175 Montrose West Ave, Suite 400 Akron, OH 44321 330.665.0660 www.cesoinc.com



May 7, 2020

RE: Exterior Improvements - 200 Oritani Drive, Orangetown, NY 10913 - Project Narrative

The Exterior Improvements 200 Oritani Drive project documents scope of work includes:

- 1) THE ADDITION OF (2) HIGH-SPEED FABRIC ROLL-UP DOORS AT EXISTING OVERHEAD DOOR LOCATIONS;
- 2) A NEW MAN DOOR OPENING AT THE SOUTHWEST CORNER OF THE BUILDING; AND
- 3) NEW PAINTING OF EXISTING EXTERIOR FINISHES.



OFFICE OF BUILDING, ZONING, PLANNING, ADMINISTRATION AND ENFORCEMENT TOWN OF ORANGETOWN

20 Greenbush Road Orangeburg, N.Y. 10962

Jane Slavin, R.A. Director

12-31-18-CCC

(845)359-8410

Fax: (845) 359-8526

Liz DeCort

Cheryl Coopersmith

ARCHITECTURE AND COMMUNITY APPEARANCE BOARD OF REVIEW REFERRAL LETTER

Amazon.com Services, LLC	Date: May 11, 2020
200 Oritani Drive	
Blauvelt, NY	
65.18-1-22 #50003	
	Re:
	Chapter 2, Section 2-4
	Requires A.C.A.B.O.R.
	Approval
denied to appear before the A.C.A.B.O.R I have en at the bottom the reason for denial.	on, which you submitted on May 11, 2020, has been inclosed a copy of your application, where you will find a, can assist you in the preparation necessary to appear ext 4330 or coopersmith@orangetown.com
Sincerely,	5-11-2020
Signature of Director	Date
NOTE: PLEASE KEEP FOR YOUR RECORDS	CC: Rosanna Sfraga

PERMIT EXPIRES TWO (2) YEARS FROM DATE OF ISSUANCE. TWO SIX (6) MONTH EXTENSIONS MAY BE GRANTED PRIOR TO EXPIRATION DATE. APPLICATION FOR BUILDING / DEMOLITION PERMIT TOWN OF ORANGETOWN

TOWN OF ORANGETOWN

20 Greenbush Road, (Orangeburg, NY	10962 Phone:	(845) 359-8410 Fax: (845) 359-8526				
ZONE:	OFFI	CIAL LISE ONLY	ACREAGE:				
Inspector:	_ Date App R	eceived: <u>5-//20</u> 2	Received By: Muil				
Permit No	30003	Date Issued: .					
CO No.	CO No Date Issued: Permit Fee: Seepermit 46439 — Paid By Paid By GIS Fee: \$190						
Parmit Fac. Seeper	mit 49939	Paid By					
GIS Fee: \$190) Ck# 00	024 Paid By	Barska construction				
Stream Maintenance Fe		Paid By_	.1				
Additional Fee:	Ck#	Date Paid	Paid By				
1 st 6 mo. Ext.:	Ck #	Exp. Date:	Paid By				
2 nd 6 mo. Ext.:	Ck #	Exp. Date:	Paid By				
	ΔΡΡ	LICANT COMPLI	FTES:				
No	te: See inside for	instructions for compl	eting this application,				
PAGES 2, 3 and PA	AGE 4 must be r	eviewed and PAGES	3 & 4 must signed by the applicant.				
Property Location: 200 Orita	ni Drive, Orangetow	rn, NY 10913					
Section: 65.18	Block:	1	Lot: 22				
Property Owner: AG-OE 200	Oritani Drive Owne	er, LLC / AG-OE 400 Orita	nni Drive Owner, LLC				
		Woodbridge, NJ 07095					
Email: nvasquez@onx	yequities.com		Phone #: 732.850.5689				
Lessee (Business Name): A	mazon.com Services	s, LLC					
Mailing Address: 410	Terry Avenue North	, Seattle, Washington 9810	9				
Email: wthoamzn@an	nazon.com		224 525 5224				
Type of Business /Use: Deli	very Station / S-1						
Contact Person: Chad Hapor	iek		Relation to Project: Project Manager				
Email: haponek@ceso	oinc.com		Phone#: 330.396.5687				
Architect/Engineer: Benjam	in Bell		NYS Lic #_31977				
Address: 1305 NE Mo	Clain Rd., Suite 7, E	Bentonville, AR 72712	Phone#: 479.271.8058				
Builder/General Contractor			RC Lic #				
Address:			Phone#:				
Plumber: TBD			RC Lic #				
Address:			Phone#:				
Electrician: TBD			RC Lic #:				
Address:			Phone#:				
Heat/Cooling: TBD			RC Lic#:				
			Phone#:				
Existing use of structure of	r land:						
Proposed Project Descripti	on: The addition of	(2) High-speed fabric over	head doors in exiting overhead door locations,				
a new man door at the Southwe	st corner of the build	ling, and new painting of the	ne existing exterior finishes.				
Proposed Square Footage:	69,272 SF	Estimated Constr	uction Value (\$): \$1,377,000				
		RTMENT COMPLETE					
PLANS REVIEWED:		7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	20)				
PERMIT REFERRED / DENI	ED FOR: _ CHA	APTER 2, Sec	7. 2-4 ACAROB APPROV.				
	6	5-11-2020	Kell'De				

APPLICATION FOR BUILDING/DEMOLITION PERMIT

APPLICANT MUST COMPLETE OR APPLICATION WILL NOT BE ACCEPTED

Zone: LO (Laboratory-Office District)	NING BULK REQUI Group: $^{ m X}$	REMENTS	Se: Warehouse/Distribution
Zone. Do (Euronator) office District)	Required	Existing	Proposed
Floor area ratio	0.40	0.11	0.11
Lot area	2 acres	3.347 acres	3.347 acres
Lot width	300'	50'	50'
Street frontage	150'	25'	25'
Front yard setback	100'	100' +	100' +
Side yard setback	100'	70.7'	70.7'
Total side yard setback	200'	270.7'	270.7'
	100'	133.7'	133.7'
Rear yard setback Maximum building height	3in./ft. from lot line	36' +/-	36' +/-
Number of stories: 1		Occupan	cy Class:
Zoning Chart Information Completed	by: CESO, Inc.		
4. Are there any other building 5. Is the property in a flood pla FFIDAVIT State of New York)		YESTINO	
ounty of Rockland) SS.: own / Village of	,		
with the State Uniform Building Code and declare that the structure or area desc Certificate of Occupancy or Certificate of	ribed in this application wi	Il not be occupied or	used until I have obtained are and Mailing Addres
	-	Fril	Birne
		6 Jud	son Aves
	-	6	y, Ny
SWORN to before me this	day of		, 20
Witness:	personnel, Notary signature	e is Notary Pu	blic
cquired.)		· 1985年第二屆 1882年2月1日	
Checked by:	OFFICIAL USE O		
Permit Granted for:			

Architectural & Community Appearance Board of Review Section: _____ Block: ____ Lot: ____ Date: Project Name: Project Address Questions to be answered and returned to ACABOR with your completed application. Please state the Brand Name, Type, Style, Model and color numbers, etc. Actual material samples will need to be produced at the hearing. 1. Roof Shingles: 2. Siding Type: 3. Windows/Trim/Rail/etc: 4. Any stone or rock being used on the structure and/or walkway(s): 5. Facade color schemes: 6. Any other specific materials being used in the construction and/or renovation: 7. Do you have a landscape drawing attached? If not, please explain. (An explanation could be that the applicant is not changing the existing landscape.) 8. Where will any exterior air conditioning units be placed? 9. What type of lighting will be used in this project? And where will the lighting be placed on the property? Please provide a description. 10. Other Important Site and/or Architectural Features:

5/8/2020

Name of Municipality: <u>TOWN OF ORANGETOWN</u> Date Submitted:_

2020 LAND USE BOARD APPLICATION

	Please o	check all tha	t apply:	
	Commercial		Residential	
	Planning BoardZoning Board of Appeals	S	Historical Boar Architectural B	
	Subdivision Number of Lots Site Plan Conditional Use		Consultation Pre-Preliminary/Ske Preliminary Final Interpretation	etch
	 Special Permit Variance Performance Standards Revieu Use Variance Other (specify): 		PERMIT#:	
	Other (specify):		Referred from Planning Board: If yes provide date of P Board meeting:	lanning
└─ Project Na	me:			
Street Add	Iress:			
Tax Man D	esignation:			
rax map b	Section:	Block:	Lot(s)	:
	Section:			
Directiona	I Location:			
On the	side of			, approximately
	feet of the i			
	RANGETOWN in the hamlet/vil			
Acre	eage of Parcel		Zoning District	
	ool District		Postal District	
	oulance District		Fire District	
Wate	er District		Sewer District	
Project De	scription: (If additional space re	quired, plea	se attach a narrative su	ummary.)
The undersia	ned agrees to an extension of the sta	itutory time lir	nit for scheduling a public	hearing
	O20 Applicant's Signature. Er			

APPLICATION REVIEW FORM

Applicant:			Phor	ne #	
Address:	Street Name & Number	(Post Office)	City	State	Zip Code
Property Owne	er:		Pho	ne #	
Address:	Street Name & Number	(Post Office)	City	State	Zip Code
Engineer/Arch	itect/Surveyor: _			Phone #	
Address:	Street Name & Number	(Post Office)	City	State	Zip Code
Attorney:			_ Phone #		
Address:	Street Name & Number	(Post Office)	City	State	Zip Code
Contact Person	n :		Phone #		
Address:	Street Name & Number	(Post Office)	City	State	Zip Code
	CHECKED, A REV	This property (Check		eet of: OCKLAND COUNTY (
State of Long F	or County Road Path ipal Boundary facility checked a		Sta	te or County Park unty Stream unty Facility	M, N, AND NN .
Referral Agencie	es:				
RC Drain NYS Dep NYS Thr	way Department nage Agency of Transportation tuway Authority Municipality		RC Dept. o	n of Environmental Re of Health of Environmental Con Interstate Park Commi	servation

APPLICATION REVIEW FORM

FILL IN WHERE APPLICABLE. (IF THE FOLLOWING DOES NOT APPLY PLEASE MOVE ON TO THE NEXT PAGE)

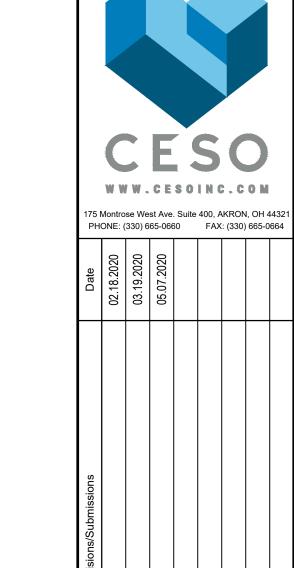
If subdivis	sion:
1)	Is any variance from the subdivision regulations required?
2)	Is any open space being offered? If so, what amount?
3)	Is this a standard or average density subdivision?
If site plan	ո։
1)	Existing square footage
2)	Total square footage
3)	Number of dwelling units
If special	permit, list special permit use and what the property will be used for.
Environm	ental Constraints:
and net area	
	eams on the site? If yes, please provide the names
Are there we	tlands on the site? If yes, please provide the names and type:
Project Hi	istory:
Has this proje	ect ever been reviewed before?
If so, provide	a narrative, including the list case number, name, date, and the board(s) you appeared
before, and the	ne status of any previous approvals.
_	
List tax map this project.	section, block & lot numbers for all other abutting properties in the same ownership as
_	



DXY4 DELIVERY STATION EXTERIOR IMPROVEMENTS 200 ORITANI DRIVE ORANGETOWN, NY 10913

PROJECT DESCRIPTION **KEY PLAN** PROJECT DIRECTORY 200 ORITANI DRIVE EXTERIOR IMPROVEMENTS TRUCK DOCKS THE BUILDING; AND 3) NEW PAINT FINISHES. **ALONSO RODRIGUEZ VAN PARKING** PHONE -703.328.6395 **ADJACENT WAREHOUSE** ARCHITECT OF RECORD **TENANT** CONSTRUCTION MANAGER: NAME -**MATT THOMAS** BENJAMIN T. BELL. AIA 1305 NE McCLAIN RD. SUITE 7 PHONE -914.525.7804 BENTONVILLE, AR 72712 ARCHITECT OF RECORD PHONE: (479) 271-8058 FAX: (888) 208-4826 200 ORITANI DR. 400 ORITANI DR. COMPANY - BENJAMIN T. BELL, AIA ADDRESS - 1305 NE MCCLAIN RD. **REQUIRED VENDORS - NO SUBSTITUTIONS CODE INFORMATION** BENTONVILLE, AR 72712 bell@cesoinc.com SITE AREA: 35.5 AC. (1,638,263 S.F.) PROJECT MANAGER BUILDING AREA - 200 ORITANO DRÍVE:75,607 S.F CHAD HAPONEK IES COMMERCIAL, INC TO SUPPLY SECURITY AND TELECOM DRAWINGS OCCUPANCY TYPE: A-3, B, S-1 (CONTACT: IESAMAZONDESIGN@IESCOMM.COM) CONSTRUCTION TYPE: III-B (FULLY SPRINKLERED) haponek@cesoinc.com ALLOWABLE AREA: 2 STORY/17,500 S.F./FLOOR (BASED ON S-1 OCC., CONST) PER IBC TABLE 503 ENTREMATIC TO SUPPLY HIGH-SPEED FABRIC DOORS SPRINKLER INCREASE +60' YARD INCREASE 1 STORY/UNLIMITED S.F. PER IBC SECTION 507.4 PHONE -330.665.0660 (CONTACT: RYAN TALBOT RYAN.TALBOT@ENTREMATIC.COM) **MECHANICAL AND ELECTRICAL ENGINEER** BUILDING, EXTERIOR AND MONUMENT SIGNS TO BE PROVIDED BY SIGN METHODS (CONTACT: DANE CARDONE DCARDONE@SIGNMETHODS.COM COMPANY - LBI PROFESSIONAL ENGINEERING, LLC LOADING DOCK EQUIPMENT PROVIDED BY KELLY COMPANY, POWER AMP AND RITE-HITE CORP. ADDRESS - 310 W. 20TH ST. (KELLY COMPANY CONTACT: RYAN TALBOT RYAN.TALBOT@ENTREMATIC.COM (POWER AMP CONTACT: TIM BLOHM TIMBLOHM@POWERAMP.COM) SUITE 200 (RITE-HITE CORP CONTACT: RUSS STUEFLOTEN RSTUEFLOTEN@RITEHITE.COM) KANSAS CITY, MO 64108 PROJECT MANAGER: JOE HILLEBRENNER, PE 0 joe.hillebrenner@dialecticeng.com PHONE -816.997.9601 STRUCTURAL ENGINEER COMPANY - SMBH, INC. ADDRESS - 1166 DUBLIN RD. SUITE 200 COLUMBUS, OH 43215 PROJECT MANAGER: ABDUL ABDI aabdi@smbhinc.com **GENERAL NOTES** PHONE -614.481.9800 REFER TO REQUIRED VENDOR LIST ABOVE, AND IN DESIGN CRITERIA FOR MORE INFORMATION. COMPLETE DOCUMENTS INCLUDE DESIGN CRITERIA AND DESIGN GUIDELINES PROVIDE (1) FIRE EXTINGUISHER PER 11,500 SF OF BUILDING SQUARE FOOTAGE PLUS AN ADDITIONAL (5) FIRE EXTINGUISHERS. PROVIDE EXIT SIGNS AT ALL EXTERIOR DOORS PLUS (10) ADDITIONAL EXIT SIGNS WHERE DIRECTED BY AHJ. REFER TO EXIT PLAN SHEET AN.10 FOR CODE ANALYSIS AND CALCULATIONS **DESIGN STANDARDS MATRIX** _____ **DESIGN STANDARDS INFORMATION DESIGN INTENT** DESIGN CRITERIA: AMZL DSC MR DESIGN CRITERIA V1.4 RELEASED: 02/24/20 DESIGN GUIDELINES: AMZL BTS-MR GUIDELINES V1.4 **RELEASED: 02/04/20** AS NOTE RELEASED: 01/16/20 COMPOSITE PLAN: DXY4 FIRM COMPOSITE RELEASED: SUBJECT RELEASE DATE APPLIES TO PROJECT | AFFECTED DRAWINGS 02.18.2020 **COVER SHEET** SEPARATE PERMITS SIGNAGE PERMIT (DESIGN BUILD) **AN.00**

SHEET INDEX LIST	
SHEET NUMBER SHEET TITLE	ISSUE REVISION REVISION BID/PERMIT 1 2
00 GENERAL AN.00 COVER SHEET AN.01 SHEET INDEX AN.20 GENERAL NOTES & ABBREVIATIONS AN.30 ACCESSIBILITY DETAILS	05/07/20 03/19/20 05/07/20 05/07/20 05/07/20 05/07/20 03/19/20 05/07/20 05/07/20
03 ARCHITECTURE D1.10 DEMOLITION FLOOR PLAN A1.10 OVERALL FLOOR PLAN A4.10 EXTERIOR ELEVATIONS A6.10 DOORS & HARDWARE A6.11 STOREFRONT & DOOR DETAILS	05/07/20 05/07/20 05/07/20 05/07/20 05/07/20 05/07/20 05/07/20 05/07/20 05/07/20
A6.12 BUILDING SIGNAGE AND GRAPHICS DETAILS A7.10 SHELL DETAILS 05 STRUCTURAL S0.01 GENERAL NOTES	05/07/20 05/07/20 05/07/20 05/07/20 05/07/20 05/07/20 03/19/20
S2.01 PARTIAL ROOF AND CANOPY FRAMING PLAN S3.01 FOUNDATION SECTIONS AND DETAILS 12 ELECTRICAL E0.0 ONE-LINE, SYMBOLS, SCHEDULES, & GENERAL NOTES	05/07/20 03/19/20 05/07/20 03/19/20 05/07/20 05/07/20
E0.1 ELECTRICAL SPECIFICATIONS E1.1 LIGHTING & POWER PLAN	05/07/20 05/07/20 05/07/20



ARCHITECT OF RECORD

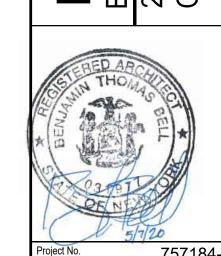
BENJAMIN T. BELL, AIA

1305 NE McCLAIN RD. SUITE 7.
BENTONVILLE, AR 72712

PHONE: (479) 271-8058 FAX: (888) 208-4826

DXY4

DELIVERY STATION EXTERIOR IMPROVEMENTS
200 ORITANI DRIVE
ORANGETOWN, NY



Project No. 757184-01
Scale AS NOTED
Drawn IO

te 02.18.2020

SHEET INDEX

SCU

Drawing No. AN.01

GENERAL NOTES

- 1. THE WORK SHALL CONFORM TO THE APPLICABLE BUILDING CODE AND OTHER ORDINANCES, CODES AND REGULATIONS LISTED IN THE SPECIFICATIONS OR ON THE DRAWINGS, AND REQUIRED BY LOCAL BUILDING AUTHORITIES. THE GOVERNING CODES, RULES AND REGULATIONS ARE COLLECTIVELY REFERRED TO AS "THE CODE." THE CONTRACTOR SHALL REPORT ANY INCONSISTENCIES, CONFLICTS OR OMISSIONS DISCOVERED TO THE ARCHITECT FOR INTERPRETATION PRIOR TO PERFORMING THE WORK.
- THE GENERAL CONTRACTOR SHALL CONTACT BUILDING MANAGEMENT TO DETERMINE THE RULES OF THE BUILDING RELATIVE TO CONSTRUCTION; WHEN AND HOW DELIVERIES CAN BE MADE. WHAT PHASES AND TYPES OF CONSTRUCTION MAY BE DONE ON REGULAR OR OVERTIME BASIS, AND IN GENERAL ANY SPECIAL BUILDING REQUIREMENTS WHICH WILL AFFECT THE COST OF ALL WORK BORNE BY THE GENERAL CONTRACTOR. ALL WORK SHALL CONFORM TO ALL BASE BUILDING STANDARD SPECIFICATIONS AND BUILDING REGULATIONS,
- WHICH THE CONTRACTOR SHALL OBTAIN PRIOR TO SUBMISSION OF BID. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUB-CONTRACTORS' RECEIPT OF COMPLETE SETS OF THESE DOCUMENTS, AS WELL AS ALL FUTURE ADDENDA, BULLETINS, FIELD DIRECTIVES AND CHANGE
- 4. THE CONTRACTOR SHALL COORDINATE WITH THE BUILDING MANAGEMENT THE STORAGE OF MATERIALS AND SHALL PROVIDE PROTECTION AS NECESSARY TO PREVENT VANDALISM AND LOSS OF MATERIALS BY THEFT OR DAMAGE SUSTAINED DUE TO EXPOSURE TO INAPPROPRIATE ENVIRONMENTAL CONDITIONS AND WILL REPAIR & REPLACE DAMAGE OR LOSSES AT THE CONTRACTOR'S EXPENSE WITHOUT CHARGE TO THE OWNER.
- WHERE ADJACENT AREAS BEYOND THE IMMEDIATE CONSTRUCTION AREA WILL BE OCCUPIED DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL: A. CONFORM TO OWNERS AND TENANT REQUIREMENTS FOR HOURS OF CONSTRUCTION OPERATIONS, ACCESS TO TENANT SPACES AND ALLOWABLE NOISE LEVEL DURING TENANT BUSINESS HOURS B. CONSTRUCTION OPERATIONS SHALL NOT BLOCK HALLWAYS ACCESSIBLE
- ROUTES OR MEANS OF EGRESS FOR TENANTS OF BUILDING. C. CONSTRUCTION OPERATIONS SHALL NOT CAUSE INTERRUPTIONS OF ELECTRICAL SERVICES TO THE TENANTS OF THE BUILDING WITHOUT PRIOR NOTIFICATION AND APPROVALS. PROPERLY PROTECT ALL FLOORS, MAIL CHUTES AND STAIR DOORS IN PUBLIC AREAS SUBJECT TO CONSTRUCTION TRAFFIC. SHOE WIPING MATS WILL BE INSTALLED AT ALL OPENINGS BETWEEN CONSTRUCTION AREAS AND ALL PUBLIC SPACES. ALL ACTIVE AREAS SHALL BE KEPT CLEAN AND FREE FROM DEBRIS.
- D. ERECT AND MAINTAIN TEMPORARY BRACING, LIGHTS, DUSTPROOF PARTITIONS, BARRICADES, FENCES AND WARNING SIGNS AS NECESSARY TO PREVENT INJURY, NOISE, DUST AND INCONVENIENCE TO OTHER TENANTS, THE PUBLIC, AND TO PREVENT DAMAGE TO ADJACENT CONSTRUCTION WHICH IS TO BE LEFT
- E. CONTRACTOR SHALL FOLLOW THE RECOMMENDED CONTROL MEASURES OF THE SHEET METAL AND AIR CONDITIONING NATIONAL CONTRACTORS ASSOCIATION (SMACNA) IAQ GUIDELINES FOR OCCUPIED BUILDINGS UNDER CONSTRUCTION, 2ND EDITION 2007, ANSI/SMACNA 008-2008 (CHAPTER 3). PROTECT STORED ON-SITE AND INSTALLED ABSORPTIVE MATERIALS FROM MOISTURE DAMAGE.
- F. IF PERMANENTLY INSTALLED AIR HANDLERS ARE USED DURING CONSTRUCTION, FILTRATION MEDIA WITH A MINIMUM EFFICIENCY REPORTING VALUE (MERV) OF 8 - MUST BEUSED AT EACH RETURN AIR GRILLE G. IN AREAS WHERE NO IMMEDIATE ADJACENT SPACES (I.E. CORRIDORS), PROVIDE A ZIPWALL (OR SIMILAR) BARRIER SEPARATING THE CONSTRUCTION SPACE FROM THE OCCUPIED SPACE. IN AREAS WHERE LARGER SPACE ARE REQUIRED
- TO BE SEPARATE AND PORTIONS OF ROOMS ARE OCCUPIED, PROVIDE A TEMPORARY FRAMED PARTITION. FINISHED SIDE OF TEMPORARY WALL FACING ADJACENT OCCUPIED SPACE SHALL BE PAINTED TO LOOK SIMILAR TO THE OCCUPIED SPACE.

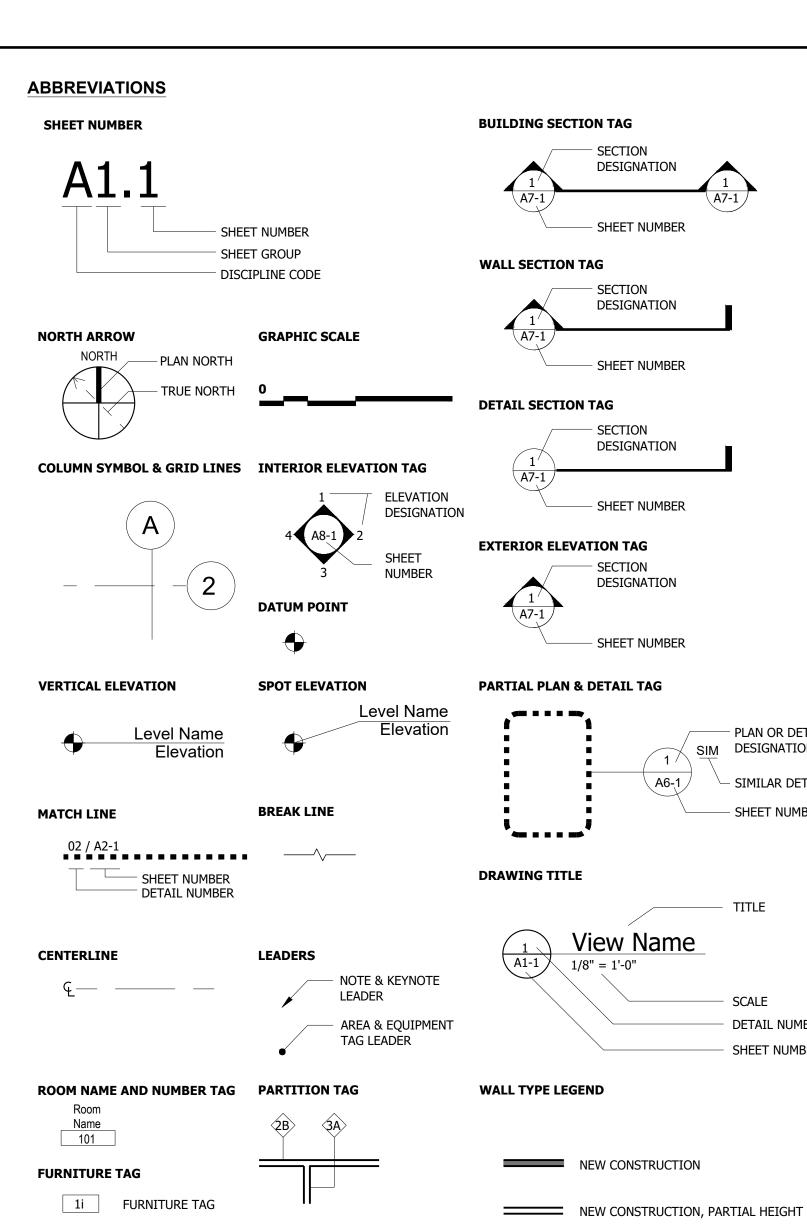
 ALL CUTTING. CHASING, DRILLING OR DEMOLITION OF WALLS, SLABS, ETC. REQUIRING THE USE OF JACKHAMMERS OR OTHER HEAVY HAND OR POWER TOOLS SHALL BE PERFORMED AFTER REGULAR BUSINESS HOURS ON AN OVERTIME BASIS IF NECESSARY, UNLESS THE BUILDING MANAGEMENT AND ANY AFFECTED
- TENANTS PROVIDE A WRITTEN WAIVER EXPRESSLY PERMITTING OTHERWISE. 7. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL PROVIDE PUBLIC PROTECTION, AS NECESSARY AND REQUIRED BY GOVERNING AGENCIES HAVING JURISDICTION, UNTIL CLIENT ACCEPTANCE OF THE PREMISES.
- THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROVISION AND MAINTENANCE OF ALL BRACING, SHORING, ENCLOSURES, BARRIERS OR SCAFFOLDING REQUIRED TO PROVIDE A SAFE WORKING ENVIRONMENT AS DICTATED BY SITE CONDITIONS AND THE PROGRESS OF WORK. 9. DURING THE ENTIRE CONSTRUCTION PERIOD, ALL EXITS, EXIT LIGHTING, FIRE PROTECTION DEVICES AND ALARMS SHALL BE CONTINUOUSLY MAINTAINED IN
- 10. THE CONTRACTOR SHALL PROTECT THE PROPERTY OF THE CLIENT AND THE BUILDING OWNER. INCLUDING, BUT IS NOT LIMITED TO, WINDOWS, FLOOR AND CEILING FINISHES, PUBLIC TOILETS, ELEVATORS, DOORS & BUCKS, ELECTRICAL AND AIR-CONDITIONING EQUIPMENT. THE CONTRACTOR SHALL PROTECT ADJOINING PROPERTY. DAMAGE CAUSED BY THE CONTRACTOR'S WORK OR WORKMEN MUST BE MADE GOOD, IN A TIMELY FASHION. PATCHING AND REPLACEMENT OF DAMAGED WORK SHALL BE PERFORMED AT THE COST OF THE CONTRACTOR.THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ALL SUB-CONTRACTORS. IF THE CONTRACTOR FAILS TO COMPLETE THE REPAIRS IN A

CONFORMANCE WITH LOCAL BUILDING CODE AND OTHER GOVERNING ENTITY

REQUIREMENTS. UNO, ALL EXISTING, SERVICES AND DEVICES SHALL REMAIN

- TIMELY FASHION, SAID REPAIRS WILL BE MADE BY A CONTRACTOR SELECTED BY THE OWNER'S REPRESENTATIVE AND BACK CHARGED ACCORDINGLY. 11. THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE LANDLORD, THE TENANT, AND ARCHITECT AGAINST ANY AND ALL CLAIMS AND DEMANDS FOR THE DAMAGE TO THE PROPERTY OF ANY PERSON, FIRM OR INDIVIDUAL OR FOR PERSONAL INJURIES (INCLUDING DEATH) ARISING OUT OF, OR SUFFERED WHILE ENGAGED IN, OR CAUSED, IN WHOLE OR IN PART, BY THE EXECUTION OF THE WORK; THE CONTRACTOR SHALL WELL AND TRULY DEFEND THE LANDLORD, TENANT AND ARCHITECT AND SHALL PAY ALL MONIES AWARDED FOR SUCH DAMAGES OR INJURIES (INCLUDING DEATH), ALL COSTS INCLUDING ATTORNEY'S FEES SUSTAINED, AND SHALL OBTAIN A FULL ACQUAINTANCE AND RELEASE IN FAVOR OF THE LANDLORD, TENANT AND ARCHITECT, UNLESS SUCH LIABILITY RESULTS SOLELY FROM THE NEGLIGENCE OF THE LANDLORD, TENANT,
- ARCHITECT, ITS AGENTS OR EMPLOYEES. 12. THE ARCHITECT SHALL NOT BE HELD RESPONSIBLE FOR THE PERFORMANCE OF ANY WORK, NOR FOR THE MEANS AND METHODS OF CONSTRUCTION CHOSEN BY THE CONTRACTOR OR ANY SUB-CONTRACTORS, NOR SHALL THE ARCHITECT GUARANTEE THE PERFORMANCE OF THEIR CONTRACTS.
- 13. THE CONTRACTOR SHALL PERFORM DAILY CLEANING OF THE JOB SITE DURING THE CONSTRUCTION PERIOD AND SHALL PROTECT FINISHED WORK FROM DAMAGE. IMMEDIATELY PRIOR TO TENANT OCCUPANCY, THE CONTRACTOR SHALL PERFORM FINAL CLEANING OF THE WORK AREA INCLUDING, BUT NOT LIMITED TO, WET WIPING OF FURNITURE, AND CASEWORK, WASHING AND WAXING OF VCT FLOORING AND THE VACUUMING OF CARPET. ALL CLEANING SHALL BE IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- 14. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE WORK OF ALL SUB-CONTRACTORS AND SHALL PERFORM SUCH MISCELLANEOUS WORK AS MAY BE NECESSARY FOR THEM TO COMPLETE THEIR WORK. IT IS EXPECTED THAT THE CONTRACTOR SHALL ALSO CLOSELY COORDINATE THE WORK WITH THAT OF ALL OTHER VENDORS RETAINED BY THE CLIENT TO ASSURE THAT ALL SCHEDULES ARE MET AND THAT WORK PROCEEDS WITHOUT DELAY
- 15. BIDDERS, BEFORE SUBMITTING PROPOSALS, SHALL VISIT AND CAREFULLY EXAMINE THE AREA AFFECTED BY THE WORK TO FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. SUBMISSION OF A PROPOSAL WILL BE CONSTRUED AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE, AND LATER CLAIMS WILL NOT BE RECOGNIZED FOR EXTRA LABOR, EQUIPMENT, OR MATERIALS, REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED WHICH COULD HAVE BEEN REASONABLY FORESEEN HAD SUCH AN EXAMINATION BEEN MADE. THE GENERAL CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS ON THE JOB SITE AND REPORT ANY AND ALL DISCREPANCIES AND/OR UNUSUAL CONDITIONS TO THE ARCHITECT PRIOR TO FINALIZING BIDS OR COMMENCEMENT OF ANY CONSTRUCTION. 16. THE GENERAL CONTRACTOR SHALL MAKE KNOWN ANY AND ALL LIMITATIONS.
- EXCLUSIONS, OR MODIFICATIONS TO THE PROJECT DURING THE BID SELECTIONS PERIOD. ANY AND ALL LIMITATIONS, EXCLUSIONS, OR MODIFICATIONS NOT ITEMIZED IN THE BID PROPOSAL DOCUMENTS ARE PRESUMED "INCLUDED". IN WHICH CASE NO ADDITIONAL MONIES WILL BE ALLOCATED FOR THIS WORK.
- 17. EXISTING CONSTRUCTION AND DIMENSIONS SHOWN ARE PER EXISTING DRAWINGS. ALL EXISTING INFORMATION MUST BE VERIFIED IN THE FIELD. NEITHER THE OWNER NOR THE ARCHITECTS ARE RESPONSIBLE FOR ACCURACY OF EXISTING INFORMATION. EXISTING CONSTRUCTION CONDITIONS IN AREAS WHERE NEW WORK IS NOT PLANNED MAY BE NOT COMPLETELY SHOWN.
- 18. WITHIN ONE (1) WEEK (5 BUSINESS DAYS), OF THE AWARD OF THIS CONTRACT, PRIOR TO MOBILIZATION FOR ANY WORK, THE CONTRACTOR SHALL FURNISH A CONSTRUCTION SCHEDULE SHOWING CHRONOLOGICALLY THE PHASES OF THE WORK, AND ALL RELATED WORK FOR THE COMPLETION OF THE PROJECT. THIS SCHEDULE SHALL INDICATE ALL ORDERING LEAD TIMES, LENGTH OF TIME FOR EACH PHASE, ITS START AND COMPLETION, WITH A PROJECTED COMPLETION DATE. 19. CONTRACTOR AND SUBCONTRACTORS SHALL ATTEND JOB MEETINGS REQUIRED
- BY THIS CONTRACT. 20. THE CONTRACTOR SHALL OBTAIN ALL PERMITS FOR ALL SITE DEVELOPMENT WORK PAY ALL FEES FOR PERMITS AND CHECK ALL GOVERNING AUTHORITIES! SPECIFICATIONS FOR BUT NOT LIMITED TO, GUTTERS, SIDEWALKS, POLES, AND OTHER STRUCTURES, INCLUDING THE REMOVAL OR RELOCATION OF EXISTING UTILITIES OR OTHER PHYSICAL OBJECTS SHOWN ON PLANS OR NOTED OTHERWISE. SEPARATE PERMITS, WHEN REQUIRED AND/OR WHEN WORK ITEMS ARE DESIGN/BUILD IN NATURE. SHALL BE OBTAINED BY THE CONTRACTOR FOR MECHANICAL, PLUMBING, FIRE SPRINKLERS, ELECTRICAL AND FIRE ALARM. DESCRIPTIVE, DETAILED DESIGN AND REQUIRED SUBMITTAL DOCUMENTS INFORMATION SHALL BE PROVIDED FOR REVIEW BY THE REGULATING AUTHORITIES AND BY THE OWNER/TENANT/ARCHITECT FOR APPROVAL PRIOR TO ANY WORK BEING PERFORMED. SEE SPECIFICATIONS FOR REQUIREMENT FOR
- DESIGN/BUILD FIRE SPRINKLER SYSTEM. SUBMIT PLAN TO AND OBTAIN PERMIT FROM THE AUTHORITY HAVING JURISDICTION FOR FIRE SPRINKLER SYSTEM INSTALLATION OR MODIFICATION. ALL WORK SHALL COMPLY WITH CURRENT GOVERNING CODES. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH CURRENT GOVERNING CODES, NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED AS TO PERMIT WORK WHICH IS NOT CONFORMING TO CURRENT GOVERNING CODES.
- 21. THE CONTRACTOR SHALL CREATE AND IMPLEMENT AN EROSION AND SEDIMENTATION CONTROL PLAN FOR ALL SITE CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE PROJECT. THE PLAN MUST CONFORM TO THE EROSION AND SEDIMENTATION REQUIREMENTS OF THE 2003 EPA CONSTRUCTION GENERAL PERMIT OR LOCAL STANDARDS AND CODES, WHICHEVER IS MORE STRINGENT.
- 22. ALL REQUIRED PERMITS MUST BE OBTAINED FROM THE FIRE DEPARTMENT PRIOR TO START OF CONSTRUCTION.
- 23. ALL COSTS FOR INSPECTIONS AND/OR TESTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UON.

- 25. THE CONTRACTOR SHALL PAY THE EXPENSES FOR ALL TRANSPORTATION. HOISTING AND ELEVATOR USE CHARGES ON ALL MATERIALS OR EQUIPMENT TO THE POINT OF USE, AND SHALL BE RESPONSIBLE FOR ALL UNLOADING, CHECKING AND STORAGE OF THE SAME IN CONNECTION WITH THIS CONTRACT. 26. OF THE INEVITABLE WASTE THAT IS GENERATED. AS MANY OF THE WASTE
- MATERIALS AS ECONOMICALLY FEASIBLE SHALL BE REUSED, SALVAGED, OR RECYCLED. WASTE DISPOSAL IN LANDFILLS SHALL BE MINIMIZED. CONTRACTOR SHALL COORDINATE WASTE MATERIALS HANDLING AND SEPARATION FOR ALL TRADES. CONTRACTOR SHALL PROVIDE SEPARATION, HANDLING, TRANSPORTATION, RECYCLING, SALVAGE, AND LANDFILLING FOR ALL DEMOLITION AND WASTE MATERIALS. RECYCLABLE MATERIALS CAN BE COMMINGLED IN DUMPSTERS ON-SITE AS LONG AS PROVISION IS MADE FOR
- HAULING TO A TRANSFER STATION WHERE SEPARATION WILL OCCUR. TRANSFER STATION MUST PROVIDE DOCUMENTATION REPORT TYPES OF MATERIALS SEPARATED BY LOAD AND PERCENTAGE OF EACH LOAD. FINAL DESTINATION OF SORTED MATERIALS MUST ALSO BE REPORTED. DIVERSION GOALS: A MINIMUM 75% OF TOTAL PROJECT WASTE SHALL BE DIVERTED FROM LANDFILL. THE FOLLOWING WASTE CATEGORIES, AT A MINIMUM, SHALL BE DIVERTED FROM
- A. CLEAN DIMENSIONED WOOD, PALLET WOOD B. PLYWOOD, OSB, AND PARTICLE BOARD C. CONCRETE
- D. CARDBOARD, PAPER, PACKAGING E. METALS F. GYPSUM DRYWALL (UNPAINTED)
- G. ACOUSTIC TILE H. PAINT I. GLASS
- J. PLASTICS K. CARPET AND PAD
- L. BEVERAGE CONTAINERS 27. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS, MAINTAIN AND PAY ALL COSTS FOR TEMPORARY WATER, PLUMBING, POWER, LIGHTING, HEATING OR VENTILATION REQUIRED TO PROPERLY CONDUCT THE WORK.
- 28. DIMENSIONS ARE TO FACE OF STUD, CONCRETE, OR MASONRY UON. DO NOT SCALE THESE DRAWINGS; WRITTEN DIMENSIONS SHALL GOVERN. SHOULD ANY DIMENSIONAL DISCREPANCIES BE ENCOUNTERED, CLARIFICATIONS SHALL BE OBTAINED FROM THE OFFICE OF THE ARCHITECT. 29. LARGE SCALE DETAILS SHALL GOVERN OVER SMALLER SCALE PLANS AND
- ELEVATIONS. 30. INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURERS' RECOMMENDATIONS. ANY DIFFICULTIES ARE TO BE REPORTED TO THE ARCHITECT IMMEDIATELY.
- THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL WARRANTEE ALL WORK PERFORMED BY HIM DIRECTLY FOR A MINIMUM PERIOD OF ONE (1) YEAR AS SPECIFIED IN THE CONSTRUCTION CONTRACT. ALL DEFECTS OCCURRING IN THE GUARANTEED PERIOD SHALL BE CORRECTED AT NO ADDITIONAL COST. 32. THE CLIENT, ARCHITECT, CONSULTANTS AND ALL INSPECTORS FROM PERTINENT
- AGENCIES SHALL BE PERMITTED ACCESS TO THE JOB SITE AT ALL TIMES DURING NORMAL WORKING HOURS. 33. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO EXECUTE ALL WORK, EXCEPT WHERE NOTED AS NOT IN
- CONTRACT (N.I.C.). MINOR DETAILS NOT SHOWN OR SPECIFIED, BUT NECESSARY FOR PROPER CONSTRUCTION OF ANY PART OF THE WORK, SHALL BE INCLUDED AS IF THEY WERE INDICATED IN THE DRAWINGS, UNLESS OTHERWISE AGREED UPON. WHERE THE CONTRACT, CONSTRUCTION NOTES OR DRAWINGS CALL FOR ANY WORK OF A MORE STRINGENT NATURE THAN THAT REQUIRED BY THE BUILDING CODE, OR ANY OTHER ENTITY HAVING JURISDICTION OVER THE WORK, THE WORK OF THE MORE STRINGENT NATURE CALLED SHALL BE FURNISHED IN ALL
- FOR ALL MATERIALS PURCHASED THE CONTRACTOR SHALL FURNISH MATERIALS WHICH YIELD THE HIGHEST PERCENT OF PRE-CONSUMER (POST- INDUSTRIAL) AND POST-CONSUMER RECYCLED CONTENT. THE CONTRACTOR SHALL FURNISH THESE MATERIALS WITHIN THE PARAMETERS OF THE BUDGET AND SHALL NOT PURCHASE ANY COST-ADDING MATERIAL OR PAY A PREMIUM (MORE THAN FAIR MARKET VALUE) WITHOUT PROJECT MANAGER AND OWNER ACKNOWLEDGEMENT AND APPROVAL
- FOR ALL MATERIALS PURCHASED THE CONTRACTOR SHALL FURNISH MATERIALS MANUFACTURED WITHIN A 500 MILE RADIUS OF THE PROJECT SITE WHERE AVAILABLE, WITHIN BUDGET, WITHIN FAIR MARKET VALUE AND DO NOT PRESENT RISK TO THE PROJECT SCHEDULE. FOR ALL NEW WOOD PRODUCTS INCLUDING BUT NOT LIMITED TO PARTICLE
- BOARD, MDF, PLYWOOD, OSB AND WOOD DOORS, THE CONTRACTOR SHALL FURNISH MATERIALS THAT CONTAIN NO ADDED UREA-FORMALDEHYDE. 38. DETAILS ARE INTENDED TO SHOW THE INTENT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT FIELD CONDITIONS. REQUIRED
- MODIFICATIONS SHALL BE INCLUDED AS PART OF THE WORK. 39. ALL WORK SHALL BE EXECUTED IN A WORKMANLIKE MANNER BY MECHANICS AND TRADES PERSONS SKILLED IN THEIR RESPECTIVE TRADES AND IN ACCORDANCE WITH THE BEST TRADE PRACTICES.
- 40. THE CONTRACTOR SHALL CONFIRM THE AVAILABILITY AND DELIVERY TIMES FOR ALL SPECIFIED MATERIALS & EQUIPMENT REQUIRED TO PERFORM THE WORK UPON RECEIPT OF THE CONTRACT DOCUMENTS. SHOULD THE AVAILABILITY OF SPECIFIED ITEMS POSE A DELAY TO THE ON-TIME COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY AND PROPOSE AN EQUIVALENT SUBSTITUTION TO BE REVIEWED BY THE ARCHITECT IF SUCH A DELAY IS NOT ACCEPTABLE.
- 41. SUBSTITUTION OF ALL EQUALS SHALL BE ONLY AS APPROVED BY THE ARCHITECT. WHERE THE TERM "OR EQUAL" IS USED THE ARCHITECT SHALL BE THE SOLE JUDGE OF EQUALITY BASED UPON THE INFORMATION FURNISHED BY THE CONTRACTOR. SUBSTITUTIONS MUST BE ACCEPTED IN WRITING BEFORE THEY MAY BE USED. 42. THE CONTRACTOR SHALL PREPARE SUBMITTALS FOR REVIEW BY THE
- ARCHITECT, FOR ALL MATERIALS AND EQUIPMENT SPECIFIED. IF THE CONTRACTOR, THE OWNER, OR THE OWNER'S REPRESENTATIVE SUBSTITUTES A MATERIAL, METHOD OF ATTACHMENT, REVISES A CONSTRUCTION DETAIL, OR IN ANY WAY ALTERS THE WORK SUCH THAT IT NO LONGER CONFORMS TO THESE DOCUMENTS, WITHOUT THE WRITTEN ACCEPTANCE OF THE ARCHITECT, SUCH ACTION WILL RELIEVE THE ARCHITECT OF ANY RESPONSIBILITY OR LIABILITY INCLUDING, BUT NOT LIMITED TO, AESTHETIC CONSEQUENCES, SUBSEQUENT FAILURE(S) AND PERSONAL OR PROPERTY DAMAGE ATTRIBUTABLE TO THIS
- 43. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. 44. SUBMITTALS THAT CONTAIN EXCESSIVE ERRORS OR ARE INCOMPLETE OR INADEQUATE MAY BE RETURNED WITHOUT ACTION. COSTS INCURRED FOR THE RESULTANT DELAYS WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 45. REVIEW OF SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR OF OBLIGATIONS OR RESPONSIBILITIES FOR DEVIATIONS FROM THE REQUIREMENTS OF THESE CONTRACT DOCUMENTS, UNLESS THE ARCHITECT IS NOTIFIED AND
- SPECIFICALLY APPROVES OF, THE DEVIATIONS AT THE TIME OF SUBMISSION. 46. REVIEW OF SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR'S OBLIGATION FOR COORDINATION NOR WAIVE RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SUBMITTALS, INCLUDING "FIELD MEASURE."
- 47. CHANGES IN THE SCOPE OF WORK OR IN CONSTRUCTION DETAILS, WHETHER DUE TO FIELD CONDITIONS OR OMISSIONS BY THE CONTRACTOR, ARCHITECT OR OWNER, SHALL BE DOCUMENTED BY THE ARCHITECT AND APPROVED, PRIOR TO EXECUTION. 48. THE PRESENCE OF A REPRESENTATIVE OF THE ARCHITECT ON THE JOB SITE
- DOES NOT IMPLY CONCURRENCE WITH OR THE APPROVAL OF ANY WORK. THE CONTRACTOR SHALL CALL TO THE ATTENTION OF THE ARCHITECT, IN WRITING, ALL SPECIFIC ITEMS FOR WHICH ARCHITECT'S REVIEW IS REQUIRED. 49. UPON SUBSTANTIAL COMPLETION OF WORK THE CONTRACTOR SHALL PREPARE A "PUNCHLIST" OF CORRECTIONS AND UNSATISFACTORY AND/OR INCOMPLETE WORK FOR REVIEW BY THE ARCHITECT.
- 50. THE CONTRACTOR SHALL MAINTAIN AT THE SITE, ONE RECORD COPY OF ALL DRAWINGS, PERMITS, SUBMITTALS AND SAMPLES ON WHICH TO RECORD ALL CHANGES DURING CONSTRUCTION. ACCESS TO THESE SHALL BE PROVIDED FOR THE USE OF ALL TRADES, CLIENT REPRESENTATIVES AND THE ARCHITECT. DURING ALL PHASES OF CONSTRUCTION.
- 51. DURING THE COURSE OF CONSTRUCTION, ACTUAL LOCATIONS SHALL BE INDICATED TO SCALE IN RED INK ON THE OWNERS RECORD DRAWINGS FOR ALL RUNS OF MECHANICAL AND ELECTRICAL WORK INCLUDING CONCEALED WORK WHICH DEVIATES FROM THE DRAWINGS. UPON COMPLETION OF THE PROJECT INCLUDING ALL PUNCHLIST ITEMS, THIS INFORMATION SHALL BE NEATLY TRANSFERRED BY THE CONTRACTOR TO A SET OF DRAWINGS, WHICH SHALL BE MARKED "AS BUILT SET" AND COPIES SHALL BE PROVIDED TO BOTH THE OWNER AND THE ARCHITECT. WITHIN THREE (3) WEEKS (15 BUSINESS DAYS) OF THE RECEIPT OF THE "AS BUILT SET." APPROVAL FOR FINAL PAYMENT TO THE CONTRACTOR SHALL BE GRANTED OR REASONABLE CAUSE SHOWN WHY SUCH
- APPROVAL HAS BEEN DENIED. 52. PRIOR TO THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL ASSEMBLE AND FURNISH THE CLIENT A COMPLETE SET OF MANUFACTURERS 'CATALOG, OPERATING INSTRUCTIONS, START-UP CHECK LISTS, MAINTENANCE INSTRUCTIONS AND SIMILAR DATA, AS WELL AS ALL GUARANTEE(S) FOR ALL EQUIPMENT AND OPERABLE DEVICES FURNISHED OR INSTALLED BY THE CONTRACTOR UNDER THIS CONTRACT, AND SHALL ORIENT AND INSTRUCT THE PERSONNEL DESIGNATED BY THE CLIENT IN THE OPERATION OF ALL SUCH EQUIPMENT.
- 53. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE OWNER IN THE EVENT THAT MOLD OR ASBESTOS IS UNCOVERED. THE OWNER SHALL RETAIN A QUALIFIED CONSULTANT WHO SHALL ARRANGE FOR THE PROMPT IDENTIFICATION. TESTING. TREATMENT, REMEDIATION AND STORAGE OF THE MOLD OR ASBESTOS AS REQUIRED BY LAW AND GOOD CONSTRUCTION PRACTICES. THE ARCHITECT SHALL BEAR NO RESPONSIBILITY FOR WORK RELATED TO THESE MATERIALS.
- 54. THE CONTRACTOR IS ADVISED THAT THE PREMISE HAS NOT BEEN TESTED FOR LEAD PAINT OR OTHER POTENTIALLY HAZARDOUS MATERIALS. THE CONTRACTOR SHALL USE ALL APPROPRIATE PRECAUTIONS IN THE CARRYING OUT OF ALL CONSTRUCTION OPERATIONS WHICH MIGHT DISTURB SUCH MATERIALS. ALL CONTRACTORS SHALL CARRY PROPERTY DAMAGE AND PUBLIC LIABILITY
- INSURANCE AS REQUIRED BY ANY GOVERNING AGENCIES HAVING JURISDICTION AND COMPLYING WITH STATUTORY REQUIREMENTS FOR DISABILITY AND WORKMEN'S COMPENSATION.



WINDOW TYPE TAG

DRAWING REVISIONS

REVISION DELTA

GLAZING

RECESSED CABINET

PLUMBING FIXTURES

_____ SINK -

COUNTER

MOUNTED

BI-LEVEL

WATER

MOUNTED

SINK - WALL MOUNTED

XX99 EQUIPMENT TAG

TAG NUMBER

(E) EXISTING TO REMAIN

(X) EXISTING TO BE REMOVED

NEW / RELOCATED / MODIFIED DOOR

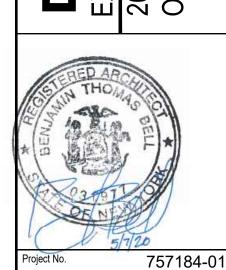
EXISTING DOOR TO BE REMOVED

OBJECT STATE

ABBREVIATIONS ANGLE PENNY PLATE ACP ACT BOARD BLK BLOCK BEAM BRG BEARING BOT BOTTON CBU PLAN OR DETAIL DESIGNATION — Similar Detail CEILING CLOSET CLR CLEAR CO DETAIL NUMBER SHEET NUMBER DOUBLE DISP = = EXISTING CONSTRUCTION TO BE REMOVED — — — OVERHEAD SOFFIT/UPPER CABINET EACH DEMOUNTABLE PARTITION (BY CONTRACTOR) DEMOUNTABLE PARTITION (BY VENDOR) EQ FQUAL SURFACE MOUNTED CABINET WALL MOUNTED W/O CABINET FLOOR FLG UTILITY SINK

FLUOR FLUORESCENT PAINT SYSTEM CENTER LINE FACTORY MUTUAL PSF POUNDS PER SQUARE FOOT DIAMETER OR ROUND FACE OF CONCRETE POUNDS PER SQUARE INCH NUMBER OR POUND FACE OF FINISH PRESSURE TREATED FURNISHED BY OWNER PTD PAPER TOWEL DISPENSER PERPENDICULAR INSTALLED BY CONTRACTOR PTD/R PAPER TOWEL DISPENSER FURNISHED BY OWNER AND RECEPTACLE **INSTALLED BY OWNER** PTN PARTITION ANCHOR BOLT FACE OF STUD PTR PAPER TOWEL RECEPTACLE FS PVMT PAVEMENT ACOUSTICAL FULL SIZE AIR CONDITIONING ACOUSTICAL CEILING PANEL FTG FOOTING QUARRY TILE ACOUSTICAL TILE FURNISHED BY TENANT ADHESIVE INSTALLED BY CONTRACTOR FURNISHED BY TENANT ADJACENT RETURN AIR ACCESS FLOOR **INSTALLED BY OWNER** RAD RADIUS AT/ABOVE FINISH FLOOR R&S ROD & SHELF FURRING AUTHORITY HAVING JURISDICTION RESILIENT BASE FUTURE FUTURE ROUGH IN ONLY RCP REFLECTED CEILING PLAN ALUMINUM ALTERNATE ROOF DRAIN RD/O ROOF DRAIN OVERELOW ACCESS PANEL APC ACOUSTICAL PANEL CEILING REBAR REINFORCING BAR APPROX APPROXIMATE GALV GALVANIZED REF REFERENCE REFR REFRIGERATOR ARCH ARCHITECTURA GRAB BAR **GENERAL CONTRACTOR** ASPH ASPHALT REINF REINFORCED GLASS OR GLAZING REQ'D REQUIRED GLB GLU-LAM BEAM REV REVISION BETW BETWEEN RIGHT HAND OR ROBE HOOK GROUND GRADE RESIL RESILIENT BLDG BUILDING GYPSUM WALL BOARD ROUGH OPENING HOSE BIB RESILIENT TILE HOLLOW CORE OR HANDICAP RUBBER BSMT BASEMENT HDR HEADER RAIN WATER BUR BUILT UP ROOF HARDWOOD RWL RAIN WATER LEADER HDWE HARDWARE HOLLOW METAL CABINET HORIZ HORIZONTAL SOLID CORE CATCH BASIN SCD SEAT COVER DISPENSER CEMENTITIOUS BACKER UNIT HEIGHT SCHD SCHEDULE CEMENT HEATING SOAP DISPENSER CERAMIC HEATING/VENTILATION/ SECT SECTION CUBIC FEET PER MINUTE AIR CONDITIONING SQUARE FEET CONDUCTIVE FLOOR TILE HOT WATER HEATER SHTG SHEATHING CORNER GUARD SIMILAR CHBD CHALK BOARD INTERNATIONAL BUILDING CODE SNK SINK CAST IRON INSIDE DIAMETER/ SLR SEALER CONTROL JOINT DIMENSION SND SANITARY NAPKIN CHAIN LINK FENCE INTERNATIONAL ELECTRIC DISPENSER CODE COUNCIL SANITARY NAPKIN CONSTRUCTION JOINT INTERNATIONAL FIRE CODE RECEPTACLE CAULKING INSULATED GLAZING SPEC SPECIFICATION INSULATED HOLLOW METAL SQUARE STAINLESS STEEL CONCRETE MASONRY UNIT INCLUDE SERVICE SINK CNTR COUNTER INSULATION STONE/STONE TILE CI FANOUT INTERIOR STATION COLUMN INTERNATIONAL PLUMBING CODE STC SOUND TRANSMISSION CONC CONCRETE CONSTR CONSTRUCTION STD STANDARD CONT CONTINUOUS STI STEFI CORR CORRIDOR STOR STORAGE CPT CARPET KIT KITCHEN STRL STRUCTURAL CERAMIC TILE KNOCK OUT SUSP SUSPENDED CTR CENTER KNEE SPACE SHEET VINYL CY CUBIC YARD SYM SYMMETRICAL LAMINATE LAVATORY DEPT DEPARTMENT TOWEL BAR LAG BOLT DRINKING FOUNTAIN(W/O COOLER) T&B TOP & BOTTOM LINEAL FOO DIAMETER TG TEMPERED GLASS LENGTH DIAG DIAGONAL I FFT HAND THK THICK DIMENSION LINOLEUM TEMPERED INSULATED DISPENSER LKR LOCKER GLAZING TOP OF LIGHT DOOR OR DRAIN TOC TOP OF CONCRETE TOP TOP OF PAVEMENT MACHINE DRAWER TOS TOP OF STEEL MATL MATERIAL DOWNSPOUT TOSL TOP OF SLAB MAXIMUM DISHWASHER TOW TOP OF WALL MECHANICA DWG DRAWING TPD TOILET PAPER DISPENSER MF77 MF77ANINE TPH TOILET PAPER HOLDER MANUFACTURE TPTN TOILET PARTITION MANHOLE MINIMUM TS TUBULAR STEEL EXPANSION BOLT TV TELEVISION MIRROR EXPANSION JOINT TYP TYPICAL MISCELLANEOUS ELEVATION MOLDING ELEC ELECTRIC UL UNDERWRITERS LABORATORY MRGWB MOISTURE RESISTANT GWB ELEV ELEVATOR UNF UNFINISHED MTD MOUNTED EM ENTRY MAT UON UNLESS OTHERWISE NOTED EMER EMERGENCY UR URINAL MULLION ENCL ENCLOSURE OR ENCLOSED ELECTRICAL PANEL VAR VARIES ELECTRIC WATER COOLER NIC NOT IN CONTRACT VCT VINYL COMPOSITION TILE NO/# NUMBER VERT VERTICAL NOM NOMINAL VEST VESTIBULE EQUIP EQUIPMENT NTS NOT TO SCALE VIN VINYL ESTIMATE VWC VINYL WALL COVERING OVERALL EXPANSION ON CENTER EXIST EXISTING WEST OUTSIDE DIAMETER/ EXT EXTERIOR DIMENSION W/O WITHOUT OFFICE FIRE ALARM WATER CLOSET OVERHEAD FURNISHED BY OTHERS WOOD OPPOSITE HAND FURNISHED BY CONTRACTOR WF WIDE FLANGE OPENING INSTALLED BY CONTRACTOR WIRE GLASS OPPOSITE FCTY FACTORY WHSE WAREHOUSE FLOOR DRAIN PERPENDICULAR WP WATER PROOF FOUNDATION PREFINISHED WR WATER RESISTANT FIRE EXTINGUISHER PLATE OR PROPERTY LINE WSCT WAINSCOT FIRE EXTINGUISHER CABINET PLAM PLASTIC LAMINATE WT WEIGHT FACTORY FINISH PLYWD PLYWOOD XFMR TRANSFORMER YD YARD FLASHING

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SCU 02.18.2020 **GENERAL**

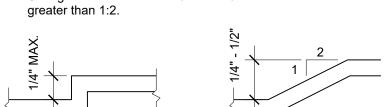
AS NOTED

NOTES & ABBREVIATION:

AN.20

302/303 FLOOR SURFACES & CHANGES IN LEVEL

ANSI/ICC A117.1 303 - CHANGES IN LEVEL (REFERENCE DETAIL) A. Changes in level up to 1/4" may be vertical and without edge treatment B. Changes in level between 1/4" and 1/2" shall be beveled with a slope no



ANSI/ICC A117.1 302.2 - CARPET

A. Carpet provided on a floor surface shall be securely attached; have a firm pad or backing, or no pad; and have a level loop, textured loop, level cut pile, or level cut/uncut pile texture. Maximum pile thickness shall be 1/2". Exposed edges of carpet shall be fastened to floor surfaces and have trim along the exposed edges.

ANSI/ICC A117.1 302.3 - GRATINGS A. If gratings are located in walking surfaces or along accessible routes, then they

shall have spaces no greater than 1/2" wide in one direction. B. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

305 CLEAR FLOOR SPACE

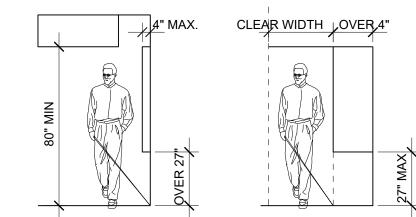
ANSI/ICC A117.1 305.2 - SIZE AND APPROACH

A. Minimum clear floor space for a wheelchair and occupant shall be 30" wide x 48" long. Clear floor space shall be centered on the element it serves.

307 PROTRUDING OBJECTS

ANSI/ICC A117.1 307 - GENERAL

A. Objects projecting from walls (for example, telephones) with their leading edges between 27"-80" above the finished floor shall protrude no more than 4" into walks, halls, corridors, passageways, or aisles. Freestanding objects mounted on posts or pylons may overhang 12" maximum from 27"-80" above the ground or finished floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.



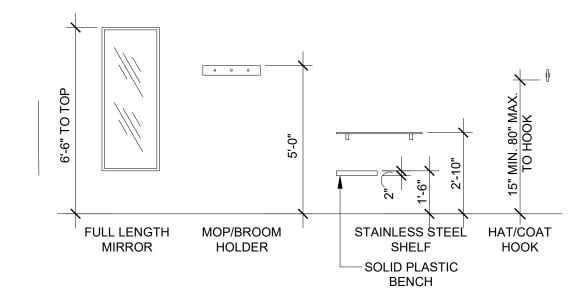
308 & 309 REACH RANGES AND OPERABLE PARTS

ANSI/ICC A117.1 308 - HEIGHT (REFERENCE DETAIL) A. Unobstructed front approach - 48" max. to 15" min. A.F.F. Controls located in

an alcove >24" deep must have 36" clear floor width. B. Unobstructed side approach - 48" max, to 15" min. A.F.F. Controls located in an alcove >15" deep must have 60" clear floor width. C. Electrical & communication system receptacles shall be mounted no less than 15" above the floor.

ANSI/ICC A117.1 309 - OPERABLE PARTS

Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5.0lbs maximum.



403 ACCESSIBLE ROUTE - WALKING SURFACES

IBC 1104 - LOCATION

A. At least one accessible route within the site shall be provided from public transportation stops, accessible parking and accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance served.

ANSI/ICC A117.1 403.5 - CLEAR WIDTH A. The minimum clear width shall be 32" at a point for a max. length of 24" and 36" continuously, per Table below.

ANSI/ICC A117.1 403.5.2 - PASSING SPACE

A. If an accessible route is less than 60" in width, then passing spaces of at least 60"x60" shall be provided at 200' max. spacing. B. The minimum clear width for two wheelchairs to pass is 60"

ANSI/ICC A117.1 307.2 A. Accessible routes shall have 80" min. clear head room.

ANSI/ICC A117.1 403.3 - SLOPE A. Running slope shall not exceed 1:20.

B. Cross slope shall not exceed 1:48

404 DOORS

ANSI/ICC A117.1 404.2.1 - DOUBLE - LEAF DOORWAYS

A. Doorways with two independently operated leaves shall have at least one active leaf that meets the requirements in 404.2.2 and 404.2.3

ANSI/ICC A117.1 404.2.2 - CLEAR WIDTH

A. Doorways shall provide a clear opening of 32" minimum, with the door open 90°. B. Clear opening shall be measured between the face of the door and opposite stop. C. Openings more than 24" in depth shall provide a clear opening of 36" minimum.

ANSI/ICC A117.1 404.2.3 - MANEUVERING CLEARANCES AT DOORS

Provide level (1:48 max. slope) and clear maneuvering area at doors as follows: A. Front approach pull side - 60" min. width & 18" min. beside strike edge Front approach push side - 48" min width & 0" beside strike edge (12" @ strike if door has both a closer and a latch)

54" min. width; 42" min. beside strike edge Hinge side approach push side - 42" min. width & 22" min. beside hinge edge(48"min. width if door has both a closer C. Latch side approach pull side - 48" min. width and 24" min. beside strike edge (54"min, width if door has a closer)Latch side approach push side - 42" min.

B. Hinge side approach pull side - 60" min. width; 36" min. beside strike edge or -

width and 24" min. beside strike edge(48"min. width if door has a closer) ANSI/ICC A117.1 404.2.4 - THRESHOLDS AT DOORWAYS

A. Maximum threshold height: 1/2". Raised thresholds and floor level changes shall be beveled with a slope no greater than 1:2

ANSI/ICC A117.1 404.2.6 - DOOR HARDWARE A. Handles, pulls, latches, locks, and other operating devices shall have a shape that is easy to grasp with one hand and does not require tight grasping, tight pinching,

> or twisting of the wrist to operate. 1. Lever-operated mechanisms, push-type mechanisms, and U-shaped handles

> are acceptable designs. 2. When sliding doors are fully open, operating hardware shall be exposed and

> 3. Hardware required for accessible door passage shall be mounted between 34" and 48" above finished floor.

ANSI/ICC A117.1 404.2.7.1 - DOOR CLOSERS

usable from both sides.

A. Door closers shall be adjusted so that from an open position of 90 degrees, the time required to move the door to an open position of 12 degrees shall be 5 seconds minimum.

the door shall move to the closed position in 1.5 seconds minimum.

ANSI/ICC A117.1 404.2.7.2 - SPRING HINGES

A. Door spring hinges shall be adjusted so that from the open position of 70 degrees.

404 DOORS continued

ANSI/ICC A117.1 404.2.8 - DOOR OPENING FORCE A. The maximum force for pushing or pulling open doors shall be as follows:

1. Fire doors shall have the minimum opening force allowable by the appropriate administrative authority. Other doors a. Exterior hinged, sliding or folding door: 10.0 lb. max.

These forces do not apply to the force required to retract latch bolts or

disengage other devices that may hold the door in a closed position.

Exception: Interior or exterior automatic doors complying with Section 404.3 of

406 CURB RAMPS

ANSI/ICC A117.1 406 - SLOPE (REFERENCE DETAIL)

slope of the flare shall be 1:10

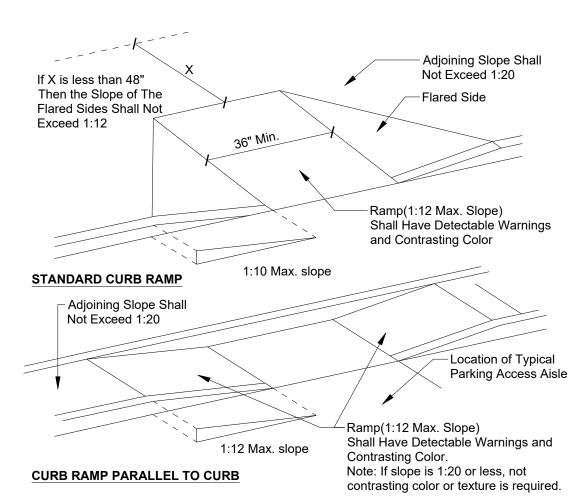
b. Interior hinged doors: 5.0 lb. max

c. Interior sliding or folding doors: 5.0 lb. max.

A. Slopes of curb ramps shall comply with 406 B. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1:20.

ANSI/ICC A117.1 406.4 - WIDTH (REFERENCE DETAIL) A. The minimum width of a curb ramp shall be 36", exclusive of flared sides.

ANSI/ICC A117.1 406.3 - SIDES OF CURB RAMPS (REFERENCE DETAIL) A. If a curb ramp is located where pedestrians must walk across the ramp or where it is not protected by handrails or guardrails, it shall have flared sides; the maximum



ANSI/ICC A117.1 406.10 - DIAGONAL CURB RAMPS

A. If diagonal curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have 48" minimum clear space outside active traffic lanes of the roadway. If diagonal curb ramps are provided at marked crossings, the 48" clear space shall be within the markings. If diagonal curb ramps have flared sides, they shall also have at least a 24" long segment of straight curb located on each side of the curb ramp and within the marked crossing

ANSI/ICC A117.1 406.11 - ISLANDS

A. Any raised islands in crossings shall be cut through level with the street or curb ramps at both sides and a level area at least 48" long and 36" minimum wide between the curb ramps in the part of the island intersected by the crossings.

410 PLATFORM LIFTS

ANSI/ICC A117.1 410.1 - GENERAL A. Platform lifts shall comply with Section 410 and ASME A18.1 listed in Section 105.2.6. Platform lifts shall not be attendant operated and shall provide unassisted entry and exit from the lift.

ANSI/ICC A117.1 410.2 - LIFT ENTRY A. Lifts with doors or gates shall comply with Section 410.2.1. Lifts with ramps shall comply with Section 410.2.2.

ANSI/ICC A117.1 410.2.1 - DOORS AND GATES

A. Doors and gates shall be low energy power operated doors or gates complying with Section 404.3. Doors shall remain open for 20 seconds minimum. End door clear opening width shall be 32 inches minimum. Side door clear opening width shall be 42 inches minimum.

Lifts serving two landings maximum and having doors or gates on opposite sides shall be permitted to have self closing manual doors or gates.

ANSI/ICC A117.1 410.2.2 - RAMPS A. End ramps shall be 32 inches minimum in width. Side ramps shall be 42 inches

ANSI/ICC A117.1 410.3 - FLOOR SURFACES

A. Floor surfaces of platform lifts shall comply with Section 302

ANSI/ICC A117.1 410.4 - PLATFORM TO RUNWAY CLEARANCE A. The clearance between the platform sill and the edge of any runway landing shall be 1 1/4 inch maximum

ANSI/ICC A117.1 410.5 - CLEAR FLOOR SPACE A. Clear floor space of platform lifts shall comply with Section 305.

ANSI/ICC A117.1 410.6 - OPERABLE PARTS A. Controls for platform lifts shall comply with Section 309.

502/503 PARKING AND PASSENGER LOADING ZONES

ANSI/ICC A117.1 502 - PARKING SPACES A. Accessible car parking spaces shall be 96" minimum in width. Van parking spaces shall be 132" minimum in width.

EXCEPTION: Van parking spaces shall be permitted to be 96" minimum in width where the adjacent access aisle is 96" minimum in width. B. Parking access aisles shall be 60" wide. Van accessible access aisles shall be

C. Surface slope shall not exceed 1:48 in all directions (Note: no built up curb ramp may be located in an accessible parking access

ANSI/ICC A117.1 502.7 - SIGNAGE (REFERENCE DETAIL)

A. Each accessible parking space must have individual vertically mounted or suspended sign. Required van accessible spaces must be designated.

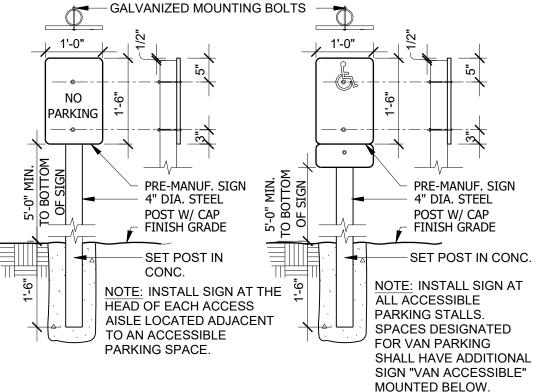
B. Characters and symbols on such signs shall be located 60" minimum above the

ANSI/ICC A117.1 503.5 - VERTICAL CLEARANCE A. Provide minimum vertical clearance of 114" at accessible passenger loading zones and along at least one vehicle access route from site entrances and exits.

with surface slopes not exceeding 1:48 in all directions.

ANSI/ICC A117.1 503 - PASSENGER LOADING ZONE A. Passenger loading zones shall provide an access aisle at least 60" wide and 20 ft long adjacent and parallel to the vehicle pull-up space. If there are curbs between the access aisle and the vehicle pull-up space, then a curb ramp complying with 4.7 shall be provided. Vehicle standing spaces and access aisles shall be level

502/503 PARKING AND PASSENGER LOADING ZONES continued



MOUNT ON WALL OF **505 HANDRAILS** BLDG WHEN POSSIBLE. Handrail to extend Bottom rail to provide edge horizontally at top extension protection Handrail to extend with slope at bottom extension (1) TREAD DEPTH Handrail at Stair Handrail at Ramp 1-1/2" \(\tau_1-1/4\)" to 2"

602 DRINKING FOUNTAINS

ANSI/ICC A117.1 602.1 - GENERAL A. Accessible drinking fountains shall comply with Sections 602 and 307.

Handrail Section

ANSI/ICC A117.1 602.2 - CLEAR FLOOR SPACE

A. A clear floor space complying w/ Section 305, positioned for a forward approach to the drinking fountain, shall be provided. Knee & toe space complying with Section 306 shall be provided. The clear floor space shall be centered on the drinking fountain. EXCEPTIONS:

1. Drinking fountains for standing persons. Drinking fountains primarily for children's use. 3. In existing building, existing drinking fountains providing a parallel approach

complying w/ Section 305, centered on the drinking fountain shall be 4. Where specifically permitted by the administrative authority, a parallel approach shall be permitted that replace existing parallel approach drinking

ANSI/ICC A117.1 602.3 - OPERABLE PARTS A. Operable parts shall comply with Section 309.

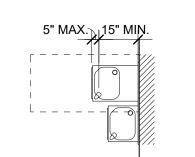
ANSI/ICC A117.1 602.4 - SPOUT OUTLET HEIGHT

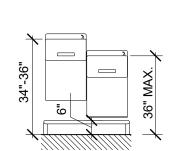
front face of the drinking fountain.

A. Wheelchair accessible spout outlets shall be 36 inches max. aff. Standing person spout outlets shall be 38 inches min. & 43 inches max. aff.

ANSI/ICC A117.1 602.5 - SPOUT LOCATION A. Spout shall be located 15 inches min. from the vertical support and 5 inches max. from the front edge of the drinking fountain, including bumpers.

ANSI/ICC A117.1 602.6 - WATER FLOW A. Spout shall provide a flow of water 4 inches min. in height. The angle of the water stream from spouts within 3 inches of the front of the drinking fountain shall be 30 degrees max. and from spouts between 3 inches & 5 inches from the front of the drinking fountain shall be 15 degrees max., measured horizontally relative to the





603 TOILET ROOMS

ANSI/ICC A117.1 603.2.2 - DOORS A. Doors shall not swing into the clear floor space or clearance for any fixture.

ANSI/ICC A117.1 603.2 - CLEARANCES

A. The accessible fixtures and controls required shall be on an accessible route. An unobstructed turning space complying with 304 shall be provided within an

accessible toilet room. The clear floor space at fixtures and controls, the accessible route, and the turning space may overlap, however; the only turning space provided shall not be located within a stall.

ANSI/ICC A117.1 603.3 & 606 - LAVATORIES AND MIRRORS A. If lavatories and mirrors are provided, then at least one of each shall comply with 603.3 & 606. Accessible lavatories and mirrors shall not be located within toilet

stalls unless other accessible lavatories and mirrors are provided in the toilet ANSI/ICC A117.1 603.3 - MIRRORS (REFERENCE DETAIL) A. Mirrors shall be mounted with the bottom edge of the reflecting surface 40" maximum A.F.F. Mirrors not located above lavatoreis, sinks or counters shall be

mounted with the bottom edge of the reflecting surface 35" maximum above the

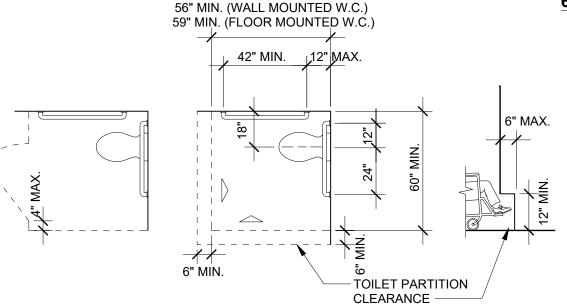
ANSI/ICC A117.1 603.6 - OPERABLE PARTS A. Operable parts on towel dispensers and hand dryers shall comply with Table

MAX. REACH |0.5" | 2" | 5" | 6" | 9" |11" | MAX. REACH | 48" | 46" | 42" | 40" | 36" | 34"

604 WATER CLOSETS & TOILET COMPARTMENTS

ANSI/ICC A117.1 604.3 - CLEARANCES A. Clear floor space for water closets not in stalls shall be provided as follows: Clearance around a water closet shall be 60" minimum in width, measured perpendicular from the sidewall. Clearance around the water closet shall be 56" minimum in depth, measured perpendicular from the rear wall. (Reference

B. No door swings are allowed in clear floor area.



ANSI/ICC A117.1 604.4 - HEIGHT (REFERENCE DETAIL) A. The height to the top of the toilet seat shall be 17" - 19" above floor. 1. Seats shall not be sprung to return to a lifted position.

604 WATER CLOSETS & TOILET COMPARTMENTS continued

ANSI/ICC A117.1 604.5 - GRAB BARS (REFERENCE DETAILS)

A. For water closets not located in toilet stalls, the following grab bars shall be provided, 33" - 36" above the finish floor:

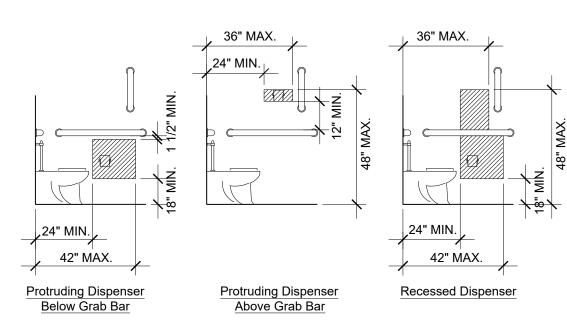
1. Side wall horizontal: 42" in length minimum, 12" max from rear wall, extending 54" min. from rear wall 2. Side wall vertical: 18" in length minimum, bottom of bar located 39" min/41"

max. above the floor, centerline 39" min/41" max from rear wall 3. Back wall: 36" in length minimum, extend from centerline of water closet 12" min. on side closest to the wall, 24" min. on transfer side.

ANSI/ICC A117.1 604.6 - FLUSH CONTROLS A. Flush controls shall be hand operated or automatic, and located on the open side of the water closet. Hand operated flush controls shall comply with Section 309.

ANSI/ICC A117.1 604.7 - DISPENSERS (REFERENCE DETAIL) A. Toilet paper dispensers shall comply with Section 309.4 and 609.3. Where the dispenser is located above the grab bar, the outlet of the dispenser shall be located 24" min-36" max from the rear wall. Where the dispenser is located below the grab bar, the outlet of the dispenser shall be located 24" min-42" max from the rear wall. The outlet of the dispenser shall comply with Table 603.6. Dispensers that control delivery or do not permit continuous paper flow shall not be used.

ANSI/ICC A117.1 604.9 - WHEELCHAIR ACCESSIBLE COMPARTMENTS A. Wheelchair accessible compartments shall comply with Section 604.9. Toilet compartments shall comply with Section 604.9.2.1 or 604.9.2.2 as applicable.



605 - URINALS

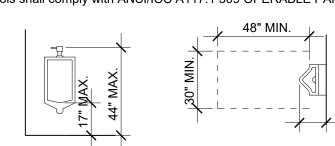
ANSI/ICC A117.1 605 - URINALS A. Accessible urinals shall comply with Section 605.

ANSI/ICC A117.1 605.2 - HEIGHT & DEPTH (REFERENCE DETAIL) A. Urinals shall be stall-type or wall hung with a tapered, elongated rim at 17" maximum above the finished floor. The rim shall extend a minimum of 131/2" from

ANSI/ICC A117.1-605.3 - CLEAR FLOOR SPACE (REFERENCE DETAIL) A. A clear floor space 30" wide by 48" deep minimum shall be provided in front of urinal to allow forward approach. 1. This space shall adjoin or overlap an accessible route.

2. Urinal shields that do not extend beyond the front edge of the urinal rim may be provided with 29" clearance between them. 3. Urinals installed in alcoves deeper than 24" require a maneuvering area of at least 36" minimum wide, centered on fixture.

ANSI/ICC A117.1 605.4 - FLUSH CONTROLS (REFERENCE DETAIL) Controls shall comply with ANSI/ICC A117.1 309 OPERABLE PARTS



606 LAVATORIES

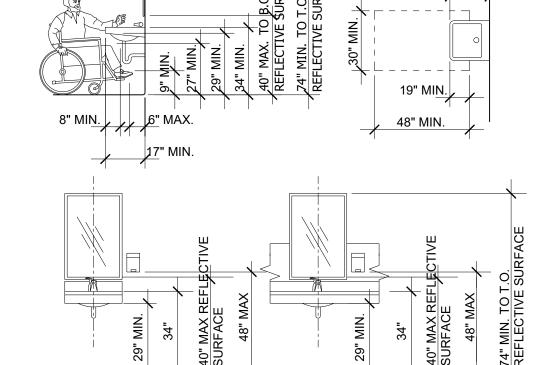
ANSI/ICC A117.1 606.3 & 606.2 - HEIGHT & CLEARANCES (REFERENCE DETAILS) A. Lavatories shall be mounted with the rim or counter surface no higher than 34"

above the finished floor. . Lavatories shall extend 17" minimum from the wall.

2. Clearance of 27" minimum shall be provided from the finished floor to bottom 3. Knee clearance of 27" high minimum shall extend 8" minimum under the edge of the lavatory, 30" wide minimum, and 19" deep minimum.

4. Toe clearance of 9" minimum shall be provided for the full depth of the

ANSI/ICC A117.1 606 - DEPTH A. Each sink shall be a maximum of 6-1/2" deep.



ANSI/ICC A117.1 606.6 - EXPOSED PIPES AND SURFACES A. Hot / cold water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact. B. There shall be no sharp or abrasive surfaces under lavatories.

ANSI/ICC A117.1 606.4 - FAUCETS A. Controls shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

B. The force required to activate controls shall be no greater than 5 lb. C. Lever-operated, push-type, and electronically controlled mechanisms are

examples of acceptable designs.

provide an equivalent gripping surface.

minimum.

R-TOILET SEAT

609 GRAB BARS ANSI/ICC A117.1 609.3.2 - SIZE AND SPACING A. Diameter or width of gripping surface shall be 1-1/4" to 2", or the shape shall

B. The space between grab bars and adjacent walls shall be 1-1/2"

R-PAPER TOWEL

COVER DISPENSER DISPENSER/ WASTE DRYER

RECEPTACLE

S-ELECTRIC HAND R-SANITARY

ANSI/ICC A117.1 604.7 - DISPENSERS - REFERENCE DETAIL. THE OUTLET OF THE DISPENSER SHALL COMPLY

NAPKIN DISPENSER RECEPTACLE

D. If self-closing valves are used the faucet shall remain open for 10 seconds

609 GRAB BARS continued

39"-41"

42" MIN.

12" MAX.

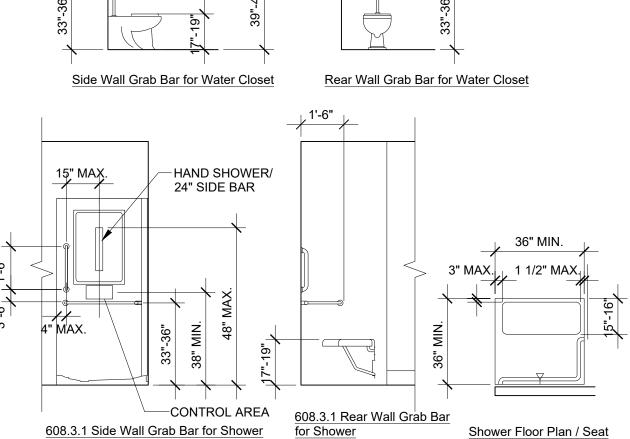
ANSI/ICC A117.1 609.8 - STRUCTURAL STRENGTH A. Grab bars and mounting devices shall meet the following requirements:

> vertical or horizontal force of 250 lbs. is applied at any point on the grab bar, fastener mounting device, or supporting structure. 1. Shear stress induced by application of 250 lb. shall be less than allowable shear stress for material used. If connection between grab bar and mounting bracket is considered to be fully restrained, then direct and torsional shear stresses shall be totaled for the combined shear stress, which shall not exceed the allowable shear stress.

609.8 Allowable stresses shall not be exceeded for materials used where a

2. Shear force induced in a fastener or mounting device from application of 250 lb. shall be less than allowable lateral load of either the fastener or mounting device or the supporting structure, whichever is the smaller allowable load. 3. Tensile force induced in a fastener by a direct tension force of 250 lb. plus the maximum moment from the application of 250 lb. shall be less than the allowable withdrawal load between the fastener and the supporting structure. 609.6 Grab bars shall not rotate within their fittings.

ANSI/ICC A117.1 609.5 - ELIMINATING HAZARDS A. Grab bars and adjacent wall surfaces shall be free of sharp or abrasive surfaces. Edges shall be rounded.



610 SEATS

ANSI/ICC A117.1 610.2 - SHOWER COMPARTMENT SEATS A. The height of the shower compartment seats shall be 17" minimum and 19" maximum above the bathroom floor measured to the top of the seat.

B. Allowable stresses shall not be exceeded for materials used where a vertical or horizontal force of 250 pounds is applied at any point in the seat, fastener mounting device or support structure.

702 ALARMS

ANSI/ICC A117.1 702.1 - GENERAL A. When required, visual alarms shall be provided in each of the following areas, as

NFPA 72 - AUDIBLE ALARMS

a minimum: rest rooms and any other general usage areas (e.g., meeting rooms), hallways, lobbies, and any other area for common use. Accessible audible and visible alarms and notification appliances shall be installed in accordance with NFPA 72.

maximum sound level with a duration of 60 seconds by 5 dba, whichever is

signal (measured in a horizontal plane).

2. Finish and Contrast

B. Sound levels for alarm signals shall not exceed 120 dba. NFPA 72 - VISUAL ALARMS A. Visual alarm signal appliances shall be integrated into the building or facility alarm

A. If provided, audible alarms shall produce a sound that exceeds the prevailing

equivalent sound level in the room or space by at least 15 dba or exceeds any

alarm signals shall be provided. Visual Alarm appliances shall have the following features: 1. The lamp shall be a xenon strobe type or equivalent. 2. The color shall be clear or nominal white (i.e. unfiltered or clear filtered white

system. If single station audible alarms are provided then single station visual

3. The maximum pulse duration shall be two-tenths of one second with a maximum duty cycle of 40%. (The pulse duration is defined as the time interval between initial and final points of 10% of max signal) 4. The intensity shall be a minimum of 75 candela. 5. The flash rate shall be a minimum of 1 Hz and a maximum of 3 Hz

space or 6" below the ceiling, whichever is lower a. In large rooms and spaces exceeding 100' across, without obstructions 6' above the finished floor, such as auditoriums, devices may be place around the perimeter, spaced a maximum 100' apart, in lieu of suspending appliances from 7. In general, no place in any room or space shall be more than 50' from the

8. No place in common corridors or hallways shall be more than 50' from the

6. The appliance shall be placed 80" above the highest floor level within the

703 SIGNAGE A. Signs which designate permanent rooms and spaces shall comply with the requirements listed below for: 1. Raised and Braille Characters, and Pictograms

Exception: Employee name signs are not required to comply. WHERE APPLICABLE A. Signs which provide direction to, or information about, functional spaces of the

building shall comply with the requirements listed below for: 1. Character Proportion 2. Character Height 3. Finish and Contrast Exception: Building directories, menus, and all other signs which are temporary

are not required to comply. WHERE APPLICABLE (REFERENCE DETAIL) A. Element and spaces of accessible facilities which shall be identified by the International Symbol of Accessibility are:

. Accessible passenger loading zones. 3. Accessible entrances when not all are accessible (inaccessible entrances shall have directional signage to indicate route to nearest accessible

4. Accessible toilet and bathing facilities when not all are accessible.

. Parking spaces designated as reserved for persons with disabilities.

ANSI/ICC A117.1 703.2.4 - CHARACTER HEIGHT (REFERENCE DETAIL) Height: The uppecase letter "I" shall be used to determine the allowable height of all characters of a font and shall be a minimum of 5/8" and 2" maximum.

EXCEPTION: Where separate tactile and visual characters with the same information

all characters of a font, and shall be 55% min. and 110% max. of the height of the

are provided, the height of the tactile upper case letter "I" shall be permitted to be 1/2" minimum. ANSI/ICC A117.1 703.2.5 - CHARACTER WIDTH A. Width: The uppercase letter "O" shall be used to determine the allowable width of

OVERHEAD SIGNS

703 SIGNAGE continued

A. CHARACTERS AND NUMBERS ON OVERHEAD SIGNS SHALL BE SIZED ACCORDING TO THE VIEWING DISTANCE FROM WHICH THEY ARE TO BE 1. FOR SIGNS HIGHER THAN 70" A.F.F., CHARACTER SIZE SHALL BE 2"

MINIMUM PLUS 1/8" PER FOOT OF VIEWING DISTANCE ABOVE 15 FEET. THE MINIMUM HEIGHT IS MEASURED USING AN UPPER CASE LETTER "I". 2. LOWER CASE LETTERS ARE PERMITTED.

ANSI/ICC A117.1 703.3-703.5 - RAISED CHARACTERS, BRAILLE, & PICTOGRAMS A. Raised characters shall comply with section 703.3 and shall be duplicated in

braille complying with section 703.4. B. Letter and numerals shall be raised 1/32", upper case, sans serif and shall be accompanied by grade 2 Braille. 1. Raised character height: 5/8" minimum to 3" plus 1/8" per foot of viewing distance above 21 feet. 2. Braille shall be contracted (grade 2); shall be located below title

corresponding text. 3. Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram.

The border dimension of the pictogram shall be 6" min. in height. ANSI/ICC A117.1 703.3.12 - FINISH AND CONTRAST A. Characters and their background shall have a nonglare finish. Characters shall

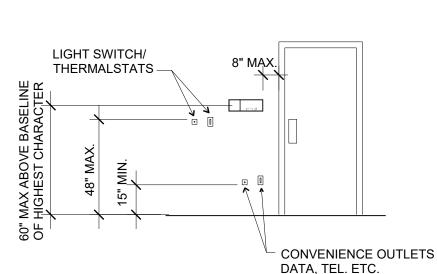
or dark characters on a light background. ANSI/ICC A117.1 703.3.10 & 703.3.11 - MOUNTING LOCATION AND HEIGHT (REFERENCE DETAIL)

A. Characters and their background shall have a nonglare finish. Characters shall contrast with their background, with either light characters on a dark background, or dark characters on a light background. B. Where a tactile sign is mounted next to a door, it shall be placed to the latch side of the door wherever possible. Where a tactile sign is placed adjacent a double door, the sign shall be to the right hand door. If there is no wall space to the right, signs shall be placed on the nearest adjacent wall. Exception: Door mounted

contrast with their background, with either light characters on a dark background,

signs shall be permitted on the push side on the doors with closers and without hold open devices. Raised characters shall be 48" minimum above the floor, measured to the

baseline of the lowest raised character and 60" maximum above the floor, measured to the baseline of the highest raised character. Mounting location for such signage shall be so that a person may approach within 3" of signage without encountering protruding objects or standing within the swing



804 KITCHENS AND KITCHENETTES

ANSI/ICC A117.1 804.5.6 - REFRIGERATOR/FREEZER

Combination refrigerators and freezers shall have at least 50% of the freezer compartment shelves, including the bottom of the freezer 54 inches (1370mm) maximum above the floor when the shelves are installed at the maximum heights possible in the compartment. A clear floor space, positioned for a parallel approach to the space dedicated to a refrigerator/freezer, shall be provided. The centerline of the clear floor space shall be offset 24 inches (610 mm) maximum from the centerline of the dedicated space.

902 DINING SURFACES & WORK SURFACES

ANSI/ICC A117.1 902.2 - CLEAR FLOOR SPACE A. A clear floor space complying with Section 305, positioned for a forward approach shall be provided. Knee and toe clearance complying with Section 306 shall be

A. The tops of accessible tables and counters shall be 28" minimum, and 34" maximum, above the finished floor.

ANSI/ICC A117.1 902.4- HEIGHT

903 BENCHES ANSI/ICC A117.1 903.2 - CLEAR FLOOR SPACE A. a clear floor space complying with section 305, positioned for parallel approach to the bench seat shall be provided.

ANSI/ICC A117.1 903.3- SIZE A. Benches shall have seats 42" minimum in length and 20" minimum and 24" maximum in depth.

ANSI/ICC A117.1 903.4 - BACK SUPPORT A. The bench shall provide for back support or shall be fixed to a wall. Back support shall be 42" minimum in length and shall extend from a point 2" maximum above the seat surface to a point 18" above the seat surface.

905 STORAGE

ANSI/ICC A117.1 905.2 - CLEAR FLOOR SPACE

A. A. clear floor space complying with Section 305 shall be provided. Accessible storage elements shall comply with at least one of the reach ranges specified in Section 308.

Operable parts of storage facilities shall comply with Section 309.

ANSI/ICC A117.1 905.4 - OPERABLE PARTS

AUTOMATIC TELLER MACHINES ANSI/ICC A117.1 305 - CLEAR FLOOR SPACE A. Floor space shall comply with Section 305 to allow a forward, parallel approach or

ANSI/ICC A117.1 308 - HEIGHT A. Operable parts shall be placed within one or more of the reach ranges specified in Section 308, summarized earlier in this sheet.

ARCHITECT OF RECORD

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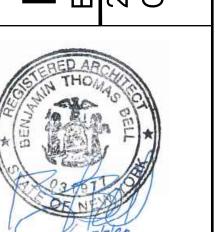
5 Montrose West Ave. Suite 400, AKRON, OH 443

BENJAMIN T. BELL, AIA 1305 NE McCLAIN RD. SUITE 7 BENTONVILLE, AR 72712

PHONE: (479) 271-8058 FAX: (888) 208-4826

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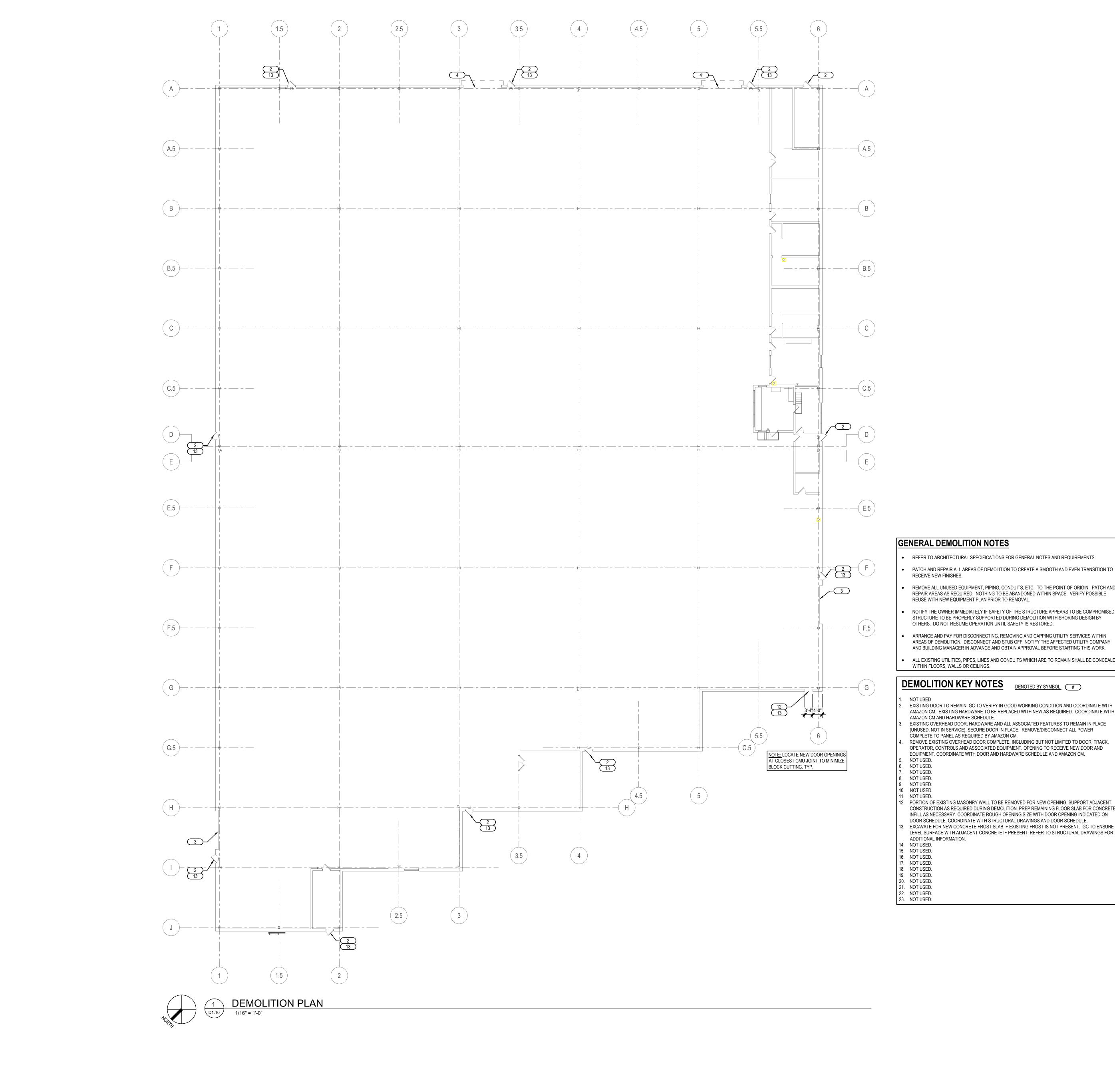
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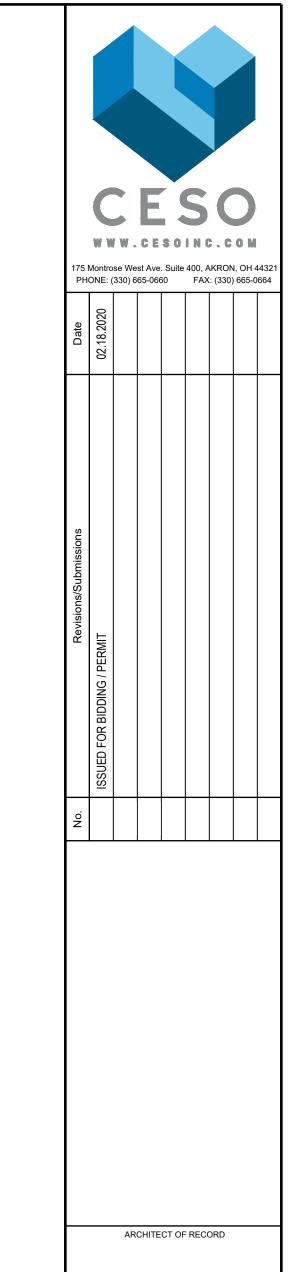


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ACCESSIBILITY DETAILS

AN.30





BENJAMIN T. BELL, AIA 1305 NE McCLAIN RD. SUITE 7. BENTONVILLE, AR 72712

PHONE: (479) 271-8058 FAX: (888) 208-4826

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REMOVE ALL UNUSED EQUIPMENT, PIPING, CONDUITS, ETC. TO THE POINT OF ORIGIN. PATCH AND REPAIR AREAS AS REQUIRED. NOTHING TO BE ABANDONED WITHIN SPACE. VERIFY POSSIBLE REUSE WITH NEW EQUIPMENT PLAN PRIOR TO REMOVAL.

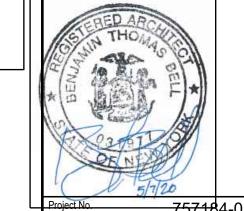
NOTIFY THE OWNER IMMEDIATELY IF SAFETY OF THE STRUCTURE APPEARS TO BE COMPROMISED. STRUCTURE TO BE PROPERLY SUPPORTED DURING DEMOLITION WITH SHORING DESIGN BY OTHERS. DO NOT RESUME OPERATION UNTIL SAFETY IS RESTORED.

ARRANGE AND PAY FOR DISCONNECTING, REMOVING AND CAPPING UTILITY SERVICES WITHIN AREAS OF DEMOLITION. DISCONNECT AND STUB OFF, NOTIFY THE AFFECTED UTILITY COMPANY AND BUILDING MANAGER IN ADVANCE AND OBTAIN APPROVAL BEFORE STARTING THIS WORK.

• ALL EXISTING UTILITIES, PIPES, LINES AND CONDUITS WHICH ARE TO REMAIN SHALL BE CONCEALED WITHIN FLOORS, WALLS OR CEILINGS.

DEMOLITION KEY NOTES DENOTED BY SYMBOL:

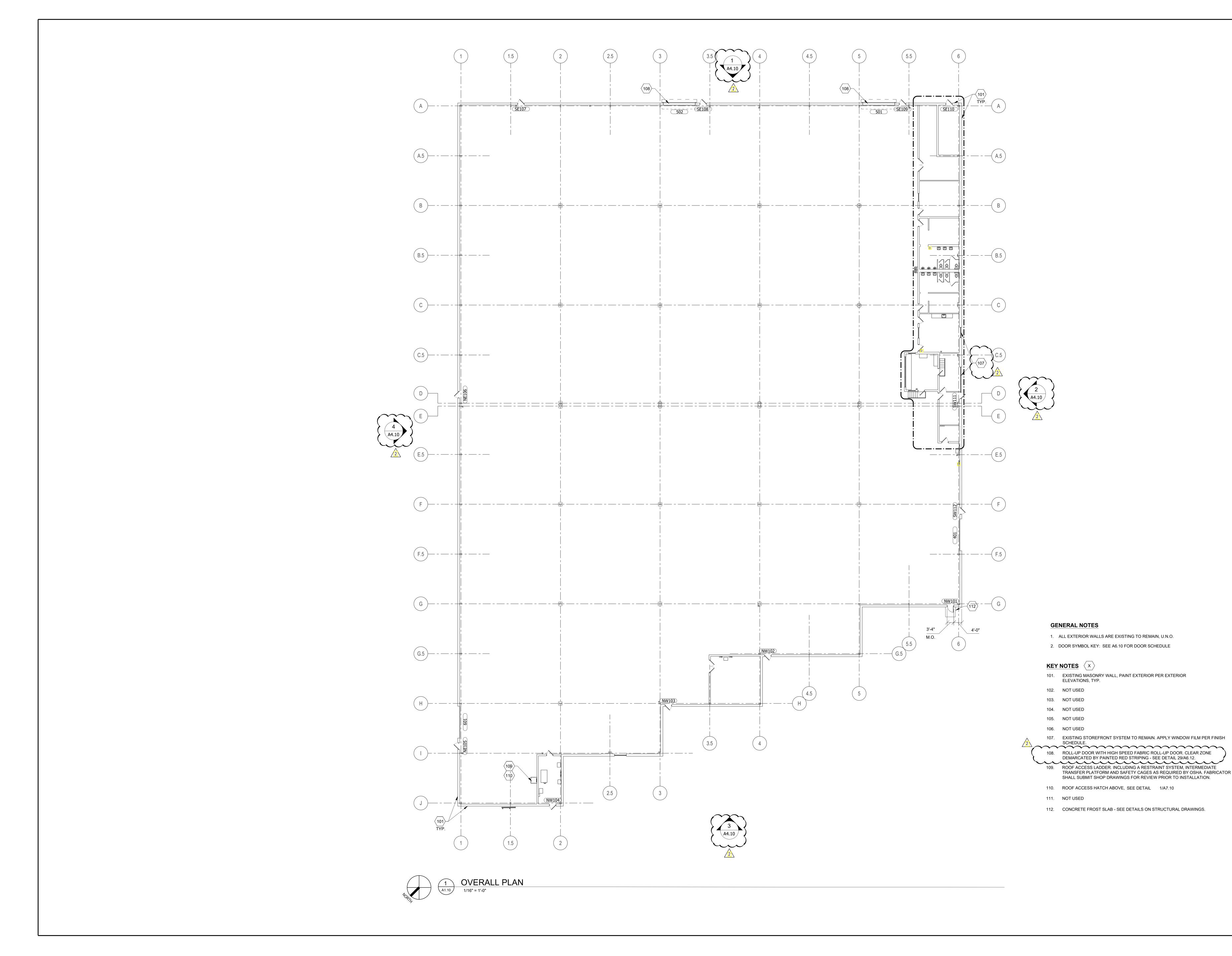
- NOT USED EXISTING DOOR TO REMAIN. GC TO VERIFY IN GOOD WORKING CONDITION AND COORDINATE WITH AMAZON CM. EXISTING HARDWARE TO BE REPLACED WITH NEW AS REQUIRED. COORDINATE WITH
- AMAZON CM AND HARDWARE SCHEDULE. EXISTING OVERHEAD DOOR, HARDWARE AND ALL ASSOCIATED FEATURES TO REMAIN IN PLACE (UNUSED, NOT IN SERVICE), SECURE DOOR IN PLACE. REMOVE/DISCONNECT ALL POWER COMPLETE TO PANEL AS REQUIRED BY AMAZON CM.
- REMOVE EXISTING OVERHEAD DOOR COMPLETE, INCLUDING BUT NOT LIMITED TO DOOR, TRACK, OPERATOR, CONTROLS AND ASSOCIATED EQUIPMENT. OPENING TO RECEIVE NEW DOOR AND EQUIPMENT. COORDINATE WITH DOOR AND HARDWARE SCHEDULE AND AMAZON CM.
- 2. PORTION OF EXISTING MASONRY WALL TO BE REMOVED FOR NEW OPENING. SUPPORT ADJACENT CONSTRUCTION AS REQUIRED DURING DEMOLITION. PREP REMAINING FLOOR SLAB FOR CONCRETE INFILL AS NECESSARY. COORDINATE ROUGH OPENING SIZE WITH DOOR OPENING INDICATED ON DOOR SCHEDULE. COORDINATE WITH STRUCTURAL DRAWINGS AND DOOR SCHEDULE. EXCAVATE FOR NEW CONCRETE FROST SLAB IF EXISTING FROST IS NOT PRESENT. GC TO ENSURE LEVEL SURFACE WITH ADJACENT CONCRETE IF PRESENT. REFER TO STRUCTURAL DRAWINGS FOR
- ADDITIONAL INFORMATION.

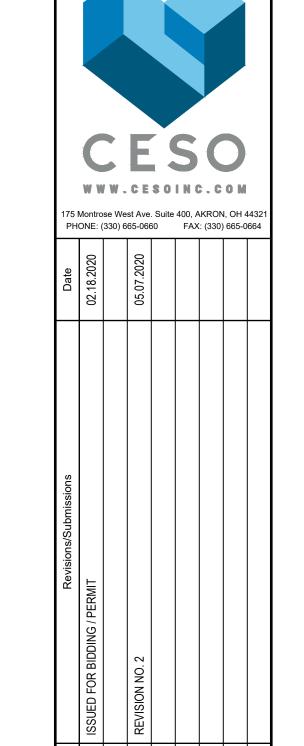


AS NOTE 02.18.2020

DEMOLITION **PLAN**

D1.10





ARCHITECT OF RECORD

BENJAMIN T. BELL, AIA 1305 NE McCLAIN RD. SUITE 7. BENTONVILLE, AR 72712

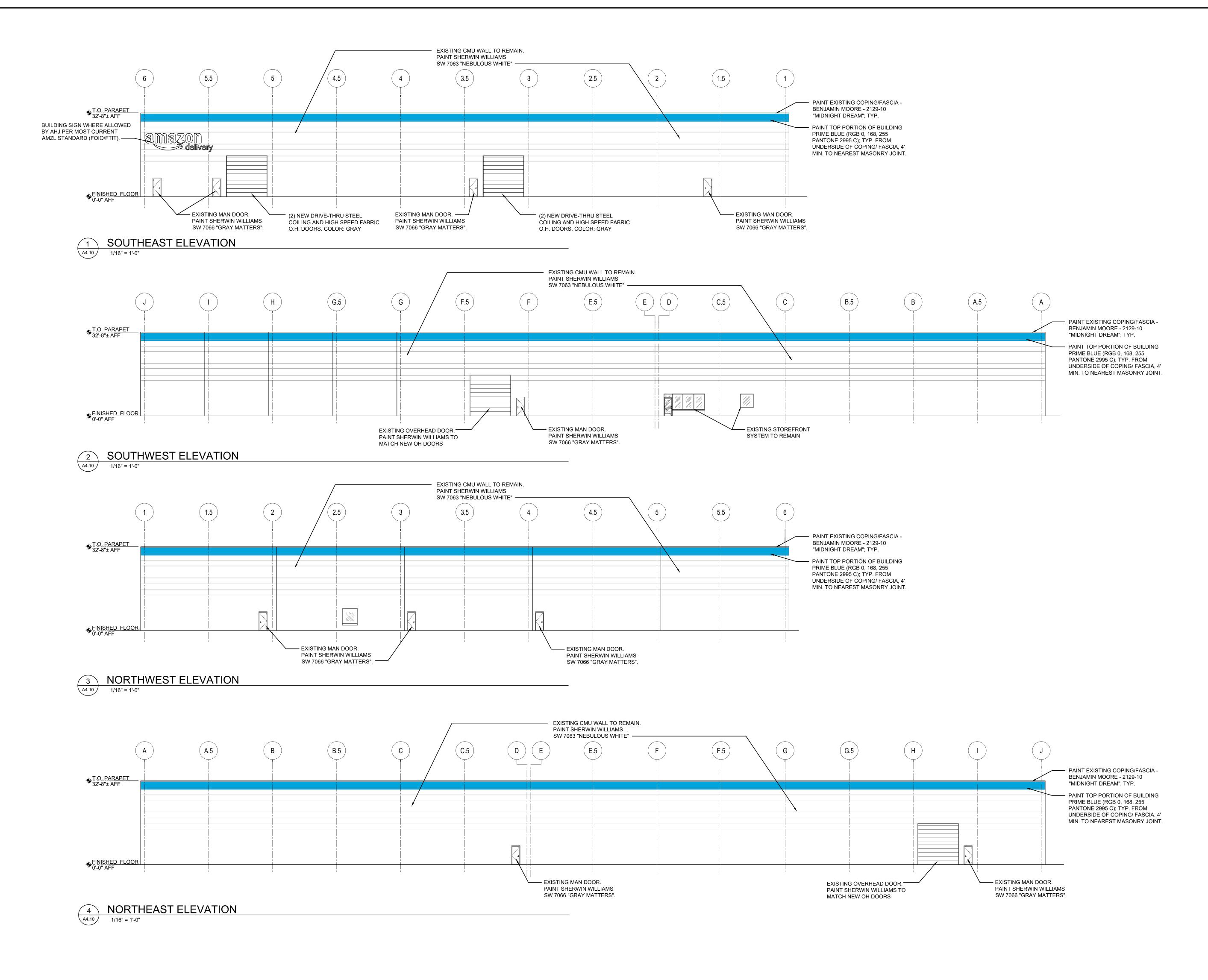
PHONE: (479) 271-8058 FAX: (888) 208-4826

AS NOTED

02.18.2020

OVERALL FLOOR PLAN

A1.10



GENERAL NOTES

STOREFRONT FINISH.

- IG INDICATES INSULATED GLAZING. ALL STOREFRONT GLAZING TO BE IG TYPE, U.N.O.
- 2. TG INDICATES TEMPERED GLAZING, TYP.
- 3. TIG INDICATES TEMPERED, INSULATED GLAZING, TYP.; VERIFY WITH AHJ FOR SITE

U-FACTOR OF & SOLAR HEAT GAIN COEFFICIENT BY AN INDEPENDENT AGENCY

- REQUIREMENT FOR TIG. BEFORE IMPLEMENTING.

 4. ALL FIXED INSULATED GLAZING SHALL BE CERTIFIED & LABELED WITH ITS MAX.
- LICENSED BY THE NFRC, IN COMPLIANCE WITH THE VALUES LISTED ON SHEET CS.

 5. PROVIDE AND COORDINATE "KNOXBOX: LOCATION WITH FIRE DEPARTMENT AND
- ARCHITECT PRIOR TO INSTALL.
- 6. ALL VERTICAL DIMENSIONS ARE FROM FINISHED FLOOR, U.N.O.7. NEW ANODIZED ALUMINUM STOREFRONT FINISH TO MATCH EXISTING
- 8. FINISHES INDICATED HEREIN FOR 400 ORITANI DR. BUILDING SHALL ALSO BE PROVIDED AT 200 ORITANI DR. BUILDING, UNLESS OTHERWISE DIRECTED BY

DELIVERY STA1

EXTERIOR IMPROVEMENTS

200 ORITANI DRIVE
ORANGETOWN, NY

WWW.CESOINC.COM

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EXTERIOR ELEVATIONS

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SCU

02.18.2020

HARDWA	RE SET #1				HARDWA	ARE SET #5
DESCRIP FUNCTIO	MAIN EMPLOYEE ENTRY AND F TION: ALUMINUM STOREFRON N: ELECTRIC LATCH RETRACT	T ION, FAIL SECURE, INTEGRAT	ED REQUES	T TO EXIT	DESCRIF FUNCTION	TRUCK DOCK RELIPTION: SHELL EXTED TO THE TOURS TO THE TOURS TO THE TOURS
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.	QTY.	DESCRIPTION
2	PIVOT SET	BY DOOR MFR.	VERIFY		<u>Q11.</u>	
1	CONCEALED VERT. ROD	55 56 70 AD8610 106X862	VERIFY	SA	3	HINGE (HEAVY V
	EXIT	PULL			1	ELECTRIC EXIT
1	CONCEALED VERT. ROD	55 56 AD8610 862 PULL	VERIFY	SA	1	DOOR LOOP
_	EXIT				1	DOOR CLOSER
2	EPT	EL-CEPT-10	US26D	SU	1	ARMOR PLATE
1	CYLINDER	70 41	VERIFY	SA	1	THRESHOLD
1	OPERATOR DOOR SWITCH	502		NO	1	GASKETING
1	VESTIBULE SWITCH	503		NO	1	RAIN GUARD
1	DOOR CLOSER	UNI7500 X 7788	VERIFY	NO	1	SWEEP
1	BLADE STOP SPACER	6891	VERIFY	NO	1	ELECTROLYNX I
1	DOOR OPERATOR	6060	VERIFY	NO	1	ELECTROLYNX I
1	THRESHOLD	BY DOOR MFR.				
1	SET WEATHERSTRIP	BY DOOR MFR.			1	LATCH PROTEC
2	SWEEP	BY DOOR MFR.			2	CARD READER
1	ASTRAGAL SET	BY DOOR MFR.			2	CAND READER
2	ELECTROLYNX HARNESS ELECTROLYNX HARNESS	QC-C1500/QC-C1500P QC-CXX/CXXP (SIZE FOR DOOR WIDTH AND HARDWARE)		MK MK	1	POSITION SWIT
1	POSITION SWITCH	DPS BY SECURITY CONT.			NOTES:	ACCESS BY AUTHO
1	KEYSWITCH	MKA (FOR AUTO OPERATOR)		SU	READER	AND DOOR POSITI /CARD OUT TO SHU
1	SWITCH POST	500		NO		SHALL BE PROVIDE
1	POWER SUPPLY	BPS-24-2		SU		
1	CARD READER	CARD READER TO BE PROV SECURITY CONTRACTOR	IDED BY	SU	HARDWA	RE SET #5C

DOORS: EMERGENCY EXIT ONLY/SUPERVISED, FIRE PUMP ROOM

DESCRIPTION: SHELL EXTERIOR DOOR

KEYED REMOVABLE

HINGE (HEAVY WEIGHT)

EXIT DEVICE WITH TRIM

FUNCTION: EXTERIOR PULL, STOREROOM FUNCTION

| SECURITY CONTRACTOR | NOTES: ACCESS BY AUTHORIZED CARD CREDENTIAL. ALWAYS FREE EGRESS. CARD READER AND DOOR POSITION SWITCH TO BE PROVIDED BY SECURITY CONTRACTOR. WIDE STILES AND TOP RAIL REQUIRED. EPT PREP TO BE COORDINATED BY ALUMINUM STOREFRONT MANUFACTURER. VERIFY FINISH ON HARDWARE ABOVE TO MATCH ALUMINUM DOOR AND FRAME FINISH. LOCAL POWER SUPPLY IS REQUIRED. DOOR HARDWARE INSTALLER SHALL INSTALL POWER SUPPLY IN CONCEALED LOCATION NEAR BY TO THE DOOR IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS.

HARDWA	HARDWARE SET #2D						
DESCRIF	MAIN EMPLOYEE ENTRY PTION: ALUMINUM STOREFRON ON: EXTERIOR PULL, CLASSRO	• •					
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.			
2	PIVOT SET	BY DOOR MFR.	VERIFY				
1	CONCEALED VERT. ROD EXIT	70 AD8610 106 x 862 PULL	VERIFY	SA			
1	CONCEALED VERT. ROD EXIT	AD8610 862 PULL	VERIFY	SA			
2	DOOR CLOSER	UNI7500 X 7788	VERIFY	NO			
2	BLADE STOP SPACER	6891	VERIFY	NO			
1	THRESHOLD	BY DOOR MFR.					
1	SET WEATHERSTRIP	BY DOOR MFR.					
2	SWEEP	BY DOOR MFR.					
1	ASTRAGAL SET	BY DOOR MFR.					

NOTES: CLASSROOM FUNCTION EXIT DEVICE. VERIFY FINISH ON HARDWARE ABOVE TO

	CLASSROOM FUNCTION EXIT ALUMINUM DOOR AND FRAME		RDWARE AE	BOVE TO		ER SHALL ISNTALL PO ACCORDANCE WITH
HARDW	ARE SET #3				POST RE	QUIREMENT.
DESCRI	EMERGENCY EXIT ONLY - SIN PTION: ALUMINUM STOREFROI ON: NO EXTERIOR TRIM OR OU	NT			DOORS:	ARE SET #7A EMERGENCY EXIT O PAIR OF DOORS)
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.	DESCRI	PTION: SHELL EXTERION: EXTERIOR PULL,
1 1 1 1 1 1 1	PIVOT SET MORTISE EXIT DEVICE, EXIT ONLY DOOR CLOSER BLADE STOP SPACER THRESHOLD SET WEATHERSTRIP SWEEP POSITION SWITCH SIGN BY STOREFRONT SUPPLIER	BY DOOR MFR. 8910 UNI7500 X 7788 6891 BY DOOR MFR. BY DOOR MFR. BY DOOR MFR. DOOR MFR. DPS BY SECURITY CONT. "EMERGENCY EXIT ONLY"	VERIFY VERIFY VERIFY VERIFY	SA NO NO	QTY. 6 1 2 1 1 1 2 2 1 2 2 2 2 2 2 3 3 4 4 6 6 6 6 7 7 8 7 8 8 7 8 8 8 8 8 8 8 8 8	DESCRIPTION HINGE (HEAVY WE EXIT DEVICE WITH EXIT DEVICE DOOR CLOSER THRESHOLD GASKETING RAIN GUARD SWEEP
	JUFFLIER				1	KEYED REMOVABI

NOTES: EXIT ONLY. VERIFY FINISH ON HARDWARE ABOVE TO MATCH ALUMINUM DOOR AND FRAME FINISH

HARDWARE SET #4D						
DOORS: EMERGENCY EXIT (INCLUDES EXTERIOR TRIM) DESCRIPTION: SHELL EXTERIOR DOOR FUNCTION: EXTERIOR PULL, STOREROOM FUNCTION						
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.		
3	HINGE (HEAVY WEIGHT)	T4B3386 NRP 4-1/2" X 4-1/2"	US32D	MK		
1	EXIT DEVICE	70 8804 PSB	US32D	SA		
1	DOOR CLOSER	UNI7500	689	NO		
1	THRESHOLD	171A		PE		
1	RAIN GUARD	346C		PE		
1	SET WEATHERSTRIP	303APK		PE		
1	SWEEP	315CN		l PE		

HARDW	ARE SET #5				HARDW	ARE SET #10A	
DESCRIP	: TRUCK DOCK RELEASE DOOR PTION: SHELL EXTERIOR DOOR ON: ELECTRIFIED TRIM EXIT DE	R` Í		, ,	OVERHE	EAD DOOR DOCK EQUIPMENT	
	ATED REQUEST TO EXIT, STOR		AIL OLOGI	. _,	QTY.	DESCRIPTION	NUMBER
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.	1	EDGE OF DOCK LEVELER	EDGE OF DOC
3 1	HINGE (HEAVY WEIGHT) ELECTRIC EXIT DEVICE	T4B3386 NRP 4-1/2" X 4-1/2" 70 55 8876-12V ETP	US32D US32D	MK			PNEUMATIC LI EQUAL TO KEI MODEL NUMB
1	DOOR LOOP DOOR CLOSER	TSB-C CPS7500	US26D 689	SU NO	1	DOOR TRACK	PROVIDE 48" I
1 1	ARMOR PLATE THRESHOLD	K1050 B4E 30" X 2" LDW 171A	US32D	RO	1	PROTECTION DOCK SEALS	GUARDS 6' X 10' WITH F HYPALON PLE
1 1 1	GASKETING RAIN GUARD SWEEP	303APK 346C 315CN			1	DOCK CONTROL SYSTEM	ADJUSTABLE PROVIDE INTE DOCK LEVEL A
1	ELECTROLYNX HARNESS	QC-C1500/QC-C1500P		MK			LIGHT CONTR
1	ELECTROLYNX HARNESS	QC-CXX/CXXP (SIZE FOR DOOR WIDTH AND HARDWARE)		MK	2	DOCK BUMPER	18" VERTICAL LAMINATED RI
1 2	LATCH PROTECTOR CARD READER	320/321 CARD READERS TO BE		RO			EACH DOCK D TRAILER SPAC BUILDING WAI
1	POSITION SWITCH	PROVIDED BY SECURITY CONTRACTOR DPS BY SECURITY		SU	1	DOCK LIGHT/FAN	AEROTECT MO
		CONTRACTOR			1	DOCK CANOPY	LIGHT SERIES RITE-HITE RAI
EADER	ACCESS BY AUTHORIZED CAR R AND DOOR POSITION SWITCH I/CARD OUT TO SHUNT EGRESS	TO BE PROVIDED BY SECURIT	Y CONTRA	CTOR.	1	TRAILER RESTRAINT	RC-3000 OR E ENTREMATIC GROUND MOL
QTY.	DN: ELECTRIC LATCH RETRACTI DESCRIPTION	NUMBER	FINISH	MFR.	HIGH SF	PEED VERTICAL FABRIC ROLL-U	IP DOOR
1	PIVOT SET	BY DOOR MANUFACTURER	VERIFY				
1	CONCEALED VERT ROD EXIT	55 56 70 8910 PTB US23D	VERIFY	SA	QTY.	DESCRIPTION DOOR PANEL	NUMBER ALL WEATHER
1	EPT CYLINDER	EL-CEPT-10 70 41	US26D VERIFY	SU SA	,	BOOKITANEE	, , , , , , , , , , , , , , , , , , , ,
1	OPERATOR DOOR SWITCH	502	V LIXII I	NO			
1	VESTIBULE SWITCH	503		NO			
I	DOOR CLOSER BLADE STOP SPACER	UNI7500 X 7788 6891	VERIFY VERIFY	NO NO			
1	DOOR OPERATOR	6060	VERIFY	NO	NOTES:	SEE ELECTRICAL DRAWINGS F	FOR CONTROLS
 	THRESHOLD SET WEATHERSTRIP	BY DOOR MANUFACTURER BY DOOR MANUFACTURER				ARE SET #TI-14	
1	SWEEP KEYSWITCH	BY DOOR MANUFACTURER MKA (FOR AUTO		SU	DESCRIP	BREAK ROOM - NON-RATED PA PTION: INTERIOR DOOR IN: PUSH/PULL PLATES, NO LOO	
		OPERATOR)			QTY.	DESCRIPTION	NUMBER
1 1	SWITCH POST POWER SUPPLY	500 BPS-24-1		NO SU	6	HINGES	TB2714 NRP 4-
2	CARD READER	CARD READER TO BE PROVIDED BY SECURITY CONTRACTOR		55	2 2	PUSH PLATE PULL PLATE	70C 110X70C
			<u> </u>		2	DOOR CLOSER	7500 REG/PA A OPENING
	ACCESS BY AUTHORIZED CARE N SWITCH TO BE PROVIDED BY				2	ARMOR PLATE - PUSH SIDE	K1050 B4E 30">
OP RAIL	L REQUIRED. EPT PREP TO BE (COORDINATED BY ALUMINUM S	STOREFRO	NT	2 2	ARMOR PLATE - PULL SIDE DOOR STOP	K1050 B4E 30">
	CTURER. VERIFY FINISH ON HA			OOR	2	SILENCER	10 SERIES 608
	AME FINISH. LOCAL POWER SUF ER SHALL ISNTALL POWER SUP			TO THE			
OOR IN	I ACCORDANCE WITH MANUFAC EQUIREMENT.	CTURER SPECIFICATIONS. CON	IFIRM SWIT		HARDW	ARE SET #TI-20	

FINISH MFR.

US32D

US32D

689

T4B3386 NRP 4-1/2" X 4-1/2" US32D

70 8804 PSB

8810

171A

346C

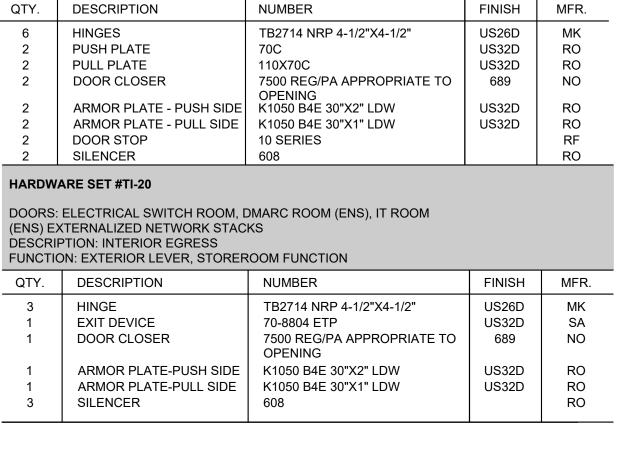
303APK

315CN

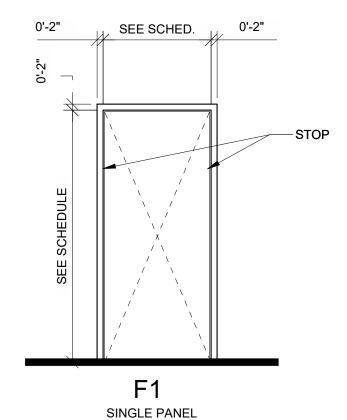
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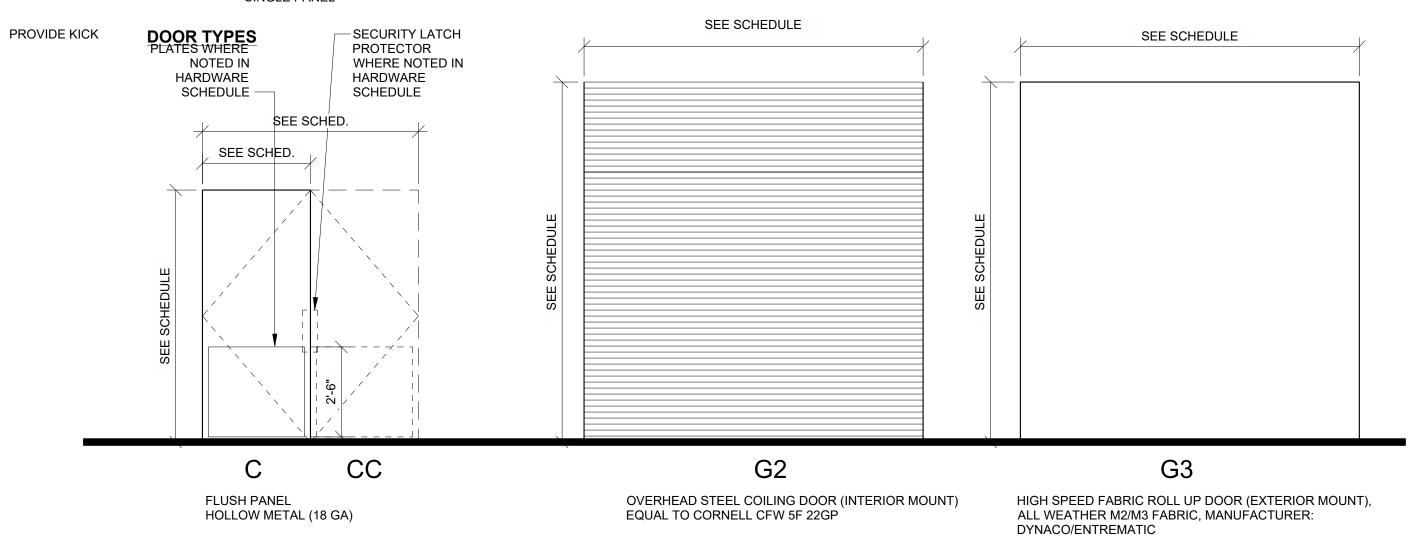
CPS7500

HARDWARE SET #10A					DOOR AND FRAME SCHEDULE													
OVERH	EAD DOOR DOCK EQUIPMENT		DOOR				DOOR				FRAME		FIRE	HARDWARE	CARD			
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.	_ NUMBER	ROOM NAME	TYPE	WIDTH	HEIGHT	MATERIAL	FINISH	TYPE	MATERIAL	FINISH	RATING	SET	READER	REMARKS
1	EDGE OF DOCK LEVELER	EDGE OF DOCK PNEUMATIC LEVELER EQUAL TO KELLEY MODEL NUMBER KA7230	613E 613E US010BE	RF RF SA												(•	\
					NW101	VAN PARKING	С	3' - 0"	7' - 0"	HM	PAINT	F1	HM	PAINT		5 (Υ	4" FRAME HEAD
1	DOOR TRACK	PROVIDE 48" HIGH TRACK		SA NO NO PE	NW102	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
1	PROTECTION DOCK SEALS	PROTECTION DOCK SEALS 6' X 10' WITH FULL ARMOR HYPALON PLEATS AND ADJUSTABLE CURTAIN DOCK CONTROL SYSTEM PROVIDE INTEGRATED	R 690 690		NW103	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
					NW104	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
	DOCK CONTROL SYSTEM				NE105	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		5	Υ	SEE NOTE 1
•	DOCK BUMPER	DOCK LEVEL AND FAN/			NE106	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
0		LIGHT CONTROLLER BOX 18" VERTICAL X 11" LONG,			SE107	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
2	DOCK BOWFER	LAMINATED RUBBER FOR EACH DOCK DOOR AND TRAILER SPACE AGAINST BUILDING WALL			SE108	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
					SE109	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		5	Y	SEE NOTE 1
					SE110	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		7A	N	SEE NOTE 1
1	DOCK LIGHT/FAN	AEROTECT MODEL 750 WITH AEROTEC VERSA LIGHT SERIES 450			SW111	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
					SW112	VAN PARKING	ETR	ETR	ETR	ETR	PAINT		ETR	PAINT		4D	N	SEE NOTE 1
1	DOCK CANOPY	RITE-HITE RAINGUARD			401	VAN PARKING	ETR	ETR	ETR	ETR	ETR*		ETR	ETR*			N	SEE NOTE 2, *NOTE 3
1	TRAILER RESTRAINT	RC-3000 OR EQUAL ENTREMATIC SL-60			501	VAN PARKING	G2/G3	16'-0"	16'-0"	METAL/ FABRIC			STEEL				N	DEE NOTE 4
'	TIVALELITINEOTIVAINT	GROUND MOUNT			502	VAN PARKING	G2/G3	16' - 0"	16' - 0"	METAL/ FABRIC			STEEL			11	N	SEE NOTE 4
					601	VAN PARKING	ETR	ETR	ETR	ETR	ETR*		ETR	ETR*		(N	SEE NOTE 2, *NOTE 3
NOTES:	: SEE ELECTRICAL DRAWINGS	FOR CONTROLS DESIGN	NOTES:													2		
HARDW	/ARE SET #11		1. EXISTING DOOR AND FRAME TO REMAIN. RETROFIT AS REQUIRED WITH NEW DOOR HARDWARE AS INDICATED. GC TO EVALUATE EXISTING CONDITION AND COORDINATE WITH AMAZON CM															
HICH SI	PEED VERTICAL FABRIC ROLL-				AND AMAZON SECURITY FOR ANY MODIFICATIONS/UPGRADES REQUIRED. 2. EXISTING OVERHEAD DOOR TO BE LOCKED IN PLACE AND SEALED SHUT. COORDINATE WITH AMAZON CM AND AMAZON SECURITY FOR ANY ADDITIONAL SCOPE OF WORK REQUIRED.													
11101101	LED VERTICAL LABRIC ROLL-	or book	3. SEE EXTERIOR ELEVATIONS FOR ANY FINISH REQUIREMENTS.															
QTY.	DESCRIPTION	NUMBER	FINISH	MFR.	- 4. NEW DR	IVE-THRU DOORS	IN EXISTING	OPENING.	/ERIFY EXIS	STING OPENING SI	IZE AND PR	EP FOR F	RECEIPT OF	NEW DOORS	S, HOODS A	AND FEATURE	S PRIOR TO O	RDERING NEW DOORS.
1	DOOR PANEL	ALL WEATHER M2/M3	GRAY	DY/EN	_													
NOTES	: SEE ELECTRICAL DRAWINGS	FOR CONTROLS DESIGN																
HARDW	ARE SET #TI-14																	
DOORS:	BREAK ROOM - NON-RATED P	ARTITION																
	DTION: INTEDIOD DOOD																	



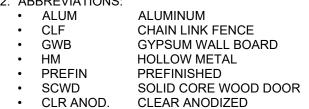


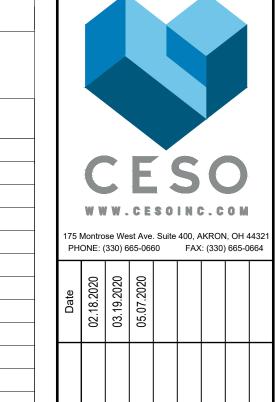


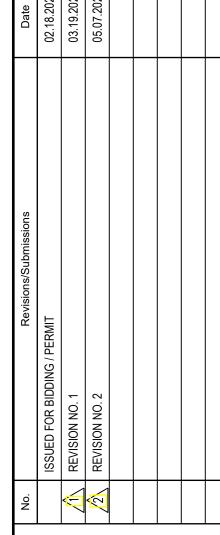


GENERAL DOOR NOTES

- 1. NOT ALL DOOR AND FRAME TYPES ARE USED. COORDINATE WITH SCHEDULE. 2. DOOR NUMBERING MUST BE FOLLOWED EXACTLY PER PLANS. ANY CONFLICTS SHOULD BE BROUGHT TO ARCHITECTS OR TENANT CM'S ATTENTION.
- 3. ALL WOOD BLOCKING REQUIRED AT EXTERIOR WALL/WINDOW DETAILS TO BE PRESSURE TREATED.
- 4. G.C. TO VERIFY ALL HARDWARE FUNCTION, KEYING AND SECURITY REQUIREMENTS WITH OWNER PRIOR TO PURCHASE. ALL EXISTING DOORS TO BE REUSED TO GET NEW CORES. COORDINATE KEYING WITH OWNER.
- 5. UNDERCUT DOORS 1" AT TOILET ROOMS, JANITOR CLOSETS AND A/V CLOSET FOR AIR INTAKE (SEE MECHANICAL DRAWINGS). NO DOOR LOUVERS WILL BE
- ACCEPTED.
- 6. VERIFY ROUGH OPENING SIZES AND REQUIREMENTS WITH DOOR/FRAME
- MANUFACTURER. 7. MAXIMUM PULL FORCES FOR EXTERIOR DOORS TO BE 15 LBS. 8. PAINT INTERIOR SIDE OF ALL WAREHOUSE EXTERIOR HOLLOW METAL DOORS AND
- FRAMES "SEMI-GLOSS" SAFETY RED (PT-10) 9. PROVIDE RUST INHIBITOR COATING AND STAINLESS STEEL SCREWS/FASTENERS
- ON ALL HARDWARE ITEMS AT EXTERIOR DOORS PER MANUFACTURER SPECIFICATIONS. 10. ALL ELECTRONIC HARDWARE SHALL BE COORDINATED WITH ELECTRICAL AND
- SECURITY CONTRACTORS. 11. ALL HM DOORS TO BE 1 3/4" THICK. EXTERIOR HM DOORS TO BE INSULATED WITH A U-VALUE OF 0.50.
- 12. ABBREVIATIONS: ALUMINUM ALUM CLF CHAIN LINK FENCE GWB GYPSUM WALL BOARD HM







ARCHITECT OF RECORD

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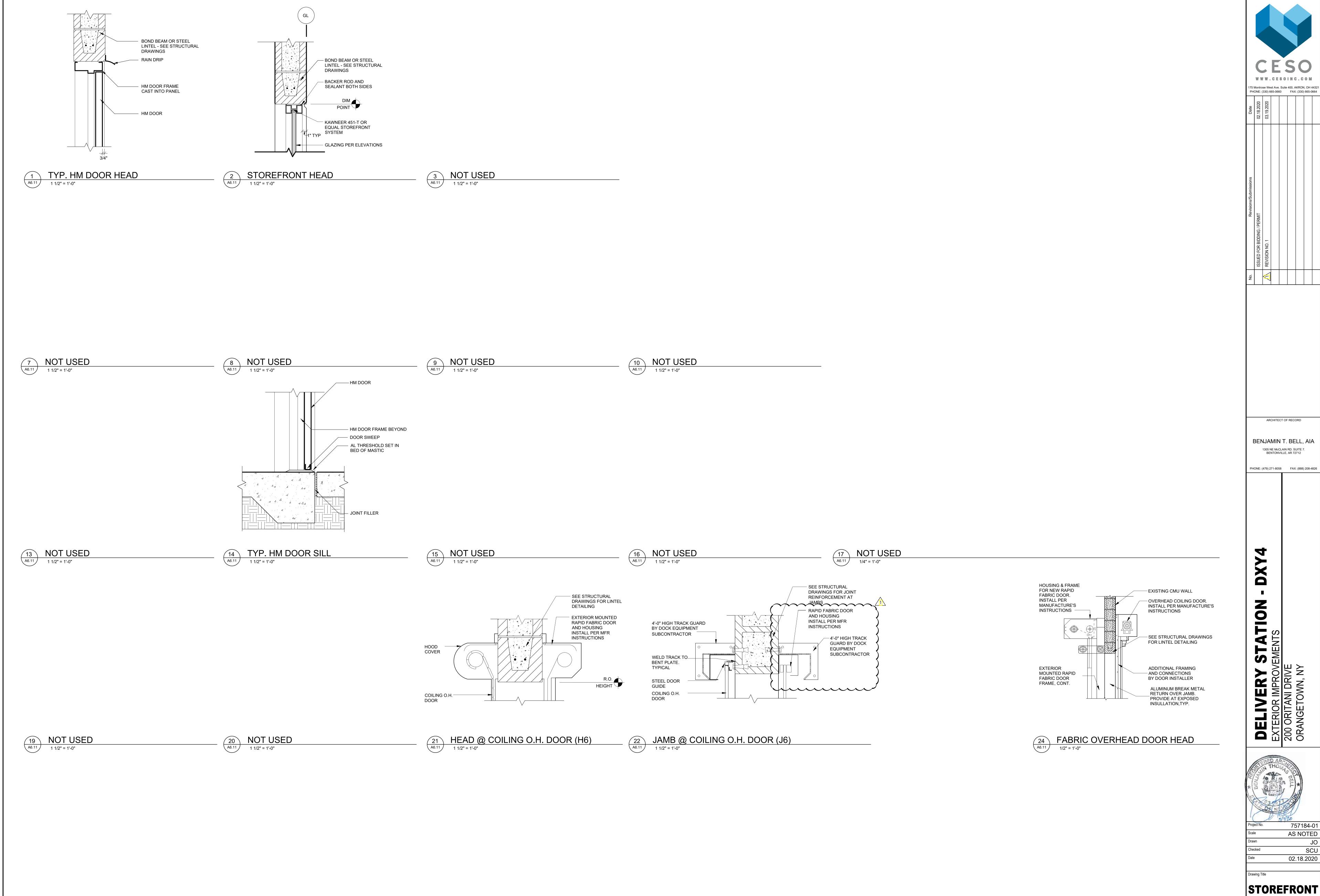
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757184-01 AS NOTED SCU 02.18.2020

DOOR & **HARDWARE**

A6.10



RY STA
APROVEMENTS
DRIVE
WN, NY **DELIVER**EXTERIOR IMPRO
200 ORITANI DRI
ORANGETOWN, I

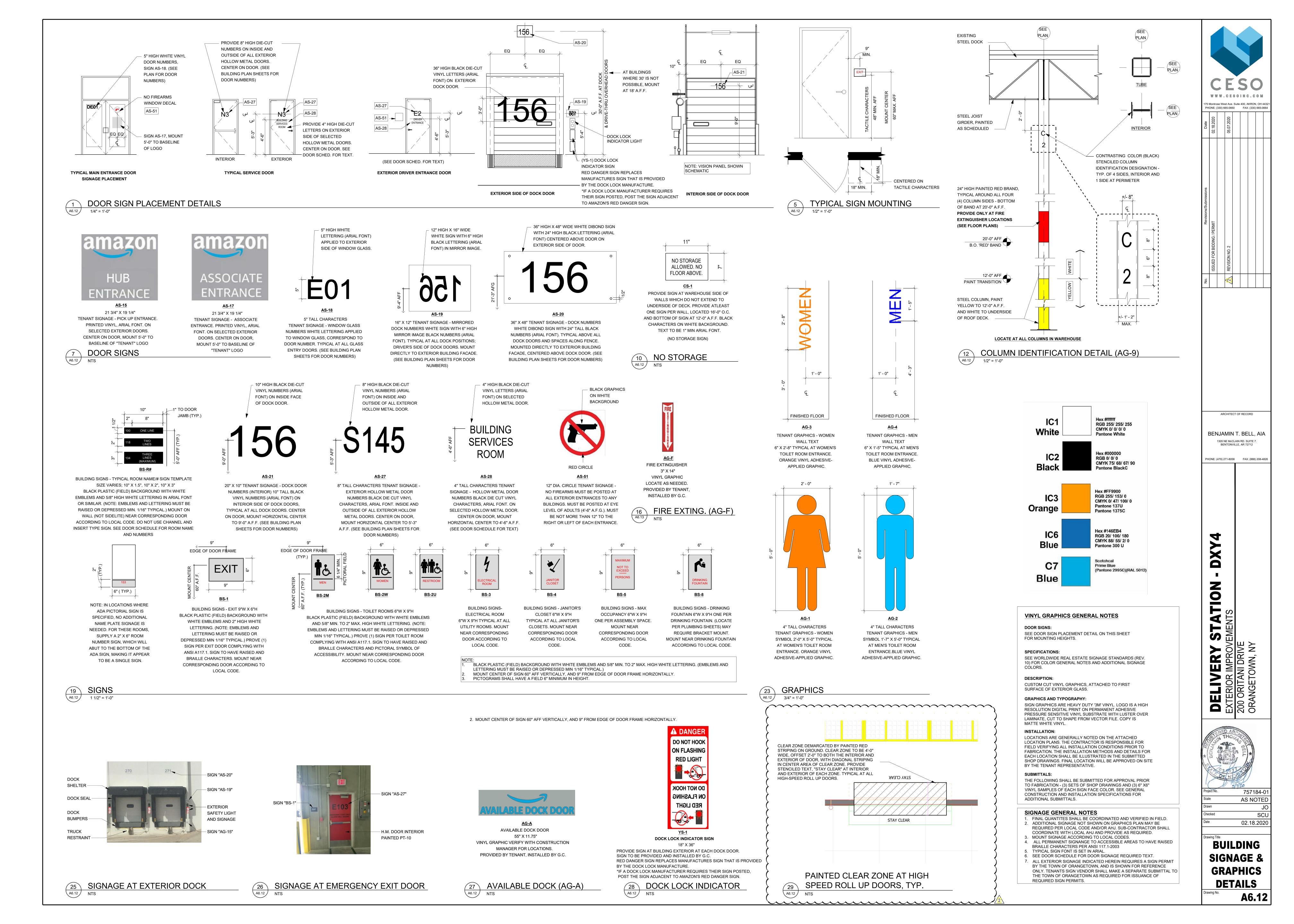
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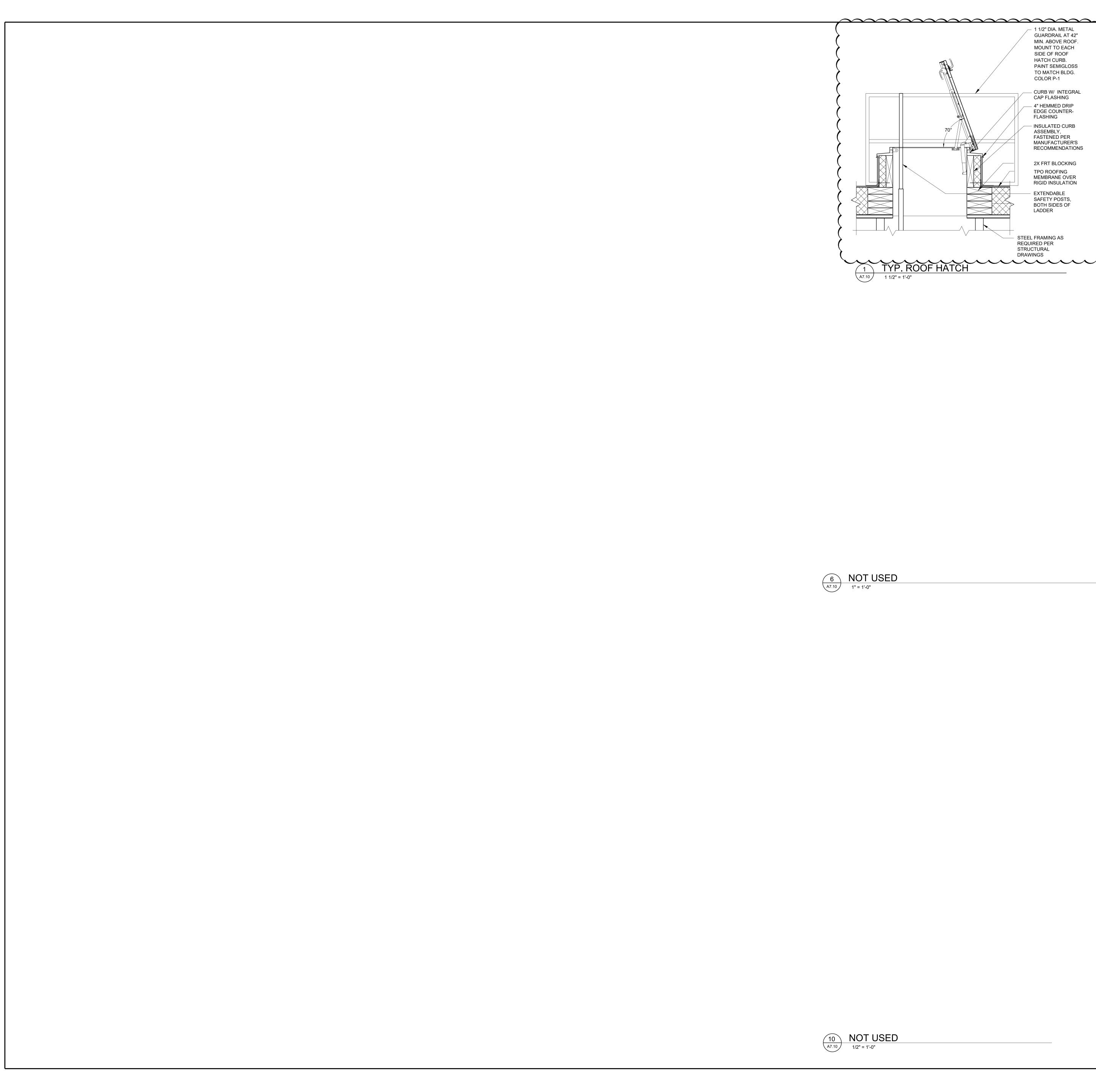
02.18.2020

A6.11

& DOOR

DETAILS







ROUND TOP ----

PIPE - PAINT SAFETY

— EXPANSION ANCHORS —

CONCRETE FLOOR SLAB——

10"x10"x1/2" STEEL BASE PLATE

1. TO BE COORDINATED WITH TENANT STARTUP FOR LOCATIONS AND QUANTITIES. 2. BOLLARDS SHALL BE EQUAL TO HEARTLAND ENGINEERED PRODUCTS B4HD-6"

HEAVY DUTY BOLT-DOWN BOLLARD. ANCHOR TO CONCRETE SLAB WITH

SURFACE MOUNTED BOLLARD

MANUFACTURER PROVIDED ANCHORS.

1 1/2" = 1'-0"

1/2" PREMOLDED —

EXP. JT. WHERE CONC. OCCURS

HOUSING & FRAME FOR NEW RAPID FABRIC DOOR. INSTALL

PER MANUFACTURERS INSTRUCTIONS.

EXTERIOR MOUNTED RAPID FABRIC DOOR FRAME, CONT.

NEW ASPHALT OR CONCRETE RAMP MAY OCCUR. COORDINATE W/ FLOOR PLAN AND CIVIL DRAWINGS. —

EXISTING CONCRETE SLAB. PATCH AND REPAIR SLAB AT NEW OVERHEAD DOOR

A7.10

ATTACH TO CONCRETE SLAB ———

- ROUNDED CONC. TOP 1/2" CROWN

6" DIA. CONC. FILLED

____ 1" CANT

EXTERIOR WALL CONSTRUCTION

NEW OVERHEAD
COILING DOOR. INSTALL
PER MANUFACTURERS

- ADDITIONAL FRAMING AND CONNECTIONS BY DOOR INSTALLER

— ALUMINUM BREAK METAL

SEE STRUCTURAL DRAWING FOR SLAB PATCHING CONDITION

EXISTING CONCRETE SLAB
TO REMAIN

SEE STRUCTURAL DRAWINGS FOR

RETURN OVER JAMB.
PROVIDE AT EXPOSED
INSULATION, TYP.

INSTRUCTIONS.

EXTERIOR BOLLARD DETAIL

1/2" = 1'-0"

SCHEDULE 40 STEEL PIPE PAINT SAFETY YELLOW

PAVING

GRANULAR FILL

STEEL PIPE SLEEVE

CONCRETE FOOTING

- 10x10x1/4" THICK PLATE WELDED ALL AROUND

YELLOW, TYP.

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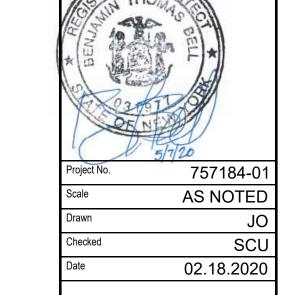
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DXY4

HON



DELIVERY STAT
EXTERIOR IMPROVEMENTS
200 ORITANI DRIVE
ORANGETOWN, NY

Drawing Title

SHELL **DETAILS**

A7.10

SNOW EXPOSURE FACTOR (Ce) IMPORTANCE FACTOR (Is) THERMAL FACTOR (Ct) 1.0 (MAIN BUILDING) FLAT ROOF SNOW LOAD (Pf) - 21 PSF (MAIN BUILDING WIND LOAD: ULTIMATE DESIGN WIND SPEED (Vult) NOMINAL WIND SPEED (Vasd) RISK CATEGORY **EXPOSURE CATEGORY** EXPOSURE B INTERNAL PRESSURE COEFFICIENT (G Cpi)

6. SEISMIC LOAD: RISK CATEGORY IMPORTANCE FACTOR (Ie) MAPPED SPECTRAL RESPONSE ACCELERATION AT SHORT PERIOD (Ss)

MAPPED SPECTRAL RESPONSE ACCELERATION AT ONE-SECOND PERIOD (S1)

- 0.287 SPECTRAL RESPONSE PARAMETER AT SHORT PERIOD (SDs) SPECTRAL RESPONSE PARAMETER AT ONE-SECOND PERIOD (SD1) SEISMIC-DESIGN CATEGORY -B SEISMIC RESPONSE COEFFICIENT (Cs) - 0.096 BASIC SEISMIC FORCE RESISTING SYSTEM:

G2 STEEL ORDINARY CANTILEVER COLUMN SYSTEMS (R=1.25, Ω =1.25, Cd=1.25) DESIGN BY EQUIVALENT LATERAL FORCE PROCEDURE

MECHANICAL FRAMING LOADS, OPENINGS, AND STRUCTURE IN ANY WAY RELATED TO MECHANICAL REQUIREMENTS ARE SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL OBTAIN APPROVAL OF MECHANICAL AND OTHER TRADES BEFORE PROCEEDING WITH SUCH PORTION OF THE WORK. EXCESS COST RELATED TO VARIATION IN MECHANICAL REQUIREMENTS TO BE BORNE BY

- 0.273

- 0.072

MECHANICAL CONTRACTOR. COORDINATE SIZE AND LOCATION OF ALL OPENINGS WITH THE MECHANICAL DRAWINGS. 8. THE STRUCTURE IS DESIGNED TO BE SELF-SUPPORTING AND STABLE AFTER THE BUILDING IS FULLY COMPLETED. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE [DEMOLITION PROCEDURES,] ERECTION PROCEDURES AND SEQUENCES AND TO ENSURE THE SAFETY OF THE BUILDING AND ITS COMPONENT PARTS DURING ERECTION. THIS INCLUDES THE ADDITION OF WHATEVER TEMPORARY BRACING, GUYS, OR TIE-DOWNS WHICH MIGHT BE NECESSARY. SUCH MATERIAL SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER COMPLETION OF THE PROJECT.

9. IT IS SOLELY THE CONTRACTOR'S RESPONSIBILITY TO FOLLOW ALL APPLICABLE SAFETY CODES AND REGULATIONS DURING ALL

10. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL DIMENSIONS AND CONDITIONS RELATING TO EXISTING CONSTRUCTION AND EXISTING SERVICE ON THE SITE. 11. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND LOCATIONS OF COLUMNS, WALLS, OPENINGS ETC. WITH THE ARCHITECTURAL DRAWINGS PRIOR TO PROCEEDING WITH THE WORK. DO NOT SCALE THESE DRAWINGS. USE DIMENSIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND DRAWINGS OF ANY OTHER

12. CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN CAPACITY OF THE FRAMING. THE CONTRACTOR IS RESPONSIBLE FOR LIMITING THE AMOUNT OF CONSTRUCTION DEAD LOAD APPLIED TO THE STRUCTURAL FRAMING. 13. THE ERECTION AND CONSTRUCTION SEQUENCES SHALL BE DEVELOPED BY THE CONTRACTOR TO ACCOUNT FOR THE EFFECTS OF

THERMAL MOVEMENTS TO THE STRUCTURE. DETAILED EXPANSION JOINTS ON THESE DRAWINGS ARE DESIGNED FOR MOVEMENT OF A COMPLETED STRUCTURE 14. IF EQUIPMENT SHIPPING OR OPERATING WEIGHT EXCEEDS VALUE SHOWN ON THESE DRAWINGS, DO NOT PLACE EQUIPMENT. NOTIFY

STRUCTURAL ENGINEER AND ARCHITECT. 15. DO NOT MODIFY, ALTER OR REPAIR ANY STRUCTURAL MEMBER WITHOUT PRIOR WRITTEN APPROVAL OF THE STRUCTURAL

16. SHOP DRAWINGS SHALL BE REVIEWED AND STAMPED BY CONTRACTOR PRIOR TO SUBMISSION TO STRUCTURAL ENGINEER. 17. DEFERRED SUBMITTALS: THE FOLLOWING COMPONENTS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER HIRED BY THE CONTRACTOR, LICENSED IN THE STATE OF THE PROJECT. DESIGN INFORMATION SHALL BE SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER. SEE CONTRACT DOCUMENTS FOR DESIGN LOADS AND OTHER DESIGN CRITERIA. A. STEEL CONNECTIONS NOT SPECIFICALLY AND FULLY DETAILED ON THE STRUCTURAL DRAWINGS. B. SECONDARY, NON-STRUCTURAL STEEL ITEMS

033000 - CAST-IN-PLACE CONCRETE SPECIFICATIONS AND STANDARDS:

CONCRETE WORK, DETAILING, FABRICATION AND PLACING OF BARS AND CONCRETE SHALL BE GOVERNED BY THE APPLICABLE VERSION OF: A. ACI 301, ACI 315, AND ACI 318.

B. CRSI RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS. C. ACI 306 AND ACI 305 FOR COLD AND HOT WEATHER CONCRETING, RESPECTIVELY. THE CONTRACTOR SHALL AT ALL TIMES HAVE A COPY OF THE RELEVANT SPECIFICATIONS QUOTED ABOVE ON THE SITE AND THE SUPERVISORY PERSONNEL SHALL BE THOROUGHLY FAMILIAR WITH THE CONTENTS THEREOF.

A. LEAN CONCRETE UNDER FOUNDATIONS FOR EARTH FILL DUE TO ACCIDENTAL OVER-EXCAVATION OR SOFT SPOTS. 3. CONCRETE REQUIREMENTS AND LOCATION IN JOB:

SPECIAL REQUIREMENTS 3000 PSI FOOTINGS PIERS, WALLS, 0.55 3000 PSI **EQUIPMENT PADS**

4500 PSI EXTERIOR CONCRETE 6% +/- 1.5% AIR CONTENT 1500 PSI NO TESTS, SOFT SOIL REPLACE FARTH FILL LEAN FILL 85 PSI NO TESTS, UTILITY BACKFILL UNDER FTGS SUBMIT CONCRETE MIXES FOR APPROVAL IN ACCORDANCE WITH ACI 301 BEFORE PLACING ANY CONCRETE. ALL MIXES SHALL INCLUDE ASTM C150 PORTLAND CEMENT AND ALL AGGREGATE SHALL CONFORM TO ASTM C33. CONCRETE TESTING PER ACI 318 SECTION 26.12

4. REINFORCING REQUIREMENTS: A. BARS: ASTM A615 - GRADE 60 POST INSTALLED SCREW ANCHORS

A. THE ANCHOR SHALL COMPLY WITH THE APPLICABLE VERSION OF IBC AND BE CERTIFIED BY AN ICC-ES EVALUATION REPORT. THE ANCHOR SHALL BE SUITABLE FOR USE IN CRACKED CONCRETE.

B. INTERIOR USE ONLY. THE ENTIRE ANCHOR SHALL BE CARBON STEEL WITH ZINC PLATING EQUIVALENT TO DIN EN 4042 (8µm MIN). C. PRE-DRILL HOLES WITH STANDARD AISI DRILL BIT PER THE MANUFACTURER'S INSTALLATION GUIDELINES. INSTALL THE ANCHOR WITH AN IMPACT WRENCH. D. PROVIDE ANCHORS WITH A DIAMETER AND LENGTH MARKING ON THE HEAD AS INDICATED ON THE DRAWINGS. 6. POST INSTALLED ADHESIVE ANCHORS AND DOWELS:

ICC-ES EVALUATION REPORT. THE ANCHOR SYSTEM SHALL MEET THE REQUIREMENTS OF ACI 355.4, EVALUATED FOR USE IN CRACKED CONCRETE B. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE PRODUCT INDICATED ON DRAWINGS OR COMPARABLE PRODUCT CAPABLE OF RESISTING LOADS EQUIVALENT TO THE BASIS OF DESIGN PRODUCT WHEN USED WITH THE SAME EMBEDMENT,

ORIENTATION, EDGE DISTANCE, AND SPACING. BASIS OF DESIGN: HILTI HIT-RE 500-SD WITH ASTM F1554 Gr. 36; ASTM A307; ASTM A193 B7; ASTM F593 SS. ANCHORS SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL IF EXPOSED TO EXTERIOR CONDITIONS. SUBMIT PROPOSED SUBSTITUTION FOR APPROVAL WITH ACCOMPANYING ICC-ES REPORT. C. THE FOLLOWING PARAMETERS HAVE BEEN USED IN THE DESIGN: 1) MINIMUM AGE OF CONCRETE: 21 DAYS

2) CONCRETE TEMPERATURE RANGE: VERIFY ALLOWABLE BASE TEMPERATURE WITH MANUFACTURER. 3) MOISTURE CONDITION AT TIME OF INSTALLATION: DRY (IF WATER SATURATED, PRODUCT DATA SHALL BE PROVIDED THAT INDICATES ANCHOR DOES NOT HAVE REDUCED CAPACITY COMPARED TO A DRY HOLE) 4) TYPE OF LIGHTWEIGHT CONCRETE (IF APPLICABLE): LIGHTWEIGHT AGGREGATE OR SAND.

5) HOLE DRILLING AND PREP: ROTARY HAMMER DRILL WITH HOLE CLEANING PER MANUFACTURER INSTRUCTIONS. D. INSTALLATION OF ADHESIVE ANCHORS HORIZONTALLY OR UPWARDLY INCLINED SHALL BE PERFORMED BY PERSONNEL CERTIFIED BY AN APPLICABLE CERTIFICATION PROGRAM. CERTIFICATION SHALL INCLUDE WRITTEN AND PERFORMANCE TESTS IN ACCORDANCE WITH ACI/CRSI ADHESIVE ANCHOR INSTALLER CERTIFICATION PROGRAM, OR EQUIVALENT.

FOOTINGS: A. DOWELS IN FOOTINGS TO MATCH VERTICAL REINFORCING IN CONCRETE WALLS, COLUMNS AND PIERS.

B. BEND ALL BARS 24 DIAMETERS AROUND CORNERS OF FOOTINGS. BARS AT THE INSIDE FACE OF THE CORNER SHALL BE CONTINUED ACROSS TO THE OUTSIDE AND THEN BENT.

A. WHERE ANCHOR RODS ARE PLACED IN THE TOP OF COLUMNS OR PEDESTALS, PLACE 3 SETS OF COLUMN TIES EQUALLY SPACED WITHIN THE TOP 5" OF THE COLUMN OR PEDESTAL.

A. OPENINGS SHOWN ARE FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS WITH ARCHITECTURAL, MECHANICAL AND OTHER REQUIREMENTS BEFORE PROCEEDING WITH THE WORK. B. IF ANY OPENING NOT SHOWN ON THE PLAN IS REQUIRED, APPROVAL MUST BE SECURED FROM THE STRUCTURAL ENGINEER

COVER A. MINIMUM CONCRETE COVER, UNLESS NOTED OTHERWISE:

BEFORE PROCEEDING WITH THE WORK.

1) UNFORMED SURFACE IN CONTACT WITH THE GROUND: 3" 2) FORMED SURFACES EXPOSED TO EARTH OR WEATHER: 1 1/2" FOR #5 OR SMALLER, 2" FOR #6 OR LARGER. 3) FORMED SURFACES NOT EXPOSED TO EARTH OR WEATHER: WALLS & SLABS: 3/4", BEAMS & COLUMNS (TO TIES OR STIRRUPS): 1 1/2".

11. MISCELLANEOUS: A. CONSTRUCTION JOINTS PERMITTED ONLY WHERE SHOWN OR AS APPROVED BY THE STRUCTURAL ENGINEER. B. PROVIDE EQUIPMENT PADS, INERTIA BASES AND CURBS AS NOTED ELSEWHERE IN THE CONTRACT DOCUMENTS. UNLESS NOTED, DOWEL PADS WITH HOOKED #4x0'-6" PROJECTING 3" FROM CONCRETE BELOW AT 18" c/c EACH WAY. REINFORCE PADS WITH #4 @ 18" c/c EACH WAY AT MID-DEPTH (FOR PADS <8" THICK) UNLESS REQUIRED OTHERWISE BY EQUIPMENT SUPPLIER. C. SUBMIT STEEL REINFORCING SHOP DRAWINGS THAT DETAIL FABRICATION, BENDING AND PLACEMENT PRIOR TO FABRICATION.

COMPRESSIVE STRENGTH OF MASONRY (f'm) 2,500 PSI, DETERMINED BY UNIT STRENGTH OR PRISM METHOD.

A. HOLLOW AND SOLID LOAD BEARING CONCRETE MASONRY UNITS - ASTM C90 - NORMAL WEIGHT. NET COMPRESSIVE STRENGTH OF CMU = 3,250 PSI.

042000 CONCRETE MASONRY

B. MORTAR: 1) CONCRETE UNIT MASONRY WALLS - ASTM C270 TYPE S. D. COARSE MASONRY GROUT: COMPLY WITH ASTM C476.

A. THE ENTIRE ANCHOR SHALL BE THREADED ROD ASTM A193 B7.

1) 28-DAY COMPRESSIVE STRENGTH TO MATCH F'M GIVEN IN ITEM 1. 2) PROVIDE GROUT WITH A SLUMP OF 8-11 INCHES AS MEASURED ACCORDING TO ASTM C143.

E. MASONRY REINFORCEMENT: 1) HORIZONTAL JOINT REINFORCEMENT: 9 GA DEFORMED WIRE, LADDER TYPE REINFORCEMENT a. IN EVERY SECOND BLOCK COURSE, FULL HEIGHT, AND WHERE SHOWN ON DRAWINGS. b. IN FIRST BED JOINT ABOVE AND BELOW OPENINGS EXTENDING 24" BEYOND OPENING.

c. LAP REINFORCEMENT A FULL WIDTH AT CORNERS AND INTERSECTIONS. 2) VERTICAL REINFORCING: ASTM A615 - GRADE 60 BEARING POINTS: A. LINTELS: 2 COURSES x 16" WIDE SOLID OR GROUTED SOLID MASONRY. 4. POST-INSTALLED ADHESIVE ANCHORS: (FOR USE IN HOLLOW OR GROUT-FILLED CONCRETE MASONRY)

B. THE ADHESIVE ANCHOR SYSTEM SHALL COMPLY WITH THE APPLICABLE VERSION OF IBC AND BE CERTIFIED BY AN ICC-ES EVALUATION REPORT SHOWING SUITABILITY WITH HOLLOW AND GROUT-FILLED CONCRETE MASONRY. C. PLASTIC MESH SCREEN TUBES SHALL BE PROVIDED AT ALL HOLLOW MASONRY APPLICATIONS. D. SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE THE BASIS OF DESIGN PRODUCT OR COMPARABLE PRODUCT CAPABLE OF RESISTING LOADS EQUIVALENT TO THE BASIS OF DESIGN PRODUCT WHEN USED WITH THE SAME EMBEDMENT DEPTH,

ADHESIVE. INSTALL PER MANUFACTURER'S LITERATURE AND INSTALLATION GUIDELINES. COORDINATE BLOCK-OUTS, REVEALS, OPENINGS AND OTHER BUILT IN ITEMS WITH ALL CONTRACT DOCUMENTS AND TRADES.

051200 - STRUCTURAL STEEL FRAMING

ORIENTATION, EDGE DISTANCE, SPACING & PLACEMENT RELATING TO JOINTS IN MASONRY. BASIS OF DESIGN: HILTI HIT-HY 270

1. SPECIFICATIONS AND STANDARDS: A. THE ENTIRE ANCHOR SYSTEM SHALL BE EVALUATED TO COMPLY WITH THE APPLICABLE VERSION OF IBC AND BE CERTIFIED BY AN UNLESS SPECIFICALLY SHOWN OTHERWISE, DESIGN, FABRICATION AND ERECTION SHALL BE GOVERNED BY A. ANSI/AISC 360 - SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS. ASD B. AISC 303 - CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES. C. AWS STANDARD WELDING SYMBOLS. D. AWS D1.1 STRUCTURAL WELDING CODE - STEEL WELDING SHALL BE PERFORMED ONLY BY OPERATORS QUALIFIED, BY THE AWS STANDARD QUALIFICATION PROCEDURE, TO PERFORM THE PARTICULAR TYPE OF WORK REQUIRED. E. RCSC SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS.

> A. WELDS: VISUAL TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING LABORATORY ON ALL WELDS. INADEQUATE WELDS SHALL BE STRENGTHENED OR CUT OUT AND REPLACED AS DIRECTED. B. STRUCTURAL STEEL: PROVIDE MILL REPORTS FOR PROPERLY IDENTIFIED MATERIALS ON REQUEST. C. A325 AND A490 BOLTS: PROVIDE BOLT INSPECTION AS DETAILED IN SECTION 9 OF SPECIFICATIONS FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS.

MATERIALS: A. "W" SHAPES: ASTM A992 Fy = 50 KSI, ASTM A572 Fy = 50 KSI B. ANGLES, PLATES AND BARS: ASTM A36.

C. RECTANGULAR HOLLOW STRUCTURAL SECTIONS: ASTM A500 GR C, Fy = 50 KSI, ASTM A1085, Fy = 50 KSI D. WELDING ELECTRODES: AWS A5.1 OR A5.5 SERIES E70. E. BOLTS: ASTM A325.

F. ANCHOR RODS: ASTM F1554 GR.36. G. PAINT AND PROTECTION - NONE EXCEPT AS NOTED BELOW:

1) INTERIOR MEMBERS EXPOSED TO VIEW IN THE FINISHED STRUCTURE - PRIME COAT, TOUCH UP AFTER ERECTION. 2) MEMBERS EXPOSED TO WEATHER IN FINISHED STRUCTURE, SHELF ANGLES AND LINTELS IN EXTERIOR WALLS - GALVANIZED PER ASTM A123 AFTER FABRICATION. H. SHRINKAGE-RESISTANT GROUT: ASTM C1107, NON-METALLIC AGGREGATE, NON-CORROSIVE, NON-STAINING. F'C=5,000 PSI MIN.

4. LINTELS: A. LINTELS FOR EXTERIOR WALL OPENINGS - HOT DIPPED GALVANIZED.

B. 8" BEARING EACH SIDE OF OPENINGS UNLESS NOTED. C. UNLESS SHOWN OTHERWISE, PROVIDE 1 ANGLE FOR EACH 4" WALL THICKNESS AS FOLLOWS: MASONRY OPENING

3'-6" OR LESS L 3 1/2x3 1/2x1/4 3'-7" TO 5'-0" L 4x3 1/2x1/4 LLV 5'-1" TO 8'-0" L 5x3 1/2x5/16 LLV 8'-1" TO 10'-0" L 6x3 1/2x5/16 LLV

5. CONNECTION REQUIREMENTS: A. DESIGN CONNECTIONS FOR VERTICAL REACTIONS SHOWN ON DRAWINGS OR FOR FULL CAPACITY OF MEMBER WHERE NO

B. DESIGN MOMENT BEAM CONNECTIONS FOR VALUES SHOWN OR FOR FULL MOMENT CAPACITY OF MEMBER. C. CONNECTIONS SHOWN AND DETAILED ON THE DRAWINGS MAY BE REDESIGNED BY THE STRUCTURAL STEEL CONTRACTOR FOR EQUAL FORCES PROVIDED THE SAME ARRANGEMENT OF MEMBERS IS USED AND THE OVERALL SIZE OF THE CONNECTION DOES NOT EXCEED THAT OF THE CONNECTION DETAILED. D. OBTAIN APPROVAL FROM STRUCTURAL ENGINEER FOR TYPES OF CONNECTIONS BEFORE FABRICATION.

E. ALL BOLTED CONNECTIONS TO BE SHEAR/BEARING TYPE WITH BOLTS IN THE SNUG TIGHT CONDITION UNLESS NOTED

6. MISCELLANEOUS REQUIREMENTS: A. ROUND PENETRATIONS ARE PERMITTED IN THE WEB OF WIDE-FLANGE MEMBERS THAT MEET ALL OF THE FOLLOWING CRITERIA. CONTACT SMBH FOR PENETRATIONS THAT DO NOT MEET THESE CRITERIA. 1) OPENING DIAMETER IS LESS THAN OR EQUAL TO 0.15 TIMES THE DEPTH OF THE BEAM. 2) EDGE OF OPENING IS A MINIMUM OF 0.15 TIMES THE DEPTH OF THE BEAM FROM THE TOP AND BOTTOM OF THE BEAM. 3) OPENINGS ARE NOT PERMITTED WITHIN 1.0 TIMES THE DEPTH OF THE BEAM AWAY FROM THE ENDS.

4) OPENINGS ARE NOT PERMITTED WITHIN 0.5 TIMES THE DEPTH OF THE BEAM FROM A LOCATION WHERE ANOTHER BEAM FRAMES INTO THE REFERENCE BEAM. 5) EDGES OF ADJACENT OPENINGS ARE AT LEAST 2X THE LARGEST OPENING DIAMETER APART. B. STEEL FRAMING FOR OPENINGS FOR, SUPPORTING OR CONNECTING TO MECHANICAL OR OTHER EQUIPMENT IS SHOWN FOR BIDDING PURPOSES ONLY. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS WITH MECHANICAL AND OTHER

REQUIREMENTS BEFORE PROCEEDING WITH THE WORK. CONTRACTOR SHALL COORDINATE SIZES AND LOCATIONS OF STEEL ANGLE FRAMES FOR OPENINGS THAT ARE SHOWN ON THE MECHANICAL AND ARCHITECTURAL DRAWINGS. C. STEEL BELOW GRADE TO BE PROTECTED BY A MINIMUM OF 3" OF CONCRETE OR 4" OF MASONRY. D. 1/4" THICK SETTING PLATES FOR ALL BEAMS BEARING ON MASONRY OR CONCRETE WHICH DO NOT REQUIRE A BEARING PLATE. ANCHOR THE SETTING PLATE TO THE WALL W/ TWO -1/2"Øx6" HEADED STUDS.

E. ANGLE SUPPORTS FOR METAL DECK RIBS AT COLUMNS WHEN THE COLUMN SIZE PREVENTS THE RIBS FROM CONTINUING TO THE BEAMS THAT ARE SUPPORTING THE DECK AT COLUMN LINES. F. UNLESS NOTED OTHERWISE, FIREPROOFING IS NOT SHOWN ON THE STRUCTURAL DRAWINGS. REFER TO ARCHITECTURAL

DRAWINGS FOR FIRE-RATING REQUIREMENTS, METHODS AND MATERIALS. G. SUBMIT SHOP DRAWINGS TO STRUCTURAL ENGINEER FOR REVIEW PRIOR TO FABRICATION. JOIST BEARING ELEVATION

ANCHOR BOLT ADDITIONAL JOIST ADJACENT AFF ABOVE FINISHED FLOOR KIP (1000 POUNDS) ANC KIPS PER SQUARE FOOT ANCHOR KSF APPROX APPROXIMATELY LAT LATERAL LBS, # ARCHITECT (URAL) POUNDS B, BOT BOTTOM LIVE LOAD BRG BEARING LONG LEG HORIZONTAL BUILDING LONG LEG VERTICAL BLOCK LNTL LOC BLK'G BLOCKING LOCATION BM BEAM LONG SIDE HORIZONTAL **BOTH SIDES** LONG SLOTTED HOLES BASE PLATE LONG SIDE VERTICAL LAMINATED VENEER LUMBER BETWEEN BTWN LVL CONCRETE BEAM LW LONG WAY CENTER-TO-CENTER MASONRY CONTINUOUS END MAXIMUM COLD FORMED, METAL FORMED MECH CFMF MECHANICAL CONTROL JOINT MEZZ MEZZANINE CENTERLINE MIN MINIMUM CLR MPH MILES PER HOUR MISC CMU CONCRETE MASONRY UNITS MISCELLANEOUS MTL METAL COL CONC CONCRETE N/A NOT APPLICABLE CONNECT (ION) NOT IN CONTRACT CONST CONSTRUCT (ION) NEAR SIDE CONT CONTINUOUS (ATION) NTS NOT TO SCALE CONTR CONTRACTOR OPENING CTR CENTER OPPOSITE (HAND) CURTAIN WALL ON CENTER CUBIC YARDS **OUTSIDE DIAMETER** DOUBLE OUTSIDE FACE DISCONTINUOUS END OUT-TO-OUT DET ORIENTED STRAND BOARD DETAIL DIA,Ø DIAMETER DIAG DIAGONAL

DIM

DWG

DWL

ELEV

EOS

EXP

FABR

FFE

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EQUAL

FINISHED

FLOOR

GAGE

GRADE

GENERAL H, HORIZ HORIZONTAL

HEADED

HIGH-STRENGTH

INSIDE DIAMETER INSIDE FACE

INTERIOR, INTERMEDIATE

HOOK

GRTG GRATING

OUTSTANDING LEG OVERSIZE ROUND HOLES DIMENSION DEAD LOAD PRECAST CONCRETE DISTRIBUTION RIB POWDER ACTUATED FASTENER(S) DRAWING POUNDS PER LINEAR FOOT POUNDS PER SQUARE INCH EACH END POUNDS PER SQUARE FOOT EACH FACE PSL PARALLEL STRAND LUMBER QTY QUANTITY **EXPANSION JOIN** ELEVATION ROOF DRAIN REINF ELEVATOR REINFORCE (ING) (ED) EMBEDDED (MENT) REQUIRE (MENTS) REQ REQ'D REQUIRED EDGE OF SLAB SLIP-CRITICAL SCHED SCHEDULE SHEET E-, EXTG EXISTING SIMILAR EACH SIDE EACH WAY SPECIFICATION(S)

EXPANSION SLOPE(D) SPACE(S) (ED) EXTERIOR FROM ADJACENT BEAM SQUARE FABRICATE (OR) STAINLESS STEEL FINISHED FLOOR ELEVATION SHORT SLOTTED HOLES SSR SHEAR STUD RAIL STIFF FULL LENGTH STIFFENER STD STANDARD FOUNDATION STEEL STRUCTURE (AL) FACE OF MASONRY STRUCT FACE OF STUD SHORT WAY TOP FACE OF VENEER FACE OF WALL TOP OF TEMP TEMPERATURE, TEMPORARY FAR SIDE FEET, FOOT THREADED THK THICK (NESS) **FOOTING** T&B TOP AND BOTTOM TOP OF STEEL GALVANIZED TOS GENERAL CONTRACTOR

UNLESS NOTED UNLESS NOTED OTHERWISE V, VERT VERTICAL WITH WIND LOAD WELDED WIRE REINFORCING WORK(ING) POINT EXTRA STRONG DOUBLE EXTRA STRONG

WWW.CESOINC.COM 5 Montrose West Ave. Suite 400, AKRON, OH 4432 PHONE: (330) 665-0660 FAX: (330) 665-0664

> ARCHITECT OF RECORD BENJAMIN T. BELL, AIA

1305 NE McCLAIN RD. SUITE 7. BENTONVILLE, AR 72712

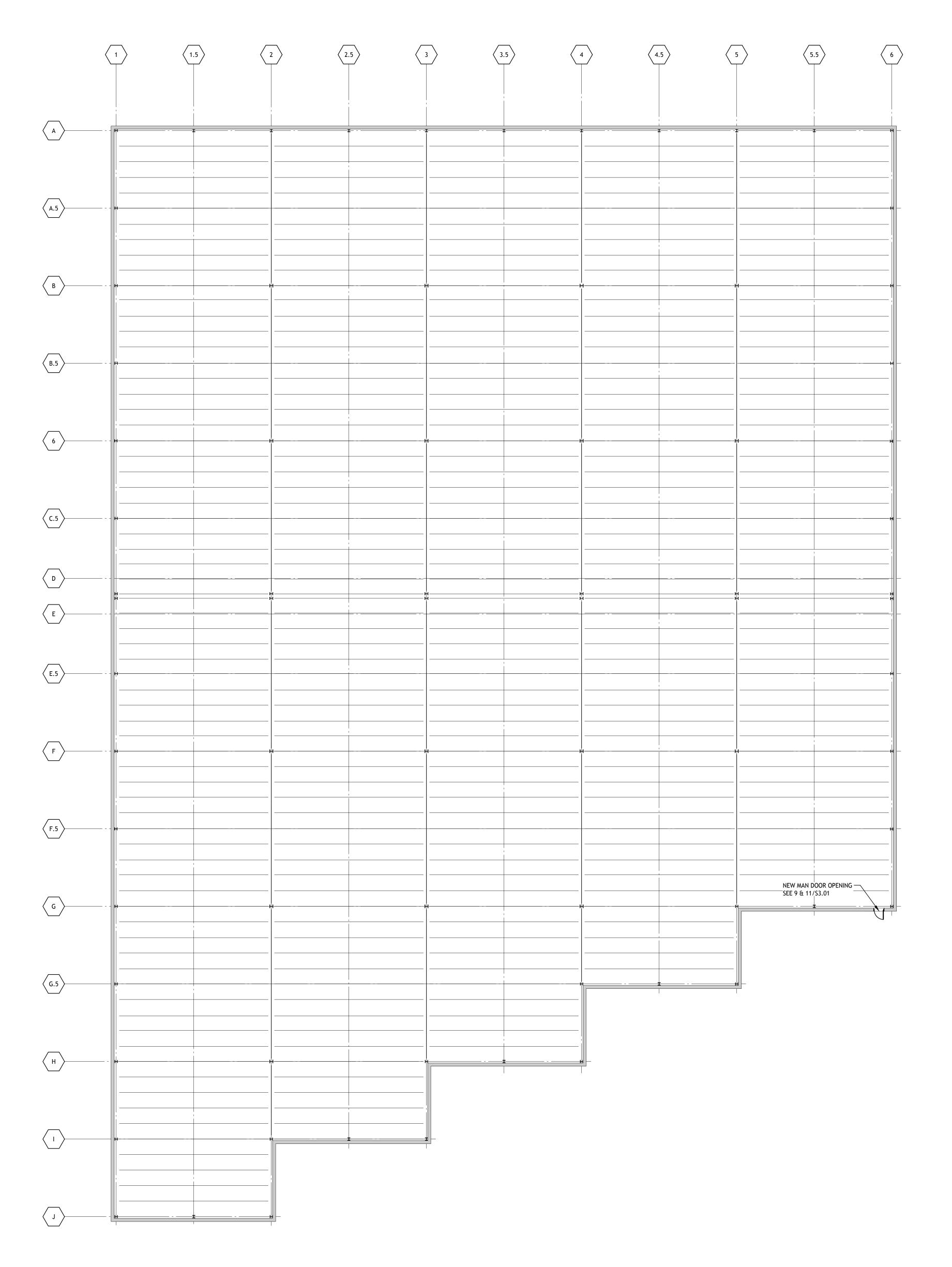
PHONE: (479) 271-8058 FAX: (888) 208-4826



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DELIVERY STATION - DXY4
EXTERIOR IMPROVEMENTS
200 ORITANI DRIVE
ORANGETOWN, NY



* LICENSON	92324-1 E 5/7/2020
Project No.	757184-0
Scale	AS NOTE

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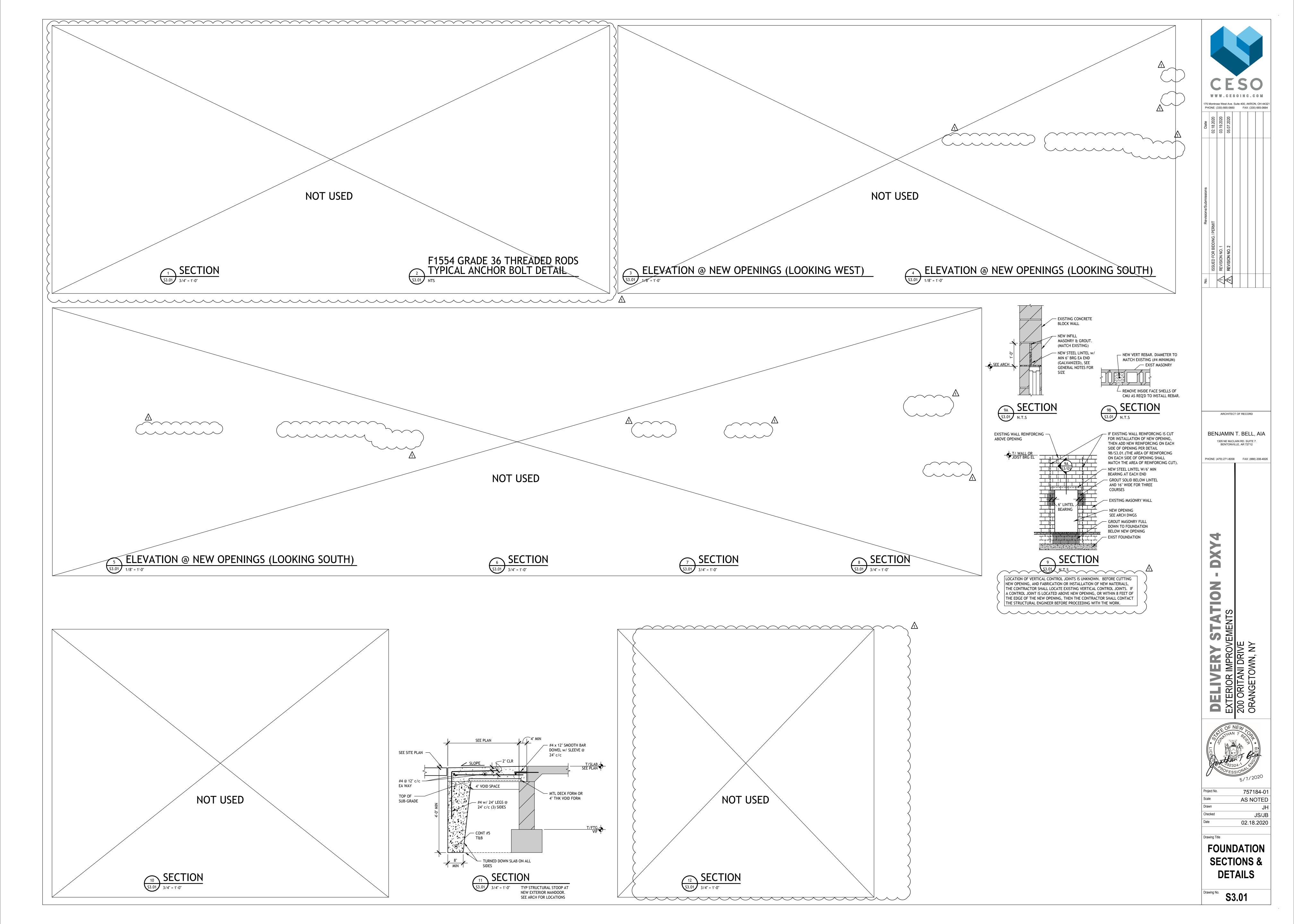
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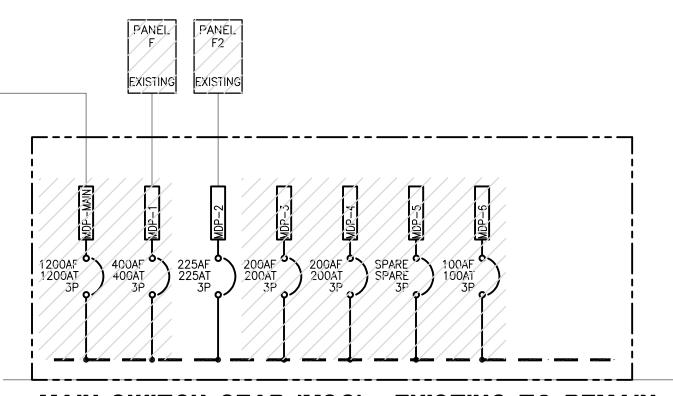
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Drawing Title

PARTIAL ROOF FRAMING PLAN

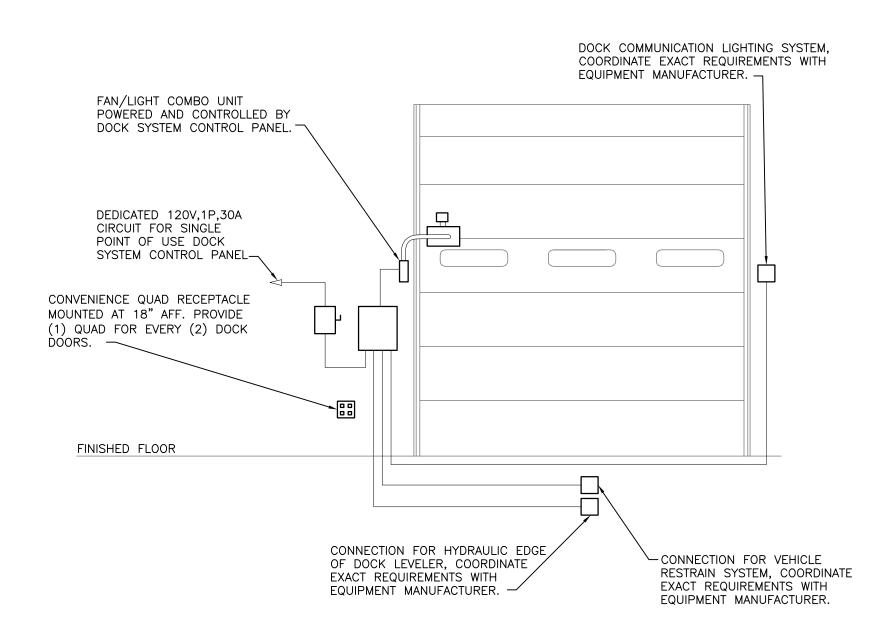
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MAIN SWITCH GEAR 'MSG' - EXISTING TO REMAIN 1200A, 480/277V, 3ø, 4W

PANEL:											NEMA ENCLOSURE: 1						
SYSTEM:	480/277V., 3P,4W												CA	CABINET MOUNTING: SURFACE			
EEDER:	SEE RISER DIAGR	AM												LUGS:	TOP		
OPTIONS:														AIC RATING:			
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GENERAL NOTES:

- 1. COORDINATE AND PROVIDE ALL POWER AND CONTROL WIRING REQUIREMENTS WITH MANUFACTURER PRIOR TO
- 2. COORDINATE ALL DIMENSIONS WITH ARCHITECT AND EQUIPMENT INSTALLERS PRIOR TO BEGINNING WORK.
- 3. DETAIL MAY NOT REFLECT EXACT SYSTEM CONFIGURATION. ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED CONDUIT AND WIRING FOR COMPLETE SYSTEM. COORDINATE FINAL REQUIREMENTS WITH EQUIPMENT SUPPLIER AND SYSTEM SPECIFIC WIRING DIAGRAMS.
- 4. ALL COMPONENTS MUST BE PROPERLY GROUNDED PER NEC 250-81(a) & (c). INCLUDE GROUNDING BUSHING ON ALL CONDUITS ENTERING NON-METALIC ENCLOSURES WITH #8 GROUNDING BUSHINGS WHEN MULTIPLE
- CONDUITS ENTER ENCLOSURE. 5. REFER TO DRAWING EO.01 FOR KEY NOTES AND ADDITIONAL INFORMATION.

TYPICAL LOADING DOCK DOOR ELEVATION DETAIL NOT TO SCALE

ELECTRICAL SYMBOLS LEGEND

HOME RUN TO PANEL. CIRCUIT NUMBERS, PHASE, NEUTRAL AND GROUND CONDUCTORS INDICATED ALONG WITH ISOLATED GROUND CONDUCTOR IF APPLICABLE.

CONDUIT INSTALLED CONCEALED ABOVE CEILING OR IN WALL — — CONDUIT INSTALLED CONCEALED BELOW FLOOR SLAB OR UNDERGROUND

----DC---- CONDUIT INSTALLED WITH DIRECT CURRENT POWER WIRING

CONDUIT TURNED UP OR DOWN AS NOTED

FLEXIBLE CONDUIT FOR FINAL CONNECTION TO EQUIPMENT

SINGLE POLE SWITCH, +3'-10" OR AS NOTED THREE-WAY SWITCH, +3'-10" OR AS NOTED

WEATHERPROOF TOGGLE SWITCH, +3'-10" OR AS NOTED SINGLE POLE SWITCH WITH PILOT LIGHT, +3'-10" OR AS NOTED

MOMENTARY CONTACT SWITCH FOR USE WITH VACANCY SENSOR, +3'-10" OR AS NOTED

WALL MOUNTED OCCUPANCY SENSOR, +3'-10" OR AS NOTED CEILING MOUNTED OCCUPANCY SENSOR

WALL MOUNTED VACANCY SENSOR, +3'-10" OR AS NOTED

CEILING MOUNTED VACANCY SENSOR CEILING MOUNTED INTERIOR DAYLIGHT HARVESTING PHOTOCELL SENSOR

POWER PACK, INSTALLED ABOVE ACCESSIBLE CEILING

SIMPLEX RECEPTACLE, +18" OR AS NOTED ISOLATED GROUND SIMPLEX RECEPTACLE, +18" OR AS NOTED

DUPLEX RECEPTACLE, +18" OR AS NOTED ISOLATED GROUND DUPLEX RECEPTACLE, +18" OR AS NOTED

CONTROLLED DUPLEX RECEPTACLE, +18" OR AS NOTED QUADRUPLEX RECEPTACLE, +18" OR AS NOTED

ISOLATED GROUND QUADRUPLEX RECEPTACLE, +18" OR AS NOTED QUADRUPLEX RECEPTACLE WITH ONE OUTLET CONTROLLED, +18" OR AS NOTED GROUND FAULT INTERRUPTING RECEPTACLE, +18" OR AS NOTED

WEATHERPROOF GROUND FAULT INTERRUPTING RECEPTACLE, +18" OR AS NOTED RECEPTACLE INSTALLED HORIZONTALLY, BOTTOM AT +6" ABOVE COUNTER TOP

> RECEPTACLE INSTALLED FLUSH IN CEILING ISOLATED GROUND RECEPTACLE INSTALLED FLUSH IN CEILING

SPECIAL RECEPTACLE, NEMA STYLE AS NOTED, +18" OR AS NOTED MULTI-OUTLET SYSTEM, INSTALL AS NOTED

> FLUSH FLOOR MOUNTED RECEPTACLE, LETTER INDICATES TYPE POKE-THROUGH FLUSH FLOOR MOUNTED RECEPTACLE. LETTER INDICATES TYPE JUNCTION BOX

DISCONNECT SWITCH, TOP AT +6'-0" OR AS NOTED DISCONNECT SWITCH PROVIDED WITH EQUIPMENT.

COMBINATION MOTOR STARTER/DISCONNECT SWITCH FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ÉLECTRICAL CONTRACTOR

⊘ MOTOR CONNECTION LIGHTING CONTACTOR, INSTALLED AS NOTED

TIME CLOCK, +6'-2" OR AS NOTED

CONTROL OR POWER RELAY, INSTALLED AS NOTED PUSHBUTTON, TOP AT +4'-6" OR AS NOTED

DOOR BELL CHIME, +8'-0" OR AS NOTED

CONTROL TRANSFORMER, INSTALLED AS NOTED THERMOSTAT, TEMPERATURE SENSOR, CARBON DIOXIDE SENSOR AND HUMIDISTAT PROVIDED

BY MECHANICAL CONTRACTOR, +3'-10" OR AS NOTED

ELECTRICALLY OPERATED DAMPER, PROVIDED BY MECHANICAL CONTRACTOR

CARD READER, +3'-10" OR AS NOTED TELEPHONE OUTLET, +18" WITH 1/2" CONDUIT TO ABOVE CEILING

DATA OUTLET, +18" WITH 3/4" CONDUIT TO ABOVE CEILING DATA OUTLET, +6" ABOVE COUNTER WITH 3/4" CONDUIT TO ABOVE CEILING

TELEPHONE/DATA OUTLET, +18" WITH 1" CONDUIT TO ABOVE CEILING TELEPHONE/DATA OUTLET, +6" ABOVE COUNTER WITH 1" CONDUIT TO ABOVE CEILING

TELEPHONE OUTLET, +6" ABOVE COUNTER WITH 1/2" CONDUIT TO ABOVE CEILING

FIRE ALARM CONTROL PANEL, FLUSH MOUNTED, TOP AT +6'-0" MANUAL FIRE ALARM PULL STATION, +3'-10" PER ADA FIRE ALARM HORN AND 110cd STROBE, +80" TO BOTTOM OF DEVICE PER ADA

STROBE ONLY (75cd UNO), +80" TO BOTTOM OF DEVICE PER ADA FIRE ALARM HORN AND 115cd STROBE, CEILING MOUNTED STROBE ONLY (115cd UNO), CEILING MOUNTED

AREA TYPE PHOTOELECTRIC SMOKE DETECTOR, CEILING MOUNTED, OR AS NOTED DUCT TYPE PHOTOELECTRIC SMOKE DETECTOR WITH SAMPLING TUBES AND REMOTE INDICATOR LIGHT MOUNTED FLUSH IN CEILING BELOW DETECTOR

FIRE ALARM SYSTEM RELAY SPRINKLER FLOW SWITCH, PROVIDED BY PLUMBING CONTRACTOR

SPRINKLER TAMPER SWITCH, PROVIDED BY PLUMBING CONTRACTOR FIRE SPRINKLER SYSTEM BELL (GONG), +10'-0" AFG

COMBINATION FIRE/SMOKE DAMPER PROVIDED BY MECHANICAL CONTRACTOR AFF/AFG ABOVE FINISHED FLOOR/GRADE AUTHORITY HAVING JURISDICTION

BUILDING AUTOMATION SYSTEM ELECTRICAL CONTRACTOR

FIRE ALARM GENERAL CONTRACTOR

MECHANICAL CONTRACTOR NIGHT LIGHT

NON-FUSED PLUMBING CONTRACTOR

TYPICAL

CENTERLINE OF THE DEVICE UNLESS NOTED OTHERWISE.

WEATHERPROOF

SYMBOLS LEGEND NOTES:
MOUNTING HEIGHTS INDICATED ARE MEASURED FROM FINISHED FLOOR TO THE

GENERAL DEMOLITION NOTES

- ALL EXISTING DEVICES AND/OR CIRCUITS SHOWN ARE INDICATED ONLY FOR INFORMATION PURPOSES. VISIT THE SITE AND VERIFY ALL CONDITIONS AS THEY EXIST AND REMOVE, RELOCATE AND/OR REWORK ANY ELECTRICAL EQUIPMENT OR CIRCUITS NECESSARY FOR A COMPLETE
- FAILURE TO FAMILIARIZE WITH THE SITE WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR PERFORMING ALL WORK
- NECESSARY TO PROVIDE A WORKMANLIKE INSTALLATION.
- ALL WORK SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE ADOPTED ELECTRICAL CODE.
- NOTIFY BUILDING OPERATIONS MANAGER (7) BUSINESS DAYS IN ADVANCE OF ALL INTERRUPTIONS TO THE EXISTING BUILDING SERVICES.
- MAINTAIN ACCURATE RECORDS OF ALL MODIFICATIONS TO EXISTING
- SYSTEMS WHICH ARE TO REMAIN. DELIVER ALL "RECORD" DRAWINGS TO THE OWNER INDICATING SUCH CHANGES.
- DISCONNECT AND LABEL ABANDONED FEEDERS AND CIRCUITS. WHERE NEW WORK INTERFERES WITH CIRCUITS IN ROOMS OTHERWISE UNDISTURBED, EXISTING CIRCUITS SHALL BE REWORKED AS REQUIRED 1
- MAINTAIN SERVICE. REMOVE ALL UNUSED EQUIPMENT, FIXTURES, AND PANELS FROM THE
- SITE, UNLESS NOTED OTHERWISE. COORDINATE THE ROUTING OF ALL CONDUITS AND THE LOCATIONS OF
- ALL EQUIPMENT WITH OTHER TRADES TO AVOID CONFLICTS WITH DUCTS, PIPES, ETC.
- . PROVIDE BLANK STAINLESS STEEL COVER PLATES WHERE DEVICES (WITH CONCEALED CONDUITS) ARE REMOVED LEAVING EXPOSED BACKBOXES AFTER THE FINAL SURFACE IS APPLIED.
- VERIFY THE LOCATION AND CONDITION OF ALL EXISTING UTILITIES AND PROTECT DURING THE COURSE OF THEIR WORK. EXISTING UTILITIES, BUILDING MATERIALS AND ANY ASSOCIATED ITEMS WHICH ARE DAMAGED CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE (IN A TIMELY MANNER) AND TO THE OWNER'S APPROVAL
- REMOVE ALL ROMEX, BX, AND OTHER FLEXIBLE CONDUIT OR CABLE SYSTEMS AND EXPOSED WIRING FOR ALL ABANDONED CIRCUITS. . PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN POWER TO BRANCH AND FEEDER CIRCUITS UNTIL A PERMANENT PANEL IS INSTALLED TO RECONNECT THE EXISTING REMAINING CIRCUITS.
- COORDINATE THE REMOVAL OF ALL MECHANICAL AND PLUMBING EQUIPMENT AND REMOVE ALL ELECTRICAL POWER AND CONTROL CIRCUITS FOR EQUIPMENT BEING REMOVED. WHERE EXISTING EQUIPMENT IS BEING REPLACED WITH NEW EQUIPMENT OR RELOCATED EQUIPMENT, CONTRACTOR MAY REUSE THE EXISTING CONDUIT AND ROUGH-IN LOCATIONS IF POSSIBLE, BUT NEW CONDUCTORS SHALL BE PROVIDED.
- . WHERE EQUIPMENT IS REMOVED FROM OR RELOCATED TO A LOCATION WHICH PENETRATES A FIRE RATED STRUCTURE, PROVIDE APPROPRIATE FIRE STOPPING MATERIALS TO MAINTAIN FIRE RATING OF THE STRUCTURE

GENERAL REMODEL NOTES

- ALL EXISTING EQUIPMENT, WIRING DEVICES, LIGHTS, CONDUIT, WIRING, CIRCUITING, ETC. NOT DISTURBED BY NEW CONSTRUCTION WORK SHALL BE MAINTAINED AND UNDAMAGED. THESE DEVICES, IF SHOWN, ARE SHOWN FOR INFORMATION PURPOSES ONLY. VISIT THE JOB SITE TO VERIFY ALL EXISTING CONDITIONS AND FAMILIARIZE THEMSELVES WITH AL WORK TO BE DONE AT THE JOB SITE. FAILURE TO DO SO SHALL NOT RELIEVE CONTRACTOR OF THE RESPONSIBILITY FOR PERFORMING ALL
- EXISTING SERVICES (ELECTRICAL, FIRE ALARM, ETC.) SHALL NOT BE INTERRUPTED WITHOUT PRIOR SCHEDULING OF SUCH OUTAGES WITH THE OWNER, ARCHITECT, AND ALL OTHER PARTIES INVOLVED.
- MAINTAIN ACCURATE RECORDS OF ALL MODIFICATIONS TO EXISTING SYSTEMS WHICH ARE TO REMAIN. DELIVER ALL "RECORD" DRAWINGS TO THE OWNER INDICATING SUCH CHANGES.

WORK NECESSARY TO PROVIDE A WORKMANLIKE INSTALLATION.

. REMOVE ALL EXPOSED CONDUITS, CONDUITS ABOVE LAY-IN CEILINGS, OR EQUIPMENT WHICH IS ABANDONED.

. DISCONNECT AND LABEL ABANDONED FEEDERS AND CIRCUITS.

- WHERE NEW WORK INTERFERES WITH CIRCUITS IN ROOMS OTHERWISE UNDISTURBED, EXISTING CIRCUITS SHALL BE REWORKED AS REQUIRED TO
- ALL EQUIPMENT, FIXTURES, PANELBOARDS, CONDUIT AND WIRING THAT ARE REMOVED SHALL BE REMOVED FROM THE JOB SITE, UNLESS DIRECTED OTHERWISE BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. EXISTING ROUGH-IN BOXES AND CONDUIT MAY BE UTILIZED IF THEY ARE
- CONSTRUCTION. DEVICES AND WIRING SHALL BE NEW. CIRCUIT ROUTINGS SHOWN IN REMODELED AREAS MAY BE MODIFIED TO SUIT FIELD CONDITIONS, KEEP DEVICES AND/OR FIXTURE CIRCUITS APPROXIMATELY AS INDICATED TO LIMIT VOLTAGE DROP OF FEEDER AND

OF PROPER SIZE AND IN SUITABLE LOCATION(S) FOR NEW

BRANCH CIRCUITS.

-). VERIFY THE LOCATION AND CONDITION OF ALL EXISTING UTILITIES AND PROTECT DURING THE COURSE OF THEIR WORK. EXISTING UTILITIES, BUILDING MATERIALS AND ANY ASSOCIATED ITEMS WHICH ARE DAMAGED BY CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED OR REPLACED AT
- THE CONTRACTOR'S EXPENSE (IN A TIMELY MANNER) AND TO THE OWNER'S APPROVAL. . COORDINATE THE REMOVAL OR RELOCATION OF ALL MECHANICAL AND PLUMBING EQUIPMENT. DISCONNECT AND REMOVE ALL ELECTRICAL POWER AND CONTROL CIRCUITS FOR EQUIPMENT BEING REMOVED OR
- RELOCATED. EXISTING CONDUIT AND ROUGH-IN MAYBE USED FOR RELOCATED OR NEW EQUIPMENT. ALL CONDUCTORS SHALL BE NEW. 2. REMOVE ALL EXISTING DATA, TELEPHONE, FIRE ALARM CABLING AND ANY OTHER LOW VOLTAGE WIRING THAT ARE NOT TO BE USED.
- 13. DESIGN IS BASED ON FIELD INFORMATION, AS-BUILT DRAWINGS AND OWNER FURNISHED INFORMATION. VERIFY ACCURACY OF ALL EXISTING CONDITIONS. IN CASE OF DISCREPANCY, PROVIDE ALL NECESSARY CONDUIT, WIRE, BOXES, FITTINGS, ETC. FOR A COMPLETE OPERATING ELECTRICAL SYSTEM. ENTIRE INSTALLATION TO COMPLY WITH SPECIFICATIONS AND ADOPTED ELECTRICAL CODE.

WIRING SCHEDULE FOR VOLTAGE DROP DISTANCE 120V – 20A BRANCH CIRCUIT 100' - 150' 150' - 250' 250' – OVER 277V - 20A BRANCH CIRCUIT UP TO 200' 200' – 375' 375' – OVER

FOR CIRCUITS WITH #6 CONDUCTORS, REDUCE TO #8 CONDUCTORS

AT PANEL FOR FINAL CONNECTIONS TO CIRCUIT BREAKER.

GENERAL ELECTRICAL NOTES

- INCLUDE ALLOWANCE FOR UNFORESEEN CONDITIONS THAT MAY EFFECT THE SCOPE OF WORK. MINOR DEVIATIONS REQUIRED FOR ACCOMPLISHING THE INTENT OF THIS DESIGN ARE TO BE INCLUDED IN THIS ALLOWANCE.
- SWITCHBOARDS, PANELBOARDS, DISCONNECT SWITCHES, TRANSFORMERS AND CONTACTORS SHALL BE "LISTED" AND "IDENTIFIED" AS RATED FOR A MINIMUM OF 75°C CONDUCTOR TERMINATION. ELECTRICAL DESIGN HAS BEEN BASED ON THE INSTALLATION OF 75°C CONDUCTORS CONNECTED TO TERMINAL LUGS AND EQUIPMENT U.L

LISTED FOR A MINIMUM 75°C. CONDUCTORS TERMINATED ON EQUIPMENT

CODE AND UL/CUL NO. 489 REQUIREMENTS. CONDUIT INSTALLED INDOORS SHALL BE ELECTRICAL METALLIC TUBING (EMT), MINIMUM 1/2" OR AS NOTED.

CONDUCTOR SIZE INCREASED TO CONFORM TO ADOPTED ELECTRICAL

WITH A LOWER RATING (60°C) OR NO RATING SHOWN TO HAVE

- CONDUIT INSTALLED BELOW SLAB SHALL BE RIGID STEEL, IMC, PVC OR HDPE, MINIMUM 3/4". IF PVC OR HDPE IS USED, TRANSITION TO RIGID
- STEEL BEFORE TURNING UP AND PENETRATING FLOOR SLAB. CONDUCTORS SHALL BE A MINIMUM OF #12 THHN/THWN COPPER UNLESS NOTED OTHERWISE ON PLANS OR IN SPECIFICATIONS. BRANCH

CIRCUITS SHALL BE PROVIDED WITH (2) #12 CONDUCTORS AND (1) #12

- EQUIPMENT GROUND CONDUCTOR UNLESS NOTED OTHERWISE. BRANCH CIRCUITS SHOWN WITH TWO GROUNDING CONDUCTORS SHALL HAVE ONE EQUIPMENT GROUND CONDUCTOR (GREEN) AND ONE ISOLATED GROUND CONDUCTOR (GREEN W/ YELLOW STRIP) INSTALLED IN
- DIRECT CURRENT WIRING SHALL BE (2) #10 IN 1/2" CONDUIT UNLESS NOTED OTHERWISE. CONTROL VOLTAGE WIRING SHALL BE PLENUM RATED OR INSTALLED IN

THERMOSTATS, TEMPERATURE SENSORS, CARBON DIOXIDE SENSORS AND

- HUMIDISTATS: UNLESS NOTED OTHERWISE, PROVIDE WALL BOX AT +3'-10" AFF WITH 1/2" CONDUIT STUBBED OUT TO ABOVE ACCESSIBLE CEILING WITH NYLON BUSHINGS AND PULLSTRING. PROVIDE FLEXIBLE CONNECTIONS ONLY FOR FINAL CONNECTION TO FOUIPMENT. 6'-0" MAXIMUM LENGTH. PROVIDE LIQUID TIGHT FLEXIBLE
- CONNECTION AT EXTERIOR LOCATIONS AND WERE EXPOSURE TO MOISTURE IS POSSIBLE. ALL EMPTY CONDUITS SHALL BE PROVIDED WITH A PULL WIRE.
- M. ALL RACEWAYS SHALL CONTAIN A GROUNDING ELECTRODE SIZED PER THE ADOPTED ELECTRICAL CODE.
- COORDINATE WORK ABOVE THE CEILING WITH OTHER TRADES TO PROVIDE THE GREATEST POSSIBLE CLEARANCE. CONDUIT RUNS SHALL BE RUN THROUGH TRUSSES WHERE POSSIBLE.
- VERIFY EXACT PLACEMENT OF ALL DEVICES SHOWN ON THE CONSTRUCTION DOCUMENTS PRIOR TO FINAL PLACEMENT. ALL RECESSED PANELBOARDS SHALL BE INSTALLED WITH A MINIMUM OF (3) 3/4" CONDUITS STUBBED UP TO ACCESSIBLE CEILING SPACE FOR
- ALL PANELBOARDS, SWITCHBOARDS AND LINE VOLTAGE CONTROL EQUIPMENT SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTING, SERVICING OR MAINTENANCE OF EQUIPMENT. MARKING SHALL BE SELF ADHESIVE, COMMERCIAL LABEL CONFORMING TO ADOPTED CODES.
- LIGHT SWITCHES, ELECTRICAL OUTLETS, THERMOSTATS AND OTHER ENVIRONMENTAL CONTROLS SHALL HAVE OPERABLE PARTS OF THE CONTROLS LOCATED NO HIGHER THAN 48" AND NO LOWER THAN 15" ABOVE THE FLOOR. IF THE REACH IS OVER AN OBSTRUCTION BETWEEN 20" AND 25" IN DEPTH, THE MAXIMUM HEIGHT IS REDUCED TO 44" FOR FORWARD APPROACH OR 46" FOR SIDE APPROACH, PROVIDED THE OBSTRUCTION IS NO MORE THAN 24" IN DEPTH. OBSTRUCTIONS SHALL NOT EXTEND MORE THAN 25" FROM THE WALL BENEATH A CONTROL.
- TERMS: SHALL - ACTION THAT IS REQUIRED WITHOUT OPTION OR QUALIFICATION. FURNISH - CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING. NSTALL - CONTRACTOR SHALL BE RESPONSIBLE FOR LABOR AND CONSTRUCTION EQUIPMENT NECESSARY TO SET IN PLACE, CONNECT, CALIBRATE AND/OR TEST EQUIPMENT FURNISHED BY HIM OR OTHERS.

PROVIDE - CONTRACTOR SHALL FURNISH AND INSTALL.

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AS NOTED

02.18.2020

ATF

OTHER SHEETS INCLUDING SPECIFICATIONS APPLY. THAT SHOWN HEREON IS SCHEMATIC IN NATURE AND NOT TO BE USED AS A SHOP DRAWING: THEREFORE, INCLUDE ALL MODIFICATIONS REQUIRED TO CONFORM TO SITE CONDITIONS AND THE EQUIPMENT AND MATERIAL USED. VERIFY LOCATIONS AND DIMENSIONS OF ALL ARCHITECTURAL AND STRUCTURAL ELEMENTS AS SHOWN ON THEIR RESPECTIVE DOCUMENTS, THESE ELEMENTS ARE SHOWN FOR REFERENCE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION AND THE ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY OF THESE LEMENTS. NO DESIGN RESPONSIBILITY IS ASSUMED FOR ANY PORTION OF THE WORK THAT THE PROFESSIONAL ENGINEER HAS NOT SIGNED AND SEALED PER STATE/PROVINCE



HIS SHEET IS PART OF THE CONSTRUCTION DOCUMENTS.

IS A VIOLATION OF STATE

HAT BEARS THE SEAL OF A

LAW FOR ANY PERSON TO

PROFESSIONAL ENGINEER.

DIRECTION OF A LICENSED

ENERGY CONSERVATION

TO THE BEST OF MY KNOWLEDGE

PROFESSIONAL ENGINEER.

NEW YORK STATE

BELIEF AND PROFESSIONAL JUDGMENT. THESE PLANS AND

SPECIFICATIONS ARE IN COMPLIANCE WITH THE ECCCNYS

AS PER CHAPTER 1 SECTION

COMPLIANCE

ALTER ANY DOCUMENT

UNLESS THE PERSON

IS ACTING UNDER THE

LBI Professional Engineering,LLC T 816-997-9601 310 W 20th Street, Suite 200 F 816-997-9602 Kansas City, MO 64108 Copyright 2020

rawing Title ONE-LINE, SYMBOLS, SCHEDULES, & GENERAL

- THE WORK COVERED BY DIVISION 16 CONSISTS OF FURNISHING ALL LABOR. EQUIPMENT, SUPPLIES, AND MATERIALS (EXCEPT AS OTHERWISE SPECIFIED OR SHOWN ON THE DRAWINGS) REQUIRED TO PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF COMPLETE ELECTRICAL SYSTEMS. ALL WORK SHALL BE IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND DRAWINGS.
- 2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS TO PREVENT CONFLICTS CAUSING UNNECESSARY EXPENSE OR DELAYS IN THE INSTALLATION OF WORK. WHEN CONFLICTS ARISE. REMOVE AND RELOCATE ITEMS CAUSING SUCH CONFLICTS AT NO ADDITIONAL COST TO THE OWNER. REFER TO OTHER DISCIPLINE'S DRAWINGS. RELEVANT EQUIPMENT DRAWINGS. AND SHOP DRAWINGS TO DETERMINE AVAILABLE CLEARANCES AND POSSIBLE OBSTRUCTIONS. MAKE ANY NECESSARY OFFSETS OR TRANSITIONS AS REQUIRED TO CLEAR STRUCTURAL MEMBERS, EXISTING EQUIPMENT, ETC. TO FACILITATE INSTALLATION OF THE WORK IN THE MANNER INDICATED
- 3. ALL WORK SHALL COMPLY WITH THE LOCALLY ADOPTED ELECTRICAL CODE AND ALL APPLICABLE LAWS, CODES, RECOMMENDATIONS, REGULATIONS, AND INTERIM AMENDMENTS, OF THE GOVERNMENTAL BODIES HAVING JURISDICTION INCLUDING ADA COMPLIANCE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE GOVERNING SAFETY REGULATIONS, INCLUDING OSHA REGULATIONS. ALL SAFETY LIGHTS, GUARDS AND SIGNS REQUIRED FOR THE PERFORMANCE OF THE ELECTRICAL WORK SHALL BE PROVIDED BY AND OPERATED BY THE ELECTRICAL
- 4. THE INTENT OF THE DRAWINGS IS TO INDICATE THE GENERAL EXTENT OF WORK REQUIRED FOR THE PROJECT. THE DRAWINGS FOR ELECTRICAL WORK ARE DIAGRAMMATIC, SHOWING THE LOCATION, TYPE, DEVICES AND EQUIPMENT REQUIRED. THE DRAWINGS SHALL NOT BE SCALED FOR EXACT MEASUREMENTS. PROVIDE ALL FIXTURES, DEVICES, ACCESSORIES, OFFSETS, AND MATERIALS NECESSARY TO FACILITATE THE SYSTEM'S FUNCTIONING AS INDICATED BY THE DESIGN AND THE EQUIPMENT FURNISHED BY OTHERS.
- 5. ELECTRICAL DESIGN FOR THIS INSTALLATION IS BASED ON FIELD INSPECTIONS AND PREVIOUS DESIGN DRAWINGS FOR THE EXISTING BUILDING. ELECTRICAL CONTRACTOR IS TO FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING. ALLOWANCES ARE TO BE INCLUDED FOR UNFORESEEN EXISTING CONDITIONS THAT MAY EFFECT THE CONTRACTOR'S SCOPE OF WORK. MINOR DEVIATIONS REQUIRED FOR ACCOMPLISHING THE INTENT OF THIS DESIGN IS TO BE INCLUDED IN THIS ALLOWANCE.
- 6. ELECTRICAL CONTRACTOR TO FIELD VERIFY ALL EXISTING UTILITIES. ANY ITEM DAMAGED BY THIS CONTRACTOR IS TO BE REPAIRED IMMEDIATELY AND AT NO COST
- 7. ROOF PENETRATIONS SHALL COMPLY WITH "SMACNA" AND "NRCA" STANDARDS, AND WITH THE REQUIREMENTS OF THE EXISTING ROOFING WARRANTY, IF APPLICABLE. DO NOT PERFORM ROOFING PENETRATIONS IN A MANNER WHICH WOULD VOID OR OTHERWISE LIMIT THE EXISTING ROOFING WARRANTY.
- 9. TEMPORARY ELECTRICAL SERVICE:
- A. PROVIDE TEMPORARY ELECTRICAL SERVICE FOR POWER AND LIGHTING DURING CONSTRUCTION. MAINTAIN DURING CONSTRUCTION AND REMOVE SERVICE AFTER CONSTRUCTION IS COMPLETED. THE TEMPORARY SYSTEM SHALL CONSIST OF AN ELECTRICAL SERVICE, DISTRIBUTION SYSTEM, LOAD-CENTER PANEL, GROUNDING, 15 AMP AND/OR 20 AMP BRANCH CIRCUITS, GROUNDED TYPE RECEPTACLES AND LIGHTING FIXTURES.
- B. PROVIDE AND INSTALL SUFFICIENT NUMBER OF TEMPORARY LIGHT FIXTURES FOR A SAFE INSTALLATION FOR ALL TRADES THROUGHOUT THE BUILDING. ALL LAMPS FOR GENERAL ILLUMINATION SHALL BE PROTECTED FROM ACCIDENTAL CONTACT OR BREAKAGE BY SUITABLE FIXTURE OR LAMPHOLDER WITH A GUARD. (NO EXCEPTIONS.)
- 10. WARRANTIES: A. CONTRACTOR SHALL WARRANT ALL WORK PERFORMED AND MATERIAL & LABOR PROVIDED UNDER THE CONTRACT AGAINST DEFECTS IN MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM SUBSTANTIAL COMPLETION. PROVIDE ALL SERVICES AS REQUIRED TO IMMEDIATELY REPAIR OR REPLACE AT NO ADDITIONAL
- B. ALL LAMPS ARE TO BE WARRANTED ACCORDING TO LAMP MANUFACTURER. WHICH IS ALSO BASED ON AVERAGE LIFE DATA FOR EACH SPECIFIC TYPE OF LAMP. PROVIDE LABOR TO REPLACE ALL DEFECTIVE LAMPS THAT ARE WITHIN LAMP MANUFACTURER'S WARRANTY PERIOD.

OF FAULTY WORKMANSHIP OR MATERIAL. LACK OF MAINTENANCE, ACCIDENTS, OR

- C. ALL EQUIPMENT, APPARATUS AND APPLIANCES WHICH ARE SPECIFIED AND/OR OME WITH WARRANTIES LONGER THAN ONE YEAR SHALL BE REGISTERED WITH THE MANUFACTURER IN THE OWNER'S NAME.
- 12. CUTTING AND PATCHING: A. NO STRUCTURAL MEMBERS SHALL BE CUT, DRILLED, OR PENETRATED WITHOUT PRIOR APPROVAL FROM THE ARCHITECT
- B. PROVIDE CUTTING, PATCHING, AND PATCH PAINTING IN EXISTING STRUCTURES, AS REQUIRED FOR THE INSTALLATION OF WORK OF THIS SECTION. EXTENT OF CUTTING SHALL BE MINIMIZED. USE CORE DRILLS, POWER SAWS, AND OTHER MACHINES WHICH WILL PROVIDE NEAT, MINIMUM OPENINGS. REFER TO STRUCTURAL DRAWINGS FOR LINTELS AND SUPPORTS TO BE FURNISHED B' OTHERS FOR THE ELECTRICAL WORK. ALL OTHER LINTELS AND SUPPORTS REQUIRED FOR THE ELECTRICAL WORK SHALL BE FURNISHED BY DIVISION 16 PATCHING SHALL MATCH AND EQUAL ADJACENT MATERIALS AND SURFACES AND SHALL BE PERFORMED BY CRAFTSMAN SKILLED IN THE RESPECTIVE CRAFT REQUIRED. PATCHED FINISHES SHALL BE APPROVED BY THE ARCHITECT.
- C. ALL PUBLIC AND PRIVATE PROPERTY DAMAGED AS A RESULT OF WORK PERFORMED UNDER THIS CONTRACT SHALL BE REPAIRED AND REPLACED BY THIS CONTRACTOR, TO THE SATISFACTION OF THE AUTHORITIES HAVING REGULATORY JURISDICTION AND BUILDING OWNER.

SECTION 16060 — GROUNDING

- 1. EXTENT OF ELECTRICAL GROUNDING AND BONDING WORK IS INDICATED BY DRAWINGS AND AS SPECIFIED HEREIN. GROUNDING AND BONDING WORK IS DEFINED TO ENCOMPASS SYSTEMS, CIRCUITS, AND EQUIPMENT.
- 2. EXCEPT AS OTHERWISE INDICATED, PROVIDE ELECTRICAL GROUNDING AND BONDING SYSTEMS INDICATED WITH ASSEMBLY OF MATERIALS, INCLUDING, BUT NOT LIMITED TO CABLES/WIRES, CONNECTORS, SOLDERLESS LUG TERMINALS, GROUNDING ELECTRODES AND PLATE ELECTRODES, BONDING JUMPER BRAID, AND ADDITIONAL ACCESSORIES NEEDED FOR A COMPLETE INSTALLATION. WHERE MORE THAN ONE TYPE COMPONENT PRODUCT MEETS INDICATED REQUIREMENTS, SELECTION IS INSTALLER'S OPTION. WHERE MATERIALS OR COMPONENTS ARE NOT INDICATED, PROVIDE PRODUCTS WHICH COMPLY WITH BUILDING CODES, UL, AND IEEE REQUIREMENTS AND WITH ESTABLISHED INDUSTRY STANDARDS FOR THOSE APPLICATIONS INDICATED.
- 3. INSTALL ELECTRICAL GROUNDING AND BONDING SYSTEMS AS INDICATED, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND APPLICABLE PORTIONS OF THE BUILDING CODES, NECA'S "STANDARD OF INSTALLATION", AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT PRODUCTS COMPLY WITH
- 4. RACEWAY SYSTEMS SHALL NOT BE USED AS GROUNDING METHOD. ALL BRANCH AND FEEDER CONDUITS TO HAVE A GROUNDING CONDUCTOR INSTALLED WITH PHASE AND NEUTRAL CONDUCTORS. SIZE OF GROUND CONDUCTOR TO BE IN ACCORDANCE WITH THE ADOPTED ELECTRICAL CODE. TERMINATE FEEDER AND BRANCH CIRCUIT INSULATED EQUIPMENT GROUNDING CONDUCTORS WITH GROUNDING LUG, BUS, OR
- 5. INSTALLATION OF ELECTRICAL GROUNDING AND BONDING SYSTEMS:
- A. GROUNDING ELECTRODE CONDUCTORS, WHERE NOT INSTALLED AS PART OF A BRANCH CIRCUIT OR FEEDER, SHALL BE INSTALLED IN PVC CONDUIT, TO PROTECT THE WIRING FROM PHYSICAL DAMAGE. B. CONNECT GROUNDING ELECTRODE CONDUCTORS TO METAL COLD WATER PIPE AND
- ALL OTHER TYPES OF METAL PIPING WITHIN THE BUILDING USING A SUITABLY SIZED GROUND CLAMP. PROVIDE CONNECTIONS TO FLANGED PIPING TO STREET SIDE OF FLANGE. PROVIDE BONDING AS DESCRIBED IN ADOPTED ELECTRICAL CODE INCLUDING BONDING JUMPER AROUND WATER METER.
- C. CONNECT TOGETHER SYSTEM NEUTRAL, SERVICE EQUIPMENT ENCLOSURES, EXPOSED NON-CURRENT CARRYING METAL PARTS OF ELECTRICAL EQUIPMENT METAL RACEWAY SYSTEMS. GROUNDING CONDUCTOR IN RACEWAYS AND CABLES, RECEPTACLE GROUND CONNECTORS, AND PLUMBING SYSTEMS.
- D. THE UTILITY COMPANY METER SOCKET SHALL BE GROUNDED TO A 1/2" X 10' COPPER CLAD STEEL GROUND ROD WITH COPPER WIRE INSTALLED IN P.V.C. CONDUIT. THE GROUND ROD SHALL BE DRIVEN INTO THE EARTH WITH THE TOP 1'-0" BELOW GRADE, AS NEAR AS POSSIBLE TO THE LOCATION OF THE METER SOCKET WITH THE TOP 1'-0" BELOW FINISHED GRADE.
- . THE NEUTRAL CONDUCTOR OF ALL SEPARATELY DERIVED SYSTEMS TRANSFORMERS EMERGENCY GENERATORS, ETC., SHALL BE GROUNDED TO THE NEAREST AVAILABLE GROUNDED STRUCTURE METAL MEMBER OR TO THE NEAREST AVAILABLE GROUNDED METAL WATER PIPE. THE GROUNDING CONDUCTOR SHALL BE SIZED AS SHOWN ON DRAWINGS OR AS REQUIRED BY THE ADOPTED ELECTRICAL CODE.

SECTION 16075 - IDENTIFICATION ENGRAVED, PLASTIC-LAMINATED LABELS, SIGNS, AND INSTRUCTION PLATES: ENGRAVING STOCK MELAMINE PLASTIC LAMINATE, 1/16-INCH MINIMUM THICK FOR SIGNS UP TO 20 SQUARE INCHES, OR 8 INCHES IN LENGTH; 1/8-INCH THICK FOR 4. SURFACE RACEWAYS: LARGER SIZES. ENGRAVED LEGEND IN WHITE LETTERS ON BLACK FACE AND PUNCHED FOR MECHANICAL FASTENERS.

- 2. CABLE TIES: FUNGUS-INERT, SELF-EXTINGUISHING, ONE-PIECE, SELF-LOCKING NYLON CABLE TIES. 0.18-INCH MINIMUM WIDTH. 50-LB MINIMUM TENSILE STRENGTH. AND SUITABLE FOR A TEMPERATURE RANGE FROM MINUS 50 F TO 350 F. PROVIDE TIES IN SPECIFIED COLORS WHEN USED FOR COLOR-CODING.
- 3. SELF ADHESIVE, COMMERCIALLY AVAILABLE ARC FLASH HAZARD LABELS. LABELS TO 5. WIRING METHOD: CONFORM TO THE ADOPTED ELECTRICAL CODE AND A.N.S.I. Z535.4.
- 4. CONDUCTOR COLOR CODING: PROVIDE COLOR CODING FOR SECONDARY SERVICE, FEEDER, AND BRANCH CIRCUIT CONDUCTORS THROUGHOUT THE PROJECT SECONDARY ELECTRICAL SYSTEM PER WIRES AND CABLING SECTION.
- 5. APPLY EQUIPMENT IDENTIFICATION LABELS OF ENGRAVED PLASTIC LAMINATE ON EACH MAJOR UNIT OF ELECTRICAL EQUIPMENT IN BUILDING, INCLUDING CENTRAL OR MASTER UNIT OF EACH ELECTRICAL SYSTEM. THIS INCLUDES COMMUNICATION/SIGNAL/ALARM SYSTEMS, UNLESS UNIT IS SPECIFIED WITH ITS OWN SELF-EXPLANATORY IDENTIFICATION. EXCEPT AS OTHERWISE INDICATED, PROVIDE SINGLE LINE OF TEXT, WITH 1/4-INCH-HIGH LETTERING ON 1-INCH-HIGH LABEL (1-1/2-INCH-HIGH WHERE TWO LINES ARE REQUIRED). WHITE LETTERING IN BLACK FIELD. TEXT SHALL MATCH TERMINOLOGY AND NUMBERING OF THE CONTRACT DOCUMENTS AND SHOP DRAWINGS. APPLY LABELS FOR EACH UNIT OF THE FOLLOWING CATEGORIES OF ELECTRICAL EQUIPMENT.
- A. PANELBOARDS, ELECTRICAL CABINETS, AND ENCLOSURES B. ELECTRICAL SWITCHGEAR AND SWITCHBOARDS

- MOTOR STARTERS AND/OR VFDs FURNISHED BY THIS CONTRACTOR DISCONNECT SWITCHES CONTACTORS TRANSFORMERS
- GENERATORS H. TRANSFER SWITCHES
- PROVIDE MULTIPLE SIGNS OR ONE CONSOLIDATED SIGN INSIDE ELEVATOR MACHINE ROOMS. SIGN(S) TO IDENTIFY THE EXACT LOCATION OF THE SUPPLY SIDE OVERCURRENT PROTECTIVE DEVICE. SIGN(S) TO BE PROVIDED AT ELEVATOR CONTROLLER DISCONNECT, CAR LIGHTING & CONTROL DISCONNECT, AND HEATING & AIR-CONDITIONING DISCONNECTING MEANS. SIGN(S) TO BE IN CONFORMANCE WITH THE ADOPTED ELECTRICAL CODE. EXACT WORDING TO BE VERIFIED WITH LOCAL
- PROVIDE ENGRAVED SIGN AT THE SERVICE ENTRANCE EQUIPMENT INDICATING TYPE AND LOCATION OF ON-SITE STANDBY OR EMERGENCY POWER SOURCES. SIGNS TO BE IN CONFORMANCE WITH THE ADOPTED ELECTRICAL CODE. EXACT WORDING TO BE VERIFIED WITH LOCAL JURISDICTION. SIGNS SHALL BE RED LETTERING ON WHITE BACKGROUND.
- SECTION 16080 TESTING 1. ALL ELECTRICAL EQUIPMENT ON THIS PROJECT PROVIDED UNDER THIS DIVISION AND ALL ELECTRICAL EQUIPMENT FURNISHED BY OTHERS SHALL BE ADJUSTED, ALIGNED AND TESTED BY THE ELECTRICAL CONTRACTOR.
- MECHANISMS OF ALL ELECTRICAL EQUIPMENT SHALL BE CHECKED, ADJUSTED AND TESTED FOR PROPER OPERATION. MOTORS SHALL BE CHECKED FOR ALIGNMENT WITH DRIVE AND ADJUSTED AS REQUIRED. PROTECTIVE DEVICES AND PARTS SHALL BE CHECKED AND TESTED FOR SPECIFIED AND REQUIRED APPLICATION AND ADJUSTED AS REQUIRED. ADJUSTABLE PARTS OF ALL LIGHTING FIXTURES AND ELECTRICAL EQUIPMENT SHALL BE CHECKED, TESTED AND ADJUSTED AS REQUIRED TO PRODUCE THE INTENDED PERFORMANCE.
- THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE OPERATION, SERVICE AND MAINTENANCE OF ALL NEW ELECTRICAL EQUIPMENT DURING CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE OWNER OF THE COMPLETED PROJECT UNDER THIS CONTRACT. ALL ELECTRICAL EQUIPMENT SHALL BE MAINTAINED IN THE BEST OPERATING CONDITION INCLUDING PROPER LUBRICATION. OPERATIONAL FAILURE CAUSED BY DEFECTIVE MATERIAL AND/OR LABOR SHALL BE IMMEDIATELY CORRECTED AND THE ARCHITECT SHALL BE IMMEDIATELY NOTIFIED OF ANY OPERATIONAL FAILURE CAUSED BY DEFECTIVE MATERIAL AND/OR LABOR PROVIDED BY OTHERS.
- 4. THIS CONTRACTOR SHALL MAINTAIN SERVICE AND EQUIPMENT FOR THE TESTING OF ELECTRICAL EQUIPMENT AND APPARATUS UNTIL ALL WORK IS APPROVED AND ACCEPTED BY THE OWNER. A FIRST CLASS VOLTMETER AND AMMETER SHALL BE KEPT AVAILABLE AT ALL TIMES AND THIS CONTRACTOR SHALL PROVIDE SERVICE FOR TEST READINGS WHEN AND AS REQUIRED.
- 5. THE ELECTRICAL DISTRIBUTION DESIGN HAS BEEN PROVIDED WITH A LOAD-BALANCED ELECTRICAL SYSTEM. IF MODIFICATIONS. DUE TO CONTRACTORS CONSTRUCTION OR CHANGE-ORDERS HAVE BEEN MADE TO THE DESIGN THEN THIS CONTRACTOR IS TO MEASURE ALL FEEDERS CONDUCTORS CURRENTS AND BALANCE ALL SINGLE PHASE LOADS AT THOSE PANELS, REDISTRIBUTING BRANCH CIRCUIT CONNECTIONS UNTIL A MAXIMUM 10% LOAD BALANCE IS ACHIEVED. DISTRIBUTION SYSTEMS ARE TO BE MEASURED AND BALANCED UNDER FULL-LOAD CONDITIONS.

CCTION 16120 — WIRES AND CABLES

- CONDUCTORS: PROVIDE SOLID CONDUCTORS FOR POWER AND LIGHTING CIRCUITS NO. 10 AWG AND SMALLER. PROVIDE STRANDED CONDUCTORS FOR SIZES NO. 8 AWG AND LARGER.
- 2. CONDUCTOR MATERIAL: COPPER FOR ALL WIRES AND CABLES.
- 3. INSULATION: PROVIDE THHN/THWN INSULATION FOR ALL CONDUCTORS NO. 14 AWG THRU NO. 10 AWG. PROVIDE USE-RHH/RHW INSULATION FOR ALL SERVICE ENTRANCE CONDUCTORS. FOR ALL OTHER SIZES PROVIDE THHN/THWN OR XHHW INSULATION AS APPROPRIATE FOR THE LOCATION WHERE INSTALLED.
- COST, ANY DEFECTIVE PART OF THE INSTALLATION RESULTING FROM THE SUPPLY 4. ALUMINUM CONDUCTORS ARE NOT APPROVED OR ACCEPTABLE
- CARELESSNESS ON THE PART OF THE OWNER SHALL NOT BE INCLUDED IN THIS ALUMINUM CONDUCTORS: A. AT THE CONTRACTOR'S OPTION, ALUMINUM CONDUCTORS WILL BE ALLOWED FOR COPPER SIZES RATED FOR 100 AMPERES AND LARGER BUT, SIZE MUST B INCREASED TO EQUAL OR EXCEED THE COPPER AMPACITY IN ACCORDANCE WITH ADOPTED ELECTRICAL CODE. RACEWAY AND PULL BOXES MUST BE INCREASED TO CONFORM TO ADOPTED ELECTRICAL CODE. ALL ALUMINUM CONDUCTORS MUST BE MADE BASED ON COMPACT STRANDED, AA-8000 SERIES ALUMINUM ALLOY MATERIAL EQUAL TO "STABILOY" ALCAN CABLE.
 - B. IF ALUMINUM CABLE IS TO BE INSTALLED ON THIS PROJECT, CONTRACTOR IS TO 2. METAL OUTLET, DEVICE, AND SMALL WIRING BOXES: NOTIFY ENGINEER IN WRITING, AT TIME OF SUBMITTAL DRAWINGS. CONTRACTOR I TO LIST ALL FEEDERS THAT WILL BE CHANGED TO ALUMINUM, AND INDICATE THE REVISED ALUMINUM CONDUCTOR SIZE.
 - CONNECTORS AND TERMINATIONS INSTALLED WITH ALUMINUM-ALLOY CONDUCTORS SHALL BE COMPRESSION TYPE ONLY, AND ONLY THOSE LISTED BY UNDERWRITER'S LABORATORIES STRANDED 486-B AND MARKED "AL7CU" FOR 75C RATED CIRCUITS.
 - IF THE CONTRACTOR DECIDES TO EXERCISE THE OPTION OF ALUMINUM CONDUCTORS FOR CONNECTIONS TO EQUIPMENT PROVIDED AND/OR INSTALLED BY OTHER TRADES, THEN THIS CONTRACTOR SHALL REIMBURSE THE EQUIPMENT SUPPLIER FOR ANY COST ASSOCIATED WITH THE MODIFICATIONS REQUIRED TO
 - ENDS OF ALL CONDUCTORS ARE TO BE BRUSHED CLEAN AND PRIOR TO FINAL CONNECTION, EXPOSED PORTION OF CONDUCTOR TO BE COVERED WITH ALUMINUM OXIDE INHIBITOR. CONDUCTOR TERMINATION MADE WITH SET-SCREW TERMINAL LUGS ARE TO BE TORQUED, USING A TORQUE WRENCH, IN ACCORDANCE WITH LUG MANUFACTURER SPECIFICATIONS OR ACCORDING TO UL STANDARD 486B. AT THE COMPLETION OF THE PROJECT CONTRACTOR IS TO CHECK TORQUE VALUES. ON ALL ALUMINUM TERMINATIONS. CONTRACTOR IS TO SUBMIT IN WRITING, AT TIME OF RECORD DRAWINGS, A COMPLETE LIST OF APPLIED TORQUE VALUES FOR
 - ALL ALUMINUM TERMINATIONS. 7. INSTALLATION OF WIRES AND CABLES: A. ALL BRANCH CIRCUIT WIRES, FEEDER CABLES, ETC., SHALL BE CONTINUOUS FROM OUTLET TO OUTLET. NO JOINTS SHALL BE MADE EXCEPT IN OUTLET, JUNCTION OR PULL BOXES, PANELBOARD AND SWITCHBOARD GUTTERS. FOR THE SPLICING
 - SHRINK INSULATION KITS ARE TO BE USED. B. TIGHTEN ELECTRICAL CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED TORQUE TIGHTENING VALUES. WHERE MANUFACTURER'S TORQUE REQUIREMENTS ARE NOT INDICATED, TIGHTEN CONNECTORS AND TERMINALS TO COMPLY WITH TIGHTENING TORQUE'S SPECIFIED IN UL 486A AND UL 486B.

OF EXISTING FEEDER CONDUCTORS, COMPRESSION TYPE BUTT SPLICES WITH COLD

TERMINALS ON SWITCHES AND CONVENIENCE OUTLETS SHALL NOT BE USED TO "FEED THROUGH" TO THE NEXT SWITCH OR OUTLET. WHERE MORE THAN ONE GROUND, COMMON NEUTRAL, OR COMMON PHASE CONDUCTOR ENTERS A BOX ALL LIKE CONDUCTORS SHALL BE IN GOOD ELECTRICAL CONTACT WITH EACH OTHER AND THE ARRANGEMENT SHALL BE SUCH, THAT THE DISCONNECTING OR REMOVAL OF A DEVICE FED FROM THE BOX, WILL NOT INTERFERE WITH OR INTERRUPT SERVICE TO THE REMAINDER OF THE BRANCH CIRCUIT WIRING.

208Y/120 VOLTS NORMAL	<u>PHASE</u>	480Y/277V NORMAL				
BLACK	A	BROWN				
RED	В	ORANGE				
BLUE	С	YELLOW				
WHITE	NEUTRAL	GRAY				
GREEN	GROUND	GREEN				
GREEN W/ YELLOW STRIP	ISOLATED GROUND	GREEN W/ YELLOW STRIP				
OFOTION 4 04 70	DAOFWAYO					

SECTION 16130 - RACEWAYS . THIS SECTION INCLUDES RACEWAYS FOR ELECTRICAL WIRING. TYPES OF RACEWAYS IN THIS SECTION INCLUDE THE FOLLOWING

- A. ELECTRICAL METALLIC TUBING (EMT INTERMEDIATE METAL CONDUIT (IMC)
- FLEXIBLE METAL CONDUIT LIQUID-TIGHT FLEXIBLE CONDUIT
- RIGID METAL CONDUIT RIGID NONMETALLIC CONDUIT (PVC) SURFACE RACEWAYS
- WIREWAY I. METAL CLAD (MC) AND ALUMINUM CLAD (AC) CABLE

A. ELECTRICAL WIREWAYS SHALL BE OF TYPES, SIZES, AND NUMBER OF CHANNELS AS INDICATED. FITTINGS AND ACCESSORIES INCLUDING BUT NOT LIMITED TO COUPLINGS. OFFSETS. ELBOWS. EXPANSION JOINTS, ADAPTERS, HOLD-DOWN STRAPS, AND END CAPS SHALL MATCH AND MATE WITH WIREWAY AS REQUIRED FOR A COMPLETE SYSTEM. WHERE FEATURES ARE NOT INDICATED, SELECT T FULFILL WIRING REQUIREMENTS AND COMPLY WITH APPLICABLE PROVISIONS OF ADOPTED ELECTRICAL CODE.

A. SIZES AND CHANNELS AS INDICATED, MINIMUM SIZE TO BE EQUAL TO WIREMOLD #500 SERIES. PROVIDE FITTINGS THAT MATCH AND MATE WITH RACEWAY. CONSTRUCT OF GALVANIZED STEEL WITH SNAP-ON COVERS, WITH 1/8-INCH MOUNTING SCREW KNOCKOUTS IN BASE APPROXIMATELY 8 INCHES ON CENTER. FINISH WITH MANUFACTURER'S STANDARD PRIME COATING SUITABLE FOR PAINTING. PROVIDE RACEWAYS OF TYPE SUITABLE FOR EACH APPLICATION REQUIRED.

- A. OUTDOORS: USE THE FOLLOWING WIRING METHODS: A.1. EXPOSED: INTERMEDIATE METAL CONDUIT. A.2. CONCEALED: INTERMEDIATE METAL CONDUIT.
- A.3. UNDERGROUND, RIGID NONMETAL CONDUIT A.4. CONNECTION TO VIBRATING EQUIPMENT: INCLUDING TRANSFORMERS AND HYDRAULIC. PNEUMATIC OR ELECTRIC SOLENOID OR MOTOR-DRIVEN
- EQUIPMENT: LIQUID-TIGHT FLEXIBLE METAL CONDUIT. A.5. INDOORS OR OUTDOORS: CONNECTION TO VIBRATING EQUIPMENT AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT IN MOIST OR HUMID LOCATION OR CORROSIVE ATMOSPHERE, OR WHERE SUBJECT TO WATER SPRAY OR DRIPPING OIL, GREASE, OR WATER: LIQUID-TIGHT FLEXIBLE METAL CONDUIT.
- B. INDOORS: USE THE FOLLOWING WIRING METHODS: B.1. CONNECTION TO VIBRATING EQUIPMENT: INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC OR ELECTRIC SOLENOID OR MOTOR-OPERATED EQUIPMENT: FLEXIBLE METAL CONDUIT. EXPOSED: ELECTRICAL METALLIC TUBING CONDUIT
- CONCEALED: ELECTRICAL METALLIC TUBING. CONCEALED, IN CONCRETE EMBEDDED, STRUCTURAL INTERIOR WALLS. OR ROOF DECK PENETRATIONS: INTERMEDIATE METAL OR RIGID METAL CONDUIT. B.5. UNDER CONCRETE FLOOR (SLAB ON GRADE): INTERMEDIATE METAL OR RIGID

- C. P.V.C. CONDUIT CAN BE INSTALLED BELOW FLOOR SLAB INDOORS. ONLY IF RIGID STEEL ELBOWS ARE USED WHEN PASSING THRU FLOOR SLAB. MINIMUM SIZE P.V.C. CONDUIT THAT CAN BE INSTALLED IS 3/4" UNLESS NOTED OTHERWISE ALL P.V.C. CONDUIT JOINTS ARE TO BE GLUED AND SEALED TO PREVENT MOISTURE FROM ENTERING RACEWAY SYSTEM. CONDUITS FOUND TO CONTAIN MOISTURE WILL BE REPAIRED OR REPLACED AS REQUIRED PRIOR TO INSTALLATION OF CONDUCTORS.
- D. METAL CLAD (MC) AND ALUMINUM CLAD (AC) CABLE D.1. MC AND AC CABLE MAY BE USED IN LIEU OF E.M.T. CONDUIT IF ACCEPTABLE TO LOCAL AUTHORITIES AND INSTALLED PER ELECTRICAL CODE REGARDING SUPPORT, GROUNDING AND CABLE TERMINATIONS. ALL MC AND AC CABLE NOT INSTALLED PER THE ADOPTED CODE SHALL BE REMOVED, REINSTALLED
- AND CORRECTED AT CONTRACTOR'S EXPENSE WITH NO EXTENSION IN THE D.2. MC AND AC CABLE MUST BE SUPPORTED AND SECURED BY STAPLES, CABLE TIES, STRAPS, HANGERS, OR SIMILAR FITTINGS, DESIGNED AND INSTALLED SO AS NOT TO DAMAGE THE CABLE. D.3. MC AND AC CABLE, WITH FOUR OR LESS CONDUCTORS SIZED NO LARGER THAN 10 AWG, MUST BE SECURED WITHIN 12 IN. OF EVERY OUTLET BOX,
- JUNCTION BOX, CABINET, OR FITTING AND AT INTERVALS NOT EXCEEDING 6 D.4. MC AND AC CABLE MUST BE SUPPORTED AT INTERVALS NOT EXCEEDING 6 FT. CABLES INSTALLED HORIZONTALLY THROUGH WOODEN OR METAL FRAMING MEMBERS ARE CONSIDERED SECURED AND SUPPORTED WHERE SUCH SUPPORT DOESN'T EXCEED 6 FT INTERVALS.
- 6. CONDUIT SHALL BE INSTALLED AS A COMPLETE SYSTEM, CONTINUOUS FROM OUTLET TO OUTLET, CABINET OR FITTING, AND BE SO MECHANICALLY AND ELECTRICALLY CONNECTED THAT ADEQUATE ELECTRICAL CONTINUITY FROM ONE CONDUIT TO ANOTHER IS SECURED. THE ENTIRE SYSTEMS SHALL BE SECURELY FASTENED IN PLACE WITHIN 3' OF EACH OUTLET OR JUNCTION BOX, CABINET OR FITTING, AND AT INTERVALS NOT EXCEEDING 10', EXCEPT AS OTHERWISE SPECIFIED OR SHOWN. SINGLE CONDUITS FOR FEEDERS SHALL BE HUNG WITH GRINNEL, CRANE, OR EQUAL, MALLEABLE SPLIT RING HANGERS WITH ROD SUSPENSION SPACED NOT OVER 10' APART FROM CONSTRUCTION ABOVE. GROUPS OF HORIZONTAL FEEDER AND BRANCH CIRCUIT CONDUITS SHALL BE CLAMPED TO UNISTRUT, OR EQUAL, STEEL CHANNELS AND SUSPENDED FROM RODS SUPPORTED FROM STRUCTURE, SPACED NOT OVER 10' APART FROM CONSTRUCTION ABOVE. WHERE POSSIBLE CONDUITS MAY BE CLAMPED
- 7. USE RACEWAY FITTINGS THAT ARE OF TYPES COMPATIBLE WITH THE ASSOCIATED RACEWAY AND SUITABLE FOR THE USE AND LOCATION. FOR INTERMEDIATE METAL CONDUIT, USE THREADED RIGID STEEL CONDUIT FITTINGS. FOR EMT CONDUITS: FITTINGS ARE TO BE COMPRESSION OR SET SCREW TYPE.
- 8. INSTALL PULL WIRES IN EMPTY RACEWAYS. USE NO. 14 AWG ZINC-COATED STEEL OR MONOFILAMENT PLASTIC LINE HAVING NOT LESS THAN 200-LB TENSILE STRENGTH. LEAVE NOT LESS THAN 12 INCHES OF SLACK AT EACH END OF THE
- 9. TELEPHONE AND SIGNAL SYSTEM RACEWAYS 2-INCH TRADE SIZE AND SMALLER: IN ADDITION TO THE ABOVE REQUIREMENTS. INSTALL RACEWAYS IN MAXIMUM LENGTHS OF 150 FEET AND WITH A MAXIMUM OF TWO, 90 BENDS OR EQUIVALENT. INSTALL PULL OR JUNCTION BOXES WHERE NECESSARY TO COMPLY WITH THESE REQUIREMENTS.
- 10. ALL CONDUITS ABOVE LAY-IN CEILING SYSTEM SHALL NOT BE SUPPORTED FROM CEILING SUSPENSION WIRES.
- 11. PROVIDE 36" MINIMUM RADIUS RIGID STEEL CONDUIT ELBOWS FOR PRIMARY SERVICE CONDUITS UNDER THE TRANSFORMER PAD. 12. CONDUITS CAPPED OUTSIDE OF BUILDING FOR FUTURE ADDITION SHALL BE A MINIMUM OF 1'-6" BELOW FINISH GRADE, CAPPED AND PAINTED WITH BITUMINOUS
- PAINT, WHICH SHALL BE THOROUGHLY DRY, BEFORE BACKFILL IS INSTALLED. 13. METAL CLAD (MC) AND ALUMINUM CLAD (AC) CABLES:
- A. ALL HOMERUNS TO PANELBOARDS SHALL REMAIN IN E.M.T. CONDUIT. B. MC AND AC CABLES SHALL NOT BE USED IN EXPOSED AREAS. ALL FITTINGS SHALL BE LISTED FOR USE WITH MC AND AC CABLE USED CONDUCTORS IN MC AND AC CABLE SHALL COMPLY WITH SECTION "WIRES & CABLES".

SECTION 16135 — CABINETS, BOXES AND FITTINGS THIS SECTION INCLUDES CABINETS. BOXES. AND FITTINGS FOR ELECTRICAL INSTALLATIONS AND CERTAIN TYPES OF ELECTRICAL FITTINGS NOT COVERED IN OTHER

DIRECTLY TO THE STEEL JOISTS.

- A. GENERAL: CONFORM TO UL 514A, "METALLIC OUTLET BOXES, ELECTRICAL," AND UL 514B. "FITTINGS FOR CONDUIT AND OUTLET BOXES." BOXES SHALL BE OF TYPE, SHAPE, SIZE, AND DEPTH TO SUIT EACH LOCATION AND APPLICATION.
- B. STEEL BOXES: CONFORM TO NEMA OS 1, "SHEET STEEL OUTLET BOXES, DEVICE BOXES, COVERS, AND BOX SUPPORTS." BOXES SHALL BE SHEET STEEL WITH STAMPED KNOCKOUTS, THREADED SCREW HOLES AND ACCESSORIES SUITABLE FOR EACH LOCATION INCLUDING MOUNTING BRACKETS AND STRAPS, CABLE CLAMPS, EXTERIOR RINGS AND FIXTURE STUDS.
- CAST-IRON FLOOR BOXES: FULLY ADJUSTABLE, WATERPROOF, WITH THREADED RACEWAY ENTRANCES. RECTANGULAR BOX OPENING. ADJUSTING RINGS. GASKETS BRASS FLOOR PLATES, AND POLYCARBONATE CARPET FLANGE. WHERE INDICATED PROVIDE MULTI-SECTION BOXES WITH INDIVIDUAL HINGED SECTION COVERS AND PROVIDE FOR A DUPLEX RECEPTACLE UNDER ONE OR MORE OF THE COVERS.
- PULL AND JUNCTION BOXES: COMPLY WITH UL 50, "ELECTRICAL CABINETS AND BOXES". FOR BOXES OVER 100 CUBIC INCHES VOLUME. BOXES SHALL HAVE SCREWED OR BOLTED ON COVERS OF MATERIAL SAME AS BOXES AND SHALL BE OF SIZE AND SHAPE TO SUIT

B. STEEL BOXES: SHEET STEEL WITH WELDED SEAMS. WHERE NECESSARY TO

PROVIDE A RIGID ASSEMBLY, CONSTRUCT WITH INTERNAL STRUCTURAL STEEL

- HOT-DIPPED GALVANIZED STEEL BOXES: SHEET STEEL WITH WELDED SEAMS. WHERE NECESSARY TO PROVIDE A RIGID ASSEMBLY, CONSTRUCT WITH INTERNAL STRUCTURAL STEEL BRACING. HOT-DIP GALVANIZED AFTER FABRICATION.
- A. COMPLY WITH UL 50, "ELECTRICAL CABINETS AND BOXES." SHEET STEEL, NEMA 1 CLASS EXCEPT AS OTHERWISE INDICATED. CABINET SHALL CONSIST OF A BOX AND A FRONT CONSISTING OF A ONE-PIECE FRAME AND A HINGED DOOR. ARRANGE DOOR TO CLOSE AGAINST A RABBET PLACED ALL AROUND THE INSIDE EDGE OF THE FRAME, WITH A UNIFORMLY CLOSE FIT BETWEEN DOOR AND FRAME PROVIDE CONCEALED FASTENERS, NOT OVER 24-INCHES APART, TO HOLD FRONTS TO CABINET BOXES AND PROVIDE FOR ADJUSTMENT. PROVIDE FLUSH OR CONCEALED DOOR HINGES NOT OVER 24-INCHES APART AND NOT OVER 6-INCHES FROM TOP AND BOTTOM OF DOOR. FOR FLUSH CABINETS, MAKE THE FRONT APPROXIMATELY 3/4 INCH LARGER THAN THE BOX ALL AROUND. FOR SURFACE MOUNTED CABINETS MAKE FRONT SAME HEIGHT AND WIDTH AS BOX.
- B. DOORS: DOUBLE DOORS FOR CABINETS WIDER THAN 24-INCHES. TELEPHONE CABINETS WIDER THAN 48-INCHES MAY HAVE SLIDING OR REMOVABLE DOORS. C. LOCKS: COMBINATION SPRING CATCH AND KEY LOCK, WITH ALL LOCKS FOR CABINETS OF THE SAME SYSTEM KEYED ALIKE. LOCKS MAY BE OMITTED ON SIGNAL, POWER, AND LIGHTING CABINETS LOCATED WITHIN WIRE CLOSETS AND MECHANICAL-ELECTRICAL ROOMS. LOCKS SHALL BE OF A TYPE TO PERMIT DOORS TO LATCH CLOSED WITHOUT LOCKING.
- 5. STEEL ENCLOSURES WITH HINGED DOORS:
- A. COMPLY WITH UL 50, "CABINETS AND ENCLOSURES" AND NEMA ICS 6, "ENCLOSURES FOR INDUSTRIAL CONTROLS AND SYSTEMS." SHEET STEEL, 16 GAGE MINIMUM, WITH CONTINUOUS WELDED SEAMS. NEMA CLASS AS INDICATED ARRANGED FOR SURFACE MOUNTING.
- B. DOORS: HINGED DIRECTLY TO CABINET AND REMOVABLE, WITH APPROXIMATELY 3/4-INCH FLANGE AROUND ALL EDGES, SHAPED TO COVER EDGE OF BOX. PROVIDE HANDLE OPERATED, KEY LOCKING LATCH. INDIVIDUAL DOOR WIDTH SHALL BE NO GREATER THAN 24-INCHES. PROVIDE MULTIPLE DOORS WHERE
- ENCLOSURE: WHERE DOOR GASKETING IS REQUIRED, PROVIDE NEOPRENE GASKET ATTACHED WITH OIL-RESISTANT ADHESIVE, AND HELD IN PLACE WITH STEEL RETAINING STRIPS. FOR ALL ENCLOSURES OF CLASS HIGHER THAN NEMA 1, USE HUBBED RACEWAY ENTRANCES.
- 6. WEATHERPROOF PULL AND SPLICE BOXES:

FIRESTOP FOR RECESSED WALL BOXES:

- A. BOXES TO BE NEMA 12 AND 13 RATED, ALL STEEL CONSTRUCTION CONFORMING TO J.I.C. STANDARD EGP-1-1997. EXTERNAL MOUNTING FEET FOR SURFACE MOUNTING. OIL-RESISTANT GASKET ATTACHED TO INSIDE OF DOOR COVER. CONTINUOUS HINGE AND EXTERNAL SCREW CLAMP FOR QUICK OPENING AND CLOSING.
- INSTALLATIONS OF MULTIPLE BOXES (LESS THAN 24" APART) WITH MAXIMUM 4-11/16" BY 4-11/16" FLUSH DEVICE UL LISTED METAL OUTLET BOXES IN FIRE RATED GYPSUM WALL BOARD WALL ASSEMBLIES FRAMED WITH MINIMUM 3-1/2" WIDE WOOD OR STEEL STUDS AND CONSTRUCTED AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES WALL AND PARTITION DESIGNS IN THE
- FIRE RESISTANCE DIRECTORY. 3M #MPP-4S MOLDABLE PUTTY PADS ARE TO BE INSTALLED ON THE EXTERIOR SURFACES OF THE FLUSH DEVICE BOX IN 1 AND 2 HOUR FIRE RATED WALLS AND PARTITIONS. 8. FLOOR BOXES IN SLABS ON GRADE AND WET LOCATIONS TO BE NEMA TYPE 4, CAST-IRON BOXES WITH THREADED HUBS. FLOOR BOXES LOCATED IN SLABS ABOVE GRADE CAN BE STAMPED STEEL. PLASTIC FLOOR BOXES ARE NOT APPROVED.
- A. INSTALL IN CONCRETE FLOOR SLABS SO THEY ARE COMPLETELY ENVELOPED IN CONCRETE EXCEPT FOR THE TOP. WHERE NORMAL SLAB THICKNESS WILL NOT ENVELOP BOX AS SPECIFIED ABOVE. PROVIDE INCREASED THICKNESS OF THE SLAB. PROVIDE EACH COMPARTMENT OF EACH FLOOR BOX WITH GROUNDING TERMINAL CONSISTING OF A WASHER-IN-HEAD MACHINE SCREW, NOT SMALLER THAN NO. 10-32, SCREWED INTO A TAPPED HOLE IN THE BOX. ADJUST COVERS OF FLOOR BOXES FLUSH WITH FINISHED FLOOR.
- 9. WHEN TWO OR MORE PHASES OF THE 277/480 VOLTS SYSTEM ARE CONNECTED TO ADJACENT SWITCHES IN THE SAME BOX, PROVIDE BARRIERS BETWEEN THE SWITCHES. PROVIDE BARRIERS BETWEEN 120 AND 277 VOLTS. 10. PULL AND SPLICE BOXES LOCATED OUTDOORS OR WHERE INDICATED ON DRAWINGS ARE TO BE WEATHERPROOF TYPE J.I.C. BOXES. CONDUIT TERMINATIONS ARE TO BE
- ACCOMPLISHED BY USING MEYER HUBS. 11. ELECTRICALLY GROUND METALLIC CABINETS, BOXES, AND ENCLOSURES. WHERE WIRING TO ITEM INCLUDES A GROUNDING CONDUCTOR, PROVIDE A GROUNDING TERMINAL IN THE INTERIOR OF THE CABINET, BOX OR ENCLOSURE.

- SECTION 16140 WIRING DEVICES
- THIS SECTION INCLUDES THE FOLLOWING A. RECEPTACLES B. LIGHTING AND EQUIPMENT SWITCHES
- WALL PLATES FLOOR SERVICE OUTLETS OCCUPANCY SENSORS F. TELE-POWER POLES
- . MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS BY ONE OF THE FOLLOWING:
- A. WIRING DEVICES & ACCESSORIES: A.1. COPPER WIRING DEVICES A.2. CROUSE—HINDS CO.
- A.3. HUBBELL INC. A.4. LEVITON
- A.5. PASS AND SEYMOUR INC.
- B. FLOOR BOXES B.1. AMERICAN ELECTRIC, STEEL CITY B.2. WALKER / WIREMOLD COMPANY
- . RACO. INC., HUBBELL INC. B.4. RACEWAY COMPONENTS, INC. C. PLUGMOLD AND TELE-POWER POLES: C.1. WIREMOLD COMPANY
- D. OCCUPANCY SENSOR LIGHTING CONTROL: HUBBELL INC. LEVITON MANUFACTURING INC. WATT STOPPER INC. SENSOR SWITCH

MONO SYSTEMS INC.

GREENGATE

- A. PROVIDE WIRING DEVICES, IN TYPES, CHARACTERISTICS, GRADES, COLORS, AND ELECTRICAL RATINGS FOR APPLICATIONS INDICATED WHICH ARE UL LISTED AND WHICH COMPLY WITH NEMA WD 1 AND OTHER APPLICABLE UL AND NEMA STANDARDS. ALL DEVICES TO BE SPECIFICATION GRADE (HEAVY DUTY U.L. GRADE), WITH GREEN HEXAGONAL EQUIPMENT GROUND SCREW, METAL PLASTER
- EARS AND SIDE TERMINAL SCREWS FOR BACK AND SIDE WIRING. B. ALL WIRING DEVICES ARE TO BE PROVIDED BY THE SAME MANUFACTURER UNLESS NOTED OTHERWISE.
- C. ALL WIRING DEVICES AND COVERPLATES SHALL BE: C.1. WHITE. WHITE - WHERE INSTALLED IN WHITE CEILINGS.

C.3. BLACK - WHERE INSTALLED IN DARK CEILINGS.

- D. RECEPTACLES D.1. DUPLEX RECEPTACLE, 15 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE WITH NEMA CONFIGURATION 5-15R, MEETS FEDERAL SPEC. WC-596-F. LEVITON #5252.
- D.2. SINGLE RECEPTACLE, 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE WITH NEMA CONFIGURATION 5-20R, MEETS FEDERAL SPEC. WC-596-F. LEVITON #5351. D.3. DUPLEX RECEPTACLE, 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING
- TYPE WITH NEMA CONFIGURATION 5-20R, MEETS FEDERAL SPEC. WC-596-F. LEVITON #5352. D.4. GROUND FAULT INTERRUPTER RECEPTACLE, 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE WITH NEMA CONFIGURATION 5-20R. UL943 APPROVED, SELF-TESTING, SOLID STATE GROUND FAULT SENSING LEVEL WITH

5 MILLIAMPERES GROUND FAULT TRIP LEVEL. LED INDICATOR LIGHT WITH

- TEST/RESET BUTTONS THAT MATCH THE COLOR OF THE FACE. LEVITON #G5362-WT*. WEATHERPROOF RECEPTACLE SHALL BE A GROUND-FAULT INTERRUPTER WITH THOMAS & BETTS #CKSUV DIE-CAST ALUMINUM "SMALL" COVER PLATE. LOCATE BÖX VERTICAL IN WALL. PLATE TO BE LISTED AND
- LABELED "SUITABLE FOR WET LOCATIONS WHILE IN USE. D.6. HEAVY DUTY RECEPTACLES SHALL BE OF THE SAME MANUFACTURER AS THE CONVENIENCE OUTLETS AND HAVE THE RATINGS AND CHARACTERISTICS (VOLTAGE, AMPS, POLES, WIRES) AS SHOWN ON DRAWINGS.
- E. SWITCHES: TOGGLE TYPE SWITCH. 20 AMP. 120/277 VOLT AC SINGLE-POLE. QUITE TYPE. WITH MOUNTING YOKE INSULATED FROM MECHANISM, EQUIPPED WITH PLASTER EARS, SIDE-WIRED SCREW TERMINALS, MEETS FEDERAL SPEC WS-896. LEVITON #1121-2.
- E.1.1. DOUBLE-POLE, 3-WAY, AND 4-WAY SWITCHES SHALL BE OF THE SAME MAKE AS FOR SINGLE-POLE. KEY TYPE SWITCH, 20 AMP, 120/277 VOLT AC SINGLE-POLE, WITH MOUNTING YOKE INSULATED FROM MECHANISM, EQUIPPED WITH PLASTER EARS,

SIDE-WIRED SCREW TERMINALS, POLISHED METAL TOP AND PROVIDE WITH

- ONE STEEL KEY. LEVITON #1121-2L. E.2.1. DOUBLE-POLE, 3-WAY, AND 4-WAY SWITCHES SHALL BE OF THE SAME MAKE AS FOR SINGLE-POLE. WHEN A LIGHTED HANDLE IS INDICATED WITH SWITCHING DEVICE, PROVIDE SWITCH DEVICE WITH 1/25 WATT NEON PILOT INTEGRAL WITH TOGGLE HANDLE,
- RATED 120/277 VOLT. GLOWS WHEN SWITCH IS "OFF". PASS & SEYMOUR #20AC1-CSL. WHEN A PILOT LIGHT IS INDICATED WITH SWITCHING DEVICE, PROVIDE SWITCH DEVICE WITH 1/25 WATT NEON PILOT INTEGRAL WITH TOGGLE HANDLE, RATED 120/277 VOLT. GLOWS WHEN SWITCH IS "ON". PASS & SEYMOUR
- F. FLOOR RECEPTACLES: F.1. TYPE 'B': HUBBELL #B-4233, RECTANGULAR DOUBLE-GANG, FULLY ADJUSTABLE, WATERTIGHT BOX WITH ONE S-3825 DUPLEX FLAP COVER COMPLETE WITH ONE 20 AMP, 125 VOLT DUPLEX BROWN RECEPTACLE AS SPECIFIED UNDER "RECEPTACLES". ALSO PROVIDE ONE #S-2625 COVER PLATE WITH ONE #S-3067 SPLIT NOZZLE FOR PROTECTION OF TELEPHONE/COMPUTER CABLES. BOX COVER PLATES SHALL BE BRASS. COVER TO BE PROVIDED WITH BRASS CARPET FLANGE FOR FLUSH

INSTALLATION IN LINOLEUM, WOOD OR CARPET FLOORS.

AND CUTOUTS AS INDICATED. PROVIDE PLATES WHICH MATE WITH WIRING DEVICES TO WHICH ATTACHED. PROVIDE METAL SCREWS FOR SECURING PLATES TO DEVICES WITH SCREW HEADS TO MATCH FINISH OF PLATES. PROVIDE WALL PLATES WITH ENGRAVED LEGEND WHERE INDICATED. CONFORM TO REQUIREMENTS OF SECTION "ELECTRICAL IDENTIFICATION." H. OCCUPANCY SENSOR LIGHTING CONTROL H.1. WALL MOUNTED OCCUPANCY SENSOR TO BE PASSIVE INFRARED COVERING

WALL PLATES: SINGLE AND COMBINATION, OF TYPES, SIZES, AND WITH GANGING

MAXIMUM LOAD OF INCANDESCENT OR FLUORESCENT LIGHT. SENSOR TO HAVE 180' FIELD OF VIEW, OFF/AUTO/ON SLIDE SWITCH, ADJUSTABLE TIME-OUT FROM 1 TO 20 MINUTES, AND LED MOVEMENT INDICATOR PILOT. SENSOR TO BE MOUNTED IN A SINGLE-GANG WALL BOX AT SAME ELEVATION AS STANDARD WALL SWITCHES. H.1.1. WATT STOPPER #PW-100 SINGLE REALY (OR #PW-200 DUAL RELAY).

1200 (OR 900) SQUARE FEET, RATED FOR 120/277 VOLT, 1500 WATTS

- H.2. CEILING MOUNTED OCCUPANCY SENSOR TO BE DUAL TECHNOLOGY WITH ULTRASONIC & PASSIVE INFRARED TYPE SENSORS. SENSORS TO HAVE TWO-WAY OR ONE-WAY DISTRIBUTION DEPENDING ON MOUNTING LOCATION CAPABLE OF ADJUSTING THE SENSITIVITY AND LENGTH OF OPERATION BASED ON PAST ACTIVITY LEVEL OF THE AREA'S OCCUPANTS. CUSTOM PERFORMANCE CONTROLS TO BE LOCATED BEHIND THE SENSOR LENS FOR FIELD MODIFICATION OF SENSOR DESIGN. UNIT TO BE MOUNTED TO RECESSED
- H.2.1. WATT STOPPER #DT-355, 800W @ 120V (1200W @ 277V) I. MULTI-OUTLET ASSEMBLY: I.1. MULTI-OUTLET, TWO COMPARTMENT ASSEMBLE WITH ISOLATED GROUND TYPE DUPLEX RECEPTACLES 20 AMP, 125 VOLT AC, 2-POLE, 3-WIRE, GROUNDING TYPE WITH NEMA 5-20R CONFIGURATION AND WIREMOLD #G-4046B. 18" ON CENTER. WIREMOLD SERIES 4000 CONTINUOUS WIREWAY WITH INTERNAL DIVIDER AND #G-4000C WIREWAY COVER OR APPROVED EQUAL OF

JUNCTION BOX.

MONO-SYSTEMS, INC. TELE-POWER POLES SATIN ANODIZED ALUMINUM, 10'-5" TELE-POWER POLE WITH TWO SEPARATE WIREWAY COMPARTMENTS. ONE COMPARTMENT FOR POWER WIRING WITH TWO DUPLEX, 20 AMP, 125 VOLT RECEPTACLES IN COVER FACE AND POWER JUNCTION BOX AT TOP OF POLE. SECOND COMPARTMENT FOR COMMUNICATION WIRING WITH REMOVABLE COVER SECTION AT BOTTOM OF

POLE FOR CABLE ACCESS. WIREMOLD #AMDTP-4.

INSTALLATION OF WIRING DEVICES AND ACCESSORIES:

- POLE ASSEMBLY TO BE PROVIDED WITH ALL NECESSARY FITTINGS INCLUDING BUT NOT LIMITED TO, ENTRANCE END FITTING FOR TOP OF THE ELECTRICAL CHANNEL. CEILING TRIM PLATE. POLE MOUNTING BRACKET, T-BAR MOUNTING BRACKET, VELCRO CARPET GRIPPER AND ADHESIVE PAD.
- H GROUPS OF SWITCHES OR SWITCH AND OUTLIFT COMBINATIONS SHALL BE MOUNTED UNDER ONE COVER PLATE. COVER PLATES SHALL FIT THE DEVICES SECURELY AND SHALL COVER THE WALL OPENING COMPLETELY TO PROVIDE A NEAT AND FINISHED APPEARANCE FLUSH WITH SURROUNDING SURFACES
- TERMINALS ON ALL WIRING DEVICES SHALL NOT BE USED TO FEED-THROUGH TO J. INSTALL WALL-MOUNTED RECEPTACLES WITH GROUND SLOT UP.

K. RECEPTACLE MOUNTED ABOVE COUNTER-TOP TO BE INSTALLED HORIZONTAL, WITH

LONG DIMENSION PARALLEL TO FLOOR AND COUNTER-TOP.

- SECTION 16180 FUSES
- MANUFACTURER: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PRODUCTS OF ONE OF THE FOLLOWING (FOR EACH TYPE AND RATING OF OVERCURRENT PROTECTIVE DEVICE):
- A. BUSSMANN DIV; MCGRAW_EDISON CO. B. FERRAZ SHAWMUT, INC. C. LITTELFUSE, INC.
- EXCEPT AS OTHERWISE INDICATED, PROVIDE FUSES OF TYPES, SIZES, RATINGS, AND AVERAGE TIME/CURRENT AND PEAK LET-THROUGH CURRENT CHARACTERISTICS INDICATED, WHICH COMPLY WITH MANUFACTURER'S STANDARD DESIGN, MATERIALS, AND CONSTRUCTION IN ACCORDANCE WITH PUBLISHED PRODUCT INFORMATION, AND WITH INDUSTRY STANDARDS AND CONFIGURATIONS. ALL FUSES TO BE FOR USE
- WITH FUSE REJECTION CLIPS. 3. ALL FUSES FOR THIS PROJECT SHALL BE OF THE SAME MANUFACTURER TO INSURE SELECTIVE COORDINATION.
- 4. EXCEPT WHERE NOTED OTHERWISE, THREE (3) SPARE FUSES OF EACH SIZE INSTALLED SHALL BE PROVIDED TO THE OWNER.
- 5. INSTALL FUSES WITH MANUFACTURER'S NAMETAG FACING OUTWARD.
- 6. SERVICE ENTRANCE AND FEEDER CIRCUITS 601 AMPERES AND LARGER, FUSES SHALL BE BOLT-ON U.L. LISTED CLASS L, CURRENT-LIMITING WITH 200,000 AMPERES R.M.S. SYMMETRICAL INTERRUPTING RATING.
- 7. FEEDER CIRCUITS, EXCEPT MOTOR CIRCUITS, 600 AMPERES AND SMALLER SHALL BE PLUG-IN CARTRIDGE U.L. CLASS RK-1, CURRENT-LIMITING WITH 200,000 AMPERES R.M.S. SYMMETRICAL INTERRUPTING RATING.
- 8. MOTOR, TRANSFORMERS, AND INDUCTIVE TYPE CIRCUITS 600 AMPERES AND SMALLER SHALL BE PLUG-IN CARTRIDGE U.L. CLASS RK-5 DUAL-ELEMENT WITH TIME DELAY. THEY SHALL ALSO HAVE CURRENT-LIMITING LINKS AND 200,000 AMPERES INTERRUPTING RATING. FUSE REDUCERS SHALL BE USED WHERE SWITCH FUSE
- PLUG FUSES FOR INDIVIDUAL MOTOR PROTECTION SHALL BE BUSSMANN FUSTAT, DUAL-ELEMENT, 10,000 AMPERES R.M.S. SYMMETRICAL INTERRUPTING RATING, TYPE "S" WITH FUSTAT ADAPTER SIZED FOR PLUG-FUSE INSTALLED. SIZE OF FUSE TO BE ACCORDING TO SPECIFICATIONS FOR "DISCONNECT SWITCHES"
- SECTION 16190 SUPPORTING DEVICES THIS SECTION INCLUDES SECURE SUPPORT FROM THE BUILDING STRUCTURE FOR ELECTRICAL ITEMS BY MEANS OF HANGERS, SUPPORTS, ANCHORS, SLEEVES,

CLIPS ARE SPACED LARGER THAN FUSE SIZE SHOWN ON DRAWING.

- INSERTS, SEALS, AND ASSOCIATED FASTENINGS. 2. COATING: SUPPORTS, SUPPORT HARDWARE, AND FASTENERS SHALL BE PROTECTED WITH ZINC COATING OR WITH TREATMENT OF EQUIVALENT CORROSION RESISTANCE USING APPROVED ALTERNATIVE TREATMENT, FINISH, OR INHERENT MATERIAL CHARACTERISTIC. PRODUCTS FOR USE OUTDOORS SHALL BE HOT-DIP GALVANIZED.
- 3. INSTALL SUPPORTING DEVICES TO FASTEN ELECTRICAL COMPONENTS SECURELY AND PERMANENTLY IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. 4. SUPPORT INDIVIDUAL HORIZONTAL RACEWAYS BY SEPARATE PIPE HANGERS. SPRING STEEL FASTENERS MAY BE USED IN LIEU OF HANGERS ONLY FOR 3/4-INCH AND SMALLER RACEWAYS SERVING LIGHTING AND RECEPTACLE BRANCH CIRCUITS ABOVE SUSPENDED CEILINGS ONLY. FOR HANGER RODS WITH SPRING STEEL FASTENERS,

USE 1/4-INCH-DIAMETER OR LARGER THREADED STEEL. USE SPRING STEEL

FASTENERS THAT ARE SPECIFICALLY DESIGNED FOR SUPPORTING SINGLE CONDUITS

- OR TUBING. CONDUITS ABOVE LAY-IN CEILING SYSTEM SHALL NOT BE SUPPORTED FROM CEILING SUSPENSION WIRES. INSTALL INDIVIDUAL AND MULTIPLE (TRAPEZE) RACEWAY HANGERS AND RISER CLAMPS AS NECESSARY TO SUPPORT RACEWAYS. PROVIDE U-BOLTS, CLAMPS, ATTACHMENTS AND OTHER HARDWARE NECESSARY FOR HANGER ASSEMBLY AND FOR SECURING
- 6. SUPPORT PARALLEL RUNS OF HORIZONTAL RACEWAYS TOGETHER ON TRAPEZE-TYPE
- IN CONCRETE WITH OUT WRITTEN APPROVAL OF STRUCTURAL ENGINEER. 8. UNLESS OTHERWISE INDICATED, FASTEN ELECTRICAL ITEMS AND THEIR SUPPORTING HARDWARE SECURELY TO THE BUILDING STRUCTURE, INCLUDING BUT NOT LIMITED TO CONDUITS, RACEWAYS, CABLES, CABLE TRAYS, BUSWAYS, CABINETS, PANELBOARDS, TRANSFORMERS, BOXES, DISCONNECT SWITCHES, AND CONTROL COMPONENTS.

CTION 16410 — DISCONNECTS, CONTACTORS, STARTERS MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE

PRODUCTS BY ONE OF THE FOLLOWING: A. GENERAL ELECTRIC CO SQUARE D COMPANY

HANGER RODS AND CONDUITS.

EATON CORPORATION SIEMENS LT.E. ALLEN-BRADLEY CO.

F. FURNAS CO.

- TEMPERATURE RATINGS: ALL CONDUCTOR TERMINALS AND EQUIPMENT ENCLOSURES TO BE U.L. LISTED FOR USE WITH MINIMUM 75C RATED CONDUCTORS.
- A. PROVIDE CIRCUIT AND MOTOR DISCONNECT SWITCHES OF TYPES, SIZES AND ELECTRICAL CHARACTERISTICS INDICATED ON DRAWING. FUSIBLE OR NON-FUSED TYPE, RATED 250 OR 600 VOLTS, 60 HZ, 2— OR 3—POLES, SOLID NEUTRAL; AND INCORPORATING QUICK-MAKE. QUICK-BREAK TYPE SWITCHES: CONSTRUCT S THAT SWITCH BLADES ARE VISIBLE IN OFF POSITION WITH DOOR OPEN. SWITCH SHALL HAVE A DUAL COVER INTERLOCK TO PREVENT UNAUTHORIZED OPENING OF THE SWITCH DOOR WHEN HANDLE IS IN THE "ON" POSITION, AND TO PREVENT CLOSING OF THE SWITCH MECHANISM WITH THE DOOR OPEN. EQUIP WITH OPERATING HANDLE WHICH IS INTEGRAL PART OF ENCLOSURE BASE AND WHOSE POSITION IS EASILY RECOGNIZABLE, AND IS PADLOCKABLE IN OFF POSITION; CONSTRUCT CURRENT CARRYING PARTS OF HIGH-CONDUCTIVITY COPPER, WITH SILVER-TUNGSTEN TYPE SWITCH CONTACTS, AND POSITIVE PRESSURE TYPE REINFORCED FUSE CLIPS. PROVIDE SWITCH IN NEMA 1 OR NEMA TYPE 3R
- TO WHAT EACH SWITCH CONTROLS. B. EQUIPMENT REQUIRING A DISCONNECTING MEANS, RATED FOR 120 OR 208 VOLT SINGLE PHASE. UP TO 30 AMPERES MAY BE PROVIDED WITH A SNAP-SWITCH TYPE TOGGLE DEVICE AT THE EQUIPMENT. THE DEVICE IS TO HAVE AN AMPERE AND VOLTAGE RATING EQUAL TO OR GREATER THAN THE BRANCH CIRCUIT FEEDING THE EQUIPMENT. IF EQUIPMENT IS MOTOR RELATED, THEN THE SWITCH MUST BE HORSEPOWER RATED. REFER TO <u>SECTION</u> <u>16140</u> FOR MINIMUM SPECIFICATIONS FOR TOGGLE SWITCHES. SWITCHES LOCATED OUTDOORS OR IN COOLER/FREEZER APPLICATIONS ARE TO BE MOUNTED IN A DIE-CAST ALUMINUM

ENCLOSURE AS INDICATED OR REQUIRED. INSTALL ENGRAVED PLASTIC PLATE AS

- DEVICE BOX WITH GASKETED WEATHERPROOF COVER PLATE. 4. RELAYS AND CONTACTORS: A. GENERAL POWER PURPOSE RELAYS, FOR CONTROL OF MISCELLANEOUS MOTORS, TO BE PROVIDED AND INSTALLED WITH NUMBER OF POLES AND COIL VOLTAGE AS
- SHOWN ON DRAWINGS. RELAY TO BE HORSEPOWER RATED FOR THE MOTOR LOAD TO WHICH IT CONTROLS. RELAY TO BE MOUNTED IN A NEMA TYPE 1 B. LIGHTING CONTACTORS TO BE PROVIDED AND INSTALLED WITH THE NUMBER OF POLES, COIL VOLTAGE, AND LOAD CONTACT RATINGS AS SHOWN ON DRAWINGS CONTACTORS TO BE PROVIDED WITH SILVER ALLOY DOUBLE BREAK CONTACTS RATED FOR TUNGSTEN AND BALLAST LIGHTING LOADS. CONTACTS TO B
- CONVERTIBLE WITH NORMALLY OPEN AND NORMALLY CLOSED INDICATORS. TO BE MOUNTED IN A NEMA TYPE 1 ENCLOSURE.
- 6. INSTALLATION OF DISCONNECTS AND STARTERS: A. SURFACE MOUNT ON WALLS OR COLUMNS APPROXIMATELY 5'-0" TO CENTERLINE ABOVE THE FLOOR WHERE POSSIBLE.
- NOT TO COVER UP ANY REMOVABLE PANELS. C. WHEN RELAYS OR CONTACTORS ARE INDICATED TO BE LOCATED ABOVE THE CEILING, THE EQUIPMENT IS TO BE READILY ACCESSIBLE AND SOUND INSULATED FROM THE MOUNTING SUPPORTS.

B. DISCONNECT SWITCHES MOUNTED ON ROOFTOP AIR CONDITIONING UNITS TO BE

CAULKED BETWEEN SWITCH AND UNIT TO PROVIDE WEATHERPROOF SEAL

ELECTRICAL CONTRACTOR TO VERIFY EXACT MOUNTING LOCATION ON UNIT SO AS

SECTION 16470 - PANELBOARDS

COPPER CONDUCTORS.

ENCLOSURE.

- MANUFACTURERS: SUBJECT TO COMPLIANCE WITH REQUIREMENTS, PROVIDE PANELBOARD PRODUCTS OF ONE OF THE FOLLOWING (FOR EACH TYPE AND RATING OF PANELBOARD AND ENCLOSURE):
 - A. GENERAL ELECTRIC COMPANY B. SQUARE D COMPANY
- EATON CORPORATION . SIEMEN'S, I.T.E. POWER DISTRIBUTION PANELS: PROVIDE DEAD-FRONT SAFETY-TYPE DISTRIBUTION PANELBOARDS RATED 208/120 OR 480/277 VOLT, 3-PHASE, 4-WIRE. SHORT CIRCUIT RATING OF PANEL AND DEVICES TO BE 22,000 RMS MINIMUM UNLESS NOTED OTHERWISE ON THE DRAWINGS. PANELBOARDS SWITCHING AND PROTECTIVE
- 480/277V LIGHTING PANELBOARDS: PROVIDE DEAD-FRONT SAFETY TYPE LIGHTING PANELBOARDS, RATED 480/277V, 3-PHASE, 4-WIRE. SHORT CIRCUIT RATING OF PANEL AND DEVICES TO BE 14,000A AIC MINIMUM UNLESS NOTED OTHERWISE ON THE DRAWINGS. PANELBOARD SWITCHING AND PROTECTIVE DEVICES IN QUANTITIES. RATINGS, TYPE AND WITH ARRANGEMENT SHOWN; WITH ANTI-TURN SOLDERLESS PRESSURE TYPE MAIN LUG CONNECTORS APPROVED FOR COPPER CONDUCTORS. FOUIP WITH COPPER, COPPER-PLATED OR ALUMINUM BUS BARS, AND FULL-SIZED NEUTRAL BUS; PROVIDE SUITABLE LUGS ON NEUTRAL BUS FOR OUTGOING FEEDERS REQUIRING NEUTRAL CONNECTIONS. PROVIDE MOLDED-CASE MAIN AND BRANCH CIRCUIT BREAKER TYPES FOR EACH CIRCUIT, WITH TOGGLE HANDLES THAT INDICATE WHEN TRIPPED. WHERE MULTIPLE-POLE BREAKERS ARE INDICATED, PROVIDE WITH COMMON TRIP SO OVERLOAD ON ONE POLE WILL TRIP ALL POLES SIMULTANEOUSLY.

PROVIDE A BARE UNINSULATED GROUNDING BAR SUITABLE FOR BOLTING TO

DEVICES IN SOLDERLESS PRESSURE-TYPE LINE SIDE CONNECTORS APPROVED FOR

- 120/208 VOLT LIGHTING AND APPLIANCE PANELBOARDS: PROVIDE DEAD-FRONT SAFETY TYPE LIGHTING AND APPLIANCE PANELBOARDS AS INDICATED. WITH SWITCHING AND PROTECTIVE DEVICES IN QUANTITIES. RATINGS, TYPES AND ARRANGEMENTS SHOWN, WITH ANTI-TURN SOLDERLESS PRESSURE TYPE LUG CONNECTORS. APPROVED FOR USE WITH COPPER CONDUCTORS; CONSTRUCT UNIT FOR CONNECTING FEEDERS TO PANEL; EQUIP WITH COPPER, COPPER PLATED OR ALUMINUM BUS BARS, FULL-SIZED NEUTRAL BAR, WITH BOLT-IN TYPE HEAVY-DUTY, QUICK-MAKE QUICK-BREAK, SINGLE-POLE CIRCUIT-BREAKERS, WITH TOGGLE HANDLES THAT INDICATE WHEN TRIPPED. PROVIDE SUITABLE LUGS ON NEUTRAL BUS FOR EACH OUTGOING FEEDER REQUIRED: AND PROVIDE BARE UNINSULATED GROUNDING BARS SUITABLE FOR BOLTING TO ENCLOSURES. SELECT ENCLOSURES FABRICATED BY SAME MANUFACTURER AS PANELBOARDS, WHICH MATE AND MATCH PROPERLY WITH PANELBOARDS. MINIMUM INTERRUPTING CAPACITY OF MANUFACTURED PANELBOARDS TO BE 10,000 A.I.C, UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 5. MOLDED-CASE CIRCUIT BREAKERS: PROVIDE FACTORY ASSEMBLED, MOLDED CASE CIRCUIT BREAKERS OF FRAME SIZE INDICATED. PROVIDE BREAKERS WITH PERMANENT THERMAL AND INSTANTANEOUS MAGNETIC TRIPS IN EACH POLE AND AMPERE RATING AS INDICATED. CONSTRUCT WITH OVER CENTER. TRIP-FREE. TOGGLE TYPE OPERATING MECHANISMS WITH QUICK-MAKE, QUICK-BREAK ACTION AND POSITIVE HANDLE INDICATION. CONSTRUCT BREAKERS FOR MOUNTING AND OPERATING IN ANY PHYSICAL POSITION AND OPERATING IN AN AMBIENT TEMPERATURE OF 40C. PROVIDE BREAKERS WITH MECHANICAL SCREW TYPE REMOVABLE CONNECTOR LUGS, AL/CU RATED. ALL BREAKERS TO BE BOLT-IN TYPE CONSTRUCTION. ALL BREAKERS TO BE UL489 LISTED.
- A. ALL SINGLE POLE BREAKERS TO BE RATED FOR "SWITCHING DUTY" (SWD) AND FOR OPERATION ON FLUORESCENT LIGHTING SOURCES.

. CIRCUIT BREAKERS USED ON HEATING, AIR CONDITIONING, OR REFRIGERATION

- B. ALL CIRCUIT BREAKERS PROTECTING HIGH INTENSITY DISCHARGE (HID) LIGHTING TO BE RATED AND LABELED "HID" FOR OPERATION ON H.I.D. LIGHTING SOURCES
- PANELBOARD MANUFACTURER TO PROVIDE A COMPLETE "COORDINATION STUDY" OF OVERCURRENT PROTECTION WITH ALL DOWN-STREAM OVERCURRENT DEVICES. THIS COORDINATION STUDY IS TO ADVISE THE CONTRACTOR OF FINAL SETTINGS OF BREAKER EQUIPMENT FIELD ADJUSTMENTS. ALL SUBMITTALS WILL BE REJECTED

EQUIPMENT SHALL BE TYPE "HACR" AND U.L. LISTED FOR SUCH USE.

UNLESS THIS STUDY IS PROVIDED AT THE TIME OF SHOP DRAWING REVIEW. 7. PANELBOARD MANUFACTURER TO PROVIDE A COMPLETE "ARC FLASH STUDY". ALL 7. DO NOT CUT HOLES IN REINFORCED CONCRETE BEAMS OR CUT REINFORCING BARS SUBMITTALS WILL BE REJECTED UNLESS THIS STUDY IS PROVIDED AT THE TIME OF

SHOP DRAWING REVIEW.

- SECTION 16510 LIGHTING FIXTURES PROVIDE LIGHTING FIXTURES, OF SIZES, TYPES AND RATINGS INDICATED: COMPLETE WITH. BUT NOT LIMITED TO. HOUSINGS, ENERGY-EFFICIENT LAMPS, LAMP HOLDERS, REFLECTORS, ENERGY EFFICIENT BALLAST, STARTERS AND WIRING. SHIP FIXTURES FACTORY-ASSEMBLED, WITH THOSE COMPONENTS REQUIRED FOR A COMPLETI INSTALLATION. DESIGN FIXTURES WITH CONCEALED HINGES AND CATCHES, WITH
- BALLAST GENERATED NOISE

METAL PARTS GROUNDED AS COMMON UNIT, AND SO CONSTRUCTED AS TO DAMPEN

A. ALL LAMPS SHALL BE PROVIDED BY ONE MANUFACTURER UNLESS OTHERWISE

C. ALL T-5 FLUORESCENT LAMPS SHALL BE OSRAM/SYLVANIA PENTRON SERIES OR

B. ALL T-8 FLUORESCENT LAMPS SHALL BE OSRAM/SYLVANIA OCTRON '700' SERIES OR EQUAL OF PHILLIPS OR G.E. EQUIVALENT LAMPS SHALL BE EQUIVALENT IN LUMEN OUTPUT. POWER CONSUMPTION, AND COLOR QUALITY. B.1. T-8 FLUORESCENT LAMPS SHALL BE 4100K IN COLOR WITH A COLOR

DESIGNATED ON THE FIXTURE SCHEDULE.

RENDERING INDEX OF 82.

FULFILL REQUIREMENTS.

IS A VIOLATION OF STATE

HAT BEARS THE SEAL OF A

AW FOR ANY PERSON TO

PROFESSIONAL ENGINEER,

DIRECTION OF A LICENSED

PROFESSIONAL ENGINEER.

NEW YORK STATE

BELIEF AND PROFESSIONAL

SPECIFICATIONS ARE IN

IUDGMENT. THESE PLANS AND

AS PER CHAPTER 1 SECTION

COMPLIANCE

ALTER ANY DOCUMENT

UNLESS THE PERSON

IS ACTING UNDER THE

EQUAL OF PHILLIPS OR G.E. EQUIVALENT LAMPS SHALL BE EQUIVALENT IN PHONE: (479) 271-8058 FAX: (888) 208-4826 LUMEN OUTPUT, POWER CONSUMPTION, AND COLOR QUALITY. C.1. T-5 FLUORESCENT LAMPS SHALL BE 4100K IN COLOR WITH A COLOR RENDERING INDEX OF 82.

ACCORDANCE WITH FIXTURE MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE

REQUIREMENTS OF NEC, NECA'S "STANDARD OF INSTALLATION," NEMA STANDARDS,

AND WITH RECOGNIZED INDUSTRY PRACTICES TO ENSURE THAT LIGHTING FIXTURES

- . ALL COMPACT FLUORESCENT LAMPS SHALL BE 4-PIN TYPE WITH ELECTRONIC BALLASTS. LAMP COLOR SHALL MATCH LINEAR FLUORESCENT LAMPS OR AS SPECIFIED ON THE FIXTURE SCHEDULE. INSTALL LIGHTING FIXTURES AT LOCATIONS AND HEIGHTS AS INDICATED, IN
- FURNISH STOCK OF SPARE LAMPS AMOUNTING TO 10% (BUT NOT LESS THAN 2 LAMPS) OF EACH TYPE AND SIZE LAMP USED IN EACH TYPE FIXTURE. DELIVER

REPLACEMENT STOCK TO SITE OR AS DIRECTED BY OWNER.

ALL EXTERIOR POLES SHALL BE PROVIDED WITH VIBRATION ISOLATION DAMPING

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HAS NOT SIGNED AND SEALED PER STATE/PROVINCE REQUIREMENTS. ENERGY CONSERVATION Professional O THE BEST OF MY KNOWLEDGE COMPLIANCE WITH THE ECCONYS

Kansas City, MO 64108

rawing Title LBI Professional Engineering,LLC T 816-997-9601

310 W 20th Street, Suite 200 F 816-997-9602

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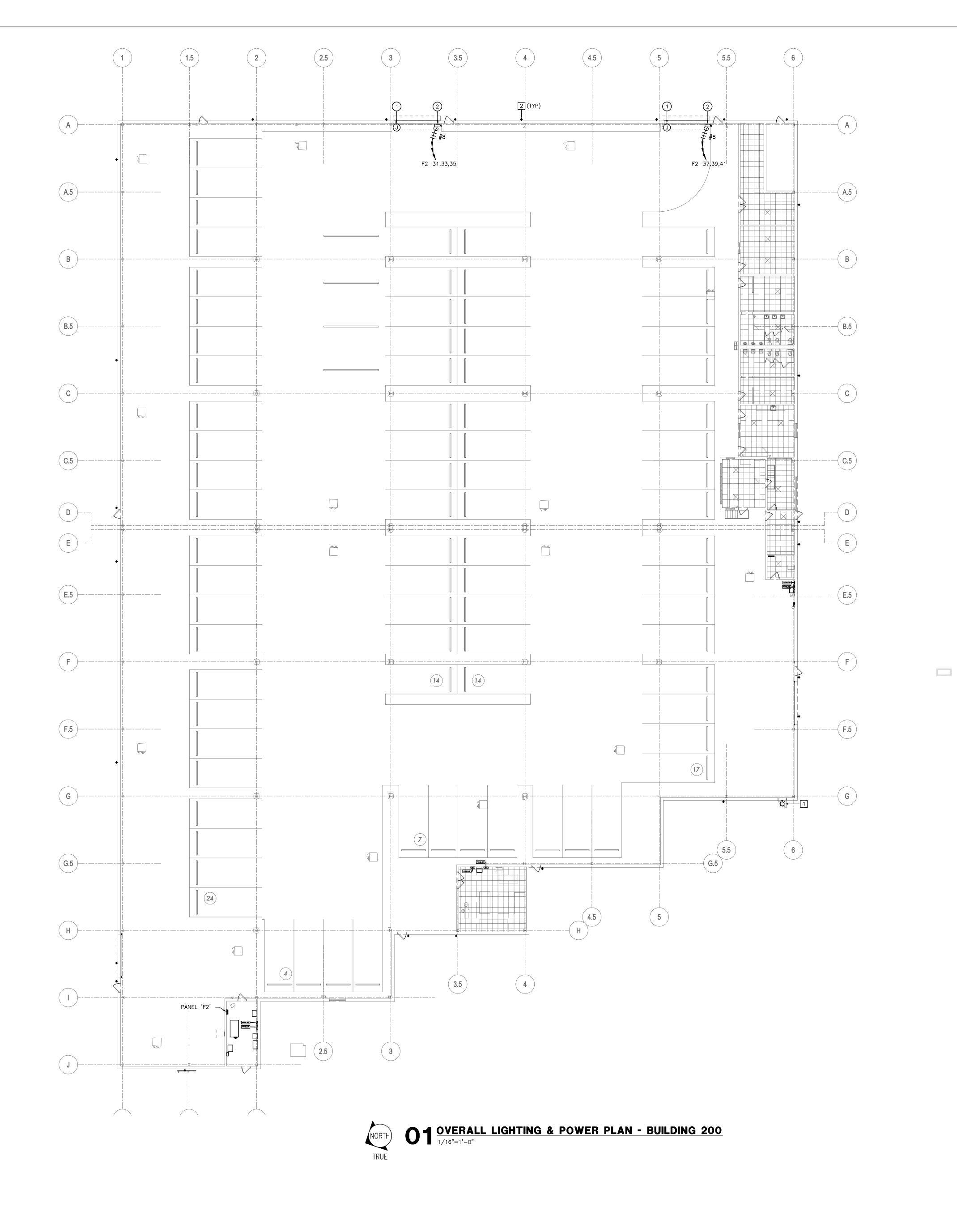
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02.18.2020

ELECTRICAL SPECIFICATIONS

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LIGHTING GENERAL NOTES

- A. CONNECT EXIT SIGNS, EMERGENCY AND NIGHT LIGHTS TO AN UNSWITCHED LIGHTING CIRCUIT, NOT CONTROLLED BY ANY OCCUPANCY
- SENSORS, SWITCHES OR CONTACTORS.

 B. PROVIDE A DEDICATED NEUTRAL WITH ALL DIMMING SYSTEM CIRCUITS. NO COMMON NEUTRALS SHALL BE ALLOWED.
- NO COMMON NEUTRALS SHALL BE ALLOWED.

 C. REFER TO "RECESSED LIGHTING FIXTURE SUPPORT DETAIL," FOR
- INFORMATION ON SUPPORT OF ALL RECESSED LIGHT FIXTURES.

 D. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN AND DETAILS FOR THE LOCATION OF ALL LIGHTING FIXTURES AND ALL OTHER EQUIPMENT
- INSTALLED IN THE CEILING SYSTEM. VERIFY MOUNTING HEIGHTS AND FINISHES WITH ARCHITECT PRIOR TO ROUGH—IN.

 REFER TO THE POWER PLANS FOR LOCATIONS OF ELECTRICAL
- EQUIPMENT.

 PROVIDE (2) ADDITIONAL #12 CONDUCTORS FOR ALL 0-10V DIMMING CIRCUITS.

POWER GENERAL NOTES

SENSORS PRIOR TO ROUGH-IN.

- A. VERIFY EXACT LOCATIONS OF HVAC AND PLUMBING EQUIPMENT, CONDUIT STUB-UPS AND POWER CONNECTIONS PRIOR TO ROUGH-IN.
 B. VERIFY EXACT LOCATION, MOUNTING HEIGHTS AND CONDUIT ROUTING FOR ALL THERMOSTATS, TEMPERATURE SENSORS, HUMIDISTATS AND CO2
- C. REFER TO MECHANICAL AND PLUMBING DRAWINGS FOR ADDITIONAL ELECTRICAL REQUIREMENTS. COORDINATE PROVISIONS FOR ALL CONTROL CONDUIT AND WIRING AS REQUIRED FOR INTERLOCKING OF FANS, MOTORS, ETC. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
- D. MOUNT DEVICES INSTALLED ON EQUIPMENT ON NON-REMOVABLE PANEL. COORDINATE LOCATION PRIOR TO COMMENCING ROUGH-IN WORK.

LIGHTING KEY NOTES

NEW EGRESS FIXTURE TO MATCH EXISTING. CONNECT TO EXISTING NON-CONTROLLED CIRCUIT.

 MAINTAIN CIRCUITING TO EXISTING EGRESS/EXTERIOR LIGHTING.

POWER KEY NOTES

- 1 PROVIDE CONNECTION TO DOOR OPENER INCLUDING ALL CONTROLS, CONDUITS, WIRING AND FINAL CONNECTIONS FOR A COMPLETE OPERATIONAL DOOR OPENING SYSTEM. COORDINATE REQUIREMENTS WITH DOOR MANUFACTURER.
- 2 COORDINATE ALL ELECTRICAL REQUIREMENTS WITH OVERHEAD DOOR MANUFACTURER. PROVIDE LOCAL DISCONNECT FOR EQUIPMENT.

No. Revisions/Submissions
ISSUED FOR BIDDING / PERMIT

REVISION NO. 1

Z
REVISION NO. 2

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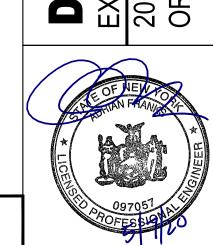
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TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THESE PLANS AND SPECIFICATIONS ARE IN COMPLIANCE WITH THE ECCCNYS,

AS PER CHAPTER 1 SECTION

COMPLIANCE

OTHER SHEETS INCLUDING SPECIFICATIONS APPLY. THAT SHOWN HEREON IS SCHEMATIC IN NATURE AND NOT TO BE USED AS A SHOP DRAWING; THEREFORE, INCLUDE ALL MODIFICATIONS REQUIRED TO CONFORM TO SITE CONDITIONS AND THE EQUIPMENT AND MATERIAL USED. VERIFY LOCATIONS AND DIMENSIONS OF ALL ARCHITECTURAL AND STRUCTURAL ELEMENTS AS SHOWN ON THEIR RESPECTIVE DOCUMENTS, THESE ELEMENTS ARE SHOWN FOR REFERENCE AND SHALL BE VERIFIED PRIOR TO CONSTRUCTION AND THE ENGINEER ASSUMES NO LIABILITY FOR THE ACCURACY OF THESE ELEMENTS. NO DESIGN RESPONSIBILITY IS ASSUMED FOR ANY PORTION OF THE WORK THAT THE PROFESSIONAL ENGINEER HAS NOT SIGNED AND SEALED PER STATE/PROVINCE REQUIREMENTS.

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Drawing No.

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