

# City of Willowick PLAN REVIEW BOARD

Thursday, April 13, 2023 at 3:00 PM Willowick Building & Service Center

#### **ADA NOTICE**

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify the City of Willowick at 440-585-3700 at least three working days before the meeting.

#### **AGENDA**

- 1. Call meeting to order
- 2. Roll call
- 3. Approval of minutes
  - 1. Plan Review Board Minutes March 23rd, 2023
- 4. New business
  - 1. Aarons Located at 29850 29900 Lakeshore Blvd.
  - 2. Tesla, Inc Located at 30320 Lakeshore Blvd.
- 5. Public portion
- 6. Old business
- 7. Miscellaneous
- 8. Adjournment



# City of Willowick PLAN REVIEW BOARD

Thursday, March 23, 2023 at 3:00 PM Willowick Building & Service Center

#### **ADA NOTICE**

In compliance with the Americans with Disabilities Act, individuals needing special accommodations (including auxiliary communicative aids and services) during this meeting should notify the City of Willowick at 440-585-3700 at least three working days before the meeting.

#### **MINUTES**

#### 1. Call meeting to order

Chief Brennan called the March 23rd, 2023, Plan Review Board meeting to order at 3:00pm.

#### Roll call

PRESENT Chief Brennan Tim McLaughlin Mike Lazor

ABSENT Chief Turner Chief Malovrh Jr.

ALSO PRESENT Councilwoman Antosh Ken Pintar

#### **Approval of minutes**

Plan Review Board Minutes - March 9th, 2023

Motion to approve the March 9th, 2023, meeting minutes made by Mike Lazor, Seconded by Chief Brennan.

Voting Yea: Chief Brennan, Tim McLaughlin, Mike Lazor

#### **New business**

#### Luxe Beauty Boutique - Located at 31601 Vine Street Suite 102

Chief Brennan advised that Naomi Greenwood is present representing Luxe Beauty Boutique, he stated that this is an existing business, and she is moving across the hall where there was a previous salon. Per the letter of intent, she will not be doing any alterations. She will be doing some signage in the future.

Motion made to approve Luxe Beauty Boutique - Located at 31601 Vine Street Suite 102 by Mike Lazor, Seconded by Chief Brennan. Voting Yea: Chief Brennan, Tim McLaughlin, Mike Lazor

#### Modern Suds Laundromat - Located at 30437 Euclid Ave.

Chief Brennan stated that this location is over by Guiseppe's pizza and Vincent Fraschetti is present representing Modern Suds Laundromat - Located at 30437 Euclid Ave. Mr. Fraschetti stated that this location is 2 combined units. Mr. Fraschetti advised the board that he is looking to put in a laundromat, starting off as a self-serve service with the option in the future to possibly add to a wash, dry, fold service. He stated that is could start off that was as it is designed as such however right now those plans are up in the air. The equipment is all state-of-the-art touch screen. There was some discussion regarding where a similar touch screen local laundromat is. Chief Brennan asked if this is a coinless service, to which Mr. Fraschetti responded yes, this is a coinless service. The goal is to make it cashless where the customers would pay via app or laundry card. Chief Brennan stated that, this area is zoned a retail district and under 1145 under the uses this would fall under a service establishment which would require approval from Planning Commission and Willowick City Council. It was asked if there will be an employee on site and Mr. Fraschetti stated that starting off it will be all self-serve, once they add the additional service at that time there would be an employee on site. Councilwoman Antosh asked that if there were not an employee on site what would happen if a machine broke, Mr. Fraschetti stated that everything is handled on his phone, his phone number will be posted and can handle everything through his phone. It will be under 24-hour surveillance for the establishment and locks are automatic also handled through his phone.

Motion made to approve Modern Suds Laundromat - Located at 30437 Euclid Ave. pending the approval from Planning Commission and City Council by Chief Brennan, Seconded by Mike Lazor. Voting Yea: Chief Brennan, Tim McLaughlin, Mike Lazor

#### **Public portion**

None

**Old business** 

None

Miscellaneous

None

#### Adjournment

Motion made to adjourn the March 23rd, 2023, Plan Review Board meeting at 3:14pm by Tim McLaughlin, Seconded by Mike Lazor.

Voting Yea: Chief Brennan, Tim McLaughlin, Mike Lazor



#### CITY OF WILLOWICK PLAN REVIEW BOARD APPLICATION FOR PERMIT TO OCCUPY FOR BUSINESS, COMMERCIAL, INDUSTRIAL, ETC. YOU MUST FILL OUT ENTIRE APPLICATION 440-516-3000

PERMIT FEE: \$60.00 DATE: 222023 3/23/23	
Location of Occupancy: 29850 - 29900 Lake Shore Blvd, Willowick, OH 44095 Busines	ss Name: Aarons
(ADDRESS)  Business Owner's Name & Address: Aarons, LLC - 400 Galleria Parkw	
CITY/STATE/ZIP: Atlanta, GA 30339	
Telephone Number: 678-402-3000 Fax Number:	Federal ID Number: 58-0687630
	Or Social Security Number
OWNER OF PROPERTY/NAME/ADDRESS/TELEPHONE NUMBER: B	rian Sheehan- Shoregate Station, LLC
11501 NORTHLAKE DR, CINCINNATI OH 4524	49 - 513-284-3026
SUBMIT NEW DETAILED FLOOR PLAN : X 5Q. FT. HABITA	BLE FLOOR AREA FOR OCCUPANCY: 12,526
Building Size: 14,000 Sf	Il Number Of Employees: 11
Intended Number of Occupants: Total Number of Seatin	<sub>g</sub> : N/A
Site Plan With Number of Paved Parking Spaces: Shared Center	Parking Hours Of Operation: Monday-Saturday 10-8, Sunday Closed
Letter of Intent: Mached Previous Use:	Proposed Use: M
NAME OF PRINCIPAL OR CONTACT PERSON FOR NEW BUSINESS:	3rett Kemp
Home Address/City/Zip: 400 Galleria Parkway, SE, Ste 300, Atlanta,	GA 30339 Telephone Number: 216-261-1747
Zoning Department. <u>A final approval by The Willowick Buildina Dept</u> befare opening of business. I do hereby further agree to maintain th lowick.	haut approval from Lake County Building, Willowick Fire & Willowick (440)516-3000 or a representative thereof, must be complied with e abave premises in compliance with the ordinances of the City of Wil-
Applicant's Signature: 47 days	Date: 3/22/23
Office use only:	
Zoning District: Authorized Occupants:	
TEMPORARY APPROVED BY: Date:	
Zoning Dept. Inspected by:	DATE:
Zoning Permit # Zoning Perm	nit Fee \$
Fire Dent Inspected By:	Date :

CITY OF WILLOWICK-APPLICATION FOR COMMERCIAL ESTABLISHMENT LICENSE REQUIRED <u>AFTER APPROVAL</u>

Note® A separate permit is required for all new signs from the Willowick Building Department.

3/22/23

Willowick Building Dept 31230 Vine St Willowick, OH 44095 440-516-3000

RE: Aarons C0573 / C0618 – 29850-29900 Lake Shore Blvd, Willowick, OH 44095

To Whom It May Concern:

The City of Willowick has asked for additional information about the proposed Aarons tenant fit out and particularly the business itself.

#### General Tenant Fit Out:

Aarons will remodel two (2) existing vacant tenant spaces. The scope will include new breakroom, new security/server room, new offices, additional lighting, new non-load bearing interior partition walls, new finishes and fixtures. Flooring and base to be replaced in existing restrooms and hallway. Existing restrooms will be modified to meet accessibility compliance. New ceiling tiles and grids to be provided where indicated in plans.

#### Services:

Aarons, LLC has led the way in lease-to-own furniture (including mattresses), electronics, and appliances. We continue to strive towards making the shopping experience more convenient and accessible. Aarons, LLC is committed to their customers by providing quality products at affordable monthly payments with excellent and friendly customer service. The company is franchised in 47 states and Canada.

Should you have additional questions or need additional information regarding the business, please do not hesitate to contact Brett Kemp at 216-261-1747.

Sincerely,

Kelly Ley

State Permits, Inc.

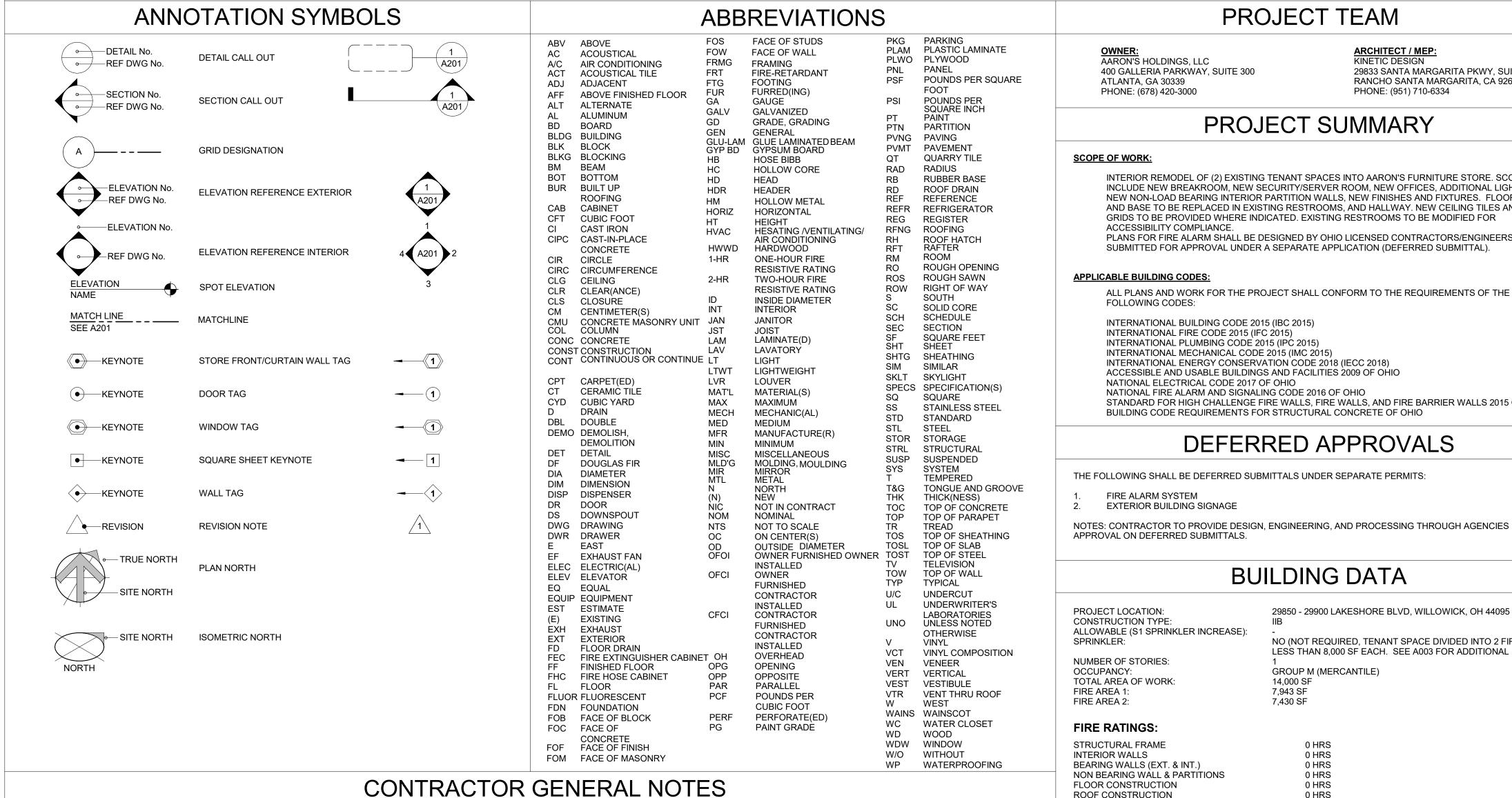
Kloday

608-407-9086

kelly@permit.com

# ACHOMS

# C0573 / C0618 INTERIOR REMODEL 29850 - 29900 LAKESHORE BLVD WILLOWICK, OH 44095



- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL FIELD CONDITIONS AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT THE WORK IS FEASIBLE AS SHOWN AND MEETS ALL APPLICABLE CODES BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ISSUES, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM AARON'S
- CONTRACTOR SHALL PREPARE ALL FLOORS AS REQUIRED TO ACCEPT NEW FLOORING MATERIALS.
- THE GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL FIRE EXTIGUISHERS AS REQUIRED BY THE LOCAL
- ALL PAINTED SURFACES SHALL RECEIVE A PRIME COAT WITH FINISH COATS AS REQUIRED TO OBTAIN PROPER COVERAGE AND UNIFORM APPEARANCE.
- THE GENERAL CONTRACTOR AND EACH SUNBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS AT THE JOB SITE PRIOR TO SUBMITTING PROPOSALS. BY SUBMITTING A PROPOSAL, THE CONTRACTOR ACKNOWLEDGES THAT SUCH INSPECTIONS HAVE BEEN MADE.
- CONTRACTOR SHALL CLEAN, SERVICE AND ADJUST AS NECESSARY ALL EXISTING DOORS THAT WILL BE
- CONTRACTOR TO INSTALL OWNER SUPPLIED CASEWORK SYSTEMS AT CASH WRAP, SALES AREA, AND BREAK ROOM, INCLUDING ALL REQUIRED POWER FOR DISPLAY ITEMS AS PER PLAN.
- ALL DESIGN AND WORK SHALL BE PERFORMED IN STRICY COMPLIANCE WITH FEDERAL, STATE AND LOCAL BUILDING CODE REQUIREMENTS. EXECUTED IN ACCORDANCE WITH ACCEPTED INDUSTRY STANDARDS. IT SHALL BE THE GENERAL CONTRACTOR'S RESPONSIBILITY TO INSURE THE PROCUREMENT OF ALL REQUIRED AND NECESSARY PERMITS AND APPROVALS PRIOR TO THE COMMENCEMENT OF ANY WORK.
- PERMANENT POWER NEEDS TO BE IN PLACE AND FULLY OPERATIONAL 3 WEEKS PRIOR TO THE TURNOVER DATE (SUBSTANTIALLY COMPLETE DATE). THE CONTRACTOR WILL BE RESPONSIBLE TO REIMBURSE AARON'S INC. FOR ANY CHARGES FROM ANY FROM ANY OF ITS VENDORS IN THE EVENT THIS WORK IS NOT COMPLETED BY THE REQUIRED DEADLINE. THE CONTRACTOR SHALL NOTIFY THE AARON'S INC. CONSTRUCTION MANAGER OF ANY FIELD CONDITIONS THAT COULD IMPACT THIS WORK AND POSSIBLY CAUSE A DELAY WITHIN 1 WEEK FROM STARTING THE WORK.

- UNLESS NOTED OTHERWISE "PROVIDE", "BUILD", "FURNISH" AND/OR "INSTALL" AS INDICATED THROUGHOUT THE DRAWINGS MEANS THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL MATERIALS, EQUIPMENT, AND LABOR NEEDED TO DELIVER A COMPLETE ASSEMBLY AND/OR OPERATING SYSTEM(S). IT'S THE CONTRACTOR'S SOLE RESPONSIBILITY TO SECURE ANY SEPARATE PERMITS AND INSPECTIONS REQUIRED TO COMPLETE ALL ASPECTS OF THE WORK AND TO MEET ALL APPLICABLE CODES.
- CONTRACTOR IS RESPONSIBLE TO ACCEPT DELIVERY OF ALL "OWNER PROVIDED ITEMS" (OPIS) TO BE INSTALLED BY THE GC (INCLUDING OFF LOADING, TAKING INVENTORY, STORING AND SECURING SUCH OPIS THROUGHOUT THE DURATION OF THE WORK). GC TO REPORT ANY SHORTAGES AND/OR VISIBLE DAMAGES TO AARON'S NO LATER THAN 24 HOURS FOLLOWING DELIVERY OF THE SAID OPIS.
- FOR "OPEN STORE" REMODEL PROJECTS ALL AFTER HOUR WORK MUST BE SUPERVISED BY A QUALIFIED SUPERINTENDENT CAPABLE OF READING PLANS AND COMMUNICATING EFFECTIVELY WITH TRADES WHILE ENFORCING STRICT RULES FOR MOVEMENT OF GOODS AND PERSONNEL IN AND OUT OF THE SPACE.
- BEFORE TURNOVER / COMPLETION DATE CONTRACTOR TO THOROUGHLY CLEAN ALL WINDOWS INSIDE AND OUT AND, ALL WALL, CEILING AND FLOOR SURFACES INCLUDING LIGHT LENSES, SUPPLY AND RETURN AS GRILLES, ALL TRADES FIXTURES AND OFFICE FURNITURE. CONTRACTOR TO PROVIDE A FINAL WHITE GLOVE INCLUSIVE OF ALL SURFACES DEFINED ABOVE AND ALL MERCHANDISES IMMEDIATELY AFTER AARON'S MERCHANDISING PROCESS WILL BE COMPLETED.
- CONTRACTOR TO PROVIDE NEW AIR FILTERS AT EACH HVAC UNIT PRIOR TO TURNOVER / COMPLETION DATE. FOR PROJECTS WITH POLISHED CONCRETE CONTRACTOR TO THOROUGHLY CLEAN ALL CILS IN ADDITION TO PROVIDING NEW AIR FILTERS.
- CONTRACTOR IS SOLELY RESPONSIBLE TO PROTECT ALL FLOOR FINISHES ONCE APPLIED / INSTALLED. FLOOR PROTECTION MUST BE USED AT ALL TIME WHEREVER A SCISSOR LIFT OR OTHER EQUIPMENT WILL BE USED ON TOP OF FLOOR FINISHES. IT'S THE CONTRACTOR'S RESPONSIBILITY TO ENFORCE THIS REQUIREMENT. ALL SCISSOR MUST HAVE WHITE TIRES AND BE PROVIDED WITH A LIFT DRIP PAN (AKA LIFT DIAPER) TO PREVENT HYDRAULIC FLUID FROM STAINING THE FLOORS.
- CONTRACTOR TO PROVIDE ALL MODIFICATIONS TO EXISTING FIRE SUPPRESSION SYSTEM(S) SERVICING THE SPACE AS REQUIRED TO MEET ALL APPLICABLE CODES (INCLUDING LABOR, MATERIALS, SHOP DRAWINGS AND. PERMIT AND INSPECTION FEES)
- TEMPORARY SHOWROOM TO BE CREATED USING OPAQUE PLASTIC DUST CURTAIN, LOCATION TO BE DETERIMINED BY AARON'S CPM.

29833 SANTA MARGARITA PKWY, SUITE 300 RANCHO SANTA MARGARITA, CA 92688

INTERIOR REMODEL OF (2) EXISTING TENANT SPACES INTO AARON'S FURNITURE STORE. SCOPE TO INCLUDE NEW BREAKROOM, NEW SECURITY/SERVER ROOM, NEW OFFICES, ADDITIONAL LIGHTING, NEW NON-LOAD BEARING INTERIOR PARTITION WALLS, NEW FINISHES AND FIXTURES. FLOORING AND BASE TO BE REPLACED IN EXISTING RESTROOMS, AND HALLWAY. NEW CEILING TILES AND GRIDS TO BE PROVIDED WHERE INDICATED. EXISTING RESTROOMS TO BE MODIFIED FOR

PLANS FOR FIRE ALARM SHALL BE DESIGNED BY OHIO LICENSED CONTRACTORS/ENGINEERS AND

ALL PLANS AND WORK FOR THE PROJECT SHALL CONFORM TO THE REQUIREMENTS OF THE

STANDARD FOR HIGH CHALLENGE FIRE WALLS, FIRE WALLS, AND FIRE BARRIER WALLS 2015 OF OHIO

NOTES: CONTRACTOR TO PROVIDE DESIGN, ENGINEERING, AND PROCESSING THROUGH AGENCIES FOR

NO (NOT REQUIRED, TENANT SPACE DIVIDED INTO 2 FIRE AREAS OF LESS THAN 8,000 SF EACH. SEE A003 FOR ADDITIONAL INFORMATION.)

ROOF CONSTRUCTION 0 HRS INTERIOR NON-BEARING FIRE BARRIER WALL: 2HRS (EXISTING)

# OCCUPANT LOAD (TABLE 1004.1.2):

SHOWROOM (M USE) PRE-LEASE (M USE) 1,724 SQ. FT. / 60 SQ. FT. = 29 PEOPLE STOCK (S USE) 2,334 SQ. FT. / 300 SQ. FT. = GM OFFICE (B USE) 144 SQ.FT. / 100 SQ. FT. = CAM OFFICE (B USE) 419 SQ. FT. / 100 SQ. FT. = 5 PEOPLE BREAKROOM (B USE) 128 SQ. FT. / 15 SQ. FT. = 9 PEOPLE TOTAL = 183 PEOPLE

# **EGRESS REQUIREMENTS:**

EXITS REQUIRED PER SECTION 1006 = 4 EXITS EXITS PROVIDED = 5 EXITS

# **EGRESS WIDTH:**

EXIT #1 & EXIT #2

26.4" REQUIRED 144" PROVIDED

72" PROVIDED

1 REQUIRED

PRE-LEASED + STOCK + CAM OFFICE + BREAKROOM EXIT #3 & EXIT #5 .2 X 51 = 10.2" REQUIRED

# **RESTROOMS:**

SERVICE SINK:

MALE: WC 1 REQUIRED PER 500 MALE: LAV 1 REQUIRED PER 750 FEMALE: WC 1 REQUIRED PER 500 FEMALE: LAV 1 REQUIRED PER 750 1 REQUIRED PER 1000 DRINKING FOUNTAIN:

1 PROVIDED 1 PROVIDED 1 PROVIDED (HI-LO) 1 PROVIDED

1 PROVIDED

1 PROVIDED

# SHEET INDEX

**COVER SHEET** A001 A002 SITE PLAN A003 LIFE SAFETY PLAN A050 RESPONSIBILITY MATRIX REMODEL SCOPE A100 **DEMOLITION PLAN** A101 FLOOR PLAN & ENLARGED PLANS A150 FLOOR FINISH PLAN

A155 FINISH SCHEDULES A160 INTERIOR ELEVATIONS A161 INTERIOR ELEVATIONS A162 INTERIOR ELEVATIONS A200 REFLECTED CEILING PLAN

**ARCHITECTURAL** 

A400 **EXTERIOR ELEVATIONS** A900 DOOR AND HARDWARE SCHEDULE, AND DETAILS

PARTITION SYSTEM DETAILS **SPECIFICATIONS** FIXTURE PLAN

F100 F101 FIXTURE ISOMETRICS AND DETAILS G101 **SPECIFICATIONS** G102 **SPECIFICATIONS** 

ACCESSIBILITY STANDARDS AND DETAILS

G103 **SPECIFICATIONS** G104 GENERAL & ACCESSIBILITY NOTES G105 **GENERAL & ACCESSIBILITY NOTES** G106 ACCESSIBILITY STANDARDS AND DETAILS G107 ACCESSIBILITY STANDARDS AND DETAILS

# **MECHANICAL**

M001

M200

G108

A901

A902

MECHANICAL LEAD SHEET

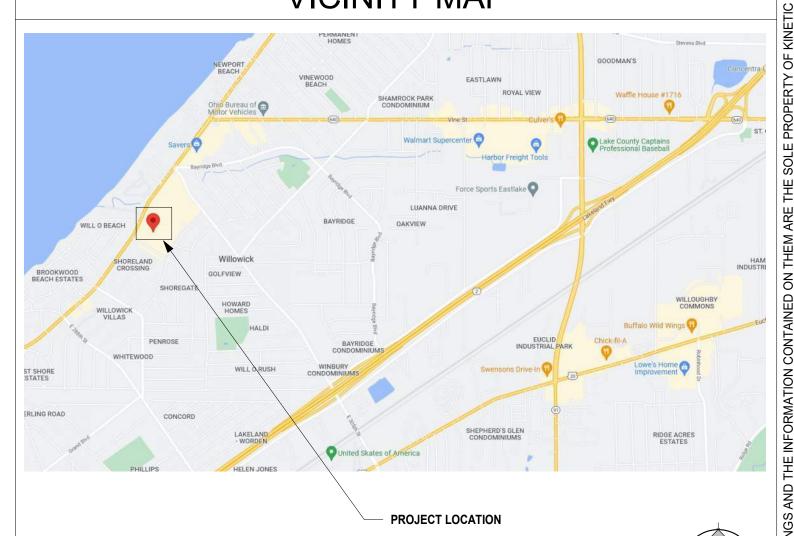
# **ELECTRICAL**

SYMBOLS AND ABBREVIATIONS E002 **ELECTRICAL SPECIFICATIONS** ELECTRICAL DETAILS E201 LIGHTING PLAN E301 POWER PLAN **ENLARGED PLANS AND DETAILS** E302 E401 SINGLE LINE DIAGRAM E402 PANEL SCHEDULES

# **PLUMBING**

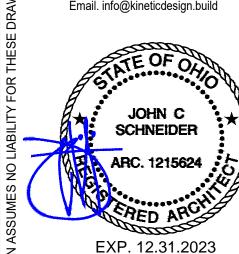
P001 PLUMBING LEAD SHEET MP100 BUILDING SITE PLAN P200 PLUMBING FLOOR PLAN

# **VICINITY MAP**





Main. 951.710.6334 Web. kineticdesign.build



DATE 03.21.2023

**REVISIONS** DESCRIPTION **CLIENT INFORMATION** 

 $\mathcal{C}$ 0

CHECKED

03/07/23 SCALE AS NOTED PROJECT NUMBER



# SITE PLAN NOTES

SITE PLAN SHOWN FOR REFERENCE ONLY. ACCESSIBLE PARKING SPACES, ACCESSIBILITY SIGNANGE, AND PATH OF TRAVEL ARE EXISTING TO REMAIN AND SUBJECT TO FIELD VERIFICATION BY GC.

# LEGEND

(E) PROPERTY LINE

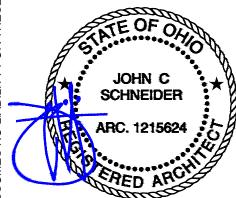
(E) PATH OF TRAVEL

# KEYNOTES

KEYNOTE DESCRIPTION



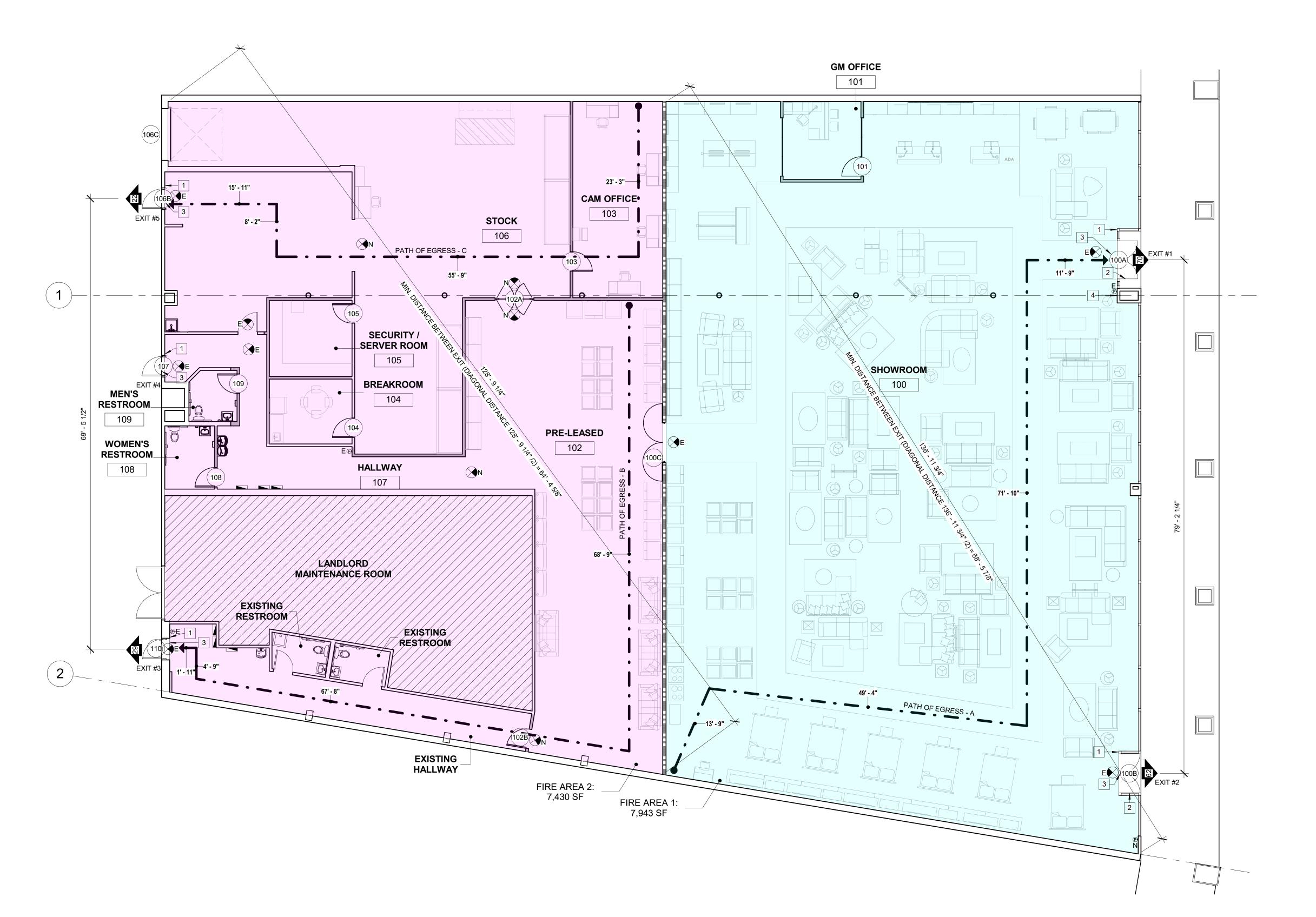
Kinetic Design
29833 Santa Margarita Pkwy, Suite 300
Rancho Santa Margarita, CA 92688
Main. 951.710.6334 Web. kineticdesign.build
Email. info@kineticdesign.build



REVISIONS							
No.	DATE	DESCRIPTION					

AARON'S C0573 / C0618 29850 - 29900 LAKESHORE BLVD WILLOWICK, OH 44095

PROJECT NUMBER





LIFE SAFETY PLAN Scale 1/8" = 1'-0" 1

# **EXIT NOTES**

- 1. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED.
- EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX).
- 3. INTERNALLY ILLUMINATED SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND INTERNATIONAL BUILDING CODE 2015 CHAPTER 27.
- 4. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES (1013.5)
- EXIT SIGNS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM THAT WILL PROVIDE AN ILLUMINATION OF NOT LESS THAN 90 MIN. IN CASE OF POWER LOSS ( 1013.6.3)
- EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT (1010.1.9)
- 7. DOOR HANDLES, LOCK AND OTHER OPERATING DEVICES SHALL BE INSTALLED AT A MINIMUM 34" AND A MAX. 48" ABOVE THE FINISHED FLOOR.
- 8. EGRESS DOORS TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED.
- ALL EGRESS DOOR OPERATION SHALL COMPLY WITH SECTION 1010.1.9-1010.1.9.12
- 10. THE MEANS OF EGRESS, INCLUDING THE EXIT DISCHARGE, SHALL BE ILLUMINATED AT ALL TIMES THE BUILDING SPACE SERVED BY THE MEANS OF EGRESS IS OCCUPIED.
- THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT CANDLE AT THE WALKING SURFACE.
- 12. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES' ELECTRICAL SUPPLY. IN THE EVENT OF POWER SUPPLY FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE THE FOLLOWING AREAS:
- a. AISLES AND UNENCLOSED EGRESS STAIRWAYS IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS.
- b. CORRIDOR, EXIT ENCLOSURES AND EXIT PASSAGEWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
- c. EXTERIOR EGRESS COMPONENTS AT OTHER THAN LEVEL OF EXIT DISCHARGE UNTIL EXIT DISCHARGE IS ACCOMPLISHED FOR BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
- d. INTERIOR EXIT DISCHARGE ELEMENTS, AS PERMITTED IN SECTION
- 1027.1IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.

EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1010.1.6 FOR EXIT DOORWAYS THAT LEAD DIRECTLY TO THE EXIT DISCHARGE

- 13. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION 1205.2 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT IN ACCORDANCE WITH SECTION 1205.3. EXTERIOR GLAZED OPENINGS SHALL OPEN DIRECTLY ONTO THE PUBLIC WAY OR ONTO A YARD OR COURT IN ACCORDANCE WITH SECTION 1206.
- 14. THE MEANS OF EGRESS SYSTEM SHALL MAINTAIN A CLEAR CEILING HEIGHT OF 7'-6". MINIMUM.

# KEYNOTES

# KEYNOTE DESCRIPTION

1 (N) TACTILE EXIT SIGN

2 (N) INTERNATIONAL SYMBOL OF ACCESSIBILITY
3 PROVIDE THE FOLLOWING SIGN ABOVE DOOR: "THIS DOOR TO REMAIN UNLOCKED

WHEN THIS SPACE IS OCCUPIED."

4 POST INTERIOR SIGNAGE STATING "MAXIMUM CAPACITY: 183 PERSONS"

# EGRESS PATH TOTAL

PATH OF EGRESS - RUN	TRAVEL DISTANCE
Α	146' - 7 1/2"
В	143' - 1"
С	103' - 0 1/2"

PER TABLE 1017.2 OF INTERNATIONAL BUILDING CODE 2015, MAXIMUM EXIT ACCESS TRAVEL DISTANCE FOR BUILDING = 200 FT (M OCCUPANCY, WITHOUT SPRINKLER SYSTEM).

146'-7 1/2" < 200' - 0", ∴ OKAY.

# LEGEND

ROOM NAME

ROOM TAG

(E) WALL TO REMAIN

(N) NON-RATED PARTITION WALL

(N) 2HR FIRE-BARRIER PER CODE TO BE PROVIDED BY LANDLORD.



F.E.

NUMBER OF PEOPLE EXITING

PER TABLE 1017.2 OF INTERNATIONAL BUILDING CODE 2015,
MAXIMUM EXIT ACCESS TRAVEL DISTANCE FOR BUILDING =
200 FT (M OCCUPANCY, WITHOUT SPRINKLER SYSTEM).
SEE PLAN FOR TRAVEL DISTANCE ON EACH AREA

FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS

FIRE EXTINGUISHERS FOR CLASS A FIRE HAZARDS
- ORDINARY HAZARD OCCUPANCY.
2-A RATED SINGLE EXTINGUISHER THE MAXIMUM TRAVEL DISTANCE TO
EXTINGUISHER IS 75 FEET

- TO BE MOUNTED AT 4'-0" HIGH FROM FINISH FLOOR TO HANDLE OF FIRE EXTINGUISHER

 $\overrightarrow{\diamondsuit}$ 

EXIT SIGN W/ BATTERY BACKUP, ARROW INDICATE DIRECTION OF TRAVEL

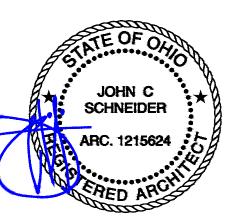
FIRE AREA 1: 7,943 SF

FIRE AREA 2: 7,430 SF



Kinetic Design

29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



STAMP

No. DATE DESCRIPTION

CLIENT INFORMATION

OO GALLERIA PARKWAY, SUITE 300
ATLANTA, GA 30339
ATLANTA, GA 30339

C0573 / C0618 0 LAKESHORE BLVD , OH 44095

MAROIN S CUSTS 1 9850 - 29900 LAKESH /ILLOWICK, OH 4409

DRAWN CHECKED
SHEET NA

SHEET NA

DATE 03/07/23

SCALE AS NOTED

PROJECT NUMBER

A003

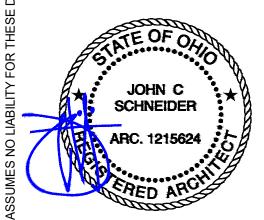
	FURNISHED BY		INS	STALLED	Dī	
	DIVISION OF WORK AND RESPONSIBILITY	LANDLORD	AARON'S	LANDLORD	CONTRACTOR	AARON'S COMMENTS
<b>DIVISIO</b> 01100	DEFINITION OF TERMINOLOGY					
						PREPARED IN ACCORDANCE WITH AARON'S
01130	CONSTRUCTION DOCUMENTS		X			INTERIOR DESIGN DOCUMENTS AND AARON'S PROTOTYPE DWGS.
01200	AARON'S NATIONAL ACCOUNTS					
01300	AARON'S FURNISHED EQUIPMENT/FIXTURES		X		Х	
01400	PROJECT MANAGEMENT		X			
01410	CHANGE ORDER PROCESS		x			GENERAL CONTRACTOR TO SUBMIT CHANGE ORDER IN ACCORDANCE WITH AARON'S REQUIREMENTS. ALL CHANGE ORDERS MUST BE APPROVED IN WRITING BY AARON'S PRIOR TO STARTING THE WORK.
01415	CONSTRUCTION PROGRESS DOCUMENTATION	Х				
01420	PHOTOGRAPHIC DOCUMENTATION	Х				
01435	REQUEST FOR INFORMATION	Х				
01440	REQUEST FOR SUBSTITUTIONS	X				
01445	SUBMITTAL PROCEDURES	X				
01450	CLOSE OUT PROCEDURES	X				
01455		X				
01460		X				IN ELECTRONIC FORMAT
01460	OPERATION AND	X				
	MAINTENANCE DATA METERS AND TEMPORARY					IN ELECTRONIC FORMAT
01470	UTILITIES  DEMONSTRATION AND	X			X	
01475	TRAINING  CERTIFICATION OF	X				
01480	OCCUPANCY	Х				
02100	ON 2 - SITEWORK SITE SURVEYS /		X			
	INVESTIGATION REPORTS		^			N/A
	GEOTECHNICAL REPORT					N/A AS REQUIRED BY LOCAL AUTHORITY HAVING
02150	AARON'S COMING SOON SIGN TEMPORARY FENCING AND		X		X	JURISDICTION REQUIREMENTS
02200	BARRICADES	X			X	
02250		Х			Х	
02300	LANDSCAPING AND ACCESSORIES	X			Х	
02311	HARDSCAPING	X			X	ONLY IF APPLICABLE
02325	IRRIGATION SYSTEM	Х			Х	
02375	CHAIN LINK FENCE	Х			Х	ONLY IF APPLICABLE
02380	EROSION CONTROL	х			Х	
02400	EXCAVATION & BACKFILL	Х			Х	PER GEOTECH REPORT
02420	GRADING	X			X	
02450	SITE UTILITIES (PHONE, GAS,	X			X	EXISTING SITE UTILITIES TO REMAIN
02500	POWER) SANITARY / STORM SEWER	X			X	
02600		X			X	0.000
02625	, ,	X			X	ONLY IF APPLICABLE
02700	RETAINING WALL(S)	X			Х	
02725	BOLLARDS	Х			X	
02845	TRAFFIC CONTROL	X			Х	
02850	MARKING & STRIPING (PARKING LOT)	Х			X	
02875	SITE UTILITIES	Х			Х	EXISTING SITE UTILITIES TO REMAIN
02900	DUMPSTER ENCLOSURE	х			х	ONLY IF APPLICABLE
02950	CLEANING	X			Х	
DIVISIO	ON 3 - CONCRETE				1	
03100	10 MIL MOISTURE VAPOR BARRIER	Х			Х	
03150	FOUNDATION & FOOTINGS	Х			х	PER STRUCTURAL DRAWINGS
03200	INTERIOR CONCRETE SLAB	х			х	
03210	CMU CONCRETE INFILL	X			Х	
03220	CONCRETE CURING BLANKETS	х			X	
03300	PAVING	X			X	
	SIDEWALK AND ADA RAMP	X				
	CURBS AND GUTTERS	X				
03550		X			X	
<b>USSSU</b>	I AINNING CORDS	X				
00505	LIGHT POLE BASES	X		1	X	

		FURNIS					BY	-	
	DIVISION OF WORK AND RESPONSIBILITY		CONTRACTOR	AARON'S	LANDLORD	CONTRACTOR	AARON'S	COMMENTS	
DIVISIO	ON 4 - MASONRY				1	1	1		
04100	CONCRETE UNIT MASONRY		X			Х			
	ON 5 - METALS						1		
05100	STRUCTURAL STEEL FRAMING		X			X			
05200	ROOF DECK/ BAR JOIST		Χ			Х		EXISTING TO REMAIN	
05300	STAIRS		X			Х		ONLY IF APPLICABLE OR REQUIRED BY CODE	
05310	DECORATIVE RAILINGS AND HANDRAILINGS		X			X		ONLY IF APPLICABLE OR REQUIRED BY CODE	
05400	STEEL ACCESS LADDER TO ROOF HATCH		X						
DIVISIO	ON 6 - WOOD AND PLASTICS								
06000	ROUGH CARPENTRY		X			Х		PER FOREST STEWARDSHIP COUNCIL'S SUSTAINABLE DESIGN CRITERIA	
06110	CURBS FOR HVAC UNITS		Χ			Х			
06120	BLOCKING		X						
			х Х			X			
06200	FINISH CARPENTRY ON 7 - THERMAL & MOISTURE PRO		X 			<b>X</b>			
07100			X			X			
						X			
07200	WALL INSULATION SOUND ATTENUATION		X 						
07210	INSULATION		X			X			
07300	MEMBRANE ROOFING		X			Х			
07350	SEALANTS AND CAULKING		X			X			
07400	EXTERIOR INSULATION AND FINISHING SYSTEM / STUCCO		X			Х			
DIVISIO	ON 8 - DOORS & HARDWARE								
08100	HOLLOW METAL AND WOOD DOORS AND FRAMES		X			Х			
08200	DOOR HARDWARE		X			Х			
08300	OVERHEAD COIL DOOR		X			X		EXISTING TO REMAIN	
	(EXTERIOR) SECURITY ROLLING/COILING								
08318	GRILLES (INTERIOR)			Х		X		FOR ALL FUNCTIONING EXTERIOR GLASS DOORS	
08380	WAREHOUSE DOORS (INTERIOR)			X		X			
08400	SECURITY WINDOW GRILLS			Х		Х		FOR ALL EXTERIOR WINDOWS	
08500	INTERIOR ROOM WINDOWS		X			X			
	AND WINDOW FRAMES								
08510	,		X			X			
08520	STOREFRONT GLASS WINDOW FILM		X			X			
	ON 9 - FINISHES						1		
09100	PROTECTIVE WALL COVERINGS		X			X		HI-DENSITY FIBERBOARD	
09110	SANITARY WALL COVERING MATERIAL		X			X		IMPACT RESISTANT PLASTIC COVERED FIBERBOARD	
09120	ACOUSTICAL CEILINGS		X			X			
09200	PAINT		X			Х			
09210	CONCRETE SEALER		X			Х		NON SALES AREAS ONLY	
09300	PORCELAIN TILE		X			X		PROVIDE MARBLE THRESHOLD AT ALL TILE	
				.,				TRANSITIONS	
09400	TRANSITION STRIPS			X		X		TO BE INSTALLED DED MANUEACTUDEDS	
09410	VINYL TILES			Х		Х		TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS	
09420	RUBBER FLOORING			X		X		TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS	
09500	CARPET / CARPET TILE			Х		Х		TO BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS	
09510	FLOORING ADHESIVES			X		X		TALE GOVERNMENT OF THE PARTY OF	
	ELOOPING ADHESIVES								
09511	(CERAMIC TILE)			Х		Х			
09520	COVE BASE			Х	_	Х			
09600	AWNINGS/STOREFRONT CANOPY			х		Х			
09700			X			Х			
09970	POLISHED CONCRETE FLOOR			X		X			
	FINISH ON 10 - SPECIALTIES					, , , , , , , , , , , , , , , , , , ,			
	FIRE EXTINGUISHERS		X			X		PER LOCAL AUTHORITY HAVING JURISDICTION	
. 3200								REQUIREMENTS  BY AARON'S SIGN VENDOR INCLUDING PERMITS.	
10300	EXTERIOR AARON'S SIGNS			X			X	GC TO PROVIDE POWER AND FINAL CONNECTIONS	
10310	INTERIOR SIGNS AND			X			X	GENERAL CONTRACTOR TO PROVIDE	
	GRAPHICS							WALLPAPER; ALL OTHER ITEMS BY OWNER	
10320				X			X		
10420			X			Х			
	ON 11 - EQUIPMENT  DOCK SEALS AND OVERHEAD		····					ONLY/15 155: 151:51	
11110	CANOPY		X			X		ONLY IF APPLICABLE	
11120	DOCK BUMPERS		X			Х		ONLY IF APPLICABLE	
11130	DOCK DOOR JAMB GUARDS		X			х		ONLY IF APPLICABLE	
11140	TRUCK RESTRAINTS		X			Х		ONLY IF APPLICABLE	
		1				i .	1		

		. 0	RNISHED		1140	TALLED	_ •	-
	DIVISION OF WORK AND RESPONSIBILITY	LANDLORD	CONTRACTOR	AARON'S	LANDLORD	CONTRACTOR	AARON'S	COMMENTS
DIVISIO	N 12 - FURNISHINGS							
12100	SALES/AREA TRADE FIXTURES			Х		Х		
12110	CASH WRAP COUNTERS			Х		Х		CONDUIT AND DEVICES PREINSTALLED IN MILLWORK. ELECTRICAL TO PROVIDE CONDUCTOR AND CONNECTION.
12200	OFFICE FURNITURE			Х		Х		
12300	LOCKERS			Х		Х		
12400	BREAK ROOM CABINETRY			Х		Х		GENERAL CONTRACTOR TO PROVIDE FAUCET AND SINK
	TOILET COMPARTMENTS /		X			X		IF APPLICABLE ONLY
	PARTITIONS							II AFFLIOADLE ONLT
	TOILET ROOM MIRRORS  PAPER TOWEL DISPENSERS		X	X		X		
	LAVATORY DECKS WITH BOWLS		X	Λ		X		
	LAVATORY DECK FAUCETS		Х			Х		
12570	TOILET ROOM ACCESSORIES		Х			Х		
12580	GRAB BARS		Х			Х		
172600	INTERIOR DOOR/ROOM DESIGNATION SIGNAGE		X			X		
12700	ADA SIGNAGE		Х			Х		
12710	EXTERIOR SIGNAGE		Х			Х		ID NUMBER REQUIRED AT EACH ROOFTOP UN
DIVISIO	N 13 - SPECIAL CONSTRUCTION							
	FIRE ALARM SYSTEM DESIGN AND INSTALLATION		Х			Х		
	N 14 - CONVEYING SYSTEMS				1		<u> </u>	
14300	MATERIAL LIFTS		Х			X		IF APPLICABLE ONLY
DIVISIO	N 15 - MECHANICAL		-		-			
	FIRE PROTECTION SYSTEM DESIGN		Х			Х		MODIFICATIONS TO EXISTING SYSTEMS AS REQUIRED
	FIRE PROTECTION SHOP		V					MODIFICATIONS TO EXISTING SYSTEMS AS
	DRAWINGS/PERMIT		X			X		REQUIRED
	FIRE PROTECTION SYSTEM INSTALLATION		Х			Х		MODIFICATIONS TO EXISTING SYSTEMS AS REQUIRED
	HVAC ROOFTOP PACKAGE EQUIPMENT		x			Х		
15205	HVAC SECURITY GRILLS		Х			Х		
15210	CO2 SENSORS		Х			Х		
15230	THERMOSTATS		Х			Χ		
	GAS UNIT HEATERS		Х			X		RELOCATE EXISTING
15250	DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, ETC.		X			X		
15260	TEST AND BALANCE REPORTS		Х			Х		
15300	ROOFTOP EXHAUST UNITS		Х			Х		
15310	INTERIOR EXHAUST FANS		Х			X		
	GAS SERVICE AND METER		.,					EXISTING TO REMAIN
	PLUMBING PIPING WATER SYSTEMS		X			X		
	IRRIGATION WATER SERVICE							
15501	METER		X			X		
	SANITARY SYSTEM		X			Х		
15700	RPZD VALVES (REDUCED PRESSURE ZONE DEVICES)		Х			Х		
	BACKFLOW PREVENTER		Х			Х		EXISTING TO REMAIN
	PLUMBING FIXTURES		X			X		
	WATER HEATER  ENERGY MANAGEMENT		Х			Х		EVOLUDES SENSOD WIDING TO THEST YOUT :
	ENERGY MANAGEMENT SYSTEM SENSORS AND WIRING			Х			Х	EXCLUDES SENSOR WIRING TO THERMOSTAT INTEGRAL WITH SWITCHGEAR PACKAGE
	ENERGY MANAGEMENT SYSTEM FINAL CERTIFICATION			Х			Х	
DIVISIO	N 16 - ELECTRICAL		1	<del> </del>	1			
	ELECTRICAL DISTRIBUTION PANELS		Х			Х		EXISTING TO REMAIN
	ELECTRIC METER							EXISTING TO REMAIN
	OVERHEAD CONDUITS AND							
16150	WIRING FROM TRANSFORMER (LOCAL UTILITY PROVIDER) TO AARON'S SWITCHGEAR		Х			Х		EXISTING TO REMAIN
16200	ELECTRIC UNIT HEATER	_	Х			Х		
	POWER RECEPTACLES		X			Х		
16400	INTERIOR LIGHTING FIXTURES AND SCONCE LIGHTS			X		X		
	LAMPS FOR INTERIOR LIGHTING FIXTURES			Х		Х		
	EXIT SIGNS		Х			Х		
	EXTERIOR BUILDING LIGHTING FIXTURES		Х			Χ		
16480	PARKING LOG LIGHT POLES INCLUDING UNDERGROUND CONDUITS AND WIRING		х			Х		5 FOOT CANDLES MINIMUM
	DOOR BELLS AND BUZZERS		Х			Х		
16500			+	X			X	GC TO COORDINATE INSTALLATION
	BURGLAR ALARM SYSTEM			^				CO TO COCKENIA TIE INCINEER THOM



Kinetic Design
29833 Santa Margarita Pkwy, Suite 300
Rancho Santa Margarita, CA 92688
Main. 951.710.6334 Web. kineticdesign.build
Email. info@kineticdesign.build



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CLIENT INFORMATION

DO GALLERIA PARKWAY, SUITE 300
ATI ANTA GA 30339

WILLOWICK, OH 44095

HEET NAME

RESPONSIBILITY MATRIX REMODEL SCOPE

AARON'S C0573 / C0618
29850 - 29900 LAKESHORE BLVD
WILLOWICK, OH 44095

DRAWN CHECKED

E.N.

DATE

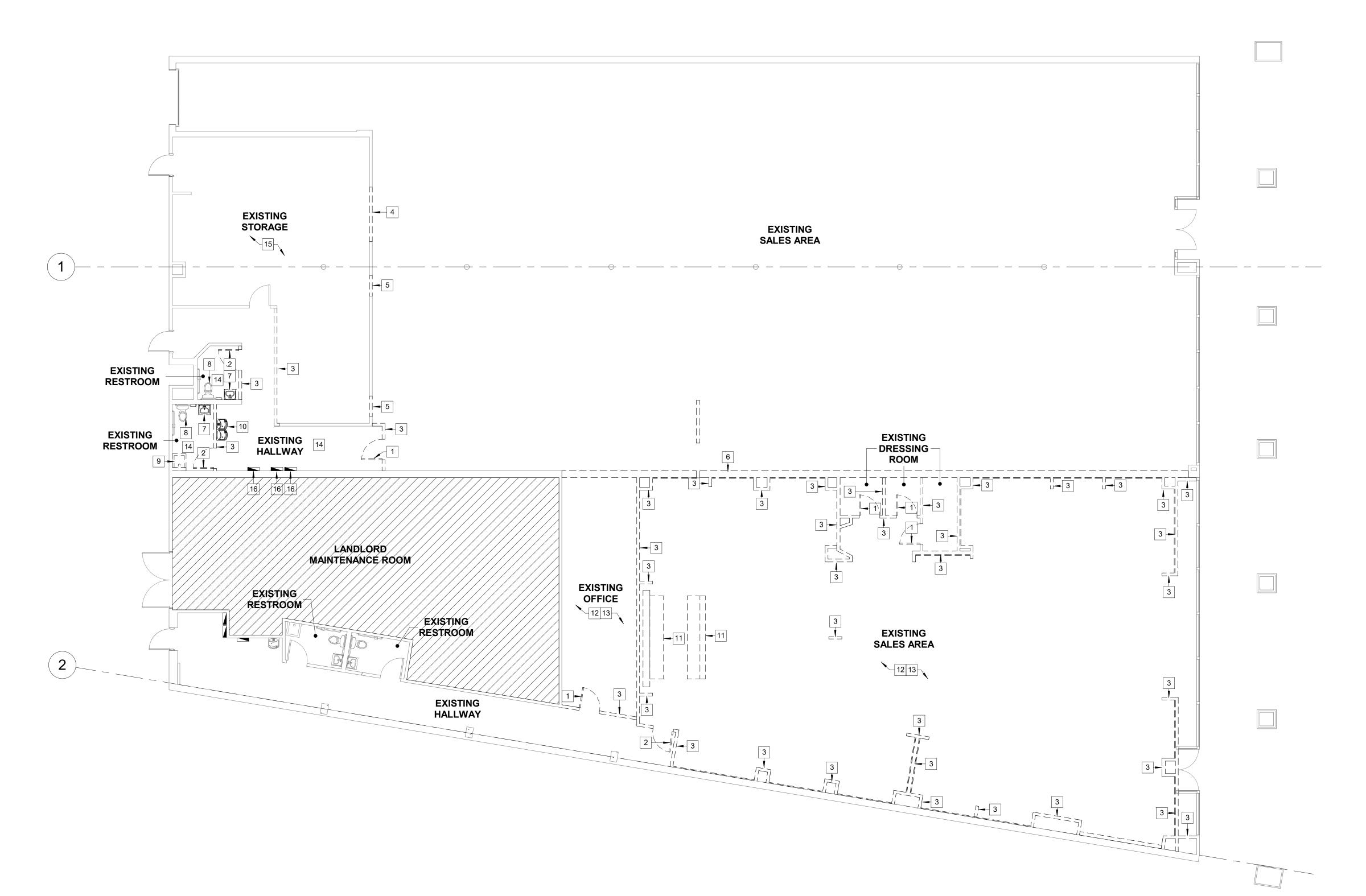
03/07/23

SCALE

O PROJECT NUMBER

PROJECT NUMBER

A050





DEMOLITION PLAN | Scale | 1/8" = 1'-0" | 1

# GENERAL DEMOLITION NOTES

- PRIOR TO BIDDING, THE CONTRACTOR AND THEIR SUB-CONTRACTORS SHALL INSPECT ALL AREAS IN WHICH THE WORK IS TO BE PERFORMED AND FIELD VERIFY ALL EXISTING CONDITIONS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- REMOVE EXISTING FINISHES WHERE INDICATED AND PREPARE ALL EXISTING SURFACES AS REQUIRED TO INSTALL THE NEW FINISHES SCHEDULES ON NEW FLOOR PLAN.
- ALL EXISTING BUILDING UTILITIES SHALL REMAIN IN OPERATION DURING CONSTRUCTION. ANY TEMPORARY SUSPENSION OF SERVICES SHALL BE COORDINATED AND APPROVED BY THE OWNER.
- IN ORDER TO INSTALL SOME OF THE NEW WORK (STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL), IT WILL BE NECESSARY FOR THE CONTRACTOR AND THEIR SUB-CONTRACTORS TO REMOVE AND REPLACE (OR REFINISH) EXISTING CEILINGS, WALLS, OR FLOORS IN OTHER AREAS OF THE BUILDING NOT SHOWN ON THESE DOCUMENTS. THE CONTRACTOR SHALL INCLUDE ALL SUCH COSTS IN THEIR BASE BID, WHETHER SHOWN ON THESE PLANS OR NOT.
- THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS THAT MIGHT ARISE IN THE COURSE OF THE DEMOLITION WORK.
- DO NOT CUT ANY STRUCTURAL ELEMENTS (E.G. CONCRETE SLAB, COLUMN, BEAMS) WITHOUT APPROVAL AND DETAILS FROM ARCHITECT, STRUCTURAL ENGINEER, LANDLORD AND OWNER.
- CONTRACTOR TO PROVIDE TEMPORARY CONSTRUCTION BARRIER AS NECESSARY FOR SEPARATION OF CONSTRUCTION AREAS AND ADJACENT OWNER OCCUPIED AREAS.
- CONTRACTOR TO REMOVE ABANDONED ITEMS SUCH AS ABANDONED PIPING, CONDUIT, WIRING, DUCTWORK, ETC. PATCH AND REPAIR SURROUNDING SURFACES AS REQUIRED.
- CONTRACTOR SHALL PROTECT EXISTING WALL, FLOOR, AND CEILING FINISHES, ITEMS AND FIXTURES NOT SCHEDULES FOR DEMOLITION. CONTRACTOR SHALL PATCH AND REPAIR DAMANGED FINISHES. ITEMS AND FIXTURES TO REMAIN AND/OR REPLACE IN KIND TO MATCH EXISTING.
- WHERE EXISTING WORK TO BE REMOVED PENETRATES EXISTING PARTITIONS TO REMAIN, THE PARTITION SHALL BE PATCHED TO MEET OR EXCEED EXISTING FIRE RATING. FINISH TO MATCH EXISTING OR AS NOTED ON FINISH SCHEDULE.
- AT THE TIME OF ROUGH INSTALLATION AND DURING STORAGE ON THE CONSTRUCTION SITE UNTIL FINAL STARTUP OF THE HEATING, COOLING, AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF DUST, WATER, AND DEBRIS WHICH MAY COLLECT IN THE
- CONTRACTOR TO FIELD VERIFY EXISTING PIPES AND CONDUITS, AND TO NOTIFY ARCHITECT OF ANY DISCREPANCIES IMMEDIATELY.

# KEYNOTES

KEYNOTE DESCRIPTION

- 1 EXISTING DOOR TO BE REMOVED.
- 2 EXISTING DOOR TO BE RELOCATED.
- 3 EXISTING WALL TO BE REMOVED. GC VERIFY IF ANY OF THE WALLS BEING REMOVED ARE POTENTIALLY STRUCTURAL AND NOTIFY OWNER AND ARCHITECT IMMEDIATELY.
- 4 REMOVE A PORTION OF EXISTING WALL FOR A NEW WALL OPENING.
- 5 REMOVE A PORTION OF EXISTING WALL FOR A NEW DOOR OPENING. 6 REMOVE WALL UP TO THE EXISTING CEILING HEIGHT ON BOTH SIDES OF THE WALL,
- SEE REFLECTED CEILING PLAN FOR ADDITIONAL DETAILS. EXISTING PLUMBING FIXTURE TO BE RELOCATED.
- 8 EXISTING PLUMBING FIXTURE TO BE CLEANED FOR RE-USE.
- 9 EXISTING MOP SINK TO BE REMOVED.
- 10 EXISTING DRINKING FOUNTAIN TO BE RELOCATED. 11 EXISTING CASEWORK TO BE REMOVED.
- 12 EXISTING FLOORING IN SALES AREA TO BE REMOVED, FLOOR TO BE CLEANED AND PREPPED FOR NEW FINISH.
- 13 EXISTING BASE TO BE REMOVED.
- 14 EXISTING FLOORING AND COVE BASE IN HALLWAY AND RESTROOMS TO BE
- 15 EXISTING CONCRETE FLOORING TO BE CLEANED FOR SMOOTH FINISH. 16 EXISTING ELECTRICAL PANELS TO REMAIN, PROTECT IN PLACE.

# LEGEND

(E) PARTITION WALL TO REMAIN

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(E) PARTITION WALL TO BE REMOVED

**KEYNOTE TAG** 

AREA NOT IN SCOPE OF WORK



29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



STAMP

REVISIONS DESCRIPTION

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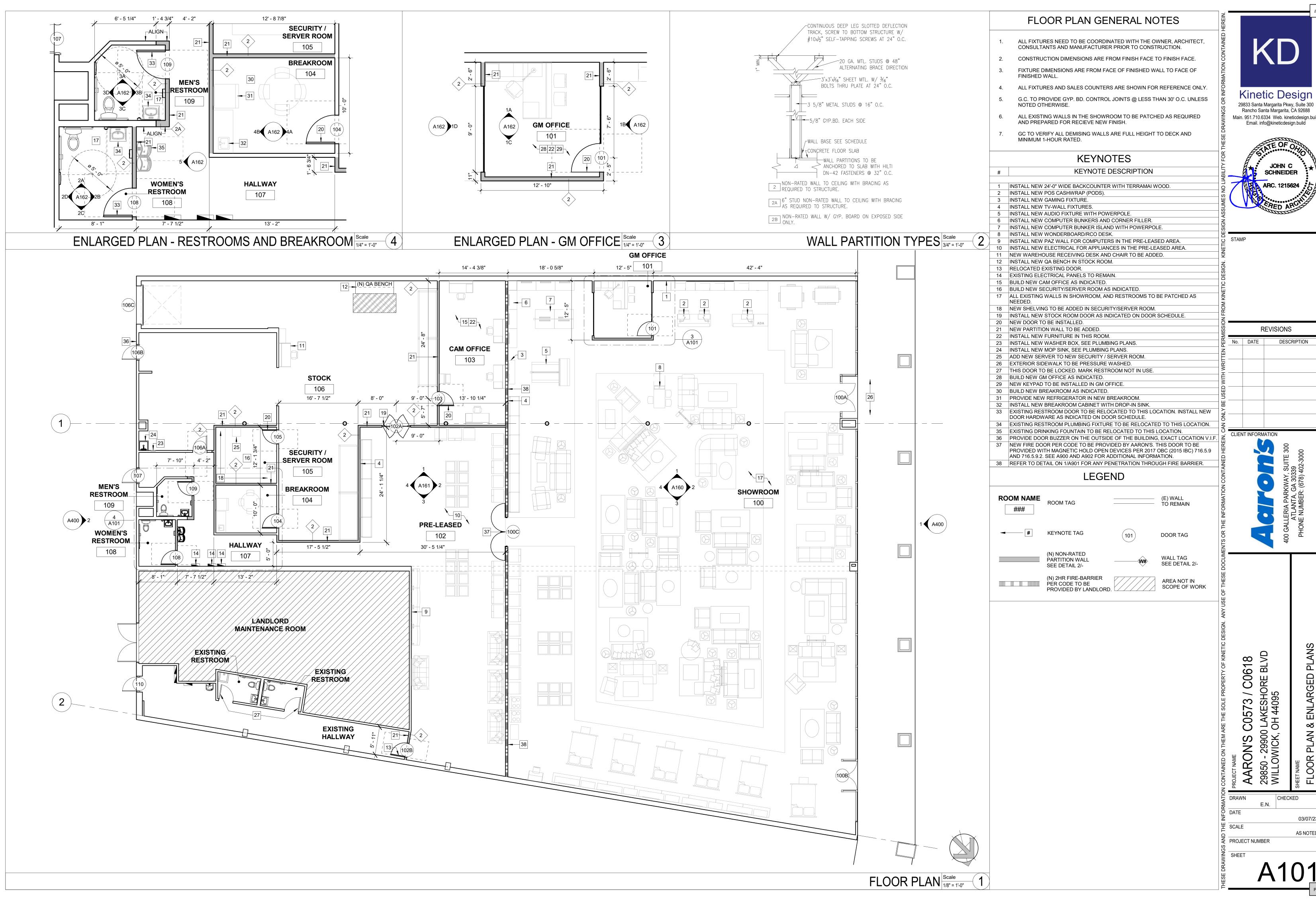
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DRAWN DATE 03/07/23 SCALE

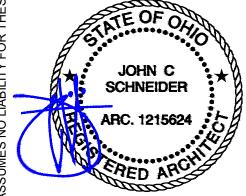
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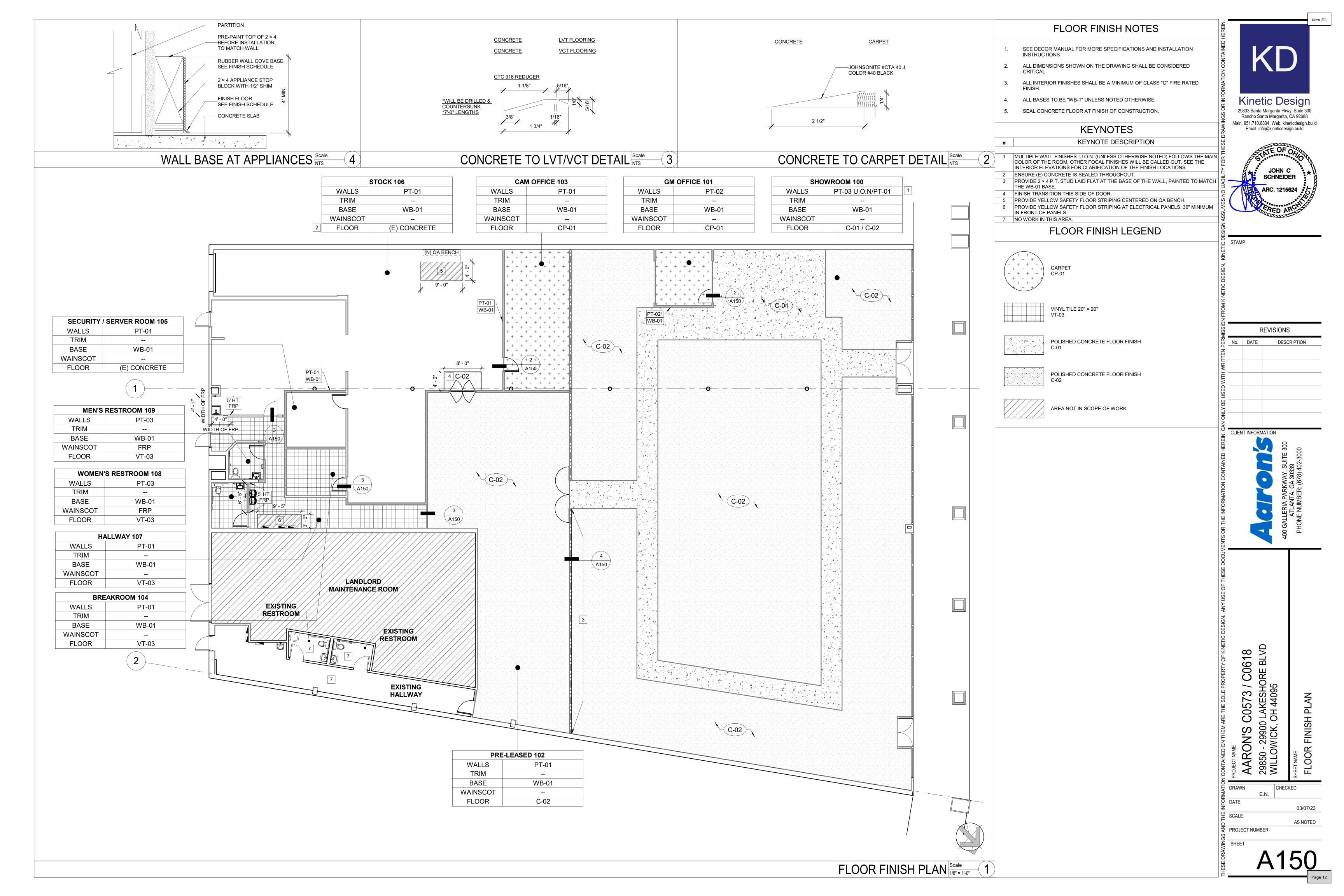
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DESCRIPTION

CHECKED 03/07/23



				ROOM	1 FINISH LEGEND			
CODE	DESCRIPTION	PRODUCT / MODEL #	COLOR / FINISH	SIZE / COVERAGE	MANUFACTURER	SOURCE	LOCATION	NOTES
C-01	POLISHED CONCRETE	TBD	DARK GRAY - AISLE	-	ROCKERZ, INC. 100 COMMONWEALTH DRIVE WARRENDALE, PA 15095 T: 724.553.3854 WWW.ROCKERZINC.COM	CONTACT: ROBERT SMITH ROCKERZ, INC. T: 724.553.3854 C: 724.612.6520 RSMITH@ROCKERZINC.COM	SALES FLOOR DRIVE AISLES	OWNER PROVIDED
C-02	POLISHED CONCRETE	TBD	NATURAL POLISHED - FIELD	-	ROCKERZ, INC. 100 COMMONWEALTH DRIVE WARRENDALE, PA 15095 T: 724.553.3854 WWW.ROCKERZINC.COM	CONTACT: ROBERT SMITH ROCKERZ, INC. T: 724.553.3854 C: 724.612.6520 RSMITH@ROCKERZINC.COM	GENERAL SALES AND PRE-LEASE FLOORS	OWNER PROVIDED
CP-01	CARPET TILE	SPACE WORX 5T124 CENTRIC TILE	RAVEN 17505	24" X 24"	SHAW INDUSTRIES, INC. 616 E. WALNUT AVE DALTON, GA 30720 T:800.441.7429 WWW.SHAWCONTRACT.COM	CONTACT: JESSA FINNEGAN SHAW INDUSTRIES, INC. T: 404.558.1806 JESSA.FINNEGAN@SHAWINC.COM	OFFICE	OWNER PROVIDED
CT-01	ACOUSTICAL CEILING TILE	ARMSTRONG CIRRUS 533HRC	WHITE SQUARE EDGE - LAY-IN	24"X48"X.75"	ARMSTRONG P.O. BOX 3001 LANCASTER, PA 17604 T: 717.397.0611 WWW.ARMSTRONG.COM	MICHAEL MCDOWELL ARMSTRONG COMMERCIAL CEILING T: 717.396.6052 F: 717.396.4154 MJMCDOWELL@ARMSTRONG.COM	SALES FLOOR	G.C. PROVIDED
FW-01	FAUX WOOD	NICHIHA FIBER CEMENT ARCHITECTURAL WALL PANEL MODEL#: EPC762F	SERIES: VINTAGE WOOD 3030 COLOR: CEDAR	18"W X 10'L	NICHIHA USA, INC. NATIONAL BRANDS DEPT. 6465 E JOHNS CROSSING, SUITE 250 JOHNS CREEK, GA 30097 T: 770.805.9466 WWW.NICHIHA.COM	CONTACT: ADAM COSSICK NATIONAL BRANDS MANAGER - RETAIL T: 770.805.9466 C: 770.570.0011 ACOSSICK@NICHIHA.COM	EXTERIOR	G.C. PROVIDED LEAD TIME: 2 WEEKS
PT-01	PAINT - INTERIOR	SW 6246	COLOR: NORTH STAR FINISH: EGGSHELL		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	PERIMETER WALLS	G.C. PROVIDED
PT-02	PAINT - INTERIOR FINISH	PRODUCT: SW PROMAR INDUSTRIAL PRE-CATALYZED WB EPOXY K45 SERIES MODEL#: SW 7005	COLOR: PURE WHITE FINISH: WALLS - EGGSHELL PAINT FINISH: DOOR FRAMES - SEMI GLOSS	300SF	SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	OUTSIDE OF OFFICE WALLS/ DOOR FRAMES	G.C. PROVIDED 2 COATS
F 1-02	PAINT - PRIMER	PRODUCT: SW PROMAR 200 ZERO VOC INTERIOR LATEX PRIMER MODEL#: B28W2600	N/A	250SF - 300SF	SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	OUTSIDE OF OFFICE WALLS/ DOOR FRAMES	G.C. PROVIDED 1 COAT
PT-03	PAINT - WALLS	SW 6249	COLOR: STORM CLOUD FINISH: WALLS - EGGSHELL FINISH: DOOR FRAMES - SEMI GLOSS		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	PERIMETER WALLS, BREAKROOM AND DOORS (REFER TO P/A900 DOOR SCHEDULE)	G.C. PROVIDED
PT-04	PAINT - INTERIOR	SW 6102	COLOR : PORTABELLO FINISH: EGGSHELL		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	INSIDE BACK WRAP ALCOVES, PAINTED GYP. WALLS AND CEILINGS	G.C. PROVIDED
PT-05	NOT USED							
PT-06 PT-07	NOT USED  NOT USED							
PT-08	NOT USED							
PT-09	PAINT - EXTERIOR	SW 6959	COLOR: BLUE CHIP FINISH: EXTERIOR PAINT		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	EXTERIOR BUILDING	G.C. PROVIDED
PT-10	PAINT - EXTERIOR	SW 7648	COLOR: BIG CHILL FINISH: EXTERIOR PAINT		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	EXTERIOR BUILDING	G.C. PROVIDED
PT-11	PAINT - EXTERIOR	SW 7650	COLOR: ELLIE GRAY FINISH: EXTERIOR PAINT		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	EXTERIOR WALL SIDES AND REAR AND PAINTED ROOF COPPING	G.C. PROVIDED
PT-12	PAINT - EXTERIOR GRAY ACCENT	SW 7074	COLOR: SOFTWARE FINISH: EXTERIOR PAINT		SHERWIN WILLIAMS PRODUCT HOTLINE T: 1.800.331.7979 WWW.SHERWINWILLIAMS.COM	CONTACT: DWIGHT LECLAIR SHERWIN WILLIAMS 2800 CENTURY PARKWAY NE, SUITE #1000 ATLANTA, GA 30345 T: 678.361.6108 C: 678.942.5377 DCLECLAIR@SHERWIN.COM	EXTERIOR PERIMETER ACCENT	G.C. PROVIDED
VT-01	LUXURY VINYL TILE	SURFACE 0515V	SEDIMENT 15595	18" X 36"	SHAW INDUSTRIES, INC. 616 E. WALNUT AVE DALTON, GA 30720 T:800.441.7429 WWW.SHAWCONTRACT.COM	CONTACT: JESSA FINNEGAN SHAW INDUSTRIES, INC. T: 404.558.1806 JESSA.FINNEGAN@SHAWINC.COM	SALES FLOOR -AISLE	OWNER PROVIDED
VT-02	LUXURY VINYL TILE	SURFACE 0515V	GRAVEL 15530	18" X 36"	SHAW INDUSTRIES, INC. 616 E. WALNUT AVE DALTON, GA 30720 T:800.441.7429 WWW.SHAWCONTRACT.COM	CONTACT: JESSA FINNEGAN SHAW INDUSTRIES, INC. T: 404.558.1806 JESSA.FINNEGAN@SHAWINC.COM	SALES FLOOR - FIELD	OWNER PROVIDED
VT-03	LUXURY VINYL TILE	EON + AMALGAM 4113V AMALGAM	ONYX 13555	20" X 20"	SHAW INDUSTRIES, INC. 616 E. WALNUT AVE DALTON, GA 30720 T:800.441.7429 WWW.SHAWCONTRACT.COM	CONTACT: JESSA FINNEGAN SHAW INDUSTRIES, INC. T: 404.558.1806 JESSA.FINNEGAN@SHAWINC.COM	RESTROOMS / BREAKROOM	OWNER PROVIDED
WB-01	WALL BASE	JOHNSONITE BASEWORKS	71 STORM CLOUD - TOE STYLE	4"	JOHNSONITE 30000 AURORA ROAD SOLON, OH 44139 T: 800.899.8916 F: 440.543.8920 WWW.JOHNSONITE.COM	CONTACT: STEPHANIE ELLIOTT TANDUS CENTIVA C: 404.998.2872 SBELLIOTT@TANDUS-CENTIVA.COM	PAINTED WALLS	OWNER PROVIDED

				ROOM	FINISH LEGEND			
CODE	DESCRIPTION	PRODUCT / MODEL #	COLOR / FINISH	SIZE / COVERAGE	MANUFACTURER	SOURCE	LOCATION	NOTES
WB-02	WALL BASE	JOHNSONITE BASEWORKS	TB1 PEPPERCORN - TOE LESS	4"	JOHNSONITE 30000 AURORA ROAD SOLON, OH 44139 T: 800.899.8916 F: 440.543.8920 WWW.JOHNSONITE.COM	CONTACT: STEPHANIE ELLIOTT TANDUS CENTIVA C: 404.998.2872 SBELLIOTT@TANDUS-CENTIVA.COM	WHEREVER WC-01 IS CALLED OUT	OWNER PROVIDED
WC-01	ENGINEERED WOOD	TERRAMAI - MC WALNUT	MC WALNUT ENGINEERED 5" F/P - POLY		TERRAMAI 8400 AGATE ROAD WHITE CITY, OR 957503 T: 541-973-2301 WWW.TERRAMAI.COM	CONTACT: KEVIN KOWAL TERRAMAI 717.598.3173		
ET-01	EDGE TRIM	SCHLUTER TRIM	LVT 340 EBRZ	12' LENGTHS	SHAW INDUSTRIES, INC. 616 E. WALNUT AVE DALTON, GA 30720 T:800.441.7429 WWW.SHAWCONTRACT.COM	CONTACT: JESSA FINNEGAN, SHAW INDUSTRIES, INC. T: 404.558.1806 JESSA.FINNEGAN@SHAWINC.COM	OFFICE, BACKWRAP AND ALCOVE	OWNER PROVIDED
ET-02	EDGE TRIM	SCHLUTER TRIM	AE 30	8' LENGTHS	SHAW INDUSTRIES, INC. 616 E. WALNUT AVE DALTON, GA 30720 T:800.441.7429 WWW.SHAWCONTRACT.COM	CONTACT: JESSA FINNEGAN, SHAW INDUSTRIES, INC. T: 404.558.1806 JESSA.FINNEGAN@SHAWINC.COM	OFFICE, BACKWRAP AND ALCOVE	OWNER PROVIDED
SF-01	EXTERIOR STOREFRONT FRAMING AND GLAZING		FINISH TO MATCH EXISTING					SEE DOOR & HARDWARE SCHEDULE, A900



Kinetic Design
29833 Santa Margarita Pkwy, Suite 300
Rancho Santa Margarita, CA 92688
Main. 951.710.6334 Web. kineticdesign.build
Email. info@kineticdesign.build



○ STAMP

	RI	EVISIONS
No.	DATE	DESCRIPTION

LIENT INFORMATION

400 GALLERIA PARKWAY, SUITE 300 ATLANTA, GA 30339 PHONE NUMBER: (678) 402-3000

AARON'S C0573 / C0618
29850 - 29900 LAKESHORE BLVD
WILLOWICK, OH 44095

DECT NA CHECKED BY CHE

SCALE ...

PROJECT NUMBER

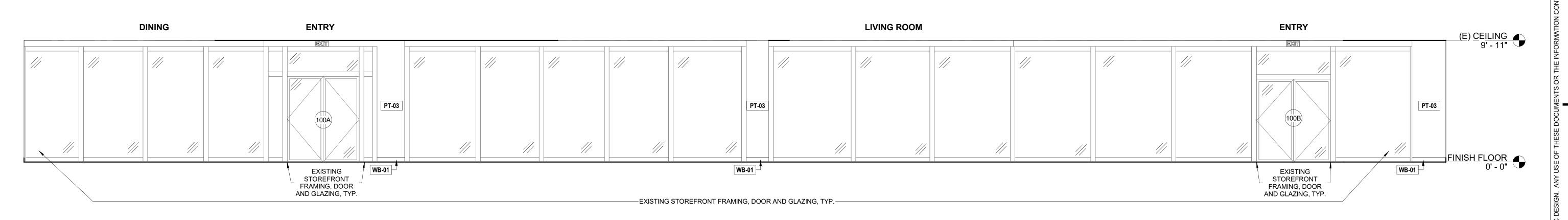
**1 1 5 1** 

# GENERAL ELEVATION NOTES CONSTRUCTION DIMENSIONS ARE FROM FINISH FACE TO FINISH FACE. 2. FIXTURE DIMENSIONS ARE FROM FACE OF FINISH WALL TO FACE OF ALL FIXTURES AND SALES COUNTERS ARE SHOWN FOR REFERENCE TV/ENTERTAINMENT **APPLIANCES** (E) <u>CEILING</u> 9' - 11" → PT-03 → **──** PT-03 -TV WALL FIXTURES-EQ OPEN TO PRE-LEASED PT-01 ,\_FINISH FLOOR WB-01 PROVIDE 2X4 P.T. STUD LAID FLAT AT THE BASE OF THE WALL, PAINTED TO MATCH WB-01 BASE. GAMING FIXTURE— -COMPUTER BUNKERS INTERIOR ELEVATION - SHOWROOM - WEST | Scale | 1/4" = 1'-0" STAMP **BEDROOM** (E) CEILING 9' - 11" PT-03

WB-01

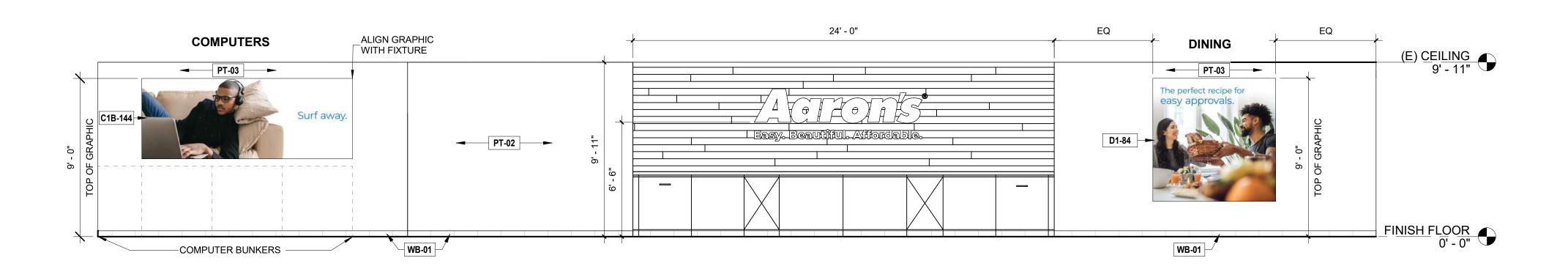
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# INTERIOR ELEVATION - SHOWROOM - SOUTH | Scale | 1/4" = 1'-0" |

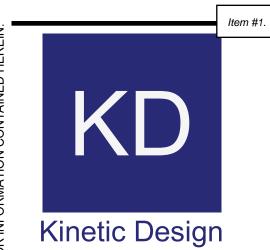


BED RISER-

# INTERIOR ELEVATION - SHOWROOM - EAST | Scale | 1/4" = 1'-0" | 2 | 5 | 5 |



INTERIOR ELEVATION - SHOWROOM - NORTH Scale 1/4" = 1'-0"



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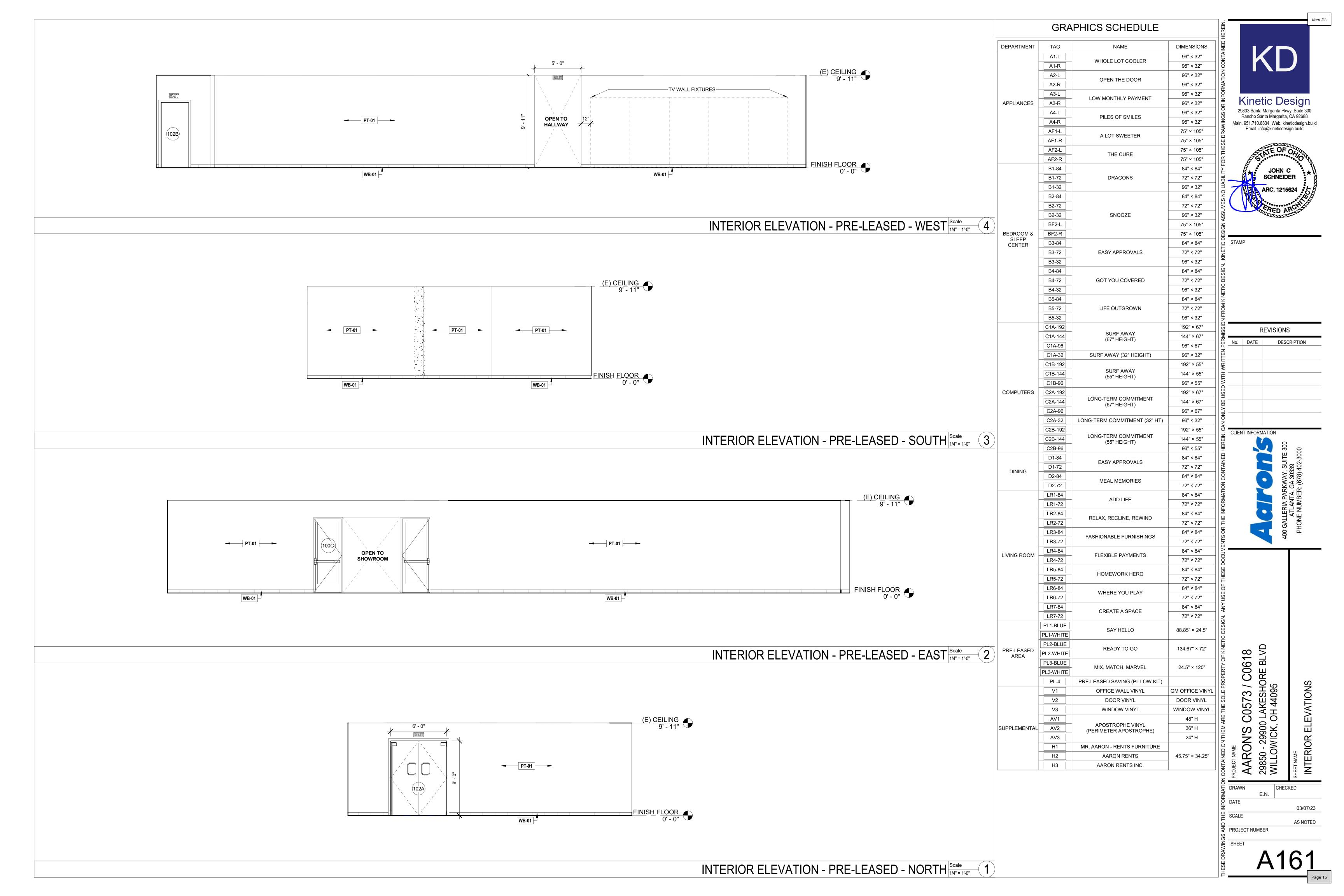
CLIENT INFORMATION

C0573 / C0618 0 LAKESHORE BLVD 1, OH 44095

DRAWN CHECKED E.N. DATE 03/07/23 AS NOTED

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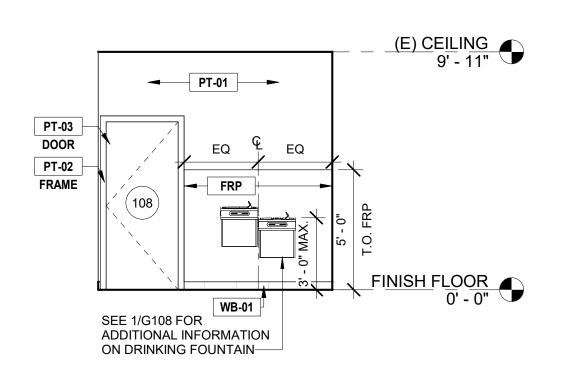


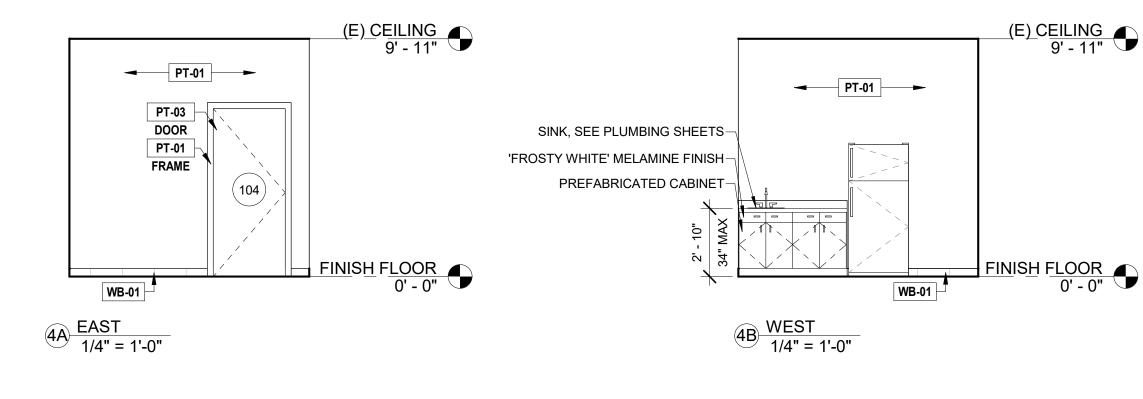
## **#** ACCESSORIES SCHEDULE

	ITEM	MANUFACTURER	MODEL
1	MIRROR	BOBRICK	B-165-1624
2	GRAB BARS	BOBRICK	B-6806
3	PAPER TOWEL DISPENSER	BOBRICK	B-262
4	TOILET PAPER DISPENSER	BOBRICK	B-2740
5	PIPE GUARDS	TRUEBRO	LAV GUARD 2
6	SOAP DISPENSER	BOBRICK	B-211, OR APPROVED EQUAL

### **GENERAL NOTES:**

- (SIGNAGE FOR RESTROOMS): SHALL BE RAISED AND BRAILLE CHARACTERS AND PICTORIAL SYMBOL SIGNS. SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. MOUNTING HEIGHTS SHALL BE 60 INCHES ABOVE THE FINISHED FLOOR TO THE CENTERLINE OF THE SIGN.
- PROVIDE 2X WOOD BLOCKING BETWEEN STUDS FOR ALL TOILET ROOM ACCESSORIES.
- EXISTING PLUMBING FIXTURES AND ACCESSORIES TO REMAIN/RELOCATED AND BE CLEANED TO LIKE NEW CONDITION. PROVIDE NEW ACCESSORIES IF CANNOT BE CLEANED TO LIKE NEW CONDITION. COORDINATE WITH AARON'S CONSTRUCTION MANAGER.







**REVISIONS** 

CLIENT INFORMATION

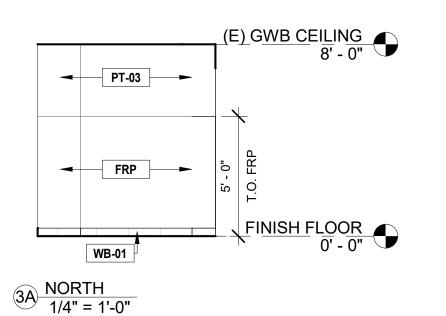
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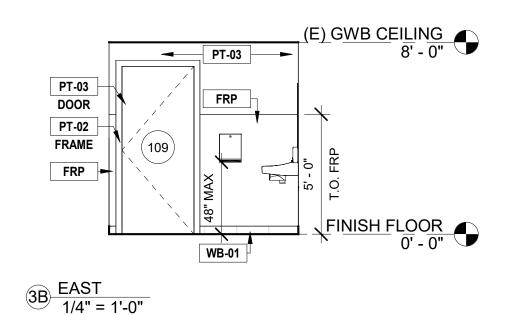
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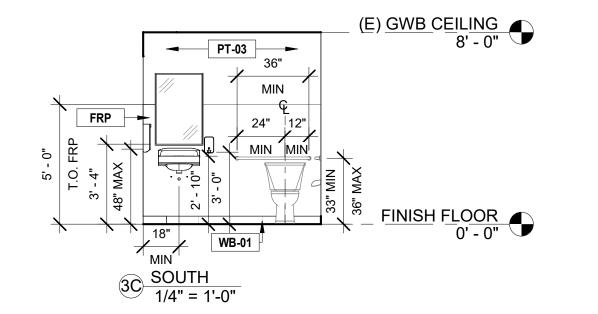
ACCESSORIES SCHEDULE (FOR REFERENCE ONLY) Scale NTS

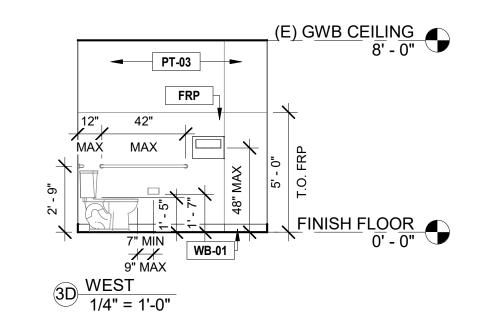
DRINKING FOUNTAIN AT HALLWAY Scale 1/4" = 1'-0" 5

INTERIOR ELEVATION - BREAKROOM | Scale | 1/4" = 1'-0"

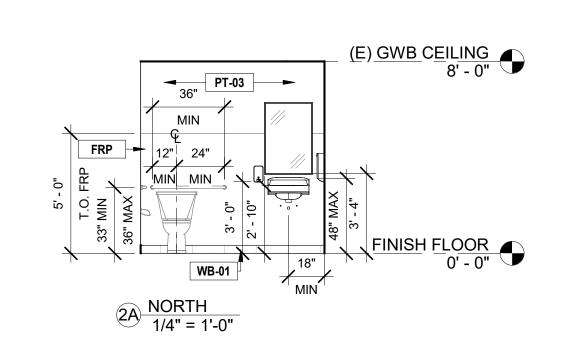


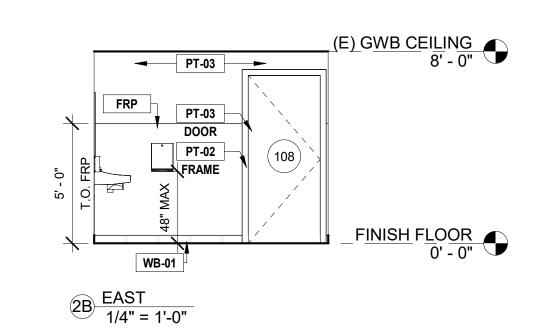


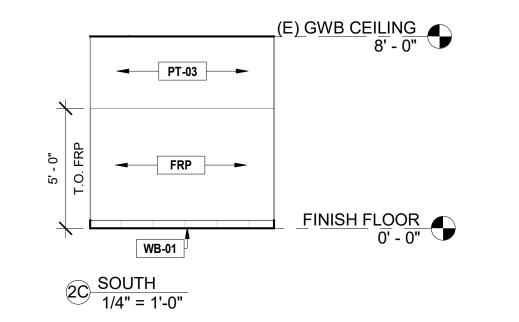


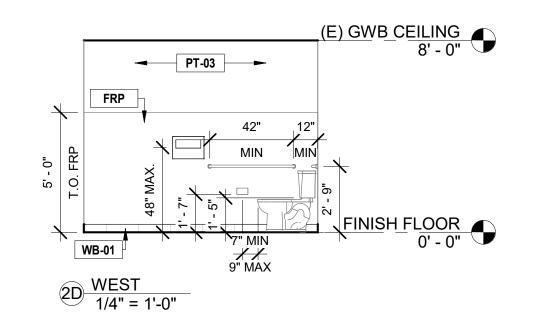


# INTERIOR ELEVATION - MEN'S RESTROOM | Scale | 1/4" = 1'-0" | 3

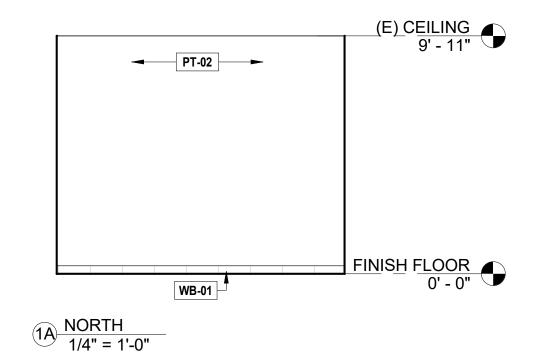


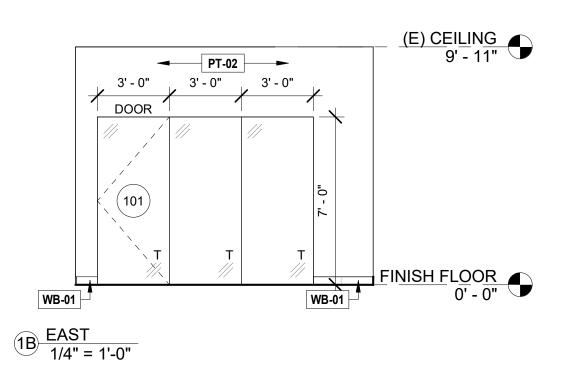


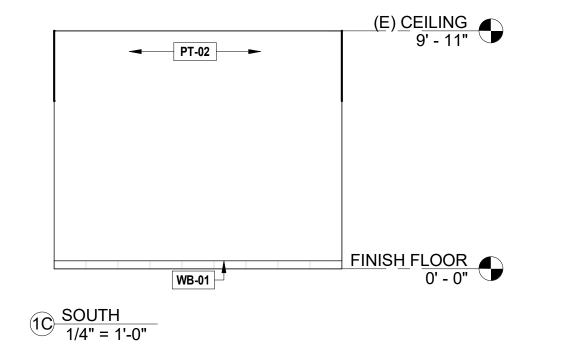


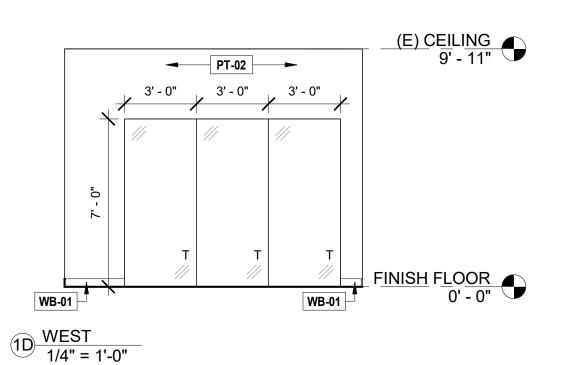


# INTERIOR ELEVATION - WOMEN'S RESTROOM 1/4" = 1'-0"









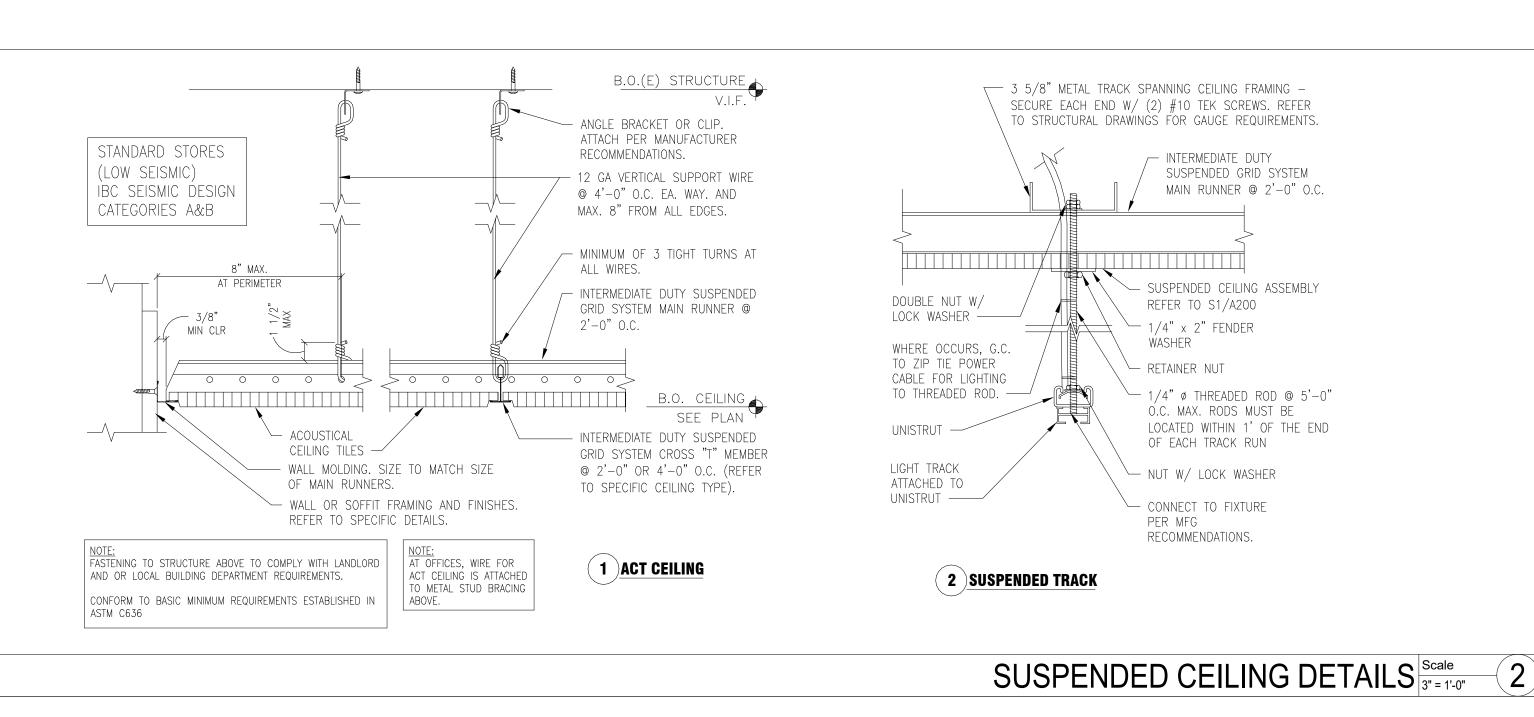
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DATE

INTERIOR ELEVATION - GM OFFICE Scale 1/4" = 1'-0"

AARON'S C0573 / C0618 29850 - 29900 LAKESHORE BLVD WILLOWICK, OH 44095 CHECKED 03/07/23



SECURITY /

BREAKROOM

EXISTING

RESTROOM

**EXISTING HALLWAY** 

HALLWAY

EXISTING

RESTROOM

LANDLORD MAINTENANCE ROOM

SERVER ROOM

PRE-LEASED

MEN'S **RESTROOM** 109

**WOMEN'S** 

RESTROOM

108

CAM OFFICE

GM OFFICE

KEYNOTES **KEYNOTE DESCRIPTION** ALL LIGHT FIXTURES INCLUDING EXIT LIGHTS, EMERGENCY LIGHTS, ETC.,

NEW TRACK LIGHTING TO BE INSTALLED.

NEW CEILING TILES AND GRIDS TO BE ADDED. 3 NEW GWB, CEILING TO BE ADDED, MATCH EXISTING.

4 NEW CEILING LIGHT TO BE INSTALLED. 5 EXISTING HVAC UNITS TO REMAIN, GC TO ENSURE GOOD WORKING ORDER. NOTIFY AARON'S CONSTRUCTION

MANAGER IMMEDIATELY IF OTHERWISE. EXISTING HVAC SUPPLY AND RETURN AIR DIFFUSERS TO REMAIN AND BE 6 ENSURE REMAINING WALL SOFFIT HEIGHT IS IN LINE WITH THE (E) ACOUSTICAL CEILNG TILE ON BOTH SIDES.

7 NEW EXIT SIGN TO BE INSTALLED.

EQ

EQ

SHOWROOM

8 REFER TO DETAIL ON 1/A901 FOR ANY PENETRATION THROUGH FIRE BARRIER. 9 PROVIDE PLYWOOD CEILING IN SECURITY / SERVER ROOM.

**GENERAL CEILING PLAN NOTES** 

EMERGENCY LIGHTS TO BE INSTALLED ON SEPARATE CIRCUIT.

SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

ALL FINISHING AND PAINTING REQUIREMENTS SHALL BE DIRECTED TO THE FINISH SCHEDULE SPECIFICATIONS AND INTERIOR ELEVATIONS.

CONTRACTOR TO USE LASER FOR LEVELING OF ALL SOFFITS, CEILINGS AND SUSPENDED GRIDS.

DIFFUSERS AND LIGHTS TO HAVE HANG WIRES ON ALL FOUR CORNERS

ALL FIRE DAMPERS MUST BE IDENTIFIED BY A STICKER INSTALLED ON CEILING BELOW. DUCT FIRE DAMPER MUST BE INSTALLED WITH A BREAKAWAY CONNECTION PLENUM THAT CANNOT CONTAIN ANY COMBUSTIBLES.

GENERAL CONTRACTOR TO INSTALL ACCESS DOORS AS NECESSARY AND CONFIRM EXACT LOCATIONS. ACCESS PANEL MUST BE FLUSH, FRAMELESS GYPSUM PANELS IN SALES AREA. G.C. MUST PROVIDE AN ALLOWANCE FOR ACCESS PANELS IN BID.

ALL LIGHTING SHOULD BE IN WORKING ORDER AND ALL COVERS / LENSES

GENERAL CONTRACTOR SHALL COMPLY WITH CURRENT STATE ENERGY

GENERAL CONTRACTOR TO VERIFY FIRE ALARM REQUIREMENTS AND NOTIFY ARCHITECT AS SOON AS POSSIBLE OF ANY DISCREPANCIES.

FIRE ALARM, FIRE STROBE, FIRE PULL SHALL BE BY OTHERS ON A SEPARATE SUBMITTAL.

REFLECTED CEILING PLAN REPRESENTS IDEAL DESIGN. VERIFY CONDITIONS IN FIELD AND COORDINATE ANY LAYOUT CONFLICTS WITH AARON'S DESIGN TEAM. TYPICAL IS (1) 2'X4' FIXTURE PER 120-140 SQ.FT. OF SALES; EXISTING FLUORESCENT LIGHTS TO BE RE-USED SHALL BE RETRO FITTED WITH LED KITS OR MUST BE T-8 MAX 28 WATT 3 LIGHTS FIXTURES WITH HIGH EFFICIENCY ELECTRONIC BALLASTS (SEE LIGHT SPECIFICATIONS)

REPAIR LIGHTING AS NECESSARY TO MAKE OPERATIONAL

**LEGEND ROOM NAME ROOM TAG** ### KEYNOTE TAG (N) 2'X2' ACOUSTICAL TILE CEILING ON SUSPENSION SYSTEM. SÉE DETAIL THIS SHEET. NEW R-11 BATT INSULATION TO BE PROVIDED ON TOP OF CEILING TILES, TYP. (E) 2'X2' ACOUSTICAL TILE CEILING IN EXISTING SUSPENDED ÀCT GRID. (E) GYPSUM WALL BOARD ON METAL STUD JOISTS TO REMAIN (N) GYPSUM WALL BOARD ON METAL STUD (N) NON-RATED PARTITION WALL (E) PARTITION WALL TO REMAIN (N) 2HR FIRE-BARRIER PER CODE TO BE PROVIDED BY LANDLORD. EXISTING / NEW 2'×4' FIXTURE W/ LED RETROFIT NEW PRISMATIC LENS & 4000K BULBS, SEE ELECTRICAL PLANS FOR EXISTING / NEW 2'×2' FIXTURE W/ LED RETROFIT NEW PRISMATIC LENS & 4000K BULBS, SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION EXISTING 4'×1' SURFACE MOUNTED FLUORESCENT LIGHT FIXTURE WITH COVER EXISTING / NEW 8'×4" SUSPENDED / SURFACE MOUNTED E/N FLUORESCENT LIGHT FIXTURE NEW SUSPENDED TRACK AND LIGHT FIXTURE EXISTING EMERGENCY LIGHT EXISTING / NEW EXIT SIGN W/ BATTERY BACKUP EXISTING / NEW SUPPLY AIR DIFFUSER EXISTING / NEW RETURN AIR DIFFUSER EXISTING / NEW LIGHT AND EXHAUST COMBO IN RESTROOMS AREA NOT IN SCOPE OF WORK

**REVISIONS** DESCRIPTION

Kinetic Design

29833 Santa Margarita Pkwy, Suite 300

Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

**SCHNEIDER** 

ARC. 1215624

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CLIENT INFORMATION

REFLECTED CEILING PLAN | Scale | 1/8" = 1'-0"

C0618 ORE BLVD 05

CHECKED E.N. 03/07/23

E SCALE PROJECT NUMBER

AS NOTED

# **GENERAL ELEVATION NOTES**

- A. CONSTRUCTION DIMENSIONS ARE FROM FINISH FACE TO FINISH FACE.
- B. G.C. TO FIELD VERIFY EXISTING EXTERIOR WALL CONSTRUCTION AND FINISH CONDITIONS.



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N ONLY BE USED WITH WRITTEN PERMISSIO	REVISIONS						
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CLIENT INFORMATION

400 GALLERIA PARKWAY, SUITE 300 ATLANTA, GA 30339 PHONE NUMBER: (678) 402-3000

N'S C0573 / C0618 29900 LAKESHORE BLVD VICK, OH 44095

29850 - 29900 LAK WILLOWICK, OH 4

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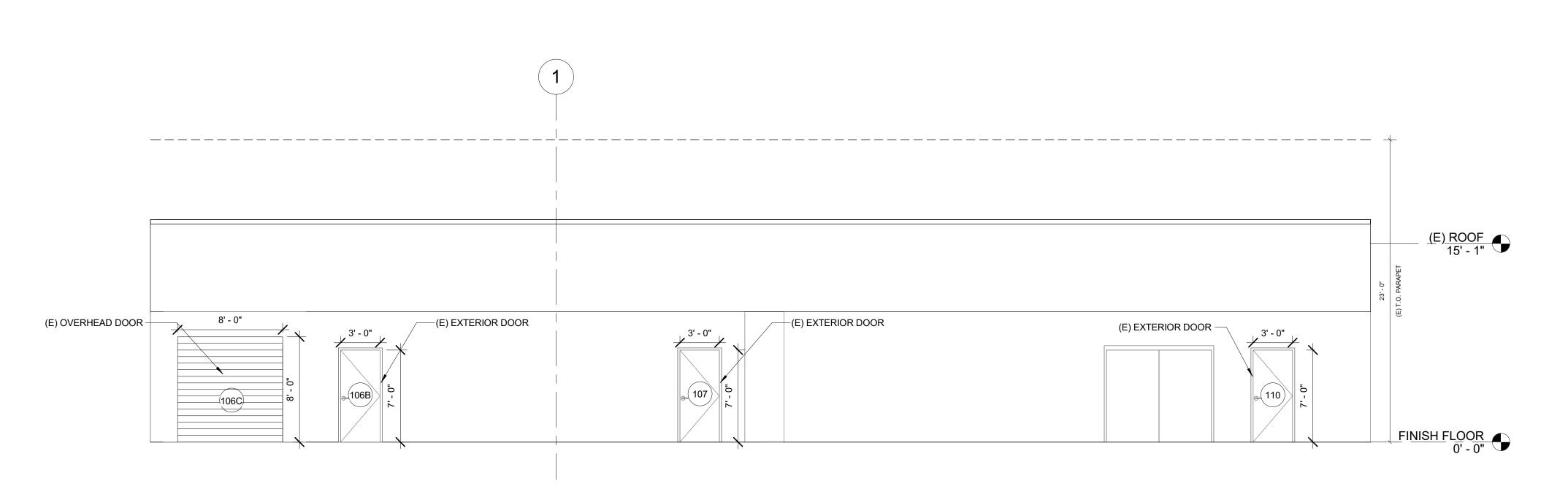
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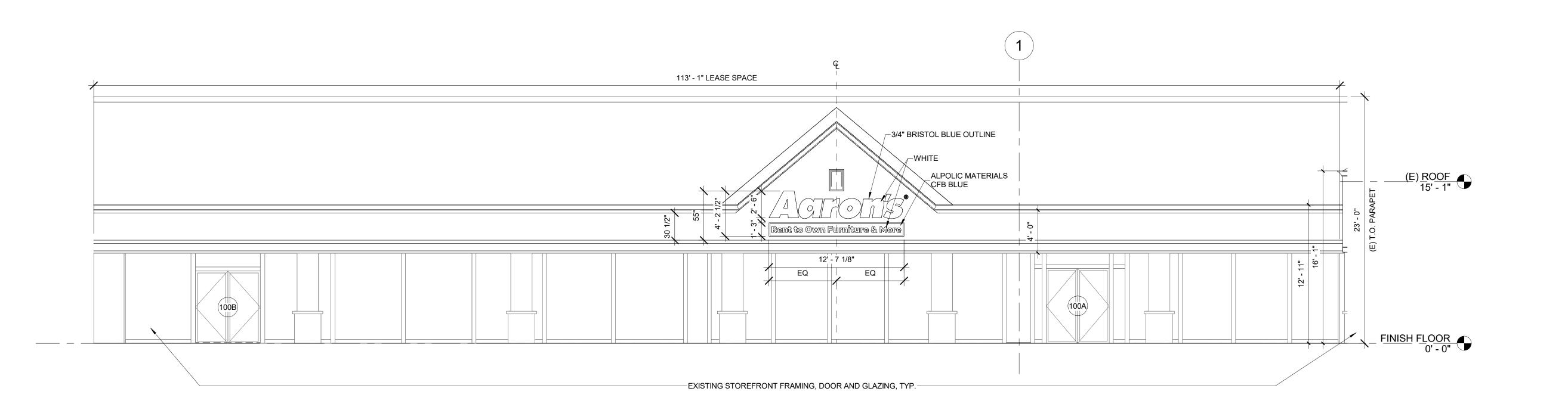
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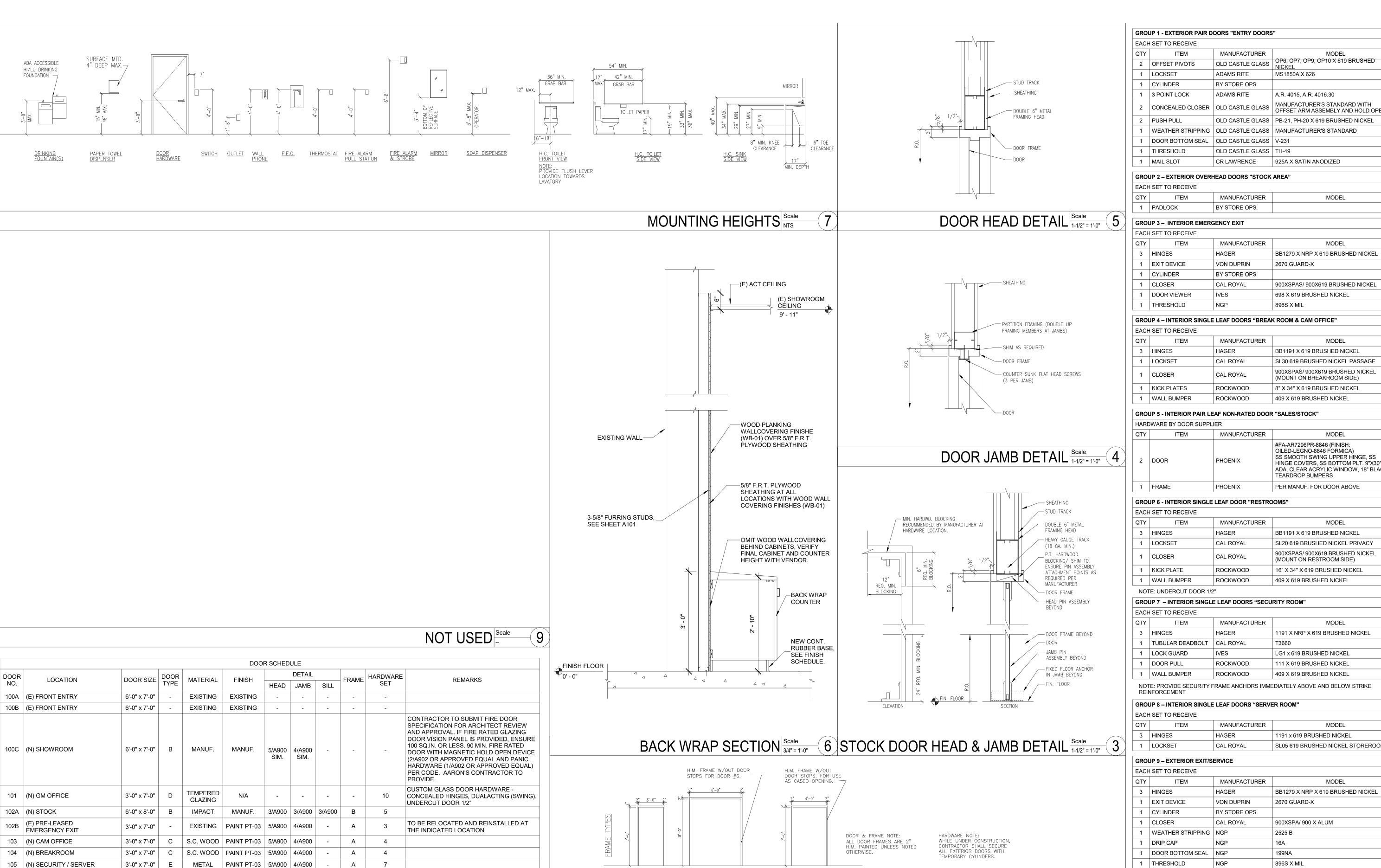
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AS NOTED



EXTERIOR ELEVATION - REAR Scale 3/16" = 1'-0" 2





PAIR 3'-0" x 7'-0"

	1	LOCKSET	ADAMS RITE	MS1850A X 626
STUD TRACK	1	CYLINDER	BY STORE OPS	
SHEATHING	1	3 POINT LOCK	ADAMS RITE	A.R. 4015, A.R. 4016.30
DOUBLE 6" METAL	2	CONCEALED CLOSER	OLD CASTLE GLASS	MANUFACTURER'S STANDARD WITH OFFSET ARM ASSEMBLY AND HOLD OPEN
FRAMING HEAD	2	PUSH PULL	OLD CASTLE GLASS	PB-21, PH-20 X 619 BRUSHED NICKEL
<u>'</u> `\	1	WEATHER STRIPPING	OLD CASTLE GLASS	MANUFACTURER'S STANDARD
	1	DOOR BOTTOM SEAL	OLD CASTLE GLASS	V-231
— DOOR FRAME	1	THRESHOLD	OLD CASTLE GLASS	TH-49
D00R	1	MAIL SLOT	CR LAWRENCE	925A X SATIN ANODIZED
	GROL	IP 2 – EXTERIOR OVERI	HEAD DOORS "STOCK	AREA"
	EACH	SET TO RECEIVE		
	QTY	ITEM	MANUFACTURER	MODEL
	1	PADLOCK	BY STORE OPS.	
HEAD DETAIL   Scale   1-1/2" = 1'-0"   5	GROL	IP 3 - INTERIOR EMER	GENCY EXIT	
1-1/2 = 1-0	EACH	SET TO RECEIVE	-	
	QTY	ITEM	MANUFACTURER	MODEL
	3	HINGES	HAGER	BB1279 X NRP X 619 BRUSHED NICKEL
	1	EXIT DEVICE	VON DUPRIN	2670 GUARD-X
	1	CYLINDER	BY STORE OPS	
SHEATHING	1	CLOSER	CAL ROYAL	900XSPAS/ 900X619 BRUSHED NICKEL
	1	DOOR VIEWER	IVES	698 X 619 BRUSHED NICKEL
	1	THRESHOLD	NGP	896S X MIL
PARTITION FRAMING (DOUBLE UP	GROL	IP 4 – INTERIOR SINGLE	E LEAF DOORS "BREAK	K ROOM & CAM OFFICE"
FRAMING MEMBERS AT JAMBS)	EACH	SET TO RECEIVE		
CHIM AC DECHIDED	QTY	ITEM	MANUFACTURER	MODEL
SHIM AS REQUIRED	3	HINGES	HAGER	BB1191 X 619 BRUSHED NICKEL
DOOR FRAME	1	LOCKSET	CAL ROYAL	SL30 619 BRUSHED NICKEL PASSAGE
COUNTER SUNK FLAT HEAD SCREWS	1	CLOSER	CAL ROYAL	900XSPAS/ 900X619 BRUSHED NICKEL (MOUNT ON BREAKROOM SIDE)
(3 PER JAMB)	1	KICK PLATES	ROCKWOOD	8" X 34" X 619 BRUSHED NICKEL
	1	WALL BUMPER	ROCKWOOD	409 X 619 BRUSHED NICKEL
DOOR	CDOL	ID 6 INTERIOR RAID I	TAE NON BATED DOOR	NICAL ECICTOCKII
DOON		IP 5 - INTERIOR PAIR LE WARE BY DOOR SUPPL		R "SALES/STOCK"
	QTY	ITEM	MANUFACTURER	MODEL
	QII	I I LIVI	WANDI ACTORER	#FA-AR7296PR-8846 (FINISH:
JAMB DETAIL Scale 1-1/2" = 1'-0" 4	2	DOOR	PHOENIX	OILED-LEGNO-8846 FORMICA) SS SMOOTH SWING UPPER HINGE, SS HINGE COVERS, SS BOTTOM PLT. 9"X30" ADA, CLEAR ACRYLIC WINDOW, 18" BLACK TEARDROP BUMPERS
	1	FRAME	PHOENIX	PER MANUF. FOR DOOR ABOVE
			-	
SHEATHING  STUD TRACK		IP 6 - INTERIOR SINGLE	LEAF DOOR "RESTRO	OOMS"
	QTY	SET TO RECEIVE  ITEM	MANUFACTURER	MODEL
DOUBLE 6" METAL FRAMING HEAD	3	HINGES	HAGER	BB1191 X 619 BRUSHED NICKEL
HEAVY GAUGE TRACK	1	LOCKSET	CAL ROYAL	SL20 619 BRUSHED NICKEL PRIVACY
(18 GA. MIN.) P.T. HARDWOOD	1	CLOSER	CAL ROYAL	900XSPAS/ 900X619 BRUSHED NICKEL
BLOCKING/ SHIM TO ENSURE PIN ASSEMBLY				(MOUNT ON RESTROOM SIDE)
ATTACHMENT POINTS AS REQUIRED PER	1	KICK PLATE	ROCKWOOD	16" X 34" X 619 BRUSHED NICKEL
MANUFACTURER	1	WALL BUMPER	ROCKWOOD	409 X 619 BRUSHED NICKEL
DOOR FRAME  HEAD PIN ASSEMBLY		E: UNDERCUT DOOR 1/2		DITY DOOM!
BEYOND		SET TO RECEIVE	E LEAF DOORS "SECU	RIT ROOM
	QTY	ITEM	MANUFACTURER	MODEL
DOOR FRAME BEYOND	3	HINGES	HAGER	1191 X NRP X 619 BRUSHED NICKEL
DOOR	1	TUBULAR DEADBOLT	CAL ROYAL	T3660
JAMB PIN ASSEMBLY BEYOND	1	LOCK GUARD	IVES	LG1 x 619 BRUSHED NICKEL
	1	DOOR PULL	ROCKWOOD	111 X 619 BRUSHED NICKEL
FIXED FLOOR ANCHOR IN JAMB BEYOND	1	WALL BUMPER	ROCKWOOD	409 X 619 BRUSHED NICKEL
FIN. FLOOR	_		FRAME ANCHORS IMME	EDIATELY ABOVE AND BELOW STRIKE
		IFORCEMENT		
SECTION		IP 8 – INTERIOR SINGLE	E LEAF DOORS "SERVE	ER ROOM"
		SET TO RECEIVE	MANUEACTURER	MODEL
	QTY 3	HINGES	MANUFACTURER HAGER	MODEL  1191 x 619 BRUSHED NICKEL
JAMB DETAIL Scale 1-1/2" = 1'-0" 3	1	LOCKSET	CAL ROYAL	SL05 619 BRUSHED NICKEL STOREROOM
3/11/10 DE 1/11/2" = 1'-0"				
		IP 9 – EXTERIOR EXIT/S	ERVICE	
		SET TO RECEIVE	NAANI IEA OTUDED	MODEL
	QTY	HINGES	MANUFACTURER	MODEL  BB1279 X NRP X 619 BRUSHED NICKEL
	3	EXIT DEVICE	HAGER VON DUPRIN	2670 GUARD-X
	1	CYLINDER	BY STORE OPS	2070 GUARD-X
	1	CLOSER	CAL ROYAL	900XSPA/ 900 X ALUM
	1	WEATHER STRIPPING	NGP	2525 B
STRUCTION, _ SECURE	1	DRIP CAP	NGP	16A
RS WITH ERS.	1	DOOR BOTTOM SEAL	NGP	199NA
	1	THRESHOLD	NGP	896S X MIL
ES	GROI	IP 10 – GM OFFICE GLA	SS DOOR	
7 8" KICK		SET TO RECEIVE		
7 8 KICK PLATE (PER HARDWARE	QTY	ITEM	MANUFACTURER	MODEL
SPECS.)	1	END CAPS	DORMA	#233.040.101 FOR 36" HEADER
	1	CLOSER	DORMA	RTS-88 CONCEALED, 90 DEGREE HO
	1	TOP PATCH	DORMA	#833.112.101 - PT 22
	1	BOTTOM PATCH	DORMA	#833.100.101 - PT 10
.0, //				#201.106.101 355.6 ADJUSTABLE BOTTOM
		HINCE (DIV (OT)	DODMA	#201.100.101 333.0 ADJUSTABLE BUTTOM
	1	HINGE (PIVOT)	DORMA	PIVOT
	1	HINGE (PIVOT)	DORMA	
	-	LOCKSET	DORMA	#801.122.101 PATCH LOCK FITTING AR20 1/2", #225.997.107 MORTISE KEY CY #225.997.107 MORTISE KEY CYL./BLOCKING
(F) (G) (S) (TALL METAL (S) (3'-0" × 7'-0")	1	LOCKSET  KEY CYCLINDER	DORMA DORMA	#801.122.101 PATCH LOCK FITTING AR20 1/2", #225.997.107 MORTISE KEY CY #225.997.107 MORTISE KEY CYL./BLOCKING RING, #225.996.101 MORTISE TTI
	1	LOCKSET	DORMA	#801.122.101 PATCH LOCK FITTING AR20 1/2", #225.997.107 MORTISE KEY CY #225.997.107 MORTISE KEY CYL./BLOCKING

Kinetic Design 29833 Santa Margarita Pkwy, Suite 300

Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build

**SCHNEIDER** 

STAMP

**REVISIONS** DESCRIPTION

**CLIENT INFORMATION** 

C0618 ORE BLVD 3 / (SSHO)

C057 AARON'

CHECKED DRAWN E.N.

DATE 03/07/23 岩 SCALE AS NOTED PROJECT NUMBER

SHEET

DOOR SCHEDULE NTS

OVERHEAD DOOR COMPANY SERIES

620 F-265 FLAT SLAT. 18 GA. WITH CHAIN

TO BE RELOCATED AND REINSTALLED.

TO BE RELOCATED AND REINSTALLED.

PROVIDE H/C WOMEN'S SIGNAGE.

PROVIDE H/C MEN'S SIGNAGE.

9

106A (E) STOCK

106B (E) STOCK EGRESS

106C (E) OVERHEAD

107 (E) HALLWAY EXIT

108 (E) WOMEN'S RESTROOM

109 (E) MEN'S RESTROOM

110 (E) PRE-LEASED EXIT

3'-0" x 7'-0"

3'-0" x 7'-0"

8'-0" x 8'-0"

3'-0" x 7'-0"

3'-0" x 7'-0"

3'-0" x 7'-0"

3'-0" x 7'-0"

SHALL BE CAPABLE OF BEING OPENED W/ ONLY ONE RELEASING OPERATION.

**EXISTING** 

INTERIOR DOORS WITH CLOSER TO BE SET TO MAX. 5LB. FORCE, EXTERIORS DOORS SET TO MAX 8LB FORCE.

PAINT PT-03

EXISTING | PAINT PT-03 | 5/A900 | 4/A900

EXISTING | PAINT PT-03 | 5/A900 | 4/A900

DOOR HARDWARE SHALL COMPLY WITH ADA SECTION 404.2.7. HARDWARE SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE.

LOCKS ON DOORS IN MEANS OF EGRESS SHALL NOT REQUIRE THE USE OF A KEY, SPECIAL DEVICE OR SPECIAL KNOWLEDGE TO OPEN IN THE DIRECTION OF EGRESS. DOORS

EXISTING PAINT PT-03

EXISTING EXISTING

EXISTING PAINT PT-03

EXISTING PAINT PT-03

DOOR TYPES Scale 3/16" = 1'-0" 2

PROVIDE PEEPHOLES FOR ALL EXTERIOR HOLLOW METAL — DOORS.

3'-0" x 7'-0"

8" KICK PLATE (PER HARDWARE

SPECS.)

3'-0" x 7'-0" S.C. WOOD BIRCH

TEMP.

3'-0" x 7'-0" DUAL SWINGING GLASS DOOR WITH TEMPERED GLAZING

OR APPROVED EQUAL.

1 PUSH/PULL

DOOR HARDWARE SCHEDULE NTS

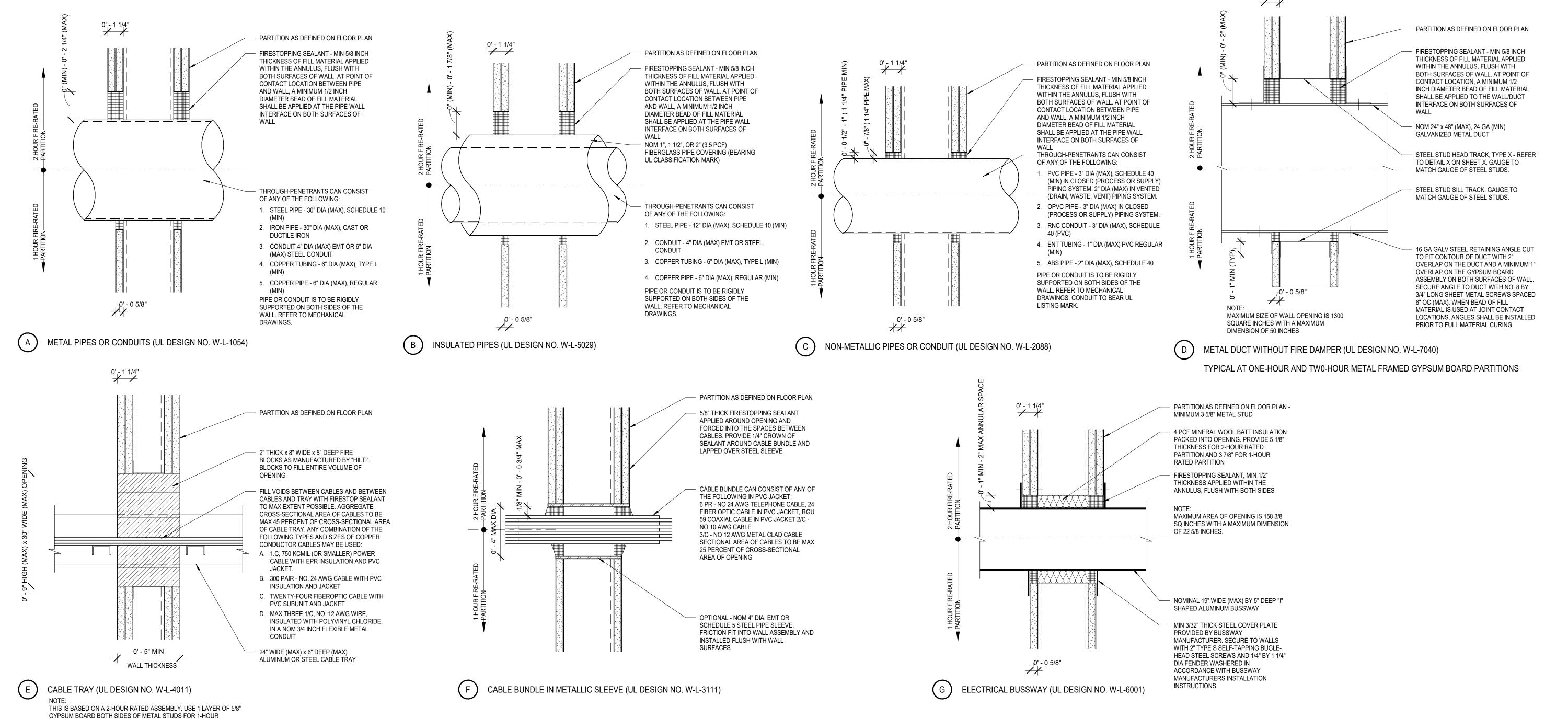
#926.004.101 12" BACK TO BACK LADDER PULLS

Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build



ြပ္ S

NOT USED Scale



ASSEMBLY.

REVISIONS

No. DATE DESCRIPTION

CLIENT INFORMATION

400 GALLERIA PARKWAY, SUITE 300
ATLANTA, GA 30339
PHONE NI IMBER: (678) 402-3000

S C0573 / C0618 30 LAKESHORE BLVD 4, OH 44095

**AARON'S C0573** 29850 - 29900 LAKESH WILLOWICK, OH 4409

DRAWN E.N. CHECKED

DATE

O3/07/23

SCALE

AS NOTED

PROJECT NUMBER

A90



AX98/99 Series Specifications					AX94/955	eries Specif	ication	5	- 0.3	AX22 Series Specifications		
Device types	AX98/99 - R		47.5	ı	Device types	AX94/9547		-		Device type		AX22 - Rim
	AXXP98/99 AX98/9927 -				Device functions	EO, DT, L, LDT,	LBE, LNL	50		Device	0	AX2227 - LBR
AX98/9950 WDC - LBL AX98/9949 - LBL & LBL-AFL - Concealed Vertical Cable Less Bo			139	Device lengths	3'/4'				unctions	- å	EO, DT, NL, NLOP, L, LBE	
		ttom (	Rating	Panic and Fire				evice leng	******	O POSTITION OF THE PARTY OF THE		
Device	Latch		0.00.4000.000		Electric	LX - Latchbolt	monitor s	switch	- 1	Rating	-	Panic and Fire
functions	EO, DT, NL, NL	LOP, L, I	LBE, LDT, LN	L '	options					lectric ptions		LX - Latchbolt monitor sw RX - Pushpad monitor sw
Device lengths	gths 374' Panic and Fire			AX33/35A	Series Spec	ificatio	ns			3	RX2 - Double pushpad monitor switch	
Rating				Device	AX33/35A - R		ADI	5	fechanica	1 3	ALK - Alarm kit	
Electric options	EL - Electric la LX - Latchbolt	t monito	or switch	75	ypes	- Concealed Ve			arona d	ptions		GBK - Glass bead kit
	LXLC - Latchb low current			32 57	406668	Latch		0.000.000		Dogging		nex key dogging = Stand
	LXRX - Latcht LXRXLC - Lat				Device functions	EO, DT, NL, NL	OP, L, LB	E, LDT		Panic only		LD - Less dogging
	low current RX - Pushpad			i	Device lengths	3'/4"						
	low current			4000	Rating	Panic and Fire	_		0			
	ALK - Alarm k	it	ad monitor sy		Electric	EL - Electric la LX - Latchbolt	monitor:	switch				
Mechanical	SS - Signal sw GBK - Glass b	100 V T I I	8			LXLC - Latchbolt monitor switch low current						
options	+2 - Double cy SNB - Sex bol	linder				LXRX - Latchb LXRXLC - Latc						
	SEC - Security WP - Weep ho	y screws	s			low current RX - Pushpad						
Dogging	Hex key dogg		tandard	-		RXLC - Pushpad monitor switch low current						
options CD - Cylinder dogging (Panic only) Di - Dogging indicator				ALK - Alarm ki								
Care Billy	SD - Special of		į.	- 1	SS - Signal switch  Mechanical GBK - Glass bead kit			_				
					options	SEC - Security WP - Weep ho	screws					
				- 1	Dogging options Panic only)	Hex key doggi CD - Cylinder o LD - Less dogs	gniggot	dard				
Orderin	The second	nati	on				1000					
AX - S					25245	era recrusivencia	II o SAC	1.00000	ISANSON'S			
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	(Company)		L -	F Sup	2 ¥		100			10000		3
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			Function	Rating TI	2 Suffix		Door Width	-RHR Bulglus		Lever Style		3
	(Company)		Function	Rating T	2		100			10000	Accessories Z	3
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Kinetic Design

29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

**SCHNEIDER** 

ARC. 1215624

**REVISIONS** 

CLIENT INFORMATION

C0573 / C0618 00 LAKESHORE BLVD (, OH 44095

CHECKED

E.N.

DRAWN

DATE

SCALE

PROJECT NUMBER

DESCRIPTION

STAMP





Current

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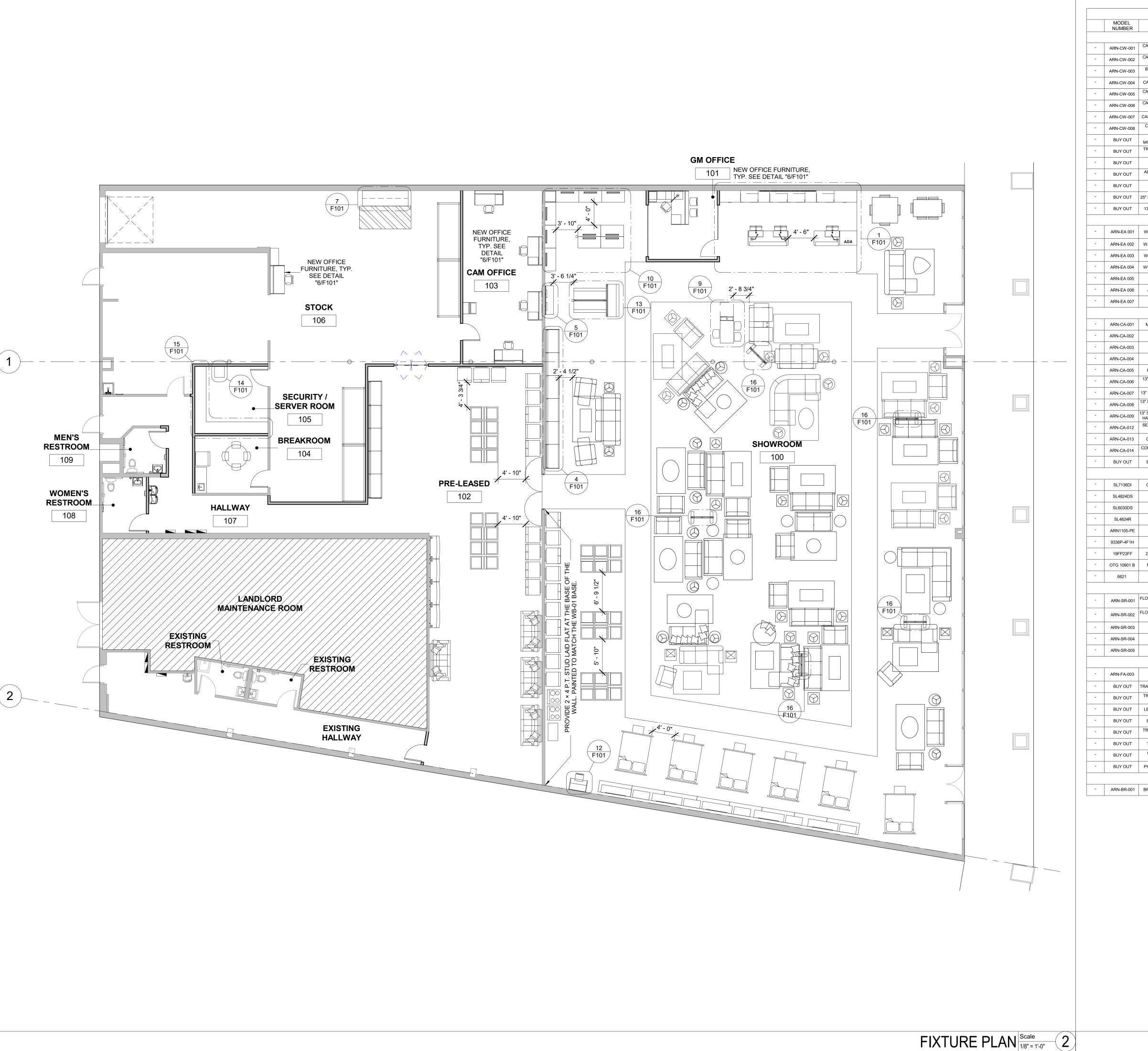
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EDWARDS

compromise.



	MODEL NUMBER	CATEGORY	SIZE	FINISH	DESCRIPTION
	_		CASH	I WRAP	
-	ARN-CW-001	CASH WRAP, 1 STATION POD - LEFT	SEE PLANS	SOLID SURFACE / LAMINATE	CASH WRAP POD WITH ONE POS STATION, ADA COUNTE ON THE LEFT FROM EMPLOYEE SIDE
-	ARN-CW-002	CASH WRAP, 1 STATION	SEE PLANS	SOLID SURFACE /	CASH WRAP POD WITH ONE POS STATION, ADA COUNTE
_	ARN CW 003	POD - RIGHT BEVERAGE / PRINTER	CEE DI ANG	LAMINATE SOLID SURFACE /	ON THE RIGHT FROM EMPLOYEE SIDE
	ARN-CW-003	STATION	SEE PLANS	LAMINATE SOLID SURFACE /	BEVERAGE / PRINTER STATION POD
-	ARN-CW-004	CASH WRAP, ADD-ON KIT	SEE PLANS	LAMINATE	CASH WRAP POS STATION ADD-ON KIT
-	ARN-CW-005	CASH WRAP, 2 STATION POD - LEFT	SEE PLANS	SOLID SURFACE / LAMINATE	CASH WRAP POD WITH TWO POS STATIONS, ADA COUNTER ON THE LEFT FROM EMPLOYEE SIDE
-	ARN-CW-006	CASH WRAP, 2 STATION POD - RIGHT	SEE PLANS	SOLID SURFACE / LAMINATE	CASH WRAP POD WITH TWO POS STATIONS, ADA COUNTER ON THE RIGHT FROM EMPLOYEE SIDE
-	ARN-CW-007	CASH WRAP, MONOLITHIC	SEE PLANS	SOLID SURFACE /	CASH WRAP POD WITH TWO POS STATIONS, ADA
_		CASH WRAP, OFFICE		LAMINATE	COUNTER ON THE RIGHT FROM EMPLOYEE SIDE
	ARN-CW-008	LOGO	SEE PLANS	PVC / SINTRA	WALL LOGO ON OFFICE WALL
-	BUY OUT	LINE VOLTAGE MONOPOINT ADAPTER	SEE PLANS	WHITE	SEE REFLECTED CEILING PLAN ON SHEET A-401
-	BUY OUT	TRACK FIXTURE - PAR38 GIMBAL	SEE PLANS	WHITE	SEE REFLECTED CEILING PLAN ON SHEET A-401
-	BUY OUT	LED PAR38 LAMP	SEE PLANS	WHITE	SEE REFLECTED CEILING PLAN ON SHEET A-401
_	BUY OUT	ADA UNDERCOUNTER	32.06"H X 20.31"W X	STAINLESS STEEL	
		REFRIGERATOR	22.25"D		
-	BUY OUT	MONITOR ARM	SEE PLANS	STAINLESS STEEL	
-	BUY OUT	25" KEYBOARD PLATFORM	10.5" D X 25" W	BLACK	
-	BUY OUT	13" KEYBOARD TRACK	SEE PLANS	BLACK	
			FLECTRO	DNICS AREA	
-	ARN-EA 001	WALL SYSTEM STARTER	48" W x 84" H	BLACK	
-	ARN-EA 002	WALL SYSTEM ADD-ON	48" W x 84" H	BLACK	ELECTRONICS AREA FIXTURE ORDER CONSISTS OF A (5 TYP. GONDOLA WALL UNIT SET,
-	ARN-EA 003	WOOD DECK STARTER	50" W x 84" H	HYTEX INDUSTRIES, ASTRO	(1 WALL STARTER, 4 WALL ADD-ONS, 1 WOOD DECK STARTER, 4 WOOD DECK ADD-ONS, 1 END PANEL SET)
_				BLACK CARPET 48-SRO HYTEX INDUSTRIES, ASTRO	SEE STORE ORDER FOR ANY ADDITIONAL PARTS NEEDE
-	ARN-EA 004	WOOD DECK ADD-ON	48" W x 84" H	BLACK CARPET 48-SRO	FOR NON-TYP. ELECTRONICS AREA FIXTURES
-	ARN-EA 005	END PANEL SET	6" W X 84" H	BLACK	
-	ARN-EA 006	ADJUSTABLE SHELF	48" W X 18" D	HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO	TWELVE TYP. PER STORE, SEE PLANS FOR LAYOUT
-	ARN-EA 007	TV PLATFORM	65" W X 24"D X12"H	HYTEX INDUSTRIES, ASTRO	TWO TYP. PER STORE, SEE PLANS FOR LAYOUT
	ARTIV-LA 007	TVT LATT ORWI		BLACK CARPET 48-SRO	
			COMPU	TER AREA	
-	ARN-CA-001	METAL WALL FRAME	92-1/2"H X 48"W	BLACK METAL POWDER COAT	
-	ARN-CA-002	END PANEL SET	92-1/2"H X 6 1/2"W	BLACK SINTRA	COMPUTER AREA FIXTURE ORDER CONSISTS OF A (4) TY WALL UNIT SET.
_	ARN-CA-003	SIGN PANEL	1'-1/4" H X 3'-11 7/8" W	WILSONART #7964K-12	(4 METAL WALL FRAMES, 2 END PANEL SETS, 29 FULL WA PANELS OR 17 FULL WALL PANELS AND 4 HALF WALL
	ARIN-CA-003	SIGN PANEL	1-1/4 H X 3-11 //6 W	SKYLINE WALNUT WILSONART #7964K-12	PANELS)
-	ARN-CA-004	FULL WALL PANEL	1'-1/4" H X 3'-11 7/8" W	SKYLINE WALNUT	SEE STORE ORDER FOR ANY ADDITIONAL PARTS NEEDE FOR NON-TYP. COMPUTER AREA FIXTURES
-	ARN-CA-005	HALF WALL PANEL	5" H X 3'-11 7/8" W	WILSONART #7964K-12 SKYLINE WALNUT	
-	ARN-CA-006	13" SHELF, STALK HOLES, ADJ. HARDWARE	1'-1 1/2" D X 3'-11" W	NORTHERN CONTOURS, #9031 OYSTER BAY	ONE TYP. PER STORE, SEE PLANS FOR LAYOUT
-	ARN-CA-007	13" SHELF, ADJ HARDWARE	F 1'-1 1/2" D X 3'-11" W	NORTHERN CONTOURS,	THREE TYP. PER STORE, SEE PLANS FOR LAYOUT
		13" SHELF, NO HARDWARE	- 1-1 1/2 DX3-11 W	#9031 OYSTER BAY NORTHERN CONTOURS,	·
-	ARN-CA-008	(REMODEL)	1'-1 1/2" D X 3'-11" W	#9031 OYSTER BAY	REMODEL ONLY
-	ARN-CA-009	13" SHELF, WITH HOLES, NO HARDWARE (REMODEL)	) 1'-1 1/2" D X 3'-11" W	NORTHERN CONTOURS, #9031 OYSTER BAY	REMODEL ONLY
-	ARN-CA-012	SET OF SKYLINE WALNUT	SEE PLANS	WILSONART #7964K-12	REMODEL ONLY
_	ADN 04.040	PANEL INSERTS	OFF DI ANIO	SKYLINE WALNUT SOLID SURFACE /	THREE TYP. PER STORE, SEE PLANS FOR LAYOUT
	ARN-CA-013	COMPUTER BUNKER  COMPUTER BUNKER WITH	SEE PLANS	LAMINATE SOLID SURFACE /	TINLE THE PERSONAL, SEET LANST ON LATOUT
-	ARN-CA-014	HOLES	SEE PLANS	LAMINATE	ONE TYP. PER STORE, SEE PLANS FOR LAYOUT
-	BUY OUT	BLACK PLUG STRIPS			
·			OFFIC	E AREA	
-	SL7136DI	CONFERENCE DESK	71" W X 36" D X 29.5" H	AMERICAN ESPRESSO	ONE TYP. PER STORE, SEE PLANS FOR LAYOUT
		CONFERENCE DESK	71 W X 30 D X 29.5 H	AWERICAN ESPRESSO	·
	SL4824DS	48" DESK SHELL	48"W X 24"D X 29.5"H	AMERICAN ESPRESSO	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
-	3L4024D3	40 DESK SHELL	40 W A 24 D A 29.5 H		
-	SL6030DS	60" DESK SHELL	60" W X 30" D X 29.5" H	AMERICAN ESPRESSO	
				AMERICAN ESPRESSO  AMERICAN ESPRESSO	TWO TYP. PER STORE, SEE PLANS FOR LAYOUT
-	SL6030DS SL4824R	60" DESK SHELL 48" DESK RETURN	60" W X 30" D X 29.5" H	AMERICAN ESPRESSO	·
-	SL6030DS SL4824R ARN1105-PE	60" DESK SHELL 48" DESK RETURN PENCIL DRAWER	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H	AMERICAN ESPRESSO N/A	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
- - - -	SL6030DS SL4824R	60" DESK SHELL 48" DESK RETURN	60" W X 30" D X 29.5" H	AMERICAN ESPRESSO N/A	·
- - - -	SL6030DS SL4824R ARN1105-PE	60" DESK SHELL 48" DESK RETURN PENCIL DRAWER	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H	AMERICAN ESPRESSO N/A	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H	AMERICAN ESPRESSO  N/A  BLACK	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME:	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac  Metallic Powder Coatings	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B 6621 ARN-SR-001	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H SHOV	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B 6621	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B 6621 ARN-SR-001	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H SHOV	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  Metallic Powder Coatings	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B 6621  ARN-SR-001 ARN-SR-002	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H SHOV SEE PLANS	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 40 PM	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
-	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H SHOV SEE PLANS SEE PLANS 4'-0" W X 4'-0" H 3'-0" W X 2'-0" D X 12" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  Metallic Powder Coatings P14 - Glimmer 4070230 TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  Metallic Powder Coatings P14 - Glimmer 70230	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
-	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H SHOV SEE PLANS SEE PLANS 4'-0" W X 4'-0" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 40230  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
-	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H 3'-0" W X 2'-0" D X 12" H 4'-0" W X 2'-0" D X 12" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  Metallic Powder Coatings P14 - Glimmer 70230 TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230 HOUST IGER DRYLAC  Metallic Powder Coatings P14 - Glimmer 70230  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  BLACK CARPET 48-SRO	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
-	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H 3'-0" W X 2'-0" D X 12" H 4'-0" W X 2'-0" D X 12" H	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 49 P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER DRYLACT BLACK CARPET 48-SRO  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  JRE AREA  FAUX WOOD PAPER TO MATCH WA #79337-07	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004  ARN-SR-005	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  4'-0" W X 2'-0" D X 12" H  FEATU	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 140 Metallic Powder Coatings Me	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS SL4824R  ARN1105-PE 9336P-4F1H 19FP23FF OTG 10901 B 6621  ARN-SR-001  ARN-SR-002  ARN-SR-002  ARN-SR-003  ARN-SR-004	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES  TRACK - 6' SINGLE CIRCUIT	60" W X 30" D X 29.5" H 48" W X 24" D X 29.5" H 36" W X 18" D X 62.25" H  SHOV  SEE PLANS  SEE PLANS  4'-0" W X 4'-0" H 3'-0" W X 2'-0" D X 12" H  FEATL	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 49 P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER Drylac Metallic Powder Coatings P14 - Glimmer 49 ENTER DRYLACT BLACK CARPET 48-SRO  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  JRE AREA  FAUX WOOD PAPER TO MATCH WA #79337-07	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004  ARN-SR-005	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  4'-0" W X 2'-0" D X 12" H  FEATU	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 140 Metallic Powder Coatings Me	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004  ARN-SR-005  ARN-FA-003  BUY OUT	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES  TRACK - 6' SINGLE CIRCUIT  TRACK FIXTURE - PAR38	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  FEATU  SEE PLANS  -	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 49 P15 - Glimmer 49 P16 - Glimmer 49 P17 - Glimmer 49 P17 - Glimmer 49 P17 - Glimmer 49 P18 - Glimmer 49	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004  ARN-SR-005  BUY OUT  BUY OUT	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES  TRACK - 6' SINGLE CIRCUIT  TRACK FIXTURE - PAR38 GIMBAL  LED PAR 38 LAMP TCP	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  4'-0" W X 2'-0" D X 12" H  FEATU  SEE PLANS	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  WHITE  WHITE  WHITE	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  THREE TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-005  ARN-FA-003  BUY OUT  BUY OUT	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES  TRACK - 6' SINGLE CIRCUIT  TRACK FIXTURE - PAR38 GIMBAL  LED PAR 38 LAMP TCP  EXTENSION WANDS	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  FEATU  SEE PLANS  -  -  12", 18", 24", 36", 48"	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 49 P14 - Glimmer 40 P14 - Glimmer 40 P15 INDUSTRIES, ASTRO BLACK CARPET 48-SRO  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  JRE AREA  FAUX WOOD PAPER TO MATCH WA #79337-07 CAFELLE LAMINATE  WHITE	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  THREE TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004  ARN-SR-005  BUY OUT  BUY OUT	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES  TRACK - 6' SINGLE CIRCUIT  TRACK FIXTURE - PAR38 GIMBAL  LED PAR 38 LAMP TCP	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  4'-0" W X 2'-0" D X 12" H  FEATU  SEE PLANS	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac  Metallic Powder Coatings P14 - Glimmer 70230  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  WHITE  WHITE  WHITE	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  THREE TYP. PER STORE, SEE PLANS FOR LAYOUT
	SL6030DS  SL4824R  ARN1105-PE  9336P-4F1H  19FP23FF  OTG 10901 B  6621  ARN-SR-001  ARN-SR-002  ARN-SR-003  ARN-SR-004  ARN-SR-005  BUY OUT  BUY OUT  BUY OUT	60" DESK SHELL  48" DESK RETURN  PENCIL DRAWER  4 DRAWER FILE  2 DRAWER DESK FILE  MANAGERS CHAIR  DUET CHAIR  FLOATING VIGNETTE WALL - STARTER UNIT  FLOATING VIGNETTE WALL - ADD-ON UNIT  ACRYLIC PANELS  36" X 12" RISER  48" X 12" RISER  CEILING TRELLISES  TRACK - 6' SINGLE CIRCUIT  TRACK FIXTURE - PAR38 GIMBAL  LED PAR 38 LAMP TCP  EXTENSION WANDS  TRACK - FLOATING END	60" W X 30" D X 29.5" H  48" W X 24" D X 29.5" H  36" W X 18" D X 62.25" H  SHOV  SEE PLANS  4'-0" W X 4'-0" H  3'-0" W X 2'-0" D X 12" H  FEATU  SEE PLANS  -  -  12", 18", 24", 36", 48"	AMERICAN ESPRESSO  N/A  BLACK  BLACK  N/A  SEAT: BLACK; FRAME: CHROME  VROOM  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 70230  TIGER Drylac Metallic Powder Coatings P14 - Glimmer 740230  HYTEX INDUSTRIES, ASTRO BLACK CARPET 48-SRO  WHITE  WHITE  WHITE  WHITE  WHITE	FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  ONE TYP. PER STORE, SEE PLANS FOR LAYOUT  TWO TYP. PER STORE, SEE PLANS FOR LAYOUT  FOUR TYP. PER STORE, SEE PLANS FOR LAYOUT  THREE TYP. PER STORE, SEE PLANS FOR LAYOUT
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Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



**REVISIONS** DESCRIPTION

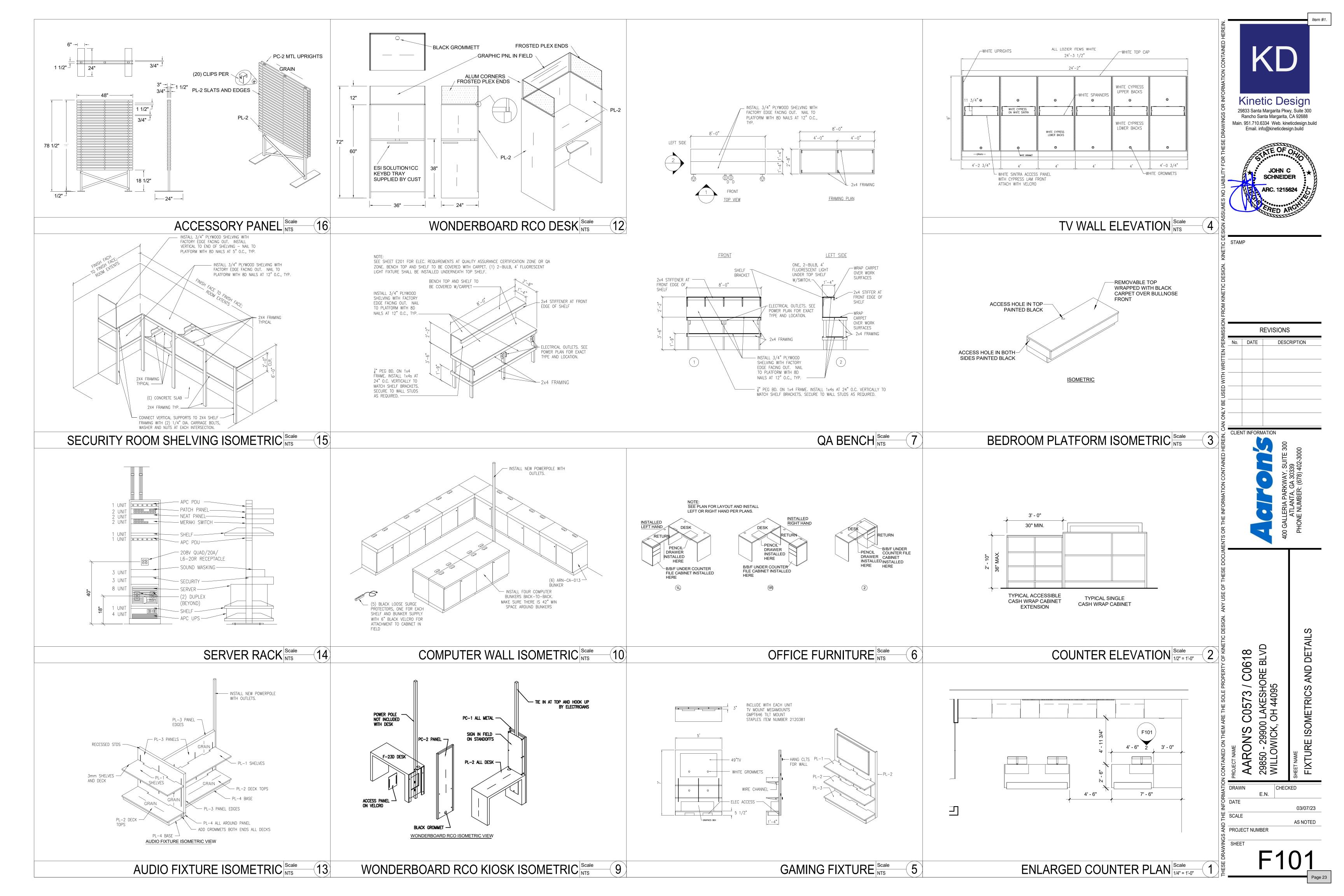
CLIENT INFORMATION

AARON'S C0573 / C0618 29850 - 29900 LAKESHORE BLVD MILLOWICK, OH 44095

CHECKED

PROJECT NUMBER

FIXTURE SCHEDULE Scale NTS



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### **Section 01000 Special Conditions**

- Aarons Inc. Contract for Construction, General Conditions to the Contract for Construction and Project Addendum Conditions apply and govern this project.
- Wherever the term "Contract" occurs in the documents, it shall refer to the provision in the Aaron's Inc. Contract for Construction Article 1.
- Wherever the term "Owner" or "Owner's Representative" it shall refer to the following:

#### Aaron's Inc.

309 East Paces Ferry Road, NE

#### 8th Floor

Atlanta, GA 30305

- Wherever the term "Contractor" occurs in the documents, it shall refer to the Contractor per the Contract.
- The Contractor shall coordinate his work and shall coordinate with any other separate contractors employed by the Owner, so as to avoid delays.

Representative and shall not proceed with the work until the Owner's Representative approves conditions and or changes.

- Prior to a bid submission, the Contractor shall examine the premises and verify existing conditions and dimensions affecting the work under this contract. If discrepancies are discovered between dimensions or conditions shown in drawings and those actually existing, the Contractor shall report to the Owner's
- Prior to the start of work, the installer shall examine the work area and notify the Owner in writing of conditions which will adversely affect the execution, timely completion, and quality of his work. Do not proceed with the work until satisfactory conditions have been corrected. Start of installation will be construed as conclusive evidence that the existing conditions have been examined and are acceptable to the installed.
- If any of the provisions, plans, drawings or specifications are inconsistent with the Contract for Construction, The Contract for Construction shall govern and
- Before making any code-related deviations from the drawings and specifications, the Contractor shall give the Owner's Representative written notice specifying the proposed deviation, the costs involved, and the reason therefore. A change order shall be issued per the contract.
- Prior to signing the Contract, if required by the Owner, the Contractor shall obtain and pay for performance and payment bonds in the amount of 100 percent (100%) of the contract amount.
- Verify with Owner, designated locations for contractor's temporary field office, temporary sanitary facilities, refuse dumpster, and material/equipment tool storage.
- Verify with Owner, designated locations of Contractor's employee parking. Access route to the site, and access route to the work area within the building.
- Contractor shall establish and maintain all utilities accounts and meters (gas, permanent power, water & sewage) under his name until Owner shall confirm in writing that such accounts have been permanently transferred into Owner's name. Contractor to be solely responsible for all required tap fees and perform all work required to complete each utility connection.
- It shall be the responsibility of the Contractor to locate all existing utilities whether shown herein or not and to protect them from damage. The Contractor shall bear the expense of repair or replacement of utilities or other property damages by operations in conjunction with the execution of the work.
- Contractor shall employ a licensed surveyor to lay out and establish lot lines, roof outside line and principal building lines as indicated on drawings. Contractor shall maintain all grades, lines, levels and benchmarks established, and shall assume complete responsibility for the layout of the work. Contractor to provide Certified Footings and Building elevations to Owner as part of sore out package.

# Section 01310 Project Management And Coordination

Prior to beginning work, Contractor shall provide a construction schedule bar chart with specified completion date. Contractor shall adhere to this schedule and completion date in accordance with Contract.

# Section 01330 Submittal Procedures

- Prior to ordering equipment or fabricating fixtures, Contractor shall submit to the Owner in triplicate, shop drawings, product data or samples, if required, which reflect dimensions, utility requirements and installation requirements consistent with the drawings., Contractor shall review Shop Drawings and shall solely ensure consistency to Owner's Specifications.
- The use of brand or trade names in describing materials or products is intended to set a minimum standard for those items. Owner must approve any substitutions in writing. Where "Or Equal" is used, Contractor must get owners approval in writing of the "Or Equal" manufacturers. If materials or products are specified by manufacture's name, trade name, or catalog reference without using the phrase "Or Equal", they shall be the basis of the proposal, without substitution, and shall be furnished under the contract unless changes by mutual agreement in writing. Where two or more brands are named, Contractor shall make a choice.
- C. For Construction details not shown, use the manufacturer's approved shop drawings / data sheets in accordance with the Project Specifications.

# 01400 Quality Control

- Contractor shall be solely responsible for Quality Control of the work and shall maintain quality control over suppliers, manufacturers, products, services, site conditions and workmanship, to produce work of specified quality.
- The Owner shall hire testing lab for required testing required by the specifications. Additional testing and inspection required by laws, ordinances, rules, regulations, codes or orders of any public authority having jurisdiction or whether performed by Contractor for quality control shall be at Contractor's expense.
- Minimum testing shall include but not be limited to:

6. Roof installation testing

1. Pavement subgrade Compaction 2. Building Pad Compaction 3. Concrete Cylinder Break Test 4. Floor Flatness testing Slab Moisture Testing

# 01500 Temporary Construction Facilities

- Contractor's Field Office Building: Provide a substantial, weather-tight office building on site. Have the office fully operable, with power and telephone service connected, from the start of construction until project is completed and closed out.
- Temporary Utilities: the Contractor will furnish Water and electricity for construction. Determine where these services will be available, make temporary connections as required, and remove upon completion of the work. Costs for temporary electrical service and power charges to be paid 100% by the Contractor until date of Substantial Completion.
  - 1. Except for telephone service, furnish electric service and utilities, and pay electric and utility costs for Owner's on-site job shack through the date of Substantial Completion 2. Owner shall pay 100% of utilities after the date of Substantial Completion

- Temporary Heat: Furnish temporary heat, including fuel and power, as required to protect materials and work from dampness and cold and to dry out the building. Use methods that will not adversely effect installed materials.
- Drinking Water: Furnish from a proven safe source for all those connected with the work.
- Temporary Toilets: Provide chemical type toilets, adequate in number for all those connected with the work. Locate when work is started; keep in sanitary condition. Remove from site upon completion of work or sooner, if and when permanent toilets are made available.
- Temporary Enclosures: Provide wood batten doors and transparent plastic covered windows for exterior wall openings of building until it is dry. Windows may be glazed in lieu of covering, if glass is protected.
- On-Site Fire Protection: From the time the project starts until its completion and acceptance by the Owner, the Contractor shall maintain adequate fire extinguishers on the premises, readily available to his workmen, for the protection of the building and its contents.
- Temporary Barricades and Fences: Contractor shall provide fences and all safeguards necessary for the convenience and protection of the public, as required by code and law enforcement regulations. Keep abutting streets and other thoroughfares open to traffic, using only portions of streets allowed by permit. Contractor will be responsible for damage or injury occurring to either persons or property through carelessness or neglect by himself, his employees, or subcontractors.

#### Section 01600 Material and Equipment

Materials delivered to and stored at the job site shall be handled and stored so that no components shall be damaged in any way. The Owner reserves the right to reject any material that has been damaged because of improper delivery, storage or handling.

#### Section 01770 Closeout Procedures

- At completion of work, resilient floors shall be waxed and buffed. All carpet is to be vacuum cleaned. Contractor shall assemble and transmit to the Owner all maintenance and operation manuals, warranties, and keys, and shall demonstrate to the Owner the usage of equipment.
- Periodic observation of construction may be made by a licensed Architect or Civil Engineer. Certificate of Completion containing the signature(s) of the responsible design professional(s) shall be presented to the inspector at time of final inspection for Occupancy if required and shall be the sole responsibility of the Contractor.
- At Project Closeout, the Contractor shall provide to the Owner all "as-built" plans, all guarantees, warranties and operating manuals, names of all Subcontractors, Sub-Subcontractors and material suppliers and roof warranties as further defined in the Aaron's Inc. General Conditions.

#### Section 06000 Carpentry

- Structural lumber, blocking, and nailers shall be new, dry, sound southern pine #2 or better with a maximum, moisture content of 19 %, minimum FB=1400 PSI
- Oriented Strand Board shall comply with DOC PS 2.
- Where fire-retardant-treated materials are indicated, provide materials that comply with performance requirements in AWPA C20 (lumber) and AWPA C27 (plywood).
- Plywood Backing Panels: For mounting electrical or telephone equipment, provide fire-retardant-treated plywood panels with grade, C-D Plugged Exposure 1, in thickness indicated or, if not otherwise indicated, not less than  $\frac{3}{4}$ " thick. Panels shall be mounted on  $\frac{3}{4}$ " furring.
- Miscellaneous lumber shall be construction grade light framing size lumber for support or attachment of their work including bucks, nailers, blocking, grounds stripping, and similar member. Individual plywood sheets shall not be less than 2'-0" in the least dimension nor less than 8 square feet in area. Use full sheets wherever possible. All structural plywood shall be DFPA grade stamped with exterior glue and specified by the American Plywood Association.
- Bolt heads and nuts bearing on wood shall have metal washers. Bolt holes in wood shall be drilled 1/32" to 1/16" in diameter larger the nominal bolt diameter.
- Carpentry work shall conform to the best standards of practice. Work shall be laid out in accordance with the drawings, and to accommodate work of other trades. Doors and hardware shall be installed so that doors will swing easily, quietly and freely, and close accurately against stops without binding. Latch bolts must engage positively with strikes when doors are closed.

#### Section 06400 - Laminate Counter System

Contractor to install Owner provided countertop systems as indicated on the drawings and approved by the Owner. Provide accessories as required for complete finished installation.

# Section 07131 Self-Adhering Sheet Waterproofing

- Material shall be a factory manufactured combination of a polyethylene sheet and rubberized asphalt bonded together to form a membrane. The polyethylene sheet shall be .004" thick and black. Sheet shall be coated on one side with a .056" minimum thick layer of rubberized asphalt. Membrane shall be furnished in rolls interwoven with release paper. Waterproofing membrane shall be "Bituthene 3000" as manufactured by W. R. Grace Co. with stainless steel mechanical
- Acceptable Alternate manufacturers:
  - 1. Mirafi; Miradri 860/861 2. Carlisle Corporation, CCW 701. 3. W. R Meadows,., Inc.; Mel-Rol.
  - 4. American Hydrotech, Inc.; VM 75.
  - 5. Pecora Corporation; Duramem 700-SM 6. Polyguard Products, Inc.; Polyguard 650.
- Section 07200 Building Insulation
- Faced Mineral-Fiber Blanket Insulation: ASTM C 665, Type III, Class A; Category 1, faced with foil-scrim-kraft, foil-scrim, or foil-scrim-polyethylene vaporretarder membrane on one face. R = 13, flame spread, smoke-developed indices of 25/50. Owens Corning, Johns Manville, Certainteed.
- Interior Sound Attenuation: Provide 3-1/2" unfaced glass fiber batts for interior sound attenuation purposes at walls, ceilings and other locations where shown or
- scheduled on the Drawings.
- Install Batt insulation in accordance with Manufacturer's Instructions:
  - 1. Place Batt insulation in partitions tight within spaces around cut openings, behind and around electrical and mechanical items within or behind partitions and tight to items passing through partitions.
  - 2. Trim insulation neatly to fit spaces. Fill gaps or voids with insulation.
  - 3. Install insulation with factory applied membrane facing warm side of building space.

# Section 07245- Direct to Masonry Acrylic Finish System

- A. Description: System consists of Base Coat, Reinforcing Mesh and Finish Coat without EPS.

1. Provide Manufacture's five (5) year finish materials coatings warranty for Surfacing System installations.

- Manufactures
  - 1. Finestone Surfacing System for Unit Masonry Wall System by Finestone 2. ACF: by Parex
- 3. TAFS by Dryvit Systems Inc
- Basis of Design: Finestone
- Materials
  - 1. Adhesive Base Coat: Finebuild Base Coat: 100% acrylic base coat, field-mixed with Portland cement; manufactured by Finestone. 2. Portland cement: conform to ASTM C150, Type I, II, or I/II, grey or white; fresh and free of lumps.
  - 3. Water: Clean and potable without foreign matter. 4. Finestone Reinforcing Mesh: MIL-Y-1140G; Balanced, open weave glass fiber reinforcing mesh; twisted multi-end strands treated for
  - compatibility with Finestone Surfacing System components. 5. Standard Mesh 4: standard weight, 4.5 oz/sq yd.
  - 6. Corner Mesh: Double layer of standard mesh for reinforcing at exterior/interior corners.
  - 7. Primer: Sanded Primer. 8. Finestone Finish Coat: Pebbletex: 100% acrylic resin finish; air cured, compatible with Base Coat; with supplemental biocide and mildewcide
  - additive. Finish color factory-mixed; color as selected on drawings; Finish texture CLS 1.5. 9. Insulation Board used for Foam Shapes: Expanded Polystyrene meeting the Acrylic Finish System Manufacturer's Specification for Insulation Board.
- F. Preparaton:
  - 1. Examine surfaces to receive the Surfacing System and verify that substrate and adjacent materials are dry, clean, cured, sound and free of releasing agents, paint, or other residue or coatings. Verify substrate surface is flat, free of fins or planar irregularities. 2. Unit Masonry Wall System shall be installed with struck joints and installed in horizontal line and plumb within 1/4" per 20 feet per Unit Masonry Assembly Section. Masonry shall be cured a minimum of 7 to 10 days. Contact Owner and Architect if substrate exceeds installation
  - 3. Coordinate location of masonry control joints, through wall flashing and weeps penetrating Finish System with Architectural Drawings.

Application:

- General: Apply Finestone Surfacing System materials to Unit Masonry Wall System in accordance with current Finestone product bulletins. 2. Finestone Base Coat/Reinforcing Mesh: Base Coat / Leveling Coat shall be applied so as to achieve Reinforcing Mesh embedment with no Reinforcing Mesh color visible at a minimum thickness of 1/16" to maximum thickness of 1/4".
- a. Immediately place Reinforcing Mesh against wet Base Coat and embed the Reinforcing Mesh into the Base Coat by troweling from the center to the edges.
- b. Ensure Reinforcing Mesh is continuous at corners, void of wrinkles and embedded in Base Coat so that no mesh color is visible.
- c. Allow the base coat mixture to cure a minimum of 4 days between coats until completely dry. Use this procedure to minimize the appearance of the mortar joint pattern in the finished work.
- d. Apply secondary coat as required to provide level 1/8" thick minimum system base coat.
  - 3. Mechanically fasten Cement Board Accent bands and bond supplemental EPS shapes as indicated on the drawings. Bond shapes to dry reinforced base coat using Base Coat / Adhesive. Allow 24 hours to dry.
- a. Apply primer to the Reinforced Base Coat by brush, roller or spray.
- b. Allow primer to dry thoroughly (approximately 6-8 hours) prior to application of Finish Coat.
- a. Apply and level Finish Coat during same operation to minimum obtainable thickness consistent with uniform coverage.
- b. Maintain a wet edge on Finish Coat by applying and texturing continually over the wall surface.
- c. Work Finish Coat to corners, joints, or natural breaks and do not allow material to set up within an uninterrupted wall area.
- d. Float Finish Coat to achieve final texture.
- e. Sealer: Install manufacturer's UV stabilized, mildewcide and algicide Matte Clear Sealer to all surfaces.
- 6. Joints:
- a. Extend base coat 1/2" into horizontal and vertical termination joints. Finish Coat shall be installed flush with joint surface and backer rod and sealant installed against the base coat per Joint Sealant section.

#### Section 07500-Membrane Roofing System

- Roofing System Design: Provide a membrane roofing system that is identical to systems that have been successfully tested by Factory Mutual to conform with Factory Mutual Standard 1-28 to resist uplift pressure calculated shown on Structural Drawing S0.0 "General Notes" for Wind Speed, Wind Exposure and Component and Cladding (Wind Pressure Schedule). If design information is not shown on Structural drawings, roof design loading shall comply with ASCE 7.
- Provide all roofing accessories from same manufacturer to maintain a certified, warranted roofing system.
- Submittal:
  - 1. Shop Drawings: For roofing system. Include plans, elevations, sections, details, and attachments to other Work.
- a. Base flashings and membrane terminations.
- b. Tapered insulation, including slopes
- c. Insulation fastening patterns

2. Installer Certificates: Signed by roofing system manufacturer certifying that Installer is approved, authorized, or licensed by manufacturer to install roofing system. 3. Manufacturer Certificates: Signed by roofing manufacturer certifying that roofing system complies with requirements specified in "Roofing System Design" Article.

4. Submit evidence of meeting performance requirements. 5. Warranties: Special warranties specified in this Section. 6. Inspection Report: Copy of roofing system manufacturer's inspection report of completed roofing installation.

D. Warranty:

1. Provide 20 year manufacturer's warranty. The warranty shall cover the membrane, insulation, flashing, adhesives, fasteners, sealants and any miscellaneous items required for a complete roof installation as well as labor cost to remove and replace defective materials. 2. The Contractor shall issue a warranty for a period of two years from the date of the Substantial Completion. Under this warranty, the Contractor shall remedy any defects resulting from faulty materials or workmanship in the roofing system. Repairs shall be made by the Contractor at this own cost and expense and shall include the roofing membrane and all metal flashings, wall flashings, curb, pipe and accessory flashings provided by or under the supervision of the contractor as may be necessary to maintain the roof in a watertight condition.

- Roofing shall be Firestone Ultraply TPO 45 mil, White, Fully Adhered Membrane Roofing System. Install as per manufacturer's published specifications.
- 1. Note to Designer: Verify with Aaron's Project Manager, Roofing Material and Color. Polyisocyanurate Board Insulation: ASTM C 1289, Type II, felt or glass-fiber mat facer on both major surfaces.
  - Manufacturers: as approved by roofing manufacturer. 2. Insulation: Minimum "in-service" average of R-20 with minimum thickness of 1" R-value used to calculate total thermal resistance shall be 5.6 per inch (25 mm) of thickness to arrive at a total "in-service" value. Provide insulation by one manufacturer as required to maintain specified warranty. Insulation shall be compatible with deck. Provide slip sheets and accessories as required to make insulation compatible with
  - conditions and specified warranty. 3. All polyisocyanurate insulation shall be produced using non-ozone-depleting hydrocarbon blowing agents.
- G. Field Quality Control
  - 1. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform roof tests and inspections and to prepare test 2. Final Roof Inspection: Arrange for roofing system manufacturer's technical personnel to inspect roofing installation on completion and submit report
  - 3. Notify Owner 48 hours in advance of date and time of inspection. 4. Repair or remove and replace components of membrane roofing system where test results or inspections indicate that they do not comply with
  - 5. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements

# 07600 Flashing And Sheet Metal

- A. Flashing Materials
  - 1. Galvanized Sheet Steel
  - a. Hot dipped zinc coated sheet steel; 1 1/2 oz. per sq. ft. coating treated to hold paint.
  - b. A.S.T.M. A-93.

to Architect.

- c. Armco "Zinc Grip", Republic "U-Lay" or approved equal.
- d. Minimum 24-gauge thickness

# 07710 Roof Accessories

- A. Curb Mounted Roof Hatch:
  - 1. Manufacturer: Bilco or approved equal
  - a. Model S-50, primed finish.

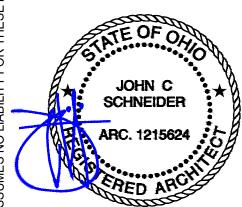
b. Size: Provide 36 inch x 30 inch with hasp, eye, and padlock.

c. Install on fixed ladder below hatch cover Model 1 LadderUP safety post as manufactured by The Bilco Company, New Haven Connecticut or equal. Device shall be manufactured of high strength steel with telescoping tubular section that locks automatically when fully extended. Upward and downward movement shall be controlled by a stainless steel spring balancing mechanism. Finish shall be black enamel. Unit shall be completely

assembled with fasteners for securing to the ladder rungs in accordance with the manufacturer's instructions.

Kinetic Design

29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



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## 07920 Masonry Joint Sealants

- A. Provide electrometric joint sealants that establish and maintain watertight and airtight continuous joint seals without staining or deteriorating joint substrates
- Electrometric Sealants: Comply with ASTM C 920 and other requirements indicated for each liquid-applied chemically curing sealant specified, including those referencing ASTM C 920 classifications for type, grade, class, and uses related to exposure and joint substrates.
- Stain-Test-Response Characteristics: Where electrometric sealants are specified to be nonstaining to porous substrates, provide products that have undergone testing according to ASTM C 1248 and have not stained porous joint substrates indicated for Project.
- Single-Component Neutral-Curing Silicone Sealant (low modulus):

#### a. Masonry to steel door frames.

b. Masonry to aluminum storefront and curtain wall.

c. Concrete/masonry to concrete/masonry.

d. Direct to Masonry Acrylic Coatings

2. Type and Grade: S (single component) and NS (nonsag).

Products:

a. Tremco; Spectrem 3.

b. GE Silicones; SilPruf SCS2000

c. Pecora Corporation; 864

d. Pecora Corporation; 890.

e. Polymeric Systems Inc.; PSI-641.

f. Sonneborn, Division of ChemRex Inc.; Omniseal.

#### 07925 Joint Sealants

- A. Latex Sealant:
  - 1. Uses: General purpose interior and exterior caulking and as a back bedding glazing compound. Acoustical seal in the construction of interior walls ceilings and floors to reduce Sound Transmission Class (STC) of partition walls. Interior joints that will be painted such as door and window frame perimeters and precast concrete plank joints.
  - 2. Type and grade: ASTM C 834, Type P, Grade NF
  - 3. Silicone-Emulsion Sealant: "Trade Mate Paintable Glazing Sealant," Dow Corning Corp.
  - 4. Products:
  - a. Tremco; Tremflex 834.
  - b. Pecora Corporation; AC-20+
  - c. Sonneborn, Division of ChemRex Inc.; Sonolac
- Sanitary Sealant
  - 1. Uses: Weathertight seal to glass, metal, porcelain, ceramic and most painted surfaces. White and Clear colors can contain a fungicide making the sealant suitable for use in bathrooms, spas and similar applications where joints need protection against fungi and bacteria.
  - 2. Type and Grade: S (single component) and NS (nonsag).
  - 3. Single-Component Mildew-Resistant (Sanitary) Acid-Curing Silicone Sealant
  - 4. Products:
  - a. Tremco; Tremsil 200 (White or Clear).
- b. Dow Corning Corporation; 786 Mildew Resistant.
- c. GE Silicones; Sanitary SCS1700.
- d. Pecora, 898 Silicone-Sanitary Sealant.

# Section 08200-Doors

- Hollow metal door and frame materials and insulation shall conform to the standards of the steel door institute (SDI). Doors shall be Amweld, Ceco, Steelcraft, or approved equal doors.
  - 1. Exterior Doors shall be flush metal 16 gauge.
  - 2. Interior Doors shall be flush metal 20 gauge unless noted otherwise.
- Core Construction:
  - 1. Interior Doors: Manufacturer's standard kraft-paper honeycomb that produces doors complying with ANSI A250.8.
  - 2. Exterior Doors: Manufacturer's polystyrene that produces doors complying with ANSI A250.8.
- Frames for all doors shall be 16 gauge and shall include reinforcement, wall anchors, security reinforcing, base anchors and silencers in frames.
- Exterior doors shall have no pre-drilled lockset and or door level holes (Blank cover plates covering holes are not acceptable).
- Interior wood doors in welded metal frames shall be solid core stain grade birch machined to fit metal frames. All interior wood doors will be finished with 2 coats of clear satin polyurethane.

# 08305 Access Doors

B. Configuration:

Manufacturer: Karp

- - 1. Frames: 16 gage (.0598 inch) sheet steel with flange suitable for adjacent material.
  - 2. Doors: 14 gage (.0625 inch) sheet steel.
  - 3. Door Type: Flush panel.
  - 4. Locking Devices: Key operated Cylinder Locking Device
  - 5. Finish: Primed

# Section 08360-Overhead Doors

- A. Overhead Door Design:
  - 1. Overhead door shall be designed to resist wind pressure shown on Structural Drawing S0.0 "General Notes" for Wind Speed, Wind Exposure and Component and Cladding (Wind Pressure Schedule). If design information is not shown on Structural drawings, design loading shall comply with
  - 2. Manufacturer: Overhead Door Corporation
  - 3. Model: Series 620, F-265 Flat Slat, 18 gauge. Provide standard steel angle track installation with chain hoist, locking hasp and bottom rail slide bolts on each side.
  - 4. Color: Manufacturer standard Grey.
- Security Entrance Rolling Door:
  - 1. Affiliated Construction Specialists, Inc. Surface Mounted to aluminum storefront framing. Rollup security door shall match door width and height including transom above. Top of hood to align with top of transom. Provide pull down strap to elevation 7'-0".

## Section 08400-Aluminum Storefront System

- Storefront System Design: Storefront and Glazing system shall be designed to resist wind pressure shown on Structural Drawing S0.0 "General Notes" for Wind Speed, Wind Exposure and Component and Cladding (Wind Pressure Schedule). If design information is not shown on Structural drawings, design loading shall comply with ASCE 7.
  - 1. Note to Designer: Verify if Hurricane Requirements apply to specific project site. This may include projects within 10 miles of the coast line along the Gulf of Mexico and south Atlantic states and will require storefront and glazing systems meeting higher design requirements per the building code.
- Submit color sample to Architect and Owner for approval.
- Kawneer Tri-FAB 451 Center Set Outside Glazed Non-thermal System to be installed as per manufacturer's requirements and as specified herein (Oldcastle Glass Vista Wall FG -3000 or YKK Yes 45 Fl are acceptable equals).
  - 1. Finish to be Clear Anodized.
  - 2. Window glazing to be 1" clear insulated tempered glass. Door glazing to be 1/4" clear tempered glass. Doors to be medium-style standard doors. Finish of doors to match storefront finish. Hardware for aluminum doors and doorframes shall be by the entrance
- Doors shall include reinforcement brackets with bolts and screws, and shall be MIG welded. Doors shall have snap-in-stops with bulb glazing gasket both sides of glass. No exposed screws shall be permitted. Each door leaf shall be equipped with an adjusting mechanism, located in the top rail near the lock stile, which provides minor clearance adjustments after installation. Right door to have mail slot @ 60" a.f.f. to center.
- A hard-backed poly pile weather strip shall be installed in both stiles of center-hung pair of doors. Offset pivoted doors shall have weather-stripped at frame jambs and header. The active meeting site of all pair of doors shall have an adjustable astragal with double line of weather-strip. Door bottom rail shall receive a concealed weather-strip insert.
- Mail Slot: CRL 2-5/8" x 12-1/8" Satin Anodized Standard Mail Slot

manufacturer. See Door Hardware schedule for required hardware.

- Security Grill: Affiliated Construction Specialties Inc. Architectural Security Grid Systems, Color White. General Contractor to provide field measurements to
- All exposed framing surfaces shall be free of scratches and other serious blemishes. Aluminum extrusions shall be prefinished mill finish.
- All glazing and storefront work shall be set level, square, plumb and proper elevation in alignment with other work in accordance with the manufacture's installation instructions and approved shop drawings. All joints between entrance framing and the building structure shall be sealed in order to secure a watertight installation. Upon completion of the installation of the entrances, it shall be the Contractor's responsibility to make all necessary final adjustments to obtain normal operation of each door and it's mechanical hardware.
- The glazing contractor shall furnish all necessary materials, labor and equipment for the complete installation of aluminum entrance doors, doorframes and hardware and glazing system as detailed on the drawings and specified herein. It is the sole responsibility of Contractor to ensure that all required storefront specifications are met.
- After installation, the Contractor shall adequately protect exposed portions of the aluminum entrance work from damage by grinding and polishing compounds, plaster, lime, ASID, cement or other containments. The Contractor shall be responsible for final cleaning.

# Section 08710-Finish Hardware

- Contractor to provide the required hardware for fire-rated openings in compliance with current code requirements of NFPA 80. Exit hardware for fire-rated openings shall bear UL markings. Contractor to warrant all architectural hardware for a period of one year after date of substantial completion. Warrant door closer for five years.
- Contractor to operate lock set's by construction core system until date of substantial completion. Provide the following number of keys: change keys two per lock, master keys - six each, construction master keys - three each.
- All hardware to be satin brass US4, 606, unless noted otherwise. Note: storefront hardware to be provided by storefront manufacturer as scheduled.
- All lock sets, latch sets, cylinders and specialty locks shall be Best removable cores with lever type hardware, or prior approved equal. Other hardware as
  - 1. Hinges Hager Hinge Company.
  - 2. Cylindrical locks and locksets 'Best' removable cores, 2 3/8" backset, wrought trim, 6 and 7-pin tumbler.
  - 3. Door closer LCN w/ hold open feature where noted.
  - 4. Stops, Viewer Rockwood, H.B. Ives, Quality Hardware Manufacturing Company, Builders Brass Works, Baldwin Hardware Manufacturing Co.
  - 5. Push/pulls and plates Rockwood, H.B. Ives, Quality Hardware Manufacturing Company, Builders Brass Works.
  - 6. Thresholds/weather-stripping National Guard Products.

7. Emergency exit devices to be Von Duprin.

9. Double door kit = Part No. A106-001

- 8. Three foot exit device.
- Install finish hardware plumb, level and true to line in accordance with approved shop drawings for doors and manufacturer's printed instructions. Location of hardware, where applicable, shall be in accordance with "recommended locations for builders' hardware for standard steel doors and frames". Install finish hardware to template. Cut and fit substrate to exact tolerances required for hardware installation without damaging or weakening door construction. Cover cutout with hardware item.
- Mortise work to correct location and size, without gouging, splintering, or causing irregularities in exposed finish work. Where cutting and fitting is required on substrates to be painted, install, fit and adjust hardware prior to finishing, then remove and replace in original packaging. Reinstall hardware after finishing operation is completed. Drill and countersink units that are not factory prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
- Set thresholds for exterior doors in full bed of Butyl-rubber or Polyisobutylene mastic sealant. Weather-stripping and seals to comply with manufacturer's instructions and recommendations to the extent installation requirements are not otherwise indicated. At time of hardware installation, adjust each hardware item
- to perform function intended. Lubricate moving parts using lubricant acceptable to hardware manufacturer.
- Prior to date of substantial completion, readjust and re-lubricate hardware. Replace defective materials. As recommended by manufacturer, clean hardware to remove dust and stains. Instruct Owner's designated personnel in adjustment and maintenance of hardware and finishes at time of final hardware adjustment.

# <u>08800 Glazing</u>

- A. Glazing locations:
  - 1. Exterior entrances and storefront
- Glass Products
  - 1. Tempered Glass: All tempered glass shall comply with the standards of ASTM C1048, Kind FT;
  - a. Condition A (uncoated) and Condition B (coated);
  - b. Type I (transparent, flat);

Doors.

- c. Class 1 (Clear), Class 2 (Thermal/Tinted) and Class 3 (Tinted),
- d. Quality q3.
  - 2. Insulating-Glass Units, General: Factory-assembled units consisting of sealed lites of glass separated by a dehydrated interspace, and complying with ASTM E 774 for Class CBA units.
- a. Provide Kind HS (heat-strengthened) float glass in place of annealed glass where needed to resist thermal stresses induced by differential shading of individual glass lites and to comply with glass design requirements specified in Part 1 "Performance Requirements" Article.
- b. Provide Kind FT (fully tempered) glass lites where safety glass is indicated.
- c. Overall Unit thickness and Thickness of Each Lite: Dimensions indicated for insulating-glass units are nominal and the overall thickness of units are measured perpendicularly from outer surfaces of glass lites at unit's edge.
- d. Sealing system: Dual seal, with primary and secondary sealants as follows:
- e. Manufacturer's standard sealants.
- f. Spacer Specifications: manufacturer's standard spacer material and construction.
- g. Uncoated Insulating Glass:
  - 1) Overall Unit Thickness and Thickness of Each Lite: 25 and 6 mm.
  - 2) Interspace Content: Air. 3) Indoor Lite: Float glass, Class 1 (clear) float glass, Kind FT (fully tempered); Condition A (uncoated surfaces).
  - 4) Outdoor Lite: Float glass, Class 1 (clear), Kind FT (fully tempered); Condition A (uncoated surfaces). 5) Visible Light Transmittance: 80%.
  - 6) Winter Nighttime U-Value: 0.48.
  - 7) Summer Daytime U-Value: 0.55. 8) Solar Heat Gain Coefficient: 0.83.

#### Section 09120 - Lay-In Ceiling System

- Suspension system: Armstrong 15/16" prelude suspension system Attachment devices and hangers shall meet ASTM C 635. Grid system color shall match
- Ceiling Tile: 2 x 4 Armstrong Cortega #769 Square Lay-in. Colors: white & black.
- Installation of ceiling shall be the pattern indicated on the reflective ceiling plan and shall coordinate with the mechanical, electrical and sprinkler system requirements. All items to be supported shall be hung with wires of the same size and spacing to support the ceiling system and all other work supported there from. Maximum spacing of wires shall be 48" O.C.
- System shall be square and level with deflection not to exceed 1/8" in 10 feet. Grid and all tiles shall be thoroughly clean and free of marks, cuts, indentations, spots, foreign paint of other blemishes and imperfections or shall be replaced. Contractor shall provide five (5) full tiles of replacement material at the completion
- Provide ceiling system guarantee in writing against defects in labor, materials and maximum deflection of 1/180th of the span for a period of one year from date of Owner acceptance of the project.

## Section 09250 - Gypsum Drywall

- Interior wall framing shall be metal studs as shown. In-wall blocking shall be provided at all wall-hung items. Gypsum wallboard shall be ASTM C1396 "sheetrock" as manufactured by the U.S. Gypsum Co., or equal. Thickness and type of gypsum wallboard as noted, with tapered edges. Use type W/R board conforming to ASTM C1396 in restrooms and where noted. Use type x board where one-hour fire rating is required.
- Joint reinforcing tape, adhesive and metal corner reinforcement standard products recommended by the wallboard manufacturer. Fasteners shall be self-drilling, self-taping countersunk bugle head drywall screws for attachment of wallboard to metal studs. Use gypsum wallboard nails for attachment to wood studs. Structural studs shall be punched or un-punched 16-gauge steel having minimum yield point of 33,000 PSI, sizes as indicated.
- Non-load bearing studs shall be channel-type roll-formed from 20 gauge electro-galvanized steel, sizes as indicated. Furring channels shall be roll-formed, 25 gauge minimum electro-galvanized steel hat section with wing flanges. Installation of "sheetrock" shall be in accordance with manufacturer's recommendations for fire-rated partitions.
- Gypsum wallboard shall be attached to metal studs with approved metal screws. All joints shall be taped and finished smooth with spackling compound. Gypsum wallboard shall be attached to masonry with metal furring channels and screws with all joints taped and finished. Joints shall be taped and finished

smooth. Office, Restroom and Breakroom walls shall be finished to meet ASTM C 840 Level 5. All other areas shall have level 4 finish.

- Trim Accessories: Interior Trim: ASTM C 1047 made from Galvanized or aluminum-coated steel sheet or rolled zinc.
- 1. Shapes: Cornerbead and Expansion (control) joint.
- Install directly to stud framing behind gypsum drywall walls and/or ceilings where specified on drawings.
- 2. Flattened Expanded Metal:
- a. Metal: Carbon Steel
- b. Style: 3/4" #13F (flattened)

Security Mesh (Expanded Metal)

- c. Weight: 75 lbs. per 100 sq.ft.
- d. Thickness: .070 inches
- e. Sheet size: use largest sheet size practical for intended use 3. Fasten directly to stud framing using No. 8 self-tapping screws with 1/4" minimum penetration at 12" o.c. at perimeter and field.

# Section 09545 - Concrete Slab Testing

- A. Subfloor Moisture Testing
  - 1. Test floor for excessive moisture before installing over concrete. Perform an Anhydrous Calcium Chloride Moisture Emissions test for a 72 hour period in accordance with ASTM F1869. The maximum allowable reading is 5 lbs./1000 square feet/24 hours.
  - Submit Testing Results to Owner.
- Subflooring PH Testing
  - 1. Test floor for excessive pH before installing floor coverings over concrete. A reading below 5.0 or above 9.0 requires corrective measures. Specific information on the correct method of neutralizing extremely low or high pH is available from the Shaw Field Technical Services Department
  - 2. Submit Testing Results to Owner.

# Section 09550 - Wood Flooring

- A. Preparation
  - 1. Glueless Laminate will be installed directly over existing concrete flooring.
- Delivery, Storage and Handling

  - 1. Cartons of flooring must lay flat and unopened in the room in which they are to be installed for a minimum of 48 hours before installation. 2. During the acclimation and installation period, temperature must be maintained between 65 deg. F and 85 deg F and relative humidity be between
  - 3. Cartons should be stacked no more than 3 high with 4" of airflow around them, should be stored away from any heating/cooling ducts or direct
- sunlight.
  - Preparation 1. Fill any low spots in the subfloor greater than 1/8" in 6 feet with a Portland cement leveling compound. Check this by using a 6' straight edge. Remove
  - any high spots by sanding or grinding.
  - 2. If there is an existing wood flooring adhered over concrete, it must be removed before installing Shaw Laminated Flooring. 3. Remove any existing floor molding. Door frames to be undercut for wood floor installation. Saw the bottom of the doorjamb case molding back to the
  - wall studs so that 1/4" expansion gap is maintained when laminate is fitted under doorjamb case molding.
- 4. Sweep the subfloor clean. Floor Materials:
  - 1. See Finish Schedule for Flooring Mode Numbers.

possible parallel to incoming sunlight.

- E. Underlayments: 1. On Concrete floors Use SilentStep Ultra 3 in 1 underlayments. SilentStep Ultra 3 in 1 should be rolled out with the seams pulled together. It should
  - go up the wall at least 2" when used over concrete. Tape underlayment seams using a 2" clear packaging sealing tape. 2. Unroll one width of underlayment along the longest wall. Always work from left to right. Planks should run lengthwise against the longest wall, and if
  - 3. Rooms larger than 26 x 40 feet require T-molding for expansion. Floor spans should not exceed 40' in any direction.
- - 1. Shaw laminates VersaLock AG installation guide entitled "Glueless Laminate Installation Instructions Wood Designs" are to be strictly adhered to for the wood floor installation

Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



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## Section 09650 - Resilient Flooring

- A. Testing Concrete Substrates: Prepare according to ASTM F 710.
  - 1. Verify that substrates are dry and free of curing compounds, sealers, and hardeners
  - 2. Alkalinity and Adhesion Testing: Perform tests recommended by manufacturer. Proceed with installation only after substrates pass testing.

3. Test the slab for moisture and alkalinity prior to beginning the installation in accordance with Section 09545 Concrete Slab Testing. Check the concrete for moisture and surface pH at several locations. Reading outside of values listed in Section 09545 requires corrective measures. Do not begin the installation if test values xceed maximum allowable reading. Do not use other methods of moisture testing, as they are not reliable. If moisture is excessive advise the Contractor or Owner for a decision on whether to begin. Shaw is not responsible for any moisture related installation failures if these guidelines are not strictly followed.

4. Vapor Reduction System: Slabs failing moisture testing shall be coated with Vexcon Chemicals Inc. MoistureBloc. Floors shall be stripped, cleaned, repaired and restored per Manufacturer's recommendations. Provide the following MoistureBloc products based on calcium chloride test results:

#### a. Low Level, 8 - 9 lbs. MoistureBloc Universal

- b. Medium Level 12 15 lbs. MoistureBloc Emulsion 3
- c. High Level Up to 27 lbs. MoistureBloc MX WB
- Vinyl composition tile to be installed as indicated on drawings. Tile to be Armstrong or equal. Color as specified on drawings. Rubber base to be installed as indicated on drawings. Base to be 4" rubber coved based as specified in drawings.

# Section 09680 Carpet

#### A. Installation Guidelines

1. The following instructions shall be reviewed prior to installation. The Shaw installation video must be watched by all installers before any carpet is installed. The written acknowledgement of watching the video must be signed and sent to the Owner's Rep. before the carpet installation has begun.

#### Site Testing And Conditioning

1. Maintain the temperature of the installation site, carpet, adhesive and seam sealer between 65° F and 95° F for 24 hours before installation. Do not begin the installation if the room or subfloor temperature is below 65° F. The adhesive and seam sealer will not function properly when applied over an extremely cold surface. Relative humidity should not exceed 65%. These conditions must be maintained for 24 hours prior to, during and 24 hours after installation. Test the slab for moisture and alkalinity prior to beginning the installation in accordance with Section 09545 Concrete Slab Testing. Reading outside of values listed in Section 09545 requires corrective measures. Do not begin the installation if test values exceed maximum allowable reading. Do not use other methods of moisture testing, as they are not reliable. If moisture is excessive advise the Contractor or Owner for a decision on whether to begin. Shaw is not responsible for any moisture related installation failures if these guidelines are not strictly followed.

#### C. Floor Preparation

1. The floor must be free of dust, dirt, oil, grease, paint, wax, moisture or any debris that could affect adhesion of the carpet backing to the floor. Shaw Industries recommends the complete coverage of latex primer to encapsulate any remaining dust prior to installing product if floor is not dust free.

## 2. Do not use sweeping compounds as they leave oily deposits.

100% mechanical bond between the carpet backing and subfloor.

3. The floor must be level and smooth. Depressions and cracks must be filled with a liquid latex additive patching compound and all protrusions leveled.

4. All previous non-active adhesives must be removed to a thin bonded residue before installation of carpet tiles. All previous trowel notches must be reduced to a smooth surface. Previous adhesives can be reduced by means of razor scraping or sanding. The new carpet tile must be assured of a

5. Concrete floors must be sealed if dusting or powdering exists. The following floor sealers are suggested for concrete:

#### a. Kure-N-Seal-Sonneborn #0800 - Chemrex, Inc.

b. Spartan Cote Cure Seal Hardener - The Burke Group

#### c. Shaw Contract Group 9050 Primer

6. As always, manufacturers are subject to change their formulations. Please refer to all manufacturers' suggested use and precautions.

7. CAUTION: Cutback asphaltic adhesive or any other non-approved adhesives must never be allowed to come into contact with Shaw Contract carpet tiles or adhesives. Installation failure will result. Existing cutback adhesives must be wet scraped and reduced to a well bonded thin residue. When thoroughly dried, it should be encapsulated with Shaw 9000 sealer. If this situation arises, contact Shaw Industries Technical Services Department at 1-800-471-7429 for further instructions.

# Job Layout

Modular Carpet

a. The starting point in a modular installation must be as near to the center of the room as possible and must be positioned to utilize the largest perimeter cut module size.

b. Snap a chalk line parallel to one major wall bisecting the starting point. It may be necessary to offset the center chalk line to assure perimeter modules will be at least half size.

c. A second chalk line must be snapped from the starting point at 90° to the first line. This can be accomplished using a 3-4-5, 6-8-10, or larger triangle,

# Adhesive Requirements & Application

1. Modular Carpet

a. Aaron's Ecoworx Tiles require the use of the provided Shaw Contract 5000 Pressure Sensitive, Releasable Adhesive, Use a 1/16 V-notch trowel. Yields 20 sy per gallon. Allow the adhesive sufficient open time so that it will not transfer to the back of the tile. The adhesive must be allowed to dry completely before installing the carpet. Installing into wet adhesive will result into a permanent bond and may cause carpet to bubble!

b. NOTE - A FULL SPREAD OF ADHESIVE IS REQUIRED.

# Installation

1. Modular Carpet

a. Verify floor is dust and powder free per Floor Preparation section above.

b. Begin the installation by installing according to the carton number. Each module has directional arrows on the backing. This allows for one-directional or multidirectional installation

# c. Field Modular Carpet Tiles require quarter turning.

d. Aisle Modular Carpet Tile requires arrows on back of tile to run knap monolithically in one direction.

depending on the room size. Meters or feet may be used to lay out the triangle in these proportions.

e. Installation must begin at the intersection of two chalk lines. Installation must continue until completed in one quadrant, then proceed to an adjoining quadrant until all four quadrants are completed. Larger areas may require chalk lines bisecting the original four quadrants.

f. Install modules using the pyramid technique. This allows multiple alignment checks. If the edges do not align and the misalignment increases with progression of the installation, the source of the problem must be identified and corrected.

g. Slide modules into position to prevent yarn from being trapped between the modules. Trapped yarn will adversely affect the appearance of the installation and will cause alignment problems.

h. Modules must fit snugly, but not be compressed. Check for fit by measuring the length of ten full modules after installation. The measurement must not be less than, or exceed by more than 1/4 inch, the length of the modules being multiplied by ten. For example: if 18" X 18" modules are being installed, the measurement should be between 180 and 180 1/4 inches.

# Cutting

1. Modular Carpet Cutting Techniques

a. Modules may be cut by measuring and cutting from the back using a straight edge. Care must be taken to assure the arrows are pointing in the correct

b. Modules may also be cut by letting them cove up the wall and cutting with a cushion back wall trimmer or similar tool. DO NOT COMPRESS!

- 1. Roll the entire installation in both directions with a 75 lb roller once it is completed to assure transfer of the adhesive between floor and carpet backing.
- 2. Use plywood over the carpet when heavy objects are moved within 24 hours after installation.
- 3. A non-staining building material paper must be placed over the carpet to protect it when additional construction activity is to take place that would soil or stain it. Do not use plastic sheeting as it will trap moisture.

# Section 09900 - Painting

Extent of painting work is indicated on drawings and schedules, and as herein specified. Work includes painting and finishing of interior and exterior exposed items and surfaces throughout project, except as otherwise indicated. Surface preparation, priming and coats of paint specified are in addition to shop priming and surface treatment specified under other sections of work.

- "Paint" as used herein, means all coating systems materials, including primers, emulsions, enamels, stains, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.
- Surfaces to be painted: except where natural finish of material is specifically noted as a surface not to be painted, paint exposed surfaces whether or not colors are designated in "schedules". Where items or surfaces are not specifically mentioned, paint the same as similar adjacent materials or areas. If color or finish is not designated, Owner will select these from standard colors or finishes available.
- Complete coverage of all exposed surfaces is intended, unless indicated "no paint" on drawings. This includes, but is not limited to, all new surfaces to be painted both interior and exterior.
- Surfaces not to be painted: following categories of work are not included as part of field-applied finish work unless noted otherwise; pre-finished items, concealed surfaces, finished metal surfaces, operating parts, shop primed items.
- Do not paint over any code-required labels, such as underwriters' laboratories and factory mutual, or any equipment identification, performance rating, name, or nomenclature plates.
- Single source responsibility: provide primers and other undercoat paint produced by same manufacturer as finish coats. Use only thinners approved by paint manufacturer, and use only within recommended limits.
- Submittals
  - 1. Samples: Prior to beginning work, Owner will furnish color chips for surfaces to be painted. Use representative colors when preparing samples for review. Submit samples for Owner's review of color and texture only. Provide a listing of material and application for each coat of each finish sample. Final acceptance of colors will be from samples applied on the job. Prepare and/or clean surfaces to be painted as per manufacturer's specifications. Apply paint as per manufacturer's specifications.
- Acceptable manufacturer is Sherwin Williams. Contractor may substitute other vendors ONLY with Owner approval prior to bid submission.
- Paint colors, surface treatments, and finishes, are indicated in "schedules" of the contract documents. In the event paint finishes are not indicated, coordinate with Owner prior to application. Apply additional coats when undercoats, stains or other conditions show through final coat of paint, until paint film is of uniform finish, color and appearance. Give special attention to ensure that surfaces, including edges, corners, crevices, welds, and exposed fasteners receive a dry film thickness equivalent to that of flat surfaces.
- Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Paint surfaces behind permanently fixed equipment or furniture with prime coat only before final installation of equipment. Paint interior surfaces of ducts, where visible through registers or grilles, with a flat, non-specular black
- All surfaces to be painted shall have one primer coat and two finish coats except as indicated.
- Warranty: Electrometric Coating Manufacturer shall provide a five (5) year warranty beginning from the date of Substantial Completion and a final inspection by a Manufacturer's Representative, if required to validate warranty.
- Electrometric Coating: First coat shall be back rolled, insuring full embedment into substrate
- Exterior Paint Schedule

1. Textured Electrometric Coating over CMU (Water Based Finish)

1st Coat: S-W Loxon XP Smooth, A24W400 Series (14-18 mils wet; 6.4-8.3 mils dry) S-W Loxon XP Fine Textured Waterproofing System, A24-750 Series (14-18 mils wet) 2nd Coat:

2. Metal Door and Door Frames:

S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series(5-10 mils wet, 2-4 mils dry) 1st Coat: 2nd Coat: S-W Metalatex Acrylic Semi-Gloss, B42 Series 3rd Coat: S-W Metalatex Acrylic Semi-Gloss, B42 Series (4 mils wet, 1.5 mils dry per coat)

Galvanized Copings and Flashings:

S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series(5-10 mils wet, 2-4 mils dry) 1st Coat: 2nd Coat: S-W Metalatex Acrylic Semi-Gloss, B42 Series S-W Metalatex Acrylic Semi-Gloss, B42 Series (4 mils wet, 1.5 mils dry per coat) 3rd Coat:

Interior Paint Schedule

1. Drywall-Standard Areas (Eggshell Finish)

S-W ProGreen 200 Interior Latex Primer, B28W600 (4 mils wet, 1.5 mils dry per coat) 1st Coat: 2nd Coat: S-W Harmony Low Odor Interior Latex Eg-Shel, B9 Series 3rd Coat: S-W Harmony Low Odor Interior Latex Eg-Shel, B9 Series (4 mils wet, 1.6 mils dry per coat)

2. Drywall Bathrooms over W.R. Drywall

S-W ProGreen 200 Interior Latex Primer, B28W600 (4 mils wet, 1.5 mils dry per coat) 2nd Coat: S-W Harmony Low Odor Interior Latex Eg-Shel, B9 Series 3rd Coat: S-W Harmony Low Odor Interior Latex Eq-Shel, B9 Series (4 mils wet, 1.6 mils dry per coat)

Epoxy System (Water Base) Ea-Shel/Low Luster Finish

1st Coat: S-W ProMar 200 Interior Latex Primer, B28W200 (4 mils wet, 1.1 mils dry per coat) 2nd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Epoxy, K45-151 Series 3rd Coat: S-W Pro Industrial Pre-Catalyzed Waterbased Epoxy, K45-151 Series (4 mils wet, 1.5 mils dry per coat)

3. Drywall Signage Background

S-W ProGreen 200 Interior Latex Primer, B28W600 (4 mils wet, 1.5 mils dry per coat) S-W Harmony Low Odor Interior Latex Semi-Gloss, B10 Series 2nd Coat S-W Harmony Low Odor Interior Latex Semi-Gloss, B10 Series (4 mils wet, 1.8 mils dry per coat) 3rd Coat:

4. Woodwork - Trim

1st Coat: S-W PrepRite(r) ProBlock(r) Latex Primer, B51 Series (4 mils wet, 1.4 mils dry) S-W ProClassic Waterborne Acrylic Gloss, B21-51 Series 2nd Coat S-W ProClassic Waterborne Acrylic Gloss, B21-51 Series (4 mils wet, 1.6 mils dry per coat)

5. Wood Doors - Trim

S-W WoodClassics Waterborne Polyurethane Varnish, A68 Series 1st Coat: S-W WoodClassics Waterborne Polyurethane Varnish, A68 Series (400-500 sq ft/gal) 2nd Coat:

6. Metals

1st Coat: S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series (5-10 mils wet, 2-4 mils dry) 2nd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss, B31 Series 3rd Coat: S-W ProClassic Waterborne Acrylic Semi-Gloss, B31 Series (4 mils wet, 1.4 mils dry per coat)

OPTION: 1st Coat: 2nd Coat:

S-W Pro Industrial Pro-Cryl Universal Primer, B66-310 Series (5-10 mils wet, 2-4 mils dry) S-W Harmony Low Odor Interior Latex Semi-Gloss, B10 Series S-W Harmony Low Odor Interior Latex Semi-Gloss, B10 Series (4 mils wet, 1.6 mils dry per coat)

7. Concrete Unit Masonry

1st Coat: PrepRite Block Filler, B25W25, 8 mils dry S-W Harmony Low Odor Interior Latex Eg-Shell, B9 Series, 1.6 Mils Dry per coat 2nd Coat: 3rd Coat: S-W Harmony Low Odor Interior Latex Eg-Shell, B9 Series, 1.6 Mils Dry per coat

8. Concrete Floor Striping (Safety Yellow) on Acrylic Floor Sealer

S-W Tread-Plex Acrylic Floor Coating, B90 Series

1st Coat: 2nd Coat: S-W Tread-Plex Acrylic Floor Coating, B90 Series S-W Tread-Plex Acrylic Floor Coating, B90 Series (optional) (1.5 - 2.0 mils dry, per coat) 3rd Coat:

# Section 10536 - Awnings

# A. Submittals

1. Shop Drawings: Show shop and erection details, including cut, copes, connections holes and welds. Show welds, both shop and field, by the current recommended symbols of the AWS. Do not fabricate members until shop drawings have been reviewed.

2. Include engineering calculations showing wind load requirements of the local Building Department and include fastener and erection details, signed and sealed by the qualified professional engineer responsible for their preparation.

# Quality Assurance

1. Awning manufacturer and Awning Contractor, contractor must provide proof of certifications:

- a. Hold a valid general contractor's license for a minimum of five (5) years.
- b. Welder Qualifications: The personnel manufacturing the metal awning frames must certified welders.
- c. Provide written welding procedure specifications.

2. Professional Engineer Qualifications: A professional engineer who is legally authorized to practice in the jurisdiction where project is located and who is experienced in providing engineering services for installing metal awnings similar to those indicated for this project and with a record of successful in service performance.

#### Warranty

1. Warrant frame materials and workmanship against defects for a period of one (1) year from date of substantial completion of the Work.

2. Warrant metal roofing materials and workmanship against defects for a minimum period of five (5) years, on a prorated basis, from the date of substantial completion of the work.

#### Awnings

Awning shapes:

a. Standard Window Awning with Solid Valance

#### b. Hip Roof Entrance Canopy

2. Metal Roof: Conventional Standing seam Pac-Clad 24 Ga. Steel Color to match MBCI Signature 300 Harbor Blue.

3. Frames: Minimum 1-inch square 16GA galvanized steel ASTM A 500 tubing or 1" square and rectangular .125 ASTM B 221 aluminum tubing, welding to AWS standards with welds ground smooth. Frames designed for wind loads, snow loads and seismic requirements as required by structural

4. Frames: All corners are to be mitered or completely welded to AWS standards.

5. Metal welding: All joints must be mitered or completely welded to AWS standards, ground smooth, primed and painted to match metal panels.

6. Anchors: Anchoring hardware shall be galvanized, zinc-coated 3/8" diameter or greater

7. Painting: Two coats of polyester powder coat required when the awning installation is within 4 miles of the ocean or Painting: Shop primer shall conform to FS TT-P-615d (2). Type 1. Use Rustoleum brand paint 2185 zinc -rich spray when further than 4 miles from the ocean.

8. Calking: Acrylic latex or silicone sealant at head bar and wall junction.

9. Use aluminum side molding to attach material to head bars.

#### Installation

1. Buildings are to be field measured by the awning contractor prior to awning manufacture and awning installation.

2. Install awnings and frames in strict accordance with the Drawings and the reviewed shop drawings, and provide appropriate building code requirements and aligned and plumb.

3. Welding procedures and operation shall comply with the referenced standard. Welding electrodes shall comply with ASTM A 233, E-70 Series. Grind smooth exposed welds; finish welds to the inside.

#### Section 10800 - Toilet And Bath Accessories

See drawings for locations and quantities. All accessories shall be installed to meet local code requirements and the Americans with Disabilities Act regardless of drawing locations. Contractor shall notify Owner of any discrepancies prior to installation. All wall-mounted accessories shall have solid wall blocking at

#### Section 12300 - Trade Fixtures

Owner's Trade Fixtures - The Contractor, at contractor's sole cost and expense shall install Owner's trade fixture package which consists of customized knock down wood and metal fixtures. Such trade fixtures package include all components needed to assemble electronic fixture system, cash wrap system, wall mounted computer displays, breakroom millwork, and computer table along with specific assembly instructions. All trade fixtures shall be installed prior to the installation of the phone system. Owner is solely responsible for all manufacturing and shipping costs related to its Trade Fixtures, and shall coordinate and schedule their delivery.



Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688

Main, 951,710,6334 Web, kineticdesign, build

Email. info@kineticdesign.build



STAMP

**REVISIONS** DESCRIPTION

**CLIENT INFORMATION** 

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CHECKED DRAWN E.N. DATE 03/07/23

PROJECT NUMBER

SCALE

# ACCESSIBILITY NOTES

#### A. GENERAL

- 1. THE GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION, A.I.A. STANDARD FORM A201 CURRENT EDITION, ARE HEREBY INCORPORATED INTO THIS DOCUMENT EXCEPT AS SPECIFICALLY MODIFIED BELOW.
- THE CONTRACTOR SHALL SECURE AND PAY FOR THE BUILDING PERMIT AND OTHER PERMITS AND GOVERNMENTAL FEES, LICENSES AND INSPECTIONS NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK. SCHEDULING OF APPROVALS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION (A.H.J.) OVER THE WORK IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 3. THE CONTRACT DOCUMENTS CONVEY DESIGN INTENT AND THE GENERAL TYPE OF CONSTRUCTION DESIRED ARE INTENDED TO APPLY TO THE FINEST QUALITY OF CONSTRUCTION, MATERIAL AND WORKMANSHIP THROUGHOUT.
- ANY ITEMS NOTED "BY OWNER" OR AS BEING PROVIDED BY OWNER IN THESE CONTRACT DOCUMENTS SHALL BE PROVIDED BY THE OWNER OR HIS VENDORS AND INSTALLED BY THE GENERAL CONTRACTOR OR HIS FORCES UNLESS EXPRESSLY NOTED AS BEING INSTALLED "BY OWNER" REFER TO THE RESPONSIBILITY SCHEDULE FOR MORE INFORMATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ANY AND ALL ACCESSORY MATERIALS REQUIRED TO INSTALL SUCH ITEMS AND MAKE FINAL CONNECTIONS.
- 5. PRIOR TO SUBMITTING A PROPOSAL OR COMMENCEMENT OF WORK, THE CONTRACTOR SHALL VISIT THE PROJECT SITE TO COMPARE THE SCOPE OF WORK SHOWN ON THE DRAWINGS AND OTHER CONTRACT DOCUMENTS WITH EXISTING CONDITIONS. PROMPTLY REPORT ANY ERRORS, OMISSIONS, INCONSISTENCIES OR OTHER DETRIMENTAL CONDITIONS TO THE ARCHITECT. IF THE CONTRACTOR FAILS TO PERFORM THIS OBLIGATION, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS AND DAMAGES ASSOCIATED WITH ACTIONS REQUIRED TO CORRECT UNREPORTED CONDITIONS THAT OTHERWISE COULD HAVE BEEN AVOIDED.
- 6. IN THE EVENT THAT DISCREPANCIES ARE FOUND BETWEEN DRAWINGS AND/OR SPECIFICATIONS, THE CONTRACTOR SHALL REQUEST A CLARIFICATION FROM THE ARCHITECT IN WRITING. THE ARCHITECT'S RESPONSE TO THE CONTRACTOR'S REQUEST FOR INFORMATION SHALL NOT BE CAUSE FOR A CHANGE IN THE CONTRACT AMOUNT UNLESS IT IS AGREED THAT THE ORIGINAL SCOPE OF WORK HAS BEEN ALTERED BY THE RESPONSE.
- 7. ALL CONSULTANT DRAWINGS ARE SUPPLEMENTAL TO THE ARCHITECTURAL DRAWINGS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE WITH THE ARCHITECTURAL DRAWINGS BEFORE THE INSTALLATION OF ANY OF THE CONSULTANTS WORK AND TO BRING ANY DISCREPANCIES OR CONFLICTS TO THE ARCHITECTS ATTENTION FOR CLARIFICATION. IMPROPERLY INSTALLED WORK SHALL BE CORRECTED BY THE GENERAL CONTRACTOR AT HIS EXPENSE AND AT NO EXPENSE TO THE ARCHITECT, THEIR CONSULTANTS OR THE OWNER.
- 8. GENERAL CONTRACTOR WILL COORDINATE ALL WORK WITH THE LANDLORD AND PERFORM WORK TO MEET ALL REQUIREMENTS OF THE LEASE AGREEMENT. CONTRACTORS WORK IS SUBJECT TO INSPECTION BY THE LANDLORD FOR COMPLIANCE WITH THE TERMS OF THE LEASE AGREEMENT.
- 9. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL FURNISH A CONSTRUCTION SCHEDULE SHOWING THE CHRONOLOGICAL PHASES OF WORK, SCHEDULE OF VALUES, AND INSURANCE CERTIFICATE. THIS SCHEDULE SHALL INDICATE ORDERING LEAD TIMES, A BEGINNING AND END DATE FOR EACH PHASE AND A PROJECTED COMPLETION DATE FOR THE ENTIRE PROJECT.
- 10. THE CONTRACTOR IS WHOLLY RESPONSIBLE FOR THE COORDINATION AND SCHEDULING OF THE WORK EFFORTS FOR ALL ENGINEERS, SUBCONTRACTORS, CRAFTSMEN AND TRADESMEN REQUIRED TO COMPLETE THE JOB AND SHALL BE RESPONSIBLE FOR PROVIDING THEM WITH FULL SETS OF CURRENT DRAWINGS, ADDENDUM, AND OTHER SUPPLEMENTAL INFORMATION PERTINENT TO THE COMPLETION OF THE WORK.
- 11. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE VARIOUS TRADE ITEMS WITHIN THE SPACE AND ABOVE THE CEILINGS (INCLUDING BUT NOT LIMITED TO, STRUCTURAL MEMBERS, CONDUITS, RACEWAYS, LIGHT FIXTURES, CEILING SYSTEM AND ANY SPECIAL STRUCTURAL SUPPORTS REQUIRED) AND SHALL BE RESPONSIBLE FOR MAINTAINING THE FINISH CEILING HEIGHT ABOVE THE FINISH FLOOR INDICATED IN THE DRAWINGS AND THE FINISH SCHEDULE.
- 12. THE CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AND ELECTRICAL SERVICE FOR TRADES.
- 13. UNLESS OTHERWISE STIPULATED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION, STORAGE AND PAYMENT OF ALL LABOR, MATERIALS, TAXES, EQUIPMENT, TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY, TRANSPORTATION AND OTHER FACILITIES NECESSARY FOR PROPER EXECUTION AND COMPLETION OF THE WORK WHETHER OR NOT IT IS SPECIFICALLY CALLED OUT OR DETAILED ON THE DRAWINGS.
- 14. THE CONTRACTOR WARRANTS TO THE OWNER THAT MATERIALS AND EQUIPMENT FURNISHED UNDER THE CONTRACT WILL MEET INDUSTRY STANDARDS AND BE NEW AND OF GOOD QUALITY UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS. THE WORK WILL BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS, FREE FROM DEFECTS AND WILL BE COMPLETED IN A NEAT AND WORKMANLIKE MANNER ACCEPTABLE TO THE OWNER.
- 15. THE CONTRACTOR SHALL PROMPTLY CORRECT IN A PROFESSIONAL MANNER, AT NO COST NO THE OWNER AND WITHOUT CHANGE IN CONTRACT TIME, ALL NON-CONFORMING OR DEFECTIVE WORK AND DAMAGES CAUSED BY HIS WORK OR WORKMEN WHETHER DISCOVERED BEFORE OR AFTER SUBSTANTIAL COMPLETION.
- 16. THE CONTRACTOR SHALL INSPECT ALL EQUIPMENT AND SYSTEMS FOR PROPER OPERATIONS UPON SUBSTANTIAL COMPLETION OF PROJECT.
- 17. THE CONTRACTOR SHALL THOROUGHLY CLEAN THE ENTIRE PROJECT SITE AND ADJACENT AFFECTED SPACES TO THE SATISFACTION OF THE OWNER.
- 18. THE GENERAL CONTRACTOR SHALL PROVIDE THE FOLLOWING REPORTS AND GUARANTEES TO THE OWNER OR OWNER'S REPRESENTATIVE:
- a. ELECTRICAL INSPECTOR'S CERTIFICATE OF COMPLIANCE WITH A.H.J. REQUIREMENTS.
  b. PLUMBING INSPECTOR'S CERTIFICATE OF COMPLIANCE WITH A.H.J. REQUIREMENTS
  c. FIRE MARSHALL'S CERTIFICATE OF COMPLIANCE WITH A.H.J. REQUIREMENTS.
  d. BUILDING INSPECTOR'S CERTIFICATE OF COMPLIANCE WITH A.H.J. REQUIREMENTS.
  e. HEALTH DEPARTMENT CERTIFICATE OF COMPLIANCE WITH A.H.J. REQUIREMENTS.
  f. A.H.J. CERTIFICATE OF OCCUPANCY.

# B. DRAWING CONVENTIONS

AND/OR DESIGNATED DETAIL.

- DIMENSIONS TAKE PRECEDENCE OVER SCALE ON THE CONSTRUCTION DRAWINGS. NOTIFY THE ARCHITECT OF DISCREPANCIES BETWEEN DRAWING DIMENSIONS AND FIELD CONDITIONS.
- 2. PLAN DIMENSIONS ARE GIVEN TO FACE OF STUDS OR FACE OF EXISTING WALL OR FACE OF NEW FIRE-RATED WALL UNLESS OTHERWISE NOTED.
- 3. PARTITION THICKNESS IS DERIVED FROM DESCRIPTION OF THE PARTITION CONSTRUCTION
- 4. PARTITIONS THAT INTERSECT INTERIOR OR EXTERIOR GLAZED WALLS ARE TO CENTER ON MULLIONS AND PERPENDICULAR TO EXTERIOR WALL UNLESS DETAILED OTHERWISE.
- 5. UNLESS OTHERWISE NOTED, PARTITIONS AND OTHER ELEMENTS ON THE DRAWING THAT ARE DRAWN AT AN OBLIQUE ANGLE ARE TO BE CONSTRUCTED AT A 45-DEGREE ANGLE TO THE MAIN
- 6. WALLS SHOWN ALIGNED WITH BASE BUILDING STRUCTURE SHALL BE FLUSH AND SMOOTH WITH BASE BUILDING STRUCTURE UNLESS OTHERWISE NOTED.
- 7. UNLESS DIMENSIONED OTHERWISE, DEPTH OF FURRING ON COLUMNS AND OTHER ELEMENTS IS TO BE HELD TO THE MINIMUM THICKNESS REQUIRED TO CONCEAL MECHANICAL, PLUMBING OR ELECTRICAL COMPONENTS.
- 8. UNLESS OTHERWISE INDICATED, POSITION DOOR JAMBS 4" OFF THE FACE OF ADJACENT INTERSECTING PARTITIONS OR CENTER ON PARTITION.
- OUTLETS THAT OCCUR ON OPPOSITE SIDES OF THE SAME PARTITION ARE TO BE STAGGERED HORIZONTALLY A MINIMUM OF 12" TO MINIMIZE SOUND TRANSMISSION.

# FIRE DEPARTMENT NOTES

- "K" RATED PORTABLE FIRE EXTINGUISHER(S) SHALL BE PROVIDED FOR THE KITCHEN AREA IF EQUIPPED WITH A COMMERCIAL HOOD SYSTEM.
- MINIMUM 2A 10B:C FIRE EXTINGUISHERS SHALL BE PROVIDED. TRAVEL DISTANCE TO ANY EXTINGUISHER SHALL NOT EXCEED 75 FEET FROM ANY PORTION OF THE BUILDING. EXTINGUISHER(S) SHALL BE HUNG NO HIGHER THAN 44 INCHES MEASURED FROM THE FLOOR TO THE TOP OF THE EXTINGUISHER.
- PLANS FOR ANY AUTOMATIC SPRINKLER SYSTEM (INCLUDING TENANT IMPROVEMENT WORK), HOOD SUPPRESSION SYSTEM AND/OR ALARM SYSTEM, SHALL BE SUBMITTED WITH FEES TO JURISDICTION FIRE DEPARTMENT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 4. PROVIDE FIRE SPRINKLERS FOR THE COVERED PATIO DINING AREA. NOTIFY SPRINKLER CONTRACTOR OF THIS REQUIREMENT.
- PANIC HARDWARE: EACH DOOR IN A MEANS OF EGRESS FROM A GROUP A, OR ASSEMBLY AREA NOT CLASSIFIED AS AN ASSEMBLY OCCUPANCY, E, I-2 OR I-2.1 OCCUPANCIES HAVING AN OCCUPANT LOAD OF 50 OR MORE AND ANY GROUP H OCCUPANCY SHALL NOT BE PROVIDED WITH A LATCH OR LOCK UNLESS IT IS PANIC HARDWARE.
- LOCKS AND LATCHES, SECTION 1008.1.9.3 ITEM 2: IN BUILDINGS IN OCCUPANCY GROUP A HAVING AN OCCUPANT LOAD OF 300 OR LESS, GROUPS B, F, M AND S, AND IN PLACES OF RELIGIOUS WORSHIP, THE MAIN EXTERIOR DOOR OR DOORS ARE PERMITTED TO BE EQUIPPED WITH KEY-OPERATED LOCKING DEVICES FROM THE EGRESS SIDE PROVIDED: A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE ON OR ADJACENT TO THE DOOR STATING: "THIS DOOR TO REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED". THE SIGN SHALL BE IN LETTERS 1 INCH HIGH ON A CONTRASTING BACKGROUND.

**NOTE:** THE USE OF THE KEY-OPERATED LOCKING DEVICE IS REVOCABLE BY THE BUILDING OFFICIAL FOR DUE CAUSE.

- 7. DECORATIVE MATERIALS: IN EVERY GROUP A, E, I, R-1 AND R-2 OCCUPANCIES ALL DRAPES, HANGINGS, CURTAINS, DROPS AND ALL OTHER DECORATIVE MATERIAL INCLUDING CHRISTMAS TREES, THAT WOULD TEND TO INCREASE THE FIRE AND PANIC HAZARD SHALL BE MADE FROM A NON FLAMMABLE MATERIAL, OR SHALL BE TREATED AND MAINTAINED IN A FLAME-RETARDANT CONDITION BY MEANS OF A FLAME-RETARDANT SOLUTION OR PROCESS APPROVED BY THE "STATE FIRE MARSHAL". PER CALIFORNIA CODE OF REGULATIONS TITLE 19, ARTICLE 3, SUBSECTION 3.08 DECORATIVE MATERIALS. PROVIDE A CALIFORNIA STATE FIRE MARSHAL CERTIFICATE OF FLAME RETARDANT OR A CALIFORNIA STATE FIRE MARSHAL APPROVED TESTING LAB CERTIFICATION FOR ANY DECORATIVE MATERIALS PRIOR TO FINAL INSPECTIONS. SAMPLES (4" X 12") ARE REQUIRED TO BE SUBMITTED TO VCFD FOR TESTING AND APPROVAL.
- 8. ADDITIONAL EXIT SIGNS AND EMERGENCY LIGHTING MAY BE REQUIRED PRIOR TO FINAL INSPECTION FOR OCCUPANCY. A PRELIMINARY WALK-THROUGH INSPECTION IS
- 9. MAXIMUM OCCUPANT LOAD SIGN(S) SHALL BE POSTED IN ASSEMBLY AREA(S).
- 10. ALL ACCESS ROADS FOR THE DEVELOPMENT SHALL BE INSTALLED WITH FIRST LIFT OF ASPHALT PRIOR TO LUMBER DROP AND BUILDING CONSTRUCTION.
- 1. TALL FIRE HYDRANTS SHALL BE INSTALLED AND IN SERVICE PRIOR TO BUILDING CONSTRUCTION.

# EGRESS NOTES

- 1. EXIT SIGNS SHALL BE INTERNALLY ILLUMINATED.
- 2. EXIT SIGNS ILLUMINATED BY AN EXTERNAL SOURCE SHALL HAVE AN INTENSITY OF NOT LESS THAN 5 FOOT CANDLES (54 LUX).
- ELECTRICALLY POWERED, SELF-LUMINOUS AND PHOTOLUMINESCENT SIGNS SHALL BE LISTED AND LABELED AND SHALL BE INSTALLED IN ACCORDANCE WITH UL 924 AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND CHAPTER 27. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES PER CBC 1013.5
- 4. EXIT SIGNS SHALL BE ILLUMINATED AT ALL TIMES. TO ENSURE CONTINUED ILLUMINATION FOR A DURATION OF NOT LESS THAN 90 MINUTES IN CASE OF PRIMARY POWER LOSS, THE SIGN ILLUMINATION MEANS SHALL BE CONNECTED TO AN EMERGENCY POWER SYSTEM PROVIDED FROM STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH CHAPTER 27, PER CBC 1013.6.3.
- 5. EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT PER CBC SECTION 1010.1.9.
- DOOR HANDLES, LOCK AND OTHER OPERATING DEVICES SHALL BE INSTALLED AT A MINIMUM 34" AND A MAX. 48" ABOVE THE FINISHED FLOOR. LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT PER CBC SECTION 1010.1.9.2
- 7. A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE ON OR ADJACENT TO THE DOOR STATING: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. THE SIGN SHALL BE IN LETTERS 1" HIGH ON A CONTRASTING BACKGROUND. PER CBC SECTION 1010.1.9.4
- 8. ALL EGRESS DOOR OPERATION SHALL COMPLY WITH CBC SECTION 1010.1.9
- THE MEANS OF EGRESS SERVING A ROOM OR SPACE SHALL BE ILLUMINATED AT ALL TIMES THAT THE ROOM OR SPACE IS OCCUPIED. PER CBC SECTION 1008.2
- 10. THE MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOTCANDLE (11 LUX) AT THE WALKING SURFACE PER CBC SECTION 1008.2.1
- 1. THE POWER SUPPLY FOR MEANS OF EGRESS ILLUMINATION SHALL NORMALLY BE PROVIDED BY THE PREMISES' ELECTRICAL SUPPLY. IN THE EVENT OF POWER SUPPLY FAILURE, AN EMERGENCY ELECTRICAL SYSTEM SHALL AUTOMATICALLY ILLUMINATE THE FOLLOWING AREAS:
- A. AISLES AND UNENCLOSED EGRESS STAIRWAYS IN ROOMS AND SPACES THAT REQUIRE TWO OR MORE MEANS OF EGRESS.
- B. CORRIDOR, EXIT ENCLOSURES AND EXIT PASSAGEWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
- C. EXTERIOR EGRESS COMPONENTS AT OTHER THAN LEVEL OF EXIT DISCHARGE UNTIL EXIT DISCHARGE IS ACCOMPLISHED FOR BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
- D. INTERIOR EXIT DISCHARGE ELEMENTS, AS PERMITTED IN SECTION 1027.1 IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
- E. EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1010.1.6 FOR EXIT DOORWAYS THAT LEAD DIRECTLY TO THE EXIT DISCHARGE
- 12. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 10 FOOT CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL (CBC SECTION 1204 3)
- 13. THE MEANS OF EGRESS SHALL HAVE A CEILING HEIGHT OF NOT LESS THAN 7 FEET 6 INCHES ABOVE THE FINISHED FLOOR PER CBC SECTION 1003.2
- 14. EXTERIOR LANDINGS, AS REQUIRED BY SECTION 1008.1.5, FOR EXIT DISCHARGE DOORWAYS IN BUILDINGS REQUIRED TO HAVE TWO OR MORE EXITS.
- 15. THE EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL CONSIST OF STORAGE BATTERIES, UNIT EQUIPMENT OR AN ON-SITE GENERATOR. THE INSTALLATION OF THE EMERGENCY POWER SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 2702.
- 16. EMERGENCY LIGHTING FACILITIES SHALL BE ARRANGED TO PROVIDE INITIAL ILLUMINATION THAT IS AT LEAST AN AVERAGE OF 1 FOOT-CANDLE (11 LUX) AND A MINIMUM AT ANY POINT OF 0.1 FOOT\_CANDLE (1 LUX) MEASURE ALONG THE PATH OF EGRESS AT FLOOR LEVEL. ILLUMINATION LEVELS SHALL BE PERMITTED TO DECLINE TO 0.6 FOOT-CAN (6 LUX) AVERAGE AND A MINIMUM AT ANY POINT OF 0.06 FOOT-CANDLE (0.6 LUX) AT THE END OF THE EMERGENCY LIGHTING TIME DURATION. A MAXIMUM-TO-MINIMUM ILLUMINATION UNIFORMITY RATION OF 40 TO 1 SHALL NOT BE EXCEEDED.

# DOOR ACCESSIBILTY NOTES

- 1. GROUND AND FLOOR SURFACES ALONG ACCESSIBLE ROUTES AND IN ACCESSIBLE ROOMS AND SPACES INCLUDING FLOORS, WALKS, RAMPS, STAIRS AND CURB RAMPS SHALL BE STABLE, FIRM AND SLIP RESISTANT.
- OPENINGS IN FLOOR OR GROUND SURFACES SHALL NOT ALLOW PASSAGE OF A SPHERE MORE THAN 1/2" DIAMETER EXCEPT AS ALLOWED IN SECTIONS 11B-407.4.3, 11B-410.4, 11B-810.5.3 AND DIAMETER EXCEPT AS ALLOWED IN SECTIONS 11B-407.4.3, 11B-409.4.3, 11B-410.4, 11B-810.5.3. ELONGATED OPENINGS SHALL BE PLACED SO THAT THE LONG DIMENSION IS PERPENDICULAR TO THE DOMINANT DIRECTION OF TRAVEL. (11B-302.3).
- 3. ALL NEW CONSTRUCTION MUST COMPLY WITH DIMENSIONS AS DENOTED ON THESE CONSTRUCTION DOCUMENTS AND WITH CHAPTER 11B OF THE 2016 CBC. DIMENSIONS WITHIN A SPECIFIED DIMENSIONAL "RANGE" MUST BE LESS-THAN THE MAXIMUM DIMENSIONAL RANGE OR GREATER THAN THE MINIMUM DIMENSIONAL RANGE. IN OTHER WORDS, NEW CONSTRUCTION SHALL NOT BE EQUAL TO EITHER THE MAXIMUM OR MINIMUM DIMENSIONS, BUT SHALL BE LESS THAN THE MAXIMUM AND GREATER THAN THE MAXIMUM OR MINIMUM DIMENSIONS, BUT SHALL BE LESS THAN THE MAXIMUM AND GREATER THAN THE DESIGN INTENT OF ARCHITECT IS TO PROVIDE REASONABLE DIMENSIONAL TOLERANCES, ENSURE COMPLIANCE WITH THE ADA, AND TO SIMPLIFY AND EXPEDITE THE CONSTRUCTION PROCESS. CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR NON-COMPLIANCE WITH THIS NOTICE. CONTRACTOR TO NOTIFY ARCHITECT IN WRITING PRIOR TO BIDDING OF ANY QUESTIONS OR CONCERNS RELATING TO THIS MATTER.
- 4. DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION 12 DEGREES FROM THE LATCH IS 5 SECONDS MINIMUM. (11B-404.2.8.1).
- THE FORCE FOR PUSHING OR PULLING A DOOR OR GATE OTHER THAN FIRE DOORS SHALL BE AS FOLLOWS
   INTERIOR HINGED DOORS AND GATES: 5 POUNDS (22.2 N) MAXIMUM.
   SLIDING OR FOLDING DOORS: 5 POUNDS (22.2 N) MAXIMUM.
  - REQUIRED FIRE DOORS: THE MINIMUM OPENING FORCE ALLOWABLE BY THE
    APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS (66.7 N).
     EXTERIOR HINGED DOORS: 5 POUNDS (22.2 N) MAXIMUM. THESE FORCES DO NOT APPLY
    TO THE FORCE REQUIRED TO RETRACT LATCH BOLTS OR DISENGAGE OTHER DEVICES
    THAT HOLD THE DOOR OR GATE IN A CLOSED POSITION. (11B-404.2.9).
- 6. POWER-OPERATED DOORS. WHERE MEANS OF EGRESS DOORS ARE OPERATED BY POWER, SUCH AS DOORS WITH A PHOTOELECTRIC-ACTUATED MECHANISM TO OPEN THE DOOR UPON THE APPROACH OF A PERSON, OR DOORS WITH POWER-ASSISTED MANUAL OPERATION, THE DESIGN SHALL BE SUCH THAT IN THE EVENT OF POWER FAILURE, THE DOOR IS CAPABLE OF BEING OPENED MANUALLY TO PERMIT MEANS OF EGRESS TRAVEL OR CLOSED WHERE NECESSARY TO SAFEGUARD MEANS OF EGRESS. THE FORCES REQUIRED TO OPEN THESE DOORS MANUALLY SHALL NOT EXCEED THOSE SPECIFIED IN SECTION 1010.1.3, EXCEPT THAT THE FORCE TO SET THE DOOR IN MOTION SHALL NOT EXCEED 50 POUNDS (220 N). THE DOOR SHALL BE CAPABLE OF SWINGING FROM ANY POSITION TO THE FULL WIDTH OF THE OPENING IN WHICH SUCH DOOR IS INSTALLED WHEN A FORCE IS APPLIED TO THE DOOR ON THE SIDE FROM WHICH EGRESS IS MADE. FULL-POWER-OPERATED DOORS SHALL COMPLY WITH BHMA A156.10. POWER-ASSISTED AND LOW-ENERGY DOORS SHALL COMPLY WITH BHMA A156.19. 7. TEST DOORS FOR DOOR OPENING FORCE AND CLOSING SPEED WITH AIR CONDITIONING AND OTHER FORMS OF MECHANICAL PRESSURIZATION TURNED ON AND ALSO WHEN TURNED OFF.

# **GENERAL CODE & NOTES**

- 1. ALL WORK INCLUDING MATERIALS AND WORKMANSHIP, SHALL CONFORM TO THE REQUIREMENTS OF LOCAL CODES, LAWS, AND ORDINANCES AND THE 2016 EDITION OF THE CALIFORNIA BUILDING CODE. W/ LOCAL AMENDMENTS IN THE EVENT OF A CONFLICT WITH CODE REQUIREMENTS AND ITEMS CALLED OUT ON THE PLANS, THAT CODE OR CALL-OUT WHICH ESTABLISHES THE HIGHER STANDARD SHALL TAKE PRECEDENCE. THE ARCHITECT SHALL BE NOTIFIED OF ALL CONFLICTS.
- 2. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BIDDING AND SHALL VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO BEGINNING WORK. SHOULD ANY CONDITION ARISE WHERE THE INTENT OF THE DRAWINGS IS IN DOUBT OR WHERE THERE IS A DISCREPANCY BETWEEN THE CONSTRUCTION DOCUMENTS AND THE FIELD CONDITIONS, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY FOR CLARIFICATION.
- 3. DIMENSIONS TAKE PRECEDENCE: DIMENSIONS TYPICALLY TO COLUMN CENTER LINES, FACE OF CONCRETE OR MASONRY, FACE OF FINISH OR AS NOTED ON DRAWINGS. DO NOT SCALE
- 4. BARRICADES SHALL BE ERECTED PER LOCAL DEPARTMENT OF BUILDING AND SAFETY AND

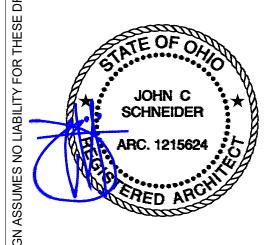
AS REQUIRED FOR SECURITY.

- 5. ALL REQUIRED EXIT DOORS SHALL BE OPENABLE FROM THE INSIDE WITHOUT A KEY OR ANY SPECIAL KNOWLEDGE.
- 6. IF THE FOLLOWING WORDS APPEAR IN ARCHITECTURAL DRAWINGS OR NOTES, REFER TO DOCUMENTS PREPARED BY THE CORRESPONDING CONSULTANTS OR ENGINEERING AND DESIGN DISCIPLINES: "CIVIL": REFER TO CIVIL DOCUMENTS, "STRUCTURAL": REFER TO STRUCTURAL DOCUMENTS, "PLUMBING": REFER TO PLUMBING DOCUMENTS, "MECHANICAL": REFER TO MECHANICAL DOCUMENTS, "ELECTRICAL": REFER TO ELECTRICAL DOCUMENTS, "INTERIORS": REFER TO INTERIORS DOCUMENTS, "LANDSCAPE": REFER TO LANDSCAPE DOCUMENTS. FOR CIVIL, STRUCTURAL, PLUMBING, MECHANICAL, ELECTRICAL, INTERIORS AND LANDSCAPE GENERAL NOTES: SEE CONSULTANTS DRAWINGS.
- ALL GLASS WORK SHALL COMPLY WITH CBC (LATEST APPROVED EDITION) OR LOCAL GOVERNING CODE.
- 8. ALL EXPOSED NON-PREFINISHED METAL IS TO BE PAINTED, INCLUDING SHOP OR FACTORY PRIMED SURFACES.
- 9. FIELD COORDINATE ALL FIELD ROUTED PIPE, CONDUIT, DUCT RUNS, ETC..., WITH LOCATIONS OF RECESSED ACCESSORIES AND EQUIPMENT. NOTIFY ARCHITECT OF POTENTIAL CONFLICTS PRIOR TO PROCEEDING WITH WORK. PLUMBING, MECHANICAL AND ELECTRICAL DOCUMENTS ARE DIAGRAMMATIC BY NATURE. THEREFORE, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO FIELD COORDINATE REQUIRED CLEARANCES WITH THE APPROPRIATE TRADES. ADDITIONAL CHARGES WILL NOT BE APPROVED WHICH STEM FROM LACK OF FIELD COORDINATION.
- 10. EXPOSED WELDS: GRIND SMOOTH AND FIELD DRESS ALL WELDS THAT REMAIN VISIBLE AND ARE NOT CONCEALED BY OTHER FINISHES.

EXIT SIGNS SHALL BE INSTALLED WHERE INDICATED AND AS REQUIRED. SIGN SHALL HAVE

- LETTERS A MINIMUM OF 6" HIGH ON CONTRASTING BACKGROUND. LIGHTING FOR SIGNS SHALL CONFORM TO AGENCY REQUIREMENTS.
- 12. ALL GLASS OVER 9 SQUARE FEET IN AREAS WITHIN 18" ABOVE FLOOR OR 36" OF GRADE, AND GLASS DOORS AND WALL PANELS SHALL BE LAMINATED OR FULLY TEMPERED.
- 13. ALL GLAZING WITHIN THE SAME WALL AS A DOOR AND WITHIN 24" OF THE DOOR AND WITHIN 18" OF THE FLOOR SHALL BE TEMPERED.
- 14. ALL DOOR HARDWARE SHALL BE LEVER TYPE OR PANIC HARDWARE.
- 15. A FINAL REPORT FOR THE TESTING AND ADJUSTING OF ALL NEW SYSTEMS SHALL BE COMPLETED PRIOR TO FINAL INSPECTION. THIS REPORT SHALL BE SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
- 16. AN OPERATION AND SYSTEMS MANUAL SHALL BE PROVIDED TO THE FIELD INSPECTOR AT THE TIME OF FINAL INSPECTION.
- 17. THE VOC CONTENT VERIFICATION CHECKLIST, FORM GRN 2, SHALL BE COMPLETED AND VERIFIED PRIOR TO FINAL INSPECTION APPROVAL. THE MANUFACTURER'S SPECIFICATIONS SHOWING VOC CONTENT FOR ALL APPLICABLE PRODUCTS SHALL BE READILY AVAILABLE AT THE JOB SITE AND BE PROVIDED TO THE FIELD INSPECTOR FOR VERIFICATION.
- 18. ARCHITECTURAL PAINTS AND COATINGS, ADHESIVES, CAULKS AND SEALANTS SHALL COMPLY WITH THE VOLATILE ORGANIC COMPOUND (VOC) LIMITS LISTED IN LADBS GREEN FORM 11. TAKEN FROM 2017 LADSBS GREEN BUILDING CODE, TABLES 4.504.1, 4.504.2, 4.504.3, 4.504.5, 5.504.4.1, 5.504.4.2, 5.504.4.3, 5.04.4.5
- 19. ALL EXIT DOOR OPERATIONS SHALL COMPLY WITH 1010.1.9 TO 1010.1.9.7 DOOR HANDLES, LOCK AND OTHER OPERATING DEVICES SHALL BE INSTALLED AT A MIN. 34" AND A MAX. 48" ABOVE FINISH FLOOR.
- 20. FOR CONCRETE SLAB PENETRATIONS AND CORES REFER TO STRUCTURAL DRAWINGS.
- 21. THE CONSTRUCTION SHALL NOT RESTRICT A FIVE-FOOT CLEAR AND UNOBSTRUCTED ACCESS TO ANY WATER OR POWER DISTRIBUTION FACILITIES (POWER POLES, PULL-BOXES, TRANSFORMERS, VAULTS, PUMPS, VALVES, METERS, APPURTENANCES, ETC.) OR TO THE LOCATION OF THE HOOK-UP.
- 22. THE CONSTRUCTION SHALL NOT BE WITHIN TEN FEET OF ANY POWER LINES-WHETHER OR NOT THE LINES ARE LOCATED ON THE PROPERTY. FAILURE TO COMPLY MAY CAUSE CONSTRUCTION DELAYS AND/ OR ADDITIONAL EXPENSES.
- 23. AN APPROVED SEISMIC GAS SHUTOFF VALVE WILL BE INSTALLED ON THE FUEL GAS LINE ON THE DOWN STREAM SIDE OF THE UTILITY METER AND BE RIGIDLY CONNECTED TO THE EXTERIOR OF THE BUILDING OR STRUCTURE CONTAINING THE FUEL GAS PIPING." (PER ORDINANCE 170,158) (INCLUDES COMMERCIAL ADDITIONS AND TI WORK OVER \$10,000.) SEPARATE PLUMBING PERMIT IS REQUIRED.
- 24. PROVIDE LOW FLUSH WATER CLOSETS FOR ALL NEW CONSTRUCTION.
- 25. A COPY OF THE EVALUATION REPORT AND / OR CONDITIONS OF LISTING SHALL BE MADE AVAILABLE AT THE JOB SITE.
- 26. THE BUILDING MUST BE EQUIPPED WITH AN AUTOMATIC FIRE EXTINGUISHING SYSTEM, COMPLYING WITH (NFPA-13); THE SPRINKLER SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH CODE
- 27. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION 1205.2 OR SHALL BE PROVIDED WITH ARTIFICIAL LIGHT THAT IS ADEQUATE TO PROVIDE AN AVERAGE ILLUMINATION OF 10 FOOT CANDLES OVER THE AREA OF THE ROOM AT A HEIGHT OF 30 INCHES ABOVE THE FLOOR LEVEL.
- 28. CONSTRUCTION WASTE SHALL BE REDUCED BY 65% . SEE SPEC. 01 74 19 CONSTRUCTION WASTE MANAGMENT.
- 29. CONTRACTOR SHALL PROVIDE DOCUMENTS TO SHOW HVAC SYSTEM INSTALLERS ARE TRAINED AND CERTIFIED IN THE PROPER INSTALLATION OF HVAC SYSTEMS (GREEN CODE 702.1).
- 30. SPECIAL INSPECTORS MUST BE QUALIFIED AND ABLE TO DEMONSTRATE COMPETENCE IN THE DISCIPLINE THEY ARE INSPECTING (GREEN CODE 702.2).
- 31. FIXTURE FLOW RATE FORM (WORKSHEET WS-4) SHALL BE AVAILABLE ON FIELD FOR VERIFICATION.
- 32. SELF CERTIFICATION FIELD INSTALLATION FORM SHALL BE SUBMITTED TO INSPECTORS BEFORE FINAL INSPECTION.





Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

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REVISIONS

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REVISIONS

A PARKWAY, SUITE 300 NNTA, GA 30339 MBER: (678) 402-3000

400 GALLERIA PARKWAY, SUITE 3 ATLANTA, GA 30339 PHONE NUMBER: (678) 402-300

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# ACCESSIBILITY NOTES (CONTINUED)

- 3. THE CONTRACTOR SHALL REVIEW, SIGN, DATE AND SUBMIT A MINIMUM OF (3) SETS OF COMPLETE AND DETAILED SHOP DRAWINGS, FINISHES, FIXTURE AND EQUIPMENT CUT SHEETS TO ARCHITECT FOR REVIEW. THE ARCHITECT SHALL HAVE (10) WORKING DAYS TURNAROUND TIME FROM RECEIPT OF SUBMITTAL. ALL SHOP DRAWINGS AND CUT SHEETS SIGNED "REVIEWED" SHALL SUPERSEDE ORIGINAL DRAWINGS IN DESIGN APPEARANCE ONLY. CONTRACTORS SHALL ASSUME RESPONSIBILITY FOR ERRORS IN THEIR DRAWINGS.
- 4. IN THE EVENT THAT THE AFOREMENTIONED DRAWINGS, SPECIFICATIONS, ETC. ARE NOT SUBMITTED FOR REVIEW AND APPROVAL, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR THE REPLACEMENT, CORRECTION OR ACQUISITION OF PRODUCTS TO COMPLY WITH OWNER'S SPECIFICATION AND APPROVAL.
- THE CONTRACTOR SHALL PROVIDE CHALK LINES ON THE SLAB OF PARTITIONS FOR APPROVAL PRIOR TO FRAMING AND SHALL NOTIFY ARCHITECT OF ANY DEVIATION FROM CONSTRUCTION DIMENSIONS OR CLEARANCES AS DESIGNATED ON THE DRAWINGS OR OF APPARENT CONSTRUCTION CONFLICTS.
- . UPON SUBSTANTIAL COMPLETION OF WORK, THE HVAC SYSTEM SHALL BE BALANCED BY A QUALIFIED ENGINEER AND A WRITTEN REPORT SHALL BE SUBMITTED TO THE OWNER.
- 7. UPON SUBMISSION OF THE "FINAL APPLICATION FOR PAYMENT", THE CONTRACTOR SHALL PROVIDE THE OWNER WITH (1) SET OF AS-BUILT DOCUMENTATION INCLUDING DRAWINGS, SPECIFICATIONS, ADDENDA, CHANGE ORDERS, PRODUCT DATA, EQUIPMENT WARRANTIES AND MANUALS, FINISH SAMPLES AND OTHER REQUIRED SUBMITTALS. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A WRITTEN WARRANTY COVERING ALL WORK PERFORMED UNDER THE CONTRACT. WARRANTY SHALL BE FOR A PERIOD OF ONE YEAR COMMENCING ON THE DATE OF SUBSTANTIAL COMPLETION AND SHALL BE INCLUDED WITH THIS SUBMITTAL.8. THE CONTRACTOR SHALL SUPPLY LIEN WAIVERS RELATING TO ALL WORK WITH THE "FINAL APPLICATION FOR PAYMENT".

#### G. CHANGES IN WORK

- THE OWNER WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY. SUCH WORK SHALL BE EXECUTED UNDER THE CONDITIONS OF THE ORIGINAL CONTRACT EXCEPT THAT ANY CLAIM FOR EXTENSIONS OF TIME CAUSED THEREBY SHALL BE INDICATED ON THE CHANGE ORDER.
- 2. CLAIMS FOR ADDITIONAL WORK WILL BE SUBMITTED IN WRITING FOR REVIEW BY OWNER AND SHOULD INCLUDE A COMPLETE DESCRIPTION OF THE WORK, MATERIALS BEING USED, THE ROOM NUMBER OR AREA AFFECTED, AND THE AUTHORIZATION UNDER WHICH THE WORK IS BEING PERFORMED.
  - A. SITE CONSIDERATIONS
- 3. DEMOLITION WORK SHALL BE COORDINATED WITH THE LANDLORD TO MINIMIZE DISRUPTION AND INCONVENIENCE TO OTHER OWNERS IN OCCUPIED BUILDINGS. MAINTAIN SAFE MEANS OF ACCESS AND EGRESS TO OCCUPIED OWNER SPACES.
- 4. PROVIDE CONCRETE FLOOR SLAB THROUGHOUT "LEAVE-OUT" AREA IN BACK OF HOUSE MATCH EXISTING FLOOR CONSTRUCTION; COORDINATE WITH LANDLORD.
- 5. MAINTAIN THE INTEGRITY OF RATED PARTITIONS AND OTHER FIRE RATED ASSEMBLIES. REPAIR OR REPLACE DAMAGED PORTIONS WITH NEW CONSTRUCTION TO MATCH EXISTING AND HAVE REPAIR WORK APPROVED BY THE BUILDING INSPECTOR.
- 6. THE GENERAL CONTRACTOR SHALL REVIEW THE OWNER'S SPACE WITH THE LANDLORD TO DETERMINE IF ANY ACCESS PANELS ARE LOCATED IN THE OWNER'S SPACE FOR THE LANDLORD'S AND/OR OTHER OWNER ELECTRICAL BOXES AND/OR VALVES. THE GENERAL CONTRACTOR SHALL PROMPTLY NOTIFY THE ARCHITECT AND THE OWNER OF ANY REQUIRED ACCESS PANEL LOCATIONS.
- BUILDING MECHANICAL AND ELECTRICAL SERVICE SHUT DOWN REQUIRED FOR THIS WORK SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR A MINIMUM OF (72) HOURS IN ADVANCE OF THE SHUT DOWN. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM AUTHORITIES HAVING JURISDICTION PRIOR TO SHUT DOWN AND SHALL NOT OVERLY INCONVENIENCE BUILDING
- 9. VERIFY EXISTING SPRINKLER DROP LOCATIONS (IF ANY). ADDITIONS, MODIFICATIONS OR RELOCATIONS OF THE EXISTING SPRINKLER SYSTEM ARE TO BE ALTERED IN TOTAL CONFORMANCE WITH LANDLORD'S CRITERIA AND SHALL BE SUBMITTED FOR PERMIT SEPARATELY. DRAWINGS SHALL BE SUBMITTED TO LANDLORD FOR REVIEW AND SUBMITTED SEPARATELY TO THE FIRE MARSHAL FOR PERMIT.
- 10. SPRINKLER HEADS AT STOREFRONT AND DISPLAY WINDOWS MUST BE FLUSH TYPE WITH COVER PLATES PAINTED TO MATCH THE ADJACENT CEILING COLOR. DINING AND KITCHEN MUST HAVE SEMERECESSED HEADS WITH ESCUTCHEON RINGS PAINTED TO MATCH THE ADJACENT
- 1. WOOD CASEWORK SHALL CONFORM TO ARCHITECTURAL WOODWORK INSTITUTE (AWI)
  "PREMIUM GRADE" QUALITY STANDARDS AND SHALL BE "FLUSH OVERLAY" CONSTRUCTION
  UNLESS DETAILED OTHERWISE ON THE DRAWINGS.
- 12. PLASTIC LAMINATE CASEWORK SHALL CONFORM TO ARCHITECTURAL WOODWORK INSTITUTE (AWI) "CUSTOM GRADE" QUALITY STANDARDS AND SHALL BE "FLUSH OVERLAY" CONSTRUCTION UNLESS DETAILED OTHERWISE ON THE DRAWINGS.
- 13. CASEWORK SHALL BE SCRIBED TO WALL OR CEILING. CONTRACTOR SHALL COORDINATE WITH OTHER INVOLVED TRADES.

#### C. DEMOLITION, CUTTING, AND PATCHING

- 1. THE CONTRACTOR SHALL INSPECT THE SITE AND CALL ATTENTION TO ENVIRONMENTAL HAZARDS WITH LANDLORD. SAID HAZARDS ARE TO BE REMOVED AT THE LANDLORD'S EXPENSE. REMOVAL SHALL ADHERE TO THE ENVIRONMENTAL PROTECTION AGENCY'S GUIDELINES.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION, CUTTING AND PATCHING REQUIRED TO FACILITATE COMPLETION OF THE WORK.
- 3. PRIOR TO STARTING WORK, ERECT TEMPORARY BARRIERS AROUND THE PERIMETER OF THE PROJECT AND BASE BUILDING TOILET FACILITIES TO PREVENT THE SPREAD OF DUST AND OTHER CONTAMINANTS TO ADJACENT AREAS OF THE BUILDING. MAINTAIN DUST PROOF AND SOUND BARRIERS THROUGHOUT THE COURSE OF CONSTRUCTION OR UNTIL NO LONGER REQUIRED. REMOVE BARRIERS AND REPAIR ANY DAMAGE CAUSED BY THEIR INSTALLATION TO MATCH ADJACENT SURFACES.
- 4. UNLESS NOTED OTHERWISE, ALL DEMOLISHED DEBRIS, MATERIAL, EQUIPMENT AND FIXTURES BECOME THE PROPERTY OF THE CONTRACTOR WHO IS RESPONSIBLE FOR ITS SAFE REMOVAL FROM THE SITE. DISPOSAL OF DEMOLISHED MATERIAL SHALL BE IN ACCORDANCE WITH APPLICABLE RULES, REGULATIONS AND ORDINANCES OF AUTHORITIES HAVING JURISDICTION. COORDINATE WITH LANDLORD.
- 5. PATCH ALL EXISTING OR NEWLY DAMAGED AREAS TO MATCH ADJACENT SURFACES IN QUALITY, TEXTURE AND COLOR. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL TRENCHING AND UNDER GROUND WORK WITH SUBCONTRACTORS.

#### D. GENERAL CONSTRUCTION

- CONTRACTOR SHALL VERIFY ALL GRID LINE COORDINATES AND CHECK THEM AGAINST DIMENSIONS SHOWN ON PLANS AND DETAILS. ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY DURING STAKING.
- ALL LANDSCAPE MATERIALS DISPLACED OR DISTURBED AS A RESULT OF CONSTRUCTION SHALL BE REPLACED OR REPAIRED TO ORIGINAL CONDITION.
- 3. THE CONTRACTOR SHALL FIRMLY ANCHOR PARTITIONS PER JURISDICTION AND INDUSTRY STANDARDS AND USE METAL TRIM ACCESSORIES AT EXPOSED CORNERS, EDGES AND ENDS IN PLASTER AND DRYWALL PARTITIONS.
- 4. PROVIDE FIRE RETARDANT TREATED WOOD BLOCKING FOR ALL WALL MOUNTED PLUMBING FIXTURES, TOILET ACCESSORIES, CABINETS, AND TABLES.
- 5. ALL CONCEALED PLYWOOD, WOOD BLOCKING, AND WOOD STUD/JOIST FRAMING SHALL MEET U.L. FIRE RETARDANT TREATED REQUIREMENTS.
- 6. ALL MATERIALS USED IN UNFINISHED ATTIC SPACE SHALL BE NON-COMBUSTIBLE. ANY WOOD SHALL BE FIRE RETARDANT TREATED.
- 7. DO NOT PUNCH OR USE METAL DECK TO SUPPORT SUSPENDED CEILING. SUSPENDED METAL FRAMING-CEILING AND METAL STUD PARTITION FRAMING SHALL BE SUPPORTED FROM
- 8. ALL ROOF PENETRATIONS SHALL BE CUT, FLASHED AND SEALED BY THE LANDLORD'S ROOFING CONTRACTOR IN ORDER TO MAINTAIN THE ROOF SYSTEM INTEGRITY AND WARRANTY.

STRUCTURAL STEEL ROOF FRAME.

- 9. THE CONTRACTOR SHALL PROVIDE ACCESS PANELS REQUIRED FOR MECHANICAL, ELECTRICAL AND PLUMBING INSTALLATIONS PER LOCAL BUILDING CODES. LOCATIONS SHALL BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION.
- 10. CEILING FRAMING IN THE FIELD SHALL BE SQUARE, LEVEL AND PERFECTLY ALIGNED WITH EACH OTHER AND WITH THE RECESSED LIGHT FIXTURES. ALL RECESSED FIXTURES SHALL BE SET FLUSH INTO CEILING.
- 11. NEW PIPE, CONDUIT AND DUCT PENETRATIONS OF FIRE RATED ASSEMBLIES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH AN UNDERWRITERS LABORATORY TESTED DESIGN.
- 12. WIRING AND CONDUIT IS TO BE CONCEALED IN BOTH NEW AND EXISTING PARTITIONS WITH ALL OUTLETS, SWITCHES AND SIMILAR DEVICES MOUNTED IN RECESSED JUNCTION BOXES WITH FLUSH COVER PLATES. SURFACE MOUNTED CONDUIT, WIREMOLD, OUTLETS, ETC. WILL NOT BE PERMITTED UNLESS OTHERWISE NOTED.
- 13. VERIFY EXACT DIMENSIONS OF ALL OWNER SUPPLIED EQUIPMENT, FEATURES AND FIXTURES TO ASSURE A PROPER FIT WHERE EQUIPMENT, FEATURES AND FIXTURES ARE SHOWN BUILT-IN TO NEW MILLWORK, UNDER COUNTER AND BETWEEN NEW AND EXISTING PARTITIONS.
- 14. COMMUNICATION, DATA, SECURITY AND SIMILAR SYSTEMS WILL BE PROVIDED AND INSTALLED BY THE OWNER UNLESS OTHERWISE NOTED IN THE CONTRACT DOCUMENTS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE OWNER' AND PROVIDE CONDUIT, BOXES AND OTHER ROUGH-IN REQUIREMENTS TO FACILITATE FINAL WIRING INSTALLATION.
- 15. LOCKSETS SHALL BE "KEYED" IN ACCORDANCE WITH OWNER REQUIREMENTS. "KEYS" ARE TO BE DELIVERED TO OWNER PROPERLY TESTED. THE NUMBER OF MASTER AND PASS KEYS SHALL BE COORDINATED WITH LANDLORD.
- 16. PROVIDE STANDARD IDENTIFICATION PLATE WITH OWNER NAME AND SPACE DESIGNATION/ADDRESS AS SPECIFIED THROUGH A COMMON MANUFACTURER BY THE LANDLORD. IF NO LANDLORD STANDARD PROVIDED, PROVIDE A STANDARD 3" X 9" LAMINATED PLASTIC, DARK COOL GRAY COLORED FACE WITH WHITE LETTERING ROUTED INTO FACE. FASTENED TO OWNER REAR EXIT SERVICE DOOR ON THE ACCESS CORRIDOR FACE.
- 7. PROVIDE WATER RESISTANT GYPSUM BOARD AT ALL TILE LOCATIONS, PLASTIC PANEL LOCATIONS, MECHANICAL ROOM WALLS, AND AS NOTED ON DRAWINGS.
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH LOCAL V.O.C. REGULATIONS FOR MATERIALS USED IN CONSTRUCTION.
- 19. SPACES BEING SURFACED SHALL BE CLOSED TO TRAFFIC AND OTHER WORK DURING THE LAYING OF FLOORING, STONE, WOOD, OR OTHER MATERIAL. FINISHED FLOORS SHALL BE COVERED AFTER INSTALLATION FOR PROTECTION.

# E. FIRE / LIFE SAFETY

- 1. ALL REQUIRED PERMITS AND APPROVALS MUST BE OBTAINED FROM THE FIRE DEPARTMENT BEFORE BUILDINGS ARE OCCUPIED.2. MAINTAIN THE FUNCTION AND INTEGRITY OF EXISTING FIRE, LIFE/SAFETY AND SECURITY SYSTEMS.
- PROVIDE OCCUPANCY SIGNS CONFORMING TO APPLICABLE BUILDING CODE REQUIREMENTS.
- PROVIDE ADDITIONAL EXIT SIGNS AND FIRE EXTINGUISHERS IN TYPE, NUMBER AND LOCATION AS DIRECTED BY THE FIRE DEPARTMENT FIELD INSPECTOR.
- DURING CONSTRUCTION THE GENERAL CONTRACTOR SHALL PROVIDE A PORTABLE FIRE EXTINGUISHER WITH A RATING OF NOT LESS THAN 2-A WITHIN (75 FT.) FOOT TRAVEL DISTANCE TO ALL PORTIONS OF THE BUILDING ON EACH FLOOR.

# F. REQUIRED APPROVALS AND SUBMITTALS

- WHERE THE TERMS "OR EQUAL", "SIMILAR", OR OTHER GENERAL QUALIFYING TERMS ARE USED, IT SHALL BE UNDERSTOOD THAT REFERENCE IS MADE TO THE RULING AND JUDGMENT OF THE ARCHITECT AND MUST BE SUBMITTED FOR APPROVAL PRIOR TO PURCHASE OR USE.
- THE CONTRACTOR SHALL HAVE (10) WORKING DAYS FROM AWARD OF THE CONTRACT TO SUBMIT SUBSTITUTIONS OF SPECIFIED PRODUCTS OR WORK FOR REVIEW BY ARCHITECT AND SHALL INCLUDE CUT SHEETS WITH SPECIFICATIONS AND REASONS FOR SUBSTITUTION. THE ARCHITECT SHALL RESPOND IN (10) WORKING DAYS FROM RECEIPT OF SUBMITTAL. NO SUBSTITUTIONS SHALL BE ACCEPTED AFTER THE INITIAL TIME LIMIT HAS EXPIRED.



Kinetic Design

Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



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CLIENT INFORMATION

400 GALLERIA PARKWAY, SUITE 300 ATLANTA, GA 30339

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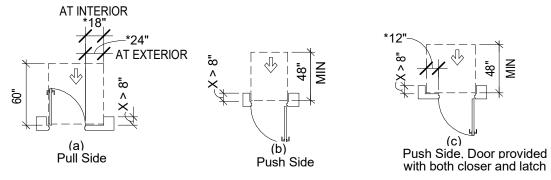
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MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS AND GATES



MANEUVERING CLEARANCES AT RECESSED DOORS AND GATES

TYPE OF U	JSE	MINIMUM MANEUV	MINIMUM MANEUVERING CLEARANCE				
APPROACH DIRECTION	DOOR SIDE	PERPENDICULAR TO DOORWAY	PARALLEL TO DOORWAY (beyond latch side unless noted)				
FROM FRONT	PULL	60-1/8 INCHES	18-1/8 INCHES <sup>5</sup>				
FROM FRONT	PUSH	48-1/8 INCHES	0 INCHES <sup>1</sup>				
FROM HINGE SIDE	PULL	60-1/8 INCHES	36-1/8 INCHES				
FROM HINGE SIDE	PUSH	44-1/8 INCHES <sup>2</sup>	22-1/8 INCHES <sup>3</sup>				
FROM LATCH SIDE	PULL	60-1/8 INCHES	24-1/8 INCHES				
FROM LATCH SIDE	PUSH	44-1/8 INCHES <sup>4</sup>	24-1/8 INCHES				

NOTES: HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERABLE PARTS ON DOORS ANDGATES SHALL COMPLY WITH SECTION 11B-309.4. OPERABLE PARTS OF SUCH HARDWARE SHALL BE (CENTERED BETWEEN) 34 INCHES MINIMUM AND 44 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. (A117.1 SECTION 404.2.6).

ACCESSIBLE DOOR CLEARANCES | Scale. | 1/8" = 1'-0" | 13

ADD 12 INCHES IF CLOSER AND LATCH ARE PROVIDED.

ADD 4 INCHES IF CLOSER AND LATCH ARE PROVIDED.

ADD 6 INCHES AT EXTERIOR SIDE OF EXTERIOR DOORS.

DOOR OPENINGS SHALL PROVIDE A CLEAR WIDTH OF 32 INCHES MINIMUM.

ADD 4 INCHES IF CLOSER IS PROVIDED.

# 0' - 4" TACTILE EXIT SIGN SYMBOL OF ACCESSIBILITY RAISED GRADE 2 BRAILLE:

RAISED CHARACTERS. RAISED CHARACTERS SHALL BE DUPLICATED IN BRAILLE

RAISED CHARACTERS SHALL BE 1/32 INCH (0.8 mm) MINIMUM ABOVE THEIR BACKGROUND.

CHARACTERS SHALL BE UPPERCASE

CHARACTERS SHALL BE UPPERCASE. CHARACTERS SHALL BE SANS SERIF. CHARACTERS SHALL NOT BE ITALIC, OBLIQUE, SCRIPT, HIGHLY DECORATIVE, OR OF OTHER UNUSUAL FORMS.

CHARACTER HEIGHT MEASURED VERTICALLY FROM THE BASELINE OF THE CHARACTER SHALL BE 5/8 INCH MINIMUM AND 2 INCHES MAXIMUM BASED ON THE HEIGHT OF THE UPPERCASE LETTER "I".

BRAILLE SHALL BE CONTRACTED (GRADE 2) AND SHALL COMPLY WITH ICC A117.1 SECTION 703.4.

DIMENSIONS AND CAPITALIZATION BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE

HEIGHT ABOVE FINISH FLOOR OR GROUND. TACTILE CHARACTERS ON SIGNS SHALL BE LOCATED 48 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE LOWEST BRAILLE CELLS AND 60 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND SURFACE, MEASURED FROM THE BASELINE OF THE HIGHEST LINE OF RAISED CHARACTERS.

WHERE A TACTILE SIGN IS PROVIDED AT A DOOR, THE SIGN SHALL BE LOCATED ALONGSIDE THE DOOR AT THE LATCH SIDE. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAF. WHERE A TACTILE SIGN IS PROVIDE AT DOUBLE DOOR. WHERE THERE IS NO WALL SPACE AT THE LATCH SIDE OF A SINGLE DOOR OR AT THE RIGHT SIDE OF DOUBLE DOORS, SIGNS SHALL BE LOCATED ON THE NEAREST ADJACENT WALL. SIGNS CONTAINING TACTILE CHARACTERS SHALL BE LOCATED SO THAT A CLEAR FLOOR SPACE OF 18 INCHES MINIMUM BY 18 INCHES MINIMUM, CENTERED ON THE TACTILE CHARACTERS, IS PROVIDED BEYOND THE ARC OF ANY DOOR SWING BETWEEN THE CLOSED POSITION AND 45 DEGREE OPEN POSITION. WHERE PERMANENT IDENTIFICATION SIGNAGE IS PROVIDED FORROOMS AND SPACES THEY SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE ENTERS THEROOM OR SPACE. SIGNS THAT IDENTIFY EXITS SHALL BE LOCATED ON THE APPROACH SIDE OF THE DOOR AS ONE EXITS THE ROOM OR SPACE.

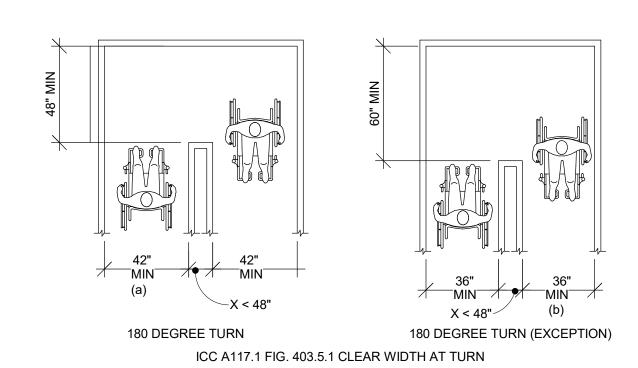
VISUAL CHARACTERS SHALL COMPLY WITH SECTION ICC A117.1 SECTION 703.2.

FINISH AND CONTRAST CHARACTERS AND THEIR BACKGROUND SHALL HAVE A NON-GLARE FINISH. CHARACTERS SHALL CONTRAST WITH THEIR BACKGROUND WITH EITHER LIGHT CHARACTERS ON A DARK BACKGROUND OR DARK CHARACTERS ON A LIGHT BACKGROUND.

PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6 INCHES MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.

TACTILE EGRESS SIGNAGE (SECURE TO STOREFRONT GLASS W/ ADHESIVE). PROVIDE PLASTIC BACKING OVER OTHER SIDE OF GLASS FOR COVERAGE. ADHESIVE SHALL BE COMPATIBLE W

# BUILDING EXIT SIGN Scale. 6" = 1'-0"



THE MINIMUM WIDTH OF EXIT PASSAGEWAYS SHALL BE DETERMINED AS SPECIFIED IN SECTION 1005.1 BUT SUCH WIDTH SHALL NOT BE LESS THAN 44 INCHES, EXCEPT THAT EXIT PASSAGEWAYS SERVING AN OCCUPANT LOAD OF LESS THAN 50 SHALL NOT BE LESS THAN 36 INCHES IN WIDTH. THE REQUIRED WIDTH OF EXIT PASSAGEWAYS SHALL BE UNOBSTRUCTED. (11B-1023.2).

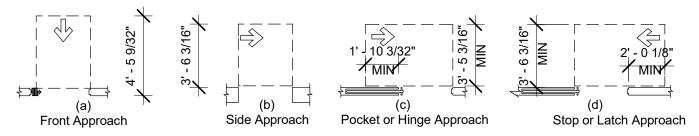
AN ACCESSIBLE ROUTE WITH A CLEAR WIDTH LESS THAN 60 INCHES SHALL PROVIDE PASSING SPACES AT INTERVALS OF 200 FEET MAXIMUM. PASSING SPACES SHALL BE EITHER: A SPACE 60 INCHES MINIMUM BY 60 INCHES MINIMUM; OR , AN INTERSECTION OF TWO WALKING SURFACES PROVIDING A T-SHAPED SPACE COMPLYING WITH SECTION 11B-304.2 WHERE THE BASE AND ARMS OF THE T-SHAPED SPACE EXTEND 48 INCHES MINIMUM BEYOND THE INTERSECTION. (11B-403.5.3).

CLEAR FLOOR SPACE PARALLEL APPROACH UNOBSTRUCTED SIDE REACH OBSTRUCTED HIGH SIDE REACH

WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND THE SIDE REACH IS UNOBSTRUCTED, THE HIGH SIDE REACH SHALL BE 47-7/8" MAXIMUM AND THE LOW SIDE REACH SHALL BE 15-1/8" MINIMUM ABOVE THE FINISH FLOOR OR GROUND. EXCEPTION: AN OBSTRUCTION SHALL BE PERMITTED BETWEEN THE CLEAR FLOOR OR GROUND SPACE AND THE ELEMENT WHERE THE DEPTH OF THE OBSTRUCTION IS 9-7/8" MAXIMUM

WHERE A CLEAR FLOOR OR GROUND SPACE ALLOWS A PARALLEL APPROACH TO AN ELEMENT AND 33-7/8" MAXIMUM AND THE DEPTH OF THE OBSTRUCTION SHALL BE 23-7/8" MAXIMUM. THE HIGH SIDE REACH SHALL BE 47-7/8" MAXIMUM FOR A REACH DEPTH OF 9-7/8" MAXIMUM. WHERE THE REACH DEPTH EXCEEDS 9-7/8", THE HIGH SIDE REACH SHALL BE 45-7/8" MAXIMUM FOR A REACH

# SIDE REACH | Scale. | (9)



#### MANEUVERING CLEARANCES AT DOORWAYS WITHOUT DOORS, SLIDING DOORS, GATES, AND FOLDING DOORS

CEIDING BOOKS, SATES, AND I CEDING BOOKS					
	MINIMUM MANEUVERING CLEARANCE				
APPROACH DIRECTION	PERPENDICULAR TO DOORWAY	PARALLEL TO DOORWAY (beyond stop/latch side unless noted)			
FROM FRONT	48-1/8 INCHES	0 INCHES			
FROM SIDE <sup>1</sup>	42-1/8 INCHES	0 INCHES			
FROM POCKET/HINGE SIDE	42-1/8 INCHES	22-1/8 INCHES <sup>2</sup>			
FROM STOP/LATCH SIDE	42-1/8 INCHES	24-1/8 INCHES			

## NOTES:

MANEUVERING CLEARANCES AT DOORWAYS WITHOUT DOORS OR GATES, MANUAL SLIDING DOORS, AND MANUAL FOLDING DOORS 1. DOORWAY WITH NO DOOR ONLY. 2. BEYOND POCKET/HINGE SIDE.

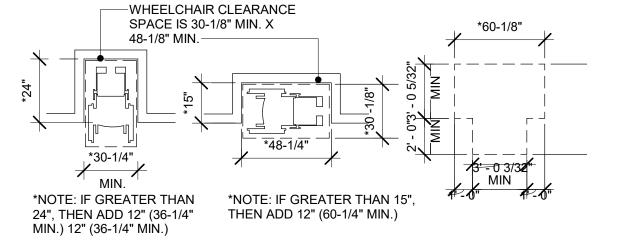
# CLEAR

ICC A117.1 FIGURE 403.5 CLEAR WIDTH OF AN ACCESSIBLE ROUTE

#### NOTE:

THE CLEAR WIDTH SHALL BE PERMITTED TO BE REDUCED TO 32-1/4" MINIMUM FOR A LENGTH OF 23-3/4" MAXIMUM PROVIDED THAT REDUCED WIDTH SEGMENTS ARE SEPARATED BY SEGMENTS THAT ARE 48-1/4" LONG MINIMUM AND 36-1/4" WIDE

## ACCESSIBLE DOOR CLEARANCES. Scale. 3/16" = 1'-0" (8) CLEAR WIDTH AT ROUTE/ TURN Scale. 3/8" = 1'-0"



MANEUVERING CLEARANCE IN AN ALCOVE

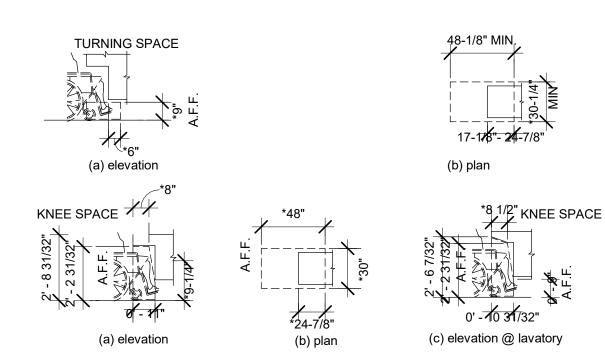
T-SHAPED TURNING SPACE

ALCOVES SHALL BE 60-1/4" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 15 INCHES.

ALCOVES SHALL BE 36-1/4" WIDE MINIMUM WHERE THE DEPTH EXCEEDS 24 INCHES.

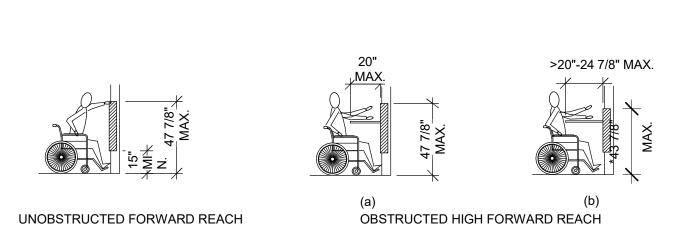
THE TURNING SPACE SHALL BE A T-SHAPED SPACE WITHIN A 60-1/8" SQUARE MINIMUM WITH ARMS AND BASE 36-1/8" WIDE MINIMUM. EACH ARM OF THE T SHALL BE CLEAR OF OBSTRUCTIONS 12"

MINIMUM IN EACH DIRECTION AND THE BASE BE CLEAR OF OBSTRUCTIONS 12" MINIMUM IN EACH DIRECTION AND THE BASE SHALL BE CLEAR OF OBSTRUCTIONS 24" MINIMUM. THE SPACE SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCE ONLY AT THE END OF EITHER THE BASE CLEAR FLOOR & TURNING SPACE Scale. 7



- SPACE UNDER AN ELEMENT BETWEEN THE FINISH FLOOR OR GROUND AND 9-1/4 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED TOE CLEARANCE
- SPACE UNDER AN ELEMENT BETWEEN 9-1/4 INCHES AND 27 INCHES ABOVE THE FINISH FLOOR OR GROUND SHALL BE CONSIDERED KNEE CLEARANCE

# KNEE CLEARANCE Scale. 1/4" = 1'-0" 3

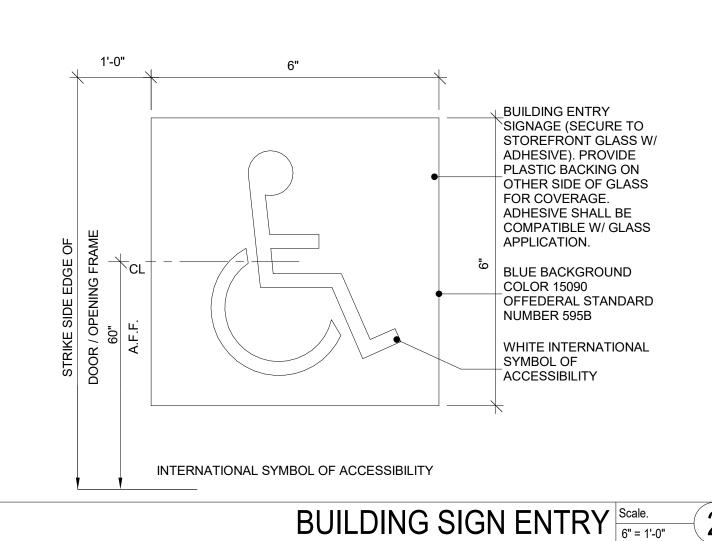


ICC A117.1 FIG.307.2

LIMITS OF PROTRUDING OBJECTS

WHERE A FORWARD REACH IS UNOBSTRUCTED, THE HIGH FORWARD REACH SHALLBE 47 7/8"

WHERE A HIGH FORWARD REACH IS OVER AN OBSTRUCTION, THE CLEAR FLOOR SPACE SHALL EXTEND BENEATH THE ELEMENT FOR A DISTANCE NOT LESS THAN THE REQUIRED REACH DEPTH OVER THE OBSTRUCTION. THE HIGH FORWARD REACH SHALL BE 47 7/8" MAXIMUM WHERE THE REACH DEPTH IS 20" MAXIMUM. 43 7/8" MAXIMUM AND THE REACH DEPTH SHALL BE 24 7/8" MAXIMUM.



# FORWARD REACH Scale. 6

# VERTICAL CHANGE IN LEVEL **BEVELED CHANGE IN LEVEL**

CARPET OR CARPET TILE SHALL BE SECURELY ATTACHED AND SHALL HAVE A FIRM CUSHION, PAD, OR BACKING OR NO CUSHION OR PAD. CARPET OR CARPET TILE SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT PILE, OR LEVEL CUT/UNCUT PILE TEXTURE. PILE HEIGHT SHALL BE 1/2" MAXIMUM. EXPOSED EDGES OF CARPET SHALL BE FASTENED TO FLOOR SURFACES AND SHALL HAVE TRIM ON THE ENTIRE LENGTH OF THE EXPOSED EDGE.

CHANGES IN LEVEL OF 1/4" HIGH MAXIMUM SHALL BE PERMITTED TO BE VERTICAL AND WITHOUT

CHANGES IN LEVEL BETWEEN 1/4" HIGH MINIMUM AND 1/2" HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 1:2.

THRESHOLDS SHALL BE 1/2" HIGH MAXIMUM.

FLOOR/GROUND SURFACE Scale. 6" = 1'-0"

05

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29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

**SCHNEIDER** 

**REVISIONS** 

**CLIENT INFORMATION** 

DESCRIPTION

STAMP

CHECKED

SCALE AS NOTED

PROJECT NUMBER

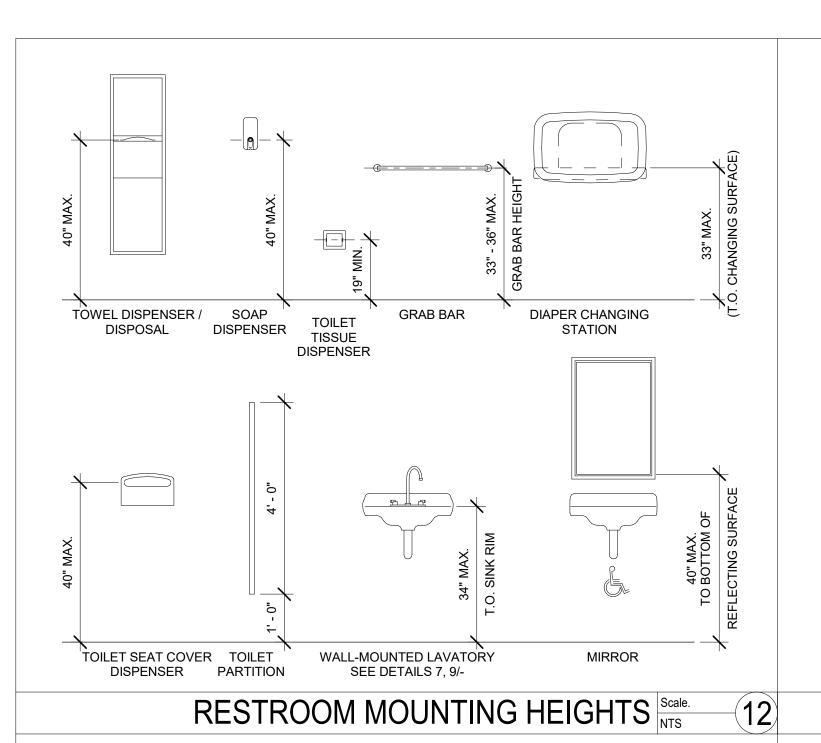
WIDTH OF ACCESSIBLE ROUTE Scale. 1/4" = 1'-0" 12

PROTRUDING OBJECTS | Scale. | 3/16" = 1'-0" | 5

ICC A117.1 FIG. 307.3

POST-MOUNTED PROTRUDING OBJECTS

X >12"



# 1 1/4" TO 1 1/2" DIA. (NOMINAL DIA. GRAB BAR) RECESSED

- **GRAB BAR DIMENSIONS DETAIL**
- A. DIAMETER OF GRAB BARS IS 1 1/4" 1 1/2" OR SHAPE PROVIDES EQUIVALENT GRIPPING SURFACE.
- CLEARANCE BETWEEN GRAB BAR(S) AND WALL IS 1 1/2". (ICC A117.1 609.3)
- GRAB BARS MOUNTED AT 33" TO CENTER OF BAR ABOVE AND PARALLEL TO FLOOR. FOR TANK TYPE TOILETS, 36" MAY BE ALLOWED IF TANK OBSTRUCTS PLACEMENT OF BACK BAR.
- D. BARS ARE SMOOTH WITH A MINIMUM RADIUS OF 1/8".

CLEARANCE SHALL BE PROVIDED.

OR ABRASIVE SURFACES UNDER SINKS.

OPERABLE PARTS SHALL BE 5 LBS. MAXIMUM.

MIN. STRUCTURAL STRENGTH OF GRAB BARS WILL SUPPORT A 250 LB. POINT LOAD. (ICC A117.1 609.8)

A CLEAR FLOOR SPACE, POSITIONED FOR FORWARD APPROACH, AND KNEE AND TOE

HAND-OPERATED, SELF-CLOSING FAUCETS SHALL REMAIN OPEN FOR 10 SECONDS

WATER SUPPLY AND DRAIN PIPES UNDER SINKS AND LAVS. SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROJECT AGAINST CONTACT. THERE SHALL BE NO SHARP

OPERABLE PART CANNOT BE FURTHER BACK THAN THE TOE SPACE BELOW.

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

THE REQUIRED TOE SPACE AT A HWF OR SINK MUST EXTEND 19" MIN. AND 25" MAX. AS

MEASURED FROM THE FRONT EDGE OR THE HWF OR SINK. THE SPACE PROVIDED MAY EXTEND BEYOND THE MAX. 25" BUT IS NOT CONSIDERED AS ACCESSIBLE TOE SPACE. THE REQUIRED TOE SPACE AT LAVATORY MUST EXTEND 17" MIN. AND 19" MAX. AS MEASURED

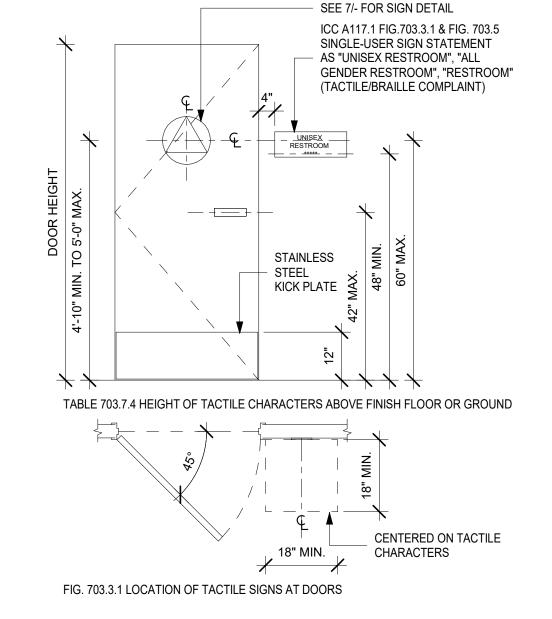
FROM THE FRONT EDGE OF THE LAV. OR SINK. THE SPACE PROVIDED MAY EXTEND BEYOND THE MAX. 19" BUT IS NOT CONSIDERED AS ACCESSIBLE TOE SPACE.

TO THE FIXTURE RIM OR COUNTER SURFACE, WHICHEVER IS HIGHER.

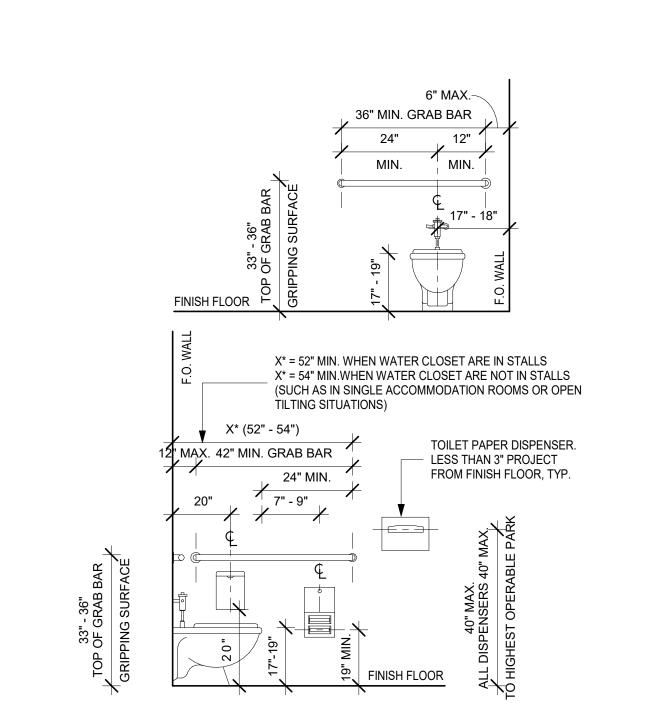
THE FRONT OF SINKS AND LAVS. SHALL BE 3/4" MAXIMUM ABOVE THE FLOOR, MEASURED

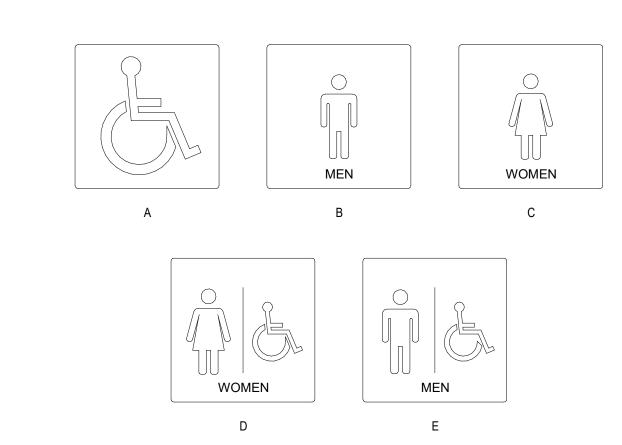
GRAB BARS | Scale. | 1 1/2" = 1'-0" | 9

- GRAB BARS DO NOT ROTATE WITHIN THEIR FITTINGS. (ICC A117.1 609.6)
- SURFACE OF WALL ADJACENT TO GRAB BARS IS FREE OF SHARP OR ABRASIVE MATERIALS.



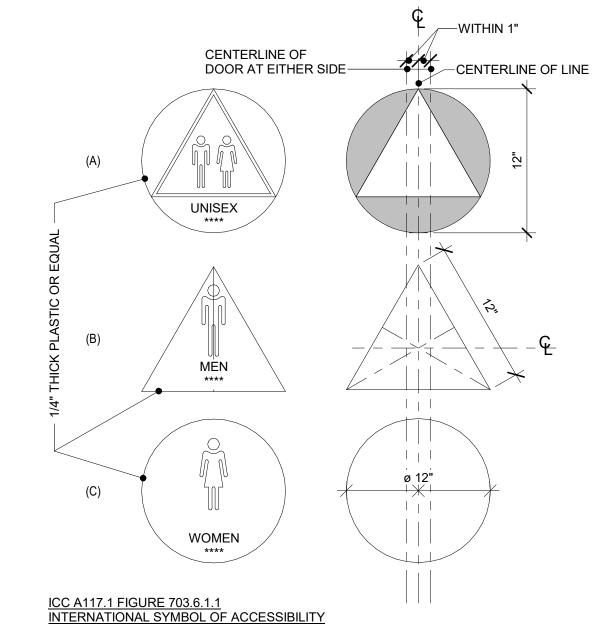






NOTE: ALL SIGNAGE IS 1/4" THICK. PLASTIC OR EQUAL. 1. CHARACTERS & BACKGROUND OF SIGNS IS EGGSHELL, MATTE OR OTHER NON-GLARE FINISH. 2. CHARACTERS SHALL CONTRAST WITH THE BACKGROUND LIGHT ON DARK, OR DARK ON LIGHT. 3. MOUNT SIGNAGE 60" ABOVE FINISHED FLOOR TO CENTERLINE OF SIGN.

4. BORDER DIMENSION OF PICTOGRAM TO BE 6" MINIMUM IN HEIGHT



BACKGROUND TO BE BLUE EQUAL TO COLOR NO.15090 IN FEDERAL STANDARDS 595a.

# OR FACE OF PANELING INSTALLED TO CONCEAL EQUIP. (LINE OF KNEE CLEARANCE) PIPE INSULATION (IF EXPOSED 8" MIN. KNEE CLEARANCE 18" MIN. AT SIDE WALL AT SIDE WALL OR EQUIP. WALL-MOUNTED

FURNISHING SCHEDULE LEVER OPERATING

OR ELECTRONICALLY CONTROLLED SOAP DISPENSER

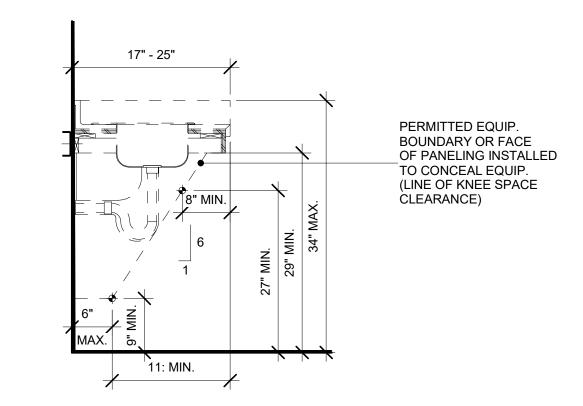
30" x 48" CLEAR FLOOR SPACE

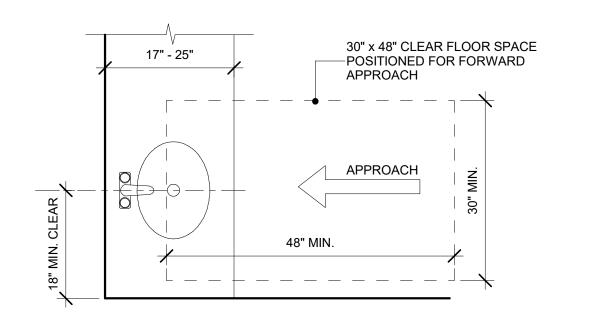
POSITIONED FOR FORWARD APPROACH

DETAIL 7/-

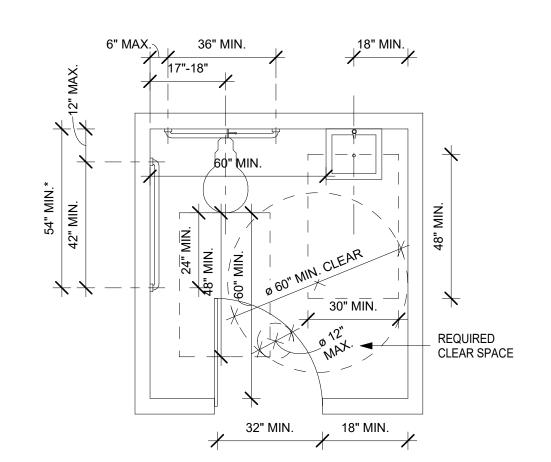
PER ICC A117.1

BOUNDARY





# WATER CLOSET REQUIREMENTS Scale. [5]



# STANDARD ACCESSIBLE TOILET STALL NOTES

1. TOTAL STALL DIMENSIONS MUST INCORPORATE ALL CLEARANCES SHOWN TO COMPLY WITH BOTH STATE AND

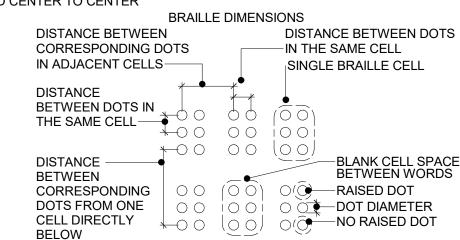
FRONT OF THE WATER CLOSET. INTERIOR DIMENSIONS OF SINGLE ACCOMMODATION TOILET ROOMS SHALL INCLUDE A CLEAR SPACE OF AT LEAST 60" IN DIAMETER OR A T-SHAPED CLEAR SPACE. NO DOOR MAY ENCROACH INTO THIS

\* SIDE GRAB BARS IN SINGLE ACCOMMODATION TOILET ROOMS MUST BE INSTALLED SUCH THAT THE FRONT END OF THE BAR IS LOCATED A MINIMUM OF 54" FROM THE BACK WALL.

# RESTROOM SIGNAGE Scale. 1 1/2" = 1'-0" 2

MEASUREMENT RANGE		MINIMUM IN INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER		0.059 TO 0.063
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL	1	0.090 TO 0.100
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS	1	0.241 TO 0.300
DOT HEIGHT		0.025 TO 0.037
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW	1	0.395 TO 0.400

1. MEASURED CENTER TO CENTER



# BRAILLE SHALL BE CONTRACTED (GRADE 2)

OF THE ALPHABET, INITIALS, AND ACRONYMS

- BRAILLE DOTS SHALL HAVE A DOMED OR ROUNDED SHAPE AND SHALL COMPLY WITH FIGURE 11B-703.3.1. THE INDICATION OF AN UPPERCASE LETTER OR LETTERS SHALL ONLY BE USED BEFORE THE FIRST WORD OF SENTENCES, PROPER NOUNS AND NAMES, INDIVIDUAL LETTERS
- TEXT. BRAILLE SHALL BE SEPARATED 3/8 INCH (9.5 MM) MINIMUM AND 1/2 INCH MAXIMUM FROM ANY OTHER TACTILE CHARACTERS AND 3/8 INCH (9.5 MM) MINIMUM FROM RAISED BORDERS AND

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REVISIONS **CLIENT INFORMATION** 

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SCALE PROJECT NUMBER

SIGNS/BRAILLE Scale. 1" = 10'-0"

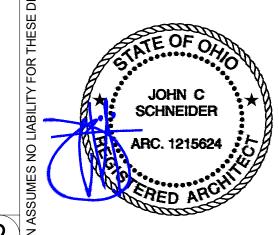
ACCESSIBLE LAVATORY REQUIREMENTS Scale. 10

ACCESSIBLE SINK REQUIREMENTS Scale. 7

SINGLE ACCOMMODATION TOILET | Scale. | 3/8" = 1'-0" |



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NOT USED Scale NTS

NON-ALCOVE, WING WALL INSTALATION EXCEPTION ONLY

DIMENSION VARIES

- AREA OUT OF KNEE CLEARANCE

- AREA BELOW SHALL BE ACCESSIBLE & CLEAR

6" MAX. TOE CLEARANCE

DRINKING FOUNTAIN SPOUT LOCATION AT ALCOVE

17" TO 19"

, 17" MIN. DEPTH

PLAN OF " HI-LOW" DRINKING FOUNTAIN

8" MIN. KNEE CLEARANCE

APPROACH DRINKING FOUNTAIN IS NOT ACCEPTABLE.

FOUNTAIN.

**REVISIONS** DESCRIPTION

CLIENT INFORMATION

C0573 / C0618 0 LAKESHORE BLVD , OH 44095 C057 **AARON'S C**29850 - 29900 L
WILLOWICK, C

E.N.

DRAWN CHECKED DATE 03/07/23 분 SCALE AS NOTED

PROJECT NUMBER

NOT USED Scale | Scale | NTS | DRINKING FOUNTAIN REQUIREMENT | Scale | NTS |

2. SPACE UNDER THE DRINKING FOUNTAIN NOT LESS THAN 27-INCHES IN HEIGHT AND 8-INCHES IN DEPTH,THE DEPTH MEASUREMENT BEING TAKEN FROM THE FRONT EDGE OF THE

FLOOR, AND 17-INCHES IN DEPTH FROM THE FRONT EDGE OF THE FOUNTAIN. A SIDE

FOUNTAIN. ADDITIONALLY THERE SHALL BE TOE CLEARANCE 9-INCHES IN HEIGHT ABOVE THE

3. THE BUBBLER SHALL BE ACTIVATED BY A CONTROL WHICH IS EASILY OPERATED BY A HANDICAPPED

PERSON SUCH AS A HAND-OPERATED LEVER TYPE CONTROL LOCATED WITHIN 6-INCHES OF THE

ETC. THE BUBBLER OULET ORIFICE SHALL BE LOCATED WITHIN 6-INCHES OF THE FRONT OF THE

FRONT OF THE FOUNTAIN, A PUSH BAR CONTROL ALONG THE FRONT OF THE DRINKING FOUNTAIN,

DRINKING FOUNTAIN AND SHALL BE WITHIN 36-INCHES OF THE FLOOR. THE WATER STREAM FROM

**ALCOVE INSTALATION** 

THE BUBBLER SHALL BE SUBSTANTIALLY PARALLEL TO THE FRONT EDGE OF THE DRINKING

1F X = 18" MIN. ALCOVE DEPTH, THEN Y= 32" MIN. IF ALCOVE DEPTH (X) IS GREATER THAN 24", THEN ALCOVE WIDTH (Y) MUST BE MINIMUM OF 36" CLEAR **DRINKING FOUNTAINS** SPOUT HEIGHT AND KNEE CLEARANCE AT DRINKING FOUNTAINS 1. WATER FOUNTAINS SHALL BE LOCATED COMPLETELY WITHIN ALCOVES OR OTHERWISE POSITIONED SO AS NOT TO ENCROACH INTO PEDESTRIAN WAYS. THE ALCOVE IN WHICH 32-INCHES IN WIDTH AND 18-INCHES IN DEPTH. THE WATER FOUNTAIN IS LOCATED SHALL BE NOT LESS THAN AND THERE SHALL BE A CLEAR AND UNOBSTRUCTED KNEE THE DRINKING FOUNTAIN SHALL BE A MIN. 18-INCHES IN DEPTH

# PART I - GENERAL

#### A. CONDITIONS

1. GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, SPECIAL CONDITIONS, AND OTHER RELATED PORTIONS OF DIVISION 1, APPLY TO THIS SECTION.

#### **B SUMMARY OF WORK**

1 THE WORK INCLUDED CONSISTS OF FURNISHING LABOR, MATERIALS AND EQUIPMENT FOR THE INSTALLATION. IT ALSO INCLUDES PLACING INTO OPERATION A COMPLETE AND OPERABLE HEATING, VENTILATING AND AIR CONDITIONING SYSTEM AS SPECIFIED AND SHOWN. THIS INCLUDES, BUT IS NOT LIMITED TO: HVAC UNITS, EXHAUST FANS, DUCTLESS SPLIT-SYSTEMS, DUCTWORK, AIR DISTRIBUTION, CONTROLS AND ACCESSORIES, EXCEPT AS OTHERWISE NOTED.

# C. REGULATIONS, CODES, PERMITS AND INSPECTIONS

1. COMPLY WITH NATIONAL, STATE, COUNTY, AND CITY CODES, ORDINANCES, ETC., HAVING JURISDICTION. THIS INCLUDES RULES AND REQUIREMENTS OF UTILITY

- 2. INCORPORATE CODES, ORDINANCES, ETC., INTO THE BASE BID AND INSTALLATION OF WORK. NO ADDITIONAL FUNDS WILL BE ALLOCATED FOR WORK REQUIRED TO CONFORM TO REGULATIONS AND REQUIREMENTS OR TO OBTAIN APPROVAL OF
- 3. OBTAIN AND PAY FOR REQUIRED PERMITS AND LICENSES. WHEN REQUIRED BY CODE, WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES. PRIOR TO FINAL APPROVAL, FURNISH ARCHITECT WITH CERTIFICATES OF INSPECTION AND APPROVALS BY LOCAL AUTHORITIES.
- 4. IN ADDITION, THE LATEST ADOPTED EDITION OF THE FOLLOWING CODES AND PUBLISHED STANDARDS SHALL BE ADHERED TO:

- INTERNATIONAL BUILDING CODE 2015 (IBC 2015) - INTERNATIONAL MECHANICAL CODE 2015 (IMC 2015) - INTERNATIONAL PLUMBING CODE 2015 (IPC 2015) - INTERNATIONAL FIRE CODE 2015 (IFC 2015)

- NATIONAL ELECTRICAL CODE 2017 OF OHIO - INTERNATIONAL ENERGY CONSERVATION CODE 2018 (IECC 2018) - ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES 2009 OF OHIO

- NATIONAL FIRE ALARM AND SIGNALING CODE 2016 OF OHIO

- STANDARD FOR HIGH CHALLENGE FIRE WALLS, AND FIRE BARRIER WALLS 2015 OF OHIO - BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE OF OHIO

#### D. DESIGN DRAWINGS

- 1. DESIGN DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED ONLY TO DEFINE THE BASIC FUNCTIONS REQUIRED. PROVIDE LABOR, MATERIAL, ETC., NECESSARY TO ACCOMPLISH THESE REQUIREMENTS. MINOR DEVIATIONS FROM THE DESIGN LAYOUT ARE ANTICIPATED AND SHALL BE CONSIDERED A PART OF THE WORK INCLUDED. NO CHANGES THAT ALTER THE CHARACTER OF THE WORK WILL BE PERMITTED. DO NOT SCALE THE DESIGN DRAWINGS. SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS
- 2. IF A CONFLICT OCCURS BETWEEN THE DESIGN DRAWINGS AND SPECIFICATIONS, PROMPTLY NOTIFY THE ARCHITECT AND/OR ENGINEER. AT THAT POINT, AN INTERPRETATION WILL BE MADE BY THE ARCHITECT AND/OR ENGINEER AND SAID DECISION SHALL BE CONSIDERED PART OF THE CONTRACT DOCUMENTS.

## E. QUALIFICATIONS OF CONTRACTOR AND WORKMEN

## 1. CONTRACTOR SHALL BE PROPERLY LICENSED TO PERFORM THE WORK. F. BASE BID

- 1. BASE BID SHALL INCLUDE MATERIALS AND EQUIPMENT SPECIFIED OR SCHEDULED ON THE DRAWINGS. REQUESTS FOR SUBSTITUTION OF MATERIALS AND EQUIPMENT SHALL BE BY ADDITIVE OR DEDUCTIVE ALTERNATE BID ONLY. THE FOLLOWING DATA MUST BE CLEARLY WRITTEN AT THE BEGINNING OF THE ALTERNATE PROPOSAL
- A. ADDITIVE OR DEDUCTIVE AMOUNT CLEARLY WRITTEN IN WORDS AND NUMERALS.
- B. INCREASED OR REDUCED CONSTRUCTION TIME IN DAYS.
- C. OTHER DEMONSTRABLE BENEFIT, FOR WHICH THE SUBSTITUTION OF SUCH ITEM WILL BE IN THE OWNER'S INTEREST.
- ONLY THOSE MATERIALS AND FOLLIPMENT WHICH ARE SLIBMITTED AS AN ALTERNATE BID, WHICH ARE ACCOMPANIED BY THE SUPPORTING DATA INDICATED BELOW WILL BE REVIEWED AND CONSIDERED.

# G. SUBSTITUTIONS

- 1. MATERIALS AND EQUIPMENT THAT ARE A SUBSTITUTE FROM THE LISTED MANUFACTURER MAY BE CONSIDERED. PRIOR TO PROPOSING ANY SUBSTITUTE ITEM, CONTRACTOR SHALL SATISFY HIMSELF THAT THE ITEM PROPOSED IS, IN FACT, FOUAL TO THAT SPECIFIED, THAT SUCH ITEM WILL FIT INTO THE SPACE ALLOCATED, THAT SUCH ITEM AFFORDS COMPARABLE EASE FOR OPERATION, MAINTENANCE AND SERVICE, THAT THE APPEARANCE, LONGEVITY, CAPACITY, SUITABILITY, AND FLECTRICAL CHARACTERISTICS ARE COMPARABLE. THAT BY REASON OF COST SAVINGS, REDUCED CONSTRUCTION TIME, OR SIMILAR DEMONSTRABLE BENEFIT, THE SUBSTITUTION OF SUCH ITEM WILL BE IN THE OWNER'S INTEREST.
- . THE BURDEN OF PROOF OF EQUALITY OF A PROPOSED SUBSTITUTION FOR A SPECIFIED ITEM SHALL BE UPON THE CONTRACTOR. CONTRACTOR SHALL SUPPORT HIS REQUEST WITH SUFFICIENT TEST DATA AND OTHER MEANS TO PERMIT THE ENGINEER TO MAKE A FAIR AND EQUITABLE DECISION ON THE MERITS OF THE PROPOSED SUBSTITUTION. INSUFFICIENT SUBMITTAL DATA WILL RESULT IN REJECTION OF THE PROPOSED SUBSTITUTION. ANY ITEM BY A MANUFACTURER OTHER THAN THOSE SPECIFIED, OR OF BRAND NAME, MODEL NUMBER, OR OF GENERIC SPECIES OTHER THAN THOSE SPECIFIED, WILL BE CONSIDERED A SUBSTITUTION. ENGINEER WILL BE THE SOLE JUDGE OF WHETHER OR NOT THE SUBSTITUTION IS EQUAL IN QUALITY, UTILITY AND ECONOMY TO THAT SPECIFIED.
- 3. APPROVAL OF A SUBSTITUTION SHALL NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR COMPLIANCE WITH ALL REQUIREMENTS OF THE CONTRACT. CONTRACTOR SHALL BEAR THE EXPENSE FOR ANY CHANGES IN OTHER PARTS OF THIS WORK OR OTHER WORK CAUSED BY THE PROPOSED SUBSTITUTION, INCLUDING BUT NOT LIMITED TO STRUCTURAL, ELECTRICAL, PLUMBING, AND ACCESS REQUIREMENTS
- 4. IF ENGINEER REJECTS CONTRACTOR'S SUBSTITUTE ITEM ON THE FIRST SUBMITTAL, CONTRACTOR MAY MAKE ONLY ONE ADDITIONAL REQUEST FOR SUBSTITUTION IN
- 5. ANY EQUIPMENT SUBSTITUTED WITHOUT THE ENGINEER'S WRITTEN APPROVAL WILL BE REMOVED AND REPLACED WITH THE SPECIFIED EQUIPMENT AT THE CONTRACTOR'S EXPENSE AND AT NO ADDITIONAL COST TO THE OWNER.

#### H. SUBMITTALS

- 1. EQUIPMENT AND MATERIALS:
- A. CONTRACTOR SHALL HAVE APPROVED SUBMITTALS PRIOR TO FABRICATION OR DELIVERY OF ANY MATERIAL AND/OR EQUIPMENT TO THE JOB SITE. SUBMIT A MINIMUM OF 8 (EIGHT) COPIES, COMPREHENSIVELY INDEXED SUBMITTALS IN A 3-RING BINDER, COMPLETELY DESCRIBING EACH MAJOR SYSTEM, MATERIAL AND EQUIPMENT PROPOSED TO BE USED. ANY PIECE OF EQUIPMENT PLACED ON THE JOB WITHOUT PRIOR APPROVAL WILL BE SUBJECT TO REMOVAL AT THE SOLE EXPENSE OF THE CONTRACTOR.
- SUBMITTALS ARE FOR INFORMATION AND COORDINATION ONLY. REVIEW OF MATERIAL AND/OR EQUIPMENT SUBMITTALS SHALL IN NO WAY RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO COMPLY WITH PLANS AND SPECIFICATIONS REQUIREMENTS. POINTS OF NON-COMPLIANCE WHICH ARE NOT NOTED SHALL NOT BE CONSTRUED TO BE AN APPROVAL OF THE NON-COMPLIANCE. SUBMITTALS SHALL CLEARLY STATE WHERE EQUIPMENT DOES NOT AGREE WITH THE CONTRACT DOCUMENTS
- SUBMITTALS SHALL INCLUDE MANUFACTURER'S SPECIFICATIONS, PHYSICAL DIMENSIONS, WEIGHTS AND RATINGS OF EQUIPMENT SUBMITTED. INDICATE EQUIPMENT LAYOUTS, ELECTRICAL CHARACTERISTICS, WIRING AND CONTROL DIAGRAMS, SIZES AND LOCATIONS OF PIPING, DUCT, CONDUITS, AND OTHER CONNECTION SIZES AND LOCATIONS.

CONTRACTOR SHALL PREPARE AND SUBMIT DETAILED 1/4"=1'-0" SCALE DRAWINGS THAT HAVE BEEN PROPERLY COORDINATED WITH OTHER TRADES. INDICATE LOCATION AND SIZES OF ACCESS PANELS IN HARD CEILINGS FOR EQUIPMENT AND DAMPER ACCESS.

#### 3. AS BUILT DRAWINGS:

MAINTAIN ACCURATE RECORDS OF ANY CHANGES FROM THE CONTRACT DOCUMENTS AND SHOP DRAWINGS. UPON COMPLETION OF THE PROJECT, DELIVER TO THE ENGINEER ONE (1) SET OF LEGIBLE REPRODUCIBLES AND (3) BLUELINE SETS OF THESE RECORD DRAWINGS.

4. WARRANTY REPRESENTATIVE, UPON COMPLETION OF THE PROJECT, DELIVER TO THE OWNER A WRITTEN ONE (1) YEAR WARRANTY ON THE SYSTEMS, MATERIALS AND ALL WORK PERFORMED. THIS INCLUDES THE ENTIRE COST, INCLUDING MATERIALS AND/OR LABOR, OF CORRECTIVE WORK REQUIRED AND NECESSITATED BY DEFECTS IN MATERIALS AND/OR WORKMANSHIP. CONTRACTOR SHALL ALSO PRESENT THE OWNER WITH A COPY OF ALL MANUFACTURER'S WARRANTIES THAT EXCEED THE WARRANTY PERIOD, SUCH AS AC UNIT COMPRESSORS.

- 5. OPERATION AND MAINTENANCE INSTRUCTIONS: UPON THE COMPLETION OF THE PROJECT, DELIVER TO THE OWNER THE REQUIRED NUMBER OF COPIES OF HARD BOUND O & M MANUALS. INCLUDE IN THE MANUAL INSTRUCTIONS PREPARED SPECIFICALLY FOR THE SYSTEMS PROVIDED, ALONG WITH DESCRIPTIONS, PARTS LIST, INSTRUCTIONS, AND WARRANTIES, START-UP REPORTS FOR ALL EQUIPMENT WILL BE DELIVERED WITH THE MATERIALS AND EQUIPMENT UTILIZED IN THE PROJECT. IDENTIFY EACH ITEM BY THE DESIGNATION APPEARING ON THE DRAWINGS.
- 6. OWNER TRAINING: AT A TIME DESIGNATED BY THE OWNER, PROVIDE A SUITABLE TECHNICIAN, MECHANIC OR ENGINEER TO REVIEW THE SYSTEMS WITH OWNER'S REPRESENTATIVE TO THOROUGHLY FAMILIARIZE HIM WITH THE OPERATIONS AND MAINTENANCE OF THE SYSTEMS. UP TO (8) FIGHT HOURS TOTAL TRAINING TIME SHALL BE REQUIRED WITHOUT ADDITIONAL COST TO THE OWNER. PRIOR TO TRAINING THE OWNER SHALL HAVE TAKEN POSSESSION OF THE O & M MANUALS,

FAMILIARIZE THEMSELVES WITH THE CONTENTS OF THE MANUALS.

AND SHALL HAVE HAD A REASONABLE AMOUNT OF TIME FOR THE PERSONNEL TO

# PART II - PRODUCTS

## A. GENERAL PRODUCTS

## 1. SEISMIC RESTRAINTS:

- A. WHERE REQUIRED BY THE BUILDING OFFICIALS/BUILDING CODES, FURNISH AND D. SUPPLY AND RETURN DUCTS LOCATED OUTSIDE SHALL BE LINED WITH 2" INSTALL SEISMIC RESTRAINTS FOR DUCTWORK, PIPING, AND EQUIPMENT. SEISMIC RESTRAINTS SHALL BE DESIGNED TO RESIST SEISMIC FORCES PRESCRIBED IN THE BUILDING CODES FOR THE PROJECT LOCATION.
- B. WHERE REQUIRED BY THE BUILDING OFFICIAL, PROVIDE STRUCTURAL
- REFERENCE THE LATEST EDITION OF THE SMACNA SEISMIC RESTRAINT MANUAL FOR GUIDELINES.
- 2. FURNISH AND INSTALL NEW PRODUCTS OF ESTABLISHED AND REPUTABLE MANUFACTURERS. SEE LIST OF ACCEPTABLE MANUFACTURERS ELSEWHERE IN THESE SPECIFICATIONS. MAKE NO EQUIPMENT SUBSTITUTIONS THAT WOULD LEAVE INADEQUATE OPERATING OR SERVICING SPACE. REFER TO 'SUBSTITUTIONS' SECTION OF THE SPECIFICATION.
- 3. ACCESSORIES REQUIRED FOR PROPER OPERATION OF THE SYSTEMS, EVEN THOUGH NOT SPECIFICALLY INDICATED, SHALL BE INCLUDED AND INSTALLED. SUCH ACCESSORIES MAY INCLUDE, BUT ARE NOT LIMITED TO, FILTERS, CONDENSATE DRAINS, RELIEF VALVES, SERVICE VALVES, THERMOSTATS, VIBRATION ISOLATORS, ETC. MOTOR STARTERS FOR PREWIRED EQUIPMENT AND OTHER PROTECTION AND CONTROL DEVICES ARE TO BE FURNISHED UNDER THE MECHANICAL CONTRACTOR'S SCOPE OF WORK. STARTERS FOR NON-PREWIRED EQUIPMENT, I.E. FANS, PUMPS ETC., ARE UNDER THE ELECTRICAL CONTRACTOR'S SCOPE OF WORK, LINI ESS NOTED OTHERWISE
- SPECIFIC REFERENCE TO A MANUFACTURER'S PRODUCT IS ONLY TO ESTABLISH TYPE, QUALITY, AND PERFORMANCE REQUIRED. THESE QUALIFICATIONS ARE IN ADDITION TO THE REQUIREMENTS SHOWN ON THE PLANS AND ELSEWHERE IN THESE SPECIFICATIONS. LISTING OF ALTERNATE EQUIPMENT MANUFACTURERS SHALL NOT BE CONSTRUED AS AN UNCONDITIONAL APPROVAL OF THE PRODUCTS OF THOSE MANUFACTURERS.

# **B. AIR CONDITIONING UNITS**

- 1. FURNISH AND INSTALL HEATING/COOLING UNITS WITH CAPACITIES AS SCHEDULED. UNITS SHALL BE COMPLETE WITH HERMETICALLY SEALED COMPRESSOR WITH HIGH AND LOW PRESSURE CUT-OFFS, COILS, HEATING SECTION, BLOWERS, NECESSARY REFRIGERANT PIPING, INSULATED COMPRESSOR COMPARTMENT, AIR COOLED CONDENSER, CONDENSER BLOWER OR FAN, AUTOMATIC CONTROLS, CONTROL PANEL WITH STARTERS, RELAYS, ETC. FOR SINGLE POINT POWER CONNECTION. WITHIN A WEATHERPROOF, INSULATED DECORATIVE CASING. UNITS SHALL BE FURNISHED WITH (1) ONE CONSTRUCTION SET OF FILTERS, INSTALLED PRIOR TO START-UP. REPLACE FILTERS AT SUBSTANTIAL COMPLETION BEFORE TEST AND BALANCE ACTIVITIES COMMENCE. FURNISH ONE COMPLETE SET OF SPARE FILTERS TO OWNER. FURNISH ONE COMPLETE SET OF BELTS.
- 2. UNITS SHALL BE COMPLETELY FACTORY WIRED FOR TERMINAL CONNECTIONS OF THERMOSTAT WITH A FAN-AUTO/MANUAL SWITCH AND A SYSTEM HEAT/OFF/COOL/AUTO SWITCH. UNITS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS, COMPLETE WITH ALL SCHEDULED AND NECESSARY ACCESSORIES FOR EFFICIENT AND

- . PROVIDE A COMPLETE SYSTEM OF DUCTWORK FABRICATED AND INSTALLED IN STRICT ACCORDANCE WITH LATEST VERSIONS OF THE ASHRAE FUNDAMENTALS HANDBOOK AND SMACNA DUCT CONSTRUCTION STANDARDS. DUCT SYSTEM SHALL BE CONSTRUCTED AS REPRESENTED ON THESE DRAWINGS AND AS COORDINATED IN DETAIL ON THE APPROVED DUCTWORK SHOP DRAWINGS. IF ADDITIONAL CHANGES IN DUCT ARRANGEMENT OR IN DUCT SIZES ARE REQUIRED, THEY SHALL BE MADE ONLY AFTER WRITTEN APPROVAL IS OBTAINED FROM THE ENGINEER.
- MAIN AND BRANCH DUCTS SHALL BE RECTANGULAR, ROUND, OR FLAT-OVAL, AND SHALL BE CONSTRUCTED OF GALVANIZED SHEET METAL UNLESS NOTED OTHERWISE. DUCT SIZES SHOWN ON THE DRAWINGS ARE NET OPENINGS AND SHALL BE INCREASED TO ACCOMMODATE DUCT LINING WHERE APPLICABLE.
- FLEXIBLE DUCT SHOWN AT CONNECTION TO AIR DISTRIBUTION DEVICES SHALL BE A FABRICATED ASSEMBLY WITH AN ACOUSTICALLY-RATED CORE CONSISTING OF AN INNER SLEEVE, 2-INCH THICK FIBERGLASS INSULATION, WITH AN R-6.0 MINIMUM AND AN OUTER VAPOR BARRIER COVERING EQUAL TO THERMAFLEX M-KE.
- WHETHER SHOWN ON PLANS OR NOT, PROVIDE MANUAL VOLUME DAMPERS IN EACH RUNOUT TO EACH SUPPLY DIFFUSER OR REGISTER, RETURN AND EXHAUST GRILLE AND ALSO AS REQUIRED FOR A PROPERLY BALANCED SYSTEM. PROVIDE ACCESS PANELS TO DAMPERS LOCATED ABOVE HARD CEILINGS.
- VOLUME DAMPERS FOR RECTANGULAR DUCTS SHALL BE CONSTRUCTED OF 16 GAUGE GALVANIZED STEEL, BE OF THE OPPOSED BLADE TYPE AND BE FURNISHED WITH LOCKING AND INDICATING QUADRANTS. DAMPERS FOR ROUND DUCTS SHALL BE SINGLE-BLADE TYPE UP TO 30"Ø. USE CONTINUOUS ROD ON 2" W.G. CLASS DAMPERS FROM 12"Ø-28"Ø, AND RECTANGULAR DUCTS FROM 18"-48" WIDE.
- 6. ROUND TAPS FOR FACTORY-MADE AIR DUCTS IN SECTIONS OF ROUND SHEET METAL DUCTS SHALL BE MADE WITH ANY OF THE FITTINGS LISTED BELOW:
- A. CONICAL TEE. CONICAL SADDLE TAP.
- ELBOW (IF LAST FITTING) 45° TEE OR SADDLE TAP
- UNLESS SPECIFIED OTHERWISE BY ARCHITECT, ENGINEER, OWNER OR OWNER'S 7. ROUND TAPS FOR FACTORY-MADE AIR DUCTS IN SECTIONS OF RECTANGULAR SHEET METAL DUCTS SHALL BE MADE WITH ANY OF THE FITTINGS LISTED BELOW:
  - COLLAR (CONICAL). B. COLLAR (STRAIGHT, ONLY WHEN SHOWN ON DRAWINGS).
  - 8. DOVETAILED CUTOFFS ARE NOT ACCEPTABLE. DUCT TAPE OR OTHER PRESSURE SENSITIVE TAPES ARE NOT ACCEPTABLE.
  - 9. TAPS IN SECTIONS OF ROUND FACTORY-MADE FLEXIBLE AIR DUCTS (WHEN ALLOWED) SHALL BE MADE BY INSERTING, IN THE FLEXIBLE DUCT SECTION, ANY OF THE SHEET METAL FITTINGS LISTED BELOW:
  - 90 DEGREE CONICAL STRAIGHT TEE. 45 DEGREE STRAIGHT LATERAL.
  - 45 DEGREE STRAIGHT LATERAL WITH 45 DEGREE ELBOW.
  - 45 DEGREE STRAIGHT LATERAL CROSS. Y BRANCH WITH 45 DEGREE ELBOW

#### E. DUCT INSULATION

- 1. THERMAL INSULATION:
- A. CONCEALED SUPPLY DUCTS AND RETURN DUCTS ABOVE CEILING OR IN FURRED SPACES SHALL BE THERMALLY INSULATED.
- THERMAL INSULATION SHALL BE FLEXIBLE BLANKET GLASS FIBER INSULATION WITH FACTORY APPLIED FLAME RETARDANT, FOIL-SCRIM-KRAFT VAPOR BARRIER (FSK), MAXIMUM K OF 0.30 AT 75 DEGREES F MEAN TEMPERATURE MINIMUM .75 POUND DENSITY. INSULATION SHALL BE 2" THICK.
- INSULATION SHALL BE APPLIED OVER SURFACES WHICH HAVE BEEN WIPED CLEAN AND DRY AND SHALL HAVE 3-INCH MINIMUM OVERLAP ON BOTH LONGITUDINAL AND TRANSVERSE SEAMS.
- ACOUSTICAL LINER AND SEALED WATER TIGHT, OR INSULATED EXTERNALLY WITH 2" RIGID BOARD AND ALUMINUM LAGGING SEALED WATER TIGHT.

# F. AIR FILTERS

- CALCULATIONS SEALED AND SIGNED BY A LICENSED STRUCTURAL ENGINEER. 1. REPLACEABLE (THROWAWAY) PANEL FILTERS:
  - A. PROVIDE FACTORY-FABRICATED, VISCOUS-COATED, FLAT PANEL TYPE REPLACEABLE AIR FILTERS WITH HOLDING FRAMES AS INDICATED, IN SIZES I INDICATED, WITH 2" THICK UL CLASS 2 THROWAWAY MEDIA MATERIAL, CONSTRUCT MEDIA OF INTERLACED GLASS FIBERS, SPRAY WITH NON-FLAMMABLE ADHESIVE, FRAME IN THROWAWAY FIBERBOARD CASINGS, AND SANDWICH BETWEEN PERFORATED METAL GRILLES.
  - B. CONSTRUCT DUCTWORK-HOLDING FRAMES OF 20-GA, GALVANIZED STEEL. CAPABLE OF HOLDING MEDIA AND MEDIA FRAME IN PLACE, AND GASKETED TO PREVENT UNFILTERED AIR BY-PASSING BETWEEN MEDIA FRAMES AND HOLDING
  - PROVIDE FILTERS WITH RATED FACE VELOCITY OF 500 FPM, INITIAL RESISTANCE OF OT GREATER THAN 0.30" W.G., FINAL RATED RESISTANCE OF 0.50" W.G., AND AVERAGE ARRESTANCE OF 80%.

# C. EXHAUST FAN AND VENT UNITS

- FURNISH AND INSTALL DIRECT DRIVE CENTRIFUGAL ROOF EXHAUST FANS WITH CAPACITIES AS SCHEDULED. UNITS SHALL BE COMPLETE WITH ALUMINUM HOUSING, BACKWARD INCLINED WHEEL, ALUMINUM CURB CAP WITH PREPUNCHED MOUNTING HOLES, BIRDSCREEN, BALL BEARING MOTORS, SLEEVE BEARING MOTORS, MOTOR ISOLATED ON SHOCK MOUNTS, CORROSION RESISTANT FASTENERS, ETC.
- ... FURNISH AND INSTALL BELT DRIVE UPBLAST CENTRIFUGAL ROOF EXHAUST FANS WITH CAPACITIES AS SCHEDULED. UNITS SHALL BE COMPLETE WITH ALUMINUM HOUSING, BACKWARD INCLINED ALUMINUM WHEEL, MOTOR AND DRIVES ISOLATED ON SHOCK MOUNTS, DRAIN TROUGH, ADJUSTABLE MOTOR PULLEY, ADJUSTABLE MOTOR PLATE, FAN SHAFT MOUNTED IN BALL BEARING PILLOW BLOCKS, BEARINGS THAT MEET OR EXCEED TEMPERATURE RATING OF FAN, STATIC RESISTANT BELTS, CURB CAP WITH PREPUNCHED MOUNTING HOLES, BALL BEARING MOTORS, CORROSION RESISTANT FASTENERS, ETC.
- UNITS SHALL BE COMPLETELY FACTORY WIRED AND INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS, COMPLETE WITH ALL SCHEDULED AND NESESSARY ACCESSORIES FOR EFFICIENT AND PROPER

## F. LIST OF ACCEPTABLE MANUFACTURERS

- 1. FOLLOWING IS A LIST OF MANUFACTURES WHOSE EQUIPMENT IS ACCEPTABLE AS TO MANUFACTURE, SUBJECT TO CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS, CAREFUL CHECKING MUST BE MADE TO VERIFY THAT EQUIPMENT WILL MEET CAPACITIES, REQUIREMENTS, SPACE AND WEIGHT ALLOCATIONS.
- A. HVAC PACKAGED EQUIPMENT: CARRIER OR APPROVED EQUAL BY
- ARCHITECT/FNGINEER B. FANS: GREENHECK, COOK, ACME, PENN, PRICE
- AIR DEVICES: TITUS, KREUGER, METAL-AIRE, PRICE INSULATION: CERTAINTEED. OWENS-CORNING. MANVILLE. KNAUF UNIT HEATERS: CHROMOLOX, REZNOR, Q-MARK, MARKEL
- DUCT SEALANT: DESIGN POLYMERICS, MCGILL AIRFLOW, CANVAS TAPE AND
- G. VARIABLE FREQUENCY DRIVE: ALLEN-BRADLEY, ASEA BROWN BOVERI (ABB), CUTI FR-HAMMER, SQUARE D. TOSHIBA
- SPRING ISOLATION RAILS: MICRO-METAL SPLIT SYSTEM HEAT PUMP UNITS: CARRIER, TRANE, SANYO
- APPROVAL FOR SUBSTITUTIONS MUST BE MADE IN ACCORDANCE WITH PART 1, SECTION G "SUBSTITUTIONS" OF THESE SPECIFICATIONS.

# PART III - EXECUTION

AIR FILTERS: AFF, FARR OR FLANDERS.

#### A. GENERAL

- 1. INSTALL MATERIALS AND EQUIPMENT IN AN ARRANGEMENT THAT WILL GIVE THE GREATEST PRACTICAL EASE OF OPERATION AND SERVICE TO THE OWNER.
- 2. INSTALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDED INSTALLATION PROCEDURES.
- 3. PERFORM WORK IN ACCORDANCE WITH THE BEST TRADE PRACTICES. INSTALL MATERIALS AND EQUIPMENT SQUARELY WITH THE BUILDING LINES. PROVIDE RIGID PERMANENT BASES AND SUPPORTS FOR WORK.
- 4. CONSTRUCT AND BRACE EQUIPMENT, PIPING, ETC., SO THAT THERE WILL BE NO VIBRATION AND/OR RATTLING WHEN THE SYSTEM IS IN OPERATION.
- 5. COVER AND PROTECT EQUIPMENT AND MATERIALS FROM WEATHER. THEFT. ETC. UNTIL DATE OF COMPLETION. PLUG AND/OR CAP OPEN ENDS OF INSTALLED PIPING AND/OR DUCTWORK PENDING EXTENSION OR FINAL CONNECTION.

- 1. CONSTRUCT DUCTWORK WITH MATERIAL, GAUGES, JOINTS, BRACING AND SUPPORTS IN ACCORDANCE WITH LATEST SMACNA STANDARDS.
- 2. DUCTWORK SHALL BE RIGIDLY CONSTRUCTED AND SUBSTANTIALLY AIR-TIGHT. SEAL ALL DUCTWORK WITH A WATER BASED DUCT SEALANT (DESIGN POLYMERICS DP-1010 OR EQUAL) OR ARABOL AND CANVAS TAPE. DO NOT UTILIZE PRESSURE SENSITIVE TAPES. SEAL DUCTWORK IN ACCORDANCE WITH TABLE 4-1 "APPLICABLE LEAKAGE CLASSES" OF THE LATEST SMACNA HVAC LEAKAGE TEST MANUAL.
- 3. MAKE CONNECTIONS BETWEEN FLEXIBLE DUCTS AND RIGID TRUNK DUCTS WITH FACTORY FABRICATED FITTINGS WITH DAMPER. SECURE FLEX DUCT TO FITTING WITH CLAMPS OR PANDUIT STRAPS INSTALLED TO FACTORY RECOMMENDED TENSION. INSTALL CLAMPS ON LINER AND SECOND CLAMP OVER JACKET. JOB INSPECTION MAY REQUIRE REMOVAL AND REPLACEMENT OF A RANDOM SAMPLING OF CONNECTIONS.
- 4. ELBOWS SHALL HAVE A THROAT RADIUS EQUAL TO 1-1/2 TIMES THE DUCT WIDTH. SQUARE ELBOWS SHALL HAVE TURNING VANES OR SPLITTER. TRANSITIONS SHALL NOT EXCEED 4 TO 1 ASPECT RATIO.

## C. AUTOMATIC TEMPERATURE CONTROLS & SHUTOFF

- 1. ROOFTOP AC UNITS SHALL BE TURNED ON/OFF WITH PROGRAMMABLE 7-DAY THERMOSTATS. THERMOSTATS SHALL BE SET FOR CONTINUOUS FAN OPERATION.
- 2. EXHAUST FANS ARE CONTROLLED AS SPECIFIED IN THE EXHAUST FAN SCHEDULE
- 3. AIR CONDITIONING UNITS SHALL BE EQUIPPED WITH IONIZATION TYPE DUCT
- DETECTOR LINEESS INDICATED OTHERWISE 4. DUCT SMOKE DETECTOR SHALL BE LOCATED IN THE MAIN SUPPLY AND RETURN -AIR DUCT AHEAD OF ANY BRANCH TAKE-OFFS, AND INSTALLED PER
- MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS. 5. WHERE REQUIRED BY BUILDING OFFICIALS, ACTIVATION OF ANY SMOKE DETECTOR SHALL CAUSE THE AIR-MOVING EQUIPMENT TO AUTOMATICALLY SHUT DOWN. WHERE A SYSTEM CONSISTS OF MORE THAN ONE AIR CONDITIONER, ACTIVATION OF ANY OF THE SMOKE DETECTORS IN ANY OF THE AIR CONDITIONERS SERVING THE COMMON AREA SHALL CAUSE ALL AIR-MOVING EQUIPMENT SERVING THAT
- COMMON AREA TO SHUT DOWN. 6. WIRING OF THE SMOKE DETECTORS SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR AND SHALL BE DONE IN ACCORDANCE WITH THE
- REQUIREMENTS OF THE NEC AND ELECTRICAL SECTIONS OF THE SPECIFICATION. FIRE ALARM CONTRACTOR SHALL CONNECT ALL FIRE/SMOKE DAMPERS TO THE FIRE CONTROL SYSTEM, AS REQUIRED BY LOCAL BUILDING AUTHORITY. THE FIRE ALARM CONTRACTOR SHALL PROVIDE AND INSTALL THE CEILING MOUNTED SMOKE DETECTOR STATUS LIGHTS.

# D. TESTING AND BALANCING

- 1. THE HVAC SYSTEM AND COMPONENTS SHALL BE TESTED, ADJUSTED AND BALANCED IN ACCORDANCE WITH ONE OF THE FOLLOWING STANDARDS. A. TABB CONSTRUCTION SPECIFICATION INSTITUTE MASTER FORMAT (23 05 93
- AND 15990) B. NEBB STANDARDS FOR TESTING, ADJUSTMENT AND BALANCING OF
- **ENVIRONMENTAL SYSTEM (7TH EDITION)** AABC NATIONAL STANDARD FOR TOTAL SYSTEM BALANCING (6TH EDITION). A COMPLETE BALANCING REPORT SHALL BE SUBMITTED TO THE ENGINEER UPON COMPLETION. THE BALANCING REPORT SHALL INCLUDE DESIGN QUANTITIES AND ACTUAL (MEASURED) QUANTITIES FOLLOWING BALANCING. BALANCING SHALL BE

COMPLETED TO THE SATISFACTION OF THE ENGINEER. T.A.B. CONTRACTOR SHALL

- BE A.A.B.C. OR N.E.E.B. CERTIFIED, OR COMPANY APPROVED BY ENGINEER. 3. INCLUDE IN BID, AS PART OF THE WORK IN THIS CONTRACT, ANY ADJUSTMENTS TO OR REPLACEMENT OF PULLEYS, BELTS, MOTORS, DAMPERS, ETC., REQUIRED FOR CORRECT BALANCING OF SYSTEMS. CONTRACTOR OR EQUIPMENT SUPPLIER TO FURNISH THE ABOVE LISTED ITEMS TO T.A.B. CONTRACTOR TO INSTALL.
- 4. TEST AND ADJUST AIR DEVICES TO WITHIN PLUS OR MINUS 5 PERCENT OF DESIGN REQUIREMENTS.
- 5. T.A.B. CONTRACTOR SHALL ADJUST THE DEFLECTION OF ALL APPLICABLE SUPPLY AIR DISTRIBUTION FOR PROPER AIR FLOW DIRECTION AND CHARACTERISTICS AS RECOMMENDED BY THE MANUFACTURER AND/OR TO THE SATISFACTION OF THE ENGINEER AND OWNER

AIR DISTRIBUTION SCHEDULE							
MANUFACTURER / MODEL	SIZE	CFM	1	AX CK EL.	MAX N.C.	MAX S.P. DROP	REMARKS
PRICE MODEL	6"Ø	0 - 125	40	00	20	.08	
MODEL SCDA	8"Ø	126 - 250			20	.08	PANEL SIZE: 24"X24"
	10"Ø	251 - 400			20	.08	PAINT INSIDE OF CAN FLAT BLACK, FOR LAY-IN CEILING.
C24	12"Ø	401 - 600			20	.08	LAT-IN CLILING.
(S1)	14"Ø	601 - 800			20	.08	FURNISH WITH SECTORIZING BAFFLE
	16"Ø	801 - 1000			20	.08	(SB) FOR THROW PATTERN CONTROL.
	18"Ø 1001 - 1200		l	20	.08		
PRICE MODEL	6"Ø	0 - 125	400		20	.08	PANEL SIZE: 24"X24"
80	8"Ø	126 - 250			20	.08	1/2" GRID, PAINT INSIDE OF CAN FLAT
	10"Ø	251 - 400			20	.08	BLACK, FOR LAY-IN CEILING.
R1	12"Ø	401 - 600			20	.08	
-	14"Ø	601 - 800			20	.08	
	16"Ø	801 - 1000			20	.08	
	22x22	1001 - 2000		l	20	.08	
LEGEND SA-1	AIR DISTRIBUTION DEVICE  SA - SUPPLY AIR DIFFUSER RA - RETURN AIR GRILLE EG - EXHAUST GRILLE TG - TRANSFER GRILLE LSD-1 : LINEAR DIFFUSER						

# HVAC LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CD	CONDENSATE DRAIN	20"Ø	ELBOW UP <u>DIMENSION DESCRIPTION:</u> 14"ø = ROUND DUCT 24x12 FO
HWS	HEATING WATER SUPPLY		= FLAT OVAL DUCT
HWR ——	HEATING WATER RETURN		ELBOW DOWN
HPWS	HEAT PUMP WATER SUPPLY		LONG RADIUS ELBOW RADIUS (R) = 1.5 TIMES DIAME OF DUCT
— HPWR — —	- HEAT PUMP WATER RETURN		<u>DIMENSION_DESCRIPTION:</u> 1ST_FIGURE_= SIDE_SHOWN
CS	- CONDENSER WATER SUPPLY	M	2ND FIGURE = SIDE NOT SHOWN
— CR — —	- CONDENSER WATER RETURN	36x24	SUPPLY AIR ELBOW UP
KS.	REFRIGERANT SUCTION LINE  REFRIGERANT LIQUID LINE		SUPPLY AIR ELBOW DOWN
NL NC	REFRIGERANT HOT GAS LINE		
CWS	CHILLED WATER SUPPLY		EXHAUST/RETURN AIR ELBOW UP
CWR	CHILLED WATER RETURN		EXHAUST/RETURN AIR ELBOW DOWN
LPS—	- LOW PRESSURE STEAM		DOUBLE SIDE TRANSITION TRANSITION
LPC	- LOW PRESSURE CONDENSATE	36x12 24x12	SLOPE SPECIFICATION: MINIMUM SLOPE = 15°
			MAXIMUM SLOPE = 45°
ν. 	- GATE (SHUT OFF) VALVE - BALL VALVE	36x12 24x12	SINGLE SIDE TRANSITION
	- BUTTERFLY VALVE		
₩	- GLOBE VALVE	36x12 24x12 3	TOP TRANSITION (SLOPE ON TOP)
~~ ~~~~~~~	- TRIPLE DUTY VALVE	36x12 24x12	BOTTOM TRANSITION (SLOPE ON BOTTOM)
	- SWING CHECK VALVE		20.10
	- STRAINER		ACOUSTICALLY LINED SHEET METAL DUCT
	- FLEX CONNECTOR	<u> </u>	MANUAL BALANCING DAMPER
**** **	- PRESSURE REDUCING VALVE		MANUAL BALANCING DAMFER
——>X	SAFETY RELIEF VALVE	\$	FLEX CONNECTOR
	- UNION		
	- MOTORIZED T.C. VALVE/2-WAY	A.D.	ACCESS DOORS
—————————————————————————————————————	- MOTORIZED T.C. VALVE/3-WAY	F/D F/SD S/D	1
	- VALVE IN RISER (SPECIFY TYPE)	\$   \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	FIRE DAMPER, FIRE/SMOKE DAMPER, SMOKE DAMPER
¥ o	- TEE UP		NOTORIZED DAMPED
<del> </del>	- TEE DOWN	M	MOTORIZED DAMPER
o	ELBOW UP		TURNING VANE EL ROW
<del></del> ə	ELBOW DOWN		TURNING VANE ELBOW
<u>М</u>	- MANUAL FLOW BALANCING VALVE (CIRCUIT SETTER)		45° LOW-LOSS TAKE-OFF FITTING W/ DAMPER & FLE
——————————————————————————————————————	- AUTOMATIC FLOW BALANCING VALVE		DUCT
	- PIPE ALIGNMENT GUIDE	T'√Tr	45° LOW-LOSS TAKE-OFF FITTING W/ DAMPER & RIG
X	- PIPE ANCHOR		DUCT
<u> </u>	- PRESSURE/TEMP. TEST PLUG	<u> </u>	ON THE TAKE OFF FITTING
Φ	- DIAL THERMOMETER	2-1	90° TEE TAKE-OFF FITTING
<u> </u>	- PRESSURE GAUGE W/ SNUBBER	Д	CONICAL 90° TEE TAKE-OFF FITTING
•	- CONNECT NEW WORK TO EXISTING	2-	CONICAL 90 IEE TAKE-OFF FITTING
$\triangleright$	- REDUCER	$\triangleright$	45° TEE TAKE-OFF FITTING
-	- FLOW INDICATOR	2-	45 IEE TAKE-OFF FITTING
		l A	LOW LOSS TAVE OFF FITTING
TE: NOT ALL SYMBO MAY BE USED	LS	2-	LOW LOSS TAKE-OFF FITTING
		SA	SUPPLY AIR DUCT (SINGLE LINE)
		RA	RETURN AIR DUCT (SINGLE LINE)
		ЕА	EXHAUST AIR DUCT (SINGLE LINE)
			RETURN/EXHAUST AIR GRILLE
		<u> </u>	·
		<b>→</b> ∏	SIDE WALL SUPPLY AIR REGISTER
			DIFFUSER, REGISTER OR GRILLE AS BRANCH DUCT. NECK SIZE SAME 4-WAY THROW
		A 10"Ø CFM	PATTERN UNLESS SHOWN OTHERWISE ON DRAWINGS
		① <sub>RTU-1</sub>	THERMOSTAT - CONTROLED EQUIPMENT NOTED

AC	AIR CONDITIONING UNIT	EWT	ENTERING WATER TEMPERATURE	OBD	OPPOSED BLADE DAMPER
AD	ACCESS DOOR	EXH	EXHAUST	PD	PRESSURE DROP
AFF	ABOVE FINISHED FLOOR	FPM	FEET PER MINUTE	PSI	POUNDS/SQUARE INCH
AHU	AIR HANDLING UNIT	FT	FEET OR FOOT	RA	RETURN AIR
AMB	AMBIENT	GPM	GALLONS PER MINUTE	RH	RELATIVE HUMIDITY
	AIR PRESSURE DROP		HEATING COIL	RT	ROOFTOP UNIT
APD		HC HP	HEATING COIL HORSEPOWER		
APPROX	APPROXIMATE			SA	SUPPLY AIR
AVG	AVERAGE	HWR	HOT WATER RETURN	FSD	FIRE/SMOKE DAMPER
BDD	BACK DRAFT DAMPER	HWS	HOT WATER SUPPLY	SP	STATIC PRESSURE
BHP	BRAKE HORSE POWER	HX	HEAT EXCHANGER	SPEC	SPECIFICATIONS
BOD	BOTTOM OF DUCT	IN	INCHES	SL	SEA LEVEL
BTU/H	BRITISH THERMAL UNIT/HOUR	INWG	INCHES IN WATER GAUGE	SQ	SQUARE
CAP	CAPACITY	INWC	INCHES IN WATER COLUMN	SS	STAINLESS STEEL
CFM	CUBIC FEET PER MINUTE	LAT	LEAVING AIR TEMPERATURE	T.A.B.	TEST AND BALANCING
CU	CONDENSING UNIT	LWT	LEAVING WATER TEMPERATURE	TCP	TEMPERATURE CONTROL PAN
CP	CONDENSATE PUMP	MAU	MAKEUP AIR UNIT	TEMP	TEMPERATURE
CUH	CABINET UNIT HEATER	MAX	MAXIMUM	TSP	TOTAL STATIC PRESSURE
CC	COOLING COIL	MBH	BTU'S PER HOUR (THOUSAND)	T-STAT	THERMOSTAT
D/DIA	DIAMETER	MD	MOTORIZED DAMPER	TYP	TYPICAL
DB	DRY BULB TEMPERATURE	MFR	MANUFACTURER	UH	UNIT HEATER
DEG.	DEGREES	MIN	MINIMUM	VAV	VARIABLE AIR VOLUME
D.L.	DUCT LINER	MVD	MANUAL VOLUME DAMPER	VEL	VELOCITY
(E)	EXISTING	(N)	NEW	VFD	VARIABLE FREQUENCY DRIVE
EAT	ENTERING AIR TEMPERATURE	ŇÁ	NOT APPLICABLE	W/	WITH
EDB	ENTERING DRY BULB	NIC	NOT IN CONTRACT	wß	WET BULB
EFF	EFFICIENCY	NC	NORMALLY CLOSED	WPD	WATER PRESSURE DROP
ELECT	ELECTRICAL	NO NO	NORMALLY OPENED	WMS	WIRE MESH SCREEN
		NOM	NOMINAL	1111/13	WINE WIEST SCILLIN
ELEV	ELEVATION		NOT TO SCALE	I	
ESP	EXTERNAL STATIC PRESSURE	NTS			
ET	EXPANSION TANK	OA	OUTSIDE AIR		

# SHEET INDEX

ENTERING WET BULE

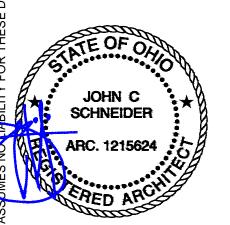
SHEET

MECH. MECHANICAL LEAD SHEET MECHANICAL FLOOR PLAN

Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



REVISIONS DESCRIPTION

**CLIENT INFORMATION** 

C0618 ORE BLVD で い な 05 AKE 4 NO

CHECKED DRAWN RH DATE 03/07/23 SCALE AS NOTED

PROJECT NUMBER



SCALE: 1/8" = 1'-0" MECHANICAL FLOOR PLAN -

# GENERAL NOTES

- A. THE MECHANICAL CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES PRIOR TO COMMENCING HIS WORK.
- B. COORDINATE DUCT ROUTING INSTALLATION HEIGHTS AND CLEARANCES WITH GENERAL CONTRACTOR.
- C. HVAC CONTRACTOR SHALL REPLACE ALL FILTERS WITH NEW ONES PRIOR TO TURNOVER OF ! PROJECT TO THE OWNER.
- D. EXISTING PLENUM RETURN SHALL BE USED AS IS.
- E. SMOKE EVACUATION SYSTEM BY OTHERS.
- F. EXISTING ROOF TOP UNIT TO REMAIN, CONTRACTOR VERIFY SIZE AND LOCATION OF UNIT PRIOR OF START TO WORK.
- G. EXISTING THERMOSTAT TO REMAIN. RELOCATED IF IT IS NECESSARY. COORDINATE LOCATION WITH OWNER. CONTRACTOR VERIFY MODEL AND LOCATION OF THERMOSTAT PRIOR OF START TO WORK.
- H. ANY PENETRATIONS TO THE FIRE BARRIER WILL REQUIRE FIRE-SMOKE DAMPER FOR DUCTING AND FIRE CHALKING FOR PIPING. FIELD VERIFY.



Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



# MECHANICAL PLAN KEY NOTES

- 1 EXISTING EXHAUST FAN WITH ALL ACCESSORIES TO REMAIN. CONTRACTOR VERIFY SIZE AND LOCATION OF UNIT PRIOR OF START TO WORK.
- 2 EXISTING AIR DEVICE TO REMAIN. SERVICE AND BALANCE AIR BEFORE OCCUPANCY. CONTRACTOR VERIFY SIZE AND LOCATION OF AIR DEVICE PRIOR OF START TO WORK.
- 3 INSTALL NEW AIR DEVICE AS SHOWN ON PLAN. SERVICE AND BALANCE AIR BEFORE OCCUPANCY.
- 4 POINT OF CONNECTION FOR NEW DUCT WORK, CONNECT TO EXISTING DUCT WORK NEARBY. CONTRACTOR VERIFY CONNECTION LOCATION OF DUCT WORK ON FIELD.

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AN ONLY BE USED WITH WRITTEN PERMISSION	REVISIONS								
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CLIENT INFORMATION

AARON'S C0573 / C0618 29850 - 29900 LAKESHORE BLVD WILLOWICK, OH 44095

CHECKED

DRAWN DATE 03/07/23 出 SCALE AS NOTED PROJECT NUMBER

SHEET

NOTES:

IT IS REQUIRED THAT THE MECHANICAL CONTRACTOR MUST VISIT THE JOB SITE TO FAMILIARIZE HIMSELF WITH MAJOR ITEMS SUCH AS STRUCTURAL ELEMENTS, PLUMBING LOCATIONS AND ELECTRICAL RUNS. ADDITIONALLY, MECHANICAL CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND DIMENSIONS OF SUCH ITEMS AS HVAC UNIT, DUCTWORK, ETC. FAILURE TO VISIT THE SITE DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY IN PERFORMANCE OF HIS WORK.

RELOCATE CONDENSATE LINES TO INSIDE THE BUILDING PER LOCAL CODES OR AS NEEDED. CONTRACTOR TO HANG DUCTS WITHIN 12" OF THE BOTTOM OF THE STRUCTURAL SUPPORTS. CONTRACTOR SHALL VERIFY IN FIELD.

STANDARD ABBREVIATIONS		ABBREVIATIONS	DEVICES	SIGNAL	APPLICABLE CODES
Δ	AMPERE	MAX.   MAXIMUM	MOUNTING		2015 MICHIGAN BUILDING CODE
AFF AF	ABOVE FINISHED FLOOR ARC FAULT, AMP FUSE	MCB MAIN CIRCUIT BREAKER MECH. MECHANICAL	SYMBOL DESCRIPTION LOC HT	THERMOSTAT OUTLET AT +54" (HVAC UNIT DESIGNATION)	2015 MICHIGAN RESIDENTAL CODE
AFG AIC	ABOVE FINISHED GRADE  AMPERE INTERRUPTING CAPACITY	MIN. MINIMUM MLO MAIN LUGS ONLY	→ SIMPLEX RECEPTACLE	ENCLOSED CIRCUIT BREAKER	2015 MICHIGAN REHABILITATION CODE
AL ARCH'L	ALUMINUM ARCHITECTURAL	MTD MOUNTED NC NORMALLY CLOSED	DUPLEX RECEPTACLE  CEILING FLUSH	RELAY	2015 MICHIGAN PLUMBING CODE
AS AWG	AMP SWITCH AMERICAN WIRE GAUGE	NEC NATIONAL ELECTRICAL CODE NECA NATIONAL ELECTRICAL CONTRACTOR'S ASSOCIATION	DOUBLE DUPLEX RECEPTACLE	TS TIME SWITCH	2015 MICHIGAN MECHANICAL CODE
BC BLDG	BARE COPPER BUILDING	NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NEUT NEUTRAL	DUPLEX GFCI RECEPTACLE	C CONTACTOR	2015 MICHIGAN ENERGY CODE
CAB	CONDUIT CABINET CATALOG/CATEGORY	NFC NATIONAL FIRE CODE  NF NON-FUSIBLE  NIC NOT IN CONTRACT	SIMPLEX RECEPTACLE	TRANSFORMER	2017 MICHIGAN ELECTRICAL CODE
	CATALOG/CATEGORY CIRCUIT BREAKER CIRCUIT	NIC NOT IN CONTRACT  NL NIGHT LIGHT  NO NORMALLY OPEN	DUPLEX RECEPTACLE	ATS AUTOMATIC TRANSFER SWITCH	ELECTRICAL SHEET INDEX
CLG CO, EC	CIRCUIT CEILING CONDUIT ONLY	NPCO NEVADA POWER COMPANY NTS NOT TO SCALE	DUPLEX GFCI RECEPTACLE	TELEPHONE OUTLET AT +18"	NO. SHEET DESCRIPTION
	COMMUNICATION COPPER	OCP OVERCURRENT PROTECTION P POLE	DEDICATED DUPLEX RECEPTACLE	DATA OUTLET AT +18"	1 E001 SYMBOLS AND ABBREVIATIONS
(D), DEMO DISC.	DEMOLITION/DEMOLISH DISCONNECT	PH PHASE PNL PANEL	DUPLEX RECEPTACLE, SPLIT-WIRED OCCUPANCY SENSOR CONTROLLED/SWITCHED +18" AF	COMBINATION TELE/COMPUTER OUTLET AT +18"	2 E002 ELECTRICAL SPECIFICATIONS
DN DWG	DOWN DRAWING	PV PHOTOVOLTAIC PVC POLYVINYL CHLORIDE	DUPLEX RECEPTACLE, ISOLATED GROUND  WALL  H18 AF  UON	TELEPHONE OUTLET ABOVE COUNTER  TELE/DATA OUTLET ABOVE COUNTER	3 E003 ELECTRICAL DETAILS  4 E201 LIGHTING PLAN
EA ELECT.	EACH ELECTRICAL	PWR POWER QTY QUANTITY	DUPLEX RECEPTACLES WITH TWO 5V. 3.1A	DATA OUTLET ABOVE COUNTER	4 E201 LIGHTING PLAN  5 E301 POWER PLAN
ELEV EM	ELEVATOR EMERGENCY	(R) REMOVE AND RELOCATE RECEP RECEPTACLE	CHARGING FORTS.	FLUSH FLOOR BOX WITH COMBINATION TELE/DATA OUTLET	6 E302 ENLARGED PLANS AND DETAILS
EMT EQUIP	ELECTRICAL METALLIC TUBING EQUIPMENT	REQ'D REQUIRED RSC RIGID STEEL CONDUIT	DOUBLE DUPLEX RECEPTACLE	HTV TELEVISION OUTLET	7 E401 SINGLE LINE DIAGRAM
1 ' '	EXISTING EXISTING ELECTRICAL RELOCATED	SCHED SCHEDULE SECT SECTION	DOUBLE DUPLEX GFCI RECEPTACLE	C ☐ TELEVISION CAMERA (CCTV)	8 E402 PANEL SCHEDULE
FF	FURNISHED BY OTHERS FINISHED FLOOR	SP SINGLE POLE SN SOLID NEUTRAL	+ <b>●</b> SPECIAL PURPOSE RECEPTACLE OUTLET	SI FIRE ALARM HORN/STROBE	
FLEX	FIXTURE FLEXIBLE METALLIC CONDUIT (STEEL)	SPEC SPECIFICATION SW SWITCH	SINGLE RECEPTACLE	CR CARD READER	ALLOWED SPECIFICATIONS DEVIATIONS
	FLUORESCENT FEET OR FOOT	SWBD SWITCHBOARD SWGR SWITCH GEAR	DUPLEX RECEPTACLE	FLOW SWITCH	THE FOLLOWING ITEM(S) ARE ALLOWED DEVIATIONS FROM THE DRAWINGS AND SPECIFICATIONS. THESE DEVIATIONS ARE AT THE DIRECTION OF THE OWNER.
GFA GFCI, GFI	GROUND FAULT ALARM GROUND FAULT CIRCUIT INTERRUPTER	SYS SYSTEM TEMP TEMPORARY TELE TELEPHONE	DUPLEX GFCI RECEPTACLE  DUPLEX RECEPTACLE, SPLIT-WIRED OCCUPANCY	TAMPER SWITCH	NONE SOME
GND HP HVAC	GROUND HORSEPOWER	TELE TELEPHONE T-STAT THERMOSTAT TTB TELEPHONE TERMINAL BACKBOARD	SENSOR CONTROLLED/SWITCHED  ABOVE COUNTER +6" AFI	SMOKE DETECTOR	
IBC	HEATING, VENTILATING & AIR CONDITIONING INTERNATIONAL BUILDING CODE	TTC TELEPHONE TERMINAL CABINET	DEDICATED DUPLEX RECEPTACLE  OR SPLASH  UON	FD FIRE/SMOKE DAMPER	SCOPE OF WORK
IN	INTERMEDIATE METAL CONDUIT INCH(ES)	TYP. TYPICAL UBC UNIFORM BUILDING CODE UL UNDERWRITERS LABORATORY	DUPLEX RECEPTACLES WITH TWO 5V. 3.1A CHARGING PORTS.	CARBON MONOXIDE DETECTOR (SPECIFIED BY MECHANICAL ENGINEER)	INTERIOR REMODEL OF EXISTING AARON'S FURNITURE STORE. SCOPE TO INCLUDE
ISC	INTERNATIONAL RESIDENTIAL CODE SHORT CIRCUIT AMPERES	U.N.O. UNLESS NOTED OTHERWISE	DOUBLE DUPLEX RECEPTACLE		NEW EGRESS DOOR, ADDITIONAL LIGHTING, NEW NON-LOAD BEARING INTERIOR  PARTITION WALLS, NEW FINISHES AND FIXTURES. FLOORING AND BASE TO BE
	JUNCTION BOX THOUSAND CIRCULAR MILS KILOVOLT AMPERE	V VOLT OR VOLTAGE VA VOLT AMPERE VD VOLTAGE DROP	DOUBLE DUPLEX GFCI RECEPTACLE	DD DUCT MOUNTED SMOKE DETECTOR	REPLACED IN EXISTING RESTROOMS. NEW CEILING TILES TO BE PROVIDED WHERE  REQUIRED AND EXISTING CEILING GRID TO BE PAINTED WHERE INDICATED.
KW	KILOWATT	VP VAPOR PROOF W WATT, WIRE	MULTI-OULET ASSEMBLY (SURFACE MOUNTED	HEAT DETECTOR  SPEAKER, CEILING OR WALL MOUNTED	ANY MODIFICATIONS TO THE EXISTING FIRE ALARM AND FIRE SPRINKLER
	LIGHTING	WCR WITHSTAND CURRENT RATING WP UL LISTED WEATHERPROOF, NEMA 3R	RACEWAY)		SYSTEMSHALL BE DESIGNED BY MICHIGAN LICENSED CONTRACTORS/ENGINEERS AND SUBMITTED FOR APPROVAL UNDER A SEPARATE APPLICATION (DEFERRED ≥
		WR WEATHER-RESISTANT XFMR TRANSFORMER	WALL MOUNTED CODE SIZE JUNCTION BOX		SUBMITTAL). □
		TIVANOI ORIVILIX	CODE SIZE JUNCTION BOX  VARIES  VARIES	NOTES: FOR PHONE AND DATA OUTLETS PROVIDE ONE (1) 3/4"C.O. RISER UP WALL WITH PULL STRING TO	
			JUNCTION BOX MOUNTED IN ACCESSIBLE CEILING PLANS PLANS	ACESSIBLE CEILING SPACE.	DEFERRED APPROVAL
			IN A FLOOR BOX SYMBOL.	SINGLE LINE	A. FIRE ALARM SYSTEM SHALL BE UNDER SEPARATE PERMIT. SEPARATE PLANS SHALL
			CODE SIZE PULLBOX (OR AS SIZED ON PLAN)		BE SUBMITTED FOR APPROVAL BY A FIRE ALARM ENGINEER AND ALL PERMITS, INSPECTIONS AND APPROVALS SHALL BE OBTAINED FROM THE FIRE DEPARTMENT
			PUSHBUTTON (EMERGENCY POWER - EPO)	CIRCUIT BREAKER  SERVICE CABLE TERMINATION	HAVING JURISDICTION.  B. VIA SEPARATE SUBMITTAL BY SIGN CONTRACTOR, OBTAIN APPROVALS AND PERMITS
	LIGHTING C	ONTROL SYMBOLS	LIGHTNING PROTECTION AIR TERMINAL ROOF VARIES	S CERTIFIC ON SEE TERMINIVATION	FOR ALL SIGNS INCLUDING SIGN LIGHTING CERTIFICATE OF COMPLIANCE.
3		R INDICATES TYPE OF FIXTURE. NUMERAL AT TOP OF HEXAGON INDICATES AT BOTTOM OF HEXAGON INDICATES MOUNTING HEIGHT FROM FLOOR TO			C. VIA SEPARATE SUBMITTAL, OBTAIN APPROVALS AND PERMITS FOR ALL ELECTRICAL SUBSYSTEMS WITH POWER SUPPLIES OF MORE THAN 50 VA AND/OR 250 VOLTS [E.G.
A 10'-0"	BOTTOM OF FIXTURE. OMMISSION OF MOUNT		ENCLOSED CIRCUIT BREAKER	SWITCH	SECURITY, TELCO/DATA, P.A, AUDIOVISUAL, HVAC CONTROLS, ETC.]
J 51	LUMINAIRE IDENTIFICATION SYMBOL. TOP ALI	PHANUMERIC DESIGNATION INDICATES TYPE OF FIXTURE. BOTTOM NUMB	CB <sub>30/3R</sub> AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON	TVSS SURGE SUPPRESSOR	
$\frac{1}{1} \frac{1}{a} \frac{1}{EM}$		T NUMBER AND SWITCH LEG OR CONTROL ZONE. "EM" INDICATES	NON-FUSED DISCONNECT SWITCH	CURRENT TRANSFORMER	SMAT
S <sub>a</sub>		CH FOR MANUAL ON/OFF AND DIMMING (STEPPED/CONTINUOUS) CONTROL	AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON	POTENTIAL TRANSFORMER  POTENTIAL TRANSFORMER	
	OF LIGHTING. "a" INDICATES ZONE WHERE SHOUNTED SWITCH	OWN ON DRAWINGS. CH FOR MANUAL ON/OFF AND DIMMING (STEPPED/CONTINUOUS) CONTROL	FUSED DISCONNECT SWITCH. AMPERAGE/NEMA VARIES VARIES SEE SEE	· ·	
S <sub>a,b</sub>	OF LIGHTING. "ab" INDICATES ZONE WHERE SH	HOWN ON DRAWINGS.	MOTOR STARTER, STARTER SIZE INDICATED BY		SO S
\$	SINGLE POLE SWITCH, 20A, 120/277V or CAT5e	WIRED WALL SWITCH TO BE USED WITH NON-DIMMING POWER/RELAY PA		MOTOR	NOTE FOR ELECTRICAL CONTRACTOR
\$2	TWO POLE SWITCH, 20A, 120/277V		COMBINATION FUSIBLE DISCONNECT SWITCH AND	GENERATOR	ELECTRICAL CONTRACTOR TO SURVEY EXISTING CONDITION AND REPORT TO
\$3	THREE-WAY SWITCH, 20A, 120/277V		MOTOR STARTER. NEMA STARTER SIZE/AMPERAGE/NEMA ENCLOSURE RATING, 3	ST) SHUNT TRIP	OWNER. BID TO INCLUDE SCOPE OF EXTENDED WORK, INCLUDING REQUIREMENTS OF STATE & LOCAL CODE
<b>₹</b> ,	FOUR-WAY SWITCH, 20A, 120/277V		POLE UON  MOTOR. NUMBER INDICATES HORSEPOWER	GROUND FAULT INTERRUPT	<b>L</b>
Ψ4	DIMMER SWITCH, MIN. 2000W, 120/277V		RATING FOR 1HP AND LARGER	TRANSFER SWITCH	
S <sub>D</sub>		VEDLOAD DROTECTION	MOTOR. "F" INDICATES FRACTIONAL HORSEPOWER	CONTACT (NORMALLY OPEN)	ANY C
$S_{\mathbf{M}}$	HP RATED MOTOR SWITCH WITH THERMAL OV	VERLUAD PROTECTION		CONTACT (NORMALLY OPEN)  CONTACT (NORMALLY CLOSED)	ON SECTION AND SEC
S <sub>K</sub>	KEY SWITCH, 20A, 120/277V		FLOOR BOX SPECIFICATIONS	TIME SWITCH	
	. , . ,				<u> </u>
•	PUSH BUTTON CONTROL STATION		SINGLE SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE		
	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN			CONTROL SWITCH	BRANCH CIRCUIT SYMBOLS
● H <mark>OS</mark> a	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN SEE CONTROL CONFIGURATIONS FOR MORE I	INFORMATION.	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TTTT TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN.	CONTROL SWITCH PUSH BUTTON	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12
	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN	INFORMATION.  JNTED. "a" INDICATES CONTROLLED ZONE.	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE	CONTROL SWITCH	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON
H <mark>os</mark> a Hosa	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN SEE CONTROL CONFIGURATIONS FOR MORE I  OCCUPANCY SENSOR w/ DIMMER - WALL MOU	INFORMATION.  JNTED. "a" INDICATES CONTROLLED ZONE.	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.	CONTROL SWITCH PUSH BUTTON	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER
HOS a HOS a	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN SEE CONTROL CONFIGURATIONS FOR MORE I OCCUPANCY SENSOR w/ DIMMER - WALL MOU SEE CONTROL CONFIGURATIONS FOR MORE I LIGHT CONTACTOR	INFORMATION.  JNTED. "a" INDICATES CONTROLLED ZONE.	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE	CONTROL SWITCH PUSH BUTTON WIRING LEGEND	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER N.E.C. TABLE 250-122, BUT NOT SMALLER THAN #12.
H <mark>OS</mark> a	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN SEE CONTROL CONFIGURATIONS FOR MORE I OCCUPANCY SENSOR w/ DIMMER - WALL MOU SEE CONTROL CONFIGURATIONS FOR MORE I LIGHT CONTACTOR  TIME CLOCK	INFORMATION.  JNTED. "a" INDICATES CONTROLLED ZONE. INFORMATION.	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  DUAL SERVICE POWER/DATA. DUPLEX RECEPTACLE WITH VOICE/DATA. WIREMOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED.  USE SURFACE COVER SELECTION IN CARPETED AREAS. USE FLUSH COVER	CONTROL SWITCH PUSH BUTTON  WIRING LEGEND  RACEWAY TURNED UP RACEWAY TURNED DOWN HOMERUN TO PANELBOARD 3/4"C W/3#12	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER N.E.C. TABLE 250-122, BUT NOT SMALLER THAN #12.  P1-1,3,5 — CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBERS. HASH
HOS a HOS a	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN SEE CONTROL CONFIGURATIONS FOR MORE I OCCUPANCY SENSOR w/ DIMMER - WALL MOU SEE CONTROL CONFIGURATIONS FOR MORE I LIGHT CONTACTOR  TIME CLOCK  1-WAY/2-WAY DIRECTIONAL CEILING MOUNTED OCCUPANCY SENSOR. QUANTITY OF ADJACE	INFORMATION.  JINTED. "a" INDICATES CONTROLLED ZONE. INFORMATION.  D, NON-NETWORKED/ INTERCONNECTED/ NETWORKED, SYSTEM-BASED ENT LOWER CASE LETTERS INDICATES QUANTITY OF RELAYS/DIMMING	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  DUAL SERVICE POWER/DATA. DUPLEX RECEPTACLE WITH VOICE/DATA. WIREMOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED.  USE SURFACE COVER SELECTION IN CARPETED AREAS. USE FLUSH COVER SELECTION IN HARDWOOD, CONCRETE, TILE AND OTHER HARD SURFACE FLOORS	CONTROL SWITCH PUSH BUTTON  WIRING LEGEND  RACEWAY TURNED UP RACEWAY TURNED DOWN HOMERUN TO PANELBOARD 3/4"C W/3#12 CONDUCTORS UNO	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER N.E.C. TABLE 250-122, BUT NOT SMALLER THAN #12.  P1-1,3,5 CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBERS. HASH MARKS DENOTE NUMBER OF CONDUCTORS IN CONDUIT, #12 AWG MINIMUM, UNLESS OTHERWISE NOTED
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HOS a HOS a LC TC OS y,(y)	PUSH BUTTON CONTROL STATION  OCCUPANCY SENSOR - WALL MOUNTED. "a" IN SEE CONTROL CONFIGURATIONS FOR MORE I OCCUPANCY SENSOR w/ DIMMER - WALL MOU SEE CONTROL CONFIGURATIONS FOR MORE I LIGHT CONTACTOR  TIME CLOCK  1-WAY/2-WAY DIRECTIONAL CEILING MOUNTED OCCUPANCY SENSOR. QUANTITY OF ADJACE CIRCUITS REQUIRED - SEE CONTROL CONFIGURED IN THE BALLAST/FIXTURE TYPE  AUTOMATIC CONTINUOUS DIMMING DAYLIGHT IS PRESENT. NUMBER IN PARENTHESIS INDIC ADJACENT LOWER CASE LETTER(S) INDICATE	INFORMATION.  JINTED. "a" INDICATES CONTROLLED ZONE. INFORMATION.  D, NON-NETWORKED/ INTERCONNECTED/ NETWORKED, SYSTEM-BASED ENT LOWER CASE LETTERS INDICATES QUANTITY OF RELAYS/DIMMING URATIONS BELOW FOR MORE INFORMATION. EXACT CONTROL FUNCTION  TING CONTROLLER USED TO DIM LIGHTS WHEN SUFFICIENT NATURAL LIGHT CATES THE AVERAGE WORKPLANE "TARGET ILLUMINATION" SYMBOL VALUES SWITCH LEG(S) CONTROLLED. ADJACENT "+, ++ AND *" INDICATES ENSOR WHERE "+" INDICATES PRIMARY SIDELIT DAYLIT ZONE, "++"	WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  TWO SERVICE IN FLOOR BOX. PROVIDE DEVICES PER PLAN. WIREMOLD RFB2-OG/FPCTC WHEN SHOWN IN ON-GRADE WIRE MOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED WHEN SHOWN IN ABOVE GRADE.  DUAL SERVICE POWER/DATA. DUPLEX RECEPTACLE WITH VOICE/DATA. WIREMOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED.  USE SURFACE COVER SELECTION IN CARPETED AREAS. USE FLUSH COVER SELECTION IN HARDWOOD, CONCRETE, TILE AND OTHER HARD SURFACE FLOOR: WIREMOLD 6ATCP, 6ATP, OR 6ATCPAV AS REQUIRED.  USE SURFACE COVER SELECTION IN CARPETED AREAS. USE FLUSH COVER SELECTION IN HARDWOOD, CONCRETE, TILE AND OTHER HARD SURFACE FLOOR: SELECTION IN CARPETED AREAS. USE FLUSH COVER SELECTION IN HARDWOOD, CONCRETE, TILE AND OTHER HARD SURFACE FLOOR: DUAL SERVICE FURNITURE FEED.  WIREMOLD (2) 880-MP2 WHEN SHOWN IN ON-GRADE; 4FFATC SERIES WHEN SHOW IN ABOVE-GRADE OR APPROVED EQUAL.  VERIFY CONNECTION REQUIREMENT WITH MANUFACTURER PRIOR TO ROUGH-IN	CONTROL SWITCH PUSH BUTTON  WIRING LEGEND  RACEWAY TURNED UP RACEWAY TURNED DOWN HOMERUN TO PANELBOARD 3/4"C W/3#12 CONDUCTORS UNO CONDUIT CAP-OFF  S.	CROSS LINES ON CONDUIT RUNS INDICATE NUMBER OF #12 CURRENT CARRYING CONDUCTORS CONTAINED THEREIN. TWO #12 AND ONE #12 GROUND WIRE ARE INDICATED WHEN CROSS LINES ARE NOT SHOWN. NUMERALS ADJACENT TO CROSS LINES ON CONDUIT RUNS INDICATE SIZE OF CONDUCTORS IN LIEU OF #12. ALL CONDUITS SHALL CONTAIN ONE GROUND WIRE SIZED PER N.E.C. TABLE 250-122, BUT NOT SMALLER THAN #12.  CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBERS. HASH MARKS DENOTE NUMBER OF CONDUCTORS IN CONDUIT, #12 AWG MINIMUM, UNLESS OTHERWISE NOTED  P1-18385  CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBERS WITH SEPARATE NEUTRALS. "&" INDICATES SEPARATE NEUTRALS.  CONDUIT HOMERUN TO PANELBOARD. LETTER AND NUMERALS INDICATE ELECTRICAL PANEL AND CIRCUIT NUMBER. "+" INDICATES SEPARATE #10 AWG NEUTRAL THROUGHOUT BRANCH CIRCUIT. HASH MARK " \( \) " INDICATES ISOLATED GROUND CONDUCTOR.  CONDUIT CONCEALED IN CEILING OR WALL. 1/2" CONDUIT MINIMUM,
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Kinetic Design

29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build JOHN C SCHNEIDER

ARC. 1215624

**REVISIONS** DESCRIPTION

SYMBOLS AND ABBREVIATIONS AARON'S C0573 / C0618 29850 - 29900 LAKESHORE BLVD WILLOWICK, OH 44095

TP 03/07/23

ROJECT NUMBER

AS NOTED

#### PART I - GENERAL

# A. CONDITIONS

- 1. Furnish and install a completely wired and operational electrical system as shown on the drawings and specified herein, including but not limited to, these major items.
- 1.1. Lighting fixtures as indicated and specified on the plans.
- 1.2. Electrical panels, service, conduit, wiring, etc., for all outlets and equipment.
- 1.3. Telephone outlets and conduit as indicated.

#### **B. RELATED WORKS**

- 1. The Electrical Contractor shall provide conduit, trench, and backfill for electrical service entrance from the main service to utility point of electrical service. Electrical Contractor shall coordinate the installation of the electrical service entrance with serving utility company.
- 2. The Electrical Contractor shall provide conduit, trench, and backfill for primary phone and CATV service from the telephone terminal board or cabinet to the phone company and CATV company point of service.

#### C. CODES, REGULATIONS, AND STANDARDS

- 1. The installation shall comply with applicable local and state codes and ordinances, with the regulations of the currently accepted edition of the National Electric Code and with the requirements of the power, telephone, and CATV companies furnishing services to this installation.
- 2. The following industry standards, specifications, and codes are minimum
- 2.1. The National Electrical Code (NEC), including local amendments.
- Underwriter Laboratories (UL) incorporated standards. American National Standards Institute (ANSI).

#### D. INSPECTION OF SITE

- 1. Prior to submitting a bid for electrical work, the contractor shall visit the site of the proposed construction and shall thoroughly acquaint himself with existing utilities, and working conditions to be encountered, etc. Allowance will not be made for noncompliance with this condition after bidding.
- 2. Electrical installation shall meet the existing conditions.

#### E. STORAGE AND HANDLING OF MATERIALS

- 1. Deliver materials and equipment to the project in the manufacturer's original, unopened, labeled containers. Protect against moisture, tampering, or damage from improper handling or storage. Contractor shall protect and be responsible for any damage to work or materials until final acceptance by the owner, and shall make good without cost to the owner, any damage or loss that may occur during this period.
- 2. Arrange for timely delivery of materials and equipment to the job site in order to minimize the length of time between delivery and installation.
- 3. Cover and protect any material which may be affected by the weather while in transit or stored at the project site. Any material found defective or not installed in accordance with the contract documents may be rejected by the

# F. CLEANUP

1. Keep the premises free from accumulation of waste materials, or rubbish caused by employees or work under this division of the specifications. At the completion of the work remove all surplus materials, tools, etc., and leave the premises broom-clean.

# G. EXCAVATION

1. Perform all excavation and back filling required for work performed under this division of the specifications. Use excavated materials for backfill unless off site materials are deemed necessary.

# H. DRAWINGS

1. The drawings indicate the general arrangement and locations of the electrical work data presented on these drawings are as accurate as planning can determine, but field verification of all dimensions, locations, levels, etc., to suit field conditions is required. Review all architectural, structural, and mechanical drawings and adjust all work to meet the requirements of conditions shown. The architectural drawings shall take precedence over all other drawings. Discrepancies between different plans, or between drawings and specifications, or regulations and codes governing the installation shall be brought to the attention of the engineer in writing before the date of bid opening. If discrepancies are not reported, the Contractor shall bid the greater quantity or better quality, and appropriate adjustments will be made after contract award. Contractor shall be responsible to field measure and confirm mounting heights and location of electrical equipment with respect to counters, radiation, etc. Do not scale distances off the electrical drawings, use actual building dimensions.

# I. EXCAVATION, CUTTING, AND FITTING

1. Perform the excavation, cutting, fitting, repairing, and finishing of the work necessary for the installation of the equipment of this section. However, no cutting of the work of other trades or of any structural members shall be done without the consent of the architect.

# J. COOPERATION WITH OTHER CONTRACTORS

- 1. Cooperate with the other trades so that the installation of the electrical outlets and equipment will be properly coordinated. Conduit, lighting fixtures, and other equipment locations shall be checked with other trades to avoid conflict with the piping, ductwork, steel, beams, or other obstructions. Carefully check the locations of the outlet boxes and determine that they have not been disturbed during the installation of materials of other trades.
- 2. Coordinate the location of the trenches and conduits for electrical and telephone utility services with the general contractor.
- 3. Coordinate HVAC equipment connection requirements with HVAC

# PART II - PRODUCTS AND EXECUTION

# A. MATERIALS

1. All materials shall be new and of quality as specified on the plans or specifications and must carry the Underwriter's Laboratories approval covering the purpose for which they are used, in addition to meeting all requirements of the current applicable codes and regulations.

# B. CONDUIT

1. All wiring shall be installed in listed metallic conduit except as permitted below. RGS, with a 20 mil PVC coating will be used when in contact with

- earth. IMC may be used in indoor locations not in contact with the earth. EMT may be used in indoor locations not in contact with earth, not in concrete slabs or walls and not subject to damage. PVC may be used in or below concrete and direct buried in earth. Flexible steel conduit shall be used for indoor final connections to equipment in lengths not to exceed 72". Liquid-tight flexible steel conduit shall be for outdoor final connections to equipment not to exceed 36".
- 2. Cover metallic conduit in contact with earth with polyethylene taped spiral wrapped, 1/2 lapped to provide 20 mil. thickness. Tape shall be Scotch no. 50 tape. Conduit and ducts not under buildings and feeder ducts shall be installed per N.E.C. 300-5. make joints with compound to be watertight.
- Fittings and conduit bodies shall be steel. No diecast fittings.
- 4. Conduit sizes shall be as required by code and as indicated or specified.
- 5. All empty conduit systems shall have a nylon pull string to facilitate installation of future wire.
- 6. Schedule 40 PVC conduit shall be permitted underground with proper fittings, all UL Approved and cemented joints. Penetrations through floor slabs and bends greater than 22° shall be wrapped rigid galvanized steel
- 7. Conduits and outlets shall be concealed with the building structure, except that certain motor and lighting feeder conduits may be run exposed in certain areas as indicated on the drawings. Conduit shown to be installed in cabinets, counters, and casework shall be run as directed by the architect.
- 8. All conduit systems shall have a Code sized copper ground conductor increase conduit size as required.
- 9. Conduit penetration through roof shall have roof flashing with caulk type counter flashing sleeve. Installation shall be watertight.
- 10. Conduits shall be routed surface on the structure, parallel and perpendicular to the structure.

# C. OUTLET, PULL, AND JUNCTION BOXES

- 1. Each switch, light. receptacle or other outlet shall be provided with a Code gauge, galvanized steel outlet box. Junction and pull boxes shall be Code gauge, galvanized steel. Outlet boxes shall be of the one piece, knockout type, in general 4" square with plaster ring. Plaster rings shall be set to provide not more than 1/8" from wall surface to ring. In no case shall plaster ring project beyond surface of wall. Single gang rings similar to Steel City 52050 shall be used for 4" boxes in unfinished brick number 180 boxes may be used for unfinished masonry flush wall outlets. Center all outlet boxes in block course.
- 2. Boxes installed in poured cement floors shall be flush type cast iron or steel with watertight gasketed covers. Where boxes are installed in floors with tile or carpet floor covering, covers shall be of the recessed type to accommodate the floor covering.
- 3. Boxes installed for the alarm, computer, and security system shall be provided with appropriate cover plates.
- 4. Boxes for telephone, computer, TV, fire alarm, security, and similar systems shall be minimum 4" square and 2-1/8" deep.

# D. SWITCHBOARDS, DISTRIBUTION BOARDS, MOTOR CONTROL

See Single Line Diagram General Notes on drawings for more information.

# E. PANEL BOARDS

1. See drawings for panel board schedules and specifications.

- 1. Conductor sizes shown on the drawings are based on copper wire. Unless otherwise specified, all wire shall be Type XHHW for feeders or branch circuits larger than 4 AWG, Type THHN/THWN insulation for feeders and branch circuits 4 AWG and smaller. All branch circuit wiring shall be copper. The wire shall be 12 AWG unless otherwise indicated. Circuit shall be labeled in each junction box.
- 2. Metal Clad Cable "Type MC" cable may only be utilized for interior branch circuitry supplying lighting fixtures, not to exceed 6-ft. in length from junction box to the fixture served. "Daisy Chaining" of light fixtures is not allowed.
- 3. When use is permitted in the Allowed Specification Deviations, Metal Clad "Type MC" cable may be installed per NEC Article 330. Where multiple cables are routed adjacent to each other (bundled), a minimum separation of one (1) cable diameter (largest) shall be required.
- 4. The wires shall be marked with color to simplify circuit identification. Unless otherwise required by local ordinances:

208	/120 Volts				
Phase A	= Black				
Phase B	= Red				
Phase C	= Blue				
Neutral	= White				
Ground	= Green				
480/277 Volts					

- Phase A = Brown Phase B = Orange Phase C = Yellow Neutral = Gray Ground = Green
- 5. No wire shall be installed in the conduit system until the conduit system is complete. Use Mineralac No. 100 or equivalent as a lubricant to facilitate the installation of the conductors in the conduit system.
- 6. Splices in exterior pull boxes and manholes shall be weatherproof using "Scotchcast" splice kit or approved equal. Seal ends of conduits and ducts with "Ductseal" or approved equal.
- 7. Provide solid conductor for 12 AWG and smaller.
- 8. Provide 10 AWG conductors for 20 ampere, 120V branch circuits longer than 75-feet and 8 AWG conductors for 20 ampere, 120V branch circuits longer than 120-feet. Provide 10 AWG conductors for 20 ampere, 277V branch circuits longer than 200-feet.

# G. WIRING DEVICES

- 1. Wall switches shall be Specification Grade AC silent type switches, 20A, 120/277 volt.
- 2. Receptacles shall be Specification Grade, duplex type, NEMA 5-20R, 20 ampere, 120 volt grounded type. Special application receptacles shall be indicated on plans. Mount with the ground down.
- 3. Device plates shall be equal to sierra smooth-line plastic wall plates. Color

#### shall be white, unless otherwise noted.

- 4. All receptacles identified as weatherproof on the drawings shall be weather-resistant, tamper-resistant, GFCI type and equipped with enclosure that is weatherproof (WP) whether or not the attachment plug cap is inserted (while "IN-USE"). An outlet box hood shall be listed and shall be identified as "Extra Duty".
- 5. Except as otherwise noted, all wiring device plates on the project shall be labeled with panel and circuit number(s) utilizing a Brother P-touch labeling system with 1/2" tape (yellow on black) or equal HellermannTyton or Panduit. Locate label on the concealed side of the wiring device plate. Handwritten labels are unacceptable.

# H. LIGHTING FIXTURES

1. Provide all lighting fixtures, wired and connected. the drawings indicate the fixtures for each location. Provide lamps for all fixtures. The lamps shall be by the same manufacturer. Verify ceiling construction before ordering recessed units. Provide plaster frames and hangers as required. Ceiling construction, architectural accessories, voltage, and ballasts to meet the existing condition.

## I. SERVICE ENTRANCE SECTION

- The service entrance equipment shall be as indicated on the drawings. Equipment shall carry the UL label and shall conform to the power company
- 2. Service entrance equipment shall be provided with a fully rated copper or aluminum bus. Horizontally tapered bussing shall not be allowed.

# J. SYSTEM GROUNDING

- 1. Grounding shall comply with requirements of Article 250. All exposed non-current carrying metallic parts of electrical equipment, metallic raceway systems, metallic cable armor, grounding conductor of nonmetallic sheathed cables, grounding conductor in nonmetallic raceways, and grounded conductors of the wiring system shall be grounded.
- 2. Grounding conductor (neutral) of the wiring system shall be connected to the system grounding conductor at a single place in each system by removable bonding jumpers, sized according to the applicable provisions of the National Electrical Code. The grounded conductor (neutral) to the grounding conductor connection shall be located in the enclosure for the system's overcurrent protection or where otherwise indicated on the plans or specifications.
- 3. A ground bus separate from the neutral bus shall be provided in all switchboards and panelboards. Ground bus shall be retorqued (checked) prior to energizing equipment per manufacturer's recommendations.
- 4. Ground buses and neutral buses in all distribution panels, switchboards, panelboards, and those provided in any equipment shall be isolated except where required to be connected as specified above for the service entrance and in transformer terminal compartments.
- 5. When indicated on the drawings, equipment grounding conductors shall be extended from the ground bus in the distribution equipment to the receptacle, fixture or device lugs where they are provided. Where lugs are not provided, equipment grounding conductors shall be connected to equipment enclosures. The connections shall be arranged such that removal of the receptacle, equipment ground conductors, or ground jumpers from ground busing shall not affect the ground system.
- 6. Raceways may not be used as a grounding conductor for power and lighting circuits. All conduit shall have separate Code sized green ground wire installed in the conduit to insure a continuos grounding path.
- 7. In inaccessible locations, make connections by exothermic weld process.
- 8. In accessible locations, connections shall be made with bolted through, approved solderless bronze grounding devices.
- 9. Bond together metal siding not attached to grounded structure bond to

# K. TELEPHONE SYSTEM

1. Telephone wall outlets shall consist of standard boxes mounted 18" above the floor unless otherwise indicated. Connect outlets to telephone terminal with separate 3/4" conduit unless otherwise shown on drawings. Provide a terminal mounting board for the incoming service cable.

# L. LIGHTING CONTROL

- 1. Furnish and install time switches, photocells, contactors and full lighting control systems as required for lighting controls indicated on the drawings.
- 2. Time switches shall be equal to Paragon, General Electric, Tork, or Intermatic and shall have size and number of poles as required.
- 3. Photocells shall be equal to Tork or Intermatic with voltage as indicated.
- M. DRY TYPE TRANSFORMERS
- 1. Manufacturers: subject to compliance with requirements, provide products by one of the following
- Acme Electric Corporation; Power Distribution Products Division. GE Electrical Distribution & Control.
- 1.3. Faton
- Square D/Groupe Schneider NA.
- Coils: Continuous windings without splices, except for taps.

# 3. Internal coil connections - brazed or pressure type.

# 4. Coil material - copper

- 5. Enclosure ventilated, NEMA 250, Type 2 (NEMA 3R for outdoor
- 6. Insulation class 220°C, UL-component-recognized insulation system with a maximum of 150°C rise above 40°C ambient temperature.
- 7. Taps for transformers 25 kVA and larger two 2.5 percent taps above and four 2.5 percent taps below normal full capacity.
- 8. Wall brackets manufacturer's standard brackets.
- 9. Low-sound-level-requirements minimum of 3 dba less than NEMA ST-20 standard sound levels when factory tested according to IEEE C57.12.91

# N. GUARANTEE

1. Guarantee all material furnished and all workmanship performed for a period of one year from date of final acceptance of work. Any defects developing within this period, traceable to material furnished as a part of this section or workmanship performed hereunder, shall be made good at no expense to the owner.

# O. SHOP DRAWINGS AND APPROVALS

- 2. The items specified herein and on drawings are used as a standard of quality. any materials of equal quality and aesthetic value will be given consideration as a substitute for the materials specified. No approval will be given to a specific catalog number, model, or type of equipment, prior to bidding. After bidding, the decision of the Architect and/or Engineer determining equal materials will be final.
- 3. The contractor shall submit shop drawings on the following items:
- 3.1. Lighting fixture cuts and performance data.
- Outline drawings and data sheets of each panelboard and switchboard Outline drawings of all switchgear.
- 4. Submit items at one time in a neat and orderly manner within 15 days of award of contract. Partial submittals will not be acceptable.

#### P. RECORD AND AS-BUILT DRAWINGS

- 1. The Electrical Contractor shall maintain a set of drawings at the job site for the exclusive purpose of maintaining a record of all work installed and to show any deviations from the work indicated on the drawings.
- 2. At the completion of the project, one set of reproducible drawings, showing all As-Built conditions, shall be delivered to the Owner for acceptance prior to final payment.

# Q. HOUSEKEEPING PADS

- 1. Provide a minimum of 3" high housekeeping pad above finished floor/ finished grade for all floor-mounted switchgear, switchboards, distribution boards, transformers, motor control centers, etc., flush with the face of the equipment. Located in mechanical central plants(s), other mechanical spaces, and located outdoors, pads shall be flush with the face of the equipment. Confirm pad dimensions with local inspector prior to forming pad to ensure any local code interpretations/conditions are met regarding housekeeping pads.
- 2. Unless otherwise noted above, provide a minimum of 1-1/2" high housekeeping pad above finished floor/finished grade for all interior floor-mounted switchgear, distribution boards, transformers, motor control centers, transfer switches, etc., flush with the face of the equipment. All housekeeping pad heights are as measured from finished floor or grade. Confirm pad dimensions with local inspector prior to forming pad to ensure local code interpretations/conditions are met regarding housekeeping pads.
- 3. Provide a 1-1/2" high housekeeping pad above finished floor/finished grade for service equipment. Prior to pad rough-in, Contractor shall verify serving utility company's maximum meter height requirements and, if necessary, adjust height of housekeeping pad to comply with those requirements. In indoor applications, the housekeeping pad shall be flush with the face of the switchgear. In outdoor applications, the housekeeping pad shall extend a minimum of 4 feet from the front of switchgear's weatherproof enclosure. Confirm pad dimensions with local inspector prior to forming pad to ensure any local code interpretations/conditions are met regarding housekeeping
- 4. All housekeeping pads located in, on, or attached to a building shall be seismically braced/connected to the building structure.

# R. EQUIPMENT CONNECTIONS

- 1. Provide flexible connections to all HVAC equipment, water heater, etc any equipment over 20 lb and/or mounted above finished floor.
- 2. Coordinate electrical requirements for all plumbing and mechanical equipment with final Contractor selection. The Contractor shall size disconnects based upon circuit breaker ratings and provide fusing as required per equipment manufacturer recommendations and UL Listing requirements.

# S. MOTORS

- 3. Where motors are installed in suspended ceilings, contractor shall provide disconnect switch in suspended ceiling within reach from access point.
- 4. Sizing of motor-related electrical components, including feeder and/ or branch circuits (wire and conduit) and overcurrent protection (breaker and/ or fuses) is based on ratings indicated in the contract documents as well as NEC approximated loads for a given motor horsepower, voltage and phase. It is the contractor's responsibility to verify actual motor and appliance rating and loads. Contractor to provide correctly sized motor overload electrical components based on nameplate rating. Reflect all changes in the as-built

- T. FIRE SYSTEM 1. Contractor shall engage the services for a state licensed fire alarm manufacturer/installer to prepare all design drawings and calculations required for system approval by the authority having jurisdiction. Submit all plans and provide all permits required for a complete and operable
- 2. Fire alarm device wiring shall be minimum #14 AWG copper or per system manufacturer requirements. Provide minimum 3/4" separate raceway system or as required for life safety system wiring configuration.
- 3. Upon completion of the installation of life safety system wiring and devices, a performance test of the entire life safety shall be performed to the satisfaction of the authority having jurisdiction.

# U. LOW VOLTAGE SYSTEMS

approved life safety system.

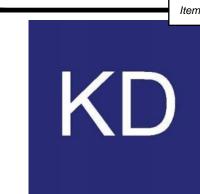
1. Music, television, video mounting systems are not shown on these drawings and are provided by Contractor through architects schedules/details Contractor to coordinate all routing and final connections as approved by Starbucks Manager as applicable specifically to this store.

# V. IDENTIFICATION OR EQUIPMENT LABELING

- 1. Nameplates shall be provided for switchgear, switchboards, distribution boards, distributions panels, panel boards, motor control centers, transformers, transfer switches, contactors, starters, disconnect switches, enclosed circuit breakers/switches, Inverters, UPS's, PDU's, RDC's, SPD's, lighting control panels, dimming panels, door releasing system panels, fire alarm/central monitoring terminal cabinets/power supplies/control panels, and all low voltage system terminal and control cabinets.
- Nameplate inscriptions shall be identical to the equipment designations indicated in plans and specifications. Nameplates shall be engraved with the device designation/identification on the top line, source identification for the device on the 2nd line per NEC, or CEC where adopted, Art 408.4 and load designation for the device on the bottom line. Where load designation consists of a branch circuit, omit bottom line. Where device designation is not intended on plan/specfications. Contractor shall submit a written clarification request to the Engineer.
- 1.2. All circuit breakers/fuses in switchgear, switchboards, distribution boards, distribution panels, UPS output circuit breakers, PDU sub-feed

circuit breakers and motor control centers shall have individual nameplates located immediately adjacent to the respective device. Nameplate inscription shall identify the downstream equipment or device served by the circuit breaker or fuse.

- 2. Identification nameplates, unless otherwise noted (UON), shall be laminated/extruded modified acrylic or melamine plastic labels that is 3/32" thick, UV-stabilized, matte finish, suitable for use in 180°F ambient, with beveled edges and engraved white letters 3/8" high, minimum, on 1-1/2" high black background for single line of text. Where two lines of text are required, provide minimum 2" high nameplate. Where three lines of text are required, provide 2.5" high nameplate. Provide white letters on red background for all NEC, or CEC where adopted, Article 517 essential power systems, Article 700 Emergency Systems, Article 701 Legally Required Standby Systems and Article 708 COPS.
- 3. Identification nameplates for new switchgear, switchboards, distribution boards, distribution panels, panel boards and motor control centers shall be attached with switchgear manufacturer-provided screws via switchgear manufacturer factory pre-drilled holes. A factory option to rivet identification nameplates to the equipment is only acceptable if screw-fastened nameplates are not an available option from the switchgear manufacturer. Field drilling or other mechanical attachment methods that change/void the NEMA or NTRL rating of the enclosure are strictly forbidden.
- 4. Identification nameplates for transformers, transfer switches, disconnect switches, enclosed circuit breakers/switches, inverters, UPSs, PDUs, RDCs, SPDs, lighting control panels, dimming panels, door-releasing system panels, terminal cabinets and all circuit breakers/fuses in switchgear, switchboards, distribution boards, distribution panels, UPS output circuit breakers, PDUs, PDU sub-feed circuit breakers, and motor control centers shall be attached to the equipment by self-adhesive backing integral to the nameplates. When equipment is located outdoors, provide nameplates without self-adhesive backing and attach to equipment using weather-rated, UV-resistant epoxy. In all cases, clean surfaces before applying identification nameplates parallel to equipment lines.
- 5. Warning Placards, as required by General Single Line Diagram Notes for multiple power sources, or instruction placards, as required for all kirk-key interlock schemes, all UPS bypass procedures or as required elsewhere in the plans/specifications shall be engraved 1/2" high with white lettering on red background using the same material specified for identification nameplates with a self-adhesive backing. Warning/instruction placards shall be attached to the face of the equipment directly related to the placards.



Kinetic Design 29833 Santa Margarita Pkwy, Suite 300

Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



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CLIENT INFORMATION

SPECIFICATION 3 / C0618 HORE BLVD 35 C0573 OLAKESHOH OH 44095

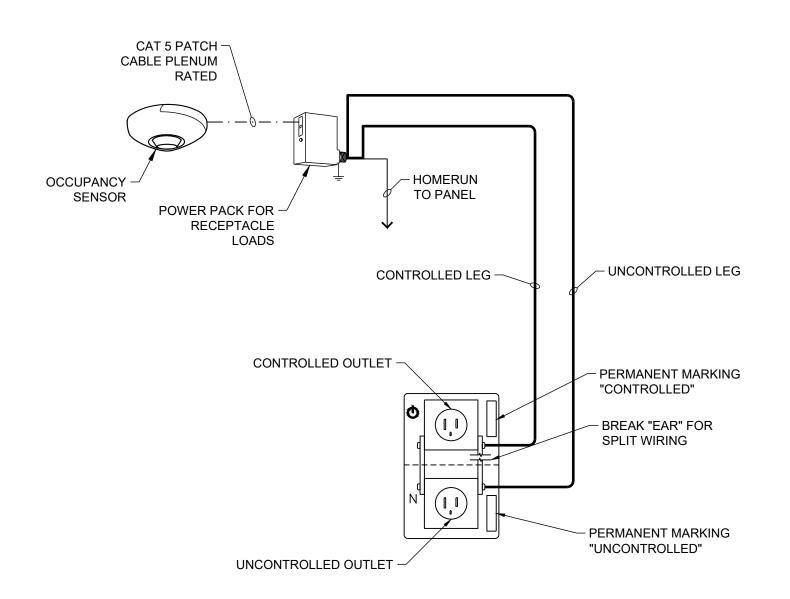
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PROJECT NUMBER

SCALE

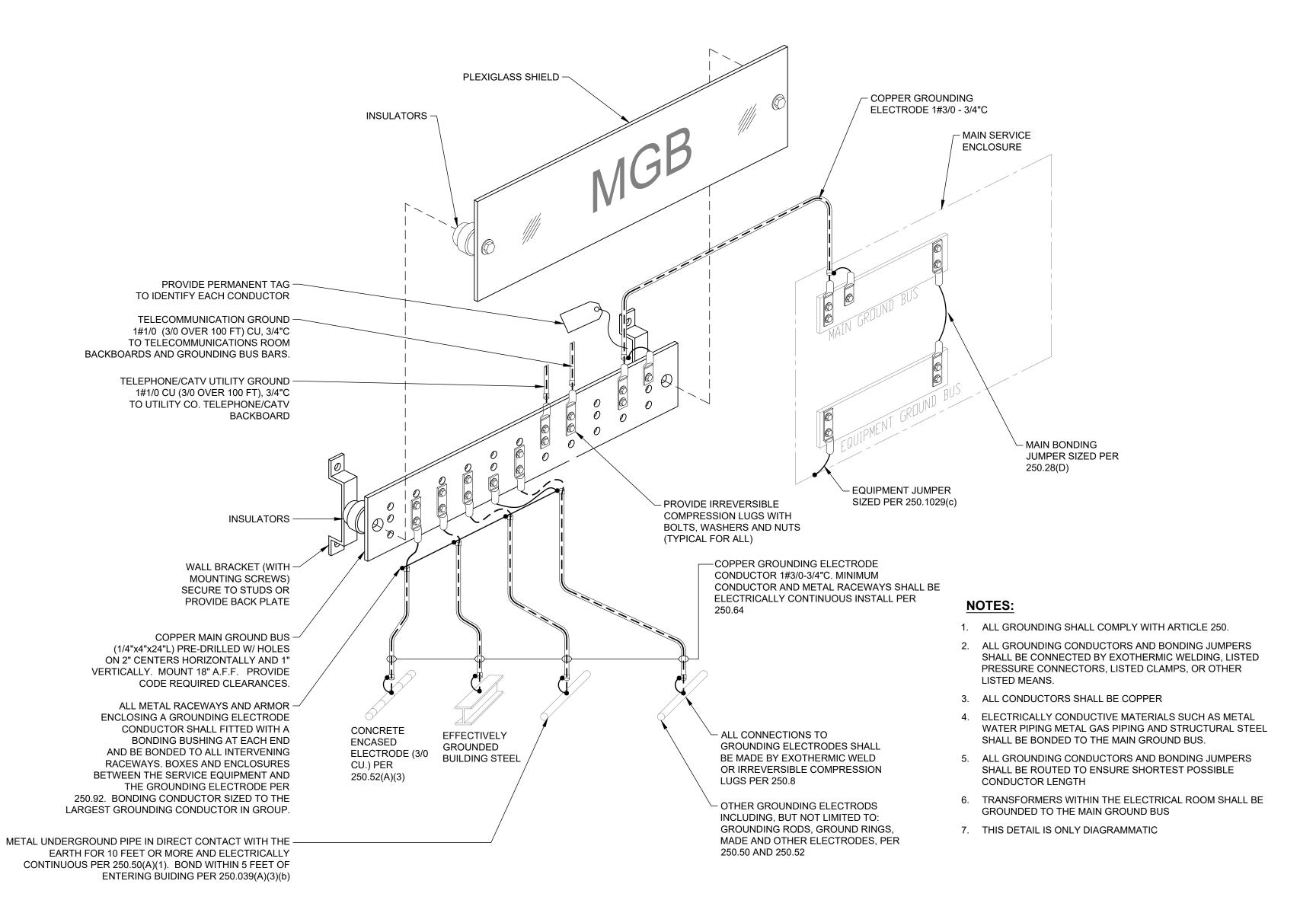
03/07/23

AS NOTED



- 1. ELECTRICAL CONTRACTOR SHALL PROVIDE DUPLEX RECEPTACLE WITH EARS BROKEN TO CONTROL UPPER OUTLET VIA OCCUPANCY SENSOR AS REQUIRED BY CA TITLE 24 2019 SECTION 130.5.
- 2. CONTROLLED RECEPTACLE OUTLETS SHALL BE PROVIDED IN EACH PRIVATE OFFICE, OPEN OFFICE AREA, RECEPTION LOBBY, CONFERENCE ROOM, KITCHENETTE, IN OFFICE SPACES, AND COPY ROOMS AS REQUIRED BY CA TITLE 24 2019 SECTION 130.5. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL WIRING AND ACCESSORIES FOR COMPLETE INSTALLATION TO COMPLY WITH THIS REQUIREMENT.
- 3. CONTROLLED RECEPTACLES SHALL BE PROVIDED WITH PERMANENT MARKING TO DIFFERENTIATE THEM FROM UNCONTROLLED RECEPTACLES.
- 4. POWER PACK AND SENSOR BY SENSOR SWITCH, OR ACCEPTABLE

# CONTROLLED RECEPTACLE WIRING DETAIL



C0573 / C0618 0 LAKESHORE BLVD 0 OH 44095 **AARON'S C** 29850 - 29900 I WILLOWICK, C

DETAIL

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Kinetic Design

29833 Santa Margarita Pkwy, Suite 300

Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

**SCHNEIDER** 

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DESCRIPTION

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CHECKED DRAWN 03/07/23

岩 SCALE

PROJECT NUMBER

MAIN SERVICE SYSTEM GROUNDING DETAIL

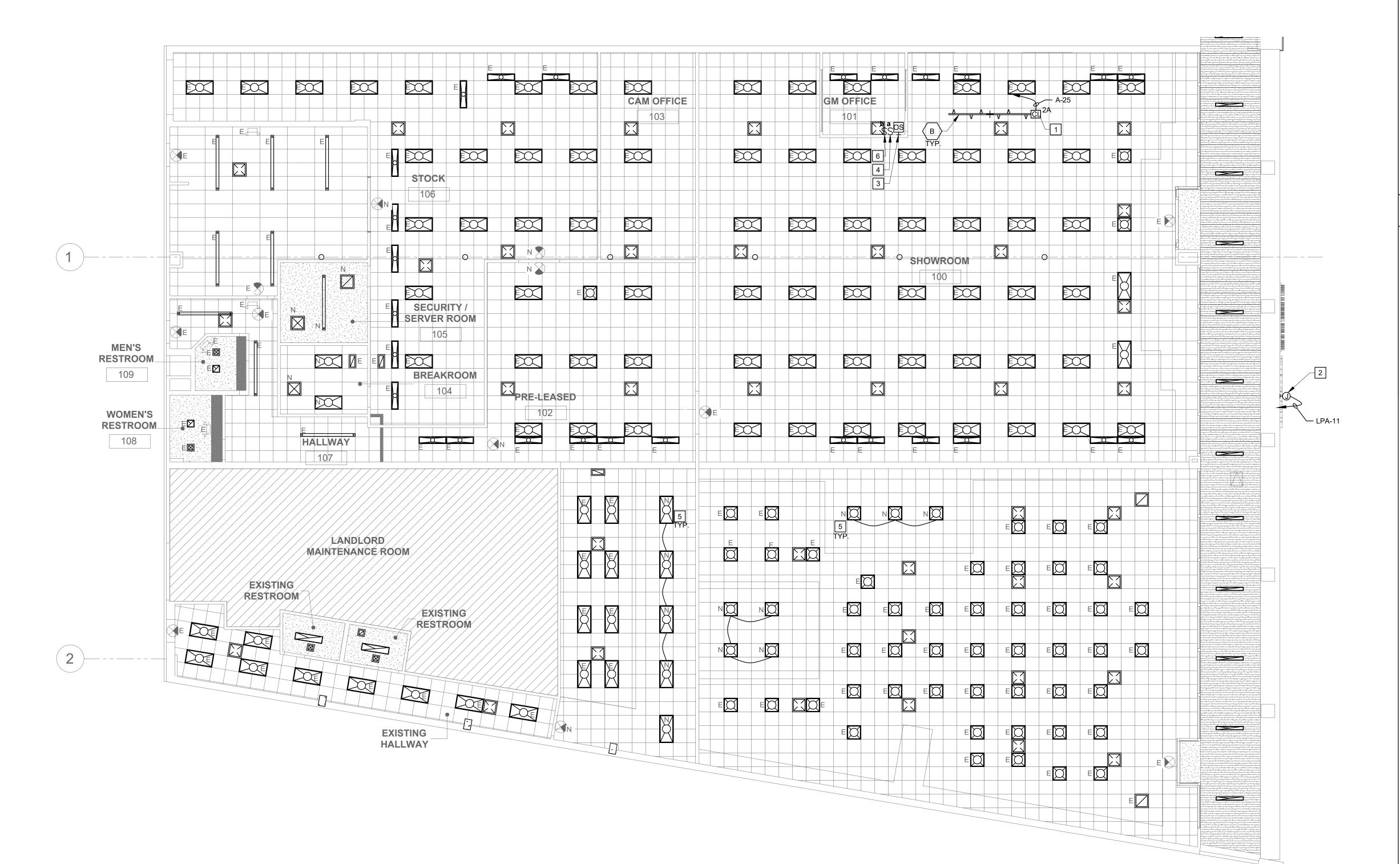
			LUMI	NAIR	E SCHEDULE	
TAG	MANUFACTURER & MODEL NO.	LAMP	VA   SYSTEMS WATTS	VOLTS	GENERAL DESCRIPTION	NOTES
В	CONTECH 838/2-P + LA38P 7LED16.5PAR38/HD/DIM/927/ NFL25	LED	16.5	120	LED TRACK HEAD WITH T4WH TRACK	-

#### NOTES

- COORDINATE LIGHT FIXTURE LOCATION AND MOUNTING WITH OTHER EQUIPMENT AND ARCHITECTURAL ELEVATIONS.
- INSTALL ALL WALL AND SURFACE MOUNTED EXIT SIGN FIXTURES AT THE LOCATION INDICATED AND PROVIDE FACES AND ARROWS AS INDICATED.
- SUPPORT LAY-IN TYPE LIGHT FIXTURES INDEPENDENT OF GRID.
- CONTRACTOR SHALL PROVIDE ALL LAMPS, ACCESSORIES AND MOUNTING HARDWARE AS REQUIRED.
- CONTRACTOR SHALL VERIFY EXACT FIXTURE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS.
- CONTRACTOR SHALL VERIFY CEILING TYPES AND PROVIDE TRIMS AND ACCESSORIES AS REQUIRED
- PROVIDE LIGHT FIXTURES BY MANUFACTURER SPECIFIED OR APPROVED EQUAL. SUBSTITUTED FIXTURES WILL REQUIRE PHOTOMETRIC 'CALCULATIONS AND MUST PERFORM

EQUAL TO OR BETTER THAN LIGHT FIXTURE SPECIFIED. ENGINEER TO MAKE FINAL DETERMINATION.

LIGHT FIXTURES THAT ARE EXISTING TO REMAIN WILL BE RETROFITTED WITH LED BY STRATUS.





- A. THE FIXTURE SCHEDULE INDICATES GENERAL DESCRIPTION OF LIGHTING FIXTURES AND MANUFACTURERS CATALOG NUMBERS. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO DETERMINE THE CORRECT CEILING CONFIGURATION AND PROVIDE THE FIXTURES WITH ALL NECESSARY TRIMS AND MOUNTING HARDWARE SO THAT BOTH THE CEILING SYSTEM AND THE FIXTURE CONSTRUCTION MATCHES.
- B. IT SHALL BE CONTRACTORS RESPONSIBILITY TO VERIFY EXACT LOCATION OF ALL LIGHTING FIXTURES AND TYPE OF CEILINGS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELEVATIONS PRIOR TO ANY WORK.
- C. A JUNCTION BOX MUST BE PROVIDED WITH ALL EXIT LIGHTS CONNECTED TO MORE THAN ONE SET OF CONDUCTORS UNLESS THE EXIT LIGHT FIXTURE IS FURNISHED WITH AN APPROVED OUTLET BOX FOR THROUGH WIRING.
- D. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO COORDINATE THE FINAL LOCATION OF LIGHTING FIXTURES IN MECHANICAL ELECTRICAL AND OTHER EQUIPMENT ROOMS WHERE CONDUITS, DUCT WORK, PIPING, ETC., ARE PRESENT TO AVOID CONFLICT AND ENABLE PROPER ILLUMINATION DISTRIBUTION.
- E. CONTRACTOR SHALL VERIFY FIXTURES MOUNTING HEIGHT WITH ARCHITECT PRIOR TO ROUGHING.
- F. \*- REFER TO SURFACE MOUNTED FIXTURE.
- G. LUMINAIRES INDICATED AS EMERGENCY SHALL BE IDENTIFIED / PROVIDED AS
- 1. INTEGRAL BATTERY PACK (EB):

3a/3EB - FIXTURE CONNECTED TO CIRCUIT "3", CONTROL SWITCH "a" - WITH THE BATTERY CHARGING LEAD CONNECTED TO A CONSTANT HOT CIRCUIT "3".

3NL/3EB - FIXTURE CONNECTED TO A CONSTANT HOT CIRCUIT "#3". BATTERY CHARGING LEAD CONNECTED TO A CONSTANT HOT CIRCUIT "3".

2. REMOTE BACK-UP SOURCE (EM)

3a/3EM - ROUTED THROUGH A U.L. LISTED TRANSFER RELAY (LC & D#GR-2001E/S) FOR SWITCHED CONTROL OR A U.L. LISTED TRANSFER SWITCH (BODINE #GTD SERIES DEVICE) FOR DIMMING CONTROLS. CONNECTED TO A CONSTANT HOT EMERGENCY CIRCUIT "3".

3NL/3EM - FIXTURE CONNECTED TO A CONSTANT HOT EMERGENCY CIRCUIT "#3".

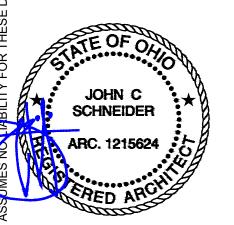
#### REFERENCE NOTES

- 1 PROVIDE J-BOX AND CURRENT LIMITER PER CALLOUT AS SHOWN. VERIFY COMPATIBILITY OF CURRENT LIMITER WITH TRACK SECTION.
- 2 PROVIDE WEATHERPROOF CONNECT TO SIGNAGE PER MANUFACTURER'S EQUIPMENTS. CONFIRM THAT NEW SIGN IS PROVIDED WITH INTEGRAL DISCONNECT SWITCH, IF NONE IS PROVIDED, ELECTRICAL CONTRACTOR SHALL PROVIDE WEATHERPROOF DISCONNECT AS REQUIRED. ROUTE SIGN CIRCUIT THROUGH NEW TIMECLOCK AND CONTACTOR. COORDINATE SCHEDULE WITH OWNER. E.C. TO PROVIDE PHOTOCELL FOR ADDITIONAL SIGN CONTROL. COORDINATE LOCATION IN FIELD AND WITH MANUFACTURER.
- 3 E.C. TO CONNECT FOR CONTROL OF GM OFFICE LIGHTS.
- 4 E.C. TO CONNECT FOR CONTROL OF PRE-LEASED AND SHOWROOM TRACK LIGHTS.
- NEW FIXTURES TO BE CONNECTED TO EXISTING CIRCUITRY IN AREA AND CONNECTED TO NEW CONTROLS IN GM OFFICE.
- 6 E.C. TO CONNECT FOR CONTROL OF PRE-LEASED AND SHOWROOM LIGHTS.

Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



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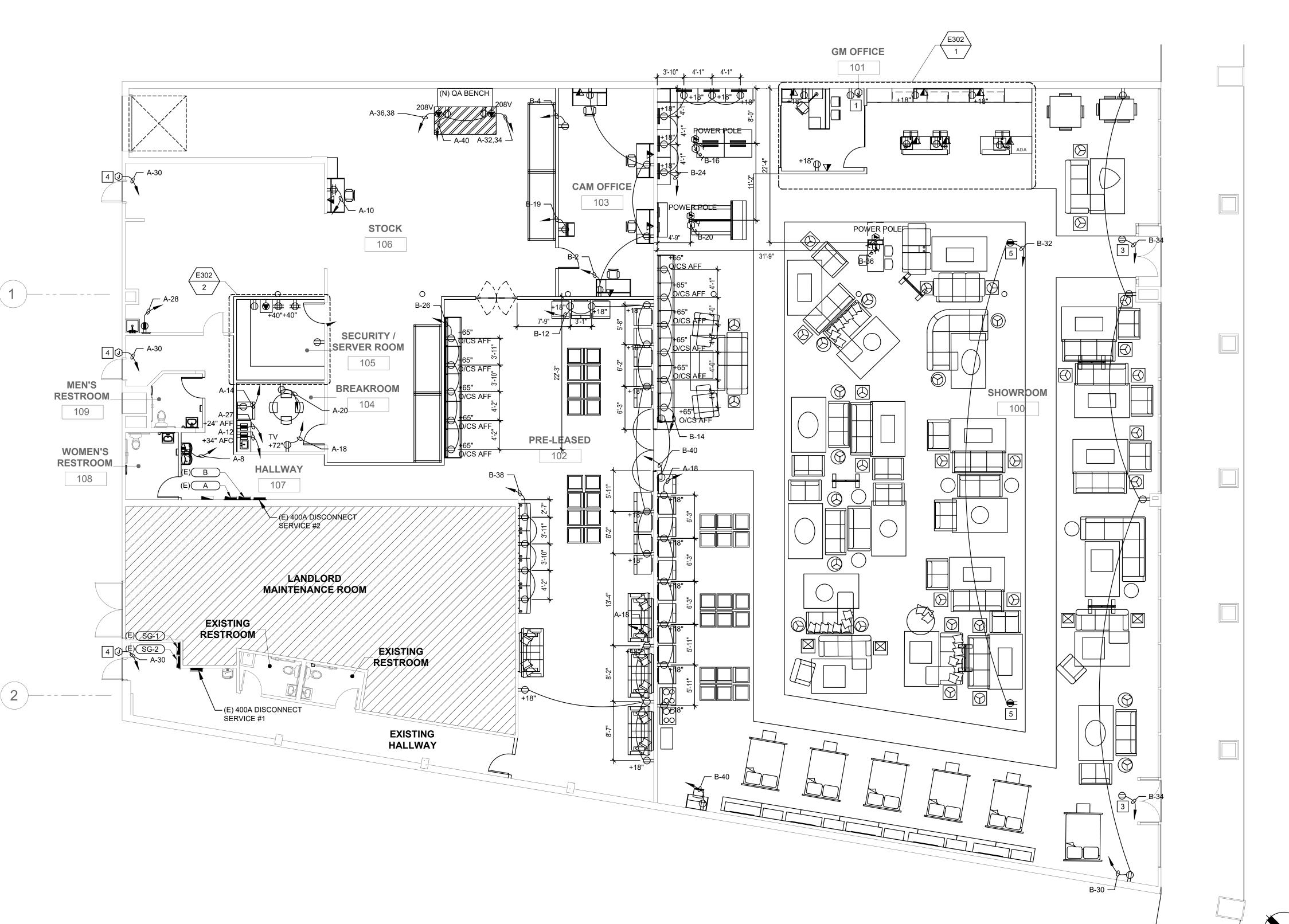
AARON'S C0573 / C0618 29850 - 29900 LAKESHORE BLVD WILLOWICK, OH 44095

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03/07/23 AS NOTED

PROJECT NUMBER





**POWER PLAN** 

### POWER PLAN GENERAL NOTES

- ALL RECEPTACLES ON COMMON WALLS SHALL BE SEPARATE BOXES AND OFFSET 24" MINIMUM.
- MULTI-WIRED (SHARED NEUTRAL) BRANCH CIRCUITS SHALL NOT BE INSTALLED. ALL 120 & 277 VOLT BRANCH CIRCUITS SHALL HAVE A DEDICATED INDIVIDUAL NEUTRAL CONDUCTOR.
- 3. PROVIDE G.F.C.I. TYPE RECEPTACLE(S) OR RECEPTACLE(S) PROTECTED BY GFCI CIRCUIT BREAKER(S) WHEN LOCATED WITHIN 6 FEET OF ANY SINK OR THERAPEUTIC TUB, SERVIING ANY DRINKING FOUNTAIN OR VENDING MACHINE, WITHIN ANY KITCHEN SPACE AND/OR LOCATED OUTDOORS. WHERE RECEPTACLES ARE NOT READILY ACCESSIBLE, PROVIDE GFCI CIRCUIT BREAKER(S) TO PROTECT THE RESPECTIVE BRANCH CIRCUIT AND PROVIDE ADDITIONAL NEUTRAL CONDUCTORS IN THE BRANCH CIRCUITING AS REQUIRED TO ENSURE PROPER GFCI FUNCTION.
- 4. ALL 15- AND 20- AMPERE, 125- AND 250-VOLT NONLOCKING TYPE RECEPTACLES THROUGHOUT BUILDING SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES, NO EXCEPTIONS.
- 5. ALL RECEPTACLES IDENTIFIED AS WEATHERPROOF ON THE DRAWINGS SHALL BE WEATHER-RESISTANT, TAMPER-RESISTANT, GFCI TYPE AND EQUIPPED WITH ENCLOSURE THAT IS WEATHERPROOF (WP) WHETHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED (WHILE "IN-USE"). AN OUTLET BOX HOOD SHALL BE LISTED AND SHALL BE IDENTIFIED AS "EXTRA DUTY".

E.C. TO VERIFY EXACT LOCATION OF PANELBOARDS.

### REFERENCE NOTES

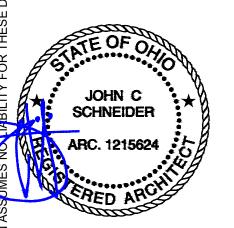
- 1 6" BELOW CEILING FOR CCTV.
- 2 (E) EXISTING ELECTRICAL OUTLET TO REMAIN.
- RECEPTACLE FOR DOOR CHIME. COORDINATE WITH OWNER FOR EXACT LOCATION.
- DOOR BUZZER ON EXTERIOR OF BUILDING. COORDINATE WITH OWNER FOR EXACT LOCATION.
- PROVIDE ROOF TOP UNIT RECEPTACLE FOR SCENT MACHINE. VERIFY EXACT LOCATION IN FIELD PRIOR TO COMMENCEMENT OF WORK.

KD

Kinetic Design
29833 Santa Margarita Pkwy, Suite 300
Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build



REVISIONS

No. DATE DESCRIPTION

A PARKWAY, SUITE 300 ANTA, GA 30339 MBER: (678) 402-3000

400 GALLERIA PARKWAY, SUITE ATLANTA, GA 30339 PHONE NUMBER: (678) 402-30

ON'S C0573 / C0618 - 29900 LAKESHORE BLVD WICK, OH 44095

DRAWN JB CHECKED WR

DATE

03/07/23

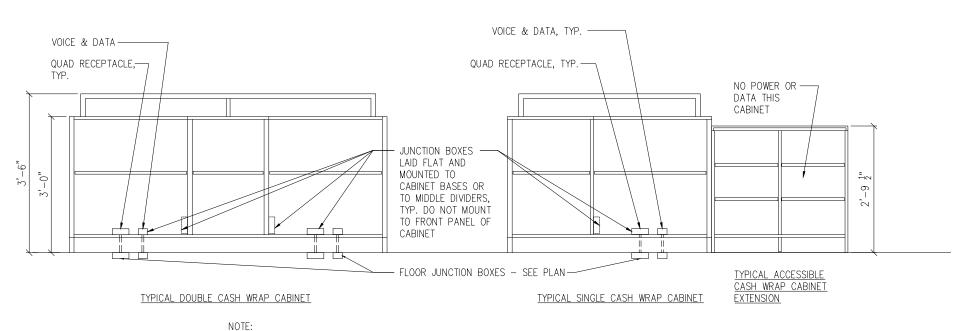
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PROJECT NUMBER

SHEET

E301

AS NOTED



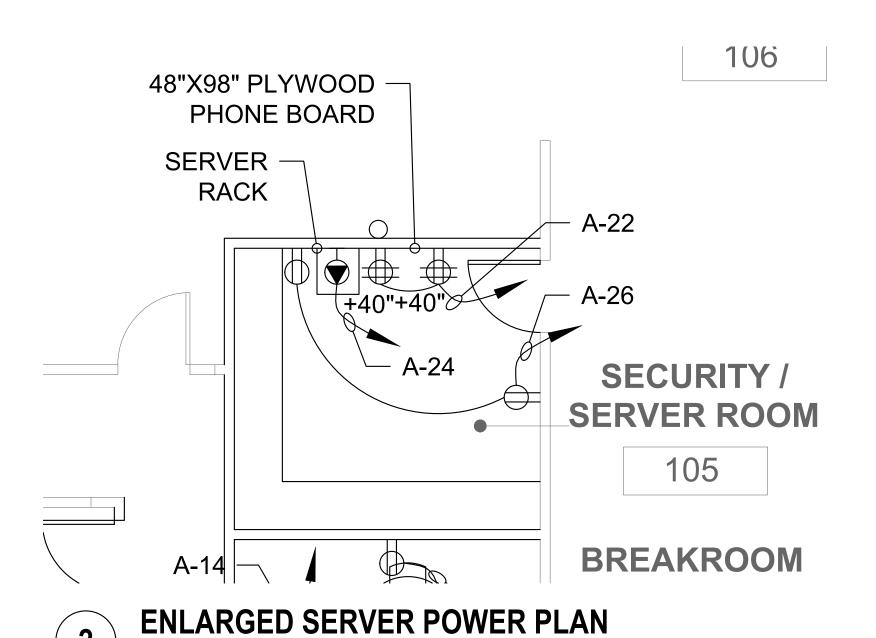
1. ALL DATA DROPS IN COUNTERS, OFFICES, AND DEMARC SHALL TERMINATE AT THE PATCH PANEL ON TELCO BOARD.

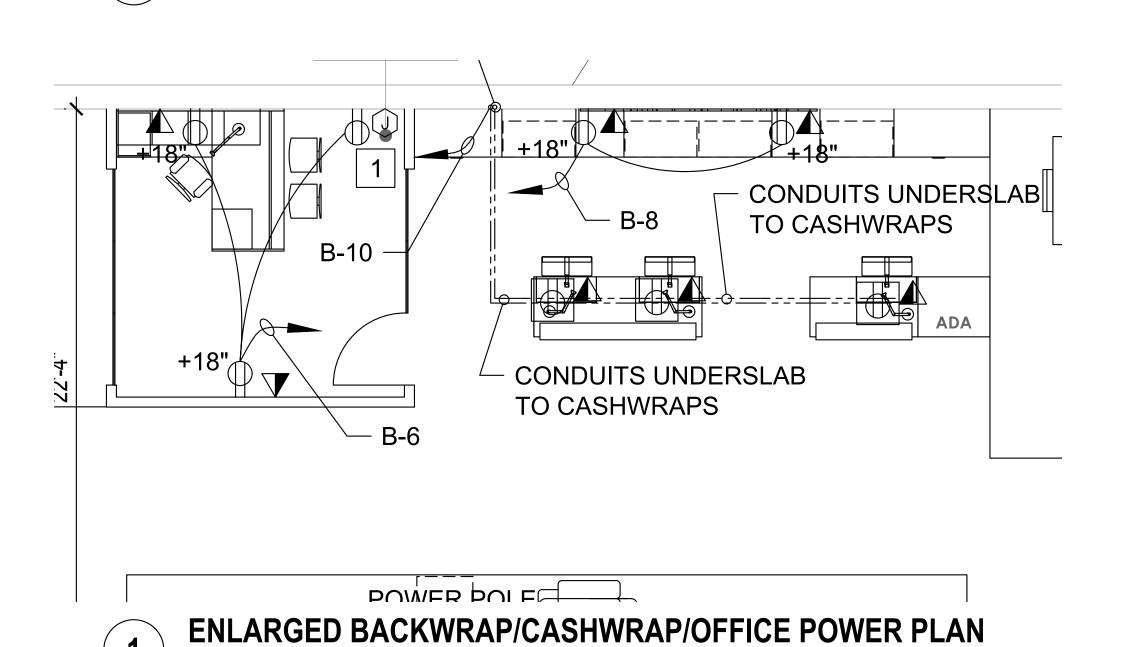
2. SERVER IS PLACED IN SERVER ROOM — SEE PLAN FOR LOCATION

# **ENLARGED SERVER POWER PLAN**

SCALE: 1/8" = 1'-0"

SCALE: 1/8" = 1'-0"





# VOICE AND DATA CABLING NOTES FOR LOW VOLTAGE VENDOR

VOICE AND DATA CABLES

1. CAM/GM OFFICE 6-DATA
2. CLOSING OFFICE 2-VOICE 2-DATA
3. CASH ROOM 1-VOICE 1-DATA
4. NOOK (BEHIND CASHWRAP) 1-FAX 1-DATA

4.NOOK (BEHIND CASHWRAP) 1-FAX 1-DATA
5.CASHWRAP 3-VOICE 5-DATA1

5. CASHWRAP 3-VOICE 5-DATA1-FAX 1-MODEM 2-CREDIT CARD
6. QA BENCH 1-VOICE 1-DATA
7. BACK DOOR 1-VOICE

8.BREAK ROOM 1-VOICE 1-DATA
9.SHOW ROOM (SEE KEYED NOTE 16) 1-DATA

10. SECURITY BOARD (CORPORATE STORES ONLY) 1-DATA (ALARM) 1-DATA (CAMERA)

NOTES:
A.ALL DATA TERMINATES AT DEMARC BOARD (PHONE BOARD) ON 568B PATCH PANEL.

B.ALL VOICE TERMINATES AT DEMARC BOARD (PHONE BOARD) ON 66 BLOCKS.

C.ALL DATA @ EACH LOCATION TERMINATES ON 568B RJ45 JACKS. NO CRIP RJ45 PLUGS.

D.INSTALL 8"W X 2'L SHELF INSTALLED @ BOTTOM OF DEMARC BOARD.

E.ALL JACKS MUST HAVE MATCHING NUMBERS W/ PATCH PANEL.

F.USE ONE COLOR JACK FOR RJ11 VOICEAND ONE COLOR FOR RJ45 DATA.

G.CORPORATE STORES ONLY: SECURITY BOARD ALARM CABLE RJ31X TO LINE 4 AT DEMARC BOARD RETURN TO PORT 4 IN KSU.

H.CORPORATE STORES ONLY: SECURITY BOARD CAMERA RJ45 JACK TO DEMARC BOARD RJ45 JACK.

#### POWER PLAN GENERAL NOTES

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- 4. ALL 15- AND 20- AMPERE, 125- AND 250-VOLT NONLOCKING TYPE RECEPTACLES THROUGHOUT BUILDING SHALL BE LISTED TAMPER-RESISTANT RECEPTACLES, NO EXCEPTIONS.
- 5. ALL RECEPTACLES IDENTIFIED AS WEATHERPROOF ON THE DRAWINGS SHALL BE WEATHER-RESISTANT, TAMPER-RESISTANT, GFCI TYPE AND EQUIPPED WITH ENCLOSURE THAT IS WEATHERPROOF (WP) WHETHER OR NOT THE ATTACHMENT PLUG CAP IS INSERTED (WHILE "IN-USE"). AN OUTLET BOX HOOD SHALL BE LISTED AND SHALL BE IDENTIFIED AS "EXTRA DUTY".

E.C. TO VERIFY EXACT LOCATION OF PANELBOARDS.

#### REFERENCE NOTES

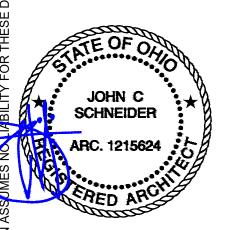
1 (D) DEMOLISH OUTLET.



Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

Kinetic Design
29833 Santa Margarita Pkwy, Suite 300
Rancho Santa Margarita, CA 92688



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No. DATE DESCRIPTION

400 GALLERIA PARKWAY, SUITE 300
ATLANTA, GA 30339
PHONE NUMBER: (678) 402-3000

AARON'S C0573 / C0618
29850 - 29900 LAKESHORE BLVD
WILLOWICK, OH 44095
SHEET NAME
ENLARGED PLANS AND DETAILS

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DATE

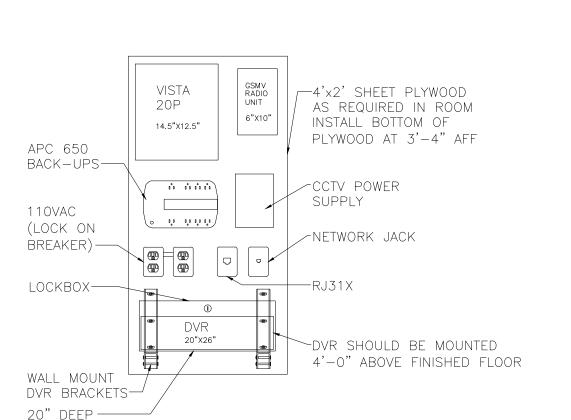
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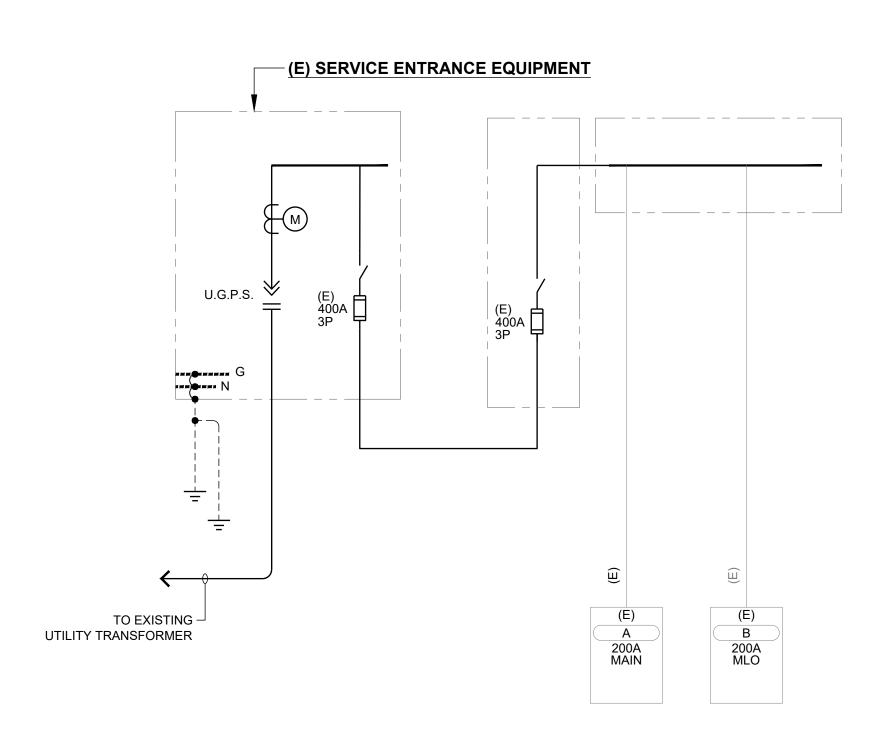
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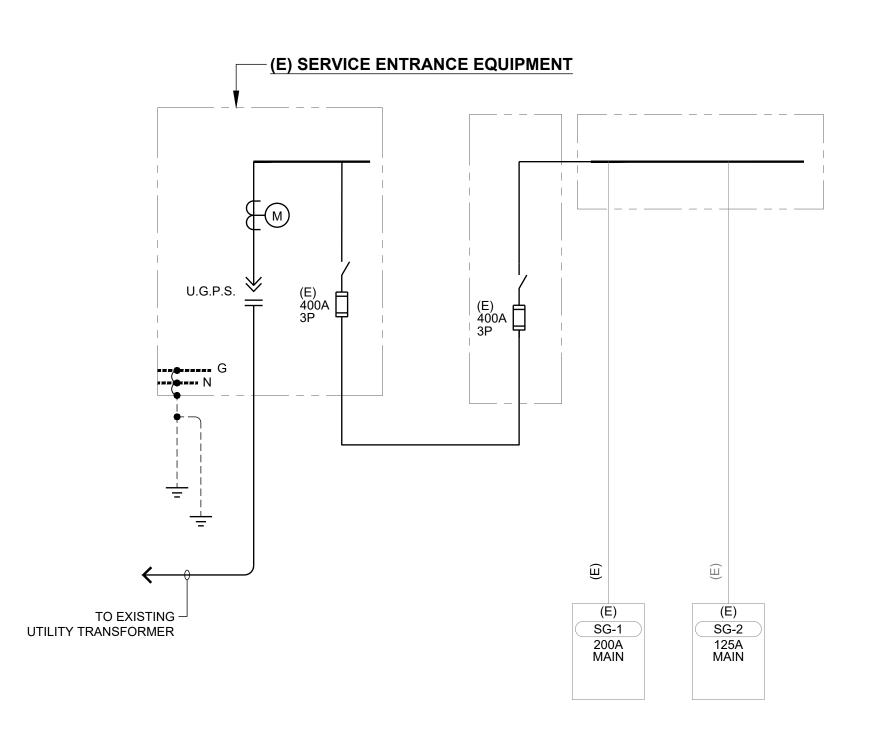
E302





# SINGLE LINE DIAGRAM

SCALE: NONE



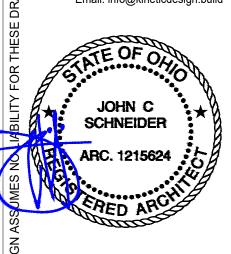
SINGLE LINE DIAGRAM

SCALE: NONE

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29833 Santa Margarita Pkwy, Suite 300
Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build
Email. info@kineticdesign.build



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AARON'S C0573 / C0618

29850 - 29900 LAKESHORE BLVD
WILLOWICK, OH 44095

SHET NAME
SINGLE LINE DIAGRAM

DRAWN JB CHECKED WR

DATE

03/07/23

SCALE

AS NOTED

PROJECT NUMBER

SHEET

E401

MFR:				P	ANEL:	"A"						*PANEL IS E	XISTI	NG
	MOUNTING: SURFACE NEMA 3R: NO FEED THRU: NO	DC	200%: I/G BUS:	NO	VOLTS: PHASES: WIRE:		!			SUB-METER: ATION TYPE:		MAIN: 200A BUS: 225A A.I.C.: EXISTING		
N L C I A R E D C S S	DESCRIPTION	TRIP AMPS	POLES	А	В	С	Α	В	С	POLES	TRIP AMPS	DESCRIPTION		C L C C C C C S
M 1 (E)	RTU-1	100A	3	9840						1	20A	(E) T LIGHTS	S BATHRM	2 L
М 3		127			9840									4 L
M 5						9840				1	20A	(E)	H LIGHTS	6 L
M 7							540			1	20A		(E) EWC	-2 47
M 9			7				204.24	360		1	20A	RCPT - CLO		
	BATT/EXIT	20A	1						180	1	20A	BREAK ROOM	COUNTER	
	A LIGHTS	20A	1				800			1	20A	BREAK ROO		
<del>                                      </del>	A LIGHTS	20A	1							1	20A		GHT LIGHT	5 10
	A LIGHTS	20A	1						180	1	20A	RCPT - BREAK		
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The second secon	LES TRACK LIGHTING	20A	1	240			360		3,072,073,07	1	20A		SECURITY	
27 SPA								180		1	20A		MOPSINK	
29 SPA	POLITICAL DESCRIPTION (DESCRIPTION )							110,0820	180	1	20A		R BUZZER	
31 SP/							1800				20A	<u> </u>	QA BENCH	32 F
33 SPA	200.00000000000000000000000000000000000							1800						34 I
35 SPA		6.						1000	1800		20A		QA BENCH	36 F
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41 SPA		6	1					300		1	20A	(E) FIRE A LA	RM PA NEL	The state of the s
		-		Q	ØA	Q	В	Ø	С			••••	SOLDER SOLD FOR THE SOLD SOLD FOR THE SOLD SOLD FOR THE SOLD SOLD FOR THE SOLD FOR	
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TOTAL DEMANI				147		129		127	1200	-fa				
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CONTINUOUS LOAD = C KITCHEN EQUIPMENT LOAD = K			0			125%			0		TOTAL CONN. 1 CAD (1/4)	440	20	
			0			100% 125%			300		TOTAL CONN. LOAD (VA): 41960 TOTAL EST. DEMAND (VA): 48390			
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RECEPTACLE LOAD = R				12020 92%										

2 PROMDE LOCK-OFF DEVICE.

3 PROMDE GFCI TYPE DEMCE.

4 PROMDE A NEW BREAKER AT SAME TYPE AND AC RATING IN PANEL

(5) PROVIDE "HACK" TYPE CIRCUIT BREAKER

FOR HVAC EQUIPMENT.			

MFR:				F	ANEL:	"B"						*PANEL IS	EXISTIN	<b>VG</b>	
	MOUNTING: SURFACE NEMA 3R: NO FEED THRU: NO	DO	200%: I/G BUS:	NO	VOLTS: PHASES: WIRE:		!			SUB-METER: ATION TYPE:		MAIN: 200A BUS: 225A A.I.C.: EXISTING			
N L C O O I T A R E D C S S	DESCRIPTION	TRIP AMPS	POLES	А	В	С	А	В	С	POLES	TRIP AMPS	DESCRIPTION	1	C L C C C C C C C C C C C C C C C C C C	
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○ M 3		120			5304			720		1	20A	RCPT - CAM OFFIC		1.97.	-
M 5			( mm)			5304			540	1	20A		GM OFFICE		
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9			1					1200	) }	1	20A		ASH WRAP		
) 11			1						1200	1	20A		- REFRIDGE		
L 13 (E) EXT SK	3N	20A	1	340			1600			1	20A		DISPLAYS 1		
L 15 (E) EXT SK	3N	20A	1		180			1800		1	20A	RCPT - COMPUT			
R 17 (E) ROOF F	REC	20A	1			180				1			/TR HEATER 1		
19			1							1			NSORMATIC 2		
21			1					180		1	20A		WER POLE 2		
23			1						1800	1	20A	RCPT - COMP	JTER WALL :	24 F	1
25			1				1800			1	20A	RCPT - PRI	E LEASE TV 2	26 F	2
R 27 (E) PNL OL	ЛLET	20A	1		180			1200		1	20A	RCPT - PRE LEA	SE COUCH ;	28 F	1
29			1						1200	1	20A	RCPT - S/	ALES AREA	30 F	2
31			1				360			1	20A	ROPT - ROOF	TOP SCENT :	32 F	2
33			1					180		1	20A	ROPT - D	OOR CHIME	34 F	1
35			1						180	1	20A	RCPT - PC	WER POLE 3	36 F	1
37		.2	1				1200			1	20A	RCPT - COMP			
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PANEL SCHEDULE NOTES:

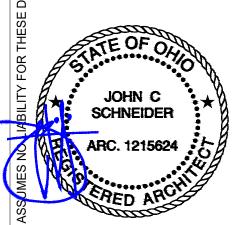
1 PROVIDE LOCK-ON DEVICE.
2 PROVIDE LOCK-OFF DEVICE.
3 PROVIDE GFCI TYPE DEVICE.

4) PROMDE A NEW BREAKER AT SAME TYPE

AND AIC RATING IN PANEL

⑤ PROVIDE "HACR" TYPE CIRCUIT BREAKER FOR HVAC EQUIPMENT.

Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



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AN ONLY BE I			

CLIENT INFORMATION

AARON'S C0573 / C0618
29850 - 29900 LAKESHORE BLVD
WILLOWICK, OH 44095

SHEET NAME
PANEL SCHEDULES WR 03/07/23 AS NOTED

PROJECT NUMBER

**DIVISION 15 - PLUMBING SPECIFICATIONS** 

A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, ALONG WITH ALL APPLICABLE INSTRUCTIONS TO BIDDERS SHALL FORM A PART OF THIS SECTION OF THE SPECIFICATIONS.

B. REFERENCE IS MADE TO REQUISITES FOR BIDDERS AND CONTRACTORS UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, WHICH SHALL BE CONSIDERED BINDING, UNLESS OTHERWISE NOTED UNDER THIS

#### SECTION. SCOPE

EACH CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE CON-STRUCTION DETAILS, BOTH AS ON TENANT CONSTRUCTION DRAWINGS AND LANDLORD'S AS REFERRED TO, BEFORE SUBMITTING HIS BID AS NO ALLOW-ANCES WILL BE MADE BECAUSE OF THE CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION.

#### INSPECTION OF SITE

ALL PROPOSALS SHALL PRECLUDE THAT CONTRACTOR IS FAMILIAR WITH JOB SITE CONDITIONS AND UTILITY LOCATIONS AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE SUBCONTRACTOR INVOLVED.

#### CODE REQUIREMENTS

ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS, DRAWINGS OR AS DIRECTED BY THE OWNER, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, OR REGULATIONS OF THE GOVERNING BODIES, WHETHER SO SHOWN OR NOT, AND ALL MODIFICA-TIONS REQUIRED BY SUCH AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ANY ADDITIONAL COST TO THE OWNER.

#### MATERIALS AND WORKMANSHIP

A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL BE APPLIED AS RECOMMENDED BY THE MANUFACTURERS, AND UNLESS OTHER-WISE SPECIFIED SHALL BE NEW, AND FREE FROM ANY DEFECTS. ALL LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY UNLESS OTHERWISE SPECIFIED.

B. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY COMPETENT WORKMEN AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. WORK SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION, AND ON COM-PLETION, THE INSTALLATION SHALL BE THOROUGHLY CLEANED AND ALL DEBRIS PRESENT AS A RESULT OF THIS CONTRACT SHALL BE REMOVED FROM THE PREMISES, <u>DO NOT JUST ABANDON</u>.

#### CODES AND REGULATIONS

EACH SUBCONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN OR SPECIFIED. IF A SUBCONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT A VARIANCE, HE SHALL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND THE TENANT IN WRITING. IF ANY SUBCONTRACTOR PERFORMS ANY WORK KNOWING IT TO BE CONTRARY TO LAWS, ORDINANCES, RULES AND REGULATIONS AND WITHOUT GIVING SUCH NOTICE, THE SUBCON-TRACTOR SHALL BEAR ALL COSTS ARISING THEREFROM.

#### PROTECTION OF WORK AND PROPERTY

A. EACH SUBCONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PRO-TECTION OF ALL HIS WORK FROM DAMAGE AND SHALL PROTECT THE OWNER'S PROPERTY FROM INJURY OR LOSS ARISING FROM HIS WORK. HE SHALL MAKE GOOD ANY SUCH DAMAGE, INJURY, OR LOSS, EXCEPT SUCH AS MAY BE DIRECTLY DUE TO CAUSES BEYOND HIS CONTROL AND NOT TO HIS FAULT OR NEGLIGENCE. HE SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS WELL.

B. EACH SUBCONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THEIR EMPLOYEES ON THE WORK AND SHALL COMPLY WITH ALL PROVISIONS OF FEDERAL, STATE AND LOCAL BUILDING CODES AND SAFETY LAWS TO PREVENT ACCIDENTS OR INJURY TO PERSONS ON OR ADJACENT TO THE PREMISES WHERE THE WORK IS BEING PERFORMED. EACH SUBCONTRACTOR SHALL MAINTAIN ALL INSUR-ANCE REQUIRED TO PROTECT HIMSELF, OWNER AND TENANT FOR THE DURATION OF THE WORK AGAINST PROPERTY DAMAGE AND PUBLIC LIABILITY.

THE TENANT, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO OR DEDUCTING FROM THE WORK, THE CONTRACT SUM BEING ADJUSTED ACCORDINGLY.

ALL WORK UNDER THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN CON-JUNCTION WITH OTHER CONTRACTORS AND TRADES OF THIS PROJECT IN A MANNER WHICH WILL ALLOW EACH CONTRACTOR AND TRADE ADEQUATE TIME AT THE PROPER STAGE OF CONSTRUCTION TO FULFILL HIS CONTRACTS. REFER-ENCE SHALL BE MADE TO THE OWNER FOR INSTRUCTIONS SHOULD ANY QUESTIONS ARISE BETWEEN TRADES AS TO THE PLACING OF LINES, DUCTS, CONDUITS, FIXTURES, OR EQUIPMENT, OR SHOULD IT APPEAR DESIRABLE TO REMOVE ANY GENERAL CONSTRUCTION WHICH WOULD AFFECT THE APPEARANCE OR STRENGTH OF THE STRUCTURE.

#### SUBSTITUTION OF MATERIALS

MANUFACTURER'S NAMES ARE LISTED HEREIN TO ESTABLISH A STANDARD. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE ACCEPTABLE, IF IN THE OPINION OF THE TENANT, THE SUBSTITUTE MATERIAL IS OF A QUALITY AS GOOD OR BETTER THAN THE MATERIAL SPECIFIED, AND WILL SERVE WITH EQUAL EFFICIENCY AND DEPENDABILITY, THE PURPOSE FOR WHICH THE ITEMS SPECIFIED WERE INTENDED.

SHOP DRAWINGS AND CATALOG DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND SYSTEMS, AND SUCH OTHER ILLUSTRATIVE MATERIAL AS MAY BE CONSIDERED NECESSARY BY THE TENANT, SHALL BE SUBMITTED BY THIS CONTRACTOR IN ADEQUATE TIME TO PREVENT DELAY AND CHANGES DURING CONSTRUCTION.

#### DRAWINGS AND SPECIFICATIONS

A. THE DRAWINGS SHOW DIAGRAMMATICALLY THE LOCATIONS OF THE VARIOUS LINES, DUCTS, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING AND CONTROLLING THEM. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM.

B. SHOULD ANY CHANGES BE DEEMED NECESSARY BY THE CONTRACTOR IN ITEMS SHOWN ON CONTRACT DRAWINGS, THE SHOP DRAWINGS, DES-CRIPTIONS, AND THE REASON FOR THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL.

#### **RESPONSIBILITY**

A. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE SATISFACTORY AND COMPLETE EXECUTION OF ALL WORK INCLUDED IN HIS CONTRACT. HE SHALL PRODUCE COMPLETE FINISHED OPERATING SYSTEMS AND PRO-VIDE ALL INCIDENTAL ITEMS REQUIRED AS PART OF HIS WORK, REGARDLESS OF WHETHER SUCH ITEM IS PARTICULARLY SPECIFIED OR INDICATED.

B. CONTRACTOR SHALL SUPPLY TO LANDLORD AND TENANT A CERTIFIED BALANCE REPORT AT COMPLETION OF PROJECT. THIS IS REQUIRED FOR BOTH REMODELED AND NEW STORES.

#### **GENERAL PROVISIONS**

1. SCOPE: PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT IN ACCORDANCE WITH THESE SPECIFICATIONS AND THE ACCOMPANYING DRAWINGS TO PROVIDE A COMPLETE AND PROPERLY OPERATING PLUMBING SYSTEM FOR THE BUILDING.

OBTAIN WATER, SEWER, GAS TAPS, AND ANY OTHER REQUIRED UTILITIES AND EXTEND SERVICE FROM SAME TO BUILDING AS SHOWN ON DRAWINGS. VISIT THE SITE FOR

UNDERSTANDING OF THE WORK TO BE DONE BEFORE SUBMITTING BID. COORDINATE THIS WORK WITH THE WORK OF THE OTHER TRADES ON THE PROJECT. ALL PLUMBING IS TO BE ROUGHED IN WHILE THE BUILDING IS BEING CONSTRUCTED AT SUCH

TIMES AS NOT TO DELAY THE GENERAL CONTRACTOR ON THE BUILDING.

- 2. GENERAL REQUIREMENTS: COMPLY WITH ALL FEDERAL, STATE, AND LOCAL REQUIREMENTS, CODES, RULES, AND ORDINANCES GOVERNING WORK OF THIS CHARACTER. PAY FOR AND OBTAIN NECESSARY CONSTRUCTION PERMITS AND CERTIFICATES OF
- A. DRAWINGS: THE LOCATION OF THE PIPING RUNS ARE APPROXIMATE AND THE CONTRACTOR MUST MAKE ANY NECESSARY CHANGES IN THE PIPING RUNS. ETC.. AT NO ADDITIONAL COST TO THE OWNER. OUTLET LOCATIONS ARE CRITICAL AND MUST BE LOCATED EXACTLY ACCORDING TO THE PLUMBING PLAN. COORDINATE THIS WORK WITH THE INSTALLERS OF EQUIPMENT FURNISHED AND INSTALLED BY OTHERS. REFER TO THE OTHER DRAWINGS FOR DETAILS OF THE BUILDING CONSTRUCTION AND THE OTHER MECHANICAL, ELECTRICAL, AND EQUIPMENT
- B. COORDINATION AND WORKMANSHIP: SCHEDULE THIS WORK SO THAT IT WILL BE PROPERLY COORDINATED WITH ALL OTHER TRADES. WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICE FOR THE CLASS OF WORK INVOLVED. WORKMANSHIP SHALL ALLOW THE APPLIANCE TO OPERATE AS INTENDED AND BE INSTALLED TO BEST PROTECT THE PUBLIC AND OPERATORS FROM INJURY OR DAMAGE, AND TO PRESENT A NEAT, PLEASING, AND ORDERLY APPEARANCE.

#### MATERIALS AND PERFORMANCE

1. MATERIALS: ALL MATERIALS SHALL BE NEW AND OF THE QUALITY INDICATED BY THE SPECIFIED BRAND NAMES. SUBSTITUTIONS OF MATERIAL OF EQUAL QUALITY BY OTHER FIRST-LINE MANUFACTURERS MAY BE ACCEPTABLE PROVIDED A LIST OF SUCH SUBSTITUTIONS IS APPROVED IN WRITING. A SUBSTITUTIONS LIST SHALL BE SUBMITTED IN TRIPLICATE WITHIN FIVE (5) DAYS AFTER THE CONTRACT IS LET.

2. BACKFILLING: PERFORM ALL NECESSARY EXCAVATING AND BACKFILLING REQUIRED FOR THIS INSTALLATION. PREPARE A PROPER BED OF SAND OR GRAVEL OR EQUIVALENT IN ROCK SCREENINGS SO AS TO ELIMINATE SHIMMING AND VOID SPACES UNDER ANY OF THE UTILITY SERVICE PIPES. BENDING OF ANY HARD PIPE WILL NOT BE PERMITTED. WHERE A CHANGE IN DIRECTION IS NECESSARY ON PRESSURE PIPES, "COMPATIBLE" COUPLINGS OR EQUAL SHALL BE USED AND BENDS MAY NOT EXCEED 90 DEGREES. ALL EXCAVATION BELOW THE BOTTOM OF FOOTINGS SHALL BE BACKFILLED WITH 2000 PSI CONCRETE. OTHER BACKFILL SHALL CONSIST OF 2-3" OF SAND OR ROCK SCREENINGS AND EARTH TO A FINAL LEVEL EQUAL TO ITS ORIGINAL CONDITION. IN THE EVENT THE BACKFILL SHOULD SETTLE BEFORE THE FINAL TOP SURFACE IS APPLIED, APPLY ADDITIONAL BACKFILL TO SUSTAIN THE ORIGINAL LEVEL. CARE SHOULD BE TAKEN TO MINIMIZE THE DUST LEVEL WHEN EXCAVATING AND BACKFILLING SO AS TO COMPLY WITH FEDERAL AND STATE E.P.A. REGULATIONS RELATING TO THIS TYPE OF WORK (FUGITIVE

4. PIPING INSTALLATION: CLEANOUTS MUST BE INSTALLED ON MINIMUM DROP LINES EVEN THOUGH NOT SHOWN ON THE BLUEPRINTS. USE REDUCING FITTINGS IN MAKING REDUCTIONS IN SIZE OF PIPE. REAM ALL PIPE AFTER CUTTING, THEN TURN PIPES ON END AND KNOCK OUT ALL LOOSE DIRT AND SCALE BEFORE INSTALLING. MAKE CHANGES IN HORIZONTAL DIRECTION OF SOIL AND WASTE PIPES WITH LONG RADIUS FITTINGS OR WITH "Y" BRANCHES AND 1/8 OR 1/16 BENDS. CONNECT SOIL STACKS AT BASE TO HORIZONTAL RUNS WITH "Y" CONNECTIONS.

WATER SUPPLY PIPES TO FIXTURES AND WASTE PIPES FROM FIXTURES SHALL BE CENTERED IN THE PROPER PLACE RELATIVE TO THE CENTER LINE OF THE FIXTURE. NO OFFSETS WILL BE ALLOWED. ALL PIPES SHALL BE RUN MECHANICALLY STRAIGHT AND SQUARE WITH BUILDING LINES, EXCEPT FOR REQUIRED PITCH ON HORIZONTAL LINES, AND ALL CHANGES IN DIRECTION SHALL BE MADE WITH FITTINGS. WATER PIPING TO BE ROUTED IN WALLS. UNDER THE FLOOR SLAB, AND ABOVE SUSPENDED CEILINGS AS NOTED. WHERE WATER LINES ARE ROUTED UNDER THE FLOOR SLAB. NO MECHANICAL JOINTS SHALL BE MADE UNDER THE SLAB EXCEPT AS LISTED BELOW. WATER PIPING SHALL BE INSTALLED NOT TO EXERT VERTICAL NOR HORIZONTAL STRESSES ON THE SEATING OF UNIONS. UNIONS SHALL BE COPPER TYPE NIBCO #733 OR EQUAL.

NO WAX, PUTTY, OR VARNISH WILL BE PERMITTED. CRACKED FITTINGS SHALL BE REMOVED AND REPLACED WITH NEW FITTINGS. MAKE THREADED JOINTS IN BRASS PIPE AND FITTINGS WITH PIPE THREADING TO THE SHOULDER OF THE FITTINGS. NO SLIP JOINTS OR COUPLING JOINTS IN BRASS PIPE WILL BE PERMITTED, EXCEPT ON THE FIXTURE SIDE OF THE TRAP.

5. NATURAL GAS PIPING: FOR ABOVE GROUND INSTALLATIONS, ALL FITTINGS TO BE JOINED WITH TEFLON TAPE SEAL OR OTHER SUITABLE SEAL AND MADE IN CONFORMANCE WITH THE BEST PRACTICES OF AGA AND NFPA 54. UNIONS SHALL BE CAST BLACK IRON AND INSTALLED IN A MANNER SUCH THAT NO STRESS WILL BE PLACED ON THE MALE-FEMALE SEALING SURFACES. PROPER ALIGNMENT WILL BE MADE AT TIME OF INSTALLATION. ALL JOINTS AND CONNECTIONS SHALL BE THOROUGHLY CLEANED OF OIL, THREAD CUTTINGS AND RESIDUALS TO ACCEPT ENAMEL PAINT. ROUGH OR SHARP EXPOSED THREAD SURFACES SHALL BE FILED SMOOTH. TESTING SHALL BE AS OUTLINED UNDER SECTION 15A, PARAGRAPH 11, TESTS.

#### 6. WATER PIPE:

JOINTS SHALL BE CLEANED AND DEBURRED AS RECOMMENDED BY THE MANUFACTURER AND FEDERAL, STATE, AND LOCAL CODES AND SOLDERED AS LISTED BELOW. FLUX SHALL BE NON-CORROSIVE.

ABOVE GRADE - WHERE FITTINGS ARE SOLDERED BOTH FITTINGS AND TUBING SHALL BE CLEANED AS DESCRIBED ABOVE. UNDER NO CIRCUMSTANCES SHALL DISSIMILAR METALS COME INTO DIRECT CONTACT WITH COPPER TUBING; E.G., GALVANIZED STRAPPING, HANGERS, OR CLAMPS TO SECURE THE TUBING.

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL - HIGH TEMPERATURE, SOLDER, 1200 DEG. F OR GREATER MELTING POINT.

NOTE: WATER PIPE TO BE PROPERLY SECURED AND ALIGNED SO AS NOT TO EXERT VERTICAL OR HORIZONTAL STRESSES ON THE SEATING OF THE MATING (MALE AND FEMALE) SURFACES OF THE UNIONS.

- A. MATERIALS UNDERGROUND: TYPE "K" COPPER TUBE, SOFT TEMPER
- B. MATERIALS ABOVEGROUND: TYPE "L" COPPER TUBE, HARD DRAWN.

C. INSULATION: INSULATION FOR HOT AND COLD WATER PIPING SHALL BE 1/2" (1" ON 1ST 8 FT. FROM TANK) THICK ARMAFLEX UL LABELED OR FIBERGLASS 25 WITH ASJ/SSL FOIL/VINYL JACKET OR EQUAL. INSULATE ALL PIPING AND FITTINGS.

#### 7. GAS PIPING

- A. GAS PIPING ABOVE GROUND: ASTM A53, SCHEDULE 40 BLACK STEEL WITH 125 POUND BLACK MALLEABLE IRON SCREWED FITTINGS. INSTALL MOISTURE TRAPS ON HVAC UNITS AND KITCHEN EQUIPMENT.
- GAS PIPING COMPOUND AT JOINTS: IN COMPLIANCE WITH NFPA BULLETIN #54 AND LOCAL APPLICABLE CODES AND SUITABLE FOR NATURAL GAS SERVICE.

8. WASTE PIPING: INSTALL HORIZONTAL DRAIN AND WASTE PIPES WITH MIN. 1/8"/FT. SLOPE.

MATERIALS: PVC SCH. 40, CAST IRON - HUB TYPE WITH NEOPRENE JOINTS -WITH STAINLESS STEEL CONNECTORS WHEN PVC IS NOT ALLOWED PER LOCAL CODE.

9. PIPE SLEEVES/ESCUTCHEONS: PROVIDE CHROME-PLATED ESCUTCHEONS ON ALL PIPES PASSING THROUGH WALLS, FLOORS, OR CEILINGS OF FINISHED ROOMS. ESCUTCHEONS TO BE BEATON & CADWELL, #10, 40, 6A OR EQUIVALENT WITH SET-SCREWS. PROVIDE ESCUTCHEONS ON ALL WASTE LINES FROM PLUMBING FIXTURES, WHETHER THROUGH WALLS, FLOORS, AND WHETHER CONCEALED BEHIND COUNTERS OR EXPOSED. PIPE SLEEVES SHALL BE PROVIDED WHEN PIPES PENETRATE FOUNDATION AND SHALL BE 1" LARGER THAN PIPE, SEAL SLEEVE W/CAULKING.

10. PLUMBING FIXTURES: FURNISH AND INSTALL PLUMBING FIXTURES AS SHOWN ON DRAWINGS WITH ALL ACCESSORIES AND TRIM AS LISTED. ALL FIXTURES SHALL BE PROTECTED THROUGH THE COURSE OF THE CONSTRUCTION. ANY FIXTURE DAMAGED SHALL BE REPLACED WITHOUT ADDITIONAL EXPENSE TO THE OWNER.

11. CONNECTION TO OTHER FIXTURES: CONNECT BUILDING SERVICE PIPING, INCLUDING BUT NOT LIMITED TO WATER, DRAIN, AND GAS PIPES TO FOOD SERVICE EQUIPMENT AS INDICATED IN EQUIPMENT SPECIFICATIONS. PROVIDE BACKFLOW PROTECTION ON ICE MACHINES AND BEVERAGE EQUIPMENT SUPPLY CONNECTIONS. CONTRACTOR SHALL PROVIDE TRAPS, VALVES AND ACCESSORIES FOR A COMPLETE SYSTEM.

12. TESTS:

A. DRAINAGE AND VENT PIPING - DRAINAGE AND VENT PIPING SHALL BE TESTED BEFORE THE PLUMBING FIXTURES ARE INSTALLED BY CAPPING THE OPENINGS AND FILLING THE ENTIRE SYSTEM WITH WATER AND ALLOWING IT TO STAND THUS FILLED NOT LESS THAN ONE (1) HOUR. INSPECT WATER LEVEL TO DETERMINE IF PIPING IS TIGHT

B. WATER PIPING - THE WATER SUPPLY PIPING LINES SHALL BE TESTED BEFORE THE PLUMBING FIXTURES ARE CONNECTED BY FILLING THE ENTIRE SYSTEM WITH POTABLE WATER AND APPLYING HYDROSTATIC PRESSURE OF 100 PSI AND ALLOWING TO STAND FOR NOT LESS THAN FOUR (4) HOURS AT THIS PRESSURE TO PROVE PLUMBING INTEGRITY.

C. GAS PIPING - IN LIEU OF LOCAL REQUIREMENTS, GAS PIPING SHALL BE FILLED WITH COMPRESSED AIR TO 150 PSI AND HELD FOR A PERIOD OF FOUR (4) HOURS. EACH JOINT SHALL BE CHECKED BY LIQUID SOAP OR SPECIAL LIQUID CHEMICAL FOR LEAKS. NOTE: REMOVE ALL GAS VALVES AND PROTECT FROM DAMAGE BEFORE TESTING SYSTEM.

13. DISINFECTION OF POTABLE WATER SYSTEM: UPON COMPLETION OF INSTALLATION DISINFECT THE WATER SYSTEM BY FILLING IT WITH SOLUTION CONTAINING 50 PARTS PER MILLION OF CHLORINE AND ALLOW IT TO STAND FOR NOT LESS THAN SIX (6) HOURS BEFORE FLUSHING THOROUGHLY AND RETURNING TO SERVICE. FURNISH CLEAN WATER SAMPLES TO THE LOCAL AUTHORITY FOR TESTING AFTER THE LINES HAVE BEEN DISINFECTED. THIS PROCEDURE TO BE IN ACCORDANCE WITH STATE PLUMBING CODE

14. CLEANUP: CLEAN ALL PLUMBING FIXTURES AND EQUIPMENT THOROUGHLY BEFORE FINAL INSPECTION, LEAVING ALL READY FOR USE.

15. GUARANTEE: MATERIALS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE. DEFECTIVE WORK AND ALL DAMAGES CAUSED THEREBY WHICH MAY OCCUR DURING THE TERM OF THE AFOREMENTIONED GUARANTEE WILL BE REPAIRED AND/OR REPLACED AT NO EXPENSE TO THE OWNER.

16. OWNER'S MANUAL: PROVIDE THE OWNER, AT THE COMPLETION OF THIS CONTRACT, WITH AN "OWNER'S MANUAL" SO LABELED. THE MANUAL SHALL CONSIST OF A THREE-RING LOOSE-LEAF BINDER CONTAINING ALL PRINTED MATTER SUCH AS: GUARANTEE CARDS, CLEANING INSTRUCTIONS, NOTICES TO OWNER, OPERATING MANUALS, AND MAINTENANCE INSTRUCTIONS THAT MAY BE CONTAINED IN THE SHIPPING CARTONS OR EQUIPMENT HOUSINGS.

#### GENERAL PLUMBING NOTES

1. DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS, AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.

2. FURNISH A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE OWNER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS PREPARED BY THE ENGINEER-OF-RECORD AFTER FINAL INSPECTION OF INSTALLED PLUMBING

3. FURNISH TO THE OWNER A COPY OF INSPECTION REPORTS AND APPROVAL

4. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.

5. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES.

6. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE 7. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED AND INSTALLED AT

EVERY FIXTURE SUPPLY AND GROUPING TO ALLOW FOR MAINTENANCE. VALVES ARE NOT ALL SHOWN ON PLAN. COORDINATE IN FIELD. 8. PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED; EXPOSED PIPING,

WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO

9. COORDINATE ALL WITH WITH OTHER TRADES AND CONTRACTORS.

10. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS. FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS. COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR, AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.

11. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER.

12. PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.

13. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS.

14. PAINT ALL EXPOSED GAS PIPING USING RUST INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER.

15. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL OTHER EQUIPMENT.

INSULATION TO PREVENT FREEZING. ALL OTHER COLD AND HOT WATER LINES SHALL BE INSULATED WITH MINIMUM OF 3/4" FIBERGLASS INSULATION. 17. PROVIDE SHIELDED ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO

16. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT

CAST IRON AT SLAB ON GRADE. SEE DIVISION 15 SPECIFICATION SECTION "DRAINAGE AND VENT SYSTEMS" FOR MORE INFORMATION.

AND PROVIDED ON ALL FIXTURES. 19. PROVIDE CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK

18. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE

FAUCETS DOWNSTREAM OF SHUTOFF VALVES.

20.AIR PIPING MUST BE BLED THOROUGHLY PRIOR TO CONNECTING TO TOOLS OR

#### PLUMBING FIXTURE AND EQUIPMENT SCHEDULE/CONNECTIONS FIXTURE ROUGH-IN MARK DESCRIPTION FIXTURE CW HW S-1 **BREAK ROOM SINK** 1-1/2" ELKAY GECR-2521L4 WITH LK18 GRID STRAINER, DELTA 100-WF FAUCET (0.5 GPM), OR EQUAL. 1/2" GSW SERVICE SINK MODEL SE-2424FM, FLOOR MOUNTED, STAINLESS STEEL, W/ GSW MS-1 MOP SINK SERVICE FAUCET MODEL AA-840, WALL MOUNTED, PROVIDE BACK FLOW DEVICE, OR APPROVED EQUAL LSP PRODUCTS GROUP, MODEL #OB-207 WASHING MACHINE OUTLET RECESSED BOX WITH WASHING BOX SIOUX CHIEF "MINI-RESTER" HAMMER ARRESTOR (FOR HOT AND COLD WATER SUPPLY) OR APPROVED EQUAL. ZURN WALL CLEANOUT MODEL Z1441-VP, DURA-COATED CAST IRON BODY, GAS AND WATERTIGHT, VANDAL PROOF SCREWS, COORDINATE FINAL LOCATIONS AND FINISH WITH WCO WALL CLEANOUT PLANS ARCHITECTURAL. MIXING VALVE WATTS - MODEL #LFMMV-M1, SET OUTLET MV-1 MIXING VALVE TEMPERATURE AT 105°F. NOTES: 1. CONTRACTOR TO VERIFY THAT ALL PLUMBING FIXTURES ARE FOR INSTALLATION ON EXPOSED SLAB

— G —	GAS PIPING
_CD_	CONDENSATE DRAIN PIPING
	COLD WATER PIPING
	HOT WATER PIPING (140°)
—	HOT WATER RECIRCULATING PIPING
- w —	SANITARY WASTE PIPING
-FW-	FILTERED WATER PIPING
—140°—	140° WATER PIPING
−GW <del>-</del>	GREASE WASTE PIPING
	SANITARY VENT PIPING
VTR	VENT THROUGH ROOF
OC	PLUMBING TRAP
<del></del>	PIPE TURNING DOWN
	PIPE TURNING UP
<u> </u>	CHECK VALVE
<u> </u>	UNION
AFF	ABOVE FINISHED FLOOR
CO	CLEAN OUT
	PRESSURE REGULATING VALVE (PRV) (50 PSI)
•	BALL VALVE
EWF	BALANCE VALVE  ELECTRIC WATER FOUNTAIN
GCO	GRADE CLEAN OUT
<del>\_</del>	CIRCUIT SETTER BALANCE VALVE
lacktriangle	POINT OF CONNECTION
<b>—</b>	SWING CHECK VALVE / BACK WATER VALVE
PRV	PRESSURE REDUCING VALVE
_ <del>_</del>	SOLENOID VALVE
	THREE-WAY SOLENOID VALVE
$\rightarrow$	GATE VALVE
50V <sub>5</sub> 2	RISER BALL VALVE / SHUT OFF VALVE
<b>A</b>	GAS COCK

GALVANIZED IRON -

SHEET SHIELD

1 ATTACH SUPPORTS FOR ALL PIPING SUSPENDED FROM THE STEEL

2. PROVIDE COPPER OR PLASTIC COATED HANGERS FOR NON-INSULATED

STRUCTURE TO THE TOP CHORD OF JOISTS OR BEAMS.

HANGER ROD -

INSULATION

VHERE REQUIRE

UNISTRUT CHANNEL

PROVIDE A SECTION OF HIGH COMPRESSION

SULATION MAY BE HALF ROUND OR FULL

SHIELD EACH WAY

PIPE HANGER DETAIL

SCALE:

NONE

RENGTH INSULATION AT EACH HANGER POIN

AND EXTENDED 2" BEYOND GALVANIZED

WHERE REQUIRED

2. SEE ARCHITECT PLANS SPECIFICATIONS FOR ADDITIONAL INFORMATION.

### APPLICABLE CODES

CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE STATE

CODES WHETHER INDICATED HEREIN OR NOT. INTERNATIONAL BUILDING CODE 2015 (IBC 2015)

- INTERNATIONAL MECHANICAL CODE 2015 (IMC 2015)

- INTERNATIONAL PLUMBING CODE 2015 (IPC 2015) - INTERNATIONAL FIRE CODE 2015 (IFC 2015)

- NATIONAL ELECTRICAL CODE 2017 OF OHIO - INTERNATIONAL ENERGY CONSERVATION CODE 2018 (IECC 2018) ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES 2009 OF OHIO

- NATIONAL FIRE ALARM AND SIGNALING CODE 2016 OF OHIO - STANDARD FOR HIGH CHALLENGE FIRE WALLS, AND FIRE BARRIER WALLS 2015 OF OHIO

# SHEET INDEX

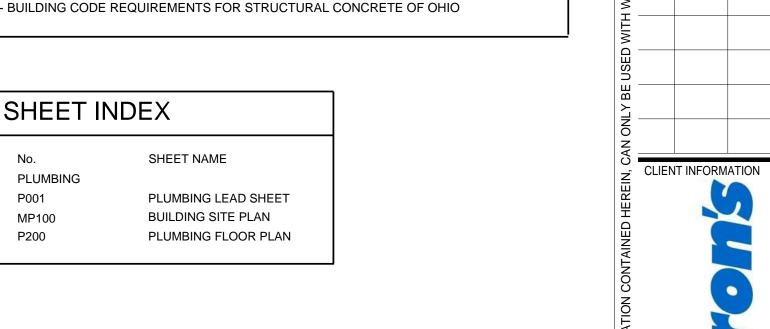
CHROME WALL COVER

AND SCREW

FLOOR LINE -

1/8 CI BEND

SHEET NAME PLUMBING PLUMBING LEAD SHEET P001 MP100 BUILDING SITE PLAN P200



Kinetic Design

Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build

Email. info@kineticdesign.build

JOHN C

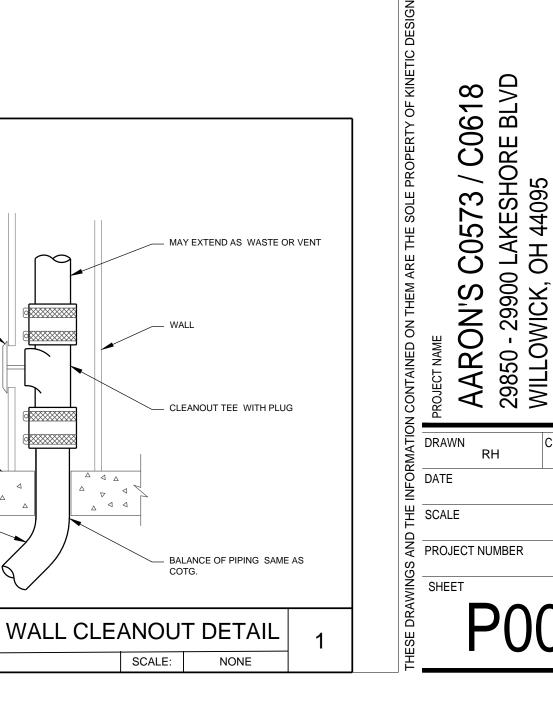
**SCHNEIDER** 

ARC. 1215624

**REVISIONS** 

DESCRIPTION

No. DATE

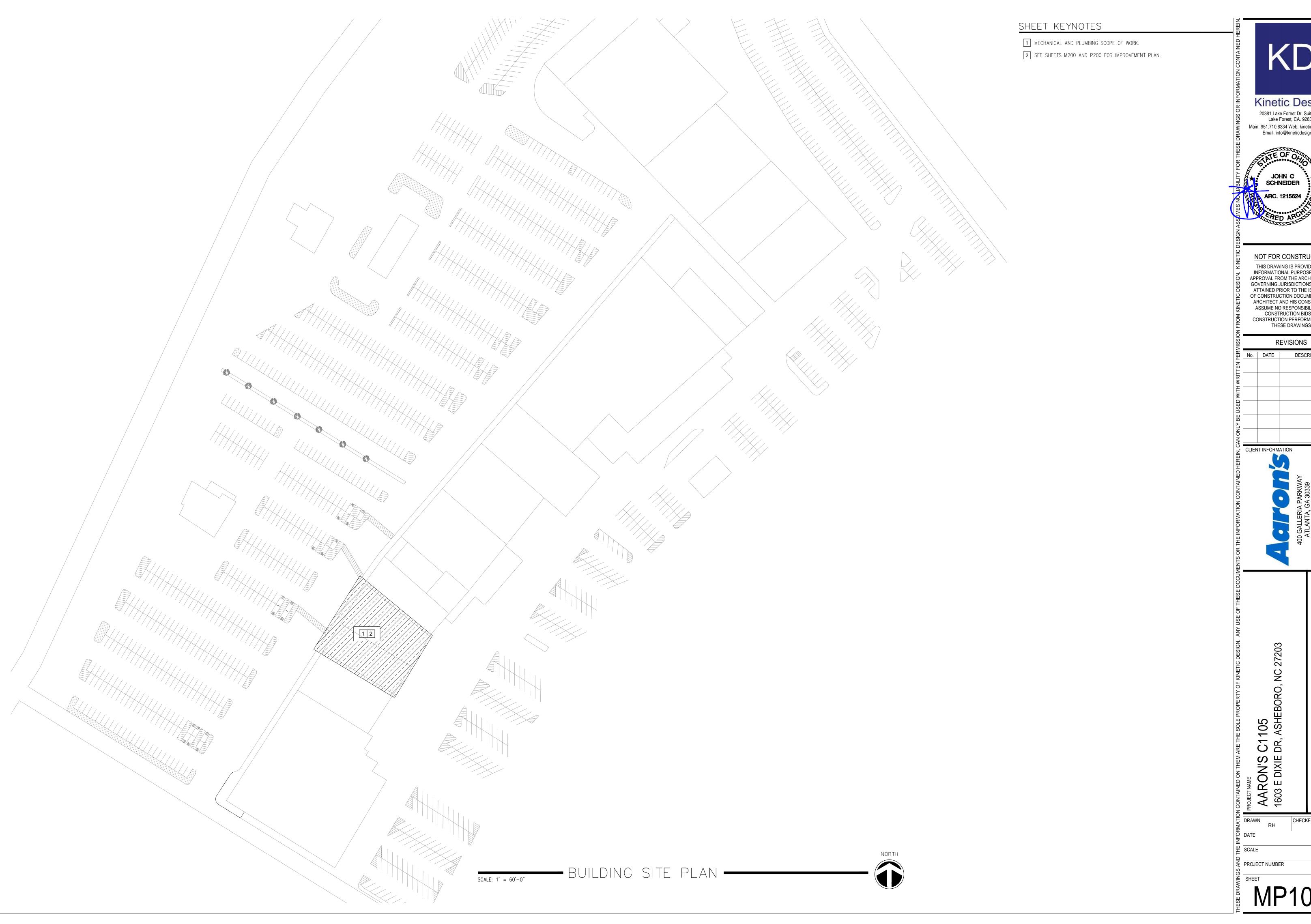


SCALE:

CHECKED

03/07/23

AS NOTED





Kinetic Design 20381 Lake Forest Dr. Suite B16 Lake Forest, CA. 92630 Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build

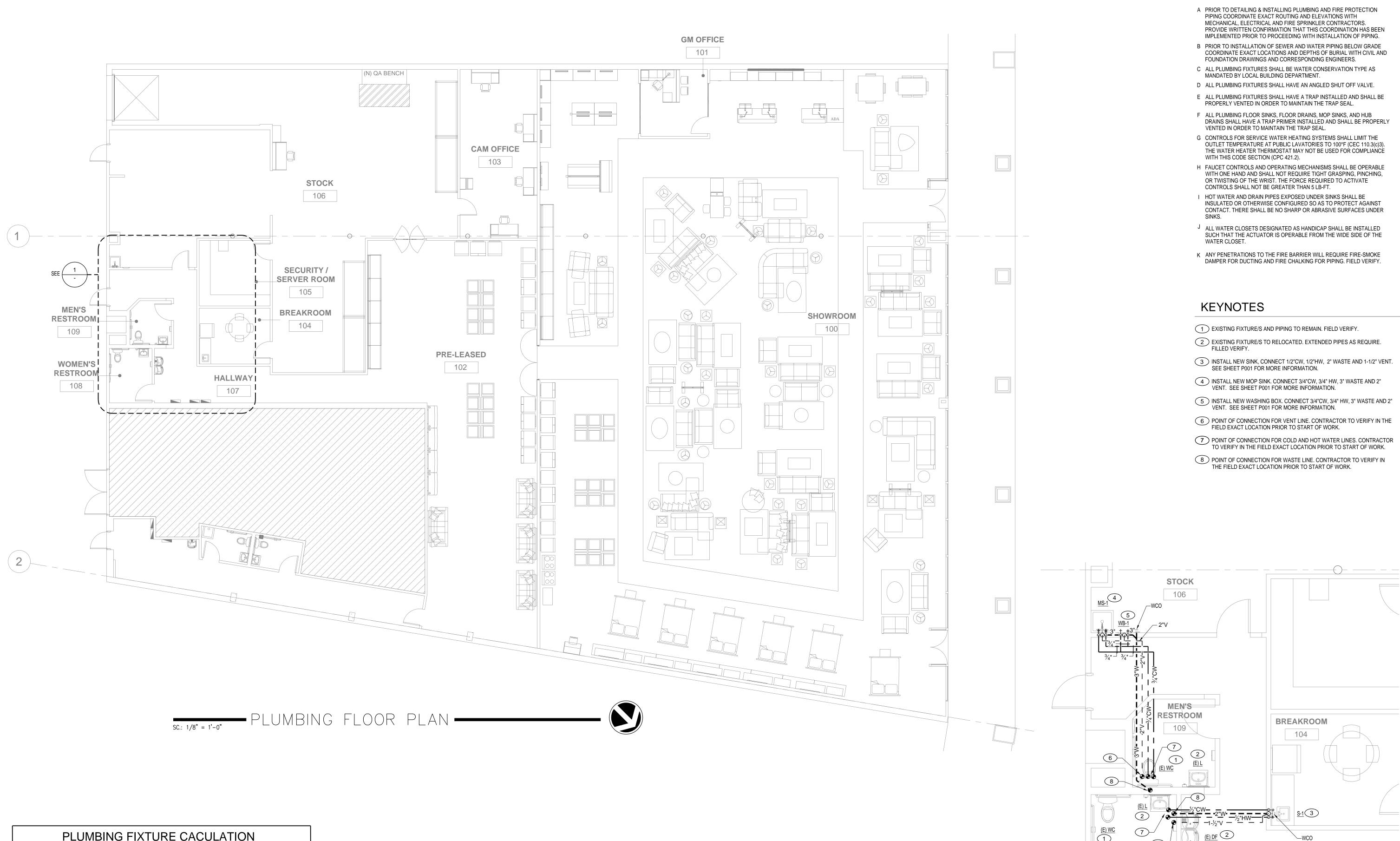


NOT FOR CONSTRUCTION

THIS DRAWING IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY.
APPROVAL FROM THE ARCHITECT AND GOVERNING JURISDICTIONS MUST BE ATTAINED PRIOR TO THE ISSUANCE OF CONSTRUCTION DOCUMENTS. THE ARCHITECT AND HIS CONSULTANTS ASSUME NO RESPONSIBILITY FOR CONSTRUCTION BIDS OR CONSTRUCTION PERFORMED FROM THESE DRAWINGS.

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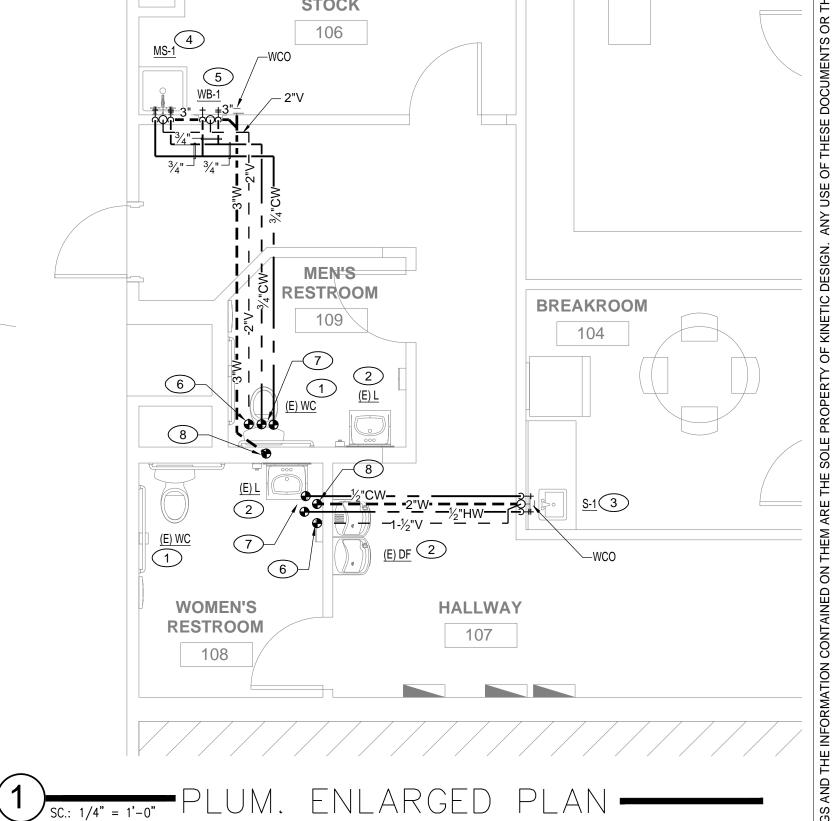
06/24/22 PROJECT NUMBER

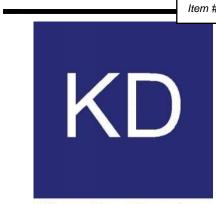


		Each			Tota	al	
Fixture Type	QTY	W	CW(100%)	HW	W	CW(100%)	HW(75
(E) Water Closet	2	4.0	2.5	0.000	8.0	5.0	0.4
(E) Lavatory	2	1.0	1.0	0.750	2.0	2.0	1.:
Sink	1	2.0	1.5	1.125	2.0	1.5	1.
Mop Sink	1	3.0	3.0	2.250	3.0	3.0	2.:
Hose Bibb	1	0.0	2.5	0.000	0.0	2.5	0.
Hose Bibb (additional)	1	0.0	1.5	0.000	0.0	1.5	0.
Washing Box	1	3.0	4.0	3.000	3.0	4.0	3.
(E)Drinking Fountain	1	2.0	1.0	0.000	2.0	1.0	0.
Total		0.0	1.0	0.000	0.0	0.0	0.
	10				20.0	20.5	7.
						15 GPM	

### **GENERAL NOTES**

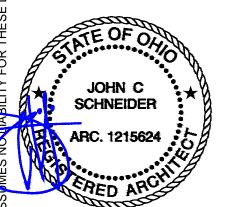
- A PRIOR TO DETAILING & INSTALLING PLUMBING AND FIRE PROTECTION PIPING COORDINATE EXACT ROUTING AND ELEVATIONS WITH MECHANICAL, ELECTRICAL AND FIRE SPRINKLER CONTRACTORS. PROVIDE WRITTEN CONFIRMATION THAT THIS COORDINATION HAS BEEN
- B PRIOR TO INSTALLATION OF SEWER AND WATER PIPING BELOW GRADE COORDINATE EXACT LOCATIONS AND DEPTHS OF BURIAL WITH CIVIL AND
- FOUNDATION DRAWINGS AND CORRESPONDING ENGINEERS.
- D ALL PLUMBING FIXTURES SHALL HAVE AN ANGLED SHUT OFF VALVE.
- PROPERLY VENTED IN ORDER TO MAINTAIN THE TRAP SEAL.
- G CONTROLS FOR SERVICE WATER HEATING SYSTEMS SHALL LIMIT THE OUTLET TEMPERATURE AT PUBLIC LAVATORIES TO 100°F (CEC 110.3(c)3). THE WATER HEATER THERMOSTAT MAY NOT BE USED FOR COMPLIANCE
- H FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE
- I HOT WATER AND DRAIN PIPES EXPOSED UNDER SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED SO AS TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER
- SUCH THAT THE ACTUATOR IS OPERABLE FROM THE WIDE SIDE OF THE
- K ANY PENETRATIONS TO THE FIRE BARRIER WILL REQUIRE FIRE-SMOKE DAMPER FOR DUCTING AND FIRE CHALKING FOR PIPING. FIELD VERIFY.
- 1 EXISTING FIXTURE/S AND PIPING TO REMAIN. FIELD VERIFY.
- 2 EXISTING FIXTURE/S TO RELOCATED. EXTENDED PIPES AS REQUIRE. FILLED VERIFY.
- 3 INSTALL NEW SINK, CONNECT 1/2"CW, 1/2"HW, 2" WASTE AND 1-1/2" VENT.
- 4 INSTALL NEW MOP SINK. CONNECT 3/4"CW, 3/4" HW, 3" WASTE AND 2" VENT. SEE SHEET P001 FOR MORE INFORMATION.
- 5 INSTALL NEW WASHING BOX. CONNECT 3/4"CW, 3/4" HW, 3" WASTE AND 2" VENT. SEE SHEET P001 FOR MORE INFORMATION.
- 6 POINT OF CONNECTION FOR VENT LINE. CONTRACTOR TO VERIFY IN THE





Kinetic Design 29833 Santa Margarita Pkwy, Suite 300 Rancho Santa Margarita, CA 92688

Main. 951.710.6334 Web. kineticdesign.build Email. info@kineticdesign.build



REVISIONS DESCRIPTION No. DATE

CLIENT INFORMATION

AS NOTED PROJECT NUMBER



PERMIT FEE: \$60.00

# CITY OF WILLOWICK PLAN REVIEW BOARD APPLICATION FOR PERMIT TO OCCUPY FOR BUSINESS, COMMERCIAL, INDUSTRIAL, ETC. YOU MUST FILL OUT ENTIRE APPLICATION 440-516-3000



DATE:	
Location of Occupancy: 30320 Lakeshore Blvd Busi (ADDRESS)	ness Name: Tesla, Inc.
Business Owner's Name & Address: Michael Lovett - 3500	Deer Creek Road
CITY/STATE/ZIP: Palo Alto. CA 94304	
Telephone Number: 614-425-2665 Fax Number:	Federal ID Number: Tesla - 91-2197729 Or Social Security Number
OWNER OF PROPERTY/NAME/ADDRESS/TELEPHONE NUMBER:	Shoregate Station LLC - Emily Hall 513-824-7107
11501 Northlake Drive, Cincinnati, OH 45249	
no building proposed	TABLE FLOOR AREA FOR OCCUPANCY: N/A  Total Number Of Employees: N/A
Intended Number of Occupants: N/A Total Number of Sea	iting: N/A
Site Plan With Number of Paved Parking Spaces: 16 (for th	is project) Hours Of Operation: 24/7
Letter of Intent: included Previous Use: Sho	pping center Proposed Use: U
NAME OF PRINCIPAL OR CONTACT PERSON FOR NEW BUSINESS.	GPD Group - Sarah Honeycutt - Agent for Tesla, Inc.
Home Address/City/Zip: 520 S. Main St., Ste. 2531, Akron.	OH 44311 Telephone Number: 330-572-3508
above. Any change in the purpose of occupancy will not be made Zoning Department. <u>A final approval by The Willowick Bulldina D</u>	rectly by me and that the premises will be used for the purpose stated without approval from Lake County Building, Willowick Fire & Willowick ept. (440)516-3000 or a representative thereof, must be complied with the obave premises in compliance with the ordinances of the City of Willowick and the Obave premises in Compliance with the Ordinances of the City of Willowick and the Obave premises in Compliance with the Ordinances of the City of Willowick and the Obave premises in Compliance with the Ordinances of the City of Willowick and City of William an
Office use only:	
Zoning District: Authorized Occupant	ts:
TEMPORARY APPROVED BY: Date:	
Zoning Dept. Inspected by:	DATE:
Zoning Permit # Zoning Pe	ermit Fee \$
Fire Dept. Inspected By:	Date :

CITY OF WILLOWICK-APPLICATION FOR COMMERCIAL ESTABLISHMENT LICENSE REQUIRED <u>AFTER APPROVAL</u>

Note\* A separate permit is required for all new signs from the Willowick Building Department.



March 27, 2023 2022241.29

Sean Brennan
Chief Housing & Zoning Inspector
City of Willowick
31230 Vine Street
Willowick, OH 44095

# Letter of Intent: Tesla Supercharging Station 30320 Lakeshore Boulevard, Willowick, OH

Dear Mr. Brennan,

Our office is handling the engineering and permitting services for the proposed Tesla Supercharging Station. This letter is to inform you of their proposal to install an electric vehicle charging station within the existing parking lot of the Shoregate Town Center at 30320 Lakeshore Boulevard, Willowick, OH 44095. Please refer to the vicinity map on the cover sheet of the provided plans for project location. The project area consists of one parcel which is identified by Lake County Property Appraiser as parcel no. 28-A-043-W-00-001-0. Refer to the provided construction plans for the provided survey for further legal description.

This project area is currently used as general parking for the Shoregate Town Center shopping plaza. The shopping center is located southwest of the intersection of Lakeshore Boulevard and E. 305<sup>th</sup> Street. The shopping plaza offers retail stores, restaurants and other services to a wide range of clientele. The Shoregate Town Center Plaza offers an excellent location for Tesla's Supercharging Station. Their partnership will result in a premium charging experience for Tesla customers as well as help bring ecofriendly vehicle to Lake County.

The site is located within a zoning district that is identified as Retail District which includes commercial uses such as retail, dining, recreation facilities. The current proposed will result in the decrease of four (4) existing parking stalls from the overall stall count. Equipment for the electric vehicle station is proposed to be placed within a landscape island that is created and screened. The proposed Tesla station will provide twelve (12) parking stalls with charging units to the local and regional community. The project site plan is included on sheet C-111.

Within the shopping plaza, Tesla has specifically chosen stalls at the back of the parking lot. These parking stalls are less-prime parking as they are further from the main entrance of the building and are often used last. This ensures that existing clientele base does not experience adverse impacts form the installation and reduces the likelihood of non-electric vehicle parking in the charging stalls.

The project will utilize Tesla Supercharging Post to provide power for Tesla owners. All equipment will be secure and tamper resistant. Additionally, significate project components such as utility equipment required by the local utility service provider.

Major equipment as currently designed includes:

- (3) Tesla Supercharging Cabinets
- (12) Tesla Supercharging Posts
- (1) Switchgear Assembly with integrated Tesla site controller & Primary broadcast unit
- (1) Utility transformer, (1) meter and other associated utility equipment
- Pole Mounted Luminaire(s)

Sarah Honeycutt

If you have any questions, please do not hesitate to contact me at (330) 572-3508 or by email at <a href="mailto:gpdchargepermits@gpdgroup.com">gpdchargepermits@gpdgroup.com</a>. Thank you for your time and consideration.

Sincerely,

**GPD** Group

Sarah Honeycutt Planning Specialist

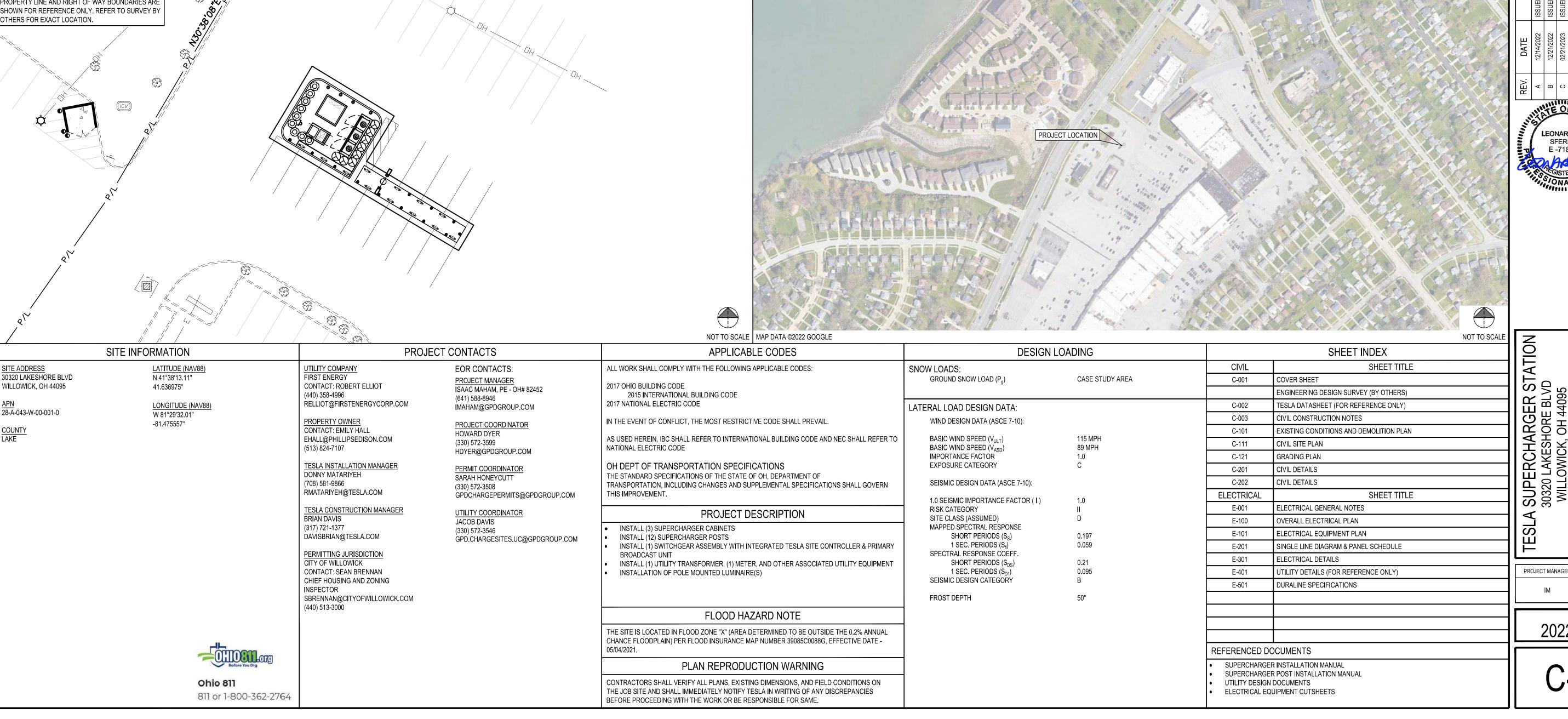
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# SUPERCHARGER STATION

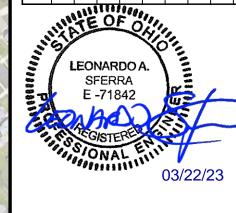
30320 LAKESHORE BLVD WILLOWICK, OH 44095 TRT27552

**VICINITY MAP** 

SITE LAYOUT





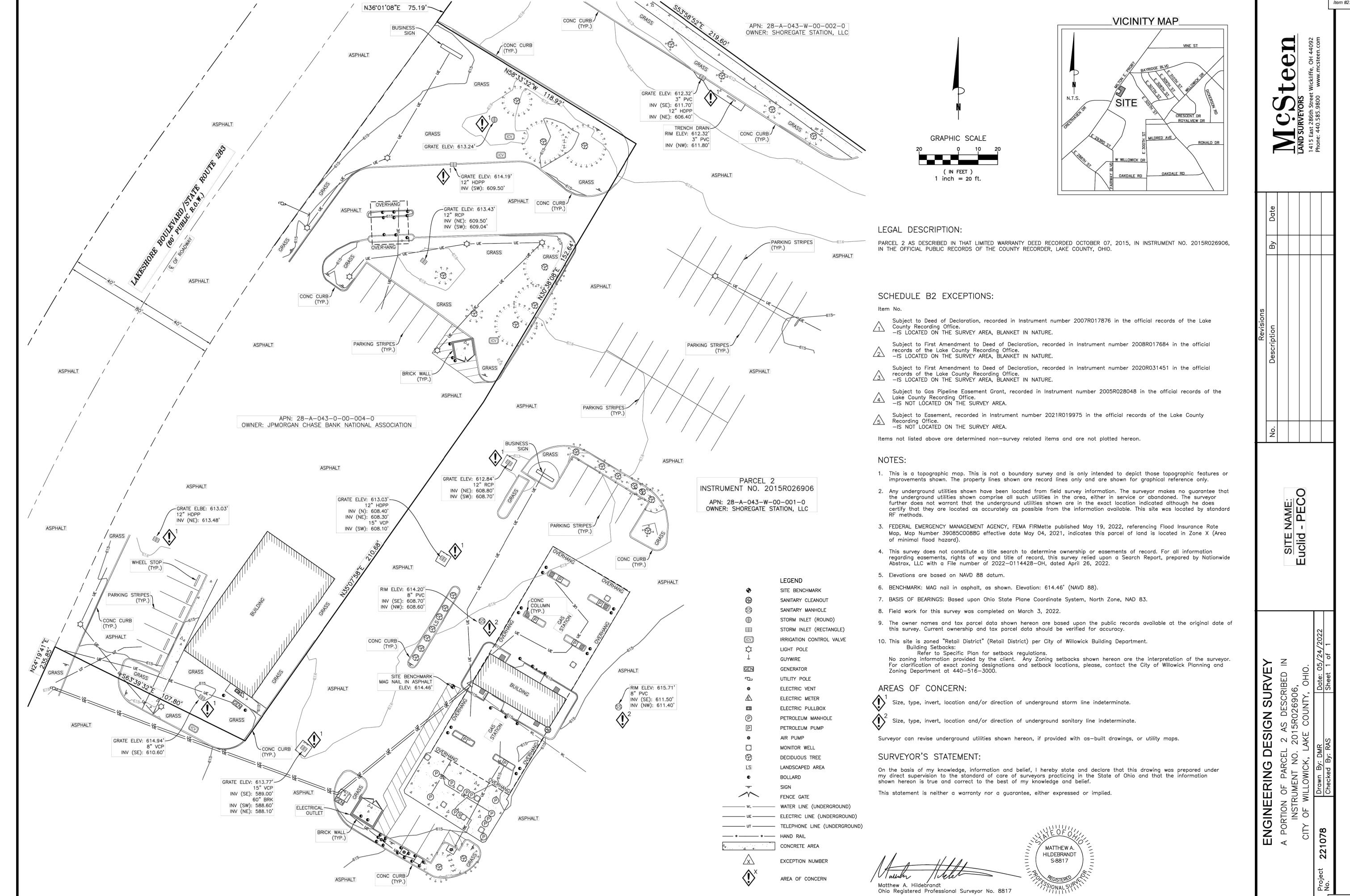


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## V3 SUPERCHARGER DATASHEET

# V3 SUPERCHARGER DATASHEET

# V3 Supercharger Cabinet

		Input (V <sub>AC</sub> )	480	440	415	400	380			
	Peak AC Input Power	Power (kVA)	387	354	334	322	306			
	AC Input Voltage	380 VAC - 480 VAC (-5%, +10	0%), 4-wir	e 3AC+N	ı .	-0.11				
AC INPUT	AC Input current	465 A <sub>AC</sub> Max.								
(Electrical)	Frequency	50 Hz / 60 Hz								
*♥ (control of short) (*control of short)	Power Factor	≥ 0.99								
	Current THD	< 3%								
	Voltage THD	< 2%								
		L1, L2, L3, N: 150 - 400 mr	n², 250 M	ICM - 75	0 MCM					
AC INPUT	Conductor Sizes	PE: 10 - 70 mm <sup>2</sup> , #8 AWG								
(Mechanical)	Conductor Material Type	L1, L2, L3, N: Cu, Al PE: Cu								
	Mfr. Termination Temp Rating									
		Input (VAC)	480	440	415	400	380			
SHARED DC BUS	Max Rated DC Bus Power	Power (kW)	575	575	575	575	575			
(ELECTRICAL)	Max Rated DC Bus Current	Current (Apc)	640	640	640	640	640			
*	DC Bus Voltage Range									
		V+, V- (2x/pole): 150 - 300	) mm², 25	о мсм -	- 600 MC	M				
	Conductor Sizes	Mid: 16 - 150 mm <sup>2</sup> , 6 AW				*, ***********************************				
SHARED DC BUS		PE: 10 – 70 mm², #8 AWG - 2/0								
(MECHNICAL)	Conductor Material Type	V+, V-, Mid: Cu, Al PE: Cu								
,	Conductor Voltage Rating									
	Mfr. Termination Temp Rating	90° C								
	Max. Rated Post Power	250 kW								
	Post Rated Voltage Range	0-500 V <sub>BC</sub>								
DC POST (ELETRICAL)	Post Rated Current @T <sub>a</sub> =35° C	Tesla Handle: 350 Apc, CCS	2 & GB H	andle: 4	50 Acc					
	Number of Charge Posts	1 - 4	2 0 00 11	orioic. 4.	JO NUC					
	Max Voltage Drop	10 V <sub>pc</sub>								
	Iviax voitage Diop	V+, V- (2x/pole): 350 MCM	4 or 185 n	nm² AL (	certified	equipme	ent			
	Conductor Size									
		PE: 10 – 70 mm², #8 AWG - 2/0								
DC POST (MECHANICAL)	Conductor Material Type	V+,V-: Al, Cu PE: Cu	-,-							
	Conductor Voltage Rating	1000 V								
	Mfr. Termination Temp Rating	90°C								
SYSTEM	Efficiency	96%								
31312111	AC Input side: Class 1	DC Output side: Isolated D	C Output	0						
		Temperature, Surge Protect			itoring					
PROTECTION	Short-Circuit Protection	External Electronic Trip Cir								
	Short Circuit Current Rating	85 kA RMS symmetrical	care brica	1001						
	Operating Temperature	-30°C to 50°C, -22°F to 122	>°E							
ENVIRONMENTAL	Ingress Protection	IP66 (Cabinet), IP2X (Cooli								
ENTINOTHICITIES	Ventilation Requirements	Ventilation Not Required								
NOISE	Typical noise at 1m	35 dB(A)								
STANDARDS	UL 2202, CSA C22.2#107.1, FCC, ICES-00			011, GB/	T 18487.	1, GB/T	27930			
LAYOUT	Max. Distance to Charge Post	100 m, 340 ft.								
The state of the s		4 Post Cabinet: 1110 kg (2	448 lhs)							
WEIGHT	Supercharger Cabinet Weight	3 Post Cabinet: 1110 kg (2)								
DIMENSIONS	Depth, Width, Height									
PHAFIANOIAN	Per-anchor min. Shear Strength	4 kN	24/34/ 43 //	by 60 20/32	c fills					
MOUNTING	Per-anchor min. Tension Strength									
	reirandior min. Tension strength	AT DIT								

# V3 Supercharger Charge Post

DOST INDUT/OURLIT	Max. Rated Post Power	250 kW				
POST INPUT/OUPUT (ELECTRICAL)	Post Rated Voltage Range	0 - 500 Voc				
(ELECTRICAL)	Post Rated Current @Ta=35" C	Tesla Handle: 350 Apc, CCS2 & GB Handle: 450 Apc				
	Power Conductors	V+, V- (2x/pole): 350 MCM or 185 mm <sup>2</sup> AL (certified equipment wiring)				
DC INPUT	PE Conductor	PE: 25 – 50 mm <sup>2</sup> , 3 AWG – 2/0				
(MECHANICAL)	Conductor Material Type	V+, V- : Al, Cu PE: Al, Cu				
(IVIECHANICAL)	Conductor Voltage Rating	1000 V				
	Mfr. Termination Temp Rating	90° C				
PROTECTION	Over Current/Temperature, Uneven Current Split					
ENVIRONMENTAL	Operating Temperature	-40°C to 50°C, -40°F to 122°F				
ENVIRONMENTAL	Ingress Protection	IP44				
STANDARDS	UL 2202, CSA 22.2#107.1-16, FCC, ICE	S-003, EN 61000-6-2, EN 61000-6-4, IEC 61851-1, IEC 61851-23, GB/T				
STANDANDS	18487.1, GB/T 2	7930, GB/T 20234.1, GB/T 20234.3, GB/T 34658				
LAYOUT	Max. Distance to Cabinet	100 m, 340 ft.				
WEIGHT	Charge Post Weight	64 kg, 140 lbs.				
DIMENSIONS	Depth, Width, Height	250, 810, 1687 mm; 9 27/32, 31 7/8, 66 13/32 in.				
MOUNTING	Per-anchor min. Shear Strength	1 kN				
MOUNTING	Per-anchor min. Tension Strength	11 kN				



DESCRIPTION	ISSUED FOR SITE SKETCH REVIEW	ISSUED FOR 90% REVIEW	ISSUED FOR SIGN & SEAL	ISSUED FOR SIGN & SEAL			
DATE	12/14/2022	12/21/2022	02/21/2023	03/22/2023			
REV.	А	В	0	0			

FOR REFERENCE ONLY

TESLA SUPERCHARGER STATION 30320 LAKESHORE BLVD WILLOWICK, OH 44095

TESLA DATASHEET

PROJECT MANAGER DESIGNER

2022241.29

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### GENERAL CONSTRUCTION NOTES

FROM THE DRAWINGS.

PROPERTY OWNER: EMILY HALL

- THE TOPOGRAPHIC SURVEY BY OTHERS SHALL BE REFERENCED WITH THESE PLANS. THE G.C. IS RESPONSIBLE FOR LOCATING PROPOSED IMPROVEMENTS PER THESE PLANS.
- 2. THE LOCATIONS OF UNDERGROUND FACILITIES SHOWN ON THE PLAN ARE BASED ON FIELD SURVEYS. DUE TO THE LIMITATIONS IN TECHNOLOGY AND GROUND CONDITIONS, NOT ALL UNDERGROUND UTILITIES ARE ABLE TO BE LOCATED. IT SHALL BE THE CONTRACTOR'S FULL RESPONSIBILITY TO CONTACT THE VARIOUS UTILITY COMPANIES TO LOCATE THEIR FACILITIES PRIOR TO STARTING CONSTRUCTION. NO ADDITIONAL COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR DAMAGE AND REPAIR TO THESE FACILITIES CAUSED BY HIS WORK FORCE.
- 3. ALL PROPERTY LINES, RIGHT OF WAYS, CENTERLINES, DIMENSIONS, GRADES, AND UTILITY LOCATIONS SHOWN ON THESE PLANS WERE BASED ON A TOPOGRAPHIC SURVEY. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY CONSTRUCTION/PROJECT MANAGER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION FOR NECESSARY CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO INFORMATION SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- PRIOR TO COMMENCEMENT OF ANY WORK, THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND NOTIFY THE DESIGN PROFESSIONAL IN CHARGE FOR THE OWNER OF ANY DISCREPANCIES. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS 30. SHALL BE CORRECTED AT THE CONTRACTOR'S SOLE EXPENSE.
- CONTRACTOR INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE OWNER FOR APPROVAL BEFORE MAKING ANY CHANGES. DEVIATION FROM PLANS BEFORE WRITTEN APPROVAL FROM OWNER PLACES LIABILITY ON THE CONTRACTOR.
- UNLESS OTHERWISE NOTED, ALL SURFACES SHALL BE PATCHED AND PAINTED AROUND THE PROPOSED IMPROVEMENTS TO MATCH EXISTING FINISHES.
- APPROVALS FROM BUILDING INSPECTORS SHALL NOT CONSTITUTE AUTHORITY TO DEVIATE 33.
- THE GENERAL CONTRACTOR SHALL VISIT THE SITE AND SHALL FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THE PROPOSED WORK AND SHALL MAKE ARRANGEMENTS FOR THE PROPOSED SCOPE OF WORK. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR FAMILIARIZING THEMSELVES WITH ALL CONTRACT DOCUMENTS, FIELD DOCUMENTS, DIMENSIONS, AND CONFIRMING THAT THE WORK MAY BE ACCOMPLISHED AS SHOWN PRIOR TO PROCEEDING WITH CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE COMMENCEMENT OF WORK.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. GENERAL CONTRACTOR SHALL ISSUES ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND FEDERAL, STATE AND LOCAL JURISDICTION CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- 1. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 2. PLANS ARE NOT TO BE SCALED. THESE PLANS ARE INTENDED TO BE A DIAGRAMMATIC OUTLINE ONLY UNLESS OTHERWISE NOTED. DIMENSIONS SHOWN ARE TO FINISH SURFACES UNLESS OTHERWISE NOTED. SPACING BETWEEN EQUIPMENT IS THE MINIMUM REQUIRED CLEARANCE. THEREFORE, IT IS CRITICAL TO FIELD VERIFY DIMENSIONS, SHOULD THERE BE ANY QUESTIONS REGARDING THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING A CLARIFICATION FROM THE ENGINEER PRIOR TO PROCEEDING WITH THE WORK. DETAILS ARE INTENDED TO SHOW DESIGN INTENT. MODIFICATIONS MAY BE REQUIRED TO SUIT JOB DIMENSIONS OR CONDITIONS AND SUCH MODIFICATIONS SHALL BE INCLUDED AS PART OF WORK AND PREPARED BY THE ENGINEER PRIOR TO PROCEEDING WITH WORK.
- 13. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 4. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE OWNER PRIOR TO PROCEEDING.
- 15. THE GENERAL CONTRACTOR SHALL COORDINATE WORK AND SCHEDULE WORK ACTIVITIES WITH OTHER DISCIPLINES.
- 6. CONSTRUCTION SHALL BE DONE IN A WORKMANLIKE MANNER BY COMPETENT EXPERIENCED WORKMAN IN ACCORDANCE WITH APPLICABLE CODES AND THE BEST ACCEPTED PRACTICE.
- 7. THE CONTRACTOR SHALL PROVIDE WRITTEN NOTICE TO THE CONSTRUCTION MANAGER 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- 18. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE PROPERTY OWNER.
- 9. THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 20. THE GENERAL CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS FOR ALL TRADES AND CONTRACTORS TO THE SITE AND/OR BUILDING.
- THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR SECURITY OF THE SITE FOR THE DURATION OF CONSTRUCTION UNTIL JOB COMPLETION. PROVIDE AND MAINTAIN ALL TEMPORARY FENCING, BARRICADES, WARNING SIGNALS AND SIMILAR DEVICES NECESSARY TO PROTECT AGAINST THEFT FROM PROPERTY DURING THE ENTIRE PERIOD OF CONSTRUCTION. GRAFFITI ON TEMPORARY FENCING SHALL BE PAINTED OVER WITHIN ONE DAY OF DISCOVERY. REMOVE ALL SUCH DEVICES UPON COMPLETION OF THE WORK.
- THE GENERAL CONTRACTOR SHALL MAINTAIN IN GOOD CONDITION ONE COMPLETE SET OF PLANS WITH ALL REVISIONS, ADDENDA, AND CHANGE ORDERS ON THE PREMISES AT ALL TIMES.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. THE CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS SHALL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION, B) CONFINED SPACE, C) ELECTRICAL SAFETY, AND D) TRENCHING & EXCAVATION.

- 24. ONLY ITEMS SPECIFICALLY CALLED OUT TO BE REMOVED OR DEMOLISHED SHALL BE AFFECTED. ANY ITEMS INCLUDING, BUT NOT LIMITED TO, CURBS, PAVEMENT, UTILITY ITEMS, LANDSCAPING, ETC. SHALL REMAIN AND BE PROTECTED THROUGHOUT CONSTRUCTION. CONTRACTOR IS RESPONSIBLE TO REPAIR OR REPLACE ANY AFFECTED ITEMS AT OWNERS DISCRETION.
- 25. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED, CAPPED, PLUGGED OR OTHERWISE DISCONNECTED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- 26. THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION.
- 27. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO THE EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES SHALL BE IN CONFORMANCE WITH THE EPA AND FEDERAL, STATE, LOCAL JURISDICTIONS FOR EROSION AND SEDIMENT CONTROL. THE WORK AREA SHALL BE CONSTRUCTED AND MAINTAINED IN SUCH CONDITION THAT IN THE EVENT OF RAIN THE SITE WILL BE DRAINED AT ALL TIMES.
- 28. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- 29. THE SUBGRADE SHALL BE BROUGHT TO A SMOOTH UNIFORM GRADE AND COMPACTED TO 95 PERCENT STANDARD PROCTOR DENSITY UNDER PAVEMENT, SIDEWALKS AND STRUCTURES AND 80 PERCENT STANDARD PROCTOR DENSITY IN OPEN SPACE. ALL TRENCHES IN PUBLIC RIGHT OF WAY SHALL BE BACKFILLED WITH FLOWABLE FILL OR OTHER MATERIAL PRE-APPROVED BY THE LOCAL JURISDICTION.
- 30. ALL NECESSARY RUBBISH, STUMPS, DEBRIS, STICKS, STONES, AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A LAWFUL MANNER.
- 31. ALL BROCHURES, OPERATING AND MAINTENANCE MANUALS, CATALOGS, SHOP DRAWINGS, AND OTHER DOCUMENTS SHALL BE TURNED OVER TO THE OWNER AT COMPLETION OF CONSTRUCTION AND PRIOR TO PAYMENT.
- 32. THE CONTRACTOR SHALL SUBMIT A COMPLETE SET OF AS-BUILT REDLINES TO THE OWNER UPON COMPLETION OF PROJECT AND PRIOR TO FINAL PAYMENT.
- 33. AT THE END OF EACH WORK DAY AND FINAL TURNOVER TO OWNER, THE CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS IN A LAWFUL MANNER AND LEAVE PREMISES IN A CLEAN CONDITION. CONTRACTOR SHALL REMOVE ANY METAL SHAVING FROM WORK SITE WHERE OXIDIZED OR CONDUCTIVE SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGE.
- 34. CONTRACTORS SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED FOR CONSTRUCTION. IF CONTRACTOR CANNOT OBTAIN A PERMIT, THEY MUST NOTIFY THE GENERAL CONTRACTOR AND OWNER IMMEDIATELY.
- 35. CONTRACTOR IS RESPONSIBLE FOR CLEARING, GRUBBING, STRIPPING, EROSION CONTROL, SURVEY, LAYOUT, SUBGRADE PREPARATION AND FINISH GRADING AS REQUIRED TO COMPLETE THE PROPOSED WORK SHOWN IN THESE PLANS.
- 36. FIELD TESTING OF EARTHWORK COMPACTION AND CONCRETE CYLINDERS SHALL BE PERFORMED BY AN INDEPENDENT TESTING LAB. THIS WORK TO BE COORDINATED BY THE CONTRACTOR.
- 37. EXISTING UTILITIES: DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS, EXCEPT WHEN PERMITTED IN WRITING BY THE STAKEHOLDER AND THEN ONLY AFTER ACCEPTABLE TEMPORARY UTILITY SERVICES HAVE BEEN PROVIDED.
- 38. GRANULAR BACKFILL: SHALL MEET THE FOLLOWING GRADATION PER THE TABLE BELOW:

SIEVE SIZE	TOTAL PERCENT PASSING
1-1/2" (37.50 MM)	100
1" (25.00 MM)	75 TO 100
3/4" (19.00 MM)	80 TO 100
3/8" (9.50 MM)	35 TO 75
No. 4 (4.75 MM)	30 TO 60
No. 30 (0.60 MM)	7 TO 30
No. 200 (0.75 MM)	3 TO 15

- 39. GRANULAR BEDDING AND TRENCH BACKFILL: WELL-GRADED SAND MEETING THE GRADATION REQUIREMENTS OF ASTM D2487 (SW-SM).
- UNSUITABLE MATERIAL: HIGH AND MODERATELY PLASTICS SILTS AND CLAYS (LL>45).

  MATERIAL CONTAINING REFUSE, FROZEN LUMPS, DEMOLISHED BITUMINOUS MATERIAL,

  VEGETATIVE MATTER, WOOD, STONES IN EXCESS OF 3 INCHES IN ANY DIMENSION, AND

  DEBRIS AS DETERMINED BY THE CONSTRUCTION MANAGER. TYPICAL THESE WILL BE SOILS

  CLASSIFIED BY ASTM AS PT, MH, CH, OH, ML, AND OL.
- 41. REMOVE TOPSOIL MATERIAL COMPLETELY FROM THE SURFACE UNTIL THE SOIL NO LONGER MEETS THE DEFINITION OF TOPSOIL. AVOID MIXING TOPSOIL WITH SUBSOIL OR OTHER UNDESIRABLE MATERIALS.
- 42. NO STRUCTURAL ELEMENTS ARE TO BE CUT UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE ENGINEER.

#### PAVEMENT MARKING NOTES

- ALL PAVEMENT MARKINGS TO MATCH EXISTING, UNLESS STATED OTHERWISE. ALL PAVEMENT MARKINGS WITHIN ADA AREAS SHALL BE PAINTED BLUE EXCEPT FOR COLORS DEFINED ON THE ADA PAVEMENT SYMBOL.
- MARKING (STRIPING) PAINT FOR PARKING SPACES, TRAFFIC ARROWS, ADA PARKING AND SYMBOLS, ETC., PER LOCAL REQUIREMENTS AND AS FOLLOWS:
- 3. PAVEMENT MARKINGS PAINT SHALL BE WATER BASE FAST DRYING 100% ACRYLIC TYPE: WATER BASE TO MEET FEDERAL SPECIFICATION TTP-01952B. FOR COLD WEATHER APPLICATION PAINT PRODUCT SHALL BE IN ACCORDANCE WITH ASTM-D2369, D1394, D3723, D1475, D562 AND D711.
- 4. PROVIDE A NON-SLIP AGGREGATE ADDITIVE TO MARKING PAINT USED AT ADA ACCESS RAMPS.
- 5. APPLY 2 COATS WITHIN THE SAME DAY, UTILIZING STRAIGHT EDGES, YELLOW ON CONCRETE/WHITE ON ASPHALT EXCEPT WHEN MATCHING ADJACENT OR EXISTING COLOR WHEN THE PAVING IS AN EXPANSION OR SEGMENT OF A LARGER LOT.

#### GENERAL FOUNDATION NOTES

- DETERMINATION OF FINAL BEARING ELEVATIONS, TOPSOIL AND EXCAVATION STRIPPING DEPTH, INSPECTION OF ALL SUBSOIL EXPOSED DURING STRIPPING, SITE GRADING, EXCAVATION OPERATIONS, APPROVAL OF FILL MATERIALS, DENSITY TESTING OF FILLS TO ENSURE PLACEMENT PER SPECIFICATION REQUIREMENTS, INSPECTION OF FOUNDATION BEARING SURFACES, AND VERIFICATION OF ALLOWABLE BEARING PRESSURES ARE THE TESTING LABORATORY'S RESPONSIBILITY.
- 2. ALL FOUNDATIONS ARE TO REST ON FIRM UNDISTURBED SOIL OR COMPACTED FILL FREE FROM ORGANIC MATTER. IF POOR SOIL CONDITIONS ARE ENCOUNTERED AT FOUNDATION DEPTHS SHOWN, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH CONSTRUCTION.
- 3. CONTRACTOR SHALL COMPACT SUBGRADE. SEE FROST/NO FROST DESIGN NOTES THIS SHEET
- FOUNDATIONS HAVE BEEN DESIGNED BASED ON AN ASSUMED ALLOWABLE SOIL BEARING CAPACITY OF 1500 PSF UNLESS NOTED OTHERWISE.
- NEW FOOTINGS PLACED ADJACENT TO EXISTING FOOTINGS SHALL BEAR AT THE SAME ELEVATION, UNLESS NOTED OTHERWISE.
- STEP FOOTINGS AT A RATIO OF ONE (1) VERTICAL TO TWO (2) HORIZONTAL WITH A MAXIMUM VERTICAL STEP OF 2'-0" UNLESS NOTED OTHERWISE.
- INUNDATION AND LONG TERM EXPOSURE OF BEARING SURFACES, WHICH WILL RESULT IN DETERIORATION OF BEARING FORMATIONS, SHALL BE PREVENTED. FOOTINGS SHALL BE PLACED IMMEDIATELY FOLLOWING FOOTING EXCAVATIONS AND BEARING SURFACE INSPECTION.
- 8. UTILITY LINES SHALL NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
- 9. GROUNDWATER ASSUMED TO BE BELOW EXCAVATION DEPTH. IF GROUNDWATER IS ENCOUNTERED DURING EXCAVATION ON SITE, CONTRACTOR SHALL PROVIDE FOR ANY SITE DRAINAGE AND DE-WATERING REQUIRED.
- 10. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING PUBLIC AND PRIVATE UTILITIES PRIOR TO EXCAVATION. IF NECESSARY, UTILITIES SHALL BE RELOCATED PRIOR TO FOUNDATION INSTALLATION.

#### FROST DESIGN NOTES

- (BOTTOM OF FOUNDATIONS ABOVE FROST LEVEL)

  1. CONCRETE FOUNDATIONS SHOULD BEAR DIRECTLY ON A PROPERLY COMPACTED

  FOR BRANDING OR AN APPROVED.
- CONCRETE FOUNDATIONS SHOULD BEAR DIRECTLY ON A PROPERLY COMPACTED FREE-DRAINING GRANULAR FILL CONSISTING OF NO. 57 STONE OR AN APPROVED EQUIVALENT.
- 2. GRANULAR FILL SHOULD EXTEND VERTICALLY TO THE MINIMUM RECOMMENDED REGIONAL FROST DEPTH AND LATERALLY 2/3RD FROM THE FOUNDATION PERIMETER (EXCLUDING SIDE OF PERIMETER ADJACENT TO CURB). GRANULAR FILL SHOULD BE PLACED IN 8 INCH LOOSE LIFTS AND COMPACTED WITH A VIBRATORY COMPACTOR. THE COMPACTION EQUIPMENT SHOULD BE OPERATED OVER THE FULL WIDTH OF THE FOUNDATION UNDERCUT AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES. LOCAL FROST DEPTH IS 50".
- 3. GEOTEXTILE (FILTER FABRIC) SHOULD BE PLACED BETWEEN THE GRANULAR BACKFILL AND COHESIVE SOILS TO PRECLUDE THE INFILTRATION OF FINES. SPEC AS FOLLOWS:

SEPARATION GEOTEXTILE: WOVEN GEOTEXTILE FABRIC, MANUFACTURED FOR SEPARATION APPLICATIONS, MADE FROM POLYOLEFINS OR POLYESTERS; WITH ELONGATION LESS THAN 50 PERCENT; COMPLYING WITH AASHTO M 288 AND THE FOLLOWING, MEASURED PER TEST METHODS REFERENCED:

SURVIVABILITY: CLASS 2; AASHTO M 288.

GRAB TENSILE STRENGTH: 247 LBF (1100 N); ASTM D 4632.

SEWN SEAM STRENGTH: 222 LBF (990 N); ASTM D 4632.

TEAR STRENGTH: 90 LBF (400 N); ASTM D 4533.

PUNCTURE STRENGTH: 90 LBF (400 N); ASTM D 4833.

APPARENT OPENING SIZE: NO. 60 (0.250-MM) SIEVE, MAXIMUM; ASTM D 4751.

PERMITTIVITY: 0.02 PER SECOND, MINIMUM; ASTM D 4491.

UV STABILITY: 50 PERCENT AFTER 500 HOURS' EXPOSURE; ASTM D 4355.

### NO FROST DESIGN NOTES

- (BOTTOM OF FOUNDATIONS BELOW FROST LEVEL).
- 1. CONCRETE FOUNDATIONS SHOULD BE SUPPORTED ON A 6 INCH COMPACTED LAYER OF APPROVED FREE-DRAINING GRANULAR MATERIAL.
- 2. APPROVED MATERIAL SHOULD BE COMPACTED OVER THE FULL WIDTH OF THE INFILL AREA UNTIL VISIBLE DEFORMATION OF THE BACKFILL CEASES.

#### LANDSCAPE NOTES

- 1. PLANT GUARANTEE: CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR A PERIOD OF ONE (1) YEAR FROM DATE OF PROJECT ACCEPTANCE BY THE OWNER.
- 2. ALL DISTURBED AND PROPOSED LANDSCAPE PLANTING BED AREAS SHALL MATCH EXISTING CONDITIONS IN TYPE AND DEPTH.

#### <u>MATERIALS</u>

- LAWN SEED MIX: ALL SEED SHALL BE FRESH, CLEAN, DRY, NEW-CROP SEED COMPLYING WITH THE ASSOCIATE OF OFFICIAL AND SEED ANALYSIS "RULES FOR TESTING SEEDS" FOR PURITY AND GERMINATION TOLERANCE.
- A. ALL AREAS TO BE SEEDED SHALL RECEIVE SEED MIX SELECTED PER HARDINESS ZONE BELOW AND MATCHED TO EXISTING. SITE MEETS THE SPECIFICATIONS OF THE FOLLOWING SEED MIX:

ZONES 3, 4 & 5: APPROVED BLUE GRASS BLEND ZONE 6: APPROVED FESCUE BLEND ZONES 7 & 8: APPROVED BERMUDA BLEND ZONES 9 & 10: APPROVED ST AUGUSTINE FLORATAM BLEND

- WOOD CELLULOSE FIBER MULCH: DEGRADABLE GREEN DYED WOOD CELLULOSE FIBER OR 100% RECYCLED LONG FIBER PULP, FREE FROM WEEDS OR OTHER FOREIGN MATTER TOXIC TO SEED GERMINATION AND SUITABLE FOR HYDRO-MULCHING.
- . TACKIFIER: LIQUID CONCENTRATE DILUTED WITH WATER FORMING A TRANSPARENT 3-DIMENSIONAL FILM LIKE CRUST PERMEABLE TO WATER AND AIR AND CONTAINING NO AGENTS TOXIC TO SEED GERMINATION FOR STABILIZING STRAW MULCH
- SEED FERTILIZER: FERTILIZER SHALL BE SLOW RELEASE STARTER MIX (18-24-6) APPLIED AT THE TIME OF PLANTING WITH A SECOND APPLICATION AFTER 4-5 WEEKS. FERTILIZER SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR APPLICATION WITH APPROVED EQUIPMENT DELIVERED TO THE SITE IN BAGS OR OTHER CONVENIENT CONTAINERS, EACH FULLY LABELED, CONFORMING TO APPLICABLE STATE FERTILIZER LAWS, AND BEARING THE NAME, TRADE NAME OR TRADEMARK, AND WARRANTY OF THE PRODUCER. EACH APPLICATION SHOULD BE APPLIED TO EQUAL ONE (1) POUND OF NITROGEN PER 1000 SQUARE FEET (SQ. FT.) OF LAWN AREA.

#### HYDROSEEDING

- SEED SHALL BE APPLIED PER HYDROSEED METHOD AS FOLLOWS. RATING OF SEED SHALL BE PER DISTRIBUTOR BASED ON SPECIES TYPE.
- MIX SPECIFIED SEED, COMMERCIAL FERTILIZER, AND FIBER MULCH IN WATER, USING EQUIPMENT SPECIFICALLY DESIGNED FOR HYDROSEED APPLICATION. CONTINUE MIXING UNTIL UNIFORMLY BLENDED INTO HOMOGENEOUS SLURRY SUITABLE FOR HYDRAULIC APPLICATION.
- A. MIX SLURRY WITH FIBER-MULCH MANUFACTURER'S RECOMMENDED TACKIFIER.

  B. ONE STEP PROCESS: APPLY SLURRY AT A RATE SO THAT MULCH COMPONENT IS DEPOSITED AT NOT LESS THAN 1500-LB/ACRE DRY WEIGHT, AND SEED COMPONENT IS DEPOSITED AT NOT LESS THAN THE SPECIFIED SEED-SOWING RATE. APPLY THE SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED.
- C. TWO-STEP PROCESS: APPLY FIRST SLURRY COAT AT A RATE SO THAT MULCH COMPONENT IS DEPOSITED AT NOT LESS THAN 500-LB/ACRE DRY WEIGHT, AND SEED COMPONENT IS DEPOSITED AT NOT LESS THAN THE SPECIFIED SEED-SOWING RATE. APPLY SLURRY COVER COAT OF FIBER MULCH (HYDROMULCHING) AT A RATE OF 1000 LB/ACRE. APPLY THE SLURRY UNIFORMLY TO ALL AREAS TO BE SEEDED
- 3. BEGIN MAINTENANCE OF LAWNS IMMEDIATELY AFTER EACH AREA IS PLANTED AND CONTINUE UNTIL ACCEPTABLE LAWN AREA IS ESTABLISHED WITH A DENSE STAND OF SPECIFIED PLANT MATERIAL COVERING AT LEAST 95% OF THE AREA, BUT NOT FOR LESS THAN 90 DAYS AFTER ACCEPTANCE.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIRST GROWING SEASON.
     MAINTENANCE SHALL INCLUDE A WATERING PLAN TO ENSURE LANDSCAPING TAKES ROOT IN THE FIRST GROWING SEASON.

#### SPECIAL INSPECTIONS

THE CLIENT SHALL BE RESPONSIBLE FOR SCHEDULING AND OVERSEEING OF ALL SPECIAL INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION. SPECIAL INSPECTIONS MUST BE COMPLETED PRIOR TO FINAL INSPECTION APPROVAL.

#### CONCRETE

- ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-10, "STANDARD SPECIFICATION FOR STRUCTURAL CONCRETE" AND ACI 302, 305 AND 306 UNLESS NOTED OTHERWISE.
- 2. ALL DETAILING, FABRICATION AND PLACING OF CONCRETE SHALL CONFORM TO ACI 318-14, "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" AND THE LATEST ACI "MANUAL OF STANDARD PRACTICE FOR DETAIL REINFORCED CONCRETE STRUCTURES" UNLESS NOTED OTHERWISE.
- 3. SAFETY AND PERFORMANCE OF THE STRUCTURE ARE THE RESPONSIBILITY OF THE CONTRACTOR INSOFAR AS THEY ARE AFFECTED BY THE LOCATION AND DETAILS OF CONSTRUCTION JOINTS. SHOP DRAWINGS OF THE PROPOSED CONSTRUCTION JOINT LOCATIONS AND DETAILS ARE TO BE SUBMITTED TO THE ARCHITECT FOR APPROVAL.
- 4. MAXIMUM SIZE OF AGGREGATE SHALL NOT EXCEED SIZE SUITABLE FOR INSTALLATION METHOD UTILIZED OR 1/3 CLEAR DISTANCE BEHIND OR BETWEEN REINFORCING. MAXIMUM SIZE MAY BE INCREASED TO 2/3 CLEAR DISTANCE PROVIDED WORKABILITY AND METHODS OF CONSOLIDATION SUCH AS VIBRATING WILL PREVENT HONEYCOMBS OR VOIDS.
- 5. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH IN 28 DAYS AS FOLLOWS: ALL CONCRETE 4500 PSI. ALL CONCRETE EXPOSED TO WEATHER SHALL CONTAIN 6% (± 1%) AIR ENTRAINMENT.
- 6. REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
- 7. WELDED WIRE FABRIC REINFORCING SHALL CONFORM TO ASTM A1064 AND BE FURNISHED IN FLAT SHEETS AND INSTALLED ON CHAIRS OR PRECAST CONCRETE BLOCKS.
- 8. NO TACK WELDING OF REINFORCING IN THE FIELD IS PERMITTED.
- 9. PROVIDE CORNER BARS AT ALL LOCATIONS WHERE REINFORCEMENT CHANGES DIRECTION
- 10. PROVIDE STRAIGHT AND DIAGONAL BARS AT EDGES OF ALL OPENINGS. REINFORCING EMBEDMENT AND LAP SPLICES (INCHES) FOR 4500 PSI CONCRETE.

	<u>OTHER</u>		TOP*			
	ANCHORAGE	SPLICE	ANCHORAGE	SPLICE		
#3	15	19	19	24		
#4	19	25	25	33		
#5	24	31	31	41		
#6	29	37	37	49		

#### \*HORIZONTAL BARS WITH MORE THAN 12" OF CONCRETE BELOW BAR

- 11. NON-SHRINK GROUT SHALL MEET A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 6000 PSI.
- 12. ADD 100% TIES FOR REBAR OVERLAY. NO COLD JOINTS SHALL BE PERMITTED DURING CONSTRUCTION.

#### STRUCTURAL STEEL

1. MATERIAL PROPERTIES:
PLATE: ASTM A36 UNO
PIPE: ASTM A53, TYPE E OR S, GRADE

GALVANIZED PER ASTM A123.

- PIPE: ASTM A53, TYPE E OR S, GRADE TUBE: ASTM A1085 GRADE A (Fy = 50 KSI)
- 2. DETAILING, FABRICATION, AND ERECTION SHALL CONFORM TO THE 2016 AISC (360-16) SPECIFICATIONS.
- ALL WELDING SHALL BE DONE USING E-70XX ELECTRODES IN ACCORDANCE WITH AWS D1.1 SPECIFICATIONS.
   FIELD VERIFY ALL CONDITIONS AT AND CONNECTIONS TO THE EXISTING CONSTRUCTION
- BEFORE FABRICATION.ALL EXPOSED STRUCTURAL STEEL, ANCHOR RODS AND BOLTS SHALL BE HOT DIP
- 6. UNLESS NOTED OTHERWISE ON THE DRAWING, ALL ANCHOR RODS SHALL CONFORM TO ASTM F1554 Gr 55 WITH HEAVY HEXAGONAL NUT.
- 7. SUBMIT FABRICATION AND ERECTION DRAWINGS SHOWING ALL DETAILS, CONNECTIONS, MATERIAL DESIGNATIONS, AND TOP STEEL ELEVATIONS FOR APPROVAL. THE SHOP DRAWINGS WILL BE REVIEWED FOR GENERAL CONFORMANCE TO THE CONTRACT DRAWINGS. SUCH APPROVAL SHALL NOT RELIEVE THE FABRICATOR/CONTRACTOR OF THE RESPONSIBILITY FOR EITHER THE ACCURACY OF THE DETAILED DIMENSIONS IN THE SHOP AND ERECTION DRAWINGS OR THE GENERAL FIT-UP OF PARTS THAT ARE TO BE ASSEMBLED IN THE FIELD.

#### TRAFFIC CONTROL NOTES

LEGEND

EX. FENCING

EX. PROPERTY LINE

EX. UG ELECTRICAL LINE

EX. OH ELECTRICAL LINE

EX. UG SANITARY SEWER LINE

EX. UG STORM SEWER LINE

EX. TELEPHONE LINE

EX. UG WATER LINE

EX. WATER VALVE

EX. CATCH BASIN

EX. LIGHT POLE

EX. UTILITY POLE

EX. IRRIGATION VALVE

**EX. SANITARY MANHOLE** 

EX. STORM MANHOLE

**EX. CLEANOUT** 

**EX. FIRE HYDRANT** 

EX. GAS VALVE

**EX. GAS METER** 

EX. WATER MANHOLE

EX. WATER VAULT

EX. WATER METER

EX. A/C UNIT

EX. SIGN

EX. TREE

EX. SHRUB

EX. BOLLARD

EX. ELECTRIC HANDHOLE/VAULT

EX. FIRE DEPARTMENT CONNECTION

EX. TELEPHONE MANHOLE

EX. ELECTRIC TRANSFORMER

EX. UG FIBER LINE

EX. UG GAS LINE

- DURING THE CONSTRUCTION PERIOD; SIDEWALKS, SHOULDERS, TRAVEL LANE(S), OR STREETS MAY HAVE TO BE TEMPORARILY CLOSED OR RESTRICTED FOR THE UNLOADING / LOADING OF EQUIPMENT OR AS A RESULT OF CONSTRUCTION ACTIVITIES THEMSELVES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE DIRECTLY WITH THE LOCAL GOVERNING AUTHORITIES ON ANY SUCH CLOSURES AND MUST OBTAIN WRITTEN PERMISSION FROM THE APPROPRIATE AUTHORITIES PRIOR TO IMPLEMENTING SUCH CLOSURES OR RESTRICTIONS. ANY CLOSURE OR RESTRICTION MUST COMPLY WITH THE STATE MANUAL OF UNIFORM CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS (LATEST EDITION AND REVISION), AND WITH ANY AND ALL ADDITIONAL APPLICABLE CITY, VILLAGE, OR COUNTY REQUIREMENTS. THE CONTRACTOR SHALL PREPARE AND SUBMIT A FORMAL TRAFFIC CONTROL / MOT PLAN TO THE LOCAL GOVERNING AUTHORITIES IF REQUESTED. ALL REQUIRED CONSTRUCTION TRAFFIC MAINTENANCE DEVICES SHALL BE PROVIDED, ERECTED AND MAINTAINED, AND ULTIMATELY REMOVED BY THE CONTRACTOR.
- THE CONTRACTOR SHALL MAINTAIN SAFE AND SATISFACTORY ACCESS TO ALL ABUTTING PROPERTIES AND INTERSECTING STREET AT ALL TIMES DURING THE CONSTRUCTION OF THE IMPROVEMENTS ANTICIPATED. DRIVEWAYS MUST BE MAINTAINED AND ALL TRENCHES SHALL BE BACKFILLED AT THE END OF EACH WORK DAY. PER THE STATE MUTCD AND OTHER APPLICABLE APPROPRIATE GOVERNING REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAFEGUARDS SUCH AS BARRICADES, SATISFACTORY BARRIERS, CONES, SIGNAGE, BARRELS, MESSAGE BOARDS, LIGHTING, FLAGMEN, LAW ENFORCEMENT OFFICERS, ETC. TO AVOID DAMAGE AND / OR INJURY TO VEHICLES AND PERSONS TRAVERSING THE CONSTRUCTION AREA.

——— GAS ——— GAS ———

——— SAN ———— SAN ——

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 DATE
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 12/14/2022
 ISSUED FOR SITE SKETCH REVIEW

 B
 12/21/2022
 ISSUED FOR 90% REVIEW

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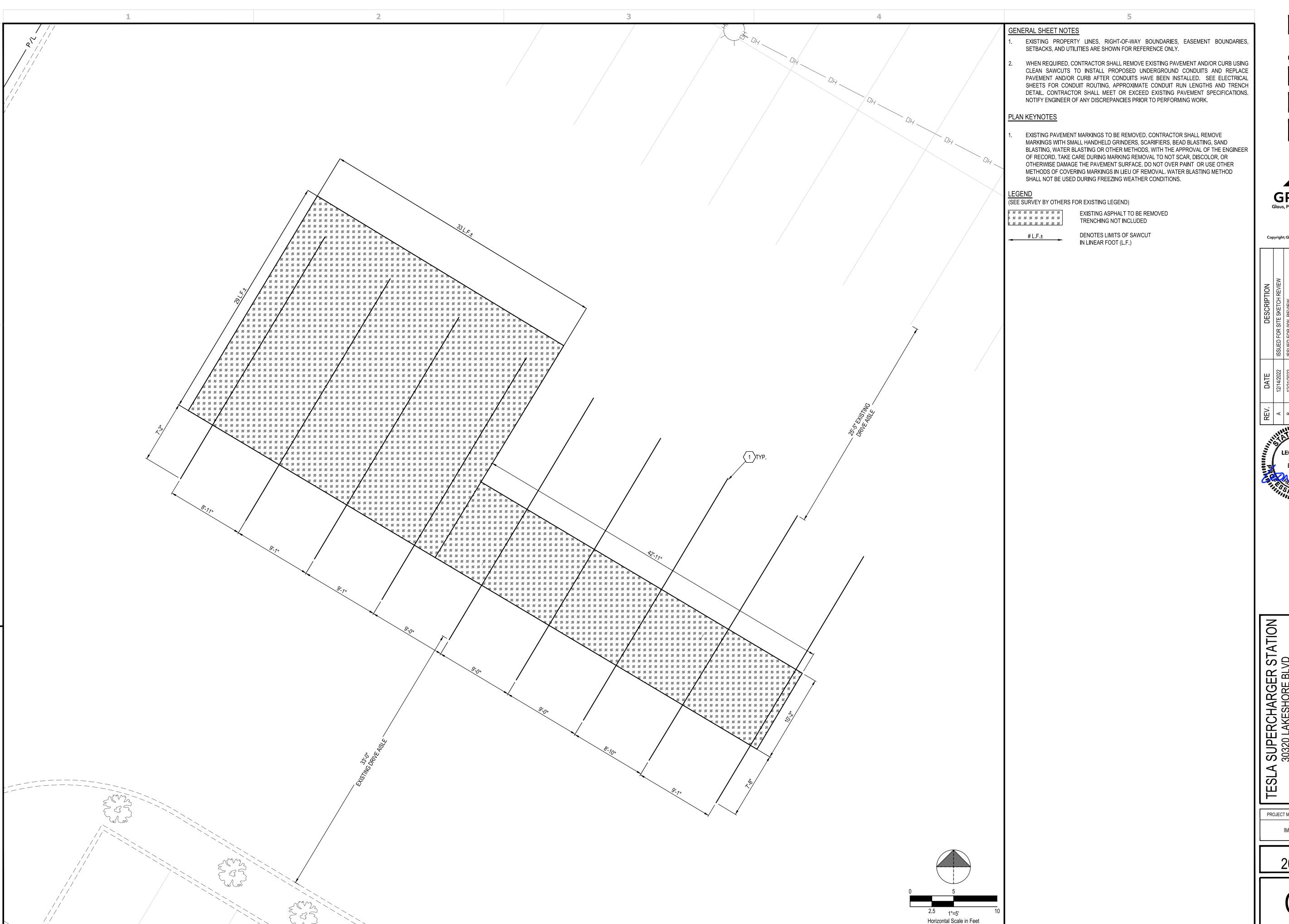
SUPERCHARGER STATI 30320 LAKESHORE BLVD WILLOWICK, OH 44095

PROJECT MANAGER DESIGNER

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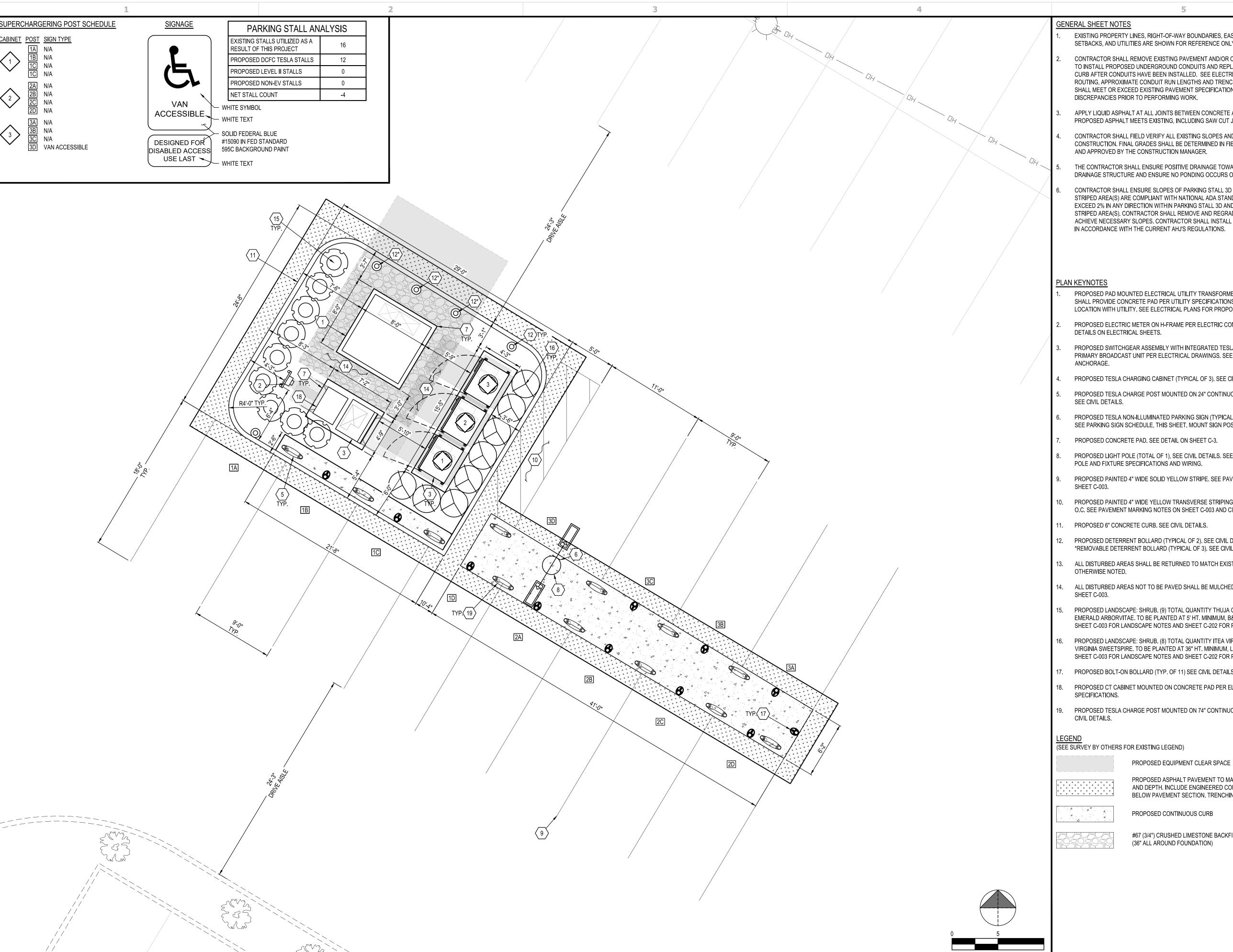
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EXISTING CONDITIONS AND DEMOLITION PLAN

PROJECT MANAGER DESIGNER

2022241.29



- EXISTING PROPERTY LINES, RIGHT-OF-WAY BOUNDARIES, EASEMENT BOUNDARIES, SETBACKS, AND UTILITIES ARE SHOWN FOR REFERENCE ONLY.
- CONTRACTOR SHALL REMOVE EXISTING PAVEMENT AND/OR CURB USING CLEAN SAWCUTS TO INSTALL PROPOSED UNDERGROUND CONDUITS AND REPLACE PAVEMENT AND/OR CURB AFTER CONDUITS HAVE BEEN INSTALLED. SEE ELECTRICAL SHEETS FOR CONDUIT ROUTING, APPROXIMATE CONDUIT RUN LENGTHS AND TRENCH DETAIL. CONTRACTOR SHALL MEET OR EXCEED EXISTING PAVEMENT SPECIFICATIONS. NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO PERFORMING WORK.
- APPLY LIQUID ASPHALT AT ALL JOINTS BETWEEN CONCRETE AND ASPHALT AND WHERE PROPOSED ASPHALT MEETS EXISTING, INCLUDING SAW CUT JOINTS.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SLOPES AND GRADES PRIOR TO CONSTRUCTION. FINAL GRADES SHALL BE DETERMINED IN FIELD BY THE CONTRACTOR AND APPROVED BY THE CONSTRUCTION MANAGER.
- THE CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE TOWARDS THE NEAREST EXISTING DRAINAGE STRUCTURE AND ENSURE NO PONDING OCCURS ON SITE.
- CONTRACTOR SHALL ENSURE SLOPES OF PARKING STALL 3D AND ADJACENT TRANSVERSE STRIPED AREA(S) ARE COMPLIANT WITH NATIONAL ADA STANDARDS. NO SLOPE SHALL EXCEED 2% IN ANY DIRECTION WITHIN PARKING STALL 3D AND ADJACENT TRANSVERSE STRIPED AREA(S). CONTRACTOR SHALL REMOVE AND REGRADE AREA(S) AS REQUIRED TO ACHIEVE NECESSARY SLOPES. CONTRACTOR SHALL INSTALL FINAL PAVEMENT MARKINGS IN ACCORDANCE WITH THE CURRENT AHJ'S REGULATIONS.
- PROPOSED PAD MOUNTED ELECTRICAL UTILITY TRANSFORMER (BY UTILITY). CONTRACTOR SHALL PROVIDE CONCRETE PAD PER UTILITY SPECIFICATIONS. COORDINATE FINAL LOCATION WITH UTILITY. SEE ELECTRICAL PLANS FOR PROPOSED ROUTING.
- PROPOSED ELECTRIC METER ON H-FRAME PER ELECTRIC COMPANY SPECIFICATIONS AND DETAILS ON ELECTRICAL SHEETS.
- PROPOSED SWITCHGEAR ASSEMBLY WITH INTEGRATED TESLA SITE CONTROLLER & PRIMARY BROADCAST UNIT PER ELECTRICAL DRAWINGS. SEE CIVIL DETAILS FOR
- PROPOSED TESLA CHARGING CABINET (TYPICAL OF 3). SEE CIVIL DETAILS.
- PROPOSED TESLA CHARGE POST MOUNTED ON 24" CONTINUOUS CURB (TYPICAL OF 3).
- PROPOSED TESLA NON-ILLUMINATED PARKING SIGN (TYPICAL OF1). SEE CIVIL DETAILS. SEE PARKING SIGN SCHEDULE, THIS SHEET. MOUNT SIGN POST ON LIGHT POLE AS NOTED.
- PROPOSED CONCRETE PAD. SEE DETAIL ON SHEET C-3.
- PROPOSED LIGHT POLE (TOTAL OF 1), SEE CIVIL DETAILS. SEE ELECTRICAL DRAWINGS FOR POLE AND FIXTURE SPECIFICATIONS AND WIRING.
- PROPOSED PAINTED 4" WIDE SOLID YELLOW STRIPE. SEE PAVEMENT MARKING NOTES ON
- 10. PROPOSED PAINTED 4" WIDE YELLOW TRANSVERSE STRIPING. STRIPING SHALL BE 3'-0" O.C. SEE PAVEMENT MARKING NOTES ON SHEET C-003 AND CIVIL DETAILS.
- 11. PROPOSED 6" CONCRETE CURB. SEE CIVIL DETAILS.
- 12. PROPOSED DETERRENT BOLLARD (TYPICAL OF 2). SEE CIVIL DETAILS. \*REMOVABLE DETERRENT BOLLARD (TYPICAL OF 3). SEE CIVIL DETAILS.
- 13. ALL DISTURBED AREAS SHALL BE RETURNED TO MATCH EXISTING CONDITIONS UNLESS
- 14. ALL DISTURBED AREAS NOT TO BE PAVED SHALL BE MULCHED PER LANDSCAPE NOTES ON
- PROPOSED LANDSCAPE: SHRUB. (9) TOTAL QUANTITY THUJA OCCIDENTALIS 'EMERALD', EMERALD ARBORVITAE. TO BE PLANTED AT 5' HT. MINIMUM, B&B, LOCATED PER PLAN. SEE SHEET C-003 FOR LANDSCAPE NOTES AND SHEET C-202 FOR PLANTING DETAIL.
- PROPOSED LANDSCAPE: SHRUB. (8) TOTAL QUANTITY ITEA VIRGINICA 'MERLOT', MERLOT VIRGINIA SWEETSPIRE. TO BE PLANTED AT 36" HT. MINIMUM, LOCATED PER PLAN. SEE SHEET C-003 FOR LANDSCAPE NOTES AND SHEET C-202 FOR PLANTING DETAIL.
- 17. PROPOSED BOLT-ON BOLLARD (TYP. OF 11) SEE CIVIL DETAILS.
- 18. PROPOSED CT CABINET MOUNTED ON CONCRETE PAD PER ELECTRIC COMPANY
- 19. PROPOSED TESLA CHARGE POST MOUNTED ON 74" CONTINUOUS CURB (TYP.; OF 9). SEE

Horizontal Scale in Feet

PROPOSED ASPHALT PAVEMENT TO MATCH EXISTING IN TYPE AND DEPTH. INCLUDE ENGINEERED COMPACTED BACKFILL BELOW PAVEMENT SECTION. TRENCHING NOT INCLUDED

#67 (3/4") CRUSHED LIMESTONE BACKFILL OVER GRADING (36" ALL AROUND FOUNDATION)

SUPE 30320 WILL PROPOSED CONTINUOUS CURB

> PROJECT MANAGER DESIGNER

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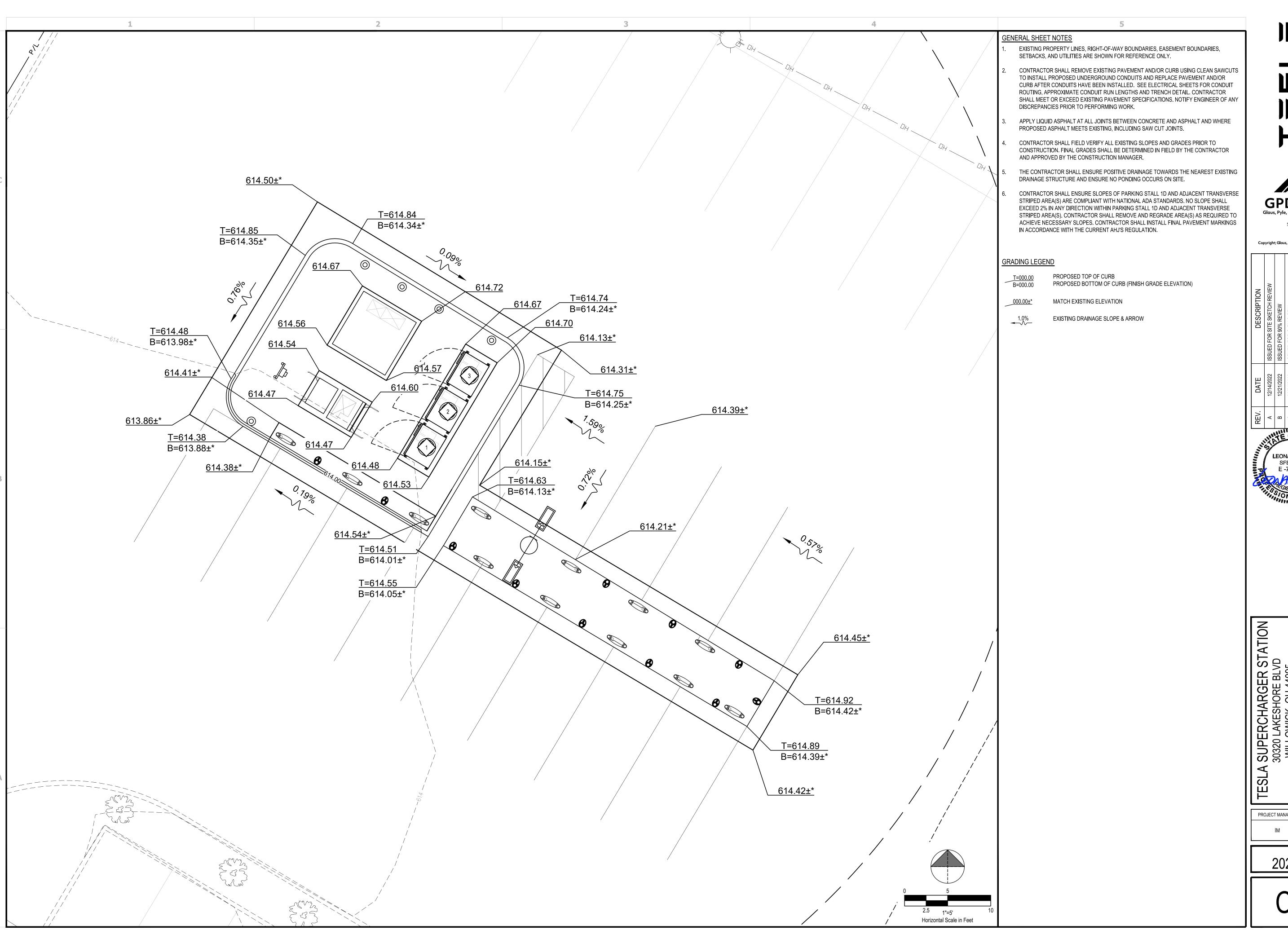
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**GRADING SITE PLAN** 

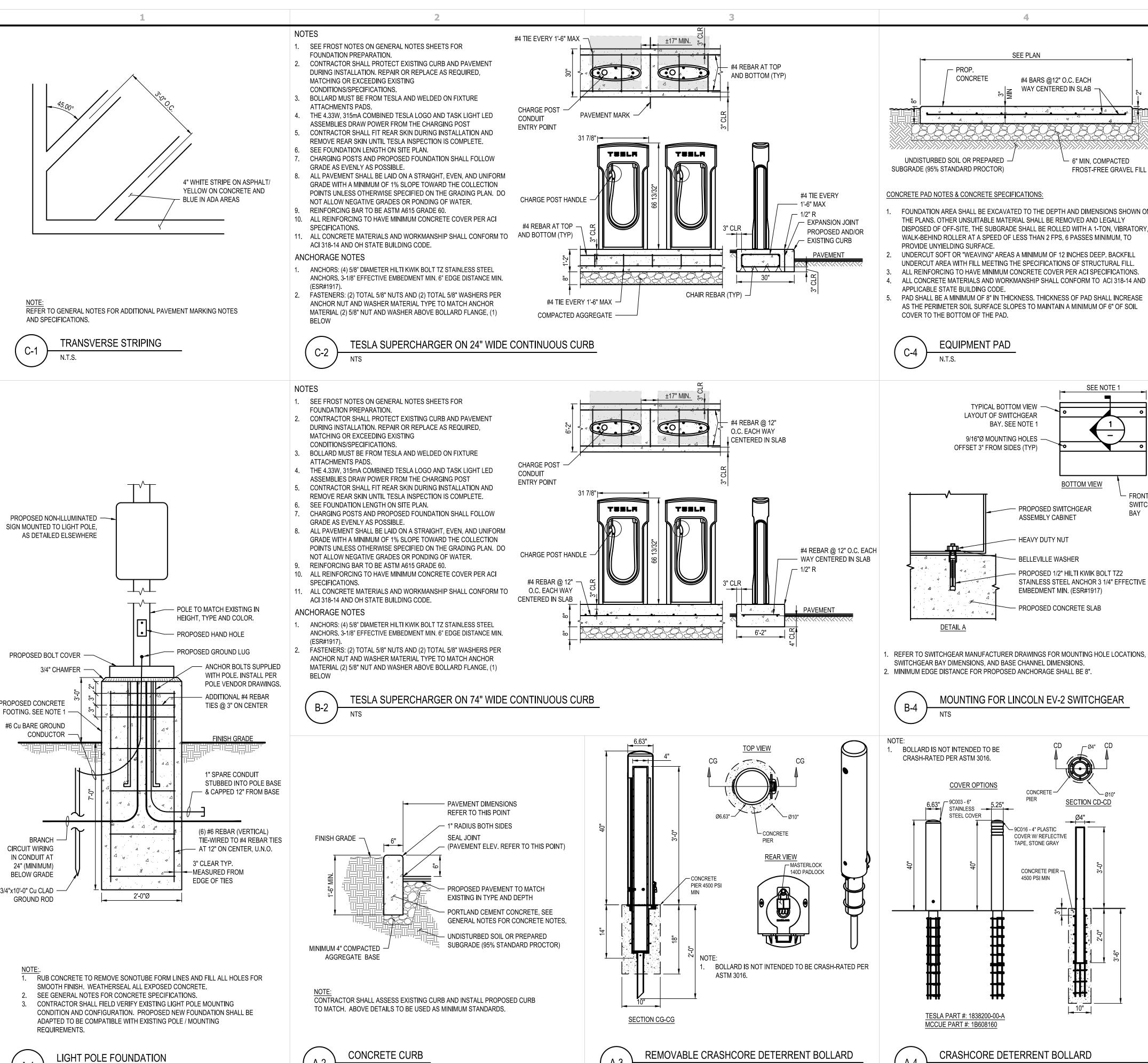
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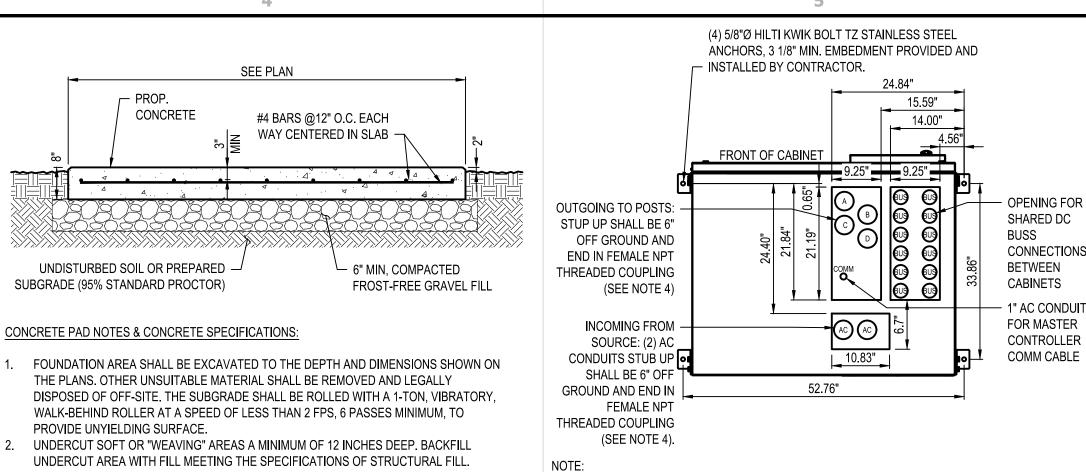
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SEE NOTE 1

- FRONT OF

SWITCHGEAR

BOTTOM VIEW

PROPOSED SWITCHGEAR

ASSEMBLY CABINET

BELLEVILLE WASHER

PROPOSED 1/2" HILTI KWIK BOLT TZ2

EMBEDMENT MIN. (ESR#1917)

PROPOSED CONCRETE SLAB

STAINLESS STEEL ANCHOR 3 1/4" EFFECTIVE

**HEAVY DUTY NUT** 

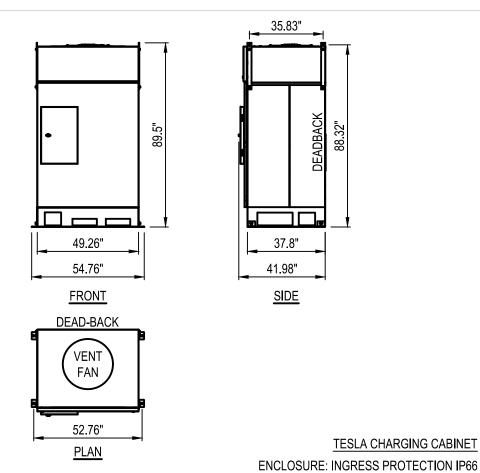
BAY. SEE NOTE 1

TESLA PROVIDED TEMPLATE PLATE TO BE USED TO LAYOUT CHARGING CABINET ANCHORING BOLT LOCATIONS AND CONDUIT STUB UP LOCATIONS. BOLT HOLES FOR REFERENCE ONLY.

3. USE DOTTIE DUCT SEAL COMPOUND PC 6130 (CAT NO LHD1) TO SEAL ENDS OF CONDUIT (TYP. ALL CONDUITS FOR CHARGING CABINETS AND CHARGE POSTS)

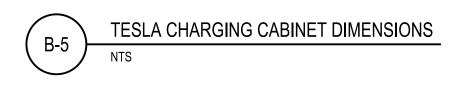
USE BELL FITTINGS ON ALL AC AND DC CONDUIT STUBS 5. SEE DETAIL THIS SHEET FOR FOUNDATION DETAIL IF APPLICABLE

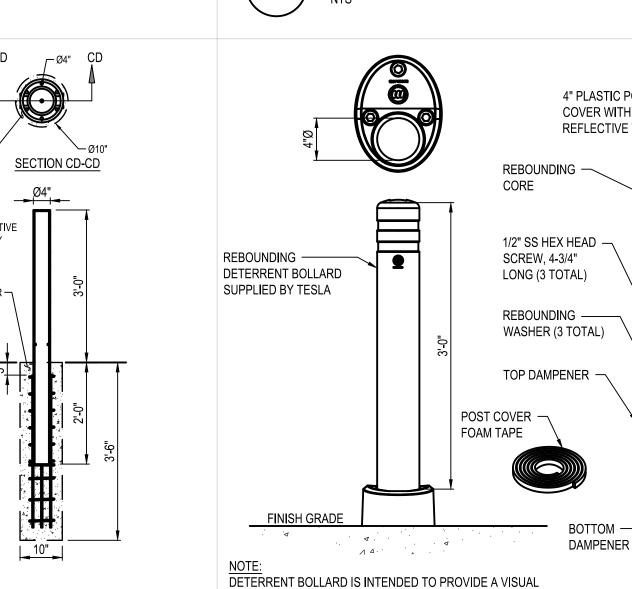
TESLA CHARGING CABINET ANCHOR BOLT PLAN



1. CABINET SHOULD BE LIFTED USING ROOF MOUNTED EYE HOOKS. A FORKLIFT OR PALLET JACK CAN ALSO BE USED TO MOVE CABINET IF DONE PROPERLY.

VERIFY CABINET PART# AND ASSOCIATED DIMENSIONS PRIOR TO CONSTRUCTION.





4" PLASTIC POST COVER WITH RED REFLECTIVE TAPE DAMPENER

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Item #2.

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520 South Main Street, Suite 2531

330.572.2100 Fax 330.572.2101

**SUP**I 30320 PROJECT MANAGER DESIGNER

JOB NO.

5.25" STEEL COVER - 9C016 - 4" PLASTIC COVER W/ REFLECTIVE TAPE, STONE GRAY CONCRETE PIER -4500 PSI MIN

MCCUE PART #: 1B608160

CRASHCORE DETERRENT BOLLARD

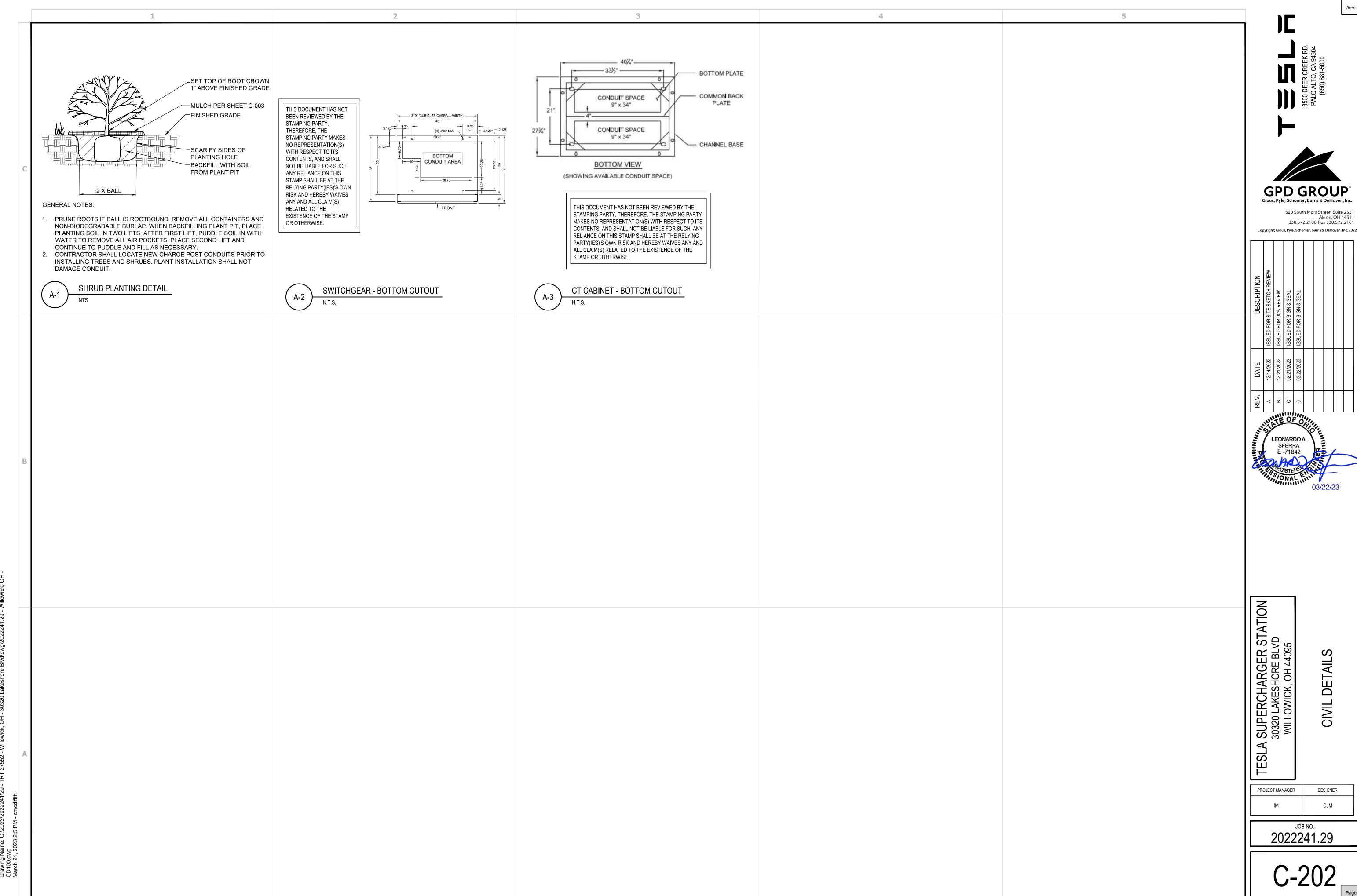
A-5

REBOUNDING DETERRENT BOLLARD

DETERRENT AND REDUCE POTENTIAL IMPACT ON EQUIPMENT

WEIGHT: 1110 kg, 2448 lbs.

COMPLIANCE: UL 2202



Item #2.

DESIGNER

- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT ONLY. COORDINATE INSTALLATION WITH OTHER TRADES TO VERIFY THE ACTUAL SPACE CONDITIONS THAT ARE TO BE MAINTAINED. NO ADDITIONAL PAYMENT WILL BE APPROVED FOR FAILURE TO COMPLY. 3.
- ALL SYMBOLS AND ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED CONSTRUCTION STANDARDS. IF THE CONTRACTOR HAS QUESTIONS REGARDING THEIR EXACT MEANING, THE ENGINEER SHALL BE NOTIFIED FOR CLARIFICATION BEFORE 4. PROCEEDING WITH THE WORK.
- CONTRACTOR SHALL NOT SCALE ELECTRICAL DRAWINGS. REFER TO SITE PLANS AND ELEVATIONS FOR EXACT LOCATIONS OF ALL EQUIPMENT AND CONFIRM WITH CONSTRUCTION MANAGER ANY SIZES AND LOCATIONS WHEN NEEDED.
- CONTRACTOR'S SCOPE OF WORK SHALL INCLUDE ALL ITEMS DEFINED IN THE CONTRACT DOCUMENTS. THE CONTRACT DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: THE CONTRACT, SPECIFICATIONS, AND CONSTRUCTION DRAWINGS. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO INSTALL ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING ETC. AS SHOWN OR IMPLIED ON THE 5. DRAWINGS AND TO PROVIDE A COMPLETE OPERATIVE SYSTEM TO THE SATISFACTION OF
- CONTRACTOR SHALL PROVIDE ON-SITE SUPERVISION AT ALL TIMES WHILE THE WORK IS BEING PERFORMED AND SHALL DIRECT ALL WORK, USING HIS BEST SKILL AND ATTENTION. HE SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS. METHODS, TECHNIQUES. PROCEDURES AND SEQUENCES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER
- INSTALLATION OF ALL ELECTRICAL EQUIPMENT, DEVICES, CONDUITS, ETC. MUST BE COORDINATED WITH ALL OTHER TRADES. COORDINATE SHUTDOWN TIMES AND WORKING HOURS WITH BUILDING OWNER, INCLUDING OFF HOURS, WEEKEND, AND HOLIDAY WORK AS
- ANY DISCREPANCIES FOUND WITHIN THE CONTRACT DOCUMENTS SHALL BE REPORTED TO THE OWNER IN WRITING PRIOR TO THE AWARD OF THE CONTRACT AND AN ADDENDUM WILL BE ISSUED TO COVER SAME.
- GUARANTEE CONTRACTOR SHALL FURNISH OWNER WITH A WRITTEN GUARANTEE TO PROMPTLY REMEDY ALL DEFECTS OF WORK OR MATERIALS WITHOUT CHARGE FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE AND INSPECTION.
- MATERIALS ALL MATERIALS AND EQUIPMENT SHALL BE NEW, IN ORIGINAL CONTAINERS/WRAPPINGS, SHALL BE SPECIFICATION GRADE, AND LABELED OR LISTED BY U.L. OR AN ACCREDITED TESTING ORGANIZATION AS REQUIRED BY LOCAL INSPECTORS.
- CONTRACTOR SHALL PROVIDE ADEQUATE AND REQUIRED LIABILITY INSURANCE FOR PROTECTION AGAINST PUBLIC LOSS AND ANY/ALL PROPERTY DAMAGE FOR THE DURATION OF
- ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.
- CONTRACTOR SHALL CONFIRM WITH LOCAL UTILITY COMPANY ANY/ALL REQUIREMENTS SUCH AS THE: LUG SIZE RESTRICTIONS, CONDUIT ENTRY, SIZE OF TRANSFORMERS, SCHEDULED DOWNTIME FOR THE OWNERS' CONFIRMATION, ETC. ANY/ALL CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER. PRIOR TO BEGINNING ANY WORK.
- ANY METAL SHAVINGS FROM SITE WORK SHALL BE CLEANED FROM ALL SURFACES WHERE OXIDIZED OR CONDUCTIVE METAL SHAVINGS MAY CAUSE RUST, ELECTRICAL SHORT CIRCUITS, OR OTHER DAMAGES.

#### ICENSES, CERTIFICATIONS OF INSPECTION

- CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFICATION OF ALL GOVERNING AGENCIES THAT REQUIRE SITE INSPECTION OF THE WORK AND/OR SIMPLY NOTIFICATION. THE CONTRACTOR SHALL OBTAIN AND PAY FOR PERMITS, LICENSES AND INSPECTIONS 7. NECESSARY FOR PERFORMANCE OF THE WORK.
- CONTRACTOR AND ALL OF HIS SUBCONTRACTORS THAT PERFORM ANY WORK ON THIS PROJECT SHALL BE CURRENTLY LICENSED BY ALL AGENCIES WHICH GOVERN OVER THE 8. TRENCHING AND BACK FILL: CONTRACTOR SHALL PROVIDE FOR ALL UNDERGROUND LAND(S) ON WHICH CONSTRUCTION IS TO TAKE PLACE. CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS AS REQUIRED, ALL COSTS SHALL BE BORNE BY CONTRACTOR.
- THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS 9. INCIDENTAL TO WORK UNDER THIS CONTRACT. WHEN THE WORK IS COMPLETED, THE REQUIRED CERTIFICATES OF APPROVAL SHALL BE FURNISHED TO THE BUILDING OWNER. CONTRACTOR MUST BE LICENSED IN THE STATE, COUNTY AND CITY OF THE PROJECT SITE.

#### CODES AND ORDINANCES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH LATEST EDITION OF NEC AND ALL APPLICABLE CODES AND ORDINANCES, INCLUDING SUCH AS PERTAIN TO THE SAFETY AND HEALTH RELATIONS. CODES AND ORDINANCES SHALL TAKE PRECEDENCE OVER THE DRAWINGS AND SPECIFICATIONS ONLY IN CASE OF CONFLICT AND SHALL INCLUDE BUT NOT BE LIMITED TO:
  - A. UL UNDERWRITERS LABORATORIES B. NEC - NATIONAL ELECTRICAL CODE
  - C. NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
- D. OSHA OCCUPATIONAL SAFETY AND HEALTH ACT
- E. SBC STANDARD BUILDING CODE F. NFPA - NATIONAL FIRE CODES

#### POST CONSTRUCTION AND PROJECT CLOSEOUT DOCUMENTATION

AS-BUILT REQUIREMENTS: DO NOT USE RECORD DOCUMENTS FOR CONSTRUCTION PURPOSES. TO PROTECT RECORD DOCUMENTS FROM DETERIORATION AND LOSS, STORE IN A SECURE, FIRE-RESISTANT LOCATION. PROVIDE ACCESS TO RECORD DOCUMENTS FOR THE OWNER'S REFERENCE DURING NORMAL WORKING HOURS. MAINTAIN A CLEAN, UNDAMAGED SET OF BLUE OR BLACK LINE PRINTS OF CONTRACT DRAWINGS AND SHOP DRAWINGS. MARK THE SET TO SHOW THE ACTUAL INSTALLATION WHERE THE INSTALLATION VARIES SUBSTANTIALLY FROM THE WORK AS ORIGINALLY SHOWN. MARK DRAWINGS THAT ARE MOST CAPABLE OF SHOWING CONDITIONS FULLY AND ACCURATELY. WHERE SHOP DRAWINGS ARE USED, RECORD A CROSS-REFERENCE AT THE CORRESPONDING LOCATION ON THE CONTRACT DRAWINGS. GIVE PARTICULAR ATTENTION TO CONCEALED ELEMENTS THAT WOULD BE DIFFICULT TO MEASURE AND RECORD AT A LATER DATE. MARK RECORD SETS WITH RED ERASABLE PENCIL. USE OTHER COLORS TO DISTINGUISH BETWEEN VARIATIONS IN SEPARATE CATEGORIES OF THE WORK. MARK NEW INFORMATION THAT IS IMPORTANT TO THE OWNER BUT WAS NOT SHOWN ON THE CONTRACT DRAWINGS, DETAILS OR SHOP DRAWINGS. NOTE RELATED CHANGE ORDER NUMBERS WHERE APPLICABLE. NOTE RELATED RECORD DRAWING INFORMATION AND PRODUCT DATA. UPON COMPLETION OF THE WORK, SUBMIT ONE (1) COMPLETE SET OF RECORD DOCUMENTS TO THE CONSTRUCTION MANAGER FOR THE OWNER'S RECORDS. CONTRACTOR SHALL SUBMIT AS-BUILT SET OF PLANS TO THE ENGINEER WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION.

#### **EXISTING CONDITIONS AND DEMOLITION**

- THE FOLLOWING ARE ABBREVIATED SPECIFICATIONS. ALL ITEMS NECESSARY FOR A 1. ALL ELECTRICAL DEMOLITION WORK, INCLUDING MATERIAL REMOVAL FROM THE SITE, SHALL 1. BE THE RESPONSIBILITY OF THIS CONTRACTOR. BEFORE PROCEEDING WITH THE DEMOLITION WORK, THE CONTRACTOR SHALL OBTAIN FROM THE BUILDING OWNER A LIST OF ANY REMOVED ITEMS TO BE SALVAGED. ALL OTHER REMOVED MATERIALS AND EQUIPMENT 2. SHALL BE PROPERLY DISCARDED OFF THE PREMISES.
  - CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING PROPERTY RESULTING FROM THE CONSTRUCTION ACTIVITIES. CONTRACTOR SHALL REMOVE ALL DEBRIS FROM THE SITE AT THE COMPLETION OF WORK.
  - EXISTING UTILITIES AND CONDITIONS ARE SHOWN FROM FIELD DATA AND EXISTING 3. DOCUMENTS AND ARE NOT NECESSARILY COMPLETE OR ACCURATE. ALL FIELD CONDITIONS SHALL BE VERIFIED BY CONTRACTOR BEFORE START OF CONSTRUCTION.
  - CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE, EXPOSE, AND DETERMINE IF CONFLICTS EXIST WITH THE PROPOSED IMPROVEMENTS. CONTRACTOR SHALL NOTIFY THE OWNER IN ORDER TO RESOLVE ANY CONFLICTS. EXISTING ELECTRICAL CONDUIT, WIRING, ETC. DAMAGED DURING RENOVATION SHALL BE REPLACED IN LIKE KIND AND CHARACTER, AND AT 4. THE EXISTING UTILITY LINES, DRAIN OR FIELD TILE DAMAGED SHALL BE REPAIRED OR REPLACED, AS NEEDED, IN LIKE KIND AND CHARACTER. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING CONDUITS, CONTROL WIRING, ETC., WHETHER SHOWN HEREON OR NOT, AND TO PROTECT THEM FROM DAMAGE. THE CONTRACTOR SHALL FAULT CURRENT, COORDINATION STUDY, AND ARC FLASH BEAR ALL EXPENSES FOR REPAIR OR REPLACEMENT OF PROPERTY DAMAGED IN CONJUNCTION WITH THE EXECUTION OF WORK.
  - THE CONTRACTOR SHALL NOTIFY THE OWNER OF ANY CONFLICTS OR DISCREPANCIES IN THE CONTRACT DOCUMENTS OR FIELD CONDITIONS PRIOR TO EXECUTING THE WORK IN QUESTION. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF DETAILS ARE CONSIDERED UNSOUND, UNSAFE, NOT WATERPROOF, OR NOT WITHIN CUSTOMARY TRADE PRACTICE. IF WORK IS PERFORMED, IT WILL BE ASSUMED THAT THERE IS NO OBJECTION TO THE DETAIL. DETAILS ARE INTENDED TO SHOW THE END RESULT OF THE DESIGN. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT JOB CONDITIONS, AND SHALL BE INCLUDED AS PART OF THE WORK.
  - SITE VISIT CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK. NO EXTRAS WILL BE PERMITTED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS. QUANTITIES OF MATERIALS SHALL BE PER CONTRACTOR'S MEASUREMENTS.

#### BASIC ELECTRICAL MATERIALS AND METHODS

- WHERE STRUCTURAL OPENINGS ARE NOT AVAILABLE, THE CONTRACTOR SHALL CORE DRILL OR CUT CHASES IN WALLS AND FLOORS AS REQUIRED. ALL NEW OPENINGS SHALL BE COORDINATED WITH THE ENGINEER. ALL PENETRATIONS OF THE BUILDING WALLS, CEILING 6. AND FLOORS, THE CONTRACTOR SHALL SEAL WITH QUALITY CAULK, FIRE RATED AND WATERTIGHT, SUBMITTED FOR APPROVAL BY THE OWNER.
- TRASH REMOVAL: CONTRACTOR SHALL REMOVE ALL TRASH CREATED BY HIMSELF OR HIS SUBCONTRACTORS DUE TO DEMOLITION OR CONSTRUCTION. THE CONTRACTOR SHALL ALSO REMOVE TRASH CREATED BY OTHER SUBCONTRACTORS INCLUDING CABLE REELS. CARDBOARD BOXES AND PACKING. PROMPTLY CLEAN-UP ALL SOILING, DEBRIS AND OTHER 7. UNSIGHTLY OR HAZARDOUS CONDITIONS, CAUSED BY WORK OR DELIVERIES UNDER THIS CONTRACT, FROM THE BUILDING GROUNDS, ENTRIES, CORRIDORS, STAIRWAYS, ELEVATORS OR OTHER PUBLIC AREAS. ALL SHALL BE REMOVED FROM THE SITE IN A TIMELY FASHION TO A LEGAL DISPOSAL FACILITY.
- SIGNAGE: CONTRACTOR SHALL MAINTAIN SECURITY AROUND PERIMETER OF CONSTRUCTION SITE DURING ALL HOURS BY INSTALLING A TEMPORARY RIBBON FOR INTERIOR WORK TO 9. NUT & WASHER SHALL BE PLACED ON THE FRONT SIDE OF THE GROUND BAR AND BOLTED ON IDENTIFY CONSTRUCTION AREAS AS REQUIRED. SIGNAGE SHALL BE POSTED WITH NOTIFICATIONS OF "NO TRESPASSING" AND "CONSTRUCTION AREA".
- CHECK ACCURACY OF ALL DIMENSIONS IN THE FIELD. UNLESS SPECIFICALLY NOTED, DO NOT 10. ENSURE THE WIRE INSULATION TERMINATION IS WITHIN 1/8" OF THE BARREL (NO SHINERS). FABRICATE ANY MATERIALS OFF SITE, NOR DO ANY CONSTRUCTION UNTIL THE ACCURACY OF DRAWING DIMENSIONS HAVE BEEN VERIFIED AGAINST ACTUAL FIELD DIMENSIONS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CUTTING, SUBSEQUENT PATCHING, AND REQUIRED FLASHING FOR ALL ITEMS NECESSARY FOR ELECTRICAL PART OF THE CONTRACT. PATCH, PAINT, AND REPAIR ANY AREA DAMAGED TO THE SATISFACTION OF THE BUILDING OWNER.
- THE EXACT LOCATIONS OF ALL ELECTRICAL DEVICES, EQUIPMENT AND CONDUIT, AS SHOWN ON THE DRAWING, IS APPROXIMATE. WHEN NOT SHOWN IN DETAIL, THE EXACT LOCATION OR ROUTING SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO THE APPROVAL OF
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY BLOCKING, BACKING, FRAMING, HANGERS OR OTHER SUPPORT FOR THE MOUNTING AND SUPPORT OF ALL ITEMS REQUIRING THE SAME AS REQUIRED BY N.E.C.
- INSTALLED CONDUIT AND/OR CABLES INCLUDING EXCAVATION AND BACKFILLING AND
- WHEN DIRECTIONAL BORING IS REQUIRED, CONTRACTOR SHALL INSTALL A LOOSE TONING WIRE WITHIN INSTALLED CONDUIT TO ALLOW FOR IDENTIFICATION OF UNDERGROUND CONDUITS.

#### 10. ALL BOLTS SHALL BE STAINLESS STEEL.

11. FOR UNDERGROUND RACEWAYS, PROVIDE ADDITIONAL SLACK IN CONDUCTORS AND 2. CONDUIT EXPANSION JOINTS IN ORDER TO ALLOW FOR EARTH MOVEMENT FROM SETTLEMENT, FROST, ETC. IN ORDER TO PREVENT DAMAGE TO THE CONDUCTORS OR TO THE EQUIPMENT CONNECTED TO THE RACEWAYS PER THE NEC.

#### **ELECTRICAL EQUIPMENT**

- 1. ALL EQUIPMENT SHALL BE DESIGNED TO OPERATE ON VOLTAGE AND PHASE SPECIFIED. CONTRACTOR FURNISHING EQUIPMENT OTHER THAN INDICATED SHALL BE RESPONSIBLE FOR ANY CHANGES IN CONDUCTORS, RACEWAYS, SWITCHES, MAIN FEEDERS, AND APPURTENANCES AND PAY ALL ASSOCIATED COSTS. REQUIREMENTS FOR ANY INCREASE IN CAPACITIES SHALL BE REVIEWED BY ENGINEER.
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION.

#### FIRESTOPPING AND SEALING ELECTRICAL PENETRATIONS

- CONTRACTOR SHALL FURNISH AND INSTALL FIRESTOPPING FOR SEALING AROUND 1. ELECTRICAL PENETRATIONS THROUGH FIRE OR SMOKE BARRIERS, AND FLOORS.
- PROPOSED UL SYSTEMS MATERIALS, ANCHORAGE, METHODS OF INSTALLATION, AND ACTUAL ADJACENT CONSTRUCTION. SUBMITTAL PACKAGE SHALL ALSO INCLUDE A COPY OF THE UL MODIFICATIONS (IF APPLICABLE) AND THE MANUFACTURER'S SPECIFICATIONS. RECOMMENDATIONS, INSTALLATION INSTRUCTIONS, AND MAINTENANCE INSTRUCTIONS.
- THE SPREAD OF FIRE AND SMOKE THROUGH PENETRATIONS CREATED BY ELECTRICAL INSTALLATIONS IN FIRE RATED WALLS AND FLOORS. MATERIALS SHALL BE FLAME, TOXIC FUME, AND WATER RESISTANT AND SHALL HAVE A MINIMUM 3 HOUR FIRE RATING. FIRE 5. THE CONTRACTOR SHALL ABIDE BY ALL ALUMINUM WIRING INSTALLATION STANDARDS AS RATING SHALL BE DEFINED BY TESTS CONDUCTED BY ASTM, UL OR OTHER TESTING AND INSPECTION AGENCIES ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION.
- PROVIDE MATERIALS BY THE FOLLOWING MANUFACTURERS TO SUIT THE APPLICATION: SPECIFIED TECHNOLOGIES, INC (STI), SOMERVILLE, NJ; TREMCO, INC., BEACHWOOD, OH; OR 3M INC., MINNEAPOLIS, MN

- CONTRACTOR SHALL CONDUCT A FAULT CURRENT CALCULATION ON ALL EQUIPMENT AND MARK AS REQUIRED PER THE N.E.C.
- CONTRACTOR SHALL PROVIDE AN ARC-FLASH STUDY AND LABEL ALL EQUIPMENT AS REQUIRED PER THE NEC

#### GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

- ALL RACEWAYS AND EQUIPMENT SHALL BE GROUNDED IN ACCORDANCE WITH THE N.E.C. AND ANY LOCAL CODES.
- 2. ALL CONDUITS SHALL CONTAIN A CODE SIZE GROUNDING CONDUCTOR.
- EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED WITH GREEN-COLORED INSULATION.
- 4. GROUNDING ELECTRODE CONDUCTORS SHALL BE STRANDED CABLE.
- MATERIALS AND CONNECTION COMPONENTS FOR GROUNDING AND BONDING SHALL BE MANUFACTURED BY ERICO, THOMAS & BETTS, OR BURNDY.
- GROUND-FAULT PROTECTION OF EQUIPMENT SHALL BE PROVIDED FOR SERVICE DISCONNECTS RATED 1000A OR MORE. THE GROUND-FAULT PROTECTION SYSTEM SHALL BE PERFORMANCE TESTED WHEN FIRST INSTALLED ON SITE. THE TEST SHALL BE CONDUCTED IN ACCORDANCE WITH INSTRUCTIONS THAT SHALL BE PROVIDED WITH THE EQUIPMENT. A WRITTEN RECORD OF THIS TEST SHALL BE MADE AND SHALL BE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION.
- ALL HARDWARE SHALL BE STAINLESS STEEL 3/8" DIAMETER OR LARGER. ALL HARDWARE 18-8 STAINLESS STEEL INCLUDING LOCK WASHERS, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- FOR GROUND BOND TO STEEL ONLY: INSERT A CADMIUM FLAT WASHER BETWEEN LUG AND STEEL, COAT ALL SURFACES WITH AN ANTI-OXIDANT COMPOUND BEFORE MATING.
- THE BACK SIDE. INSTALL BLACK HEAT-SHRINKING TUBE, ON ALL GROUND TERMINATIONS. THE INTENT IS TO WEATHERPROOF THE COMPRESSION CONNECTION.
- 11. ALL GROUNDING HARDWARE SUPPLIED AND INSTALLED BY CONTRACTOR.

#### ELECTRICAL IDENTIFICATION

- PROVIDE NAMEPLATES FOR ALL MAJOR ELECTRICAL EQUIPMENT AND ON EQUIPMENT AS DIRECTED BY OWNER.
- PROVIDE ALL FEEDERS AND BRANCH CIRCUIT WIRING WITH COLOR CODED VINYL TAPE WRAPPED A MINIMUM OF 1.5 TIMES AROUND CIRCUMFERENCE OF JACKET/SHIELDING TO DESIGNATE PHASE.
- COLOR CODING OF CONDUCTORS SHALL BE PER NEC REQUIREMENTS.
- CONTRACTOR SHALL PLACE TWO LENGTHS OF WARNING TAPE AT A DEPTH OF 12" BELOW GROUND AND DIRECTLY ABOVE ELECTRICAL SERVICE CONDUITS. CAUTIONS TAPE TO READ "CAUTION BURIED ELECTRIC"

#### CONDUCTORS AND CABLES

- WIRING ALL CONDUCTORS SHALL BE EQUAL TO OR BETTER THAN MINIMUM #12 AWG FOR POWER, #14 AWG FOR CONTROL WITH 98% CONDUCTIVITY STRANDED COPPER, 600V, COLOR CODED, UNLESS NOTED ALUMINUM (AL). REFER TO "ALUMINUM CONDUCTOR REQUIREMENTS" THIS SHEET. PROVIDE 75°C RATED CONDUCTORS FOR AMPACITIES ABOVE 100A AND 60°C 7. PROVIDE CONDUIT BODIES AND FITTINGS MANUFACTURED BY ONE OF THE FOLLOWING: RATED CONDUCTORS FOR AMPACITIES OF 100 AMPS OR LESS. PROVIDE SOLID OR STRANDED FOR #10 AWG AND SMALLER, STRANDED FOR #8 AWG AND LARGER. UNLESS NOTED OTHERWISE ON DRAWINGS.
- WIRE SIZE OF BRANCH CIRCUITS SHALL BE ADJUSTED TO COMPENSATE FOR VOLTAGE DROP BASED UPON ACTUAL CONDUIT ROUTING. CONTRACTOR SHALL MAINTAIN VOLTAGE DROP AS 8. PROVIDE METAL WIREWAYS MANUFACTURED BY ONE OF THE FOLLOWING: HOFFMAN RECOMMENDED BY N.E.C. (NOT TO EXCEED 3%).
- 3. PROVIDE A SEPARATE NEUTRAL FOR EACH BRANCH CIRCUIT, FEEDER, ETC. NEUTRALS ARE NOT PERMITTED TO BE SHARED.
- CONNECTORS FOR POWER CONDUCTORS: CONTRACTOR SHALL USE PRESSURE TYPE INSULATED TWIST-ON CONNECTORS FOR NO. 10 AWG AND SMALLER. USE SOLDERLESS MECHANICAL TERMINAL LUGS FOR NO. 8 AWG AND LARGER.
- 5. ALL CONNECTIONS SHALL BE MADE WITH A PROTECTIVE COATING OF AN ANTI-OXIDE COMPOUND SUCH AS "NO-OXIDE A" BY DEARBORNE CHEMICAL CO. COAT ALL WIRE SURFACES BEFORE CONNECTING. EXPOSED COPPER SURFACES, INCLUDING GROUND BARS, SHALL BE TREATED - NO SUBSTITUTIONS.
- 6. CABLES MC CABLE IS NOT PERMITTED.
- 7. PROVIDE WIRE AND CABLE MANUFACTURED BY ONE OF THE FOLLOWING: AMERICAN INSULATED WIRE CORPORATION; NEXANS; CERROWIRE; SOUTHWIRE; OR ENCORE WIRE.
- 8. PROVIDE CONNECTORS MANUFACTURED BY ONE OF THE FOLLOWING: AMP INCORPORATED; GENERAL SIGNAL, O-Z/GEDNEY UNIT; SQUARE D COMPANY, ANDERSON; ILSCO; OR BURNDY

#### ALUMINUM CONDUCTOR REQUIREMENTS

- ALUMINUM CONDUCTOR GRADE SHALL BE MINIMUM AA-8000 OR THE NEWEST ALUMINUM CONDUCTOR SPECIFICATION BEING USED BY THE INDUSTRY.
- PROVIDE SHOP DRAWINGS OF EACH CONDITION REQUIRING PENETRATION SEALS AND THE 2. THE CONTRACTOR SHALL ABIDE BY ALL ARTICLES RELATED TO ALUMINUM CONDUCTORS IN THE LATEST ISSUE OF THE NEC.
- ILLUSTRATION OF EACH PROPOSED SYSTEM INDICATING MANUFACTURER APPROVED 3. ALUMINUM CONDUCTORS SHALL ONLY BE TERMINATED USING ALUMINUM RATED CONNECTIONS. CONTRACTOR SHALL VERIFY TERMINATIONS ON EACH DEVICE OR EQUIPMENT BEFORE START OF WORK FOR RATED ALUMINUM CONNECTORS.
- FIRESTOPPING MATERIALS SHALL BE INTUMESCENT SAFETY BARRIERS DESIGNED TO BLOCK 4. ALL ALUMINUM (AI) CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION. ALL OTHER CONDUCTORS ARE COPPER UNLESS NOTED OTHERWISE.
  - REQUIRED BY THE NEIS ( NATIONAL ELECTRICAL INSTALLATION STANDARDS) PUBLISHED BY THE NECA ( NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION). THE CONTRACTOR SHALL ABIDE BY ALL STANDARDS IN THE NECA / AA - 2006, WHICH DEFINES MINIMUM STANDARDS OF QUALITY AND WORKMANSHIP. A SUMMARY OF SOME OF THE REQUIREMENTS FOLLOW:
  - A. TERMINATE WITH COMPRESSION CONNECTORS, NO RING CUTS OF THE INSULATION, CRIMP ONLY WITH A CRIMP TOOL AND THE CORRECT DIE AS REQUIRED BY THE MANUFACTURER.
  - B. ALL CONDUCTORS TO RECEIVE ANTI-OXIDATIVE COATING DURING INSTALLATION. C. TERMINATING WITH A SET SCREW CONNECTOR, THE SCREW SHALL BE TIGHTENED USING
  - ONLY A TORQUE WRENCH. D. NECA / AA RECOMMENDS BELLVILLE WASHERS WHEN CONNECTING ALUMINUM
  - CONNECTORS TO COPPER BUS BARS. ABIDE BY ALL NECA / AA RECOMMENDATIONS. E. DO NOT USE PIN CONNECTORS (WIRE ADAPTERS) UNLESS ABSOLUTELY NECESSARY, USE ALL/ANY OTHER OPTIONS, AND IF REQUIRED, PROVE TO ENGINEER BEFORE INSTALLING. IF USED, FOLLOW UL GUIDE FOR WIRE CONNECTORS (ZMOW), AND PROVIDE THE SPECIAL

TOOLS REQUIRED BY THE MANUFACTURER. DIE-LESS CRIMPERS WILL NOT BE ACCEPTED

#### RACEWAY AND BOXES

RACEWAYS: UNLESS NOTED OTHERWISE, ALL EXPOSED CONDUIT SHALL BE R.G.S. AND COVERED 6" BELOW FINISHED GRADE TO BE PVC, HDPE, OR LFNC. SEE NOTES A & B BELOW. PROVIDE WEATHERPROOF FLEX CONNECTIONS WHERE REQUIRED. CONTRACTOR SHALL PROVIDE JUNCTION AND/OR PULL BOXES WHERE SHOWN ON THE DRAWINGS, OR AS REQUIRED, WHETHER SHOWN ON THE DRAWINGS OR NOT, AND SIZED PER N.E.C. PROVIDE NON-METALLIC ENCLOSURE WITH OPEN BOTTOM AND GASKETED COVER MANUFACTURED BY QUAZITE OR EQUIVALENT WITH DRIVE-OVER COVER ABLE TO WITHSTAND OCCASIONAL NON-DELIBERATE LIGHT VEHICULAR TRAFFIC. LABEL COVER TO SUIT INSTALLATION (I.E. "POWER" "COMMUNICATIONS", "LIGHTING", ETC.) AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

#### A. OUTDOOR:

- ABOVE GRADE: R.G.S.
- BELOW GRADE: SCH 40 PVC, SCH 40 HDPE, OR NON-METALLIC FLEXIBLE CONDUIT LISTED FOR DIRECT BURIAL. ALL UNDERGROUND CONDUIT SHALL BE 90°C WET RATED AND INSTALLED 24" MIN. BELOW GRADE. VERIFY APPROVED USE OF HDPE WITH AHJ PRIOR TO ROUGH-IN AND INSTALL PER NEC & MFR RECOMMENDATIONS.

#### B. PARKING GARAGES:

- RGS: 8'-0" OR LESS ABOVE GRADE OR PARKING GARAGE FLOOR LEVEL
- EMT: 8'-0" MINIMUM ABOVE PARKING GARAGE FLOOR LEVEL AND WHERE NOT SUBJECT TO DAMAGE. CONTRACTOR SHALL VERIFY WITH ELECTRICAL INSPECTOR IF EMT IS APPROVED AT THIS PROJECT PRIOR TO ROUGH-IN.
- ALL WIRING SHALL BE INSTALLED IN CONDUIT. ALL CONDUIT SHALL BE A MINIMUM OF 3/4".
- CONTRACTOR SHALL PLUG AND CAP EACH END OF SPARE AND EMPTY CONDUITS AND PROVIDE TWO SEPARATE PULL STRINGS - 200 LBS TEST POLYETHYLENE CORD. CONTRACTOR SHALL PROVIDE MANUFACTURED LONG RADIUS BENDS FOR ALL CONDUITS. RGS CONDUITS WHEN SPECIFIED. SHALL MEET UL-6 FOR GALVANIZED STEEL. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. COAT ALL THREADS WITH 'BRITE ZINC' OR 'GOLD GALV'
- 4. OUTLET BOXES SHALL BE CAST ALLOY WITH THREADED HUBS IN WET/DAMP LOCATIONS AND SPECIAL ENCLOSURES FOR OTHER CLASSIFIED AREAS.
- 5. PROVIDE METAL CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ALFLEX CORPORATION; ANAMET INCORPORATED, ANACONDA METAL HOSE; ANIXTER BROTHERS INCORPORATED; CAROL CABLE COMPANY INCORPORATED; ELECTRI-FLEX COMPANY; GRINNELL COMPANY, ALLIED TUBE AND CONDUIT DIVISION; MONOGRAM COMPANY, AFC; REPUBLIC CONDUIT; OR WHEATLAND TUBE COMPANY.
- 6. PROVIDE NONMETALLIC CONDUIT AND TUBING MANUFACTURED BY ONE OF THE FOLLOWING: ANAMET INCORPORATED, ANACONDA METAL HOSE; CANTEX INDUSTRIES, HARSCO CORPORATION: CONDUX INTERNATIONAL, ELECTRICAL PRODUCTS: HUBBELL INCORPORATED, RACO, INCORPORATED; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.
- CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; EMERSON ELECTRIC COMPANY, APPLETON ELECTRIC COMPANY; HUBBELL INCORPORATED, KILLARK ELECTRIC MANUFACTURING COMPANY; THOMAS & BETTS CORPORATION, CARLON ELECTRICAL PRODUCTS; OR O-Z/GEDNEY, UNIT OF GENERAL SIGNAL.
- ENGINEERING COMPANY; KEYSTONE/REES, INCORPORATED; OR SQUARE D COMPANY.
- PROVIDE BOXES, ENCLOSURES, AND CABINETS MANUFACTURED BY ONE OF THE FOLLOWING: CROUSE-HINDS, DIVISION OF COOPER INDUSTRIES; HOFFMAN ENGINEERING COMPANY, FEDERAL-HOFFMAN INCORPORATED: HUBBELL INCORPORATED. RACO INCORPORATED: THOMAS & BETTS, CARLON ELECTRICAL PRODUCTS; O-Z/GEDNEY, UNIT OF GENERAL SIGNAL; ROBROY INDUSTRIES INCORPORATED, ELECTRICAL DIVISION; OR SCOTT FETZER COMPANY, ADALET-PLM.

#### SAFETY SWITCHES

ALL DISCONNECT SWITCHES SHALL BE HEAVY-DUTY CONSTRUCTION WITH LOCKABLE HANDLES SIZED AS NOTED ON THE DRAWINGS AND/OR RISER DIAGRAM. PROVIDE NEMA ENCLOSURE AS REQUIRED BY EXPOSURE TYPE. ALL FUSIBLE SWITCHES SHALL BE PROVIDED WITH DUAL ELEMENT FUSES SIZED PER THE EQUIPMENT MANUFACTURER'S RECOMMENDATION.

FUSES SHALL BE DUAL ELEMENT, TIME DELAY CURRENT LIMITING. CONTRACTOR SHALL COORDINATE FUSE SIZES WITH EQUIPMENT MANUFACTURER'S REQUIREMENTS AND PER THE N.E.C. PROVIDE FUSES MANUFACTURED FROM ONE OF THE FOLLOWING: COOPER BUSSMAN, INCORPORATED; EAGLE ELECTRIC MANUFACTURING COMPANY INCORPORATED, COOPER INDUSTRIES INCORPORATED; FERRAZ SHAWMUT INCORPORATED.

Item #2.



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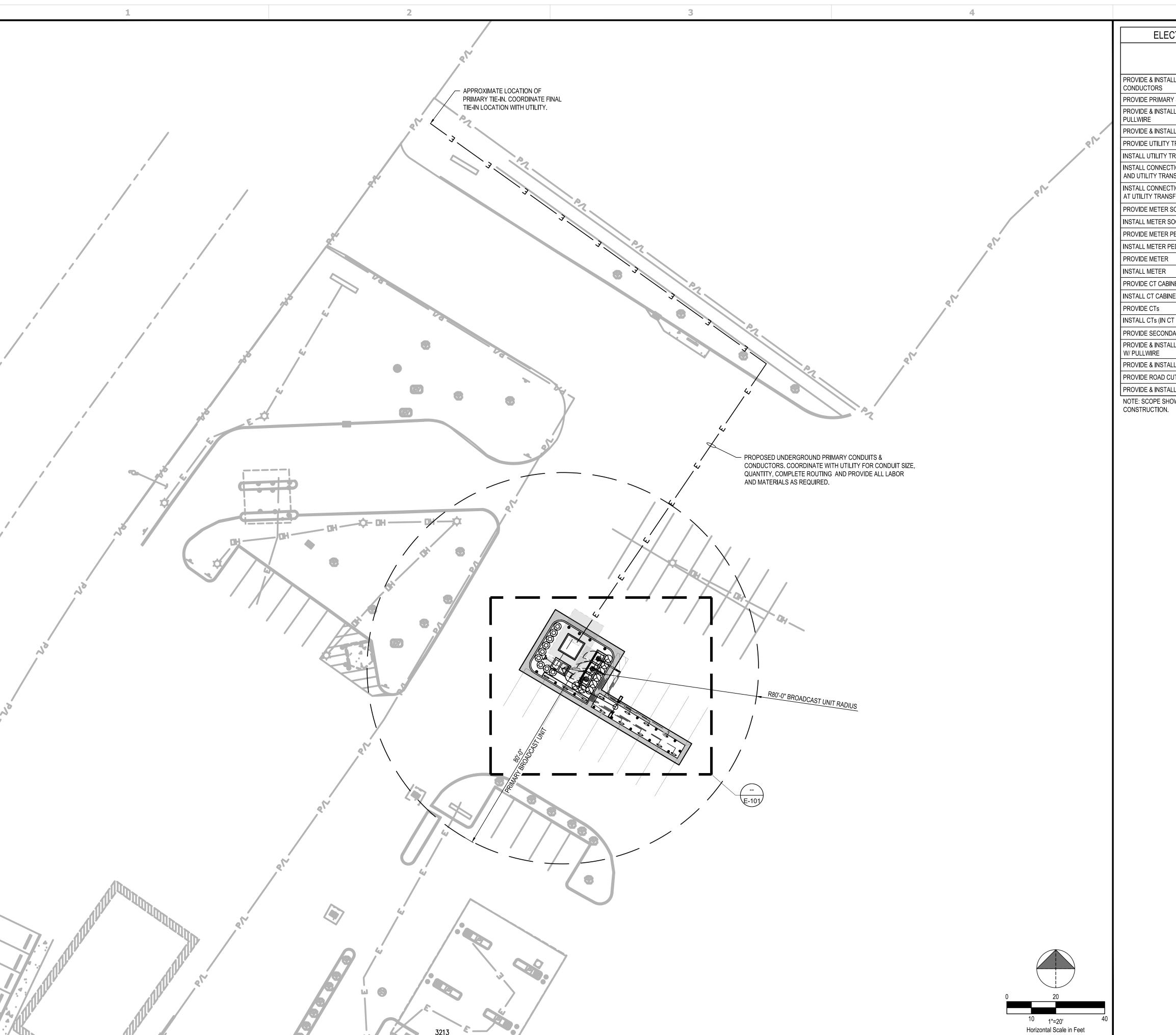
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PROJECT MANAGER DESIGNER

> JOB NO. 2022241.29



ELECTRICAL SCOPE OF WORK RESPONSIBILITIES UTILITY CONTRACTOR PROVIDE & INSTALL PRIMARY SIDE UNDERGROUND PROVIDE PRIMARY SIDE TRENCHING Χ PROVIDE & INSTALL PRIMARY SIDE CONDUITS W/ PROVIDE & INSTALL UTILITY TRANSFORMER PAD Χ PROVIDE UTILITY TRANSFORMER INSTALL UTILITY TRANSFORMER Χ INSTALL CONNECTIONS AND UTILITY TRANSFORMER (PRIMARY) INSTALL CONNECTIONS AT UTILITY TRANSFORMER (SECONDARY) PROVIDE METER SOCKET/METER CAN Χ INSTALL METER SOCKET/METER CAN Χ PROVIDE METER PEDESTAL Χ INSTALL METER PEDESTAL Χ Χ Χ PROVIDE CT CABINET Χ INSTALL CT CABINET Χ Χ INSTALL CTs (IN CT CABINET) Χ PROVIDE SECONDARY SIDE TRENCHING Χ PROVIDE & INSTALL SECONDARY SIDE CONDUITS PROVIDE & INSTALL SECONDARY SIDE CONDUCTORS Χ PROVIDE ROAD CUTS / ROAD BORES Χ PROVIDE & INSTALL PAVEMENT REPLACEMENT Χ NOTE: SCOPE SHOWN ABOVE WAS PROVIDED BY FIRST ENERGY. FIELD VERIFY PRIOR TO

UTILITY COMPANY CONTACT

FIRST ENERGY
CONTACT: ROBERT ELLIOT
(440) 358-4996

3500 DEER CREEK RD.
PALO ALTO, CA 94304
(650) 681-5000



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INTE SKETCH REVIEW

10% REVIEW

SIGN & SEAL

SIGN & SEAL

A 12/14/2022 ISSUED FOR SITE SKETCH
B 12/21/2022 ISSUED FOR SITE SKETCH
C 02/21/2023 ISSUED FOR SIGN & SEAL
0 03/22/2023 ISSUED FOR SIGN & SEAL



TESLA SUPERCHARGER STATION 30320 LAKESHORE BLVD WILLOWICK, OH 44095

WILLOWICK, OH 44095
OVERALL ELECTRICAL
SITE PLAN

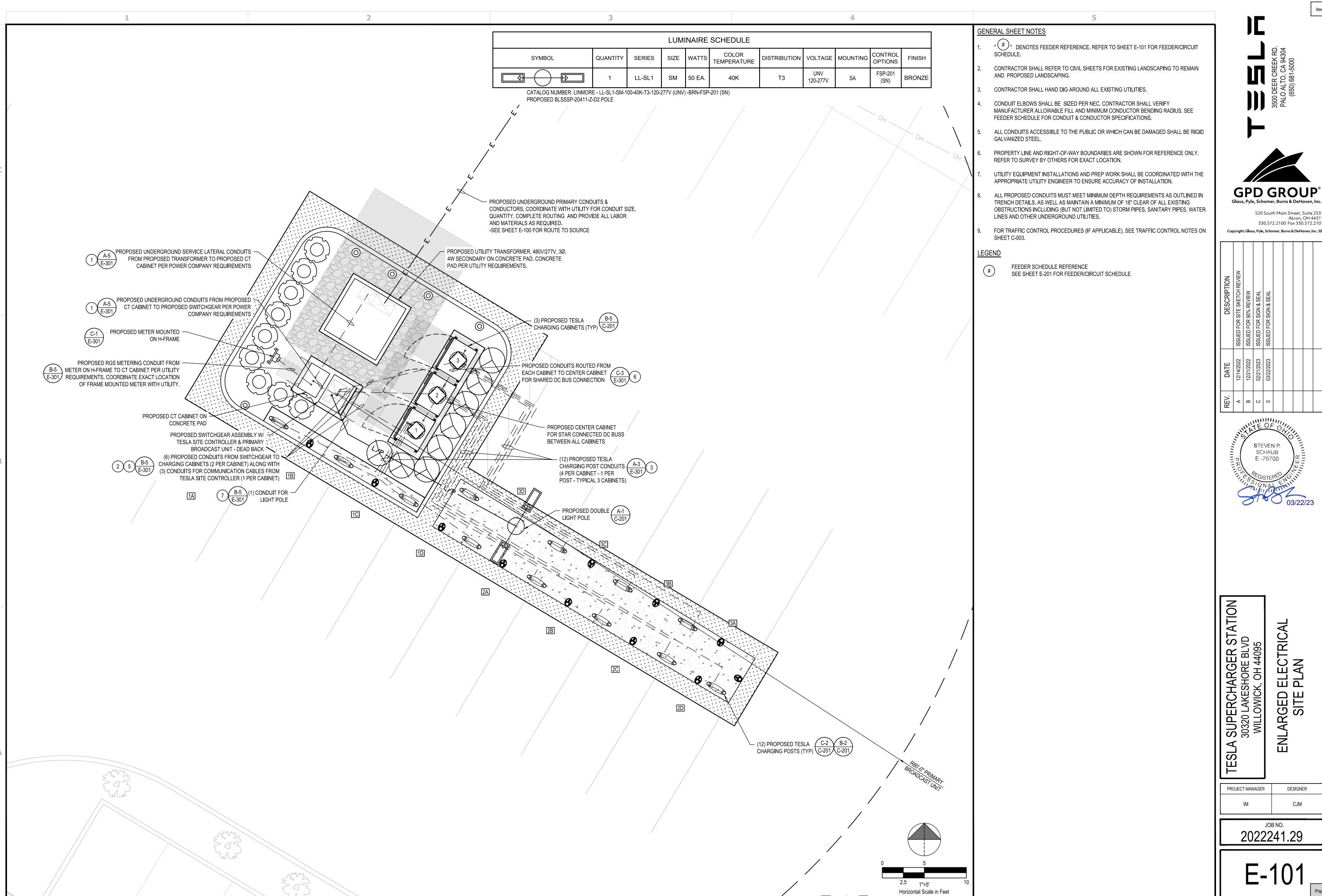
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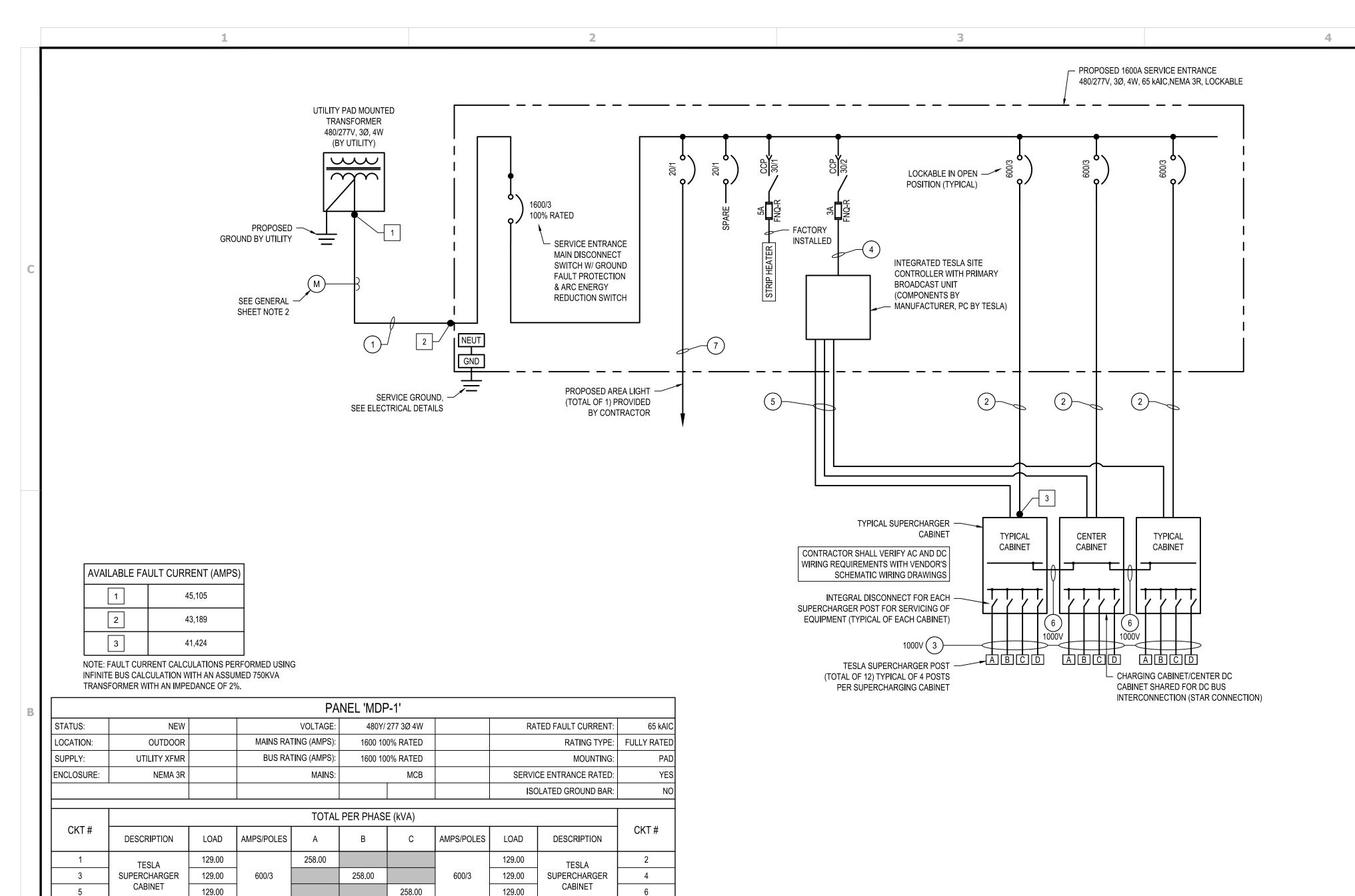
DESCRIPTION	ISSUED FOR SITE SKETCH REVIEW	ISSUED FOR 90% REVIEW	ISSUED FOR SIGN & SEAL	ISSUED FOR SIGN & SEAL			
DATE	12/14/2022	12/21/2022	02/21/2023	03/22/2023			
REV.	А	В	2	0			



ENLARGED ELECTRICAL SITE PLAN

PROJECT MANAGER DESIGNER

2022241.29



BREAKER SETTINGS											
BREAKER BREAKER LONG LONG DELAY USE SIZE DELAY TIME				SHORT DELAY	SHORT DELAY TIME	INSTANTANEOUS	GROUND SETTING	GROUND TIME			
MCB - ABB E2.2 BKR	1600A	0.9(1440A)	8 (I <sup>2</sup> T ON)	3	0.2 (l²T OFF)	15	0.6	0.4 (I <sup>2</sup> T OFF)			
MCB - SQUARE D NW BKR	1600A	0.9(1440A)	4	1.5	0.2 (l²T OFF)	15	J	0.4 (I <sup>2</sup> T OFF)			
V3 BRANCH CIRCUIT - ABB	600A	MAX (600A)	Х	Х	Х	MIN (3000A)	Х	Х			
V3 BRANCH CIRCUIT -	600A	Х	Х	X	Х	2	Х	Х			

NOTE: CONTRACTOR SHALL VERIFY BREAKER MAKE/MODEL AND SET PER THE ABOVE TABLE. NOTIFY TESLA IMMEDIATELY OF ANY DISCREPANCIES.

TESLA V3 CHARGING CABINET AND POST ELECTRICAL SPECS										
CHARGE POST MODEL	AC INPUT VOLTAGE TO CABINET	kVA INPUT TO CABINET	AC INPUT CURRENT TO CABINET	DC OUTPUT VOLTAGE TO CHARGE POST	DC OUTPUT CURRENT TO CHARGE POST	DC SHARED BUS CURRENT	SHORT CIRCUIT CURRENT RATING			
V3	380V - 480V	387kVA	465A	0V - 500V	350A	640A	85 kAIC			

GENERAL SHEET NOTES

- NEUTRAL MUST BE INCLUDED FOR PROPER OPERATION OF TESLA SUPERCHARGERS.
- 2. PROPOSED UTILITY CTs SHALL BE LOCATED IN UTILITY APPROVED CT COMPARTMENTS MOUNTED IN CT CABINET ON CONCRETE PAD. PROPOSED METER SHALL BE MOUNTED ON H-FRAME.
- 3. ALL CONDUIT FURNISHED AND INSTALLED BY CONTRACTOR.
- 4. ALL WIRING FURNISHED BY TESLA AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. SEE SHEET E-001 FOR UTILITY/CONTRACTOR SCOPE OF WORK.
- 5. THE TESLA PROVIDED SUPERCHARGING CABINETS AND SUPERCHARGING POSTS USED ON THIS PROJECT COMPLY WITH THE FOLLOWING STANDARDS:
- TUV CERTIFIED TO UL 2202
- ALL ELECTRICAL EQUIPMENT SHALL BE LABELED, LISTED, OR CERTIFIED BY A NATIONALLY RECOGNIZED TESTING LABORATORY ACCREDITED BY THE UNITED STATES OCCUPATIONAL SAFETY HEALTH ADMINISTRATION.
- 7. REFER TO THIS SHEET FOR FAULT CURRENT CALCULATIONS. CONTRACTOR SHALL MARK ON ALL EQUIPMENT AS REQUIRED PER N.E.C.
- 8. REFER TO SHEET E-301 FOR ARC FLASH LABEL DETAILS. CONTRACTOR SHALL LABEL ALL EQUIPMENT AS REQUIRED PER N.E.C.

	FEEDER / CIRCUIT SCHEDULE								
NO	CONFIGURATION								
1	(5) SETS OF 4" CONDUIT EACH WITH (3) 600 MCM AI (1) 600 MCM AI NEUT								
2	(2) SETS OF 4" CONDUIT EACH WITH (3) 500 MCM AI (1) 500 MCM AI NEUT (1) #1 AWG Cu GND OR #2/0 AWG AI GND								
3	(1) SET IN 4" CONDUIT (DURALINE IS ACCEPTABLE*) WITH (4) 350 MCM AI (TWO +, TWO -) (1) #2/0 AWG AI GND (1) 1000V, CLASS 1, COMM CABLE *SEE DETAIL ON SHEET E-301 FOR DURALINE TO PVC TRANSITION AND ADDITIONAL NOTES								
4	FACTORY INSTALLED WIRING								
5	OUTDOOR RATED/SHIELDED CAT5e CABLE IN 1" CONDUIT.								
6	(2) SETS - EACH IN 3" CONDUIT (2) 600 MCM AI (ONE +, ONE -) (1) #3/0 AWG AI DC MID (1) #1/0 AWG Cu GND (1) #3/0 AWG AI DC MID DISC. 36" LONG IN EA. CABINET, NOT ROUTED IN CONDUIT								
7	(1) SET IN 1" CONDUIT (1) #10 AWG Cu (THWN-2) (1) #10 AWG Cu NEUT (THWN-2) (1) #10 AWG Cu GND (THWN-2)								

#### NOTES

- 1. ALL AC CONDUCTORS SHALL BE XHHW-2, 600V RATED, U.N.O.
- 2. ALL DC CONDUCTORS SHALL BE XHHW-2, 1000V RATED, U.N.O..

4. DURALINE PRODUCT WILL BE USED FOR "DC-POST" CONDUIT RUN ONLY.

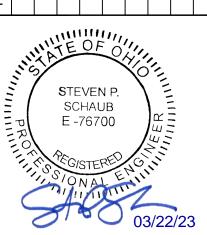
3. SEE "RACEWAY AND BOXES" NOTES ON SHEET E-001 FOR CONDUIT USE TYPES FOR ABOVE AND BELOW GRADE APPLICATIONS

GPD GROUP®
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

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	DESCRIPTION	ISSUED FOR SITE SKETCH REVIEW	ISSUED FOR 90% REVIEW	ISSUED FOR SIGN & SEAL	ISSUED FOR SIGN & SEAL			
	DATE	12/14/2022	12/21/2022	02/21/2023	03/22/2023			
	REV.	А	В	S	0			



A SUPERCHARGER STATION 30320 LAKESHORE BLVD WILLOWICK, OH 44095

PROJECT MANAGER DESIGNER

IM CJM

SINGLE LINE DIAGRAM & PANEL SCHEDULE

JOB NO. 2022241.29

E-201

**201** Pa

Drawing Name: O:\2022\2022\41\29 - TRT 27552 - Willowick, OH - 30320 Lakeshore Blvd\dwg\2022241.29 - Willowick, OH -

\*THE SUM OF THE TOTAL CONNECTED LOADS (NON-CONTINUOUS LOAD PLUS THE CONTINUOUS LOAD) TERMINATE IN AN OVERCURRENT DEVICE WHERE BOTH THE OVERCURRENT DEVICE AND ITS ASSEMBLY ARE LISTED FOR OPERATION AT 100% OF THEIR RATING

PANEL BOARD NOTES

129.00

0.00

0.00

0.00

0.00

0.10

1397.47

0.0%

0.00

0.00

0.00

0.30

387.40

1398.56

0.0%

0.00

0.00

0.00

0.00

0.14

TOTAL kVA | 387.14 | 387.10

TOTAL AMPS | 1397.62

% UNBALANCE | 0.0% |

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

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0.00

0.00

0.00

TOTAL CONN kVA

TOTAL CONN AMPS

\*NEC CALC. LOAD kVA

SPACE

SPACE

SPACE

SPACE

1161.64

1397.24

1452.05

10

12

14

16 18

20

22

24

26

28

30

32

34

36

38

40

42

129.00

129.00

129.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.00

0.30

0.14

0.10

600/3

20/1

30/1

20/1

30/2

TESLA

SUPERCHARGER

CABINET

SPACE

SPACE

SPACE

SPACE

STRIP HEATER

LED LIGHT POLE

TESLA SITE

CONTROLLER

13

15

17

19

21

25

27

29

35

1. CIRCUITS SHALL BE REARRANGED AS REQUIRED TO MAINTAIN THE MOST BALANCED LOADS ON EACH PHASE WITHIN EACH PANEL. PROVIDE TYPED PANEL DIRECTORY MOUNTED PER MANUFACTURERS RECOMMENDATIONS WITH SERVICE EQUIPMENT.

OCPD FOR POWER CABINETS ARE CALCULATED AS FOLLOWS: 448A AC INPUT TO CABINET x 1.25 = 560.00A ⇒ 600A BRANCH REQUIRED CONTRACTOR SHALL COORDINATE WITH THE POWER COMPANY TO DETERMINE MAXIMUM SHORT CIRCUIT AMPS (SCA), AND PROVIDE CALCULATIONS IN ORDER TO

PROVIDE PROPERLY RATED EQUIPMENT. PROVIDE LABELS ON ELECTRICAL EQUIPMENT PER NEC 110.16 AND LOCAL JURISDICTION REQUIREMENTS.



#### NO SAFE PPE EXISTS

#### **ENERGIZED WORK PROHIBITED**

FLASH PROTECTION Working Distance: 18 in Glove Class:

SHOCK PROTECTION Shock risk when cover is removed

Arc Flash Boundary: 359 in NO SAFE PPE

Limited Approach 42 in NO SAFE PPE

DO NOT WORK ON LIVE!

Min. Arc Rating:

Restricted Approach 12 in

INCOMING UTILITY SECTION

Bus: INCOMING SECTION-MAIN Prot: MaxTripTime @2.0s

# WARNING

#### **Arc Flash and Shock Risk Appropriate PPE Required**

FLASH PROTECTION Working Distance: 18 in Glove Class:

SHOCK PROTECTION Shock risk when 480 VAC cover is removed

Arc Flash Boundary: 39 in CAT 2 Min. Arc Rating: 8 cal/cm^2

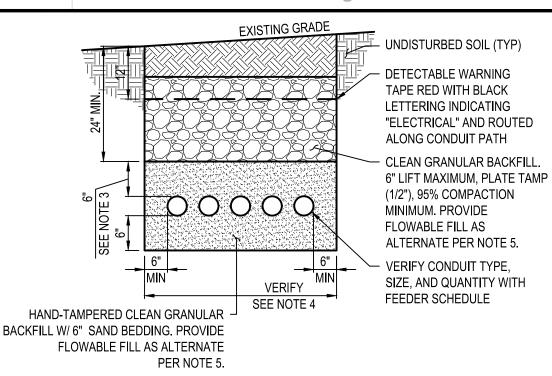
Limited Approach 42 in

Restricted Approach 12 in **Bus: CHARGING CABINETS Prot: 600A BREAKER** 

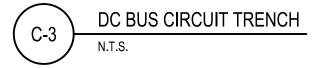
CHARGING CABINETS

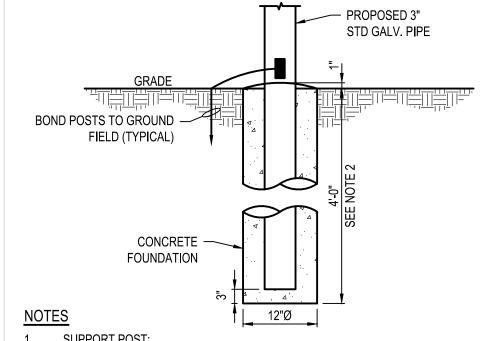
- 1. FOR ANY QUESTIONS OR CLARIFICATIONS REGARDING LABELS, CONTACT
- 2. ARC FLASH INCIDENT ENERGY ANALYSIS COMPLETED PER NFPA 70E 2018.
- 3. ARC FLASH CALCULATIONS PER IEEE 1584, 2018.
- 4. LABELS SHALL BE PRINTED WITH PERMANENT INK ON WEATHERPROOF LABELS WITH SELF STICKING ADHESIVE.
- 5. INSTALL LABELS PER NEC SECTION 110.16.
- 6. FOR EACH SWITCHGEAR SECTION, CONTRACTOR SHALL PROVIDE (1) APPLICABLE LABEL ON EXTERIOR DOOR AND (1) APPLICABLE LABEL ON INTERIOR FRONT FACING SECTION. CONTRACTOR SHALL FIELD VERIFY SPECIFIC LOCATION FOR LABEL PLACEMENT(S).
- CONTRACTOR SHALL PROVIDE LABELS WITH ANY ADDITIONAL INFORMATION AS REQUIRED BY LOCAL JURISDICTION, STATE AND FEDERAL CODES AND LAWS.





- 1. ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF. ALL TRENCHING SHALL BE ACCORDING TO THE LATEST OSHA STANDARDS.
- 2. ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRE-CONSTRUCTION CONDITIONS OR BETTER.
- 3. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL FROST LINE. SHOULD FIELD CONDITIONS VARY, CONTRACTOR SHALL COORDINATE WITH TESLA CONTACT LISTED ON C-001.
- 4. VERIFY WIDTH OF TRENCH REQUIRED. REFER TO SITE ELECTRICAL DRAWING FOR APPROXIMATE ROUTING. 5. THE CONTRACTOR SHALL FURNISH FLOWABLE FILL WITH A 28 DAY COMPRESSIVE STRENGTH RANGING FROM 50 PSI TO 100 PSI PER THE STATE DEPARTMENT OF TRANSPORTATION'S
- CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, LATEST REVISION. 6. DC BUS CONDUITS ARE NOT TO BE STACKED UNDER ANY CIRCUMSTANCES.





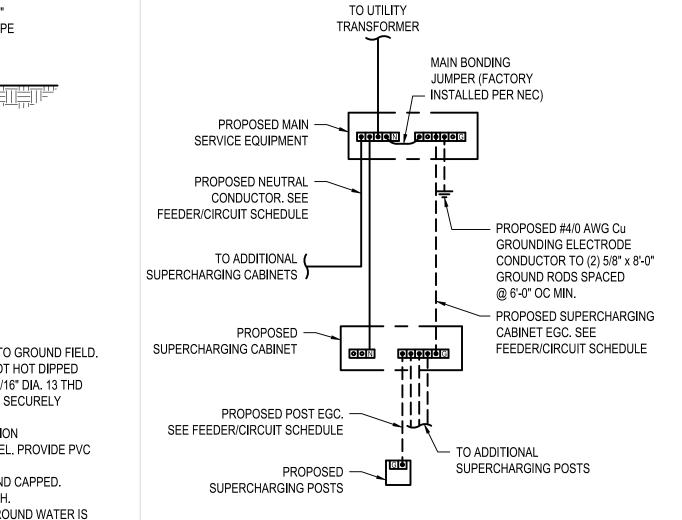
 SUPPORT POST: 2-3" STD GALVANIZED PIPE CEMENTED IN GROUND. BOND POSTS TO GROUND FIELD. MOUNTING HARDWARE- 12 GAUGE 1-5/8" X 1-5/8" CONTINUOUS SLOT HOT DIPPED GALVANIZED CHANNEL (e.g., UNISTRUT) COMPLETE WITH 1-1/4" X 5/16" DIA. 13 THD SPRING NUT (2 PER CHANNEL), 5/16" HEX NUT, AND LOCK WASHER SECURELY

MOUNTED TO SUPPORT POSTS. REFER TO FEEDER/CIRCUIT SCHEDULE FOR CONDUIT SPECIFICATION ALL ABOVE GROUND CONDUITS SHALL BE RIGID GALVANIZED STEEL. PROVIDE PVC

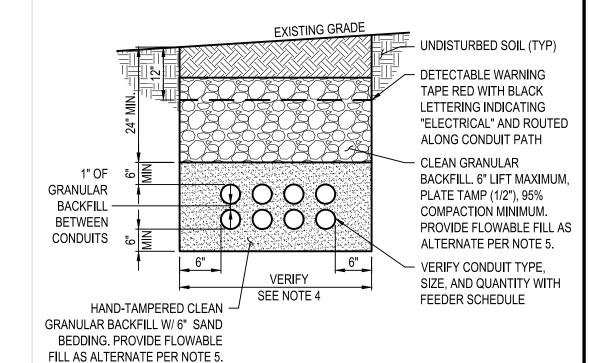
TO RGS COUPLER FOR TRANSITION. ALL CUT POST & UNISTRUT ENDS SHALL BE FILED, GALVANIZED AND CAPPED.

IF FROST DEPTH EXCEEDS 4'-0", FOOTER TO EXCEED FROST DEPTH. ENGINEER OF RECORD SHALL BE CONTACTED IMMEDIATELY IF GROUND WATER IS ENCOUNTERED DURING CONSTRUCTION.







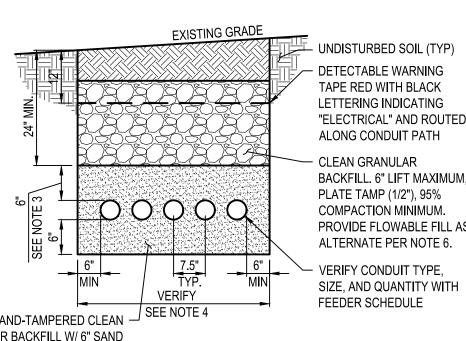


1. ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF. 2. ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRECONSTRUCTION CONDITIONS OR BETTER.

3. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL FROST LINE. SHOULD FIELD CONDITION VARY, CONTRACTOR SHALL COORDINATE WITH CONTACT ENGINEER LISTED ON SHEET C-001. 4. VERIFY WIDTH OF TRENCH REQUIRED. REFER TO SITE ELECTRICAL DRAWING ON SHEET E-101

5. THE CONTRACTOR SHALL FURNISH FLOWABLE FILL WITH A 28 DAY COMPRESSIVE STRENGTH RANGING FROM 50 PSI TO 100 PSI PER THE STATE DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, LATEST REVISION.





GRANULAR BACKFILL W/ 6" SAND BEDDING. PROVIDE FLOWABLE FILL

A-5

- 1. ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF. 2. ANY PAVEMENT DAMAGE DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR TO PRECONSTRUCTION CONDITIONS OR BETTER.
- 3. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL FROST LINE. SHOULD FIELD CONDITIONS VARY, CONTRACTOR SHALL COORDINATE WITH CONTACT ENGINEER LISTED ON SHEET C-001. 4. VERIFY WIDTH OF TRENCH REQUIRED. REFER TO SITE ELECTRICAL DRAWING ON SHEET E-101

FOR ROUTING. 5. VERIFY ALL REQUIREMENTS WITH POWER COMPANY

6. THE CONTRACTOR SHALL FURNISH FLOWABLE FILL WITH A 28 DAY COMPRESSIVE STRENGTH RANGING FROM 50 PSI TO 100 PSI PER THE STATE DEPARTMENT OF TRANSPORTATION'S CONSTRUCTION AND MATERIAL SPECIFICATIONS, CURRENT EDITION, LATEST REVISION. SECONDARY FEEDER TRENCH

"ELECTRICAL" AND ROUTED PROVIDE FLOWABLE FILL AS HAND-TAMPERED CLEAN -AS ALTERNATE PER NOTE 6.

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PROJECT MANAGER

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DESIGNER

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JOB NO.

Item #2.

**GPD GROUP** 

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STEVEN P.

SCHAUB

E -76700

520 South Main Street, Suite 2531

330.572.2100 Fax 330.572.2101

DURALINE SMOOTH-COR FLEX CONDUIT HAS BEEN CERTIFIED AS A CRITICAL COMPONENT OF THE SUPERCHARGER POST BY TUV. TESTING REPORTS SHOWING HOW THIS PRODUCT MEETS UL STANDARDS ARE AVAILABLE UPON REQUEST. PRODUCT WILL BE USED FOR "DC-POST" CONDUIT DURALINE SMOOTH-COR FLEX CONDUITS REQUIRE THE USE OF 90° PVC TRANSITIONS AT - 90° PVC TRANSITION INTO EACH END AND/OR HARD BENDS. CONTRACTOR CABINET. SEE NOTE 2. TO SUPPLY PVC TRANSITIONS TO TESLA EQUIPMENT. DURALINE SMOOTH-COR FLEX — CONDUIT (SEE FEEDER SUPERCHARGER SUPERCHARGER SCHEDULE ON SHEET E-201 FOR / POST (V3) CABINET CONDUIT SIZE AND QUANTITY). egthinspace = -1DURALINE TO PVC TRANSITION 90° PVC TRANSITION INTO CHARGE POST. SEE NOTE 2. EXISTING GRADE 1. DUCT BANK DESIGNED AND CERTIFIED BY TESLA, SEE NOTE 6 FOR ADDITIONAL INFORMATION. UNDISTURBED SOIL (TYP) 2. ANY EXCAVATION LEFT OPEN SHOULD BE SECURELY FENCED OFF. ALL TRENCHING SHALL BE ACCORDING DETECTABLE WARNING TO THE LATEST OSHA STANDARDS. TAPE RED WITH BLACK 3. ANY PAVEMENT DAMAGED DURING CONSTRUCTION LETTERING INDICATING SHALL BE REPAIRED OR REPLACED BY THE "ELECTRICAL" AND ROUTED CONTRACTOR TO PRE-CONSTRUCTION CONDITIONS OR ALONG CONDUIT PATH CLEAN GRANULAR 4. CONTRACTOR SHALL INSTALL CONDUITS BELOW LOCAL BACKFILL. 6" LIFT MAXIMUM, FROST LINE. SHOULD FIELD CONDITIONS VARY,  $\overline{\mathsf{COCCC}}$  $\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc\bigcirc$ PLATE TAMP (1/2"), 95% CONTRACTOR SHALL COORDINATE WITH TESLA 0000000 COMPACTION MINIMUM. CONTACT LISTED ON SHEET C-001. PROVIDE FLOWABLE FILL AS 5. FIELD VERIFY WIDTH OF TRENCH REQUIRED. REFER ALTERNATE PER NOTE 6. TO SITE ELECTRICAL DRAWING FOR ROUTING. 6. DC POST CONDUIT DUCT BANK DESIGN BY TESLA. VERIFY CONDUIT TYPE, SEE NOTE 6 CONTRACTOR SHALL FURNISH FLOWABLE FILL WITH A SIZE, AND QUANTITY WITH 28 DAY COMPRESSIVE STRENGTH RANGING FROM 50 FEEDER SCHEDULE VERIFY PSI TO 100 PSI PER THE STATE DEPARTMENT OF SEE NOTE 5 CLEAN GRANULAR BACKFILL. TRANSPORTATION'S CONSTRUCTION AND MATERIAL PROVIDE FLOWABLE FILL AS SPECIFICATIONS, CURRENT EDITION, LATEST REVISION. TRENCHES WITH UP TO 16 DC POST CONDUITS MAY BE ALTERNATE PER NOTE 6. INSTALLED WITH NO CONDUIT SPACING. ENGINEERED FILL WITH A RHO VALUE LESS THAN 100 MUST BE USED FOR BACKFILL. TRENCHES WITH MORE THAN 16 DC POST CONDUITS MUST INCLUDE A 24" SEPARATION BETWEEN CONDUIT GROUPS OF NOT MORE THAN 16 CONDUITS. GROUPINGS OF 4 OR FEWER DC POST CONDUITS MAY BE INSTALLED WITHOUT ENGINEERED FILL. THIS CONDUIT CONFIGURATION HAS NOT BEEN REVIEWED BY THE STAMPING PARTY. THEREFORE, THE STAMPING PARTY SHALL NOT BE HELD LIABLE FOR ITS USE. ANY RELIANCE ON THIS DETAIL SHALL BE AT THE RELYING PARTY(IES)'S OWN RISK AND HEREBY WAIVES ANY AND ALL CLAIM(S) RELATED TO THE EXISTENCE OF THE STAMP OR OTHERWISE. 7. THIS DETAIL REQUIRED FOR USE WITH 350MCM AI DC CONDUCTORS ONLY. WHEN INSTALLING 600 MCM AI DC CONDUCTORS, USE REQUIREMENTS DETAILED IN TYPICAL TRENCH DETAIL, THIS SHEET.



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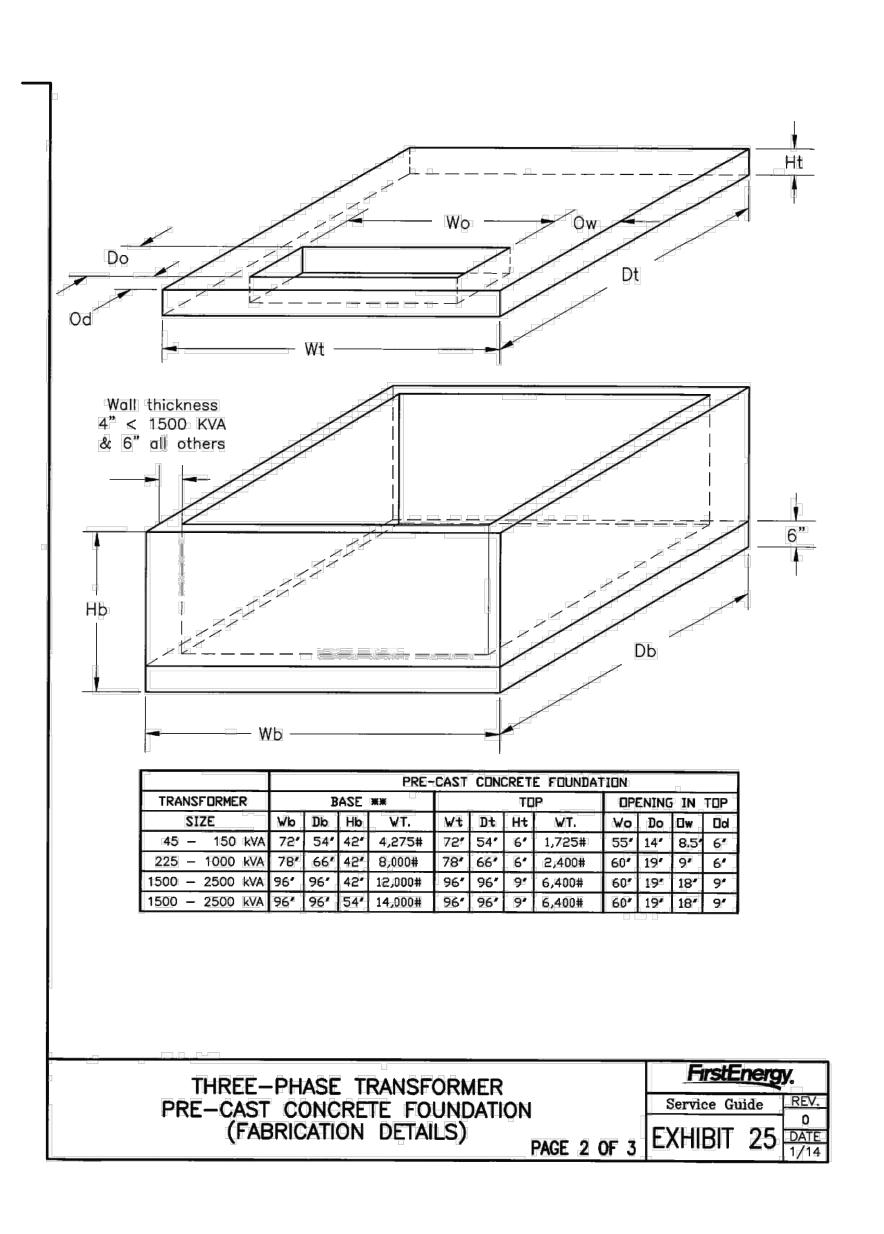
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UTILITY DETAILS

PROJECT MANAGER DESIGNER

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- 1. Customer shall contact the Company prior to beginning work to discuss the details of transformer foundation position and orientation, working clearances, barrier protection, construction specifications, and inspection procedures. The Customer is responsible for purchasing, owning, and maintaining the pre-cast transformer foundation and associated secondary rack equipment. The contractor/developer shall coordinate site preparations with the desired delivery date. The contractor shall provide a clear and firm approach to the point of delivery and keep the area above the transformer clear of obstructions that may block the use of Company vehicles (e.g., crane access to the transformer).
- 2. The customer/contractor is responsible for the excavation to install the transformer foundation and for backfilling afterwards. The excavation shall be at least 2 feet wider than the vault dimension and 5 feet- 6 inches deep (actual excavation depth may vary, depending upon relation between existing and final grade). Six (6) to eight (8) inches of 2B crushed stone bed must be spread (tamped and leveled at appropriate depth) in the bottom of the excavation. Pavement (concrete, asphalt, or grasscrete) shall be provided to within ten (10) foot of installation for Company trucks. For delivery, the customer/contractor should provide painted lines or stakes and string for alignment in place and three 4 inch x 4 inch lumber off to side for unloading foundation top (at delivery time).
- 3. Customer/contractor shall provide, install, and seal a minimum five (5) foot section of PVC conduit through the wall of the foundation base (sloping away from the foundation) for Company primary cable at Company designated location.
- 4. Excavation for customer conduits can be done at the same time as for foundation
- 5. The customer shall install a continuous #2 bare, seven strand, soft drawn copper ground wire connected to two 5/8-inch diameter x 8-foot ground rods installed in opposite corners of the vault in undisturbed earth. Both ends of the ground wire shall enter the foundation through a one-inch diameter hole to be drilled or chiseled in the upper right-hand corner of the knockout pane. Ground wire tails shall extend 15 feet inside vault beyond knockout point.
- 6. The decision to open the sump for drainage or leave it closed will be made by the Company based on field conditions. The customer is responsible for taking corrective action (improve drainage, sump pump, etc.) for a foundation that continuously fills with water and water is leaking through service conduits into the customer's building. The area surrounding the foundation must be graded so that ground water will not collect.
- 7. The customer/contractor shall install protective barriers when the transformer is located in an area exposed to vehicular traffic. See Exhibit 30.

THREE-PHASE TRANSFORMER PRE-CAST CONCRETE FOUNDATION (NOTES) PAGE 3 OF 3 EXHIBIT 25 DATE 1/14

Conduit excavation

Excavation area

-#67 (3/4") Crushed limestone backfill over grounding

-Backfill with excavated soil

free of large rocks & debris

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PAGE 1 OF 3 EXHIBIT 25 DATE 1/14

Conduit excavation
See notes 3 & 4

6" Gravel bed, leveled, & placed at appropriate depth

All around

THREE-PHASE TRANSFORMER

PRE-CAST CONCRETE FOUNDATION

(INSTALLATION DETAILS)

18" Deep excavation— area for grounding

Ground rods

For notes see Exhibit 25 page 3 of 3

COIL PACKAGING FOR SMOOTH-COR FLEX

SIZE	LENGTH	WEIGHT/COIL (LBS)	COILS/PALLET	PALLETS/TRUCK	QTY/TRUCK- LOAD	RED PART #	GREY PART #
2*	250"	55	3	26	19,500	20000670	20004695
3*	250"	108	3	20	15,000	20000671	20004696
4*	250"	142	3	9	6,750	20000672	20004732

#### REEL PACKAGING FOR SMOOTH-COR FLEX

SIZE	LENGTH	REEL SIZE	RED PART #	GREY PART #
2"	3,500	96 x 45	20005462	20005607
3*	1,850	96 x 45	20005463	20005608
4*	900	96 x 45	20005464	20005609

#### TECHNICAL SPECIFICATIONS FOR SMOOTH-COR FLEX

LENGTH	250' COILS		
Pipe Stiffness	A\$TM D 2412	2" 75 LBS/IN/IN 3" 88 LBS/IN/IN 4" 116 LBS/IN/IN	
Impact Resistance per Falling Tup	ASTM D 2444	45-50 FT-LB @ 72 degrees 40 FT-LB @ 32 degrees	

ASTM D 3212

### TECHNICAL SPECIFICATIONS FOR SMOOTH-COR FLEX

PRODUCT	DUAL WALL	A I.D.	B O.D.	C TOTAL WIDTH	INNER WALL THICKNESS	OUTER WALL THICKNESS
C_	2*	2.045" 51.943mm	2.495" 63.373mm	0.325" 8.255mm	0.020"± 0.010" 0.508mm ± 0.254mm	0.023"± 0.007" 0.584mm ± 0.178mm
А В	3"	2.950" 74.930mm	3.510" 89.154mm	0.360" 9.144mm	0.027"± 0.010" 0.686mm ± 0.254mm	0.033"± 0.007" 0.838mm ± 0.178mm
	4*	3.980" 101.092mm	4.730" 120.142mm	0.650" 16.510mm	0.027"± 0.010" 0.686mm ± 0.254mm	0.033"± 0.007" 0.838mm ± 0.178mm

10 psi

#### MATERIAL DESIGNATION

Coupler Water & Air Tight

TEST METHOD	DESCRIPTION	VALUES
ASTM D 3350	HDPE Resin Cell Classification	334480 C or E
ASTM D 638	Tensile strength at yield	3000 PSI Min
ASTM D 638	% Ultimate Elongation Value	400 Min
ASTM D 792	Density g/cm3	0.941 - 0.959
ASTM D 1238	Melt Index, g/10 min Condition E	0.5 Max
ASTM D 1693	ESCR Condition B, F10	96 hrs.



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**SPECIALTY** 

# **SMOOTH-COR FLEX**

- Flexible: Reduces/eliminates the need for sweeps and bends
- Crush resistant: Equivalent to Schedule 40 PVC
- Lightweight: Easier installation, 40% lighter than PVC
- Compatibility: Easily adapts to other conduit materials
- Glueless coupling: Safe, quick assembly
- Gasketed: Air and watertight
- Low COF: Longer cable pulls with lower cable stress

**INSTALLATION TYPES** 

Underground Direct Bury Concrete Encasement

SIZE RANGE AVAILABLE 2.0

3.0\* 4.0

STANDARD COLORS Outer Wall: Inner Wall:

STANDARD

DETAILS Manufactured from flexible HDPE (High Density Polyethylene)

SPECIFICATIONS All Smooth-Cor Flex dimensions meet or exceed one or more of the following: ASTM D-3350, ASTM D-638, ASTM D-792, ASTM D-1238, ASTM D-1693

CONDUIT MARKINGS Permanent marking along conduit includes: material, relevant standards, production info, and sequential feet or meter markings.

on steel reels. Smooth-Cor Flex coils are only available as empty.

OPTIONS

PACKAGING Available on steel reels or 250' coils

@ dura·line

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TL9000 (20)

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E-501

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FOR

REFERENCE

ONLY

SPECIFICATIONS

DESIGNER

TESLA SUPERCHARGER STATION 30320 LAKESHORE BLVD WILLOWICK, OH 44095

PROJECT MANAGER

CO-EXTRUDED LINING Corrugated exterior with a smooth, co-extruded inner layer

PRE-INSTALLED TAPE Factory pre-installed Bull-Line™ 1200lb Pull Tape comes standard in Smooth-Cor Flex