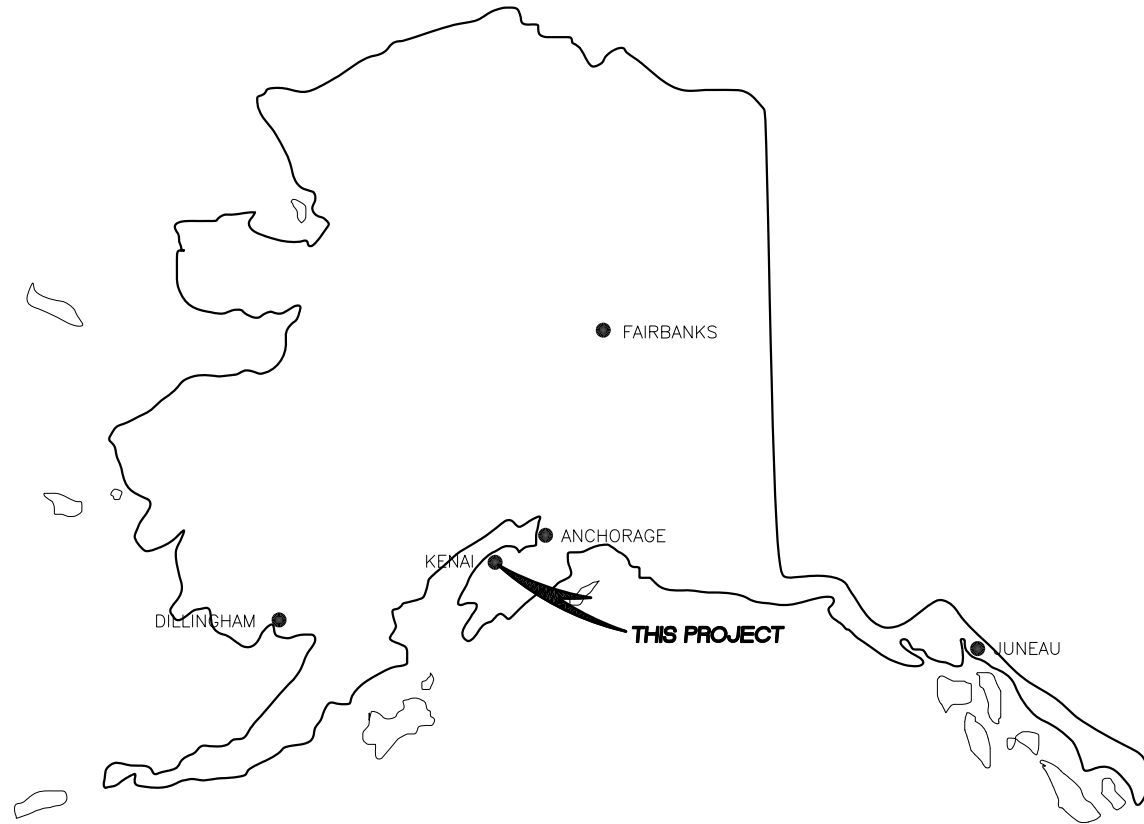




2023 N. WILLOW STREET ROADWAY IMPROVEMENTS FOR BID

CITY OF KENAI



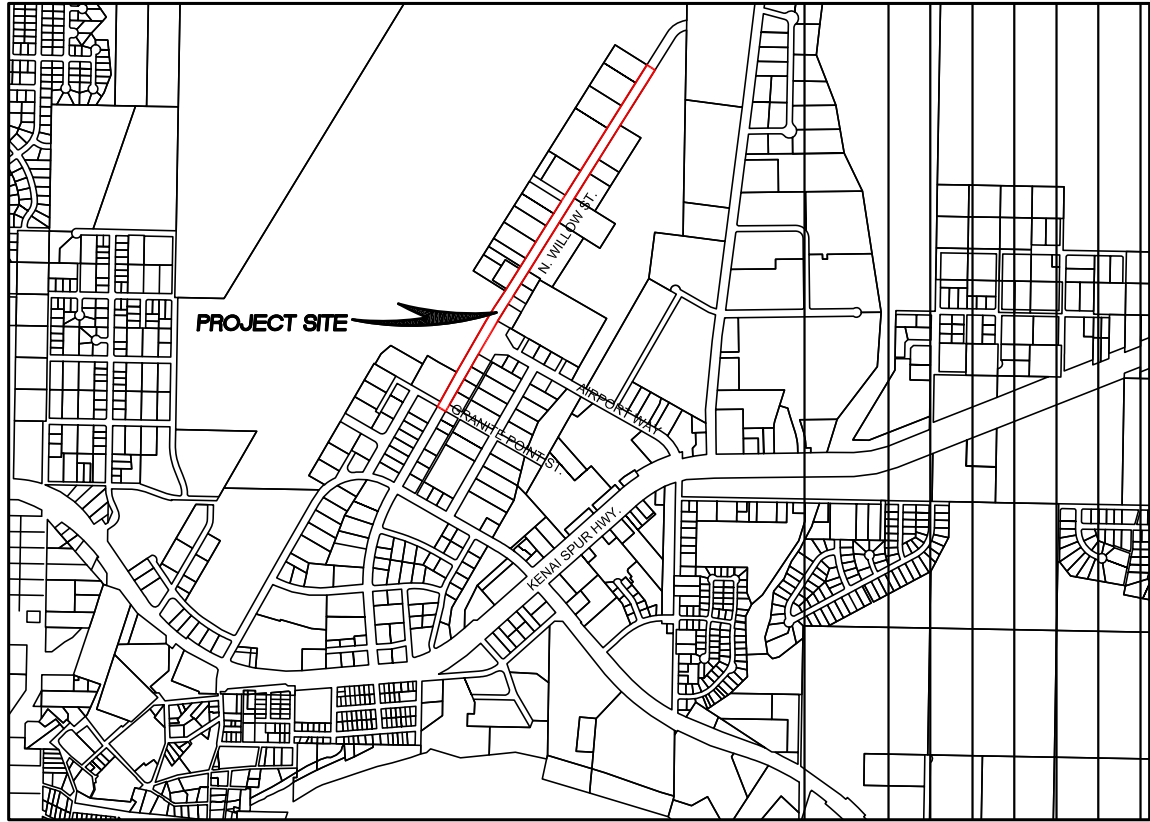
DRAWING INDEX

DRAWING

- TITLE SHEET AND LOCATION MAP
- LEGEND, ABBREVIATIONS, AND GENERAL NOTES
- N WILLOW ST - PLAN AND PROFILE STA. 0+00 TO 6+50
- N WILLOW ST - PLAN AND PROFILE STA. 6+50 TO 13+00
- N WILLOW ST - PLAN AND PROFILE STA. 13+00 TO 19+50
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- N WILLOW ST - PLAN AND PROFILE STA. 26+00 TO 32+50
- N WILLOW ST - PLAN AND PROFILE STA. 32+50 TO 37+00
- TYPICAL ROAD SECTIONS
- TYPICAL ROAD SECTIONS
- TYPICAL DETAILS
- TYPICAL DETAILS
- BOREHOLE LOGS

SHEET

- C1
- C2
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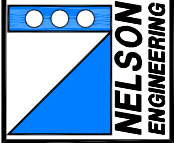
LOCATION MAP
SCALE: NOT TO SCALE



NO.	REVISION	DATE

CONSULTING ENGINEERS
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NELSON
ENGINEERING

2023 N. WILLOW ST. ROADWAY IMPROVEMENTS

CITY OF KENAI
KENAI, ALASKA

TITLE SHEET AND LOCATION MAP

PROJECT NO.
2022030.2

DRAWN BY:
GTP/MZD

CHECKED BY:
MZD/MZD

DATE: 5/14/2023

SCALES: NOTED

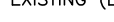
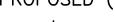
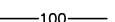
HORIZ. NOTED

VERT. NOTED

SHEET: C1

1 OF 13

LEGEND

EXISTING (E)	PROPOSED (P)	
		CENTERLINE ROAD
		CONTOUR LINES
		CUT/FILL DAYLIGHT
		EDGE OF PAVEMENT
		EDGE OF R.O.W.
		FLOW DIRECTION
		TREELINE
		UTILITY – COMMUNICATION
		UTILITY – ELECTRIC (OVERHEAD)
		UTILITY – ELECTRIC (UNDERGROUND)
		UTILITY – GAS
		UTILITY – WATER
		UTILITY – SEWER
		COMMUNICATION PEDESTAL
		CONTROL POINT
		CULVERT
		ELECTRICAL TRANSFORMER
		HYDRANT
		POWER POLE
		SANITARY SEWER MANHOLE
		TEST HOLE LOCATION
		VALVE BOX
		ASPHALT PAVEMENT

ABBREVIATIONS

AC	ASPHALT CONCRETE, ACRE	LT	LEFT
ADA	AMERICAN DISABILITIES ACT	LVC	LENGTH OF VERTICAL CURVE
ALUM	ALUMINUM	MAX	MAXIMUM
APPROX	APPROXIMATE	ME	MATCH EXISTING
AVG	AVERAGE	MIN	MINIMUM
BH	BOREHOLE	MKR	MARKER POST
BLDG	BUILDING	MON	MONUMENT
BOP	BOTTOM OF PIPE	N	NORTH
BVCE	BEGIN VERTICAL CURVE	NFS	NON FROST SUSCEPTIBLE
	ELEVATION	NTS	NOT TO SCALE
BVCS	BEGIN VERTICAL CURVE	OC	ON CENTER
	STATION	OFF	OFFSET
C.O.	CLEANOUT	OHE	OVERHEAD ELECTRIC
CIP	CAST IRON PIPE	PI	POINT OF INTERSECTION
CL	CENTER LINE,CLASS	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	PP	POWER POLE
CNTR	CENTER	PT	POINT
CONC	CONCRETE	PVI	POINT OF VERTICAL
CP	CONTROL POINT		INTERSECTION
DIA	DIAMETER	PVMT	PAVEMENT
DW	DRIVEWAY	R	RADIUS, RECORD
DWG	DRAWING	REQ'D	REQUIRED
E	EAST, ELECTRIC	ROW	RIGHT–OF–WAY
EA	EACH	S	SOUTH
EG	EXISTING GROUND	S/W	SIDEWALK
EL,ELEV	ELEVATION	SW	SWALE
EOP	END OF PROJECT	SH	SHOULDER
EP	EDGE OF PAVEMENT	SS	SANITARY SEWER
ESMT	EASEMENT	SSMH	SANITARY SEWER MANHOLE
EXIST	EXISTING	STA	STATION
FF	FINISH FLOOR	TBC	TOP BACK OF CURB
FG	FINISH GRADE	TBM	TEMPORARY BENCHMARK
FT	FOOT, FEET	TC	TOP OF CONCRETE
F&I	FURNISH AND INSTALL	TYP	TYPICAL
GD	GROUND	UGC	UNDERGROUND COMMUNICATION
GR	GRADE	UGE	UNDERGROUND ELECTRIC
HYD	HYDRANT	VB	VALVE BOX
INV	INVERT	W	WATER, WEST
L	LENGTH	WS	WATER SERVICE
LF	LINEAR FEET		

GENERAL NOTES

- DRAWINGS BASED ON OF TOPOGRAPHIC SURVEY BY PENINSULA SURVEYING, LLC, DATED AUGUST 18, 2022.
- LOCATION OF UNDERGROUND UTILITIES ARE APPROXIMATE. ACTUAL DEPTH, NUMBER AND LOCATION UNKNOWN. BURIED UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION, IDENTIFYING, AND WORKING AROUND ALL UTILITIES WITHIN THE PROJECT LIMITS AT NO ADDITIONAL COST TO THE OWNER. CALL FOR LOCATES PRIOR TO EXCAVATION, ALASKA DIGLINE 1–800–478–3121. THE CITY OF KENAI DOES NOT PARTICIPATE IN THE ALASKA DIGLINE. CONTRACTOR SHALL CONTACT CITY OF KENAI PUBLIC WORKS AT 907–283–8236 FOR WATER/SEWER/STREET LIGHT UTILITY LOCATES.
- THE FOLLOWING ALASKA STATUTES APPLY TO WORK NEAR OVERHEAD ELECTRIC LINES:

AS 18.60.670 PROHIBITION AGAINST PLACEMENT OF EQUIPMENT NEAR ELECTRICAL LINE AND CONDUCTORS.

(1) PLACE ANY TYPE OF TOOL, EQUIPMENT, MACHINERY, OR MATERIAL THAT IS CAPABLE OF LATERAL, VERTICAL, OR SWINGING MOTION, WITHIN 10 FEET OF A HIGH VOLTAGE OVERHEAD ELECTRICAL LINE OR CONDUCTOR.

(2) STORE, OPERATE, ERECT, MAINTAIN, MOVE, OR TRANSPORT TOOLS, MACHINERY, EQUIPMENT, SUPPLIES, MATERIALS, APPARATUS, BUILDINGS, OR OTHER STRUCTURES WITHIN 10 FEET OF A HIGH VOLTAGE OVERHEAD ELECTRICAL LINE OR CONDUCTOR.

AS 18.60.680 ANY WORK WITHIN MINIMUM DISTANCE STATED ABOVE SHALL REQUIRE CONTACT WITH HEA TO INSTALL TEMPORARY MECHANICAL BARRIERS, TEMPORARY DE–ENERGIZATION AND GROUNDING, OR TEMPORARY RAISING OF CONDUCTORS.
- IF NOT DETAILED IN THESE DRAWINGS AND SPECIFICATIONS, ALL APPLICABLE CONSTRUCTION SHALL BE BUILT IN ACCORDANCE WITH MUNICIPALITY OF ANCHORAGE STANDARD SPECIFICATIONS (M.A.S.S.), LATEST EDITION. REPLACE "AWWU" WITH "CITY OF KENAI" THROUGHOUT SPECIFICATIONS. PROJECT DRAWINGS AND PROJECT SPECIFICATIONS TAKE PRECEDENCE OVER M.A.S.S.
- CONTRACTOR IS REQUIRED TO FIND ALL PROPERTY PINS/MONUMENTS WITHIN PROJECT AREA AND PROTECT OR REPLACE AFTER CONSTRUCTION IS COMPLETE.
- SEED ALL AREAS DISTURBED BY CONSTRUCTION PER M.A.S.S., LATEST EDITION.
- CONTOURS SHOWN ON THE PLANS ARE FOR INFORMATIONAL PURPOSES AND SHOULD ONLY BE USED AS A REPRESENTATION OF EXISTING GRADES. SURVEYED ELEVATIONS ARE SHOWN ON THE ROAD PROFILES.
- CONTRACTOR SHALL ADHERE TO LOCAL REQUIREMENTS FOR NOISE, HOURS OF OPERATION, AND DUST CONTROL.
- TRAFFIC MARKINGS:
–PROVIDE 4" DOUBLE SOLID YELLOW STRIP AT CENTERLINE OF ROAD
–PROVIDE 4" SOLID WHITE FOGLINE AT SHOULDERS

CONTROL POINTS

POINT	DESCRIPTION	NORTHING	EASTING	ELEVATION
3	1.5" ALUMINUM MONUMENT	2400136.12	1416348.96	98.14
4	REBAR WITH YELLOW PLASTIC CAP	2400818.37	1416642.68	98.36
5	REBAR WITH RED PLASTIC CAP	2402652.21	1417807.79	100.61
6	2" ALUMINUM MONUMENT	2402248.95	1417560.79	99.59
TBM 7	NORTH BOLT ON UPPER HYDRANT FLANGE	2402587	1417867	102.56
TBM 8	NORTH BOLT ON UPPER HYDRANT FLANGE	2399649	1415958	98.98

SSMH/VB/MON ADJUSTMENT SCHEDULE

ITEM	STATION	OFFSET	EXISTING ELEV	PROPOSED ELEV
MONUMENT	10+62.93	--	96.17	96.23
GATE VALVE	25+51.18	31.70L	97.47	97.52
GATE VALVE	26+99.75	5.62R	97.34	98.11
SSMH	27+10.84	7.85L	97.60	98.12
SSMH	29+27.01	4.88L	98.41	99.15
GATE VALVE	29+97.43	4.04L	98.57	99.49
SSMH	32+73.63	8.11L	99.69	100.65
SSMH	35+84.30	7.79L	99.24	99.29

DRAINAGE GALLERY SCHEDULE

START STATION	END STATION	SIDE	LENGTH
14+00.00	14+50.00	LEFT/RIGHT	50–FT/50–FT
26+50.00	27+00.00	LEFT/RIGHT	50–FT/50–FT
36+00.00	36+50.00	LEFT/RIGHT	50–FT/50–FT

DRIVEWAY AND CULVERT SCHEDULE

ITEM	STATION (FEET)	SIDE	WIDTH (FEET)	RADIUS (FEET)	NOTE	CMP/CPEP		
						REMOVE(FT)	LGTH (FT)	DIA. (IN.)
PUBLIC APPROACH	0+56.07	L	35	MATCH EXISTING	CURBS TO REMAIN	--	--	--
PUBLIC APPROACH	0+66.93	R	32	MATCH EXISTING	CONCRETE TO REMAIN	--	--	--
PUBLIC APPROACH	7+63.11	R	36	MATCH EXISTING	CONCRETE TO REMAIN	--	--	--
PUBLIC APPROACH	7+68.40	L	24	MATCH EXISTING	CURBS TO REMAIN	--	--	--
DW–1	9+10.00	L	42	MATCH EXISTING	--	--	--	--
PUBLIC APPROACH	10+52.75	L	24	MATCH EXISTING	CURBS TO REMAIN	--	--	--
PUBLIC APPROACH	10+56.59	R	36	MATCH EXISTING	CURBS TO REMAIN	--	--	--
DW–2	11+97.17	L	34	20	PER DETAIL B/C8	--	58	15
DW–3	13+46.26	L	42	20	PER DETAIL B/C8	--	64	15
DW–4	13+63.84	R	31	20	PER DETAIL B/C8	--	53	15
CROSS CULVERT	14+00.00	–	--	--	--		38	18
DW–5	16+88.12	R	24	20	PER DETAIL B/C8	--	46	15
DW–6	17+44.63	R	21	20	PER DETAIL B/C8	--	43	15
DW–7	18+12.16	L	15	20	PER DETAIL B/C8	--	37	15
DW–8	18+73.24	R	33	20	PER DETAIL B/C8	--	55	15
DW–9	20+54.03	L	33	20	PER DETAIL B/C8	--	55	15
DW–10	21+41.25	R	24	20	PER DETAIL B/C8	--	46	15
DW–11	21+93.31	L	32	20	PER DETAIL B/C8	--	54	15
DW–12	23+90.98	R	25	20	PER DETAIL B/C8	49	47	15
DW–13	24+46.55	L	24	20	PER DETAIL B/C8	--	46	15
DW–14	25+54.51	R	24	20	PER DETAIL B/C8	46	46	15
PUBLIC APPROACH	25+60.35	L	26	20	PER DETAIL B/C8	--	48	18
CROSS CULVERT	26+75.00	–	--	--	--	38	38	18
DW–15	29+27.15	L	12	5X5 TAPER	PER DETAIL B/C8	40	34	15
DW–16	29+50.03	R	26	20	PER DETAIL B/C8	40	48	15
DW–17	29+82.99	L	26	20	PER DETAIL B/C8	55	48	15
DW–18	31+98.11	L	26	20	PER DETAIL B/C8	57	48	15
DW–19	35+56.04	L	24	20	PER DETAIL B/C8	60	50	15
CROSS CULVERT	35+96.65	–	--	--	--	40	38	18

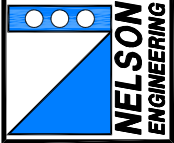
NOTE: DRIVEWAY WIDTH AND RADIUS, AND CULVERT LENGTHS AND INVERTS MAY BE MODIFIED BY THE ENGINEER AS REQUIRED, TO FIT FIELD CONDITIONS. ALL GRADING AND DITCHING NECESSARY TO DIRECT WATER INTO OR OUT OF THE CULVERT, ARE INCIDENTAL ITEMS AND NO SEPARATE PAYMENT SHALL BE MADE.



NO.	REVISION	DATE

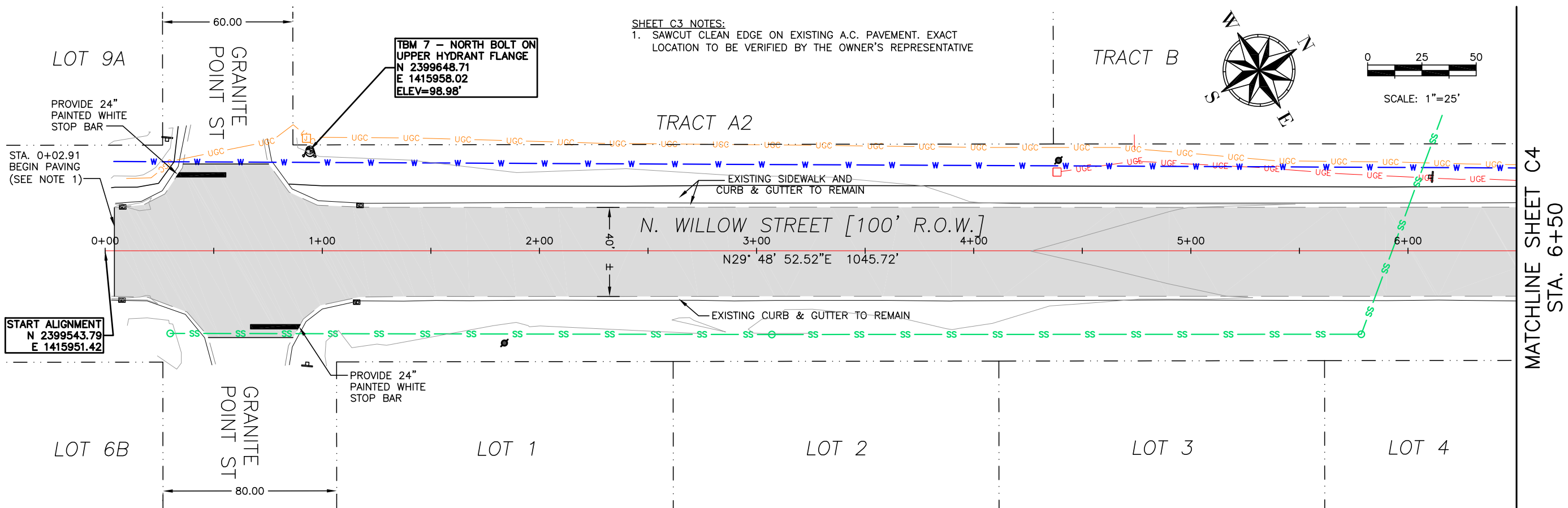
CONSULTING ENGINEERS
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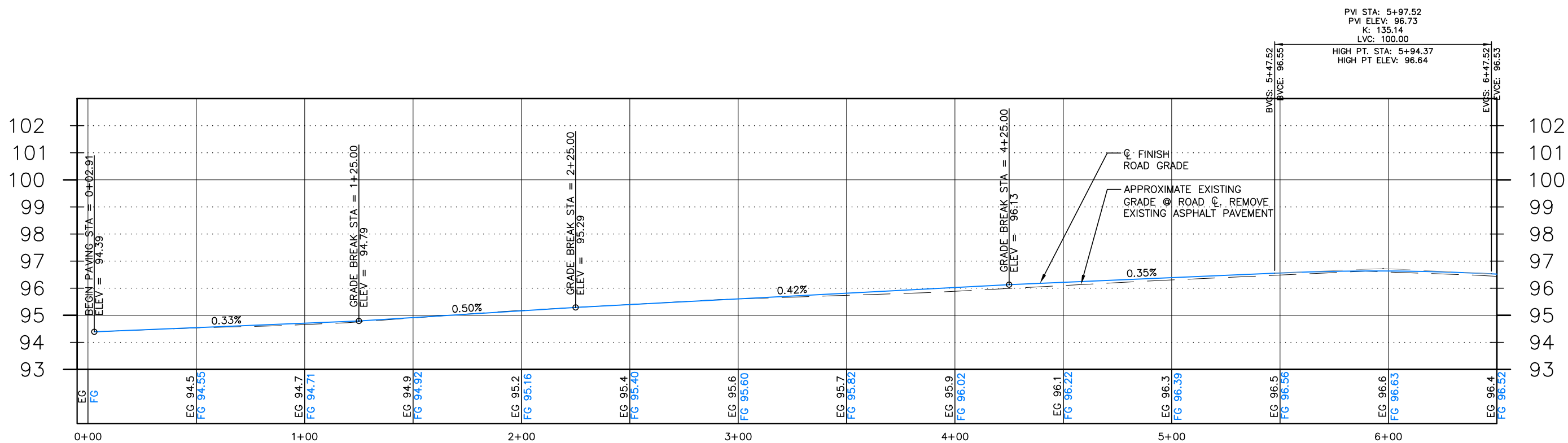
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ENGINEERING

2023 N. WILLOW ST. ROADWAY IMPROVEMENTS
CITY OF KENAI
KENAI, ALASKA
NOTES, LEGEND, ABBREVIATIONS

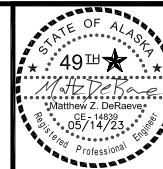
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DRAWN BY:
GTP/MZD
CHECKED BY:
MJD/MZD
DATE: 5/14/2023
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET:
C2



A
C3 N. WILLOW STREET - PLAN (STA. 0+00 TO 6+50)
HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17)



B
C3 N. WILLOW STREET - CL ROAD PROFILE (STA. 0+00 TO 6+50)
HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)



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2023 N. WILLOW ST. ROADWAY IMPROVEMENTS
CITY OF KENAI
PLAN AND PROFILE
STA. 0+00 TO 6+50

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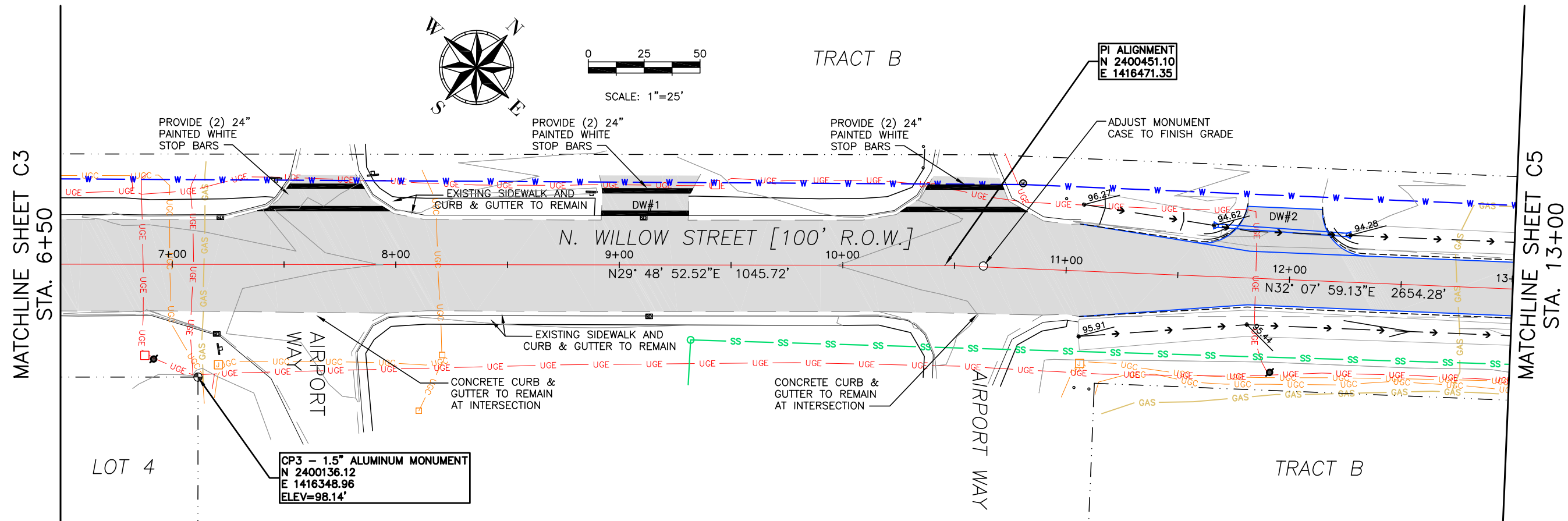
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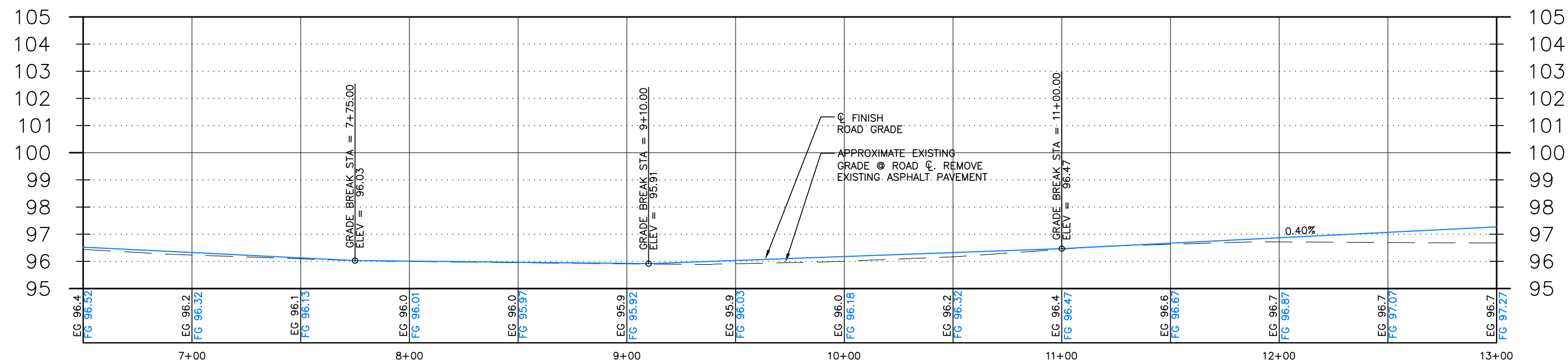
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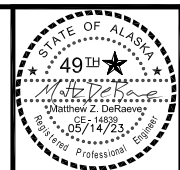
3 OF 13



A N. WILLOW STREET - PLAN (STA. 6+50 TO 13+00)
C4 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17)



B N. WILLOW STREET - CL ROAD PROFILE (STA. 6+50 TO 13+00)
C4 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)



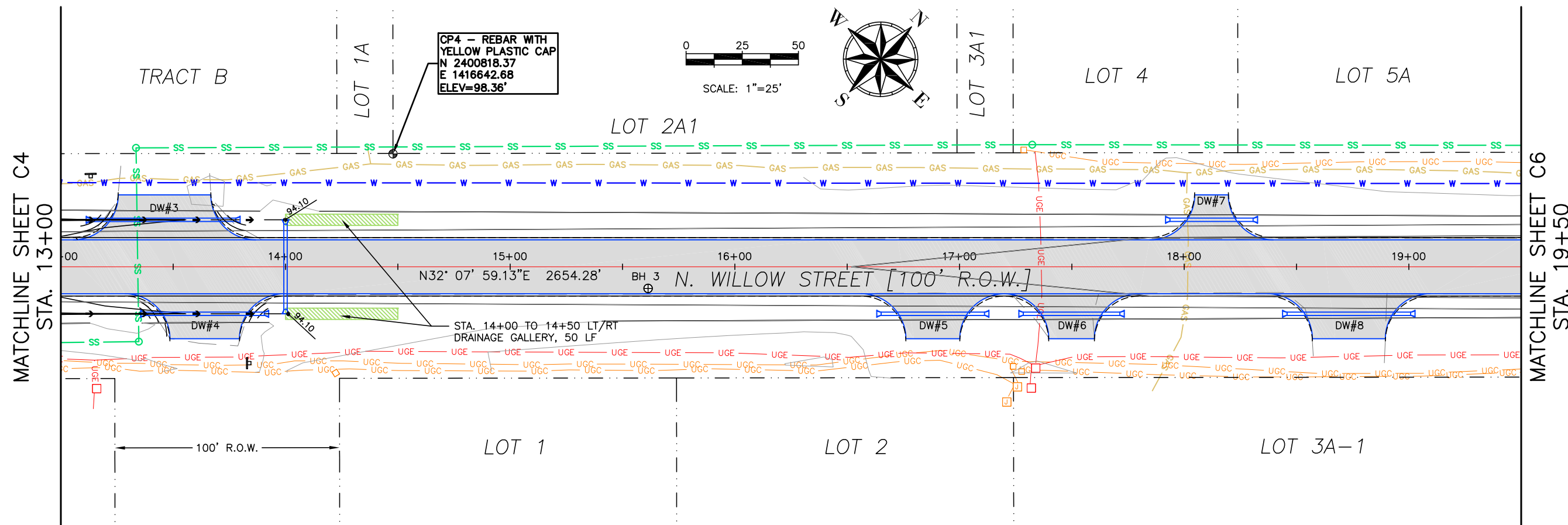
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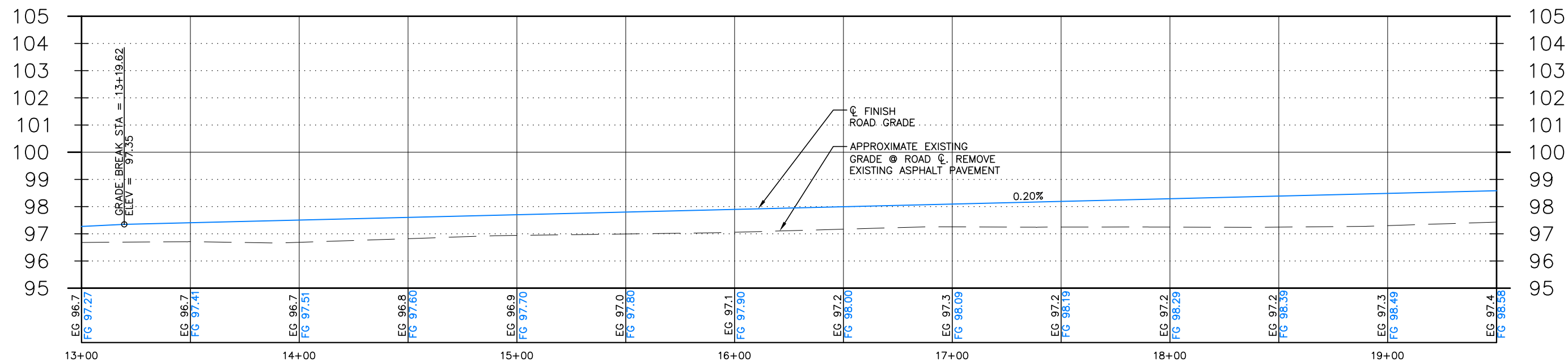
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CITY OF KENAI
 PLAN AND PROFILE
 STA. 6+50 TO 13+00

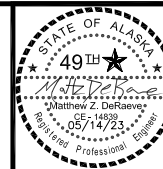
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 SCALES: NOTED
 HORIZ. NOTED
 VERT. NOTED
 SHEET:
C4
 4 OF 13



A N. WILLOW STREET - PLAN (STA. 13+00 TO 19+50)
C5 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17)



B N. WILLOW STREET - CL ROAD PROFILE (STA. 13+00 TO 19+50)
C5 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)



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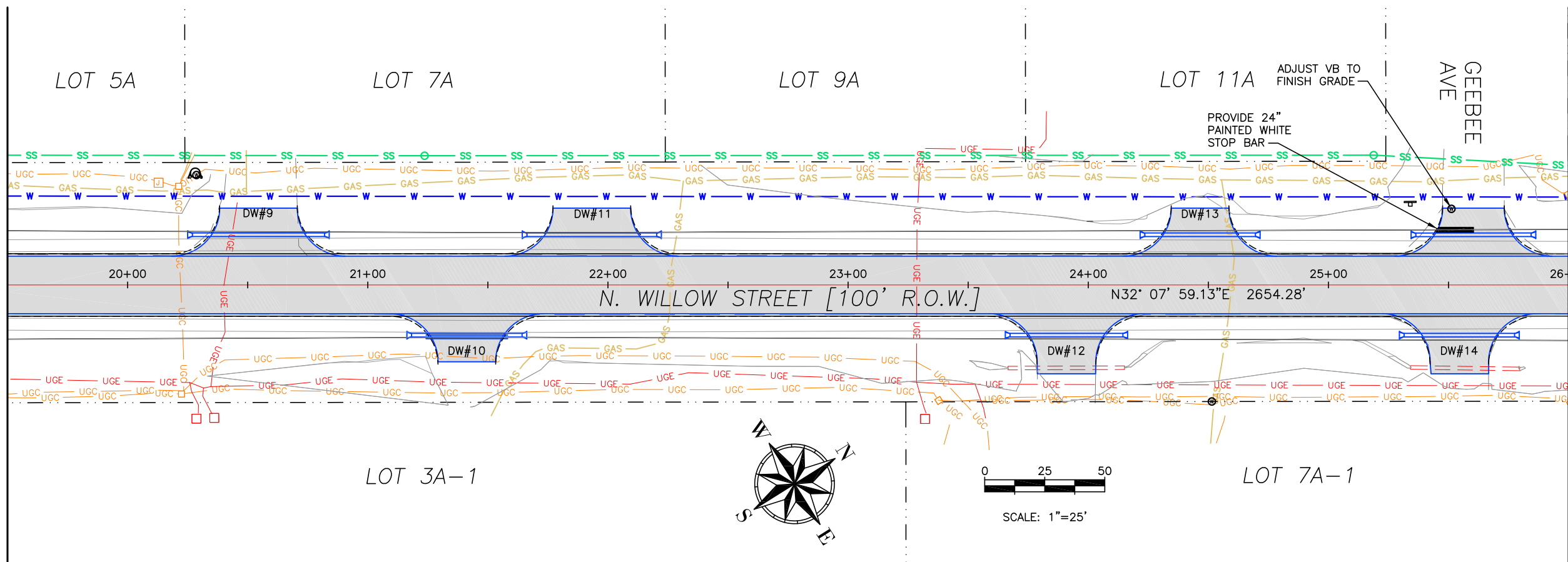
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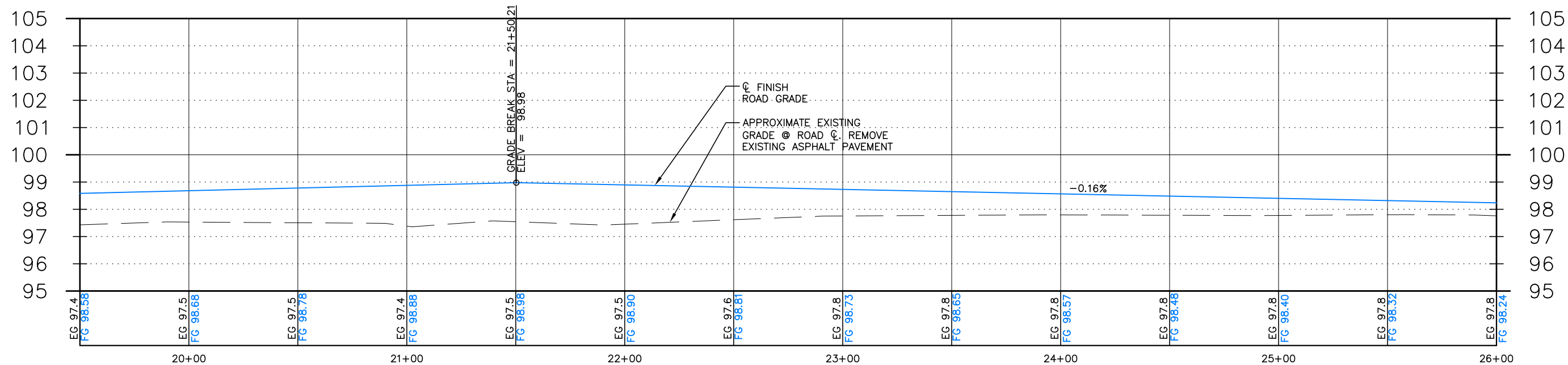
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 HORIZ. NOTED
 VERT. NOTED
 SHEET: **C5**
 5 OF 13

MATCHLINE SHEET C5
STA. 19+50



MATCHLINE SHEET C7
STA. 26+00

A N. WILLOW STREET - PLAN (STA. 19+50 TO 26+00)
C6 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17)



B N. WILLOW STREET - CL ROAD PROFILE (STA. 19+50 TO 26+00)
C6 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)

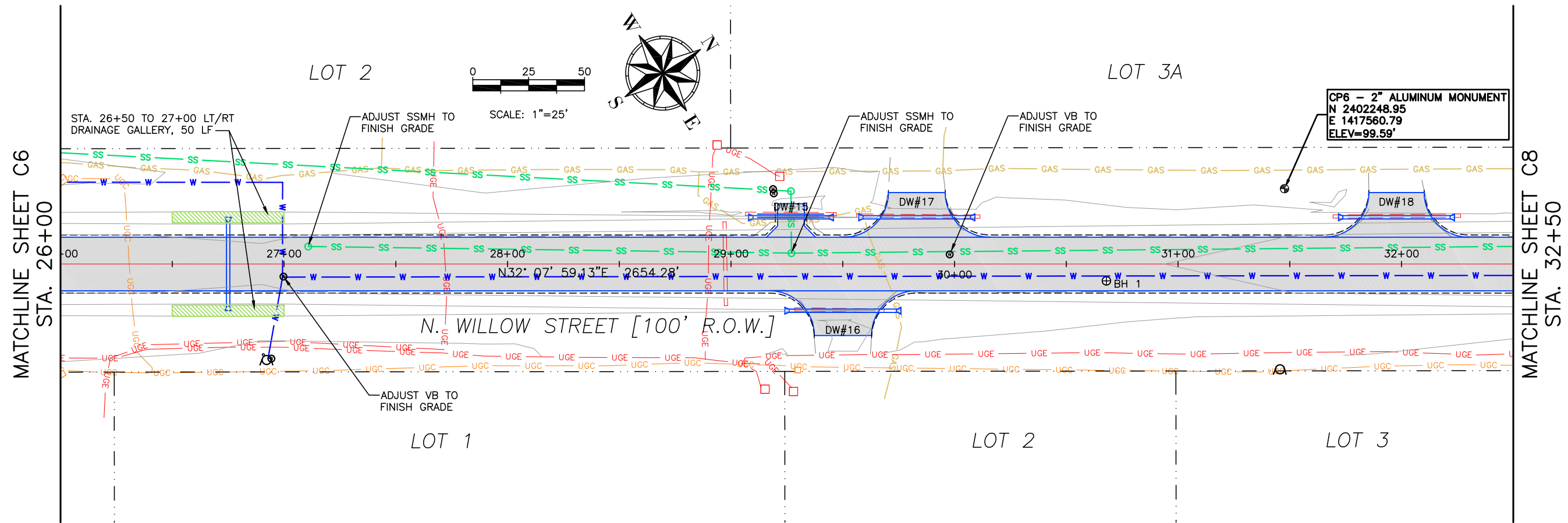


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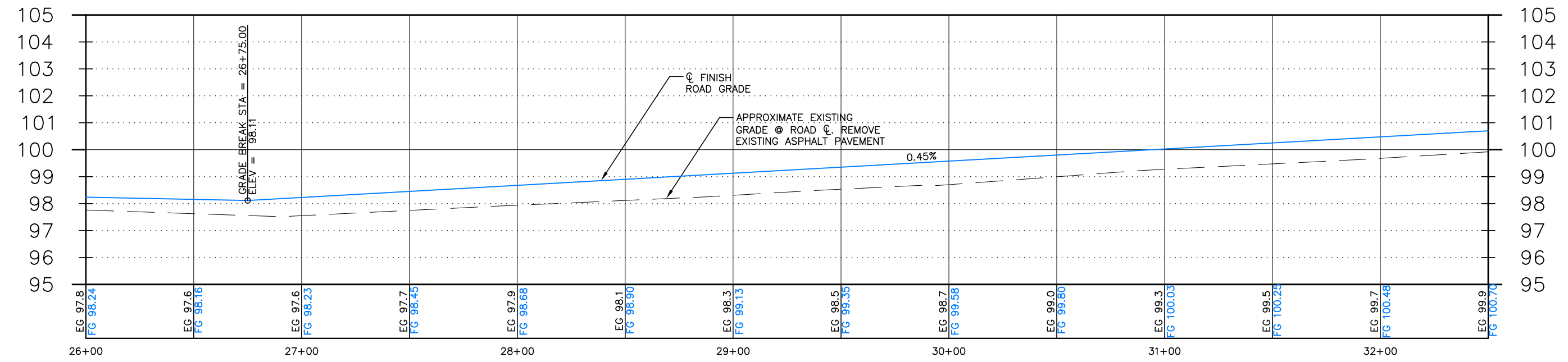
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STA. 19+50 TO 26+00

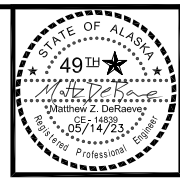
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HORIZ. NOTED
VERT. NOTED
SHEET: **C6**
6 OF 13



A N. WILLOW STREET - PLAN (STA. 26+00 TO 32+50)
C7 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17)

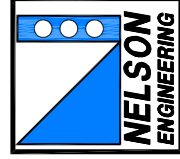


B N. WILLOW STREET - CL ROAD PROFILE (STA. 26+00 TO 32+50)
C7 HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)



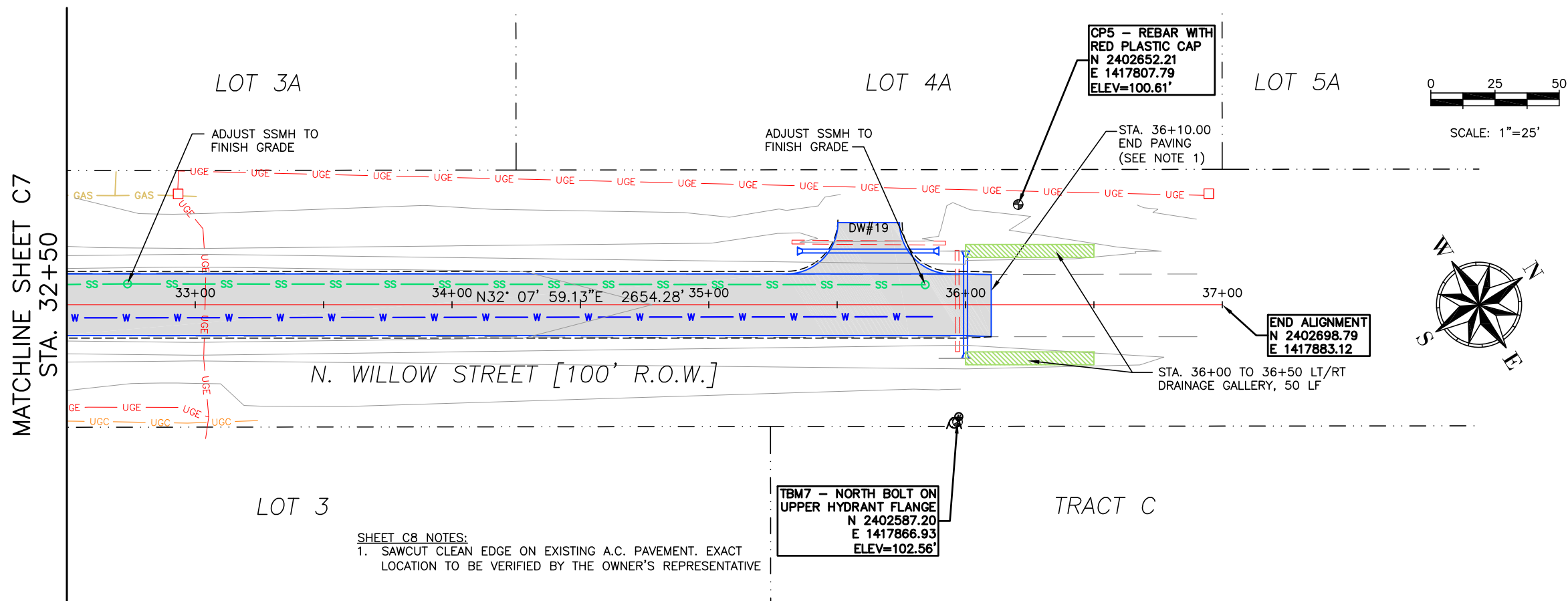
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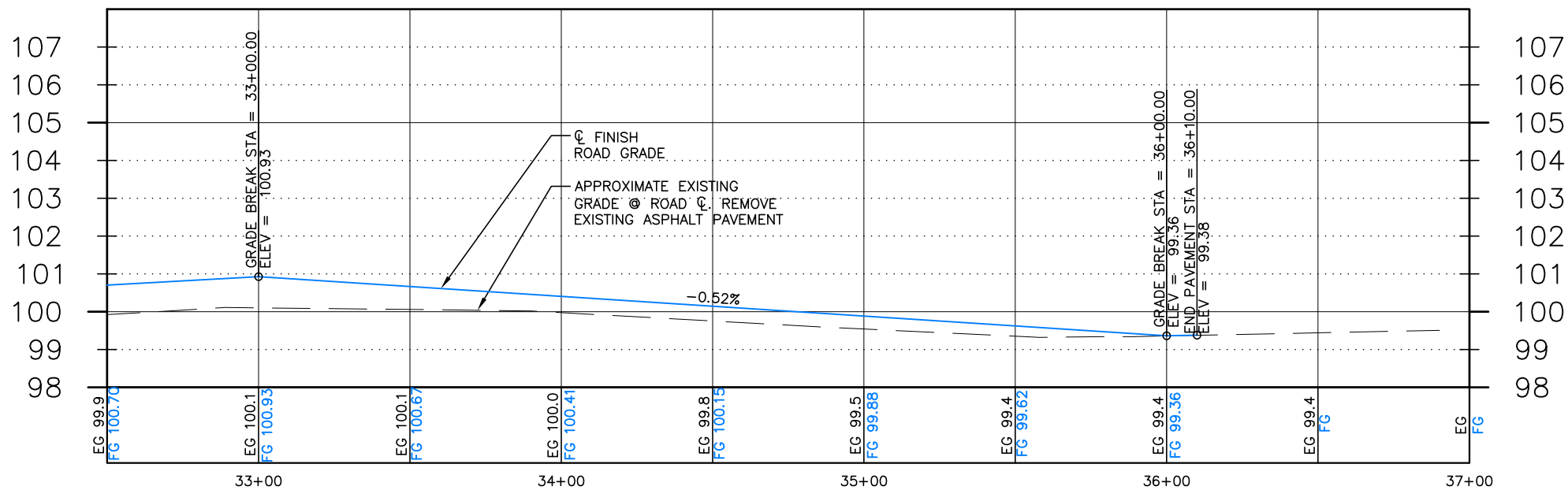
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PLAN AND PROFILE
STA. 26+00 TO 32+50

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HORIZ. NOTED
VERT. NOTED
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7 OF 13



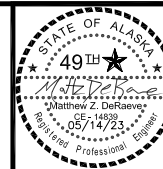
A
C8 **N. WILLOW STREET - PLAN (STA. 32+50 TO 37+00)**

HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17)



B
C8 **N. WILLOW STREET - CL ROAD PROFILE (STA. 32+50 TO 37+00)**

HORIZONTAL SCALE: 1" = 25' (22X34), 1" = 50' (11X17); VERTICAL SCALE: 1" = 2' (22X34), 1" = 4' (11X17)



NO.	REVISION	DATE

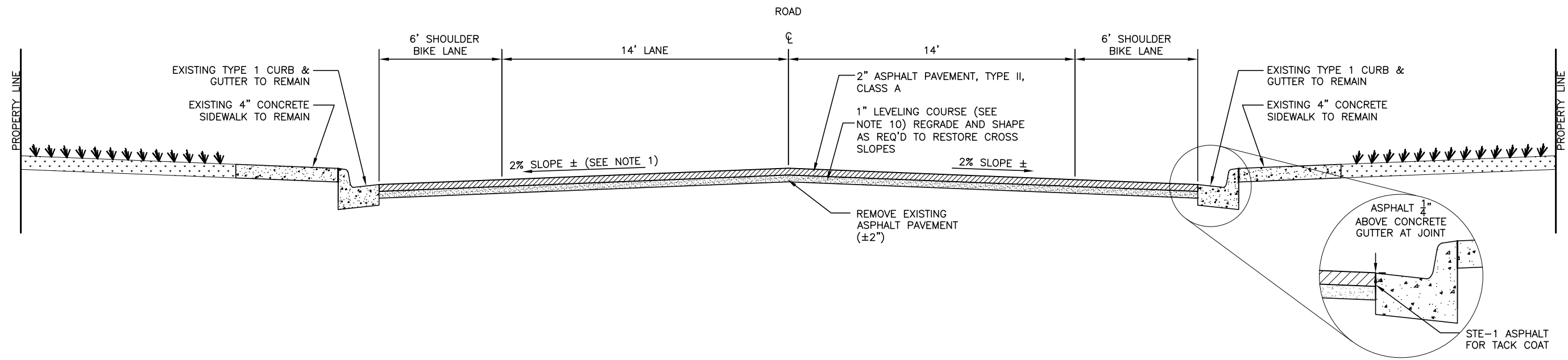
CONSULTING ENGINEERS
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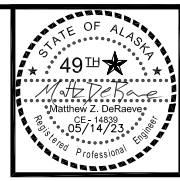
2023 N. WILLOW ST. ROADWAY IMPROVEMENTS
CITY OF KENAI
PLAN AND PROFILE
STA. 32+50 TO 37+00

PROJECT NO. 2022030.2
DRAWN BY: GTP/MZD
CHECKED BY: MJD/MZD
DATE: 5/14/2023
SCALES: NOTED
HORIZ. NOTED
VERT. NOTED
SHEET: **C8**
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TYPICAL ROAD SECTION NOTES

1. SAW CUT CLEAN EDGES ON EXISTING ASPHALT AT CONNECTING STREETS AND DRIVEWAYS PRIOR TO REMOVING THE ASPHALT. DISPOSE OF EXISTING ASPHALT PAVEMENT AT CONTRACTORS'S APPROVED DISPOSAL SITE.
2. REGRADE AND RESHAPE EXISTING BASE COURSE AS REQUIRED. IMPORT ADDITIONAL BASE COURSE AND COMPACT PER SPECIFICATIONS. SUBBASE RECONSTRUCTION MAY BE REQUIRED IF UNSUITABLE SUBGRADE CONDITIONS ARE DISCOVERED. ADDITIONAL EXCAVATION MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
3. OBTAIN APPROVAL FOR BASE AND SUBBASE BY ENGINEER.
4. MATCH EXISTING CROSS SLOPES OF THE ROADWAY UNLESS NOTED OTHERWISE.
5. MATCH EXISTING PAVEMENT ELEVATION AT APPROACHES AND CONNECTING STREETS. COORDINATE EXACT LOCATION OF THE TIE-IN WITH THE OWNER'S REPRESENTATIVE.
6. APPLY TACK COAT TO FACE OF ASPHALT EDGE WHERE MATCHING EXISTING ASPHALT PAVEMENT AND AS SPECIFIED BY THE ENGINEER.
7. TRANSITION CROSS SLOPE TO MATCH EXISTING AT THE EDGE OF PAVEMENT OF THE SIDE STREETS/DRIVEWAYS AND AT THE BOP AND EOP A MINIMUM OF 25 FEET.
8. UNDERGROUND UTILITIES ARE PRESENT WITHIN THE PROJECT AREA. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATES, WORKING AROUND UTILITIES, AND COORDINATING WITH UTILITY COMPANIES AS REQUIRED.



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CITY OF KENAI
KENAI, ALASKA
TYPICAL ROAD SECTIONS

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2023 N. WILLOW ST. ROADWAY IMPROVEMENTS
CITY OF KENAI
KENAI, ALASKA
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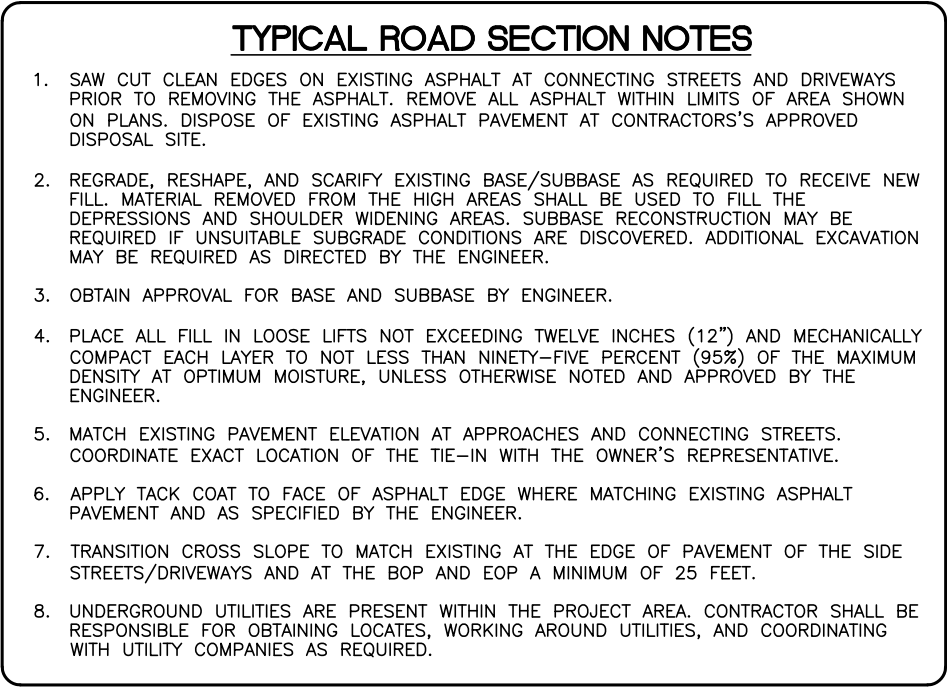
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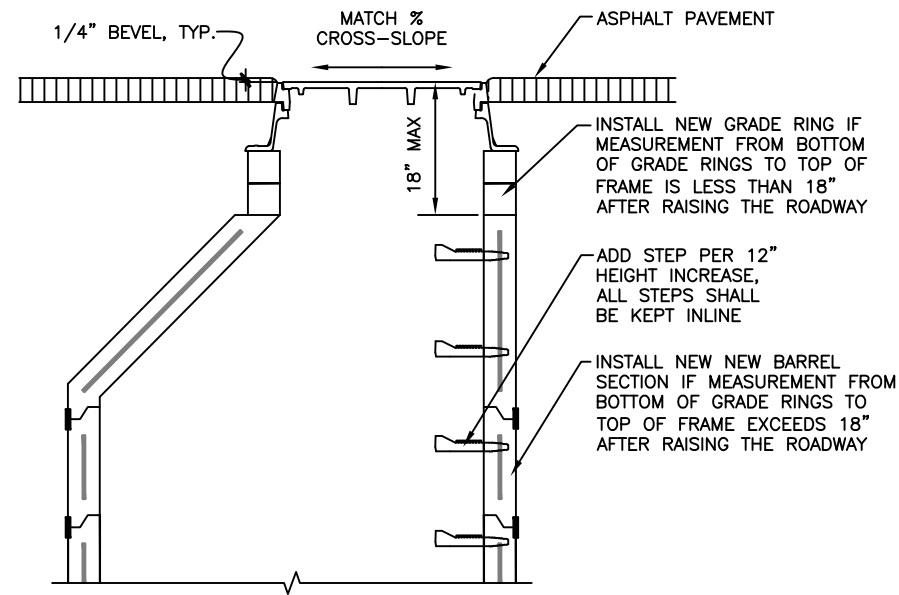
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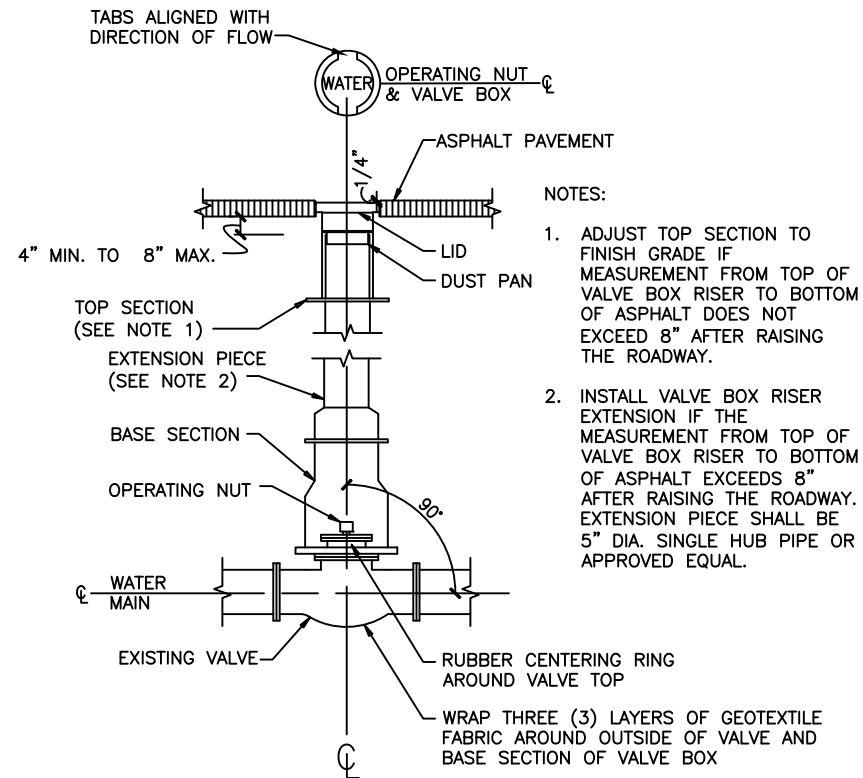
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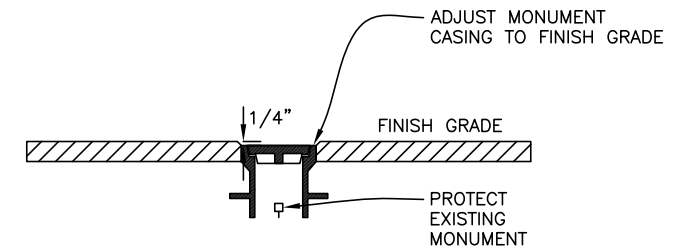




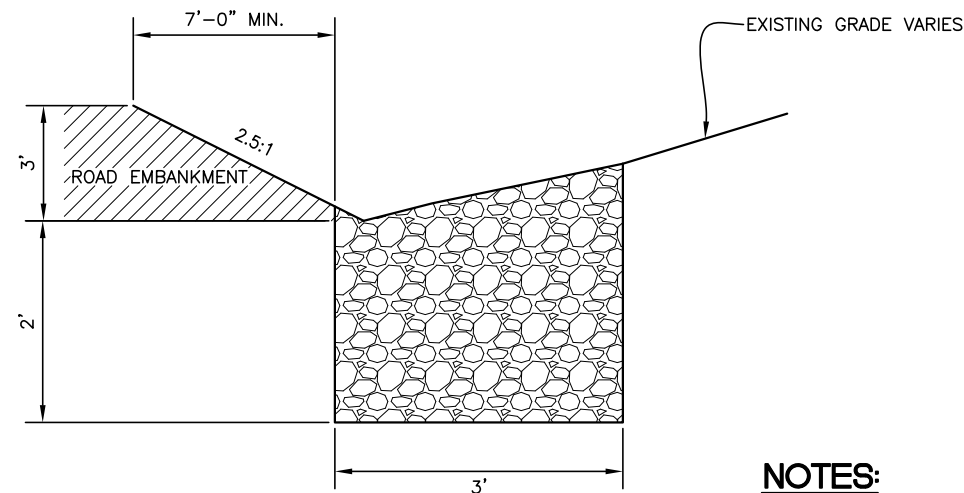
A MANHOLE ADJUSTMENT DETAIL
C11 SCALE: NTS



B TYPICAL VALVE BOX ADJUSTMENT
C11 SCALE: NTS



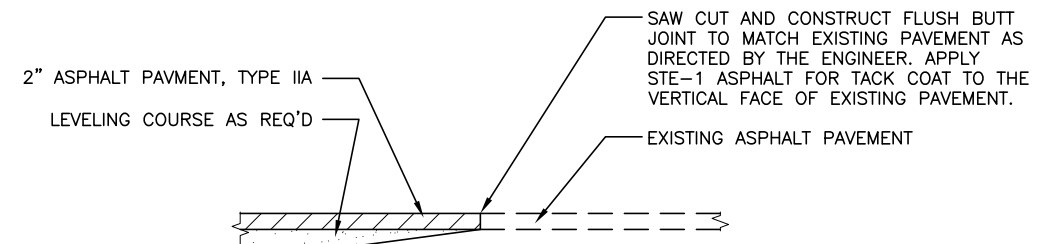
C TYP. MONUMENT CASING ADJUSTMENT
C11 SCALE: NTS



NOTES:

1. DRAIN ROCK SHALL REMAIN FREE OF SILT AND OTHER UNDESIRABLE MATERIALS DURING PLACEMENT.
2. DO NOT PLACE ROCK MORE THAN 4" ABOVE BOTTOM OF DITCH.
3. LOCATION AND POSITION OF DRAINAGE GALLERIES MAY BE CHANGED BY THE ENGINEER TO AVOID CONFLICTS WITH UTILITIES AND OTHER STRUCTURES.

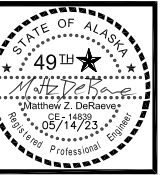
D TYPICAL DRAINAGE GALLERY
C11 SCALE: NTS



NOTES:

1. MATCH EXISTING PAVEMENT ELEVATION AT CONNECTING STREETS
2. USE TACK COAT WHERE MATCHING EXISTING ASPHALT OR CONCRETE AND AS SPECIFIED BY THE ENGINEER.

E TYPICAL PAVEMENT MATCH DETAIL
C11 SCALE: NTS



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TYPICAL DETAILS

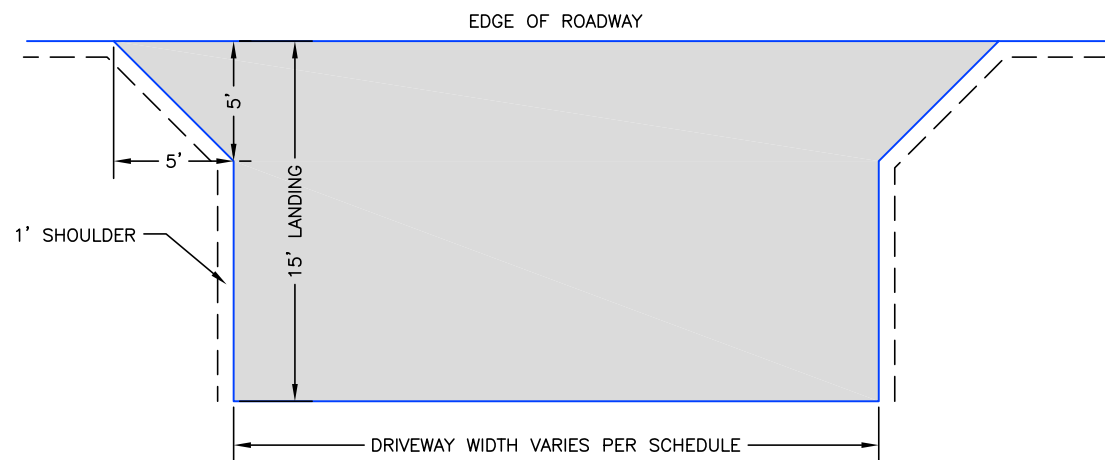
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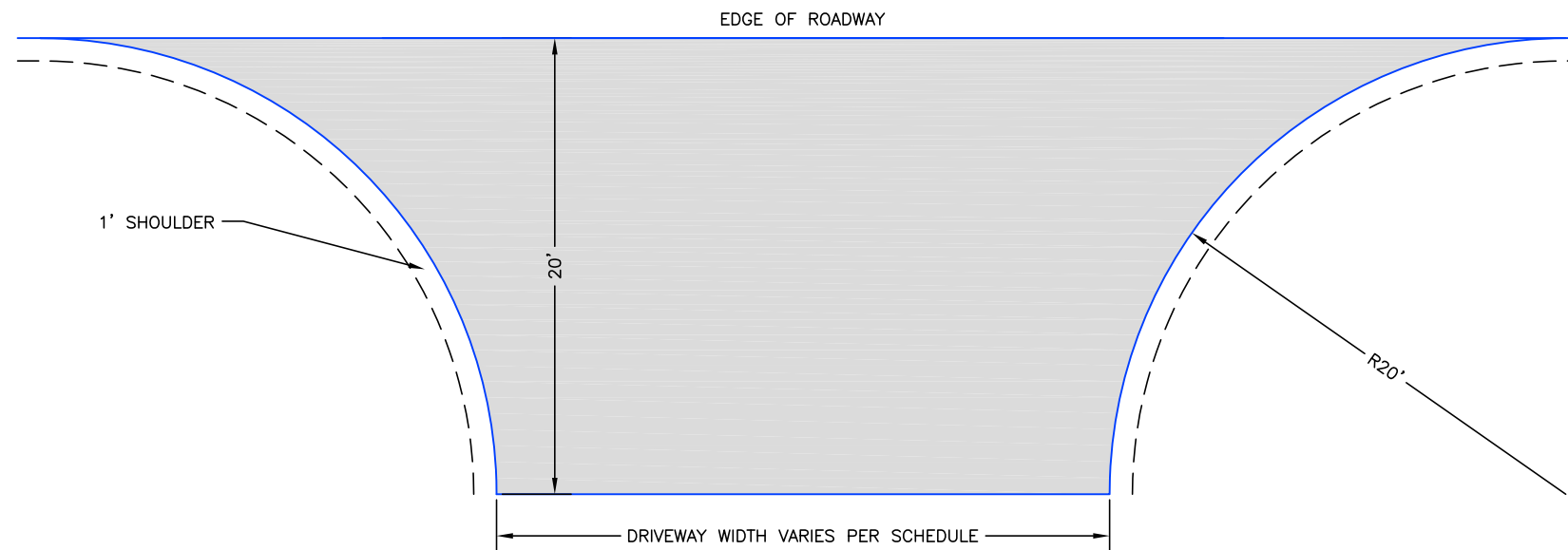
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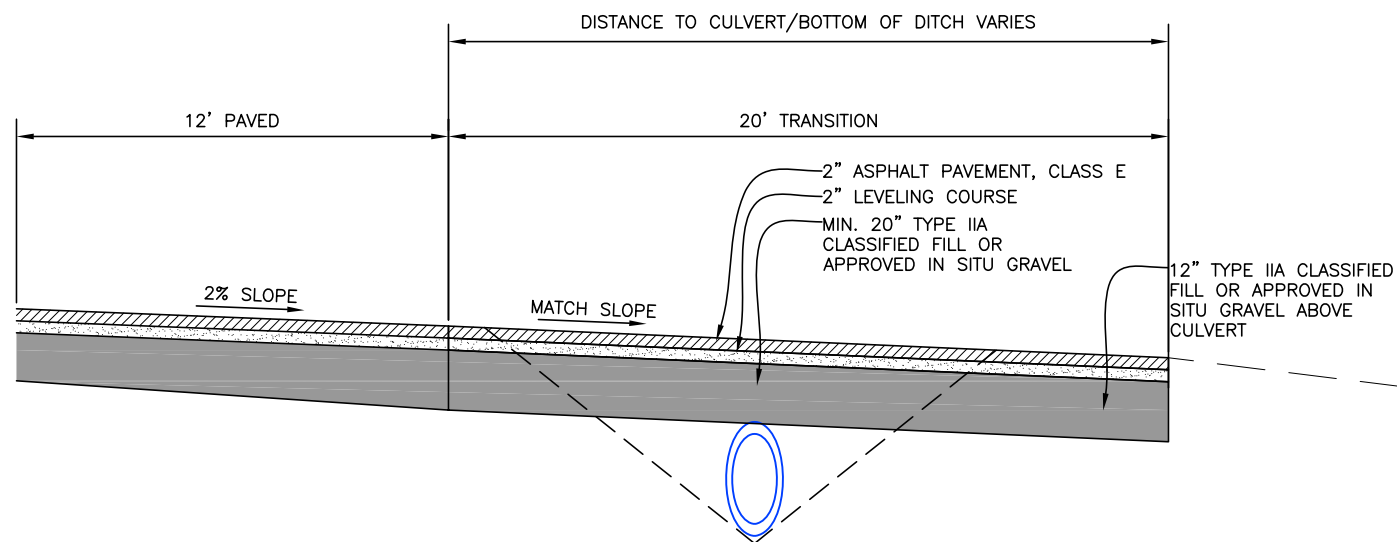
PLAN VIEW



PLAN VIEW

A TYPICAL DRIVEWAY - RESIDENTIAL/HYDRANT PAD
C12 SCALE: NTS

B TYPICAL DRIVEWAY - COMMERCIAL
C12 SCALE: NTS



SECTION VIEW

C TYPICAL DRIVEWAY LANDING
C12 SCALE: NTS



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HORIZ. NOTED

VERT. NOTED

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