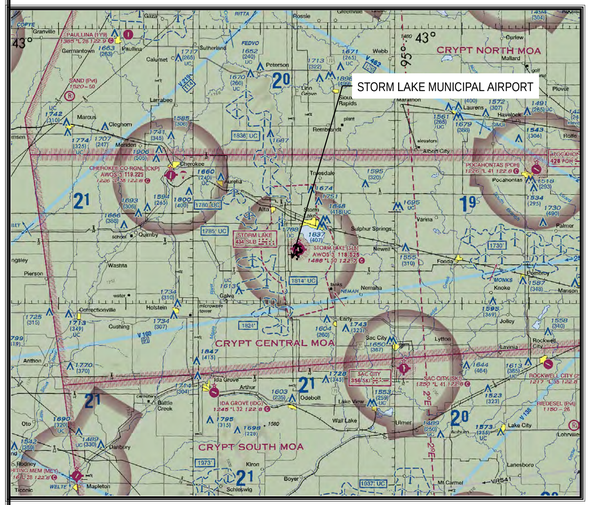
AIRPORT LAYOUT PLAN

STORM LAKE MUNICIPAL AIRPORT (SLB)

STORM LAKE, IA

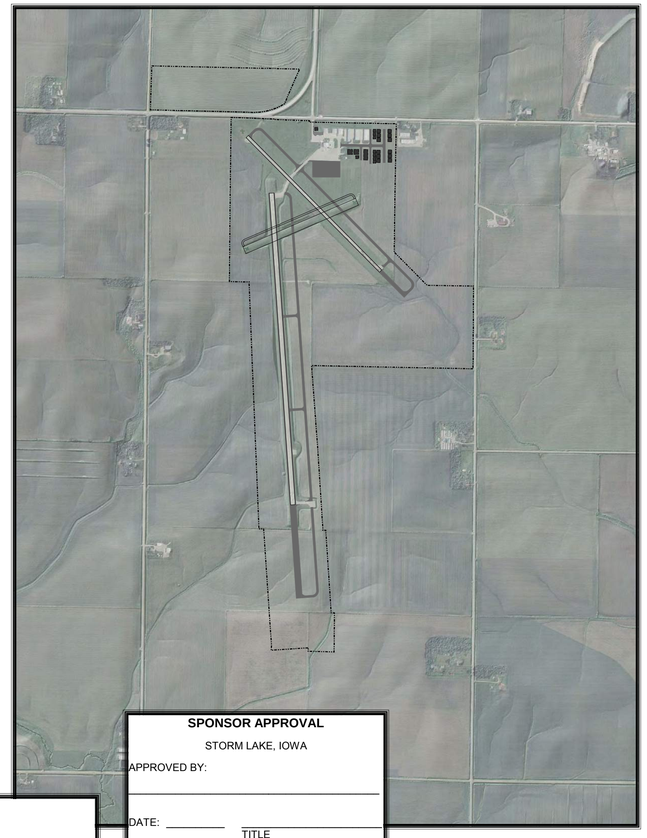
FAA
APPROVAL
LETTER



LOCATION MAP

VICINITY MAP

INDEX TO SHEETS



SPONSOR APPROVAL

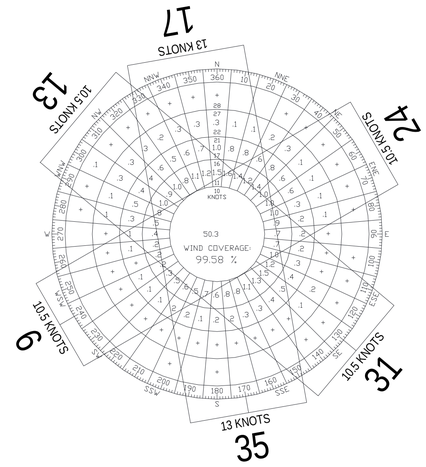
STORM LAKE, IOWA

APPROVED BY: _____

DATE: _____ _____
TITLE

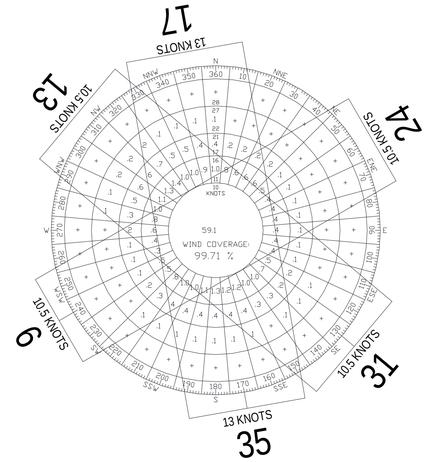
On behalf of Bolton & Menk, Inc. this Airport Layout Plan (ALP) was prepared for the Storm Lake Municipal Airport according to the applicable Advisory Circulars, the current version of the ARP SOP 2.00 ALP Checklist, and accurately depicts the proposed use of airspace at the time of submittal. The ALP conforms with FAA design standards, except as noted.

DATE: JUNE 9, 2016 _____
MELISSA R. UNDERWOOD



INSTRUMENT FLIGHT RULES (IFR) WINDROSE

17/35 13 KNOTS
13/31 10.5 KNOTS
6/24 10.5 KNOTS



ALL WEATHER WINDROSE

17/35 13 KNOTS
13/31 10.5 KNOTS
6/24 10.5 KNOTS

ALL WEATHER WIND COVERAGE				
CROSSWINDS	RUNWAY 17/35	RUNWAY 13/31	RUNWAY 6/24	COMBINED
10.5 KNOTS	85.19%	83.28%	83.36%	99.20%
13 KNOTS	91.55%	90.11%	74.36%	99.84%
INSTRUMENT FLIGHT RULES				
CROSSWINDS	RUNWAY 17/35	RUNWAY 13/31	RUNWAY 6/24	COMBINED
10.5 KNOTS	79.31%	76.88%	70.89%	98.90%
13 KNOTS	87.49%	85.16%	80.94%	99.81%
SOURCE: NATIONAL CLIMATIC DATA CENTER FOR STORM LAKE, IA (2006-2015)				

AIRPORT DATA TABLE			
		EXISTING	FUTURE
NPIAS SERVICE LEVEL:		GENERAL AVIATION	GENERAL AVIATION
IA SASP SERVICE ROLE:		GENERAL SERVICE	GENERAL SERVICE
MEAN MAXIMUM TEMPERATURE HOTTEST MONTH:		JULY 83° F	JULY 83° F
AIRPORT ELEVATION (NAVD88):		1,487.9'	1,487.9'
AIRPORT REFERENCE POINT (ARP) COORDINATES (NAD 83):	LATITUDE	42° 35' 50.05" N	42° 35' 44.72" N
	LONGITUDE	95° 14' 26.40" W	95° 14' 25.25" W
AIRPORT REFERENCE CODE:		B-II	B-II
AIRPORT NAVAIDS:		NDB, BEACON	BEACON
MISCELLANEOUS FACILITIES:		AWOS, MIRLs, REILs, PAPIs, WIND CONE	AWOS, HIRLs, REILs, PAPIs, MITLs, LOC, GS, MALSR, WIND CONE

Jump Right In!

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

GREGORY BROUSSARD — REG NO. 21974 — DATE: AUG 1 2016

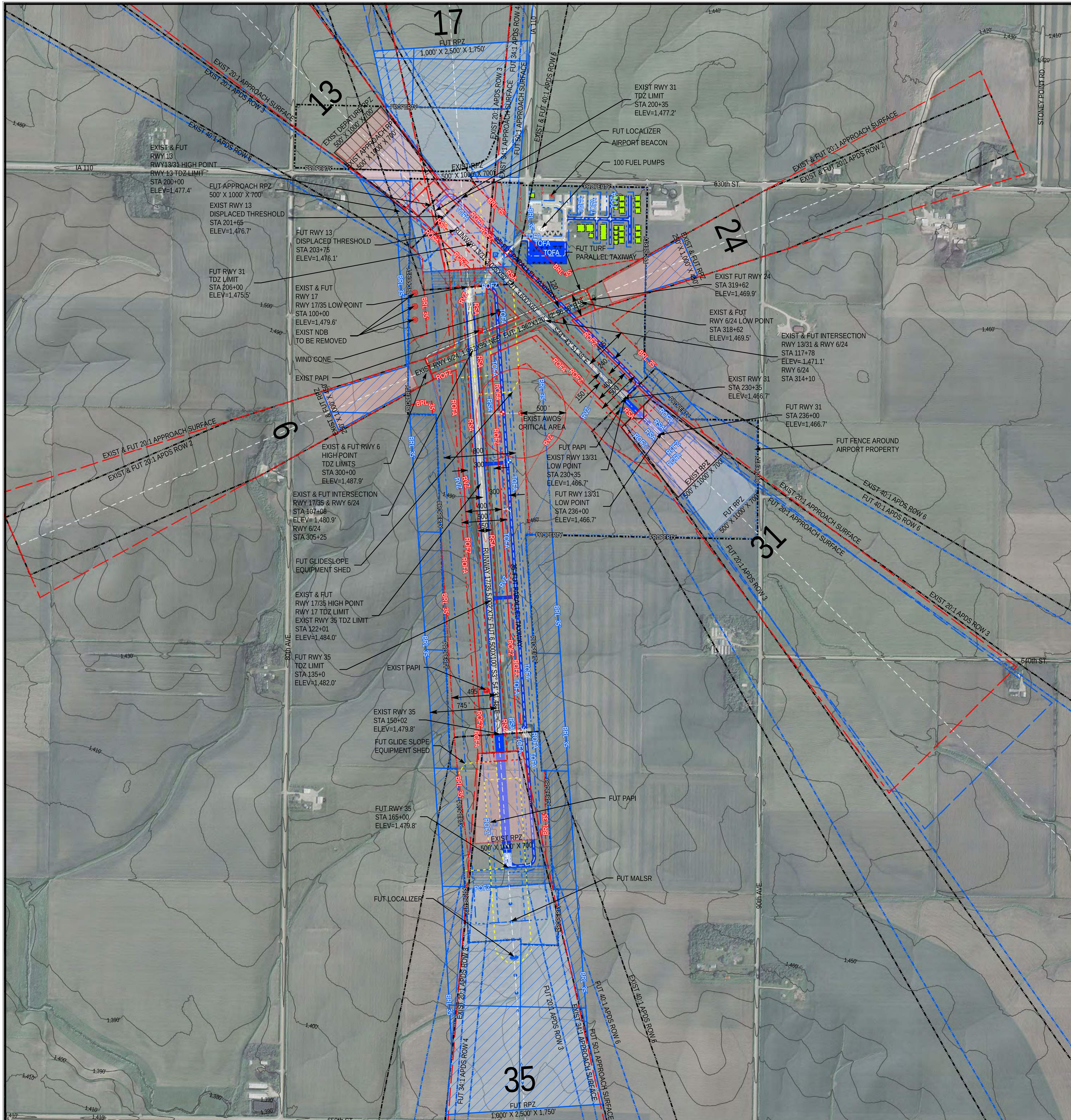
REVISIONS

DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666
DATE: AUGUST 1, 2016
DESIGNED BY: MRU

TITLE SHEET

SHEET 1 OF 11



RUNWAY DATA TABLE		
	RUNWAY 17/35	
	EXISTING	FUTURE
RUNWAY LENGTH & WIDTH	5,002' X 75'	6,500' X 100'
RUNWAY GRADIENT	0.00%	SAME
RUNWAY TYPE	OTHER-THAN-UTILITY	SAME
PAVEMENT TYPE	CONCRETE	SAME
PAVEMENT STRENGTH	38,000 LBS DWG; 30,000 LBS SWG	SAME
RUNWAY LIGHTING	MIRL	HIRL
RUNWAY MARKING	NON-PRECISION	PRECISION
14 CFR PART 77	C 34:1	PIR 50:1/40:1
APPROACH TYPE	NON-PRECISION	PRECISION
RUNWAY DESIGN CODE (RDC)/RUNWAY REFERENCE CODE (RRC)	B-II-5000	B-II-2400
RUNWAY NAVAIDS	PAPIs, REILs, GPS, NDB	PAPIs, REILs, GPS, LPV, ILS, LOC, GS
TYPE OF AERONAUTICAL SURVEY	VERTICALLY GUIDED	SAME
VISIBILITY MINIMUMS	≥ 1 MILE	< 3/4 MILE
WIND COVERAGE	91.55%	SAME

FAA RUNWAY PROTECTION ZONE (RPZ) DIMENSIONS				
	RUNWAY	BASE	LENGTH	OUTER WIDTH
EXIST	17	500'	1,000'	700'
	35	500'	1,000'	700'
FUT	17	1,000'	2,500'	1,750'
	35	1,000'	2,500'	1,750'
EXIST & FUT	13	500'	1,000'	700'
	31	500'	1,000'	700'
EXIST & FUT	6	250'	1,000'	450'
	24	250'	1,000'	450'

RUNWAY SAFETY AREA (RSA)		
EXISTING		
RUNWAY	WIDTH	LENGTH BEYOND RUNWAY END
17/35	150'	300'
13/31	150'	300'
6/24	120'	0'
FUTURE		
RUNWAY	WIDTH	LENGTH BEYOND RUNWAY END
17/35	300'	600'

RUNWAY OBJECT FREE AREA (ROFA)		
EXISTING		
RUNWAY	WIDTH	LENGTH BEYOND RUNWAY END
17/35	500'	300'
13/31	500'	300'
6/24	250'	0'
FUTURE		
RUNWAY	WIDTH	LENGTH BEYOND RUNWAY END
17/35	800'	600'

RUNWAY OBSTACLE FREE ZONE (ROFZ)		
EXISTING & FUTURE		
RUNWAY	WIDTH	LENGTH BEYOND RUNWAY END
17/35	400'	200'
13/31	400'	200'
6/24	250'	0'

PRECISION OBSTACLE FREE ZONE (POFZ)		
FUTURE		
RUNWAY	WIDTH	LENGTH BEYOND RUNWAY END
17	800'	200'
35	800'	200'

TERPS DEPARTURE SURFACE				
	RUNWAY	BASE	LENGTH	OUTER WIDTH
EXISTING & FUTURE	17/35	1,000'	10,200'	6,466'
	13/31	1,000'	10,200'	6,466'

RUNWAY END COORDINATES		
EXISTING		
RUNWAY	LATITUDE	LONGITUDE
17	42° 36' 3.83" N	95° 14' 31.89" W
35	42° 35' 14.62" N	95° 14' 25.96" W
13	42° 36' 12.70" N	95° 14' 37.36" W
31	42° 35' 51.85" N	95° 14' 8.23" W
6	42° 35' 54.71" N	95° 14' 37.45" W
24	42° 36' 2.74" N	95° 14' 13.58" W
13 DISPLACED THRESHOLD	42° 36' 11.57" N	95° 14' 35.78" W
FUTURE		
RUNWAY	LATITUDE	LONGITUDE
35	42° 34' 59.87" N	95° 14' 24.19" W
31	42° 35' 47.96" N	95° 14' 2.80" W
13 DISPLACED THRESHOLD	42° 36' 10.12" N	95° 14' 33.76" W

RUNWAY END STATION AND ELEVATION		
EXISTING		
RUNWAY	STATION	ELEVATION
17	100+00	1,479.6'
35	150+02	1,479.8'
13	200+00	1,477.4'
31	230+35	1,466.7'
6	300+00	1,487.9'
24	319+62	1,469.9'
13 DISPLACED THRESHOLD	201+65	1,476.7'
FUTURE		
RUNWAY	STATION	ELEVATION
35	165+00	1,479.8'
31	236+00	1,466.7'
13 DISPLACED THRESHOLD	203+75	1,476.1'

TOUCHDOWN ZONE (TDZ) LIMITS			
EXISTING			
RUNWAY	TDZ LIMITS	STATION LOCATION	ELEVATION
17	100+00 TO 130+00	122+01	1,484.0'
35	150+02 TO 120+02	122+01	1,484.0'
13	200+00 TO 230+35	200+00	1,477.2'
31	230+35 TO 200+35	200+35	1,477.2'
6	300+00 TO 319+62	300+00	1,469.9'
24	319+62 TO 300+00	300+00	1,469.9'
FUTURE			
35	165+00 TO 135+00	135+00	1,482.0'
31	236+00 TO 206+00	206+00	1,475.5'

AIRPORT REFERENCE POINT (ARP)		
	EXISTING	FUTURE
LATITUDE	42° 35' 50.05" N	42° 35' 44.72" N
LONGITUDE	95° 14' 26.40" W	95° 14' 25.25" W

DEVIATION FROM FAA DESIGN STANDARDS			
APPROVAL DATE	CASE NUMBER	MODIFICATION	DESCRIPTION
NONE REQUIRED			

OBSTACLE FREE ZONE (OFZ) OBJECT PENETRATIONS			
KEY	DESCRIPTION	PENETRATION	ELEVATION
NONE			

TAXIWAY/TAXILANE DATA TABLE		
	EXISTING	FUTURE
TAXIWAY WIDTH	35'	SAME
TAXIWAY SAFETY AREA WIDTH	79'	SAME
TAXIWAY OBJECT FREE AREA WIDTH	131'	SAME
TAXIWAY EDGE SAFETY MARGIN	7.5'	SAME
TAXIWAY SHOULDER WIDTH	15'	SAME
TAXIWAY DESIGN GROUP (TDG)	TDG-1	TDG-1 / TDG-2
TAXILANE WIDTH (ADG I / ADG II)	25'/35'	SAME
TAXILANE OBJECT FREE AREA WIDTH (ADG I / ADG II)	79'/115'	SAME

RUNWAY DATA TABLE			
	RUNWAY 13/31		RUNWAY 6/24
	EXISTING	FUTURE	EXISTING / FUTURE
RUNWAY LENGTH & WIDTH	3,035' X 50'	3,600' X 60'	EX: 1,962' X 95' / FUT:1,962' X 120'
RUNWAY GRADIENT	0.35%	0.30%	0.92%
RUNWAY TYPE	UTILITY	SAME	UTILITY
PAVEMENT TYPE	CONCRETE	SAME	TURF
PAVEMENT STRENGTH	4,000 LBS SWG	SAME	TURF
RUNWAY LIGHTING	MIRL	SAME	NONE
RUNWAY MARKING	VISUAL	NON-PRECISION	CONES
14 CFR PART 77	B(V) 20:1	SAME	A(V) 20:1
APPROACH TYPE	VISUAL	NON-PRECISION	VISUAL
RUNWAY DESIGN CODE (RDC)/RUNWAY REFERENCE CODE (RRC)	B-I-VIS	B-I-5000	AI-VIS
RUNWAY NAVAIDS	NONE	PAPIs, REILs	NONE
TYPE OF AERONAUTICAL SURVEY	NOT VERTICALLY GUIDED	VERTICALLY GUIDED	NONE
VISIBILITY MINIMUMS	VISUAL	≥ 1 MILE	VISUAL
WIND COVERAGE	83.28%	SAME	83.36%

CRITICAL AIRCRAFT DATA TABLE	
RUNWAY 17/35 EXISTING & FUTURE	
AAC-ADG	B-II
RUNWAY STRENGTH	38,000 LBS. DWG; 30,000 LBS. SWG
APPROACH SPEED	91 - < 121 KNOTS
WINGSPAN	49' - < 79'
TAIL HEIGHT	20' - < 30'
RUNWAY 13/31 EXISTING & FUTURE	
AAC-ADG	B-I
RUNWAY STRENGTH	4,000 LBS. SINGLE WHEEL GEAR (SWG)
APPROACH SPEED	91 - < 121 KNOTS
WINGSPAN	< 49'
TAIL HEIGHT	< 20'
RUNWAY 6/24 EXISTING & FUTURE	
AAC-ADG	A-I
RUNWAY STRENGTH	TURF
APPROACH SPEED	< 91 KNOTS
WINGSPAN	< 49'
TAIL HEIGHT	< 20'

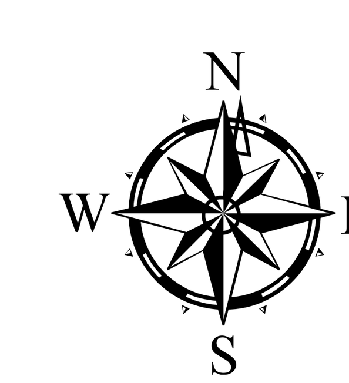
DECLARED DISTANCES		
	RUNWAY 17/35	
	EXISTING	FUTURE
TAKEOFF RUN AVAILABLE (TORA)	5,002'	6,500'
TAKEOFF DISTANCE AVAILABLE (TODA)	5,002'	6,500'
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	5,002'	6,500'
LANDING DISTANCE AVAILABLE (LDA)	5,002'	6,500'
	RUNWAY 13/31	
	EXISTING	FUTURE
TAKEOFF RUN AVAILABLE (TORA)	3,035'	3,600'
TAKEOFF DISTANCE AVAILABLE (TODA)	3,035'	3,600'
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	3,035'	3,600'
LANDING DISTANCE AVAILABLE (LDA)	13=2,870' 31=3,035'	13=3,225' 31=3,600'
	RUNWAY 6/24	
	EXISTING	FUTURE
TAKEOFF RUN AVAILABLE (TORA)	1,962'	1,962'
TAKEOFF DISTANCE AVAILABLE (TODA)	1,962'	1,962'
ACCELERATE STOP DISTANCE AVAILABLE (ASDA)	1,962'	1,962'
LANDING DISTANCE AVAILABLE (LDA)	1,962'	1,962'

EXISTING LEGEND:

- AIRPORT PROPERTY
- EASEMENT
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAY VISIBILITY ZONE (RVZ)
- AWOS CRITICAL
- AIRPORT REFERENCE POINT (ARP)
- AIRPORT ROTATING BEACON
- AWOS
- NON-DIRECTIONAL BEACON
- PAPI
- REIL
- WIND CONE
- FENCE (6')

FUTURE LEGEND:

- PROPERTY AQUSITION
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- PRECISION OBSTACLE FREE (ZONE)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- NAVAID CRITICAL AREAS
- RUNWAY VISIBILITY ZONE (RVZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- BUILDING RESTRICTION LINE (BRL)
- AIRPORT REFERENCE POINT (ARP)
- AIRCRAFT PAVEMENT
- VEHICLE PAVEMENT
- BUILDING
- LOCALIZER
- MALS
- RUNWAY ALIGNMENT INDICATOR LIGHT
- PAPI
- REIL
- FENCE (10')



NOTE: NAVD88 VERTICAL CONTROL DATUM & NAD83 COORDINATE SYSTEM WAS USED FOR THIS ALP SET.

MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC DECLINATION EPOCH YEAR=2010

FEET
0 600 1,200 1,800

Storm Lake Jump Right In!

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Gregory Broussard
GREGORY BROUSSARD

REG NO. 21974 DATE: AUG 1, 2016

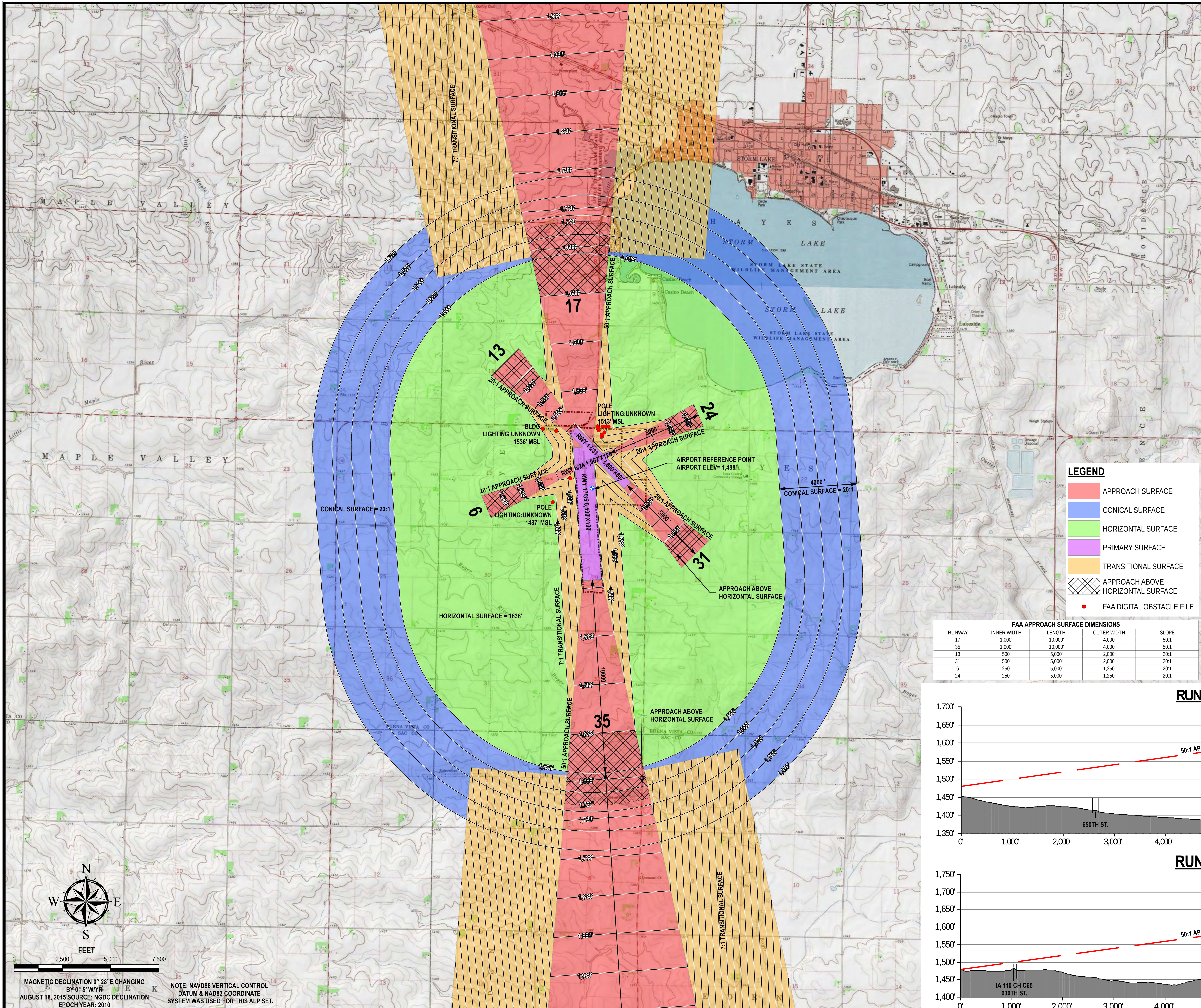
BOLTON & MENK Engineers & Surveyors

DATE	BY	REVISIONS CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666
DATE: AUGUST 1, 2016
DESIGNED BY: MRU

AIRPORT LAYOUT PLAN

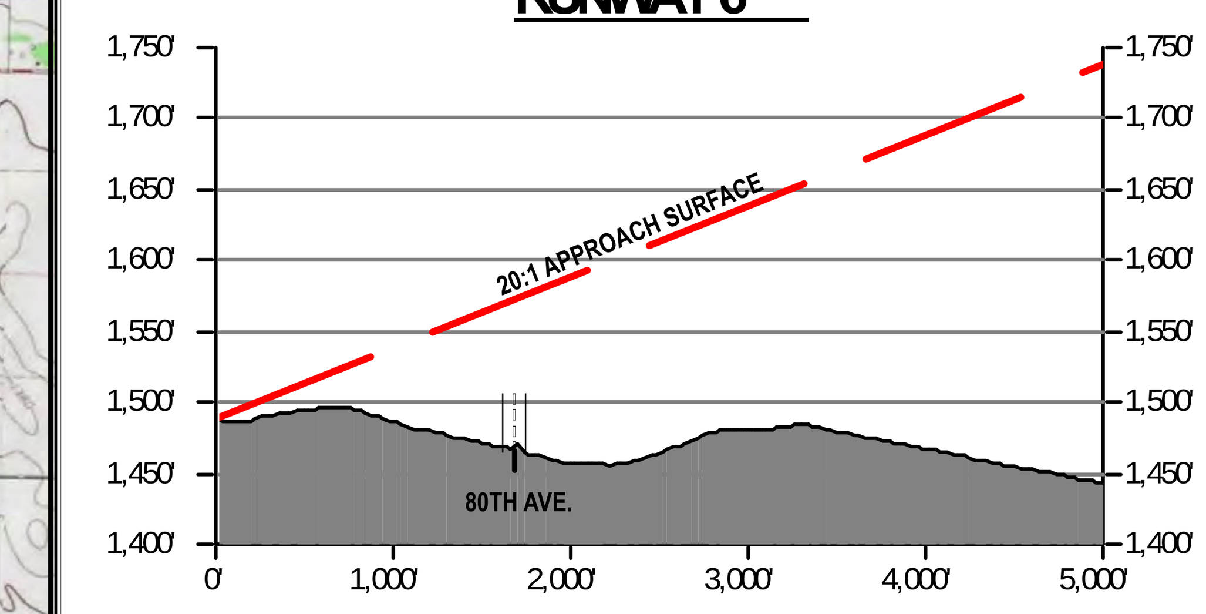
SHEET 2 OF 11



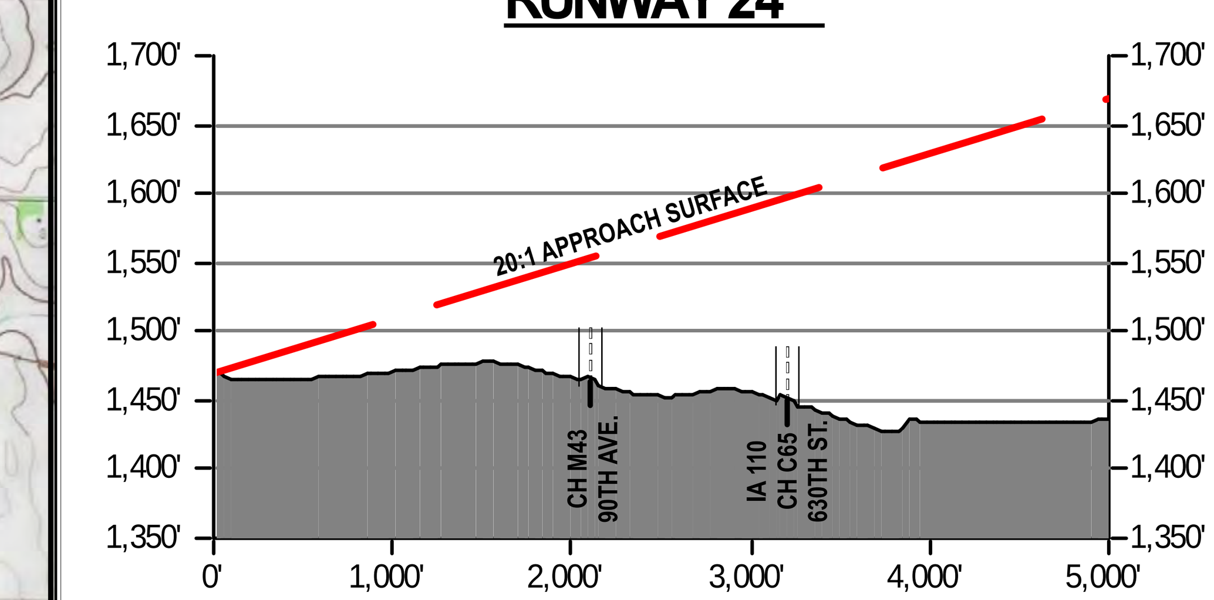
7:1 TRANSITIONAL SURFACE
STORM LAKE
STORM LAKE STATE WILDLIFE MANAGEMENT AREA
MAPLE VALLEY
HAYES
17
50:1 APPROACH SURFACE
13
20:1 APPROACH SURFACE
24
POLE LIGHTING:UNKNOWN 1513' MSL
BLDG LIGHTING:UNKNOWN 1536' MSL
AIRPORT REFERENCE POINT AIRPORT ELEV= 1,488'
RWY 13/31 3,600'X60'
RWY 6/24 1,962'X120'
RWY 17/35 6,500'X100'
POLE LIGHTING:UNKNOWN 1487' MSL
6
31
CONICAL SURFACE = 20:1
4000'
HORIZONTAL SURFACE = 1638'
APPROACH ABOVE HORIZONTAL SURFACE
35
LEGEND
APPROACH SURFACE
CONICAL SURFACE
HORIZONTAL SURFACE
PRIMARY SURFACE
TRANSITIONAL SURFACE
APPROACH ABOVE HORIZONTAL SURFACE
FAA DIGITAL OBSTACLE FILE
N
S
E
W
FEET
0 2,500 5,000 7,500
MAGNETIC DECLINATION 0° 28' E CHANGING BY 0° 5' W/YR AUGUST 18, 2015 SOURCE: NGDC DECLINATION EPOCH YEAR: 2010
NOTE: NAVD88 VERTICAL CONTROL DATUM & NAD83 COORDINATE SYSTEM WAS USED FOR THIS ALP SET.

FAA APPROACH SURFACE DIMENSIONS				
RUNWAY	INNER WIDTH	LENGTH	OUTER WIDTH	SLOPE
17	1,000'	10,000'	4,000'	50:1
35	1,000'	10,000'	4,000'	50:1
13	500'	5,000'	2,000'	20:1
31	500'	5,000'	2,000'	20:1
6	250'	5,000'	1,250'	20:1
24	250'	5,000'	1,250'	20:1

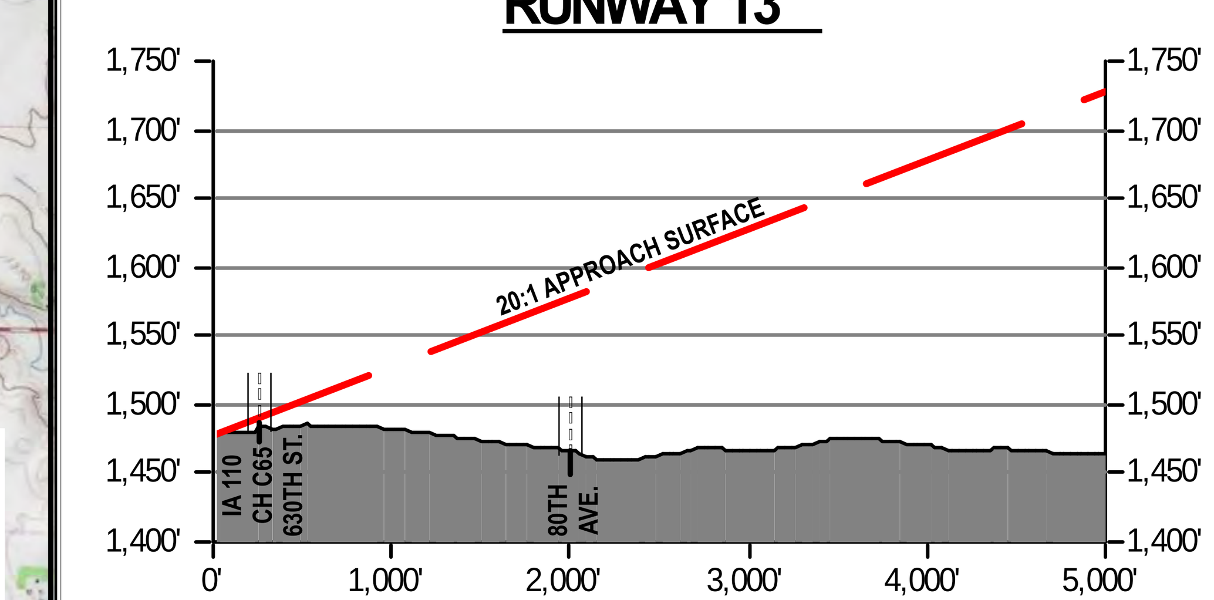
RUNWAY 6



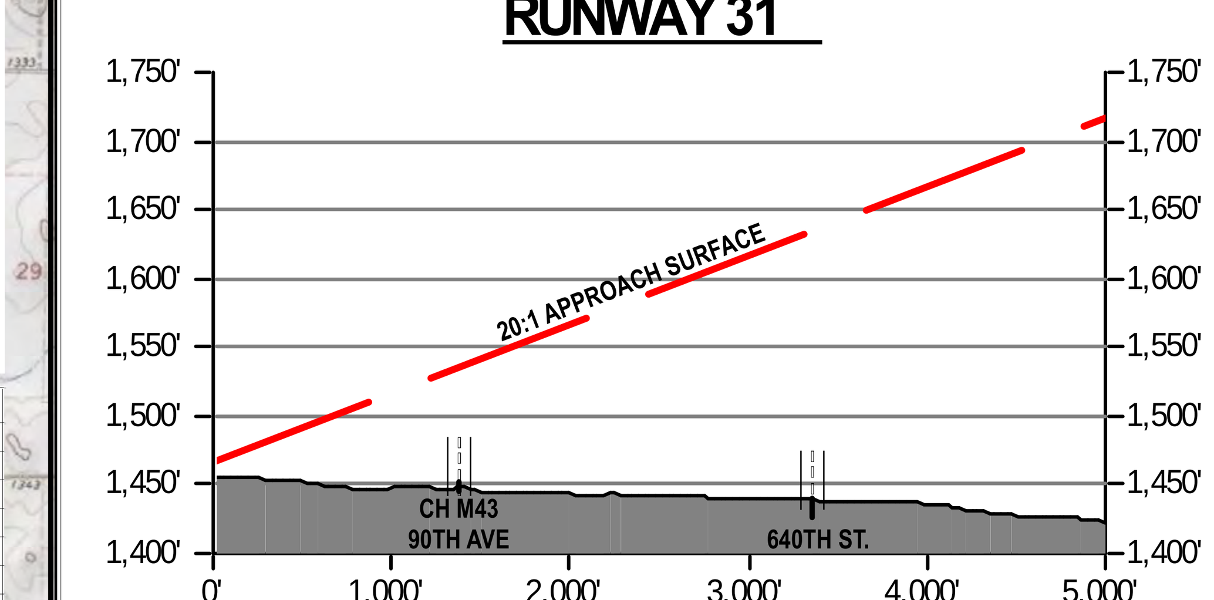
RUNWAY 24



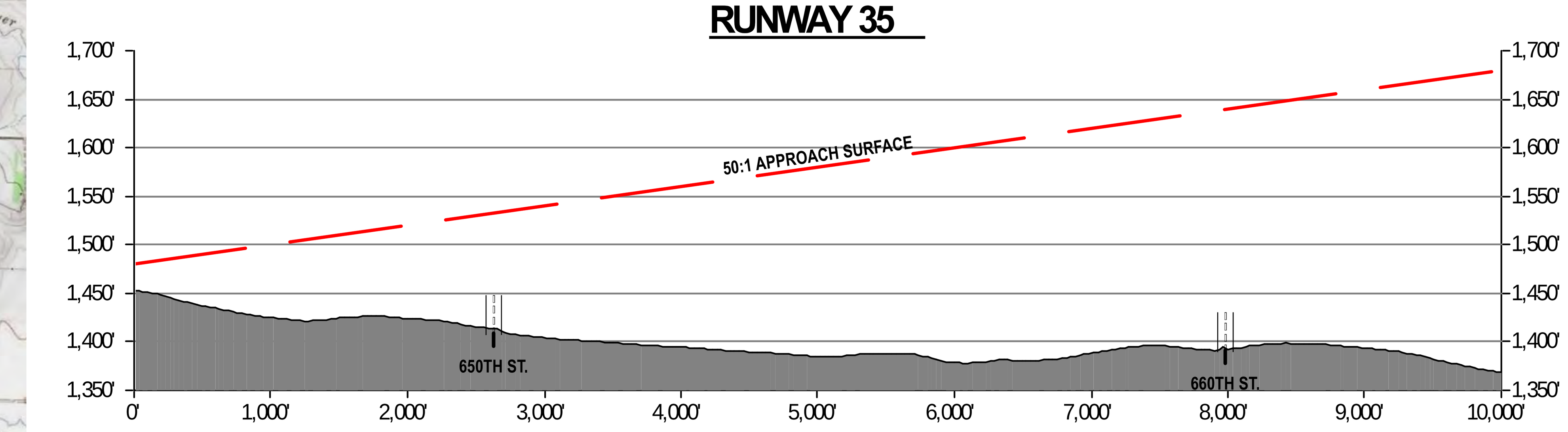
RUNWAY 13



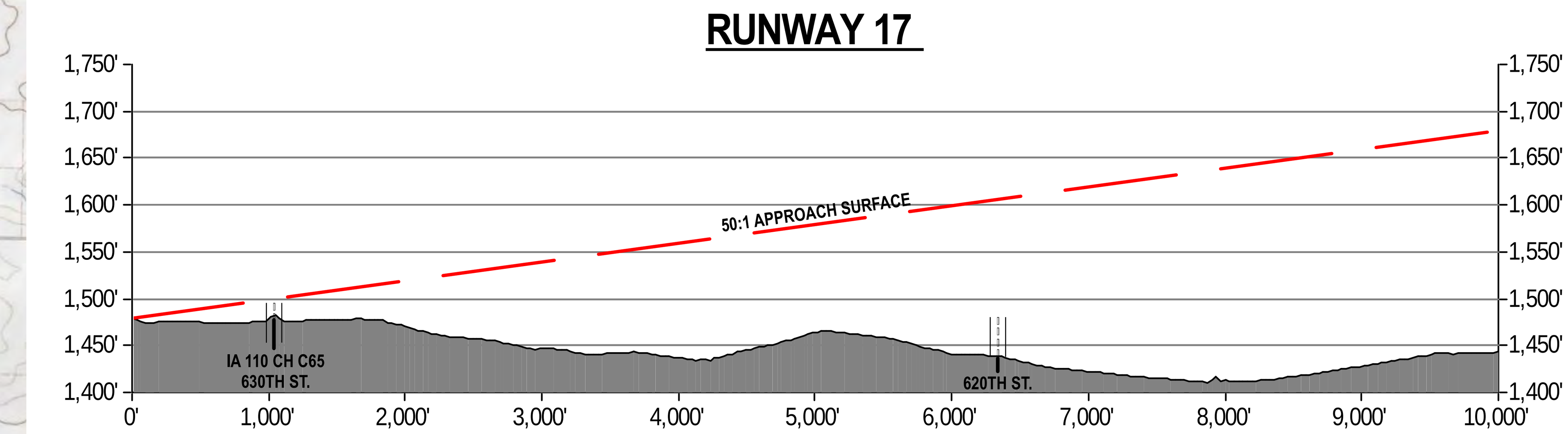
RUNWAY 31



RUNWAY 35



RUNWAY 17



Storm Lake Jump Right In!

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Gregory Broussard

GREGORY BROUSSARD

REG NO. 21974 DATE: AUG 1, 2016

BOLTON & MENK Engineers & Surveyors

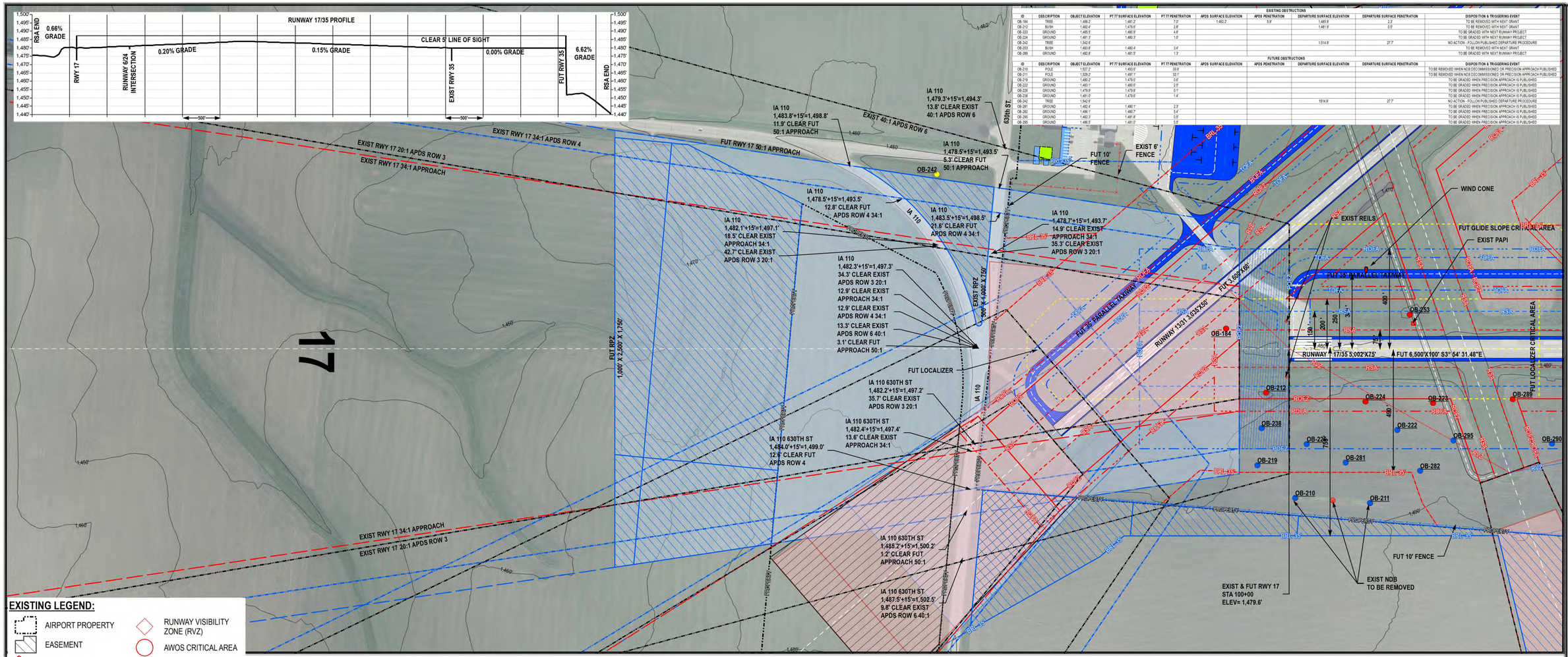
REVISIONS		
DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666

DATE: AUGUST 1, 2016

DESIGNED BY: MRU

FAR PART 77 IMAGINARY SURFACES



EXISTING LEGEND:

- AIRPORT PROPERTY
- EASEMENT
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- NAVAID CRITICAL AREAS
- RUNWAY VISIBILITY ZONE (RVZ)
- AWOS CRITICAL AREA
- BUILDING RESTRICTION LINE (BRL)
- AIRPORT ROTATING BEACON
- NON-DIRECTIONAL BEACON
- PAPI
- REIL
- WIND CONE
- FENCE (6')

FUTURE LEGEND:

- PROPERTY AQUSITION
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- PRECISION OBSTACLE FREE (ZONE)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAY VISIBILITY ZONE (RVZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- BUILDING RESTRICTION LINE (BRL)
- AIRCRAFT PAVEMENT
- VEHICLE PAVEMENT
- BUILDING
- LOCALIZER
- PAPI
- REIL
- FENCE (10')

FEET: 60, 40, 20, 0

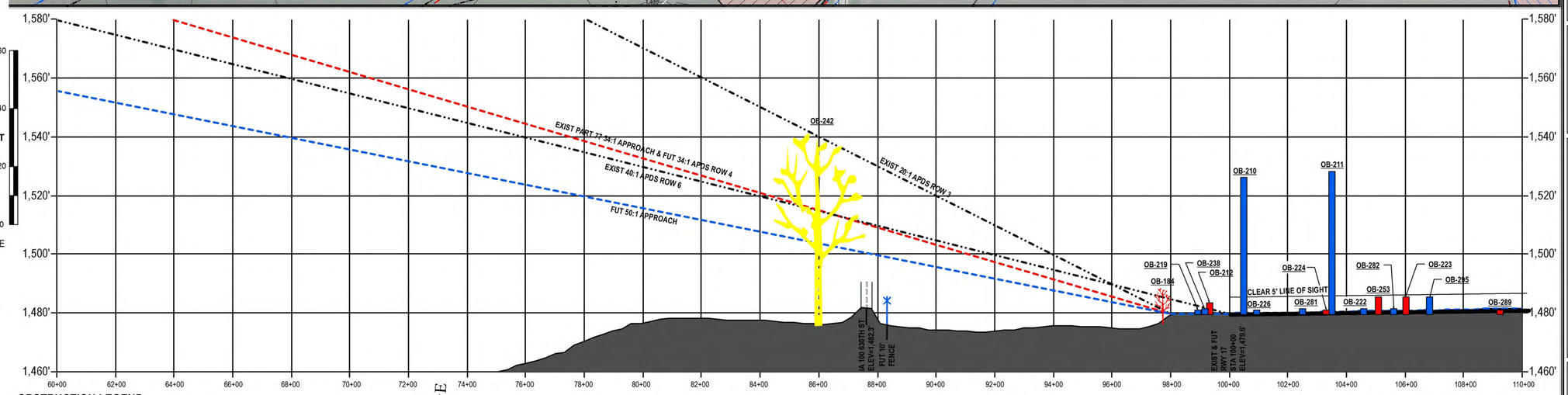
OBSTRUCTION LEGEND:

- EXIST PART 77/APDS
- FUT PART 77/APDS
- DEPARTURE SURFACE

MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC
DECLINATION EPOCH YEAR=2010

NOTE: NAVD88 VERTICAL CONTROL DATUM & NAD83 COORDINATE SYSTEM WAS USED FOR THIS ALP SET.

FEET: 0, 200, 400, 600



DATE OF OBSTRUCTION SURVEY: JUNE, 2015

Stormlake
Jump Right In!

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Gregory Brouward

GREGORY BROUSSARD — REG NO. 21974 — DATE AUG 1, 2016

BOLTON & MENK

REVISIONS

DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666
DATE: AUGUST 1, 2016
DESIGNED BY: MRU

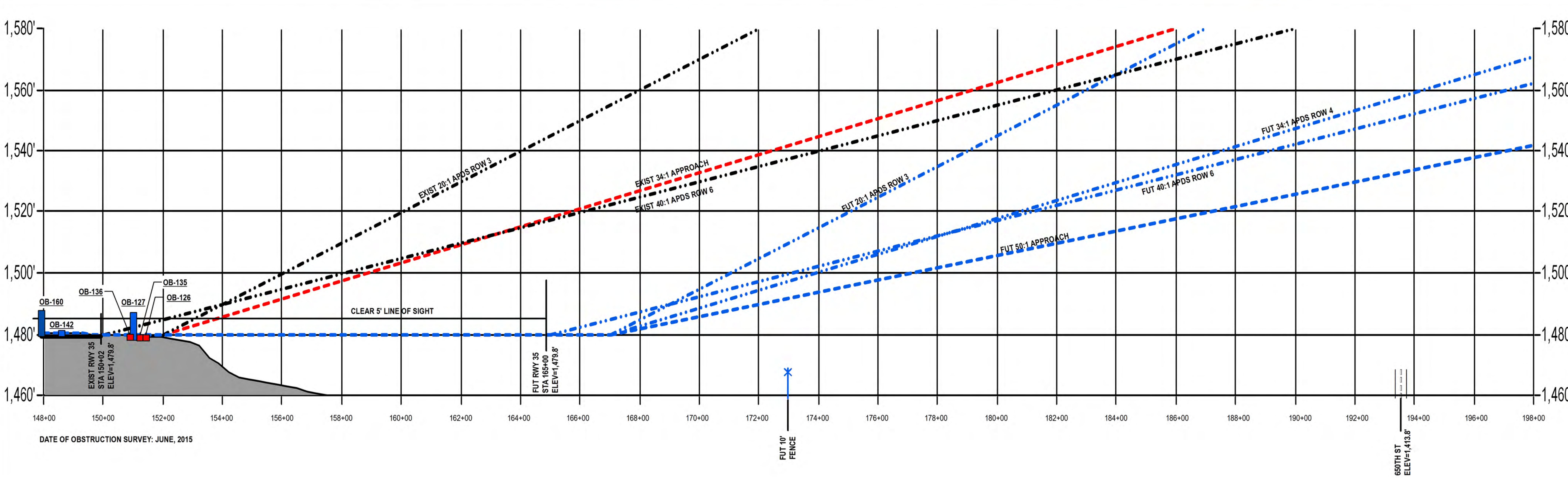
EXISTING & FUTURE RUNWAY 17 APPROACH PLAN & PROFILE

SHEET 4 OF 11

EXISTING OBSTRUCTIONS									
ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-126	GROUND	1,481.8'	1,479.8'	2.0'					TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-127	FENCE POST	1,489.2'					1,481.9'	0.5'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-135	BUSH	1,482.4'	1,479.9'	2.5'					TO BE REMOVED WITH NEXT GRANT
OB-136	BUSH	1,482.8'	1,479.9'	2.9'			1,482.3'	0.5'	TO BE REMOVED WITH NEXT GRANT

FUTURE OBSTRUCTIONS									
ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-127	FENCE POST	1,489.2'	1,479.9'	9.3'					TO BE REMOVED WHEN RUNWAY IS EXTENDED
OB-142	GROUND	1,481.4'	1,480.5'	0.9'					TO BE GRADED WHEN RUNWAY IS EXTENDED
OB-160	FENCE POST	1,488.8'	1,480.3'	8.5'					TO BE REMOVED WHEN RUNWAY IS EXTENDED

EXIST 40:1 APDS ROW 6
FUT 40:1 APDS ROW 6
FUT 50:1 APPROACH SURFACE
EXIST 34:1 APPROACH SURFACE
FUT 10' FENCE
FUT REILS
OB-160
OB-127
OB-158
OB-142
OB-126
OB-136
OB-135
35' FUT PARALLEL TAXIWAY
RUNWAY 17/35 5,002'X75' S3° 54' 31.48"E
FUT RWY 17/35 6,500'X100' S3° 54' 31.48"E
EXIST RPZ 500' X 1,000' X 750'
FUT LOCALIZER CRITICAL AREA
EXIST RWY 35 STA 150+02 ELEV=1,479.8'
EXIST REILS
FUT PAPI
FUT RWY 35 STA 165+00 ELEV=1,479.8'
FUT GLIDE SLOPE CRITICAL AREA
FUT RPZ 1,000' X 2,500' X 1,750'
FUT LOCALIZER
FUT MALSR
650th ST.
650TH ST 1,417.9'+15'=1,432.9' 154.1' CLEAR FUT APDS ROW 6 40:1
650TH ST 1,416.4'+15'=1,431.4' 260.9' CLEAR EXIST APDS ROW 3 20:1 173.3' CLEAR EXIST APPROACH 34:1 103.4' CLEAR FUT APPROACH 50:1
650TH ST 1,416.2'+15'=1,431.2' 129.1' CLEAR FUT APDS ROW 4 34:1
650TH ST 1,416.7'+15'=1,431.7' 184.4' CLEAR FUT APDS ROW 3 20:1
650TH ST 1,413.7'+15'=1,428.7' 259.0' CLEAR EXIST 184.1' CLEAR FUT APDS ROW 3 20:1
650TH ST 1,413.7'+15'=1,428.7' 173.4' CLEAR EXIST APPROACH 34:1
650TH ST 1,413.7'+15'=1,428.7' 135.1' CLEAR FUT APDS ROW 4 34:1
650TH ST 1,413.7'+15'=1,428.7' 104.3' CLEAR FUT APPROACH 50:1
650TH ST 1,413.7'+15'=1,428.7' 160.1' CLEAR EXIST 122.6' CLEAR FUT APPROACH 40:1
650TH ST 1,407.3'+15'=1,422.3' 187.8' CLEAR FUT APDS ROW 3 20:1
650TH ST 1,404.1'+15'=1,419.1' 136.4' CLEAR FUT APDS ROW 4 34:1
650TH ST 1,402.6'+15'=1,417.6' 266.4' CLEAR EXIST APDS ROW 3 20:1 182.4' CLEAR EXIST APPROACH 34:1 113.9' CLEAR FUT APPROACH 50:1
FUT 20:1 APDS ROW 3
FUT 34:1 APDS ROW 4
EXIST 20:1 APDS ROW 3
35
FEET
0
200
400
600
60
40
20
0
MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC DECLINATION EPOCH YEAR=2010
NOTE: NAVD88 VERTICAL CONTROL DATUM & NAD83 COORDINATE SYSTEM WAS USED FOR THIS ALP SET.



1,580'
1,560'
1,540'
1,520'
1,500'
1,480'
1,460'
EXIST 20:1 APDS ROW 3
EXIST 34:1 APPROACH
EXIST 40:1 APDS ROW 6
FUT 20:1 APDS ROW 3
FUT 34:1 APDS ROW 4
FUT 40:1 APDS ROW 6
FUT 50:1 APPROACH
CLEAR 5' LINE OF SIGHT
OB-160
OB-142
OB-136
OB-127
OB-135
OB-126
EXIST RWY 35 STA 150+02 ELEV=1,479.8'
FUT RWY 35 STA 165+00 ELEV=1,479.8'
FUT 10' FENCE
650TH ST ELEV=1,413.8'
148+00
150+00
152+00
154+00
156+00
158+00
160+00
162+00
164+00
166+00
168+00
170+00
172+00
174+00
176+00
178+00
180+00
182+00
184+00
186+00
188+00
190+00
192+00
194+00
196+00
198+00

DATE OF OBSTRUCTION SURVEY: JUNE, 2015

EXISTING LEGEND:

- AIRPORT PROPERTY
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- BUILDING RESTRICTION LINE (BRL)
- REIL
- FENCE (6')

FUTURE LEGEND:

- PROPERTY AQUSITION
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- PRECISION OBSTACLE FREE (ZONE)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- NAVAID CRITICAL AREAS
- BUILDING RESTRICTION LINE (BRL)
- AIRCRAFT PAVEMENT
- LOCALIZER
- PAPI
- REIL
- MALS
- RUNWAY ALIGNMENT INDICATOR LIGHT
- FENCE (10')

OBSTRUCTION LEGEND:

- EXISTING PART 77/APDS
- FUTURE PART 77/APDS

Storm Lake Jump Right In!

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

Gregory Broussard

GREGORY BROUSSARD

REG NO. 21974 DATE: AUG 1, 2016

BOLTON & MENK Engineers & Surveyors

REVISIONS		
DATE	BY	CHANGE

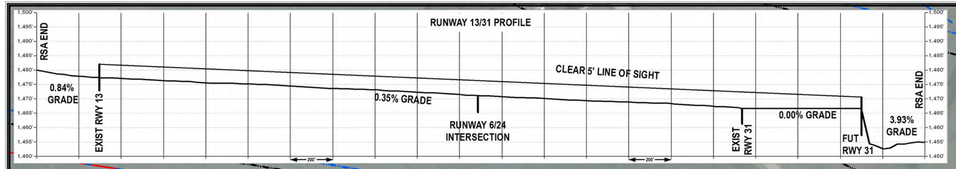
BOLTON & MENK, INC.

PROJECT NO: T51.109666

DATE: AUGUST 1, 2016

DESIGNED BY: MRU

EXISTING & FUTURE RUNWAY 35 APPROACH PLAN & PROFILE



EXISTING OBSTRUCTIONS

ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-001	PRIMARY ROAD	1,486.0'	1,488.5'	9.5'	1486.2	1.8'	1,491.5'	5.5'	THRESHOLD TO BE DISPLACED AN ADDITIONAL 210' TO CLEAR ROAD
OB-005	GROUND	1,479.5'	1,477.8'	1.0'					TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-006	GROUND	1,477.9'	1,477.2'	0.7'					TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-007	GROUND	1,482.7'					1,480.8'	0.1'	TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-009	GROUND	1,480.3'					1,479.8'	0.7'	TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-016	GROUND	1,476.8'	1,475.8'	1.0'					TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-020	GROUND	1,474.7'	1,473.9'	0.8'					TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-111	PRIMARY ROAD	1,498.9'					1,491.7'	15.1'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-119	GROUND	1,480.8'					1,480.5'	0.3'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-184	TREE	1,488.2'	1,474.8'	13.4'					TO BE REMOVED WITH NEXT GRANT
OB-191	TREE	1,545.2'	1,538.4'	6.8'			1,502.2'	43.0'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-192	BUILDING	1,515.9'					1,502.4'	13.5'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-193	TREE	1,529.4'					1,499.8'	29.6'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-194	TREE	1,553.8'	1,538.8'	15.0'			1,504.8'	49.2'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-200	TREE	1,555.0'	1,550.3'	4.7'			1,504.9'	50.1'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-232	TREE	1,558.3'					1,508.6'	51.7'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-233	TREE	1,560.9'					1,510.3'	50.6'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-251	PRIMARY ROAD	1,495.0'	1,487.4'	7.6'			1,484.8'	10.4'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES

FUTURE OBSTRUCTIONS

ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-001	PRIMARY ROAD	1,486.0'	1,488.5'	9.5'			1,496.1'	1.9'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-111	PRIMARY ROAD	1,498.9'					1,488.3'	10.8'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-191	TREE	1,545.2'	1,538.4'	6.8'			1,506.9'	38.5'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-192	BUILDING	1,515.9'					1,515.9'	8.8'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-193	TREE	1,529.4'					1,504.4'	25.0'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-194	TREE	1,553.8'	1,538.8'	15.0'			1,509.3'	44.5'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-200	TREE	1,555.0'	1,550.3'	4.7'			1,509.5'	45.5'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-232	TREE	1,558.3'					1,511.9'	47.0'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-233	TREE	1,560.9'					1,514.9'	46.0'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-234	TREE	1,563.7'					1,511.7'	52.0'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-235	TREE	1,570.5'					1,516.8'	53.7'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-251	PRIMARY ROAD	1,495.0'	1,487.4'	7.6'			1,489.3'	5.7'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES

EXISTING LEGEND:

- AIRPORT PROPERTY
- EASEMENT
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAY VISIBILITY ZONE (RVZ)
- BUILDING RESTRICTION LINE (BRL)
- NON-DIRECTIONAL BEACON
- FENCE (6')

FUTURE LEGEND:

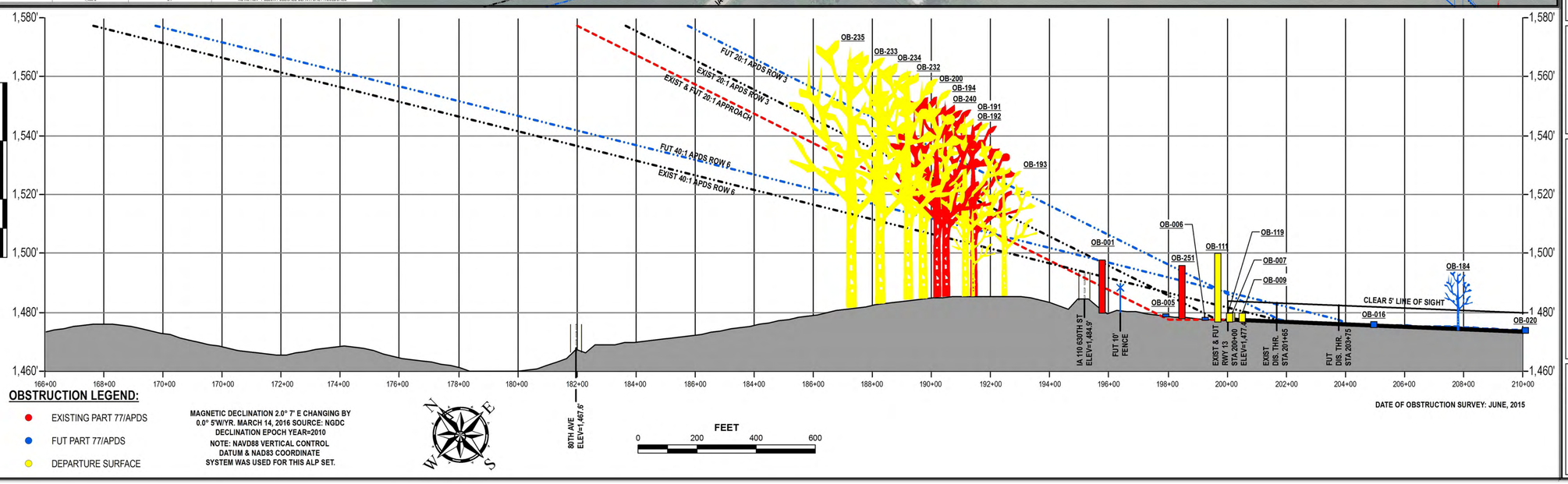
- PROPERTY AQUSITION
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAY VISIBILITY ZONE (RVZ)
- NAVAID CRITICAL AREAS
- TAXIWAY OBJECT FREE AREA (TOFA)
- BUILDING RESTRICTION LINE (BRL)
- AIRCRAFT PAVEMENT
- VEHICLE PAVEMENT
- BUILDING
- LOCALIZER
- PAPI
- REIL
- FENCE (10')

60 40 20 0 FEET

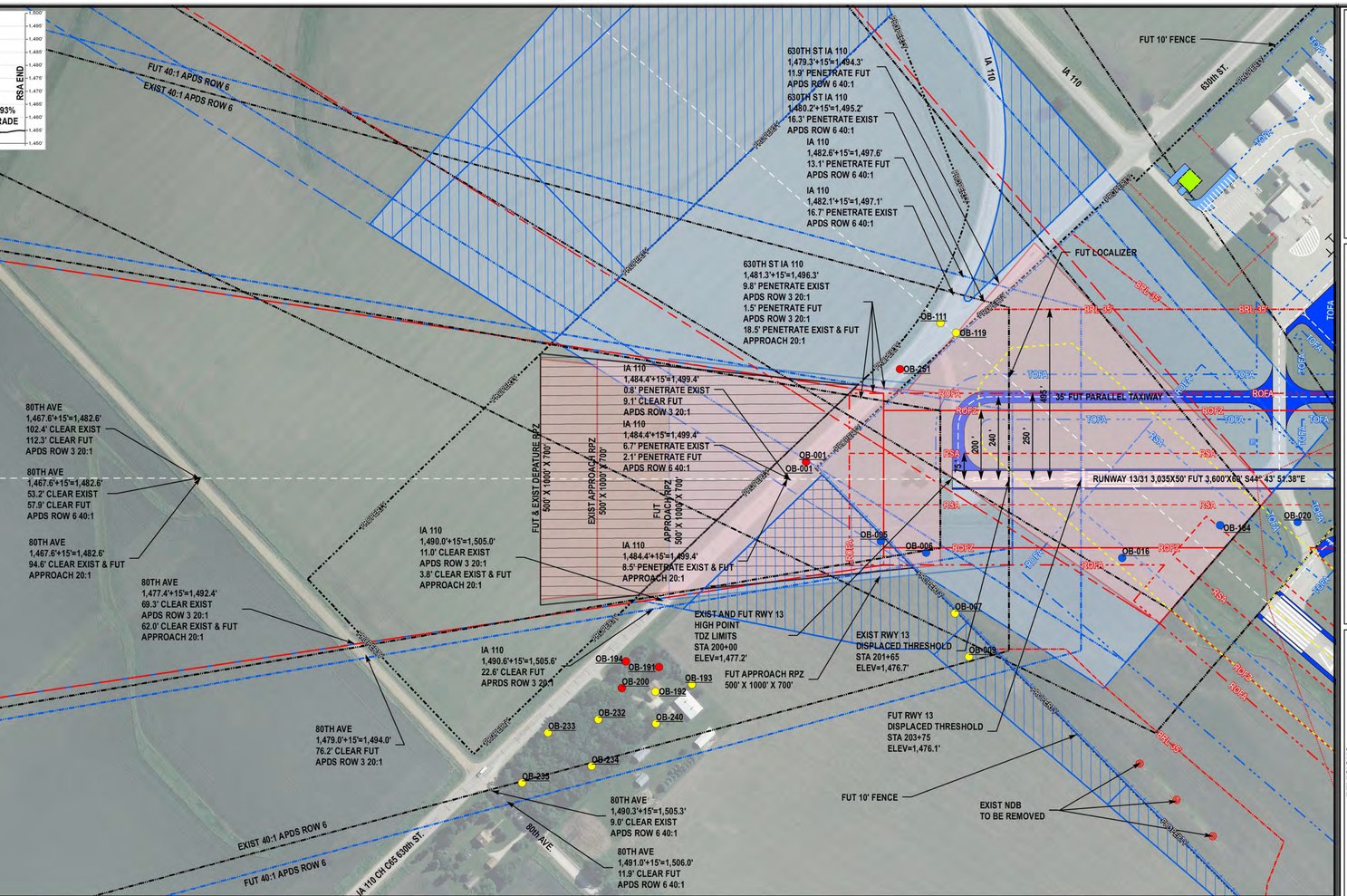
OBSTRUCTION LEGEND:

- EXISTING PART 77/APDS
- FUT PART 77/APDS
- DEPARTURE SURFACE

MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC
DECLINATION EPOCH YEAR=2010
NOTE: NAVD88 VERTICAL CONTROL DATUM & NAD83 COORDINATE SYSTEM WAS USED FOR THIS ALP SET.



DATE OF OBSTRUCTION SURVEY: JUNE, 2015



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Gregory Brouward

GREGORY BROUWARD — DATE: AUG 1, 2016 — REG NO. 21974

BOLTON & MENK Consulting Engineers & Surveyors

REVISIONS

DATE	BY	CHANGE

BOLTON & MENK, INC. — PROJECT NO: T51.109666 — DATE: AUGUST 1, 2016 — DESIGNED BY: MRJ

EXISTING & FUTURE RUNWAY 13 APPROACH PLAN & PROFILE

SHEET 6 OF 11

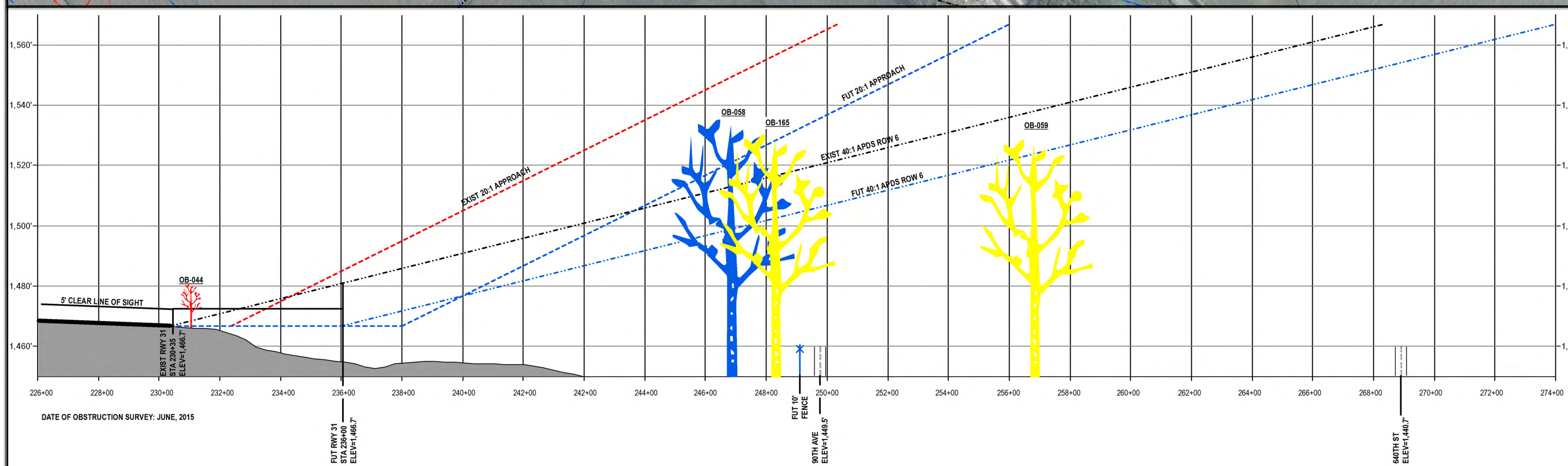
EXISTING OBSTRUCTIONS

ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-043	GROUND	1,469.0'	1,468.9'	0.1'					TO BE GRADED WITH NEXT RUNWAY PROJECT
OB-044	TREE	1,481.5'	1,466.7'	14.8'			1,468.2'	13.3	TO BE REMOVED WITH NEXT GRANT
OB-058	TREE	1,536.6'					1,513.3'	23.3'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-065	TREE	1,533.3'					1,516.0'	17.3'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES

FUTURE OBSTRUCTIONS

ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-058	TREE	1,536.6'	1,521.7'	14.9'			1,499.2'	37.4'	TO BE REMOVED WHEN RUNWAY EXTENSION IS CONSTRUCTED
OB-059	TREE	1,529.7'					1,524.3'	5.4'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES
OB-065	TREE	1,533.3'					1,501.9'	31.4'	NO ACTION - FOLLOW PUBLISHED DEPARTURE PROCEDURES

430TH AVE
1,458.7'+15'=1,473.7'
25.8' CLEAR EXIST
APDS ROW 6 40:1
430TH AVE
1,457.2'+15'=1,472.2'
16.1' CLEAR FUT
APDS ROW 6 40:1
EXIST 40:1 APDS ROW 6
FUT 40:1 APDS ROW 6
FUT 10' FENCE
OB-065
430TH AVE
1,454.6'+15'=1,469.6'
72.4' CLEAR EXIST
APDS ROW 3 20:1
71.5' CLEAR EXIST
APPROACH 20:1
EXIST RWY 31
FUT RWY 31
STA 236+00
ELEV= 1,466.7'
OB-058
430TH AVE
1,453.9'+15'=1,468.9'
48.9' CLEAR FUT
APDS ROW 3 20:1
47.6' CLEAR FUT
APPROACH 20:1
430TH AVE
1,449.5'+15'=1,464.5'
100.3' CLEAR EXIST
APPROACH & APDS ROW 3 20:1
72.0' CLEAR FUT
APPROACH & APDS ROW 3 20:1
430TH AVE
1,449.5'+15'=1,464.5'
56.2' CLEAR EXIST
APDS ROW 6 40:1
430TH AVE
1,449.5'+15'=1,464.5'
42.1' CLEAR FUT
APDS ROW 6 40:1
430TH AVE
1,449.3'+15'=1,464.3'
108.6' CLEAR FUT
APDS ROW 3 20:1
109.2' CLEAR FUT
APPROACH 20:1
430TH AVE
1,449.3'+15'=1,464.3'
132.6' CLEAR EXIST
APDS ROW 3 20:1
132.6' CLEAR EXIST
APPROACH 20:1
OB-044
FUT 35' PARALLEL TAXIWAY
FUT RWY 13/31
565' EXTENSION
EXIST RWY 13/31
OB-043
EXIT RPZ
500' X 1,000' X 700'
FUT RPZ
500' X 1,000' X 700'
CH M43 90th AVE
640th ST
FUT PAPI
FUT REILS
EXIST AWOS CRITICAL AREA
FUT 10' FENCE
OB-059
EXIST 20:1 APDS ROW 3
EXIST 20:1 APPROACH
FUT 20:1 APDS ROW 3
FUT 20:1 APPROACH
FEET
0
200
400
600
MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC DECLINATION EPOCH YEAR=2010
NOTE: NAVD88 VERTICAL CONTROL DATUM & NAD83 COORDINATE SYSTEM WAS USED FOR THIS ALP SET.
31



1,560'
1,540'
1,520'
1,500'
1,480'
1,460'
FUT 20:1 APPROACH
EXIST 20:1 APPROACH
EXIST 40:1 APDS ROW 6
FUT 40:1 APDS ROW 6
OB-058
OB-165
OB-059
OB-044
5' CLEAR LINE OF SIGHT
EXIST RWY 31
STA 230+35
ELEV=1,466.7'
226+00
228+00
230+00
232+00
234+00
236+00
238+00
240+00
242+00
244+00
246+00
248+00
250+00
252+00
254+00
256+00
258+00
260+00
262+00
264+00
266+00
268+00
270+00
272+00
274+00
FUT RWY 31
STA 236+00
ELEV=1,466.7'
FUT 10' FENCE
90TH AVE
ELEV=1,449.5'
640TH ST
ELEV=1,440.7'

DATE OF OBSTRUCTION SURVEY: JUNE, 2015

EXISTING LEGEND:

- AIRPORT PROPERTY
- EASEMENT
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAY VISIBILITY ZONE (RVZ)
- BUILDING RESTRICTION LINE (BRL)
- AWOS CRITICAL AREA
- FENCE (6')

FUTURE LEGEND:

- PROPERTY AQUSITION
- APPROACH SURFACE
- APPROACH DEPARTURE SURFACE (APDS)
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- RUNWAY VISIBILITY ZONE (RVZ)
- BUILDING RESTRICTION LINE (BRL)
- AIRCRAFT PAVEMENT
- PAPI
- REIL
- FENCE (10')

OBSTRUCTION LEGEND:

- EXIST PART 77/APDS
- FUT PART 77/APDS
- DEPARTURE SURFACE

Storm Lake Jump Right In!

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Gregory Broussard

GREGORY BROUSSARD

REG NO. 21974 DATE: AUG 1, 2016

REVISIONS		
DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666
DATE: AUGUST 1, 2016
DESIGNED BY: MRU

EXISTING & FUTURE RUNWAY 31 APPROACH PLAN & PROFILE

SHEET 7 OF 11

EXISTING OBSTRUCTIONS									
ID	DESCRIPTION	OBJECT ELEVATION	PT 77 SURFACE ELEVATION	PT 77 PENETRATION	APDS SURFACE ELEVATION	APDS PENETRATION	DEPARTURE SURFACE ELEVATION	DEPARTURE SURFACE PENETRATION	DISPOSITION & TRIGGERING EVENT
OB-036	BUSH	1,473.7'	1,472.6'	1.1'					TO BE REMOVED WITH NEXT GRANT

EXISTING LEGEND:

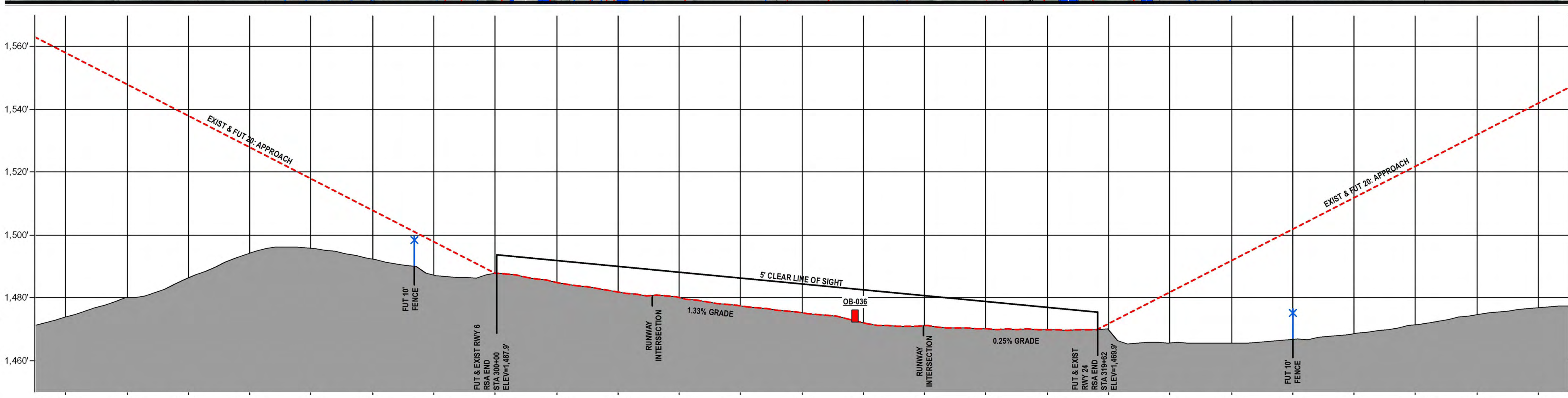
	AIRPORT PROPERTY		AWOS CRITICAL AREA
	APPROACH SURFACE		AIRPORT REFERENCE POINT (ARP)
	APPROACH DEPATURE SURFACE (APDS)		AIRPORT ROTATING BEACON
	RUNWAY PROTECTION ZONE (RPZ)		AWOS
	RUNWAY SAFETY AREA (RSA)		NON-DIRECTIONAL BEACON
	RUNWAY OBJECT FREE AREA (ROFA)		PAPI
	RUNWAY OBSTACLE FREE ZONE (ROFZ)		REIL
	BUILDING RESTRICTION LINE (BRL)		WIND CONE
	RUNWAY VISIBILITY ZONE (RVZ)		FENCE (6')

FUTURE LEGEND:

	PROPERTY AQUSITION		BUILDING RESTRICTION LINE (BRL)
	APPROACH SURFACE		AIRPORT REFERENCE POINT (ARP)
	APPROACH DEPARTURE SURFACE (APDS)		AIRCRAFT PAVEMENT
	RUNWAY SAFETY AREA (RSA)		TURF RUNWAY
	RUNWAY OBJECT FREE AREA (ROFA)		VEHICLE PAVEMENT
	RUNWAY VISIBILITY ZONE (RVZ)		BUILDING
	NAVAID CRITICAL AREAS		PAPI
			FENCE (10')

OBSTRUCTION LEGEND:

● EXIST PART 77/APDS



DATE OF OBSTRUCTION SURVEY: JUNE, 2015

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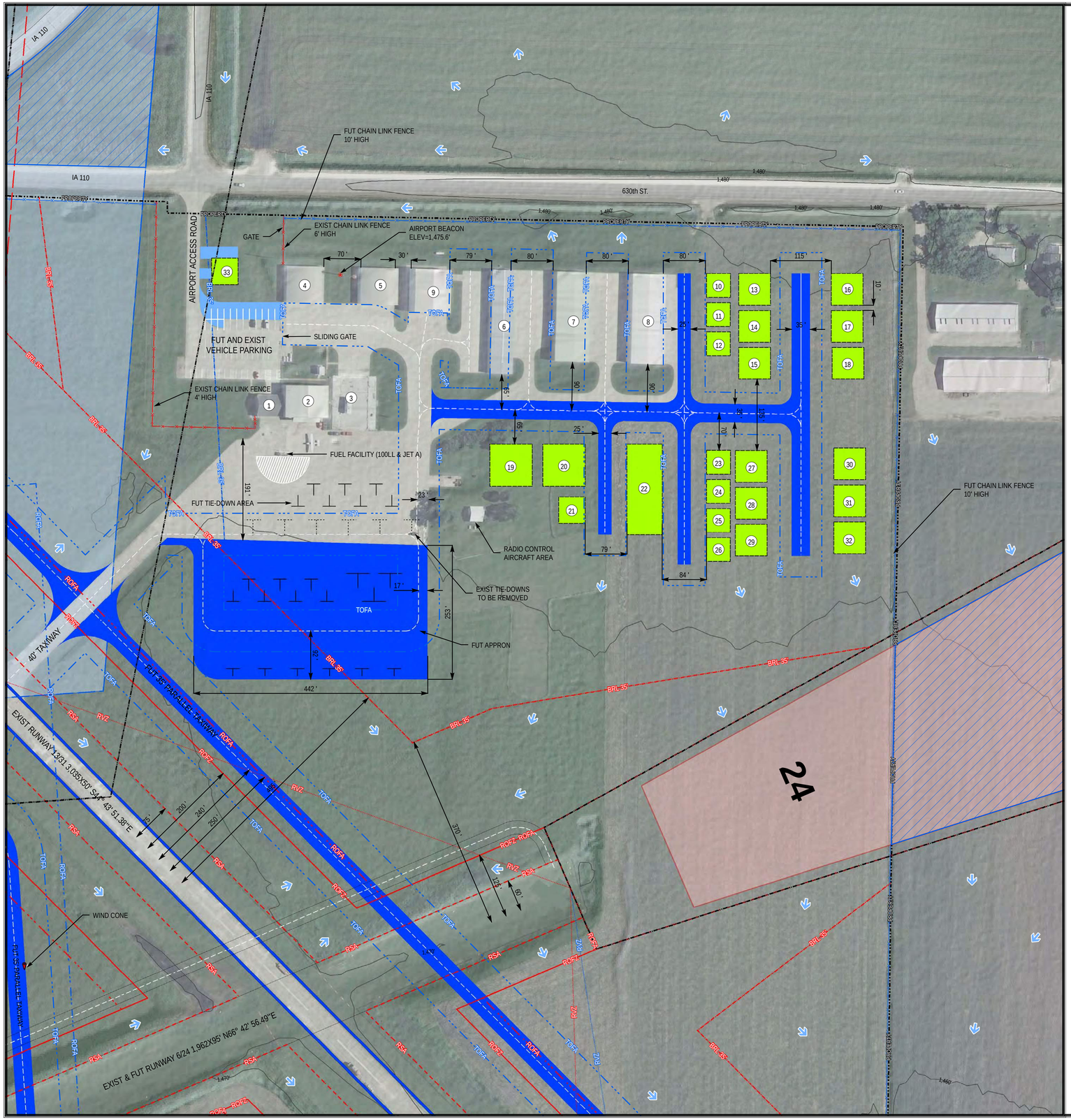
BOLTON & MENK Engineers & Surveyors

REVISIONS		
DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666
DATE: AUGUST 1, 2016
DESIGNED BY: MRU

EXISTING & FUTURE RUNWAY 6/24 APPROACH PLAN & PROFILE



EXISTING BUILDING TABLE

ID	EST. TOP ELEV.	DESCRIPTION	DISPOSITION
1	1,490'	A/D BUILDING	TO REMAIN
2	1,495'	FBO OFFICE	TO REMAIN
3	1,505'	MAINTENANCE EQUIPMENT STORAGE	TO REMAIN
4	1,493'	4-UNIT CAROUSEL HANGAR	TO REMAIN
5	1,493'	4-UNIT CAROUSEL HANGAR	TO REMAIN
6	1,494'	6-UNIT T-HANGAR	TO REMAIN
7	1,496'	6-UNIT NESTED T-HANGAR	TO REMAIN
8	1,497'	6-UNIT NESTED T-HANGAR	TO REMAIN
9	1,503'	PRIVATE SINGLE UNIT HANGAR	TO REMAIN

FUTURE BUILDING TABLE

ID	EST. TOP ELEV.	DESCRIPTION	DISPOSITION
10	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
11	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
12	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
13	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
14	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
15	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
16	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
17	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
18	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
19	1,518'	FUTURE 80' X 80' HANGAR	TO BE CONSTRUCTED
20	1,518'	FUTURE 80' X 80' HANGAR	TO BE CONSTRUCTED
21	1,518'	FUTURE 50' X 50' HANGAR	TO BE CONSTRUCTED
22	1,513'	FUTURE 6-UNIT 67' X 171' HANGAR	TO BE CONSTRUCTED
23	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
24	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
25	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
26	1,513'	FUTURE 45' X 45' HANGAR	TO BE CONSTRUCTED
27	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
28	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
29	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
30	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
31	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
32	1,518'	FUTURE 60' X 60' HANGAR	TO BE CONSTRUCTED
33	1,518'	FUTURE SRE BUILDING	TO BE CONSTRUCTED

EXISTING LEGEND:

- AIRPORT PROPERTY
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAY OBJECT FREE AREA (ROFA)
- RUNWAY VISIBILITY ZONE (RVZ)
- BUILDING RESTRICTION LINE (BRL)
- AIRPORT BEACON
- WIND CONE
- FENCE (6')
- TIE-DOWN
- AIRPORT DRAINAGE

FUTURE LEGEND:

- BUILDING
- VEHICLE PAVEMENT
- AIRCRAFT PAVEMENT
- RUNWAY PROTECTION ZONE (RPZ)
- RUNWAY SAFETY AREA (RSA)
- RUNWAY OBSTACLE FREE ZONE (ROFZ)
- RUNWAU OBJECT FREE AREA (ROFA)
- RUNWAY VISIBILITY ZONE (RVZ)
- TAXIWAY OBJECT FREE AREA (TOFA)
- BUILDING RESTRICTION LINE (BRL)
- FENCE (10')
- TIE-DOWN

N W E S

FEET

0 100 200 300

MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC DECLINATION EPOCH YEAR=2010

Stormlake Jump Right In!

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION, OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

GREGORY BROUSSARD — REG NO. 21974 — DATE: AUG 1 2016

BOLTON & MENK, INC.

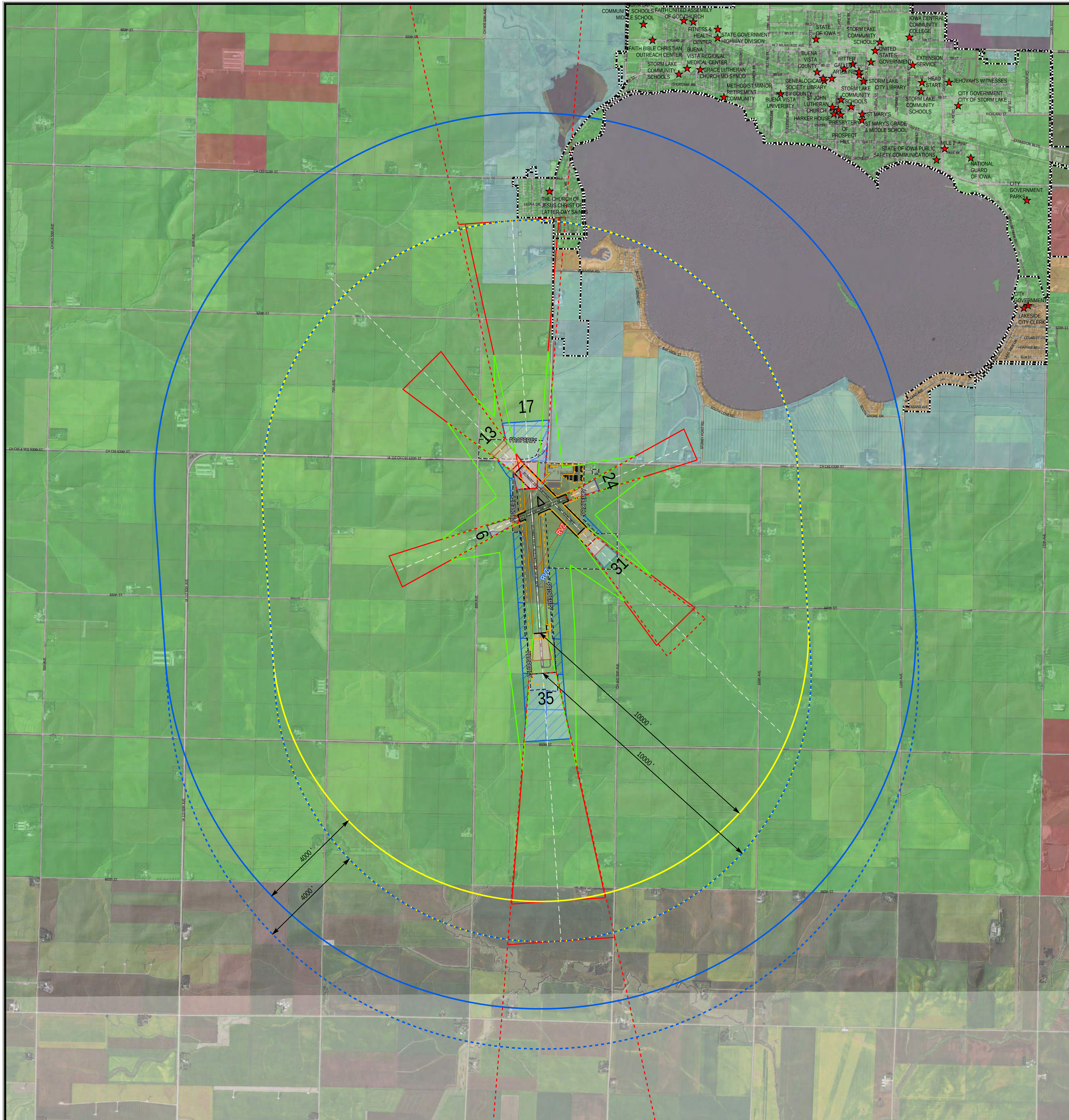
REVISIONS

DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: 751.109666
DATE: AUGUST 1, 2016
DESIGNED BY: MRU

EXISTING & FUTURE BUILDING AREA PLAN

SHEET 9 OF 11



REVISED ORDINANCE OF THE CITY OF STORM LAKE, COUNTY OF BUENA VISTA.

c. Use Restrictions

Notwithstanding any other provisions of Section 550, no use may be made of land or water within the City of Storm Lake, Buena Vista County, or Sac County in such a manner as to interfere with the operation of any airborne aircraft. The following special requirements shall apply to each permitted use:

1. All lights or illumination used in conjunction with street, parking signs or uses of land structures shall be arranged and operated in such a manner that is not misleading or dangerous to aircraft operating from the Storm Lake Municipal Airport or in the vicinity thereof.

2. No operations from any use shall produce smoke, glare or other visual hazards within three (3) statute miles of any useable runway of the Storm Lake Municipal Airport.

3. No operations from any use in the City of Storm Lake, Buena Vista County or Sac County, shall produce electronic interference with navigation signals or radio communication between airport and aircraft.

LAND USE LEGEND:

- PRIME AGRICULTURE A-1
- LIMITED AGRICULTURE A-2
- MOBILE HOME MH
- INDUSTRIAL I-1
- RESIDENTIAL SINGLE FAMILY R-1
- RESIDENTIAL MULTIFAMILY R-2
- SPECIAL EXCEPTION

SOURCE: BUENA VISTA COUNTY LAND USE

EXISTING LEGEND:

- INSTITUTIONS
- CITY OF STORM LAKE
- AIRPORT PROPERTY
- CROP RESTRICTION LINE
- RUNWAY VISIBILITY ZONE (RVZ)
- A -RUNWAY PROTECTION ZONE (RPZ)
- PRIMARY SURFACE
- B-RUNWAY APPROACH SURFACE
- C-TRANSITIONAL SURFACE
- D-HORIZONTAL SURFACE
- E-CONICAL SURFACE

FUTURE LEGEND:

- PROPERTY AQUSITION
- RUNWAY VISIBILITY ZONE (RVZ)
- CROP RESTRICTION LINE
- AIRCRAFT PAVEMENT
- VEHICLE PAVEMENT
- BUILDING
- A - RUNWAY PROTECTION ZONE (RPZ)
- PRIMARY SURFACE
- B-RUNWAY APPROACH SURFACE
- C-TRANSITIONAL SURFACE
- D-HORIZONTAL SURFACE
- E-CONICAL SURFACE

N W E S

FEET

0 2,000 4,000 6,000

MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR. MARCH 14, 2016 SOURCE: NGDC DECLINATION EPOCH YEAR=2010

Storm Lake Jump Right In!

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Gregory Broussard

GREGORY BROUSSARD

REG NO. 21974 DATE: AUG 1, 2016

BOLTON & MENK Engineers & Surveyors

REVISIONS		
DATE	BY	CHANGE

BOLTON & MENK, INC.
PROJECT NO: T51.109666
DATE: AUGUST 1, 2016
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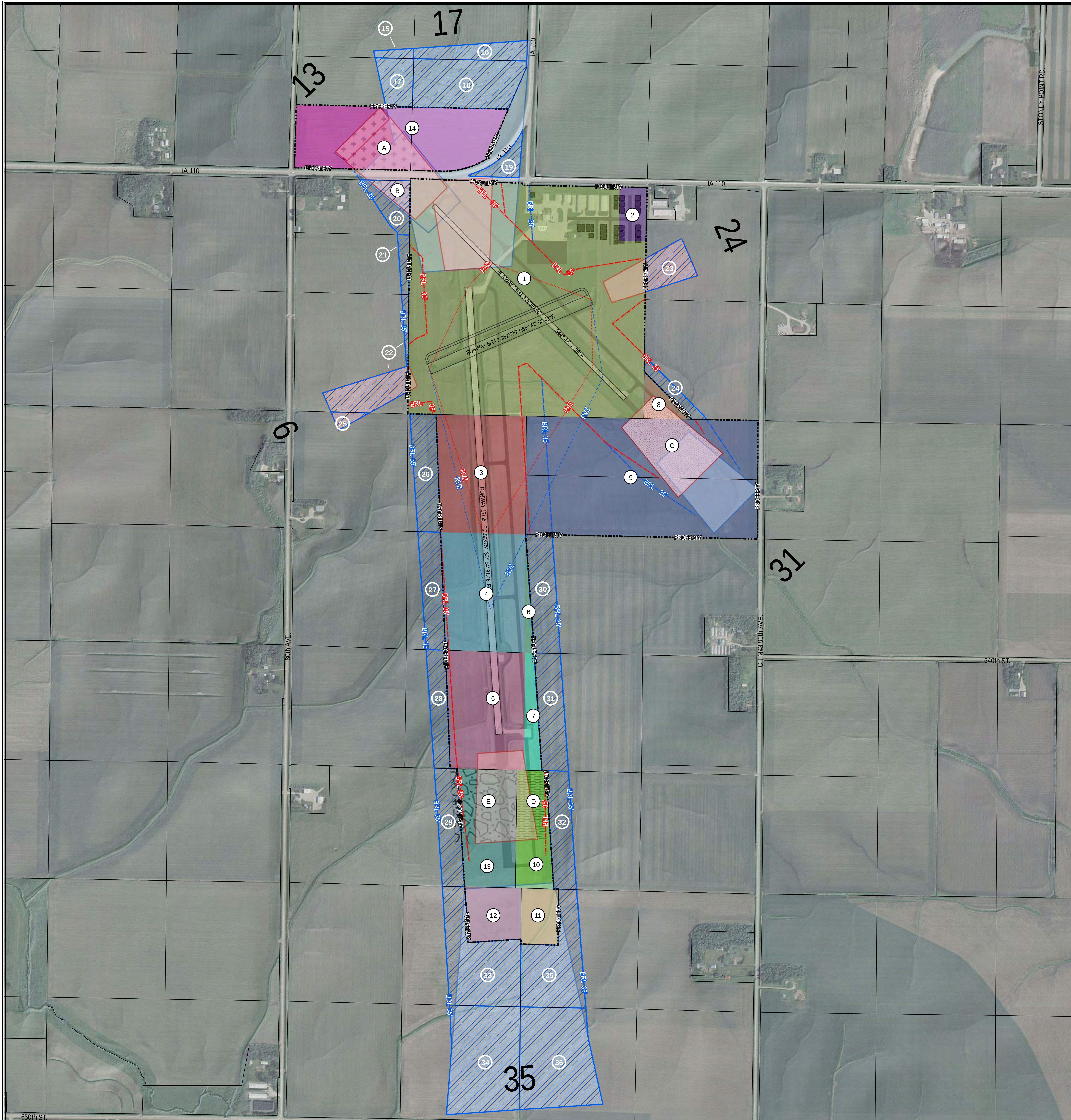
LAND USE & ZONING

SHEET 10 OF 11



EXISTING PROPERTY TABLE									
PARCEL	DESCRIPTION	APPROXIMATE SIZE (ACRES)	GRANTOR	AIP/STATE PROJECT #	COUNTY RECORD BOOK	COUNTY RECORD PAGE	ACQUISITION DATE	CONVEYANCE INSTRUMENT	NOTES
1	FEE	155.72		LOCAL				WARRANTY DEED	
2	FEE	4.28	BECKER MANUFACTURING COMPANY	LOCAL	50	446	6/20/1978	WARRANTY DEED	
3	FEE	29.51	FOELL, VERNON, RAUSCH, DORRIS & RODNEY	LOCAL, STATE (PROJ NO. 405-76-11-S) & FEDERAL (FAA PROJ NO. 5-19-0088-01)	49	477	1/31/1977	WARRANTY DEED	
4	FEE	27.59	FOELL, VERNON, RAUSCH, DORRIS & RODNEY	LOCAL, STATE (PROJ NO. 405-76-11-S) & FEDERAL (FAA PROJ NO. 5-19-0088-01)	49	476	1/31/1977	WARRANTY DEED	
5	FEE	25.73	FOELL, VERNON, RAUSCH, DORRIS & RODNEY	LOCAL, STATE (PROJ NO. 405-76-11-S) & FEDERAL (FAA PROJ NO. 5-19-0088-01)	49	475	1/31/1977	WARRANTY DEED	
6	FEE	1.66	CARLSON, IVERSON, MOVALL, & MOHR	LOCAL, STATE (PROJ NO. 17-0088-0007) FEE TITLE ACQUISITION OF FORMER EASEMENT	21	949	1994	WARRANTY DEED	
7	FEE	4.79	CARLSON, IVERSON, MOVALL, & MOHR	LOCAL, STATE (PROJ NO. 17-0088-0007)	21	950	1994	WARRANTY DEED	
8	FEE	3.19	LAYTON & REBECCA ZYLSTRA	3-19-0088-07	12	0099	1/12/2012	WARRANTY DEED	
9	FEE	78.47	REBECCA ZYLSTRA	3-19-0088-08	12	0098	1/13/2012	WARRANTY DEED	
10	FEE	11.37	ERVIN & SHIRLEY PICKHINKE	3-19-0088-07	12	1291	1/13/2012	WARRANTY DEED	
11	FEE	5.95	ROBERT & CANDACE MADICH	3-19-0088-07	12	1004	2/9/2012	WARRANTY DEED	
12	FEE	8.31	LARRY & SHERYL CARLSON	3-19-0088-09	13	5021	2013	WARRANTY DEED	
13	FEE	18.72	NICHOLAS & KIM FOELL	3-19-0088-07	12	1295	2013	WARRANTY DEED	
14	FEE	32.60	ANDREW SWANSON	3-19-0088-09	13	2133	2013	WARRANTY DEED	
A	EASEMENT	8.62	ANDREW SWANSON	LOCAL & STATE (PROJ NO. 17-0088-0003)	13	2133	1984	CLEAR ZONE EASEMENT	SEE NOTE 7
B	EASEMENT	1.73	WILLIAM P & MARY A KESTEL	LOCAL & STATE (PROJ NO. 17-0088-0003)	28	670	1984	CLEAR ZONE EASEMENT	
C	EASEMENT	15.14	CITY OF STORM LAKE	LOCAL & STATE (PROJ NO. 17-0088-0003)	12	98	1994	CLEAR ZONE EASEMENT	SEE NOTE 4
D	EASEMENT	5.12	CITY OF STORM LAKE	LOCAL & STATE (PROJ NO. 17-0088-0007)	12	1291	1994	CLEAR ZONE EASEMENT	SEE NOTE 5
E	EASEMENT	13.27	CITY OF STORM LAKE	LOCAL & STATE (PROJ NO. 17-0088-0007)	12	1295	1994	CLEAR ZONE EASEMENT	SEE NOTE 6
TOTAL FEE:		451.77							
TOTAL EASEMENT:		43.88							
TOTAL:		407.89							

FUTURE PROPERTY TABLE					
PARCEL	DESCRIPTION	APPROXIMATE SIZE (ACRES)	GRANTOR	JUSTIFICATION	ACQUISITION DATE
15	FEE	0.96	SWANSON RICHARD P	RUNWAY 17 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
16	FEE	4.98	SWANSON RICHARD P	RUNWAY 17 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
17	FEE	4.51	SWANSON ANDREW J	RUNWAY 17 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
18	FEE	14.67	SWANSON ANDREW J	RUNWAY 17 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
19	FEE	2.51	RIGHT OF WAY	RUNWAY 17 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
20	FEE	4.91	KESTEL WILLIAM P REV TRUST	RUNWAY 13/31 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
21	FEE	1.65	KESTEL WILLIAM P REV TRUST	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
22	FEE	7.62	KESTEL WILLIAM P REV TRUST	RUNWAY 6 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
23	FEE	4.86	ZYLSTRA LAYTON	RUNWAY 24 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
24	FEE	2.51	ZYLSTRA LAYTON	RUNWAY 13/31 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
25	FEE	0.98	FOELL RICHARD A	RUNWAY 6 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
26	FEE	8.25	FOELL RICHARD A	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
27	FEE	7.11	FOELL RICHARD A	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
28	FEE	5.97	FOELL RICHARD A	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
29	FEE	7.54	FOELL NICHOLAS RICHARD	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
30	FEE	9.00	PICKHINKE ERVIN S	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
31	FEE	8.87	PICKHINKE ERVIN S	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
32	FEE	7.60	PICKHINKE ERVIN S	RUNWAY 17/35 BUILDING RESTRICITON LINE ACQUSITION	TO BE ACQUIRED
33	FEE	17.13	CARLSON LARRY G	RUNWAY 35 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
34	FEE	21.27	CARLSON LARRY G	RUNWAY 35 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
35	FEE	14.49	MADICH CANDACE	RUNWAY 35 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
36	FEE	20.86	MADICH CANDACE	RUNWAY 35 PROTECTION ZONE ACQUSITION	TO BE ACQUIRED
TOTAL:		157.39			

NOTES:

1. PARCEL 8 IS REFERENCED AS “E” ON THE ACQUISITION PLAT.
2. PARCEL 9 IS REFERENCED AS “F” ON THE ACQUISITION PLAT.
3. PARCEL 11 IS REFERENCED AS “C” ON THE ACQUISITION PLAT.
4. EASEMENT REFERENCED AS PARCEL C (1994) IS NOW PART OF PARCEL 9 THAT WERE ACQUIRED IN FEE (2012).
5. EASEMENT REFERENCED AS PARCEL D IS NOW PART OF PARCEL 10 THAT WAS ACQUIRED IN FEE (2012).
6. EASEMENT REFERENCED AS PARCEL E IS NOW PART OF PARCEL 13 THAT WAS ACQUIRED IN FEE (2012).
7. EASEMENT A IS NOW PART OF PARCEL 14 THAT WAS ACQUIRED IN EASEMENT – (SURFACE & OVERHEAD) (2013).

EXISTING LEGEND:

- AIRPORT PROPERTY
- PARCELS
- RUNWAY PROTECTION ZONE (RPZ)
- BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)

FUTURE LEGEND:

- FUTURE PROPERTY AQUSITION
- RUNWAY PROTECTION ZONE (RPZ)
- BUILDING RESTRICTION LINE (BRL)
- RUNWAY VISIBILITY ZONE (RVZ)

PROPERTY LEGEND:

1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, A, B, C, D, E

N E S W

FEET 0 600 1,200 1,800

MAGNETIC DECLINATION 2.0° 7' E CHANGING BY 0.0° 5'W/YR, MARCH 14, 2016 SOURCE: NGDC DECLINATION EPOCH YEAR=2010

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AIRPORT PROPERTY INVENTORY MAP