GENERAL STRUCTURAL NOTES:

1. CONCRETE PROPERTIES (SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS):  
   - COMPRESSIVE STRENGTH
   - CEMENT RATIO (BY WT.)
   - MAXIMUM WATER-AGGREGATE SIZE

2. ALL CONCRETE REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60, EXCEPT FOR REINFORCING INDICATED AS REQUIRING WELDING, WHICH SHALL CONFORM TO ASTM A706, GR.60.

3. CONCRETE CONSTRUCTION:
   - PLACE CONCRETE:
     - FACE OF CONCRETE TO THE CENTER OF THE REINFORCING.
   - CAST IN ONE PLANE CONCRETE:
     - USE ONLY AIR ENTRAINING CONCRETE EQUIPMENT
   - USE ONLY AIR ENTRAINING CONCRETE EQUIPMENT

4. CAST IN ONE PLANE CONCRETE:
   - USE ONLY AIR ENTRAINING CONCRETE EQUIPMENT

5. CONCRETE IS CAST IN THE MEMBER BELOW THE BAR, IN ANY SINGLE POUR.
   - HORIZONTAL WALL BARS ARE
   - TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH

6. CLEARANCE FOR REINFORCEMENT BARS, UNLESS SHOWN OTHERWISE, SHALL BE:
   - #5 BAR OR SMALLER
   - #6 BAR OR LARGER

7. PROVIDE SUPPORTS FOR REINFORCING AS SPECIFIED TO MAINTAIN BAR POSITION IN CONCRETE.

8. CONCRETE SUPPORTS FOR REINFORCING AS ERECTED TO PROVIDE MAXIMUM STRESS ON CONCRETE.

9. CONCRETE IS CAST IN THE MEMBER BELOW THE BAR, IN ANY SINGLE POUR. HORIZONTAL WALL BARS ARE
   - TOP BARS SHALL BE DEFINED AS ANY HORIZONTAL BARS PLACED SUCH THAT MORE THAN 12" OF FRESH

10. UNLESS INDICATED OTHERWISE, ALL ANCHOR BOLTS, HOLDOWNS AND OTHER REQUIRED ACCESSORIES SHALL
   - IMPORTED DRAINAGE GRAVEL SHALL CONFORM TO THE FOLLOWING GRADATION;
   - SCREEN OR SIEVE SIZE

11. IMPORTED STRUCTURAL FILL. PLACE FILL IN MAXIMUM LOOSE LAYERS 8" DEEP AND
   - COMPACT SUBGRADE BELOW SLABS TO 95% OF ASTM D698 MAXIMUM DRY DENSITY.

12. EXCAVATED OR EMBANKMENT AREAS BENEATH SLABS WITH
   - LATERAL EARTH BEARING RESISTANCE (PASSIVE) = 200 PSF/FT.
   - FRICTION COEFFICIENT BETWEEN FOOTING BASE AND SUPPORTING SOIL = 0.45

13. LATERAL EARTH PRESSURE (EQUIV. FLUID WT.) = 60 PCF

14. BUILDING CODE REQUIREMENTS FOR CONCRETE STRUCTURES
   - WIND IMPORTANCE FACTOR = 1.0
   - INTERNAL WIND PRESSURE COEFFICIENT = ± 0.18
   - WIND EXPOSURE = B
   - RISK CATEGORY = II

15. SOIL LOADS
   - LIVE LOADS: UNIFORM LIVE LOAD = 125 PSF (LIGHT STORAGE)

16. ACI 318
   - ENGINEER SHALL REVIEW SHOP DRAWINGS ONLY FOR THE CONFORMANCE WITH THE DESIGN CONCEPT OF
   - IMPORTED STRUCTURAL FILL. PLACE FILL IN MAXIMUM LOOSE LAYERS 8" DEEP AND
   - COMPACT SUBGRADE BELOW SLABS TO 95% OF ASTM D698 MAXIMUM DRY DENSITY.

17. GENERAL NOTES:
   - DATA ON INDICATED SUBSURFACE CONDITIONS ARE NOT INTENDED AS REPRESENTATIONS OR
   - CONTRACTOR. BASED UPON THE GEOTECHNICAL REPORT, TEMPORARY CONSTRUCTION EXCAVATIONS,
   - CONTRACTOR IS RESPONSIBLE FOR EXPORTING ALL DEMO MATERIALS OFF

18. MISCELLANEOUS:
   - CONTRACTOR MAY BE PRESENT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR
   - STABILITY OF CONSTRUCTION EXCAVATION AND WORKER SAFETY ARE THE RESPONSIBILITY OF THE
   - CONTRACTOR SHALL REVIEW SHOP DRAWINGS ONLY FOR THE CONFORMANCE WITH THE DESIGN CONCEPT OF
   - IMPORTED STRUCTURAL FILL. PLACE FILL IN MAXIMUM LOOSE LAYERS 8" DEEP AND
   - COMPACT SUBGRADE BELOW SLABS TO 95% OF ASTM D698 MAXIMUM DRY DENSITY.

19. CONTRACTOR. BASED UPON THE GEOTECHNICAL REPORT, TEMPORARY CONSTRUCTION EXCAVATIONS,
   - CONTRACTOR IS RESPONSIBLE FOR EXPORTING ALL DEMO MATERIALS OFF

20. 3.  GROUNDWATER MAY BE PRESENT DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR
   - STABILITY OF CONSTRUCTION EXCAVATION AND WORKER SAFETY ARE THE RESPONSIBILITY OF THE
   - CONTRACTOR. BASED UPON THE GEOTECHNICAL REPORT, TEMPORARY CONSTRUCTION EXCAVATIONS,
   - CONTRACTOR IS RESPONSIBLE FOR EXPORTING ALL DEMO MATERIALS OFF

21. 2.  DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT
   - CONTRACTOR. BASED UPON THE GEOTECHNICAL REPORT, TEMPORARY CONSTRUCTION EXCAVATIONS,
   - CONTRACTOR IS RESPONSIBLE FOR EXPORTING ALL DEMO MATERIALS OFF

22. 1.  DATA ON INDICATED SUBSURFACE CONDITIONS ARE NOT INTENDED AS REPRESENTATIONS OR
   - CONTRACTOR. BASED UPON THE GEOTECHNICAL REPORT, TEMPORARY CONSTRUCTION EXCAVATIONS,
   - CONTRACTOR IS RESPONSIBLE FOR EXPORTING ALL DEMO MATERIALS OFF

23. 7.  CONTRACTOR IS RESPONSIBLE FOR EXPORTING ALL DEMO MATERIALS OFF
**STATEMENT OF SPECIAL INSPECTION AND TEST PLANS:**

1. SPECIAL INSPECTION AND TEST PLANS shall be prominently displayed to the Contractor, Building Official, and the Owner shall be posted at one of the following locations:
   - At the Building Site
   - In the Contractor's Office
   - At the Building Official's Office

2. The Contractor shall notify the Building Official of any change in the Contractor's special inspection and test plans.

3. All special inspections and tests shall be performed in accordance with the plans and specifications, and shall be witnessed by the Building Official or his representative.

4. The Contractor shall provide a copy of the special inspection and test plans to the Building Official and the Owner.

5. Any change in the special inspection and test plans shall be submitted to the Building Official for approval.

6. The Contractor shall maintain a record of all special inspections and tests performed.

**REQUIRES SPECIAL INSPECTIONS AND TYPE OF CONCRETE CONSTRUCTION:**

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<tr>
<th>Type</th>
<th>Description</th>
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**REQUIREMENTS FOR CONCRETE CONSTRUCTION:**

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**TESTING OF CONCRETE CONSTRUCTION:**

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STAGING AREA AND SITE ACCESS

CONTRACTOR TO VERIFY

1' - 0"

CONTRACTOR TO VERIFY

8' - 0"

EXISTING BUILDING

STAGING AND ACCESS PLAN

100% CONSTRUCTION DOCUMENTS

RLS

JBF

STAGING AND ACCESS PLAN

S0.2

02/01/2021

MONTANA STATE UNIVERSITY

BOZEMAN, MONTANA

PHONE: 406.994.5413

FAX: 406.994.5665

MMI #: 0747.076

RENNIE LIBRARY LOADING DOCK

MONTANA STATE UNIVERSITY
DEMO PLAN

DEMO NOTES

1. PROJECT DATUM ELEVATION = 0' - 0" AT TOP OF SLAB. ALL SPOT ELEVATIONS FOR FOUNDATION ELEMENTS ARE IN REFERENCE TO THE DATUM ELEVATION.

2. CONTRACTOR TO FIELD VERIFY ALL ELEMENTS, DIMENSIONS, AND ELEVATIONS.

3. CONTRACTOR TO VERIFY ALL DIMENSIONS TO AND SIZES OF WALL & FLOOR OPENINGS AND PENETRATIONS.

4. CONTRACTOR TO COORDINATE SITE HARDSCAPING WITH OWNER. CONTRACTOR TO PROTECT LANDSCAPING AND REPLACE IMPACTED AREAS.

5. CONTRACTOR TO REFER TO GENERAL STRUCTURAL NOTES ON S0.0 FOR ADDITIONAL REQUIREMENTS.

6. GRIDS ARE TO FACE OF FOUNDATION WALL, UNLESS NOTED OTHERWISE.

7. PROTECT EXISTING DOOR DURING CONSTRUCTION. DOOR LOCATIONS ARE SHOWN FOR REPRESENTATION PURPOSE ONLY. SEE IMAGE.

8. EXISTING METAL STAIRS, RAILING AND GRATING TO BE REMOVED, REPAINTED AND REUSED WITH NEW CONSTRUCTION. SEE IMAGES.

9. PROTECT EXISTING ELECTRICAL PANELBOARD AND ASSOCIATED CONDUITS. SEE IMAGE.

10. DUCT PENETRATION BELOW, SEE IMAGE.

11. EXISTING WOOD RAILING TO BE REMOVED, REPAINTED AND REUSED WITH NEW CONSTRUCTION. SEE IMAGE.

DEMO LEGEND

- DEMO AREA
- EXISTING CONCRETE WALL TO BE DEMOED
- EXISTING CONCRETE WALL TO REMAIN
- EXISTING CONCRETE WALL TO BE MODIFIED
- EXISTING CONCRETE WALL TO BE CONSTRUCTED

NOTE 1: REMOVE AND REPLACE EXISTING LOADING DOCK DRIVE RAMP
- REMOVE 8" EXISTING SLAB ON GRADE
- REMOVE EXISTING RETAINING WALLS AND FOOTINGS
- PREP. SUBRADE PER GENERAL STRUCTURAL NOTES
- REPLACE 8" SLAB ON GRADE. PROVIDE #4 BAR @ 9" O.C. EA. WAY.
- REPLACE EXISTING RETAINING WALL AND FOOTINGS. PROVIDE 2'-0" X 8" STRIP FOOTINGS WITH #4 REINF. EA. WAY EA. SIDE., TOP OF FOOTING ELEVATION TO BE 3'-6" BELOW GRADE. PROVIDE 6" RETAINING WALL CONNECTED TO FOOTING WITH #5 DOWEL S @ 12" O.C. VERTICAL REINF. , PROVIDE #5 @ 12" O.C. HORIZONTAL REINF. EA. WAY.
PHOTO NOTES:
1. EXISTING LOADING DOCK TO BE DEMOED AND REMOVED
2. EXISTING TRASH RECEPTACLE TO BE SALVAGED AND REUSED
3. EXISTING WOOD RAILING TO BE REMOVED, REPAINTED AND REUSED WITH NEW CONSTRUCTION
4. EXISTING STEEL ANGLE TO BE DEMOED AND REMOVED
5. EXISTING LOADING DOCK RAMP AND CURB - SEE ALTERNATE 1

PHOTO NOTES:
1. EXISTING LOADING DOCK LID TO BE DEMOED AND REMOVED
2. EXISTING ELECTRICAL EQUIPMENT TO REMAIN. PROTECT DURING DEMO AND CONSTRUCTION.
3. EXISTING HOLE IN CONCRETE TO BE FILLED IN AND WATERPROOFED
4. EXISTING STORAGE RACK TO BE DEMOED AND REMOVED

PHOTO NOTES:
1. EXISTING LOADING DOCK TO BE DEMOED AND REMOVED
2. EXISTING TRASH RECEPTACLE TO BE SALVAGED AND REUSED
3. EXISTING BRICK VENEER AND WINDOWS TO REMAIN. PROTECT DURING DEMO AND CONSTRUCTION.
4. EXISTING STEEL RAILING AND STAIR TO BE REMOVED, REPAINTED, AND REUSED WITH NEW CONSTRUCTION.
5. EXISTING STEEL PLATFORM TO BE REMOVED AND REINSTALLED
6. EXISTING LOADING DOCK RAMP AND CURB - SEE ALTERNATE 1
7. EXISTING TREE TO REMAIN AND BE PROTECTED
WALL CORNER/ INTERSECTION REINF.

1. SEE GENERAL STRUCTURAL NOTES FOR LAP LENGTHS.
2. AT CONNECTIONS TO EXISTING CONCRETE WALLS, DRILL AND EPOXY NEW CONCRETE WALL HORIZONTAL REINF. INTO EXISTING WALLS USING HILTI HIT HY 200 WITH 8" MIN. EMBED DEPTH.

SLAB ON GRADE

3. SEE GENERAL STRUCTURAL NOTES FOR REINFORCING STEEL CLEAR REQUIREMENTS.
4. SAWCUT SLAB WITHIN 12 HOURS OF FINAL FLOATING.
5. SIKAFLEX 2C JOINT SEALANT W/ BACKER ROD MIN. T/4 T

CONCRETE FLOOR/WALL OPENING DETAIL

6. NOTATION 1: OMIT ADDITIONAL REINF. FOR MAX OPENING DIMENSION/DIAMETER < 12"
7. WHERE INDICATED, PROVIDE REINFORCING LAP DIMENSION AS SPECIFIED IN GENERAL STRUCTURAL NOTES.
8. U.N.O. PROVIDE 2X OPENING WIDTH/DIAMETER BETWEEN EDGE OF OPENING AND WALL/SLAB FREE EDGE.

SUBGRADE PREP PER GENERAL STRUCT. NOTES

6" SLAB W/ #4 @ 12" O.C., EA. WAY

NOTE 1 CLR., SEE FDN PLAN T.O.SL. = VARIES

NOTE 2, TYP.

SAWCUT JOINT, SEE NOTES

SIKAFLEX 2C JOINT SEALANT W/ BACKER ROD MIN. T/4 T

REINFORCING INTERRUPTED BY OPENING

PROVIDE BARS W/ AREA EQUAL TO INTERRUPTED REINF. PLACE 1/2 OF THIS REINF. EA. SIDE OF OPNG. @ 3" MAX. SPACING, TYP. EA. REINF. MAT/CURTAIN

PROVIDE (1) #4 X 4'-0" DIAGONAL @ EA. REINF. MAT/CURTAIN, TYP. EA. CORNER OPNG. AS REQ'D.

NOTE: 1.) OMIT ADDITIONAL REINF. FOR MAX OPENING DIMENSION/DIAMETER < 12"
2.) WHERE INDICATED, PROVIDE REINFORCING LAP DIMENSION AS SPECIFIED IN GENERAL STRUCTURAL NOTES.
3.) U.N.O. PROVIDE 2X OPENING WIDTH/DIAMETER BETWEEN EDGE OF OPENING AND WALL/SLAB FREE EDGE.

WALL ELEV. VIEW/SLAB PLAN VIEW
SLAB SECTION
SLAB SECTION AT BUILDING
SLAB SECTION AT BUILDING

EXISTING CONCRETE WALL AND REINF.
EXISTING SURFACE TO RAILING NOT SHOWN
EXISTING 6" BRICK WALL TO REMAIN
NEW 6" SLAB ON GRADE, DEV. LENGTH "L"

1/4" AMPLITUDE FOR CLARITY
3/4" = 1'

REINF. CONCRETE WALL AND ELECTRICAL CONDUIT, SEE GEN. STRUCT. NOTES
NEW 7" SLAB, SEE PLAN

REINF. INTO EXISTING WALLS USING HILTI HIT HY 200; 5" MIN. EMBED DEPTH
EXISTING DOOR TO REMAIN

#5 x 2'-6" DOWELS LAPPED TO SLAB
PROTECT EXISTING #5 @ 12" O.C. EA. WAY
#5 @ 12" O.C. EA. WAY OVER 8"

PROVIDE CONTINUOUS ANGLE ANCHORED TO
EXISTING SURFACE, CHAMFER SLAB AND 1"
HAS STUDS @ 2'-0" O.C.

PVC WATERSTOP RETRO PVC WATERSTOP
SIKAFLEX 2C SEALANT STRIP, REMOVE AND FILL WITH PREFORMED/REMOVABLE 1/4"x1"

SLAB SECTION
SLAB SECTION AT BUILDING
SLAB SECTION AT BUILDING

EXISTING INTERIOR SLAB TO REMAIN, NOT SHOWN
EXISTING SURFACE TO RAILING NOT SHOWN

1/4" AMPLITUDE FOR CLARITY
3/4" = 1'

REINF. INTO EXISTING WALLS USING HILTI HIT HY 200; 5" MIN. EMBED DEPTH
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