

myrtle beach
INTERNATIONAL AIRPORT



AIRPORT MASTER PLAN

E X E C U T I V E
S U M M A R Y



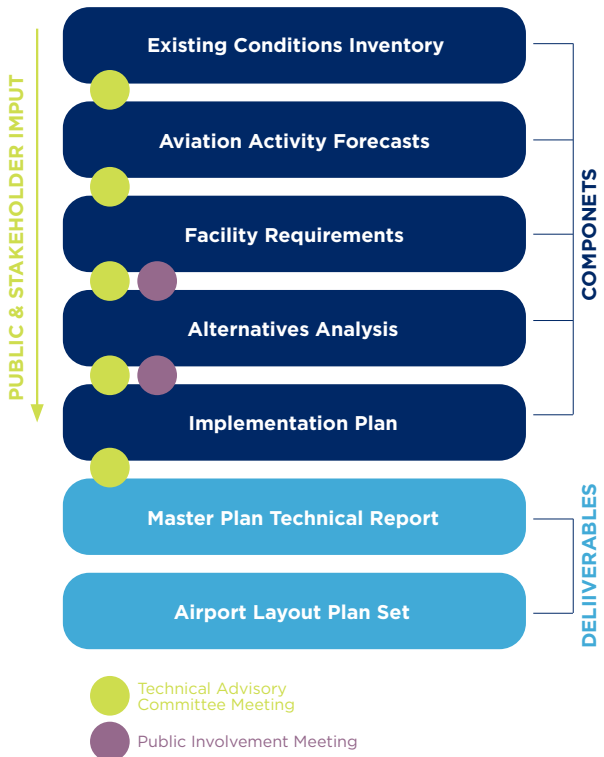
AIRPORT MASTER PLAN

EXECUTIVE SUMMARY

An Airport Master Plan serves as a strategy for airport development that describes the need for, and timing of, airport improvements over a 20-year timeframe. The Master Plan serves to ensure that new airport facilities are located and sized appropriately for future growth, while preserving the flexibility necessary to respond to changing industry conditions. The Federal Aviation Administration, or FAA, requires Airport Master Plans for all commercial service airports. The previous Master Plan Update (MPU) for Myrtle Beach International Airport (MYR) was completed in 2001.

As outlined below, an Airport Master Plan is comprised of several sequential planning elements, while also incorporating public and stakeholder input. The final deliverables include a written technical report and a 15-sheet drawing set that depicts various aspects of proposed future development.

MASTER PLANNING PROCESS



The preparation of this document was financed in part through a planning grant from the Federal Aviation Administration (FAA), as provided under Section 5050 of the Airport and Airways Improvement Act of 1982, as amended. The contents of this document reflect the analysis and findings of Parrish and Partners, LLC, who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policy of the FAA. Acceptance of this document does not in any way constitute a commitment on the part of the United States to participate in any development depicted herein nor does it indicate that the proposed development is environmentally acceptable with the applicable public laws.



PREPARED FOR:
Horry County Department of Airports
South Carolina Aeronautics Commission
Federal Aviation Administration



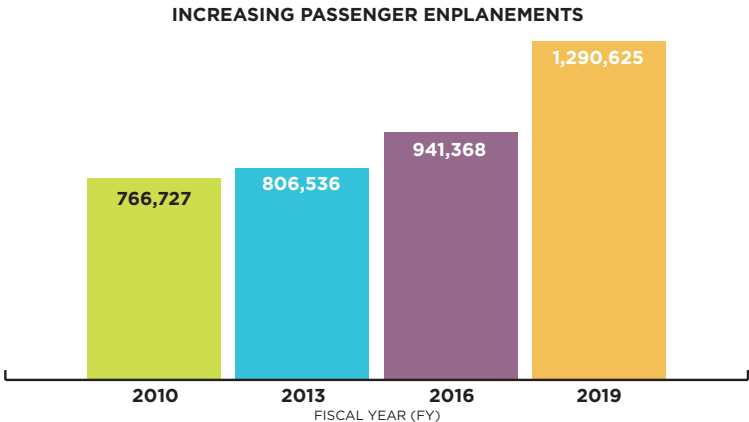
MYR: YESTERDAY & TODAY

Commercial Operations at MYR began in 1975 when the Myrtle Beach Air Force Base entered into an agreement with Horry County to allow civilian control of a portion of the base. Twenty years later, in 1995, the Air Force base closed completely, and redevelopment of the previously base-controlled areas began.

MYR is classified as a Small Hub Primary Airport by the FAA. Named the best Small Airport in the U.S. by USA Today in 2022 , Myrtle Beach International Airport’s 10 airlines provide service to more than 50 non-stop destinations. The airport is equipped with a single asphalt runway that is 9,503 feet in length, which is designated as Runway 18-36. In addition to commercial service, airport users also include general aviation, air cargo, and military aircraft.

The Airport’s General Aviation terminal is located on the western side of the runway. This terminal serves private pilots and corporate users of the airport. Approximately 30,000 passengers pass through the general aviation terminal each year.

In 2017, deplanements at MYR exceeded 1,000,000 passengers for the first time after several years of aggressive growth. Although the COVID-19 pandemic had a significant impact on aviation worldwide in 2020, Myrtle Beach International Airport quickly experienced a significant recovery, with 2022 passenger activity levels exceeding those of pre-COVID 2019 levels by over 23 percent, and this record growth is continuing into 2023. Existing facilities at MYR serve widely ranging functions and successfully handle some 120,000 aircraft operations and 3 million total passengers annually.



EXISTING CHALLENGES

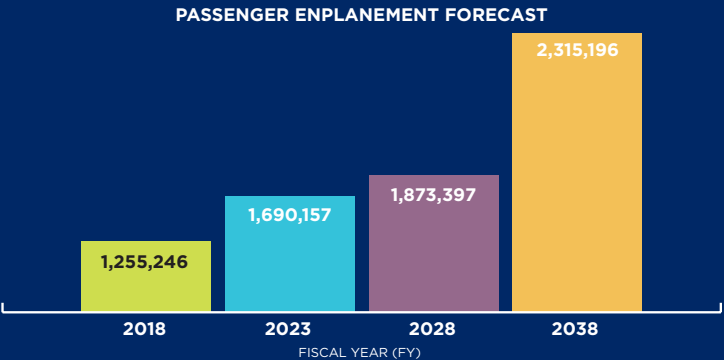
- Several years of unprecedented increases in passenger activity at the airport has created many capacity challenges. In addition, the aircraft operating at MYR today are also much larger than the aircraft the existing terminal building was designed for. These changes at MYR have created several issues to be evaluated and addressed by this Master Plan including:
- Passenger flow conflicts
 - TSA checkpoint delays
 - Bag makeup congestion
 - Gate limitations
 - Cell phone lot/access road congestion
 - Parking access issues
 - Curbside congestion
 - Increased fuel demand



AVIATION ACTIVITY FORECAST

Forecasts of future aviation activity levels are a critical early step in the master planning process and are used to determine the need for new or expanded facilities. In accordance with FAA guidance, aviation forecasts are based on available historical data and are prepared for short-, medium-, and long-term planning timeframes. Peak periods, where demand far surpasses yearly averages, are also considered in this planning effort, including the summer activity peaks experienced at Myrtle Beach.

- Forecast highlights include:
- Annual passenger enplanements will continue to grow and are expected to increase by 84 percent by 2038 as tourism and the local economy flourish
 - Operations are expected to grow, only slower due to a continuing trend of larger aircraft serving MYR, with a 51 percent increase projected by 2038
 - A 69 percent increase in freight tonnage is projected by 2038, supporting the needs of the local economy
 - General aviation patrons and corporate users alike will continue to favor MYR, resulting in an additional 23 based aircraft by 2038
- Fluctuations of local and national economies, as well as the airline business environment can significantly affect aviation activity projections, as was seen with the impact of the COVID-19 pandemic on air travel worldwide. As a result, the FAA approved the MYR forecasts and provided guidance for the use of Planning Activity Levels, or PALs, instead of future years (2023, 2028 and 2038) to represent the short-, medium-, and long-term planning timeframes. This method allows MYR to track and periodically compare actual activity levels with planning activity levels (PAL1, PAL2, and PAL3) and adjust the timing of proposed improvements accordingly.



DEMAND / CAPACITY & FACILITY REQUIREMENTS

Following FAA approval of the aviation forecasts, projected activity levels are compared to the existing capacity of various airport facilities, with shortfalls identified as future facility requirements. The Master Plan Update evaluates numerous facility requirements, such as airfield capacity, terminal space, number of gates, curb frontage length, public parking spaces, aircraft hangar space, and fuel storage capacity.

- Due to record growth over the past decade, Myrtle Beach was already experiencing capacity issues. Capacity shortfalls are identified with a dark green background in this facility requirements summary table. As shown, it is anticipated that additional aircraft gates and terminal space will be required to accommodate the growing demand. Better ground access and additional public parking, curb frontage length, aircraft storage hangar space, and fuel storage capacity will also be required.
- The use of Planning Activity Levels as thresholds for triggering future facility design and construction, will allow the MYR Team to successfully implement these improvements as demand grows over the next two decades.

	Existing Conditions	Base Year (2018)	PAL 1 (2023)	PAL 2 (2028)	PAL 3 (2038)
Aircraft Gates	11	13	14	17	23
Terminal and Concourse (SF)	379,788	413,407	430,370	430,370	593,748
General Aviation Terminal (SF)	11,272	6,488	7,219	8,090	9,880
Based Aircraft Hangars (SF)	74,700	39,880	50,880	58,880	77,560
Corporate Hangars (SF)	201,700	183,700	202,158	221,016	258,896
T-Hangars (Units)	10	25	27	28	29
Aircraft Tie-downs (Each)	36	43	49	51	56
General Aviation Apron (SY)	97,778	34,864	37,614	38,732	41,071
Passenger Curb Frontage (LF)	700	814	1,034	1,166	1,452
Commercial Curb Frontage (LF)	600	154	176	198	242
Public Parking (Spaces)	2,539	2,539	3,419	3,789	4,683
Cell Lot (Spaces)	48	62	83	92	113
Commercial Jet A Fuel (7 Day Supply)	260,000	316,716	397,447	434,708	521,650

ENVIRONMENTAL OVERVIEW

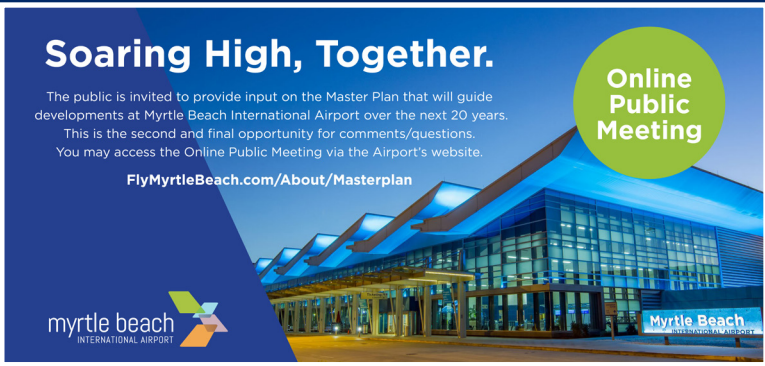
An environmental overview was conducted to identify features that could affect future airport development projects. As part of the evaluation, federal, state, and local government regulations and databases were reviewed, as well as previously completed studies and reports from MYR. The review was conducted based on guidelines set forth in the National Environmental Policy Act (NEPA) and associated FAA regulations. Based on an evaluation of applicable environmental impact categories, resources of potential concern at MYR include noise and noise-compatible land uses, nearby minority and low-income populations, protected species, water quality, floodplains, jurisdictional wetlands/streams, and hazardous materials.

SUSTAINABILITY PLANNING

FAA's goal is to make sustainability a core objective of airport planning. Sustainable practices are those that support environmental, social, and economic health and vitality. A sustainability baseline assessment was completed for MYR as the first step of the sustainability planning task. The objective of the baseline assessment was to gain an understanding of the sustainability performance of the sectors of the airport, to better evaluate sustainability metrics and initiatives for potential implementation. Initiatives were developed to guide Horry County Department of Airports (HCDA) in the implementation of specific actions at MYR. HCDA plans to track and monitor various identified initiatives to ensure progress is made toward the overall sustainability goals and objectives.

MYR's sustainability goals include:

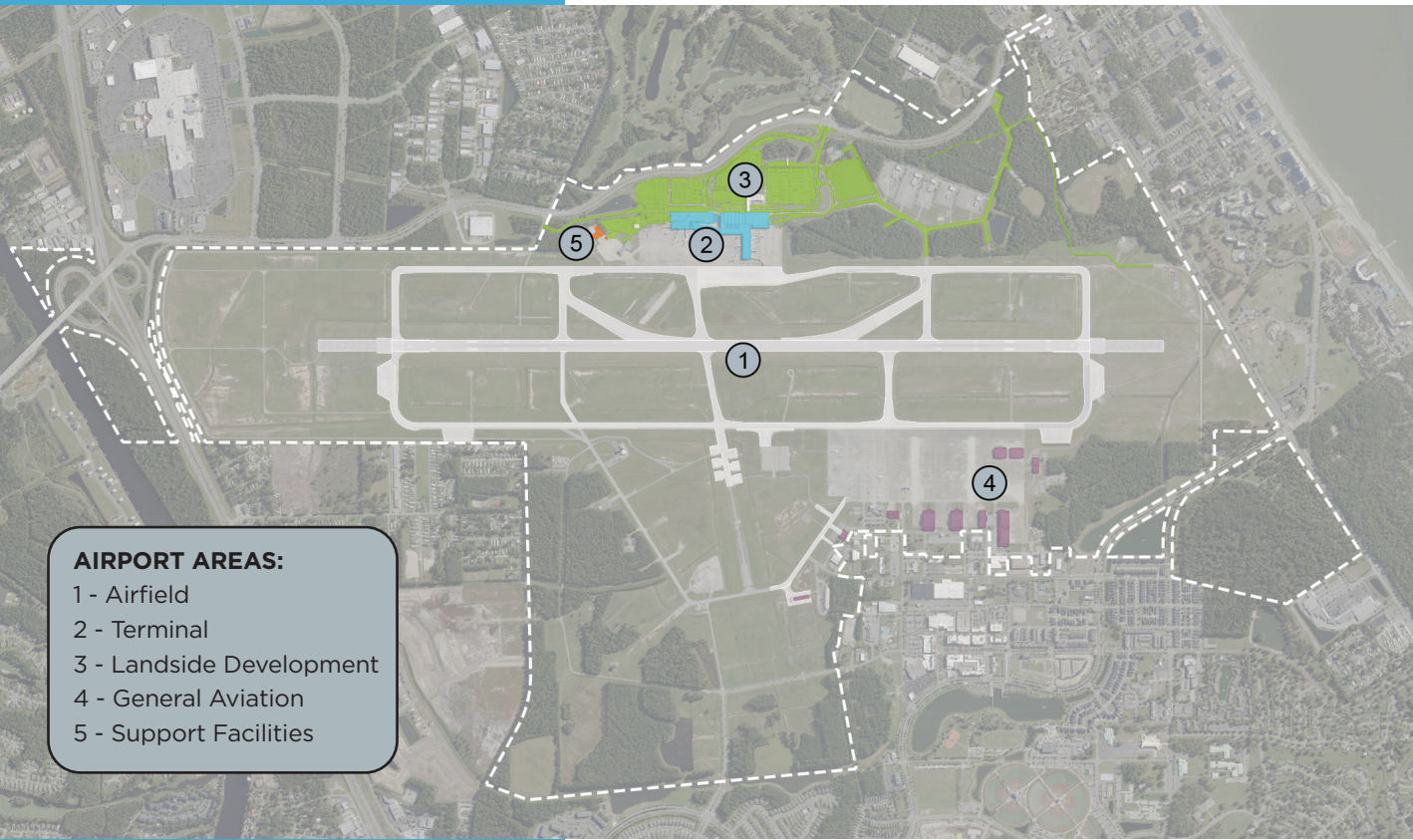
- Reduce Water Consumption
- Reduce Energy Usage
- Improve Surface Transportation
- Incorporate Sustainable Business and Operational Practices
- Continue Community and Employee Engagement



STAKEHOLDER AND PUBLIC INVOLVEMENT

Recognizing that the public and key stakeholder input is critical to project success, several Technical Advisory Committee (TAC) Meetings and Public Information Meetings (PIM) were held at key milestones throughout the project. The TAC was comprised of representatives from the FAA, SC Aeronautics, MYR tenants and operators, local planning agencies, and HCDA staff. This group met numerous times to review the various study deliverables and provide guidance to the project team.

Originally scheduled in March 2020, the first public information meeting (PIM) was held in 2021 utilizing an online format due to ongoing public health concerns related to the COVID-19 pandemic. The Master Plan Update webpage included a series of video clips allowing participants to learn about the various master plan components and project progress, as well as provide questions and comments in an online format. Online traffic for the Master Plan Update webpage was so high during the month-long PIM, that the same format was used for the second public meeting. The Master Plan Update webpage was visited more than 1,300 times over the course of the study. Comments received focused primarily on airline service and requests for new destinations and airlines operating at MYR.



IMPLEMENTATION PLAN

A major component of the implementation plan section is the completion of the airport's Capital Improvement Plan (CIP). As a part of the Master Plan, a CIP for the 20- year planning period was developed that identifies approximately \$1.15 billion in airport improvements across the five areas identified above.. The FAA requires airports to update their CIP annually to include the projects they plan to undertake over the next three to five years, and the anticipated funding sources. This allows the airport to prioritize projects and ensure they are financially feasible

Funding for the projects will be a combination of the following depending upon eligibility:

- FAA Airport Improvement Program (AIP)
- Bipartisan Infrastructure Law
- COVID-Relief Grant Programs
- State of South Carolina Funding
- HCDA (Local) Funds
- Passenger Facility Charges (PFCs)
- Customer Facility Charges (CFCs)
- Public Private Partnerships / Third Party Development





KEY RECOMMENDATIONS

The methods and findings of the study are described in detail in the Master Plan Update technical report and depicted in the Airport Layout Plan drawing set, which was approved by the FAA in July 2023. Key recommendations include:

TERMINAL

- Primary goal was to expand hold room space and provide additional aircraft gates
- Short-Term expansion includes extending the existing Concourse A pier toward the airfield and adding 4 additional gates for a total of 16
- Mid-Term development includes an expansion of Concourse B to the north, with reconfiguration of the hold rooms to provide adequate space for passengers and improved level of service
- Preferred Long-Term development includes expansion to the passenger processing area in the main terminal and the addition of another pier to the south, mirroring that of Concourse A; this renovation would add 10 gates, for a total of 25

LANDSIDE DEVELOPMENT

- Goals included reducing congestion along the public curb frontage, improving overall vehicular circulation efficiency, and identifying additional parking capacity
- Total reconfiguration of the airport loop road is proposed, including new airport entrance to the north, to aid in wayfinding and ease curb front congestion
- Addition of a new rental car return access road will remove these vehicles from the passenger terminal building curb front area, easing congestion, and improving level of service
- Existing staging areas for the rental car companies are moved to a more remote southern location, and those existing lots are converted to remote economy lots.

AIRFIELD

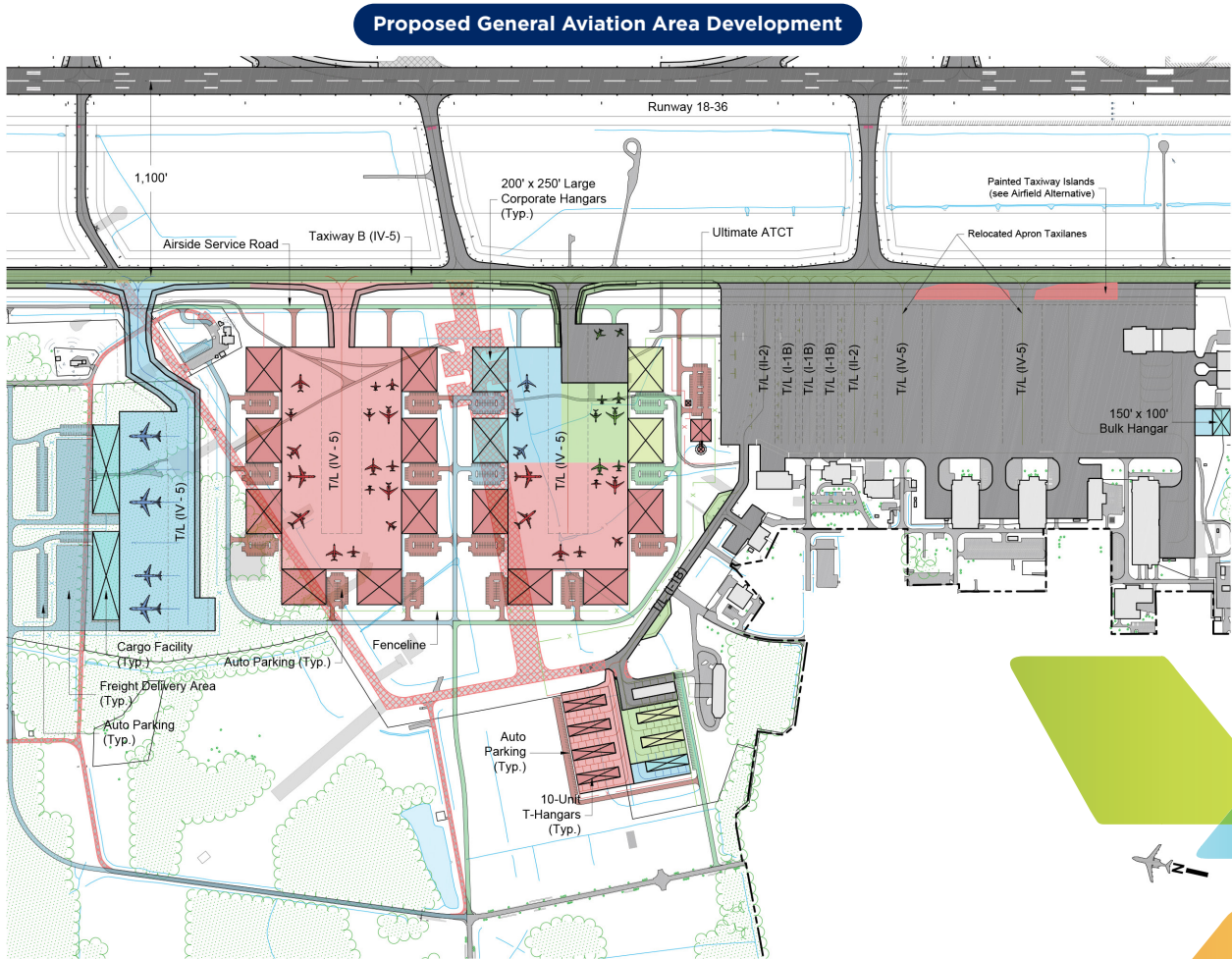
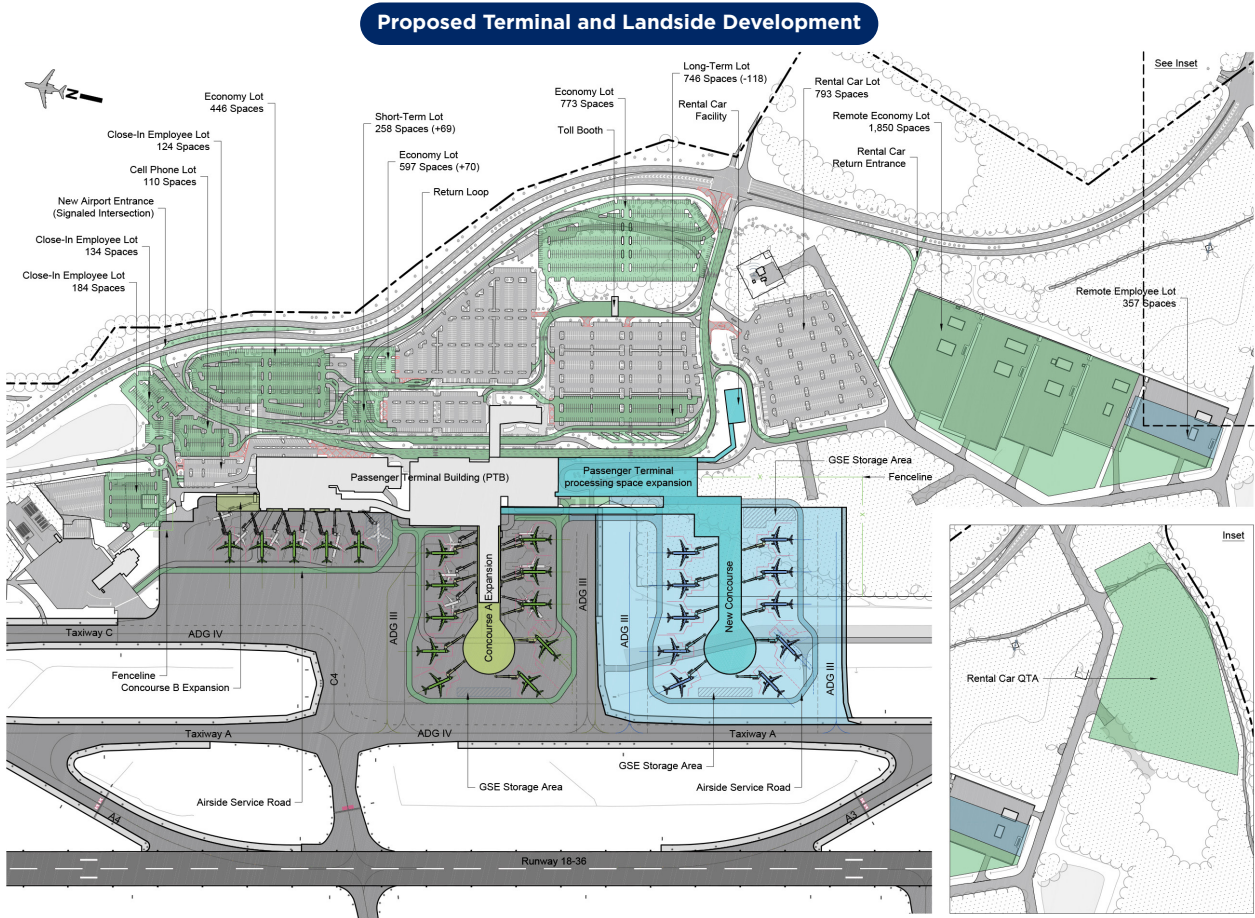
- No airfield capacity shortfalls are anticipated during the 20-year planning period
- Because MYR has only one runway, relocation and strengthening of Taxiway B is proposed to allow it to be temporarily used as the runway if the pavement on Runway 18-36 needs to be reconstructed

GENERAL AVIATION

- Corporate hangars are proposed to address the anticipated demand, as well as taxilane access capable of handling larger aircraft
- Other major developments include cargo facilities in the Airport's International Technology Aerospace Park (ITAP) to the north, as well as additional 10-unit T-hangars to accommodate small aircraft adjacent to the west

SUPPORT FACILITIES

- Additional jet fuel storage capacity is provided in all development phases; proposed layout of this additional jet fuel storage is more operationally efficient and in accordance with FAA recommendations for airfield security
- Various airfield and maintenance operations scattered across the airfield are consolidated a new maintenance building





Wind Data Source:

- National Climate Data Center (NCDC) - National Oceanic and Atmospheric Administration (NOAA)
- Station: 347910 - Myrtle Beach International Airport
- Years of Data: 2008-2017

Wind Rose Tables Note: NCDC wind directions are based on True North. Percent wind coverage is evaluated on the basis of crossings not exceeding 16 knots for runways having a RDC of C-II. Meteorological conditions:

- Visual flight rules are in effect when ceiling is at or above 1,000' and visibility is greater than 3 miles
- Instrument flight rules are in effect either when ceiling is below 1,000', or visibility is lower than 3 miles.

Runway Data Table Notes:

- Runway 15-36 meets line of sight requirements per FAA AC 150/5300-134 Section 305.
- Landing Gear Configurations for Pavement Strength Ratings:
 - S: Single Wheel Main Gear
 - D: Dual Wheel Main Gear
 - 2D: Two Dual Wheels in Tandem Main Gear
 - 2D/2D: Two Dual Wheels in Tandem Main Gear / Two Dual Wheels Tandem Body Gear
- There currently are no displaced threshold at MYR.
- RVR: Runway Visual Range

Takeoff Data Table Notes:

- **Preselector to TOGA:** None
- **1** The Rot of existing Taxiway B and its Connectors (B through E) and Taxiway Z do not comply with current FAA standards for North Carolina Airport Design because taxiways were built before the standards were updated.
- **2** For the future official airport, future taxiways will be designed using ILS-3. However, Taxiway B is currently under design and the geometry shown matches the most current design. TSA and TOGA shown on the plans match ILS-5 code.
- **3** Existing T-Hanger Taxiways are built for a specific design aircraft, and allow use by aircraft with a maximum wingspan of 30'.
- **4** South Taxiway to ADG IV standards. North Taxiway restricted to use by aircraft with a maximum wingspan of 90'.

AGL	Above Ground Level	AIGOS	Automated Weather Observing System
ALP	Airport Layout Plan	BRL	Building Restrictions List
ALS	Approach Lighting System	CAGR	Compound Annual Growth Rate
ALSP-2	Highly Heavily Used with STRL (Level 2)	CA	Category
ALA	Aircraft Operations Area	CFA	Controlled Flying Area
APN	Approach	CIAP	Climate Improvement Plan
APN	Approach	CLUP	Comprehensive Land Use Plan
APN	Approach	CTM	Common Traffic Advisory Frequency
APV	Approach with Vertical Guidance	CD	Controlled
ARC	Report Reference Code	CO	Control
		DME	Distance Measuring Equipment
		DME	Distance
		DNL	Day-Night Average Sound Level
		DOT	Department of Transportation
		DPN	Displacement
		D	Drive
		E	East
		EA	Environmental Assessment
		EA	Environmental Impact Statement
		EO	Environmental Overview
		EXT	Exiting
		FAT	Federal Aviation Regulations
		FNA	Federal Aviation Regulations

ICR	Instrument Approach Procedure	PCF	Presented Condition Index
IMC	Instrumental Civil Aviation Organization	PCN	Presented Classification Number
IRF	Instrument Flight Rules	PFZ	Presented Obstacle Free Zone
ISL	Instrument Landing System	PSM	Precision Runway Monitor
ISN	Instrument Navigation System	PSR	Precision Approach Indicator Lights
LAA	Local Area Airway	RAI	Runway Alignment
LANS	Local Area Augmentation System	RBC	Runway Depth Obstacle
LIS	Lights	RCD	Runway End Identifier Lights
LLO	Landing Obstacle Area	RLD	Runway Length Discontinuity
LLOD	Landing Location Directional Aid	RNP	Required Navigation Performance
LSD	Landing Lighting System	ROF	Runway Obstacle Free Area
LED	Light Emitting Diode	ROM	Runway Object
LRL	Light Intensity Runway Lights	RPS	Runway Protection System
L	Line	RSA	Runway Safety Area
LOC	Location Reference	RVR	Runway Visual Range
MAG	Magnetic Approach Course	RW	Runway Width
MALIS	Medium Intensity AL with SFL	RWY	Runway
MALSR	Medium Intensity AL with SFL	SFL	Sequenced Flashing Lights
MALSF	Medium Intensity AL with SFL	SG	Segregated Circle
MCA	Minimum Obstacle Clearance	SIC	Standard Instrument Departure
MRL	Medium Intensity Runway Lights	SOP	Standard Operating Procedure
MRT	Medium Intensity Runway Edge Lights	SSAR	Standard Instrument AL with NAL
MSS	Maximum Landing Weight	STAR	Standard Terminal Arrival Route
MSSL	Maximum Landing Weight	STDA	Standard at Navigation Station
MOA	Military Obstacle Area	TDO	Taxiway Design Group
MP	Maximum Payload	TDC	Taxiway Zone
MPL	Maximum Ramp Load	TDCZ	Taxiway Zone Obstruction
MPW	Maximum Ramp Weight	TID	Taxiway Intersection
MTOW	Maximum Takeoff Weight	TERPS	Terminal Instrument Procedures
MTR	Military Training Route	TFP	Taxiway
MTW	Maximum Zero Fuel Weight	TRF	Temporary Flight Restrictions (TFR)
N	North	TODA	Taxiway Obstacle Data
NAS	National Airspace System	TODA	Taxiway Obstacle Available
NATP	National Transportation Act	TRSA	Terminal Radar Service Area
NCE	Not to Exceed	TRSA	Taxiway Safety Area
NOTICE	Notice to Airmen	TST	Taxiway
NPA	Not a Priority	L	Latitude
NPS	National Public Safety	UNCOM	Unmanned Communication
NPSA	National Public Safety Agency	UNCOM	Unmanned Communication
NPSA	National Security Agency	VAS	Visual Approach
OCAL	Obstruction Clearance	VAS	Visual Approach Slope Indicator
ODS	Operating Flight Envelope	VFR	Visual Flight Rules
ORA	Obstacle Free Area	VFR	Very High Frequency
		VOR	VHF Omnidirectional Range
		VORTAC	VOR in a TACAN
		WAS	Wide Area Augmentation System
		WME	Wind Measuring Equipment
		WSP	Wind Shear Protection
		WSP	Wind Shear Protection



<p>Notes</p> <p>1. Aerial/underfoot and planimetric survey performed November 2014. Boundary survey performed 2017. Data was surveyed compliant with ACS 1005300-18 standards. All coordinates are provided using NAD83(11) Horizontal Control and NAVD83 Vertical Control. Topographic information oriented horizontally to NAD83(11) and a SCSN, and all data RESSET and ARS and vertically oriented by holding published elevations on these stations.</p> <p>2. The section corner is located on the southeast corner of the section.</p> <p>3. The nearest section corner to all property is the southeast corner of USGS US Topo Map, Merriam Beach Quadrangle, 7.5-minute Series. The section corner is located approximately 5 miles southeast of the map reference point.</p> <p>4. Alphabetical identifiers on the plan view refer to the table of Existing Building / Facilities on Sheet 2 of 15, "Airport Layout Diagram - Existing".</p> <p>5. Runways 10-36, Mile End of Slight (S) ACS requirements per FAA Advisory Circular 1005300-13A, Section 205. Refer to Sheet 7 of 15.</p>	<p>CONDITIONS OF APPROVAL</p> <p>FEDERAL AVIATION ADMINISTRATIVE APPROVAL SUBJECT TO COMPLETION OF THE FOLLOWING:</p> <p>APPROVING OFFICIAL PLANS APPROVAL</p>
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ADMINISTRATIVE SECTION DATE	South Carolina Aeronautics Commission Approval	Horry County Department of Airports Approval
	Name: _____ Title: _____ Date: ____ / ____ / ____ Signature: _____	Name: _____ Title: _____ Date: ____ / ____ / ____ Signature: _____

FINAL

A key component of a Master Plan is the Airport Layout Plan (ALP) drawing set. This comprehensive drawing set incorporates all of the proposed improvements and is used to help future infrastructure development to ensure projects are completed in a logical, sustainable, and efficient manner. The ALP set totals 15 sheets including:

- Title Sheet
- Airport Layout Drawings (Existing and Future)
- Airport Airspace Drawings
- Inner Portion of the Approach Surface Drawings
- Runway Departure Surface Drawing
- Terminal Area Drawings
- Airport/Community Land Use Compatibility Drawing
- Exhibit A - Airport Property Inventory Map

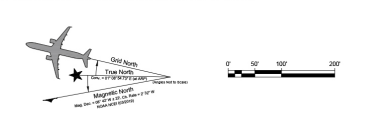
The FAA-approved airport layout drawing is depicted to the left.



Existing Buildings / Facilities				
Building ID	Usage	Operator / Tenant	Top Elevation (Feet MSL)	Obstruction Marking / Lighting
C01	Passenger Terminal Building	HCDA	77.7	Unknown
C02	Rental Car Facility	Multiple	77.7	Unknown
S01	ATCT	FAA	112.0'	Unknown
S02	ART	MRF Inc./Equipment	51.0'	Unknown
S03	Airport Maintenance Facility	HCDA	51.0'	Unknown
S04	Airport Maintenance Facility	Tenant	50.0'	Unknown
S05	Airport Maintenance Storage Facility	HCDA	55.3'	Unknown
S06	Fuel Farm - Commercial	HCDA	-	Unknown
S07	Fuel Farm - General Aviation	HCDA	-	Unknown
S08	Rental Car Staging Facility	Alamo / Budget	a. 38.0' to 42.0'	Unknown
S09	Rental Car Staging Facility	HTG	a. 37.0' to 42.0'	Unknown
S10	Rental Car Staging Facility	Alamo / Enterprise / National	a. 38.0' to 41.0'	Unknown
S11	Rental Car Staging Facility	Alamo / Enterprise / National	a. 37.0' to 41.0'	Unknown
S12	Rental Car Staging Facility	Go / Thrifty	a. 36.0' to 41.4'	Unknown
M1	Aircraft Maintenance Shop	Alameda Transportation & Rampside Repair Services	50.2	Unknown
M2	Aircraft Maintenance Shop	Phoenix Support	60.0	Unknown
M3	Aircraft Maintenance Shop	Myrtle Airline Services	60.0	Unknown
M4	Aircraft Maintenance Shop	Tenant	58.0	Unknown
M5	Aircraft Maintenance Shop	Tenant	58.0	Unknown
M6	Helicopter Taxi Ramp	Overseas Helicopters	a. 20.0' to 32.4'	Unknown
G01	General Aviation Terminal	HCDA	56.3	Unknown
G02	T-tower	Multiple	55.3	Unknown
G03	Flight School / Aircraft Hangar	Myrtle Beach Academy of Aviation	54.0	Unknown
G04	Aviation Maintenance School	Pittsburgh Institute of Aeronautics (PIA)	48.0	Unknown
G05	Maintenance Facility	Tenant	46.1	Unknown
G06	Aircraft Hangar	Encumbrance Helicopt	a. 58.0' to 58.5'	Unknown
G07	Aircraft Hangar	Tenant	41.0'	Unknown
G08	Aircraft Hangar	Tenant	41.0'	Unknown
G09	Transient Aircraft Hangar	HCDA	-	Unknown
A01	Parking 1st Gate	HCDA	40.0'	Unknown

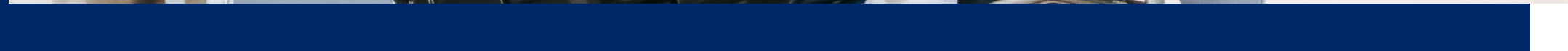
Notes:

1. Aerial/obstruction and planimetry survey performed November 2018. Boundary survey performed 2021. Data was surveyed compliant with AS 15030-2018 standards. All coordinates are provided using NAD83/2011 AZIM RESET and NAVD83 Vertical Datum. Horizontal information obtained from horizontally to FACS BAY AND SACS JIM 2 AZIM RESET and MPR ARP, and vertically oriented by holding published elevations on the coordinates.
2. All dimensions shown are horizontal surface measurements.
3. The nearest section corner to airport property is in the southwest corner of USGS US Topo Map, Myrtle Beach Quadrangle, 7.5-minute Series. The section corner is located approximately 5 miles southeast of the ARP.
4. Alphabetical identifiers on the plan view refer to the table of Existing Building / Facilities.



The Commercial Terminal Area
Plan presented to the left.





myrtle beach

INTERNATIONAL AIRPORT



Myrtle Beach International Airport
1100 Jetport Road, Myrtle Beach, SC 29577
(843) 448-1589

“ We thank our airport partners and the passengers that continue to travel through MYR. We appreciate your patronage, and we look forward to serving you for years to come. This Master Plan Update is a look toward that future and will assist us in identifying development projects that will ensure we are continually improving both the customer experience and operational efficiency at MYR”

*Judi Olmstead, A.A.E, Director of Airports,
Horry County Department of Airports*

