STATE OF ALASKA

DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	A01	A04

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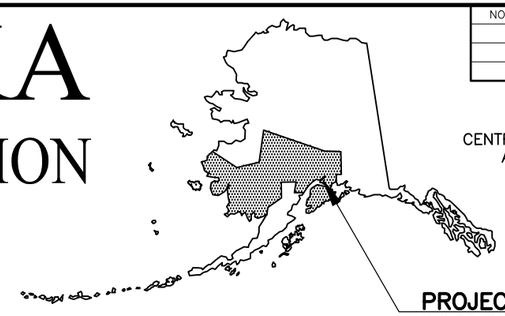
LATITUDE	61.602996	LONGITUDE	-149.148501



PROJECT LOCATION
DOT&PF M&O STATION: PALMER
MAT SU BOROUGH O&M

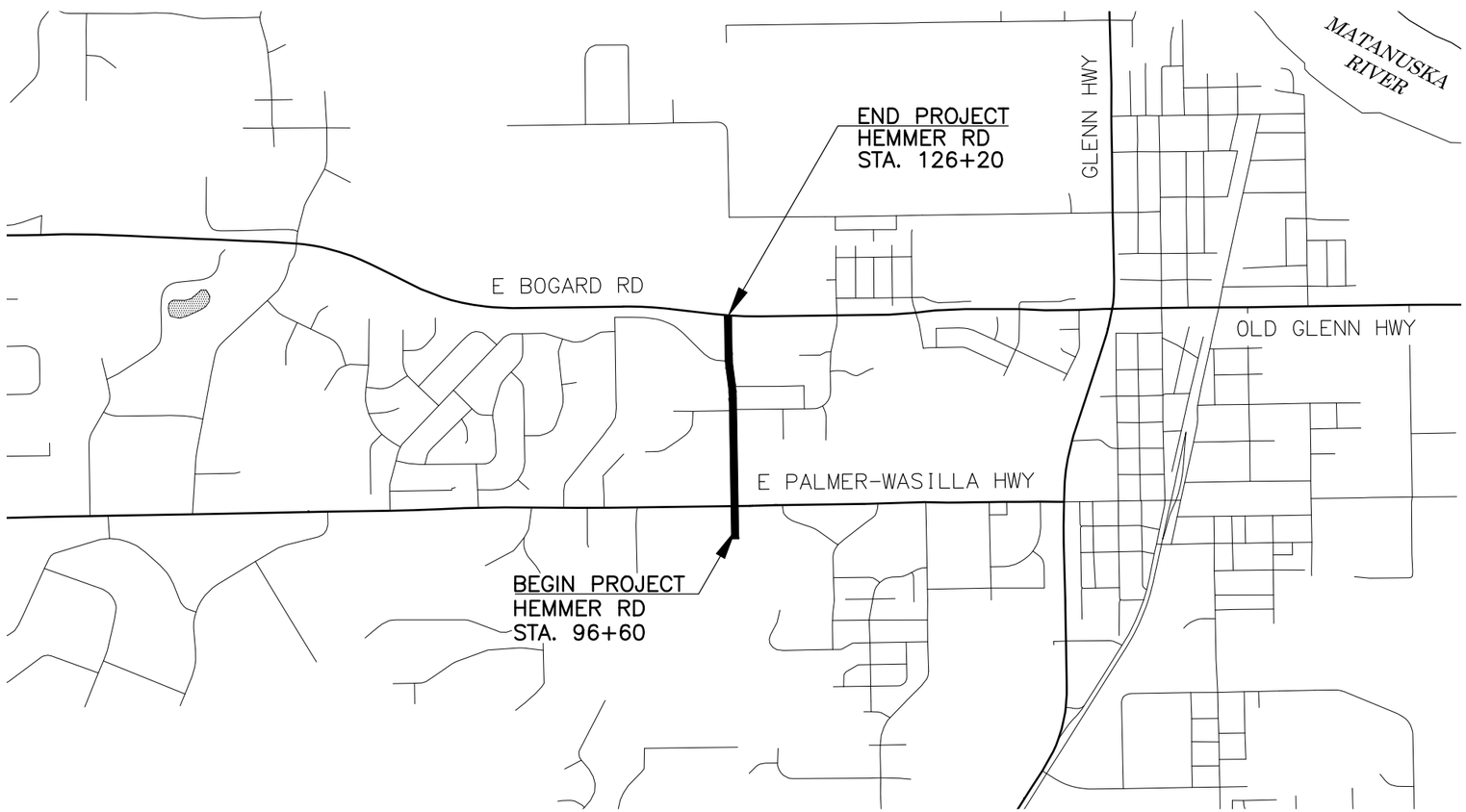
PROPOSED HIGHWAY PROJECT

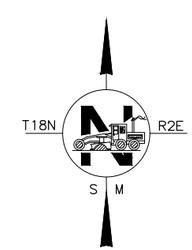
HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD PROJECT NO. 0001743/CFHWY00885

GRADING, DRAINAGE, PAVING, PATHWAYS, ILLUMINATION, SIGNALIZATION, SIGNING, AND STRIPING

PROJECT SUMMARY		
ROADWAY	WIDTH	LENGTH
HEMMER ROAD	32 FT	0.56 MILES

DESIGN DESIGNATIONS	
	HEMMER ROAD
FUNCTIONAL CLASS	MAJOR COLLECTOR
AADT (EXISTING YEAR)	740
AADT (DESIGN YEAR)	1,238
DESIGN SPEED (V) (MPH)	40
DHV (EXISTING YEAR)	12.30%
DHV (DESIGN YEAR)	12.30%
T-PERCENT COMMERCIAL TRUCKS (%)	5.50%
D-DIRECTIONAL DISTRIBUTION (%)	55/45





PIH REVIEW
MARCH 2025

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES
4111 AVIATION AVENUE, ANCHORAGE, AK 99502
(907)269-0590

APPROVED:

REGIONAL PRECONSTRUCTION ENGINEER DATE

CONCUR:

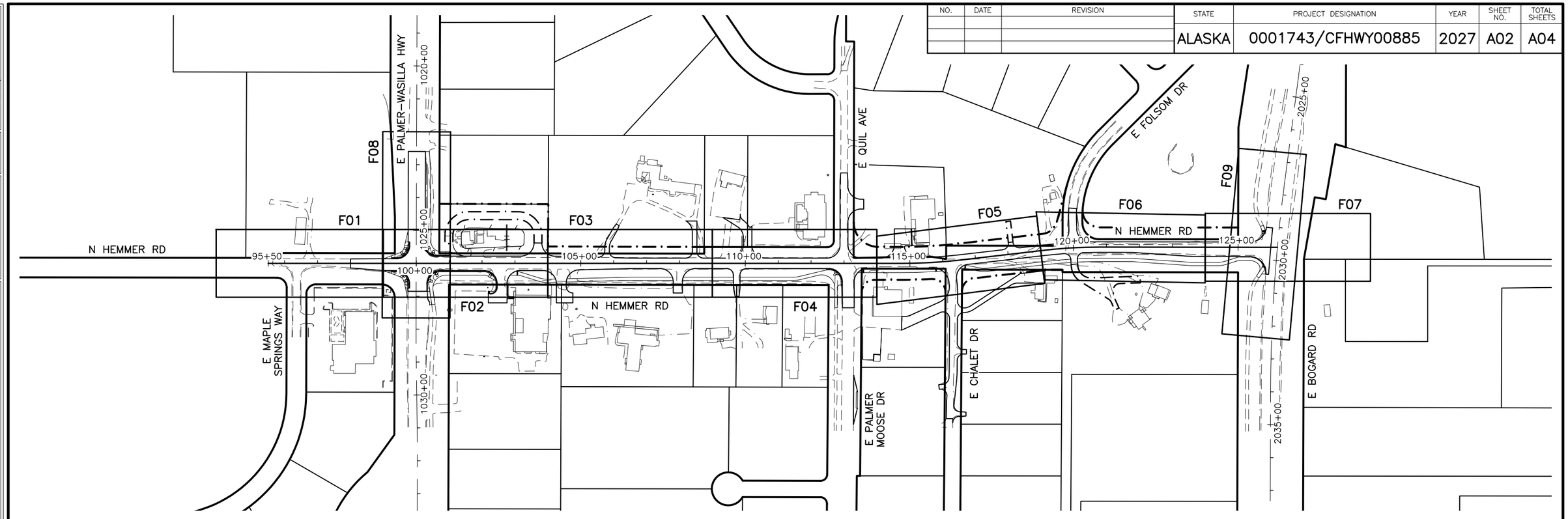
REGIONAL CONSTRUCTION ENGINEER DATE

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/5/2025	10:23 AM	N/A	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_A01NA02_TTL.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	A02	A04



GENERAL NOTES:

1. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE RIGHT-OF-WAY, TEMPORARY CONSTRUCTION EASEMENTS, AND TEMPORARY CONSTRUCTION PERMITS. NO EXCESS MATERIAL SHALL BE DISPOSED OF WITHIN THE RIGHT-OF-WAY, UNLESS SPECIFICALLY CALLED FOR IN THE PLANS OR DIRECTED BY THE ENGINEER.

2. THE RIGHT-OF-WAY LINES SHOWN WERE CREATED FOR THIS PROJECT BY DOT&PF ROW ENGINEERING AND ARE BASED ON RECORDED DOCUMENTS AND/OR PLATTED SUBDIVISIONS, AND SURVEYED MONUMENTS. THE RIGHT-OF-WAY LINES WERE INSERTED USING A COMMON COORDINATE SYSTEM.

3. ALL PAVEMENT CUTS SHALL BE MADE WITH A SAW OR ALTERNATE METHOD APPROVED BY THE ENGINEER.

4. CLEARING LIMITS SHALL BE 10 FEET BEYOND SLOPE CATCH POINTS OR TO THE RIGHT-OF-WAY LINE, WHICHEVER IS LESS.

5. PLACE 4" TOPSOIL AND SEED ON ANY AREAS DISTURBED BY CONSTRUCTION AND AS DIRECTED BY THE ENGINEER.

6. THE EXISTING INFORMATION SHOWN IN THE PLANS IS FROM AS-BUILTS AND HAS BEEN PARTIALLY FIELD VERIFIED. FIELD CONDITIONS MAY NOT BE ACCURATELY REPRESENTED AND/OR MAY HAVE CHANGED. ADJUST INSTALLATIONS AS DIRECTED BY THE ENGINEER.

7. ADJUST ALL PAVEMENT PENETRATIONS TO FINAL GRADE PRIOR TO TOP LIFT OF PAVING.

   IF ANY PAVEMENT PENETRATION REQUIRES GRADE ADJUSTMENT AFTER FINAL LIFT PAVING, AS DETERMINED BY THE ENGINEER, SAW CUT A NEAT LINE ALONG THE PAVEMENT TO BE REMOVED. USE AN INFRARED HEATER TO HEAT THE EXISTING PAVEMENT; EQUIPMENT AND MAXIMUM TEMPERATURE SHALL BE APPROVED BY THE ENGINEER. REPLACE THE REMOVED ASPHALT WITH NEW HOT MIX ASPHALT AND THOROUGHLY COMPACT. SEAL JOINTS, AT LEAST 12 INCHES WIDE CENTERED ON JOINT, USING ASPHALT SYSTEMS GSB-88, OR APPROVED EQUAL, WHILE THE HOT MIX ASPHALT IS CLEAN, FREE OF MOISTURE AND PRIOR TO STRIPING.

   THERE SHALL BE NO PAYMENT FOR ADDITIONAL WORK CAUSED BY FAILURE TO ADJUST PAVEMENT PENETRATIONS TO FINAL GRADE.

8. CONSTRUCT CURB RAMPS TO AVOID IMPACTING SIGNAL POLE FOUNDATIONS. DO NOT COVER SIGNAL POLE FOUNDATION BOLTS AND BASE PLATES WITH TOPSOIL.

9. ALL STORM DRAIN MANHOLES AND TYPE "A" INLET BOXES SHALL HAVE MINIMUM 18" SUMPS, UNLESS STATED OTHERWISE IN THE PLANS.

10. PLACE CURB AND GUTTER PRIOR TO FINAL LIFT OF ASPHALT.

THE FOLLOWING CENTRAL REGION STANDARD DETAILS APPLY TO THIS PROJECT:

CR-T-01.20

IN THE EVENT OF CONFLICT, CENTRAL REGION STANDARD DETAILS SUPERSEDE ALASKA STANDARD PLANS, STANDARD MODIFICATIONS, AND STANDARD SPECIFICATIONS. PLANS AND SPECIAL PROVISIONS SUPERSEDE CENTRAL REGION STANDARD DETAILS.

THE FOLLOWING ALASKA STANDARD PLANS APPLY TO THIS PROJECT:

C-03.30, C-04.12, C-05.20, C-06.00
D-01.02, D-04.22, D-06.10, D-08.00, D-20.05, D-22.01, D-23.01, D-24.00, D-25.00, D-26.04, D-35.01, D-36.01
I-22.11
L-26.10, L-30.12
M-20.15
S-05.02, S-23.00, S-31.02, S-32.02
T-20.04, T-21.04, T-22.04, T-23.01

SPECIFICATION:

CONSTRUCT THE IMPROVEMENTS COVERED BY THESE PLANS IN ACCORDANCE WITH THE ALASKA DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES 2020 STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION AND THE PROJECT SPECIAL PROVISIONS.

INDEX

STATE OF ALASKA
CLAIRE 10 47
PROFESSIONAL ENGINEER
PIN REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SHEET LAYOUT, INDEX, AND GENERAL NOTES

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:40 AM	1" =5'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_A01NA02_TTL.DWG

NO.	DATE	REVISION

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ALASKA	0001743/CFHWY00885	2027	A03	A04

ROADWAY

EXISTING / PROPOSED

- EDGE OF PAVEMENT
- LIMIT OF CUT SLOPE & FILL SLOPE (CUT / FILL)
- GRAVEL EDGE
- SIDEWALK AND PATH/TRAIL
- CONCRETE CURB & GUTTER
- CONCRETE CURB CUT
- PARALLEL CURB RAMP / PERPENDICULAR CURB RAMP
- UNIDIRECTIONAL CURB RAMP & MID-BLOCK CURB RAMP
- DETECTABLE WARNING TILE
- BRIDGE
- TUNNEL
- GUARDRAIL
- END & PARALLEL END SECTIONS
- ROADWAY OBLITERATION
- FENCE
- STONE FENCE
- NOISE BARRIER
- RETAINING WALL
- HEADWALL & WINGWALL
- BOTTOM OF DITCH
- SPECIAL DITCH
- FLAT BOTTOM DITCH
- BERM
- RIPRAP
- BOULDER OR BOULDERS
- PRIVATE SIGN, MAILBOX
- POST, BOLLARD
- PATTERNED CONCRETE
- DITCH LINING

UTILITIES

EXISTING / PROPOSED

- STORM DRAIN
- STORM DRAIN MANHOLE, CLEANOUT
- CURB INLET CATCH BASIN / FIELD INLET CATCH BASIN
- PIPE CULVERT WITH END SECTION
- SANITARY SEWER
- SANITARY SEWER MANHOLE, CLEANOUT
- SEPTIC VENT, SEWER SERVICE CONNECTION
- WATER
- FIRE HYDRANT, VALVE OR RISER
- WELL, WATER SERVICE CONNECTION
- NATURAL GAS
- OIL OR GASOLINE PIPELINE
- TANKS (ABOVE GROUND, UNDERGROUND)
- ELECTRIC (OVERHEAD) (UNDERGROUND) (OVERHEAD)
- UTILITY POLE, POLE WITH LUMINAIRE
- GUY POLE, GUY WIRE ANCHOR
- TRANSMISSION TOWER (WOOD, STEEL)
- ELECTRIC PEDESTAL, TRANSFORMER
- ELECTRIC MANHOLE, METER
- ELECTRIC OUTLET, LANDSCAPE LIGHT
- TELEPHONE (OVERHEAD) (UNDERGROUND) (UNDERGROUND)
- TELEPHONE MANHOLE, PEDESTAL
- FIBER OPTIC (OVERHEAD) (UNDERGROUND)
- FIBER OPTIC MANHOLE
- CABLE TV (OVERHEAD) (UNDERGROUND)
- CABLE TV PEDESTAL, SATELLITE DISH
- UNDERGROUND DUCT, UTILIDOR (ELECTRIC, TELEPHONE, FIBER OPTIC)
- VENT

TOPOGRAPHY

EXISTING / EXISTING / PROPOSED

- LAKE OR POND, WETLANDS
- TREE (CONIFER/DECIDUOUS) TREELINE (EDGE OF VEGETATION)
- PLANTER
- BUILDING OR FOUNDATION
- CONTOUR, MAJOR OR MINOR
- DRAINAGE FLOW
- CREEK (CENTERLINE)
- RIVER (EDGE OF WATER)

TRAFFIC

EXISTING / PROPOSED

- LOAD CENTER
- STATE TRAFFIC, MOA TRAFFIC, & BEACON CONTROLLER (ARROW INDICATES DOOR LOCATION)
- TYPE 1A, II, III, IV JUNCTION BOX
- FIBER OPTIC VAULT
- ELECTROLIER
- HIGHTOWER
- SIGNAL POLE WITH MASTARM
- PEDESTRIAN PUSH BUTTON & SIGNAL
- VEHICULAR SIGNAL
- VEHICULAR SIGNAL LEFT & RIGHT
- OPTICAL, CAMERA, RADAR, AND GPS DETECTOR
- LOOP DETECTOR
- COMMUNICATION ANTENNA
- MASTARM BEACON
- RURAL & SCHOOL ZONE BEACON
- LOOP DETECTOR CONDUIT
- SIGNAL CONDUIT
- LIGHTING CONDUIT
- SIGNAL & LIGHTING CONDUIT
- CONDUIT BORING
- CONDUIT SIZE IN INCHES
- INTERCONNECT
- SIGN POST

PAVEMENT MARKINGS

PROPOSED

- TRAFFIC PROJECT CENTERLINE
- 8" & 4" WHITE SOLID STRIPE
- 4" WHITE SKIP STRIPE (10' STRIPES AND 30' SPACES)
- 8" WHITE LANE GUIDE SKIP (LANE CONTINUATION OR TURN SKIP 1' STRIPES AND 3' SPACES)
- 8" & 4" YELLOW SOLID STRIPE
- 4" YELLOW SKIP STRIPE (10' STRIPES AND 30' SPACES)
- STRIPING CHANGE STATION INTERVAL
- 2' CROSSWALK OR STOPBAR
- LADDER CROSSWALK LAYOUT (2' WIDE RUNGS WITH 2' SPACES ALIGNED TO AVOID TIRE PATHS)
- TYPICAL PAINTED MEDIAN

RIGHT-OF-WAY

RECOVERED / SET THIS PROJECT

- FEDERAL GOV'T SURVEY MONUMENT
- GOV'T CONTROL STATION
- PRIMARY MONUMENT (BRASS/AL CAP)
- MISC SECONDARY CORNER
- PRIMARY CENTERLINE MONUMENT
- SECONDARY CENTERLINE MONUMENT
- RANDOM CONTROL MONUMENT
- PRIMARY GPS CONTROL POINT
- HORIZONTAL CONTROL POINT
- SECONDARY CONTROL POINT
- VERTICAL BENCHMARK
- TEMPORARY BENCHMARK
- TOWNSHIP AND RANGE LINES
- SECTION LINE
- 1/4 SECTION LINE
- 1/16 SECTION LINE
- CORPORATE or CITY LIMITS
- EXISTING RIGHT-OF-WAY
- RIGHT-OF-WAY OR EASEMENT REQUIRED
- PROJECT RIGHT-OF-WAY LINE
- EXISTING RIGHT-OF-WAY EASEMENT
- EXISTING PROPERTY LINE
- CONTROLLED ACCESS LINE
- EXISTING UTILITY EASEMENT
- PROPOSED UTILITY EASEMENT
- EXISTING CENTERLINE
- RAILROAD CENTERLINE
- TEMPORARY CONSTRUCTION EASEMENT
- TEMPORARY CONSTRUCTION PERMIT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

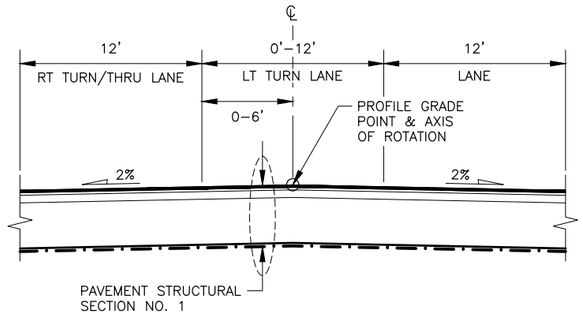
LEGEND

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

DESIGNED BY CLE
CHECKED BY
DRAFTED BY
SCALE 1" =1'
DATE 3/10/2025 TIME 10:41 AM
DRAWING LOCATION W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_A03_LGND.DWG

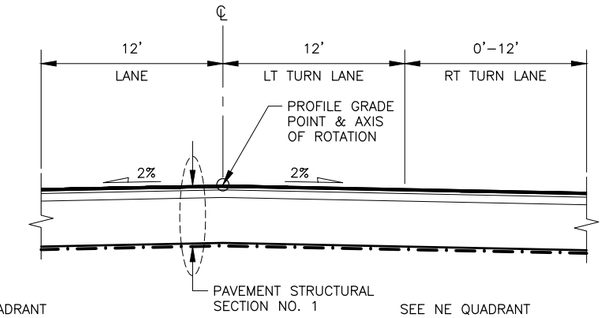
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	B01	B05



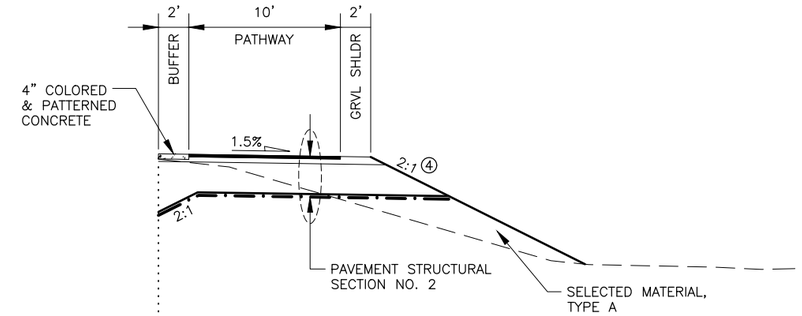
HEMMER TURN LANE WIDENING SOUTH

PALMER-WASILLA HWY TO STA. 106+50



HEMMER TURN LANE WIDENING NORTH

STA. 121+80 TO BOGARD RD

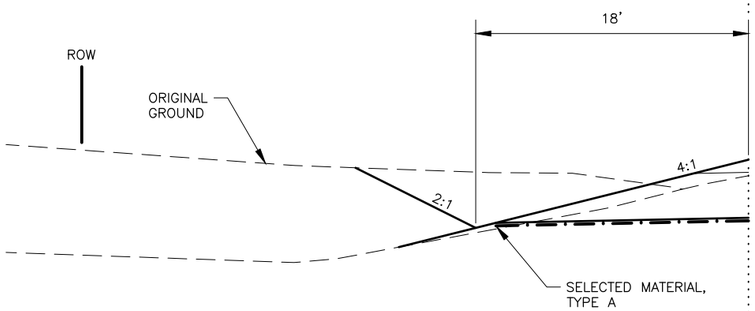


PATH ADJACENT

STA. 113+42 TO STA. 115+97
STA. 125+00 TO EOP

SEE NW QUADRANT TYPICAL SECTION B02

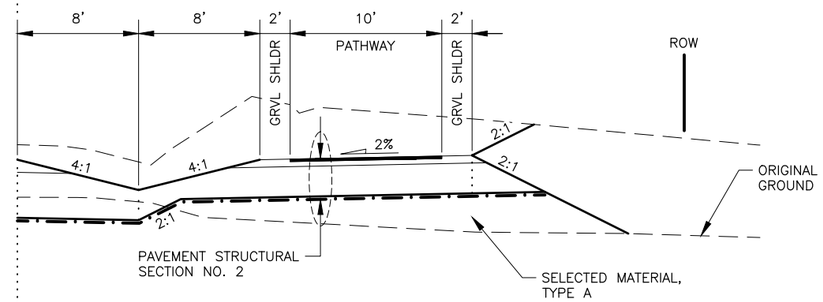
SEE NE QUADRANT TYPICAL SECTION B02



DEEPER DITCH

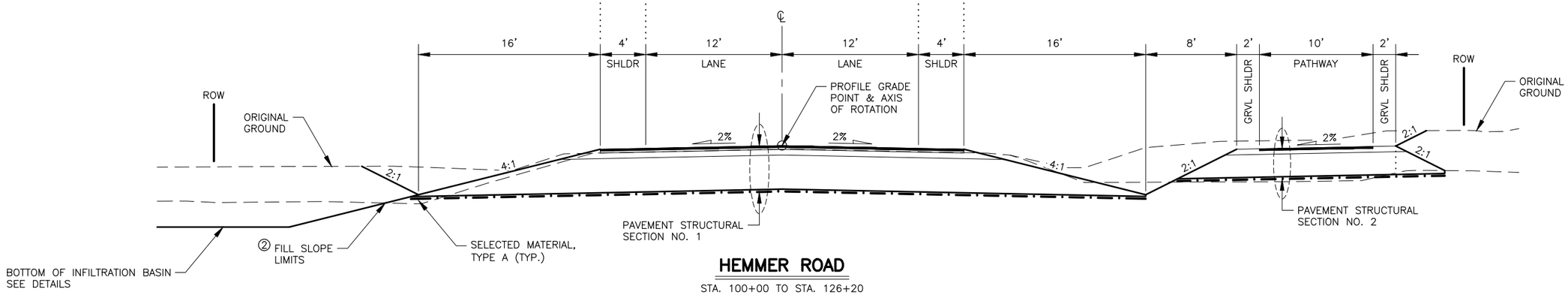
STA. 113+12 TO EOP

TURN LANE WIDENING EXTENTS



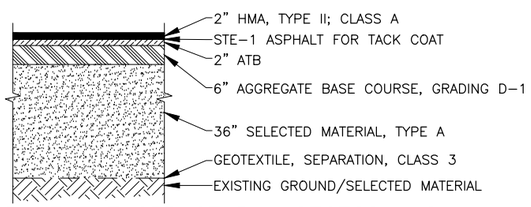
SHALLOW SWALE

STA. 116+71 TO STA. 125+00

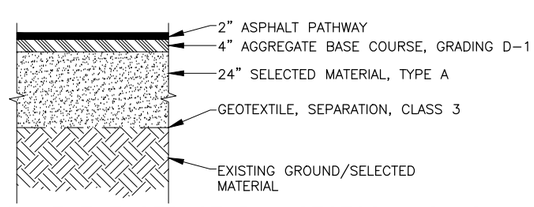


HEMMER ROAD

STA. 100+00 TO STA. 126+20



PAVEMENT STRUCTURAL SECTION NO. 1



PAVEMENT STRUCTURAL SECTION NO. 2

NOTES:

1. WITHIN TWO (2) DAYS AFTER PAVING, PLACE AGGREGATE BASE COURSE, GRADING D-1 AGAINST PAVEMENT EDGE TO ENSURE THERE IS NO VERTICAL DROP AT THE EDGE OF PAVEMENT. USE APPROVED TRAFFIC CONTROL DEVICES IN THE INTERIM. APPLIES TO ALL SECTIONS.

② CONTINUE 4:1 FILL/EXCAVATION TO ELEVATION 273' WHERE ADJACENT TO INFILTRATION BASIN. REFER TO INFILTRATION BASIN GRADING DETAILS.

3. WHERE CURB, BACKING CURB, CONCRETE BUFFER, OR CURB RAMPS ARE PRESENT, PLACE 2" OF AGGREGATE BASE COURSE, GRADING D-1 FOR LEVELING, OR AS DIRECTED BY THE ENGINEER. APPLIES TO ALL SECTIONS.

④ USE 4:1 FORE SLOPE BEHIND PATHWAY FROM STA. 113+31 TO STA 116+13 RT.

STATE OF ALASKA
CLAIRE E. TOMAS
REGISTERED PROFESSIONAL ENGINEER
PE 70 474
REVIEW

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

TYPICAL SECTIONS

DESIGNED BY	ZDK
CHECKED BY	CLE
DRAFTED BY	ZDK

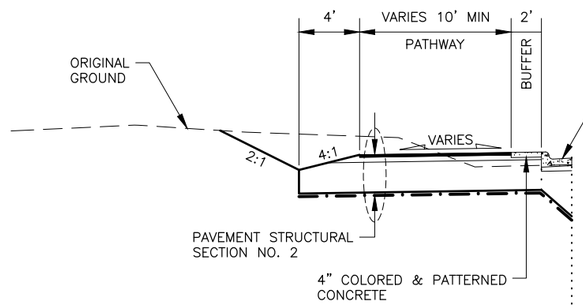
SCALE 1" =5'

DATE 3/10/2025 TIME 10:41 AM

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_B01_TYP.DWG

NO.	DATE	REVISION

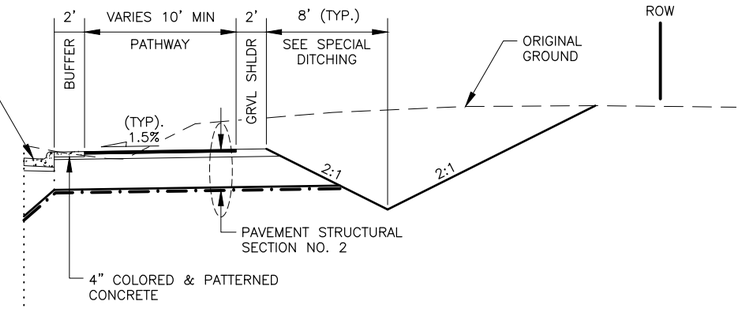
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	B02	B05



NW QUADRANT

STA. 100+20 TO STA. 101+40

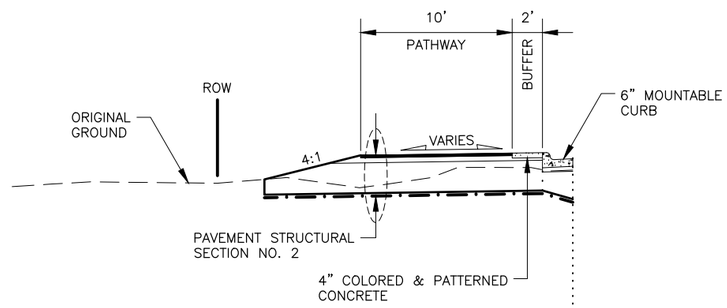
SEE HEMMER ROAD TYPICAL SECTION B01



NE QUADRANT

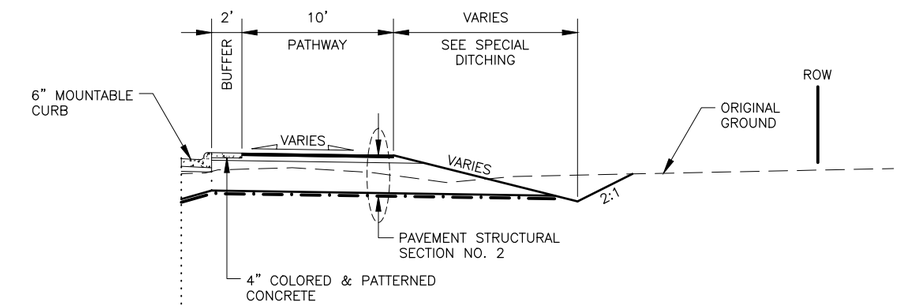
STA. 100+32 TO STA. 102+41

SEE HEMMER ROAD TYPICAL SECTION B01



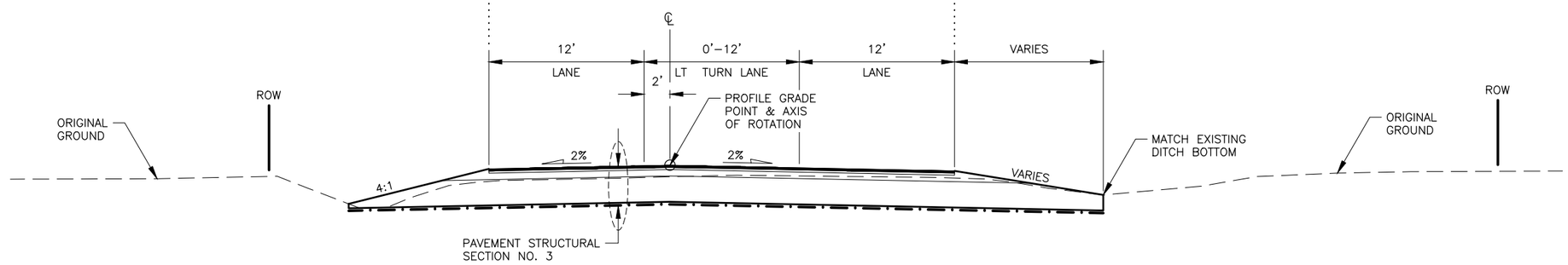
SW QUADRANT

STA. 99+00 TO STA. 99+80



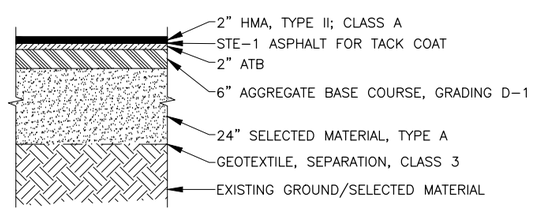
SE QUADRANT

STA. 99+00 TO STA. 99+80



HEMMER ROAD

STA. 98+00 TO STA. 100+00



PAVEMENT STRUCTURAL SECTION NO. 3

NOTES:

1. SEE G SHEETS FOR GRADING PLANS AND ADDITIONAL LAYOUT AT INTERSECTION QUADRANTS.
2. ALL PATHWAY CROSS SLOPES SHOWN AS VARIES SHALL BE ±2% MAX GRADE. SEE GRADING PLANS FOR MORE INFORMATION.

STATE OF ALASKA
CLAIRE M. TOMAS
REGISTERED PROFESSIONAL ENGINEER
PIN REVIEW

STATE OF ALASKA DOT&PF
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ANCHORAGE, AK 99502
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION: PALMER–WASILLA HIGHWAY TO BOGARD ROAD

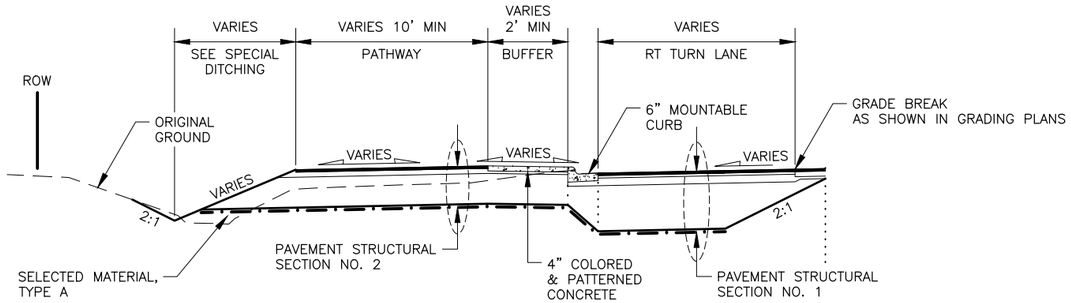
TYPICAL SECTIONS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:41 AM	1" =5'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_B01_TYP.DWG

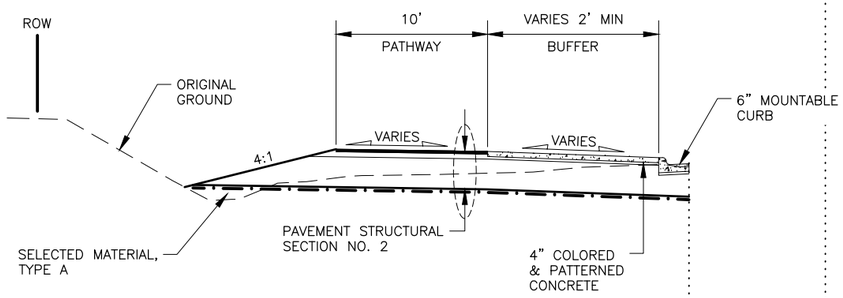
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	B03	B05



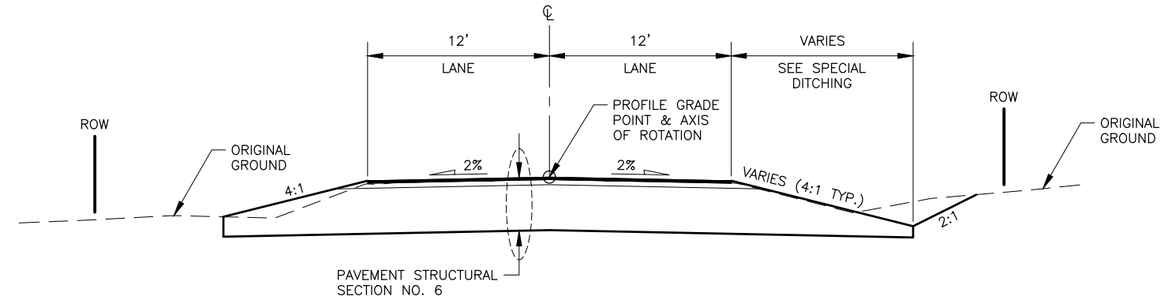
PATHWAY ON LT NE QUADRANT

STA. 1026+22 TO STA. 1027+25



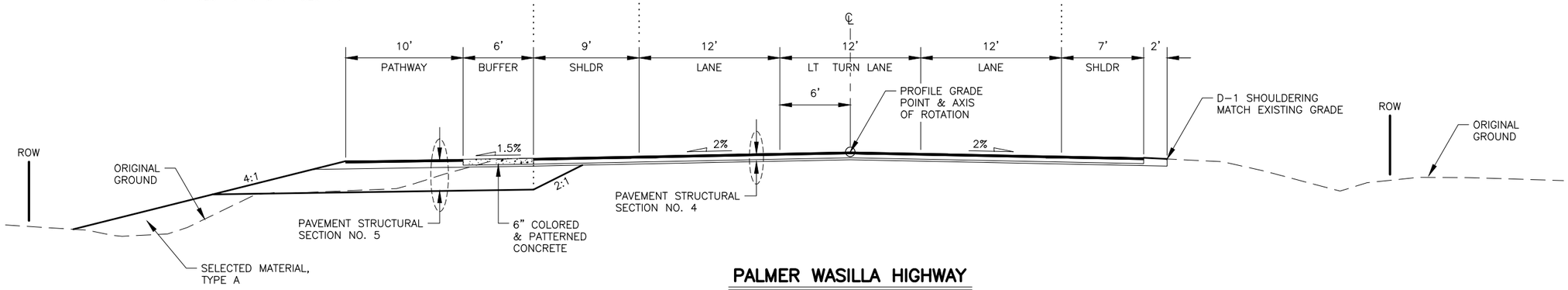
PATHWAY ON LT NW QUADRANT

STA. 1025+15 TO STA. 1025+78



E QUIL AVE
E CHALET DR & E FOLSOM DR

SEE SW & SE QUADRANT TYPICAL SECTION B02

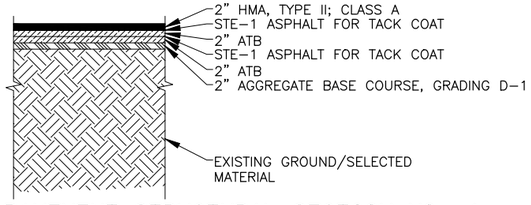


PALMER WASILLA HIGHWAY

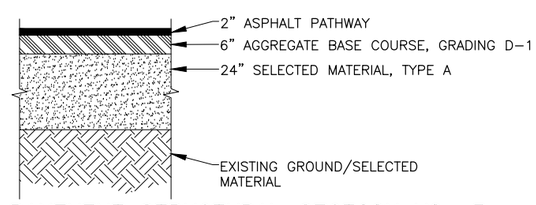
STA. 1022+60 TO STA. 1026+85

NOTES:

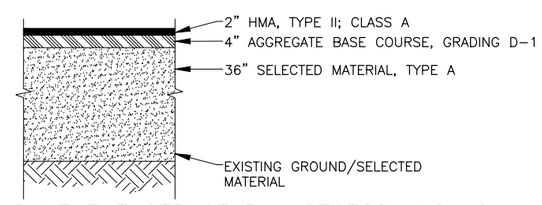
1. SEE G SHEETS FOR GRADING PLANS AND ADDITIONAL LAYOUT AT INTERSECTION QUADRANTS.
2. ALL PATHWAY CROSS SLOPES SHOWN AS VARIES SHALL BE ±2% MAX GRADE. SEE GRADING PLANS FOR MORE INFORMATION.



PAVEMENT STRUCTURAL SECTION NO. 4



PAVEMENT STRUCTURAL SECTION NO. 5



PAVEMENT STRUCTURAL SECTION NO. 6

STATE OF ALASKA
CLAIRE E. DUNLAP
REGISTERED PROFESSIONAL ENGINEER
PIX REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

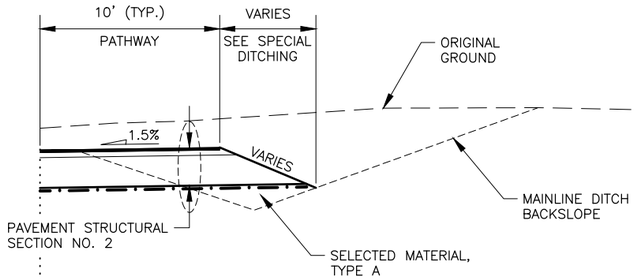
TYPICAL SECTIONS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:41 AM	1" =5'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_B01_TYP.DWG

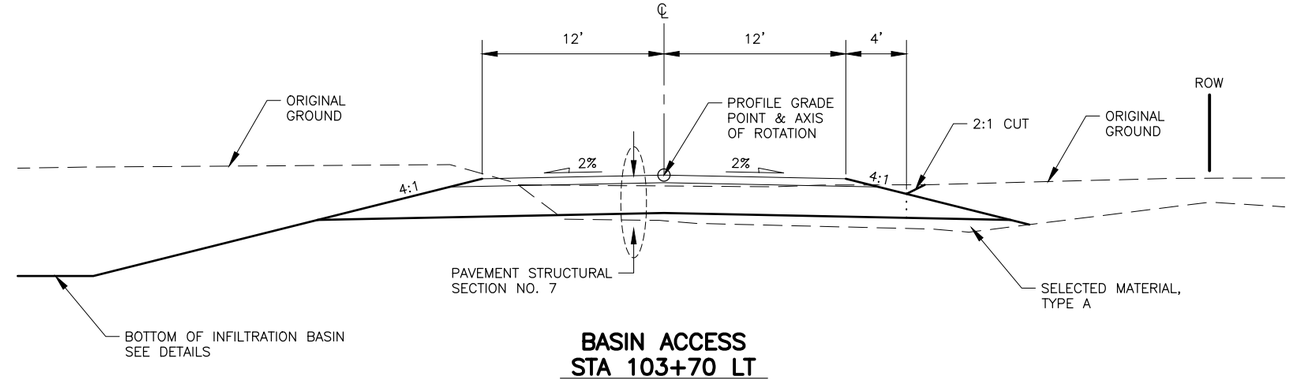
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	B04	B05

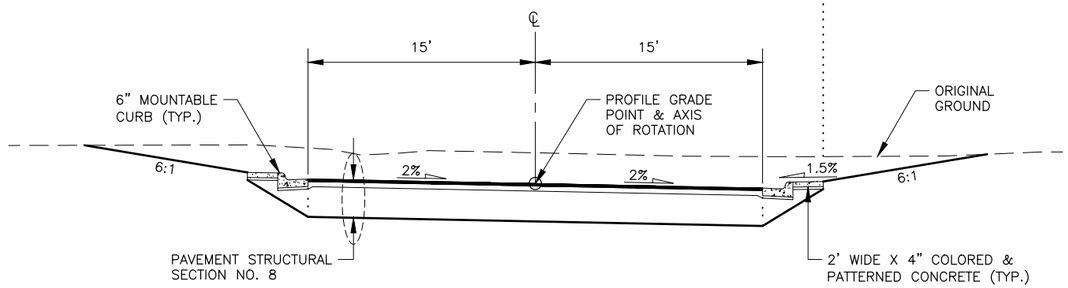


SIDEWALK ON RT

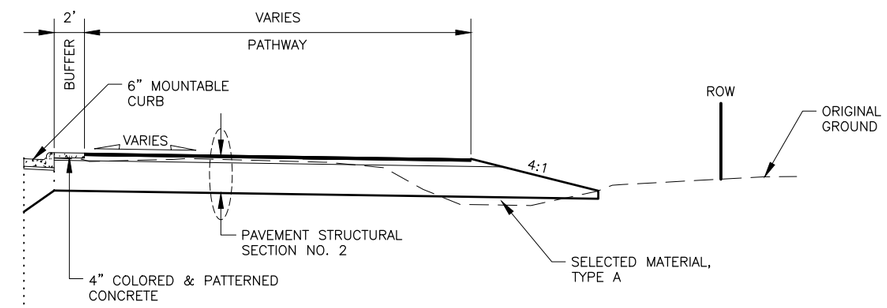
STA. 10+22 TO STA. 10+52



BASIN ACCESS STA 103+70 LT

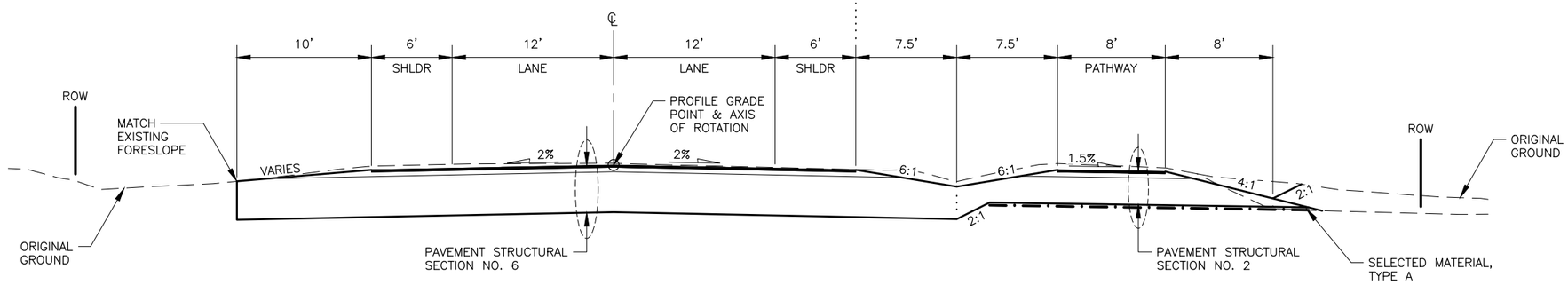


DRIVEWAY STA 102+61 RT

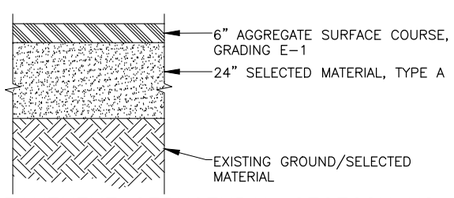


SIDEWALK ON RT

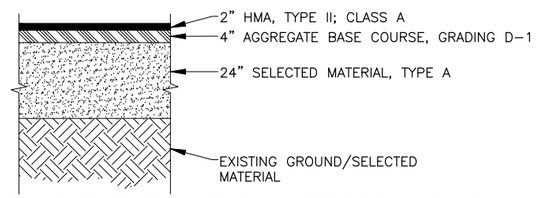
STA. 10+16 TO STA. 10+66



E PALMER MOOSE DR



PAVEMENT STRUCTURAL SECTION NO. 7



PAVEMENT STRUCTURAL SECTION NO. 8

NOTES:

1. SEE G SHEETS FOR GRADING PLANS AND ADDITIONAL LAYOUT AT INTERSECTION QUADRANTS.
2. ALL PATHWAY CROSS SLOPES SHOWN AS VARIES SHALL BE ±2% MAX GRADE. SEE GRADING PLANS FOR MORE INFORMATION.

STATE OF ALASKA
CLAIRE 10/47
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PIR REVIEW

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

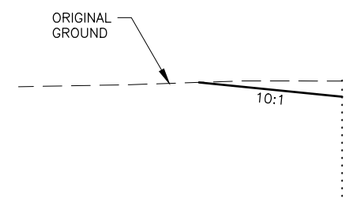
TYPICAL SECTIONS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:41 AM	1" =5'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_B01_TYP.DWG

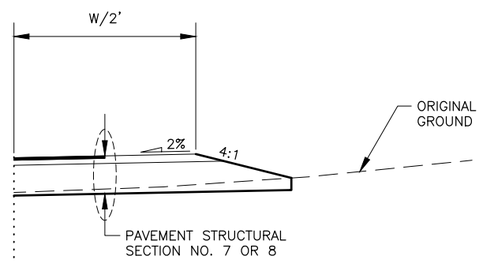
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	B05	B05



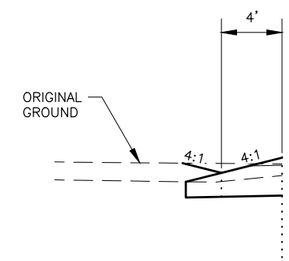
FLAT CUT

SEE APPROACH SUMMARY TABLE



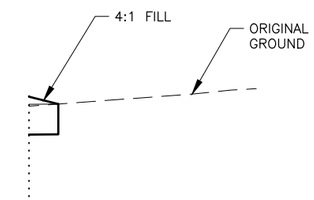
REVERSE CROWN

SEE APPROACH SUMMARY TABLE



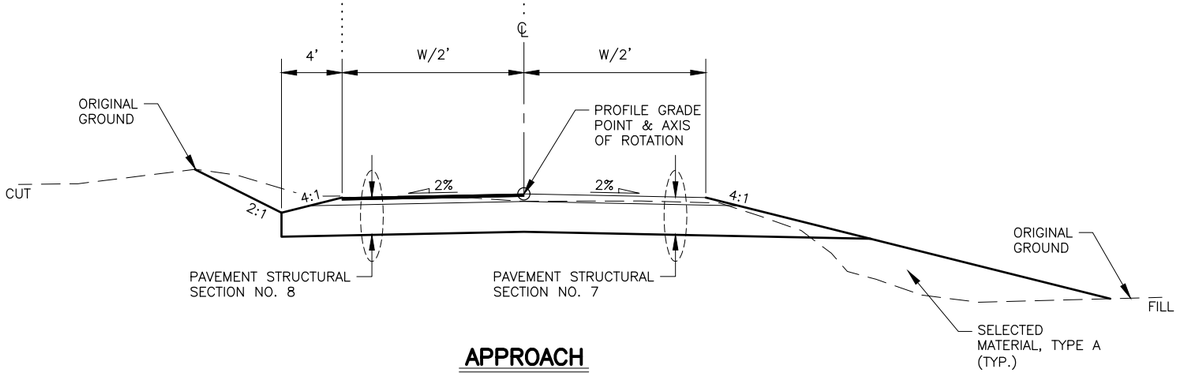
NORMAL CUT–FILL

STA. 10+90 TO STA. 11+83

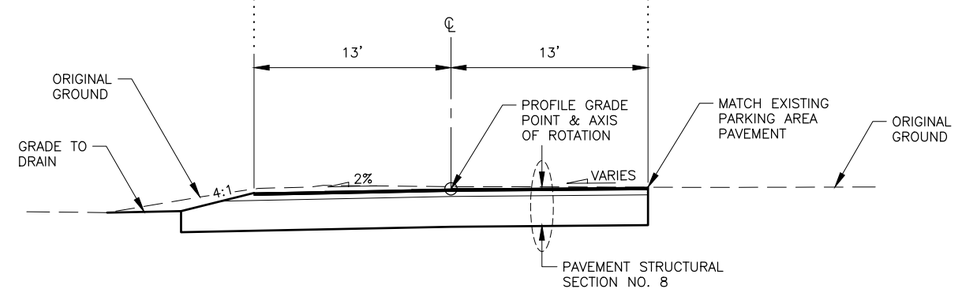


FILL RT

STA. 11+04 TO STA. 11+44



APPROACH



DRIVEWAY
STA 110+07 LT

NOTES:

1. WHERE APPROACHES HAVE A REVERSE CROWN THEY ARE TO BE PITCHED IN THE DOWNHILL DIRECTION FOR DRAINAGE. REVERSE CROWN CAN BE APPLIED TO EITHER SIDE.
2. FLAT CUT CAN BE APPLIED TO EITHER SIDE.

STATE OF ALASKA
PIR REVIEW
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY TO
BOGARD ROAD

TYPICAL SECTIONS

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:41 AM	1" =5'	CHECKED BY	CLE
			DRAFTED BY	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_B01_TYP.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	C01	C02

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
201.0003.0000	CLEARING AND GRUBBING	ACRE	7.0
202.0001.0000	REMOVAL OF STRUCTURES AND OBSTRUCTIONS	LS	ALL REQ'D
202.0002.0000	REMOVAL OF PAVEMENT	SY	17,600
202.0004.0000	REMOVAL OF CULVERT PIPE	LF	508
202.0009.0000	REMOVAL OF CURB AND GUTTER	LF	361
202.0011.0000	MULTIPLE MAIL BOX INSTALLATION	EA	1
202.0021.0000	REMOVAL OF MULTIPLE MAIL BOX	EA	1
202.2012.0000	GROUND WATER WELL DECOMMISSIONING	EA	1
202.2022.0000	REMOVAL OF FENCE	LF	1,150
202.2025.0000	REMOVAL OF SEPTIC SYSTEM	LS	ALL REQ'D
203.0003.0000	UNCLASSIFIED EXCAVATION	CY	39,000
203.0006.0000	BORROW	TON	69,000
203.0009.0000	OBLITERATION OF ROADWAY	SY	750
203.2013.0000	CONTAMINATED MATERIAL TESTING, HANDLING & DISPOSAL	CS	ALL REQ'D
205.0004.0000	POROUS BACKFILL MATERIAL	CY	370
301.0001.00D1	AGGREGATE BASE COURSE, GRADING D-1	TON	7,800
301.0003.00E1	AGGREGATE SURFACE COURSE, GRADING E-1	TON	640
306.0001.0000	ATB	TON	1,950
306.0002.6440	ASPHALT BINDER, GRADE PG 64-40 V	TON	104
401.0001.002A	HMA, TYPE II; CLASS A	TON	2,100
401.0004.6440	ASPHALT BINDER, GRADE PG 64-40 V	TON	120
401.0008.002A	HMA PRICE ADJUSTMENT,TYPE II; CLASS A	CS	ALL REQ'D
401.0009.0000	LONGITUDINAL JOINT DENSITY PRICE ADJUSTMENT	CS	ALL REQ'D
401.0010.0001	PAVEMENT SMOOTHNESS PRICE ADJUSTMENT, METHOD 1	CS	ALL REQ'D
401.0014.0000	JOINT ADHESIVE	LF	8.750
401.0015.0000	ASPHALT MATERIAL PRICE ADJUSTMENT	CS	ALL REQ'D
401.2021.0000	ASPHALT BINDER PRICE ADJUSTMENT	CS	ALL REQ'D
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	TON	4.6
603.2032.0024	CORRUGATED HDPE PIPE 24 INCH	LF	1,541
603.2033.0024	END SECTION FOR CORRUGATED HDPE PIPE 24 INCH	EA	35
604.0001.0001	STORM SEWER MANHOLE TYPE I	EA	3
604.0001.0002	STORM SEWER MANHOLE TYPE II	EA	1
604.0005.000A	INLET TYPE A	EA	2
605.2008.0012	PERFORATED CORRUGATED HDPE PIPE 12 INCH	LF	75
608.0001.0006	CONCRETE SIDEWALK, 6 INCH	SY	10
608.0006.0000	CURB RAMP	EA	10
608.2002.0000	ASPHALT PATHWAY	TON	400
608.2013.E004	CONCRETE, TYPE V, 4 INCHES THICK, COLORED AND PATTERN IMPRINTED, BUFFER	SY	210
608.2013.E004	CONCRETE, TYPE V, 6 INCHES THICK, COLORED AND PATTERN IMPRINTED, BUFFER	SY	235
608.2017.0000	DETECTABLE WARNING TILE	EA	6
609.0002.0001	CURB AND GUTTER, TYPE 1	LF	810
610.0002.0000	DITCH LINING	TON	530
615.0001.0000	STANDARD SIGN	SF	197
615.0006.0000	SALVAGE SIGN	EA	3
618.0002.0000	SEEDING	LB	480
618.0003.0000	WATER FOR SEEDING	MGAL	290

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	12:05 PM	1" = 1"	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_C01_EST.DWG

STATE OF ALASKA
PIN REVIEW
CLAIRE E. LOVELL
CE 10,474
REGISTERED PROFESSIONAL ENGINEER

STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY TO
BOGARD ROAD

ESTIMATE OF QUANTITIES

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	C02	C02

ESTIMATE OF QUANTITIES

ITEM NO.	ITEM DESCRIPTION	PAY UNIT	TOTAL QUANTITY
620.0001.0000	TOPSOIL	SY	32,100
630.0001.0003	GEOTEXTILE, SEPARATION, CLASS 3	SY	26,700
639.2000.0000	APPROACH	EA	22
640.0001.0000	MOBILIZATION AND DEMOBILIZATION	LS	ALL REQ'D
641.0001.0000	EROSION, SEDIMENT, AND POLLUTION CONTROL ADMINISTRATION	LS	ALL REQ'D
641.0005.0000	TEMPORARY EROSION, SEDIMENT AND POLLUTION CONTROL BY DIRECTIVE	CS	ALL REQ'D
641.0006.0000	WITHHOLDING	CS	ALL REQ'D
641.0007.0000	SWPPP MANAGER	LS	ALL REQ'D
642.0001.0000	CONSTRUCTION SURVEYING	LS	ALL REQ'D
642.0003.0000	THREE PERSON SURVEY PARTY	HR	
642.2005.0000	CONTRACTOR-FURNISHED COMPUTATIONS	LS	ALL REQ'D
642.2006.0000	CONTRACTOR-FURNISHED ENGINEERING TOOLS	CS	ALL REQ'D
643.0002.0000	TRAFFIC MAINTENANCE	LS	ALL REQ'D
643.0003.0000	PERMANENT CONSTRUCTION SIGNS	LS	ALL REQ'D
643.0023.0000	TRAFFIC PRICE ADJUSTMENT	CS	ALL REQ'D
643.0025.0000	TRAFFIC CONTROL	CS	ALL REQ'D
643.0032.0000	FLAGGING	CS	ALL REQ'D
644.0001.0000	FIELD OFFICE	LS	ALL REQ'D
644.2002.0000	ENGINEERING COMMUNICATIONS	CS	ALL REQ'D
645.0001.0000	TRAINING PROGRAM, 1 TRAINEES / APPRENTICES	LH	300
646.0001.0000	CPM SCHEDULING	LS	ALL REQ'D
647.2002.0000	BACKHOE, 4WD, 1 CY BUCKET, 75 HP MIN, 15 FT DEPTH	CS	ALL REQ'D
660.0007.0000	TEMPORARY SIGNAL SYSTEM COMPLETE, HEMMER & PALMER-WASILLA	LS	ALL REQ'D
660.2003.0000	TRAFFIC SIGNAL SYSTEM MODIFICATIONS, HEMMER & BOGARD	LS	ALL REQ'D
660.2003.0000	TRAFFIC SIGNAL SYSTEM MODIFICATIONS, HEMMER & PALMER-WASILLA	LS	ALL REQ'D
661.0003.0000	LOAD CENTER, TYPE 2	EA	1
661.0005.0000	MODIFY LOAD CENTER HEMMER & BOGARD	EA	1
662.2001.0000	SIGNAL INTERCONNECT, FIBER	LS	ALL REQ'D
670.0001.0000	PAINTED TRAFFIC MARKINGS	LS	ALL REQ'D
670.2000.0000	MMA PAVEMENT MARKINGS	LS	ALL REQ'D
682.2000.0000	VAC-TRUCK POTHOLE	CS	ALL REQ'D
688.2001.0000	UTILITY SUPPORT	CS	ALL REQ'D
688.2002.0000	UTILITY SUPPORT PRICE ADJUSTMENT	CS	ALL REQ'D

TABLE OF ESTIMATING FACTORS

ITEM NO.	ITEM DESCRIPTION	UNIT
203.006.0000	BORROW	144 LB/CF
301.0001.0001	AGGREGATE BASE COURSE, GRADING D-1	144 LB/CF
306.0001.0000	ATB	151 LB/CF
306.0002.6440	ASPHALT BINDER, GRADE PG 64-40 V	5.3% OF TOTAL WEIGHT OF 306.0001.0000
401.0001.0000	HMA, TYPE II; CLASS A	151 LB/CF
401.0004.6440	ASPHALT BINDER, GRADE PG 64-40 V	5.3% OF TOTAL WEIGHT OF 401.0001.0000
402.0001.STE1	STE-1 ASPHALT FOR TACK COAT	0.000334 TON/SY
608.2002.0000	ASPHALT PATHWAY	151 LB/CF
610.0002.0000	DITCH LINING	110 LB/CF
618.0003.0000	WATER FOR SEEDING	1.0 GAL/SF

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
CLAIRE E. LOVELL
CE 10475
PIH REVIEW

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY TO
BOGARD ROAD

ESTIMATE OF QUANTITIES

DRAWING LOCATION	DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_C01_EST.DWG	3/10/2025	12:05 PM	1" = 1"	ZDK	CLE	ZDK

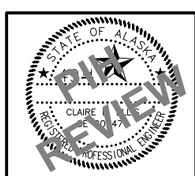
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	D00	D03

FOR REVIEW ONLY.

EARTHWORK SUMMARY

SHEET	STATION FROM	STATION TO	ESTIMATED EXCAVATION: UNCLASSIFIED EXCAVATION (CY)	ESTIMATED EXCAVATION: UNCLASSIFIED EXCAVATION MISCELLANEOUS (CY)	ESTIMATED EXCAVATION: WASTE (CY)	ESTIMATED EXCAVATION: SHRUNK UNCL. EX. USABLE AS SELECTED MATERIAL TYPE C (CY)	ESTIMATED EMBANKMENT: SELECTED MATERIAL, TYPE C (CY)	ESTIMATED EMBANKMENT: SELECTED MATERIAL TYPE A (CY)	ESTIMATED EMBANKMENT: SELECTED MATERIAL TYPE A MISCELLANEOUS (CY)	ESTIMATED EMBANKMENT: TOTAL EMBANKMENT (CY)	REMARKS
F01	99+00	99+00	394.47	0.00	394.47	0	0	398.19	0.00	398.19	
F02/F08	99+00	101+00	1,959.81	879.67	2,839.48	0	0	2,122.15	692.70	2,814.85	
F02	101+00	104+00	4,447.35	2,778.52	7,225.87	0	0	2,342.55	1,962.33	4,304.88	
F03	104+00	109+00	3,995.88	889.61	4,885.49	0	0	3,872.12	1,075.52	4,947.64	
F04	109+00	114+00	4,193.52	4,499.53	8,693.05	0	0	3,261.12	3,946.04	7,207.16	
F05	114+00	119+00	3,645.24	2,182.71	5,827.95	0	0	3,560.21	3,386.64	6,946.85	
F06	119+00	124+00	5,497.58	1,265.64	6,763.22	0	0	4,233.28	2,173.03	6,406.31	
F07/F09	124+00	126+19	1,004.01	807.77	1,811.78	0	0	1,687.69	616.94	2,304.63	
SUBTOTAL (CY)					38,441.31					35,330.51	
LESS EXCAVATION (CY)											
ITEM NUMBER					203.0003.0000					203.0006.0000	
TOTAL PAY ITEM QUANTITY (CY)					39,000					35,400	
TOTAL PAY ITEM QUANTITY (TON)										69,000	



STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY TO
BOGARD ROAD

SUMMARY TABLES

DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY CRH

SCALE X" = XX'

DATE 3/10/2025 TIME 11:52 AM

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_D01_SUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	D01	D03

CLEARING AND GRUBBING - 201.0003.0000

SHEET	STATION		AREA (ACRES)	REMARKS
	FROM	TO		
F01	98+00	99+00	0.34	CLEAR & GRUB TO ROW
F02/F08	99+00	104+00	0.29	CLEAR & GRUB TO ROW
F03	104+00	109+00	0.90	CLEAR & GRUB TO ROW
F04	109+00	114+00	1.27	CLEAR & GRUB TO ROW
F05	114+00	119+00	1.34	CLEAR & GRUB TO ROW
F06	119+00	124+00	1.46	CLEAR & GRUB TO ROW
F07/F09	124+00	126+19	0.41	CLEAR & GRUB TO ROW
		PAY ITEM QUANTITY:	6.00	

REMOVAL OF STRUCTURES AND OBSTRUCTIONS - 202.0001.0000

SHEET	STATION	OFFSET	REMARKS
F02	102+00	28 LT	HOUSE, GARAGE, SHED
F04	109+19	34 LT	SIGNS
F05	114+48	52 LT	SHED
	PAY ITEM QUANTITY:	3	

REMOVAL OF PAVEMENT - 202.0002.0000

SHEET	STATION		AREA (SY)	REMARKS
	FROM	TO		
F01	98+00	99+00	4,172	
F02/F08	99+00	104+00	1,996	
F03	104+00	109+00	2,926	
F04	109+00	114+00	3,964	
F05	114+00	119+00	0	
F06	119+00	124+00	1,730	
F07/F09	124+00	126+19	1,144	
		PAY ITEM QUANTITY:	15,931	

REMOVAL OF CULVERT PIPE - 202.0004.0000

SHEET	STATION	OFFSET	LENGTH (FT)	REMARKS
F01	110+59	CL	72.5	
F01	100+61	56.0 RT	32.0	
F02	102+54	26.0 RT	23.5	
F03	104+19	27.0 RT	45.5	
F03	104+79	28.0 RT	23.5	
F03	105+69	CL	55.5	
F03	106+07	56.0 RT	19.5	
F03	108+04	27.0 RT	40.0	
F04	108+67	33.0 LT	24.0	
F04	109+37	26.5 LT	24.0	
F04	109+71	28.0 RT	29.5	
F04	110+06	27.0 LT	39.5	
F04	112+99	82.0 LT	40.0	
F04	113+19	47.0 LT	39.0	
		PAY ITEM QUANTITY:	508.0	

CURB AND GUTTER SUMMARY - 202.0009.0000 & 609.0002.0001

SHEET	FROM		TO		REMOVAL OF CURB & GUTTER (LF)	CURB AND GUTTER TYPE 1 (LF)	REMARKS
	STATION	OFFSET	STATION	OFFSET			
F02/F08	99+25.0	RT	99+78.5	RT	67.2	88.2	
F02/F08	99+25.0	LT	99+78.5	LT	63.6	86.7	
F02/F08	110+30.0	LT	101+00.5	LT	95.4	122.0	
F02/F08	100+34.0	RT	102+22.5	RT	134.3	326.1	
F02	102+77.5	RT	102+96.5	RT		56.7	
F04	102+46.5	RT	112+93.5	RT		78.8	
F05	115+07.0	RT	115+07.5	RT		51.2	
				PAY ITEM QUANTITY:	360.5	809.9	

MULTIPLE MAIL BOX INSTALLATION - 202.0011.0000

SHEET	EXISTING		PROPOSED		REMARKS
	STATION	OFFSET	STATION	OFFSET	
F04/F16			113+39	415	MOVED FROM HEMMER TO PALMER MOOSE
		PAY ITEM QUANTITY:	1		

REMOVAL OF FENCE - 202.2022.0000

SHEET	STATION		LENGTH (LF)	OFFSET	REMARKS
	FROM	TO			
F04/F15	113+40.0	113+40.0	58.50	181.0 LT	
F04	113+53.5	114+00.0	116.70	54.5 RT	
F04	113+63.0	114+00.0	43.96	46.0 LT	
F04	113+96.0	114+00.0	4.30	50.0 LT	
F05	114+00.0	114+14.5	14.50	35.0 LT	
F05	114+00.0	114+23.5	23.70	47.0 LT	
F05	114+00.0	116+00.5	297.10	52.0 RT	
F06	119+61.0	124+00.0	466.00	51.0 RT	
F07	124+00.0	124+57.5	96.70	56.0 RT	
		PAY ITEM QUANTITY:	1121.40		

GROUND WATER WELL DECOMMISSIONING - 202.2012.0000

SHEET	STATION	OFFSET	REMARKS
F02	103+02.5	67.5 LT	
	PAY ITEM QUANTITY:	1	

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HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY TO
BOGARD ROAD

SUMMARY TABLES

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_D01_SUM.DWG

DATE 3/10/2025 TIME 11:52 AM | SCALE 1" = 1" | DESIGNED BY ZDK | CHECKED BY CLE | DRAFTED BY ZDK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	D02	D03

REMOVAL OF SEPTIC SYSTEM - 202.2025.0000

SHEET	STATION	OFFSET	REMARKS
F02	102+35	147 LT	
PAY ITEM QUANTITY:		1	

OBLITERATION OF ROADWAY - 203.0009.0000

SHEET	FROM		TO		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F02	100+73	60.5 RT	101+50	59.0 RT	19	
F03	104+71	60.0 RT	105+40	59.5 RT	10	
F03	105+50	39.0 LT	105+67	45.0 LT	22	
F03	106+70	59.0 RT	107+79	60.0 RT	43	
F03	108+12	61.0 RT	109+00	58.0 RT	27	
F04	109+00	58.0 RT	109+60	57.0 RT	25	
F04	109+30	38.0 LT	109+57	113.0 LT	156	
F04	109+87	56.5 RT	112+62	74.0 RT	165	
F04	113+37	68.5 LT	113+55	69.0 LT	20	
F04	113+59	18.0 RT	115+79	18.0 RT	47	
F05	118+38	57.0 RT	118+79	56.0 RT	6	
F06	120+25	56.0 RT	121+78	81.5 RT	202	
PAY ITEM QUANTITY:					743	

POROUS BACKFILL MATERIAL - 205.0004.0000

SHEET	STATION	OFFSET	VOLUME (CY)	REMARKS
F03	102+40	78 RT	360.31	
TOTAL:			360.31	
PAY ITEM QUANTITY:			370.00	

CONCRETE SIDEWALK 6 INCH - 608.0001.0006

SHEET	STATION		AREA (SY)	OFFSET	REMARKS
	FROM	TO			
F05	115+08	115+63	85	LT	
PAY ITEM QUANTITY:			85		

CURB RAMP & DETECTIBLE TILE - 608.0006.0000 & 608.2017.0000

SHEET	STATION	OFFSET	QUANTITY	TYPE	ASP	DETAIL	REMARKS
F02	99+60.0	25.5 LT	1	PERPENDICULAR RAMP	X		
F02	99+60.0	33.5 RT	1	PERPENDICULAR RAMP	X		
F02	99+73.5	42.5 LT	1	PERPENDICULAR RAMP	X		
F02	99+73.0	51.5 RT	1	PERPENDICULAR RAMP	X		
F02	100+32.0	43.5 LT	1	PERPENDICULAR RAMP	X		
F02	100+39.0	51.5 RT	1	PERPENDICULAR RAMP	X		
F02	100+50.5	29.0 LT	1	PERPENDICULAR RAMP	X		
F02	100+60.5	29.0 RT	1	PERPENDICULAR RAMP	X		
F02	100+27.5	33.0 RT	1	PERPENDICULAR RAMP	X		
F02	103+06.5	30.0 RT	1	DETECTIBLE TILE		X	
F04	112+77.0	28.5 RT	1	PERPENDICULAR RAMP	X		
F04	113+59.5	23.0 RT	1	DETECTIBLE TILE		X	
F05	115+78.0	23.0 RT	1	DETECTIBLE TILE		X	
F05	116+66.0	22.5 RT	1	DETECTIBLE TILE		X	
F07	125+77.5	50.0 LT	1	DETECTIBLE TILE		X	
F07	125+78.0	54.5 RT	1	DETECTIBLE TILE		X	
PAY ITEM QUANTITY:			16				

CONCRETE, TYPE V, 4 INCHES THICK, COLORED AND PATTERN IMPRINTED - 608.2013.E004

SHEET	FROM		TO		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F02/F08	99+25.0	RT	99+78.0	RT	12	
F02/F08	99+25.0	LT	99+78.0	LT	11	
F02/F08	110+35.0	LT	101+00.0	LT	11	
F02/F08	110+40.0	RT	102+44.0	RT	57	
F2	102+78.0	RT	102+96.0	RT	34	
F04	112+46.5	RT	112+93.0	RT	13	
F04/F05	113+58.5	RT	115+79.0	RT	47	
F06/F09	125+00.0	RT	125+84.5	RT	21	
PAY ITEM QUANTITY:					208	

CONCRETE, TYPE V, 6 INCHES THICK, COLORED AND PATTERN IMPRINTED - 608.2013.E006

SHEET	FROM		TO		AREA (SY)	REMARKS
	STATION	OFFSET	STATION	OFFSET		
F05	115+08.0	LT	115+63.0	LT	85	
PAY ITEM QUANTITY:					85	

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HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SUMMARY TABLES

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_D01_SUM.DWG

DATE 3/10/2025 TIME 11:53 AM
SCALE 1" = 1"
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	D03	D03

DITCH LINING - 610.0002.0000

SHEET	STATION FROM	STATION TO	VOLUME (TON)	REMARKS
F03	101+37	103+28	522.60	
		TOTAL:	522.60	
		PAY ITEM QUANTITY:	530.00	

GEOTEXTILE, SEPARATION - 630.0001.0000

SHEET	STATION FROM	STATION TO	AREA (SY)	REMARKS
F01	98+00	99+00	586	
F02	99+00	104+00	5,080	
F03	104+00	109+00	5,147	
F04	109+00	114+00	4,793	
F05	114+00	119+00	4,083	
F06	119+00	124+00	4,798	
F07	124+00	126+19	2,130	
		TOTAL:	26,616	
		PAY ITEM QUANTITY:	26,700	

APPROACH SUMMARY - 639.2000.0000

SHEET	STATION	OFFSET	SKEW ANGLE (90° TYP.)	TYPE PUB.	TYPE RES.	TYPE COM.	WIDTH (FT)	LENGTH (FT)	REMARKS
F10	103+70	LT	90			X	24	450.00	
F11	102+61	RT	90			X	30	120.00	
F11	104+41	RT	90			X	30	120.00	
F12	205+80	LT	90		X		14	125.00	
F12	109+74	RT	90			X	28	90.00	
F13	108+46	LT	90		X		14	128.62	
F13	109+74	RT	90		X		20	100.00	
F14	110+07	LT	90			X	26	154.67	
F14	11+80	RT	90			X	30	60.00	OFF OF E QUIL AVE
F15	113+00	LT	90	X			24	275.00	
F16	113+13	RT	90	X			36	135.00	
F17	114+68	LT	90			X	30	105.00	
F17	118+12	LT	90		X		14	100.00	
F18	116+25	RT	90	X			24	480.00	
F19	11+50	LT	90		X		14	301.82	OFF OF E CHALET DR
F20	11+22	RT	65			X	30	173.58	OFF OF E CHALET DR
F20	12+76	LT	90		X		14	40.00	OFF OF E CHALET DR
F20	13+79	RT	77		X		14	40.00	OFF OF E CHALET DR
F20	14+66	LT	90		X		14	50.00	OFF OF E CHALET DR
F21	120+00	RT	90		X		20	280.00	
F22	11+90	RT	90		X		14	90.00	OFF OF DRIVEWAY STA. 120+00 LT
F22	120+00	LT	90	X			24	120.00	
		PAY ITEM QUANTITY:			22				

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STATE OF ALASKA
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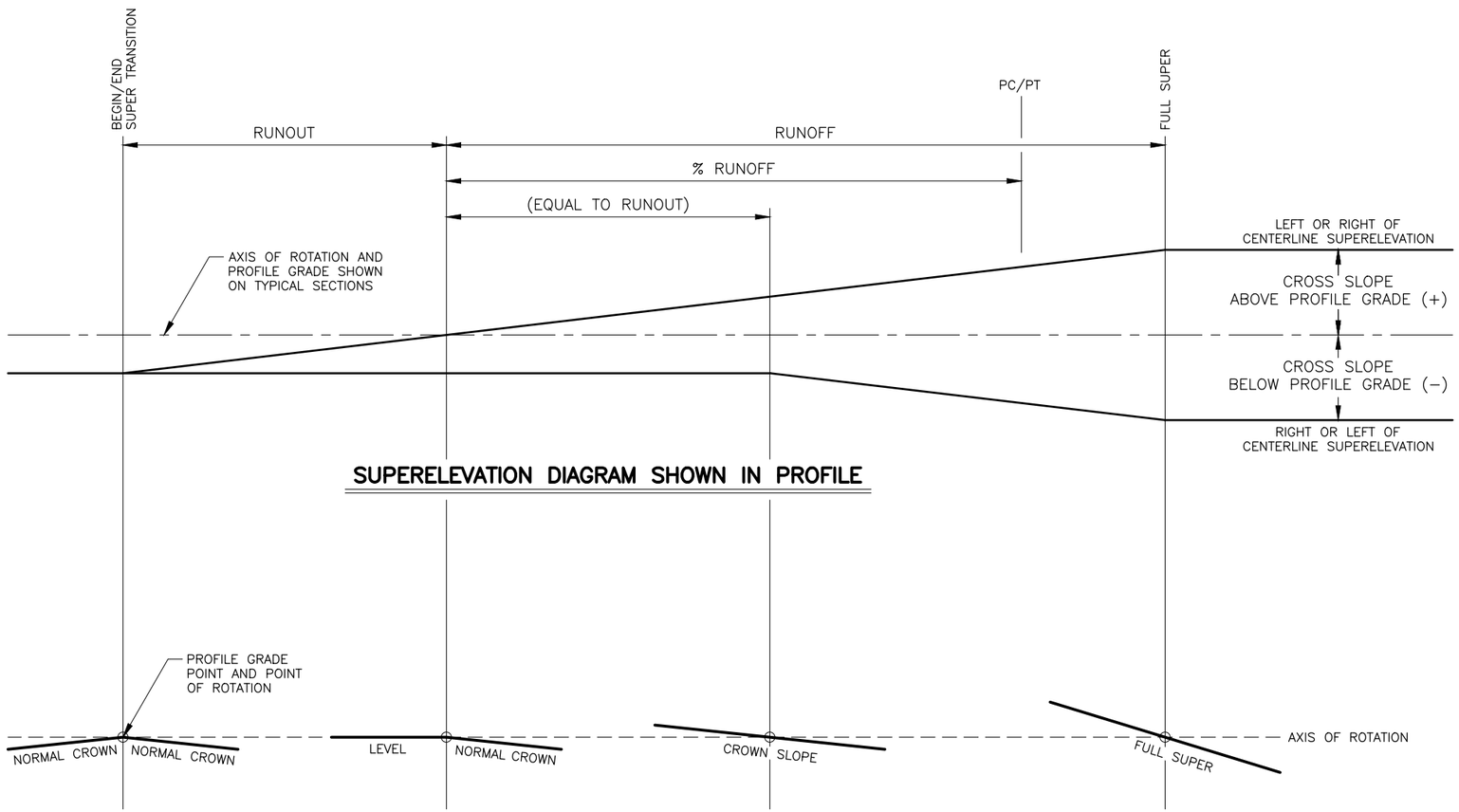
HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY TO
BOGARD ROAD

SUMMARY TABLES

DRAWING LOCATION	DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_D01_SUM.DWG	3/10/2025	11:53 AM	1" = 1"	ZOK	CLE	ZOK

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	E01	E03



SUPERELEVATION DIAGRAM SHOWN IN PROFILE

SUPERELEVATION TRANSITION

SUPERELEVATION NOTES:

1. REFER TO PLAN AND PROFILE SHEETS FOR SUPERELEVATION VALUES AND SPECIAL CASES.
2. BUILD SUPERELEVATION INTO SUBGRADE AND CARRY THROUGH SHOULDERS.
3. % RUNOFF = PORTION OF RUNOFF ON TANGENT.
4. WIDENING FOR GUARDRAIL OR CURVATURE DOES NOT CHANGE THE LOCATION OF THE AXIS OF ROTATION.

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STATE OF ALASKA
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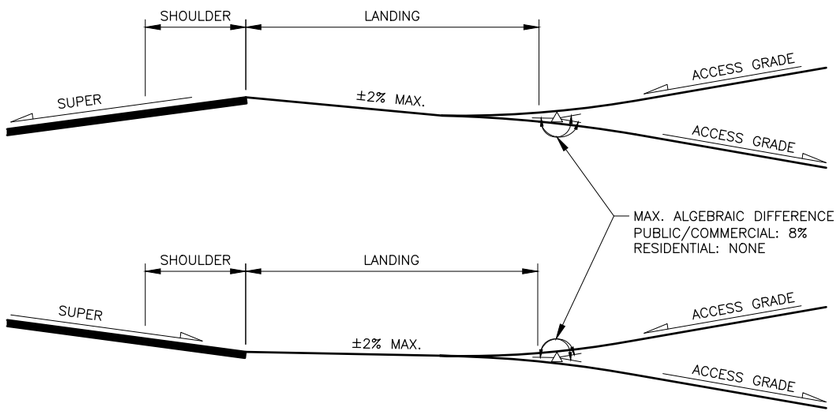
HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY TO
BOGARD ROAD

SUPERELEVATION
TRANSITIONS

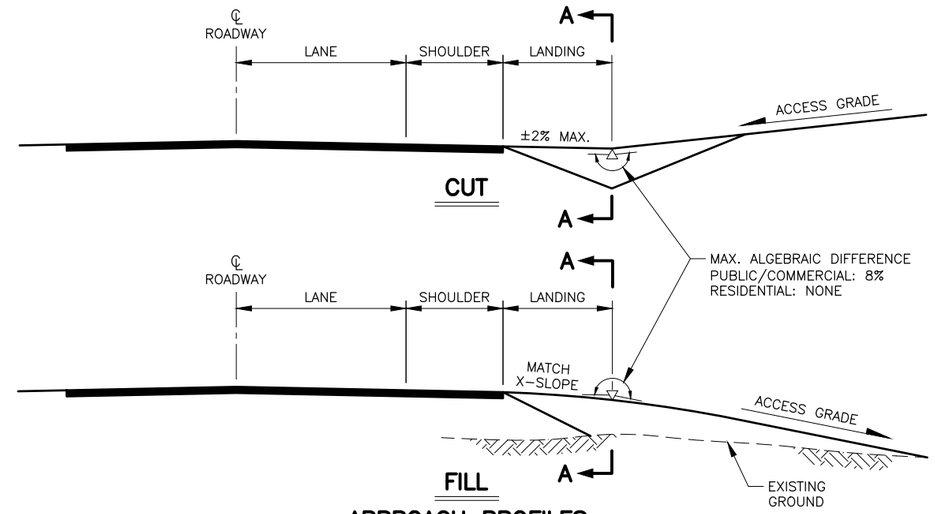
DRAWING LOCATION	DATE	TIME	SCALE	DESIGNED BY	CRDOT
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_E01_SUPERS.DWG	3/10/2025	10:43 AM	NONE	CHECKED BY	CLE
				DRAFTED BY	CRDOT

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	E02	E03



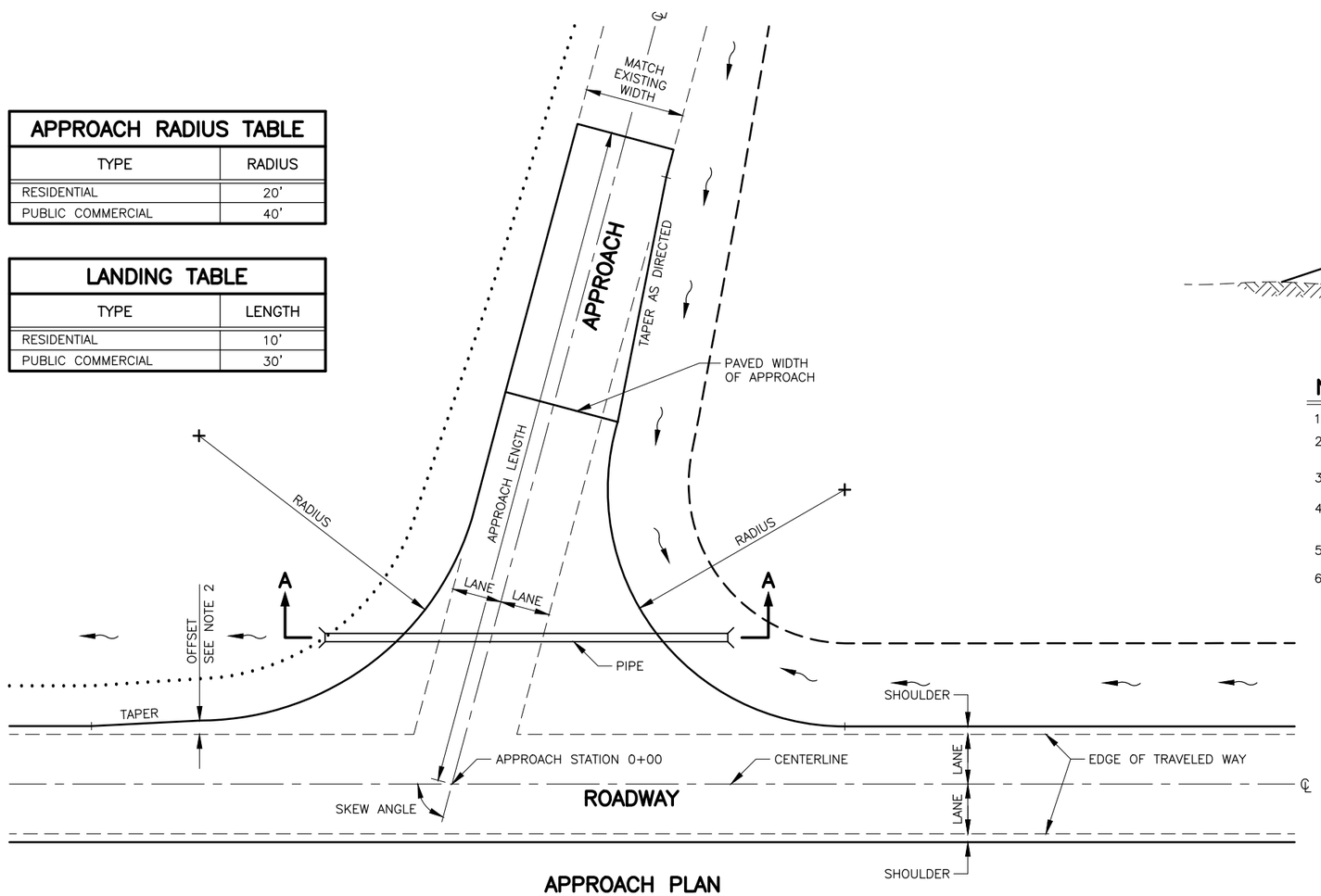
APPROACH PROFILES ON SUPER ELEVATED ROADWAY



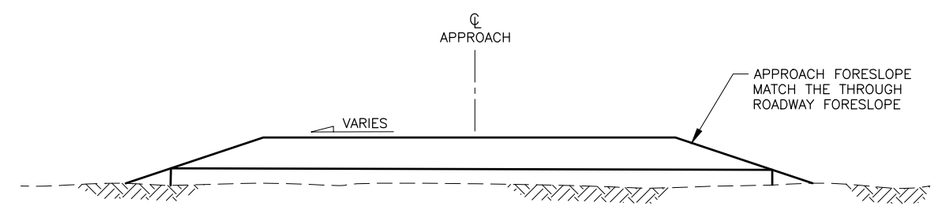
APPROACH PROFILES

APPROACH RADIUS TABLE	
TYPE	RADIUS
RESIDENTIAL	20'
PUBLIC COMMERCIAL	40'

LANDING TABLE	
TYPE	LENGTH
RESIDENTIAL	10'
PUBLIC COMMERCIAL	30'



APPROACH PLAN



SECTION A–A
APPROACH TYPICAL

NOTES:

1. SEE APPROACH SUMMARY FOR APPROACH STATION, LENGTH, WIDTH, SKEW ANGLE, AND TYPE.
2. THE TAPER OFFSET FROM TRAVELED WAY = ASSIGNED VALUE OR SHOULDER WIDTH WHICHEVER IS LARGER. TAPER WILL BE 10 FEET IN LENGTH FOR EACH FOOT OF OFFSET.
3. SEE PUBLIC APPROACH AND DRIVEWAY TYPICAL SECTIONS.
4. APPROACH VERTICAL CURVE REQUIREMENTS: CREST – 2½ INCH MAXIMUM IN A 10–FOOT CHORD
   SAG – 2 INCH MAXIMUM IN A 10–FOOT CHORD
5. WHERE SIDEWALK IS PRESENT BEGIN DRIVEWAY LANDING AT BACK OF SIDEWALK.
6. ACCESS GRADE MAX. 15%

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STATE OF ALASKA
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HEMMER ROAD EXTENSION: PALMER–WASILLA HIGHWAY TO BOGARD ROAD

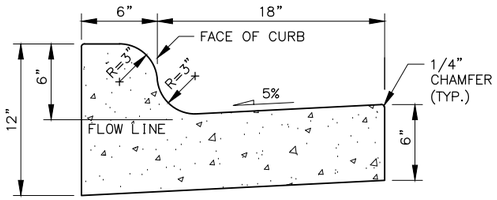
APPROACH DETAILS

DATE	TIME	SCALE	DESIGNED BY	CRDOT
3/10/2025	10:43 AM	NONE	CHECKED BY	CLE
			DRAFTED BY	CRDOT

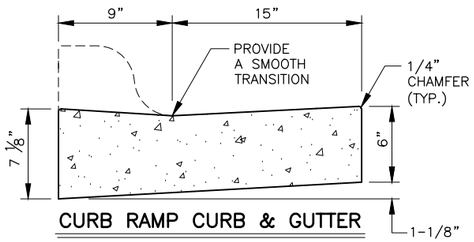
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_E02_APPR.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2027	E03	E03

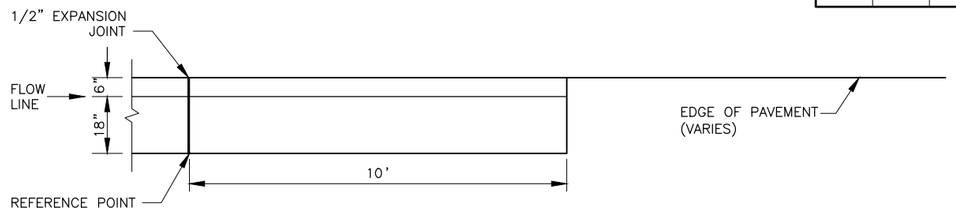


6" MOUNTABLE CURB & GUTTER

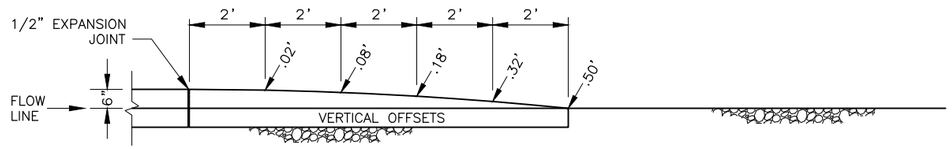


CURB RAMP CURB & GUTTER

CURBS



PLAN



PROFILE

CURB & GUTTER TERMINATION TRANSITIONS

TERMINATION NOTES:

1. CONCRETE BUFFER ADJACENT TO CURB TERMINATIONS SHALL FOLLOW THE HORIZONTAL AND VERTICAL OFFSETS DETAILED IN THE CURB & GUTTER TERMINATION TRANSITIONS.
2. MAINTAIN 4" MINIMUM THICKNESS OF CONCRETE BUFFER THROUGHOUT CURB & GUTTER TERMINATION TRANSITIONS.

CURB NOTE:

MOUNTABLE, DEPRESSED, ROLLED, AND EXPRESSWAY GUTTER PANS SHALL MATCH THE ROADWAY CROSS SLOPE IN THE HIGH SIDE OF SUPER ELEVATED AREAS.

DRAWING LOCATION	DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_E03_C&G DTLS.DWG	3/10/2025	10:43 AM	1"=1'/2'	ZDK	CLE	ZDK

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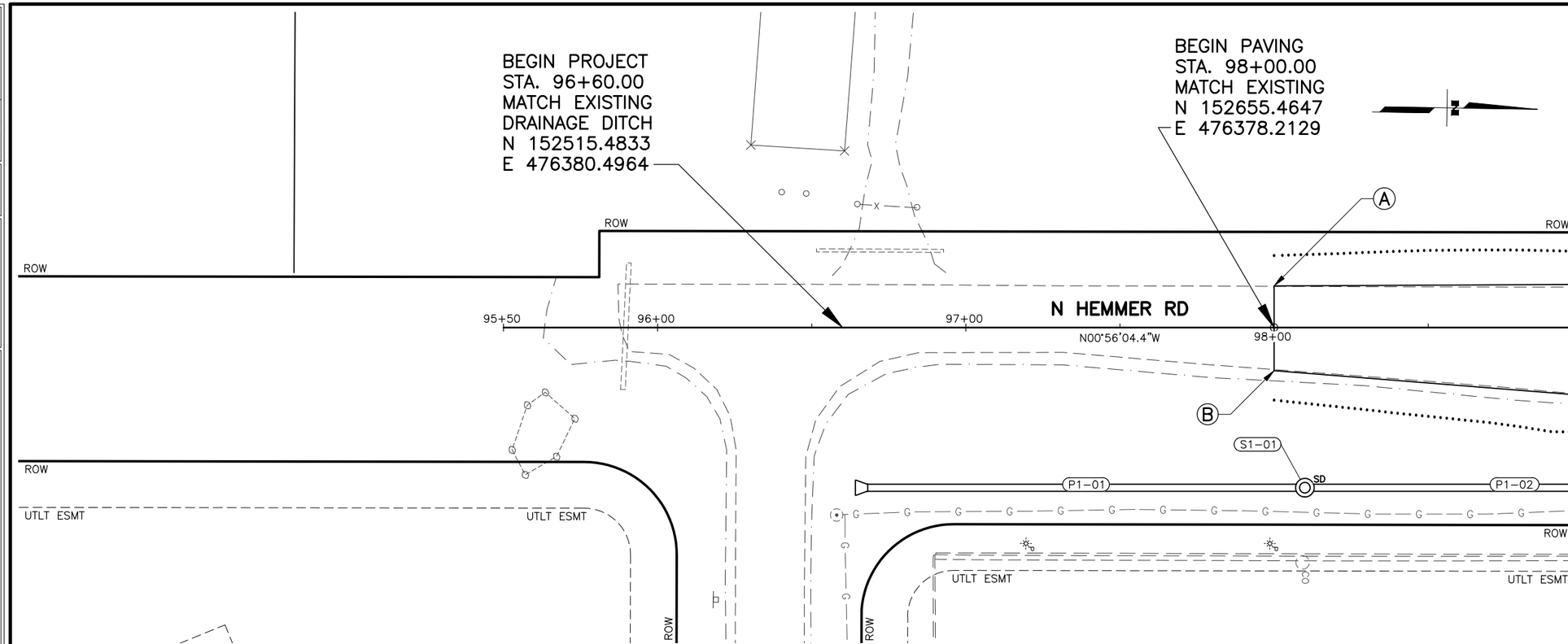
HEMMER ROAD EXTENSION: PALMER-WASILLA HIGHWAY TO BOGARD ROAD

CURB & GUTTER DETAILS



PIPE SUMMARY

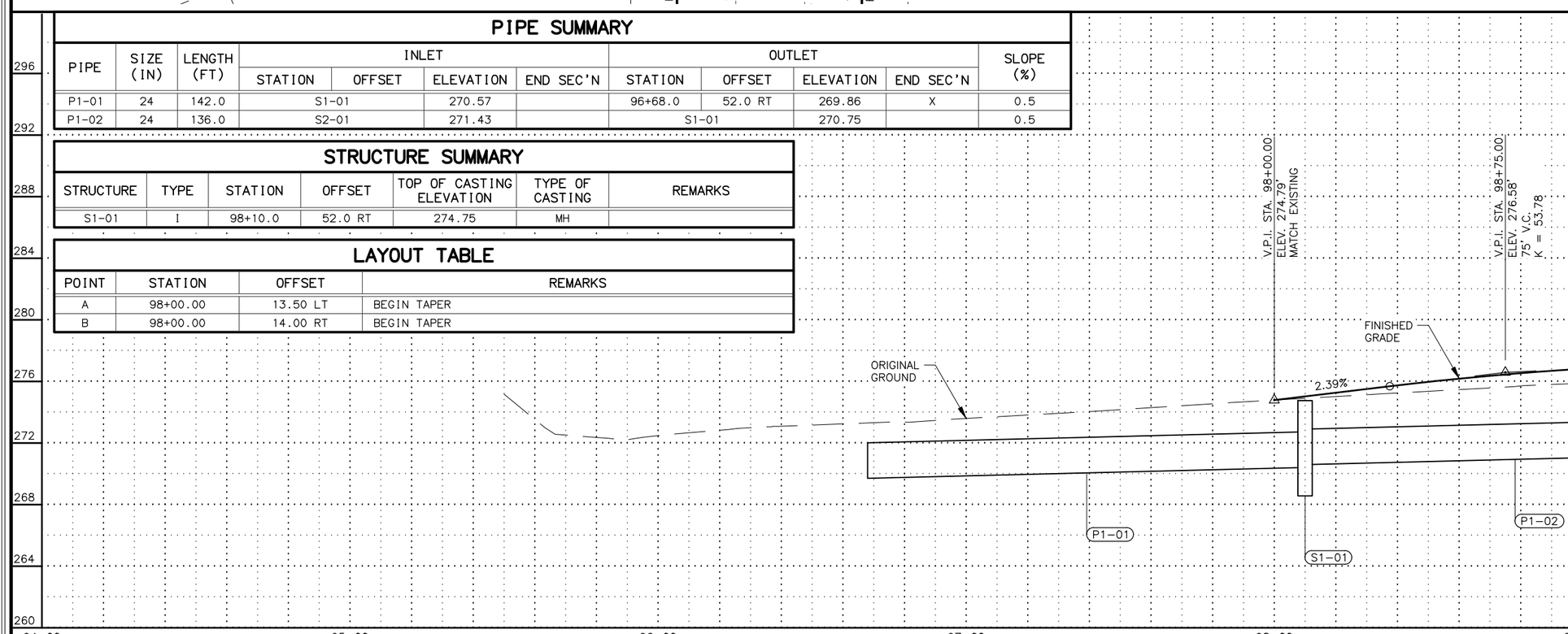
PIPE	SIZE (IN)	LENGTH (FT)	INLET STATION	INLET OFFSET	INLET ELEVATION	INLET END SEC'N	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	OUTLET END SEC'N	SLOPE (%)
P1-01	24	142.0	S1-01		270.57		96+68.0	52.0 RT	269.86	X	0.5
P1-02	24	136.0	S2-01		271.43		S1-01		270.75		0.5

STRUCTURE SUMMARY

STRUCTURE	TYPE	STATION	OFFSET	TOP OF CASTING ELEVATION	TYPE OF CASTING	REMARKS
S1-01	I	98+10.0	52.0 RT	274.75	MH	

LAYOUT TABLE

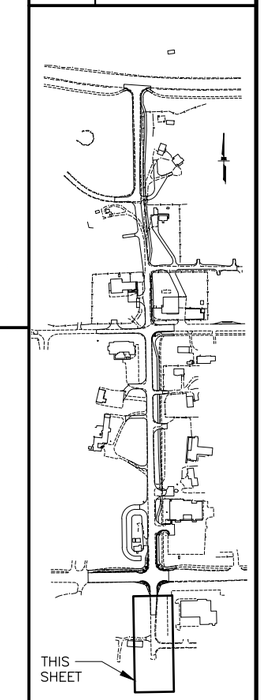
POINT	STATION	OFFSET	REMARKS
A	98+00.00	13.50 LT	BEGIN TAPER
B	98+00.00	14.00 RT	BEGIN TAPER



SHEET NO.	TOTAL SHEETS
F01	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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STATE OF ALASKA
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HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
BOP TO
STA. 99+00

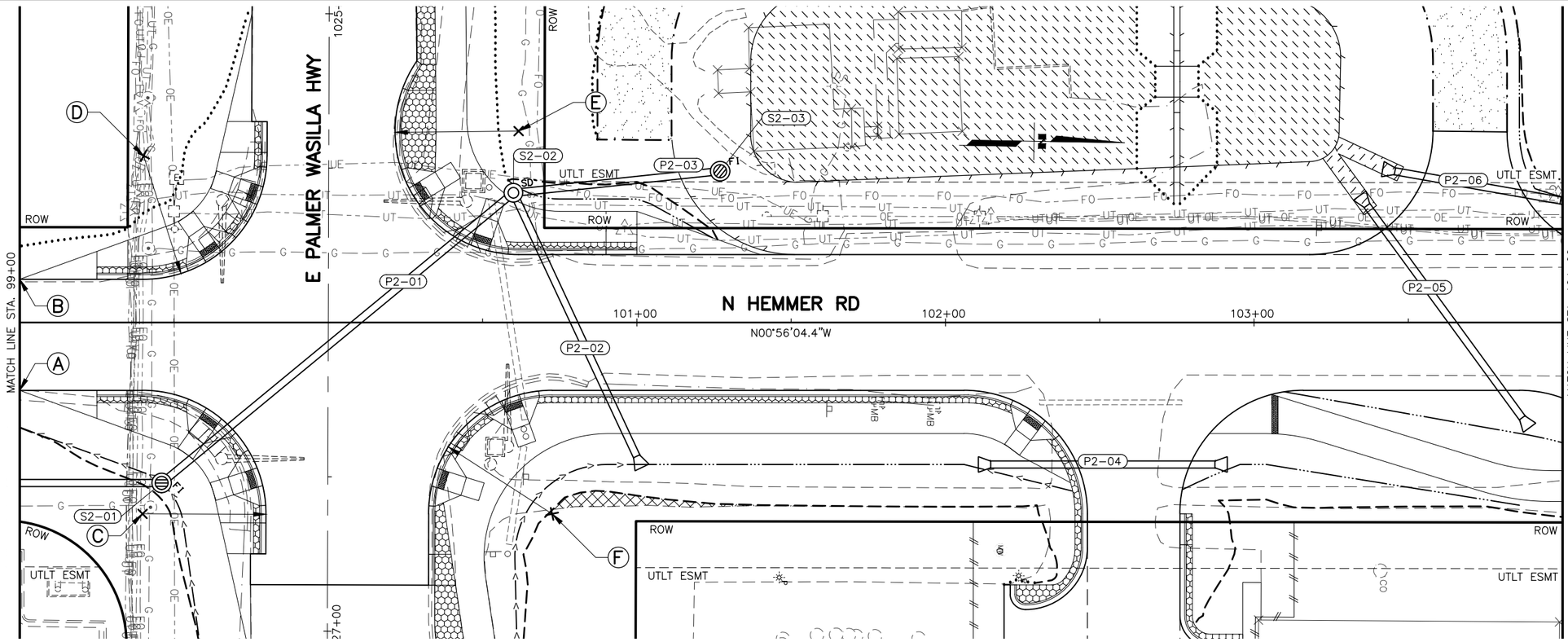
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:43 AM	1" = 20'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG

SHEET NO.	TOTAL SHEETS
F02	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

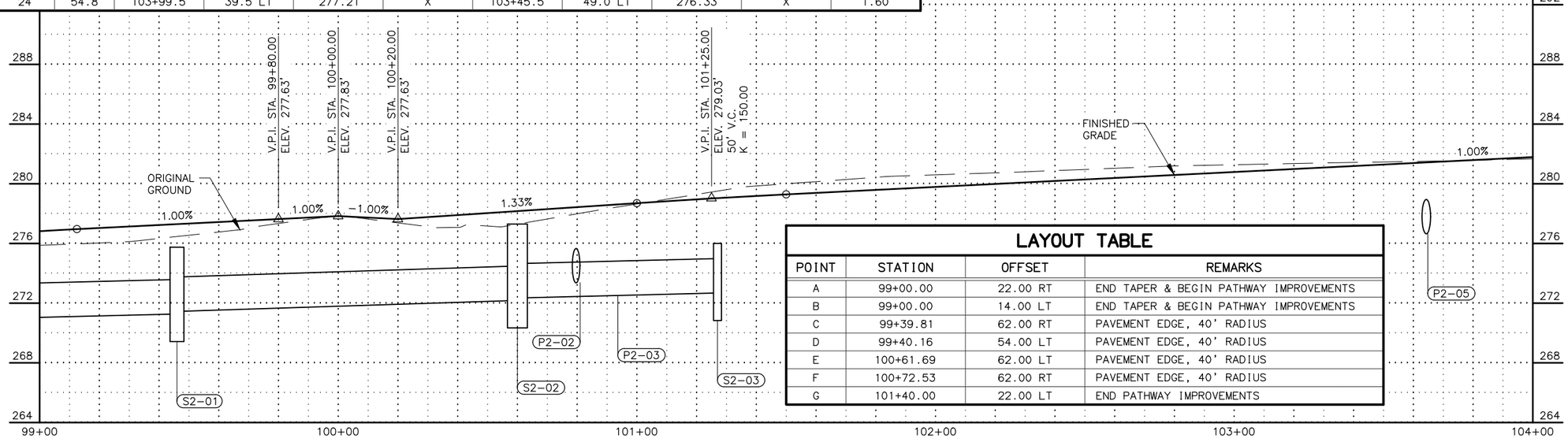


PIPE SUMMARY

PIPE	SIZE (IN)	LENGTH (FT)	INLET STATION	INLET OFFSET	INLET ELEVATION	INLET END SEC'N	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	OUTLET END SEC'N	SLOPE (%)
P2-01	24	147.8	S2-02		272.34		S2-01		271.60		0.50
P2-02	24	93.0	101+00.0	42.0 RT	273.98	X	S2-02		272.82		1.25
P2-03	24	67.4	S2-03		272.84		S2-02		272.50		0.50
P2-04	24	54.1	102+87.5	46.0 RT	275.94	X	102+14.5	46.0 RT	275.34	X	1.00
P2-05	24	85.5	103+87.0	31.0 LT	277.18	X	103+36.5	38.0 LT	276.33	X	1.00
P2-06	24	54.8	103+99.5	39.5 LT	277.21	X	103+45.5	49.0 LT	276.33	X	1.60

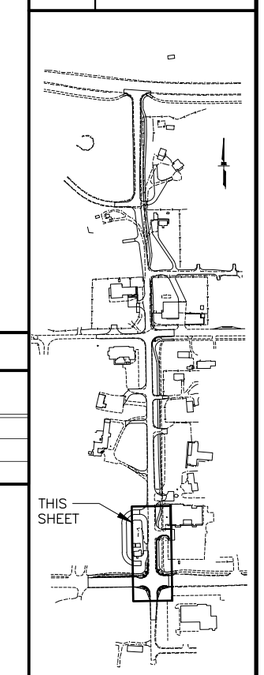
STRUCTURE SUMMARY

STRUCTURE	TYPE	STATION	OFFSET	TOP OF CASTING ELEVATION	TYPE OF CASTING	REMARKS
S2-01	I	99+46.0	52.0 RT	275.75	FI	
S2-02	II	100+60.0	42.0 LT	277.30	MH	
S2-03	A	101+27.0	49.0 LT	276.00	FI	



LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	99+00.00	22.00 RT	END TAPER & BEGIN PATHWAY IMPROVEMENTS
B	99+00.00	14.00 LT	END TAPER & BEGIN PATHWAY IMPROVEMENTS
C	99+39.81	62.00 RT	PAVEMENT EDGE, 40' RADIUS
D	99+40.16	54.00 LT	PAVEMENT EDGE, 40' RADIUS
E	100+61.69	62.00 LT	PAVEMENT EDGE, 40' RADIUS
F	100+72.53	62.00 RT	PAVEMENT EDGE, 40' RADIUS
G	101+40.00	22.00 LT	END PATHWAY IMPROVEMENTS



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CLAIRE A. FOX
PROFESSIONAL ENGINEER
PLAN REVIEW

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ANCHORAGE, AK 99502
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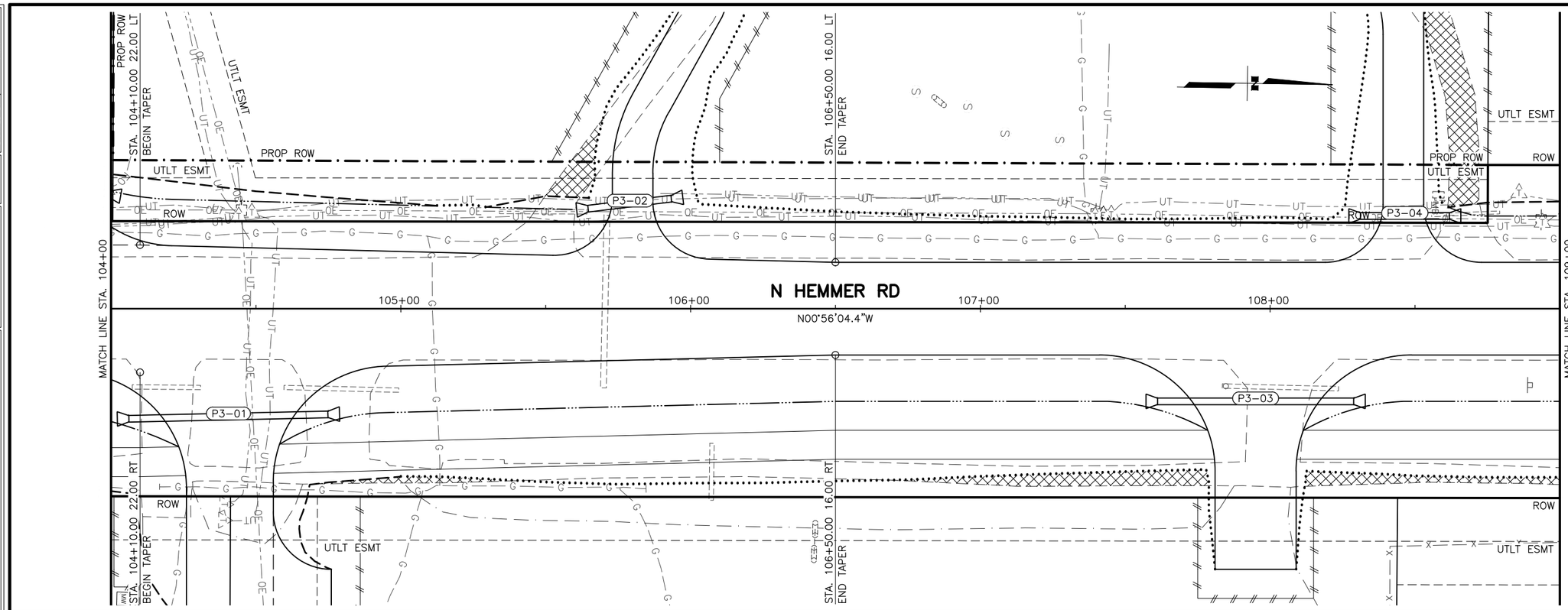
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

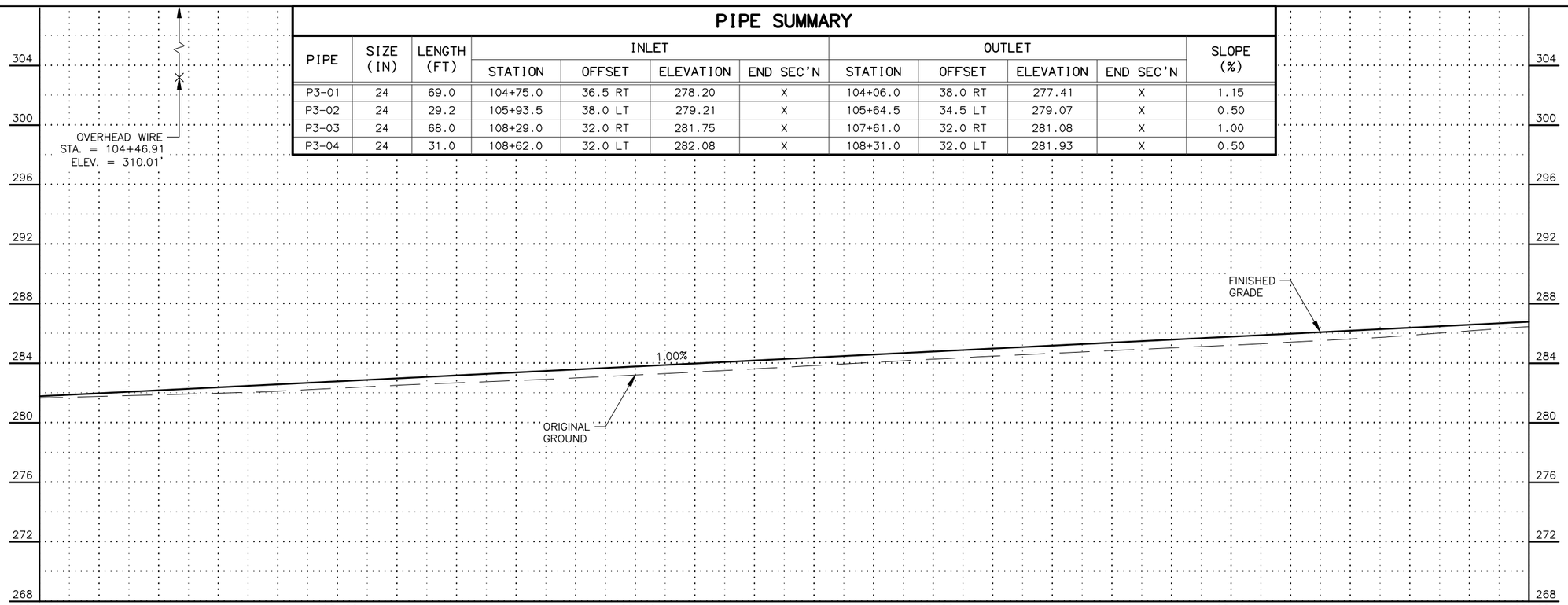
HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
STA. 99+00 TO
STA. 104+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:43 AM	1" = 20'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG





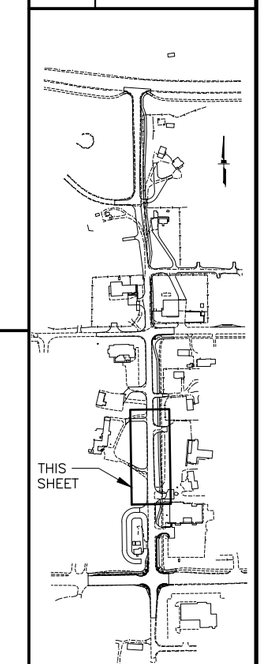
PIPE SUMMARY

PIPE	SIZE (IN)	LENGTH (FT)	INLET				OUTLET				SLOPE (%)
			STATION	OFFSET	ELEVATION	END SEC'N	STATION	OFFSET	ELEVATION	END SEC'N	
P3-01	24	69.0	104+75.0	36.5 RT	278.20	X	104+06.0	38.0 RT	277.41	X	1.15
P3-02	24	29.2	105+93.5	38.0 LT	279.21	X	105+64.5	34.5 LT	279.07	X	0.50
P3-03	24	68.0	108+29.0	32.0 RT	281.75	X	107+61.0	32.0 RT	281.08	X	1.00
P3-04	24	31.0	108+62.0	32.0 LT	282.08	X	108+31.0	32.0 LT	281.93	X	0.50

SHEET NO.	TOTAL SHEETS
F03	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
CLAIRE E. HUNTINGFORD
REGISTERED PROFESSIONAL ENGINEER
PLAN REVIEW

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
STA. 104+00 TO
STA. 109+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
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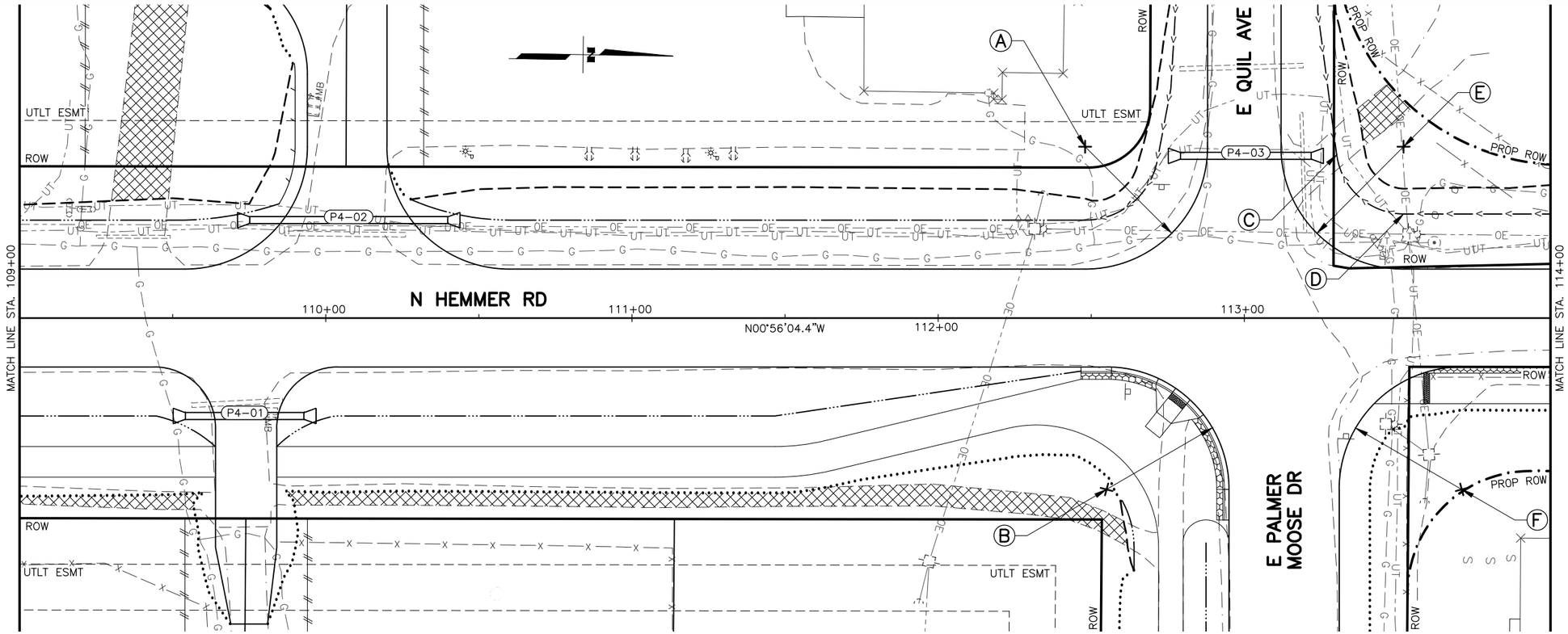
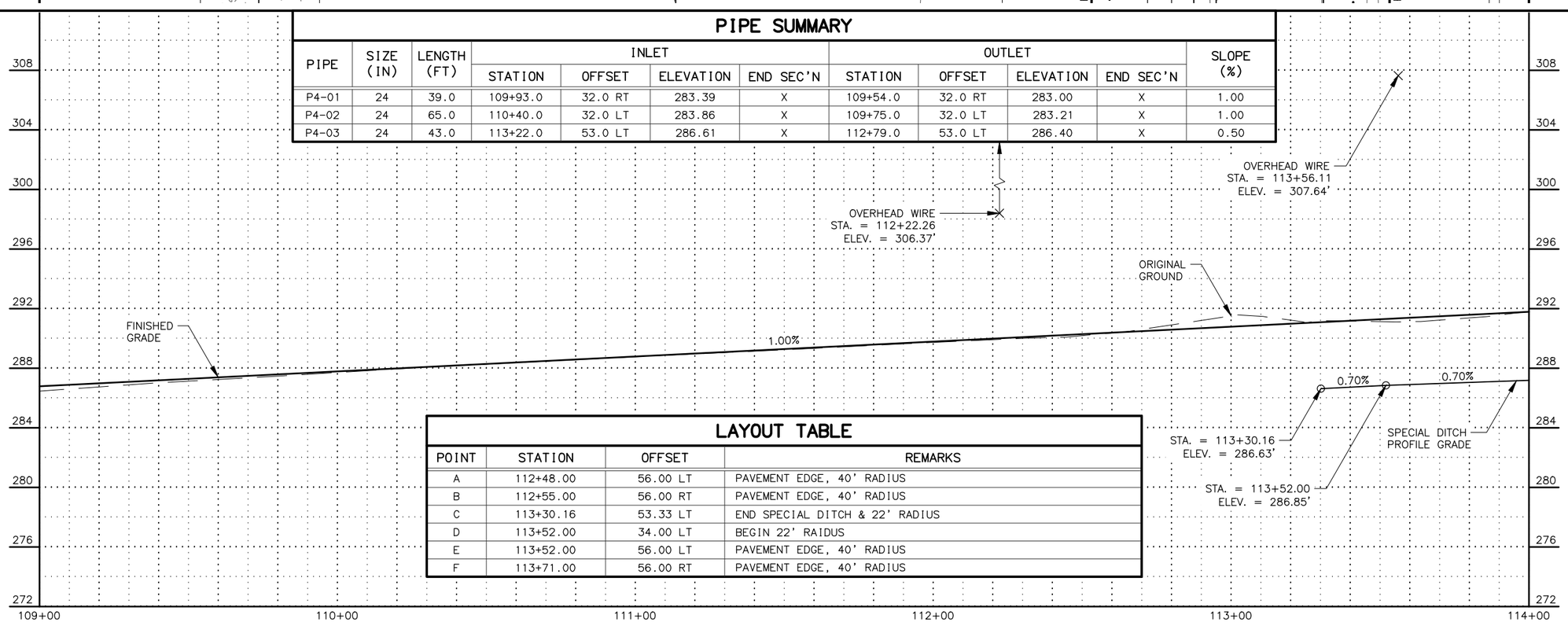
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG



PIPE SUMMARY

PIPE	SIZE (IN)	LENGTH (FT)	INLET				OUTLET				SLOPE (%)
			STATION	OFFSET	ELEVATION	END SEC'N	STATION	OFFSET	ELEVATION	END SEC'N	
P4-01	24	39.0	109+93.0	32.0 RT	283.39	X	109+54.0	32.0 RT	283.00	X	1.00
P4-02	24	65.0	110+40.0	32.0 LT	283.86	X	109+75.0	32.0 LT	283.21	X	1.00
P4-03	24	43.0	113+22.0	53.0 LT	286.61	X	112+79.0	53.0 LT	286.40	X	0.50



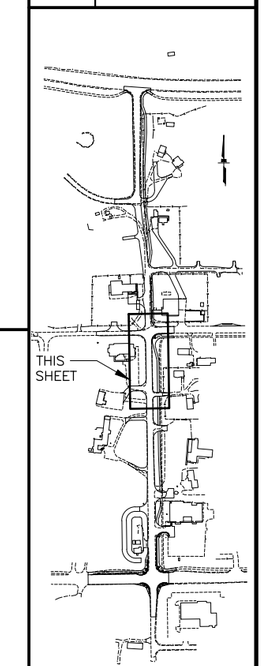
LAYOUT TABLE

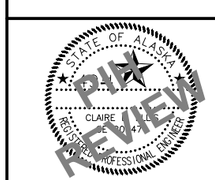
POINT	STATION	OFFSET	REMARKS
A	112+48.00	56.00 LT	PAVEMENT EDGE, 40' RADIUS
B	112+55.00	56.00 RT	PAVEMENT EDGE, 40' RADIUS
C	113+30.16	53.33 LT	END SPECIAL DITCH & 22' RADIUS
D	113+52.00	34.00 LT	BEGIN 22' RAIDUS
E	113+52.00	56.00 LT	PAVEMENT EDGE, 40' RADIUS
F	113+71.00	56.00 RT	PAVEMENT EDGE, 40' RADIUS

SHEET NO.	TOTAL SHEETS
F04	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
STA. 109+00 TO STA. 114+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
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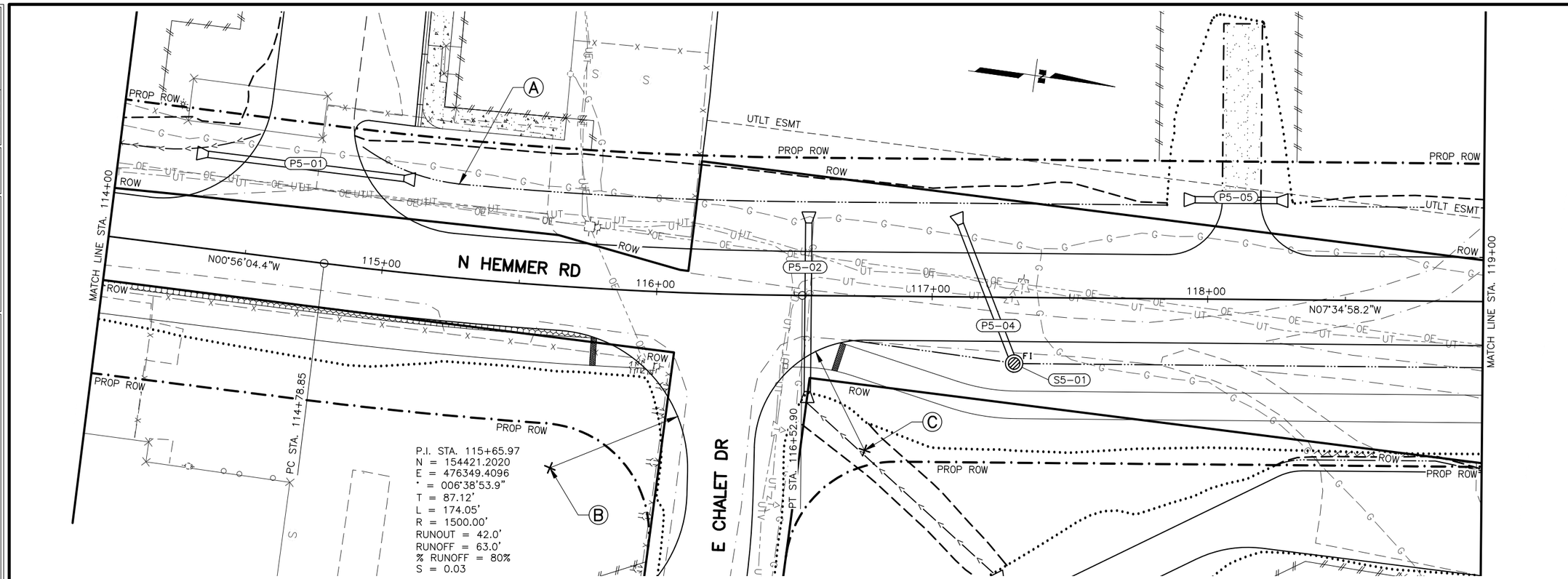
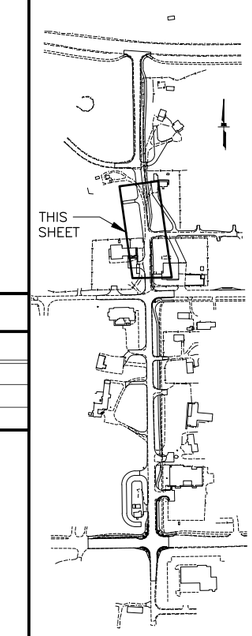
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG



SHEET NO.	TOTAL SHEETS
F05	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

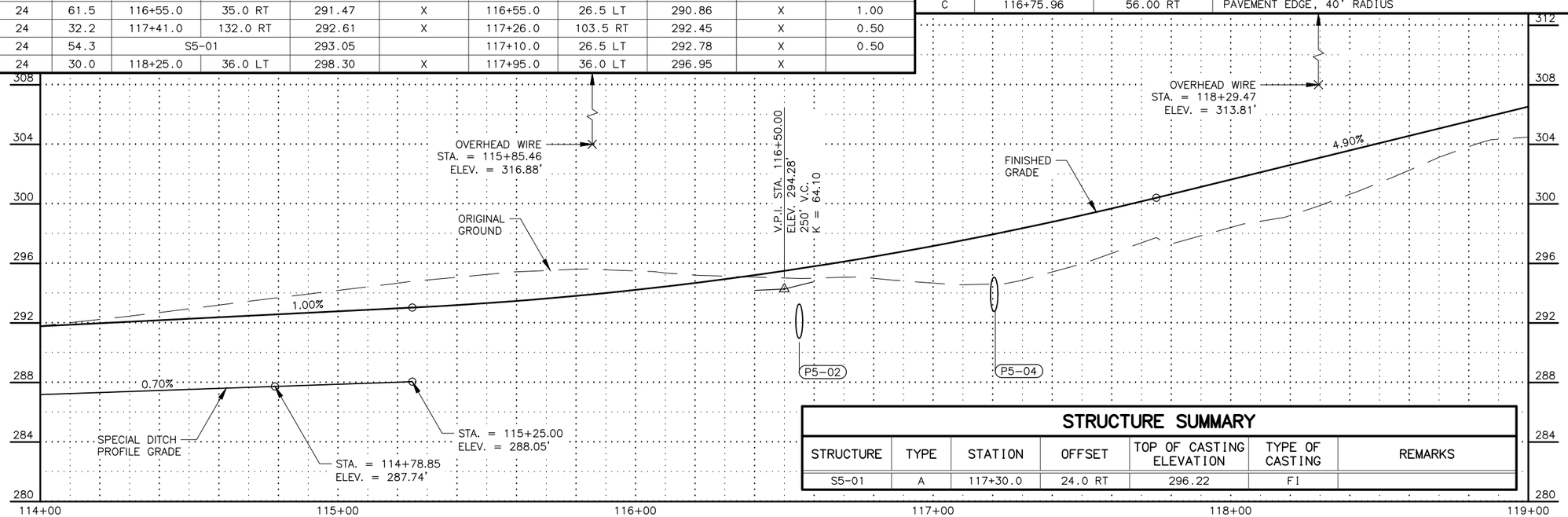


PIPE SUMMARY

PIPE	SIZE (IN)	LENGTH (FT)	INLET				OUTLET				SLOPE (%)
			STATION	OFFSET	ELEVATION	END SEC'N	STATION	OFFSET	ELEVATION	END SEC'N	
P5-01	24	71.9	115+04.5	34.0 LT	287.92	X	114+32.0	34.0 LT	287.41	X	0.70
P5-02	24	61.5	116+55.0	35.0 RT	291.47	X	116+55.0	26.5 LT	290.86	X	1.00
P5-03	24	32.2	117+41.0	132.0 RT	292.61	X	117+26.0	103.5 RT	292.45	X	0.50
P5-04	24	54.3	S5-01		293.05		117+10.0	26.5 LT	292.78	X	0.50
P5-05	24	30.0	118+25.0	36.0 LT	298.30	X	117+95.0	36.0 LT	296.95	X	

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	115+25.00	34.00 LT	BEGIN SPECIAL DITCH
B	115+65.60	66.00 RT	PAVEMENT EDGE, 50' RADIUS
C	116+75.96	56.00 RT	PAVEMENT EDGE, 40' RADIUS



STRUCTURE SUMMARY

STRUCTURE	TYPE	STATION	OFFSET	TOP OF CASTING ELEVATION	TYPE OF CASTING	REMARKS
S5-01	A	117+30.0	24.0 RT	296.22	FI	

STATE OF ALASKA
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
STA. 114+00 TO
STA. 119+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:44 AM	1" = 20'	ZDK	CLE	ZDK

DRAWING LOCATION
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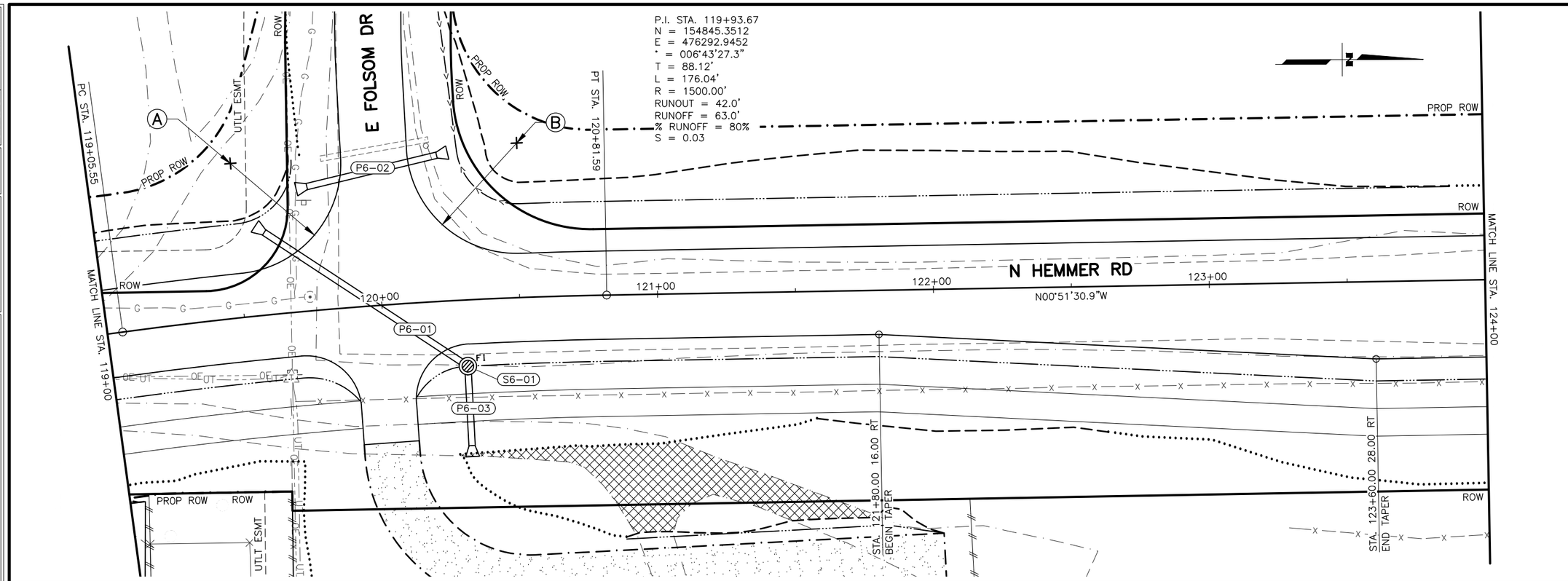
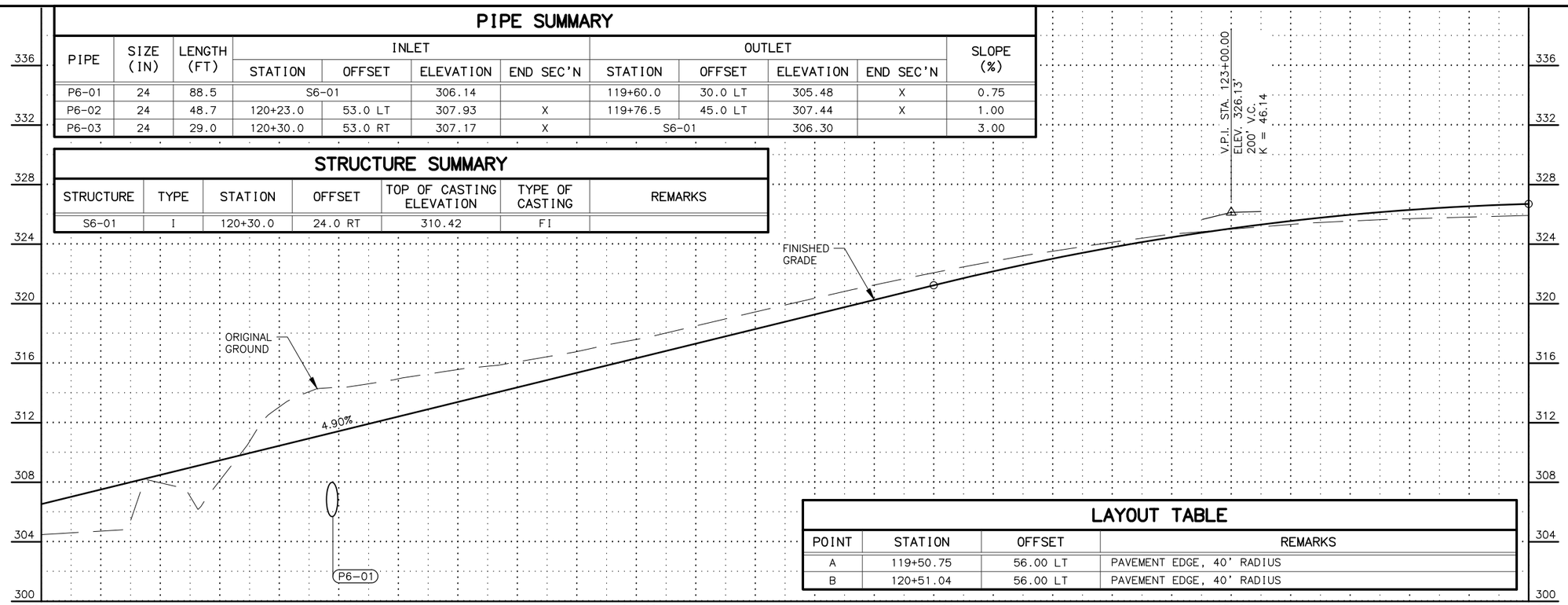


PIPE SUMMARY

PIPE	SIZE (IN)	LENGTH (FT)	INLET STATION	INLET OFFSET	INLET ELEVATION	INLET END SEC'N	OUTLET STATION	OUTLET OFFSET	OUTLET ELEVATION	OUTLET END SEC'N	SLOPE (%)
P6-01	24	88.5	S6-01		306.14		119+60.0	30.0 LT	305.48	X	0.75
P6-02	24	48.7	120+23.0	53.0 LT	307.93	X	119+76.5	45.0 LT	307.44	X	1.00
P6-03	24	29.0	120+30.0	53.0 RT	307.17	X	S6-01		306.30		3.00

STRUCTURE SUMMARY

STRUCTURE	TYPE	STATION	OFFSET	TOP OF CASTING ELEVATION	TYPE OF CASTING	REMARKS
S6-01	I	120+30.0	24.0 RT	310.42	FI	



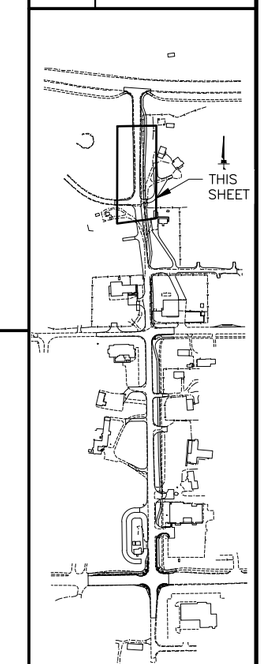
LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	119+50.75	56.00 LT	PAVEMENT EDGE, 40' RADIUS
B	120+51.04	56.00 LT	PAVEMENT EDGE, 40' RADIUS

SHEET NO.	TOTAL SHEETS
F06	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
CLAIRE E. HANSEN
REGISTERED PROFESSIONAL ENGINEER
PLAN REVIEW

STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
STA. 119+00 TO
STA. 124+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
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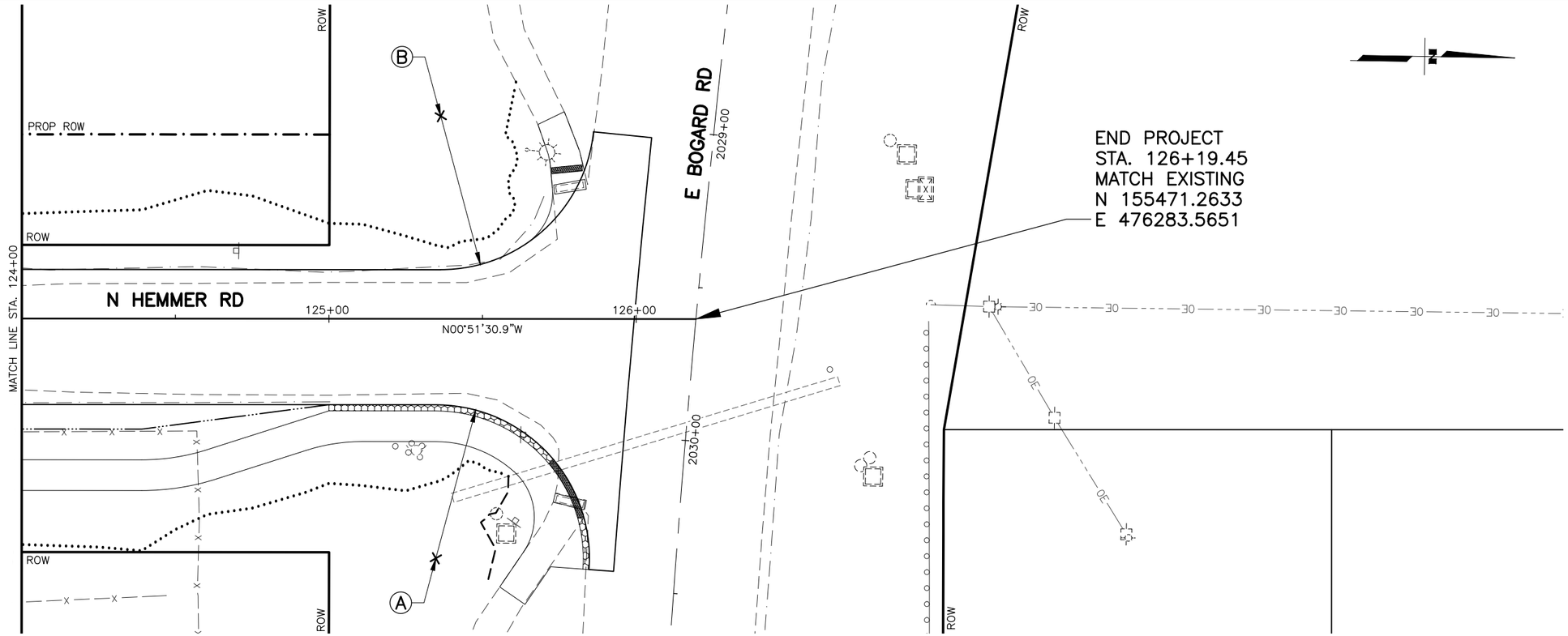
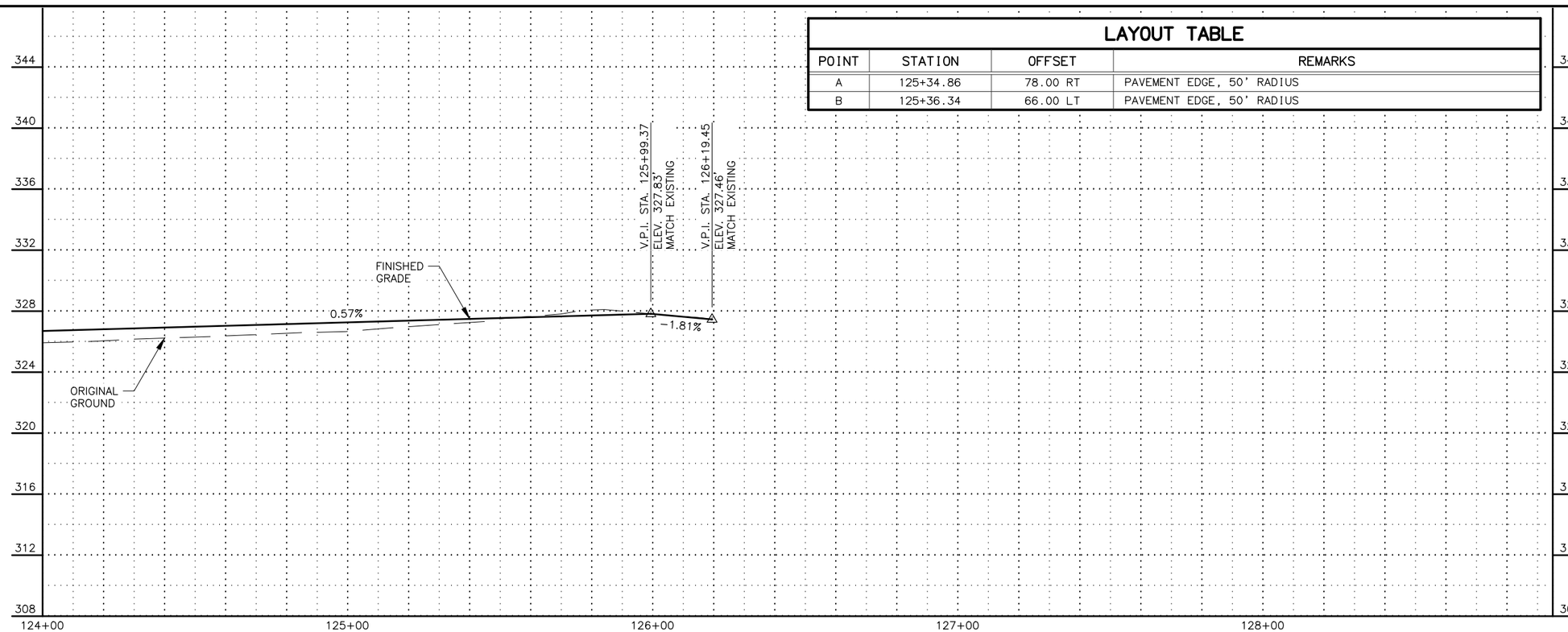
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG



LAYOUT TABLE

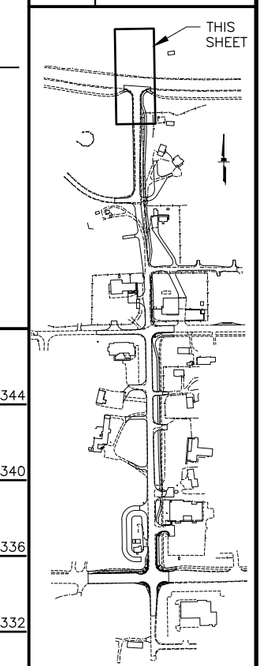
POINT	STATION	OFFSET	REMARKS
A	125+34.86	78.00 RT	PAVEMENT EDGE, 50' RADIUS
B	125+36.34	66.00 LT	PAVEMENT EDGE, 50' RADIUS



SHEET NO.	TOTAL SHEETS
F07	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
CLAIRE ZOK
REGISTERED PROFESSIONAL ENGINEER
PLAN REVIEW

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ANCHORAGE, AK 99502
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
STA. 124+00 TO
STA. EOP

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
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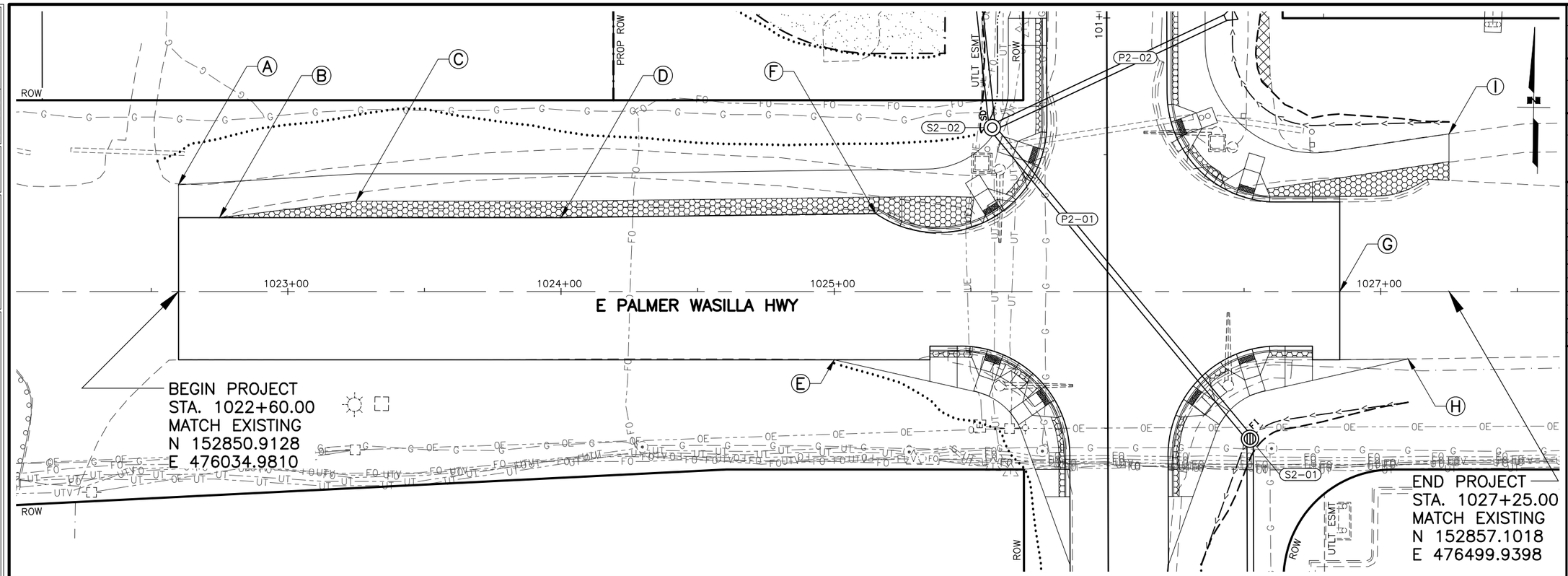
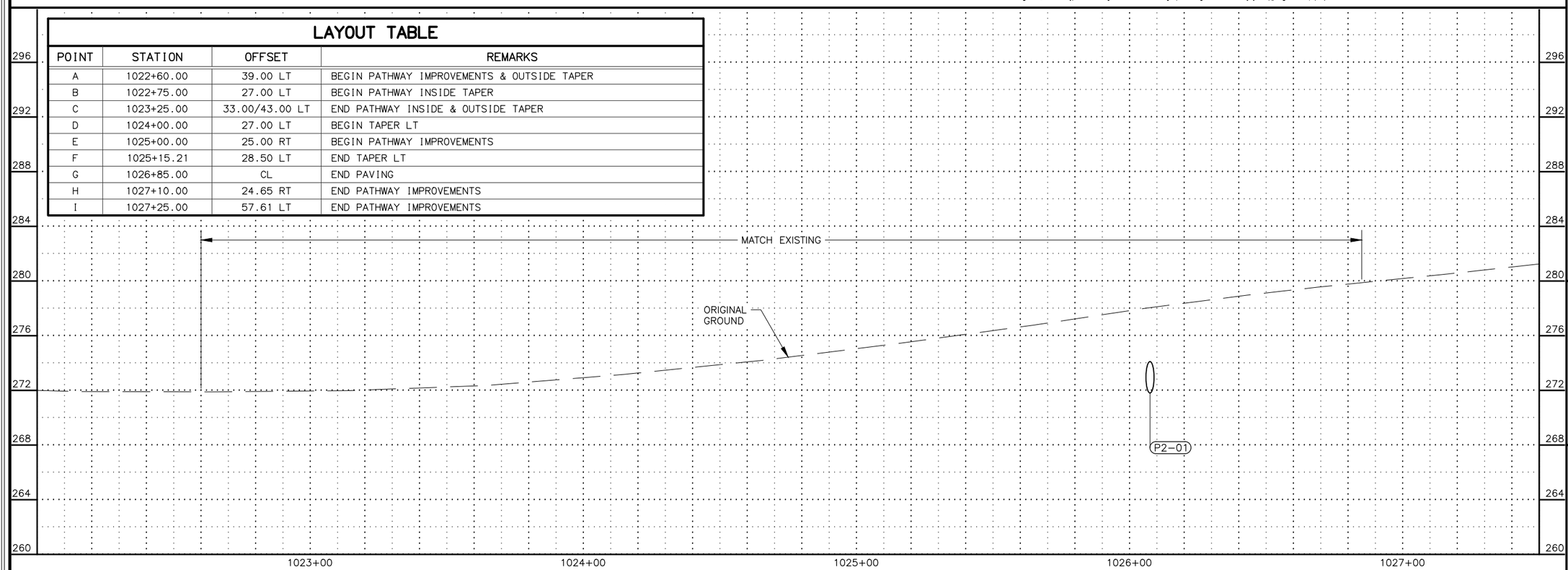
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG



LAYOUT TABLE

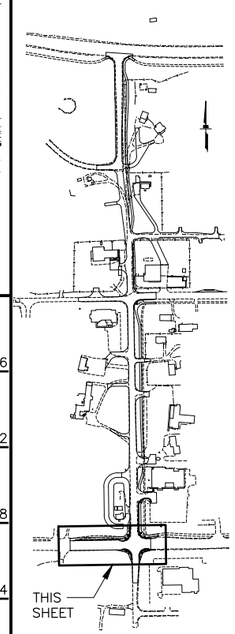
POINT	STATION	OFFSET	REMARKS
A	1022+60.00	39.00 LT	BEGIN PATHWAY IMPROVEMENTS & OUTSIDE TAPER
B	1022+75.00	27.00 LT	BEGIN PATHWAY INSIDE TAPER
C	1023+25.00	33.00/43.00 LT	END PATHWAY INSIDE & OUTSIDE TAPER
D	1024+00.00	27.00 LT	BEGIN TAPER LT
E	1025+00.00	25.00 RT	BEGIN PATHWAY IMPROVEMENTS
F	1025+15.21	28.50 LT	END TAPER LT
G	1026+85.00	CL	END PAVING
H	1027+10.00	24.65 RT	END PATHWAY IMPROVEMENTS
I	1027+25.00	57.61 LT	END PATHWAY IMPROVEMENTS



SHEET NO.	TOTAL SHEETS
F08	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
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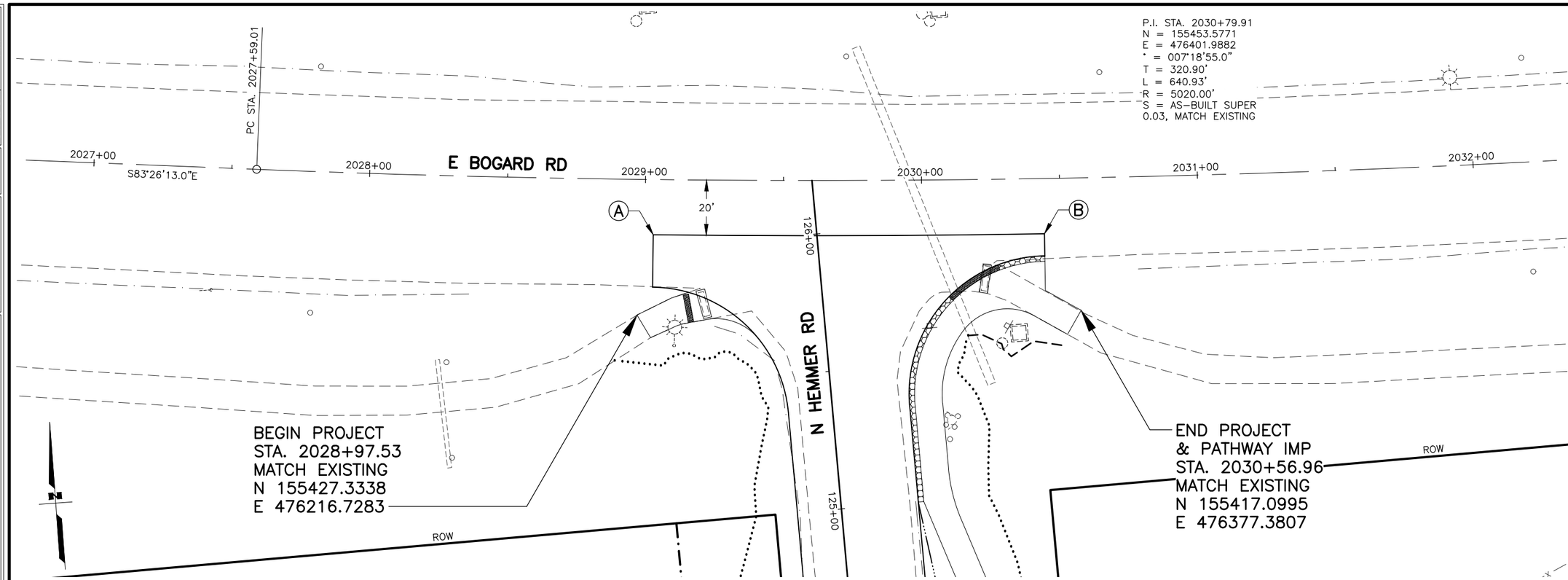
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
BOP TO EOP

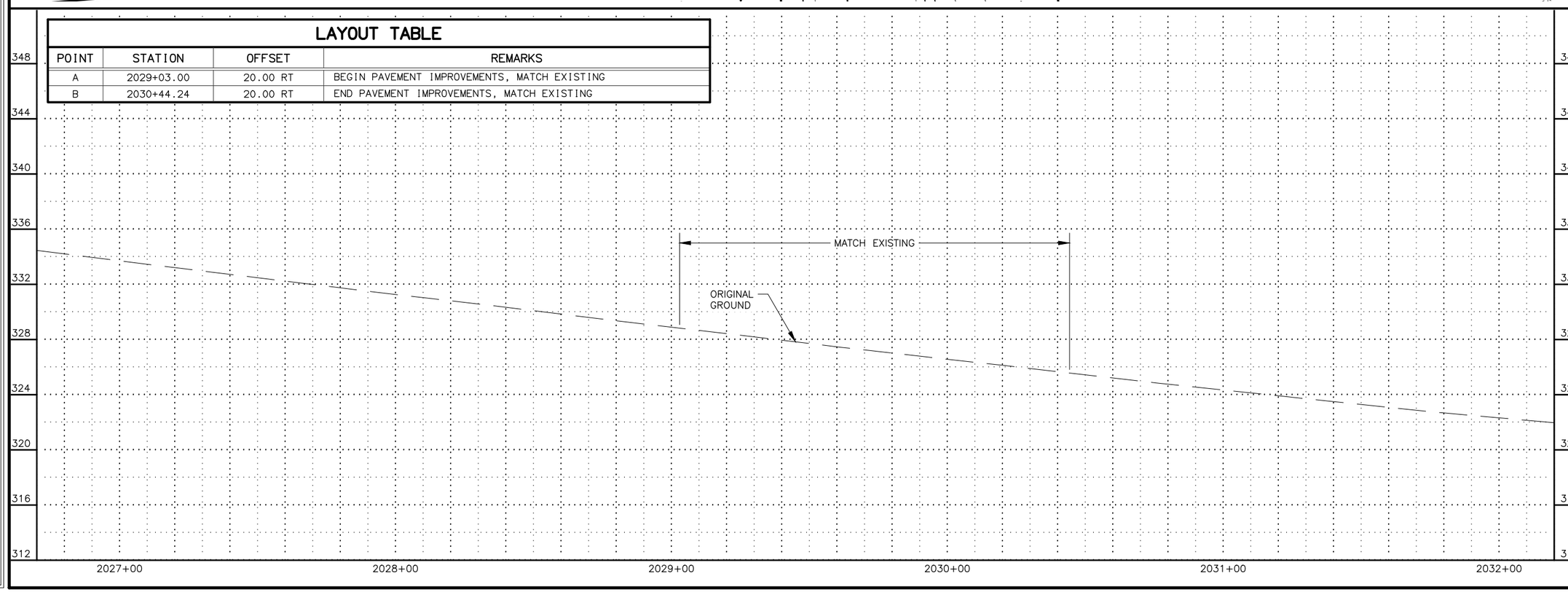
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:44 AM	1" = 20'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG



LAYOUT TABLE

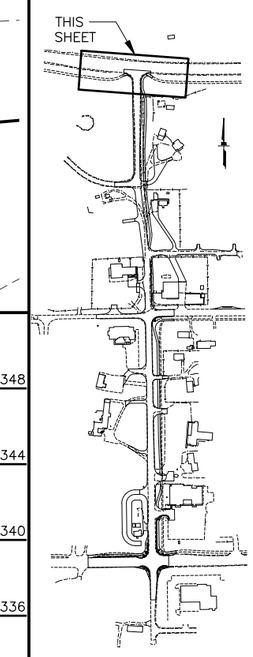
POINT	STATION	OFFSET	REMARKS
A	2029+03.00	20.00 RT	BEGIN PAVEMENT IMPROVEMENTS, MATCH EXISTING
B	2030+44.24	20.00 RT	END PAVEMENT IMPROVEMENTS, MATCH EXISTING



SHEET NO.	TOTAL SHEETS
F09	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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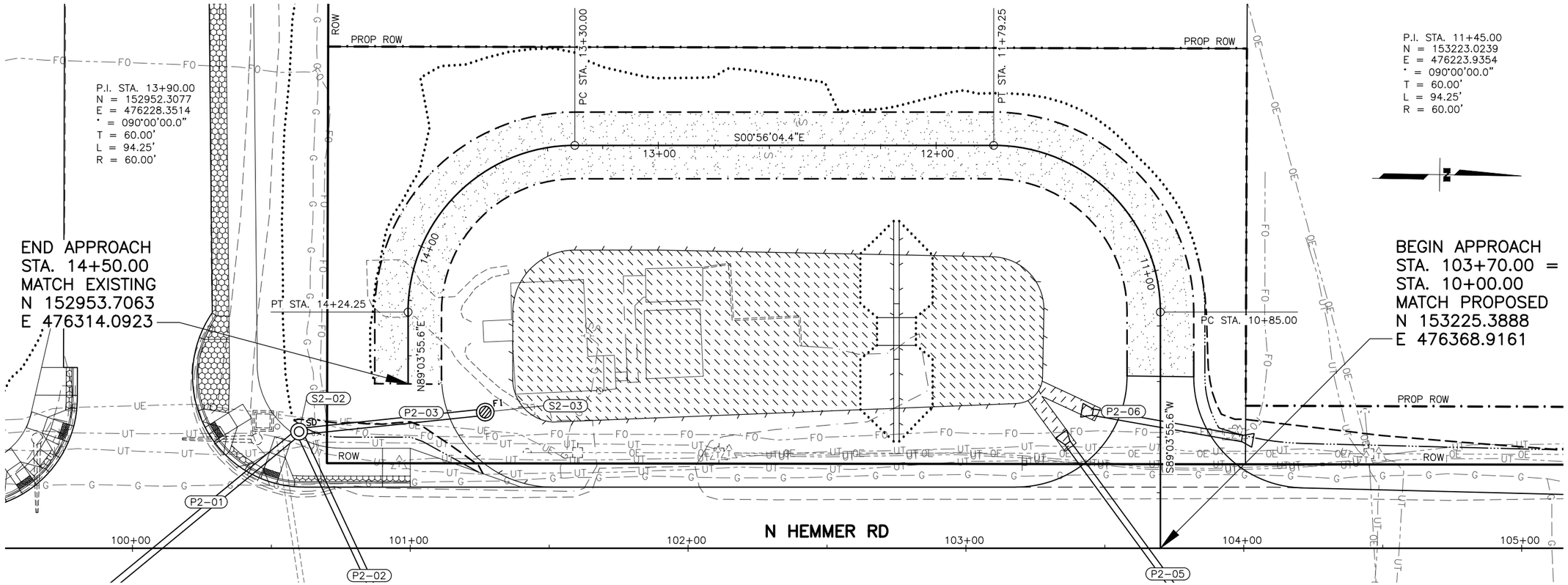
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PLAN AND PROFILE
BOP TO EOP

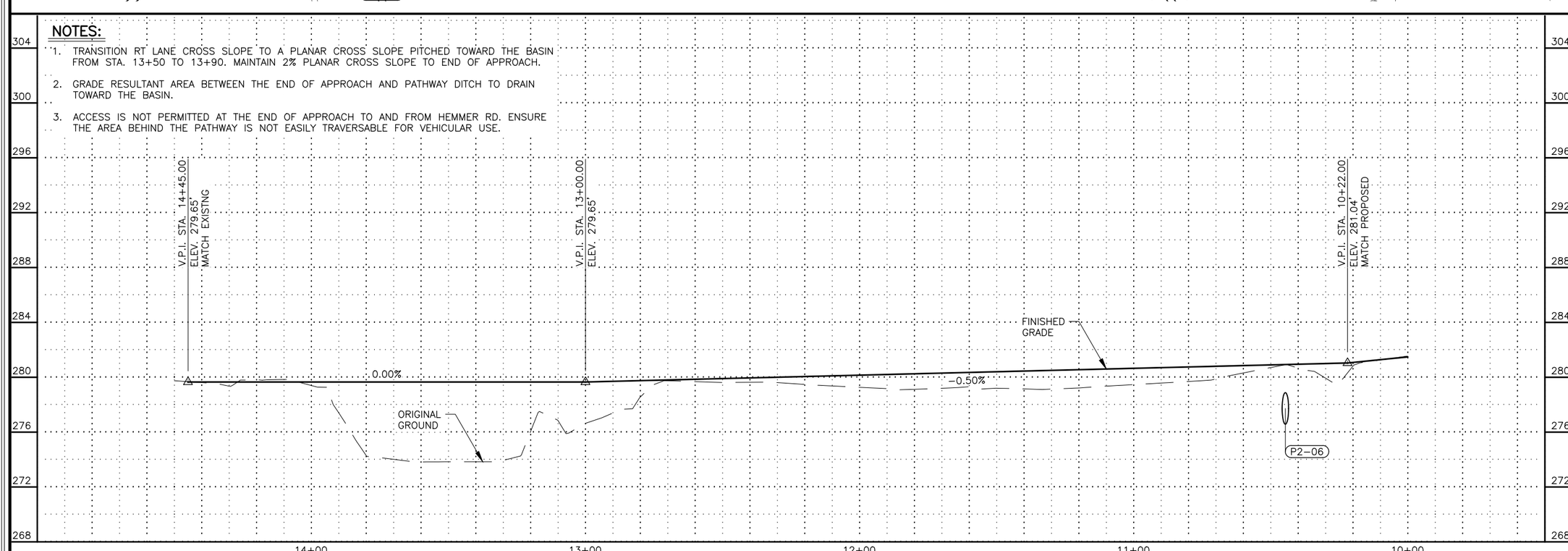
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:44 AM	1" = 20'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F01_PNP.DWG



NOTES:

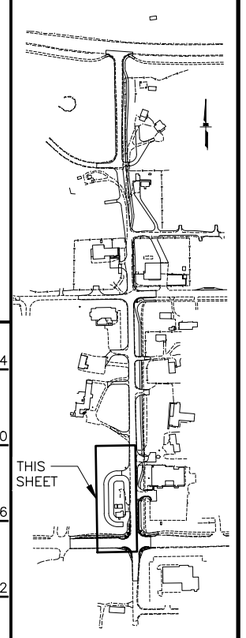
1. TRANSITION RT LANE CROSS SLOPE TO A PLANAR CROSS SLOPE PITCHED TOWARD THE BASIN FROM STA. 13+50 TO 13+90. MAINTAIN 2% PLANAR CROSS SLOPE TO END OF APPROACH.
2. GRADE RESULTANT AREA BETWEEN THE END OF APPROACH AND PATHWAY DITCH TO DRAIN TOWARD THE BASIN.
3. ACCESS IS NOT PERMITTED AT THE END OF APPROACH TO AND FROM HEMMER RD. ENSURE THE AREA BEHIND THE PATHWAY IS NOT EASILY TRAVERSABLE FOR VEHICULAR USE.



SHEET NO.	TOTAL SHEETS
F10	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 103+70 LT

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:44 AM	1" = 20'	ZDK	CLE	ZDK

DRAWING LOCATION
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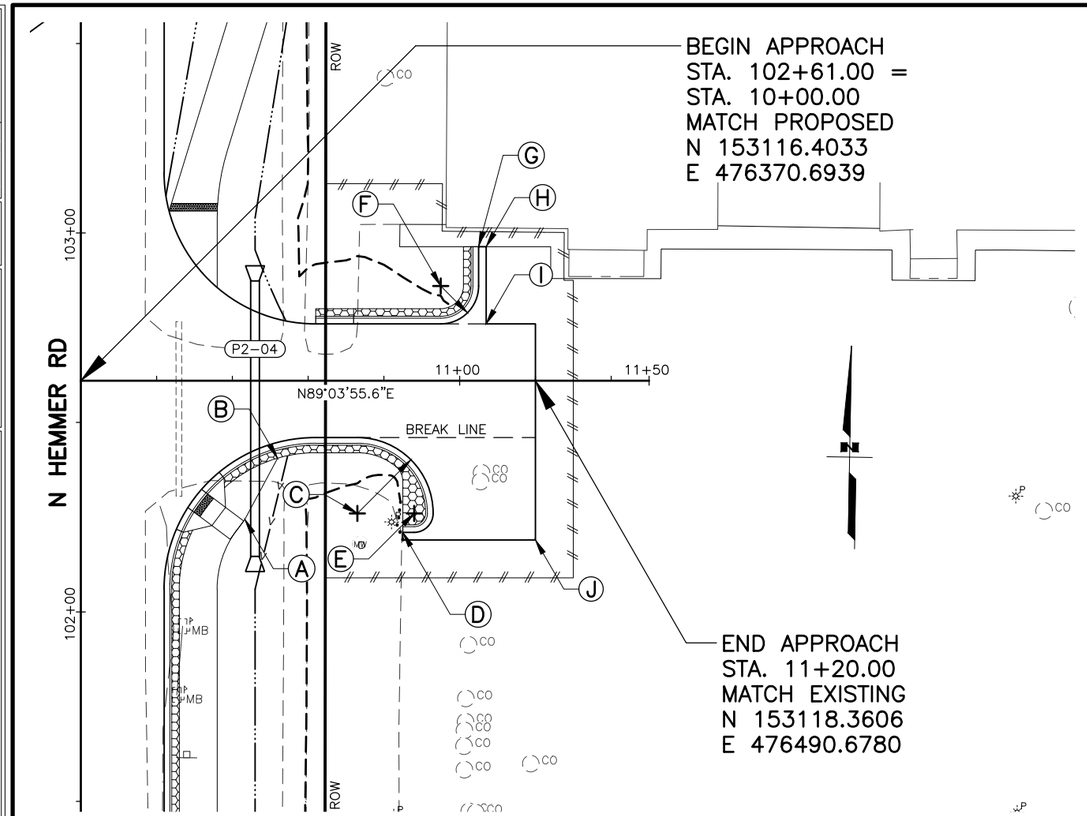
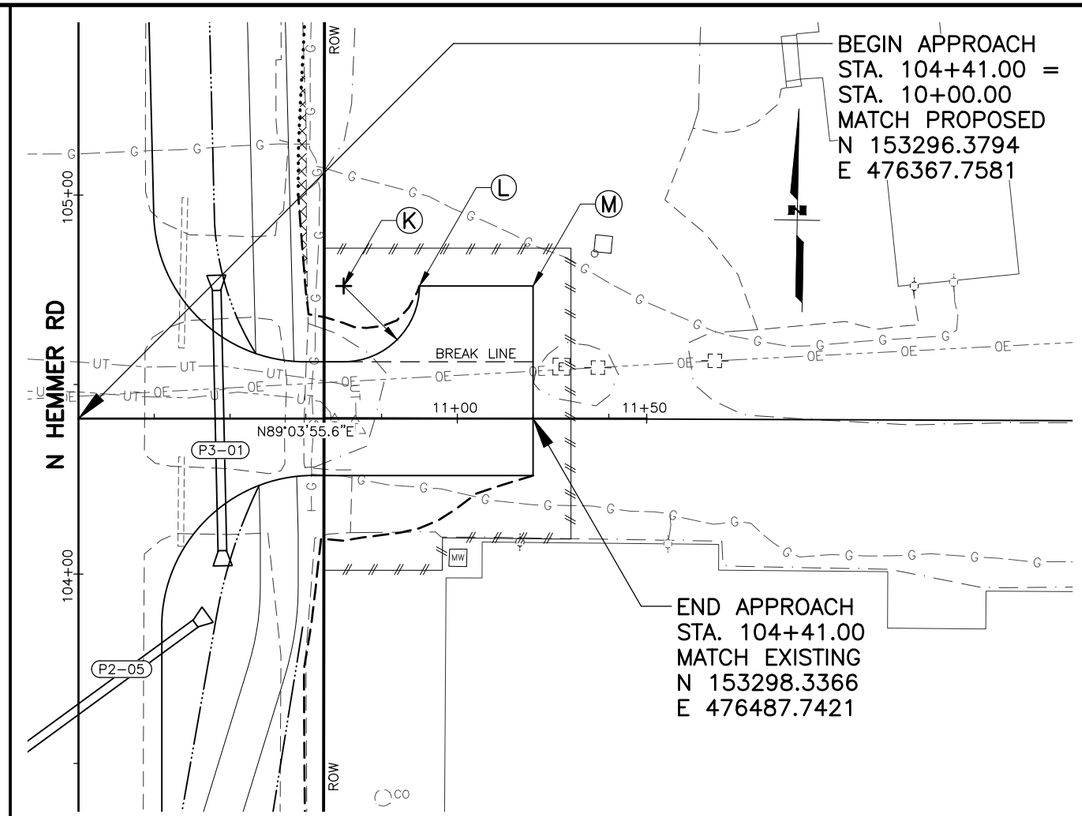
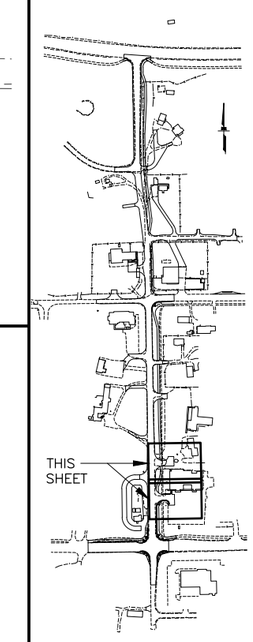




SHEET NO.	TOTAL SHEETS
F11	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

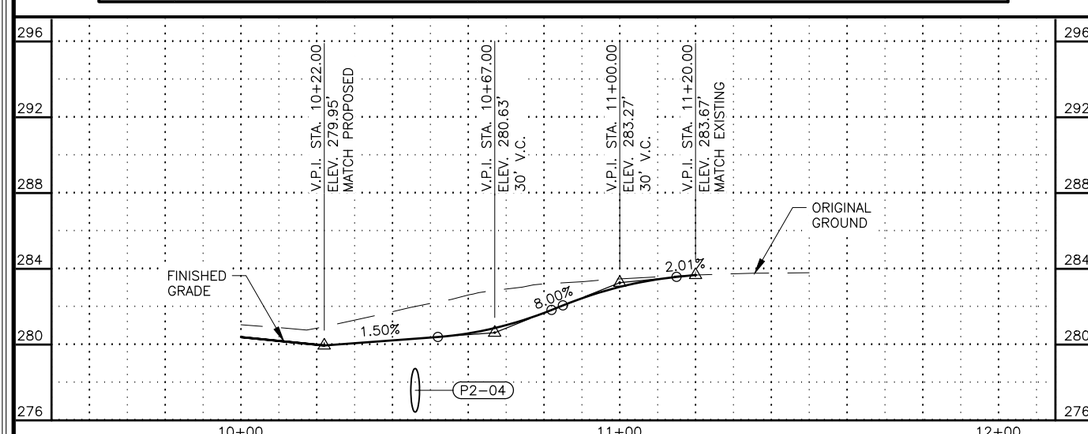


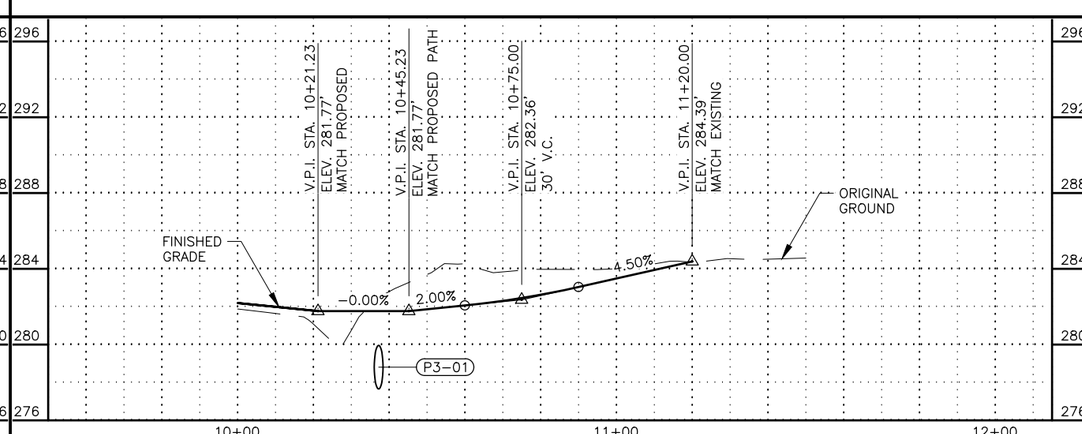
LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	10+43.31	36.59 RT	BEGIN PATHWAY TAPER
B	10+51.94	20.44 RT	END PATHWAY TAPER
C	10+73.00	35.00 RT	PAVEMENT EDGE, 20' RADIUS
D	10+85.00	40.00 RT	PAVEMENT EDGE, END CURB IMPROVEMENTS
E	10+88.00	35.00 RT	PAVEMENT EDGE, 5' RADIUS
F	10+95.00	25.00 LT	PAVEMENT EDGE, 10' RADIUS
G	11+05.00	35.36 LT	MATCH EXISTING, TIE TOP OF CURB INTO SIDEWALK FLUSH
H	11+07.00	35.36 LT	MATCH EXISTING
I	11+07.00	15.00 LT	MATCH EXISTING PARKING
J	11+20.00	42.00 RT	MATCH EXISTING PARKING

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
K	10+70.00	35.00 LT	PAVEMENT EDGE, 20' RADIUS
L	10+90.00	35.00 LT	MATCH EXISTING PARKING
M	11+20.00	35.00 LT	MATCH EXISTING PARKING





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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

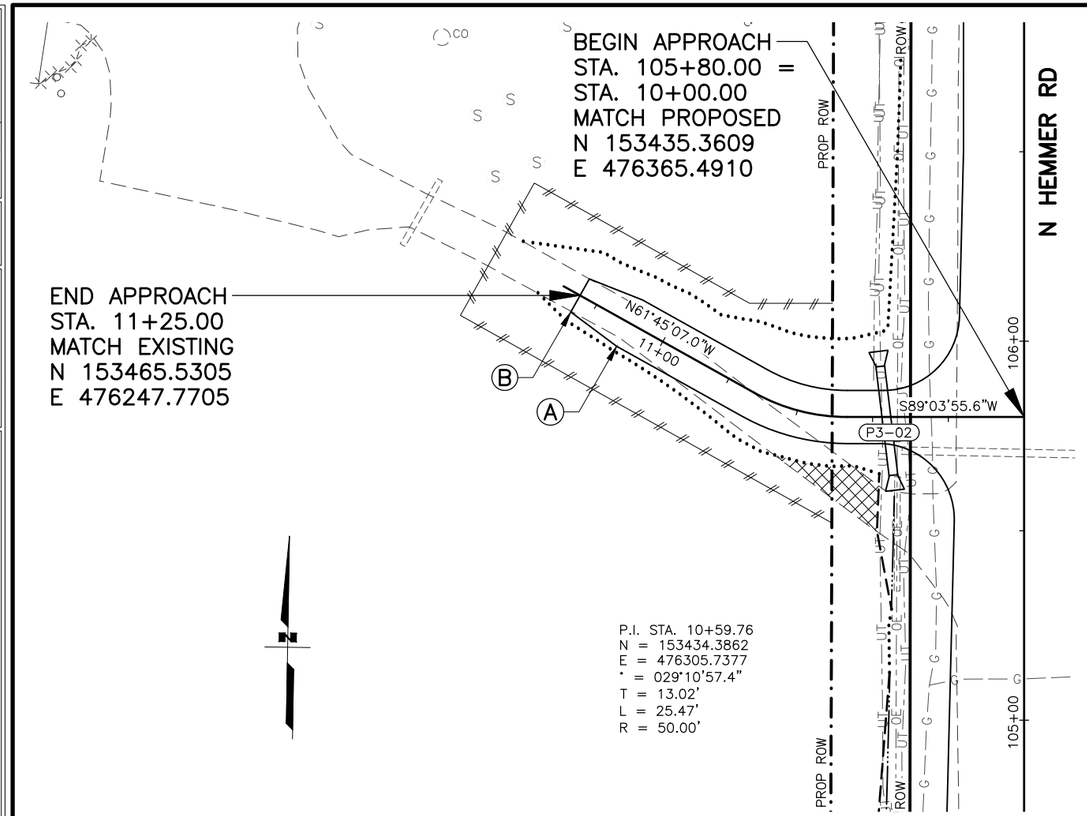
DW PLAN & PROFILE
STA. 102+51 RT
STA. 104+41 RT

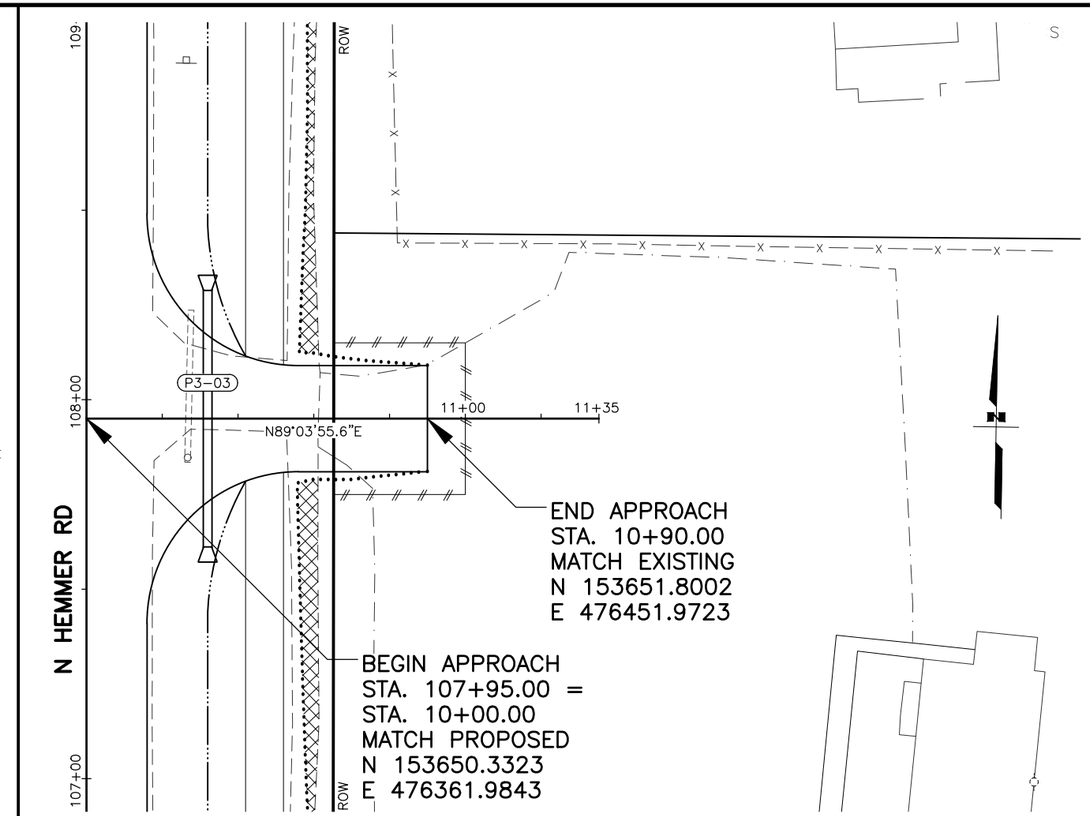
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:45 AM	1" = 20'	ZDK/CRH	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK/CRH
3/10/2025	10:45 AM	1" = 20'	CHECKED BY	CLE
			DRAFTED BY	ZDK

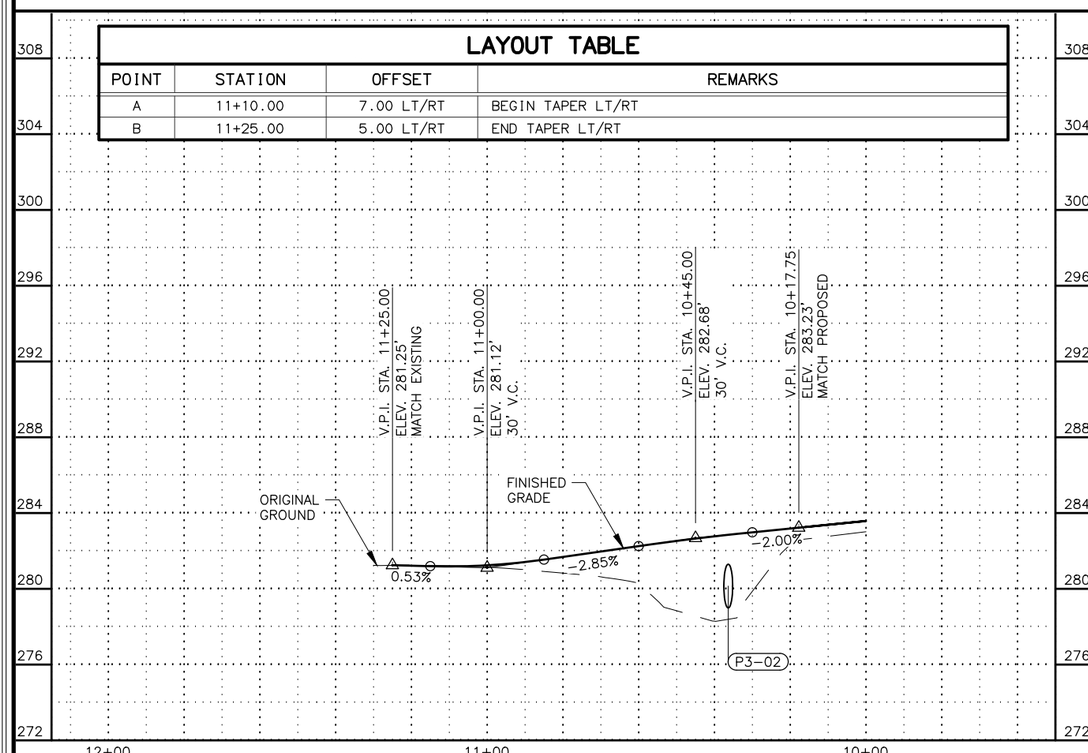
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

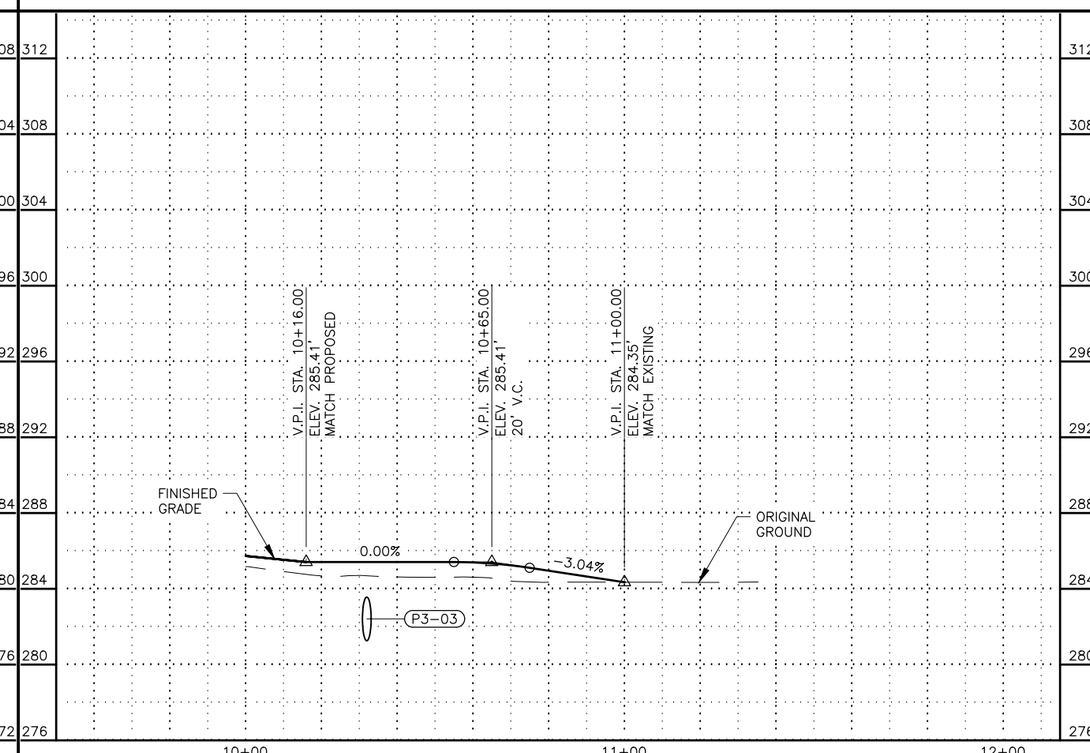




LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	11+10.00	7.00 LT/RT	BEGIN TAPER LT/RT
B	11+25.00	5.00 LT/RT	END TAPER LT/RT





SHEET NO.	TOTAL SHEETS
F12	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
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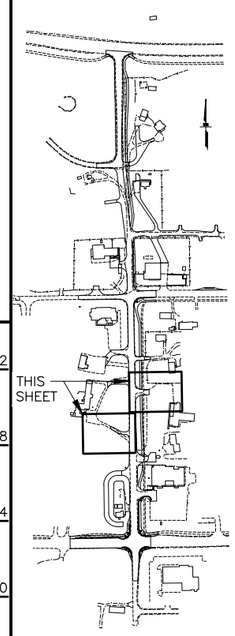
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
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CLAIRE E. KOSTKA
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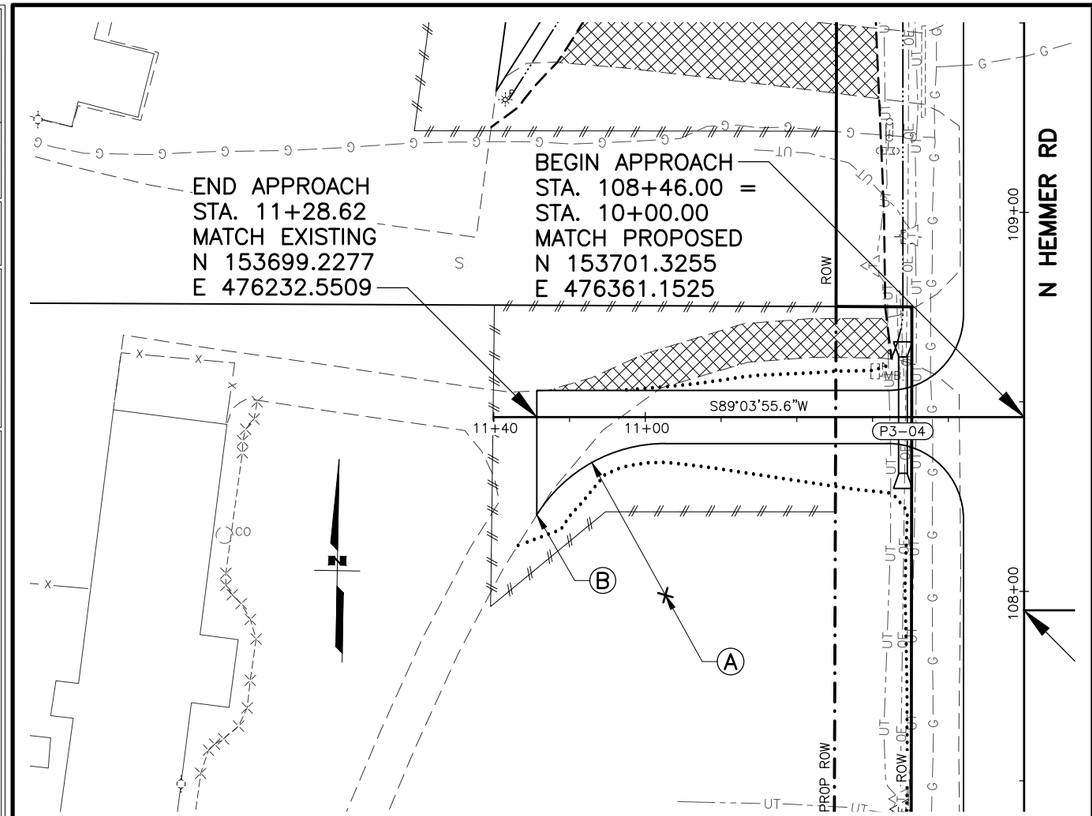
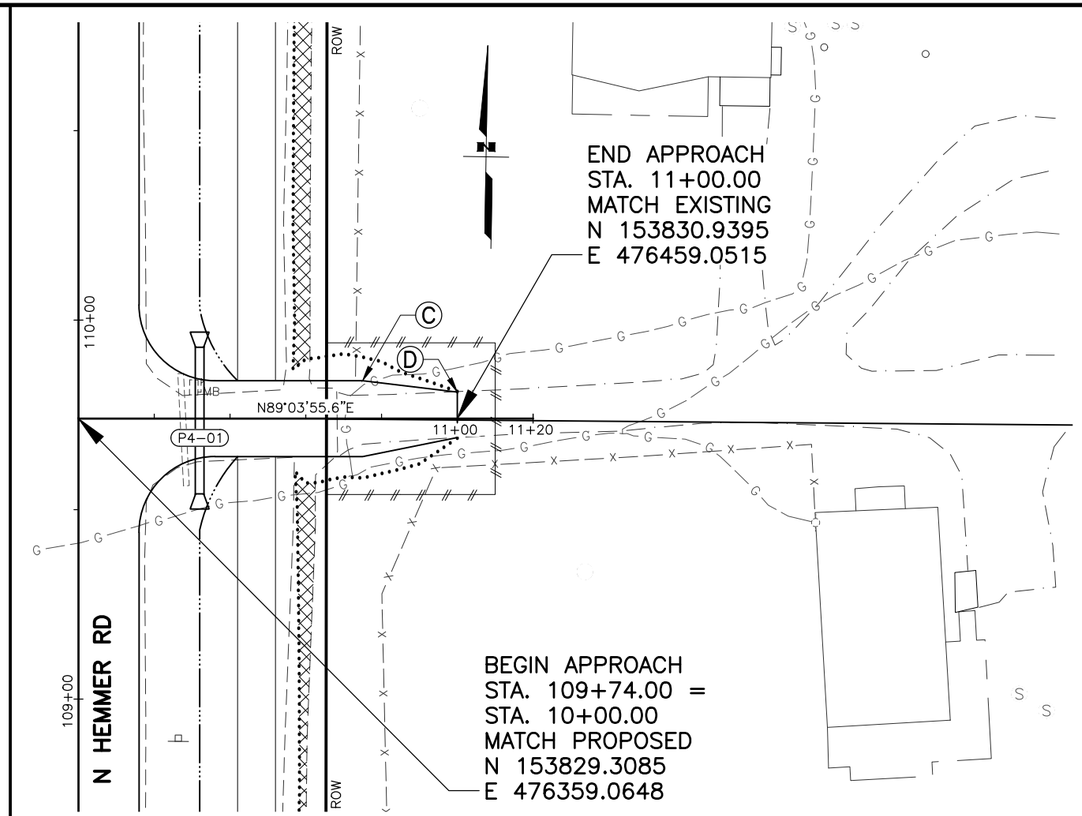
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 105+80 LT
STA. 107+95 RT





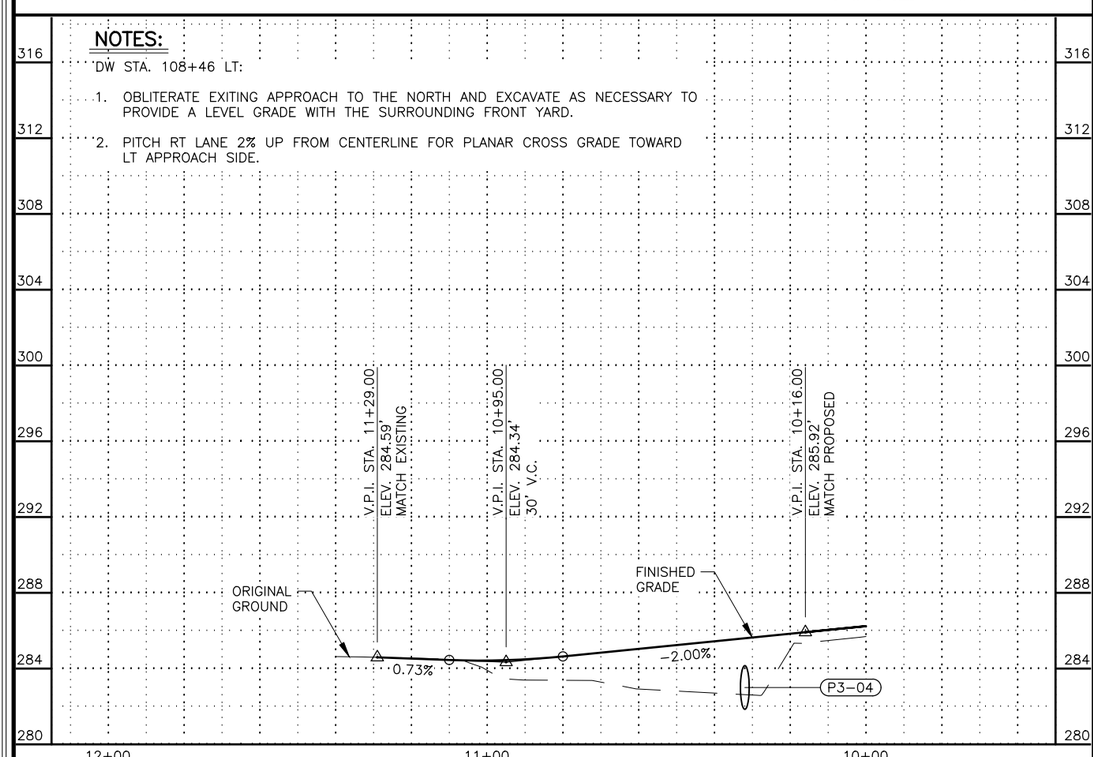
NOTES:

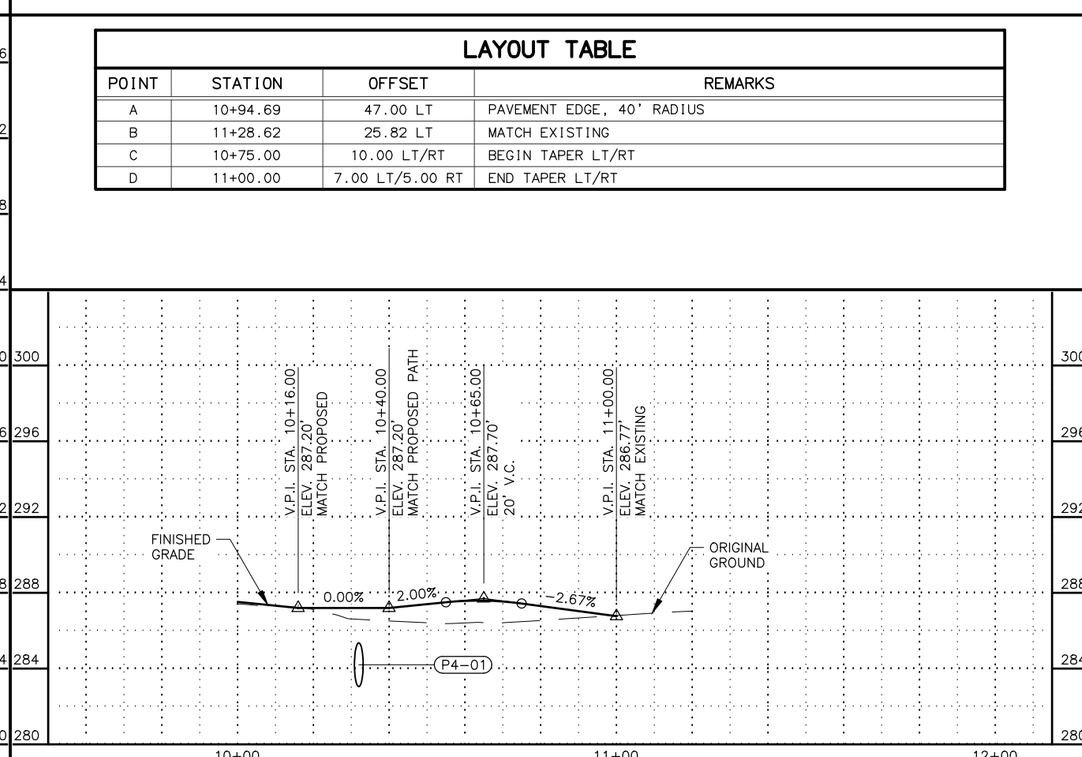
DW STA. 108+46 LT:

1. OBLITERATE EXITING APPROACH TO THE NORTH AND EXCAVATE AS NECESSARY TO PROVIDE A LEVEL GRADE WITH THE SURROUNDING FRONT YARD.
2. PITCH RT LANE 2% UP FROM CENTERLINE FOR PLANAR CROSS GRADE TOWARD LT APPROACH SIDE.

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	10+94.69	47.00 LT	PAVEMENT EDGE, 40' RADIUS
B	11+28.62	25.82 LT	MATCH EXISTING
C	10+75.00	10.00 LT/RT	BEGIN TAPER LT/RT
D	11+00.00	7.00 LT/5.00 RT	END TAPER LT/RT

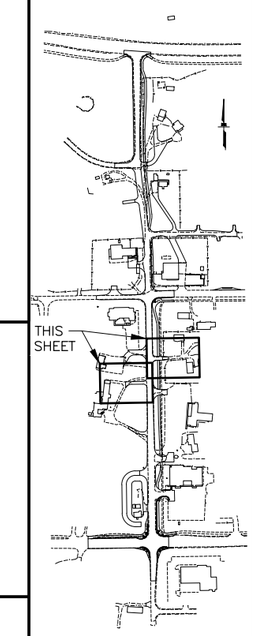




SHEET NO.	TOTAL SHEETS
F13	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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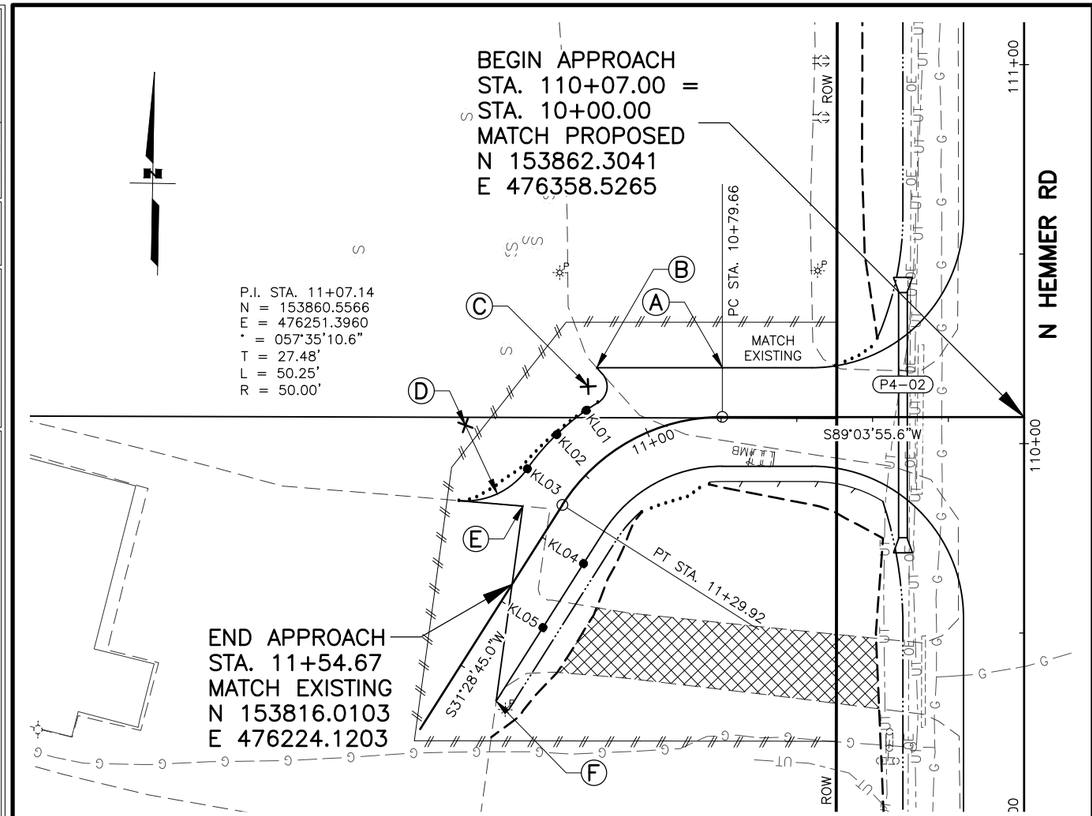
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

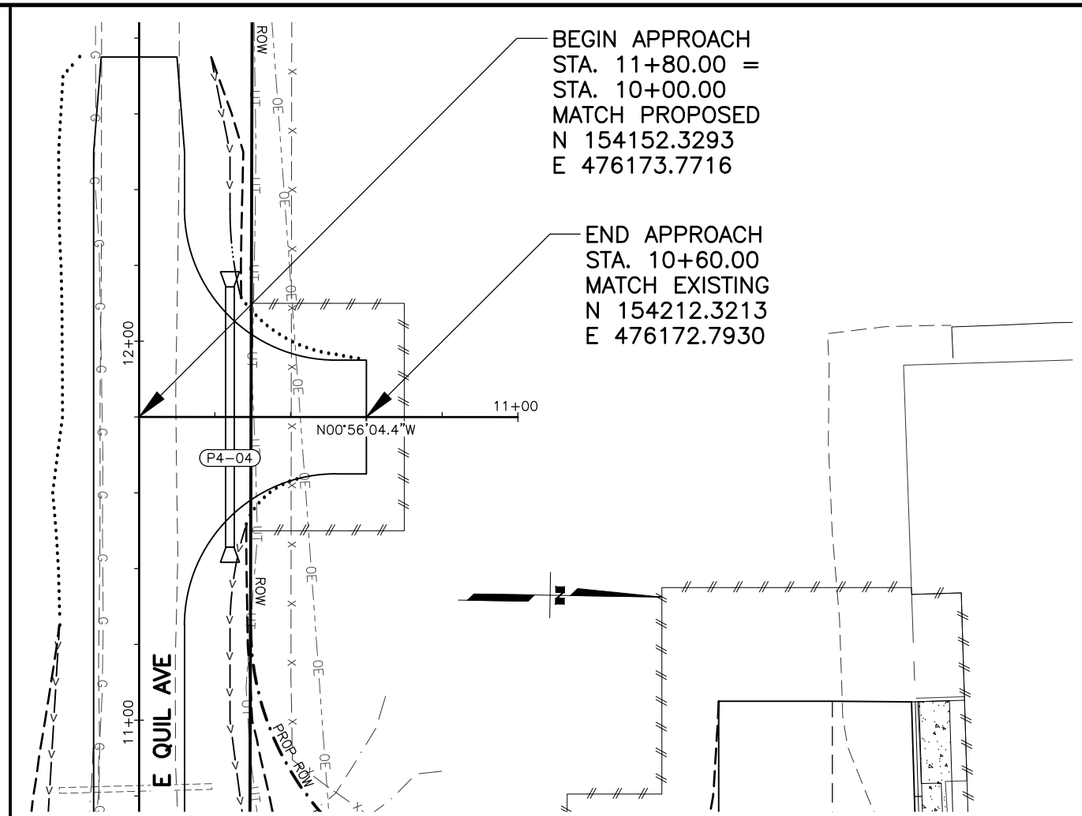
HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 108+46 LT
STA. 109+74 RT

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE 3/10/2025 TIME 10:45 AM
SCALE 1" = 20'
DESIGNED BY ZDK/CRH
CHECKED BY CLE
DRAFTED BY ZDK



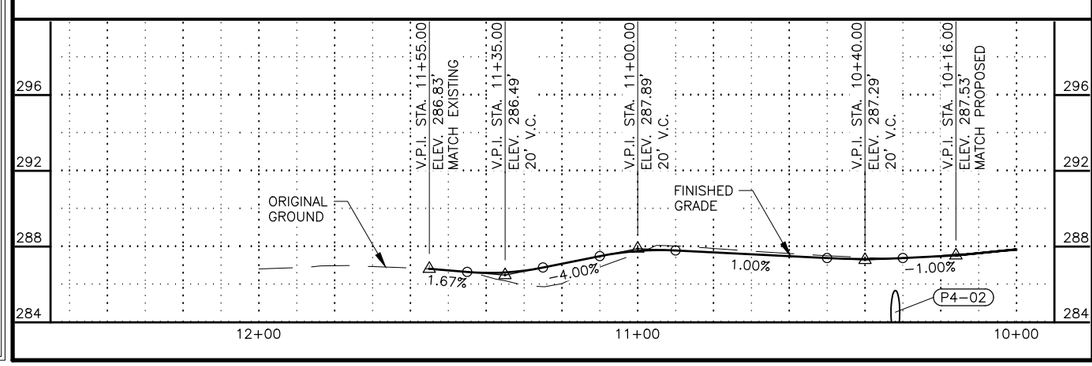


LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	10+79.66	13.00 RT	BEGIN TAPER RT
B	11+03.88	21.19 RT	END TAPER RT
C	11+07.06	18.00 RT	PAVEMENT EDGE, 5' RADUIS
D	11+27.48	33.00 RT	PAVEMENT EDGE, 20' RADIUS
E	11+35.80	8.66 RT	MATCH EXISTING PARKING
F	11+83.00	13.00 RT	MATCH EXISTING PARKING

GRADING TABLE

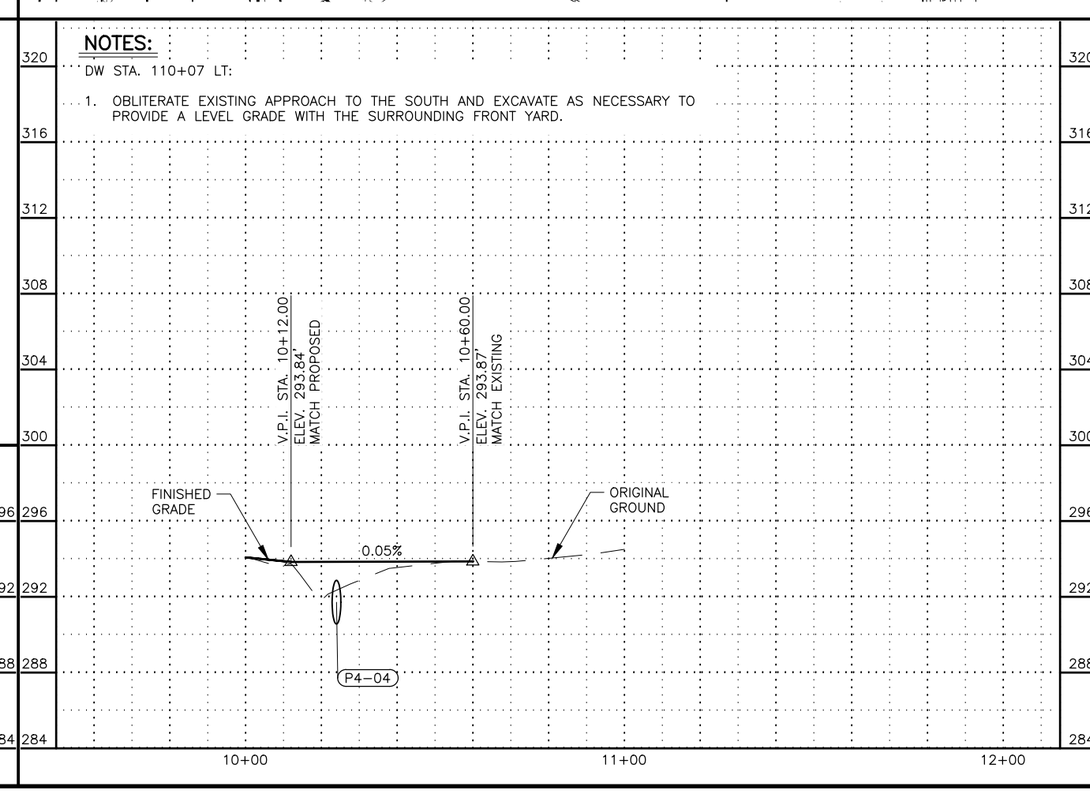
POINT	STATION	OFFSET	ELEVATION	REMARKS
KL01	11+10.00	13.00 RT	287.82	
KL02	11+18.00	13.00 RT	287.45	
KL03	11+27.48	13.00 RT	287.00	PC
KL04	11+40.00	13.00 LT	286.35	
KL05	11+60.00	13.00 LT	286.61	



NOTES:

DW STA. 110+07 LT:

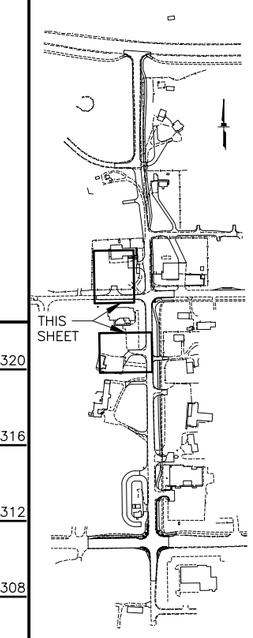
1. OBLITERATE EXISTING APPROACH TO THE SOUTH AND EXCAVATE AS NECESSARY TO PROVIDE A LEVEL GRADE WITH THE SURROUNDING FRONT YARD.



SHEET NO.	TOTAL SHEETS
F14	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 110+07 LT
QUIL STA. 11+80 RT

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE 3/10/2025 TIME 10:45 AM
SCALE 1" = 20'
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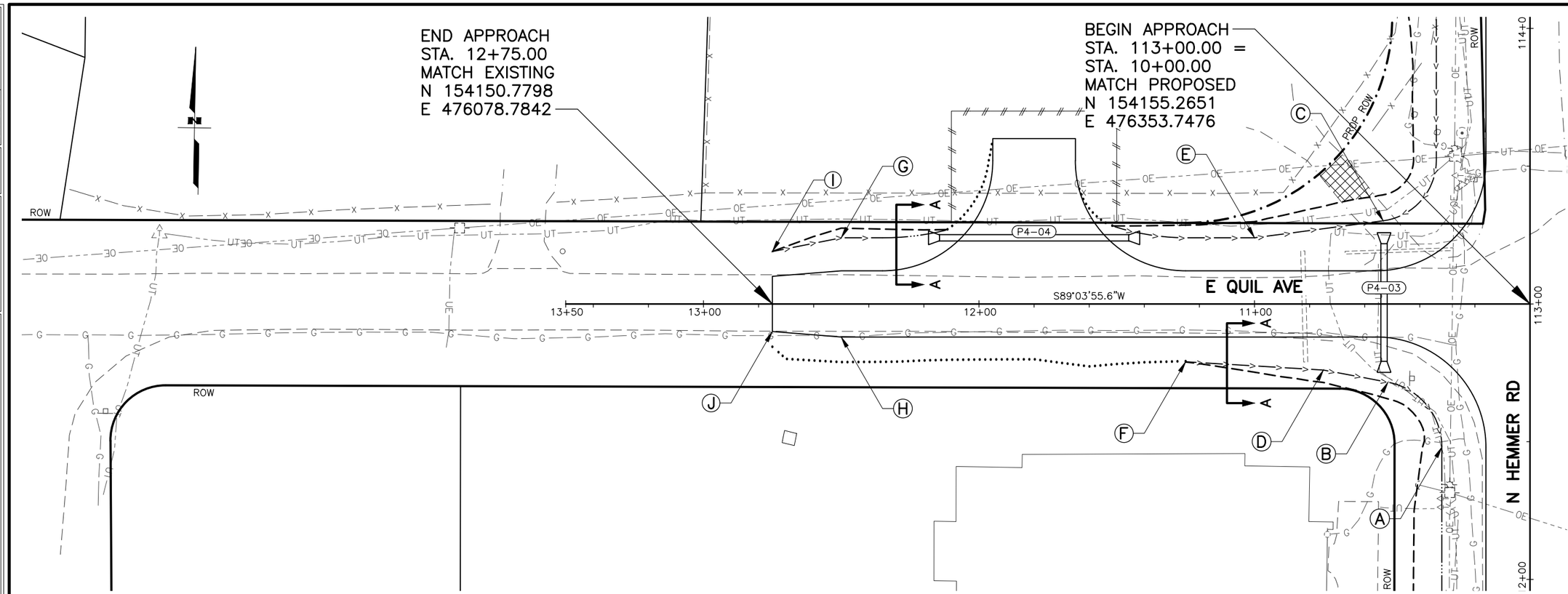
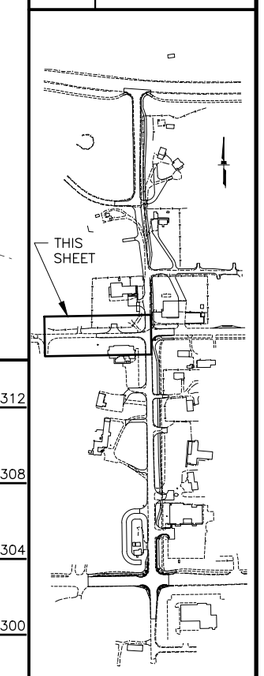


SHEET NO.	TOTAL SHEETS
F15	F22
STATE	YEAR
ALASKA	2027

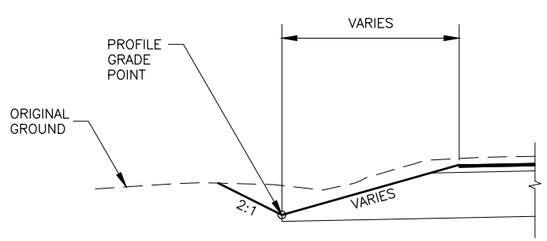
PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

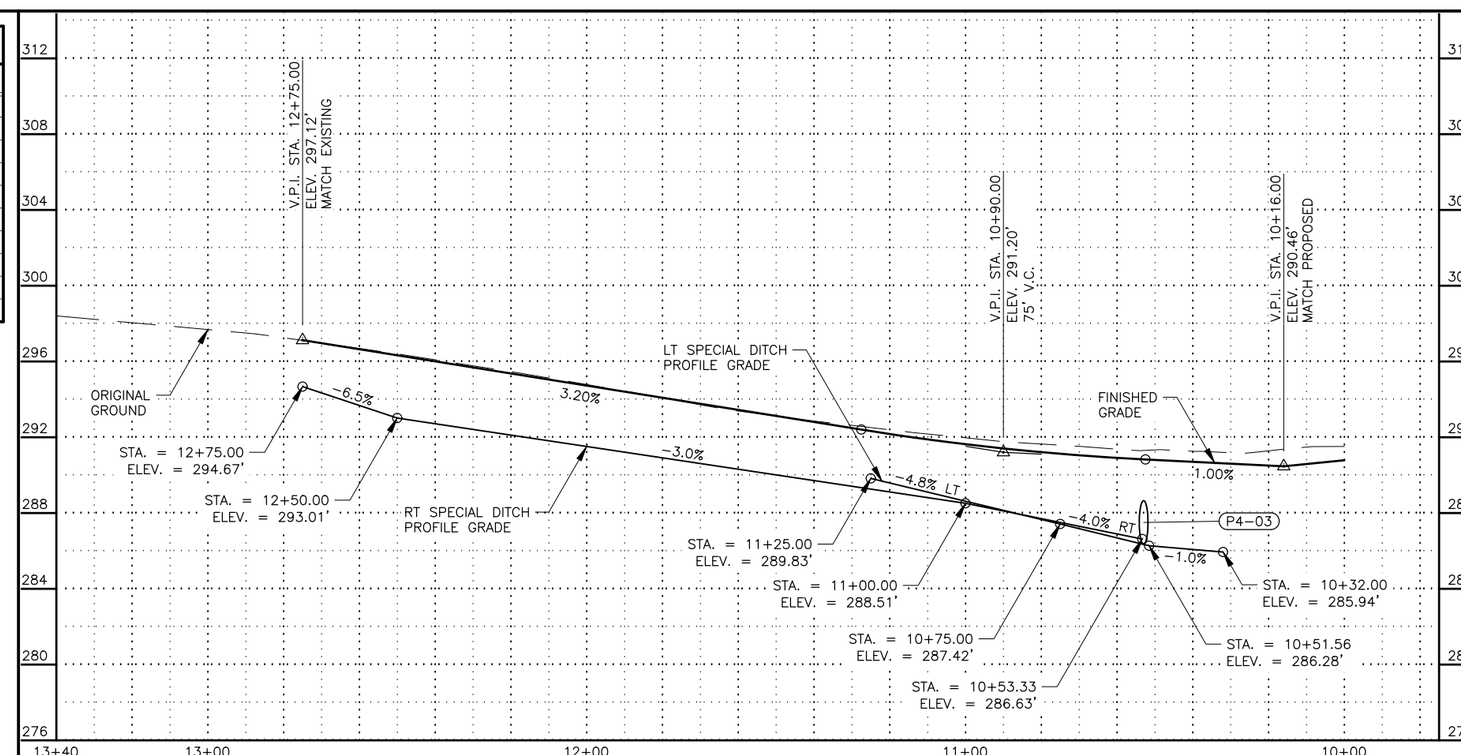


LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	10+32.00	52.00 LT	END SPECIAL DITCH LT
B	10+51.56	28.41 LT	SPECIAL DITCH LT
C	10+53.33	30.16 RT	END SPECIAL DITCH RT
D	10+75.00	24.00 LT	SPECIAL DITCH LT
E	11+00.00	24.00 RT	SPECIAL DITCH RT
F	11+25.00	21.00 LT	BEGIN SPECIAL DITCH LT
G	12+50.00	24.00 RT	SPECIAL DITCH RT
H	12+50.00	12.00 LT/RT	BEGIN TAPER LT/RT
I	12+75.00	19.00 RT	BEGIN SPECIAL DITCH RT
J	12+75.00	10.00 LT/RT	END TAPER LT/RT



SECTION A–A



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 113+00 LT
E QUIL AVE

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

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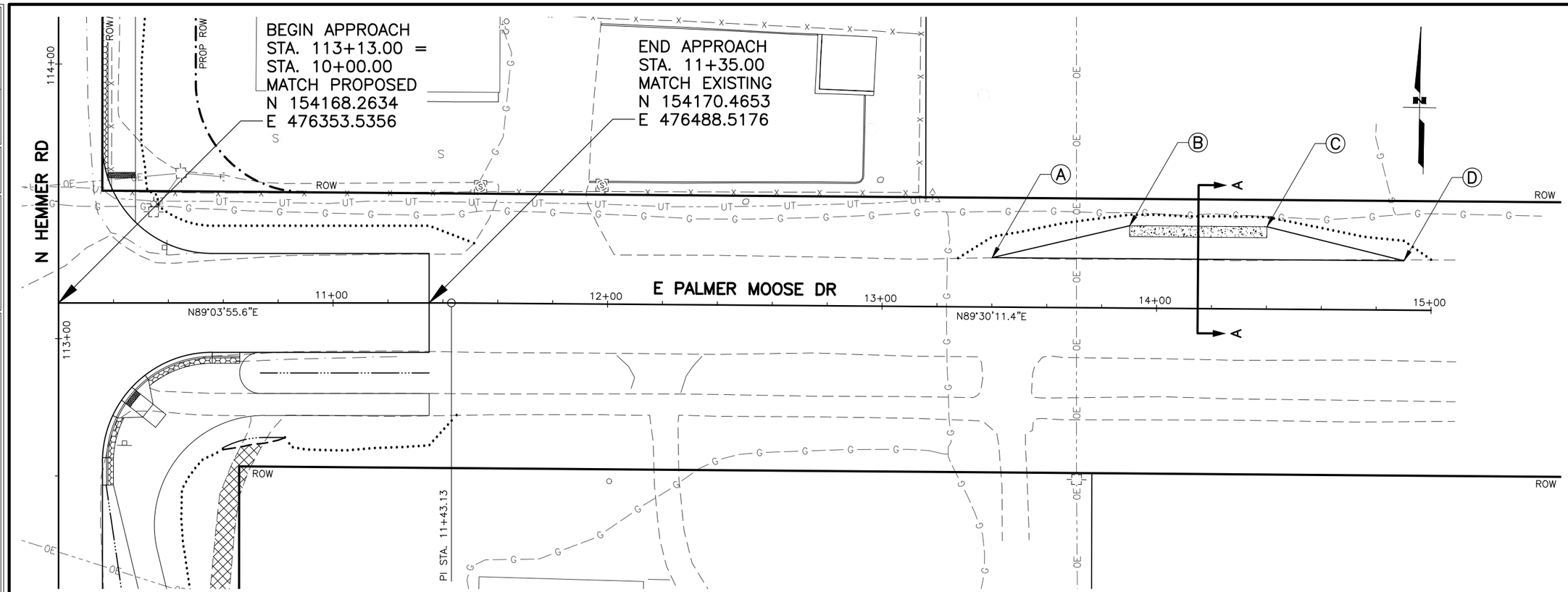
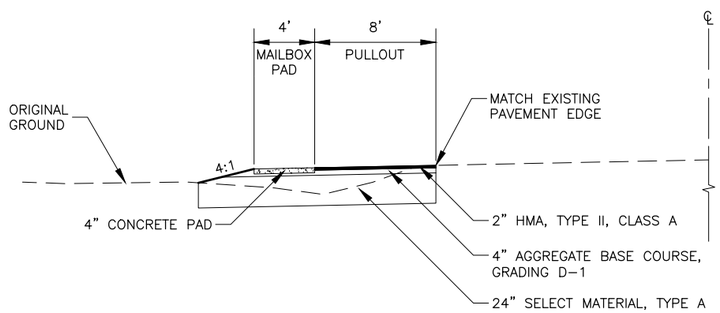
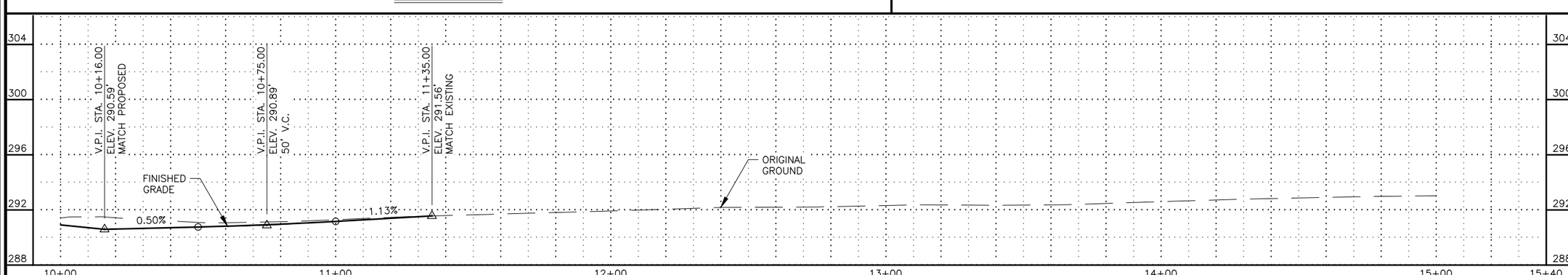




SECTION A–A

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	13+40.00	18.00 LT	BEGIN MAILBOX PULLOUT TAPER
B	13+90.00	30.00 LT	END MAILBOX PULLOUT TAPER, BEGIN MAILBOX CONCRETE PAD
C	14+40.00	30.00 LT	BEGIN MAILBOX PULLOUT TAPER, END MAILBOX CONCRETE PAD
D	14+90.00	18.00 LT	END MAILBOX PULLOUT TAPER



SHEET NO.	TOTAL SHEETS
F16	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
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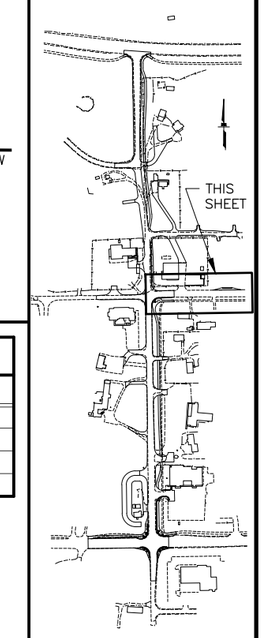
DATE	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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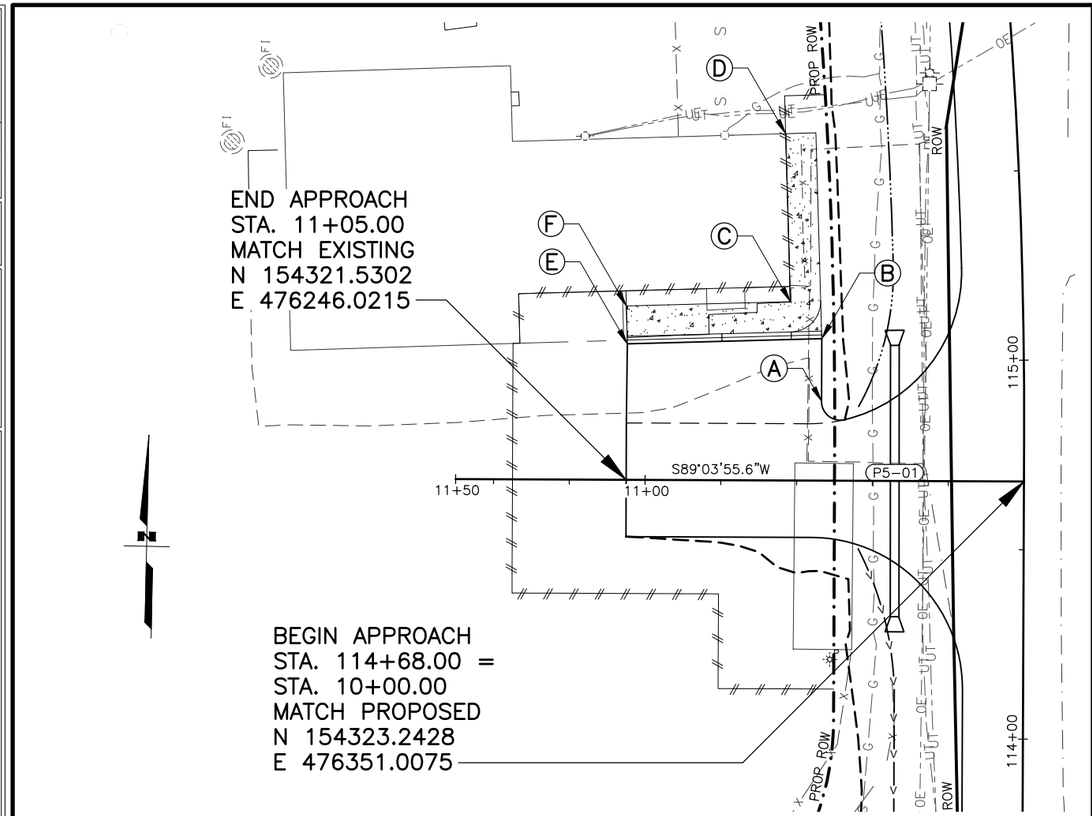
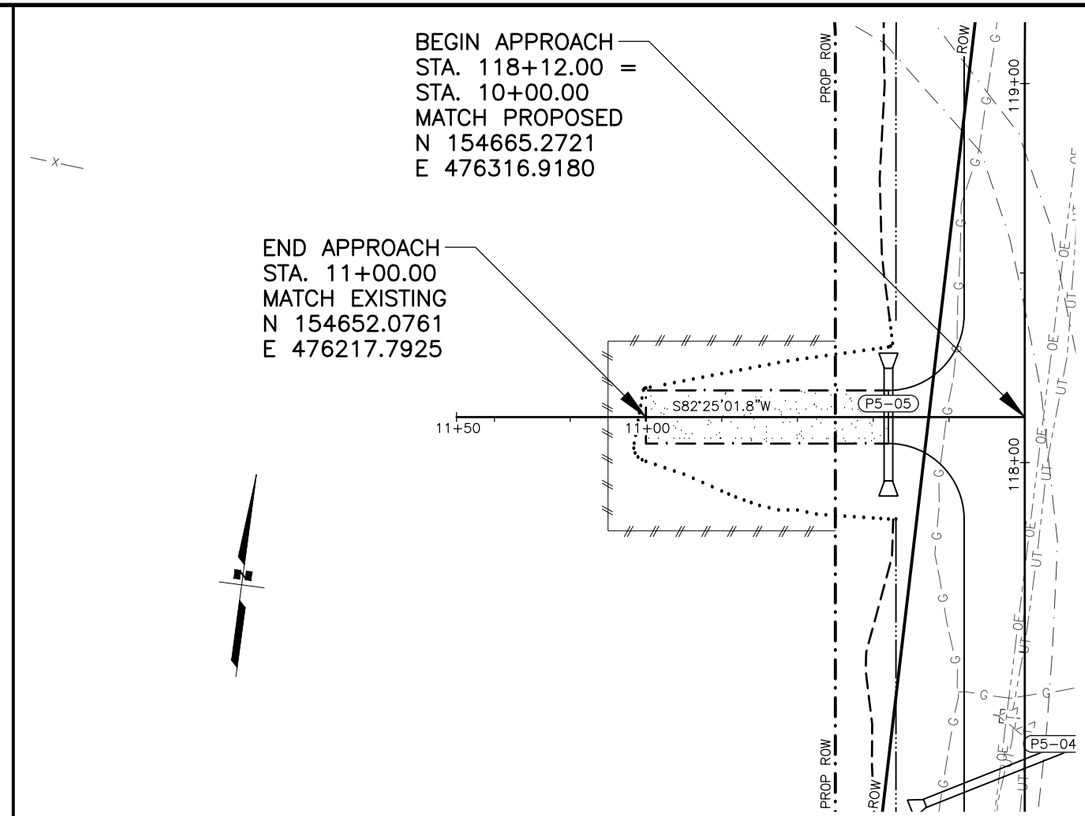
HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 113+13 RT E
PALMER MOOSE DR

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:45 AM	1" = 20'	ZDK	CLE	ZDK





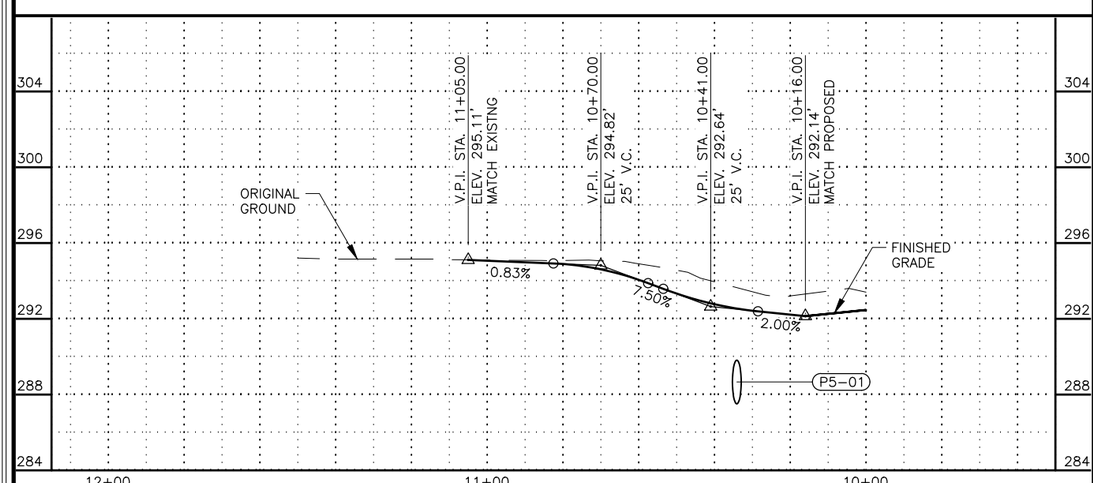
LAYOUT TABLE

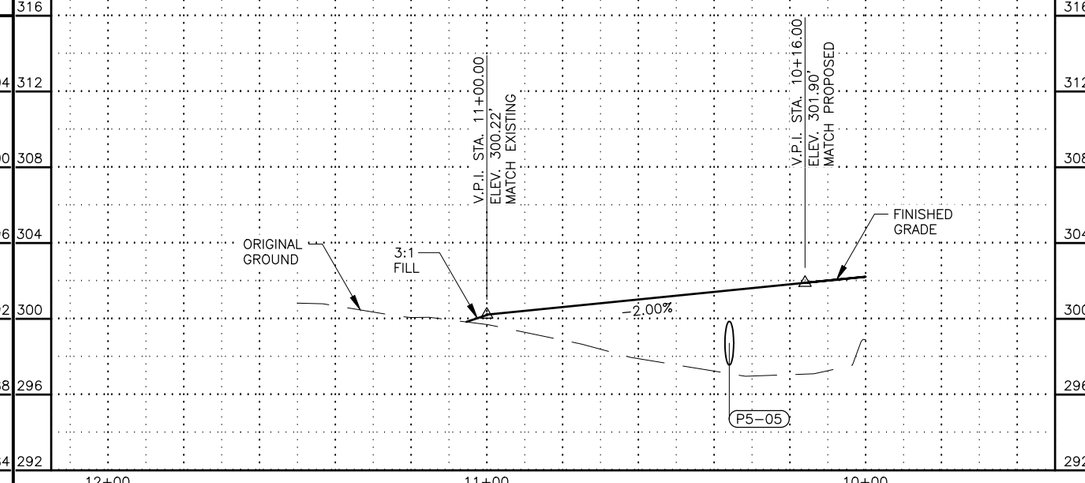
POINT	STATION	OFFSET	REMARKS
A	10+53.51	20.97 RT	PAVEMENT EDGE, PARKING AREA
B	10+53.51	37.45 RT	PAVEMENT EDGE, PARKING AREA
C	10+61.83	47.20 RT	BACK OF SIDEWALK
D	10+63.27	91.52 RT	BACK OF SIDEWALK, END OF BUILDING FRONT
E	11+04.83	35.88 RT	PAVEMENT EDGE, PARKING AREA
F	11+05.13	45.88 RT	BACK OF SIDEWALK, LOADING BAY

NOTES:

DW STA. 114+68 LT:

1. SEE G SHEET GRADING PLANS FOR MORE INFORMATION.

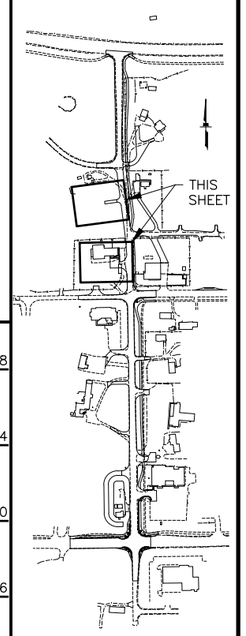




SHEET NO.	TOTAL SHEETS
F17	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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4111 AVIATION AVENUE
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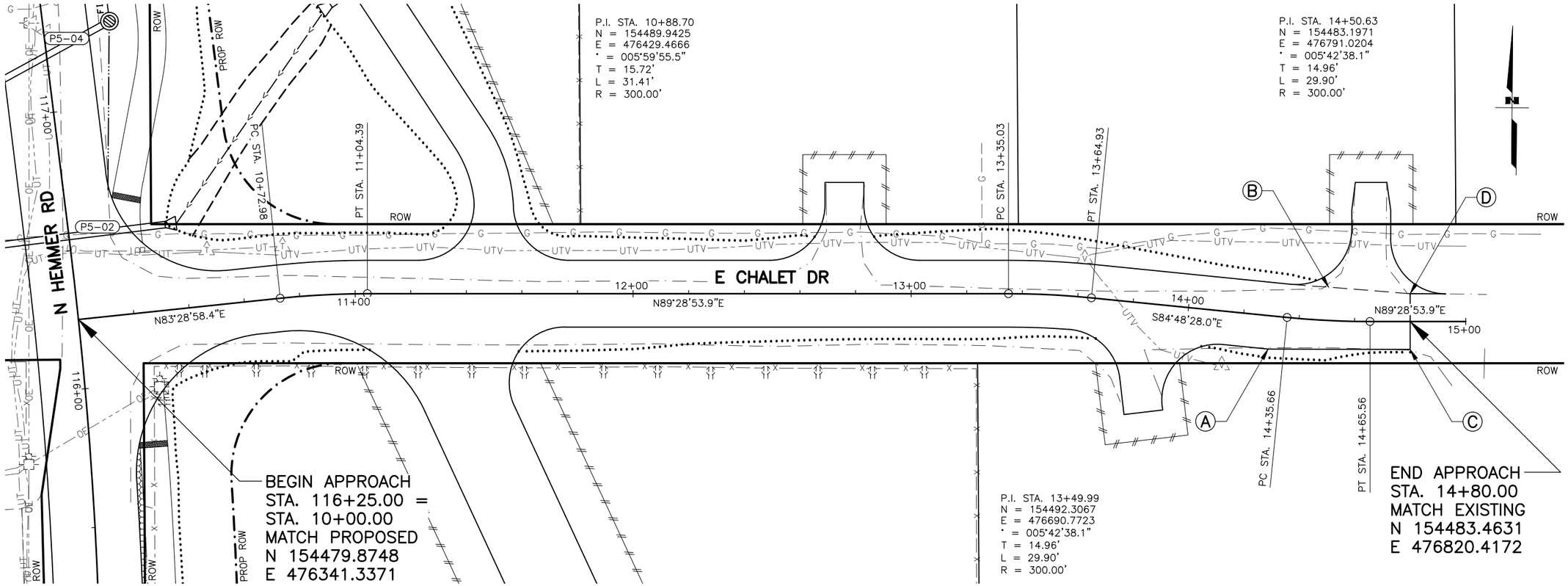
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

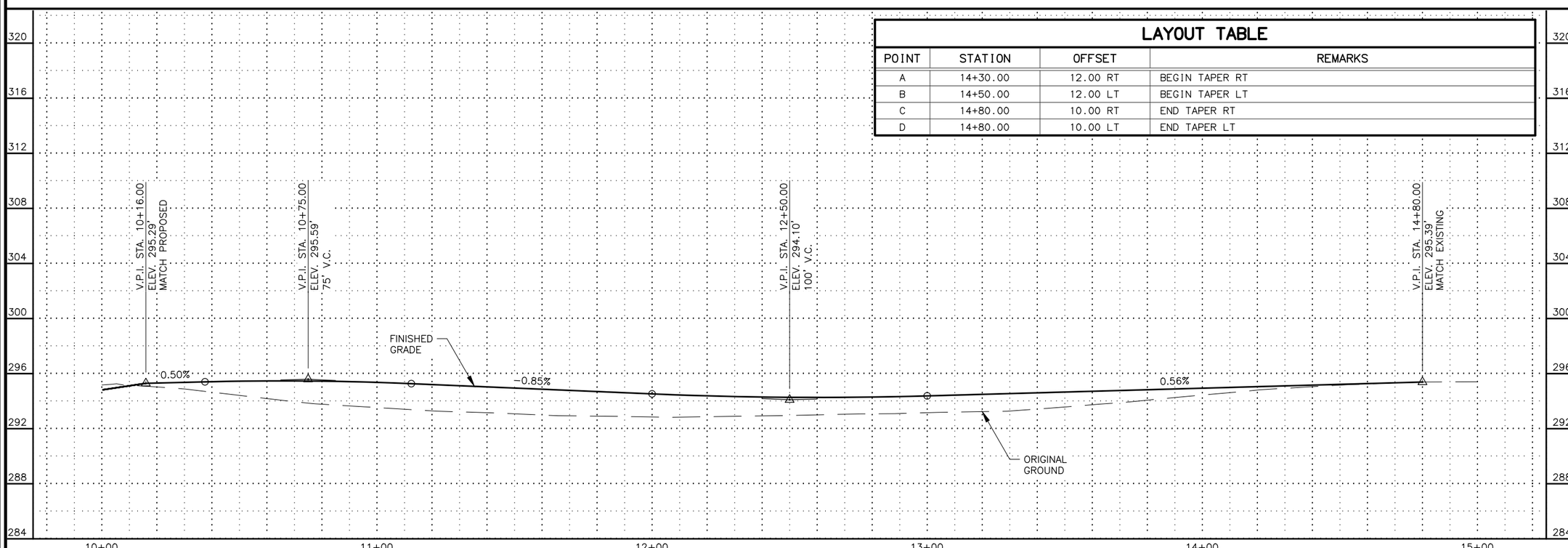
DW PLAN & PROFILE
STA. 114+85 LT
STA. 118+12 LT

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:46 AM	1" = 20'	ZDK/CRH	CLE	ZDK



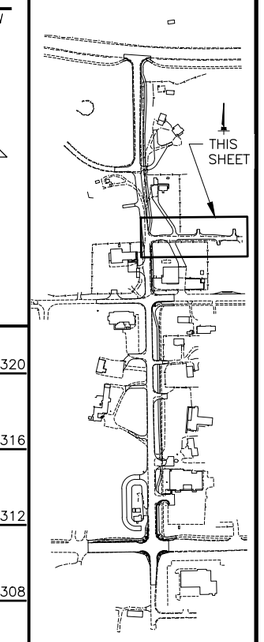
LAYOUT TABLE			
POINT	STATION	OFFSET	REMARKS
A	14+30.00	12.00 RT	BEGIN TAPER RT
B	14+50.00	12.00 LT	BEGIN TAPER LT
C	14+80.00	10.00 RT	END TAPER RT
D	14+80.00	10.00 LT	END TAPER LT



SHEET NO.	TOTAL SHEETS
F18	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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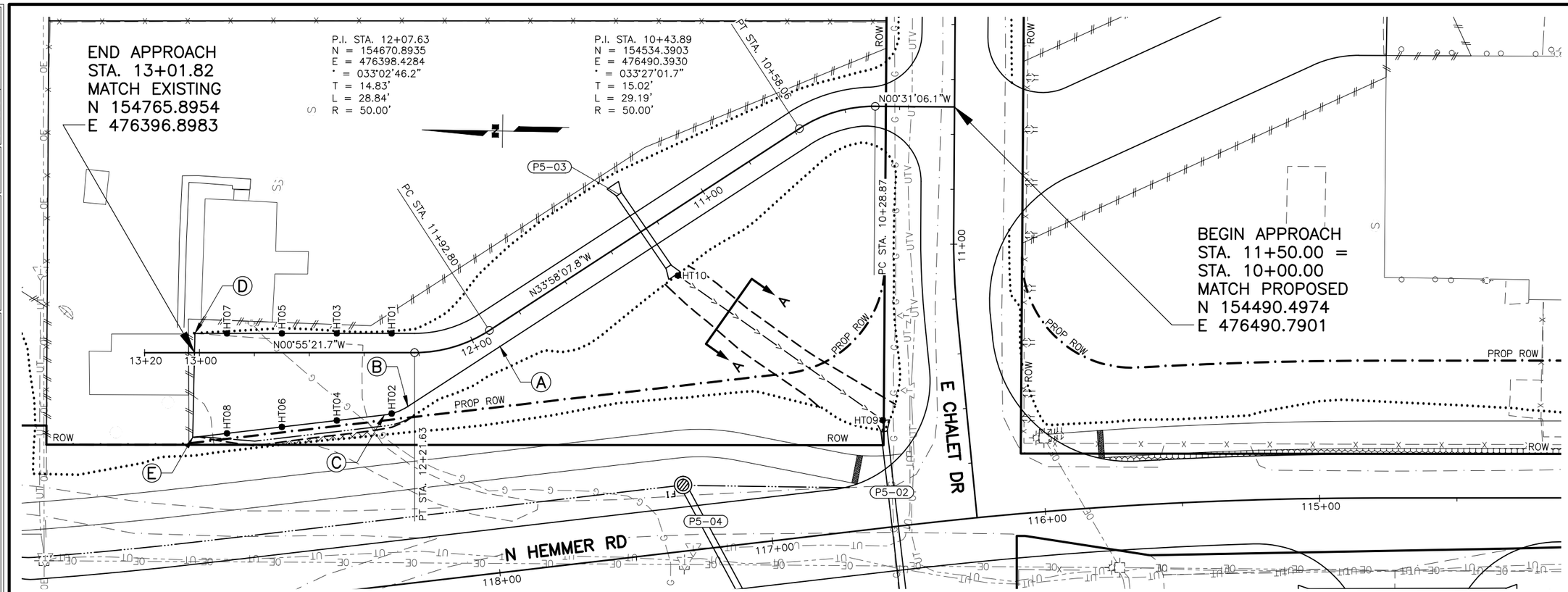
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 116+25 RT
E CHALET DR

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

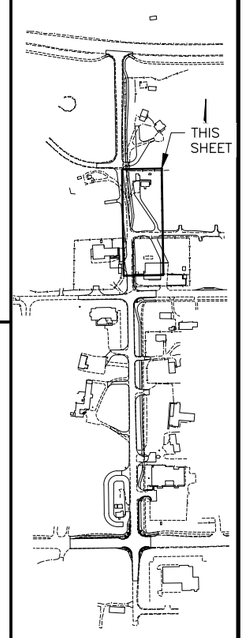
DATE 3/10/2025 TIME 10:46 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK



SHEET NO.	TOTAL SHEETS
F19	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

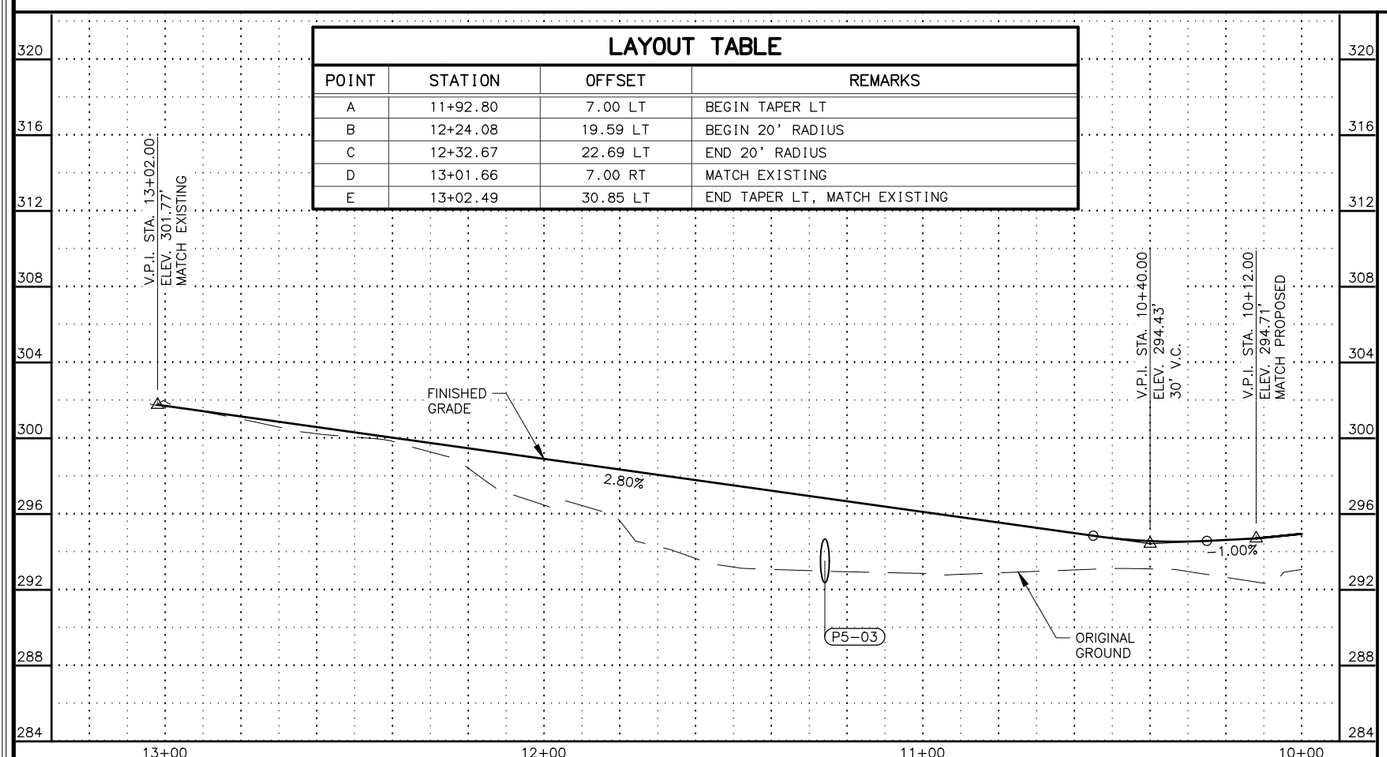


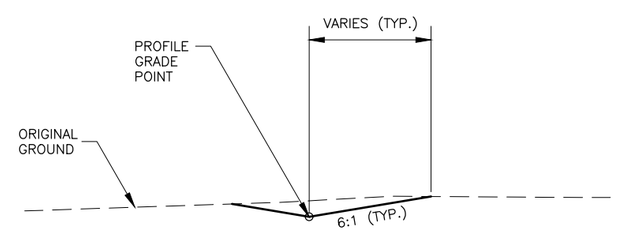
LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	11+92.80	7.00 LT	BEGIN TAPER LT
B	12+24.08	19.59 LT	BEGIN 20' RADIUS
C	12+32.67	22.69 LT	END 20' RADIUS
D	13+01.66	7.00 RT	MATCH EXISTING
E	13+02.49	30.85 LT	END TAPER LT, MATCH EXISTING

GRADING TABLE

POINT	STATION	OFFSET	ELEVATION	REMARKS
HT01	12+30.00	7.00 RT	310.74	
HT02	12+30.00	22.20 LT	310.66	
HT03	12+50.00	7.00 RT	310.54	
HT04	12+50.00	24.72 LT	310.45	
HT05	12+70.00	7.00 RT	310.38	
HT06	12+70.00	27.05 LT	310.32	
HT07	12+90.00	7.00 RT	310.26	
HT08	12+90.00	29.39 LT	310.12	
HT09	116+55.00	39.00 RT	291.51	END SPECIAL DITCH
HT10	117+23.00	100.00 RT	292.42	BEGIN SPECIAL DITCH -1%





SECTION A–A

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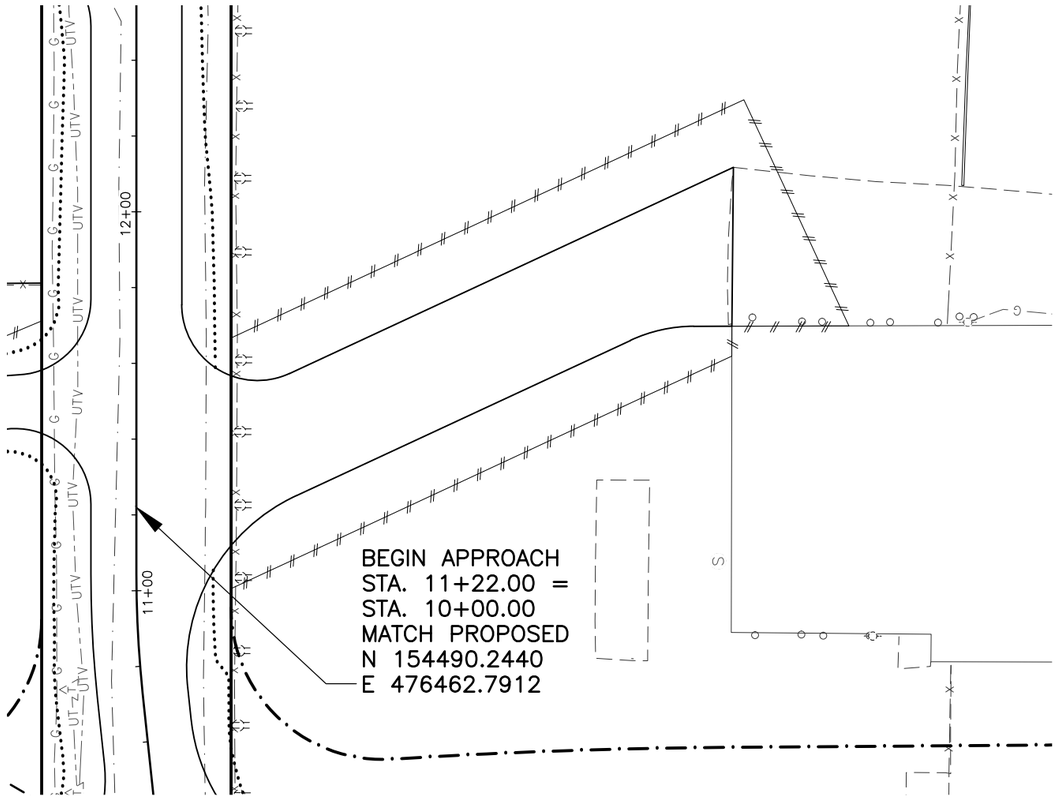
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
CHALET
STA. 11+50 RT

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE 3/10/2025 TIME 10:46 AM
SCALE 1" = 20'
DESIGNED BY ZDK/CRH
CHECKED BY CLE
DRAFTED BY ZDK

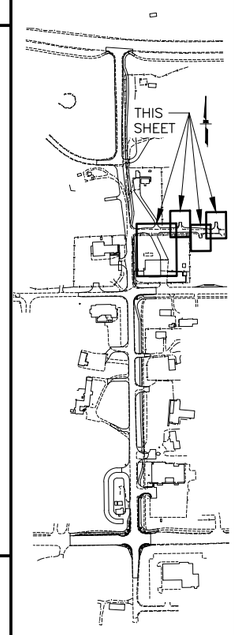


SHEET NO.	TOTAL SHEETS
F20	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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PIR REVIEW

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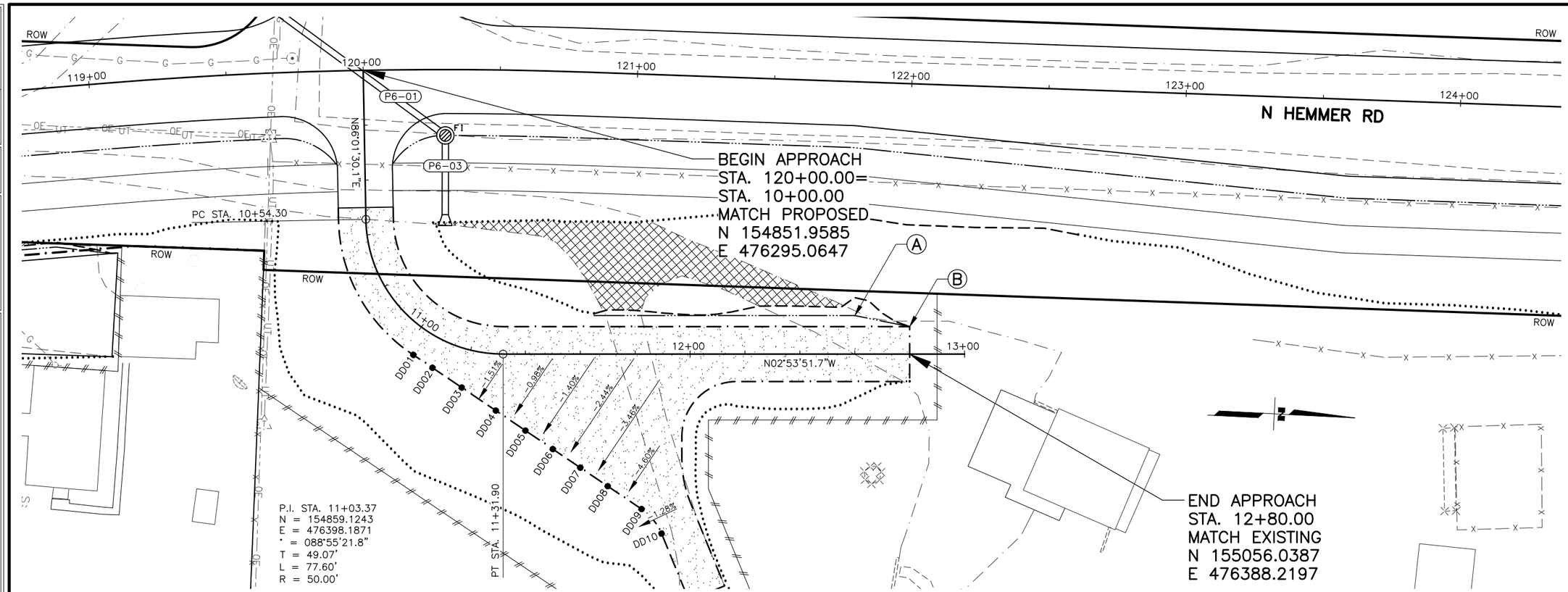
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
CHALET STA. 11+22
RT TO 14+66 LT

DATE	TIME	SCALE	DESIGNED BY	ZDK/CRH
3/10/2025	10:46 AM	1" = 20'	CHECKED BY	CLE
			DRAFTED BY	ZDK

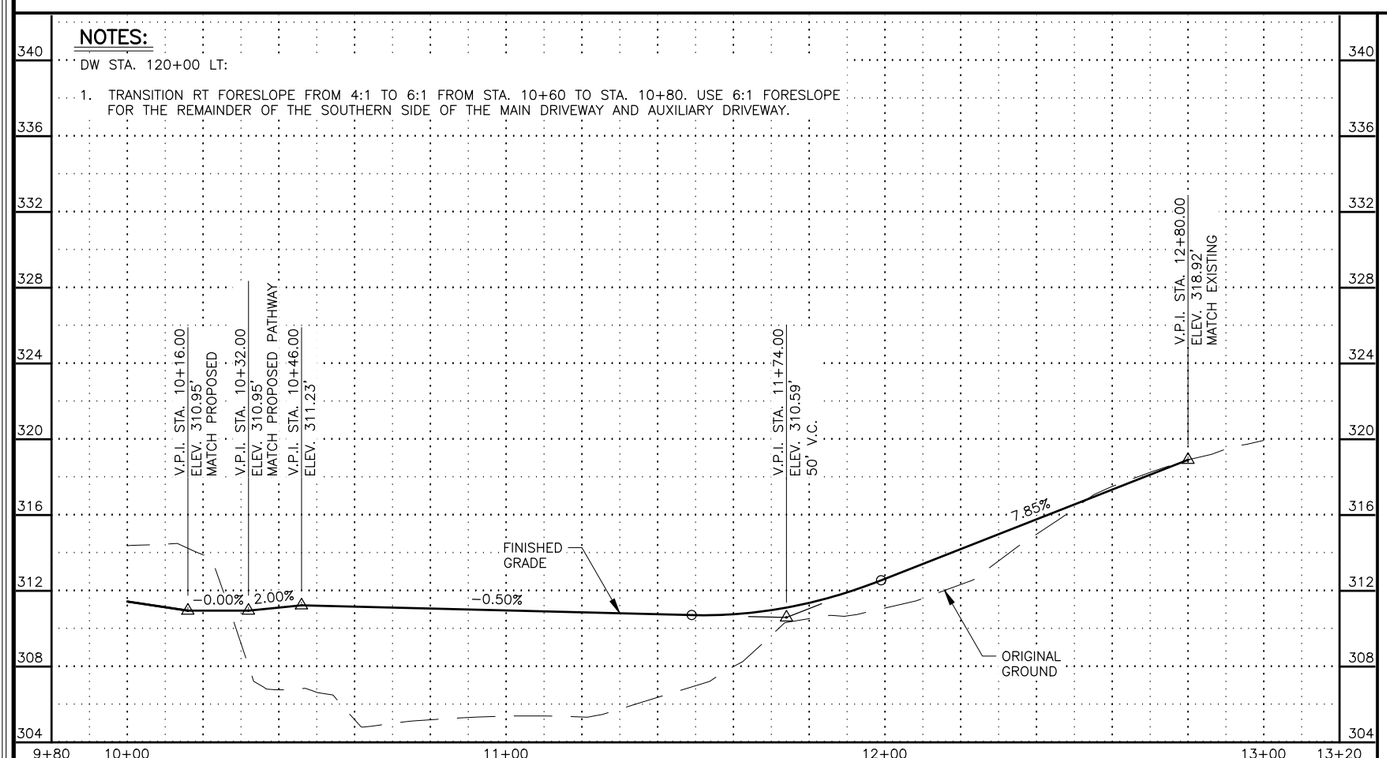
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG



NOTES:

DW STA. 120+00 LT:

1. TRANSITION RT FORESLOPE FROM 4:1 TO 6:1 FROM STA. 10+60 TO STA. 10+80. USE 6:1 FORESLOPE FOR THE REMAINDER OF THE SOUTHERN SIDE OF THE MAIN DRIVEWAY AND AUXILIARY DRIVEWAY.



LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	12+60.00	14.00 LT	BEGIN DITCH TRANSITION
B	12+80.00	10.00 LT	END DITCH TRANSITION

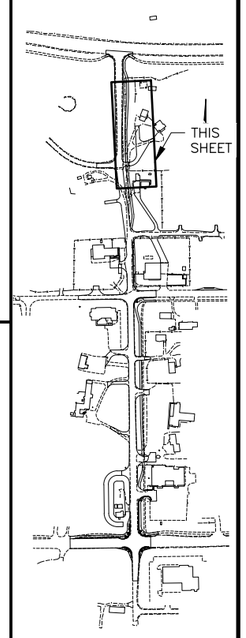
GRADING TABLE

POINT	STATION	OFFSET	ELEVATION	REMARKS
DD01	11+03.07	10.00 RT	310.74	BEGIN TAPER
DD02	11+10.00	10.73 RT	310.66	
DD03	11+20.00	14.00 RT	310.54	
DD04	11+30.00	20.63 RT	310.45	
DD05	11+40.00	27.86 RT	310.38	
DD06	11+50.00	34.62 RT	310.32	
DD07	11+60.00	41.37 RT	310.26	
DD08	11+70.00	48.13 RT	310.12	
DD09	11+82.31	56.44 RT	309.86	BEGIN 20' RADIUS
DD10	11+89.61	65.42 RT	309.36	END 20' RADIUS & TAPER

SHEET NO.	TOTAL SHEETS
F21	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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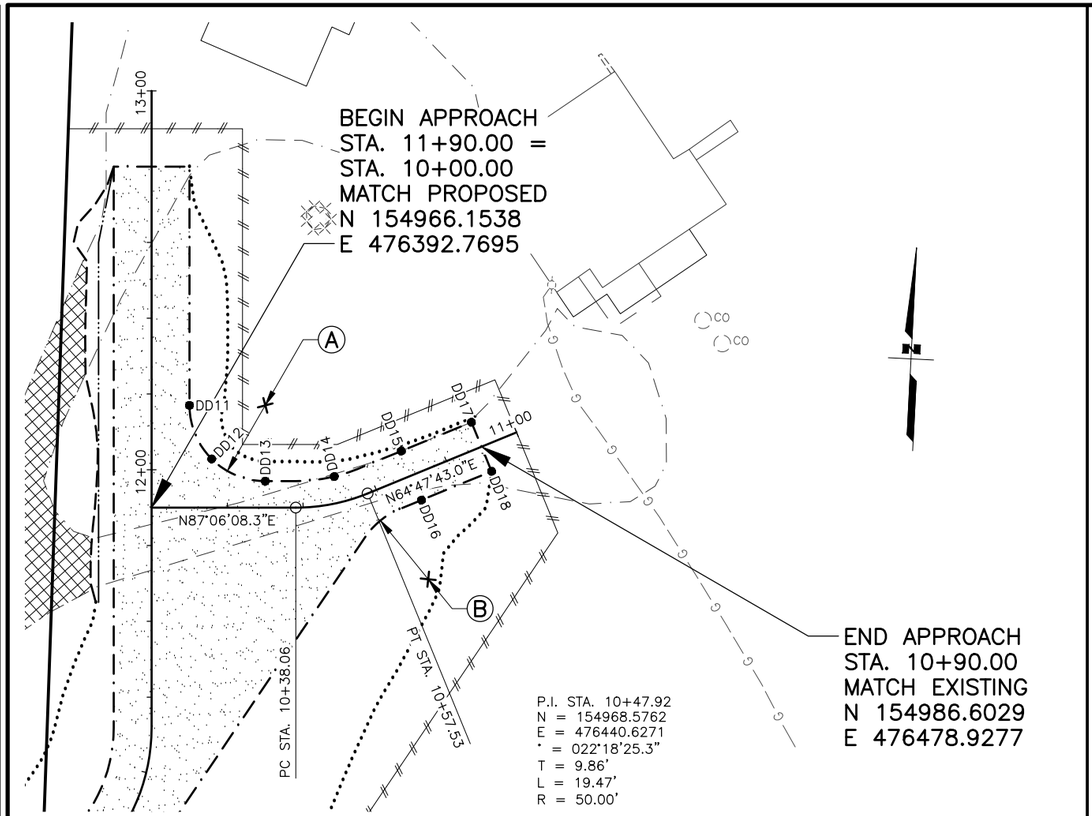
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

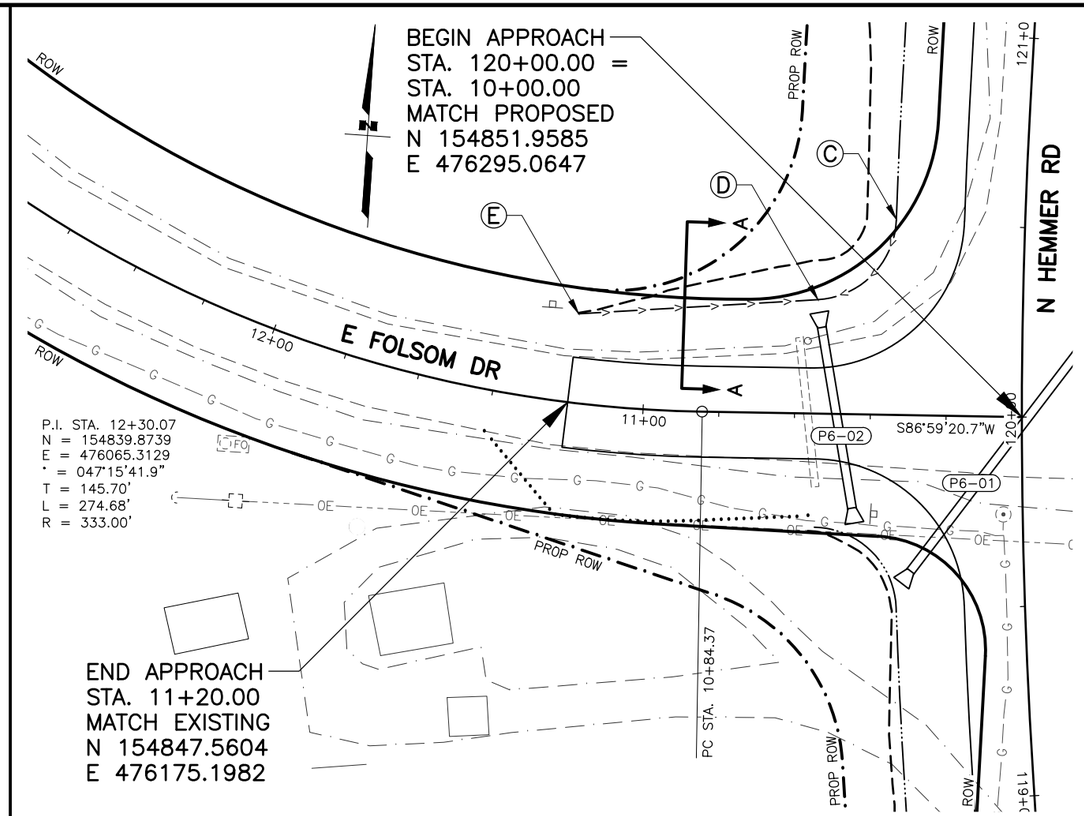
HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW PLAN & PROFILE
STA. 120+00 RT

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE 3/10/2025 TIME 10:46 AM
SCALE 1" = 20'
DESIGNED BY ZDK/CRH
CHECKED BY CLE
DRAFTED BY ZDK

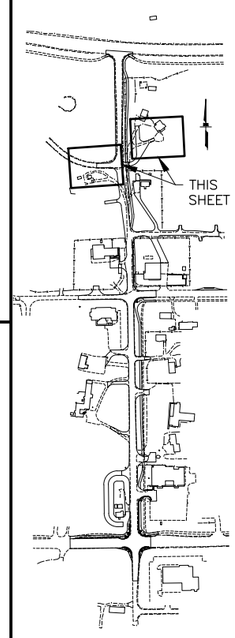




SHEET NO.	TOTAL SHEETS
F22	F22
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



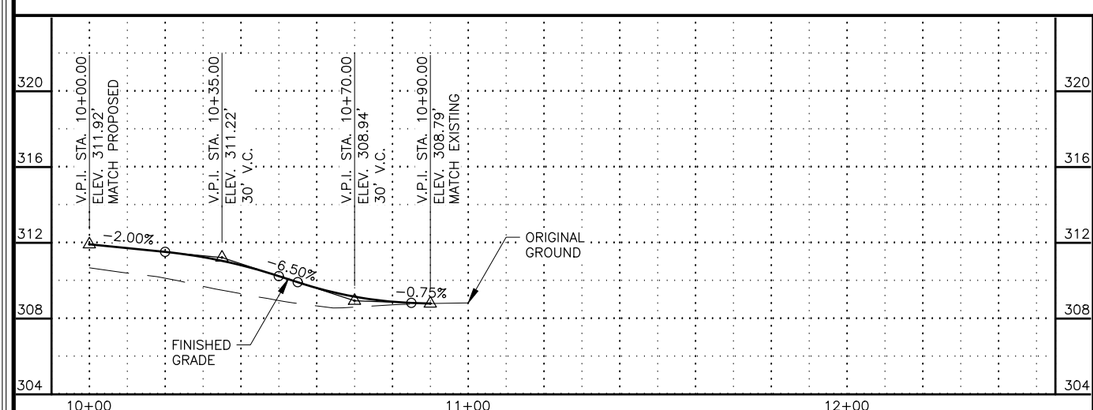
GRADING TABLE

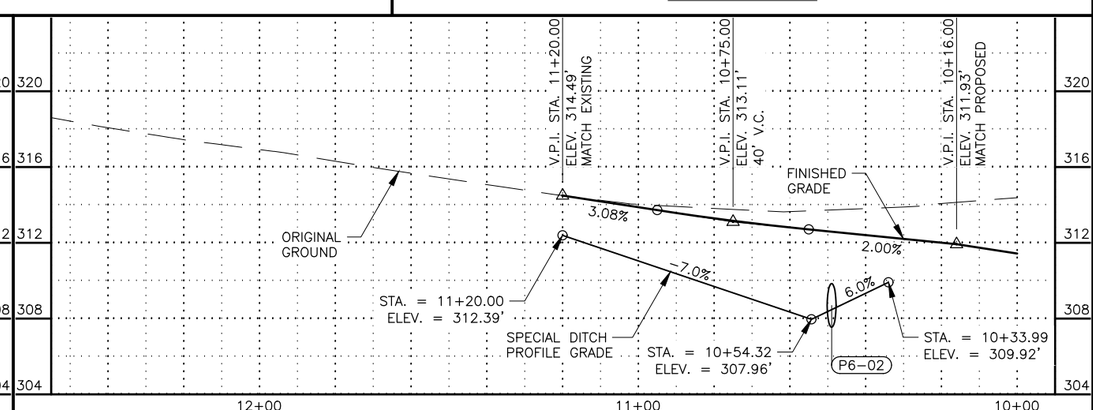
POINT	STATION	OFFSET	ELEVATION	REMARKS
DD11	10+00.00	27.00 LT	313.77	PC
DD12	10+15.86	12.86 LT	312.42	
DD13	10+30.00	7.00 LT	311.38	PT
DD14	10+50.00	7.00 LT	310.38	
DD15	10+70.00	7.00 LT	309.30	
DD16	10+70.00	7.00 RT	309.02	
DD17	10+90.00	7.00 LT	309.22	
DD18	10+90.00	7.00 RT	308.37	

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	10+30.00	27.00 LT	GRAVEL EDGE, 20' RADIUS
B	10+63.71	27.00 RT	GRAVEL EDGE, 20' RADIUS
C	10+33.99	51.62 RT	END SPECIAL DITCH & 22' RADIUS
D	10+54.32	30.06 RT	BEGIN 22' RADIUS
E	11+20.00	23.50 RT	BEGIN SPECIAL DITCH

SECTION A–A





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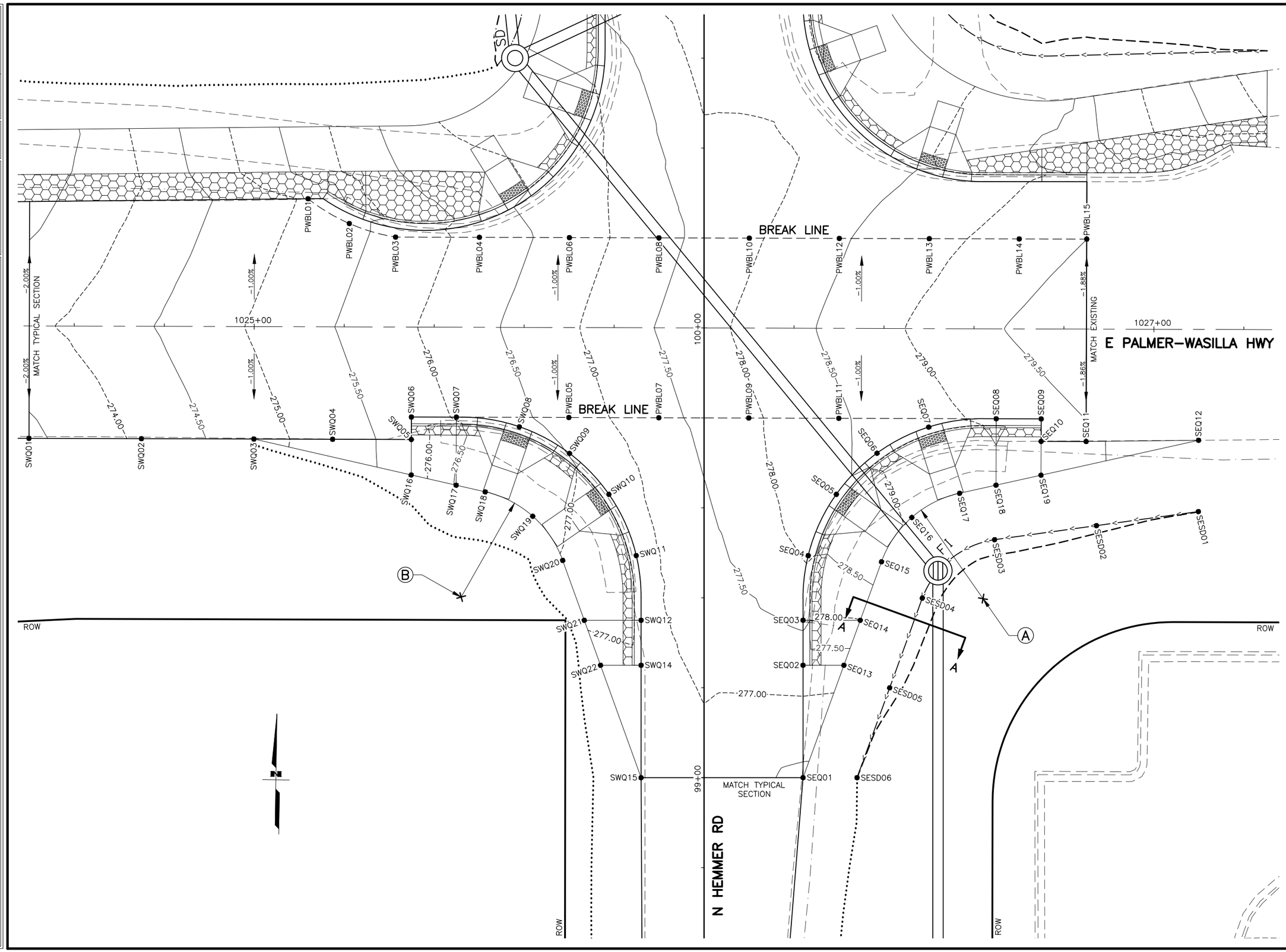
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD
DW PLAN & PROFILE
STA. 120+00 RT A
STA. 120+00 LT
E FOLSOM DR

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_F10_PNP APP.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK/CRH
3/10/2025	10:46 AM	1" = 20'	CHECKED BY	CLE
			DRAFTED BY	ZDK



SHEET NO.	TOTAL SHEETS
G01	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

STATE OF ALASKA
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REGISTERED PROFESSIONAL ENGINEER

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PALMER-WASILLA &
HEMMER SOUTH INT
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:47 AM	1" = 10'	CHECKED BY	CLE
			DRAFTED BY	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

SW QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SWQ01					
SWQ02					
SWQ03					
SWQ04					
SWQ05					
SWQ06					
SWQ07					
SWQ08					
SWQ09					
SWQ10					
SWQ11					
SWQ12					
SWQ13					
SWQ14					
SWQ15					
SWQ16					
SWQ17					
SWQ18					
SWQ19					
SWQ20					
SWQ21					
SWQ22					

SE QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SEQ01					
SEQ02					
SEQ03					
SEQ04					
SEQ05					
SEQ06					
SEQ07					
SEQ08					
SEQ09					
SEQ10					
SEQ11					
SEQ12					
SEQ13					
SEQ14					
SEQ15					
SEQ16					
SEQ17					
SEQ18					
SEQ19					

PALMER-WASILLA BREAK LINE GRADING POINTS

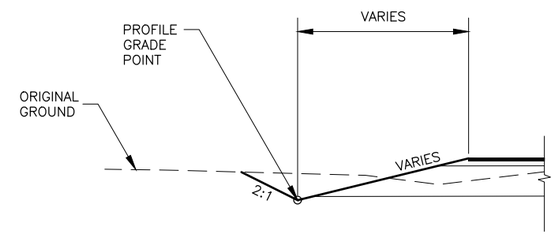
POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PWBL01					
PWBL02					
PWBL03					
PWBL04					
PWBL05					
PWBL06					
PWBL07					
PWBL08					
PWBL09					
PWBL10					
PWBL11					
PWBL12					
PWBL13					
PWBL14					
PWBL15					

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	99+39.81	62.00 RT	PAVEMENT EDGE, 24' RADIUS
B	99+40.16	54.00 LT	PAVEMENT EDGE, 24' RADIUS

SE SPECIAL DITCH GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SESD01					
SESD02					
SESD03					
SESD04					
SESD05					
SESD06					

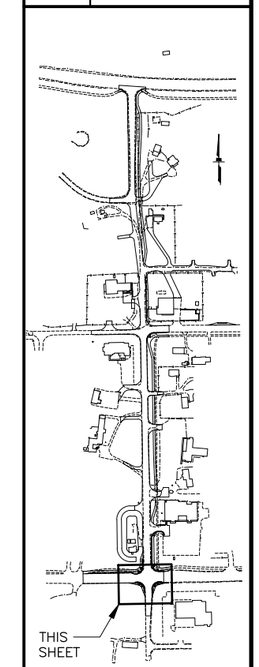


SECTION A–A

SHEET NO.	TOTAL SHEETS
G02	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/ CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
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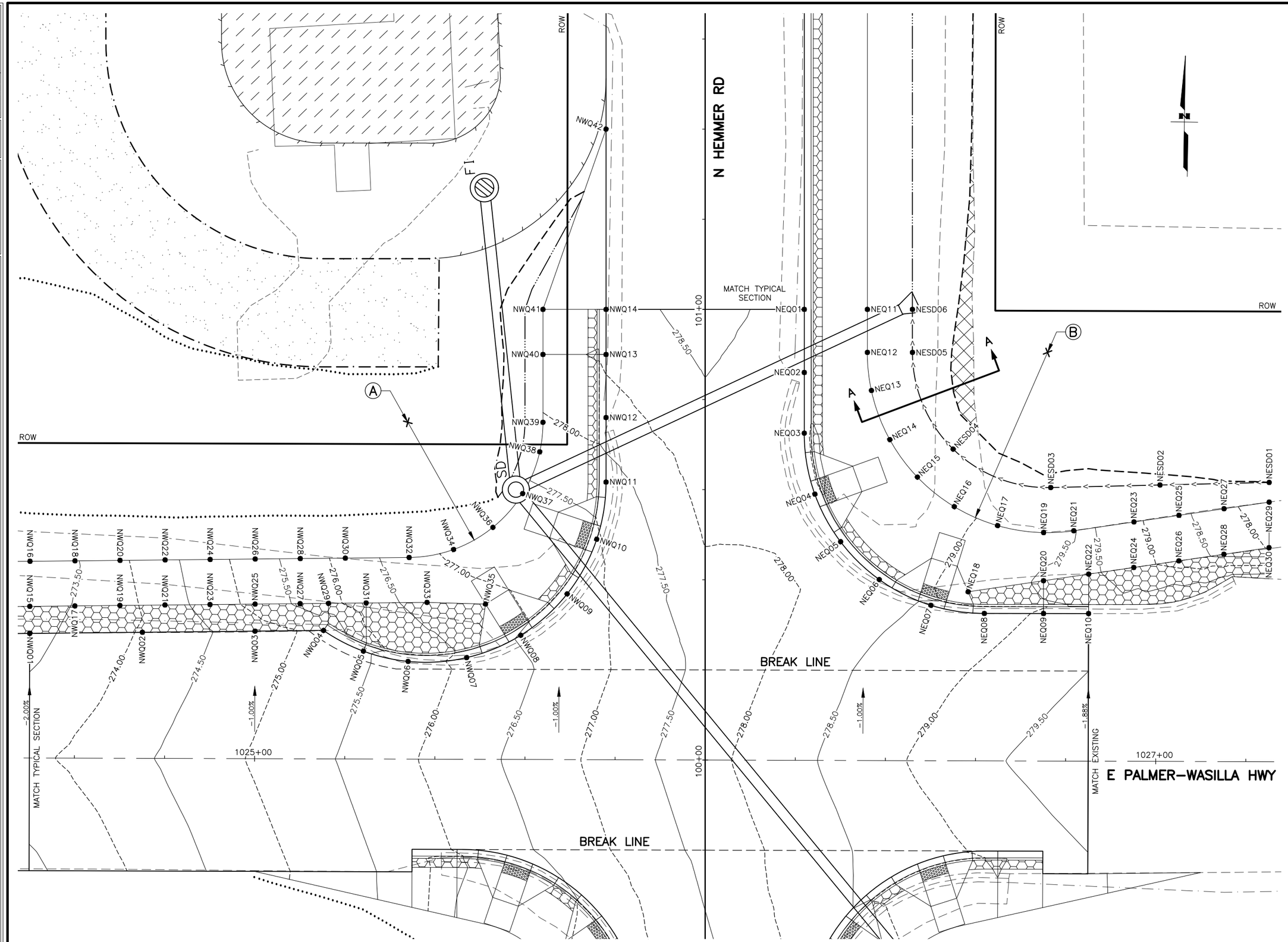
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

PALMER–WASILLA &
HEMMER SOUTH INT
GRADING SUMMARY

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

DATE 3/10/2025 TIME 10:47 AM
SCALE 1" = 10'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

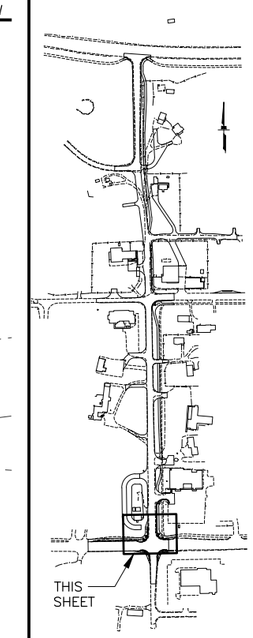


SHEET NO.	TOTAL SHEETS
G03	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

PALMER-WASILLA & HEMMER NORTH INT GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:47 AM	1" = 10'	CHECKED BY	CLE
			DRAFTED BY	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

NW QUADRANT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
NWQ01					
NWQ02					
NWQ03					
NWQ04					
NWQ05					
NWQ06					
NWQ07					
NWQ08					
NWQ09					
NWQ10					
NWQ11					
NWQ12					
NWQ13					
NWQ14					
NWQ15					
NWQ16					
NWQ17					
NWQ18					
NWQ19					
NWQ20					
NWQ21					
NWQ22					
NWQ23					
NWQ24					
NWQ25					
NWQ26					
NWQ27					
NWQ28					
NWQ29					
NWQ30					
NWQ31					
NWQ32					
NWQ33					
NWQ34					
NWQ35					
NWQ36					
NWQ37					
NWQ38					
NWQ39					
NWQ40					
NWQ41					
NWQ42					

NE QUADRANT GRADING POINTS

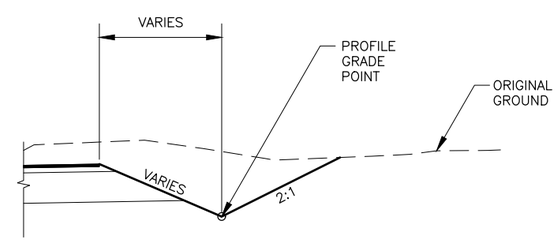
POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
NWQ01					
NWQ02					
NWQ03					
NWQ04					
NWQ05					
NWQ06					
NWQ07					
NWQ08					
NWQ09					
NWQ10					
NWQ11					
NWQ12					
NWQ13					
NWQ14					
NWQ15					
NWQ16					
NWQ17					
NWQ18					
NWQ19					
NWQ20					
NWQ21					
NWQ22					
NWQ23					
NWQ24					
NWQ25					
NWQ26					
NWQ27					
NWQ28					
NWQ29					
NWQ30					

NE SPECIAL DITCH GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
NESD01					
NESD02					
NESD03					
NESD04					
NESD05					
NESD06					

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	100+74.94	66.00 LT	PAVEMENT EDGE, 30' RADIUS
B	100+90.45	76.00 RT	PAVEMENT EDGE, 40' RADIUS



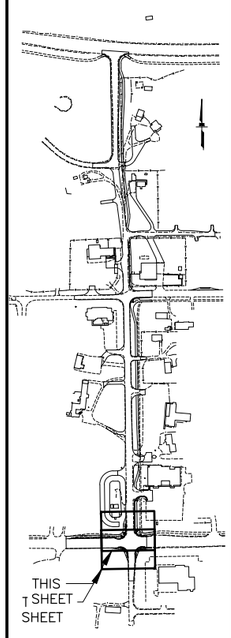
SECTION A–A

SHEET NO.	TOTAL SHEETS
G04	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/ CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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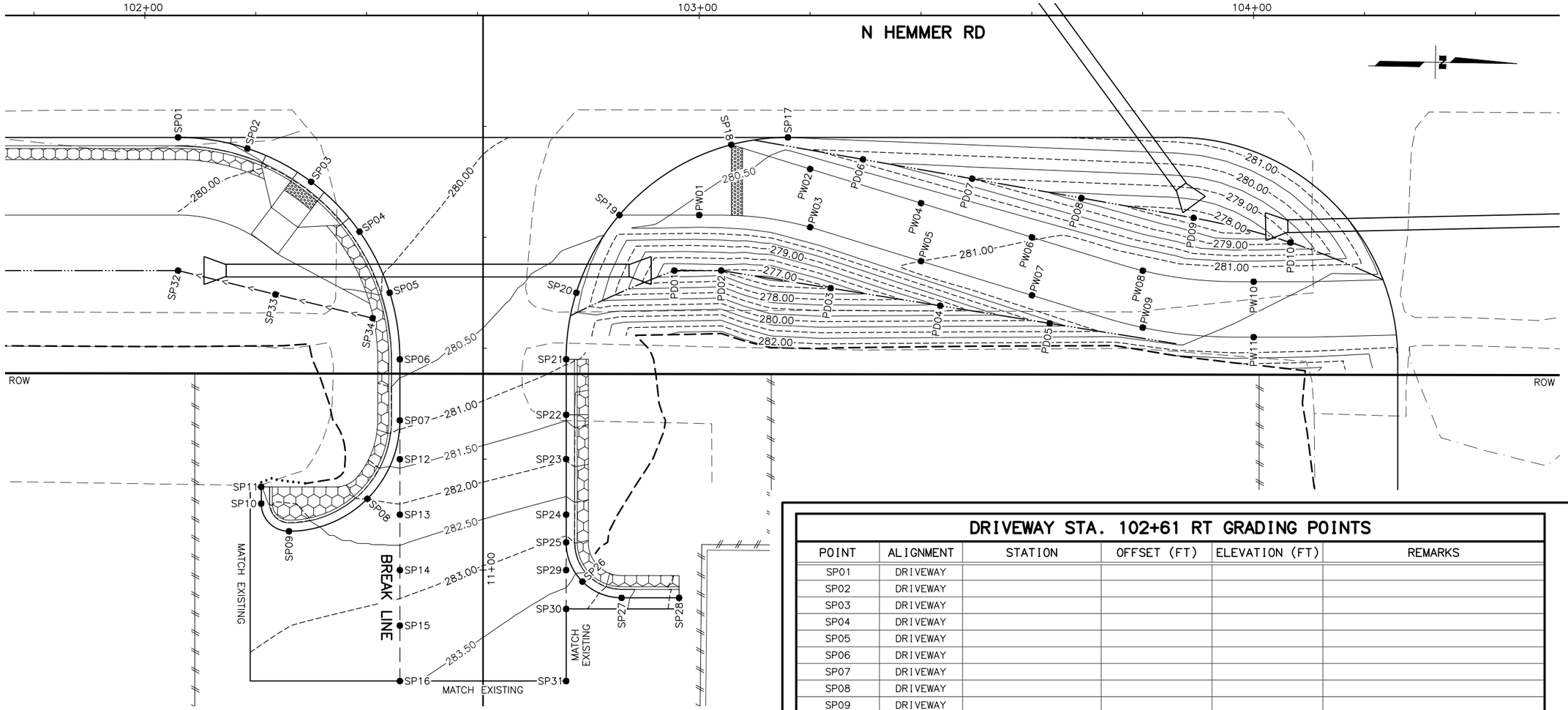
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

PALMER–WASILLA & HEMMER NORTH INT GRADING SUMMARY

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:47 AM	1" = 10'	CHECKED BY	CLE
			DRAFTED BY	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG



DRIVEWAY STA. 102+61 RT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SP01	DRIVEWAY				
SP02	DRIVEWAY				
SP03	DRIVEWAY				
SP04	DRIVEWAY				
SP05	DRIVEWAY				
SP06	DRIVEWAY				
SP07	DRIVEWAY				
SP08	DRIVEWAY				
SP09	DRIVEWAY				
SP10	DRIVEWAY				
SP11	DRIVEWAY				
SP12	DRIVEWAY				
SP13	DRIVEWAY				
SP14	DRIVEWAY				
SP15	DRIVEWAY				
SP16	DRIVEWAY				
SP17	DRIVEWAY				
SP18	DRIVEWAY				
SP19	DRIVEWAY				
SP20	DRIVEWAY				
SP21	DRIVEWAY				
SP22	DRIVEWAY				
SP23	DRIVEWAY				
SP24	DRIVEWAY				
SP25	DRIVEWAY				
SP26	DRIVEWAY				
SP27	DRIVEWAY				
SP28	DRIVEWAY				
SP29	DRIVEWAY				
SP30	DRIVEWAY				
SP31	DRIVEWAY				
SP32	DRIVEWAY				
SP33	DRIVEWAY				
SP34	DRIVEWAY				

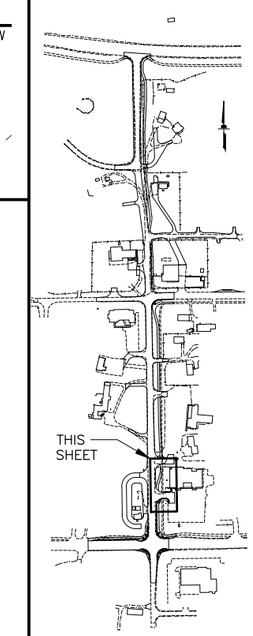
PATHWAY TRANSITION GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PD01	HEMMER				
PD02	HEMMER				
PD03	HEMMER				
PD04	HEMMER				
PD05	HEMMER				
PD06	HEMMER				
PD07	HEMMER				
PD08	HEMMER				
PD09	HEMMER				
PD10	HEMMER				
PW01	HEMMER				
PW02	HEMMER				
PW03	HEMMER				
PW04	HEMMER				
PW05	HEMMER				
PW06	HEMMER				
PW07	HEMMER				
PW08	HEMMER				
PW09	HEMMER				
PW10	HEMMER				
PW11	HEMMER				

SHEET NO.	TOTAL SHEETS
G05	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW STA. 102+61 RT
& PATHWAY TRANS
GRADING PLAN

DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

SCALE 1" = 10'

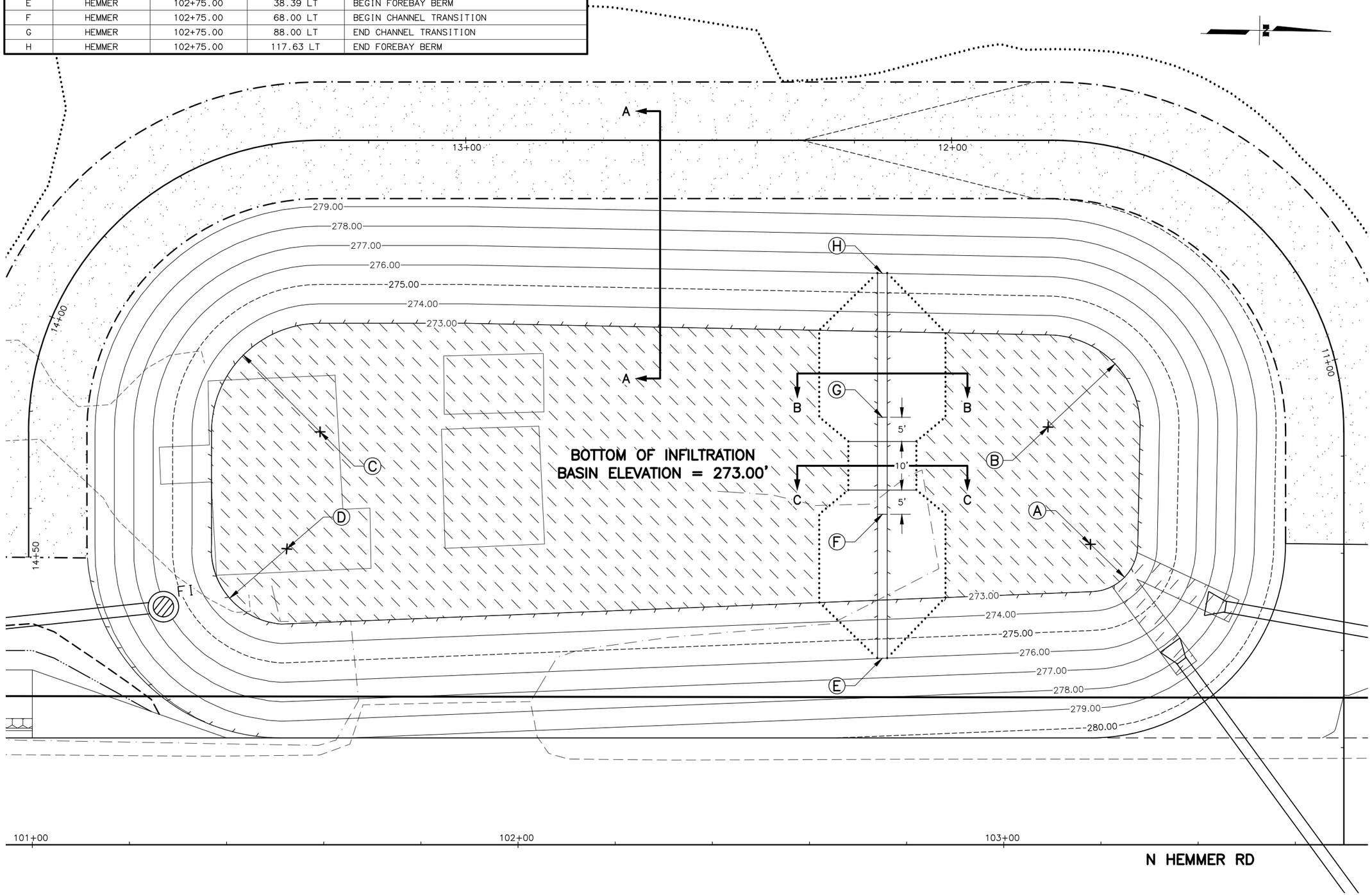
DATE 3/10/2025 TIME 10:47 AM

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

DRAWING LOCATION	DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG	3/10/2025	10:47 AM	1" = 10'	ZDK	CLE	ZDK

LAYOUT TABLE

POINT	ALIGNMENT	STATION	OFFSET	REMARKS
A	APPROACH	10+61.84	52.18 LT	BASIN BOTTOM, ≈ 9.75' RADIUS
B	APPROACH	11+80.14	59.02 LT	BASIN BOTTOM, ≈ 19.00' RADIUS
C	APPROACH	13+30.00	60.00 LT	BASIN BOTTOM, ≈ 22.50' RADIUS
D	HEMMER	101+52.40	60.91 LT	BASIN BOTTOM, ≈ 15.50' RADIUS
E	HEMMER	102+75.00	38.39 LT	BEGIN FOREBAY BERM
F	HEMMER	102+75.00	68.00 LT	BEGIN CHANNEL TRANSITION
G	HEMMER	102+75.00	88.00 LT	END CHANNEL TRANSITION
H	HEMMER	102+75.00	117.63 LT	END FOREBAY BERM

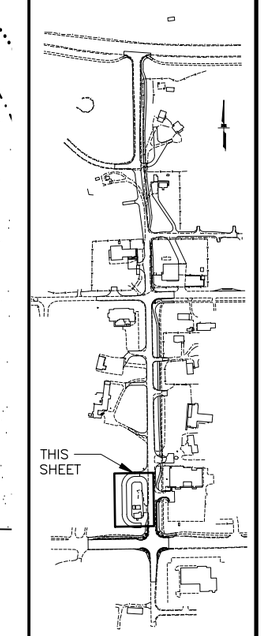


SHEET NO.	TOTAL SHEETS
G06	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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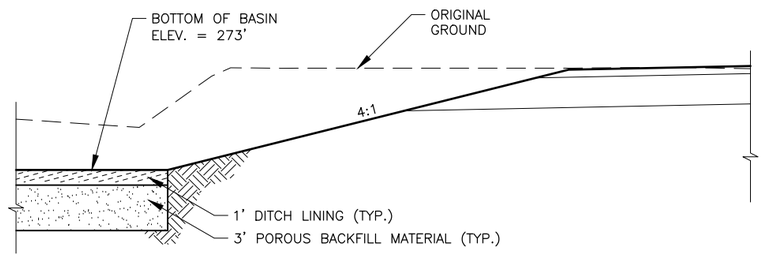
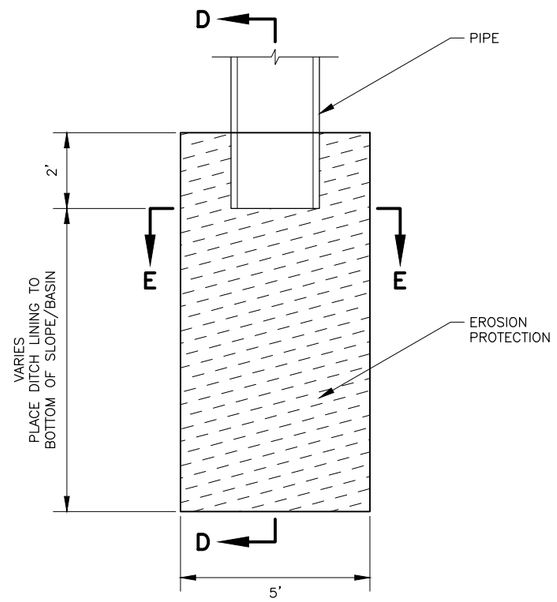
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

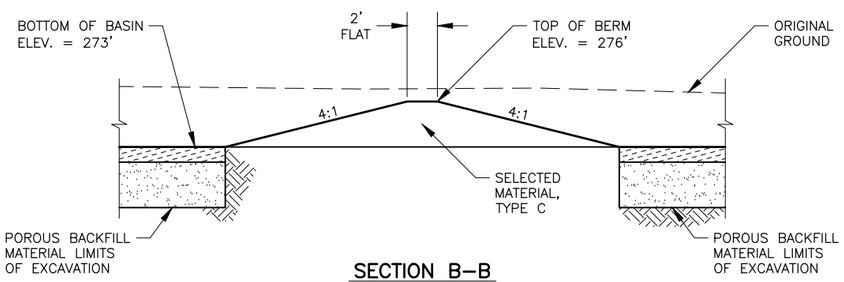
DRAINAGE INFILTRATION BASIN GRADING PLAN



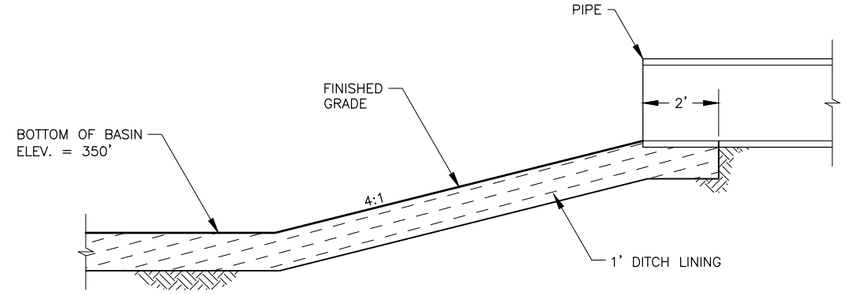
SECTION A–A



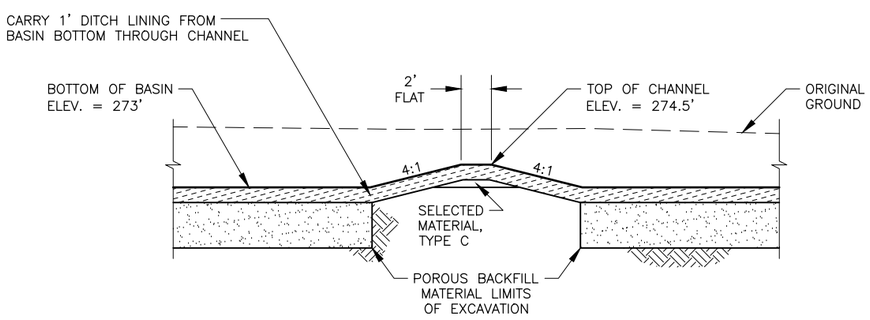
PLAN



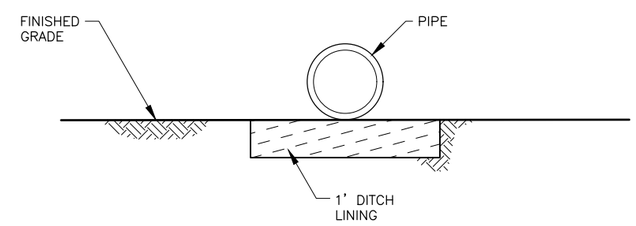
SECTION B–B



SECTION D–D



SECTION C–C



SECTION E–E

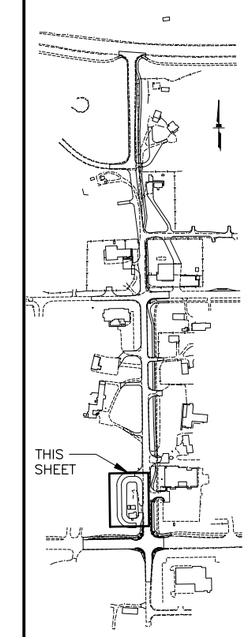
INFILTRATION BASIN
AND FOREBAY BERM DETAILS

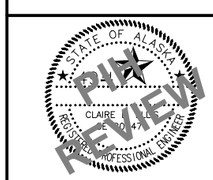
INFILTRATION BASIN
PIPE OUTFALL EROSION PROTECTION

SHEET NO.	TOTAL SHEETS
G07	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





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DEPARTMENT OF TRANSPORTATION
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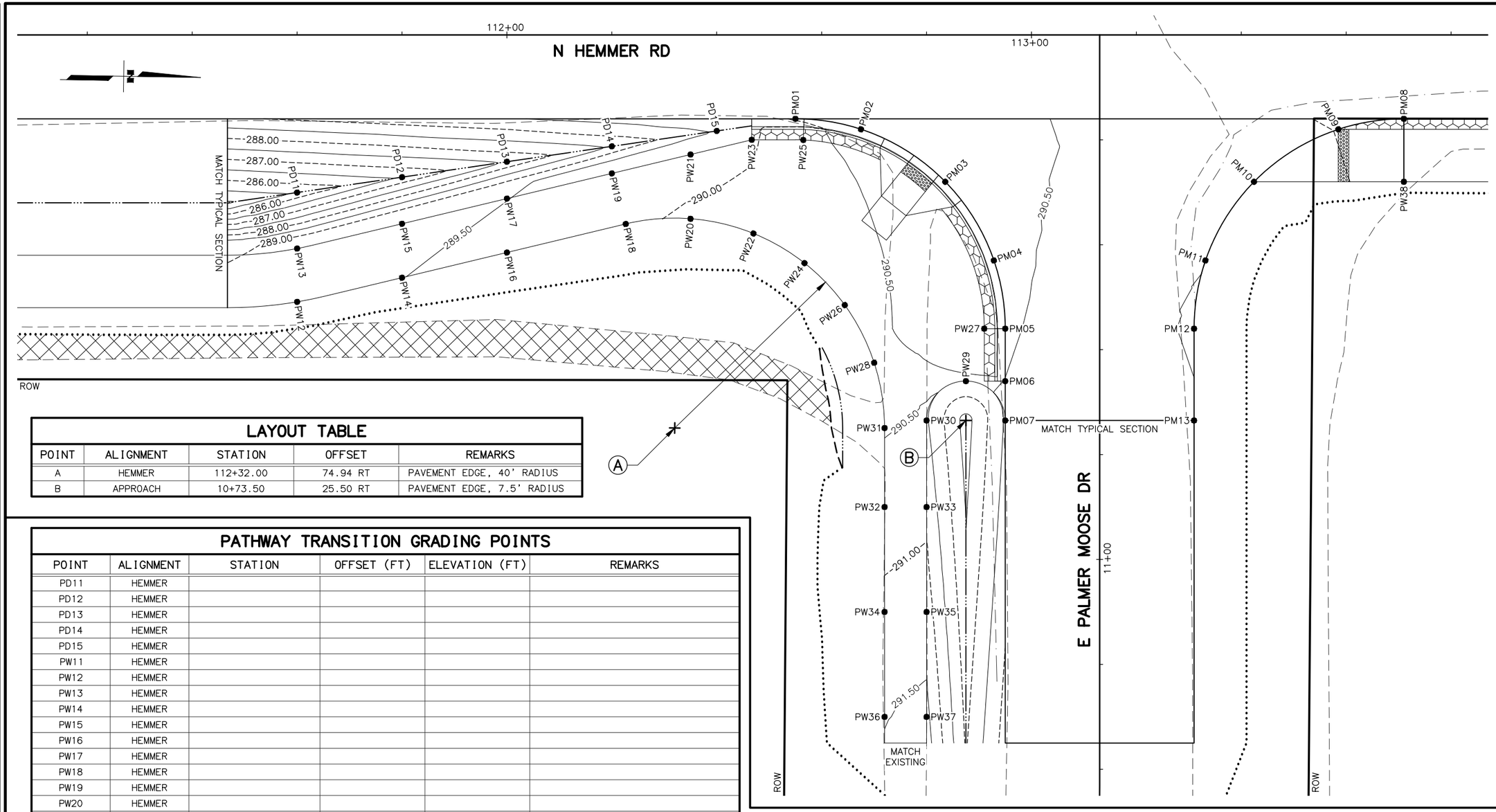
HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

DRAINAGE
INFILTRATION BASIN
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:47 AM	1" = 2/5	CHECKED BY	CLE
			DRAFTED BY	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG



LAYOUT TABLE

POINT	ALIGNMENT	STATION	OFFSET	REMARKS
A	HEMMER	112+32.00	74.94 RT	PAVEMENT EDGE, 40' RADIUS
B	APPROACH	10+73.50	25.50 RT	PAVEMENT EDGE, 7.5' RADIUS

PATHWAY TRANSITION GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PD11	HEMMER				
PD12	HEMMER				
PD13	HEMMER				
PD14	HEMMER				
PD15	HEMMER				
PW11	HEMMER				
PW12	HEMMER				
PW13	HEMMER				
PW14	HEMMER				
PW15	HEMMER				
PW16	HEMMER				
PW17	HEMMER				
PW18	HEMMER				
PW19	HEMMER				
PW20	HEMMER				
PW21	HEMMER				
PW22	HEMMER				
PW23	HEMMER				
PW24	APPROACH				
PW25	APPROACH				
PW26	APPROACH				
PW27	APPROACH				
PW28	APPROACH				
PW29	APPROACH				
PW30	APPROACH				
PW31	APPROACH				
PW32	APPROACH				
PW33	APPROACH				
PW34	APPROACH				
PW35	APPROACH				
PW36	APPROACH				
PW37	APPROACH				
PW38	APPROACH				

E PALMER MOOSE DR STA. 113+13 RT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PM01	APPROACH				
PM02	APPROACH				
PM03	APPROACH				
PM04	APPROACH				
PM05	APPROACH				
PM06	APPROACH				
PM07	APPROACH				
PM08	APPROACH				
PM09	APPROACH				
PM10	APPROACH				
PM11	APPROACH				
PM12	APPROACH				
PM13	APPROACH				

SHEET NO.	TOTAL SHEETS
G08	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
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NO.	REVISION
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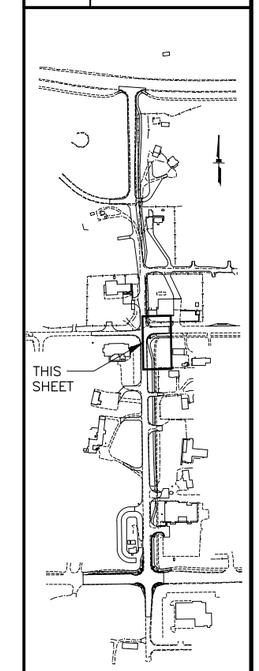
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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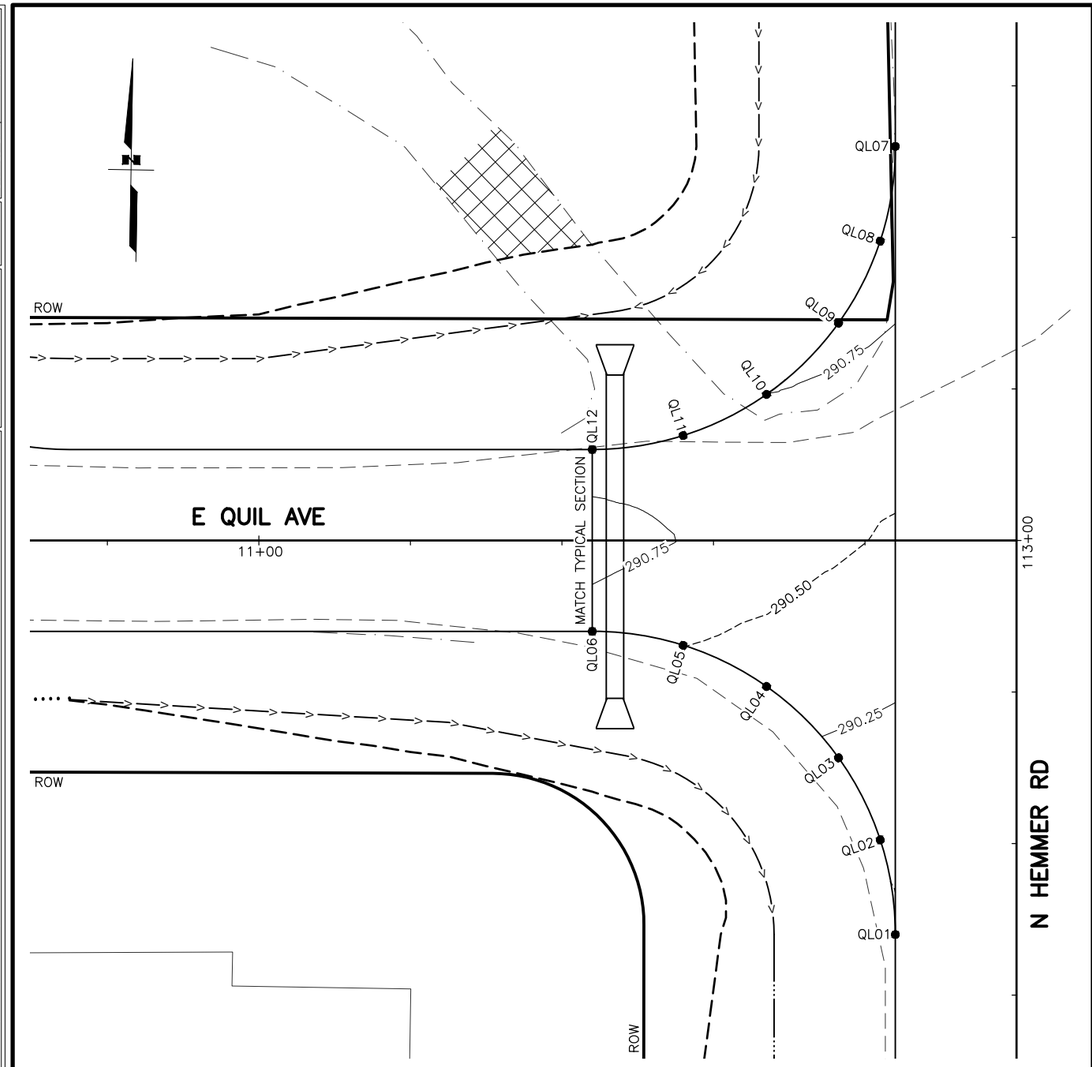
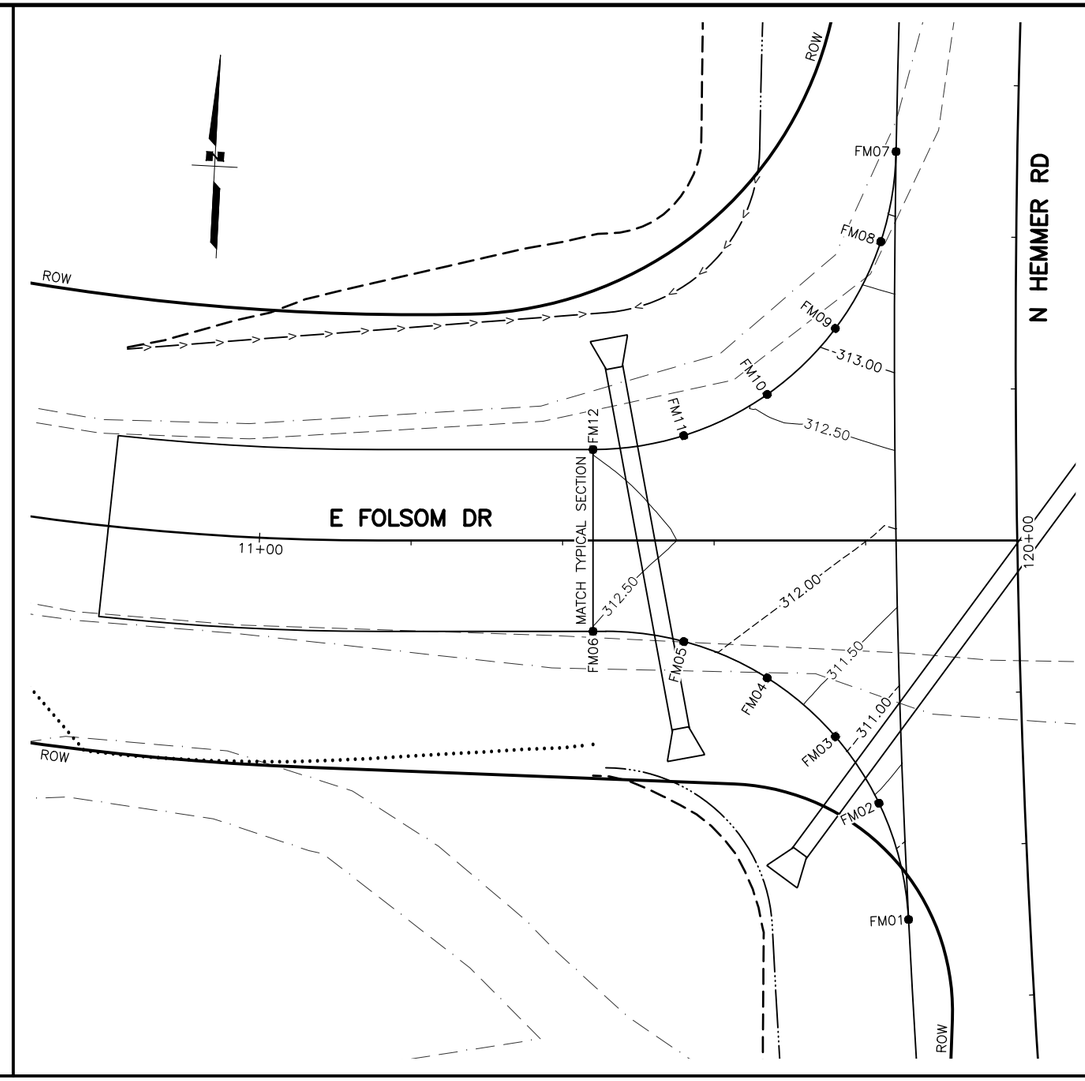
HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

E PALMER MOOSE DR
& PATHWAY TRANS
GRADING PLAN

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

DATE 3/10/2025 TIME 10:47 AM
SCALE 1" = 10'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK





E QUIL AVE STA. 113+00 LT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PM01	APPROACH				
PM02	APPROACH				
PM03	APPROACH				
PM04	APPROACH				
PM05	APPROACH				
PM06	APPROACH				
PM07	APPROACH				
PM08	APPROACH				
PM09	APPROACH				
PM10	APPROACH				
PM11	APPROACH				
PM12	APPROACH				

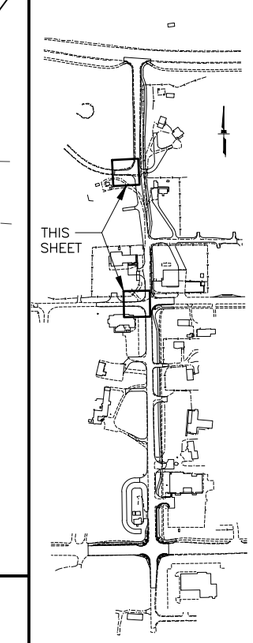
E FOLSOM DR STA. 120+00 LT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PM01	APPROACH				
PM02	APPROACH				
PM03	APPROACH				
PM04	APPROACH				
PM05	APPROACH				
PM06	APPROACH				
PM07	APPROACH				
PM08	APPROACH				
PM09	APPROACH				
PM10	APPROACH				
PM11	APPROACH				
PM12	APPROACH				

SHEET NO.	TOTAL SHEETS
G09	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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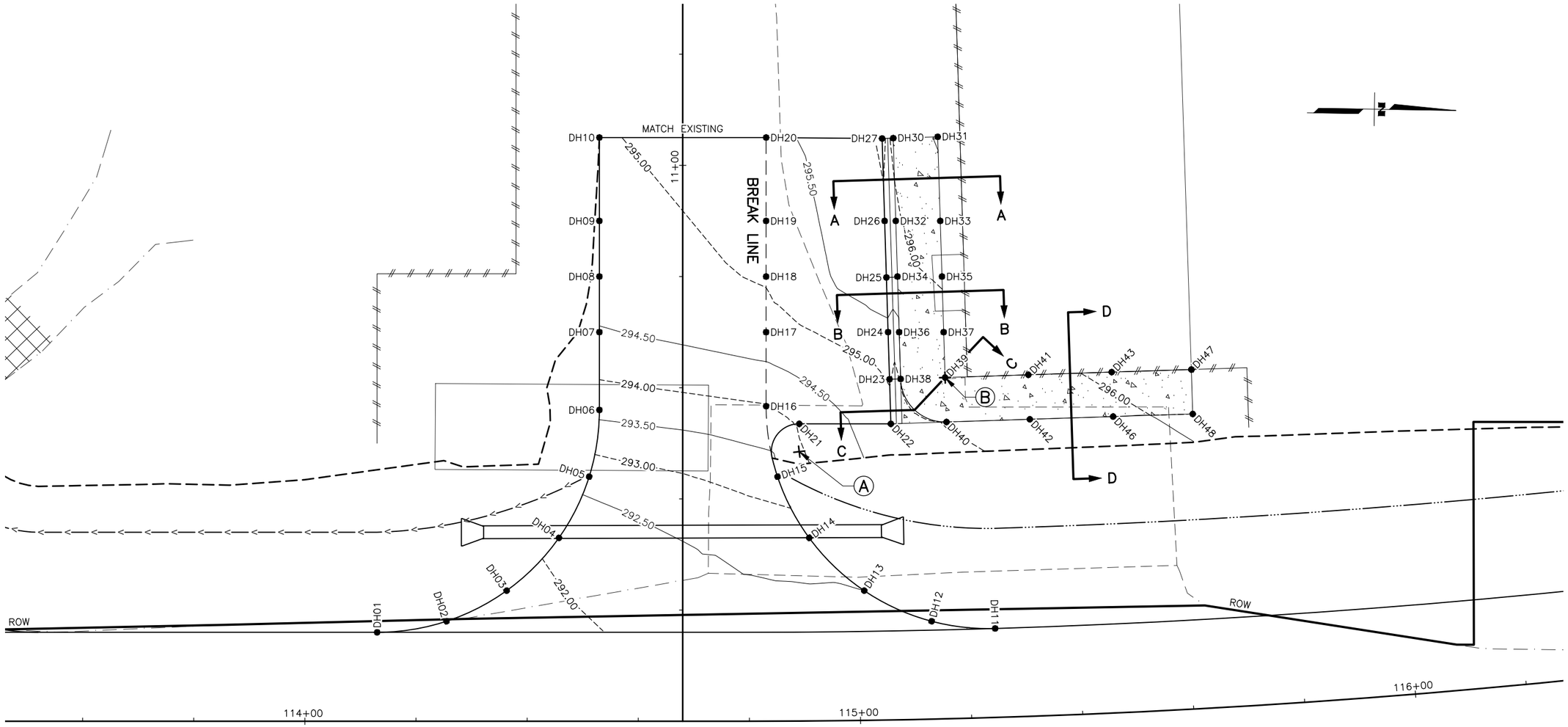
HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

E QUIL AVE &
E FOLSOM DR
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:47 AM	1" = 10'	CHECKED BY	CLE
			DRAFTED BY	ZDK

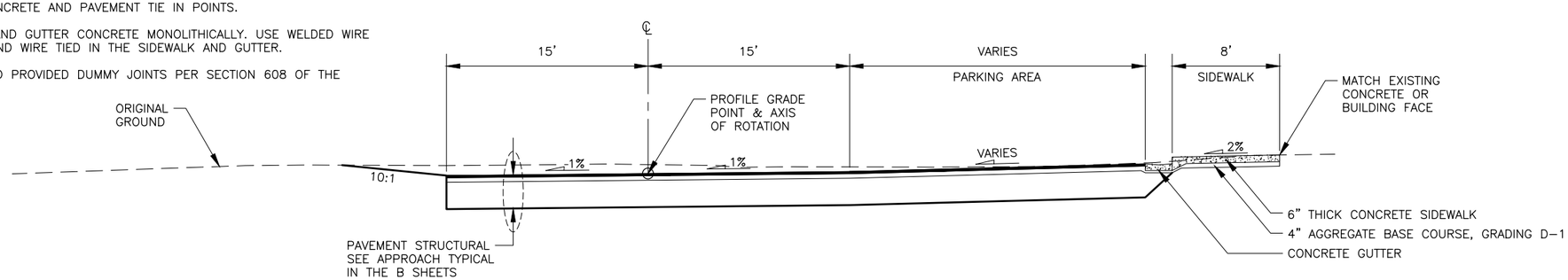
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG



N HEMMER RD

NOTES:

1. WHERE SIDEWALK ABUTS EXISTING CONCRETE SLAB ON THE EXTERIOR OF THE BUILDING OR ABUTS THE BUILDING FASCIA, INSTALL AN EXPANSION JOINT WITH SEALANT PER SECTION 608 OF THE SPECIFICATIONS.
2. SAW CUT ALL CONCRETE AND PAVEMENT TIE IN POINTS.
3. POUR SIDEWALK AND GUTTER CONCRETE MONOLITHICALLY. USE WELDED WIRE MESH, LAPPED, AND WIRE TIED IN THE SIDEWALK AND GUTTER.
4. FINISH, EDGE, AND PROVIDED DUMMY JOINTS PER SECTION 608 OF THE SPECIFICATIONS.



APPROACH

SHEET NO.	TOTAL SHEETS
G10	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/ CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
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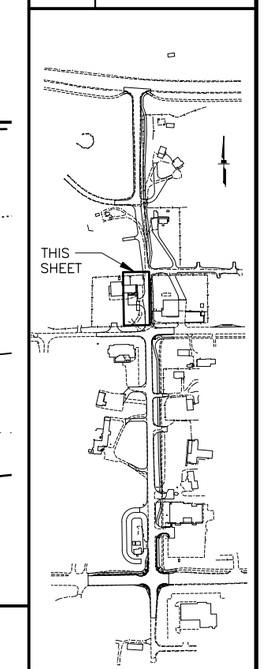

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STATE OF ALASKA
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AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER-WASILLA HIGHWAY
TO BOGARD ROAD

DW STA. 114+68 LT
GRADING PLAN

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

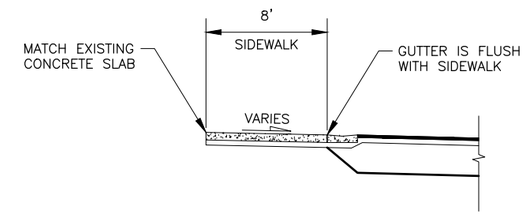
DATE 3/10/2025 TIME 10:47 AM
SCALE 1" = 10'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

DRIVEWAY STA. 114+68 LT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
SWQ01	DRIVEWAY				
SWQ02	DRIVEWAY				
SWQ03	DRIVEWAY				
SWQ04	DRIVEWAY				
SWQ05	DRIVEWAY				
SWQ06	DRIVEWAY				
SWQ07	DRIVEWAY				
SWQ08	DRIVEWAY				
SWQ09	DRIVEWAY				
SWQ10	DRIVEWAY				
SWQ11	DRIVEWAY				
SWQ12	DRIVEWAY				
SWQ13	DRIVEWAY				
SWQ14	DRIVEWAY				
SWQ15	DRIVEWAY				
SWQ16	DRIVEWAY				
SWQ17	DRIVEWAY				
SWQ18	DRIVEWAY				
SWQ19	DRIVEWAY				
SWQ20	DRIVEWAY				
SWQ21	DRIVEWAY				
SWQ22	DRIVEWAY				
SWQ23	DRIVEWAY				
SWQ24	DRIVEWAY				
SWQ25	DRIVEWAY				
SWQ26	DRIVEWAY				
SWQ27	DRIVEWAY				
SWQ28	DRIVEWAY				
SWQ29	DRIVEWAY				
SWQ30	DRIVEWAY				
SWQ31	DRIVEWAY				
SWQ32	DRIVEWAY				
SWQ33	DRIVEWAY				
SWQ34	DRIVEWAY				
SWQ35	DRIVEWAY				
SWQ36	DRIVEWAY				
SWQ37	DRIVEWAY				
SWQ38	DRIVEWAY				
SWQ39	DRIVEWAY				
SWQ40	DRIVEWAY				
SWQ41	DRIVEWAY				
SWQ42	DRIVEWAY				
SWQ43	DRIVEWAY				
SWQ44	DRIVEWAY				
SWQ45	DRIVEWAY				
SWQ46	DRIVEWAY				
SWQ47	DRIVEWAY				
SWQ48	DRIVEWAY				

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	10+48.51	20.97 RT	PAVEMENT EDGE, 5' RADIUS
B	10+61.83	47.20 RT	SIDEWALK EDGE, 8' RADIUS



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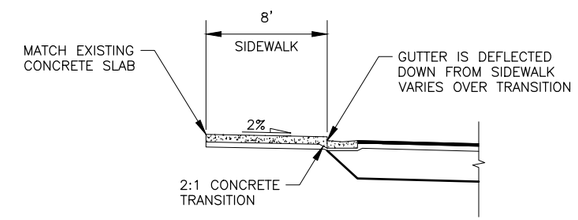

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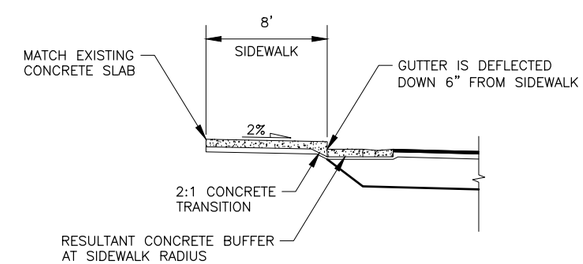

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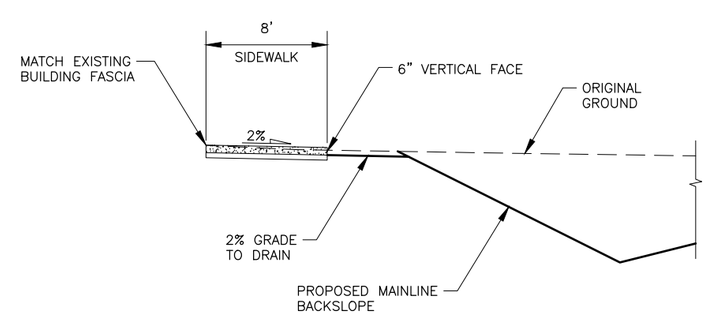


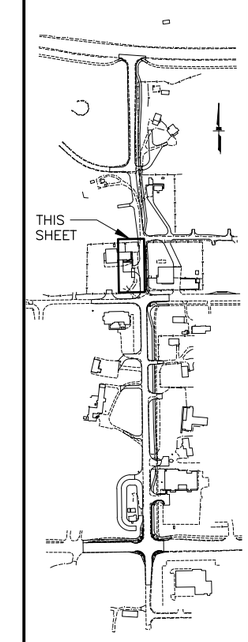
SECTION D–D

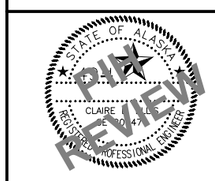
SHEET NO.	TOTAL SHEETS
G11	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/ CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





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STATE OF ALASKA
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HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

DW STA. 114+68 LT
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:48 AM	1" = 10'	ZDK	CLE	ZDK

DRAWING LOCATION
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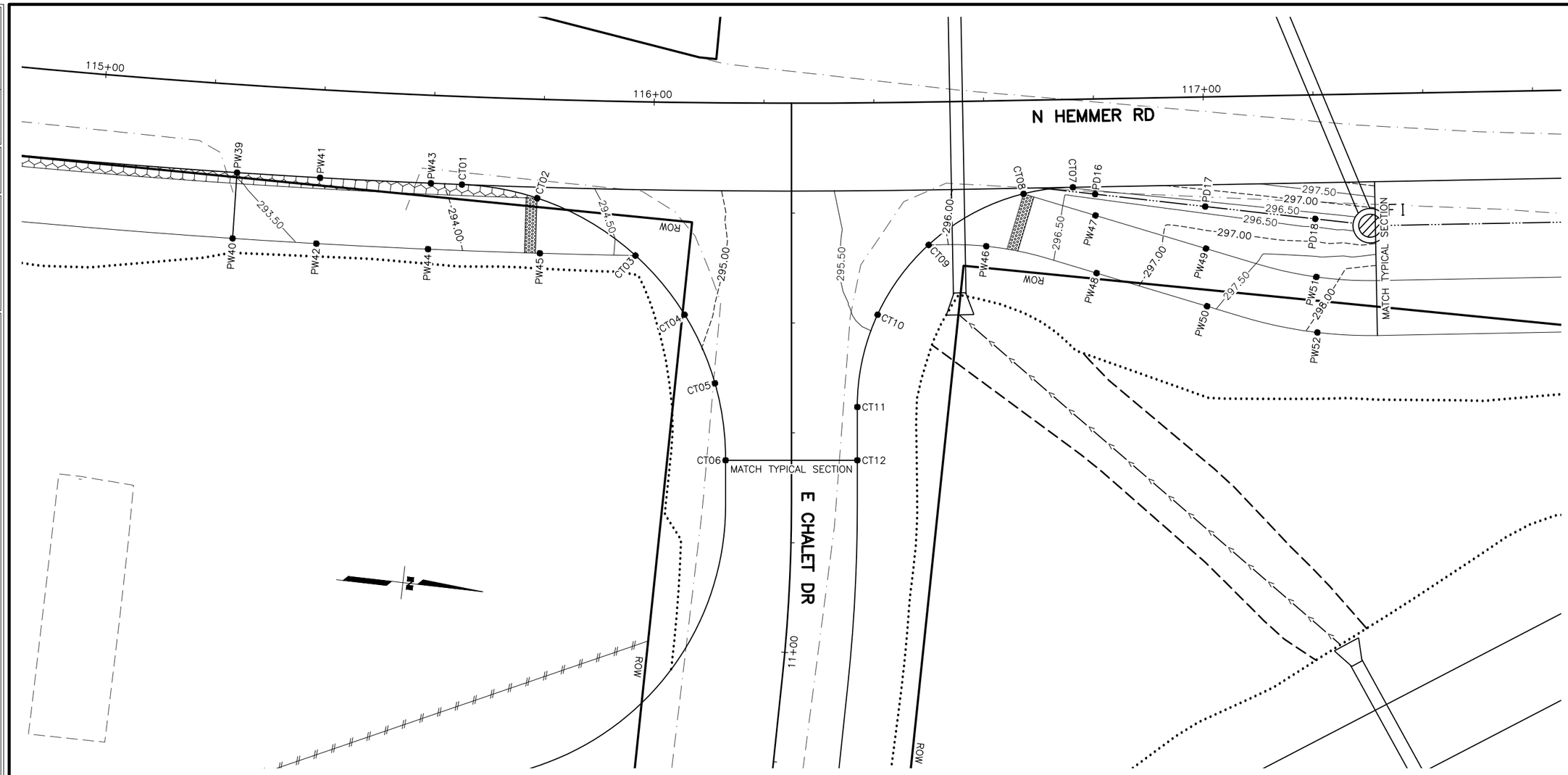
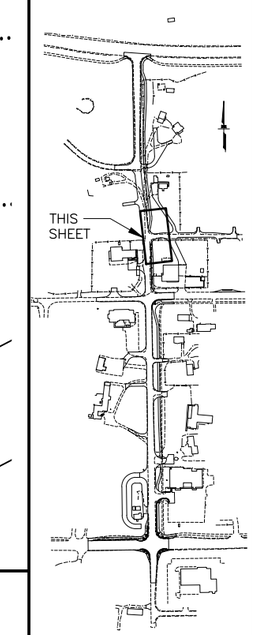


SHEET NO.	TOTAL SHEETS
G12	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



E QUIL AVE STA. 113+00 LT GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
CT01	APPROACH				
CT02	APPROACH				
CT03	APPROACH				
CT04	APPROACH				
CT05	APPROACH				
CT06	APPROACH				
CT07	APPROACH				
CT08	APPROACH				
CT09	APPROACH				
CT10	APPROACH				
CT11	APPROACH				
CT12	APPROACH				

PATHWAY TRANSITION GRADING POINTS

POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PW39	HEMMER				
PW40	HEMMER				
PW41	HEMMER				
PW42	HEMMER				
PW43	HEMMER				
PW44	HEMMER				
PW45	HEMMER				
PW46	HEMMER				
PW47	HEMMER				
PW48	HEMMER				
PW49	HEMMER				
PW50	HEMMER				
PW51	HEMMER				
PW52	HEMMER				
PD16	HEMMER				
PD17	HEMMER				
PD18	HEMMER				

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TO BOGARD ROAD

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PATHWAY TRANS
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	10:48 AM	1" = 10'	CHECKED BY	CLE
			DRAFTED BY	ZDK

DRAWING LOCATION
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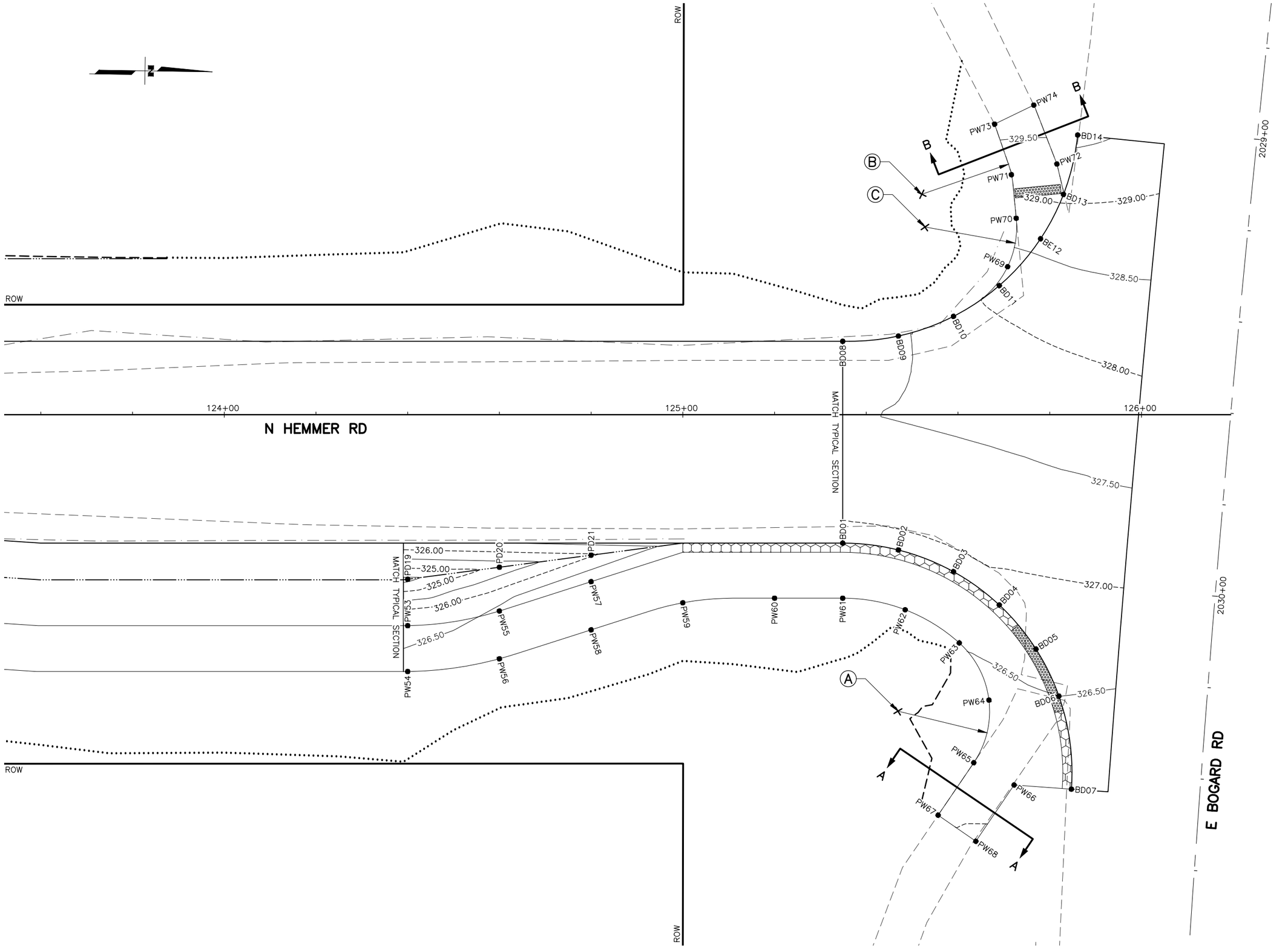


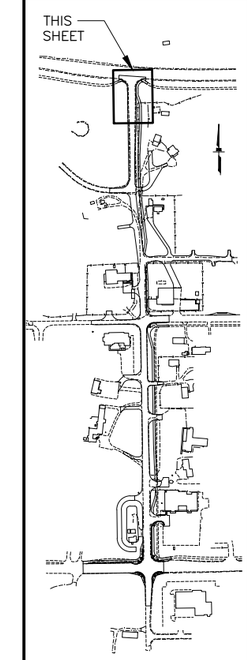
SHEET NO.	TOTAL SHEETS
G13	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

THIS SHEET



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STATE OF ALASKA
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TO BOGARD ROAD

BOGARD/HEMMER INT
& PATHWAY TRANS
GRADING PLAN

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:48 AM	1" = 10'	ZDK	CLE	ZDK

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

PATHWAY TRANSITION GRADING POINTS

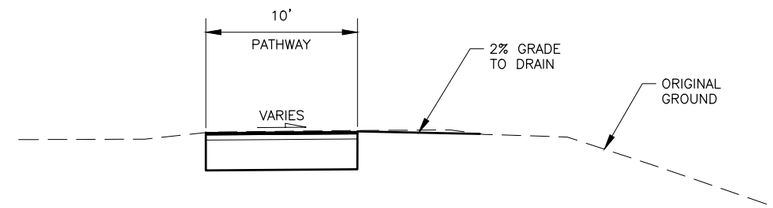
POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
PW53	HEMMER				
PW54	HEMMER				
PW55	HEMMER				
PW56	HEMMER				
PW57	HEMMER				
PW58	HEMMER				
PW59	HEMMER				
PW60	HEMMER				
PW61	HEMMER				
PW62	HEMMER				
PW63	HEMMER				
PW64	HEMMER				
PW65	HEMMER				
PW66	HEMMER				
PW67	HEMMER				
PW68	HEMMER				
PW69	HEMMER				
PW70	HEMMER				
PW71	HEMMER				
PW72	HEMMER				
PW73	HEMMER				
PW74	HEMMER				
PD19	HEMMER				
PD20	HEMMER				
PD21	HEMMER				

E BOGARD RD INTERSECTION GRADING POINTS

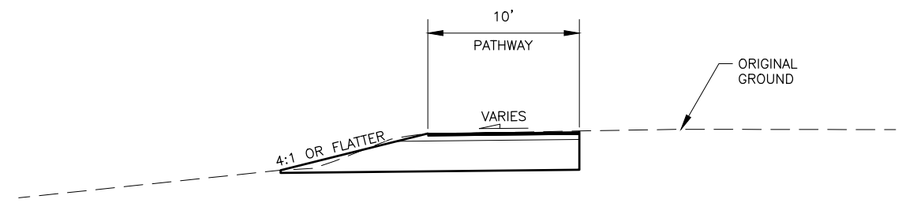
POINT	ALIGNMENT	STATION	OFFSET (FT)	ELEVATION (FT)	REMARKS
BD01	HEMMER				
BD02	HEMMER				
BD03	HEMMER				
BD04	HEMMER				
BD05	HEMMER				
BD06	HEMMER				
BD07	HEMMER				
BD08	HEMMER				
BD09	HEMMER				
BD10	HEMMER				
BD11	HEMMER				
BD12	HEMMER				
BD13	HEMMER				
BD14	HEMMER				

LAYOUT TABLE

POINT	STATION	OFFSET	REMARKS
A	125+46.90	64.62 RT	PAVEMENT EDGE, 20' RADIUS
B	125+52.10	48.06 LT	PAVEMENT EDGE, 20' RADIUS
C	125+52.79	40.91 LT	PAVEMENT EDGE, 20' RADIUS



SECTION A–A



SECTION B–B

SHEET NO.	TOTAL SHEETS
G14	G14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION
0001743/
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NO.	REVISION
DATE	
NO.	REVISION
DATE	
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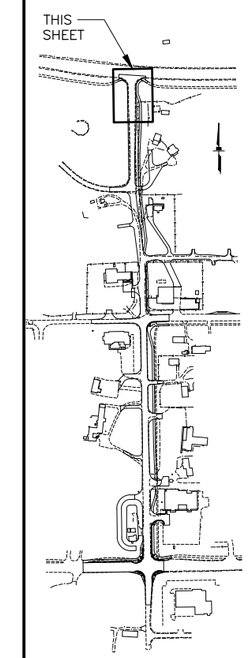

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CLAIRE E. ADAMS
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PIR REVIEW

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BOGARD/HEMMER INT
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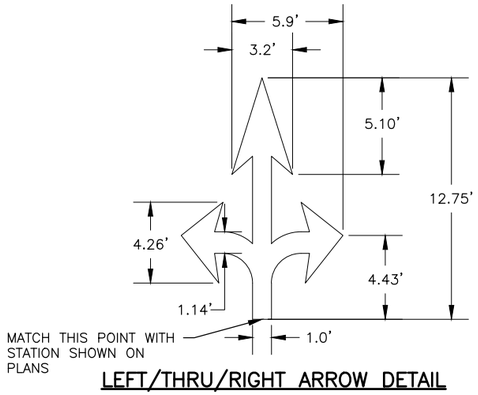
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\PLANSET\00885_G01_INT & APP.DWG

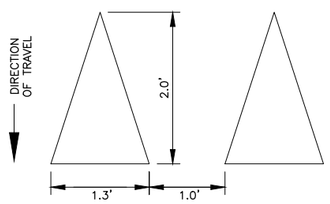
DATE 3/10/2025 TIME 10:48 AM
SCALE 1" = 10'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

NO.	DATE	REVISION

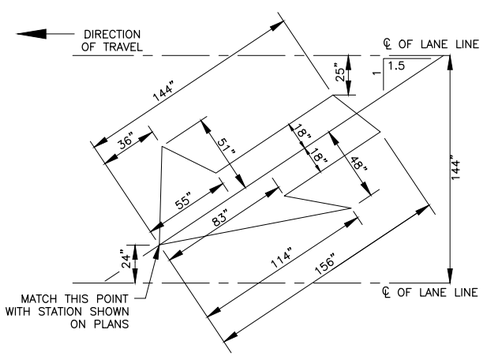
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H01	H45



LEFT/THRU/RIGHT ARROW DETAIL



YIELD PAVEMENT MARKINGS DETAIL



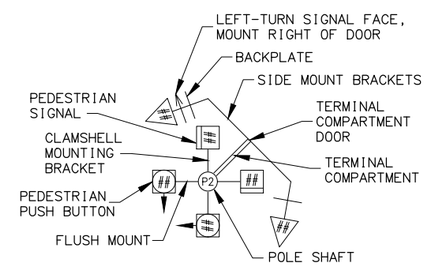
LANE DROP ARROW DETAIL

SIGNING & STRIPING NOTES:

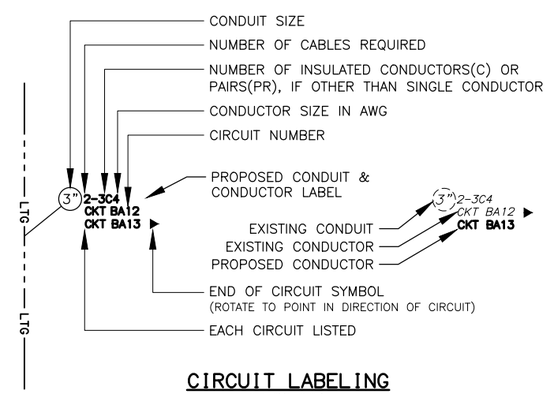
1. ALL STATION LOCATIONS FOR SIGN INSTALLATION ARE APPROXIMATE. INSTALL SIGNS AT LOCATIONS AS DIRECTED BY THE ENGINEER.
2. USE THE FOLLOWING DEFINITIONS TO DECIPHER THE ABBREVIATED SIGN POST TYPES IN THE SIGN SUMMARY SHEETS.
   A. PT MEANS A PERFORATED STEEL TUBE.
   B. T MEANS A SQUARE STEEL TUBE.
   C. P MEANS A ROUND STEEL PIPE.
   D. W MEANS A WIDE FLANGE BEAM.
   E. POPL MEANS A POLE PLATE INSTALLED PER ITS ALASKA STANDARD PLAN S-23.
3. FABRICATE ALL SIGNS FROM 0.125" THICK ALUMINUM SHEETING, UNLESS STATED ELSEWHERE.
4. FOR SIGNS SUPPORTED BY MULTIPLE POSTS, FABRICATE THE POSTS WITH THEIR TOPS LEVEL WITH ONE ANOTHER.
5. FOR PERFORATED STEEL TUBE SIGNPOSTS, INSTALL THE CONCRETE FOUNDATION OPTION SHOWN ON ALASKA STANDARD PLAN S-30. TRIM EACH PT POST TO LIMIT THE LENGTH INSERTED INTO THE FOUNDATION TO 12 INCHES.
6. FABRICATE GUIDE SIGNS ACCORDING TO THE SHOP DRAWINGS INCLUDED IN THE APPENDICES OF PART 4, CONTRACT PROVISIONS AND SPECIAL PROVISIONS. TRIM THE CORNERS OF ALL SIGNS TO THE RADIUS SHOWN ON EACH SHOP DRAWING.
7. ERECT NEW SIGNS BEFORE REMOVAL OF EXISTING SIGNS WITH SIMILAR MESSAGE. NOTIFY THE ENGINEER A MINIMUM OF 14 DAYS PRIOR TO BEGINNING SIGN REMOVAL AND SALVAGE OR DISPOSAL ACTIVITIES.
8. FOR SIGNS SUPPORTED BY MULTIPLE TUBES OR PIPES, LOCATE THE OUTER POSTS ON MAXIMUM SIX FEET CENTERS. INSTALL ADJACENT WIDE FLANGE POSTS ON MINIMUM EIGHT FEET CENTERS.
9. SELECTIVE AND HAND CLEARING SHALL BE PERFORMED AT THE DISCRETION OF THE ENGINEER, IN ACCORDANCE WITH SECTION 201, UPSTREAM OF ALL SIGN INSTALLATION LOCATIONS TO ACHIEVE MINIMUM SIGN VISIBILITY REQUIREMENTS. IF NOT INCLUDED AS A SEPARATE ITEM, THIS WORK SHALL BE SUBSIDIARY TO THE SIGN INSTALLATION ITEMS AND WORK.
10. FOR ALL FINAL PAVEMENT MARKINGS USE METHYLMETHACRYLATE MATERIALS. LONGITUDINAL, TRANSVERSE AND SYMBOL MARKINGS SHALL BE INLAID AND GORE STRIPES SHALL BE SURFACE APPLIED AS SPECIFIED IN SECTION 670 OF THE SPECIFICATIONS.
11. DIMENSIONS REFER TO THE CENTER OF STRIPE AND THE EDGE OF PAVEMENT OR FACE OF CURB WHEN PRESENT.
12. IF THE NEW AND EXISTING PAVEMENT MARKINGS ARE NOT ALIGNED AT MATCH LINE, TRANSITION BETWEEN THE TWO USING A 100:1 TAPER ON THE NEW PAVEMENT.
13. WHERE NEW STRIPING IS TO EXTEND BEYOND PAVING LIMITS, REMOVE EXISTING STRIPING IN ACCORDANCE WITH SUBSECTION 670-3.04 TO THE EXTENT OF STRIPING LIMITS.

ABBREVIATIONS

AWG	AMERICAN WIRE GAUGE	NB	NORTH BOUND
CAM	CAMERA	OMNI	OMNI DIRECTIONAL ANTENNA
EB	EAST BOUND	P#	TRAFFIC SIGNAL POLE #
GND	GROUND	PE	PHOTOELECTRIC CELL
HDPE	HIGH DENSITY POLYETHYLENE CONDUIT	PED B ##	PEDESTRIAN PUSH BUTTON #
HEAD	VEHICULAR SIGNAL HEAD	PEDI	PEDESTRIAN SIGNAL HEAD
SIG	SIGNAL	PRE #	PREEMPTION #
I/C	INTERCONNECT	PRE CON #	PREEMPTION CONFIRMATION LIGHT #
INTX	INTERSECTION	RAD	RADAR
INTXL	INTERSECTION LIGHTING	RMC	RIGID METAL CONDUIT
LC	LOAD CENTER	SB	SOUTH BOUND
LFNC	LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT	TC	TRAFFIC CONTROLLER
LTG	LIGHTING	WB	WEST BOUND
MUTCD	MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES	YAGI	DIRECTIONAL ANTENNA



POLE SHAFT LEGEND



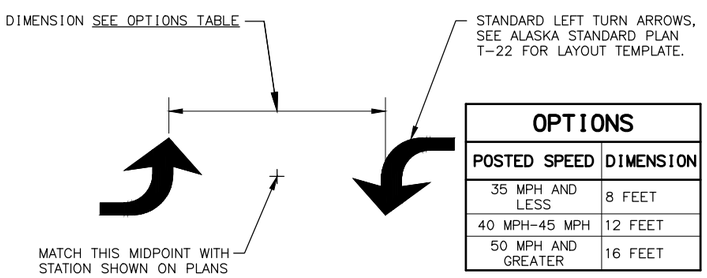
CIRCUIT LABELING LEGEND

FOUNDATIONS NOTES:

1. STATION & C.L. REFERENCE ARE TO THE CENTER OF THE STRUCTURE, EXCEPT ON LOOPS WHICH ARE TO THE CENTER OF THE TRAILING EDGE OF THE LOOP (EDGE NEAREST INTERSECTION).
2. LOCATE J-BOXES SO THAT THEY ARE LOCATED OUT OF THE PATHWAY, SIDEWALK, CURB RAMPS, AND DRAINAGE COLLECTION AREAS.
3. INSTALL LOAD CENTER AND TRAFFIC CONTROLLER FOUNDATIONS WITHIN 1-DEGREE OF PLUMB.
4. INSTALL ANCHOR BOLTS IN CAST FOUNDATIONS TO BE WITHIN 1:48 OF PLUMB.

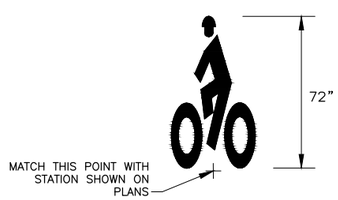
SIGNAL SYSTEM NOTES:

1. FURNISH THE SIGNAL AND LUMINAIRE MASTARM LENGTHS AND DIMENSIONS SPECIFIED ON THE POLE ELEVATIONS.
2. INSTALL DEVICES SUCH THAT THE DIMENSIONS SHOWN TO THE BOTTOM OF THE DEVICES ON THE POLE ELEVATIONS ARE MINIMUMS. VERTICAL DIMENSIONS TO SIGNAL HEADS ARE TO BOTTOM OF THE BACK PLATE.
3. INSTALL MAST ARMS PERPENDICULAR TO THE ROADWAY CENTERLINE. ACCEPTABLE VARIANCE IS +/- 1-DEGREE.
4. SALVAGE SIGNAL POLE ASSEMBLIES, SIGNS, SIGNAL FACES, AND LUMINAIRES AND DELIVER TO MAINTENANCE AND OPERATIONS WITHIN 48-HOURS OF DECOMMISSIONING. COMPONENTS DAMAGED WHILE IN THE CONTRACTOR'S CUSTODY MUST BE REPLACED AT THE CONTRACTOR'S EXPENSE. REMOVE AND DISPOSE OF FOUNDATIONS.
5. SALVAGE EXISTING CONTROLLER CABINET AFTER NEW CONTROLLER CABINET IS IN SERVICE AND DELIVER TO MAINTENANCE AND OPERATIONS WITHIN 48-HOURS OF DECOMMISSIONING.
6. REMOVE ABANDONED OR UNUSED TRAFFIC JUNCTION BOXES UNLESS OTHERWISE NOTED.
7. NEW SIGNAL HEADS THAT ARE MOUNTED BUT NOT IN OPERATION SHALL BE COVERED WITH A COMMERCIALLY AVAILABLE SIGNAL-SHIRT. EACH SIGNAL SHIRT SHALL FEATURE ELASTICIZED OPENINGS THAT FIT OVER THE VISORS AND AT LEAST TWO STRAPS TO SECURE IT TO THE SIGNAL. PROVIDE SHIRTS WITH A LEGEND THAT READS "OUT OF SERVICE" AND A CENTER SECTION THAT ALLOWS AN OPERATOR TO SEE THE INDICATIONS DURING SYSTEM TESTS.
8. SIGNAL HEADS ARE TO BE LOCATED PER FIGURE 4D-100, TYPICAL SIGNAL HEAD LOCATIONS, PER THE ALASKA TRAFFIC MANUAL. ACCEPTABLE VARIANCE IS +/- 1-FOOT.
9. AIM SIGNALS PER TABLE 660-2, THROUGH-SIGNAL AIMING POINT, OF THE SPECIAL PROVISIONS. SIGNALS SHALL ALSO BE AIMED SO AS NOT TO BE VISIBLE FROM SIDE STREET TRAFFIC. ACCEPTABLE VARIANCE IS +/- 5 DEGREES.
10. EXISTING CIRCUITS LISTED ON THE LOAD CENTER SUMMARY AND PLAN SHEETS WERE OBTAINED FROM AS-BUILT INFORMATION AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO WORK INVOLVING THOSE CIRCUITS.
11. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL, INCLUDING ARROW BOARD DEVICE(S), FOR OVERHEAD INSPECTION AND LOCATE WORK PERFORMED BY MOA SIGNAL ELECTRONICS. CONTRACTOR SHALL BE ON-SITE AT COMPLETION OF LOCATES TO REVIEW LAYOUT AND MAKE STATIONING MEASUREMENTS FOR CONDUIT LOCATIONS.



OPTIONS	
POSTED SPEED	DIMENSION
35 MPH AND LESS	8 FEET
40 MPH-45 MPH	12 FEET
50 MPH AND GREATER	16 FEET

TWO WAY LEFT TURN ARROW DETAIL



HELMETED MUTCD BIKE SYMBOL

(EXCLUDE ARROW UNLESS SHOWN IN PLANS)

CALL BEFORE YOU DIG!

CONTRACTOR SHALL CALL A MINIMUM OF 3 DAYS IN ADVANCE OF CONSTRUCTION

ALASKA DIGLINE....907-278-3121 OR 800-478-3121

CALL OR GO TO WWW.AKONECALL.COM/STATEWIDE.HTM FOR MEMBER LIST OF WHO WILL BE NOTIFIED

STATE OF ALASKA
ROXANNE D. RUSE
49TH
REGISTERED PROFESSIONAL ENGINEER
PLH
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

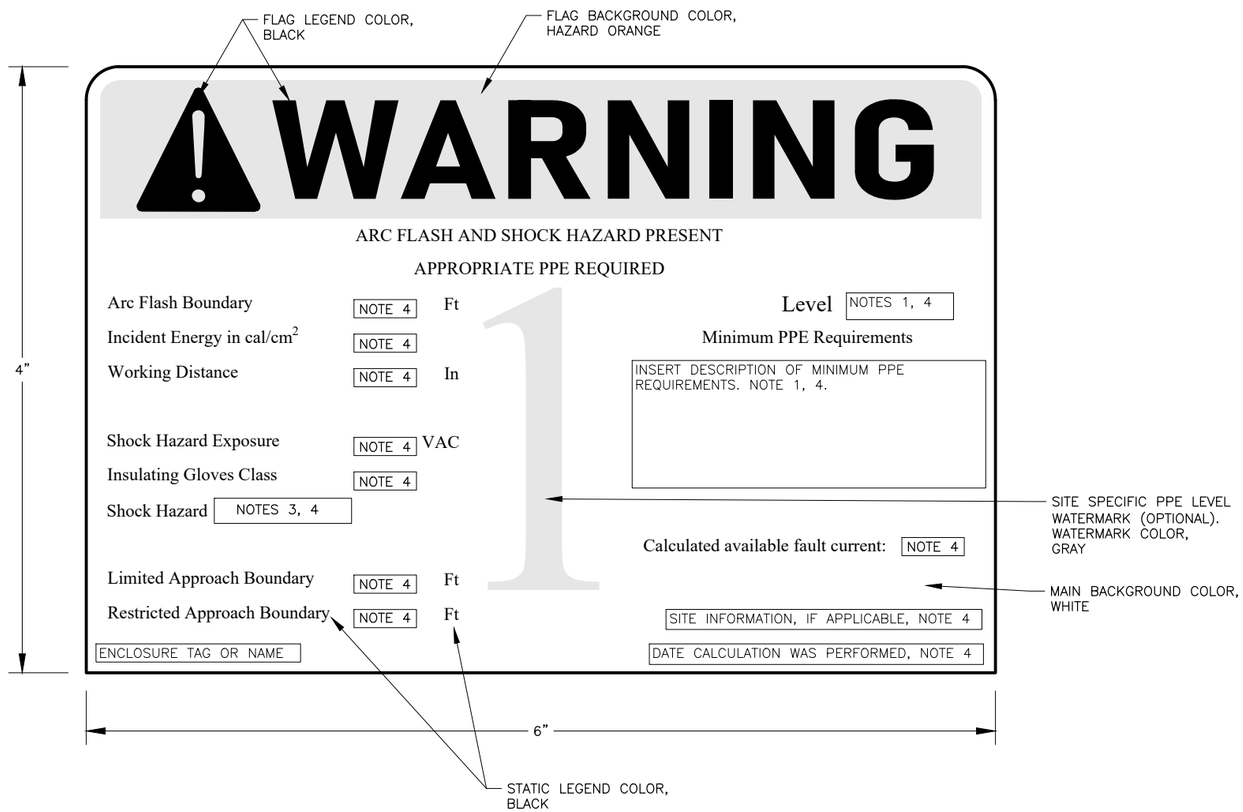
TRAFFIC LEGEND AND NOTES

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:48 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
00885_H01_TRAF.DWG

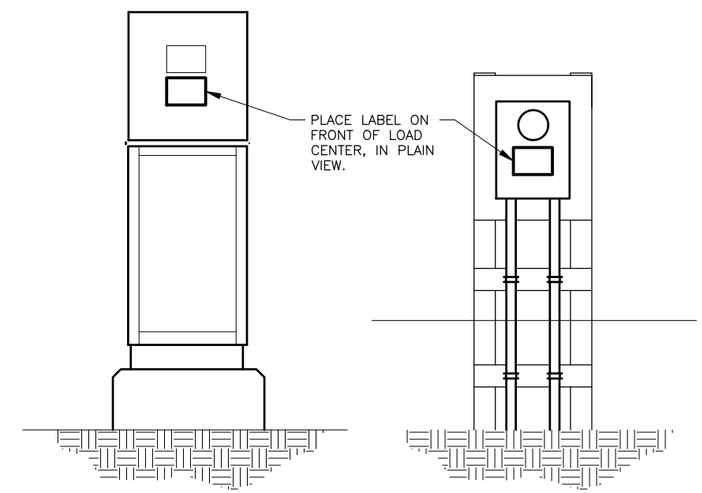
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H02	H45



NOTES:

1. APPLICABLE STATE OF ALASKA DOT&PF ELECTRICAL EQUIPMENT MUST BE LABELED WITH DOT&PF–DEFINED SITE–SPECIFIC PPE LEVELS, AS DEFINED IN NFPA 70E 130.5(H)(3)(c). THE LEVELS ARE: LEVEL 1 (0 TO 4 CAL/CM^2), 2 (4.1 TO 8.0 CAL/CM^2), 3 (8.1 TO 25.0 CAL/CM^2), 4 (25.1 TO 39.9 CAL/CM^2), OR WP (WORK PROHIBITED, FOR EQUIPMENT IN WHICH THE CALCULATED ARC FLASH INCIDENT ENERGY IS ≥ 40 CAL/CM^2).
2. MINIMUM PPE REQUIREMENTS FOR EACH PPE LEVEL DESCRIBED IN NOTE 1 ARE THE SAME REQUIREMENTS AS DESCRIBED IN NFPA 70E TABLE 130.7(C)(15)(c). THESE PPE REQUIREMENTS ARE TO BE USED AS THE SITE–SPECIFIC PPE LEVELS.
3. PROVIDE DESCRIPTION OF EQUIPMENT CONFIGURATIONS IN WHICH A HAZARD EXISTS. FOR EXAMPLE "WHEN COVER REMOVED."
4. INSERT INFORMATION FROM PLAN SHEETS. REFER TO LOAD CENTER SUMMARY, ARC FLASH AND SHOCK HAZARD RESULTS, AND SHORT CIRCUIT CALCULATION TABLES PRESENTED IN THE PLANS FOR EACH LOAD CENTER.
5. FOR LOAD CENTERS INSTALLED WITHIN THE MUNICIPALITY OF ANCHORAGE, INSTALL A UTILITY INFORMATION LABEL ON THE EXTERIOR OF THE LOAD CENTER PER THE REQUIREMENTS OF THE MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (MASS) AND THE CEA ELECTRIC SERVICE REQUIREMENTS (ESR). LABEL MATERIALS SHALL BE 3M SCOTCHCAL 220 OR OTHER APPROVED EQUAL. LABEL SHALL BE IN PLACE PRIOR TO GREEN TAG INSPECTION. THE UTILITY INFORMATION LABEL SHALL INCLUDE THE FOLLOWING:
   - 5.1. LOAD CENTER OWNER: "MOA" OR "SOA"
   - 5.2. LOAD CENTER USAGE: "TS" FOR SIGNALIZATION, "LU" FOR LIGHTING AND OTHER USES
   - 5.3. LOAD CENTER VOLTAGE: "120/240" OR "240/480"



LABEL LOCATION

P.I.H.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER–WASILLA HIGHWAY TO BOGARD ROAD

ARC FLASH AND SHOCK HAZARD LABELING DETAILS

DATE	TIME	SCALE	DESIGNED BY	MF
3/10/2025	10:48 AM	X" = XX'	CHECKED BY	RDR
			DRAFTED BY	MF

DRAWING LOCATION
00885_H02_TRAF.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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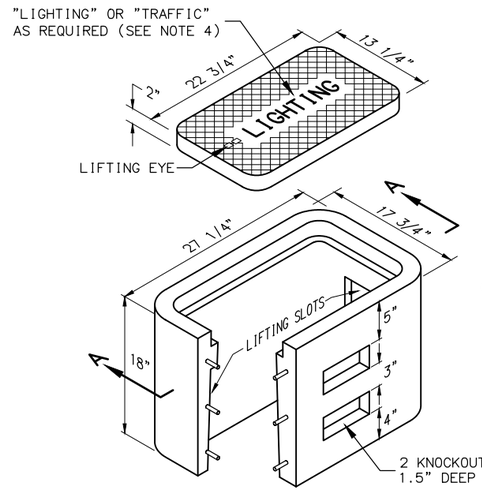
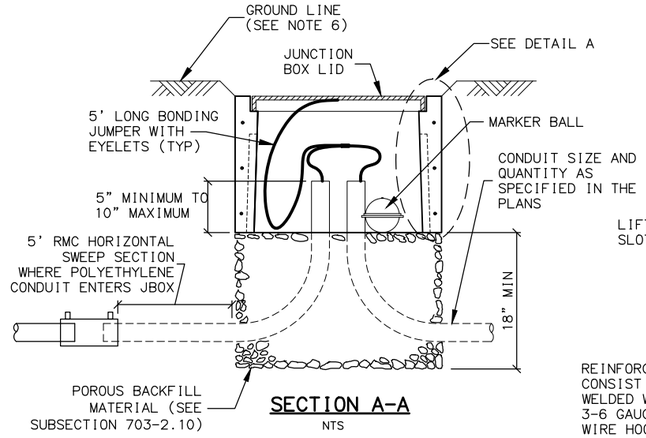
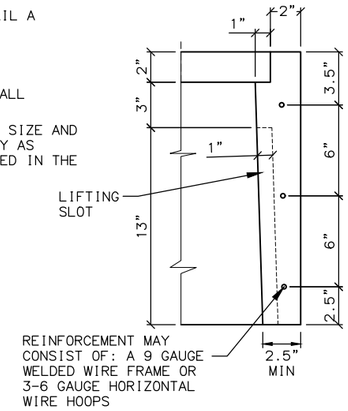




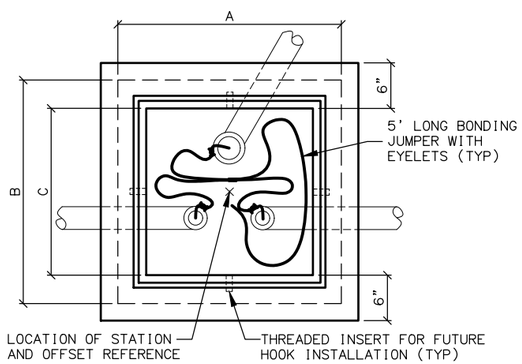
SECTION A-A

NTS

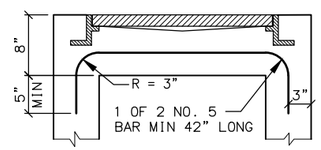


DETAIL A

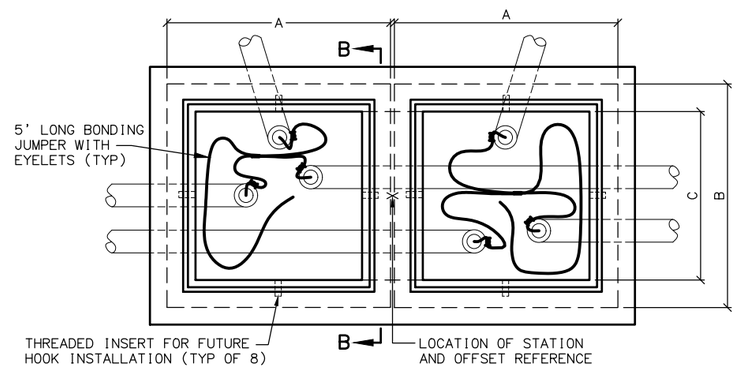
TYPE IA JUNCTION BOX



PLAN



SECTION B-B



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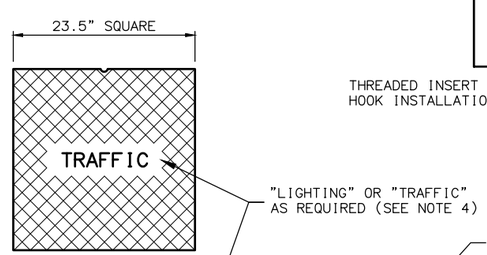
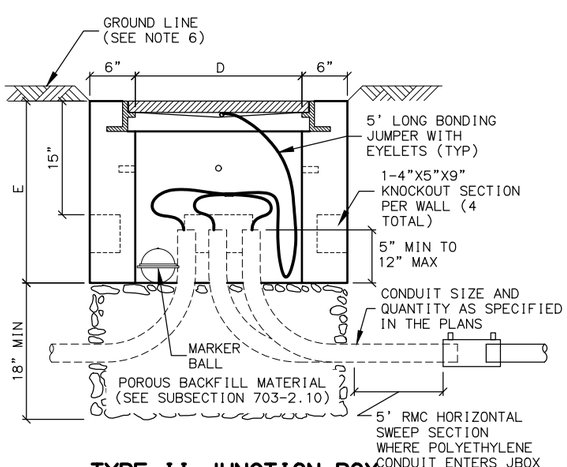


LID FOR TYPE II
& III J-BOXES

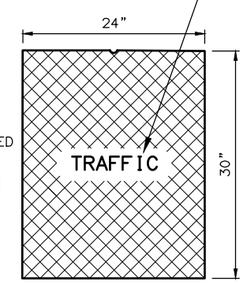
"LIGHTING" OR "TRAFFIC"
AS REQUIRED (SEE NOTE 4)



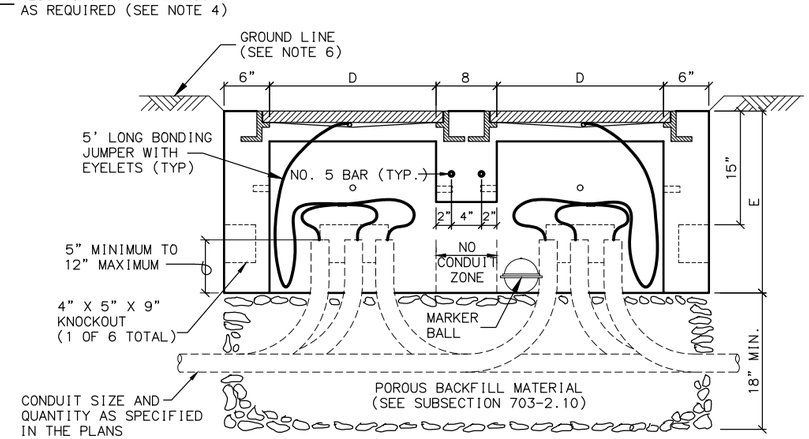
TYPE II JUNCTION BOX

ELEVATION

NTS



LID FOR TYPE IV
J-BOXES



TYPE III/IV JUNCTION BOX

ELEVATION (TYPE III LAYOUT DEPICTED)

NOTES:

1. AVOID INSTALLING TYPE IA JUNCTION BOXES IN DRIVEWAYS OR IN LOCATIONS SUBJECT TO USE BY HEAVY TRUCKS. INSTALL JUNCTION BOXES ONLY AT THE LATERAL LOCATIONS ALLOWED IN SUBSECTION 660-3.04.
2. FURNISH TYPE II, III AND IV JUNCTION BOXES WITH CAST IRON FRAMES AND LIDS THAT WEIGH A MINIMUM OF 210 POUNDS AND ARE RATED FOR HEAVY TRAFFIC LOADS IN COMPLIANCE WITH AASHTO M306. FURNISH TYPE IA JUNCTION BOXES WITH CAST IRON LIDS THAT WEIGH A MINIMUM OF 50 POUNDS.
3. CONSTRUCT JUNCTION BOXES ACCORDING TO SECTION 501 USING CLASS A CONCRETE. REINFORCE TYPE IA JUNCTION BOXES AS SHOWN. SYNTHETIC STRUCTURAL FIBER-REINFORCED CONCRETE THAT MEETS ASTM C 1116 AND CONTAINS FIBER IN PROPORTIONS AS RECOMMENDED BY THE FIBER MANUFACTURER MAY BE ADDED FOR STRENGTH.
4. FOR JUNCTION BOXES THAT CONTAIN ILLUMINATION CONDUCTORS EXCLUSIVELY, FURNISH LIDS WITH THE WORD "LIGHTING" INSCRIBED INTO THEM. FOR OTHER JUNCTION BOXES, FURNISH LIDS WITH THE WORD "TRAFFIC" INSCRIBED INTO THEM.
5. UNDER JUNCTION BOXES, INSTALL POROUS BACKFILL MATERIAL CONFORMING TO SUBSECTION 703-2.10.
6. SET THE TOPS OF JUNCTION BOXES WITH THE FOLLOWING DIMENSIONS BELOW THE FINISHED SURROUNDING SURFACE:
   - 1" IN PAVED MEDIANS AND ADJACENT TO PEDESTRIAN FACILITIES
   - 1/4" IN PEDESTRIAN FACILITIES
   - 2" IN ALL OTHER AREAS
7. BOND JUNCTION BOX LIDS TO THE SYSTEM OF EQUIPMENT GROUNDING CONDUCTORS ACCORDING TO SUBSECTION 660-3.06. ATTACH BONDING JUMPERS TO THE JUNCTION BOX LIDS WITH BRASS OR STAINLESS STEEL HARDWARE.
8. INSTALL LOOP DETECTOR TAILS THROUGH ONE OF THE KNOCKOUTS OF TYPE 1A JUNCTION BOXES. AFTER SETTING THE BOXES TO GRADE, INSTALL GROUT IN THE GAPS THAT REMAIN IN THE KNOCKOUT.
9. INSTALL A 1/2" THICK PREFORMED BITUMINOUS JOINT MATERIAL AROUND JUNCTION BOXES INSTALLED IN PORTLAND CEMENT CONCRETE WALKWAYS.
10. INSTALL AN ELECTRONIC MARKER BALL IN ALL JUNCTION BOXES PER SUBSECTION 660-3.04.
11. PRIOR TO INSTALLATION MARK ALL JUNCTION BOX LOCATIONS WITH A WIRE STAFF VINYL FLAG. THE FLAG SHALL BE RED IN COLOR AND MINIMUM 4-INCHES TALL BY 5-INCHES WIDE. THE WIRE STAFF SHALL BE 21-INCHES IN LENGTH AND CONSTRUCTED OF MINIMUM 15.5 GAUGE STEEL.
12. WHERE MODIFIED TYPE II JUNCTION BOXES ARE REQUIRED FOR DETECTOR LOOP TAIL INSTALLATIONS, ADD ONE(1) ADDITIONAL 5" DEEP X 3" HIGH X 18" WIDE KNOCKOUT 8" BELOW TOP OF JUNCTION BOX.

J-BOX DIMENSIONS

J-BOX TYPE	DIMENSIONS				
	A (MAX.)	B (MAX.)	C (MIN.)	D (MIN.)	E (MIN.)
II	29 1/2"	29 1/2"	22"	22"	24"
III	29 1/2"	29 1/2"	22"	22"	24"
IV	30"	36"	30"	24"	30"

STATE OF ALASKA
ROXANNE D. RUSE
P.E. 13238
REGISTERED PROFESSIONAL ENGINEER
MAR 2025

STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

JUNCTION BOX DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:48 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
00885_H03_TRAF.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
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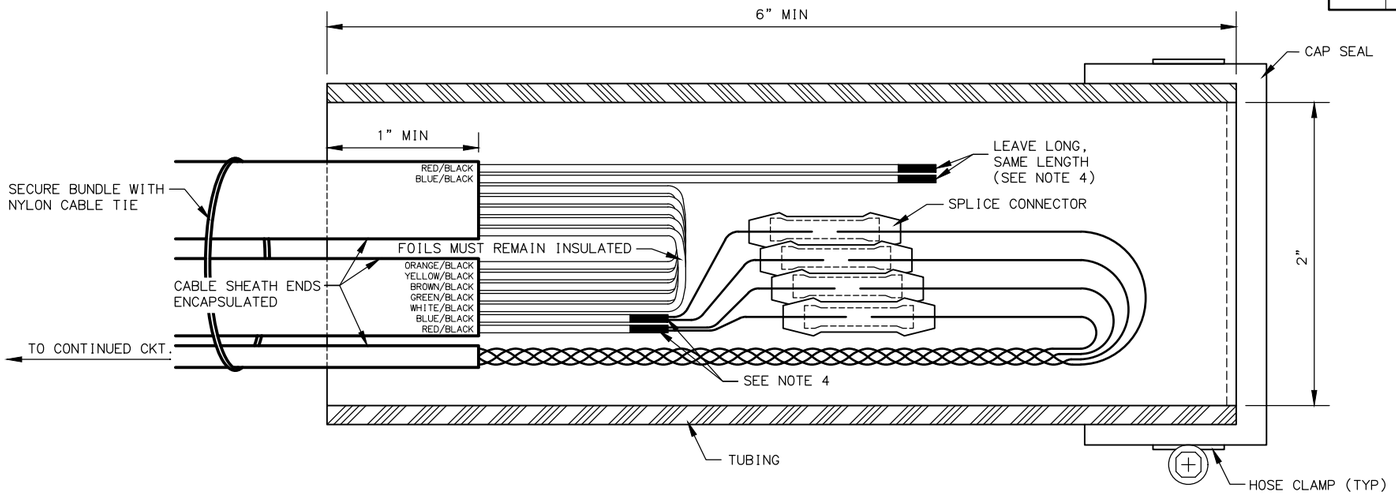
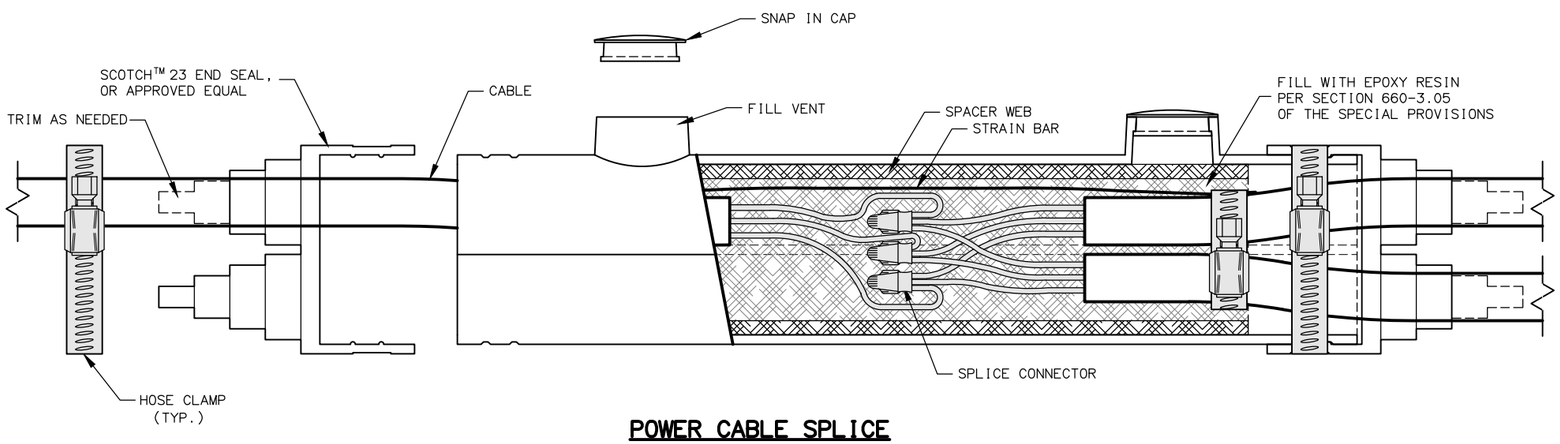
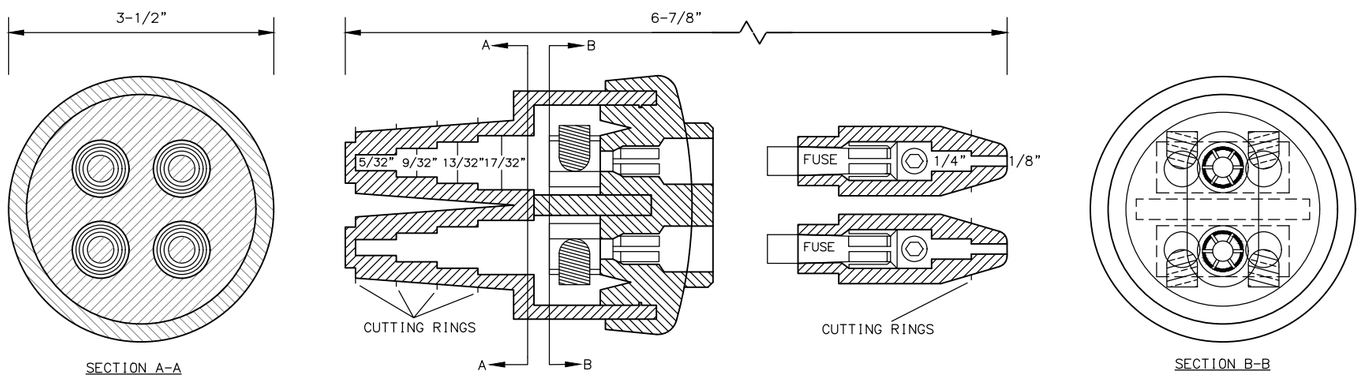


LOOP LEAD-IN SPLICE



POWER CABLE SPLICE



DOUBLE FUSED CONNECTOR

NOTES:

LOOP LEAD-IN SPLICE

1. FABRICATE LOOP LEAD-IN SPLICE IN THE FIELD AS SHOWN.
2. CAP SEAL ONE END AND COMPLETELY FILL OPEN END WITH RE-ENTERABLE ENCAPSULATION COMPOUND TO EDGE OF TUBING.
3. LEAVE A MINIMUM OF 1/2" CLEARANCE BETWEEN THE ENCLOSURE AND THE SPLICE AT BOTH ENDS OF THE TUBING.
4. EXPOSE FOIL AND DRAIN WIRES, SEAL WITH HEAT SHRINK TUBING (TYP).
5. INSTALL SPLICE CONNECTORS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

POWER CABLE SPLICE

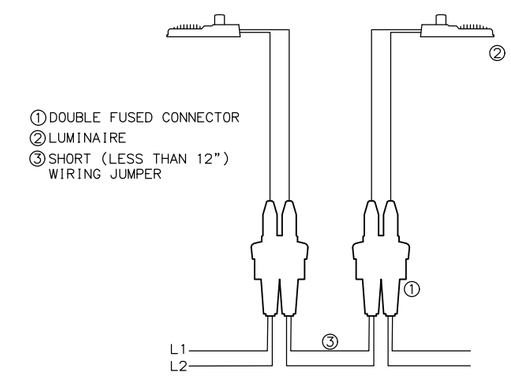
6. SECURE CABLE/CONNECTOR BUNDLE WITH HOSE CLAMPS AS SHOWN.

MATERIAL PROPERTIES

LOOP LEAD-IN SPLICE	
TUBING	PER SECTION 660-3.05
CAP SEAL	FERNCO QWIK CAP #QC-102, OR APPROVED EQUAL
HOSE CLAMP	STAINLESS STEEL
SPLICE CONNECTOR	ML56-16, OR APPROVED EQUAL
COMPOUND	RE-ENTERABLE ENCAPSULATION

POWER CABLE SPLICE	
SPLICE KIT	3M MODEL 78R, OR APPROVED EQUAL
SPLICE CONNECTOR	SCOTCHLOCK G, R, OR Y SPRING CONNECTOR, OR APPROVED EQUAL
HOSE CLAMP	(4)- STAINLESS STEEL
EPOXY RESIN	PER SECTION 660-3.05

DOUBLE FUSED CONNECTOR	
DOUBLE FUSED CONNECTOR	SEC-1791-DF-1, OR APPROVED EQUAL
FUSES	(2) - COMPATIBLE 5-AMP TIME DELAY TYPE FOR LED FIXTURE OR 10-AMP FAST ACTING FOR ALL OTHER FIXTURES



DUAL LUMINAIRE WIRING DIAGRAM

STATE OF ALASKA
49TH
ROXANNE D. RISER
REGISTERED PROFESSIONAL ENGINEER
3238
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SPLICE DETAILS

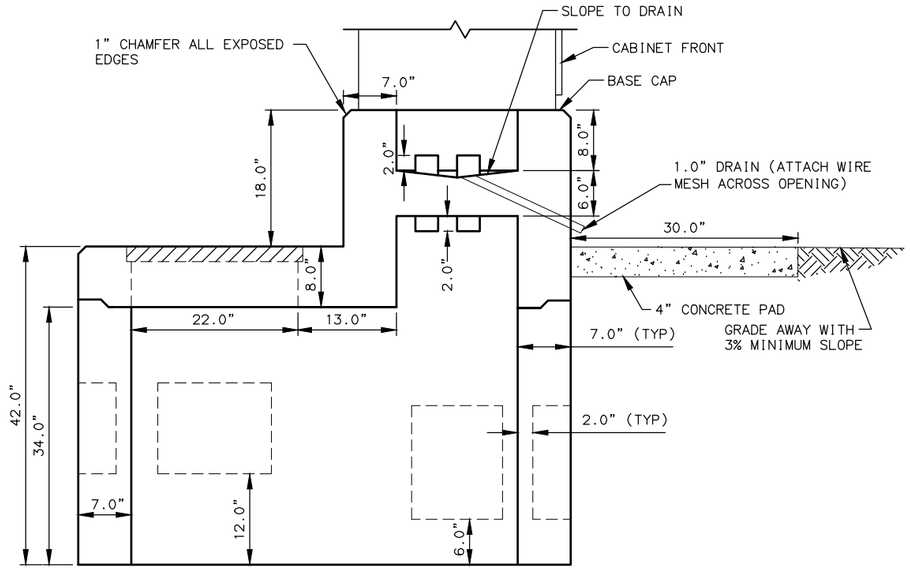
DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

SCALE	DATE	TIME
X" = XX'	3/10/2025	10:48 AM

DRAWING LOCATION
00885_H04_TRAF.DWG

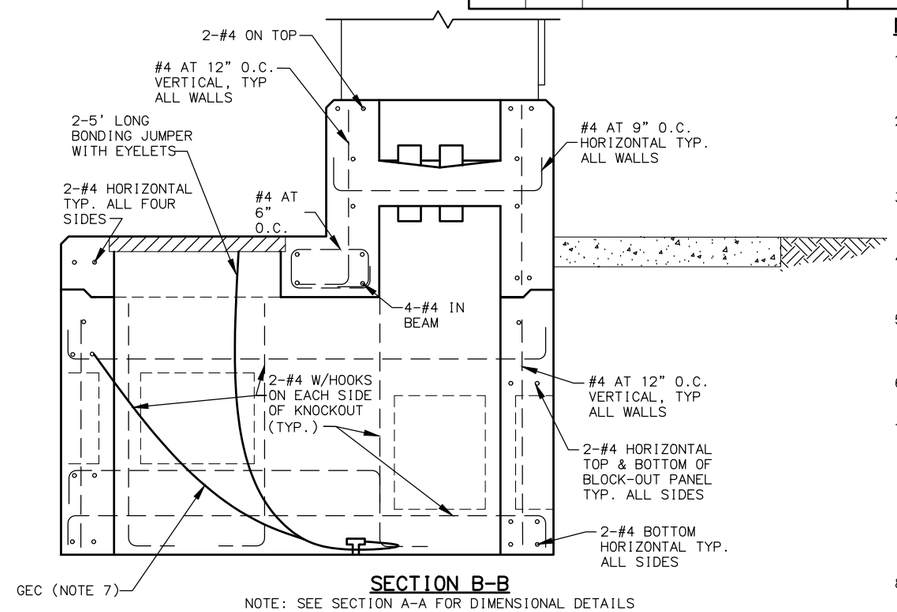
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H05	H45



SECTION A-A

NOTE: SEE SECTION B-B FOR REBAR DETAILS



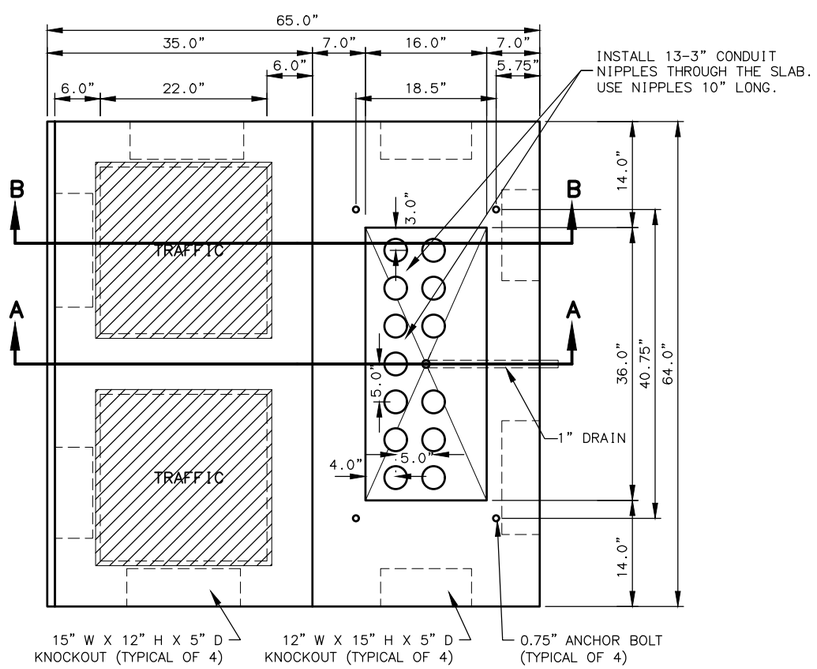
SECTION B-B

NOTE: SEE SECTION A-A FOR DIMENSIONAL DETAILS

NOTES:

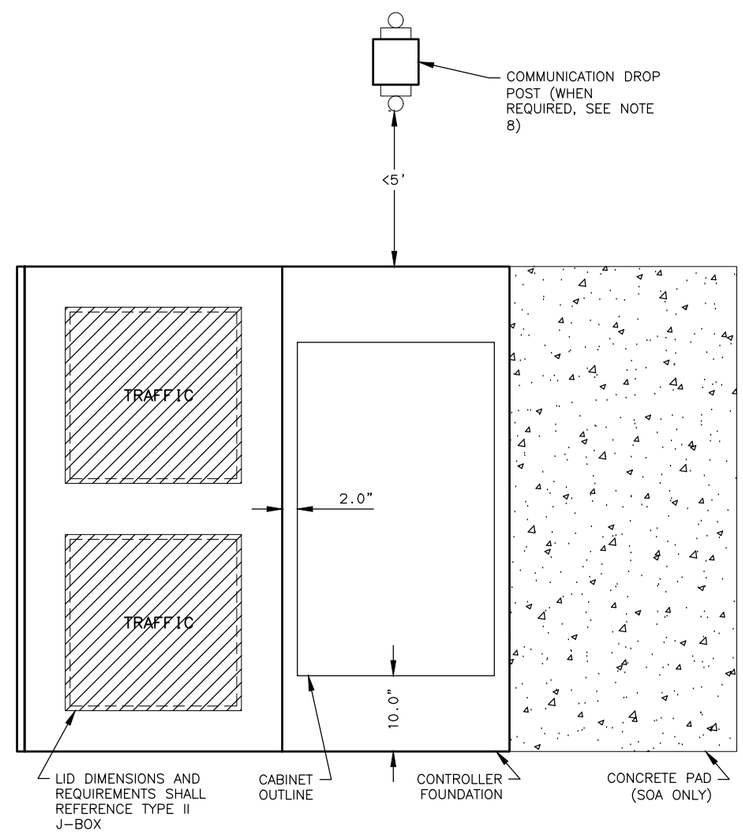
1. ANCHOR BOLTS SHALL NOT PROTRUDE MORE THAN 1.5" ABOVE THE TOP OF THE FOUNDATION. ANCHOR BOLT DIMENSIONS SHALL BE AS SPECIFIED BY THE CABINET MANUFACTURER.
2. SEAL UNUSED CONDUIT STUBS WITH WATERTIGHT CAPS. SEAL STUBS CARRYING CONDUCTORS WITH WATERTIGHT SEALING BUSHINGS DESIGNED TO SEAL AROUND CONDUCTORS AND AGAINST THE CONDUIT WALLS.
3. ROUTE THE FIVE FOOT COPPER BONDING JUMPER THROUGH THE 2" PIPE NIPPLE AND ATTACH IT TO THE GROUNDING BUSHING ON THE FEEDER CONDUIT.
4. STOP HORIZONTAL & VERTICAL STEEL AT THE BLOCK-OUT PANELS & THE JOINT USING 90 DEGREE HOOKS. USE 2 EXTRA #4 HORIZONTAL & VERTICAL BARS. ALL SIDES AS SHOWN.
5. INSTALL TRAFFIC CONTROLLER CABINET FOUNDATION WITHIN 1-DEGREE OF PLUMB AND ORIENTED AS SHOWN IN PLANS SUCH THAT CABINET DOOR OPENS AWAY FROM INTERSECTION/TRAFFIC.
6. INSTALL #6 AWG COPPER GROUNDING ELECTRODE CONDUCTOR (GEC), OR SIZE PER NEC TABLE 250.66, WHICHEVER IS LARGER.
7. THE REINFORCING BARS WITHIN THE CONCRETE FOUNDATION MUST BE CONNECTED TOGETHER BY EFFECTIVE MEANS AND WILL BECOME PART OF THE GROUNDING ELECTRODE SYSTEM PER NEC 250.50 AND 250.52(A)(3). INSTALL AN IRREVERSIBLE COMPRESSION GROUNDING CONNECTOR, NRTL-LISTED FOR DIRECT BURIAL IN EARTH AND CONCRETE, TO CONNECT THE REINFORCING BARS TO THE GEC. INSTALL A COPPER GEC, SIZED PER NEC 250.66 BUT NOT SMALLER THAN #4 AWG, BETWEEN THE COMPRESSION CONNECTOR AND THE CONTROLLER CABINET GROUND BUS.
8. WHEN COMMUNICATION DROP POST IS CALLED FOR IN THE PLANS INSTALL A COMMERCIALLY TREATED 6" X 6" WOOD POST WITHIN 5' OF THE TRAFFIC CONTROLLER AND INSTALL CONDUIT AS SHOWN. STAKE THE LOCATION OF THE BURIED CONDUIT END TO BE USED BY THE UTILITY.

MATERIAL PROPERTIES		
CONCRETE	CLASS A	F'c = 4000 psi
REINFORCING STEEL	AASHTO M31 GRADE 60	Fy = 60 ksi
CONDUIT	RMC	
BONDING JUMPERS	3M 25T-BBE6 OR EQUAL	

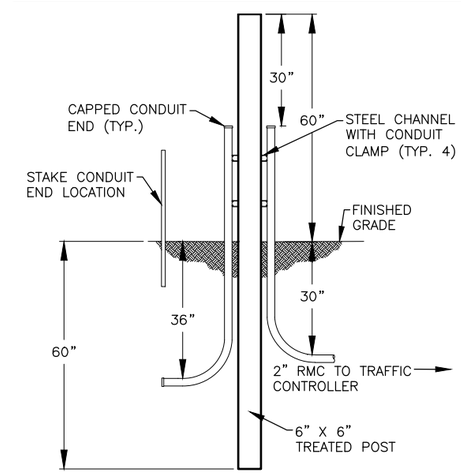


SIZE 6 OR 7 CONTROLLER CABINET FOUNDATION

NOTE: BOLT SPACING DIMENSIONS SHOWN FOR TS2 CONTROLLER CABINETS.



PLAN VIEW



COMMUNICATION DROP POST

STATE OF ALASKA
ROXANNE D. RIDER
49TH
PROFESSIONAL ENGINEER
P.E. MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

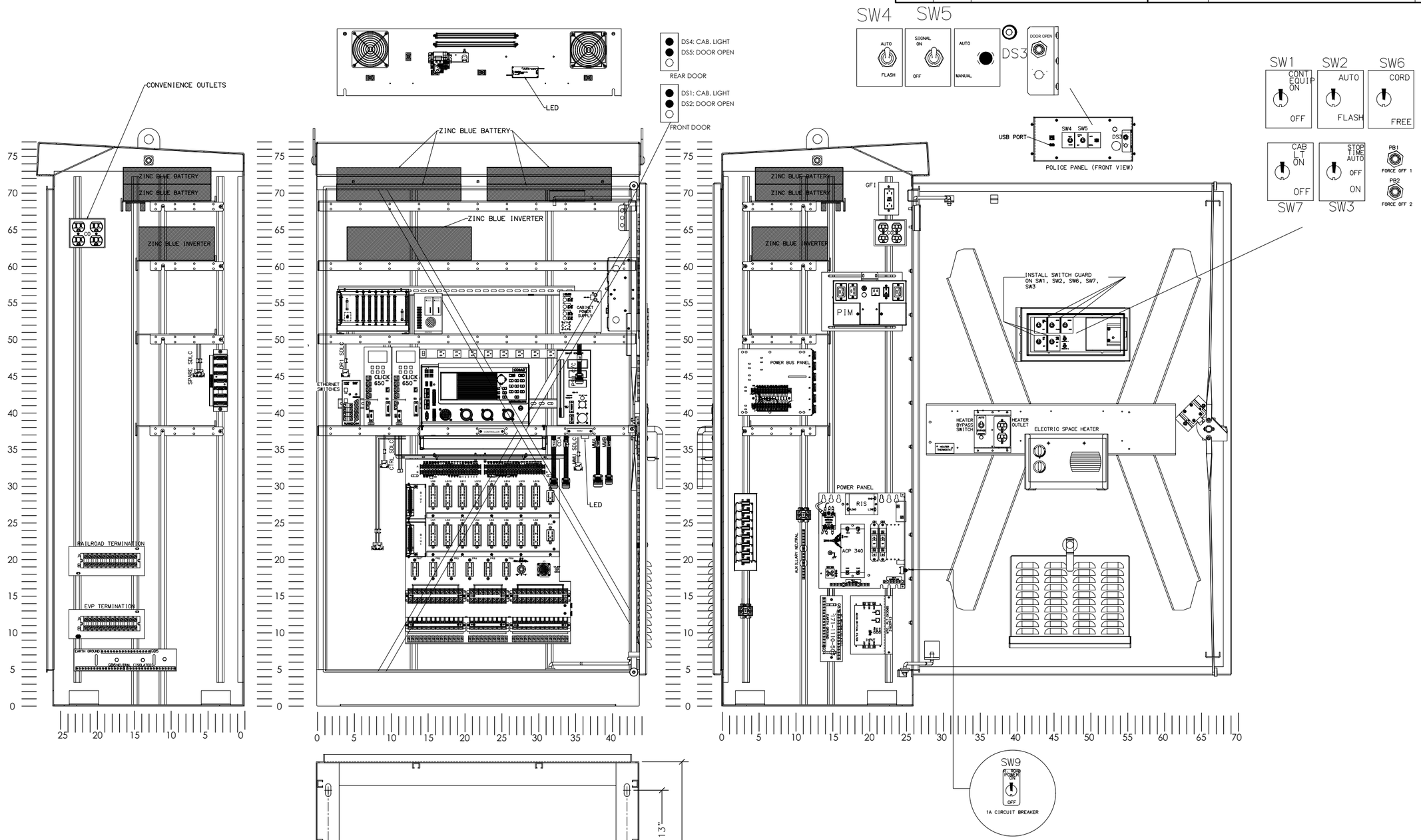
TS2 CONTROLLER CABINET FOUNDATION DETAILS

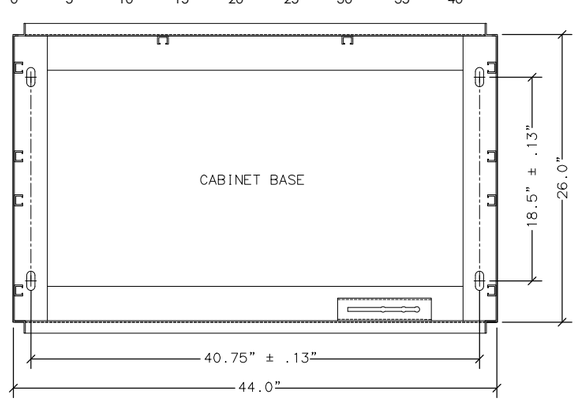
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:48 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
00885_H05_TRAF.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H06	H45





NOTES:

1. TYPICAL ECONOLITE CABINET LAYOUT. CABINET LAYOUT AND COMPONENTS VARY BY INTERSECTION.

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
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STATE OF ALASKA
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AND PUBLIC FACILITIES

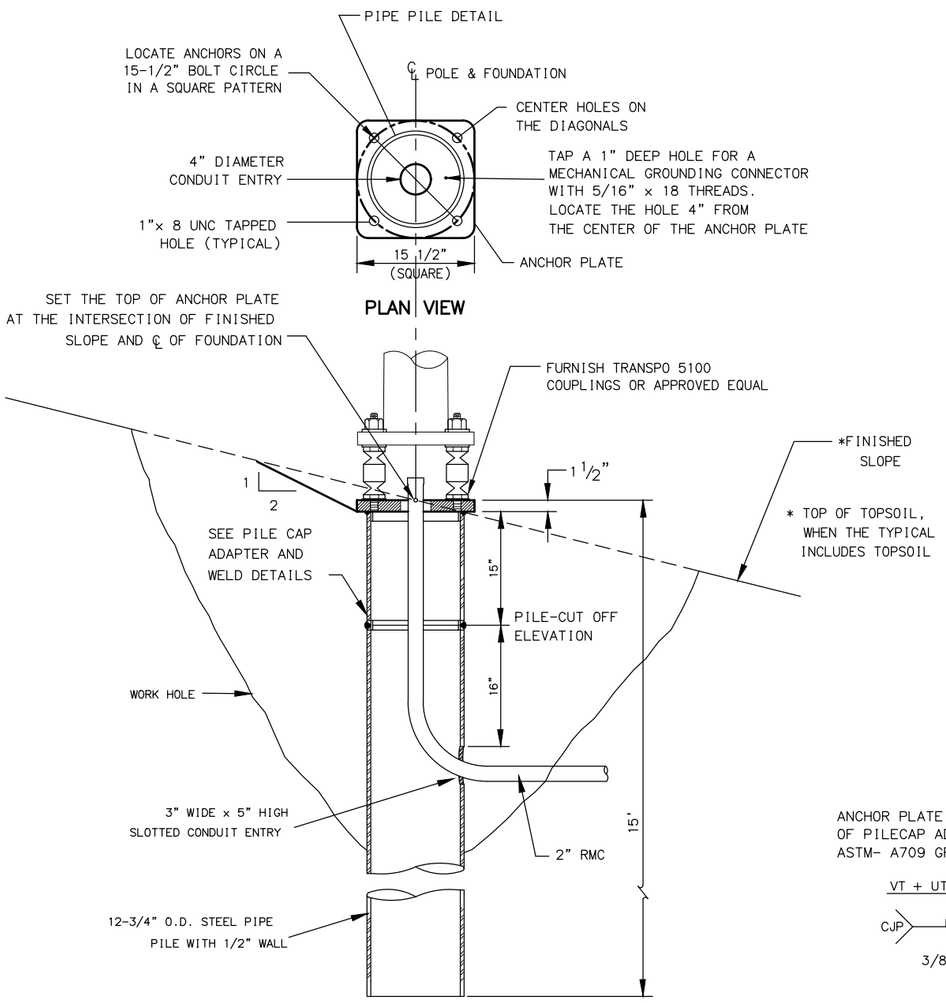
HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

TS2 SIZE 7 CONTROLLER ASSEMBLY DETAILS

DRAWING LOCATION	DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
00885_H06_TRAF.DWG	3/10/2025	10:48 AM	X" = XX'	MF	RDR	MF

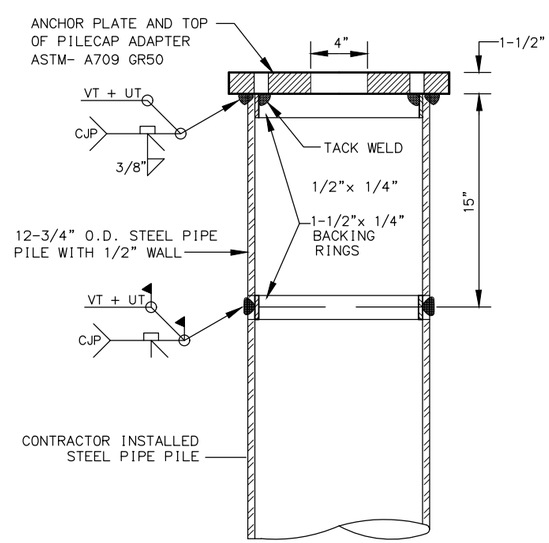
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H07	H45



PIPE PILE FOUNDATION

(SHOWN WITH FRANGIBLE COUPLINGS)



PILECAP ADAPTER AND WELD DETAILS

NOT TO SCALE

DESIGN NOTES:

1. DESIGN STANDARD: 2001 STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRE AND TRAFFIC SIGNALS WITH 2006 INTERIM.
2. DESIGN LOADS: 5-KIPS AXIAL, 7.5-KIPS SHEAR, 40-KIP-FT MOMENT.
3. GALVANIZATION OF PILE IS NOT REQUIRED. UNLESS THE GROUND WATER TABLE IS FOUND TO BE, ABOVE 5 FEET, THEN GALVANIZE PILE ACCORDING TO SECTION 505.
4. CHARPY TEST FOR ELECTROLIER POLE PILE FOUNDATIONS ARE NOT REQUIRED.

MATERIAL REQUIREMENTS		
STRUCTURAL STEEL PLATE	ASTM A709 GRADE 50	Fy = 50 ksi
STEEL PIPE PILE	ASTM A709, GRADE 50 T3	Fy = 50 ksi
	API 5L GRADE X 42	Fy = 42 ksi

NOTES:

1. FURNISH STEEL PIPE PILES THAT CONFORM TO THE MATERIAL REQUIREMENTS AND SECTION 660, 715 AND 740 OF THE SPECIFICATIONS. NO SPLICES ARE ALLOWED BELOW THE PILECAP ADAPTER.
2. DRIVE PILES OPEN ENDED. COMPLETE PILE WORK ACCORDING TO SECTIONS 505, 660 AND 715 OF THE SPECIFICATIONS. REMOVE AND REINSTALL PILES OUT OF PLUMB MORE THAN 1:40.
3. FRESH HEAD THE TOP OF PILES IN A LEVEL PLANE AND CUT THE CONDUIT ENTRANCE HOLE AFTER DRIVING THE PILE. NOTE; ONLY MECHANICAL OR PLASMA CUTTER MEANS ARE PERMITTED. OXY-FUEL CUTTING IS PROHIBITED.
4. FURNISH ONLY SHOP FABRICATED PILECAP ADAPTERS. INCLUDE STAMPED ENGINEERING CALCULATIONS, DRAWINGS, MILL CERTIFICATIONS AND WELDING PLANS FOR PILECAP ADAPTERS AND THE PILECAP ADAPTER TO PILE WELD. WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF THE AWS D1.1, STRUCTURAL WELDING CODE-STEEL AND THE SPECIFICATIONS.
5. WAIT AT LEAST 3 DAYS AFTER BACKFILLING THE WORK HOLE BEFORE ERECTING THE LUMINAIRE POLE.
6. TERMINATE CONDUIT(S) 3" ABOVE THE TOP OF THE ANCHOR PLATE. INSTALL A GROUNDING BUSHING ON THE END OF THE RIGID METAL CONDUIT AND ESTABLISH A BOND WITH THE ANCHOR PLATE.

STATE OF ALASKA
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MAR 2025

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

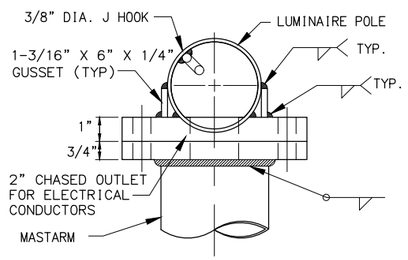
ELECTROLIER PIPE PILE FOUNDATION AND BREAKAWAY SUPPORT DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:48 AM	X" = XX'	MF	RDR	MF

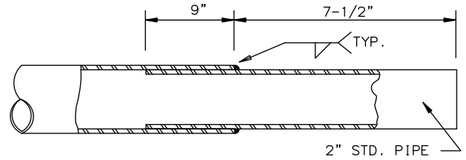
DRAWING LOCATION
00885_H07_TRAF.DWG

NO.	DATE	REVISION

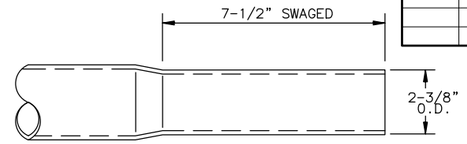
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H08	H45



TOP VIEW



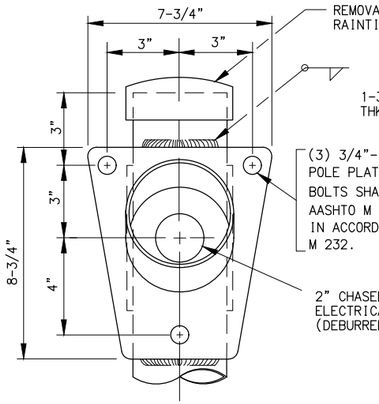
TENON



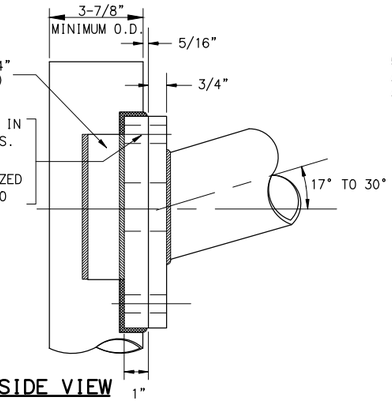
OPTIONAL SWAGED TENON

END OF MASTARM DETAIL

NTS

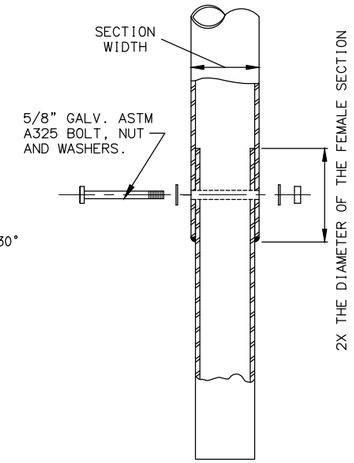


FRONT VIEW

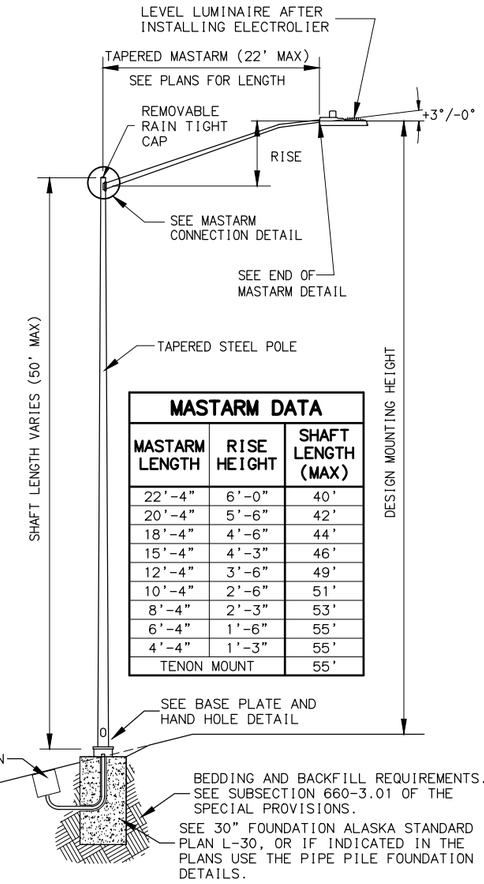


SIDE VIEW

MASTARM CONNECTION DETAIL



POLE CONNECTION DETAIL



ELECTROLIER ELEVATION

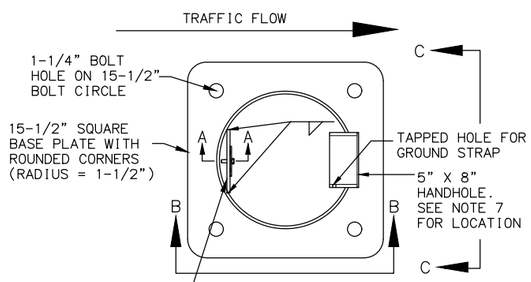
MASTARM TYPE

MASTARM DATA

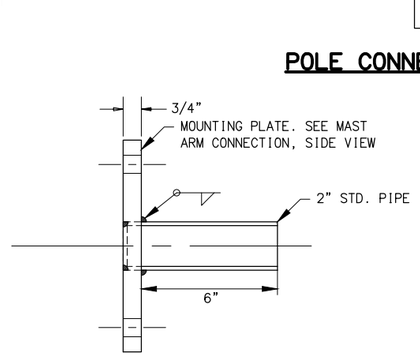
MASTARM LENGTH	RISE HEIGHT	SHAFT LENGTH (MAX)
22'-4"	6'-0"	40'
20'-4"	5'-6"	42'
18'-4"	4'-6"	44'
15'-4"	4'-3"	46'
12'-4"	3'-6"	49'
10'-4"	2'-6"	51'
8'-4"	2'-3"	53'
6'-4"	1'-6"	55'
4'-4"	1'-3"	55'
TENON MOUNT		55'

NOTES:

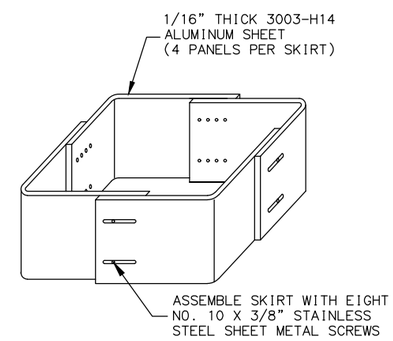
1. DESIGN AND FABRICATE ALL SHAFTS TO SUPPORT A MASTARM 22 FEET LONG WITH LUMINAIRE. ASSUME EACH LUMINAIRE WEIGHS 55 POUNDS AND HAS AN EFFECTIVE PROJECTED AREA OF 1.2 SQUARE FEET. WITH THIS DEAD LOAD, LIMIT THE ANGULAR ROTATION TO THE POLE TOP 1°40'0" MAXIMUM.
2. WELD SIZE TO BE DETERMINED BY THE MANUFACTURER.
3. MOUNTING HEIGHT, IF SPECIFIED IN THE PLANS, REFERS TO THE HEIGHT OF LUMINAIRE ABOVE THE ROADWAY. ADJUST EACH POLE'S SHAFT LENGTH TO MAINTAIN THIS DIFFERENCE IN ELEVATION WHENEVER SLOPE AND/OR OFFSET VARIES.
4. MINIMUM OUTSIDE DIAMETER AT THE TOP OF POLE EQUALS 3-7/8". POLE DIAMETER SHALL TAPER UNIFORMLY FROM THE TOP OF THE POLE TO THE BASE PLATE, WITH A MAXIMUM TAPER RATE OF 0.14" PER FOOT.
5. APPLY AN ANTI-SEIZING COMPOUND TO ALL THREADED SURFACES, INCLUDING THOSE IN THE ANCHOR PLATE AND ON THE COUPLINGS.
6. MASTARM RISE MAY VARY ±6" FROM THE VALUES LISTED IN THE TABLE.
7. LOCATE THE HANDHOLE AT 90 DEGREES TO THE MASTARM ON THE SIDE OF POLE DOWNSTREAM FROM TRAFFIC FLOW.
8. FURNISH ALL POLES WITH A J-HOOK TO SUPPORT THE ILLUMINATION TAP CONDUCTORS. FURNISH ALL MASTARM POLES WITH A REMOVABLE RAIN TIGHT CAP.
9. MOUNT LIGHTING STANDARDS UPON TRANSPO MODEL NO. 5100 FRANGIBLE COUPLINGS AND TRANSPO TYPE B FEMALE ANCHORS, OR APPROVED EQUAL.
10. INSTALL ALL COMPONENTS OF THE BREAKAWAY SUPPORT SYSTEM IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. FABRICATE THE SKIRT FROM FOUR PIECES OF 1/16" THICK 3003 H-14 ALUMINUM SHEET. BEND EACH PLATE TO PROVIDE CORNERS WITH A 3/4" RADIUS. ASSEMBLE THE SKIRT WITH #10 X 3/8" SELF TAPPING STAINLESS SCREWS OR POP RIVETS. THE ASSEMBLED SKIRT MEASURES ABOUT 12-3/4" SQUARE.
12. A JUNCTION BOX IS REQUIRED AT EACH NEW ELECTROLIER. INSTALL THE JUNCTION BOX IMMEDIATELY BEHIND THE FOUNDATION APPROXIMATELY 7' FROM POLE UNLESS OTHERWISE SPECIFIED IN THE PLANS.



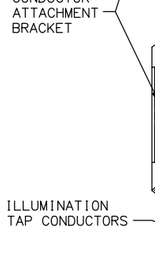
TOP VIEW



TENON MOUNT DETAIL

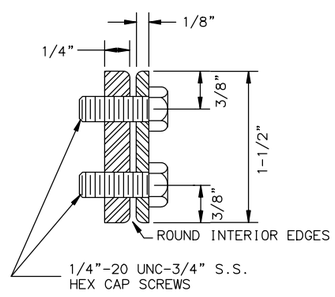


SKIRT DETAIL

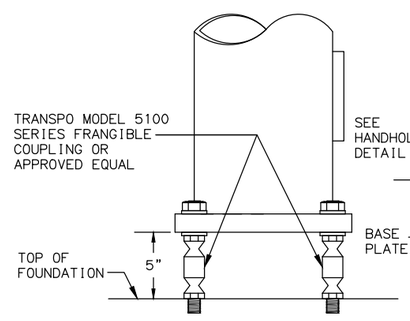


SIDE VIEW

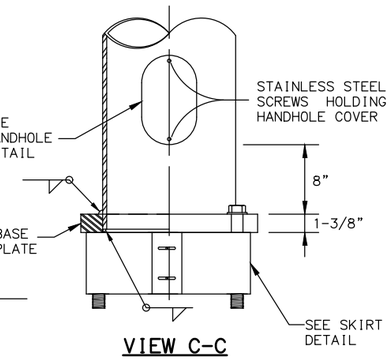
BASE PLATE AND HAND HOLE DETAIL



SECTION A-A



VIEW B-B



VIEW C-C

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
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STATE OF ALASKA 49TH ROXANNE D. RISE 13236 REGISTERED PROFESSIONAL ENGINEER
MAR 2025

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

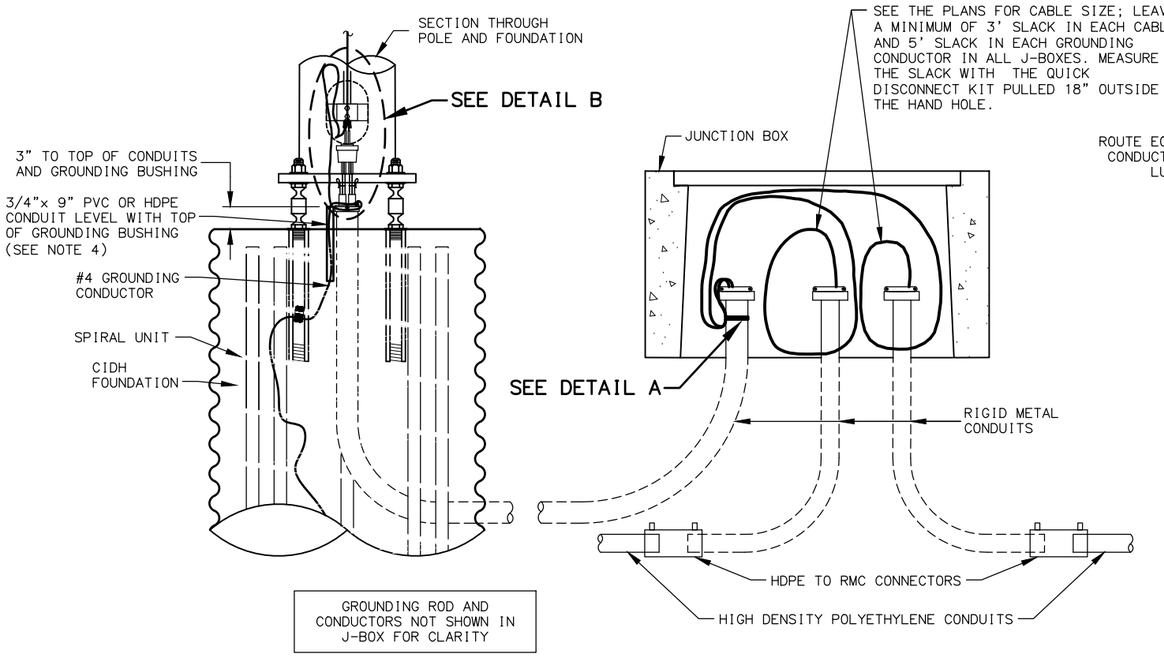
LIGHTING STANDARD 1 DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:49 AM	X" = XX'	MF	RDR	MF

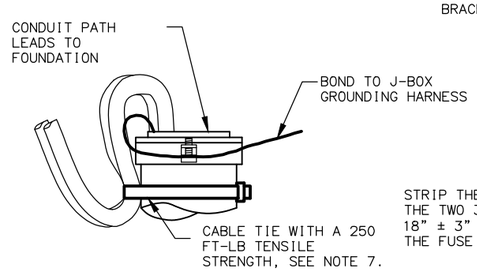
DRAWING LOCATION
00885_H08_TRAF.DWG

NO.	DATE	REVISION

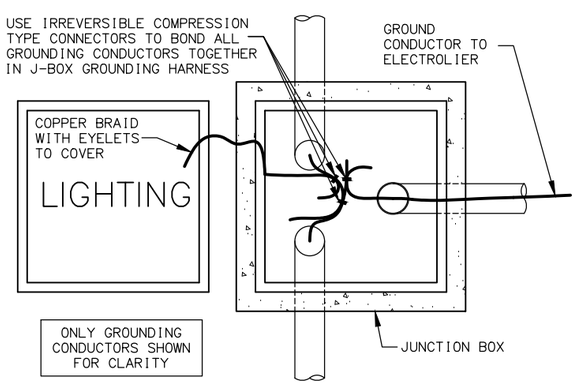
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H09	H45



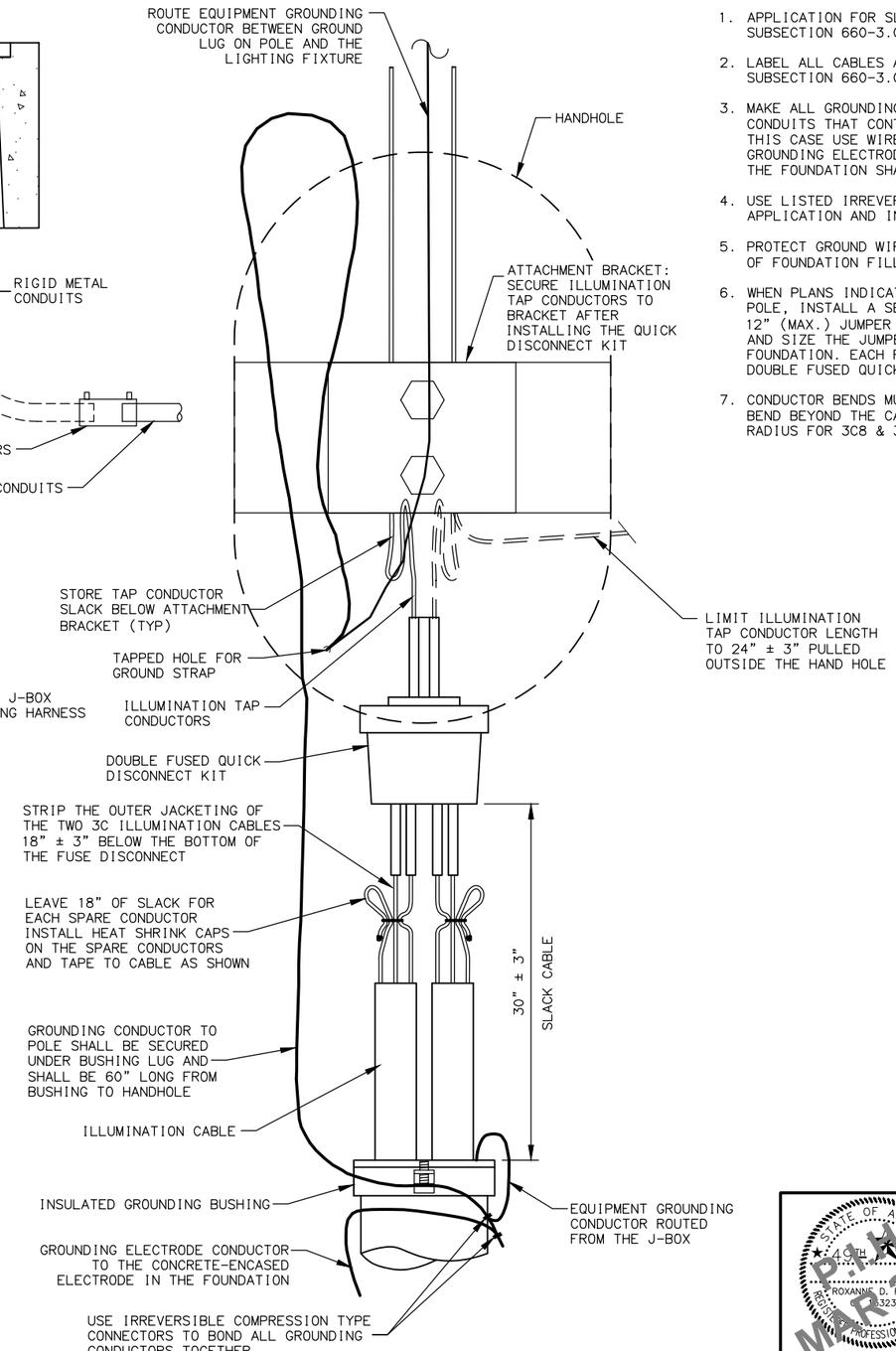
LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS



DETAIL A



GROUNDING CONDUCTOR BONDING CONNECTIONS



DETAIL B

NOTES:

1. APPLICATION FOR SLIP BASE IS THE SAME EXCEPT FOR BONDING. SEE SUBSECTION 660-3.06 FOR BONDING.
2. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX. SEE SUBSECTION 660-3.05.
3. MAKE ALL GROUNDING AND BONDING WIRE #8 AWG, EXCEPT IN THOSE CONDUITS THAT CONTAIN CIRCUIT CONDUCTORS LARGER THAN #8 AWG. IN THIS CASE USE WIRE EQUAL IN SIZE TO THE LARGEST CONDUCTOR. THE GROUNDING ELECTRODE CONDUCTOR TO THE CONCRETE-ENCASED ELECTRODE IN THE FOUNDATION SHALL BE #4 AWG.
4. USE LISTED IRREVERSIBLE COMPRESSION TYPE CONNECTORS SIZED FOR EACH APPLICATION AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.
5. PROTECT GROUND WIRE WITH 3/4" PVC OR HDPE CONDUIT TO 6" BELOW TOP OF FOUNDATION FILLED WITH SILICONE SEALANT.
6. WHEN PLANS INDICATE TWO FIXTURES ARE TO BE INSTALLED ON A SINGLE POLE, INSTALL A SECOND DOUBLE FUSED QUICK DISCONNECT KIT. USE TWO 12" (MAX.) JUMPER CABLES INSTALLED ON THE LINE SIDE OF THE FUSES AND SIZE THE JUMPER CABLES TO MATCH THE CABLES ENTERING THE FOUNDATION. EACH FIXTURE SHALL BE POWERED THROUGH A DEDICATED DOUBLE FUSED QUICK DISCONNECT KIT.
7. CONDUCTOR BENDS MUST BE MADE SO AS NOT TO DAMAGE THE CABLE. DO NOT BEND BEYOND THE CABLE'S MINIMUM BEND RADIUS. USE 3.5" MINIMUM BEND RADIUS FOR 3C8 & 3C6 TYPE TC NON-SHEATHED CABLES.

STATE OF ALASKA
ROXANNE D. RUSE
103236
PROFESSIONAL ENGINEER
49TH
MAR 2025

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

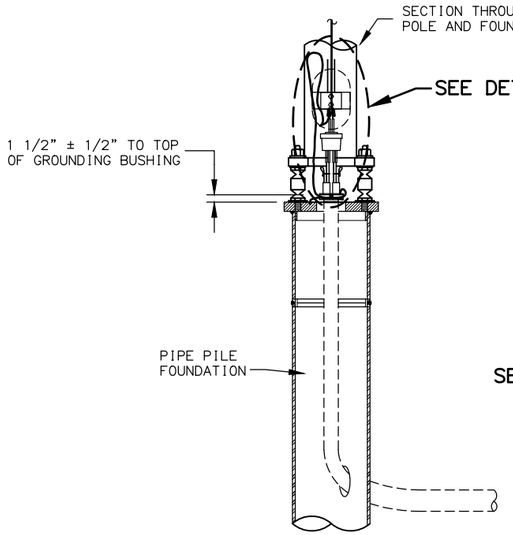
CIDH FOUNDATION POLE WIRING AND GROUNDING DETAILS

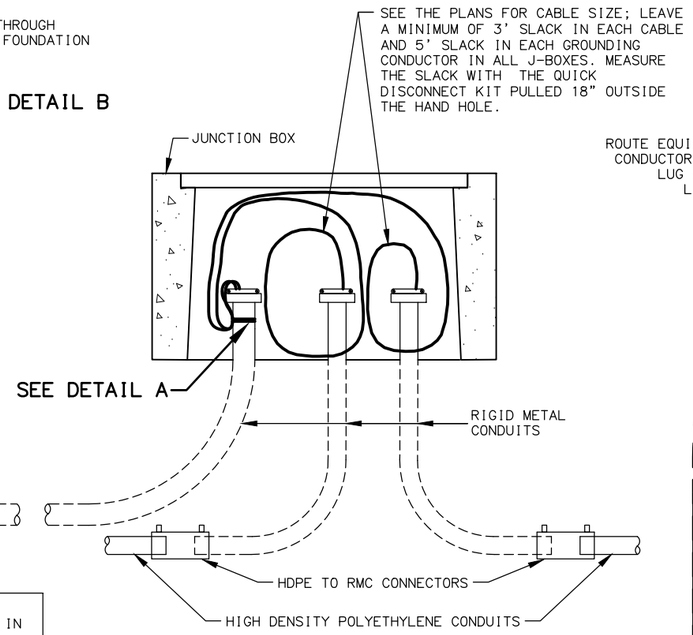
DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF
SCALE	X" = XX'
DATE	3/10/2025
TIME	10:49 AM

DRAWING LOCATION
00885_H09_TRAF.DWG

NO.	DATE	REVISION

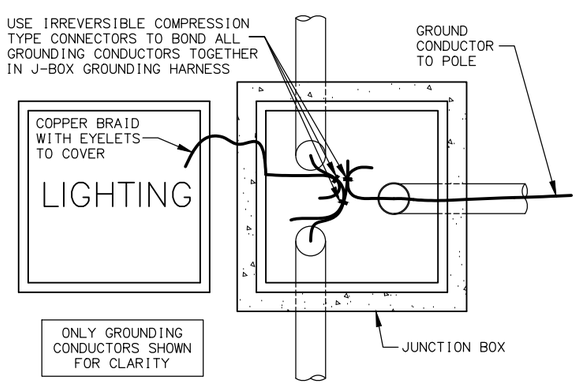
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H10	H45





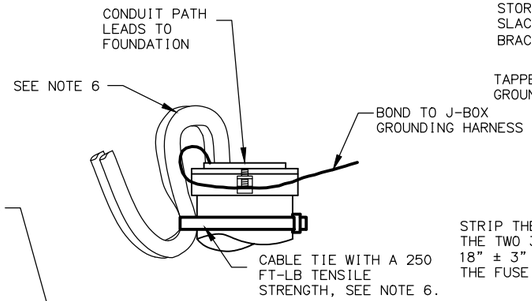
GROUNDING ROD AND CONDUCTORS NOT SHOWN IN J-BOX FOR CLARITY

LIGHTING SYSTEM POLE AND J-BOX WIRING DETAILS

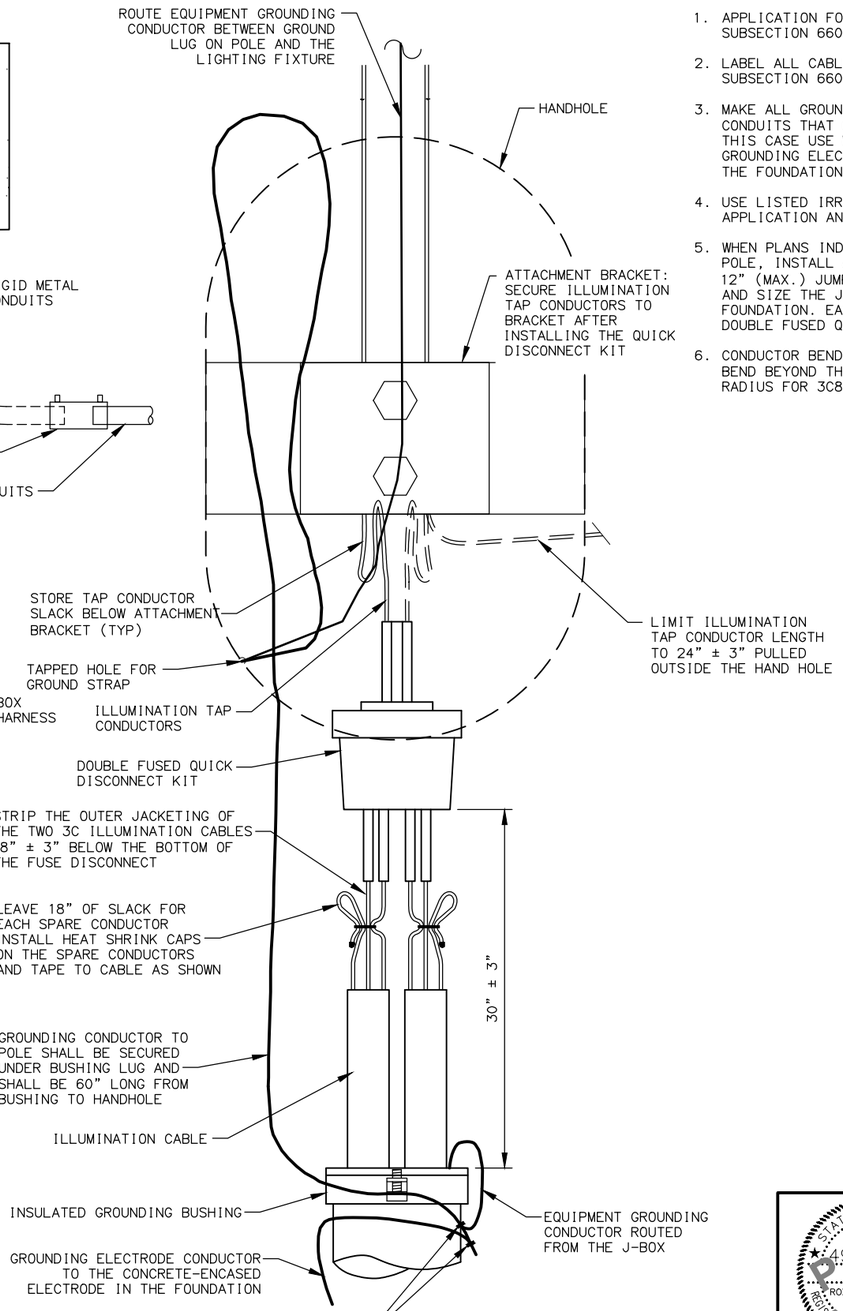


ONLY GROUNDING CONDUCTORS SHOWN FOR CLARITY

GROUNDING CONDUCTOR BONDING CONNECTIONS



DETAIL A



DETAIL B

NOTES:

1. APPLICATION FOR SLIP BASE IS THE SAME EXCEPT FOR BONDING. SEE SUBSECTION 660-3.06 FOR BONDING.
2. LABEL ALL CABLES AND CONDUCTORS IN POLE BASE AND J-BOX. SEE SUBSECTION 660-3.05.
3. MAKE ALL GROUNDING AND BONDING WIRE #8 AWG, EXCEPT IN THOSE CONDUITS THAT CONTAIN CIRCUIT CONDUCTORS LARGER THAN #8 AWG. IN THIS CASE USE WIRE EQUAL IN SIZE TO THE LARGEST CONDUCTOR. THE GROUNDING ELECTRODE CONDUCTOR TO THE CONCRETE-ENCASED ELECTRODE IN THE FOUNDATION SHALL BE #4 AWG.
4. USE LISTED IRREVERSIBLE COMPRESSION TYPE CONNECTORS SIZED FOR EACH APPLICATION AND INSTALLED PER MANUFACTURERS SPECIFICATIONS.
5. WHEN PLANS INDICATE TWO FIXTURES ARE TO BE INSTALLED ON A SINGLE POLE, INSTALL A SECOND DOUBLE FUSED QUICK DISCONNECT KIT. USE TWO 12" (MAX.) JUMPER CABLES INSTALLED ON THE LINE SIDE OF THE FUSES AND SIZE THE JUMPER CABLES TO MATCH THE CABLES ENTERING THE FOUNDATION. EACH FIXTURE SHALL BE POWERED THROUGH A DEDICATED DOUBLE FUSED QUICK DISCONNECT KIT.
6. CONDUCTOR BENDS MUST BE MADE SO AS NOT TO DAMAGE THE CABLE. DO NOT BEND BEYOND THE CABLE'S MINIMUM BEND RADIUS. USE 3.5" MINIMUM BEND RADIUS FOR 3C8 & 3C6 TYPE TC NON-SHEATHED CABLES.

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ROXANNE D. RUSE
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PE
MAR 2025

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PIPE PILE FOUNDATION POLE WIRING AND GROUNDING DETAILS

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

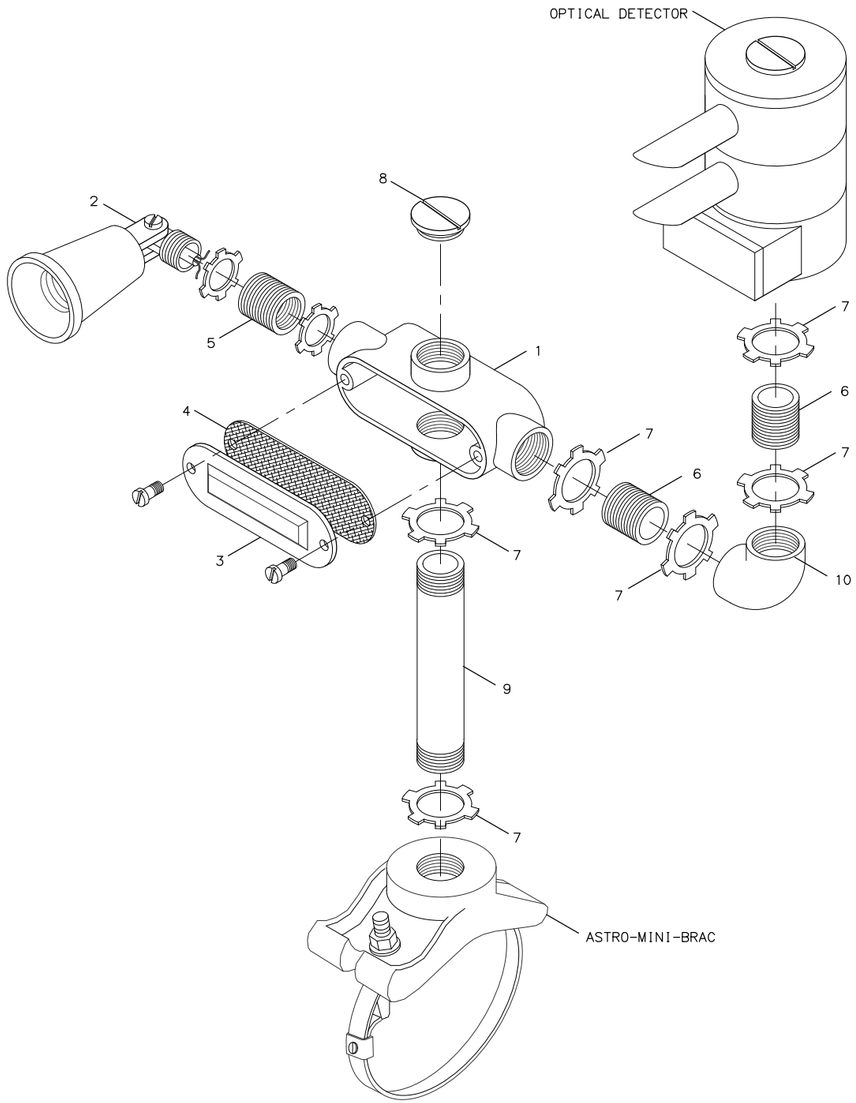
SCALE X" = XX'

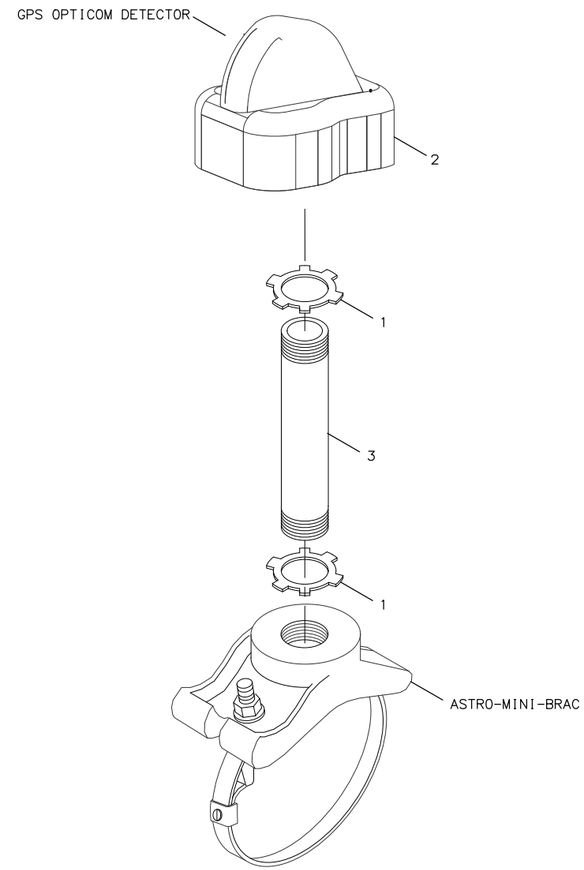
DATE 3/10/2025 TIME 10:49 AM

DRAWING LOCATION 00885_H10_TRAF.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H11	H45





NOTES:

1. SEE THE SIGNAL PLANS FOR THE SIGNAL POLE MAST ARMS SCHEDULED FOR EVP INSTALLATION.
2. FOR EACH EVP INSTALLATION, FURNISH:
   A. A GTT MODEL 711, 721, 722 OPTICOM DETECTOR AS CALLED FOR IN PLANS.
   B. AN ASTRO-MINI-BRAC, MODEL AB-0155-L, AS MANUFACTURED BY PELCO PRODUCTS OR AN APPROVED EQUAL.
   C. A GTT MODEL 575 CONFIRMATION LIGHT KIT WITH THE ADDITIONAL PARTS SHOWN IN THE PARTS LIST, OR STEEL PARTS, WITH A HOT DIP GALVANIZED FINISH, AS SHOWN IN THE PARTS LIST.
   D. WITH EACH OPTICOM DETECTOR INSTALLED, FURNISH A PAR38 20 WATT LED FLOOD LAMP RATED FOR 120 VOLT OPERATION, 1250 INITIAL LUMENS, AND A 25000 HOUR LAMP LIFE.
3. MOUNT EVP DETECTORS TO HAVE DIRECT, UNOBSTRUCTED LINE-OF-SIGHT OF APPROACHING VEHICLES. DRILL A 1 INCH HOLE IN THE TOP DEAD CENTER OF THE MAST ARM AT THE LOCATION PRE-APPROVED BY THE ENGINEER. ASSEMBLE AND TIGHTEN THE PARTS AND LOCKNUTS AS SHOWN ON THIS SHEET.
4. BEFORE ATTACHING THE MODEL 138 DETECTOR CABLE TO THE OPTICOM DETECTOR, STRIP THE INSULATION FROM THE THREE INSULATED CONDUCTORS AT THE CONTROLLER CABINET AND ATTACH ALL FOUR CONDUCTORS TO GROUND.
5. PREEMPTION EMITTERS SHALL BE ASSIGNED ID NUMBERS BY JURISDICTION AS SHOWN IN VEHICLE EMITTER TABLE.

GPS NOTES:

1. SEE THE SIGNAL PLANS FOR THE SIGNAL POLE MAST ARM SCHEDULED FOR GPS OPTICOM SYSTEM INSTALLATION.
2. FOR EACH GPS OPTICOM SYSTEM INSTALLATION, FURNISH:
   A. A GTT MODEL 3100 GPS DETECTOR AS CALLED FOR IN PLANS.
   B. AN ASTRO-MINI-BRAC, MODEL AB-0155-L, AS MANUFACTURED BY PELCO PRODUCTS OR AN APPROVED EQUAL.
3. MOUNT DETECTORS PER MANUFACTURER RECOMMENDATIONS. DRILL A 1 INCH HOLE IN THE TOP DEAD CENTER OF THE MAST ARM AT THE LOCATION PRE-APPROVED BY THE ENGINEER. ASSEMBLE AND TIGHTEN THE PARTS AND LOCKNUTS AS SHOWN ON THIS SHEET.
4. INSTALL OPTICOM MODEL 1070 GPS INSTALLATION CABLE BETWEEN THE SIGNAL CABINET AND THE GPS UNIT PER MANUFACTURER RECOMMENDATIONS. LEAVE APPROXIMATELY 10 FEET OF THE MODEL 1070 CABLE SPOOLED IN THE TRAFFIC CONTROLLER CABINET.
5. PREEMPTION EMITTERS SHALL BE ASSIGNED ID NUMBERS BY JURISDICTION AS SHOWN IN VEHICLE EMITTER TABLE.

VEHICLE EMITTER TABLE

CLASS	VEHICLE I.D. NO.	JURISDICTION	VEHICLE TYPE
0	NOT USED	MUNICIPALITY OF ANCHORAGE	FIRE & EMS
1	NOT USED	MUNICIPALITY OF ANCHORAGE	OTHER
2	NOT USED	FAIRBANKS	FIRE & EMS
3	NOT USED	FAIRBANKS	OTHER
4	1-30	MATANUSKA/SUSITNA	FIRE & EMS
5	NOT USED	MATANUSKA/SUSITNA	OTHER
6	NOT USED	KENAI PENINSULA	FIRE & EMS
7	NOT USED	KENAI PENINSULA	OTHER
8	NOT USED	ELMENDORF/FT. RICHARDSON	FIRE & EMS
9	NOT USED	ELMENDORF/FT. RICHARDSON	OTHER

PARTS LIST FOR EACH GTT OPTICOM DETECTOR INSTALLED

GTT OPTICOM MODEL 575 CONFIRMATION LIGHT KIT
CONFIGURE AS SHOWN FROM PARTS BELOW

PART NO.	PART TYPE	LIGHT KIT QUANTITY
1	"X" CONDUIT BODY	1
2	PAR 38 LAMP HOLDER	2
3	CONDUIT COVER	1
4	COVER GASKET	1
5	REDUCING BUSHING	2
6	3/4" CLOSE NIPPLE	2
7	3/4" LOCKNUT	6
8	3/4" HOLE PLUG	2
9	3/4" X 6" NIPPLE	ADD 1 TO KIT
10	3/4" X 90° ELBOW	ADD 1 TO KIT

PARTS LIST FOR EACH GPS OPTICOM DETECTOR INSTALLED

GTT OPTICOM MODEL 3100 RADIO/GPS UNIT AS SHOWN FROM PARTS BELOW

PART NO.	PART TYPE	LIGHT KIT QUANTITY
1	3/4" LOCKNUT	2
2	GPS OPTICOM UNIT	1
3	3/4" X 6" NIPPLE	1

STATE OF ALASKA
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

EVP INSTALLATION DETAILS

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:49 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
00885_H11_TRAF.DWG

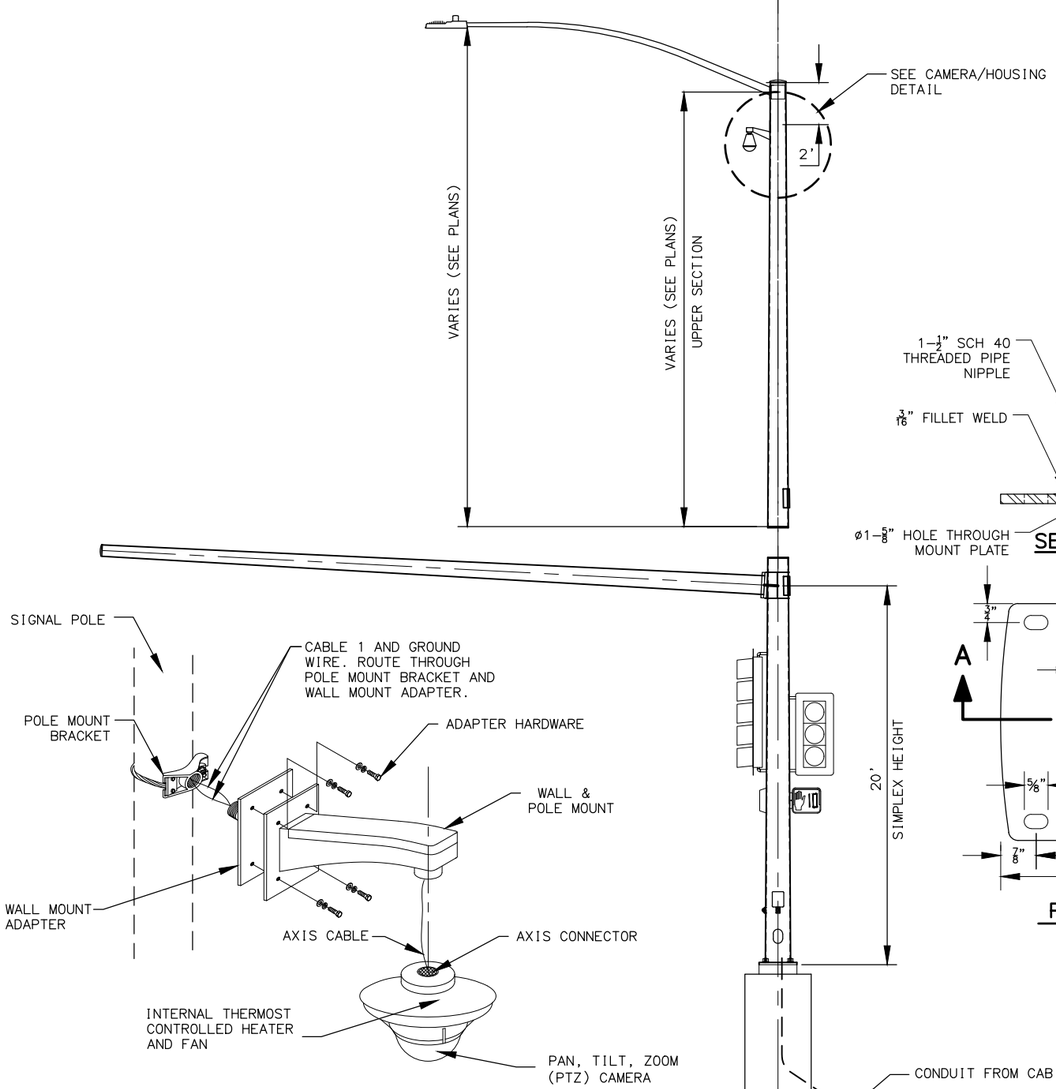
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H12	H45

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

SCALE	DATE	TIME
X" = XX'	3/10/2025	10:49 AM

LOCATION

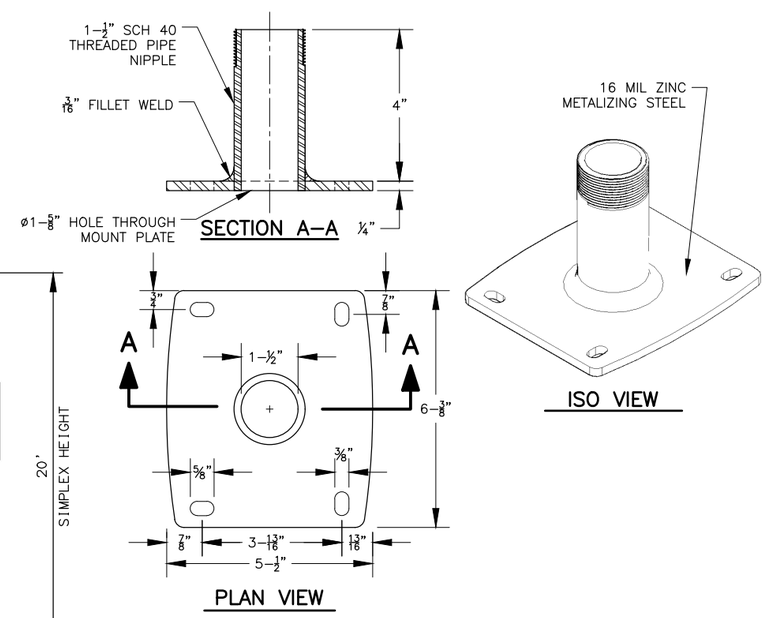


CAMERA/HOUSING DETAIL

NTS

MATERIAL REQUIREMENTS

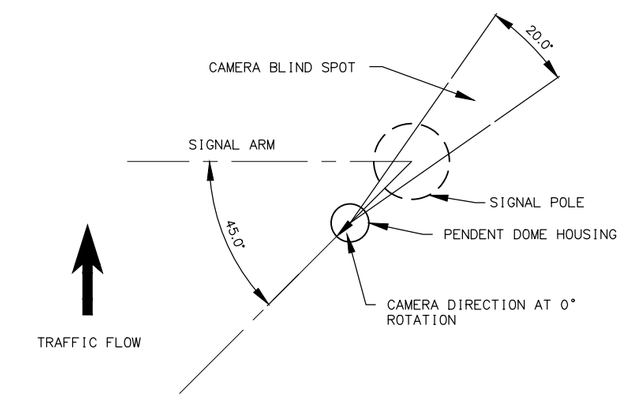
ALL ASSEMBLIES	
MOUNTING BRACKET	ASTRO-BRAC AB-0160-45-SS-PNC
WALL ADAPTOR	STEEL FABRICATORS OR APPROVED EQUAL
WALL MOUNT	AXIS T91L61 OR APPROVED EQUAL
CABLE 1 (SIGNAL)	CAT-5E, SHIELDED, DIRECT BURIAL
CONNECTOR	ENVIRONMENTALLY HARDENED RJ-45
STRAIN RELIEF	REMKE 2201-013 OR APPROVED EQUAL
ADAPTER HARDWARE, EACH	(1) 5/16" 18X1" HEX BOLT, STAINLESS (2) 5/16" FLAT WASHER, STAINLESS (1) 5/16" NY-LOCK NUT, STAINLESS
CAMERA	
CAMERA	SEE SPECIFICATIONS



WALL MOUNT ADAPTER DETAIL

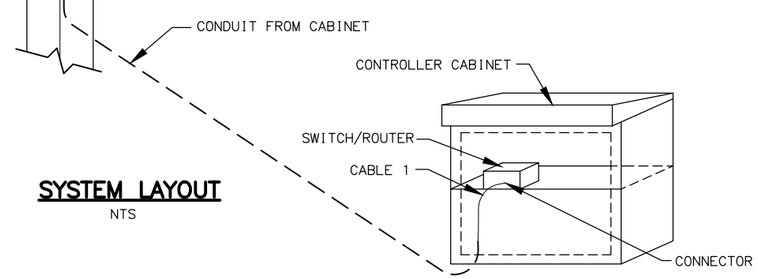
NOTES:

1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. PULL CABLE IN ACCORDANCE WITH SECTION 660 OF THE SPECIAL PROVISIONS. PULL CABLE SO THAT THERE IS SUFFICIENT LENGTH TO REACH THE TOP OF THE CONTROLLER CABINET. CABLES ARE TO BE PULLED WITHOUT CONNECTORS ATTACHED. WHEN CABLE HAS BEEN PULLED TO FINAL LOCATIONS INSTALL AND MAKE FINAL CONNECTIONS.
3. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES EXCEPT FOR IN LOCATION SHOWN IN SPLICE DETAIL WITH SPECIFIED CONNECTOR.
4. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT NO ADDITIONAL COST.
5. THE MINIMUM BEND RADIUS SHALL NOT EXCEED THE MANUFACTURERS RECOMMENDATIONS.
6. ENSURE ADEQUATE LENGTH OF EACH CABLE TO ALLOW WORK ON THE ENDS OF THE CABLE IN THE CONTROLLER CABINET AND THE CAMERA MOUNTING LOCATION.
7. MOUNT THE PENDENT DOME HOUSING AT A 45° ANGLE AT THE REQUIRED HEIGHT. ANGLE AND HEIGHT MAY BE ADJUSTED BY THE ENGINEER TO AVOID WELDS, APPENDICES AND TO APPROVE SIGHT DISTANCE.
8. ADJUST CAMERA INSIDE THE PENDENT DOME HOUSING AS SHOWN. ENSURE THAT THE CAMERA IS MOUNTED AT A 0° TILT ANGLE.
9. INSTALL WATERTIGHT THREADED RIGID COMPRESSION CONNECTOR WHERE CABLE PASSES THROUGH THE POLE.
10. AT SPLICE LOCATION PROVIDE A SECURE CONNECTION USING CONNECTOR PARTS SPECIFIED. AFTER CONNECTION IS MADE COVER SPLICE WITH HEAT SHRINK. PROVIDE A STRAIN RELIEF CABLE AS NECESSARY.
11. CAMERA/HOUSING MOUNTING HEIGHT TO BE DETERMINED IN THE FIELD BY THE ENGINEER.



CAMERA/PENDENT DOME ORIENTATION

NTS



SYSTEM LAYOUT

NTS

STATE OF ALASKA DOT&PF
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES

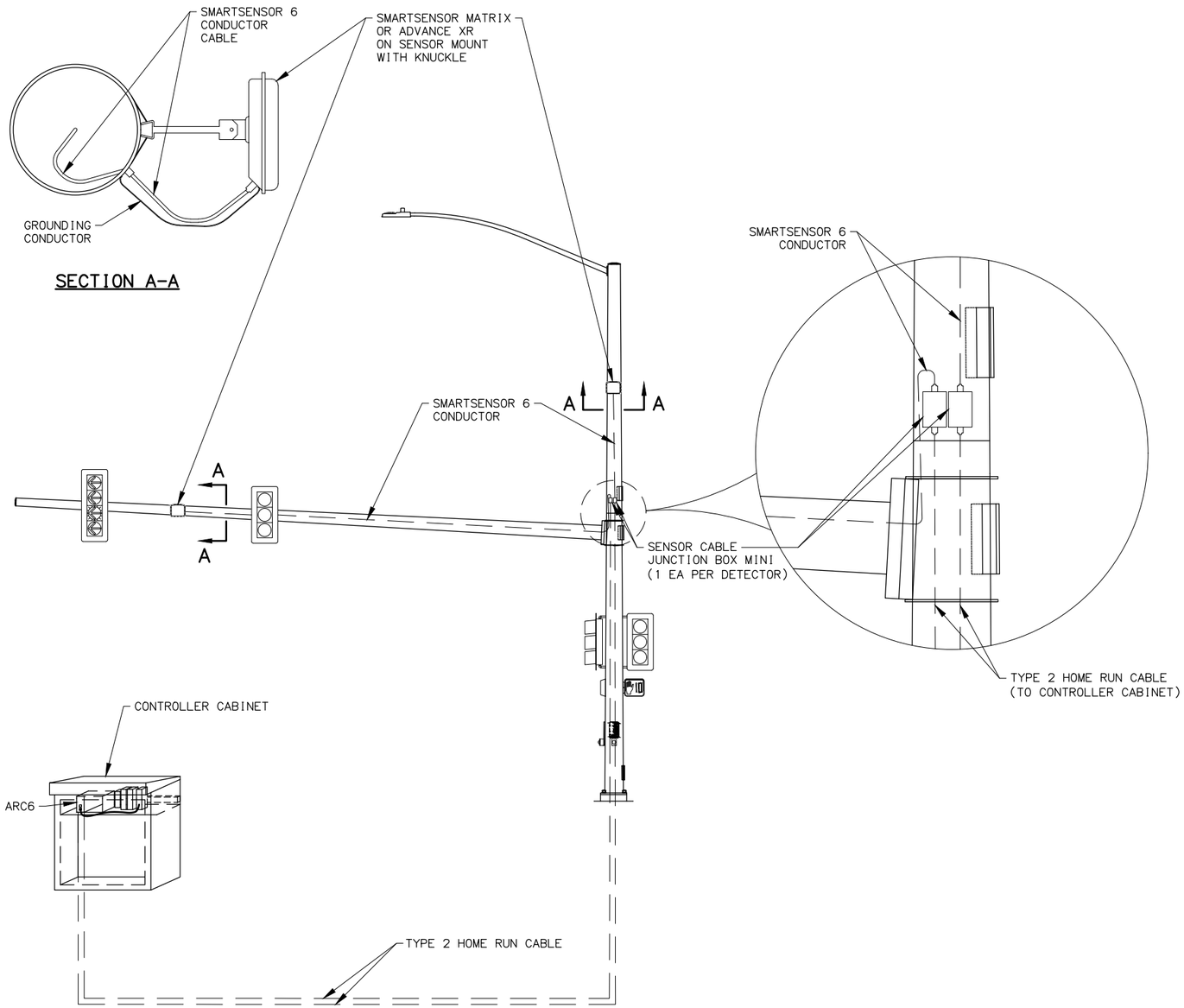
HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PAN, TILT, ZOOM, CAMERA MOUNTING DETAILS

DRAWING LOCATION
00885_H12_TRAF.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H13	H45



RADAR DETECTION DETAIL

(NTS)

NOTES:

1. PROTECT CABLE ENDS FROM MOISTURE AT ALL TIMES.
2. CABLE WITH DAMAGED INSULATION, OR THAT HAS BEEN CRIMPED OR BENT BEYOND THE MINIMUM BEND RADIUS MUST BE REPLACED AT CONTRACTORS EXPENSE.
3. THE MINIMUM BEND RADIUS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
4. MOUNT THE RADAR AT THE LOCATION STATED IN THE PLANS. PLACEMENT MAY BE ADJUSTED BY THE ENGINEER TO ALLOW FOR BETTER AIMING OF THE RADAR OR TO AVOID OTHER HAZARDS.
5. INSTALL WATERTIGHT THREADED RIGID COMPRESSION CONNECTOR WHERE CABLE PASSES THROUGH THE POLE.
6. FURNISH ONLY NEW EQUIPMENT OF THE BRAND AND TYPE LISTED. PROVIDE AT NO ADDITIONAL COST ALL NECESSARY DEVICES, WIRES, BRACKETS/HARDWARE ETC. TO PROVIDE A FULLY FUNCTIONING RADAR DETECTION SYSTEM.
7. INSTALL #10 AWG GROUNDING CONDUCTOR WITH GREEN COLORED INSULATION BETWEEN THE EXTERNAL GROUNDING LUG ON THE SMARTSENOR UNIT AND A 1/4" x 1/2" STAINLESS STEEL BOLT BOLTED TO THE POLE.
8. CABLE RUNS ARE TO BE MADE CONTINUOUS WITHOUT SPLICES EXCEPT WHERE NOTED IN THE JUNCTION BOX MINI.

STOP BAR DETECTOR EQUIPMENT
SMARTSENSOR MATRIX (SS-225)
MINI 710- SENSOR CABLE J-BOX MINI WITH TERMINAL BLOCKS (102-0453)
HOME RUN CABLE (MTX2 HMRN)
SMARTSENSOR 6 CONDUCTOR CABLE (SS-704-080) WITH SINGLE END CONNECTOR (SS-709) FACTORY INSTALLED
SENSOR MOUNT - 6" 3 AXIS ALUM. BRACKET. (SS-611)
ADD ON KNUCKLE (360-0129)

ADVANCE EXTENDED RANGE (XR) DETECTOR EQUIPMENT
SMARTSENSOR ADVANCE EXTENDED RANGE (SS-200E)
MINI 710- SENSOR CABLE J-BOX MINI WITH TERMINAL BLOCKS (102-0453)
HOME RUN CABLE (MTX2 HMRN)
SMARTSENSOR 6 CONDUCTOR CABLE (SS-704-XXX) WITH SINGLE END CONNECTOR (SS-709) FACTORY INSTALLED
SENSOR MOUNT - 6" 3 AXIS ALUM. BRACKET. (SS-611)
ADD ON KNUCKLE (360-0129)

STATE OF ALASKA
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REGISTERED PROFESSIONAL ENGINEER
MAR 2025

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

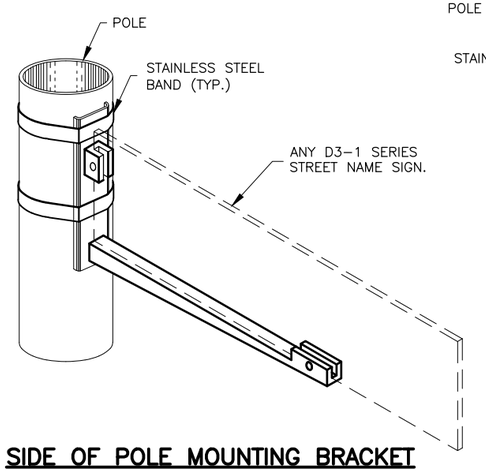
RADAR DETECTION DETAILS

DRAWING LOCATION
00885_H13_TRAF.DWG

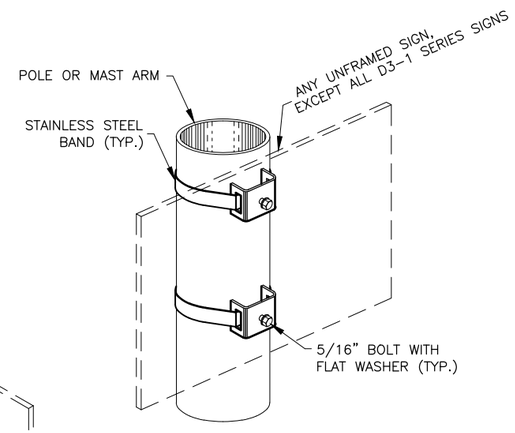
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:49 AM	X" = XX'	MF	RDR	MF

NO.	DATE	REVISION

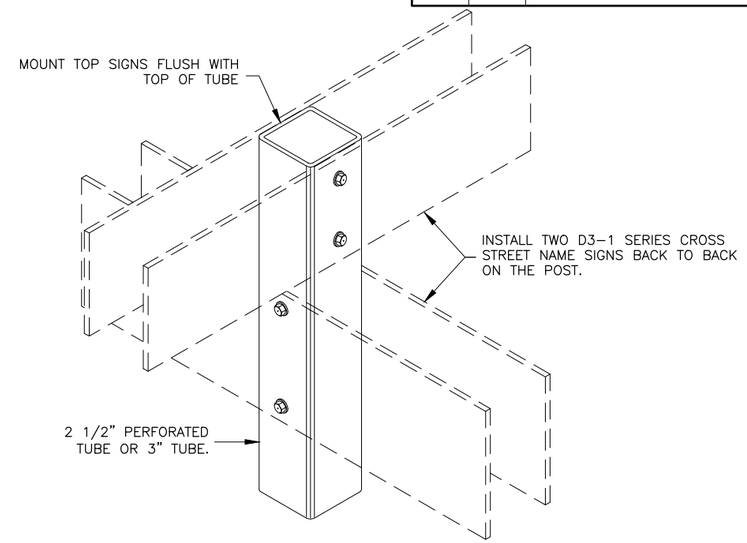
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H14	H45



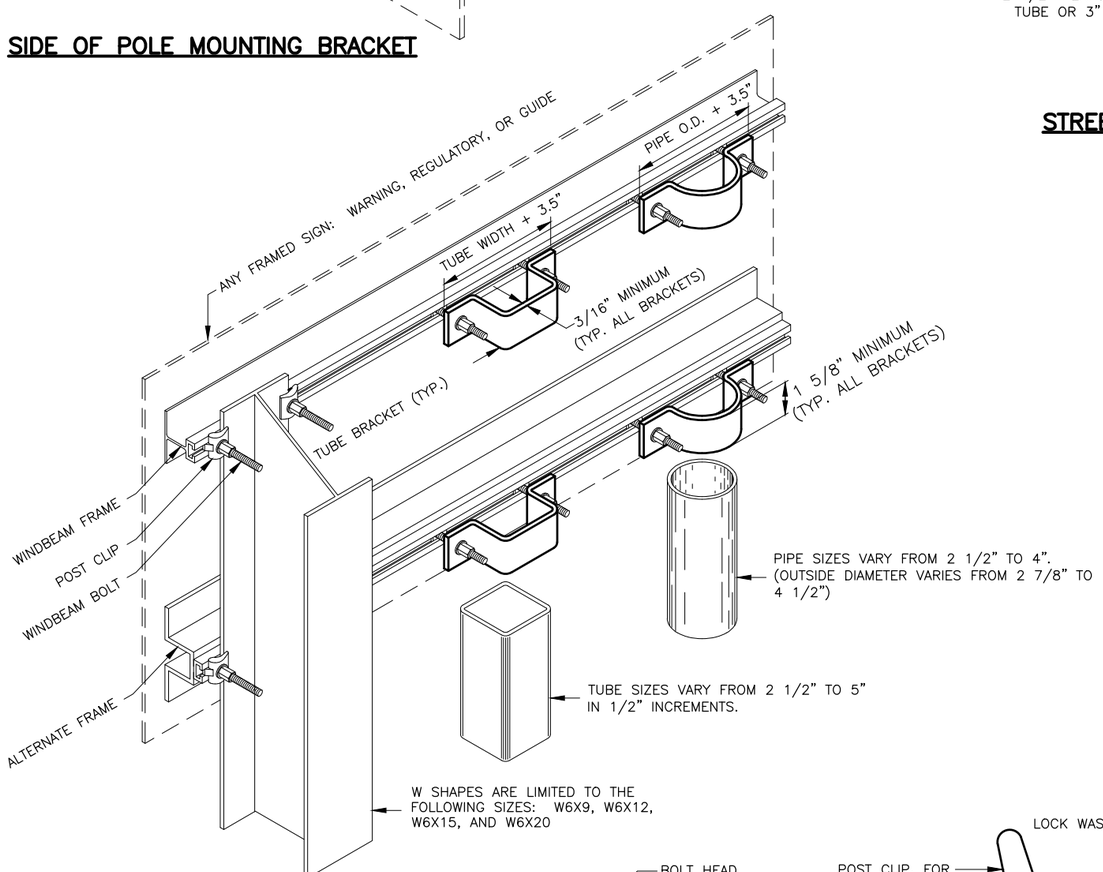
SIDE OF POLE MOUNTING BRACKET



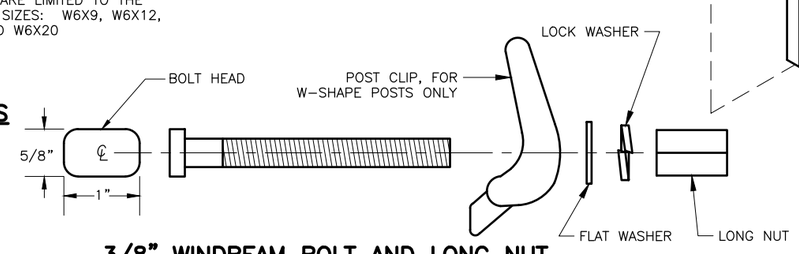
SADDLE BRACKETS



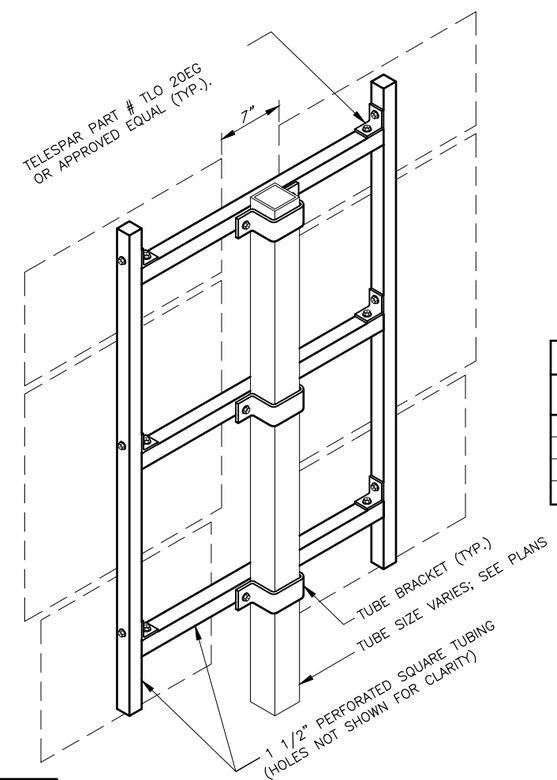
STREET NAME SIGN INSTALLATION



FRAMED SIGN ATTACHMENT BRACKETS



3/8" WINDBEAM BOLT AND LONG NUT



ROUTE MARKER TREE

NOTES:

1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE TUBES TO SUPPORT SIGNS MOUNTED ON ONE POST.
2. ATTACH SIGNS, FRAMED AND UNFRAMED TO THEIR SUPPORTS WITH ZINC PLATED 3/8" BOLTS, EXCEPT ATTACH UNFRAMED SIGNS TO PERFORATED TUBES WITH ACCESSORY DRIVE RIVETS AND TO SADDLES WITH 5/16" BOLTS.
3. BOLT UNFRAMED SIGNS DIRECTLY TO TUBES IN TWO LOCATIONS, NEAR TOP AND NEAR BOTTOM OF MATING SURFACE. ATTACH THEM TO POLES AND MAST ARMS WITH TWO SADDLES.
4. ATTACH BRACKETS TO POLES AND MAST ARMS WITH DOUBLE WRAPS OF 3/4" WIDE BY 0.020" THICK STAINLESS STEEL BANDING MATERIAL. TIGHTEN EACH BAND UNTIL IT STOPS MOVING THROUGH THE BUCKLE.
5. ATTACH FRAMED SIGNS TO POSTS WHEREVER THE FRAMES CROSS THE POSTS. AT EACH CROSSING, ATTACH THE SIGN USING TWO POST CLIPS ON W-SHAPE POSTS, A U-SHAPED BRACKET ON PIPES, AND A BRACKET WITH SQUARE CORNERS ON TUBES.
6. THE TUBE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.
7. ONLY USE THE SPECIAL WINDBEAM BOLTS TO ATTACH SIGNS FRAMED WITH THE WINDBEAM FRAMING MATERIAL.
8. ATTACH FRAMED SIGNS TO POLES AND MAST ARMS USING POLE PLATES INSTALLED ACCORDING TO ALASKA STANDARD PLAN S-23.
9. FOR ROUTE MARKER TREES, CUT PERFORATED TUBES TO ENSURE TIGHT FITTING JOINTS. ASSEMBLE THE PIECES WITH ACCESSORY ELL-SHAPED ANGLE BRACKETS.
10. INSTALL THE TOP EDGE OF SIGNS 1" ABOVE THE TOPS OF POSTS, EXCEPT FOR THE D3-1 STREET NAME SIGNS.
11. INSTALL THE TOP EDGE OF SIGNS 3" BELOW THE TOP OF POST, WHENEVER THEY ARE MOUNTED BELOW SIGNS SECURED BY POST TOP MOUNTING BRACKETS.
12. THE BRACKET DETAILS SHOWN INDICATE GENERAL DESIGNS ONLY. DESIGNS MAY VARY BY MANUFACTURER.
13. INSTALL WEATHER TIGHT CAPS ON ALL PIPE AND TUBE POSTS, EXCEPT PERFORATED TUBING.

FASTENER SPECIFICATION TABLE

FASTENERS	ALUMINUM	STEEL	STAINLESS STEEL
BOLTS	ASTM F468 2024-T4	ASTM A307	ASTM F593
NUTS	ASTM F467 2024-T4	ASTM A563	ASTM F594
WASHERS	ANSI B18.22.1	ASTM F844	ANSI B18.22.1
POST CLIPS	ASTM B179 356-T6	N/A	N/A

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN ATTACHMENT DETAILS

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

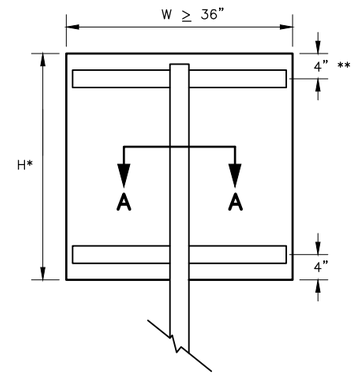
SCALE: X" = XX'

DATE: 3/10/2025 TIME: 10:49 AM

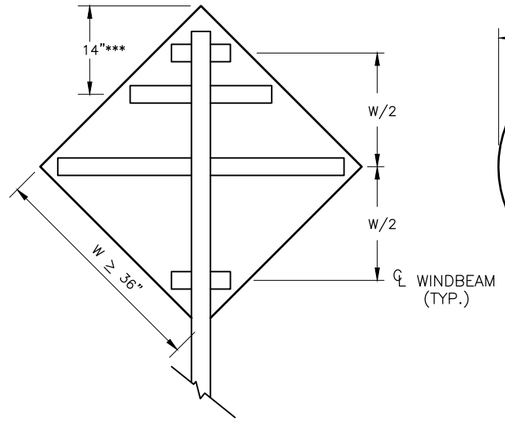
DRAWING LOCATION: 00885_H14_TRAF.DWG

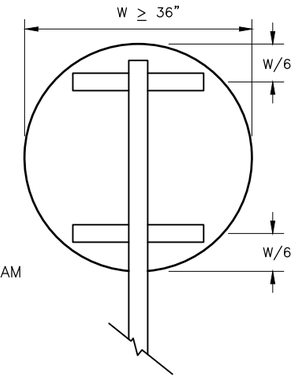
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H15	H45

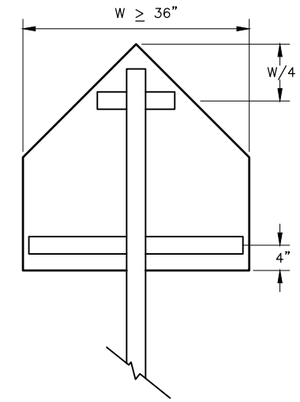


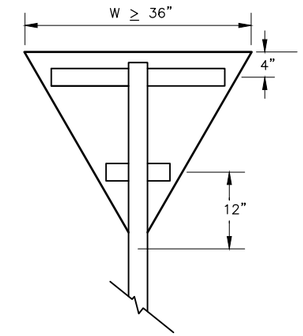
RECTANGLES AND TRAPEZOIDS





ROUNDS AND OCTAGONS





* WHEN H > 42 INCHES, INSTALL A 3RD WINDBEAM CENTERED ON THE SIGN.

** FOR S5-1 SIGNS MOUNTED ON FLASHING BEACON POSTS, USE A 10" OFFSET. OTHERWISE, USE 4".

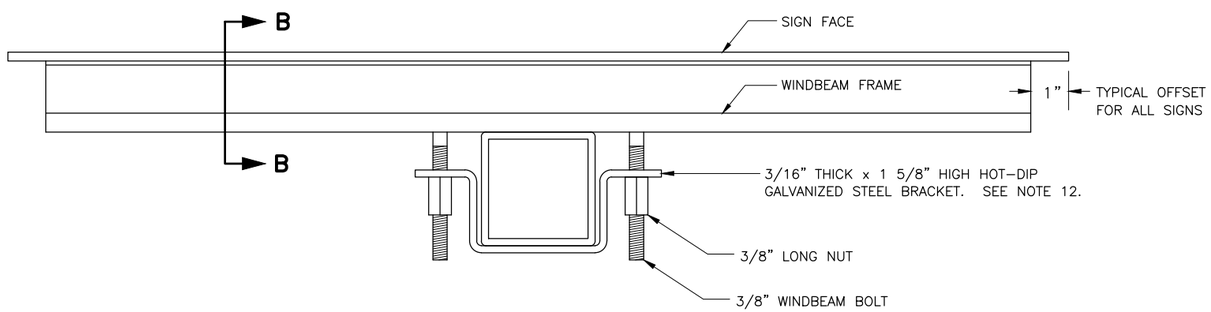
*** FOR WARNING SIGNS MOUNTED ON FLASHING BEACON POSTS, USE THE 14" OFFSET. OTHERWISE, USE W/2.

WINDBEAM LOCATIONS FOR EACH SIGN SHAPE

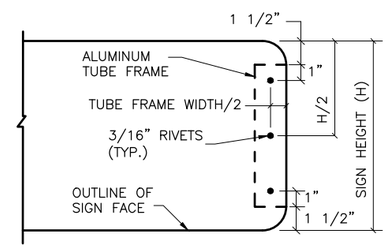
ELEVATION VIEW

NOTES:

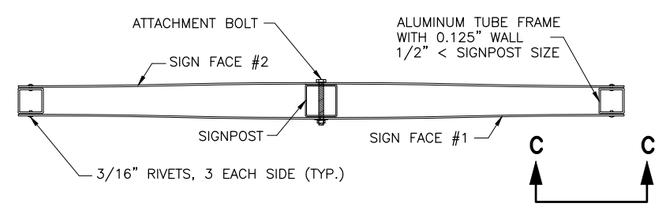
1. EXCEPT FOR POLES AND MAST ARMS, ONLY USE SQUARE STEEL TUBES TO SUPPORT SIGNS MOUNTED ON SINGLE POSTS.
2. INSTALL WINDBEAM OR ZEE SHAPED FRAMING MEMBERS ON DIAMOND SHAPED SIGNS 36 INCHES AND LONGER ON A SIDE AND ON OTHER SIGNS 36 INCHES WIDE AND WIDER.
3. IN HIGH WIND AREAS, THE PLANS MAY REQUIRE SIGNS SMALLER THAN THOSE LISTED IN NOTE 2 BE FRAMED AS SHOWN HERE IN.
4. THIS DRAWING DEPICTS THE WINDBEAM FRAMING AND ATTACHMENT SYSTEM. ATTACH SIGNS FRAMED WITH ZEE SHAPED FRAMING ACCORDING TO REGIONAL DRAWING "SIGN ATTACHMENT DETAILS", USING "U" SHAPED BRACKETS AND TWO BOLTS WITH NUTS.
5. THE ENGINEER MAY APPROVE OTHER FRAMING MEMBERS. SUBMIT DOCUMENTS THAT DETAIL THE FRAME'S CROSS SECTION AND STRENGTH, AND METHOD OF ATTACHING THE FRAME TO A POST.
6. USE FRAMING MEMBERS MADE FROM ALUMINUM ALLOY 6061-T6.
7. EACH FRAMING MEMBER SHALL BE ONE CONTINUOUS PIECE.
8. ATTACH FRAMING MEMBERS TO THE SIGN PANELS WITH RIVETS OR AN ENGINEER APPROVED, DOUBLE SIDED, HIGH STRENGTH, ADHESIVE TAPE.
9. WITH THE ADHESIVE TAPE, INSTALL TWO RIVETS IN BOTH ENDS OF EACH FRAMING MEMBER, AND ATTACH THE FRAMING MEMBERS TO THE SIGN PANELS ACCORDING TO THE TAPE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING:
   A. THE CLEANING AND HANDLING OF THE SIGN PANELS AND FRAMING MEMBERS.
   B. THE APPLICATION OF THE ADHESIVE TAPE.
10. WHEN RIVETS ARE USED TO ATTACH FRAMING MEMBERS, INSTALL 2 RIVETS IN EACH END AND THE BALANCE ON 8" MAXIMUM CENTERS.
11. USE 3/16" DIAMETER RIVETS CONFORMING TO ALUMINUM ALLOY 6061-T6 FOR COLD DRIVEN RIVETS, OR ALUMINUM ALLOY 6061-T43 FOR HOT DRIVEN RIVETS.
12. THE BRACKETS USED ON EVEN INCH SIZE TUBES MAY ALSO BE USED ON TUBES 1/2" SMALLER IN SIZE.



SECTION A - A TYPICAL SIGN ATTACHMENT DETAILS AT EACH WINDBEAM

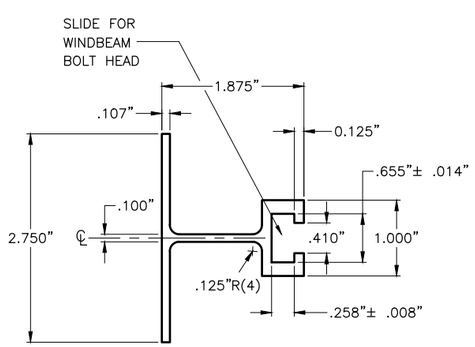


VIEW C - C

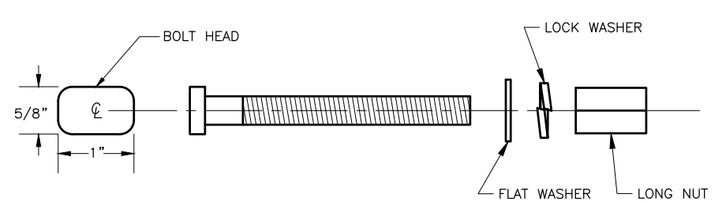


D3-1 STREET NAME SIGN FRAMING DETAIL

PLAN VIEW



SECTION B - B WINDBEAM CROSS SECTION



3/8" WINDBEAM BOLT AND LONG NUT

STATE OF ALASKA
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MAR 2025

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HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

LIGHT SIGN FRAMING AND ATTACHMENT DETAILS

DRAWING LOCATION
00885_H15_TRAF.DWG

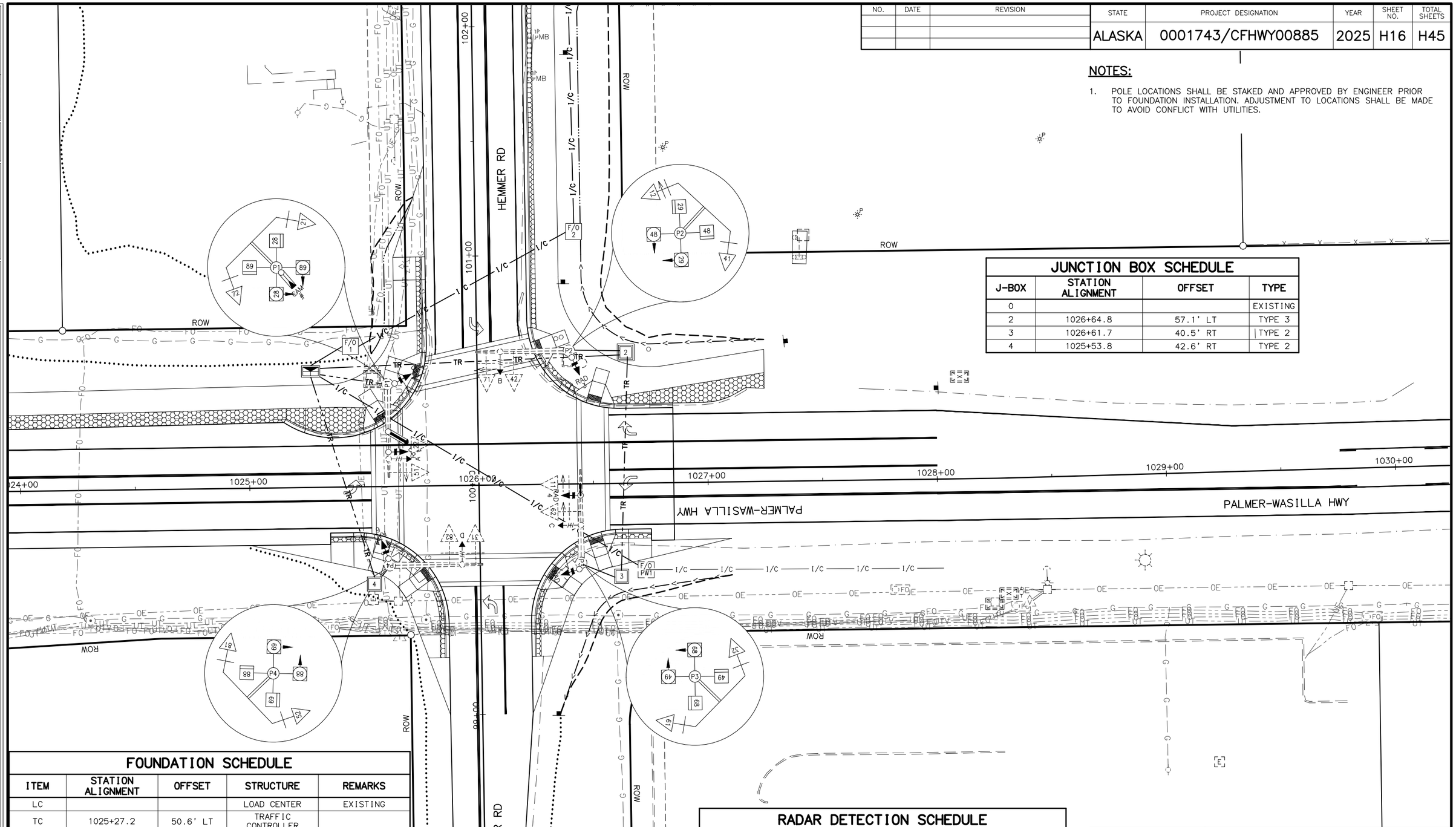
DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:49 AM	X" = XX'	MF	RDR	MF

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H16	H45

NOTES:

1. POLE LOCATIONS SHALL BE STAKED AND APPROVED BY ENGINEER PRIOR TO FOUNDATION INSTALLATION. ADJUSTMENT TO LOCATIONS SHALL BE MADE TO AVOID CONFLICT WITH UTILITIES.



JUNCTION BOX SCHEDULE

J-BOX	STATION ALIGNMENT	OFFSET	TYPE
0			EXISTING
2	1026+64.8	57.1' LT	TYPE 3
3	1026+61.7	40.5' RT	TYPE 2
4	1025+53.8	42.6' RT	TYPE 2

FOUNDATION SCHEDULE

ITEM	STATION ALIGNMENT	OFFSET	STRUCTURE	REMARKS
LC			LOAD CENTER	EXISTING
TC	1025+27.2	50.6' LT	TRAFFIC CONTROLLER	
P1	1025+60.6	44.6' LT	SIGNAL POLE 1	EXISTING
P2	1026+40.0	58.2' LT	SIGNAL POLE 2	EXISTING
P3	1026+44.1	34.4' RT	SIGNAL POLE 3	EXISTING
P4	1025+60.6	34.4' RT	SIGNAL POLE 4	EXISTING

RADAR DETECTION SCHEDULE

LOCATION	ID	PHASE DET.	FACING DIRECTION	REMARKS
SIGNAL POLE 1 MASTARM	1	2,5	EAST	ADVANCE XR
SIGNAL POLE 1	2	3,8	NORTHEAST	MATRIX
SIGNAL POLE 2	3	2	SOUTHEAST	MATRIX
SIGNAL POLE 3 MASTARM	4	1,6	WEST	ADVANCE XR
SIGNAL POLE 3	5	4,7	SOUTHWEST	MATRIX
SIGNAL POLE 4	6	6	NORTHWEST	MATRIX

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
BENJAMIN CARTER GAY
49TH
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA HWY SIGNAL SYSTEM PLAN

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

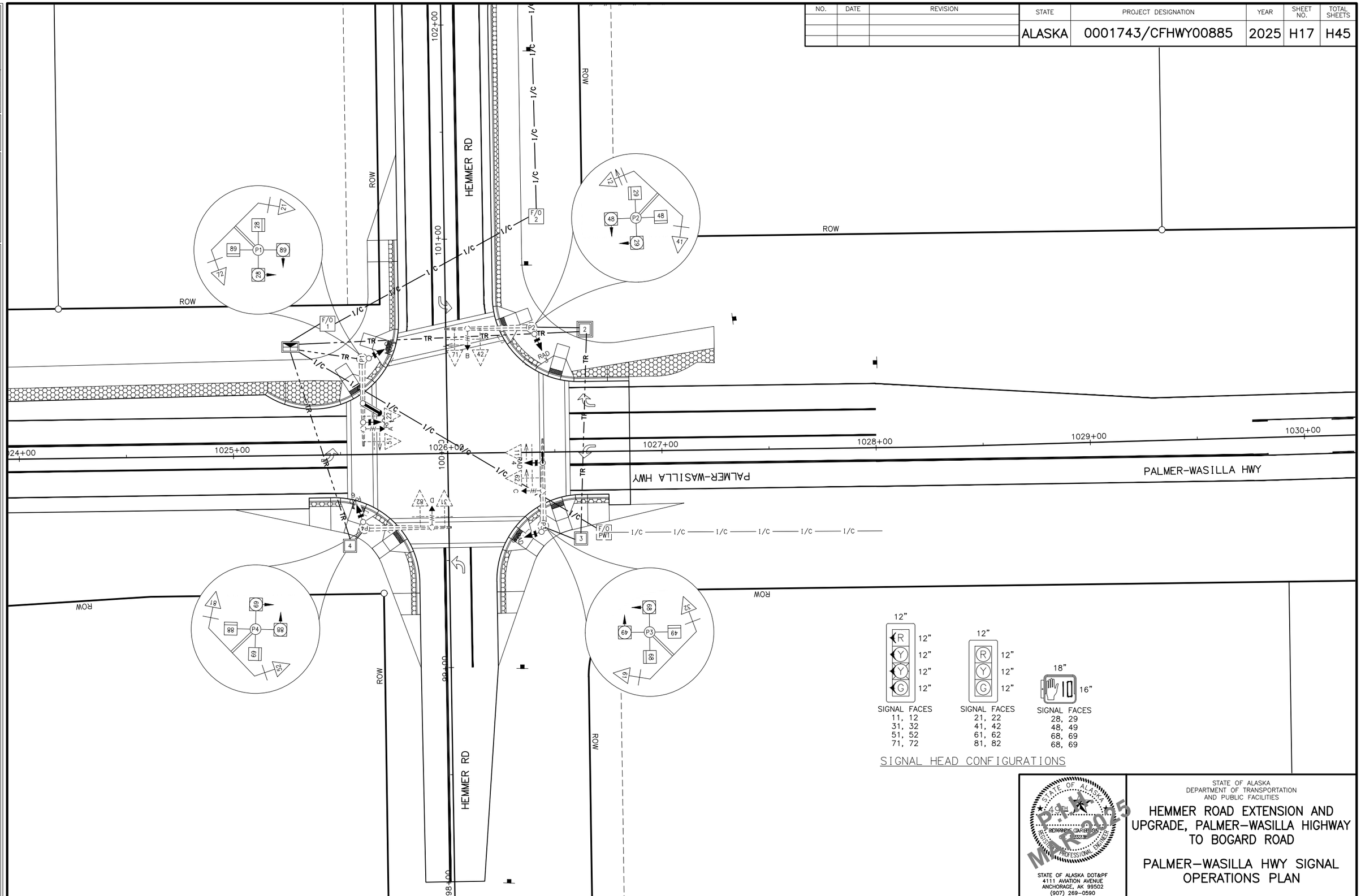
SCALE: X" = XX'

DATE 3/10/2025 TIME 10:50 AM

DRAWING LOCATION
00885_H16_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H17	H45



STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA HWY SIGNAL OPERATIONS PLAN

DATE	TIME	SCALE	DESIGNED BY	MF
3/10/2025	10:50 AM	X" = XX'	CHECKED BY	RDR
			DRAFTED BY	MF

DRAWING LOCATION
00885_H16_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H18	H45

CABLE SCHEDULE

CABLE	CONDUCTOR	J-BOX PATH	LOAD
0	3C6		TC POWER
1	3C8		INTXL CKT
2	3C20	TC-P1	PRE 2 (A)
3	3C14	TC-P1	PRECON 2 (A)
4	3C20	TC-2-P2	PRE 4 (B)
5	3C14	TC-2-P2	PRECON 4 (B)
6	3C20	TC-2-3-P3	PRE 6 (C)
7	3C14	TC-2-3-P3	PRECON 6 (C)
8	3C20	TC-4-P4	PRE 8 (D)
9	3C14	TC-4-P4	PRECON 8 (D)
10	1070	TC-P1	GPS
11	7C14	TC-2-3-P3	HEAD 11
12	7C14	TC-2-P2	HEAD 12
21	7C14	TC-P1	HEAD 21
22	7C14	TC-P1	HEAD 22
26	4C14	TC-P1	PED B 28
27	4C14	TC-2-P2	PED B 29
28	4C14	TC-P1	PED I 28
29	4C14	TC-2-P2	PED I 29
31	7C14	TC-4-P4	HEAD 31
32	7C14	TC-2-3-P3	HEAD 32
41	7C14	TC-2-P2	HEAD 41
42	7C14	TC-2-P2	HEAD 42
46	4C14	TC-2-P2	PED B 48
47	4C14	TC-2-3-P3	PED B 49
48	4C14	TC-2-P2	PED I 48
49	4C14	TC-2-3-P3	PED I 49
51	7C14	TC-P1	HEAD 51
52	7C14	TC-4-P4	HEAD 52
61	7C14	TC-2-3-P3	HEAD 61
62	7C14	TC-2-3-P3	HEAD 62
66	4C14	TC-2-3-P3	PED B 68
67	4C14	TC-4-P4	PED B 69
68	4C14	TC-2-3-P3	PED I 68
69	4C14	TC-4-P4	PED I 69
71	7C14	TC-2-P2	HEAD 71
72	7C14	TC-P1	HEAD 72
81	7C14	TC-4-P4	HEAD 81
82	7C14	TC-4-P4	HEAD 82
86	4C14	TC-4-P4	PED B 88
87	4C14	TC-P1	PED B 89
88	4C14	TC-4-P4	PED I 88
89	4C14	TC-P1	PED I 89
100	MTX2 HMRN	TC-P1	RAD 1
200	MTX2 HMRN	TC-P1	RAD 2
300	MTX2 HMRN	TC-2-P2	RAD 3
400	MTX2 HMRN	TC-2-3-P3	RAD 4
500	MTX2 HMRN	TC-2-3-P3	RAD 5
600	MTX2 HMRN	TC-4-P4	RAD 6
PTZ	CAT5E	TC-P1	PTZ CAMERA

CONDUIT SCHEDULE

RUN #	CONDUIT		CABLES	DESTINATION	CONDUIT FILL
LC-0	3	RMC	TBD	INTX/LTG	
	2	RMC	0	TC POWER	
	2	RMC	SPARE	SPARE	
0-TC	2	RMC	0	TC POWER	
TC-P1	3	RMC	2,3,10,21,22,26,28,51,72,87,89,100, 200,PTZ	POLE 1	
	2	RMC	SPARE	SPARE	
TC-2	3	RMC	4,27,46,300,	POLE 2	
	3	RMC	5,12,29,41,42,48,71,	POLE 2	
	3	RMC	SPARE	SPARE	
2-P2	3	RMC	4,5,12,27,29,41,42,46,48,71,300	POLE 2	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
2-3	3	RMC	6,47,66,400,500	POLE 3	
	3	RMC	7,11,32,49,61,62,68,	POLE 3	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
3-P3	3	RMC	6,7,11,32,47,49,61,62,66,68,400,500	POLE 3	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
TC-4	3	RMC	8,67,86,600	POLE 4	
	2	RMC	9,31,52,69,81,82,88	POLE 4	
	2	RMC	SPARE	SPARE	
4-P4	3	RMC	8,9,31,52,67,69,81,82,86,88,600	POLE 4	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	

NOTES:

1. UNLESS OTHERWISE NOTED, INSTALL 1 BARE #8 AWG COPPER EQUIPMENT GROUNDING CONDUCTOR (EGC) IN ALL CONDUIT. RUN A #6 NON-INTEGRAL EGC WITH THE 3C6 POWER CABLE.
2. LIGHTING CONDUCTORS NOT SHOWN IN CABLE SCHEDULE FOR CLARITY. SEE SIGNING, STRIPING, ILLUMINATION AND INTERCONNECT SHEETS FOR DETAILS.
3. EXISTING CIRCUITS LISTED ON THE WIRING DIAGRAM AND PLAN SHEETS WERE OBTAINED FROM AS-BUILT INFORMATION AND MUST BE VERIFIED PRIOR TO WORK INVOLVING THOSE CIRCUITS.

STATE OF ALASKA
49TH
BENJAMIN CARTER SAY
2024.06.
REGISTERED PROFESSIONAL ENGINEER

PLAN MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA HWY WIRING DIAGRAM

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

SCALE X" = XX'

DATE 3/10/2025 TIME 10:50 AM

DRAWING LOCATION
00885_H16_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H19	H45

SUMMARY OF EXISTING LOAD CENTER

LOAD CENTER TYPE:	2 (DUAL POST) EXISTING
MAINTAINED BY:	STATE OF ALASKA
SERVING UTILITY:	MATANUSKA ELECTRIC ASSOCIATION
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	48.57 FEET RIGHT OF STATION
POWER SOURCE:	49.51 FEET RIGHT OF STATION
PHOTOELECTRIC CONTROL:	EXISTING
SERVICE VOLTAGE:	1 PHASE, 3 WIRE, 120/240 VOLTS AC WITH GROUNDED NEUTRAL
PROVIDE METER SOCKET	EXISTING
MAIN BREAKER A	240 VOLTS, 2 POLE, 100 AMPERES
CONTACTOR:	600 VOLT, 16 POLE, 60 AMPERES
AIC RATING:	10K

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aφ	Bφ	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	15/2	PHOTOCELL	0.1	2.5		2.4	TRAFFIC CONTROLLER	60/1	2
3			0.1		0.1		SPACE	-	4
5	20/2	INTX LTG P1,P2,P3,P4	0.5	0.5			LUMINAIRES 61,62	20/2	6
7			0.5		0.5				8
9	20/2	LUMINAIRE 63	0.5			0.0	SPARE*	20/2	10
11				0.5		0.0			12
13	-	SPACE					SPACE	-	14
* CIRCUIT THROUGH CONTACTOR _							PANEL A KVA		
BOLD = PROPOSED LOAD									
NON-BOLD = EXISTING LOAD TO RECONNECT							AMPS		

TABLE UNDER DEVELOPMENT

VOLTAGE DROPS

240V IN A 1-PH, 2W CONFIGURATION WITH A POWER-FACTOR OF 1.00, 1 COPPER CONDUCTOR PER PHASE IN A RMC. TEMPERATURE RATING 75°C.

CKT #	SEGMENT	SEGMENT SIZE (AWG)	SEGMENT LENGTH (FT)	LOAD (VA)	TOTAL (AMPS)	SEG. DROP (%VD)	CUMULATIVE DROP (%VD)

TABLE UNDER DEVELOPMENT

ARC FLASH AND SHOCK HAZARD RESULTS - LC "A" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	3.8
INCIDENT ENERGY IN CAL/CM^2	5.5
WORKING DISTANCE	18 INCHES
SHOCK HAZARD EXPOSURE	240 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	6/16/2022

TABLE UNDER DEVELOPMENT

SHORT CIRCUIT CALCULATION - LC "A"

240V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	25 kVA MAXIMUM
VOLTAGE	120/240 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.2% MINIMUM
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	14,468 A
LENGTH OF FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "A"	7,156 A
DATE CALCULATED	6/16/2022

TABLE UNDER DEVELOPMENT

STATE OF ALASKA
49TH
BENJAMIN CARTER SHAW
CE 222138
REGISTERED PROFESSIONAL ENGINEER

P.H.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

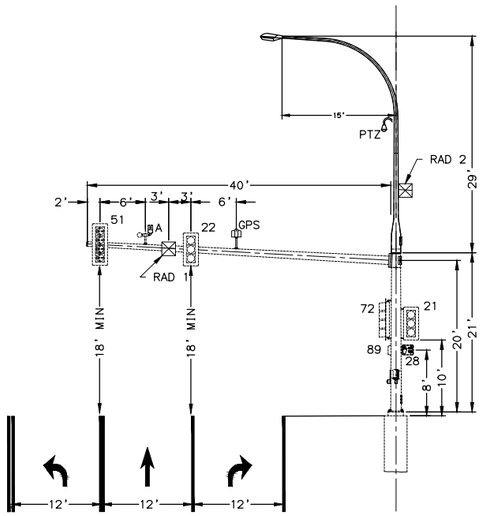
HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA HWY LOAD CENTER LC-ABC SCHEDULE

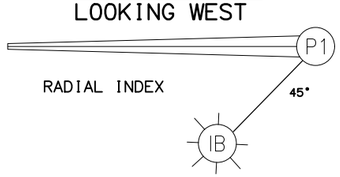
DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF
SCALE	X" = XX'
DATE	3/10/2025
TIME	10:50 AM
DRAWING LOCATION	00885_H16_SIGNALS.DWG

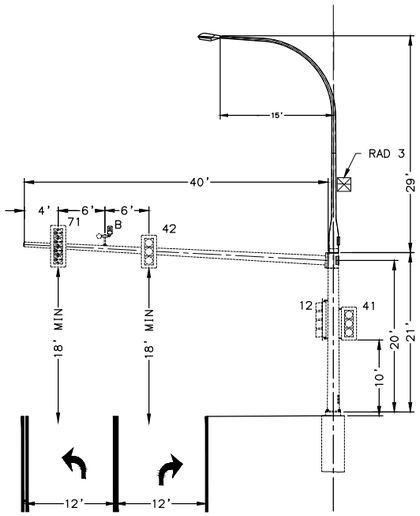
NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H20	H45

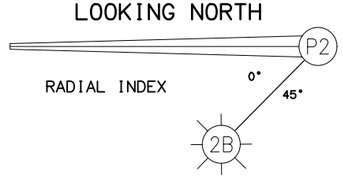


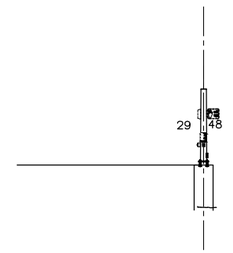
SIGNAL POLE 1
LOOKING WEST





SIGNAL POLE 2
LOOKING NORTH





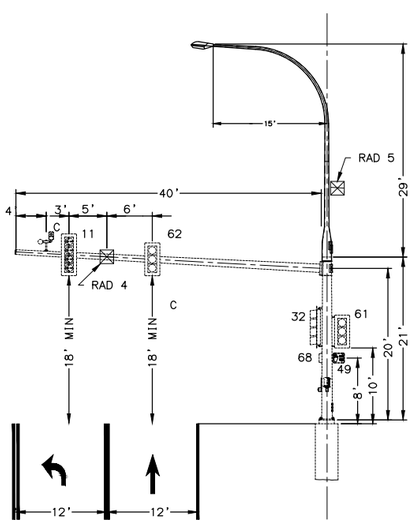
SIGNAL POLE 5
LOOKING NORTH

OPTICOM DETECTOR SCHEDULE

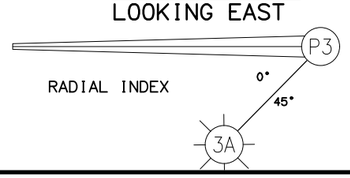
LOCATION	DETECTOR ID	PHASE CALL	FACING DIRECTION	MODEL	REMARKS
SIGNAL POLE 1 MASTARM	A	2,5	EAST	721	OPTICOM
SIGNAL POLE 2 MASTARM	B	4,7	SOUTH	721	OPTICOM
SIGNAL POLE 3 MASTARM	C	1,6	WEST	721	OPTICOM
SIGNAL POLE 4 MASTARM	D	3.8	NORTH	721	OPTICOM
SIGNAL POLE 1 MASTARM	GPS	ALL	CENTER OF INTERSECTION		GPS OPTICOM

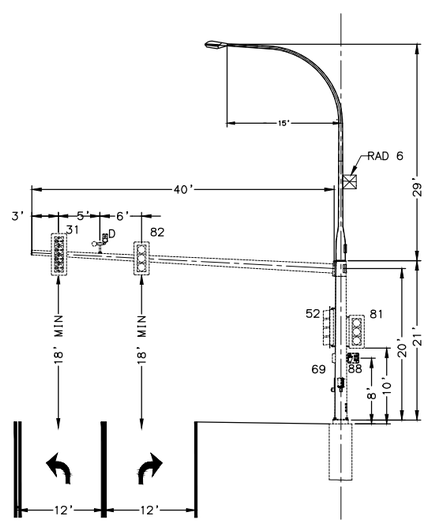
NOTES:

1. TOP OF FOUNDATIONS SHALL BE WITHIN +4" OF TOP BACK OF SIDEWALK. FOUNDATION ELEVATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION AND ADJUSTED AS NEEDED.
2. INSTALL FULLY FUNCTIONING GPS OPTICOM SYSTEMS SHOWN. MASTARM MOUNTED GPS RECEIVER SHALL BE INSTALLED WITH AT LEAST 3 FEET SEPARATION FROM OTHER ITEMS ON THE MASTARM OR AS DIRECTED BY THE ENGINEER.
3. MOUNTING HEIGHT OF PTZ CAMERA SHALL BE FIELD DETERMINED BY THE ENGINEER.
4. RADAR LOCATIONS SHALL BE CONFIRMED WITH MANUFACTURER PRIOR TO WIRE ROUTING. ADJUSTMENTS MAY BE NECESSARY.
5. SYMBOL MARKINGS ARE FOR LANE ARRANGEMENT REFERENCE ONLY. SEE SIGNING ,STRIPING, ILLUMINATION AND INTERCONNECT SHEETS FOR DETAILS.

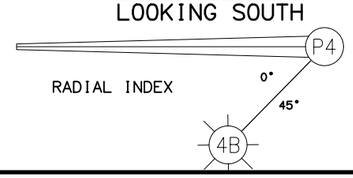


SIGNAL POLE 3
LOOKING EAST





SIGNAL POLE 4
LOOKING SOUTH



LUMINAIRE PERFORMANCE CRITERIA

LUMINAIRE LIGHT LOSS FACTOR	0.85	
LIGHTING CALCULATION METHOD	RP-8-2014	
INTERSECTION ILLUMINANCE CRITERIA		
	INTERSECTION NAME #1	INTERSECTION NAME #2
AVERAGE MAINTAINED ILLUMINATION (fc)	#.#	#.#
AVERAGE UNIFORMITY RATIO (AVG/MIN)	#.#	#.#
ROADWAY LUMINANCE CRITERIA		
AVERAGE LUMINANCE (cd/m²)	#.#	
MINIMUM ROADWAY LUMINANCE (cd/m²)	#.#	
AVERAGE UNIFORMITY RATIO (AVG/MIN)	#.#	
MAX UNIFORMITY RATIO (MAX/MIN)	#.#	
MAX VEILING LUMINANCE RATIO (LV-MAX/AVG)	#.#	
SIDEWALK ILLUMINANCE CRITERIA		
AVERAGE MAINTAINED ILLUMINATION (fc)	#.#	
MINIMUM ILLUMINATION (fc)	#.#	

TABLE UNDER DEVELOPMENT

LUMINAIRE STANDARDS

	ROADWAY	INTERSECTION
MANUFACTURER AND MODEL (OR APPROVED EQUAL)	GE ERL2	
WATTAGE (MAXIMUM)	###	###
VOLTAGE	###	###
PE CONTROL	ANSI C136.7 PIN W/ SHORTING CAP	
PE SENSOR	SHORTING CAP	
MOUNTING	HORIZONTAL	
HOUSING ENTRY TYPE	TOOLLESS	
FIXTURE COLOR	GRAY	
IES DISTRIBUTION TYPE	TYPE ###	TYPE ##
POWER FACTOR	≥0.90	
UL LISTED	YES	
CCI	3000K	
CRI	MINIMUM 70	

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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
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STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA HWY POLE ELEVATION DETAILS

DATE	TIME
3/10/2025	10:50 AM

SCALE X" = XX'

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

DRAWING LOCATION
00885_H16_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H21	H45

CONTROLLER CABINET FEATURES

GENERAL OPTIONS	
TYPE	TS2-1
SIZE	NEMA SIZE 7
MATERIALS	0.125" NATURAL ALUMINUM
MODEL	ECONOLITE TS2 TYPE 1 PLUG-N-GO
MOUNTING HARDWARE	INCLUDED
PAINT	NONE
SPECIAL OPTIONS	
LIFTING TABS	INCLUDED
EQUIPMENT SHELF	(3) FULL WIDTH, 12" WITH FRONT AND BACK LIP
	(1) FULL WIDTH, 14" WITH FRONT AND BACK LIP AND ADDITIONAL BRACING
AIR FILTER	FIBER MESH
MAIN DOOR LOCK	BEST
REAR DOOR	INCLUDED, FULL SIZE, TOP AND BOTTOM BRACKET
LED STRIP	(2) 24" (1) TOP OF CAB, (1) UNDER CONTROLLER SHELF
T-STAT CONTROLLED EXHAUST FANS	(2) FANS ON SEPARATE THERMOSTATS
MAIN PANEL	
16 POSITION	(2) EIGHT POSITION ROWS, STACKED
LOAD SWITCH TEST SOCKET	(1) INCLUDED
RESISTOR LOCATION	SIDEWALL
FLASH TRANSFER RELAYS SOCKETS	(6) INCLUDED
FLASHER SOCKETS	(2) INCLUDED
K1 RELAY SOCKET	INCLUDED
POWER PANEL	
POWER INTERFACE MODULE (PIM)	INCLUDED
SURGE SUPPRESSION	ACP-340
LINE FILTER (RADIO INTERFERENCE)	50A
SOLID STATE CONTACTOR	NORMALLY OPEN
CONTROL EQUIPMENT BREAKER	40A
AUXILIARY CIRCUIT BREAKER	20A
GFI LOCATION	POWER PANEL
2 POSITION TERMINAL BLOCK #6 U.S.G.	INCLUDED
16 POSITION NEUTRAL BUS BAR	INCLUDED
16 POSITION CHASSIS GROUND BUS BAR	INCLUDED
EATON MODEL HS-P-SP-120-60-RJ SURGE PROTECTOR OR APPROVED EQUAL	INCLUDED
POLICE PANEL	
POLICE PANEL	INCLUDED
POLICE PANEL SWITCHES	SIGNALS ON/OFF, AUTO/FLASH
POLICE PANEL PUSHBUTTON ALARM	INCLUDED
POLICE DOOR LOCK	SKELETON
POLICE PANEL MANUAL CORD	NONE
RJ45 PORT	INCLUDED
USB PORT	INCLUDED
AUXILIARY PANEL	
AUXILIARY PANEL TOGGLE SWITCHES	AUTO/FLASH, STOP TIME, CONTROLLER POWER, COORD/FREE, HEATER BY-PASS, F01, F02 WITH TOGGLE SWITCH COVERS
DETECTOR TEST SWITCHES	TACTILE PUSHBUTTON
RACK DETECTION	
DETECTOR RACKS	(1) 8-CHANNEL RACK WITH 2 SLOTS FOR RAILROAD PREEMPTION, BIU POWER SUPPLY
	(1) 2-CHANNEL RACK FOR EVP, 120V POWER SUPPLY
EVP REQUIREMENTS	WIRING FOR EVP RACK W/GREENS
ADDITIONAL OPTIONS	
RAILROAD PREEMPTION	2 CHANNELS OF RAILROAD PREEMPTION INCLUDED
RAILROAD PREEMPTION/STAND ALONE PANEL	INCLUDED
RED JUMPERS FOR ALL UNUSED PHASES	INCLUDED
LOAD RESISTORS	(8) INCLUDED
ADDITIONAL GFI OUTLET (NON-FILTERED)	INCLUDED
DOUBLE DUPLEX CONVENIECE OUTLET	(1) LEFT WALL FILTERED, (1) RIGHT WALL NON-FILTERED
DUPLEX OUTLET	FOR HEATER AUTO & BYPASS SWITCH, ON DOOR
POWER STRIP	(8) FILTERED CONVENIENCE OUTLETS MOUNTED ABOVE CONTROLLER SHELF INCLUDED
ADDITIONAL NEUTRAL BUS BARS	(1) 16 POSITION BUS BAR RIGHT SIDE OF CABINET
	(1) 32 POSITION BUS BAR LEFT SIDE OF CABINET
	(1) 16 POSITION BUS BAR RIGHT SIDE FOR ISOLATED NEUTRALS
ADDITIONAL CHASSIS GROUND BUS BARS	(1) 16 POSITION BUS BAR RIGHT SIDE OF CABINET
	(1) 16 POSITION BUS BAR LEFT SIDE OF CABINET
GTT OPTICOM 757 HARNESS	INCLUDED - WIRED INTO CABINET
INTERSECTION DRAWINGS	PROVIDE: (3) PAPER SETS, (1) AUTOCAD FILE, (1) PDF.
SDLC CABLES	(10)

CONTROLLER ASSEMBLY EQUIPMENT

SUPPLY ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE A FULLY FUNCTIONING TRAFFIC SIGNAL CONTROLLER ASSEMBLY COMPLIANT WITH THE NEMA STANDARD PUBLICATION NO. TS2-2003 V02.06 AND SPECIAL "SPECIALS" PROVISIONS OF THIS CONTRACT INCLUDING BUT NOT LIMITED TO;

QTY	CONTROLLER/MMU EQUIPMENT
1	ECONOLITE COBALT CONTROLLER
1	CONTROLLER ETHERNET PORT
1	CONTROLLER DATA KEY
1	ECONOLITE MMU2-16LEIP
1	MMU2 CARD
QTY	**CABINET EQUIPMENT**
16	RENO LS-200 OR APPROVED EQUAL LOAD SWITCHES
6	RENO TR-200 OR APPROVED EQUAL FLASH TRANSFER RELAYS
2	ECONOLITE BIU-64 TERMINAL AND FACILITIES BIU'S
1	ECONOLITE BIU-64 DETECTION BIU
1	EDI PS250 TS2 CABINET POWER SUPPLY OR APPROVED EQUAL
2	ECONOLITE 801 FLASHER
1	K1 RELAY
1	750/1500W SELECTABLE THERMOSTATICALLY CONTROLLED CABINET HEATER
1	THERMOSTAT, MOUNT ON DOOR
1	COMPLETE SET OF MANUALS FOR CONTROLLER AND MMU

COMMUNICATION EQUIPMENT SCHEDULE

QTY	FIBER INTERCONNECT EQUIPMENT
3	3 FOOT CAT6 RJ45 PATCH CABLE
1	6 FOOT CAT6 RJ45 PATCH CABLE
0	3 FOOT LC TO LC DUPLEX SM PATCH CABLE
0.	6 FOOT LC TO LC DUPLEX SM PATCH CABLE
0	3 FOOT SC TO LC DUPLEX SM PATCH CABLE
0	6 FOOT SC TO LC DUPLEX SM PATCH CABLE
3	3 FOOT SC TO SC DUPLEX SM PATCH CABLE
1	6 FOOT SC TO SC DUPLEX SM PATCH CABLE
0	PATCH PANEL - 6 STEP LC SM DUPLEX CONNECTORS (12 FIBERS SPLICED)
1	PATCH PANEL - 6 STEP SC SM DUPLEX CONNECTORS (12 FIBERS SPLICED)
0	SFP OPTICS GB SM 1310NM 10KM LC TRANSCEIVER OR APPROVED EQUAL
0	SFP 1112-1 GB RJ45 TRANSCEIVER
0	RSP1300 802.at POE EXTERNAL POWER SUPPLY
0	WALL MOUNTING KIT
0	RSG920P ETHERNET SWITCH (LC CONNECTORS)
1	RSL910 ETHERNET SWITCH (LC CONNECTORS)
0	RX1511 ETHERNET SWITCH (LC CONNECTORS)
QTY	**OTHER EQUIPMENT**
0	ATSI PCMT-2600 MMU TESTER W/MMU & CMU CABLES
0	FULLY FUNCTIONING TRAFFIC SIGNAL CONTROLLER, MASTER CONTROLLER AND CABINET
0	INDUCTIVE LOOP TEST KITS
0	LOOP FINDERS
0	BIU TESTERS
0	FRAME GRABBER
0	MULTI-SWITCH TESTER
0	BIU SLOT TESTER
0	CARD RACK SLOT TESTER
0	DETECTOR TESTER
0	MCCAIN CID II
0	RADIO SITE SURVEY LOCATIONS
0	INTX DIAGRAM LOCATIONS
0	UPS INVERTER
0	UPS BACKUP BATTERY
0	BATTERY HEAT PAD
QTY	**EVP EQUIPMENT**
1	OPTICOM MODEL 764 PHASE SELECTOR
0	OPTICOM MODEL 794HM EMITTERS W/2100 CONTROL UNITS
QTY	**RADAR EQUIPMENT**
1	CLICK! 650
1	INSTALLER KIT
QTY	**RADAR OPTION 2 EQUIPMENT**
1	RADAR INTERFACE PANEL
1	TRAFFIC MANAGEMENT INTERFACE BOARD

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
BENJAMIN CARLEN SAUNDERS
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

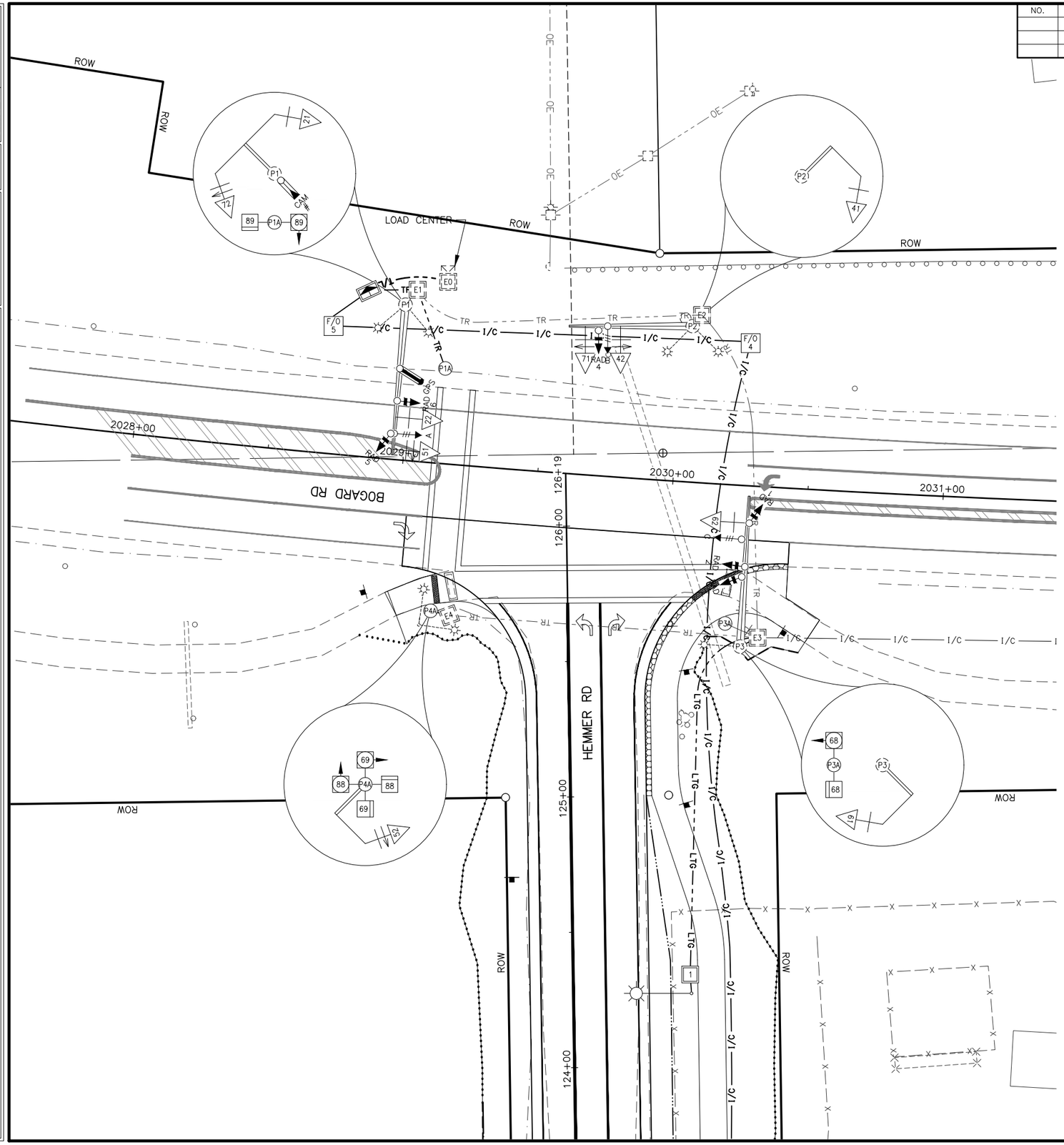
HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA HWY
CONTROLLER EQUIPMENT
SUMMARY

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF
SCALE	X" = XX'
DATE	3/10/2025
TIME	10:50 AM
DRAWING LOCATION	00885_H16_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H22	H45



NOTES:

1. POLE LOCATIONS SHALL BE STAKED AND APPROVED BY ENGINEER PRIOR TO FOUNDATION INSTALLATION. ADJUSTMENT TO LOCATIONS SHALL BE MADE TO AVOID CONFLICT WITH UTILITIES.

FOUNDATION SCHEDULE

ITEM	STATION ALIGNMENT	OFFSET	STRUCTURE	REMARKS
LC	2029+10.8	70.2' LT	LOAD CENTER	EXISTING
TC	2028+81.8	61.1' LT	TRAFFIC CONTROLLER	
P1	2028+95.8	57.2' LT	SIGNAL POLE	EXISTING
P1A	2029+12.8	35.1' LT	PEDESTRIAN POLE	
P2	2030+03.5	57.6' LT	SIGNAL POLE	EXISTING
P3	2030+28.5	59.4' RT	SIGNAL POLE	EXISTING
P3A	2029+14.8	54.5' RT	PEDESTRIAN POLE	
P4A	2030+22.5	51.3' RT	PEDESTRIAN POLE	
L1	124+26.8	43.6' RT	LUMINAIRE POLE	

JUNCTION BOX SCHEDULE

J-BOX	STATION ALIGNMENT	OFFSET	TYPE	REMARKS
E0	2029+11.1	67.0' LT	TYPE 2	EXISTING
E1	2028+99.9	63.2' LT	TYPE 2	EXISTING
E2	2030+06.8	61.9' LT	TYPE 2	EXISTING
E3	2030+34.6	55.8' RT	TYPE 2	EXISTING
E4	2029+21.6	55.6' RT	TYPE 2	EXISTING
1	124+33.7	43.2' RT	TYPE 2	

RADAR DETECTION SCHEDULE

LOCATION	ID	PHASE DET.	FACING DIRECTION	REMARKS
SIGNAL POLE 3 MASTARM	RAD1	2,5	NORTH EAST	MATRIX
SIGNAL POLE 3 MASTARM	RAD2	6	WEST	ADVANCE XR
SIGNAL POLE 3 MASTARM	RAD3	7	SOUTH WEST	MATRIX
SIGNAL POLE 2 MASTARM	RAD4	4,7	SOUTH	ADVANCE XR
SIGNAL POLE 1 MASTARM	RAD5	6	SOUTH WEST	MATRIX
SIGNAL POLE 1 MASTARM	RAD6	2,5	EAST	ADVANCE XR

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER–WASILLA HIGHWAY TO BOGARD ROAD

BOGARD RD SIGNAL SYSTEM PLAN

STATE OF ALASKA
49TH
BENJAMIN CLARKE GIS
REGISTERED PROFESSIONAL ENGINEER

MAR 2025

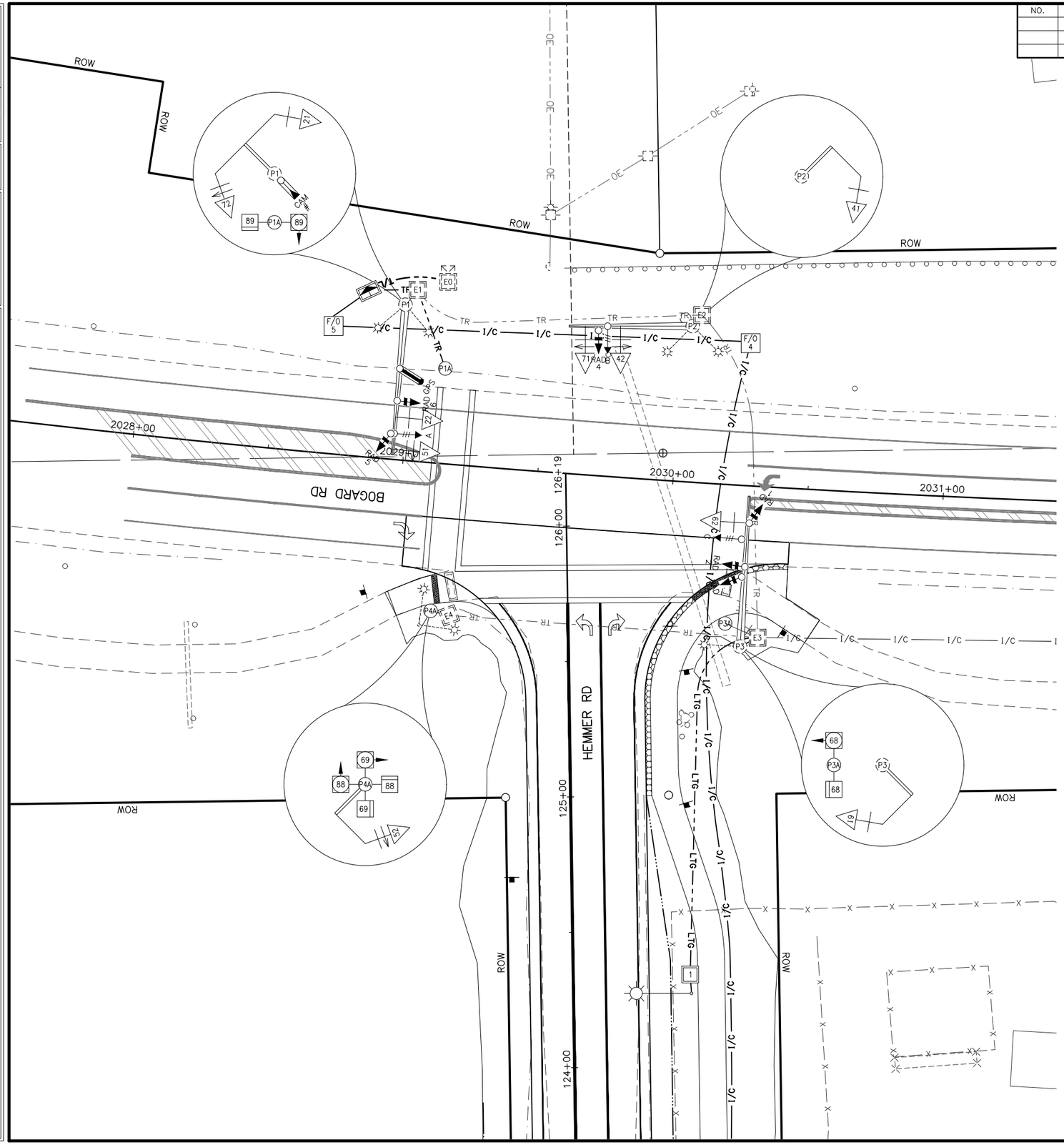
STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

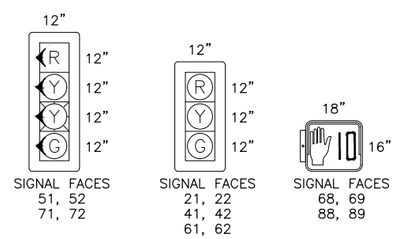
DRAWING LOCATION
00885_H22_SIGNALS.DWG

DATE 3/10/2025 TIME 10:51 AM
SCALE X" = XX'
DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H23	H45





SIGNAL HEAD CONFIGURATIONS

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER–WASILLA HIGHWAY TO BOGARD ROAD

BOGARD RD SIGNAL OPERATIONS PLAN

STATE OF ALASKA
49TH
BEDARRS CARTER GIS
REGISTERED PROFESSIONAL ENGINEER

MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

DRAWING LOCATION
00885_H22_SIGNALS.DWG

DATE	TIME
3/10/2025	10:51 AM

SCALE
X" = XX'

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

NO.	DATE	REVISION

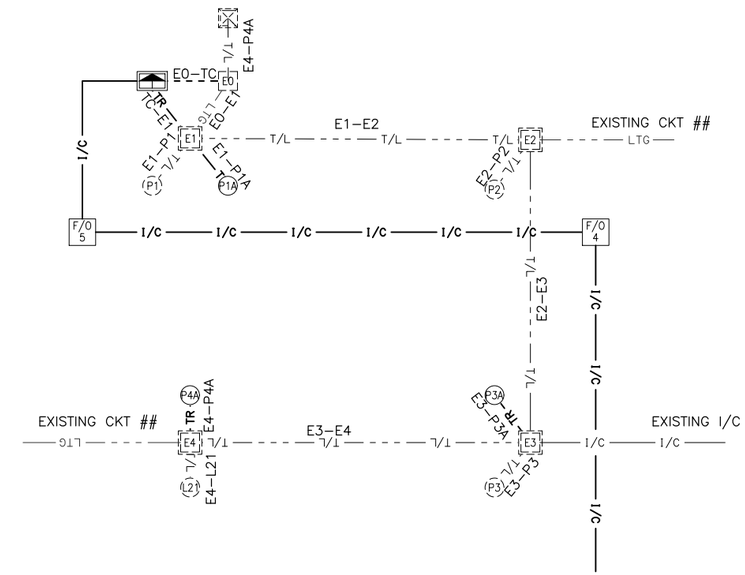
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H24	H45

CABLE SCHEDULE

CABLE	CONDUCTOR	J-BOX PATH	LOAD
0	3C6	LC-E0-TC	TC POWER
1	3C8	LC-E0-E1-P1-E1-E2-P2-E2-E3-P3-E3-E4-P4	INTXL CKT
2	3C20	TC-E1-P1	PRE 2 (A)
3	3C14	TC-E1-P1	PRECON 2 (A)
4	3C20	TC-E1-E2-P2	PRE 4 (B)
5	3C14	TC-E1-E2-P2	PRECON 4 (B)
6	3C20	TC-E1-E2-E3-P3	PRE 6 (C)
7	3C14	TC-E1-E2-E3-P3	PRECON 6 (C)
10	1070	TC-E1-P1	GPS
21	7C14	TC-E1-P1	HEAD 21
22	7C14	TC-E1-P1	HEAD 22
41	7C14	TC-E1-E2-P2	HEAD 41
42	7C14	TC-E1-E2-P2	HEAD 42
51	7C14	TC-E1-P1	HEAD 51
52	7C14	TC-E1-E2-E3-E4-P4	HEAD 52
61	7C14	TC-E1-E2-E3-P3	HEAD 61
62	7C14	TC-E1-E2-E3-P3	HEAD 62
66	4C14	TC-E1-E2-E3-P3A	PED B 68
67	4C14	TC-E1-E2-E3-E4-P4A	PED B 69
68	4C14	TC-E1-E2-E3-P3A	PED I 68
69	4C14	TC-E1-E2-E3-P4A	PED I 69
71	7C14	TC-E1-E2-P2	HEAD 71
72	7C14	TC-E1-P1	HEAD 72
86	4C14	TC-E1-E2-E3-E4-P4A	PED B 88
87	4C14	TC-E1-P1A	PED B 89
88	4C14	TC-E1-E2-E3-E4-P4A	PED I 88
89	4C14	TC-E1-P1A	PED I 89
100	MTX2 HMRN	TC-E1-E2-E3-P3	RAD 1
200	MTX2 HMRN	TC-E1-E2-E3-P3	RAD 2
300	MTX2 HMRN	TC-E1-E2-E3-P3	RAD 3
400	MTX2 HMRN	TC-E1-E2-P2	RAD 4
500	MTX2 HMRN	TC-E1-P1	RAD 5
600	MTX2 HMRN	TC-E1-P1	RAD 6
PTZ	CAT5E	TC-E1-P1	PTZ CAMERA

CONDUIT SCHEDULE

RUN #	CONDUIT		CABLES	DESTINATION	CONDUIT FILL
LC-0	3	RMC	TBD	INTX/LTG	
	2	RMC	0	TC POWER	
	2	RMC	SPARE	SPARE	
E0-TC	2	RMC	0	TC POWER	
TC-P1	3	RMC	2,3,10,21,22,51,72,87,89,500,600, PTZ	POLE 1	
	2	RMC	SPARE	SPARE	
E1-E2	2	RMC	4,400	J-BOX 2	
	2	RMC	5,41,42,71,	J-BOX 2	
	2	RMC	6,66,100,200,300	J-BOX 3	
	2	RMC	7,61,62,68,	J-BOX 3	
	2	RMC	67,86,	J-BOX 4	
	2	RMC	52,69,88,	J-BOX 4	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
E2-P2	3	RMC	4,5,41,42,71,400	POLE 2	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
E2-E3	2	RMC	6,66,100,200,300	J-BOX 3	
	2	RMC	7,61,62,68,	J-BOX 3	
	2	RMC	67,86,	J-BOX 4	
	2	RMC	52,69,88,	J-BOX 4	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
E3-P3	2	RMC	6,7,61,62,66,68,100,200,300	POLE 3	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
E3-E4	2	RMC	67,86,	J-BOX 4	
	2	RMC	52,69,88,	J-BOX 4	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
E4-P4	2	RMC	52,67,69,86,88,	POLE 4	
	2	RMC	TBD	INTXL	
	2	RMC	SPARE	SPARE	
E3-P3A	2	RMC	66,68	POLE 3A	
E4-P4A	2	RMC	67,69,86,88	POLE 4A	
E1-P1A	2	RMC	87,89	POLE 1A	



NOTES:

1. UNLESS OTHERWISE NOTED, INSTALL 1 BARE #8 AWG COPPER EQUIPMENT GROUNDING CONDUCTOR (EGC) IN ALL CONDUIT. RUN A #6 NON-INTEGRAL EGC WITH THE 3C6 POWER CABLE.
2. LIGHTING CONDUCTORS NOT SHOWN IN CABLE SCHEDULE FOR CLARITY. SEE SIGNING, STRIPING, ILLUMINATION AND INTERCONNECT SHEETS FOR DETAILS.
3. EXISTING CIRCUITS LISTED ON THE WIRING DIAGRAM AND PLAN SHEETS WERE OBTAINED FROM AS-BUILT INFORMATION AND MUST BE VERIFIED PRIOR TO WORK INVOLVING THOSE CIRCUITS.

STATE OF ALASKA
49TH
BEDFORD CLARKE JR.
12021
REGISTERED PROFESSIONAL ENGINEER

MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

BOGARD RD WIRING DIAGRAM

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF
SCALE	X" = XX'
DATE	3/10/2025
TIME	10:52 AM

DRAWING LOCATION
00885_H22_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H25	H45

SUMMARY OF LOAD CENTER _

LOAD CENTER TYPE:	1A (MSB OWNED)
MAINTAINED BY:	MATSU BOROUGH
SERVING UTILITY:	MATANUSKA ELECTRIC ASSOCIATION
SERVICE CONDUIT TYPE:	RIGID METAL CONDUIT
LOCATION DATA	
LOAD CENTER:	EXISTING
POWER SOURCE:	EXISTING
PHOTOELECTRIC CONTROL:	MOUNT ON LOAD CENTER
SERVICE VOLTAGE:	1 PHASE, 3 WIRE 120/240 VOLTS AC WITH GROUND
PROVIDE METER SOCKET	YES
MAIN BREAKER _	240 VOLT, 2 POLE, 100 AMPERES
CONTACTOR:	600 VOLT, 16 POLE, 60 AMPERES
AIC RATING:	TBD

TABLE UNDER DEVELOPMENT

PANEL A

POLE	AMP TRIP	DESCRIPTION	POLE KVA	Aφ	Bφ	POLE KVA	DESCRIPTION	AMP TRIP	POLE
1	15/2	PHOTOCELL	0.1	2.5		2.4	TRAFFIC CONTROLLER	60/1	2
3			0.1		0.1	0.0	SPACE		4
5	20/2	INTX LTG P1, P2, P3, P4	1.0	1.5		0.5	TBD		6
7			1.0		1.5	0.5	TBD		8
* CIRCUIT THROUGH CONTACTOR _							PANEL A KVA		
BOLD = PROPOSED LOAD									
NON-BOLD = EXISTING LOAD TO RECONNECT							AMPS		

VOLTAGE DROPS

240V IN A 1-PH, 2W CONFIGURATION WITH A POWER-FACTOR OF 1.00, 1 COPPER CONDUCTOR PER PHASE IN A RMC. TEMPERATURE RATING 75°C.

CKT #	SEGMENT	SEGMENT SIZE (AWG)	SEGMENT LENGTH (FT)	LOAD (VA)	TOTAL (AMPS)	SEG. DROP (%VD)	CUMULATIVE DROP (%VD)
TBD							
TBD							
TBD							

TABLE UNDER DEVELOPMENT

ARC FLASH AND SHOCK HAZARD RESULTS - LC "A" MAIN BREAKERS ENCLOSURE

ARC FLASH BOUNDARY	3.8
INCIDENT ENERGY IN CAL/CM^2	5.5
WORKING DISTANCE	18 INCHES
SHOCK HAZARD ENCLOSURE	240 VAC
INSULATING GLOVES CLASS	00
SHOCK HAZARD	WHEN COVER REMOVED
LIMITED APPROACH BOUNDARY	3.5 FT
RESTRICTED APPROACH BOUNDARY	1.0 FT
CALCULATED DATE	6/16/2022

TABLE UNDER DEVELOPMENT

SHORT CIRCUIT CALCULATION - LC "A"

240V, POWER FACTOR = 0.90, SERVICE LATERAL CONSISTS OF ONE ALUMINUM CONDUCTOR PER PHASE IN RMC & PVC.

TRANSFORMER RATING	25 kVA MAXIMUM
VOLTAGE	120/240 VAC SECONDARY
TRANSFORMER IMPEDANCE	1.2% MINIMUM
TRANSFORMER LET-THRU SHORT CIRCUIT CURRENT (INFINITE BUS)	14,468 A
LENGTH OF FAULT	25FT MINIMUM
SERVICE CONDUCTOR SIZE	1/0 AWG AL MAXIMUM
SERVICE CONDUIT	RMC & PVC
CALCULATED AVAILABLE FAULT CURRENT AT LC "A"	7,156 A
DATE CALCULATED	6/16/2022

TABLE UNDER DEVELOPMENT

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
BENJAMIN CARTER SAY
2022-12
P.E.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

BOGARD RD LOAD CENTER
LC-ABC SCHEDULE

DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF

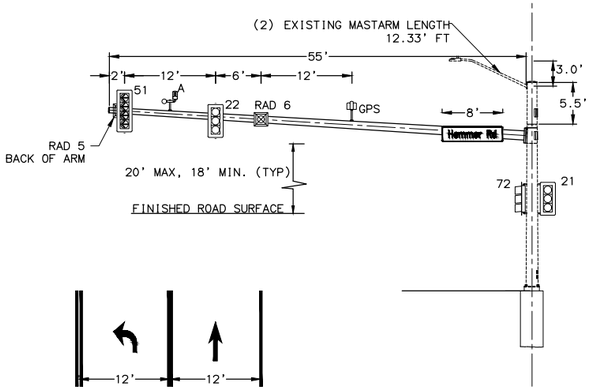
SCALE X" = XX'

DATE 3/10/2025 TIME 10:52 AM

DRAWING LOCATION
00885_H22_SIGNALS.DWG

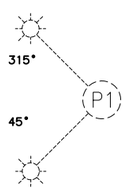
NO.	DATE	REVISION

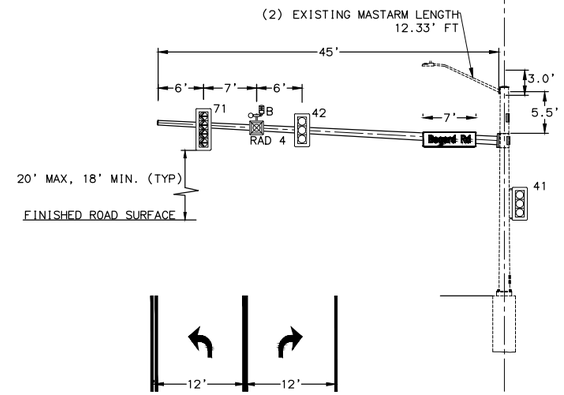
STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H26	H45



SIGNAL POLE 1
LOOKING WEST

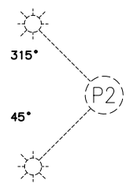
RADIAL INDEX 315° 45°

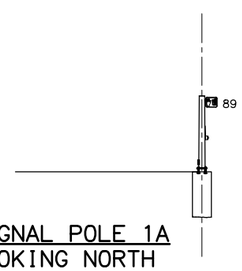




SIGNAL POLE 2
LOOKING NORTH

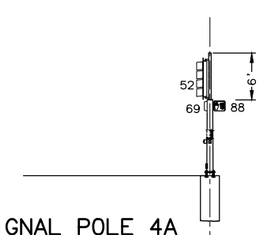
RADIAL INDEX 315° 45°





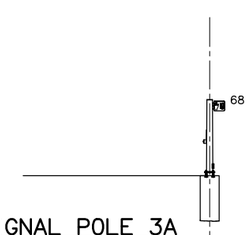
SIGNAL POLE 1A
LOOKING NORTH

RADIAL INDEX 0° P1A



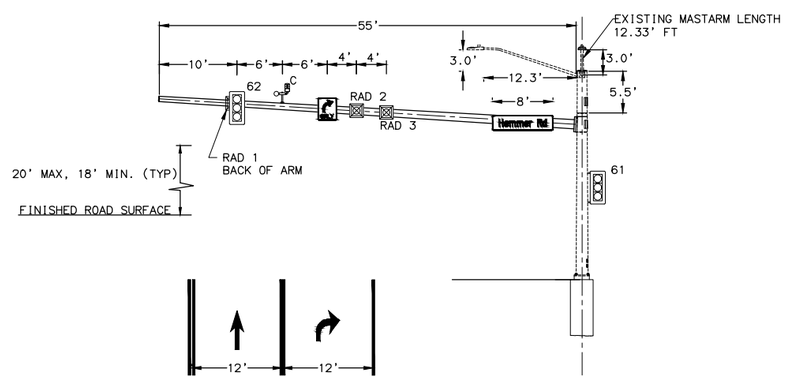
SIGNAL POLE 4A
LOOKING SOUTH

RADIAL INDEX 0° P4A



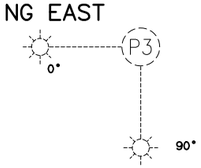
SIGNAL POLE 3A
LOOKING EAST

RADIAL INDEX 0° P3A



SIGNAL POLE 3
LOOKING EAST

RADIAL INDEX 0° 90°



NOTES:

1. TOP OF FOUNDATIONS SHALL BE WITHIN +4" OF TOP BACK OF SIDEWALK. FOUNDATION ELEVATIONS SHALL BE APPROVED BY ENGINEER PRIOR TO INSTALLATION AND ADJUSTED AS NEEDED.
2. INSTALL FULLY FUNCTIONING GPS OPTICOM SYSTEMS SHOWN. MASTARM MOUNTED GPS RECEIVER SHALL BE INSTALLED WITH AT LEAST 3 FEET SEPARATION FROM OTHER ITEMS ON THE MASTARM OR AS DIRECTED BY THE ENGINEER.
3. MOUNTING HEIGHT OF PTZ CAMERA SHALL BE FIELD DETERMINED BY THE ENGINEER.
4. RADAR LOCATIONS SHALL BE CONFIRMED WITH MANUFACTURER PRIOR TO WIRE ROUTING. ADJUSTMENTS MAY BE NECESSARY.
5. SYMBOL MARKINGS ARE FOR LANE ARRANGEMENT REFERENCE ONLY. SEE SIGNING ,STRIPING, ILLUMINATION AND INTERCONNECT SHEETS FOR DETAILS.

LUMINAIRE PERFORMANCE CRITERIA

LUMINAIRE LIGHT LOSS FACTOR	0.85	
LIGHTING CALCULATION METHOD	RP-8-2014	
INTERSECTION ILLUMINANCE CRITERIA		
	INTERSECTION NAME #1	INTERSECTION NAME #2
AVERAGE MAINTAINED ILLUMINATION (fc)	#.#	#.#
AVERAGE UNIFORMITY RATIO (AVG/MIN)	#.#	#.#
ROADWAY LUMINANCE CRITERIA		
AVERAGE LUMINANCE (cd/m²)	#.#	
MINIMUM ROADWAY LUMINANCE (cd/m²)	#.#	
AVERAGE UNIFORMITY RATIO (AVG/MIN)	#.#	
MAX UNIFORMITY RATIO (MAX/MIN)	#.#	
MAX VEILING LUMINANCE RATIO (LV-MAX/AVG)	#.#	
SIDEWALK ILLUMINANCE CRITERIA		
AVERAGE MAINTAINED ILLUMINATION (fc)	#.#	
MINIMUM ILLUMINATION (fc)	#.#	

TABLE UNDER DEVELOPMENT

LUMINAIRE STANDARDS

	ROADWAY	INTERSECTION
MANUFACTURER AND MODEL (OR APPROVED EQUAL)	GE ERL2	
WATTAGE (MAXIMUM)	###	###
VOLTAGE	###	###
PE CONTROL	ANSI C136 PIN W/ SHORTING CAP	
PE SENSOR	SHORTING CAP	
MOUNTING	HORIZONTAL	
HOUSING ENTRY TYPE	TOOLLESS	
FIXTURE COLOR	GRAY	
IES DISTRIBUTION TYPE	TYPE ###	TYPE ##
POWER FACTOR	≥0.90	
UL LISTED	YES	
CCI	3000K	
CRI	MINIMUM 70	

TABLE UNDER DEVELOPMENT

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER–WASILLA HIGHWAY TO BOGARD ROAD

BOGARD RD POLE ELEVATION DETAILS

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF
SCALE X" = XX'
DATE 3/10/2025 TIME 10:52 AM
DRAWING LOCATION 00885_H22_SIGNALS.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H27	H45

CONTROLLER CABINET FEATURES

GENERAL OPTIONS	
TYPE	TS2-1
SIZE	NEMA SIZE 7
MATERIALS	0.125" NATURAL ALUMINUM
MODEL	ECONOLITE TS2 TYPE 1 PLUG-N-GO
MOUNTING HARDWARE	INCLUDED
PAINT	NONE
SPECIAL OPTIONS	
LIFTING TABS	INCLUDED
EQUIPMENT SHELF	(3) FULL WIDTH, 12" WITH FRONT AND BACK LIP
	(1) FULL WIDTH, 14" WITH FRONT AND BACK LIP AND ADDITIONAL BRACING
AIR FILTER	FIBER MESH
MAIN DOOR LOCK	BEST
REAR DOOR	INCLUDED, FULL SIZE, TOP AND BOTTOM BRACKET
LED STRIP	(2) 24" (1) TOP OF CAB, (1) UNDER CONTROLLER SHELF
T-STAT CONTROLLED EXHAUST FANS	(2) FANS ON SEPARATE THERMOSTATS
MAIN PANEL	
16 POSITION	(2) EIGHT POSITION ROWS, STACKED
LOAD SWITCH TEST SOCKET	(1) INCLUDED
RESISTOR LOCATION	SIDEWALL
FLASH TRANSFER RELAYS SOCKETS	(6) INCLUDED
FLASHER SOCKETS	(2) INCLUDED
K1 RELAY SOCKET	INCLUDED
POWER PANEL	
POWER INTERFACE MODULE (PIM)	INCLUDED
SURGE SUPPRESSION	ACP-340
LINE FILTER (RADIO INTERFERENCE)	50A
SOLID STATE CONTACTOR	NORMALLY OPEN
CONTROL EQUIPMENT BREAKER	40A
AUXILIARY CIRCUIT BREAKER	20A
GFI LOCATION	POWER PANEL
2 POSITION TERMINAL BLOCK #6 U.S.G.	INCLUDED
16 POSITION NEUTRAL BUS BAR	INCLUDED
16 POSITION CHASSIS GROUND BUS BAR	INCLUDED
EATON MODEL HS-P-SP-120-60-RJ SURGE PROTECTOR OR APPROVED EQUAL	INCLUDED
POLICE PANEL	
POLICE PANEL	INCLUDED
POLICE PANEL SWITCHES	SIGNALS ON/OFF, AUTO/FLASH
POLICE PANEL PUSHBUTTON ALARM	INCLUDED
POLICE DOOR LOCK	SKELETON
POLICE PANEL MANUAL CORD	NONE
RJ45 PORT	INCLUDED
USB PORT	INCLUDED
AUXILIARY PANEL	
AUXILIARY PANEL TOGGLE SWITCHES	AUTO/FLASH, STOP TIME, CONTROLLER POWER, COORD/FREE, HEATER BY-PASS, F01, F02 WITH TOGGLE SWITCH COVERS
DETECTOR TEST SWITCHES	TACTILE PUSHBUTTON
RACK DETECTION	
DETECTOR RACKS	(1) 8-CHANNEL RACK WITH 2 SLOTS FOR RAILROAD PREEMPTION, BIU POWER SUPPLY
	(1) 2-CHANNEL RACK FOR EVP, 120V POWER SUPPLY
EVP REQUIREMENTS	WIRING FOR EVP RACK W/GREENS
ADDITIONAL OPTIONS	
RAILROAD PREEMPTION	2 CHANNELS OF RAILROAD PREEMPTION INCLUDED
RAILROAD PREEMPTION/STAND ALONE PANEL	INCLUDED
RED JUMPERS FOR ALL UNUSED PHASES	INCLUDED
LOAD RESISTORS	(8) INCLUDED
ADDITIONAL GFI OUTLET (NON-FILTERED)	INCLUDED
DOUBLE DUPLEX CONVENIECE OUTLET	(1) LEFT WALL FILTERED, (1) RIGHT WALL NON-FILTERED
DUPLEX OUTLET	FOR HEATER AUTO & BYPASS SWITCH, ON DOOR
POWER STRIP	(8) FILTERED CONVENIENCE OUTLETS MOUNTED ABOVE CONTROLLER SHELF INCLUDED
ADDITIONAL NEUTRAL BUS BARS	(1) 16 POSITION BUS BAR RIGHT SIDE OF CABINET
	(1) 32 POSITION BUS BAR LEFT SIDE OF CABINET
	(1) 16 POSITION BUS BAR RIGHT SIDE FOR ISOLATED NEUTRALS
ADDITIONAL CHASSIS GROUND BUS BARS	(1) 16 POSITION BUS BAR RIGHT SIDE OF CABINET
	(1) 16 POSITION BUS BAR LEFT SIDE OF CABINET
GTT OPTICOM 757 HARNESS	INCLUDED - WIRED INTO CABINET
INTERSECTION DRAWINGS	PROVIDE: (3) PAPER SETS, (1) AUTOCAD FILE, (1) PDF.
SDLC CABLES	(10)

CONTROLLER ASSEMBLY EQUIPMENT

SUPPLY ALL LABOR, EQUIPMENT AND MATERIALS TO PROVIDE A FULLY FUNCTIONING TRAFFIC SIGNAL CONTROLLER ASSEMBLY COMPLIANT WITH THE NEMA STANDARD PUBLICATION NO. TS2-2003 V02.06 AND SPECIAL "SPECIALS" PROVISIONS OF THIS CONTRACT INCLUDING BUT NOT LIMITED TO;

QTY	CONTROLLER/MMU EQUIPMENT
1	ECONOLITE COBALT CONTROLLER
1	CONTROLLER ETHERNET PORT
1	CONTROLLER DATA KEY
1	ECONOLITE MMU2-16LEIP
1	MMU2 CARD
QTY	**CABINET EQUIPMENT**
16	RENO LS-200 OR APPROVED EQUAL LOAD SWITCHES
6	RENO TR-200 OR APPROVED EQUAL FLASH TRANSFER RELAYS
2	ECONOLITE BIU-64 TERMINAL AND FACILITIES BIU'S
1	ECONOLITE BIU-64 DETECTION BIU
1	EDI PS250 TS2 CABINET POWER SUPPLY OR APPROVED EQUAL
2	ECONOLITE 801 FLASHER
1	K1 RELAY
2	750/1500W SELECTABLE THERMOSTATICALLY CONTROLLED CABINET HEATER
1	THERMOSTAT, MOUNT ON DOOR
1	COMPLETE SET OF MANUALS FOR CONTROLLER AND MMU

COMMUNICATION EQUIPMENT SCHEDULE

QTY	FIBER INTERCONNECT EQUIPMENT
3	3 FOOT CAT6 RJ45 PATCH CABLE
1	6 FOOT CAT6 RJ45 PATCH CABLE
3	3 FOOT LC TO LC DUPLEX SM PATCH CABLE
1	6 FOOT LC TO LC DUPLEX SM PATCH CABLE
0	3 FOOT SC TO LC DUPLEX SM PATCH CABLE
0	6 FOOT SC TO LC DUPLEX SM PATCH CABLE
0	3 FOOT SC TO SC DUPLEX SM PATCH CABLE
0	6 FOOT SC TO SC DUPLEX SM PATCH CABLE
1	PATCH PANEL - 6 STEP LC SM DUPLEX CONNECTORS (12 FIBERS SPLICED)
0	PATCH PANEL - 6 STEP SC SM DUPLEX CONNECTORS (12 FIBERS SPLICED)
0	SFP OPTICS GB SM 1310NM 10KM LC TRANSCEIVER OR APPROVED EQUAL
0	SFP 1112-1 GB RJ45 TRANSCEIVER
0	RSP1300 802.at POE EXTERNAL POWER SUPPLY
0	WALL MOUNTING KIT
1	RSG920P ETHERNET SWITCH (LC CONNECTORS)
0	RSL910 ETHERNET SWITCH (LC CONNECTORS)
0	RX1511 ETHERNET SWITCH (LC CONNECTORS)
QTY	**OTHER EQUIPMENT**
0	ATSI PCMT-2600 MMU TESTER W/MMU & CMU CABLES
0	FULLY FUNCTIONING TRAFFIC SIGNAL CONTROLLER, MASTER CONTROLLER AND CABINET
0	INDUCTIVE LOOP TEST KITS
0	LOOP FINDERS
0	BIU TESTERS
0	FRAME GRABBER
0	MULTI-SWITCH TESTER
0	BIU SLOT TESTER
0	CARD RACK SLOT TESTER
0	DETECTOR TESTER
0	MCCAIN CID II
0	RADIO SITE SURVEY LOCATIONS
0	INTX DIAGRAM LOCATIONS
1	UPS INVERTER
6	UPS BACKUP BATTERY
0	BATTERY HEAT PAD
QTY	**EVP EQUIPMENT**
1	OPTICOM MODEL 764 PHASE SELECTOR
0	OPTICOM MODEL 794HM EMITTERS W/2100 CONTROL UNITS
QTY	**RADAR EQUIPMENT**
1	ARC6 (102-0594)
1	7' SDLC CABLE - 15 PIN SCREW TO 15 PIN SPRING CLIP (SDLC-TS2-7)

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
BENJAMIN CARLEN SAUNDERS
2025.03.10
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

BOGARD RD CONTROLLER EQUIPMENT SUMMARY

DRAWING LOCATION	00885_H22_SIGNALS.DWG
DATE	3/10/2025
TIME	10:52 AM
SCALE	X" = XX'
DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H28	H45

SHEET UNDER DEVELOPMENT
FIELD INSPECTION POST P.I.H.

P.I.H. MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

PALMER-WASILLA SIGNAL POLE MOUNTING HEIGHT ADJUSTMENT DETAIL

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF
SCALE	X" = XX'
DATE	3/10/2025
TIME	10:53 AM

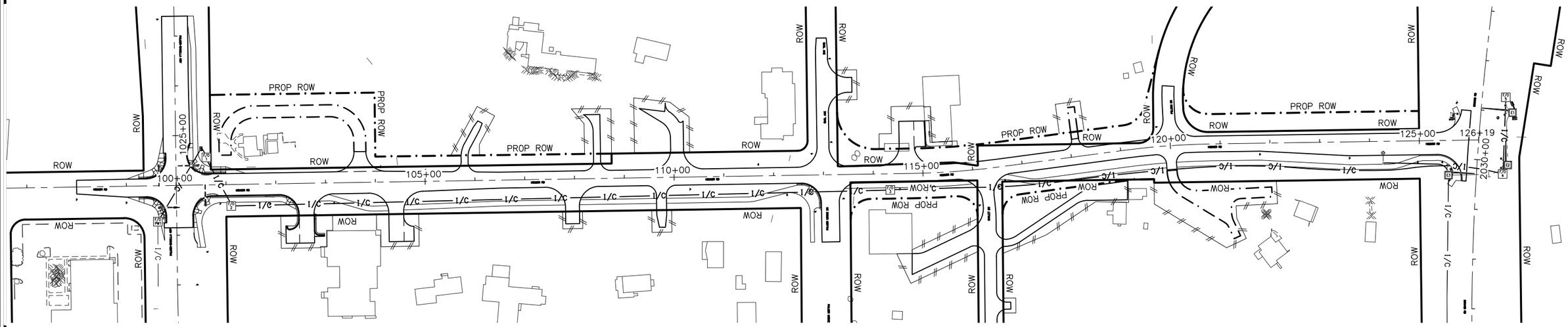
DRAWING LOCATION
00885_H29_INTERCONNECT.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H29	H45

NOTES:

1. RUN CONTINUOUS FIBER OPTIC CABLE FROM HEMMER & PALMER–WASILLA TRAFFIC CONTROLLER TO FELTON & PALMER–WASILLA TRAFFIC CONTROLLER USING EXISTING FIBER VAULTS AND CONDUIT.
2. RUN 1–25PR #19 INTERCONNECT FROM HEMMER & BOGARD TRAFFIC CONTROLLER TO FELTON & BOGARD TRAFFIC CONTROLLER USING EXISTING JUNCTION BOX'S AND 2" CONDUITS.



INTERCONNECT SCHEDULE

VAULT	STATION ALIGNMENT	OFFSET	TYPE	
PW1	1026+72.5	37.9' RT	EXISTING F/O	SEE NOTE 1
1	100+62.2	55.1' LT	F/O	
2	101+09.8	43.1' RT	F/O	
3	114+33.8	32.4' RT	F/O	
4	2030+25.7	53.2' LT	F/O	
5	2028+70.9	47.2' LT	F/O	
E3	2030+34.6	55.8' RT	EXISTING TYPE 2	SEE NOTE 2
E2	2030+06.8	61.9' LT	EXISTING TYPE 2	SEE NOTE 2
E1	2028+99.9	63.2' LT	EXISTING TYPE 2	SEE NOTE 2

STATE OF ALASKA
REGISTERED PROFESSIONAL ENGINEER
49TH
REDACTED CARLSON
P.E.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269–0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER–WASILLA HIGHWAY TO BOGARD ROAD

INTERCONNECT PLAN AND SCHEDULE

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:53 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
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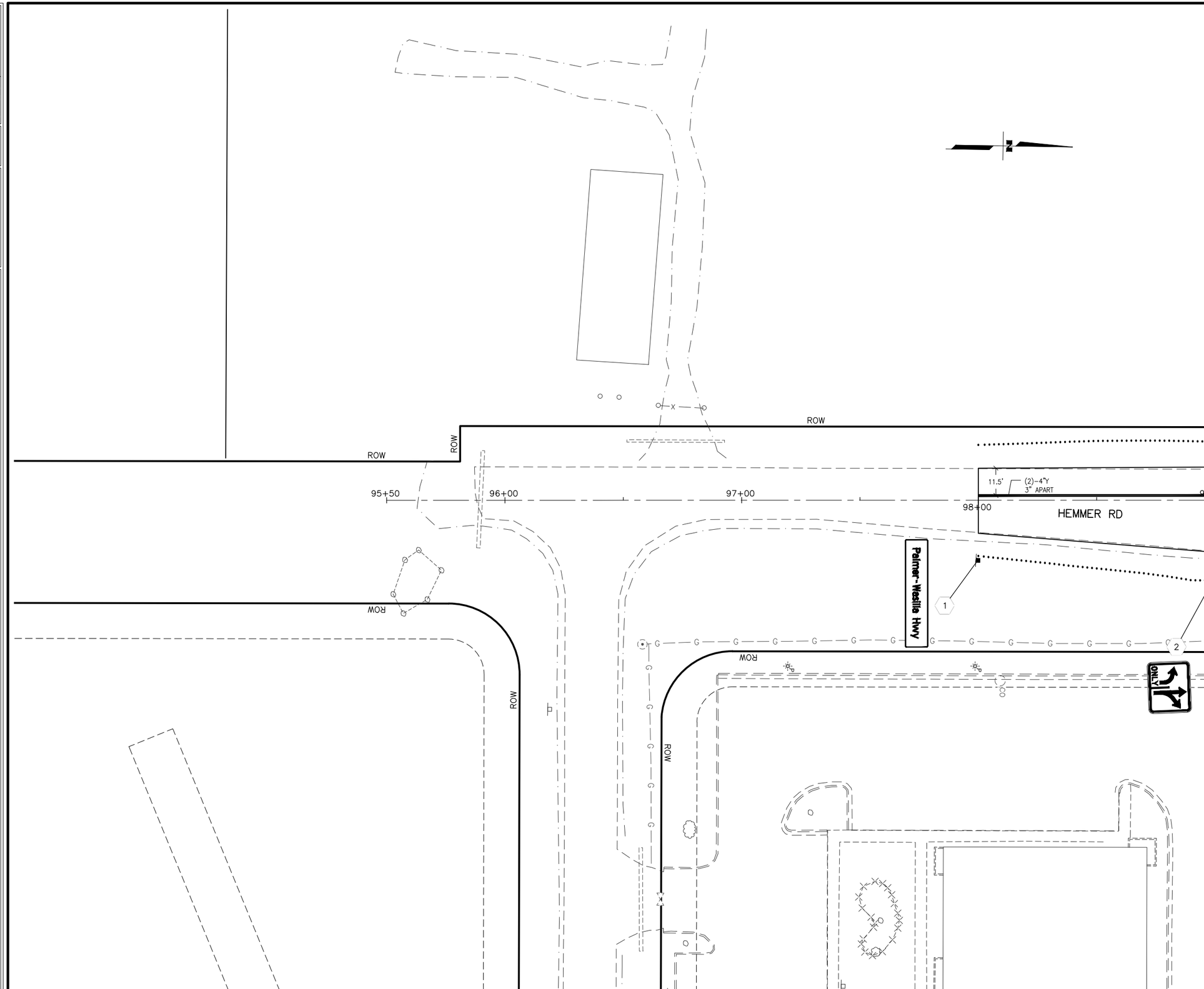

SHEET NO.	TOTAL SHEETS
H30	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
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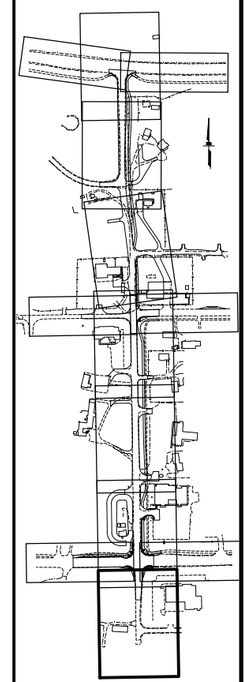
NO.	REVISION
DATE	



STATE OF ALASKA
49TH
BEDRANSKY, CHARLES
PROFESSIONAL ENGINEER
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
BOP TO
STA. 99+00

DATE	TIME	SCALE	DESIGNED BY	MF
3/10/2025	10:54 AM	X" = XX'	CHECKED BY	RDR
			DRAFTED BY	MF

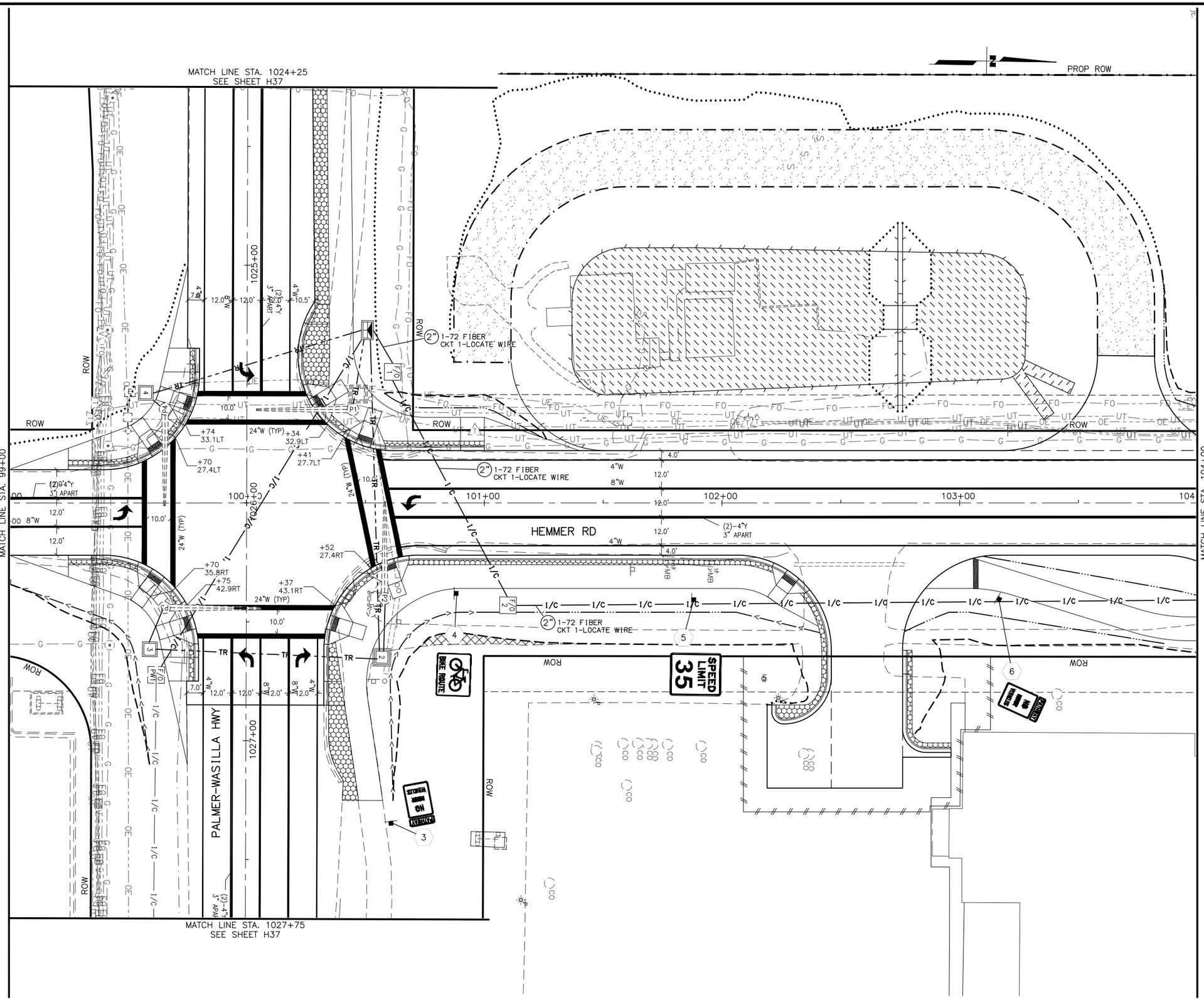
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_H20_SSNL.DWG

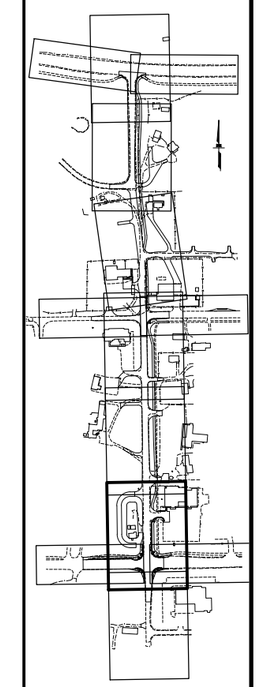
SHEET NO.	TOTAL SHEETS
H31	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	





STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
STA. 99+00 TO
STA. 104+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:55 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
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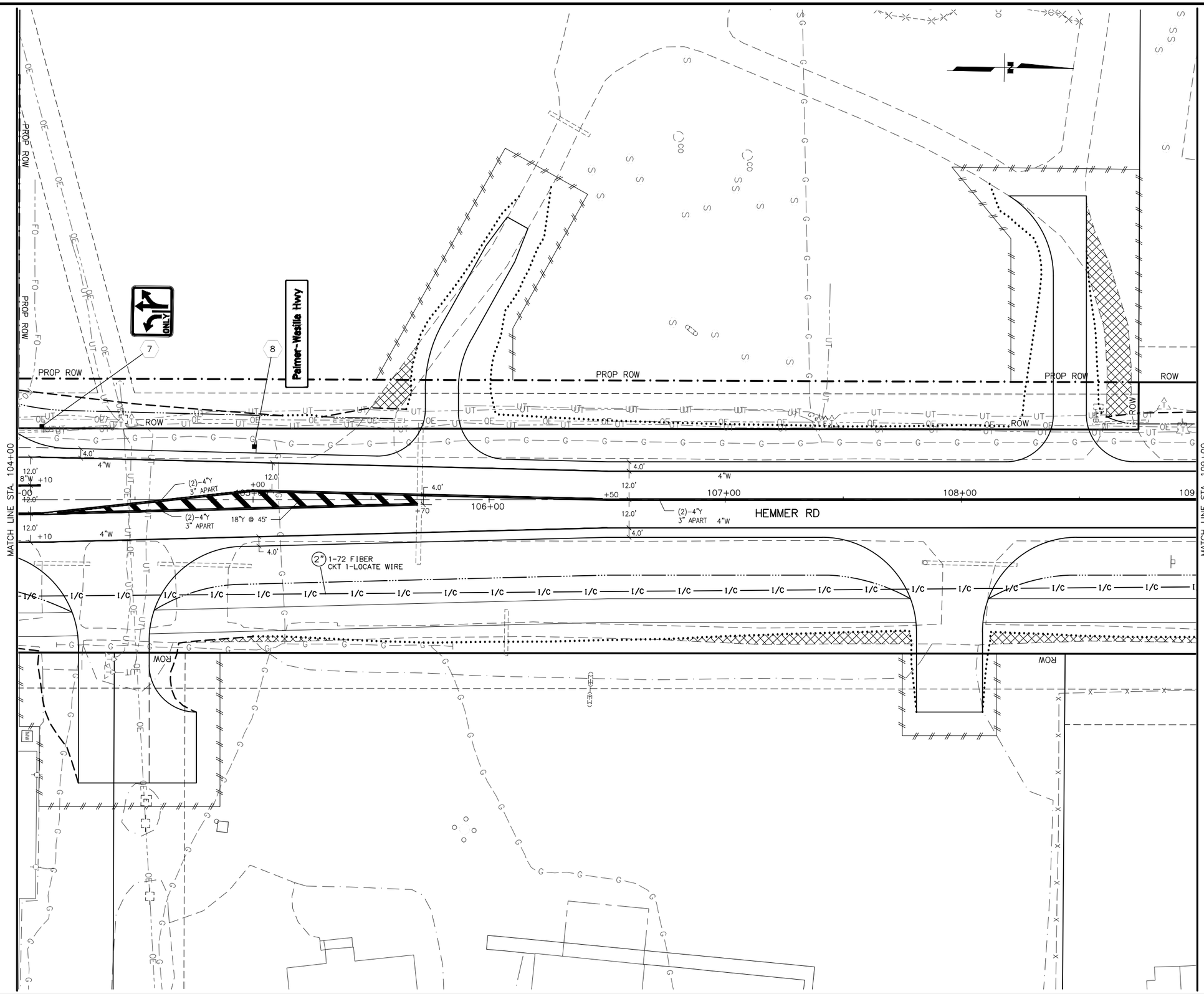

SHEET NO.	TOTAL SHEETS
H32	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
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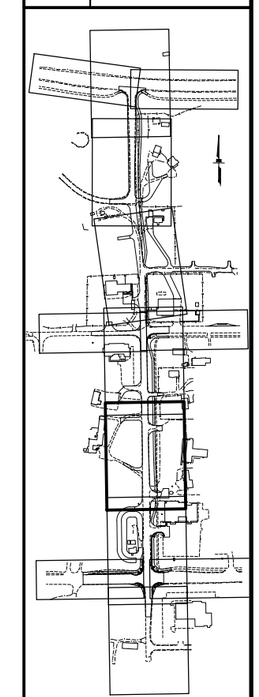
NO.	REVISION
DATE	



STATE OF ALASKA
49TH
BERNARD COARER SR.
PROFESSIONAL ENGINEER
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
STA. 104+00 TO
STA. 109+00

DATE	TIME	SCALE	DESIGNED BY	MF
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			DRAFTED BY	MF

DRAWING LOCATION
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DATE	TIME	SCALE	DESIGNED BY	MF
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DRAWING LOCATION
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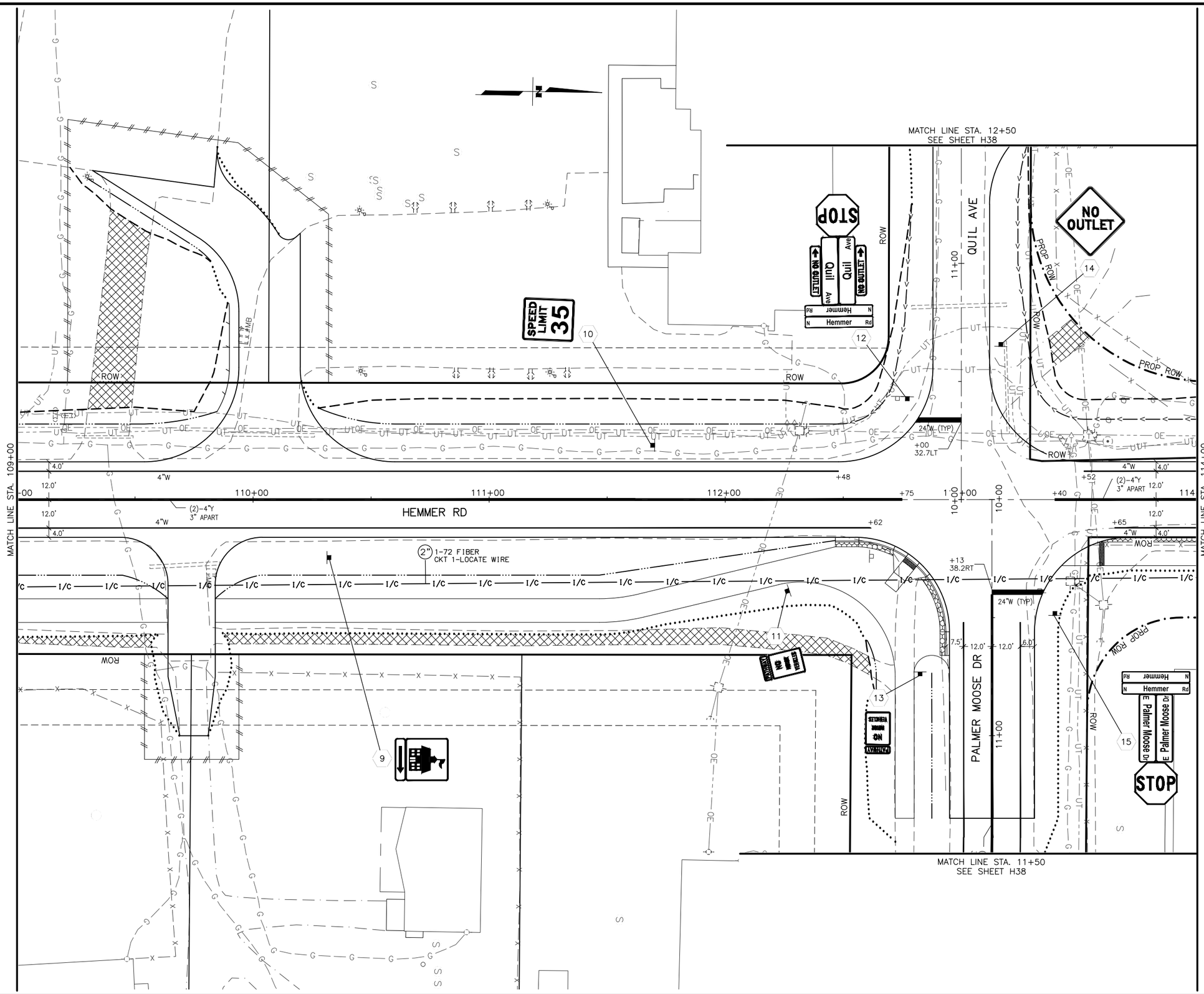

SHEET NO.	TOTAL SHEETS
H33	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
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NO.	REVISION
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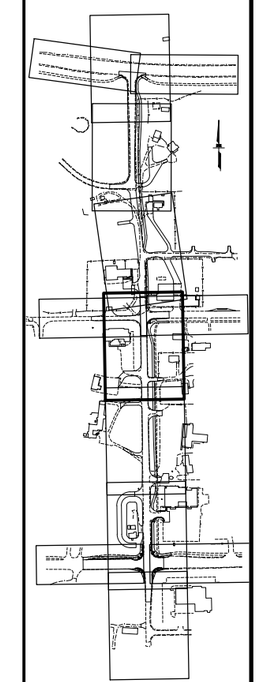

STATE OF ALASKA
PROFESSIONAL ENGINEER
49TH
BEDRANIC CARLEE SR.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
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STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
STA. 109+00 TO
STA. 114+00

DATE	TIME	SCALE	DESIGNED BY	MF
3/10/2025	10:57 AM	X" = XX'	CHECKED BY	RDR
			DRAFTED BY	MF

DRAWING LOCATION
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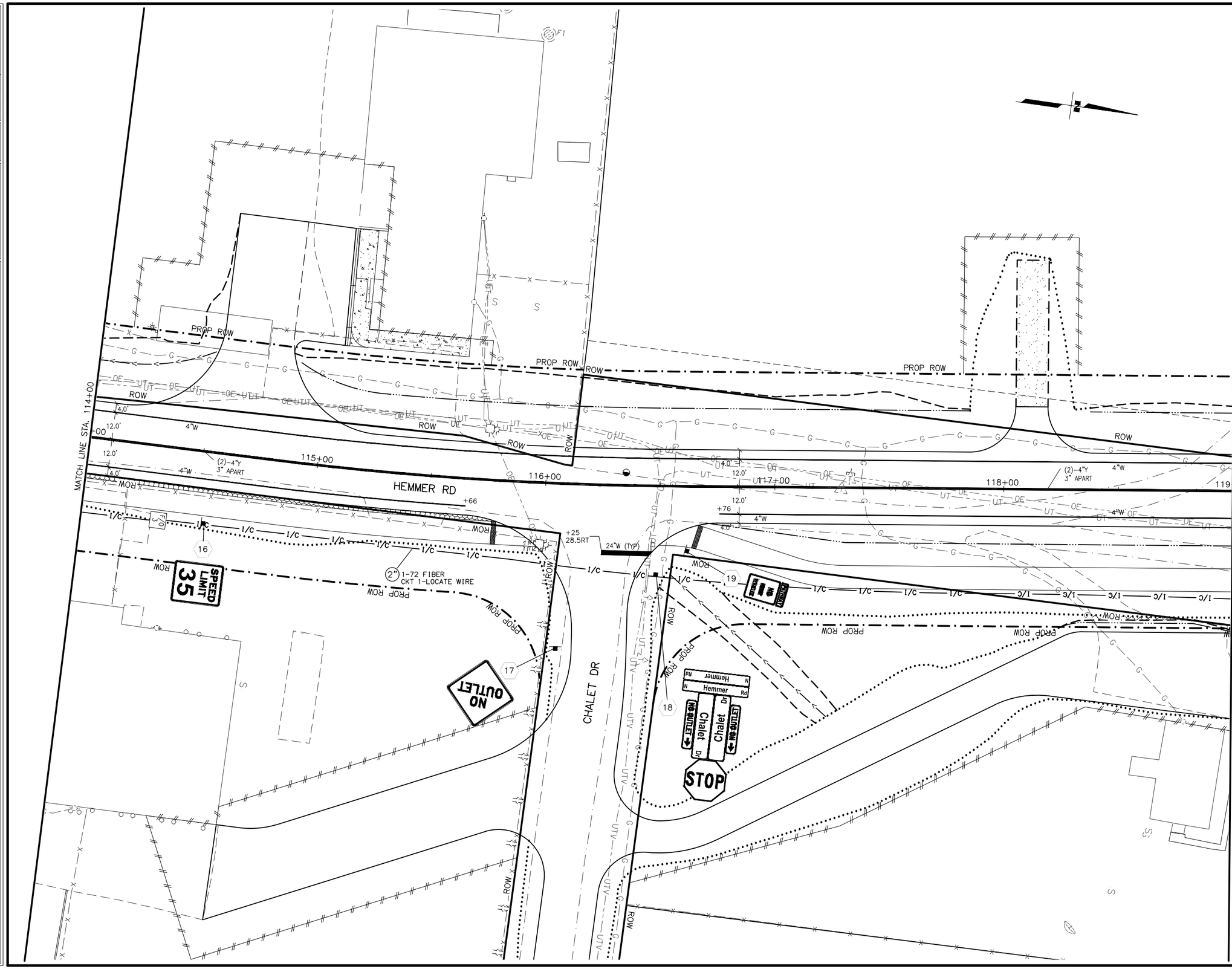

SHEET NO.	TOTAL SHEETS
H34	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION
0001743/
CFHWY00885

NO.	REVISION
DATE	
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NO.	REVISION
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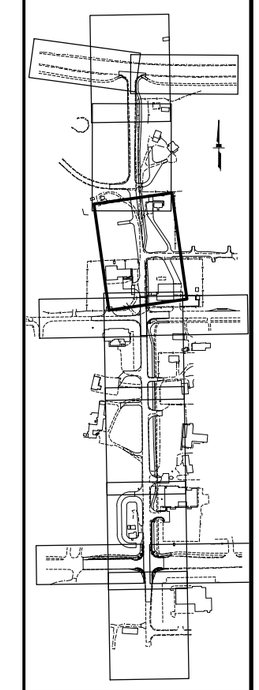


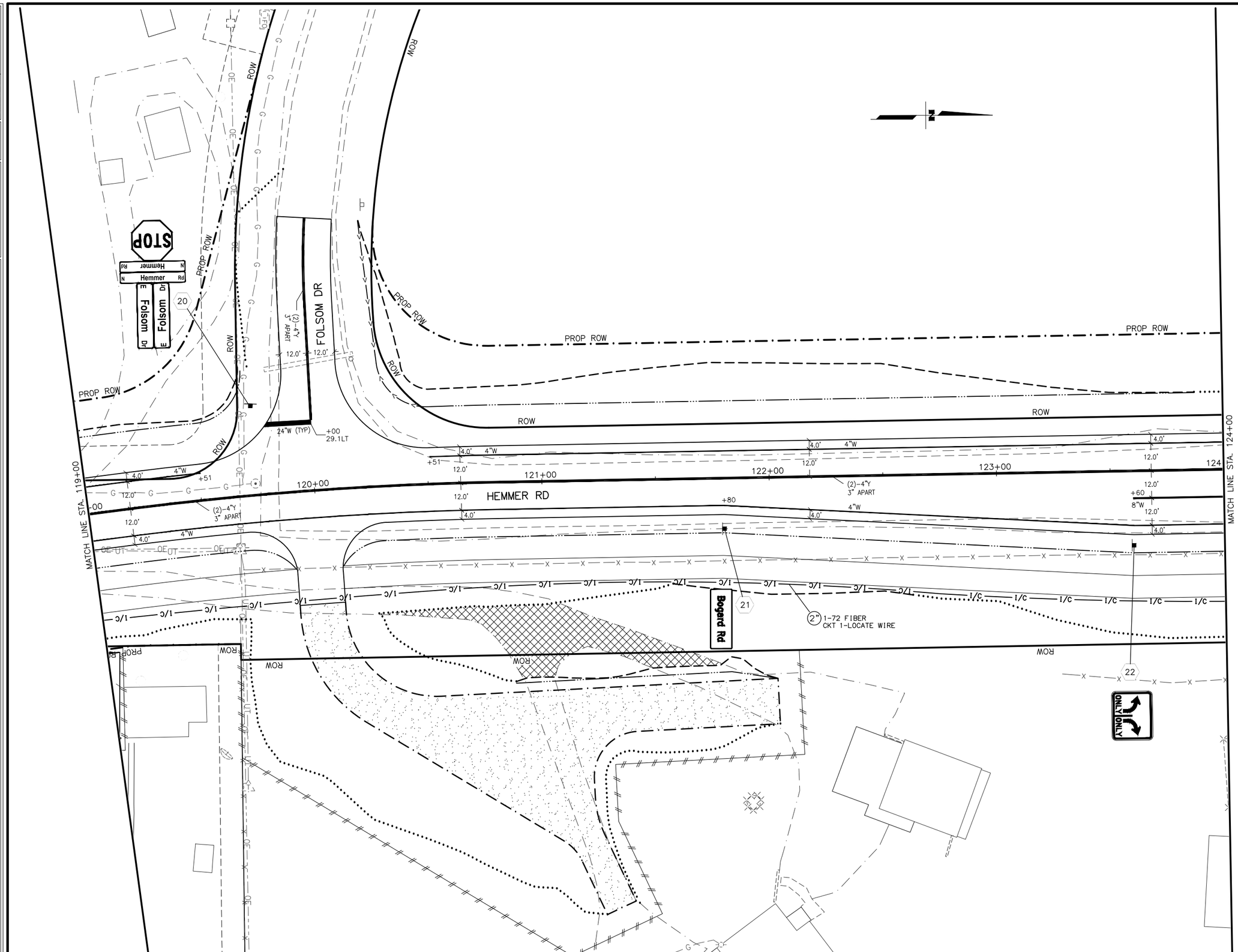
STATE OF ALASKA
PROFESSIONAL ENGINEER
49TH
BEDRANSKY, CHARLES E.
MAR 30 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
STA. 114+00 TO
STA. 119+00



SHEET NO.	TOTAL SHEETS
H35	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/ CFHWY00885

NO.	REVISION
DATE	
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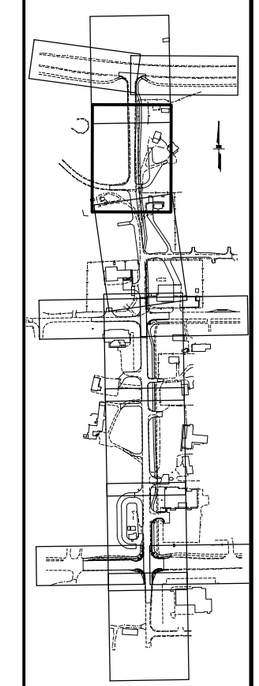
DATE	



STATE OF ALASKA
40TH
BEDFORD W. CARTER JR.
12202
PROFESSIONAL ENGINEER
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
STA. 119+00 TO
STA. 124+00

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	10:58 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
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DATE	TIME	SCALE	DESIGNED BY	MF
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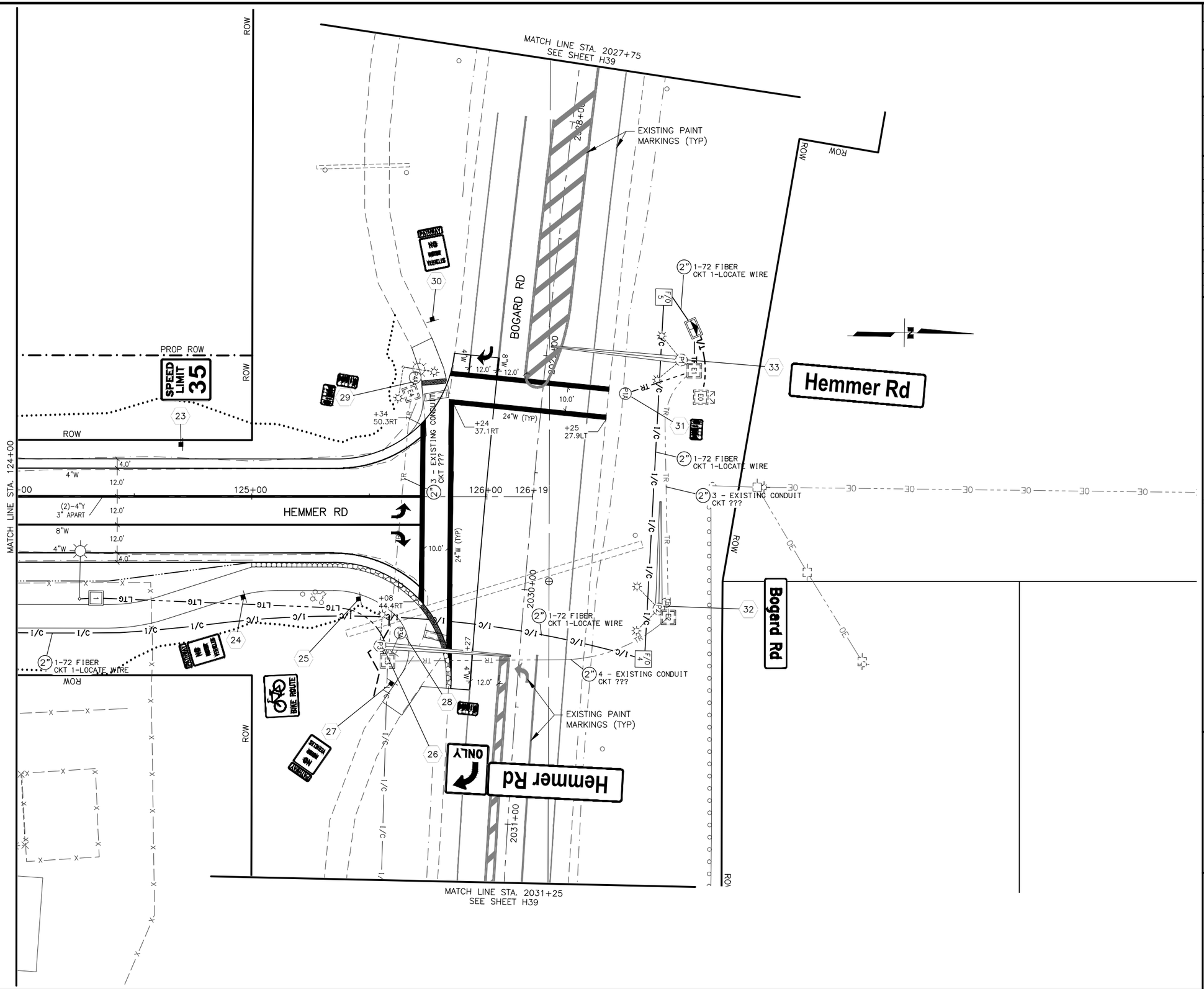
			DRAFTED BY	MF

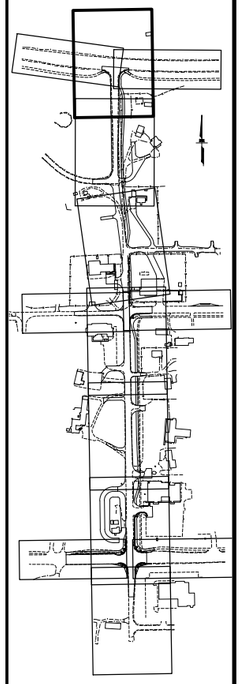


SHEET NO.	TOTAL SHEETS
H36	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
49TH
BERNARD CARLEN SIMPSON
PROFESSIONAL ENGINEER
P.E.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION
STA. 124+00 TO
EOP

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_H20_SSNL.DWG

SHEET NO.	TOTAL SHEETS
H37	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
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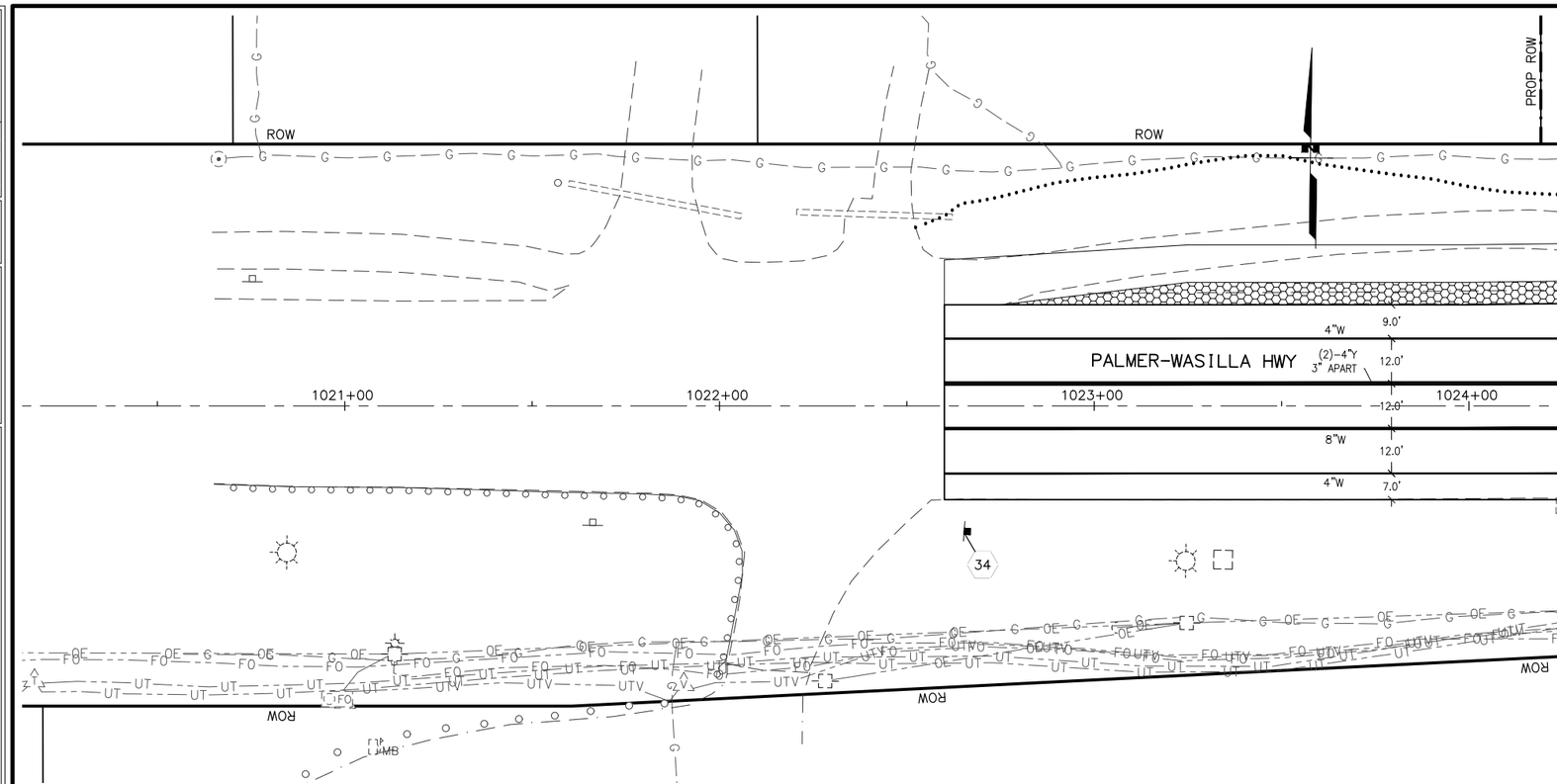
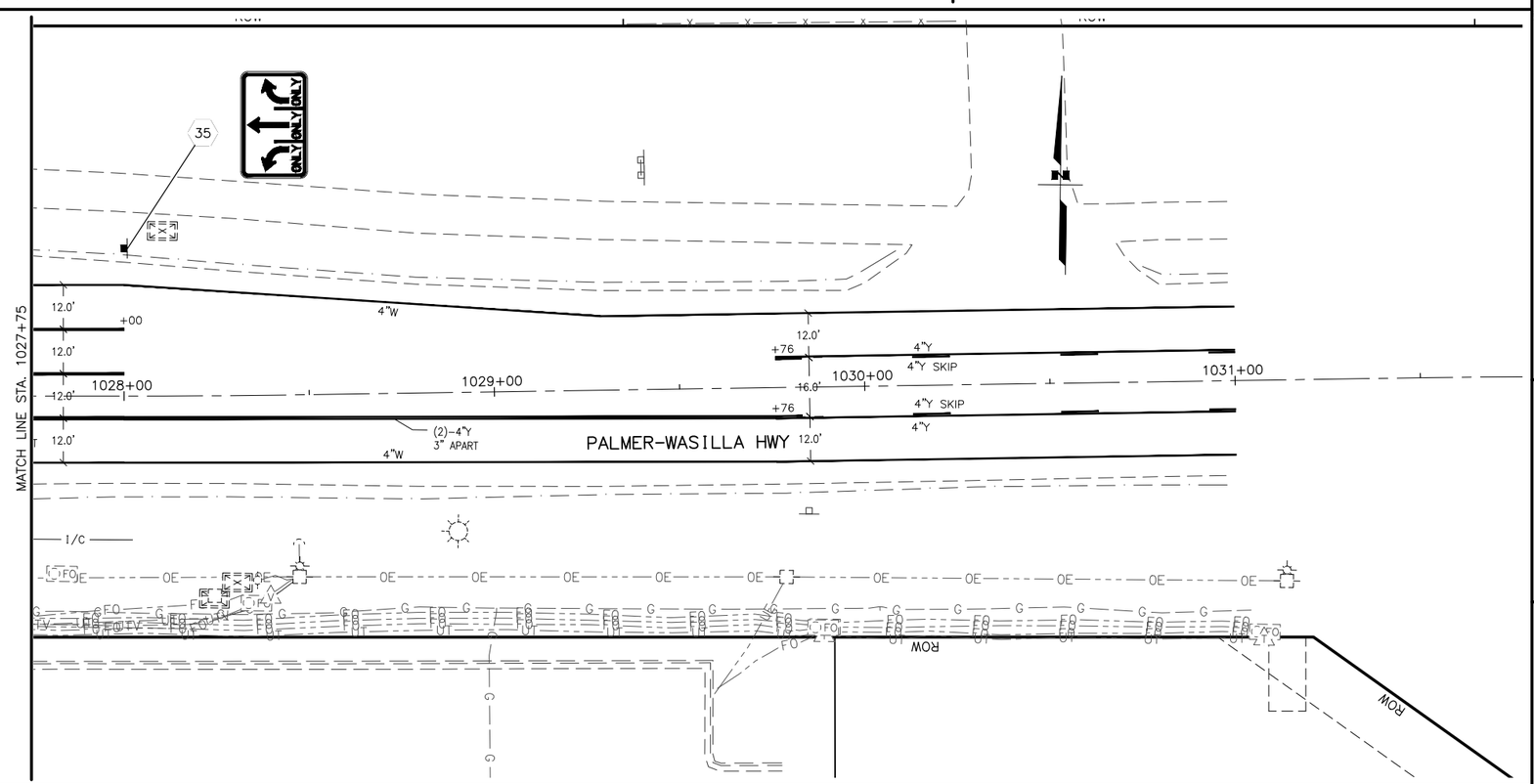
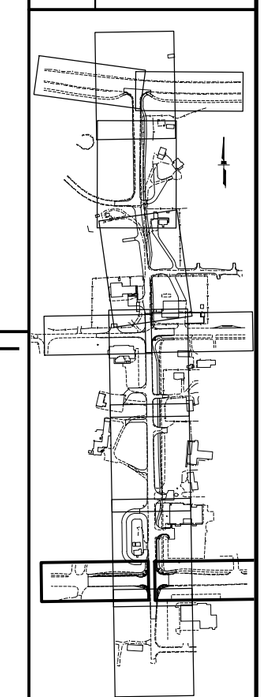
DATE	
NO.	REVISION
DATE	







STATE OF ALASKA
49TH
BEDFORD W. CARLSON JR.
REGISTERED
PROFESSIONAL ENGINEER
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

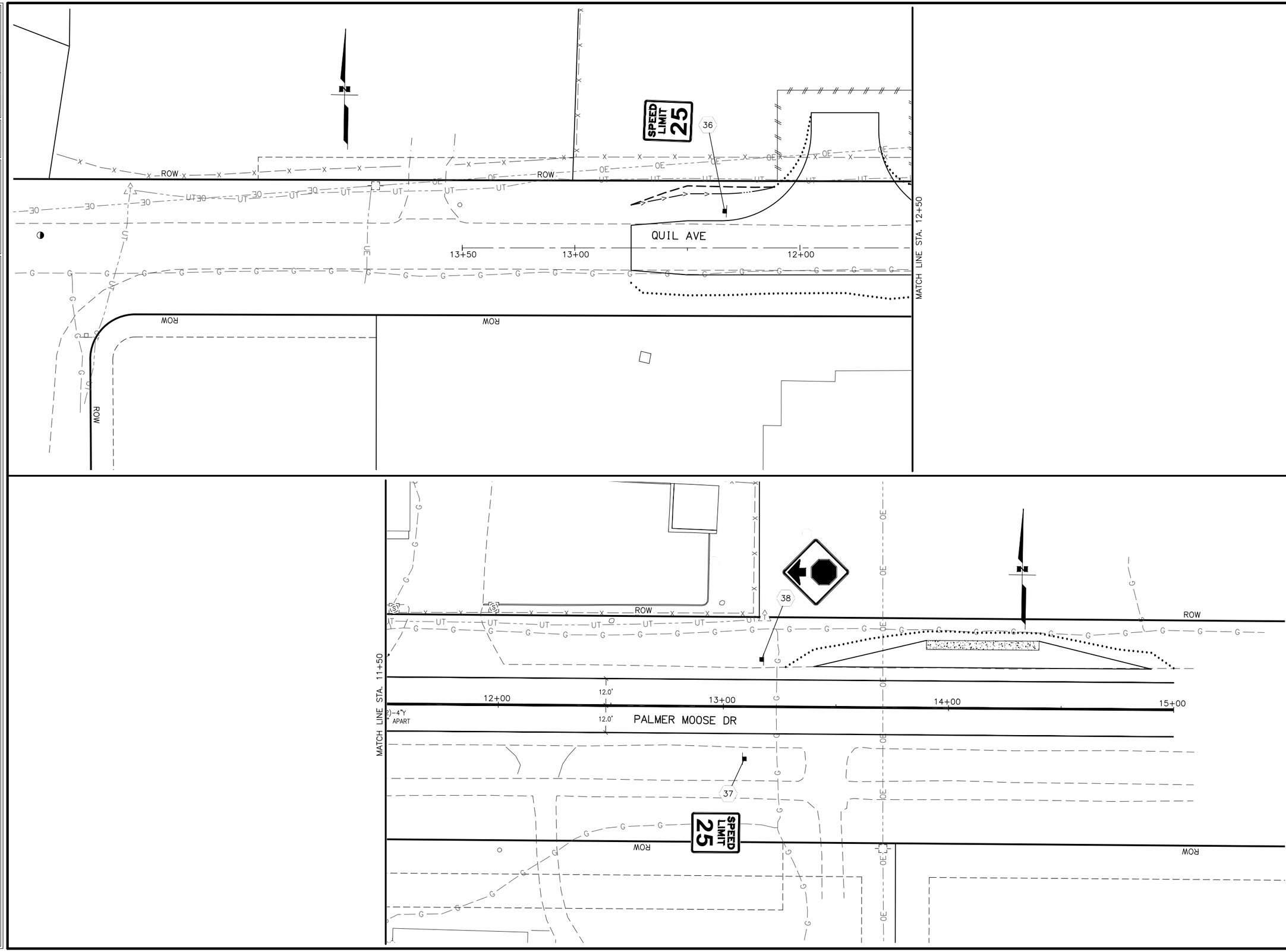
SIGNING STRIPING AND ILLUMINATION
PALMER-WASILLA HWY

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

SCALE X" = XX'

DATE 3/10/2025 TIME 11:00 AM

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_H20_SSNL.DWG

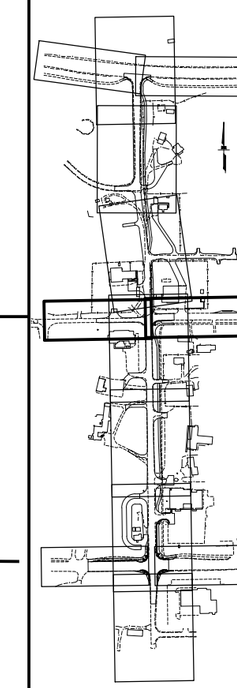


SHEET NO.	TOTAL SHEETS
H38	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
49TH
BECKERMAN, CHARLES S.
PROFESSIONAL ENGINEER
PE
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

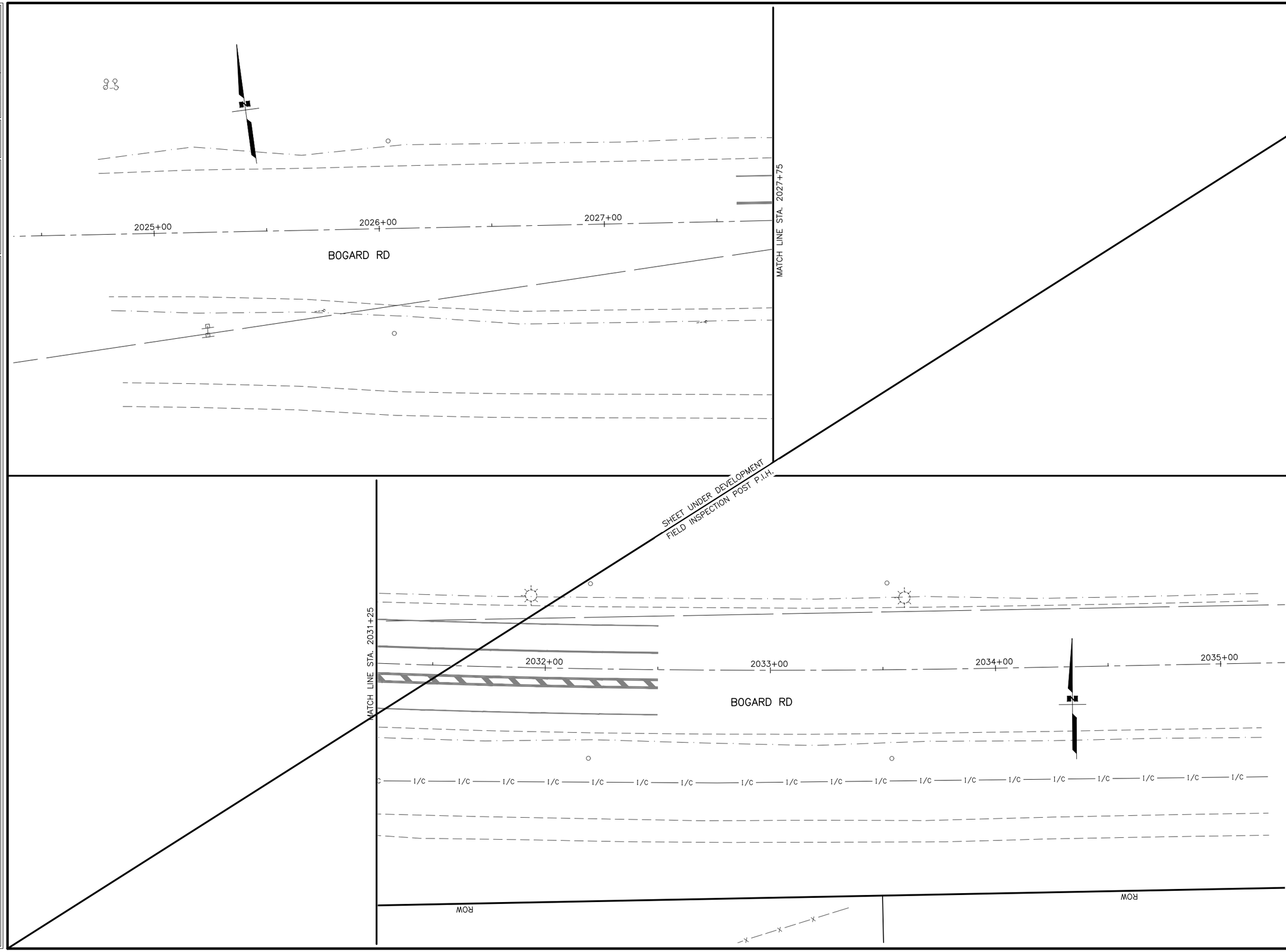
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION QUIL AVE AND PALMER MOOSE DR

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	11:01 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_H20_SSNL.DWG

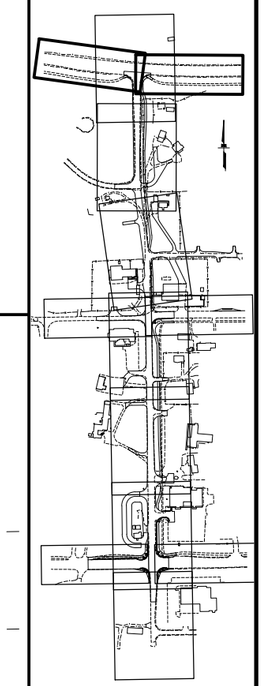


SHEET NO.	TOTAL SHEETS
H39	H45
STATE	YEAR
ALASKA	2025

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	



STATE OF ALASKA
PROFESSIONAL ENGINEER
49TH
BY BERNARD CARTER SR
P.I.H.
MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGNING STRIPING AND ILLUMINATION BOGARD RD

DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF

SCALE X" = XX'

DATE 3/10/2025 TIME 11:02 AM

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION- PALMER-WASILLA HWY TO BOGARD RD - CFHWY00885\CIV3D\PLANSET\00885_H20_SSNL.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H40	H45

SIGN SUMMARY

SHEET NO.	SIGN NO.	STATION ALIGNMENT	CL REF	TYPE	LEGEND	SIZE (IN) WIDTH	SIZE (IN) HEIGHT	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED? YES	FRAMED? NO	REMARKS
H30	1	98+00.0	RT	D3-200	PALMER-WASILLA HWY	90	12	7.50	S	2-3.0" T	X		
H30	2	99+00.0	RT	R3-108-L/SR		36	30	7.50	S	1-3.0" T	X		
H31	3	1027+35.4	RT	R5-103P	PATHWAY	18	6	0.75	W	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	W			X	
H31	4	100+88.1	RT	D11-1	BIKE ROUTE	24	18	3.00	S	1-2.5" PT		X	
H31	5	101+88.1	RT	R2-1	SPEED LIMIT 35	24	30	5.00	S	1-3.0" T		X	
H31	6	103+16.6	RT	R5-103P	PATHWAY	18	6	0.75	S	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	S			X	
H32	7	104+10.6	LT	R3-108-L/SR		36	30	7.50	N	1-3.0" T	X		
H32	8	105+10.6	LT	D3-200	PALMER-WASILLA HWY	90	12	7.50	N	2-3.0" T	X		
H33	9	110+32.00	RT	I-102		24	24	4.00	S	1-2.5" PT		X	
				I-102P-R		24	12	2.00	S			X	
H33	10	111+69.3	LT	R2-1	SPEED LIMIT 35	24	30	5.00	N	1-3.0" T		X	
H33	11	112+26.3	RT	R5-103P	PATHWAY	18	6	0.75	N	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	N			X	
													60.25

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN SUMMARY

P.L.S. MAR 2025

DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF
SCALE X" = XX'
DATE 3/10/2025 TIME 11:02 AM
DRAWING LOCATION 00885_H30_SIGNSUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H41	H45

SIGN SUMMARY

SHEET NO.	SIGN NO.	STATION ALIGNMENT	CL REF	TYPE	LEGEND	SIZE (IN) WIDTH	SIZE (IN) HEIGHT	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED? YES	FRAMED? NO	REMARKS
H33	12	112+77.2	LT	D3-1	N HEMMER RD	36	8	2.00	E	1-3.0" T	X		
				D3-1	N HEMMER RD	36	8	2.00	W		X		
				D3-1	QUIL AVE	48	12	4.00	N		X		
				D3-1	QUIL AVE	48	12	4.00	S		X		
				W14-2A-R	NO OUTLET →	36	9	2.25	N		X		
				W14-2A-L	← NO OUTLET	36	9	2.25	S		X		
				R1-1	STOP	30	30	6.25	W			X	
H33	13	112+82.6	RT	R5-103P	PATHWAY	18	6	0.75	W	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	W			X	
H33	14	113+16.7	LT	W14-2	NO OUTLET	30	30	6.25	E	1-3.0" T		X	
H33	15	113+39.64	RT	D3-1	N HEMMER RD	36	8	2.00	E	1-3.0" T	X		
				D3-1	N HEMMER RD	36	8	2.00	W		X		
				D3-1	E PALMER MOOSE DR	48	12	4.00	N		X		
				D3-1	E PALMER MOOSE DR	48	12	4.00	S		X		
				R1-1	STOP	30	30	6.25	E			X	
H34	16	114+53.4	RT	R2-1	SPEED LIMIT 35	24	30	5.00	N	1-3.0" T		X	
H34	17	116+07.0	RT	W14-2	NO OUTLET	30	30	6.25	W	1-3.0" T		X	
													62.25

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN SUMMARY

DATE	TIME	SCALE	DESIGNED BY	CHECKED BY	DRAFTED BY
3/10/2025	11:02 AM	X" = XX'	MF	RDR	MF

DRAWING LOCATION
00885_H30_SIGNSUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H42	H45

SIGN SUMMARY

SHEET NO.	SIGN NO.	STATION ALIGNMENT	CL REF	TYPE	LEGEND	SIZE (IN) WIDTH	SIZE (IN) HEIGHT	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED? YES	FRAMED? NO	REMARKS
H34	18	116+48.4	RT	D3-1	N HEMMER RD	36	8	2.00	E	1-3.0" T	X		
				D3-1	N HEMMER RD	36	8	2.00	W		X		
				D3-1	CHALET DR	48	12	4.00	N		X		
				D3-1	CHALET DR	48	12	4.00	S		X		
				W14-2-R	NO OUTLET →	36	9	2.25	S		X		
				W14-2-L	← NO OUTLET	36	9	2.25	N		X		
				R1-1	STOP	30	30	6.25	E			X	
H34	19	116+61.9	RT	R5-103P	PATHWAY	18	6	0.75	S	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	S			X	
H35	20	119+75.1	LT	D3-1	N HEMMER RD	36	8	2.00	E	1-3.0" T	X		
				D3-1	N HEMMER RD	36	8	2.00	W		X		
				D3-1	E FOLSOM DR	48	12	4.00	N		X		
				D3-1	E FOLSOM DR	48	12	4.00	S		X		
				R1-1	STOP	30	30	6.25	W			X	
H35	21	121+80.0	RT	D3-200	BOGARD RD	54	12	4.50	S	2-3.0" T	X		
H35	22	183+60.0	RT	R3-108-L/R	ONLY ONLY	36	30	7.50	S	1-3.0" T	X		
H36	23	124+69.7	LT	R2-1	SPEED LIMIT 35	24	30	5.00	N	1-3.0" T		X	61.75

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN SUMMARY

P.L.S. MAR 2025

DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF
SCALE X" = XX'
DATE 3/10/2025 TIME 11:03 AM
DRAWING LOCATION 00885_H30_SIGNSUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H43	H45

SIGN SUMMARY

SHEET NO.	SIGN NO.	STATION ALIGNMENT	CL REF	TYPE	LEGEND	SIZE (IN) WIDTH	SIZE (IN) HEIGHT	AREA (SQ FT)	SIGN FACES	POST NO., SIZE, & TYPE	FRAMED? YES	FRAMED? NO	REMARKS
H36	24	124+96.3	RT	R5-103P	PATHWAY	18	6	0.75	N	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	N			X	
H36	25	125+45.5	RT	D11-1	BIKE ROUTE	24	18	3.00	N	1-2.5" PT		X	
H36	26	125+54.4	RT	R3-5R	ONLY	30	36	7.50	W	POPL	X		
				D3-1	HEMMER RD	96	24	16.00	W		X		
H36	27	125+59.4	RT	R5-103P	PATHWAY	18	6	0.75	W	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	W			X	
H36	28	125+63.2	RT	R10-3E-L		9	15	0.94	N	POPL		X	
H36	29	125+69.5	LT	R10-3E-L		9	15	0.94	N	POPL		X	
				R10-3E-R		9	15	0.94	E			X	
H36	30	125+76.7	LT	R5-103P	PATHWAY	18	6	0.75	E	1-2.5" PT		X	
				R5-103	NO MOTOR VEHICLES	18	24	3.00	E			X	
H36	31	2029+12.8	LT	R10-3E-L		9	15	0.94	E	POPL		X	
H36	32	2030+03.5	RT	D3-1	BOGARD RD	84	24	14.00	S	POPL	X		
H36	33	2028+96.0	LT	D3-1	HEMMER RD	96	24	16.00	E	POPL	X		
H37	34	1022+66.1	RT	D3-200	HEMMER RD	108	24	18.00	W	2-3.0" T	X		
H37	35	1028+00.0	LT	R3-108-L/S/R	ONLY ONLY ONLY	48	30	10.00	E	1-3.0" T	X		99.51

STATE OF ALASKA
PROFESSIONAL ENGINEER
49TH
BENJAMIN CARLET SNYDER
2022.12.30
P.E. MAR 2025

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN SUMMARY

DESIGNED BY MF
CHECKED BY RDR
DRAFTED BY MF

SCALE X" = XX'

DATE 3/10/2025 TIME 11:03 AM

DRAWING LOCATION
00885_H30_SIGNSUM.DWG

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H44	H45

SIGN SUMMARY

SHEET NO.	SIGN NO.	STATION ALIGNMENT	CL REF	TYPE	LEGEND	SIZE (IN)		AREA (SQ FT)	SIGN FACES	POST	FRAMED?		REMARKS
						WIDTH	HEIGHT			NO., SIZE, & TYPE	YES	NO	
H38	36	12+33.3	LT	R2-1	SPEED LIMIT 25	24	30	5.00	E	1-3.0" T		X	
H38	37	13+09.6	RT	R2-1	SPEED LIMIT 25	24	30	5.00	W	1-3.0" T		X	
H38	38	13+16.5	LT	W3-1		30	30	6.25	E	1-3.0" T		X	
													16.25

DESIGNED BY	MF
CHECKED BY	RDR
DRAFTED BY	MF

SCALE X" = XX'

DATE 3/10/2025 TIME 11:03 AM

DRAWING LOCATION 00885_H30_SIGNSUM.DWG

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
49TH
BENJAMIN CARLISLE SNYDER
2022.10
REGISTERED PROFESSIONAL ENGINEER

P.E. MAR 2025

HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN SUMMARY

NO.	DATE	REVISION

STATE	PROJECT DESIGNATION	YEAR	SHEET NO.	TOTAL SHEETS
ALASKA	0001743/CFHWY00885	2025	H45	H45

SIGN SALVAGE SUMMARY

STATION ALIGNMENT	CL REF	TYPE	LEGEND	REMARKS

SIGN SALVAGE SUMMARY

STATION ALIGNMENT	CL REF	TYPE	LEGEND	REMARKS

SHEET UNDER DEVELOPMENT
FIELD INSPECTION POST P.I.H.

MF	DESIGNED BY
RDR	CHECKED BY
MF	DRAFTED BY
SCALE	X" = XX'
DATE	3/10/2025
TIME	11:03 AM
DRAWING LOCATION	00885_H30_SIGNSUM.DWG

P.I.H. MAR 2025

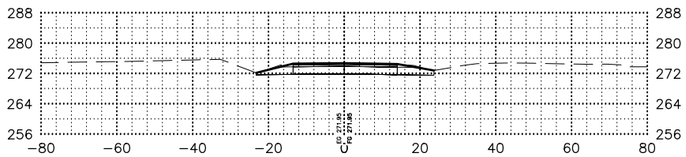
STATE OF ALASKA DOT&PF
4111 AVIATION AVENUE
ANCHORAGE, AK 99502
(907) 269-0590

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

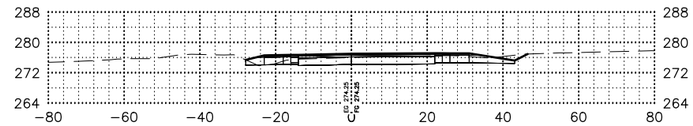
HEMMER ROAD EXTENSION AND UPGRADE, PALMER-WASILLA HIGHWAY TO BOGARD ROAD

SIGN SALVAGE TABLES

98+00.00



99+25.00



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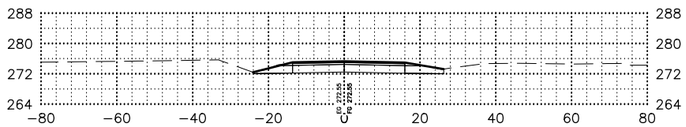
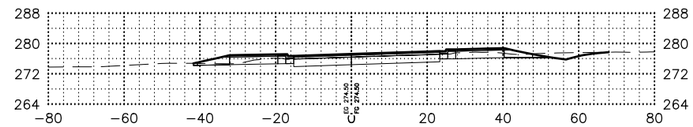


99+50.00



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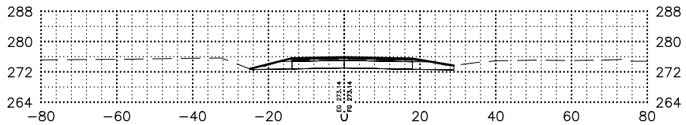
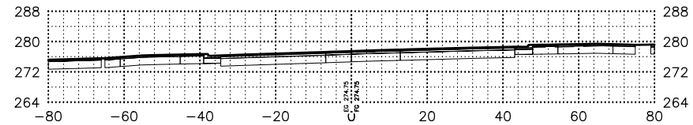
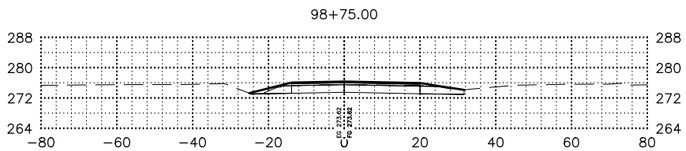


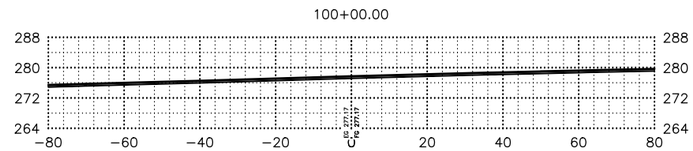
99+75.00



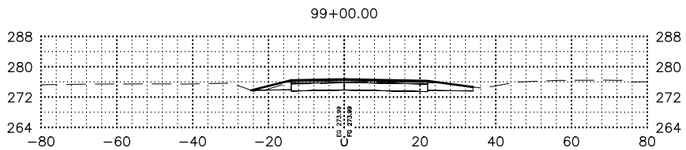
98+75.00



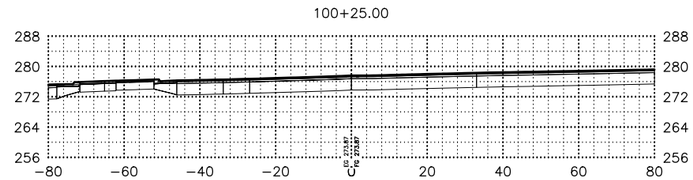
100+00.00



99+00.00



100+25.00



SHEET NO.	TOTAL SHEETS
X01	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

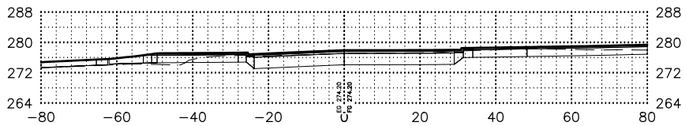
HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE 3/10/2025 TIME 11:04 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

100+50.00



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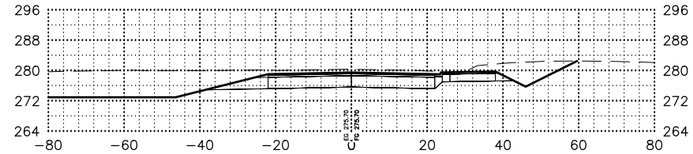

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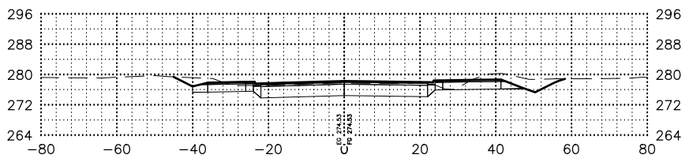

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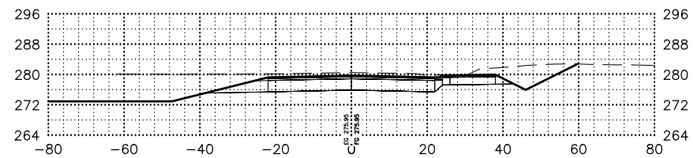

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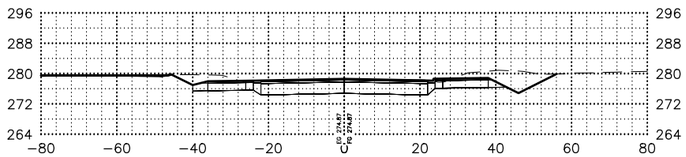

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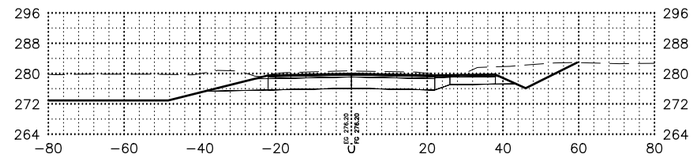

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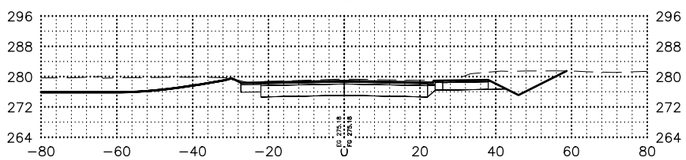

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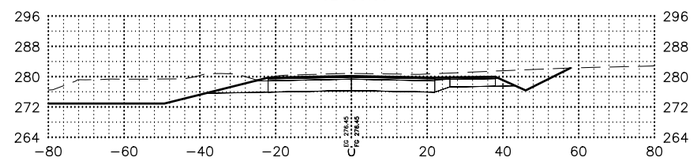

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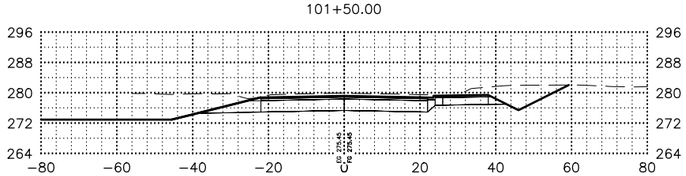

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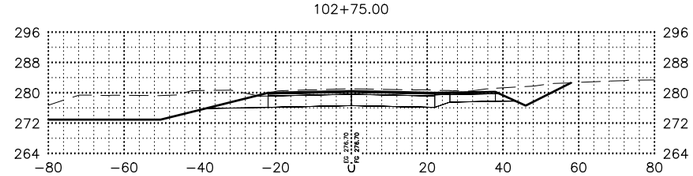


SHEET NO.	TOTAL SHEETS
X02	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

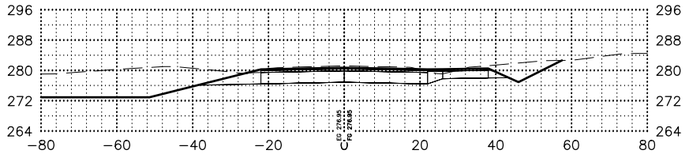
HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE 3/10/2025 TIME 11:04 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

103+00.00



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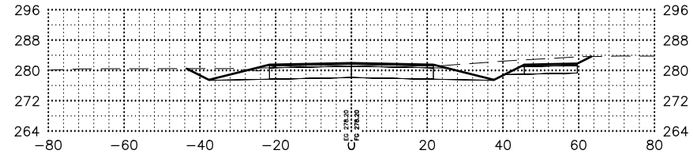

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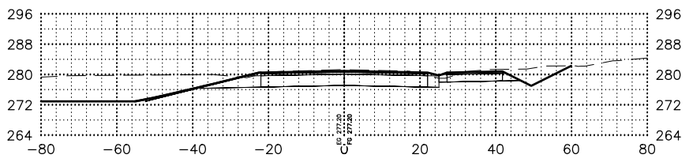

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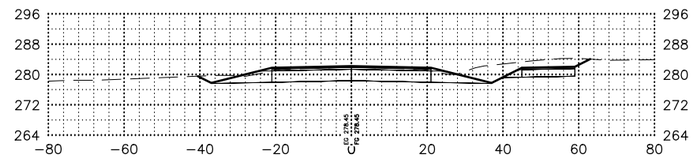

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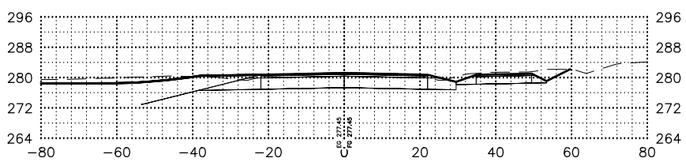

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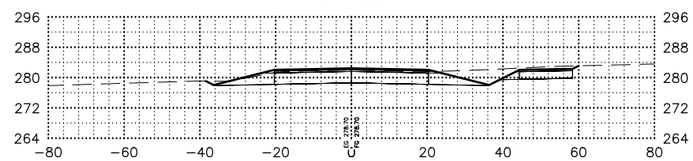

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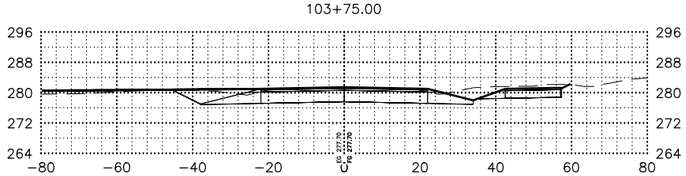

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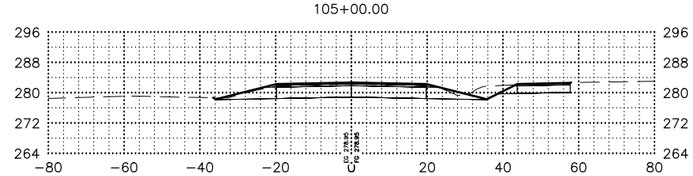

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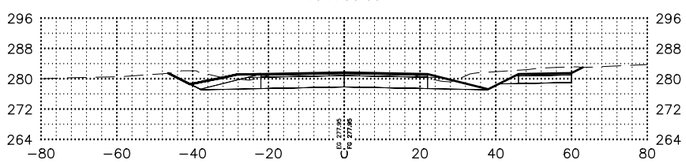

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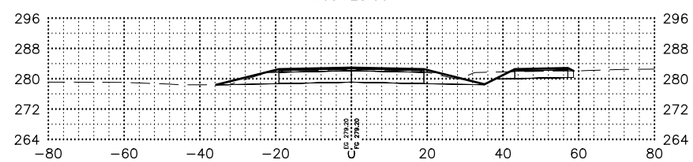


SHEET NO.	TOTAL SHEETS
X03	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

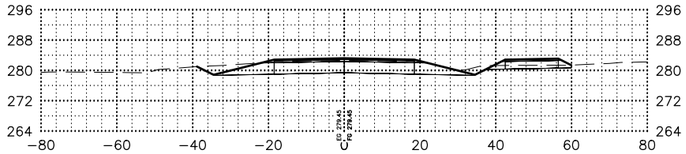
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE 3/10/2025 TIME 11:04 AM

SCALE 1" = 20'

DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

105+50.00



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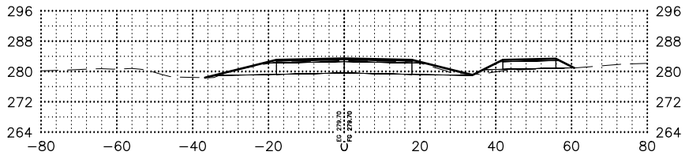

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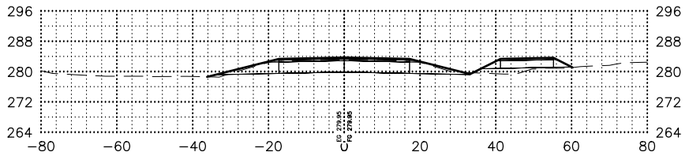

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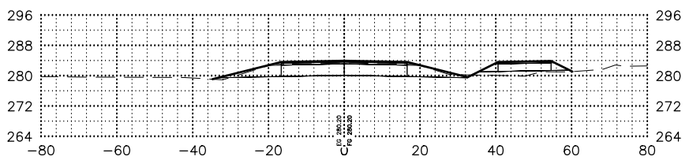

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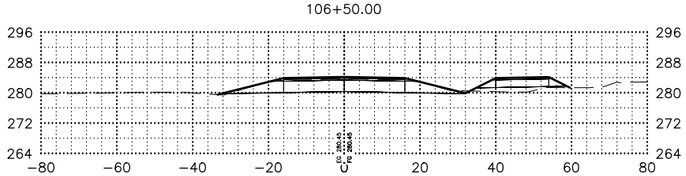

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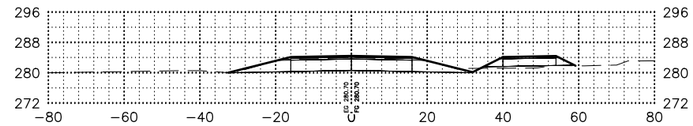

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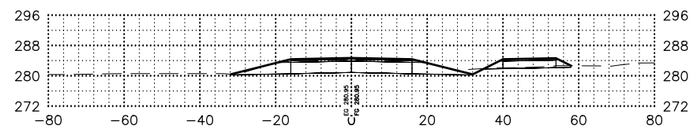

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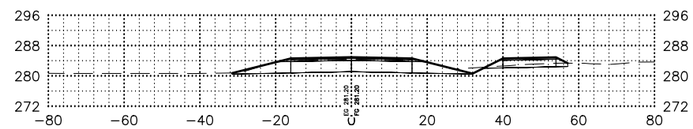

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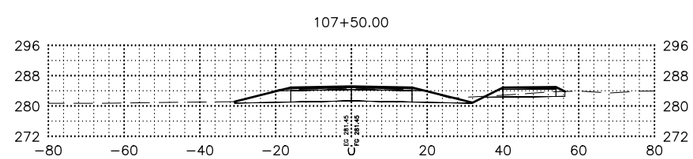

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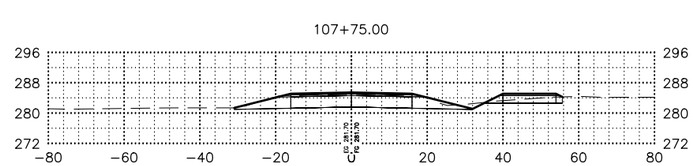

SHEET NO.	TOTAL SHEETS
X04	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
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AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

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CHECKED BY CLE
DRAFTED BY ZDK

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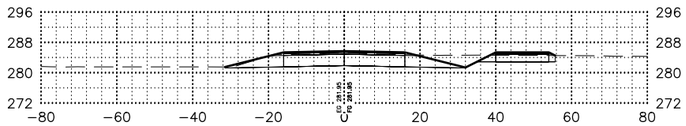

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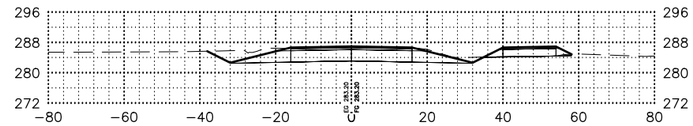

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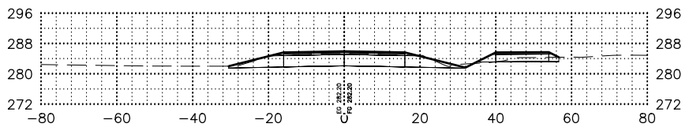

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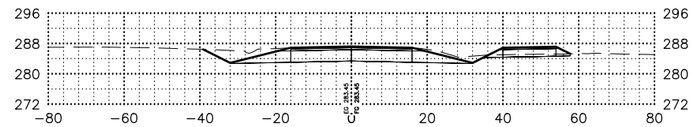

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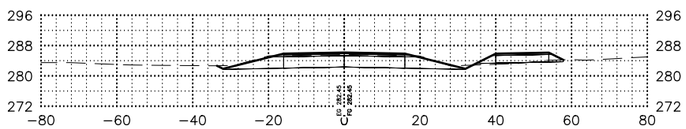

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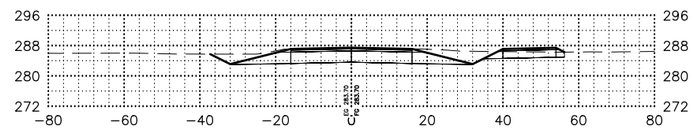

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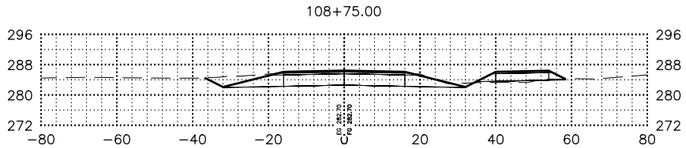

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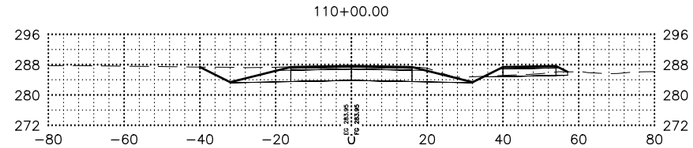

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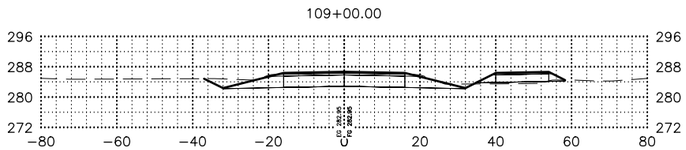

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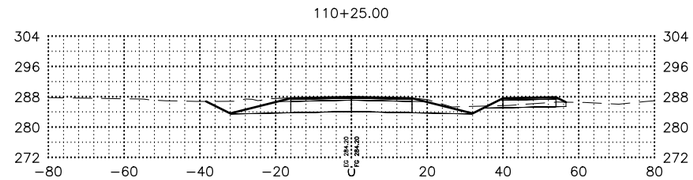

SHEET NO.	TOTAL SHEETS
X05	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE 3/10/2025 TIME 11:05 AM

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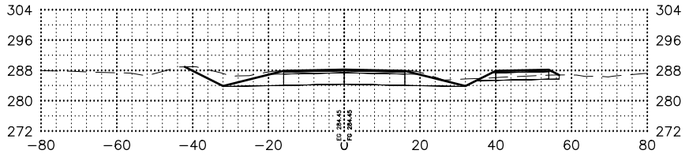
110+50.00



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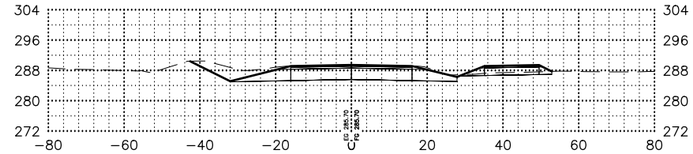

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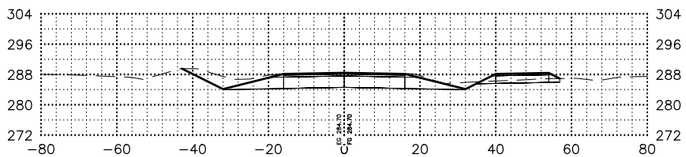

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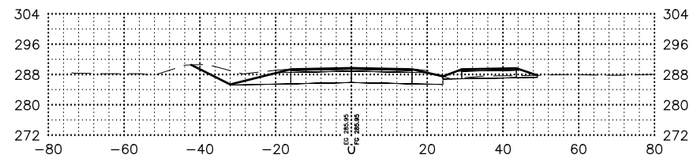

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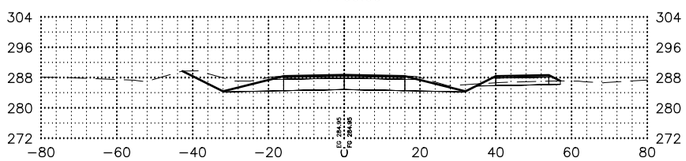

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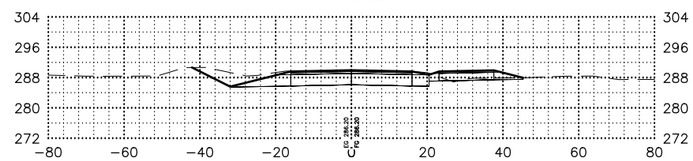

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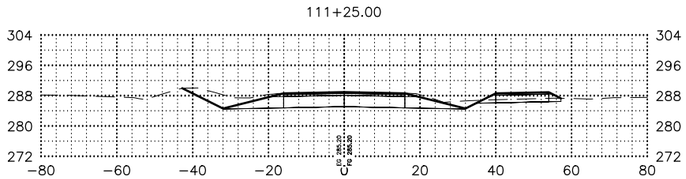

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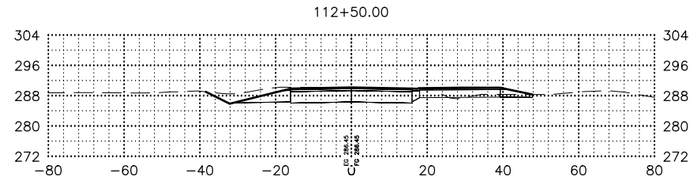

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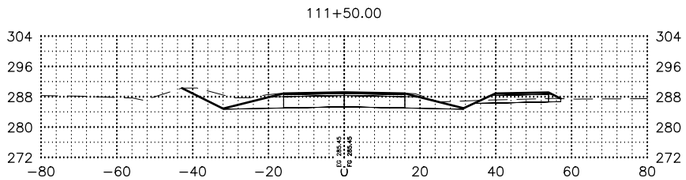

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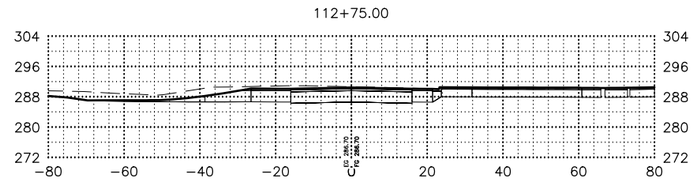

SHEET NO.	TOTAL SHEETS
X06	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
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PIH REVIEW

STATE OF ALASKA
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HEMMER ROAD EXTENSION:
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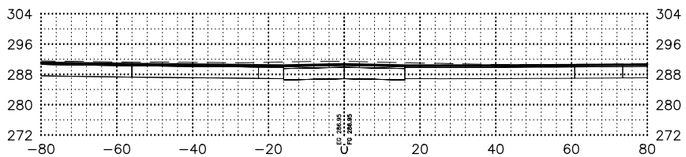
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE	TIME	SCALE	DESIGNED BY	ZDK
3/10/2025	11:05 AM	1" = 20'	CHECKED BY	CLE
			DRAFTED BY	ZDK

113+00.00



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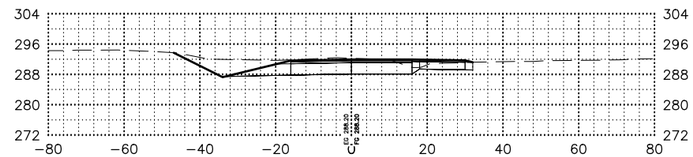

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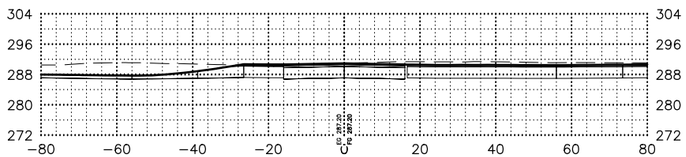

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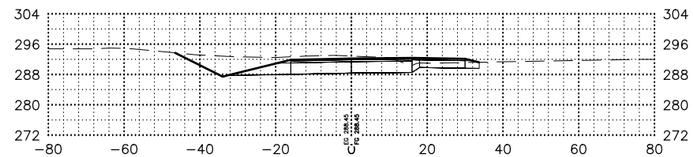

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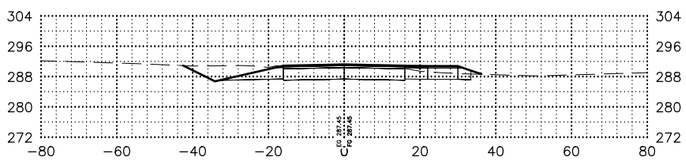

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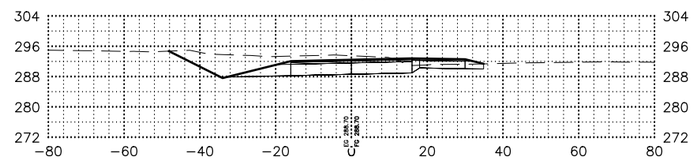

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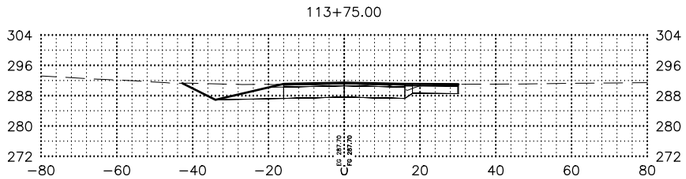

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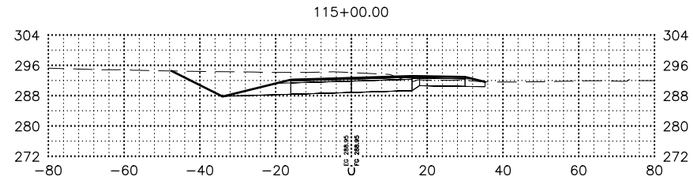

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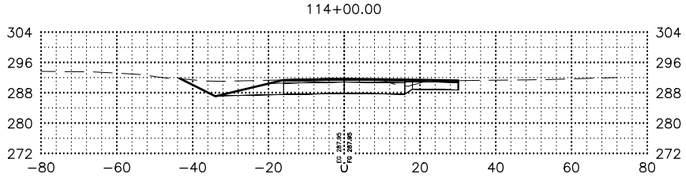

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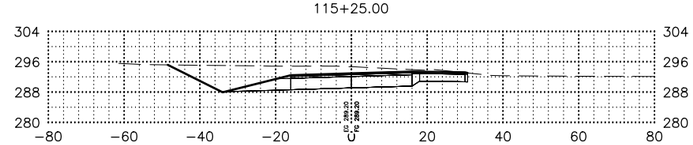


SHEET NO.	TOTAL SHEETS
X07	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

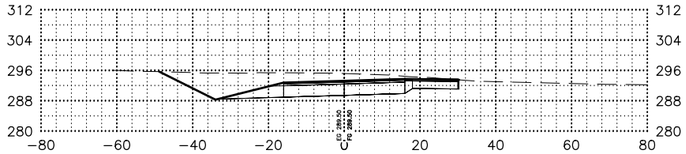
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE 3/10/2025 TIME 11:05 AM

SCALE

DESIGNED BY
CHECKED BY
DRAFTED BY

115+50.00



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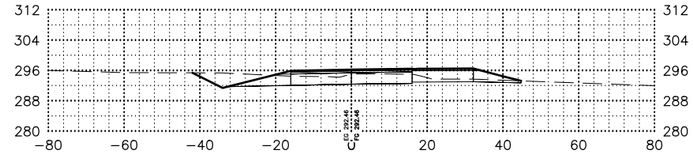

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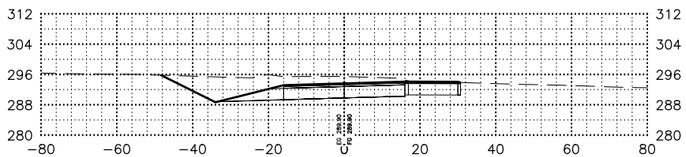

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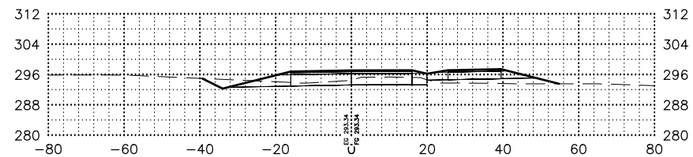

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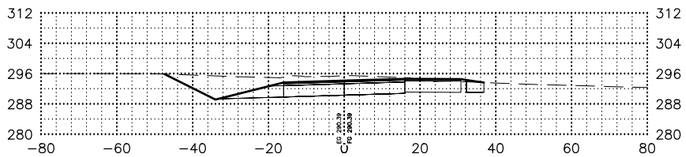

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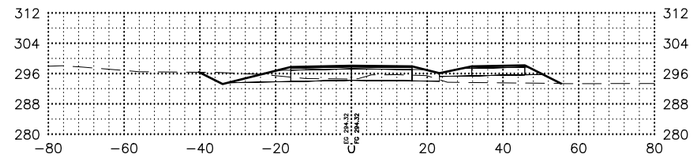

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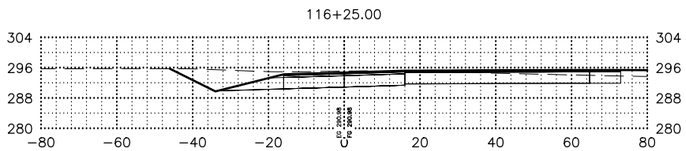

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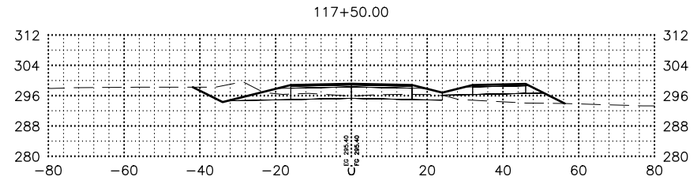

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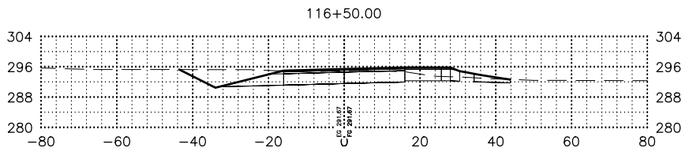

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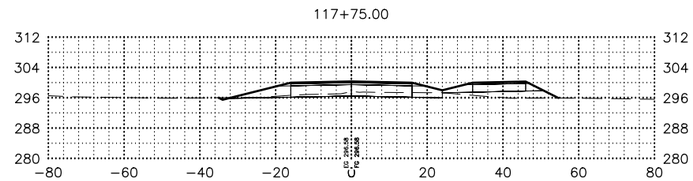

SHEET NO.	TOTAL SHEETS
X08	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
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NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

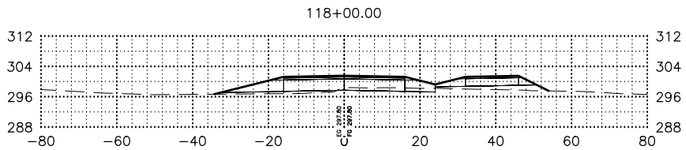
STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

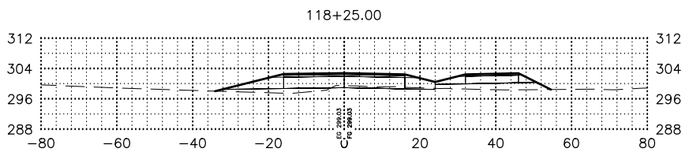
HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

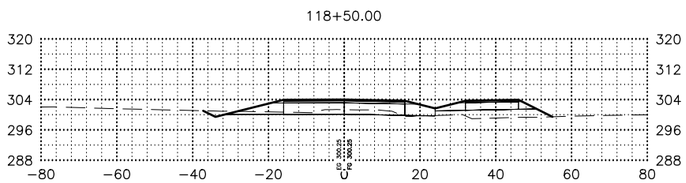
CROSS SECTIONS

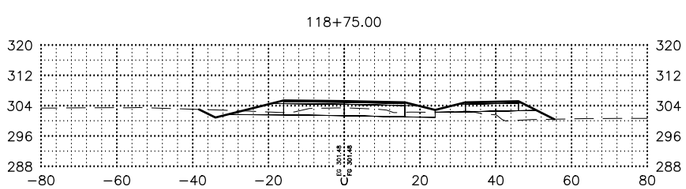
DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

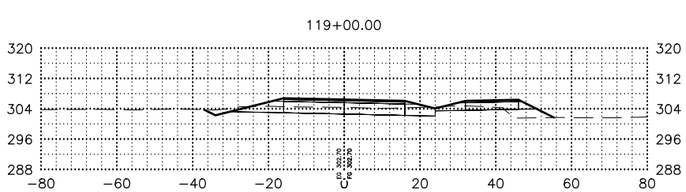
DATE 3/10/2025 TIME 11:05 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

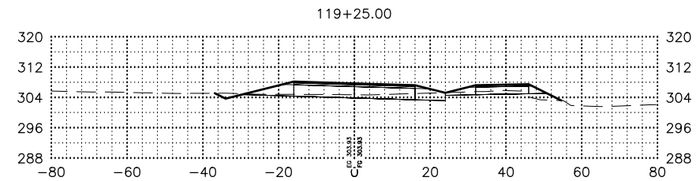


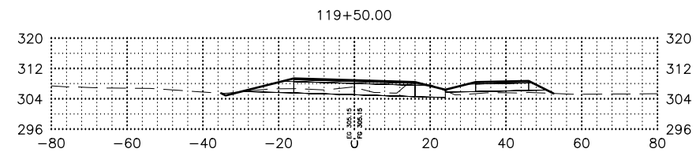


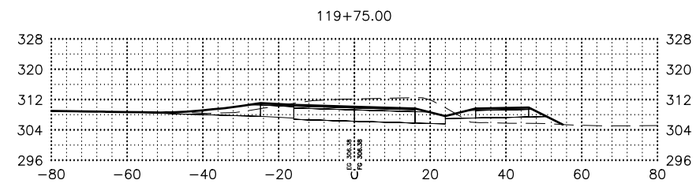


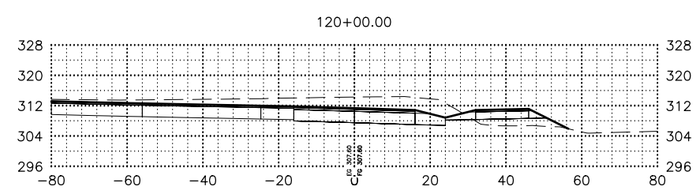


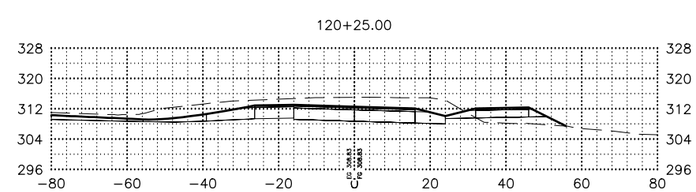












SHEET NO.	TOTAL SHEETS
X09	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
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PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DRAWING LOCATION
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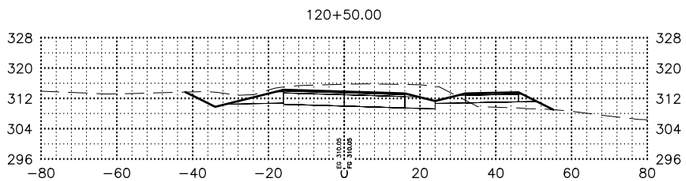

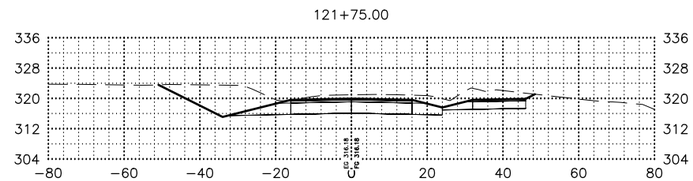

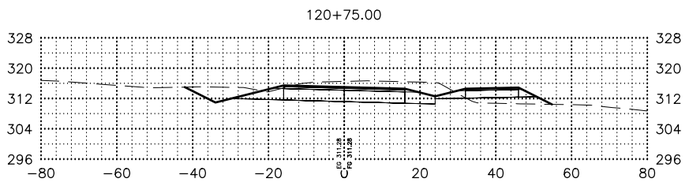

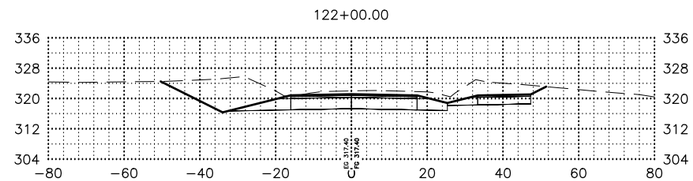

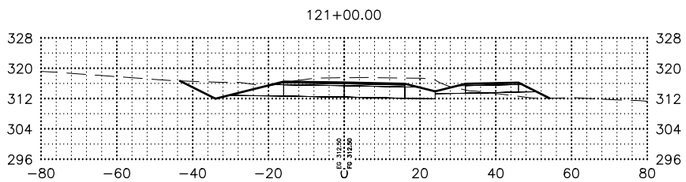

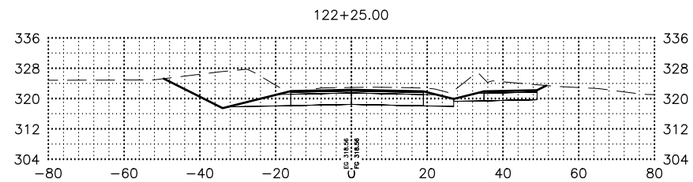

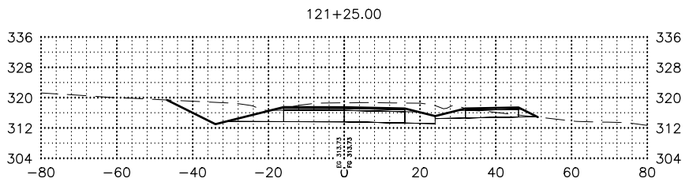

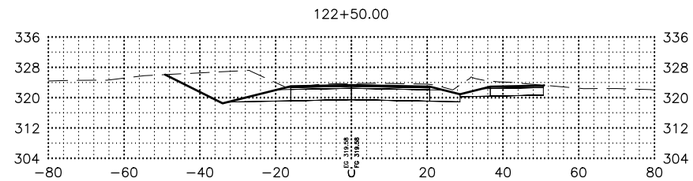

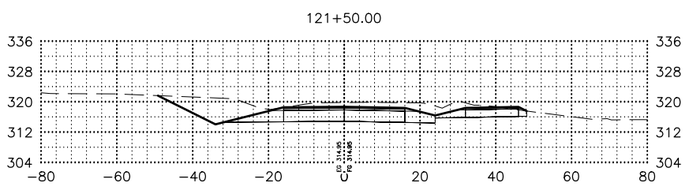

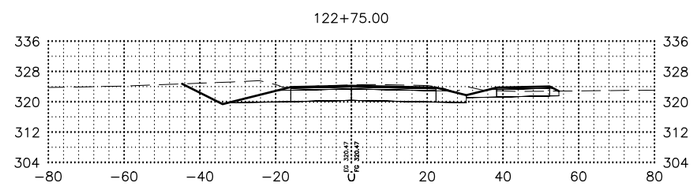

SHEET NO.	TOTAL SHEETS
X10	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

DATE 3/10/2025 TIME 11:06 AM
SCALE 1" = 20'
DESIGNED BY ZDK
CHECKED BY CLE
DRAFTED BY ZDK

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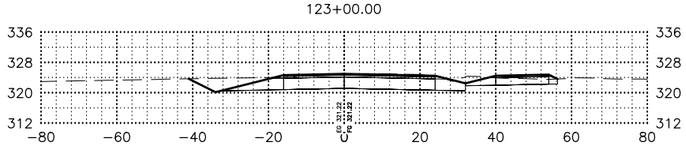

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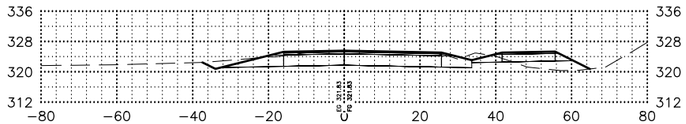

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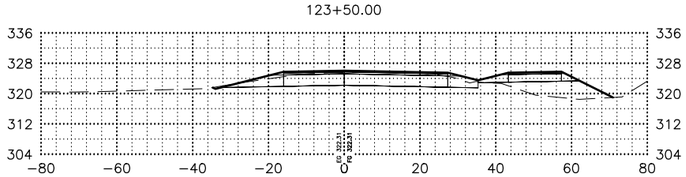

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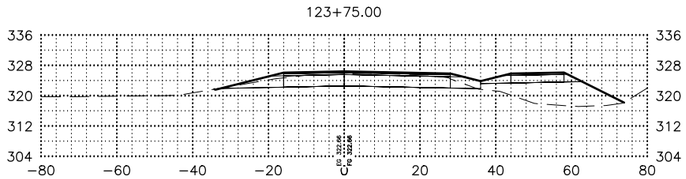

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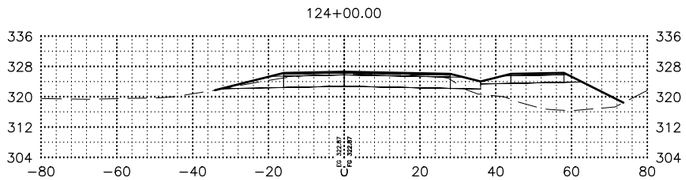

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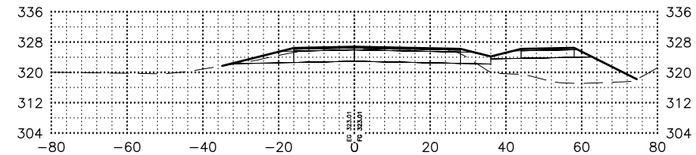

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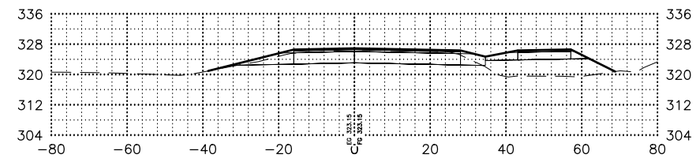

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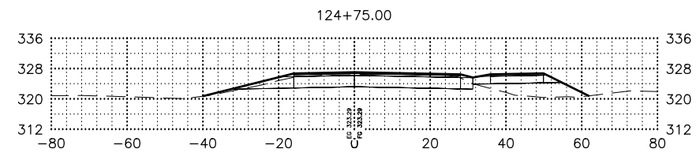

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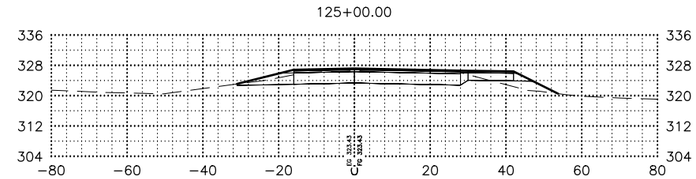

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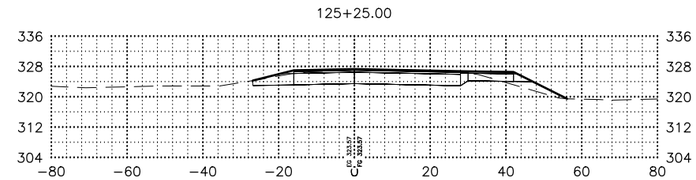

SHEET NO.	TOTAL SHEETS
X11	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
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PIH REVIEW

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HEMMER ROAD EXTENSION:
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DESIGNED BY ZDK
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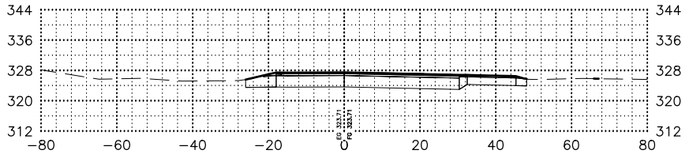
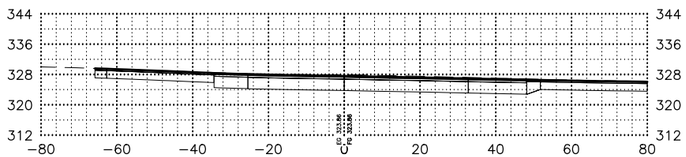


125+75.00



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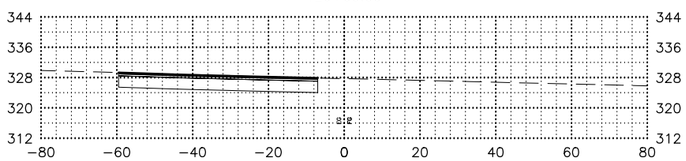


SHEET NO.	TOTAL SHEETS
X12	X14
STATE	YEAR
ALASKA	2027

PROJECT DESIGNATION

0001743/
CFHWY00885

NO.	REVISION
DATE	
NO.	REVISION
DATE	
NO.	REVISION
DATE	

PIH REVIEW

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES

HEMMER ROAD EXTENSION:
PALMER–WASILLA HIGHWAY
TO BOGARD ROAD

CROSS SECTIONS

DESIGNED BY	ZDK
CHECKED BY	CLE
DRAFTED BY	ZDK

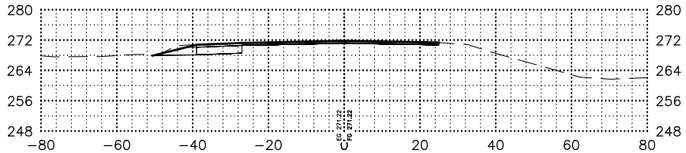
SCALE	DATE	TIME
1" = 20'	3/10/2025	11:06 AM

DRAWING LOCATION
W:\PROJECTS\HEMMER RD EXTENSION– PALMER–WASILLA HWY TO BOGARD RD – CFHWY00885\CIV3D\CIV3D\X–SECTION\00885_X–SECTIONS – PRODUCTION.DWG

ZDK
CLE
ZDK

1" = 20'

1022+60.00



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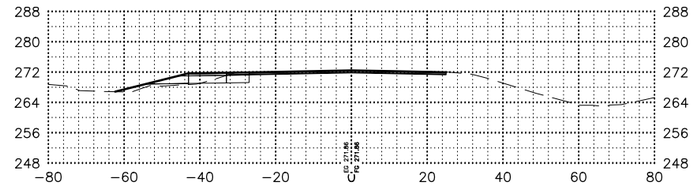

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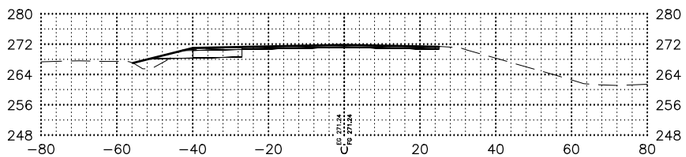
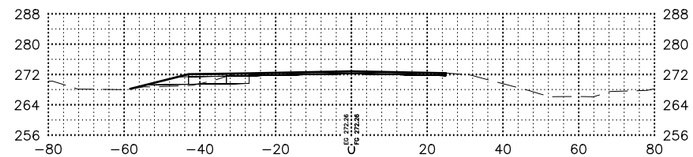


1024+00.00



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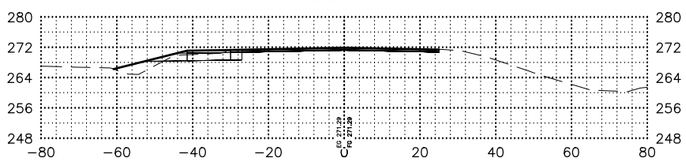

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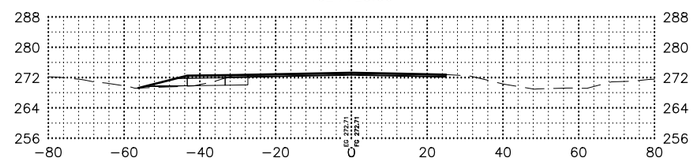

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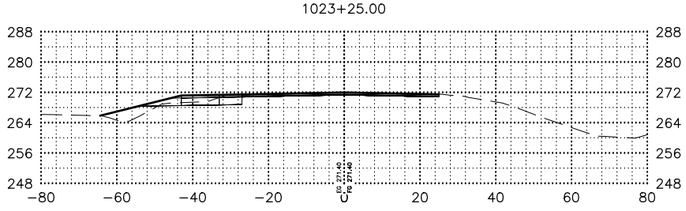
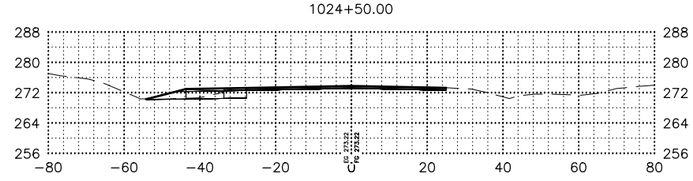


1024+50.00



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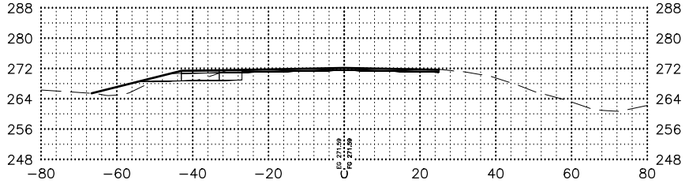

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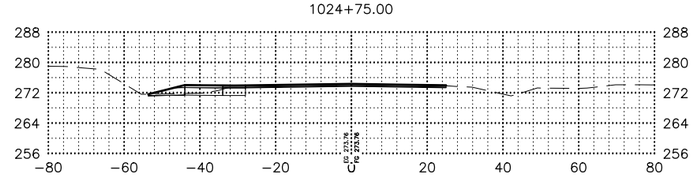
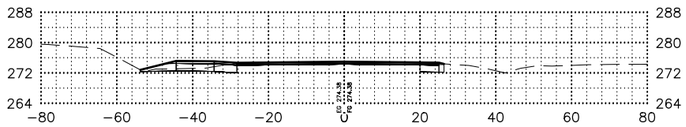


CROSS SECTIONS

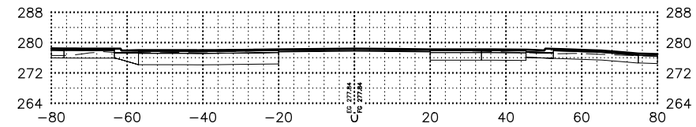
ZDK
CLE
ZDK

1" = 20'

1025+00.00



1026+25.00



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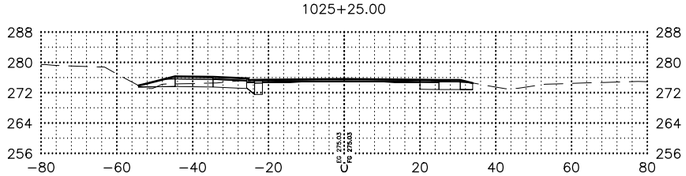

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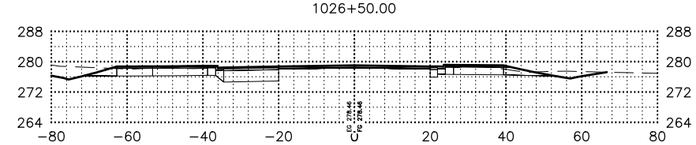

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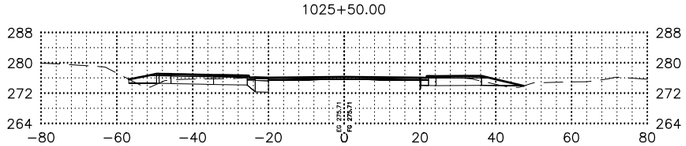

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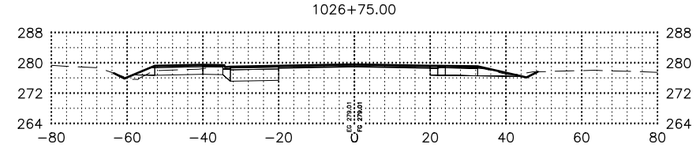

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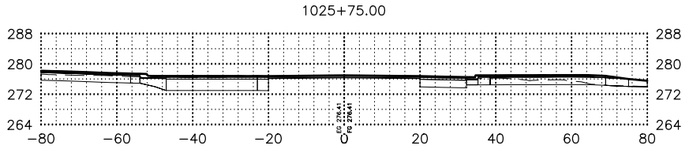

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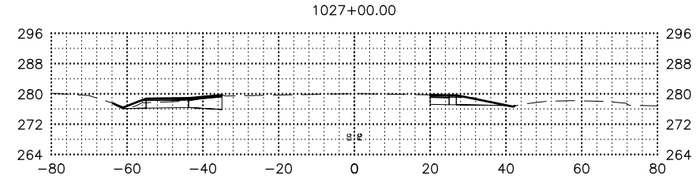

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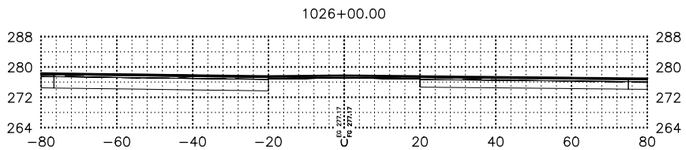

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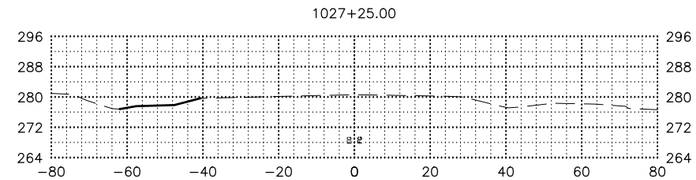

CROSS SECTIONS