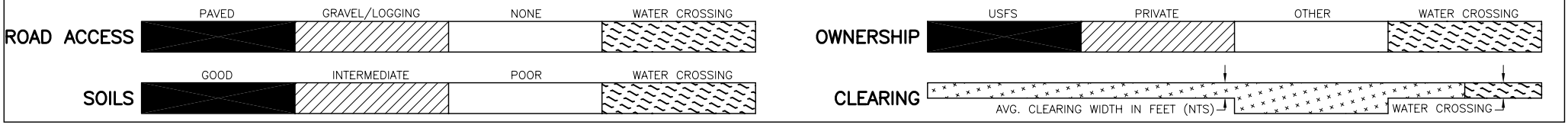



FIGURE 2-3

LEGEND:



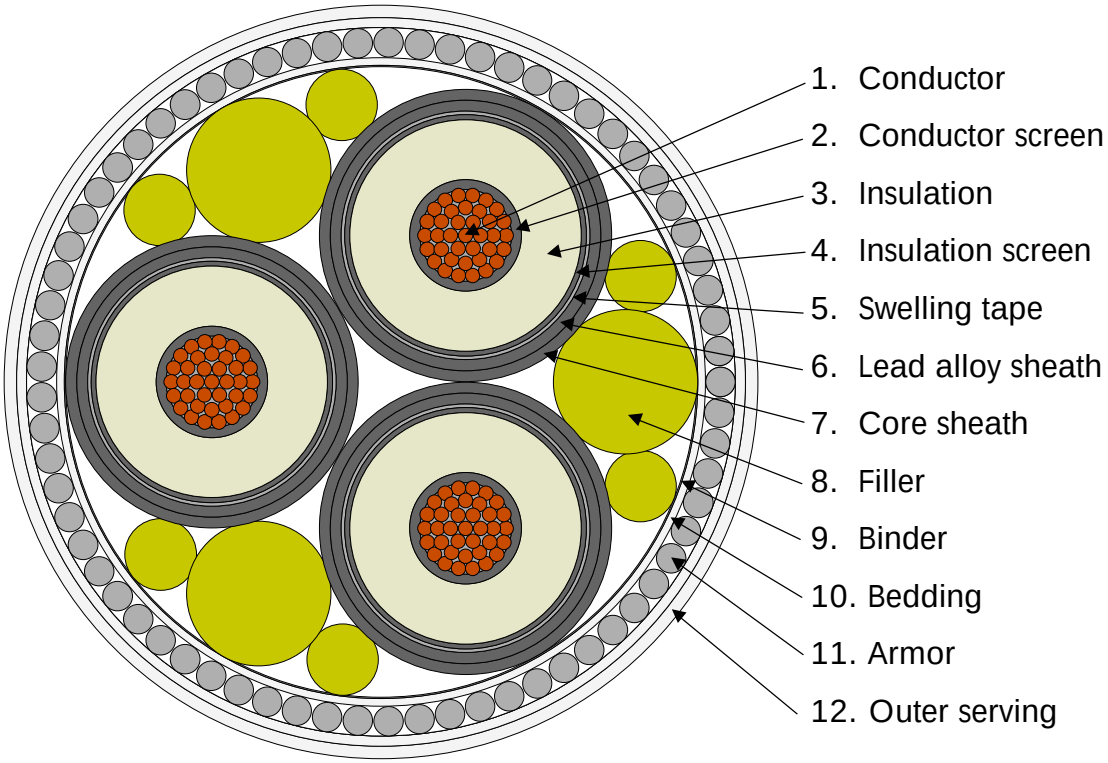

SCALE: 1" = 10 miles

0 10 20

JUNEAU TO HAWKS INLET TO HOONAH & GREENS CK TAP – LINEAR REFERENCE DIAGRAM

PREPARED BY: COMMONWEALTH ASSOCIATES INC.

# TKRA 69 kV 3x1x240 mm² KQ

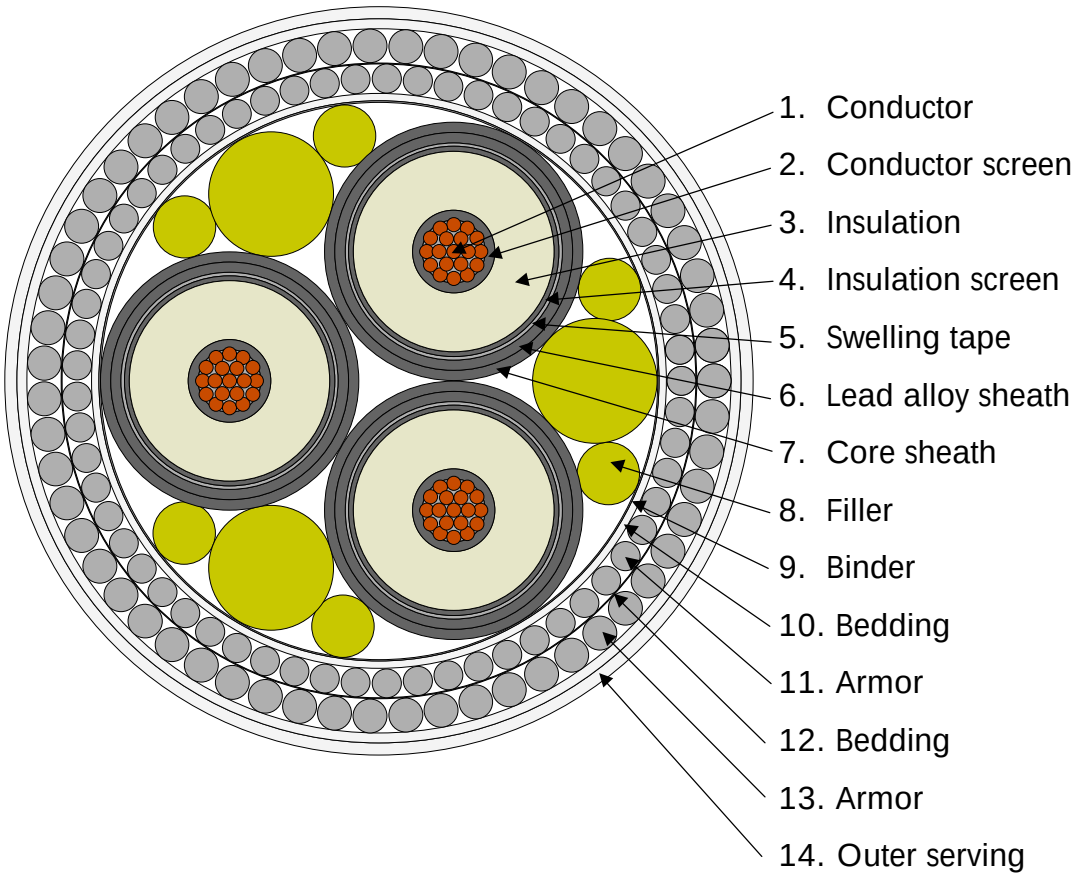



Cable weight in air: 45 kg/m

| No. | Constituents | Nominal thickness mm | Nominal diameter mm |
|---|---|---|---|
| 1 | Conductor, stranded copper wires, watertight | 37x3.01 Ø | 18.4 |
| 2 | Conductor screen, semiconducting XLPE | | |
| 3 | Insulation, XLPE | 12.0 | 46.4 |
| 4 | Insulation screen, semiconducting XLPE | | |
| 5 | Semiconducting swellable tape | | |
| 6 | Lead alloy sheath | 2.1 | 54.2 |
| 7 | Core sheath, semiconducting polyethylene | 2.0 | |
| 8 | Polypropylene yarn fillers | | |
| 9 | Binder tape | | |
| 10 | Bedding, polypropylene yarn and bitumen | | |
| 11 | Armor, galvanized steel wires | 69x6.0 Ø | |
| 12 | Outer serving, polypropylene yarn and bitumen | | 151 |

FIGURE 2-4

# TKVA 69 kV 3x1x120 mm² KQ




Cable weight in air: 55 kg/m

| No. | Constituents | Nominal thickness mm | Nominal diameter mm |
|---|---|---|---|
| 1 | Conductor, stranded copper wires, watertight | 19x2.97 Ø | 12.9 |
| 2 | Conductor screen, semiconducting XLPE | | |
| 3 | Insulation, XLPE | 12.0 | 40.9 |
| 4 | Insulation screen, semiconducting XLPE | | |
| 5 | Semiconducting swellable tape | | |
| 6 | Lead alloy sheath | 2.0 | 48.5 |
| 7 | Core sheath, semiconducting polyethylene | 1.9 | |
| 8 | Polypropylene yarn fillers | | |
| 9 | Binder tape | | |
| 10 | Bedding, polypropylene yarn and bitumen | | |
| 11 | Armor, galvanized steel wires | 61x6.0 Ø | |
| 12 | Bedding tapes | | |
| 13 | Armor, galvanized steel wires | 59x7.0 Ø | |
| 14 | Outer serving, polypropylene yarn and bitumen | | 153 |

FIGURE 2-5


## LEGEND

- Proposed Route
- Alternate Route
- Submarine Cable
- Existing Transmission Line
- Submarine Cable Termination

3mi 0 3mi 6mi

| REV. | REVISION DESCRIPTION | DATE |
|---|---|---|
| | | |

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SOUTHEAST CONFERENCE
SOUTHEAST ALASKA
INTERTIE STUDY

KAKE TO PETERSBURG INTERTIE
PROPOSED ROUTE
FIGURE 2-6

| DWN BY: | JLK | DSN BY: | JLH | CHK BY: | JLH | DATE: | 4/04/03 | FILE: | PetersburgKake | SHEET: | 1 | REV: | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

# PETERSBURG TO KAKE (SOUTHERN ROUTE)

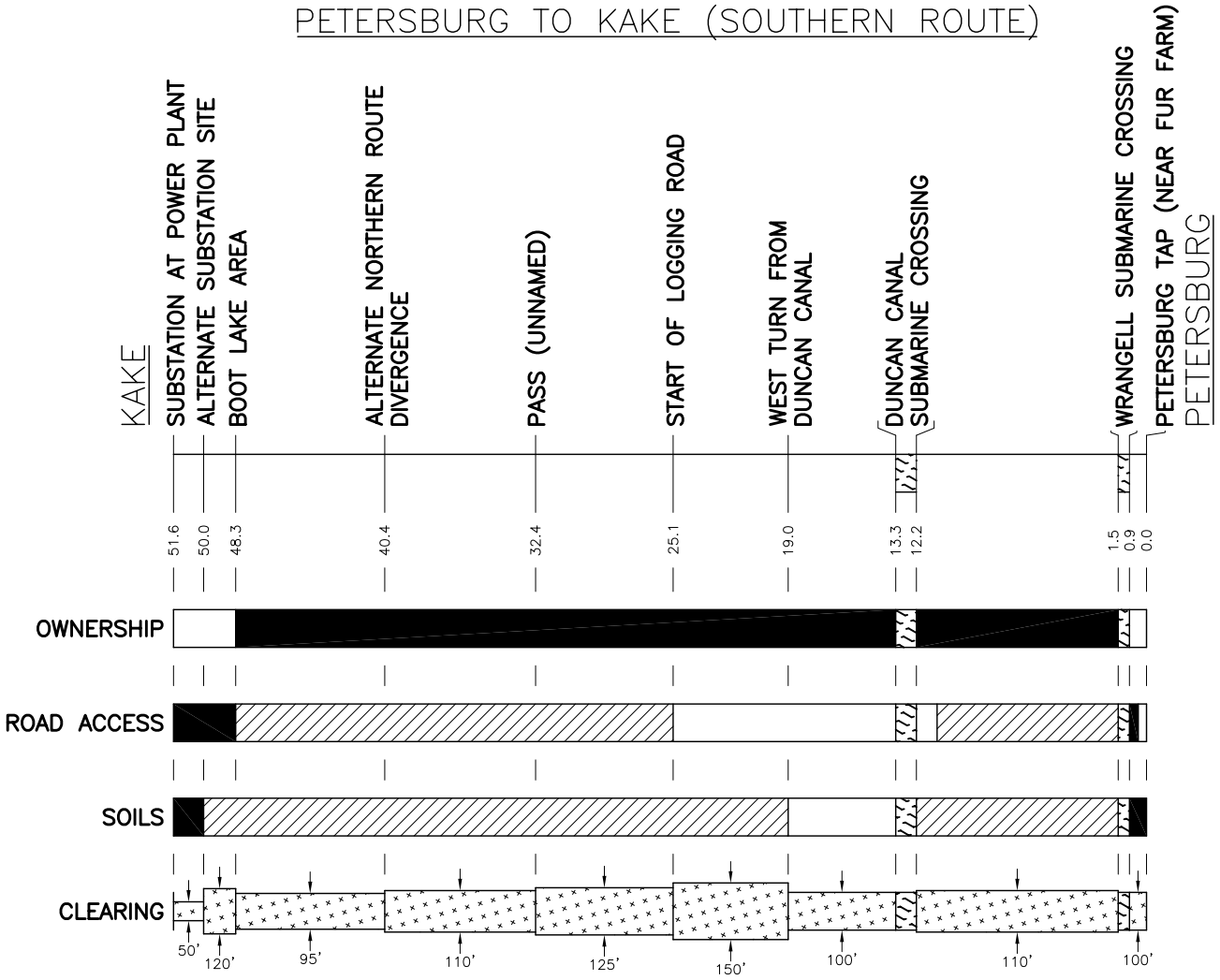
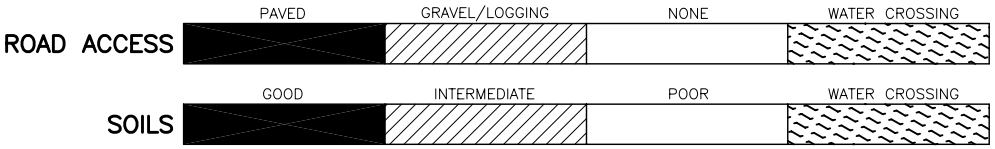
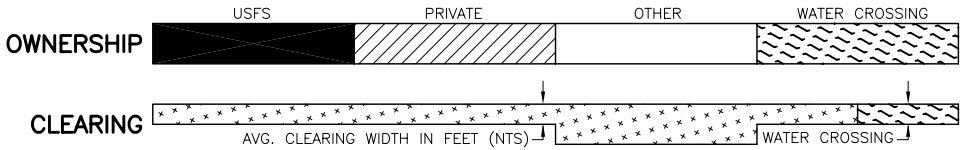



FIGURE 2–7

LEGEND:




SCALE: 1" = 10 miles

0 10 20

PETERSBURG TO KAKE (SOUTHERN ROUTE) – LINEAR REFERENCE DIAGRAM

PREPARED BY: COMMONWEALTH ASSOCIATES INC.