1 Exam Prep

General, Building and Residential Contractor

Practice Test 5

1. Opaque swinging doors require a U-value of?

Α	\geq .70
В	$\leq .70$
С	>.70
D	< .70

2. The ______shall furnish surveys describing the physical characteristics, legal limitations and utility locations for the site of the project.

- A Contractor
- B Sub-Contractor
- C Owner
- D Architect

3. A trench is 300 feet long and six feet deep. _____egress ladders are required.

- A 12
- B 10
- C 6
- D 3

4. Written descriptions of materials and workmanship required on a project are called?

- A Material takeoffs
- B Specifications
- C Bill of Materials
- D Submittals

5. A temporary permit may be issued for all of the following except?

- A Plumbing for a job trailer
- B Temporary construction power
- C Site work for a jobsite office
- D A storage shed for materials

6. The total cubic yards of concrete required to place the elevator slab is?

- A Less than 7
- B Between 7 and 8
- C Between 8 and 9
- D More than 9

7. Which of the following statements is true regarding reinforcing steel?

- A A small amount of tight rust and scale is acceptable as long as the bars still comply with ASTM standards
- B All bar sizes must be completely free of rust and scale
- C Some foreign or organic matter such as mud or oil is acceptable on all sizes of bars
- D Care should be given during unloading of bars that rust and mill scale is not removed

8. The courts have generally held that which of the following documents is the final authority in a construction project?

- A Architectural drawings
- B Submittals
- C Specifications
- D As built drawings

9. The benchmark reading at the north property line is? All slopes are the same as the drive slope.

- A 103.1
- B 92.54
- C 83.9
- D 94.46

10. A sunroom is defined as a room with roof panels containing sloped glazing with an open or glazed area in excess of ______ percent of the gross area of the exterior walls?

- A 20
- B 30
- C 40
- D 50

11. When setting steel base plates ______ can be used in addition to leveling nuts.

- A Shim packs
- B Anchor bolts
- C Washers
- D Rubber sleeves

12. The total cubic yards of concrete required west of coordinates A2 and D2 on the third floor only is? Do not deduct for any penetrations.

- A Less than 13.5
- B Between 13.5 and 13.9
- C Between 13.9 and 14.3
- D More than 14.3

13. A surveyor has set the first corner of the site at an elevation of 57.75 feet. He plots the next corner at 62.33 feet. The elevation has changed?

- A + 4.58 feet
- B 4.58 feet
- C + 4.0 feet
- D 4.0 feet

14. Temporary bracing for masonry walls over ______feet shall be used to prevent overturning and to prevent collapse

A 6 B 8 C 10 D 12

15. ABC Construction is renovating an old commercial building. The assessed value of the renovation is \$69,000. The assessed value of the structure is \$71,690. Which is the most correct?

- A Compliance with the code may be required
- B A building permit may be necessary
- C The renovation shall meet the energy requirements
- D The decision belongs with the building official

16. Brick buildings over 10 to 12 stories high require addition of a multiplier for labor. The allowance above normal used for a building of 22 stories is?

- A 10%
- B 8%
- C 12%
- D 5%

17. ABC Construction must determine the benchmark reading at the bottom of the number 3 pile caps. The slab is eight inches thick; not six (6) inches as shown on the plans. The benchmark reading at the bottom of the number 3 pile cap is ______ feet.

- A 93.33
- B 89.33
- C 92.66
- D 88.66

18. Which types of mortar are now commonly accepted by most building codes?

- A M&K
- B S&K C M&O
- D S & N

19. The total cubic yards taken from an excavation 40' X 40' at the bottom, that is 12' deep with a 45 degree angle of repose is ______ cubic yards?

- A Less than 1,000
- B Between 1,000 and 1,100
- C Between 1,100 and 1,200
- D More than 1,200

20. The architect sent ABC Construction a Change Order proposal requesting the addition of 84' to the length of a rectangular parking lot scheduled to be constructed.

- The pavement of the parking area is 164' wide
- Fourteen additional diagonal parking spaces are to be added
- Concrete curbing will be required on each side of the added parking lot length.
- Each parking space will require a bumper.

The contractor uses the net unit costs in preparing the Change Order. Overhead, profit, taxes and insurance are included.

- Additional paved area costs \$11.90 per square yard
- Additional concrete curbing costs \$8.40 per lineal foot
- Parking bumpers cost \$35.00 each

The proposed Change Order increase to the contract is?

- A Less than \$19,500
- B Between \$19,500 and \$19,700
- C Between \$19,700 and \$20,000
- D More than \$20,000

21. Sloping or benching for excavations greater than 20 feet deep, shall be designed by?

- A The excavation contractor
- B The architect
- C A professional engineer
- D The general contractor

22. For wood trusses the bottom chord permanent bracing shall be installed with a maximum spacing of ______ feet.

- A 4 B 6 C 10
- D 12

23. Employees on the face of reinforcing steel shall be protected from falling ______ feet or more.

A 6 B 10 C 8 D 4

24. The minimum number of vertical metal studs for all interior partition walls is? Do not add for studs in exterior concrete wall panels. Metal studs are spaced 16 inches on center.

- A 76 B 78 C 154
- D 156

25. For a gypsum drywall ceiling using 1/2 board nailed to wood joists, the minimum spacing for a single nail application should be ______ inches.

- A 7
- B 8
- C 16
- D 24

26. A datum point used for locating the exact position of a building is computed based upon?

- A Mean sea level
- B An arbitrary elevation
- C Two or more fore-sights
- D Two or more back-sights

27. In order to bring an existing commercial building into compliance with the Florida Building Code, Energy Conservation, which method should first be applied?

- A Climate-specific compliance method
- B The 50% of thermal building envelope method
- C Prescriptive method
- D Performance method

28. Compaction testing is based upon the relationship of moisture content to?

- A Minimum soil dry density
- B Maximum soil dry density
- C Minimum soil moist density
- D Maximum soil moist density

29. A 3/4 inch dead space has an R-value of?

Α	1.6
В	2.0
С	.77

D .75

30. Given:

- The average flat lot elevation is 106' 6".

- The soil is found to be unsuitable under planters #1 and #2, to a depth of 40" and two (2) feet beyond the footers.

- Miscellaneous provisions state the contractor is liable for the first 18" of excavation.

- Excess amounts of the excavation need to be charged to the owner at a cost of \$7.50 per cubic yard plus a 10 percent contractor fee.

The Change Order amount using dimensions found from the outside is?

A Less than \$450

- B Between \$450 and \$475
- C Between \$475 and \$500
- D More than \$500

31. OSHA records shall be maintained for a period of _____ calendar years.

- A 3
- B 5
- C 7
- D 10

32. A grade of 15% indicates?

- A 15 feet of rise per 50 feet of horizontal distance
- B 15 feet of rise per 100 feet of horizontal distance
- C 15 feet of rise per 150 feet of horizontal distance
- D 15 feet of rise per 200 feet of horizontal distance

33. A training course for all employees involved in Class III asbestos work shall include "hands on" training for a minimum of ______ hours.

- A 8
- B 2
- C 10
- D 16

34. For an elevator recall system used by firefighters for access which type of elevators are required?

- A Phase 1
- B Phase 2
- C Phase 1 and 2
- D No elevator

35. An oriented grouping of project elements that organizes and defines the total work scope of a project is the?

- A Critical Path Method (CPM)
- B Work Breakdown Structure (WBS)
- C Project Evaluation Review Technique (PERT)
- D Project Scheduling Method (PSM)
- 36. Interrelated operations in network analysis are known as?
- A Operations
- B Tasks
- C Activities
- D Jobs

37. The total number of 4 inch CMU's required for the restroom is?

- A Less than 250
- B Between 250 and 300
- C Between 300 and 350
- D More than 350

38. The Conceptual Phase of the project is expressed by which scheduling format?

- A Arrow diagram
- B Milestone bar chart
- C Precedence diagram
- D CPM format

39. Minor changes in the work are ordered by the?

- A Contractor
- B Architect
- C Owner
- D Building inspector

40. A schedule of values shall be submitted to the architect by the contractor?

- A After the first application for payment is submitted
- B Before the first application for payment is submitted
- C At least 10 days before the date established for each progress payment
- D With each application for payment

41. The subcontractor, subsequent to the execution of the subcontract contract, may be ordered in writing to perform changes in the work according to the prime contract by the?

- A Owner
- B Architect

C Contractor

D Owner's lawful agent

42 Given:

- The backsight reading of a builder's level to the benchmark for a building site under construction is 5.13'

- The elevation given on the site plan for the benchmark is 24.63'

- A footing is to be excavated to an elevation 4' - 8" below the elevation of the building finish floor elevation

- The finished floor elevation is to be 27.65'

The foresight reading to the bottom of the footing excavation is?

- A 5.13'
- B 5.95'
- C 6.78'
- D 7.58'

43. A contractor is comparing bids from 2 subcontractors. Sub A includes workers' compensation coverage for the subcontractor's employees. The total amount of Sub A's bid is \$27,500 for all labor and materials. Sub B does not include worker's compensation, which the contractor will have to furnish at the rate of \$17.50 per \$100 of payroll. Sub B's bid is \$25,750 which includes labor of \$12,000 and materials of \$13,750. The difference in the lower bid is?

- A Sub B by \$1,750
- B Sub A by \$2,100
- C Sub B by \$ 350
- D Sub A by \$ 350

44. ABC was awarded a \$170.00 contract for construction. The agreement required retainage of 10% to apply to all draws until the project has reached substantial completion. The costs to date include: labor costs of \$12,000 which includes direct labor of \$7,000 and supervision costs of \$5,000 (these figures include all payroll taxes, workers' comp). The overhead and profit (fixed overhead and profit) are calculated at 12%; subcontractor payments to date are \$28,000. Payments to material suppliers are \$23,100. ABC has received \$65,000 in payments.

The material costs to date include sales tax paid at 7%. Using only the figures given, the total sales tax payable by ABC is?

- A \$1,617.00
- B \$1,511.21
- C \$1,738.71
- D \$1,503.81

45. Jose referred to the Construction Activity Network. He determined he needed to schedule the start of partition construction not later than?

- A 31 days after the completion of structural steel
- B 32 days after the completion of structural steel
- C 31 days from the end of the project
- D 29 days before the end of the project

46. Addenda are issued at?

- A Pre-bid
- B Post-bid
- C Pre-contract
- D Post-contract

47. Labor cost is \$0.19 per square foot and material cost is \$241 per 1,000 square feet. The labor and material cost for the installation of gypsum board on the third floor walls is?

- A Less than \$700
- B Between \$700 and \$800
- C Between \$800 and \$900
- D More than \$900

48. In any dispute between a contractor and subcontractor who have executed an A401 standard form of agreement, which statement is most correct?

- A Mediation is not mandatory but is binding
- B Mediation is both non-binding and voluntary
- C Mediation is both non-binding and mandatory
- D Mediation is both binding and mandatory

49. In developing a network, an example of a "soft" dependency is which of the following?

- A The drywall on the second floor will be installed before the bathroom tile is laid
- B Footings will be installed before the structural steel columns are erected
- C Wheel stops in the parking area will be installed after the asphalt pavement is placed
- D Construction will start on the north side of the building

50. Elements of a contract are defined as which of the following?

- A Design, negotiation and acceptance
- B Offer, acceptance and consideration
- C Negotiation, offer and counter-offer
- D Bid, price and acceptance

51. The penalty (only) for not obtaining a permit is? The permit cost \$3,500.

- A \$3,500
- B \$7,000
- C \$10,500
- D \$4,000

52. The job status report for a mid-rise office building project is prepared by the?

- A Project superintendent
- B Project manager
- C Architect
- D Owner's designated agent

53. A practice by which contractors both before and after their bids are submitted, attempt to obtain from potential subcontractors and material suppliers, lower prices than those in the contractor's original estimates is known as?

- A Competitive pricing
- B Competitive bidding
- C Bid pricing
- D Bid shopping

54. In order to comply with the requirements governing decay and termites, condensate and roof downspouts shall discharge at least ______away from the structure sidewall.

- A 1 foot
- B 18 inches
- C 6 inches
- D 2 feet

55. The number of degrees in angle "A" is?

- A 69° 55' 00"
- B 64° 30' 00"
- C 84° 35' 30"
- D 69° 63' 00"

56. The minimum nominal dimension of wood furring strips installed over solid backing shall be not less than?

- A 2 inches X 4 inches
- B 1 inch X 4 inches
- C 1 inch X 2 inches
- D 2 inches X 3 inches

57. The minimum allowed riser height and tread depth for industrial equipment access stairs and landings which serve as a means of egress for more than 20 people shall be a?

- A Maximum 9 inch riser height; minimum 10 inch tread depth
- B Maximum 7 inch riser height; minimum 11 inch tread depth
- C Maximum 9 inch riser height; minimum 11 inch tread depth
- D Maximum of 7 inch riser height; minimum of 10 inch tread depth

58. A masonry wall is to be constructed. The wall is 10 feet high and 20 feet long. The limited access zone is how many square feet?

- A 14
- B 24
- C 200
- D 280

59. The top of accessible handrail gripping surfaces shall be mounted a minimum of ______ inches above the ramp surface.

- A 34
- B 36
- C 38
- D 42

60. Energy compliance is made part of the plans and requires certification by the?

- A Contractor
- B Engineer
- C Building's owner
- D Building official

ANSWER KEY

1	В	Florida Building Code 2010, Energy Conservation	502.1.1.1(1)
2	С	AIA A201	2.2.3
3	C	OSHA 1926 300 ÷ 50 = 6	.651
4	В	Contractors Manual	10-76
5	С	Florida Building Code 2010, Building	108
6	С	$10.67 \ge 20.67 \ge 1 \div 27 = 8.16$	
7	А	Placing Reinforcing Bars	8-3
8	С	Contractors Manual	10-6
9	D	Principles/Practices Commercial Construction 160 + 80 X .4% = .96 Rise 93.5 + .96 = 94.46	48
10	С	Florida Building Code 2010, Building	1202.01
11	А	Principles/Practices Commercial Construction	339
12	C	20 + 20 + 19 + .5 = 59.5 19 + .5 = 19.5 $2 \div 2 + 3 \div 12 = .33$ $59.5 X 19.5 X .33 \div 27 = 14.1$	
13	А	Principles/Practices Commercial Construction	24-47
14	В	OSHA 1926	.706(b)
15	С	Florida Building Code 2010, Energy Conservation	101.4.3
16	А	Walker's Building Estimators Reference Manual	704
17	В	Principles/Practices Commercial Construction 100 - 8 - 2.67 = 89.33	24-47
18	D	Principles/Practices Commercial Construction	427
19	D	OSHA 1926 Subpart P Appendix B 52 X 52 X 12 / 27 = 1,201.7	Figure B-1

1 Exam Prep – General, Building and Residential Practice Test 5

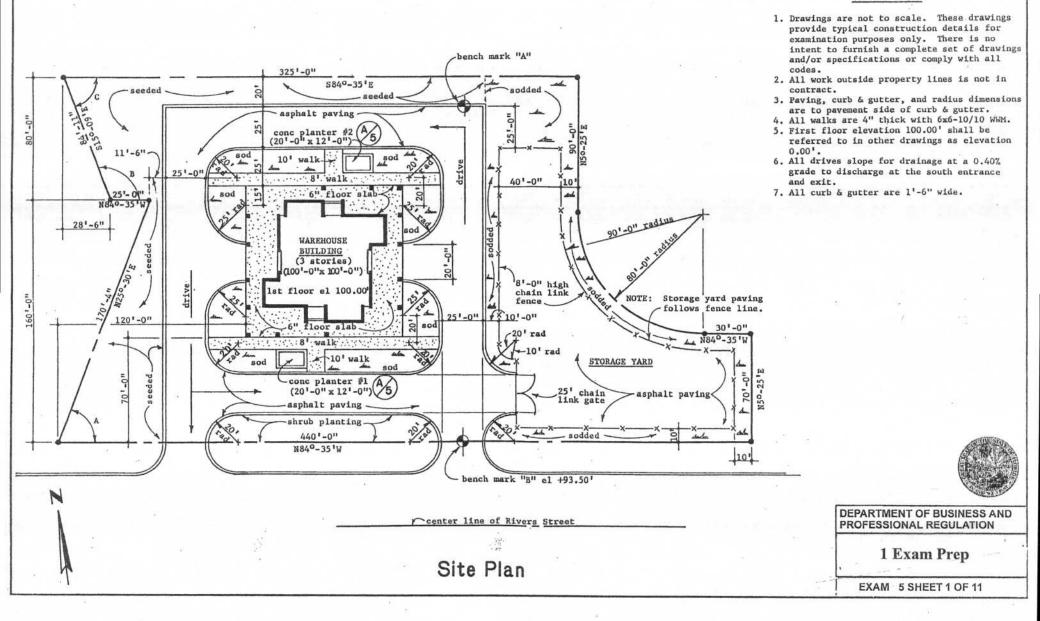
20	D	PARKING:# X L X W \div 9 X COST = TOTALPAVING:1 X 84 X 164 \div 9 X 11.9= 18,214.93CURB:2 X 84X 8.40= 1,411.20BUMPERS:14X 35.00= $\frac{490.00}{20,116.13}$	
21	С	OSHA 1926 Subpart P Appendix B Figure B-1	Note 3
22	С	BCSI	39
23	А	OSHA 1926	.501(a)(5)
24	D	205 .5 = 19 3055 = 29 $19 X 12 \div 16 + 1 = 15.25 = 16$ $29 X 12 \div 16 + 1 = 22.75 = 23$ 39 X 2 X 2 = 156	
25	A	Application and Finishing Gypsum GA 216 - 2010	8
26	В	Principles/Practices Commercial Construction	24
27	А	Energy Efficient Building Construction in Florida	19
28	В	Principles/Practices Commercial Construction	18
29	С	Energy Efficient Building Construction in Florida	247
30	С	#X L X W X T ÷ 27 X COST + MARKUP = COST 2 X 25.34 X 17.34 X 1.83 ÷ 27 X 7.50 + 10% is 491.39	
31	В	OSHA	1904 .33(a)
32	В	Principles/Practices Commercial Construction	28
33	D	OSHA 1926	.1101(k)(9)(5)
34	D	Florida Building Code 2010, Building	3003.2
35	В	Walker's Building Estimators Reference Manual	134
36	С	Contractors Manual	10-59
37	В	103333 = 9.34 13.33 X 9.34 X 2 X 1.125 = 280.1	
38	В	Contractors Manual	10-66
39	В	AIA A201	7.4

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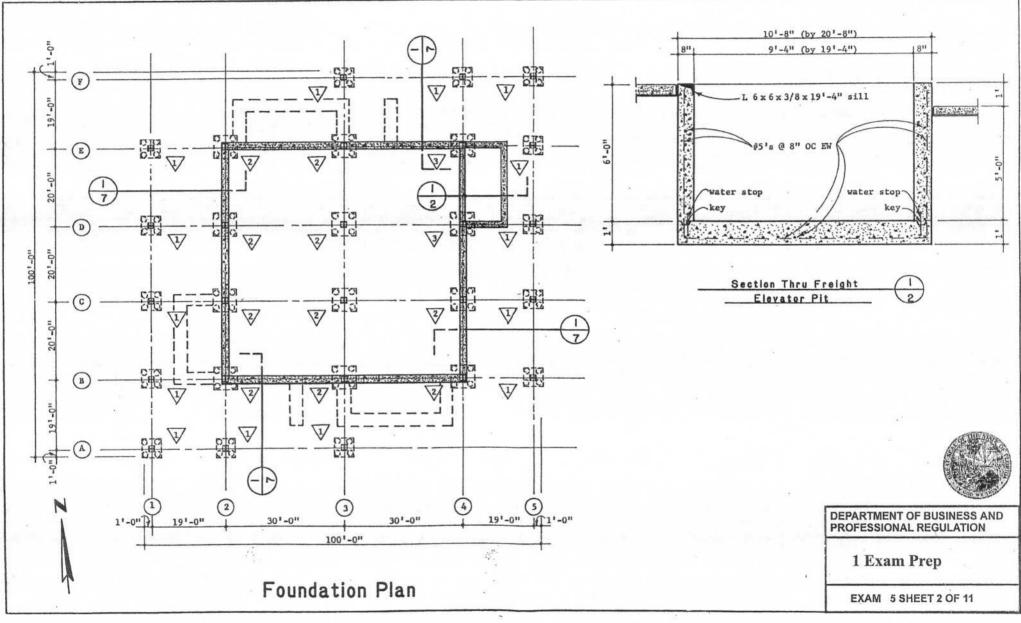
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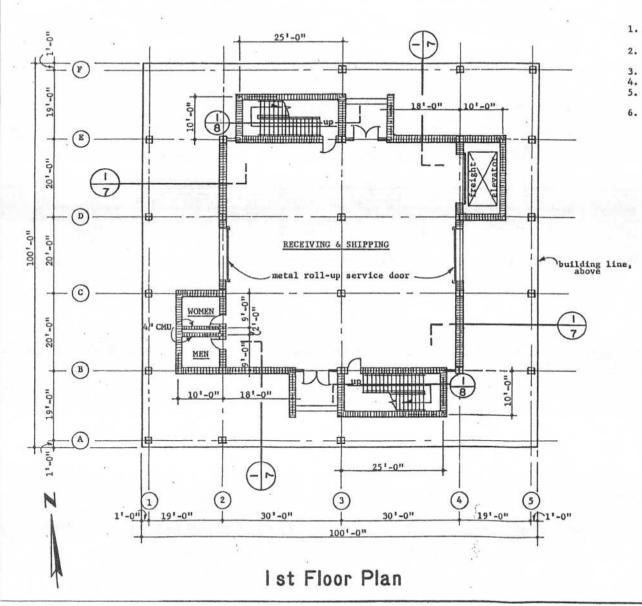
40	В	AIA A201	9.2
41	С	AIA A701	5.2
42	С	Principles/Practices Commercial Construction 27.65 - 4.67 = 22.98 24.63 + 5.13 - 22.98 = 6.78	24-47
43	D	Contractors Manual 12,000 + 17.5 % + 13,750 - 27,500 = \$350	6-15/16
44		B Builder's Guide to Accounting 23,100 M+ / 107 % M - MR = \$1,511.21	179
45	D	5+5+12+5+2=29 Note: Work backwards from finish whenever asked this type of question	
46	А	AIA A701	3.4.3
47	С	241 ÷ 1,000 = .241 + .19 = .431/SF #X L X H X COST = TOTAL 2 X 96 X 10.5 X .431 = 868.90	
48	С	AIA A401 Cover	Page 1
49	D	Contractors Manual	10-59
50	В	Contractors Manual	8-5/6
51	A	Florida Building Code 2010, Building	109.4
52	A	Contractors Manual	10-38
53	D	Contractors Manual	10-73
54	A	Florida Building Code 2010, Building	1503.7
55	A	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
56	С	Florida Building Code 2010, Building	2504.1.1
57	В	Florida Building Code 2010, Building	1009.4.2
58	D	OSHA 1926 10 + 4 X 20 = 280	.706

59	A	Florida Building Code 2010, Accessibility	505.4	
60	С	Florida Building Code 2010, Energy Conservation	103.2.3.2	



GENERAL NOTES





GENERAL NOTES

- 1. Metal roll-up service doors have 14'-0" wide by 12'-0" high masonry opening.
- 2. All concrete block are 8" CMU except where otherwise noted, typical all floors.

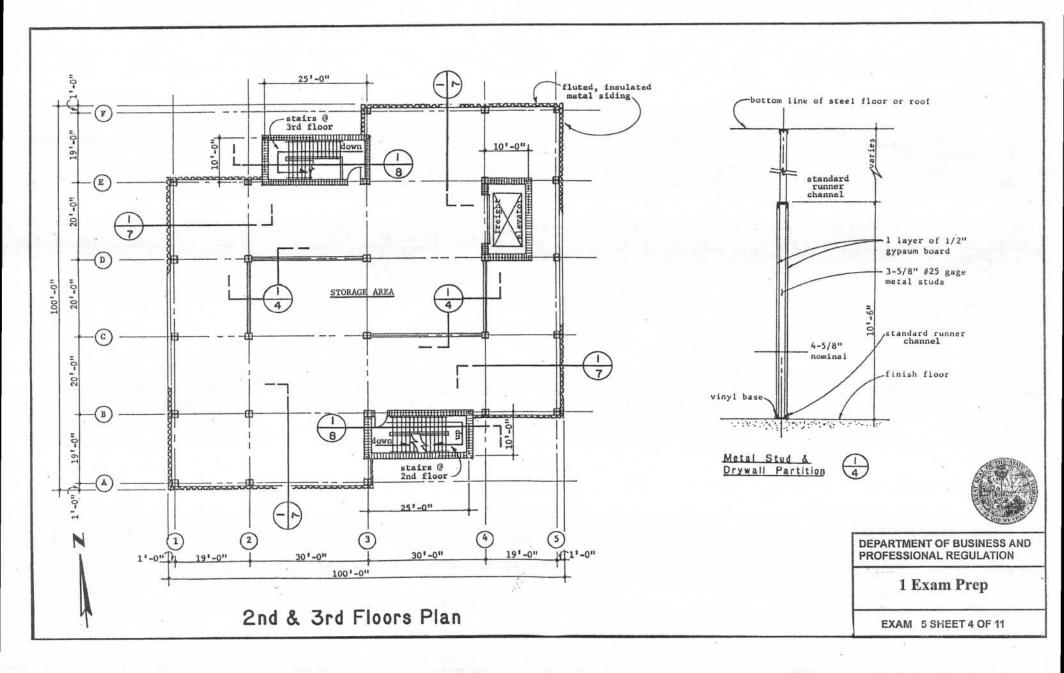
- typical all floors.
 3. Interior walls end 4" above finish ceiling on first floor.
 4. Ceiling height in restrooms is 13'-0".
 5. Boxing around all columns has exterior dimensions of 1'-0" x 1'-0", typical all floors.
 6. Interior single leaf door masonry openings are 3⁰ x 7⁰.

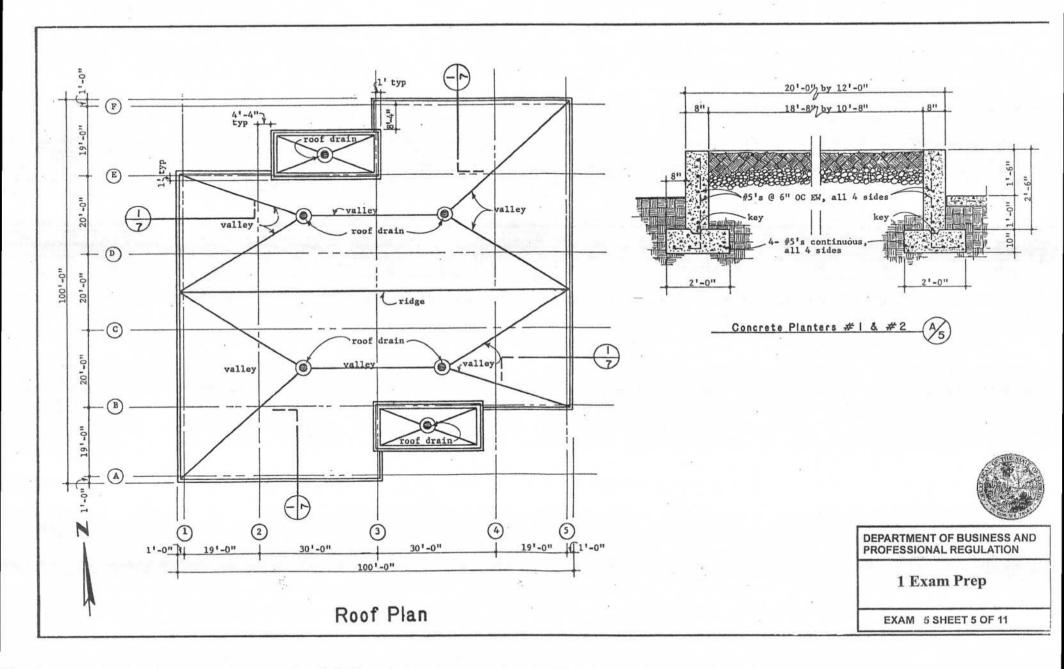


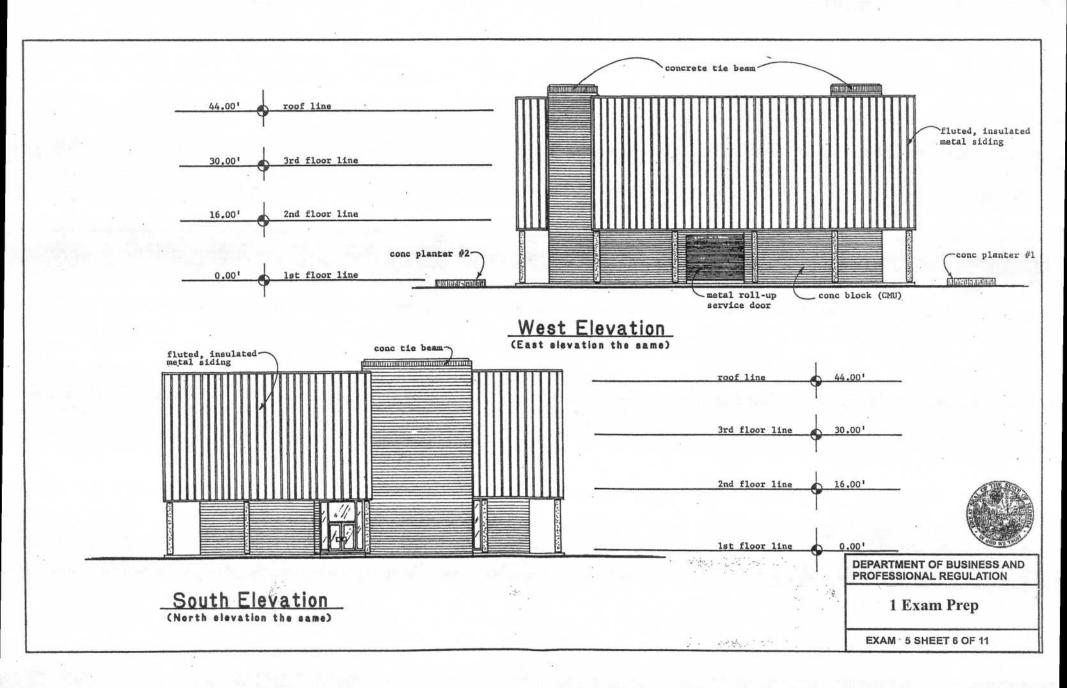
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION

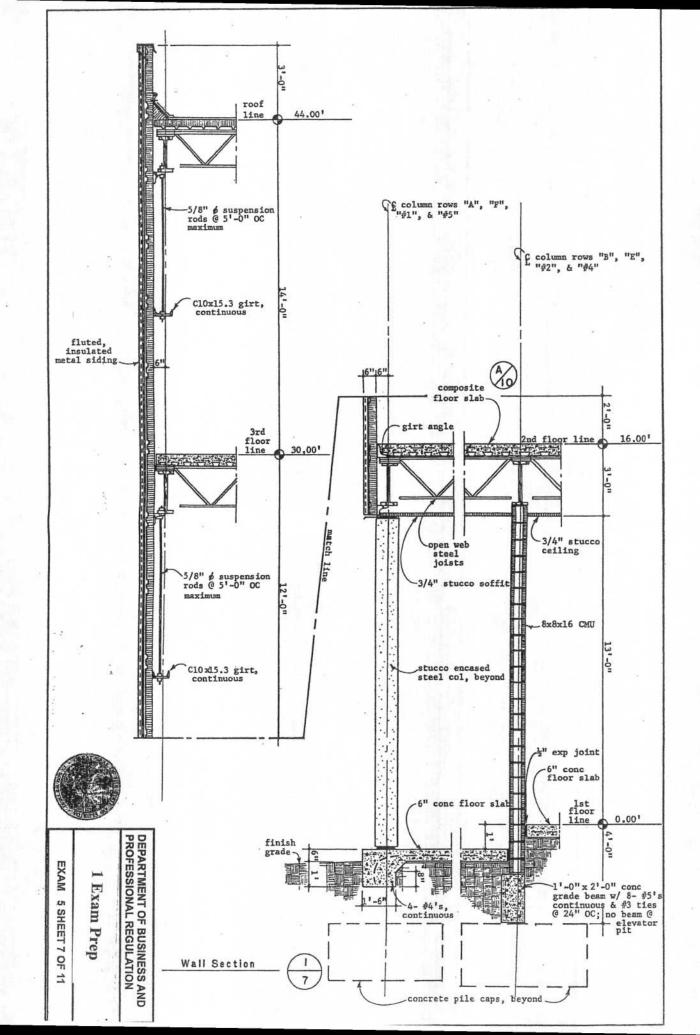
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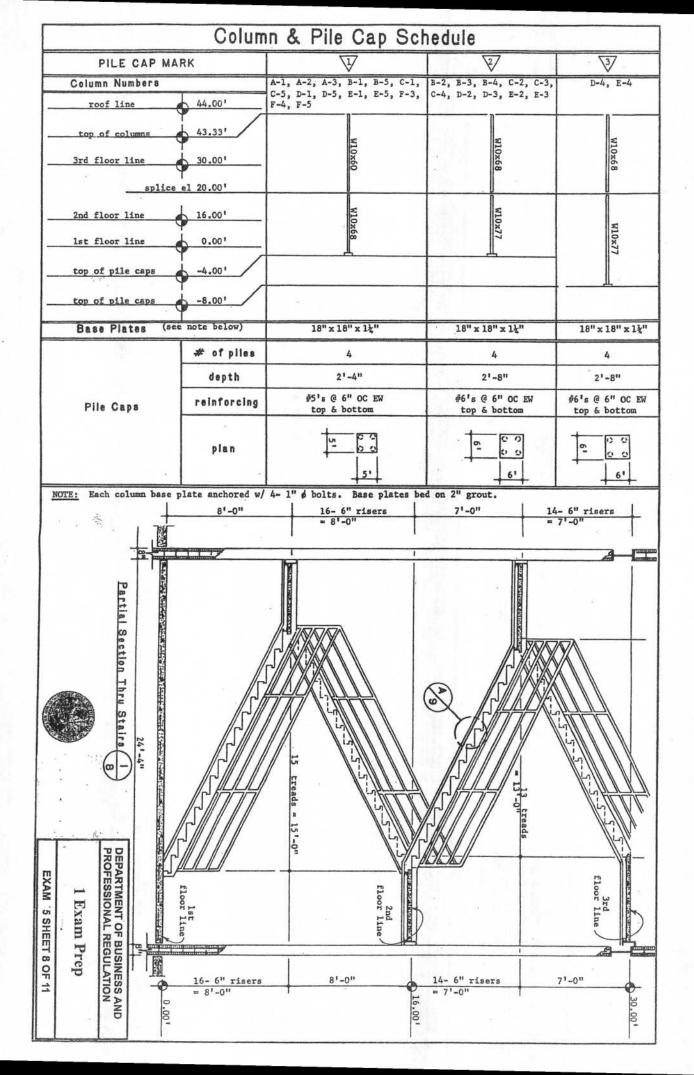
EXAM 5 SHEET 3 OF 11

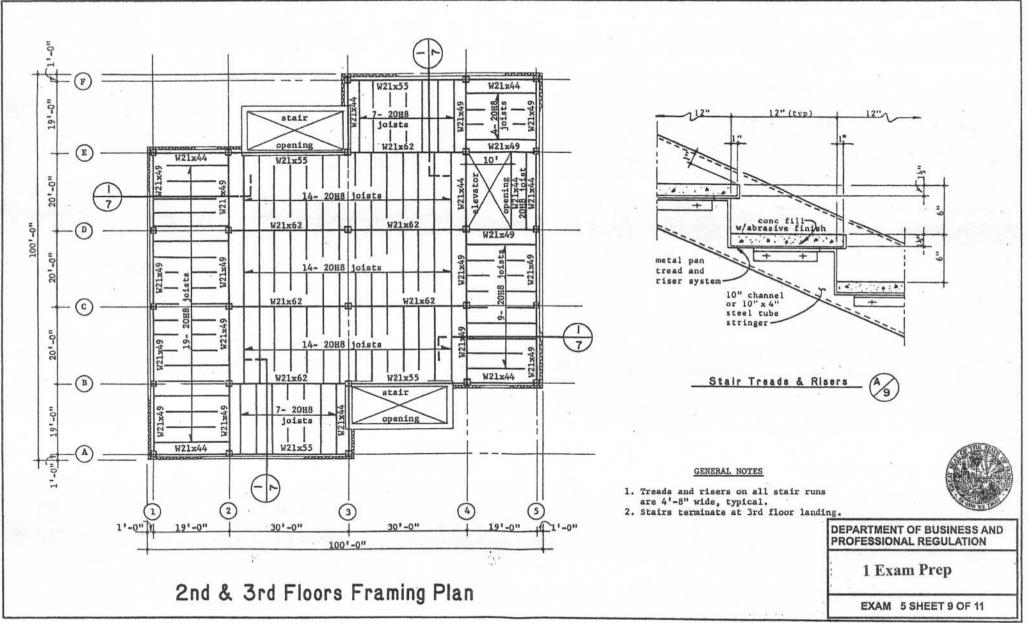


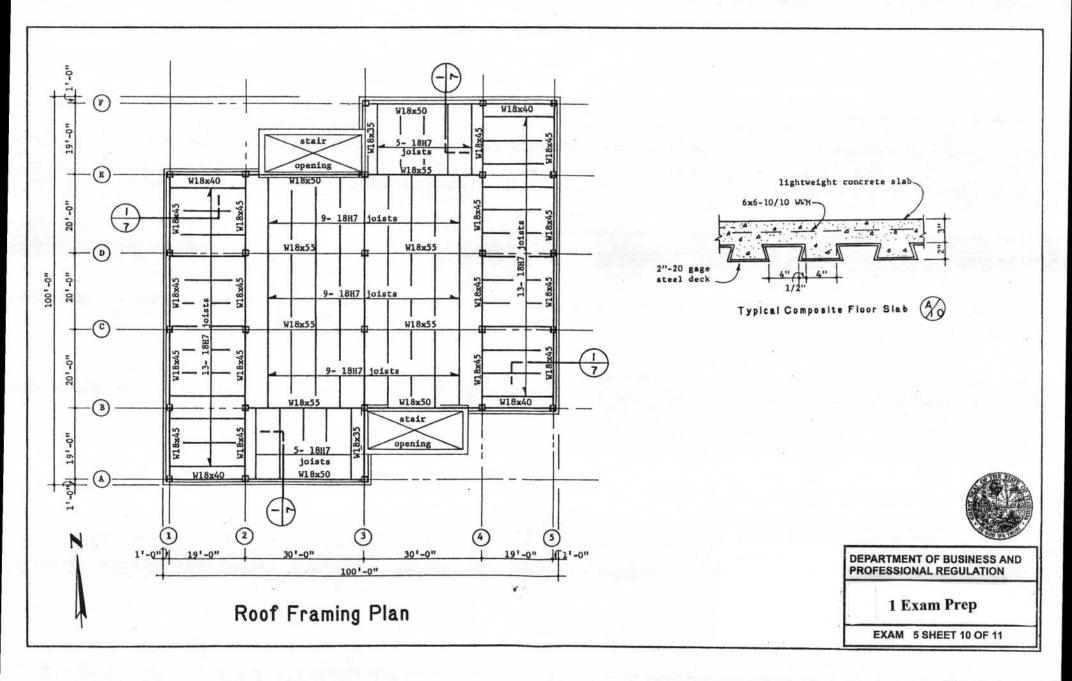


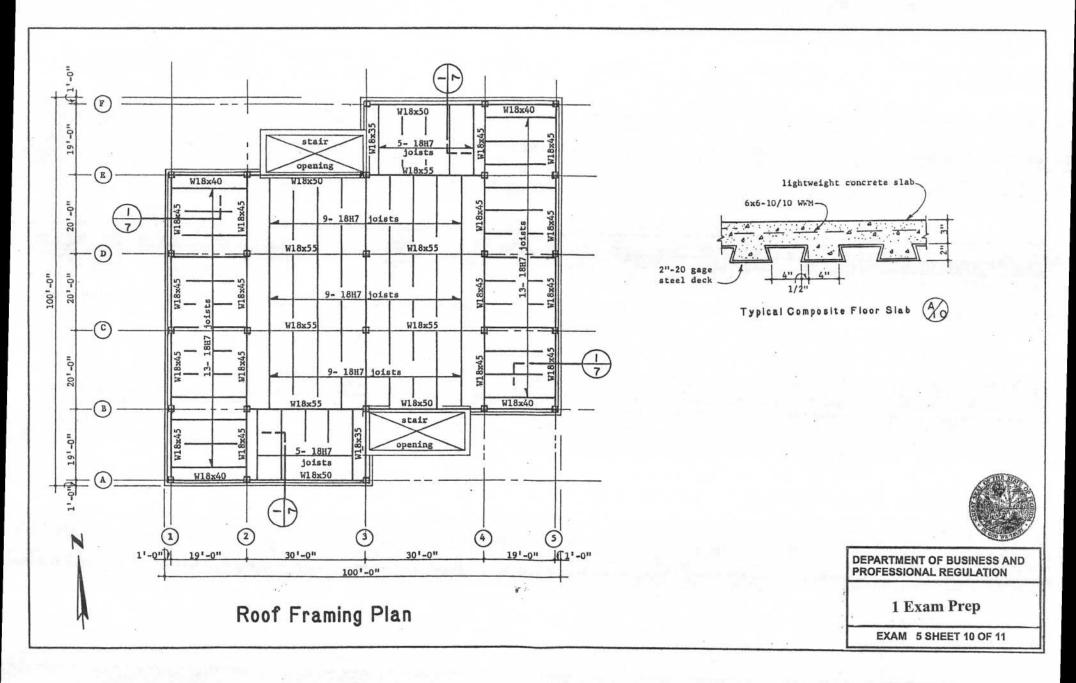












Activity FI	ow Chart Symbo
Award of Contract	A
Bituminous Paving	В
Block Masonry	С
Ceiling Installation	D
Cleanup	E
Concrete - Curb & Walks	F
Concrete - Floor Slabs	G
Concrete - Foundations	н
Earthwork	I
Electrical Installation	J

Activity Flow Chart S		
Final Inspection	к	
Finish Flooring & Molding	L	
Hardware & Fixtures	M	
Heating, Ventilating, & Air Conditioning Installation	N	
Landscaping	0	
Mechanical Installation	P	
Painting	Q	
Partition Construction	R	
Paving Subgrade & Base Course	S	

Activity Flow Chart		
Permit (Application Time)	Т	
Pile Driving	U	
Planter Construction	v	
Plumbing Installation	W	
Roofing	X	
Site Clearing & Grubbing	Y	
Site Survey	Z	
Steel Work	AA	
Trim Work	BB	
Windows & Doors Installation	CC	

