Audit Report

OFFICE OF THE INSPECTOR GENERAL

DEFENSE BASE REALIGNMENT AND CLOSURE BUDGET DATA FOR THE REALIGNMENT OF GRISSOM AIR RESERVE BASE, INDIANA

Report No. 97-139

May 2, 1997

Department of Defense

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Acronyms

BRAC	Base Realignment and Closure
MILCON	Military Construction

INSPECTOR GENERAL
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May 2, 1997

MEMORANDUM FOR UNDER SECRETARY OF DEFENSE (COMPTROLLER)
ASSISTANT SECRETARY OF THE AIR FORCE
(FINANCIAL MANAGEMENT AND COMPTROLLER)

SUBJECT: Audit Report on Defense Base Realignment and Closure Budget Data for the Realignment of Grissom Air Reserve Base, Indiana
(Report No. 97-139)

We are providing this audit report for your review and comment. This report is one in a series about FY 1997 Defense base realignment and closure military construction costs. Management comments on the draft of this report were considered in preparing the final report.

DoD Directive 7650.3 requires that all recommendations and potential monetary benefits be resolved promptly. The Under Secretary of Defense (Comptroller) did not submit comments on the draft report. We request that the Air Force reconsider its position on Recommendation 2.a. Comments on the final report from the Under Secretary of Defense (Comptroller) and the Air Force should be received by June 2, 1997.

We appreciate the courtesies extended to the audit staff. Questions on the audit should be directed to Mr. Joseph P. Doyle, Audit Program Director, at (703) 604-9348 (DSN 664-9348) or Ms. Deborah L. Culp, Audit Project Manager, at (703) 604-9335 (DSN 664-9335). See Appendix F for the report distribution. The audit team members are listed inside the back cover.

David K. Steensma

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Office of the Inspector General, DoD

Report No. 97-139
(Project No. 7CG-5002.14)

May 2, 1997

Defense Base Realignment and Closure Budget Data for the Realignment of Grissom Air Reserve Base, Indiana

Executive Summary

Introduction. This report is one in a series about FY 1997 Defense base realignment and closure military construction costs. This report discusses one FY 1997 project and one FY 1996 project. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, directs the Secretary of Defense to ensure that the amount of the authorization that DoD requested for each military construction project associated with Defense base realignment and closure does not exceed the original estimated cost provided to the Commission on Defense Base Closure and Realignment (the Commission). If the requested budget amounts exceed the original project cost estimates provided to the Commission, the Secretary of Defense is required to explain to Congress the reasons for the differences. The Office of the Inspector General, DoD, is required to review each Defense base realignment and closure military construction project for which a significant difference exists from the original cost estimate and to provide the results of the review to the congressional Defense committees. We expanded our audit to include all projects valued at more than $1 million.

Audit Objectives. The overall audit objective was to determine the accuracy of Defense base realignment and closure military construction budget data. This report provides the results of the audit of two projects, totaling $2.45 million, for the realignment of Grissom Air Reserve Base, Indiana. The two projects were originally included in the FY 1995 Defense base realignment and construction military construction budget and were among the eight projects covered in a 1995 Inspector General, DoD, report on the realignment. These two projects were also covered, one as an FY 1996 Defense base realignment and construction project and the other as an FY 1997 Defense base realignment and construction project, in a 1996 Inspector General, DoD, report on the realignment.

Audit Results. The Air Force could not fully support the estimated costs for either of the projects for the realignment of Grissom Air Reserve Base, Indiana. As a result, the $2.45 million funding requests for projects CTGC939001, "Base Boundary Fence/Main Gate," and CTGC959019, "Munitions Storage and Small Arms Range," were overstated by $369,000 and $194,000, respectively.

See Part I for a discussion of the audit results. See Appendix E for a summary of partially valid requirements for the projects we reviewed.

Summary of Recommendations. We recommend that the Under Secretary of Defense (Comptroller) remove project CTGC939001 from administrative withhold and release $731,000 for use on this project and remove project CTGC959019 from administrative withhold and release $1.156 million for use on this project. We also recommend that the Under Secretary of Defense reduce the FY 1996 Base Realignment and Closure

Military Construction budget by $369,000 and the FY 1997 Base Realignment and Closure Military Construction budget by $194,000. We recommend that the Air Force revise budget estimates and submit revised DD Form 1391, "FY 1996 Military Construction Project Data," for project CTGC939001 and a revised DD Form 1391, "FY 1997 Military Construction Project Data," for project CTGC959019.

Management Comments. The Under Secretary of Defense (Comptroller) did not provide comments on the report. The Air Force partially concurred with the recommendation to revise the budget estimates and to submit a revised DD Form 1391, "FY 1996 Military Construction Project Data," for project CTGC939001, "Base Boundary Fence/Main Gate." The Air Force concurred with reducing the amount of fencing required; the fence's cost per unit; and the escalation, overhead, and profit factors. However, the Air Force believes there would be no cost benefits in soliciting separate contracts for the fencing and the main gate portions of the project. Further, the Air Force disagreed with reducing the scope of the main gate portion of the project. The Air Force agreed to revise the budget estimates and submitted a revised DD Form 1391, "FY 1997 Military Construction Project Data," for project CTGC959019, "Munitions Storage and Small Arms Range." See Part I for a discussion of the management comments and Part III for the complete text of the comments.

Audit Response. We maintain that the fence and main gate portions of project CTGC939001, "Base Boundary Fence/Main Gate," do not need to be packaged together and that separate contracts for the fence and main gate would result in reduced costs. The Air Force has not justified the need to widen one of the roads leading to the relocated main gate and to relocate the utilities along the roadway. In addition, we maintain that the Air Force calculation of the cost of the scope reduction for the roadway is in error. We request comments from the Under Secretary of Defense (Comptroller) and the Department of the Air Force on the unresolved issues by June 2, 1997.

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Part I - Audit Results

Audit Background

The Office of the Inspector General, DoD, is performing various audits of the Defense base realignment and closure (BRAC) process. This report is one in a series about FY 1997 BRAC military construction (MILCON) costs.

This report provides the results of the audit of two BRAC MILCON projects for the realignment of Grissom Air Reserve Base, Indiana. The projects were previously included in the FY 1995 BRAC MILCON budget and were among the eight projects covered in Inspector General, DoD, Report No. 95-289, "Defense Base Realignment and Closure Budget Data for the Realignment of Grissom Air Reserve Base, Indiana," August 8, 1995. The report states that the estimated cost of $3.4 million for projects CTGC939001 and CTGC959019 contained overstated and unsupported requirements totaling $1.7 million. The report recommended that the Air Force revise and resubmit DD Forms 1391, "FY 1995 Military Construction Project Data," for all eight projects for the realignment of Grissom Air Reserve Base, Indiana. Project CTGC939001 was resubmitted as an FY 1996 BRAC MILCON project, and project CTGC959019 was resubmitted as an FY 1997 BRAC MILCON project. These two projects were among the projects covered in Inspector General, DoD, Report No. 96-144, "Defense Base Realignment and Closure Budget Data for the Realignment of Grissom Air Reserve Base, Indiana," June 6, 1996. The report states that the estimated cost of $2.1 million for projects CTGC939001 and CTGC959019 was unsupported. The report recommended that the Air Force revise and resubmit DD Forms 1391 for the projects.

For additional information on the BRAC process and the overall scope of the audit of BRAC MILCON costs, see Appendix B. Appendixes C and D contain our revised cost estimates of projects CTGC939001 and CTGC959019, respectively. See Appendix E for a summary of invalid and partially valid requirements for the projects reviewed.

Audit Objectives

The overall audit objective was to determine the accuracy of BRAC MILCON budget data. The specific objectives were to determine whether the proposed projects were valid BRAC requirements, whether the decision for MILCON was supported with required documentation to include an economic analysis, and whether the economic analysis considered existing facilities. Another objective was to assess the adequacy of the management control program as it applied to the overall audit objective.

The following table describes the projects reviewed and their budget amounts.

BRAC MILCON Projects Reviewed

Project Number	Location	Project Year	Description	DD Form 1391 Amount (millions)
CTGC939001	Grissom ARB*	FY 1996	Base Boundary Fence/ Main Gate	$1.10
CTGC959019	Grissom ARB*	FY 1997	Munitions Storage and Small Arms Range	1.35
Total				**$2.45**

*Air Reserve Base

See Appendix A for a discussion of the scope and methodology. The management control program objective will be discussed in a summary report on FY 1997 BRAC MILCON budget data.

Realignment Projects

The Air Force did not fully support the cost estimates for projects CTGC939001, "Base Boundary Fence/Main Gate" and CTGC959019, "Munitions Storage and Small Arms Range," for realigning Grissom Air Reserve Base, Indiana. The cost estimates were not fully supported because the Air Force had overstated fencing requirements and estimated costs. Home office, profit, and escalation factors were also overstated. In addition, the Air Force included unnecessary site work associated with the relocation of the main gate. As a result, the cost estimates totaling $2.45 million for the two projects for the base realignment were overstated by $563,000.

Proposed Projects for the Air Reserve Base Realignment

As a result of decisions made by the BRAC Commission, Grissom Air Force Base was realigned as an Air Reserve Base in September 1994. The configuration of the former Air Force Base must be reduced to fit, to the maximum extent possible, within the confines of the cantonment area of the Air Reserve Base. All property outside the cantonment area is to be disposed of. Some functions located outside the cantonment area but retained by the Air Reserve Base must be relocated within the cantonment area. Also, most of the cantonment area must be fenced to provide security for the Air Reserve Base. The Air Force prepared DD Forms 1391 for the following projects:

- CTGC939001, "Base Boundary Fence/Main Gate," valued at $1.1 million, to construct a new main gate and perimeter fence; and

- CTGC959019, "Munitions Storage and Small Arms Range," valued at $1.35 million, to construct a new munitions storage area and firing range.

Project CTGC939001 is an FY 1996 BRAC project, and project CTGC959019 is an FY 1997 BRAC project.

Project Cost Estimates

The Air Force overstated the cost estimates for the two projects remaining for the realignment of Grissom Air Force Base to Grissom Air Reserve Base, Indiana.

Project CTGC939001. The Air Force could not fully support about $369,000 of the cost estimates for project CTGC939001, "Base Boundary Fence/Main Gate." Fencing requirements for the cantonment area and the cost of the fencing were overstated. The scope of the construction for the proposed main

gate portion of the project included excessive requirements. Further, the project cost estimate, prepared by the U.S. Army Corps of Engineers, Louisville District (Corps of Engineers), contained excessive contractor home office costs, profit, and escalation. The current DD Form 1391 shows a cost of $1.1 million and should be adjusted for the difference in the unnecessary costs and excessive rates to about $731,000. Appendix C shows our calculation of the estimated cost on this project, $730,613. The difference ($369,000) between the amount shown on the DD Form 1391 and our cost estimate for this project should be released and used to fund other base realignment and closure projects.

Fencing. The Air Force could not support the amount and cost of fencing included in the current DD Form 1391. The DD Form 1391 includes 12,656 lineal feet of fencing. We estimated, based on current site plans, that only 11,700 lineal feet of fencing is required. In addition, the 95-percent site plan stated that the cost per lineal foot of fencing is $22.40, which is excessive, because the Corps of Engineers project manager provided us with a current cost estimate of $12.50 per lineal foot of fencing. The amount and cost of fencing should be adjusted to reflect the accurate amounts.

The Corps of Engineers cost estimate for the project includes excessive contractor costs. The Corps of Engineers cost estimate for the project indicated that all fencing work would be done by a subcontractor. As a result, the cost estimate contained both subcontractor and prime contractor field overhead, home office expense, and profit. We believe that the fencing work should be awarded as a separate contract to avoid duplicate contractor costs and that the cost estimate should reflect the elimination of one set of contractor costs.

Main Gate. The Air Force included $139,073 of unnecessary direct site costs in its projected direct costs for the construction of the main gate. The Grissom Reuse Authority requested that the Air Force widen Foreman Drive, north of the current proposed main gate location. The Grissom Reuse Authority requested this improvement so commercial trucks could pass through the cantonment area to a hanger that the Grissom Reuse Authority controls. The section of Foreman Drive to be widened is entirely within the Air Reserve Base cantonment area. The hanger controlled by the Grissom Reuse Authority is outside the cantonment area and is accessible without going through Government property. The cost to widen this road, to include demolition, site preparation, direct materials, and the relocation of existing utilities, is about 48 percent of the total direct site cost for the main gate project. The cost to widen Foreman Drive and relocate the utilities is an unnecessary expense, and commercial vehicles should not be allowed to pass through the Air Reserve Base cantonment area when other suitable access is available. Further, the Grissom Reuse Authority should not dictate construction requirements on Government property. The Air Force should eliminate $139,073 (plus overhead and profit) of unnecessary direct site costs for the construction of the main gate.

Construction Cost Factors. The Corps of Engineers cost estimate included overstated contractor home office, profit, and cost escalation factors. The complexity and magnitude of the fence and main gate project is comparable

to project CTGC959019, "Munitions Storage and Small Arms Range." Therefore, the same contractor home office, profit, and cost escalation factors should be applied to both projects.

Project CTGC959019. The Air Force could not fully support about $194,000 of the cost estimates for project CTGC959019, "Munitions Storage and Small Arms Range." The $1.35 million on the current DD Form 1391 does not agree with the Corps of Engineers cost estimate, $1.156 million, for the project. In addition, the project manager indicated that the escalation factor used in the original estimate, 7.43 percent, should be 4.3 percent. We do not take exception to any other cost factors in the Corps of Engineers cost estimate for this project. The current DD Form 1391 should be revised to indicate $1.156 million as a total cost of this project. Appendix D shows our calculation of the estimated cost of this project. The difference ($194,000) between the amount shown on the DD Form 1391 and our cost estimate of this project should be released and used to fund other base realignment and closure projects.

Conclusion

The Air Force should reduce project CTGC939001 for Grissom Air Reserve Base by $369,000. The Air Force should prepare a revised DD Form 1391 for project CTGC939001 that reflects accurate fencing requirements and costs and eliminates unnecessary site work associated with the relocation of the main gate. Further, the Air Force should reduce project CTGC959019 for Grissom Air Reserve Base by $194,000. The Air Force should prepare a revised DD Form 1391 for project CTGC959019 that reflects accurate project costs.

Recommendations, Management Comments, and Audit Response

1. We recommend that the Under Secretary of Defense (Comptroller):

a. Remove project CTGC939001, "Base Boundary Fence/Main Gate," from administrative withhold and release $731,000 for use on this project, and release the remaining $369,000 to fund other base realignment and closure projects.

b. Remove project CTGC959019, "Munitions Storage and Small Arms Range," from administrative withhold and release $1,156,000 for use on this project, and release the remaining $194,000 to fund other base realignment and closure projects.

Under Secretary of Defense (Comptroller) Comments. The Under Secretary of Defense (Comptroller) did not provide comments on the draft report.

Audit Response. We request that the Under Secretary of Defense (Comptroller) provide comments in response to the final report.

2. We recommend that the Chief, Air Force Reserve:

a. Revise budget estimates and submit a revised DD Form 1391, "FY 1996 Military Construction Project Data," that reflects valid requirements and costs for project CTGC939001, "Base Boundary Fence/Main Gate."

Department of the Air Force Comments. The Air Force partially concurred. The Air Force submitted a revised DD Form 1391, "FY 1997 Military Construction Project Data," for project CTGC939001 for $880,000, eliminating the excess fencing and reducing the per unit cost for the fencing. The Air Force agreed to reduce the escalation factor and to change the overhead and profit factors. The Air Force did not agree that it should pursue separate contracts for the fence and gate portions of the project. Separate contracts would result in $50,000 in redesign and readvertising costs. Also, the Air Force did not agree with reducing the scope for the main gate portion of the project and stated that if the scope was reduced, only $40,000 should be removed from the project rather than $139,073 (plus overhead and profit) as shown in the report.

Audit Response. Although the Air Force agreed to change the overhead and profit factors to 9 percent each, those factors were not used in developing the amounts for the original DD Form 1391 and were not discussed in the report. The Air Force did not support its position that the fence and main gate portions of the project were envisioned and designed to be packaged together. Grissom Air Reserve Base personnel informed us that 2,700 lineal feet of the total 11,700 lineal feet of fencing required will be covered by a separate contract administered by Grissom Air Reserve Base and would not be included in the larger fencing and main gate contract. Further, the boundary fence and the main gate are two separate and distinct portions of the one project, as are the designs and specifications. We disagree that separate contracts for this project would cause substantial redesign costs. The Air Force did not provide documentation to show the need for widening one of the roads leading to the relocated main gate and for relocating utilities along the roadway. We agree that the Corps of Engineers estimated costs associated with widening the road for the main gate portion of the project, which we used in the report, may be overstated. However, the Air Force calculation of cost benefits associated with this reduced scope of the project did not take into consideration the costs of demolishing the existing roadway, removing trees, or relocating utilities. In addition, the Air Force furnished two versions of its calculations of cost benefits that contained differing add-on factors and differing rates. We maintain that the scope of the construction for the main gate is excessive and that the Air Force should reduce the scope of the project and its related costs by $139,073 (plus overhead and profit). Therefore, we request that the Air Force reconsider its position and provide additional comments in response to the final report.

b. Revise budget estimates and submit a revised DD Form 1391, "FY 1997 Military Construction Project Data," that reflects valid requirements and costs for project CTGC959019, "Munitions Storage and Small Arms Range."

Department of the Air Force Comments. The Air Force revised DD Form 1391, "FY 1997 Military Construction Project Data," for project CTGC959019.

Part II - Additional Information

Appendix A. Scope and Methodology

Scope of the Audit. We examined the FYs 1996 and 1997 BRAC MILCON budget requests for two projects for the realignment of Grissom Air Reserve Base, Indiana: project CTGC939001, "Base Boundary Fence/Main Gate," valued at $1.1 million and project CTGC959019, "Munitions Storage and Small Arms Range," valued at $1.35 million. Project CTGC939001 is an FY 1996 BRAC MILCON project, and project CTGC959019 is an FY 1997 BRAC MILCON project.

Audit Period, Standards, and Locations. This economy and efficiency audit was performed from January through February 1997 in accordance with auditing standards issued by Comptroller General of the United States as implemented by the Inspector General, DoD. The audit did not rely on computer-processed data or statistical sampling procedures.

Organizations Visited or Contacted. We visited or contacted individuals and organizations within the DoD and individuals from Barge, Waggoner, Sumner, and Cannon, the architect/engineering firm for project CTGC939001. Further details are available upon request.

Prior Audits and Other Reviews. Three summary reports have been issued for the audits of BRAC budget data for FYs 1992 through 1996. The summary reports list individual projects. Since April 1996, numerous additional reports have been issued that address DoD BRAC budget data for FYs 1997 and 1998. Details on the reports are available upon request.

Appendix B. Background of Defense Base Realignment and Closure and Scope of the Audit of FY 1997 Defense Base Realignment and Closure Military Construction Costs

Commission on Defense Base Closure and Realignment. On May 3, 1988, the Secretary of Defense chartered the Commission on Defense Base Closure and Realignment (the Commission) to recommend military installations for realignment and closure. Congress passed Public Law 100-526, "Defense Authorization Amendments and Base Closure and Realignment Act," October 24, 1988, which enacted the Commission's recommendations. The law also established the Defense Base Closure Account to fund any necessary facility renovation or MILCON projects associated with BRAC. Public Law 101-510, "Defense Base Closure and Realignment Act of 1990," November 5, 1990, reestablished the Commission. The law also chartered the Commission to meet during calendar years 1991, 1993, and 1995 to verify that the process for realigning and closing military installations was timely and independent. In addition, the law stipulates that realignment and closure actions must be completed within 6 years after the President transmits the recommendations to Congress.

Required Defense Reviews of BRAC Estimates. Public Law 102-190, "National Defense Authorization Act for Fiscal Years 1992 and 1993," December 5, 1991, states that the Secretary of Defense shall ensure that the authorization amount that DoD requested for each MILCON project associated with BRAC actions does not exceed the original estimated cost provided to the Commission. Public Law 102-190 also states that the Inspector General, DoD, must evaluate significant increases in BRAC MILCON project costs over the estimated costs provided to the Commission and send a report to the congressional Defense committees.

Military Department BRAC Cost-Estimating Process. To develop cost estimates for the Commission, the Military Departments used the Cost of Base Realignment Actions computer model. The Cost of Base Realignment Actions computer model uses standard cost factors to convert the suggested BRAC options into dollar values to provide a way to compare the different options. After the President and Congress approve the BRAC actions, DoD realigning activity officials prepare a DD Form 1391, "FY 1997 Military Construction Project Data," for each individual MILCON project required to accomplish the realigning actions. The Cost of Base Realignment Actions computer model provides cost estimates as a realignment and closure package for a particular realigning or closing base. The DD Form 1391 provides specific cost estimates for an individual BRAC MILCON project.

Limitations and Expansion to Overall Audit Scope. Because the Cost of Base Realignment Actions computer model develops cost estimates as a BRAC package and not for individual BRAC MILCON projects, we were unable to determine the amount of cost increases for each individual BRAC MILCON

project. Additionally, because of prior audit efforts that determined potential problems with all BRAC MILCON projects, our audit objectives included all large BRAC MILCON projects.

Overall Audit Selection Process. We reviewed the FY 1997 BRAC MILCON $820.8 million budget submitted by the Military Departments and the Defense Logistics Agency. We excluded projects that were previously reviewed by DoD audit organizations. We grouped the remaining BRAC MILCON projects by location and selected groups of projects that totaled at least $1 million for each group. We also reviewed those FY 1996 BRAC MILCON projects that were not included in the previous FY 1996 budget submission, but were added as part of the FY 1997 BRAC MILCON budget package.

Appendix C. Our Revised Cost Estimate of the Base Boundary Fence/Main Gate Project

This table shows how we determined the revised cost estimate of the project. The support for specifics of the data is denoted where applicable.

				Notes
Boundary Fence				
Direct Cost				
Fencing Cost	$146,250			1
Corner Post Cost	5,700			2
Gates and Miscellaneous Costs	32,329			3
Total		**$184,279**		
Contractor Cost Loadings				
Field Office Overhead	$27,642			4
Home Office Overhead	6,358			5
Profit	15,552			6
Escalation	3,770			7
Total		**$ 53,322**		8
Total Fence Cost			**$237,601**	
Main Gate and Site Costs				
Direct Cost and Field Overhead	$523,875			
Less: Foreman Drive Cost	159,934			9
Total		**$363,941**		
Contractor Cost Loadings				
Home Office Overhead	$10,918			10
Profit	26,709			11
Escalation	17,267			12
Total		**$ 54,894**		
Total Main Gate Cost			**$418,835**	
U.S. Army Engineer District, Louisville Loadings			74,177	13
Revised Estimated Project Cost			**$730,613**	

1. The DD Form 1391 for this project indicates that 3,850 lineal meters (12,656 feet) of fencing is needed for the project. The site plan for the cantonment area indicates that 11,700 feet of fencing is needed to secure the runway and building 563. The project manager stated that the direct cost of fencing is $12.50 per lineal foot. We estimated the cost of fencing to be 11,700 feet x $12.50, or $146,250.

2. The fencing project requires 38 end and corner posts. The project manager stated that the installation cost of end and corner posts is $150.00 each. We estimated the cost for the posts for this project to be 38 x $150, or $5,700.

3. The Corps of Engineers cost estimate indicates that the direct cost of gates and other miscellaneous costs for fencing will be $32,329. We do not take exception to these costs.

4. The Corps of Engineers cost estimate includes both subcontractor and prime contractor field overhead, home office expense, and profit for all fencing needed. It is our opinion that, if the prime contractor is not going to perform any work on the fencing, the work should be contracted separately and, therefore, our calculations allow only one set of contractor loadings.

5. We did not take exception to the field overhead rate of 15 percent of direct cost in the engineer cost estimate. The calculation is as follows: $184,279 x .15, or $27,642.

6. The Corps of Engineers cost estimate included home office overhead at 10 percent of direct cost. However, the home office overhead rate used for project CTGC959019, "Munitions Storage and Small Arms Range," is 3 percent of direct cost plus field office overhead. We do not consider these two projects to be significantly different in magnitude and complexity; therefore, we used 3 percent for the home office overhead rate. The calculation is as follows: ($184,279 + $27,642) x .03, or $6,358.

7. The Corps of Engineers cost estimate included profit at 10 percent of direct cost plus field and home office overheads. However, the profit rate used for project CTGC959019, "Munitions Storage and Small Arms Range," is 7.125 percent of direct cost plus field and home office overhead. We do not consider these two projects to be significantly different in magnitude and complexity; therefore, we used 7.125 percent for the profit rate. The calculation is as follows: ($184,279 + $27,642 + $6,358) x .07125, or $15,552.

8. In January 1997, the project manager furnished us with current fence and post costs and stated that the correct escalation of the costs to the mid-point of construction, October 1997, should be 1.61 percent. The calculation is as follows: ($184,279 + $27,642 + $6,358 + $15,552) x .0161, or $3,770.

9. We excluded the direct cost and field overhead related to the widening of Foreman Drive and the relocation of the utilities near the road. The Grissom Redevelopment Authority requested this work inside the cantonment area so that commercial vehicles can have access to a former hanger that is now outside the cantonment area. Access to this hanger is available by other roads; it is not necessary for commercial vehicles to pass through the Air Reserve Base to get to the hanger. We consider this construction unnecessary for the project. The cost of the widening was calculated by the project manager.

10. Similar to Note 6, we used 3 percent as an appropriate home office overhead rate. The calculation is as follows: $363,941 x .03, or $10,918.

11. Similar to Note 7, we used 7.125 percent as an appropriate profit rate. The calculation is as follows: ($363,941 + $10,918) x .07125, or $26,709.

Appendix C. Our Revised Cost Estimate of the Base Boundary Fence/Main Gate Project

12. The project manager indicated that the escalation rate used in the engineer cost estimate was excessive. The project manager stated that the correct escalation factor for the main gate and site costs should be 4.3 percent. We calculated the escalation as follows: ($363,941 + $10,918 + $26,709) x .043, or $17,267.

13. The Corps of Engineers includes 5 percent contingency and 6 percent supervision, inspection, and overhead on contract costs for all projects that it manages. We calculated the Corps of Engineers cost loadings as follows:

Total Estimated Fencing Cost	$237,601
Total Estimated Main Gate and Site Cost	418,835
Subtotal	$656,436
Contingency ($656,436 x .05)	32,822
Subtotal	689,258
Supervision ($689,258 x .06)	41,355
Total Cost Loadings	**$ 74,177**

Appendix D. Our Revised Cost Estimate of the Munitions Storage and Small Arms Range

This table shows how we determined the revised cost estimate of project CTGC959019. The support for specifics of the data is denoted where applicable.

Munitions Storage and Small Arms Range

			Notes
Direct Costs and Estimated Contractor Overheads and Profit	$1,250,616		
Less: Combat Arms Training Facility	255,102		1
Adjusted Contractor Costs		**$995,514**	
Escalation		42,807	2
Total Contractor Cost		**$1,038,321**	
U.S. Army Corps of Engineers Cost Loadings		117,330	3
Revised Estimated Project Cost		**$1,155,651**	

1. The Corps of Engineers cost estimate for project CTGC959019 contained costs for a combat arms training facility that was not included on the DD Form 1391 submitted for this project. Other than the costs for the combat arms training facility, we did not take exception to the direct costs of the other line items, the field and home office overhead rates used, or the profit factor used to determine the estimated costs for this project. The cost of the combat arms training facility including field and home office overhead and profit is $255,102.

2. The project manager indicated that the escalation rate used in the engineer cost estimate was excessive and should be 4.3 percent. We calculated the escalation as follows: $995,514 x .043, or $42,807.

3. The Corps of Engineers includes 5 percent contingency and 6 percent supervision, inspection, and overhead on contract costs for all projects that it manages. We calculated the Corps of Engineers cost loadings as follows:

Total Estimated Project Cost	$1,038,321
Contingency ($1,038,321 x .05)	51,916
Subtotal	$1,090,237
Supervision ($1,090,237 x .06)	65,414
Total Cost Loadings	**$ 117,330**

Appendix E. Projects Identified as Invalid or Partially Valid

Table E-1. Causes of Invalid or Partially Valid Projects

Project Location	Project Number	Causes of Invalid Projects		Causes of Partially Valid Projects	
		Overstated	Unsupported	Overstated	Unsupported
Base Boundary Fence/ Main Gate	CTGC939001			X	
Munitions Storage and Small Arms Range	CTGC959019			X	

Table E-2. Recommended Changes in Project Estimates

Project Location	Project Number	Amount of Estimate on DD Form 1391 (thousands)	Recommended Amount of Change	
			Invalid Projects (thousands)	Partially Valid Projects (thousands)
Base Boundary Fence/ Main Gate	CTGC939001	$ 1,100		$ 369
Munitions Storage and Small Arms Range	CTGC959019	1,350		194
Total		**$2,450**		**$ 563**

Total Invalid and Partially Valid Projects **$ 563**

Appendix F. Report Distribution

Office of the Secretary of Defense

Under Secretary of Defense for Acquisition and Technology
  Director, Defense Logistics Studies Information Exchange
Under Secretary of Defense (Comptroller)
  Deputy Chief Financial Officer
  Deputy Comptroller (Program/Budget)
Deputy Under Secretary of Defense (Industrial Affairs and Installations)
  Principal Assistant Deputy Under Secretary of Defense (Industrial Affairs and Installations)
Assistant Secretary of Defense (Public Affairs)

Department of the Army

Auditor General, Department of the Army
Commander, U.S. Army Engineers District, Louisville

Department of the Navy

Assistant Secretary of the Navy (Financial Management and Comptroller)
Auditor General, Department of the Navy

Department of the Air Force

Assistant Secretary of the Air Force (Financial Management and Comptroller)
Assistant Secretary of the Air Force (Manpower, Reserve Affairs, Installations, and Environment)
  Deputy Assistant Secretary of the Air Force (Installations), Base Transition Division
Deputy Chief of Staff Plans and Operations
Chief, Air Force Reserve
  Commander, Air Force Reserve
    Commander, 434th Air Refueling Wing
Auditor General, Department of the Air Force

Other Defense Organizations

Director, Defense Contract Audit Agency
Director, Defense Logistics Agency
Director, National Security Agency
  Inspector General, National Security Agency
Inspector General, Defense Intelligence Agency

Non-Defense Federal Organizations and Individuals

Office of Management and Budget
Technical Information Center, National Security and International Affairs Division, General Accounting Office

Chairman and ranking minority member of each of the following congressional committees and subcommittees:

Senate Committee on Appropriations
Senate Subcommittee on Defense, Committee on Appropriations
Senate Subcommittee on Military Construction, Committee on Appropriations
Senate Committee on Armed Services
Senate Committee on Governmental Affairs
House Committee on Appropriations
House Subcommittee on Military Construction, Committee on Appropriations
House Subcommittee on National Security, Committee on Appropriations
House Committee on Government Reform and Oversight
House Subcommittee on Government Management, Information, and Technology, Committee on Government Reform and Oversight
House Subcommittee on National Security, International Affairs, and Criminal Justice, Committee on Government Reform and Oversight
House Committee on National Security

Part III - Management Comments

Department of the Air Force Comments

DEPARTMENT OF THE AIR FORCE
WASHINGTON, DC

Office of the Assistant Secretary

3 MAR 1997

MEMORANDUM FOR THE ASSISTANT INSPECTOR GENERAL FOR AUDITING
OFFICE OF THE INSPECTOR GENERAL
DEPARTMENT OF DEFENSE

FROM: SAF/MIIT
1660 Air Force Pentagon
Washington, DC 20330-1660

SUBJECT: Draft Audit Report on Defense Base Realignment and Closure Budget Data for the Realignment of Grissom ARB, IN (Project 7CG-5002.14)

This is in reply to your memorandum requesting the Assistant Secretary of the Air Force (Financial Management and Comptroller) provide Air Force comments on the subject report.

Your first recommendation is to remove project CTGC939001, "Base Boundary Fence/Main Gate" from administrative withhold and release $731K of the $1.1M PA. We PARTIALLY CONCUR with this recommendation. We support the project's immediate release from withhold and request that $731K be released now for funding. However, we believe that the amount of funds ultimately released should be increased to $880K and seek your support in releasing the balance of $149K. The project requires an increased release amount for the following reasons:

Your recommendation to reduce the scope by removing the portions of the project, saving 139K in direct costs, appears to be a misinterpretation of the architect and engineer's (A&E) design rendering and subsequent calculation. The $139K figure quoted represents the value of all road improvements in the vicinity of the gate and not just that associated with Grissom Reuse Authority's (GRA) access to Hangar 200. Scope elimination would leave just the gatehouse and associated fencing as the only work necessary in the vicinity of the intersection which essentially would have the effect of placing a gate on an unimproved and already overburdened intersection. The scope of work attributable to GRA's requirements is approximately $40K as supported by the accompanying A&E estimate at Attachment 1. Therefore, if a scope reduction were to be taken, only $40K in direct costs should be removed from the project.

For the fence portion: There are no cost savings in pursuing separate contracts for the fence and gate portions of this project. The project was envisioned and designed to be packaged together. Historical experience shows that developing a separate project would require approximately $50K in redesign and readvertizing costs. Maximum savings assumed by eliminating a potential subcontractor would be at most $35K. Under the most optimistic of conditions, such action would cost more. Additionally, funds must be obligated on this project by Jul 97, meaning that there is a narrow window to repackage and award which may be met only through increased design effort, resulting in higher costs. This avenue would be more costly and would not be responsive to obligation authority.

For the gate portion: Regardless of routes taken by traffic using GRA facilities, the Foreman/Hoosier Road intersection and gate area requires widening in order for any traffic to flow

through it with any reasonable degree of success. As is presently configured without a gate at the intersection, turns by most vehicles are impaired, which is why project scope can not be reduced by $139K as you recommended. Additionally, providing a lane for the GRA's use would enhance traffic flow through the Air Force Reserve gate thereby benefiting both parties. It is Air Force policy to facilitate installation reuse to the maximum extent possible which road widening would do for the GRA. Such action is not without precedent within the BRAC program. Claiming that intersection improvements are solely for the benefit of the GRA is not completely correct and proposed reductions would hamper traffic flow at the intersection.

We do concur with the recommendations to reduce the amount of lineal feet of fencing required as well as reducing the fence's cost per unit. We also concur with the reduction of the escalation factor to 4.3% and a change in overhead and profit factors to 9% mirroring the factors used in developing other Grissom ARB projects. A revised DD 1391 supporting your recommended release amount and our additional release amount of 149K is at Attachment 2.

Your second recommendation is to remove project CTGC959019, "Munitions Storage and Small Arms Range" from administrative withhold and release $1.156M of the $1.35M PA. We CONCUR. Even though contractor's estimates from solicitation for the same scope of work is higher than your recommendation, a revised DD 1391 reflecting the recommendation (rounded) is at Attachment 3.

Request you release funds on both projects as described in your report and consider revising the recommended release amount on the "Base Boundary Fence/Main Gate" project by at least $149K after initial amount is released. Please contact Mr Schauer or Major Bailey at 687-6559 should you have any questions.

RAYMOND A. NEALL, Jr., Lt Col, USAF
Chief, Base Transition Division

Attachments:
1. A&E Statement- Fence/Gate
2. DD 1391- Fence/Gate
3. DD 1391- Munitions

MAR. 24. 1997 5:15PM BARG, WAGGON, SUM, CANN NO. 795 P. 7/8

BY JAP DATE 2/25/97 SUBJECT GRISSOM AFB SHEET NO. 1 OF 2

CHKD. BY ____ DATE ____ INTERSECTION COST SVGS JOB NO. 19052-03

February 25, 1997
19052-03

Memo: Grissom AFB, Main Gate House

To: Tom Riddle, COE (1-502-582-6763)

From: Jack Putnam, PWSC

Topic: Cost Savings, Intersection

Tom-

I reran the numbers due to our discussions over the past couple of days and the auditor's sketch which indicates the basic intersection design remaining intact but eliminating the left turn lane from Foreman onto Hoosier. This has an affect of not widening Foreman and resulting in some cost savings. Per our discussion yesterday (2/24/97), I will assume no new work beyond station 1+20 on Foreman going north.

A. Cost savings due to the intersection change

1. Site work

a. Curb

800 ft x $7.00 = $5600.00

b. Gas Piping

200 ft x $8.00 = 1600.00

c. Catch Basins

4 x $350 = 1200.00

d. Storm Piping

65 ft. x $17.00 = 1105.00

2. Asphalt Paving

10,000 ft² x $1.50 = 15,000.00

BARGE, WAGGONER, SUMNER AND CANNON

MAR-25-1997 12:59 912 327 0108 P.001

Atch 1

MAR. 24. 1997 5:15PM BARG, WAGGN, SUM, CANN NO. 795 P. 8/8

BY JAP DATE 3/25/97 SUBJECT GRISSOM AFB SHEET NO. 2 OF 2

CHKD. BY ____ DATE ____ INTERSECTION COST SUGS JOB NO. 19032-03

f. Electric

3 light poles, wiring, etc.	6000.00
Subtotal	30,505.00
15% Field Overhead	x 1.15
Subtotal	35,080.75
3% Home Office	x 1.03
Subtotal	36,133.17
7.125% Profit	x 1.07125
Subtotal	38,707.66
1.61% Escalation	x 1.0161
Total	$ 39,330.85

I hope this gives you the numbers that you need at this time. If you have any further questions please do not hesitate to call.

BARGE, WAGGONER, SUMNER AND CANNON

MAR-25-1997 12:59 912 327 0108 P.002

Revised A&E Calculation Based On IG Recommended Planning/Construction Factors

Subtotal (from previous page)	30,505.00
9% Overhead	X 1.09
	33,250
9% Profit	X 1.09
	36,243.00
4.3% Escalation	X 1.043
	37,800.00

∴ Project reduction revised to

34K

1. COMPONENT	FY 1997 MILITARY CONSTRUCTION PROJECT DATA (computer generated)	2. DATE
USAFR		

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
GRISSOM AIR FORCE BASE, INDIANA	BASE CLOSURE-BASE BOUNDARY FENCE/MAIN GATE

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST($000)
5.53.96	872-245	CTGC939001	880

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
BASE CLOSURE-BASE BOUNDARY FENCE/MAIN GATE	LS			337
FENCING, 8 FOOT	LM	3,600	52	(187)
MAIN GATE ENTRY AND GATEHOUSE	SM	25	6,000	(150)
SUPPORTING FACILITIES				455
PAVEMENTS	SM	2,500	88	(220)
SITE IMPROVEMENTS	LS			(150)
UTILITIES	LS			(85)
SUBTOTAL				792
CONTINGENCY (5%)				40
TOTAL CONTRACT COST				832
SUPERVISION, INSPECTION AND OVERHEAD (6%)				50
TOTAL REQUEST				882
TOTAL REQUEST (ROUNDED)				880

10. Description of Proposed Construction: Construct a new gatehouse facility to consist of reinforced concrete foundation and floor slab with compatible exterior finish. Replace and widen roadway at main entry point. Include metering, landscaping, 8 foot high fence with 3 strand barbed wire outrigger and other necessary support. Connect Mustang Ave to Foreman Ave and provide access road to parking lot at facility 563.

11. REQUIREMENT: As required.
PROJECT: Construction of a new main gate entry with gatehouse, perimeter and flightline security fencing.
REQUIREMENT: Closure of Grissom AFB requires a new cantonment area for the remaining reserve unit. Security fencing and access control are needed for security of the Reserve compound and unit mission aircraft.
CURRENT SITUATION: Grissom AFB provides base operating support to the assigned Reserve units. Following closure, the Reserve units will consolidate into a reduced area.
IMPACT IF NOT PROVIDED: Lack of access control will degrade security of the Reserve compound and endanger readiness of unit mission aircraft.
ADDITIONAL: Funding is to be provided from the Base Closure Account. There is no criteria/scope for this project in Part II of Military Handbook 1190, "Facilities Planning and Design Guide".

DD FORM 1391, DEC 76 Previous editions are obsolete. Page No

Atch 2

1. COMPONENT	FY 1997 MILITARY CONSTRUCTION PROJECT DATA (computer generated)	2. DATE
USAFR		

3. INSTALLATION AND LOCATION	4. PROJECT TITLE
GRISSOM AIR FORCE BASE, INDIANA	BASE CLOSURE - MUNITIONS STORAGE

5. PROGRAM ELEMENT	6. CATEGORY CODE	7. PROJECT NUMBER	8. PROJECT COST($000)
5.53.96F	422-264	CTGC959019	1,155

9. COST ESTIMATES

ITEM	U/M	QUANTITY	UNIT COST	COST ($000)
BASE CLOSURE - MUNITIONS STORAGE	LS			673
STORAGE IGLOO	SM	160	1,100	(176)
MUNITIONS MAINTENANCE FACILITY	SM	110	640	(70)
MUNITIONS STORAGE	SM	74	680	(50)
SMALL ARMS RANGE	FP	14	26,900	(377)
SUPPORTING FACILITIES				365
UTILITIES	LS			(210)
PAVEMENTS	LS			(105)
SITE IMPROVEMENTS	LS			(50)
SUBTOTAL				1,038
CONTINGENCY (5%)				52
TOTAL CONTRACT COST				1,090
SUPERVISION, INSPECTION AND OVERHEAD (6%)				65
TOTAL REQUEST				1,155

10. Description of Proposed Construction: Construct a 14 firing point small arms range with concrete baffles, bullet stops, firing platforms, range canopy, and control booths. Includes munitions storage complex consisting of a igloo, above ground magazine, and a maintenance facility. All access roads and utilities are included.
Air Conditioning: 10 KW.

11. REQUIREMENT: 14 SF ADEQUATE: 0 SUBSTANDARD: 0
PROJECT: Construct a new munitions storage and small arms rifle range within the cantonment area.
REQUIREMENT: Realignment of Grissom AFB into a new cantonment area. Provide safe and secure storage of various munition required to support the new mission. The facility will store and allow inspection of small arms, ammunition, grenades, and mortars.
CURRENT SITUATION: Currently the unit is using munitions storage facilities that are excessed and outside the cantonment area. No facilities exist inside the new cantonment area that can be altered for this requirement.
IMPACT IF NOT PROVIDED: The Reserve unit will not be able to store the munitions determined to be essential to the mission.
ADDITIONAL: Funding is to be provided from the Base Closure Account. There is no scope/criteria for this project in Part II of Military Handbook 1190, "Facilities Planning and Design Guide".

DD FORM 1391, DEC 76 Previous editions are obsolete. Page No

Atch 3

Audit Team Members

This report was prepared by the Contract Management Directorate, Office of the Assistant Inspector General for Auditing, DoD.

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