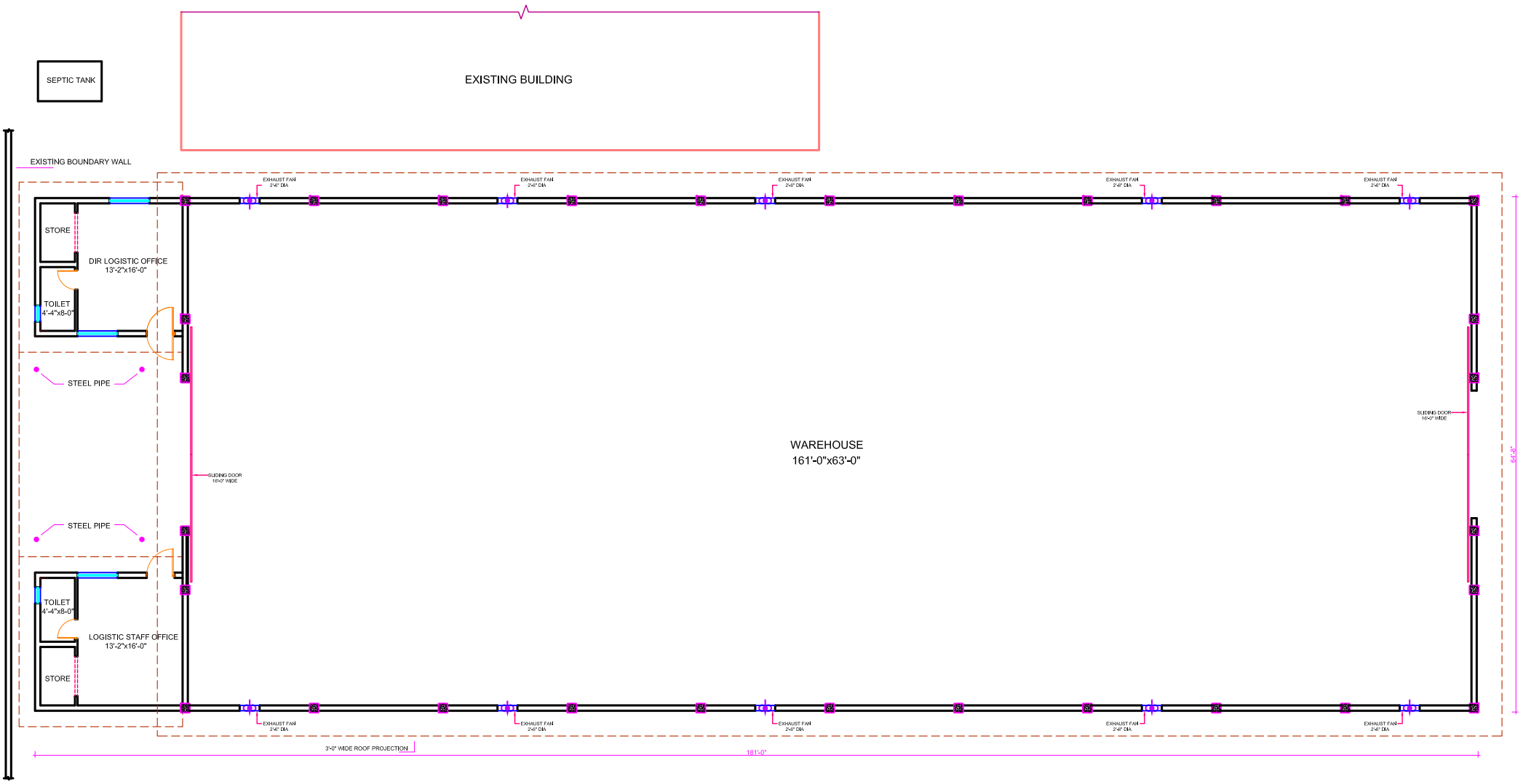
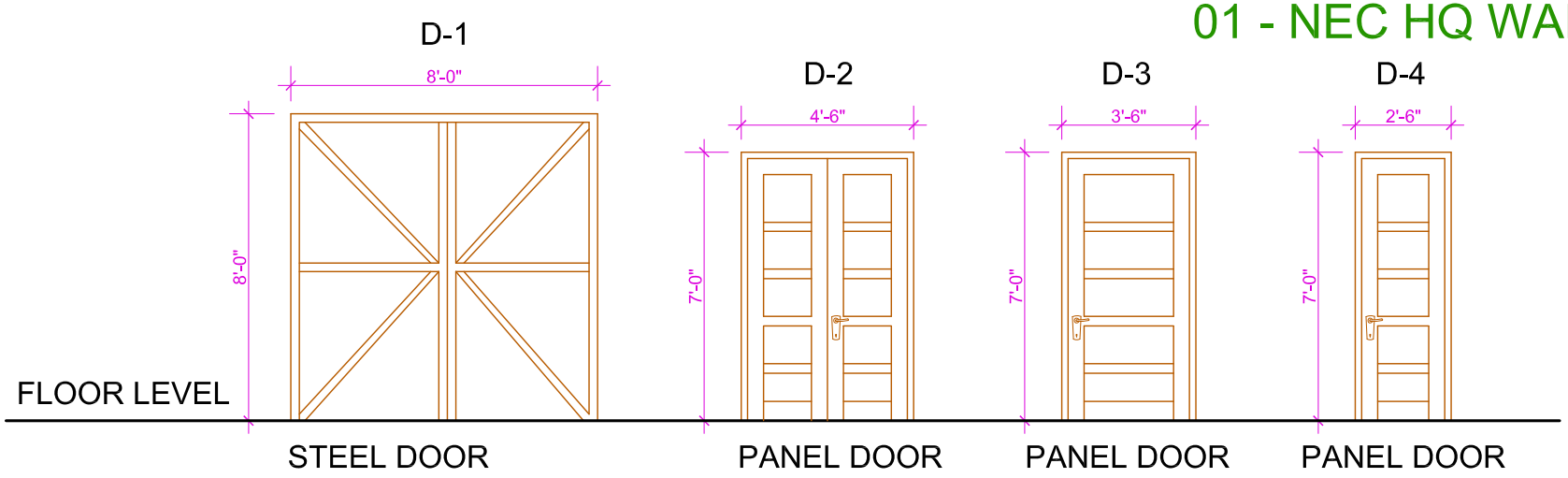
01 - NEC HQ WAREHOUSE



EXISTING LAYOUT PLAN

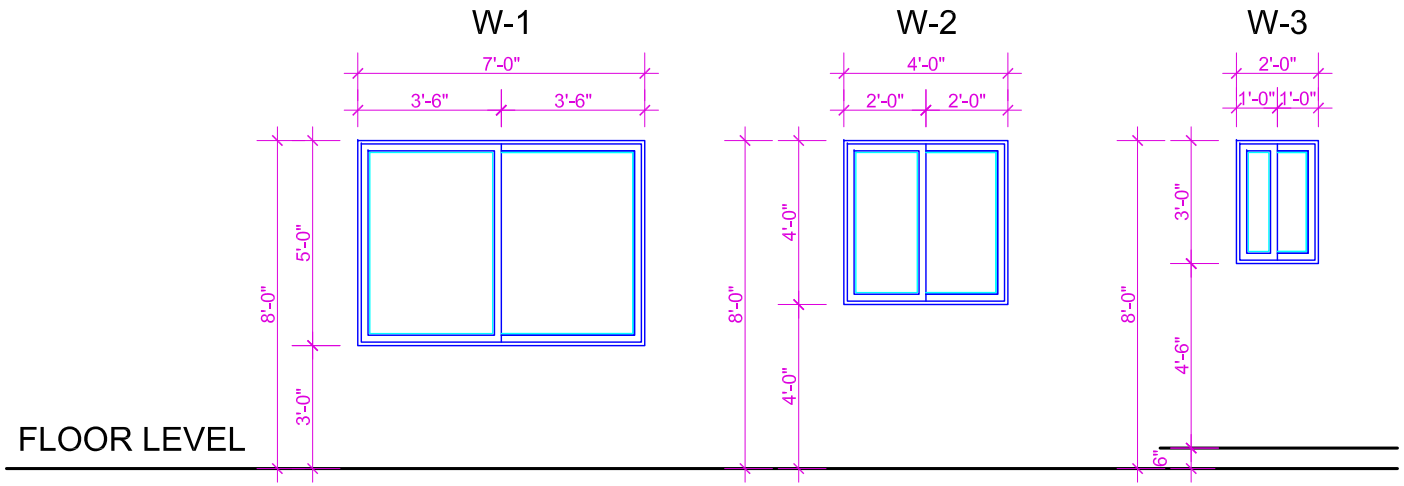
COVERED AREA :- 11633.61 SFT

01 - NEC HQ WAREHOUSE



ELEVATIONS

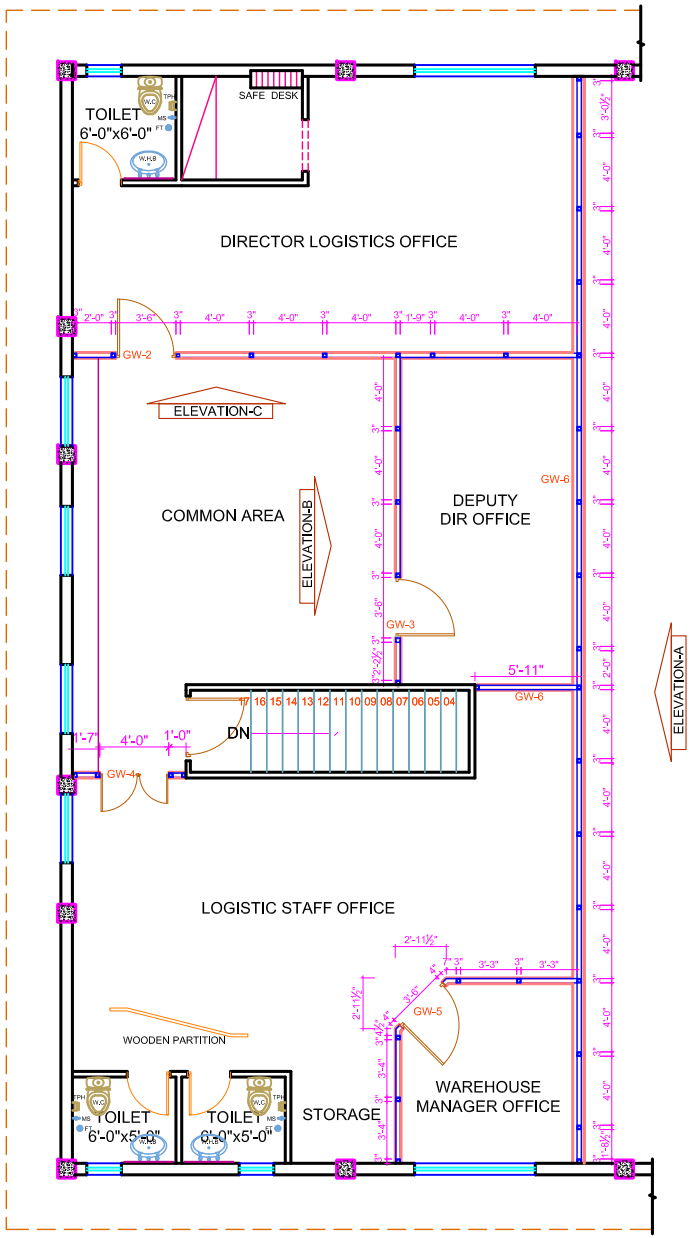
SCALE: 1/2"=1'-0"



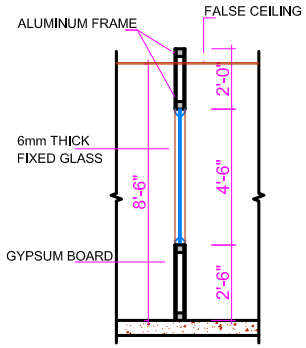
ELEVATIONS (ALUMINIUM WINDOWS)

SCALE: 1/2"=1'-0"

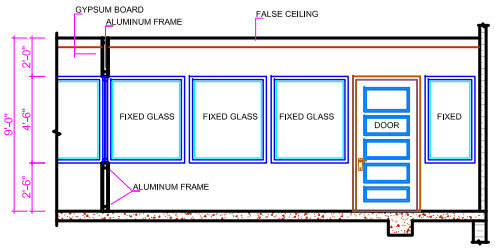
01 - NEC HQ WAREHOUSE



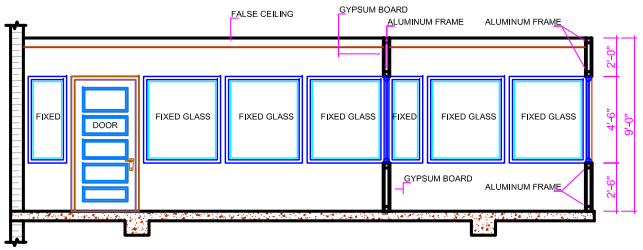
DETAIL OF GLASS WALLS



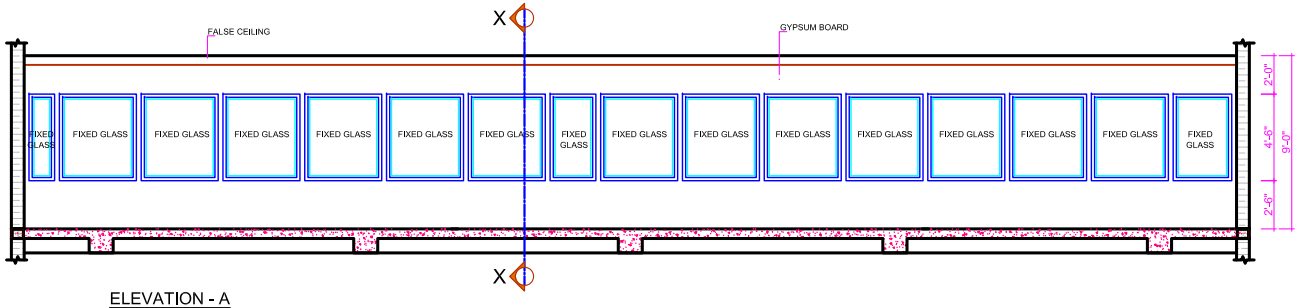
SECTION X-X



ELEVATION - B

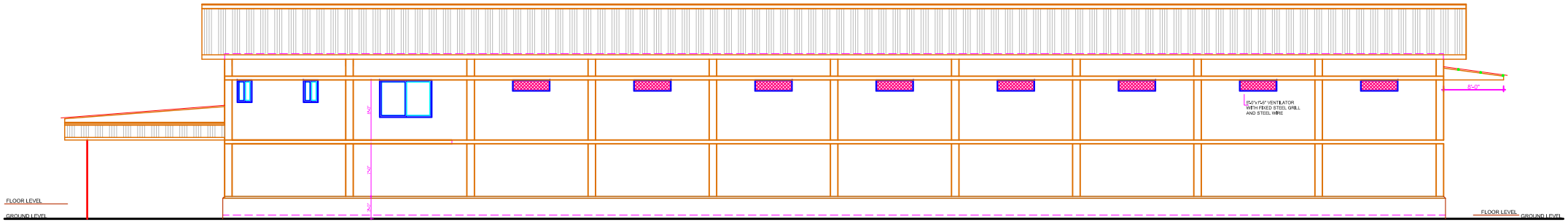


ELEVATION - C

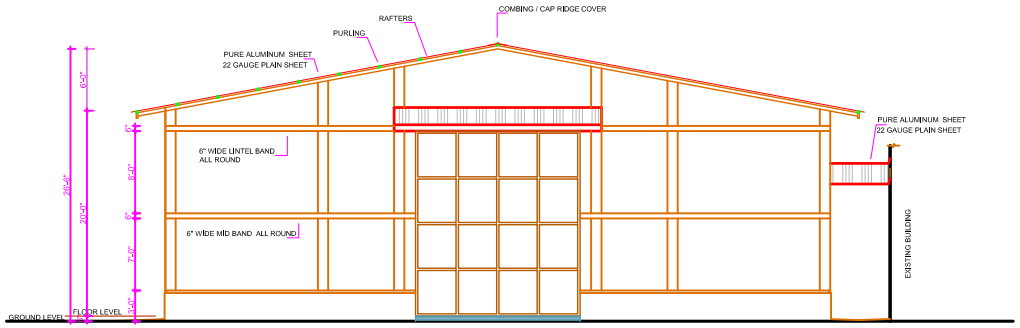


ELEVATION - A

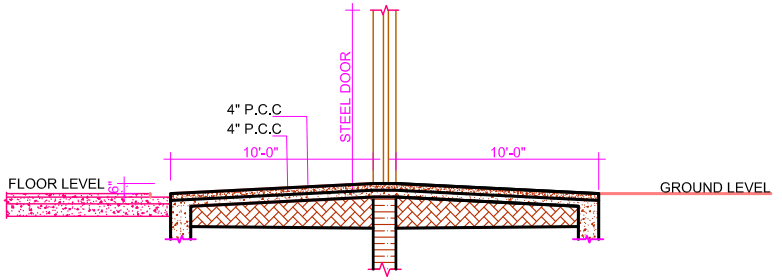
01 - NEC HQ WAREHOUSE



ELEVATION - 01



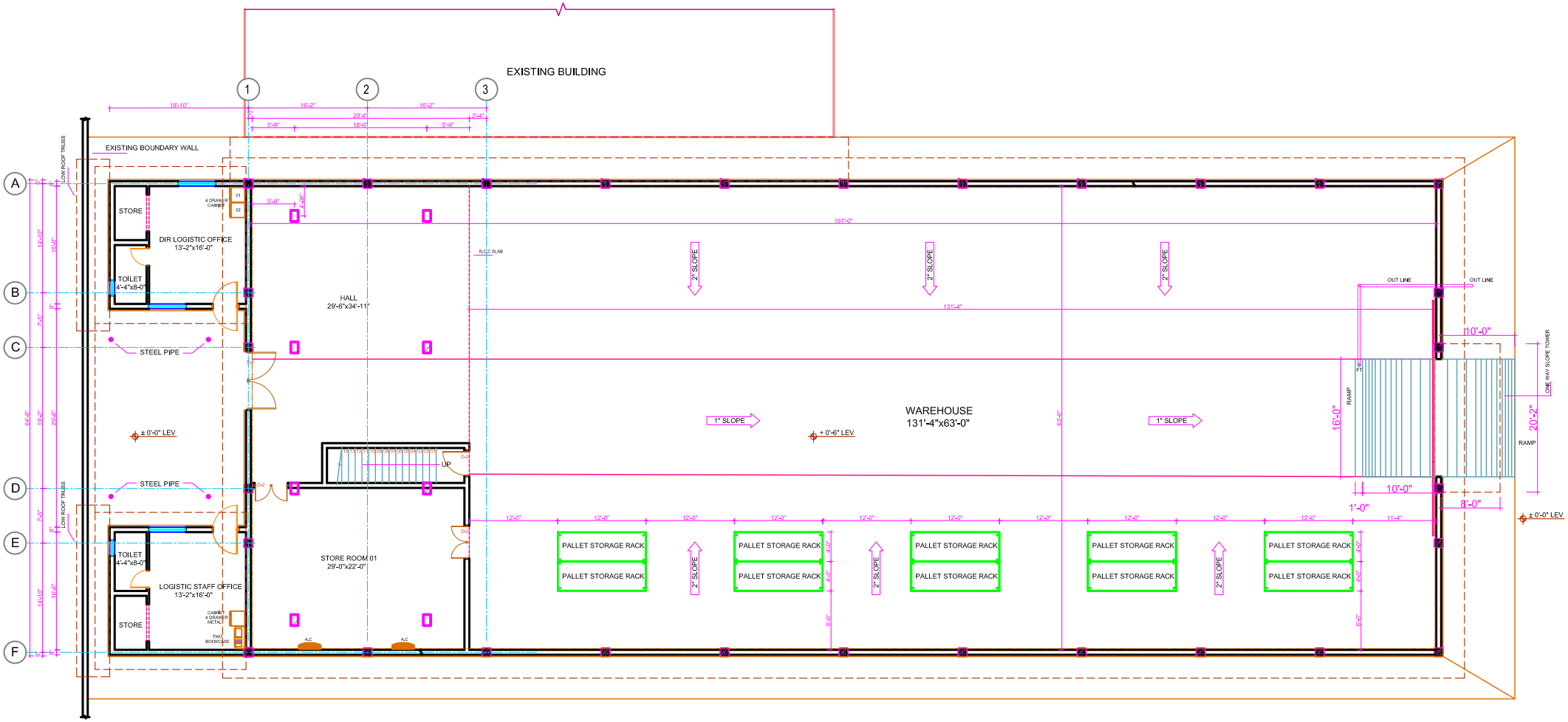
ELEVATION - 02



SECTION B-B

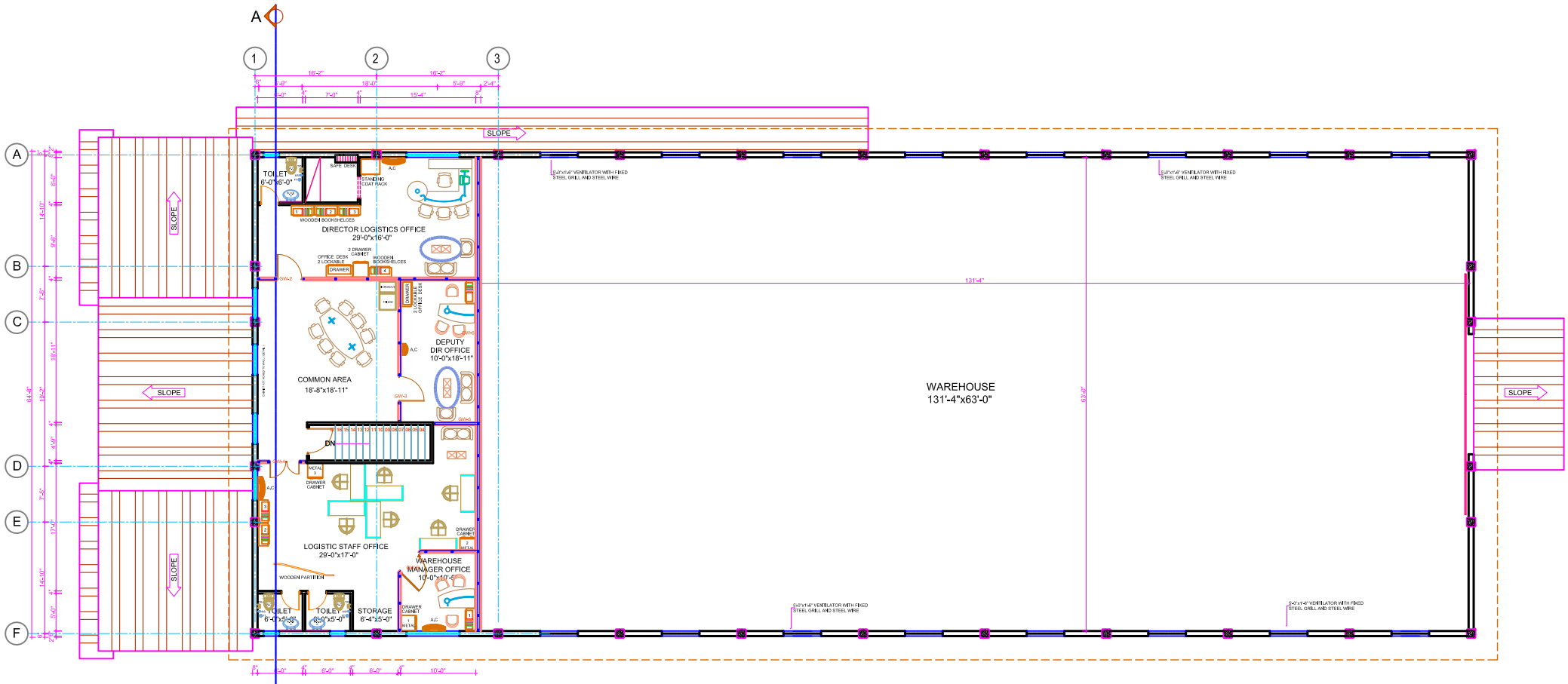
DETAIL OF RAMP

01 - NEC HQ WAREHOUSE



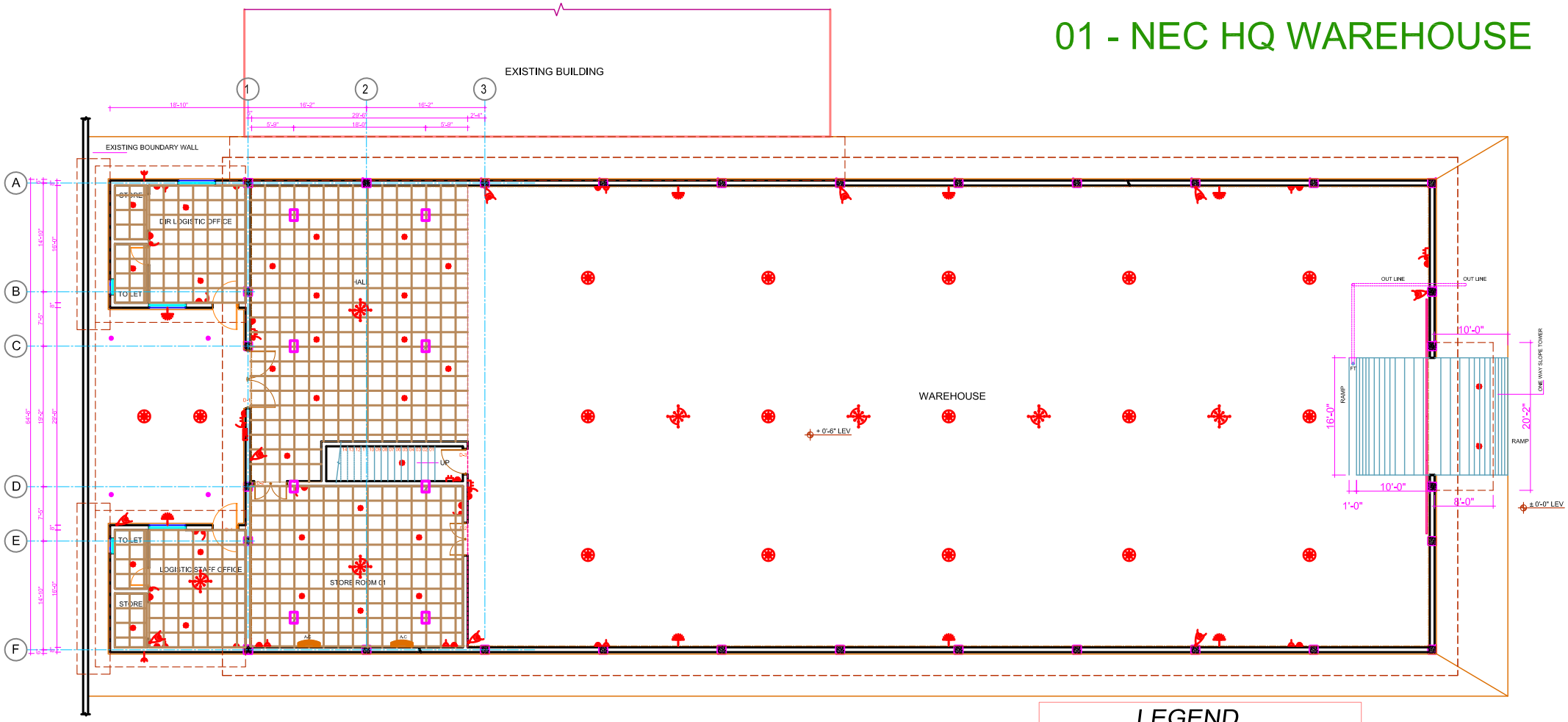
FURNITURE LAYOUT PLAN
(GROUND FLOOR PLAN)

01 - NEC HQ WAREHOUSE



FURNITURE LAYOUT PLAN
(MEZZANINE FLOOR PLAN)

01 - NEC HQ WAREHOUSE



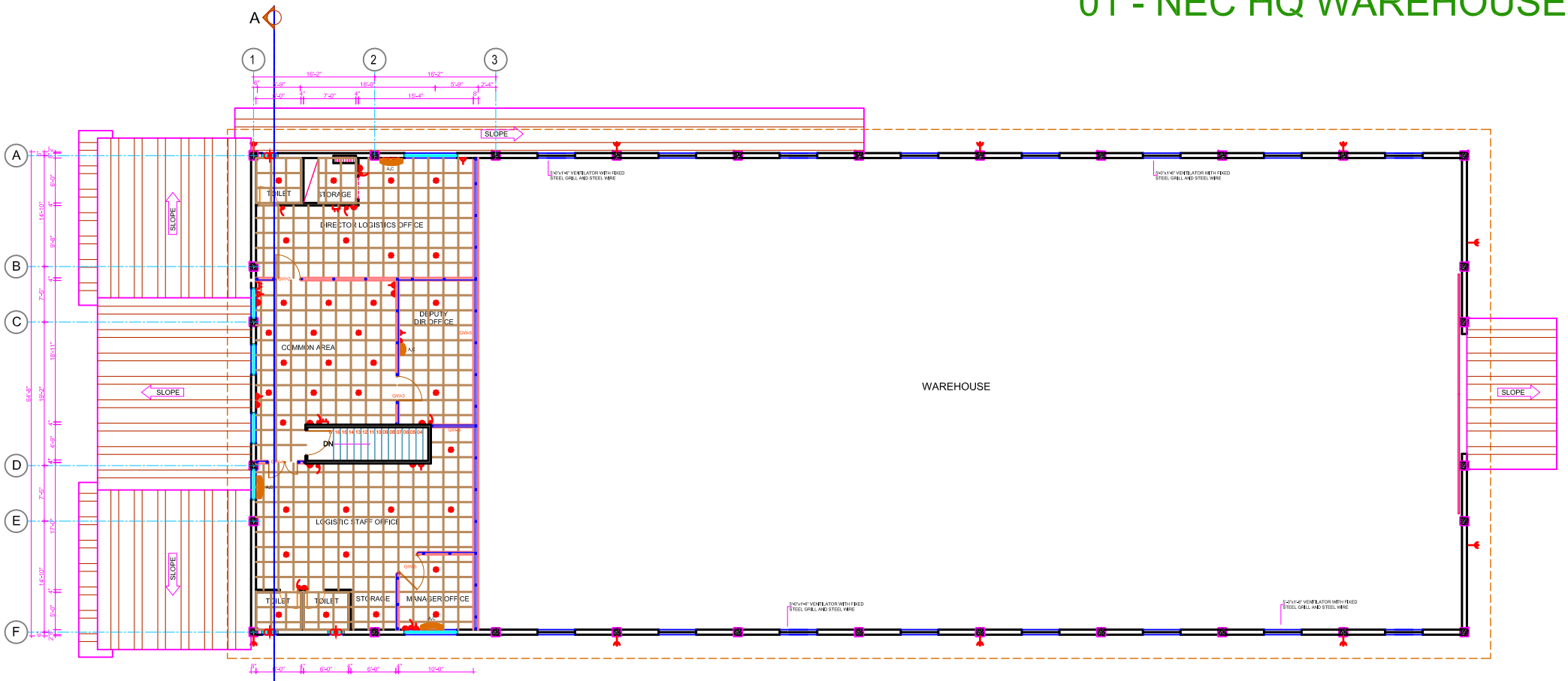
CEILING & ELECTRICAL LAYOUT PLAN
(GROUND FLOOR PLAN)

24"x24" FALSE CEILING GYPSUM BOARD WITH ALUMINUM FRAME

LEGEND

DISTRIBUTION BOARD	
SWITCH BOARD	
2 WAY SWTICH	
SPOT LIGHT	
HANGING LIGHT	
WALL BRACKET BULB	
WALL LIGHT	
SOCKET OUTLET 3 PIN 5 AMP	
POWER PLUG	
EXHAUST FAN	
CCTV CAMERA	
SMOKE DETECTORS	

01 - NEC HQ WAREHOUSE



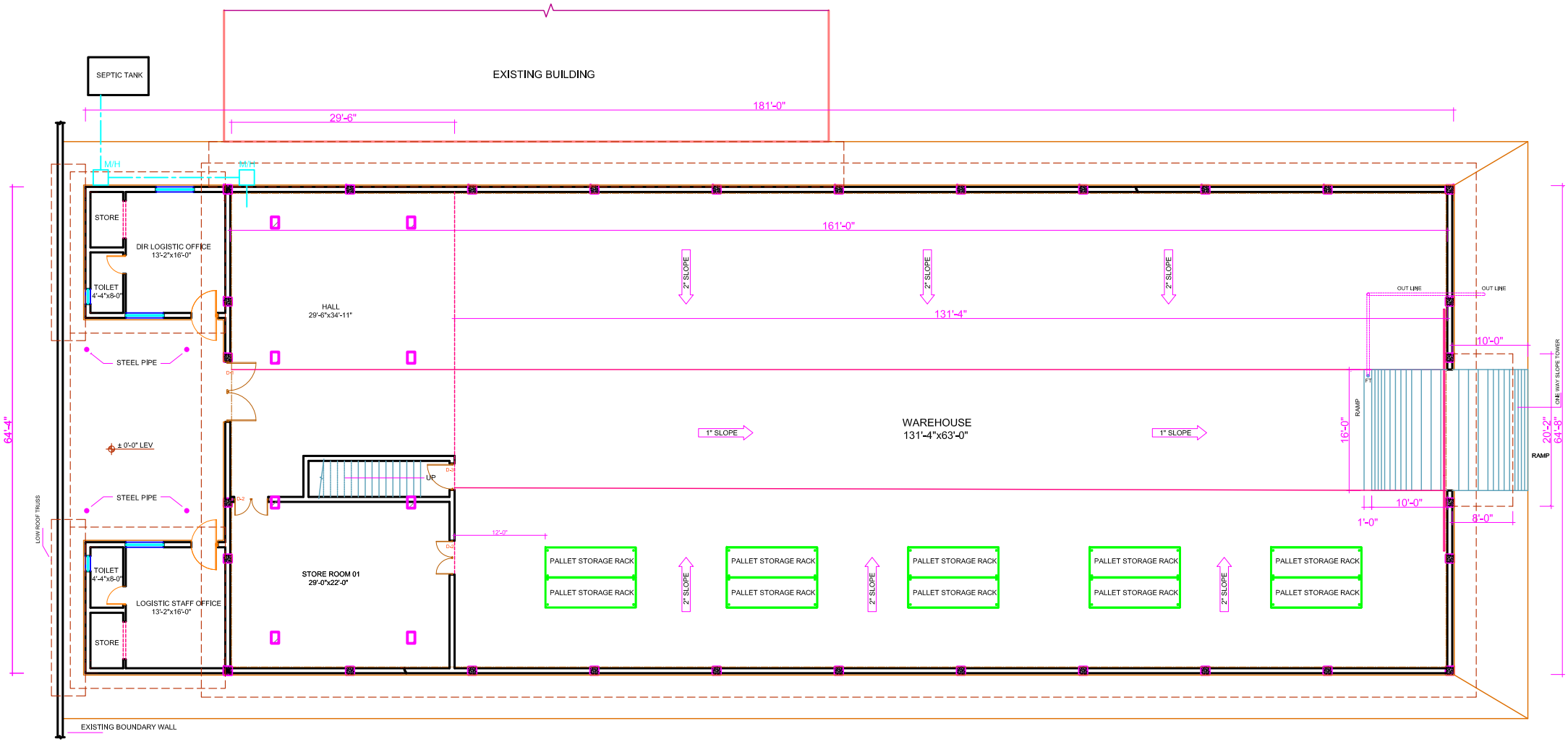
CEILING & ELECTRICAL LAYOUT PLAN
(MEZZANINE FLOOR PLAN)

24"x24" FALSE CEILING GYPSUM BOARD WITH ALUMINUM FRAME

LEGEND

DISTRIBUTION BOARD	
SWITCH BOARD	
2 WAY SWTICH	
SPOT LIGHT	
HANGING LIGHT	
WALL BRACKET BULB	
WALL LIGHT	
SOCKET OUTLET 3 PIN 5 AMP	
POWER PLUG	
EXHAUST FAN	
CCTV CAMERA	
SMOKE DETECTORS	

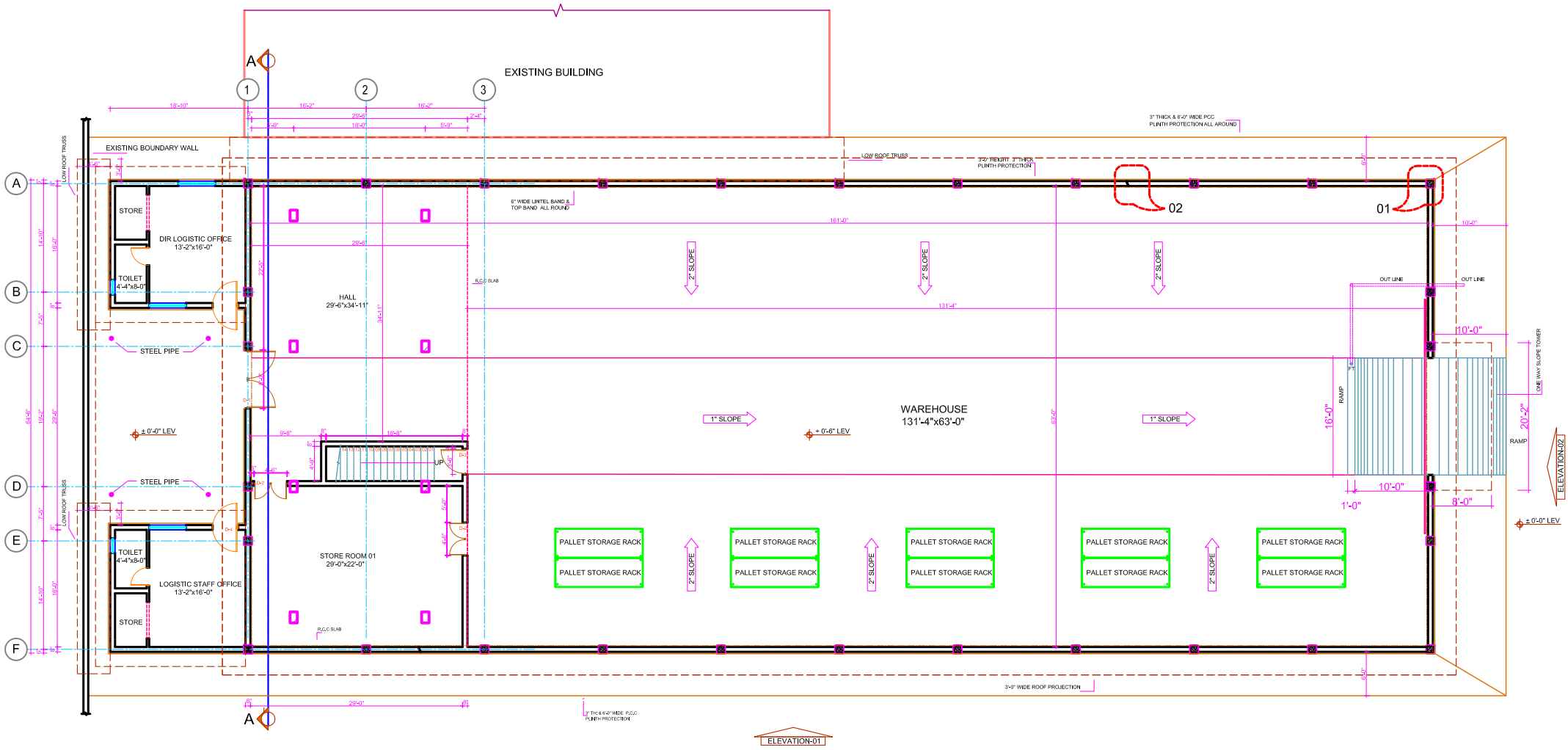
01 - NEC HQ WAREHOUSE



MASTER LAYOUT PLAN

COVERED AREA :- 11633.61 SFT

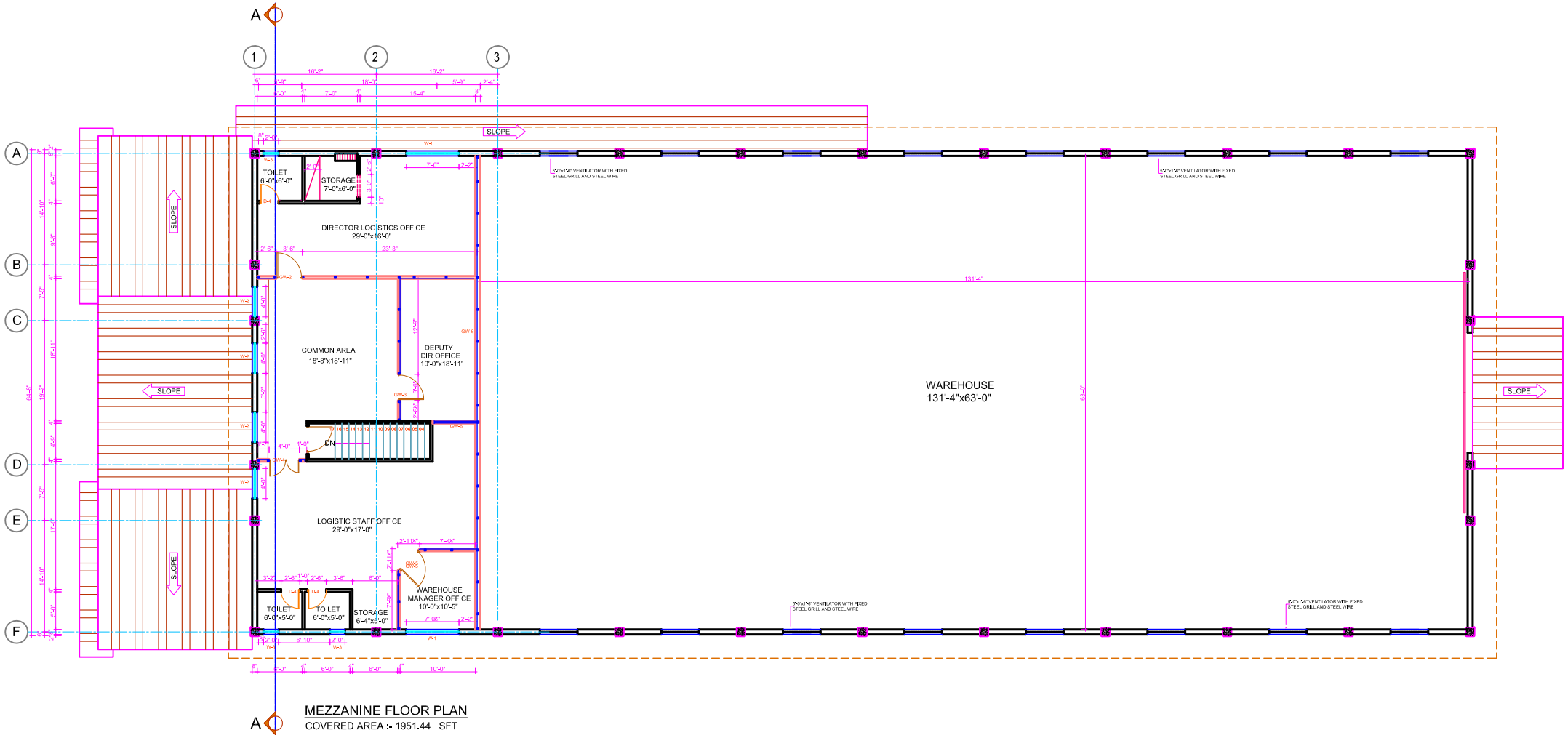
01 - NEC HQ WAREHOUSE



PROPOSED GROUND FLOOR PLAN

COVERED AREA :- 11633.61 SFT

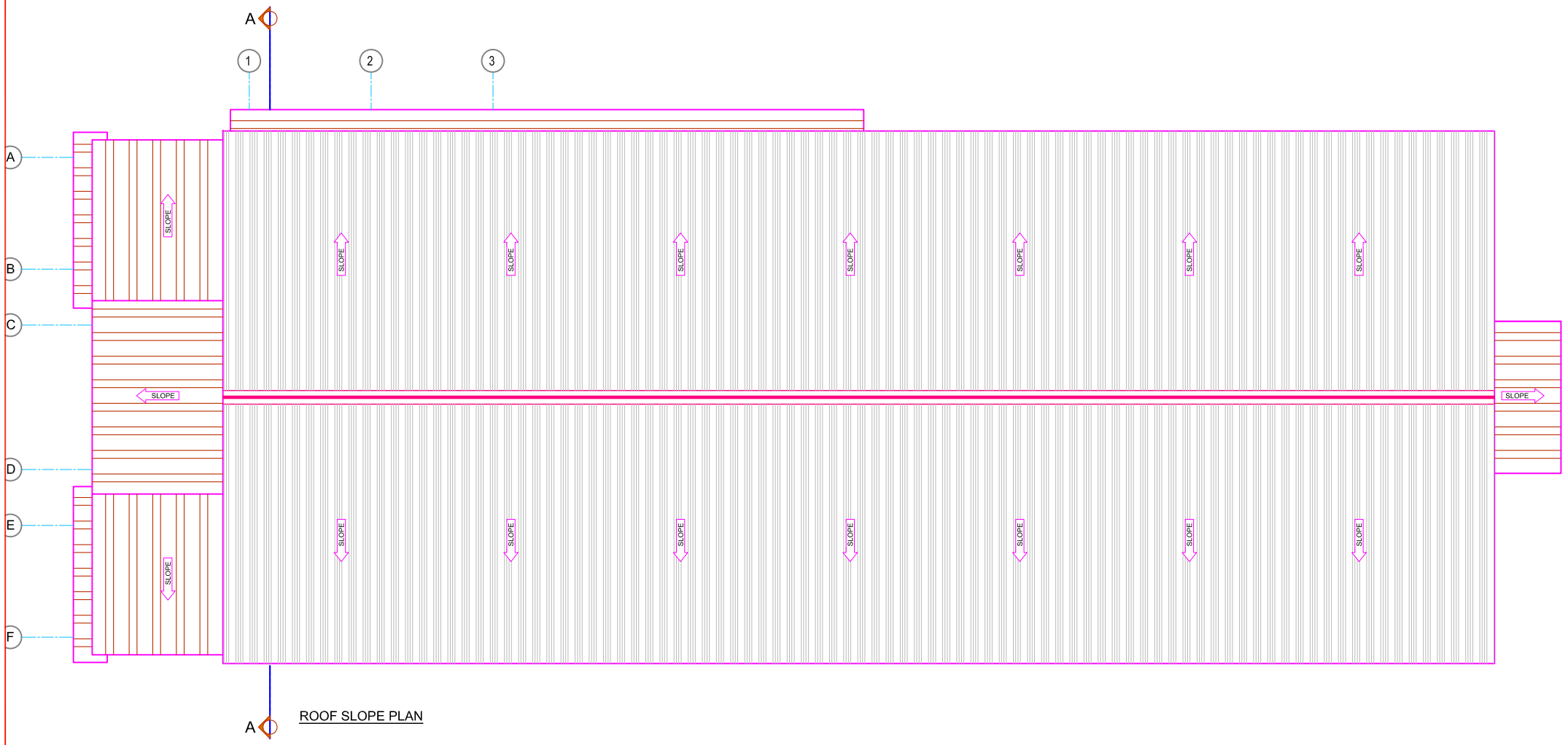
01 - NEC HQ WAREHOUSE



MEZZANINE FLOOR PLAN

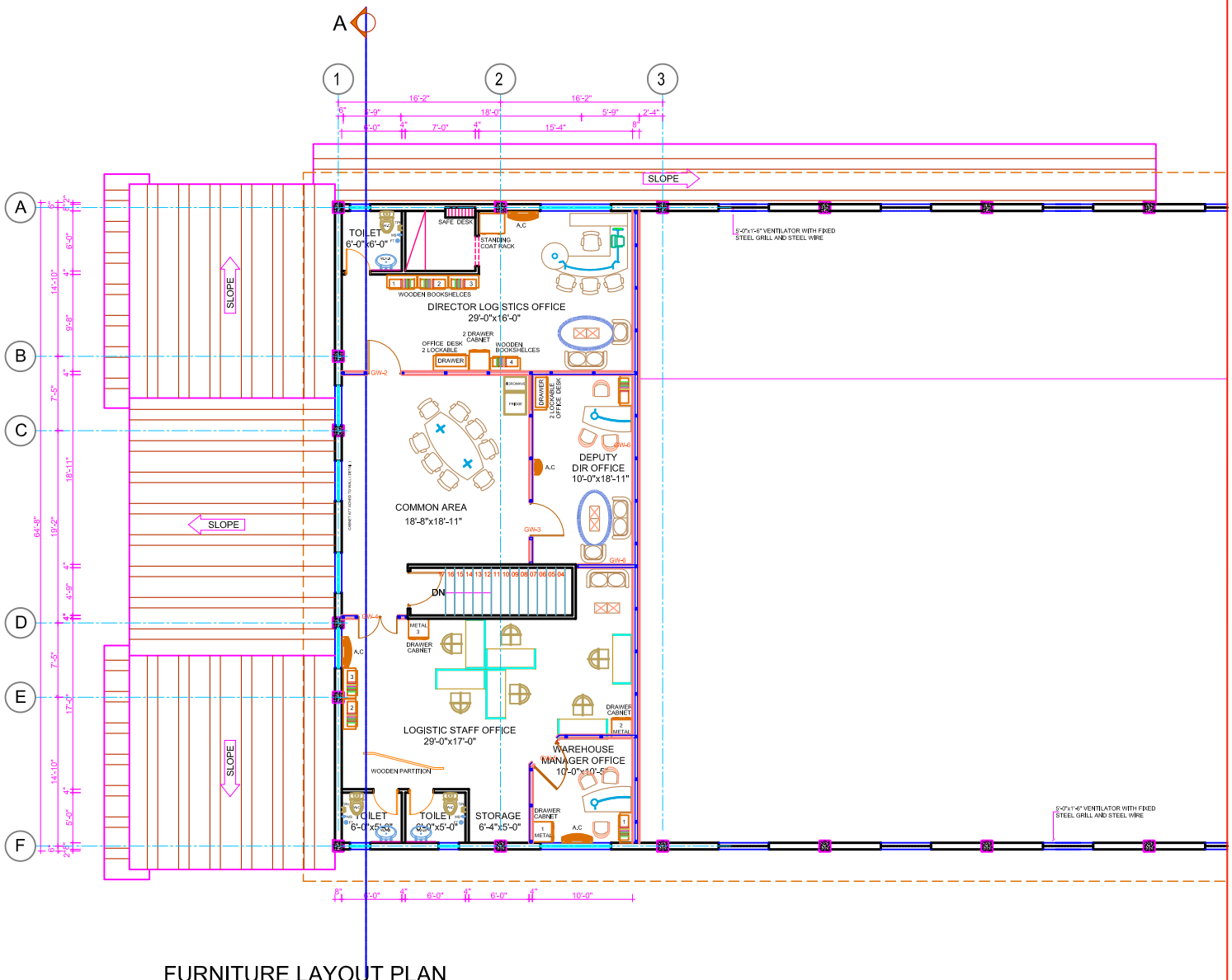
COVERED AREA :- 1951.44 SFT

01 - NEC HQ WAREHOUSE



ROOF SLOPE PLAN

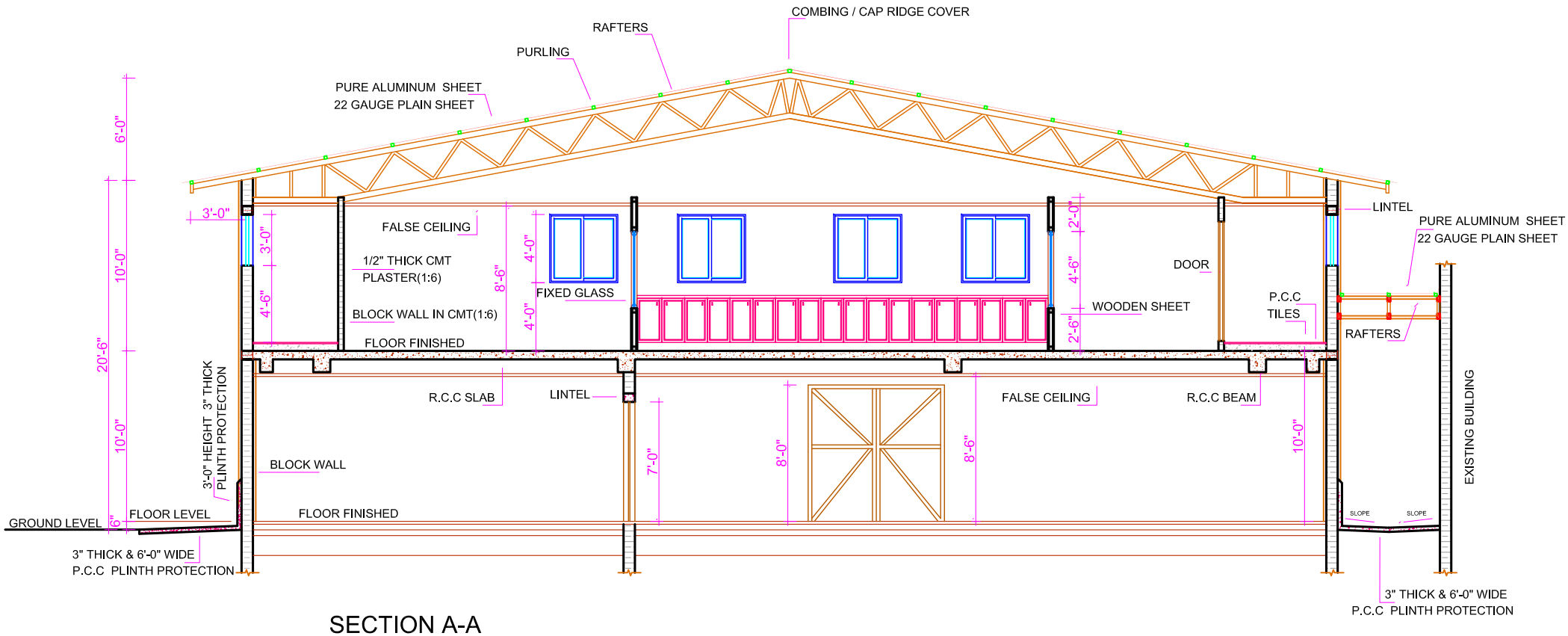
01 - NEC HQ WAREHOUSE



FURNITURE LAYOUT PLAN

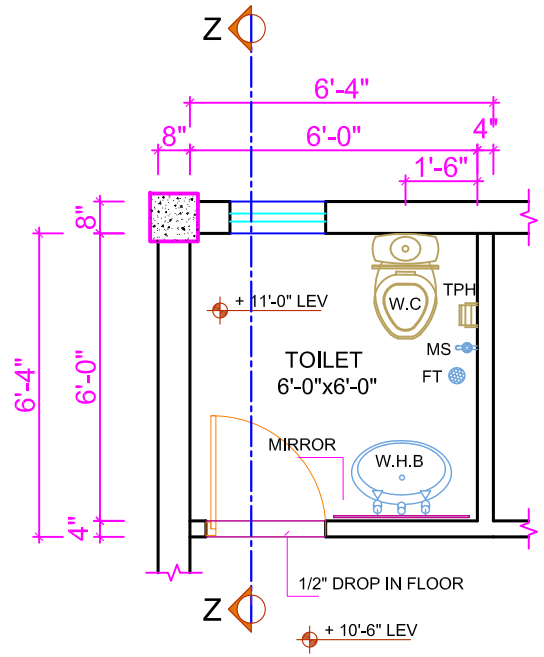
(MEZZANINE FLOOR PLAN)

01 - NEC HQ WAREHOUSE

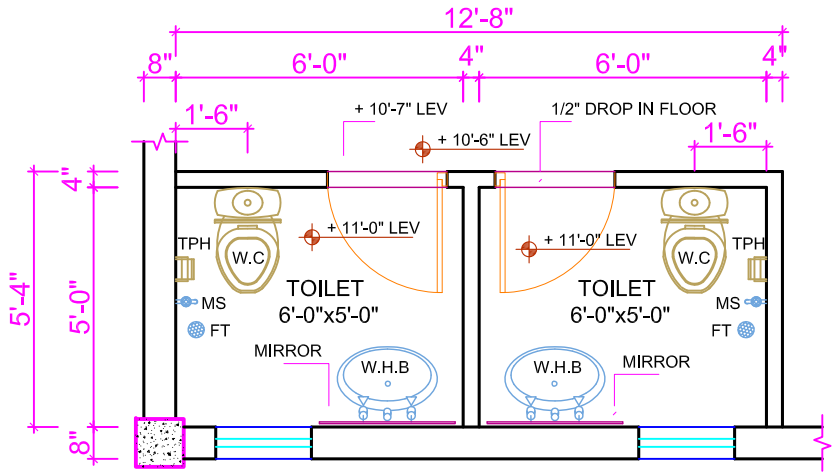


SECTION A-A

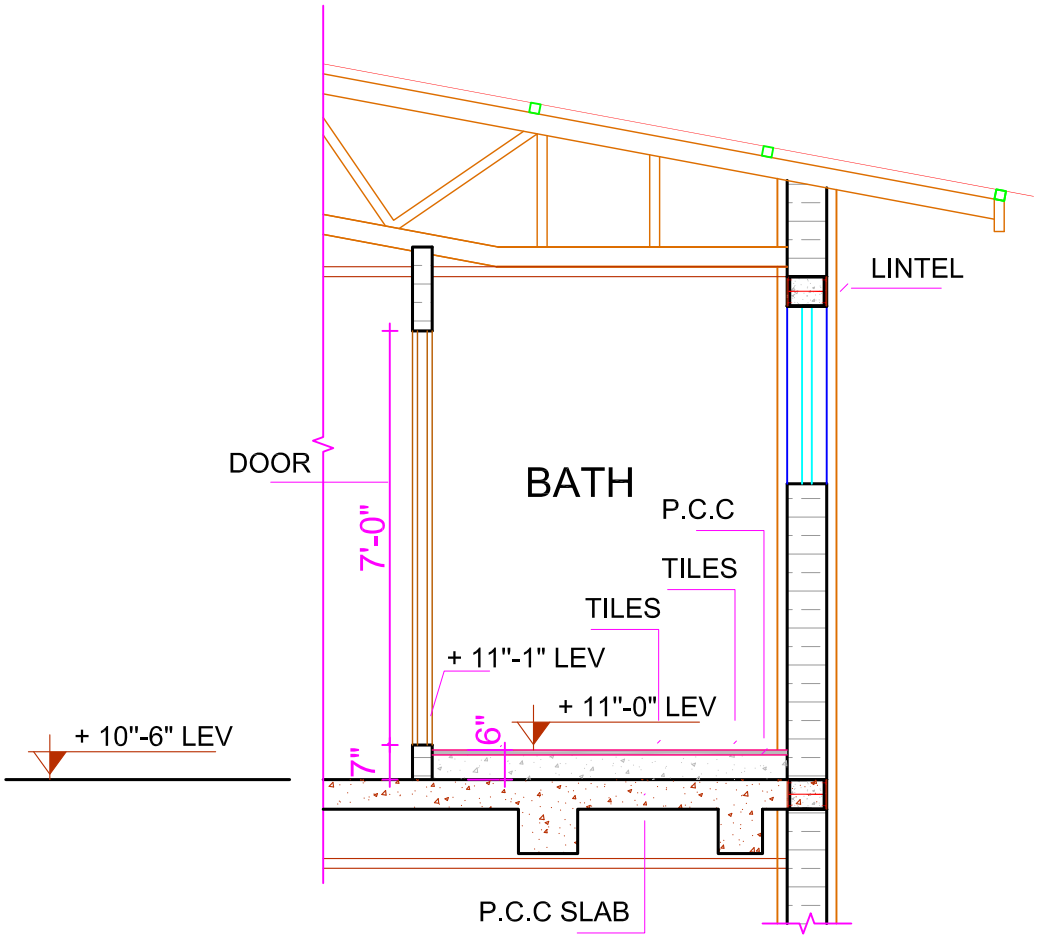
01 - NEC HQ WAREHOUSE



ENLARGE DETAIL OF TOILET

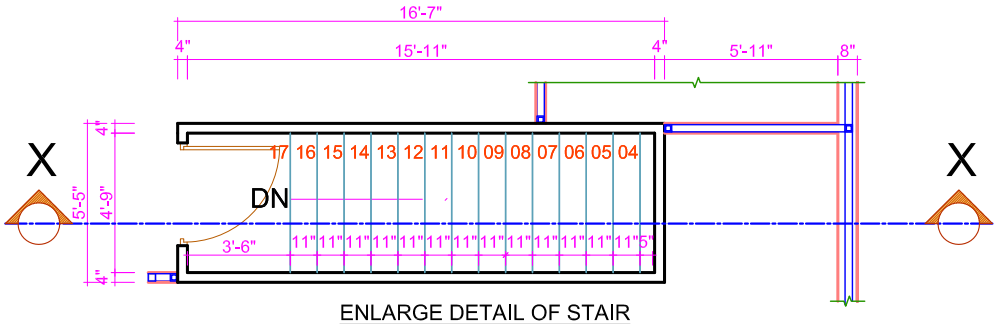


ENLARGE DETAIL OF TOILET

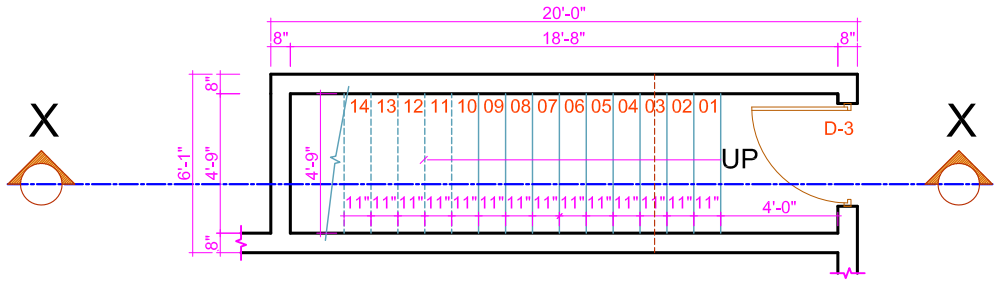


SECTION AT Z-Z

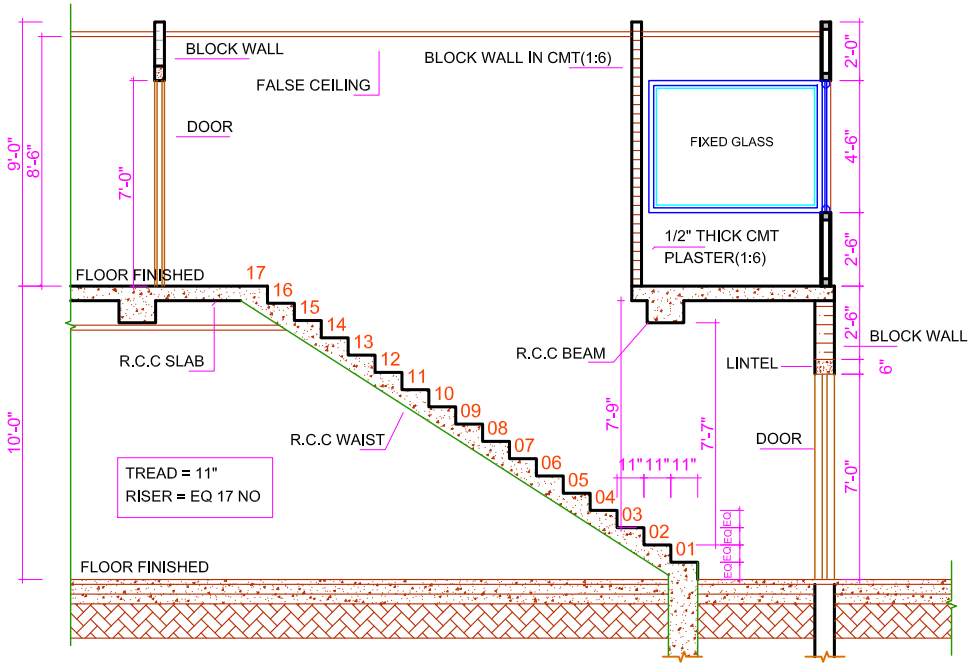
01 - NEC HQ WAREHOUSE



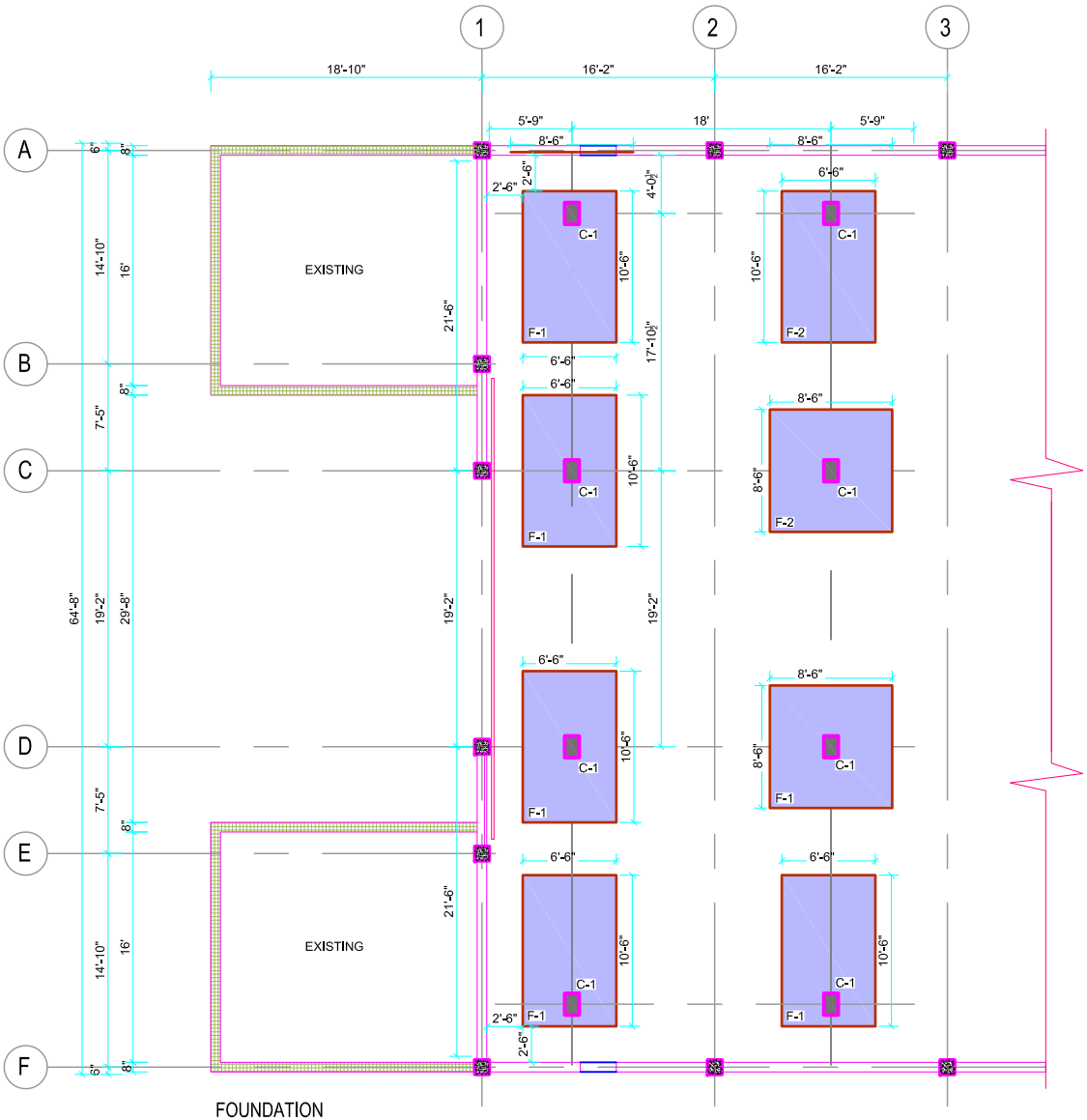
ENLARGE DETAIL OF STAIR
MEZZANINE FLOOR PLAN



ENLARGE DETAIL OF STAIR
GROUND FLOOR PLAN



SECTION X-X



FOUNDATION

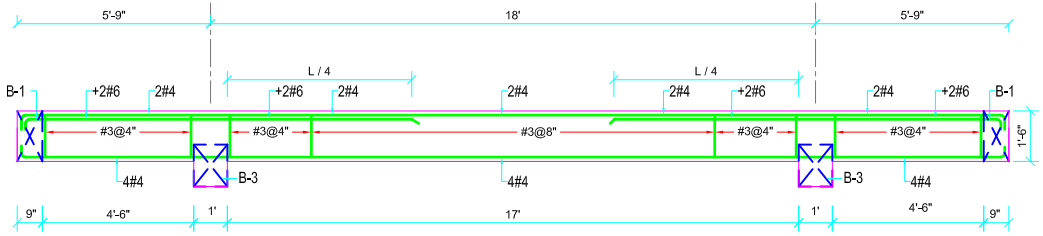
FOOTING AND COLUMN LAYOUT PLAN

1. All concrete is 3000 psi cylinder strength at 28 days with min. cement content (9 Kg per cubic feet or 0.176 bags per cubic feet or 17.6 bags/100 ft).
2. All concrete for columns is 4000 psi cylinder strength at 28 days with min. cement content (11 Kg per cubic feet or 0.22 bags per cubic feet or 22 bags/100ft).
3. Design of specified concrete mix shall be submitted by the contractor and shall be got approved from the Engineer well before concreting of relevant structures along with result of test cylinders tested as per ASTM C 39. Test specimens shall be made and cured in accordance with ASTM C 31.
4. All reinforcing steel is 4000 psi min. yield strength and min. ultimate strength of 90000 psi as per ASTM A-615 specifications and weight variation not more than 2.5% .
5. Ordinary portland cement, conforming to BS-12 /PS-232 shall be used in all R.C.C work expect where it is specifically mentioned in the geo technical report.
6. Cement from different sources shall not be mixed for the structure.
7. Coarse sand from approved quarries / sources shall be used.
8. Well graded crushed stone from approved quarries / sources shall be used as course aggregate. Maximun nominal size of the coarse aggregate shall be ¾" for all R.C.C work.
9. Potable water shall be used for concrete and shall be free of organic and other impurities.
10. 2 ½" x 2 ½" Precast concrete blocks having compressive strength of 6000 psi and spaced not more than 3 ft c/c shall be used for provision of required cover to main reinforcement. Thickness of these blocks shall be equal to the required cover.
11. All dimensions are given in feet & inches. Written dimensions are equal to be followed.
12. Unless otherwise shown on the plans, concrete cover provided for reinforcement shall be as fellows ;

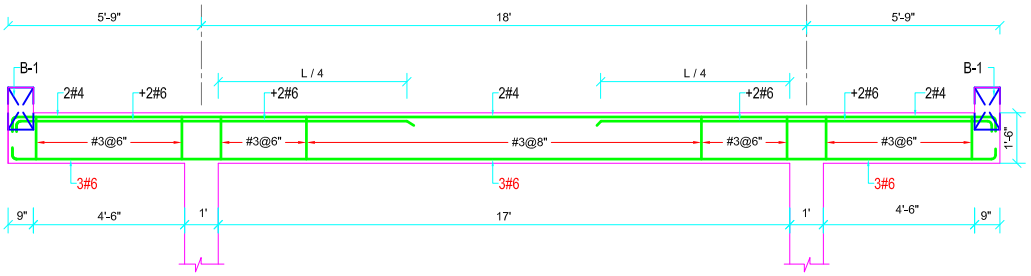
Footing on 1 : 4 : 8	
Bottom	2"
Sides	2"
Slabs	¾"
Beams & Columns	1.5"

13. Construction drawings along with bar bending schedule shall be submitted by the contractor for Engineers's approval well before proceeding with the work.
14. All layout, configuration, dimension and levels shall be verified before proceeding with the work.
15. All reinforcing bars shall be held firmly in place before and during the pouring of concrete by means of adequate number of wires and supports to prevent dislocation during the course of construction.
17. Construction joint not shown on the drawing shall be properly planed and so made and located as to least impair the strength of structure and shall need prior approval of the Engineer. In general they shall be located near the middle of the span of slab and beams.Joints shall be perpendicular to main reinforcement. All reinforcing steel shall be continued properly across the joints.
17. During construction, safety and stability of the structure and all temporary works shall be given prime importance. Utmost care and precaution shall be exercised by the contractor during the work against any mishap or accident.
18. Bars in beams shall be joggled in vertical plans for laps and shall be staggered.
19. All laps are 60 times bar diameter. Where tie / stirrup spacing is 4" c/c.
20. Bars in column shall be joggled for laps with starter bars.
21. Position of bars in beams shall be adjusted keeping in view the position of vertical bars of the columns.
22. Stirrups shall be placed in such a way that their hooks shall be staggered and located in compression face.
23. Concrete test cylinder shall be cured with the same method and under same conditions as those for the concrete work they represent.
24. No concrete shall be poured until its form work and reinforcement has been inspected and approved by the Engineer.
25. Sequence of removal of form work shall be as approved by the engineer.
26. All structural Drawings shall be read & checked in conjunction with the Architectural Drawings for layout and levels of different members.
27. Existing underground services if any, required to be left in position, shall be carefully protected during excavation.
28. Excavation adjacent to existing structures and / or under-ground services shall be made by hand.
29. Adequate shoring and support to the sides of all excavation shall be supplied and erected where required to safe guard workmen and protect any adjacent structures.
30. Foundations have been designed for bearing capacity of 0.9 TSF at footing base level (4' down from N.S.L). In case of any adverse variety of soil or bearing notice of Engineer in charge for further instructions.
31. While back filling of excavation for footing / area filling, compaction shall be done in 9" thick layers with 95 % AASHOO.
32. All conduits and pipes to be laid in concrete shall be located above main reinforcement of slabs and beams and with the approval of the engineer.
33. Preformed expansion joint filler (non extruding and resilient type) where used shall conform to ASTM 1751 (AASHTO M 213) specification.
34. Excavation including dewatering, bracing of excavation to safeguard the adjoining propertyand life and dewatering pits in case of rain is contractor's responsibility. For that matter, a qualified Geo-Technicial engineer can be appointed on hirole.
35. All slabs are 5" thick.

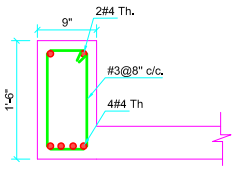
GENERAL NOTES- 1



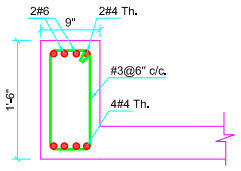
L-SEC OF B-1 (Inverted)
(9"x 18")



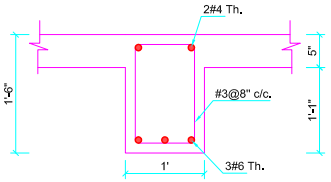
L-SEC OF B-2
(12"x 18")



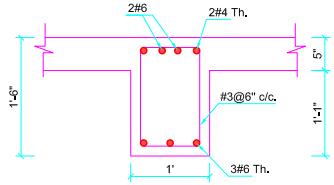
X- Section B-1 (At Mid Portion)



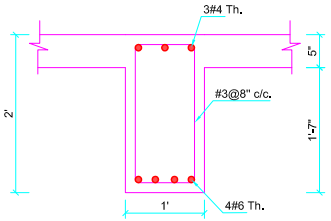
X-section B-1 (At l/4)



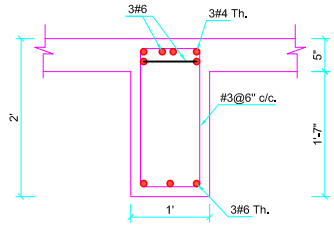
X- Section B-2 (At Mid Portion)



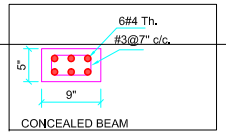
X-section B-2 (At l/4)



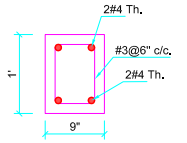
X- Section B-3 (At Mid Portion)



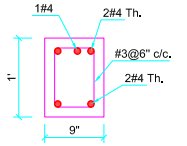
X-section B-3 (At l/4)



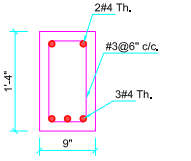
CONCEALED BEAM



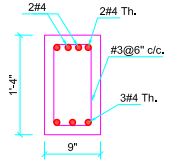
X-section PB-1 (At Mid Portion)



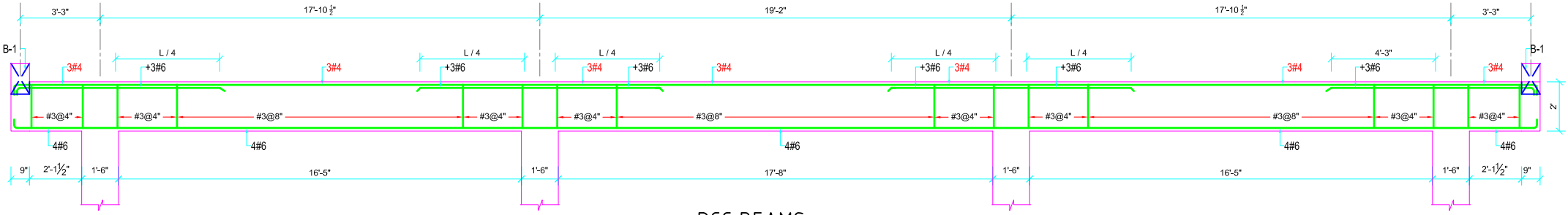
X-section PB-1 (At l/4)



X-section PB-2 (At Mid Portion)



X-section PB-2 (At l/4)



L-SEC OF B-3
(12"x 24")

RCC BEAMS
REINFORCEMENT DETAILS

GENERAL NOTES

1. READ ALL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL & ANY OTHER RELEVANT DRAWINGS.
2. NOTES , GIVEN IN THE DRAWING ARE APPLICABLE TO ALL DRAWINGS UNLESS MENTIONED OTHER WISE, NOTES WRITTEN ON A DRAWING, SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS OTHERWISE CROSS-REFERED.
3. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE SPECIFICATION OF THE CONTRACT DOCUMENTS, IN ABSENCE OF ANY SPECIFICATION , ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO RELEVANT ACI CODES AND SHALL BE SUBJECTED TO APPROVAL OF THE ENGINEER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF THE STRUCTURE DURING CONSTRUCTION, HE SHALL ALSO VERIFY ALL DIMENSIONS AND LEVELS BEFORE EXECUTION OF WORK, ANY DISCREPANCY , ERROR OR OMISSION , IF FOUND, SHALL BE BROUGHT TO THE NOTICE OF THE ENGINEER FOR CORRECTION AND APPROVAL.
5. ALL LEVELS AND DIMENSIONS ARE IN FEET & INCHES UNLESS OTHERWISE NOTED.
6. FIGURED DIMENSIONS ARE TO BE FOLLOWED.

DESIGN LOADS

1. STRUCTURAL DESIGN IS BASED ON THE AMERICAN CONCRETE INSTITUTE's BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE (ACI 318-08). LOADING IS IN ACCORDANCE TO UBC-97 (SEISMIC LOADS FOR ZONE- 2B)

REINFORCED CONCRETE / PLAIN CONCRETE WORKS

1- CONCRETE FOR ALL ELEMENTS SHALL BE OF 3000 PSI CYLINDRICAL STRENGTH AT 28 DAYS.
2- BLINDING PLAIN CONCRETE SHALL BE OF 1500 PSI CYLINDRICAL STRENGTH AT 28 DAYS.

REINFORCING STEEL:-

1- ALL REINFORCEMENT FOR COLUMNS,BEAMS, FOUNDATION,STIRRUPS,TIES,RCC WALLS,SHEAR WALLS & LIFT WELL SHALL BE OF DEFORMED BARS GRADE 60 WITH A MINIMUM YIELD STRENGTH OF 60,000 psi CONFORMING TO ASTM A 615.
2- PROVIDE BAR SUPPORTS OR SPACERS TO GIVE THE FOLLOWING CONCRETE COVER TO ALL REINFORCEMENT UNLESS NOTED OTHERWISE ON DRAWINGS.(COVER IS THE CLEAR DISTANCE FROM THE CONCRETE SURFACE TO THE NEAREST EDGE OF ANY REINFORCEMENT)

ELEMENT	TOP	BOTTOM	SIDES
SLABS	3/4"	3/4"	-
BEAMS	1½"	1½"	1½"
COLUMNS	-	-	1½"
WALLS	-	-	1½"
RETAINING WALLS	-	-	2"
FOOTINGS/RAFT	2"	2"	2"

3.USE # 3 BINDING BARS AT 12" C/C FOR TOP REBARS.
4-WHERE NOT INDICATED POSITIVE (+) REINFORCEMENT TO BE CURTAILED AT L/8 OF CLEAR SPAN FROM THE EDGE OF THE SUPPORTING BEAM NEGATIVE (-) REINFORCEMENT TO EXTEND 0.33L (0.33xLARGER OF THE CLEAR SPANS) ON EITHER SIDES OF THE SUPPORTING BEAM TO BE MEASURED FROM EDGE OF CONTINUOUS BEAM AND 0.25L FOR EDGE BEAM.
5-BARS SHOWN STAGGERED ON PLAN SHALL BE PLACED ALTERNATELY.
6-BARS SHOULD BE EVENLY DISTRIBUTED OVER THE EXTENT INDICATED, UNLESS NOTED OTHERWISE ON PLAN. DISTRIBUTION REINFORCEMENT AT RIGHT ANGLE TO MAIN REINFORCEMENT SHALL BE AS SHOWN BELOW. THE MAIN REINFORCEMENT SHALL NOT BE LESS THAN DISTRIBUTION REINFORCEMENT.

SLAB THICKNESS	DISTRIBUTION REINFORCEMENT
5"	# 3@10"c/c
6"	# 3@9"c/c
7"	# 3@8"c/c
8"	# 3@7"c/c
10"	# 4@10"c/c
12"	# 4@8"c/c
14"	# 4@7"c/c

7- FOR EVERY 12 FEET,1/2" PRE CAMBER SHALL BE PROVIDED IN CENTER OF FORMWORK FOR SLAB & BEAMS.
8-WALL MARKED X WILL BE RAISED FROM F.L AND LEFT 12" BELOW FROM SOFT OF SLAB AND WILL BE COMPLETED AFTER REMOVAL OF SHUTTERING.

FOUNDATION:-

1- THE FOUNDATIONS HAS BEEN DESIGNED FOR 0.75 TSF SAFE BEARING CAPACITY OF SOIL.
2- THE BEARING CAPACITY TO BE CHECKED AT SITE BEFORE EXECUTION AND IN CASE OF ANY VARIATION, THIS OFFICE SHOULD BE IMMEDIATELY INFORMED FOR REDESIGNING OF FOUNDATION.

TABLE I-A : LAP LENGTHS FOR BARS IN TENSION

LOCATION	fc' = 3000 psi fy = 60000 psi	
	LAP LENGTH	
	#6 & SMALLER	#7 & LARGER
BOTTOM BARS	58db	72db
TOP BARS *	74db	93db
COLUMNS/WALLS VERTICAL BARS	58db	72db

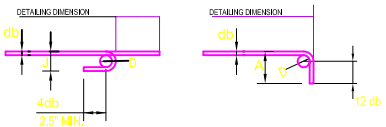
TABLE I-B : LAP LENGTHS FOR BARS IN TENSION

LOCATION	fc' = 4000 psi fy = 60000 psi	
	LAP LENGTH	
	#6 & SMALLER	#7 & LARGER
BOTTOM BARS	50db	62db
TOP BARS *	64db	80db
COLUMNS/WALLS VERTICAL BARS	50db	62db

TABLE II: STANDARD HOOKS TO MAIN BARS

BAR SIZE	INTERNAL BEND DIAMETER D (IN.)	180° HOOK		90° HOOK
		A (IN.)	J (IN.)	A (IN.)
#3	2¼"	5"	3"	6"
#4	3"	6"	4"	8"
#5	3¾"	7"	5"	10"
#6	4½"	8"	6"	1'-0"
#7	5¼"	10"	7"	1'-2"
#8	6"	11"	8"	1'-4"
#9	9½"	1'-3"	11¾"	1'-7"
#10	10¾"	1'-5"	1'-1¼"	1'-10"

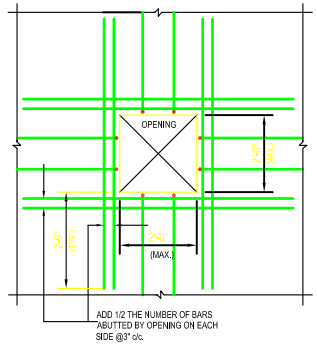
*db IS NORMAL DIAMETER OF THE REINFORCING BAR IN INCHES.



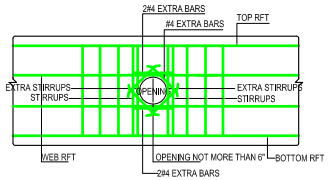
180° HOOK 90° HOOK

TABLE III: STANDARD HOOKS TO STIRRUPS AND TIES

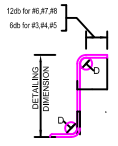
BAR SIZE	INTERNAL BEND DIAMETER D (IN.)	90° HOOK	135° HOOK	
		A	A	H (APPROX.)
#3	1½"	4"	4¼"	3"
#4	2"	4½"	4½"	3"
#5	2½"	6"	5½"	3¾"



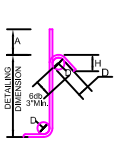
TYPICAL DETAIL AT SLAB OPENING
(UNLESS NOTED OTHERWISE ON PLAN)



TYPICAL DETAIL AT BEAM OPENING



90° HOOK

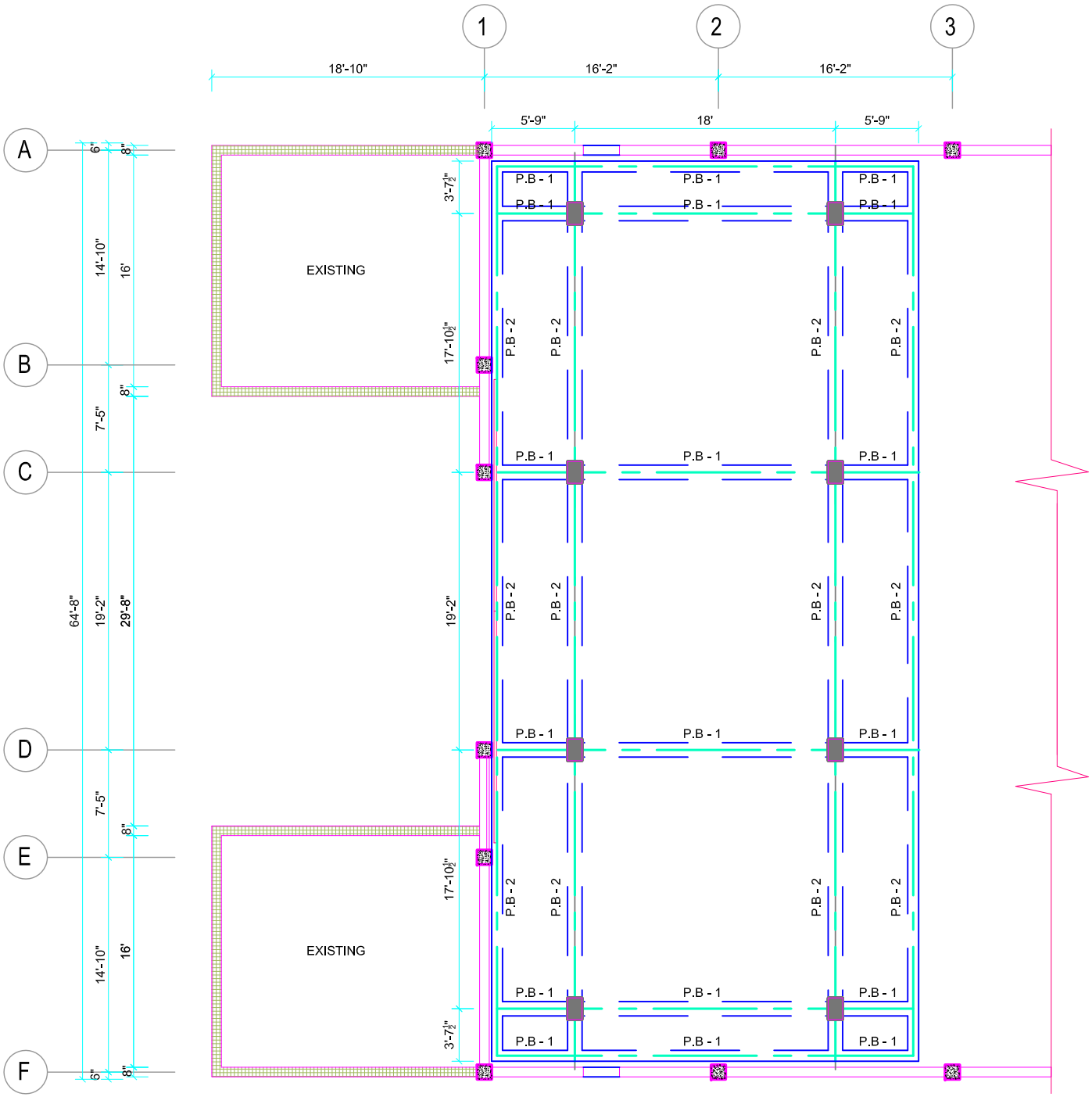


135° HOOK

TYPICAL COLUMN/WALL VERTICAL CRANK DETAIL

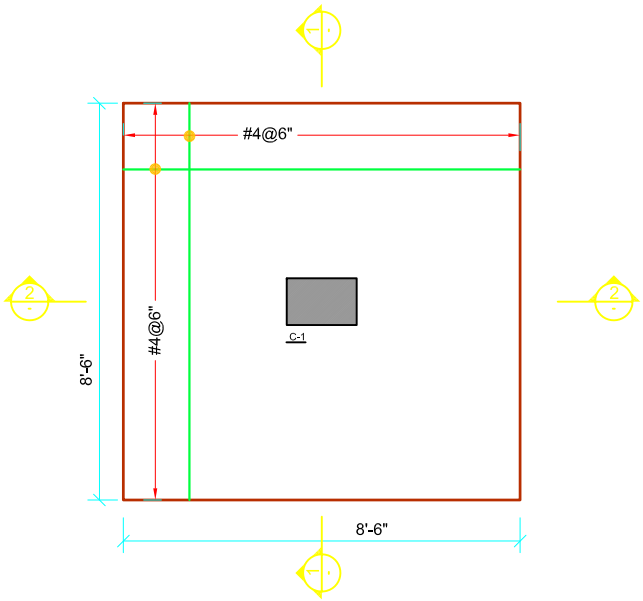
CONCRETE CONSTRUCTION

1. ALL STRUCTURAL SURFACES, AGAINST WHICH EARTH IS TO BE FILLED, SHALL BE COATED WITH TWO COATS OF HOT BITUMEN 10/20 GRADE AT THE RATE OF 0.4 Lbs/Sft/Coat OVER SURFACES AND 5% PADLO TO BE ADDED IN 3/4" PCC PLASTER.

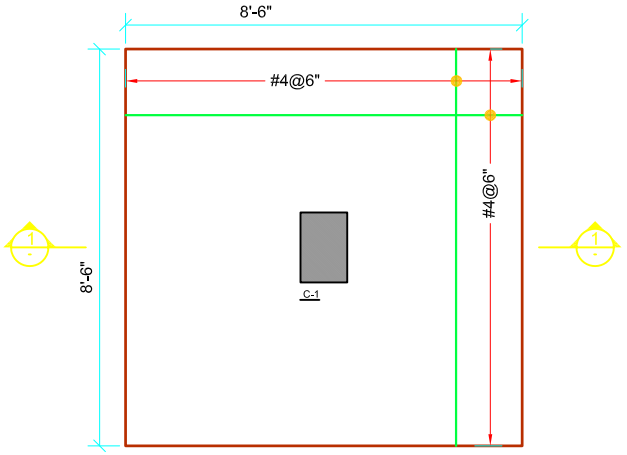


PLINTH BEAM LAYOUT PLAN

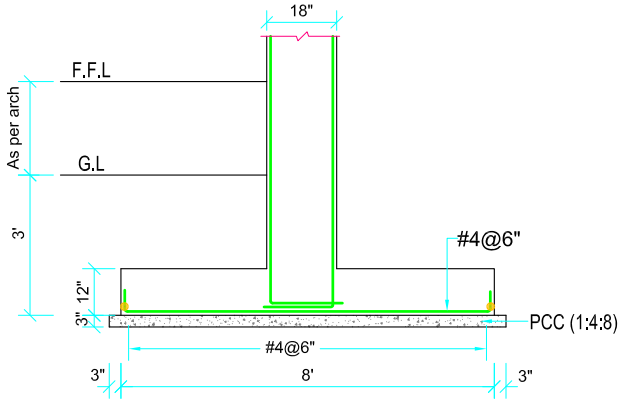
RCC FOOTING - 2 & STAIR REINFORCEMENT DETAILS



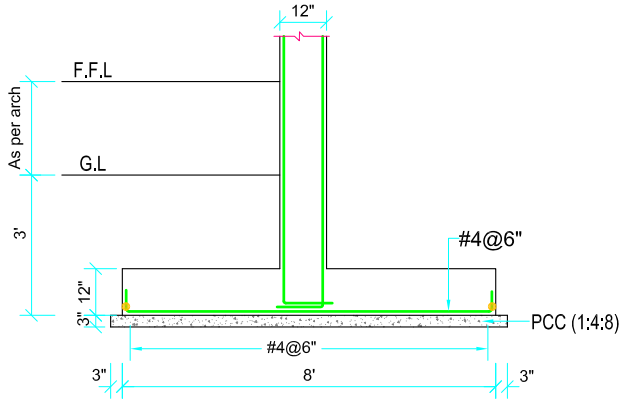
PLAN OF FOOTING F-2



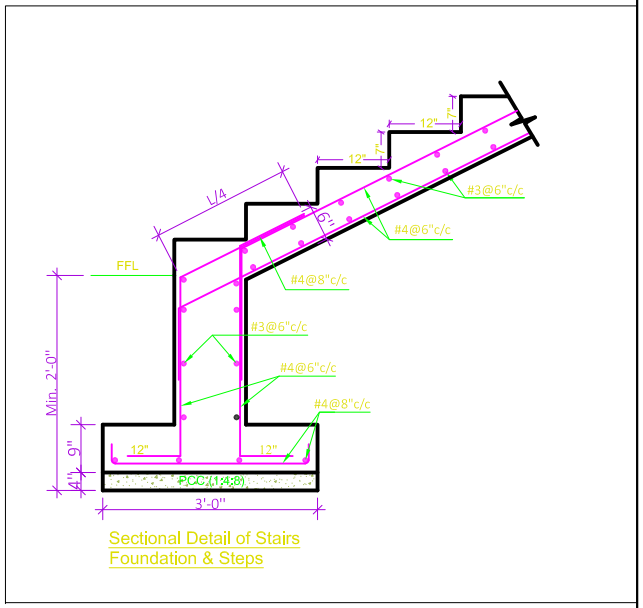
PLAN OF FOOTING F-2



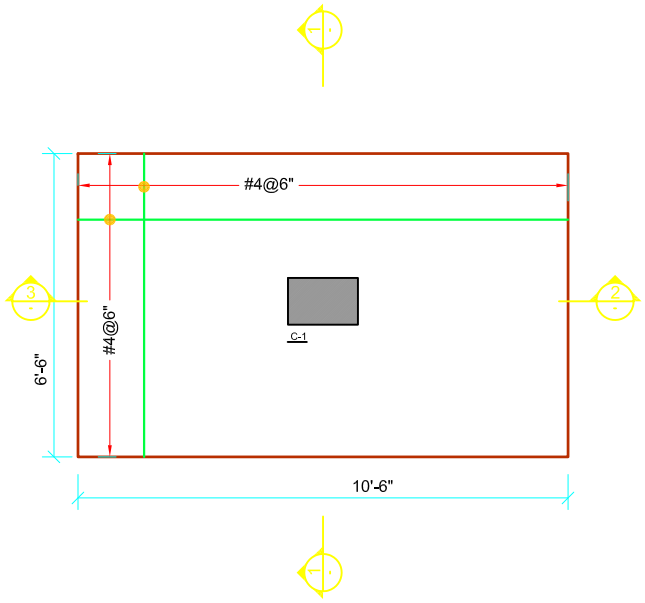
SECTION AT 2-2



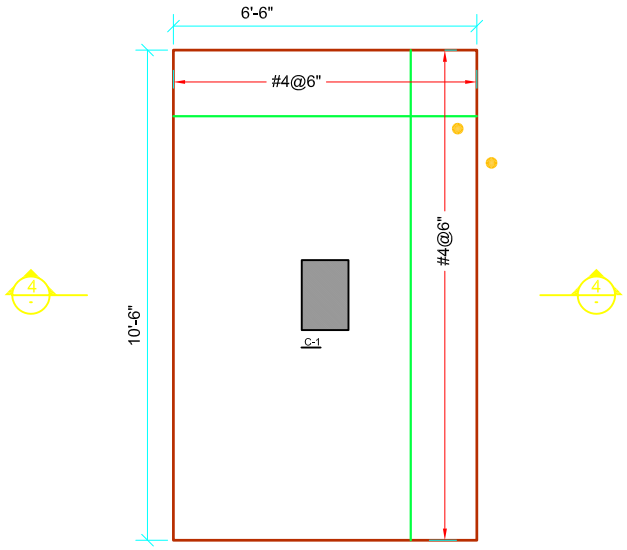
SECTION AT 1-1



Sectional Detail of Stairs Foundation & Steps

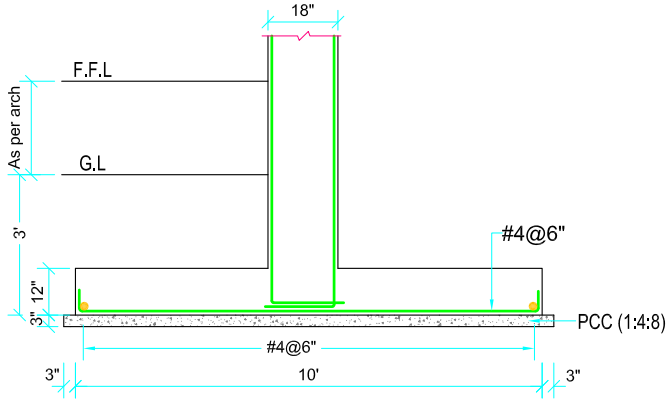


PLAN OF FOOTING F-1

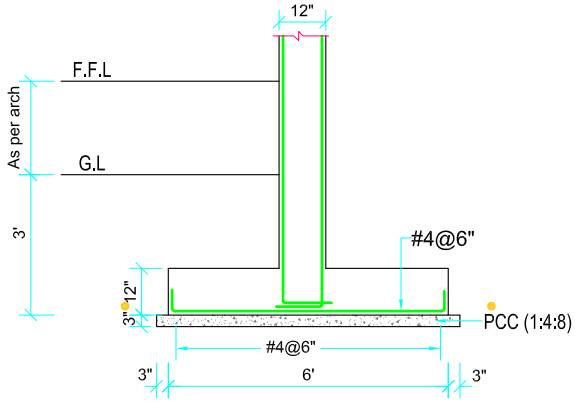


PLAN OF FOOTING F-1

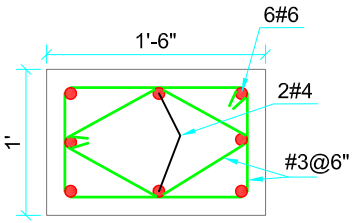
RCC FOOTING - 1 & COLUMN REINFORCEMENT DETAILS



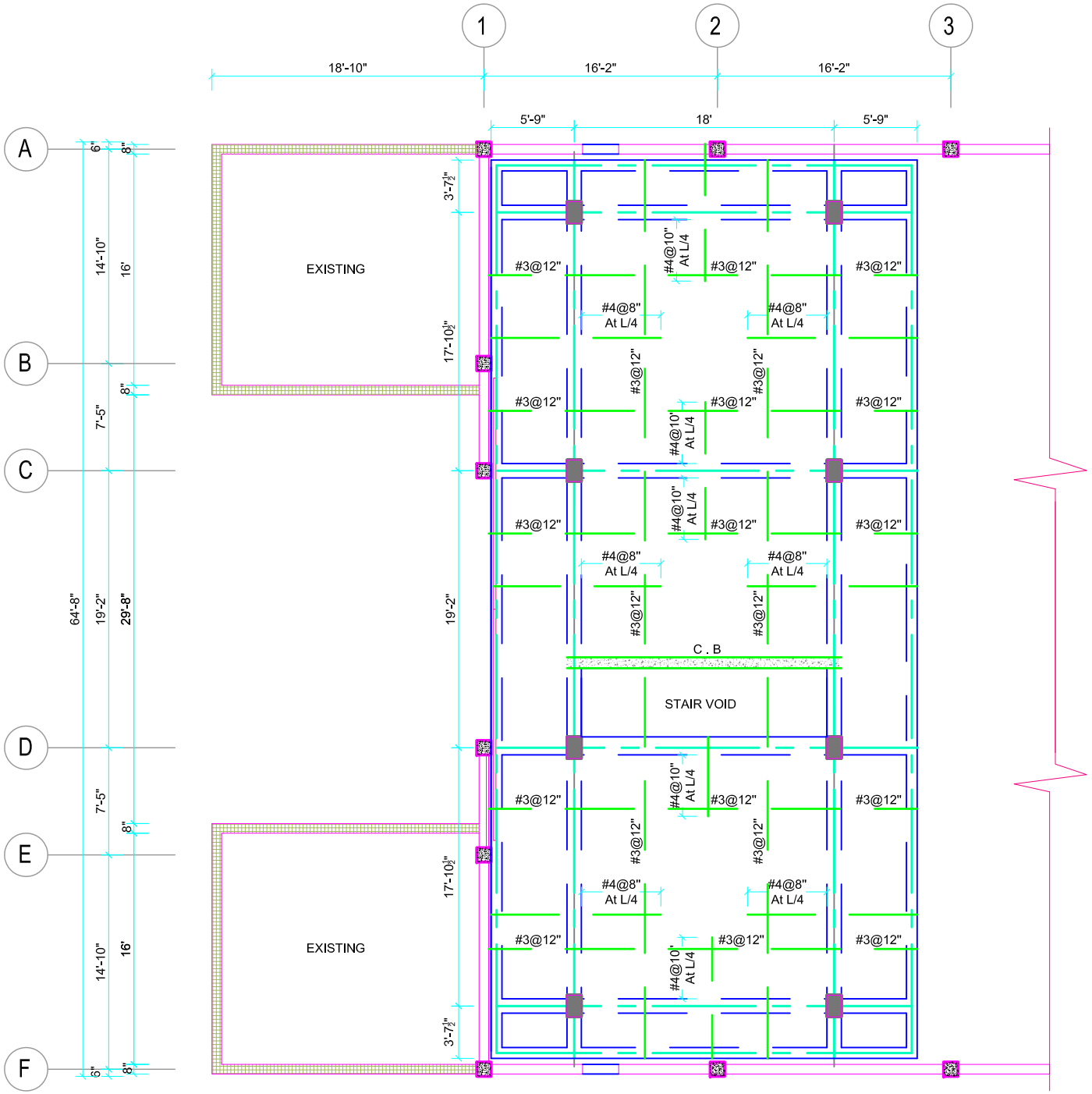
SECTION AT 3-3



SECTION AT 4-4

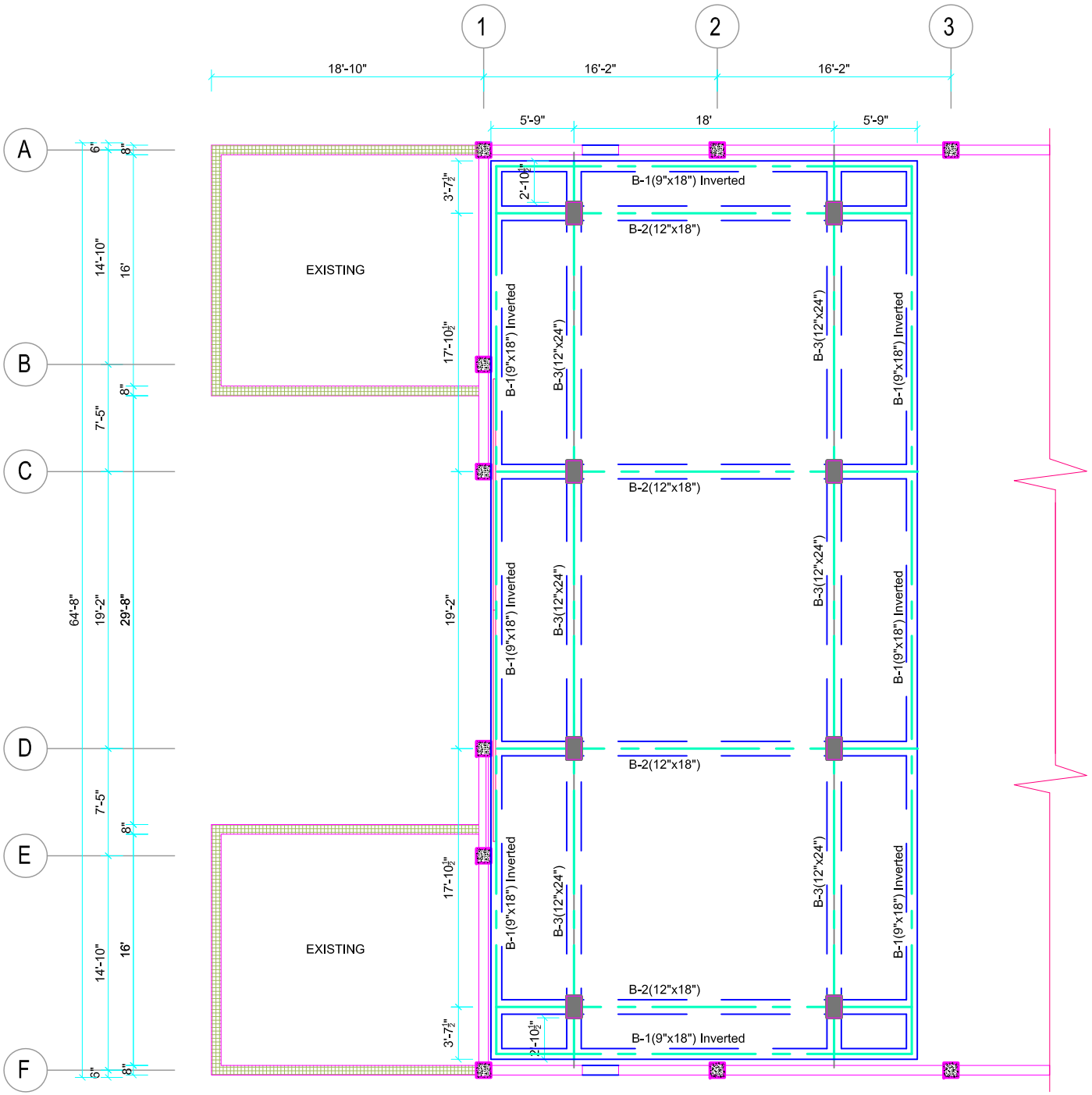


COLUMN C-1

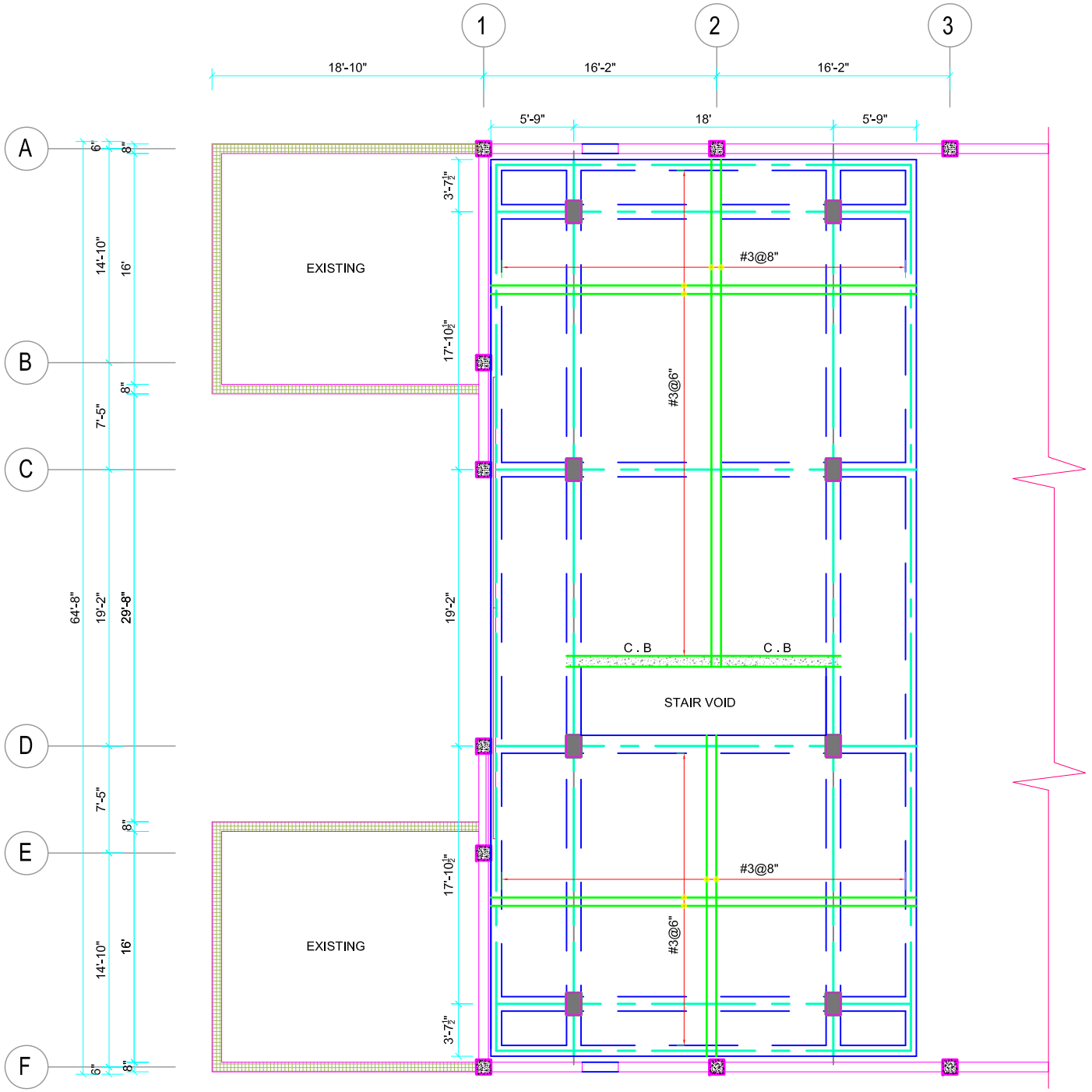


ROOF SLAB TOP REINFORCEMENT DETAILS

SLAB = 5" THICK



ROOF/ TOP BEAM LAYOUT PLAN



ROOF SLAB BOTTOM REINFORCEMENT DETAILS

SLAB = 5" THICK