## Structural General Notes

1. The construction drawings shall be considered as the final specifications. All work shall be performed in strict accordance with the plans and specifications unless otherwise directed in writing by the architect. The contractor is responsible for the accuracy of all work performed. All materials shall be delivered to the site in accordance with the plans and specifications. The contractor is responsible for ensuring that all materials are properly stored and handled to prevent damage or deterioration.

2. All work shall be performed in accordance with the latest edition of the American Petroleum Institute (API) specifications and the American Society of Mechanical Engineers (ASME) codes.

3. The contractor shall be responsible for the installation of all materials and equipment. The contractor shall ensure that all work is performed in a manner that will not interfere with the operations of other trades or the use of the building.

4. The contractor shall be responsible for the provision of all necessary labor, equipment, materials, and supervision to complete the work in accordance with the plans and specifications. The contractor shall ensure that all work is performed in a safe and efficient manner.

5. The contractor shall be responsible for the coordination of all work with other trades. The contractor shall ensure that all work is coordinated to prevent conflicts or delays.

6. All work shall be performed in accordance with the latest edition of the American Society of Civil Engineers (ASCE) standards and the American Concrete Institute (ACI) codes.

### Loads

- **1st Floor Concrete Slab and Beams - Normal Weight of 4,000 PSI at 28 Days.**
- **Roof - 5 PSF.**
- **Roof - 43 PSF.**
- **Roof - 40 PSF.**
- **Roof - 100 PSF.**
- **Roof - 150 PSF.**
- **Roof - 5 PSF.**
- **Roof - 92 PSF.**
- **Roof - 80 PSF.**

### Concrete

- **General Notes:**
  - ACI 306R Recommended Practice for Cold Weather Reinforced Concrete (ACI 318).
  - All concrete work shall conform to all provisions of the ACI 318 code.
  - All concrete shall meet the requirements of the ACI 318 code.

- **Concrete Slab:**
  - Normal weight of 4,000 PSI at 28 days.
  - All concrete, unless noted otherwise, shall be stone mastic asphalt.
  - All concrete, unless noted otherwise, shall be cast-in-place concrete.

- **Foundation:**
  - Cast-in-place concrete.
  - Structural concrete having a minimum design compression strength of 3300 PSI.
  - Structural concrete having a minimum design compression strength of 2000 PSI.
  - Structural concrete having a minimum design compression strength of 4000 PSI.
  - Structural concrete having a minimum design compression strength of 5000 PSI.
  - Structural concrete having a minimum design compression strength of 7000 PSI.

### Steel

- **General Notes:**
  - All structural and miscellaneous steel shall conform to the latest edition of the American Institute of Steel Construction (AISC) specifications.
  - All reinforcing steel shall conform to the latest edition of the American Institute of Steel Construction (AISC) specifications.
  - All load-bearing steel shall be designed for loads greater than the design dead loads.

- **Reinforcing Steel:**
  - K. All reinforcing steel shall conform to ASTM A615, Grade 60.
  - J. Provide a soft joint where any non-bearing masonry block or brick or hollow block filled solid with grout.
  - L. Provide steel ledger angles at steel columns as required.

- **Tubular Steel:**
  - D. Steel tubes shall conform to ASTM A500 Grade B, FY = 36 ksi.
  - E. Steel tubes shall conform to ASTM A500 Grade A, FY = 25 ksi.

### Masonry

- **General Notes:**
  - All masonry work shall be designed and constructed in accordance with the American Society for Testing and Materials (ASTM) specifications.
  - All masonry shall be designed and constructed in accordance with the American Society for Testing and Materials (ASTM) specifications.

- **Concrete Masonry Units:**
  - A. All concrete masonry units shall conform to the American Society for Testing and Materials (ASTM) specifications.
  - B. All concrete masonry units shall conform to the American Society for Testing and Materials (ASTM) specifications.

### Lighting

- **General Notes:**
  - All lighting fixtures shall be designed and constructed in accordance with the National Electric Code (NEC).
  - All lighting fixtures shall be designed and constructed in accordance with the National Electric Code (NEC).

### Electrical

- **General Notes:**
  - All electrical work shall be designed and constructed in accordance with the National Electrical Code (NEC).
  - All electrical work shall be designed and constructed in accordance with the National Electrical Code (NEC).

### HVAC

- **General Notes:**
  - All HVAC work shall be designed and constructed in accordance with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) guidelines.
  - All HVAC work shall be designed and constructed in accordance with the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) guidelines.
### 1ST FLOOR FRAMING PLAN - AREA A

#### Notations:
- **BARS 'a'**
  - Top End
  - Column Line
- **BARS 'b'**
  - Top Interior
- **BARS 'c'**
  - Typical Bottom
- **DROP PANEL**
- **TRANSVERSE**
  - #5 AT 12" (Transverse)
- **NOTE 1**
  - See S2.04
- **NOTE 2**
  - Tension Lap
- **NOTE 3**
  - See S2.04
- **NOTE 4**
  - Standard Tension Lap
- **NOTE 5**
  - Standard Tension Lap
- **NOTE 6**
  - Standard Tension Lap
- **NOTE 7**
  - See S2.04
- **NOTE 8**
  - See S2.04
- **NOTE 9**
  - See S2.04

#### Structural Details:
- **COLUMN LINE**
  - S1.03
  - M.2
  - S6

#### Slab Schedules:

<table>
<thead>
<tr>
<th>Area</th>
<th>Slab Schedule</th>
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<tbody>
<tr>
<td>X.3</td>
<td>11' - 9 1/4&quot;</td>
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<td>X.5</td>
<td>11' - 8&quot;</td>
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<td>X.8</td>
<td>11' - 4 1/4&quot;</td>
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<td>X.9</td>
<td>11' - 7 1/4&quot;</td>
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<tr>
<td>X.10</td>
<td>11' - 11&quot;</td>
</tr>
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<td>Y.2</td>
<td>3' - 6&quot;</td>
</tr>
<tr>
<td>Y.4</td>
<td>3' - 8&quot;</td>
</tr>
<tr>
<td>Y.5</td>
<td>3' - 7 1/4&quot;</td>
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<tr>
<td>Y.7</td>
<td>3' - 5 1/4&quot;</td>
</tr>
<tr>
<td>Y.8</td>
<td>3' - 3 1/4&quot;</td>
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#### Reinforcing Schedule:

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<tr>
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<th>Slab Reinforcing Schedule</th>
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</thead>
<tbody>
<tr>
<td>S1.03</td>
<td>8' - 2 1/2&quot; #8 AT 12&quot;</td>
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<tr>
<td>S1.04</td>
<td>8' - 0&quot; #8 AT 12&quot;</td>
</tr>
<tr>
<td>S1.02</td>
<td>8' - 0&quot; #5 AT 12&quot;</td>
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</tbody>
</table>

#### Structural Notes:
- **PROOF NOSINGS.**
- **1 1/4" GALVANIZED BAR GRATING TREADS WITH SKID 10. PROVIDE C12x20.7 MIN. GALVANIZED STRINGERS WITH HORIZONTAL TIES INTO PERIMETER BEAM.**
- **COORDINATE SLAB DEPRESSION REQUIREMENTS AND LOCATION OF OPENINGS.**
- **MECHANICAL / ELECTRICAL SHOP DRAWINGS FOR SIZE**
- **G.C. TO COORDINATE ANY REQUIRED OPENINGS IN SLAB CONSTRUCTION SHALL BE 5" SLAB ON 1 1/2" - 20**
- **FINISH FLOOR ELEVATION = 116'-0". FLOOR CONSTRUCTION SHALL BE 12" SLAB REINFORCED**
- **FINISH SLAB ELEVATION = 113'-0" IN AREA NOTED. CONSTRUCTION SHALL BE 12" SLAB MIN. BOTTOM OF**
- **FINISH SLAB ELEVATION VARIES IN AREA NOTED. CONSTRUCTION SHALL BE 8" SLAB REINFORCED PER**
- **FINISH FLOOR ELEVATION = 116'-0". FLOOR PLAN NOTES:**

### Additional Information:

- **ARCHITECT**
  - HKS, INC.
  - 19087.000

- **ASSOCIATE ARCHITECT**
  - HKS, INC.
  - 19087.000

- **STRUCTURAL ENGINEER**
  - AHA Consulting Engineers
  - 1801 Old Alabama Rd, Suite 125
  - Atlanta, GA 30303

- **GEOTECHNICAL ENGINEER**
  - HKS, INC.
  - 19087.000

- **SITE/CIVIL ENGINEER**
  - Murray and Associates Architects
  - 2000 Sterling Parkway, Suite 108
  - Harrisburg, PA 17102-2499

- **ASSOCIATE ARCHITECT**
  - MURRAY AND ASSOCIATES ARCHITECTS
  - 19087.000

- **ARCHITECT**
  - AHA Consulting Engineers
  - 19087.000

- **CONSTRUCTION DOCUMENTS**
  - HKS, INC.
  - 19087.000

- **CONSTRUCTION ISSUE**
  - HKS, INC.
  - 19087.000

- **CONSTRUCTION ISSUED TO:**
  - Bloomburg University Residence Hall & Bookstore

- **DATE:**
  - 03 December 2015
**PLAN NOTES:**

1. **Framing Plan:**
   - The framing plan provides the layout of the building's structure, including the placement of beams, columns, and other structural elements.
   - Use the plan to understand the layout and design of the building's framing system.

2. **Framing Plan - Area B:**
   - The framing plan focuses on Area B of the building.
   - Review the details of the framing system in this area for a comprehensive understanding of the structure.

3. **1ST FLOOR FRAMING PLAN:**
   - The plan shows the framing elements on the first floor, indicating the layout of the building's structure.
   - Pay attention to the levels and connections of the framing elements.

4. **W36X160:**
   - This is a specific section of the framing plan. It shows the dimensions and specifications of the W36X160 section of the beam.
   - Refer to the section for detailed information on this specific framing element.

5. **W8X31:**
   - This beam is also shown in the plan. Review its specifications and placement within the structure.

6. **W12X26:**
   - The W12X26 section is another critical element in the framing plan. Study its details and location.

7. **HANGER TYP.:**
   - The plan includes information on hangers, which are used to support structural elements.
   - Ensure the hanger type is correct and properly sized for the load it will bear.

8. **CONSTRUCTION:**
   - The construction details are provided in the plan, including the framing and reinforcement.
   - Review these details to ensure the construction meets the required standards.

9. **NOTE 1:**
   - This is a general note that applies to the entire plan.
   - Review the note to understand its implications for the design.

10. **NOTE 2:**
    - Another note that should be considered when reviewing the plan.
    - Assess the implications of this note on the construction process.

11. **HANGER TYP.: HSS4x4x3/8:**
    - This hanger type is specified in the plan.
    - Ensure the hangers are installed correctly according to these specifications.

12. **SIDE HANGER:**
    - Side hangers are also shown in the plan.
    - Review the placement and installation details for these hangers.

13. **MECHANICAL / ELECTRICAL SHOP DRAWINGS:**
    - These drawings should be coordinated with the framing plan.
    - Ensure that all mechanical and electrical elements are properly integrated into the structure.

14. **CONSTRUCTION SHALL BE:**
    - The plan includes construction details that must be followed to ensure the building's integrity.
    - Review these details carefully to ensure proper execution.

**DATE:**

- **1ST FLOOR FRAMING PLAN - AREA B**
  - Revised: 15 December 2015

**ARCHITECT:**
- HKS, INC.

**STRUCTURAL ENGINEER:**
- DERCK & EDSON ASSOCIATES

**MATERIALS:**
- W36X160, W8X31, W12X26

**CONSTRUCTION:**
- Structural elements and reinforcement are critical components of the building's design.

**NOTES:**
- Review the plan notes carefully to understand the design and construction requirements.

**REFERENCES:**
- Refer to the referenced documents for additional information on the building's design and construction.

**DOCUMENTS:**
- Construction documents provide detailed information on the building's design and construction.

**ISSUE:**
- The plan is issued with specific revisions on 15 December 2015.
BLOOMSBURG UNIVERSITY
RESIDENCE HALL & BOOKSTORE

PLAN NOTES:
1. FINISH 3RD FLOOR ELEVATION = 140'-5".
2. G.C. TO COORDINATE ANY REQUIRED OPENINGS IN SLAB DECKING REINFORCED WITH 6x6-W2.0xW2.0 W.W.F.
3. FLOOR CONSTRUCTION SHALL BE 5" LIGHT WEIGHT FINISH 6TH FLOOR ELEVATION = 173'-11".
4. SEE SHEET S4.01 FOR X-BRACE ELEVATION.
5. SEE SHEET S5.03 AT 3RD FLOOR.
6. REINFORCED CONCREET SHEAR WALLS. DEE SECTION
7. G.C. TO COORDINATE LOCATION OF SECTIONS WITH ARCH.
8. 3/4" DIA STUDS 4" LONG
9. BF5
10. 7/S5.03
11. HSS18X6X5/8
12. 20'-0"
13. S1.07
14. 19'-8"
15. 20'-0"
16. 14.1
17. 8' - 0 1/4"
18. 2' - 3 3/4"
19. 1' - 5 1/4"
20. 3/4" DIA STUDS 4" LONG
1. PROVIDE 1/4" PLATE AT SLOPED BEAMS TO SUPPORT FOR FRAMING REQUIREMENTS.
2. G.C. TO COORDINATE ANY REQUIRED OPENINGS FOR ENTIRE ROOF AREA UNLESS NOTED OTHERWISE.
3. PROVIDE 1 1/2" - 20 GAGE TYPE B ROOF DECK OVER TOP OF STEEL.
4. EBP = EMBEDDED PLATE. SEE 4/S5.02 FOR DETAILS.
5. G.C. TO COORDINATE LOCATION OF ROOF HATCH WITH MECHANICAL/ELECTRICAL SYSTEMS WITH MECHANICAL/PNEUMATIC AND ELECTRICAL SHOP DRAWINGS. SEE DETAIL 6/S0.03.
6. PROVIDE 1 1/2" - 20 GAGE TYPE B ROOF DECK OVER TOP OF STEEL.
7. TYP.  X-BRACE
8. EBP = EMBEDDED PLATE. SEE 4/S5.02 FOR DETAILS.
9. NOTICE: G.C. TO COORDINATE LOCATION OF SECTIONS WITH ARCH. BEAM TRANSITIONS AS REQUIRED.
10. PROVIDE 1/4" PLATE AT SLOPED BEAMS TO SUPPORT FOR FRAMING REQUIREMENTS.
11. NOTIFY X'S COMPETENT SUPERINTENDENT.
12. $E = $AFE = $AFE.
13. X-BRACE
14. $E = $AFE.
15. TYP.  X-BRACE
16. $E = $AFE.
17. X-BRACE
18. $E = $AFE.
19. X-BRACE
20. $E = $AFE.
21. X-BRACE
22. $E = $AFE.
1. TOP OF STEEL ELEVATION IS AS NOTED ON PLAN. TOP OF STEEL IS DEFINED AS BOTTOM OF METAL DECK.
2. PROVIDE 1 1/2" - 20 GAGE TYPE B ROOF DECK OVER TOP OF STEEL.
3. PROVIDE 1/4" PLATE AT SLOPED BEAMS TO SUPPORT MECHANICAL/ELECTRICAL SYSTEMS WITH MECHANICAL SHOP DRAWINGS. SEE DETAIL 6/S0.03.
4. TO LIMIT SHEAR AND BENDING STRESSES FROM LINES OF SUPPORT, PROVIDE 1/4" PLATE AT SUPPORT CONNECTORS OR SUPPORT CONNECTORS WITH EXTERNAL BRACKET TO ALLOW FOR FRAMING REQUIREMENTS. SEE DETAIL 9/S0.03.
PLAN NOTES:
1.  TOP OF STEEL ELEVATION IS 197'-4".  TOP OF STEEL IS TOP OF HSS6x6 MEMBERS. COORDINATE TOP OF STEEL WITH ARCHITECTURAL SECTIONS.
# CONCRETE COLUMN SCHEDULE

<table>
<thead>
<tr>
<th>Column Location</th>
<th>Top of Slab</th>
<th>Bottom of Slab</th>
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<tbody>
<tr>
<td>A</td>
<td>100'-0&quot;</td>
<td>129'-3&quot;</td>
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<tr>
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**Details:**
- **16'-0"**
- **13'-3"**
- **100'-0"**
- **129'-3"**
- **#4 at 12" O/C**
- **#4 at 12" O/C**
- **#8 Vertical**
- **#8 Vertical**
- **24" x 24"**
- **16" Dia.**

**Concrete Wall Details:**
- **Typical One-way Slab Reinforcing**
- **Embedded Plate Schedule**

**Sheet Number:**
- **2701 CAROLEAN INDUSTRIAL DRIVE**
- **CMT LABORATORIES, INC.**
- **GEOTECHNICAL ENGINEER**
- **AHA CONSULTING ENGINEERS**
- **MURRAY AND ASSOCIATES ARCHITECTS**
- **ASSOCIATE ARCHITECT**
- **HKS, INC.**

**Detailed Dimensions:**
- **Vu = 21"**
- **Vu = 12"**
- **Vu = 27"**
- **Vu = 27"**

**Sizes:**
- **95K**
- **10K**
- **15K**
- **12K**
- **6K**

**Embedding Plates:**
- **W16x26**
- **W12x53**
- **W12x19**
- **W14x12.8**
- **W14x16**
- **W16x14**

**Detailed Diagrams:**
- **NOT TO SCALE**
- **DETAIL**
- **DETAIL**
- **DETAIL**
- **DETAIL**

**Issue Date:**
- **15 DECEMBER 2015**

**Construction Documents:**
- **Concrete Column & footing Schedules**

**BLOOMSBURG UNIVERSITY RESIDENCE HALL & BOOKSTORE S2.02**

**REVISED:**
- **15 DECEMBER 2015**
## STEEL COLUMN SCHEDULE

### 2ND FLOOR

<table>
<thead>
<tr>
<th>COLUMN NUMBER</th>
<th>5TH FLOOR</th>
<th>TOP OF SLAB</th>
<th>11'-2&quot;</th>
<th>13'-3&quot;</th>
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<table>
<thead>
<tr>
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<th>LOW POINT</th>
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- **LOADS INDICATED ARE FACTORED TOTAL LOAD.**

### POST BASE CHART

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<thead>
<tr>
<th>NUMBER</th>
<th>14&quot;x1&quot;x1'-2&quot;</th>
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<tbody>
<tr>
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<td>11</td>
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<tr>
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</tbody>
</table>

### BEAM CHART

- **W8x58**
- **W8x48**
- **W8x67**
- **W8x31**
- **W8x40**
- **W8x48**
- **W8x67**
- **W10x88**
- **W9x78**
- **W12x69**
- **W12x79**

**NOTES:**

- Loadings and anchorages below the slab.
- All columns are referenced.
- Provided with post base plates.

**DRAWN:**

- LITITZ, PA 17543
- SITE/CIVIL ENGINEER

**SCHEDULE**

- S3.01

**HKS PROJECT NUMBER**

- S3.01

**ISSUE:**

- REVISED

**DATE:**

- 15 DECEMBER 2015