

INVITATION TO BID

No. 16-32

ROCKDALE COUNTY, GEORGIA

October 12, 2016

REINFORCE THREE (3) COLUMN BEAMS IN THE ADMINISTRATION BUILDING AT 958 MILSTEAD AVENUE



**ROCKDALE COUNTY FINANCE DEPARTMENT
PROCUREMENT OFFICE
958 MILSTEAD AVENUE
CONYERS, GA 30012
770-278-7552**

INTRODUCTION:

This is an Invitation to Bid (ITB) for **Reinforce Three (3) Column Beams in the Administration Building at 958 Milstead Avenue** in Rockdale County. Instructions for preparation and submission of a bid are contained in this packet. Bids must be typed or printed in ink.

Rockdale County provides equal opportunity for all businesses and does not discriminate against any person or business because of race, color, religion, sex, national origin, and handicap or veterans status. This policy ensures all segments of the business community have access to supplying the goods and services needed by Rockdale County.

PURCHASING CONTACT FOR THIS REQUEST:

All questions concerning this ITB and all questions arising subsequent to award are to be addressed to the Purchasing Division via email to Dawn Spivey, Contract Specialist, at dawn.spivey@rockdalecountyga.gov or the following address:

Rockdale County Finance Department
Purchasing Division
Attn: Dawn Spivey
958 Milstead Avenue
Conyers, GA 30012
Phone: (770) 278-7553, Fax (770) 278-8910
E-mail: dawn.spivey@rockdalecountyga.gov

To maintain a "level playing field", and to assure that all bidders receive the same information, bidders are requested **NOT** to contact anyone other than the contact above until after the award of the contract. Doing so could result in disqualification of the bidder.

BID COPIES FOR EVALUATION:

Three (3) hard copies and one (1) original hard copy and one (1) CD or Flash Drive in Adobe PDF format will be required for review purposes. *(Original must be clearly marked "Original" and the Copies clearly marked "Copies.")*. CD's that are blank or have incorrect information on them will not be acceptable and may be justification for disqualification. Check your disk(s) to ensure that they have the appropriate material on it before submitting.

All bid materials must be completed and enclosed in a sealed envelope prior to submittal. The ITB number must be clearly written on the outside of the envelope. **Incomplete, incorrect, unsealed, unmarked, or improperly submitted bids may be rejected.**

CONTRACT TERM:

TBD days from date of Notice to Proceed.

DUE DATE:

Sealed bids will be received at the Rockdale County Finance Department, Procurement Division, 958 Milstead Avenue, Conyers, GA 30012 no later than **2:00 P.M., local time, Thursday, November 10, 2016**. Bids received after this time will not be accepted.

PRE-BID CONFERENCE:

There will be a **MANDATORY** Pre-Bid Conference held at Rockdale County Administration Building, 958 Milstead Avenue, Room 106, Conyers, GA 30012, **at 10:00 a.m., local time, Monday, October 31, 2016**. *Site visit immediately follows this meeting*. Any questions and/or misunderstandings that may arise from this ITB may be

asked and answered at the pre-bid conference; however, oral responses are not authoritative. Questions and/or misunderstandings received after the pre-bid conference must be submitted in writing to dawn.spivey@rockdalecountyga.gov or at the above address. *Any contractor who intends to submit a Bid is required to attend this meeting.*

QUESTIONS AND CLARIFICATIONS:

All questions and requests for clarifications concerning this ITB must be submitted to the Purchasing Division via email to dawn.spivey@rockdalecountyga.gov or at the above address no later than **2:00 p.m., local time, on November 3, 2016**. It shall be the Bidders responsibility to seek clarification as early as possible prior to the due date and time. Written responses from the County to the questions it receives will be in an addendum and posted to the County's website at www.rockdalecountyga.gov, under Bid Opportunities. Questions or requests for clarifications received after this deadline will not receive a response.

ADDENDA:

Answers to questions submitted that materially change the conditions and specifications of this ITB will be issued in an addendum and posted to the County's website at www.rockdalecountyga.gov under Bid Opportunities. Any discussions or documents will be considered non-binding unless incorporated and issued in an addendum.

It is the bidder's responsibility to check the Rockdale County website at www.rockdalecountyga.gov, under Bid Opportunities for any addenda that may be issued, prior to submitting a bid for this ITB.

QUALIFICATIONS OF OFFERORS:

Bidders must have a current business license from their home office jurisdiction and provide a copy of that license with the submittal of their bid response. Rockdale County vendors doing business in Rockdale County must have a current Rockdale County Business License.

Bids from any offeror that is in default on the payment of any taxes, license fees, or other monies due to Rockdale County will not be accepted.

Bidders are to submit at least (3) three references from projects with similar experience using the materials and process in this Invitation to Bid.

SILIENCE OF SPECIFICATIONS

The apparent silence of these specifications and any supplemental specifications as to any details, or the omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of first quality and correct type, size and design are to be used. All workmanship is to be first quality. All interpretations of this specification shall be made upon the basis of this statement, with County interpretation to prevail.

OPTION TO AUDIT

Successful bidder will be required to maintain complete records during the life of the contract and for a period of one year after completion of the contract. Such records are to be made available to the County if officially requested, to be audited by a designated County auditing staff. In such audits reveal overcharges and/or undercharges, such will be adjusted and compensation made by either party to correct charges.

TORT IMMUNITY:

No officer, employee, or agent of the County acting within the scope of his/her employment or function shall be held personally liable in tort or named as a defendant in any action for injury or damage suffered because of any act,

event, or failure to act.

PROPRIETARY INFORMATION:

Careful consideration should be given before submitting confidential information to Rockdale County. The Georgia Open Records Act permits public scrutiny of most materials collected as part of this process. Please clearly mark any information that is considered a trade secret, as defined by the Georgia Trade Secrets Act of 1990, O.C.G.A. §10-1-760 et seq., as trade secrets are exempt from disclosure under the Open Records Act. Rockdale County does not guarantee the confidentiality of any information not clearly marked as a trade secret.

AWARD OF CONTRACT:

The Rockdale County Procurement Office and/or Evaluation Committee make a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Procurement Office and/or Evaluation Committee. Rockdale County reserves the right to make no awards, multiple awards, one award for all items; or whatever the County deems to be in its best interest.

QUANTITIES:

The quantities listed in the Bidders Response Schedule are provided as an estimate for bid purposes. The County will not be obligated to quantities beyond actual needs.

SELECTION PROCESS:

The Rockdale County Procurement Office and/or Evaluation Committee makes a recommendation for award. The Board of Commissioners will make the actual award of the contract and has the authority to award the contract to a company different than the company recommended by the Purchasing Department and/or Evaluation Committee.

This is a past performance/quality/price trade-off source selection in which competing offeror's past and present performance history and product quality will be evaluated on a basis approximately equal to price. Award will be made to the responsible offeror whose bid represents the best value after evaluation in accordance with the factors listed below. Rockdale County Board of Commissioners may reject any or all bids if such action is in the county's interest.

Rockdale County may evaluate bids and award a contract without discussions with offerors. Therefore, the offeror's initial bid should contain the offeror's best terms from a price and technical standpoint. The County reserves the right to conduct discussions if the County later determines them to be necessary.

INSURANCE:

The Company shall maintain in full force and effect the following insurance during the term of the Agreement.

Coverage	Limits of Liability
Workers' Compensation	Statutory
Employers' Liability	\$1,000,000.00
Bodily Injury Liability	\$1,000,000.00 each occurrence
except Automobile	\$1,000,000.00 aggregate
Property Damage Liability	\$1,000,000.00 each occurrence
except Automobile	\$1,000,000.00 aggregate
Personal & Advertising Injury Limit	\$1,000,000.00

Products / Completed Ops.	\$2,000,000.00 aggregate
Automobile Bodily Injury Liability	\$1,000,000.00 each person \$1,000,000.00 each occurrence
Automobile Property Damage Liability	\$1,000,000.00 each occurrence
Property Coverage /Builders Risk Policy	Equal to or greater than the existing building limit if performing renovations.
(If hazardous substances are involved)	
Contractor's Pollution Liability (with 1 year extended reporting period)	
Each Occurrence	\$1,000,000.00
Aggregate	\$2,000,000.00
Environmental Impairment Liability (with 1 year extended reporting period)	
Each Occurrence	\$1,000,000.00
Aggregate	\$2,000,000.00
General Liability	\$1,000,000.00

All insurance shall be provided by an insurer(s) acceptable to the County, and shall provide for thirty (30) days prior notice of cancellation to the County. Upon contract award, Contractor shall deliver to the County a certificate or policy of insurance evidencing Contractor's compliance with this paragraph. Contractor shall abide by all terms and conditions of the insurance and shall do nothing to impair or invalidate the coverage.

Rockdale, GA shall be named as Additional Insured under any General Liability, Business Auto and Umbrella Policies using ISO Additional Insured Endorsement forms CG 2010 or its equivalent. Coverage shall apply as Primary and non-contributory with Waiver of Subrogation in favor of Rockdale County, Georgia.

The insurance carrier must have a minimum rating of A or higher as determined by the rating firm A.M. Best.

Certificates to contain policy number, policy limits and policy expiration date of all policies issued in accordance with this contract.

BONDS:

Rockdale County shall request the following for bids/proposals in excess of Fifty Thousand Dollars (\$50,000.00).

BID BOND

Each bid shall include a bid bond in the amount of five percent (5%) of the total bid amount as guarantee that the bidder shall not withdraw the bid for 120 days after the scheduled bid opening. If awarded the contract, Bidders shall enter a written agreement with Rockdale County in accordance with the bid.

PERFORMANCE BOND

Upon execution and delivery of the contract, the bidder shall furnish Rockdale County a performance bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the County. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

PAYMENT BOND

Upon execution and delivery of the contract, the bidder shall furnish Rockdale County a payment bond for the full amount of the contract. Maintenance provisions of the bond shall remain in effect for a period of twelve (12) months after acceptance of the work by the County. The surety shall be a reputable bonding company authorized to transact business in the State of Georgia.

All sureties of bonds for Rockdale County must be licensed to do business in the State of Georgia and must be listed on the Department of Treasury Federal Register.

PERMITS:

The awarded contractor will be responsible for acquiring any permits that are required for this project/purchase. Rockdale County will waive fees on all permits issued by Rockdale County.

ILLEGAL IMMIGRATION REFORM AND ENFORCEMENT ACT OF 2011

Vendors submitting a Qualification package in response to this ITB must complete the Contractor Affidavit under O.C.G.A. §13-10-91(b)(1) which is provided with the ITB package to verify compliance with the Illegal Immigration Reform and Enforcement Act of 2011.

- A. The form must be signed by an authorized officer of the contractor or their authorized agent.
- B. The form must be notarized.
- C. The contractor will be required to have all subcontractors and sub-subcontractors who are engaged to complete physical performance of services under the final contract executed between the County and the contractor complete the appropriate subcontractor and sub-subcontractor affidavits and return them to the County a minimum of five (5) days prior to any work being accomplished by said subcontractor or sub-subcontractor. Format for this affidavit can be provided to the contractor if necessary.

ENERGY EFFICIENT, RECYCLING, AND WASTE REDUCTION PURCHASING POLICY

Policy #R-2015-08 includes the following language:

The Rockdale County Board of Commissioners only purchases energy star rated equipment and appliances that are economically responsible and reduce resource consumption and waste within federal, state, and local laws. The County will only purchase recycled copy, computer, and fax paper with at least 30 percent recycled content.

A copy of the policy may be viewed and downloaded by visiting the website at www.rockdalecountyga.gov , under Bid Opportunities, and scrolling down to the bottom of the page.

GENERAL INFORMATION:**RECEIPT OF BID:**

No bids received after said time or at any place other than the time and place as stated in the notice shall be considered. No responsibility shall attach to Rockdale County for the premature opening of a bid not properly addressed and identified.

WITHDRAWAL OF BID:

A bidder may withdraw his bid before the bid due date, without prejudice to the bidder, by submitting a written request of withdrawal to the Rockdale County Procurement Office.

REJECTION OF BID:

Rockdale County may reject any and all bids and must reject a bid of any party who has been delinquent or unfaithful in any formal contract with Rockdale County. Also, the right is reserved to waive any irregularities or informalities in any bid in the proposing procedure. Rockdale County shall be the sole judge as to which bid is best, and in ascertaining this, will take into consideration the business integrity, financial resources, facilities for performing the work, and experience in similar operations of the various bidders.

STATEMENT OF EXPERIENCE AND QUALIFICATIONS:

The bidder may be required, upon request, to prove to the satisfaction of Rockdale County that he/she has the skill, experience, necessary facilities and ample financial resources to perform the contract(s) in a satisfactory manner and within the required time. If the available evidence of competency of any bidder is not satisfactory, the bid of such bidder may be rejected. The successful bidder is required to comply with and abide by all applicable federal and state laws in effect at the time the contract is awarded.

NON-COLLUSION AFFIDAVIT:

By submitting a bid, the bidder represents and warrants that such bid is genuine and not sham or collusive or made in the interest or in behalf of any person not therein named, that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm or corporation to refrain from proposing and that the bidder has not in any manner sought by collusion to secure to that bidder any advantage over any other bidder.

INTEREST OF:

By submitting a bid, the bidder represents and warrants that a Commissioner, Administrator, employee, nor any other person employed by Rockdale County has, in any manner, an interest, directly or indirectly, in the bid or in the contract which may be made under it, or in any expected profits to arise therefrom.

DOCUMENTS DEEMED PART OF THE CONTRACT:

The notice, invitation to bidders, general conditions, and instructions for bidders, special conditions, specifications, bid, and addenda, if any, will be deemed part of the contract.

GOVERNING LAWS:

This contract is made under and shall be governed and construed in accordance with the laws of the State of Georgia.

ERRORS AND OMISSIONS:

The vendor shall not take advantage of any errors or omissions in this Bid Request, and shall promptly notify Rockdale County of any omissions or errors found in this document.

STANDARD INSTRUCTIONS:

1. The instructions contained herein shall be construed as a part of any bid invitation and/or specifications issued by Rockdale County and must be followed by each bidder.
2. The written specifications contained in this bid shall not be changed or superseded except by written addendum from Rockdale County. Failure to comply with the written specifications for this bid may result in disqualification by Rockdale County.
3. All goods and materials shall be F.O.B. Destination Conyers, Georgia and no freight or postage charges will be paid by Rockdale County unless such charges are included in the bid price.
4. The following **ITB# 16-32** must be written clearly on the outside of each bid envelope in order to avoid prior opening in error.
5. All bids must be received and in-hand at bid due date and time. Each bidder assumes the responsibility for having his/her bid received at the designated time and place of bid due date. Bids received after the stated time and date may be subject to rejection without consideration, regardless of postmark. Rockdale County accepts no responsibility for mail delivery.
6. Unless otherwise stated, all bids submitted shall be valid and may not be withdrawn for a period of 120 days from the due date.
7. Each bid form submitted must include the name of the business, mailing address, the name, title and signature of the person submitting the bid. When submitting a bid to Rockdale County the first page of your bid package should be the bid form listing the price, delivery date, etc., unless the bid form is requested to be in a separate envelope.
8. Rockdale County reserves the right to accept a bid that is not the lowest price if, in the County's judgment, such bid is in the best interest of the County and the public. The County reserves the right to reject any and all bids.
9. Telephone, Telegraphic or Facsimile bids will not be accepted.
10. No sales tax will be charged on any orders except for contracts that include construction materials being purchased through a third party.

Federal I.D. #58-6000882
Sales Tax Exempt #58-800068K
11. If applicable, completed questionnaires must be signed manually. Rockdale County reserves the right to accept or reject any bid on the basis of incomplete or inaccurate answers to the questionnaire.
12. If applicable, warranty information shall be provided.
13. Bidders shall state delivery time after receiving order.
14. Bidders shall identify any subcontractors, and include an explanation of the service or product that they may provide.

BID SPECIFICATIONS:

The specifications are as follows and on the attached pages:

General:

Purchase Price shall include delivery, F.O.B. Rockdale County, Conyers, GA 30012.

Warranty information must be provided with the submittal of bid.

Technical Specifications:

Rockdale County is seeking sealed bids from experienced and well-equipped contractors to perform the following:

Reinforce three (3) column beams located in the Administration Building, 958 Milstead Avenue, Conyers, GA 30012 as it relates to the flooring for specific areas of this building.

Awarded contractor will be required to get engineered drawings stamped and approved for placement of the beams.

Contractor will perform work in accordance with the attached structural assessment from the engineering firm, AMEC Foster Wheeler.

BID FORM – ITB No. 16-32

Instructions: Complete all THREE parts of this bid form.

PART I: Bid Summary

Complete the information below. If you wish to submit more than one brand, make a photocopy of this Bid Form.

1.	Reinforce three (3) column beams	LUMP SUM	\$
2.			
	Number of days to complete from Notice-to-Proceed:		# of days_____

PART II: Addenda Acknowledgements (if applicable)

Each vendor is responsible for determining that all addenda issued by the Rockdale County Finance Department – Purchasing Division have been received before submitting a bid.

Addenda	Date Vendor Received	Initials
"1"		
"2"		
"3"		
"4"		
"5"		
"6"		

PART III: Vendor Information:

Vendor Name	
Address	
Telephone	
E-Mail	
Representative (print name)	
Signature of Representative	
Date Submitted	

ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF VENDOR

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He/She is _____ (owner, partner officer, representative, or agent) of _____, the Vendor that has submitted the attached ITB;

(2) He/She is fully informed respecting the preparation and contents of the attached ITB and of all pertinent circumstances respecting such ITB;

(3) Such ITB is genuine and is not a collusive or sham ITB;

(4) Neither the said Vendor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham ITB in connection with the Contract for which the attached ITB has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached ITB or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached ITB are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Vendor or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 20

Name _____

Title _____

My commission expires (Date)

**ROCKDALE COUNTY BOARD OF COMMISSIONERS
NON-COLLUSION AFFIDAVIT OF SUB-CONTRACTOR**

State of _____)

County of _____)

_____, being first duly sworn, deposes and says that:

(1) He/She is _____ (owner, partner officer, representative, or agent) of _____, the sub-contractor that has submitted the attached ITB;

(2) He/She is fully informed respecting the preparation and contents of the attached ITB and of all pertinent circumstances respecting such ITB;

(3) Such ITB is genuine and is not a collusive or sham ITB;

(4) Neither the said sub-contractor nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affidavit, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Vendor, firm or person to submit a collusive or sham ITB in connection with the Contract for which the attached ITB has been submitted or refrain from proposing in connection with such Contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Vendor, firm or person to fix the price or prices in the attached ITB or of any other Vendor, or to fix any overhead, profit or cost element of the proposing price or the proposing price of any other Vendor, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against Rockdale County or any person interested in the proposed Contract; and

(5) The price or prices quoted in the attached RFP are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the sub-contractor or any of its agents, representatives, owners, employees, or parties in interest, including this affidavit.

(Signed)

(Title)

Subscribed and Sworn to before me this _____ day of _____, 20 ____.

Name _____

Title _____

My commission expires (Date)

Contractor Affidavit under O.C.G.A. §13-10-91(b)(1)

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present an affidavit to the contractor with the information required by O.C.G.A. §13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Contractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC
My Commission Expires:

Subcontractor Affidavit under O.C.G.A. § 13-10-91(b)(3)

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract with (name of contractor) on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91. Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the subcontractor with the information required by O.C.G.A. § 13-10-91(b). Additionally, the undersigned subcontractor will forward notice of the receipt of an affidavit from a sub-subcontractor to the contractor within five business days of receipt. If the undersigned subcontractor receives notice that a sub-subcontractor has received an affidavit from any other contracted sub-subcontractor, the undersigned subcontractor must forward, within five business days of receipt, a copy of the notice to the contractor. Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC
My Commission Expires:

Sub-subcontractor Affidavit under O.C.G.A. §13-10-91(b)(4)

By executing this affidavit, the undersigned sub-subcontractor verifies its compliance with O.C.G.A. §13-10-91, stating affirmatively that the individual, firm or corporation which is engaged in the physical performance of services under a contract for (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract) and (name of contractor) on behalf of (name of public employer) has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. §13-10-91. Furthermore, the undersigned sub-subcontractor will continue to use the federal work authorization program throughout the contract period and the undersigned sub-subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present an affidavit to the sub-subcontractor with the information required by O.C.G.A. §13-10-91(b). The undersigned sub-subcontractor shall submit, at the time of such contract, this affidavit to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Additionally, the undersigned sub-subcontractor will forward notice of the receipt of any affidavit from a sub-subcontractor to (name of subcontractor or sub-subcontractor with whom such sub-subcontractor has privity of contract). Sub-subcontractors hereby attest that its federal work authorization user identification number and date of authorization are as follows:

Federal Work Authorization User Identification Number

Date of Authorization

Name of Sub-Subcontractor

Name of Project

Name of Public Employer

I hereby declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, ____, 201__ in _____(city), _____(state).

Signature of Authorized Officer or Agent

Printed Name and Title of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME
ON THIS THE _____ DAY OF _____, 201__.

NOTARY PUBLIC

My Commission Expires: _____

Affidavit Verifying Status for County Public Benefit Application

By executing this affidavit under oath, as an applicant for the award of a contract with Rockdale, County Georgia, I _____ . [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity] am stating the following as required by O.C.G.A. Section 50-36-1:

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant:

Date

Printed Name:

* _____
Alien Registration number for non-citizens

SUBSCRIBED AND SWORN
BEFORE ME ON THIS THE
_____ DAY OF _____, 20____.

Notary Public
My commission Expires:

***Note:** O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below.

CONTRACTOR'S QUALIFICATION STATEMENT AND QUESTIONNAIRE

NAME OF PROPOSED CONTRACTOR: _____

I. INSTRUCTIONS

- A. All questions are to be answered in full. If copies of other documents will answer the question completely, they may be attached and clearly labeled. If additional space is needed, additional pages may be attached and clearly labeled.
- B. The owner, Rockdale County, Georgia, its agents and representatives, shall be entitled to contact each and every reference listed in response to this questionnaire, and each entity referenced in any response to any question in this questionnaire. By completing this questionnaire, the contractor expressly agrees that any information concerning the contractor in possession of said entities and references may be made available to the owner.
- C. Only complete and accurate information shall be provided by the contractor. The contractor hereby warrants that, to the best of its knowledge and belief, the responses contained herein are true, accurate, and complete. The contractor also acknowledges that the owner is relying on the truth and accuracy of the responses contained herein. If it is later discovered that any material information given in response to a question was provided by the contractor, knowing it was false, it shall constitute grounds for immediate termination or rescission by the owner of any subsequent agreement between the owner and the contractor. The owner shall also have and retain any other remedies provided by law.
- D. The completed form shall be submitted with contractor's proposals.
- E. This form, its completion by the contractor, and its use by the contractor, and its use by the owner, shall not give rise to any liability on the part of the owner to the contractor or any third party or person.

II. GENERAL BACKGROUND

- A. Current address of contractor: _____

- B. Previous Name or address of contractor: _____

- C. Current president or CEO and years in position: _____
- D. Number of permanent employees: _____
- E. Name and address of affiliated companies: _____

III. FINANCIAL STATUS

- A. Please attach financial statements for the past three years for which they are complete. If such statements are not available, please furnish the following information:

1. LAST COMPLETE FISCAL YEAR:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

2. YEAR PRIOR TO "1" ABOVE:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

3. YEAR PRIOR TO "2" ABOVE:

- A. Revenues (Gross) _____
- B. Expenditures (Gross) _____
- C. Overhead & Admin (Gross) _____
- D. Profit (Gross) _____

B. BANKRUPTCIES

1. Has the Contractor, or any of its parents or subsidiaries, ever had a Bankruptcy Petition filed in its name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

2. Has any Majority Shareholder ever had a Bankruptcy Petition filed in his/her name, voluntarily or involuntarily? (If yes, specify date, circumstances, and resolution).

C. BONDING

1. What is the Contractor's current bonding capacity? _____

2. What is the value of the Contractor's work currently under contract? _____

IV COMPANY EXPERIENCE – SIMILAR PROJECTS

A. List three projects of reasonably similar nature, scope, and duration performed by your company in the last five years, specifying, where possible, the name and last known address of each owner of those projects:

Project #1:

Name and Address:

Date of Construction/Project:

Type of Construction/Project:

Contract Price:

Owner contact info:

Architect/Engineer contact info:
(if applicable)

Project #2:

Name and Address:

Date of Construction/Project:

Type of Construction/Project:

Contract Price:

Owner contact info:

Architect/Engineer contact info:
(if applicable)

Project #3:

Name and Address:

Date of Construction/Project:

Type of Construction/Project:

Contract Price:

Owner contact info:

Architect/Engineer contact info: _____
(if applicable) _____

V ARBITRATIONS, LITIGATIONS, AND OTHER PROCEEDINGS

Has your company been involved in any construction arbitration demands filed by, or against, you in the last five years? _____

Has your company been involved in any construction-related lawsuits (other than labor or personal injury litigation) filed by, or against, you in the last five years? _____

Has your company been involved in any lawsuits, proceedings, or hearings initiated by the National Labor Relations Board or similar state agency in the past seven years? _____

Has your company been involved in any lawsuits, proceedings, or hearings initiated by the Occupational Safety and Health Administration concerning the project safety practices of the Contractor in the last seven years? _____

Has your company be involved in any lawsuits, proceedings, or hearings initiated by the Internal Revenue Service, or any state revenue department, concerning the tax liability of the Contractor (other than audits) in the last seven years? _____

Have any criminal proceedings or investigations been brought against the Contractor in the last ten years? _____

If you answered yes to any of the questions above, please identify the nature of the claim, the amount in dispute, the parties, and the ultimate resolution of the proceeding (attach documentation if needed):

VI COMMENTS

Please list any additional information that you believe would assist the Owner in evaluating the possibility of using the Contractor on this Project. You may attach such additional information as an Exhibit to this Statement and Questionnaire.

I certify to the Owner that the information and responses provided on this Questionnaire are true, accurate and complete. The Owner, or its designated representative, may contact any entity or reference listed in this Questionnaire. Each entity or reference may make any information concerning the Contractor available to the

Owner, or its designated representative.

Contractor:

Signature

Date

Title

Sworn to and subscribed before me
This _____ day of _____

Signature

Notary Public

My Commission Expires:

3 May 2016



Andrew C. Morton III,
Capital Projects Manager
Rockdale County Department of Recreation and
Maintenance
P.O. Box 289
Conyers, Georgia 30012

Phone: (770) 278-7091
Fax: (770)-278-8939
andrew.morton@rockdalecounty.org

**Subject: Report of Structural Assessment: Rockdale County Administration Building
958 Milstead Avenue
Conyers, Georgia, 30012
AMEC Foster Wheeler Project No.: 6166 16 0083**

Dear Mr. Morton:

Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler) is pleased to submit this summary report of our engineering services related to the observations and structural assessment of the third floor office floor which has experienced noticeable vertical deflections in the Rockdale County Administration Building located at the corner of Milstead Avenue and Main Street in Conyers, Georgia.

Our services were performed in general conformance with the scope of services and the terms and conditions in Amec Foster Wheeler's proposal 15PROP0010.0000.**** Proposal for Engineering Services Structural Assessment of Rockdale County Administration Building.

Based on our visual assessment of the facility and partial structural analysis of the floor framing at and below the office which has experienced the noticeable vertical deflections, this report documents observed defects and possible member overstress conditions. The findings contained herein are based on our site visits, the building data received and on Code required loading and design procedures referenced in the following design standards:

- ASCE "Minimum Design Loads for Buildings and Other Structures" (ASCE 7-10)
- AISC Steel Construction Manual 14th edition (AISC 360-10)
- AWC-NDS 2012 National Design Specification for Wood Construction

Included in this report are a project background, observations, partial structural analysis, and our recommendations and conclusions.

Correspondence:
Amec Foster Wheeler Environment & Infrastructure, Inc.
1075 Big Shanty Road, Suite 100, Kennesaw, Georgia 30144
Phone: +1 (770) 421-3549
Fax: +1 (770) 421-3488
amecfw.com

1.0 PROJECT BACKGROUND

The subject administration building is a three story timber framed structure with brick and stone exterior walls. The original structure has been modified by an addition that connected two individual structures and added an elevator. A set of drawings produced by Design Associates Architects Inc. (DAA) in 2001 indicate modifications to interior wall layouts along with structural support modifications and additions.

One of the third floor offices has experienced progressive vertical deflections in the past, and due to recent events involving ground water, concerns regarding the floor deflections have been raised. The third floor office occupant noted that the desk and cabinet in the office had required shimming on two separate occasions in order for the drawers to remain closed as a result of the sloping floor. The shimming is believed to have taken place in the time period between 2008 and 2011. The maintenance staff indicated that no shimming has been required in the past five years. The subject office is located in a portion of the building that underwent structural modifications per the 2001 DAA drawings.

Further, the maintenance staff advised that two years ago the elevator inspector discovered a buildup of water in the elevator shaft. It was determined that the sump pump located below the elevator shaft bottom slab had failed. The pump was replaced and runs for approximately five minutes at approximately twenty minute intervals. The water from the elevator pit was tested and found to be unchlorinated and therefore not from a broken water pipe. The water being pumped from the pit is clear indicating that soil fines and silts are not being removed by the pumping of the ground water. The water level with the sump pump functioning is approximately four feet lower than the level found in the elevator shaft pit when the pump had failed.

2.0 OBSERVATIONS

On March 22, 2016 Amec Foster Wheeler engineer's Michelle Daniel, Daimia Gunning and Gordon Stallings performed a visual inspection of some of the accessible portions of the Administration building. Gordon Stallings made a second site visit on March 28, 2016. In some instances the observations are limited to looking above lay-in ceiling panels.

Photographs of area's observed are included in this report as Appendix A, including referenced photographs below.

1. The structure exterior walls do not exhibit significant cracking or stair stepping of the masonry work. Therefore significant settlement of building exterior walls is not apparent. See Appendix A Photographs 1 thru 5.
2. The accessible crawl space in an adjacent connected structure does not show signs of distress from excessive deflections or water intrusion. See Appendix A Photographs 7 thru 11.
3. The first floor (ground floor) flooring in the area adjacent to the elevator pit does not indicate significant floor settlement (lack of cracking of the floor tiles). See Appendix A Photographs 12 thru 14.

4. Steel framing members have been added to the second floor framing in accordance with the 2001 DAA drawings. No obvious signs of overstress or connection concerns were observed. No lateral bracing of the steel beams is apparent. See Appendix A Photographs 15 thru 17.
5. Minor drywall cracking was observed at door frames and other wall openings. The cracking is to the extent that would be expected for a structure of this age. See Appendix A Photographs 18, 22 and 23.
6. Door frames appear generally to be plumb within normal tolerances. See Appendix A Photographs 19 and 20.
7. This corridor ceiling appears to have been constructed out of level. There is minimal cracking in walls and ceiling considering the extent that the ceiling is out of level over a short distance. If out of level was due to deflection more cracking would be expected. See Appendix A Photograph 21.
8. The subject third floor office floor has deflected as indicated by the required shims at the desk and cabinet and the out of level floor. See Appendix A Photographs 24 thru 26.
9. Steel framing members have been added to the third floor in accordance with the 2001 DAA drawings. No obvious signs of overstress were observed. The steel beams are laterally braced by the wood floor joists. See Appendix A Photographs 28 and 29.
10. The attic does not have floor decking, therefore no storage load is considered in the structural analysis. It appears that the attic and roof requires support from load bearing elements below the ceiling joists (roof joists are not part of a truss that could clear span from exterior wall to exterior wall). Therefore, loads from the attic and roof will transmit down to the third floor framing below thru load bearing walls and post and beam construction as indicated on the 2001 DAA drawings. See Appendix A Photographs 32 and 33.

Based on visual observations and review of the 2001 DAA drawings in the location of the subject office it is noted that a new load bearing wall and new beams and post columns that have been added will transmit gravity loads from the attic and roof to the third floor framing system. This may have added new loads or applied loads in different locations to the third floor wood joist framing which, for sustained loads such as the attic and roof dead loads, could result in increased deflection due to creep of the wood framing over time. It was also observed that where new columns or posts were added they were not continued uninterrupted down to the ground level by walls or columns. The columns or posts that are presently supported by beams and girders on the floor below may potentially introduces additional deflections to the upper floor due to the deflections of the lower floor level beams and girders.

3.0 PARTIAL STRUCTURAL ANALYSIS

A partial structural analysis was performed to assess the structural adequacy of the floor system supporting the third floor office where the vertical deflection concerns have been noted. The third floor wood floor joists and steel beams appear to be adequate to support the structure dead loads

and required live loads in accordance with applicable design and building codes. One triple 2"x4" column within a wall which supports third floor framing appears to be overstressed by approximately 8% based on assumed wood design values (all required design values were not provided in the 2001 DAA drawings). One W8x18 steel floor beam at the second floor framing level which supports a column load from the third floor framing appears to be approximately 16% overstressed if fully laterally braced (it is not apparent that the beam is braced). Considering the beam to be braced at the location of the 3"x3" steel tube column that is supported by the beam the W8x18 is approximately 26% overstressed. The W8x21 steel floor girder at the second floor level which supports the W8 x 18 beams appears to be approximately 6% overstressed if fully laterally braced (it is not apparent that the beam is braced). Considering the beam to be braced at the location of the W8 x 18 beams the W8 x 21 is approximately 16% overstressed.

For additional detail refer to the calculations which are included in this report as Appendix B.

4.0 RECOMMENDATIONS AND CONCLUSIONS

In Amec Foster Wheeler's opinion the floor deflection at the subject third floor office is due largely to normal deflections of the steel and wood floor framing systems and long term creep deflections of the wood floor framing.

The deflections at the third floor are compounded by deflections of the second floor beams that support columns and posts from the third floor and from attic and roof loads that are supported by the third floor. It is noted that the lowering of the ground water table due to pumping water from the elevator shaft sump could have contributed to foundation settlement. However, it appears that the sump pump was installed at least fifteen years ago and settlements would likely have stabilized by this time. In addition, there did not appear to be any significant cracking in the exterior masonry walls or the interior tile floors to suggest significant settlements have occurred.

~~It appears that structural modifications that were part of the 2001 DAA drawings may have changed the vertical load path for some of the building gravity loads. This could explain why deflections were continuing in the 2008 time frame possibly due to creep from loads being applied after the 2001 DAA modifications were incorporated. It does not appear that yielding or buckling of the structural members has occurred. Note, only the portion of the building that contributes to the deflections of the subject office was investigated.~~

As noted in the Analysis section several members appear to be overstressed. On the second floor one W8x18 beam is significantly overstressed (16% to 29% depending on bracing) and requires reinforcement. The reinforcement concept sketch provided considers that the beam is laterally braced at 4'-6" on center as shown in the beam bracing concept sketch. The W8x21 beam is overstressed (6% to 16% depending on bracing), with bracing at 5'-0" on center as shown in the beam bracing concept sketch the W8x21 does not require reinforcement. One triple 2x4 column between the third floor and second floor is overstressed approximately 8%. This column is within a wall, the wall will provide some load sharing capability if the column is overloaded, therefore the column does not require reinforcement for this moderate overstress. However, if significant new wall cracking occurs this should be investigated immediately.

3 May 2016

Based on the above findings Amec Foster Wheeler recommends the following:

1. At the second floor framing one-(1) W8x18 beam should be reinforced with additional steel reinforcement and lateral bracing. Conceptual details of the required reinforcement has been included in Appendix C of this report.
2. At the second floor framing one-(1) W8x21 beam and one-(1) W8x18 beam should be braced with additional lateral bracing. Conceptual beam bracing details has been included in Appendix C of this report.
3. The entire building wing where modifications were made as part of the 2001 DAA should be structurally reviewed since the partial analysis included with this report documents members that do not met the requirements of the code.
4. A deflection monitoring program should be implemented until the remedial actions noted in above have been completed.
5. In our opinion the beam lateral bracing and beam reinforcing should be provided in a timely manner

Amec Foster Wheeler appreciates the opportunity to provide our professional services to you on this project. If there are any questions pertaining to the information contained in this report or if we can be of further assistance, please contact us at your earliest convenience.

Sincerely,

Amec Foster Wheeler Environment & Infrastructure, Inc.



A. Gordon Stallings
Associate Engineer - Structural



Michelle Daniel
Senior Engineer - Structural



F. David Shiver
Senior Associate Engineer - Structural

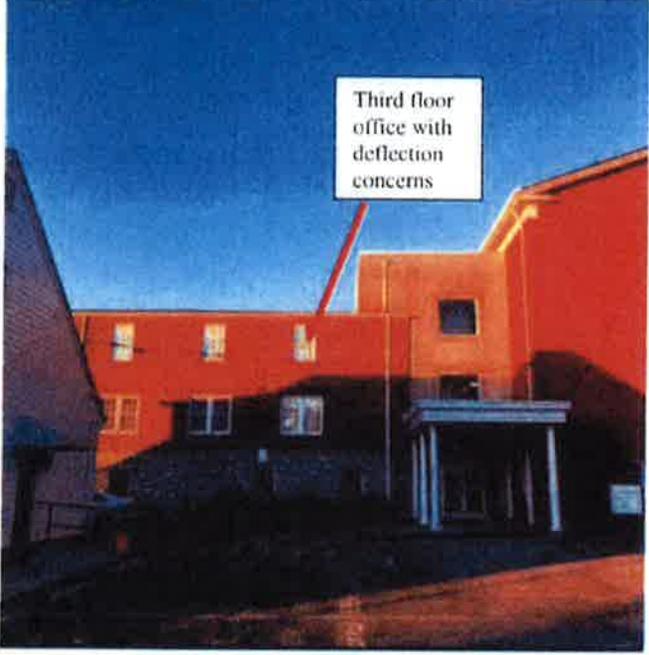
Attachments: Appendix A – Photo Log
Appendix B – Partial Structural Analysis
Appendix C – Conceptual Modification Sketches

APPENDIX A:

Photo Log

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

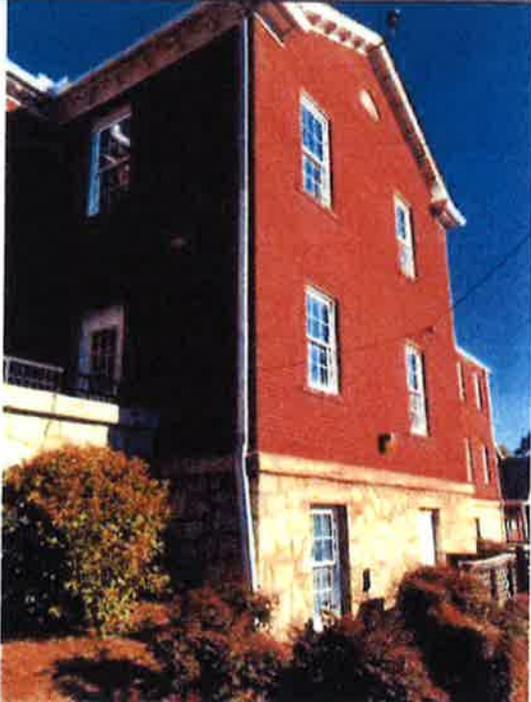
Photograph #1	Remarks
 <p>Third floor office with deflection concerns</p>	<p>Administration building North elevation main entrance. No significant cracking in exterior rock and brick work (no indication of significant settlements).</p>

Photograph #2	Remarks
 <p>Existing building expansion infill between adjacent structures</p>	<p>Administration building North elevation. No significant cracking in exterior rock and brick work.</p>

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

Photograph #3	Remarks
	Administration building West elevation over crawl space. No significant cracking in exterior rock and brick work.

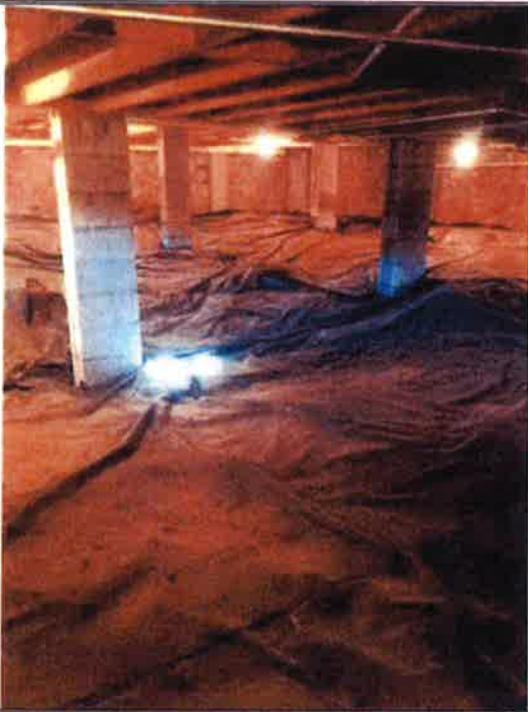
Photograph #4	Remarks
	Administration building West elevation. No significant cracking in exterior rock and brick work.

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

Photograph #5	Remarks
	South elevation of existing building expansion infill to building East elevation. No significant cracking in exterior wall system.

Photograph #6	Remarks
	Possible waterproofing from existing conditions prior to construction of building expansion infill.

By: G. Stallings Date: 04/06/16 Reviewed M. Daniel Date: 04/13/16

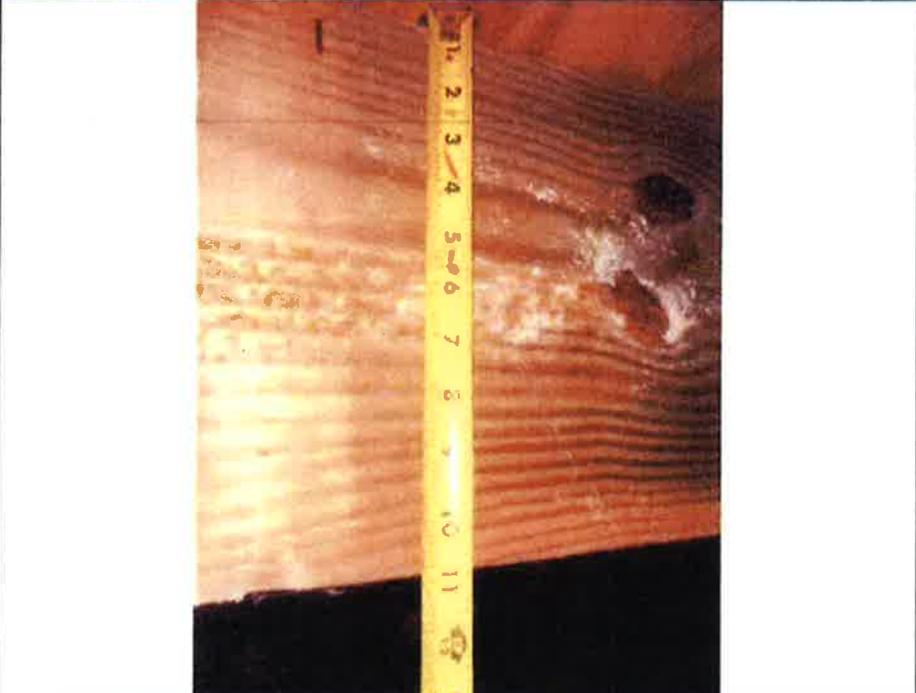
Photograph #7	Remarks
	Wood joist floor framing in building crawl space. No distress or excessive deflections observed.

Photograph #8	Remarks
	CMU pier supporting wood floor framing in crawl space.

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

Photograph #9	Remarks
	Approximately 16 inches down to firm material at crawl space foundations for CMU piers.

Photograph #10	Remarks
	2 X 12 wood floor joist at crawl space.

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Danlel Date: 04/13/16

Photograph #11	Remarks
	Wood floor joists at 16 inches on center at crawl space.

Photograph #12	Remarks
	Tile flooring at first floor does not indicate significant floor settlement (minimal cracking).

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

Photograph #13	Remarks
	Tile flooring at first floor does not indicate significant floor settlement (minimal cracking).

Photograph #14	Remarks
	Laminate flooring at first floor was generally level and not indicating significant settlements.

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

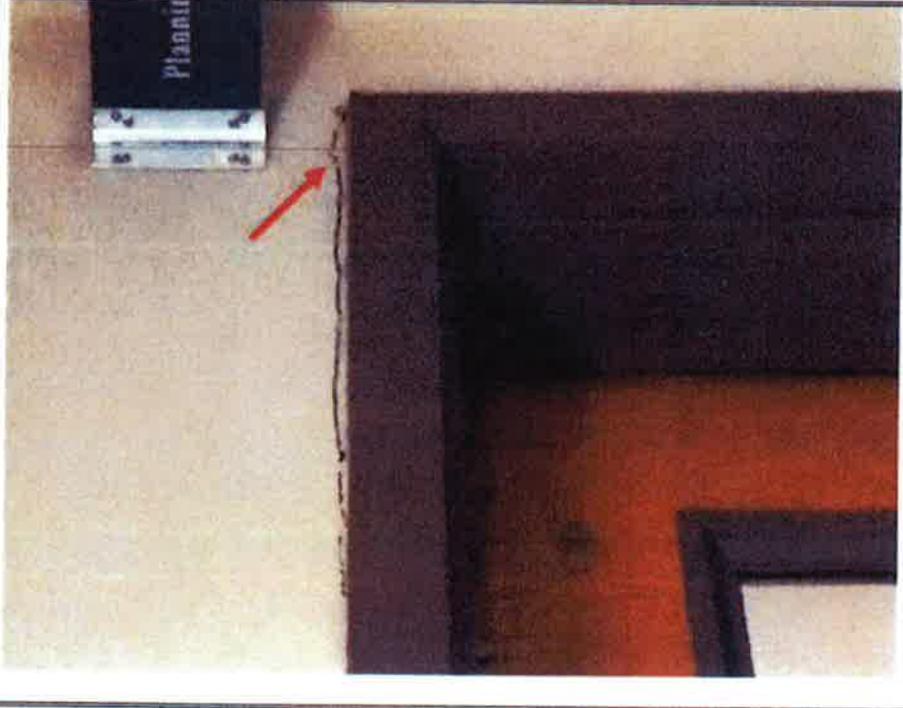
Photograph #15	Remarks
 A photograph showing the interior of a building's second floor framing. A large, dark-colored steel beam (W8 X 18) runs horizontally across the frame. A vertical tube column is visible on the left side. Below the beam, several 2 X 10 floor joists are visible. A red arrow points to the connection between the beam and the column. The lighting is dim, with a bright light source visible in the lower right corner.	<p>Second floor framing W8 X 18 beam and tube column along with 2 X 10 floor joists.</p>

Photograph #16	Remarks
 A close-up photograph of a steel beam (W8 X 18) in the second floor framing. A yellow measuring tape is stretched across the top flange of the beam, showing a measurement of approximately 10 feet. The beam is supported by a vertical column. The surrounding structure is made of wood and metal.	<p>Second floor framing W8 X 18 beam. No lateral bracing of steel beams observed.</p>

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed M. Daniel Date: 04/13/16

Photograph #17	Remarks
	Second floor framing W8 X 21 girder. No lateral bracing of steel beam observed.

Photograph #18	Remarks
	Minor drywall cracking at door frame.

3 May 2016

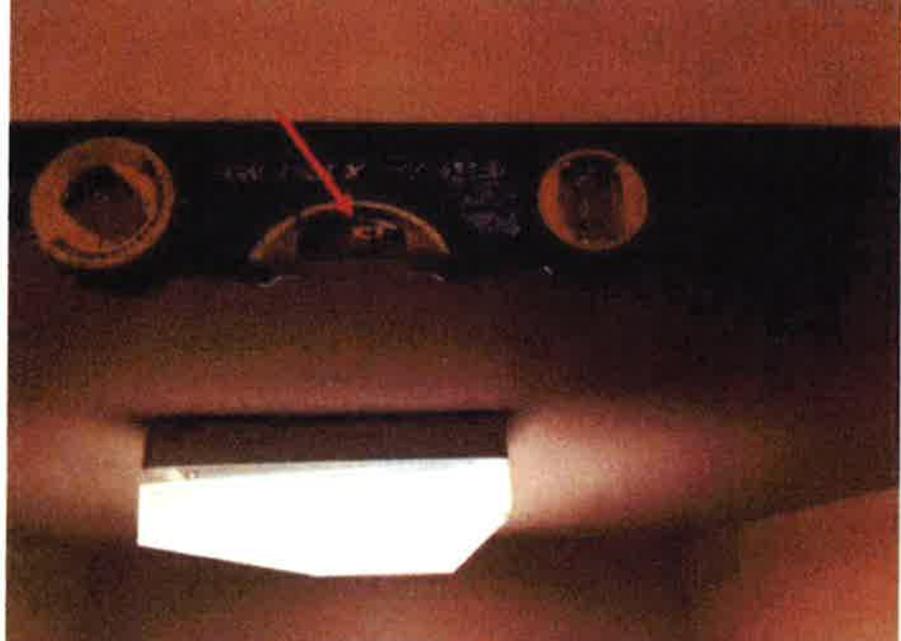
By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

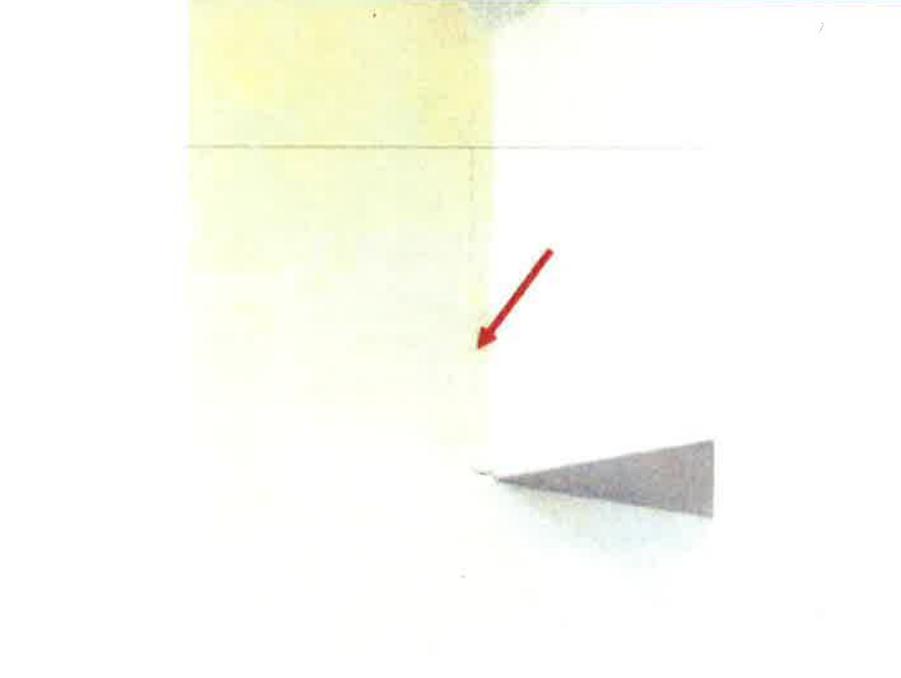
Photograph #19	Remarks
	Door frame in plumb condition.

Photograph #20	Remarks
	Door frame slightly out of plumb.

3 May 2016

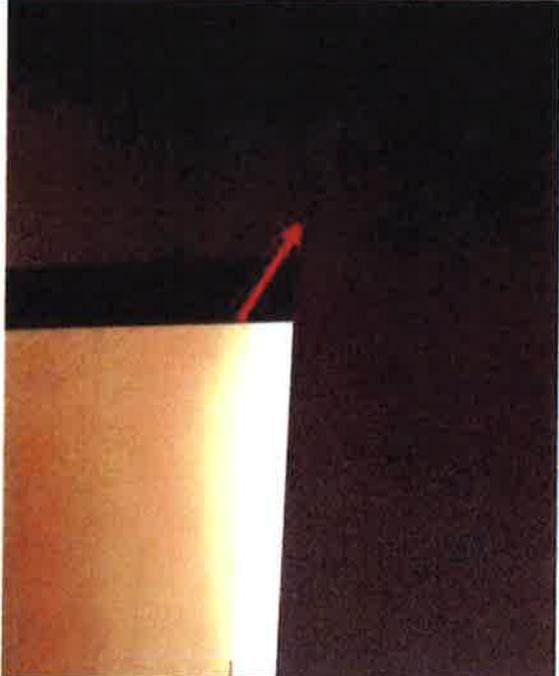
By: G. Stallings Date: 04/08/16 Reviewed: M. Daniel Date: 04/13/16

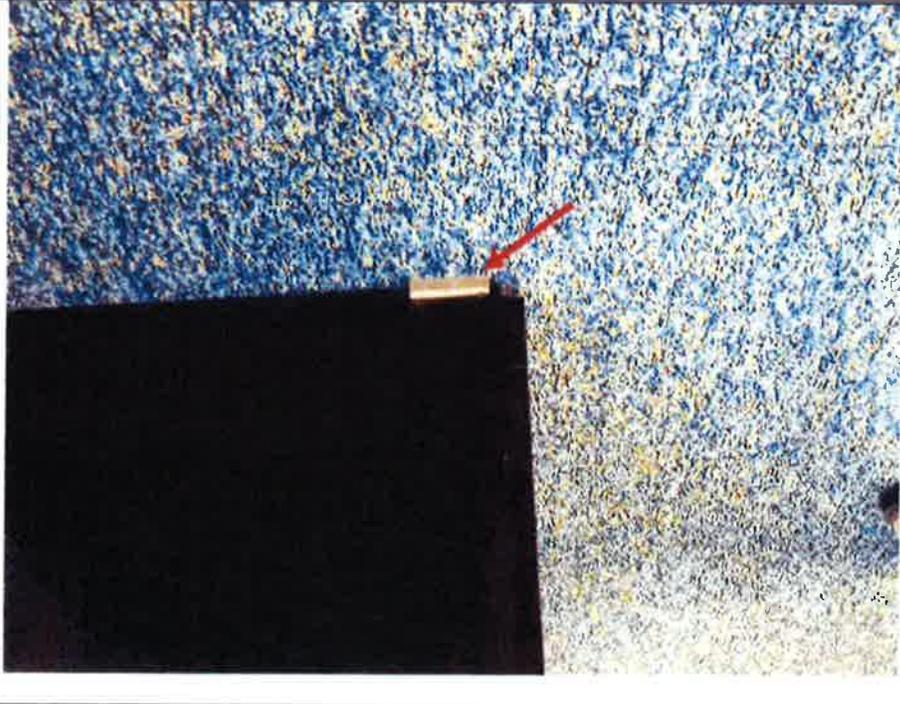
Photograph #21	Remarks
	Second floor corridor ceiling out of level, appears to have been constructed out of level or repaired (minimal cracking in walls and ceiling).

Photograph #22	Remarks
	Minor drywall cracking at second floor corridor.

3 May 2016

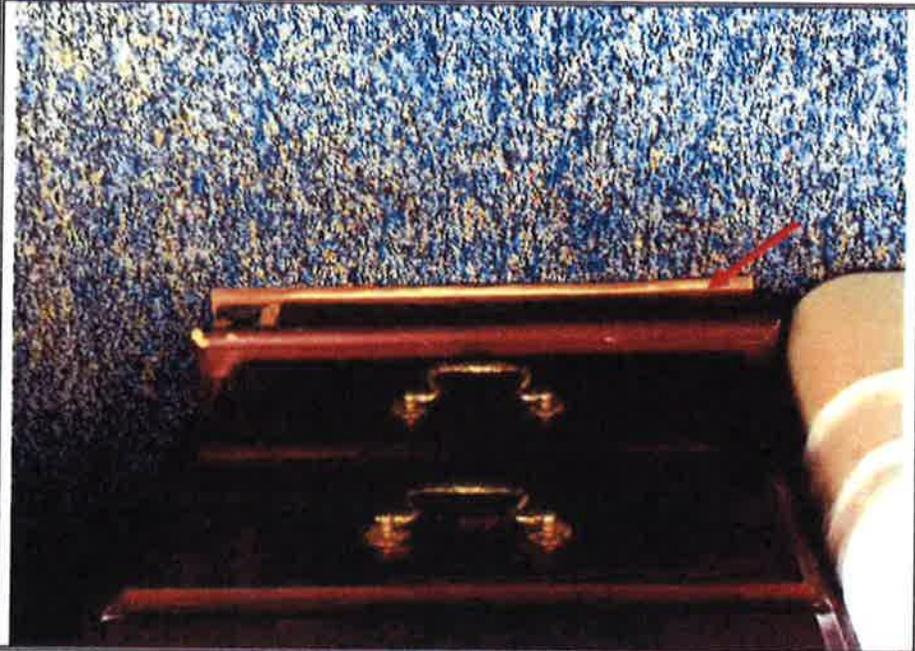
By: G. Stallings Date: 04/06/16 Reviewed M. Daniel Date: 04/13/16

Photograph #23	Remarks
	Minor drywall cracking at opening.

Photograph #24	Remarks
	Shims beneath cabinet at third floor office.

3 May 2016

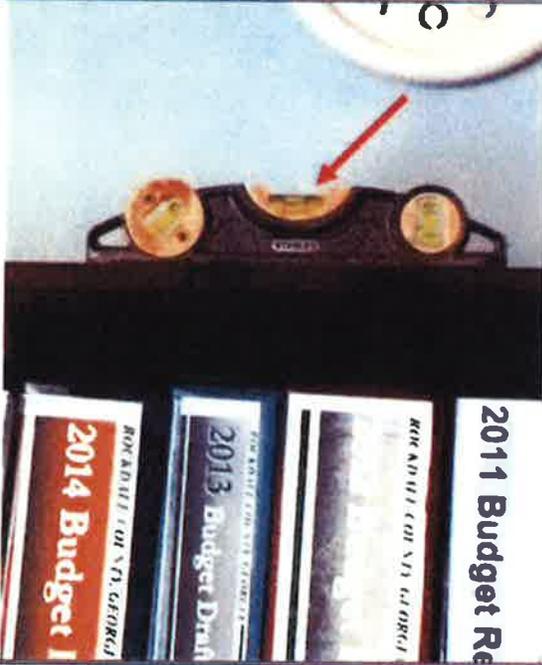
By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

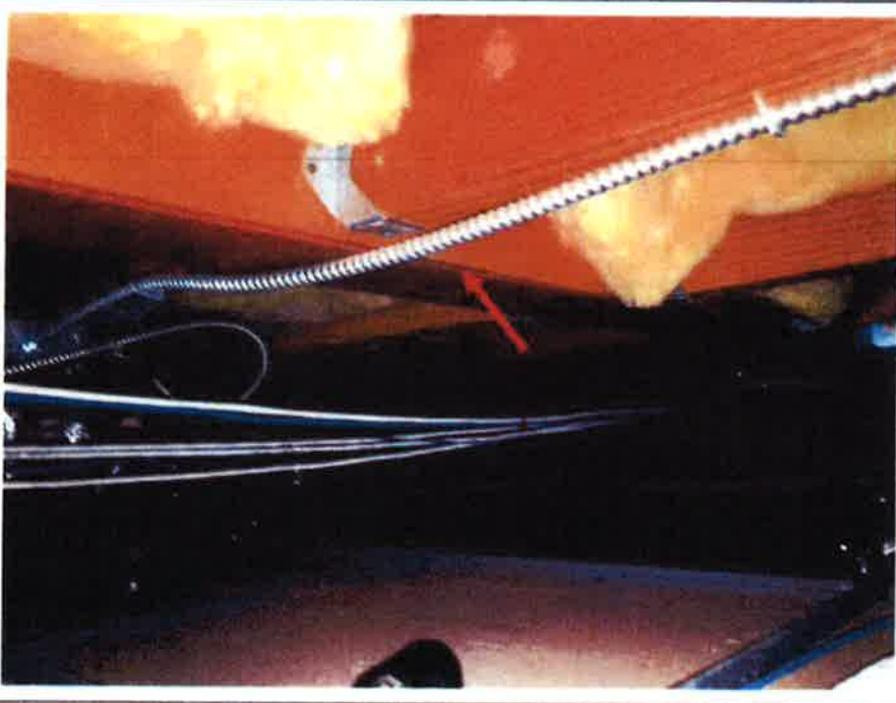
Photograph #25	Remarks
	Shims beneath desk at third floor office.

Photograph #26	Remarks
	Floor out of level at third floor office.

3 May 2016

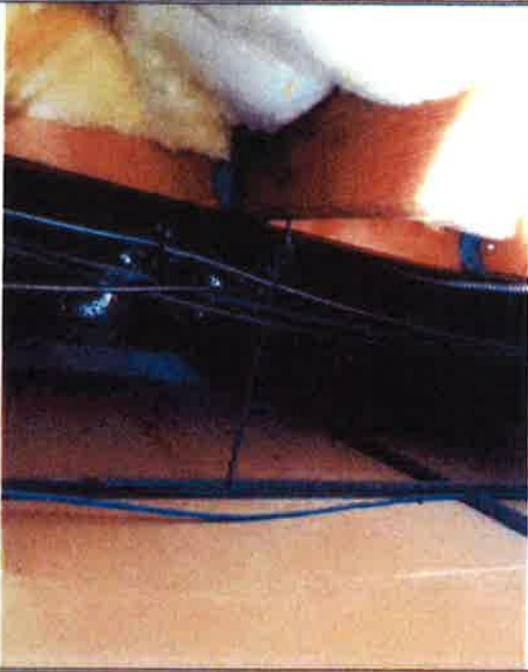
By: G. Stallings Date: 04/06/16 Reviewed M. Daniel Date: 04/13/16

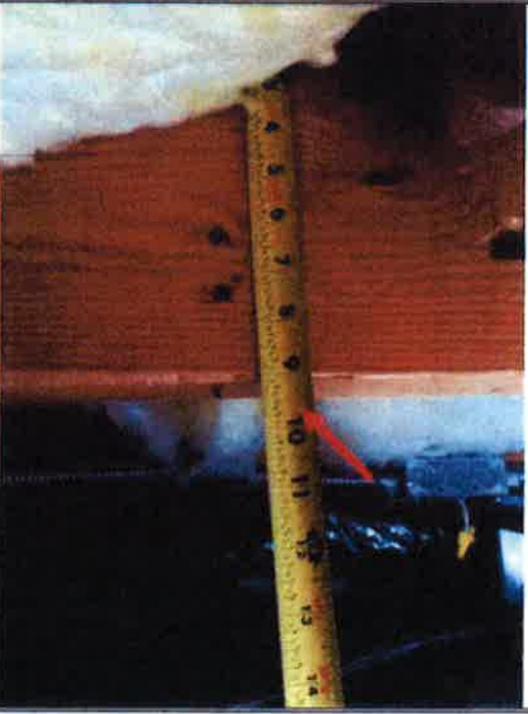
Photograph #27	Remarks
 A photograph of a dark wood bookshelf. On top of the shelf is a black electronic scale with two circular displays. Below the scale are several books standing upright. The spines of the books are visible, with titles including '2014 Budget I', '2013 Budget Draft', and '2011 Budget Re'. A red arrow points to the top of the '2011 Budget Re' book.	Bookcase is approximately level at third floor office along the East wall.

Photograph #28	Remarks
 A close-up photograph of a steel beam and floor joists. A red arrow points to a metal bracket or brace that is attached to the steel beam and floor joist. The scene is dimly lit, with some light reflecting off the metal surfaces.	Third floor steel beam braced by floor joists.

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

Photograph #29	Remarks
	Third floor framing.

Photograph #30	Remarks
	Third floor joists.

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed: M. Daniel Date: 04/13/16

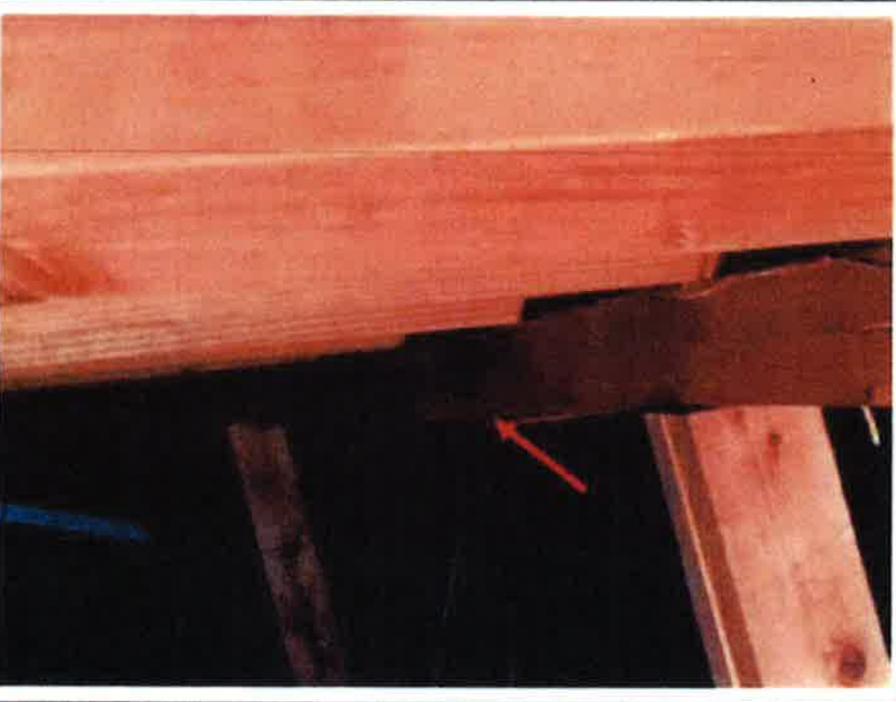
Photograph #31	Remarks
	Third floor joists.

Photograph #32	Remarks
	No flooring in attic. Roof joists and bracing/truss supports and ceiling joists.

3 May 2016

By: G. Stallings Date: 04/06/16 Reviewed M. Daniel Date: 04/13/16

Photograph #33	Remarks
	Roof joists and bracing/truss supports.

Photograph #34	Remarks
	Roof joist support has deflected slightly, did not observe any cracks.

APPENDIX B:
Partial Structural Analysis

JOB NO. 6166 16 0083 SHEET 1 OF
 PHASE TASK
 JOB NAME ROCKDALE COUNTY ADMIN BLDG
 BY AGS DATE 4-1-2016
 CHECKED BY CL DATE 4-21-2016

Amec Foster Wheeler
Environment & Infrastructure, Inc.
 1075 Big Shanty Road NW, Suite 100
 Kennesaw, GA 30144
 +1 (770) 421-3400 Fax +1 (770) 421-3488



LOAD DEVELOPMENT

DEAD LOADS - WOOD DENSITY 2.5 pcf

ROOF SHEATHING + 1" PLANKS = 3 pcf
 FLOOR SHEATHING (2) 3/4" PLY = 4.5 pcf
 ROOF SHINGLES = 3 pcf
 STUD WALL w/ SHI ROCK 3+4 = 7 pcf

ROOF FRAMING 2x6'S @ 16" O.C.
 $\frac{1.5 \times 5.5 (3.5) (2/16)}{144} = 2.5 + 1.0 = 3.5 \text{ pcf}$
 BRACING BRACING

FLOOR FRAMING 2x10'S @ 16" O.C.
 $\frac{1.5 \times 9.25 (3.5) (2/16)}{144} = 2.5 \text{ pcf}$
 ADD FOR LEGGERS + 0.5 pcf
 & BLOCKING = 3 pcf

ATTIC/CEILING 2x6'S @ 16" = 1.5 + 1.5 = 3 pcf
 BLOCKING

CEILING - LAY IN CEILING = 1 pcf
 ELEC / MISC = 2 pcf

ROOF TOTAL DL = $\frac{\text{SHEATHING}}{3} + \frac{\text{FRAMING}}{2.5} + \frac{\text{SHINGLES}}{3} = 8.5 \text{ pcf}$

ATTIC/CEILING DL = $\frac{\text{CEILING}}{1} + \frac{\text{ELEC/MISC}}{2} + \frac{\text{FRAMING}}{2} = 5 \text{ pcf}$

FLOOR/CEILING DL = 4.5 + 1 + 2 + 3 = 10.5 pcf

LIVE LOAD

ROOF LL = 20 pcf

ATTIC/CEILING = 0 pcf (NO FLOORING)

FLOOR = 50 pcf OFFICES
 30 pcf CORRIDORS

JOB NO. 616616 0083 SHEET 2 OF

PHASE _____ TASK _____

JOB NAME ROCKDALE COUNTY ADMIN BLDG

BY AGS DATE 4-1-2016

CHECKED BY Gal DATE 4-21-2016

Amec Foster Wheeler
Environment & Infrastructure, Inc.

1075 Big Shanty Road NW, Suite 100

Kennesaw, GA 30144

+1 (770) 421-3400 Fax +1 (770) 421-3486



amec
foster
wheeler

ROOF FRAMING PLAN LEVEL

$$\text{TOTAL LOAD} = \underset{\text{RF, DL}}{8.5 \text{ psf}} + \underset{\text{MEC DL}}{5 \text{ psf}} + \underset{\text{ROOF LL}}{20 \text{ psf}} = \underline{33.5 \text{ psf}}$$

BEAM B-2 SPAN = 19'-2"

(2) - 1/2" x 9 1/4" LVL BM $F_b = 3000 \text{ psi}$

$$\text{MOMENT CAPACITY} = \frac{3" \times 9.25^2 \times 3000 \text{ psi}}{6} = 1383 \text{ ft} = 10.7 \text{ ft}^3$$

$$\text{GIVES } w_{\text{CAP}} = \frac{10.7 \text{ (ft}^3\text{)}}{(12 \text{ ft})^2} = .23 \text{ k/ft}$$

TOTAL LL TO BE SHARED BETWEEN BM B-2 & NEW LOAD BEARING WALL

$$\approx \frac{9.25' + 11.25'}{2} (33.5 \text{ psf}) = 343 \text{ lb/ft} + 7 \text{ psf} \times 10' = 413 \text{ PCF}$$

$$\text{GIVES } \frac{413}{2} = 207 \text{ PCF TO WALL AND BM}$$

CALCULATE LOADS FOR COMBINATION w/ FUR LIVE LOADS ON 2nd FLR

w/o ROOF LL (CAN USE $75(L + \text{ROOF LL})$ OR LL w/o ROOF LL)

Controls for 2nd FLR

$$\text{w/o ROOF LL TOTAL LL} = \frac{9.25 + 11.25}{2} (13.5) + 70 = 208 \text{ PCF}$$

$$\text{GIVES } \frac{208}{2} \text{ PCF TO WALL AND BEAM (2nd FLR ONLY)}$$

JOB NO. 6166 16 0083 SHEET 3 OF
 PHASE TASK
 JOB NAME ROCKDALE COUNTY ADMIN BLDG
 BY AGS DATE 4-1-2016
 CHECKED BY GL DATE 4-21-2016

Amec Foster Wheeler
 Environment & Infrastructure, Inc.
 1075 Big Shanty Road NW, Suite 100
 Kennesaw, GA 30144
 +1 (770) 421-3400 Fax +1 (770) 421-3486



3rd FLR FRAMING LEVEL

DL
 $10.5 \text{ psf} + 50 \text{ psf} = 60.5 \text{ psf}$ OFFICE
 $10.5 \text{ psf} + 80 \text{ psf} = 90.5 \text{ psf}$ CORRIDOR

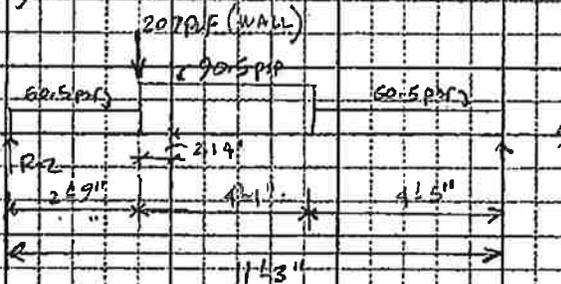
3rd FLR JOIST-1

9'-3" SPAN

$W = 60.5 \text{ psf} \left(\frac{9.25}{2} \right) = 280 \text{ PLF}$

3rd FLR JOIST-2

11'-3" SPAN



$R-2 = (207(8.5)) + 60.5 \left(\frac{4.48 \times 4.48}{2} \right) + 60.5(2.75)9.88 + 90.5(4.08)6.16$
 $11.25'$

$R-2/FT = 567 \text{ LB/FT}$

$M/F = 567(4.99) - 207(2.14) - 60.5 \left(\frac{4.99^2}{2} \right) - 30(2.14)^2$

$= 538 \text{ FT-LB/FT}$ $M/JOIST = 538 \left(\frac{16}{12} \right) = 2050 \text{ FT-LB}$

JOIST BENDING CAPACITY ($F_b = 1200 \text{ psi}$; single 2x10) = $1.5 \times \frac{9.25^2}{1200} = 2139 \text{ FT-LB}$
 FOR REPETITIVE MEMBER $C_F = 0.15$ OK
 CAPACITY INCREASED TO $2139(0.15) = 2960 \text{ FT-LB}$ CLOSE

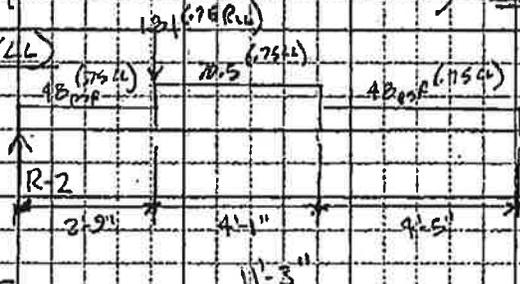
JOIST SHEAR

$F_v = \frac{567 \times \left(\frac{10}{12} \right)}{1.5 \times 9.25} (1.5) = 82 \text{ PSI}$

$F_v = 175 \text{ psi}$ (ASSUMED FOR SOUTHERN PINE) OK

FIND REACTION FOR 75(RU) + 75(LL)

$R-2 = \left[8(8.5) + 48 \left(\frac{4.92^2}{2} \right) + 48(2.75 \times 9.88) \right]$
 $+ 70.9(4.08 \times 6.46) \left(\frac{1}{11.25} \right)$
 $= 460 \text{ PLF}$ (489 PLF SHRT. W/O ROOF LL)



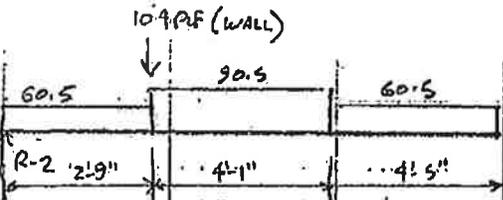
\therefore 3rd FLR MEMBERS & 2nd FLR MEMBERS SUPPORTING ROOF ARE NOT REQUIRED TO HAVE ROOF LL

JOB NO. 6166160083 SHEET 4 OF
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 +1 (770) 421-3400 Fax +1 (770) 421-3486

FIND REACTIONS W/O ROOF LL



$$R-2 = 10.4(85) + 60.5 \left(\frac{4.42 \times 4.42}{2} \right) + 60.5(2.75 \times 9.00) + 90.5(4.00)(6.96)$$

$$= 489 \text{ lb/ft}$$

3rd FLR BM W10X15-1 (W/ROOF LL)

SPAN = 14.9' (GR 36)

$W = 280 + 567 \text{ PLF} + 15 = 862 \text{ PLF}$

$M_x = \frac{.862(14.75^2)}{2} = 23.4 \text{ K-FT}$

$R = \frac{.862(14.75)}{2} = 6.36 \text{ K}$

$M_{bx} = \frac{36 \text{ ksi}(16)}{1.67(12)} = 28.7 \text{ K-FT} > 23.4 \text{ OK}$

(FULLY BRACED)

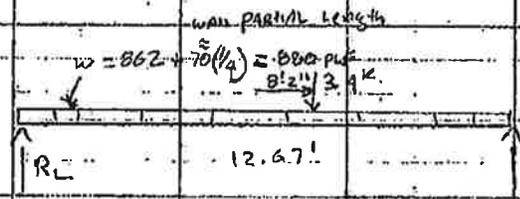
$\Delta = \frac{5}{384} \left(\frac{.862 \times 14.75}{29,000(68.9)} \right) (14.75 \times 12)^3 = .46''$

(TOTAL L.D.)

REACTION W/O ROOF LL = $\frac{(489 + 280 + 15) \times 14.75}{2} = 5.78 \text{ K (W/O ROOF LL)}$

Bm W10X15-2

SPAN = 12.67'



$R_R = .862 \left(\frac{12.67}{2} \right) + \frac{3.4 \text{ K}(8.17)}{12.67} = 7.77 \text{ K}$

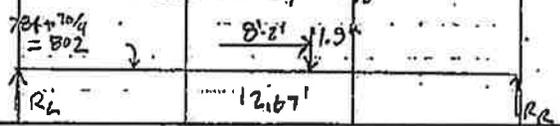
$R_L = .862 \left(\frac{12.67}{2} \right) + \frac{3.4(4.5)}{12.67} = 6.70 \text{ K}$

$M_x = 6.70 \text{ K}(8.17) - .862 \left(\frac{8.17}{2} \right)^2 = 29.4 \text{ K-FT} \approx 28.7 \text{ K-FT}$

OK FLOOR & ROOF LL CAN BE REDUCED BY 25% WHEN COMBINED

REACTION W/O ROOF LL

$R_R = 6.31 \text{ K}$



JOB NO. 616616 0083 SHEET 5 OF
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2nd FLOOR FRAMING PLAN W/O ROOF LL

WB X 18-2
 SPAN = 12'-0"

$$R_R = .018 \left(\frac{12^2}{2} \right) + \frac{6.78^k (6.5)}{12} = 3.78^k$$

$$R_L = 3.22^k$$

$$M_x = 3.22^k (6.5') - .018 \left(\frac{6.5^2}{2} \right) = 20.5^k\text{-FT}$$

WB X 18
 (GR 36) $\lambda = 17$

$$M_{bx} = \frac{36 \times 17}{167} \left(\frac{1}{12} \right) = 30.5^k\text{-FT} > 20.5^k\text{-FT} \text{ OK}$$

ASSUMING LATERALLY BRACED (ADD BRACING)

WB X 18-1
 SPAN = 12'-9"

$$R_R = .018 \left(\frac{12.75^2}{2} \right) + \frac{4.5' (12.1^k)}{12.75} = 4.39^k$$

$$R_L = 7.94^k$$

$$M_x = 7.94^k (4.5') - .018 \left(\frac{4.5^2}{2} \right) = 35.5^k\text{-FT} > 30.5^k\text{-FT}$$

N/G
 16% OVER

ASSUMING LATERALLY BRACED (ADD BRACING)

IF UNBRACED 5'-5" (LOCATION OF TUBE COLUMN)
 (SHT. 5B) $M_{bx} = 27.6^k\text{-FT} < 35.5^k\text{-FT}$ 29% OVERSTRESSED

(IF BRACED)

WB X 21
 SPAN = 13'-3"
 $\lambda = 20.4$

$w = 60.5 \left(\frac{12 + 12.75}{2} \right)$
 $\lambda = 20.21$
 $\lambda = 20.7^k\text{-FT}$

$$R_R = .77 \left(\frac{13.25^2}{2} \right) + \frac{7.61 (8.5)}{13.25} = 9.98^k$$

$$R_L = 7.83^k$$

$$M_x = 7.83^k (8.5') - .77 \left(\frac{8.5^2}{2} \right) = 38.7 > 36.6$$

$$M_{bx} = \frac{20.9 \times 36}{.47 (12)} = 36.6^k\text{-FT}$$

6% OVER
 (IF BRACED)

IF UNBRACED
 (LOC. = 8'-6")
 (LOCATION OF WB X 18)

$$M_{bx} = 33.4^k\text{-FT} < 38.7$$

10% OVER

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$L_p = 1.76 C_r \sqrt{\frac{E}{F_y}} = 1.76 (1.26) \sqrt{\frac{29,000}{36}} = 62.9''$

$C = 1.0$
 $d_i = .282$
 $S_x = 18.2$
 $r_o = 7.88$

$L_p = 5'3''$

$L_w = 152$
 $r_{ec} = \sqrt{\frac{9.07(7.88)^2}{2(18.2)}} = 1.45$

(0.0709)

$L_r = 1.95(1.45) \sqrt{\frac{29,000}{36} \left[\frac{.282(1)}{18.2(7.88)} + \frac{.282^2}{18.2(289)} + 6.76 \left(\frac{7(36)}{29,000} \right)^2 \right]}$

$= 229''$
 $L_r = 19.1' FT$

(.000039)

(.000051)

$M_A = \sqrt{739 - \left[739 - .7 \left(\frac{36}{45} \right) (18.2) \right] \left[\frac{192 - 62.9}{229 - 62.9} \right]}$

(.00620)

(4.4)

(235)

$L_b = 102''$

$= 669$

$M_{bx} = \frac{669}{1.67} = 401 \text{ in-k} > 33.0 \text{ k-ft}$

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W8X18

$$L_p = 1.76 \sqrt{I_y \sqrt{E/F_y}} = 1.76(1123) \sqrt{\frac{29,000}{2.6}} = 614''$$

$C = 1.0$

$\sqrt{I_y} = 0.172$

$I_y = 7.97$

$51\frac{1}{2}''$

$S_x = 15.2$

$r_x = 7.81$

$C_w = 1.22$

$$r_{ts} = \sqrt{\frac{7.97(7.81)}{2(15.2)}} = 1.43$$

$$L_r = 1.95(1.43) \sqrt{\frac{29,000}{2(36)}} \sqrt{\frac{172(6)}{15.2(7.81)}} = \sqrt{\left(\frac{2172}{15.2(7.81)}\right)^2 + 6.76\left(\frac{17(36)}{29000}\right)^2}$$

$= 206'' \quad 17-2\frac{1}{2}''$

$L_b = 18'3''$
 $99''$

$$M_{rx} = \sqrt{612 - [612 - 2(36)(15.2)] \left[\frac{99 - 614}{206 - 614} \right]} = 552.9$$

$$M_{Ex} = \frac{552.9}{1.67} = 331 \text{ ft-k} \Rightarrow 276 \text{ k-ft}$$

JOB NO. 6166160003 SHEET 6 OF _____
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2ND FLR BEAMS ARE OVERSTRESSED

CHECK TRIBUTARY AREA FOR POSSIBLE LIVE LOAD REDUCTION

2ND FLR WBX18-1

$$\text{COL BA} - \frac{12.67' + 14.75'}{2} \left(\frac{9.25' + 11.25'}{2} \right) = 141 \text{ SF}$$

2ND FLR JOISTS TO WBX18-1

$$= \frac{9' + 10.75'}{2} (12.75') = 126 \text{ SF}$$

$$267 \text{ SF} < 400$$

LIVE LOAD REDUCTION NOT ALLOWED.

FOR WBX18-1 (AT 2ND FLR ONLY SUPPORTING ROOF & 3RD FLR LOADS)

$$\frac{\text{TOTAL DL (ROOF & 3RD FLR)}}{\text{TOTAL DL + TOTAL LL (3RD FLR)}} = \frac{1}{3}$$

$$M_x = 35.5 \quad M_{x, \text{DL}} = \frac{35.5}{3} = 11.8 \text{ K-FT} \quad M_{x, \text{LL}} = 35.5 \left(\frac{2}{3} \right) = 23.7 \text{ K-FT}$$

$$\text{WBX18 } I_x = 616.9 \text{ in}^4$$

$$\text{TRY W6X12 } I_x = 221 \text{ in}^4$$

$$S_x = 7.31$$

$$84 \text{ in}^3$$

$$\text{WBX18 WILL TAKE } \left(\frac{61.9}{84} \right) 23.7 = 17.5 \text{ K-FT LL}$$

$$\frac{11.8}{29.3} \text{ DL} < 30.5 \text{ K-FT}$$

IF BRACED

$$\text{CONSIDER W6X12 TAKING } \left(\frac{221}{616.9} \right) 35.5 = 9.33 \text{ K-FT}$$

$$F_b = \frac{9.33 (12)}{7.31} = 15.3 \text{ KSI} \text{ OK BRACED AT ENDS}$$

VERTICAL SHEAR REQ'D AT END CONNECTION OF W6X12 TO WBX18 (NOT-COMPOSITE ACTION)

$$= 7.9 \left(\frac{221}{84} \right) = 2.1 \text{ K} \quad (4) - \frac{3}{8} \text{ DIA BOLTS @ } 2 \frac{1}{4} \text{ GAGE AT } 4 \text{ O.K. EA. END}$$

OK BY INSPECTION

PROVIDE BOLTS AT 1/3 POINTS TO BRACE W6X12 BM.

JOB NO. 6166 16 0083 SHEET 7 OF _____
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Columns from 3rd FLR to 2nd FLR
 TRIPLE 2x4 COLUMN IN WALL

$C_F = 1.15$ (ALREADY INCLUDED IN TABLE VALUES)

APPR. VALUES OF $F_c = 1600$ PSI & $E_{min} = 510,000$ PSI BASED ON $F_b = 1200$ PSI (GIVEN)
 FOR SOUTHERN PINE ASSUMPTION

(2A) - COLUMN HT. $\approx 9'-2"$ $P = 6.78^k$

$$F_{CE} = \frac{0.822 (510,000)}{\left(\frac{(9.17 \times 12)}{3.5}\right)^2} = 424 \text{ PSI} \quad C = .8 \quad \frac{F_{CE}}{F_c} = \frac{424}{1600} = .265$$

$$C_a = \frac{1 + .265}{2(.8)} \sqrt{\frac{(1 + .265)^2}{2(.8)} \cdot \frac{.265}{.8}} = .249$$

$$F_c' = .249 (1600) = 398 \text{ PSI}$$

$$F_c = \frac{6.780k}{3(1.5 \times 3.5)} = 430 \text{ PSI} > 398 \text{ PSI} \quad \underline{N.G.}$$

8% OVERSTRESS

TS 3x3x3/16

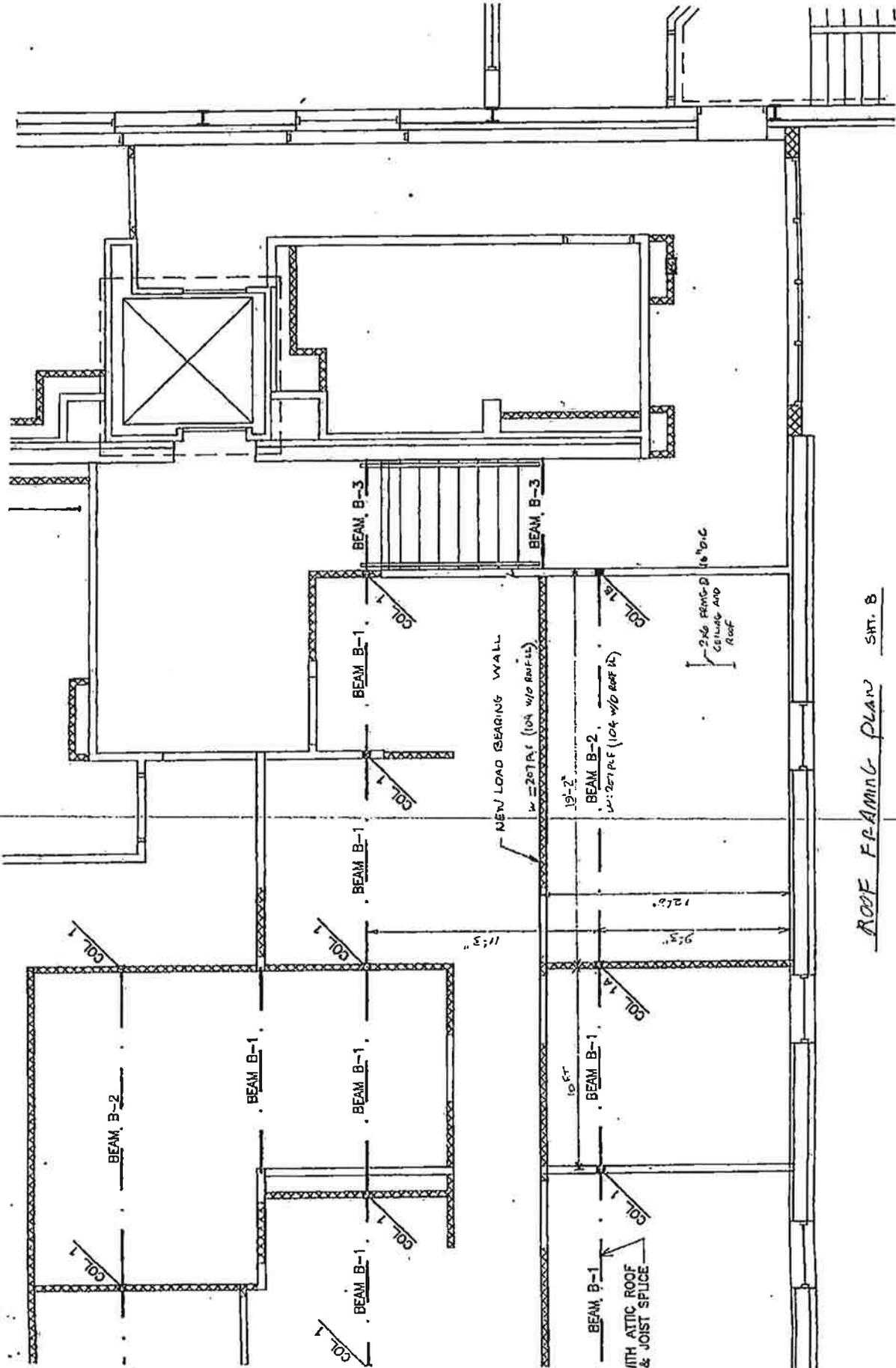
(3A) - COLUMN HT. $\approx 9'-2"$ $P = 12.1^k$ W/O WALL

ASD CAPACITY = 28^k OK

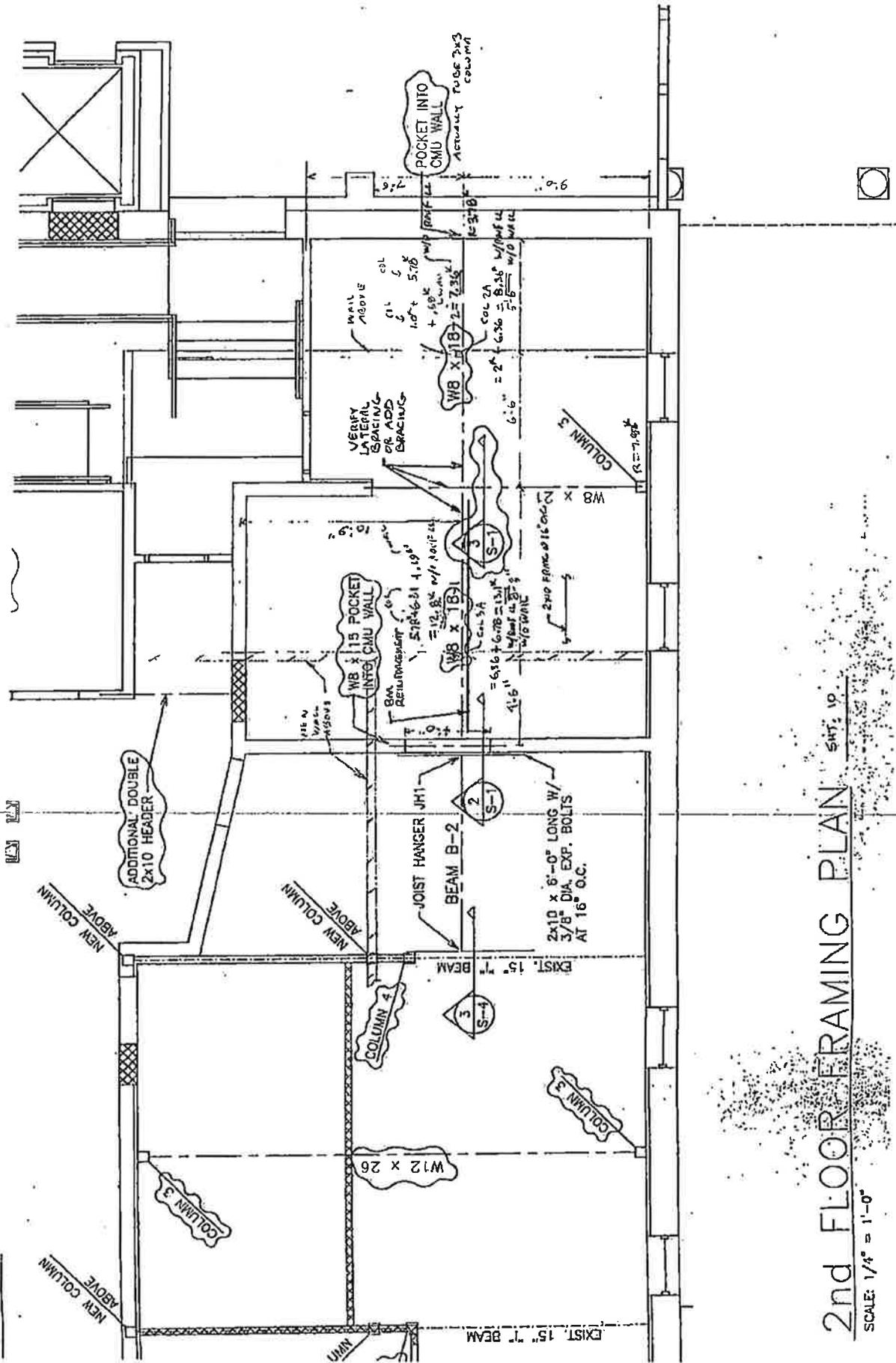
COLUMNS 2nd FLR TO GROUND FLR

column HT. $\approx 12^{\text{ft}}$ $P = 7.83^k$

ASD CAPACITY = 17.8^k OK



ROOF FRAMING PLAN SHT. 8



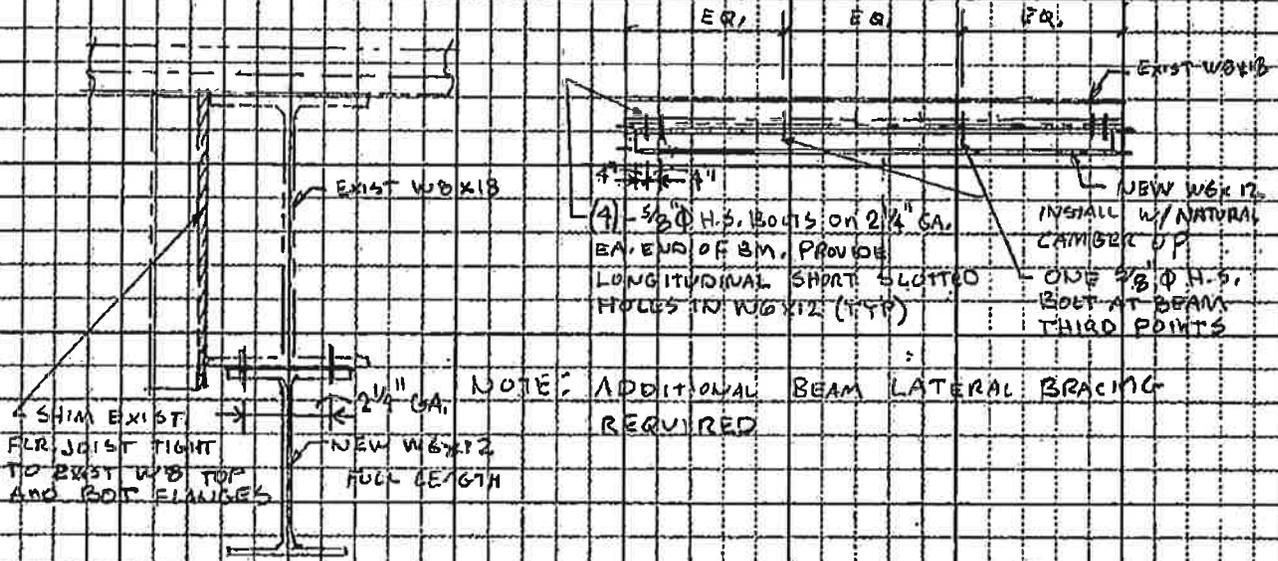
JOB NO. 6166 16 0003 SHEET 1 OF
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CONCEPTUAL BEAM REINFORCEMENTS 2ND FLR FRAMING

WBX10-1 (16% OVERSTRESSED) (WITH BRACING ADDED)



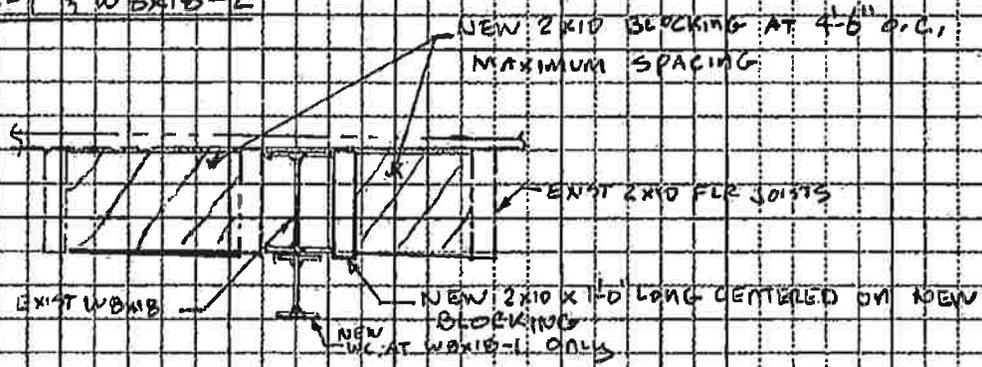
JOB NO. G166 16 0083 SHEET 2 OF
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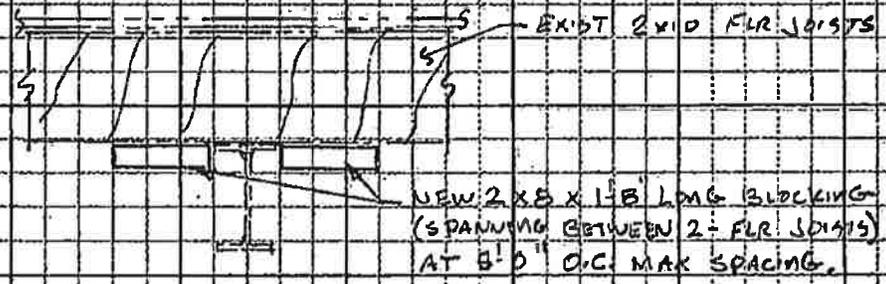


BEAM LATERAL BRACING MODIFICATIONS - 2ND FLR FRAMING - CONCEPTUAL

W8X18-1 & W8X18-2



W8X21



DETAILS AT WORK ITEM 2