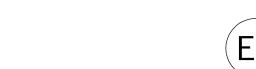
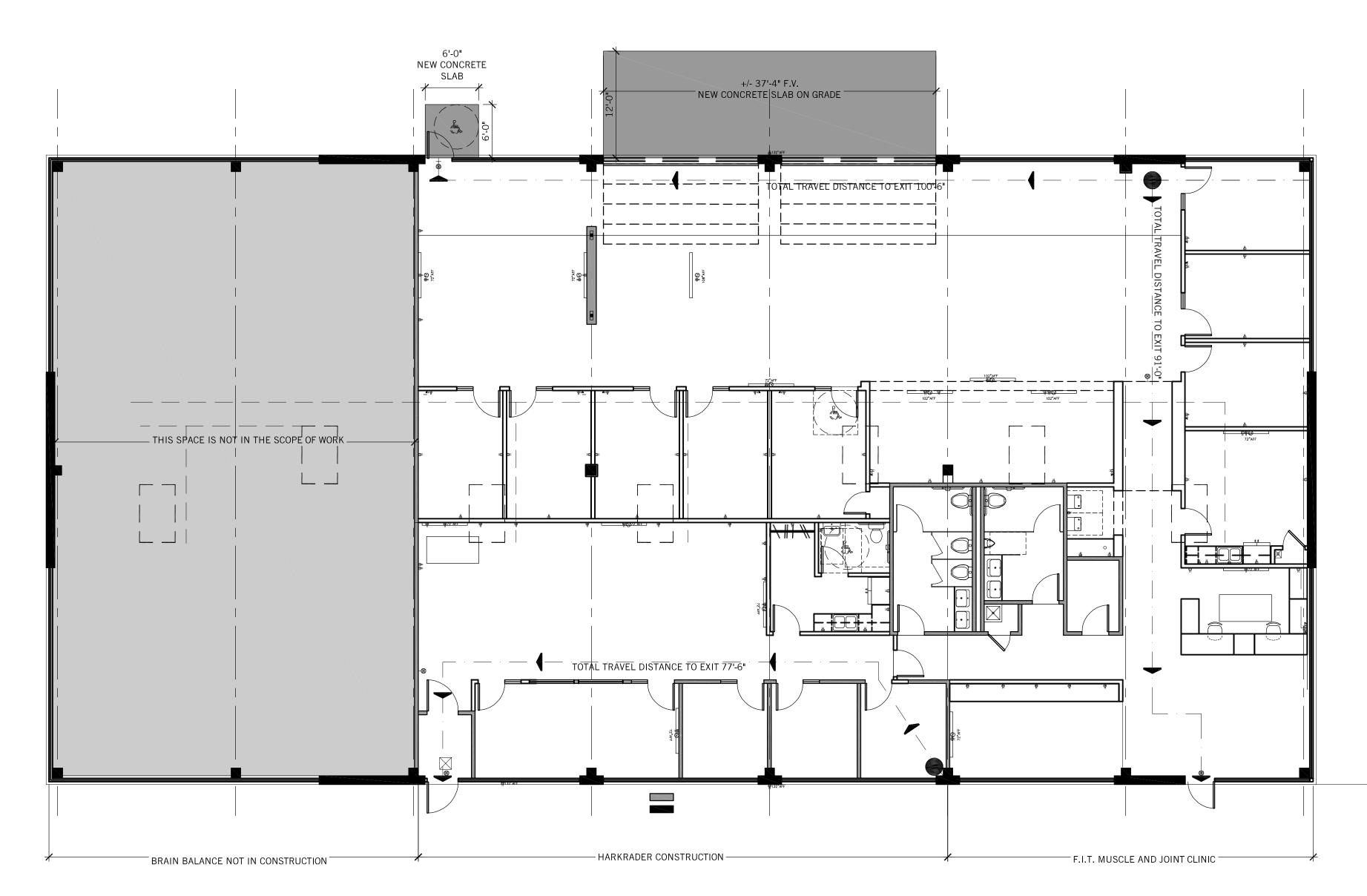


VICINITY MAP









BUILDING'S ARCHITECT

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CONTRACTOR

CODE CONSULTANT

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REVISIONS

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COVER SHEET	
A000	PROJECT INFORMATION
A001	CODE INFORMATION
A100	OVERALL FLOOR PLAN
A101	TENANT FINISH FLOOR PLAN
A102	REFLECTED CEILING FLOOR PLAN
A103	FINISH FLOOR PLAN
A200	EXTERIOR ELEVATIONS
A201	INTERIOR ELEVATIONS
A300	SCHEDULES / STRUCTURAL DETAILS
A301	SCHEDULES
M101	MECHANICAL FLOOR PLAN
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E101	ELECTRICAL FLOOR PLAN
E200	ELECTRICAL SCHEDULES AND DETAILS
ME100	MECHANICAL / ELECTRICAL SPECIFICATIONS
ME101	MECHANICAL / ELECTRICAL SPECIFICATIONS

BRAIN BALANCE (NOT IN SCOPE)

HARKRADER CONSTRUCTION

SEAL

Missouri License #A-2013022824

1) THE PROFESSIONAL SERVICES OF THE ARCHITECT ARE UNDERTAKEN FOR AND ARE PERFORMED IN THE INTEREST OF THE PROJECT OWNER, NO CONTRACTUAL OBLIGATION IS ASSUMED BY THE ARCHITECT FOR THE BENEFIT OF ANY OTHER ENTITY INVOLVED IN THIS PROJECT.

2) THE ARCHITECT DISCLAIMS ANY RESPONSIBILITY FOR THE EXISTING BUILDING STRUCTURE, SITE CONDITIONS. EXISTING CONSTRUCTION ELEMENTS, OR ANY OTHER DOCUMENTS, DRAWINGS OR OTHER INSTRUMENTS RELATED TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THIS PROJECT, WHICH DO NOT BEAR THE ARCHITECT'S

3) THIS DRAWING HAS BEEN PREPARED BY THE ARCHITECT, OR UNDER HIS SUPERVISION. THIS DRAWING IS PROVIDED AS AN INSTRUMENT OF SERVICE BY THE ARCHITECT AND IS INTENDED FOR USE ON THIS PROJECT ONLY. PURSUANT TO THE ARCHITECTURAL WORKS COPYRIGHT PROTECTION ACT OF 1990, ALL DRAWINGS, SPECIFICATIONS, IDEAS AND DESIGNS, INCLUDING THE OVERALL FORM, ARRANGEMENT AND COMPOSITION OF SPACES AND ELEMENTS APPEARING HEREIN, CONSTITUTE THE ORIGINAL. COPYRIGHTED WORK OF THE ARCHITECT. ANY REPRODUCTION, USE, OR DISCLOSURE OF INFORMATION CONTAINED HEREIN WITHOUT THE PRIOR WRITTEN CONSENT OF THE ARCHITECT IS STRICTLY PROHIBITED.

4) RELATED DOCUMENTS: THESE DRAWINGS ARE A SINGLE PART OF AN INTEGRATED SET OF CONSTRUCTION CONTRACT DOCUMENTS. THE GENERAL CONDITIONS OF THE CONTRACT, THE GENERAL REQUIREMENTS (DIVISION-01 OF THE SPECIFICATIONS), APPLICABLE REQUIREMENTS OF TECHNICAL SPECIFICATIONS, AND OTHER DRAWINGS MAY APPLY TO THE WORK DESCRIBED IN THESE DRAWINGS. FAILURE TO REVIEW OTHER DRAWINGS DOES NOT RELIEVE THE CONTRACTOR FROM PROVIDING A COMPLETE PROJECT.

5) COMPLY WITH ALL LAWS, CODES AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION, AND WITH REQUIREMENTS OF THE LANDLORD IF APPLICABLE. 6) VERIFY ACTUAL CONDITIONS AND DIMENSIONS PRIOR TO CONSTRUCTION. COMMENCEMENT OF WORK CONSTITUTES VERIFICATION AND ACCEPTANCE OF EXISTING CONDITIONS.

7) CALCULATE AND MEASURE REQUIRED DIMENSIONS, DO NOT SCALE THE DRAWINGS UNLESS OTHERWISE DIRECTED. 8) APPLICATION OF A MATERIAL OR EQUIPMENT ITEM TO WORK INSTALLED BY OTHERS CONSTITUTES ACCEPTANCE OF THAT WORK, AND ASSUMPTION OF RESPONSIBILITY FOR SATISFACTORY INSTALLATION DIMENSIONS SHOWN ARE TO THE FINISH FACE OF MATERIAL, UNLESS OTHERWISE INDICATED

PROJECT DESCRIPTION	TENANT IMPROVEMENT
BUILDING CODE	2018 INTERNATIONAL BUILDING CODE
ELECTRICAL CODE	2017 NATIONAL ELECTRICAL CODE
PLUMBING CODE	2018 INTERNATIONAL PLUMBING CODE
MECHANICAL CODE	2018 INTERNATIONAL MECHANICAL CODE
ENERGY CODE	2018 INTERNATIONAL ENERGY CONSERVATION CODE
FUEL AND GAS CODE	2018 INTERNATIONAL FUEL AND GAS CODE
FIRE CODE	2018 INTERNATIONAL FIRE CODE
CONSTRUCTION TYPE	TYPE 2B
FULLY SPRINKLED	YES
MULTIPLE STORIES	NO
SEISMIC ZONE	NO
OCCUPANCY TYPE	[B] BUSINESS
MIXED OCCUPANCY	NO

2957 SF / 150 GROSS

1640 SF / 150 GROSS

FIT MUSCLE AND JOINT CLINIC	5113 SF / 150 GROSS	35 OCCUPANTS
BUILDING COMMON AREA (RESTROOMS, JAN, ELECTRICAL)	380 SF / 150 GROSS	3 OCCUPANTS
GROSS BUILDING AREA I TOTAL OCCUPANT LOAD	10,090 GSF	69 OCCUPANTS
MAXIMUM TRAVEL DISTANCE	300 FEET	
EXITS - BRAIN BALANCE	1 REQUIRED	2 PROVIDED
EXITS - HARKRADER CONSTRUCTION	1 REQUIRED	1 PROVIDED
EXITS - FIT MUSCLE AND JOINT CLINIC	2 REQUIRED	2 PROVIDED
WATER CLOSETS - HARKRADER	1 REQUIRED	1 PROVIDED
LAVATORIES - HARKRADER	1 REQUIRED	1 PROVIDED
WATER CLOSETS (MEN) - FIT M&J	1 REQUIRED	2 PROVIDED
LAVATORIES (MEN) - FIT M&J	1 REQUIRED	2 PROVIDED
WATER CLOSETS (WOMEN) - FIT M&J	1 REQUIRED	3 PROVIDED
LAVATORIES (WOMEN) - FIT M&J	1 REQUIRED	2 PROVIDED
DRINKING FOUNTAINS - HARKRADER	1 REQUIRED	0 PROVIDED
DRINKING FOUNTAINS - FIT M&J	1 REQUIRED	1 PROVIDED
UTILITY SINKS (SHARED JANITOR CLOSET)	1 REQUIRED	1 PROVIDED

PROJECT

NOTES

DEMO NOTES: 1) THE DRAWINGS ARE BASED ON VISUAL **OBSERVATIONS AND FIELD MEASUREMENTS** AND EVERY EFFORT HAS BEEN MADE TO ACCURATELY PORTRAY EXISTING CONDITIONS HOWEVER, SOME DISCREPANCIES MAY EXIST AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS AND SUB-CONTRACTORS TO VERIFY ALL CONDITIONS BEFORE PROCEEDING WITH THE WORK AND TO REPORT ANY DISCREPANCIES DISCOVERED TO THE OWNER, ARCHITECT AND ENGINEER. 2) CARE SHALL BE TAKEN NOT TO DISTURB ANY MATERIAL OR UTILITY SYSTEMS TO BE INCORPORATED INTO THE NEW WORK. DAMAGE TO ANY MATERIAL TO REMAIN SHALL BE PATCHED AND REPAIRED TO ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER. 3) DO NOT REMOVE ANY ITEMS OF STRUCTURAL NATURE SUPPORTING THE ROOF STRUCTURE WITHOUT AMPLE SHORING. 4)REMOVE AND LAWFULLY DISPOSE OF

ALL MATERIALS. 5) PROTECT ALL ELEMENTS TO REMAIN, WHILE PATCHING AS REQUIRED TO MATCH EXISTING FINISHES. 6) DO NOT SCALE DRAWINGS. 7) GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES, MUNICIPAL ORDINANCES, AND BUILDING REGULATIONS. 8) THE CONTRACTOR SHALL INVESTIGATE ALL FIELD CONDITIONS AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY WHICH DO NOT AGREE WITH THOSE SHOWN IN THESE DRAWINGS. WORK AFFECTED BY DISCREPANCIES SHALL CEASE UNTIL THEY ARE RESOLVED. 9) ALL SUBSTITUTIONS AND CHANGES TO THESE DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT

AND / OR OWNER FOR APPROVAL. 10) GENERAL CONTRACTOR AND HIS SUBCONTRACTORS ARE RESPONSIBLE TO OBTAIN AS REQUIRED BY THE MUNICIPALITY TO PERFORM

ALL REQUIRED BUILDING PERMITS AND LICENSES CONSTRUCTION ACTIVITIES REQUIRED TO COMPLETE 11) THE CONTRACTOR SHALL BE HELD ENTIRELY

RESPONSIBLE FOR SAFETY REGULATIONS, PROCEDURES AND POLICIES. 12) GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL ADDITIONAL CONSTRUCTION REQUIRED TO SUCCESSFULLY COMPLETE THIS WORK, INCLUDING BUT NOT LIMITED TO: CUTTING AND PATCHING OF EXISTING CONSTRUCTION TO MATCH ADJACENT CONSTRUCTION WHERE REQUIRED TO PERFORM NEW CONSTRUCTION AND THE REPAIR OF ANY DAMAGE TO THE EXISTING BUILDING EXTERIOR, OR SITE THAT MAY OCCUR DURING THE COURSE OF CONSTRUCTION. 13. THIS WORK IS PRIMARILY FOR INTERIOR FINISH

AND BUILDING PERMIT SUBMITTAL ONLY AND DOES OT INCLUDE MEANS AND METHODS FOR CONSTRUCTION. PER THE OWNER'S DIRECTION, THIS IS TO BE DESIGN-BUILD CONSTRUCTION WHEREAS THE EXISTING BUILDING'S CURRENT AND FUTURE STRUCTURAL INTEGRITY, EXTERIOR ENVELOPE, ROOFING, FLASHING AND THERMAL AND MOISTURE PROTECTION ARE THE RESPONSIBILITY OF THE OWNER AND THEIR CONTRACTOR. THE EXISTING BUILDING ENVELOPE, INCLUDING FOUNDATIONS, BUILDING SUPERSTRUCTURE, ROOF STRUCTURE AND DECK, AND THE BUILDING ENVELOPE ARE NOT TO BE AFFECTED IN ANY WAY BEYOND WHAT IS COVERED IN THESE DOCUMENTS THE EXISTING STRUCTURAL SYSTEM IS TO REMAIN AS IS. ANY MODIFICATIONS TO THE ORIGINAL STRUCTURAL SYSTEM, BUILDING ENVELOPE, ROOFING AND FLASHING IS NOT A PART OF THIS DOCUMENTATION AND IS THE SOLE RESPONSIBILIT OF THE BUILDING OWNER AND THEIR CONTRACTOR 14. ANY NEW ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL ELECTRIC CODE, SHALL BE INSTALLED AS INDICATED, AND SHALL BE PROPERLY GROUNDED AND SHIELDED. 15. THE CONTRACTOR (AND SUBCONTRACTORS)

SHALL MAINTAIN A CLEAN PROJECT SITE AND SHALI CLEAN UP ALL DEBRIS AND SURPLUS MATERIAL UPON COMPLETION OF THE JOB. 16. THE ARCHITECT WILL NOT HAVE CONTROL OF AND SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, OR PROCEDURES, OR FOR THE SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK, FOR THE ACTS AND OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND SHALL BE HELD HARMLESS FROM ALL DAMAGES WITH RESULT THEREFROM. 17. THE PROPERTY OWNER IS FULLY RESPONSIBLE FOR AND REQUIRED TO DISCLOSE ANY PAST PRESENT AND FUTURE CONTAMINATION OR ENVIRONMENTAL HAZARDS. THE PROPERTY OWNER IS RESPONSIBLE FOR ANY TESTING, REMOVAL AND HARM THAT MAY BE CAUSED AS A RESULT OF THE BUILDING'S PREVIOUS USE. THE ARCHITECT AND

CONSULTANTS SHALL BE INDEMNIFIED & HELD HARMLESS FOR ANY ISSUES OR DAMAGES RELATED

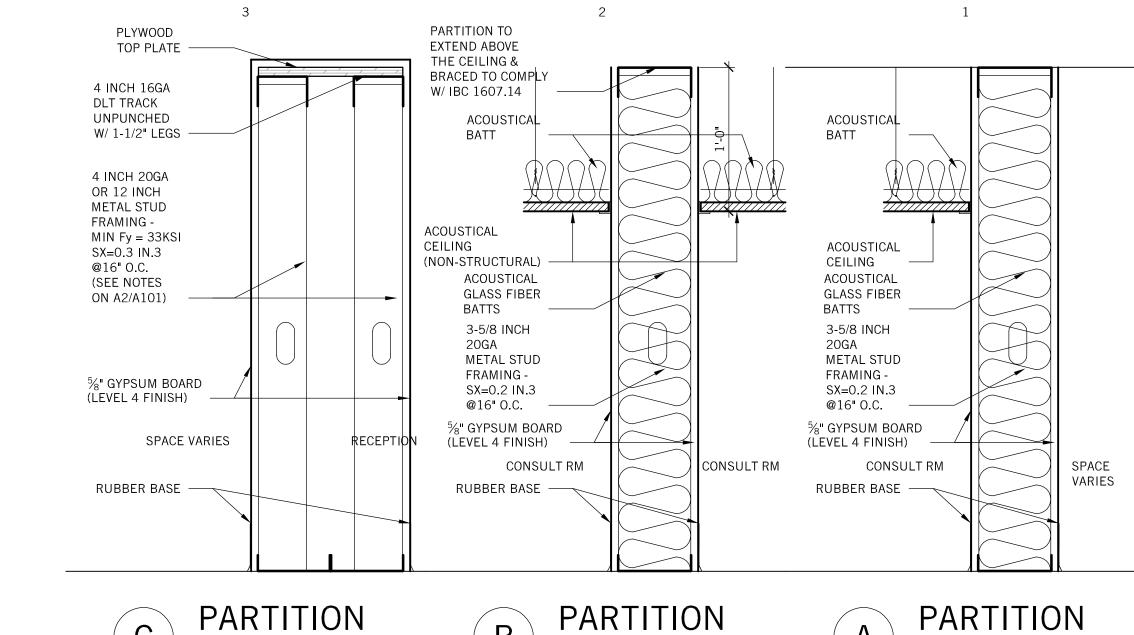
TO ITEMS BEYOND THE SCOPE OF THE CONSTRUCTION DOCUMENTS.

SHEET TITLE F.I.T. MUSCLE AND JOINT CLINIC PROJECT 413 NW MURRAY ROAD INFORMATION 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

20 OCCUPANTS

F.I.T. MUSCLE & JOINT CLINIC, LLC | 16.2111 David Herron - Architect

I 10.25.21



DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT AND / OR OWNER FOR APPROVAL. 10) GENERAL CONTRACTOR AND HIS

NOTES

1) THE DRAWINGS ARE BASED ON VISUAL

AND EVERY EFFORT HAS BEEN MADE TO ACCURATELY PORTRAY EXISTING CONDITIONS.

WITH THE WORK AND TO REPORT ANY

ADDITIONAL COST TO THE OWNER.

4)REMOVE AND LAWFULLY DISPOSE OF

5) PROTECT ALL ELEMENTS TO REMAIN,

ARCHITECT AND ENGINEER.

WITHOUT AMPLE SHORING.

WHILE PATCHING AS REQUIRED

TO MATCH EXISTING FINISHES.

6) DO NOT SCALE DRAWINGS.

THEY ARE RESOLVED.

ALL MATERIALS.

OBSERVATIONS AND FIELD MEASUREMENTS

HOWEVER, SOME DISCREPANCIES MAY EXIST

AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS AND SUB-CONTRACTORS TO

VERIFY ALL CONDITIONS BEFORE PROCEEDING

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2) CARE SHALL BE TAKEN NOT TO DISTURB

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3) DO NOT REMOVE ANY ITEMS OF STRUCTURAL

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7) GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES, MUNICIPAL ORDINANCES, AND BUILDING REGULATIONS.

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9) ALL SUBSTITUTIONS AND CHANGES TO THESE

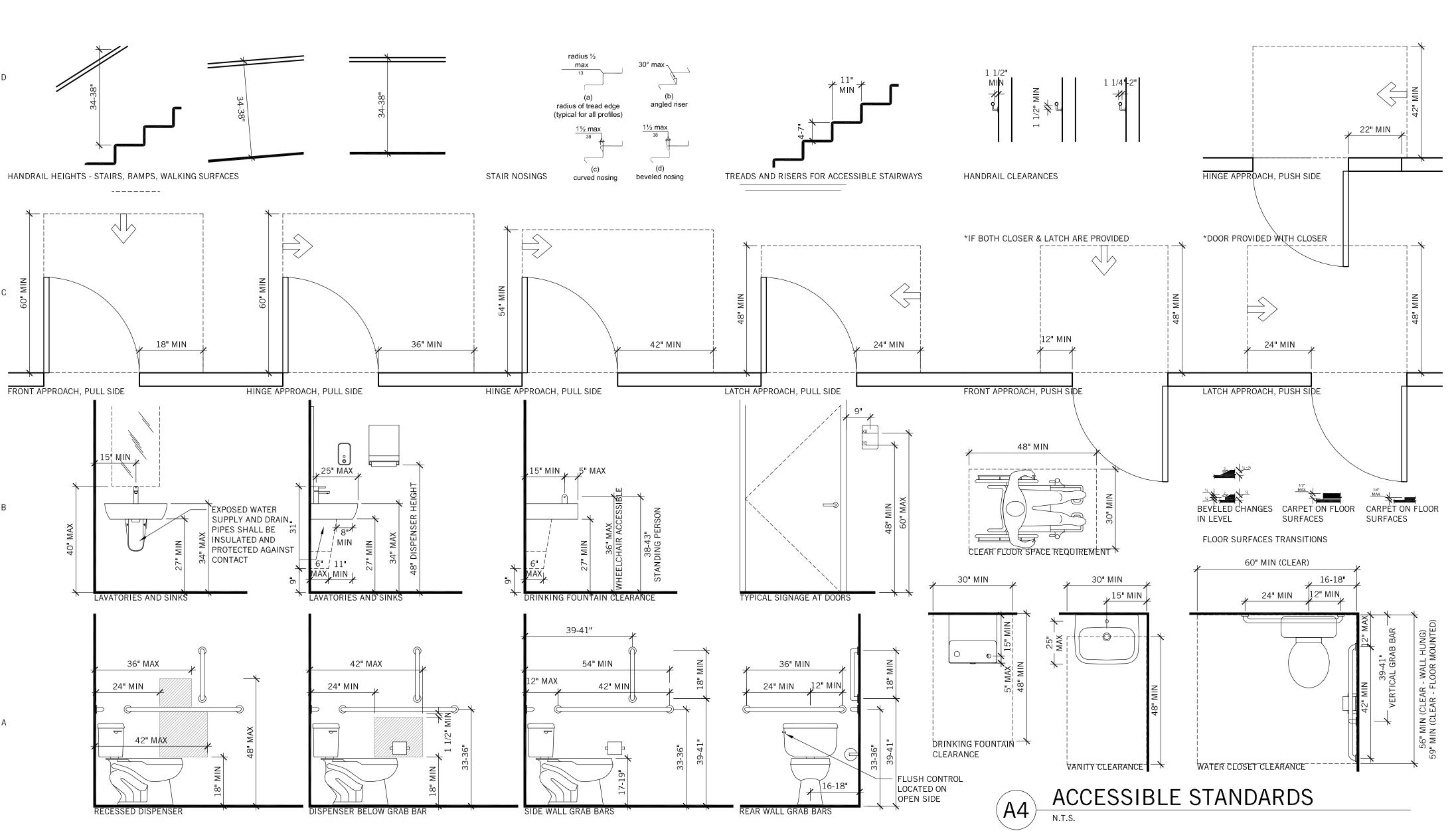
DEMO NOTES:

SUBCONTRACTORS ARE RESPONSIBLE TO OBTAIN ALL REQUIRED BUILDING PERMITS AND LICENSES AS REQUIRED BY THE MUNICIPALITY TO PERFORM CONSTRUCTION ACTIVITIES REQUIRED TO COMPLETE THIS WORK. 11) THE CONTRACTOR SHALL BE HELD ENTIRELY RESPONSIBLE FOR SAFETY REGULATIONS,

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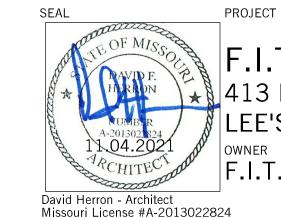
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F.I.T. MUSCLE AND JOINT CLINIC CODE
413 NW MURRAY ROAD INFORMATION 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

F.I.T. MUSCLE & JOINT CLINIC, LLC | 116.2111 AOO 1

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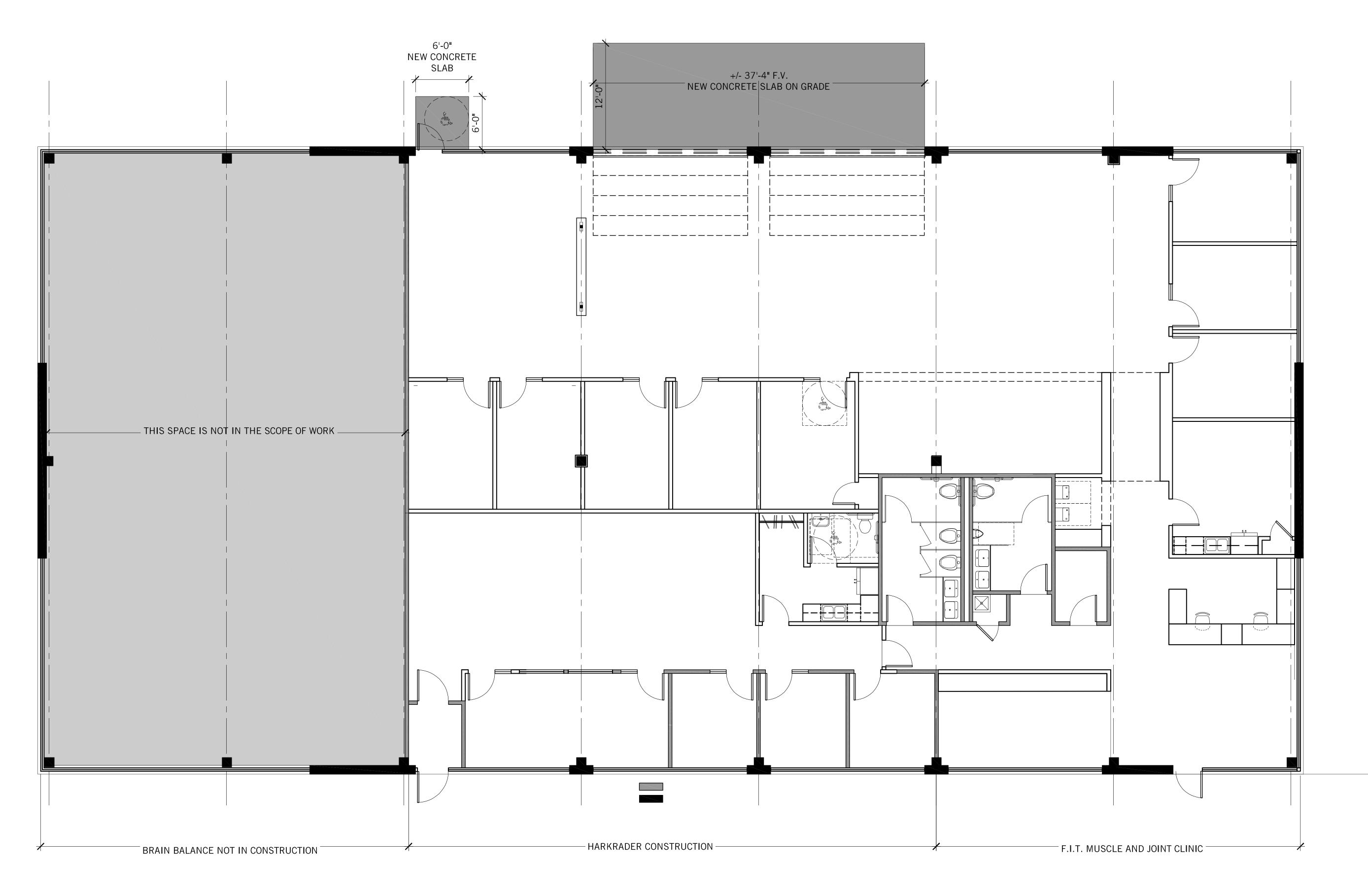
CONSTRUCTION DOCUMENTS.

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NOTES

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CONTRACTOR

CODE CONSULTANT

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REVISIONS

BUILDING'S ARCHITECT

PROJECT David Herron - Architect

Missouri License #A-2013022824

F.I.T. MUSCLE AND JOINT CLINIC OVERALL 413 NW MURRAY ROAD FLOOR PLAN 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

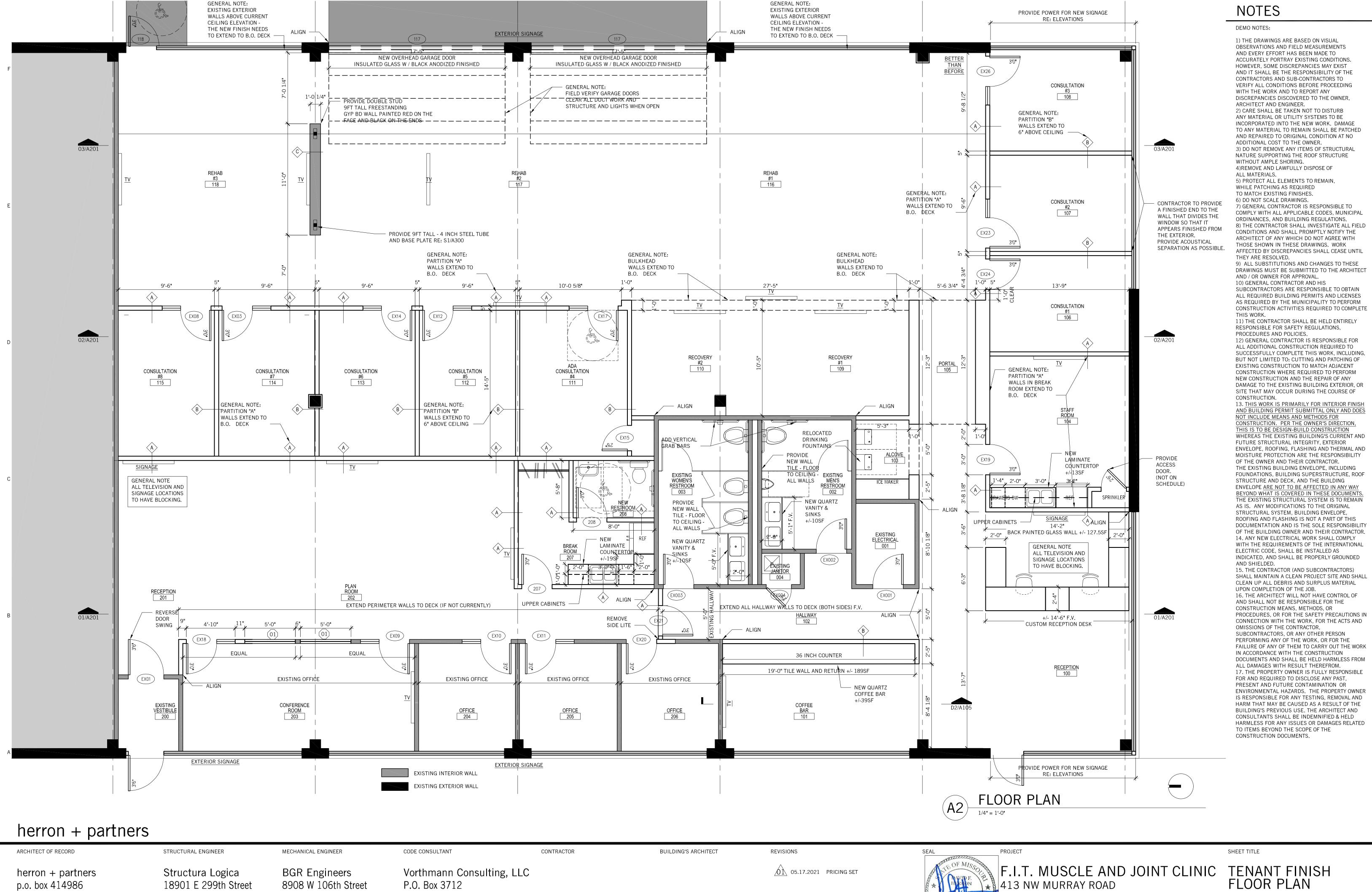
SOWNER F.I.T. MUSCLE & JOINT CLINIC, LLC 116.2111 A 100

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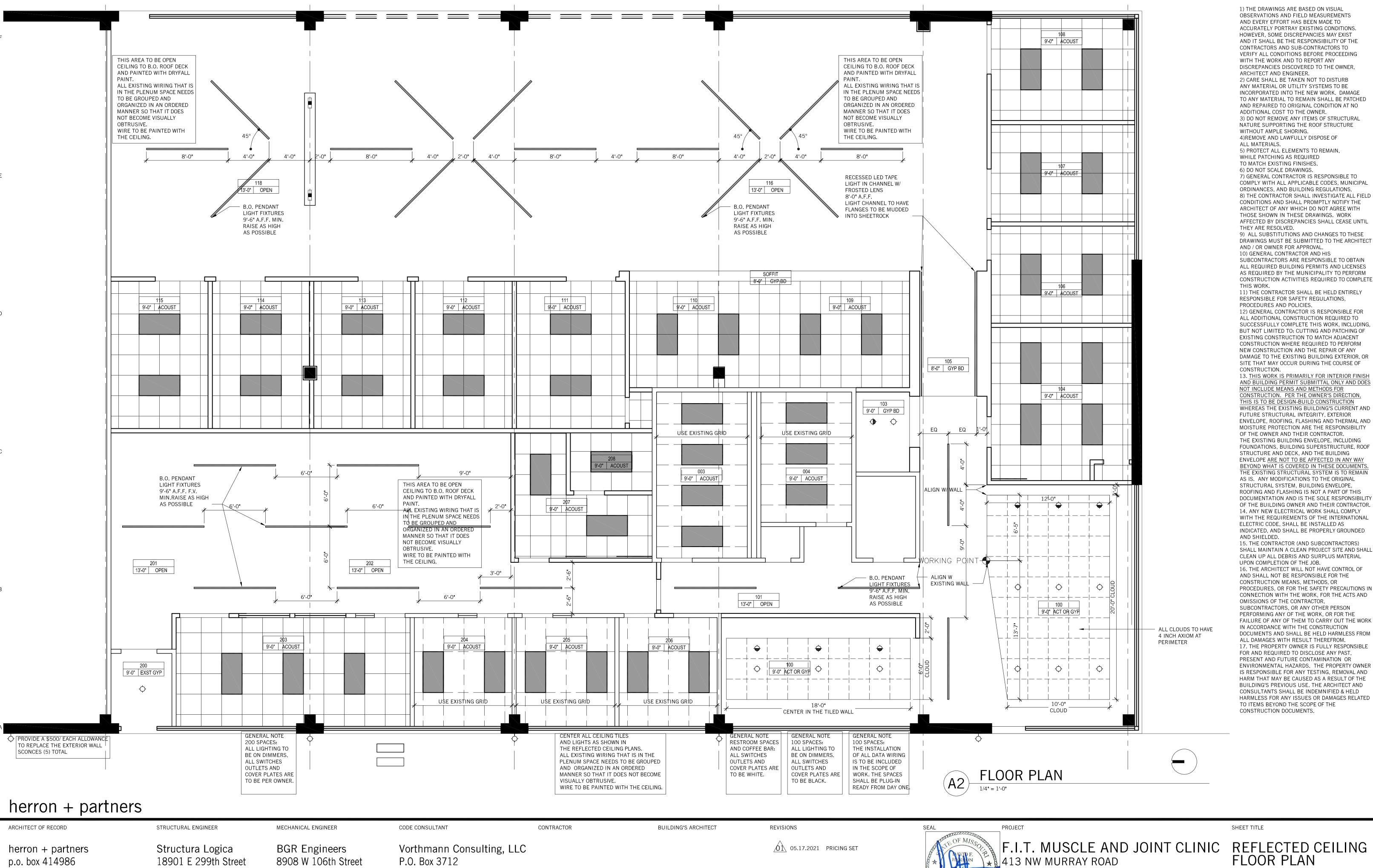
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413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

David Herron - Architect

Missouri License #A-2013022824

l 10.25.21



NOTES

DEMO NOTES:

🛮 LEE'S SUMMIT, MO 64081

David Herron - Architect

Missouri License #A-2013022824

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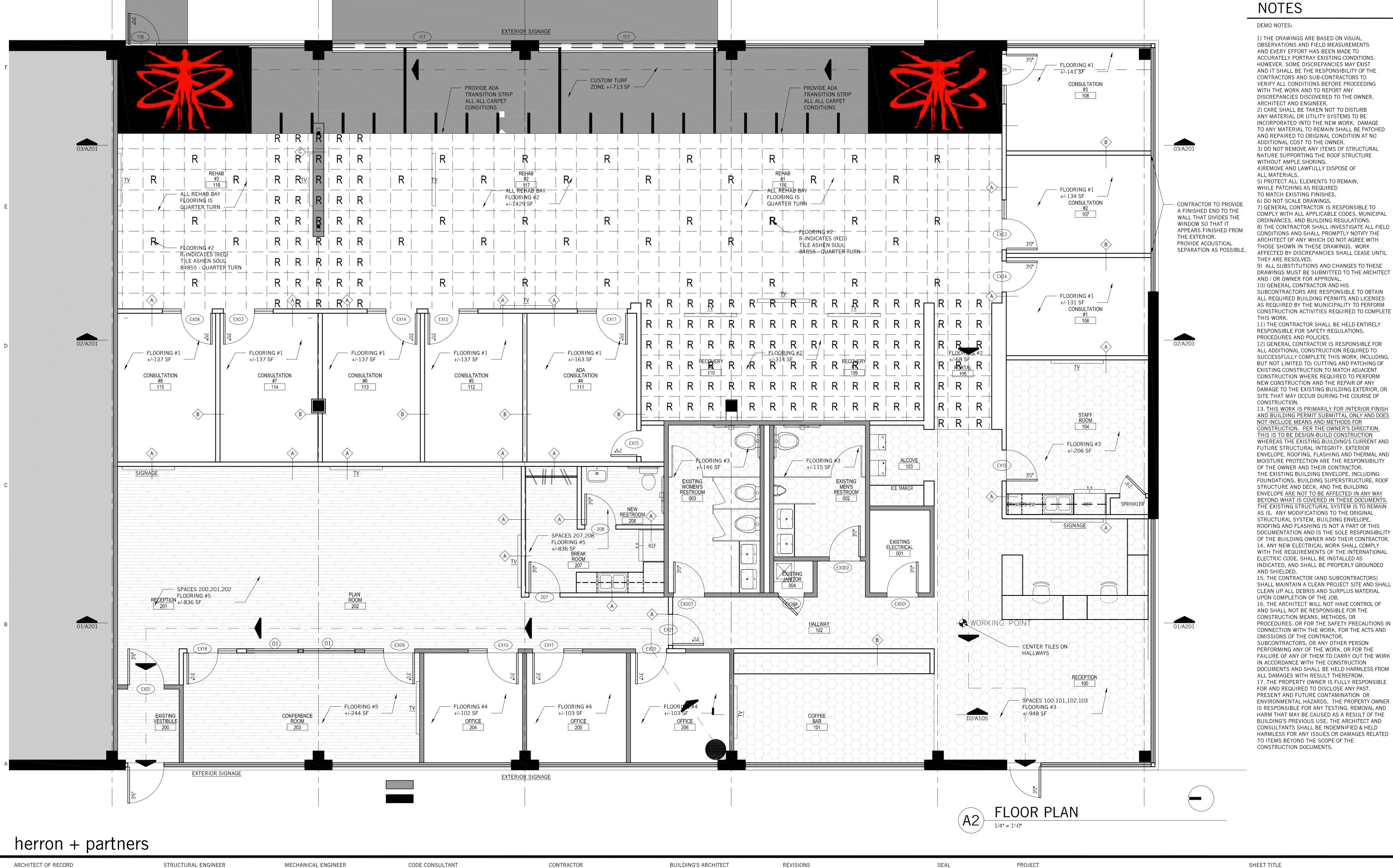
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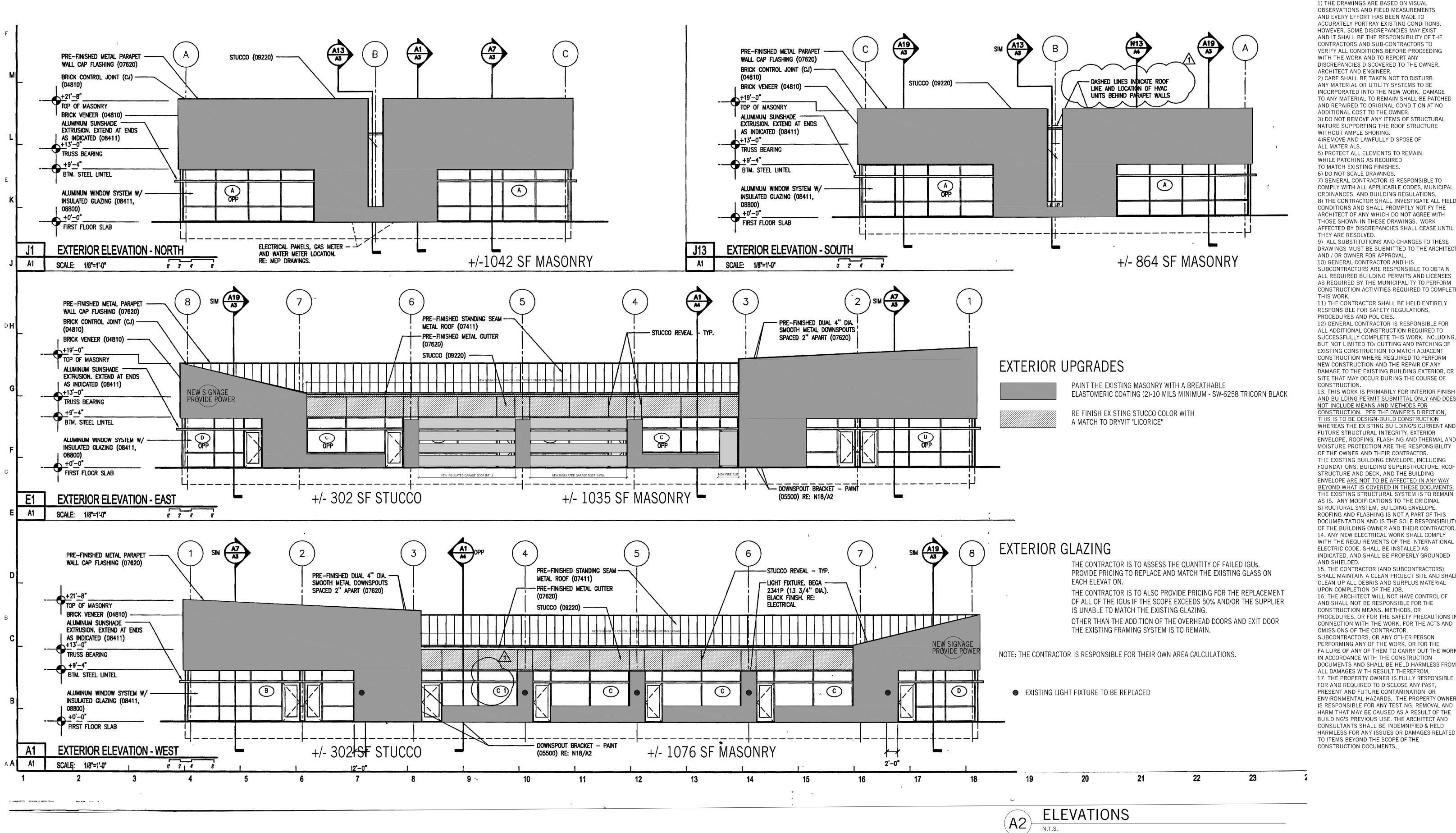
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BGR Engineers 8908 W 106th Street

MECHANICAL ENGINEER

P.O. Box 3712 harrisonville, missouri 64701 Overland Park, Kansas 66212 Eagle, Colorado 81631 phone 816.806.3729 phone 816.842.2800 www.fpc-consultants.com www.bgrengineers.com

CODE CONSULTANT

Vorthmann Consulting, LLC

CONTRACTOR

BUILDING'S ARCHITECT

1 05.17.2021 PRICING SET

REVISIONS



F.I.T. MUSCLE AND JOINT CLINIC 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

F.I.T. MUSCLE & JOINT CLINIC, LLC | 16.2111

EXTERIOR ELEVATIONS

NOTES

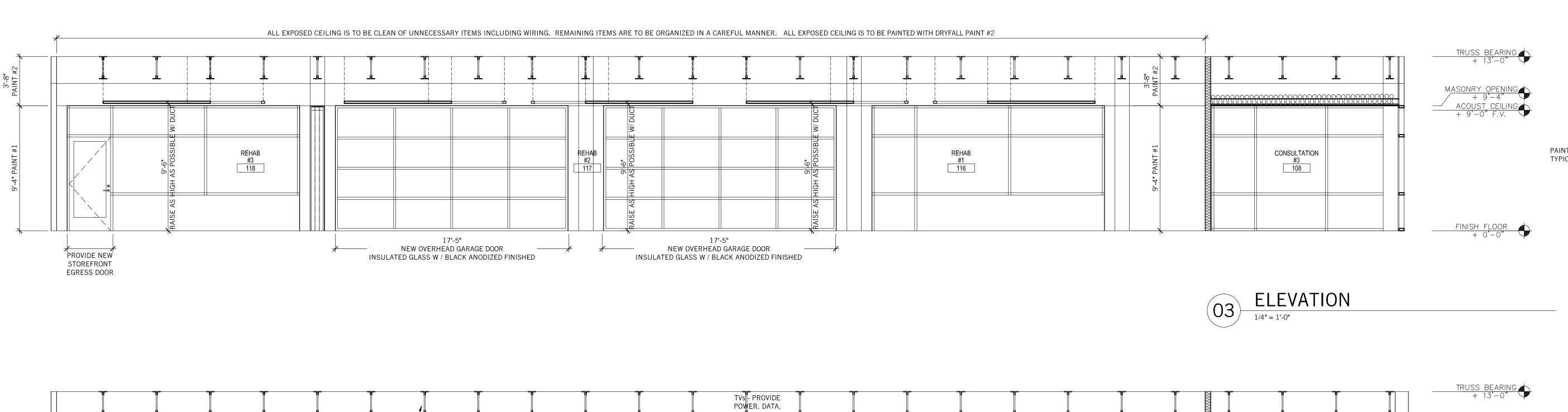
DEMO NOTES:

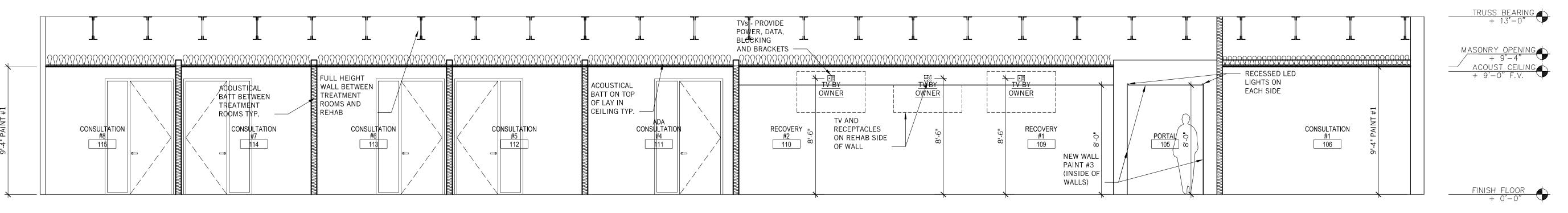
SHEET TITLE

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ARCHITECT OF RECORD

10.25.21





TRUSS BEARING + 13'-0" MASONRY OPENING
+ 9'-4"

ACOUST CEILING
+ 9'-0" F.V. TVs - PROVIDE POWER, DATA BLOCKING AND BRACKETS <u>_SIGNAGE_BY</u>_ _<u>SIGNAGE BY</u>__ OWNER <u>OWNER</u> TV BY OWNER EXISTING WOMEN'S RESTROOM EXISTING MEN'S RESTROOM 002 PLAN ROOM 202 OWNER OWNER BREAK ROOM 207 EXISTING JANITOR 004 EXISTING ELECTRICAL 001 RECEPTION HALLWAY 102 PØRTAL / 105 RECEPTION NEW WALL PAINT #5 (ENDS OF /WALLS) FINISH FLOOR + 0'-0" EQ EQ

BUILDING'S ARCHITECT

ELEVATION (01)

ELEVATION

herron + partners

herron + partners p.o. box 414986 kansas city, missouri 64111 phone 816.832.4647 www.herronandpartners.com

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01 05.17.2021 PRICING SET

REVISIONS



F.I.T. MUSCLE AND JOINT CLINIC 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

F.I.T. MUSCLE & JOINT CLINIC, LLC | 16.2111

INTERIOR ELEVATIONS

SHEET TITLE

NOTES

1) THE DRAWINGS ARE BASED ON VISUAL OBSERVATIONS AND FIELD MEASUREMENTS AND EVERY EFFORT HAS BEEN MADE TO ACCURATELY PORTRAY EXISTING CONDITIONS. HOWEVER, SOME DISCREPANCIES MAY EXIST AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS AND SUB-CONTRACTORS TO VERIFY ALL CONDITIONS BEFORE PROCEEDING

WITH THE WORK AND TO REPORT ANY

ADDITIONAL COST TO THE OWNER.

4)REMOVE AND LAWFULLY DISPOSE OF

5) PROTECT ALL ELEMENTS TO REMAIN,

WHILE PATCHING AS REQUIRED

TO MATCH EXISTING FINISHES.

6) DO NOT SCALE DRAWINGS.

THEY ARE RESOLVED.

THIS WORK.

CONSTRUCTION.

AND SHIELDED.

AND / OR OWNER FOR APPROVAL. 10) GENERAL CONTRACTOR AND HIS

PROCEDURES AND POLICIES.

ARCHITECT AND ENGINEER.

WITHOUT AMPLE SHORING.

ALL MATERIALS.

DISCREPANCIES DISCOVERED TO THE OWNER,

2) CARE SHALL BE TAKEN NOT TO DISTURB ANY MATERIAL OR UTILITY SYSTEMS TO BE INCORPORATED INTO THE NEW WORK. DAMAGE TO ANY MATERIAL TO REMAIN SHALL BE PATCHED AND REPAIRED TO ORIGINAL CONDITION AT NO

3) DO NOT REMOVE ANY ITEMS OF STRUCTURAL NATURE SUPPORTING THE ROOF STRUCTURE

7) GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES, MUNICIPAL ORDINANCES, AND BUILDING REGULATIONS.

8) THE CONTRACTOR SHALL INVESTIGATE ALL FIELD CONDITIONS AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY WHICH DO NOT AGREE WITH THOSE SHOWN IN THESE DRAWINGS. WORK AFFECTED BY DISCREPANCIES SHALL CEASE UNTIL

9) ALL SUBSTITUTIONS AND CHANGES TO THESE

SUBCONTRACTORS ARE RESPONSIBLE TO OBTAIN

ALL REQUIRED BUILDING PERMITS AND LICENSES AS REQUIRED BY THE MUNICIPALITY TO PERFORM CONSTRUCTION ACTIVITIES REQUIRED TO COMPLETE

11) THE CONTRACTOR SHALL BE HELD ENTIRELY RESPONSIBLE FOR SAFETY REGULATIONS,

12) GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL ADDITIONAL CONSTRUCTION REQUIRED TO SUCCESSFULLY COMPLETE THIS WORK, INCLUDING BUT NOT LIMITED TO: CUTTING AND PATCHING OF EXISTING CONSTRUCTION TO MATCH ADJACENT CONSTRUCTION WHERE REQUIRED TO PERFORM

NEW CONSTRUCTION AND THE REPAIR OF ANY

SITE THAT MAY OCCUR DURING THE COURSE OF

CONSTRUCTION. PER THE OWNER'S DIRECTION,

WHEREAS THE EXISTING BUILDING'S CURRENT AND

ENVELOPE, ROOFING, FLASHING AND THERMAL AND

MOISTURE PROTECTION ARE THE RESPONSIBILITY

FOUNDATIONS, BUILDING SUPERSTRUCTURE, ROOF

ENVELOPE ARE NOT TO BE AFFECTED IN ANY WAY

BEYOND WHAT IS COVERED IN THESE DOCUMENTS THE EXISTING STRUCTURAL SYSTEM IS TO REMAIN AS IS. ANY MODIFICATIONS TO THE ORIGINAL STRUCTURAL SYSTEM, BUILDING ENVELOPE, ROOFING AND FLASHING IS NOT A PART OF THIS

DOCUMENTATION AND IS THE SOLE RESPONSIBILITY OF THE BUILDING OWNER AND THEIR CONTRACTOR 14. ANY NEW ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL

INDICATED, AND SHALL BE PROPERLY GROUNDED

16. THE ARCHITECT WILL NOT HAVE CONTROL OF AND SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, OR

PROCEDURES, OR FOR THE SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK, FOR THE ACTS AND

FAILURE OF ANY OF THEM TO CARRY OUT THE WORK

DOCUMENTS AND SHALL BE HELD HARMLESS FROM

17. THE PROPERTY OWNER IS FULLY RESPONSIBLE

ENVIRONMENTAL HAZARDS. THE PROPERTY OWNER

IS RESPONSIBLE FOR ANY TESTING, REMOVAL AND HARM THAT MAY BE CAUSED AS A RESULT OF THE BUILDING'S PREVIOUS USE. THE ARCHITECT AND CONSULTANTS SHALL BE INDEMNIFIED & HELD HARMLESS FOR ANY ISSUES OR DAMAGES RELATED

SUBCONTRACTORS, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK, OR FOR THE

IN ACCORDANCE WITH THE CONSTRUCTION

ALL DAMAGES WITH RESULT THEREFROM.

FOR AND REQUIRED TO DISCLOSE ANY PAST

TO ITEMS BEYOND THE SCOPE OF THE

CONSTRUCTION DOCUMENTS.

PRESENT AND FUTURE CONTAMINATION OR

15. THE CONTRACTOR (AND SUBCONTRACTORS) SHALL MAINTAIN A CLEAN PROJECT SITE AND SHALL CLEAN UP ALL DEBRIS AND SURPLUS MATERIAL

THIS IS TO BE DESIGN-BUILD CONSTRUCTION

FUTURE STRUCTURAL INTEGRITY, EXTERIOR

OF THE OWNER AND THEIR CONTRACTOR. THE EXISTING BUILDING ENVELOPE. INCLUDING

STRUCTURE AND DECK, AND THE BUILDING

ELECTRIC CODE, SHALL BE INSTALLED AS

UPON COMPLETION OF THE JOB.

OMISSIONS OF THE CONTRACTOR,

NOT INCLUDE MEANS AND METHODS FOR

DAMAGE TO THE EXISTING BUILDING EXTERIOR, OR

13. THIS WORK IS PRIMARILY FOR INTERIOR FINISH AND BUILDING PERMIT SUBMITTAL ONLY AND DOES

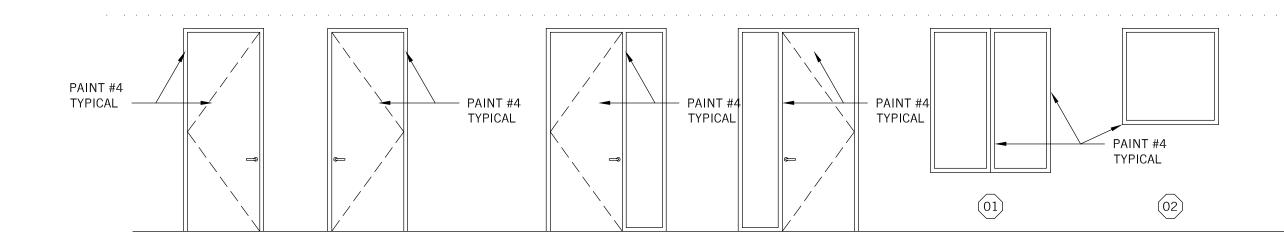
DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT

DEMO NOTES:

l 10.25.21

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		5				4		DOOR SCHED	JLE		2 1	NOTES
			SIZE			DOOR		FR	AME		REMARKS	NOTES
QUANTITY	NO.	WIDTH	HEIGHT	THICK	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	RATING	STANDARD LEVERS: PROVIDE Z-SERIES HALF CURVED LEVERS US26D	DEMO NOTES:
1	EX001	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		DOOR REMAINS. RE-FINISH	1) THE DRAWINGS ARE BASED ON VISUAL
1	EX002	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		RE-FINISH, USE EXISTING CLOSER & KICK PLATE	OBSERVATIONS AND FIELD MEASUREMENTS AND EVERY EFFORT HAS BEEN MADE TO
1	EX003	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		RE-FINISH, USE EXISTING CLOSER & KICK PLATE	ACCURATELY PORTRAY EXISTING CONDITIONS.
1	EX004	30	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		DOOR REMAINS. RE-FINISH	HOWEVER, SOME DISCREPANCIES MAY EXIST AND IT SHALL BE THE RESPONSIBILITY OF THE
1	EX01	42	F.V.	1-3/4"	WOOD	PAINT	FULL LITE	HM	PAINT		DOOR REMAINS. RE-FINISH	CONTRACTORS AND SUB-CONTRACTORS TO VERIFY ALL CONDITIONS BEFORE PROCEEDING
1	EX02	36	99.5	1-3/4"	WOOD	PAINT	SPLIT	НМ	PAINT		NOT USED - SALVAGE FOR OWNER	WITH THE WORK AND TO REPORT ANY DISCREPANCIES DISCOVERED TO THE OWNER.
1	EX03	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	ARCHITECT AND ENGINEER.
1	EX04	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		NOT USED - SALVAGE FOR OWNER	2) CARE SHALL BE TAKEN NOT TO DISTURB ANY MATERIAL OR UTILITY SYSTEMS TO BE
1	EX05	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		NOT USED - SALVAGE FOR OWNER	INCORPORATED INTO THE NEW WORK. DAMAGE TO ANY MATERIAL TO REMAIN SHALL BE PATCHED
1	EX06	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		NOT USED - SALVAGE FOR OWNER	AND REPAIRED TO ORIGINAL CONDITION AT NO
1	EX07	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		NOT USED - SALVAGE FOR OWNER	ADDITIONAL COST TO THE OWNER. 3) DO NOT REMOVE ANY ITEMS OF STRUCTURAL
1	EX08	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	NATURE SUPPORTING THE ROOF STRUCTURE WITHOUT AMPLE SHORING.
1	EX09	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		DOOR REMAINS. RE-FINISH	4)REMOVE AND LAWFULLY DISPOSE OF
1	EX10	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		DOOR REMAINS. RE-FINISH	ALL MATERIALS. 5) PROTECT ALL ELEMENTS TO REMAIN,
1	EX11	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		DOOR REMAINS. RE-FINISH	WHILE PATCHING AS REQUIRED TO MATCH EXISTING FINISHES.
1	EX12	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	6) DO NOT SCALE DRAWINGS. 7) GENERAL CONTRACTOR IS RESPONSIBLE TO
1	EX13	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	COMPLY WITH ALL APPLICABLE CODES, MUNICIPAL
1	EX14	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	ORDINANCES, AND BUILDING REGULATIONS. 8) THE CONTRACTOR SHALL INVESTIGATE ALL FIELD
1	EX15	30	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	CONDITIONS AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY WHICH DO NOT AGREE WITH
1	EX16	72	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		NOT USED - SALVAGE FOR OWNER	THOSE SHOWN IN THESE DRAWINGS. WORK
1	EX17	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	AFFECTED BY DISCREPANCIES SHALL CEASE UNTIL THEY ARE RESOLVED.
1	EX18	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	9) ALL SUBSTITUTIONS AND CHANGES TO THESE DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT
1	EX19	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	AND / OR OWNER FOR APPROVAL. 10) GENERAL CONTRACTOR AND HIS
1	EX20	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	SUBCONTRACTORS ARE RESPONSIBLE TO OBTAIN
1	EX21	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		RELOCATE AND RE-FINISH	ALL REQUIRED BUILDING PERMITS AND LICENSES AS REQUIRED BY THE MUNICIPALITY TO PERFORM
1	EX22	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		NOT USED - SALVAGE FOR OWNER	CONSTRUCTION ACTIVITIES REQUIRED TO COMPLETE THIS WORK.
1	EX23	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		RELOCATE AND RE-FINISH	11) THE CONTRACTOR SHALL BE HELD ENTIRELY
1	EX24	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		RELOCATE AND RE-FINISH	RESPONSIBLE FOR SAFETY REGULATIONS, PROCEDURES AND POLICIES.
1	EX25	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		NOT USED - SALVAGE FOR OWNER	12) GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL ADDITIONAL CONSTRUCTION REQUIRED TO
1	EX26	60	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		RELOCATE AND RE-FINISH	SUCCESSFULLY COMPLETE THIS WORK, INCLUDING, BUT NOT LIMITED TO: CUTTING AND PATCHING OF
2	117	17'-5"	9'-4"	2"	ALUM/GLASS	BLK ANOD	MEDIUM STILE	ALUM	BLK ANOD		LOCKABLE, MANUALLY OPERATED, HORIZONTAL TRACK, INSULATED GLASS	EXISTING CONSTRUCTION TO MATCH ADJACENT
1	118	3'-0"	7'-0"	2"	ALUM/GLASS	MATCH EXIST	MEDIUM STILE	ALUM	MATCH EXIST		KEYED LOCK, CLOSER	CONSTRUCTION WHERE REQUIRED TO PERFORM NEW CONSTRUCTION AND THE REPAIR OF ANY
1	207	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	НМ	PAINT		NEW DOOR	DAMAGE TO THE EXISTING BUILDING EXTERIOR, OR SITE THAT MAY OCCUR DURING THE COURSE OF
1	208	36	99.5	1-3/4"	WOOD	PAINT	FLUSH	HM	PAINT		NEW DOOR, PRIVACY LOCK, CLOSER, KICK PLATE	CONSTRUCTION. 13 THIS WORK IS PRIMARILY FOR INTERIOR FINISH



DOOR AND WINDOW PROFILES

Missing or invalid reference

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Sheet: 1

herron + partners

ARCHITECT OF RECORD STRUCTURAL ENGINEER herron + partners

p.o. box 414986 kansas city, missouri 64111 phone 816.832.4647 phone 816.872.4883

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CONTRACTOR

01 05.17.2021 PRICING SET

REVISIONS

BUILDING'S ARCHITECT

SEAL PROJECT

F.I.T. MUSCLE AND JOINT CLINIC SCHEDULES
413 NW MURRAY ROAD STRUCTURAL DETAILS 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

F.I.T. MUSCLE & JOINT CLINIC, LLC | 16.2111

SHEET TITLE

13. THIS WORK IS PRIMARILY FOR INTERIOR FINISH AND BUILDING PERMIT SUBMITTAL ONLY AND DOES

NOT INCLUDE MEANS AND METHODS FOR CONSTRUCTION. PER THE OWNER'S DIRECTION, THIS IS TO BE DESIGN-BUILD CONSTRUCTION WHEREAS THE EXISTING BUILDING'S CURRENT AND FUTURE STRUCTURAL INTEGRITY, EXTERIOR ENVELOPE, ROOFING, FLASHING AND THERMAL AND MOISTURE PROTECTION ARE THE RESPONSIBILITY

OF THE OWNER AND THEIR CONTRACTOR. THE EXISTING BUILDING ENVELOPE, INCLUDING FOUNDATIONS, BUILDING SUPERSTRUCTURE, ROOF

STRUCTURE AND DECK, AND THE BUILDING ENVELOPE ARE NOT TO BE AFFECTED IN ANY WAY BEYOND WHAT IS COVERED IN THESE DOCUMENTS. THE EXISTING STRUCTURAL SYSTEM IS TO REMAIN

AS IS. ANY MODIFICATIONS TO THE ORIGINAL STRUCTURAL SYSTEM, BUILDING ENVELOPE,

ROOFING AND FLASHING IS NOT A PART OF THIS

14. ANY NEW ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL

INDICATED, AND SHALL BE PROPERLY GROUNDED

16. THE ARCHITECT WILL NOT HAVE CONTROL OF AND SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, OR

PROCEDURES, OR FOR THE SAFETY PRECAUTIONS IN CONNECTION WITH THE WORK, FOR THE ACTS AND

DOCUMENTS AND SHALL BE HELD HARMLESS FROM

17. THE PROPERTY OWNER IS FULLY RESPONSIBLE FOR AND REQUIRED TO DISCLOSE ANY PAST PRESENT AND FUTURE CONTAMINATION OR ENVIRONMENTAL HAZARDS. THE PROPERTY OWNER IS RESPONSIBLE FOR ANY TESTING, REMOVAL AND HARM THAT MAY BE CAUSED AS A RESULT OF THE BUILDING'S PREVIOUS USE. THE ARCHITECT AND CONSULTANTS SHALL BE INDEMNIFIED & HELD HARMLESS FOR ANY ISSUES OR DAMAGES RELATED

SUBCONTRACTORS, OR ANY OTHER PERSON PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK

IN ACCORDANCE WITH THE CONSTRUCTION

ALL DAMAGES WITH RESULT THEREFROM.

TO ITEMS BEYOND THE SCOPE OF THE

CONSTRUCTION DOCUMENTS.

15. THE CONTRACTOR (AND SUBCONTRACTORS) SHALL MAINTAIN A CLEAN PROJECT SITE AND SHALL CLEAN UP ALL DEBRIS AND SURPLUS MATERIAL

ELECTRIC CODE, SHALL BE INSTALLED AS

UPON COMPLETION OF THE JOB.

OMISSIONS OF THE CONTRACTOR,

AND SHIELDED.

DOCUMENTATION AND IS THE SOLE RESPONSIBILIT

OF THE BUILDING OWNER AND THEIR CONTRACTOR

1 10.25.21

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David Herron - Architect Missouri License #A-2013022824

	8	7		6		5		4	3	3		2 1
ROOM NUMBER	ROOM NAME	FLOORING	BASE	CEILING	WALL NORTH	WALL EAST	WALL SOUTH	WALL WEST	DOOR(S)	COUNTERTOP	CABINETS	COMMENTS
100	LOBBY	FLOORING #3	BASE #1	ACOUSTICAL CEILING #1	PAINT #3	WALL TILE #3	PAINT #3	PAINT #3	PAINT #5	COUNTERTOP #1	CABINETS #2	RECEPTION DESK - PROVIDE ALLOWANCE TO BE DESIGNED WITH SQUARE ONE
101	COFFEE BAR	FLOORING #3	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	WALL TILE #2	PAINT #1	PAINT #1		COUNTERTOP #2		FULL HEIGHT WALL TILE W/ SCHLUTER FINEC TRIM AT OUTSIDE CORNERS
102	HALLWAY	FLOORING #3	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
103	ALCOVE	FLOORING #3	BASE #1	PAINT #3	PAINT #3	OPEN TO REHAB	PAINT #3	OPEN TO LOBBY				PAINT ENDS PAINT #5
104	BREAK ROOM	FLOORING #3	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4	COUNTERTOP #1	CABINETS #2	
105	PORTAL	FLOORING #2	BASE #1	PAINT #3	PAINT #1	PAINT #1	PAINT #1	PAINT #1				
106	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
107	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1 LOW/ #2 HIGH	PAINT #1 LOW/ #2 HIGH	PAINT #1 LOW/ #2 HIGH	HALF WALL PAINT #3	PAINT #4			
108	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1 LOW/ #2 HIGH	HALF WALL PAINT #3	PAINT #1 LOW/ #2 HIGH	PAINT #1 LOW/ #2 HIGH	PAINT #4			
109	RECOVERY	FLOORING #2	BASE #1	ACOUSTICAL CEILING #1	PAINT #3	OPEN TO REHAB	PAINT #3	PAINT #3				
110	RECOVERY	FLOORING #2	BASE #1	ACOUSTICAL CEILING #1	PAINT #3	OPEN TO REHAB	PAINT #3	PAINT #3				
111	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
112	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
113	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
114	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
115	CONSULTATION ROOM	FLOORING #1	BASE #1	ACOUSTICAL CEILING #1	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			
116	REHAB AREA	FLOORING #2	BASE #1	PAINT #2	PAINT #1 LOW/ #2 HIGH	BLACK ANOODIZED						
117	REHAB AREA	FLOORING #2	BASE #1	ACOUSTICAL CEILING #2	PAINT #1 LOW/ #2 HIGH							
118	REHAB AREA	FLOORING #2	BASE #1	PAINT #2	PAINT #1 LOW/ #2 HIGH	BLACK ANOODIZED						
001	ELECTRICAL	*EXISTING FLOOR	EXISTING	EXISTING	PAINT #1	PAINT #1	PAINT #1	PAINT #1	PAINT #4			*REPLACE FLOOR TILE TO FLOORING #3 IF THERE IS EXTRA
002	MEN'S RESTROOM	FLOORING #3	BASE #1	EXISTING GRID - NEW TILE	FULL HT WALL TILE #1	PAINT #4	COUNTERTOP #2					
003	WOMEN'S RESTROOM	FLOORING #3	BASE #1	EXISTING GRID - NEW TILE	FULL HT WALL TILE #1	PAINT #4	COUNTERTOP #2					
004	JANITOR	*EXISTING FLOOR	EXISTING	EXISTING	FRP	FRP	FRP	FRP	PAINT #4			*REPLACE FLOOR TILE TO FLOORING #3 IF THERE IS EXTRA
200	VESTIBULE	FLOORING #2 TBD	BASE #1 TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			
201	LOBBY	FLOORING #2 TBD	BASE #1 TBD	ACOUSTICAL CEILING #1	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			
202	PLAN ROOM	FLOORING #2 TBD	BASE #1 TBD	ACOUSTICAL CEILING #1	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	CABINETS #2 TBD	CABINETS #2 TBD	
203	CONFERENCE ROOM	FLOORING #2 TBD	BASE #1 TBD	ACOUSTICAL CEILING #1	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			
				EXISTING GRID - NEW								
204	OFFICE	FLOORING #1 TBD	BASE #1 TBD	LIGHTS	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			
205	OFFICE	FLOORING #1 TBD	BASE #1 TBD	EXISTING GRID - NEW LIGHTS	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			
				EXISTING GRID - NEW								
206	OFFICE	FLOORING #1 TBD	BASE #1 TBD	LIGHTS	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			
207	BREAK ROOM	FLOORING #2 TBD	BASE #1 TBD	ACOUSTICAL CEILING #1	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	CABINETS #1 TBD	CABINETS #1 TBD	
208	RESTROOM	FLOORING #2 TBD	BASE #1 TBD	ACOUSTICAL CEILING #1	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD	PAINT TBD			



ROOM FINISH SCHEDULE

		OF THE OWNER AND THEIR CONTRACTOR. THE EXISTING BUILDING ENVELOPE, INCLUDING FOUNDATIONS, BUILDING SUPERSTRUCTURE, ROOF
	PRODUCTS	STRUCTURE AND DECK, AND THE BUILDING
PAINT #1	SHERWIN WILLIAMS #SW 7066 "GRAY MATTER"	ENVELOPE ARE NOT TO BE AFFECTED IN ANY WAY BEYOND WHAT IS COVERED IN THESE DOCUMENTS.
PAINT #2	SHERWIN WILLIAMS #SW 7068 "GRIZZLE GRAY" - 12'-0" AFF TO ROOF AND SOFFITS IN CONSULATION ROOMS	THE EXISTING STRUCTURAL SYSTEM IS TO REMAIN AS IS. ANY MODIFICATIONS TO THE ORIGINAL STRUCTURAL SYSTEM, BUILDING ENVELOPE,
PAINT #3	SHERWIN WILLIAMS #SW 6871 "POSITIVE RED"	ROOFING AND FLASHING IS NOT A PART OF THIS
PAINT #4 (DOORS & DOOR TRIM)	SHERWIN WILLIAMS #SW 7068 "GRIZZLE GRAY"	DOCUMENTATION AND IS THE SOLE RESPONSIBILITY OF THE BUILDING OWNER AND THEIR CONTRACTOR.
PAINT #5	SHERWIN WILLIAMS #SW 6258 "TRICORN BLACK": EGG SHELL	14. ANY NEW ELECTRICAL WORK SHALL COMPLY WITH THE REQUIREMENTS OF THE INTERNATIONAL
WALL TILE #1	SUBWAY TILE - IMPERIAL BIANCO 441970 4X16 STAGGERED 50% W/ 1/8" GRAY GROUT TBD	ELECTRIC CODE, SHALL BE INSTALLED AS
WALL TILE #2	4" PORCELAIN HEX TILE - MATTE WHITE, FROM CST - GROUT TBD	INDICATED, AND SHALL BE PROPERLY GROUNDED AND SHIELDED.
WALL TILE #3	1/4" LOW IRON BACK PAINTED GLASS #SW6871 "POSITIVE RED" BY SQUARE ONE STUDIO	15. THE CONTRACTOR (AND SUBCONTRACTORS) SHALL MAINTAIN A CLEAN PROJECT SITE AND SHALL
BASE #1	RUBBER BASE - BLACK	CLEAN UP ALL DEBRIS AND SURPLUS MATERIAL
FLOORING #1	CARPET - SHAW PAUSE TILE: 5T083 COLOR: SHAW ASHEN: 83555	UPON COMPLETION OF THE JOB. 16. THE ARCHITECT WILL NOT HAVE CONTROL OF
FLOORING #2	CARPET - SHAW VANTAGE TILE: 5T086 COLORS: ASHEN AGATE:84761 ASHEN SOUL: 84855 ALL QUARTER TURN	AND SHALL NOT BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, OR PROCEDURES, OR FOR THE SAFETY PRECAUTIONS IN
FLOORING #3	EMSER TILE: 11x13 RHYTHM SILVER HEX TILE - GROUT TBD	CONNECTION WITH THE WORK, FOR THE ACTS AND OMISSIONS OF THE CONTRACTOR,
COUNTERTOP #1	WILSONART - #8214K-28 PHANTOM CHARCOAL 28 GLOSS LINE W CHARCOAL EDGE BANDING	SUBCONTRACTORS, OR ANY OTHER PERSON
COUNTERTOP #2	MASTERCUT- QUARTZ CALACATTA LAZA LEVEL 1 W/ 1/8" EASED EDGE	PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK
CABINETS #1	WILSONART - #8214K-28 PHANTOM CHARCOAL 28 GLOSS LINE W CHARCOAL EDGE BANDING	IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND SHALL BE HELD HARMLESS FROM
ACOUSTICAL CEILING #1	ARMSTRONG SUPRAFINE XL 9/16" W/ ARMSTRONG OPTIMA TEGULAR SQUARE EDGE 2X2 TILES	ALL DAMAGES WITH RESULT THEREFROM.
ACOUSTICAL CEILING #2	ARMSTRONG DESIGN FLEX 4" FCSH 16 AXIOM TRIM	17. THE PROPERTY OWNER IS FULLY RESPONSIBLE FOR AND REQUIRED TO DISCLOSE ANY PAST,
		PRESENT AND FUTURE CONTAMINATION OR ENVIRONMENTAL HAZARDS. THE PROPERTY OWNER
PAINT TBD		IS RESPONSIBLE FOR ANY TESTING, REMOVAL AND HARM THAT MAY BE CAUSED AS A RESULT OF THE
COUNTERTOP #1 TBD	WILSONART TBD	BUILDING'S PREVIOUS USE. THE ARCHITECT AND
COUNTERTOP #2 TBD	LEVEL 1 QUARTZ TBD	CONSULTANTS SHALL BE INDEMNIFIED & HELD HARMLESS FOR ANY ISSUES OR DAMAGES RELATED
CABINETS #1 TBD	WILSONART TBD	TO ITEMS BEYOND THE SCOPE OF THE CONSTRUCTION DOCUMENTS.
CABINETS #2 TBD	PAINT TBD	CONCINCION DOCUMENTO.
FLOORING #1 TBD	CARPET ALLOWANCE EQUIVALENT TO - SHAW PAUSE TILE	
FLOORING #2 TBD	LVT - ALLOWANCE TO BE \$7/SF	
BASE #1 TBD	RUBBER BASE - COLOR TO BE DETERMINED	

FINISH SCHEDULE

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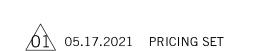
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BUILDING'S ARCHITECT



REVISIONS

SEAL PROJECT

David Herron - Architect

Missouri License #A-2013022824

F.I.T. MUSCLE AND JOINT CLINIC SCHEDULES 413 NW MURRAY ROAD ₿ LEE'S SUMMIT, MO 64081

] owner F.I.T. Muscle & Joint Clinic, LLC $_{\scriptsize 116.2111}$ A301

SHEET TITLE

NOTES

1) THE DRAWINGS ARE BASED ON VISUAL OBSERVATIONS AND FIELD MEASUREMENTS AND EVERY EFFORT HAS BEEN MADE TO ACCURATELY PORTRAY EXISTING CONDITIONS. HOWEVER, SOME DISCREPANCIES MAY EXIST AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS AND SUB-CONTRACTORS TO VERIFY ALL CONDITIONS BEFORE PROCEEDING

WITH THE WORK AND TO REPORT ANY

ADDITIONAL COST TO THE OWNER.

4)REMOVE AND LAWFULLY DISPOSE OF

5) PROTECT ALL ELEMENTS TO REMAIN,

WHILE PATCHING AS REQUIRED TO MATCH EXISTING FINISHES. 6) DO NOT SCALE DRAWINGS.

ARCHITECT AND ENGINEER.

WITHOUT AMPLE SHORING.

ALL MATERIALS.

THEY ARE RESOLVED.

THIS WORK.

CONSTRUCTION.

AND / OR OWNER FOR APPROVAL. 10) GENERAL CONTRACTOR AND HIS

PROCEDURES AND POLICIES.

DISCREPANCIES DISCOVERED TO THE OWNER,

2) CARE SHALL BE TAKEN NOT TO DISTURB ANY MATERIAL OR UTILITY SYSTEMS TO BE INCORPORATED INTO THE NEW WORK. DAMAGE TO ANY MATERIAL TO REMAIN SHALL BE PATCHED AND REPAIRED TO ORIGINAL CONDITION AT NO

3) DO NOT REMOVE ANY ITEMS OF STRUCTURAL NATURE SUPPORTING THE ROOF STRUCTURE

7) GENERAL CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL APPLICABLE CODES, MUNICIPAL ORDINANCES, AND BUILDING REGULATIONS. 8) THE CONTRACTOR SHALL INVESTIGATE ALL FIELD CONDITIONS AND SHALL PROMPTLY NOTIFY THE ARCHITECT OF ANY WHICH DO NOT AGREE WITH THOSE SHOWN IN THESE DRAWINGS. WORK AFFECTED BY DISCREPANCIES SHALL CEASE UNTIL

9) ALL SUBSTITUTIONS AND CHANGES TO THESE DRAWINGS MUST BE SUBMITTED TO THE ARCHITECT

SUBCONTRACTORS ARE RESPONSIBLE TO OBTAIN ALL REQUIRED BUILDING PERMITS AND LICENSES AS REQUIRED BY THE MUNICIPALITY TO PERFORM CONSTRUCTION ACTIVITIES REQUIRED TO COMPLETE

11) THE CONTRACTOR SHALL BE HELD ENTIRELY RESPONSIBLE FOR SAFETY REGULATIONS,

12) GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL ADDITIONAL CONSTRUCTION REQUIRED TO SUCCESSFULLY COMPLETE THIS WORK, INCLUDING, BUT NOT LIMITED TO: CUTTING AND PATCHING OF EXISTING CONSTRUCTION TO MATCH ADJACENT CONSTRUCTION WHERE REQUIRED TO PERFORM NEW CONSTRUCTION AND THE REPAIR OF ANY DAMAGE TO THE EXISTING BUILDING EXTERIOR, OR SITE THAT MAY OCCUR DURING THE COURSE OF

13. THIS WORK IS PRIMARILY FOR INTERIOR FINISH AND BUILDING PERMIT SUBMITTAL ONLY AND DOES

NOT INCLUDE MEANS AND METHODS FOR CONSTRUCTION. PER THE OWNER'S DIRECTION,

THIS IS TO BE DESIGN-BUILD CONSTRUCTION WHEREAS THE EXISTING BUILDING'S CURRENT AND

FUTURE STRUCTURAL INTEGRITY, EXTERIOR ENVELOPE, ROOFING, FLASHING AND THERMAL AND MOISTURE PROTECTION ARE THE RESPONSIBILITY

DEMO NOTES:

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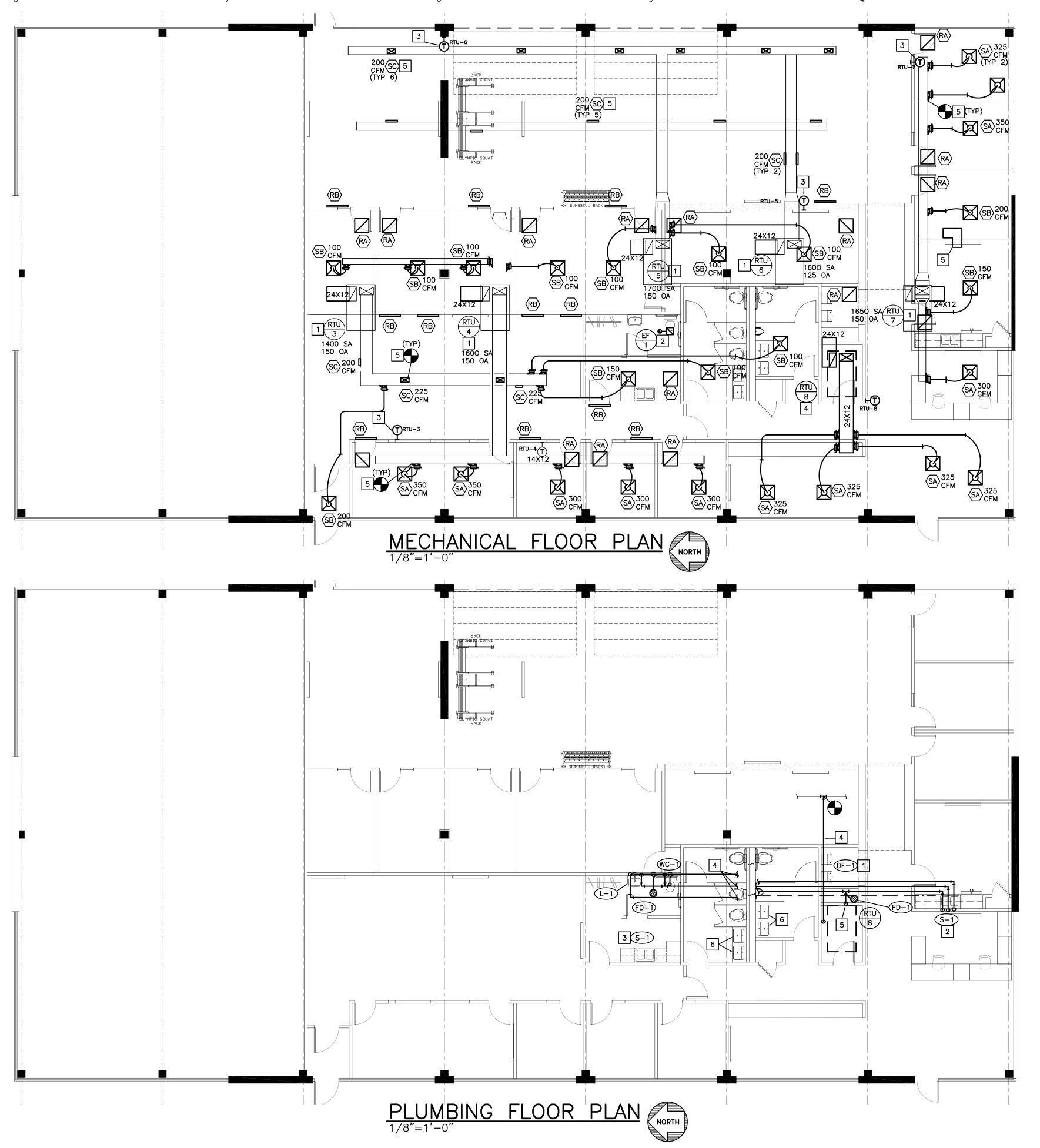
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1 10.25.21



FLOOR PLAN NOTES

- 1 EXISTING ROOFTOP UNIT. REBALANCE TO CFM INDICATED, CONNECT NEW SUPPLY AND RETURN AIR DUCTWORK AS SHOWN.
- 2 INSTALL EXHAUST FAN IN CEILING AND ROUTE 6"Ø EXHAUST DUCT THROUGH ROOF
- 3 RELOCATED THERMOSTAT. EXTEND WIRING AS REQUIRED.
- INSTALL NEW ROOFTOP UNIT AND CURB. RE: SCHEDULE. COORDINATE EXACT LOCATION WITH STRUCTURAL.
- 5 INSTALL A 16"X14" TRANSFER AIR DUCT ABOVE CEILING.
- PROVIDE NEW DUCT TAKE-OFF AND GRILLE ON EXISTING DUCT. DUCTWORK LOCATIONS, SIZES AND ROUTING ARE APPROXIMATE. NOTIFY ENGINEER OF ANY

FLOOR PLAN NOTES

- INSTALL NEW DRINKING FOUNTAIN. CONNECT 1-1/2"W, 1-1/2"V AND 1/2"CW TO EXISTING LINES PREVIOUSLY FEEDING LAVATORY.
- 2 INSTALL NEW SINK AND FLOOR DRAIN. ROUTE 2"W, 2"V, 1/2"CW AND 1/2"HW TO EXISTING LINES PREVIOUSLY FEEDING BATHROOM AND CONNECT. PROVIDE 1/2"HW AND 1-1/2"W CONNECTION TO DISHWASHER.
- INSTALL NEW SINK. ROUTE 2"W LINE BELOW SLAB, 1-1/2"V, 1/2"CW, AND 1/2"HW TO PREVIOUS LOCATION OF SINK AND CONNECT.
- ROUTE 1/2"NG LINE FROM NEW UNIT TO EXISTING LINE ON ROOF AND CONNECT. PROVIDE ROOF SUPPORTS EVERY 6'0" O.C. FIELD VERIFY EXACT LOCATION
- 5 PROVIDE 1/2"CW CONNECTION TO ICEMAKER.
- REMOVE AND REPLACE EXISTING LAVATORY WITH NEW UNDERMOUNT LAVATORY. KOHLER MODEL K-2608-U STAINLESS STEEL UNDERMOUT BOWL. PROVIDE WITH KOHLER MODEL K-46208-4 FAUCET AND NEW SUPPLIES AND STOPS.

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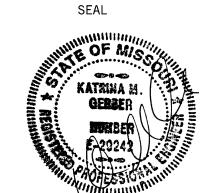
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CODE CONSULTANT



REVISIONS



PROJECT

F.I.T. MUSCLE AND JOINT CLINIC 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

F.I.T. MUSCLE & JOINT CLINIC, LLC 116.2111

MECHANICAL FLOOR PLANS

SHEET TITLE

M101

I 10.25.21

DIFFUSER/GRILLE SCHEDULE

TAG	MANUFACTURER	MODEL	FACE SIZE (INCHES)	NECK SIZE (INCHES)	MOUNTING TYPE	FINISH	NOTES
SA	EH PRICE	SCD	24X24	10"ø	LAY-IN	WHITE	_
(SB)	EH PRICE	SCD	24X24	8"ø	LAY-IN	WHITE	_
(SC)	EH PRICE	520	12X8	10X6	SURFACE	PRIMED	_
(RA)	EH PRICE	PDDR	24X24	22X22	LAY-IN	WHITE	_
(RB)	EH PRICE	530	36X12	34X10	SURFACE	WHITE	_
NOTES:	1. –						

ROOFTOP UNIT SCHEDULE (GAS)

RIU)				MINIMALIM EXT. FA				COOL	ING				HEAT	TING		ELECT	RICAL					
RTU M	MANUFACTURER	MODEL NO.	CFM	MINIMUM O.A.	S.P. (IN W.G.)		AMB. (°F)	ENTER. AIR DB/WB (°F)	TOTAL MBH	SENS. MBH	# OF STAGES	UNIT SEER	IN MBH	OUT MBH	VOLT	Ø	HZ	HP	MCA	МОСР	WEIGHT LBS	NOTES
RTU-8	CARRIER	48FCDA04	1300	120	0.50	DIRECT	105	78/66	32	25	1	14.0	67	54	208	3	60	0.50	20	30	1500	NOTE 1,2

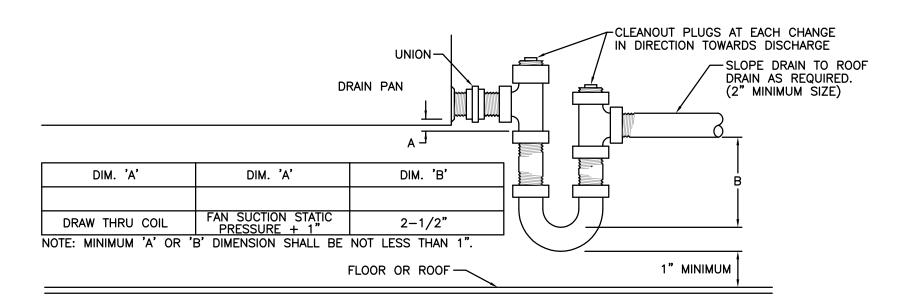
GAS PRESSURE REGULATOR AS REQUIRED

DOUBLE SWING JOINT AND REDUCER -

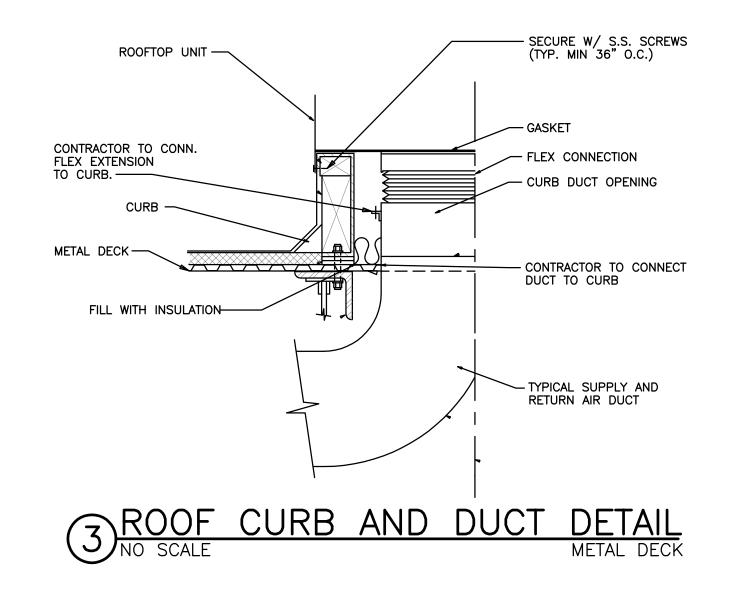
2. PROVIDE WITH SMOKE DETECTOR IN RETURN SECTION FOR FAN SHUT-DOWN.

FAN SCHEDULE

(EF)		MODEL			TYPE				ELECT	TRICAL		FAN TO DE	
#	MANUFACTURER	MODEL NO.	CFM	S.P. (IN W.G.)		RPM	DRIVE	VOLT	ø	HZ	WATTS /HP	FAN TO BE CONTROLLED BY	NOTES
EF-1	GREENHECK	SP-A90	75	0.25	CEILING	870	DIRECT	120	1	60	54	LIGHTS	NOTE 1
NOTES:	1. PROVIDE WITH TRANSFORMER	H CEILING GRILLE, E R.	BACKDRAF	T DAMPER,	SHEAR ISOLATORS	, DISCON	NECT SWITC	CH AND 1	20V/2	277V			



HVAC CONDENSATE TRAP DRAIN DETAIL SINGLE ZONE UNITS



GAS PIPE MAIN RE: ROOF PIPE GAS COCK

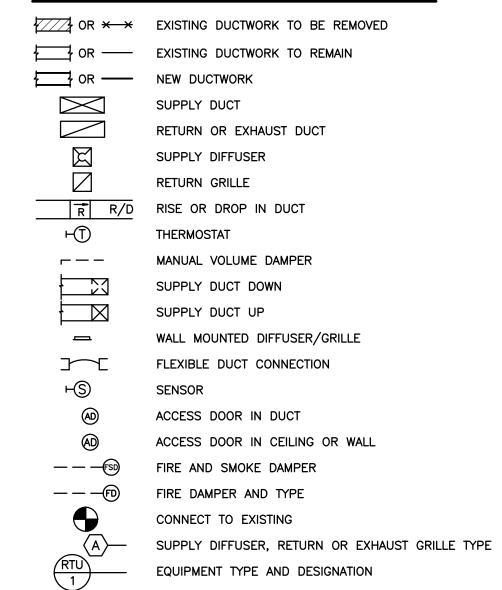
TYPICAL ROOF-TOP UNIT

PLUMBING FIXTURE SCHEDULE

MARK	MANUF.	MODEL NO.	DESCRIPTION
WC-1) ADA	PROFLO	PF1403TWH	ADA COMPLIANT TANK TYPE WATER CLOSET: WHITE VITREOUS CHINA, TWO PIECE, 12" ROUGH-IN, ELONGATED BOWL, 17" HIGH, GRAVITY FED BOX RIM, DUAL FLUSH 1.6/1.1 GALLON FLUSH TANK TOILET, COMPLETE WITH POLISHED CHROME FLUSH ACTUATOR MOUNTED ON WIDE SIDE OF STALL. SEAT: WHITE SOLID PLASTIC FOR ELONGATED BOWL WITH COVER, INTEGRAL BUMPERS, EXTERNAL CHEC HINGES WITH STAINLESS STEEL POSTS, WAX RING WITH HORN, SOLID BRASS CLOSET BOLTS, ROUND WHEEL ANGLE STOPS AND FLEXIBLE RISERS.
L-1 ADA	PROFLO PEERLESS	PF5414WH P36	LAVATORY: VITREOUS CHINA, RECTANGULAR WALL HUNG LAVATORY, CONCEALED FRONT OVERFLOW, CONCEALED HANGER, DRILLED FOR CONCEALED ARM CARRIER AND SHROUD/KNEE CONTACT GUARD. CHROME PLATED BRASS, 4" ON CENTER BODY WITH DECK MOUNTED FITTING WITH GRID DRAIN, 4-3/8' SPOUT, SINGLE LEVER HANDLE, CERAMIC CARTRIDGE AND 1.5GPM AERATOR. PROVIDE OFF SET GRID STRAINER DRAIN AND TAILPIECE WITH 1-1/4"x1-1/2" PLASTIC P-TRAP AND WASTE ARM TO WALL WITH ESCUTCHEON, RISERS WITH ANGLE STOPS. PROVIDE WITH ANTI-SCALD THERMOSTATIC MIXING VALVE BELOW SINK. PROVIDE INSULATION AND JACKET ON ALL EXPOSED PIPING BELOW LAVATORY.
<u>(S-1)</u>	PROFLO	PFSR332283	COUNTER DOUBLE COMPARTMENT SINK: 20 GAUGE, TYPE 301 STAINLESS STEEL AND STAINLESS STEEL BASKET STRAINERS WITH 1-1/2" TAILPIECE. PROVIDE TAILPIECE WITH 1-1/4"x1-1/2" PLASTIC P-TRAP, GRID DRAIN AND WASTE ARM TO WALL WITH ESCUTCHEON, STAINLESS STEEL BRAIDED RISERS WITH ANGLE STOPS.
	MOEN	5965 SERIES	FAUCET: CHROME PLATED, SINGLE HOLE DECK MOUNTED FAUCET, SINGLE METAL LEVER HANDLE, PULLDOWN SPRAYER WITH 68" BRAIDED HOSE, 1255 DURALAST CARTRIDGE AND 1.5GPM AERATOR.PROVIDE WITH ANTI-SCALD THERMOSTATIC MIXING VALVE BELOW SINK.
DF-1)	ELKAY	LMABFTLDDWSLK	WATER COOLER (ADA): SELF—CONTAINED BI—LEVEL PRESSURE WATER COOLER SHALL DELIVER A MINIMUM OF 7.8 GPH OF WATER AT 50°F COOLED FROM 80°F INLET AND 90°F AMBIENT. UNIT SHALL OPERATE ON WATER PRESSURE RANGE OF 20—90 PSIG. UNIT SHALL BE ACTIVATED FROM FRONT OR BY SIDE PUSH BARS USING LESS THAN 5 LBS. OF FORCE. UNIT SHALL BE EQUIPPED WITH A LEAD FREE CHROME PLATED, HOODED BUBBLER WITH AN INTEGRAL DESIGNED NON—SQUIRT FEATURE. TOP DEPTH OF INTEGRAL DRAIN SHALL BE A MINIMUM OF 2.25" AND SHALL BE MANUFACTURED FROM TYPE 304 STAINLESS STEEL. STAINLESS STEEL CABINET FINISH. EVAPORATOR SHALL CONSIST OF AN INSULATED TUBE ON TUBE COIL SELF—CLEANING DESIGN.R—134A REFRIGERANT SYSTEM SHALL BE HERMETICALLY SEALED AND BE CAPILLARY TUBE CONTROLLED. AN ADJUSTABLE THERMOSTAT WITH AN OFF POSITION SHALL CONTROL REFRIGERATION SYSTEM. WATER COOLER SHALL ADHERE TO: ANSI A 117.1—1992 AND ADA ACT OF 1990 FRONTAL APPROACH AND PROTRUDING OBJECTS REQUIREMENTS, 1988 LEAD CONTAMINATION CONTROL ACT AND NSF61 SECTION 9 CERTIFIED. CHILLED WATER CAPACIT SHALL BE RATED IN ACCORDANCE WITH ARI STD. 1010—02.
			PROVIDE 1 1/4"X1 1/2" 17 GAUGE CHROME-PLATED SEMI-CAST BRASS P-TRAPS WITH CLEANOUT AND WASTE ARM TO WALL WITH ESCUTCHEON, RISERS WITH LOOSE KEY ANGLE STOPS.
			FOR MOUNTING HEIGHT SEE ARCHITECTURAL DRAWINGS.
			PROVIDE WITH EZH20 BOTTLE FILLING STATION AT ONE LOCATION
FD-1	WADE	1100-STD6	CAST IRON FLOOR DRAIN WITH FLANGE, INTEGRAL REVERSIBLE CLAMPING COLLAR, SEEPAGE OPENINGS, 1/2" PLUGGED PRIMER TAP, AND 6" DIA. NICKEL BRONZE STRAINER WITH VANDAL—PROOF SCREWS. 2" OUTLET. PROVIDE WITH DEEP SEAL P—TRAP.

NOTE: REFER TO ARCHITECTURAL ELEVATIONS AND DETAILS FOR FIXTURE, VALVE AND CONTROLS LOCATIONS

MECHANICAL SYMBOLS



PLUMBING SYMBOLS

EXISTING TO REMAIN

-× × ×	EXISTING TO BE REMOVED
	NEW PIPING
сw	COLD WATER
нw	HOT WATER
v	SANITARY VENT ABOVE GND./FLOOR ABOVE
	SANITARY VENT BELOW FLOOR
w	SANITARY WASTE ABOVE GND./FLOOR ABOVE
— —w— —	SANITARY WASTE BELOW GROUND
NG	NATURAL GAS
$-\!$	SHUT OFF VALVE
 ₩	GAS SHUT-OFF COCK
<u> </u>	CHECK VALVE
——————————————————————————————————————	UNION
 ∍ o	PIPE DROP/PIPE RISE
	BOTTOM OUTLET TEE
-	TOP OUTLET TEE
o─+ HB	HOSE BIBB
o─┤ıwн	WALL HYDRANT
со —	CLEAN OUT
	SANITARY VENT THRU ROOF
Ø OR ∅ FD	FLOOR DRAIN
☐ FFCO	FINISHED FLOOR CLEANOUT
(C) RD	ROOF DRAIN
	PLUMBING FIXTURE DESIGNATION

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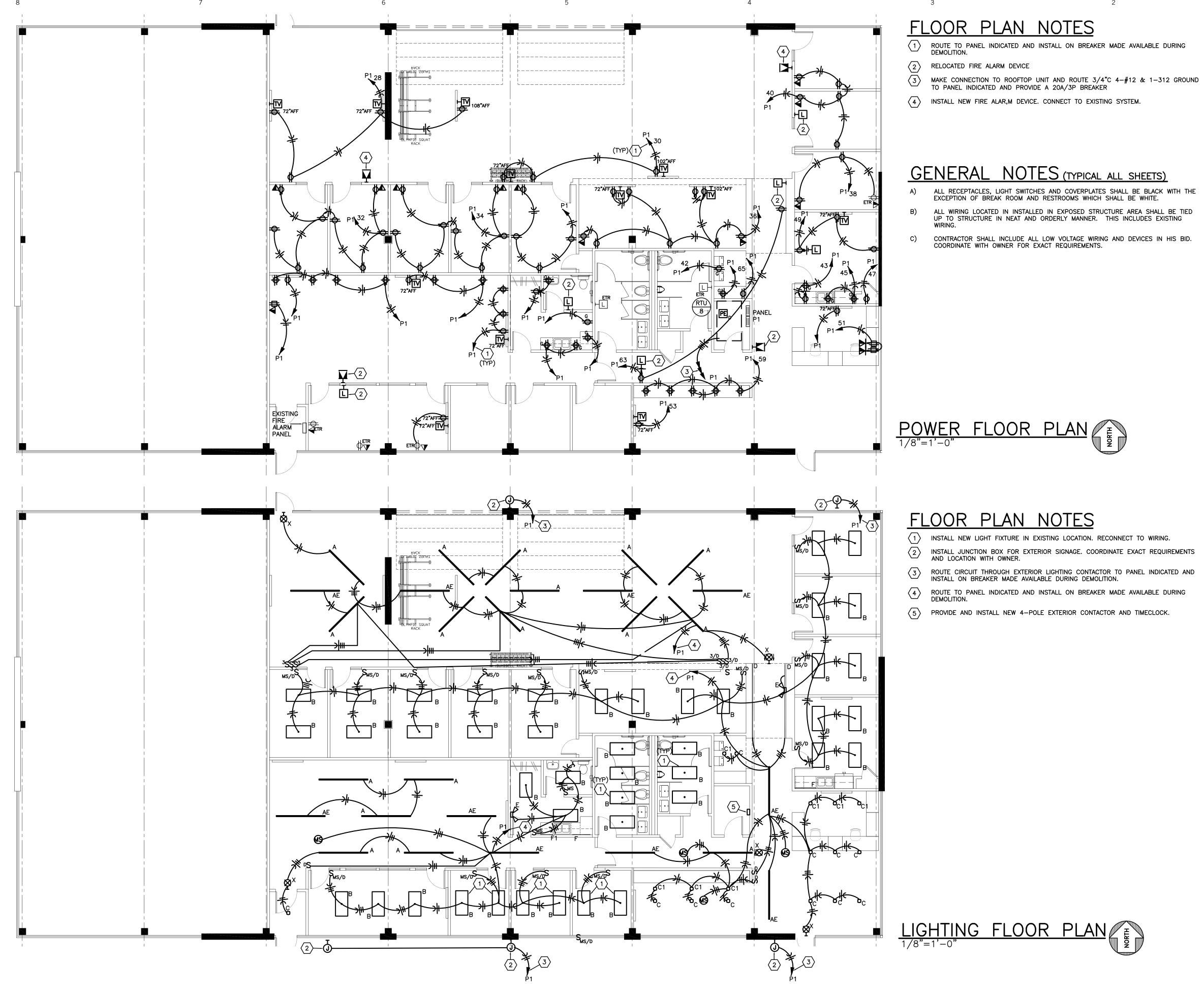
PROJECT F.I.T. MUSCLE AND JOINT CLINIC 413 NW MURRAY ROAD

LEE'S SUMMIT, MO 64081 F.I.T. MUSCLE & JOINT CLINIC, LLC 116.2111 SHEET TITLE **MECHANICAL** SCHEDULES & DETAILS

M200

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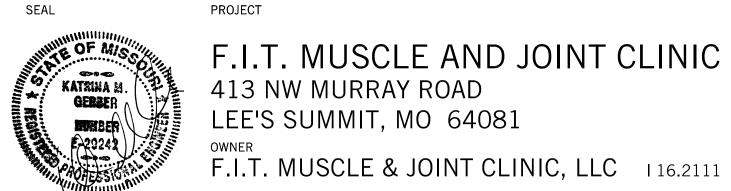
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PROJECT

F.I.T. MUSCLE AND JOINT CLINIC 413 NW MURRAY ROAD LEE'S SUMMIT, MO 64081

ELECTRICAL FLOOR PLANS

SHEET TITLE

E101

I 10.25.21

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Lighting Fixture Schedule | 120V/49W | SUSPENDED 2" WIDE BLACK LED LIGHT FIXTURE WITH FROSTED LENS 8-OC4-LED-6000L-DIM10-MVOLT-35K-85-BK-OCGSS 120V/49W | SUSPENDED 2" WIDE BLACK LED LIGHT FIXTURE WITH FROSTED LENS AND 8-OC4-LED-6000L-DIM10-MVOLT-35K-85-0-EMG-LED-20W-OCGSS-BK 120V/32W 2'X4' RECESSED LED WITH FROSTED ACRYLIC LENS B LITHONIA #2BLT4-40L-SDSM-120-EZ1-LP935 | 120V/21W | 6" LED CAN LIGHT WITH WHITE TRIM AND REFLECTOR. #6DS-L20/835-DIM-UNV-O-M-OF 120V/21W SAME AS "C" BUT WITH 10W EM DRIVER.. CE WILLIAMS #6DS-L20/835-EM/10W-DIM-UNV-O-M-OF | 120V/21W | 6" ADJUSTABLE LED CAN LIGHT WITH WHITE TRIM AND REFLECTOR. #6DS-L20/835-DIM-UNV-O-WW-OF HO LED TAPE LIGHT WITH POWER SUPPLY. PROVIDE 120V/24V TRANSFORMER. INSTALL IN CHANNEL WITH FROSTED LENS #1TEC2SMRC8SIL-1TEL0028WHO-1TEE2SMRCSSIL | 120V/5W | CEILING MOUNTED EMERGENCY LIGHT E | WILLIAMS #EMER/LED 120V/16W 3' UNDERCABINET LIGHT WITH FROSTED LENS WILLIAMS #1SF-3'-L18-AF12125 | 120V/11W | 2' UNDERCABINET LIGHT WITH FROSTED LENS F1 | WILLIAMS #1SF-2'-L12-AF12125

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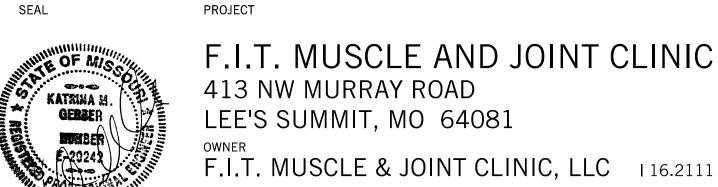
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PROJECT

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ELECTRICAL SCHEDULES & DETAILS

E200

I 10.25.21

SHEET TITLE

STRUCTURAL ENGINEER MECHANICAL ENGINEER CODE CONSULTANT CONTRACTOR

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120V/5W | L.E.D. EXIT SIGN WITH RED LETTERS, DIE-CAST ALUMINUM HOUSING,MATTE X ELITE # ELX-605-R-B-AL-1 BLACK BRUSHED ALUMINUM FACE, NICKEL-CADMIUM BATTERY AND SELF-DIAGNOSTICS. CONTRACTOR SHALL VERIFY EXACT MOUNTING,

NUMBER OF FACES, AND NUMBER OF CHEVRONS PRIOR TO ORDERING.

ELECTRICAL SYMBOLS

BRANCH CIRCUIT CONCEALED IN CEILING OR WALL. ARROWS INDICATE HOMERUNS TO PANEL. ALL CONDUCTORS ARE #12 EXCEPT AS NOTED. — |||| — CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SLAB. GROUNDING CONDUCTOR #12 EXCEPT AS NOTED

EXIT LIGHT - SINGLE FACED - ARROWS AS SHOWN t⊗t EXIT LIGHT - DOUBLE FACED - ARROWS AS SHOWN

OR CEILING OR WALL MOUNTED EMERGENCY LIGHTING UNIT. FLUORESCENT LIGHT FIXTURE

FLUORESCENT LIGHT FIXTURE WITH EMERGENCY BALLAST

FLUORESCENT STRIP FIXTURE RECESSED CEILING LIGHT FIXTURE WALL MOUNTED LIGHT FIXTURE

 $\langle \rangle$ PANELBOARD (SURFACE MOUNTED). INSTALL W/TOP 6'-0" AFF

SURFACE MOUNTED PANEL, TYPE AS INDICATED ON DRAWINGS FLUSH MOUNTED PANEL, TYPE AS INDICATED ON DRAWINGS

DISCONNECT SWITCH. SIZED AS NOTED SINGLE POLE SWITCH. +3'-10" AFF TO CENTERLINE OF DEVICE BOX THREE-WAY SWITCH +3'-10" AFF TO CENTERLINE OF DEVICE BOX

PILOT LIGHT SWITCH +3'-10" AFF TO CENTERLINE OF DEVICE BOX

PUSH BUTTON +3'-10" AFF. SINGLE RECEPTACLE. +1'-6" AFF OR AS NOTED

DUPLEX RECEPTACLE. +1'-6" AFF OR AS NOTED DUPLEX RECEPTACLE INSTALLED ABOVE COUNTERTOP

WEATHER RESISTANT GFCI RECEPTACLE WITH WEATHERPROOF PLATE. DUPLEX RECEPTACLE W/GROUND FAULT PROTECTION. +1'-6" AFF OR

DOUBLE DUPLEX RECEPTACLE. +1'-6" AFF OR AS NOTED

DOUBLE DUPLEX RECEPTACLE INSTALLED ABOVE COUNTERTOP.

FLUSH FLOOR BOX WITH POWER AND DATA. TV OUTLET WITH 1" CONDUIT STUBBED UP OUT OF BOX

TO ABOVE ACCESSIBLE CEILING. +1'-6" AFF OR AS NOTED. DATA/VOICE OUTLET WITH 1" CONDUIT STUBBED UP OUT OF BOX TO ABOVE ACCESSIBLE CEILING. +1'-6" AFF OR AS NOTED.

CEILING MOUNTED PHOTO-ELECTRIC SMOKE DETECTOR (D-DENOTES IN DUCT) WALL MOUNTED COMBINATION FIRE ALARM HORN/STROBE w/75cd RATING,

FLUSH MOUNTED UNLESS NOTED OTHERWISE. (cd-DENOTES CANDELA RATING). +6'-8" A.F.F.

WALL MOUNTED FIRE ALARM STROBE w/75cd RATING, UNLESS NOTED OTHERWISE. (cd-DENOTES CANDELA RATING). +6'-8" A.F.F.

WALL MOUNTED JUNCTION BOX.

 \bigcirc JUNCTION BOX

THERMOSTAT OUTLET BOX WITH 3/4"C, STUBBED UP OUT OF BOX TO ABOVE ACCESSIBLE CEILING. THERMOSTAT AND WIRING BY

INDICATES WIRING DEVICE ABOVE OR BELOW RE: DRAWING

ROOF TOP UNIT AND NUMBER

DOMESTIC WATER HEATER AND NUMBER EXHAUST FAN AND NUMBER

ABOVE FINISH FLOOR EXISTING TO REMAIN FIRE ALARM

MECHANICAL AND ELECTRICAL GENERAL PROVISIONS

DIVISION 15 AND 16 SHALL BE GOVERNED BY ALL APPLICABLE PROVISIONS OF THE CONTRACT DOCUMENTS. THE MECHANICAL/ELECTRICAL CONTRACTOR SHALL FURNISH, INSTALL AND CONNECT ALL MATERIALS, EQUIPMENT, APPÁRATUS, MECHANICAL/ ELECTRICAL SYSTEMS AND INCIDENTALS REQUIRED FOR COMPLETE AND WORKING INSTALLATION. CONTRACTOR SHALL SUPPLY ALL NECESSARY LABOR, EQUIPMENT, TOOLS, INSURANCE, TAXES SERVICES; AND SHALL ASSUME FULL RESPONSIBILITY FOR ALL OBLIGATIONS ASSOCIATED WITH COMPLETION OF MECHANICAL/ELECTRICAL WORK AS PROVIDED BY THE CONTRACT DOCUMENTS.

1.02 STANDARDS, REGULATIONS AND CODES:

- A. THE WORK SHALL COMPLY WITH THE EDITION OF THE APPLICABLE STANDARDS. REGULATIONS AND CODES CURRENTLY IN FORCE OF ALL STATE AND LOCATION AUTHORITIES HAVING JURISDICTION. WHERE QUANTITIES, SIZES, OR OTHER REQUIREMENTS INDICATED ON THE DRAWINGS OR HEREIN SPECIFIED ARE IN EXCESS OF THE STANDARD OR CODE REQUIREMENTS, THE SPECIFICATIONS AND/OR DRAWINGS SHALL GOVERN. IN THE ABSENCE OF OTHER APPLICABLE LOCAL CODES, ACCEPTABLE TO THE ARCHITECT/ENGINEER, THE NATIONAL ELECTRIC CODE AND UNIFORM PLUMBING AND MECHANICAL CODES SHALL APPLY TO THIS WORK.
- B. THE CONTRACTOR SHALL COMPLY WITH RULES AND REGULATIONS OF PUBLIC UTILITIES AND MUNICIPAL DEPARTMENTS AFFECTED BY CONNECTIONS OF SERVICES. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED THERE WITH.
- THE MECHANICAL/ELECTRICAL CONTRACTOR SHALL BE LICENSED TO PERFORM MECHANICAL/ELECTRICAL WORK IN THE MUNICIPALITY IN WHICH THE PROJECT IS LOCATED.
- D. ALL PRODUCTS AND TYPES OF CONSTRUCTION SHALL MEET OR EXCEED THE LATEST EDITION OF APPLICABLE STANDARDS OF MANUFACTURER, TESTING, PERFORMANCE AND INSTALLATION.
- WORK PERFORMED UNDER THIS CONTRACT SHALL, AT A MINIMUM, BE IN CONFORMANCE WITH APPLICABLE NATIONAL, STATE AND LOCAL CODES HAVE JURISDICTION. EQUIPMENT FURNISHED AND ASSOCIATED INSTALLATION WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN STRICT COMPLIANCE WITH CURRENT APPLICABLE CODES ADOPTED BY THE LOCAL AHJ INCLUDING ANY AMENDMENTS AND STANDARDS AS SET FORTH BY THE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), UNDERWRITERS LABORATORIES (UL), OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME), AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS (ASHRAE), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AMERICAN SOCIETY OF TESTING MATERIALS (ASTM) AND OTHER NATIONAL STANDARDS AND CODES WHERE APPLICABLE. WHERE THE CONTRACT DOCUMENTS EXCEEDS THE REQUIREMENTS
- OF THE REFERENCED CODES, STANDARDS, ETC., THE CONTRACT DOCUMENTS SHALL TAKE PRECEDENCE. PROCURE AND PAY FOR PERMITS AND LICENSES REQUIRED FOR THE ACCOMPLISHMENT OF THE WORK HEREIN DESCRIBED. WHERE REQUIRED, OBTAIN, PAY FOR AND FURNISH CERTIFICATES OF INSPECTION TO THE OWNER. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY VIOLATION OF THE LAW. MAINTAIN NECESSARY SIGNAL LIGHTS AND GUARDS FOR THE SAFETY OF THE PUBLIC.

1.03 LOCAL CONDITIONS:

- THE CONTRACTOR SHALL CAREFULLY EXAMINE THE LOCAL CONDITIONS AND EXISTING INSTALLATIONS, SHALL DETERMINE SUBSURFACE SOIL CONDITIONS AS TO WHAT DIFFICULTIES MAY BE ENCOUNTERED IN TRENCHING AND BACKFILLING. AND SHALL THOROUGHLY FAMILIARIZE HIM/HERSELF WITH ALL EXISTING CONDITIONS WHICH MAY AFFECT HIS/HER WORK. HE/SHE SHALL LOCATE ALL EXISTING UTILITIES AND PROTECT THEM DURING THE EXECUTION OF THE WORK.
- B. CONTRACTOR SHALL EXAMINE THE ARCHITECTURAL, STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS TO FAMILIARIZE HIM/HERSELF WITH THE TYPE OF CONSTRUCTION, MATERIALS, AND EQUIPMENT TO BE USED FOR ALL WORK AND HOW IT WILL AFFECT THE INSTALLATION OF THIS CONTRACT.
- C. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE MADE SUCH EXAMINATION, TO HAVE ACCEPTED SUCH CONDITIONS, TO HAVE MADE ALLOWANCE THEREFOR, AND INCLUDED ALL COSTS IN HIS PROPOSAL. FAILURE TO DETERMINE EXISTING CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR THE GRANTING OF ADDITIONAL COMPENSATION.

1.04 COORDINATION:

- COORDINATE WORK WITH THAT OF OTHER TRADES SO THAT THE VARIOUS COMPONENTS OF THE SYSTEMS WILL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE, AND WILL ALLOW PROPER SERVICE ACCESS TO THOSE ITEMS REQUIRING MAINTENANCE. COMPONENTS WHICH ARE INSTALLED WITHOUT REGARD TO THE ABOVE SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.
- B. UNLESS OTHERWISE INDICATED, THE GENERAL CONTRACTOR WILL PROVIDE CHASES AND OPENINGS IN BUILDING CONSTRUCTION REQUIRED FOR INSTALLATION OF THE SYSTEMS SPECIFIED HEREIN. CONTRACTOR SHALL FURNISH THE GENERAL CONTRACTOR WITH INFORMATION WHERE CHASES AND OPENING AS REQUIRED. KEEP INFORMED AS TO THE WORK OF OTHER TRADES ENGAGED IN THE CONSTRUCTION OF THE PROJECT AND EXECUTE WORK IN A MANNER AS TO NOT INTERFERE WITH OR DELAY THE WORK OF
- C. FIGURED DIMENSIONS SHALL BE TAKEN IN PREFERENCE TO SCALE DIMENSIONS. CONTRACTOR SHALL TAKE HIS OWN MEASUREMENTS AT THE BUILDING, AS VARIATIONS MAY OCCUR. CONTRACTOR WILL BE HELD RESPONSIBLE FOR ERRORS THAT COULD OF HAVE BEEN AVOIDED BY PROPER CHECKING AND INSPECTION
- PROVIDE MATERIALS WITH TRIM THAT WILL PROPERLY FIT THE TYPES OF CEILING, WALL OR FLOOR FINISHES ACTUALLY INSTALLED. MODEL NUMBERS LISTED IN THE SPECIFICATION OR SHOWN ON THE DRAWINGS ARE NOT INTENDED TO DESIGNATE THE REQUIRED TRIM.

A. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL PROVIDE A NEAT AND "WORKMANLIKE" APPEARANCE WHEN COMPLETED, TO THE SATISFACTION OF THE ARCHITECT/ENGINEER. THE COMPLETE INSTALLATION SHALL FUNCTION AS DESIGNED AND INTENDED WITH RESPECT TO EFFICIENCY, CAPACITY, AND NOISE LEVEL, ETC.

ALL NECESSARY CUTTING, DRILLING AND PATCHING SHALL BE PROVIDED BY THIS CONTRACTOR. STRUCTURAL MEMBERS SHALL NOT BE DISTURBED WITHOUT PRIOR APPROVAL OF THE ARCHITECT/ ENGINEER. ALL AREAS DISTURBED BY WORK PERFORMED UNDER THIS CONTRACT SHALL BE NÉATLY REPAIRED AND REFINISHED TO THE CONDITION OF ADJOINING SURFACES IN A MANNER SUITABLE TO THE ARCHITECT/ENGINEER.

1.08 OPERATION DURING CONSTRUCTION:

A. THE CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION AND OPERATION, SERVICE AND MAINTENANCE OF ALL NEW EQUIPMENT DURING CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE OWNER OF THE COMPLETED PROJECT. WARRANTY PERIODS SHALL NOT COMMENCE UNTIL FINAL ACCEPTANCE BY THE OWNER.

1.10 SAFETY REGULATIONS:

ALL MECHANICAL/ELECTRICAL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE GOVERNING SAFETY REGULATIONS, INCLUDING OSHA REGULATIONS. PROVIDE SAFETY LIGHTS, GUARDS AND

1.11 HOUSEKEEPING:

- A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING STOCKS OF MATERIAL AND EQUIPMENT STORED ON THE PREMISES IN A NEAT AND ORDERLY MANNER.
- THE CONTRACTOR SHALL CLEAN AND MAINTAIN HIS/HER PORTION OF THE WORK AS SPECIFIED IN THE GENERAL CONDITIONS.
- THE CONTRACTOR SHALL REMOVE FROM THE PREMISES ALL WASTE MATERIAL PRESENT AS A RESULT OF

1.12 COINCIDENTAL DAMAGE

- A. CONTRACTOR SHALL REPAIR STREETS, SIDEWALKS, DRIVES, PAVING, WALLS AND FINISHES THAT THEY DAMAGE IN THE COURSE OF THIS PROJECT. REPAIR MATERIALS SHALL MATCH EXISTING CONSTRUCTION. REPAIR WORK SHALL MEET REQUIREMENTS OF THE LOCAL AUTHORITIES HAVING JURISDICTION AND MEET THE SATISFACTION OF THE ARCHITECT. 1.14 CONNECTION AND ALTERATION TO EXISTING SYSTEMS:
 - A. CONNECTION TO THE EXISTING BUILDING PLUMBING, HEATING, COOLING, VENTILATION, PIPING, ELECTRICAL, ETC., MUST BE ACCOMPLISHED UNDER THIS CONTRACT. SYSTEM "DOWNTIME" DUE TO CONNECTION SHALL BE KEPT TO AN ABSOLUTE MINIMUM. THE OWNER'S REPRESENTATIVE SHALL JUDGE IF AT WHAT TIME, AND FOR WHAT LENGTH OF TIME A SHUT-DOWN CAN BE TOLERATED.
- B. PROVIDE ALL TEMPORARY PIPING AND WIRING SYSTEMS REQUIRED DURING CONSTRUCTION IN ORDER TO KEEP ALL EXISTING SYSTEMS FUNCTIONING.
- DEMOLITION, CUTTING AND PATCHING TO RESTORE SURFACES TO ORIGINAL CONDITION AS NECESSITATED FOR ACCESS TO WORK PERFORMED BY THE CONTRACTOR OR HIS SUBCONTRACTORS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

1.15 GRAPHIC REPRESENTATION AND JOB CONDITIONS:

- A. THE DRAWINGS SHALL SERVE AS WORKING DRAWINGS FOR THE GENERAL LAYOUT OF THE VARIOUS ITEMS OF EQUIPMENT; ARE DIAGRAMMATIC UNLESS SPECIFICALLY DIMENSIONED; AND DO NOT NECESSARILY INDICATE EVERY REQUIRED ITEM.
- B. THE ARCHITECTURAL AND STRUCTURAL DRAWINGS TAKE PRECEDENCE OVER THE MECHANICAL AND ELECTRICAL DRAWINGS IN THE REPRESENTATION OF THE GENERAL CONSTRUCTION WORK.
- ARRANGE WORK IN A NEAT, WELL ORGANIZED MANNER. COORDINATE WORK WITH THAT OF ALL OTHER TRADES SO THAT THE VARIOUS COMPONENTS OF THE SYSTEMS WILL BE INSTALLED AT THE PROPER TIME, WILL FIT THE AVAILABLE SPACE, AND WILL ALLOW PROPER SERVICE ACCESS TO THOSE ITEMS REQUIRING MAINTENANCE. COMPONENTS WHICH ARE INSTALLED WITHOUT REGARD TO THE ABOVE SHALL BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER.

PROVIDE MATERIALS WITH TRIM THAT WILL PROPERLY FIT THE TYPES OF CEILING, WALL, OR FLOOR FINISHES ACTUALLY INSTALLED. MODEL NUMBERS LISTED IN THE SPECIFICATIONS OR SHOWN ON THE DRAWINGS ARE NOT INTENDED TO DESIGNATE THE REQUIRED TRIM.

A. THE CONTRACTOR SHALL GUARANTEE ALL WORK PERFORMED AND MATERIALS AND EQUIPMENT FURNISHED UNDER THIS CONTRACT, AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF THE OWNER'S FINAL ACCEPTANCE OF THE WORK, OR AS NOTED IN EACH SECTION.

1.17 PENETRATIONS:

- A. SEAL MECHANICAL FLOOR, EXTERIOR WALL AND ROOF PENETRATIONS WATERTIGHT AND WEATHERTIGHT. SEAL AROUND MECHANICAL PENETRATIONS WITH 3M CP-25 FIRE BARRIER CAULK (THICKNESS AS REQUIRED AND RECOMMENDED BY MANUFACTURER) TO MAINTAIN FIRE RESISTANCE RATING OF FIRE-RATED ASSEMBLIES.
- PROVIDE PREFABRICATED ROOF CURBS MANUFACTURED BY CUSTOM CURB, INC., PATE COMPANY, THYCURB OR APPROVED EQUAL. PROVIDE ROOF CURB WITH FACTORY INSTALLED IN WOOD NAILER, WELDED 18 GAUGE GALVANIZED STEEL SHELL, BASE PLATE AND FLASHING, 1-1/2" THICK, 3 POUND RIGID INSULATION, FULLY MITERED 3-INCH RAISED CANT, COVER OF WEATHER RESISTANT, WEATHER PROOF MATERIAL AND PIPE COLLAR OF WEATHER RESISTANT MATERIAL WITH STAINLESS STEEL PIPE CLAMP. END OF SECTION

<u>HEATING, VENTILATION AND AIR CONDITIONING</u>

- A. THE WORK INCLUDED UNDER THIS CONTRACT CONSISTS OF THE CONTRACTOR PROVIDING ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SERVICES, ETC..., NECESSARY TO COMPLETE THE INSTALLATION OF THE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS, AND OTHER ITEMS HEREIN LISTED, AND AS DESCRIBED IN THESE SPECIFICATIONS, AS ILLUSTRATED IN THE ACCOMPANYING DRAWINGS, OR AS DIRECTED BY THE ARCHITECT/ENGINEER. HVAC WORK IS COMPRISED OF, BUT NOT LIMITED TO THE
 - 3. SYSTEM OF SUPPLY AND RETURN DUCT, GRILLES AND OUTLETS.
 - 4. EXHAUST SYSTEMS INCLUDING FANS, DUCTS, ETC.

5. SYSTEMS OF INSULATION FOR PIPING, DUCTS.

1.02 SHEET METAL:

- A. MINIMUM THICKNESS OF DUCT SHALL BE 26-GAUGE SHEET METAL. REINFORCE HOUSINGS AND DUCTWORK OVER 30" WITH 1-1/4" ANGLES NOT LESS THAN 5'-6" ON CENTERS. SUPPORT HORIZONTAL RUNS OF DUCT FROM STRAP IRON HANGERS ON CENTERS NOT TO EXCEED 8'-0". DO NOT SUPPORT CEILING GRID, CONDUITS, PIPES, ETC. FROM DUCTWORK.
- B. CONSTRUCT LOW VELOCITY SUPPLY DUCTS TO MEET SMACNA POSITIVE PRESSURE OF 2"W.G. CONSTRUCT RETURN, OUTDOOR AND EXHAUST DUCTWORK UPSTREAM OF FANS TO MEET SMACNA NEGATIVE PRESSURE OF 1"W.G. CONSTRUCT EXHAUST DUCTWORK DOWNSTREAM OF FANS TO MEET SMACNA POSITIVE PRESSURE OF 1"W.G.
- C. SEAL DUCTWORK WITH HEAVY LIQUID SEALANT SIMILAR TO HARDCASE IRONGRIP 601 OR EQUAL. FOR DUCTS WITH PRESSURE CLASSIFICATION OF 2"W.G. SEAL JOINTS TO MEET SMACNA CLASS B. FOR DUCT WITH PRESSURE CLASSIFICATION LESS THAN 2"W.G. SEA JOINTS TO MEET SMACNA CLASS C. TAPES AND MASTICS SHALL BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A
- D. FLEXIBLE DUCT SHALL BE FLEXMASTER TYPE 8B, THERMAFLEX TYPE G-KM OR EQUAL. PROTECTIVE BARRIER, UL 181 CLASS 1, ACOUSTICAL INSULATED DUCT, R-5 FIBERGLASS INSULATION. PROVIDE CPE LINER WITH STEEL WIRE HELIX MECHANICALLY LOCKED OR BONDED TO LINER. DO NOT EXCEED 5 FEET IN LENGTH AND SHALL BE INSTALLED FULLY EXTENDED AND STRAIGHT AS POSSIBLE. SUPPORT MATERIAL SHALL NOT BE LESS THAN 1.5" WHERE IN DIRECT CONTACT WITH DUCT. INSTALL TWO WRAPS OF DUCT TAPE AROUND THE INNER CORE CONNECTION AND A CLAMP OVER THE TAPE AND TWO WRAPS OF DUCT OR A CLAMP AROUND OUTER JACKET.
- E. ALL DUCT SIZES SHOWN ARE FREE AREA SIZE. INCREASE SHEETMETAL TO ACCOMMODATE LINER WHERE
- PROVIDE RADIUS ELBOWS TURNS AND OFFSETS WITH RADIUS OF 1-1/2 TIMES THE DUCT WIDTH. WHERE SPACE DOES NOT PERMIT FULL RADIUS PROVIDE SHORT RADIUS ELBOWS WITH MINIMUM OF 2 CONTINUOUS SPLITTER VANES AS SAME GAGE AS DUCTWORK, RIGIDLY FASTENED WITH GUIDE STRIPS IN DUCTWORK. VANES SHALL BE INSTALLED IN ALL DUCTWORK EXCEPT GREASE DUCT.
- G. ROUND OR OVAL DUCTWORK SHALL BE SEMCO, WESCO OR EQUAL, SHEETMETAL WITH SMOOTH INTERIOR SURFACE. SIZES 14" AND SMALLER SHALL BE 26 GAGE.
- H. LINDAB SPRIOSAFE OR EQUAL FACTORY-MANUFACTURED ROUND DUCTWORK AND FITTINGS MAY BE SUBSTITUTED FOR SPECIFIED ROUND BRANCH DUCTWORK.

1.03 GRILLES, REGISTERS, INLETS, OUTLETS:

- A. ALL SUPPLY GRILLES, REGISTERS AND DIFFUSERS SHALL BE AS SCHEDULED ON THE DRAWINGS AND
- B. LOUVERS SHALL BE GREENHECK ESD-435 OR ACCEPTABLE EQUAL AND SHALL BE ADC

1.04 DUCTWORK ACCESSORIES:

- A. PROVIDE SINGLE THICKNESS TURNING VANES IN ALL SUPPLY DUCT TURNS.
- B. PROVIDE DUCT ACCESS DOORS FOR ALL INTERNAL MOUNTED EQUIPMENT.
- PROVIDE 45° TAKEOFF FITTINGS WITH VOLUME DAMPER AND SCOOP FOR ALL ROUND TAKEOFFS TO
- D. PROVIDE DAMPERS WHERE SHOWN AND REQUIRED. BALANCE AND CONTROL DAMPERS SHALL BE
- OPPOSED BLADE EXCEPT AIR MIXING DAMPERS SHALL BE PARALLEL BLADE.
- BACKDRAFT DAMPER: GREENHECK EM-30. MANUAL DAMPER: GREENHECK MBD-15.
- PROVIDE FLEXIBLE DUCT CONNECTORS AT CONNECTIONS TO FANS, A/C UNITS AND ALL MOTOR DRIVEN EQUIPMENT. FLEXIBLE CONNECTORS SHALL BE NEOPRENE COATED GLASS CLOTH CANVAS SIMILAR TO DURO-DYNE OR APPROVED EQUAL. MAKE AIRTIGHT JOINTS AND INSTALL WITH MINIMUM 1-1/2" OF SLACK.

1.05 INSULATION:

- A. PROVIDE DUCT LINER IN RECTANGULAR RETURN AIR DUCTWORK. LINER SHALL BE 1" THICK. 1-1/2 POUND DENSITY FIBERGLASS FOR SOUND ATTENUATION ONLY. CERTAINTEED CORP. "TOUGHGARD" OR EQUIVALENT OWENS-CORNING OR KNAUF LONG TEXTILE FIBER DUCT LINER. LINER SURFACE SHALL SERVE AS A BARRIER AGAINST INFILTRATION OF DUST AND DIRT. SHALL MEET ASTMC 1338 FOR FUNGI RESISTANCE AND SHALL BE CLEANABLE USING DUCT CLEANING METHODS AND EQUIPMENT OUTLINED BY NORTH AMERICAN INSULATION MANUFACTURERS ASSOCIATION (NAIMA) DUCT CLEANING GUIDE. INSTALL WITH LINER ADHESIVE AND MECHANICAL FASTENERS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. LINER ADHESIVE SHALL CONTAIN A CALCULATED VOC VOLUME OF LESS THAN 75G/L. DUCTWORK SIZES SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. INCREASE SHEETMETAL SIZES BY LINER THICKNESS IN BOTH DIRECTIONS WHERE LINER IS INSTALLED.
- B. COVER CONCEALED RIGID ROUND AND RECTANGULAR SUPPLY AIR DUCTWORK, ROUND AND RECTANGULAR OUTSIDE AIR DUCTWORK AND ROUND AND RECTANGULAR EXHAUST AND RELIEF AIR DUCTWORK (WRAP EXHAUST AND RELIEF ONLY WITHIN 10 FEET OF EXTERIOR DISCHARGE OUTLETS) WITH 2" THICK, 3/4 POUND DENSITY, MINIMUM R-5.0 DUCT WRAP, CERTAINTEED OR EQUIVALENT OWENS-CORNING OR KNAUF WITH HEAVY DUTY FOIL SCRIM KRAFT FACING AND WITH JOINTS TAPED WITH 3" WIDE FOIL TAPE.
- INSULATING MATERIAL, ADHESIVES, COATINGS, ETC. SHALL NOT EXCEED FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPED RATING OF 50 PER ASTM E 84. CONTAINERS FOR MASTICS AND ADHESIVES SHALL

E. SPIRAL (ROUND) DUCT SHALL HAVE 2" FIBERGLASS WRAP WITH VAPOR BARRIER.

- A. PROVIDE 2" THICK FARR 30/30 PLEATED THROWAWAY TYPE FILTERS, UNLESS OTHERWISE INDICATED. AIR UNITS SHALL HAVE NEW FILTERS INSTALLED WHEN THEY OPERATED BEFORE FINAL ACCEPTANCE. FILTERS SHALL BE MANUFACTURED BY AMERICAN AIR FILTER, FARR, FLANDERS, OR APPROVED EQUAL.
- B. IF HVAC EQUIPMENT IS USED DURING THE CONSTRUCTION PERIOD, CONTRACTOR SHALL PROVIDE ONE SET OF FILTERS WHEN THE UNIT IS STARTED AND REPLACE FILTERS WHEN NEEDED. BUT NOT LESS THAN EVERY MONTH. ON THE DAY OF SUBSTANTIAL COMPLETION, THE CONTRACTOR SHALL CLEAN THE UNIT AND PROVIDE A NEW SET OF FILTERS IN THE UNIT.

1.07 CLEANING:

CLEAN SYSTEM BY OPERATING AT LEAST THREE HOURS PRIOR TO FINAL ACCEPTANCE WITH TEMPORARY FILTERS. REMOVE ALL FILTERS AND REPLACE WITH CLEAN.

CONTRACTOR

1.08 TESTING AND ADJUSTING:

- A. CONTRACTOR SHALL OPERATE AND TEST THE AIR CONDITIONING AND VENTILATION SYSTEMS AND INSTRUCT THE OWNER IN ITS OPERATION. PERFORM A SERIES OF GENERAL CAPACITY AND OPERATING TESTS. THE TESTS SHALL DEMONSTRATE THE SPECIFIED CAPACITIES OF VARIOUS PIECES OF EQUIPMENT.
- B. THE ENTIRE TEMPERATURE CONTROLS SYSTEMS SHALL BE ADJUSTED AND BALANCED AND PUT IN OPERATING CONDITION TO CAUSE THE EQUIPMENT TO MAINTAIN THE TEMPERATURES IN ACCORDANCE WITH THE INTENT OF THESE SPECIFICATIONS. OPERATE AND TEST EQUIPMENT DURING SUMMER AND WINTER SEASONAL STARTUP UNDER THIS CONTRACT. END OF SECTION

<u>PLUMBING</u>

- THE WORK INCLUDED UNDER THIS CONTRACT CONSISTS OF PROVIDING ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SERVICES, ETC., NECESSARY TO COMPLETE THE INSTALLATION OF THE PLUMBING SEWER SYSTEMS, AND OTHER ITEMS DESCRIBED IN THESE SPECIFICATIONS, AS ILLUSTRATED IN THE ACCOMPANYING DRAWINGS, OR AS DIRECTED BY THE ARCHITECT/ENGINEER. PLUMBING WORK IS COMPRISED OF BUT NOT LIMITED TO THE FOLLOWING PRINCIPAL ITEMS.
- 1. SOIL, WASTE, AND VENT PIPING SYSTEMS.
- COLD WATER DISTRIBUTION SYSTEM.
- HOT WATER SUPPLY AND DISTRIBUTION SYSTEM.

4. PLUMBING FIXTURES. 1.02 SYSTEM TESTING AND ADJUSTING

- A. UPON COMPLETION OF EACH PHASE OF THE INSTALLATION, TEST EACH SYSTEM IN CONFORMANCE WITH LOCAL CODE REQUIREMENTS AND AS NOTED BELOW. FURNISH LABOR AND EQUIPMENT REQUIRED TO TEST PLUMBING WORK INSTALLED UNDER THIS CONTRACT AND ASSUME COST INVOLVED IN MAKING THE TESTS AND REPAIRING AND/OR REPLACING DAMAGE RESULTING THEREFROM.
- B. NOTIFY THE ARCHITECT AND THE AUTHORITY HAVING JURISDICTION, THREE (3) WORKING DAYS PRIOR TO MAKING PLUMBING SYSTEM TESTS. LEAVE CONCEALED WORK UNCOVERED UNTIL THE REQUIRED TESTS HAVE BEEN COMPLETED, BUT IF NECESSARY DUE TO THE CONSTRUCTION PROCEDURE, TESTS ON PORTIONS OF THE WORK MAY BE MADE AND WHEN SATISFACTORY, THE WORK MAY BE CONCEALED TEST PIPING BEFORE INSULATION IS INSTALLED AND BEFORE BACKFILL. PIPES, JOINTS, FLANGES, VALVE STEMS, ETC., SHALL BE LEAK TIGHT. REPAIR OR REPLACE SYSTEMS DEFECTS WITH NEW MATERIALS. CAULKING OF DEFECTIVE JOINTS, CRACKS OR HOLES WILL NOT BE PERMITTED. REPEAT TESTS AFTER DEFECTS HAVE BEEN ELIMINATED. MAKE TESTS IN THE PRESENCE OF THE ADMINISTRATIVE AUTHORITY AND/OR OWNER'S AUTHORIZED REPRESENTATIVE.
- UPON COMPLETION OF THE SYSTEMS INSTALLATION AND PRIOR TO ACCEPTANCE BY THE ARCHITECT AND ENGINEER, MAKE GENERAL OPERATING TESTS TO DEMONSTRATE THAT EQUIPMENT AND SYSTEMS ARE IN PROPER WORKING ORDER AND ARE FUNCTIONING IN CONFORMANCE WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS. AS A PART OF THESE TESTS, OPEN EVERY WATER OUTLET TO ENSURE COMPLETE SYSTEM FLUSHING. REMOVE AND CLEAN FAUCET AERATORS, CLEAN STRAINERS, LIGHT PILOT LIGHTS AND OPERATE EVERY PIECE OF EQUIPMENT FURNISHED UNDER THIS CONTRACT TO DEMONSTRATE PROPER
- TEST THE DRAINAGE AND VENT SYSTEM BY PLUGGING OPENINGS WITH TEST PLUGS, EXCEPT THOSE AT THE TOP OF THE STACK. FILL THE SYSTEM WITH WATER; TESTS RESULTS WILL BE SATISFACTORY IF THE WATER LEVEL REMAINS STATIONARY FOR NOT LESS THAN ONE (1) HOUR. SUBJECT THE DRAINAGE AND VENT SYSTEM TO A PRESSURE OF AT LEAST TEN (10) FEET OF WATER. IF LEAKS DEVELOP, REPAIR THEM AND REPEAT THE TEST.
- E. TEST THE DOMESTIC WATER SYSTEM BY FILLING IT WITH WATER AND THEN ISOLATING THE SYSTEM FROM ITS SOURCE. KEEP THE SYSTEM CLOSED FOR A PERIOD OF TWENTY-FOUR HOURS, WITH NO FIXTURES BEING USED. THE PRESSURE DIFFERENTIAL FOR THIS TEST PERIOD SHALL NOT EXCEED 10 PSIG. TEST WATER PIPING TO A 125 PSI HYDROSTATIC PRESSURE.

A. THE WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL INCLUDE THE FURNISHING, INSTALLATION AND CONNECTION OF THE PLUMBING SYSTEMS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. BY SIGNING THE CONTRACT, THE CONTRACTOR ACKNOWLEDGES THAT HE HAS ACQUAINTED HIMSELF WITH THE SITE AND THE EXISTING CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND THE DRAWINGS AND THE SPECIFICATIONS PERTAINING THERETO AND HE INDICATES THAT HE WILL COMPLY WITH

B. GUARANTEE THAT THE PLUMBING INSTALLED UNDER THIS CONTRACT IS FREE OF DEFECTS IN WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF JOB ACCEPTANCE BY THE OWNER. THIS SHALL INCLUDE A GUARANTEE OF FREE CIRCULATION OF LIQUIDS THROUGHOUT THE SYSTEM AS INTENDED WITHOUT LEAKS, EXCESSIVE NOISE OR WATER HAMMER.

THE REQUIREMENTS AND INTENT OF PERTINENT DOCUMENTS IN THE PERFORMANCE OF THE WORK.

C. IF DEFECTS OCCUR DURING THE ONE YEAR GUARANTEE PERIOD, REPAIR OR REPLACE SUCH DEFECTS AT NO EXPENSE TO THE OWNER AND TO THE SATISFACTION OF THE OWNER, ARCHITECT AND ENGINEER.

1.04 PIPING, FITTINGS, AND VALVES:

- MATERIALS SPECIFIED OR NOTED ON THE DRAWINGS ARE SUBJECT TO THE APPROVAL OF LOCAL CODE AUTHORITIES. VERIFY APPROVAL BEFORE INSTALLING ANY MATERIAL OR JOINING METHOD.
- B. DOMESTIC WATER, INTERIOR, ABOVE GROUND:
 - 1. DOMESTIC WATER PIPING INSTALLED ABOVE THE FLOOR SLAB INSIDE THE BUILDING SHALL BE TYPE "L" HARD TEMPER COPPER TUBE WITH WROUGHT COPPER FITTINGS AND SOLDERED CONNECTIONS MADE UP WITH 95/5 SOLDER. BRAZED MECHANICALLY FORMED TEE CONNECTIONS (T-DRILL) MAY BE USED IN COPPER LINES WHERE APPROVED BY CODE; CONNECTION SHALL BE MADE WITH BRAZED SILVER SOLDER (SILFOS) JOINTS IN CONFORMANCE WITH MANUFACTURER'S INSTRUCTIONS.
 - 2. VALVES -- BALL, CRANE 2180; BUTTERFLY, CRANE 23GRB OR 24NGRB; BALANCE,
 - 3. SECURELY ANCHOR, WITH ADEQUATE PROVISIONS FOR EXPANSION AND CONTRACTION. GRADE LINES, FREE OF TRAPS, TO LOW POINT AT CUT-OFF AND DRAIN VALVE. VALVES WHERE INDICATED ON THE DRAWINGS. HOT AND COLD SUPPLY LINES TO HAVE AIR CHAMBERS TO EVERY FIXTURE TO PREVENT AIR HAMMER.
- SANITARY SEWER, VENT, BELOW GRADE:
- 1. WASTE AND VENT PIPE BELOW SLAB INSIDE BUILDING SHALL BE SERVICE WEIGHT CAST IRON SOIL PIPE WITH HUB AND SPIGOT FITTINGS WITH NEOPRENE GASKET JOINTS, MEETING ASTM A74, MANUFACTURED BY AB&I FOUNDRY, CHARLOTTE OR TYLER PIPE AND BEARING THE TRADEMARK OF THE CISPI AND NSF. HUBLESS WASTE AND VENT PIPE IS NOT PERMITTED BELOW BASE SLAB.
- 2. PVC SCHEDULE 40 DWV ASTM D2665 PIPE WITH PVC MEETING ASTM B1784, "SOLID WALL" CELL CLASS 12454-B WITH ASTM 2665 SOCKET FITTINGS WITH SOLVENT WELD JOINTS IS ALSO PERMITTED WHERE APPROVED BY CODE. NOT ALLOWED IN CEILING PLENUM
- 3. ALL DRAINAGE SHALL BE GRADED PER CODE BUT NOT LESS THAN 1/8" PER FT UNLESS NOTED
- F. SANITARY SEWER, VENT, INTERIOR
- WASTE AND VENT PIPE ABOVE SLAB INSIDE BUILDING SHALL BE HUBLESS CAST IRON SOIL PIPE AND FITTING, MEETING ASTM A888 AND CISPI 301, MANUFACTURED BY AB&I FOUNDRY, CHARLOTTE OR TYLER PIPE AND BEARING THE TRADEMARK OF THE CISPI AND NSF.
- 2. PVC SCHEDULE 40 DWV ASTM D2665 PIPE WITH PVC MEETING ASTM B1784, "SOLID WALL" CELL CLASS 12454-B WITH ASTM 2665 SOCKET FITTINGS WITH SOLVENT WELD JOINTS IS ALSO PERMITTED WHERE APPROVED BY CODE. PVC PIPING IS NOT ALLOWED IN CEILING RETURN AIR
- CONNECTIONS TO PLUMBING FIXTURES AND EQUIPMENT: 1-1/4" AND LARGER WASTE CONNECTIONS FROM FIXTURE TRAPS TO CAST IRON PIPE SHALL BE "DWV" COPPER WITH WROUGHT COPPER DRAINAGE PATTERN FITTINGS WITH COPPER SWEAT OR COMPRESSION JOINTS AT FIXTURE TRAP CONNECTIONS AND THREADED JOINTS AT CONNECTIONS TO CAST IRON PIPE.
- CONDENSATE DRAIN OUTSIDE BUILDING: CONDENSATE DRAIN PIPE INSTALLED OUTSIDE THE BUILDING ABOVE GROUND SHALL BE TYPE "M" FOR 1" AND SMALLER AND "DMV" FOR 1-1/4" AND LARGER HARD TEMPER COPPER TUBE WITH WROUGHT COPPER DRAINAGE PATTERN FITTING AND SOLDER CONNECTIONS MADE WITH 95/5 SOLDER. TERMINATE AT NEAREST ROOF DRAIN, GUTTER OR OTHER LOCATION AS SHOWN ON DRAWINGS. INSTALL CLEANOUT AT ELBOWS GREATER THAN 45 DEGREES.

1.05 PIPING AND EQUIPMENT INSULATION

DOMESTIC HOT, HOT WATER RECIRCULATION AND COLD WATER: 1" ONE-PIECE FIBERGLASS COVERING WITH FIRE RESISTANT JACKET WITH SELF SEALING LAP TO PROVIDE A CONTINUOUS VAPOR BARRIER BY CERTAINTEED, OWNES-CORNING OR ARMSTRONG. FOR PIPING AT HANGERS PROVIDE 8" LONG SECTIONS OF HIGH DENSITY, HIGH TEMPERATURE CALCIUM SILICATE BY JOHNS-MANVILLE, FIBERGLASS BY KNAUF, OR 8" LONG STYROFOAM BILLETS BY DOW. INSULATION SHALL BE CONTINUOUS ALONG THE PIPE SURFACE EXCEPT AT VALVES. UNIONS AND WHERE PIPING IS EXPOSED AT FIXTURES. PROVIDE FIBERGLASS INSULATION ON VENT PIPING WITHIN SIX FEET OF VENT THROUGH ROOF. PROVIDE FIBERGLASS INSULATION ON DOMESTIC HOT AND COLD WATER PIPES INSTALLED IN WALLS AND CHASES. INSULATE ALL HOT AND COLD WATER PIPING ABOVE THE GROUND.

COVER FITTINGS WITH ZESTON, KNAUF, OR EQUAL ONE-PIECE PVC PREMOLDED INSULATING COVERS. FITTING COVERS, JACKETS AND ADHESIVES SHALL NOT EXCEED FLAME SPREAD RATING OF 25 AND SMOKE DEVELOPMENT RATING OF 50 PER ASTM E84. AT ALL ELBOWS AND TEES, FILL VOIDS BETWEEN COVERS AND PIPING WITH FIBERGLASS INSULATION AND TAPE JOINTS. INSTALL PIPE INSULATION IN COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS. WHERE PREMOLDED INSULATING FITTINGS ARE NOT APPROVED BY LOCAL AUTHORITIES, MITER INSULATION AT FITTINGS.

1.06 PIPING JOINTS

- A. COPPER TUBING: JOINTS IN HARD TEMPER TUBING SHALL BE SOLDERED JOINTS USING LEAD-FREE 95/5 SOLDER EXCEPT WHERE TUBING IS INSTALLED BELOW GRADE OR BELOW THE BASE SLAB, IN WHICH CASE JOINTS SHALL BE SOLDERED WITH SILVER SOLDER (SILFOS). JOINTS IN SOFT TEMPER COPPER TUBING SHALL BE FLARED TYPE INSTALLED IN COMPLIANCE WITH THE FITTING MANUFACTURER'S
- C. CAST IRON PIPE ABOVE GRADE: JOINTS IN HUBLESS PIPE SHALL BE STANDARD CISPI 310 DOMESTICALLY MANUFACTURED BY ANACO, AB&I FOUNDRY, CHARLOTTE, HUSKY, IDEAL, TYLER, MISSION OR FERNCO.

- GENERAL: CLEAN PIPE THOROUGHLY PRIOR TO INSTALLATION. REAM ENDS OF PIPE TO REMOVE BURRS. CUT PIPE ACCURATELY TO MEASUREMENTS TAKEN ON THE JOB. INSTALL WITH ADEQUATE CLEARANCE FOR INSTALLATION OF COVERINGS WHERE REQUIRED. PIPE SHALL NOT BE SPRUNG OR BENT. NEATLY ALIGN PIPE, CONNECT IT SECURELY AND SUPPORT IT FROM THE BUILDING STRUCTURE WITH HANGERS AS SPECIFIED. PROVIDE CHROME PLATED ESCUTCHEONS ON PIPES PASSING THROUGH CEILINGS, FLOORS OR WALLS OF FINISH SPACES. RUN PIPES FREELY THROUGH FLOOR OR WALL PENETRATIONS USING PIPE SLEEVES. DO NOT GROUT IN PLACE UNLESS REQUIRED FOR STRUCTURAL FIRE INTEGRITY. INSTALL PIPE CONCEALED IN FINISHED SPACES WHEREVER POSSIBLE. USE A DIELECTRIC UNION WHERE FERROUS AND COPPER PIPES CONNECT. DIELECTRIC UNION SHALL HAVE A ZINC PLATED STEEL BODY, A THREADED NYLON INSERT AND INSULATING PRESSURE GASKET. NO FERROUS METAL TO COPPER CONNECTION MADE WITHOUT INSULATING UNIONS WILL BE ALLOWED.
- B. COPPER TUBE: ADJUSTABLE BAND HANGERS FOR INSULATED COPPER TUBE 3" AND SMALLER SHALL BE B-LINE #B3170 NF ADJUSTABLE BAND SWIVEL RING TYPE. SUPPORT COPPER TUBE IN CHASES AND WALLS AT PLUMBING FIXTURES WITH PLASTIC OR COPPER BRACKETS SECURED TO STRUCTURE AND U-BOLTS SIZED TO BARE ON THE PIPE. RISER CLAMPS TO SUPPORT VERTICAL COPPER TUBE SHALL BE B-LINE #B3373CT COPPER COATED STEEL, CUT INSULATION, SEAL VAPOR BARRIER AND ATTACH TO BARE TUBE.
- C. CAST IRON PIPE: ADJUSTABLE BAND HANGERS FOR 2" AND SMALLER. CLEVIS HANGERS FOR 3" AND LARGER SHALL BE B-LINE #3100 GALVANIZED STEEL CLEVIS TYPE. RISER CLAMPS TO SUPPORT VERTICAL PIPE SHALL BE B-LINE #B3373 GALVANIZED STEEL.
- D. INSULATION PROTECTION SHIELDS: B-LINE #B3151 OF 18 GAUGE GALVANIZED SHEET METAL. SHIELD SHALL COVER HALF OF THE CIRCUMFERENCE OF THE PIPE AND SHALL BE OF LENGTH INDICATED BY MANUFACTURER FOR PIPE SIZE AND THICKNESS OF INSULATION.
- E. HANGER SPACING, ROD SIZES AND CONNECTORS: CONNECT RODS TO STEEL BEAMS OR JOISTS WITH B-LINE #B3031 OR #B3033BEAM CLAMPS AS REQUIRED. CONNECT RODS TO CONCRETE WITH B-LINE #3401 MALLEABLE IRON SINGLE TYPE INSERTS WITH MALLEABLE IRON NUT. CONNECT RODS IN WOOD CONSTRUCTION WITH B-LINE #B3058 SIDE BEAM CONNECTORS. HANG AND SUPPORT PIPING WITH SPACING AND ROD SIZES AS FOLLOWS:
- 1. COPPER TUBE; 1-1/2" AND SMALLER EVERY 6FT WITH 3/8" HANGER RODS. 2" AND 2-1/2" EVERY 10FT WITH 3/8" HANGER RODS. 3" EVERY 10FT WITH 1/2" HANGER RODS. SUPPORT
- VERTICAL COPPER TUBE EVERY 10FT. CAST IRON PIPE: EVERY 10FT AND WITHIN 1FT OF EACH JOINT. 2" AND SMALLER WITH 3/8" HANGER RODS. 3" WITH 1/2" HANGER RODS. 4" WITH 5/8" HANGER RODS. 6" WITH 3/4" HANGER RODS. 8" AND LARGER WITH 7/8" HANGER RODS. SUPPORT VERTICAL CAST IRON EVERY 15FT.
- F. INSTALLATION FOR SOIL AND WASTE: INSTALL SOIL AND WASTE PIPING TO A UNIFORM SLOPE OF NOT LESS THAN 1/8" PER FOOT FOR PIPING 4" AND LARGER, AND NOT LESS THAN 1/4" PER FOOT FOR PIPING 3" AND SMALLER. LAY PIPE AT UNIFORM SLOPE, FREE FROM SAG, WITH HUB END UPSTREAM (FOR BELOW GRADE PIPES). MAKE CHANGES IN DIRECTION FROM HORIZONTAL TO VERTICAL, AT FIXTURE BRANCHES AND OTHER BRANCH CONNECTIONS WITH SANITARY 'TEES' OR SHORT SWEEP 'ELLS'. MAKE CHANGES IN DIRECTION FROM VERTICAL TO HORIZONTAL OR HORIZONTAL TO HORIZONTAL WITH LONG RADIUS FITTINGS, LONG SWEEPING 'ELLS', COMBINATION 'Y' AND 1/8" BEND FITTINGS, OR 45° 'ELLS' (1/8" BEND FITTING). 1/6 BEND OR 1/16 BEND AND 'Y' FITTINGS. DETERMINE EXACT LOCATIONS IN SUCH A MANNER AS TO MAINTAIN PROPER CLEARANCE. PRIOR TO INSTALLATION OF ANY BUILDING DRAIN PIPE, VERIFY ELEVATION OF CONNECTION POINT OF EXISTING SEWER, SERVICE LINE OR EXISTING TENANT CONNECTIONS INDICATED ON THE DRAWINGS. IF THE INSTALLATION WILL NOT TIE INTO THE INDICATED INVERT ELEVATION POINT WHILE MAINTAINING PROPER FALL, NOTIFY ARCHITECT SO THAT AN ALTERNATIVE
- G. PLUMBING VENT: CONNECT PLUMBING VENT PIPES TO FIXTURE DRAIN PIPES AS INDICATED ON THE DRAWINGS OR AS REQUIRED BY THE INSTALLATION PRACTICES ADOPTED AND ENFORCED BY LOCAL CODES OFFICIAL AND EXTEND VENT PIPES FULL SIZE THROUGH ROOF LINE. GRADE PIPE TO A UNIFORM SLOPE SO AS TO DRAIN BACK BY GRAVITY TO THE DRAINAGE PIPING SYSTEM. VENT LINES SHALL BE AIR AND WATERTIGHT.
- H. DOMESTIC WATER: ARRANGE HOT AND COLD WATER PIPING TO DRAIN AT THE LOWEST POINT IN EACH SYSTEM. INSTALL AT LEAST ONE PIPE UNION ADJACENT TO ALL SHUTOFF VALVES, AT CONNECTION POINTS OF EACH PIECE OF EQUIPMENT AND ELSEWHERE IN THE SYSTEM WHERE REQUIRED TO ALLOW FOR PROPER MAINTENANCE. PROVIDE UNIONS OF THE GROUND JOINT TYPE. MAKE ALLOWANCE FOR EXPANSION AND CONTRACTION WHERE REQUIRED BY THE INSTALLATION. PROVIDE UNIONS BETWEEN EACH ITEM OF EQUIPMENT AND ITS SERVICE VALVE. COPPER TO FERROUS

PIPE CONNECTIONS SHALL HAVE ISOLATION COUPLING OR UNION. PIPING SANITIZATION

MAY BE DETERMINED.

- SANITIZE THE ENTIRE DOMESTIC WATER PIPING SYSTEM (HOT, COLD AND HOT WATER RECIRC.) WITH A SOLUTION CONTAINING NOT LESS THAN 50 PPM AVAILABLE CHLORINE. KEEP SOLUTION IN THE SYSTEM FOR A MINIMUM OF 24 HOURS, WITH FACH VALVE BEING OPERATED SEVERAL TIMES DURING THE PERIOD. AFTER COMPLETION, FLUSH SYSTEM WITH CITY WATER UNTIL CHLORINE RESIDUAL IS LOWERED TO INCOMING CITY WATER LEVEL.
- PIPE MARKERS 1.09 INSTALL PIPE MAKERS ON EACH PLUMBING SYSTEM AND INCLUDE ARROWS TO SHOW NORMAL DIRECTION
- OF FLOW. PLUMBING TRAPS
- 1.10 PROVIDE WATER SEAL TRAPS ON FLOOR DRAINS, FIXTURES AND EQUIPMENT WITH DRAIN CONNECTIONS, INCLUDING TRAPS NOT FURNISHED IN COMBINATION WITH FIXTURES AND EQUIPMENT. PLACE TRAP AS CLOSE TO THE FIXTURE OR DRAIN AS POSSIBLE. EXPOSED TRAPS IN FINISH SPACES SHALL BE

1.11

- SHALL BE AS SCHEDULED ON THE DRAWINGS. INSTALL WALL CLEANOUTS AT POINTS AS NOTED ON THE DRAWINGS. COORDINATE FINAL LOCATION WITH ARCHITECT AND ALL OTHER TRADES INCLUDING FIXTURES AND MILLWORK. CLEANOUTS REQUIRED AT THE FOOT OF EACH SOIL, WASTE, OR INTERIOR DOWNSPOUT STACK. AT HORIZONTAL SOIL AND WASTE BRANCHES LONGER THAN 5FT NOT SERVED BY A FLOOR CLEANOUT. CONSULT LOCAL CODES FOR INSTALLATION AT SPECIFIC FIXTURE TYPES. INSTALL WALL CLEANOUTS ABOVE THE FLOOD RIM OF THE FIXTURE SERVED WITHIN 4FT OF THE FLOOR AND INSTALL EXTENSIONS FROM THE CLEANOUT TEE TO THE WALL TO LOCATE THE PLUG WITHIN 2" OF THE WALL WHERE REQUIRED. INSTALL CLEANOUTS ON URINALS AND SINKS WHERE REQUIRED BY CODE.
- PROVIDE AT THE BASE OF EACH STACK OR RISER, EACH CHANGE IN DIRECTION IN HORIZONTAL PIPING. WHERE INDICATED ON THE DRAWINGS OR AS REQUIRED BY CODE, PLUGS, EXTRA HEAVY CAST BRASS. SCREWED. SCORIATED TOPS IN UNFINISHED AREAS, CARPET MARKETS IN CARPET FLOORS, TILE TOP IN TILE FLOORS, STAINLESS STEEL COVER IN FINISHED WALLS. CLEANOUTS SAME SIZE AS PIPE UP TO 4" DIAMETER, 4" CLEANOUTS FOR LARGER PIPE UNLESS OTHERWISE NOTED. CLEANOUTS OUTSIDE THE BUILDING, EXTEND TO GRADE AND TERMINATE WITH X.H. SOIL PIPE CLEANOUT SET IN 12" SQUARE 6" THICK CONCRETE PAD.

1.12 VALVES

PROJECT

- PLUMBING VALVES SHALL BE CRANE COMPANY OR NIBCO MODELS HEREIN SPECIFIED OR APPROVED EQUAL BY HAMMOND, WALWORTH, STOCKHAM OR MUELLER VALVES. VALVES SHALL BE THE BEST OF QUALITY, DESIGNED FOR 125PSI STEAM WORKING PRESSURE. INSTALL VALVES ON THE HOT AND COLD WATER LINES AT THE WATER HEATER CONNECTION AND OTHER ITEMS OF EQUIPMENT, AT BRANCHES FROM MAINS SERVING GROUPS OF FIXTURES AND OTHER PLACES INDICATED OR REQUIRED BY THE INSTALLATION TO ALLOW EASE OF FUTURE MAINTENANCE.
- 1. BALL VALVE: 2" AND SMALLER SHALL BE NIBCO #T580, TWO PIECE BRONZE BODY WITH SCREWED ENDS, CHROME PLATED BRONZE BALL WITH CONVENTIONAL PORT, 400PSI BLOWOUT PROOF STEM.

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MECH/ELEC **SPECIFICATIONS**

SHEET TITLE

I 10.25.21

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ELECTRICAL SPECIFICATIONS

1.01 SCOPE:

- A. THE WORK INCLUDED UNDER THIS CONTRACT CONSISTS OF THE FURNISHING OF ALL LABOR, MATERIALS, TOOLS, TRANSPORTATION, SERVICES, ETC., NECESSARY TO COMPLETE THE INSTALLATION OF THE ELECTRICAL SYSTEMS AND OTHER ITEMS HEREIN LISTED, ALL AS DIRECTED BY THE ARCHITECT OR ENGINEER, WHICH WORK IS COMPRISED OF, BUT NOT LIMITED TO THE FOLLOWING PRINCIPAL ITEMS:
 - 1. ELECTRICAL SYSTEM FOR LIGHT AND POWER:
 - a. ELECTRICAL SERVICE AND DISTRIBUTION SYSTEM REVISIONS.

 - b. SWITCHES AND PANELBOARDS.
 - c. SYSTEMS OF CONDUIT, CONDUCTORS, AND BOXES. d. RECEPTACLES AND WIRING DEVICES.
 - e. LIGHTING FIXTURES AND LAMPS.
 - f. POWER SERVICE TO THE VARIOUS MOTORS.
 - COMPLETE LIGHTING AND POWER SYSTEMS.
 - h. ALL SYSTEMS, WIRING AND CONDUIT AS REQUIRED.
- 2. CONTROL WIRING AND ELECTRICAL INSTALLATION AND CONNECTIONS FOR ITEMS IN OTHER CONTRACTS AS MAY BE LISTED IN THE DRAWINGS.
- 3. EMPTY CONDUIT AND BOXES FOR FUTURE INSTALLATION OF TELEPHONE WIRING AND MISCELLANEOUS SYSTEMS.
- 4. ROUGH-IN AND FINAL CONNECTION TO EQUIPMENT FURNISHED BY OTHERS.
- RACEWAY WIRING SYSTEMS SHALL BE CONCEALED IN ALL FINISHED PARTS OF THE BUILDING, WHERE POSSIBLE. WHERE THE RACEWAYS ARE EXPOSED, THEY SHALL BE RUN PARALLEL WITH THE BUILDING WALLS IN A NEAT AND WORKMANLIKE MANNER. SHOULD IT APPEAR NECESSARY TO EXPOSE ANY CONDUIT OR WIRING IN FINISHED SPACES, IT SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION IMMEDIATELY AND THIS CONTRACTOR SHALL REARRANGE HIS WORK AS DIRECTED TO FACILITATE AN APPROVED INSTALLATION. CONTRACTOR TO COORDINATE WITH MECHANICAL TRADES TO AVOID DUCTWORK AND PIPING.
- CONTRACTOR IS RESPONSIBLE TO PROVIDE LIAISON WITH ELECTRICAL AND COMMUNICATION COMPANIES. HE SHALL PROVIDE AND INSTALL ALL REQUIRED EQUIPMENT AND CONNECT AS REQUIRED TO COMPLETE AN OPERATING SERVICE TO THE

1.02 RACEWAYS:

ALL ELECTRICAL CONDUCTORS ARE TO BE INSTALLED IN METAL RACEWAYS, UNLESS SPECIFICALLY SPECIFIED OR NOTED OTHERWISE. GALVANIZED STEEL OR INTERMEDIATE STEEL CONDUIT AS PERMITTED BY CODE. NO CONDUIT SMALLER THAN 3/4" TO BE USED. PROVIDE FLEXIBLE CONDUIT CONNECTION FOR FINAL CONNECTION TO EACH MOTOR NOT TO EXCEED 3' IN LENGTH AND RECESSED LIGHTING FIXTURES NOT TO EXCEED 6' IN LENGTH. PROVIDE PULL WIRES IN ALL EMPTY CONDUIT SYSTEMS. IDENTIFY TERMINUS OF EACH PULL WIRE. ALL EXPOSED RACEWAYS SHALL BE INSTALLED WITH RUNS PARALLEL AND/OR PERPENDICULAR WITH BUILDING WALLS. FASTEN ALL CONDUIT EVERY 8' AND 2' FROM EACH BOX. CONDUIT MAY BE EMT WHERE NOT SUBJECT TO MECHANICAL DAMAGE AS PERMITTED BY NATIONAL ELECTRIC CODE (N.E.C.). EMT CONNECTORS AND COUPLINGS 4" AND SMALLER SHALL BE COMPRESSION TYPE.

1.03 WIRES AND CABLES:

ELECTRICAL CONDUCTORS, SOFT ANNEALED COPPER WITH CONDUCTIVITY 98% OF THAT OF PURE, STRANDED COPPER, 90 DEGREE - 600V INSULATION AND EQUAL TO GENERAL CABLE COMPANY. WIRE AND CABLE FOR ALL FEEDERS, SUBFEEDERS, MOTOR CIRCUITS AND HIGH AMBIENT LOCATION TYPE SHALL BE THHN. ALL OTHER BRANCH CIRCUIT WIRING, SHALL BE TYPE XHHN OR THHN. MINIMUM WIRE SIZE SHALL BE #12 GAUGE AWG. CONTROL WIRING MAY BE #14 GAUGE.

1.04 GROUNDING:

GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH N.E.C. AND AS SPECIFIED HEREIN. PROVIDE A SEPARATE GROUNDING CONDUCTOR FOR ALL LIGHTING, RECEPTACLE AND EQUIPMENT CIRCUITS. ALL CABINETS, SWITCHBOARDS, EQUIPMENT CASES, MOTOR FRAMES, INTERIOR METAL COLD WATER PIPING SYSTEMS, AND SYSTEM NEUTRAL CONDUCTORS SHALL BE EFFECTIVELY GROUNDED. USE SOLDERLESS PRESSURE TYPE CONNECTORS. NO PERFORATED STRAP CONNECTORS WILL BE ALLOWED. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT. GROUNDING PER N.E.C. 250, AND ANY LOCAL

1.05 SPLICE AND TAPS:

- A. MAKE SPLICES AT JUNCTION BOXES, PULL BOXES, OR OUTLET BOXES ONLY.
- 1.06 CABINETS, JUNCTION AND PULL BOXES:
- FLUSH OR SURFACE MOUNTED AS INDICATED ON DRAWINGS. PROVIDE WHERE SHOWN ON DRAWINGS AND WHERE REQUIRED BY CODE. CONSTRUCT OF CODE GAUGE STEEL FOR FLUSH SURFACE MOUNTING.

1.07 OUTLET BOXES:

GENERAL ELECTRIC. APPLETON, STEEL CITY OR RACO HOT DIPPED GALVANIZED STEEL BOXES, OR EQUAL. INSTALL AT TERMINAL OF EACH CONDUIT RUN, EACH OUTLET, OR DEVICE. PROVIDE SIZE, TYPE AND DESIGN TO SUIT STRUCTURAL CONDITIONS. ADEQUATE TO ACCOMMODATE SIZE AND NUMBER OF RACEWAYS, CONDUCTORS, DEVICE OR FIXTURE SERVED. PROVIDE PLASTER RINGS OR COVERS ON BOXES WHERE REQUIRED ON EXPOSED WORK, USE APPROVED CAST FERROUS ALLOY OUTLET, JUNCTION BOXES AND FITTINGS. FIXTURE OR DEVICE COVER SHALL COMPLETELY CONCEAL THE SIZE OUTLET BOX USED. INSTALL 3/8" FIXTURE STUD FOR LIGHTING FIXTURES WHERE REQUIRED. LOCATE CEILING OUTLETS TO WORK ARCHITECTURAL FEATURES AS DIRECTED. SWITCHES INSTALLED 48" ABOVE FLOOR ON STRIKE SIDE OF DOOR AS FINALLY HUNG. RECEPTACLES AND TELEPHONE OUTLETS, 18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. VERIFY ALL OUTLET LOCATIONS ON JOB WITH ARCHITECT.

1.08 PANELBOARDS:

PANEL BOARDS ARE AS INDICATED ON THE DRAWINGS. MAIN LUGS ONLY UNLESS NOTED OR SPECIFIED OTHERWISE. TYPEWRITTEN SCHEDULE OF CIRCUITS IN INDEX CARDHOLDER. PROVIDE WITH HINGED DOOR AND HINGED COVER. ALL CIRCUIT BREAKERS SHALL BE BOLT-ON MOLDED CASE AND HAVE POSITIVE "TRIP" INDICATION. BREAKERS USED ON EXISTING PANELS SHALL MATCH EXISTING UNITS AND SHALL BE LABELED TO HAVE POSITIVE "TRIP" INDICATION. BREAKERS SHALL BE LABELED TO INDICATE SUITE NUMBER AND USE. PANELBOARDS SHALL BE GENERAL ELECTRIC, SQUARE D OR I.T.E.. ALL SINGLE POLE CIRCUIT BREAKERS SHALL BE 'SWITCH DUTY

1.09 DISCONNECT SWITCHES:

- HEAVY DUTY NEMA TYPE 'HD' SAME MANUFACTURER AS PANELBOARDS. PLASTIC NAMEPLATE PROPERLY ENGRAVED WITH NAME OF EQUIPMENT SERVED, SECURED TO SWITCH COVER. FUSES SHALL BE BUSSMANN OF SIZES AND TYPES SCHEDULED.
- 1.10 MOTOR AND CONTROL WIRING AND CONNECTIONS:
- A. THIS CONTRACTOR TO PROVIDE ALL NECESSARY CONDUIT, BOXES AND SUPPORTS TO EQUIPMENT FURNISHED BY OWNER AND AS INDICATED ON DRAWINGS. PROVIDE A DISCONNECT SWITCH AND STARTER IF REQUIRED.

1.11 WIRING DEVICES:

- A. DUPLEX RECEPTACLES SHALL BE HUBBELL #5352-I GROUNDING TYPE, 20A., 125V. G.F.C.I. SHALL BE HUBBELL GF-5352-I, 20A., 125V.; DUPLEX, G.F.C.I. TYPE. ISOLATED GROUND RECEPTACLES SHALL BE ORANGE IN COLOR, HUBBELL IG-5352, 20A., 125V., DUPLEX. ISOLATED GROUND RECEPTACLES SHALL BE EQUIPPED WITH A HUBBELL IGP-8 PLATE, ORANGE IN COLOR INSCRIBED "ISOLATED GROUND". WALL TOGGLE SWITCHES SHALL BE HUBBELL NUMBER 1221-I AND NUMBER 1223-I FOR SINGLE POLE AND THREE WAY TYPES RESPECTIVELY. OTHER SWITCH, RECEPTACLE, AND OUTLET DEVICE VARIATIONS SHALL BE BY HUBBELL OF "SPEC. GRADE" QUALITY. EQUIVALENT DEVICES OF P & S OR LEVITON, WILL BE ACCEPTABLE IN LIEU OF THE ABOVE LISTED DEVICES. CONTRACTOR TO VERIFY COLOR OF DEVICES WITH ARCHITECT BEFORE PURCHASE. PROVIDE SMOOTH PLASTIC, BRUSHED STAINLESS STEEL OR BRUSHED ALUMINUM COVERPLATES TO MATE AND MATCH DEVICE FOR EACH OUTLET.
- B. DUPLEX RECEPTACLES SHALL BE HARVEY HUBBELL #2162W., 20A., 125V.; GROUND FAULT CIRCUIT INTERRUPT (GFCI) RECEPTACLES SHALL BE GF5352W., 20A., 125V.. ISOLATED GROUND RECEPTACLES SHALL BE IG2162 WITH MATCHING IGP-8 PLATE, ORANGE IN COLOR AND INSCRIBED "ISOLATED GROUND". WALL SWITCHES SHALL BE HUBBELL #2121W AND #2123W FOR SINGLE POLE AND THREE WAY RESPECTIVELY. TELEPHONE JACKS SHALL BE HUBBELL #C14QW. OTHER SWITCH, RECEPTACLE, AND OUTLET DEVICE VARIATIONS SHALL BE BY HUBBELL "STYLE LINE" ARCHITECTURAL GRADE QUALITY. EQUIVALENT DEVICES OF P & S OR LEVITON, WILL BE ACCEPTABLE IN LIEU OF THE ABOVE LISTED DEVICES. CONTRACTOR TO VERIFY COLOR OF DEVICES WITH ARCHITECT BEFORE PURCHASE. PROVIDE SMOOTH PLASTIC COVERPLATES TO MATE AND MATCH DEVICE FOR EACH OUTLET.

1.12 LIGHTING FIXTURES:

THIS CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE, UNLESS OTHERWISE SPECIFIED, A LIGHTING FIXTURE ON EACH AND EVERY LIGHTING OUTLET SHOWN ON THE DRAWINGS OF THE TYPE SCHEDULED BY LETTER AND DESCRIPTION. ALL FIXTURES SHALL BE EQUIPPED WITH THE BEST GRADE 130 VOLT INCANDESCENT LAMPS AND ENERGY SAVING COOL WHITE RAPID START FLUORESCENT LAMPS OF GENERAL ELECTRIC. OSRAM/SYLVANIA, OR PHILIPS. FIXTURES SHALL BE OF TYPES SCHEDULED, THE TYPE LETTERS REFERRING TO DESCRIPTION ON PLANS. ALL FLUORESCENT FIXTURES SHALL HAVE ENERGY EFFICIENT ADVANCE MARK III BALLASTS, 34 W., OR EQUAL.

- THIS CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE, UNLESS OTHERWISE SPECIFIED. A LIGHTING FIXTURE ON EACH AND EVERY LIGHTING OUTLET SHOWN ON THE DRAWINGS OF EACH TYPE SCHEDULED BY LETTER AND DESCRIPTION. ALL FIXTURES SHALL BE EQUIPPED WITH LAMPS AS SCHEDULED OR SPECIFIED HEREIN. ALL FIXTURES INSTALLED IN SUSPENDED CEILINGS MUST BE SECURELY FASTENED TO FRAMING MEMBERS PER NEC 410-16C AND LOCAL EARTHQUAKE CODE REQUIREMENTS.
- ALL FLUORESCENT LAMPS SHALL BE T-8, SP35, 32 WATT OCTRON. EQUIVALENT LAMPS SHALL BE EQUAL IN LUMEN OUTPUT AND COLOR QUALITY TO THOSE SPECIFIED. APPROVED MANUFACTURERS INCLUDE OSRAM/SYLVANIA, PHILLIPS AND GE. INCANDESCENT LAMPS SHALL BE TYPE AND WATTAGE AS SHOWN IN SCHEDULE AND SHALL BE RATED 130 VOLTS.
- C. FLUORESCENT BALLASTS SHALL BE MAGNETEK, TRIAD OR ADVANCE. BALLASTS SHALL BE SOLID-STATE ELECTRONIC WITH HIGH POWER FACTOR AND UL LISTED. ALL BALLASTS SHALL COMPLY WITH IEEE AND ANSI STANDARDS FOR SURGE SUPPRESSION AND HARMONIC DISTORTION. BALLASTS SHALL BE DESIGNED FOR VOLTAGE OPERATION AS SPECIFIED. BALLASTS SHALL BE CLASS P, NON-PCB, WITH CREST FACTOR NOT EXCEEDING 1.4 AND HARMONIC DISTORTION NOT EXCEEDING 15%. BALLAST FACTOR SHALL BE 1.0 UNLESS NOTED OTHERWISE.

1.13 FIRE ALARM (DEFERRED SUBMITTAL)

- THIS CONTRACTOR SHALL FURNISH AND INSTALL A COMPLETE, FULLY FUNCTIONAL, AND CODE COMPLIANT FIRE ALARM SYSTEM FOR THE BUILDING. THE FIRE ALARM SYSTEM SHALL BE AN EXTENSION OF TEH EXISTING SYSTEM AND SHALL INCLUDE ADA COMPLIANT NOTIFICATION APPLIANCES, DOUBLE ACTION PULL STATIONS, ADDRESSABLE SMOKE DETECTORS, ADDRESSABLE FIRE SUPPRESSION SYSTEM RELAYS CONNECTED TO THE TAMPER AND FLOW SWITCHES, PROVISIONS FOR ELEVATOR RECALL, OUTPUT CONNECTIONS TO THE ELEVATOR CONTROLLER SHUNT TRIP BREAKER, A DIGITAL COMMUNICATOR, AND ANY OTHER INSTALLATIONS AND/OR EQUIPMENT AS REQUIRED FOR FUNCTIONAL SYSTEM. THE DEVICE LOCATIONS INDICATED ON THE PLANS ARE THE DESIRED LOCATIONS HOWEVER THE LOCATIONS MAY BE ADJUSTED AS NEEDED TO COMPLY WITH THE LOCALLY ENFORCED CODES. DEVICES AND INSTALLATIONS NOT INDICATED ON THE PLANS BUT ARE NEEDED FOR SYSTEM FUNCTIONALITY OR CODE COMPLIANCE SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID.
- THE CONTRACTOR SHALL MAKE SUBMISSIONS TO THE LOCAL AUTHORITIES THAT INCLUDES FLOOR PLAN AYOUTS, RISER DIAGRAMS, BATTERY AND VOLTAGE DROP CALCULATIONS, AND ANY OTHER DOCUMENTATION AS REQUIRED FOR PERMITTING. THE FIRE ALARM DESIGN SHALL BE PERFORMED BY A NICET CERTIFIED DESIGNER END OF SECTION

FIRE PROTECTION (DEFERRED SUBMITTAL)

1.01 SCOPE:

- FIRE PROTECTION IS A DESIGN BUILD SCOPE. THE SYSTEM DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE FIRE PROTECTION CONTRACTOR. CONTRACTOR SHALL SUBMIT DRAWINGS TO THE CITY AND ARCHITECT FOR REVIEW. COORDINATE LOCATION OF SPRINKLER HEADS WITH ALL OTHER CEILING ELEMENTS & TRADES, INCLUDING LIGHTING, MECHANICAL DEVICES, AUDIO & SECURITY DEVICES. REFERENCE ARCHITECTURAL DRAWINGS FOR COORDINATED REFLECTED CEILING PLAN FOR ALL TRADES & DISCIPLINES. DRAWINGS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER IN THE STATE. THE NFPA REQUIREMENTS SHALL BE THE MINIMUM REQUIREMENTS FOR ANY CONFLICTING INFORMATION. A COMPLETE AND OPERATIONAL FIRE PROTECTION SYSTEM SHALL BE PROVIDED AS REQUIRED BY NFPA, THE OWNER'S INSURANCE COMPANY, ETC., SYSTEMS SHALL INCLUDE:
 - 1. WET SPRINKLER SYSTEM -- NFPA 13.
- SYSTEM SHALL BE COMPLETE IN EVERY RESPECT. IT SHALL INCLUDE BUT NOT BE LIMITED TO PIPE AND HANGERS, SPRINKLER HEADS, HOSE CABINETS, VALVES, SIAMESE CONNECTIONS, INSPECTOR TESTS, ALARMS, SWITCHES, CONTROL PANELS, WIRING, ANNUNCIATORS, ETC. CONFORM TO THE REQUIREMENTS OF DIVISION 16 AND IRI, FM.
- CONTRACTOR SHALL VERIFY THE FIRE PROTECTION SERVICE PIPE SIZE, WATER PRESSURE AND CITY FLOW TEST DATA IS ADEQUATE. IF THE AVAILABLE FLOW AND PRESSURE IS NOT ADEQUATE TO PROVIDE THE REQUIRED COVERAGE NOTIFY ARCHITECT/ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL READ AND BE FAMILIAR WITH THE REQUIREMENTS WITHIN ALL DRAWINGS AND SPECIFICATIONS. HE SHALL EXAMINE THE ENTIRE DRAWING SET TO BECOME INFORMED ON THE TYPE OF CONSTRUCTION, MATERIALS, EQUIPMENT, ETC. TO BE USED THROUGHOUT THE PROJECT AND HOW IT WILL AFFECT THE FIRE PROTECTION SYSTEM. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE MADE SUCH AN EXAMINATION, ACCEPTED SUCH CONDITIONS AND MADE ALLOWANCES FOR ALL ASSOCIATED COSTS IN HIS PROPOSAL. FAILURE TO DETERMINE EXISTING CONDITIONS WILL NOT BE CONSIDERED A BASIS FOR THE GRANTING OF ADDITIONAL COMPENSATION.

1.02 PIPING, FITTINGS AND VALVES:

A. FIRE PROTECTION, INTERIOR:

CONTRACTOR

- 1. PIPE -- SCHEDULE 40, BLACK STEEL, MALLEABLE IRON THREADED, FLANGED OR WELDED FITTINGS OR ROLL OR CUT GROOVE, MECHANICAL JOINT.
- 2. VALVES -- GATE, UL AND FM APPROVED AS&Y, CRANE 459 OR 467; CHECK, UL AND FM APPROVED, CRANE 375.

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SPECIFICATIONS

SHEET TITLE