

DESIGN CRITERIA

1. BUILDING CODE: INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION, INCLUDING LOCAL SUPPLEMENTS. THE STRUCTURE IS CLASSIFIED AS A RISK CATEGORY III FACILITY.

| | | | |
|----------------------|-------------------|------------------------|------------------|
| DEAD AND LIVE LOADS: | UNIFORM LIVE LOAD | CONCENTRATED LIVE LOAD | TOTAL DEAD LOAD* |
| LOCATION | | | |
| SLAB | 100 PSF | 2,000 LB | 75 PSF |

FLOOR LIVE LOADS ON SUPPORTING ELEMENTS SHALL NOT BE REDUCED IN ACCORDANCE WITH THE BUILDING CODE.
*TOTAL DEAD LOAD INCLUDES WEIGHT OF STRUCTURAL ELEMENTS.

3. SNOW LOADS

| | |
|--|--------|
| GROUND SNOW LOAD, P _g : | 15 PSF |
| FLAT ROOF SNOW LOAD, P _f : | 15 PSF |
| SNOW EXPOSURE FACTOR, C _e : | 1.0 |
| SNOW IMPORTANCE FACTOR, I _s : | 1.1 |
| THERMAL FACTOR, C _t : | 1.0 |
| ROOF SLOPE FACTOR, C _s : | 1.0 |

4. WIND:

| | |
|--|-------------------------|
| BASIC WIND SPEED, V: | 116 MPH (3 SECOND GUST) |
| ALLOWABLE STRESS DESIGN WIND SPEED, V _{asd} : | 90 MPH (3 SECOND GUST) |
| WIND EXPOSURE, C: | |
| INTERNAL PRESSURE COEF.: | +/-0.18 |

5. SEISMIC:

| | |
|----------------------------|-------|
| SITE CLASS: | D |
| SEISMIC DESIGN CATEGORY: | B |
| SEISMIC IMPORTANCE FACTOR: | 1.25 |
| C _s : | 0.118 |
| C _d : | 0.074 |
| C _w : | 0.126 |
| C _t : | 0.118 |

CONCRETE

1. ALL CONCRETE HAS BEEN DESIGNED IN ACCORDANCE WITH ACI 318 AND THE BUILDING CODE, AND IN CONFORMANCE WITH THE CURRENT "ACI MANUAL OF CONCRETE PRACTICE."

2. THE CONCRETE REQUIREMENTS ARE:

A. CEMENT SHALL BE TYPE I OR II CONFORMING TO ASTM C150 OR TYPE II CONFORMING TO ASTM C595. FLY ASH CONFORMING TO ASTM C618 TYPE C OR F MAY BE USED TO REPLACE A MAXIMUM OF 20% OF THE CEMENT BY WEIGHT.

B. FINE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL MEET ASTM C33.

C. COARSE AGGREGATES FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33, GRADE 67 OR LARGER. COARSE AGGREGATES SHALL BE NO LESS THAN 50% OF THE TOTAL AGGREGATE BY WEIGHT, UNLESS APPROVED BY THE ENGINEER PRIOR TO MIX DESIGN SUBMITTAL.

D. MIX REQUIREMENTS ARE:

| | | | | | | |
|-------------------------------------|----------------------|--------------------|-------------------|----------------|-------------|--------------|
| LOCATION | F _c (PSI) | MINIMUM CEM. (PCY) | MINIMUM W/C RATIO | MAX. W/C RATIO | AIR CONTENT | SLUMP INCHES |
| EXTERIOR/FNDN. WALL BEAM AND SLABS* | 4,000 | 470 | 0.45 | 5%±1% | 2-5 | 2-5 |
| | 4,000 | 470 | 0.45 | 5%±1% | 2-5 | 2-5 |

§ PRIOR TO THE ADDITION OF WATER REDUCING ADMIXTURES. IF APPROVED BY ENGINEER, SLUMP MAY NOT EXCEED 8" WITH THE ADDITION OF WATER REDUCING ADMIXTURES

*SLAB SHALL HAVE A FLEXURAL STRENGTH OF 650 PSI WHERE SUBJECT TO VEHICLE TRAFFIC.

3. ADMIXTURES, HARDENERS, & CURING COMPOUNDS

A. ALL CONCRETE ADMIXTURES SHALL, WHEN MIXED INTO CONCRETE, BE NON-CHLORIDE AND NON-CHLORIDE FORMING.

B. ALL ADMIXTURES MUST CONFORM TO ASTM C-494 AND C-260.

C. CONCRETE CURING COMPOUND AND SEALERS SHALL MEET ASTM C-309 TYPE 1 OR 1D.

D. USE OF "SELF CONSOLIDATING" CONCRETE MUST BE SUBMITTED FOR APPROVAL WITH THE CONCRETE MIX DESIGN.

4. MISCELLANEOUS CONCRETE DETAILS:

A. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 3/4" INSIDE THE FORMS OR TOOLED TO 3/4" RADIUS UNLESS NOTED OTHERWISE.

B. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL FORMING AND SHORING.

C. SAW CUTTING OF EXISTING STRUCTURAL CONCRETE.

1. THE CONTRACTOR SHALL HAVE ALL STRUCTURAL CONCRETE INTENDED TO BE CORED OR CUT INVESTIGATED WITH GROUND PENETRATING RADAR (GPR) PRIOR TO CUTTING/CORING. LOCATION OF REINFORCING SHALL BE REPORTED TO THE ENGINEER OF RECORD (EOR). THE EOR MAY DIRECT THE CONTRACTOR TO ADJUST THE OPENING LOCATION TO REDUCE THE QUANTITY OF EXISTING REINFORCING THAT WILL BE CUT.

2. ALL NEW CIRCULAR OPENINGS SHALL BE CORE DRILLED. ALL NEW RECTANGULAR OPENINGS SHALL BE CORE DRILLED IN EACH CORNER TO PREVENT OVERCUTTING BEYOND THE INTENDED CORNERS. THE CONTRACTOR SHALL APPLY APPROPRIATE PRESSURE TO THE EQUIPMENT TO PREVENT SPALLING OVER 1/2" ON THE BACK SIDE OF THE OPENING.

CONCRETE REINFORCING

| | | |
|---------------------------|------|-----------|
| 1. MATERIALS | ASTM | GRADE |
| PLATE & ANGLE: | A36 | ---- |
| REINFORCING STEEL: | A615 | 60 |
| WELDED WIRE FABRIC (WWF): | A185 | 60 (MIN.) |

2. DETAILS:

A. WELDING OF REINFORCING STEEL IS PROHIBITED UNLESS NOTED OTHERWISE. WHEN WELDING IS APPROVED, WELDING SHALL BE IN ACCORDANCE WITH AWS D1.4 "WELDING REINFORCING STEEL, ETC."

B. WELDED WIRE FABRIC SHALL BE FURNISHED IN FLAT SHEETS.

C. SHOP DRAWINGS SHALL BE SUBMITTED WITH REINFORCING STEEL IN ACCORDANCE WITH ACI 315.

3. PLACEMENT:

A. ALL REINFORCING AND EMBEDMENTS SHALL BE SUPPORTED ON CHAIRS/BOLSTERS TO THE DESIGN DIMENSIONS. SPACING SHALL BE SUFFICIENTLY CLOSE TO PREVENT DISPLACEMENT OR PERMANENT DEFORMATION DUE TO CONCRETE PLACEMENT, FOOT TRAFFIC, OR VIBRATION. "PUDDLING IN" OR "PULLING UP" REINFORCING IS NOT AN ACCEPTABLE METHOD FOR PLACING REINFORCING. CHAIRS/BOLSTERS SHALL HAVE PLASTIC COATED FEET OR BE MADE OF STAINLESS STEEL. CHAIRS/BOLSTERS IN CONTACT WITH EARTH SHALL HAVE BOTTOM PLATES AND BE COATED TO PREVENT CORROSION. ANCHOR RODS SHALL BE HELD IN PLACE WITH TEMPLATES SUFFICIENTLY STRONG TO PREVENT DISPLACEMENT OR TILTING.

B. MAINTAIN ACI CLEAR COVER ON REINFORCING AS LISTED BELOW UNLESS NOTED OTHERWISE.

| | |
|---|------|
| FORMED - EXPOSED TO SOIL, WEATHER OR LIQUIDS: | 2" |
| SLABS ON GRADE (FROM TOP OF SLAB): | 1.5" |

C. REINFORCING STEEL SHALL BE LAPPED PER TABLE A.

D. WELDED WIRE FABRIC SHALL BE LAPPED ONE FULL SQUARE PLUS 2".

POST INSTALLED ANCHORING SYSTEMS

1. SUBSTITUTION OF POST INSTALLED ANCHORS FOR EMBEDDED ANCHORS SHOWN ON THE DRAWINGS WILL NOT BE PERMITTED UNLESS APPROVED BY THE ENGINEER IN ADVANCE.

2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPI) AND THE EVALUATION REPORT (ER/ESR) SPECIFIED INCLUDING HOLE PREPARATION, TEMPERATURE AND MOISTURE CONDITIONS.

3. ADHESIVE ANCHORS:

A. THE CONTRACTOR SHALL ARRANGE AN ANCHOR MANUFACTURER'S REPRESENTATIVE TO PROVIDE ONSITE INSTALLATION TRAINING FOR ALL ANCHOR PRODUCTS SPECIFIED. THE CONTRACTOR MUST MAINTAIN TRAINING RECORDS OF ALL CONTRACTOR PERSONNEL INSTALLING ANCHORS AND SUBMIT TO THE ENGINEER OF RECORD PRIOR TO INSTALLING ANCHORS UPON REQUEST.

B. ADHESIVE ANCHORS SHALL BE USED IN CONJUNCTION WITH THE APPROPRIATE ADHESIVE SYSTEM. STANDARD REINFORCING STEEL ANCHORED IN CONCRETE SHALL BE IN ACCORDANCE WITH ASTM A615 GRADE 60 UNLESS NOTED OTHERWISE.

C. APPROVED ADHESIVE ANCHORS FOR PREVIOUSLY CAST CONCRETE:

| | |
|--|-----------------|
| MANUFACTURER/PRODUCT | REPORT NUMBER |
| HILTI HIT-HY200 SSS* WITH HIT-Z ROD | ICC-ES ESR-3187 |
| HILTI HIT-HY200 SSS* WITH HOLLOW BIT & HAS-E ROD | ICC-ES ESR-3187 |
| HILTI HIT-HY200 SSS* WITH HOLLOW BIT & STEEL REINFORCING | ICC-ES ESR-3187 |
| *SAFE SET SYSTEM | |
| SIMPSON STRONG-TIE SET-XP | ICC-ES ESR-2508 |
| SIMPSON STRONG-TIE AT-XP | IFMO-UES ER-263 |

CONTRACT/CONSTRUCTION DOCUMENTS

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO OBTAIN A FULL SET OF THE MOST RECENT REVISIONS OF EACH DOCUMENT INCLUDING ALL PLANS, SPECIFICATIONS, ADDENDA, AND SUPPLEMENTAL INSTRUCTIONS.

2. THE CONTRACTOR SHALL REVIEW THE DOCUMENTS PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY MATERIALS FOR CONFLICTS. IF CONFLICTS OCCUR THE CONTRACTOR SHALL USE THE MOST STRINGENT REQUIREMENT OR REQUEST A CLARIFICATION THROUGH A REQUEST FOR INFORMATION (RFI).

3. THE DOCUMENTS MAY NOT BE REPRODUCED IN WHOLE OR IN PART FOR USE ON PROJECTS OTHER THAN IDENTIFIED IN THE TITLE BLOCK. SHOULD THE CONTRACTOR USE THE DOCUMENTS AS A PORTION OF A SHOP DRAWING SUBMITTAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CONSEQUENCES RESULTING FROM ERRORS IN THE REPRODUCED DOCUMENTS.

4. DETAILS LABELED TYPICAL ARE INTENDED TO REPRESENT A CONDITION THAT OCCURS AT SEVERAL LOCATIONS IN THE PLANS WHETHER OR NOT THE DETAIL IS REFERENCED.

5. DO NOT SCALE THE PLANS AND DETAILS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS.

CONTRACTOR'S RESPONSIBILITY

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING ALL SUB-CONTRACTOR SUBMITTALS AND NOTING ALL DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING TO THE ENGINEER FOR REVIEW.

2. SUBSTITUTION REQUESTS SHALL BE SUBMITTED IN WRITING WITH THE COST REDUCTION AMOUNT AND THE SCHEDULE IMPACT FOR THE OWNER (SUBMITTALS WITHOUT THE COST AND SCHEDULE IMPACT WILL NOT BE REVIEWED). A COMPARISON OF THE DATA WITH THE MATERIAL SPECIFIED INCLUDING CODE APPROVALS SHALL BE PROVIDED.

3. REQUESTS FOR INFORMATION (RFI) SHALL BE SUBMITTED IN WRITING WITH COST, SCHEDULE IMPACT, AND SUGGESTED SOLUTION INCLUDED. AN RFI THAT DOES NOT INCLUDE THE COST AND SCHEDULE IMPACT WILL NOT BE REVIEWED.

4. DEFECTIVE WORK REPORT (DWR) SHALL BE SUBMITTED TO THE ENGINEER WITHIN (2) WORKING DAYS OF THE OCCURRENCE. THE DWR SHALL REPORT THE DEFECT AND PROPOSE A REMEDIATION OF THE DEFECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDIATION OF THE DEFECT INCLUDING ENGINEERING COSTS, IF ANY.

5. WHEN THE CONTRACTOR BECOMES AWARE OF WHAT MAY BE AN UNFORESEEN CONDITION THAT COULD AFFECT COST OR SCHEDULE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING WITHIN (2) WORKING DAYS. AFTER REVIEW AND ENGINEER'S DETERMINATION THAT AN UNFORESEEN CONDITION EXISTS, THE CONTRACTOR SHALL SUBMIT A CHANGE ORDER REQUEST FOR APPROVAL WITH BOTH COST AND SCHEDULE IMPACT ATTACHED.

6. THE CONTRACTOR'S SCHEDULE MUST PROVIDE A REASONABLE TIME ALLOWANCE FOR THE ENGINEERING REVIEW AND APPROVAL.

7. THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR SITE SAFETY. THE ENGINEER IS RESPONSIBLE FOR FOLLOWING THE CONTRACTOR'S CONSTRUCTION SITE SAFETY INSTRUCTIONS PROVIDED IN WRITING. ALTERNATELY, THE CONTRACTOR SHALL ASSIGN AN ESCORT TO ADVISE THE ENGINEER OF SITE SAFETY ISSUES DURING SITE VISITS. THE ENGINEER'S PURPOSE OF A SITE VISIT IS SOLELY TO BECOME FAMILIAR WITH THE GENERAL PROGRESS AND QUALITY OF THE PROJECT. THE ENGINEER'S SITE VISIT IS NOT A QUALITY CONTROL FUNCTION.

CONSTRUCTION MEANS AND METHODS ISSUES

1. SLAB ON GRADE AND ELEVATED SLABS ARE NOT DESIGNED TO SUPPORT CRANES, FORKLIFTS, TRUCKS, MANLIFTS, OR OTHER CONSTRUCTION RELATED EQUIPMENT UNLESS NOTED AS SUCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE IF CONSTRUCTION EQUIPMENT CAN BE SAFELY OPERATED ON THESE SLABS AND TO REPAIR ANY DAMAGE THE EQUIPMENT MAY CAUSE.

2. THE CONSTRUCTION DOCUMENTS REPRESENT A STABLE STRUCTURE IN THE COMPLETED FORM. THE CONTRACTOR SHALL PROVIDE ANY TEMPORARY BRACING AND/OR SHORES TO SAFELY CONSTRUCT THE BUILDING AND PREVENT DAMAGE DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION THAT MAY AFFECT THE PROJECT AND REPORT DISCREPANCIES TO THE ENGINEER. ANY DIMENSIONS FOR ELEVATIONS THAT IMPACT NEW WORK SHALL BE VERIFIED PRIOR TO FABRICATION OF ANY MATERIAL. EXISTING BUILDING ELEMENTS THAT ARE TO BE ABANDONED THAT INTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.

4. WHEN A PIECE OF EQUIPMENT (HVAC, ELECTRICAL, KITCHEN, ETC.) IS PROVIDED THAT IS DIFFERENT THAN THE EQUIPMENT THAT THE STRUCTURE WAS DESIGNED FOR EITHER BY SIZE, WEIGHT OR CONFIGURATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE REMEDY OF THE SITUATION. THOSE COSTS SHALL INCLUDE THE ENGINEERING COSTS TO REDESIGN PORTIONS OF THE STRUCTURE TO ACCOMMODATE THE SUBSTITUTED EQUIPMENT.

5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRUCTURAL DESIGN AND MATERIALS FOR ATTACHING NON-STRUCTURAL ELEMENTS TO ANY PORTION OF THE STRUCTURE TO RESIST ALL LOADS, INCLUDING SEISMIC, IN A WAY THAT DOES NOT OVERSTRESS STRUCTURAL MEMBERS. NON-STRUCTURAL ELEMENTS CAN BE FOUND IN EACH OF THE OTHER DISCIPLINES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, ETC.).

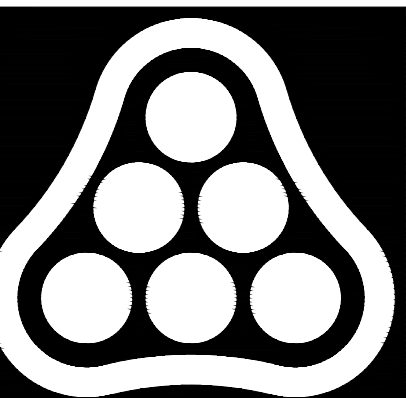
STRUCTURAL TESTS, INSPECTIONS, AND QUALITY ASSURANCE

1. ALL STRUCTURAL TESTS AND INSPECTIONS SHALL BE PERFORMED PER CHAPTER 17 OF THE BUILDING CODE WITH LOCAL SUPPLEMENTS, UNLESS MORE STRINGENT REQUIREMENTS ARE SPECIFIED.

TABLE A - REINFORCEMENT LAPS, EMBEDMENTS, AND HOOK LENGTHS

| | | | | | | | | | | | | | | | | |
|---------------|------------------------|------------------------------|-------|------------|---------|------------------|-----|------------|---------|-----------|-----|----|-----|----|----|----|
| | | fy = 60000 PSI | | | | f'c = 4000 PSI | | | | | | | | | | |
| BAR SIZE (in) | CLEAR SPACING (s) (in) | EMBEDMENT & CLASS A LAP (in) | | | | CLASS B LAP (in) | | | | HOOK (in) | | | | | | |
| | | TOP BAR | | OTHER BARS | | TOP BAR | | OTHER BARS | | | | | | | | |
| | | 2d | 3d | 5d | PCSS-3B | 2d | 3d | 5d | PCSS-3B | | | | | | | |
| 3 | 3/4 | 1 1/8 | 1 1/8 | 28 | 18 | 12 | 21 | 14 | 12 | 36 | 24 | 14 | 28 | 18 | 12 | 8 |
| 4 | 1 | 1 1/2 | 2 1/2 | 37 | 25 | 15 | 28 | 19 | 12 | 48 | 32 | 19 | 37 | 25 | 15 | 10 |
| 5 | 1 1/4 | 1 7/8 | 3 1/8 | 46 | 31 | 18 | 36 | 24 | 14 | 60 | 40 | 24 | 46 | 31 | 18 | 12 |
| 6 | 1 1/2 | 2 1/4 | 3 3/4 | 55 | 37 | 22 | 43 | 28 | 17 | 72 | 48 | 29 | 55 | 37 | 22 | 15 |
| 7 | 1 3/4 | 2 3/8 | 4 1/8 | 81 | 54 | 32 | 62 | 42 | 25 | 105 | 70 | 42 | 81 | 54 | 32 | 18 |
| 8 | 2 | 3 | 5 | 92 | 62 | 37 | 71 | 47 | 28 | 120 | 80 | 48 | 92 | 62 | 37 | 20 |
| 9 | 2 1/4 | 3 3/8 | 5 1/8 | 104 | 70 | 42 | 80 | 54 | 32 | 136 | 90 | 54 | 104 | 70 | 42 | 22 |
| 10 | 2.54 | 3.81 | 6.35 | 117 | 78 | 47 | 90 | 60 | 36 | 153 | 102 | 61 | 117 | 78 | 47 | 25 |
| 11 | 2.82 | 4.23 | 7.05 | 130 | 87 | 52 | 100 | 67 | 40 | 170 | 113 | 68 | 130 | 87 | 52 | 27 |

NOTES:
 1. LENGTHS SHOWN CONFORM WITH NON-SEISMIC PROVISIONS OF ACI 318 FOR UNCOATED BARS.
 2. BAR CLEAR SPACING IS THE CENTER TO CENTER BAR SPACING MINUS ONE BAR DIAMETER.
 3. CLASS A LAP LENGTHS APPLY WHEN BAR LAPS ARE STAGGERED TO LAP HALF THE BARS AT THE SAME LOCATION. USE CLASS B LAP FOR ALL OTHER CASES.
 4. TOP BARS ARE HORIZONTAL REINFORCEMENT PLACED SO THAT MORE THAN 12 INCHES OF CONCRETE IS CAST BELOW THE REINFORCEMENT.
 5. MULTIPLY LAP AND EMBEDMENT LENGTHS GIVEN BY 2.0 FOR BARS WITH CLEAR SPACING OF TWO BAR DIAMETERS OR LESS, OR CONCRETE COVER OF ONE BAR DIAMETER OR LESS.
 6. TABLE FOR NORMAL WEIGHT CONCRETE AND UNCOATED REINFORCING BARS ONLY.



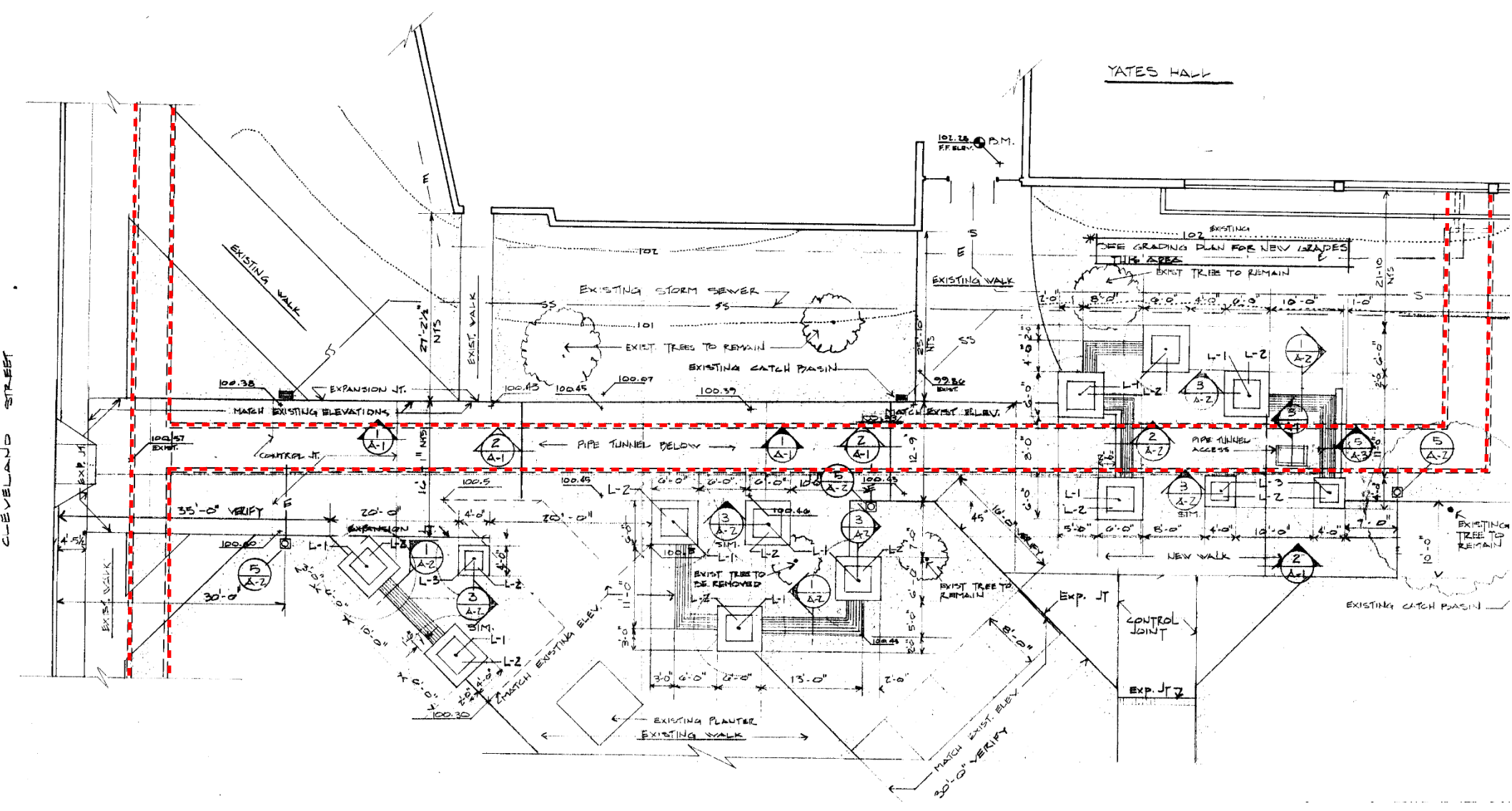
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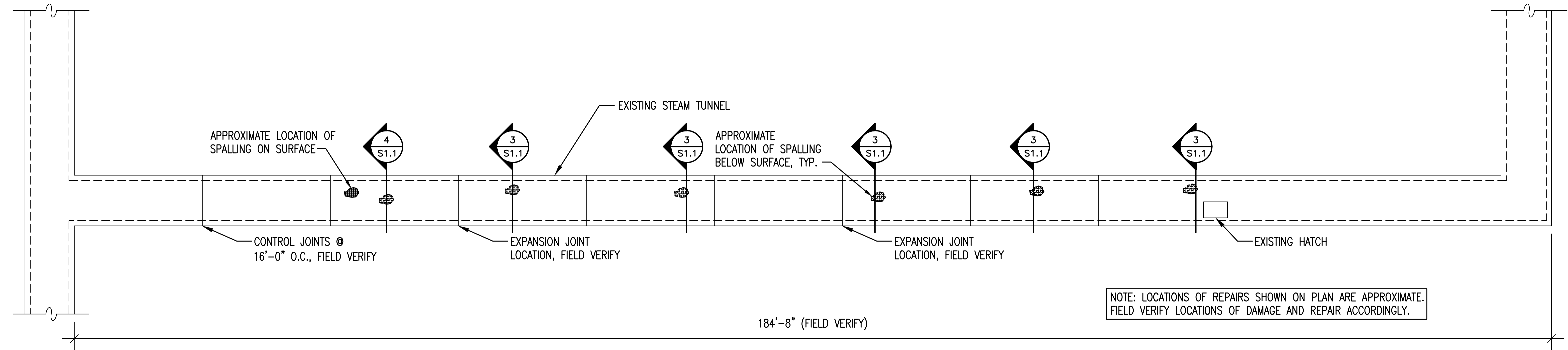


UNIVERSITY

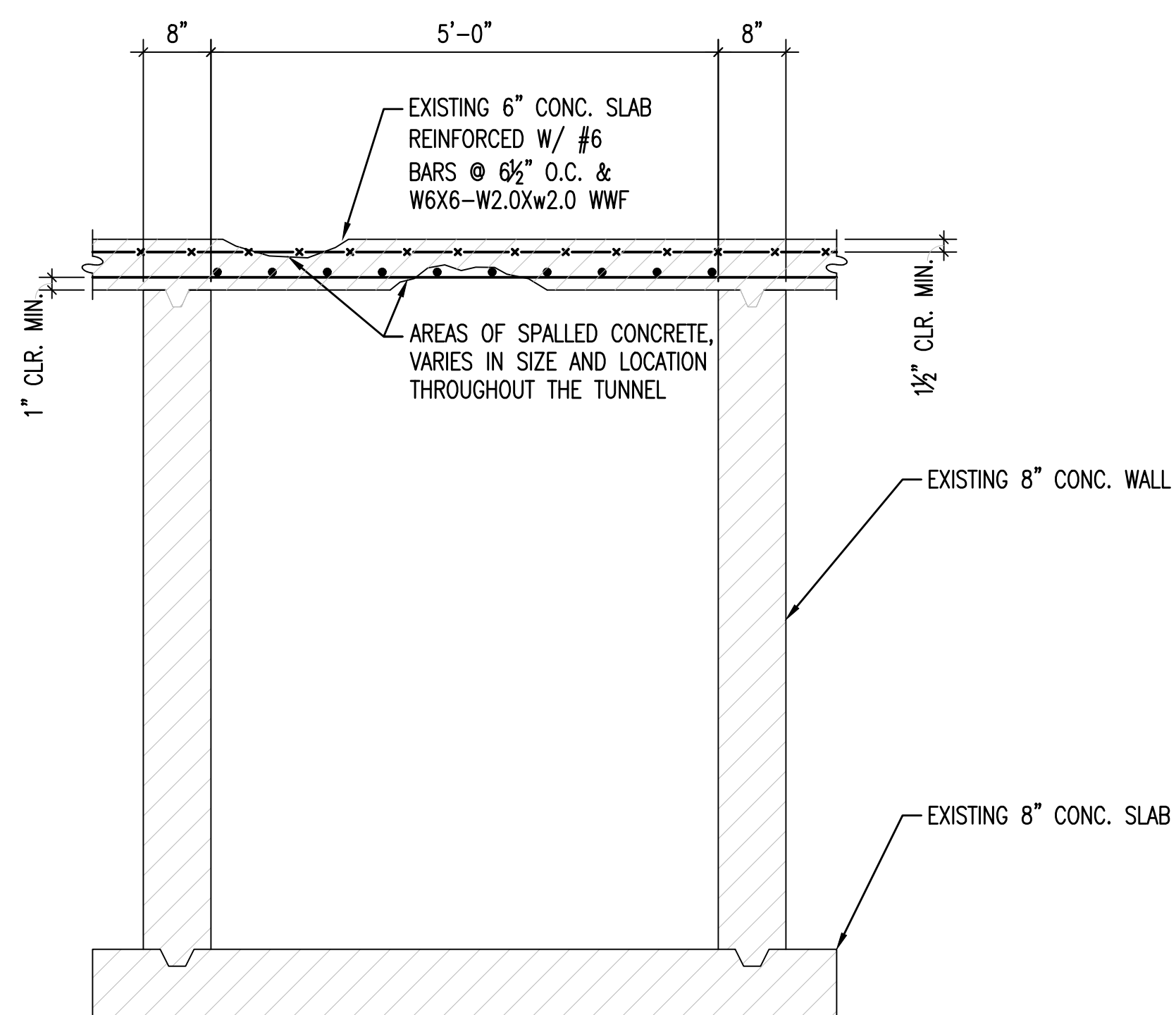
YATES HALL TUNNEL
 PITTSBURG STATE UNIVERSITY
 PITTSBURG, KS



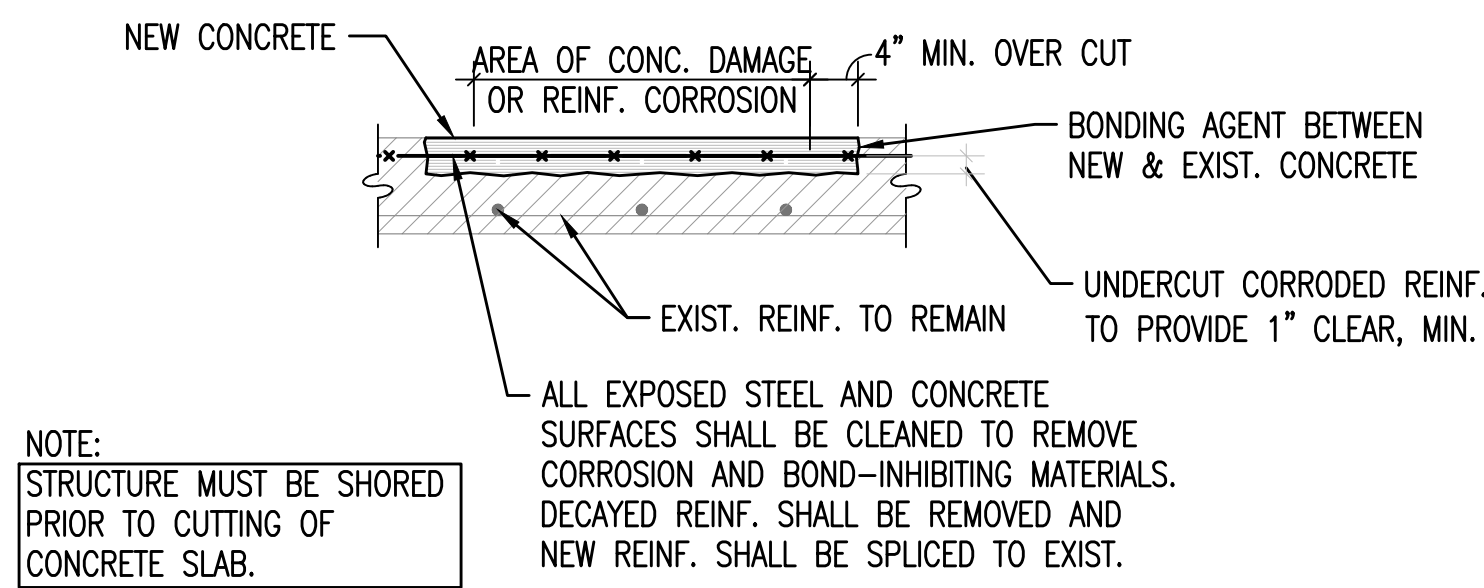
1 KEY PLAN
NTS



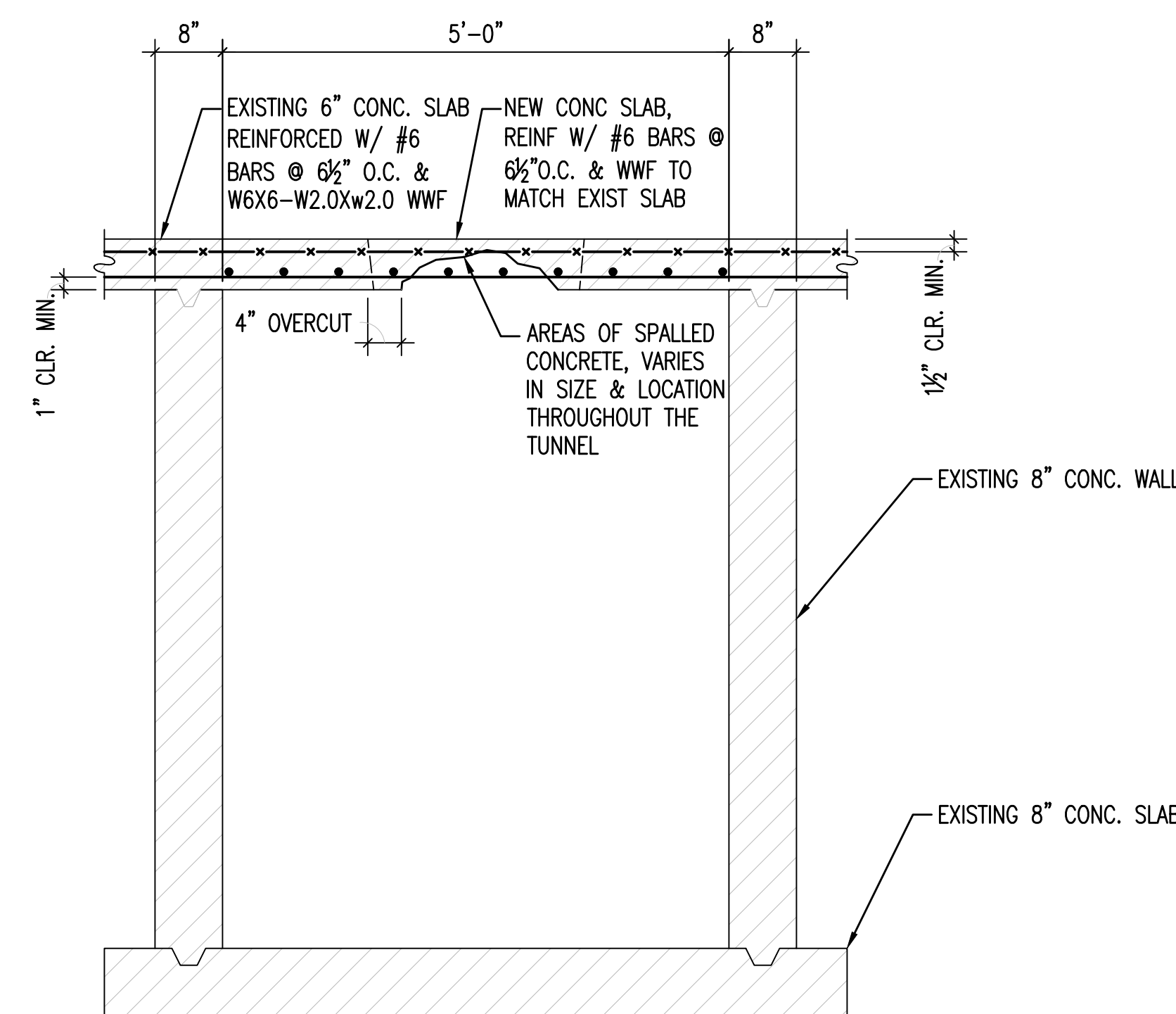
2 TUNNEL ROOF PLAN
1/8"=1'-0" NORTH



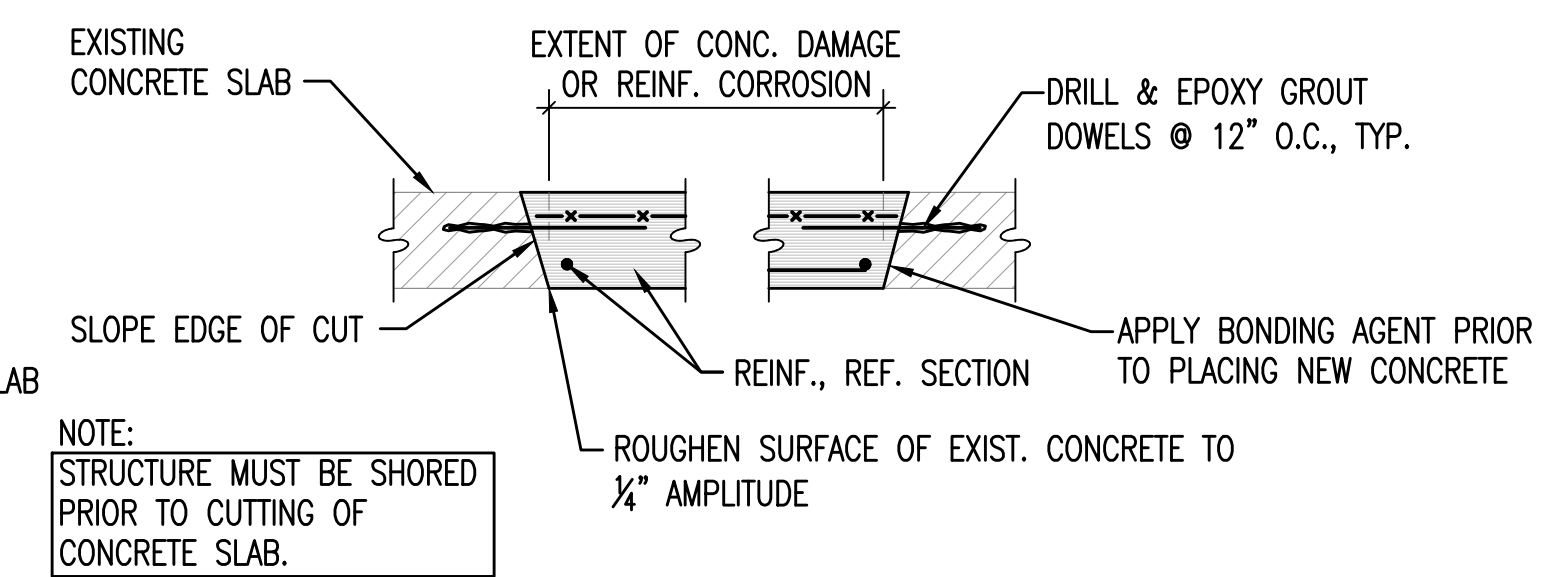
- SEQUENCING:**
1. REMOVE SPALLED CONCRETE FROM AREAS OF CONCERN.
 2. CUT AWAY CONCRETE AROUND SPALLED AREAS UNTIL RUST FREE REBAR IS EXPOSED. OVER CUT 4" EACH DIRECTION AS INDICATED BELOW.
 3. REMOVE ALL RUST FROM REBAR. DO NOT USE SOLVENTS TO CLEAN REBAR AS THEY CAN PENETRATE THE CONCRETE. IF SECTION LOSS GREATER THAN 15% HAS OCCURRED BARS, REPLACE IN KIND AND SPLICE TO EXISTING. (ORIGINAL #6 BARS WITH DIAMETERS MEASURING EQUAL TO OR LESS THAN 3/8" DIAMETER WILL NEED TO BE REPLACED)
 4. APPLY SPECIALTY COATING WITH ANTI-CORROSIVE AGENTS TO REBAR TO PREVENT FURTHER DAMAGE.
 5. ALLOW COATING TO SET. APPLY REPAIR GROUT SO REBAR IS NO LONGER EXPOSED TO THE ELEMENTS. ENSURE MINIMUM COVER IS MAINTAINED.



3 TUNNEL SECTION - REPAIR DETAIL
3/4"=1'-0"



- SEQUENCING:**
1. IF SPALLED CONCRETE DEPTH IS GREATER THAN 2 1/2" DEEP, SAW CUT FULL DEPTH OF CONCRETE SLAB IMMEDIATELY SURROUNDING AREAS OF CONCERN. OVER CUT 4" EACH DIRECTION FROM EXTENT OF DAMAGED AREA.
 2. INSTALL NEW REINFORCING AND DOWEL INTO EXISTING SLAB. USE 1"-2" REBAR DOWELS SPACED AT 12" ON CENTER WITH A MINIMUM EMBEDMENT OF 6" INTO EXISTING SLAB.
 3. PLACE WELDED WIRE REINFORCING AND FORMWORK.
 4. POUR BACK NEW CONCRETE SLAB.



4 TUNNEL SECTION - INFILL DETAIL
3/4"=1'-0"