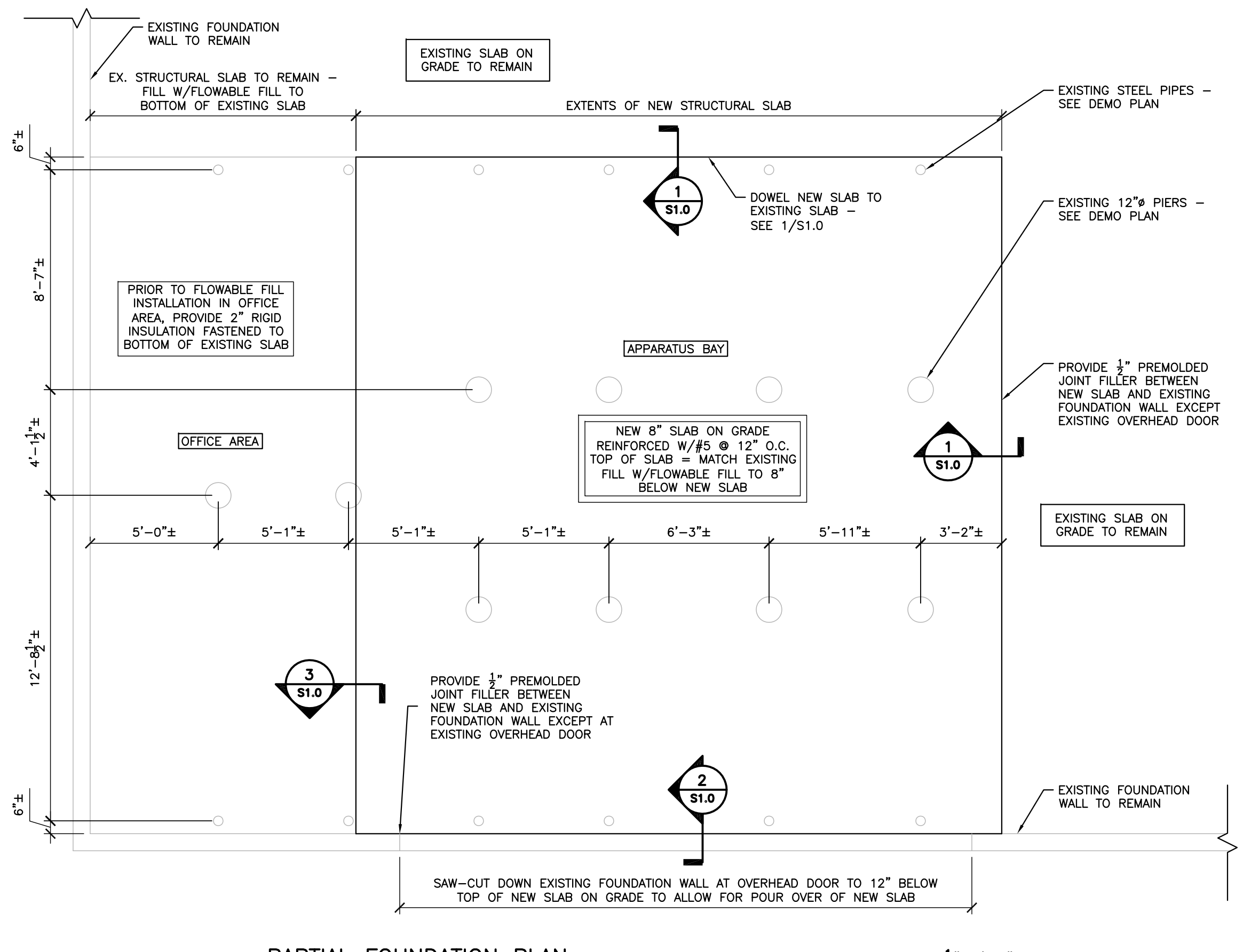
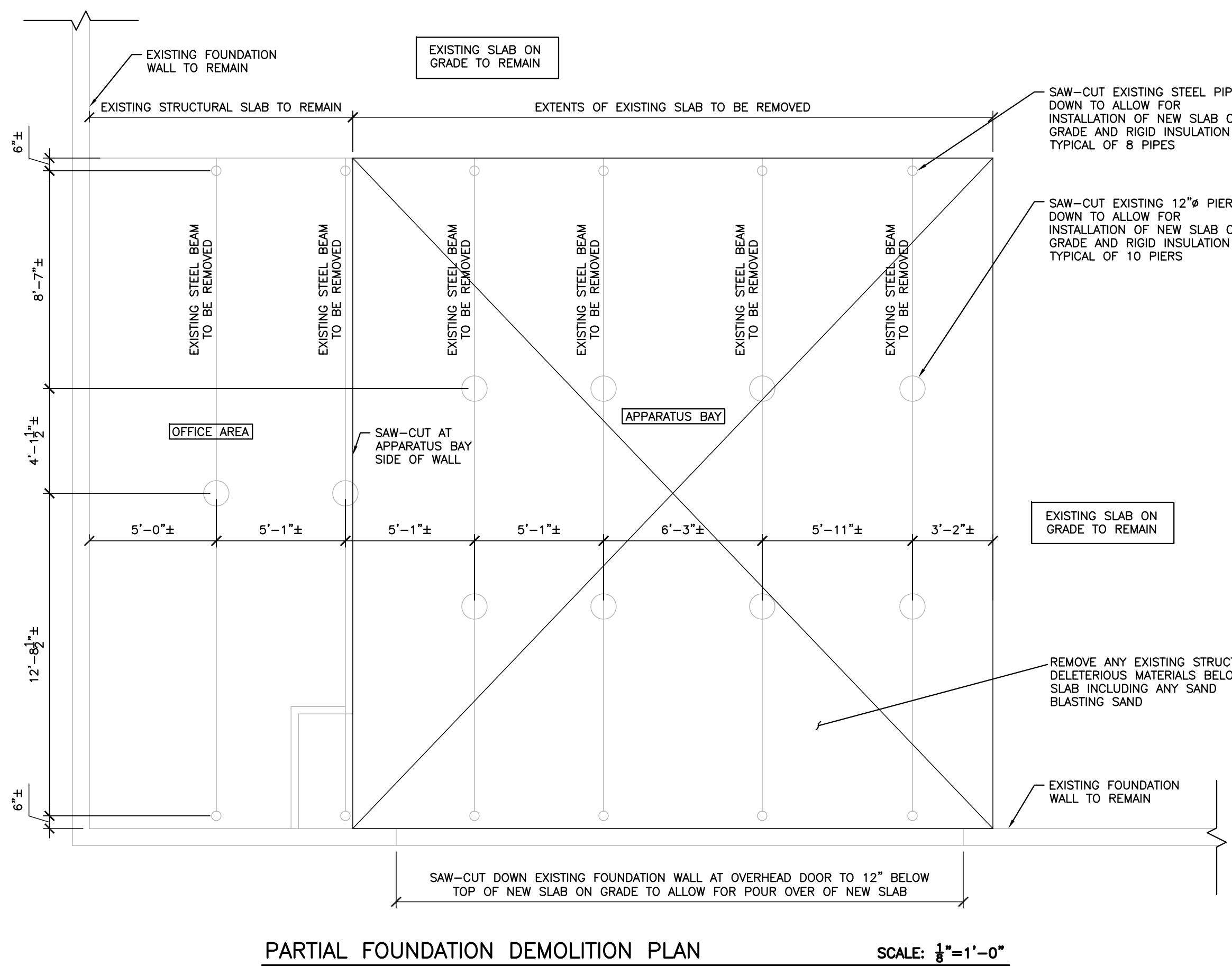


GENERAL NOTES

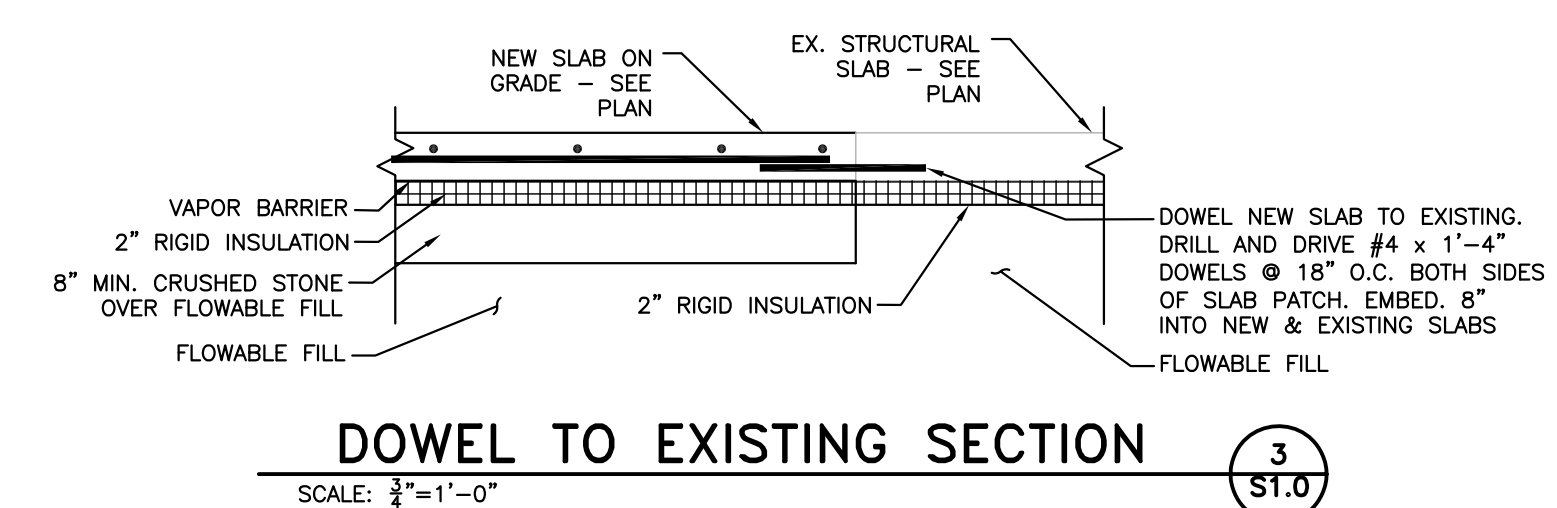
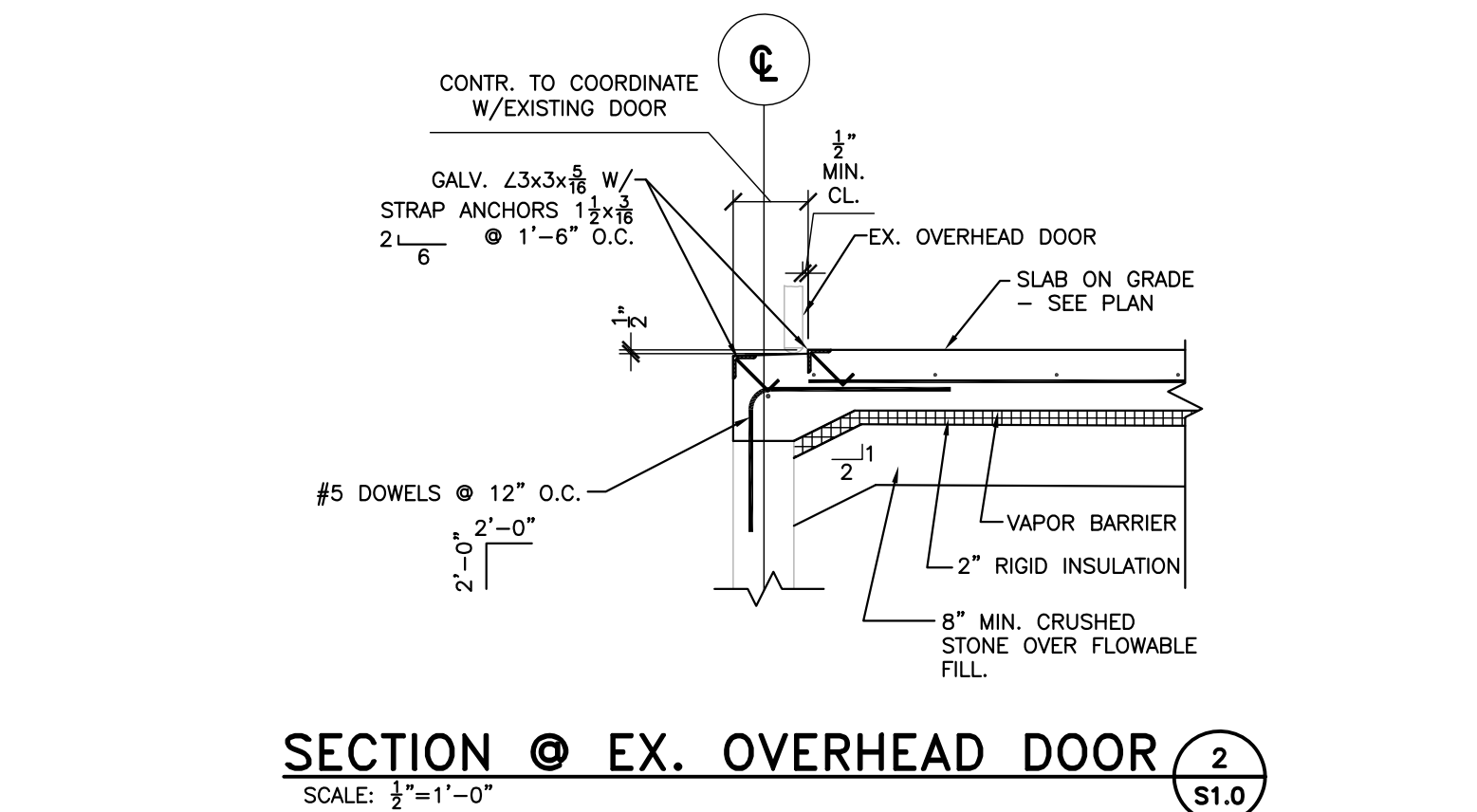
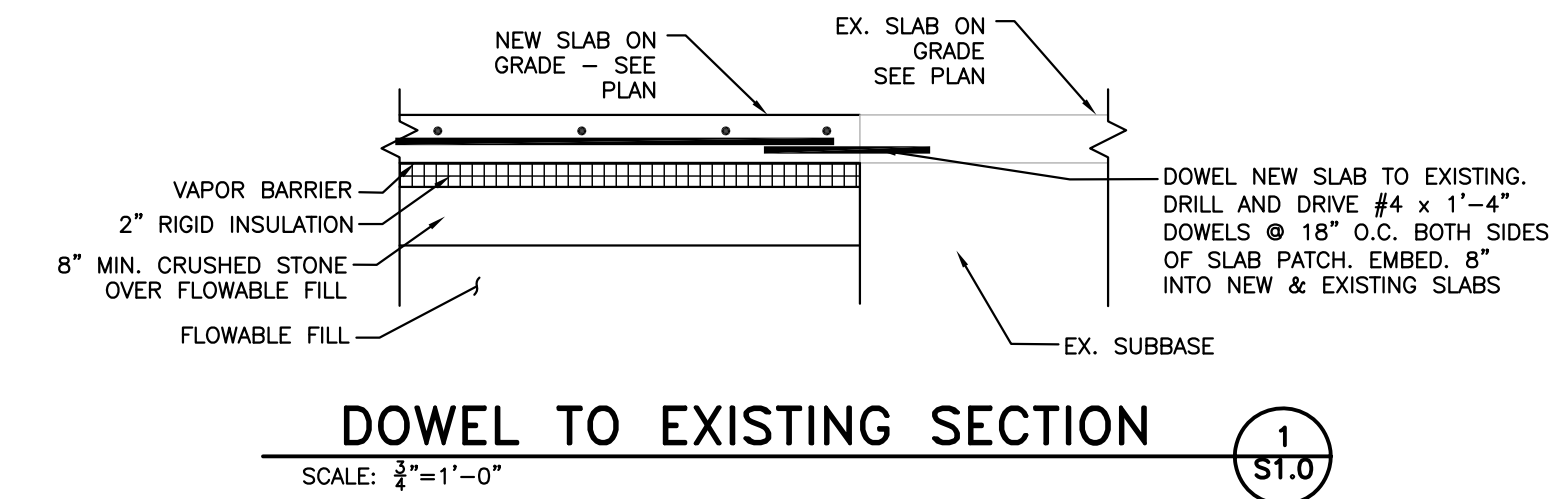
- 1 GENERAL:
- 1.1 ALL WORK SHALL BE PERFORMED IN A FIRST CLASS MANNER, AND IN STRICT ACCORDANCE WITH THE "VERMONT FIRE & BUILDING SAFETY CODE - 2015" (WHICH INCORPORATES IBC 2015 WITH LATEST SUPPLEMENTS), AND LOCAL CODES AND ORDINANCES.
 - 1.2 BEFORE ORDERING MATERIALS, CONTRACTOR SHALL REVIEW ALL CONSTRUCTION DOCUMENTS, INCLUDING STRUCTURAL DRAWINGS, SUBCONTRACTORS SHOP DRAWINGS, AND OTHER RELATED DOCUMENTS, TO VERIFY AND COORDINATE DIMENSIONS, LOCATIONS, PLACEMENT, AND APPLICABILITY OF BUILDING COMPONENTS. THE CONTRACTOR SHALL MAKE FIELD CHECKS TO VERIFY THE ACCURACY OF DIMENSIONS, AND OTHER EXISTING CONDITIONS. IF THERE IS ANY DISCREPANCY IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER AS SOON AS POSSIBLE.
 - 1.3 CONTRACTOR SHALL PROTECT EXISTING FACILITIES, STRUCTURES, AND UTILITY LINES FROM ALL DAMAGE.
 - 1.4 CONTRACTOR IS RESPONSIBLE FOR ADEQUATE BRACING OF STRUCTURAL MEMBERS, WALLS, AND NON-STRUCTURAL ITEMS DURING CONSTRUCTION.
 - 1.5 BUILDING IS DESIGNED FOR THE FOLLOWING LIVE LOADS:
FLOOR LIVE LOADS: 500 PSF
 - 1.6 THE CONTRACTOR SHALL REVIEW AND STAMP ALL SHOP DRAWINGS BEFORE SUBMISSION TO THE ENGINEER; THUS, PROVIDING ANY INFORMATION REQUIRED OF THE FABRICATOR SUCH AS FIELD DIMENSIONS, ELEVATIONS, ETC. OTHERWISE THE SHOP DRAWINGS WILL BE REJECTED UNTIL SUCH INFORMATION IS FURNISHED BY THE CONTRACTOR.
 - 1.7 THE CONTRACTOR SHALL THOROUGHLY CLEAN THE PREMISES AT COMPLETION OF WORK AND AT TIMES AS DIRECTED BY THE OWNER. LEGALLY DISPOSE OF EXCESS MATERIAL OFF SITE.
 - 1.8 JOB-SITE SAFETY CONDITIONS, INCLUDING, BUT NOT LIMITED TO, LATERAL STABILITY AND WIND BRACING, SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
 - 1.9 CONTRACTOR SHALL TEMPORARILY SHORE EXISTING INTERIOR WALLS OR REMOVE AND REPLACE INTERIOR WALLS IN KIND. ALL ELECTRICAL, WATER, AND SANITARY LINES SHALL BE RELOCATED MEETING ALL CODES AND APPLICABLE STANDARDS.
- 2 SOILS/GEOTECHNICAL:
- 2.1 THE NATIVE SOIL BELOW THE CRUSHED STONE SHALL BE PROOF-ROLLED. LOOSE SOIL, REFUSE, AND DELETERIOUS SOIL SHALL BE REMOVED AND LEGALLY DISPOSED OF.
 - 2.2 ALL STRUCTURAL FILL SHALL BE PLACED IN HORIZONTAL LIFTS NOT EXCEEDING 8" IN THICKNESS AND SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DENSITY AT OPTIMUM MOISTURE CONTENT AS DETERMINED BY ASTM D-1557.
 - 2.3 THE CONCRETE SLAB ON GRADE SHALL BE SUPPORTED ON A 2" RIGID INSULATION LAYER ON A COMPACTED CRUSHED STONE BASE. A 15 MIL STEGOWRAP VAPOR BARRIER SHALL BE PROVIDED BETWEEN THE FLOOR SLAB AND THE INSULATION.
 - 2.4 CRUSHED STONE SHALL BE CRUSHED, WASHED, HARD, DURABLE ROCK MEETING THE GRADATION REQUIREMENTS FOR ASTM D-448, NO. 67 STONE.
- 3 CONCRETE:
- 3.1 ALL CONCRETE AND REINFORCING WORK SHALL BE IN STRICT ACCORDANCE WITH THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318-14)". SLAB CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS. SUBMIT CONCRETE MIX DESIGN FOLLOWING PROCEDURES OUTLINED IN THE FLOW CHART IN CHAPTER 5 OF ACI 318 FOR REVIEW OF ENGINEER. CONTRACTOR SHALL TAKE 4 TEST CYLINDERS OF CONCRETE FOR EACH 50 CUBIC YARDS OF CONCRETE OR FOR EACH DAY'S POUR IF LESS THAN 50 C.Y. TESTING WILL BE AT OWNER'S EXPENSE.
 - 3.2 MAXIMUM W/C RATIOS AS FOLLOWS:
4000 psi CONCRETE: 0.45
 - 3.3 USE A PLASTICIZER ADDITIVE FOR SLAB ON GRADE CONCRETE. PROVIDE THE STANDARD MIX, EXCEPT THE SLUMP BEFORE ADDING THE PLASTICIZER SHALL BE 2" +OR- 1". SLUMP SHALL NOT EXCEED 6". DO NOT EXCEED SPECIFIED WATER CEMENT RATIOS.
 - 3.4 ALL SLAB WORK SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF AN ACI CERTIFIED FLATWORKER (NO EXCEPTIONS).
 - 3.5 CONCRETE SLAB WORK SHALL BE PERFORMED IN ACCORDANCE WITH "RECOMMENDED PRACTICE FOR CONCRETE FLOOR AND SLAB CONSTRUCTION" (ACI 302.1 R-15). INTERIOR SLAB FINISH TO BE HARD STEEL TROWELED WITH A LIGHT BROOM FINISH. WET CURE SLAB USING BURLAP COVER FOR A MINIMUM OF 7 DAYS. AFTER COMPLETION OF WET CURING APPLY A LIQUID MEMBRANE CURING, SEALING, AND HARDENING COMPOUND (CONFORMING TO CURRENT "SPECIFICATIONS FOR LIQUID MEMBRANE - FORMING COMPOUNDS FOR CURING CONCRETE, ASTM C309) IMMEDIATELY AFTER FINISHING. VERIFY COMPATIBILITY OF CURING COMPOUND WITH FINISH FLOOR PRIOR TO APPLICATION.
 - 3.6 CONCRETE SHALL BE PROTECTED FROM FREEZING. CONTRACTOR SHALL FOLLOW THE "RECOMMENDED PRACTICE FOR COLD WEATHER CONCRETING (ACI 306R-16, LATEST EDITION).
 - 3.7 ALL CONCRETE SHALL BE PLACED IN THE DRY - PUMP AS NECESSARY.
 - 3.8 CONCRETE SHALL BE SO PROPORTIONED SO AS TO HAVE A MAXIMUM SLUMP OF 4", EXCEPT CONCRETE SPECIFIED TO HAVE A PLASTICIZER SHALL HAVE A SLUMP OF 2" +OR- 1".
 - 3.9 THE CONCRETE CONTRACTOR SHALL INSTALL (OR GIVE OTHER TRADES AMPLE OPPORTUNITY TO INSTALL) ALL ANCHOR BOLTS, ANCHORS, PLATES, NAILERS, SLOTS, CHASES, PIPE SLEEVES, DUCT OPENINGS, ETC., AS REQUIRED BY OTHER TRADES. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS BEFORE SETTING SCREENS AND FORMS. FORM RELEASE OIL SHALL BE AN APPROVED NON-TOXIC LIQUID.
 - 3.10 CURING: HORIZONTAL SURFACES SHALL BE KEPT CONTINUOUSLY MOIST OVER ENTIRE SURFACE FOR SEVEN DAYS WHEN WATER CURING IS USED.
 - 3.11 DURING PLACEMENT OF CONCRETE, USE TREMIE OR OTHER MEANS TO LIMIT FREE-FALL OF CONCRETE TO 5 FEET.
 - 3.12 CONCRETE SHALL BE CONSOLIDATED BY VIBRATION, SPADING, OR RODDING SO THE CONCRETE IS THOROUGHLY WORKED AROUND THE REINFORCEMENT, EMBEDDED ITEMS, AND INTO CORNERS OF FORMS, ELIMINATING ALL AIR OR STONE POCKETS WHICH MAY CAUSE HONEYCOMBING. (CARE SHALL BE TAKEN NOT TO OVER VIBRATE AND CAUSE SEGREGATION).
- 4 REINFORCING STEEL:
- 4.1 REINFORCING STEEL SHALL BE NEW BILLET STEEL, ASTM A615, Fy=60 KSI.
 - 4.2 THE MINIMUM CLEAR DISTANCE FROM REINF. STEEL TO ADJACENT SURFACE SHALL BE: 2" FOR SLAB ON GRADE.
 - 4.3 LAP ALL BARS AS SHOWN IN THE LAP SCHEDULE. TOP BARS TO BE LAPPED AT MIDSPAN, AND BOTTOM BARS AT SUPPORTS.
 - 4.4 REINFORCEMENT SHALL BE SECURELY TIED IN ITS PROPER PLACE BEFORE AND DURING CONCRETE PLACEMENT OPERATIONS USING APPROVED TIES, CHAIRS, AND SPACERS AS REQUIRED. NO BARS SHALL BE CUT OR OMITTED IN THE FIELD WITHOUT THE APPROVAL OF THE ENGINEER. USE PLASTIC TIPPED ACCESSORIES IN CONCRETE EXPOSED TO WEATHER, WATER, OR VIEW.
 - 4.5 WHERE CONTINUOUS BARS ARE CALLED FOR, INDICATED OR OTHERWISE REQUIRED THEY SHALL BE RUN CONTINUOUSLY AROUND CORNERS, DOWELED INTO INTERSECTING WALLS AND LAPPED AT NECESSARY SPLICES WITH SPLICES STAGGERED WHEREVER POSSIBLE.
- 5 STRUCTURAL STEEL:
- 5.1 ALL STRUCTURAL STEEL SHALL BE ASTM A36. SUBMIT SHOP DRAWINGS FOR REVIEW OF ENGINEER.
 - 5.2 ALL WELDING WHETHER FIELD OR SHOP SHALL BE PREQUALIFIED WELDS WITH E-70 ELECTRODES BY AWS PREVIOUSLY CERTIFIED WELDERS.
 - 5.3 ALL STEEL SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION. ANY GALVANIZED SURFACE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED WITH ZRC PAINT.



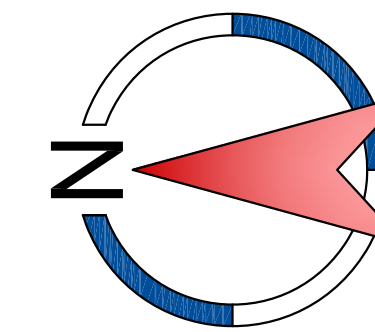
- PARTIAL FOUNDATION PLAN** SCALE: 1/8"=1'-0"
1. DESIGN SOIL BEARING PRESSURE 3,000 PSF. NOTIFY ENGINEER IF UNSUITABLE MATERIAL IS ENCOUNTERED.
 2. SLAB CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 4,000 PSI AT 28 DAYS.
 3. ALL SLABS ON GRADE SHALL BE SUPPORTED ON 2" RIGID INSULATION ON A COMPACTED CRUSHED STONE BASE. A 15 MIL STEGO-WRAP VAPOR BARRIER SHALL BE PLACED BETWEEN THE SLAB AND RIGID INSULATION.
 4. ALL FILL, BACKFILL AND BASE MATERIAL SHALL BE COMPACTED IN 8" LIFTS TO 95% OF IT'S MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT IN ACCORDANCE WITH ASTM D1557 (MODIFIED PROCTOR).
 5. ALL SLAB WORK SHALL BE COMPLETED UNDER THE DIRECT SUPERVISION OF ACI CERTIFIED FLATWORKERS.
 6. DIMENSIONS SHOWN ON THIS PLAN ARE TO FACE OF CONCRETE. U.O.N.

REINFORCING SPLICE LENGTHS				
BAR	F'c=3 KSI		F'c=4 KSI	
	TOP BARS	OTHER BARS	TOP BARS	OTHER BARS
3	17"	13"	15"	12"
4	23"	18"	20"	15"
5	28"	22"	25"	19"
6	34"	26"	29"	23"
7	49"	38"	43"	33"
8	56"	43"	49"	37"
9	63"	48"	55"	42"

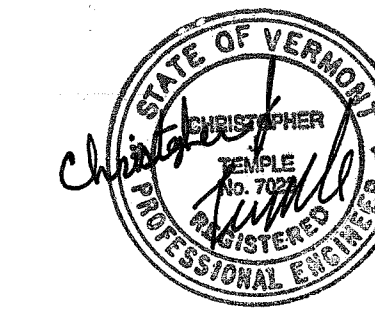
CHART BASED ON THE FOLLOWING:
BAR SPACING 5" MINIMUM
CLEAR COVER 2 BAR DIAMETERS MINIMUM
REFER TO ACI 318-14 FOR OTHER CONDITIONS
TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THE BAR.



- REPAIR/REPLACEMENT SEQUENCE:**
- OFFICE AREA:
- REMOVE LOOSE SOILS AT THE GROUND LEVEL BELOW THE SLAB INCLUDING ALL SAND BLASTING MEDIA.
 - PROVIDE INSULATION.
 - PLACE FLOWABLE FILL WITHIN THE CRAWL SPACE CAVITY THROUGH A SERIES OF 4" HOLES CORED THROUGH THE EXISTING SLAB. THIS SHALL BE COMPLETED IN A MINIMUM OF THREE LIFTS TO ALLOW FOR ANY MINOR SHRINKAGE AS THE FLOWABLE FILL SETS UP.
 - THE LAST PLACEMENT, SHALL BE 8"-10" OF THE SAME FLOWABLE FILL MIX. THIS PLACEMENT SHALL USE PRESSURE GROUTING TO HELP DISPERSE THE MIXTURE AND ENSURE A FULLY SUPPORTED EXISTING SLAB CONDITION.
 - THE 4" CORES SHALL BE FILLED WITH NON-SHRINK GROUT UPON COMPLETION.
- APPARATUS BAY:
- REMOVE LOOSE SOILS AT THE GROUND LEVEL BELOW THE SLAB INCLUDING ALL SAND BLASTING MEDIA.
 - PLACE FLOWABLE FILL WITHIN THE CRAWL SPACE CAVITY THROUGH A SERIES OF 4" HOLES CORED THROUGH THE EXISTING SLAB. THIS SHALL BE COMPLETED IN A MINIMUM OF THREE LIFTS TO ALLOW FOR ANY MINOR SHRINKAGE AS THE FLOWABLE FILL SETS UP.
 - SAW-CUT AND REMOVE THE EX. APPARATUS BAY SLAB, STEEL AND COLUMNS.
 - PROVIDE 8"-10" OF 1/2" CRUSHED STONE BASE.
 - PROVIDE VAPOR BARRIER.
 - PROVIDE INSULATION.
 - PROVIDE NEW SLAB.



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no.	date	revision
1	8/3/22	SLAB REVISIONS

project name: **TOWN OF WORCESTER FIRE STATION SLAB REPLACEMENT**
project location: **20 WORCESTER VILLAGE RD WORCESTER, VERMONT**
client: TOWN OF WORCESTER

project number: 21294
drawn by: KLA
checked by: CJT
scale: AS NOTED
date: 9 DECEMBER, 2021

released for: **FOUNDATION PLAN AND DETAILS**
sheet description:

S1.0