

Airport Master Plan Update

Lake Wales Municipal Airport



Introductions

Project Team

Amanda Kirby
*X07 Airport
Manager*

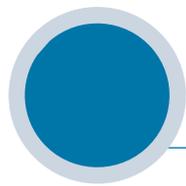
Wilbur
Mathurin, PE
*Project
Manager*



Plan Process

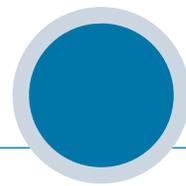


Plan Process



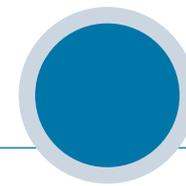
Kickoff Meeting Oct.5.2020

- Master Plan Overview
- Master Plan Process
- Schedule



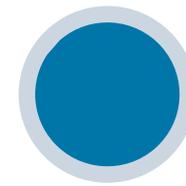
TAC Meeting 1 (April. 20.2021)

- Review Existing Conditions
- Review Aviation Forecast
- Facility Requirements
- Public Questionnaire



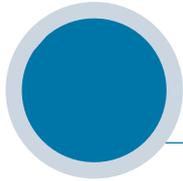
TAC Meeting 2 (Sep. 13.2021)

- Alternatives



TAC Meeting 3 (Feb.7.2022)

- Alternative Selection
- ALP update
- CIP



Final Meeting

June.6.2022

- Review AMPU and ALP
- Future projects
- Paramotor operating area

Master Plan Overview

What is an Airport Master Plan?

- Blueprint for long-term development
 - 20-year Strategic Development Vision
- Collaborative Effort
- Required by FAA and FDOT



Master Plan Key Areas of Focus

- Additional Hangar Development – locations and types
- Airfield Access points/security gates for Tenants
- Safety between various user groups
- Master Stormwater Plan – will follow master plan study



Approved FAA Forecast



Aviation Activity Forecasts



Summary of Activity Forecasts

	2020	2025	2030	2040
Based Aircraft				
Single-Engine	12	14	15	19
Multi-Engine (piston & turboprop)	1	1	1	2
Jet	0	0	0	0
Rotorcraft	2	2	3	3
Other (gliders, balloons, etc.)	3	4	4	5
Total	18	21	23	29
Operations				
Local	14,053	15,366	16,553	19,211
Itinerant	5,822	6,366	6,858	7,959
Military	201	219	236	274
Total	20,075	21,951	23,647	27,444
Peak Activity				
Peak Month Operations	1,870	2,045	2,203	2,557
Average Day Operations	62	68	73	85
Peak Hour Operations	9	10	11	13

Source: Hoyle Tanner, 2021



U.S. Department
of Transportation
**Federal Aviation
Administration**

ORLANDO AIRPORTS DISTRICT OFFICE
8427 SouthPark Circle, Suite 524
Orlando, Florida 32819
Phone: (407) 487-7220 Fax: (407) 487-7135

October 25, 2021

Ms. Amanda Kirby, Airport Manager
Lake Wales Municipal Airport
City of Lake Wales
450 South Airport Road
Lake Wales, FL 33859-1320

Dear Ms. Kirby:

RE: Lake Wales Municipal Airport (X07)
Approval of Forecast of Aviation Activity for Master Plan Update

This letter responds to your submittal of the Aviation Forecasts for the Master Plan Update for Lake Wales Municipal Airport dated July 2021. The based aircraft and operations forecasts shown in Table 4-13 of the report are approved to be used in master planning efforts. Please keep in mind that this forecast was prepared at the same time as the evolving impacts of the COVID-19 public health emergency. Forecast approval is based on the methodology, data, and conclusions at the time the document was prepared. However, consideration of the impacts of the COVID-19 public health emergency on aviation activity is warranted to acknowledge the reduced confidence in growth projections using currently-available data.

Accordingly, FAA approval of this forecast does not constitute justification for future projects. Justification for future projects will be made based on activity levels at the time the project is requested for development. Documentation of actual activity levels meeting planning activity levels will be necessary to justify AIP funding for eligible projects.

If you have any questions, please feel free to contact me at (407) 487-7231.

Sincerely,

MARISOL C ELLIOTT
Digitally signed by
MARISOL C ELLIOTT
Date: 2021.10.25
14:05:09 -0400

Marisol C. Elliott
Community Planner

cc: Wendy Sands, FDOT/1
Wilbur J. Mathurin, PE, Hoyle Tanner

Airport Layout Plan



ULTIMATE ALP

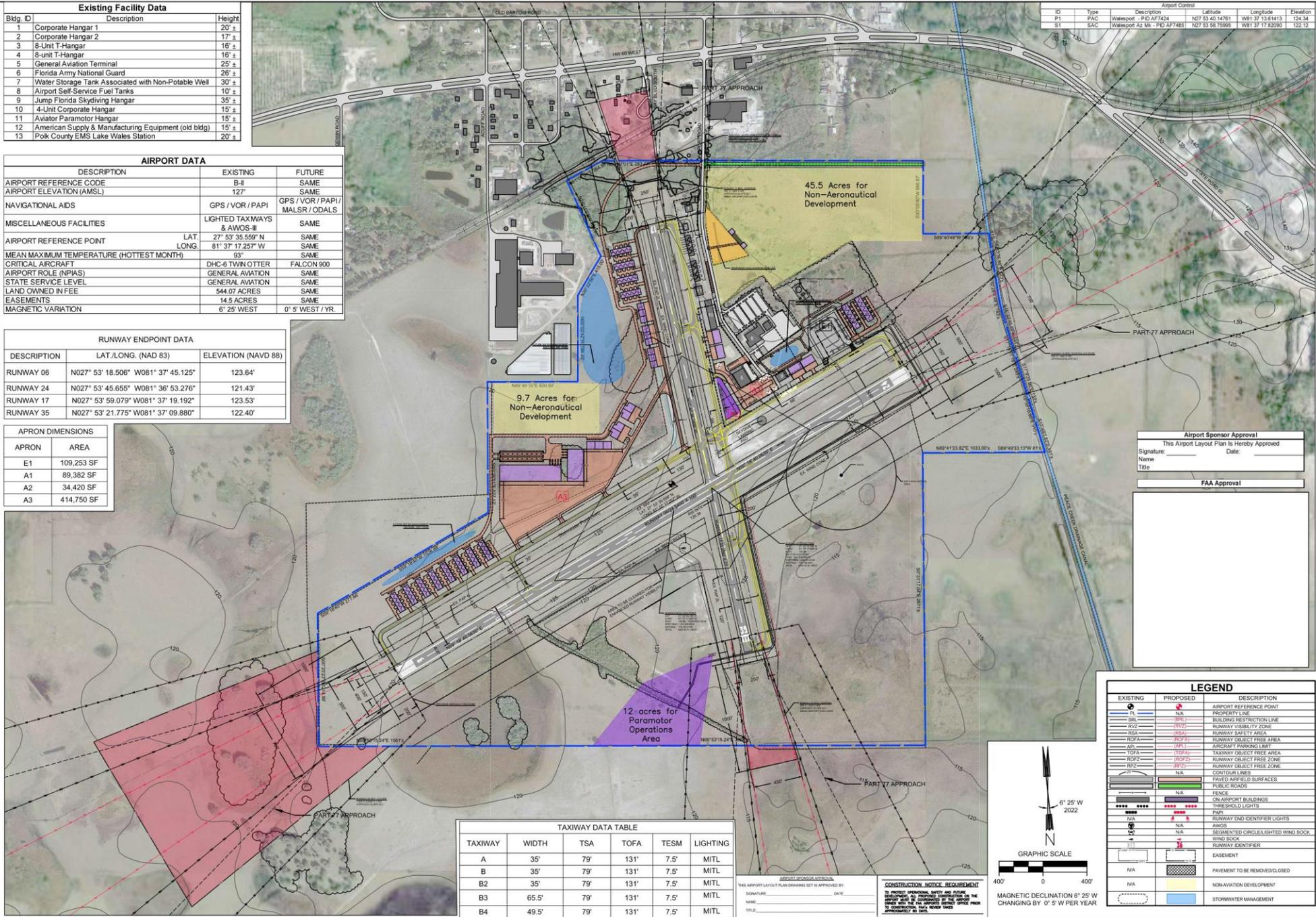
Bldg. ID	Description	Height
1	Corporate Hangar 1	20' ±
2	Corporate Hangar 2	17' ±
3	8-Unit T-Hangar	16' ±
4	8-Unit T-Hangar	16' ±
5	General Aviation Terminal	25' ±
6	Florida Army National Guard	26' ±
7	Water Storage Tank Associated with Non-Potable Well	30' ±
8	Airport Self-Service Fuel Tanks	10' ±
9	Jump Florida Skydiving Hangar	35' ±
10	4-Unit Corporate Hangar	15' ±
11	Aviator Paramotor Hangar	15' ±
12	American Supply & Manufacturing Equipment (old bldg)	15' ±
13	Polk County EMS Lake Wales Station	20' ±

DESCRIPTION	EXISTING	FUTURE
AIRPORT REFERENCE CODE	B-II	SAME
AIRPORT ELEVATION (AMSL)	127'	SAME
NAVIGATIONAL AIDS	GPS / VOR / PAPI	GPS / VOR / PAPI / MALS / ODALS
MISCELLANEOUS FACILITIES	LIGHTED TAXWAYS & AVIOS-II	SAME
AIRPORT REFERENCE POINT	LAT. 27° 53' 35.559" N LONG. 81° 37' 17.257" W	SAME
MEAN MAXIMUM TEMPERATURE (HOTTEST MONTH)	89°	SAME
CRITICAL AIRCRAFT	DHC-6 TWIN OTTER	FALCON 900
AIRPORT ROLE (NPIAS)	GENERAL AVIATION	SAME
STATE SERVICE LEVEL	GENERAL AVIATION	SAME
LAND OWNED IN FEE	544.07 ACRES	SAME
EASEMENTS	14.5 ACRES	SAME
MAGNETIC VARIATION	6° 25' WEST	0° 5' WEST / YR.

RUNWAY ENDPOINT DATA		
DESCRIPTION	LAT./LONG. (NAD 83)	ELEVATION (NAVD 88)
RUNWAY 06	N027° 53' 18.506" W081° 37' 45.125"	123.64'
RUNWAY 24	N027° 53' 45.655" W081° 36' 53.276"	121.43'
RUNWAY 17	N027° 53' 59.079" W081° 37' 19.192"	123.53'
RUNWAY 35	N027° 53' 21.775" W081° 37' 09.880"	122.40'

APRON DIMENSIONS	
APRON	AREA
E1	109,253 SF
A1	89,382 SF
A2	34,420 SF
A3	414,750 SF

TAXIWAY DATA TABLE					
TAXIWAY	WIDTH	TSA	TOFA	TESM	LIGHTING
A	35'	79'	131'	7.5'	MITL
B	35'	79'	131'	7.5'	MITL
B2	35'	79'	131'	7.5'	MITL
B3	65.5'	79'	131'	7.5'	MITL
B4	49.5'	79'	131'	7.5'	MITL

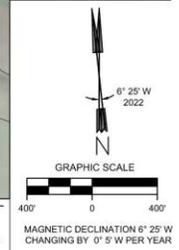


ID	Type	Description	Latitude	Longitude	Elevation
P1	PAC	Watersop - PD AF 7424	N27 53 40 14761	W81 37 13 61413	124.34
S1	SAC	Watersop Az Ms - PD AF 7485	N27 53 56 75995	W81 37 17 82090	122.12

Airport Sponsor Approval
This Airport Layout Plan Is Hereby Approved
Signature: _____ Date: _____
Name: _____
Title: _____

FAA Approval
Signature: _____ Date: _____
Name: _____
Title: _____

LEGEND		
EXISTING	PROPOSED	DESCRIPTION
AP	AP	AIRPORT REFERENCE POINT
PL	PL	PROPERTY LINE
BL	BL	BUILDING RESTRICTION LINE
RVZ	(RVZ)	RUNWAY VISIBILITY ZONE
RSA	(RSA)	RUNWAY SAFE TY AREA
NOFA	(NOFA)	RUNWAY OBJECT FREE AREA
AP	(AP-1)	AIRCRAFT PARKING LIGHT
TOFA	(TOFA)	TAXIWAY OBJECT FREE AREA
NOFZ	(NOFZ)	RUNWAY OBJECT FREE ZONE
RPZ	(RPZ)	RUNWAY OBJECT FREE ZONE
CONTOUR	N/A	CONTOUR LINES
PAVED	N/A	PAVED AIRFIELD SURFACES
PUBLIC	N/A	PUBLIC ROADS
ON	N/A	ON AIRPORT BUILDINGS
THRESHOLD	N/A	THRESHOLD LIGHTS
PAR	N/A	PAR
SE	N/A	RUNWAY END IDENTIFIER LIGHTS
ARCS	N/A	ARCS
WIND	N/A	SEGMENTED CIRCLES LIGHTED WIND SOCK
WIND	N/A	WIND SOCK
IDENTIFIER	N/A	RUNWAY IDENTIFIER
EASEMENT	N/A	EASEMENT
REMOVE	N/A	PAVEMENT TO BE REMOVED/DISCLOSED
NON-AV	N/A	NON-AVIATION DEVELOPMENT
STORM	N/A	STORMWATER MANAGEMENT



APR. NO.:	3-12-000-024-2020
PROJ. NO.:	355231
DRAWN:	PJS
CHECKED:	VM
DATE:	APRIL 2022
SHEET #	11
OF	

SHEET TITLE: ULTIMATE AIRPORT LAYOUT PLAN

MASTER PLAN UPDATE
LAKE WALES MUNICIPAL AIRPORT
POLK COUNTY
LAKE WALES, FLORIDA



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Capitol Improvement Plan



Capital Improvement Projects

The Facilities Implementation Plan includes four distinct phases:

- Phase I: Short Term - (0 to 5 years), 2022-2026
- Phase II: Intermediate - (6 to 10 years), 2027-2031
- Phase III: Long Term - (11 to 20 years), 2032-2042
- Phase IV: Beyond – (20 years +), 2042+



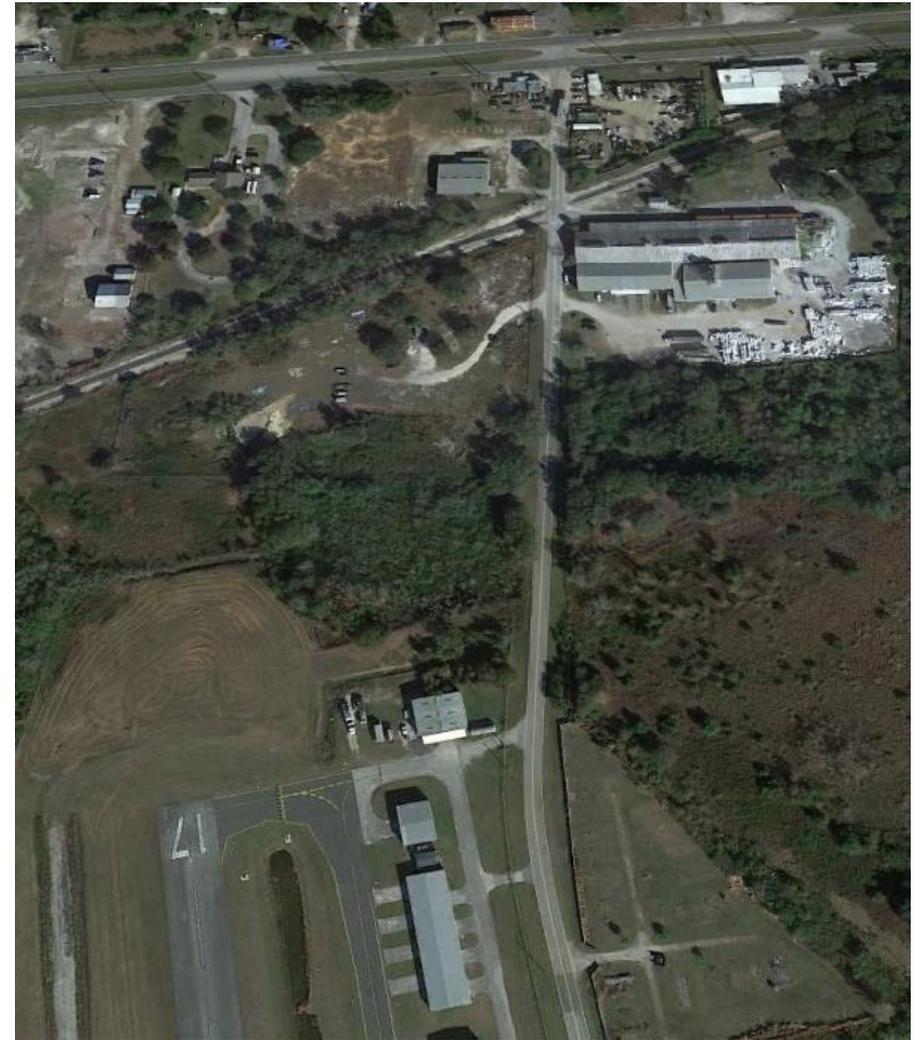
Short Term (0 to 5-years)

- Fuel Farm Replacement
- FBO Apron Expansion (Phase I)
- Corporate Hangars (North)
- FBO Parking Lot Expansion
- T-Hangar Parking Lot (North)
- Hangar Access Road and Parking (Phase I)
- Taxilane Bravo Rehabilitation
- T-Hangar Taxilanes Reconstruction
- Runway 17-35 Rehabilitation
- Runway 17-35 Lighting and Signage



Intermediate Term (6 to 10-years)

- FBO Apron Expansion (Phase II)
- Corporate Hangars (East)
- T-Hangars (East)
- Hangar Access Road and Parking (Phase II)
- Runway 35 Safety Area Improvements



Long Term (11 to 20-years)

- Taxiway Charlie Construction
- T-Hangars (West Phase I)
- West Aron Construction
- Airport Access Road
- Runway 6-24 Rehabilitation
- Taxiway Alpha Rehabilitation
- Taxiway Bravo Rehabilitation



Capital Improvement Projects Costs



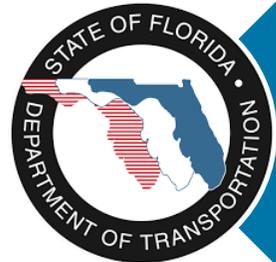
Phase	Federal (FAA AIP)	State (FDOT)	Local (City)	Third Party	Total
Short Term (2022-2026)	\$1,567,387.98	\$8,798,993	\$860,345	\$1,404,711	\$12,631,436.92
Intermediate (2027-2031)	\$1,665,715	\$9,956,324	\$1,153,774	\$1,404,711	\$14,180,524.37
Long Term (2032-2042)	\$5,850,000	\$16,484,647	\$4,364,912		\$26,699,558.91
Total for Planning Period	\$9,083,103	\$35,239,964	\$6,379,031	\$2,809,423	\$53,511,520

Funding Capital Improvement Projects



Airport Improvement Program (AIP)

Typically used on airfield projects to improve safety, capacity, security and environmental protection; Covers 90% of costs for eligible projects



Public Transportation Grant Agreements

Provides 5% matching funds to all AIP funded projects; In addition to airfield projects will also fund hangar development. Typically covers 80% of costs for projects that do not have AIP funding.



Grants, Loans, Private Partnerships

Economic development grants are available from federal, state and local government agencies. Public-Private-Partnerships (P3) can be used to meet local match on PTGA agreements. This is typically done for hangar development in exchange for long term lease agreement.

PREFERRED



Paramotor Operating Area



Alternatives 1 (North)



- Large Trees, Buildings and Powerlines nearby
- Surrounding Terrain creates turbulence
- Area does not allow 360-degree launches
- Requires crossing runway ends to leave airport

Alternatives 2 (Southwest)

- Requires gravel/milling access road around perimeter of airport
- Would require least amount of work to become operational
- Close to the current training area
- Separates GA and paramotor traffic
- No major obstructions
- Allows 360-degree towing operations



Alternatives 3 (Southeast)

- Low lying (wetland) area would require significant fill and mitigation effort (high cost)
- Close to AWOS
- Smaller operational area
- Near Runway 35 with east wind conditions



Next Steps



Airport Master Plan Update



Thank You for Your Participation!



Contact Us



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