CAST-IN PLACE CONCRETE

1. CONFORM TO THE REQUIREMENTS OF CSA STANDARDS CAN3-A23.1-M AND CAN-A23.2-M FOR CONCRETE MIX COMPONENTS, PLACING, CURING, AND TESTING.
2. CEMENT: NORMAL (TYPE 10) PORTLAND CEMENT CONFORMING TO CSA CAN3-A5-M.
3. FORM-WORK : CONFORMING TO CSA STANDARD S269.1. TREAT ALL FORM-WORK SURFACES IN ACCORDANCE WITH THE REQUIREMENTS OF CSA STANDARD-CAN3-A23.1-M.
4. ALL CONCRETE SHALL HAVE A MAXIMUM AGGREGATE OF 1", A MINIMUM COMPRESSIVE 28 DAY STRENGTH OF 3500 PSI (25 MPA), AND A SLUMP AT DISCHARGE OF 3" +/- 1". NO MORE THAN 4 LITERS OF WATER PER CUBIC YARD, SHALL BE ADDED AT THE SITE WITHOUT THE APPROVAL OF THE ENGINEER.
5. REINFORCING STEEL FOR ALL REINFORCEMENT USE DEFORMED BARS OF GRADE 400 MPA (60 KSI). COMPLY WITH THE REQUIREMENTS OF CSA STANDARD G30.18-M FOR ALL REINFORCEMENT.
6. CONFORM TO CSA STANDARD G30.5-M REQUIREMENTS FOR WELDED WIRE FABRIC. MINIMUM YIELD STRENGTH: 65 KSI (450 MPA).
7. DOWEL ALL WALLS AND PIERS TO THEIR RESPECTIVE FOOTINGS, OR SUPPORTS, USING DOWELS OF SAME SIZE, AND SPACING AS THE VERTICAL REINFORCING STEEL IN THE WALLS, AND PIERS, UNLESS NOTED OTHERWISE.
8. DETAIL AND BEND ALL REINFORCING STEEL AS OUTLINED IN THE LATEST ISSUE OF THE LOCAL REINFORCING STEEL MANUAL OF STANDARD PRACTICE.
9. LAP CONTINUOUS REINFORCING STEEL 60 BAR DIAMETERS AT SPLICES AND CORNERS, UNLESS OTHERWISE NOTED. TWO SQUARES FOR THE WIRE MESH.
10. UNLESS OTHERWISE NOTED, PROVIDE THE FOLLOWING CLEAR COVER TO REINFORCING STEEL:
    a) FORMED PIERS NOT EXPOSED TO SOIL AND WEATHER : 1.5"
    b) FORMED CONCRETE EXPOSED TO SOIL AND WATER :2"
    c) CONCRETE ON SKIM SLAB :2"
    d) CONCRETE PLACED ON SOIL :3"
    e) TOP OF SLAB-ON-GRADE TO WELDED WIRE FABRIC : 1.5"
11. AIR-ENTRAIN ALL CONCRETE EXPOSED TO THE ELEMENTS, PLUS ALL SLABS-ON -GRADE TO THE REQUIREMENTS OF CSA STANDARD CAN3-A23.1-M.
12. PROVIDE 0.5" EXPANSION MATERIAL WHERE SLAB-ON-GRADE ABUTS WALLS, COLUMNS, PIERS, AND THE VERTICAL FACE OF OTHER STRUCTURAL ELEMENTS, UNLESS NOTED OTHERWISE.
13. CHAMFER ALL EXPOSED CORNERS OF CONCRETE PIERS 0.75" X 0.75", TO AVOID CORNER DAMAGE.
14. SLAB ON GRADE SPECIFICATIONS :6" THICK CONCRETE SLAB-ON-GRADE, WITH 152X 152 - MW 18.7 X MW 18.7 WWF (6" X 6" - W2.9XW2.9 WWF) ON 6 -MIL POLYETHYLENE SHEET BARRIER, WITH A MINIMUM OF 6" TYPE B GRANULAR NON-ORGANIC BACKFILL, COMPACTED TO 98 % STANDARD PROCTOR DENSITY, ON UNDISTURBED INORGANIC SOIL.
15. CONTROL JOINTS FOR SLABS TO MINIMIZE CONCRETE CRACKING, (C.J.) ARE RECOMMENDED AT MAXIMUM SPACING OF 15'. PROVIDE 0.5" DEEP SAW CUT AS PER FOUNDATION PLAN.
16. INSTALL STEEL FRAMES ONLY AFTER THE SLAB HAS BEEN COMPLETED.

FOUNDATION

1. THE FOUNDATIONS HAVE BEEN DESIGNED FOR AN ASSUMED MINIMUM ALLOWABLE SOIL-BEARING CAPACITY OF **2000 PSF (100 KPA)** .FOUND ALL FOOTINGS ON NATURAL UNDISTURBED INORGANIC SOIL. FOR ANY OTHER TYPE OF SOIL, THE CUSTOMER SHALL PROVIDE SOIL REPORTS INDICATING THE ALLOWABLE NET SOIL-BEARING CAPACITY. FOR FOUNDATIONS ON SOLID ROCK, REMOVE ALL FRAGMENTED ROCKS TO ENSURE A SOLID SURFACE FOR THE FOUNDATION TO SIT ON. DRILL HOLES IN ROCK, AND USE CONCRETE EPOXY JACKET TO ANCHOR RODS IN PLACE.
2. IF THE SAFE NET BEARING SOIL PRESSURE IS LESS THAN THE ASSUMED VALUE OF **2000 PSF (100 KPA)**, THE DESIGN ENGINEER IS TO BE INFORMED, AND ADDITIONAL COST FOR THE DESIGN AND MATERIALS MAY APPLY.

REMOVE ANY SOFT OR FROZEN SOIL MATERIAL ENCOUNTERED UNDER FOOTINGS, AND REPLACE WITH COMPACTED STRUCTURAL FILL. IF SOIL UNDER FOOTINGS HAS BEEN DISTURBED, REMOVE ALL LOOSE SOIL PRIOR TO PLACING CONCRETE

4. INSTALL THE UNDERSIDE OF ALL EXTERIOR WALL AND COLUMN FOOTINGS, BELOW THE FINISHED NEW GRADE. PROTECT ALL FOOTINGS, WALLS, SLAB-ON GRADE, AND ADJACENT SOIL AGAINST FREEZING AND FROST-ACTION AT ALL TIMES DURING CONSTRUCTION. REFER TO LOCAL BUILDING CODE FOR THE REQUIRED FROST DEPTH. IN CASE OF A FLOATING SLAB FOUNDATION TYPE, PROVIDE SUFFICIENT INSULATION UNDERNEATH SLAB, AND AROUND THE BUILDING PERIMETER, TO PREVENT FROST DAMAGE TO THE FOUNDATION.
5. CENTER PIERS UNDER THE COLUMN CENTERS, UNLESS OTHERWISE NOTED.
6. SOIL SOFTENING OCCURS BEFORE FOOTING CONCRETE CAN BE POURED, OR AS REQUIRED BY THE SOIL REPORT, CONSTRUCT THE FOOTINGS ON A LEVEL 2" THICK SKIM SLAB HAVING 2000 PSI CONCRETE STRENGTH AT 28 DAYS, PLACED IMMEDIATELY AFTER THE COMPLETION OF THE EXCAVATION.
7. LOCATE FOOTING ELEVATIONS AS REQUIRED TO ACCOMMODATE BURIED ELECTRICAL OR MECHANICAL SERVICES. PROTECT EXISTING AND ADJACENT FOOTINGS FROM BEING UNDERMINED, AND OVERLOADED, BY LIMITING THE SLOPE OF THE LINE BETWEEN ADJACENT FOOTING ELEVATIONS TO 7" TO 1O" MAXIMUM, HAVING A MAXIMUM RISE OF 2'-0".VERIFY LOCAL REQUIRED FROST DEPTH TO ENSURE THAT THE BEARING SURFACE OF THE FOUNDATION IS LOCATED BELOW THE LEVEL OF POTENTIAL DAMAGE RESULTING FROM FROST HEAVE OF SOIL, AND AD-FREEZING OF THE CONCRETE. PROPER RIGID INSULATION MAY BE REQUIRED, IN ACCORDANCE WITH LOCAL BUILDING CODES.
8. BACKFILL UNDER SLAB-ON GRADE GRANULAR NON -VEGETATIVE, TYPE B BACKFILL MATERIAL, COMPACTED IN 6" MAXIMUM LIFTS TO 98% STANDARD PROCTOR DENSITY AT OPTIMUM

MOISTURE CONTENT.

9. THE SLAB-ON-GRADE MAY ONLY BE PLACED ON NON-VEGETATIVE FILL. THE ENGINEER MUST EXAMINE ALL FILL MATERIAL. SHOULD THE FILL BE UNACCEPTABLE, REMOVE THIS FILL DOWN TO UNDISTURBED INORGANIC SOIL, AND REPLACE WITH COMPACTED GRANULAR, NON-VEGETATIVE TYPE B BACKFILL, COMPACTED IN 6" MAXIMUM LILTS, TO 98% STANDARD PROCTOR DENSITY, AT OPTIMUM MOISTURE CONTENT.
10. DO NOT PLACE BACKFILL AGAINST CANTILEVERED RETAINING WALL, UNTIL THE CONCRETE HAS ACHIEVED ITS FULL 28 -DAY STRENGTH.
11. PROVIDE 0.5" EXPANSION JOINT WITH FILLER, WHERE INDICATED.
12. LANDSCAPING AROUND THE ENTIRE FOUNDATION SHALL INCLUDE A 5' WIDE STRIP OF INERT GROUND COVER. IRRIGATION SHALL BE DESIGNED SO AS NOT TO DISCHARGE WATER ON THIS STRIP. THE SLOPE OF THE GROUND SURFACE SHALL PROVIDE ADEQUATE DRAINAGE AWAY FROM THE BUILDING FOUNDATION.
13. THE FOUNDATION DESIGN ENGINEER IS NOT THE INSPECTING ENGINEER AT THE SITE.

REINFORCING BAR LAP LENGTH TABLE

CONCRETE STR. (MPA)	REINFORCING BAR LAP LENGTH (MM)					
	10M	15M	20M	25M	30M	35M
20	475	700	850	1325	1575	1875
25	425	600	750	1200	1400	1675
30	400	550	675	1100	1275	1525
35	375	525	625	1000	1200	1425
40	350	475	600	950	1125	1325

SEAL

LICENSED PROFESSIONAL ENGINEER
P.M. TREVISAN
100136551
17Jul2024
PROVINCE OF ONTARIO

NO.	DESCRIPTION	DATE
1	ISSUED FOR CONST.	17.7.24

A: DETAIL NO.
B: SHEET NO.
D: ON SHEET NO.

PROJECT LOCATION
JOY MIDDLETON
1800 8TH STREET EAST
OWEN SOUND, ONT

PROJECT:
JOY MIDDLETON

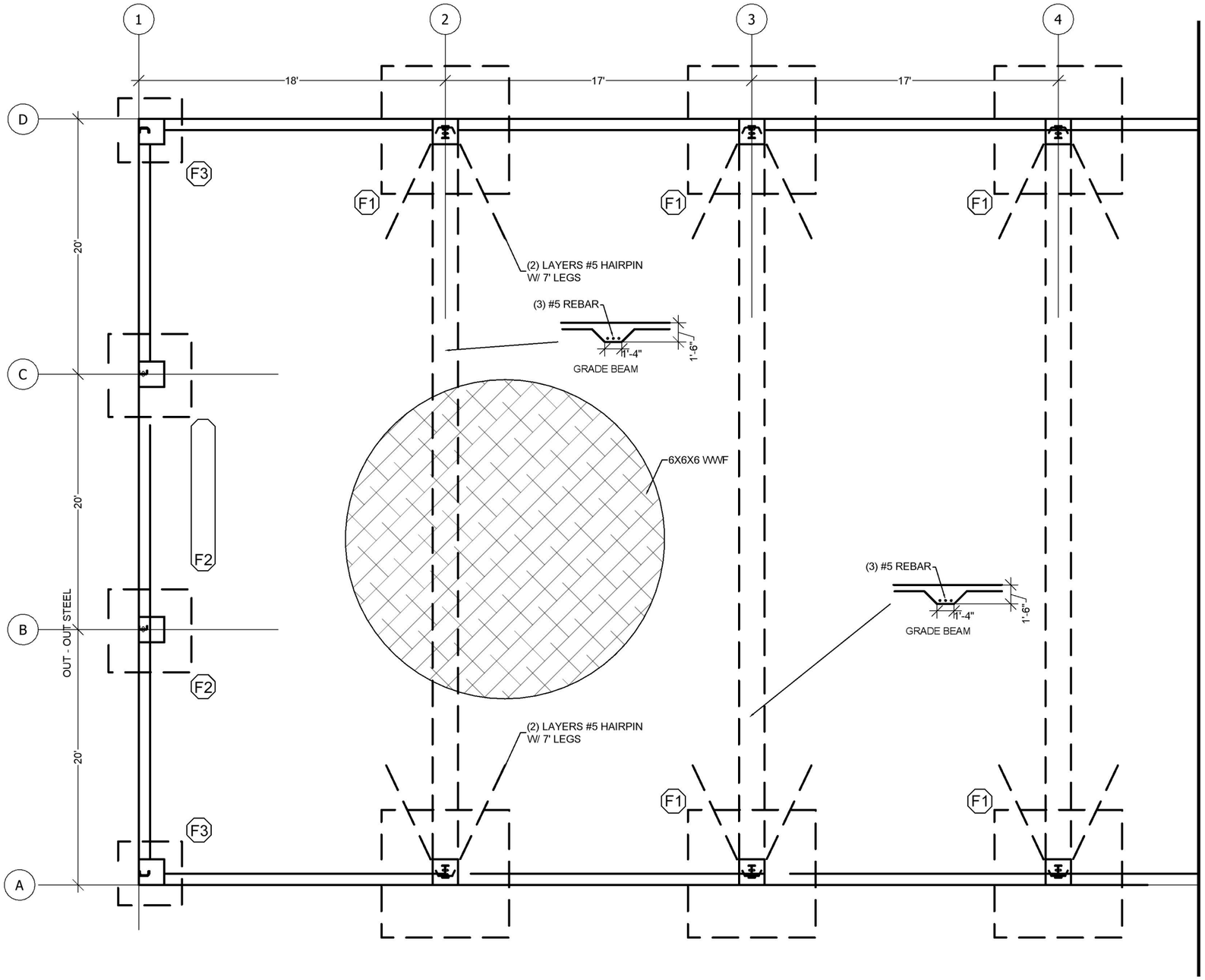
DRAWING:
GENERAL NOTES

DRAWN BY: PMT
CHECKED BY: PMT
DATE: 17.7.24

SCALE: N / A

PROJECT NO. TTE0724-44-FST-21

SHEET NO. S100



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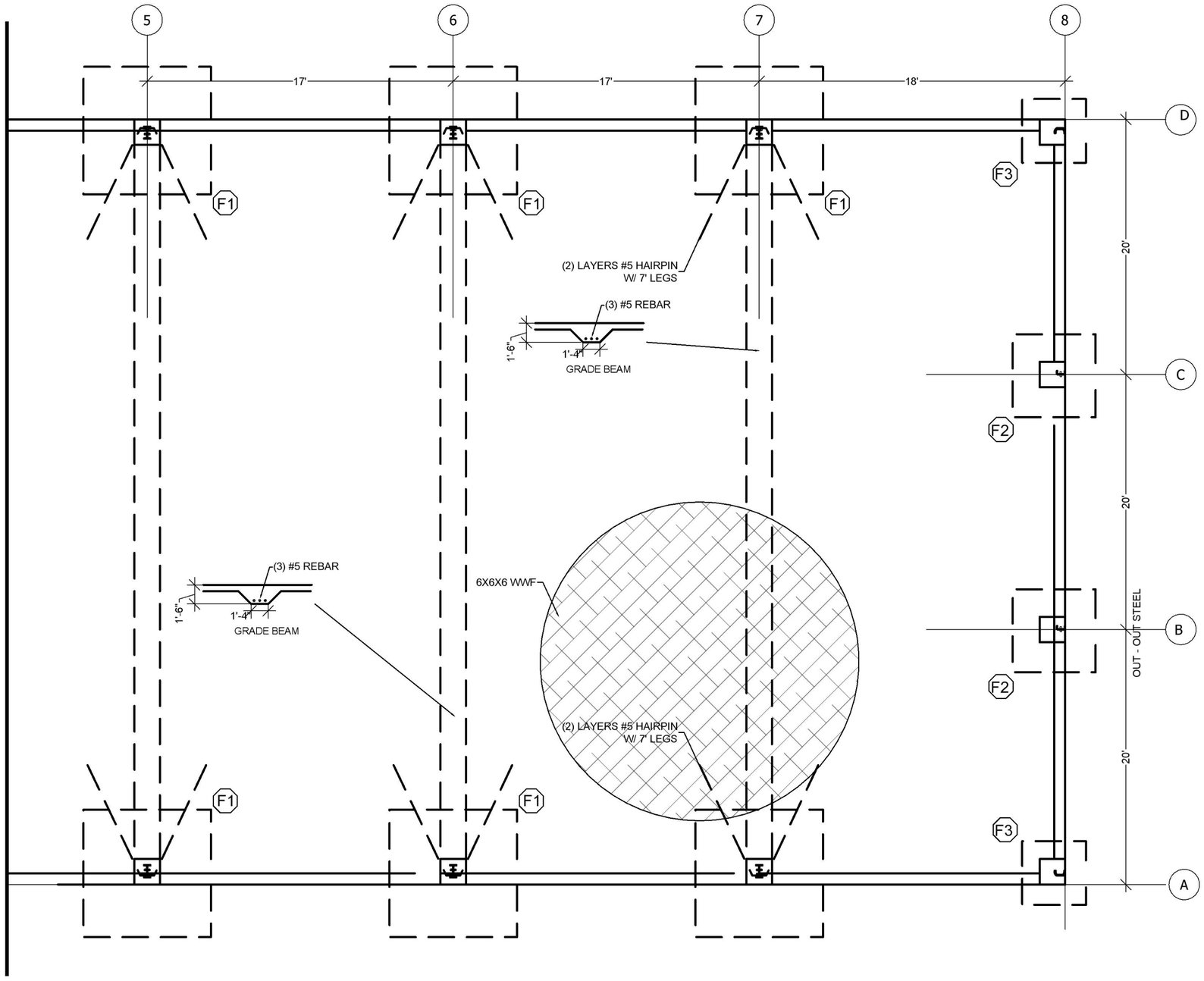
DRAWING:
FOUNDATION PLAN

DRAWN BY:	CHECKED BY:
PMT	PMT
	DATE: 17.7.24

SCALE:
AS SHOWN

PROJECT NO.	SHEET NO.
TTE0724-44-FST-21	S101



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PROJECT:
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FOUNDATION PLAN

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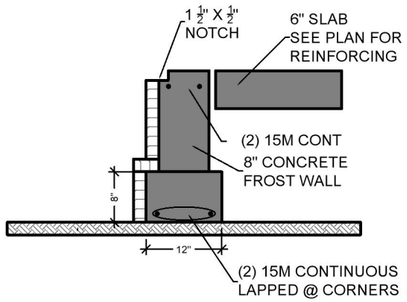
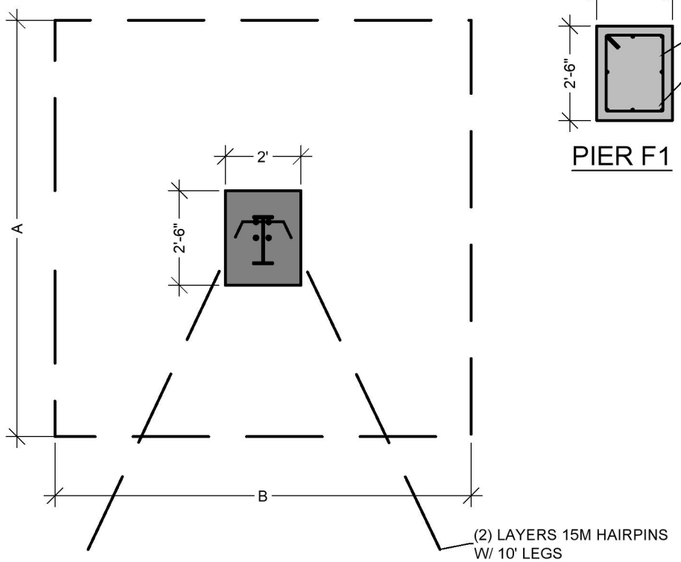
PMT	
	DATE: 17.7.24

SCALE:
AS SHOWN

PROJECT NO.	SHEET NO.
TTE0724-44-FST-21	S101a



FROST WALL DETAIL



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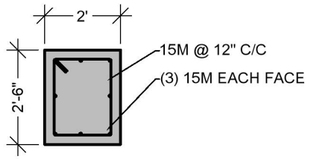

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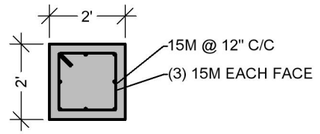

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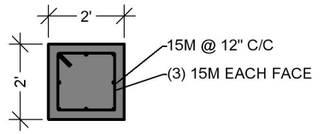
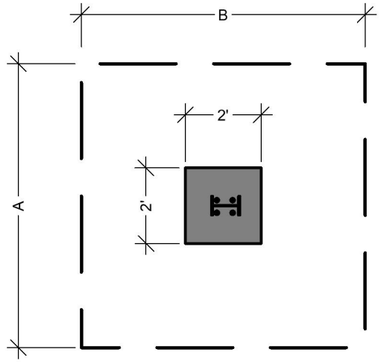


PIER F3

CONCRETE PIER DETAIL



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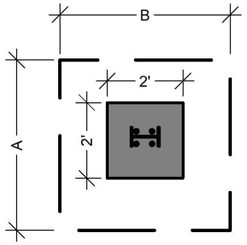

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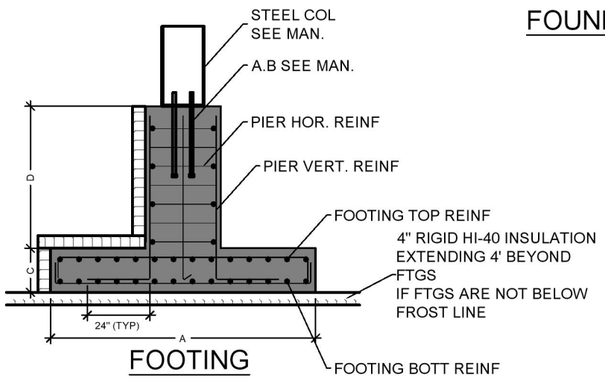

FOOTING

NOTES:

FOUNDATION DEPTH SHALL BE MIN BELOW FROST DEPTH, IF NOT BELOW FROST DEPTH THEN INSULATION AS INDICATED IS REQUIRED

A. FOUNDATION DESIGN VALUES:
   1- ALLOWABLE SOIL BEARING PRESSURE: 2000 PSF
   2- COEFFICIENT OF FRICTION: 0.30
   3- PASSIVE EARTH PRESSURE: 200 LB / FT OF DEPTH
B. FOUNDATIONS HAVE BEEN DESIGNED FOLLOWING THE REACTIONS PROVIDED BY THE PRE-ENGINEERED BUILDING MANUFACTURER DATED 18.3.19
C. THE BUILDING PAD AREA SHALL BE STRIPPED OF ALL FROZEN SOIL, DEBRIS, VEGETATION AND TOP SOIL. ALL FILL SOILS AND ANY REMAINING LOOSE NATURAL SOILS SHALL BE EXCAVATED TO EXPOSE SUITABLE NATURAL SOILS.
D. PROOF ROLL THE ENTIRE BUILDING PAD AREA TO LOCATE AND REMOVE ALL SOFT SPORTS. REPLACE WITH COMPACTED FILL.
E. PLACE ALL FOOTING AND SLABS ON UNDISTURBED NATURAL SOIL OR ON PROPERLY COMPACTED STRUCTURAL FILL. CONTRACTOR SHALL VERIFY THAT THE SOIL UNDER THE FOOTING IS SUITABLE TO SUPPORT FOOTINGS
F. HEATED STRUCTURES TO HAVE 4" HI-40 RIGID INSULATION UNDER THE ENTIRE SLAB.
G. CONCRETE COVER:
   G.A. FOOTINGS: 3"

FOOTING SCHEDULE

	FOOTING SIZE			FTG REINF			PIER SIZE			PIER REINF	
FTG	A	B	C	TOP	BOTT	HOOKED					
F1	9'-6"	9'-6"	16"	(10) 15M EACH WAY	(10) 15M EACH WAY	YES	SEE PIER DETAILS			SEE PIER DETAILS	
F2	6'-6"	6'-6"	16"	(7) 15M EACH WAY	(7) 15M EACH WAY	YES					
F3	5'-0"	5'-0"	16"	(6) 15M EACH WAY	(6) 15M EACH WAY	YES					

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PROJECT:
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DRAWING:
DETAILS AND SECTIONS

DRAWN BY: PMT
CHECKED BY: PMT
DATE: 17.7.24

SCALE: AS SHOWN

PROJECT NO.: TTE0724-44-FST-21

SHEET NO.: S102