

Table A: AK DOT&PF Central Region Traffic Design Detail Catalog		
Detail #	Detail Sheet	Latest Update
1	Traffic Legend and Notes	11/28/2023
2	Arc Flash Shock Hazard Labeling	6/12/2023
3	Junction Box	4/14/2022
4	Loop Detector (MOA version)**	8/3/2022
4	Loop Detector (SOA version)	8/3/2022
5	Splice Details	5/11/2023
6	TS2 Controller Cabinet Foundation	3/22/2024
7	TS2 Size 6 Controller Assembly	3/17/2021
8	TS2 Size 7 Controller Assembly	4/18/2022
9	Programmable Flasher Cabinet	3/7/2018
10	Electrolier Pipe Pile Foundation	3/7/2018
11	Signal Pole Pipe Pile***	1/26/2023
12	Lighting Standard 1	3/22/2024
13	Lighting Standard 2***	5/11/2022
14	Lighting Standard 3 (45deg)	9/8/2023
15	Rural Beacon or Firehouse Beacon	3/7/2018
16	Flashing School Beacon	3/7/2018
17	Breakaway Traffic Signal Pole	9/8/2023
18	Temporary Wood Signal Pole (2 Sheets)	4/14/2022
19	Temporary Traffic Signal Span Wire	5/12/2023
20	CIDH Foundation Pole Wiring and Grounding	11/15/2023
21	Pipe Pile Foundation Pole Wiring and Grounding	1/24/2024
22	Antenna Mounting	3/7/2018
23	EVP Installation (Detector/Opticom)	10/19/2018
24	PTZ Camera Mounting (MOA version)**	5/12/2023
24	PTZ Camera Mounting (SOA version)	5/12/2023
25	Radar Detection (MOA Version)	12/5/2023
25	Radar Detection (SOA Version)	12/5/2023
26	Sign Attachment	10/15/2021
27	Light Sign Framing & Attachment	10/15/2021
28	22" to 24" Diameter Pole Adapter Details	3/7/2018

**Confirm whether MOA version of details apply here.

***(AVAILABLE UPON REQUEST ONLY)

ALASKA STANDARD PLANS:

Central Region Traffic Design has retired details that have been replaced by Alaska Standard Plans (ASPs). Find Current ASPs and design backup information at the following location:
<https://dot.alaska.gov/stwddes/dcsprecon/standardplans.shtml>

The following ASPs are supported for use in lieu of legacy Central Region Traffic Design details:

L-24: Type 1 Load Center
 L-25: Type 1A Load Center
 L-25: Type 2 and 3 Load Centers
 L-30: Concrete Street Light Pole Foundation
 S-00: Sign Framing and Post Spacing
 S-05: Post Mounted Sign Offset and Height
 S-23: Pole and Mastarm Sign Mounting
 S-30: Light Sign Structure Post Embedment
 S-31: Sign and Post Base Foundation
 S-32: Sign Post Base and Foundation Behind Barrier
 T-05: Guide Market Placement
 T-20: Pavement Marking Applications
 T-21: Pavement Marking Applications
 T-22: Pavement Marking Symbol Dimensions
 T-23: Crosswalk Locations at Intersections
 T-25: Milled Rumble Strip (5 pages)
 T-30: Traffic Signal Hardware
 T-52: Concrete 42 inch Diameter Signal Pole Foundation
 T-53: Concrete 48 inch Diameter Signal Pole Foundation
 T-54: Signal Pole with 15 to 35’ Mastarm
 T-55: Signal Pole with 40 to 50’ Mastarm
 T-56: Signal Pole with 55 to 65’ Mastarm
 T-57: Signal Pole with 70 to 75’ Mastarm

This list is not exhaustive of all ASPs to be used, it only represents acceptable ASPs to be used for traffic design purposes..

SHEET ORDER FOR SPECIFIC INTERSECTIONS:

Place any traffic details used following the order shown in Table A at the start the H sheet section.

SHEET ORDER FOR SPECIFIC INTERSECTIONS:

Additional letter identifiers may be used with the sheet numbers after the H, to emphasis intersection groups.
 Example being; HA1-HA5 for intersection 1 of a 3 intersection project; whereas intersection 3 of 3 would be HC1-HC5.
 Signal Systems Plan
 Signal Operations
 Wiring Diagram (include LC Summary if possible)
 Pole Elevations
 Controller Equipment (include communications and EVP equipment)

SHEET ORDER FOR PROJECT WIDE AREA:

Load Center Summary
 Illumination Summary
 J-Box Summary
 Signing, Striping and Illumination plan sheets (including any special marking details)

AK DOT&PF CR Traffic Design Detail Revision Log
01-TRAFFIC_LEGEND_AND_NOTES

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
3/17/21	Beginning of Log	None	None	N/A	N/A
4/14/22	1) Revised Signing & Striping Note 5 to Alaska Standard Plan. 2) Added conduit fill column to conduit schedule with note to remove fill column prior to advertising. 3) Updated Signal Equipment Schedule tables for the next generation of SOA maintained traffic controllers: Dual Door, no detector racks, hardwired P.I.M., and more. 4) Added Note 11 for MOA traffic control.	1) None. 2) Conduit fill to meet NEC requirements, to be checked through design milestone reviews. 3) None 4) Delete note if outside MOA	1) None. 2) None. 3) Consult CR Traffic Design for more details on changes to the traffic controller.	1) ZJH 2) ZJH 3) PJS 4) PJS	RDR
4/20/22	1) Modified the LED Luminaire and Performance Standards table to correspond with updated 740-2.18 section. 2) Updated the template pole elevations to modify the longer poles for 3.5deg and 4deg mast arm rise per updated standard plans.	1) Provide fixtures that have been tested and deemed suitable in 740-2.18. Performance values shall be the minimum of all acceptable fixtures presented in 740-2.18. 2) None.	None	ZJH	RDR
7/21/22	Added bold and non-bold labelling descriptions to differentiate proposed and existing conduit and cables.	None.	None.	ZJH	RDR

7/21/22	Deleted "junction box locations approximate" sentence in foundations note 2.	None.	None.	ZJH	RDR
8/15/22	Updated TS2 power supply model number.	None.	None.	ZJH	PJS
11/2/22	Modified labelling between TWLT arrows to match MUTCD.	None.	None.	RDR	SAR
12/27/22	Modified default controller cabinet cable connectors (SC to LC)	None.	None.	ZJH	VR
12/29/22	Modified Abbreviations: "INTX L" to "INTXL"	None.	None.	ZJH	RDR
2/6/23	Removed AccuScan/Smartmicro radar equipment from SOA controller cabinet schedule in model space.	None.	Only utilizing Wavetronix Radar for SOA signals at this time. Brand name spec applies.	PJS	RDR
4/26/23	Removed duplicated dimensions from pole lower section, signal/ped heads	Dimensions are contained in ASPs	None.	ZJH	RDR
5/11/23	Added 1 UPS inverter and 4 UPS backup batteries to the standard SOA cabinet schedule in model space.	None.	Change per M&O request.	RDR	PJS
5/11/23	Changed luminaires in model space to be LED fixture style.	None.	None.	RDR	PJS
11/14/23	Changed radar equipment to list only components that will go in the controller cabinet. Other radar components are listed on the radar detail sheet. Removed "Installer Kit" and "!" from "Click! 650".	The Click 650 may be discontinued soon and only Click 656 models will be available.	None.	RDR	PJS
11/28/23	Added designer note to LC Summary to "Verify with local M&O whether to use Current (GE) LightGrid ELWC-Cellular node or standard photocell".	Check with M&O preference for each load center.	None.	PJS	RDR

AK DOT&PF CR Traffic Design Detail Revision Log
02-ARC_FLASH_SHOCK_HAZARD_LABEL

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
9/30/20	Beginning of Log	None	None	N/A	N/A
4/7/22	Clarified watermark callout to better indicate what the watermark represents	None	None	ZJH	JSC
4/10/23	Clarified where information on label should come from, and where label should go on load center	None.	None.	ZJH	JSC
6/12/23	Added requirement for Utility Information Label for Anchorage LCs	None.	None.	ZJH	JSC

AK DOT&PF CR Traffic Design Detail Revision Log

03-JUNCTION_BOX

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
04-LOOP_DETECTOR_MOA

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
3/26/20	Beginning of Log	None	None	N/A	N/A
7/21/22	Adjusted formatting to note 8.			RDR	PJS
7/21/22	Added new note 8. Changed note references in call-outs.	Prevent traffic from driving over unpaved loops.		RDR	PJS
8/3/22	Added note 14 regarding station and offset locations of loops.			RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log

04-LOOP_DETECTOR_SOA

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
05-SPLICE

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
3/7/18	Beginning of Log	None	None	N/A	N/A
4/14/22	Revised Fuse in equipment table to match fuse modification for LED fixtures.	None	None.	PJS	RDR
12/27/22	Added dual luminaire wiring diagram.	None	None	ZJH	RDR
3/2/23	Fixed plot issues for dual luminaire. Wiring diagram.	None.	None.	ZJH	PJS
5/11/23	Changed luminaire symbol to LED style.	None.	None.	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log
06-CONTROLLER_FOUNDATION

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
6/2/20	Beginning of Log	None	None	N/A	N/A
4/7/22	Added Communication Drop Post for telecom service drop. Similar post to what is called for with Type 2 Load Centers. Updated ground wire size to #4 AWG to cover nearly any situation.	Call for drop post for the controller in the foundation schedule when telecom is dropping service to a cabinet. Coordinate need with utilities designer	When telecom agencies made a drop to our cabinets they often mounted their equipment to the side of the controller cabinet. This option provides telecom agencies a better place for their drop and keeps their equipment off of SOA cabinets and eliminates cabinet wall penetrations.	ZJH	JSC/LAS
5/10/22	Minor modifications to rebar layouts for actual constructability	None	None.	ZJH	RDR
5/24/23	Modified size of Copper GEC	None	None	ZJH	JSC/RDR
3/22/24	Revised demisions on "SIZE 6 or 7 CONTROLLER CABINET FOUNDATION" detail to edge of concrete and not start of chamfer.	None.	None.	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log

07-SIZE_6_CONTROLLER_CABINET

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

08-SIZE_7_CONTROLLER_CABINET

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

09_PROGRAMMABLE_FLASHER_CABINET

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

10-PIPE_PILE_FOUNDATION

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

11-PIPE_PILE_FOUNDATION_SIGNAL (AVAILABLE UPON REQUEST ONLY)

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
12-LIGHTING_STANDARD-1

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
2/24/20	Beginning of Log	None	None	N/A	N/A
4/14/22	Corrected Note # in Top View handhole callout. Corrected type in Note #7.	None.	None.	ZJH	RDR
5/11/22	Revised handhole conductor attachment to Nylon cable clamp from steel plate clamp	None	Per M&O request	ZJH	RDR
1/26/23	Deleted "Offset Lighting Standard Pole Top Detail" because it is not part of the standard mast arm style light pole.	None.	None.	RDR	PJS
1/26/23	Added "MASTARM TYPE" below "ELECTROLIER ELEVATION" to clarify type.	None.	None.	RDR	PJS
5/11/23	Changed luminaire symbol to LED style.	None.	None.	RDR	PJS
9/8/23	Adjusted dimensions on cable attachment bracket to better match supplier dimensions.	None.	Matsu M&O requested the removal of the attachment bracket however, after further discussion with the DOT&PF electrical engineer, we determined this part must remain to minimize the risk of a failed quick disconnect.	RDR	SAR
11/15/23	Reverted the nylon cable attachment bracket back to metal.	None.	Per M&O request.	RDR	PJS
3/22/24	Revised "MASTARM DATA" table to have the most recent max dimensions provided by latest ASP. Added "TENON MOUNT" detail.	Use tenon mount instead of offset poles for LED fixtures.	None.	RDR	PJS

13-LIGHTING_STANDARD_2 (AVAILABLE UPON REQUEST ONLY)

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
14-LIGHTING_STANDARD-3-45_DEGRE

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
2/24/20	Beginning of Log	None	None	N/A	N/A
4/14/22	Corrected Note # in Top View handhole callout. Corrected type in Note #7. Fixed mast arm data table display issue	None.	None.	ZJH	RDR
5/11/22	Revised handhole conductor attachment to Nylon cable clamp from steel plate clamp	None	Per M&O request	ZJH	RDR
6/20/22	Revised typo on aerial clearance.	None	None	ZJH	RDR
2/21/23	Modified bolt size for slip joints to match bolts used for other lighting standards	None	None	ZJH	RDR
5/11/23	Changed luminaire symbol to LED style.	None.	None.	RDR	PJS
9/8/23	Adjusted dimensions on cable attachment bracket to better match supplier dimensions.	None.	Matsu M&O requested the removal of this bracket however, after further discussion with the DOT&PF electrical engineer, we determined this part must remain to minimize the risk of a failed quick disconnect.	RDR	SAR

AK DOT&PF CR Traffic Design Detail Revision Log

15-RURAL_BEACON

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

16-SCHOOL_BEACON

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
17-BREAKAWAY_SIGNAL_POLE

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
10/15/21	Replaced "frangible coupling" callout with "Transpo 5100". Updated signal loads to match ASP T-54 through T-57.	None	Removed table description to avoid redundancy.	ZJH	RDR
1/26/23	Revised elevation view to more accurately show the finished ground relative to the base and handhole components.	None	None	RDR	PJS
7/27/26	Updated skirt detail to match lighting standard detail. Added 5" measurement to frangible coupling.	None	None	SAR	RDR
9/8/23	Added bend radius note.	None.	Added radius to minimize risk of overbending during installation.	RDR	SAR

AK DOT&PF CR Traffic Design Detail Revision Log

18-WOOD_POLE_SIGNAL

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
19-SPAN_WIRE

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
20-CIDH_WIRING_AND_GROUNDING

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
2/24/20	Beginning of Log	None	None	N/A	N/A
4/14/22	Revised display issue for Detail A conduit callout	None	None	ZJH	RDR
8/1/22	Added note 6 to indicate wiring requirements for dual luminaire poles based on M&O feedback.	None.	None.	ZJH	JSC/RDR
9/8/23	Added bend radius note 7.	None.	Added radius to minimize risk of overbending during installation.	RDR	PJS
11/15/23	Revised attachment bracket to more accurately reflect the scale of the bracket.	None.	None.	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log
21-PILE_WIRING_AND_GROUNDING

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
7/29/19	Beginning of Log	None	None	N/A	N/A
4/14/22	Revised display issue for Detail A conduit callout. Removed Detail C as it contained duplicate information from ASP L-30	None	None	ZJH	RDR
8/1/22	Added note to indicate wiring requirements for dual luminaire poles based on M&O feedback.	None.	None.	ZJH	JSC/RDR
1/24/24	Revised scale of attachment bracket to be more accurate. Added cable tie bend notes and details.	None.	None.	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log

22-ANTENNA_MOUNTING_BRACKET

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

23-EVP_DETECTOR

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
24-PTZ_MOUNTING_MOA

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
6/23/22	Beginning of Log. Changed to match plate adapter version similar to SOA detail.	None	None	N/A	N/A
8/4/22	Revised Camera/Housing Detail to better indicate Cable 1 through Astro-Brac, added language for ground wire. Fixed typo in Note 3.	None	None	ZJH	RDR
8/17/22	Updated dimensions on wall mount adapter plate.	None	None	ZJH	N/A
1/12/23	Updated dimensions on wall mount adapter plate for clarity.	None	None	ZJH	RDR
5/12/23	Changed luminaire style to LED.	None	None	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log
24-PTZ_MOUNTING_SOA

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
12/11/19	Beginning of Log	None	None	N/A	N/A
8/4/22	Revised Camera/Housing Detail to better indicate Cable 1 through Astro-Brac, added language for ground wire. Fixed typo in Note 3.	None	None	ZJH	RDR
8/17/22	Updated dimensions on wall mount adapter plate.	None	None	ZJH	N/A
1/12/23	Updated dimensions on wall mount adapter plate for clarity.	None	None	ZJH	RDR
5/12/23	Changed luminaire style to LED.	None	None	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log
25-RADAR_DETECTION_MOA

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
3/26/20	Beginning of Log	None.	None.	N/A	N/A
2/6/23	Adopted for SOA signals as well	None.	Only utilizing Wavetronix Radar for SOA signals at this time. Brand name spec applies.	PJS	RDR
3/22/23	Modified table names for clearer identification in signal sheets' controller equipment schedule.	None.	None.	ZJH	RDR
5/3/23	Modified Note 8 - MOA to splice at handhole	None.	None.	ZJH	RDR
11/14/23	Changed radar detection equipment terminology to be consistent with other details and specs.	None.	SMARTSENSOR 6 CONDUCTOR CABLE (SS-704-XXX) the XXX was added to represent an unspecified length. Length is as needed per specifications.	RDR	PJS
11/14/23	Modified drawing to show mini jbox in simplex handhole. Grounding shown bolted to pole exterior.	None.	Locating the mini jbox above the simplex ensures there is sufficient room for the jbox.	PJS	RDR
12/5/23	Created separate radar details for MOA and SOA. Now showing separate Smartsensor 6 conductors for each radar and relocated jbox minis to base handhole.	None.	MOA and SOA M&O departments have different preferences. Created separate plan sheets for clarity.	PJS	RDR
12/5/23	Added note 8. requiring no splices except for in Jbox Mini.	None.	None.	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log
25-RADAR_DETECTION_SOA

Date	Description of Change	Designer Considerations	Additional Notes	Modifier	Approver
4/7/22	Modified Radar detail and material table to indicate options for radar systems accepted for signals outside MOA.	In Signal sheets the number and orientation of radar will be different depending on options. Present both options so that contractor will have clear installation direction depending on selected option, consult CR Traffic Design if further information is needed on option presentation	Acceptable radar options change frequently as new products are seen as acceptable by SOA and as products are discontinued. Changes in accepted radar options may change during the design timeline.	PJS	LAS
2/6/23	Removed from publish - adopt MOA detail for both MOA and SOA signals	None	Only utilizing Wavetronix Radar for SOA signals at this time. Brand name spec applies.	PJS	RDR
12/5/23	Created separate radar details for MOA and SOA. Now showing separate Smartsensor 6 conductors for each radar and relocated jbox minis to just above the simplex handhole.	None.	MOA and SOA M&O departments have different preferences. Created separate plan sheets for clarity.	PJS	RDR
12/5/23	Added note 8. requiring no splices except for in Jbox Mini.	None.	None.	RDR	PJS

AK DOT&PF CR Traffic Design Detail Revision Log
26-SIGN_ATTACHMENT

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log

27-LIGHT_SIGN_FRAMING

[illegible]

AK DOT&PF CR Traffic Design Detail Revision Log
28-POLE_ADAPTER_22-24_INCH

[illegible]