## P-685 MACS-2 AUTOMOTIVE ORGANIZATIONAL SHOP

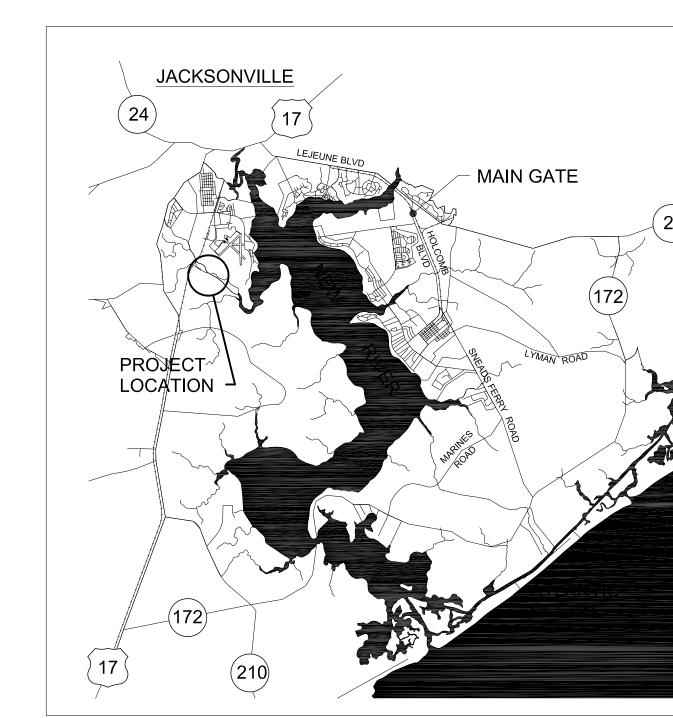
FINAL DESIGN SUBMISSION

MARINE CORPS AIR STATION NEW RIVER

07/12/21





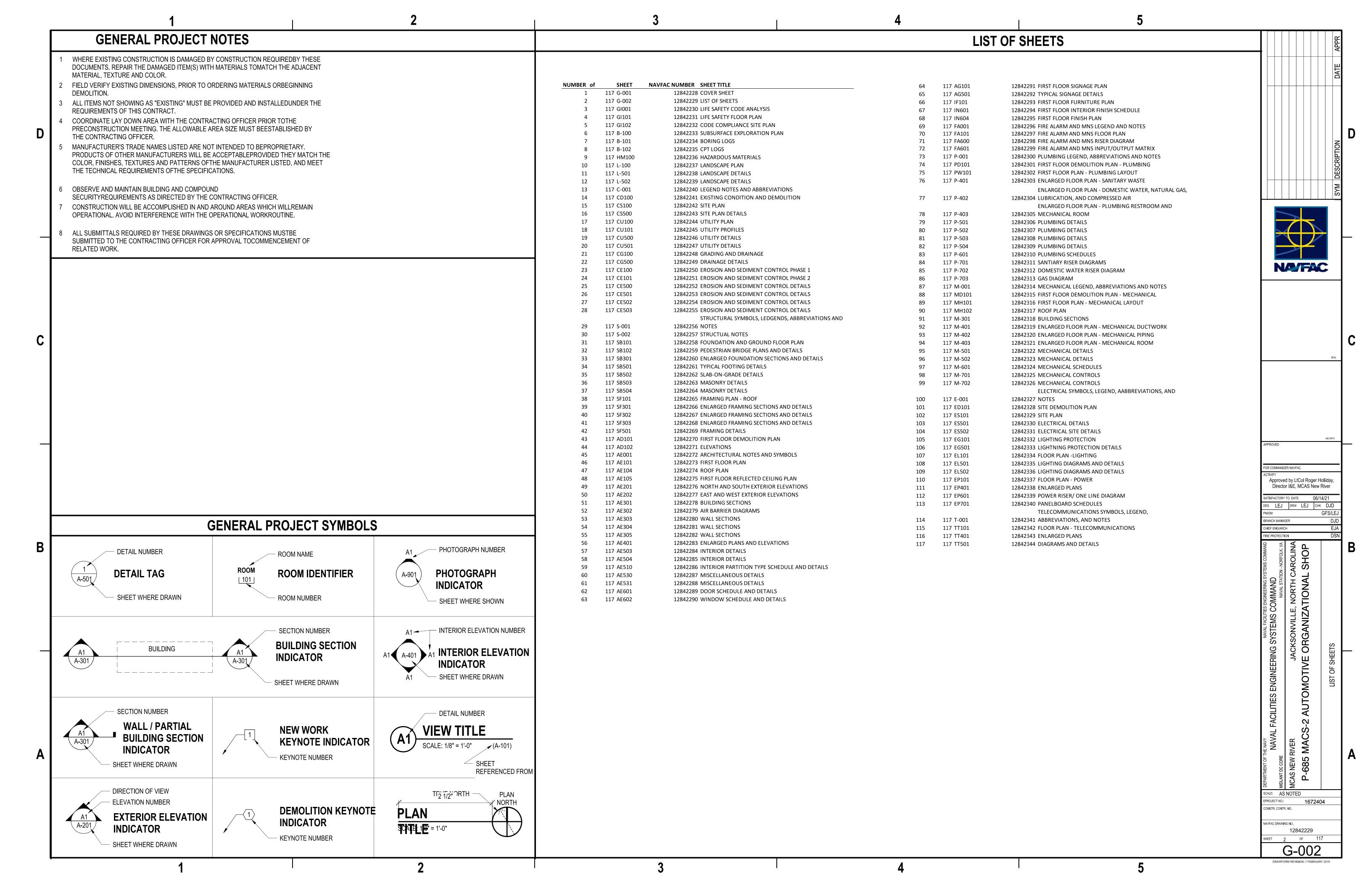


**LOCATION MAP** 

## NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND MID-ATLANTIC

DESIGN AND CONSTRUCTION FACILITIES ENGINEERING AND ACQUISITION DIVISION NORFOLK, VIRGINIA

G-00



	ADDI ICADI E CODEC AND CTANDADDS FOR LIFE CAFETY	,
ABBREVIATIONS	APPLICABLE CODES AND STANDARDS FOR LIFE SAFETY TITLE	EDITION
IBC	INTERNATIONAL BUILDING CODE	2018
NFPA 30A	CODE FOR MOTOR FUEL DISPENSING FACILITIES AND REPAIR GARAGES	2018
NFPA 58	LIQUEFIED PETROLEUM GAS CODE	2020
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE	2019
NFPA 90A	STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS	2021
NFPA 101	LIFE SAFETY CODE (LSC)	2018
NFPA 241	STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS	2019
UFC 1-200-01	DOD BUILDING CODE	OCT 2019
UFC 3-600-01	FIRE PROTECTION ENGINEERING FOR FACILITIES	CHANGE 5 12-AUG-2020
UFC 4-010-01	DOD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS	CHANGE 1 19-AUG-2020
UFC 4-021-01	DESIGN AND O&M: MASS NOTIFICATION SYSTEMS	CHANGE 1 1-JAN-2010
EM 385-1-1	SAFETY AND HEALTH REQUIREMENTS MANUAL	2014

TYPE OF CONSTRUCTION FOR TYPE IIB (TABLE 601)		
BUILDING ELEMENT	FIRE RESISTANCE RATING	
PRIMARY STRUCTURAL FRAME	0-HR	
BEARING EXTERIOR WALL	0-HR	
BEARING INTERIOR WALL	0-HR	
NON-BEARING EXTERIOR WALL	0-HR	
NON-BEARING INTERIOR WALL	0-HR	
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	0-HR	
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS AND JOISTS	0-HR	

BUILDING ALLOWABLE AREA AND HEIGHT (IBC 506.2, TABLES 504.3 AND 504.4)		
TYPE IIB CONSTRUCTION, GROUP S-1	MAXIMUM	PROVIDED
ALLOWABLE AREA	17,500 SF	4,100 SF
ALLOWABLE HEIGHT	55' 2-STORIES	23' 7.375" 1-STORY
NOTE: ONLY MAXIMUM ALLOWABLE AREA AND H GROUP S-1 HAS THE MOST RESTRICTIVE REQUI		IS GIVEN SINCE

BUILDING SEPARATION (IBC TABLE 602)				
OCCUPANCY	DIRECTION	PROVIDED FIRE SEPARATION DISTANCE (FT)	REQUIRED FIRE RESISTANCE RATING OF EXTERIOR WALL	PROVIDED FIRE RESISTANCE RATING OF EXTERIOR WALL
B, S-1	NORTH	186' 4"	0-HR	0-HR
B, S-1	EAST	34' 8"	0-HR	0-HR
B, S-1	SOUTH	77' 0"	0-HR	0-HR
B, S-1	WEST	68' 0"	0-HR	0-HR

CLASSIFICATION OF OCCUPANCY - NON-SEPARATED MIXED-USE				
ROOMS	OCCUPANCY	IBC	NFPA	
REPAIR GARAGE	GROUP S-1 SPECIAL PURPOSE INDUSTRIAL	311.2	NFPA 30A 7.4.1	
OFFICE, BATHROOM, CORRIDOR, JANITOR'S CLOSET	GROUP B BUSINESS	304.1	NFPA 101 6.1.11.1	
PARTS AND TOOLS STORAGE, MECHANICAL ROOM, DATA CLOSET	GROUP S-1 STORAGE	311.2	NFPA 101 6.1.13.1	

OCCUPANT LOA	AD, EXIT CAPACITY, AND A	ARRANGEMENT OF MEA	NS OF EGRESS
TOTAL OCCUPANT LOAD	EXIT CAPACITY PROVIDED	MINIMUM EXITS REQUIRED	NUMBER OF EXITS PROVIDED
12	1,080	2	4
NOTE: BREAKDOWN OF EXIT IS PROVIDED IN G	OCCUPANT LOAD PER O	CCUPANCY AND EXIT C	APACITY FOR EACH

TRAVEL DISTANCE LIMITS (NFPA 101 TABLE A.7.6)			
OCCUPANCY  COMMON PATH OF TRAVEL (FT)  DEAD END (FT)  TRAVEL DISTANCE (FT)			
SPECIAL PURPOSE INDUSTRIAL	50	50	300
BUSINESS	75	20	200
STORAGE	50	50	200

MINIMUM EGRESS WIDTHS				
COMPONENT	REQUIREMENT	WIDTH (IN)	NFPA 101	
DOORS IN EGRESS ACCESS	MINIMUM	32	7.2.1.2.3.2	
CORRIDOR	MINIMUM	36	7.3.4.1 (2)	
LEVEL EGRESS COMPONENTS PER PERSON 0.2 TABLE 7.3.3.1				

MINIMUM INTERIOR FINISH RATINGS (NFPA 101 TABLE A.10.2.2)			
OCCUPANCY	EXITS	EXIT ACCESS CORRIDORS	OTHER SPACES
SPECIAL PURPOSE INDUSTRIAL	A OR B I OR II	A, B, OR C I OR II	A, B, OR C
BUSINESS	A OR B	A OR B	A, B, OR C
STORAGE	A OR B I OR II	A, B, OR C	A, B, OR C

EMERGENCY ILLUMINATION OF MEANS OF EGRESS		
MEANS OF EGRESS LIGHTING	EMERGENCY LIGHTING	EXIT SIGNAGE
PROVIDED OCCUPANCY SENSORS TO BE INTERCONNECTED WITH FIRE ALARM	PROVIDED	PROVIDED

WATER SUPPLY A	ND DISTRIBUTION FROM FIRE I	T I DRAIN I
LOCATION OF FIRE HYDRANT	REQUIRED FIRE FLOW [NFPA 1 TABLE 18.4.5.2.1]	ACTUAL FIRE FLOW
NORTHEAST OF FACILITY ALONG PERIMETER ROAD ALL PORTIONS OF FACILITY WITHIN 350 FT OF HOSE LAY DISTANCE	1,500 GPM @ 20 PSI	2,222 GPM @ 20 PSI

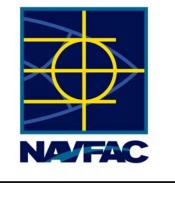
FIRE SUPPRESSION REQUIREMENTS		
SPRINKLERS	STANDPIPE	FIRE EXTINGUISHERS
NOT REQUIRED; FACILITY DOES NOT REACH THE MINIMUM SF REQUIREMENT [UFC 3-600-01 9.7.2.1.1 AND NFPA 30A 7.4.6(1)]	NOT REQUIRED	REQUIRED FOR REPAIR GARAGE [NFPA 30A 9.2.5.2] AND BUSINESS OCCUPANCY [NFPA 101 38.3.5] TOTAL: 3

FIRE ALARM REQUIREMENTS (UFC 3-600-01 9-18)				
MANUAL INITIATION	AUTOMATIC INITIATION	OCCUPANT NOTIFICATION		
MANUAL FIRE ALARM PULL STATIONS PROVIDED AT EXITS	SPOT SMOKE DETECTOR AT ALARM PANEL, CO DETECTORS FOR EACH HVAC ZONE	VOICE MESSAGING, WHITE FIRE ALARM/MASS NOTIFICATION STROBES		

BASE FIRE ALARM AND MASS NOTIFICATION SYSTEMS				
CONNECTION TO BASE FIRE ALARM SYSTEM	CONNECTION TO BASE MASS NOTIFICATION SYSTEM			
DACT SUR-GARD SYSTEM III MULTI-PLATFORM DIGITAL TELEPHONE RECEIVER	COOPER INDUSTRIES TRX-401 MASS NOTIFICATION SYSTEM TRANSCEIVER			

FIRE DEPARTMENT ACCESS				
ALL-WEATHER GROUND ACCESS	REQUIRED FIRE DEPARTMENT ACCESS ROAD WIDTHS	FIRE DEPARTMENT ACCESS ROAD		
NOT REQUIRED	20'	PERIMETER ROAD ALL PORTIONS OF FACILITY EXTERIOR WITHIN 150 FT OF ACCESS ROAD		

OTHER FIRE PROTECTION INFORMATION		
ROOF REQUIREMENTS	SEISMIC CATEGORY	HAZARD CLASSIFICATION
APPROVED AND LISTED BY A NRTL	В	LIGHT HAZARD: BUSINESS OCCUPANCY ORDINARY HAZARD: REPAIR GARAGE, STORAGE OCCUPANCY



Approved by LtCol Roger Holliday, Director I&E, MCAS New River SATISFACTORY TO DATE 6/14/21 DES MDS DRW LEJ CHK MFU
PM/DM GFS / LEJ BRANCH MANAGER CHIEF ENG/ARCH FIRE PROTECTION

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND

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NAVAL STATION - NORFOLK, VA

JACKSONVILLE, NORTH CAROLINA

P-685 MACS-2 AUTOMOTIVE ORGANIZATIONAL SHOP

NAVFAC DRAWING NO. SHEET 3 OF 117

