



Port Authority of Guam Modernization Program

Financial Feasibility Study Update 2011

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Submitted pursuant to Task Order 13 under Consultant Agreement No. PAG 09-001 between Jose D. Leon Guerrero Commercial Port (Port Authority of Guam) and PB Americas, Inc acting as Owner's Agent and Engineer (OAE) to assist the Port in meeting the Port Modernization Program objectives as contained in the Port Master Plan Update 2007 and subsequent related documents.

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List of Abbreviations

ANZ	Australia and New Zealand Bank
DOD	Department of Defense
DPRI	Defense Posture Realignment Initiative
FTE	Full-Time Equivalent
FY	Fiscal Year
GOS	Gate Operating System
JGPO	Joint Guam Program Office
MARAD	U.S. Maritime Administration
NAVFAC	Naval Facilities Engineering Command
OAE	Owner's Agent/Engineer
PAG	Port Authority of Guam
PCT	Public Cargo Terminal
PMC	Performance Management Contract
PUC	Public Utilities Commission
SDDC	Surface Deployment and Distribution Command
TOS	Terminal Operating System
USDA	United States Department of Agriculture
USWC	United States West Coast

The Port Authority of Guam Modernization Program

Financial Feasibility Study Update

1.0 Executive Summary

The Port Authority of Guam (PAG) directed Parsons Brinckerhoff (the Consultant or PB) to update the 2008 Financial Feasibility Study model and estimate of borrowing capacity to assess whether it has sufficient projected financial capacity to support the \$54.5 million U.S. Department of Agriculture (USDA) loan package plus another \$14 million in USDA borrowing to acquire new or refurbished cranes. Accordingly, the purpose of this analysis was to update the Financial Feasibility Study model and use it to assess PAG's capacity to borrow an additional \$14 million over and above the existing \$54.5 million borrowing authority.

This analysis included the revision and use of cargo projections presented in the PB study titled *Cargo Forecast with Military Impacts* (2010 PB Cargo Study) that was performed in conjunction with input on Department of Defense (DOD) projects on Guam provided by the Joint Guam Program Office (JGPO) and the Naval Facilities Engineering Command (NAVFAC) in February 2010. The Financial Feasibility Study Update also addresses changed conditions since the original 2008 Financial Feasibility Study, including changes to current and projected Port tariffs, lease and space rental revenues, salary rates, Performance Management Contract (PMC) parameters, construction and loan timing parameters, and other factors.

1.1 Summary Assessment

The borrowing capacity estimated is the amount above the existing \$54.5 million authorized. Principal, interest, coverage, and/or reserves for the four existing loans are deducted from the Port's projected cash flow in the model before estimating the residual borrowing capacity available for the crane purchase.

- Borrowing capacity was estimated for several scenarios based on the tariff escalation rates needed to support an additional \$14 million borrowing under the Conservative and Median Cargo Forecasts (Scenarios A and B) and the absence of annual tariff escalations beyond the currently proposed 3.95% increase for 2012 pending before the Public Utilities Commission (PUC) (Scenario C). The results of these scenario analyses are summarized in Table 1-1.

Table 1-1: Estimated Borrowing Capacity in Excess of \$54.5 Million by Scenario

	A. \$14M Capacity w/ Conservative Forecast	B. \$14M Capacity w/ Median Forecast	C. One-Time Tariff Escalation w/ Median Forecast
Scenario Conditions			
Tariff Escalation - 2012	3.95%	3.95%	3.95%
Tariff Escalation - 2013-2031	4.3%/yr.	3.6%/yr.	0%/yr.
Cargo Forecast	Conservative	Median	Median
Estimated Borrowing Capacity			
PAG Operation	\$ 14,000,000	\$ 14,000,000	\$ (109,600,000)
PMC Operation*	\$ 40,800,000	\$ 41,200,000	\$ (91,700,000)

* Borrowing capacity with a PMC operation is higher. Limiting this to \$14 million under a PMC operation for Scenarios A and B would result in an estimated tariff escalation rate that is about 0.3 percentage points lower between 2013 and 2031.

- Scenario A is based on the Conservative Cargo Forecast conditions, which are on average about 10% below the Median Forecast. Given the uncertainties associated with the DOD buildup schedule, this represents the Base Case for evaluating an additional \$14 million in borrowing. Under the Conservative Forecast, it appears PAG would have sufficient cash flow, working capital, and borrowing capacity to support a \$14 million loan provided that tariffs are escalated at 3.95% in 2012 as proposed before the PUC and then escalated at an annual rate of about 3.99% through 2031 (the assumed 20-year loan term).
- Under the Median Cargo Forecast conditions in Scenario B, tariffs would have to be escalated by 3.95% in 2012 and then at about 3.27% annually through 2031 to support an additional \$14 million loan. Borrowing capacity could be significantly higher for the above cases if the cost savings estimated to occur under the PMC operation are achieved.
- For the Port to meet the legal requirements of its loan covenants with the USDA and Australia and New Zealand Bank (ANZ), tariff escalations, such as those estimated above, must be maintained. Scenario C demonstrates that after the proposed 3.95% increase for 2012, but without further annual tariff escalations, the Port's borrowing capacity for any amount, including the already committed \$54.5 million, would be severely jeopardized. This would mean that the Port would not be able to meet debt service and coverage requirements even for these committed loans.

1.2 Cargo Forecast

The Median Cargo Forecast for the assessment was derived by using the Likely Port Cargo flow from the *2010 PB Cargo Study* and adjusting the time frames to support the JGPO's Adaptive Management strategy based on qualitative information on the DOD program schedule obtained from GovGuam and other available sources. The Conservative Forecast used in the model update is based on cargo volumes that are, on average, about 10% lower than the Median Cargo forecast each year. Overall volume of DOD buildup cargo is the same as under the *2010 PB Cargo Study*; however, the timing of shipments starts later and has been stretched out over more years; the peak year occurs later; and the peak year volume is lower, as follows:

The previous DOD budget schedule for the military buildup on Guam based on February 2010 JGPO/NAVFAC data assumed that disbursements would ramp up in Fiscal Year (FY) 2012 and peak in FY 2013 with project completion scheduled for FY 2016. However, this accelerated schedule has not materialized. PB received guidance from the GovGuam Buildup Office indicating that the likely range of expenditures is expected to be approximately \$1 billion for the period FY 2012 through FY 2014, with the budget peaking in 2017 (see Figure 3-1 in Section 3.2).

Under the earlier schedule, construction was expected to peak in FY 2013 and be completed by FY 2015. Under the revised schedule, construction is expected to peak in FY 2017. The square footage of buildings and related space was assumed to remain the same under both development scenarios (see Figure 3-2 in Section 3.2).

Under the earlier schedule, deployment of military personnel was expected to be largely completed by FY 2014/2015. Under the revised schedule, full deployment is projected to occur in FY 2020. The number of military personnel/dependents remains the same under both development schedules (see Figure 3-3 in Section 3.2).

Containers are projected to increase from approximately 97,000 boxes in 2010 to between 125,000 (conservative) and 167,000 boxes (high), with a median projection of 146,000 boxes in 2031, which corresponds to the assumed 20-year loan term. During construction, container volumes reach a peak of 153,000 boxes (conservative) to 183,000 boxes (high), with a median projection of 168,000 boxes in 2020 (see Figure 3-4 in Section 3.3).

Breakbulk cargoes are expected to grow from approximately 122,000 revenue tons in FY 2009¹ to between 140,000 (conservative) and 184,000 revenue tons (high), with a median projection of 162,000 revenue tons in FY 2031. During construction, breakbulk volumes reach a peak of 266,000 revenue tons (conservative) to 302,000 revenue tons (high), with a median projection of 284,000 revenue tons in 2017 (see Figure 3-5 in Section 3.3).

1.3 Financial Model Updates, Assumptions, and Calibration

The following updates were made to the financial model reflecting changes since the 2008 Financial Feasibility Study:

- The 3.4% interim tariff increase approved by the PUC in 2010
- The new Facility Maintenance Fees approved by the PUC in 2010
- The 3.95% across-the-board tariff increase pending before the PUC for 2012
- The proposed equalized wheeled and grounded container throughput rates for 2012
- The new transshipment container throughput rate structure for 2012
- The new, higher bulk petroleum rates
- Lease and space rental revenue reappraisals and renegotiations were updated

¹ Breakbulk volumes were exceptionally high and inconsistent with recent trends in 2010 (184,000 revenue tons (RT)) due to Navy construction activity.

- New submerged land lease revenues were estimated and added
- The new \$1 per ton cement license fee from new Port users was added
- Hourly, fully burdened salary rates were updated
- A 3.61% annual salary escalation through 2018 and 3.0% thereafter was applied
- A 4.8% annual cost escalation on non-labor expenses was assumed

The model addresses both PMC and PAG (no-PMC) operating scenarios on the following basis:

- For those scenarios involving a PMC providing full marine cargo and maintenance operations, parameters regarding PMC fees, productivity, efficiencies, and other factors were estimated and updated.
- Potential PMC fees were organized and estimated based on the format for the proposed fee structure in PAG's March 2010 Request for Proposals for a PMC operator.
- Productivity and efficiency levels under a PAG and PMC operation were estimated based on current PAG productivity and manning, representative private terminal operator industry practices, and the March 2010 Terminal Development and Operations Plan operating criteria.
- The maximum container crane productivity for U.S. West Coast (USWC) carriers is assumed to be 27.5 boxes/hour with a PMC and 22/hour with a PAG operation. For other carriers, the top productivity is assumed to be 20-22/hour under a PMC and 15.5-17.5 for PAG.

One-time staffing efficiency reductions were assumed based on the modernization benefits, as follows:

- Under a PAG operation, these efficiencies were assumed to be a 5% reduction in equipment maintenance staffing and a 5% reduction in facility maintenance staffing (two Full Time Equivalents (FTE) each).
- Under a PMC operation, they were assumed to be 20% (eight FTE), and 5% (two FTE), respectively.
- In both cases, IT staffing was assumed to increase by about six FTE to support the Terminal Operating System (TOS), the Gate Operating System (GOS), and other systems, while other administrative/financial staffing was assumed to reduce by about four FTE.

For the purpose of assessing interest on loans during construction, it was assumed that the Phase IA modernization would be completed by 2014 and loan drawdowns would occur as follows:

- The loan cash flows in the model assume that PAG controls the loan drawdowns and disbursements to the U.S. Maritime Administration (MARAD) in accordance with the drawdown plan developed during PAG/PB discussions with MARAD,

USDA, and ANZ Bank conducted in Guam on September 21, 2010, and prior discussions.

- Conversely, if the \$50 million USDA direct and ANZ loans are transferred to MARAD in one lump sum on October 1, 2011, instead of the above gradual drawdown, borrowing capacities would be reduced by about \$1.7 million for each of the scenarios. This would be equivalent to additional interest payments from PAG that would reduce free cash flow to support borrowing capacity.

The model results were compared with actual FY 2010 financial results for PAG based on the Port's audited financial statement and the detailed Trial Balance data. The model estimates for operating revenues, operating income, and cash flow were within -2% to 0% of the audited actual results for FY 2010.

1.4 Borrowing Capacity Assumptions and Scenarios

- The borrowing capacity estimated is the amount above the existing \$54.5 million authorized. Principal, interest, reserves, and coverage for the four existing loans listed below are deducted from the Port's projected cash flow in the model before estimating the residual borrowing capacity available for the crane purchase:
 - \$3.5 million USDA equipment loan
 - \$1 million USDA equipment loan extension
 - \$25 million USDA direct loan
 - \$25 million USDA/ANZ guaranteed loan
- While the borrowing term for the \$25 million USDA direct loan and \$25 million USDA/ANZ guaranteed loan is 40 years, a 24-year term is used in this analysis consistent with the average anticipated service life of facilities, systems, and equipment. The 24-year term covers 4 years of either interest only or partial payments during the construction and loan drawdown period followed by 20 years at the full principal and interest payment on each.²
- Funding of all future maintenance and replacement capital requirements, including F2/F3 refurbishment and Subic crane refurbishment/replacement is also deducted from cash flow before estimating borrowing capacity. The timing of these expenditures was delayed by three years compared with the 2008 Financial Feasibility Study.
- The terms for the additional borrowing are assumed to be as follows:
 - 4.95% interest rate
 - 20-year borrowing term (2012 to 2031)
 - Coverage ratio of 1.5

² The loan documents specify a 40-year borrowing term on structures and 25 years on equipment; however, a 20-year term is considered more prudent. The structural life of the assets may correspond to the longer term; however, equipment and structures can become functionally or technologically obsolete in a shorter period of time requiring reinvestment to maintain productivity. In 20 years, PAG may need to consider borrowing for this or other purposes, at which time it would be beneficial for PAG to have retired its old debt. In addition, total interest cost would be significantly lower with a 20-year term.

1.4.1 Borrowing Capacity Scenarios

- Three alternate scenarios were tested, as addressed in the Summary Assessment on Pages 1-1 and 1-2 and in detail in Section 5:
 - Scenario A—\$14 million borrowing capacity with conservative forecast
 - Scenario B—\$14 million borrowing capacity with median forecast
 - Scenario C—One-time 3.95% tariff increase with median forecast
- Scenario A, which is based on the Conservative Cargo Forecast, is considered to be the Base Case in view of the uncertainties associated with the DOD cargo volumes. Prudent financial analysis suggests that such a conservative approach should be taken under these conditions.
- Both Scenarios A and B backsolve to determine the long-term annual tariff escalation rate that would be required between 2013 and 2031 to support an additional \$14 million borrowing under a PAG operation.³
- Scenario C illustrates the effects of having no future tariff escalations beyond the 3.95% general increase currently pending before the PUC.
- In all scenarios, continued direct cargo operations by PAG, with no PMC, is the Base Case. In addition, however, the scenarios show the projected results under a PMC operation with attendant estimated PMC efficiencies.

³ The model estimates results in terms of an *average annual* tariff escalation, whereas the Port's actual tariff escalations may not be in the same percentage amount every year. For example, given the lengthy nature of the PAG tariff analysis and PUC tariff review processes, it is possible that tariff escalations will be undertaken every two or three years rather than annually. It is assumed PAG will on a periodic basis assess its then current or projected financial position; calculate its required cash flow to cover principal, interest, reserves, and coverage; and then calculate the tariff escalation required at that time to meet its obligations. In some years, the Port's actual tariff escalation may be higher than average and in other years lower.

2.0 Background

2.1 Legislative Overview

On September 11, 2009, Public Law 30-57, passed by the Guam Legislature to approve the PAG's master plan for the modernization of the Jose D. Leon Guerrero Commercial Port of Guam, was signed into law by the Governor. The framework for financing and funding in the legislation was based on the report submitted by the Port to the Legislature titled *Master Plan Update 2007, Report to the Legislature Pursuant to 5 GCA Chapter 9 § 9301* (Legislative Report 2009) prepared by the Consultant. It included a financial feasibility section detailing \$54.5 million in loans, \$50 million in Federal grants, and the staging of the modernization program into Phases IA and IB. The legislation authorized the Port to borrow up to \$54.5 million for use with the \$50 million grant for Phase IA of the modernization program. It also required that the Port acquire through purchase or "lease to own" at least two gantry cranes by December 2012.

Subsequent legislation (Public Law 30-100) also reiterated the requirements for the acquisition of at least two gantry cranes by December 31, 2012, by the Port.

After passage of the legislation, the Port successfully secured commitments for \$54.5 million in loans and \$50 million in Federal funding for execution of the Phase IA modernization program. The cranes were not included in the Port's Phase IA budget but were scheduled for implementation in the subsequent Phase IB.

2.2 Financing for Cranes to Address Public Law 30-57 and 30-100

Since passage of the legislation described in Section 2.1, more recently the Port has identified an additional \$14 million in low interest financing eligible for use for purchase of the cranes. The loan is guaranteed by the USDA under the Community Facilities Loan Program. Accordingly the Port is interested in its capacity to obtain and repay this loan and begin the process for acquiring cranes to address the requirements of Public Law 30-57 and 30-100.

The authorization to obligate the \$14 million USDA guaranteed loan expires on September 30, 2011. Legislative authority from the Guam Legislature signed by the Governor is needed to commit to this additional financing. If approved, PAG must formally submit an application and obtain approval from the USDA for the loan prior to that date.

Accordingly the Port directed the Consultants to update the previous financial feasibility study analyses to obtain and assess the Port's ability to borrow the \$14 million in USDA guaranteed loans to purchase the cranes.

2.3 Financial Feasibility Analysis Model

The financial projections in the *Master Plan Update 2007, Report to the Legislature Pursuant to 5 GCA Chapter 9 § 9301* was based on an Excel-based financial model analysis of PAG's operations that integrated cargo forecasts; PAG's tariff and revenue structure; and cargo operation, productivity, labor, and other cost parameters. It was largely developed by the Consultants for a previous study, *Master Plan Update 2007, Financial Feasibility Study Report⁴, August 2008* (2008 Financial Feasibility Study). Later refinements were made in 2009 for preparing the Legislative Report 2009 discussed in Section 2.1.

2.4 Recent Study Report Data

The reports referenced above were based primarily on a cargo forecast performed for the *Jose D. Leon Guerrero Commercial Port of Guam, Master Plan Update 2007 Report, April 2008* (Master Plan Update 2007). The cargo forecast impacts from the DOD Base Relocation Program were based on the information available to PAG from JGPO, the Surface Deployment and Distribution Command (SDDC), and other DOD sources as they began the planning and Environmental Impact Statement process for the relocation program in 2007. The Legislative Report 2009 was based on this cargo forecast with schedule adjustments to support changes to JGPO's schedule for base relocation known in 2009.

In February 2010, PAG in collaboration with JGPO, SDDC, and NAVFAC commissioned a more detailed study of the military program-related cargo impacts on the Port. This was based on specific information on all program projects and an anticipated schedule furnished by JGPO. The results were included in a report titled *Port Authority of Guam Modernization Program, Cargo Forecast with Military Program Impacts, July 2010* (2010 Port Cargo Forecast). Later in 2010 JGPO announced the delay of its program for base relocation and adoption of a policy of "Adaptive Management." This would stretch out implementation of DOD projects in time to coordinate with the capacities of Guam infrastructure elements, including roads and waste treatment facilities.

In 2010 the Port also commissioned tariff studies to support its application to the PUC for tariff changes to address cost escalations and its capital improvement program. This 2010 Tariff Study titled *Comprehensive Tariff Study PAG-10-005, Port Authority of Guam, November 2010* performed by the Cornell Group considered the \$54.5 million loan package and an additional \$10 million loan for purchase of gantry cranes. It used the median forecast in the *2010 Port Cargo Forecast Report* but with modifications including a 75% reduction in cargo and factors to support program delays. The analysis concluded that a 3.95% tariff increase will be needed over the next 20 years to support the total of \$64.5 million in loans for the capital improvement program.

⁴ *Financial Feasibility Study Report, August 2008.*

2.5 Significant Changes for this Analysis

This study, *Port Authority of Guam Modernization Program, Financial Feasibility Study Update 2011*, will use the most recent and available data to assess the Port's ability to exercise the \$14 million needed to purchase gantry cranes. The Port directed the Consultants to update the financial model of PAG's operations first developed by the Consultants for the *2008 Financial Feasibility Study*. The following changes and updates were made to the model to estimate borrowing capacity:

- Used the *2010 Port Cargo Forecast* as a starting point and refined the schedule of cargo flow through the Port using GovGuam and published JGPO/NAVFAC schedules for base relocation program project implementation
- Updated the new tariff rate schedule implemented by PAG in February 2011 and projected increase for 2012 based on the *2010 Tariff Study*
- Used PAG's 2010 Audited Financial Statement and trial balance to benchmark model performance for 2010 (previous benchmark year was 2007)
- Updated salary adjustments that were approved by GovGuam and implemented in 2010 and 2011
- Updated lease revenues based on most recent data provided by PAG
- Included other changes to the financial model as described elsewhere in this report

Accordingly, this analysis estimates borrowing capacity to determine whether PAG has sufficient projected cash flow to support the previously committed \$54.5 million USDA loan package plus another \$14 million in USDA borrowing to acquire gantry cranes.

3.0 Cargo Forecast Update

3.1 Starting Point for Cargo Forecast Update

The *Master Plan Update Report*, largely prepared in 2007,⁵ included forecasts of cargo due to organic growth in Guam and the surrounding region, DOD military buildup on Guam, and other Guam infrastructure driven by the Defense Posture Realignment Initiative (DPRI) program. It was based on program information available to the military in 2007.

The JGPO manages the expansion of facilities on Guam for the DPRI program. In 2010, JGPO acknowledged the need for an updated forecast of port cargo associated with the military buildup in order to incorporate information that represented a more clearly defined military program as of early 2010. Accordingly in 2010 PAG developed a forecast of likely military program activities using available DPRI program information. The report titled *Port Authority of Guam Modernization Program, Cargo Forecast with Military Program Impacts, July 2010* (2010 Port Cargo Forecast) is presented in Appendix 7-A.

In 2010 representatives from JGPO, Naval Facilities Engineering Command (NAVFAC), and Surface Deployment and Distribution Command (SDDC) worked with the PAG and the Consultants to define the various physical aspects of the DOD Buildup. Additional information was obtained from GovGuam entities on infrastructure programs that would also impact Port cargo. A detailed spreadsheet analysis was performed to estimate the volumes of Port cargo that the various DOD and GovGuam projects would generate and estimate the timing of these cargo flows. An analysis of cargo needed to support organic and buildup related population growth was also performed as described in Appendix 7-A.

In summer 2010, concurrent with the release of the Record of Decision and the Environmental Impact Statement for the DOD Military Program on Guam, the DOD made adjustments to the program implementation schedule to address environmental and budget considerations.

The timing and volumes of increased cargo flow through the Port are driven primarily by the military program. In turn, since the timing and volumes of cargo through the Port will have a significant impact on its revenues and expense projections, PAG found it necessary to update the 2010 Port Cargo Forecast based on the changed conditions related to the military program. This updated Cargo Forecast was used in the Financial Model to develop financial projections.

Section 3.2 briefly describes the revised assumptions regarding the schedule for the military buildup. This revised information was developed in collaboration with GovGuam and DOD entities to estimate the annual levels and types of cargo that would have to be imported to support the military buildup and sustain the long-term military relocation. It was assumed that while annual construction budgets and the timing and peaks of related cargo might change, there were no indications that the total volume of

⁵ Jose D. Leon Guerrero Commercial Port of Guam, *Master Plan Update 2007 Report*, April 2008.

construction and military program-related cargo over time would change from that described in Appendix 7-A.

The revised projections for the budget, project construction, and deployment of military personnel are illustrated in the following sections. The timing of these events drives the cargoes that are expected to move via the Port of Guam, including the following:

- Construction materials (containerized, breakbulk, and bulk cargoes) by trade route (USWC and Asian carriers)
- Additional throughput associated with the added population base as military personnel/dependents and support staff are deployed on Guam

This study focuses primarily on container, breakbulk, and dry bulk cargoes likely to flow through PAG's Public Cargo Terminal (PCT). However, it also includes a forecast of cement imports expected to flow through other private terminal(s) in the Port area.

3.2 Revised Military Buildup Assumptions

This section briefly describes the revised assumptions related to the latest schedule information available on the proposed military buildup. It focuses on budget, construction of building space, and deployment of military personnel and dependents.

3.2.1 DOD Construction Budget

The revised annual budgets are shown in Figure 3-1. The blue columns indicate the 2010 Port Cargo Forecast budget disbursements (Appendix 7-A) and the red columns display the revised estimates used in this analysis. The previous budget schedule assumed that disbursement would ramp up in FY 2012 and peak in FY 2013 with project completion scheduled for FY 2016. However, this accelerated schedule has not materialized. PAG received guidance from GovGuam and DOD indicating that the likely range of expenditures is expected to be approximately \$1 billion for the period FY 2012 through FY 2014, with the budget peaking in 2017.

3.2.2 DOD Construction Schedule

Under the 2010 Port Cargo Forecast schedule, construction was expected to peak in FY 2013 and be completed by FY 2015. Under the revised schedule, construction is expected to peak in FY 2017. The square footage of buildings and related space remains the same under both development scenarios (Figure 3-2).

Figure 3-1: Revised Budget Disbursement for DOD Construction (\$ millions)

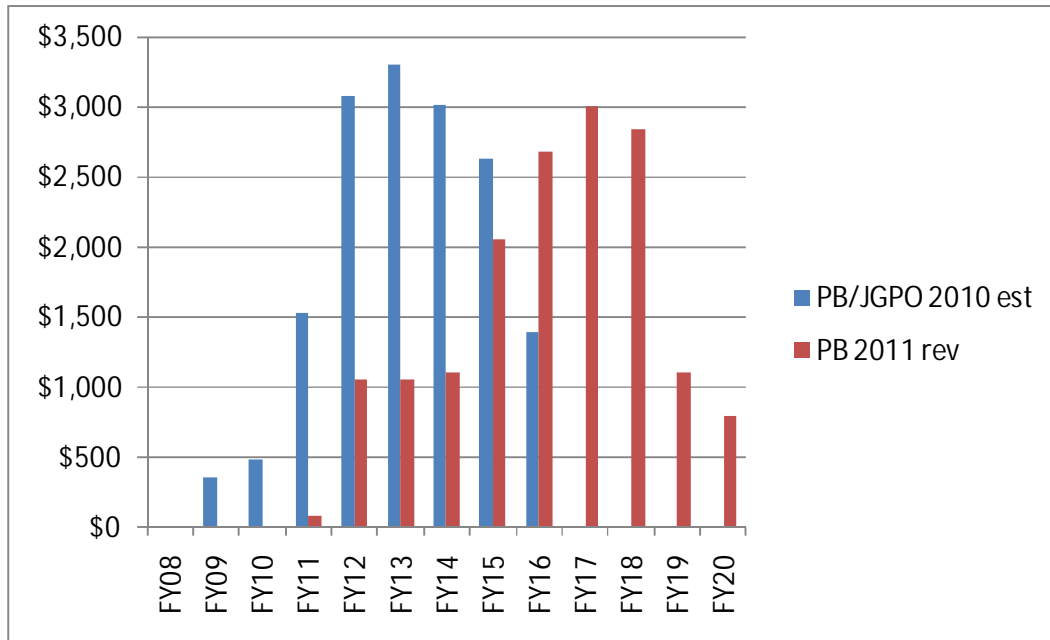
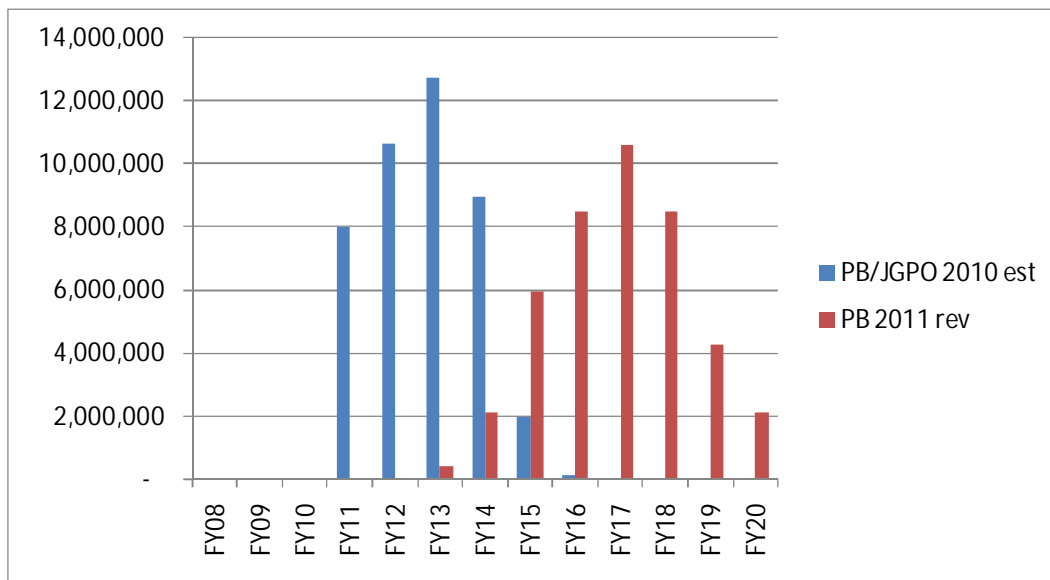


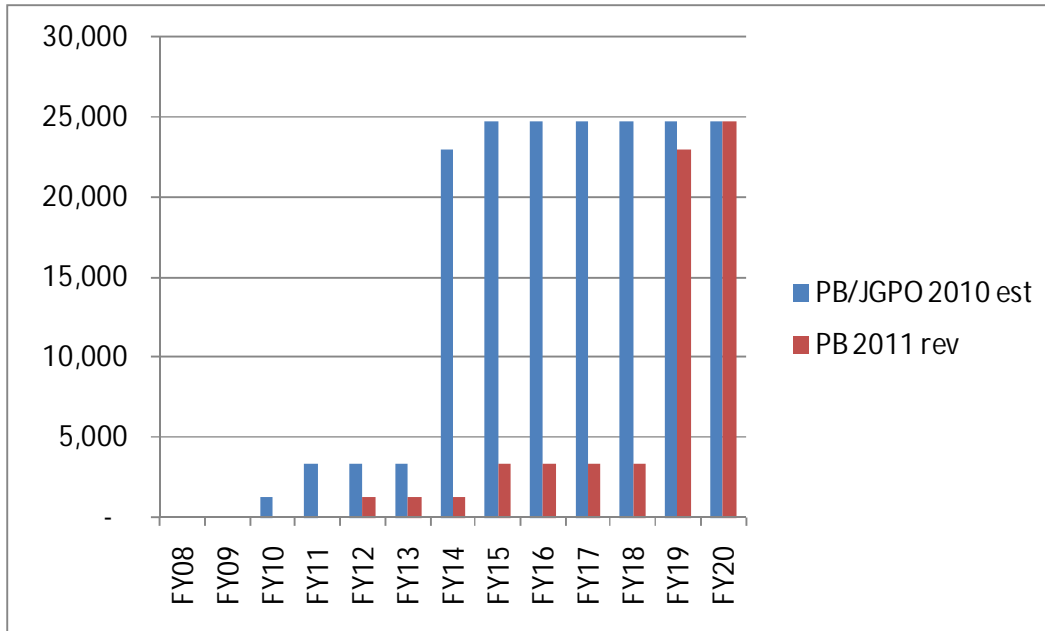
Figure 3-2: Revised Construction Schedule for DOD Program (\$ millions)



3.2.3 Military Population

Under the 2010 Port Cargo Forecast schedule, deployment was expected to be largely completed by FY 2014/2015. Deployment of military personnel and dependents is related to the construction schedule, using the prior schedule of deployment and construction as a guide. Under the revised schedule, full deployment is projected to occur in FY 2020. The number of military personnel/dependents remains the same under both development scenarios (Figure 3-3).

Figure 3-3: Assumed Military Population on Guam



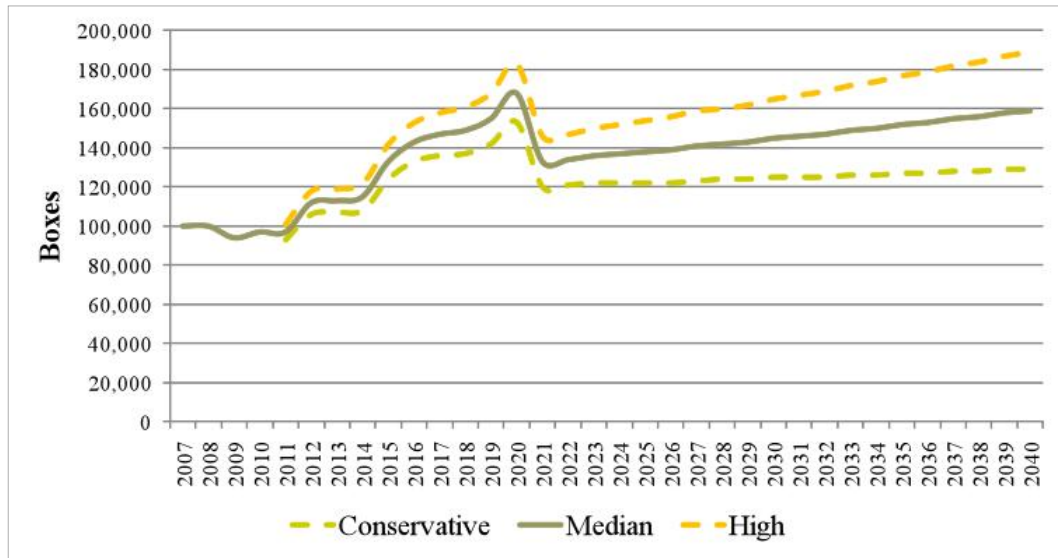
3.3 Revised Cargo Forecasts

This section briefly describes the cargo volumes associated with these revised assumptions.

3.3.1 Containers

Figure 3-4 depicts the revised container forecast for the “With Buildup” conditions, including full and empty containers on all trade routes.

Figure 3-4: Port of Guam Container Forecast—With Buildup (Total Boxes)



Containers are projected to increase from approximately 97,000 boxes in 2010 to between 129,000 boxes (conservative) and 189,000 boxes (high), with a projection of 159,000 boxes in 2040. During construction, container volumes reach a peak of 153,000 boxes (conservative) to 183,000 boxes (high), with a median projection of 168,000 boxes in 2020. The year-by-year container forecast figures are shown in Table 3-1.

3.3.2 Breakbulk

With the military buildup, breakbulk cargoes are expected to grow from approximately 122,000 revenue tons in FY 2009 to between 144,000 revenue tons (conservative) and 208,000 revenue tons (high), with a median forecast of 176,000 revenue tons in FY 2040. During construction, breakbulk volumes reach a peak of 266,000 revenue tons (conservative) to 302,000 revenue tons (high), with a median projection of 284,000 revenue tons in 2017, as depicted in Figure 3-5. The detailed breakbulk forecast data are shown in Table 3-2.

3.3.3 Bulk Cement

With the military buildup, bulk cement is expected to grow from around 80,000 revenue tons in FY 2010 to between 85,000 revenue tons (conservative) and 123,000 revenue tons (high), with a median forecast of 104,000 revenue tons in FY 2040. As depicted in Figure 3-6, during construction, bulk cement volumes are expected to reach a peak of 359,000 revenue tons (conservative) to 409,000 revenue tons (high), with a median projection of 384,000 revenue tons in 2017. Detailed cement forecast data are shown in Table 3-3.

Table 3-1: Guam Container Forecast (Boxes)—With Buildup

Year	Conservative	Median	High
2007		100,000	
2008		100,000	
2009		94,000	
2010		97,000	
2011	93,000	97,000	101,000
2012	106,000	112,000	118,000
2013	107,000	113,000	119,000
2014	108,000	115,000	122,000
2015	124,000	133,000	142,000
2016	133,000	143,000	153,000
2017	136,000	147,000	158,000
2018	137,000	149,000	161,000
2019	142,000	155,000	168,000
2020	153,000	168,000	183,000
2021	120,000	133,000	146,000
2022	121,000	134,000	147,000
2023	122,000	136,000	150,000
2024	122,000	137,000	152,000
2025	122,000	138,000	154,000
2026	122,000	139,000	156,000
2027	123,000	141,000	159,000
2028	124,000	142,000	160,000
2029	124,000	143,000	162,000
2030	125,000	145,000	165,000
2031	125,000	146,000	167,000
2032	125,000	147,000	169,000
2033	126,000	149,000	172,000
2034	126,000	150,000	174,000
2035	127,000	152,000	177,000
2036	127,000	153,000	179,000
2037	128,000	155,000	182,000
2038	128,000	156,000	184,000
2039	129,000	158,000	187,000
2040	129,000	159,000	189,000

Table 3-2: Guam Breakbulk Forecast (Revenue Tons)—With Buildup

Year	Conservative	Median	High
2007		135,000	
2008		121,000	
2009		122,000	
2010		184,000	
2011	95,000	98,000	101,000
2012	162,000	169,000	176,000
2013	163,000	171,000	179,000
2014	171,000	180,000	189,000
2015	219,000	232,000	245,000
2016	252,000	268,000	284,000
2017	266,000	284,000	302,000
2018	259,000	278,000	297,000
2019	177,000	191,000	205,000
2020	188,000	204,000	220,000
2021	135,000	147,000	159,000
2022	135,000	148,000	161,000
2023	136,000	150,000	164,000
2024	136,000	151,000	166,000
2025	137,000	153,000	169,000
2026	137,000	154,000	171,000
2027	137,000	155,000	173,000
2028	138,000	157,000	176,000
2029	138,000	158,000	178,000
2030	139,000	160,000	181,000
2031	140,000	162,000	184,000
2032	140,000	163,000	186,000
2033	141,000	165,000	189,000
2034	141,000	166,000	191,000
2035	142,000	168,000	194,000
2036	142,000	169,000	196,000
2037	143,000	171,000	199,000
2038	144,000	173,000	202,000
2039	144,000	174,000	204,000
2040	144,000	176,000	208,000

Table 3-3: Guam Bulk Cement Forecast (Revenue Tons)—With Buildup

Year	Conservative	Median	High
2007		69,000	
2008		90,000	
2009		55,000	
2010		80,000	
2011	70,000	73,000	76,000
2012	156,000	162,000	168,000
2013	156,000	163,000	170,000
2014	161,000	169,000	177,000
2015	260,000	275,000	290,000
2016	325,000	346,000	367,000
2017	359,000	384,000	409,000
2018	342,000	368,000	394,000
2019	163,000	176,000	189,000
2020	131,000	142,000	153,000
2021	77,000	84,000	91,000
2022	77,000	85,000	93,000
2023	78,000	86,000	94,000
2024	78,000	87,000	96,000
2025	79,000	88,000	97,000
2026	79,000	89,000	99,000
2027	80,000	90,000	100,000
2028	80,000	91,000	102,000
2029	81,000	92,000	104,000
2030	81,000	93,000	105,000
2031	81,000	94,000	107,000
2032	82,000	95,000	108,000
2033	82,000	96,000	110,000
2034	82,000	97,000	112,000
2035	84,000	99,000	114,000
2036	84,000	100,000	116,000
2037	84,000	101,000	118,000
2038	85,000	102,000	119,000
2039	85,000	103,000	121,000
2040	85,000	104,000	123,000

Figure 3-5: Guam Breakbulk Trends and Forecasts (Revenue Tons)—With Buildup

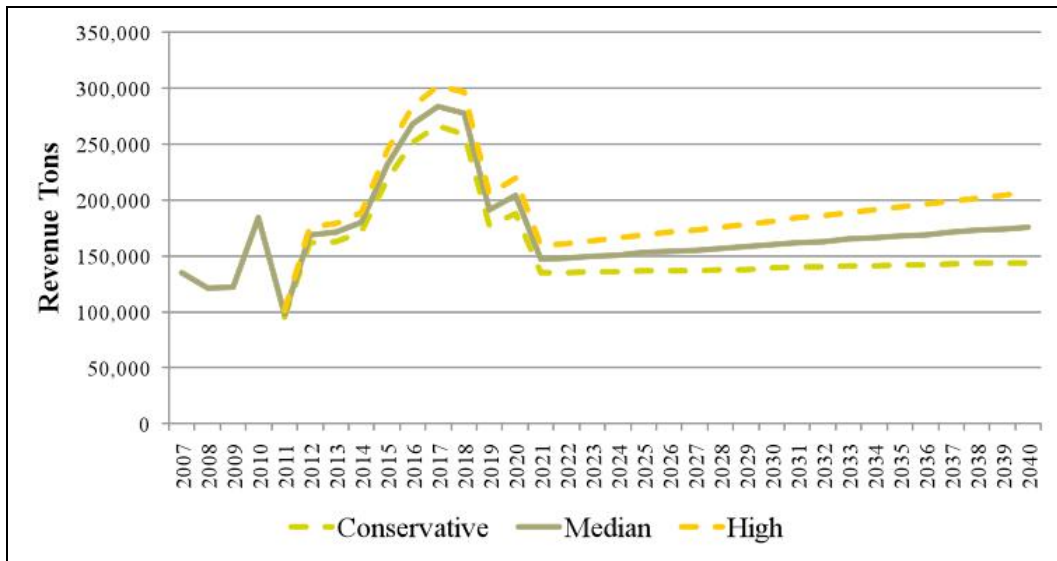
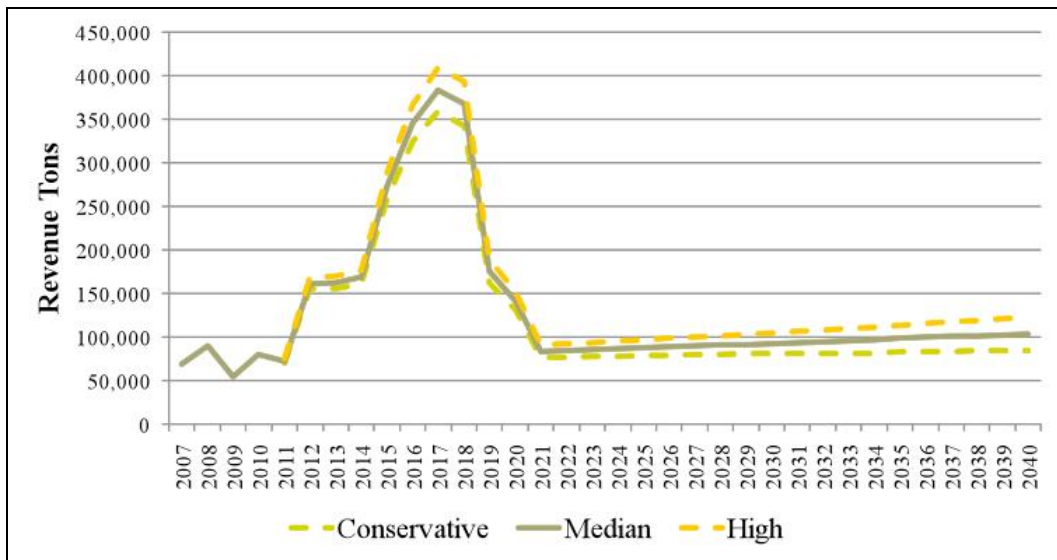


Figure 3-6: Guam Bulk Cement Trends and Forecasts (Revenue Tons)—With Buildup



4.0 Financial Model Updates and Calibration

This section summarizes the changes and updates made to the financial model developed in the original Financial Feasibility Study as a part of this Financial Feasibility Study Update. It also addresses the changes to key assumptions used in both studies. For details regarding the financial model architecture and base assumptions, please refer to the *Financial Feasibility Study Report, August 2008*. The updates and assumptions discussed below apply to all scenarios analyzed in Section 5 with the exception of the PMC parameters in Section 4.5, which only apply to the PMC scenarios in Section 5.

4.1 Tariffs

Port tariffs were updated as follows:

- The 3.4% interim 2010 tariff increase approved by the PUC was applied to a pro rata portion of FY 2010 (consistent with the February 1, 2010, date of effectiveness) and all of FY 2011.
- The new Facility Maintenance Fees approved by the PUC were applied to a pro rata portion of FY 2010 (consistent with the March 1, 2010, date of effectiveness) and all of FY 2011. For subsequent years, this new tariff is applied after tariff escalation as appropriate to support each scenario requirement.
- The 3.95% across-the-board tariff increase recommended by the Cornell Group's *2010 Tariff Study*, and which PAG used as the basis to initiate the 2011 PUC tariff adjustment process, was applied in FY 2012. Various tariff escalation factors were then applied to FY 2013 and later years for each scenario analysis as needed to support debt service to support loans.
- The proposed equalized wheeled and grounded container throughput rates pending before the PUC were applied starting in FY 2012.
- The new trans-shipment container throughput rate structure that eliminated volume-per-vessel discounts was applied starting in FY 2012.
- The new, higher bulk petroleum revenues were estimated and applied in FY 2010 and FY 2012, respectively, based on data from the PAG FY 2010 Trial Balance.

4.2 Lease and Space Rental Revenues

Port lease and space rental revenues were updated as follows:

- Lease and space rental revenues for FY 2010 and FY 2011 were updated based on interviews with PAG staff, recent appraisal reports provided to the consultant by PAG, and data from the PAG FY 2010 Trial Balance report.
- New submerged land lease revenues were added based on recent appraisal reports provided to the consultant by PAG.
- New cement license fee revenues from new Port users were added starting in FY 2012 based on interviews with PAG staff and the cement cargo forecast.
- Annual lease revenue escalations were not applied to non-tariff revenue sources such as leases and space rentals. Likewise, maintenance capital expenditures for lease

properties were not included in the model. This was consistent with PAG policy to reserve revenue from periodic lease escalations that are likely to occur to support the maintenance capital needs of those facilities.

4.3 Salary Rates and Salary/Non-Salary Escalation Rates

- Hourly fully burdened salary rates were updated for PAG staff based on updated staffing pattern data received from PAG.
- A 3.61% annual salary escalation through 2018 was assumed, which is estimated to bring employee salaries to the 50th percentile in PAG's salary study, and a 3.0% salary escalation was assumed thereafter.
- A 4.8% annual cost escalation on non-labor expenses was assumed. This was derived from a previous Moody's Investors Service bond analysis for Guam Power.

4.4 Phase IA Modernization and Operational Efficiencies

The model analysis assumes that PAG will complete the modernization program and transition from its current method of operation to a more efficient and cost-effective mode of operation, as discussed in the following subsections.

4.4.1 Implementation of Phase IA Program

The Phase IA Program in its entirety as described in the *Port Authority of Guam Modernization Program, Implementation Plan Report, August 2010* (2010 Implementation Plan) is substantially implemented by December 2014.

4.4.2 Equipment Purchases

The equipment needs (originally described in the *Terminal Development Plan 2010*) were prorated based on current forecasts of cargo volumes and would be procured as part of the Phase IA Program. The equipment would be replaced by purchases made from free cash flow over the years after their useful life. The operations and operating costs would reflect the efficiencies related to this equipment.

4.4.3 Terminal Operating System

The operational efficiencies assumed in the model include the benefits of implementing a modern, proven TOS before construction work causes congestion in the container yard. At the end of the Phase IA construction program it was assumed that the TOS would be reprogrammed to link with an efficient GOS. The equipment assumptions are detailed in the *Terminal Development Plan 2010*.

4.4.4 Staffing Efficiencies

Based on the above modernization elements, it was assumed that staffing efficiencies will be made for apron service, yard service, and gate service beginning primarily in FY 2015.

4.4.5 Wheeled versus Grounded Operational Assumptions

It was assumed that a portion of the USWC local inbound dry full containers will be grounded during periods of peak congestion due to higher volumes and/or construction activities by gradually increasing from 2013 until 2020 with a peak of 75%. After that, it was assumed that PAG will revert to its current wheeled mode of operations. Labor and productivity adjustments were made to support this distribution.

4.5 PMC Parameters

The model addresses both PMC and PAG (no-PMC) operating scenarios as follows:

- For those scenarios involving a PMC providing full marine cargo and maintenance operations, parameters regarding PMC fees, productivity, efficiencies, and other factors were estimated and updated.
- Potential PMC fees were organized and estimated based on the format for the proposed fee structure in PAG's March 2010 Request for Proposals for a PMC operator.
- Productivity and efficiency levels under a PAG and PMC operation were estimated based on current PAG productivity and manning data, private terminal operator industry practice, PAG Master Plan operating criteria, and the Consultant's estimates.
- The maximum container crane productivity for USWC carriers is assumed to be 27.5 boxes/hour with a PMC and 22/hour with a PAG operation. For other carriers, the top productivity is assumed to be 20 to 22 boxes/hour under a PMC and 15.5 to 17.5 for a PAG operation.
- Breakbulk crane productivity is assumed to be 120 revenue tons/hour under either a PMC or PAG operation.
- Under a PMC operation, it is assumed that stevedoring, terminal, and transportation manning can be reduced while maintaining productivity. These reductions would actually be in the form of reduced increases in manning as volume increases.

One-time staffing efficiency reductions were assumed based on the benefits of modernization.

- Under a PAG operation, these efficiencies were assumed to be a 5% reduction in equipment maintenance staffing and a 5% reduction in facility maintenance staffing (two FTE each).
- Under a PMC operation, these efficiencies were assumed to be a 20% reduction in equipment maintenance staffing (eight FTE) and a 5% reduction in facility maintenance staffing (two FTE).
- In both cases, IT staffing was assumed to increase by about six FTE to support TOS, GOS, and other systems, while other administrative/financial staffing was assumed to be reduced by about four FTE.

4.6 Loan Cash Flows

For the purpose of assessing interest on loans during construction it was assumed that the Phase IA modernization would be completed by 2014 and that loan drawdowns would occur as follows:

- The loan cash flows in the model assume that PAG controls the loan drawdowns and disbursements to MARAD in accordance with the drawdown plan developed during PAG/PB discussions with MARAD, USDA, and ANZ conducted in Guam on September 21, 2010, and prior discussions. Specifically, the following drawdown schedule is assumed:
 - The \$3.5 million USDA equipment loan has already largely been exercised, and principal and interest payments were included from the current fiscal year.
 - The \$1.0 million USDA equipment loan extension was assumed to be accessed for equipment purchases to be made directly by PAG for Phase IA in 2012 to alleviate congestion due to construction.
 - A portion of the USDA direct loan of \$25 million will be used by PAG to support Phase IA equipment and TOS-related procurements for equipment to be made directly by PAG during Phase IA to alleviate construction-related congestion.
- The major portion of the USDA direct and USDA/ANZ guaranteed loans will be reserved and drawn by PAG during the later stages of Phase IA construction to support MARAD/PMT cash flows as the \$50 million DOD funds begin to deplete.
- The construction program for Phase IA was assumed to start in the 2012 calendar year with completion in the 2014 calendar year.
- If the \$50 million USDA direct and ANZ loans are transferred to MARAD in one lump sum on October 1, 2011, instead of the above gradual drawdown as needed during construction, borrowing capacities will be reduced by about \$1.7 million for each of the scenarios. This would be equivalent to additional interest payments from PAG during construction that would reduce free cash flow to support borrowing capacity.
- The basis for the principal and interest repayment schedule was generally modeled as outlined in the following loan documents:
 - USDA Letter of Conditions for the Expansion and Modernization of the Seaport, dated August 9, 2010 (see Appendix B)
 - Response from Citizens Security Bank, Guam (member of the ANZ Group of Companies) to Request for Proposal 09-010 dated July 22, 2009.

4.7 Model Calibration

After completion of the financial model updates described above, the model results were compared with actual FY 2010 financial results for PAG based on the Port's audited financial statement and the detailed Trial Balance data underlying the audited statement provided by PAG. Adjustments and corrections were made to various model factors and variables to benchmark the model so that it was producing financial results for the year 2010 consistent with the Port's actual financial performance.

As shown in Table 4-1, the model estimates for operating revenues, operating income, and cash flow are all within -2% to 0% of the audited actual results for FY 2010. Free cash flow was considered to be particularly important because this is what ultimately will drive the Port's ability to repay any loans. After deductions from cash flow for annual maintenance and replacement capital expenditures, the remaining cash flow is the amount available for the Port's borrowing, reserve, and coverage requirements.

Table 4-1: FY 2010 Financial Model Calibration Results

Category	FY 2010 Actual	FY 2010 Model	Variance	Percent
Cargo operation revenues – container	\$23,946,232	\$23,870,565	(\$75,667)	0%
Cargo operation revenues – breakbulk	\$3,956,976	\$3,960,651	\$3,675	0%
Cargo operating revenues – total	\$27,903,208	\$27,831,216	(\$71,992)	0%
Total operating revenues - consolidated	\$36,269,750	\$36,136,816	(\$132,934)	0%
Total operating expenses - consolidated	\$33,584,273	\$33,511,812	(\$72,461)	-2%
Operating income (loss) – consolidated	\$2,685,477	\$2,625,004	(\$60,473)	-2%
Unencumbered cash flow – consolidated	\$4,248,802	\$4,266,047	\$17,245	0%

5.0 Scenario Analysis and Borrowing Capacity

5.1 Key Financial Principles

The *2008 Financial Feasibility Study* established four key financial principles that underscored the analysis and recommendations from that study effort. The same principles were applied in this update.

- **Maintain the Port**—Once the port modernization and expansion is complete, it will be important to maintain the new facilities and equipment and perform ongoing maintenance that will ensure they are not subject to deterioration or failure in the future, service is not interrupted, and efficiencies are maintained. Industry standard maintenance and equipment replacement practices are assumed in the scenario analyses to avoid having to consider a costly major rehabilitation in the future.
- **Maintain Positive Financial Performance**—To maintain efficient port operations for the citizens of Guam and meet the requirements of its loan covenants, it is important that PAG maintain positive financial performance in terms of operating income, net income, and cash flow. Consequently, the scenario analyses presented below all seek to identify conditions that would result in sufficient cash flow and a working capital balance through 2031 to meet the Port’s future operating and maintenance needs as well as the principal, interest, coverage, and reserve obligations under its loans.
- **Control Costs through Productivity Improvements**—To minimize the effects of annual inflation in labor and non-labor operating costs, standard practice in the port industry is to continuously seek productivity and efficiency improvements. The equipment and terminal operating system included in the modernization program would result in productivity increases and cost reductions, which are reflected in the scenarios.
- **Keep Up with Inflation**—To the extent that productivity improvements and cost controls cannot keep up with inflationary increases, periodic escalations will be needed to maintain positive financial performance. Again, industry standard practice is to review costs, revenues, and pricing on an annual or at least three- to five-year basis and implement tariff increases when and where appropriate. The scenario analyses discussed below assume that such a process takes place.

5.2 Borrowing Analysis Assumptions

The borrowing capacity being estimated is the amount above the \$54.5 million assumed for the Phase IA Program. Accordingly, the principal, interest, reserves, and coverage for the four existing loans listed in Table 5-1 are deducted from the Port’s projected cash flow in the model before estimating the residual borrowing capacity available for the USDA crane purchase loan.

Table 5-1: Terms of Existing Committed Loans Included in Financial Model

Loan	Principal Amount	Interest Rate	Term	Reserve or Coverage Requirements
USDA Equipment Loan	\$3,500,000	4.96%	15 Years	1.5 x P&I
USDA Equipment Loan Extension	\$1,000,000	4.96%	15 Years	1.5 x P&I
USDA Direct Loan	\$25,000,000	4.00%	24 Years*	10% of P&I payment per year into reserve until 1 year's P&I payment reserved
USDA/ANZ Guaranteed Loan	\$25,000,000	4.95%	24 Years*	1.25 x P&I or 1.5 x interest, whichever is greater

Additional assumptions are as follows:

- While the borrowing term for the \$25 million USDA direct loan and \$25 million USDA/ANZ guaranteed loan is 40 years, a 24-year term is used in this analysis consistent with the average anticipated service life of the port modernization facilities, systems, and equipment. The 24-year term covers 4 years of either interest-only or partial payments during the construction and loan drawdown period followed by 20 years at the full principal and interest payment on each.
- The loan documents specify a 40-year borrowing term on structures and 25 years on equipment; however, a 20-year term is considered more prudent. The structural life of a portion of the assets may correspond to the longer term; however, equipment and structures can become functionally or technologically obsolete in a shorter period of time requiring reinvestment to maintain productivity. In 20 years PAG may need to consider borrowing for this or other purposes, at which time it would be beneficial for PAG to have retired its old debt. In addition, total interest cost would be significantly lower with a 20-year term.
- Funding of all future maintenance and replacement capital requirements, including F3 refurbishment and Subic crane refurbishment/replacement, is also deducted from cash flow before estimating borrowing capacity. The timing of these expenditures was delayed by some three years compared with the 2008 Financial Feasibility Study. To smooth out cash flow and PAG's working capital balance available loan repayments, it was also assumed that these large capital projects would not be funded directly out of cash flow but rather by borrowing. The \$13.5 million F3 refurbishment is assumed to be financed over 40 years at 5% interest, and the \$9 million Subic crane replacement is assumed to be financed over 20 years at 5% interest.

- The terms for the additional \$14 million borrowing for the acquisition of cranes are assumed to be as follows:
 - 4.95% interest rate
 - 20-year borrowing term (2012 to 2031)
 - Coverage ratio of 1.5

5.3 Base Case Financial Analysis

5.3.1 Base Case (Scenario A) Assumptions

The following key assumptions are included in the Base Case analysis. This Base Case is used as Scenario A in the scenario analysis that follows in Section 5.4.

- In view of the uncertainties associated with the scheduling, pace, and ultimate magnitude of the DOD buildup, the Conservative Cargo Forecast is used in the Base Case. Prudent financial analysis suggests that such a moderate approach should be taken under these conditions. Cargo volumes are, on average, 10% lower under the Conservative Forecast than under the Median Forecast over the 20-year financing horizon.
- Continued direct cargo operation by PAG, with no PMC, is assumed in the Base Case. In addition, however, the scenarios also show the projected results under a PMC operation with attendant estimated PMC efficiencies.
- All model assumptions described in Section 4.0 are included in the Base Case, as are the other scenarios discussed in Section 5.4.
- The borrowing assumptions discussed in Section 5.1 are also included in the Base Case and the other scenarios.

5.3.2 Base Case (Scenario A) Financial Results

Using these assumptions, the projected Base Case (Scenario A) financial results under a PAG cargo operation are as follows:

- Operating Revenue—Total operating revenues for the Port are projected to grow from \$36.3 million in FY 2010 to an estimated peak of \$76 million in 2020. Operating revenues would decline to approximately \$61 million after the buildup and then grow to about \$89 million in 2031, which corresponds to the assumed 20-year loan term.
- Operating Income/Loss—The Port's operating income is projected to grow from \$2.7 million in FY 2010 to an estimated peak of \$11 million in 2020. Operating income would decline to approximately \$500,000 after the buildup and then grow to about \$9 million in 2031.
- Non-Operating Income (Loss)—Non-operating income (loss), which includes unpredictable and one-time gains and losses that the model cannot anticipate, is projected to rise slightly over time based on assumptions supplied by PAG. This mainly includes the Port's Cost of Living Adjustments/Supplemental Annuity costs,

which will be approximately \$2.2 million in 2011 and are projected to increase 1% annually through 2031.

- Cash Flow—The Port’s cash flow is projected to grow from \$4.2 million in FY 2010 to an estimated peak of \$18 million in 2020. Cash flow would decline to approximately \$7 million after the buildup and then grow to about \$15 million in 2031.
- Working Capital Balance—The working capital balance for the Port is projected to grow from \$7.6 million at the close of FY 2010 to an estimated peak of \$43 million in 2020 (\$27 million in 2011 dollars). Working capital would then decline after the buildup and plateau at approximately \$22 million (\$8 million in 2011 dollars) in 2029-2031.

5.4 Borrowing Capacity by Scenario

Three alternate scenarios were developed to test the range of possible outcomes under a set of alternative conditions developed in collaboration with PAG. For each basic scenario, the results are shown based on continued direct cargo operations by PAG, as well as under a PMC operation with attendant estimated PMC efficiencies. The three scenarios are as follows:

- Scenario A (Base Case)
 - \$14,000,000 borrowing capacity
 - Conservative Cargo Forecast
- Scenario B
 - \$14,000,000 borrowing capacity
 - Median Cargo Forecast
- Scenario C
 - One-time 3.95% tariff increase
 - Median Cargo Forecast

Borrowing capacity was estimated for each scenario based on the tariff escalation rates needed to support an additional \$14 million borrowing under the Conservative and Median Cargo Forecasts (Scenarios A and B) and the absence of annual tariff escalations beyond the currently proposed 3.95% increase for 2012 pending before the PUC (Scenario C). The results of these scenario analyses are summarized in Table 5-2.

Table 5-2: Estimated Borrowing Capacity in Excess of \$54.5 Million by Scenario

	A. \$14M Capacity w/ Conservative Forecast	B. \$14M Capacity w/ Median Forecast	C. One-Time Tariff Escalation w/ Median Forecast
Scenario Conditions			
Tariff Escalation - 2012	3.95%	3.95%	3.95%
Tariff Escalation - 2013-2031	4.3%/yr.	3.6%/yr.	0%/yr.
Cargo Forecast	Conservative	Median	Median
Estimated Borrowing Capacity			
PAG Operation	\$ 14,000,000	\$ 14,000,000	\$ (109,600,000)
PMC Operation*	\$ 40,800,000	\$ 41,200,000	\$ (91,700,000)

*Borrowing capacity with a PMC operation is higher. Limiting this to \$14 million under a PMC operation for Scenarios A and B would result in an estimated tariff escalation rate that is about 0.3 percentage points lower between 2013 and 2031.

5.4.1 Scenario A (Base Case)—Conservative Forecast

Scenario A is based on the Conservative Cargo Forecast conditions, which are on average about 10% below the Median Forecast. Under the Conservative Forecast it appears PAG would have sufficient borrowing capacity to support a \$14 million loan provided that tariffs are escalated at 3.95% in 2012 as proposed before the PUC and then escalated at an annual rate of 4.3% through 2031 (the assumed 20-year loan term).

5.4.2 Scenario B—Median Forecast

Under the Median Cargo Forecast conditions in Scenario B, tariffs would have to be escalated by 3.95% in 2012 and then at 3.6% annually through 2031 to support the additional \$14 million loan. Borrowing capacity could be significantly higher for the above cases if the cost savings estimated to occur under the PMC operation are achieved. Alternatively, if borrowing under a PMC operation were limited, the required tariff escalation rate between 2013 and 2031 could be lowered.

5.4.3 Scenario C—One-Time Tariff Escalation

For the Port to meet the legal requirements of its loan covenants with the USDA and ANZ, tariff escalations, such as those estimated above, must be maintained. Scenario C demonstrates that after the proposed 3.95% increase for 2012, without further annual tariff escalations the Port's borrowing capacity for any amount including the already committed \$54.5 million would be severely jeopardized. This would mean that the Port would not be able to meet debt service and coverage requirements even for these currently planned Phase IA Program loans.

5.4.4 Additional Cases

Two additional cases were also assessed, although they are generally beyond the scope of the model or available data to confidently estimate.

- A maintenance-only PMC contract case was assessed under a PAG cargo-operations scenario. Potential efficiency and cost-saving benefits include reduced maintenance labor and operating cost, lower cost procurements, and increased equipment availability, most of which the model cannot simulate. However, to assess this

condition it was assumed that PAG labor efficiency savings of 20% starting in 2015, annual fees for the PMC-maintenance contract of \$1 million, and the Median Cargo Forecast would apply. Compared to the PAG operated scenario with the Median Cargo Forecast (Scenario B with PAG), in order to maintain the \$14 million additional borrowing capacity, the tariff escalation rates in years 2013 to 2031 would have to be increased slightly from 3.6% to 3.7%.

- A crane lease-to-purchase rather than an outright purchase was assessed under a Median Cargo Forecast and a PMC operation. It was assumed that a \$14 million crane value, 10-year lease/purchase term, and implicit 15% interest cost built into the lease with cash flows under the Median Cargo Forecast. The net residual borrowing capacity was reduced from \$41.2 million (Scenario B with PMC) to about \$29 million. The model showed sufficient cash flow to cover lease/purchase payments, principal, interest, reserves, and coverage on all other debt and still leave the Port some residual borrowing capacity.

5.4.5 Tariff Escalation Process

The model estimates results in terms of an *average annual* tariff escalation, whereas the Port's actual tariff escalations may not be in the same percentage amount every year. For example, given the lengthy nature of the PAG tariff analysis and PUC tariff review processes, it is possible that tariff escalations will be undertaken every two or three years rather than annually.

It is assumed PAG will periodically assess its then current or projected financial position and cargo outlook; calculate its required cash flow to cover principal, interest, reserves and coverage; and then calculate the tariff escalation required at that time to meet its obligations. In some years the Port's actual tariff escalation may be higher than average and in other years it may be lower.

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Appendices

Appendix A—2010 Port Cargo Forecast

Appendix B—USDA Direct Loan Letter of Conditions

Appendix C—USDA/ANZ Guaranteed Loan Document

Appendix D—Statement of Work

Appendix A – 2010 Port Cargo Forecast

Port Authority of Guam Modernization Program, Cargo Forecast with Military Program Impacts, July 2010



Port Authority of Guam Modernization Program

Cargo Forecast with Military Program Impacts

Submitted to:

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Cargo Forecast with Military Program Impacts

Submitted pursuant to Task Order 30 under Consultant Agreement No. PAG 09-001 between Jose D. Leon Guerrero Commercial Port (Port Authority of Guam) and Parsons Brinckerhoff acting as Owner's Agent and Engineer (OAE) to assist the Port in meeting the Port Modernization Program objectives.

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Acronyms and Abbreviations

CNMI	Commonwealth of the Northern Mariana Islands
DEIS	Draft Environment Impact Statement
DOD	Department of Defense
DPRI	Defense Posture Realignment Initiative
DPW	Guam Department of Public Works
FSM	Federated States of Micronesia
FTE	Full Time Equivalent
FY	Fiscal Year
GIP	Gross Island Product
GPA	Guam Power Authority
GVB	Guam Visitors Bureau
GWA	Guam Waterworks Authority
JGPO	Joint Guam Program Office
MI	Marshall Islands
MILCON	Military Construction
NAVFAC	Naval Facilities Engineering Command
NEPA	National Environmental Policy Act
PAG	Port Authority of Guam
PCT	Public Cargo Terminal
SIAS	Socioeconomic Impact Assessment Study
SDDC	Surface Deployment and Distribution Command
TEU	Twenty-Foot Equivalent Unit
UNWTO	United Nations World Tourism Organization
U.S.	United States
USWC	U.S. West Coast

The Port Authority of Guam Modernization Program

Cargo Forecast with Military Program Impacts

1.0 Study Background and Summary of Findings

1.1 Study Background

The purpose of this study was to forecast the cargo that is likely to be shipped through the Port Authority of Guam's (PAG) Jose D. Leon Guerrero Commercial Port (Port) over the next 20 years. The cargo volumes were forecast based on sustaining organic growth for the populations on Guam and the Micronesian region and supporting the proposed Military Buildup and expansion program on Guam.

The U.S.-Japan Defense Posture Realignment Initiative (DPRI) program (Military Buildup or Buildup) will relocate approximately 20,000 marines and dependents from Okinawa, Japan to bases on Guam, making Guam the U.S. military's Western Pacific headquarters. The U.S. Department of Defense (DOD) estimates that it will spend over \$10 billion to build a new marine base on Guam. The DOD is also undertaking other large construction projects for the Navy, Air Force, and Army under the DPRI program over the next several years. Virtually all the supplies, equipment, and construction materials needed for the work will come through the Port. In addition, by 2016, Guam's military population is expected to increase more than 250 percent, and Guam's total population is expected to increase more than 20 percent.

Since over 90 percent of the goods, materials, and supplies needed to support day-to-day activities on Guam flow through the Port, the Military Buildup is expected to significantly increase the Port's cargo levels.

The Master Plan Update Report, largely prepared in 2007,¹ included forecasts of cargo due to organic growth in Guam and the surrounding region, DOD Military Buildup on Guam, and other Guam infrastructure driven by the DPRI program. The cargo forecast for organic growth was derived from an overall demographic and macroeconomic assessment of conditions. The Military Buildup was based on information provided by the military at that time. An assessment of spending plans by local government agencies and conditions based on tentative data available in late 2007 provided information for Guam's infrastructure.

The DOD's Joint Guam Program Office (JGPO) manages the expansion of facilities on Guam for the DPRI program. JGPO acknowledged the need for an updated forecast of port cargo associated with the Military Buildup. PAG developed a forecast of likely military program activities, using available DPRI program information.

Representatives from JGPO, Naval Facilities Engineering Command (NAVFAC), and Surface Deployment and Distribution Command (SDDC) worked with the PAG and the Consultants to define the various aspects of the Buildup. Section 4.1 describes the Military Buildup. This information was developed in collaboration with the DOD entities in order to

¹ Jose D. Leon Guerrero Commercial Port of Guam, Master Plan Update 2007 Report, April 2008.

estimate the levels and types of cargo that would have to be imported to support the Buildup and sustain the long-term military relocation.

This study focuses primarily on container, break-bulk, and dry bulk cargo that is likely to flow through PAG’s public cargo terminal (PCT). It also includes a forecast of cement imports expected to flow through other private terminal(s) in the Port area.

1.2 Summary of Findings

Section 2.0 presents the results of the socio economic trends and forecast of economic and population growth in Guam. This background information was used to develop cargo forecasts for the Port under a “Without Buildup” or Organic Growth scenario for Guam. Section 3.0 evaluates the organic growth in cargo that is expected to occur if the Buildup does not materialize. Section 4.0 describes the scenario with the occurrence of the Buildup, outlines the methodology that was used to estimate the volume and rates of cargo flow due to the Buildup, and provides an assessment of anticipated cargo based on available information. For each type of cargo, the forecast shows a substantial peak in shipments during the military construction (MILCON) program. In subsequent years, the forecast shows a higher plateau than the Without Buildup scenario.

Figure 1-1 depicts the container forecast for the “With Buildup” conditions, including full and empty containers on all trade routes. Containers are projected to increase from approximately 95,000 boxes in 2009 to between 135,000 boxes (low) and 198,000 boxes (high), with a projection of 166,000 boxes in 2040. During construction, container volumes reach a peak of 183,000 boxes (low) to 207,000 boxes (high), with a projection of 198,000 boxes in 2016. Section 4.2 provides additional details on the container forecast and methodology.

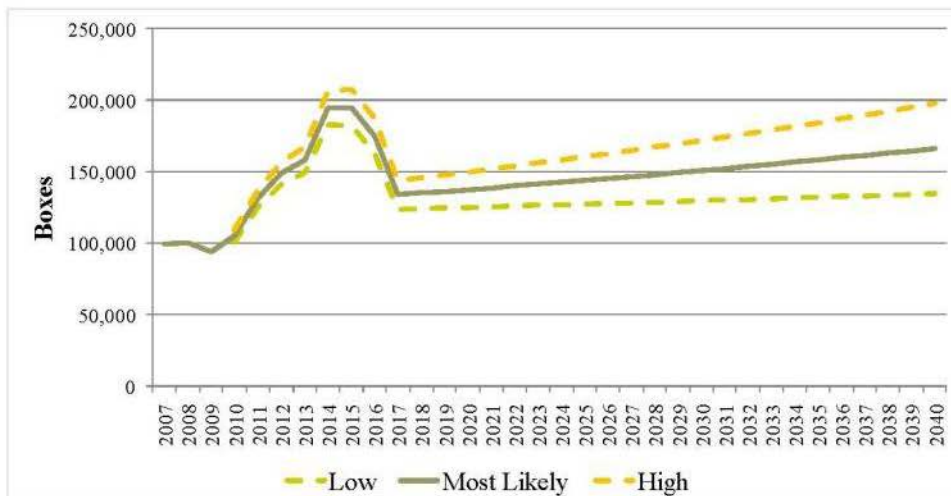


Figure 1-1. Port of Guam Container Forecast—With Buildup (Total Boxes)

With the Military Buildup, break-bulk cargoes are expected to grow from approximately 125,000 revenue tons in fiscal year (FY) 2009 to between 180,000 revenue tons (low) and 258,000 revenue tons (high), with a most likely forecast of 218,000 revenue tons in FY 2040.

During construction, break-bulk volumes reach a peak of 300,000 revenue tons (low) to 330,000 revenue tons (high), with a most likely projection of 315,000 revenue tons in 2014, as depicted in Figure 1-2. Section 4.3 provides additional details on the break-bulk forecast and methodology.

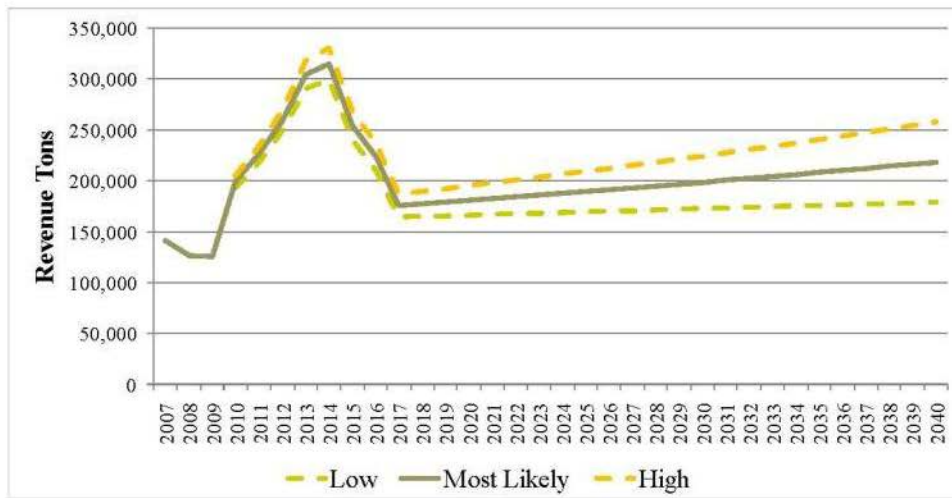


Figure 1-2. Guam Break-bulk Trends & Forecasts (Revenue Tons)—With Buildup

With the Military Buildup, bulk cement is expected to grow from around 56,000 revenue tons in FY 2009 (a relatively low year by recent standards) to between 98,000 revenue tons (low) and 141,000 revenue tons (high), with a most likely forecast of 120,000 revenue tons in FY 2040.

As depicted in Figure 1-3, during construction, bulk cement volumes are expected to reach a peak of 525,000 revenue tons (low) to 575,000 revenue tons (high), with a most likely projection of 550,000 revenue tons in 2013.

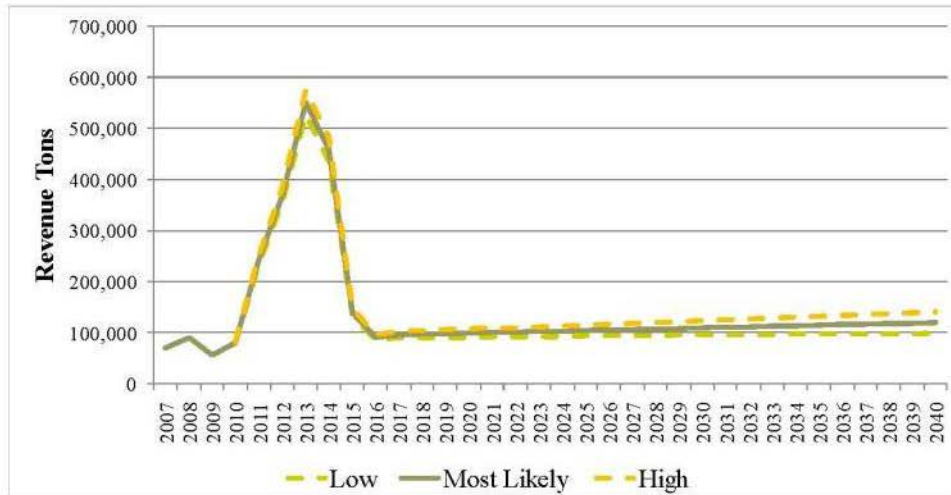


Figure 1-3. Guam Bulk Cement Trends & Forecasts (Revenue Tons)—
With Buildup

2.0 Socio Economic Trends and Forecasts

Socio economic trends in Guam were reviewed to understand their impacts on the Port. Economic activities drive the demand for port facilities and services; the primary economic sectors on Guam are tourism and the DOD. In addition, the local population base, construction (supporting both civilian and military projects), and trans-shipment to neighboring islands drive cargo activity.

2.1 Population Trends and Forecasts

This section describes the population trends on Guam and discusses recent trends and expected future levels of activity that drive port demands.

2.1.1 Resident Population

Population information for Guam was provided by the Government of Guam Bureau of Statistics, DOD, the U.S. Census Bureau, and the November 2009 environmental documentation on the military program released by JGPO and the Navy (JGPO DEIS) titled “Draft Environmental Impact Statement / Overseas Environmental Impact Statement, Guam and CNMI Military Relocation, Relocating Marines from Okinawa, Visiting Aircraft Carrier Berthing, and Army Air and Missile Defense Task Force” (particularly Appendix F—Socioeconomic Impact Assessment Study).

The civilian and military resident populations on Guam increased from 133,152 persons in 1990 to 178,430 persons in 2009, representing an average annual growth rate of 1.6 percent per year since 1990. Guam’s population is expected to reach 203,216 in 2020 and

250,000 in 2040 without the Buildup². The population base without the Buildup is expected to increase at 1.3 percent per year from 2009 to 2020 and by 1.1 percent per year from 2020 to 2040.

2.1.2 Military Population

In the late 1980s, the military population exceeded 20,000 in Guam, representing approximately 18 percent of the civilian population. Before increasing to its current level of 14,110, which represents approximately 7.9 percent of the resident population,³ the military presence decreased to approximately 11,000 from 2000 to 2004. Without the Buildup, the military population is expected to remain at 14,110 persons.

With the Buildup, the military population is expected to increase to 79,178.⁴ This increase includes active duty military and dependents, civilian workers and dependents, construction workers and dependents, and additional persons employed at newly created jobs on Guam. The peak year of net direct, indirect, and induced⁵ population increase from off-island is expected to occur in 2014. In 2020, the peak population effects are expected to subside with a steady-state population increase attributable to the post-construction, operational phase of the proposed military relocation.

The JGPO DEIS considered two scenarios regarding the impacts of the Military Buildup. According to the DEIS⁶:

- The unconstrained scenario is a maximum-impact approach. This scenario assumes no constraints in the Guam and Commonwealth of the Northern Marianas Islands (CNMI) environments that might lessen the indirect economic growth potential resulting from the proposed action. The unconstrained scenario represents the maximum growth likely to occur. Compared to the constrained scenario, this scenario assumes that currently unemployed Guam residents will take fewer jobs, more in-migrants would be needed, and that each worker would have more non-working dependents. This is the maximum potential adverse effect.
- The constrained scenario is a minimum-impact approach. This scenario assumes constraints would interfere with the full realization of potential beneficial indirect growth. This scenario does not identify all constraints, but assumes a mix of constraints. It also assumes absorption of currently unemployed Guam residents by the job market, less in-migrants, and fewer non-working dependents per in-migrant. This is the best-case scenario.

² Source for population growth without the Buildup is the SIAS Appendix F, Table 2.3-1. Drivers for deriving numbers of permits from proposed action (unconstrained), population without the Buildup). BST Associates assumed annual growth of 1.05% from 2020 to 2040. The military population is expected to remain constant at 14,110 persons from 2009 to 2040. After the Buildup annual growth rates are expected to remain constant.

³ Based on information provided by DOD, Guam's military population (including active duty personnel and their dependents) stood at approximately 14,110 persons in 2009. This includes 6,420 active duty personnel (4,350 in the U.S. Navy, 1,930 in the U.S. Air Force, and 140 in the U.S. Coast Guard) and 7,650 dependents (5,230 with the U.S. Navy, 2,280 with the U.S. Air Force, and 140 with the U.S. Coast Guard).

⁴ Under the unconstrained scenario, the peak increase in population is projected to occur in 2014.

⁵ Direct, indirect, and induced impacts are defined in the SIAS (Appendix F, page 3) as follows:

- Direct impacts come from direct expenditures.
- Indirect effects occur when the first businesses to receive new outside money spend some to buy things from other businesses.
- Induced effects occur when workers at the new/growing businesses spend their added earnings on goods and services, such as kitchen supplies or haircuts.

⁶ Source: Guam and CNMI Military Relocation SIAS, Appendix F, Page 1-7.

2.1.3 Civilian Population

The civilian population on Guam increased from 113,542 in 1990 to 164,320 persons in 2009, or at 2 percent per year. The civilian population accounted for 92.1 percent of the resident population base in 2009, up from 85.3 percent in 1990.

The largest ethnic group on Guam is identified in official classifications as the indigenous Chamorro people, who account for about 37 percent of the population. The next largest group consists of Filipinos, representing 26 percent of the population. Caucasians comprise about 7 percent, and the remainder includes a variety of ethnic groups (Koreans, Japanese, Chinese, and other Pacific Islanders).

The civilian population (Without Buildup) as shown in Figure 2-1, is expected to grow at 1.3 percent per year from 2009 to 2020, reaching 189,106 persons. By 2040, the civilian population in Guam is expected to reach 236,553 persons, which assumes average annual growth of 1.1 percent from 2020 to 2040.

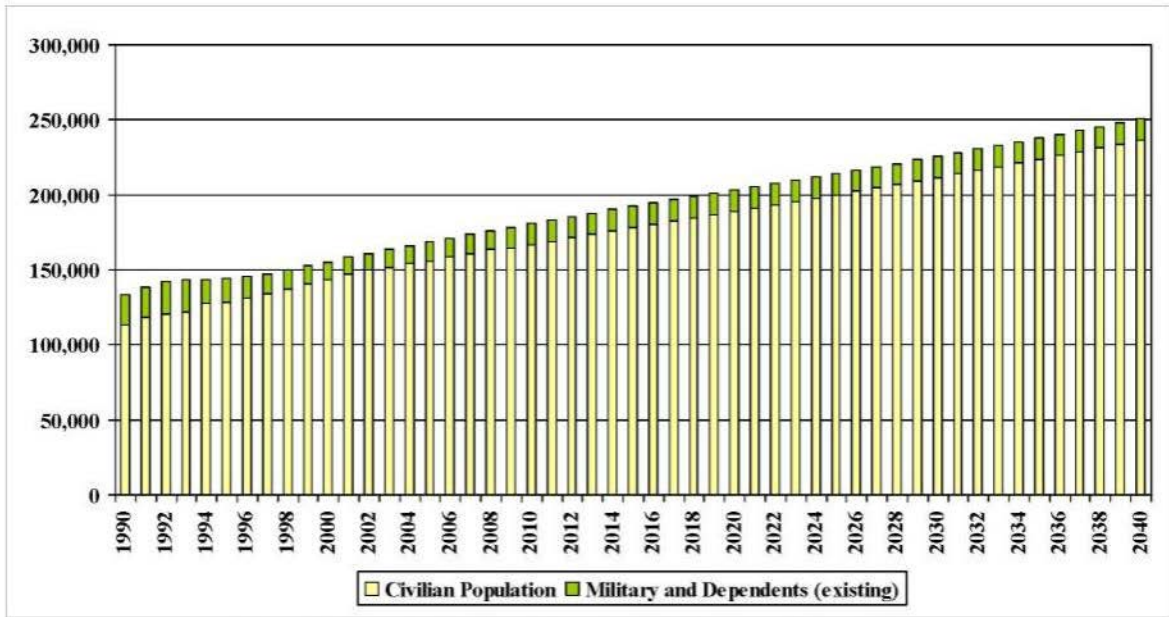


Figure 2-1. Guam Civilian Population Trends & Forecast—Without Buildup

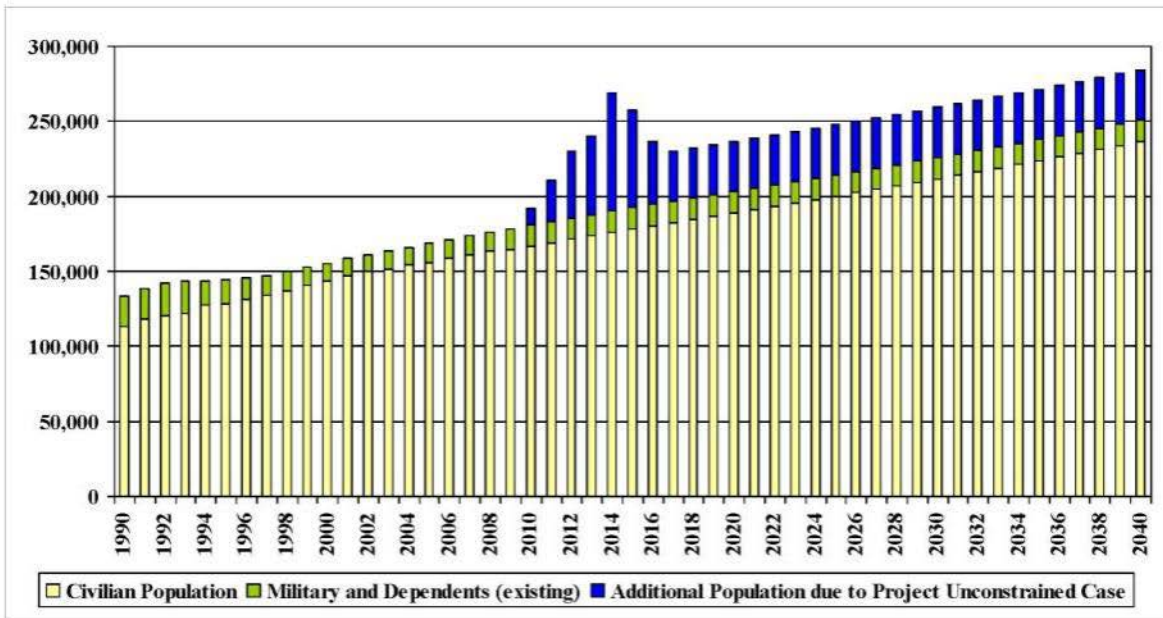


Figure 2-2. Guam Civilian Population Trends & Forecast—Unconstrained Buildup Scenario

2.1.4 Total Population

2.1.4.1 Without Buildup:

Without the Buildup, the resident population is expected to reach 203,216 persons in 2020. The civilian population is projected to reach 189,106 persons in 2020 and 236,553 persons in 2040. The military population is expected to remain at 14,110 persons throughout the study.

2.1.4.2 With Buildup—Unconstrained Case (Figure 2-2):

In the unconstrained case, a net addition of 79,178 persons is expected on Guam in 2014. After construction, the added population base is constant at 33,608 persons starting in 2017. The total population on Guam is expected to peak at 269,220 in 2014 at the peak of the Buildup construction phase. After construction, the population is projected to decline to 173,456 in 2017 and then grow gradually to 284,271 in 2040 (see Table 2-1).

2.1.4.3 With Buildup—Constrained Case (Figure 2-3):

In the constrained case, a net addition of 53,786 persons is expected on Guam in 2014. After construction, the added population is expected to remain constant at 30,209 persons from 2017 through 2040. The total population on Guam is expected to peak at 243,828 in 2014.

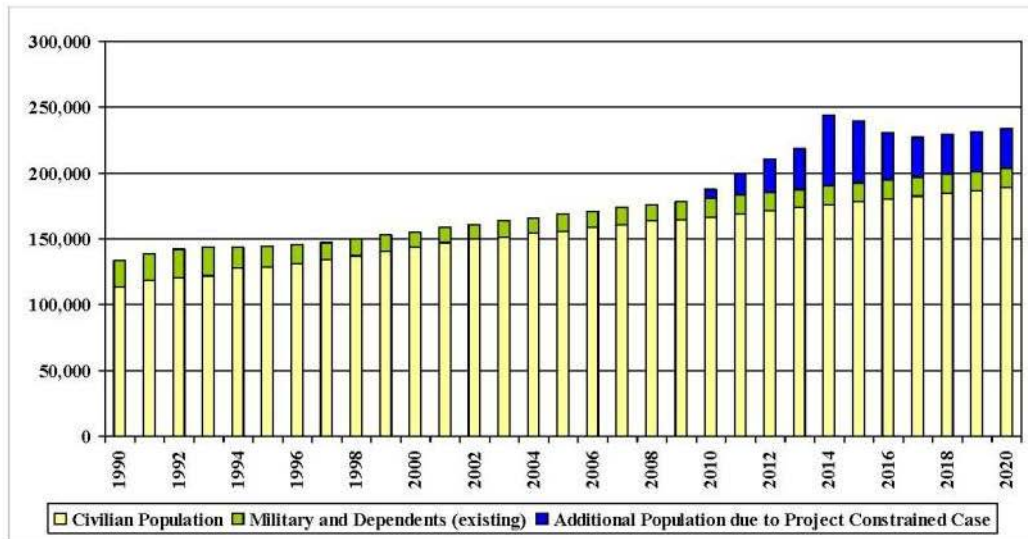


Figure 2-3. Guam Civilian Population Trends & Forecast—
Constrained Buildup Scenario

Table 2-1. Population Trends & Forecasts

Year	Without Buildup			With Buildup - Unconstrained Case			With Buildup - Constrained Case		
	Military and Dependents (existing)	Civilian	Resident Population of Guam	Resident Population of Guam - without project	Additional Population due to Project Unconstrained	Total	Resident Population of Guam - without project	Additional Population due to Project Unconstrained	Total
1990	19,610	113,542	133,152	133,152		133,152	133,152		133,152
1991	20,077	118,082	138,159	138,159		138,159	138,159		138,159
1992	22,178	120,148	142,326	142,326		142,326	142,326		142,326
1993	22,077	121,748	143,825	143,825		143,825	143,825		143,825
1994	15,865	127,292	143,157	143,157		143,157	143,157		143,157
1995	15,760	128,430	144,190	144,190		144,190	144,190		144,190
1996	13,792	131,532	145,324	145,324		145,324	145,324		145,324
1997	13,002	133,797	146,799	146,799		146,799	146,799		146,799
1998	12,739	136,985	149,724	149,724		149,724	149,724		149,724
1999	12,159	140,431	152,590	152,590		152,590	152,590		152,590
2000	11,624	143,181	154,805	154,805		154,805	154,805		154,805
2001	11,153	147,177	158,330	158,330		158,330	158,330		158,330
2002	11,247	149,810	161,057	161,057		161,057	161,057		161,057
2003	11,832	151,761	163,593	163,593		163,593	163,593		163,593
2004	11,759	154,331	166,090	166,090		166,090	166,090		166,090
2005	12,701	155,863	168,564	168,564		168,564	168,564		168,564
2006	12,311	158,708	171,019	171,019		171,019	171,019		171,019
2007	12,337	161,119	173,456	173,456		173,456	173,456		173,456
2008	12,164	163,713	175,877	175,877		175,877	175,877		175,877
2009	14,110	164,320	178,430	178,430		178,430	178,430		178,430
2010	14,110	166,582	180,692	180,692	11,038	191,730	180,692	6,462	187,154
2011	14,110	168,971	183,081	183,081	27,835	210,916	183,081	16,363	199,444
2012	14,110	171,325	185,435	185,435	44,301	229,736	185,435	25,389	210,824
2013	14,110	173,644	187,754	187,754	52,575	240,329	187,754	30,639	218,393
2014	14,110	175,932	190,042	190,042	79,178	269,220	190,042	53,786	243,828
2015	14,110	178,192	192,302	192,302	64,918	257,220	192,302	46,906	239,208
2016	14,110	180,431	194,541	194,541	41,919	236,460	194,541	36,253	230,794
2017	14,110	182,647	196,757	196,757	33,431	230,188	196,757	30,209	226,966
2018	14,110	184,832	198,942	198,942	33,431	232,373	198,942	30,209	229,151
2019	14,110	186,985	201,095	201,095	33,608	234,703	201,095	30,209	231,304
2020	14,110	189,106	203,216	203,216	33,608	236,824	203,216	30,209	233,425
2030	14,110	211,586	225,696	225,696	33,608	259,304	225,696	30,209	255,905
2040	14,110	236,553	250,663	250,663	33,608	284,271	250,663	30,209	280,872
Compound Annual Growth Rates									
1990-1999	-5.2%	2.4%	1.5%	1.5%	NM	1.5%	1.5%	NM	1.5%
2000-2009	2.2%	1.5%	1.6%	1.6%	NM	1.6%	1.6%	NM	1.6%
2010-2020	0.0%	1.3%	1.2%	1.2%	11.8%	2.1%	1.2%	16.7%	2.2%
2020-2030	0.0%	1.1%	1.1%	1.1%	0.0%	0.9%	1.1%	0.0%	0.9%
2030-2040	0.0%	1.1%	1.1%	1.1%	0.0%	0.9%	1.1%	0.0%	0.9%

Sources: Government of Guam Bureau of Statistics, U.S. DOD, U.S. Census Bureau.

2.2 Economic Trends

This section describes Guam's economy.

2.2.1 Gross Island Product

The Gross Island Product (GIP), which measures the total value of all final goods and services produced in an island economy, is a common benchmark reference for measuring the overall size of an island economy. The recent measure of GIP on Guam was completed in 2002; it was estimated that Guam's GIP was about \$3.4 billion.

According to the Guam and CNMI Military Relocation Socioeconomic Impact Assessment Study (SIAS) (JGPO DEIS, Appendix F—Socioeconomic Impact Assessment Study, Page 4-31), the GIP in Guam under the Without Buildup conditions (or baseline scenario) will grow from approximately \$4.0 billion in 2009 to \$5.1 billion by

2020 in real dollars (i.e., adjusted for inflation)⁷. This translates to real average annual growth of approximately 2.2 percent.

With the Buildup (unconstrained scenario), the GIP is expected to peak at \$5.6 billion in 2014 at the height of the construction program, which is 24 percent above the baseline scenario. It will then decline to \$4.9 billion in 2016. After 2016, the GIP with the Buildup will be approximately 4 percent higher than under baseline (Without Buildup) conditions (Figure 2-4).

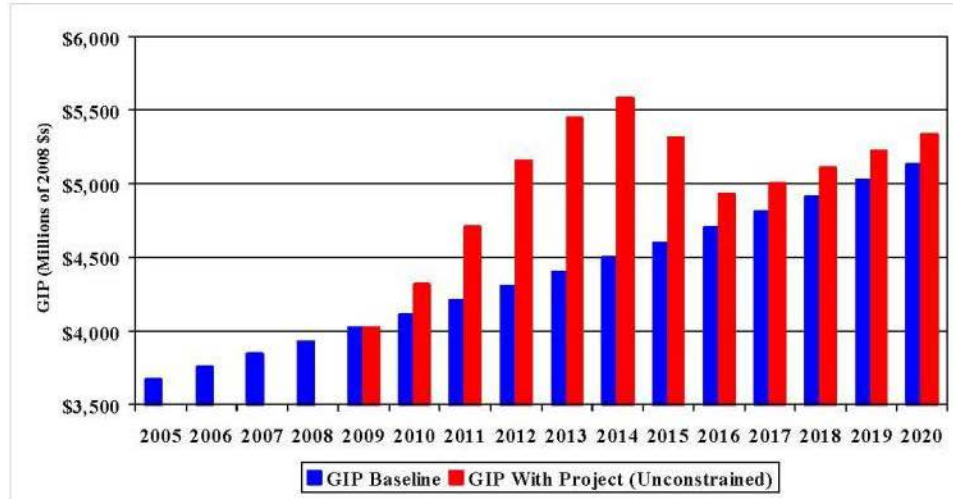


Figure 2-4. Gross Island Product Unconstrained Buildup Scenario (Millions of 2008\$)

2.2.2 Overall Economic Activity

The civilian economy generated approximately \$4.6 billion in sales⁸ in 2002 and \$6.2 billion in 2007, according to the U.S. Census Bureau.

Visiting tourists accounted for 28 percent of all sales (including all goods and services) in 2002 but this dropped to 16 percent in 2007. Specifically for retail goods, visiting tourists accounted for 36 percent of retail sales in 2002 decreasing to 25 percent of retail sales in 2007. Retail goods are discussed separately because they generate substantial volumes of cargo.

Local residents accounted for 39 percent of all sales in 2002, declining slightly to 36 percent in 2007. For retail goods, local residents accounted for 54 percent of retail sales in 2002, also decreasing slightly to 50 percent in 2007. The remainder of sales were purchases made by local businesses, as well as the Government of Guam and the U.S. Federal Government (excluding DOD), which are designated “other” in Table 2-2. Combined (local population, government, and businesses) accounted for 85 percent of all sales and 75 percent of retail sales in 2007.

⁷ Source: SIAS, Appendix F, page 4-31. Projections beyond 2020 are not available.

⁸ U.S. Census Bureau refers to sales as sales, shipments, receipts, revenue, or business done. It is a broad measure of economic activity. These estimates are provided in the Economic Census of Guam in 2002 and 2007.

Table 2-2. Sales by Class of Customer (\$1,000s) in 2002 & 2007

	2002	2002 % Total	2007	2007 % Total
All Items⁹				
Visiting tourists	1,262,753	28%	980,381	16%
Local residents	1,781,629	39%	2,235,518	36%
Other	1,547,446	34%	3,028,566	49%
Local Subtotal	3,329,075	73%	5,264,084	85%
Total	4,591,828	100%	6,244,465	100%
Retail Trade				
Visiting tourists	450,158	36%	406,219	25%
Local residents	677,738	54%	805,964	50%
Other	122,543	10%	406,219	25%
Local Subtotal	800,281	64%	1,212,183	75%
Total	1,250,439	100%	1,618,402	100%

Source: Census 2002 and 2007 for Guam, U.S. Census Bureau.

2.2.3 Trade Statistics

Available trade statistics helped estimate the number of containers associated with the local population and tourism industry.

According to statistics from the Government of Guam, imports have increased from \$489 million in 2001 to \$681 million in 2009, or at a compound annual rate of 4.2 percent. This estimate includes items intended for resale in Guam and excludes the military, government, promotional, and personal items. It also excludes imports of petroleum products. Most of Guam's imports consist of consumer goods (particularly food, beverages, and apparel), motor vehicles / parts, and construction materials (see Table 2-3).

Guam's exports, primarily consisting of transportation products and food and beverages produced in Guam and/or trans-shipped from Guam to the U.S. and foreign countries, totaled \$103.0 million in 2008. Guam Customs data on exports excludes the military, government, promotional and personal items, and petroleum products.

⁹ All items include: construction; manufacturing; wholesale and retail trade; transportation and warehousing; information; finance and insurance; real estate, rental, and leasing; professional, scientific, technical; administrative and support, and waste management and remediation services; health care and social assistance; accommodation and food services; and other services (except public administration).

Table 2-3. Guam Import Data (Current Dollars)

All items	2001	2006	2007	2008	2009
Food & Non-Alcoholic Beverages	160,511,227	168,836,521	195,118,073	201,738,616	218,225,339
Alcoholic Beverages	15,795,448	12,615,436	21,325,570	25,891,025	21,966,959
Transportation & Parts	53,991,828	117,596,106	200,150,953	115,260,200	144,732,140
Home Appliances, Equipment etc	31,193,484	22,027,248	30,100,952	31,340,714	32,456,296
Plastics, Leather And Paper	108,869,461	61,455,194	91,629,740	87,756,020	94,389,109
Men and Women Apparel	39,187,920	30,462,435	43,510,021	37,831,788	39,668,107
Construction Materials	11,641,137	28,328,783	43,076,605	42,622,998	43,009,056
Other Imports	68,614,970	58,218,404	96,840,509	95,677,534	86,595,353
Grand Total (Current \$):	489,805,475	499,540,129	721,752,424	638,118,894	681,042,358
Percent of Total					
Food & Non-Alcoholic Beverages	33%	34%	27%	32%	32%
Alcoholic Beverages	3%	3%	3%	4%	3%
Transportation & Parts	11%	24%	28%	18%	21%
Home Appliances, Equipment etc	6%	4%	4%	5%	5%
Plastics, Leather and Paper	22%	12%	13%	14%	14%
Men and Women Apparel	8%	6%	6%	6%	6%
Construction Materials	2%	6%	6%	7%	6%
Other Imports	14%	12%	13%	15%	13%
Grand Total (Current \$):	100%	100%	100%	100%	100%

Source: Government of Guam, Bureau of Statistics and Plans.

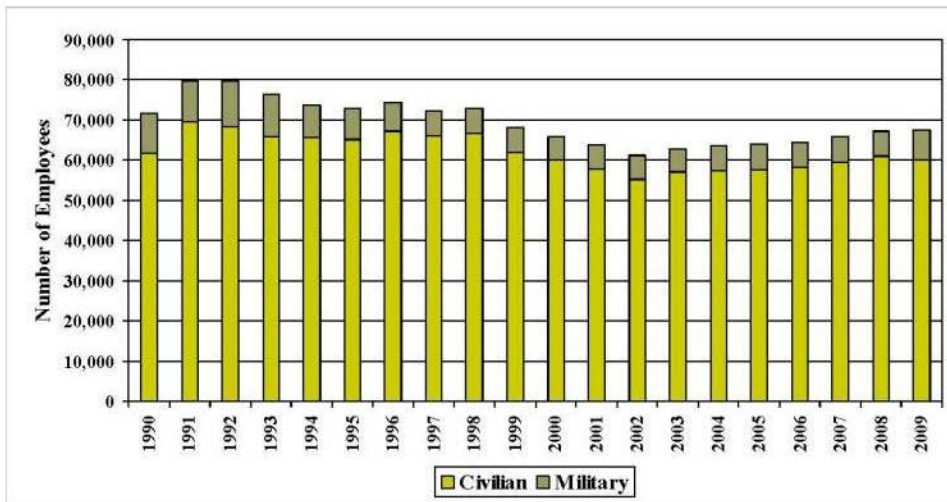
2.3 Employment Trends and Forecasts

This section discusses historic employment trends and composition, followed by projected impacts from the Buildup and growth in the tourism industry.

2.3.1 Employment Trends (Figure 2-5)

The civilian employment base in Guam was 60,147 in 2009,¹⁰ up 8.7 percent from 2002. However, it is 9.1 percent lower than the employment levels of the mid to late 1990s, when civilian employment averaged around 66,000 persons.

¹⁰ This is the average across March, June, September, and December.



**Figure 2-5. Civilian & Military Employment Trends in Guam
(Number of Employees)**

There are 7,344 active duty personnel (estimate for 2009), which is equal to 12.2 percent of total civilian employment. In 2009, approximately 67,491 persons, including civilian and military, were employed in Guam, down from a peak of 79,695 employed persons in 1992.

2.3.1.1 Employment Composition (Figure 2-6)

Guam’s employment base has become more oriented toward retail trade and services (including accommodations and business services). Between 1990 and 2009, retail employment grew at 1 percent per year, employment in services grew at 2.4 percent per year, and employment in transportation grew at 1.5 percent per year. During this time, there was a loss of jobs in construction, federal government agencies (non-DOD), and manufacturing.

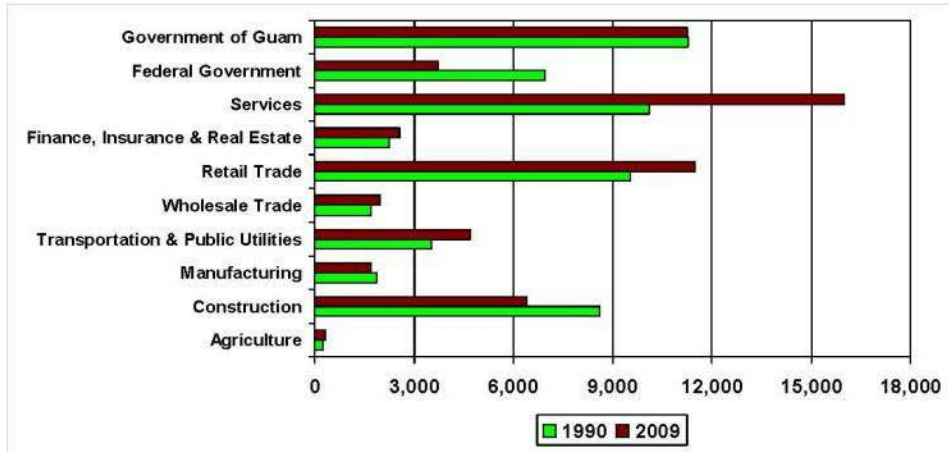


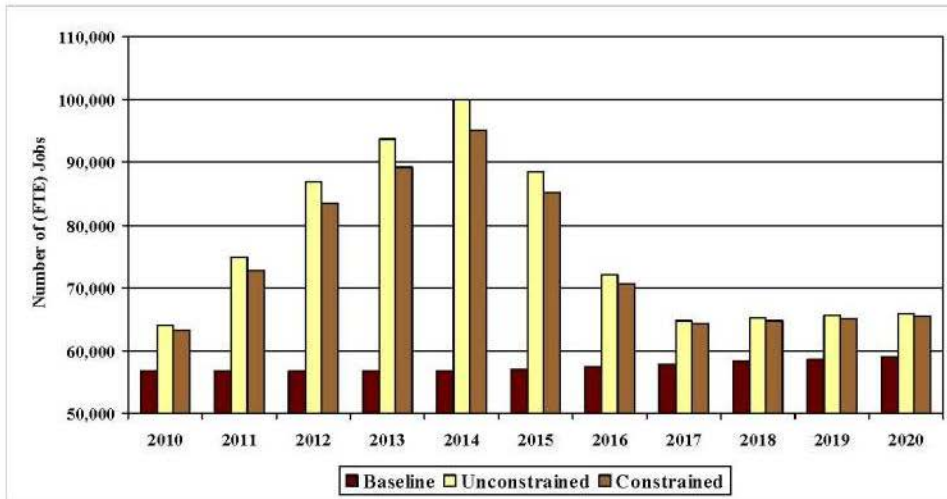
Figure 2-6. Employment Composition (1990 to 2009)

2.3.1.2 Projected Impacts of Buildup

The recently completed JGPO DEIS for the Military Buildup on Guam provides an estimate of future employment with and without the Buildup in full time equivalent jobs (FTEs¹¹). As shown in Figure 2-7, under the baseline scenario (Without Buildup), employment in FTEs is expected to increase from around 57,000 FTEs in 2010 to 59,000 FTEs in 2020, or at approximately 0.7 percent per year.

With the Buildup, employment is expected to peak between 95,000 FTEs (constrained case) and 100,000 FTEs (unconstrained case). After construction, employment is expected to average around 64,000 FTEs (constrained case) to 66,000 FTEs (unconstrained case). Based on the original schedule as described in the SIAS, under the unconstrained case, employment is expected to be 75 percent more in 2010 and 12 percent more in 2020 than under baseline conditions. The timing for FTEs shown in Figure 2-7 should be used with caution. The JGPO DEIS was released in November 2009. Figure 4-1 of the DEIS depicts updated information on the start up of military expansion projects obtained from NAVFAC in the spring of 2010. It also shows that projects are scheduled for startup in 2011 and not 2010. This would speak to a delay in the ramp up of the employment forecast shown below in Figure 2-7.

¹¹ An FTE is a full time job. Two half-time jobs would create one FTE.



Source: JGPO DEIS.

Figure 2-7. Employment Forecast (FTEs)

2.3.2 Tourism

Tourism is a very important sector in Guam's economy. A recent economic impact study¹² estimated that tourism generated 15,200 jobs¹³, \$378 million in income, and \$1.1 billion in direct expenditures in 2005.

Visitor arrivals grew steadily from 1988 through 1997, with a few exceptions (Gulf War, Typhoon Omar in 1992, earthquake in 1993). Growth during this period averaged 9.5 percent annually. Since then, tourist arrivals have been more volatile due to natural disasters (typhoons in 1997 and 2002, tsunami in 2004), economic downturn in Asia (1997), SARS (2003/2004), 9/11 (2001), and the Gulf War (began 2003), among other exogenous impacts.

Exogenous factors that impact the future development of the tourism industry on Guam are expected to continue. Guam's tourism industry faces strong competition from other regional and global destinations. In addition, its core market of Japanese consumers is very mature. Available reports¹⁴ indicate that the aging Japanese population will act to constrain tourism. As a result, the Guam tourism industry is looking to other countries for growth. The target mix for 2011 includes the following expected shifts in the visitor market on Guam:

- Visitors from Japan decline from 80 percent to 68 percent of total visitors
- Visitors from Korea increase from 10 percent to 19 percent of total visitors
- Visitors from USA/Hawaii increase from 4 percent to 5 percent of total visitors
- Visitors from East Asia increase from 4 percent to 6 percent of total visitors

The Chinese market represents a large potential pool of customers.

² Source: Guam Tourism Economic Impact, prepared by Global Insights for the Guam Visitors Bureau (GVB), May 2007.

³ Including direct, indirect, and induced impacts.

⁴ Source: Impact of Population Aging on Japanese International Travel to 2025, by James Mak, Lonny Carlile, and Sally Dai for the East-West Center, October 2004.

The Guam Visitor's Bureau estimates that the "island's capacity is 1.7 million tourists, based on the existing visitor patterns and durations of visit". As this capacity is approached, additional assets for the tourist industry will be needed, including improvements and additions to hotel rooms, the airport, the sea port, public transportation, rental cars, wedding chapels, and golf courses, among others. However, the Guam tourism industry recognizes the need to address the aging stock of tourism infrastructure, particularly hotel rooms and facilities, which is partially responsible for the loss in quantity and quality of visitor flows.

The prospects for continued growth in tourism are favorable. According to the United Nations, tourism grew 4.1 percent worldwide, led by Asia/Pacific Asia. The Pacific Region, which includes Guam, was able to maintain its extraordinary growth level with an increase of 7.6 percent over the previous year. The United Nations forecasts "The increase in international tourist arrivals is projected to be around 4 percent through 2020¹⁵". Growth is expected to be more solid as businesses, consumers, governments, and international institutions such as the United Nations World Tourism Organization (UNWTO) are better prepared to anticipate shocks and to respond more effectively to crises.

According to the SIAS in the JGPO DEIS, the impact of the Military Buildup is uncertain on tourism in Guam. Potential impacts could occur during and after construction, as follows:

- Potential Construction Impacts
 - More airline and hotel business from planning and construction supervisory travelers.
 - Eventual island-wide infrastructure improvement.
 - Loss of workers to construction and/or pressure to increase wages (eroding competitive position).
 - Impacts on ocean-based tourism from environmental degradation.
 - Blocked growth of new Chinese and Russian markets due to increased concern over Homeland Security.
 - Loss of historic, cultural, or recreational attractions from land acquisition.
 - Market loss due to construction chaos and traffic.
- On-Going Impacts
 - More airline and hotel business from military friends and family, vacationers, and military business travelers.
 - Growth in businesses that support marine-based tourism and recreation.
 - Market loss due to conflict between military image and new branding of Guam as authentic Chamorro cultural experience.
 - Impacts on ocean-based tourism from greater competition between activities.
 - Blocked growth of new Chinese and Russian markets due to increased concern over Homeland Security.
 - Loss of historic, cultural, or recreational attractions from land acquisition.

Although, there may be positive and negative impacts, the resulting net impacts to tourism from the Buildup are uncertain and are not measured in the SIAS.

¹⁵ Source: Tourism 2020 Vision, World Tourism Organization.

Because there are significant uncertainties about future tourism in Guam, a trend projection was applied to estimate the number of future visitors. The long-run estimate for tourism in Guam is expected to be approximately 1.6 million visitors in 2040, which amounts to an average annual growth of 1.5 percent, as presented in Figure 2-8.

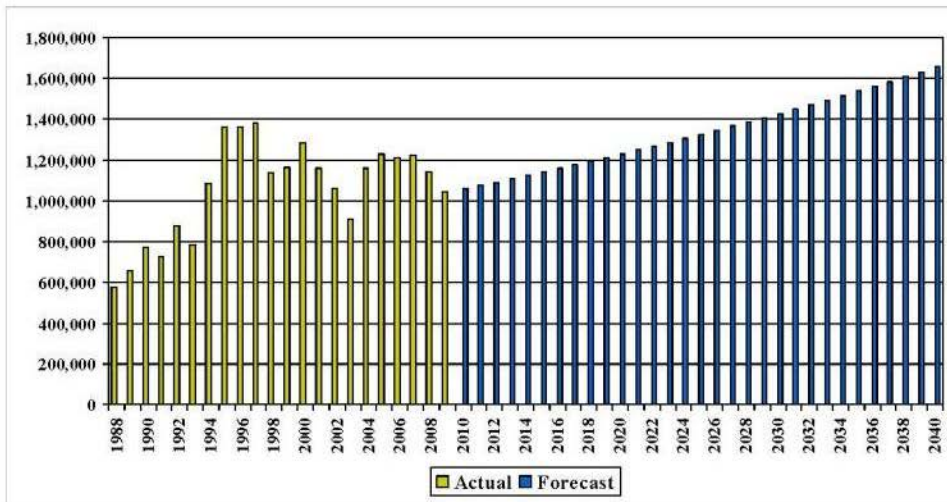


Figure 2-8. Guam Visitor Trends & Forecasts (Visitors)

2.3.3 Construction Industry

Construction value as shown in Figure 2-9, has averaged approximately \$553 million in sales between 1997 and 2008. During 2007 and 2008, construction totaled approximately \$800 million per year. In 1992 (in \$2006), construction spending peaked at one billion dollars. In 2008, the DOD spent \$599 million on construction projects in Guam and local businesses; the Government of Guam spent \$210 million. Military expenditures on construction have averaged about 66 percent of total construction on Guam for the last 10 years.

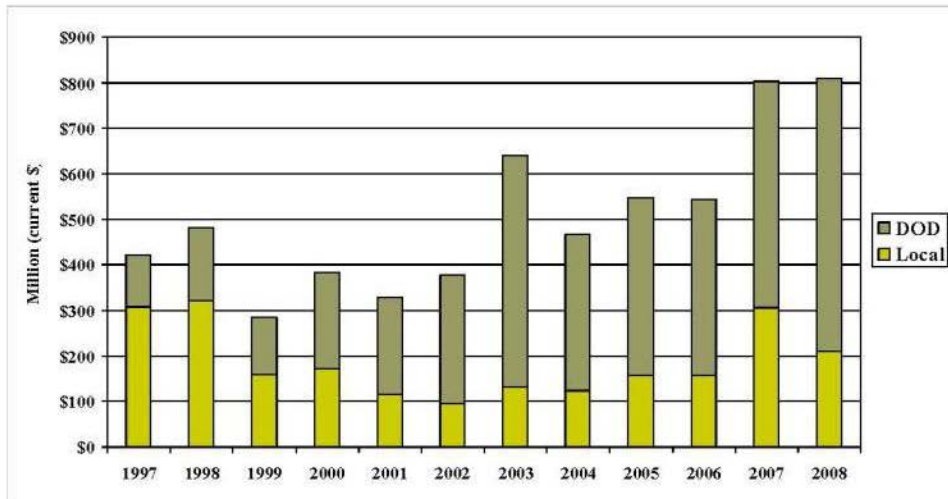


Figure 2-9. Guam Value of Construction (Current Dollars)

The full cost of the Buildup is estimated at \$14.12 billion (Table 2-4). The DOD projects are expected to cost \$12.37 billion and other projects related to the Buildup are expected to cost \$1.75 billion, including costs for infrastructure improvements primarily on the road system, utilities (water and power), and the Port of Guam.

Table 2-4. Estimated Full Cost of Construction for Buildup (2008 billions\$)

Category	Cost Estimate
Military Buildup	
Air Force	1.44
Navy	2.03
Marines	8.43
Army	0.05
MILCON-Def Wide	0.41
<i>Subtotal</i>	<i>12.37</i>
Other Related	
DPW Haul Road Network	0.70
GPA	0.67
GWA	0.19
PAG	0.20
<i>Subtotal</i>	<i>1.75</i>
Total	14.12

Sources: JGPO for military projects, PTG/PB for road infrastructure, GAO for Guam Power Authority (GPA)/GPA/Port and other, DEIS for working housing.

As shown in Figure 2-10, construction is scheduled to begin in 2010; the goal for completion being 2016. Construction would average approximately \$2.7 billion per year between FY 2011 and FY 2016. These estimates are based on projected award amounts that were distributed across the fiscal years using reasonable assumptions for construction workload distribution; they should be refined as more data becomes available.

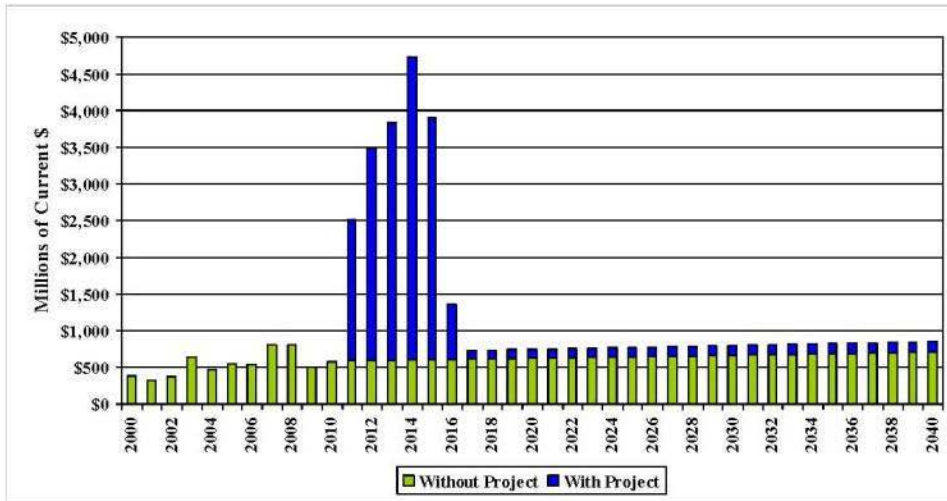


Figure 2-10. Construction Activity on Guam (Sales in \$1,000s of 2008 \$)

2.3.4 Fisheries

Trans-shipment of tuna as shown in Figure 2-11, plays a major role in Guam. However, shipments have declined, as the fishery moved to more distant grounds and fishing regulations have changed. Tuna is primarily moved from Guam to Asian markets by air and sea services.

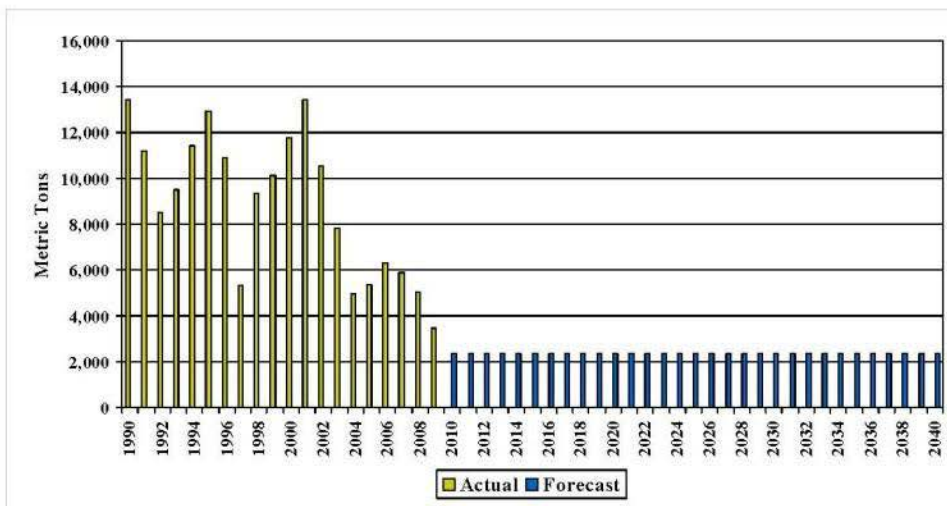


Figure 2-11. Tuna Trans-shipments via Guam

The decline in trans-shipment volumes after 2001 was largely a response to the Shark Finning Act of 2000, which prevented vessels from trans-shipping through Guam if their country was engaged in shark finning. Because of this U.S. law, the Taiwanese fleet

moved into the Indian Ocean. The Patriot Act and Marine Transportation Act of 2002 also impacted trans-shipment activity through Guam by increasing the costs to the fleet serving Guam, which is the most highly regulated port in the area. Despite these constraints, Guam has a relative advantage for trans-shipment because of its location relative to the harvest areas, political stability, expansion of the market for tuna (especially in China), and its infrastructure (port, airport, fish processing, and like facilities and services). However, due to overfishing, the volumes trans-shipped via Guam are expected to be smaller than in prior years. It is anticipated that the projected level of tuna trans-shipment will be similar to the expected volumes in 2010.

2.3.5 Trans-shipment Markets

Virtually all cargo arrives by water to Guam and neighboring islands. Guam has the largest population base in this region and the most cargo, making it a natural trans-shipment hub to neighboring islands.

North of Guam lays the CNMI, including Saipan, Tinian, and Rota, among other smaller islands. The containerized and break-bulk cargo to and from the CNMI has been moved via Guam by trans-shipment services. However, the CNMI is experiencing a declining base of cargo due to the loss of garment manufacturing base and a general decline in tourism. Tinian could experience Military Buildup of approximately 2,000 active duty military, which would bring an associated increase in cargo demand. Some of these cargo needs could be served from Guam or service could be direct or via Saipan. Saipan could serve as a staging base for construction in Guam. However, there is a trade-off associated with having construction materials and/or module construction handled in the CNMI and finished units shipped to Guam. This trade-off centers on the capacity of Guam to handle the congestion and demands associated with projected construction activity as compared with the additional costs due to double handling. Contractors in Guam have stated that the most cost effective construction process would be to cast-in-place in Guam, rather than import modular building components.

Guam's remaining trans-shipments are to the Federated States of Micronesia (FSM), Republic of Palau, and the Republic of the Marshall Islands (MI). Hawaii was previously the origin of trans-shipment to these locations but this switched to Guam in 2007. The next section discusses the trans-shipment services. As shown in Table 2-5, the population base in these trans-shipment areas could increase at approximately 0.5 percent year for CNMI and 1 percent for FSM/MI between 2009 and 2020, according to the United Nations.

Trans-shipment is cost sensitive in most areas. The Port of Guam has worked with the carriers to set rates conducive to attracting and retaining trans-shipment activity.

Table 2-5. Population Trends & Forecasts at Neighboring Islands

Area	2000	2009 est	2020	Growth Rates	
				2000-9	2009-20
CNMI	69,000	63,444	66,676	-0.9%	0.5%
FSM/MI	178,000	194,941	217,000	1.0%	1.0%

Source: United Nations for FSM/MI and SIAS for CNMI.

3.0 Cargo Forecast without Military Buildup (Organic Growth)

This section evaluates the expected organic growth in cargo if the Military Buildup does not materialize. Section 4.0 evaluates anticipated cargo with the occurrence of the Buildup.

3.1 Containers

As shown in Figure 3-1, the Port has averaged 148,000 twenty-foot equivalent units (TEUs) of container cargo per year between 1991 and 2009, ranging from a minimum of 132,000 TEUs in 2000 to a maximum of 168,000 TEUs in 2008. Containers come in 20-, 40- and 45-foot lengths. Currently, a container equals approximately 1.7 TEUs in Guam.

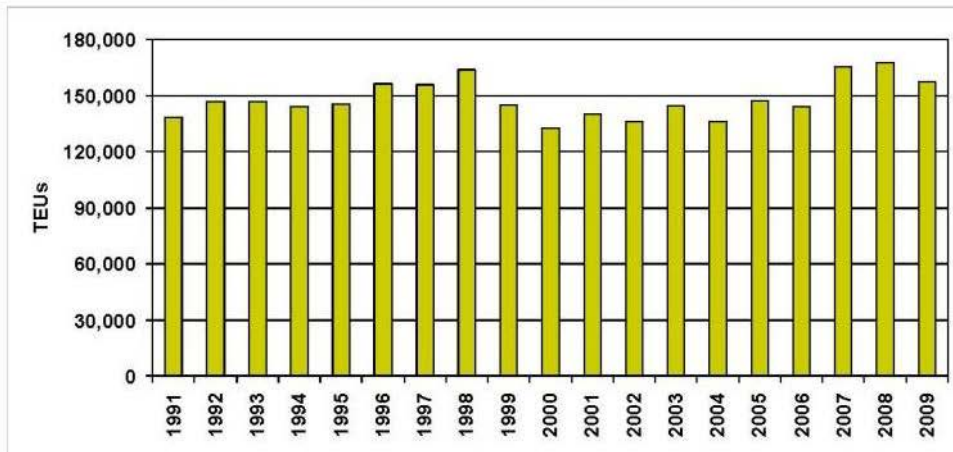


Figure 3-1. Port of Guam Container Trends (TEUs)

Overall volumes have been relatively steady. However, conditions are changing within the specific market sectors, which are described below.

According to the Port of Guam, there were approximately 40,000 full inbound containers from the U.S. West Coast (USWC) and Asia in FY 2009. Approximately 31,800 boxes were delivered to (and consumed on) Guam and 8,300 boxes were transhipped to the CNMI and FSM.

Figure 3-2 provides the distribution of full inbound containers by market segment for FY 2009.

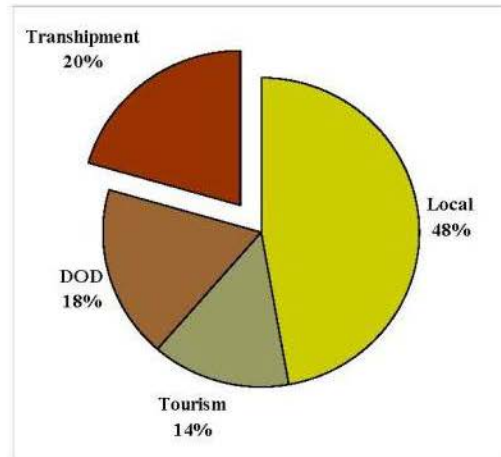


Figure 3-2. Port of Guam Full Inbound Containers from USWC and Asia in FY 2009 (Boxes)

The distribution in FY 2009 was estimated as follows:

- Approximately 7,300 full containers were shipped to the DOD, which includes approximately 1,000 containers for contractors performing work for the DOD and 6,300 containers headed to the commissaries, exchanges, and other units. Without the Buildup, DOD-related inbound volumes are expected to increase slightly from 7,300 boxes in 2009 to 8,400 boxes in 2040, or at approximately 0.5 percent per year.
- Approximately 5,600 full inbound containers were shipped to tourism-related businesses (retail stores, accommodations, and restaurants). These containers primarily carry food, beverages, and miscellaneous retail shopping goods (apparel, leather and plastic products, gifts). The inbound container traffic associated with the local/tourist market segment is expected to grow from 5,600 containers in 2009 to 8,800 containers in 2027. This corresponds to an annual growth of 1.5 percent, based on the expected growth in the tourism industry.
- Approximately 18,900 full inbound containers were shipped to local businesses and residents and non-DOD public agencies (local and federal). This primarily included food, beverages, apparel, paper products, and building materials. The container traffic associated with the local Guam market segment is expected to grow from 18,900 full inbound containers in 2009 to 31,400 containers in 2040. This corresponds to an annual growth of 1.7 percent, based on population and economic growth.

The increased trans-shipment volumes to FSM, Palau, and MI are expected to offset the expected declines to and from the CNMI from loss of garment manufacturing. Container volumes increase with expected growth in population and the tourist industry. Trans-shipped cargo to the CNMI and FSM is expected to grow from approximately 8,300 full boxes in 2009 to 10,700 full boxes in 2040, or approximately 0.8 percent per year. These boxes arrive full in Guam from the USWC and Asia and then move outbound to the CNMI and FSM/MI. Trans-shipment containers are handled four times on Guam—inbound from USWC/Asia, outbound to CNMI/FSM (mostly full), back inbound to Guam (mostly empty), and outbound to USWC/Asia.

As shown in Table 3-2, approximately 80 percent of outbound boxes from Guam are empty; approximately 20 percent of outbound boxes (from DOD, local/tourist, and trans-shipment markets) are full.

Figure 3-3 depicts the container forecast for the Without Buildup conditions, including full and empty containers on all trade routes. The number of containers is projected to increase from approximately 95,000 boxes in 2009 to between 124,000 boxes (low) and 160,000 boxes (high), with a most likely projection of 142,000 boxes in 2040. As shown in Table 3-4, the average annual growth rates from 2009 to 2040 are expected to range from 0.9 percent (low) to 1.7 percent (high); with a most likely growth projection of 1.3 percent per year. See Table 3-3 for trade route details of the most likely scenario.

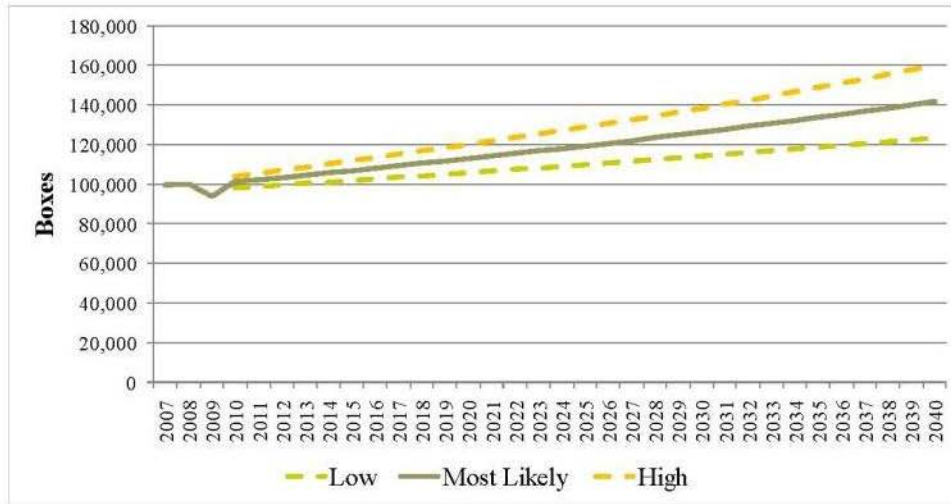


Figure 3-3. Port of Guam Container Forecast—Without Project (Total Boxes)

3.2 Break-bulk

Break-bulk cargo includes a variety of commodities that cannot fit into containers or are more economically transported in break-bulk form (e.g., steel plates, sheets and pipes, cement in super bags, asphalt in drums, motor vehicles, and bulk aggregates). Most of the break-bulk cargo inbound to Guam is for the construction industry with a smaller portion serving the local market (automobiles) and the military (equipment and vehicles). Most of the outbound break-bulk is construction materials (moving on trans-shipment routes), scrap metal, automobiles, and a variety of other cargoes.

Break-bulk cargo has increased from approximately 99,000 revenue tons in 2001 to 105,000 revenue tons in 2006. Approximately 76 percent of the break-bulk is inbound, with 93 percent from foreign sources and 7 percent from U.S. domestic sources. The remaining 24 percent of break-bulk is outbound, with 78 percent to foreign markets and 22 percent to U.S. domestic markets.

Break-bulk cargo can move on vessels that also carry containers or on vessels that only carry break-bulk. On foreign trade routes, approximately 43 percent of break-bulk was handled on vessels that also carry containers (primarily Kyowa) and 57 percent was carried on break-bulk only vessels. On U.S. domestic trade routes, approximately 51

percent of break-bulk was handled on vessels that also carry containers (Matson and Horizon) and 49 percent was carried on break-bulk only vessels.

As shown in Figure 3-4, break-bulk cargoes without the Buildup are expected to grow from around 125,000 revenue tons in FY 2009 to between 180,000 revenue tons (low) and 224,000 revenue tons (high), with a most likely forecast of 202,000 revenue tons in FY 2040. As shown in Table 3-5, the annual growth rates range from 1.2 percent (low) to 1.9 percent (high), with a most likely growth rate of 1.6 percent from 2009 to 2040.

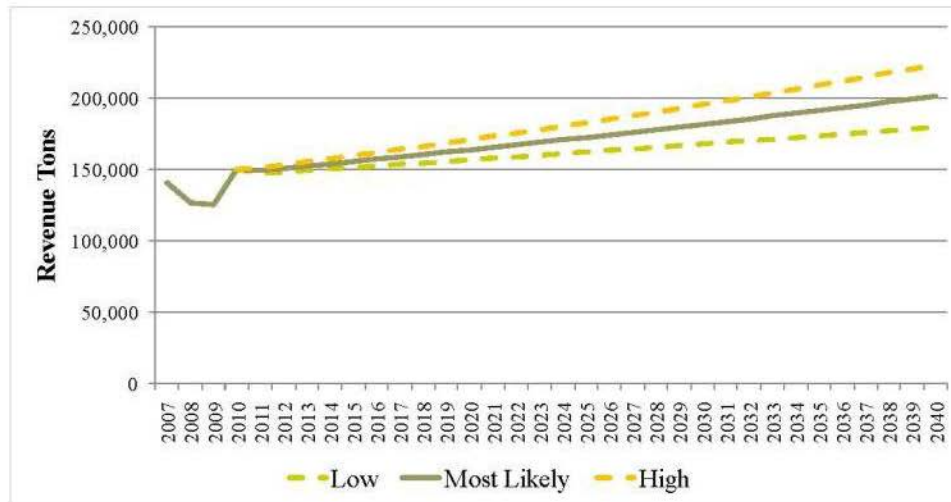


Figure 3-4. Port of Guam Break-bulk Trends and Forecasts (Revenue Tons)—
Without Buildup

3.3 Bulk Cement

Bulk imports of cement to Guam have averaged approximately 80,000 tons per year in recent years. Cement imports come in super-bags that are typically handled in container and break-bulk form.

As shown in Figure 3-5, bulk cement cargoes without the Buildup are expected to grow from approximately 56,000 revenue tons in FY 2009 (a relatively low year by recent standards) to between 98,000 revenue tons (low) to 122,000 revenue tons (high), with a most likely forecast of 110,000 revenue tons in FY 2040. As shown in Table 3-6, the annual growth rates range from 1.8 percent (low) to 2.5 percent (high), with a most likely growth rate of 2.2 percent from 2009 to 2040.

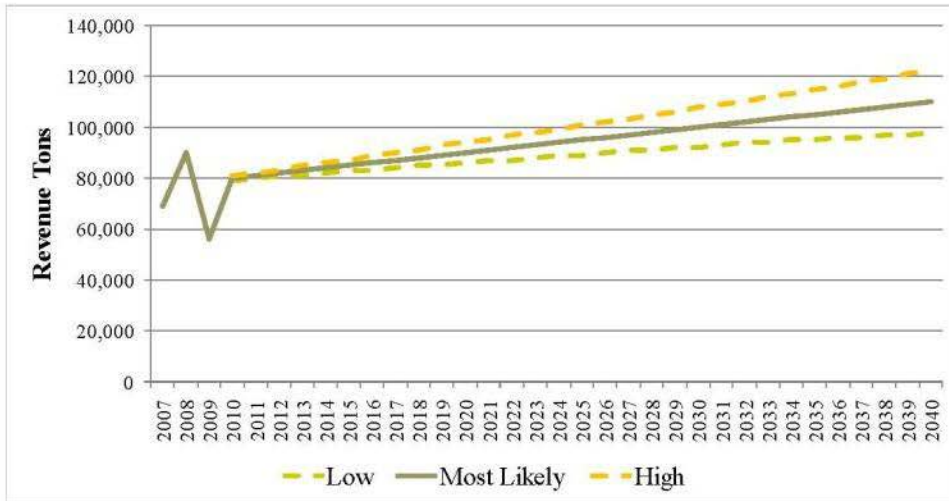


Figure 3-5. Port of Guam Bulk Cement Trends & Forecasts (Revenue Tons)—
Without Buildup

Table 3-1. Guam Inbound Container Forecast (Boxes)—From USWC/Asia Without Buildup—Most Likely Scenario

Year	Full Boxes					Empty Boxes	Total
	Local Population (non-DOD)	Tourist industry	DOD (existing)	Transshipment	subtotal		
2007	18,500	5,300	7,400	7,800	39,100	800	39,900
2008	19,400	5,600	7,600	8,200	40,800	700	41,500
2009	18,900	5,600	7,300	8,300	40,000	600	40,600
2010	19,700	5,700	8,000	8,400	41,700	600	42,300
2011	19,900	5,700	8,100	8,400	42,100	600	42,700
2012	20,300	5,800	8,100	8,500	42,600	600	43,200
2013	20,600	5,900	8,100	8,500	43,200	600	43,800
2014	21,000	6,000	8,100	8,600	43,700	600	44,300
2015	21,300	6,100	8,100	8,700	44,200	600	44,800
2016	21,700	6,200	8,100	8,800	44,700	700	45,400
2017	22,000	6,300	8,100	8,800	45,300	700	46,000
2018	22,400	6,400	8,100	8,900	45,800	700	46,500
2019	22,700	6,500	8,100	9,000	46,300	700	47,000
2020	23,100	6,600	8,200	9,000	46,800	700	47,500
2021	23,400	6,700	8,200	9,100	47,400	700	48,100
2022	23,800	6,800	8,200	9,200	47,900	700	48,600
2023	24,200	6,900	8,200	9,300	48,500	700	49,200
2024	24,500	7,000	8,200	9,300	49,100	700	49,800
2025	24,900	7,100	8,200	9,400	49,600	700	50,300
2026	25,300	7,200	8,200	9,500	50,200	700	50,900
2027	25,700	7,300	8,200	9,600	50,800	700	51,500
2028	26,100	7,400	8,300	9,600	51,400	800	52,200
2029	26,500	7,500	8,300	9,700	52,000	800	52,800
2030	26,900	7,600	8,300	9,800	52,600	800	53,400
2031	27,300	7,700	8,300	9,900	53,300	800	54,100
2032	27,800	7,800	8,300	10,000	53,900	800	54,700
2033	28,200	8,000	8,300	10,100	54,500	800	55,300
2034	28,600	8,100	8,300	10,200	55,200	800	56,000
2035	29,100	8,200	8,300	10,300	55,900	800	56,700
2036	29,500	8,300	8,400	10,400	56,500	800	57,300
2037	30,000	8,500	8,400	10,400	57,200	800	58,000
2038	30,400	8,600	8,400	10,500	57,900	800	58,700
2039	30,900	8,700	8,400	10,600	58,600	900	59,500
2040	31,400	8,800	8,400	10,700	59,400	900	60,300
Compound Annual Growth Rate							
2009-20	1.8%	1.5%	1.1%	0.7%	1.4%	1.4%	1.4%
2020-40	1.5%	1.4%	0.1%	0.9%	1.2%	1.3%	1.2%
2009-40	1.7%	1.5%	0.5%	0.8%	1.3%	1.3%	1.3%

Table 3-2. Guam Outbound Container Forecast (Boxes)—From USWC/Asia Without Buildup—Most Likely Scenario

Year	Full Boxes				Empty Boxes				Total
	Local/Tourist	DOD (existing)	Transshipment	subtotal	Local/Tourist	DOD (existing)	Transshipment	subtotal	
2007	5,400	1,500	2,500	9,400	18,400	6,000	6,200	30,600	40,000
2008	5,700	1,500	1,600	8,800	19,300	6,100	6,900	32,300	41,100
2009	4,600	1,900	800	7,300	19,800	5,400	6,500	31,700	39,000
2010	5,300	1,800	600	7,700	20,100	6,200	7,700	34,000	41,700
2011	5,100	1,900	500	7,500	20,600	6,100	7,800	34,500	42,000
2012	5,300	1,900	500	7,700	20,800	6,200	7,900	34,900	42,600
2013	5,300	1,900	500	7,700	21,200	6,200	8,000	35,400	43,100
2014	5,400	1,900	500	7,800	21,500	6,200	8,000	35,700	43,500
2015	5,500	1,900	500	7,900	21,900	6,200	8,100	36,200	44,100
2016	5,600	1,900	500	8,000	22,300	6,200	8,100	36,600	44,600
2017	5,700	1,900	500	8,100	22,600	6,200	8,200	37,000	45,100
2018	5,800	1,900	500	8,200	23,000	6,200	8,300	37,500	45,700
2019	5,900	1,900	500	8,300	23,300	6,200	8,300	37,800	46,100
2020	6,000	1,900	500	8,400	23,700	6,200	8,400	38,300	46,700
2021	6,100	1,900	500	8,500	24,100	6,200	8,500	38,800	47,300
2022	6,100	1,900	500	8,500	24,400	6,200	8,500	39,100	47,600
2023	6,200	1,900	500	8,600	24,800	6,200	8,600	39,600	48,200
2024	6,300	1,900	500	8,700	25,200	6,300	8,700	40,200	48,900
2025	6,400	1,900	500	8,800	25,600	6,300	8,800	40,700	49,500
2026	6,500	2,000	500	9,000	26,000	6,300	8,800	41,100	50,100
2027	6,600	2,000	500	9,100	26,400	6,300	8,900	41,600	50,700
2028	6,700	2,000	500	9,200	26,800	6,300	9,000	42,100	51,300
2029	6,800	2,000	500	9,300	27,200	6,300	9,100	42,600	51,900
2030	6,900	2,000	600	9,500	27,600	6,300	9,100	43,000	52,500
2031	7,000	2,000	600	9,600	28,000	6,300	9,200	43,500	53,100
2032	7,200	2,000	600	9,800	28,400	6,300	9,300	44,000	53,800
2033	7,300	2,000	600	9,900	28,900	6,300	9,400	44,600	54,500
2034	7,400	2,000	600	10,000	29,300	6,400	9,500	45,200	55,200
2035	7,500	2,000	600	10,100	29,800	6,400	9,500	45,700	55,800
2036	7,600	2,000	600	10,200	30,200	6,400	9,600	46,200	56,400
2037	7,700	2,000	600	10,300	30,700	6,400	9,700	46,800	57,100
2038	7,800	2,000	600	10,400	31,200	6,400	9,800	47,400	57,800
2039	8,000	2,000	600	10,600	31,600	6,400	9,900	47,900	58,500
2040	8,100	2,000	600	10,700	32,100	6,400	10,000	48,500	59,200
Compound Annual Growth Rate									
2009-20	2.4%	0.0%	-4.2%	1.3%	1.6%	1.3%	2.4%	1.7%	1.7%
2020-40	1.5%	0.3%	0.9%	1.2%	1.5%	0.2%	0.9%	1.2%	1.2%
2009-40	1.8%	0.2%	-0.9%	1.2%	1.6%	0.5%	1.4%	1.4%	1.4%

**Table 3-3. Guam Container Forecast (Boxes)—By All Trade Routes Without Buildup—
Most Likely Scenario**

Year	USWC	Asia	Total	Transshipment			Grand Total
				CNMI	FSM	Total	
2007	63,000	19,300	82,300	7,100	9,800	16,900	99,200
2008	64,200	18,800	83,000	7,500	9,400	16,900	99,900
2009	63,500	18,000	81,500	6,100	9,500	15,600	97,100
2010	66,100	17,800	83,900	6,400	10,300	16,700	100,600
2011	66,900	17,900	84,800	6,400	10,400	16,800	101,600
2012	67,600	18,100	85,700	6,500	10,500	17,000	102,700
2013	68,500	18,400	86,900	6,500	10,600	17,100	104,000
2014	69,300	18,600	87,900	6,500	10,700	17,200	105,100
2015	70,100	18,800	88,900	6,600	10,800	17,400	106,300
2016	71,000	19,000	90,000	6,600	10,900	17,500	107,500
2017	71,800	19,300	91,100	6,600	11,000	17,600	108,700
2018	72,600	19,500	92,100	6,700	11,100	17,800	109,900
2019	73,500	19,700	93,200	6,700	11,200	17,900	111,100
2020	74,300	19,900	94,200	6,700	11,400	18,100	112,300
2021	75,200	20,200	95,400	6,800	11,500	18,300	113,700
2022	76,000	20,400	96,400	6,800	11,600	18,400	114,800
2023	76,900	20,600	97,500	6,900	11,700	18,600	116,100
2024	77,800	20,900	98,700	6,900	11,800	18,700	117,400
2025	78,700	21,100	99,800	7,000	11,900	18,900	118,700
2026	79,600	21,400	101,000	7,000	12,000	19,000	120,000
2027	80,600	21,600	102,200	7,100	12,100	19,200	121,400
2028	81,500	21,900	103,400	7,100	12,200	19,300	122,700
2029	82,500	22,200	104,700	7,200	12,300	19,500	124,200
2030	83,500	22,400	105,900	7,200	12,400	19,600	125,500
2031	84,500	22,700	107,200	7,300	12,500	19,800	127,000
2032	85,500	23,000	108,500	7,400	12,700	20,100	128,600
2033	86,500	23,200	109,700	7,400	12,800	20,200	129,900
2034	87,500	23,500	111,000	7,500	12,900	20,400	131,400
2035	88,600	23,800	112,400	7,500	13,000	20,500	132,900
2036	89,600	24,100	113,700	7,600	13,100	20,700	134,400
2037	90,700	24,400	115,100	7,600	13,300	20,900	136,000
2038	91,800	24,700	116,500	7,700	13,400	21,100	137,600
2039	93,000	25,000	118,000	7,700	13,500	21,200	139,200
2040	94,100	25,300	119,400	7,800	13,700	21,500	140,900
Compound Annual Growth Rate							
2009-20	1.4%	0.9%	1.3%	0.9%	1.7%	1.4%	1.3%
2020-40	1.2%	1.2%	1.2%	0.8%	0.9%	0.9%	1.1%
2009-40	1.3%	1.1%	1.2%	0.8%	1.2%	1.0%	1.2%

**Table 3-4. Guam Container Forecast (Boxes)
Without Buildup—Low, Most Likely, High Scenarios**

Year	Low	Most Likely	High
2007		100,000	
2008		100,000	
2009		94,000	
2010	98,000	101,000	104,000
2011	99,000	102,000	105,000
2012	99,000	103,000	107,000
2013	101,000	105,000	109,000
2014	101,000	106,000	111,000
2015	102,000	107,000	112,000
2016	103,000	108,000	113,000
2017	103,000	109,000	115,000
2018	105,000	111,000	117,000
2019	105,000	112,000	119,000
2020	106,000	113,000	120,000
2021	106,000	114,000	122,000
2022	108,000	116,000	124,000
2023	108,000	117,000	126,000
2024	109,000	118,000	127,000
2025	110,000	119,000	128,000
2026	111,000	121,000	131,000
2027	111,000	122,000	133,000
2028	112,000	123,000	134,000
2029	113,000	125,000	137,000
2030	114,000	126,000	138,000
2031	115,000	128,000	141,000
2032	116,000	129,000	142,000
2033	117,000	131,000	145,000
2034	118,000	132,000	146,000
2035	119,000	134,000	149,000
2036	119,000	135,000	151,000
2037	121,000	137,000	153,000
2038	122,000	139,000	156,000
2039	122,000	140,000	158,000
2040	124,000	142,000	160,000
CAGR			
2009-2027	0.9%	1.4%	1.8%
2009-2040	0.9%	1.3%	1.7%

**Table 3-5. Guam Break-bulk Forecast (Revenue Tons)
Without Buildup—Low, Most Likely, High Scenarios**

Year	Low	Most Likely	High
2007		141,000	
2008		127,000	
2009		125,000	
2010	194,000	196,000	198,000
2011	147,000	149,000	151,000
2012	148,000	151,000	154,000
2013	150,000	153,000	156,000
2014	150,000	154,000	158,000
2015	152,000	156,000	160,000
2016	152,000	157,000	162,000
2017	154,000	159,000	164,000
2018	155,000	161,000	167,000
2019	156,000	162,000	168,000
2020	157,000	164,000	171,000
2021	158,000	166,000	174,000
2022	159,000	167,000	175,000
2023	160,000	169,000	178,000
2024	161,000	171,000	181,000
2025	163,000	173,000	183,000
2026	163,000	174,000	185,000
2027	164,000	176,000	188,000
2028	166,000	178,000	190,000
2029	167,000	180,000	193,000
2030	168,000	182,000	196,000
2031	169,000	184,000	199,000
2032	171,000	186,000	201,000
2033	172,000	188,000	204,000
2034	173,000	190,000	207,000
2035	174,000	192,000	210,000
2036	175,000	194,000	213,000
2037	177,000	196,000	215,000
2038	178,000	198,000	218,000
2039	179,000	200,000	221,000
2040	180,000	202,000	224,000
CAGR			
2009-2027	1.4%	1.8%	2.2%
2009-2040	1.2%	1.6%	1.9%

**Table 3-6. Guam Bulk Cement Forecast (Revenue Tons)
Without Buildup—Low, Most Likely, High Scenarios**

Year	Low	Most Likely	High
2007		69,000	
2008		90,000	
2009		56,000	
2010	79,000	80,000	81,000
2011	80,000	81,000	82,000
2012	81,000	82,000	83,000
2013	81,000	83,000	85,000
2014	82,000	84,000	86,000
2015	83,000	85,000	87,000
2016	83,000	86,000	89,000
2017	84,000	87,000	90,000
2018	85,000	88,000	91,000
2019	85,000	89,000	93,000
2020	86,000	90,000	94,000
2021	87,000	91,000	95,000
2022	87,000	92,000	97,000
2023	88,000	93,000	98,000
2024	89,000	94,000	99,000
2025	89,000	95,000	101,000
2026	90,000	96,000	102,000
2027	91,000	97,000	103,000
2028	91,000	98,000	105,000
2029	92,000	99,000	106,000
2030	92,000	100,000	108,000
2031	93,000	101,000	109,000
2032	94,000	102,000	110,000
2033	94,000	103,000	112,000
2034	95,000	104,000	113,000
2035	95,000	105,000	115,000
2036	96,000	106,000	116,000
2037	96,000	107,000	118,000
2038	97,000	108,000	119,000
2039	97,000	109,000	121,000
2040	98,000	110,000	122,000
CAGR			
2009-2027	2.6%	2.9%	3.3%
2009-2040	1.8%	2.2%	2.5%

4.0 Cargo Forecast with Military Buildup

This section evaluates the expected growth in Guam; it also presents the results of the forecast of cargo activity at the Port over the next 30 years if the Military Buildup proceeds as currently planned.

4.1 Buildup Related Construction Cargo Volume Estimates

The DOD is planning a major build-up of forces on Guam. This will impact cargo volumes in several ways:

- First, during the construction period, DOD contractors will import substantial volumes of materials and supplies. These supplies will come in containerized, break-bulk, and bulk (cement) handling modes.
- Second, the DOD will bring in additional active duty personnel and their dependents. This will also increase the flow of household goods, personal vehicles and goods sold at the commissaries and at local businesses. This will primarily impact containerized volumes but will also have an impact on break-bulk and bulk cement cargoes.
- Finally, the Buildup will require additional workers from off-island both during and after construction.

The Military Buildup on Guam is a major and complex program that will occur over several years. Section 2.3.3 describes the construction expenditures, population expansions, and other drivers due to the program.

Little information was available on the specific buildings or facilities and the extent of the construction work that would be needed for the military base construction project. The program would fund approximately 40 separate military projects. The available information was general and consisted of budgets established for the U.S. Federal Government and Congressional Authorizations. These budgets contained sketchy descriptive information, with in some cases, simply estimates of square footage of buildings. No concept, preliminary, detail drawings, or specifications were available for any of the facilities to be constructed. Additionally, no information was available on the extent of the horizontal construction, such as acreage or grounds or the utilities and infrastructure needed to support the proposed facility or project. A detailed definition of the construction projects would be available after design/build contracts are awarded and contractors are mobilized to develop these details.

Representatives from JGPO, NAVFAC, and SDDC worked with the PAG and the Consultant team to provide available information and clarification on the various aspects of the Buildup. The information described in this section was developed in collaboration with the DOD entities in order to estimate the levels and types of cargo that would have to be imported into Guam in order to support the Buildup and sustain a long-term military relocation.

The methodology utilized for estimating cargo flows needed to support the program is described below. Sections 4.2, 4.3, and 4.4 discuss the resulting cargo flows from the Military Buildup.

4.1.1 List of Military Projects and Characteristics

The previous information that JGPO and NAVFAC provided on the various program elements was reviewed first. This was used to catalog and prepare a matrix of projects, land development, and other available characteristics related to each project. To the extent available, information on the budget, square footage, construction type, facility type, amenities, and other data was tabulated.

This information was reviewed by JGPO and NAVFAC. It was updated to include specific data on the various projects including listing and classification of the projects under U.S. Government (Milcondef) and Japanese Government (Mamizu) projects for each of their respective fiscal years in the program. The projects related to relocation of the Marines from Okinawa to Guam were classified into Milcondef and Mamizu categories. Army, Air Force, and Navy projects were based on proposed or anticipated U.S. Federal Government funded projects.

The available information was refined and updated with information from the JGPO DEIS and data from JGPO/NAVFAC with tabulations on the budget, square footage, number of floors, standard military building category, construction type, facility type, amenities, acreage, and other data. The result was a comprehensive list of all known DOD projects associated with the Buildup.

4.1.2 Facility and Building Classifications

The various building or facilities were classified into eight categories based on the typical military classifications from standard documentation provided by NAVFAC:

- **Category 1**—Headquarters, Administrative Offices, Defense Reutilization and Marketing Office, Location Exchange, Banks, Offices
- **Category 2**—Community Centers, Hobby Shops, Restaurants, Enlisted Dining, Enlisted Club, Indoor Fitness Facilities, Swimming Pools, Bowling Alleys, Indoor Recreation Facilities, Youth Center Facilities
- **Category 3**—Auditorium, Theater, Chapel
- **Category 4**—Warehouses, Hangars, Armory, Storage Facilities, Maintenance Facilities, Commissary
- **Category 5**—Electronics and Communication Maintenance, Kennel, Rehabilitation Center Facilities, Gate House Facilities, Vehicle Maintenance, Gasoline Stations
- **Category 6**—Elementary, Middle, and High Schools; Child Development Center
- **Category 7**—Enlisted Quarters, Bachelor Officer Quarters, Temporary Lodging Facilities, Family Housing
- **Category 8**—Hospitals, Medical and Dental Clinics

4.1.3 Development of Representative Floor and Elevation Samples

Typical representative or unitized segments of building floor plans and elevations for each different type of building based on DOD guidelines for construction in Guam were prepared next. Typical building types that were examined included the following.

- Administrative Building
- Main Community Center
- Auditorium

- Theater
- Religious Facilities / Church / Chapel
- Warehouse
- Maintenance Hangar
- Armory
- Communication / Electronic Maintenance Center
- Vehicle Maintenance
- Elementary School
- Middle School
- Child Development Center
- Bachelor Officer Quarters
- Family Housing and Community Support
- Medical and Dental Center

4.1.4 Quantity Estimates for Unitized Facility Segments

Quantity estimates of various building materials and components that would be needed to construct a typical unitized segment of each type of facility were developed next. This included estimates of material quantities for associated vertical and horizontal construction. The estimates included approximately 133 individual material estimates within the following three broad categories: civil/structural and architectural works; mechanical, plumbing and sanitary works; and electrical and auxiliary works. Table 4-1 shows the types of materials by Facility Type that were estimated.

These products were then categorized as container, break-bulk or bulk cargo. For containerized cargoes, the average tons per container based on data from U.S. West Coast ports by product type and characteristics were estimated. These assumptions and results were reviewed with representatives from the principal carriers serving Guam.

4.1.5 Quantity Estimates for Military Program Projects

The material estimates for the unitized facility segments described in Section 4.1.4 was next combined with the matrix of military projects and characteristics described in Section 4.1.1. For each project, the applicable unitized facility segment was used as the basis for estimating construction materials for the entire project. Proration was based on area, volume or other appropriate parameter. For each project, the estimates were calculated for the materials and facility types shown in Table 4-1.

Table 4-1. Building Materials Considered for Each Military Facility Type

CIVIL / STRUCTURAL AND ARCHITECTURAL WORKS	MECHANICAL, PLUMBING AND SANITARY WORKS	ELECTRICAL AND AUXILIARY WORKS
Portland Cement	Storm Drainage System	Load Center & Panel Boards
Coarse Aggregates	a. Concrete Pipes, 8"Ø	a. Main Distribution Panel
Fine Aggregates	b. Catch Basin / Area Drains	b. Low Voltage Switch Gear
Deformed Bars	Concrete Hollow Blocks	c. Aircon Power Panel
Galvanized Iron (G.I.) Wire	Portland Cement	d. Lighting & Power Panel
Common Wire Nail	Fine Aggregates	e. Automatic Transfer Switch
Marine Plywood (½" thk.)	Deformed Bars	Lighting Fixtures
Lumber	Air Conditioning Units	a. 2 - 40W F.L., 24" x 48" Louvered Type
Masonry Works	a. 15TR Air Condition, Self Contained	b. 1 - 40W F.L., 12" x 48" Louvered Type
a. Concrete Hollow Blocks	b. 5TR Air Condition, Split Type	c. 1 - 40W F.L., Box Type
b. Portland Cement	c. 3TR Air Condition, Split Type	d. 1 - 18W C.F.L. Pinlights
c. Fine Aggregates	d. 2TR Air Condition, Split Type	e. 1 - 50W Halogen Lamp Pinlights
d. Deformed Bars	e. 1.5TR Air Condition, Split Type	f. Chandelier with Dense Diffusing Shades
e. Galvanized Iron (G.I.) Wire	f. 1TR Air Condition, Split Type	g. 1 - 250W Mercury Vapor Down Light
Structural Steel	g. 0.75TR Air Condition, Split Type	h. 1 - 150W Halogen Lamp Spot Light
a. A36, Steel Beams	h. 0.75TR Air Condition, Window Type	i. 1 - 125W Metal Halide Down Light
b. A36, Angle Bars	Exhaust Fan	j. Emergency Light, Self Contained
c. A36, Mild Steel Plate	a. Exhaust Fan, 170 CMH	Electrical Metallic Tubing
d. A36, Plain Round Bars	b. Exhaust Fan, 1026 CMH	a. 2"Ø x 10' EMT
e. A36, Cee Purlins	c. Exhaust Fan, 3230 CMH	b. 1-1/2"Ø x 10' EMT
f. Welding Rod & other consumables	Gal. 26 x 4" x 8' GI Sheet	c. 1-1/4"Ø x 10' EMT
Steel Deck	Fire Hose Cabinet complete w/ accessories	d. 1"Ø x 10' EMT
Hypalon Roofing	Portable Fire Extinguisher, 10lbs.	e. 3/4"Ø x 10' EMT
Roofing / Deck Insulation	Portable Fire Extinguisher, 5lbs.	Cable & Wires
Membrane Waterproofing Sheet	Copper Tubing and Insulation	a. 50 mm² THHN Wire
Ceramic Tiles (12" x 12")	a. 3/4"Ø x 20' Copper Pipes, Hard Drawn	b. 38 mm² THHN Wire
Carpet	b. 5/8"Ø x 20' Copper Pipes, Hard Drawn	c. 30 mm² THHN Wire
Hardwood Flooring	c. 1/2"Ø x 20' Copper Pipes, Hard Drawn	d. 22 mm² THHN Wire
Tile Grout	d. 3/8"Ø Copper Pipes, Hard Drawn	e. 14 mm² THHN Wire
Fiber Cement Board (1/4" x 24" x 48")	e. 1/4"Ø Copper Pipes, Hard Drawn	f. 8.0 mm² THHN Wire
Acoustic Board (24" x 24")	Black Iron Pipes, Schedule 40	g. 5.5 mm² THHN Wire
Metal Runners for Acoustic Ceiling	a. 6"Ø x 20' BI Pipes, Schedule 40	h. 3.5 mm² THHN Wire
Light Metal Ceiling Frames for Ficom Board	b. 4"Ø x 20' BI Pipes, Schedule 40	i. 1.25 mm² Twisted Pair Shielded Cable
Doors & Entrances	c. 3"Ø x 20' BI Pipes, Schedule 40	j. 2.0 mm² Twisted Pair Shielded Cable
Windows, Store Front & Curtain Walls	d. 2"Ø x 20' BI Pipes, Schedule 40	k. Cat 6, 4-Pair Twisted Cable
Dry Partition & Cavity Walls	e. 1-1/2"Ø x 20' BI Pipes, Schedule 40	l. Cat 6, UTP Cable, 4-Pair x 0.51mm
a. Metal Tracks & Studs	f. 1-1/4"Ø x 20' BI Pipes, Schedule 40	Auxiliary Equipment & Fixtures
b. Gypsum Board (5/8" x 2' x 4')	g. 1"Ø BI x 20' Pipes, Schedule 40	a. Telephone / LAN Terminal Cabinet
Benches, Seats & Chairs	Water Closet	b. CCTV Security Cabinet
a. Theater & Auditorium Seats	Lavatory & Faucets	c. Fire Alarm Control Panel
b. Hall Benches & Seats	Urinals	d. Public Address Terminal Cabinet
c. Church Pews	Kitchen Sinks & Faucets	e. Telephone Units
d. School Chairs/Desks	Shower Head & Valves	f. CCTV Equipments
Paints	High Density Polyethylene (HDPE/PE) Pipes	g. CCTV Cameras
a. Concrete Neutralizer	a. 2"Ø x 10' PE Pipes	Electrical & Auxiliary miscellaneous items
b. Flat Latex Paint	b. 1-1/2"Ø 10' PE Pipes	
c. Semi-gloss Latex Paint	c. 1-1/4"Ø 10' PE Pipes	
d. Elastomeric Paint	d. 1"Ø BI 10' PE Pipes	
Scaffolding, Props & Shoring	e. 3/4"Ø x 10' PE Pipes	
Structural & Architectural miscellaneous items	Polyvinyl Chloride (PVC) Pipes	
	a. 6"Ø x 10' PVC Pipes, Schedule 40	
	b. 4"Ø x 10' PVC Pipes, Schedule 40	
	c. 3"Ø x 10' PVC Pipes, Schedule 40	
	d. 2"Ø x 10' PVC Pipes, Schedule 40	
	Mechl, Plumbing & Sanitary miscellaneous items	

Source: COEVAL Design Partners

4.1.6 Classification of Material by Imported or Local Source

Construction materials were evaluated to determine whether they were sourced on-island (primarily aggregates from local quarries) or off-island. Based on reviews with the local quarries and government regulators, it appears that the local quarries can provide the required volumes of aggregates. Off-island sourcing was only necessary for selected products that required special physical characteristics in order to meet design specifications. For example, the surface or wearing course for roadways would be constructed with imported aggregate with better abrasion resistant characteristics that could not be provided by locally mined aggregate. Based on discussions with contractors, it is assumed that the concrete blocks required for the buildings would be manufactured on-island. The inputs for the blocks (cement and aggregates) were included in the materials flow and sourced appropriately to on-island or off-island suppliers.

Materials sourced from off-island were further categorized by whether they typically move in containerized, break-bulk, or bulk form based on existing handling methods and discussions with transportation providers and contractors. The number of containers was further refined by evaluating the typical number of tons or cubic feet by product type.

It was assumed that all of the products used for the Mamizu component of the project (which is paid for by the Government of Japan) would be sourced from Asia and that materials required for Milcondéf projects, which are paid for by the U.S. Government, would be sourced primarily from the USWC. However, most of the rebar used in concrete is expected to come from Asia.

4.1.7 Construction Schedule of Projects

NAVFAC compiled and provided an updated schedule for construction for each of the projects listed in Figure 4-1. The project schedule was partially based on the available timing for funding in the Milcondéf and Mamizu FY budgets. No specific design or construction schedule details were available. Construction schedules prepared after design drawings and specifications are done, and established start and completion times for construction, will impact the estimated rate of flow of cargo through the Port.

The schedule components for each project were divided into segments. It was assumed that horizontal construction would begin first followed by vertical construction in typical sequence employed by building contractors (e.g. foundation, shell, floors, roof, interior work, utility connections). Cargo volumes were apportioned to meet the construction process, with bulk cement and break-bulk cargoes arriving on island in advance of containerized cargoes. Other considerations for contractor mobilization included containerized or office trailer units. The timing of the imported material flow needed to support the construction work in each case was next applied to the projects shown in Figure 4-1. The contribution of cargo flows from the various projects was aggregated to obtain estimated annual volumes of material flows.

4.1.8 Non-DOD Projects

Detailed material estimates were based on the Guam Department of Public Work's (DPW) program for the haul road network. Separated into 75 segments, the road system was evaluated based on the required construction, which included bridge replacement, intersection improvements, improved or new access points, new roads, pavement strengthening (generally two or four lanes), and signalized intersections.

A detailed assessment of individual components and schedule was estimated for each project segment.

Table 4-2. Haul Road Construction Components

Roadway Obliteration - Demolition	Weigh Stations
Excavation (Cut)	Hydroseed FP03/ Landscape
Embankment (Fill)	Acquisition of Residential
Clearing and Grubbing	Acquisition of Commercial
Asphalt Concrete Pavement (ACP) - Widening	Acquisition of Military
Pavement Strengthening - FDR	Temporary Construction Easements
Asphalt Concrete Overlay	Acquisition of Buildings (Assumed all Commercial)
Sidewalk (5 feet wide & 4 inch thick)	Major Power - Non Military (Overhead)
Curb & Gutter	Major Power - Non Military (Underground)
Swale 8'x3'	Major Power - Military (Overhead)
Retaining Walls - Soldier Pile w/ tiebacks (Cut > 5 feet)	Major Power - Military (Underground)
Retaining Walls (Cast-In-Place for fill operation)	Cable TV (O/H)
Retaining Walls (MSE)	Cable TV (Underground)
Lighting/Illumination - Roadway	Fiber Optic (U/G)
Lighting/Illumination - Intersections	Cable/Fiber Optic - Military
Pavement Markings (4 inch)	Telephone (O/H)
Traffic Signals - New	Telephone (U/G)
Traffic Signals - Modified	Fuel Line
ITS	Water Line - Non Military (GWA Water)
Guardrail	Water Line - Military (Navy Water)
Concrete Barrier	Sewer - Non Military (GWA Sewer)
Bridge Replacement	Sewer - Military (Navy Sewer)

Source: DPW Program.

Other projects (GPA and Guam Waterworks Authority [GWA]) are in the formative planning stages and preliminary design estimates were not available. Cargo volumes associated with these projects were estimated and assessments of on-island and off-island commodity flows by handling mode (containerized, break-bulk, bulk cement) were prepared.

4.1.9 Materials to Supply Active Duty Military Personnel, their Dependents, and Required Workers

The cargo volumes associated with active duty military personnel, dependents, and workers from off-island were estimated based on information provided by the SDDC and the Port of Guam.

4.2 Containers

Figure 4-2 shows the container forecast for With Buildup conditions, including full and empty containers on all trade routes. The number of containers is projected to increase

from approximately 95,000 boxes in 2009 to between 135,000 boxes (low) and 198,000 boxes (high), with a most likely projection of 166,000 boxes in 2040. The average annual growth rates from 2009 to 2040 are expected to range from 1.2 percent (low) to 2.4 percent (high), with most likely growth projected at 1.9 percent per year. Table 4-3 and 4-4 show the forecast.

During construction, container volumes reach a peak of 183,000 boxes (low) to 207,000 boxes (high), with a most likely projection of 198,000 boxes in 2016.

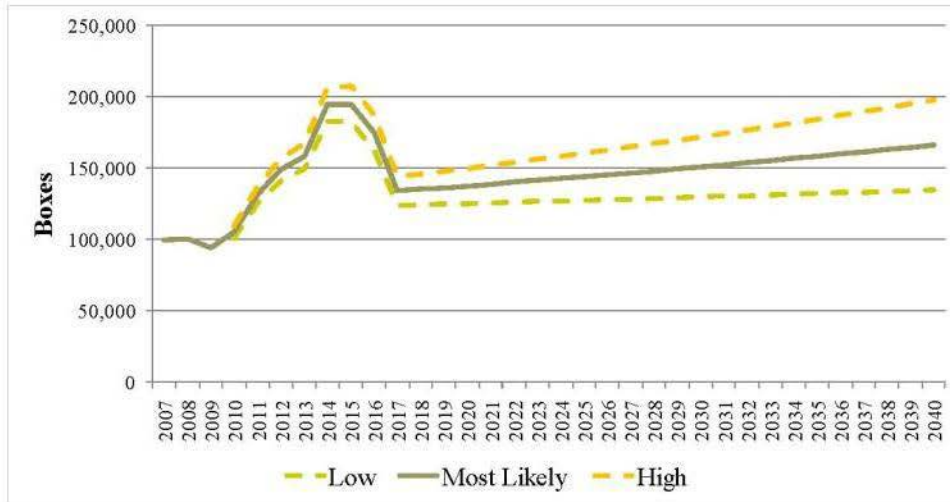


Figure 4-2. Port of Guam Container Forecast—With Buildup (Total Boxes)

4.3 Break-bulk

As shown in Figure 4-3, break-bulk cargoes with the Buildup are expected to grow from around 125,000 revenue tons in FY 2009 to between 180,000 revenue tons (low) to 258,000 revenue tons (high), with a most likely forecast of 218,000 revenue tons in FY 2040. As shown in Table 4-5, the annual growth rates range from 1.2 percent (low) to 2.4 percent (high), with a most likely growth rate of 1.9 percent from 2009 to 2040.

During construction, break-bulk volumes reach a peak of 300,000 revenue tons (low) to 330,000 revenue tons (high), with a most likely projection of 315,000 revenue tons in 2014.

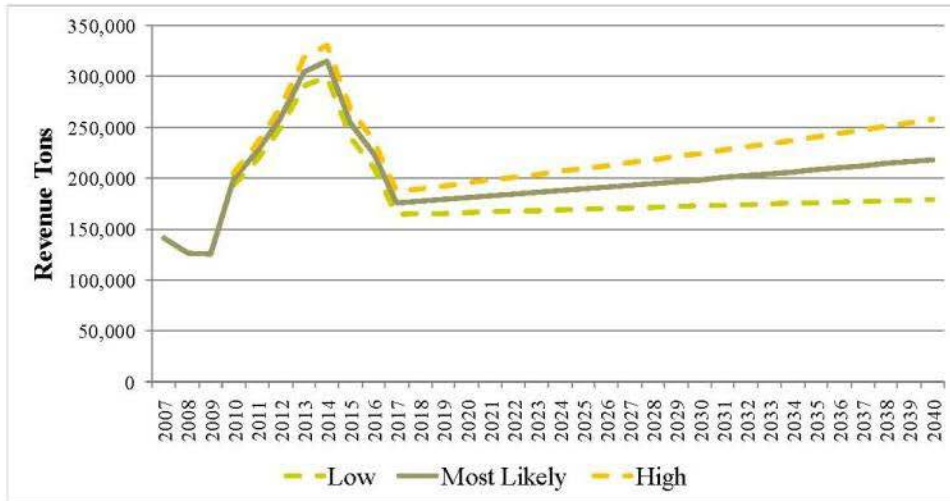


Figure 4-3. Guam Break-bulk Trends & Forecasts (Revenue Tons)—With Buildup

1.4 Bulk Cement

As shown in Figure 4-4 and Table 4-6, bulk cement with the Buildup is expected to grow from around 56,000 revenue tons in FY 2009 (a relatively low year by recent standards) to between 98,000 revenue tons (low) to 141,000 revenue tons (high), with a most likely forecast of 120,000 revenue tons in FY 2040. As shown in Figure 4-6, the annual growth rates range from 1.8 percent (low) to 3 percent (high), with a most likely growth rate of 2.5 percent from 2009 to 2040.

During construction, bulk cement volumes are expected to reach a peak of 525,000 revenue tons (low) to 575,000 revenue tons (high), with a most likely projection of 550,000 revenue tons in 2013.

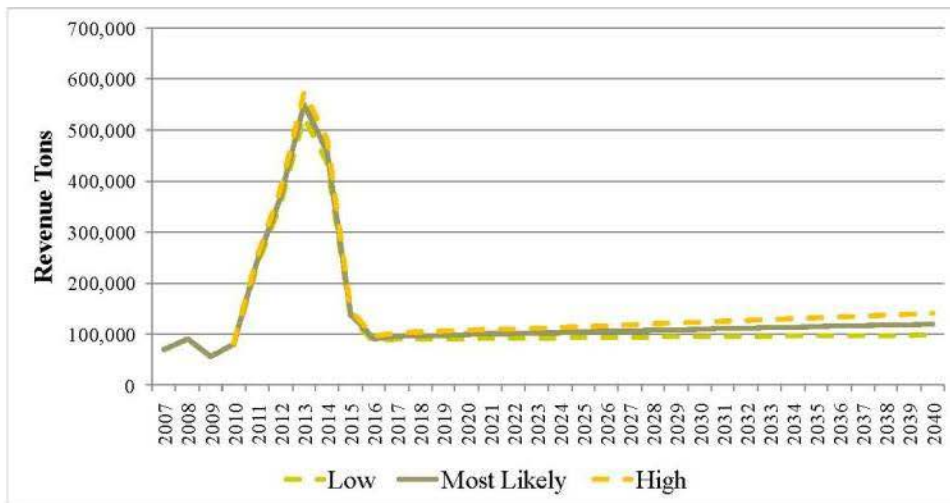


Figure 4-4. Guam Bulk Cement Trends & Forecasts (Revenue Tons)—With Buildup

Table 4-3. Guam Container Forecast (Boxes) With Buildup—Most Likely Forecast Scenario by Trade Route

Year	USWC	Asia	Total	Transshipment			Grand Total
				CNMI	FSM	Total	
2007	63,000	19,000	82,000	7,100	9,800	16,900	98,900
2008	64,000	19,000	83,000	7,500	9,400	16,900	99,900
2009	64,000	18,000	82,000	6,100	9,500	15,600	97,600
2010	67,000	18,000	85,000	6,400	10,300	16,700	101,700
2011	82,000	28,000	110,000	6,400	10,400	16,800	126,800
2012	90,000	36,000	126,000	6,500	10,500	17,000	143,000
2013	100,000	39,000	139,000	6,500	10,600	17,100	156,100
2014	127,000	48,000	175,000	6,500	10,700	17,200	192,200
2015	129,000	52,000	181,000	6,600	10,800	17,400	198,400
2016	124,000	39,000	163,000	6,600	10,900	17,500	180,500
2017	99,000	20,000	119,000	6,600	11,000	17,600	136,600
2018	97,000	20,000	117,000	6,700	11,100	17,800	134,800
2019	98,000	20,000	118,000	6,700	11,200	17,900	135,900
2020	99,000	20,000	119,000	6,700	11,400	18,100	137,100
2021	100,000	20,000	120,000	6,800	11,500	18,300	138,300
2022	100,000	20,000	120,000	6,800	11,600	18,400	138,400
2023	101,000	21,000	122,000	6,900	11,700	18,600	140,600
2024	102,000	21,000	123,000	6,900	11,800	18,700	141,700
2025	103,000	21,000	124,000	7,000	11,900	18,900	142,900
2026	104,000	21,000	125,000	7,000	12,000	19,000	144,000
2027	105,000	22,000	127,000	7,100	12,100	19,200	146,200
2028	106,000	22,000	128,000	7,100	12,200	19,300	147,300
2029	107,000	22,000	129,000	7,200	12,300	19,500	148,500
2030	108,000	22,000	130,000	7,200	12,400	19,600	149,600
2031	109,000	23,000	132,000	7,300	12,500	19,800	151,800
2032	110,000	23,000	133,000	7,400	12,700	20,100	153,100
2033	111,000	23,000	134,000	7,400	12,800	20,200	154,200
2034	112,000	24,000	136,000	7,500	12,900	20,400	156,400
2035	113,000	24,000	137,000	7,500	13,000	20,500	157,500
2036	114,000	24,000	138,000	7,600	13,100	20,700	158,700
2037	115,000	24,000	139,000	7,600	13,300	20,900	159,900
2038	116,000	25,000	141,000	7,700	13,400	21,100	162,100
2039	117,000	25,000	142,000	7,700	13,500	21,200	163,200
2040	119,000	25,000	144,000	7,800	13,700	21,500	165,500
Compound Annual Growth Rate							
2009-20	4.0%	1.0%	3.4%	0.9%	1.7%	1.4%	3.1%
2020-40	0.9%	1.1%	1.0%	0.8%	0.9%	0.9%	0.9%
2009-40	2.0%	1.1%	1.8%	0.8%	1.2%	1.0%	1.7%

Table 4-4. Guam Container Forecast (Boxes) With Buildup—Low, Most Likely, High Forecast Scenarios

Year	Low	Most Likely	High
2007		100,000	
2008		100,000	
2009		94,000	
2010	101,000	105,000	109,000
2011	125,000	131,000	137,000
2012	142,000	149,000	156,000
2013	150,000	159,000	168,000
2014	182,000	194,000	206,000
2015	182,000	195,000	208,000
2016	163,000	175,000	187,000
2017	124,000	134,000	144,000
2018	124,000	135,000	146,000
2019	124,000	136,000	148,000
2020	125,000	137,000	149,000
2021	126,000	139,000	152,000
2022	126,000	140,000	154,000
2023	126,000	141,000	156,000
2024	127,000	143,000	159,000
2025	127,000	144,000	161,000
2026	128,000	145,000	162,000
2027	129,000	147,000	165,000
2028	129,000	148,000	167,000
2029	129,000	149,000	169,000
2030	130,000	151,000	172,000
2031	130,000	152,000	174,000
2032	131,000	154,000	177,000
2033	131,000	155,000	179,000
2034	132,000	157,000	182,000
2035	132,000	158,000	184,000
2036	133,000	160,000	187,000
2037	133,000	161,000	189,000
2038	134,000	163,000	192,000
2039	134,000	165,000	196,000
2040	134,000	166,000	198,000
CAGR			
2009-2027	1.7%	2.4%	3.0%
2009-2040	1.2%	1.9%	2.4%

Table 4-5. Guam Break-bulk Forecast (Revenue Tons) With Buildup—Low, Most Likely, High Forecast Scenarios

Year	Low	Most Likely	High
2007		141,000	
2008		127,000	
2009		125,000	
2010	193,000	199,000	205,000
2011	218,000	226,000	234,000
2012	249,000	259,000	269,000
2013	290,000	304,000	318,000
2014	299,000	315,000	331,000
2015	239,000	253,000	267,000
2016	211,000	224,000	237,000
2017	165,000	176,000	187,000
2018	165,000	177,000	189,000
2019	166,000	179,000	192,000
2020	167,000	181,000	195,000
2021	167,000	182,000	197,000
2022	167,000	184,000	201,000
2023	168,000	186,000	204,000
2024	169,000	188,000	207,000
2025	169,000	189,000	209,000
2026	170,000	191,000	212,000
2027	171,000	193,000	215,000
2028	172,000	195,000	218,000
2029	172,000	197,000	222,000
2030	173,000	199,000	225,000
2031	173,000	200,000	227,000
2032	174,000	202,000	230,000
2033	174,000	204,000	234,000
2034	175,000	206,000	237,000
2035	176,000	208,000	240,000
2036	176,000	210,000	244,000
2037	177,000	212,000	247,000
2038	178,000	214,000	250,000
2039	178,000	216,000	254,000
2040	179,000	218,000	257,000
CAGR			
2009-2027	1.7%	2.3%	2.9%
2009-2040	1.2%	1.8%	2.4%

Table 4-6. Guam Bulk Cement Forecast (Revenue Tons) With Buildup—Low, Most Likely, High Forecast Scenarios

Year	Low	Most Likely	High
2007		69,000	
2008		90,000	
2009		56,000	
2010	78,000	80,000	82,000
2011	235,000	244,000	253,000
2012	352,000	367,000	382,000
2013	525,000	550,000	575,000
2014	436,000	459,000	482,000
2015	131,000	139,000	147,000
2016	85,000	90,000	95,000
2017	90,000	96,000	102,000
2018	90,000	97,000	104,000
2019	91,000	98,000	105,000
2020	91,000	99,000	107,000
2021	92,000	100,000	109,000
2022	92,000	101,000	110,000
2023	92,000	102,000	112,000
2024	93,000	103,000	113,000
2025	93,000	104,000	115,000
2026	93,000	105,000	117,000
2027	94,000	106,000	118,000
2028	94,000	107,000	120,000
2029	95,000	108,000	122,000
2030	95,000	109,000	123,000
2031	96,000	111,000	126,000
2032	96,000	112,000	128,000
2033	97,000	113,000	129,000
2034	97,000	114,000	131,000
2035	97,000	115,000	133,000
2036	97,000	116,000	135,000
2037	98,000	117,000	136,000
2038	98,000	118,000	138,000
2039	98,000	119,000	140,000
2040	98,000	120,000	142,000
CAGR			
2009-2027	2.8%	3.4%	4.0%
2009-2040	1.8%	2.5%	3.0%

PORT AUTHORITY OF GUAM MODERNIZATION PROGRAM
JOSE D. LEON GUERRERO COMMERCIAL PORT
PORT AUTHORITY OF GUAM (PAG)

OWNERS AGENT/ENGINEER CONSULTANT AGREEMENT

CARGO FORECASTING

TASK NO. 30

SCOPE OF WORK
(EXHIBIT A)

Summary:

The purpose of Task No. 30 is to furnish the services necessary to prepare a forecast of cargo that could be shipped through the Port during the military buildup in Guam.

The Master Plan Report, largely prepared in 2007, provided forecasts of cargo due to (a) organic growth in Guam and the surrounding region, (b) Department of Defense (DOD) Military Buildup on Guam and (c) other Guam infrastructure driven by the military buildup program. The cargo forecast for organic growth was derived from an overall demographic and macroeconomic assessment of conditions. For the military buildup it was based on information provided by the military available to them at that time. For Guam Infrastructure, it came from an assessment of spending plans by local government agencies and conditions based on tentative data available in late 2007.

Recently the DOD has acknowledged the need for an updated forecast of Port Cargo due to the military buildup on Guam based on currently available program information. However, it does not have an updated forecast usable by PAG at this time and does not expect to have one in the near future. JGPO has encouraged PAG to perform a forecast of likely military program activities and will provide the latest information on DOD programs on Guam that it is able to share for developing such a forecast.

This Task Order duration is from November 1, 2009 through February 18, 2010. Work is budgeted to be complete by February 18, 2010.

Objective:

The primary objective of this Task Order is to update the Master Plan forecast of Port cargo over a 20-year timeframe, in the manner described below.

Under this Task Order the CONSULTANT will prepare forecasts of individual components of Port cargo as follows:

1. Organic growth in Guam and Region

CONSULTANT will update the 2007 Master Plan Forecast of cargo due to Organic Growth in Guam and the Region to the 2010 timeframe.

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2. DOD Military Buildup on Guam

CONSULTANT will prepare a forecast based on estimates of likely cargo related to the DOD's military buildup program on Guam as outlined below.

3. Other Guam Infrastructure Driven by the Military Buildup

CONSULTANT will update this component of the cargo forecast based on currently available plans for infrastructure spending on Guam.

The results of the above forecasts of cargo components over a 20-year timeframe will be combined to form the forecast of Port cargo. The results will be used by PAG to update facility development and financial plans.

Approach:

General

The process that the CONSULTANT proposes to execute will include the following steps.

- Assemble Available DOD Program Data
- Prepare DOD Program Project Assumptions
- Compile GovGuam Infrastructure Project Assumptions
- Identify Likely Military Buildup Related Port Cargo
- Prepare Composite Cargo Forecast

A more detailed description of these steps is included in the following breakdown of task order activities:

30.1 Assemble Available DOD Program Data

30.1.1 Review JGPO/NAVFAC Information

CONSULTANT will review the following documents received during previous discussions with JGPO and NAVFAC.

- MRACS Handbook 2005
- 6-22-09 Port Conf Call PAC Do-Out Response to Questions on DOD Program
- Excel Document with Construction Work Population Estimates
- Excel Document with JFY09-FY10 Project List and Budget
- Report to Congress on DOD Planning Efforts for Guam, dated September 15, 2008
- Partial Responses to PAG/CONSULTANT Questionnaire on DOD Program, June 2009
- Other related e-mail responses to discussions regarding the DOD Program between JGPO/NAVFAC and PAG/CONSULTANT

The information provided on these documents is partial and not definitive. We understand that it is the best available for sharing with PAG at this time in order to help define the extent of DOD buildup work that will require cargo movement through the Port.

CONSULTANT will review and compile this information for use in developing a DOD build-out related forecast of cargo.

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30.1.2 Identify any Additional Information as Available

CONSULTANT will continue to engage JGPO to obtain clarification as may be required for previously received information or updates to that information. CONSULTANT will identify and compile any other related information that is readily available or which may be provided by JGPO or NAVFAC regarding the overall DOD program.

30.1.3 JGPO PDEIS Document

CONSULTANT understands that the JGPO Draft EIS document (DEIS) will be released to the Public on November 20, 2009. This proposal is based on obtaining access to this document on that release date.

Should the public release be delayed, access to the Preliminary Draft EIS document (PDEIS) released to selected Federal and Guam agencies for review and comment, may become an option. In that instance, this Task Order proposal would be based on PAG/GovGuam providing CONSULTANT access to this document. CONSULTANT would agree to use the information only for the purposes of developing the forecast described herein and would agree to keep such information confidential unless specifically authorized by JGPO.

It is understood that this document may not include proposed DOD facilities that are not under JGPO's oversight such as U.S. Air Force, Navy and Marine facility development programs.

30.2 Prepare DOD Program Project Assumptions

This step will include the following activities needed to identify the basis for the forecast of DOD Program Related cargo:

30.2.1 Matrix of All Proposed "Vertical" Facilities & Infrastructure

CONSULTANT will prepare a composite, detail matrix or table of all the facility information that has been provided by JGPO/NAVFAC. This is to set down the available basis and assumptions for estimating the "vertical" construction proposed for the DOD program. To the extent available, information on the budget, square footage, construction type, facility type, amenities and other data will be compiled. To the extent that information is not available CONSULTANT will state its assumptions on parameters that will be used to estimate import quantities.

In developing this base, unless information is obtained strongly suggesting otherwise, it will be assumed that major concrete construction work will be installed in place in Guam rather than a scenario where elements of construction are precast outside Guam and shipped through the Port.

30.2.2 Matrix of Acreage & Characteristics of "Horizontal" Development

CONSULTANT will prepare a composite, detail matrix or table of the compound and land development information related to the facilities discussed in 3.2.1. This is to set down the available basis and assumptions for estimating the cargo related to the "horizontal" development proposed for the DOD program. To the extent available information on the budget, acreage, surfacing, amenities, utilities and other data will be compiled. Where information is not available, Port Authority of Guam Modernization Program
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the CONSULTANT will state its assumptions on parameters that will be used to estimate import quantities.

30.2.3 Prepare List of Import Materials & Components

Based on the likely types of construction in 3.2.1 and 3.2.2, the next step will include a list of materials and components that are typically imported to Guam for infrastructure development projects. Material that is likely to arrive as break-bulk or dry-bulk cargo will be so identified separately by category (e.g. rebar, pipe, asphalt drums etc.) while material and components that are typically containerized will include a conversion factor for estimating TEUs. CONSULTANT will seek assistance from PAG staff on the typical form and parameters for cargo movement for the various items.

30.2.4 Prepare Assumed Tentative Execution Schedule

Information on the schedule for execution of the various parts of the JGPO and other DOD programs is currently vague. CONSULTANT will prepare a tentative, simple, high-level, bar chart type schedule for discussion with JGPO/NAVFAC and other PAG stakeholders. Upon review and update, this will be used as the basis to estimate the timing of cargo flow through the Port during execution of the DOD programs.

30.2.5 Conference Calls & Review by JGPO/NAVFAC & Update

The information prepared in Steps 2.1, 2.2, 2.3 and 2.4 will be presented to JGPO and PAG in electronic form for review and comment. It is assumed that review and comment will be provided within one week.

30.3 Compile GovGuam Infrastructure Project Assumptions

CONSULTANT will obtain information on GovGuam infrastructure projects that will require cargo imports through the Port as follows:

30.3.1 DPW/FHWA Road Network Projects

The DPW and FHWA have a major program for improving the road network on Guam to support the DOD build-up including an entirely new haul road. CONSULTANT will use information obtained from DPW/FHWA by PAG and described in the JGPO PDEIS document discussed previously, to develop a list of projects associated with this program. It will also integrate any overall schedule information that DPW/FHWA has for implementation of their Program on Guam. The information will be compiled and organized as needed to forecast cargo imports that would likely move through the Port.

30.3.2 GPA Program Projects & Timeframe

Phone interviews will be conducted with GPA staff to outline their expenditures and timeframe for their infrastructure projects.

30.3.3 GWA Program Projects & Timeframe

Phone interviews will be conducted with GWA staff to outline their expenditures and timeframe for their infrastructure projects.

30.4 Identify Likely Port Cargo Induced by Military Buildup

The information compiled and approved in Steps 3.3.1 through 3.3.3 will be used as the basis to identify the likely volume and types of cargo and the annual timeframe during which the cargo will move through the Port. The following component forecasts will be derived:

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30.4.1 DOD Construction Program

The information obtained from DOD and NAVFAC be used as the basis to prepare a forecast of the different types and volumes of DOD construction-related cargo anticipated to move through the Port.

30.4.2 DPW/FHWA Road Infrastructure Program

The information obtained from DPW/FHWA will be used as the basis to prepare a forecast of the different types and volumes of road-infrastructure-related cargo anticipated to move through the Port.

30.4.3 GPA Projects

The information obtained from GPA will be used to prepare a high-level forecast of GPA-related shipments through the Port.

30.4.4 GWA Projects

The information obtained from GWA will be used to prepare a high-level forecast of GWA-related shipments through the Port.

30.4.5 PAG Modernization Improvements

CONSULTANT will use information from its OAE program for modernization of the Port to prepare a forecast of likely cargo related to the Port's future maintenance, repair, and improvement programs.

30.4.6 Worker Housing

Based on the level of concurrent construction activity CONSULTANT will prepare estimates of cargo related to housing and other amenities needed to support construction workers from outside Guam.

30.4.7 Construction Equipment

Based on an assessment of the various construction projects for all entities, a forecast of the volume of construction equipment that could move through the Port will be prepared.

30.4.8 Relocation of Military Personnel & Dependents

Forecast of cargo related to relocation and support of military personnel and dependents and DOD commissary related shipments through the Port will be compiled based on interviews and information obtained from SDDC and JGPO staff.

30.5 Prepare Composite Port Inbound/Outbound Cargo Forecast

A composite forecast of the volumes and types of all cargo expected to move through the Commercial Port will be prepared using the information generated from the previous steps. This will consist of the following:

30.5.1 Overlay Schedule Impacts on Buildup Related Cargo

The available development schedule information will be used in conjunction with the above cargo estimates to prepare a composite forecast of annual DOD buildup and local infrastructure related cargo movement through the Port.

30.5.2 Cargo Related to Current Organic & Demographic Growth

This will consist of an update of the 2007 Master Plan Forecast of cargo due to Organic Growth in Guam and the region served by the Port.

30.5.3 Prepare Composite Forecast & Memorandum

The composite forecast will be prepared to the level of inbound and outbound cargo volumes and annual rates in the format prepared for the Master Plan forecast. Break bulk cargo forecasts will include breakdown of the various types of cargo for the purpose of estimating terminal yard storage capacity requirements.

The information in spread sheet format and detailed memo outlining the methodology, assumptions and other related information will be prepared by the CONSULTANT for use by PAG.

Activities List and Cost Accounts:

PB No.	Description
30.1	Assemble Available DOD Program Data
30.2	Prepare DOD Program Project Assumptions
30.3	Compile GovGuam Infrastructure Project Assumptions
30.4	Identify Likely Port Cargo Induced by Military Buildup
30.5	Prepare Composite Port Inbound/Outbound Cargo Forecast
30.6	Trip to Guam (Optional)
30.7	Project Management & Controls

Deliverable Summary:

The following is a list of deliverables for this task order listed by activity number

30.1 Assemble Available DOD Program Data

- 30.1-1 Prepare an updated list of information assembled for use in the forecast.

30.2 Prepare DOD Program Project Assumptions

- 30.2-1 Prepare a detailed Matrix Tabulation of All Proposed "Vertical" Facilities & Infrastructure
- 30.2-2 Prepare a matrix tabulation of Acreage & Characteristics of "Horizontal" Development
- 30.2-3 Prepare a list of Import & Export Materials & Components with categorization by break bulk, dry bulk or containerized cargo.
- 30.2-4 Prepare a high level assumed tentative execution schedule for the DOD program facilities
- 30.2.5 Update of above based on Conference Calls & Review by JGPO/NAVFAC/PAG

30.3 Compile GovGuam Infrastructure Project Assumptions

- 30.3-1 Memorandum outlining information obtained on DPW/FHWA Road Network Projects
- 30.3-2 Memorandum describing information obtained on GPA Program Projects & Timeframe
- 30.3-3 Memorandum describing information obtained on GWA Program Projects & Timeframe

30.4 Identify Likely Port Cargo Induced by Military Buildup

- 30.4-1 Forecast of the total volumes and types of cargo due to the following.
 - DOD Construction Program
 - DPW/FHWA Road Infrastructure Program
 - GPA Projects

Port Authority of Guam Modernization Program
Cargo Forecasting,
Task No. 30

Exhibit A

Page 6

- GWA Projects
- PAG Berth & Maintenance Improvements
- Worker Housing
- Construction Equipment
- Relocation of Military Personnel & Dependents

30.5 Prepare Composite Port Inbound/Outbound Cargo Forecast

- 30.5-1 Forecast of composite annual cargo through Port by volume and type over 20 years
- 30.5-2 Memorandum describing the basis for the forecast and supporting material

Anticipated Schedule:

Subject to timely availability of information and review and comment by DOD and other stakeholders, CONSULTANT shall perform all the services described herein within a period of Twelve (12) weeks after receiving Notice to Proceed and receipt of the JGPO, PDEIS document discussed below.

Consultant's Cost Computations (Cost Estimate):

The CONSULTANT's Cost Computations (Cost Estimates) are included as Exhibits B and C and by reference made part of this Task Order.

Progress Reporting:

Progress of deliverables will be updated monthly. Reporting shall adhere to the protocols established in CONSULTANT AGREEMENT.

List of Attachments and Exhibits:

- Exhibit B – Task Order Cost Computations
- Exhibit C – Sub Consultant's Cost Computations
- Exhibit D - Responsibility Matrix

Appendix B – USDA Direct Loan Letter of Conditions

USDA Letter of Conditions for the Expansion & Modernization of the Seaport dated August 9, 2010



8/16/10
Port Authority of Guam
General Manager's Office
RECEIVED

August 9, 2010

Mr. Enrique San Agustin
Port Authority of Guam
1026 Cabras Highway, Suite 201
Piti, Guam 96915

Dear Mr. Agustin:

SUBJECT: Letter of Conditions
Port Authority of Guam
\$25,000,000 Community Facilities Direct Loan/
\$25,000,000 Community Facilities Guaranteed Loan (ANZ)
For the Expansion and Modernization of the Seaport

This letter establishes conditions which must be understood and agreed to by you before further consideration may be given to your application. The loan will be administered on behalf of the Community Facilities (CF) by the State and Area Office staff of USDA, Rural Development. Any changes in project cost, source of funds, scope of services or any other significant changes in the project or applicant, must be reported to and approved by USDA, Rural Development, by written amendment to this letter. If significant changes are made without obtaining such approval, Rural Development may discontinue processing of the application.

This letter does not constitute loan approval, nor does it ensure that funds are or will be available for the project.

The interest rate will be the lower of the rate in effect at the time of loan approval or the time of loan closing. The loans will be considered approved on the date a signed copy of Form RD 1940-1, "Request for Obligation of Funds", is mailed to you.

Please complete and return the following forms if you agree to meet these conditions and desire that further consideration be given to your application:

Form RD 1942-46, "Letter of Intent to Meet Conditions"
Form RD 1940-1, "Request for Obligation of Funds"

Room 311, Federal Building, 154 Waiuanue Avenue, Hilo, Hawaii 96720, Tel: (808) 933-8380, FAX: (808) 933-8327, TDD: (808) 933-8321

<http://www.rurdev.usda.gov>

Committed to the future of rural communities

Rural Development is an Equal Opportunity Lender, Provider, and Employer. Complaints of discrimination should be sent to USDA, Director, Office of Civil Rights, Washington, D. C. 20250-9410

Within 120 days of this letter, you must meet all of the conditions set forth which can be met prior to calling for construction bids. If you have not done so, Rural Development reserves the right to discontinue the processing of your application.

Please provide copies of the letter of conditions to your architect, engineer, attorney, and accountant. You may access our regulations RD Instruction 1942-A, Section 1942.17 at the web-site located at http://www.rurdev.usda.gov/regs/regs_toc.html#1942.

The conditions referred to above are as follows:

1. **Project Budget** – Funding from all sources has been budgeted for the estimated expenditures as follows:

<u>Project Costs</u>	<u>Total Budgeted</u>
Real Estate Improvements	\$ 64,073,000
Architectural and engineering fees	6,874,000
Legal Fees	2,750,000
Professional Fees	3,596,000
Equipment	12,098,000
Miscellaneous and Contingencies	10,609,000
TOTAL COSTS	\$ 100,000,000

Your funding needs will be reassessed if there is a significant reduction in project costs after bids are received. An “Amended Letter of Conditions” will be issued for any revised project budget.

2. **Project Funds** - Project funding is planned from the following sources:

<u>Project Funding Source</u>	<u>Funding Amount</u>
DOT Grant	\$ 50,000,000
USDA CF Loan	25,000,000
USDA CF Guaranteed Loan (ANZ)	25,000,000
Total Project Funding (All Sources)	\$ 100,000,000

Any changes in funding sources following obligation of CF funds must be reported to the processing official. Prior to advertisement for construction bids, you must provide evidence of applicant contributions and approval of other funding sources. This evidence should include a copy of the commitment letter.

3. **Disbursement of Funds** – All USDA Rural Development funds will be transferred via Electronic Funds Transfer/Automated Clearinghouse Systems (EFT/ACH). Normal transfers will be via EFT/ACH; with money being placed in Borrower's account two days after the USDA Rural Development processing office approves the request for reimbursement. The applicant must submit the Electronic Funds Transfer/Automated Clearinghouse Systems (EFT/ACH) Form containing the banking (ACH) information to the USDA Rural Development at least 30 days prior to the date of grant closing. Failure to do so could delay grant closing.

Any applicant contribution shall be considered as the first funds expended. The Department of Transportation (DOT) grant and the USDA Rural Development Direct Loan will be disbursed simultaneously. The USDA Rural Development Guaranteed Loan funds will be disbursed after the Direct Loan funds have been fully disbursed.

You must establish a separate construction account, with an acceptable financial institution or depository that meets the requirements of 31 CFR Part 202. All project funds will be deposited into this account. Financial institutions or depositories accepting deposits of public funds and providing other financial agency services to the Federal Government are required to pledge adequate, acceptable securities as collateral. All funds in the account will be secured by a collateral pledge equaling at least 100% of the highest amount of funds expected to be deposited in the constructions account at any one time. Additional guidance on collateral acceptability and valuation are available at Treasury's Bureau of the public debt website at www.publicdebt.treas.gov.

4. **Security** – The loan will be secured by a Promissory Note, Security Agreement, Assignment of Income, and Assignment of Tenant Leases.

A form UCC-1, "Financing Statement", filed on the accounts receivable of Matson Navigation Company and Horizon Lines, Inc.

A form UCC-1, "Financing Statement", must be filed to perfect a security interest in collateral, including fixtures. Any equipment to be purchased with Agency funds must include a description including the year, make, model and serial number.

Additional security requirements are contained in Form RD 1942-47, "Loan Resolution (Public Bodies)".

5. **Loan Repayment** – (Monthly Installments) Your CF Direct Loan will be scheduled for repayment over a period of 40 years. Payments will be equal amortized monthly installments. For planning purposes use a 4.0% interest rate and a monthly amortization factor of \$4.18 per \$1,000, which provides for a monthly payment of \$104,500.00.

The interest rate will be the lower of the rate in effect at the time of loan approval or the time of loan closing, whichever is less, unless you choose otherwise. Should the interest rate be

reduced, the payment will be recalculated to the lower amount. The payment due date will be established as the day that the loan closes.

You will be required to complete SF-5510, "Authorization Agreement for Preauthorized Payments" for all new and existing indebtedness to the Agency. It will allow for your payment to be electronically debited from your account on the day your payment is due.

6. **Reserves** – Reserves must be properly budgeted to maintain the financial viability and sustainability of any operation. Reserves are important to fund unanticipated emergency maintenance and repairs, and assist with debt service thru a debt service reserve should the need arise. Reserves can also be established and maintained for the anticipated and expected expenses including but not limited to operation and maintenance, customer deposits, deferred interest during the construction period, and an asset management program.

As a part of this Agency loan proposal you must establish and fund monthly a debt service reserve fund equal to 10% of the monthly payment each month over the life of the loan until you accumulate one annual installment.

7. **Effective Collection Policy** - The facility needs to be operated on a sound business plan. You will be required to develop an "Effective Collection Policy" or "Ordinance" for accounts not paid in full within a specified number of days after the date of billing.
8. **Insurance and Bonding Requirements** – Prior to loan closing or start of construction, whichever occurs first, you must acquire the types of insurance and bond coverage shown below. The use of deductibles may be allowed providing you have the financial resources to cover potential claims requiring payment of the deductible. The Agency strongly recommends that you have your architect/engineer, attorney, and insurance provider(s) review proposed types and amounts of coverage, including any exclusions and deductible provisions.

It is your responsibility and not that of the Agency to assure that adequate insurance and fidelity or employee dishonesty bond coverage is maintained.

- a. **General Liability Insurance** – Include vehicular coverage.
- b. **Workers' Compensation** - In accordance with appropriate State laws.
- c. **Position Fidelity Bond(s)** - All positions occupied by persons entrusted with the receipt and/or disbursement of funds must be bonded. You should have each position bonded in an amount equal to the maximum amount of funds to be under the control of that position at any one time. The coverage may be increased during construction of this project based on the anticipated monthly advances. The minimum coverage acceptable to the Agency will be for each position to be bonded for an amount at least equal to one annual installment on your Agency loan(s). The amount of coverage should be discussed and approved by the Agency. Form RD 440-24, "Position Fidelity Bond" may be used for this purpose.

- d. National Flood Insurance - If the project involves acquisition or construction in designated special flood or mudslide prone areas, you must purchase a flood insurance policy at the time of loan closing.
 - e. Real Property Insurance – Fire and extended coverage will normally be maintained on all structures except reservoirs, pipelines and other structures if such structures are not normally insured and subsurface lift stations except for the value of electrical and pumping equipment. Prior to the acceptance of the facility from the contractor(s), you must obtain real property insurance (fire and extended coverage) on all facilities identified above.
9. Accounting Services – You may be required to obtain the services of an independent licensed Certified Public Accountant (CPA). When permitted by state statutes or with the approval of the Agency, a state or Federal auditor may perform the audit in lieu of a CPA.

Audit Agreement - You must enter into a written audit agreement with the auditor and submit a copy to the Agency prior to advertisement of bids. The audit agreement may include terms and conditions that the borrower and auditor deem appropriate; however, the agreement should include the type of audit or financial statements to be completed, the time frame in which the audit or financial statements will be completed, what type of reports will be generated from the services provided and how irregularities will be reported. Prior to the advertisement for bids, your accountant must certify to you and the Agency that the accounts and records as required have been established and are operational.

Audit Requirements - The following management data will be required from you on an annual basis and be submitted to the Agency as specified below:

- a. A borrower that expends \$500,000 or more in federal financial assistance per fiscal year shall submit an audit performed in accordance with the requirements of OMB Circular A-133. As described above, the total federal funds expended from all sources shall be used to determine federal financial assistance expended. Projects financed with interim financing are considered federal expenditures.
- b. A borrower that expends less than \$500,000 in Federal financial assistance per fiscal year and an outstanding Agency loan balance of \$1,000,000 or more shall submit an audit performed in accordance with Generally Accepted Government Auditing Standards, (GAGAS).
- c. A borrower that expends less than \$500,000 in Federal financial assistance per fiscal year and has an outstanding Agency loan balance of less than \$1,000,000 may submit a management report, which includes at a minimum a Balance Sheet and an Income and Expense Statement.

Annual Budget and Projected Cash Flow - Thirty days prior to the beginning of each fiscal year, you will be required to submit an annual budget and projected cash flow to this office. With the submission of the annual budget, you will be required to provide a current tuition schedule, a current listing of the Board Members and their terms.

Quarterly Reports – Quarterly management reports will be required until the processing office waives the required reports. You may use RD form 442-2 and complete schedule 1, page 1, columns 2-6 as appropriate and page 2. The area office will notify you in writing when the Quarterly reports are no longer required.

10. **Legal Services** – You will be responsible for providing the services necessary. Professional services may be necessary. Contracts or other forms of agreement between the applicant and its professional and technical representatives are required and are subject to Agency concurrence. At closing the owner's attorney will certify that the executed contract documents, including performance and payment bonds on contracts over \$100,000 are adequate and that the persons executing these documents have been properly authorized to do so.
11. **Property Rights** – Prior to advertisement for construction bids, you must furnish satisfactory evidence that you have or can obtain adequate continuous and valid control over the lands and rights-of-ways needs for the project.
12. **Architect/Engineering Services** – The Agency must approve any agreements and modifications to agreements for professional engineering services.
13. **Resident Inspector(s)** – Full-time inspection is required unless a written exception is made by the Agency upon your written request. This service is to be provided by the consulting architect/engineer or other arrangements as approved by the Agency. Prior to the pre-construction conference, a resume of qualifications of the resident inspector(s) will be submitted to the owner and Agency for review and approval. The owner will provide a letter of acceptance for all proposed observers to the engineer and Agency. The resident inspector(s) must attend the pre-construction conference.
14. **Restrictions on Lobbying**

In order to comply with Section 319 of Public Law 101-121 which prohibits applicants and recipients of Federal contracts, grants and loans from using Federal appropriated funds for lobbying, the Federal Government in connection with the award of a specific contract, grant or loan, the **Applicant**, and all contractors and subcontractors must:

- a. Execute the attached Certification for Contracts, Grants, and Loans.
- b. Complete Standard Form LLL, "Disclosure of Lobbying Activities", if they have made, or agreed to make payment, using funds other than Federal appropriated funds, to influence or attempt to influence a decision in connection with the contract.

The Certification (and, if appropriate, the Disclosure) must be provided to USDA, Rural Development.

15. **Environmental Requirements**

- a. **Mitigation** – At the conclusion of the proposal’s Class II Environmental Assessment, specific mitigation measures were determined necessary to avoid or minimize adverse environmental impacts. The owner, contractor or responsible party will follow the proposed mitigation measures recommended in the Class II Environmental Assessment, Section XIX –Mitigation Measures.
- b. **Project Modifications** – The project as proposed has been evaluated to be consistent with all applicable environmental requirements. If the project or any project element deviates from or is modified from the original approved project, additional environmental review may be required.

16. **Permits** – The owner, contractor or responsible party will be required to obtain all required permits for the project prior to advertisement for construction bids. A narrative opinion from your attorney concerning all permits, certificates, licenses and other items necessary to show that all legal requirements can be met and stating how they will be met.

17. **Contract Documents, Final Plans and Specifications**

- a. USDA Rural Development must approve the construction documents, final plans, specifications and any agreements or modifications to agreements for professional planning and design services prior to advertisement for bids. AIA Document “Standard Form of Agreement Between Owner and Architect”, may be used when appropriate or other Agency approved forms of agreement as amended by the attached “Checklist For Construction Contracts Using AIA Documents On CF Projects. Any agreements executed prior to funding are required to conform to these instructions and be approved by the Agency.
- b. The use of any procurement method other than competitive bidding must be requested in writing and approved by the Agency. Procurement methods which combine or rearrange design, inspection or construction services (such a design/build or construction management) may be used with Rural Development written approval.
- c. The Agency requires a pre-construction conference, pre-final, final, and warranty inspection.
- d. The Agency requires prior agency concurrence with all Change Orders, Invoices, and Payment Estimates.

18. **Obligations for Construction Incurred Before Loan Approval.**

Construction work should not be started and obligations for such work or materials should not be incurred before the loan is approved. However, if there are compelling reasons for proceeding with construction before loan approval, applicants may request Rural Development approval to pay such obligations. Such requests may be approved if Rural Development determines that:

- a. Compelling reasons exist for incurring obligations before loan approval; and
 - b. The obligations will be incurred for authorized loan purposes; and
 - c. Contract documents have been approved by Rural Development; and
 - d. All environmental requirements applicable to Rural Development and the applicant have been met; and
- b. The applicant has the legal authority to incur the obligations at the time proposed, and payment of the debts will remove any basis for any mechanic, material or other liens that may attach to the security property. Rural Development may authorize payment of such obligations at the time of loan closing. Rural Development's authorization to pay such obligations, however, is on the condition that it is not committed to make the loan; it assumes no responsibility for any obligations incurred by the applicant; and the applicant must subsequently meet all loan approval requirements. The applicant's request and Rural Development authorization for paying such obligations shall be in writing. If construction is started without Rural Development approval, post approval in accordance with this section may be considered.

19. **Contracts Awarded Prior to Preapplications.**

Owners awarding construction or other procurement contracts prior to filing a preapplication with Rural Development must comply with the following:

- a. Evidence. Provide conclusive evidence that the contract was entered into without intent to circumvent the requirements of Rural Development regulations. The evidence will consist of at least the following:
 - (i) The lapse of a reasonable period of time between the date of contract award and the date of filing the preapplication which clearly indicates an irreconcilable failure of previous financial arrangements; or
 - (ii) A written statement explaining initial plans for financing the project and reasons for failure to obtain the planned credit.
- b. Modifications. Modify the outstanding contract to conform with the provisions of the subpart. Where this is not possible, modifications will be made to the extent practicable

and, as a minimum, the contract must comply with all State and local laws and regulations as well as statutory requirements and executive orders related to the Rural Development financing. When all construction is complete and it is impracticable to modify the contracts, the owner must provide the certification required by paragraph (d) of this section.

- c. Consultant's certification. Provide a certification by an engineer or architect that any construction performed complies fully with the plans and specifications.
 - d. Owner's certification. Provide a certification by the owner that the contractor has complied with all statutory and executive requirements related to Rural Development financing for construction already performed even though the requirements may not have been included in the contract documents.
20. **Graduation** - By accepting this loan, you are also agreeing to refinance (graduate) the unpaid loan balance in whole, or in part, upon request of the Government. If at any time the Agency determines your entity is able to obtain a loan for such purposes from responsible cooperative or private sources at reasonable rates and terms, you will be requested to refinance.
21. **Civil Rights & Equal Opportunity** - You should be aware of and will be required to comply with other federal statute requirements including but not limited to:
- Section 504 of the Rehabilitation Act of 1973 – Under section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), no handicapped individual in the United States shall, solely by reason of their handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Agency financial assistance.
- Civil Rights Act of 1964 – All borrowers are subject to, and facilities must be operated in accordance with, title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d *et seq.*) and subpart E of part 1901 of this title, particularly as it relates to conducting and reporting of compliance reviews. Instruments of conveyance for loans and/or grants subject to the Act must contain the covenant required by paragraph 1901.202(e) of this title.
- The Americans with Disabilities Act (ADA) of 1990 – This Act (42 U.S.C. 12101 *et seq.*) prohibits discrimination on the basis of disability in employment, State and local government services, public transportation, public accommodations, facilities, and telecommunications. Title II of the Act applies to facilities operated by State and local public entities which provides services, programs and activities. Title III of the Act applies to facilities owned, leased, or operated by private entities which accommodate the public.
- Age Discrimination Act of 1975 – This Act (42 U.S.C. 6101 *et seq.*) provides that no person in the United States shall on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance.
- Agency financial programs must be extended without regard to race, color, religion, sex, national origin, marital status, age, or physical or mental handicap.

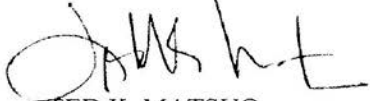
22. **Bid Authorization** - Once all the conditions outlined in this letter have been met, the Agency may authorize you to advertise the project for construction bids. Such advertisement must be in accordance with appropriate State statutes. Immediately after bid opening you must provide the Agency with (a) bid tabulation, and (b) your engineer's evaluation of bids and (c) your recommendations for contract awards. If the Agency agrees that the construction bids received are acceptable, adequate funds are available to cover the total project costs, and all the administrative conditions of loan approval have been satisfied, loan closing instructions will be issued to you setting forth any further requirements that must be met before a Notice of Award may be issued.
23. **Cost Overruns** – Cost overruns exceeding 20% of the development cost at time of loan or grant approval or where the scope of the original purpose has changed will compete for funds with all other applications on hand as of that date. Cost overruns must be due to high bids or unexpected construction problems that cannot be reduced by negotiations, redesign, use of bid alternatives, rebidding or other means prior to consideration by the Agency for subsequent funding. Such requests will be contingent on the availability of funds.
24. **Use of Remaining Funds** – Applicant contributions will be the first funds expended in the project. Remaining funds may be considered in direct proportion to the amounts obtained from each source and handled as follows:
 - a. Remaining funds may be used for eligible loan purposes, provided the use will not result in major changes to the original scope of work and the purpose of the loan remains the same.
 - b. Agency loan funds that are not needed will be applied as an extra payment on the Agency indebtedness unless other disposition is required by the bond ordinance, resolution, or State statute.

The attachments listed below are attached to your copy of this letter as noted. Enclosed are the following:

- Form RD 1942-46, "Letter of Intent to Meet Conditions,"
- Form RD 1940-1, "Request for Obligation of Funds,"
- Form RD 1942-47, "Loan Resolution (Public Bodies)"
- Form RD 1942-8, "Resolution of Members or Stockholders" (This must be at a membership meeting)
- Form RD 442-2, "Statement of Budget, Income and Equity
- Standard Form LLL, "Disclosure of Lobbying Activities"
- Form SF 3881, "ACH Vendor/Miscellaneous Payment Enrollment Form"
- Form SF 5510, "Authorization Agreement for Preauthorized Payments"
- Checklist for Construction Contracts using AIA Documents on CF Projects

We look forward to continue working with you to complete this project, and if you have any questions, please contact Alton Kimura, Community Programs Specialist, at (808) 933-8317 or by e-mail at alton.kimura@hi.usda.gov.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'T. Matsuo', written over a circular stamp or mark.

TED K. MATSUO
Community Programs Director

Attachments

cc: Area Director

LETTER OF INTENT TO MEET CONDITIONS

Date _____

TO: United States Department of Agriculture

Rural Development

(Name of USDA Agency)

154 Waianuenu Avenue, Room 311
Hilo, HI 96720

(USDA Agency Office Address)

We have reviewed and understand the conditions set forth in your letter dated _____. It is our intent to meet all of them not later than _____.

(Name of Association)

BY _____

(Title)

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0015. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

REQUEST FOR OBLIGATION OF FUNDS

INSTRUCTIONS-TYPE IN CAPITALIZED ELITE TYPE IN SPACES MARKED ()			
Complete Items 1 through 29 and applicable Items 30 through 34. See FMI.			
1. CASE NUMBER ST CO BORROWER ID 62-001-980020236		LOAN NUMBER	FISCAL YEAR 2010
2. BORROWER NAME PORT AUTHORITY OF GUAM		3. NUMBER NAME FIELDS 1 (1, 2, or 3 from item 2)	
		4. STATE NAME WESTERN PACIFIC	
		5. COUNTY NAME GUAM	
GENERAL BORROWER/LOAN INFORMATION			
6. RACE/ETHNIC CLASSIFICATION 1 - WHITE 4 - HISPANIC 2 - BLACK 5 - NPT 3 - AIAN	7. TYPE OF APPLICANT 1 - INDIVIDUAL 4 - PUBLIC BODY 2 - PARTNERSHIP BASED 3 - CORPORATION	8. COLLATERAL CODE 1 - REAL ESTATE SECURED 4 - MACHINERY ONLY 2 - REAL ESTATE AND CHATTEL 5 - LIVESTOCK ONLY 3 - NOTE ONLY OR CHATTEL ONLY 6 - CROPS ONLY 7 - SECURED BY BONDS	9. EMPLOYEE RELATIONSHIP CODE 1 - EMPLOYEE 2 - MEMBER OF FAMILY 3 - CLOSE RELATIVE 4 - ASSOC
10. SEX CODE 1 - MALE 2 - FEMALE 3 - FAMILY UNIT 4 - ORGAN MALE OWNED 5 - ORGAN FEMALE OWNED 6 - PUBLIC BODY	11. MARITAL STATUS 1 - MARRIED 3 - UNMARRIED (INCLUDES WIDOWED/DIVORCED) 2 - SEPARATED	12. VETERAN CODE 1 - YES 2 - NO	13. CREDIT REPORT 1 - YES 2 - NO
14. DIRECT PAYMENT (See FMI)	15. TYPE OF PAYMENT 1 - MONTHLY 3 - SEMI-ANNUALLY 2 - ANNUALLY 4 - QUARTERLY	16. FEE INSPECTION 1 - YES 2 - NO	
17. COMMUNITY SIZE 1 - 10,000 OR LESS (FCR SFH AND HPG ONLY) 2 - OVER 10,000	18. USE OF FUNDS CODE (See FMI)		
COMPLETE FOR OBLIGATION OF FUNDS			
19. TYPE OF ASSISTANCE 75 (See FMI)	20. PURPOSE CODE	21. SOURCE OF FUNDS 2	22. TYPE OF ACTION 1 - OBLIGATION ONLY 2 - OBLIGATION/CHECK REQUEST 3 - CORRECTION OF OBLIGATION
23. TYPE OF SUBMISSION 1 - INITIAL 2 - SUBSEQUENT	24. AMOUNT OF LOAN \$9,000,000.00	25. AMOUNT OF GRANT	
26. AMOUNT OF IMMEDIATE ADVANCE	27. DATE OF APPROVAL MO DAY YR	28. INTEREST RATE 4.0000 %	29. REPAYMENT TERMS 40
COMPLETE FOR COMMUNITY PROGRAM AND CERTAIN MULTIPLE-FAMILY HOUSING LOANS			
30. PROFIT TYPE 3 1 - FULL PROFIT 2 - LIMITED PROFIT 3 - NONPROFIT			
COMPLETE FOR EM LOANS ONLY		COMPLETE FOR CREDIT SALE-ASSUMPTION	
31. DISASTER DESIGNATION NUMBER (See FMI)		32. TYPE OF SALE 1 - CREDIT SALE ONLY 2 - ASSUMPTION ONLY 3 - CREDIT SALE WITH SUBSEQUENT LOAN 4 - ASSUMPTION WITH SUBSEQUENT LOAN	
FINANCE OFFICE USE ONLY		COMPLETE FOR FP LOANS ONLY	
33. OBLIGATION DATE MO DA YR		34. BEGINNING FARMER/RANCHER (See FMI)	

If the decision contained above in this form results in denial, reduction or cancellation of USDA assistance, you may appeal this decision and have a hearing or you may request a review in lieu of a hearing. Please use the form we have included for this purpose. Position 2

ORIGINAL - Borrower's Case Folder COPY 1 - Finance Office COPY 2 - Applicant/Lender COPY 3 - State Office

CERTIFICATION APPROVAL

For All Farmers Programs

EM, OL, FO, and SW Loans

This loan is approved subject to the availability of funds. If this loan does not close for any reason within 90 days from the date of approval on this document, the approval official will request updated eligibility information. The undersigned loan applicant agrees that the approval official will have 14 working days to review any updated information prior to submitting this document for obligation of funds. If there have been significant changes that may affect eligibility, a decision as to eligibility and feasibility will be made within 30 days from the time the applicant provides the necessary information.

If this is a loan approval for which a lien and/or title search is necessary, the undersigned applicant agrees that the 15-working-day loan closing requirement may be exceeded for the purposes of the applicant's legal representative completing title work and completing loan closing.

35. COMMENTS AND REQUIREMENTS OF CERTIFYING OFFICIAL

Approval of financial assistance is subject to the terms of the Letter of Conditions dated August 9, 2010

36. I HEREBY CERTIFY that I am unable to obtain sufficient credit elsewhere to finance my actual needs at reasonable rates and terms, taking into consideration prevailing private and cooperative rates and terms in or near my community for loans for similar purposes and periods of time. I agree to use the sum specified herein, subject to and in accordance with regulations applicable to the type of assistance indicated above, and request payment of such sum. I agree to report to USDA any material adverse changes, financial or otherwise, that occur prior to loan closing. I certify that no part of the sum specified herein has been received. I have reviewed the loan approval requirements and comments associated with this loan request and agree to comply with these provisions.

(For FP loans at eligible terms only) If this loan is approved, I elect the interest rate to be charged on my loan to be the lower of the interest rate in effect at the time of loan approval or loan closing. If I check "NO", the interest rate charged on my loan will be the rate specified in Item 28 of this form. _____ YES _____ NO

WARNING: Whoever, in any matter within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals or covers up by any trick, scheme, or device a material fact, or makes any false, fictitious or fraudulent statements or representations, or makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry, shall be fined under this title or imprisoned not more than five years, or both."

Date _____, 20____ _____
(Signature of Applicant)

Date _____, 20____ _____
(Signature of Co-Applicant)

37. I HEREBY CERTIFY that all of the committee and administrative determinations and certifications required by regulations prerequisite to providing assistance of the type indicated above have been made and that evidence thereof is in the docket, and that all requirements of pertinent regulations have been complied with. I hereby approve the above-described assistance in the amount set forth above, and by this document, subject to the availability of funds, the Government agrees to advance such amount to the applicant for the purpose of and subject to the availability prescribed by regulations applicable to this type of assistance.

(Signature of Approving Official)

Typed or Printed Name: CHRIS J. KANAZAWA

Date Approved: 06-04-2010 Title: STATE DIRECTOR

38. TO THE APPLICANT: As of this date _____, this is notice that your application for financial assistance from the USDA has been approved, as indicated above, subject to the availability of funds and other conditions required by the USDA. If you have any questions contact the appropriate USDA Servicing Office.

REQUEST FOR OBLIGATION OF FUNDS

INSTRUCTIONS-TYPE IN CAPITALIZED ELITE TYPE IN SPACES MARKED () Complete Items 1 through 29 and applicable Items 30 through 34. See FMI.			
1. CASE NUMBER ST CO BORROWER ID 62-001-980020236		LOAN NUMBER	FISCAL YEAR 2010
2. BORROWER NAME PORT AUTHORITY OF GUAM		3. NUMBER NAME FIELDS 1 (1, 2, or 3 from Item 2)	
		4. STATE NAME WESTERN PACIFIC	
		5. COUNTY NAME GUAM	
GENERAL BORROWER/LOAN INFORMATION			
6. RACE/ETHNIC CLASSIFICATION 1 - WHITE 2 - BLACK 3 - AIAN 4 - HISPANIC 5 - A/PI	7. TYPE OF APPLICANT 1 - INDIVIDUAL 2 - PARTNERSHIP 3 - CORPORATION 4 - PUBLIC BODY 5 - ASSOC. OF FARMERS 6 - ORG. OF FARMERS 7 - NONPROFIT-SECULAR 8 - NONPROFIT-FAITH BASED 9 - OTHER	8. COLLATERAL CODE 1 - REAL ESTATE SECURED 2 - REAL ESTATE AND CHATTEL 3 - NOTE ONLY OR CHATTEL ONLY 4 - MACHINERY ONLY 5 - LIVESTOCK ONLY 6 - CROPS ONLY 7 - SECURED BY BONDS	9. EMPLOYEE RELATIONSHIP CODE 1 - EMPLOYEE 2 - MEMBER OF FAMILY 3 - CLOSE RELATIVE 4 - ASSOC.
10. SEX CODE 1 - MALE 2 - FEMALE 3 - FAMILY UNIT 4 - ORGAN MALE OWNED 5 - ORGAN FEMALE OWNED 6 - PUBLIC BODY	11. MARITAL STATUS 1 - MARRIED 2 - SEPARATED 3 - UNMARRIED (INCLUDES WIDOWED/DIVORCED)	12. VETERAN CODE 1 - YES 2 - NO	13. CREDIT REPORT 1 - YES 2 - NO
14. DIRECT PAYMENT (See FMI)	15. TYPE OF PAYMENT 1 - MONTHLY 2 - ANNUALLY 3 - SEMI-ANNUALLY 4 - QUARTERLY	16. FEE INSPECTION 1 - YES 2 - NO	
17. COMMUNITY SIZE 1 - 10,000 OR LESS (FOR SFH AND HPG ONLY) 2 - OVER 10,000		18. USE OF FUNDS CODE (See FMI)	
COMPLETE FOR OBLIGATION OF FUNDS			
19. TYPE OF ASSISTANCE 75 (See FMI)	20. PURPOSE CODE	21. SOURCE OF FUNDS 2	22. TYPE OF ACTION 1 - OBLIGATION ONLY 2 - OBLIGATION CHECK REQUEST 3 - CORRECTION OF OBLIGATION
23. TYPE OF SUBMISSION 1 - INITIAL 2 - SUBSEQUENT	24. AMOUNT OF LOAN \$8,500,000.00	25. AMOUNT OF GRANT	
26. AMOUNT OF IMMEDIATE ADVANCE	27. DATE OF APPROVAL MO DAY YR	28. INTEREST RATE 4.0000 %	29. REPAYMENT TERMS 40
COMPLETE FOR COMMUNITY PROGRAM AND CERTAIN MULTIPLE-FAMILY HOUSING LOANS			
30. PROFIT TYPE 3 - FULL PROFIT 2 - LIMITED PROFIT 1 - NONPROFIT			
COMPLETE FOR EM LOANS ONLY		COMPLETE FOR CREDIT SALE-ASSUMPTION	
31. DISASTER DESIGNATION NUMBER (See FMI)	32. TYPE OF SALE 1 - CREDIT SALE ONLY 2 - ASSUMPTION ONLY 3 - CREDIT SALE WITH SUBSEQUENT LOAN 4 - ASSUMPTION WITH SUBSEQUENT LOAN		
FINANCE OFFICE USE ONLY		COMPLETE FOR FP LOANS ONLY	
33. OBLIGATION DATE MO DA YR		34. BEGINNING FARMER/RANCHER (See FMI)	

If the decision contained above in this form results in denial, reduction or cancellation of USDA assistance, you may appeal this decision and have a hearing or you may request a review in lieu of a hearing. Please use the form we have included for this purpose.

Position 2

ORIGINAL - Borrower's Case Folder COPY 1 - Finance Office COPY 2 - Applicant/Lender COPY 3 - State Office

CERTIFICATION APPROVAL

For All Farmers Programs

EM, OL, FO, and SW Loans

This loan is approved subject to the availability of funds. If this loan does not close for any reason within 90 days from the date of approval on this document, the approval official will request updated eligibility information. The undersigned loan applicant agrees that the approval official will have 14 working days to review any updated information prior to submitting this document for obligation of funds. If there have been significant changes that may affect eligibility, a decision as to eligibility and feasibility will be made within 30 days from the time the applicant provides the necessary information.

If this is a loan approval for which a lien and/or title search is necessary, the undersigned applicant agrees that the 15-working-day loan closing requirement may be exceeded for the purposes of the applicant's legal representative completing title work and completing loan closing.

35. COMMENTS AND REQUIREMENTS OF CERTIFYING OFFICIAL

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Date _____, 20____ (Signature of Applicant)

Date _____, 20____ (Signature of Co-Applicant)

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23. TYPE OF SUBMISSION 1 - INITIAL 2 - SUBSEQUENT		24. AMOUNT OF LOAN \$7,500,000.00		25. AMOUNT OF GRANT			
26. AMOUNT OF IMMEDIATE ADVANCE		27. DATE OF APPROVAL MO DAY YR		28. INTEREST RATE 4.0000 %		29. REPAYMENT TERMS 40	
COMPLETE FOR COMMUNITY PROGRAM AND CERTAIN MULTIPLE-FAMILY HOUSING LOANS							
30. PROFIT TYPE 3 1 - FULL PROFIT 2 - LIMITED PROFIT 3 - NONPROFIT							
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LOAN RESOLUTION
(Public Bodies)

A RESOLUTION OF THE _____
OF THE _____
AUTHORIZING AND PROVIDING FOR THE INCURRENCE OF INDEBTEDNESS FOR THE PURPOSE OF PROVIDING
A PORTION OF THE COST OF ACQUIRING, CONSTRUCTING, ENLARGING, IMPROVING, AND/OR EXTENDING ITS

FACILITY TO SERVE AN AREA LAWFULLY WITHIN ITS JURISDICTION TO SERVE.

WHEREAS, it is necessary for the _____
(Public Body)

(herein after called Association) to raise a portion of the cost of such undertaking by issuance of its bonds in the principal amount of

_____ ; and
pursuant to the provisions of _____

WHEREAS, the Association intends to obtain assistance from the Rural Housing Service, Rural Business - Cooperative Service, Rural Utilities Service, or their successor Agencies with the United States Department of Agriculture, (herein called the Government) acting under the provisions of the Consolidated Farm and Rural Development Act (7 U.S.C. 1921 et seq.) in the planning, financing, and supervision of such undertaking and the purchasing of bonds lawfully issued, in the event that no other acceptable purchaser for such bonds is found by the Association:

NOW THEREFORE in consideration of the premises the Association hereby resolves:

1. To have prepared on its behalf and to adopt an ordinance or resolution for the issuance of its bonds containing such items and in such forms as are required by State statutes and as are agreeable and acceptable to the Government.
2. To refinance the unpaid balance, in whole or in part, of its bonds upon the request of the Government if at any time it shall appear to the Government that the Association is able to refinance its bonds by obtaining a loan for such purposes from responsible cooperative or private sources at reasonable rates and terms for loans for similar purposes and periods of time as required by section 333(c) of said Consolidated Farm and Rural Development Act (7 U. S. C. 1983 (c)).
3. To provide for, execute, and comply with Form RD 400-4, "Assurance Agreement," and Form RD 400-1, "Equal Opportunity Agreement," including an "Equal Opportunity Clause," which clause is to be incorporated in, or attached as a rider to, each construction contract and subcontract involving in excess of \$ 10,000.
4. To indemnify the Government for any payments made or losses suffered by the Government on behalf of the Association. Such indemnification shall be payable from the same source of funds pledged to pay the bonds or any other legal permissible source.
5. That upon default in the payments of any principal and accrued interest on the bonds or in the performance of any covenant or agreement contained herein or in the instruments incident to making or insuring the loan, the Government at its option may (a) declare the entire principal amount then outstanding and accrued interest immediately due and payable, (b) for the account of the Association (payable from the source of funds pledged to pay the bonds or any other legally permissible source), incur and pay reasonable expenses for repair, maintenance, and operation of the facility and such other reasonable expenses as may be necessary to cure the cause of default, and/or (c) take possession of the facility, repair, maintain, and operate or rent it. Default under the provisions of this resolution or any instrument incident to the making or insuring of the loan may be construed by the Government to constitute default under any other instrument held by the Government and executed or assumed by the Association, and default under any such instrument may be construed by the Government to constitute default hereunder.
6. Not to sell, transfer, lease, or otherwise encumber the facility or any portion thereof, or interest therein, or permit others to do so without the prior written consent of the Government.
7. Not to defease the bonds, or to borrow money, enter into any contract or agreement, or otherwise incur any liabilities for any purpose in connection with the facility (exclusive of normal maintenance) without the prior written consent of the Government if such undertaking would involve the source of funds pledged to pay the bonds.
8. To place the proceeds of the bonds on deposit in an account and in a manner approved by the Government. Funds may be deposited in institutions insured by the State or Federal Government or invested in readily marketable securities backed by the full faith and credit of the United States. Any income from these accounts will be considered as revenues of the system.
9. To comply with all applicable State and Federal laws and regulations and to continually operate and maintain the facility in good condition.
10. To provide for the receipt of adequate revenues to meet the requirements of debt service, operation and maintenance, and the establishment of adequate reserves. Revenue accumulated over and above that needed to pay operating and maintenance, debt service and reserves may only be retained or used to make prepayments on the loan. Revenue cannot be used to pay any expenses which are not directly incurred for the facility financed by the Government. No free service or use of the facility will be permitted.

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0015. The time required to complete this information collection is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

CERTIFICATION TO BE EXECUTED AT LOAN CLOSING

I, the undersigned, as _____ of the _____
hereby certify that the _____ of such Association is composed of
_____ members, of whom _____, constituting a quorum, were present at a meeting thereof duly called and
held on the _____ day of _____, _____; and that the foregoing resolution was adopted at such meeting
by the vote shown above. I further certify that as of _____, the date of closing of the loan from the Government, said resolution
remains in effect and has not been rescinded or amended in any way.

Dated, this _____ day of _____, _____.

Title _____

RESOLUTION OF MEMBERS OR STOCKHOLDERS

(Name of Association)

(Address, including Zip Code)

RESOLVED, that the Governing Board of this Association be and it hereby is authorized and empowered to take all action necessary or appropriate —

1. To obtain for and on behalf of the Association through the United States Department of Agriculture (USDA) or any other Governmental agency:
 - (a) A loan in a sum not to exceed \$ _____;
 - (b) A grant in a sum not to exceed \$ _____;
 to be advanced by the lender or grantor in one or more advances at such time or times as may be agreed upon.
2. In case of a loan or grant or both —
 - (a) For the execution of such application or applications (including exhibits, amendments and/or supplements thereto) as may be required;
 - (b) For the execution and delivery to the lender or grantor of all such written instruments as may be required in regard to or as evidence of such loan or grant; and
 - (c) In its judgment to carry out the terms of this resolution.
3. And in case of a loan —
 - (a) To obligate this Association for the repayment of the loan at such rates of interest and on such other terms and conditions as the Governing Board shall deem proper;
 - (b) To pledge, hypothecate, mortgage, convey, or assign property of this Association of any kind and in any amount now owned or hereafter acquired, as security for any or all obligations (past, present and/or future) of this Association to such lender; and
 - (c) From time to time to pay, extend, or renew any such obligations.

CERTIFICATION

I, the undersigned, as _____ of the above named Association, hereby
(Secretary) (Acting Secretary)
 certify that said Association on the _____ day of _____, _____, had _____
(Number)
 _____; that _____ of these
(members) (stockholders) or (shares of voting stock outstanding)
 constituted a quorum; that _____ said members or stockholders or shares of voting stock were present at a meeting of the members or stockholders duly called and held on the _____ day of _____, _____; that the foregoing resolution was adopted at such meeting by the affirmative vote of _____ said members or stockholders or shares of voting stock; and that said resolution has not been rescinded or amended in any way.

Dated this day _____ of _____, _____.

Secretary of _____

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UNITED STATES DEPARTMENT OF AGRICULTURE
STATEMENT OF BUDGET, INCOME AND EQUITY

Schedule I

Name _____	Address _____
------------	---------------

(1) OPERATING INCOME	PRIOR YEAR <u>Actual</u> (2)	ANNUAL BUDGET		For the _____ Months Ended _____		Actual YTD (Over) Under Budget Col. 3 - 5 = 6 (6)
		BEG _____	END _____	CURRENT YEAR		
		(3)	Actual Data		Current Quarter (4)	
1. _____						0
2. _____						0
3. _____						0
4. _____						0
5. Miscellaneous						0
6. Less: Allowances and Deductions						0
7. Total Operating Income (Add lines 1 through 6)	0	0	0	0	0	0
OPERATING EXPENSES						
8. _____						0
9. _____						0
10. _____						0
11. _____						0
12. _____						0
13. _____						0
14. _____						0
15. Interest						0
16. Depreciation						0
17. Total Operating Expense (Add Lines 8 through 16)	0	0	0	0	0	0
18. NET OPERATING INCOME (LOSS) (Line 7 less 17)	0	0	0	0	0	0
NONOPERATING INCOME						
19. _____						0
20. _____						0
21. Total Nonoperating Income (Add 19 and 20)	0	0	0	0	0	0
22. NET INCOME (LOSS) (Add lines 18 and 21)	0	0	0	0	0	0
23. Equity Beginning of Period						0
24. _____						0
25. _____						0
26. Equity End of Period (Add lines 22 through 25)	0	0	0	0	0	0

Budget and Annual Report Approved by Governing Body

Quarterly Reports Certified Correct

Secretary _____	Date _____	Appropriate Official _____	Date _____
-----------------	------------	----------------------------	------------

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0015. The time required to complete this information collection is estimated to average 2-1.2 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

SUPPLEMENTAL DATA

The Following Data Should Be Supplied Where Applicable

Circle One

1. ALL BORROWERS

a. Are deposited funds in institutions insured by the Federal Government? Yes No

b. Are you exempt from Federal Income Tax? Yes No

c. Are Local, State and Federal Taxes paid current? Yes No

d. Is corporate status in good standing with State? Yes No

e. List kinds and amounts of insurance and fidelity bond: Complete Only when submitting annual budget information:

Insurance Coverage and Policy Number	Insurance Company and Address	Amount of Coverage	Expiration Date of Policy
Property Insurance			
Policy # _____	_____	_____	_____
Liability			
Policy # _____	_____	_____	_____
Fidelity			
Policy # _____	_____	_____	_____

2. RECREATION AND GRAZING ASSOCIATION BORROWERS ONLY

	Current Quarter	Year to Date
a. Number of Members	_____	_____

3. WATER AND/OR SEWER UTILITY BORROWERS ONLY

	Current Quarter	Year to Date
a. Water purchased or produced (CU FT - GAL)	_____ gal.	_____ gal.
b. Water sold (CU FT - GAL)	_____ gal.	_____ gal.
c. Treated waste (CU FT - GAL)	_____ gal.	_____ gal.
d. Number of users - water	_____	_____
e. Number of users - sewer	_____	_____

4. OTHER UTILITIES

a. Number of users	_____	_____
b. Product purchased	_____	_____
c. Product sold	_____	_____

5. HEALTH CARE BORROWERS ONLY

a. Number of beds	_____	_____
b. Patient days of care	_____	_____
c. Percentage of occupancy	_____ -2147483648 %	_____ -2147483648 %
d. Number of outpatient visits	_____	_____

6. DISTRIBUTION OF ALL CASH AND INVESTMENTS*

Indicate balances in the following accounts:

	Construction	Revenue	Debt Service	Operation & Maintenance	Reserve	All Others	Grand Total
Cash	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ 0
Savings and Investments	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____	\$ 0
Total	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

7. AGE ACCOUNTS RECEIVABLE AS FOLLOWS:

	Days				*Total
	0-30	31-60	61-90	91 and Older	
Dollar Values	\$ _____	\$ _____	\$ _____	\$ _____	\$ 0
Number of Accounts	_____	_____	_____	_____	0

*Totals must agree with those on Balance Sheet.

PROJECTED CASH FLOW

For the Year BEG. _____ END. _____
(same as schedule 1 column 3)

A. Line 22 from Schedule 1, Column 3 NET INCOME (LOSS) \$ 0 _____

Add

B. Items in Operations not Requiring Cash:

1. Depreciation (line 16 schedule 1) 0 _____

2. Others: _____

C. Cash Provided From:

1. Proceeds from Agency loan/grant _____

2. Proceeds from others _____

3. Increase (Decrease) in Accounts Payable, Accruals and other Current Liabilities _____

4. Decrease (Increase) in Accounts Receivable, Inventories and
 Other Current Assets (Exclude cash) _____

5. Other: _____

6. _____

D. Total all A, B and C Items \$0 _____

E. Less: Cash Extended for:

1. All Construction, Equipment and New Capital Items (loan & grant funds) _____

2. Replacement and Additions to Existing Property, Plant and Equipment _____

3. Principal Payment Agency Loan _____

4. Principal Payment Other Loans _____

5. Other: _____

6. Total E 1 through 5 \$0 _____

Add

F. Beginning Cash Balances _____

G. Ending Cash Balances (Total of D Minus E 6 Plus F) \$ 0 _____

Item G Cash Balances Composed of:

Construction Account \$ _____

Revenue Account _____

Debt Payment Account _____

O&M Account _____

Reserve Account _____

Funded Depreciation Account _____

Others: _____

Total - Agrees with Item G \$ _____

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

Approved by OMB
0348-0046

1. Type of Federal Action: <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	3. Report Type: <input type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: Congressional District, if known: _____	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: Congressional District, if known: _____	
6. Federal Department/Agency:	7. Federal Program Name/Description: CFDA Number, if applicable: _____	
8. Federal Action Number, if known:	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI): _____ (attach Continuation Sheet(s) SF-LLLA, if necessary)	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): _____ (attach Continuation Sheet(s) SF-LLLA, if necessary)	
11. Amount of Payment (check all that apply): \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment (check all that apply): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____	
12. Form of Payment (check all that apply): <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____		
14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11: _____ (attach Continuation Sheet(s) SF-LLLA, if necessary)		
15. Continuation Sheet(s) SF-LLLA attached: <input type="checkbox"/> Yes <input type="checkbox"/> No		
16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	
Federal Use Only:		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLLA Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLLA Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

**ACH VENDOR/MISCELLANEOUS PAYMENT
ENROLLMENT FORM**

OMB No. 1510-0056

This form is used for Automated Clearing House (ACH) payments with an addendum record that contains payment-related information processed through the Vendor Express Program. Recipients of these payments should bring this information to the attention of their financial institution when presenting this form for completion. See reverse for additional instructions.

PRIVACY ACT STATEMENT
The following information is provided to comply with the Privacy Act of 1974 (P.L. 93-579). All information collected on this form is required under the provisions of 31 U.S.C. 3322 and 31 CFR 210. This information will be used by the Treasury Department to transmit payment data, by electronic means to vendor's financial institution. Failure to provide the requested information may delay or prevent the receipt of payments through the Automated Clearing House Payment System.

AGENCY INFORMATION
FEDERAL PROGRAM AGENCY USDA RURAL DEVELOPMENT
AGENCY IDENTIFIER: 1215-01-49 AGENCY LOCATION CODE (ALC): 12400700 ACH FORMAT: <input type="checkbox"/> CCD+ <input type="checkbox"/> CTX
ADDRESS: 154 WAIANUENUE AVENUE, ROOM 311
HILO, HI 96720
CONTACT PERSON NAME: _____ TELEPHONE NUMBER: ()
ADDITIONAL INFORMATION:

PAYEE/COMPANY INFORMATION
NAME _____ SSN NO. OR TAXPAYER ID NO. _____
ADDRESS _____
CONTACT PERSON NAME: _____ TELEPHONE NUMBER: ()

FINANCIAL INSTITUTION INFORMATION
NAME: _____
ADDRESS: _____
ACH COORDINATOR NAME: _____ TELEPHONE NUMBER: ()
NINE-DIGIT ROUTING TRANSIT NUMBER: _____
DEPOSITOR ACCOUNT TITLE: _____
DEPOSITOR ACCOUNT NUMBER: _____ LOCKBOX NUMBER: _____
TYPE OF ACCOUNT: <input type="checkbox"/> CHECKING <input type="checkbox"/> SAVINGS <input type="checkbox"/> LOCKBOX
SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL: _____ TELEPHONE NUMBER: () (Could be the same as ACH Coordinator)

AUTHORIZED FOR LOCAL REPRODUCTION

SF 3881 (Rev. 2/2003)
Prescribed by Department of Treasury
31 U.S.C. 3322; 31 CFR 210

Instructions for Completing SF 3881 Form

Make three copies of form after completing. Copy 1 is the Agency Copy; copy 2 is the Payee/Company Copy; and copy 3 is the Financial Institution Copy.

1. Agency Information Section - Federal agency prints or types the name and address of the Federal program agency originating the vendor/miscellaneous payment, agency identifier, agency location code, contact person name and telephone number of the agency. Also, the appropriate box for ACH format is checked.
2. Payee/Company Information Section - Payee prints or types the name of the payee/company and address that will receive ACH vendor/miscellaneous payments, social security or taxpayer ID number, and contact person name and telephone number of the payee/company. Payee also verifies depositor account number, account title, and type of account entered by your financial institution in the Financial Institution Information Section.
3. Financial Institution Information Section - Financial institution prints or types the name and address of the payee/company's financial institution who will receive the ACH payment, ACH coordinator name and telephone number, nine-digit routing transit number, depositor (payee/company) account title and account number. Also, the box for type of account is checked, and the signature, title, and telephone number of the appropriate financial institution official are included.

Burden Estimate Statement

The estimated average burden associated with this collection of information is 15 minutes per respondent or recordkeeper, depending on individual circumstances. Comments concerning the accuracy of this burden estimate and suggestions for reducing this burden should be directed to the Financial Management Service, Facilities Management Division, Property and Supply Branch, Room B-101, 3700 East West Highway, Hyattsville, MD 20782 and the Office of Management and Budget, Paperwork Reduction Project (1510-0056), Washington, DC 20503.

AUTHORIZATION AGREEMENT FOR PREAUTHORIZED PAYMENTS

OMB No.: 1510-0059
Expires: 08/31/2007

USDA RURAL DEVELOPMENT - COMMUNITY FACILITIES
(AGENCY NAME)

Paperwork Reduction Act/Privacy Act Statement

The information requested on this form is required under various provisions of title 15 USC Chapter 41, 12 CFR 205, and 31 CFR 202 and 206, for the purpose of authorizing the Department of Treasury to designate financial institutions to electronically collect payments from your account. The information will be used to match the records of the government agency with those of the financial institution to direct your payments to the point you authorize. No electronic collection from your account may be transacted unless a signed authorization form is received. Furnishing this information is voluntary, however, failure to furnish this information may delay or prevent the electronic collection of a payment through the Automated Clearing House. You are not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is 1510-0059. We estimate that it will take approximately 15 minutes to complete this form.

CHECK ONE: START CHANGE STOP

INDIVIDUAL/COMPANY INFORMATION

INDIVIDUAL/ORGANIZATION NAME (PLEASE PRINT)

STREET ADDRESS

CITY/STATE:

ZIP CODE:

AREA CODE:

TELEPHONE NUMBER:

YOUR AGENCY ACCOUNT IDENTIFICATION NUMBER:

TYPE OF PAYMENT:

I hereby authorize the initiation of a deduction from my account and the financial institution named below to debit such account. I understand I will be notified if the debit amount needs to be adjusted, either to be increased or decreased. I also understand that I have the right to stop automatic payment by notifying my financial institution in writing three days prior to the time my account is charged.

SIGNATURE: _____

DATE: _____

FINANCIAL INSTITUTION INFORMATION

FINANCIAL INSTITUTION NAME:

STREET ADDRESS

CITY/STATE:

ZIP CODE:

NINE-DIGIT ROUTING TRANSIT NUMBER: 

ACCOUNT TITLE

ACCOUNT NUMBER

CHECKING
 SAVINGS

SIGNATURE AND TITLE OF REPRESENTATIVE

AREA CODE/TELEPHONE NUMBER

DATE

STANDARD FORM 5510 (Rev. 2/2005)
AUTHORIZED FOR LOCAL REPRODUCTION

PREVIOUS EDITION NOT USABLE

DEPARTMENT OF THE TREASURY
31 CFR 202 and 206; I TFM 6-8000

CHECKLIST FOR CONSTRUCTION CONTRACTS USING AIA DOCUMENTS ON CF PROJECTS			
RD Review Before Bid	RD Review After Bid	Title	Forms/Comments
X		Table of Contents	Prepared by Consultant (Architect or Engineer)
X		Advertisement for Bids	RD Instruction 1942-A, Guide 19, Attachment 1
X		Instructions to Bidders	AIA Document A701-1977(Consultant provided)
X		RD Attachment to Instruction to Bidders	RD Instruction 1942-A, Guide 27, Attachment 2
X	X	Bid (Insert Liquidated Damages)	RD Instruction 1942-A, Guide 19, Attachment 3
X	X	Bid Bond	RD Instruction 1942-A, Guide 19, Attachment 4
X	X	Owner/Contractor Agreement	AIA Document A101-2007(Consultant provided)
X	X	RD Attachment to Agreement	RD Instruction 1942-A, Guide 27, Attachment 3
X	X	Performance Bond (see 7.2.2 of RD 1942-A, Guide 27, Attachment 2)	Use AIA Forms
X	X	Payment Bond (see 7.2.2 of RD 1942-A, Guide 27, Attachment 2)	Use AIA Forms
	X	Power of Attorney (For Bonds)	From Contractor's Bonding Company (Must be dated)
	X	Certificate of Insurance	From Contractor's Insurance Company
X	X	Compliance Statement	Form RD 400-6
X	X	Certificate of Owner's Attorney	Instruction 1942-A, Guide 18, Page 7 (Ref: 1942.8(g) of RD 1942-A)
X	X	Approval of Contract	(see page 4 of Instruction 1942-A, Guide 27, Attachment 3)
X	X	Notice of Award	Instruction 1942-A, Guide 19, Attachment 7
X	X	Notice to Proceed	Instruction 1942-A, Guide 19, Attachment 8
X	X	Certification Regarding Debarment	Form AD-1048
X	X	Certification for Contracts, Grants, and Loans	RD Instruction 1940-Q, Exhibit A-1
X	X	Disclosure of Lobbying Activities	Standard Form LLL
X	X	General Conditions of the Contract for Construction	AIA Document A201-2007(Consultant provided)
X	X	RD Attachment to General Conditions	RD Instruction 1942-A, Guide 27, Attachment 4
X	X	Partial Payment Estimate	Form RD 1924-18/AIA G702
X	X	Contract Change Order	Form RD 1924-7/AIA G701
X	X	Certificate of Substantial Completion (Guide)	see paragraph 9.8 of General Conditions
X	X	Plans & Specifications	By Project Architect or Engineer
X	X	Project Sign	Rural Development guideline(include requirement in Project Specifications)
X	X	Seismic Certification (New Construction Only)	By Project Architect or Engineer (Ref: 1942.18(d)(17) of RD 1942-A)

Appendix C – USDA/ANZ Guaranteed Loan Document

Response from Citizens Security Bank, Guam (Member of the ANZ Group of Companies) to RFP 09-010 dated July 22, 2009

July 22, 2009

Mr. George B. Bamba
Guam Economic Development Authority
ITC Building, Suite 511
590 South Marine Drive
Tamuning, Guam 96913

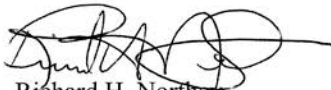
Re: **RFP 09-010**

Dear Mr. Bamba:

Please find enclosed a response from Citizens Security Bank to the above referenced RFP. Our proposal assumes the USDA will make a \$25 million direct loan.

If you have any questions or would like to negotiate any of the proposed terms, please let me know.

Sincerely,



Richard H. Northey
Executive Vice President
Head of Commercial Banking\

Enclosure

Suite 112, Julale Center • 424 West O'Brien Drive • P.O. Box EQ • Hagåtña, Guam 96932

Agaña Office
Tel: 671.479.9000
Fax: 671.479.9090
www.csb.com.gu

Tamuning Office
Tel: 671.642.3131
Fax: 671.642.3147

Harmon Office
Tel: 671.646.0881
Fax: 671.649.6151

Dededo Office
Tel: 671.635.5204
Fax: 671.632.2603

Guam Economic Development Authority RFP 09-010 (22 July 2009).

Borrower:	Port Authority of Guam (“ Borrower ”)				
Lender:	Citizens Security Bank, Guam. (Member of the ANZ Group of Companies) (hereinafter “ the Bank ”)				
Facility/Commitment:	<table><tr><td>Facility</td><td>Facility Maximum Commitment</td></tr><tr><td>Term Loan</td><td>USD25,000,000</td></tr></table>	Facility	Facility Maximum Commitment	Term Loan	USD25,000,000
Facility	Facility Maximum Commitment				
Term Loan	USD25,000,000				
Guaranty:	90% USDA Guaranty under the Community Facilities Program.				
Purpose:	To assist with the implementation of Stage 1-A of Phase I of the Jose D. Leon Guerrero Commercial Port of Guam Master Plan Update 2007.				
Financial Close:	The date upon which all Conditions Precedent for Financial Close are achieved.				
Term/Repayment:	Maturity to coincide with useful life of facilities to be improved or assets to be purchased with loan funds. Amortization to be scheduled accordingly and monthly payments will be on the basis of principal including interest.				
Drawdown:	USD25,000,000 to be consistent with Master Plan.				
Availability Period:	The Facility will be available for drawing from Financial Close.				
Interest:	Interest will be calculated on a 365/365 day basis on the daily amount drawn and charged to the account on a monthly basis in arrears.				
Base Rate:	Option 1: 10 Year FHLB Seattle Bullet Rate (Currently 4.78%) Option 2: 5 Year FHLB Seattle Bullet Rate (Currently 3.43%)				
Pricing:	0.50% over base rate, if interest is tax exempt. 2.75% over Base Rate, if interest is tax non-exempt.				
CSB Fees:	None				
Security:	Security will include (without limitation): <ol style="list-style-type: none">1) Revenues of the Port Authority of Guam2) Security agreement covering all tangible and intangible property excluding real estate.				
Prepayment Penalty	None				
Specific Underwriting Conditions:	<ol style="list-style-type: none">1) Debt service coverage to be no less than 1.25:12) Interest cover to be no less than 1.50:1				
Conditions Precedent:	<u>Financial Close</u> The achievement of Financial Close will be subject to the satisfaction of Conditions Precedent which will include the following in a form satisfactory to the Bank:				

The terms and conditions contained in this document are indicative only. Accordingly, this does not constitute an offer of facilities until formal Credit approval is obtained. Any subsequent letter of offer would comprehensively detail the conditions on which facilities are offered. However, this document indicates facilities, key terms and conditions, which have ‘in principle only’ been ratified by the Bank’s Credit Committee. In this respect, if the terms herein are acceptable to you, these would broadly form the basis for seeking formal Credit committee approval on your behalf.

- 1) Satisfactory confirmation of and discharge of all covenants and charges senior to the bank's security.
- 2) Execution of all security documentation to the satisfaction of the Bank.
- 3) Execution, stamping and registration of the securities and all ancillary documents.
- 4) Any other conditions precedent that are usual for a facility of this nature that the Bank may reasonably require.
- 5) A certificate from the Bank's attorney that the security for the loan is a first lien priority.
- 6) A certificate from the Bank's attorney affirming the enforceability of the security documents.

Letter of Offer:

The Facility will be subject to the terms of an irrevocable Letter of Offer from the Bank and accepted by the Borrower.

The Letter of Offer will include (without limitation):

- Standard representations, warranties and undertakings for a facility of this type, including but not limited to:
 - Undertaking to manage and maintain the security property records to a standard reasonably acceptable to the Bank including the maintenance in full force and effect of:
 - (a) all governmental approvals, permits and licences, and any other contracts or agreements relevant to the ongoing operations of the Borrower.
 - Other representations and warranties as required and considered necessary in a facility of this nature.
- Standard events of default for a facility of this type, including but not limited to:
 - Failure to remedy any breach of financial covenant within grace periods allowed;
 - Default in payment of monies when due;
 - Failure to comply with obligations under any of the transaction documents;
 - Failure to pay any outgoing expense as and when they fall due;
 - Misrepresentation/failure to comply with undertakings;
 - Insolvency, administration, enforcement against assets, etc. in respect of the Borrower;
 - Other events of default as required by the Bank for a facility of this type.

The terms and conditions contained in this document are indicative only. Accordingly, this does not constitute an offer of facilities until formal Credit approval is obtained. Any subsequent letter of offer would comprehensively detail the conditions on which facilities are offered. However, this document indicates facilities, key terms and conditions, which have 'in principle only' been ratified by the Bank's Credit Committee. In this respect, if the terms herein are acceptable to you, these would broadly form the basis for seeking formal Credit committee approval on your behalf.

Facility Covenants:

Financial Covenants:

The following financial covenants shall apply:

- Debt service coverage of 1.25:1 is to be maintained for the term the facility. The calculation for this debt service coverage is as follows:

Earnings before Interest Taxes Depreciation and Amortization
Total Annual Principal and Interest Payments

- Interest cover of 1.5:1 is to be maintained for the term of the Facility. The calculation for this interest cover is as follows:

Earnings Before Interest Taxes Depreciation and Amortization
Total Annual Interest Expense

Covenant Breaches:

Breach of any of the above will constitute an Event of Review unless the Bank has given a prior written consent to a variation. Should a breach or non-compliance of any covenant occur, a "Notice of Failure to Perform" will be issued to the Borrower noting the breach. A period of 15 days from the date of the notice will be given to the Borrower to remedy the breach.

Event of Default

Breach or non-compliance with any of the above covenants, if not rectified, will constitute an Event of Default, in which the Bank may exercise its rights under the Letter of Offer.

Review Requirements

The facility shall be subject to an annual review. The Borrower shall provide the Bank with the following financial information, within the following timeframes:

Annual Financial Statements

Annual audited financial statements for Port Authority of Guam to be provided to the Bank within 180 days of balance date.

Quarterly Unaudited Financial Statements

Quarterly unaudited financial statements for Port Authority of Guam to be provided to the Bank by the 45th day of the month following the respective quarter.

Assignments/Transfers:

The Bank may transfer or assign all or part of its rights and obligations under the listed facilities to any related party or to another lender. Further, the Bank may assign, transfer, sub-participate or otherwise deal with all or any part of their respective rights and benefits under the listed facilities to a trustee or other entity established for the purpose of securitisation. The Borrower may only transfer or assign its rights and obligations under the listed facilities with the Bank's consent.

Payments:

All payments due under the Facility are to be made free and clear of any withholding or other taxes.

The terms and conditions contained in this document are indicative only. Accordingly, this does not constitute an offer of facilities until formal Credit approval is obtained. Any subsequent letter of offer would comprehensively detail the conditions on which facilities are offered. However, this document indicates facilities, key terms and conditions, which have 'in principle only' been ratified by the Bank's Credit Committee. In this respect, if the terms herein are acceptable to you, these would broadly form the basis for seeking formal Credit committee approval on your behalf.

Default Rate: An additional 2.0% per annum margin will apply.

Early repayment: The loan may be prepaid at any time without penalty.

Other: The Bank reserves the right to include any terms and conditions the Bank or its attorney considers necessary and relevant to a facility of this nature.

Governing Law: Non-exclusive jurisdiction of the laws of the US Territory of Guam.

The terms and conditions contained in this document are indicative only. Accordingly, this does not constitute an offer of facilities until formal Credit approval is obtained. Any subsequent letter of offer would comprehensively detail the conditions on which facilities are offered. However, this document indicates facilities, key terms and conditions, which have 'in principle only' been ratified by the Bank's Credit Committee. In this respect, if the terms herein are acceptable to you, these would broadly form the basis for seeking formal Credit committee approval on your behalf.

4

Appendix D – Statement of Work

PORT AUTHORITY OF GUAM MODERNIZATION PROGRAM
JOSE D. LEON GUERRERO COMMERCIAL PORT
PORT AUTHORITY OF GUAM (PAG)

OWNERS AGENT/ENGINEER CONSULTANT AGREEMENT

FINANCIAL FEASIBILITY UPDATE

TASK ORDER 13

SCOPE OF WORK
(EXHIBIT A)

Summary:

This document describes the scope of work that Consultant will perform to assist PAG related to updating of the Financial Model and estimating projected borrowing capacity.

The duration of this Task Order is from August 16, 2010 through October 30, 2010. The Task Order Amendment has been budgeted to be complete by October 30, 2010.

Objective:

A spread sheet financial model (Financial Model) was developed to estimate impacts of the PAG modernization in preparing the report entitled "Jose D. Leon Guerrero Commercial Port of Guam, Master Plan Update 2007, Financial Feasibility Study Report" dated August 2008 (Financial Feasibility Study 2008). It was based on PAG's 2007 audited financial information, cargo forecasts and other parameter assumptions based on information available to PAG in 2008.

PAG wishes to update the Financial Model to reflect current information. This includes updated cargo forecasts, operating conditions and current PAG objectives regarding the modernization program. PAG wishes to estimate updated borrowing capacity under alternate future scenarios applicable to completion and operation of its Public Cargo Terminal (PCT).

It is understood that PAG does not wish to update all the possible conditions and parameters that are used in the model and which have changed since 2008. The updates that PAG wishes to make to the model parameters are described below.

Approach:

In assessing the changes that PAG wishes to make to the model and scenarios that it wishes to assess there are two broad scenario drivers with additional variations that would apply to each scenario.

Cargo Forecast Based on Feb-2010 JGPO Base Construction Schedule

This forecast of Port cargo is based on construction schedules and budgets for military base facilities construction provided by JGPO on or around 2/23/2010. Preparation of cargo forecasts based on this data have been completed and are described in Consultant's draft report titled "Port Authority of Guam Modernization Program, Cargo Forecast with Military Program Impacts", dated July 2010.

Cargo Forecast Based on Extended JGPO Base Construction Schedule

JGPO recently has discussed its intent to implement a more extended or drawn out schedule for construction of base facilities. No data have been provided to Consultants at this time regarding this extended implementation plan. The forecast of Port cargo would have to be prepared based on information provided by JGPO.

PAG wishes to examine both of the above scenarios in the updated Financial Model. Some of the modifications to the Financial Model are common updates that are applicable under both scenarios. These updates are described in Section 13.2. The updates that apply separately to each of the above Forecast Scenarios are described in Sections 13.3 and 13.4.

13.1 Task Management

13.1.1 Startup, Mobilize and Review

- Execute IC Agreement Modification
- Review Contract and Task Order Requirements
- Mobilize Team

13.1.2 Team & Technical Coordination

- Confirm Assignments
- Implement Startup Schedule
- Routine Conference Calls and Updates
- Coordinate assignments and progress
- Cross-check Individual Assumptions, Inputs, Work Product

13.2 Basic Updates to Financial Model

The following base level updates to the Financial Model that PAG wishes to perform are described in this section.

13.2.1 Updates Related to PMC Management of Terminal

PAG has received and is evaluating several proposals for PMC management of the PCT. Anticipated execution of the PMC to an experienced terminal operator (PMCP) will impact certain parameter assumptions in the model. These include the following.

- Manning at apron, yard and gates for terminal activities and its relationship to cargo volumes
- Productivity rates at the apron, yard and gates (including year-to-year variations in productivity at the apron to reflect the PMC productivity proposal).
- Extent and use of casual labor proposed

Owners Agent/Engineer Consultant Agreement

Task No. 13 – Financial Feasibility Update

- The PMC Financial Compensation Structure that PAG negotiates with the successful firm
- Any investments that the PMCP will provide

It is understood that the updates will be made based on the status of the PMC award. If PAG is in negotiations with a potential PMCP, it is proposed that the updates be made on the basis of information gleaned from the proposal submitted by the potential PMCP. If PAG has executed the agreement with the PMCP, the Consultant will prepare a list of parameters and submit it to PAG for obtaining input from the PMCP.

13.2.2 Wheeled vs. Grounded Variability Feature

The current model treats all full inbound containers from U.S. West Coast (USWC) carriers on the basis that they are handled as “wheeled” containers transferred from the ship to road chassis and charged the associated “wheeled” rate. During high cargo throughput conditions or due to constraints during terminal construction it is unlikely that this form of terminal operation can be continued in its entirety. All or a significant portion of the USWC inbound containers would have to be grounded at the terminal. The Financial Model will be updated to permit the ability to vary the proportion of USWC inbound full containers that would be handled on chassis vs. grounded each year over a 20 year planning horizon.

13.2.3 Update Phase IA Construction Timing & Cash Flows

The Financial Model will be updated to reflect the following changed conditions.

- Construction cash flow
- Change project startup year

Construction cash flow would be estimated based on likely schedule to be followed by MARAD to the extent it is available. In the absence of new information a cash draw schedule will be estimated generally according to the schedule described in the report titled “Draft Final Implementation Plan Report”. The model will also be updated to reflect results based on the current project start year.

13.2.4 Revise Cash Flows as Needed to 2011 Startup Year

Since terminal construction and cargo movement has been delayed since 2008, the model will be updated to reflect the impact of a revised startup year of 2011. However, it is understood that PAG does not wish to expend resources on recalibration of the model to the most recent year for which it has audited financial statements.

13.2.5 Estimate project-related loan cash flows

Consultant will estimate and model the project-related loan draws to support MARAD’s construction cash flow demands to be supported by the USDA Direct and ANZ loans. Based on input from PAG, USDA and ANZ and the anticipated construction schedule Consultant will modify the input to the model to update the impact due to the loans that PAG will use to finance the modernization of Phase IA improvements.

13.2.6 Link Version (MV1) to Feb-2010 JGPO Base Schedule

Consultant will update one version of the Financial Model (MV1) to work with the results of the “Cargo Forecast Based on the Feb-2010 JGPO Construction Schedule” as described previously.

13.2.10 Prepare Extended JGPO Base Schedule Forecast & Link to Model (MV2)

Consultant will modify the cargo forecast data prepared for the draft report titled “Port Authority of Guam Modernization Program, Cargo Forecast with Military Program Impacts” to reflect an extended schedule for construction of the military bases on Guam. This will be based on facility-by-facility schedule updates to be provided by JGPO and facilitated by PAG. It is assumed that

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PAG will ensure that the base facilities schedule spreadsheet information provided by NAVFAC on behalf of JGPO in February 2010 will be revised to reflect the extended schedule and provided to the Consultant.

The above-described data will be used to prepare a forecast of Port cargo based on the extended schedule. It is understood that only the figures, tables and/or spreadsheets depicting the extended forecast would be prepared and no new forecast report is required.

The data resulting from the extended cargo forecast will be converted into the model-input spreadsheet format and linked to a second version of the Financial Model (MV2) for the purpose of analyzing the scenarios described below.

13.3 Scenario Analysis

There are numerous combinations of scenarios that represent different results depending on the variables that could be input into the updated model. It is understood that PAG does not wish to expend the resources to evaluate each possible scenario or combination of variables. Therefore scenarios will be analyzed and compared in two consecutive levels to narrow down the scenario options to two that PAG would identify for the purpose of formulating policy regarding facility modernization.

13.3.1 Base Level Scenario Analysis without Crane Acquisition

Using the updated versions of the Financial Model, the Consultant will compare the results first for the following four scenarios.

BLS1 Feb-2010 JGPO Base Schedule (MV1) with All Grounded Operation

BLS2 Feb-2010 JGPO Base Schedule (MV1) with Proportioned Inbound USWC Wheeled Operation

BLS3 Extended JGPO Base Schedule (MV2) with All Grounded Operation

BLS4 Extended JGPO Base Schedule (MV2) with Proportioned Inbound USWC Wheeled Operation

13.3.1.1 Base Level Input Parameter Adjustments

The following input variables will be adjusted during the above initial comparison of scenarios.

- It will be assumed that there will be no cash outflow due to purchase of cranes (see Financial Feasibility Study 2008)
- For scenarios BLS2 and BLS4, the Consultant will ask for input from PAG on the mix of grounded vs. wheeled operations for USWC carrier inbound full, dry containers. This information will be input into the models MV1 and MV2 as appropriate.
- The application of tariff rates will be adjusted to reflect the assumed mix of grounded and wheeled containers.
- The timing of downstream maintenance/replacement Capital Improvement Program (CIP) projects will be adjusted as needed for each scenario, based on available cash flows
- It is understood that no CRC considerations will be included in any of the scenarios

13.3.1.2 Comparison of Scenario Borrowing Capacity

The estimated borrowing capacity for each of the four scenarios will be developed as output from the model. For each of the four scenarios the following output would be developed and compared initially to assist PAG in selection of a scenario and variable combination for further analysis.

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- Based on estimated tariff escalation from previous studies
- Based on revised tariff escalation if needed to achieve target borrowing capacity

The results will be presented to PAG in the form of outline handouts and discussion by phone conference call. PAG will need to select one scenario for further analysis based on alternatives for acquisition of cranes under the task below.

13.3.2 Potential Future Scenario Analysis with Crane Acquisition

The scenario selected by PAG under Section 13.2 will be used as the basis to analyze and compare three scenarios that would include the acquisition of cranes for the PCT.

Consultant will set up the model to assess the following three crane acquisition scenarios.

- Lease to Purchase
- Finance to Purchase Outright
- Matson/Horizon Sole Source Crane Acquisition

Relevant parameter adjustment will be made for each of these scenarios since they would impact downstream replacement program timing differently.

Consultant will identify estimated borrowing capacity for each of the above three scenarios. The results will be presented to PAG in the form of outline handouts and discussion by phone conference call. This would include looking at (i) estimated tariff escalation from previous studies first and (ii) revised tariff escalation if needed to achieve target borrowing capacity.

13.4 Prepare Technical Memorandum Report

The Consultants will further refine the scenarios selected by PAG in per the description in Sections 13.2 and 13.3 and prepare and deliver a technical memorandum describing the findings in outline form.

13.5 Trip to Guam & Presentations (optional)

This is an optional task which would include a trip to Guam by one key Consultant team staff to present and discuss the findings with PAG and its stakeholders as directed by PAG. A PowerPoint presentation will be prepared to assist in the presentation and discussions.

13.6 Full Report for Distribution to Legislature (optional)

This is an optional task if included in the scope which would consist of preparation of a report for distribution to the legislature to assist PAG in implementing its policy as represented by the results of the activities in Section 13.3.

Anticipated Schedule:

CONSULTANT shall perform all the services described herein within a period of six weeks after receiving Notice to Proceed. This excludes optional work which would require a PAG driven schedule. This is also subject to availability of information to be provided by PAG.

Consultant’s Cost Computations (Cost Estimate):

The CONSULTANT's Cost Computations (Cost Estimates) are included as Exhibits B and C and by reference made part of this Task Order.

Progress Reporting:

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Progress of deliverables will be updated monthly. Reporting shall adhere to the protocols established in CONSULTANT AGREEMENT.

List of Attachments and Exhibits:

- Exhibit B – Task Order Cost Computations
- Exhibit C – Sub Consultant's Cost Computations