

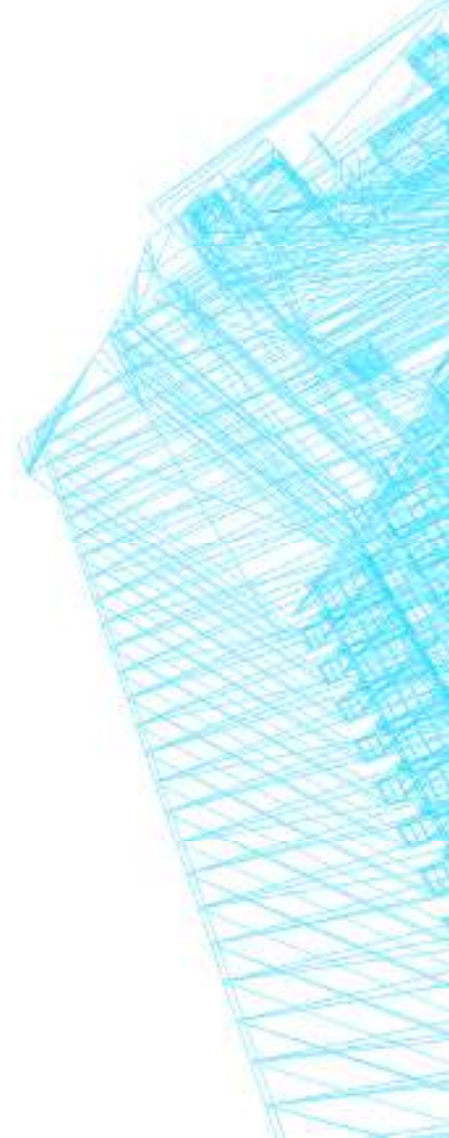
TINIAN CONSTRUCTION CAPACITY

A Review



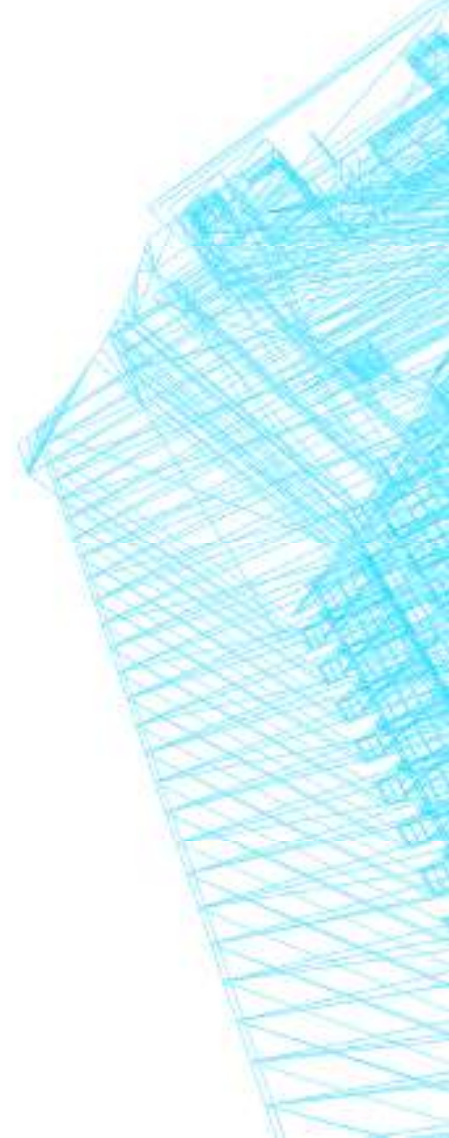
TINIAN CONSTRUCTION CAPACITY STUDY

- Overview of the 2020 Construction Capacity Study
- Recent Developments
- Ongoing needs



OVERVIEW

- Prepared by the Naval Facilities Engineering Systems Command, Pacific (NAVFAC Pacific) for US Marines Forces Pacific (MARFORPAC)
- Commenced in 2018 and completed in 2020
- Goal to identify potential limiting factors in supporting construction activities on Tinian





REPORT LAYOUT

- Covers eleven (11) areas
 - Fuel
 - Airport
 - Labor/Equipment/Material
 - Environmental/Bio-Security
 - Solid Waste
 - Communications
 - Electrical
 - Wastewater
 - Water
 - Roads
 - Harbors and Ports
- Established four (4) scenarios
 - \$100M per year
 - \$200M per year
 - \$300M per year
 - \$400M per year



BASELINE CONDITIONS

Resource	Group 1
Roadways	Sufficient Capacity
Harbor/Port	Sufficient Capacity
Airport	Sufficient Capacity
Fuels	Sufficient Capacity
Solid Waste	No Capacity
Environmental/BioSecurity	Sufficient Capacity
Labor/Equipment/Material	Limited Capacity
Electrical	Sufficient Capacity
Telecommunications	Sufficient Capacity
Water	Sufficient Capacity
Wastewater	No Capacity

\$100M THRESHOLD

Resource	Findings	Requirements
Roadways	Improvements Needed	Improve Broadway North of Tinian Airport and 42 nd Street West of Broadway
Harbor/Port	Improvements Needed	300 container storage facility and harbor repairs
Airport	Sufficient Capacity	
Fuels	Sufficient Capacity	
Solid Waste	Improvements Needed	Infrastructure/Solution for 7,000 lbs/day demand
Environmental/BioSecurity	Improvements Needed	Increased staffing
Labor/Equipment/Material	Improvements Needed	Imported materials, 500 workers plus Housing
Electrical	Sufficient Capacity	
Telecommunications	Sufficient Capacity	
Water	Improvements Needed	Infrastructure for 60,000 gpd new demand
Wastewater	Improvements Needed	Infrastructure for 40,000 gpd new demand

\$200M THRESHOLD

Resource	Findings	Requirements
Roadways	Improvements Needed	Improve Broadway North of Tinian Airport and 42 nd Street West of Broadway
Harbor/Port	Improvements Needed	600 container storage facility and harbor repairs
Airport	Sufficient Capacity	
Fuels	Sufficient Capacity	
Solid Waste	Improvements Needed	Infrastructure/Solution for 13,000 lbs/day demand
Environmental/BioSecurity	Improvements Needed	Increased staffing
Labor/Equipment/Material	Improvements Needed	Imported materials, 1,000 Workers plus Housing
Electrical	Sufficient Capacity	
Telecommunications	Sufficient Capacity	
Water	Improvements Needed	Infrastructure for 110,000 gpd new demand
Wastewater	Improvements Needed	Infrastructure for 80,000 gpd new demand

\$300M THRESHOLD

Resource	Findings	Requirements
Roadways	Improvements Needed	Improve Broadway North of Tinian Airport and 42 nd Street West of Broadway
Harbor/Port	Improvements Needed	900 container storage facility and harbor repairs
Airport	Sufficient Capacity	
Fuels	Sufficient Capacity	
Solid Waste	Improvements Needed	Infrastructure/Solution for 19,000 lbs/day demand
Environmental/BioSecurity	Improvements Needed	Increased staffing
Labor/Equipment/Material	Improvements Needed	Imported materials, 1,500 Workers plus Housing
Electrical	Sufficient Capacity	
Telecommunications	Sufficient Capacity	
Water	Improvements Needed	Infrastructure for 170,000 gpd new demand
Wastewater	Improvements Needed	Infrastructure for 120,000 gpd new demand

\$400M THRESHOLD

Resource	Findings	Requirements
Roadways	Improvements Needed	Improve Broadway North of Tinian Airport and 42 nd Street West of Broadway
Harbor/Port	Improvements Needed	1,200 container storage facility and harbor repairs
Airport	Sufficient Capacity	
Fuels	Sufficient Capacity	
Solid Waste	Improvements Needed	Infrastructure/Solution for 25,000 lbs/day demand
Environmental/BioSecurity	Improvements Needed	Increased staffing
Labor/Equipment/Material	Improvements Needed	Imported materials, 2,000 Workers plus Housing
Electrical	Sufficient Capacity	
Telecommunications	Sufficient Capacity	
Water	Improvements Needed	Infrastructure for 230,000 gpd new demand
Wastewater	Improvements Needed	Infrastructure for 170,000 gpd new demand

CONTRACTED CONSTRUCTION

	\$100M	\$200M	\$300M	\$400M
Labor (Low and High Range)	262 - 787	525 - 1,574	787 - 2,361	1,049 - 3,147
Contractor Shipped Material	9,319 - 27,957	18,638 - 55,913	27,957 - 82,870	37,276 - 111,827
Contractor Shipped Material (20' Cont)	425 - 1,274	849 - 2,546	1,273 - 3,818	1,697 - 5,091
Work Camp Bunkhouse (Wgt., Tons)	396	788	1,184	1,575
Work Camp Bunkhouse (No. 40')	88	175	1,184	350

LABOR BREAKDOWN

	\$100M	\$200M	\$300M	\$400M
Supervisory	79	157	236	315
Skilled	367	734	1,102	1,469
Unskilled	79	157	236	315
Total	525	1,048	1,574	2,099

CONSTRUCTION RELATED SHIPPING

	\$100M	\$200M	\$300M	\$400M
Contractor Shipped Material	849	1,697	2,545	3,394
Cement for Concrete	235	469	704	939
Subtotal 20' Containers	1,084	2,166	3,249	4,333
40' Workcamp Bunkhouse	88	175	263	350

PROJECTED CONCRETE REQUIREMENTS

	\$100M	\$200M	\$300M	\$400M
Concrete Usage (CY)	5,515 – 16,544	11,030 – 33,089	16,544 – 49,633	22,059 – 66,177
Concrete Usage (CY/Day)	42	85	127	170
Shipping Pallets of Cement/Year	2,347	4,693	7,040	9,386
Shipping Tons of Cement/Year	4,412	8,823	13,235	17,646
Shipping of Cement Per Year (20' Cont)	235	469	704	939



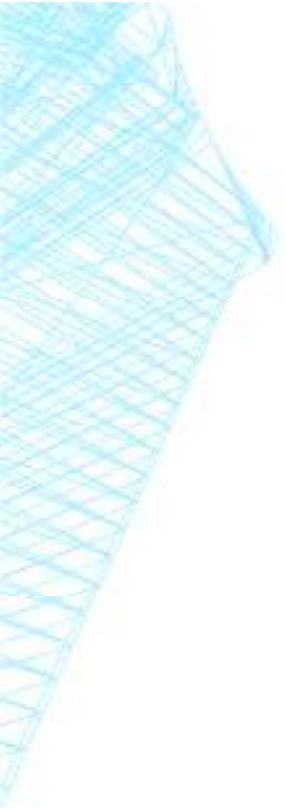
RECENT DEVELOPMENTS

- Tinian Western Lodge
 - Nine-Room Hotel
 - Diner/Restaurant
- Property Acquisition for Housing Developments
- Philippines Re-listed for Automatic Eligibility in the H-2B program
- CW-1 Separate Allotment for Construction Workers
 - 3,000 CW-1 permits for Construction and Extraction occupations for labor directly connected to or associated with recovery from presidentially declared disaster, or for preparation for a future disaster or emergency.
 - Valid for Fiscal Years 2020, 2021, 2022



DATA UPDATES

- Total Construction Labor Force
 - 2,803
(2017 CNMI Economic Census – U.S. Census Bureau)
- Total Construction Firms/Establishments
 - 108
(2017 CNMI Economic Census – U.S. Census Bureau)



ONGOING NEEDS



THANK YOU

