DEPARTMENT OF HOMELAND SECURITY

Office of Inspector General

Grand Forks Public School District
Grand Forks, North Dakota

FEMA Disaster Number DR-1174-ND

Dallas Field Office
Office of Audits

DD-10-06 **August 2006**

Office of Inspector General

U.S. Department of Homeland Security
Dallas Field Office, Office of Audits
3900 Karina Street, Room 224
Denton, Texas 76208

Homeland Security

August 25, 2006

MEMORANDUM FOR: Robert L. Flowers
Regional Director, FEMA Region VIII

Tonda L. Hadley

FROM: Tonda L. Hadley
Field Office Director

SUBJECT: *Grand Forks Public School District, Grand Forks, ND*
FEMA Disaster Number DR-1174-ND
Public Assistance Identification Number 000-91021
Audit Report Number DD-10-06

The Office of Inspector General audited public assistance funds awarded to Grand Forks Public School District, Grand Forks, ND, (GFPS). The objective of the audit was to determine whether GFPS accounted for and expended Federal Emergency Management Agency (FEMA) funds according to federal regulations and FEMA guidelines.

GFPS received an award of $46.5 million from the North Dakota Division of Emergency Management (NDDEM), a FEMA grantee, for damages caused by severe flooding, severe winter storms, heavy spring rain, rapid snowmelt, high winds, ice jams, and ground saturation due to high water tables during the period February 28, through May 24, 1997. The award provided 100 percent funding for emergency work (Category A - debris removal and Category B - emergency protective measures) and 90 percent funding for all other projects for permanent work. The award consisted of 55 large projects and 10 small projects.[1] The audit covered the period February 28, 1997, to April 3, 2002, during which GFPS claimed $46.5 million and NDDEM disbursed $42.9 million in direct program costs. We audited three large projects and one small project totaling $39.6 million or 85.1 percent of the total award (see Exhibit A).

We performed the audit under the authority of the Inspector General Act of 1978, as amended, and according to generally accepted government auditing standards. The audit included tests of GFPS's contracted Project Manager's accounting records, GFPS's accounting records, judgmental samples of project expenditures generally based on dollar value, and other auditing procedures considered necessary to accomplish the audit objective.

[1] Federal regulations in effect at the time of the disaster set the large project at $46,000.

RESULTS OF AUDIT

GFPS did not expend and account for FEMA funds according to federal regulations and FEMA guidelines. GFPS's claim included $27,396,148 ($24,656,533 FEMA share) of costs that the OIG questioned. The questioned costs consisted of costs to replace schools that should have been repaired ($23,745,386), unreasonable project management fees ($3,416,855), unsupported contract costs ($207,666), and duplicate administrative costs ($26,241). Further, GFPS did not follow federal procurement standards to contract for $5,321,074 of construction management services. As a result, full and open competition did not occur, and FEMA has no assurance that contract costs claimed were fair and reasonable.

Finding A: Schools Replaced Rather Than Repaired

GFPS claimed $28,783,551 ($34,977,217 less insurance proceeds of $6,193,666) to replace three flood-damaged schools under Project 42269. According to federal regulations and FEMA guidelines, GFPS should have repaired the three schools, rather than replace them because estimated repair costs were less than 50 percent of estimated replacement costs. The estimated cost to repair the three schools was $11,231,831. Reducing that amount by insurance proceeds of $6,193,666 would have resulted in eligible claimed costs of $5,038,165. Therefore, we questioned as ineligible the $23,745,386 difference between the amount claimed ($28,783,551) and the amount that would have been eligible ($5,038,165) if GFPS had complied with federal regulations and FEMA guidelines.

The ineligible costs resulted from FEMA's misapplication of the "50% Rule" (*Public Assistance Guide,* FEMA 286, dated September 1996, pp.52-54). This rule stems from 44 CFR 206.226(d)(1) (1996) that states, "A facility is considered repairable when disaster damages do not exceed 50 percent of the cost of replacing a facility to its pre-disaster condition, and it is feasible to repair the facility so that it can perform the function for which it was being used as well as it did immediately prior to the disaster."

In addition to the *Public Assistance [PA] Guide,* FEMA's Response and Recovery Directorate Guidance Number 4511.61 E, dated June 1, 1995,[2] provides clear guidance on how to apply the 50% Rule (See Exhibit B). The determination of a facility's eligibility for replacement is calculated by dividing the damage repair cost by the replacement costs. If this calculation is greater than 50 percent, FEMA considers the replacement eligible for funding. For the purpose of this calculation, FEMA guidance provides the following definitions:

- Damage repair cost includes all the work necessary to return the building to its pre-disaster condition using modern materials and methods for the repairs. "The calculation shall not include the costs of any triggered or mandatory upgrading of the facility, site work, or applicable soft costs[3](even though these costs may be eligible for FEMA funding)."

[2] In September 1998, FEMA renumbered this guidance from 4511.61 E to 9524.4.

[3] Soft costs include the architect's fees, the engineering reports and fees, the appraisal fee, the toxic report fee, any government fees - including the plan check fee, the cost of the building permit, any assessments, and any sewer and water hook-up fees - plus the financial costs, such as construction period interest and loan fees. A primary soft-cost category is fixtures, furnishing, and equipment (FF&E).

- Replacement cost is "replacement of the same size or designed capacity and function building to all applicable codes. The calculation shall not include the costs of demolition, site work, and applicable soft costs (even though these costs may be eligible for FEMA funding)."

In the calculation of the estimated replacement cost of the three schools (South Middle School, Belmont Elementary, and Lincoln Elementary[4]), FEMA did not consider the cost of current codes and standards applicable to new construction that required more square footage per student.[5] This calculation error caused the estimated replacement cost (denominator) to be understated, which caused the estimated repair cost (numerator) to exceed 50 percent of the replacement cost for each of the schools. Specifically, FEMA's erroneous calculations resulted in estimated repair costs for the three schools that were 50.86 percent, 64.03 percent, and 54.18 percent, respectively, of replacement costs. We recalculated the percentages using replacement costs that included current codes and standards, as required. According to our calculations, the estimated repair costs for the three schools were 33.15 percent, 40.97 percent, and 27.27 percent, respectively, of replacement costs (see Exhibit C). Therefore, GFPS should have repaired the schools, rather than replace them; or, if they chose to replace the schools, FEMA should have classified the work as an improved project and capped eligible costs at the estimated cost of repairs.[6]

GFPS's Project Manager, a construction management firm hired to oversee the work, developed the scope of work and cost estimates to repair or replace the three schools. FEMA and NDDEM reviewed the proposed scope of work and cost estimates and used them in its calculation of the 50% Rule. The Project Manager's estimate to repair the three schools totaled $8,444,986, using an estimate of $75 per square foot. We found evidence that construction costs in the City of Grand Forks increased about 33 percent after the disaster. Therefore, in calculating reasonable costs to repair the schools, we increased the estimate per square foot from $75 to $100 (one third increase), which increased the total estimate from $8,444,986 to $11,231,831. To be conservative, we used the higher $11,231,831 estimate of repair cost, which resulted in less questioned costs [$28,783,551 claimed ($34,977,217 actual replacement costs less $6,193,666 insurance proceeds) minus $5,038,165 eligible costs ($11,231,831 estimated repair costs less $6,193,666 insurance proceeds) equals $23,745,386 questioned costs].

The excessive and ineligible costs occurred for two main reasons. First, Region VIII officials misapplied the 50% Rule because they did not understand the proper methodology for applying it. During audit fieldwork, one of the officials told us that they applied the 50% Rule according to their interpretation, which they believed was correct. During that time, another official told us that, while they thought they were doing the right thing at the time, the Region's method of applying the 50% Rule was flawed and resulted in excessive costs.

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[4] These three schools were replaced with two new schools (Phoenix Elementary and New South Middle) and two additions to existing schools (Schroeder Middle and Valley Middle).

[5] The current code was the Minnesota Guide for Planning and Improved School Facilities, which GFPS adopted after the disaster occurred, but before FEMA project approval. This code required that any school construction plan involving replacing or major renovation of square footage would meet or exceed Minnesota state standards for facility square footage.

[6] According to 44 CFR 206.203(d)(1), if a subgrantee desires to make improvements to a project, funding is limited to the federal share of the approved estimate of eligible costs.

Second, Region VIII officials based their decision to replace the schools on calculations and estimates prepared by the Project Manager, a construction management firm that GFPS hired as a contractor to oversee the work. The Project Manager charged fees based on total construction costs and, therefore, had a huge incentive to justify replacing the schools because the costs would be more than twice that to repair the schools to pre-disaster condition. Specifically, the Project Manager collected $2.6 million in fees to oversee the $34,977,217 GFPS paid to replace the three schools. The Project Manager would have collected only $500,382 in fees to oversee repair costs of $11,231,831 (see table in Finding B). Region VIII should have used its own engineers or contracted with an independent firm to estimate the costs to repair and replace the schools and to calculate the difference in applying the 50% Rule.

Recommendations

We recommend that the Regional Director, FEMA Region VIII:

1. Disallow $23,745,386 of ineligible costs to replace facilities that exceeded the costs to repair the facilities to their pre-disaster condition.

2. Provide training to its staff on determining the eligibility of facilities for replacement under 44 CFR.

3. Ensure that estimates of costs and calculations relative to funding projects with federal funds are developed by federal employees or contractors who will not benefit directly from the completion of those projects.

Finding B: Unreasonable Project Management Fees

GFPS claimed $5,321,074 under Project 06443 for project management fees paid to a contractor to manage disaster projects totaling $59.8 million. We questioned $3,416,855 (64.2 percent) of the project management fees as unreasonable. Office of Management and Budget (OMB) Circular A-87, Attachment A, subsection C.2, defines a reasonable cost as a cost that, in nature and amount, does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made to incur the cost. The Circular also states that, in determining reasonableness of a given cost, consideration shall be given to:

- Whether the cost is of a type generally recognized as ordinary and necessary for the operation of the governmental unit or the performance of the federal award.
- The restraints or requirements imposed by such factors as: sound business practices; arms length bargaining; federal, state, and other laws and regulations; and terms and conditions of the federal award.
- Market prices for comparable goods or services.
- Whether the individuals concerned acted with prudence in the circumstances considering their responsibilities to the governmental unit, its employees, the public at large, and the federal government.
- Significant deviations from established practices of the governmental unit, which may unjustifiably increase the federal award's cost.

GFPS paid its contractor $5.3 million in project management fees and direct costs, or 8.9 percent of the $59.8 million costs for projects managed. GFPS hired its Project Manager without following contracting standards required under FEMA grants and subgrants (discussed in more detail in Finding E). Specifically, GFPS did not perform a cost or price analysis, used a time and materials contract procured through noncompetitive procedures that contained an unallowable cost-plus-percentage-of-cost component, and did not establish a cost ceiling that the contractor exceeded at its own risk. Because GFPS did not use full and open competition to establish their costs, FEMA has no assurance that the project management fees charged were reasonable. Therefore, we compared the costs to industry standards to determine reasonableness.

FEMA Region VIII provided us with the Cost Estimating Formula (CEF) project estimating spreadsheet they used for other disasters. These rates include a project management, design phase, rate of one percent and the following project management, construction phase, rates:

- $0.01 to $500,000 at 6.0 percent
- $500,001 to $1,000,000 at 5.0 percent
- $1,000,001 to $5,000,000 at 4.0 percent
- Greater than $5,000,000 at 3.0 percent

We also researched past audit reports to determine previously accepted construction management rates. FEMA OIG audit report E-03-03, *Dougherty County School System*, for the period of July 1994, through August 2002, states that FEMA allowed a project management fee of 3.0 percent of the total construction and engineering costs for a $29.4 million project to replace three elementary schools.

We concluded that the fee charged by the contractor, which totaled 8.9 percent of the $59.8 million costs of projects managed, appeared unreasonable for the following reasons:

- A prudent individual would not have ignored the restraints and restrictions imposed by such factors as sound business practices (no cost or price analysis), arms length bargaining (non-competitive procurement), federal procurement standards (violations of 44 CFR 13.36), and conditions of the federal award (violations of OMB Circular A-87).
- The 8.9 percent fee charged by the contractor appears to be much higher than the market price. The fee was more than twice the maximum 4.0 percent (3 percent plus 1 percent) recommended by the CEF estimating tool and almost three times the 3.0 percent allowed in the cited audit report.
- The individuals concerned did not act with prudence in the circumstances considering their responsibilities to the federal government under the subgrant.
- The 8.9 percent fee paid to the contractor deviated significantly from FEMA's established practices (CEF), which caused an unjustifiable increase in the federal award.

During closeout, FEMA attempted to justify the 8.9 percent fees charged by documenting details of additional work the contractor performed for GFPS. We reviewed this documentation and determined that most of the additional work was either outside the scope of this project, or administrative in nature and thus already covered by the subgrantee's statutory administrative allowance. Therefore, none of the additional work was eligible for reimbursement or relevant to the excessive fees charged.

Because there was no legitimate justification for the amount of project management fees charged, we calculated reasonable fees by first reducing each project for ineligible and unsupported costs questioned in Findings A and C of this report and then applying the rates specified in the CEF spreadsheet to each project as shown in the following table:

	Allowable Repair Costs	Claimed Fee (A)	CEF Rate	Fee per CEF (B)	Questioned Costs (A)-(B)
IMPROVED PROJECTS–OIG CAPPED					
Phoenix Elementary	$ 2,457,889	$ 767,765	5%	$ 122,894	$ 644,871
Schroeder MS Addn	$ 1,338,475	$ 285,807	5%	$ 66,924	$ 218,883
New South MS	$ 6,778,187	$1,344,921	4%	$ 271,127	$1,073,793
Valley MS Addition	$ 657,280	$ 199,168	6%	$ 39,437	$ 159,731
SUBTOTAL	$11,231,831	$2,597,661		$ 500,382	$2,097,278
IMPROVED PROJECTS–FEMA CAPPED					
Old Ed Center	$ 980,872	$ 35,552	6%	$ 58,852	$ (23,300)
TOTAL					$2,073,978
RESTORED SCHOOLS					
Various[7]	$24,612,478	$2,509,995	4 -7%	$1,167,118	$1,342,877
TOTAL					$1,342,877
TOTAL QUESTIONED COSTS					$3,416,855

Recommendation

We recommend that the Regional Director, FEMA Region VIII:

4. Disallow $3,416,855 of unreasonable project management fees.

Finding C: Unsupported Contract Costs

GFPS was unable to provide invoices or contract change orders to support $645,686 of contract costs claimed, consisting of $101,499 for construction at Central High School under Project 59307 and $106,167 for construction management fees under Project 06443, and $438,020 for excessive contract costs for construction of Phoenix Elementary School and South Middle Schools and modifications to Schroeder and Valley Middle Schools. According to 44 CFR 13.20 (b)(2) and (6), grantees and subgrantees must maintain accounting records that adequately identify the source and application of funds provided and the accounting records must be supported by such source documentation as cancelled checks, paid bills, payrolls, time and attendance records, contract and subgrant award documents. If Finding A is sustained, we will not question $438,020 of the $645,686 in unsupported contract costs because these costs were for construction of Phoenix Elementary School and South Middle School and modifications at Schroeder and Valley Middle Schools and actual costs were not included in Finding A. However, if FEMA disagrees with Finding A and allows actual costs, then we would question $645,686 as unsupported by source documentation.

[7] The restored schools were too numerous to list individually, however, the CEF rate ranged from 4-7 percent.

Recommendation

We recommend that the Regional Director, FEMA Region VIII:

5. Disallow $207,666 of unsupported contract costs.

Finding D: Duplicate Administrative Costs

GFPS claimed $26,241 billed by the contracted Project Manager for damage assessment and estimating restoration work covered by the Statutory Administrative Allowance. Under the Stafford Act, a subgrantee is entitled to an administrative allowance based on a statutory formula to cover the costs associated with requesting, obtaining, and administering FEMA awards. Federal regulations limit funding for administrative costs to that allowance (44 CFR 206.228(a)(2)(ii) and (3)(ii)). Therefore, we questioned $26,241 as duplicate administrative costs.

Recommendation

We recommend that the Regional Director, FEMA Region VIII:

6. Disallow $26,241 of duplicate administrative costs.

Finding E: Unallowable Contract Procedures

GFPS did not follow federal procurement standards to contract for $5,321,074 in project management services for repair and construction work of the schools. As a result, full and open competition did not occur and FEMA has no assurance contract costs claimed were reasonable.

Federal regulations at 44 CFR 13.36 place the following requirements on federally funded procurements:

- Require that performance of procurement transactions in a manner providing full and open competition except under certain circumstances. (13.36(c)) Noncompetitive procurement may be used only under certain circumstances such as when the public exigency or emergency for the requirement will not permit a delay resulting from competitive solicitation. (13.36(d)(4)(i)(B))
- Require that subgrantees maintain records sufficient to detail the significant history of the procurement, including the rationale for the method of procurement, the basis for contractor selection, and basis for the contract price (13.36(b)(9)).
- Require a cost or price analysis in connection with every procurement action including contract modifications (13.36(f)(1)).

- Prohibit the use of time and material type contracts unless no other contract is suitable and the contract includes a ceiling price the contractor exceeds at its own risk (13.36(b)(10)).
- Prohibit the cost plus a percentage of cost and percentage of construction cost methods of contracting (13.36(f)(4)).
- Allow qualifications-based procurement of architectural and engineering professional services using qualifications to evaluate and select the most qualified competitor, subject to negotiation of fair and reasonable compensation (13.36(d)(3)(v)).

Under Project 06443, GFPS claimed project management fees of $5.3 million for managing projects totaling $59.8 million. In Finding B, we questioned $3.4 million (of the $5.3 million) in unreasonable project management fees that resulted, at least in part, from GFPS's noncompliance with federal procurement standards. GFPS incurred these costs under a time-and-materials contract procured through noncompetitive procedures and did not include a cost ceiling that the contractor exceeded at its own risk. Additionally, the contract contained a cost plus percentage of cost component, which provided a disincentive for the contractor to save costs.

GFPS's lack of compliance with federal procurement standards indicates that NDDEM did not adequately monitor GFPS's activities under the subgrant. According to 44 CFR 13.37(a)(2), states are responsible for ensuring that subgrantees are aware of requirements imposed upon them by federal statute and regulation. Further, 44 CFR 13.40(a) requires grantees to monitor subgrant supported activities to assure compliance with applicable federal requirements.

Recommendation

We recommend that the Regional Director, FEMA Region VIII:

7. Require the North Dakota Division of Emergency Management to develop, document, and implement procedures for future disasters to (a) provide subgrantees guidance on federal regulations, standards, and guidelines related to procurement and (b) monitor subgrantees to ensure compliance with applicable federal regulations, standards, and guidelines related to procurement.

DISCUSSION WITH MANAGEMENT AND AUDIT FOLLOW-UP

The OIG discussed the results of the audit with FEMA and NDDEM officials on August 8, 2006, and GFPS officials on August 24, 2006. GFPS officials disagreed with Findings A and B, tentatively agreed with Finding C, agreed with Finding D, and did not comment on Finding E.

Please advise this office by October 27, 2006, of the actions taken or planned to implement the recommendations, including target completion dates for any planned actions. Should you have any questions concerning this report, please call me, or have your staff contact Paige Hamrick at (940) 891-8900.

EXHIBIT A

Schedule of Audited Projects
Grand Forks Public Schools
FEMA Disaster Number 1174-DR-ND

Project Number	Category Of Work	Amount Awarded	Questioned Costs	Finding Reference
42269	E	$28,783,551[8]	$23,745,386[9]	A, C
59307	E	5,494,510	101,499	C
06443	G	5,321,074	3,549,263	B, C, D
06685	E	22,000	0	
Total		$39,621,135	$27,396,148	

[8] The value for Project 42269 includes an advance amount of $6,194,544 that FEMA deducted from the project in DSRs 70553 and 66468.
[9] If FEMA disagrees with Finding A and allows claimed costs, then questioned costs under DSR 42269 would increase by $438,020 as described in finding C.

EXHIBIT B

Federal Emergency Management Agency

Washington, D.C. 20472

DATE: June 1, 1995

Response and Recovery Directorate Guidance No. 4511.61 E

Title: Eligibility of Facilities for Replacement under 44 CFR 206.226(d)(1) (The 50% Rule)

PURPOSE: This guidance covers the interpretation of the provision in the FEMA Public Assistance regulations which provides for when a damaged facility is eligible for the full cost of replacement.

SCOPE AND AUDIENCE: This policy shall be applicable to all projects in all regions for which a demolition DSR for the damaged building, or a full replacement construction cost DSR for the replacement building has not yet been approved (papped.)

DESCRIPTION: The term "*disaster damage*" in 44 CPR 206.226(d)(1) (see "Authorities" below) has in certain cases in the past erroneously been interpreted as including all FEMA eligible costs, rather than just the costs related to the repair of the disaster damage *only*. The purpose of this policy guidance is to provide clarification of the application of this provision of the regulations.

GUIDANCE: *SEE ATTACHED DOCUMENT*

KEY WORDS: Public Assistance Policy, 50% rule, building replacement cost, FEMA regulations.

SUPERSESSION: Any draft guidance or manual of practice contrary to this document that precedes the date of this document is hereby revoked and no longer valid.

AUTHORITIES: 44 CFR 206.226(d)(1): "*A facility is considered repairable when disaster damages do not exceed 50 % of the cost of replacing a facility to its pre-disaster condition, and it is feasible to repair the facility so that it can perform the function for which it was being used as wells as it did immediately prior to the disaster.*"

ORIGINATING OFFICE: Infrastructure Support Division, Response and Recovery Directorate

REVIEW DATE: June 1997

SIGNATURE:

Signed
Richard W. Krimm
Associate Director
Response and Recovery Directorate

DISTRIBUTION: All Regional Directors, Regional R&R Division Directors, and FCOs

Guidance No. 4511.61 E

THE 50% RULE: THE ELIGIBILITY OF FACILITIES FOR REPLACEMENT UNDER 44 CFR 206.226(d)(1)

The Regulation: 44CFR §206.226(d)(1):

> *"A facility is considered repairable when disaster damages do not exceed 50% of the cost of replacing a facility to its predisaster condition, and it is feasible to repair the facility so that it can perform the function for which it was being used as well as it did immediately prior to the disaster."*

The guidance: "*Disaster damage*"* in the §206.226(d)(l) determination of eligibility for a replacement facility shall include only costs for the repair of damage, and not the costs of any triggered or mandatory upgrading of the facility beyond the repair of the damaged elements (even though these upgrade costs may be eligible for FEMA funding.) Thus, the determination of eligibility of a facility for replacement will be calculated by the following fraction: The cost of repair of the disaster damage* (repair of the damaged components only, using present day materials and methods) divided by the cost of replacement of the facility** with a facility of equivalent capacity, using current codes for new construction. If this calculation is greater than 50%, then replacement is considered to give a better return on the taxpayers' investment, and is thus eligible for FEMA funding under §206.226(d)(l).

Justification: If seismic upgrade costs were to be included in the calculation towards the determination of 50% damage, then older buildings with even small amounts of damage can be found to exceed the 50% cost threshold because of the comparatively high cost of code triggers, seismic upgrading, etc. The FEMA regulation is based on the finding that when a facility is so severely damaged by a disaster that, not including code triggered upgrades, the cost to repair the damage exceeds 50% of the cost of a new building, it is often justifiable and reasonable to replace the building. When code triggered upgrade costs are included together with the costs of the repairs to the damaged elements, however, erroneous decisions to fund new buildings to replace structurally sound and lightly damaged existing facilities are likely to result.

The rationale for this interpretation is that the repair of "*disaster damage*" does not improve or add value to a given building, whereas code upgrading does improve and extend the useful life of a building. Since such code-required upgrade work brings the safety of an existing building up to current standards, the Stafford Act and its implementing regulations did not intend that the Federal Government be obligated to provide further funds to replace such a building entirely. This interpretation of the "50% rule" does not in any way change the current practice on the determination of costs eligible for FEMA funding. In cases where the FEMA eligible work is limited to the repair of the existing facility, FEMA funding shall continue to include not only the damage repair, but also mandatory code upgrades, if there are any. In cases where a new building has been determined to be eligible, the costs for demolition, site work, and related soft costs, etc., will continue to be eligible, as is current practice.

Examples: The following provides some examples to illustrate eligible cost determinations.

Conditions	Eligible Costs
1. When damage repair **does not exceed 50%** of the replacement cost**. *and* No upgrade trigger is pulled.	Repair of eligible damage* *only*.
2. Damage repair does **not exceed 50%** of replacement cost**. *and* Whole building upgrade is triggered by an "applicable code or standard," but the total of the two items is greater than 50% but less than 100% of replacement cost**.	Repair of eligible damage* *plus* mandatory upgrade cost.
3. Damage repair* does **not exceed 50%** of the replacement cost**. *and* Whole building upgrade is triggered, *and* the total of the two items is estimated to be greater than 100% of replacement cost**.	Repair of eligible damage* *plus* upgrade cost, *but* the total eligible costs capped at the replacement cost**.
4. Damage repair **exceeds 50%** of the replacement cost**.	The building's full replacement cost** (but no more than its replacement cost) is eligible.

Notes:

★ "*Damage repair*" in these examples includes repair of damaged components only. The cost shall include all the work necessary to return the building to its pre-disaster condition utilizing modern materials and methods for the repairs. The calculation shall not include the costs of any triggered or mandatory upgrading of the facility, site work, or applicable soft costs (even though these costs may be eligible for FEMA funding.)

★★ "*Replacement cost*" is replacement of the same size or designed capacity and function building to all applicable codes. The calculation shall not include the costs of demolition, site work, and applicable soft costs (even though these costs may be eligible for FEMA funding).

EXHIBIT C

Calculations of Repair vs. Replacement Costs
Grand Forks Public Schools
FEMA Disaster Number 1174-DR-ND

Cost Element	Project Manager's Estimated Cost to Repair (A)	Project Manager's Estimated Cost to Replace (B)	Cost to Replace Using Minnesota Guide (C)	Notes:
South Middle School Square Footage	75,297	75,297	115,520	(1)
Total Cost	$4,465,951	$5,647,275	$8,664,000	(2)
Cost Adjustments	(1,866,758)	(536,680)	(823,370)	(3)
Net Cost	$2,599,193	$5,110,595	$7,840,630	(4)
Repair/Replacement		50.86%	33.15%	(5)
Belmont Elementary Square Footage	35,159	35,750	55,871	(1)
Total Cost	$2,525,967	$2,681,250	$4,190,325	(2)
Cost Adjustments	(994,470)	(289,365)	(452,227)	(3)
Net Cost	$1,531,497	$2,391,885	$3,738,098	(4)
Repair/Replacement		64.03%	40.97%	(5)
Lincoln Elementary Square Footage	21,701	21,701	43,121	(1)
Total Cost	$1,453,068	$1,627,575	$3,234,075	(2)
Cost Adjustments	(651,296)	(147,745)	(293,577)	(3)
Net Cost	$801,772	$1,479,830	$2,940,498	(4)
Repair/Replacement		54.18%	27.27%	(5)
Subtotal	$8,444,986			(6)
Increase In Cost (1/3)	$2,786,845			(7)
Allowable Cost	$11,231,831			(8)

EXHIBIT C

Notes:

1. Lists the square footage of existing facility used to calculate the Total Cost in Column B and the required square footage according to the Minnesota Guide in Column C.

2. Lists the costs estimated by GFPS's Project Manager to repair and replace the schools (Column A and B) and the calculated cost based on square footage as follows for Column C: 115,520 x $75 = $8,664,000. The cost of $75 per square foot was the cost of construction at the time the estimates were prepared.

3. Adjusts the repair and replacement costs for each column according to FEMA 286, dated September 1996, page 52-53. Column A adjustments exclude any mandatory upgrading of the facility, site work or non-construction costs such as library equipment, casework, food service equipment, books, furniture, and fixtures. Column B adjustments exclude any costs of demolition, site work and non-construction costs such as library equipment, casework, food service equipment, books, furniture and fixtures but not code upgrades. Column C adjustments are the same as Column B increased in relation to the increase in square footage mandated by the Minnesota Plan.

4. Total costs less the adjustments described in Note 3 above.

5. Shows the percentage of cost to replace compared with cost to repair. Calculated by dividing the net repair cost by the net replacement cost. For example on South Middle School, the Project Manager's estimated cost to repair was: $2,599,193 ÷ $5,110,595 = 50.86 percent.

6. Subtotal of estimated cost to repair all schools without increased construction costs.

7. Increase in construction costs of 33 percent not included in the original estimate. The increase is based on construction costs after the flood occurred.

8. Total estimated cost to repair all schools inclusive of increased construction costs.