









**MINISTRY OF PUBLIC WORKS**

**ARCHITECTS SECTION**

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**ISSUE / REVISION**

No.	Date:
B	Issued for Tender December 2022
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SCALE: AS NOTED

**SURVEY**  
Prepared By: \_\_\_\_\_ Date: \_\_\_\_\_

**DESIGN**  
Prepared By: SS Date: MAY 2022

Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

**DRAWING**  
Prepared By: SS Date: MAY 2022

Checked By: \_\_\_\_\_ Date: \_\_\_\_\_

**REVIEWED By:**  
\_\_\_\_\_

**Project Number:**  
00.00.00

**Project Title:**  
**MEN AND WOMEN SHOWER & WASHROOM RENOVATIONS/ALTERATIONS**

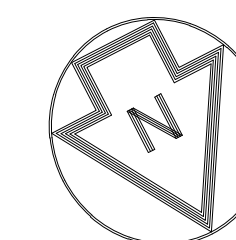
ROYAL BERMUDA REGIMENT - WARWICK CAMP  
SOUTH ROAD  
WARWICK PARISH

**Sheet Title:**  
**FLOOR PLANS**

Revisions: \_\_\_\_\_ Sheet Number: **A.1**

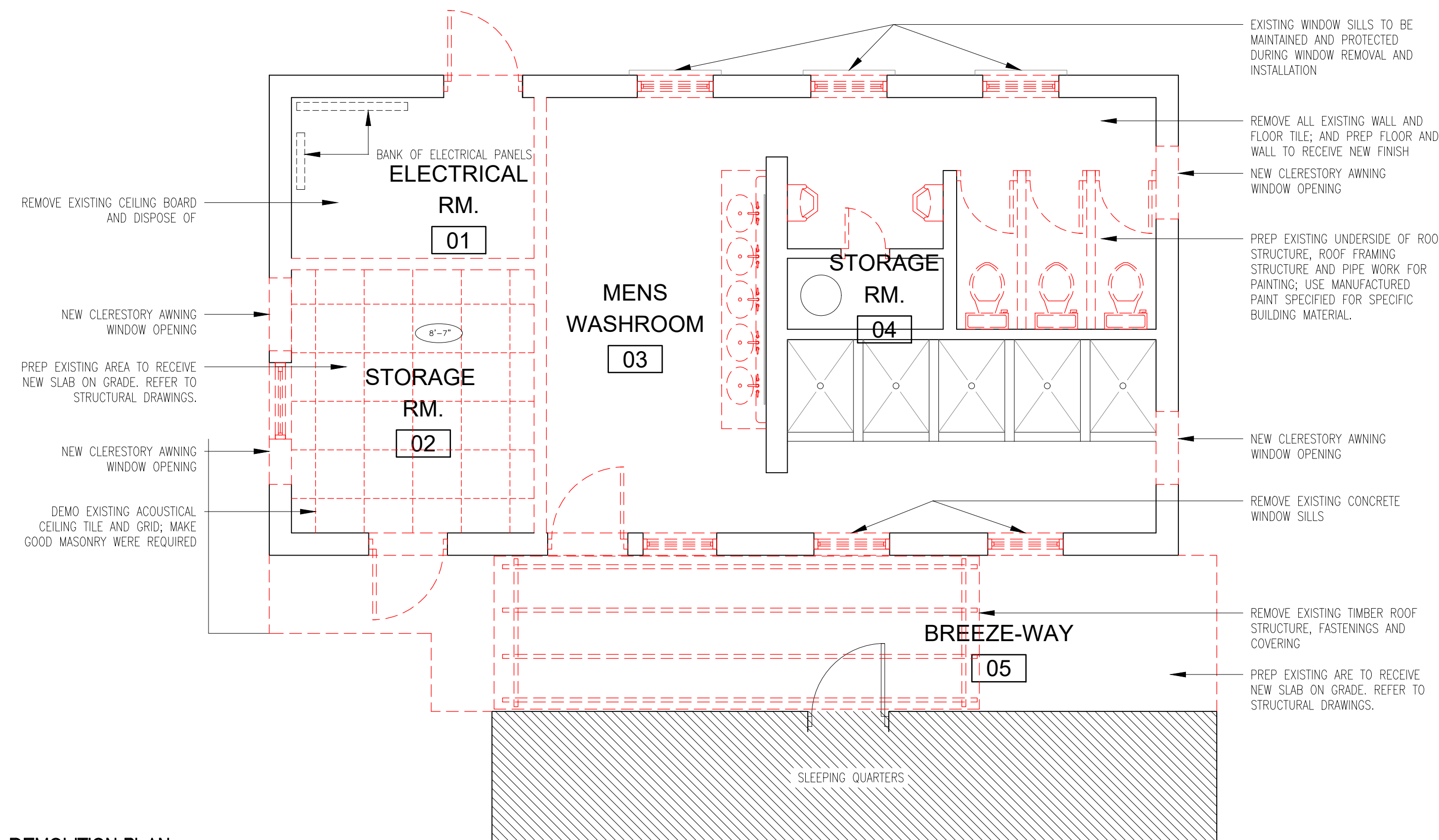
**DRAWING LEGEND :**

- EXISTING BASE BUILDING
- EXISTING WALLS TO BE DEMOLISHED
- EXISTING DOOR/FRAME/HARDWARE TO BE REMOVED
- EXISTING WINDOW/FRAME/HARDWARE TO BE REMOVED
- CEILING HEIGHT



**DEMOLITION NOTES :**

- ALL EXISTING FLOOR & WALL TILE TO BE REMOVED. THE SUB-SURFACE SHOULD BE CLEAN, DRY (FREE FROM SURFACE & SUB-SURFACE MOISTURE), SMOOTH, LEVEL AND FREE OF LOOSE OR OTHER MATERIAL AND CRACKS/CHIPS WHICH WILL AFFECT THE BOND. SLABS THAT ARE UNEVEN SHALL BE GROUND DOWN AND/OR BUILT UP OR FILLED WITH APPROVED LEVELING COMPOUND.
- MAKE GOOD ALL EXISTING WALL SURFACES WITH OUT EXISTING WALL TILE FOR NEW WALL FINISH.
- REFER TO MECHANICAL/PLUMBING & ELECTRICAL ENGINEERED DRAWINGS FOR ALL LOCATIONS OF EXISTING MECHANICAL/PLUMBING & ELECTRICAL DEVICES TO BE REMOVED.
- INTERRUPTION OF SERVICES TO ANY PART OF THE BUILDING SHALL BE A TIME AND DATE AGREED UPON BY THE ROYAL BERMUDA REGIMENT AND SHALL BE KEPT TO MINIMUM.
- REMOVE ALL EXISTING BATHROOM PLUMBING FIXTURES AND FITTINGS
- REMOVE ALL EXISTING BATHROOM ELECTRICAL FIXTURES AND FITTINGS
- REMOVE ALL EXISTING STORAGE RM. 02 ELECTRICAL FIXTURES AND FITTINGS
- REMOVE ALL ACOUSTICAL CEILING TILES AND TRACKS
- ALL SERVICES TO BE REMOVED ARE TO BE SAFELY CAPPED WITHIN THE WALL, FLOOR OR CEILING IN COMPLIANT WITH APPLICABLE CODES.
- ALL MATERIALS CONTAINING ASBESTOS AND IDENTIFIED FOR DEMOLITION SHALL BE REMOVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE DEPARTMENT OF HEALTH AND WITH BERMUDA WATER CONSULTANTS LIMITED WRITTEN SPECIFICATION.
- PROTECT ALL EXISTING WORK. ANY DAMAGE TO EXISTING CONDITIONS CAUSED BY DEMOLITION MUST BE REPAIRED/REPLACED BY THE GENERAL CONTRACTOR.
- ANY DEMOLITION OCCURRING BEYOND THE SCOPE IDENTIFIED, MUST BE REFINISHED TO ORIGINAL CONDITION AT THE GENERAL CONTRACTORS EXPENSE.
- THE GENERAL CONTRACTOR IS TO ENSURE THAT THE BUILDING AND ADJACENT OFFICES HAVE MINIMUM TO NO INTERRUPTION WITH THE FOLLOWING SERVICES UNLESS NOTIFIED IN ADVANCE: LIFE SAFETY DEVICES, HVAC, ELECTRICAL POWER, PLUMBING, IT NETWORK, SECURITY AND LIGHTING.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
- FORM OPENING TO INSPECT CEILING VOID AND ROOF FRAMING MEMBERS FOR DAMAGE THAT MAY REQUIRE REPAIR AND/OR REPLACEMENT. CLOSE OPENING FORMING NEW HATCH ACCESS.



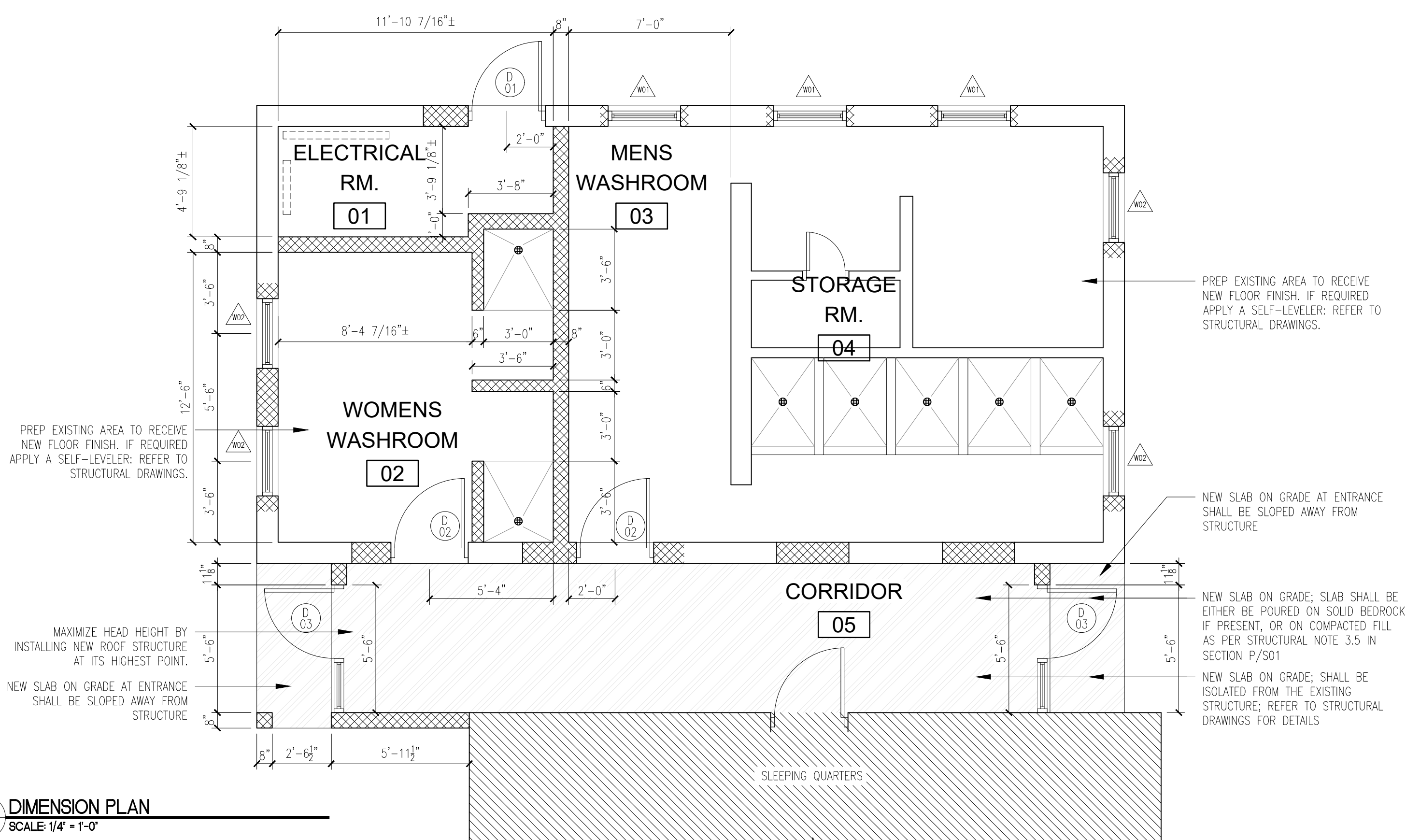
**1 DEMOLITION PLAN**  
SCALE 1/4" = 1'-0"

**DRAWING LEGEND :**

- EXISTING BASE BUILDING
- NEW CONSTRUCTION
- DENOTES: DOOR SYMBOL
- DENOTES: WINDOW SYMBOL

**GENERAL CONSTRUCTION NOTES :**

- THE CONTRACTOR TO CHALK OUT ALL WALL LAYOUTS FOR THE PROJECT MANAGERS REVIEW PRIOR TO ERECTING WALLS
- THE CONTRACTOR SHALL VERIFY AND BE RESPONSIBLE FOR ALL FIELD DIMENSIONS AND SHALL NOTIFY THE PROJECT MANAGER OF ANY SITE CONDITIONS OR FIELD DIMENSIONS WHICH MAY BE AT VARIANCE WITH THE DRAWINGS.
- THIS DRAWING IS NOT TO BE SCALED.
- PRIOR TO ORDERING OR FABRICATING THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CARRYING OUT FIELD DIMENSIONS.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF MANUFACTURERS PLUMBING EQUIPMENT SPECIFICATIONS FOR REVIEW & APPROVAL.
- THE CONTRACTOR SHALL INSTALL FLOOR DRAINS AT LOW POINTS OF THE SURFACE AREA TO BE DRAINED AND SHALL SET THE TOP OF THE DRAIN FLUSH WITH THE FINISH FLOOR.
- ALL FURNISHINGS/EQUIPMENT/FIXTURES SHALL BE FASTENED SECURELY: LEVEL AND PLUMB TO INDICATED SUPPORTS OR BUILDING STRUCTURE.
- ALL FURNISHINGS, FIXTURES AND EQUIPMENT IS TO BE INSTALLED PER THE MANUFACTURES SPECIFICATIONS.
- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS.
- GENERAL CONTRACTOR TO REVIEW ALL MATERIALS SUPPLIED BY OWNER AND TO COORDINATE THE INSTALLATION.
- GENERAL CONTRACTOR TO SUPPLY AND INSTALL ALL OTHER ITEMS UNLESS SPECIFIED OTHERWISE.
- ALL GENERAL CONTRACTORS MARKUPS AND OVERHEAD'S SHOULD BE INCLUDED IN THE COST.
- THE SITE IS TO BE MAINTAINED THROUGHOUT THE DURATION OF THE CONTRACT, AND DEBRIS AND WASTE SHOULD NOT BE ALLOWED TO ACCUMULATE, BUT SHOULD BE REMOVED AT REGULAR INTERVALS AND DISPOSED OF IN A LAWFUL MANNER.
- THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ADEQUATELY PROTECT THE SITE, THE WORKS, ANY EXISTING PROPERTY, FEATURES, AND GOODS STORED ON SITE, AND ALL PROPERTY SURROUNDING THE SITE, FROM DAMAGE ARISING OUT OF THE WORKS.
- ANY DAMAGED ARISING OUT OF THE WORKS SHOULD BE IMMEDIATELY MADE GOOD BY SKILLED TRADESMAN UNDER THE EMPLOYMENT OF THE CONTRACTOR.
- THE GENERAL CONTRACTOR SHALL INSURE THAT THE SITE IS SAFE AND SECURE AT ALL TIMES TO PREVENT SENIOR CARE RESIDENCE FROM GAINING ACCESS.



**2 DIMENSION PLAN**  
SCALE 1/4" = 1'-0"





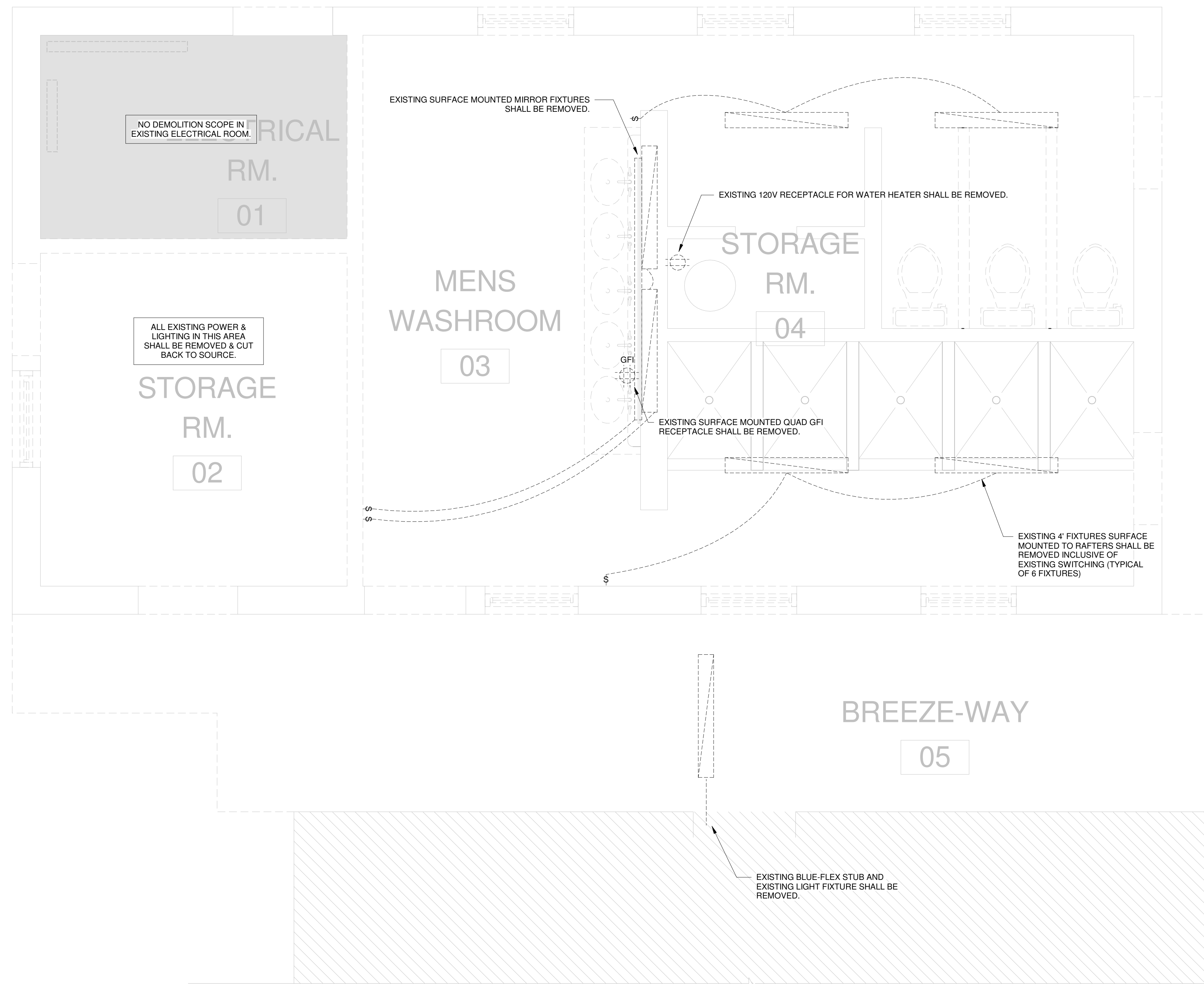












1 ELECTRICAL DEMOLITION PLAN  
E100 1/2" = 1'-0"

2	TENDER	25 JAN 23
1	CLIENT REVIEW	29 APR 22



**ONSITE ENGINEERING SERVICES LTD.**

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PREPARED BY: Designer  
CHECKED BY: Checker  
APPROVED BY: Approver

PROJECT NAME

**RBR BATHROOM RENOVATION**

WARWICK CAMP  
1 SOUTH ROAD, WARWICK

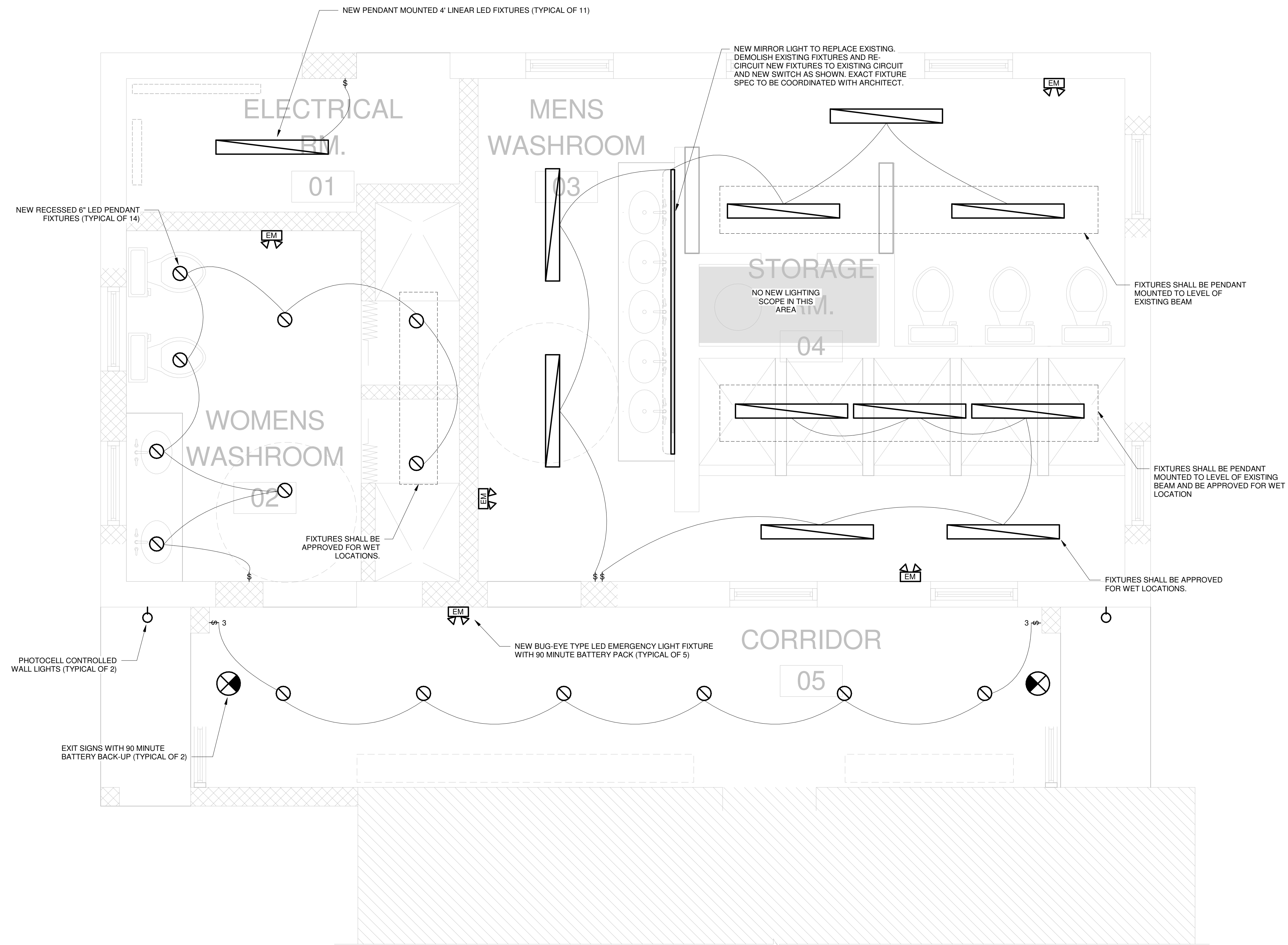
SHEET TITLE  
**ELECTRICAL DEMOLITION PLAN**

ISSUED FOR: TENDER

SCALE: 1/2" = 1'-0" SHEET SIZE: 24" x 36"

PROJECT NO: 22042 SHEET NO: E100 REVISION: 2





2	TENDER	25 JAN 23
1	CLIENT REVIEW	29 APR 22



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PREPARED BY: JB      CHECKED BY: JB      APPROVED BY: JB

PROJECT NAME

**RBR BATHROOM RENOVATION**

WARWICK CAMP  
 1 SOUTH ROAD, WARWICK

SHEET TITLE  
**ELECTRICAL LIGHTING PLAN**

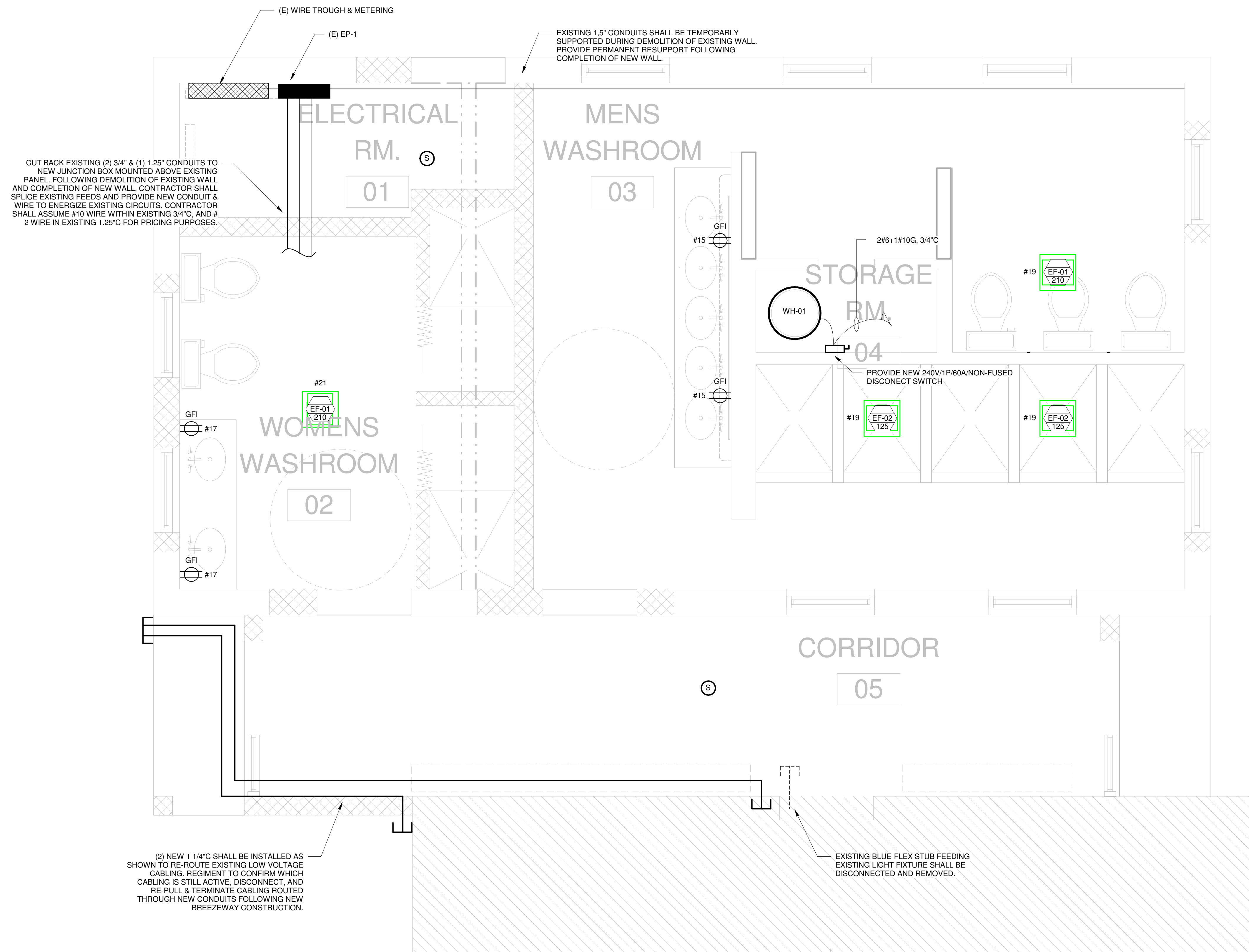
ISSUED FOR: TENDER

SCALE: 1/2" = 1'-0"      SHEET SIZE: 24" x 36"

PROJECT NO: 22042      SHEET NO: E101      REVISION: 2

1  
 E101      ELECTRICAL LIGHTING PLAN  
 1/2" = 1'-0"





1 ELECTRICAL POWER PLAN  
E102 1/2" = 1'-0"

2	TENDER	25 JAN 23
1	CLIENT REVIEW	29 APR 22



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PREPARED BY: JB      CHECKED BY: JB      APPROVED BY: JB

PROJECT NAME

**RBR BATHROOM RENOVATION**

WARWICK CAMP  
1 SOUTH ROAD, WARWICK

SHEET TITLE  
**ELECTRICAL POWER PLAN**

ISSUED FOR: TENDER

SCALE: 1/2" = 1'-0"      SHEET SIZE: 24" x 36"

PROJECT NO: 22042      SHEET NO: E102      REVISION: 2



# 22042 RBR BATHROOM RENOVATION

## MECHANICAL COVERSHEET & KEY

### MECHANICAL INDEX

MECHANICAL COVERSHEET & KEY	M001
MECHANICAL PLAN	M101

### HVAC SCHEDULE

SYMBOL	ABBR.	MEANING	SYMBOL	MEANING	ABBR.	MEANING
	CHWS	CHILLED WATER SUPPLY		PUMP (SCHEMATIC)	DN	DOWN
	CHWR	CHILLED WATER RETURN		THERMOSTAT	CD	CONDENSATE DRAIN
	CW	CONDENSER WATER LINE		HUMIDISTAT	FV	FOOT VALVE
	GW	GREY WATER LINE (NON-POTABLE)		PRESSURE SENSOR	NC	NORMALLY CLOSED
	C	DOMESTIC COLD WATER SUPPLY		VELOCITY SENSOR	FR	FROM
	DX	REFRIGERANT SUPPLY AND RETURN COMBINED		PRESSURE SENSOR	ETR	EXHAUST THROUGH ROOF
		CONTROL WIRE		THERMOSTAT	TLD	TO LATER DETAIL
		PIPE TURNING UP		HUMIDISTAT	UF/UG	UNDER FLOOR/UNDER GROUND
		PIPE TURNING DOWN		VELOCITY SENSOR	AF/AG	ABOVE FLOOR/ABOVE GROUND
		TRAP WITH CLEANOUT		PRESSURE SENSOR	USS	UNDER SIDE OF SLAB, STEEL OR ROOF
		SHUT-OFF VALVE		THERMOSTAT	AFG	ABOVE FINISHED GRADE
		BALANCING COCK		HUMIDISTAT	CTE	CONNECT TO EXISTING
		CHECK VALVE/BACKFLOW VALVE		VELOCITY SENSOR	NTS	NOT TO SCALE
		THREE-WAY VALVE		PRESSURE SENSOR	VAV	VARIABLE AIR VOLUME
		REDUCER/ENLARGER		VELOCITY SENSOR	PD	PRESSURE DROP
		SOLENOID VALVE		PRESSURE SENSOR	FCU	FAN COIL UNIT
		WYE STRAINER		VELOCITY SENSOR	AHU	AIR HANDLING UNIT
		VACUUM BREAKER		THERMOSTAT	CH	CHILLER
		WATER HAMMER ARRESTOR		HUMIDISTAT	EX	HEAT EXCHANGER
		REGULATOR		VELOCITY SENSOR	EF	EXHAUST FAN
		POSITIVE PRESSURE AIR FLOW (SUPPLY)		PRESSURE SENSOR	DX	DIRECT EXPANSION
		NEGATIVE PRESSURE AIR FLOW (RETURN)		VELOCITY SENSOR	DIFF	DIFFUSER
		GC TO UNDERCUT DOOR 3/4" OR AS NOTED		THERMOSTAT	CCT	CIRCUIT
	24x12	RECTANGULAR DUCT WIDTH AND HEIGHT (IN.)		HUMIDISTAT	EH	ELECTRIC HEAT
	24/12	OVAL DUCT WIDTH AND HEIGHT (IN.)		VELOCITY SENSOR	EDH	ELECTRIC DUCT HEATER
	24Ø	ROUND DUCT DIAMETER (IN.)		PRESSURE SENSOR	EXH	EXHAUST
				VELOCITY SENSOR	S	SUPPLY
				THERMOSTAT	R	RETURN
				HUMIDISTAT	RA	RETURN AIR
				VELOCITY SENSOR	GC	GENERAL CONTRACTOR
				PRESSURE SENSOR	OD	OUTSIDE DIMENSION (ROUND, DIAMETER)
				VELOCITY SENSOR		
				THERMOSTAT		
				HUMIDISTAT		
				VELOCITY SENSOR		
				PRESSURE SENSOR		
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				VELOCITY SENSOR		







# 22042 RBR BATHROOM RENOVATION

## PLUMBING COVERSHEET & KEY

### SHEET INDEX

PLUMBING COVERSHEET & KEY	P001
PLUMBING FLOOR PLAN - DEMO	P101
DWV PLUMBING	P102
SUPPLY PLUMBING	P103
PLUMBING DETAILS & SCHEDULES	P201

PLUMBING SCHEDULE					
SYMBOL	ABBR.	MEANING	SYMBOL	ABBR.	MEANING
	RWL	RAIN WATER LEADER ABOVE FLOOR LEVEL			VALVE IN RISER
	RWL	RAIN WATER LEADER BELOW FLOOR LEVEL			SOLENOID VALVE
	GWL	GREY WATER LEADER ABOVE FLOOR LEVEL			WYE STRAINER
	GWL	GREY WATER LEADER BELOW FLOOR LEVEL			VACUUM BREAKER
	S	BATHROOM SOILED WASTE ABOVE FLOOR LEVEL			REGULATOR
	S	BATHROOM SOILED WASTE BELOW FLOOR LEVEL			WATER HAMMER ARRESTOR
	W	WASTE DRAINAGE ABOVE FLOOR LEVEL			PIPE TURNING DOWN
	W	WASTE DRAINAGE BELOW FLOOR LEVEL			PIPE TURNING UP
	V	VENT PIPE			POOL DIRECTIONAL RETURN
	C	DOMESTIC COLD WATER SUPPLY			VACUUM CONNECTION
	FC	FILTERED COLD WATER SUPPLY		HB	HOSE BIB
	H	DOMESTIC HOT WATER SUPPLY			END CAP
	HWR	DOMESTIC HOT WATER RETURN			ANTI VORTEX DRAIN
	IRR	IRRIGATION LINE			FLOOR RETURN
	SUC	FRESH WATER SUCTION LINE			VENT PIPE
	G	GAS		(A)	PLUMBING FIXTURE TAG
	F	FIRE PROTECTION		(B)	CATCHBASIN TAG
	PR	POOL RETURN			ROADWAY CATCHBASIN
	PS	POOL SUPPLY		MH	HYDRANT
	GW	GREY WATER LINE (NON-POTABLE)			MANHOLE
	RE	RECLAIM WATER LINE (NON-POTABLE)			PUMP (SCHEMATIC)
		CONTROL WIRE			WATER METER
		EXISTING PIPE TO BE REMOVED			
	CO	CLEANOUT			
	CO	CLEANOUT TO GRADE			
	COAC	CLEANOUT WITH ACCESS COVER			
		P-TRAP			
	GW	RUNNING TRAP AND VENT			
		SHUT-OFF VALVE			
		BALANCING COCK			
		CHECK VALVE/BACKFLOW VALVE			
		THREE-WAY VALVE			
		REDUCER/ENLARGER			

### GENERAL NOTES (PLUMBING):

- ALL WORKS TO BE PERFORMED IN ACCORDANCE WITH THE LOCAL CODES IN FORCE.
- ALL EQUIPMENT AND MATERIALS SHALL BE NEW.
- ALL INSTALLATION OF PIPE, FIXTURES & EQUIPMENT SHALL BE AS PER THE MANUFACTURER'S RECOMMENDED INSTALLATION PRACTICE.
- THESE DRAWINGS ARE BASED ON CURRENT KNOWLEDGE. PROPER COORDINATION BY THE CONTRACTOR WITH ALL OTHER TRADES ON SITE IS REQUIRED TO ENSURE COMPATIBILITY WITH SITE CONDITIONS.
- SERVICE ACCESS DOORS SHALL BE PROVIDED FOR ALL FIXTURES, PIPE FITTINGS & EQUIPMENT WHERE REQUIRED FOR SERVICING.
- ALL CEILING OR WALL SERVICE ACCESS DOORS SHALL MATCH CEILING & WALL FINISH. FINAL LOCATION TO BE COORDINATED ON SITE.
- PROVIDE & INSTALL SHUT-OFF VALVES FOR ALL FIXTURES INSTALLATION. REFER TO PLUMBING SCHEDULES FOR ALL FIXTURE LINE SIZES AND CONNECTIONS.
- PROVIDE & INSTALL SHUT-OFF VALVES & UNIONS FOR ALL EQUIPMENT (PUMPS, PRESSURE TANKS, WATER HEATERS ETC.) INSTALLATION.
- ALL DEWATERING OF PIPE TRENCHES FOR INSTALLATION OF PIPING BY GENERAL CONTRACTOR. TRENCH TO BE KEPT DRY UNTIL INSPECTION & BACKFILLING IS COMPLETE.
- INSULATION:
  - DOMESTIC HOT WATER - 1/2" FIBREGLASS OR ARMAFLEX
  - HOT WATER RETURN - 1/2" FIBREGLASS OR ARMAFLEX
  - HORIZONTAL GREY & RAIN WATER PIPE & ALL EXPOSED (CEILING & SHAFT) CONDENSATE PIPE - 1" FIBREGLASS
  - STEAM PIPE - 2" FIBREGLASS
- INSULATION SHALL BE CONTINUOUS AND THE VAPOUR BARRIER SHALL BE PRESERVED AT ALL HANGARS, JOINTS, FITTINGS & EQUIPMENT. HANGARS SHALL BE OVERSIZED AS REQUIRED TO ACCOUNT FOR INSULATION.
- PIPE MATERIALS:
  - COLD WATER SUPPLY - NPS SCH 40 PVC OR UPONOR CTS SDR9 PEX PIPE & FITTINGS
  - DOMESTIC HOT WATER - NPS SCH 80 CPVC OR UPONOR CTS SDR9 PEX PIPE & FITTINGS
  - HOT WATER RETURN - NPS SCH 80 CPVC OR UPONOR CTS SDR9 PEX PIPE & FITTINGS
  - DRAINS & VENTS - NPS SCH 40 PVC PIPE WITH PVC DRAINAGE (DWV) FITTINGS
  - SEWER & STORM - NPS SDR35 PVC GASKETED PIPE & FITTINGS
  - GAS (OUTSIDE) - NPS SDR11 POLYETHYLENE PLASTIC GAS PIPE SUITABLE FOR UNDERGROUND BURIAL. MANUFACTURED IN ACCORDANCE WITH ASTM D 2513.
  - GAS (INSIDE) - CTS TYPE L COPPER TUBING (OR ACR) ALL JOINTS TO BE EXPOSED PER CODE REQUIREMENTS. BELOW GRADE COPPER TO BE PLACED IN YELLOW FLEX CONDUIT.
  - FUEL PIPING - DOUBLE WALLED PLASTIC FUEL PIPE. PIPE SHALL BE PLACED IN PROTECTIVE SLEEVE FOR BURIAL.
- PIPE & FITTINGS WITHIN 6" OF DOMESTIC WATER PUMPS SHALL BE SCH 40 GALVANIZED WITH THREADED FITTINGS.
- ALL JOINT THREADS SHALL BE SEALED WITH PTFE TAPE OR OTHER APPROPRIATE PIPE THREAD SEALANT.
- ALL PVC TO METAL PIPE JOINTS SHALL BE MPT PVC TO FPT METAL FITTING.
- CLEANOUTS SHALL BE INSTALLED IN ALL PIPES DRAINING UNDER GRAVITY INSTALLED AT EACH 90° BEND IN PIPE, AT THE TOP AND BOTTOMS OF RISERS AND AT A MAXIMUM INTERVAL OF 50 FEET.
- ALL DRAINAGE, VENT, RAINWATER & GREY WATER PIPING SHALL HAVE A MINIMUM SLOPE (UNLESS NOTED) OF:
  - LESS THAN 3" DIAMETER: 1/4" PER FOOT.
  - 3" OR MORE DIAMETER: 1/8" PER FOOT.
- ALL CONDUITS, WIRING AND ALL OTHER ASSOCIATED ELECTRICAL EQUIPMENT REQUIRED FOR A COMPLETE WORKING SYSTEM SHALL BE PROVIDED.
- ALL RELATED CIVIL WORKS SHALL BE PROVIDED BY CIVIL TRADES. MECHANICAL CONTRACTOR SHALL ENSURE THAT GENERAL CONTRACTOR INCLUDES FOR ALL CIVIL WORKS RELATED TO THE MECHANICAL INSTALLATION WHICH HAVE BEEN EXCLUDED FROM THE MECHANICAL SCOPE AND VERIFY ALL CIVIL REQUIREMENTS PRIOR TO INSTALLATION.
- ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE STATED.
- ALL FLOOR DRAINS SHALL BE PROVIDED WITH TRAP PRIMERS UNLESS INDICATED OTHERWISE.
- PENETRATIONS THROUGH FIRE RATED PARTITIONS (INCLUDING FLOOR SLABS SHALL BE TREATED WITH APPROPRIATE FIRE STOPPING MEASURES AS REQUIRED BY THE BUILDING CODE.
- PIPE ENDS SHALL BE CUT SQUARE AND DEBURRED INSIDE & OUTSIDE BEFORE BEING FITTED.
- ITEMS OF MATERIAL & EQUIPMENT NOT SPECIFICALLY NOTED ON THE DRAWINGS OR MENTIONED IN THE SPECIFICATIONS BUT WHICH ARE NECESSARY TO MAKE A COMPLETE & OPERATING INSTALLATION SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORKS.
- CONTRACTOR TO PROVIDE SUBMITTALS FOR ALL FIXTURES, MATERIALS, COMPONENTS AND EQUIPMENT TO ENGINEER AND ARCHITECT FOR REVIEW AFTER CONTRACT AWARD.

2	TENDER	25 JAN 23
1	CLIENT REVIEW	29 APR 22



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PREPARED BY: JR  
 CHECKED BY: JR  
 APPROVED BY: CRB

PROJECT NAME

## RBR BATHROOM RENOVATION

WARWICK CAMP  
 1 SOUTH ROAD, WARWICK

### SHEET TITLE PLUMBING COVERSHEET & KEY

ISSUED FOR: TENDER

SCALE: 3/32" = 1'-0"      SHEET SIZE: 24" x 36"

PROJECT NO: 22042      SHEET NO: P001      REVISION: 2



















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The Contractor shall check and verify all levels, datum points and dimensions and report any discrepancy or omission to the Engineer prior to construction.

This drawing shall be read in conjunction with architectural and/or any other Consultants' documentation as may be applicable to the project. OES shall not be held responsible for lack of coordination on the part of the Contractor.

GENERAL NOTES:

**ROOF SCHEDULE**

ROOF No.	RAFTER SIZE	ROOF TYPE	HURRICANE CLIPS
RT 1	2" x 6" @ 16" c/c	Lightweight roof (SKB or similar approved) on 1/2" cement board.	H2.5 Simpson Strong @ ea. rafter connection.

**BEAM SCHEDULE**

BEAM No.	TYPE	SIZE (w x d)	REINFORCING
B1	3000 psi Concrete Cast	8" x 8"	2 T12 bottom

\* wov = width of wall Note: All beams shown min. depth. Contractor may make beams deeper to match block coursing if required

**SLAB SCHEDULE**

SLAB No.	TYPE	DEPTH	CONCRETE	MAIN REINFORCING
S1	Slab on Grade	6"	3000 psi	A142 Mesh - 2" top cover
S2	Plyform Cast Concrete	6"	3000 psi	T12 @ 10" c/c each way bottom

**WALL SCHEDULE**

WALL No.	BLOCK SIZE	BLOCK FILL (3000 PSI CONCRETE)	VERTICAL REINFORCING
W1	MATCH EXISTING	REINFORCED CELLS	PER E/S01
W2	8"	REINFORCED CELLS	PER E/S01
W3	6"	REINFORCED CELLS	PER E/S01

**COLUMN SCHEDULE**

COL No.	TYPE	SIZE	REINFORCING
C1	3000 psi Concrete Cast	8" x 8"	4 - T12 Vertical T8 lies @ 12" c/c

**FOOTING SCHEDULE**

FTG No.	TYPE	SIZE (W x D)	REINFORCING
CF1	3000 psi Concrete Strip Footing	24" x 12"	3 T12 continuous T12 @ 24" c/c transverse

**MAX. SPACING OF CONTROL JOINTS**

SLAB THICKNESS	AGGREGATE SIZE < 20mm	AGGREGATE SIZE > or = 20mm
4"	8 ft	10 ft
5"	10 ft	13 ft
6"	12 ft	15 ft
7"	14 ft	17 ft
8"	16 ft	20 ft

1. Concrete slump 100mm to 150mm
2. Joints to be cut in all slabs 8 to 16 hours after concrete pour.

**1.0 GENERAL**

- 1.1 These notes apply to all structural drawings in the tender package.
- 1.2 Unless otherwise noted the contractor shall supply all the necessary materials to complete the work.
- 1.3 Do not scale the drawings (Use dimensions shown). Any discrepancies shall be referred to the Engineer for clarification.
- 1.4 All drawings to be read in conjunction with the Architects drawings and specifications for this tender package. Where a discrepancy exists between the drawings and specification it shall be brought to the Engineer's attention.
- 1.5 Contractor to install all necessary temporary propping and shoring to the structure to adequately support it during construction operations. Temporary works shall remain in place until all load bearing members are in place and cured sufficiently to support all loads without damage.
- 1.6 All construction operations are to comply with the Bermuda Building Code 2014.
- 1.7 Contractor to support all existing structure during construction.

**2.0 EXCAVATION & EARTHWORKS**

- 2.1 All excavation and earthworks are to be carried out in accordance with the specifications for this package.
- 3.0 FOUNDATIONS**
- 3.1 All footings and foundations to bear on undisturbed sound rock. Bearing material is to be reviewed by the Engineer prior to pouring footing and foundations.
  - 3.2 Any soft areas to be removed and replaced with 1500psi (10 MPa) to the Engineer's approval.
  - 3.3 Allowable bearing capacity = 6260 PSF (300KPa)
  - 3.4 Any excavation in the proximity of existing footings (including those on adjacent properties) must be approved by the Structural Engineer prior to commencement & shall be completed under their continual supervision. Contractor should note that underpinning may be required under the existing foundations (including those on adjacent properties). Structural Engineer to be consulted for methods and details.
  - 3.5 Fill under grade slabs is to be free of organic material and is to be well compacted in maximum 6" lifts to 95% standard proctor dry density (ASTM D698). All equipment required for the determination of the specified density shall be supplied by the Contractor and all tests shall be carried out in the presence of the Engineer. Contractor to submit fill sample to Engineer for testing no less than 7 days before beginning compaction. Contractor permitted to substitute suspended slab with slab on grade after compaction has been approved by Structural Engineer.
  - 3.6 Masonry retaining walls to be filled with concrete and cured for 7 days prior to backfilling.

**4.0 CONCRETE**

- 4.1 Concrete strength to be 3000 psi (20 MPa) minimum compressive strength at 28 days. Concrete is to be consolidated by use of a mechanical vibrator.
- 4.2 All Concrete to be cured for seven days using one of the following methods (a) Wet curing (with butyle) (b) Wet curing for 24 hrs then apply approved curing compound.
- 4.3 Concrete fill for blockwork must be a minimum of 3000 psi strength at 28 days.
- 4.4 All concrete lintel beams must bear a minimum of 6" onto block walls either side of opening. Reinforcing is to be extended 4" over the support. Cells beneath bearing are to be filled & reinforced with minimum 1-T12 bar. Lintels shall be placed over all openings in walls.
- 4.5 Concrete slump to be as follows:  
Slabs, footings, beams & columns = 5" +/- 1"  
Masonry block fill = 7" +/- 1"

**5.0 MASONRY**

- 5.1 Average strength of masonry units to be 1900 psi (13.0 MPa). Masonry is to be laid in running bond construction. Where walls butt up against existing walls a 4" key into the existing walls is to be achieved every 2nd course of block. Fill all cells below grade. At corners, either side of door & window openings, cells shall be reinforced with 1-T12 bar and concrete filled. Cells to be cleaned out prior to filling. Filled block must be poured in maximum 4" high lifts. Concrete must be stopped 2" from the top of the block to allow the next lift to key together.

**6.0 REINFORCING STEEL**

- 6.1 Reinforcing steel is to be galvanized and of minimum yield strength of 60 ksi. Tie wire is to be galvanized.
- 6.2 Minimum cover to reinforcing steel is to be as follows: Cast against earth or water 3" Exterior 2" Elsewhere unless noted otherwise 1.5"
- 6.3 Reinforcing steel in concrete and masonry shall be lapped as per Table below. Lap bars over supports only except for cantilever steel.  
T8 rebars Minimum 16"  
T10 rebars Minimum 20"  
T12 rebars Minimum 24"  
T16 rebars Minimum 32"  
Mesh: One Square

**7.0 STRUCTURAL STEEL**

- 7.1 Structural steel shall be a minimum 50 ksi steel. One coat of primer is to be applied and damaged areas are to be touched up on site. Beams are to bear a minimum of 6" onto bearing pads. No splicing of beams or holes to be placed in beams without approval of the engineer.
- 7.2 Bearing pads for steel beams to be a minimum of 16" long x WOW wide x 8" deep with 2-T12 bars. Fill and reinforce with 1-T12 all block cells below bearing pad down to slab level. Encase ends of beams in concrete after installation. Anchor beams to bearing pads with 2 x 1/2" diameter x 10" long grade A36 bolts each end. Bolts to have 3" hook at ends and be cast into concrete pads.
- 7.3 All beam connection bolts to be grade A325 High Strength galvanized bolts.
- 7.4 All steel to be welded is to be cleaned down to bare metal prior to welding and primed after.
- 7.5 All holes in steel work are to be drilled. Gas cutting is not permitted. No splicing of beams or holes through beams is to take place without the approval of the engineer.
- 7.6 Metal decking shall be 2" x 20 gauge Epiroc, Multidek 50-12 or Versadek (or approved equivalent). It shall be galvanized to a minimum grade of G90. Decking to be propped as per manufacturer's specifications and props are to carry loads down to grade level. Leave props in place for a minimum of 14 days. Decking is to bear a minimum of 2" onto blockwalls and steel beams and 4" onto stone walls. Metal decking to be welded to steel beams at 12" c/c and all welds to be touched up with cold galvanizing paint.

**8.0 STRUCTURAL TIMBER**

- 8.1 Timber framing shall be a minimum of No. 2 grade Southern Yellow (Pitch) Pine unless noted otherwise. All nails, bolts, washers, hurricane clips, anchors and other hardware shall be hot dip galvanized unless noted otherwise. All exterior timber and that which is in contact with concrete, blockwork or stone shall be vaporized to minimum standard of 0.25 lbs/cu.ft. CCA.

**9.0 INSPECTIONS**

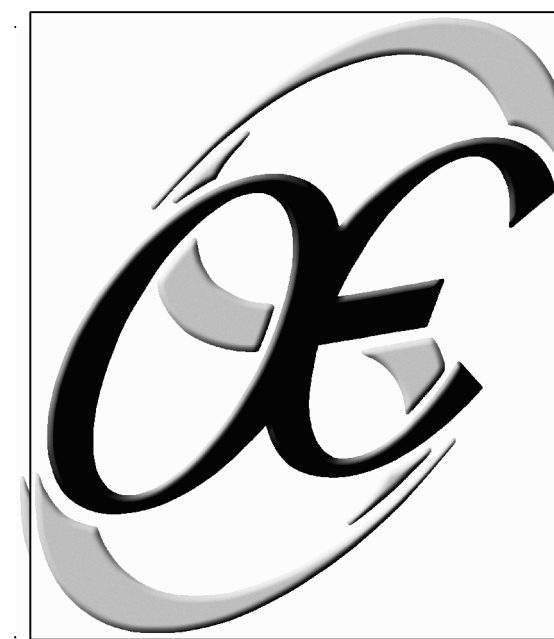
- 9.1 Contractor to provide 24 hours notice for the inspection of all reinforcing, including masonry reinforcing, prior to placement of concrete.

**10.0 SHOP DRAWINGS AND SUBMITTALS**

- 10.1 Review of the drawings by the Engineer is to verify conformance with the general design details and does not cover approval of detailed designs and connections. Further, the review does not relieve the Contractor of the responsibility for ensuring that the work is carried out in accordance with the structural drawings.
- 10.2 Allow 10 working days for review of shop drawings.

**O STRUCTURAL SCHEDULES**  
S01 NTS

2	PERMIT	29/APRIL/22
1	PERMIT	22/APRIL/22



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PREPARED BY: JC    CHECKED BY: DA    APPROVED BY: DA

PROJECT NAME  
**RBR BATHROOM RENOVATION**

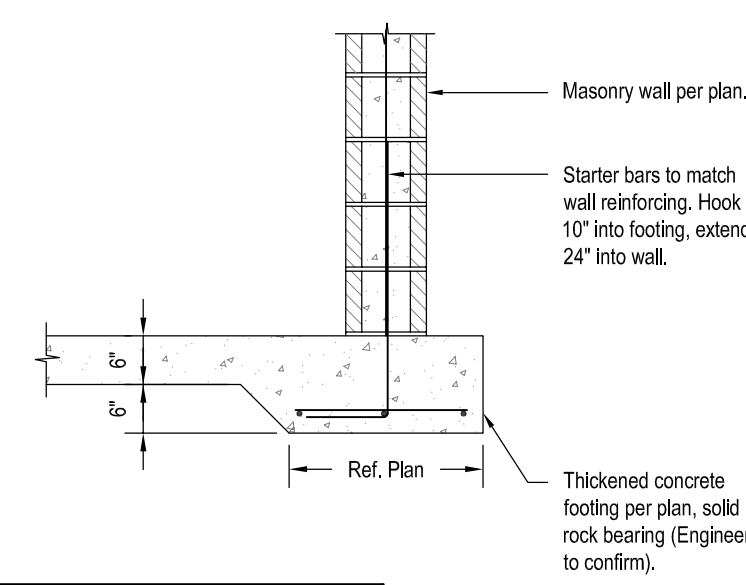
**WARWICK CAMP SOUTH ROAD WARWICK**

SHEET TITLE  
**STRUCTURAL: SCHEDULES NOTES & DETAILS**

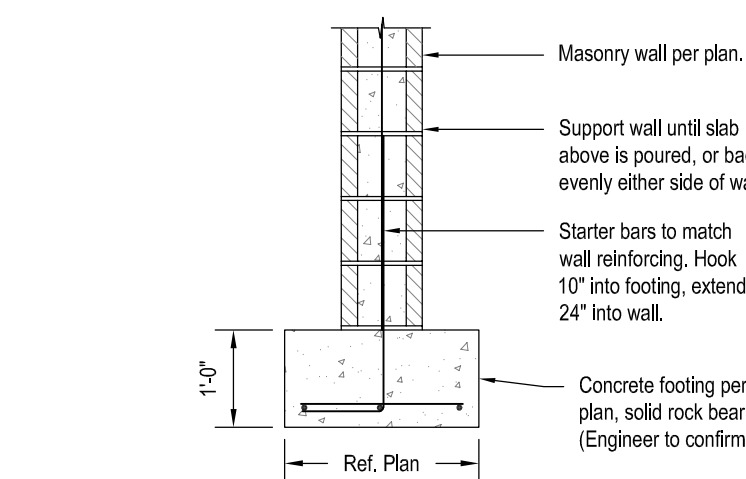
ISSUED FOR PERMIT 29/APRIL/22

SCALE AS SHOWN    SHEET SIZE 24" x 36"

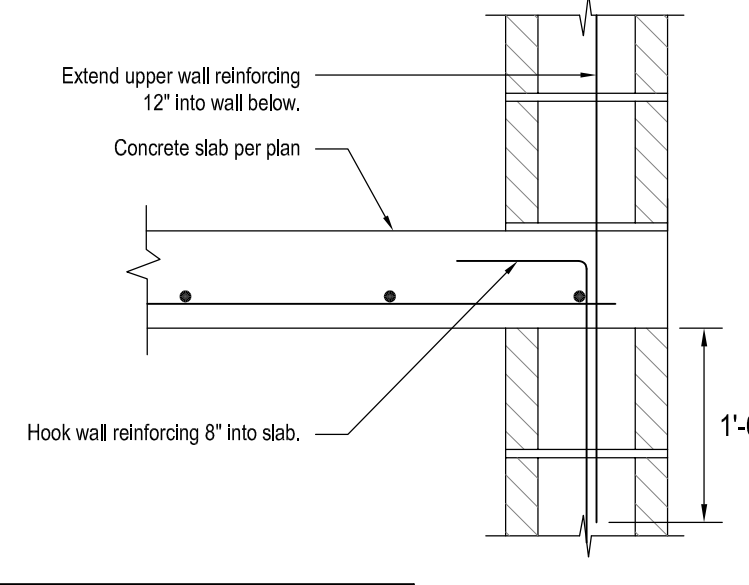
PROJECT NO 22042    SHEET NO S01    REVISION A



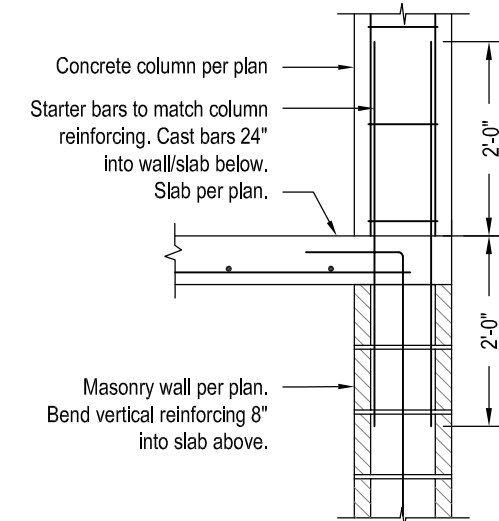
**A THICKENED SLAB FOOTING**  
S01 scale 1/2" = 1'-0"



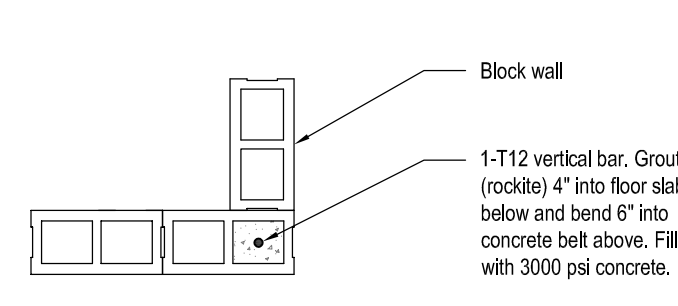
**B CONTINUOUS FOOTING**  
S01 scale 1/2" = 1'-0"



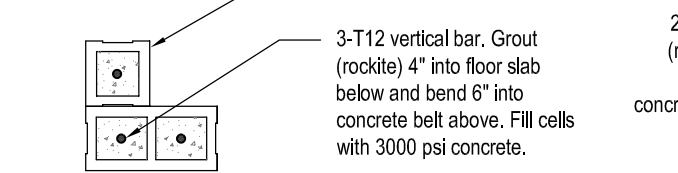
**C TYPICAL WALL-SLAB DETAIL**  
S01 scale 1" = 1'-0"



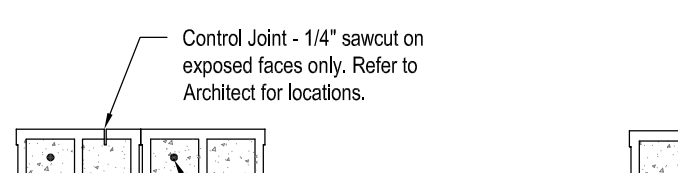
**D WALL TO COLUMN DETAIL**  
S01 1/2" = 1'-0"



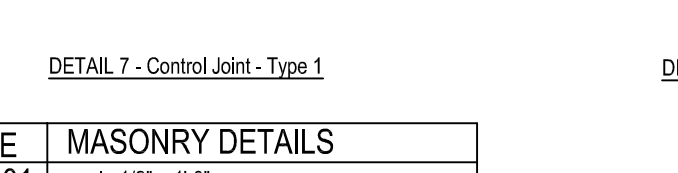
**E MASONRY CORNER PLASTER**  
S01 scale 1/2" = 1'-0"



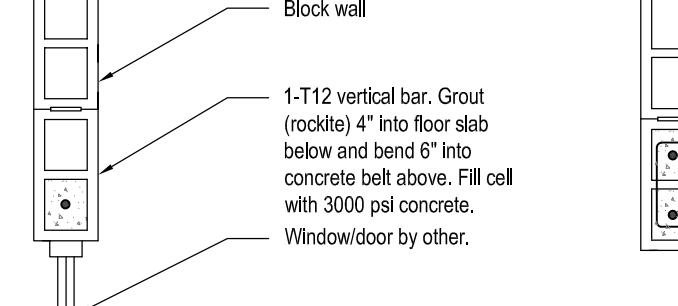
**F TYPICAL WALL END REINFORCEMENT**  
S01 scale 1/2" = 1'-0"



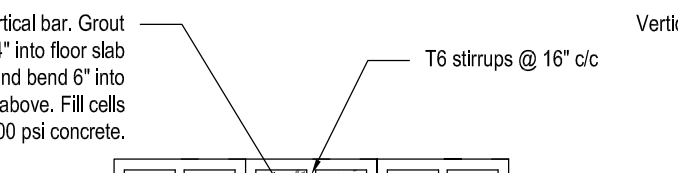
**G TYPICAL WALL CORNER REINFORCEMENT**  
S01 scale 1/2" = 1'-0"



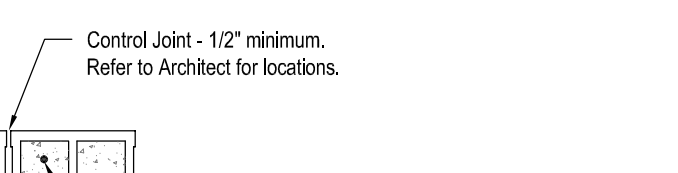
**H CONTROL JOINT - TYPE 1**  
S01 scale 1/2" = 1'-0"



**I TYPICAL REINFORCING ADJACENT TO OPENINGS**  
S01 scale 1/2" = 1'-0"



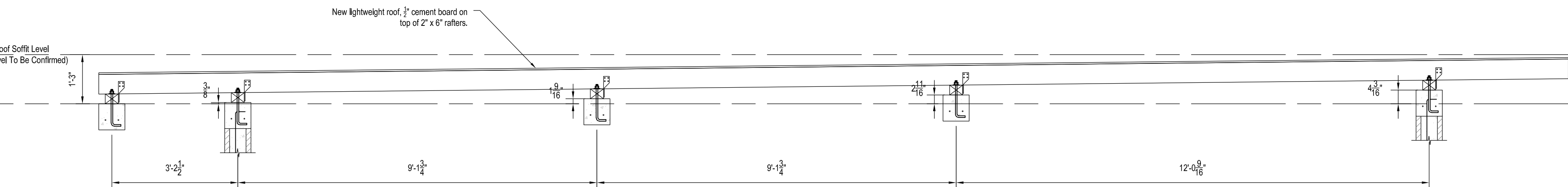
**J TYPICAL WALL END REINFORCEMENT**  
S01 scale 1/2" = 1'-0"



**K TYPICAL PLASTER**  
S01 scale 1/2" = 1'-0"



**L CONTROL JOINT - TYPE 2**  
S01 scale 1/2" = 1'-0"

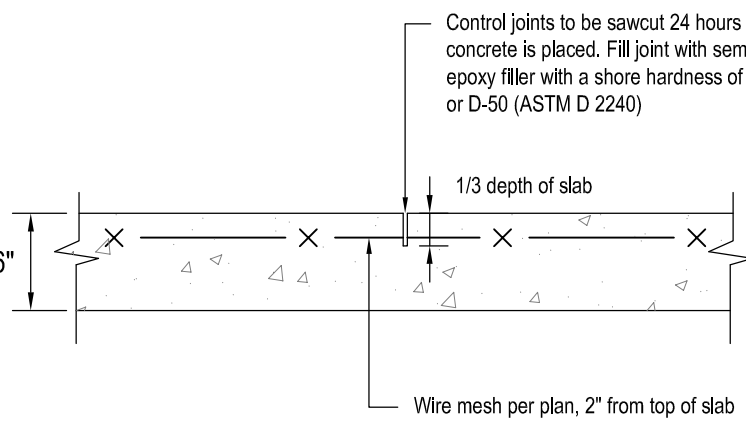


**F TYPICAL ROOF FRAMING**  
S01 scale 1/4" = 1'-0"

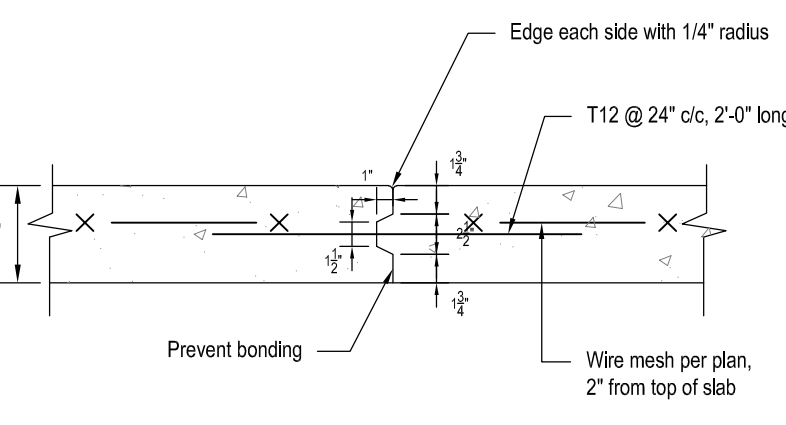
**G NOT USED**  
S01 scale 1/2" = 1'-0"

**H NOT USED**  
S01 scale 1/2" = 1'-0"

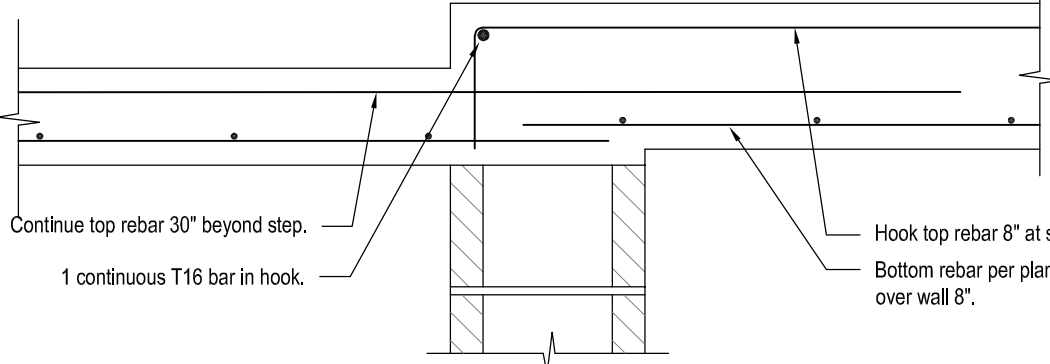
**I NOT USED**  
S01 scale 1/4" = 1'-0"



**J TYPICAL CONTROL JOINT**  
S01 scale 1" = 1'-0"



**K TYPICAL CONST. JOINT**  
S01 scale 1" = 1'-0"



**L TYPICAL SLAB STEP**  
S01 scale 1" = 1'-0"

**P STRUCTURAL NOTES**  
S01 NTS



