OWNER	
COMPANY NAME:	LIBERTY HILL DEVELOPMENT GROUP, LLC
	GAVIN MELIA & EVA NEWTON
CONTACT NAME:	
ADDRESS:	PO BOX 3289, 120 MARKET SQ., FLOOR 2 PINEHURST, NC 283
PHONE:	(910) 695-3694
FAX:	
EMAIL:	GAVIN@BASELINEDEVELOPMENT.COM EVA@BASELINEDEVELOPMENT.COM
ARCHITECT	
COMPANY NAME:	LINGLE DESIGN GROUP
CONTACT NAME:	MICHAEL PUCKETT
ADDRESS:	1860 W EVANS AVE - ENGLEWOOD, CO 80110
PHONE:	(303) 974-5873
FAX:	(815) 369-4495
EMAIL:	MPUCKETT@LINGLEDESIGN.COM
MEP ENGINEER	
COMPANY NAME:	CASE ENGINEERING INC
CONTACT NAME:	LUKE WILD
ADDRESS:	796 MERUS COURT ST. LOUIS MO 63026
PHONE:	(636) 349-1600
FAX:	(636) 349-1730
EMAIL:	LWILD@CASEENGINEERINGINC.COM
STRUCTURAL ENGINEER	
COMPANY NAME:	CASE ENGINEERING INC
CONTACT NAME:	ARDIE MANSOURI
ADDRESS:	796 MERUS COURT ST. LOUIS MO 63026
PHONE:	(636) 349-1600
FAX:	(636) 349-1730
EMAIL:	AMANSOURI@CASEENGINEERINGINC.COM
CIVIL ENGINEER	
COMPANY NAME:	TRIANGLE ENGINEERING LLC
CONTACT NAME:	JACK ZANGER
ADDRESS:	1782 W MCDERMOTT DRIVE ALLEN, TEXAS 75013
PHONE:	(469) 331-8566
FAX:	
EMAIL:	JZANGER@TRIANGLE-ENGR.COM

BEARING

BUILDING SECTION

BRG. PL. BEARING PLATE

DIAGONAL

DIMENSION

DEAD LOAD

DISPENSER / DISPOSAL

DIM. DISP DL

SHERWIN WILLIAMS

2101 AVONDALE-HASLET RD, HASLET, TX 76052



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TENANT FURNISHED /

TENANT INSTALLED

THICK(NESS)

THRES THRESHOLD

SQUARE FEET

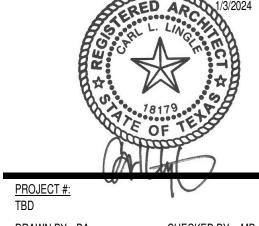
SHEATHING

SIMILAR

SHTG. SIM.



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PERMIT SET - 11/22/2023

CONSTRUCTION PHASE NOTE	VICINITY MAP	STATEMENT OF COMPLIANCE SYMBOL LEGEND		CODE / BUILDING INFORMATION
ARCHITECT'S DESIGN WITHOUT CONSTRUCTION PHASE SERVICES	PROJECT LOCATION PROJECT LOCATION			BUILDING CODES:
SINCE DIRECT CONSTRUCTION OBSERVATIONS AND REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INCLUDED AS PART OF THE ARCHITECT'S BASIC SERVICES, IT IS UNDERSTOOD THAT SUCH RESPONSIBILITIES WILL BE		I HEREBY CERTIFY THAT THESE PLANS WERE PREPARED UNDER MY DIRECT SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF COMPLY WITH ALL APPLICABLE LAWS, CODES & ORDINANCES.	#### DETAIL NUMBER SHEET NUMBER SHEET NUMBER SHEET NUMBER	BUILDING: 2021 INTERNATIONAL BUILDING CODE MECHANICAL: 2021 INTERNATIONAL MECHANICAL CODE FINISH TYPE MARK ELECTRICAL: 2020 NATIONAL ELECTRICAL CODE PLUMBING: 2021 INTERNATIONAL PLUMBING CODE
ASSUMED BY OTHERS. LINGLE DESIGN GROUP, INC. AVAILS ITSELF TO THE CLIENT, THE CONTRACTOR, AND ANY OTHER PARTIES AS NECESSARY (VIA TELEPHONE, FAX, AND EMAIL) IN ORDER TO ASSIST IN PROVIDING CLARIFICATIONS OR RESOLVING ISSUES AND PROBLEMS THAT MAY ARISE. ALTHOUGH MANY ISSUES CAN BE EASILY ADDRESSED WITHOUT THE ARCHITECTS INVOLVEMENT, THERE ARE TIMES WHEN PARTICIPATION IS ADVISABLE. DETERMINATION OF WHEN	AVONDALE-HASLET RD.	SIGNATURE: ARCHITECT ARCHITECT	WALL SECTION MARKER BUILDING SECTION MARKER	FUEL GAS: 2021 INTERNATIONAL FUEL GAS CODE FIRE: 2021 INTERNATIONAL FIRE CODE DOOR TYPE ENERGY: 2015 INTERNATIONAL ENERGY CONSERVATION CODE ACCESSIBILITY: 2009 ICC/ANSI A117.1
INVOLVEMENT IS APPROPRIATE IS LEFT TO THE PROFESSIONAL DISCRETION OF THE CONTRACTOR. IT IS UNDERSTOOD THAT THE CLIENT AND/OR THE CONTRACTOR ASSUMES ALL RESPONSIBILITY FOR INTERPRETATION OF THE DRAWINGS, AND ANY OTHER SUPPLEMENTAL INFORMATION, AND WHEN THE ARCHITECT IS DENIED THE OPPORTUNITY TO PROVIDE CLARIFICATIONS OR PARTICIPATE IN CHANGES TO THE DESIGN OR THE RESOLUTION OF ISSUES OR PROBLEMS, ALL PARTIES WAIVE ANY CLAIMS AGAINST THE ARCHITECT THAT MAY		REGISTRATION NO.: 18179	DETAIL NUMBER ### DETAIL NUMBER #### SIM ####	BUILDING INFORMATION: CONSTRUCTION TYPE: V-B SCOPE OF WORK: NEW CONSTRUCTION FLOOR AREA: 4,466 SQ. FT.
BE IN ANY WAY CONNECTED THERETO. LINGLE DESIGN GROUP, INC. IS HELD HARMLESS FROM LOSS, CLAIM, OR COSTS ARISING OR RESULTING FROM MODIFICATIONS OR CHANGES MADE TO THE DESIGN (WITHOUT THE KNOWLEDGE OF THE ARCHITECT) DUE TO CONDITIONS OR CIRCUMSTANCES (ANTICIPATED OR NOT) BEYOND THE ARCHITECT'S CONTROL.		DATE: 9/30/2024	SHEET NUMBER SHEET NUMBER ELEVATION MARKER DETAIL MARKER	STORIES / HEIGHT: 1 STORY / 24'-6" FIRE PROTECTION: PORTABLE FIRE EXTINGUISHERS INTERIOR FINISHES: CLASS C FLAME SPREAD RATING
	NOTE: CONSTRACTOR SHALL VISIT THE SITE PRIOR TO BID, TO CONFIRM FIELD CONDITIONS FOR DUCTWORK RUNS, EXHAUST AND CHASE LOCATIONS.			NUMBER OF EMPLOYEES: 4 OCCUPANCY: M (MERCANTILE) - OCCUPANT LOAD: 72

ABBREVIATIONS

LTL

HDW. HARDWARE

HDWD. HARDWOOD

HOR. HORIZONTAL

HEIGHT

HT.

FLOOR SINK

FLOOR DRAIN

FD

FE

FLOOR CLEANOUT

FIRE EXTINGUISHER

LINTEL

M.B. MACHINE BOLT

LOUVER

SHERWIN WILLIAMS	TINTED	TINT	SLOPE	SLP.	RETURN AIR	R.A.	OWNER FURNISHED /	OFOI	MANHOLE	M.H.	HEATING	HTG.	FIRE EXTINGUISHER	N FEC	DN	CONTSTRUCTION MANAGER	D OR NUMBER C.M.	#
SHERWIN WILLIAMS	TEMPERED	TMPD	SPECIFICATION	SPEC.	ROOF DRAIN	R.D.	OWNER INSTALLED		MASONRY OPENING	M.O.	HEATING / VENTILATION /	HVAC	CABINET	WASHER	DW	CONCRETE MASONRY UNIT	NG C.M.U.	(E)
	TOLERANCE	TOL	SPEAKER	SPKR	RIGHT HAND	R.H.	OVERHEAD	OH.	MASONRY	MAS.	AIR CONDITIONING		FINISH	VING FIN.	DWG.	CEILING JOIST	C/J	(N)
	TYPICAL	TYP.	SQUARE	SQ.	ROUGH OPENING	R.O.	OPENING	OPG.	MATERIAL	MATL.			FIXTURE	FIXT.		CLEANOUT	OR MINUS C/O	+/-
				SS	RIGHT OF WAY	R.O.W.	OPPOSITE	OPP.	MAXIMUM	MAX.	INSIDE DIAMETER	I.D.	R. FLOURESCENT	FLOUR.	E.	CONTROL JOINT	CJ	@
	UNLESS NOTED OTHERWISE	U.N.O.	STAINLESS STEEL	SS.	RADIUS	RAD.	OPAQUE	OPQ	MECHANICAL	MECH.	INCH	IN.	FLOOR	TRIC PANEL FLR.	E.P.	CENTER LINE	TER CL	Ø
CTODE #	UNIFORM BUILDING CODE	UBC	SERVICE SINK	SSK.	RUBBER BASE	RB			MEMBRANE	MEMB.	INSULATE / INSULATION	INSUL.	FOUNDATION	I WAY FND.	E.W.	CEILING	CLG.	
STORE #:	UNFINISH(ED)	UNFIN.	STANDARD	STD.	REFERENCE	REF.	PROPERTY LINE	P.L.	MANUFACTURE(ER)(ING)	MFR.	INTERIOR	INT.	FOOT/FEET	fT.	EA.	CLEAR	OR BOLT CLR.	A.B.
*****			STEEL	STL.	REFRIGERATOR	REFR.	PRESSURE TREATED	P.T.	MINIMUM	MIN.	INVERT	INV.	FOOTING	NSION JOINT FTG.	EJ	COLUMN	STICAL (CLG) TILE COL	A.C.T.
ADDRESS:	VINYL BASE	V.B.	STORAGE	STOR.	REINFORCED	REINF.	N PARTITION	PART'N	MISCELANEOUS	MISC.			FUTURE	ATION FUT.	EL.	COMPOSITE	FINISH FLOOR COMP	A.F.F.
	VINYL COMPOSITION TILE	V.C.T.	T STRUCTURAL	STRUCT	REQUIRED	REQ'D.	POUNDS PER CUBIC FOOT	PCF	MODULAR / MODULE	MOD.	JUNCTION BOX	J-BOX		TRICAL	ELEC.	CONCRETE	ANDLING UNIT CONC.	A.H.U.
2101 AVONDALE-HASLET	VENT THROUGH ROOF	V.T.R.	SYMETRICAL	SYM.	RESILIENT	RESIL.	PERFORATED	PERF	MOUNTED	MTD.	JOIST	JST.	GENERAL CONTRACTOR	RGENCY G.C.	EMER.	CONDENSING UNIT	MATIC SPRINKLER COND	A.S.S.
	VERTICAL	VERT.	SYSTEM	SYS.	RETURN	RET.	POUNDS PER LINEAR FOOT	PFL	METAL FURRING	MTFR	JOINT	JT.	GALVANIZED IRON	AL G.I.	EQ.	CONNECTION	EM CONN.	
RD, HASLET, TX 76052					REVISION	REV	PLATE	PL.	METAL	MTL.			GAUGE	PMENT GA.	EQUIP.	R. CONSTRUCTION		A/C
115,1110221,17170002	WEST	W.	TONGUE AND GROOVE	T&G	ROOFING	RFG.	PLASTIC LAMINATE	PLAM	MULLION	MUL.	KNOCKOUT	KO.	GALVANIZED	TING GALV.	EXIS.	CONTINUOUS / CONTINUE	E CONT.	ABV.
	WEATHER BARRIER	W.B.	TREAD	T.	ROOM	RM.	PLASTER	PLAS.			KICKPLATE	KPL.	GLASS / GLAZING	RIOR GL.	EXT.	CONTRACTOR	STICAL CONTF	ACOUS.
SHEET TITLE:	WATER CLOSET	W.C.	TO BE DETERMINED	T.B.D.	REVERSE	RVRS.	PLUMBING	PLBG.	NORTH	N.			GROUND	GND.		CENTER	NUM CTR.	ALUM.
<u></u>	WATER HEATER	W.H.	TOP OF BEAM	T.O.B.				PLWD.	NOT IN CONTRACT	N.I.C.	LENGTH	L	GRADE / GRADING	H FLOOR GR.	F.F.	CUBIC FOOT		APPROX.
	WIRE MESH	W.M.	TOP OF CURB / CONCRETE	T.O.C.	SOUTH	S.	PARKING	PRKG.	NOT TO SCALE	N.T.S.	LAG BOLT	L.B.	GYPSUM WALL BOARD	HYDRANT GWB.	F.H.	CUBIX YARD	TECT(URAL) CU YD	ARCH.
	WATER RESISTANT	W.R.	TOP OF PARAPET	T.O.P.	SCALE AS NOTED	S.A.N.	POUNDS PER SQUARE	PSF	NUMBER	NO.	LEFT HAND	L.H.	D GYPSUM BOARD	V LINE GYP BD	F.L.			
Cover Sheet	WALL TILE	W.T.	TOP OF SHEATHING	T.O.S.	SUSPENDED ACOUSTICAL	S.A.T.	FOOT		NOMINAL	NOM.	LIVE LOAD	L.L.	GYPSUM	OF CONCRETE GYP.	F.O.C.	DRINKING FOUNTAIN	H MARK D.F.	B.M.
	WELDED WIRE FABRIC	W.W.F.	TOP OF STEEL	T.O.ST.	TILE		POUNDS PER SQUARE INCH	PSI			LAMINATED VENEER	L.V.L.		OF FINISH	F.O.F.	DOWNSPOUT	DM OF CURB D.S.	B.O.C.
	WITH	W/	TOP OF WALL	T.O.W.	SOLID CORE	S.C.	PAINT(ED)	PTD.	OVERALL	O.A.	LUMBER		HOSE BIB	OF MASONRY H.B.	F.O.M.	DOUBLE	D DBL.	BD.
	WITHOUT	W/O	TELEPHONE	TEL.	STORM DRAIN	S.D.	POLYVINYL CHLORIDE	PVC	ON CENTER	O.C.	LAMINATED	LAM.	HOLLOW CORE	OF STUD H.C.	F.O.S.	DEPARTMENT	ING DEPT.	BLDG.
OUEET NUMBER	WOOD	WD.	TENANT FURNISHED /	TFCI		SCHED.	PAVEMENT	PVMT.	OUTSIDE DIAMETER	O.D.	LAVATORY	LAV.	HOLLOW METAL	OF SHEATHING H.M.	F.O.SH.	DETAIL	K(ING) DET.	BLK.
SHEET NUMBER:	WAINSCOT	WSCT.	CONTRACTOR INSTALLED		SECTION	SECT.			OVERHEAD DOOR	O.H.D.	LIGHT	LT.	HEADER	SPRINKLER RISER HDR.	F.S.R.	DIAMETER	V DIA	BLW.
		1	TENIANT FURNIOUSER /	TET:	OOLIADE EEET		OLIADDY TILE	\cap T		1	LINITEL	I TI	LIADDIMADE	LIDM			NO.	550

OWNER FURNISHED /

OVERFLOW DRAIN

CONTRACTOR INSTALLED

Q.T. QUARRY TILE

QTY. QUANTITY

XXXX
ADDRESS:
2101 AVONDALE-HASLET RD, HASLET, TX 76052

DIVISION 1 - GENERAL CONDITIONS

A) CONSTRUCTION OBSERVATION SERVICES

1. DIRECT CONSTRUCTION OBSERVATIONS AND REVIEW OF THE CONTRACTOR'S PERFORMANCE IS NOT INCLUDED AS PART OF THE ARCHITECT'S BASIC SERVICES. IT IS UNDERSTOOD THAT SUCH RESPONSIBILITIES WILL BE ASSUMED BY OTHERS. LINGLE DESIGN GROUP AVAILS ITSELF TO THE CLIENT, CONTRACTOR AND OTHER PARTIES AS NECESSARY (VIA TELEPHONE, FAX AND E-MAIL) IN ORDER TO ASSIST IN PROVIDING CLARIFICATIONS OR RESOLVING ISSUES AND

- 1. DRAWINGS AND SPECIFICATIONS ARE INTENDED TO BE COMPLIMENTARY. SPECIFIC INFORMATION MAY BE FOUND IN
- 2. THE CONTRACTOR IS HEREBY SPECIFICALLY DIRECTED. AS A CONDITION OF THE CONTRACT, TO ACQUAINT HIMSELF WITH THE ARTICLES CONTAINED IN THE GENERAL NOTES, AND TO NOTIFY AND APPRISE ALL SUBCONTRACTORS AND ALL OTHER PARTIES OF THE CONTRACT OF, AND BIND THEM TO ITS CONDITIONS.
- 3. PRIOR TO SUBMITTING BID, GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE LEASE/TENANT AGREEMENT, AND 5. PARTITIONS ARE DIMENSIONED FROM FINISH OF STUD TO FACE OF STUD, UNLESS OTHERWISE NOTED. DIMENSIONS ANY EXHIBITS THAT PERTAIN TO TENANT BUILD OUT. ALL INFORMATION SHALL BE NOTED FOR RESPONSIBILITIES AND
- 4. DO NOT SCALE DRAWINGS. WRITTEN DIMENSIONS GOVERN PARTITION LOCATIONS, DIMENSIONS AND TYPES. DOOR 6. ALL ROUGH OPENINGS AND DIMENSIONS LABELED "HOLD" ARE CRITICAL AND ARE NOT TO BE ADJUSTED WITHOUT AND WINDOW LOCATIONS SHALL BE AS SHOWN ON CONSTRUCTION PLAN. IN CASE OF CONFLICT, NOTIFY DESIGNER/ARCHITECT FOR WRITTEN CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.
- 5. ANY DETAILS OR NOTES REQUIRING FIELD VERIFICATION BY THE CONTRACTOR ARE TO BE DONE DURING THE BID PROCESS. DISCREPANCIES FOUND AFTER THE GENERAL CONTRACTOR IS SELECTED WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND CORRECTED AT THE GENERAL CONTRACTOR'S EXPENSE.
- 6. THE DESIGNER/ARCHITECT SHALL BE IMMEDIATELY NOTIFIED OF ANY APPARENT CONFLICTS, ERRORS, OR OMISSIONS IN THE CONSTRUCTION DRAWINGS; ANY APPARENT MISAPPLICATION OF ANY PRODUCT, SYSTEM OR ASSEMBLY FOR THE INTENDED USE. OR ANY DISCOVERED EXISTING CONDITIONS THAT ARE CONTRARY TO THE CONDITIONS INDICATED IN THE CONSTRUCTION DRAWINGS. THE DESIGNER/ARCHITECT SHALL PROVIDE INTERPRETATION AND CLARIFICATION AND, IF REQUIRED, MAKE APPROPRIATE REVISIONS TO THE CONSTRUCTION DRAWINGS. FAILURE TO 9. CONTRACTOR SHALL INSTALL PORTABLE FIRE EXTINGUISHERS (TYPE 2A10BC) PER IFC SECTION 906. NOTIFY THE DESIGNER/ARCHITECT PRIOR TO PROCEEDING WITH RELATED WORK WILL RESULT IN THE CONTRACTOR CORRECTING SUCH ITEMS AT THE CONTRACTOR'S EXPENSE.
- 7. THE CONSTRUCTION DRAWINGS ARE GENERAL DIAGRAMMATIC REPRESENTATIONS OF THE WORK, AND DO NOT INDICATE OR SPECIFY IN DETAIL, EVERY CONDITION AND COMPONENT OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT, FABRICATE ALL ASSEMBLIES AND INSTALL ALL EQUIPMENT AND SYSTEMS TO PRODUCE A COMPLETE, INTEGRATED AND FULLY FUNCTIONAL WORK PRODUCT IN ACCORDANCE WITH ALL MATERIAL AND EQUIPMENT MANUFACTURER'S REQUIREMENTS, INDUSTRY STANDARDS AND FEDERAL, STATE AND LOCAL LAWS, CODES AND REGULATIONS.
- 8. PRIOR TO ACCEPTANCE OF SUB-CONTRACTOR BIDS AND COMMENCEMENT OF CONSTRUCTION, GENERAL CONTRACTOR TO PROVIDE ALL SUB-CONTRACTORS ACCESS TO A FULL SET OF CONSTRUCTION DOCUMENTS.
- 9. THE CONTRACTOR SHALL VERIFY THAT DRAWINGS ARE THE LATEST ISSUE PRIOR TO COMMENCING CONSTRUCTION, & SHALL MAINTAIN ONE COPY AT THE SITE, INCLUDING ALL ADDENDA, CHANGE ORDERS & FIELD CHANGES.
- 10. GENERAL CONTRACTOR SHALL VISIT PROPOSED JOB SITE AND FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS & LOCATIONS OF UTILITIES. FAILURE OF GENERAL CONTRACTOR TO VISIT JOB SITE PRIOR TO BIDDING WILL RESULT IN FORFEITURE OF EXTRA COMPENSATION FOR TIME AND MONEY.
- 11. THE GENERAL CONTRACTOR SHALL CONTACT LOCAL UTILITY COMPANIES TO VERIFY ALL ELEVATIONS, SIZES, LOCATIONS AND CONNECTION POINTS FOR ALL UTILITIES AFFECTED BY THIS PROJECT. THE GENERAL CONTRACTOR SHALL COORDINATE AND OBTAIN ALL APPLICATIONS FOR , AND ENSURE ALL UTILITIES ARE TURNED ON PRIOR TO COMPLETION OF WORK.

C) USE/OWNERSHIP OF DRAWINGS

- 1. THE ARCHITECT, THE ARCHITECT'S CONSULTANTS AND SHERWIN-WILLIAMS SHALL BE DEEMED THE AUTHORS & JOINT OWNERS OF THEIR RESPECTIVE INSTRUMENTS OF SERVICE, INCLUDING THE DRAWINGS AND SPECIFICATIONS, & WILL RETAIN ALL COMMON LAW, STATUTORY AND OTHER RESERVED RIGHTS, INCLUDING COPYRIGHTS.
- 2. THE ARCHITECT, TENANT, OR THE BRAND OWNER ASSUME NO RESPONSIBILITY OR LIABILITY FOR THE USE OF THESE DOCUMENTS FOR ANY PURPOSE OTHER THEN SPECIFICALLY AUTHORIZED BY THE aforementioned AND SIGNED AND SEALED FOR THE SPECIFIC LOCATION IN THE STATE SHOWN ON THE DRAWINGS AND SEAL.

D) CONTRACTS

- 1. THE LATEST EDITION OF THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA A201, PUBLISHED BY THE AMERICAN INSTITUTE OF ARCHITECTS, ARE HEREBY MADE PART OF THESE DRAWINGS AND SPECIFICATIONS
- 2. TEN DAYS BEFORE CONSTRUCTION COMMENCEMENT, THE GENERAL CONTRACTOR SHALL PROVIDE THE ARCHITECT, FRANCHISEE, BRAND OWNER AND THE CONSTRUCTION MANAGER WITH A DETAILED AND COMPLETE CONSTRUCTION SCHEDULE, SHOWING ALL TRADES WITH STARTING AND COMPLETION DATES. A COMPLETE LIST OF ALL SUBCONTRACTORS MUST ALSO BE INCLUDED WITH THE SCHEDULE. THE GENERAL CONTRACTOR IS TO NOTIFY ALL PARTIES IN RECEIPT OF PROJECT SCHEDULE IN ANY CHANGES OCCUR WHICH AFFECT THE COMPLETION DATE. FAILURE TO COMPLETE THE PROJECT AS SCHEDULED MAY RESULT IN PENALTIES INCURRED BY THE GENERAL CONTRACTOR REGARDING FINAL PAYMENT.

E) INSURANCE

- 1. ALL CONTRACTORS (GENERAL AND SUBCONTRACTORS) SHALL COMPLY WITH THE REQUIREMENTS FOR INSURANCE. 21. ANY CHANGES IN THE SCOPE OF WORK INVOLVING A CHANGE IN THE CONSTRUCTION COST OR TIME SHALL BE BONDS AND WAIVERS OF LIEN, AS OUTLINED IN THE LATEST EDITION OF THE "GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION", AIA A201, PUBLISHED BY THE AMERICAN INSTITUTE OF ARCHITECTS AND SHALL MEET THE OWNER/LL COI REQUIREMENTS.
- 2. TO THE FULLEST EXTENT PERMITTED BY LAW, THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE OWNER, ARCHITECT, ARCHITECT'S CONSULTANTS, AND AGENTS AND EMPLOYEES OF ANY OF THEM FROM & AGAINST 1. REFER TO MECHANICAL, ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DESIGN OF THESE SYSTEMS (DUCT CLAIMS/DAMAGES ARISING OUT OF OR RESULTING FROM PERFORMANCE OF THE WORK. PROVIDED THAT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS ATTRIBUTABLE TO BODILY INJURY, SICKNESS, DISEASE OR DEATH, OR TO INJURY TO OR DESTRUCTION OF TANGIBLE PROPERTY, BUT ONLY TO THE EXTENT CAUSED BY THE NEGLIGENT ACTS OR OMISSIONS OF THE CONTRACTOR, A SUBCONTRACTOR, ANYONE DIRECTLY OR INDIRECTLY EMPLOYED BY THEM OR ANYONE FOR WHOSE ACTS THEY MAY BE LIABLE, REGARDLESS OF WHETHER OR NOT SUCH CLAIM, DAMAGE, LOSS OR EXPENSE IS CAUSED IN PART BY A PARTY INDEMNIFIED HEREUNDER.

F) STANDARDS AND CODES

- 1. GIVE ALL NOTICES AND COMPLY WITH ALL NATIONAL, STATE AND LOCAL LAWS, ORDINANCES, CODES, RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, PROMPTLY NOTIFY THE DESIGNER/ARCHITECT. NECESSARY CHANGES SHALL BE MADE IN ACCORDANCE WITH THE GENERAL CONDITIONS.
- 2. THE CONTRACTOR SHALL FILE, OBTAIN AND PAY FEES FOR BUILDING DEPARTMENT AND ALL OTHER AGENCY APPROVALS AND PERMITS, CONTROLLED INSPECTIONS, AND FINAL WRITE-OFFS FOR PROJECT COMPLETION. COPIES 6. LAY-IN LIGHTING FIXTURES SHALL NOT RELY ON THE CEILING SYSTEM ALONE FOR SUPPORT. LAY-IN LIGHTING OF TRANSACTIONS ARE TO BE FORWARDED TO THE PROJECT MANAGER.
- 3. IF THE CONTRACTOR KNOWINGLY PERFORMS ANY WORK WHICH IS CONTRARY TO SUCH LAWS, ORDINANCES, CODES, RULES AND REGULATIONS, HE SHALL PROMPTLY MAKE CHANGES AS REQUIRED TO COMPLY THEREWITH AND 7. THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL ALL REQUIRED ACCESSORIES, OPTIONS, MOUNTING BEAR ALL COSTS ARISING THEREFROM. CONFLICTS: IN CASE OF CONFLICTS IN THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
- 4. WHERE CODES OR REGULATIONS, OTHER THAN THOSE LISTED IN THIS SECTION, ARE REFERRED TO IN VARIOUS SECTIONS OF THE DOCUMENTS. IT SHALL BE UNDERSTOOD THAT THEY APPLY TO THIS WORK AS FULLY AS IF CITED 9. ALL ELECTRICAL DEVICES SHALL BEAR THE U.L. LABEL.
- 5. LOADS AND CODE RESTRICTIONS FOR ALL DESIGN CONSIDERATIONS SHALL CONFORM TO LOCAL, STATE AND ALL GOVERNING CODES.
- 6. THE CONTRACTOR SHALL ARRANGE FOR ALL INSPECTIONS NECESSARY TO OBTAIN CERTIFICATE OF OCCUPANCY.
- 7. THE CONTRACTOR SHALL MAINTAIN, FOR THE ENTIRE LENGTH OF HIS CONTRACT, EXITS, EXIT LIGHTING, FIRE PROTECTIVE DEVICES, AND ALARMS TO CONFORM TO LOCAL BUILDING CODE REQUIREMENTS AND LANDLORD
- 8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY BRACING AND PROTECTING WORK DURING CONSTRUCTION AGAINST DAMAGE, BREAKAGE, COLLAPSE, DISTORTION AND/OR MISALIGNMENT IN ACCORDANCE WITH APPLICABLE CODES, STANDARDS AND GOOD PRACTICE.
- 9. WORK AND/OR CONSTRUCTION OPERATIONS SHALL NOT UNDERMINE THE STRUCTURAL INTEGRITY OF THE BUILDING
- 10. ALL COMBUSTIBLE MATERIALS SHALL MEET APPLICABLE CODES. WOOD SHALL BE FIRE RETARDANT TREATED WHERE REQUIRED BY LOCAL BUILDING CODES.
- 11. THE CONTRACTOR SHALL PROVIDE BACK FLOW DEVICES AS REQUIRED BY LOCAL, STATE AND FEDERAL CODES.

DIVISION 1 - GENERAL CONDITIONS

- 1. EXERCISE PROPER PRECAUTIONS TO VERIFY ALL EXISTING CONDITIONS AND LAYOUT OF WORK. CONTRACTOR IS RESPONSIBLE FOR ANY ERROR RESULTING FROM FAILURE TO EXERCISE SUCH PRECAUTIONS. ANY SUCH ERROR WILL NOT BE CONSIDERED AS A BASIS FOR EXTRA COMPENSATION.
- 2. CONTRACTOR SHALL PROMPTLY NOTIFY ARCHITECT IF SUBSURFACE OR OTHERWISE CONCEALED PHYSICAL CONDITIONS DIFFER MATERIALLY FROM THOSE INDICATED IN THE CONTRACT DOCUMENTS, OR DIFFER FROM THOSE CONDITIONS ORDINARILY FOUND TO EXIST & GENERALLY RECOGNIZED AS INHERENT IN CONSTRUCTION ACTIVITIES OF THIS NATURE.
- THE GENERAL CONTRACTOR SHALL NOT SCALE THE DRAWINGS.
- 4. GENERAL CONTRACTOR IS RESPONSIBLE FOR LAY OUT OF ALL WORK AND IS RESPONSIBLE FOR ALL LINES AND MEASUREMENTS OF THE BUILDING, UTILITIES, AND OTHER WORK EXECUTED UNDER THE CONTRACT, & SHALL ENSURE THAT THE WORK PERFORMED COMPLIES WITH APPROVED DRAWINGS.
- MARKED "CLEAR" SHALL BE MAINTAINED AND SHALL ALLOW FOR THICKNESS OF FINISHES INCLUDING TILE, FRP, ETC. DIMENSIONS MARKED "CLEAR" ARE TO BE WITHIN 1/8" ALONG FULL HEIGHT AND FULL WIDTH OF WALLS.
- WRITTEN CONSENT OF ARCHITECT/DESIGNER.
- 7. ALL WALL FLOOR PLATES ARE TO BE LOCATED AND POSITIONING CONFIRMED WITH FLOOR PLAN PRIOR TO DRYWALL INSTALLATION.
- 8. DIMENSIONS ARE AS FOLLOWS, UNLESS OTHERWISE NOTED: TO INSIDE FACE OF JAMB AT DOORS & OTHER OPENINGS
- TO TOP OF FINISHED FLOORS
- TO BOTTOM OF FINISHED CEILINGS TO INSIDE FACE OF FINISHED MILLWORK
- 10. FOR BUILT-IN WORK SURROUNDED BY PARTITIONS, INCLUDING BUT NOT LIMITED TO APPLIANCES AND FURNISHINGS, CONTRACTOR SHALL CONFIRM THAT FLOOR SLAB DOES NOT VARY BY MORE THAN 1/4" IN 20'-0". NOTIFY ARCHITECT/DESIGNER IF THIS TOLERANCE IS EXCEEDED.
- 11. NEW GYPSUM BOARD CONSTRUCTION ADJOINING EXISTING CONSTRUCTION IN THE SAME PLANE SHALL BE FLUSH WITH NO VISIBLE JOINTS, UNLESS OTHERWISE NOTED.
- 12. DIMENSIONS KNOWN AS V.I.F. SHALL BE VERIFIED BY THE CONTRACTOR IN THE FIELD BY LAYING OUT THE PARTITIONS. CONTRACTOR SHALL NOTIFY CONSTRUCTION MANAGER AND ARCHITECT OF ANY DISCREPANCY IN DIMENSIONS PRIOR TO PROCEEDING WITH THE WORK IN THAT AREA.
- 13. THE ARCHITECT AND HIS CONSULTANTS WILL NOT HAVE CONTROL OVER OR CHARGE OF, NOR BE RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, THE SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, THE CONTRACTOR'S FAILURE TO PERFORM THE WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONSTRUCTION DRAWINGS OR CONTRACT, OR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUBCONTRACTORS, OR THEIR AGENTS OR EMPLOYEES OR ANY OTHER PERSONS OR ENTITIES PERFORMING PORTIONS OF THE WORK.
- 14. WORK NOT PARTICULARLY DETAILED, NOTED OR SPECIFIED, SHALL BE THE SAME AS SIMILAR PARTS THAT ARE DETAILED, NOTED OR SPECIFIED.
- 15. IN THE EVENT OF INCONSISTENCIES AMONG THE CONTRACT DOCUMENTS, THE DESIGNER/ARCHITECT SHALL INTERPRET THEM WHEN ASKED TO DO SO BY THE OWNER OR CONTRACTOR. THE DESIGNER/ARCHITECT SHALL NOT BE RESPONSIBLE FOR THE RESULTS OF SUCH INTERPRETATIONS MADE BY OTHERS.
- 16. THE GENERAL CHARACTER OF DETAIL WORK IS SHOWN ON THE CONTRACT DOCUMENTS. SUBSEQUENT CLARIFICATIONS MAY BE MADE BY ADDITIONAL LAYOUTS OR LARGE SCALE OR FULL SIZE DETAILS.
- 17. DRAWINGS AND DIAGRAMS FOR MECHANICAL AND ELECTRICAL WORK SHALL BE CONSIDERED AS DIAGRAMMATIC ONLY, NOT TO BE USED FOR ANY STRUCTURAL GUIDANCE OR PHYSICAL LAYOUT. IN CASE OF CONFLICT, UNLESS OTHERWISE NOTED, THE ARCHITECTURAL DRAWINGS SHOWING LOCATIONS FOR MECHANICAL AND ELECTRICAL ITEMS AND ACCESSORIES SHALL TAKE PRECEDENCE.
- 18. UNLESS OTHERWISE NOTED. IT IS THE INTENTION OF THE DRAWINGS AND SPECIFICATIONS FOR ALL WORK. EQUIPMENT, CASEWORK, MECHANICAL, ELECTRICAL AND SIMILAR DEVICES OF WHATEVER NATURE, TO BE NEW & FREE OF DEFECTS, AND BE COMPLETELY INSTALLED, HOOKED-UP, MADE OPERATIONAL AND FUNCTIONAL FOR THE PURPOSE INTENDED, AND THAT ALL COSTS FOR THIS BE INCLUDED IN THE CONTRACTOR'S PROPOSAL.
- 19. THE CONTRACTOR SHALL, IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, APPLY, INSTALL, CONNECT, ERECT, CLEAN AND/OR CONDITION MANUFACTURED ARTICLES, MATERIALS AND/OR EQUIPMENT PER MANUFACTURER'S INSTRUCTIONS. IN CASE OF CONFLICT BETWEEN MANUFACTURER'S INSTRUCTIONS AND THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER AND THE ARCHITECT BEFORE
- 20. THE CONTRACTOR SHALL COORDINATE AND SCHEDULE WORK BY OUTSIDE VENDORS INCLUDING BUT NOT LIMITED TO, TELEPHONE, DATA, "TENANT'S FORCES" ITEMS. CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND SHALL DO THE CUTTING, FITTING AND PATCHING REQUIRED TO RECEIVE THE WORK OF OTHERS AS SHOWN OR REASONABLY IMPLIED BY THE DRAWINGS AND SPECIFICATIONS.
- APPROVED BY THE OWNER IN WRITING PRIOR TO THE CONTRACTOR COMMENCING WITH THE WORK SCOPE CHANGE.

- SIZES, CIRCUITING, ETC.) AND FOR ADDITIONAL REQUIREMENTS. LOCATIONS OF FIXTURES, REGISTERS, SWITCHES. ETC. SHALL BE AS SHOWN ON THE ARCHITECTURAL PLANS. NOTIFY ARCHITECT/DESIGNER OF ANY CONFLICTS PRIOR TO COMMENCING CONSTRUCTION.
- 2. VERIFY FIELD CONSTRUCTIONS AND LOCATIONS OF ALL PLUMBING AND STRUCTURAL ELEMENTS AND OTHER APPLICABLE ITEMS. NOTIFY ARCHITECT/DESIGNER OF INADEQUATE CLEARANCES FOR CEILING LAYOUT.
- 3. ALL REGISTERS, SPRINKLER HEADS AND LIGHTING FIXTURES SHALL OCCUR WITHIN GRID LINES. INCANDESCENT FIXTURES OR OTHER ELEMENTS SHALL BE LOCATED AT THE CENTER OF ACOUSTICAL TILES UNLESS NOTED OTHERWISE.
- 4. CUT-OUTS AT FIXTURES IN LAY-IN CEILINGS SHALL BE PRECISE WITH NO GAPS, CHIPS OR IRREGULARITIES.
- 5. CEILNG GRID SHALL BE LEVEL WITHIN A TOLERANCE OF 1/8" IN A SPAN OF 10'-0".
- FIXTURES SHALL BE SUPPORTED FROM THE STRUCTURE BY NO LESS THAN TWO HANGER WIRES AND SECURED TO 4. ALL MATERIALS AND FINISHES INDICATED ON DRAWINGS SHALL BE NEW AND UNUSED. THE CEILING GRID SYSTEM WITH THE APPROPRIATE ATTACHMENT HARDWARE.
- HARDWARE AND FIELD FABRICATION REQUIRED TO PROPERLY ADAPT THE FIXTURES TO THE SPECIFIC
- 8. ELECTRICAL CONTRACTOR SHALL CLEARLY LABEL PANEL BOARD CIRCUITING AS TO OPERATION.
- 10. ALL ELECTRICAL WORK SHALL FOLLOW ALL APPLICABLE NATIONAL, STATE & LOCAL CODES, REGULATIONS AND
- 11. REFER TO LIGHT FIXTURE SCHEDULE FOR FINISH OF LIGHT FIXTURE TRIM.
- 12. WHERE/IF EXISTING CEILINGS ARE SCHEDULED TO REMAIN, & ARE DAMAGED OR OTHERWISE MODIFIED TO ACCOMMODATE THE NEW LAYOUT, THE G.C. SHALL PATCH, REPAIR OR RESTORE AS REQUIRED TO "LIKE-NEW"
- A SIMILAR FIXTURE RATED FOR EXTERIOR APPLICATION. 14. IF EXISTING MECHANICAL AND FIRE PROTECTION SYSTEMS ARE PRESENT, CONTRACTOR SHALL REWORK THE
- SYSTEMS TO ACCOMMODATE THE NEW CEILING AND WALL LAYOUTS. 15. USE OF THE ABOVE CEILING PLENUM AREA AS A RETURN AIR SYSTEM IS NOT ACCEPTABLE. RETURN AIR SHALL BE
- DUCTED TO THE CEILING.
- 16. THE MECHANICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY TESTING AND BALANCING OF ANY REWORKED MECHANICAL SYSTEM.

DIVISION 1 - GENERAL CONDITIONS

I) TENANT FURNISHED ITEMS

- 1. PRODUCTS TO BE FURNISHED AND PAID FOR BY THE TENANT AND INSTALLED BY THE CONTRACTOR ARE INDICATED AS "TENANT SUPPLIED" IN THE EQUIPMENT SCHEDULE.
- 2. TENANT'S RESPONSIBILITIES FOR TENANT FURNISHED PRODUCTS:
- SUPPLY CONTRACTOR WITH PRODUCT LITERATURE, TENANT REVIEWED.
- PRODUCT DATA AND SAMPLES. PAY FOR PRODUCT DELIVERY TO SITE.
- REVIEW DAMAGED PRODUCTS WITH CONTRACTOR PROMPTLY. SUBMIT CLAIMS FOR DAMAGE. REPLACE DAMAGED, DEFECTIVE OR DEFICIENT ITEMS. ARRANGE FOR MANUFACTURER'S WARRANTIES, INSPECTIONS AND SERVICE.
- 3. CONTRACTOR'S RESPONSIBILITIES FOR TENANT FURNISHED PRODUCTS: REVIEW SHOP DRAWINGS, PRODUCT DATA AND SAMPLES TO ADEQUATELY ACQUAINT HIMSELF WITH THE SCOPE
- OF WORK. REVIEW THE ORDER; SCHEDULE THE DELIVERY; RECEIVE, UNLOAD AND STORE PRODUCTS AT SITE INSPECT FOR COMPLETE OR DAMAGE. IF ITEMS ARE DAMAGED, GENERAL CONTRACTOR TO NOTIFY PROJECT MANAGER AND TENANT.

- ARRANGE WITH LANDLORD/TENANT A CONVENIENT TIME TO PERFORM ALL WORK AND INSTALL TEMPORARY PROTECTED MEANS OF EGRESS FROM REQUIRED EXITS. INCLUDING TEMPORARY LIGHTING AND SAFETY DEVICES IN ACCORDANCE WITH GOVERNING STATE AND LOCAL CODE AND BUILDING MANAGEMENT REQUIREMENTS.
- 2. THE CONTRACTOR SHALL REMOVE, REPAIR, RESTORE AND REPLACE ANY WORK NECESSARY OR INDICATED ON THE DRAWINGS. CUT ALL NECESSARY OPENINGS AND REPAIR AFTER CUTTING WHERE NECESSARY. ALL PROTRUSIONS, MARKS, CRACKS, OR OTHER EVIDENCE OF A DEFICIENT OR DAMAGED CONDITION SHALL BE ELIMINATED UNLESS SPECIFICALLY NOTED OTHERWISE. ANY ITEMS WHICH ARE SPLIT, CRACKED, CHIPPED, SPALLED, BROKEN, MISSING, OUT OF ALIGNMENT OR ADJUSTMENT, MECHANICALLY OR STRUCTURALLY UNSAFE OR UNSOUND, BENT, TORN, OR OTHERWISE DEFICIENT OR DAMAGED IN ANY MANNER SHALL BE REMOVED, REPLACED, RESTORED OR SATISFACTORILY REPAIRED AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- PERFORM DEMOLITION WORK AND SUCH SPRINKLER WORK, CONCRETE SAW CUTTING, PAINTING AND SIMILAR WORK CAUSING EXCESSIVE NOISE, DUST OR ODORS DISTURBING BUILDING OCCUPANTS, OR ANY WORK DISRUPTING TENANTS OR PUBLIC TRAFFIC WITHIN THE BUILDING, AFTER HOURS OR AT TIMES AND IN SUCH MANNER AS OTHERWISE APPROVED BY LANDLORD/OWNER.
- 4. SPECIAL ATTENTION SHALL BE GIVEN TO EXISTING AREAS SURROUNDING THE EXTERIOR OF THE PROJECT SPACE. ALL CONSTRUCTION AND INSTALLED EQUIPMENT, WALKS, AND LANDSCAPED AREAS SHALL BE PROTECTED AND GUARDED BY BARRIERS OR OTHER MEANS NECESSARY TO PROTECT AREAS FROM DAMAGE DURING CONSTRUCTION. ALL AREAS DAMAGED WILL BE RESTORED TO THEIR ORIGINAL CONDITION PRIOR TO FINAL PAYMENT AT THE SOLE EXPENSE OF THE GENERAL CONTRACTOR.

K) HAZARDOUS MATERIALS

- ASBESTOS AND HAZARDOUS WASTE EXCLUSION: THE ARCHITECT HEREBY STATES, AND THE OWNER ACKNOWLEDGES, THAT THE ARCHITECT HAS NO PROFESSIONAL LIABILITY OR OTHER INSURANCE (AND IS UNABLE TO 11. REFER TO ACCESSIBILITY DETAILS IN PLANS FOR TYPICAL ACCESSIBILITY GUIDELINES. REASONABLY OBTAIN SUCH INSURANCE) FOR CLAIMS ARISING OUT OF THE PERFORMANCE OF OR THE FAILURE TO PERFORM PROFESSIONAL SERVICES, INCLUDING BUT NOT LIMITED TO, THE PREPARATION OF REPORTS, DESIGNS, DRAWINGS, AND SPECIFICATIONS, AND RELATED TO THE INVESTIGATION DETECTION OF HAZARDOUS MATERIALS ON
- 2. IF THE GENERAL CONTRACTOR ENCOUNTERS HAZARDOUS MATERIALS, & IF REASONBLE PRECAUTIONS WILL BE INADEQUATE TO PREVENT FORESEEABLE BODILY INJURY OR DEATH TO PERSONS RESULTING FROM A MATERIAL OR SUBSTANCE ENCOUNTERED ON THE SITE. THE GENERAL CONTRACTOR SHALL, UPON RECOGNIZING THE CONDITION. IMMEDIATELY STOP WORK IN THE AFFECTED AREA & REPORT THE CONDITION TO THE OWNER IN WRITING.

L) CONTRACTOR USE OF PREMISES

- 1. CONSTRUCTION OPERATIONS: LIMITED TO AREAS NOTED ON DRAWINGS.
- 2. TIME RESTRICTIONS FOR PERFORMING WORK: VERIFY WITH LANDLORD/OWNER & LOCAL CODES.
- 3. UTILITY OUTAGES AND SHUTDOWN SHALL BE COORDINATED WITH THE LANDLORD/OWNER
- 4. AT ALL TIMES CONDUCT OPERATIONS TO INSURE THE LEAST INCONVENIENCE TO THE GENERAL PUBLIC. COMPLY WITH APPLICABLE CODES AND ORDINANCES FOR SAFETY.
- ASSUME FULL RESPONSIBILITY FOR THE PROTECTION AND SAFEKEEPING OF PRODUCTS STORED ON THE SITE UNDER THIS CONTRACT.
- 6. COORDINATE USE OF PREMISES FOR WORK & STORAGE WITH THE LANDLORD/OWNER, & TO AREAS PERMITTED BY APPLICABLE LAWS, STATUTES, ORDINANCES & CODES.
- 7. LIMIT USE OF SITE FOR WORK AND STORAGE TO AREAS DESIGNATED UNLESS SPECIFIC ADDITIONAL AREAS ARE ALLOWED IN WRITING BY THE LANDLORD/OWNER.
- 8. IN THE EVENT OF DAMAGES TO MATERIALS/WORK, GENERAL CONTRACTOR OR RESPONSIBLE SUBCONTRACTORS SHALL IMMEDIATELY MAKE ALL REPAIRS AND REPLACEMENTS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
- 9. TEMPORARY SANITARY FACILITIES FOR THE WORKERS SHALL BE FURNISHED, INSTALLED AND MAINTAINED BY THE GENERAL CONTRACTOR, IF "CONTRACTOR-USE" FACILITIES DO NOT EXIST ON SITE. PERMANENT TOILETS INSTALLED ON THE PROJECT SHALL NOT BE USED DURING CONSTRUCTION OF THE PROJECT. ALL SUCH FACILITIES AND SERVICES SHALL BE FURNISHED IN STRICT ACCORDANCE WITH EXISTING GOVERNING HEALTH REGULATIONS.
- 10. PARKING TO BE DESIGNATED BY LANDLORD.

1. GENERAL CONTRACTOR SHALL PROVIDE AND INSTALL A TEMPORARY JOB SITE SIGN. SIGN SHALL BE PREPARED BY A 4. "TENANT SUPPLIED" - SUPPLIED BY SHERWIN-WILLIAMS. PROFESSIONAL SIGN COMPANY.

N) FINISH NOTES

- 1. ENSURE THAT SURFACE TO RECEIVE FINISHES ARE CLEAN, TRUE AND FREE OF IRREGULARITIES AND ARE ACCEPTABLE TO RECEIVE NEW FINISHES. DO NOT PROCEED WITH WORK UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED. COMMENCEMENT OF WORK SHALL INDICATE INSTALLER'S ACCEPTANCE OF SUBSTRATE.
- 2. ALL CODE-REQUIRED LABELS SUCH AS "U.L.", FACTORY MUTUAL OR ANY EQUIPMENT IDENTIFICATION, PERFORMANCE
- RATING, NAME OR NOMENCLATURE PLATES SHALL REMAIN READABLE AND NOT PAINTED.
- 3. THE CONTRACTOR SHALL PATCH SURFACES AS NECESSARY TO MATCH ADJACENT IN A MANNER SUITABLE TO
- 5. ANY SUBSTITUTIONS MUST BE REVIEWED AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OR PURCHASING.
- 6. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY ARRIVAL OF ALL SPECIFIED FINISH MATERIALS. EQUIPMENT, LIGHT FIXTURES, AND ANY OTHER MATERIALS TO BE UTILIZED IN THE PROJECT. THE G.C. SHALL NOTIFY THE ARCHITECT/DESIGNER IN WRITING WITHIN (10) DAYS OF DATE OF CONTRACT OF THOSE ITEMS SPECIFIED THAT ARE NOT READILY AVAILABLE. IF NOTIFICATION IS NOT RECEIVED, THE G.C. ACCEPTS RESPONSIBILITY FOR THE PROPER ORDERING AND FOLLOW-UP OF SPECIFIED ITEMS SO AS NOT TO CREATE A HARDSHIP ON THE OWNER, AND NOT TO DELAY PROGRESS OF THE WORK. NO EXTENSION OF TIME TO THE CONTRACT WILL BE ALLOWED FOR G.C.'S INABILITY TO SECURE SPECIFIED ITEMS.
- 7. COORDINATE WITH TENANT'S REPRESENTATIVE FOR DELIVERY AND PLACEMENT OF TENANT SUPPLIED ITEMS AND FURNISHINGS.
- 8. REFER TO FINISH SCHEDULE FOR SPECIFIED FINISHES.
- 9. ALL DOOR AND WINDOW FRAMES SHALL BE CAULKED AROUND ENTIRE PERIMETER.
- 13. IF ANY LIGHTS ARE SPECIFIED IN A LOCATION EXPOSED TO THE WEATHER, ELECTRICAL CONTRACTOR SHALL OBTAIN 10. GENERAL CONTRACTOR SHALL CAULK BETWEEN BASE AND FLOOR WITH CLEAR SILICONE SEALANT.
 - 11. GENERAL CONTRACTOR SHALL SHALL TAPE AND BED ALL WALLS FOR A SMOOTH PAINTED FINISH.
 - 12. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO SECURE AND PROTECT FROM DAMAGE ALL ITEMS ON THE PREMISES, INCLUDING, BUT NOT LIMITED TO: CONSTRUCTION MATERIALS, LIGHT FIXTURES, FOOD SERVICE EQUIPMENT, EQUIPMENT, AND THE FURNITURE PACKAGE. AFTER RECEIPT ON JOB SITE, ANY LOST, STOLEN OR ITEMS DAMAGED LATER BY SUBCONTRACTORS OR OTHERS IN THE BUILDING, SHALL BE REPLACED OR REPAIRED AT THE GENERAL CONTRACTOR'S SOLE EXPENSE. THE GENERAL CONTRACTOR SHALL NOTIFY AND RELATE THIS INFORMATION AND REQUIREMENT TO ALL TRADES AND SUBCONTRACTORS ON SITE.

DIVISION 1 - GENERAL CONDITIONS

- 13. NO MATERIAL SUBSTITUTIONS WILL BE PERMITTED UNLESS AUTHORIZATION HAS BEEN GRANTED BY THE BRAND OWNER DESIGN AND CONSTRUCTION DEPARTMENT AND THE FRANCHISEE. ANY MATERIAL SUBSTITUTIONS WITHOUT AUTHORIZATION WILL SUBJECT THE GENERAL CONTRACTOR TO REPLACEMENT OF SUCH SUBSTITUTED MATERIALS WITH APPROVED MATERIALS AT THE SOLE EXPENSE OF THE GENERAL CONTRACTOR.
- O) GENERAL CLEANING
- 1. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRASH REMOVAL, INCLUDING TRASH MADE BY ALL OTHER TRADES, AND SHALL KEEP THE SPACE CLEAN AND CLEAR OF REFUSE AT ALL TIMES. AT COMPLETION OF PROJECT. GENERAL CONTRACTOR SHALL REMOVE ALL CONTRACTOR'S TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY & SURPLUS MATERIALS FROM THE JOB SITE, & SHALL HIRE A PROFESSIONAL CLEANING COMPANY FOR FINAL CLEANUP BEFORE TURNING COMPLETED STORE OVER TO OWNER/TENANT.

P) ACCESSIBILITY

- NOTE: FOLLOWING ARE ADA GUIDELINES AND FOR GENERAL CONTRACTOR INFORMATION ONLY. LISTED ITEMS DO NOT REPLACE OR AMEND FEDERAL, STATE OR LOCAL CODES. IN CASE OF CONFLICT IN THE REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
- 2. ALL EXTERIOR DOORS SHALL HAVE A 24" CLEAR HORIZONTAL OPEN SURFACE/AREA AT THE STRIKESIDE/PULLSIDE OF DOORS. ALL INTERIOR DOORS SHALL HAVE 18" CLEAR AT THE STRIKESIDE/PULLSIDE OF DOORS. PROVIDE 12" CLEAR HORIZONTAL SURFACE ON THE PUSH SIDE/STRIKE OF ALL DOORS. ALL LOCKSETS SHALL HAVE A LEVER HANDLE UNLESS NOTED OTHERWISE & SHALL OPEN FROM INSIDE OF THE SPACE WITH ONE MOTION AND REQUIRE NO SPECIAL KNOWLEDGE OR EFFORT. THUMBTURNS OR SEPARATE DEADBOLTS ARE NOT ALLOWED ON EGRESS
- 3. THRESHOLDS SHALL NOT EXCEED 1/2" IN HEIGHT AND SHALL HAVE A SLOPE NO GREATER THAN 1:2.
- 4. ALL EMERGENCY EXITING ALARM AND SIGNAGE TO COMPLY WITH FEDERAL, STATE AND MUNICIPAL CODES FOR
- 5. GENERAL CONTRACTOR SHALL ALLOW FOR APPLIED FINISH DIMENSIONS IN ADDITION TO STANDARD CONSTRUCTION TOLERANCES IN ACHIEVING ALL ACCESSIBILITY CLEARANCES PER DRAWINGS AND/OR ADA GUIDELINES.
- EMERGENCY WARNING SYSTEMS SHALL COMPLY WITH ADA REQUIREMENTS FOR THE HEARING IMPAIRED. VISUAL
- WARNING STROBE LIGHTS TO BE DESIGNED TO HAVE A FREQUENCY OF NOT MORE THAN 60 FLASHES PER MINUTE.

7. REFER TO TOILET ROOM ELEVATIONS FOR ACCESSIBILITY REQUIREMENTS/MOUNTING HEIGHTS.

- 8. WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, & FAUCET AND OPERATING MECHANISM CONTROLS SHALL BE OPERABLE WITH ONE HAND, SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST, AND SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR.
- 9. THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, & FAUCET AND OPERATING MECHANISM CONTROLS SHALL BE NO GREATER THAN 5 LBS.
- 10. SELF-CLOSING FAUCET CONTROL VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

PRESENCE OF THE FRANCHISEE, BEFORE TURNING COMPLETED STORE OVER TO FRANCHISEE.

- 1. UPON NOTIFICATION BY THE GENERAL CONTRACTOR THAT THE WORK IS SUBSTANTIALLY COMPLETE, THE OWNER'S REPRESENTATIVE SHALL PREPARE A PUNCH LIST OF THE PROJECT AND THE GENERAL CONTRACTOR SHALL MAKE GOOD ALL PUNCH LIST ITEMS TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE PRIOR TO FINAL PAYMENT.
- 2. GENERAL CONTRACTOR AND HIS JOB SUPERVISOR SHALL TEST ALL EQUIPMENT FOR PROPER OPERATION, IN THE

R) RECORD DRAWINGS/WARRANTIES

- 1. THE CONTRACTOR SHALL LEAVE A COPY OF REDLINED AS-BUILT DRAWINGS AT THE STORE NOTING ALL REVISIONS OF WORK UPON COMPLETION OF CONSTRUCTION. DRAWINGS SHALL BE PLACED IN A 36" LONG 4" PVC PIPE WITH A
- 2. UPON COMPLETION OF THE WORK AND BEFORE FINAL PAYMENT IS MADE, THE CONTRACTOR SHALL SECURE AND DELIVER TO THE OWNER ALL GUARANTEES AND/OR WARRANTIES ON ALL EQUIPMENT SUPPLIED AND/OR INSTALLED. BY THE CONTRACTOR AND HIS SUB-CONTRACTORS, AND ALL PROVIDE ELECTRONIC COPIES OF

CAP. PVC PIPE SHALL BE ATTACHED TO WALL AT LOCATION AS SPECIFIED BY THE PROJECT MANAGER.

OPERATIONS/MAINTENANCE MANUALS.

- THE GENERAL CONTRACTOR SHALL GUARANTEE IN WRITING ALL MATERIALS & LABOR FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE BY THE OWNER, AND WILL, AT HIS OWN COST, REPAIR OR REPLACE ALL WORK OR DAMAGES CAUSED BY THE WORK WHICH BECOMES DEFECTIVE DURING THE TERM OF THE GUARANTEE. THE TERM
- OF THE GUARANTEE MAY BE MODIFIED OR EXTENDED BY THE OWNER/CONTRACTOR AGREEMENT. 2. OWNER MAY WITHHOLD FINAL PAYMENT UNTIL GENERAL CONTRACTOR SUPPLIES OWNER WITH A WARRANTY

LETTER AND SUBCONTRACTORS LIEN WAIVERS.

- T) DEFINITIONS "FURNISH" - SUPPLY AND DELIVER TO THE PROJECT SITE, READY FOR UNLOADING, UNPACKING, ASSEMBLY,
- INSTALLATION AND SIMILAR OPERATIONS. 2. "INSTALL" - OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTING, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING
- AND SIMILAR OPERATIONS. 3. "PROVIDE" - FURNISH AND INSTALL, COMPLETE AND READY FOR INTENDED USE.

- PERMIT SET 11/22/2023
- REV 1 1/3/2024

CHECKED BY: MP

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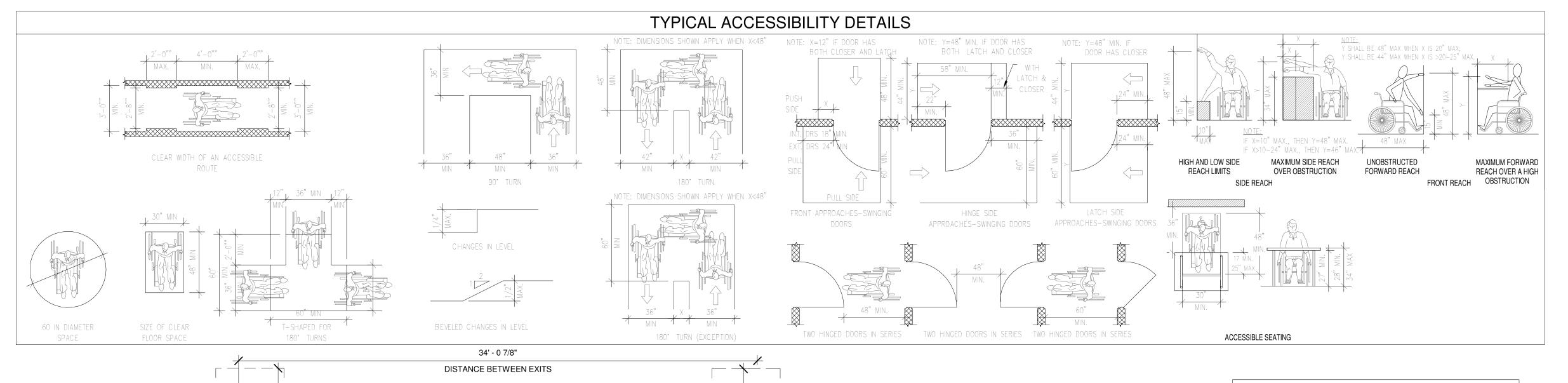
1764 BLAKE ST

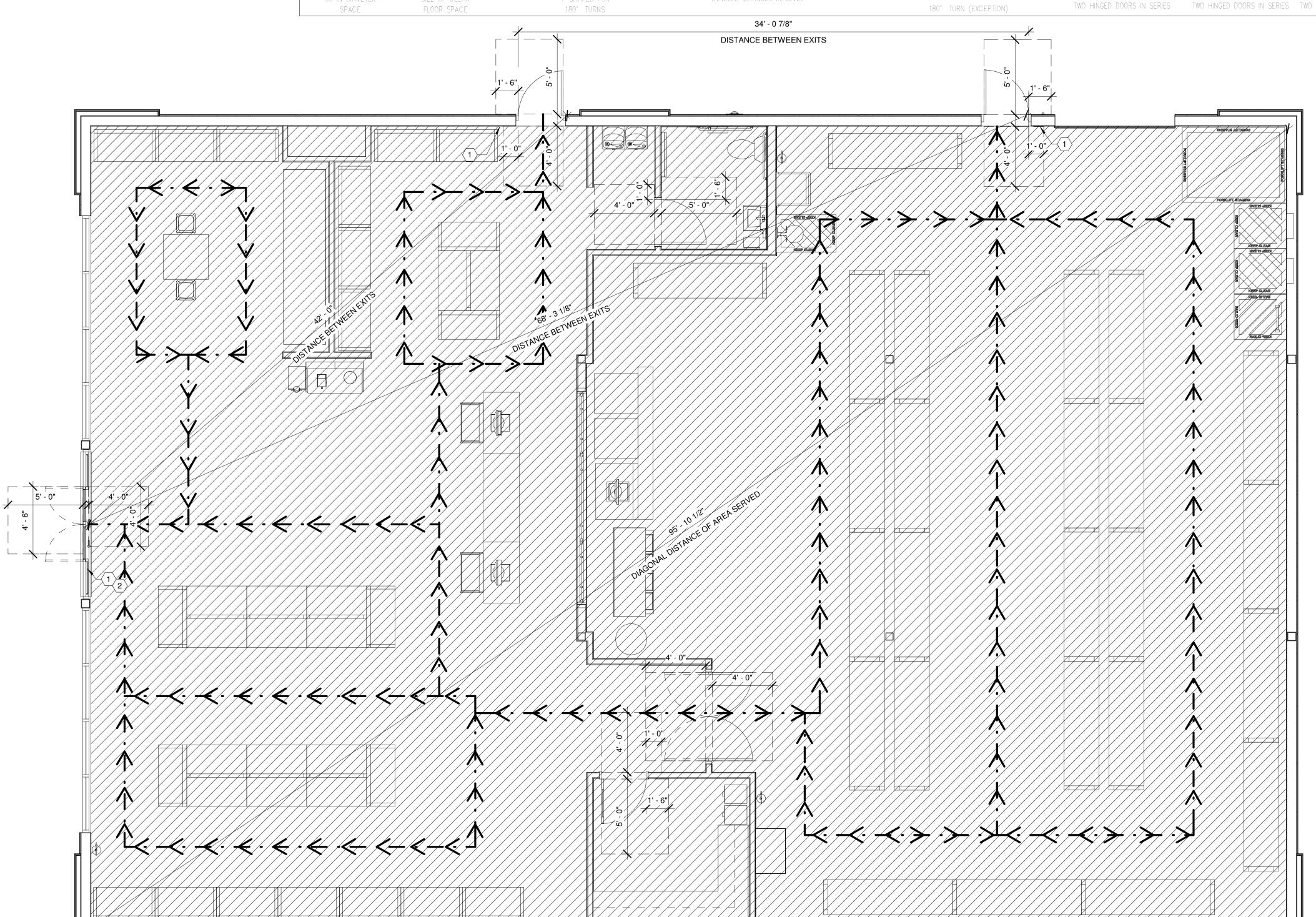
DENVER, CO 80202

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303.974.5875

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ACCESSIBILITY PLAN CODED NOTES

1 TACTILE SIGNAGE AT EXTERIOR EXIT DOORS - SIGNAGE TO READ "EXIT" PER IBC 1011.4

2 SIGNAGE: "MAXIMUM OCCUPANCY 71 PERSONS"

RESTROOM FIXTURES							
REQUIRED	PROVIDED						
1 PER 500	1						
>50% OF WC	0						
1 PER 750	1						
1	1						
	REQUIRED 1 PER 500 >50% OF WC						

GENERAL NOTES

A. G.C. TO VERIFY QUANTITY & LOCATIONS OF FIRE EXTINGUISHERS WITH LOCAL AUTHORITIES. FIRE EXTINGUISHERS TO BE SUPPLIED BY G.C. - REFER TO FLOOR PLAN.

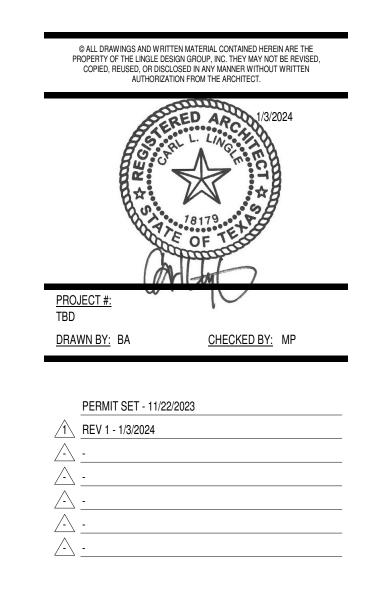
B. G.C. TO PROVIDE FIRE DEPARTMENT REQUIRED KEY BOX. COORDINATE LOCATION AND TYPE WITH LOCAL AUTHORITIES. SEE MEP DRAWINGS AND RESPONSIBILITY SCHEDULE FOR INFORMATION REGARDING FIRE ALARM SYSTEM - SYSTEM BY GENERAL

D. ALL CLEAR FLOOR SPACE AND TURNING SPACE TO BE NO GREATER THAN 2% SLOP PER ADA 304.2 & 305.2

CONTRACTOR (IF APPLICABLE)

OCCUPANCY: M (MERCANTILE) AREA: 4,240 SQ. FT.
OCCUPANT LOAD: 71 (60 SQ.FT./OCC) EGRESS WIDTH: 125" (0.2"/OCC = 15" MIN.) EXITS PROVIDED: 3 (2 REQUIRED)

RETAIL



LINGLEDESIGNGROUP,INC

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1764 BLAKE ST DENVER, CO 80202 303.974.5875

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ACCESSIBLE ROOM IDENTIFICATION SIGN GRADE 2
BRAILLE STORE #: <u>PLAN</u>

> 2101 AVONDALE-HASLET RD, HASLET, TX 76052

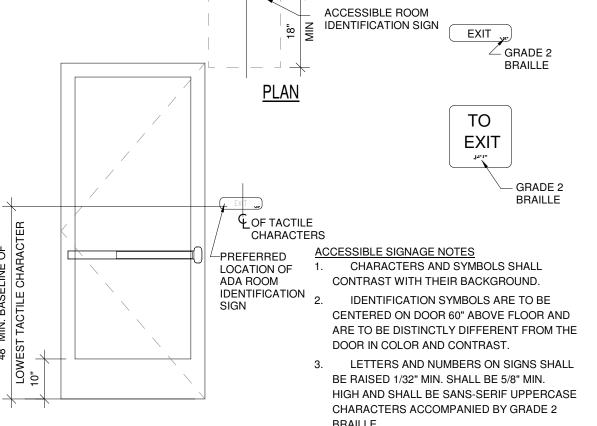
SHERWIN WILLIAMS

SHEET TITLE:

Accessibility & Egress Plan

SHEET NUMBER:

G100



A5 Exit Signage Detail
1/2" = 1'-0"

SITE DEVELOPMENT PLANS **FOR**

SHERWIN WILLIAMS

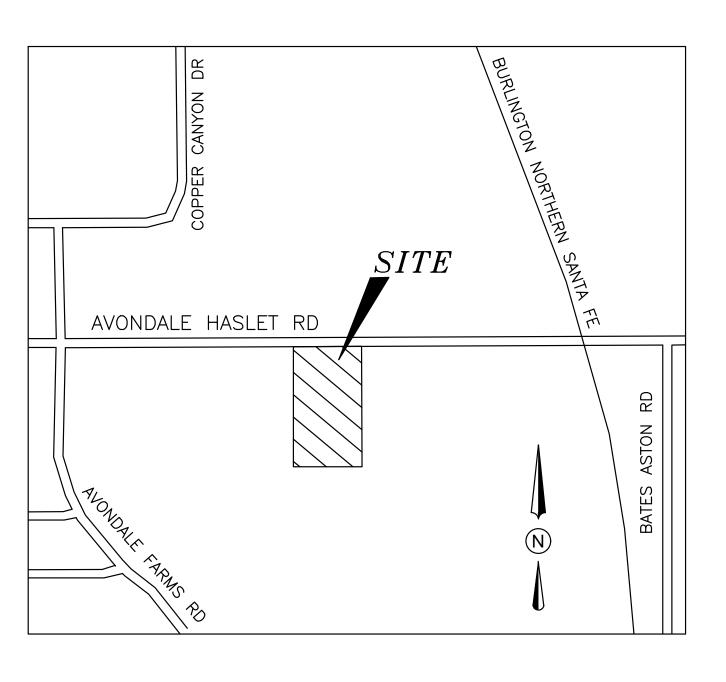
2101 AVONDALE HASLET ROAD

0.932 ACRES SITUATED IN THE ROAD VISTA CROSSROADS ADDITION BLOCK 2, LOT 4

CITY OF FORT WORTH TARRANT COUNTY, TEXAS 76052

PROJECT CONTACT LIST OWNER/DEVELOPER
FORT WORTH DEVELOPMENT GROUP, <u>ENGINEER</u> TRIANGLE ENGINEERING LLC 1782 W MCDERMOTT DRIVE 120 MARKET SQ., FLOOR 2, ALLEN, TEXAS 75013 PINEHURST, NC 28374 **CONTACT: JACK ZANGER** CONTACT: GAVIN MELIA TEL: 469-331-8566 TEL: 910 724 6720 <u>SURVEYOR</u> TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS

TEL: 469-426-7339





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BY	KP	KP	КР		
DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
DATE	12-21-23	01-10-24	01-16-24		
NO.	_	2	3		

DRAWING SHEET INDEX

DESCRIPTION

COVER SHEET

PLAT

SURVEY

SITE PLAN

SITE DETAILS

PAVING PLAN

UTILITY PLAN

PAVING DETAILS

UTILITY DETAILS

LANDSCAPE PLAN

IRRIGATION PLAN

GRADING PLAN

PRE-DRAINAGE PLAN

POST-DRAINAGE PLAN

STORM SEWER DETAILS

EROSION CONTROL PLAN

EROSION CONTROL DETAILS

LANDSCAPE SPECIFICATIONS

IRRIGATION SPECIFICATIONS

URBAN FORESTRY PERMIT

STORM SEWER PLAN AND PROFILE

SHEET NO.

C-2.0

C-3.0

C-4.0

C-4.1

C-5.0

C-6.0

C-6.1

C-6.2

C-6.3

C-7.0

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C-8.0

C-8.1

C-9.0

C-9.1

C-10.0



DATE | PROJECT 01/16/24 | 049-23

SHEET# C-1.0





KARTAVYA S. PATEL 97534

DATE | PROJECT 01/16/24 | 049-23

C-2.0

SHEET#

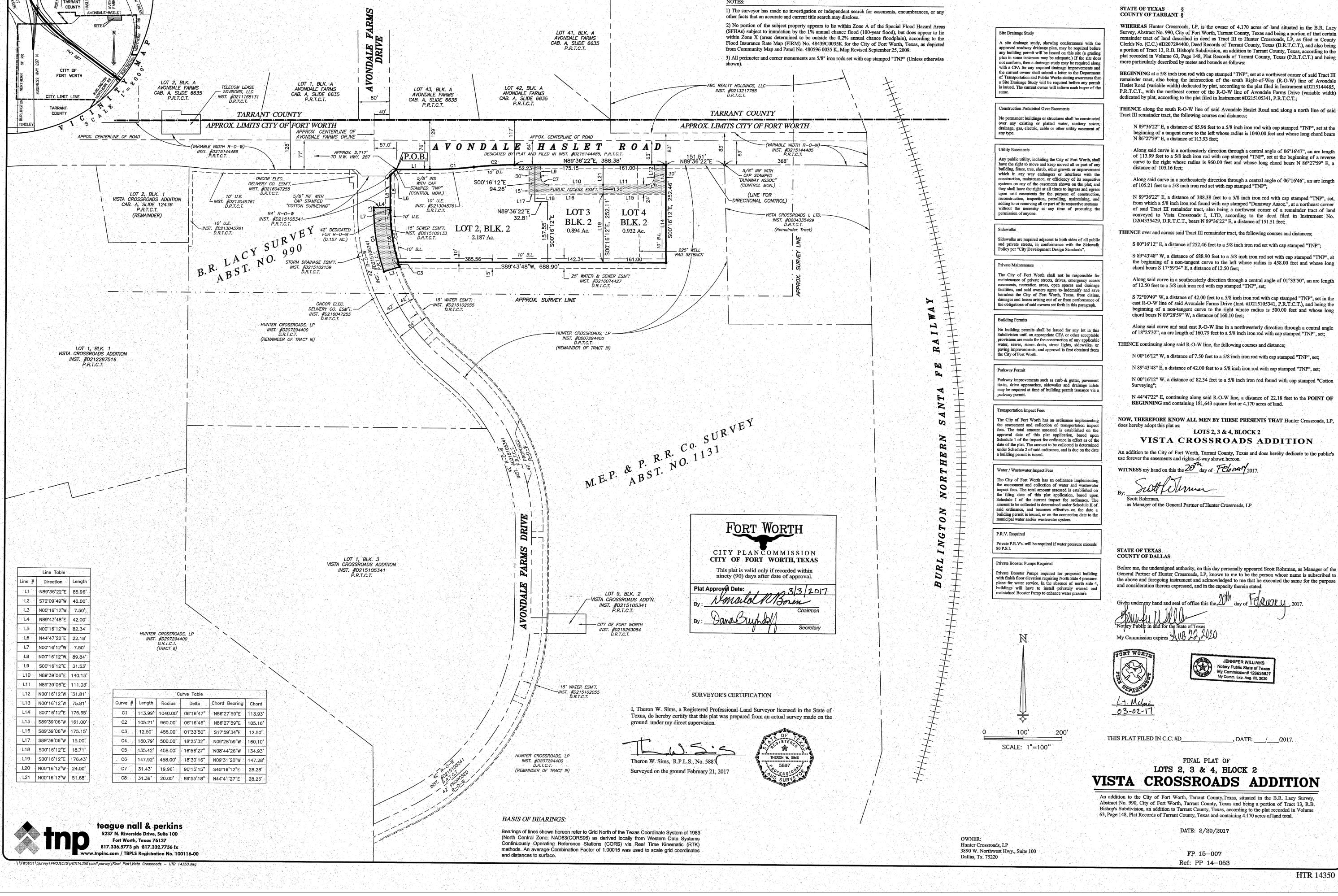


TABLE A ITEMS

- Monuments placed (or a reference monument or witness to the corner) at all major corners of the boundary of the surveyed property, unless already marked or referenced by existing monuments or witnesses in close proximity to the corner. (As shown on survey)
- Address(es) of the surveyed property if disclosed in documents provided to or obtained by the surveyor, or observed while conducting the fieldwork.
- Flood zone classification (with proper annotation based on federal Flood Insurance Rate Maps or the state or local equivalent) depicted by scaled map location and graphic plotting only. (As shown on survey)
- Gross land area (and other areas if specified by the client).
- (As shown on survey) Vertical relief with the source of information (e.g., ground survey, aerial map), contour interval, datum, with originating benchmark, when appropriate. (As shown on survey)
- 6. (a) If the current zoning classification, setback requirements, the height and floor space area restrictions, and parking requirements specific to the surveyed property are set forth in a zoning report or letter provided to the surveyor by the client or the client's designated representative, list the above items on the plat or map and identify the date and source of the report or letter.
- 6. (b) If the zoning setback requirements specific to the surveyed property are set forth in a zoning report or letter provided to the surveyor by the client or the client's designated representative, and if those requirements do not require an interpretation by the surveyor, graphically depict those requirements on the plat or map and identify the date and source of the report or letter.
- Substantial features observed in the process of conducting the fieldwork (in addition to the improvements and features required pursuant to Section 5 above) (e.g., parking lots, billboards, signs, swimming pools, landscaped areas, substantial areas of refuse). (As shown on survey)
- Number and type (e.g., disabled, motorcycle, regular, and other marked specialized types) of clearly identifiable parking spaces on surface parking areas, lots, and in parking structures. Striping of clearly identifiable parking spaces on surface parking areas and lots.
- (No parking spaces observed at the time of the survey.) 11. Evidence of underground utilities existing on or serving the surveyed property (in addition to the observed evidence of utilities required pursuant to Section 5.E.iv.) as determined by: (a) plans and/or reports provided by client (with reference as to the sources of information) (All underground utilities shown hereon were taken from existing plans, none of the underground utilities shown hereon have been field verified by the surveyor.)
- (b) markings coordinated by the surveyor pursuant to a private utility locate request. 12. Names of adjoining owners according to current tax records. If more than one owner, identify the first owner's name listed in the tax records followed by "et al."
- (As shown on survey) 13. As specified by the client, distance to the nearest intersecting street.
- (As shown on survey) 17. Proposed changes in street right of way lines, if such information is made available to the surveyor by the controlling jurisdiction. Evidence of recent street or sidewalk construction or repairs observed in the process of conducting the fieldwork. (No observed street intersection changes noticeable at time of the survey.)
- 18. Pursuant to Sections 5 and 6 (and applicable selected Table A items, excluding Table A item 1), include as part of the survey any plottable offsite (i.e., appurtenant) easements disclosed in documents provided to or obtained by the surveyor. (As shown on survey)

TITLE NOTES

SCHEDULE B **EXCEPTIONS FROM COVERAGE**

Commitment No. and G.F. No.: 1002-384297-RTT

In addition to the Exclusions and Conditions and Stipulations, your Policy will not cover loss, costs, attorney's fees and expenses resulting from: The following restrictive covenants of record itemized below (We must either insert specific recording data or delete this exception):

- Restrictive covenants described in instrument filed 10/03/2017, recorded in cc# D217230160, Real Property Records, Tarrant County, Texas. Any covenant, condition or restriction indicating a preference, limitation or discrimination based on race, color, religion, sex, handicap, familial status, or national origin to the extent such covenants, conditions or restrictions violate 42 USC 3604(c), is
- 2. Any discrepancies, conflicts, or shortages in area or boundary lines, or any encroachments or protrusions, or any overlapping of improvements (Not survey related)
- 3. Homestead or community property or survivorship rights, if any, of any spouse of any insured. (Applies to the Owner's Policy only.) (Not survey related)
- 4. Any titles or rights asserted by anyone, including, but not limited to, persons, the public, corporations, governments or other entities,
- a. to tidelands, or lands comprising the shores or beds of navigable or perennial rivers and streams, lakes, bays, gulfs or oceans, or
- b. to lands beyond the line of the harbor or bulkhead lines as established or changed by any
- c. to filled-in lands, or artificial islands, or
- d. to statutory water rights, including riparian rights, or
- e. to the area extending from the line of mean low tide to the line of vegetation, or the rights of access to that area or easement along and across that area. (Applies to the Owner's Policy only.) (Not survey related)
- Standby fees, taxes and assessments by any taxing authority for the year 2023, and subsequent years; and subsequent taxes and assessments by any taxing authority for prior years due to change in land usage or ownership, but not those taxes or assessments for prior years because of an exemption granted to a previous owner of the property under Section 11.13, Texas Tax Code, or because of improvements not assessed for a previous tax year. (If Texas Short Form Residential Loan Policy of Title Insurance (T-2R) is issued, that policy will substitute "which become due and payable subsequent to Date of Policy" in lieu of "for the year 2023 and subsequent years.") (Not survey related)

AVONDALE HASLET ROAD STORM MANHOLE RIM = 844.52 (VARIABLE WIDTH RIGHT—OF—WAY) F.L. (NORTH) = 840.7 SQUARE CUT WITH " TOP = 845.38'12"RCP (WEST) 842.38' F.L. 18"RCP (SOUTH) 842.33" VARIABLE WIDTH PUBLIC ACCESS EASEMENT INST. NO. D217048919 O.P.R.T.C.T. B.R. LACY SURVEY ABSTRACT No. 990 225' WELL PAD SETBACK APPROXIMATE LOCATION OF A CALLED 10' SUBSURFACE EASEMENT INST. NO. D211032410 D.R.T.C.T. ** TO BE FIELD VERIFIED BY OTHERS ** LOT 4, BLOCK 2 VISTA CROSSROADS ADDITION LOT 3, BLOCK 2 INST. NO. D217048919, O842.87 O847.50 *O.P.R.T.C.T.* O.P.R.T.C.T. CONCRETE O'REILLY AUTO ENTERPRISES, LLC INST. NO. D217230159, O.P.R.T.C.T. O'REILLY AUTO ENTERPRISES, LLC 10' BUILDING LINE INST. NO. D217230159. O843.35 0843.39 0843.1 40,618 SQUARÉ FEET OR TOP = 844.67'0.932 AQRES 18"PLS (NORTH) 840.79' F.L. 24"PLS (WEST) 841.05" "THERE ARE NO BUILDINGS **É** 845.08-TOP = 844.90' 16"PVC (NORTH) 840.50' L. 18"PVC (WEST) 840.25' F.L. 30"PVC (SOUTH) 840.20' 0843.20 25' WATER & SEWER EASEMENT O845.28 0843.83 S89°43'48"W 161.00' O844.28 O843.69 ABSTRACT No. 990

TITLE NOTES

- 7. Materials furnished or labor performed in connection with planned construction before signing and delivering the lien document described in Schedule A, if the land is part of the homestead of the owner. (Applies to the Loan Title Policy Binder on Interim Construction Loan only, and may be deleted if satisfactory evidence is furnished to us before a binder is issued.) (Not survey related)
- 8. Liens and leases that affect the title to the land, but that are subordinate to the lien of the insured mortgage. (Applies to Loan Policy (T-2) only.) (Not survey related)
- 9. The Exceptions from Coverage and Express Insurance in Schedule B of the Texas Short Form Residential Loan Policy of Title Insurance (T-2R). (Applies to Texas Short Form Residential Loan Policy of Title Insurance (T-2R) only). Separate exceptions 1 through 8 of this Schedule B do not apply to the Texas Short Form Residential Loan Policy of Title Insurance (T-2R). (Not survey related)
- 10. The following matters and all terms of the documents creating or offering evidence of the matters (We must insert matters or delete this exception):
- a. All leases, grants, exceptions or reservations of coal, lignite, oil, gas and other minerals, together with all rights, privileges, and immunities relating thereto, appearing in the Public Records whether listed in Schedule B or not. There may be leases, grants, exceptions or reservations of mineral interest that are not listed. (Not survey related)
- b. All encumbrances, violations, variations, or adverse circumstances affecting Title that would be disclosed by an accurate and complete land survey of the Land, including, without limitation, all visible and apparent easements or uses and all underground easements or uses, the existence of which may arise by unrecorded grant or by use. (May be amended or deleted upon approval of (Not survey related)

GENERAL NOTES

. All underground utilities shown hereon were taken from existing plans, none of the underground

2. The Basis of Bearings is from the Texas State Plane Coordinate System, NAD83, North Central

Zone as derived from GPS observations using the Allterra RTK Network and adjusted to surface

utilities shown hereon have been field verified by the surveyor.

using a surface scale factor of 1.00012.

LAND DESCRIPTION

Being Lot 4, Block 2, of Vista Crossroads Addition, an addition to the City of Fort Worth, Tarrant County. Texas, according to the plat thereof recorded in Instrument No. D217048919, Official Public Records,

SURVEYOR'S CERTIFICATION

To: Fort Worth Development Group, LLC, a North Carolina limited liability company, HUNTER CROSSROADS, LP, a Texas limited partnership, and First American Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS. ALTA Items: 1-5, 6(a), 6(b), 8, 9, 11(a), 13, 14, 17, and 18. The fieldwork was completed on June 27, 2023.

Date of Plat or Map: June 28, 2023

Title Commitment provided by: First American Title Insurance Company G.F. No. 1002-384297-RTT

David F. McCullah Registered Public Land Surveyor Texas Registration No. 4023

TITLE NOTES

RIM = 844.08' COULD NOT OPEN DUE O HIGH TRAFFIC VOLUME

- c. Rights, if any, of third parties with respect to any portion of the subject property lying within the boundaries of a public or private road. (May be amended or deleted upon approval of survey.) (Not survey related)
- d. Rights of parties in possession and rights of tenants under any unrecorded leases or rental agreements. (May be amended or deleted upon execution of satisfactory affidavit with respect to parties in possession and tenants at closing.) (Not survey related)
- e. Easement granted by Vista Crossroads I, Ltd., to the City of Fort Worth, filed 10/25/2007, recorded in cc# D207382624, Real Property Records, Tarrant County, Texas. (Does not affect the subject property)

f. Easement granted by Hunter Crossroad, LP, to Hollis R. Sullivan, Inc., filed 10/16/2008, recorded in cc# D208395432, Real Property Records, Tarrant County, Texas. Affected by Assignment filed 06/02/2009, recorded in cc# D209146058, Real Property Records, Tarrant County, Texas. (Affects the subject property, blanket in nature)

g. Easement granted by Hunter Crossroads, LP, to XTO Energy Inc., filed 02/09/2011, recorded in cc# D211032410, Real Property Records, Tarrant County, Texas.

(Affects subject property, blanket in nature) h. Easement granted by Hunter Crossroad, LP, to the City of Fort Worth, filed 09/06/2012, recorded in cc# D212218792, Real Property Records, Tarrant County, Texas.

i. Terms, provisions, conditions, and easements contained in Public Utility Easement, filed 02/22/2013, recorded in cc# D213045761, Real Property Records, Tarrant County, Texas. (Affects the subject property, as shown on survey)

j. Terms, provisions, conditions, and easements contained in Development and Easement Agreement, filed 07/02/2015, recorded in cc# D215144097, Real Property Records, Tarrant County, Texas. (Does not affect the subject property)

k. Easement granted by Hunter Crossroads, LP, to the City of Fort Worth, filed 04/12/2016, recorded

(Affects subject property, as shown on survey) 1. The following easements and/or building lines, as shown on plat recorded in filed 03/03/2017,

recorded in cc# D217048919, Plat Records, Tarrant County, Texas: Portion of a 225' well pad setback; 10' building line;

in cc# D216074427, Real Property Records, Tarrant County, Texas.

Variable width public access easement. (Affects subject property, as shown on survey)

FLOOD NOTES

No portion of the subject property shown hereon lies within the 100 year flood hazard area according

to the Flood Insurance Rate Map, Community Panel No. 48439C0035L, dated March 21, 2019. The

subject property is located in the area designated as Zone "X", (areas determinred to be outside the

0.2% annual chance floodplain).

(Does not affect the subject property)

m. Title to all coal, lignite, oil, gas and other minerals in, under and that may be produced from the land, together with all rights, privileges, and immunities relating thereto, all of such interest, to the extent not previously reserved or conveyed being described in instrument filed 04/11/2001, recorded in Volume 14821, Page 416, Real Property Records, Tarrant County, Texas, as corrected and refiled 05/21/2001, recorded in Volume 14896, Page 470, Real Property Records, Tarrant County, Texas. Company makes no representation as to the present ownership of any such interests. (Not survey related)

n. Mineral lease together with all rights, privileges and immunities incident thereto, to Calto Oil Company, from Lois Price Witschorke, et al, described in instrument filed 10/03/2001, recorded in Volume 15171, Page 318, Real Property Records, Tarrant County, Texas. Company makes no representation as to the present ownership of any such interests. (Not survey related)

ALTA/NSPS LAND TITLE SURVEY LOT 4, BLOCK 2,

LEGEND

ADJOINER BOUNDARY LINE

EASEMENT LINE (AS NOTED)

STORM DRAIN LINE (AS NOTED)

5/8" IRON ROD SET WITH A YELLOW

CAP STAMPED "TRAVERSE LS"

FOUND IRON ROD (AS NOTED)

IRRIGATION CONTROL VALVE

SANITARY SEWER MAN HOLE

TELEPHONE JUNCTION BOX

BOUNDARY LINE

-- SANITARY SEWER LINE

-OHE OVERHEAD ELECTRIC LINE

WOOD FENCE

CHAIN LINK FENCE

"X" CUT FOUND

SEWER CLEAN OUT

TRANSFORMER

ELECTRIC VAULT

ELECTRIC BOX CABLE VAULT

TRAFFIC SIGNAL LIGHT

TRAFFIC SIGN

LIGHT POLE

POWER POLE

GAS METER

BENCH MARK

DEED RECORDS

(CM)

0.P.R.T.C.T.

D.R.T.C.T.

STORM MAN HOLE

STORM MAN HOLE

AIR CONDITIONER UNIT

CONTROL MONUMENT

OFFICIAL PUBLIC RECORDS

TARRANT COUNTY, TEXAS

TARRANT COUNTY, TEXAS

ELECTRIC METER

"X" CUT SET

₩M WATER METER

₩V WATER VALVE

——w—— WATER LINE

VISTA CROSSROADS ADDITION B.R. LACY SURVEY, ABSTRACT NO. 990 CITY OF FORT WORTH, TARRANT COUNTY, TEXAS



DM 06/28/2023 1" = 30' TR-59-23

NO.	DATE	DESCRIPTION	BY

14200 Midway Road, Suite 130, Dallas, TX 75224 | T: 469.784.9321 W: TraverseLandSurveying.com | Texas Firm No. 10194631 Surveying | Construction Staking | Platting ─ DRAWN CHECK DATE SCALE PROJECT NO. SHEET NO.



DATE | PROJECT 01/16/24 | 049-23

SHEET#

C-3.0

2 | 6 | 6 |

DATE | PROJECT 01/16/24 | 049-23

KP JZ

SHEET#

C-4.0

10' UTILITY EASEMENT

─ INST. NO. D213045761

APPROXIMATE LOCATION OF A CALLED 10'

APPROXIMATE LOCATION OF A CALLED 10'

SUBSURFACE EASEMENT

INST. NO. D208395432

D.R.T.C.T.

SUBSURFACE EASEMENT

INST. NO. D211032410

HUNTER CROSSROADS, LP

O.P.R.T.C.T.

PD 829

GENERAL COMMERCIAL (F)

INST. NO. D207294400

10' BUILDING LINE

► INST. NO. D217048919

O.P.R.T.C.T.

O.P.R.T.C.T.

AVONDALE HASLET ROAD 15" SAN. SEW. (VARIABLE WIDTH RIGHT-OF-WAY) 24" WATER. EXISTING DRIVE N89°36'22"E 161.00 HYDRANT 10' BUILDING LINE INST. NO. D217048919-O.P.R.T.C.T. ¬MONUMENT GRAVEL ` SIGN

VARIABLE WIDTH PUBLIC ACCESS EASEMENT CONCRETE. FIRE INST. NO. D217048919 ·LANE 0.P.R.T.C.T.

30' FLAG ¬

POLE

ZADA PARKING BOLLARD BIKE RACK ~ MOUNTED SEE DETAIL SIGNS (TYP.) 14.4' VISTA CROSSROADS ADDITION SHERWIN WILLIAMS

INST. NO. D217048919, O.P.R.T.C.T.4,455 SF F.F.=846.45 LOT 4, BLOCK 2 O'REILLY AUTO ENTERPRISES, LLC 0.932 ACRES INST. NO. D217230159, O.P.R.T.C.T. PD 827

NEIGHBORHOOD COMMERCIAL (E) CONCRETE PROPOSED 8' HIGH MASONRY ~ TRASH ENCLOSURE WITH METAL GATES SEE ARCH DETAIL

S89°43'48"W 161.00' 10' BUILDING LINE INST. NO. D217048919 O.P.R.T.C.T. 25' WATER & SEWER EASEMENT

O.P.R.T.C.T.

INST. NO. D216074427

225' WELL PAD SETBACK -INST. NO. D217048919 HUNTER CROSSROADS, LP O.P.R.T.C.T. INST. NO. D207294400, O.P.R.T.C.T. PD 830

LIGHT INDUSTRIAL (I)

PROJECT CONTACT LIST TYPE ID

LOT 3, BLOCK 2

OWNER/DEVELOPER FORT WORTH DEVELOPMENT GROUP, TRIANGLE ENGINEERING LLC 1782 W MCDERMOTT DRIVE 120 MARKET SQ., FLOOR 2, ALLEN, TEXAS 75013 PINEHURST, NC 28374 CONTACT: JACK ZANGER CONTACT: GAVIN MELIA TEL: 469-331-8566 TEL: 910 724 6720

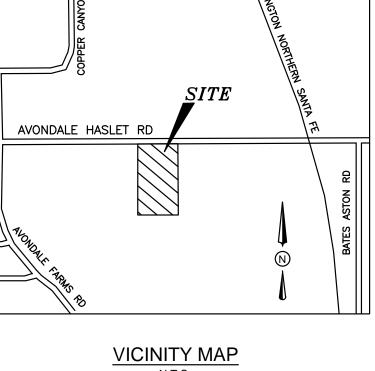
> TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339

WATER METER & SANITARY SEWER SCHEDULE SIZE NO. SAN. SEW. DOM. IRR. N/A

EASEMENT/SETBACK LEGEND BUILDING SET BACK B.S. LANDSCAPE SETBACK L.S. WATER EASEMENT W.E. UTILITY EASEMENT U.E.

EXISTING LEGEND BOUNDARY LINE ⋈ W WATER VALVE --- ADJOINER BOUNDARY LINE TRAFFIC SIGNAL BOX --- EASEMENT LINE (AS NOTED) GAS SIGN MARKER —w— WATER LINE WATER METER - SANITARY SEWER LINE ELECTRIC PEDESTAL -stm->- STORM DRAIN LINE (AS NOTED) TELEPHONE MANHOLE OVERHEAD ELECTRIC LINE STORM MAN HOLE LIGHT POLE — G — GAS LINE -u/f- UNDERGROUND FIBER OPTIC LINE POWER POLE -o SIGN BENCH MARK SET IRON ROD (AS NOTED) CONTROL MONUMENT (CM) FOUND IRON ROD (AS NOTED) Oco SANITARY SEWER CLEANOUT "X" CUT FOUND O.P.R.B.C.T. OFFICIAL PUBLIC RECORDS BOWIE COUNTY, TEXAS "X" CUT SET D.R.B.C.T. DEED RECORDS BOWIE COUNTY, TEXAS ← FH FIRE HYDRANT

FIRE H SANITARY SEWER MAN HOLE



N.T.S.

SITE GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE CITY OR LOCAL JURISDICTION STANDARDS.

2. THE LOCATION OF UNDERGROUND UTILITIES INDICATED ON THE PLANS IS TAKEN FROM AS-BUILTS, UTILITY PLANS OR SURVEY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAKE ARRANGEMENTS WITH THE OWNERS OF SUCH UNDERGROUND UTILITIES PRIOR TO WORKING IN THE AREA TO CONFIRM THEIR EXACT LOCATION AND TO DETERMINE WHETHER ANY ADDITIONAL UTILITIES OTHER THAN THOSE SHOWN ON THE PLANS MAY BE PRESENT. THE CONTRACTOR SHALL PRESERVE AND PROTECT ALL UNDERGROUND UTILITIES. IF EXISTING UNDERGROUND UTILITIES ARE DAMAGED, THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPAIRING THE UTILITY.

3. WHERE EXISTING UTILITIES OR SERVICE LINES ARE CUT, BROKEN OR DAMAGED, THE CONTRACTOR SHALL REPLACE OR REPAIR THE UTILITIES OR SERVICE LINES WITH THE SAME TYPE OF ORIGINAL MATERIAL AND CONSTRUCTION, OR BETTER, UNLESS OTHERWISE SHOWN OR NOTED ON THE PLANS, AT HIS OWN COST AND EXPENSE. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AT ONCE OF ANY CONFLICTS WITH UTILITIES.

4. ALL EXCAVATIONS, TRENCHING AND SHORING OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE U. S. DEPARTMENT OF LABOR, OSHA, CONSTRUCTION SAFETY AND HEALTH REGULATIONS AND ANY AMENDMENTS THERETO.

5. THE CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION TO ORIGINAL CONDITION OR BETTER. RESTORED AREAS INCLUDE, BUT ARE NOT LIMITED TO TRENCH BACKFILL, SIDE SLOPES, FENCES, DRAINAGE DITCHES, DRIVEWAYS, PRIVATE YARDS AND ROADWAYS.

6. ANY CHANGES NEEDED AFTER CONSTRUCTION PLANS HAVE BEEN RELEASED, SHALL BE APPROVED BY THE CITY ENGINEER. THESE CHANGES MUST BE RECEIVED IN WRITING.

7. THE CONTRACTOR SHALL PROVIDE "RED LINED" MARKED PRINTS TO THE ENGINEER PRIOR TO FINAL INSPECTION INDICATING ALL CONSTRUCTION WHICH DEVIATED FROM THE PLANS OR WAS CONSTRUCTED IN ADDITION TO THAT INDICATED ON THE PLANS.

8. ALL CURB RADIUS TO BE 10' OR 2' UNLESS OTHERWISE NOTED ON THE SITE PLAN.

9. FIRE LANE SHALL BE CONSTRUCTED OF CONCRETE OR ASPHALT ABLE TO WITHSTAND AN IMPOSED LOAD OF 85,000 LBS.

10. THERE SHALL BE NO OVERHEAD OBSTRUCTIONS OF LESS THAN 14' OVER THE FIRE

11. FIRE LANE SHALL BE MARKED "FIRE LANE - TOW-AWAY ZONE."

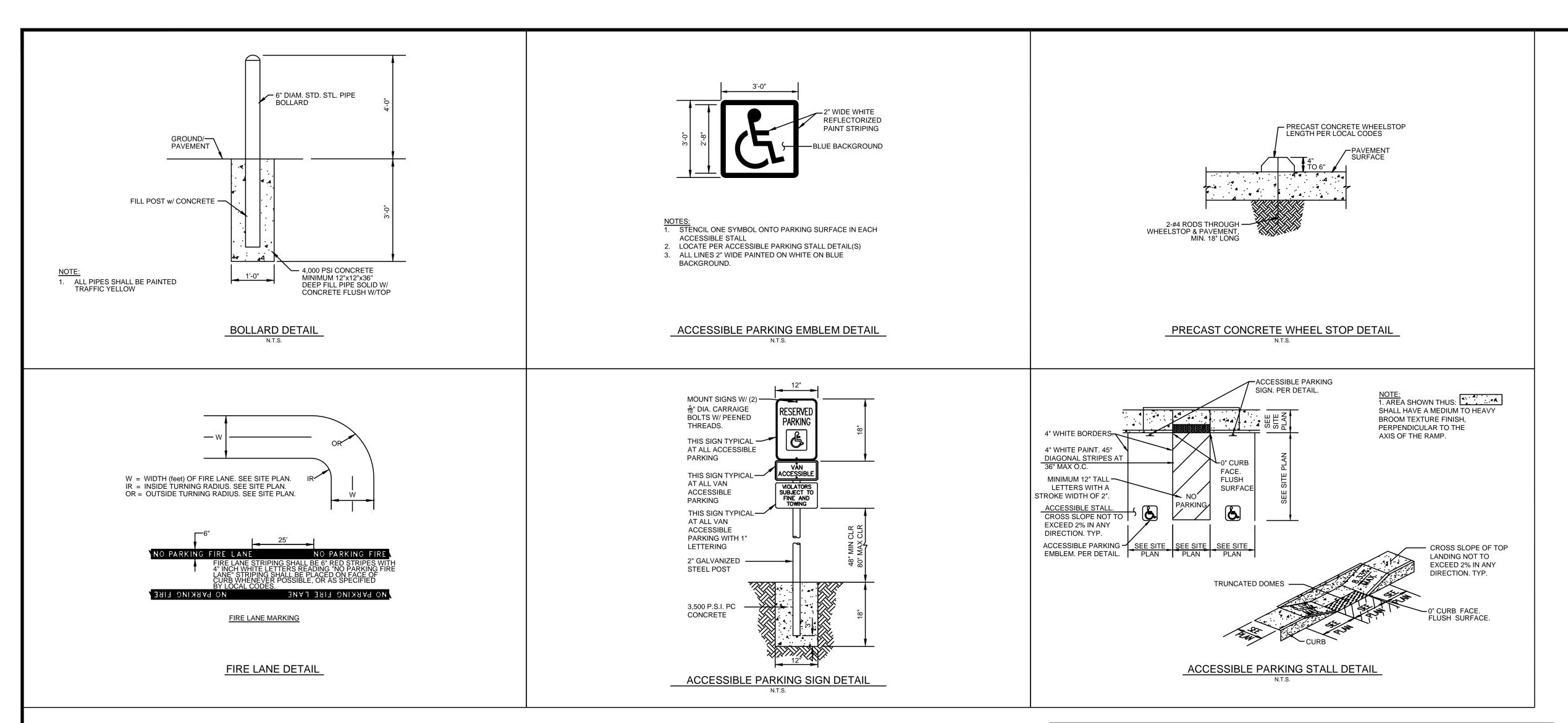
COMMERCIAL SITE DATA SUMMARY TABLE								
GROSS SITE ACREAGE:	0.932 ACRES OR 40),598 S.F.						
EXISTING ZONING:	PD 827 NEIGHBORI	HOOD COMMERCIAL (E						
PROPOSED ZONING:	PD 827 NEIGHBORI	HOOD COMMERCIAL (E)						
PROPOSED USE:	RETAIL							
BUILDING AREA:	4,455 S.F.							
NUMBER OF STORIES:	1							
BUILDING HEIGHT:	26'							
FACADE:	STUCCO							
PARKING REQUIRED: 4 PER 1000 FT. SF	18 PARKING SPACES							
REGULAR PARKING PROVIDED:	16 PARKING SPACE	ES						
HANDICAP PARKING REQUIRED:	1 SPACE (1 VAN AC	CCESSIBLE)						
HANDICAP PARKING PROVIDED:	2 SPACE (1 VAN AC	CCESSIBLE)						
TOTAL PARKING PROVIDED:	18 PARKING SPACE	ES						
IMPERVIOUS COVERAGE:	20,477 S.F. OR 50.4	3%						
PERVIOUS/LANDSCAPE AREA:	20,121 S.F. OR 49.5	7%						
ZONING REQUIREMENTS GC	REQUIRED	PROVIDED						
FRONT YARD SETBACK	10'	10'						
SIDE YARD SETBACK	0'	0'						
REAR YARD SETBACK	10'	10'						
MAXIMUM IMPERVIOUS COVER	85%	49%						

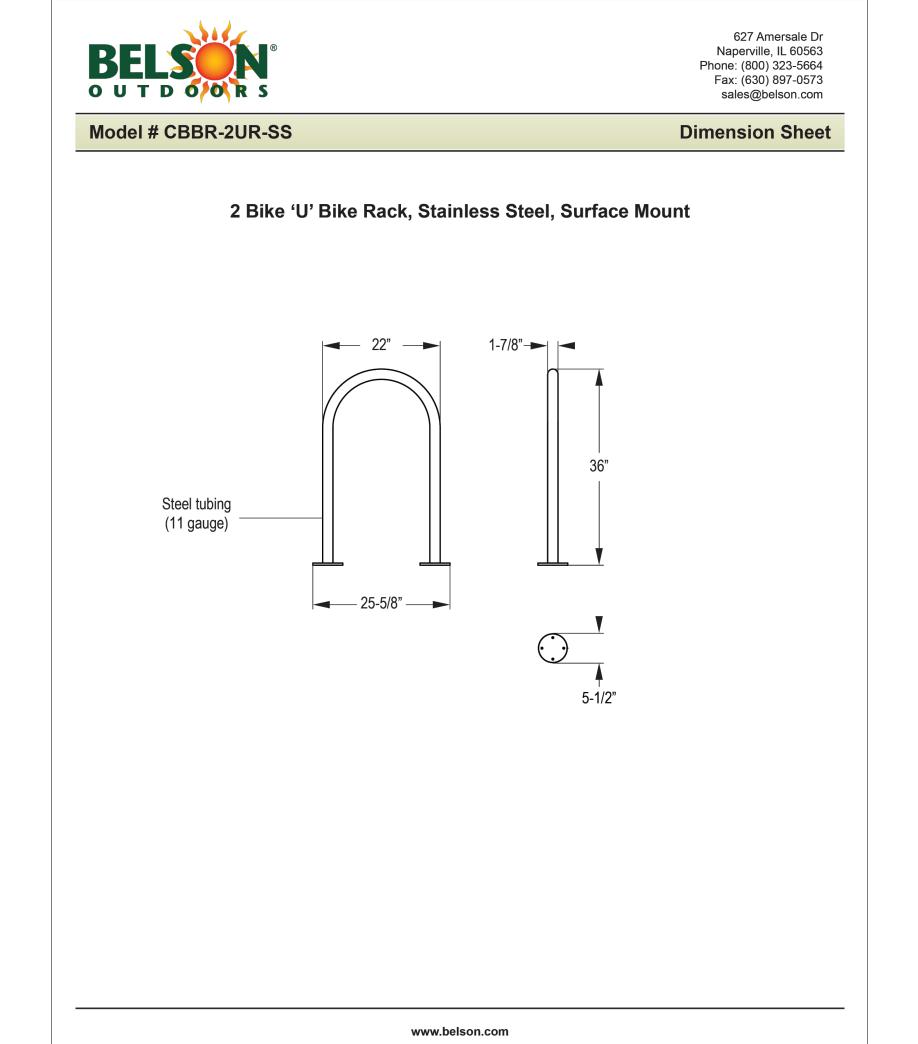
NOTES

THIS PROJECT WILL COMPLY WITH SECTION 6.301, LANDSCAPING.

THIS PROJECT WILL COMPLY WITH SECTION 6.302, URBAN FORESTRY. ALL SIGNAGE WILL CONFORM TO ARTICLE 4, SIGNS.

ALL PROVIDED LIGHTING WILL CONFORM TO THE LIGHTING CODE.









ВУ	KP	ΑP	КР		
DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
DATE	12-21-23	01-10-24	01-16-24		
NO.	_	2	3		

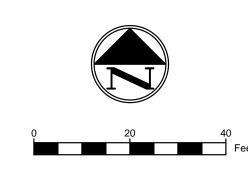


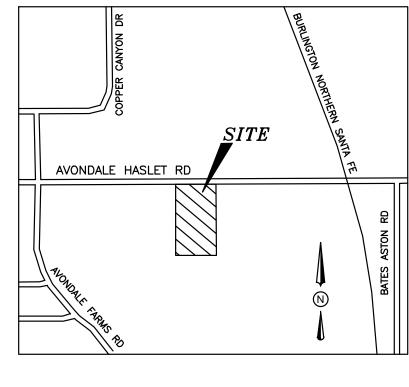
 DATE
 PROJECT

 01/16/24
 049-23

SHEET#

C-4.1





VICINITY MAP

GRADING GENERAL NOTES

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)

844.84 EX

844.49 TC 843.99 G

LOT 3, BLOCK 2

VISTA CROSSROADS ADDITION INST. NO. D217048919,

O.P.R.T.C.T.

O'REILLY AUTO ENTERPRISES, LLC

INST. NO. D217230159,

O.P.R.T.C.T.

PD 827

NEIGHBORHOOD COMMERCIAL (E)

24"/WATER.

GRAVEL 846.24 FG

CONCRETE

845.40 EX

SHERWIN WILLIAMS

4,455 SF

F.F.=846.45

1.0%

843.60 EX) S89°43'48"W 1.00'

HUNTER CROSSROADS, LP INST. NO. D207294400, O.P.R.T.C.T. PD 830 LIGHT INDUSTRIAL (I)

24" WATER.

HUNTER CROSSROADS, LP

INST. NO. D207294400,

0.P.R.T.C.T.

PD 829

GENERAL COMMERCIAL (F)

1. ALL SURPLUS EXCAVATION AND WASTE MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND IT SHALL BE HIS SOLE RESPONSIBILITY TO REMOVE SUCH SURPLUS EXCAVATION AND WASTE MATERIAL FROM THE SITE TO A PUBLIC DUMP SITE APPROVED FOR THE DISPOSAL OF SUCH MATERIALS. IF SURPLUS EXCAVATION IS REMOVED FROM THIS SITE TO ANOTHER PROPERTY, IT SURPLUS EXCAVATION ON-SITE, IT SHALL BE ONLY WITH THE PRIOR APPROVAL OF THE OWNERS PROJECT REPRESENTATIVE AND CARE SHOULD BE TAKEN TO AVOID BLOCKING NATURAL DRAINAGE AND INCREASING STEEP SLOPES. IF ANY OF THE HAULED EXCAVATION MATERIAL IS TAKEN TO ANOTHER LOCATION WITHIN THE CITY LIMITS, THE OWNER OF THE PROPERTY IS REQUIRED TO OBTAIN A LOT GRADING PERMIT BEFORE MATERIAL IS DELIVERED.

2. THE CONTRACTOR IS REQUIRED TO PROVIDE HIS OWN STAKING AND TO VERIFY PROJECT ELEVATIONS. "MATCH EXISTING" SHALL BE UNDERSTOOD TO APPLY TO BOTH VERTICAL ELEVATION AND HORIZONTAL ALIGNMENT.

3. THE CONTRACTOR SHALL PREPARE ALL LANDSCAPE AREAS INCLUDING STREET RIGHT-OF-WAY AREAS TO AN ACCEPTABLE SUBGRADE CONDITION IN ACCORDANCE WITH THE LANDSCAPE PLANS. IF THE CONTRACTOR IS NOT EMPLOYED TO PROVIDE AND INSTALL LANDSCAPING, HE SHALL PREPARE A FINISHED AND COMPACTED SUB-GRADE IN THE LANDSCAPING AREAS.

4. NO SLOPES TO EXCEED 4H:1V

5. WALL GREATER THAN 4' TO BE DESIGNED BY A STRUCTURAL ENGINEER.

6. RETAINING WALLS GREATER THAN 2' IN HEIGHT SHALL BE PERMITTED THROUGH THE CITY OF FRISCO BUILDING DEPARTMENT AND THE REVIEW OF SAID WALL IS NOT INCLUDED IN THIS SCOPE OF WORK.

FLOOD PLAIN NOTE

THE SUBJECT PROPERTY LIES WITHIN THE ZONE "X" UNSHADED (DETERMINED TO BE OF THE 0.20% ANNUAL CHANGE FLOODPLAIN) AS DETERMINED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP NUMBER 48439C0035L, DATED MARCH 21, 2019 FOR TARRENT COUNTY, TEXAS AND INCORPORATED AREAS.

BENCHMARKS

THE BASIS OF BEARINGS IS FROM THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE AS DERIVED FROM GPS OBSERVATIONS USING THE ALLTERRA R TK NETWORK AND ADJUSTED TO SURFACE USING A SURFACE SCALE FACTOR OF 1.00012.

BENCHMARK NO. 1

SQUARE WITH AN "X" CUT IN CONCRETE DRIVEWAY CURB RETURN 50' +/-NORTHWEST OF NORTHEAST CORNER OF SUBJECT PROPERTY. ELEVATION: 733.88

GRADING LEGEND							
EXISTING MINOR CONTOURS	750						
EXISTING MAJOR CONTOURS	 - 750 						
TOP OF CURB & GUTTER ELEVATION	TC 740.31 G 739.81						
FINISHED GRADE	000.00 FG						
EXISTING GRADE	000.00 EX						
DRAINAGE FLOW DIRECTION	2.0%						
MINOR CONTOURS							
MAJOR CONTOURS							
SWALE							
HIGH POINT	—— HP—— HP—— HP——						
STORM PIPE	STM->						
CURB INLET							
STORM MANHOLE	O						
STORM CLEANOUT	O						
RETAINING WALL							
RIP RAP	BBBBBBBBBBB						



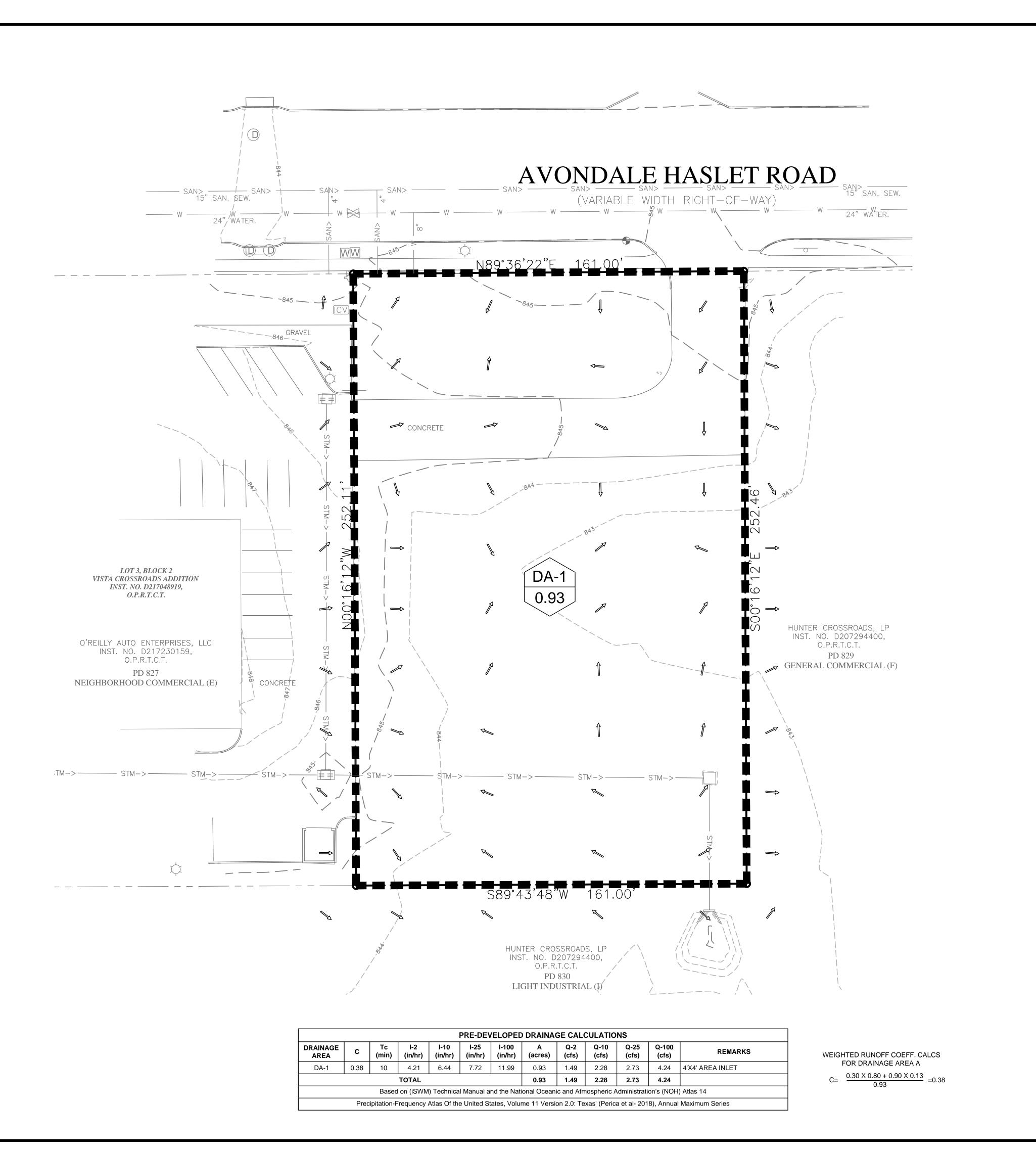
	DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
	DATE	12-21-23	01-10-24	01-16-24		
	ON	-	2	3		



SHEET#

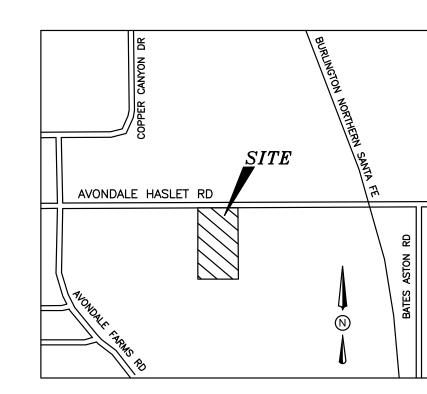
C-5.0

DATE | PROJECT 01/16/24 | 049-23









VICINITY MAP

PRE-DRAINAGE LEGEND EXISTING MINOR CONTOURS ----- 750 -----**— — — – 750 — — — —** EXISTING MAJOR CONTOURS DA-1 DRAINAGE AREA NO. 0.25 DRAINAGE AREA ACREAGE DRAINAGE DIVIDE \Longrightarrow DRAINAGE FLOW DIRECTION

FLOOD PLAIN NOTE

THE SUBJECT PROPERTY LIES WITHIN THE ZONE "X" UNSHADED (DETERMINED TO BE OF THE 0.20% ANNUAL CHANGE FLOODPLAIN) AS MAP NUMBER 48439C0035L, DATED MARCH 21, 2019 FOR TARRENT COUNTY, TEXAS AND INCORPORATED AREAS.

BENCHMARKS

THE BASIS OF BEARINGS IS FROM THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE AS DERIVED FROM GPS OBSERVATIONS USING THE ALLTERRA R TK NETWORK AND ADJUSTED TO SURFACE USING A SURFACE SCALE FACTOR OF 1.00012.

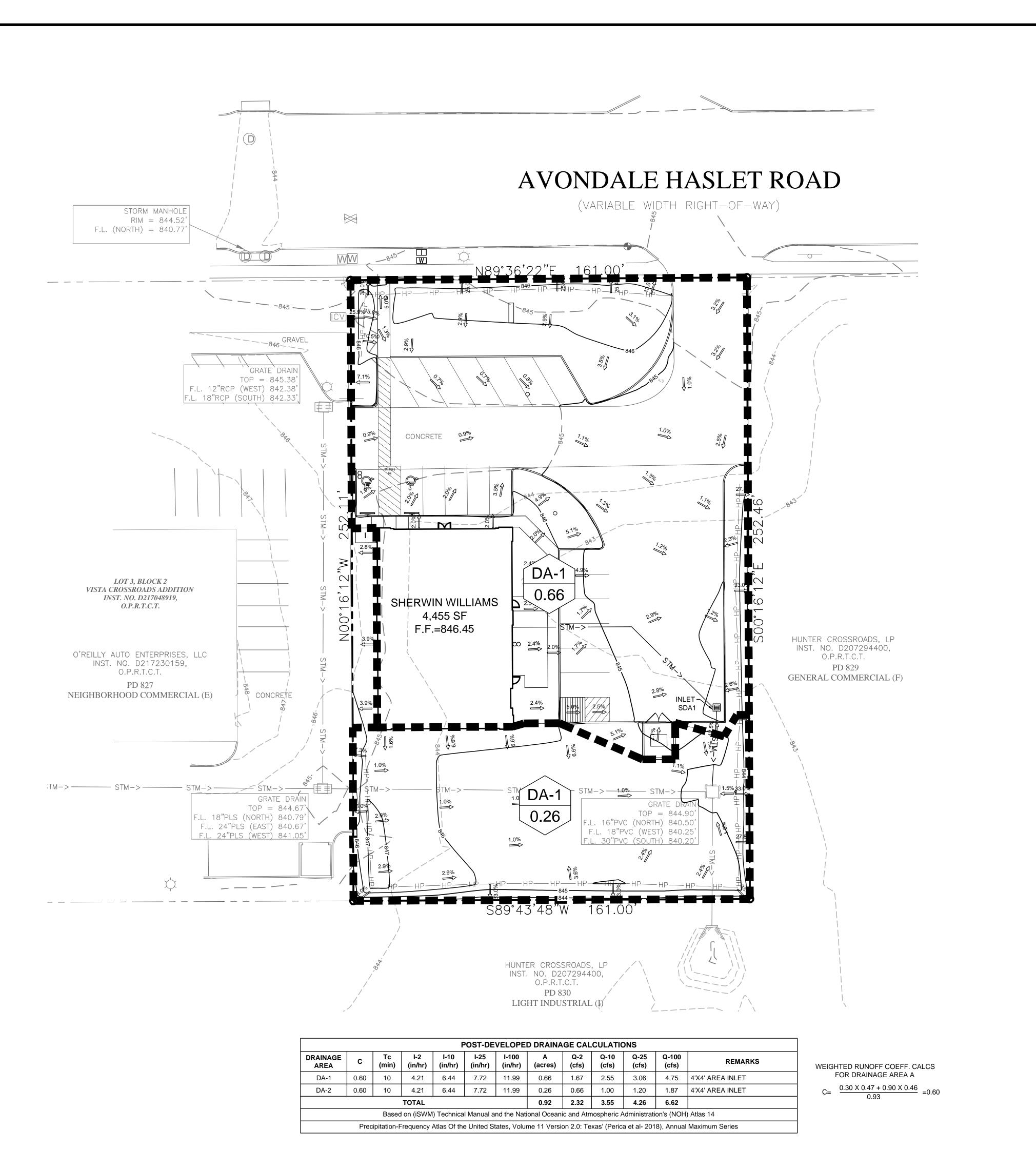
BENCHMARK NO. 1

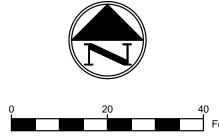
SQUARE WITH AN "X" CUT IN CONCRETE DRIVEWAY CURB RETURN 50' +/-NORTHWEST OF NORTHEAST CORNER OF SUBJECT PROPERTY. ELEVATION: 733.88

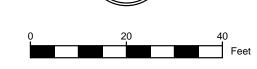


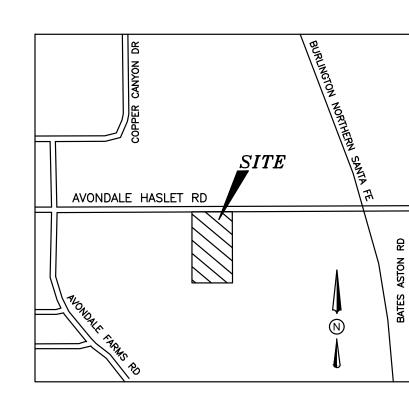
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6/24	049-23
.E.	DESIGN
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SHEET#









VICINITY MAP

POST-DRAINAGE LEGEND										
EXISTING MINOR CONTOURS EXISTING MAJOR CONTOURS MINOR CONTOURS MAJOR CONTOURS	750 750									
DRAINAGE AREA NO. DRAINAGE AREA ACREAGE	DA-2 0.50									
DRAINAGE DIVIDE										
DRAINAGE FLOW DIRECTION	1.0%									
HIGH POINT	—— HP—— HP—— HP——									

FLOOD PLAIN NOTE

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BENCHMARK NO. 1

SQUARE WITH AN "X" CUT IN CONCRETE DRIVEWAY CURB RETURN 50' +/-NORTHWEST OF NORTHEAST CORNER OF SUBJECT PROPERTY. ELEVATION: 733.88





	DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
	DATE	12-21-23	01-10-24	01-16-24		
	<u>i</u>		-	3		



DATE | PROJECT 01/16/24 049-23

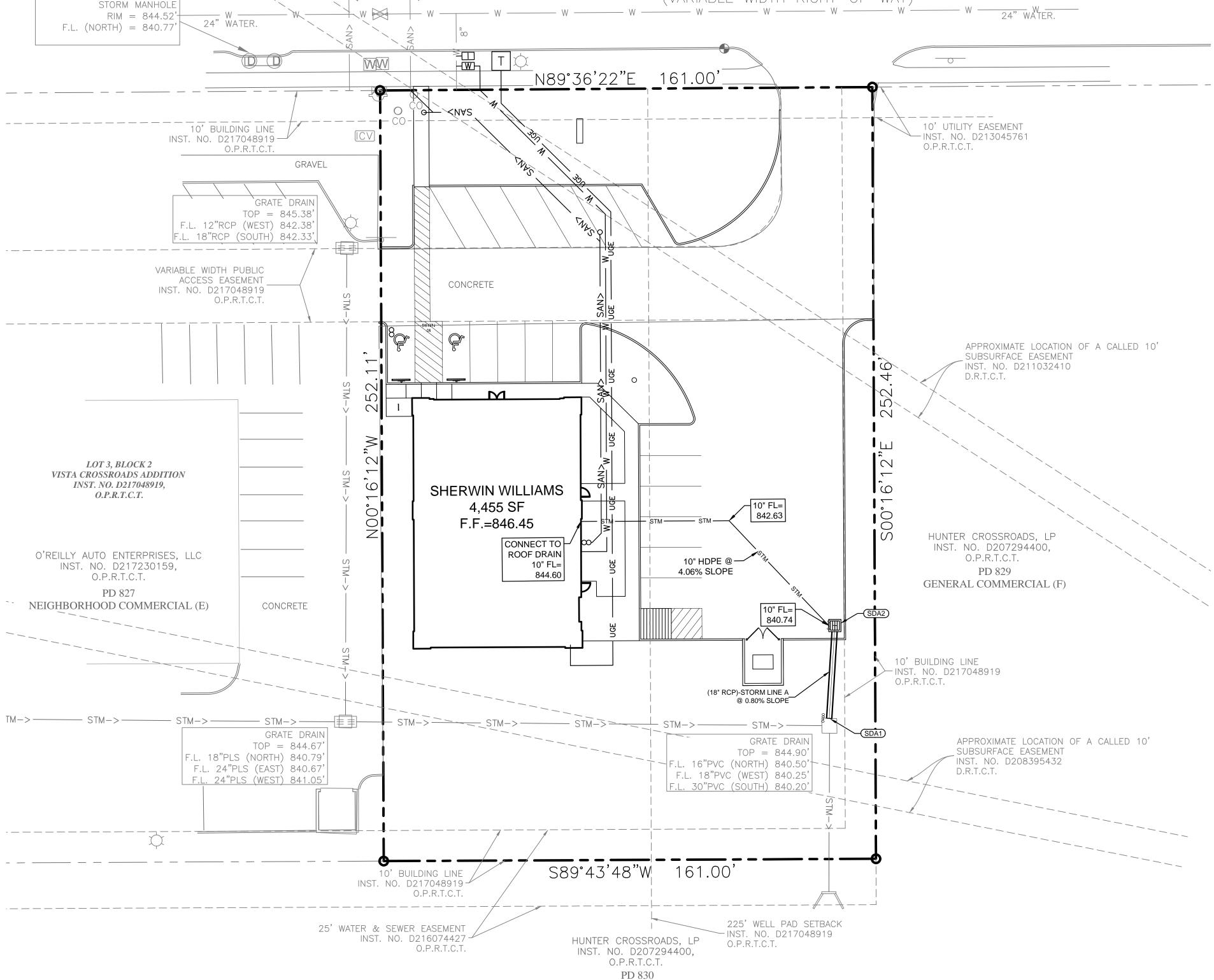
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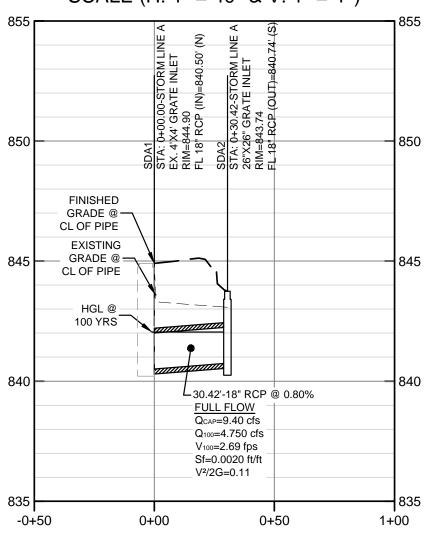
15" SAN. SEW.

GRATE INLET IN SUMP										
INLET DESCRIPTION	Q-100 (cfs)	AREA (sf.)	DEPTH AT OPENING (ft.)	Q	Q, 50%	REMARKS				
LINE A STA. 2+33.11	5.78	4.00	0.50	13.60	6.80	2' X 2' GRATE INLET				
OTE: CAPACITY FOR A GRATE INLET IN SUMP IS Q = 4.82Ah ^0.5										

LIGHT INDUSTRIAL (I)

Line No.	Line ID	Line Length	Known Q	Flow Rate	Capac Full	Vel Ave	Line Size	Line Slope	Invert Dn	Invert Up	HGL Dn	HGL Up	Gnd/Rim El Dn	Gnd/Rim El Up	J-Loss Coeff	Sf Ave	Vel Hd Up
		(ft)	(cfs)	(cfs)	(cfs)	(ft/s)	(in)	(%)	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)		(%)	(ft)
1	SDA1 TO SDA2	30.415	4.75	4.75	9.39	2.81	18	0.80	840.50	840.74	842.00	842.04	842.30	843.74	1.25	0.196	0.13

STORM LINE A PROFILE SCALE (H: 1" = 40" & V: 1" = 4')



UTILITY L	EGEND
UNDERGROUND TELEPHONE LINE UNDERGROUND ELECTRIC LINE GAS LINE SANITARY SEWER LINE WATER MAIN DOMESTIC WATER LINE STORM LINE	
STORM SEWER MANHOLE STORM SEWER CLEANOUT SANITARY SEWER MANHOLE SANITARY SEWER CLEANOUT SANITARY SEWER DOUBLE CLEANOUT SANITARY SEWER SAMPLE PORT WATER METER IRRIGATION METER GAS METER	© Ø S 0 8 W □ □ □
FIRE HYDRANT TRANSFORMER LIGHT POLE POWER POLE	T X

FLOOD PLAIN NOTE

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BENCHMARK NO. 1

SQUARE WITH AN "X" CUT IN CONCRETE DRIVEWAY CURB RETURN 50' +/-NORTHWEST OF NORTHEAST CORNER OF SUBJECT PROPERTY. ELEVATION: 733.88





DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
DATE	12-21-23	01-10-24	01-16-24		

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DATE | PROJECT

01/16/24 | 049-23 KP JZ

SHEET#





B	ΑĀ	Ą	KP		
DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
DATE	12-21-23	01-10-24	01-16-24		
O	_	2	3		



 DATE
 PROJECT

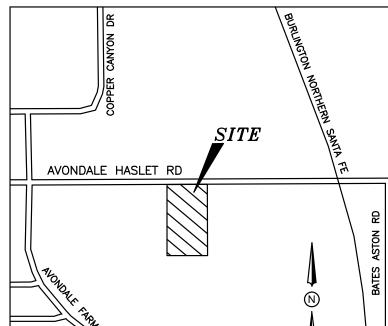
 01/16/24
 049-23
 P.E. DESIGN

KP JZ

SHEET#







VICINITY MAP

PAVING GENERAL NOTES

1. STRIP & REMOVE FROM THE CONSTRUCTION AREA ALL TOPSOIL, ORGANICS & VEGETATION TO A MINIMUM DEPTH OF 6 INCHES.

2. CONTROL JOINTS FORMED BY SAWING ARE RECOMMENDED BOTH LONGITUDINAL AND TRANSVERSE DIRECTIONS. CONTROL JOINT SHALL BE SAWED WITHIN 3 HOURS AFTER PLACING CONCRETE. JOINTS SHALL BE PROPERLY CLEANED AND SEALED AS SOON AS POSSIBLE AFTER JOINTS ARE CUT.

TO THE BUILDING FOUNDATION UNLESS IT'S NOTED ON THE STRUCTURAL PLANS.

EASEMENT/SETBACK LEGEND	
BUILDING SET BACK	B.S.
LANDSCAPE SETBACK	L.S.
BUILDABLE AREA SF	B.A.
PRIVATE WALL AND WALL MAINTENANCE EASEMENT	P.W.M.E
PRIVATE FENCE AND FENCE MAINTENANCE EASEMENT	P.F.M.E
SIDEWALK EASEMENT	S.E.
ELECTRICAL EASEMENT	E.E.
UTILITY EASEMENT	U.E.

EXISTING LEGEND

	BOUNDARY LINE	⋈W	WATER VALVE
	ADJOINER BOUNDARY LINE EASEMENT LINE (AS NOTED)	TJB - G	TRAFFIC SIGNAL BOX GAS SIGN MARKER
w	WATER LINE	w	WATER METER
— SAN> ——	SANITARY SEWER LINE	Ē	ELECTRIC PEDESTAL
— STM->	STORM DRAIN LINE (AS NOTED)	T	TELEPHONE MANHOLE
— OHE —	OVERHEAD ELECTRIC LINE	(D)	STORM MAN HOLE
— G —	GAS LINE	⊅ LP	LIGHT POLE
−U/F <i>─</i> −	UNDERGROUND FIBER OPTIC LINE	⊘ PP	POWER POLE
	SIGN	•	BENCH MARK
0	SET IRON ROD (AS NOTED)	(CM)	CONTROL MONUMENT
	FOUND IRON ROD (AS NOTED)	Oco	SANITARY SEWER CLEANOUT
\otimes	"X" CUT FOUND	O.P.R.B.C.T.	OFFICIAL PUBLIC RECORDS
\otimes	"X" CUT SET		BOWIE COUNTY, TEXAS
0	FIRE HYDRANT	D.R.B.C.T.	DEED RECORDS
S	SANITARY SEWER MAN HOLE	R	BOWIE COUNTY, TEXAS UNDERGROUND UTILITIES (SUE)

3. SIDEWALK AROUND THE BUILDING SHALL NOT BE STRUCTURALLY CONNECTED

PAVING LEG	END
ISION JOINT (@ 60' MAX.)	
JT JOINT (@ 15 'MAX.)	

IRRIGATION SLEEVES 5" STANDARD DUTY CONCRETE 6" MEDIUM DUTY CONCRETE 7" DUMPSTER CONCRETE 4" SIDEWALK

	BOUNDARY LINE ADJOINER BOUNDARY LINE EASEMENT LINE (AS NOTED) WATER LINE SANITARY SEWER LINE STORM DRAIN LINE (AS NOTED)		WATER VALVE TRAFFIC SIGNAL BOX GAS SIGN MARKER WATER METER ELECTRIC PEDESTAL TELEPHONE MANHOLE
OHE — G — J/F —	OVERHEAD ELECTRIC LINE GAS LINE UNDERGROUND FIBER OPTIC LINE	© Çlp Opp	STORM MAN HOLE LIGHT POLE
0 0	SIGN SET IRON ROD (AS NOTED)	(CM)	POWER POLE BENCH MARK CONTROL MONUMENT
● ⊗ ⊗	FOUND IRON ROD (AS NOTED) "X" CUT FOUND "X" CUT SET	○∞ 0.P.R.B.C.T.	SANITARY SEWER CLEANOUT OFFICIAL PUBLIC RECORDS BOWIE COUNTY, TEXAS
҈ FH	FIRE HYDRANT SANITARY SEWER MAN HOLE	D.R.B.C.T.	DEED RECORDS BOWIE COUNTY, TEXAS UNDERGROUND UTILITIES (SU

HUNTER CROSSROADS, LP INST. NO. D207294400, O.P.R.T.C.T. PD 830 LIGHT INDUSTRIAL (I)

S89°43'48"W 161.00'

6" MEDIUM DUTY —
CONCRETE (TYP.)

SEE PAVING

DETAILS

PROPOSED 8' HIGH MASONRY -TRASH ENCLOSURE WITH METAL

GATES SEE ARCH DETAIL

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)

HUNTER CROSSROADS, LP

INST. NO. D207294400,

0.P.R.T.C.T.

PD 829

GENERAL COMMERCIAL (F)

- CONCRETE

SEE PAVING **DETAILS**

7" DUMPSTER CONCRETE SEE

PAVING DETAILS

ADA PARKING

SIGNS (TYP.)

BOLLARD MOUNTED

BIKE RACK SEE DETAIL

CONCRETE

LOT 3, BLOCK 2

VISTA CROSSROADS ADDITION INST. NO. D217048919,

O.P.R.T.C.T.

O'REILLY AUTO ENTERPRISES, LLC

INST. NO. D217230159,

O.P.R.T.C.T.

PD 827

NEIGHBORHOOD COMMERCIAL (E)

5" STANDARD DUTY ¬ CONCRETE (TYP.)

SEE PAVING

<u></u>MONUMENT

PROPOSED ¬ EXPANSION JOINT

SEE PAVING

DETAILS

PREPARE EXISTING —/ CONCRETE EDGE AS

WHEEL STOP (TYP.)

SEE PAVING **DETAILS** ∽ ADA RAMP

SHERWIN WILLIAMS

4,455 SF F.F.=846.45

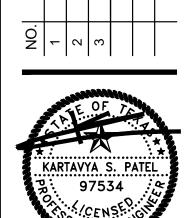
SEE SITE DETAIL

4" THICK CONCRETE —

SEE PAVING DETAILS

SIDEWALK (TYP.)

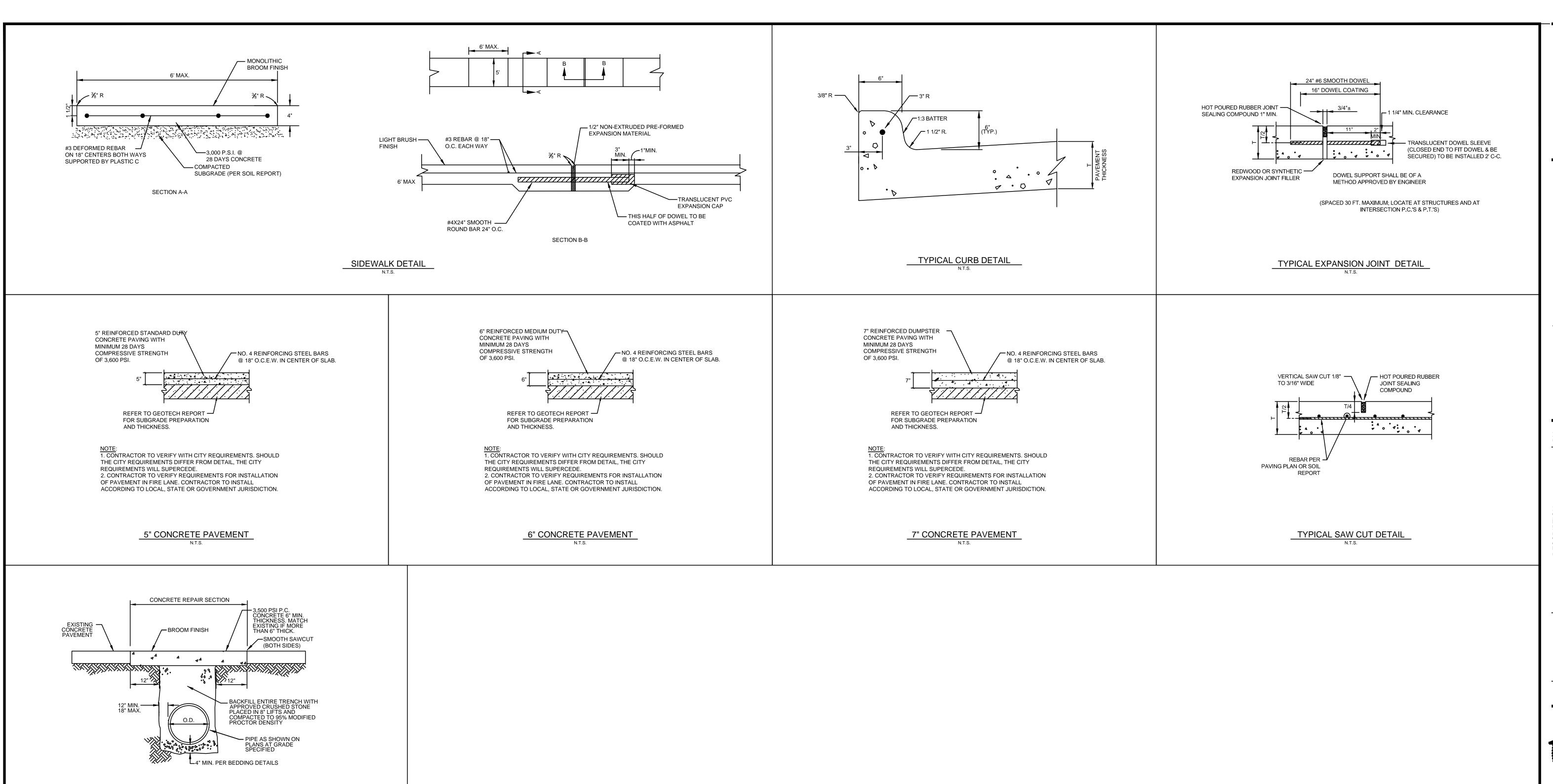
NECESSARY FOR EXPANSION JOINT



DATE | PROJECT 01/16/24 049-23

SHEET#

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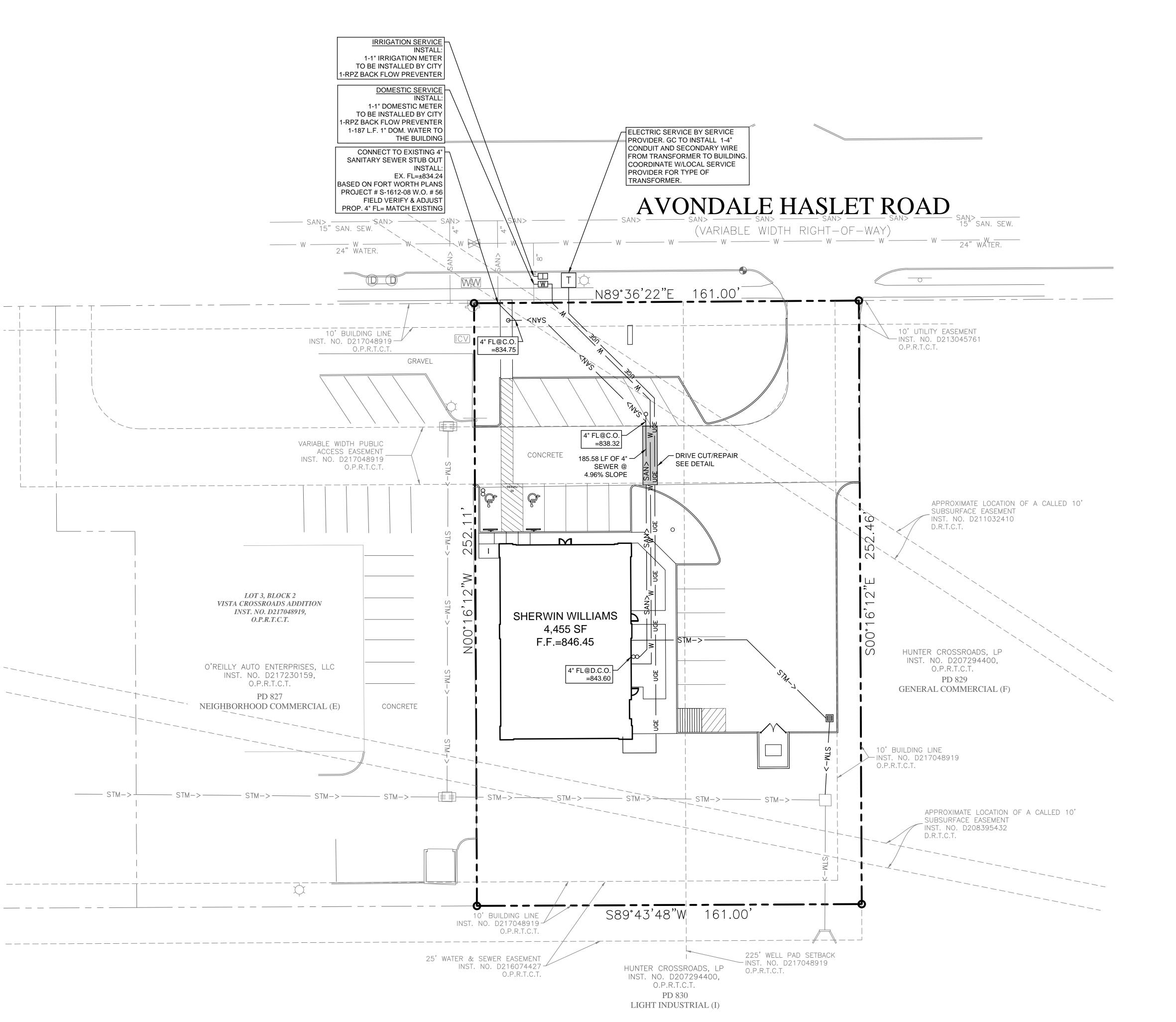
CONCRETE STREET OR DRIVE CUT/REPAIR DETAIL



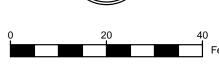
DATE | PROJECT 01/16/24 049-23 KP JZ

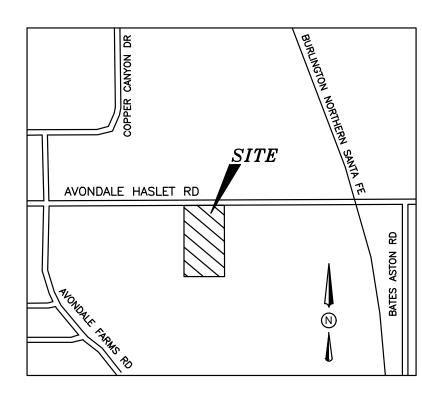
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VICINITY MAP

EXISTING LEGEND						
— STM->— — OHE — — G —	BOUNDARY LINE ADJOINER BOUNDARY LINE EASEMENT LINE (AS NOTED) WATER LINE SANITARY SEWER LINE STORM DRAIN LINE (AS NOTED) OVERHEAD ELECTRIC LINE GAS LINE UNDERGROUND FIBER OPTIC LINE SIGN SET IRON ROD (AS NOTED) FOUND IRON ROD (AS NOTED) "X" CUT FOUND "X" CUT SET FIRE HYDRANT SANITARY SEWER MAN HOLE		SANITARY SEWER CLEANOUT			

UTILITY L	EGEND
UNDERGROUND TELEPHONE LINE	UGT UGT
UNDERGROUND ELECTRIC LINE	UGE
GAS LINE	
SANITARY SEWER LINE	SAN>
WATER MAIN	w w
DOMESTIC WATER LINE	D D
STORM LINE	STM->
STORM SEWER MANHOLE	©
STORM SEWER CLEANOUT	②
SANITARY SEWER MANHOLE	\$
SANITARY SEWER CLEANOUT	0
SANITARY SEWER DOUBLE CLEANOUT	ω .
SANITARY SEWER SAMPLE PORT	•
GREASE TRAP	0 0
WATER METER IRRIGATION METER	<u>₩</u>
GAS METER	G
FIRE HYDRANT	-
FIRE DEPARTMENT CONNECTION-FDC	8
TRANSFORMER	T
LIGHT POLE	—— ⊶—□
POWER POLE	ø

EASEMENT/SETBACK LEGEND	
BUILDING SET BACK	B.S.
LANDSCAPE SETBACK	L.S.
BUILDABLE AREA SF	B.A.
PRIVATE WALL AND WALL MAINTENANCE EASEMENT	P.W.M.E
PRIVATE FENCE AND FENCE MAINTENANCE EASEMENT	P.F.M.E
SIDEWALK EASEMENT	S.E.
ELECTRICAL EASEMENT	E.E.
UTILITY EASEMENT	U.E.





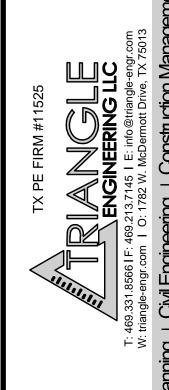
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DATE	12-21-23	01-10-24	01-16-24		
ON	1	2	3		



DATE | PROJECT 01/16/24 049-23 KP JZ

SHEET#

C-8.0



PICK HOLE POCKET

3" x 9/16"x THRU HOLE

WITH 3/16¢ 304SS ROD

METER BOX LID

METER BOX

CITY OF FORT WORTH, TEXAS

1-INCH STANDARD PLASTIC METER BOX

 $(\frac{3}{4} \& 1$ -INCH METERS) (CLASS A)

REVISED: 01-04-2017

33 12 10-D113

NOTE:

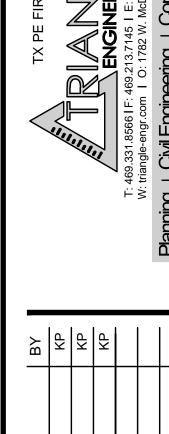
1. USE THIS METER BOX IN NON-PAVED AREAS ONLY.

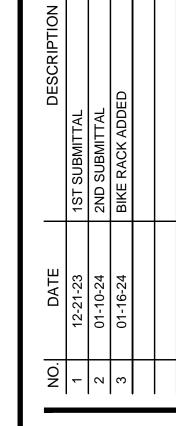
2. DIMENSIONS ± 1/8" U.N.O.

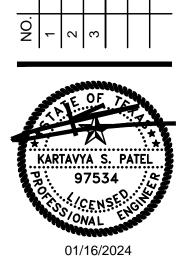
3. WALL THICKNESS: 3/8" MIN.

4. SNAP LOCK POCKET WILL RECEIVE AMR/AMI DEVICE ENDPOINT. SNAP LOCK SLOT IS 1-7/8" ± .015" TO ALLOW FOR A FINGER FORCE INSTALL. POCKET HEIGHT IS 3/8" FOR MIN 1/8" AIR GAP.

FORT WORTH





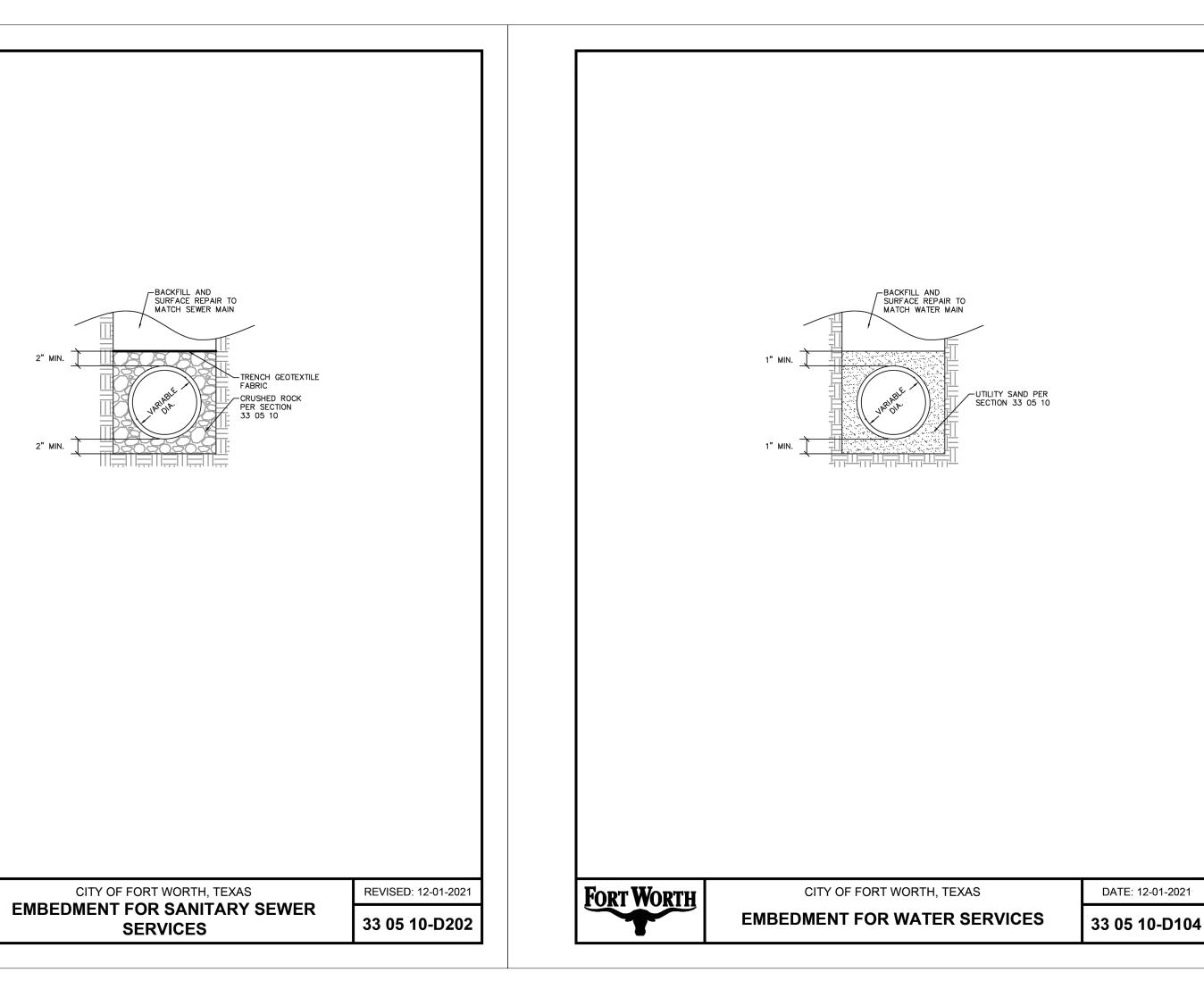


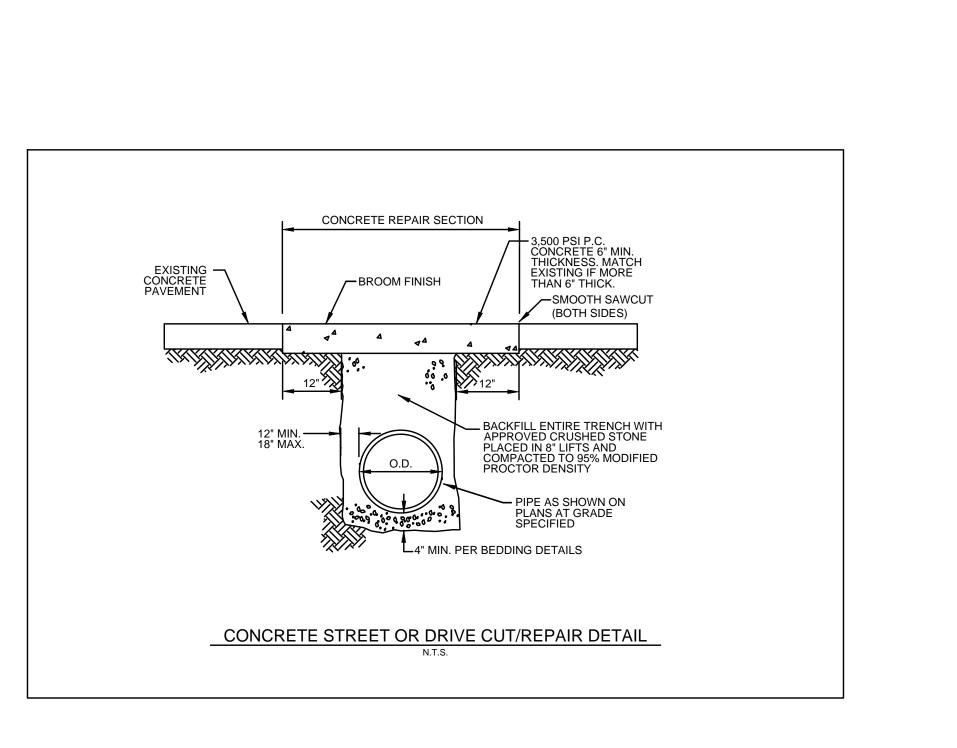
01/16/2024

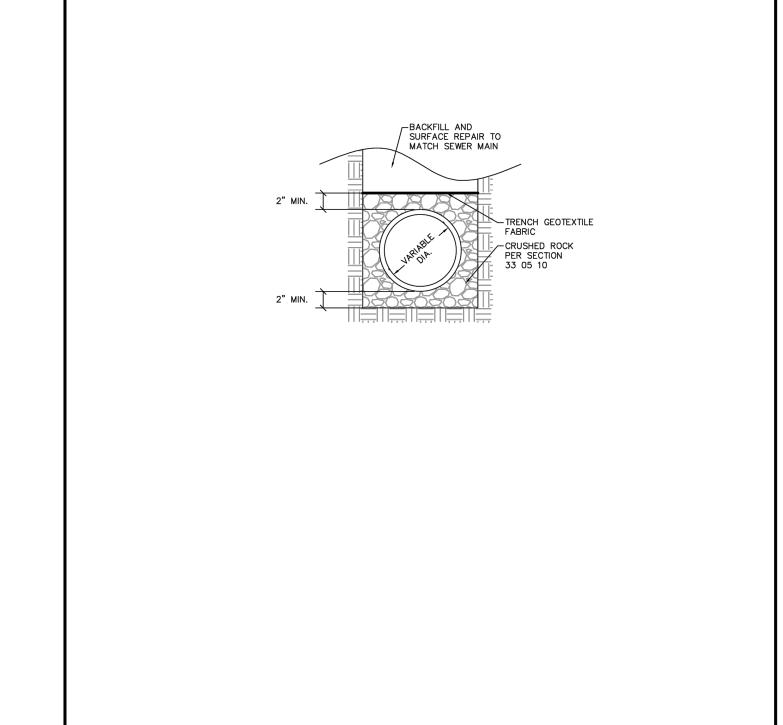
DATE | PROJECT 01/16/24 049-23 P.E. DESIGN
KP JZ

SHEET#

C-8.1

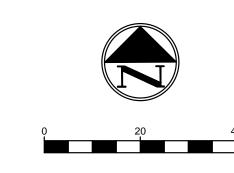


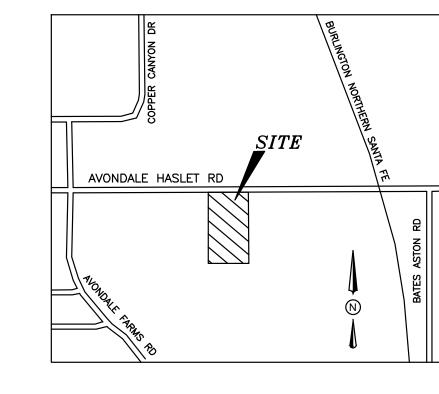




SERVICES

FORT WORTH





VICINITY MAP

EROSION CONTROL GENERAL NOTES 1. EVERY SOIL DISTURBING ACTIVITY SHALL HAVE AN ACCOMPANYING EROSION CONTROL PLAN .

2. THE STORM WATER POLLUTION PREVENTION PLAN (SWP3) SHALL BE READILY AVAILABLE FOR REVIEW BY FEDERAL, STATE, OR LOCAL OFFICIALS.

3. NO SOIL DISTURBING ACTIVITIES WILL OCCUR PRIOR TO THE SWP3 AND ASSOCIATED BEST MANAGEMENT PRACTICES (BMP) BEING FULLY IMPLEMENTED AND THEN INSPECTED.

4. THE CONTRACTOR SHALL COMPLY WITH THE CITY'S STORM WATER ORDINANCE, THE TPDES GENERAL CONSTRUCTION PERMIT TXR150000 AND ANY OTHER STATE AND/OR LOCAL REGULATIONS.

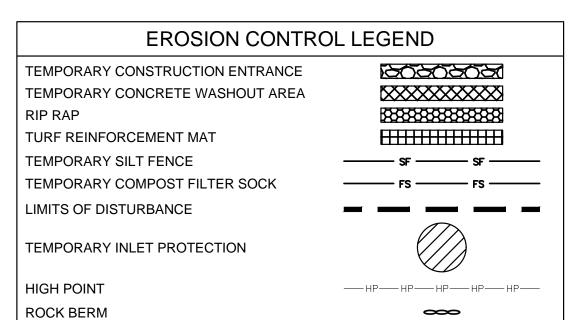
5. THE SITE SHALL BE INSPECTED BY THE CONTRACTOR OR HIS REPRESENTATIVE

WEEKLY, AND AFTER ANY MAJOR STORM. ADJUSTMENTS/REPAIRS TO THE EROSION CONTROL MEASURES SHOULD BE MADE AS NEEDED.

6. CONTRACTOR SHALL VEGETATE ALL DISTURBED AREAS IMMEDIATELY UPON COMPLETION OF GRADING ACTIVITIES. FINAL ACCEPTANCE OF A SITE SHALL BE CONTINGENT UPON VEGETATION BEING ESTABLISHED IN ALL DISTURBED AREAS.

7. ADEQUATE MEASURES SHALL BE TAKEN TO PREVENT EROSION. IN THE EVENT THAT SIGNIFICANT EROSION OCCURS AS A RESULT OF CONSTRUCTION THE CONTRACTOR SHALL RESTORE THE ERODED AREA TO ORIGINAL CONDITION OR

8. THE CONCRETE WASHOUT AREA IS TO BE USED AS A VEHICLE WASH DOWN AREA FOR DEBRIS AND SOIL REMOVAL PRIOR TO EXITING THE SITE.



EROSION CONTROL SUMMARY PROJECT DESCRIPTION: SITE GRADING, CONSTRUCTION OF PARKING LOT, UNDERGROUND AND ABOVE GROUND UTILITIES & CONSTRUCTION OF PROPOSED BUILDING. SEQUENCE OF ACTIVITIES: THE CONTRACTOR WILL SCHEDULE THE PROJECT IN A SERIES OF PHASES. IN GENERAL, THE SEQUENCE OF THESE PHASES WILL CONSIST OF: 1. INSTALL EROSION CONTROL BMP'S. 2. BEGIN EARTHWORK. 3. INSTALL WET AND DRY UTILITIES. 4. INSTALL STORM SEWER LINES AND INLETS. 5. BEGIN SITE GRADING. 6. INSTALL CURBS, DRIVEWAY AND PARKING LOT. 7. POUR BUILDING FOUNDATION PAD. 8. BEGIN VERTICAL BUILDING CONSTRUCTION. 9. INSTALL TREES, SHRUBS, ETC. AND RESTORE ALL DISTURBED VEGETATION. 10. REMOVAL OF EXISTING EROSION CONTROL BMP'S & INSTALLATION OF PERMANENT EROSION CONTROL BMP'S. SOIL DISTURBING SOIL DISTURBING ACTIVITIES WILL INCLUDE ACTIVITIES:

CLEARING & GRUBBING, GRADING, TRENCHING IN PREPARATION FOR INSTALLING UTILITIES, BUILDING PAD, PARKING LOT, EROSION & SEDIMENTATION CONTROLS AND TOPSOIL WORK FOR FINAL PLANTING AND SEEDING.

TOTAL PROJECT AREA: 0.932 ACRES TOTAL AREA DISTURBED: 0.932 ACRES

<u> </u>	1	1	1		
DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED		
DATE	12-21-23	01-10-24	01-16-24		
ON	-	2	3		



DATE | PROJECT 01/16/24 | 049-23

KP JZ

SHEET#

C-9.0

DISTURBANCE CONCRETE -CONCRETE WASHOUT AREA REFER TO 2.4% DETAIL SHEET LOT 3, BLOCK 2 VISTA CROSSROADS ADDITION INST. NO. D217048919, SHERWIN WILLIAMS O.P.R.T.C.T.4,455 SF F.F.=846.45 HUNTER CROSSROADS, LP O 2.4% 2.0% INST. NO. D207294400, O'REILLY AUTO ENTERPRISES, LLC **GRATE INLET**).P.R.T.C.T. PROTECTION PD 829 INST. NO. D217230159, O.P.R.T.C.T. REFER TO DETAIL SHEET L COMMERCIAL (F) PD 827 NEIGHBORHOOD COMMERCIAL (E) ° CONCRETE 2.4% **⇒** GRATE I'S ET PROTECT. N REFER TO **DETAIL SHEET** 1.0% ➡⇒ 1.0% _____ **EROSION & SEDIMENT CONTROLS** SOIL STABILIZATION PRACTICES: HUNTER CROSSROADS, LP SELECT T = TEMPORARY OR P = PERMANENT INST. NO. D207294400, (AS APPLICABLE) O.P.R.T.C.T. MULCHING (HAY OR STRAW) PD 830 **BUFFER ZONES** LIGHT INDUSTRIAL (I) PLANTING

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)

-CONSTRUCTION ENTRANCE REFER TO

-SILT FENCE REFER TO

SEEDING

SODDING

PRESERVATION OF NATURAL RESOURCES

COMPOST MANUFACTURED TOPSOIL

FLEXIBLE CHANNEL LINER

SOIL RETENTION BLANKET

EROSION CONTROL BLANKET

RIGID CHANNEL LINER

<u>P</u>

DETAIL SHEET

←LIMITS OF

DETAIL SHEET

15" SAN. SEW.

24"/WATER.

RECOMMENDATIONS. (1'MIN. 3'MAX.) 3. USE 8" TO 12" DIA. SOCK ON CUBSIDE IN TRAFFIC AREAS. 4. USE 12" - 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

COMPOST FILTER SOCKS ARE DESIGNED TO RETAIN SEDIMENT TRANSPORTED IN SHEET FLOW FROM DISTURBED AREAS. COMPOST FILTER SOCKS PERFORM THE SAME FUNCTION AS SILT FENCE, ALLOW A HIGHER FLOW RATE, AND ARE USUALLY FASTER AND CHEAPER TO INSTALL. WHERE ALL RUNOFF IS TO BE TREATED BY THE COMPOST FILTER SOCK THE MAXIMUM SLOPE LENGTH BEHIND THE COMPOST FILTER SOCK SHALL NOT EXCEED THOSE SHOWN IN TABLE 1. THE DRAINAGE AREA SHALL NOT EXCEED 1/4 ACRE FOR EVERY 100 FT OF COMPOST FILTER SOCK.

THE SEDIMENT AND POLLUTANT REMOVAL PROCESS CHARACTERISTIC TO COMPOST FILTER SOCKS COMBINES BOTH FILTERING AND DEPOSITION FROM SETTLING SOLIDS.THIS IS DIFFERENT THAN METHODS THAT RELY ON PONDING FOR DEPOSITION OF SOLIDS FOR SEDIMENT CONTROL, SUCH AS SILT FENCE. PONDING OCCURS WHEN WATER FLOWING TO THE COMPOST FILTER SOCK ACCUMULATES FASTER THAN THE HYDRAULIC FLOW THROUGH RATE OF THE COMPOST FILTER SOCK. HYDRAULIC FLOW-THROUGH RATS FOR COMPOST FILTER SOCKS ARE 50% GREATER THAN SILT FENCE FILTER FABRIC. GREATER HYDRAULIC FLOW-THROUGH RATES REDUCE ACCORDANCE WITH TMECC 02.02-B, "SAMPLE SIEVING FOR

COMPOST -

SECURE WITH ZIP-TIE WHEN -

STAKING IS NOT FEASIBLE OR DESIRED

FILTER SOCK

SPECIFICATIONS IN TABLE 22. COMPOST FILTER SOCKS SHALL MEET THE SPECIFICATIONS IN TABLE 3. COMPOST USED IN COMPOST FILTER SOCKS SHALL MEET THE SPECIFICATION DESCRIBED UNDER COMPOST FILTER MEDIA SPECIFICATIONS. A 12 INCH DIAMETER COMPOST FILTER SOCK SHALL BE USED ON DEVELOPMENTS WHERE THE LIFE OF THE PROJECT IS GREATER THAN OR EQUAL TO SIX MONTHS. A 12 INCH DIAMETER COMPOST FILTER SOCK MAY ALSO BE USED ON MINOR PROJECTS, SUCH AS RESIDENTIAL HOME SITES OR SMALL COMMERCIAL DEVELOPMENTS.

COMPOST FILTER MEDIA SPECIFICATIONS:

-WIRE TIED (TYP.)

AREA/GRATE INLET PROTECTION DETAIL

COMPOST USED FOR COMPOST FILTER SOCK FILLER MATERIAL (FILTER MEDIA) SHALL BE WEED FREE AND DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER. THE COMPOST SHALL BE PRODUCED USING AN AEROBIC COMPOSTING PROCESS MEETING CFR 503 REGULATIONS INCLUDING TIME AND TEMPERATURE DATA. THE COMPOST SHALL BE FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH. NON-COMPOSTED PRODUCTS WILL NOT BE ACCEPTED. TEST METHODS FOR THE ITEMS BELOW SHOULD FOLLOW US COMPOSTING COUNCIL TEST METHODS FOR THE EXAMINATION OF COMPOSTING AND COMPOST GUIDELINES FOR LABORATORY PROCEDURES:

A. PH _5.0-8.0 IN ACCORDANCE WITH TMECC 04.11-A, "ELECTROMETRIC PH DETERMINATIONS FOR COMPOST" B. PARTICLE SIZE -99% PASSING A 2 IN (50MM) SIEVE AND A MAXIMUM OF 40% PASSING A 3/8 IN (9.5MM) SIEVE, IN PONDING. COMPOST FILTER SOCKS SHALL MEET THE NETTING AGGREGATE SIZE CLASSIFICATION". (NOTE- IN THE FIELD,

> - COMPOST FILTER SOCK SIZE VARIES. SEE PLANS

AND NOTES.

PRODUCT COMMONLY IS BETWEEN ½ IN [12.5MM] AND 2 IN [50MM] PARTICLE SIZE.) MOISTURE CONTENT OF LESS THAN 60% IN ACCORDANCE

WITH STANDARDIZED TEST METHODS FOR MOISTURE DETERMINATION.

D. MATERIAL SHALL BE RELATIVELY FREE (<1% BY DRY WEIGHT) OF INERT OF FOREIGN MAN MADE MATERIALS. E. A SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEING USED AND MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS,

CONSTRUCTION SPECIFICATIONS:

COMPOST FILTER SOCK NOTES

THE COMPOST FILTER SOCK SHALL BE INSTALLED ACCORDING TO THIS SPECIFICATION, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

1. COMPOST FILTER SOCKS SHOULD BE INSTALLED PARALLEL TO THE BASE OF THE SLOPE OR OTHER DISTURBED AREA. IN EXTREME CONDITIONS (I.E., 2:1 SLOPES), A SECOND COMPOST FILTER SOCK SHALL BE CONSTRUCTED AT THE TOP OF THE 2. STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF

THE COMPOST FILTER SOCK ON 10 FT (3M) CENTERS, USING 2

EXTRA STRENGTH FILTER FABRIC

1. INSPECT AND REPAIR FENCE AFTER EACH STORM

2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN

AREA THAT WILL NOT CONTRIBUTE SEDIMENT

EVENT AND REMOVE SEDIMENT WHEN NECESSARY.

OFF-SITE AND CAN BE PERMANENTLY STABILIZED. 3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

NEEDED WITHOUT WIRE MESH SUPPORT

WOOD POST

IN (50MM) BY 2 IN (50MM) BY 3 FT (1M) WOODEN STAKES. IN THE EVENT STAKING IS NOT POSSIBLE, I.E., WHEN COMPOST FILTER SOCKS ARE USED ON PAVEMENT, HEAVY CONCRETE BLOCKS SHALL BE USED BEHIND THE COMPOST FILTER SOCKS TO HELP STABILIZE DURING RAINFALL/RUNOFF EVENTS. 3. STAKING DEPTH FOR SAND AND SILT LOAM SOILS SHALL BE 12 IN (300MM), AND 8 IN (200MM) FOR CLAY SOILS. 4. LOOSE COMPOST MAY BE BACKFILLED ALONG THE UPSLOPE SIDE OF THE COMPOST FILTER SOCK, FILLING THE SEAM BETWEEN THE SOIL SURFACE AND THE DEVICE, IMPROVING FILTRATION AND SEDIMENT RETENTION.

5. IF THE COMPOST FILTER SOCK IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE ENGINEER WILL SPECIFY SEED REQUIREMENTS.

6. COMPOST FILTER SOCKS ARE NOT TO BE USED IN PERENNIAL, EPHEMERAL, OR INTERMITTENT STREAMS.

SEDIMENT SHALL BE REMOVED ONCE IT HAS ACCUMULATED TO ONE-HALF THE ORIGINAL HEIGHT OF THE BARRIER. COMPOST FILTER SOCKS SHALL BE REPLACED WHENEVER IT HAS DETERIORATED TO SUCH AN EXTENT THAT THE EFFECTIVENESS OF COMPOST FILTER SOCK IS REDUCED. COMPOST FILTER SOCKS SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED. ALL SEDIMENT ACCUMULATION AT THE COMPOST FILTER SOCK SHALL BE REMOVED AND PROPERLY DISPOSED OF BEFORE THE COMPOST FILTER SOCK IS REMOVED.

PONDING HT.

STEEL OR -

WOOD POST

36" HIGH MAX

- 10' MAX. SPACING WITH

WIRE SUPPORT FENCE 6' MAX SPACING WITHOUT WIRE SUPPORT FENCE

SILT FENCE DETAIL

FILTER FABRIC

TO UPSTREAM

SIDE OF POST

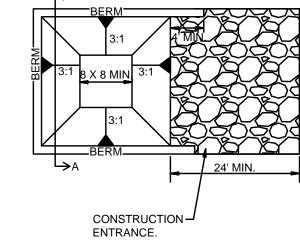
RUNOFF

└4" x 6" TRENCH

BACKFILL

WITH COMPACTED

ATTACH SECURELY



1. SEE PLAN VIEW FOR CWA INSTALLATION LOCATION. 2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRANAIGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS WITH INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINE ABOVE GROUND STORAGE SHOULD BE USED. 3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON

4. CWA SHALL INCLUDE FLAT SUBSURFACE PIT THAT IS AT LEAST 8' x 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.

5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'. 6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA. 7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND

PUMP RIGS. 8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION. 9. INSPECT BMPs EACH WORKDAY, AND MAINTAIN IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

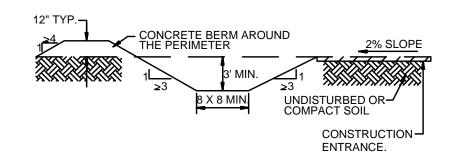
10. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 11. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

12. THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'. 13. CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN SHALL BE TRANSPORTED FROM THE JOB SITE IN A CONTAINER AND DISPOSED OF PROPERLY.

14. THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED. 15. WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH

TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BE THE LOCAL JURISDICTION.

GEOTEXTILE UNDERLINE



CONCRETE WASHOUT AREA DETAIL

. STABILIZED CONSTRUCTION ENTRANCES SHALL CONFORM TO THE CITY'S CRITERIA MANUAL

2. STONE SIZE SHALL BE 4" - 8" OPEN GRADED ROCK.

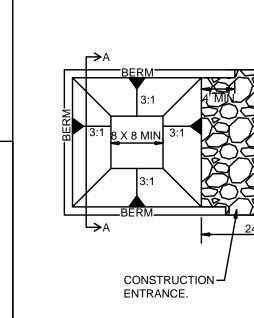
3. THICKNESS OF CRUSHED STONE PAD TO BE NOT LESS THAN 8". 4. LENGTH SHALL BE A MINIMUM OF 50' FROM ACTUAL ROADWAY AND WIDTH NOT LESS THAN FULL WIDTH OF INGRESS/EGRESS. 5. ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT

THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS OF WAY MUST BE REMOVED IMMEDIATELY BY CONTRACTOR.

RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

AS NECESSARY, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHT OF WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT

SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS. STREET R.O.W. -GRADE TO PREVENT RUNOFF FROM LEAVING TRANSITION TO-SITE. — EXISTING ROADWAY. CONSTRUCTION ENTRANCE DETAIL





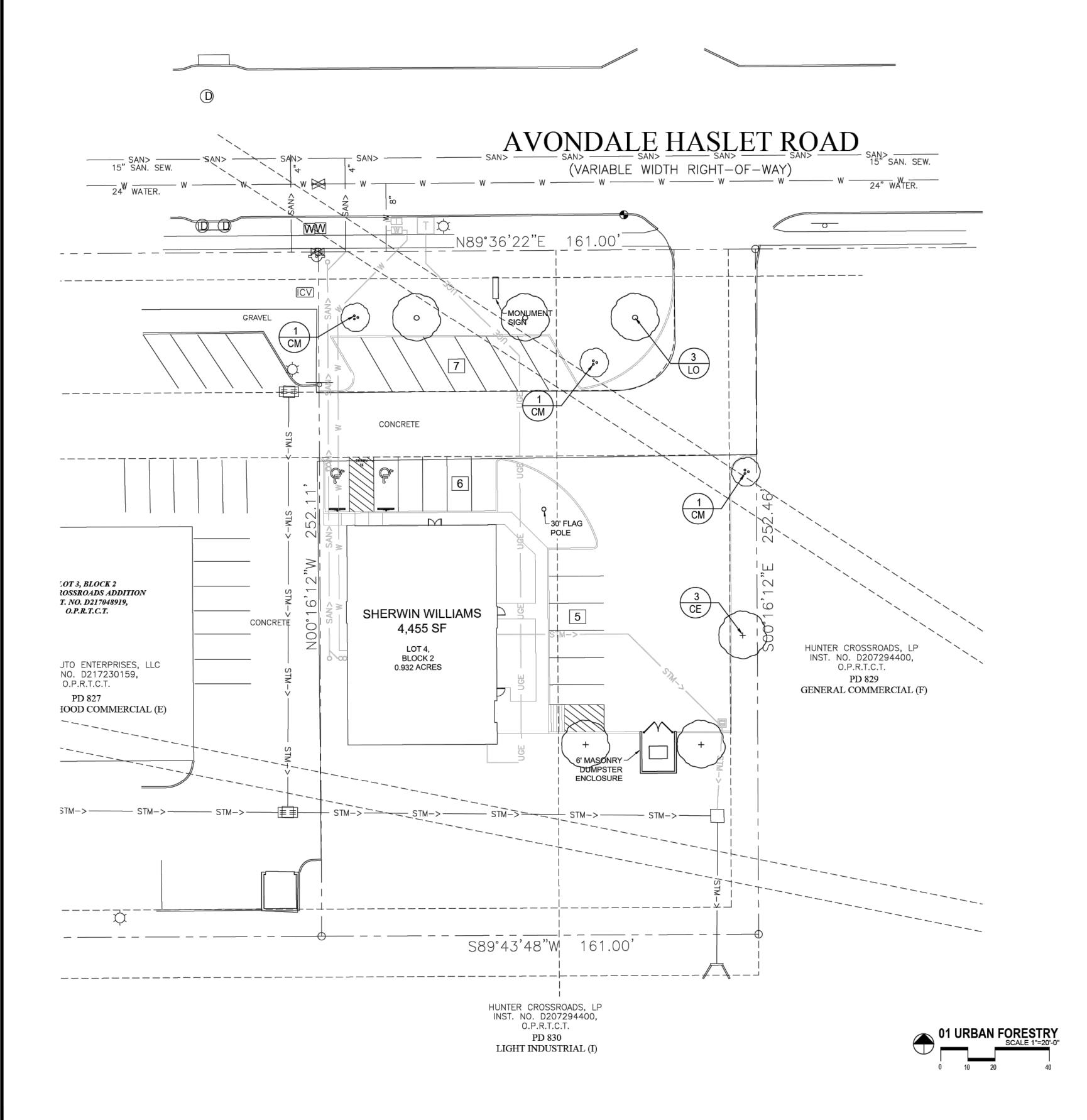
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DESCRIPTION	1ST SUBMITTAL	2ND SUBMITTAL	BIKE RACK ADDED			
DATE	12-21-23	01-10-24	01-16-24			
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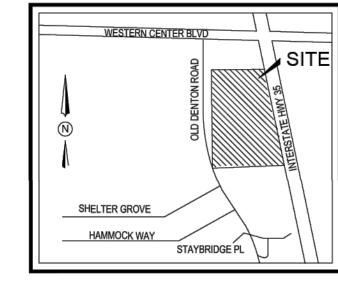


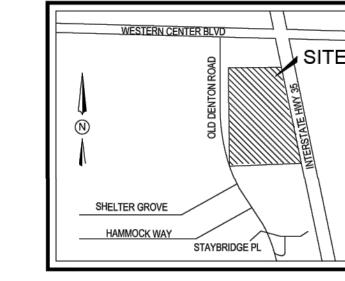
DATE | PROJECT 01/16/24 | 049-23

SHEET#

C-9.1







VICINITY MAP

URBAN FORESTRY CALCULATIONS

О	Required new planting coverage	(F – M - dd)	10,276 S.F 0.20
P	6 large canopy trees @ 2000 sq ft per tree	(Qty x 2000)	12,000 S.F 0.23
Ç	0medium canopy trees @ 700 sq ft per tree	(Qty x 700)	0 S.F
R	3 small canopy trees @ 100 sq ft per tree	(Qty x 100)	300 S.F
S	Total Planting	(P+Q+R)	12,300 S.F 0.23
U V W	Required canopy coverage of parking areas (40%) Area of canopy coverage being provided for parking Excess/deficient parking canopy	(T x .40) → (V-U)	5,187 S.F 0.10 6,100 S.F 0.14 913 S.F 0.04
V	Area of canopy coverage being provided for parking	→	6,100 S.F 0.14 913 S.F 0.04
V V	Area of canopy coverage being provided for parking Excess/deficient parking canopy	→	6,100 S.F 0.14 913 S.F 0.04
V	Area of canopy coverage being provided for parking Excess/deficient parking canopy Fulfillment of Requirements (phase 2)	→ (V-U)	6,100 S.F 0.14 913 S.F 0.04

PLANT MATERIAL SCHEDULE

TVDE	OTV	COMMONINAME	DOTANION MANE	CIZE	DEMARKS
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
CE	3	Cedar Elm	Ulmus crassifolia	3" cal.	B&B, 12 ht., 6' spread, 5' clear trunk
LO	3	Live Oak	Quercus virginiana	3" cal.	container, 12' ht., 6' spread, 5' clear trunk
CM	3	Crepe Myrtle	Lagerstroema indica	2" cal.	container, 8' ht., tree form

NOTE: Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. All plant material shall meet or exceed remarks as indicated. All trees to have straight trunks and be matching

UFC23-0236 Approved UF-2

APPROVED By Lucretia Summers at 9:47 am, Nov 07, 2023

SHERWIN WILLIAMS

2101 AVONDALE HASLET RD. VISTA CROSSROADS ADDITION BLOCK 2, LOT 4 FORT WORTH, TEXAS

PROJECT CONTACT LIST OWNER/DEVELOPER FORT WORTH DEVELOPMENT GROUP, ENGINEER TRIANGLE ENGINEERING LLC 1782 W MCDERMOTT DRIVE 120 MARKET SQ., FLOOR 2, PINEHURST, NC 28374 CONTACT: GAVIN MELIA TEL: 910 724 6720 ALLEN, TEXAS 75013 CONTACT: JACK ZANGER TEL: 469-331-8566

SURVEYOR
TRAVERSE LAND SURVEYING LLC
14200 MIDWAY ROAD, SUITE 130
DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339

LANDSCAPE ARCHITECT 1782 W McDERMOTT DR. ALLEN, TEXAS 75013 (469) 369-4448 CHRIS@STUDIOGREENSPOT.COM



AVONDALE HA

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I	TE OF TA
ı	KARTAVYA S. PATEL
ı	P. 97534 E. ONAL
ı	01/16/2024

FOR APPROVAL 10.26.2023

DATE: 10.26.2023 SHEET NAME:

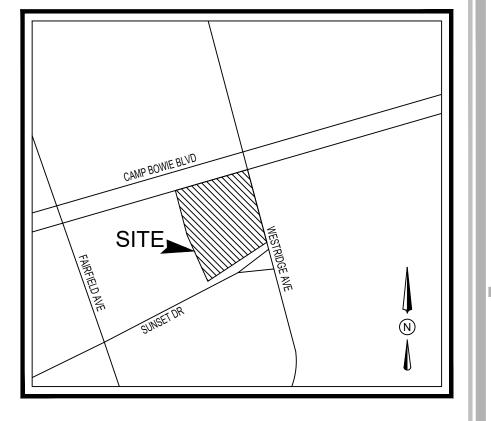
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URBAN FORESTRY- PHASE 2 SHEET NUMBER:

UF-2

DATE PROJECT 01/16/24 049-23

> SHEET# C-9.0



GENERAL LAWN NOTES

- FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED ON CIVIL PLANS.
- ADJUST CONTOURS TO ACHIEVE POSITIVE DRAINAGE AWAY FROM BUILDINGS. PROVIDE UNIFORM ROUNDING AT TOP AND BOTTOM OF SLOPES AND OTHER BREAKS IN GRADE. CORRECT IRREGULARITIES AND AREAS WHERE WATER MAY STAND.
- OF 1" BELOW FINAL FINISH GRADE. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.

 IMPORTED TOPSOIL SHALL BE NATURAL, FRIABLE SOIL FROM THE

ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM

- REGION, KNOWN AS BOTTOM AND SOIL, FREE FROM LUMPS, CLAY, TOXIC SUBSTANCES, ROOTS, DEBRIS, VEGETATION, STONES, CONTAINING NO SALT AND BLACK TO BROWN IN COLOR.
- 5. ALL LAWN AREAS TO BE FINE GRADED, IRRIGATION TRENCHES COMPLETELY SETTLED, AND FINISH GRADE APPROVED BY THE OWNER'S CONSTRUCTION MANAGER OR ARCHITECT PRIOR TO INSTALLATION.
- 6. ALL ROCKS 3/4" DIAMETER AND LARGER, DIRT CLODS, STICKS, CONCRETE SPOILS, ETC. SHALL BE REMOVED PRIOR TO PLACING TOPSOIL AND ANY LAWN INSTALLATION
- 7. CONTRACTOR SHALL PROVIDE (1") ONE INCH OF IMPORTED TOPSOIL ON ALL AREAS TO RECEIVE LAWN.

LANDSCAPE NOTES

- 1. CONTRACTOR SHALL VERIFY ALL EXISTING AND PROPOSED SITE ELEMENTS AND NOTIFY ARCHITECT OF ANY DISCREPANCIES. SURVEY DATA OF EXISTING CONDITIONS WAS SUPPLIED BY OTHERS.
- 2. CONTRACTOR SHALL LOCATE ALL EXISTING UNDERGROUND UTILITIES AND NOTIFY ARCHITECT OF ANY CONFLICTS. CONTRACTOR SHALL EXERCISE CAUTION WHEN WORKING IN THE VICINITY OF UNDERGROUND UTILITIES.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.
- CONTRACTOR TO PROVIDE A MINIMUM 2% SLOPE AWAY FROM ALL STRUCTURES.
- 5. ALL PLANTING BEDS AND LAWN AREAS TO BE SEPARATED BY STEEL EDGING. NO STEEL TO BE INSTALLED ADJACENT TO SIDEWALKS OR CURBS.
- 6. ALL LANDSCAPE AREAS TO BE 100% IRRIGATED WITH AN UNDERGROUND AUTOMATIC IRRIGATION SYSTEM AND SHALL INCLUDE RAIN AND FREEZE SENSORS.
- 7. ALL LAWN AREAS TO BE HYDRO-MULCH BERMUDAGRASS, UNLESS OTHERWISE NOTED ON THE DRAWINGS.

HYDROMULCH NOTES

- 1. ALL LAWN AREAS TO BE HYDROMULCH BERMUDAGRASS, UNLESS NOTED OTHERWISE ON DRAWINGS.

 VICINITY MAP

 N.T.S.
- 2. CONTRACTOR SHALL SCARIFY, RIP, LOOSEN ALL AREAS TO BE HYDROMULCHED TO A MINIMUM DEPTH OF 4" PRIOR TO TOPSOIL AND HYDROMULCH INSTALLATION.
- BERMUDAGRASS SEED SHALL BE EXTRA HULLED AND TREATED LAWN TYPE AND SHALL BE DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER, AND SHALL MEET TEXAS STATE LAW REQUIREMENTS.
- 4. FIBER: SHALL BE ONE HUNDRED (100%) PERCENT WOOD CELLULOSE FIBER, DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER. 'CONWEB' OR EQUAL.
- 5. FIBER TACK: SHALL BE DELIVERED TO THE SITE IN ITS ORIGINAL UNOPENED CONTAINER, AND SHALL BE 'TERRO-TACK ONE', AS MANUFACTURED BY GROWERS, INC., OR EQUAL.
- 6. HYDROMULCH WITH BERMUDAGRASS SEED AT A RATE OF TWO (2) POUNDS PER ONE THOUSAND (1000) SQUARE FOOT.
- 7. USE A 4'X8' BATTER BOARD AGAINST ALL BEDS AREAS.
- 8. IF INSTALLATION OCCURS BETWEEN SEPTEMBER 1 AND APRIL 1, ALL HYDROMULCH AREAS TO BE WINTER RYEGRASS, AT A RATE OF FOUR (4) POUNDS PER ONE THOUSAND (1000) SQUARE FEET. CONTRACTOR SHALL BE REQUIRED TO RE-HYDROMULCH WITH BERMUDAGRASS THE FOLLOWING GROWING SEASON.
- 9. IN THE EVENT RYE GRASS IS NECESSARY DUE TO TIME OF YEAR INSTALLATION, IT SHALL BE THE RESPONSIBILTY OF THE CONTRACTOR TO SCALP EXISTING GRASS, BAG CLIPPINGS, AND SCARIFY SOIL TO A DEPTH OF 1" PRIOR TO PERNAMENT LAWN GRASS INSTALLATION.
- 10. ALL LAWN AREAS TO BE HYDROMULCHED, SHALL HAVE ONE HUNDRED (100%) PERCENT COVERAGE PRIOR TO FINAL ACCEPTANCE.
- 11. CONTRACTOR SHALL MAINTAIN ALL LAWN AREAS UNTIL FINAL ACCEPTANCE. THIS SHALL INCLUDE BUT NOT BE LIMITED TO: MOWING, WATERING, WEEDING, CULTIVATING, CLEANING, AND REPLACING DEAD OR BARE AREAS TO KEEP PLANTS IN A VIGOROUS, HEALTHY CONDITION.
- 2. CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF AN ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT FROM LOCAL SUPPLY AS NECESSARY.

PLANT MATERIAL SCHEDULE -

TREES					
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
LO	3	Live Oak	Lagerstroemia indica	3" cal.	container, 12' ht., 5' spread 5' clear trunk
CE	3	Cedar Elm	Ulmus crassifolia	3" cal.	container, 12' ht., 5' spread 5' clear trunk
CM	3	Crepe Myrtle	Lagerstroema indica	2" cal.	container, 8' ht., tree form
SHRUBS					
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
NPH	60	Needlepoint Holly	llex x cornuta 'Needlepoint'	5 gal.	container, 24" ht., 20" spread
NRS	13	Nellie R. Stevens	Ilex x 'Nellie R. Stevens'	5 gal.	container, 24" ht., 24" spread
GROUNE	COVERS				
TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
LIR	360	Liriope	Liriope muscari	4" pots	container full, well rooted
\		'419' Bermudagrass	Cynodon dactylon '419'	+ pots	Hydro-mulch refer to notes

LANDSCAPE TABULATIONS -

THEOCH E HOLDING		
	REQUIRED	PROVIDED
GROSS SITE AREA (S.F.)	40,617.97 S.F.	
LESS BUILDING AREA (S.F.)	4,455 S.F.	
NET SITE AREA (S.F.)	36,162.97 S.F.	
REQUIRED LANDSCAPE (X 10%)	3,616.30 S.F.	19,299.47 S.F.
REQUIRED SHRUBS	73	73
5 GALLON MIN, (DIVIDED BY 50)		
LANDSCAPE AREA IN FRONT YARD (75%)	2,712.23 S.F.	5,420.61 S.F.
SHRUBS IN FRONT YARD (75%)	55	60

SHERWIN WILLIAMS

2101 AVONDALE HASLET RD.
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
FORT WORTH, TEXAS

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01 AVONDALE HASLET RI FORT WORTH, TEXAS

WILLIAMS

SHERWIN

ISSUE: FOR APPROVAL 10.26.2023

OWNER COMMENTS 11.28.2023
CITY COMMENTS 01.15.2024

DATE:

01.15.2024

SHEET NAME: LANDSCAPE PLAN

SHEET NUMBER:

L.

SECTION 02900 - LANDSCAPE

PART 1 - GENERAL

1.1 REFERENCED DOCUMENTS

Refer to bidding requirements, special provisions, and schedules for additional requirements.

Work included: Furnish all supervision, labor, materials, services, equipment and appliances required to complete the work covered in conjunction with the landscaping covered in these specifications and landscaping plans, including:

- Planting (trees, shrubs, and grass)
- Bed preparation and fertilization . Notification of sources
- 4. Water and Maintenance until final acceptance Guarantee

1.3 REFERENCE STANDARDS

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

C. Grass Areas:

3.2 INSTALLATION

B. All planting areas shall be conditioned as follows:

batter board against the bed areas.

- American Standard for Nursery Stock published by American Association of Nurserymen: 27 October 1980, Edition; by American National Standards Institute, Inc. (Z60.1) – plant
- American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized
- Texas Association of Nurserymen, Grades and Standards.
- Hortis Third, 1976 Cornell University

1.4 NOTIFICATION OF SOURCES AND SUBMITTALS

- The Contractor shall, within ten (10) days following acceptance of bid, notify the Architect/Owner of the sources of plant materials and bed preparation required for the
- Samples: Provide representative quantities of sandy loam soil, mulch, bed mix material, gravel, and crushed stone. Samples shall be approved by Architect before use on
- Product Data: Submit complete product data and specifications on all other specified
- Submit three representative samples of each variety of ornamental trees, shrubs, and groundcover plants for Architect's approval. When approved, tag, install, and maintain as representative samples for final installed plant materials.
- File Certificates of Inspection of plant material by state, county, and federal authorities

Landscape Contractor to inspect all existing conditions and report any deficiencies to the

1. Prepare new planting beds by scraping away existing grass and weeds as necessary.

Till existing soil to a depth of six (6") inches prior to placing compost and fertilizer.

compost and till into a depth of six (6") inches of the topsoil. Apply organic fertilizer

such as Sustane or Green Sense at the rate of twenty (20) pounds per one thousand

Apply fertilizer as per manufacturers recommendations. Add six (6") inches of

Backfill for tree pits shall be as follows: Use existing top soil on site (use imported

topsoil as needed) free from large clumps, rocks, debris, caliche, subsoils, etc.,

1. Areas to be Solid Sod Bermudagrass: Blocks of sod should be laid joint to joint, (staggered joints) after fertilizing the ground first. Roll grass areas to achieve a

topsoil where they are evidently gaped open, then watered thoroughly.

smooth, even surface. The joints between the blocks of sod should be filled with

seed at a rate of two (2) pounds per one thousand (1,000) square feet. Use a 4' x 8'

2. Areas to be Hydromulch Common Bermudagrass: Hydromulch with bermudagrass

Maintenance of plant materials shall begin immediately after each plant is delivered to the

site and shall continue until all construction has been satisfactorily accomplished.

plants remain the property of the Contractor until final acceptance.

Position the trees and shrubs in their intended location as per plan.

Plant materials shall be delivered to the site only after the beds are prepared and area

ready for planting. All shipments of nursery materials shall be thoroughly protected from

the drying winds during transit. All plants which cannot be planted at once, after delivery

to the site, shall be well protected against the possibility of drying by wind and sun. Balls

of earth of B & B plants shall be kept covered with soil or other acceptable material. All

Notify the Landscape Architect for inspection and approval of all positioning of plant

depth that, when planted and settled, the crown of the plant shall bear the same

relationship to the finish grade as it did to soil surface in original place of growth.

Excavate pits with vertical sides and horizontal bottom. Tree pits shall be large enough to

permit handling and planting without injury to balls of earth or roots and shall be of such

2. All planting areas shall receive a two (2") inch layer of specified mulch.

placed in nine (9") inch layers and watered in thoroughly.

Soil Analysis: Provide sandy loam soil analysis if requested by the Architect.

JOB CONDITIONS

- A. General Contractor to complete the following punch list: Prior to Landscape Contractor initiating any portion of landscape installation, General Contractor shall leave planting bed areas three (3") inches below finish grade of sidewalks, drives and curbs as shown on the drawings. All lawn areas to receive solid sod shall be left one (1") inch below the finish grade of sidewalks, drives, and curbs. All construction debris shall be removed prior to Landscape Contractor beginning any work.
- General Contractor shall provide topsoil as described in Section 02200 Earthwork.
- Storage of materials and equipment at the job site will be at the risk of the Landscape Contractor. The Owner cannot be held responsible for theft or damage.

1.6 MAINTENANCE AND GUARANTEE

Maintenance:

- The Landscape Contractor will be held responsible for the maintenance of all work from the time of planting until final acceptance by the Owner. No trees, shrubs, groundcover or grass will be accepted unless they show a healthy growth and satisfactory foliage conditions.
- Maintenance shall include watering of trees and plants, cultivation, weeding spraying, edging, pruning of trees, mowing of grass, cleaning up and all other work necessary of maintenance. 3. A written notice requesting final inspection and acceptance should be submitted to
- the Owner at least seven (7) days prior to completion. An on-site inspection by Owner and Landscape Contractor will be completed prior to written acceptance. 4. After final acceptance of installation, the Landscape Contractor will not be required to

do any of the above listed work.

- Trees shall be guaranteed for a twelve (12) month period after acceptance. Shrubs and groundcover shall be guaranteed for twelve (12) months. The Contractor shall replace all dead materials as soon as weather permits and upon notification of the Owner. Plants, including trees, which have partially died so that shape, size, or symmetry has been damaged, shall be considered subject to replacement. In such cases, the opinion of the Owner shall be final.
- a. Plants used for replacement shall be of the same size and kind as those originally planted and shall be planted as originally specified. All work, including materials, labor and equipment used in replacements, shall carry a twelve (12) month guarantee. Any damage, including ruts in lawn or bed areas, incurred as a result of making replacements shall be immediately
- b. At the direction of the Owner, plants may be replaced at the start of the next year's planting season. In such cases, dead plants shall be removed from the premises immediately.
- c. When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and reinspected for full compliance with Contract requirements. All replacements are to be included under "Work" of

Shrub and tree pits shall be no less than two (2') feet, twenty-four (24") inches, wider than

the lateral dimension of earth ball and six (6") inches deeper than it's vertical dimension.

Remove and haul from site all rocks and stones over one (1") inch in diameter. Plants

Dig a wide, rough sided hole exactly the same depth as the height of the ball, especially at

the surface of the ground. The sides of the hole should be rough and jagged, never slick

hours, the tree needs to move to another location or have drainage added. Install a PVC

Backfill only with 5 parts existing soil or sandy loam and 1 part bed preparation. When

the hole is dug in solid rock, topsoil from the same area should not be used. Carefully

as well as all nylon, plastic string and wire mesh. Container trees will usually be pot

settle by watering to prevent air pockets. Remove the burlap from the top 1/3 of the ball,

Mulch the top of the ball. Do not plant grass all the way to the trunk of the tree. Leave the

area above the top of the ball and mulch with at least two (2") inches of specified mulch.

All plant beds and trees to be mulched with a minimum settled thickness of two (2")

obstructions are encountered in any plant pit excavation work to be done under this

section, alternate locations may be selected by the Owner. Where locations cannot be

properly set at the required grade. The work of this section shall include the removal from

changed, the obstructions shall be removed to a depth of not less than three (3') feet

below grade and no less than six (6") inches below the bottom of ball when plant is

Trees and large shrubs shall be staked as site conditions require. Position stakes to

Pruning and Mulching: Pruning shall be directed by the Architect and shall be pruned in

accordance with standard horticultural practice following Fine Pruning, Class I pruning

tipping of the branched is not permitted. Do not cut terminal branches.

1. Dead wood or suckers and broken badly bruised branches shall be removed. General

. Immediately after planting operations are completed, all tree pits shall be covered with

1. Curbing shall be aligned as indicated on plans. Stake out limits of steel curbing and

Stakes are to be installed on the planting bed side of the curbing, as opposed to the

Storage areas for all materials shall be so organized that they, too, are neat and orderly.

All trash and debris shall be removed from the site as work progresses. Keep paved

a layer of organic material two (2") inches in depth. This limit of the organic material

the site of such rock or underground obstructions encountered at the cost of the

N. Obstruction below ground: In the event that rock, or underground construction work or

H. Percolation Test: Fill the hole with water, If the water level does not percolate within 24

stand pipe per tree planting detail as approved by the Landscape Architect.

should be thoroughly moist before removing containers.

bound, if so follow standard nursery practice of 'root scoring'.

Do not wrap trees.

Q. Steel Curbing Installation:

3.3 CLEANUP AND ACCEPTANCE

inches over the entire bed or pit.

secure tree against seasonal prevailing winds.

standards provided by National Arborist Association.

. Pruning shall be done with clean, sharp tools.

for trees shall be the diameter of the plant pit.

obtain Owners approval prior to installation.

2. Do not install steel edging along sidewalks.

All steel curbing shall be free of kinks and abrupt bends 3. Top of curbing shall be 3/4" maximum height above grade.

areas clean by sweeping or hosing at end of each days work.

3. Cut steel edging at 45 degree angle where edging meets sidewalk.

A. Cleanup: During the work, the premises shall be kept neat and orderly at all times.

END OF SECTION

K. Do not over prune.

- 2. The Owner agrees that for the guarantee to be effective, he will water plants at least twice a week during dry periods and cultivate beds once a month after final
- 3. The above guarantee shall not apply where plants die after acceptance because of injury from storms, hail, freeze, insects, diseases, injury by humans, machines or
- 4. Acceptance for all landscape work shall be given after final inspection by the Owner provided the job is in a completed, undamaged condition, and there is a stand of grass in all lawn areas. At this time, the Owner will assume maintenance on the accepted work.
- Repairs: Any necessary repairs under the Guarantee must be made within ten (10) days after receiving notice, weather permitting, and in the event the Landscape Contractor does not make repairs accordingly, the Owner, without further notice to Contractor, may provide materials and men to make such repairs at the expense of the Landscape

1.7 QUALITY ASSURANCE

- General: Comply with applicable Federal, State, County and Local regulations governing
- Personnel: Employ only experienced personnel who are familiar with the required work. Provide full time supervision by a qualified foreman acceptable to Landscape Architect.

Selection of Plant Material:

- . Make contact with suppliers immediately upon obtaining notice of contract acceptance to select and book materials. Develop a program of maintenance (pruning and fertilization) which will insure the purchased materials will meet and/or exceed project
- 2. Landscape Architect will provide a key identifying each tree location on site. Written verification will be required to document material selection, source and delivery schedules to site.
- 3. Owner and/or Architect shall inspect all plant materials when reasonable at place of growth for compliance with requirements for genus, species, cultivar/variety, size and 4. Owner and/or Architect retains the right to further inspect all plant material upon

arrival at the site and during installation for size and condition of root balls, limbs,

- branching habit, insects, injuries, and latent defects. 5. Owner and/or Architect may reject unsatisfactory or defective material at any time
- during the process of work. Remove rejected materials from the site immediately. Plants damaged in transit or at job site shall be rejected.

1.8 PRODUCT DELIVERY, STORAGE AND HANDLING

. Balled and Burlapped (B&B) Plants: Dig and prepare shipment in a manner that will not damage roots, branches, shape, and future development. 2. Container Grown Plants: Deliver plants in rigid container to hold ball shape and protect root mass.

A. Delivery:

- 1. Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored
- 2. Deliver only plant materials that can be planted in one day unless adequate storage
- and watering facilities are available on job site. 3. Protect root balls by heeling in with sawdust or other approved moisture retaining
- material if not planted within 24 hours of delivery. 4. Protect plants during delivery to prevent damage to root balls or desiccation of leaves.
- Keep plants moist at all times. Cover all materials during transport.
- 5. Notify Architect of delivery schedule 72 hours in advance so plant material may be observed upon arrival at job site. 6. Remove rejected plant material immediately from site.
- 7. To avoid damage or stress, do not lift, move, adjust to plumb, or otherwise manipulate plants by trunk or stems.

PART 2 - PRODUCTS

2.1 PLANTS

- General: Well-formed No. 1 grade or better nursery grown stock. Listed plant heights are from tops of root balls to nominal tops of plants. Plant spread refers to nominal outer width of the plant, not to the outer leaf tips. Plants will be individually approved by the Architect and his decision as to their acceptability shall be final.
- Quantities: The drawings and specifications are complimentary. Anything called for on one and not the other is as binding as if shown and called for on both. The plant schedule is an aid to bidders only. Confirm all quantities on plan.
- C. Quality and size: Plant materials shall conform to the size given on the plan, and shall be healthy, symmetrical, well-shaped, full branched, and well rooted. The plants shall be free from injurious insects, diseases, injuries to the bark or roots, broken branches, objectionable disfigurements, insect eggs and larvae and are to be of specimen quality.
- Approval: All plant materials shall be subject to the approval of the Owner. All plants which are found unsuitable in growth, or in any unhealthy, badly shaped, or undersized condition, will be rejected by the Landscape Architect, either before or after planting, and shall be removed at the expense of the Landscape Contractor and replaced with acceptable plants as specified.
- Trees shall be healthy, full-branched, well-shaped and shall meet the trunk diameter and height requirements of the plant schedule. Balls shall be firm, neat, slightly tapered, and well wrapped in burlap. Any tree loose in the ball or with broken ball at time of planting will be rejected. Balls shall be ten (10") inched in diameter for each one (1") inch of trunk diameter. Measured six (6") inched above ball. Nomenclature conforms to the customary nursery usage: for clarification, the term

executed by the Landscape Contractor at no additional cost to the Owner.

"multi-trunk" defines a plant having three (3) or more trunks of nearly equal diameter.

Pruning: All pruning of trees and shrubs, as directed by the Landscape Architect, shall be

A = ROW SPACING

PLANT ROW SPACING 'D' ROW SPACING 'A' PLANTS/10SF

PREPARED SOIL MIX

PER SPECIFICATIONS

WITH STAKES

—1/2" MAXIMUM

NOTE: NO STEEL EDGING TO BE INSTALLED

ALONG SIDEWALKS

NOT TO SCALE

B = ON CENTER SPACING

INDICATED ON PLANT LIST.

MULCH IN BED PRIOR TO —

SPECIFICATIONS

SPACE PLANTS IN A TRIANGULAR

FROM EACHOTHER AT SPACING

PLANTING GROUNDCOVER/ANNUALS. \

PREPARE GROUNDCOVER

BED BY TILLING ENTIRE BED-

AREA. PROVIDE SOIL MIX

AS DEFINED IN THE LANDSCAPE

STEEL EDGING DETAIL

PATTERNAS SHOWN, SPACED EQUALLY

2" MULCH DOUBLE SHREDDED HARDWOOD

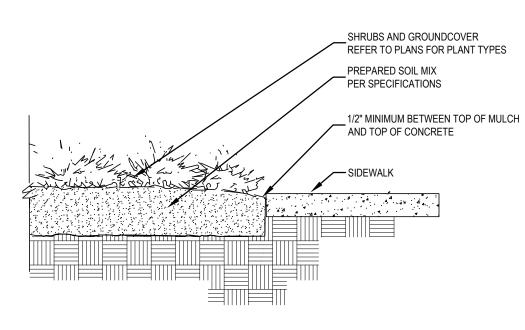
SOIL PREPARATION MATERIALS

A. Sandy Loam:

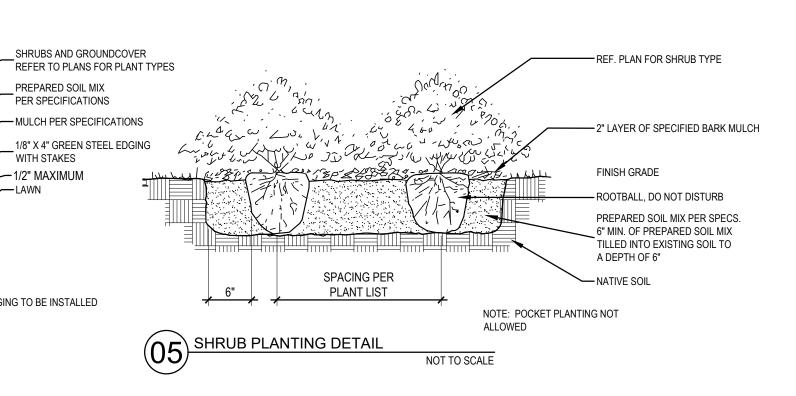
- 1. Friable, fertile, dark, loamy soil, free of clay lumps, subsoil, stones and other extraneous material and reasonably free of weeds and foreign grasses. Loam
- containing Dallasgrass or Nutgrass shall be rejected. 2. Physical properties as follows: Clay – between 7-27 percent
 - Silt between 15-25 percent Sand – less than 52 percent
- 3. Organic matter shall be 3%-10% of total dry weight. 4. If requested, provide a certified soil analysis conducted by an approved soil testing
- laboratory verifying that sandy loam meets the above requirements.
- Organic Material: Compost with a mixture of 80% vegetative matter and 20% animal waste. Ingredients should be a mix of course and fine textured material.
- C. Premixed Bedding Soil as supplied by Vital Earth Resources, Gladewater, Texas; Professional Bedding Soil as supplied by Living Earth Technology, Dallas, Texas or Acid Gro Municipal Mix as supplied by Soil Building Systems, Dallas, Texas or approved equal.
- Sharp Sand: Sharp sand must be free of seeds, soil particles and weeds.
- Mulch: Double Shredded Hardwood Mulch, partially decomposed, dark brown. Living Earth Technologies or approved equal.
- F. Organic Fertilizer: Fertilaid, Sustane, or Green Sense or equal as recommended for required applications. Fertilizer shall be delivered to the site in original unopened containers, each bearing the manufacturer's guaranteed statement of analysis.
- Commercial Fertilizer: 10-20-10 or similar analysis. Nitrogen source to be a minimum 50% slow release organic Nitrogen (SCU or UF) with a minimum 8% sulphur and 4% iron,
- B. Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or

other approved organic material. MISCELLANEOUS MATERIALS

- A. Steel Edging: Shall be Ryerson "Estate Curbing", 1/8" x 4" with stakes 4' on center.
- B. Staking Material for Shade Trees:
- 1. Post: Studded T-Post, #1 Armco with anchor plate; 6'-0" length; paint green. 2. Wire: 12 gauge, single strand, galvanized wire. 3. Rubber hose: 2 ply, fiber reinforced hose, minimum ½ inch inside diameter. Color:
- C. Gravel: Washed native pea gravel, graded 1 in. to 1-1/2 in.
- Filter Fabric: Mirafi 140N by Celanese Fibers Marketing Company, available at Loftland Co., (214) 631-5250 or approved equal.







SHERWIN WILLIAMS

2101 AVONDALE HASLET RD. VISTA CROSSROADS ADDITION BLOCK 2, LOT 4 FORT WORTH, TEXAS

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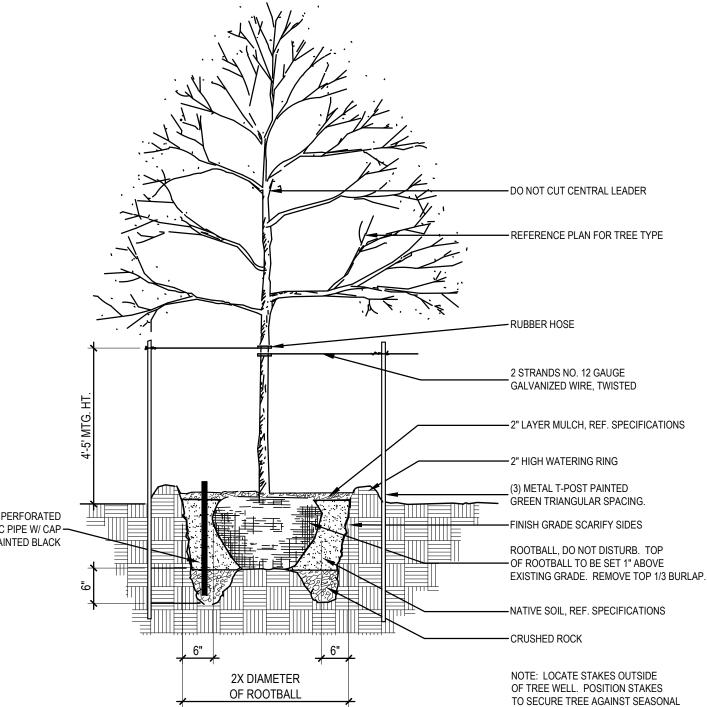
ISSUE: FOR APPROVAL 10.26.2023

DATE:

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SHEET NAME: LANDSCAPE SPECIFICATIONS

SHEET NUMBER:



TREE PLANTING DETAIL

NOT TO SCALE

4" DIA. PERFORATED PVC PIPE W/ CAP -PAINTED BLACK

PREVAILING WINDS.

TCEQ NOTES

- All irrigation equipment to be located no closer than 4" to any pavement and / or structure
- Electrical splices at each valve and controller only.
- Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TECQ) MC-178 / P.O. BOX 13087 Austn, Texas 78711-3087

BUBBLER PIPING CHART

www.teceq.state.tx.us

1-5 BUBBLERS - 1/2" PIPE 6-10 BUBBLERS - 3/4" PIPE 11-20 BUBBLERS - 1" PIPE 21-30 BUBBLERS - 1 1/4" PIPE 31-40 BUBBLERS - 1 1/2" PIPE

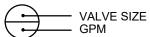
IRRIGATION LEGEND

- Hunter PRS30-04 4" Pop-up Spray Head with Plastic Hunter Pro Adjustable Nozzle
- Hunter PGP Ultra-04 Rotors
- Hunter Multi-Stream Bubbler Nozzle on Hunter PRS30-06 Pop-up Spray Head
- Spray, Rotor & Bubbler Zones-Hunter PGV Control Valves (See Plan for Size)
 Drip Zones-Hunter ICZ Drip Zone Control Kits (See Plan for Size)
- Hunter I-Core series Controller with Hunter Solar Sync Sensor
- WATER METER, SIZE AS INDICATED D.C.A., SIZE AS INDICATED
- to Include Wye Strainer, Isolation Valve, Master Valve, and Pressure Regulator

PVC CLASS 200 LATERAL LINE

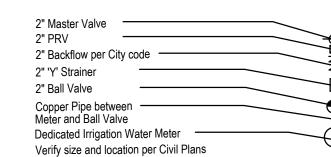
_ _ PVC CLASS 200 MAINLINE

PVC SCHEDULE 40 SLEEVING





HUNTER HDL-09-12-100-PC Drip Line and Fittings (12" LATERAL SPACING, 12" EMITTER SPACING) PVC LATERAL PIPING SIZED AS REQUIRED INSTALL ALL EQUIPMENT ACCORDING TO MANUFACTURERS SPECIFICATIONS



SLEEVING NOTES

- 1. Contractor shall lay sleeves and conduits at twenty-four (24") inches below finish grade of the top of pavement.
- 2. Contractor shall extend sleeves one (1') foot beyond edge of all pavement.
- 3. Contractor shall cap pipe ends using PVC caps.
- 4. All sleeves shall be Schedule 40 PVC pipe.
- Contractor shall furnish Owner and Irrigation Contractor with an 'as-built' drawing showing all sleeve locations.

Water Pressure Calculations

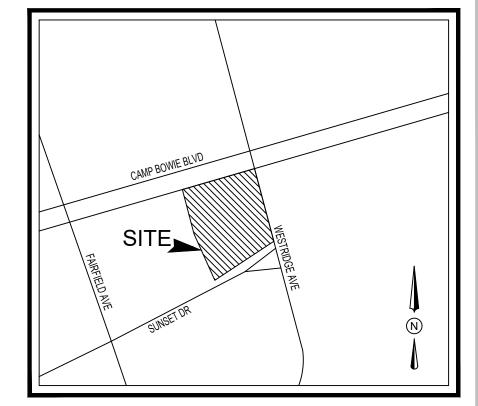
Static Pressure (at the water meter)- 65 psi
Design Pressure for Remote Zone- 54.6 psi
Pressure Losses for Remote Zone and Meter Components- 19.6 psi

Water Meter Components- Pressure Losses

Master Valve Pressure- 2 psi Pressure Requlator- 1.2 psi Back Flow- 5 psi Wye Strainer-.75 psi Ball Valve- .8 psi

Irrigation Zones Pressure Losses- (most remote zone)

Main Line- 6.4 psi Valve- 2 psi Later Line- 1.4 psi Sprinkler requirements-35 psi



VICINITY MAP

IRRIGATION NOTES

 All sprinkler equipment numbers reference the HUNTER equipment catalog unless otherwise indicated.

N.T.S.

- 2. LAWN SPRAY HEADS are SRS-04 installed as per detail shown.
- 3. SHRUB SPRAY HEADS are SRS-12 installed as per detail shown.
- ELECTRIC CONTROL VALVES shall be HUNTER PGV-S SERIES installed per detail shown. Size valves as shown on plan. Valves shall be installed in value boxes large enough to permit manual operation, removal of solenoid and/or valve cover without any earth excavation.
- 5. AUTOMATIC CONTROLLER shall be installed at location shown. Power (120V) shall be located in a junction box within five (5') feet of controller location by other trades.
- 6. All 24 volt valve wiring is to be UF 14 single conductor. All wire splices are to be permanent and waterproof.

Schedule 40. Size as indicated on plan.

- 7. SLEEVES shall be installed by General Contractor. Sleeve material shall be
- 8. Ten days prior to start of construction, Landscape or Irrigation Contractor shall verify static water pressure. If static pressure is less than 65 P.S.I., do not work until notified to do so by Owner. The irrigation contractor shall also verify that the site plan matches what has been constructed on site. Any landscape area that is less that 48 inches wide must be drip irrigation. If discrepancies between the irrigation plan and what is on site is discovered the irrigation contractor shall notify the GC, Civil Engineer and Landscape Architect.
- All main line and lateral piping to a minimum of 12 inches of cover. All piping under paving shall have a minimum of 18" of cover.
- 10. The Irrigation Contractor shall coordinate installation of the system with the Landscape Contractor so that all plant material will be watered in accordance with the intent of the plans and specifications.
- 11. The Irrigation Contractor shall select the proper arc and radius for each nozzle to insure 100% and proper coverage of all lawn areas and plant material. All nozzles in parking lot islands and planting beds shall be low angle to minimize over spray on pavement surfaces. No water will be allowed to spray on building.

DRIP IRRIGATION NOTES

- Drip Irrigation Equipment numbers reference Rainbird Equipment Catalog unless otherwise noted.
- Landscape Contractor shall be required to supply Owner's Construction Manager with all equipment specifications and maintenance guidelines.
- 3. Landscape Contractor shall be required to follow Manufacturer's Specifications and Installation guidelines for drip system.
- 4. PRESSURE COMPENSATING EMITTERS shall be: Multioutlet Rain Bug EM6-M101, Multi outlet Shrub Bug EMT6-M101 or approved equal. (1 PER EVERY 6 4" POTS)
- 5. SINGLE OUTLET PRESSURE COMPENSATING EMITTERS shall be: Rain Bug Emitters EM-Mo5, -M10, -M20 and Shrub Bug Emitters EMT-M10, -M20 or approved equal. (1 PER EACH 1 OR 5 GAL PLANT)
- 6. DRIP PRESSURE REGULATORS shall be: PSI-HLA-15, PSI-HLA-20, PSI-HMB-20, PSI-HMB-25 or approved equal.
- 7. Y-FILTERS shall be: RBY-075-200, RBY-100-200 or approved equal.
- 8. MAIN IRRIGATION TUBING shall be:RBT-150P,RBT-160V or approved equal.
- 9. EMITTER DISTRIBUTION TUBING shall be: RBT-150P, RBT-160V or approved equal.
- 10. SUBTERRANEAN EMITTER BOX shall be: SEB-6 or approved equal.
- 11. Drip system piping only occurs within shrub / groundcover beds and rock mulch areas. Piping shall be a maximum 4" depth and a minimum 2" depth.
- 12. Contractor shall verify that all drip system valves and spray system valves are sectioned separately on controller.

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ISSUE:
FOR APPROVAL 10.26.2023
OWNERS COMMENTS 11.28.2023

CITY COMMENTS 01.15.2024

DATE:

01.15.2024

SHEET NAME: IRRIGATION PLAN

SHEET NUMBER:

L.3

1.1 SCOPE

- Provide complete sprinkler installation as detailed and specified herein, includes furnishing all labor, materials, and equipment for the proper installation. Work includes but is not limited to:
 - Trenching and backfill
 - Automatic controlled system 3. Upon completion of installation, supply drawings showing details of construction including location of mainline piping, manual and automatic valves, electrical supply to valves, and specifically exact location of automatic valves.
- All sleeves as shown on plans will be furnished by General Contractor. Meter and power source to be provided by General Contractor.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. See Irrigation Plans. See plans for controller, heads, and valves.
- B. Section 02900-Landscape
- Section 02811-Underground Irrigation Sleeve and Utility Conduits

1.3 APPLICABLE STANDARDS

A. America Standard for Testing and Materials (ASTM) – Latest edition.

- 1. D2241 Poly (Vinyl Chloride) (PVC) Plastic Pipe (SDR-PR) 2. D2464 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Thread, Schedule 80
- D2455 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40 4. D2467 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Socket Type, Schedule 80
- 5. D2564 Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Pipe and Fittings 6. D2287 Flexible Poly Vinyl Chloride (PVC) Plastic Pipe
- 7. F656 Poly Vinyl Chloride (PVC) Solvent Weld Primer 8. D2855 Making Solvent - Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and

1.4 MAINTENANCE AND GUARANTEE

- Materials and workmanship shall be fully guaranteed for one (1) year after final
- Provide maintenance of system, including raising and lowering of heads to compensate for lawn growth, cleaning and adjustment of heads, raising and lowering of shrub heads to compensate for shrub growth, for one (1) year after completion of installation.
- Guarantee is limited to repair and replacement of defective materials or workmanship, including repair of backfill settlement.

SIDEWALK OR CURB

— ROTARY HEAD

— SWING JOINT

NOT TO SCALE

· REMOTE CONTROL VALVE WITH DISC

FILTER AND PRV

Techline START

MALE ADAPTER

NOT TO SCALE

PVC OR POLY SUPPLY HEADER

· Techline® CV TUBING

1.5 SUBMITTALS

- Procedure: Comply with Division I requirements.
- Product Data: Submit (5) copies of equipment manufacturer's specifications and literature for approval by Landscape Architect prior to installation.

Project Record Documents

originally designed and specified system.

- 1. Comply with Division I requirements. 2. Locate by written dimension, routing of mainline piping, remote control valves and quick coupling valves. Locate mainlines by single dimensions from permanent site features provided they run parallel to these elements. Locate valves, intermediate electrical connections, and quick couplers by two dimensions from a permanent site feature at approximately 70 degrees to each other.
- 3. When dimensioning is complete, transpose work to mylar reproducible tracings. 4. Submit completed tracings prior to final acceptance. Mark tracings "Record Prints
- Showing Significant Changes". Date and sign drawings. 5. Provide three complete operation manuals and equipment brochures neatly bound in a hard back three-ring binder. Include product data on all installed materials. Include warranties and guarantees extended to the Owner by the manufacturer of all
- Quick Coupler Keys: Provide 3 coupler keys with boiler drains attached using brass
- Controller Keys: Provide three sets of keys to controller enclosure(s).
- Use of materials differing in quality, size, or performance from those specified will only be allowed upon written approval of the Landscape Architect. The decision will be based on comparative ability of material or article to perform fully all purposes of mechanics and general design considered to be possessed by item specified.
- Bidders desiring to make a substitution for specified sprinklers shall submit manufacturer's catalog sheet showing full specification of each type sprinkler proposed as a substitute, including discharge in GPM maximum allowable operating pressure at
- Approval of substitute sprinkler shall not relieve Irrigation Contractor of his responsibility

to demonstrate that final installed sprinkler system will operate according to intent of

It is the responsibility of the Irrigation Contractor to demonstrate that final installed sprinkler system will operate according to intent of originally designed and specified system. If Irrigation Contractor notes any problems in head spacing or potential coverage, it is his responsibility to notify the Landscape Architect in writing, before proceeding with work. Irrigation Contractor guarantees 100% coverage of all areas to be

1.6 TESTING

FINISHED GRADE

Perform testing required with other trades, including earthwork, paving, plumbing, electrical, etc. to avoid unnecessary cutting, patching and boring. Wire Connectors: Waterproof splice kit connectors. Type DBY by 3M.

- SPECIFIED SPRAY NOZZLE AND BODY

CLASS 200 PVC LATERAL LINE

2.6 SCHEDULE 80 PVC NIPPLES

- A. Composed of Standard Schedule 40 PVC Fittings and PVC meeting noted standards. No clamps or wires may be used. Nipples for heads and shrub risers to be nominal one-half inch diameter by eight inches long, where applicable.
- B. Polyethylene nipples six (6") inches long to be used on all pop-up spray heads.

2.7 MATERIALS - See Irrigation Plan

- A. Sprinkler heads in lawn area as specified on plan.
- PVC Pipe: Class 200, SPR 21 Copper Tubing (City Connection): Type "M"
- 24V Wire: Size 14, Type U.F.
- Electric valves to be all plastic construction as indicated on plans. Refer to drawing for backflow prevention requirements and flow valve.

PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- Staking: Before installation is started, place a stake where each sprinkler is to be located, in accordance with drawing. Staking shall be approved by Landscape Architect before
- Excavations: Excavations are unclassified and include earth, loose rock, rock or any combination thereof, in wet or dry state. Backfill trenches with material that is suitable for compaction and contains no lumps, clods rock, debris, etc. Special backfill specifications, if furnished take preference over this general specification.
- Backfill: Flood or hand-tamp to prevent after settling. Hand rake trenches and adjoining area to leave grade in as good or better condition than before installation.
- Piping Layout: Piping layout is diagrammatic. Route piping around trees and shrubs in such a manner as to avoid damage to plantings. Do not dig within ball of newly planted

3.2 PIPE INSTALLATION

- Sprinkler Mains: Install a four (4") inch minimum trench with a minimum of eighteen (18") inches of cover.
- Lateral Piping: Install a four (4") inch wide minimum trench deep enough to allow for installation of sprinkler heads and valves, but in no case, with less than twelve (12") of
- Trenching: Remove lumber, rubbish, and large rocks from trenches. Provide firm, uniform bearing for entire length of each pipe line to prevent uneven settlement. Wedging or blocking of pipe will not be permitted. Remove foreign matter or dirt from inside of pipe before welding, and keep piping clean by approved means during and after laying of pipe.

3.3 PVC PIPE AND FITTING ASSEMBLY

- Solvent: Use only solvent recommended by manufacturer to make solvent-welded joints. Thoroughly clean pipe and fittings of dirt, dust and moisture before applying solvent.
- PVC to metal connection: Work metal connections first. Use a non-hardening pipe dope such as Permatex No. 2 on threaded PVC adapters into which pipe may be welded.

COPPER TUBING AND FITTING ASSEMBLY

Clean pipe and fitting thoroughly and lightly sand pipe connections to remove residue from pipe. Attach fittings to tubing in an approved manner using 50-50 soft solid core solder.

3.5 POP-UP SPRAY HEADS

Supply pop-up spray heads in accordance with materials list and plan. Attach sprinkler to lateral piping with a semi-flexible polyethylene nipple not less than three (3") inches or more than six (6") inches long.

3.6 VALVES

Supply valves in accordance with materials list and sized according to drawings. Install valves in a level position in accordance with Manufacturer's Specifications. See plan for typical installation of electric valve, valve box.

- Supply wire from the automatic sprinkler controls to the valves. No conduit will be required for U.F. wire unless otherwise noted on the plan. Wire shall be tucked under the
- A separate wire is required from the control to each electric valve. A common neutral wire is also required from each control to each of the valves served by each particular
- Bundle multiple wires and tape them together at ten (10') foot intervals. Install ten (10") inch expansion coil at not more than one hundred (100') foot intervals. Make splices

3.8 AUTOMATIC SPRINKLER CONTROLS

NOT TO SCALE

Supply in accordance with Irrigation Plan. Install according to manufacturer's recommendations.

VALVE BOX AND LI

BACKFLOW PREVENTER

A. Sprinkler Mains: Test sprinkler main only for a period of twelve (12) to fourteen (14) hours under normal pressure. If leaks occur, replace joint or joints and repeat test. B. Complete tests prior to backfilling. Sufficient backfill material may be placed in trenches between fittings to insure stability of line under pressure. In each case, leave fittings and couplings open to visual inspection for full period of test.

3.10 FINAL ADJUSTMENT

CONTROLLER AS SPECIFIED MOUNT @ 4'-4" HT.=/-KEYED LOCK OR PADLOCK

STEEL MALE CONNECTOR

— 1 1/4" RIGID STEEL CONDUIT

STEEL COUPLING (AS REQUIRED)

RIGID STEEL CONDUIT BELOW

FLOOR OR GRADE

BF PI UMB

STEEL SWEEP ELL

FINISH FLOOR

(05) WALL MOUNTED CONTROLLER

HARD WIRE 117 VOLT A.C. POWER TO

RIGID STEEL CONDUIT (SAME SIZE AS

- CONDUIT BELOW GRADE) CONDUIT SHALL

TO FLUSH OUTLET BEHIND CONTROLLER

STEEL SPLICE BOX WITH FRONT ACCESS PANEL

After installation has been completed, make final adjustment of sprinkler system in preparation for Landscape Architect's final inspection. Completely flush system to remove debris from lines and turning on system. Check sprinklers for proper operation and proper alignment for direction of flow. Check each section of spray heads for operating pressure and balance to other sections by use of flow adjustment and top of each valve. Check nozzling for proper coverage. Prevailing wind conditions may indicate that arch of angle of spray should be other than shown on drawings. In this case, change nozzles to provide correct coverage.

END OF SECTION



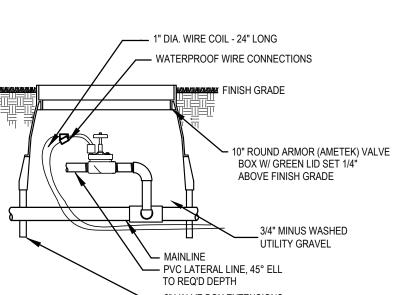
LANDSCAPE ARCHITECT

1782 W McDERMOTT DR.

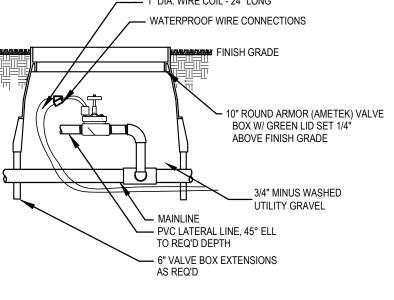
ALLEN, TEXAS 75013

(469) 369-4448

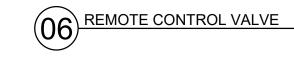
CHRIS@STUDIOGREENSPOT.COM

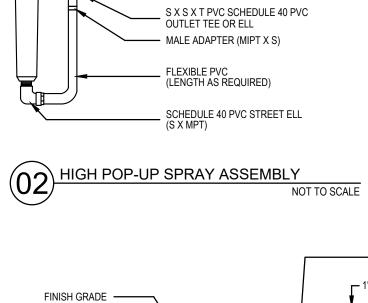


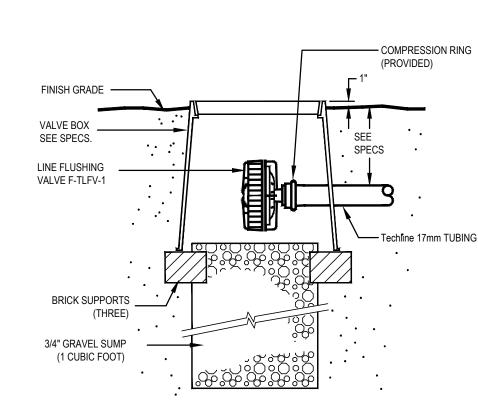




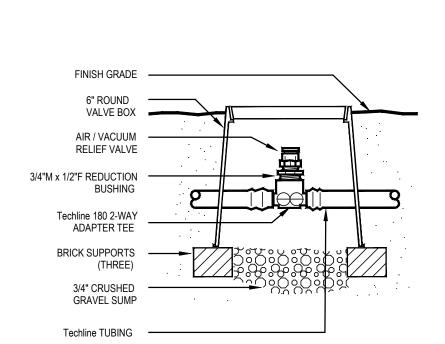
NOT TO SCALE











SPECIFIED SPRAY

NOZZLE & BODY

CLASS 200 PVC

LATERAL LINE

—SXSXTPVC

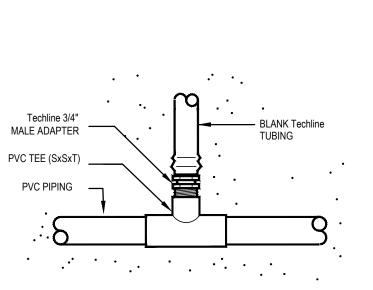
SCHEDULE 40

03) POP-UP LAWN SPRAY ASSEMBLY

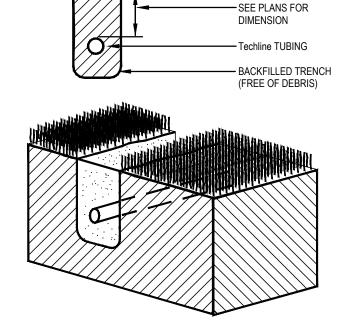
1/2" X 6" POLY NIPPLE

OUTLET TEE OR ELBOW









FINISH GRADE

ADAPT INLET AND OUTLET

D IRRIGATION SYSTEMS

FEBCO MODEL 805 DOUBLE CHECK VALVE, LINE SIZE

_ MAIN FROM SOURCE PER

CITY REQUIREMENT

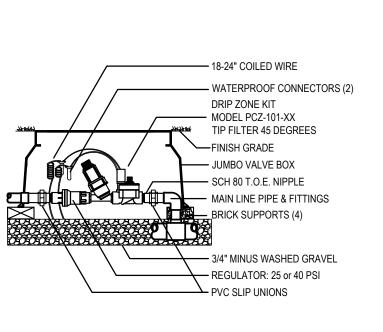
UTILITY GRAVEL (1/2" - 3/4" DIA.). 10" DEPTH for Testing and Repair

PVC LINE PER SPECIFICATIONS

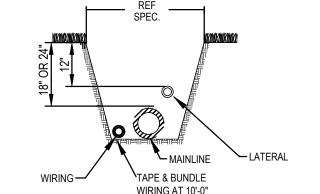
(AS REQUIRED)

MASTER VALVE



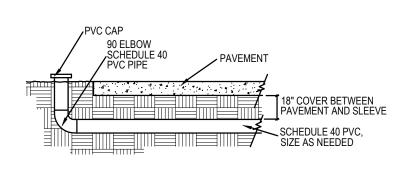


(13) DRIP CONTROL VALVE NOT TO SCALE



(15) TRENCH DETAIL NOT TO SCALE

INTERVALS.



(16) SLEEVE DETAIL NOT TO SCALE

2101 AVONDALE HASLET RD. VISTA CROSSROADS ADDITION BLOCK 2, LOT 4 FORT WORTH, TEXAS

PROJECT CONTACT LIST

ENGINEER TRIANGLE ENGINEERING LLC 1782 W MCDERMOTT DRIVE ALLEN, TEXAS 75013 CONTACT: JACK ZANGER TEL: 469-331-8566

FORT WORTH DEVELOPMENT GROUP, 120 MARKET SQ., FLOOR 2, PINEHURST, NC 28374 **CONTACT: GAVIN MELIA** TEL: 910 724 6720

OWNER/DEVELOPER

TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339

SHERWIN WILLIAMS

ISSUE: FOR APPROVAL 10.26.2023

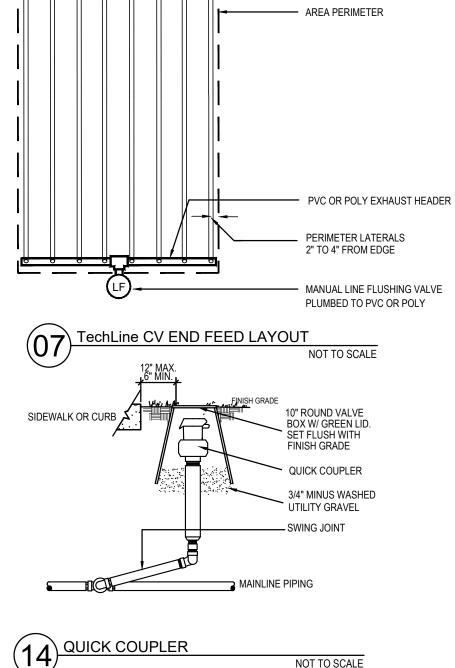
WILLIAMS

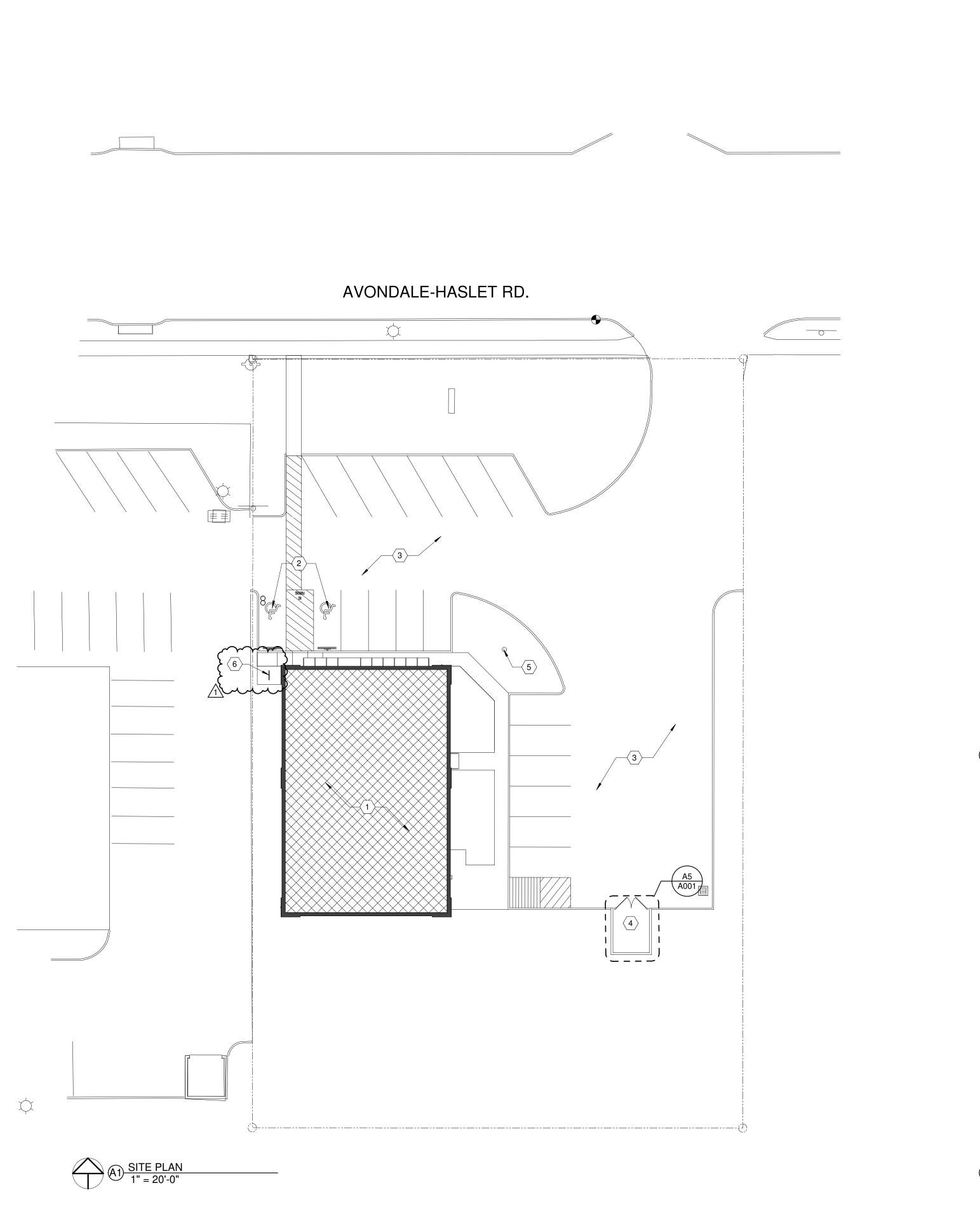
SHERWIN

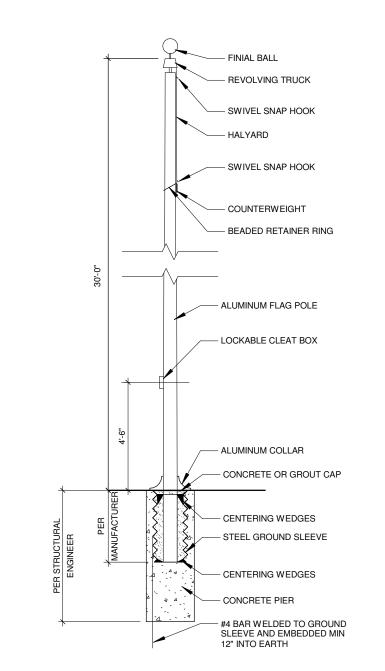
DATE:

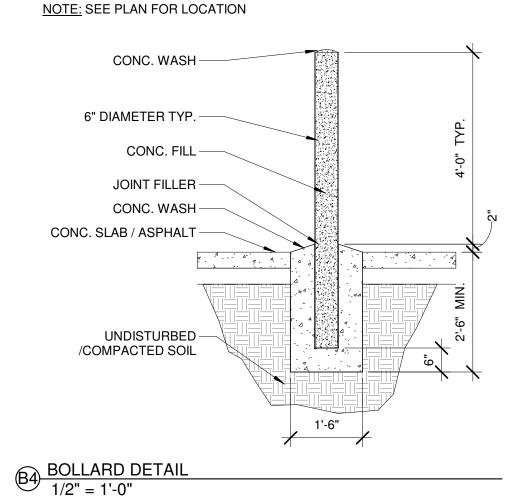
10.26.2023

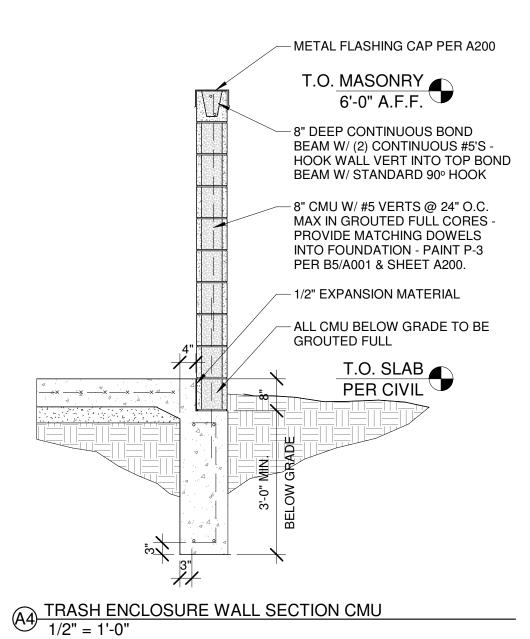
SHEET NAME: IRRIGATION SPECIFICATIONS

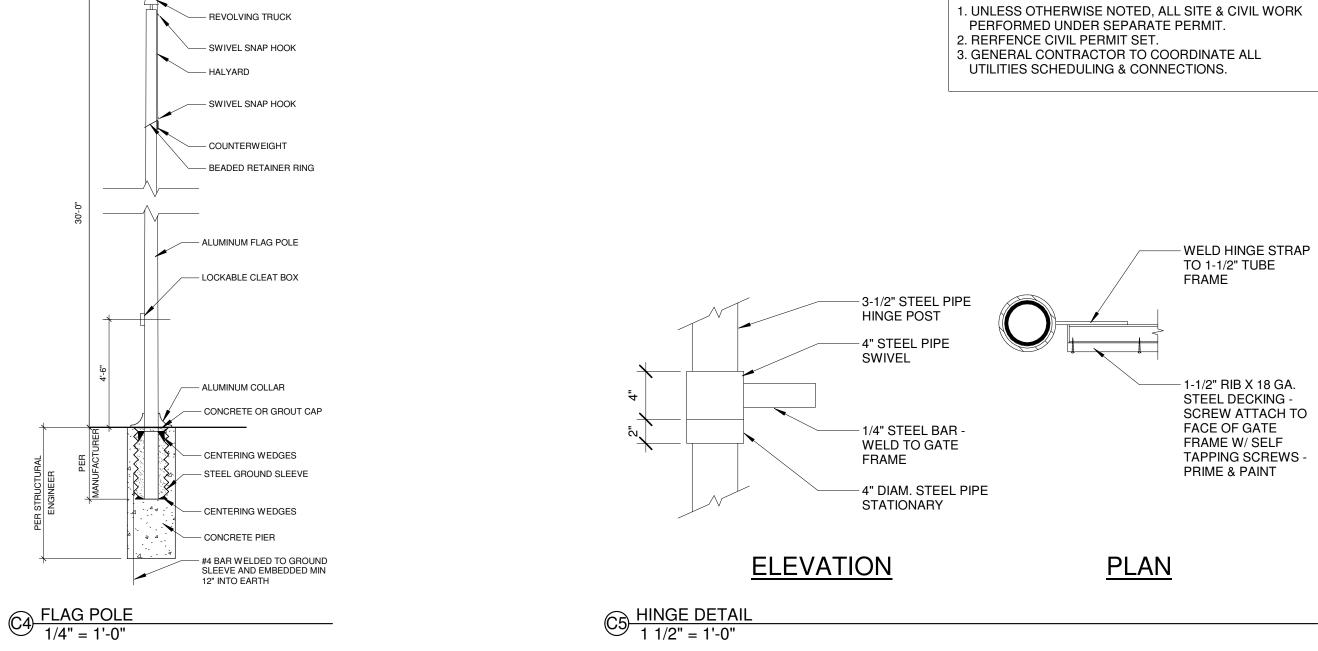


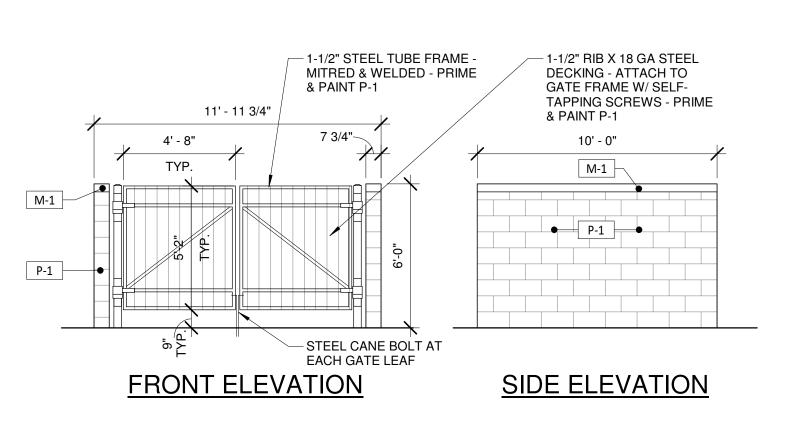


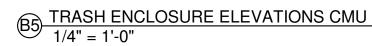


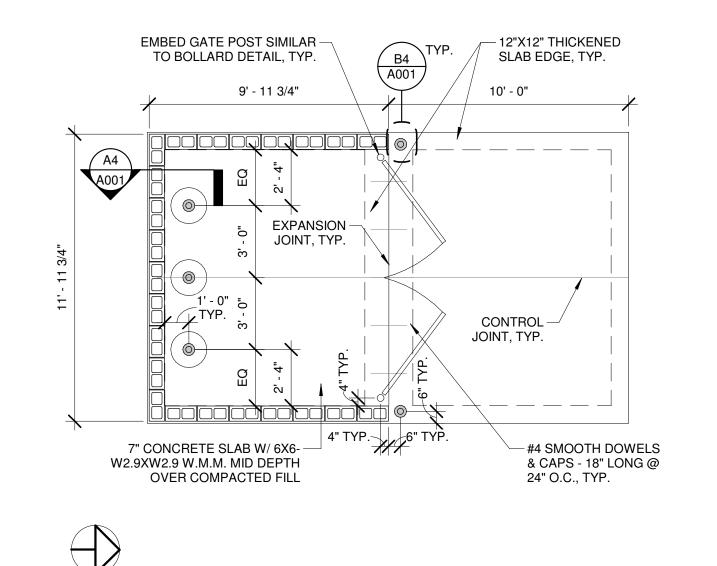












A5 TRASH ENCLOSURE PLAN CMU
1/4" = 1'-0"

SITE PLAN CODED NOTES

2 NEW ACCESSIBLE PARKING - REFER CIVIL FOR DETAILS

GENERAL NOTES

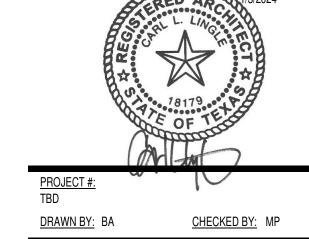
3 NEW SITEWORK & PARKING - REFER CIVIL

4 TRASH ENCLOSURE - REFER CIVIL

1 TENANT BUILDING

LINGLEDESIGNGROUP,INC 158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST DENVER, CO 80202 303.974.5875 WWW.LINGLEDESIGN.COM

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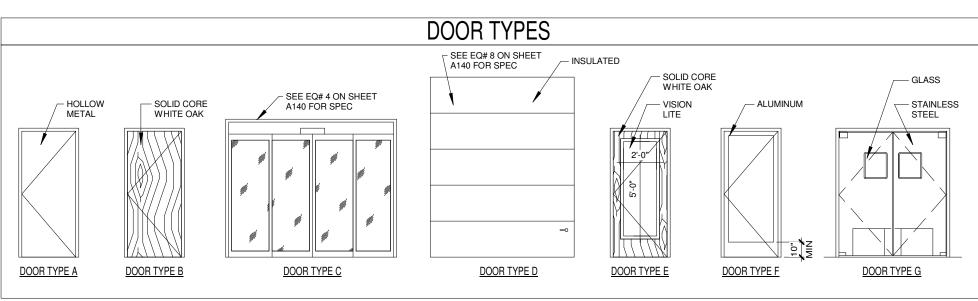


PERMIT SET - 11/22/2023 REV 1 - 1/3/2024

SHERWIN WILLIAMS

	<u>ORE #:</u> XX
AD	DRESS:
	2101 AVONDALE-HASLET RD, HASLET, TX 76052
SH	EET TITLE:

Architectural Site Plan



GROUP 1 - SLIDING DOORS

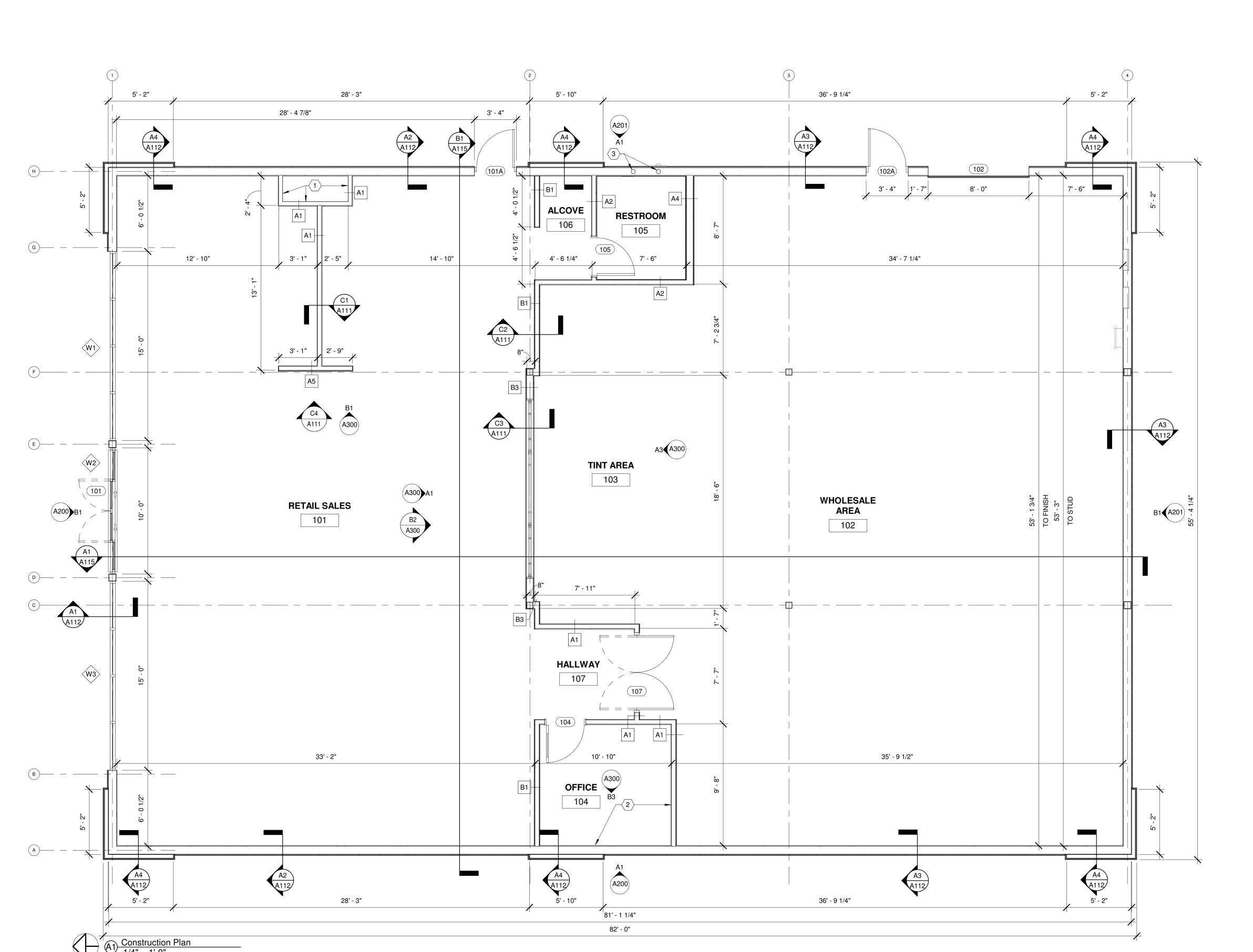
LOCK

CLOSER

SIGNAGE

1 EA. CLOSER

2 EA. EXIT DEVICE MOTION DETECTION UNIT



	Door Schedule							
Mark	Width	Height	Thickness	DOOR TYPE	DOOR MATERIAL	FRAME MATERIAL	HARDWARE GROUP	
101	10' - 0"	7' - 8"	0' - 4 1/2"	С	ALUM	ALUM	GROUP 1	
101A	3' - 0"	7' - 0"	0' - 1 3/4"	F	ALUM	ALUM	GROUP 6	
102	8' - 0"	10' - 0"	0' - 1 1/2"	D	STEEL		GROUP 5	
102A	3' - 0"	7' - 0"	0' - 1 3/4"	Α	HM-STL	HM-STL	GROUP 4	
104	3' - 0"	7' - 0"	0' - 1 3/4"	E	WOOD	HM-STL	GROUP 3	
105	3' - 0"	7' - 0"	0' - 1 3/4"	В	WOOD	HM-STL	GROUP 2	
107	6' - 0"	7' - 0"	0' - 1 1/2"	G	STLS-STL	STLS-STL		

HARDWARE SCHEDULE

MANUFACTURER LOCK SYSTEM

"DOOR TO REMAIN UNLOCKED DURING BUISINESS HOURS"

AUTOMATIC DOORS

	-INGLE	//	LINGLEDESIGNGROUP,INC
Ε	Ë		158 WEST MAIN STREET
_	D		LENA, IL 61048
	Design		815.369.9155
;	Z		1564 PLAKE ST
	⊡	////	1764 BLAKE ST
	2	// //11	DENVER, CO 80202
	Ē		303.974.5875
	GROUP, INC		WWW.LINGLEDESIGN.COM
_			_

		DOON TO TELLINATE ONLE DOTTING BOTOMIESO THOUSE	
1 EA.	SIGNAGE	"MAXIMUM OCCUPANCY" - POST AT MAIN ENTRY	
1 EA.	THRESHOLD	MANUFACTURER THRESHOLD SYSTEM	
GROU	JP 2 - RESTROOM	DOORS (PRIVACY SET)	© ALL DRAWINGS AND WRITTEN MATERIAL CONTAINED HEREIN ARE
3 PR.	HINGE	STANLEY - #FBB179 - 4-1/2" X 4-1/2"	PROPERTY OF THE LINGLE DESIGN GROUP, INC. THEY MAY NOT BE REV COPIED, REUSED, OR DISCLOSED IN ANY MANNER WITHOUT WRITTI
1 EA.	LATCH	SCHLAGE - ND40S-TLR (PRIVACY HARDWARE) - 626 FINISH	AUTHORIZATION FROM THE ARCHITECT.
1 EA.	CLOSER	DORMA - 8616FHP	
3 EA.	SILENCERS	GLYNN - GJ64	RED AR 1/3/2024
1 EA.	SIGNAGE	"RESTROOM" SIGNAGE PER DETAIL ON SHEET A400	AS LIVE THE
1 EA.	STOP	AS REQUIRED - WALL: #407 1/2 PA28 - FLOOR: #436 OR #438 PA28	Howard A Chairman
GROU	IP 3 - OFFICE DOO	PR	
3 PR.	HINGE	STANLEY - #FBB179 - 4-1/2" X 4-1/2"	日本
1 EA.	LATCH	SCHLAGE - ND50PD-TLR-SFIC - 626 FINISH	18179
1 EA.	LOCK	LATCH-COMPATIBLE SMALL FORMAT INTERCHANGEABLE CORE	A TE OF TET
3 EA.	SILENCERS	GLYNN - GJ64	A Through the second
1 EA.	STOP	AS REQUIRED - WALL: #407 1/2 PA28 - FLOOR: #436 OR #438 PA28	(A) Total
1 EA.	VISION LITE	FULL GLASS - VERIFY W/ SHERWIN-WILLIAMS CORPORATE	
GROU	IP 4 - SERVICE DO	OR	PROJECT #:
3 PR.	HINGE	STANLEY - #FBB179 - 4-1/2" X 4-1/2"	
1 EA.	PULL	YALE - 632F-626	DRAWN BY: BA CHECKED BY: MP
1 EA.	EXIT DEVICE	YALE - 2150-36 - 652 FINISH (PANIC BAR)	
1 EA.	CLOSER	LCN-4041 (4040 SERIES) - HEAVY DUTY CLOSER	
3 EA.	SILENCERS	GLYNN - GJ64	PERMIT SET - 11/22/2023
1 EA.	THRESHOLD	PEMKO - #171A - SIZE AS REQUIRED	^
1 EA.	SWEEP	PEMKO - #307AV - SIZE AS REQUIRED	<u>1</u> REV 1 - 1/3/2024
1 EA.	WEATHERSTRIP	PEMKO - #303AV - SIZE AS REQUIRED	<u>-</u> -
GROU	JP 5 - DELIVERY DO	OOR	
1 EA.	OPENER/LOCK	MOTORIZED OPERATOR - LIFTMASTER LJ8900W	<u> </u>
1 EA.	WEATHERSTRIP	PEMKO - #303AV - SIZE AS REQUIRED	<u> </u>
GROU	JP 6 - STOREFRON	IT DOOR	^
3 PR.	HINGE	4-1/2" X 4-1/2" B.B. WITT NON REMOVABLE PINS	<u> - </u>
1 EA.	LOCK	KEYED DEADBOLTS WITH INSIDE THUMBTURN	
1 EA.	EXIT DEVICE	PUSH SET	
4 F A	DIIII	FLAMES OFFICE AT SOCIATION OF A PROPOSITION OF A PROPOSIT	

GENERAL NOTES

ELMES G500-01-023-L300 OR APPROVED SIMILAR

LCN-4041 (4040 SERIES) - HEAVY DUTY CLOSER

1 EA. THRESHOLD PEMKO - #171A - SIZE AS REQUIRED

3. ALL HOLLOW METAL DOOR FRAMES ARE TO BE WELDED.

8. U.N.O. ALL PAINTED DOORS & DOOR JAMBS TO BE PAINTED P-1.

& CODES HAVING JURISDICTION.

7. UNDERCUT RESTROOM & OFFICE DOORS 1".

1 EA. SWEEP PEMKO - #307AV - SIZE AS REQUIRED

DOOR AND HARDWARE NOTES:

1. G.C. TO FURNISH & INSTALL MEDECO CYLINDER IN ALL PERIMETER DOORS.

5. DOOR STOPS AND BUMPERS TO BE INSTALLED BEHIND ALL DOORS.
6. ALL HARDWARE TO BE US26D BRUSHED CHROME, CLEAR ANODIZED FINISH.

SHERWIN-WILLIAMS CORPORATE WILL RE-KEY TO SHERWIN-WILLIAMS MASTER KEY SYSTEM. PROVIDE KEYWAY ON EXTERIOR FACE.

2. G.C. TO FURNISH & INSTALL MEDECO CYLINDER IN ALL INTERIOR H.M. DOORS. ALL INTERIOR DOORS TO BE KEYED ALIKE. PROVIDE KEYWAY ON EXTERIOR FACE.

4. G.C. TO FURNISH & INSTALL PANIC HARDWARE PER ALL APPLICABLE REGULATIONS

- A. G.C. TO PROVIDE BLOCKING FOR SUPPORT OF RESTROOM AND CASEWORK ACCESSORIES AS RECOMMENDED BY MANUFACTURER. SEE ENLARGED RESTROOM AND CASEWORK ELEVATIONS.
- B. OCCUPANCY LOAD SIGN SUPPLIED AND INSTALLED BY G.C. C. G.C. SHALL SUPPLY AND INSTALL RECESSED FIRE EXTINGUISHERS AS REQUIRED BY LOCAL CODES. LOCATION PER LOCAL CODES. COORDINATE PLACEMENT WITH TENANT AND FIRE MARSHAL.
- D. REFERENCE THE FOLLOWING SHEETS: G001 GENERAL NOTES, ABBREVIATIONS AND SYMBOLS; G100 ACCESSIBILITY PLANS.

 E. ALL DIMENSIONS NOTED ARE FROM FACE OF STUD TO FACE OF STUD, UNO. F. ELECTRICAL EQUIPMENT BY G.C. SEE ELECTRICAL DRAWINGS. G. PLUMBING EQUIPMENT BY G.C. SEE PLUMBING DRAWINGS.
- H. ALL CONSTRUCTION MUST BE PERFORMED WITHOUT ANY PENETRATION OF STOREFRONT IN ANY WAY, INCLUDING, BUT NOT LIMITED TO SCREWS, BOLTS AND
- I. SOUND BATT INSULATION TO BE MINIMUM CLASS 2 WITH FLAME SPREAD RATING OF 25 TO 75.
- XX WALL TYPES SEE SHEET A111
- XX STOREFRONT TAG SEE SHEET A201
- (XXX) DOOR TAG SEE SHEET A110

INDICATES GLAZING

CONSTRUCTION PLAN CODED NOTES

- 1 NO GYP. BD. NEEDED INSIDE VOID SPACE
- 2 WOOD BLOCKING FOR DESK SHELVING 3 4" PVC ROOF DRAIN PIPE

SHERWIN WILLIAMS

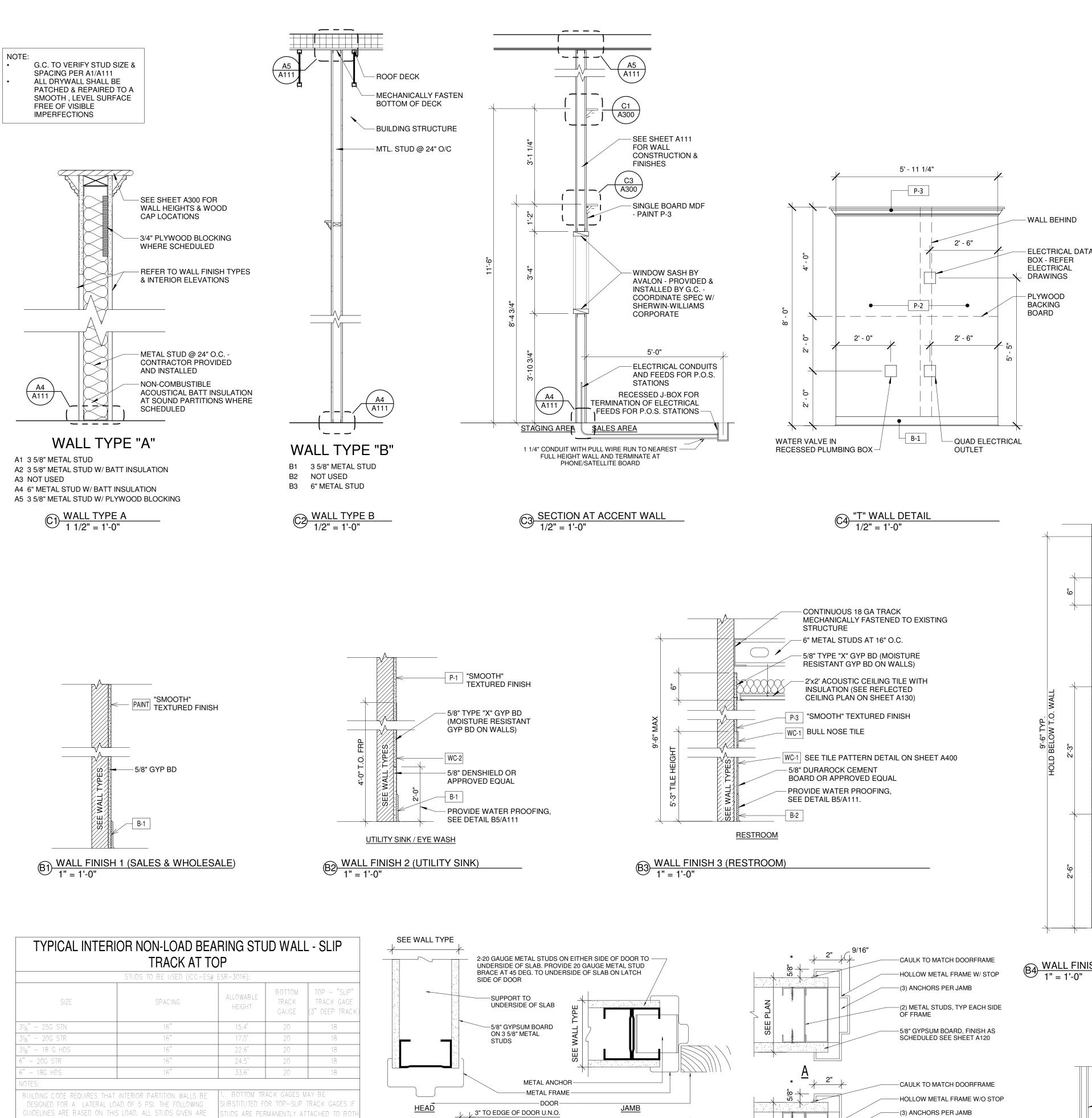
STORE #:	
XXXX	

ADDRESS:

2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

Construction Plan



\$---LOCATE SWITCH 8" FROM DOOR

FROM OPEN DOOR

TYP. DOOR JAMB & PLACEMENT DETAIL
3" = 1'-0"

-STANDARD FLOOR MOUNTED DOOR

STOP, SEE HARDWARE SCHEDULE

-ALTERNATE SWITCH LOCATION 6"

LANGES OF THE TRACK WITH #10 SCREWS

IF GYP BD IS ON ONE SIDE ONLY, ADD

TLX-DNL32 P8S15 @ 3'-0" O.C.

HORIZONTAL BRIDGING AT 5'-0" O.C.

FROM THE ABOVE, PLEASE CONTACT THE

DIETRICH INDUSTRIES, INC. ALL STUDS AND TRACKS ARE

ASSUMED TO HAVE AN $F_V = 33.0$ KSI. ALL STUDS ARE

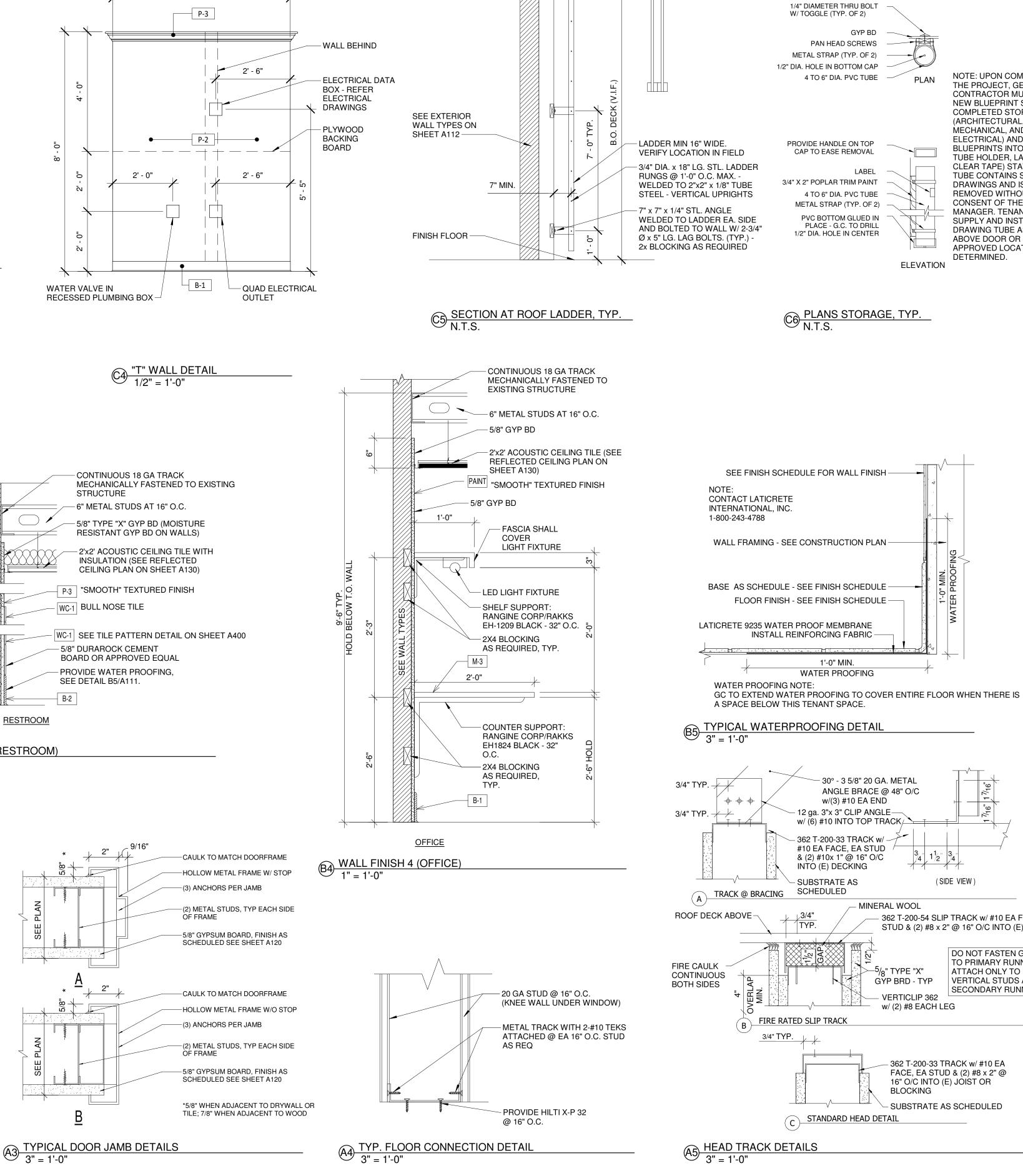
ASSUMED TO HAVE %" GYP BD ON BOTH FACES FOR THE

JLL HEIGHT OR ARE PROVIDED WITH BRIDGING AS REQUIRED.

AT THE TOP USING A 3" DEEP TRACK CONNECTION OR NO

BE LIMITED TO H/240. PROVIDE LATERAL BRACING PER

A1 STUD SIZE CHART
1/4" = 1'-0"



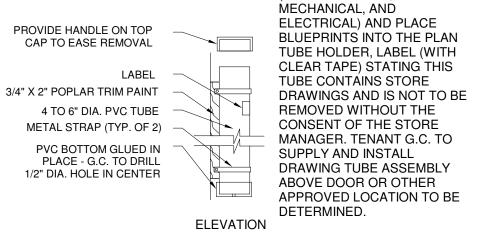
SEE ELEVATIONS

ROOF HATCH, VERIFY

LOCATION IN FIELD -

ROO DECK - VERIFY WITH STRUCTURAL -

ROOF PARAPET -



NOTE: UPON COMPLETION OF

CONTRACTOR MUST RUN A

NEW BLUEPRINT SET FOR THE

COMPLETED STORE DRAWINGS

THE PROJECT, GENERAL

(ARCHITECTURAL,

GYP BD

PAN HEAD SCREWS

4 TO 6" DIA. PVC TUBE

1'-0" MIN.

WATER PROOFING

30° - 3 5/8" 20 GA. METAL

ANGLE BRACE @ 48" O/C

GYP BRD - TYP

VERTICLIP 362

BLOCKING

w/ (2) #8 EACH LEG

- 362 T-200-33 TRACK w/ #10 EA

FACE, EA STUD & (2) #8 x 2" @

16" O/C INTO (E) JOIST OR

w/(3) #10 EA END - 12 ga. 3"x 3" CLIP ANGLE w/ (6) #10 INTO TOP TRACK

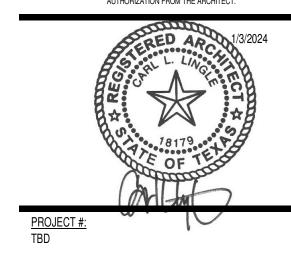
362 T-200-33 TRACK w/ -#10 EA FACE, EA STUD

& (2) #10x 1" @ 16" O/C

INTO (E) DECKING

SUBSTRATE AS

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LINGLEDESIGNGROUP, INC

158 WEST MAIN STREET

LENA, IL 61048 815.369.9155

1764 BLAKE ST

DENVER, CO 80202

303.974.5875

WWW.LINGLEDESIGN.COM

DRAWN BY: BA CHECKED BY: MP PERMIT SET - 11/22/2023

REV 1 - 1/3/2024

SHERWIN WILLIAMS

STORE #: XXXX
ADDRESS:
2101 AVONDALE-HASLET
RD, HASLET, TX 76052

SHEET TITLE:

Wall Types & Details

SHEET NUMBER:

- SUBSTRATE AS SCHEDULED C STANDARD HEAD DETAIL

DO NOT FASTEN GYP BRD

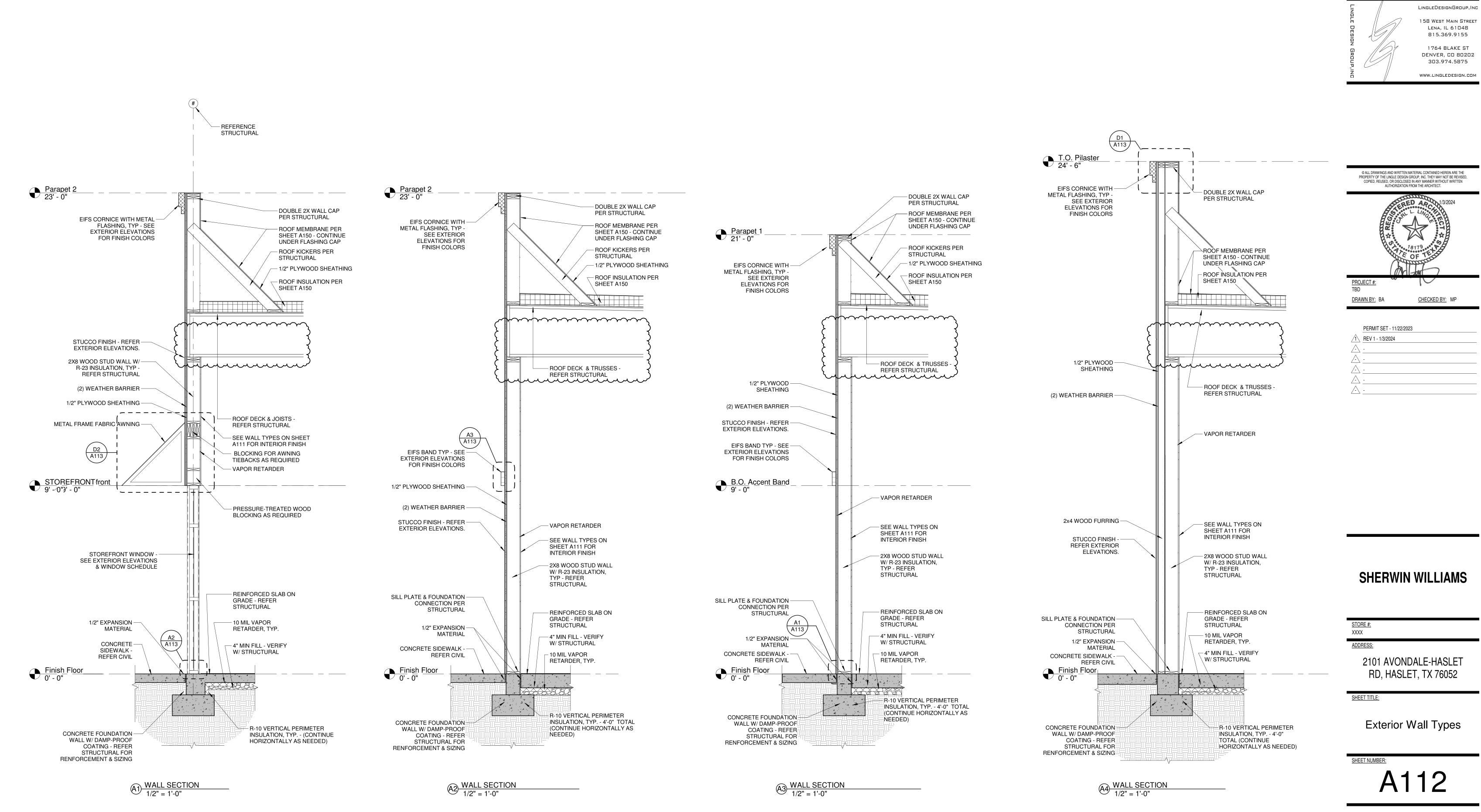
TO PRIMARY RUNNER.

VERTICAL STUDS AND

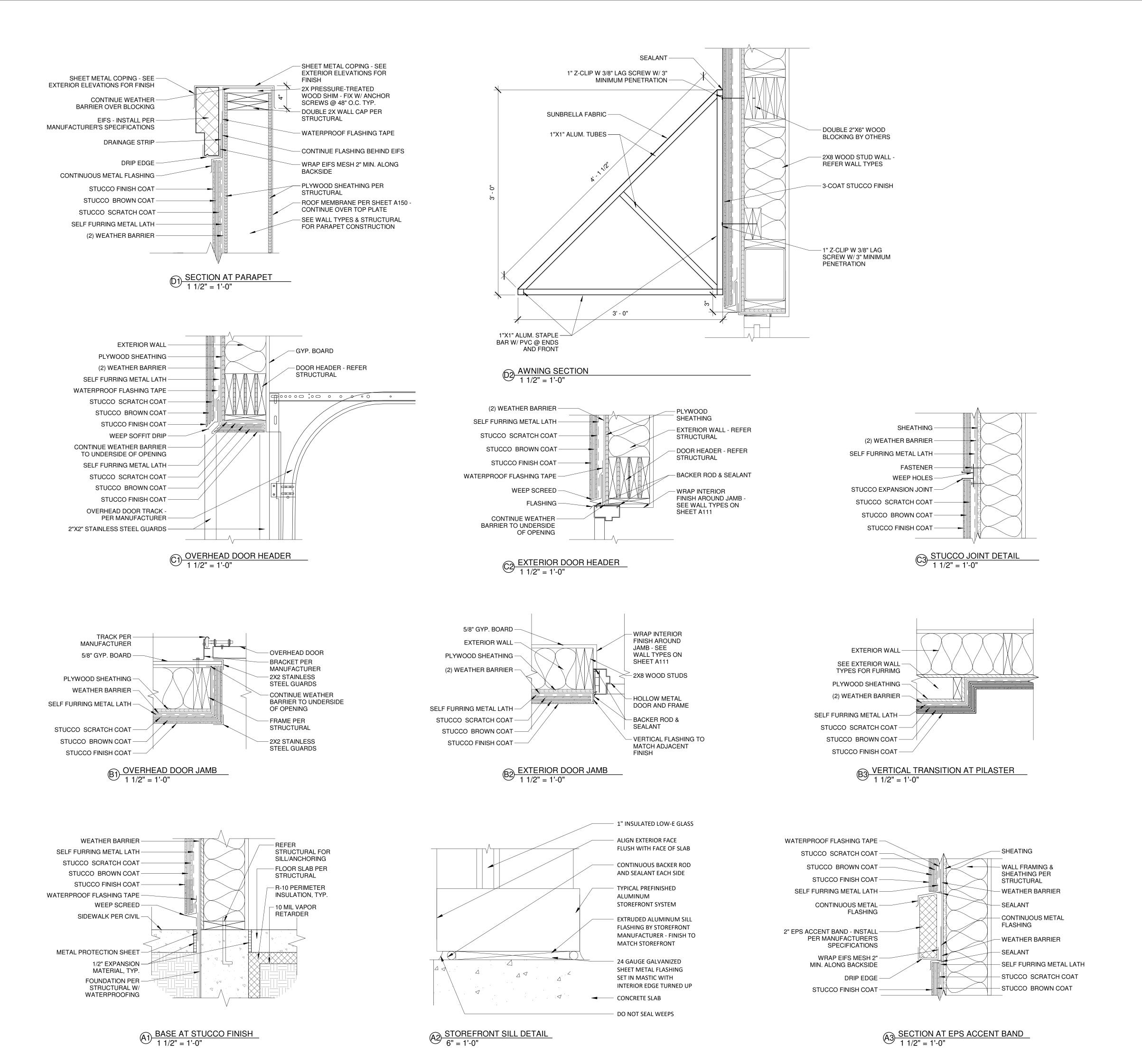
SECONDARY RUNNER

ATTACH ONLY TO

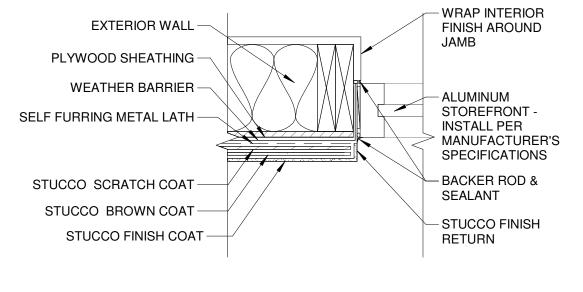
362 T-200-54 SLIP TRACK w/ #10 EA FACE, EA STUD & (2) #8 x 2" @ 16" O/C INTO (E) JOIST



SHERWIN WILLIAMS



VERTICAL TRANSITION AT STUCCO & STOREFRONT 1 1/2" = 1'-0"



B4 STUCCO AT STOREFRONT
1 1/2" = 1'-0"

STUCCO FINISH AT WOOD SHEATHING
3/4" = 1'-0"

WEATHER BARRIER

SELF FURRING METAL LATH-

STUCCO SCRATCH COAT -

STUCCO BROWN COAT -

STUCCO FINISH COAT

CONTINUE WEATHER

BARRIER TO UNDERSIDE

MATCH STOREFRONT

WEEP SCREED

FLASHING -

OF OPENING

BREAK METAL TO -

WATERPROOF FLASHING TAPE

ADDRESS: 2101 AVONDALE-HASLET RD, HASLET, TX 76052 SHEET TITLE:

STORE #:

XXXX

Exterior Wall Details

SHERWIN WILLIAMS

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LENA, IL 61048

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WOOD STUDS PER WALL TYPES

PLYWOOD SHEATHING,

TYP. - 1/8" GAP BETWEEN

(2) LAYERS OF WEATHER

- SELF FURRING METAL LATH

-STUCCO SCRATCH COAT

STUCCO BROWN COAT

- STUCCO FINISH COAT

- EXTERIOR WALL

WRAP INTERIOR

SPECIFICATIONS

SHEET A111

ALUMINUM

- STRUCTURAL HEADER

FINISH AROUND JAMB -

SEE WALL TYPES ON

STOREFRONT - INSTALL

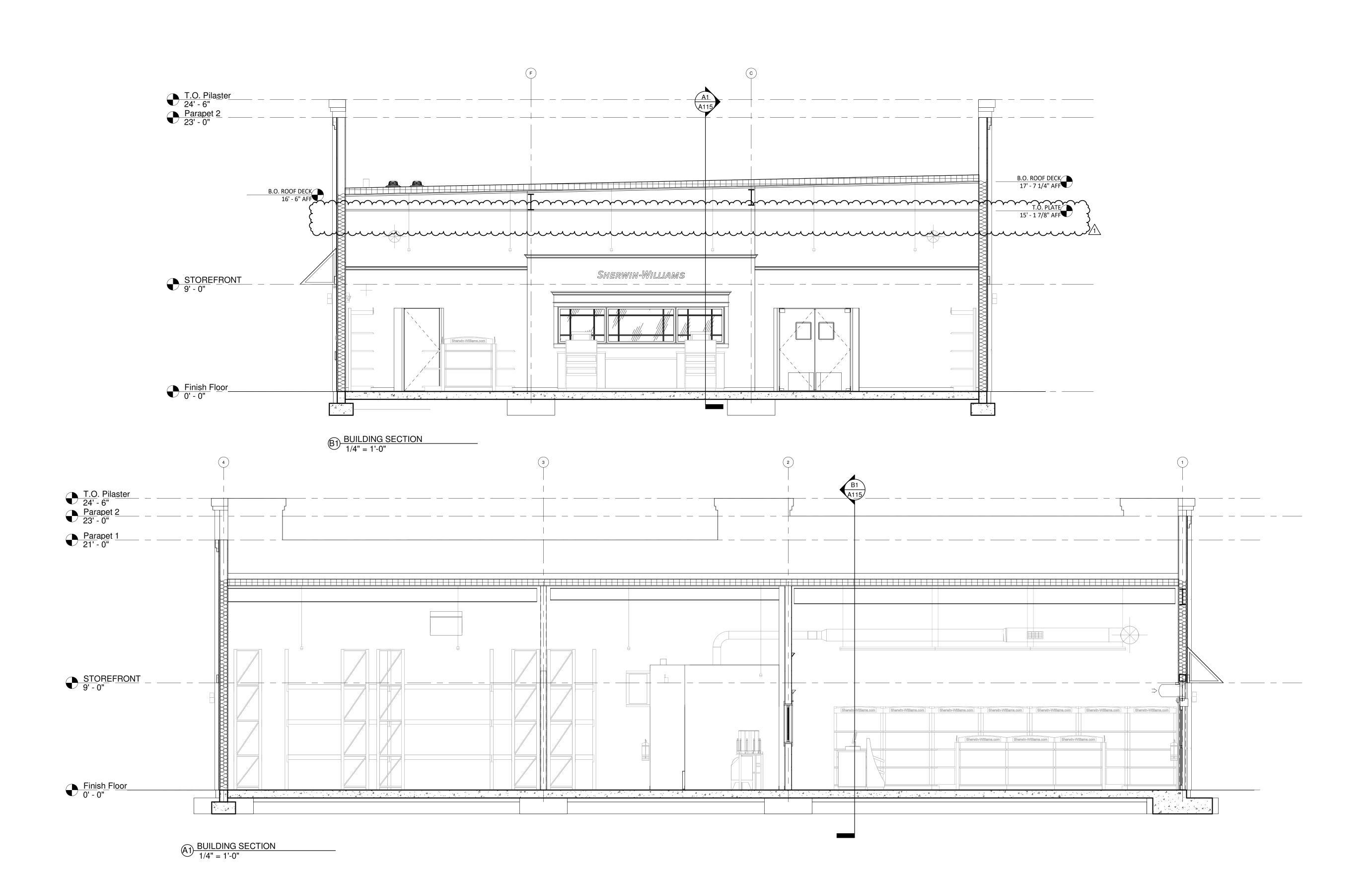
PER MANUFACTURER'S

BACKER ROD & SEALANT

RÉSISTIVE BARRIER - 30

LB FELT, MIN.

SHEETS AT CONTROL JOINTS

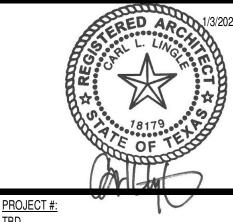


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SHERWIN WILLIAMS

STORE #: XXXX

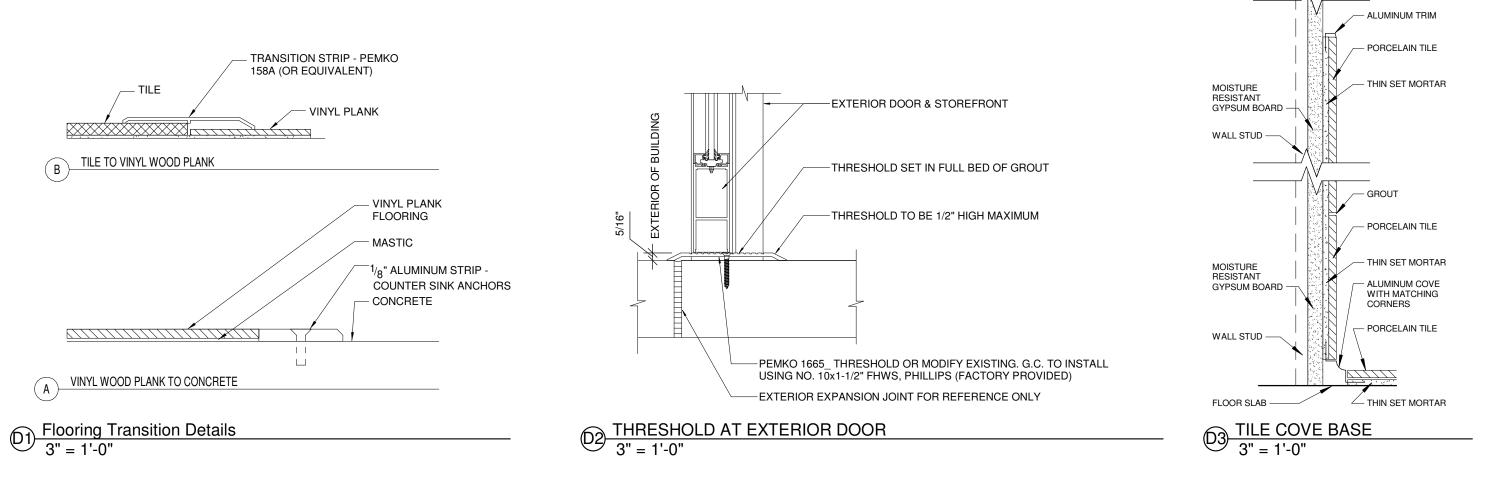
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

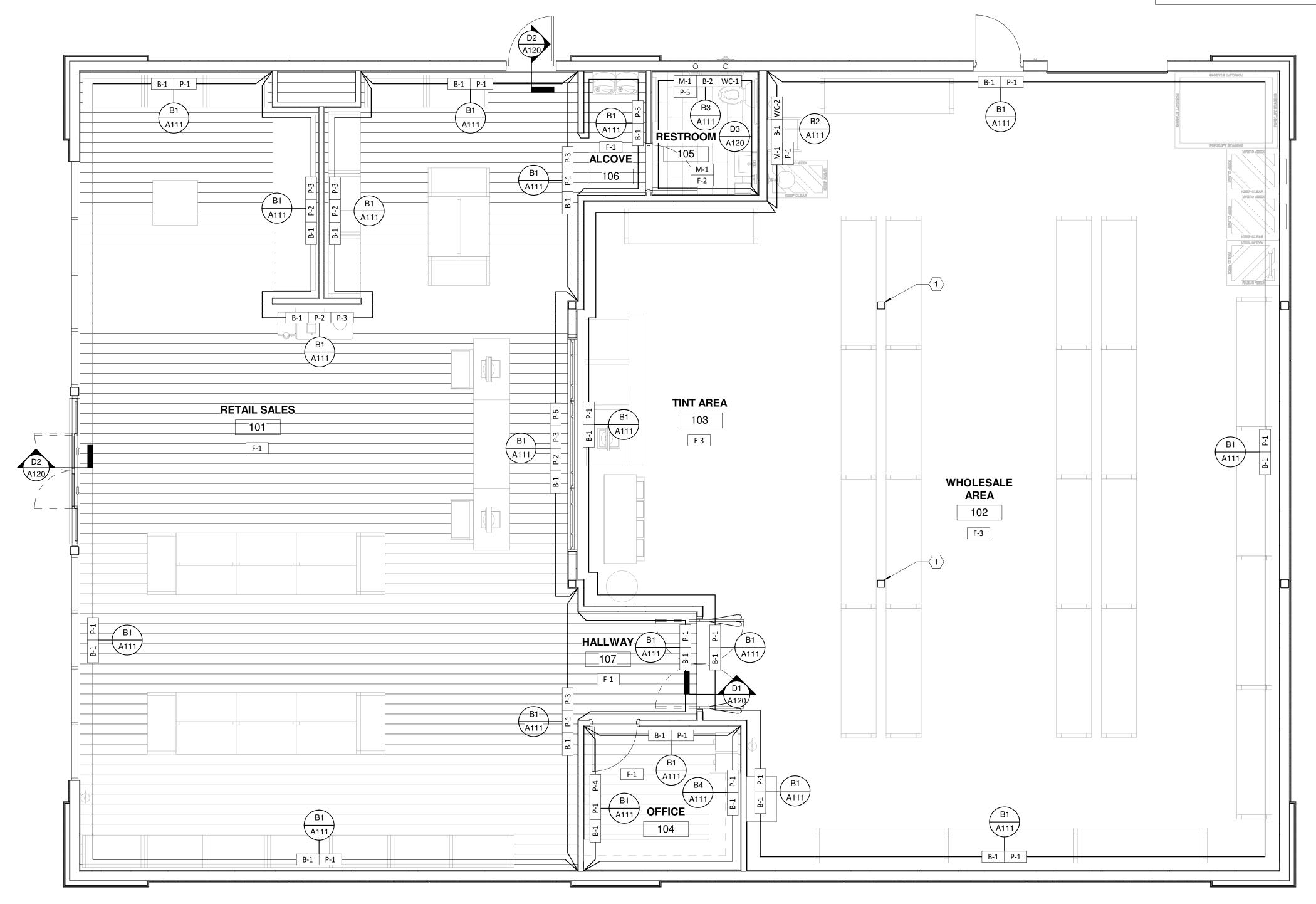
Building Sections

SHEET NUMBER:

A115



ALUMINUM TRIM	GENERAL NOTES
随机 / PORCELAIN TILE	
THIN SET MORTAR	A. ALL FLOOR FINISHES SHALL BE INSTALLED WITH TOP EDGES LEVEL WITH ADJACENT MATERIAL TOP EDGES. CONFIRM TILE THICKNESS AS THESE MAY VARY. CONFIRM THAT NO OVERALL FLOATING OF FLOOR IS
ARD — ARD	REQUIRED.
	B. COORDINATE FLOORING TRANSITIONS AND BASE TILE INSTALLATION WITH MILLWORK SHOP DRAWINGS AND FIELD CONDITIONS.
GROUT	C. ALL THRESHOLDS SHALL HAVE A MAXIMUM HEIGHT OF 1/2" ABOVE EXISTING CONCRETE SLAB AND/OR INTERIOR FINISHES.
PORCELAIN TILE	D. TILE TRANSITION BETWEEN ROOMS TO BE CENTERED ON DOOR FRAME.
THIN SET MORTAR	E. SEE PLUMBING DRAWINGS FOR DIMENSIONS AND LOCATIONS OF FLOOR DRAINS AND FLOOR SINKS.
ARD ALUMINUM COVE WITH MATCHING CORNERS	F. ALL INTERIOR FINISHES TO HAVE A FLAME SPREAD RATING OF 25 OR LESS. WITH A MAXIMUM SMOKE GENERATION FACTOR OF 450.
PORCELAIN TILE	G. TILE INSTALLER SHALL COORDINATE WITH GENERAL CONTRACTOR AND PROVIDE LAYOUT OF ALL WALL TILI PRIOR TO INSTALLATION. GENERAL CONTRACTOR. SHALL PREPARE WALLS AS TO MINIMIZE CUT TILES IN
— THIN SET MORTAR	THE HORIZONTAL DIRECTION AND ELIMINATE CUT TILE: IN THE VERTICAL DIRECTION ON ANY WALLS. CONTACT ARCHITECT OF ANY DISCREPANCIES IN DIMENSIONS
E COVE BASE : 1'-0"	FOR DIRECTION PRIOR TO INSTALLATION. FAILURE TO ADHERE TO THESE REQUIREMENTS RESULTING IN ANY
· I U	REMEDIATION REQUIRED TO MEET DESIGN INTENT WILL BE AT CONTRACTORS COST.



MARK	DESCRIPTION	MANUFACTURER & SPEC.	REMARKS
BASE			
B-1	RUBBER COVE BASE	ARMSTRONG #018 "DESERT" OR JOHNSONITE #080 "FAWN"	INSTALL ON SHEETROCK WALLS IN STAGING, SALES, OFFICE, AND CORRIDOR AREAS
B-2	ALUMINUM COVE BASE	SCHLUTER -SERIES: DILEX-AHK -FINISH: SATIN ANODIZED ALUMINUM	MATCHING INSIDE AND OUTSIDE CORNERS
FLOORING			
F-1	VINYL WOOD PLANK	MOHAWK FLOORING - SERIES: LUXURY VINYL - STYLE: (TBD)	PROVIDED BY SHERWIN-WILLIAMS
F-2	CERAMIC TILE	DALTILE - SERIES: PORTFOLIO - SIZE: 12x24 - COLOR: NOCE #PF11	GROUT: MAPEI #39 IVORY
F-3	DENSIFIED CONCRETE	H&C ENDURA POLISH CONCRETE SEALER	POLISH TO 800 GRIT BEFORE SEALING JOINT FILLER: SHER-CRETE POLYUREA
PAINT			
P-1	PAINT - ACCESSIBLE BEIGE	SHERWIN-WILLIAMS - SERIES: EMERALD K37 - COLOR: SW 7036 - FINISH: FLAT	(2) COATS IN SALES AREA, OFFICE, CORRIDOR, AND STAGING - (2) COATS ON WOOD DOORS & TRIM, HOLLOW METAL DOOR FRAMES U.N.O.
P-2	PAINT - CITYSCAPE	SHERWIN-WILLIAMS - SERIES: EMERALD K37 - COLOR: SW 7067 - FINISH: FLAT	(2) COATS ON SALES AREA ACCENT WALL (SEE A1/A300)
P-3	PAINT - AESTHETIC WHITE	SHERWIN-WILLIAMS - COLOR: SW 7035	(2) COATS ON WOOD CAP, CROWN MOLDING, CORRIDOR CEILING - USE DRYFALL PAINT ON ROOF STRUCTURE, DECK & DUCTING
P-4	PAINT - DRY ERASE	SHERWIN-WILLIAMS - DRY ERASE CLEAR GLOSS COATING KIT KB65C2000 - FINISH: CLEAR	USE ON OFFICE WALL - SEE PLAN
P-5	PAINT - ANTIMICROBIAL	SHERWIN-WILLIAMS - SERIES: PAINT SHIELD - COLOR: SW 7036 - FINISH: EGGSHELL	USE IN RESTROOMS AND HALLWAY
P-6	PAINT - SNAPDRY	SHERWIN-WILLIAMS - SERIES: SNAPDRY - COLOR: SW 7035	USE ON HORIZONTAL SURFACE OF TINTING WINDOW OPENING
MISCELLAN	NEOUS		
M-1	LATICRETE	HYDRO BAN	INSTALL AT ALL WET WALLS & DEMISING WALL(S) - SEE DETAIL
M-2	WINDOW GRAPHIC	PRINTED VINYL SHEET	SHERWIN-WILLIAMS PROVIDE/INSTALL - EXTERIOR OF GLASS AT STAGING AREA
M-3	PLASTIC LAMINATE	PIONITE - SERIES: HARD ROCK - COLOR: MAPLE G48 WM791 H	USE FOR ALL EXPOSED SURFACES OF COUNTER AND SHELVING IN OFFICE
WALL COV	ERING		
WC-1	CERAMIC TILE	DALTILE - SERIES: PORTFOLIO - SIZE: 6x24 & 3x12 BULLNOSE - COLOR: NOCE #PF11	5'-3" HIGH WAINSCOT (FULL HEIGHT @ WET WALL) - SEE ELEVATIONS - GROUT: MAPEI #39 IVORY
WC-2	FRP WALL PANEL	MARLITE - MODEL: P-100 - FINISH: PEBBLED - COLOR: WHITE	INSTALL TO 4'-0" A.F.F.

FINISH PLAN CODED NOTES

1 STRUCTURAL COLUMNS TO BE PAINTED "P-1"

SHERWIN WILLIAMS

LINGLEDESIGNGROUP,INC

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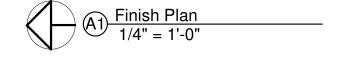
STORE #:

ADDRES

2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

Finish Plan



PAINT SPECIFICATIONS

INTERIOR, EXTERIOR AND INDUSTRIAL PAINTS AND COATINGS PART 1 – GENERAL

1.1. SUMMARY

- 1.1.1. SECTION INCLUDES 1.1.1.1. INTERIOR AND EXTERIOR PAINT AND COATINGS SYSTEMS INCLUDING SURFACE PREPARATION.
- 1.1.2. RELATED SECTION 1.1.2.1. SECTION 03 30 00 CAST-IN-PLACE CONCRETE
- 1.1.2.2. SECTION 05 12 16 FABRICATED FIREPROOFED STEEL COLUMNS 1.1.2.3. SECTION 05 50 00 METAL FABRICATIONS
- 1.1.2.4. SECTION 06 20 00 FINISH CARPENTRY 1.1.2.5. SECTION 06 40 00 ARCHITECTURAL WOODWORK
- 1.2. REFERENCES 1.2.1. THE PUBLICATION LISTED FORM A PART OF THIS SPECIFICATION TO THE EXTENT
- 1.2.1.1. ASTM INTERNATIONAL (ASTM)
- 1.2.1.1.1. ASTM E 2129
- 1.2.1.2. STEEL STRUCTURES PAINTING COUNCIL
- 1.2.1.2.1. SSPC-SP 1
- 1.2.1.2.2. SSPC-SP 2
- 1.2.1.2.3. SSPC-SP 3 1.2.1.2.4. SSPC-SP 5
- 1.2.1.2.5. SSPC-SP 6
- 1.2.1.2.6. SSPC-SP 7 1.2.1.2.7. SSPC-SP 10 1.2.1.2.8. SSPC-SP 11
- 1.2.1.2.9. SSPC-SP 12 1.2.1.2.10. SSPC-SP 13 1.2.1.3. MATERIAL SAFETY DATA SHEETS / ENVIRONMENTAL DATA SHEETS
- 1.3 SUBMITTALS 1.3.1. APPLICATOR QUALIFICATIONS STATEMENT
- 1.4. QUALITY ASSURANCE
- 1.4.1. INSTALLER QUALIFICATIONS 1.4.1.1. A FIRM OR INDIVIDUAL EXPERIENCED IN APPLYING PAINTS AND COATINGS SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THOSE INDICATED FOR THIS PROJECT 1.4.1.2. THE FIRM OR INDIVIDUAL SHALL BE APPROVED IN WRITING BY THE COATING
- 1.4.2. PAINT EXPOSED SURFACES. IF A COLOR OF FINISH, OR A SURFACE IS NOT SPECIFICALLY MENTIONED, ARCHITECT WILL SELECT FROM STANDARD PRODUCTS,
- COLORS, AND SHEENS AVAILABLE 1.4.3. DO NOT PAINT PREFINISHED ITEMS, CONCEALED SURFACES, FINISHED METAL SURFACES, OPERATING PARTS, AND LABELS UNLESS INDICATED 1.4.4. MOCK-UP: PROVIDE A MOCK-UP FOR EVALUATION OF SURFACE PREPARATION
- TECHNIQUES AND APPLICATIONWORKMANSHIP. AN IN-PLACE MOCK-UP MAY BE PERMITTED AT THE DISCRETION OF THE ARCHITECT OR OWNER 1.4.4.1. FINISH SURFACES FOR VERIFICATION OF PRODUCTS, COLORS, AND SHEENS.
- 1.4.4.2. FINISH AREA DESIGNATED BY ARCHITECT OR OWNER 1.4.4.3. DO NOT PROCEED WITH REMAINING WORK UNTIL THE COATING
- MANUFACTURER APPROVES THE MOCK-UP. 1.5. DELIVERY, STORAGE, AND HANDLING
- 1.5.1. DELIVERY: DELIVER MANUFACTURER'S UNOPENED CONTAINERS TO THE WORK SITE. PACKAGING SHALL BEAR THE MANUFACTURER'S NAME, LABEL, AND THE FOLLOWING INFORMATION
- 1.5.1.1. PRODUCT NAME AND TYPE
- 1.5.1.2. APPLICATION AND USE INSTRUCTIONS 1.5.1.3. SURFACE PREPARATION
- 1.5.1.4. VOC CONTENT
- 1.5.1.5. BATCH DATE
- 1.5.1.6. COLOR NUMBER
- 1.5.2. STORAGE: STORE AND DISPOSE OF SOLVENT BASED MATERIALS, AND MATERIALS USED WITH SOLVENT BASED MATERIALS, IN ACCORDANCE WITH REQUIREMENTS OF LOCAL AUTHORITIES HAVING JURISDICTION.
- 1.5.3. STORE MATERIALS IN AN AREA THAT IS WITHIN THE ACCEPTABLE TEMPERATURE RANGE PER THE MANUFACTURER'S INSTRUCTIONS. PROTECT FROM FREEZING. 1.5.4. HANDLING: MAINTAIN A CLEAN, DRY STORAGE AREA TO PREVENT CONTAMINATION OR DAMAGE TO THE COATINGS. 1.6. PROJECT CONDITIONS
- 1.6.1. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, HUMIDITY, AND VENTILATION) WITHIN LIMITS RECOMMENDED BY THE MANUFACTURER FOR OPTIMUM RESULTS. DO NOT INSTALL PRODUCTS UNDER ENVIRONMENTAL CONDITIONS OUTSIDE OF THE MANUFACTURER'S ABSOLUTE LIMITS.
- 1.6.2. DO NOT APPLY COATINGS IN AREAS WHERE DUST IS BEING GENERATEI 1.6.3. PROVIDE LIGHTING LEVELS IN AREAS WHERE COATINGS ARE BEING INSTALLED OF AT LEAST 80 FOOT CANDLES.
- 1.7. EXTRA MATERIALS 1.7.1. DISPOSE OF EXTRA MATERIALS IN ACCORDANCE WITH REGULATIONS OF AUTHORITIES HAVING JURISDICTION

PART 2 - PRODUCTS 2.1. MANUFACTURERS

- 2.1.1. THE SHERWIN-WILLIAMS COMPANY, 1-800-524-5979, WWW.SHERWIN-
- WILLIAMS.COM 2.1.1.1. SOURCE FROM THE NEAREST SHERWIN-WILLIAMS LOCATION
- 2.1.2. SUBSTITUTIONS SHALL NOT BE PERMITTED
- 2.2. APPLICATION 2.2.1. INTERIOR PAINTS AND COATINGS
- 2.2.1.1. METAL: STRUCTURAL STEEL, JOISTS, TRUSSES, BEAMS, PARTITIONS AND SIMILAR ITEMS
- 2.2.1.2. WOOD: WALLS, CEILINGS, DOORS, TRIM AND SIMILAR ITEMS 2.2.1.3. GYPSUM: DRYWALL BOARD, GYPSUM BOARD
- 2.2.1.4. CONCRETE FLOORS
- 2.3. PAINT MATERIALS
- 2.3.1. PAINTS AND COATINGS 2.3.1.1. UNLESS OTHERWISE INDICATED, PROVIDE FACTORY MIXED AND TINTED COATINGS. DO NOT REDUCE, THIN, OR DILUTE COATINGS OR ADD MATERIALS TO COATINGS UNLESS SUCH PROCEDURE IS SPECIFICALLY DESCRIBED IN THE
- MANUFACTURER'S PRODUCT INSTRUCTIONS. 2.3.1.2. FOR OPAQUE FINISHES, TINT EACH COAT INCLUDING PRIMER COAT. FOLLOW MANUFACTURER'S PRODUCT INSTRUCTIONS FOR OPTIMAL COLOR CONFORMANCE. 2.3.2. PRIMERS: WHERE THE MANUFACTURER OFFERS OPTIONS ON PRIMERS FOR A PARTICULAR SUBSTRATE, USEPRIMER CATEGORIZED AS "BEST" BY THE
- 2.3.2.1. WHEN INDICATED BY THE MANUFACTURER, USE THE APPROPRIATE "P-SHADE" TINT COLOR FOR THE DESIRED TOPCOAT COLOR. 2.3.2.2. WHEN NO "P-SHADE" COLOR IS INDICATED, TINT THE PRIMER TO MATCH THE
- 2.3.3. COATING APPLICATION ACCESSORIES: PROVIDE ALL PRIMERS, SEALERS, CLEANING AGENTS, CLEANING CLOTHS, SANDING MATERIALS, AND CLEAN-UP MATERIALS PER MANUFACTURER'S SPECIFICATIONS.
- 2.3.4. COLOR: AS SCHEDULED OR INDICATED ON DRAWINGS
- 2.4. INTERIOR PAINT SCHEDULE 2.4.1. METAL: DUCTWORK
- 2.4.1.1. DRYFALL WATERBORNE TOPCOATS: 2.4.1.1.1. EG-SHEL FINISH
- 2.4.1.1.1.1 FIRST COAT: S-W PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL,
- 2.4.1.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL, B42W82, 8.0 MILS WET, 2.0 MILS DRY PER COAT 2.4.2. METAL (OVERHEAD): STRUCTURAL STEEL, JOISTS, TRUSSES, BEAMS,
- MISCELLANEOUS AND ORNAMENTAL IRON, FERROUS METAL
- 2.4.2.1. DRYFALL WATERBORNE TOPCOATS
- 2.4.2.1.1. EG-SHEL FINISH
- 2.4.2.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66W310, 7.0 MILS WET, 3.0 MILS DRY
- 2.4.2.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL WATERBORNE ACRYLIC DRYFALL, B42W82, 8.0 MILS WET, 2.0 MILS DRY PER COAT
- 2.4.3. METAL: STRUCTURAL STEEL AND IRON, FERROUS METAL, MISC. IRON 2.4.3.1. ACRYLIC SYSTEM
- 2.4.3.1.1. EG-SHEL FINISH
- 2.4.3.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66A00310, 5.0 MILS WET, 1.8 MILS DRY 2.4.3.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS
- 2.4.3.1.1.3. THIRD COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET, 2.1 MILS DRY

PAINT SPECIFICATIONS

- 2.4.4. WOOD (VERTICAL SURFACES): WALLS, CEILINGS, DOORS, TRIM, WINDOW FRAMES 2.4.4.1. ALKYD SYSTEM
- 2.4.4.1.1. SEMI-GLOSS FINISH (WATERBASED) 2.4.4.1.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS
- WET, 1.8 MILS DRY 2.4.4.1.1.2. SECOND COAT: S-W PROCLASSIC INTERIOR WATERBASED ACRYLIC-
- ALKYD SEMI-GLOSS, B34W8853 2.4.4.1.1.3. THIRD COAT: S-W PROCLASSIC INTERIOR WATERBASED ACRYLIC-ALKYD SEMI-GLOSS, B34W8853, 4 MILS WET, 1.6 MILS DRY PER COAT
- 2.4.5. WOOD (HORIZONTAL SURFACE): TRIM, WINDOW FRAMES, COUNTERS 2.4.5.1. ACRYLIC SYSTEM
- 2.4.5.1.1. SEMI-GLOSS FINISH 2.4.5.1.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY
- 2.4.5.1.1.2. SECOND COAT: S-W SNAPDRY INTERIOR/EXTERIOR. A71 SERIES. 4 MILS WFT 144 MILS DRY 2.4.5.1.1.3. THIRD COAT: S-W SNAPDRY INTERIOR/EXTERIOR, A71 SERIES, 4 MILS
- WET, 1.44 MILS DRY 2.4.6. GYPSUM: WALLS, CEILINGS, GYPSUM BOARD, AND SIMILAR ITEMS 2.4.6.1. LATEX SYSTEM
- 2.4.6.1.1. FLAT FINISH 2.4.6.1.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY
- 2.4.6.1.1.2. SECOND COAT: S-W EMERALD INTERIOR LATEX FLAT K35 SERIES, 2.4.6.1.1.3. THIRD COAT: S-W EMERALD INTERIOR LATEX FLAT K35 SERIES, K35W8353, 4 MILS WET, 1.6 MILS DRY PER COAT
- 2.4.6.1.2. EG-SHELL FINISH (AT RESTROOMS AND RESTROOM ALCOVE) 2.4.6.1.2.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS 2.4.6.1.2.2. SECOND COAT: S-W PAINT SHIELD INTERIOR LATEX MICROBICIDAL,
- D12W00051, 4.0 MILS WET, 1.8 MILS DRY 2.4.6.1.2.3. THIRD COAT: S-W PAINT SHIELD INTERIOR LATEX MICROBICIDAL, D12W00051, 4.0 MILS WET, 1.8 MILS DRY
- 2.4.6.2. POLYURETHANE (DRY ERASE) SYSTEM 2.4.6.2.1. GLOSS FINISH 2.4.6.2.1.1. FIRST COAT: S-W PREMIUM WALL & WOOD PRIMER, B28W8811, 4 MILS WET, 1.8 MILS DRY
- 2.4.6.2.1.2. SECOND COAT: S-W EMERALD INTERIOR LATEX FLAT K35 SERIES. K35W8353, 4 MILS WET, 1.6 MILS DRY
- 2.4.6.3.1.3. THIRD COAT: S-W DRY ERASE CLEAR GLOSS COATING, KB65C2000 KIT, 4 MILS WET, 2 MILS DRY 2.4.6.3.1.4. FOURTH COAT: S-W DRY ERASE CLEAR GLOSS COATING, KB65C2000 KIT,
- 4 MILS WET, 2 MILS DRY 2.4.7. CONCRETE: CONCRETE FLOORS
- 2.4.7.1. ALKYD SYSTEM 2.4.7.1.1. FLAT FINISH
- 2.4.7.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-PARK WATERBORNE TRAFFIC MARKING PAINT, B97YD2467, 15 MILS WET, 9.3 MILS DRY
- 2.4.7.2. ACRYLIC SYSTEM 2.4.7.2.1. GLOSS FINISH 2.4.7.2.1.1. FIRST COAT: H&C CLARISHIELD WATER-BASED WET-LOOK CONCRETE
- SEALER, 50.148155 2.4.7.2.1.2. SECOND COAT: H&C CLARISHIELD WATER-BASED WET-LOOK CONCRETE SEALER, 50.148155
- 2.5. EXTERIOR PAINT SCHEDULE 2.5.1. MASONRY: CONCRETE MASONRY UNITS 2.5.1.1. ELASTOMERIC SYSTEM
- 2.5.1.1.1. FLAT FINISH 2.5.1.1.1.1. FIRST COAT: S-W LOXON BLOCK SURFACER, A24W00200, 16 MILS WET,
- 8.8 MILS DRY 2.5.1.1.1.2. SECOND COAT: S-W EMERALD EXTERIOR LATEX FLAT. K47 SERIES, 5.3 MILS WET, 2.1 MILS DRY
- 2.5.1.1.1.3. THIRD COAT: S-W EMERALD EXTERIOR LATEX FLAT. K47 SERIES. 6.4 MILS WET, 2.5 MILS DRY 2.5.2. METAL: GALVANIZED
- 2.5.2.1. ACRYLIC SYSTEM
- 2.5.2.1.1. GLOSS FINISH 2.5.2.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66A00310, 5.0 MILS WET, 1.8 MILS DRY
- 2.5.2.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET, 2.1 MILS DRY 2.5.2.1.1.3 THIRD COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS
- WET, 2.1 MILS DRY 2.5.3. METAL: STRUCTURAL STEEL AND IRON, FERROUS METAL, MISC. IRON
- 2.5.3.1. ACRYLIC SYSTEM 2.5.3.1.1. EG-SHEL FINISH 2.5.3.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-CRYL UNIVERSAL PRIMER, B66A00310, 5.0 MILS WET, 1.8 MILS DRY
- 2.5.3.1.1.2. SECOND COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS 2.5.3.1.1.3. THIRD COAT: S-W PRO INDUSTRIAL ACRYLIC, B66-600 SERIES, 6.0 MILS WET, 2.1 MILS DRY
- 2.5.4. EXTERIOR INSULATION AND FINISH SYSTEM, SYNTHETIC STUCCO 2.5.4.1. LATEX SYSTEM
- 2.5.4.1.1. FLAT FINISH 2.5.4.1.1.1. FIRST COAT: S-W LOXON CONCRETE AND MASONRY PRIMER, A24W08300,5.3 MILS WET, 2.1 MILS DRY 2.5.4.1.1.2. SECOND COAT: S-W EMERALD EXTERIOR LATEX FLAT, K47 SERIES, 5.3
- 2.5.4.1.1.3. THIRD COAT: S-W EMERALD EXTERIOR LATEX FLAT, K47 SERIES, 6.4 MILS WET, 2.5 MILS DRY
- 2.5.5. PÁVING: ASPHALTIC CONCRETE AND CONCRETE 2.5.5.1. ALKYD SYSTEM 2.5.5.1.1. FLAT FINISH
- 2.5.5.1.1.1. FIRST COAT: S-W PRO INDUSTRIAL PRO-PARK WATERBORNE TRAFFIC MARKING PAINT, B97YD2467, 15 MILS WET, 9.3 MILS DRY

PART 3 – EXECUTION 3.1. EXAMINATION

- 3.1.1. DO NOT BEGIN INSTALLATION UNTIL SUBSTRATES HAVE BEEN PROPERLY PREPARED. NOTIFY ARCHITECT OFUNSATISFACTORY CONDITIONS BEFORE PROCEEDING. IF SUBSTRATE IS THE RESPONSIBILITY OF ANOTHER INSTALLER, NOTIFY ARCHITECT OF UNSATISFACTORY PREPARATION BEFORE PROCEEDING. 3.1.2. PROCEED WITH WORK ONLY AFTER CONDITIONS HAVE BEEN CORRECTED AND APPROVED BY ALL PARTIES, OTHERWISE APPLICATION OF COATINGS WILL BE CONSIDERED AS AN ACCEPTANCE OF SURFACE CONDITIONS.
- 3.2. SURFACE PREPARATION 3.2.1. GENERAL: SURFACES SHALL BE DRY AND IN SOUNDS CONDITION. REMOVE OIL DUST, DIRT, LOOSE RUST, PEELINGPAINT, OR OTHER CONTAMINATION TO ENSURE
- 3.2.1.1. REMOVE MILDEW BEFORE PAINTING BY WASHING WITH A SOLUTION OF 1 PART LIQUID HOUSEHOLDBLEACH AND 3 PARTS WARM WATER. APPLY THE SOLUTION AND SCRUB THE MILDEW AREA. ALLOW THESOLUTION TO REMAIN ON THE SURFACE FOR 10 MINUTES. RINSE THOROUGHLY WITH CLEAN WATER ANDALLOW THE SURFACE TO DRY A MINIMUM OF 48 HOURS BEFORE PAINTING. WEAR PROTECTIVE GLASSES ORGOGGLES, WATERPROOF GLOVES, AND PROTECTIVE CLOTHING. QUICKLY WASH OFF ANY OF THE MIXTURE THATCOMES IN CONTACT WITH SKIN. DO NOT ADD DETERGENTS OR AMMONIA TO THE BLEACH/WATER SOLUTION. 3.2.1.2. REMOVE ITEMS INCLUDING BUT NOT LIMITED TO THERMOSTATS, ELECTRICAL OUTLETS, SWITCH COVERSAND SIMILAR ITEMS PRIOR TO PAINTING. AFTER COMPLETING PAINTING OPERATIONS IN EACH SPACE OR AREAREINSTALL ITEMS
- REMOVED USING WORKERS SKILLED IN THE TRADES INVOLVED. 3.2.1.3. NO EXTERIOR PAINTING SHOULD BE DONE IMMEDIATELY AFTER A RAIN, DURING FOGGY WEATHER, WHENRAIN IS PREDICTED, OR WHEN THE TEMPERATURE IS BELOW 50 DEGREES F (10 DEGREES C) UNLESSPRODUCTS ARE DESIGNED SPECIFICALLY FOR THESE CONDITIONS. ON LARGE EXPANSES OF METAL SIDINGTHE AIR, SURFACE, AND MATERIAL TEMPERATURES MUST BE 50 DEGREES F (10 DEGREES
- C) OR HIGHER TO USELOW TEMPERATURE PRODUCTS. 3.2.2. ALUMINUM: 3.2.2.1. REMOVE ALL OIL, GREASE, DIRT, OXIDE, AND OTHER FOREIGN MATERIAL BY CLEANING PER SSPC-SP1,SOLVENT CLEANING

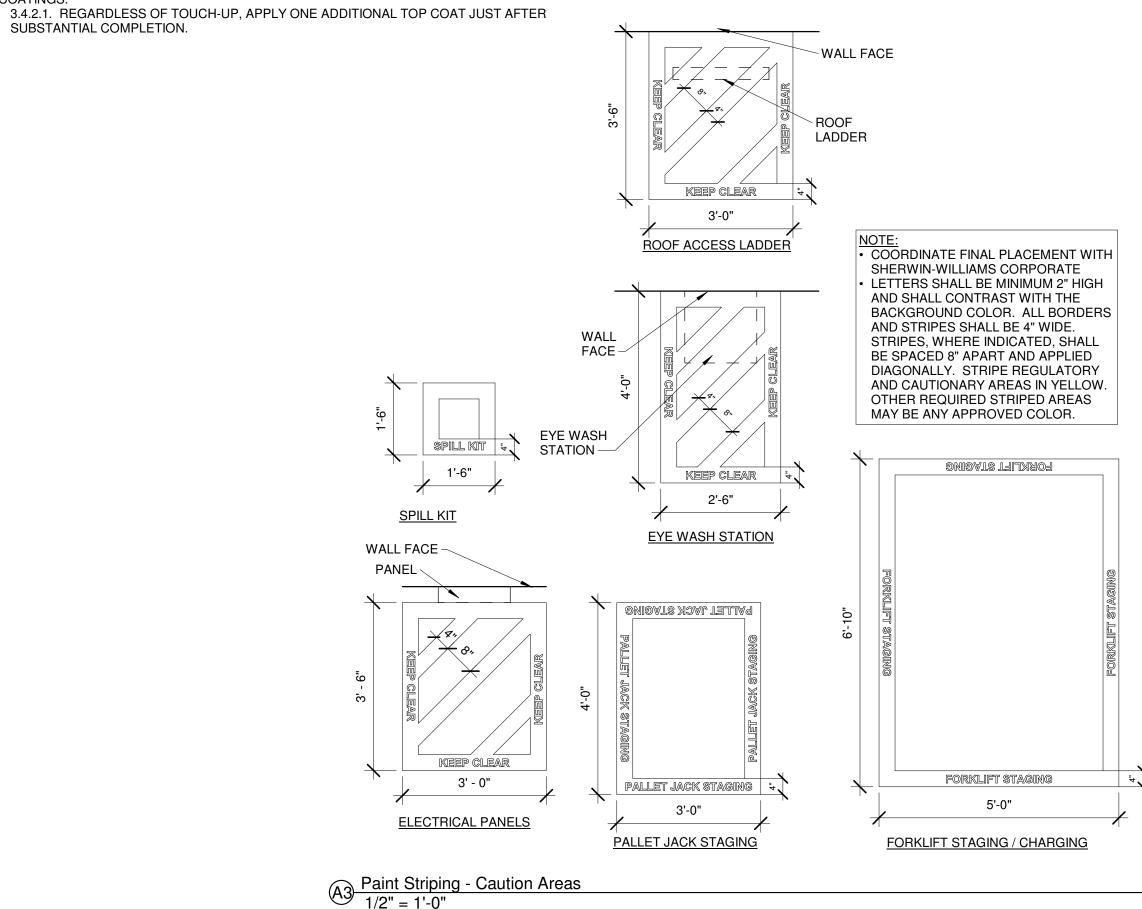
PAINT SPECIFICATIONS

- 3.2.3. CONCRETE AND CONCRETE MASONRY: 3.2.3.1. REMOVE ALL LOOSE MORTAR AND FOREIGN MATERIAL. SURFACE MUST BE FREE OF LAITANCE, CONCRETE DUST, DIRT, FORM RELEASE AGENTS, MOISTURE CURING MEMBRANES, LOOSE CEMENT, ANDHARDENERS. CONCRETE MUST BE CURED AT LEAST 30 DAYS AT 75 DEGREES F (24 DEGREES C). THE PH OFTHE
 - SURFACE SHOULD BE BETWEEN 6 AND 9 UNLESS THE PRODUCTS ARE DESIGN TO BE USE IN HIGH (ORLOW) PH ENVIRONMENTS. ON TILT-UP AND CAST-IN-PLACE CONCRETE COMMERCIAL DETERGENTS ANDABRASIVE BLASTING MAY BE NECESSARY TO PREPARE THE SURFACE. FILL BUG HOLES, AIR POCKETS, ANDOTHER
- VOIDS WITH A CEMENT PATCHING COMPOUND. 3.2.4. COPPER AND STAINLESS STEEL 3.2.4.1. REMOVE ALL OIL, GREASE, DIRT, OXIDE, AND OTHER FOREIGN MATERIAL BY
- CLEANING PER SSPC-SP2, HAND TOOL CLEANING. 3.2.5. GYPSUM BOARD 3.2.5.1. EXTERIOR
- 3.2.5.1.1. MUST BE CLEAN AND DRY. ALL NAIL HEADS MUST BE SET AND SPACKLED. JOINTS MUST BEPAINTED AND COVERED WITH A JOINT COMPOUND. SPACKLED NAIL HEADS AND TAPE JOINTS MUST BESANDED SMOOTH AND ALL DUST REMOVED PRIOR TO PAINTING. EXTERIOR SURFACES MUST BESPACKLED WITH EXTERIOR GRADE COMPOUNDS. PROVIDE GYPSUM BOARD FINISH LEVEL ASINDICATED ON DRAWINGS OR AS SPECIFIED ELSEWHERE.
- 3.2.5.2. INTERIOR 3.2.5.2.1. MUST BE CLEAN AND DRY. ALL NAIL HEADS MUST BE SET AND SPACKLED. JOINTS MUST BEPAINTED AND COVERED WITH A JOINT COMPOUND. SPACKLED NAIL HEADS AND TAPE JOINTS MUST BESANDED SMOOTH AND ALL DUST REMOVED PRIOR TO PAINTING. PROVIDE GYPSUM BOARD FINISHLEVEL AS INDICATED ON DRAWINGS OR AS SPECIFIED ELSEWHERE.
- 3.2.6. GALVANIZED METAL 3.2.6.1. CLEAN PER SSPC-SP1 USING DETERGENT AND WATER OR A DEGREASING CLEANER TO REMOVEGREASES AND OILS. APPLY A TEST AREA PRIMING AS REQUIRED. ALLOW THE COATING TO DRY AT LEAST ONEWEEK BEFORE TESTING. IF ADHESION IS POOR THEN BRUSH BLAST PER SSPC-SP7 TO REMOVE TREATMENTS.
- 3.2.7.1. STRUCTURAL, PLATE, AND SIMILAR ITEMS 3.2.7.1.1. SHOULD BE CLEANED BY ONE OR MORE OF THE SURFACE PREPARATIONS DESCRIBEDBELOW. VISUAL STANDARDS ARE AVAILABLE THROUGH THE SOCIETY
- OF PROTECTIVE COATINGS. 3.2.7.1.1.1. SOLVENT CLEANING: SSPC-SP1
- 3.2.7.1.1.2. HAND TOOL CLEANING: SSPC-SP2 3.2.7.1.1.3. POWER TOOL CLEANING: SSPC-SP3
- 3.2.7.1.1.4. WHITE METAL BLAST CLEANING: SSPC-SP5 OR NACE 1 3.2.7.1.1.5. COMMERCIAL BLAST CLEANING: SSPC-SP6 OR NACE 3
- 3.2.7.1.1.6. BRUSH-OFF BLASTING: SSPC-SP7 OR NACE 4 3.2.7.1.1.7. POWER TOOL CLEANING TO BARE METAL: SSPC-SP1 3.2.7.1.1.8. NEAR-WHITE BLAST CLEANING: SSPC-SP10 OR NACE 2
- 3.2.7.1.1.9. HIGH AND ULTRA-HIGH PRESSURE WATER JETTING FOR STEEL AND OTHER HARDMATERIALS: SSPC-SP12 OR NACE 5 3.2.7.1.1.10. WATER BLASTING: SSPC-SP12 OR NACE 5
- 3.2.8. WOOD 3.2.8.1. MUST BE CLEAN AND DRY. PRIME AND PAINT AS SOON AS POSSIBLE. KNOTS AND PITCH STREAKS MUSTBE SCRAPED, SANDED, AND SPOT PRIMED BEFORE AND FULL PRIMING COAT IS APPLIED. PATCH ALLNAIL HOLES AND IMPERFECTIONS WITH A WOOD FILLER OR PUTTY AND SAND SMOOTH.
- 3.3. INSTALLATION 3.3.1. APPLY ALL COATINGS AND MATERIALS PER THE MANUFACTURER'S SPECIFICATIONS. DO NOT THIN COATINGSUNLESS SPECIFICALLY DIRECTED BY THE
- MANUFACTURER. 3.3.2. DO NOT APPLY TO WET OR DAMP SURFACES. WAIT AT LEAST 30 DAYS BEFORE APPLYING TO NEWCONCRETE OR MASONRY UNLESS USING PRODUCTS SPECIFICALLY DESIGNED TO BE APPLIED PRIOR TO30 DAYS OF CURING TIME. TEST NEW CONCRETE FOR MOISTURE CONTENT. WAIT UNTIL WOOD ISFULLY DRY AFTER RAIN OR MORNING
- DEW OR FOG. 3.3.3. APPLY COATINGS USING METHODS AND TOOLS RECOMMENDED BY THE
- MANUFACTURER. 3.3.4. UNIFORMLY APPLY COATINGS WITHOUT RUNS, DRIPS, SAGS, HOLIDAYS, OR BRUSH MARKS ANDWITH A CONSISTENT SHEEN.
- 3.3.5. APPLY COATINGS AT SPREADING RATE REQUIRED TO ACHIEVE THE MANUFACTURER'S RECOMMENDEDDRY FILM THICKNESS. 3.3.6. REGARDLESS OF NUMBER OF COATS SPECIFIED, APPLY AS MANY COATS AS NECESSARY FORCOMPLETE HIDE AND UNIFORM APPEARANCE. 3.3.7. THE COATED SURFACE MUST BE INSPECTED AND APPROVED BY THE ARCHITECT.
- 3.4. PROTECTION 3.4.1. PROTECT FINISHED COATINGS FROM DAMAGE UNTIL COMPLETION OF THE **PROJECT**

AND MANUFACTURERJUST PRIOR TO THE APPLICATION OF EACH COAT.

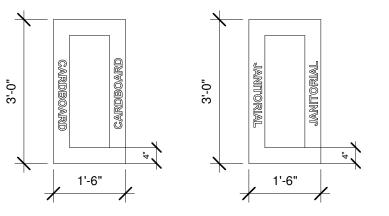
SUBSTANTIAL COMPLETION.

3.4.2. TOUCH-UP DAMAGED COATINGS AFTER SUBSTANTIAL COMPLETION, FOLLOWING MANUFACTURER'SRECOMMENDATION FOR TOUCH UP OR REPAIR OF DAMAGED COATINGS. REPAIR ANY DEFECTS THATWILL HINDER THE PERFORMANCE OF THE

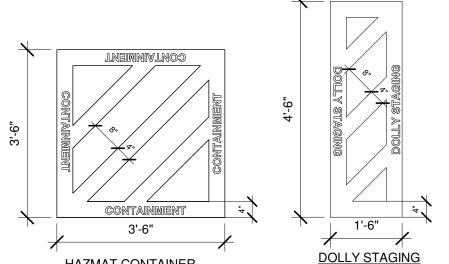


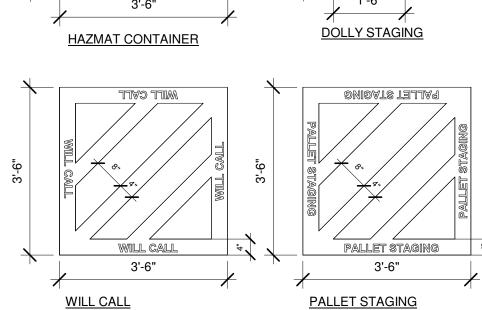
NOTE:
COORDINATE FINAL PLACEMENT WITH SHERWIN-WILLIAMS CORPORATE · LETTERS SHALL BE MINIMUM 2" HIGH AND SHALL CONTRAST WITH THE BACKGROUND COLOR. ALL BORDERS AND STRIPES SHALL BE 4" WIDE. STRIPES, WHERE INDICATED, SHALL BE SPACED 8" APART AND APPLIED DIAGONALLY. STRIPE REGULATORY AND CAUTIONARY AREAS IN YELLOW. OTHER REQUIRED STRIPED AREAS MAY BE ANY APPROVED COLOR.

MOP BUCKET



CARDBOARD STAGING





Paint Striping - Operational Areas
1/2" = 1'-0"

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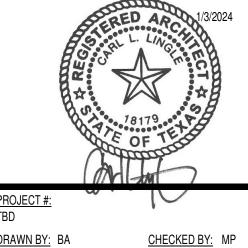
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SHERWIN WILLIAMS

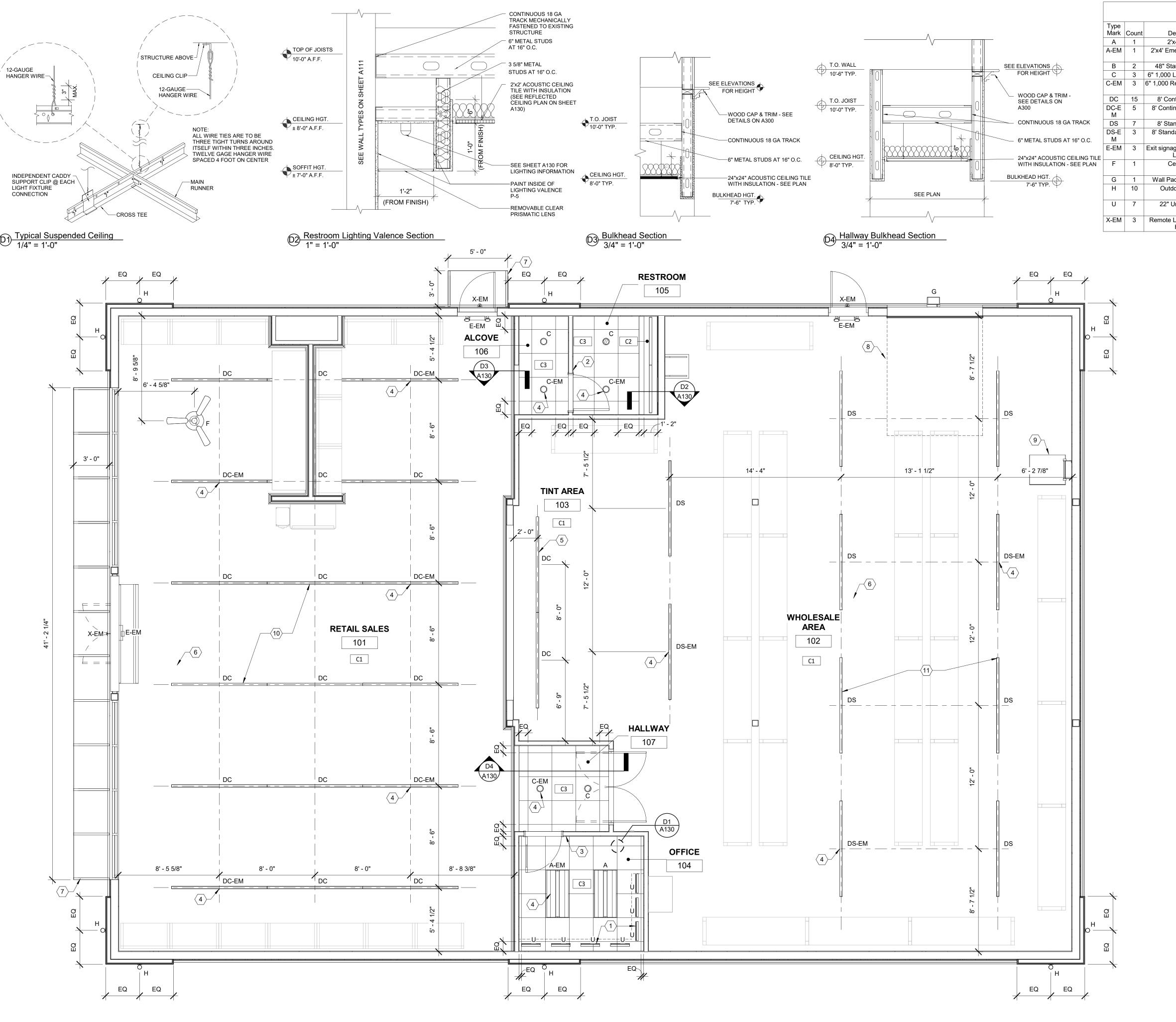
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SHEET TITLE:

Paint Specifications



	Lighting Fixture Schedule							
Type Mark	Count	Description	Manufacturer	Model	Lamp	Comments		
Α	1	2'x4' Troffer	GE Current	LVT24B048MM840VQLTWHTE	LED	To be sourced from Wesco		
A-EM	1	2'x4' Emergency Troffer	GE Current	LVT24B048MM840VQLTWHTEEL	LED	To be sourced from Wesco - Connect to non-switched emergency circuit		
В	2	48" Standalone Strip	GE Current	ALV204T04T481DSQVQSTKQW	LED	To be sourced from Wesco		
С	3	6" 1,000 Lumen LED Trim	GE Current	LRXBR61X9CWVQ	LED	To be sourced from Wesco		
C-EM	3	6" 1,000 Recessed EM Can	GE Current	LRXR610840MDEL	LED	To be sourced from Wesco - Connect to non-switched emergency circuit		
DC	15	8' Continuous Strip	GE Current	ALV208T08T481DCQVQSTKQW	LED	To be sourced from Wesco		
DC-E M	5	8' Continuous EM Strip	GE Current	ALV208T08T481DCQVESTKQW	LED	To be sourced from Wesco - Connect to non-switched emergency circuit		
DS	7	8' Standalone Strip	GE Current	ALV208T08T481DSQVQSTKQW	LED	To be sourced from Wesco		
DS-E M	3	8' Standalone EM Strip	GE Current	ALV208T08T481DSQVESTKQW	LED	To be sourced from Wesco - Connect to non-switched emergency circuit		
E-EM	3	Exit signage w/ Emergency Lighting	COOPER	APCH7R	LED	Exit sign/ Emergency combo fixture with 90 minute battery backup		
F	1	Ceiling Fan	Craftmade	MND54BNK3 - 54"		Mount @ 8'-0" A.F.FInstall "lighting box" for stability		
G	1	Wall Pack W/Photocell	GE Current	EWLS02140AF740N3CBDKBZ	LED			
Н	10	Outdoor Cylinder	PROGRESS	P5641□20/30K BZ	LED	Mount @ 9'-0" A.F.FInstall "lighting box" for stability		
U	7	22" Undercabinet	JUNO	UPLD 22IN SWW4 90CRI WH	LED	Use splice box & jumper connectors		
X-EM	3	Remote LED Emergency	COOPER	APWR2	LED	Remote from Exit sign/Emergency		

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RCP CODED NOTES

1 INSTALL LIGHTS ON UNDERSIDE OF OFFICE SHELF - SWITCH WITH OTHER OFFICE

- LIGHTS SEE DETAIL B3/A111 INSTALL AUTOMATIC, MOTION SENSING SWITCHES (15-MINUTE GRACE PERIOD) TO CONTROL ALL LIGHTING AND EXHAUST FANS (IF APPLICABLE)
- WIRE ALL LIGHT FIXTURES IN THE SALES, CORRIDOR AND STAGING AREAS THROUGH 8-BUTTON ELECTRONIC SWITCH WITH LED INDICATORS INSIDE THE OFFICE (LEGRAND LMSW-108 OR EQUAL)
- 4 CONNECT "D-E" FIXTURES TO SEPARATE NON-SWITCHED CIRCUIT 5 MOUNT LIGHT FIXTURES IN TINTING AREA 9'-6" A.F.F.
- 6 CONFIRM HVAC DUCTWORK AND DIFFUSER/RETURN LOCATIONS WITH
- MECHANICAL SHEETS HOLD DUCTWORK CLOSE TO STRUCTURE METAL FRAME BLUE FABRIC AWNING
- 8 HOLD OVERHEAD DOOR TRACK BELOW LIGHT FIXTURE VERIFY HEIGHT IN FIELD
- 9 ROOF ACCESS HATCH SEE DETAIL C4/A111 COORDINATE PLACEMENT WITH STRUCTURAL
- 10 LIGHT FIXTURES AT RETAIL SALES TO BE MOUNTED AT 12' AFF. 11 LIGHT FIXTURES AT WHOLESALE AREA TO BE MOUNTED AT 13'-6" AFF

GENERAL NOTES:

A. VERIFY ALL PLACEMENTS OF LIGHTS WITH ARCHITECT

- PRIOR TO INSTALLATION. B. SEE ELECTRICAL PLANS FOR ADDITIONAL LIGHTING
- INFORMATION C. ALL CEILING MATERIAL SHALL NOT EXCEED FLAME CLASS
- II FLAME SPREAD INDEX 25-75. D. G.C. SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK
- TO ENSURE THAT PROPER CLEARANCES FOR DUCTS, LIGHTS, PIPING, ETC. ARE MET AND THAT THE CEILING HEIGHS NOTED ON THE DRAWINGS ARE MAINTAINED E. G.C. TO VERIFY REQUIREMENTS AND QUANTITIES OF FIRE PROTECTION DEVICES INCLUDING SMOKE DETECTORS, DUCT SMOKE DETECTORS, FIRE ALARMS, RELATED
- SPEAKERS, STROBES, ETC. LIFE SAFETY INSTALLATIONS TO MEET REQUIREMENTS OF ALL APPLICABLE CODES AND ORDINANCES F. G.C. TO CAULK JOINTS BETWEEN CEILING GRID AND
- ADJACENT SURFACES. G. WESCO CONTACT: MARK SABATINO EMAIL: MSABATINO@WESCO.COM

CEILING FINISH SCHEDULE **DESCRIPTION:** NOTES: C1 CEILING: EXPOSED TO STRUCTURE : HVAC DUCTWORK TO BE FINISH: PAINT P-3

CEILING: INSTALL 5/8" GYP. BD. CEILING C2 FINISH: PAINT P-3 U.N.O.

HEIGHT: 8'-0" A.F.F. U.N.O.

PHONE: (440) 554-4669

GRID: USG DX GRID SYSTEM
- GC SUPPLY/INSTALL
- FACTORY PAINTED WHITE MFG: USG FINISH: 24"x24" SANDRIFT #808 COLOR: WHITE

SHERWIN WILLIAMS

07075 "	
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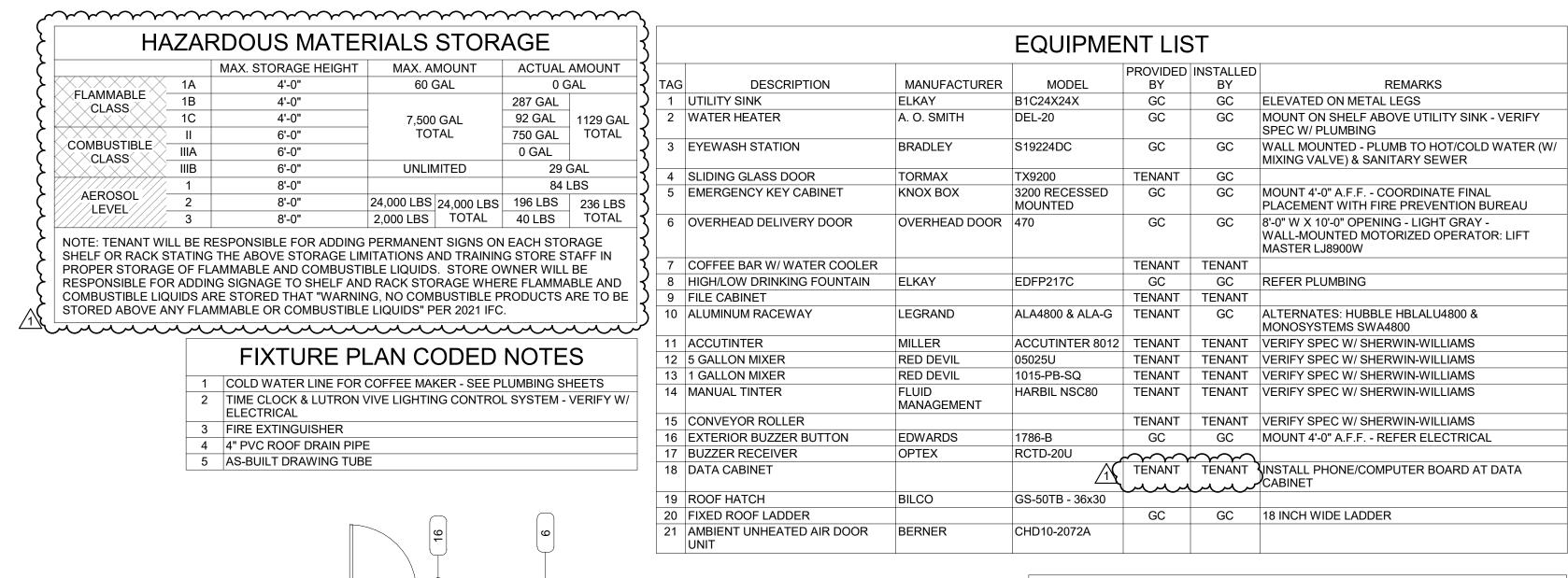
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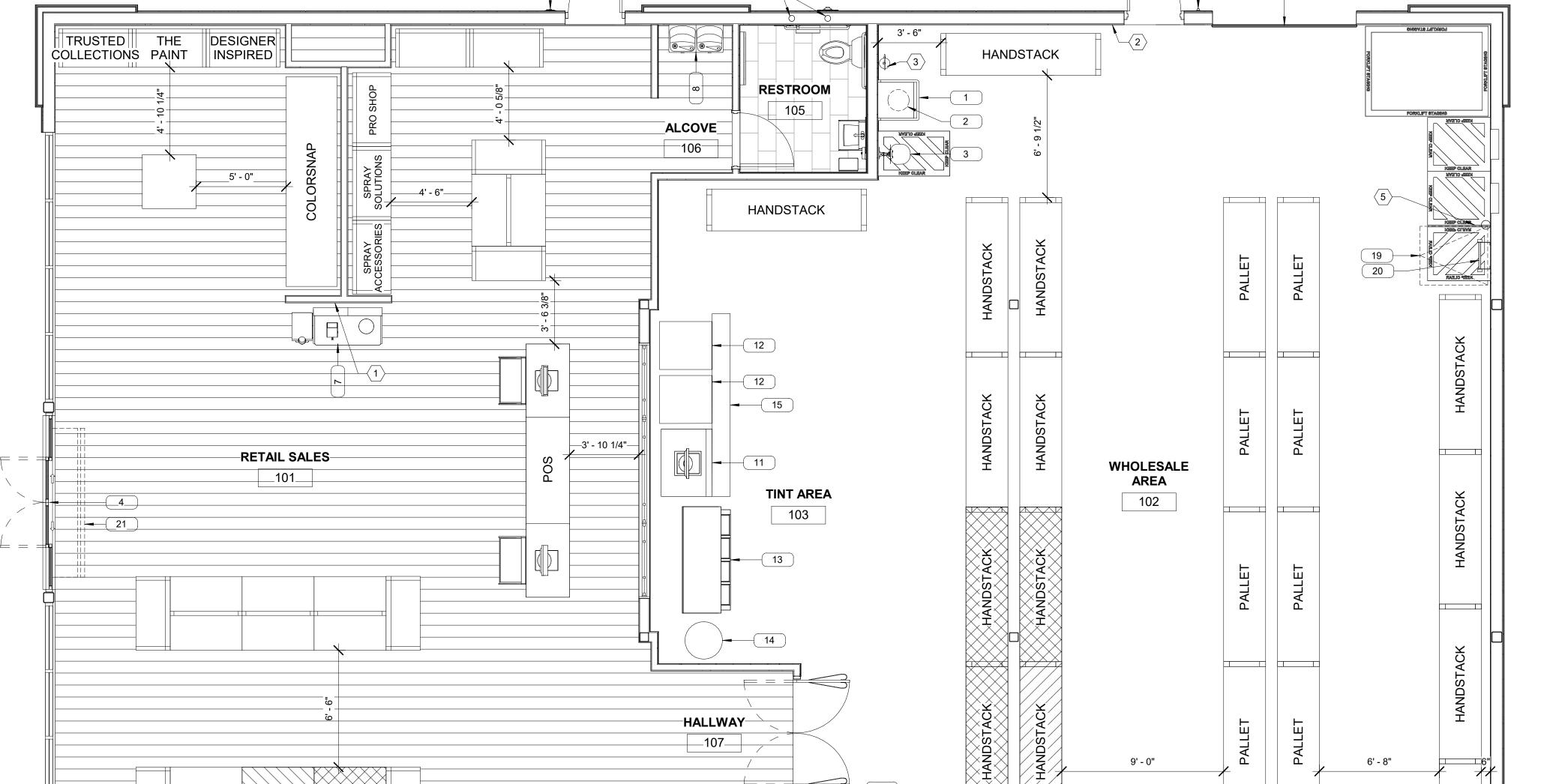
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Reflected Ceiling Plan

SHEET NUMBER:

A130





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HANDSTACK

HANDSTACK

HANDSTACK

OFFICE

104

CONSTRUCTION NOTES

1. THE GC SHALL INSTALL NEW VINYL WOOD PLANK FLOORING AND COVE BASE IN THE SALES, OFFICE AND CORRIDOR AREAS. INSTALL CERAMIC TILE ON THE FLOOR AND AS A 5'-3" HIGH WAINSCOT ON ALL WALLS FACING INTO THE RESTROOMS. SEE SHEET A400 FOR MORE INFORMATION.

2. THE GC SHALL INSTALL SHEETROCK FURRING ON ALL EXTERIOR WALLS, INTERIOR COLUMNS AND MASONRY WALLS FACING INTO THE SALES AREA. THESE WALLS SHALL EXTEND FROM THE SLAB TO THE UNDERSIDE OF THE ROOF DECK. INCLUDE INSULATION AS REQUIRED TO ACHIEVE THE EXTERIOR WALL INSULATION VALUE INDICATED IN THE DESIGN GUIDELINES. SEE THE DESIGN GUIDELINES FOR MORE INFORMATION.

3. THE GC SHALL INSTALL ALL WALLS FACING INTO THE SALES AREA TO BE FLAT, WITH NO PROTRUSIONS.

4. THE GC SHALL INSTALL SOUND INSULATION IN THE WALLS SURROUNDING AND SEPARATING THE RESTROOMS. THIS INSULATION SHALL EXTEND FROM THE SLAB TO THE ASSOCIATED CEILING HEIGHT.

5. THE GC SHALL NEW STOREFRONT WINDOWS AND DOORS WHERE SHOWN ON THIS PLAN. THESE SHALL BE DOUBLE GLAZED, INSULATED "E" GLASS. INSTALL THE MULLIONS TO PROVIDE A MINIMUM CLEAR GLASS SPACE OF 48 INCHES IN WIDTH AND 60 INCHES IN HEIGHT. SEE THE DESIGN GUIDELINES FOR MORE INFORMATION.

6. THE GC SHALL INSTALL RESTROOM ACCESSORIES. SEE THE DESIGN GUIDELINES FOR A LISTING OF THOSE ACCESSORIES AND PRODUCT SELECTIONS.

7. SEE THE REFLECTED CEILING PLAN FOR CEILING LAYOUT AND OTHER RELATED

THE DESIGN GUIDELINES FOR PRODUCT AND COLOR SELECTIONS.

8. THE GC SHALL INSTALL THE SPECIFIED, 3-SECTIONED, WOOD FRAMED, WINDOW FEATURE IN THE WALL BETWEEN THE SALES AND TINTROOM AREAS. PRIME AND PAINT THE FRAMING. INSTALL CLEAR GLASS IN THE TWO END SECTIONS, LEAVING THE CENTER AS A CASED OPENING. SEE ELEVATION A1/A300 FOR MORE INFORMATION. SEE

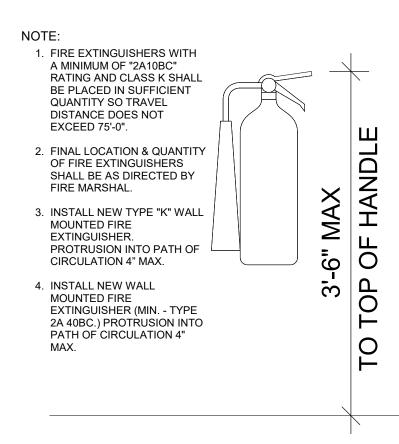
9. THE GC SHALL INSTALL A PLASTIC LAMINATE WORK COUNTER AND UPPER BOOK SHELF IN THE OFFICE. SHERWIN-WILLIAMS TO PROVIDE WIRE RACEWAY FOR DATA. VOICE, AND POWER ALONG DESK. RACEWAY SHALL BE WIRED USING MINIMUM OF TWO (2) CIRCUITS. SPACE EACH OPENING 2'-0" ON CENTER. ALL RECEPTACLES SHALL BE GRAY. G.C. TO INSTALL RACEWAY SURGE/DECORATOR COVERS AT VOICE/DATA LOCATIONS. VOICE/DATA DEVICES AND WIRING SHALL BE INSTALLED BY OTHERS.

10. THE GC SHALL INSTALL A PRIMED AND PAINTED WOOD CAP AND CROWN MOLDING ON TOP OF THE "T" WALL IN THE COLOR STUDIO AREA AND ON THE PERIMETER WALLS OF THE OFFICE, RESTROOMS AND TINT/SALES WALL. SEE SHEET A300 FOR MORE INFORMATION.

11. THE GC SHALL INSTALL WHITE FRP ON THE WALL BEHIND THE UTILITY SINK AND EYE WASH STATION. THIS FEATURE SHALL EXTEND FROM THE SLAB TO 4 FEET A.F.F. AND TO 2 FEET BEYOND EACH SIDE OF THE EQUIPMENT.

12. THE GC SHALL INSTALL A 1/2 INCH PLYWOOD BACK BOARD BENEATH THE SHEETROCK ON THE END OF THE "T" WALL IN THE SALES AREA TO SUPPORT A FLAT PANEL TELEVISION. SEE VIEW A3/A300 FOR INSTALLATION INSTRUCTIONS.

13. THE GC SHALL PAINT ALL INTERIOR AND EXTERIOR WALLS, DOORS, ROOF DECK, EXPOSED CONDUITS. SHERWIN-WILLIAMS WILL SUPPLY ALL LIQUID PAINT PRODUCTS FOR APPLICATION BY THE LANDLORD/CONTRACTOR. SEE THE PAINTING SCHEMATIC FOR THE LOCATION OF ACCENT COLORS. SEE THE PAINTING SCHEDULE CONTAINED IN THE DESIGN GUIDELINES FOR PRODUCT AND COLOR SELECTIONS.

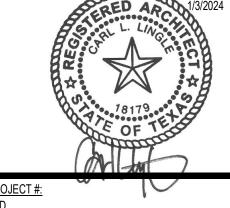


A5 TYPICAL FIRE EXTINGUISHER DETAIL
1" = 1'-0"

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SHERWIN WILLIAMS

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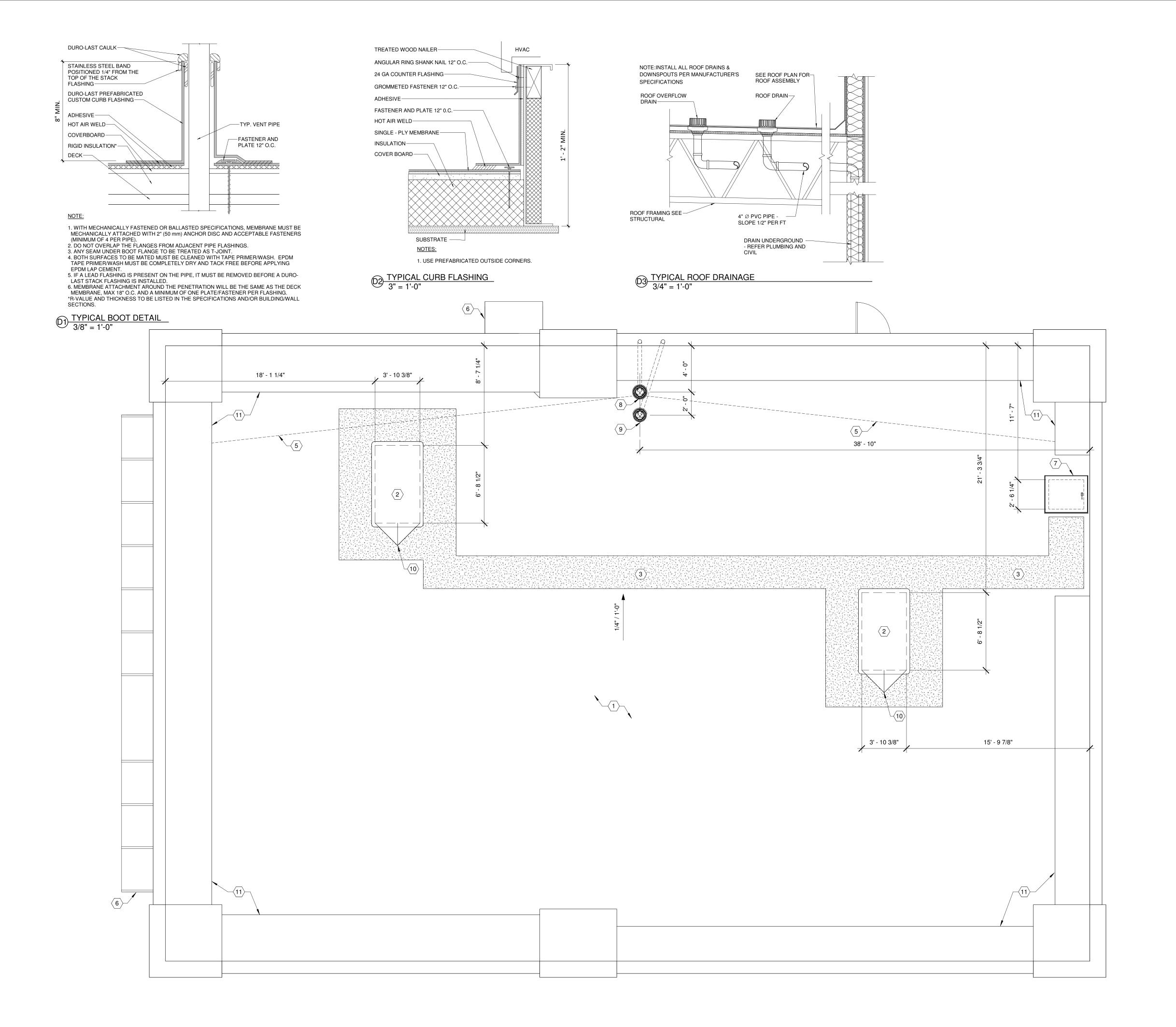
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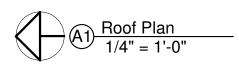
SHEET TITLE:

Fixture Plan & Schedule

SHEET NUMBER:

3





ROOF PLAN CODED NOTES

- 1 WHITE (SRI 29 MIN.) 45 MIL TPO MEMBRANE ROOF OVER R-49 RIGID INSULATION INSTALL PER MANUFACTURER'S SPEC ROOF DECK PER STRUCTURAL - 2% SLOPE MIN.
- 2 MECHANICAL ROOFTOP UNIT SEE MECHANICAL FOR INFORMATION,
- REINFORCE PER STRUCTURAL
- 3 REINFORCED WALKWAY FOR EQUIPMENT ACCESS
- 5 SLOPE CRICKET TO ROOF DRAIN 6 AWNING BELOW - SEE EXTERIOR ELEVATIONS

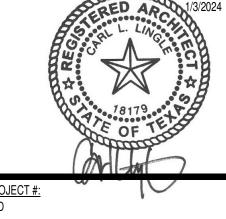
11 ROOF KICKERS PER STRUCTURAL

- 7 ROOF ACCESS HATCH COORDINATE PLACEMENT WITH STRUCTURAL
- 8 ROOF DRAIN J.R. SMITH 1010-A04 (OR EQUIVALENT) 9 ROOF OVERFLOW DRAIN - J.R. SMITH 1070-A04 (OR EQUIVALENT)
- 10 TAPERED INSULATION CRICKET AT EQUIPMENT CURB

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SHERWIN WILLIAMS

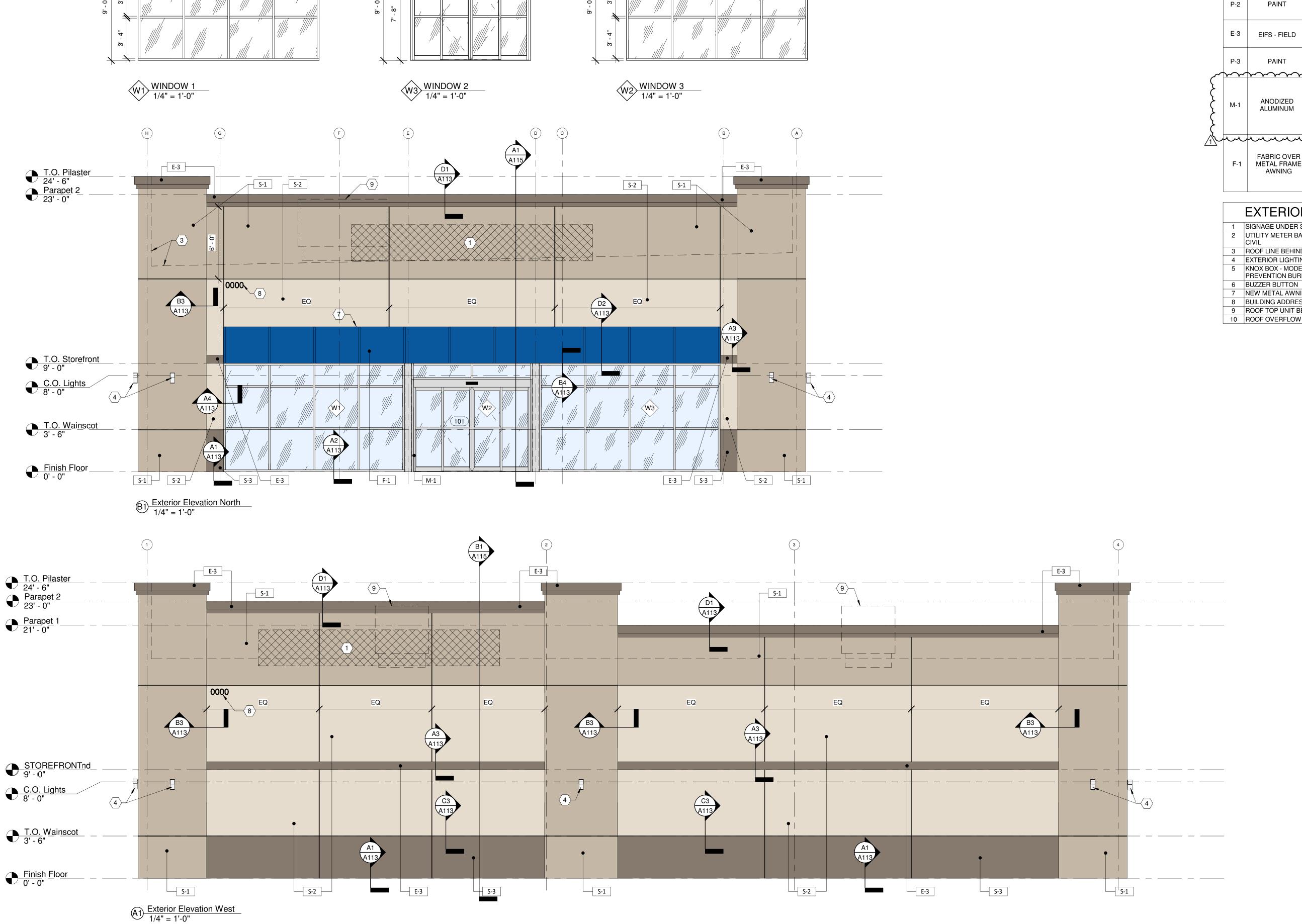
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

Roof Plan

SHEET NUMBER:

A150



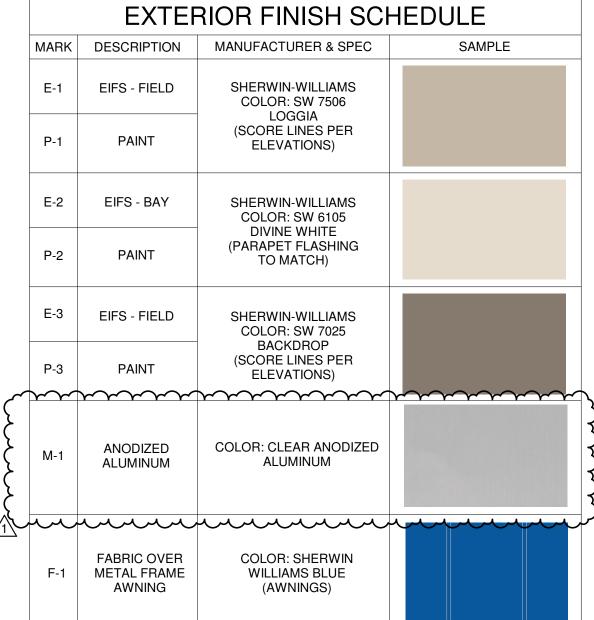
15' - 0"

3' - 6 1/2"

15' - 0"

3' - 6 1/2"

3' - 6 1/2"

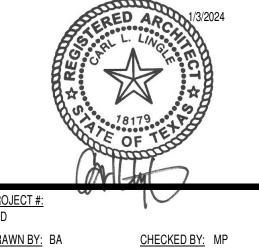


EXTERIOR ELEVATION CODED NOTES

- 1 SIGNAGE UNDER SEPARATE PERMIT 2 UTILITY METER BANK - PAINT TO MATCH ADJACENT FINISH - COORDINATE WITH
- 3 ROOF LINE BEHIND PARAPET
- 4 EXTERIOR LIGHTING SEE SCHEDULE ON SHEET A130 5 KNOX BOX - MODEL 3200 RECESSED - COORDINATE PLACEMENT WITH FIRE
- PREVENTION BUREAU
- 7 NEW METAL AWNING MAPES LUMISHADE (OR EQUIVALENT) 8" FASCIA
- 8 BUILDING ADDRESS PER 2015 IFC 505.1 4" HIGH MIN., 1/2" MIN. STROKE WIDTH
- 9 ROOF TOP UNIT BEYOND 10 ROOF OVERFLOW DRAIN NOZZLE



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SHERWIN WILLIAMS

STORE #:

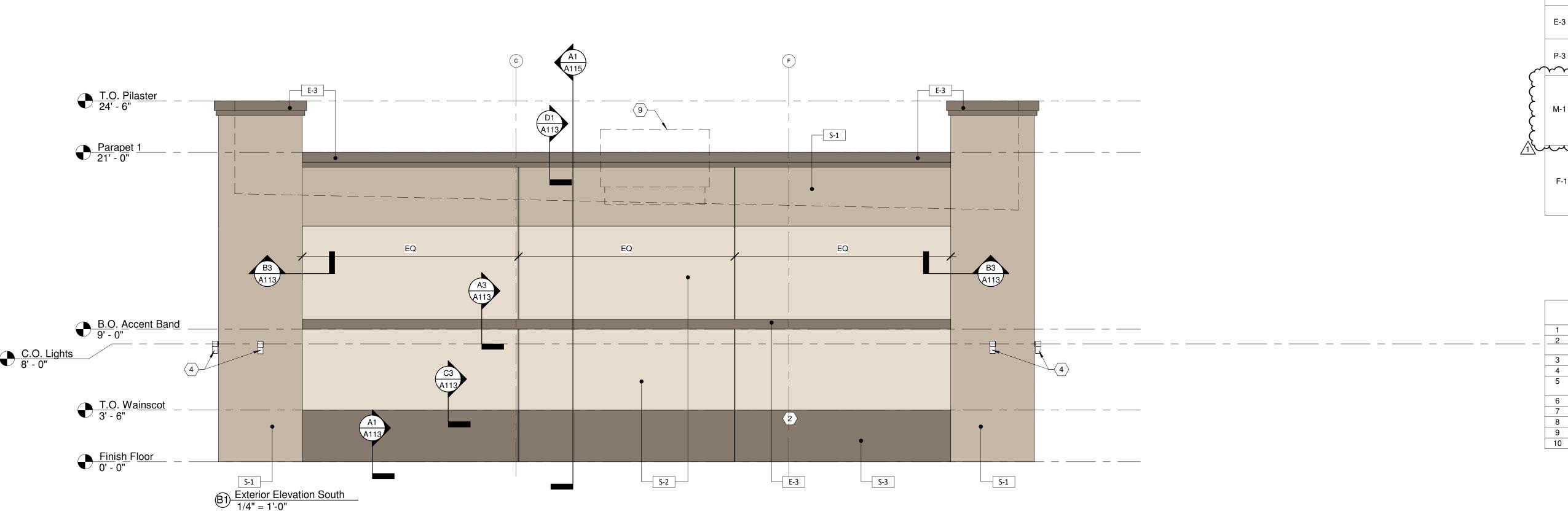
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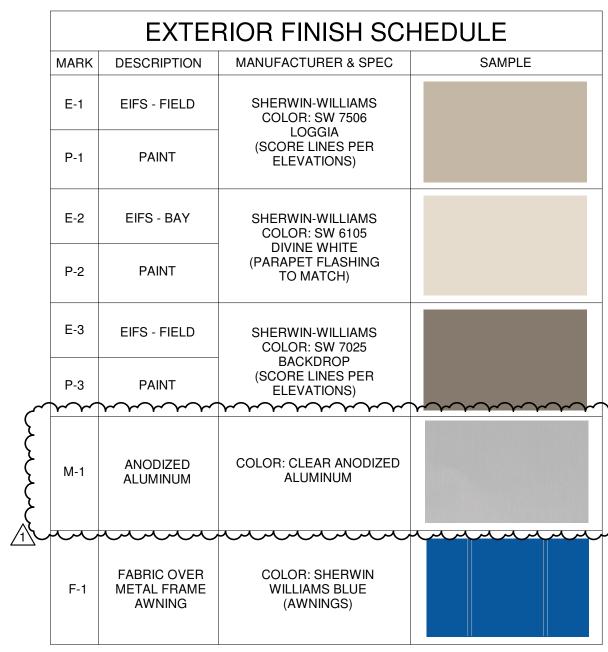
SHEET TITLE:

Exterior Elevations & Window Schedule

SHEET NUMBER:

A200



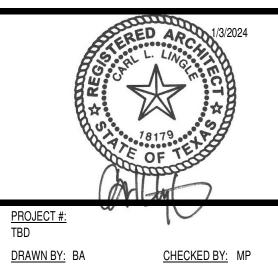


EXTERIOR ELEVATION CODED NOTES

- 1 SIGNAGE UNDER SEPARATE PERMIT 2 UTILITY METER BANK - PAINT TO MATCH ADJACENT FINISH - COORDINATE WITH
- 3 ROOF LINE BEHIND PARAPET 4 EXTERIOR LIGHTING - SEE SCHEDULE ON SHEET A130
- 5 KNOX BOX MODEL 3200 RECESSED COORDINATE PLACEMENT WITH FIRE PREVENTION BUREAU
- 7 NEW METAL AWNING MAPES LUMISHADE (OR EQUIVALENT) 8" FASCIA
- 8 BUILDING ADDRESS PER 2015 IFC 505.1 4" HIGH MIN., 1/2" MIN. STROKE WIDTH
- 9 ROOF TOP UNIT BEYOND
- 10 ROOF OVERFLOW DRAIN NOZZLE



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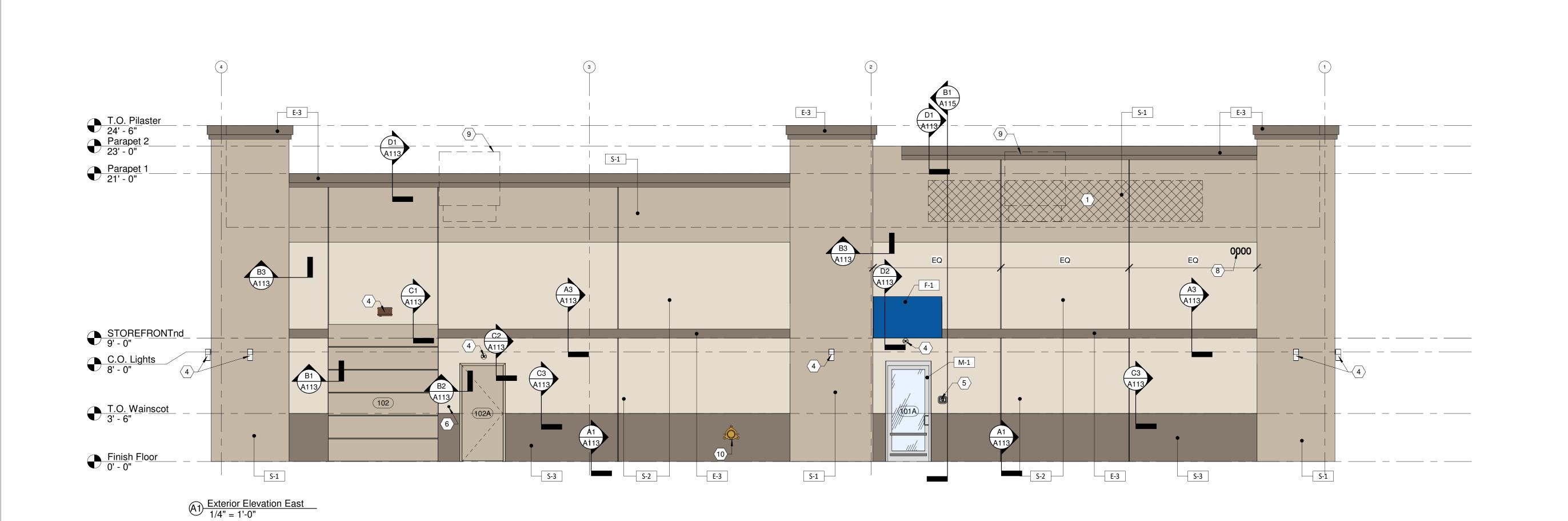
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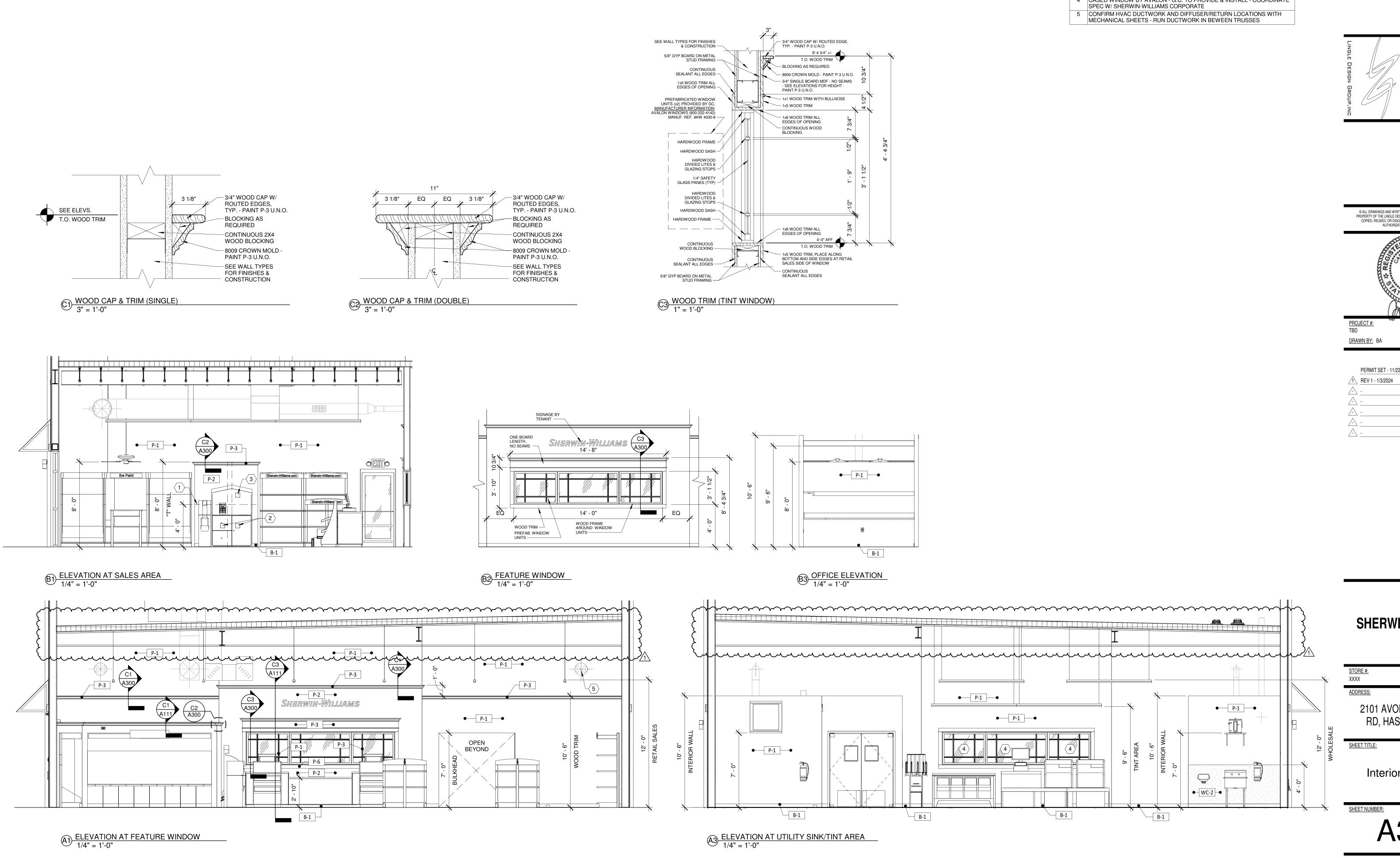
SHEET TITLE:

Exterior Elevations

SHEET NUMBER:

A201





INTERIOR ELEVATION CODED NOTES

- 1 3/4" PLYWOOD BACKING BOARD
- 2 QUAD OUTLET & WATER VALVE IN RECESSED BOX COORDINATE W/
- **ELECTRICAL & PLUMBING**
- 3 EXTEND CONDUIT FOR DATA J-BOX THROUGH PLYWOOD BACKING BOARD - TVL508 - COORDINATE W/ ELECTRICAL - TERMINATE AT DATA BOARD
- 4 CASED WINDOW BY AVALON G.C. TO PROVIDE & INSTALL COORDINATE

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CHECKED BY: MP

SHERWIN WILLIAMS

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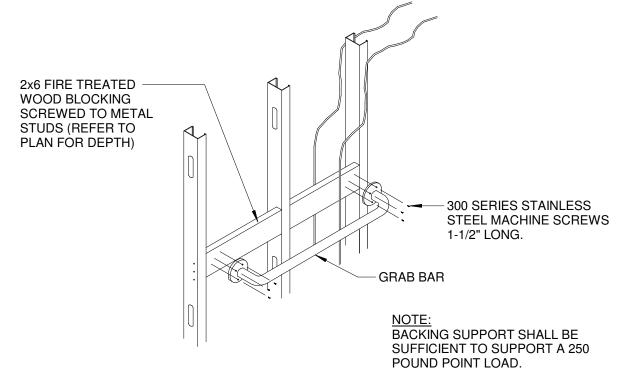
Interior Elevations

		RE	ESTROOM	FIXTURE SCHEDULE	
TAG	DESCRIPTION	MANUFACTURER	MODEL	REMARKS	PROVIDED/ INSTALLED BY
Α	42" GRAB BAR	BOBRICK	B-6808 X 42	(1) 2X6 4'-0" LONG CENTER MOUNTED @ 33" A.F.F. TO CENTER OF SUPPORT GRAB BAR - SEE DETAIL D5/A400	GC
В	18" GRAB BAR	BOBRICK	B-6808 X 18	2X6 WOOD BLOCKING FOR 18" VERTICAL GRAB BAR	GC
С	36" GRAB BAR	BOBRICK	B-6808 X36	(1) 2X6 4'-0" LONG CENTER MOUNTED @ 33" A.F.F. TO CENTER OF SUPPORT GRAB BAR - SEE DETAIL D5/A400	GC
D	TOILET TISSUE DISPENSER	BOBRICK	B-2840	INSTALL BLOCKING PER MANUFACTURER RECOMMANDATIONS	TENANT
Е	WATER CLOSET	ТОТО		1 GALLON PER FLUSH - ENLOGATED BOWL, TWO PIECE, FLUSH VALVE PROVIDED BY BRADLEY, WHITE, TRIP LEVER INSTALLED ON WIDE SIDE OF STALL, ASSEMBLY CODE D2010300	GC
F	LAVATORY	AMERICAN STANDARD	COMRADE 0124.024.020 WHITE	INTEGRATED PLUMBING SHROUD - FAUCET: BRADLEY S53-315 "AERADA 1200 Series CS FAUCET", PLUG-IN ADAPTER, CAPACITIVE SENSING ACTIVATION NO SUBSTITUTIONS.	GC
G	MIRROR	BOBRICK	B-165 2436	INSTALL BLOCKING PER MANUFACTURER RECOMMANDATIONS	GC
Н	SOAP DISPENSER	BOBRICK	B-2112	INSTALL BLOCKING PER MANUFACTURER RECOMMANDATIONS	TENANT
I	PAPER TOWEL DISPENSER	CINTAS	AUTOMATIC	INSTALL BLOCKING PER MANUFACTURER RECOMMANDATIONS	TENANT
J	SANITARY NAPKIN DISPOSAL	BOBRICK	B-353	RECESSED MOUNTED - INSTALL BLOCKING PER MANUFACTURER RECOMMANDATIONS	TENANT
K	BABY CHANGING STATION	BOBRICK	KB200-01	INSTALL BLOCKING PER MANUFACTURER RECOMMANDATIONS	TENANT

GENERAL NOTES

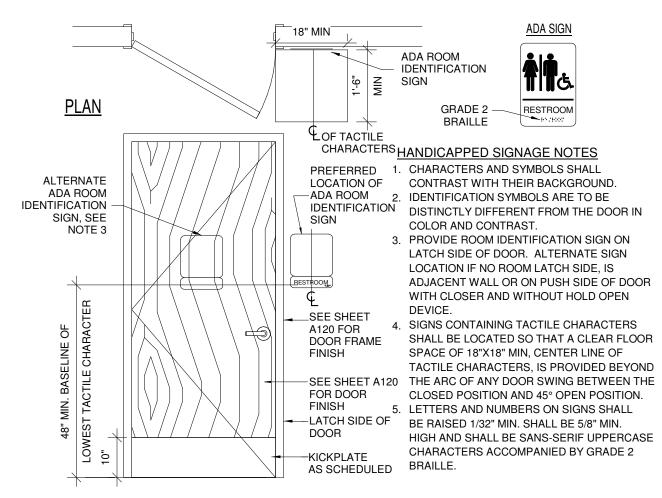
- 1. ALL FIXTURES & ACCESSORIES MUST MEET ALL NATIONAL AND LOCAL CODES AND ADA REQUIREMENTS. PROVIDE SOLID FIRE TREATED BLOCKING AT ALL WALL MOUNTED FIXTURES FOR SECURE ANCHORING, VERIFY LOCATION WITH MANUFACTURERS SPECIFICATIONS. CLEAR SILICONE CAULK ALL FIXTURES TO PARTITION.
- 2. WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING MECHANISM CONTROLS, SHALL BE OPERABLE WITH ONE HAND, SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST, AND SHALL BE MOUNTED NO MORE THAN 44" ABOVE THE FLOOR.
- 3. THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING CONTROLS, SHALL BE NO GREATER THAN 5 LBF.
- 5. USE MOISTURE RESISTANT GYPSUM BOARD AT WALLS BEHIND PLUMBING FIXTURES. 6. PROVIDE BATT INSULATION IN WALLS WHERE SCHEDULED ON SHEET
- XX-X FINISH TAG SEE FINISH SCHEDULE ON SHEET A120
- # DOOR TAG SEE DOOR SCHEDULE ON SHEET A110

4. SEE SHEET A110 FOR WALL DIMENSIONS.



TYP. GRAB BAR ATTACHMENT DETAIL

1/2" = 1'-0"

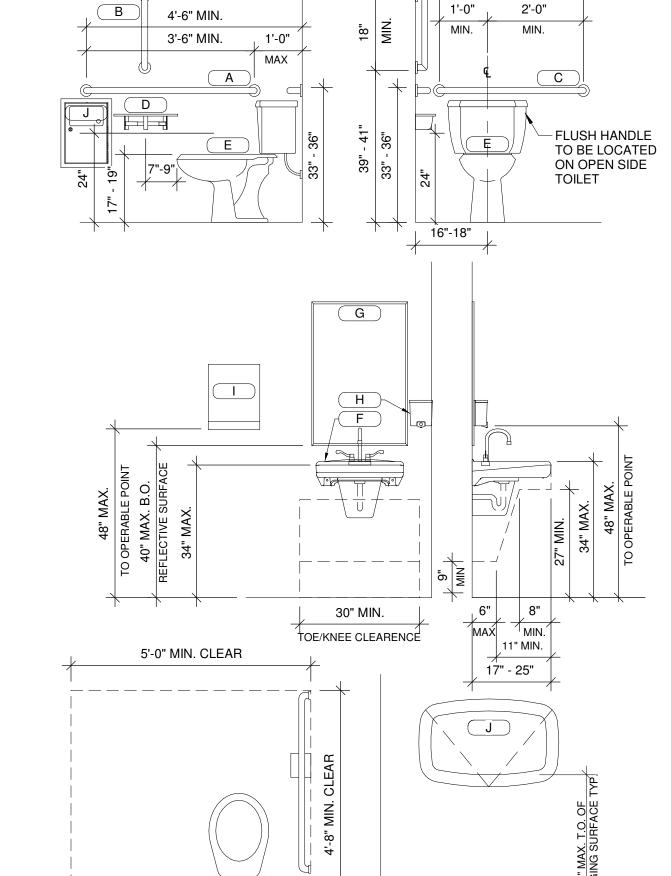


3'-0" MIN.



39"-41"

A5 REQUIRED ACCESSIBLITY CLEARANCES
1/2" = 1'-0"

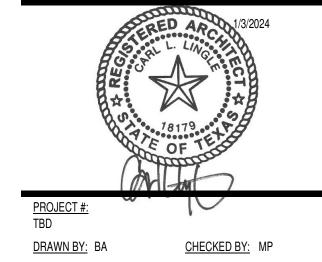


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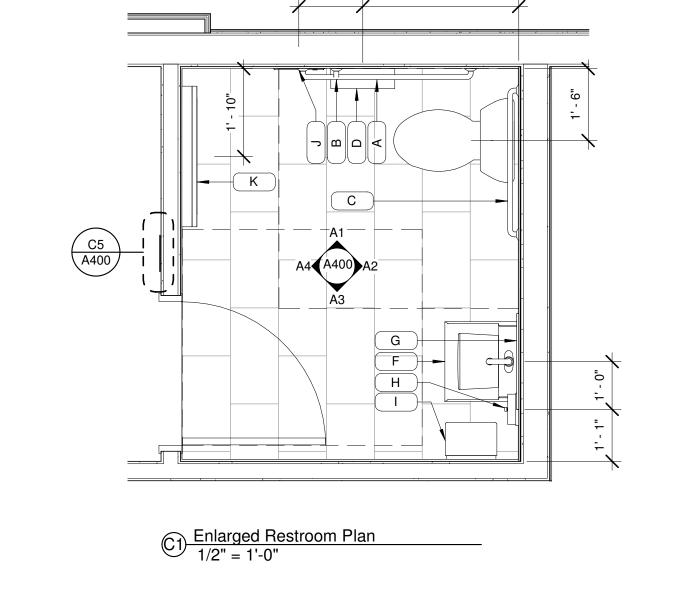
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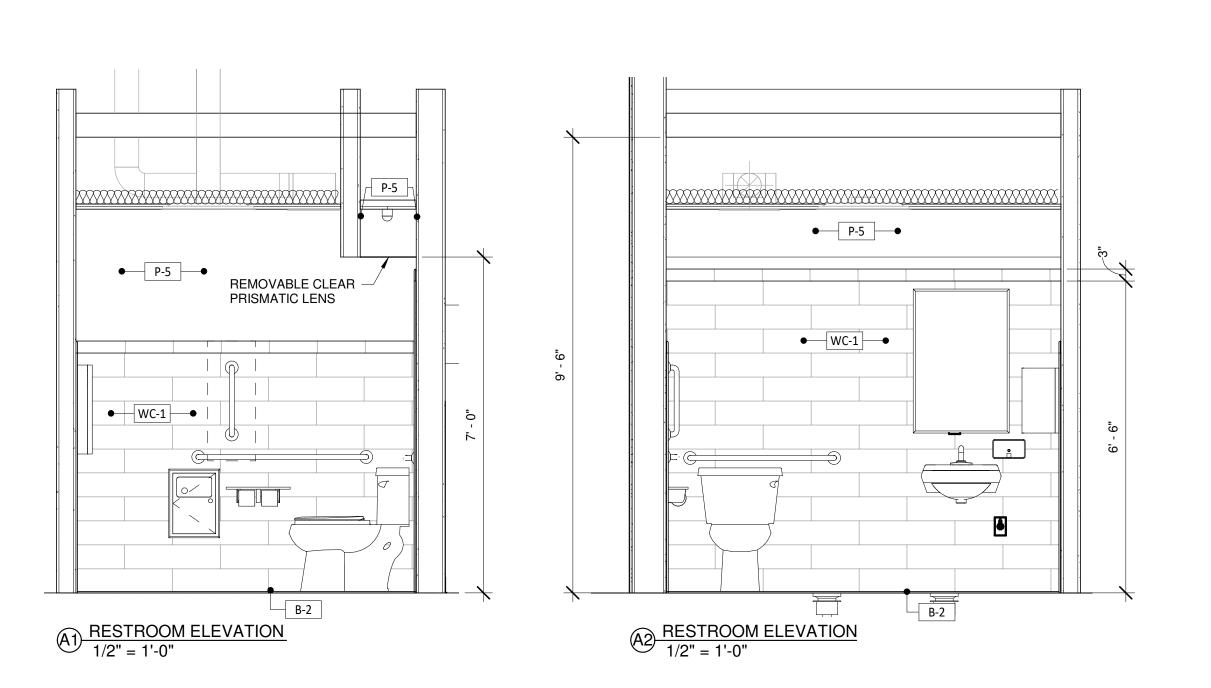
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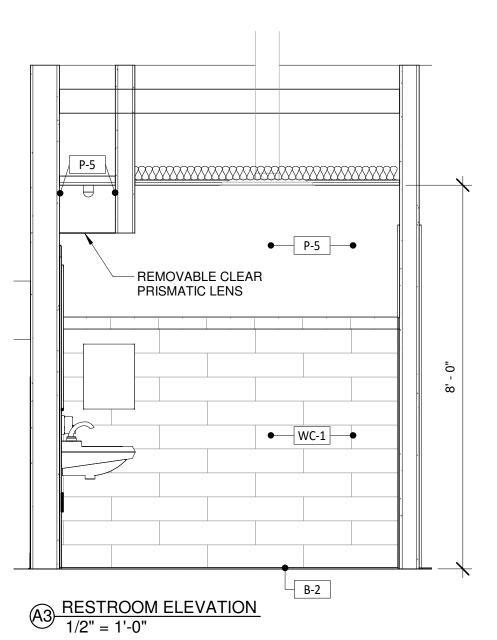
Enlarged Restroom Plan

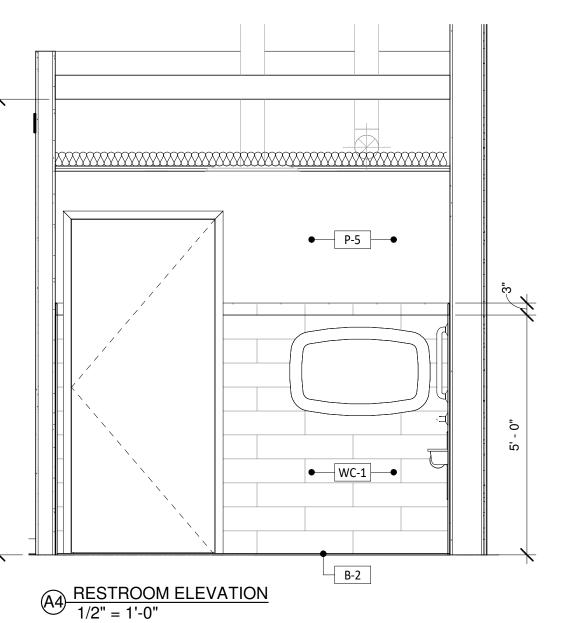
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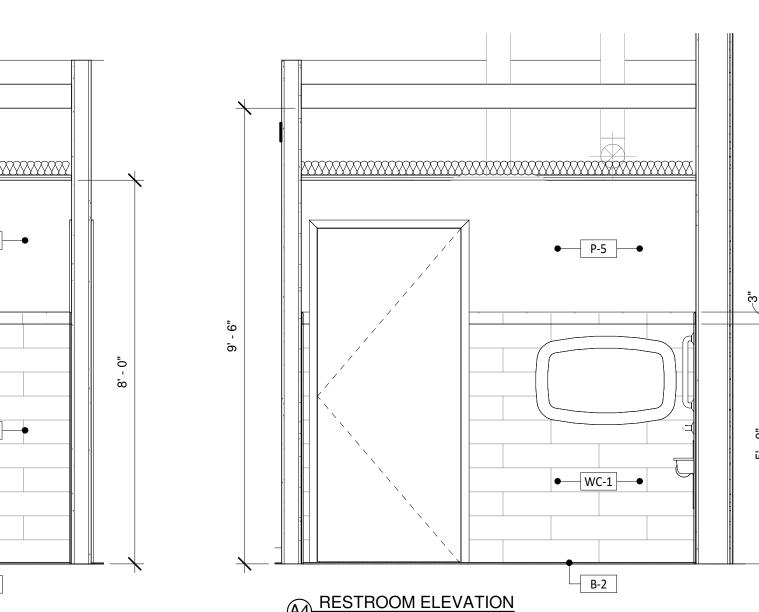
A400











STRUCTU	JRAL ABBREVIATIONS	STRUCTI	URAL ABBREVIATIONS
#	POUND(S), NUMBER	INT	INTERIOR
&	AND	ISF	INSIDE FACE
(E)	EXISTING	J/BRG	
@ ^P	ANCHOR BOLT (S)	JG JC/BBC	
AB ADDL	· /	JG/BRG JST	
ALT		JT	JOINT
ARCH	ARCHITECT(URAL)	kip	1,000 POUNDS
B/FTG	BOTTOM OF FOOTING	ksi	kips PER SQUARE INCH
BLDG		LB	POUND
BLKG BM	BLOCKING BEAM	LLH LLV	
BMD			
BN	BOUNDARY NAIL	MECH	
BOT	ВОТТОМ	MEZZ	MEZZANINE
BP	BASE PLATE	MFR	
BRG	BEARING	MIN	
BS BTWN		MISC MTL	MISCELLANEOUS METAL
CANT		NS	NEAR SIDE
CFS	COLD-FORMED STEEL	NTS	
CIP	CAST-IN-PLACE	ОС	ON CENTER
CJ	CONTROL OR CONST JOINT	OH	OPPOSITE HAND
CL	CENTER LINE	OPNG	OPENING
CLR CMU	CLEAR CONCRETE MASONRY UNIT	OSF PAF	OUTSIDE FACE POWER-ACTUATED
COL	COLUMN	FAF	FASTENER
CONC	CONCRETE	PARA	PARAPET
CONN	CONNECTION	PEMB	PRE-ENGINEERED METAL
CONST	CONSTRUCTION	DII	BUILDING (MANUFACTURER) PILASTER
CONT	CONTINUOUS	PIL PL	PLATE
CTR DBA	CENTER DEAD BAR ANCHOR	PLBG	PLUMBING
DBL	DOUBLE	PLYWD	PLYWOOD
DC	DEMAND CRITICAL (WELD)	psf	POUNDS PER SQUARE FOOT
deg	DEGREE	psi	POUNDS PER SQUARE INCH
DET	DETAIL(S)	PTDF	PRESSURE TREATED DOUGLAS FIR
DF	DOUGLAS FIR	PTDFL	PRESSURE TREATED
DFL dia	DOUGLAS FIR LARCH DIAMETER		DOUGLAS FIR LARCH
uia DIM	DIMENSION	PTSPF	PRESSURE TREATED
DWG	DRAWING	PTSYP	SPRUCE PINE FIR PRESSURE TREATED
DWL	DOWEL	1 1011	SOUTHERN YELLOW PINE
EA	EACH	QT	QUANTITY
EE	EACH END	REINF	REINFORCED, REINFORCING
EF EL	EACH FACE ELEVATION	REQD RTU	REQUIRED ROOF TOP UNIT
ELEV	ELEVATION	SCHED	SCHEDULE
EMB	EMBEDMENT	SD	SNOW DRIFT
EN	EDGE NAIL	SHTG	SHEATHING
EOJ	END OF JOIST	SIM	SIMILAR
EOS	EDGE OF SLAB	SL	SNOW LOAD
EQ ETC	EQUAL ET CETERA	SPF STD	
EW	EACH WAY	STL	
EXP	EXPANSION	STRUC	
EXT	EXTERIOR	SYP	SOUTHERN YELLOW PINE
FDN	FOUNDATION	T&B	TOP AND BOTTOM
FF FINITID	FINISH FLOOR	T&G	TONGUE AND GROOVE
FLR	FINISH FLOOR FLOOR	T/BRG T/CONC	
FRMG	FRAMING	T/FTG	
FRT	FIRE-RETARDENT TREATED	T/PAN	TOP OF PANEL
FS	FAR SIDE	T/PARA	TOP OF PARAPET
FTG	FOOTING	T/PIL	TOP OF PILASTER
FV	FIELD VERIFY GAUGE	T/S	TOP OF STEEL
ga GALV		T/STL TYP	TOP OF STEEL TYPICAL
GLB	GLULAM BEAM	UNO	UNLESS NOTED OTHERWISE
HDR	HEADER	USGS	US GEOLOGICAL SURVEY
HGR	HANGER	VAR	VARIES
HK	HOOK	VERT	
HORIZ HSS	HORIZONTAL HOLLOW STRUCTURAL	w/ WHS	WITH WELDED HEADED STUD(S)
1100	SECTION	WP	WELDED HEADED STUD(S) WORK POINT
		WWR	WELDED WIRE
			REINFORCEMENT
SHOP DRA	WING AND SUBMITTAL NOTES		

SHOP DRAWING AND SUBMITTAL NOTES

- SHOP DRAWINGS AND/OR SUBMITTALS SHALL BE FURNISHED FOR ALL STRUCTURAL COMPONENTS. UNLESS OTHERWISE NOTED, THESE SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION IN ACCORDANCE WITH THESE CONTRACT DRAWINGS AND PROJECT SPECIFICATIONS (IF APPLICABLE). CONTRACTOR SHALL ALLOW A MINIMUM OF 2 WEEKS FROM RECEIPT OF SHOP DRAWINGS FOR CASE ENGINEERING INC. TO PROVIDE RESPONSE.
- PRIOR TO SUBMITTAL TO THE ENGINEER, THE CONTRACTOR AND ARCHITECT SHALL HAVE REVIEWED THE SHOP DRAWINGS AND MADE ANY CORRECTIONS REQUIRED. THE CONTRACTOR AND ARCHITECT SHALL STAMP THE DRAWINGS. INDICATING THE SUBMITTAL HAS BEEN REVIEWED.
- STRUCTURAL DRAWINGS ARE THE SOLE PROPERTY OF CASE ENGINEERING. REPRODUCTION OF STRUCTURAL DRAWINGS FOR USE IN SHOP DRAWING SUBMITTALS IS NOT ACCEPTABLE WITHOUT OUR WRITTEN AGREEMENT.

BUILDING CODES AND STANDARDS USED FOR DESIGN

INTERNATIONAL BUILDING CODE 2015 EDITION ASCE 7-10

OCCUPANCY CATEGORY: II

DESIGN LOADS **ROOF LIVE LOAD: ROOF DEAD LOAD:** SNOW LOAD DESIGN CRITERIA SNOW LOAD IMPORTANCE FACTOR, I: GROUND SNOW LOAD, Pg: FLAT ROOF SNOW LOAD. Pf: THERMAL FACTOR, Ct: EXPOSURE FACTOR, Ce

1.0 MINIMUM FROST DEPTH: 1'-0" WIND LOAD DESIGN CRITERIA WIND IMPORTANCE FACTOR, I: 115 MPH (3 SEC GUST) **ULTIMATE WIND SPEED:** WIND EXPOSURE CATEGORY WIND ENCLOSURE CLASSIFICATION **ENCLOSED**

20 psf

20 psf

5 psf

5 psf

+/- 0.18 5.5 ft - 'a' DIMENSION 18 ft - 'h' DIMENSION SEISMIC LOAD DESIGN CRITERIA REDUNDANCY FACTOR, (SEISMIC IMPORTANCE FACTOR. I 1.0

SITE CLASS: SPECTRAL RESPONSE ACCELERATIONS: Ss=0.096g, S1=0.050g Sds=0.077g, Sd1=0.057g SEISMIC DESIGN CATEGORY:

BASIC SEISMIC-FORCE RESISTING SYSTEM: FRAMED WOOD WALLS WITH STRUCTURAL WOOD RESPONSE MODIFICATION FACTOR, R: SYSTEM OVER-STRENGTH FACTOR, Ωο 2.5

DEFLECTION AMPLIFICATION FACTOR. Cd: SEISMIC RESPONSE COEFFICIENT, Cs: **EQUIVALENT LATERAL FORCE** ANALYSIS PROCEDURE USED:

COMPONENT & CLADDING (C & C) DESIGN WIND PRESSURES

- SURFACE PRESSURES ARE GIVEN IN THE TABLE BELOW IN PSF AND ARE BASED ON THE TRIBUTARY AREA IN SQUARE FEET (SF) OF THE MEMBER BEING DESIGNED. LINEAR INTERPOLATION BETWEEN VALUES SHOWN IS ACCEPTABLE. EXTRAPOLATION OF VALUES ABOVE LARGEST TRIBUTARY AREA IS NOT ACCEPTABLE.
- TABLES ARE APPLICABLE FOR ENCLOSED LOW-RISE BUILDINGS WITH A MEAN ROOF HEIGHT (h) LESS THAN OR EQUAL TO 60 FT.
- REFER TO ASCE 7 DIAGRAMS FOR THE LOCATION OF WIND PRESSURE ZONES BASED ON ADOPTED CODE YEAR.
- POSITIVE PRESSURES ACT TOWARD THE BUILDING, NEGATIVE & OVERHANG PRESSURES ACT AWAY FROM THE BUILDING AND ARE APPLIED NORMAL TO THE C &C **SURFACE**
- DELEGATED DESIGNERS ARE RESPONSIBLE FOR DESIGNING EACH C & C FOR THE MAXIMUM POSITIVE AND NEGATIVE WIND PRESSURES BASED ON ASCE 7 LOAD
- NO C & C SHALL BE DESIGNED FOR A NET PRESSURE OF LESS THAN 16 PSF ULTIMATE ACTING IN EITHER DIRECTION.
- PRESSURES SHOWN ARE ULTIMATE PRESSURES AND SHOULD BE MULTIPLIED BY 0.6 FOR NOMINAL (ASD) PRESSURES. USE A PERMANENT DEAD LOAD OF 6 PSF FOR A MEMBER NET UPLIFT DESIGN.

	ASCE 7	-10 & EARI	LIER				
ALL ROOF TYPES							
ROOF ZONES	10 SF	100 SF	200 SF	700 SI			
NEGATIVE 1	-23.8	-21.8	-21.8	-21.8			
NEGATIVE 2	-39.9	-25.8	-25.8	-25.8			
NEGATIVE 3	-39.9	-25.8	-25.8	-25.8			
POSITIVE 1	16.0	16.0	16.0	16.0			
POSITIVE 2 & 3	21.8	18.5	17.6	16.3			
OVERHANG 1 & 2	-34.3	-32.3	-27.9	-22.2			
OVERHANG 3	-34.3	-32.3	-27.9	-22.2			
WALL ZONES	10 SF	100 SF	200 SF				
NEGATIVE 4	-23.6	-20.4	-19.4				
NEGATIVE 5	-29.0	-22.6	-20.7				
POSITIVE 4 & 5	21.8	18.6	17.6				
PARAPETS	10 SF	100 SF	200 SF				
CASE A - ZONE 2	54.4	37.1	36.2				
- ZONE 3	54.4	37.1	36.2				
CASE B - EDGE ZONE 2	-38.1	-31.7	-29.8				
- CORNER ZONE 3	-43.5	-33.9	-31.0				

DEFERRED SUBMITTALS

THE FOLLOWING DESIGN ELEMENTS MUST BE SIGNED & SEALED BY A PROFESSIONAL ENGINEER (PE/SE) REGISTERED IN THE STATE WHERE THIS PROJECT IS LOCATED, AND SUBMITTED TO THE ARCHITECT AND ENGINEER OF RECORD. DESIGNED DRAWINGS AND CALCULATIONS SHALL BE SUBMITTED FOR REVIEW AND RECORD.

- STRUCTURAL STEEL CONNECTION CALCULATIONS AND SHOP FABRICATION DRAWINGS FOR CONNECTIONS.
- PRE-FABRICATED RED-BUILT TRUSS CALCULATIONS AND FABRICATION DRAWINGS
- INCLUDING:
- A. ALL TRUSS-TO-TRUSS CONNECTIONS PLAN AND DETAILS FOR THE LOCATIONS OF ALL ERECTION/TEMPORARY AND PERMANENT LATERAL AND DIAGONAL BRACING AND/OR BLOCKING.
- FRAMING PLAN LAYOUT (DIMENSIONED AND TO SCALE). EACH TRUSS SHALL BE LEGIBLY BRANDED, MARKED, OR OTHERWISE HAVE PERMANENTLY AFFIXED THERETO THE FOLLOWING INFORMATION LOCATED WITHIN 2 FEET OF THE CENTER OF THE SPAN ON THE FACE OF THE BOTTOM
 - a. IDENTITY OF THE COMPANY MANUFACTURING THE TRUSS
 - DESIGN LOADS
 - TRUSS SPACING

GENERAL STRUCTURAL NOTES

- THIS DRAWING SET IS TO BE VIEWED AS A WHOLE AND COORDINATED WITH ARCHITECTURAL, MECHANICAL, CIVIL, AND OTHER DISCIPLINES. ALL WORK PERTAINING TO A SPECIFIC CONTRACTOR MAY OR MAY NOT BE SHOWN ON SPECIFIC DRAWING SECTIONS. IT IS EACH SUBCONTRACTOR'S RESPONSIBILITY TO PREPARE HIS BID FROM A COMPLETE SET OF PLANS.
- THE CONTRACTOR SHALL FOLLOW WRITTEN DIMENSIONS ONLY. DO NOT SCALE DRAWINGS. DIMENSIONS NOT SHOWN ON PLAN TO BE COORDINATED WITH
- ALL DETAILS AND SECTIONS SHOWN ON THE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY AT ANY SIMILAR SITUATION ELSEWHERE ON THE JOB, EXCEPT WHERE A DIFFERENT DETAIL OR SECTION IS SHOWN.
- THE STRUCTURE SHALL BE ADEQUATELY BRACED AND SHORED DURING ERECTION AGAINST WIND AND ERECTION LOADS. STRUCTURAL MEMBERS ARE DESIGNED FOR "IN-
- THE GENERAL CONTRACTOR SHALL VERIFY ALL OPENING SIZES, PAD SIZES, AND LOCATIONS WITH THE RESPECTIVE CONTRACTORS
- THE CONTRACTOR SHALL NOTIFY THE ARCHITECT AND ENGINEER IMMEDIATELY OF ANY DISCREPANCIES BETWEEN CONSTRUCTION DOCUMENTS AND ACTUAL FIELD
- THE VARIOUS SUBCONTRACTORS ARE RESPONSIBLE FOR PLACING SLEEVES, OUTLET BOXES, ANCHORS, VENT OPENINGS, ETC. THAT MAY BE REQUIRED IN FOUNDATION WALLS. CONSTRUCTION MANAGER SHALL COORDINATE ALL PLACEMENT OF ITEMS IN FOUNDATION WALLS.
- SEE ARCHITECTURAL PLANS FOR ADDITIONAL DETAILS AND INFORMATION. ALL ELEVATIONS GIVEN ARE REFERENCED TO FINISHED FLOOR ELEVATIONS AT 0'-0",
- UNLESS SHOWN AS USGS ELEVATIONS 10. WHERE GENERAL NOTES OR TYPICAL DETAILS CONTRADICT INFORMATION PROVIDED IN BUILDING SECTIONS, THE BUILDING SECTIONS TAKE PRECEDENCE
- ALL HOLES THROUGH CONSTRUCTION SHALL BE CORE DRILLED OR SAWCUT. 12. WHERE INFORMATION PROVIDED IN THESE STRUCTURAL DRAWINGS CONTRADICTS INFORMATION PROVIDED IN PROJECT SPECIFICATIONS, THE SPECIFICATIONS SHALL
- 13. FOR ARCHITECTURAL, MEP, & STRUCTURAL COORDINATION: MODELED ELEMENTS SHOWN ON STRUCTURAL DRAWINGS SUCH AS TRUSSES, OPEN-WEB JOISTS, AND JOIST GIRDERS, ARE NOT THE FINAL CONFIGURATION. ALL COORDINATION SHALL BE PERFORMED BETWEEN THE VARIOUS TRADES AND THE SUPPLIERS OF THESE ELEMENTS FOR THE STRUCTURE, NOT WITH THE STRUCTURAL MODEL
- 14. THIS DRAWING SET IS TO BE VIEWED AS A WHOLE, ALL TYPICAL DETAILS AND GENERAL NOTES SHOWN IN THESE DRAWINGS ARE APPLICABLE TO THE PROJECT EVEN IF THEY ARE NOT SHOWN ON PLANS OR SECTIONS.
- DESIRED ALTERATIONS TO ANY DETAIL, MEMBER SIZE, MEMBER TYPE, OR ANY OTHER STRUCTURAL COMPONENT SHOWN ON THE DRAWINGS, SHALL BE SUBMITTED AS A REQUEST IN WRITING TO CASE ENGINEERING. CASE ENGINEERING WILL NOT BE RESPONSIBLE FOR CHANGES TO THE DESIGN OR DETAILS MADE DURING SHOP DRAWINGS DEVELOPMENT, DURING CONSTRUCTION, OR AT ANY OTHER TIME WITHOUT WRITTEN CONSENT.

EXCAVATION AND EARTHWORK NOTES

- 1. THE BEARING VALUE AND LATERAL EARTH PRESSURES OF THE SOILS IS PER REPORT BY: ECS SOUTHWEST, LLP, DATED JULY 14, 2023. THE FOUNDATION DESIGN IS BASED ON THE FOLLOWING NET ALLOWABLE BEARING AND LATERAL EARTH PRESSURES
- SPREAD FOOTINGS 2,500 psf CONT. WALL FOOTINGS 2,000 psf PASSIVE PRESSURE 260 psf/ft FRICTION COEFFICIENT
- WATER LEVELS INDICATED ON THE BORING LOGS MAY BE SUBJECT TO SEASONAL AND/OR ANNUAL VARIATIONS. A DEWATERING SYSTEM OF SUFFICIENT CAPACITY SHALL BE INSTALLED AND OPERATED TO MAINTAIN THE CONSTRUCTION AREA FREE OF WATER AT ALL TIMES.
- ALL FOOTING EXCAVATIONS SHALL BE INSPECTED, PRIOR TO CONCRETE PLACEMENT, BY A SOILS ENGINEER TO VERIFY SUITABLE BEARING MATERIAL OF CAPACITY AS
- NOTIFY THE OWNER'S REPRESENTATIVE WHEN ADDITIONAL EXCAVATION IS REQUIRED TO REACH SUITABLE BEARING MATERIAL
- THE SOILS ENGINEER SHALL CERTIFY IN WRITING THAT ALL FOUNDATIONS WERE PLACED ON SOIL WITH THE BEARING VALUE AS SPECIFIED.
- WITHIN THE EXCAVATION AREA OF FOUNDATIONS, ALL VEGETATION, TOPSOIL PREVIOUSLY PLACED FILL AND UNSUITABLE SOILS SHALL BE REMOVED. ALL FOOTINGS TO BEAR ON VIRGIN SOIL OR PROPERLY PLACED AND COMPACTED ENGINEERED FILL. FOUNDATION DESIGN DOES NOT ACCOUNT FOR WINTER CONSTRUCTION. ANY
- UNENCLOSED / UNHEATED SPACES SHALL BE ADEQUATELY PROTECTED AGAINST FROST DURING WINTER CONSTRUCTION BY THE CONTRACTOR. IF ANY SOFT SPOTS, OR AREAS QUESTIONABLE FOR ANY REASONS ARE ENCOUNTERED
- BY THE CONTRACTOR, ARCHITECT/ENGINEER SHALL BE NOTIFIED IMMEDIATELY SO THAT ANY REQUIRED ACTION MAY BE TAKEN PRIOR TO CONTINUATION OF CONSTRUCTION IN THAT AREA.

POST-INSTALLED ANCHOR NOTES

POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER OF RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED ON THESE DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER OF RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING, AT A MINIMUM, THE PERTINENT EQUIVALENT PERFORMANCE VALUES OF THE SPECIFIED PRODUCT USING THE BUILDING CODE

- 1. TYPICAL POST-INSTALLED ANCHORS IN CONCRETE SHALL COMPLY WITH THE LATEST OF THEIR RESPECTIVE ICC EVALUATION REPORTS.
- WHEN INSTALLING ANCHORS IN CONCRETE, CONTRACTOR SHALL LOCATE EXISTING REINFORCING STEEL, CONDUITS, ETC, PRIOR TO DRILLING FOR ANCHORS. CONTRACTOR SHALL USE CARE AND CAUTION TO PREVENT DAMAGE TO EXISTING REINFORCING BARS.
- CONTRACTOR SHALL PROVIDE 1" MINIMUM CLEARANCE BETWEEN EDGES OF ANY HOLES FOR POST-INSTALLED ANCHORS AND EXISTING REINFORCING STEEL.
- CONTRACTOR SHALL PROVIDE INSPECTION AND TESTING AS REQUIRED PER THE "SPECIAL INSPECTIONS" SECTION OF THESE GENERAL STRUCTURAL NOTES.
- CONTRACTOR SHALL USE A HOLLOW DRILL BIT AND VACUUM SYSTEM WHEN DRILLING INTO CEMENTITIOUS MATERIALS.

CONCRETE NOTES

- ALL CONCRETE WORK INCLUDING FORMING, REINFORCING, MIXING, PLACING, FINISHING AND CURING SHALL BE DONE IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE INCLUDING "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE", ACI 318, AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE", ACI 301 LATEST EDITIONS.
- IT SHALL BE THE RESPONSIBILITY OF THE MIX DESIGN SUPPLIER TO PROPORTION MIXES APPROPRIATELY TO REACH THE REQUIRED PROPERTIES NOTED, AND SHALL BE APPROPRIATE FOR THEIR INTENDED USE. ADMIXTURES MEETING ASTM C494 ARE OPTIONAL. HOWEVER, AIR-ENTRAINING ADMIXTURES MEETING ASTM C260 SHALL BE USED FOR CONCRETE EXPOSED TO THE EXTERIOR OR FREEZE-THAW CYCLES.
- CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGNS FOR EACH INTENDED USE ON THE PROJECT FOR REVIEW AND APPROVAL BY THE ENGINEER OF RECORD. CONTENTS OF THE MIX DESIGN SHALL COMPLY WITH, AND INCLUDE ALL INFORMATION REQUIRED BY, ACI 318, CHAPTER 5 (FOR 2011 AND EARLIER CODE EDITIONS), & CHAPTER 26 (FOR 2014 CODE EDITION). THIS INCLUDES, BUT IS NOT LIMITED TO NUMBER OF TESTS AND AGE OF TESTS INCLUDED IN THE MIX DESIGN REPORT.
- ALL CONCRETE DENSITY SHALL BE NORMAL WEIGHT (145 pcf +/- 5) UNLESS OTHERWISE

FLY ASH ALLOWANCES:

- 20% MAXIMUM BY WEIGHT OF CEMENTITIOUS IN FOOTINGS
- 15% MAXIMUM BY WEIGHT OF CEMENTITIOUS MATERIAL IN SLABS
- ~~7.~~~600RDINATE CONCRETE WORK WITH THAT OF OTHER TRADES TO ALLOW FOR SETTING OF
- SLEEVES, ACCESSORIES, ETC. ALL REINFORCING STEEL, ANCHOR RODS, DOWELS, AND INSERTS SHALL BE WELL-SECURED IN POSITION PRIOR TO PLACING CONCRETE. DO NOT "WET SET" OR "FLOAT" INTO
- TEST CYLINDERS WILL BE REQUIRED, AND RECORDS OF RESULTS SHALL BE SUBMITTED TO ENGINEER OF RECORD. PROVIDE A MINIMUM OF (4) 6"x12" CYLINDERS FOR TESTING (1 AT 7
- DAYS, 2 AT 28 DAYS, ONE SPARE). ALTERNATIVELY, PROVIDE A MINIMUM (5) 4"x8" CYLINDERS FOR TESTING (1 AT 7 DAYS, 3 AT 28 DAYS, ONE SPARE). SLUMP TESTS ARE RECOMMENDED 10. CONSTRUCTION JOINTS IN CONCRETE INDICATED WITH A ROUGH, CLEAN SURFACE SHALL
- HAVE A 1/4" AVERAGE AMPLITUDE. ALL COLD JOINTS SHALL BE ROUGHENED AND CLEANED PRIOR TO PLACING CONCRETE
- 12. SLUMP: CONCRETE MIXES SHALL BE PROPORTIONED TO ACHIEVE A MAXIMUM SLUMP OF 8" FOR CONCRETE CONTAINING HIGH RANGE WATER REDUCING ADMIXTURE. 6" FOR CONCRETE CONTAINING A MID-RANGE WATER REDUCING ADMIXTURE PRE-ADDITIVE. MIXES SHALL HAVE A WATER SLUMP OF 2"-3" (3" TO 4" FOR CONCRETE RECEIVING A "DRY-SHAKE" HARDENER). MAXIMUM 4" WATER SLUMP FOR ALL OTHER CONCRETE NOT CONTAINING A WATER REDUCER
- 13. SELF-CONSOLIDATING CONCRETE MAY BE USED FOR ALL ARCHITECTURAL CONCRETE AND HEAVILY REINFORCED MEMBERS AS SHOWN ON THE DRAWINGS. ALL SELF-CONSOLIDATING CONCRETE SHALL CONTAIN THE SPECIFIED HIGH-RANGE WATER-REDUCING ADMIXTURE AND VISCOSITY-MODIFYING ADMIXTURE WHERE REQUIRED. MINIMUM SPREAD OF 22"-30" WHEN MEASURED IN ACCORDANCE WITH ASTM C1611 OR AS REQUIRED BY THE SUCCESSFUL TEST PLACEMENT. THE WORKABILITY, PUMPABILITY, FINISHABILITY, AND SETTING TIME OF THE PROPOSED MIX DESIGN SHALL BE VERIFIED WITH A SUCCESSFUL TEST PLACEMENT ONSITE.
- COMPRESSIVE STRENGTH: 5000 PSI AT 28 DAYS OR AS NOTED ON THE DRAWINGS 14. AIR CONTENT: ALL CONCRETE EXPOSED TO FREEZING AND THAWING AND/OR REQUIRED TO BE WATER TIGHT SHALL HAVE AN AIR CONTENT OF 4.5% TO 7.5%. ALL INTERIOR SLABS AND ALL SLABS TO RECEIVE DRY-SHAKE SHALL HAVE A MAXIMUM AIR CONTENT OF 3%.
- 15. DEPOSIT AND CONSOLIDATE CONCRETE FOR FLOORS AND SLABS IN A CONTINUOUS OPERATION, WITHIN LIMITS OF CONSTRUCTION JOINTS, UNTIL PLACEMENT OF A PANEL OR
 - SECTION IS COMPLETE. CONSOLIDATE CONCRETE DURING PLACEMENT OPERATIONS, SO CONCRETE IS THOROUGHLY WORKED AROUND REINFORCEMENT AND OTHER EMBEDDED ITEMS AND
 - INTO CORNERS. MAINTAIN REINFORCEMENT IN POSITION ON CHAIRS DURING CONCRETE PLACEMENT.
 - SCREED SLAB SURFACES WITH A STRAIGHT EDGE AND STRIKE OFF TO CORRECT **ELEVATIONS.**
- D. UTILIZE A VIBRATORY SCREED FOR CONCRETE THAT WILL RECEIVE DIAMOND POLISH FINISH. KEEP VIBRATING SCREED MOVING CONTINUOUSLY ACROSS SURFACE. DO NOT STOP SCREED IN ANY ONE PLACE WHILE VIBRATING.
- SLOPE SURFACES UNIFORMLY TO DRAINS WHERE REQUIRED. BEGIN INITIAL FLOATING USING BULL FLOATS OR DARBIES TO FORM A UNIFORM AND OPEN-TEXTURED SURFACE PLANE BEFORE EXCESS BLEED WATER APPEARS ON THE SURFACE. DO NOT FURTHER DISTURB SLAB SURFACES BEFORE STARTING FINISHING
- G. THE USE OF HIGHWAY STRAIGHT EDGES OR "BUMP CUTTERS" ON CONCRETE SLABS TO BE POLISHED IS PROHIBITED.
- 16. CONCRETE TO BE POLISHED SHALL RECEIVE A HARD STEEL TROWEL FINISH WITH A MINIMUM OF (3) SEPARATE PASSES WITH POWER TROWEL TO ACHIEVE CLASS 5 FINISH AS DESCRIBED IN ACI 302R. HAND TROWELLING SHALL BE LIMITED TO ONLY THOSE AREAS NECESSARY. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- INSPECT TROWELLING MACHINE AND REMOVE ACCUMULATED MORTAR PRIOR TO
- FINISH SURFACE SHALL BE FREE OF TROWEL MARKS, BURN MARKS AND MOTTLING. 17. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH IN ACCORDANCE WITH THE FOLLOWING:
 - AIR ENTRAINMENT IS NOT RECOMMENDED FOR SURFACES TO BE GIVEN A SMOOTH, DENSE, HARD-TROWELED FINISH. COORDINATE FINISH REQUIREMENTS WITH ARCHITECTURAL DRAWINGS AND/ OR SPECIFICATIONS.

CONCRETE TABLE MIN 28 DAY EXPOSURE STRENGTH WATER-% TOTAL SYNTHETIC SHRINKAGE INTENDED USE CEMENT | AIR LIMITS | CLASS FIBER (1) (psi) RATIO @ 28 DAYS INTERIOR SLAB ON 0.04 4,000 0.50 YES 0.05 **FOOTING &** FOUNDATION 5,000 0.40 4.5 TO 7.5 WALLS **CONCRETE** 0.05 **EXPOSED TO** 5,000 4.5 TO 7.5 0.40 DE-ICERS **ALL CONCRETE** 0.05 NOT OTHERWISE 4.5 TO 7.5 F3 5,000 0.40 SPECIFIED



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CHECKED BY: RLR / SJS

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SHEET TITLE:

GENERAL NOTES

TABLE NOTES

NOT USED

REINFORCING STEEL NOTES

- NON-WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60.
- WELDED STEEL BAR REINFORCING SHALL CONFORM TO ASTM A706
- WELDING OF REINFORCING STEEL SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN CONFORMANCE WITH AWS D1.1 USING E90 ELECTRODES FOR ASTM A615 REBAR, AND E80 ELECTRODES FOR ASTM A706 REBAR UNLESS OTHERWISE NOTED ON THE
- WELDED WIRE REINFORCEMENT (WWR) SHALL BE SMOOTH WIRE PER ASTM A185 WITH MINIMUM YIELD STRENGTH, fy = 65 ksi, OR DEFORMED WIRE PER ASTM A497 WITH MINIMUM YIELD STRENGTH, fy = 70 ksi, UNLESS NOTED OTHERWISE.
- MINIMUM CONCRETE COVER FOR REINFORCING STEEL IN CAST-IN-PLACE (NON-PRESTRESSED) CONCRETE SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED ON THE DRAWINGS:
- CONCRETE CAST AGAINST EARTH = 3"
- CONCRETE EXPOSED TO EARTH OR WEATHER:
- #6 BAR AND LARGER = 2"
- #5 BAR AND SMALLER = 1 1/2"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER (SLABS, WALLS, & JOISTS):
- #14 BARS AND LARGER = 1 1/2" #11 BARS AND SMALLER = 3/4"
- CONCRETE NOT EXPOSED TO EARTH OR WEATHER (BEAMS & COLUMNS): PRIMARY REINFORCEMENT, TIES, STIRRUPS, & SPIRALS = 1 1/2"
- ALL DETAILING, FABRICATION, AND ERECTION OF REINFORCING STEEL SHALL CONFORM TO THE LATEST EDITION OF ACI 315 (SP-66), DETAILS AND DETAILING OF CONCRETE
- LAP SPLICE LENGTHS FOR BARS INSTALLED IN CONCRETE SHALL BE IN ACCORDANCE WITH THE TABLE.

DEVELOPMENT LENGTH OF STANDARD HOOKS IN CONCRETE NOTES

- VALUES IN TABLE ARE BASED ON 60ksi REBAR. FOR OTHER REBAR YIELD STRENGTHS, MULTIPLY VALUES IN THE TABLE BY THE SPECIFIED YIELD STRENGTH DIVIDED BY 60.
- SEE ACI 318 SECTION 12.5 FOR ALLOWABLE REDUCTIONS IN DEVELOPMENT LENGTH. IT SHALL NOT BE LESS THAN 8 BAR DIAMETERS OR 6 INCHES.
- HOOKED BARS ARE NOT CONSIDERED EFFECTIVE IN DEVELOPING BARS IN
- COMPRESSION REBAR IN ALL CONCRETE MEMBERS SHALL HAVE STANDARD HOOKS WHERE SHOWN ON SECTIONS IN ACCORDANCE WITH "DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION" TABLE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

DEVELOPMENT LENGTH OF STANDARD HOOKS IN CONCRETE - 60 ksi						
BAR SIZE	f'c = 4,000 psi	f'c = 4,500 psi	f'c = 5,000 psi			
#3	8	7	7			
#4	10	9	9			
#5	12	12	11			
#6	15	14	13			
#7	17	16	15			

TENSION LAP SPLICE LENGTH IN CONCRETE NOTES

- 1. FOR HORIZONTAL BARS, VALUES IN THE TABLE SHALL BE MULTIPLIED BY 1.3 WHERE MORE THAN 12 INCHES OF FRESH CONCRETE IS CAST BELOW THE BAR.
- WHERE CLEAR SPACING OF BARS BEING SPLICED IS AT LEAST 2 BAR DIAMETERS AND CLEAR COVER AT LEAST 1 BAR DIAMETER, USE CASE 1. FOR ALL OTHER BAR ARRANGEMENTS, USE CASE 2.
- VALUES IN THE TABLE ARE BASED ON 60ksi REBAR. FOR OTHER REBAR YIELD STRENGTHS, MULTIPLY VALUES IN THE TABLE BY THE SPECIFIED YIELD STRENGTH DIVIDED BY 60.
- 4. WHERE BARS OF DIFFERENT SIZES ARE SPLICED, PROVIDE THE LAP LENGTH OF THE
- LARGER BAR. WELDED WIRE REINFORCEMENT (DEFORMED OR PLAIN WIRE) SHALL BE LAPPED ONE
- FULL MESH SQUARE PLUS 2 INCHES MINIMUM, BUT NOT LESS THAN 12 INCHES.
- REBAR IN ALL CONCRETE MEMBERS SHALL BE SPLICED IN ACCORDANCE WITH "TENSION LAP SPLICE LENGTH" TABLE, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

TENSION LAP SPLICE LENGTH IN CONCRETE - 60 KSI REBAR TABLE (INCHES)								
f'c =	3,500psi	3,500psi	4,000psi	4,000psi	4,500psi	4,500psi	5,000psi	5,000psi
BAR SIZE	CASE 1	CASE 2						
#3	20	30	19	28	18	27	17	25
#4	27	40	25	37	24	35	23	34
#5	33	50	31	47	30	44	28	42
#6	40	60	37	56	35	53	34	50
#7	58	87	54	81	51	77	49	73

WOOD FRAMING NOTES

- WOOD FRAMING SHALL CONFORM TO THE "LUMBER TABLE" UNLESS NOTED **OTHERWISE**
- FOR STRUCTURAL GLUE-LAMINATED TIMBER MEMBERS, AN AITC CERTIFICATION OF CONFORMANCE ISSUED BY A CURRENT, ICC-APPROVED QUALITY CONTROL AGENCY SHALL BE SUBMITTED TO THE BUILDING INSPECTOR PRIOR TO INSTALLATION
- FOR WOOD FASTENING REQUIREMENTS, REFER TO TABLE 2304.9.1 FOR IBC 2012 AND OLDER, OR TABLE 2304.10.1 FOR IBC 2015 AND NEWER.
- ALL NAILS SHALL BE GALVANIZED COMMON WIRE NAILS UNLESS OTHERWISE NOTED. SEE "WOOD FASTENER TYPES SCHEDULE" FOR MINIMUM FASTENER DIMENSIONS. NAILS IN CONTACT WITH FIRE RETARDANT TREATED OR PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED (ASTM A153) OR STAINLESS STEEL (TYPE 304 OR 316). WHEN REQUIRED TO PREVENT SPLITTING, PRE-DRILL FOR NAILS WITH 1/8" DIAMETER DRILL
- BOLTS AND LAG SCREWS SHALL CONFORM TO ASTM A307 AND ANSI/ASME STANDARD B18.2.1-1981, AND SHALL BE GALVANIZED. BOLTS AND LAG SCREWS IN CONTACT WITH FIRE RETARDANT TREATED OR PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED (ASTM A153) OR STAINLESS STEEL (TYPE 304 OR 316). STANDARD WASHERS SHALL BE PROVIDED UNDER HEAD AND NUT OF ALL BOLTS IN WOOD FRAMING. BOLT THREADS SHALL NOT BEAR ON WOOD. DRILLED HOLES FOR BOLTS SHALL BE 1/16" LARGER IN DIAMETER THAN BOLT.
- ALL BOLTS SHALL BE RETIGHTENED IMMEDIATELY PRIOR TO CLOSING IN FRAMING. METAL FRAMING CONNECTORS SHALL BE "SIMPSON" BRAND OR ENGINEERED APPROVED EQUIVALENT AND SHALL BE GALVANIZED. METAL FRAMING CONNECTORS IN CONTACT WITH FIRE RETARDANT TREATED OR PRESSURE TREATED WOOD SHALL BE HOT-DIP GALVANIZED (ASTM A123) OR STAINLESS STEEL (TYPE 316L). METAL FRAMING CONNECTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LATEST PUBLISHED INSTALLATION INSTRUCTIONS USING THE LARGER SIZE AND
- QUANTITY OF FASTENERS INDICATED, UNLESS OTHERWISE NOTED WASHERS USED IN SHEAR WALLS AND ANCHOR HOLD DOWNS SHALL BE SQUARE WASHERS OF SIZE AND THICKNESS INDICATED IN "SHEAR WALL SHEATHING AND FASTENER SCHEDULE". ROUND WASHERS ARE NOT ACCEPTABLE FOR SHEAR WALL APPLICATIONS.
- ALL BOLTS, WASHERS, NAILS, METAL FRAMING CONNECTORS AND OTHER FASTENERS IN CONTACT WITH PRESERVATIVE OR FIRE RETARDANT TREATED LUMBER SHALL BE HOT-DIPPED GALVANIZED (ASTM A153) OR STAINLESS STEEL (TYPE 304 OR 316).
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT WOOD USED FOR STRUCTURAL PURPOSES IS KEPT AS DRY AS POSSIBLE BEFORE AND DURING CONSTRUCTION. A MAXIMUM MOISTURE CONTENT SHALL BE MAINTAINED UNTIL THE BUILDING ENVELOPE IS CLOSED IN AND WATER-PROOFED AS FOLLOWS:
- KILN-DRIED LUMBER: 19%
- TIMBERS: 19%
- LVL & PSL: 12%
- PLYWOOD: 8% OSB: 4%
- 11. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE-TREATED. ALL WOOD EXPOSED TO WEATHER SHALL BE PRESSURE-TREATED. PRESSURE TREATMENT OF WOOD THAT IS CUT SHALL BE REINSTATED ON CUT EDGES.

<u>LUMBER TABLE</u>				
MEMBER	SPECIES	GRADE		
2x PLATES, STRIPPING, MISC CONCEALED FRAMING, BLKG, & FIRE STOPPING	DOUGLAS FIR-LARCH	NO 1		
SILLS ON CONCRETE OR MASONRY	DOUGLAS FIR-LARCH	NO 1		
2x LUMBER	DOUGLAS FIR-LARCH	NO 1		
ALL 4x DIMENSIONED LUMBER	DOUGLAS FIR-LARCH	NO 1		
LAMINATED VENEER LUMBER (LVL) HEADERS, BEAMS, STRINGERS AND POSTS	PER MANUFACTURER	ICC ESR-2403. GRADE 1.9E; OR ICC ESR-1387, GRADE 1.9E; OR ICC ESR-2993, GRADE 1.9E; OR ICC ESR-1994, GRADE 2.0E		
SHEAR WALL SHEATHING	PER MANUFACTURER	APA RATED SHEATHING, EXPOSURE 1 (PS 1 OR PS 2)		
ROOF SHEATHING	PER MANUFACTURER	APA RATED SHEATHING, EXPOSURE 1 (PS 1 OR PS 2)		

WOOD FASTENER TYPES SCHEDULE

NOTE: 1.-"SD" AND "SDS" SCREWS ARE MANUFACTURED BY SIMPSON STRONG-TIE. 2.-ALL SCREWS SHALL BE INSTALLED SO THAT HEADS ARE FLUSH WITH OUTSIDE MATERIAL. DO NOT OVERDRIVE SCREWS. SCREWS WITH WING-TIPS ARE NOT PERMITTED IN SHEAR WALLS OR DIAPHRAGMS.

TYPE	DIAMETER	LENGTH
16d COMMON	0.162"	3 1/2"
10d COMMON	0.148"	3"
8d COMMON	0.131"	2 1/2"
#9 SD SCREW	0.131"	1 1/2" OR 2 1/2"
#10 SD SCREW	0.161"	1 1/2" OR 2 1/2"
SDS SCREW	0.25"	VARIES 1 1/2"-8"

STRUCTURAL STEEL NOTES

- FABRICATION AND ERECTION OF STRUCTURAL STEEL MEMBERS IS TO BE IN ACCORDANCE WITH "AISC CODE OF STANDARD PRACTICE". LATEST EDITION.
- STEEL FABRICATOR SHALL PARTICIPATE IN THE AISC QUALITY CERTIFICATION PROGRAM AND BE DESIGNATED AN AISC-CERTIFIED PLANT, CATEGORY STD.
- IT IS THE RESPONSIBILITY OF THE STEEL FABRICATOR TO DESIGN THE CONNECTIONS. CONNECTIONS ARE TO BE IN ACCORDANCE WITH CURRENT AISC STANDARDS AND APPLICABLE GOVERNMENT CODES. ALL CONNECTIONS SHALL BE BOLTED OR WELDED AND SHALL DEVELOP 60% OF THE ALLOWABLE UNIFORM LOAD TABULATED IN THE AISO "MANUAL OF STEEL CONSTRUCTION" FOR ALLOWABLE STRESS DESIGN, 10k (ASD), OR SHEAR REACTION SHOWN ON THE DRAWINGS, WHICHEVER IS GREATER. PROVIDE MINIMUM NUMBER OF ASTM F3125 GRADE A325 OR A490 BOLTS AS SHOWN IN THE "STRUCTURAL STEEL BOLTED CONNECTIONS" TABLE.
- ANCHOR RODS TO BE ASTM F1554, GRADE 36 FULLY-THREADED RODS WITH PLATE WASHERS AND NUTS ON THE BOTTOM UNLESS NOTED OTHERWISE-SEE "TYPICAL ANCHOR **BOLT" DETAIL.**
- BOLT HOLES SHALL BE 1/16" OVERSIZE UNLESS OTHERWISE NOTED ON THE DRAWINGS. FIELD BURNING OF BOLT HOLES SHALL NOT BE PERMITTED
- WELDING SHALL BE PERFORMED BY AWS QUALIFIED WELDERS IN CONFORMANCE WITH AWS D1.1, USING E70 SERIES ELECTRODES, UNLESS OTHERWISE NOTED ON THE DRAWINGS. ADDITIONALLY, WELDING IN LOS ANGELES, CA SHALL BE PERFORMED BY CERTIFIED WELDERS.
- ALL STEEL SHALL BE SHOP PAINTED WITH A STANDARD ALKYD PRIMER (GRAY). FOR HARSH ENVIRONMENTS USE A GRAY ZINC ORGANIC OR INORGANIC PRIMER.
- FABRICATE ALL BEAMS WITH THE MILL CAMBER UP.
- CONNECTION NOTATION IS AS FOLLOWS. LOADS SHOWN ON PLAN/DETAILS ARE ALLOWABLE (ASD):
 - SHEAR = V OR []
- MOMENT = M10. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS AND GRADES:
- ANGLES, CHANNELS, PLATES, BARS, AND RODS = A36, fy = 36ksi RECTANGULAR HSS = A500 GRADE B, fy = 46ksi OR A500 GRADE C, fy=50ksi
- 11. REFER TO "DEFERRED SUBMITTALS" FOR ADDITIONAL REQUIREMENTS

REINFORCED MASONRY NOTES

- MASONRY CONSTRUCTION SHALL CONFORM TO THE APPLICABLE PORTIONS OF TMS 602 "SPECIFICATIONS FOR MASONRY STRUCTURES". CONCRETE MASONRY UNITS SHALL BE CLASSIFIED AS NORMAL WEIGHT DENSITY AND CONFORM TO ASTM C90. THE MASONRY ASSEMBLY SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH, (f'm) = 1,500 psi.
- GROUT IN ACCORDANCE WITH ASTM C476 MAY BE FINE OR COARSE, SELF-CONSOLIDATING OR CONVENTIONAL (AT CONTRACTOR'S OPTION), AND SHALL BE PROPORTIONED TO ACHIEVE THE MINIMUM SPECIFIED COMPRESSIVE STRENGTH OF MASONRY. GROUT SHALL HAVE A DRY DENSITY OF 135 +/- 3pcf. NORMAL WEIGHT AGGREGATES IN GROUT SHALL COMPLY WITH ASTM C404. MORTAR SHALL COMPLY WITH PROPORTION SPECIFICATION REQUIREMENTS OF ASTM C270
- ALL MASONRY WALLS SHALL HAVE HEAVY DUTY LADDER TYPE HORIZONTAL JOINT REINFORCING PER MASONRY WALL ELEVATION VERTICAL REINFORCEMENT IS PER
- SUPPLY VERTICAL REINFORCING IN MINIMUM LENGTHS EQUAL TO 4'-0" PLUS LAP SPLICE LENGTH PER TABLE.
- WALL CONSTRUCTION LIFTS FOR REINFORCING BARS AND INSULATION FILL SHALL BE
- PER ACI 530. PORTLAND CEMENT AND LIME TYPE "S" MORTAR IS REQUIRED FOR ALL MASONRY UNLESS
- SEE ARCHITECTURAL PLANS FOR LOCATION AND DETAIL OF CONTROL JOINTS AND
- EXPANSION JOINTS. SEE TYPICAL CONTROL JOINT DETAIL FOR GUIDANCE.
- REFER TO ARCHITECTURAL DRAWINGS FOR LOCATIONS AND DETAILS OF DOOR AND WINDOW OPENINGS FOR SPECIAL COURSING AND OTHER MASONRY DETAILS. THE
- INFORMATION SHOWN ON THE STRUCTURAL DRAWINGS IS INTENDED TO DEFINE THE STRUCTURAL REQUIREMENTS ONLY. 9. ALL BOLTS, ANCHORS, ETC., INSERTED IN THE WALLS SHALL BE GROUTED SOLID INTO
- POSITION WITH MINIMUM EDGE DISTANCE FROM ANCHOR TO EDGE OF GROUTED PORTION OF CMU IN ALL DIRECTIONS AS NOTED ON DRAWINGS.
- 10. REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED ON DRAWINGS REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A706.
- 11. WHEN A FOUNDATION DOWEL DOES NOT LINE UP WITH A VERTICAL BLOCK CORE, IT SHALL NOT BE SLOPED MORE THAN (ONE HORIZONTAL IN 6 VERTICAL), OR 10 DEGREES. DOWEL MAY BE GROUTED INTO CELL IN VERTICAL ALIGNMENT, EVEN THOUGH IT IS IN AN ADJACENT CELL TO THE VERTICAL WALL REINFORCING, AS LONG AS THE CENTER-TO-CENTER SPACE BETWEEN THE WALL REINFORCING AND THE DOWEL DOES NOT EXCEED 8 INCHES. DOWELS SHALL NOT BE BENT INTO ALIGNMENT AFTER CONCRETE HAS BEEN
- 12. SPLICED REINFORCING SHALL BE LAPPED ACCORDING TO "MASONRY LAP SPLICE LENGTH" TABLE. SPLICED BARS SHALL BE WIRED TOGETHER. CONTRACTOR MAY OPT TO STAGGER SPLICES.
- 13. VERTICAL BARS SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 DIAMETERS OF THE REINFORCING OR 10'-0"
- 14. REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE AND INSPECTED BEFORE GROUTING STARTS.
- 15. VERTICAL GROUTING MAY BE EITHER "LOW LIFT" OR "HIGH LIFT" AT THE CONTRACTOR'S
- 16. VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2"x3".
- 17. GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
- 18. VERTICAL REINFORCING BARS SHALL MAINTAIN MINIMUM CLEARANCES AS FOLLOWS UNLESS NOTED OTHERWISE ON DRAWINGS: INSIDE FACE OF MASONRY = 3/4"
- ADJACENT BARS NOT SPLICED = 1" OR 1 BAR DIAMETER, WHICHEVER IS GREATER. 19. INSULATION INSERTS ARE NOT PERMITTED IN GROUTED CELLS.
- 20. PRISM TESTS IN ACCORDANCE WITH ASTM C1314 AND ASTM C140 SHALL BE PERFORMED WITH TEST REPORTS SENT TO ARCHITECT AND EOR FOR RECORD. REFER TO SPECIAL INSPECTIONS TABLE ITEM "EVALUATION OF STRENGTH" FOR ADDITIONAL INFORMATION.

MASONRY LAP SPLICE LENGTH NOTES

- CONTRACTOR SHALL PROVIDE DEVELOPMENT AND REBAR SPLICE LENGTHS SHOWN IN THE TABLES AS A MINIMUM UNLESS INDICATED OTHERWISE IN STRUCTURAL DETAILS OR NOTES.
- "SINGLE" INDICATES ONE BAR PER CELL. "DOUBLE" INDICATES TWO BARS PER CELL. SEE PLAN.

f'm = 1,500 psi - MASONRY LAP SPLICE LENGTH TABLE (INCHES)							
	CMU SIZE	8"	10"	10"	12"	12"	
BAR SIZE	STD HOOK DEVELOPMENT LENGTH (IN)		SINGLE	DOUBLE	SINGLE	DOUBLE	
#3	5	12	12	13	12	13	
#4	6	15	12	23	12	23	
#5	8	23	18	36	15	36	
#6	9	43	34	70	28	70	
#7	10	60	46	84	38	84	

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GENERAL NOTES

SPECIAL INSPECTIONS

- 1. REFER TO THE SPECIAL INSPECTION TABLES FOR THE LIST OF ELEMENTS OF CONSTRUCTION THAT SHALL REQUIRE SPECIAL INSPECTION. THIS SHALL BE CONSIDERED A GUIDE, AND THE CONTRACTOR AND INSPECTOR SHALL REFER TO THE IBC FOR COMPLETE REQUIREMENTS, QUALIFICATIONS, EXCEPTIONS, AND SUBMITTALS. REFER TO IBC CHAPTER 17. THE OWNER SHALL BE RESPONSIBLE FOR EMPLOYING THE SPECIAL INSPECTION AGENCY. ANY "OBSERVATIONS" BY THE EOR WILL NOT BE TO PERFORM SPECIAL INSPECTIONS AND SHALL NOT BE INTERPRETED AS SUCH.
- 2. COPIES OF ALL INSPECTION REPORTS THAT REPORT COMPLIANCE SHALL BE SUBMITTED TO THE ARCHITECT OF RECORD, STRUCTURAL ENGINEER OF RECORD, AND BUILDING INSPECTOR WITHIN 7 CALENDAR DAYS OF COMPLETION OF THAT PORTION OF WORK. A MINIMUM OF ONE (1) PROGRESS REPORT PER MONTH FOR EACH TYPE OF CONSTRUCTION REQUIRING SPECIAL INSPECTION SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER OF RECORD.
- 3. SPECIAL INSPECTOR SHALL INFORM ENGINEER OF RECORD IMMEDIATELY OF NON-COMPLIANCE WITH CONSTRUCTION DOCUMENTS OR APPROVED SUBMITTALS. CONTACT ENGINEER OF RECORD THE SAME DAY NON-COMPLIANCE IS DISCOVERED AND FOLLOW UP WITH AN OFFICIAL REPORT WITHIN 2 BUSINESS
- DAYS.

 4. THE SPECIAL INSPECTIONS IDENTIFIED ON THE PLANS ARE IN ADDITION TO, AND NOT A SUBSTITUTE FOR THOSE INSPECTIONS REQUIRED TO BE PERFORMED BY A BUILDING INSPECTOR.
- 5. SPECIAL INSPECTIONS ARE NOTED AS EITHER "CONTINUOUS" OR "PERIODIC". A "CONTINUOUS" INSPECTION REQUIRES THE PRESENCE OF A QUALIFIED INSPECTOR IN THE VICINITY OF THE WORK BEING PERFORMED FOR 100% OF THAT WORK. A "PERIODIC" INSPECTION REQUIRES PART-TIME OBSERVATION OF THE WORK BEING PERFORMED. THE INSPECTOR SHALL ALSO OBSERVE THE FINAL CONDITION OF THE WORK BEFORE IT IS CLOSED FROM VIEW.
- 6. WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED, IT SHALL BE THE RESPONSIBILITY OF THE AGENT TO EMPLOY A SUFFICIENT NUMBER OF SPECIAL INSPECTORS TO ASSURE THAT ALL WORK IS CONTINUOUSLY INSPECTED IN ACCORDANCE WITH THOSE PROVISIONS.
- 7. SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR PORTIONS OF STRUCTURES DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE COLDFORMED STEEL LIGHT-FRAME CONSTRUCTION PROVISIONS OF SECTION 2211 OF THE IBC OR THE CONVENTIONAL LIGHT-FRAME CONSTRUCTION PROVISIONS OF SECTION 2308 OF THE IBC.

	SPECIAL INSPECTIONS - WOOD TABLE				
ITEM	INSPECTION FREQUENCY	SCOPE			
PREMANUFACTURED WOOD STRUCTURAL ELEMENTS AND ASSEMBLIES	-	SEE "OFF-SITE FABRICATION" SPECIAL INSPECTION TABLE			
DIAPHRAGM AND SHEAR WALL	PERIODIC	WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS, INCLUDING NAILING, BOLTING, ANCHORING, AND OTHER FASTENING TO COMPONENTS OF THE MAIN LATERAL SYSTEM WHEN THE FASTENER SPACING IS LESS THAN OR EQUAL TO 4 INCHES ON CENTER			

	SPECIAL INSPECTIONS - CONCRETE TABLE				
ITEM	INSPECTION FREQUENCY	SCOPE			
REINFORCEMENT	PERIODIC	INSPECT REINFORCEMENT AND PLACEMENT; VERIFY CONFORMANCE WITH CONSTRUCTION DOCUMENTS, AND THAT BARS ARE FREE FROM MATERIALS THAT COULD PREVENT BOND, ARE ADEQUATELY LAPPED, SPLICED, TIED, AND SUPPORTED			
REINFORCEMENT	PERIODIC	VERIFY WELDABILITY OF REBAR OTHER THAN ASTM A 706; INSPECT SINGLE PASS FILLET WELDS NOT GREATER THAN 5/16"			
REINFORCEMENT	CONTINUOUS	INSPECT ALL OTHER WELDS (SEE ALSO "STEEL" SPECIAL INSPECTIONS TABLE)			
ANCHOR INSTALLATION	PERIODIC	INSPECT CAST-IN-PLACE ANCHORS AND BOLTS			
ANCHOR INSTALLATION	PERIODIC	INSPECT POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS NOT OTHERWISE SPECIFIED			
ANCHOR INSTALLATION	CONTINUOUS	INSPECT POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS PER THE REQUIREMENTS IN THEIR RESPECTIVE ICC-ES REPORTS			
MIX DESIGN	PERIODIC	VERIFY USE OF APPROVED MIX DESIGN			
SAMPLING AND TESTING	CONTINUOUS	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTING; PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE TEMPERATURE OF THE CONCRETE			
CONCRETE PLACEMENT	PERIODIC	VERIFY MAINTENANCE OF CURING TEMPERATURE AND TECHNIQUES			
CONCRETE PLACEMENT	PERIODIC	INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF CONCRETE MEMBER BEING FORMED			
CONCRETE PLACEMENT	CONTINUOUS	CONCRETE PLACEMENT			

	SPECIAL INSPECTIONS - SOILS AND FOUNDATIONS TABLE					
ITEM	INSPECTION FREQUENCY	SCOPE				
SOILS	PERIODIC	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY; VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL; PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS; PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY				
SOILS	CONTINUOUS	VERIFY USE OF PROPER MATERIALS, DENSITIES, LIFT THICKNESSES, AND COMPACTION OF FILL; VERIFY MATERIALS AND PROCEDURES COMPLY WITH THE GEOTECHNICAL REPORT				

SPECIAL INSPECTIONS - OFF-SITE FABRICATION (INCLUDING PRE-MANUFACTURED WOOD STRUCTURAL					
		SSEMBLIES, AND STEEL FABRICATING)			
ITEM	INSPECTION FREQUENCY	SCOPE			
FABRICATION AND IMPLEMENTATION PROCEDURES	PERIODIC	VERIFY THAT FABRICATOR MAINTAINS DETAILED FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR INSPECTION CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND REFERENCED STANDARDS; REVIEW PROCEDURES FOR COMPLETENESS AND ADEQUACY RELATIVE TO THE CODE REQUIREMENTS FOR THE FABRICATOR'S SCOPE OF WORK			
NOTE	-	SPECIAL INSPECTION FOR OFF-SITE FABRICATION IS NO REQUIRED FOR FABRICATORS APPROVED BY THE BUILDING OFFICIAL IN ACCORDANCE WITH THE CODE			

SPECIAL INSPECTIONS - STEEL TABLE			
ITEM	INSPECTION FREQUENCY	SCOPE	
MATERIAL VERIFICATION	PERIODIC	HIGH STRENGTH BOLTS, NUTS, AND WASHERS: REVIEW MANUFACTURER'S CERTIFICATE OF COMPLIANCE; IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE CONSTRUCTION DOCUMENTS	
MATERIAL VERIFICATION	PERIODIC	STRUCTURAL STEEL: REVIEW MANUFACTURER'S CERTIFIED MILL TEST REPORTS; IDENTIFICATION MARKINGS ON STEEL SHAPES TO CONFORM TO AISC STANDARDS SPECIFIED IN THE CONSTRUCTION DOCUMENTS	
MATERIAL VERIFICATION	PERIODIC	WELD FILLER MATERIALS: REVIEW MANUFACTURER'S CERTIFICATE OF COMPLIANCE; IDENTIFICATION MARKINGS TO CONFORM WITH AWS SPECIFICATIONS IN THE CONSTRUCTION DOCUMENTS	
HIGH-STRENGTH BOLTING	PERIODIC	BEARING-TYPE CONNECTIONS: VERIFY BOLTS, NUTS, WASHERS, PAINT, INSTALLATION, AND TIGHTENING CONFORM TO THEIR RESPECTIVE STANDARDS	
WELDING	PERIODIC	SINGLE PASS FILLET WELDS NOT GREATER THAN 5/16"	
WELDING	PERIODIC	VERIFY WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706; ALL REINFORCING STEEL NOT REQUIRING CONTINUOUS INSPECTION	
WELDING	CONTINUOUS	COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS; MULTIPASS FILLET WELDS; SINGLE PASS FILLET WELDS > 5/16"	
STRUCTURAL DETAILS	PERIODIC	INSPECT STEEL FRAME FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS FOR MEMBER SIZES AND LOCATIONS, BRACING, AND CONNECTIONS	

SPECIAL INSPECTIONS - MASONRY - LEVEL 1 INSPECTION					
	(LEVEL B QUALITY ASSURANCE)				
		CY CATEGORY I, II, III STRUCTURES			
ITEM	INSPECTION FREQUENCY	SCOPE			
REINFORCEMENT	PERIODIC	LAPPING AND SPLICING OF REBAR; LOCATION, PLACEMENT, GRADE, SIZE, AND TYPE OF REINFORCEMENT AND CONNECTORS			
REINFORCEMENT	CONTINUOUS	WELDING OF REINFORCING BARS			
INSTALLATION OF MASONRY, GROUT, AND MORTAR	PERIODIC	CONSTRUCTION OF MORTAR JOINTS; SIZE AND LOCATION OF STRUCTURAL ELEMENTS; PROTECTION OF MASONRY IN COLD WEATHER (BELOW 40°F) OR HOT WEATHER (ABOVE 90°F); CLEAN GROUT SPACE			
INSTALLATION OF MASONRY, GROUT, AND MORTAR	CONTINUOUS	GROUT PLACEMENT IN CELLS WITH STEEL REINFORCEMENT			
MIXING OF MORTAR AND GROUT	PERIODIC	PROPORTIONS OF SITE-PREPARED MORTAR AND GROUT			
ANCHORS	PERIODIC	INSPECT POST-INSTALLED MECHANICAL AND ADHESIVE ANCHORS PER THE REQUIREMENTS IN THEIR RESPECTIVE ICC-ES REPORTS			
EVALUATION OF STRENGTH	CONTINUOUS	PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/ OR PRISMS; VERIFY I'M PRIOR TO CONSTRUCTION. A "SET" IS HEREBY DEFINED AS A MINIMUM OF 4 PRISM SPECIMENS. A MINIMUM OF 1 SET SHALL BE PREPARED AND TESTED FOR EACH DAY MASONRY IS INSTALLED. TEST 1 PRISM AT 7 DAYS, 2 AT 28 DAYS, AND THE 4th PRISM AT THE EOR'S DIRECTION, IF REQUIRED. REPORT ALL TEST RESULTS TO THE ARCHITECT AND EOR WITHIN 3 WORKING DAYS OF TESTING.			
MISCELLANEOUS	PERIODIC	COMPLIANCE WITH REQUIRED INSPECTION PROVISIONS OF THE CONSTRUCTION DOCUMENTS AND THE APPROVED SUBMITTALS SHALL BE VERIFIED			



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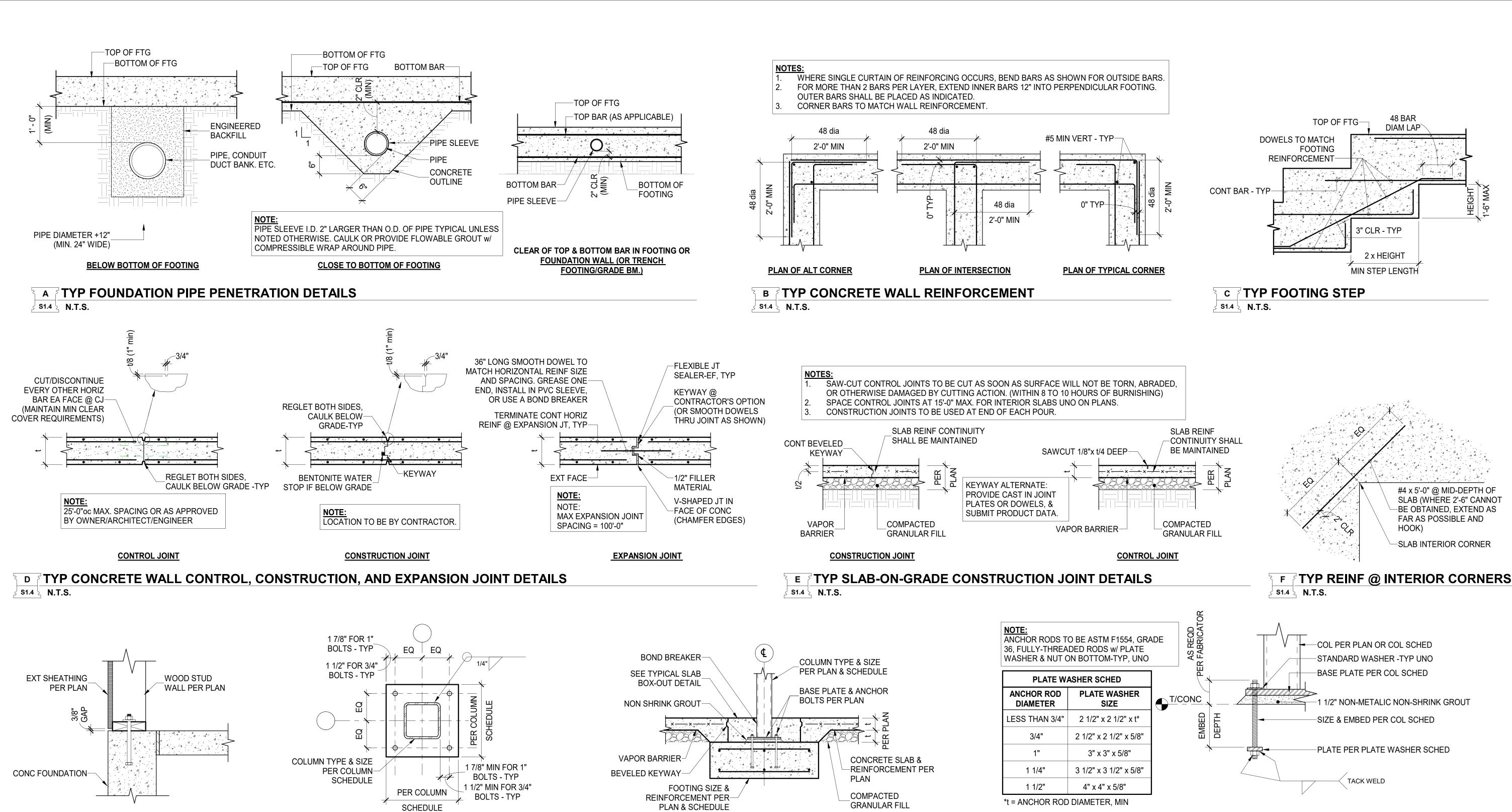
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SHEET TITLE:

SPECIAL INSPECTIONS

SHEET NUMBER:

S_{1.3}



TYP INTERIOR COLUMN

-COL PER PLAN OR COL SCHED -STANDARD WASHER -TYP UNO BASE PLATE PER COL SCHED 1 1/2" NON-METALIC NON-SHRINK GROUT -SIZE & EMBED PER COL SCHED -PLATE PER PLATE WASHER SCHED TACK WELD

K TYP ANCHOR BOLT DETAIL ∫ Տ1.4 է N.T.S.

NOTES:

ያ S1.4 է **N.T.S.**

TYPICAL ANCHOR BOLT END DISTANCE $L = 4 \frac{1}{2}$ MIN, 12" MAX.

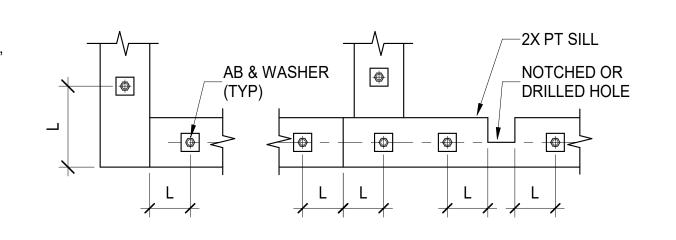
∃ G ₹TYPICAL SHEATHING GAP DETAIL

ANCHOR BOLTS SHALL BE INSTALLED AT 12" MAXIMUM FROM EACH END OF EACH SILL PLATE PIECE, AND SHALL BE SPACED AT 48" ON CENTER MAXIMUM. SEE TYPICAL SHEAR WALL DETAIL FOR ANCHOR BOLT SPACING AT SHEAR WALLS.

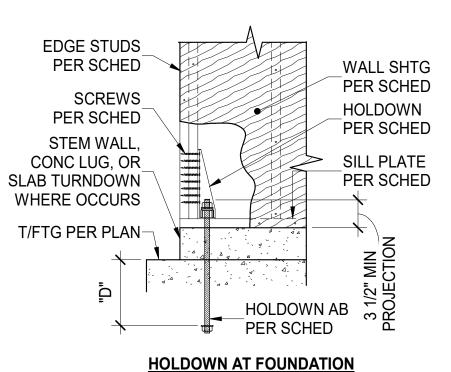
H TYP BASE PLATE DETAIL

ያ S1.4 է N.T.S.

- WHERE SILL PLATE IS NOTCHED, DRILLED OR CUT MORE THAN ONE THIRD OF ITS WIDTH, INSTALL ANCHOR BOLT EACH SIDE AS SHOWN. NOTCHES, CUTS AND HOLES SHALL BE TREATED WITH A PRESERVATIVE SOLUTION CONFORMING TO AWPA STANDARD M4
- ANCHOR BOLTS SHALL BE 5/8" DIAMETER FULLY THREADED WITH 3"x3" x 0.229" PLATE WASHERS UNLESS OTHERWISE NOTED.
- MINIMUM ANCHOR BOLT EMBEDMENT SHALL BE 7", MEASURED FROM TOP OF THE CONCRETE SLAB FOR ANCHOR BOLTS EMBEDED IN CONCRETE CURBS **NOT** POURED MONOLITHICALLY WITH THE FOUNDATION (NON-INTEGRAL CURBS), THE LENGTH OF ANCHOR BOLT IN CONCRETE CURBS SHALL NOT APPLY TO THIS MINIMUM EMBEDMENT
- ANCHOR BOLTS WITH DAMAGED THREADS SHALL NOT BE USED.
- WHERE SILL PLATE ANCHORS MUST BE POST-INSTALLED, PROVIDE 3/4"dia x 8 1/2" SIMPSON TITEN HD STAINLESS STEEL SCREW ANCHORS (INTEGRAL CURBS ONLY, OR NO CURB), OR 5/8"dia x (8 1/2" + CURB HEIGHT) STAINLESS STEEL THREADED ROD ANCHORS INSTALL w/ HILTI HIT-HY 200 ADHESIVE OR EQUIVALENT. POST-INSTALLED ANCHORS SHALL NOT REPLACE HOLDOWN ANCHOR BOLTS UNLESS ALLOWED IN THE HOLDOWN SCHEDULE.



S1.4 \ N.T.S.



	HOLDOWN SCHEDULE				
MARK	EDGE STUDS	SIMPSON HOLDOWN	SDS 1/4"x2.5" STUD SCWS	HILTI AB (POST- INSTALLED)	"D" (POST- INSTALLED)
A	2 - 2x	HDU2-SDS2.5	6	5/8" GR.36	8"
В	2 - 2x	HDU4-SDS2.5	10	5/8" GR.36	10"
\odot	2 - 2x	HDU5-SDS2.5	14	5/8" GR.36	12"
۵	3 - 2x	HDU8-SDS2.5	20	7/8" GR.36	14"
E	6x	HHDU11-SDS2.5	30	1" GR.36	16"

ALLOWED.

HOLDOWN ANCHOR BOLTS SHALL BE HOT-DIPPED GALVANIZED (ASTM A153). CONTRACTOR MAY CHOOSE CAST-IN-PLACE OR POST-INSTALLED OPTION. ADHERE WITH HILTI HIT-HY 200 SAFE SET SYSTEM ADHESIVE FOR POST-INSTALLED OPTION. IF "N/A" IS SHOWN, POST-INSTALLED OPTION IS NOT

- THICKENED FOOTING WHERE REQUIRED TO ACHIEVE MINIMUM ANCHOR BOLT **EMBEDMENT**
- WHERE HOLDOWN OCCURS ADJACENT TO A POST ON THE PLAN, USE THE LARGER OF THE INDICATED POST OR THE SCHEDULE EDGE STUDS.

M TYP HOLDOWN SCHEDULE & DETAILS

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48 BAR DIAM LAP

B" CLR - TYP

2 x HEIGHT

MIN STEP LENGTH

#4 x 5'-0" @ MID-DEPTH OF

-BE OBTAINED, EXTEND AS

FAR AS POSSIBLE AND

-SLAB INTERIOR CORNER

HOOK)

SLAB (WHERE 2'-6" CANNOT

TOP OF FTG-

FOOTING

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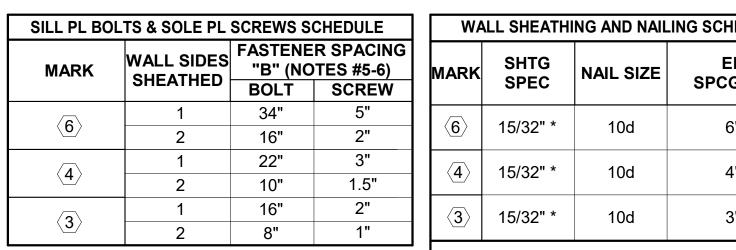
TYPICAL DETAILS

SHEET NUMBER:

TYPICAL SILL PLATE ANCHOR BOLT DETAIL

ያ **S1.4** ኒ **N.T.S.**

S1.4 N.T.S.



		WALL SHEATHING AND NAILING SCHEDULE					
		MARK	SHTG SPEC	NAIL SIZE	EN SPCG "E"		
		6	15/32" *	10d	6"		
		4	15/32" *	10d	4"		
		3	15/32" *	10d	3"		
_	1		_		_		

PANELS SHALL BE (SHEATHING) GRADE, SEE LUMBER SCHEDULE FOR REQUIREMENTS

TA TTYP SHEAR WALL SHEATHING AND FASTENER SCHEDULE - WOOD CONSTRUCTION

Տ1.5 է **N.T.S.**

- FIELD NAILING (FN): 10d @ 12"oc. ALL NAILS SHALL BE COMMON OR BOX WIRE NAILS.
- MINIMUM DIMENSION OF ANY SHEATHING SHEET EQUALS 16" OR STUD SPACING, WHICHEVER IS
- ALL SHEAR WALL SHEATHING PANEL EDGES SHALL BE FULLY BLOCKED WITH FULL DEPTH 2x STUD **BLOCKING-TYP-UNO.**
- SILL PLATES SHALL BE FASTENED WITH 5/8"dia x 7"LG EMBED ANCHOR BOLTS PER FASTENER SPACING "B" IN SCHEDULE ABOVE. ALTERNATIVELY, USE 5/8" x 8"LG SIMPSON TITEN HD SCREW ANCHORS, BOTH OPTIONS REQUIRE 3"x3"x0,229" PLATE WASHERS AT EACH AB.
- REFER TO ARCH DRAWINGS/ SPECIFICATIONS FOR FIRE-RETARDANT AND PRESERVATIVE TREATMENT, IF REQUIRED.

-PANEL JT

-EDGE NAILING

OR JST

-JOINT STUD/BLKG/TRUSS

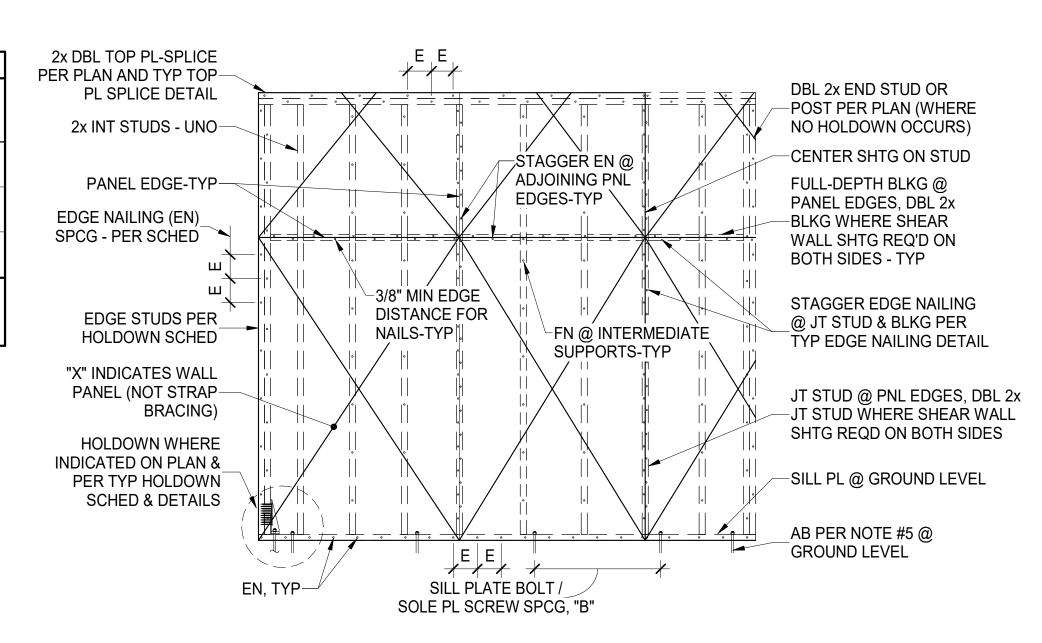
1/4" STAGGER, TYP

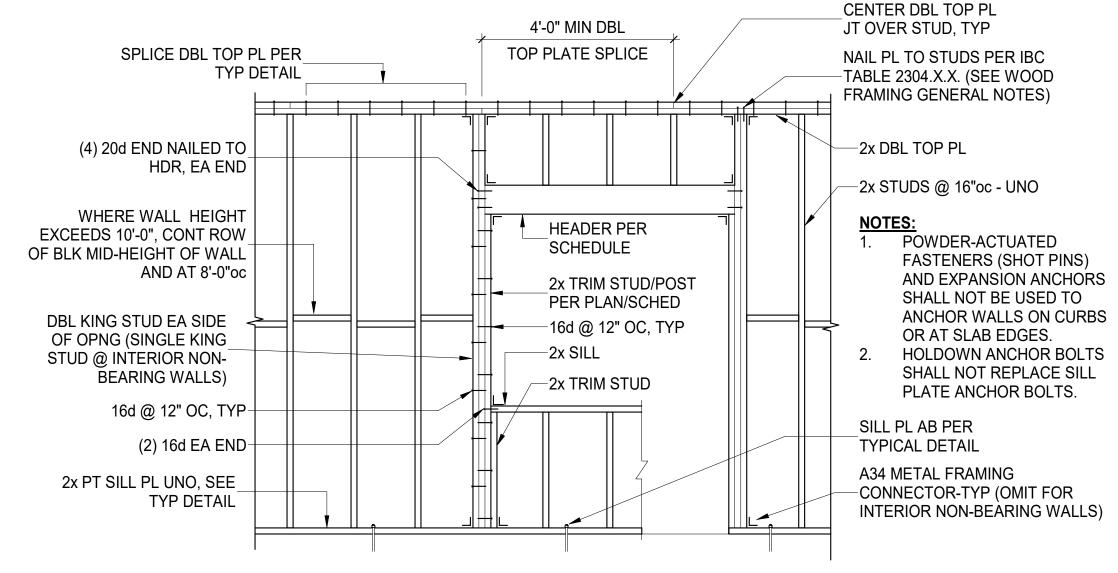
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ع S1.5 کی N.T.S.





B TYP STRUCTURAL WALL PANEL FRAMING ELEVATION

⟩ S1.5 **∖** N.T.S.



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4'-0" MIN LAP BETWEEN 4'-0" MIN LAP BETWEEN **UPPER & LOWER PLATE UPPER & LOWER PLATE** 7- SCREW DIA TIGHT FIT (TYP) MIN END DIST 4- SCREW DIA MIN SPACING (TYP)

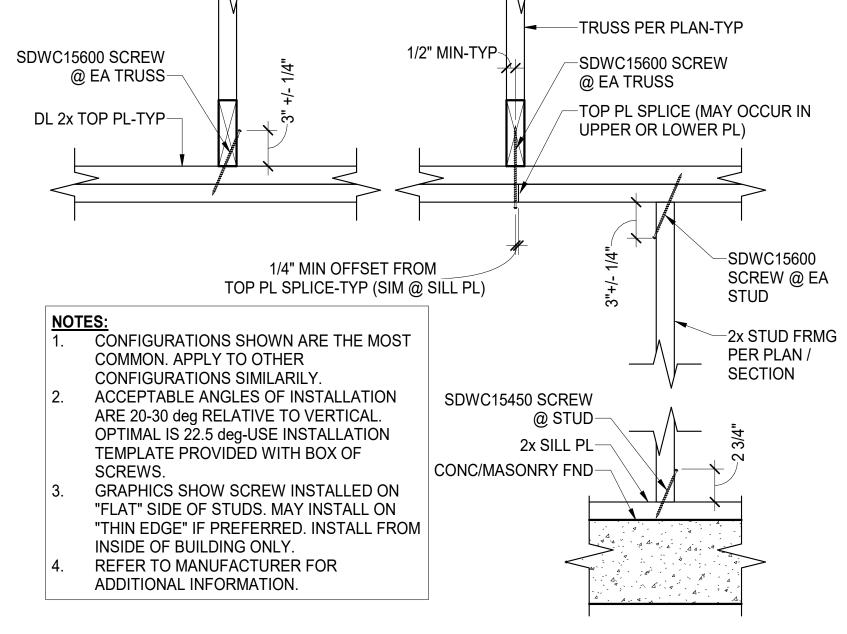
	7 1 1 1	<u> </u>		
NAILED SPLICE SCHEDULE			SC	REWED SPLICE SCHEDULE
MARK	NAILS		MARK	SDS 1/4 SCREWS
A	8 - 16d		Q Q	8 - 1/4" SCREWS
B	10 - 16d		E	12 - 1/4" SCREWS
©	12 - 16d		F	24 - 1/4" SCREWS

- SPLICE 2x DOUBLE TOP PLATES PER MARK "A" AND 3x DOUBLE TOP PLATES PER MARK "D" OF THE ABOVE SCHEDULE, UNLESS OTHERWISE INDICATED.
- SCREWS SHALL BE 3" LONG FOR 2x PLATES AND 5" LONG FOR 3x
- JOINTS IN UPPER AND LOWER PLATE SHALL BE CENTERED OVER STUD OR MULLION
- ALL NAILS SHALL BE COMMON WIRE NAILS.
- SCHEDULE INDICATES NUMBER OF NAILS OR SCREWS ON EACH SIDE OF EACH JOINT.

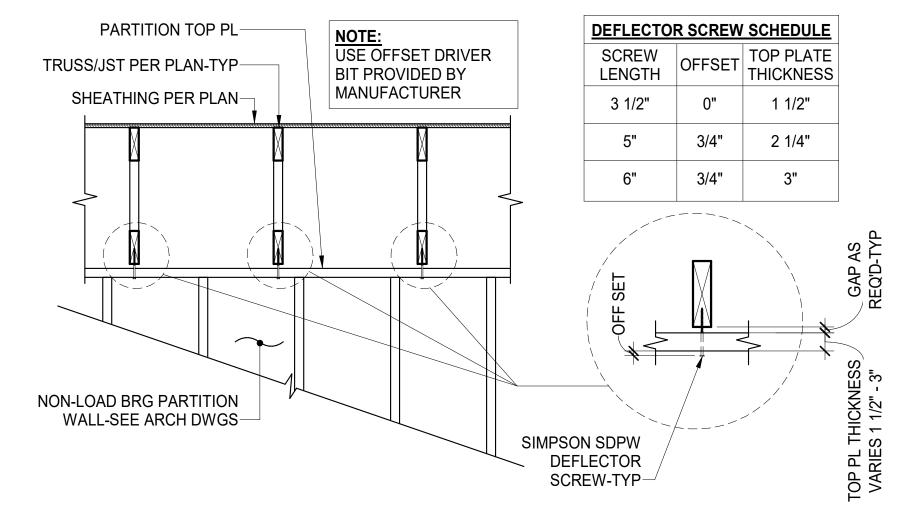
C TYP STAGGERED EDGE NAILING DETAIL

TYPICAL TOP PLATE SPLICE DETAIL

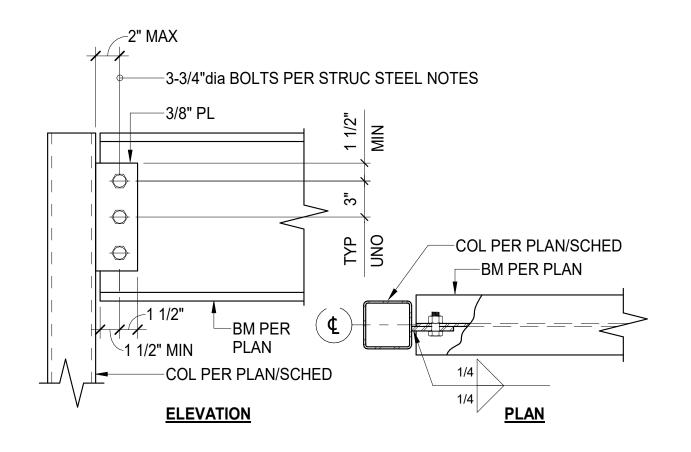




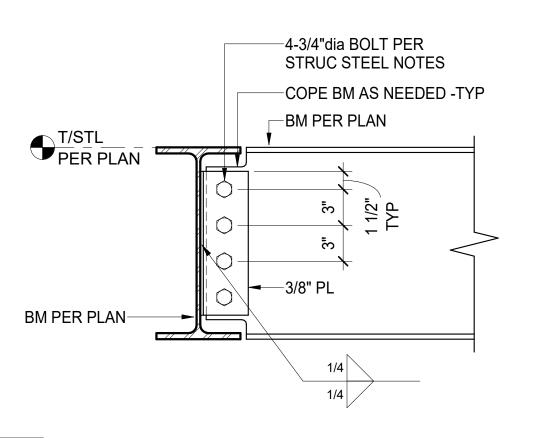
E TYPICAL SIMPSON SDWC TRUSS SCREW DETAIL ժ S1.5 է N.T.S.



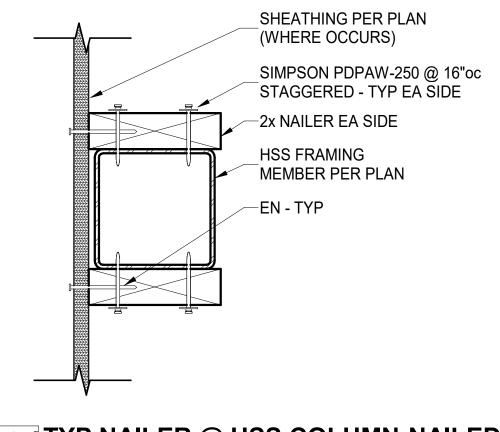
F TYP SLIP CONNECTION @ NON LOAD-BRG WOOD PARTITION WALL ያ S1.5 է N.T.S.



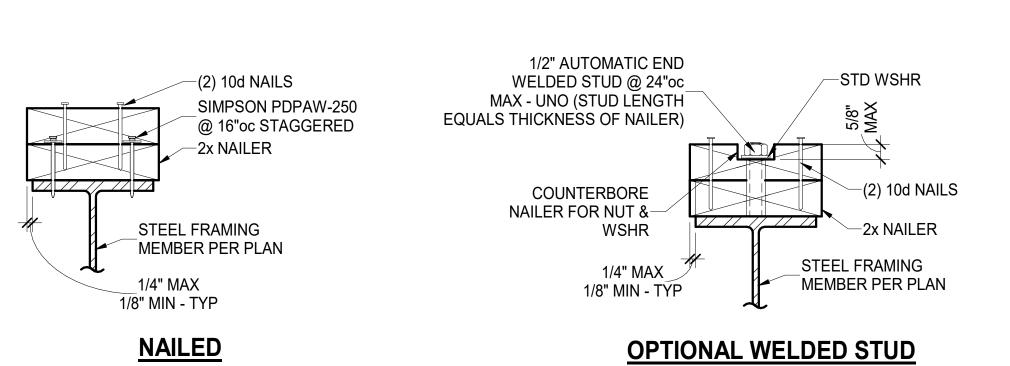




H TYPICAL BEAM-TO-BEAM CONNECTION ያ **S1.5** \ **N.T.S.**



TYP NAILER @ HSS COLUMN-NAILED | S1.5 | N.T.S.



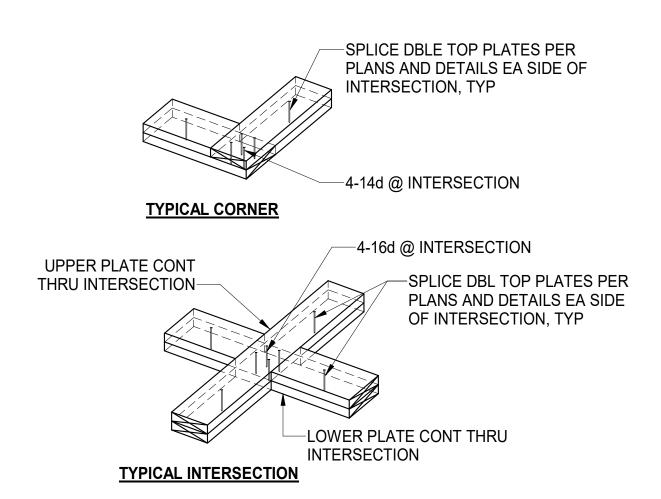
K TYP DOUBLE NAILER ON BEAM | S1.5 | N.T.S.

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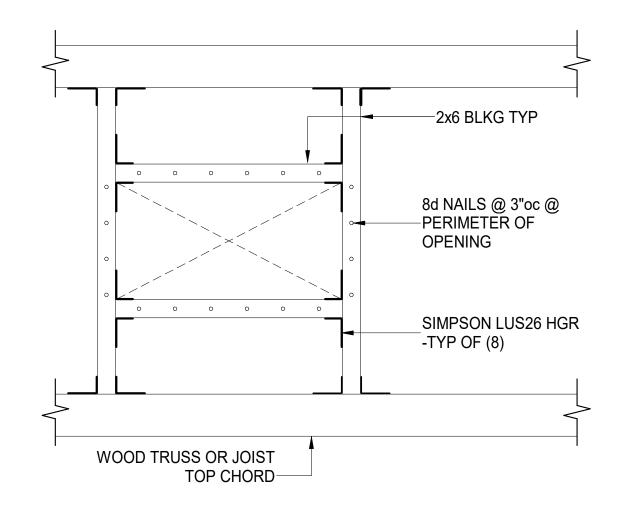
STORE #: XXXX 2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

TYPICAL DETAILS

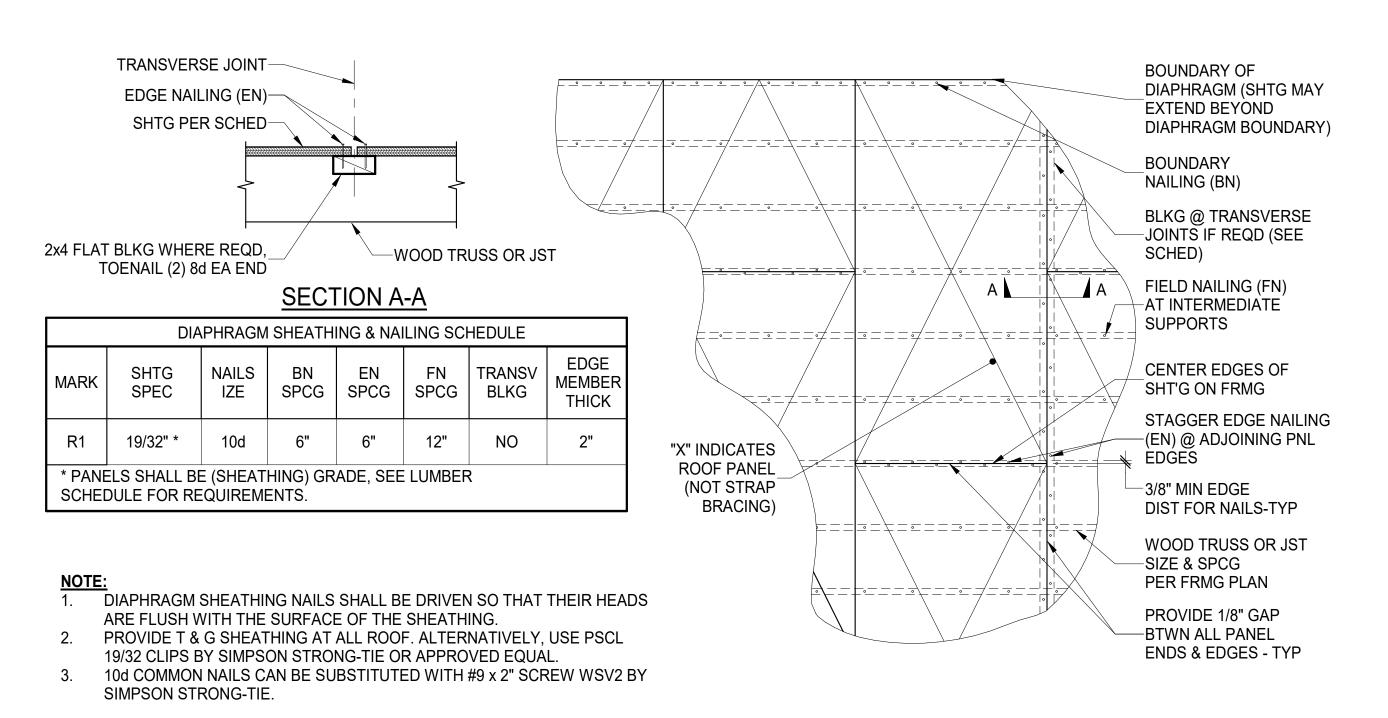


A TYPICAL TOP PLATE CORNERS & INTERSECTION DETAIL S1.6 N.T.S.

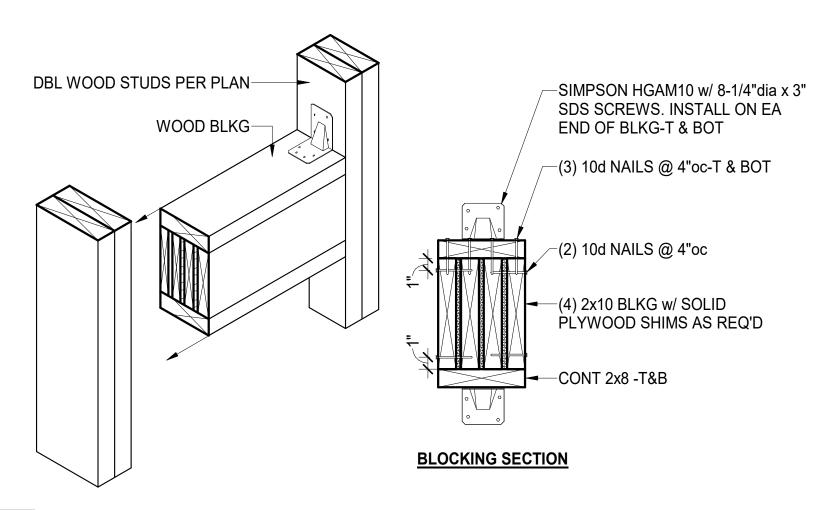


c TYP BLKG @ ROOF OPENING

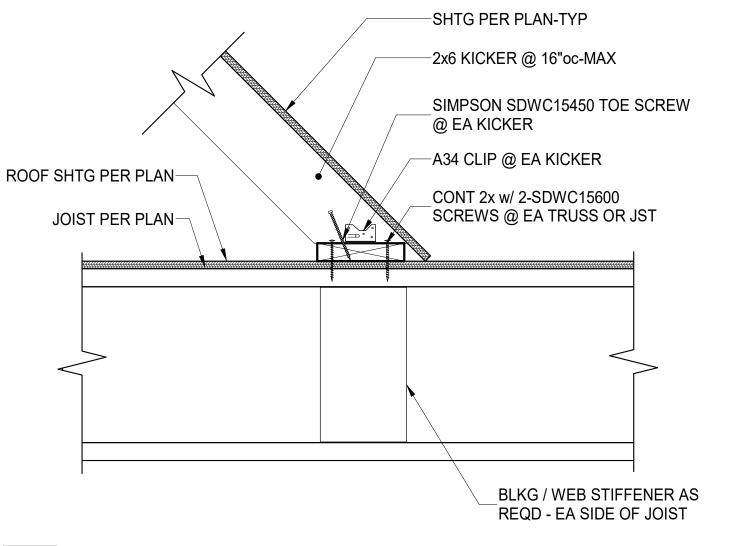
\$1.6 \ N.T.S.



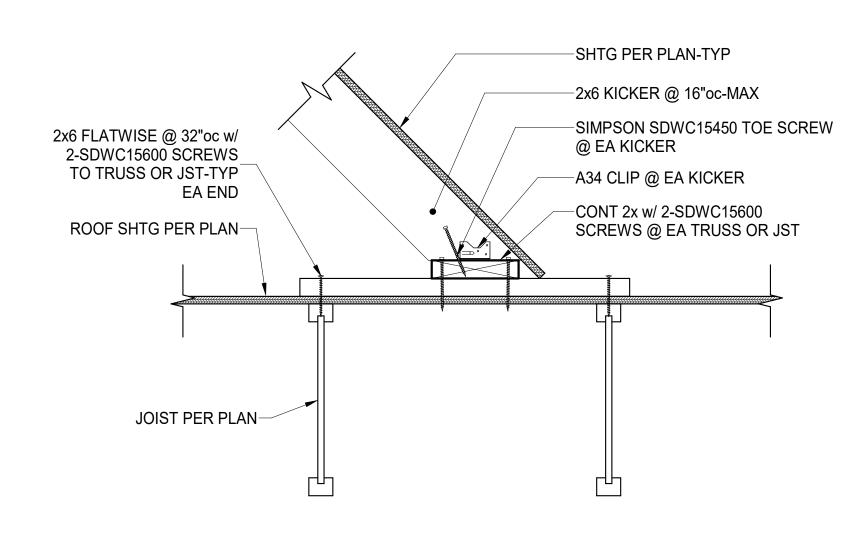
B TYP ROOF SHEATHING DETAIL - WOOD CONSTRUCTION N.T.S.



TYPICAL CANOPY ATTACHMENT BLOCKING @ WOOD STUDS N.T.S.



E TYP KICKER CONNX. TO TRUSS/JST (PARALLEL)
S1.6 N.T.S.



F TYP KICKER CONN TO TRUSS/JST (PERPENDICULAR)

\$1.6 \ N.T.S.



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F 636.349.1730

CHECKED BY: RLR / SJS

St. Louis, MO 63026

LDG-TX-05-23

DRAWN BY: KJG

CHECK SET - 11/15/2023

DEVELOPER COMMENTS - 01/12/2024

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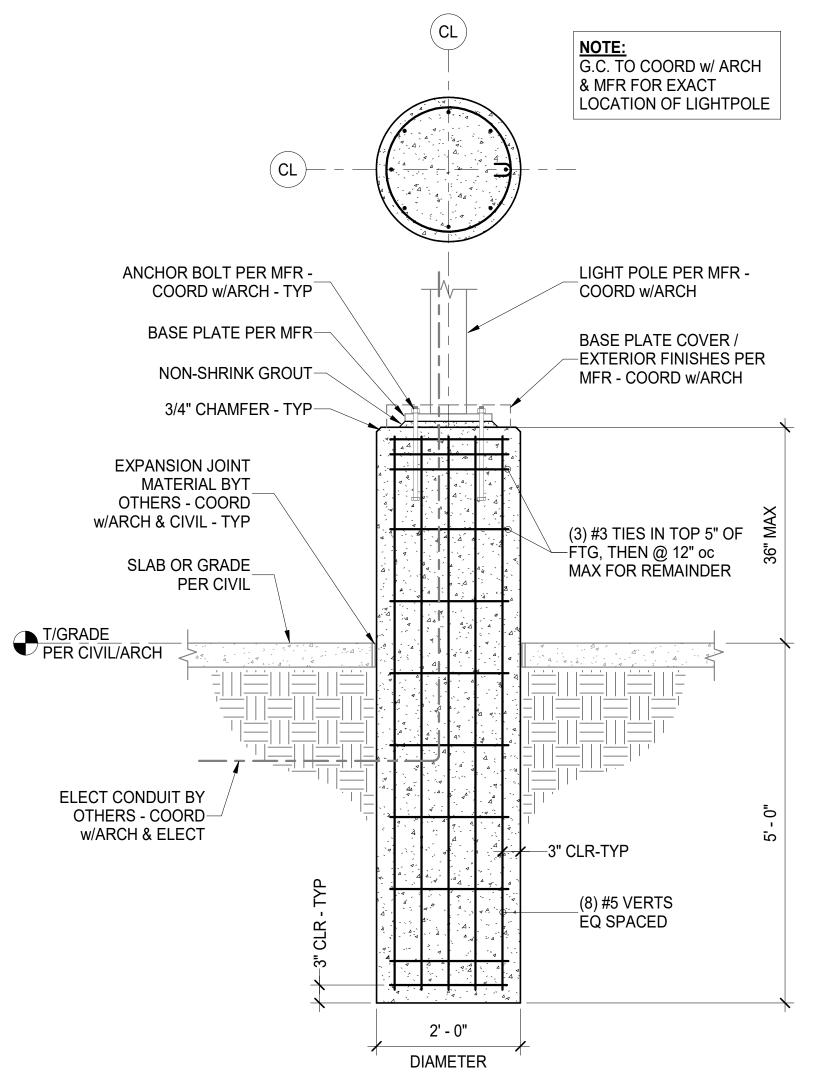
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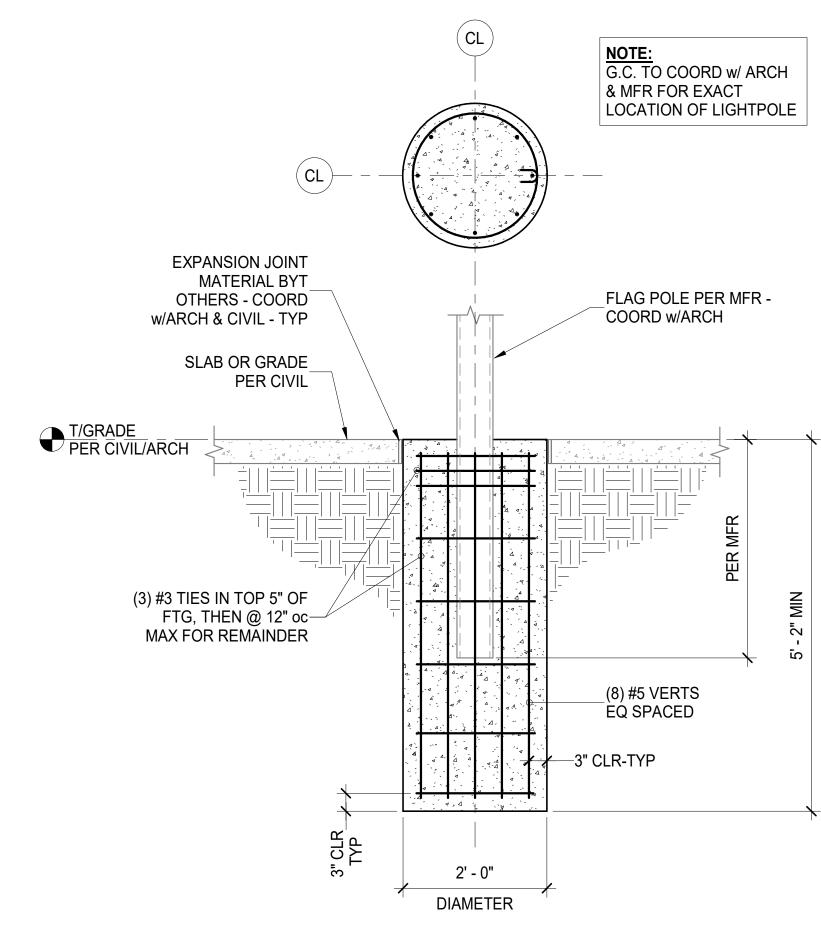
TYPICAL DETAILS

SHEET NUMBER:

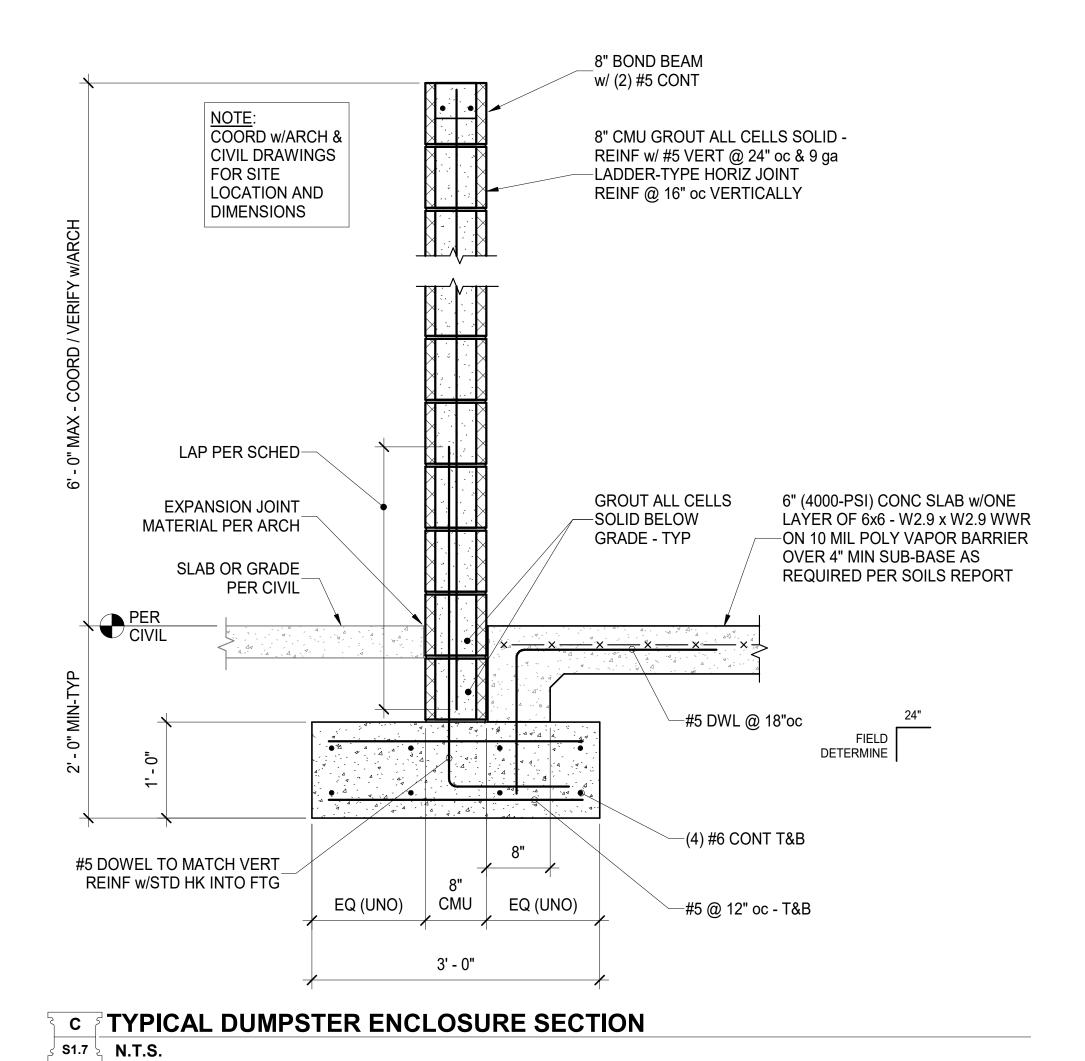
S1.6







B TYPICAL FLAG POLE FOOTING DETAIL S1.7 N.T.S.



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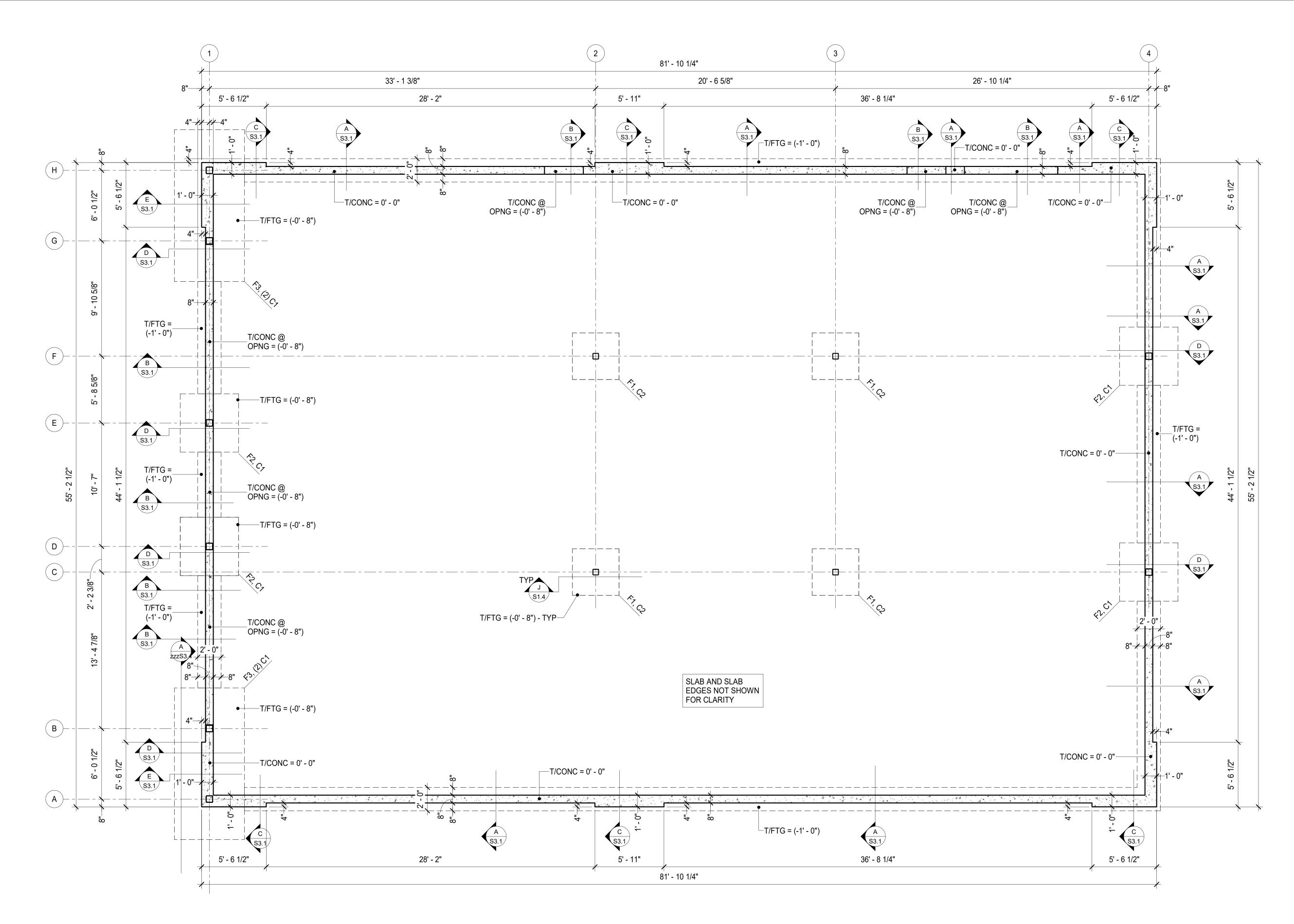
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

TYPICAL DETAILS

SHEET NUMBER:

S1.7



FOUNDATION PLAN

SCALE: 1/4" = 1'-0"

PLAN NOTES

SEE SHEETS S1.1 - S1.7 FOR GENERAL NOTES AND TYPICAL DETAILS.

SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, SECTIONS, AND ELEVATIONS NOT SHOWN HEREON.

COORDINATE SIZE AND LOCATION OF ROUGH OPENINGS IN FLOOR OR WALLS WITH ARCHITECTURAL DRAWINGS. SEE SHEET S2.2 FOR BALANCE OF INFORMATION

ALL ELEVATIONS ARE REFERENCED FROM FINISHED MAIN FLOOR = 0' - 0"

T/FTG = TOP OF FOOTING = PER PLAN
 T/CONC = TOP OF CONCRETE ELEVATION = PER PLAN

FOOTING SCHEDULE			
MARK	SIZE	REINFORCING	
F1	3'-0" x 3'-0" x 1'-0"	(3) #5 EW TOP & BOT	
F2	5'-0" x 5'-0" x 1'-6"	(7) #5 EW TOP & BOT	
F3	13'-0" x 6'-0" x 1'-6"	#5 @ 12 oc EA WAY - TOP & BOT	

	C	DLUMN SCH	EDULE
MARK	SIZE	BASE PLATE	ANCHOR BOLTS
C1	HSS 7" x 7" x 3/8"	13" x 13" x3/4"	(4) 3/4" dia w/ 16" MIN EMBED
C2	HSS 6" x6" x 3/8"	12" x 12" x 3/4"	(4) 3/4" dia w/ 16" MIN EMBED



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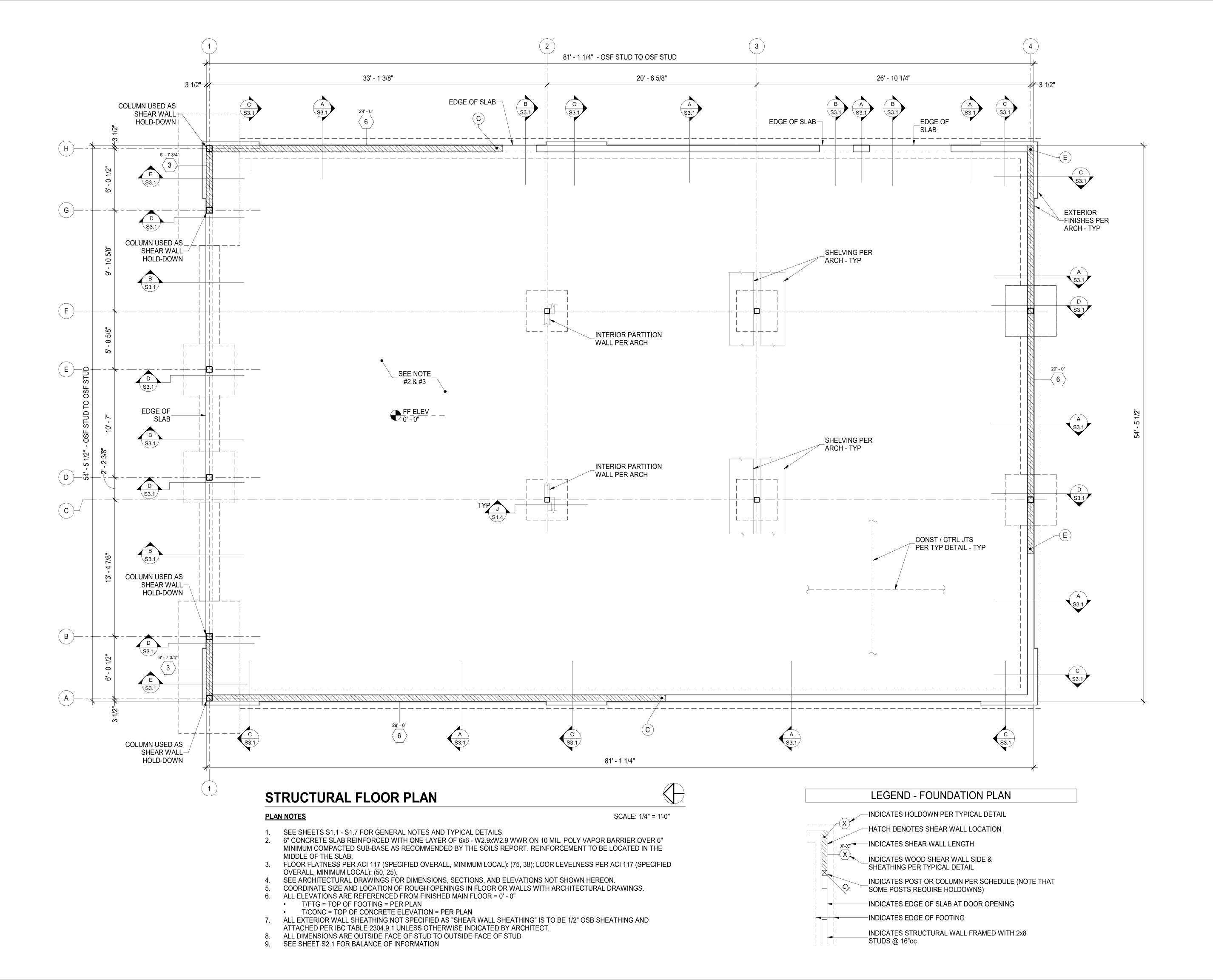
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SHEET TITLE:

FOUNDATION PLAN



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	OTILOR OLT - TT/10/2020
1	DEVELOPER COMMENTS - 01/12/2024
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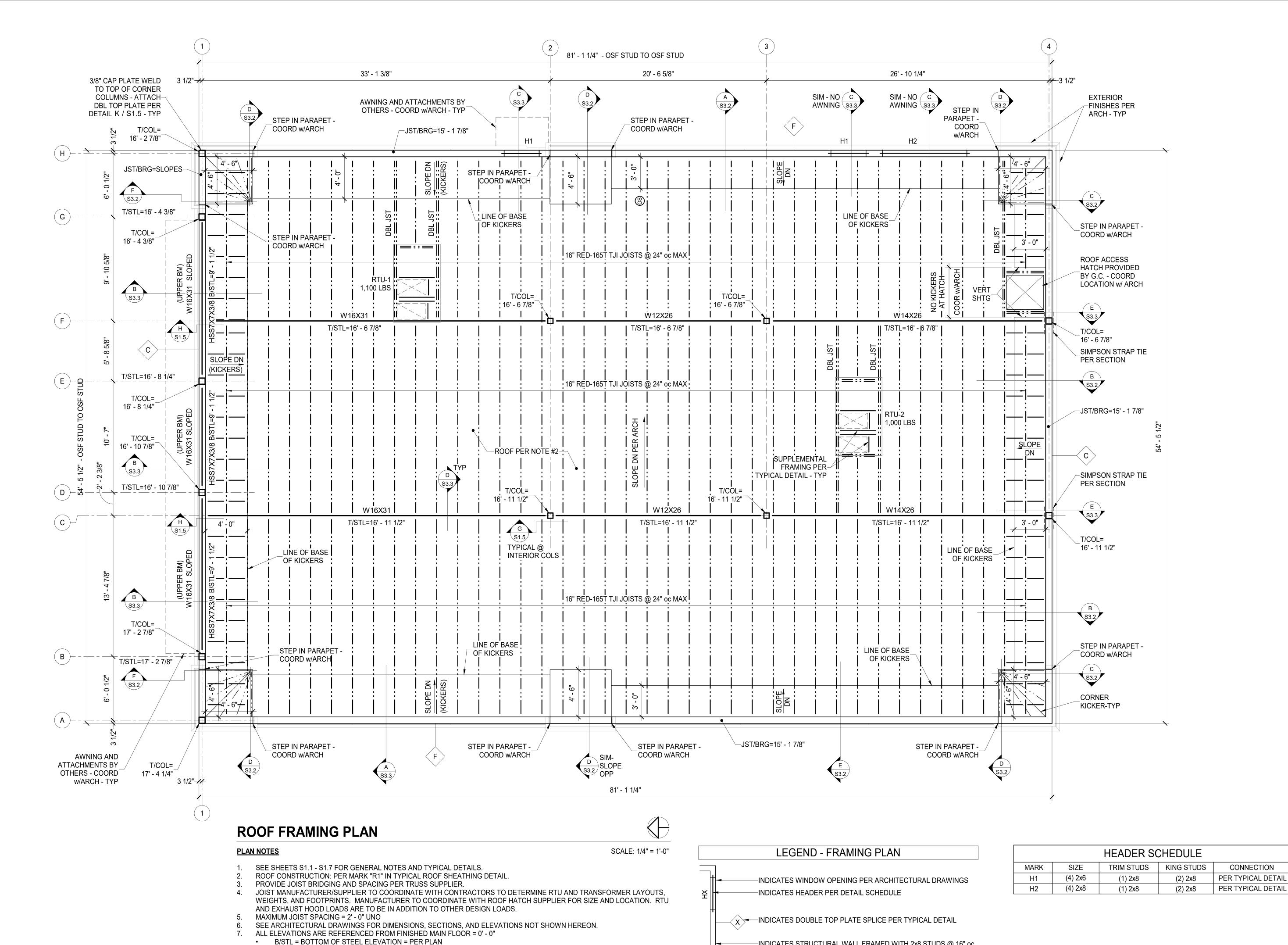
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SHEET TITLE:

STRUCTURAL FLOOR PLAN



• T/STL = TOP OF STEEL ELEVATION = PER PLAN • JST/BRG = JOIST BEARING ELEVATION = PER PLAN -INDICATES STRUCTURAL WALL FRAMED WITH 2x8 STUDS @ 16" oc

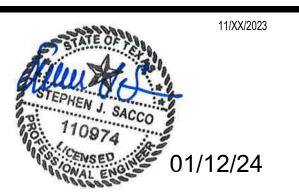
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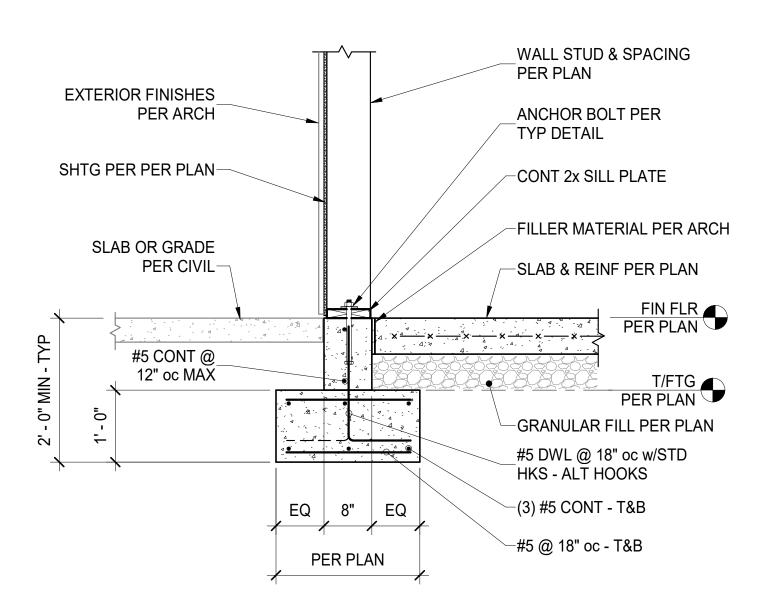
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STORE #: XXXX

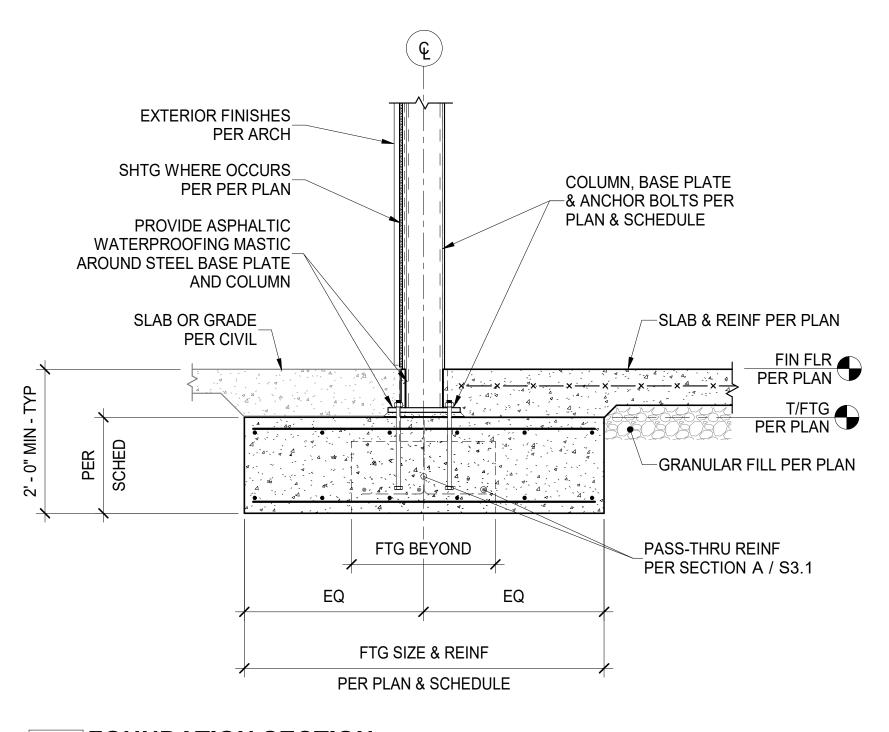
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

ROOF FRAMING PLAN

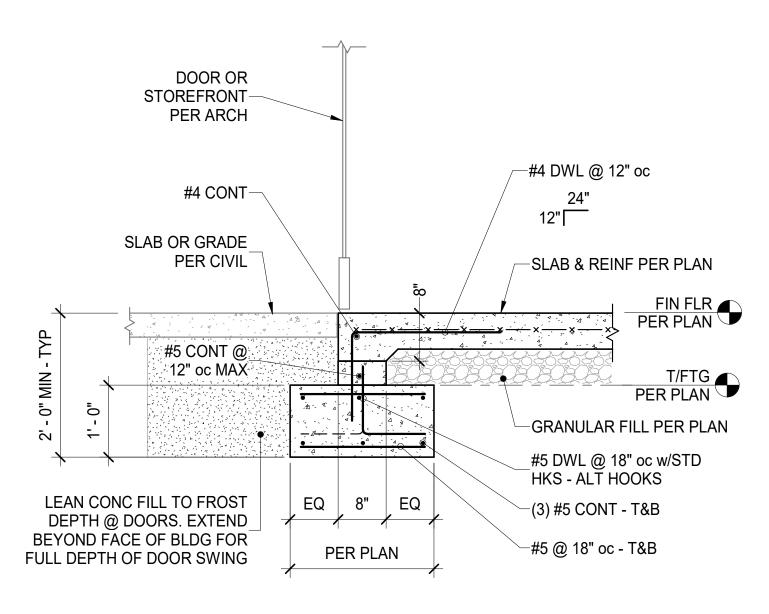


A FOUNDATION SECTION
3/4" = 1'-0"



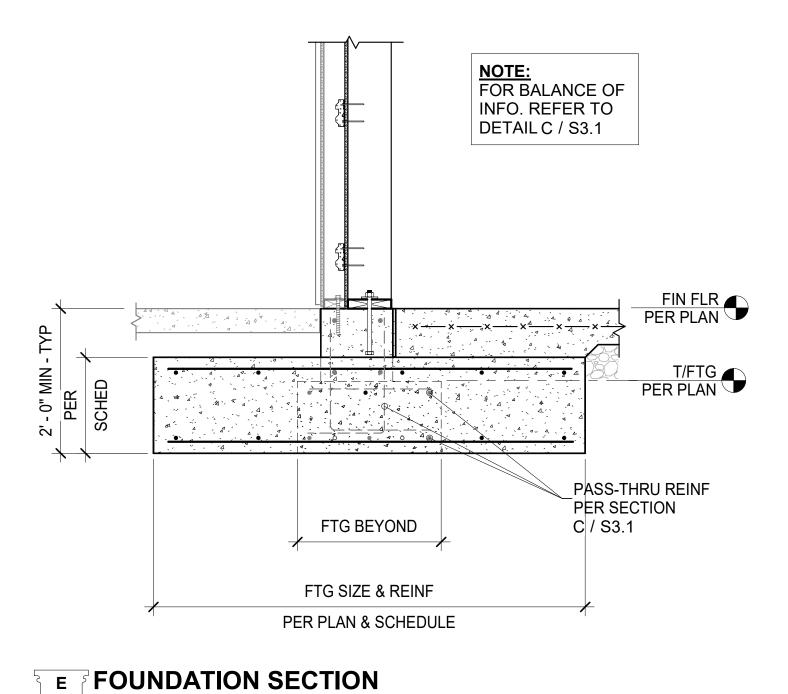
FOUNDATION SECTION

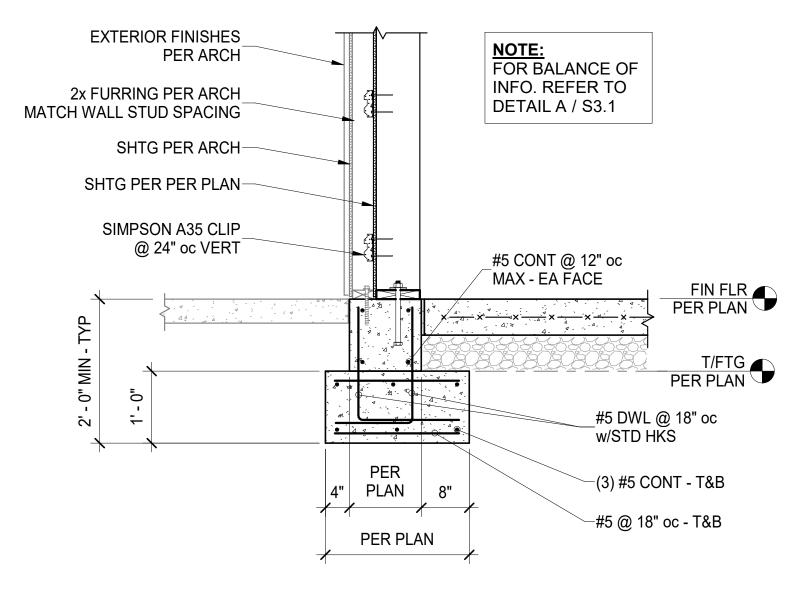
s3.1 3/4" = 1'-0"



B FOUNDATION SECTION
3/4" = 1'-0"

s3.1 3/4" = 1'-0"





c FOUNDATION SECTION

s3.1 3/4" = 1'-0"



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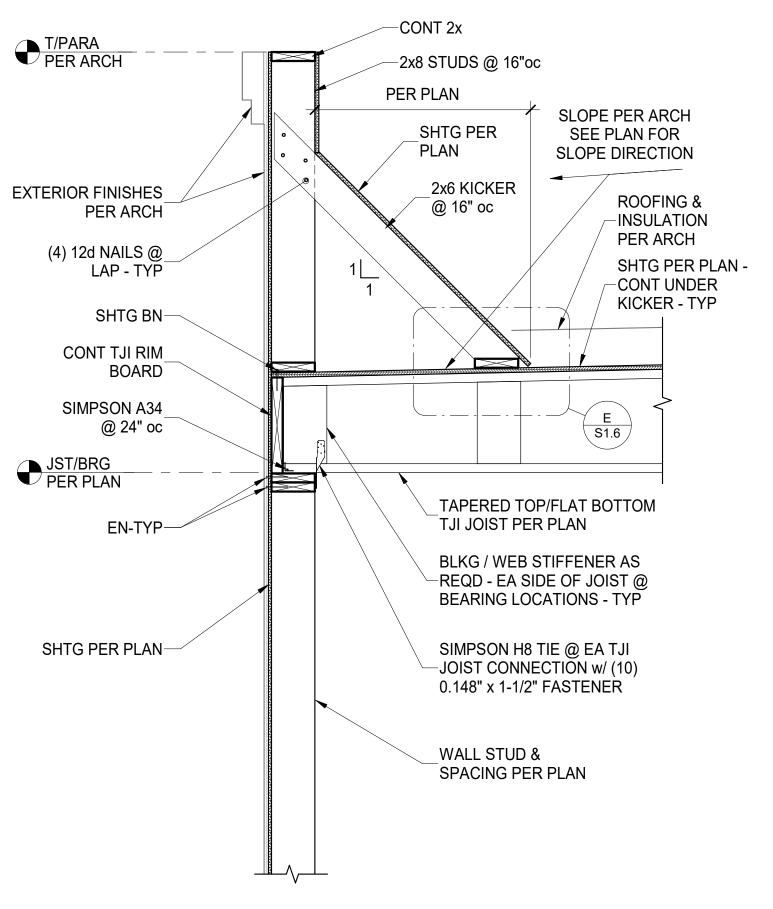
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

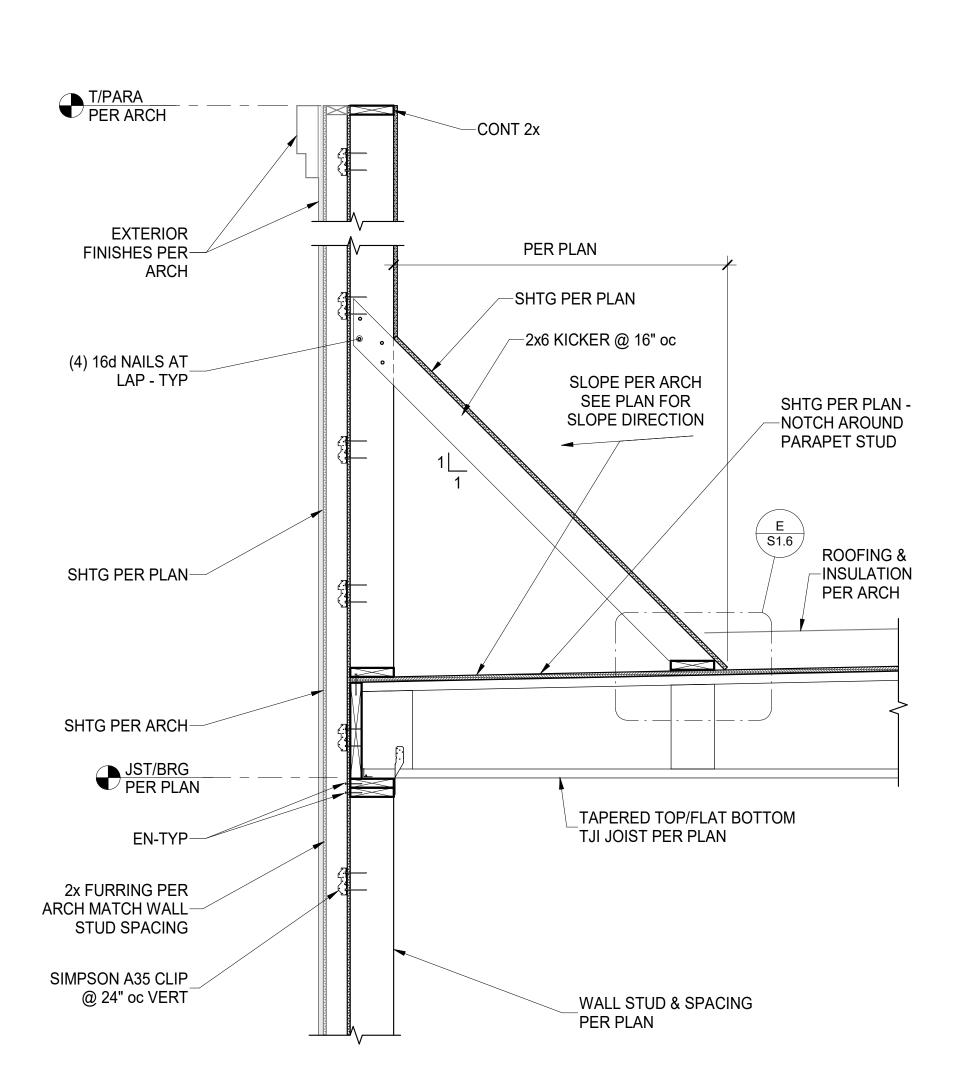
FOUNDATION SECTIONS

SHEET NUMBER:

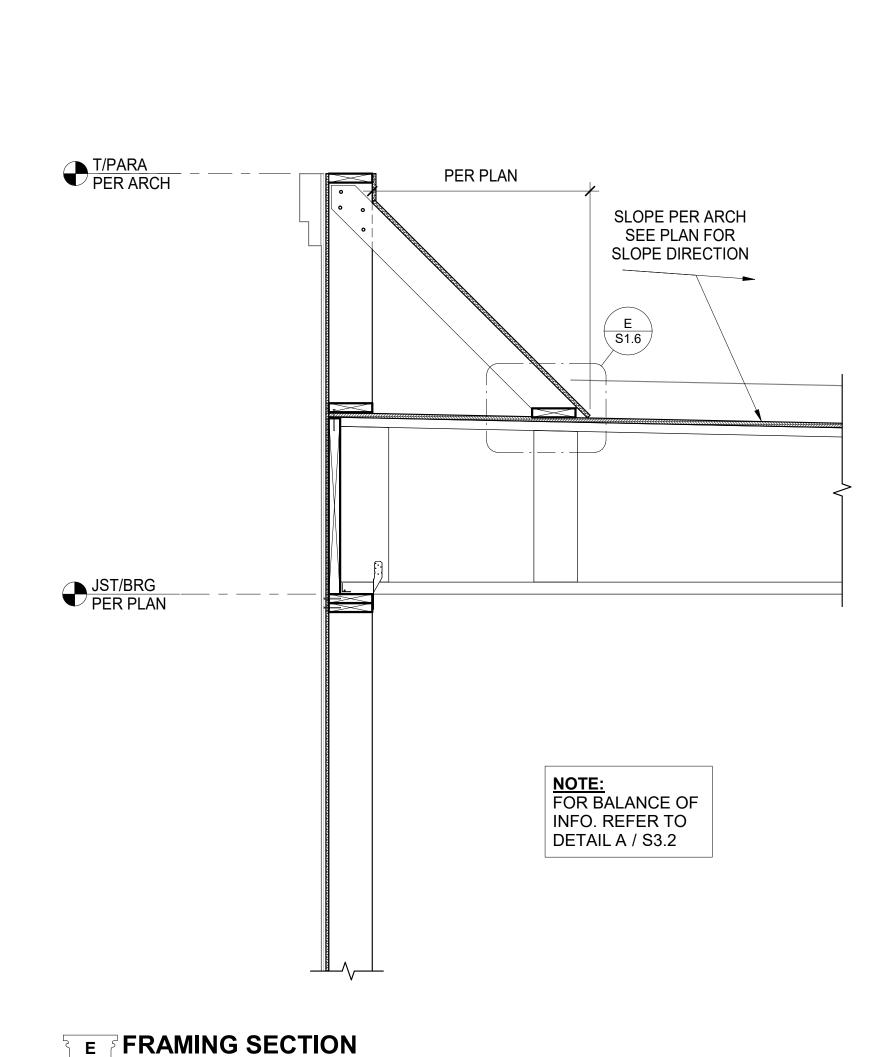
S3.1











−CONT 2x

PER PLAN

SHTG PER

2x6 KICKER

__@ 16" oc

SHTG PER PLAN - CONT

UNDER KICKER - TYP

ROOFING &
—INSULATION

PER ARCH

S1.6

PLAN

h h h

TJI JOIST PER

JOIST HANGER PER JOIST

(26) 0.148 x 1 1/2" FASTENER

BLKG / WEB STIFFENER AS —REQD - EA SIDE OF JOIST @ BEARING LOCATIONS - TYP

SIMPSON H8 TIE @ EA TJI -JOIST CONNECTION w/ (10)

0.148" x 1-1/2" FASTENER

WALL STUD & SPACING

PER PLAN

─SIMPSON MSTI26 @ EA TJI BLKG w/

MFR / SUPPLIER - TYP

TJI JOIST BLOCKING

@ 24" oc - TYP

PLAN - TYP

T/PARA
PER ARCH

EXTERIOR FINISHES

WEB STIFFENERS/

SQUASH BLOCKS AS-

CONT TJI RIM BOARD-

JST/BRG PER PLAN

SIMPSON A34

@ 24" oc

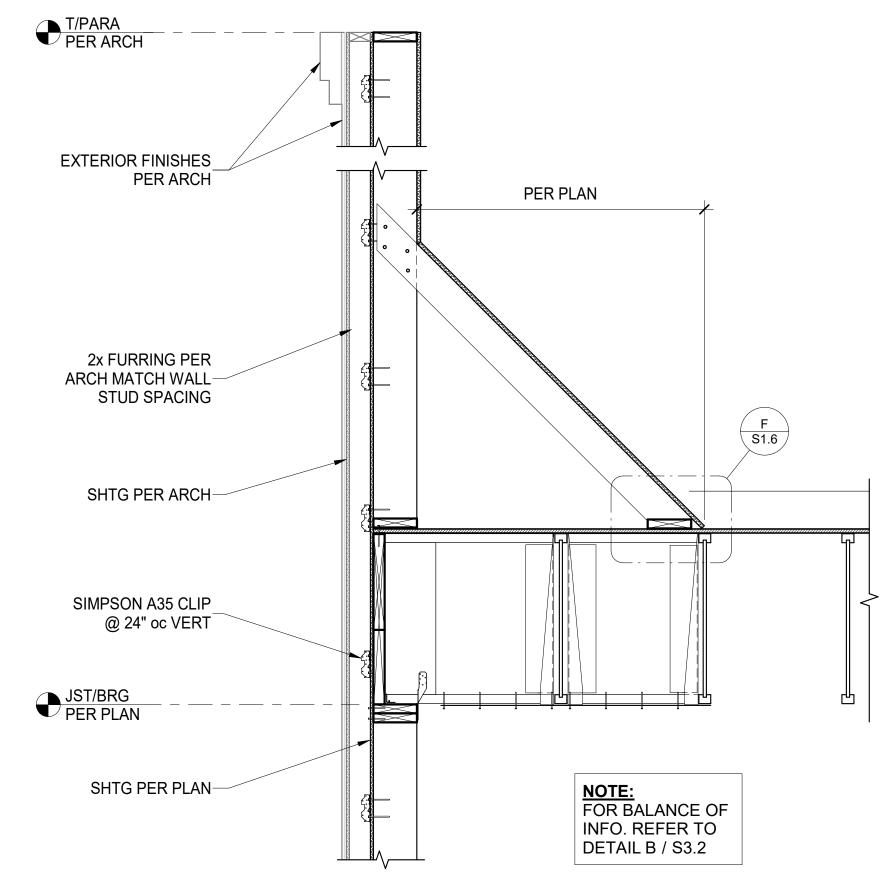
EN-TYP-

S3.2 3/4" = 1'-0"

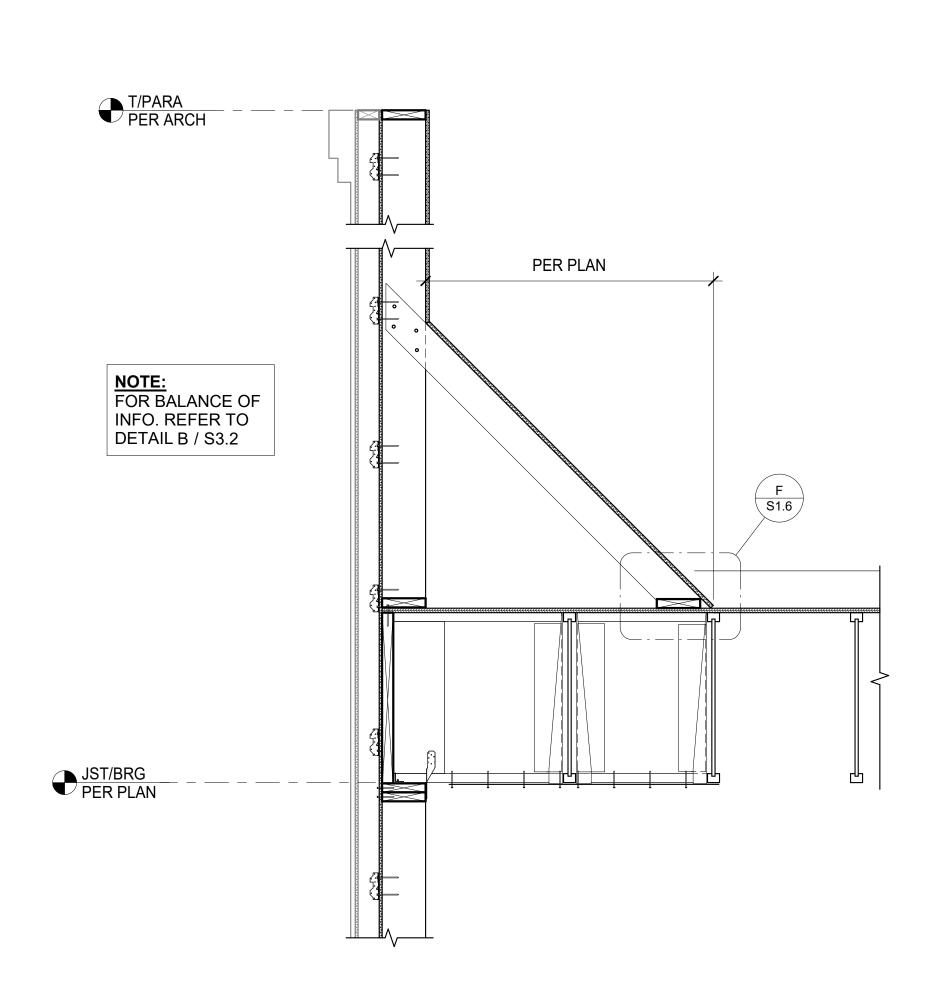
SHTG PER PLAN-

NEEDED @ EA TJI

PER ARCH



c FRAMING SECTION
3/4" = 1'-0"



F FRAMING SECTION

| 3/4" = 1'-0"

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21150K 05T 4445(0000

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1	DEVELOPER COMMENTS - 01/12/2024
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SHERWIN WILLIAMS

STORE #:

ADDRESS:

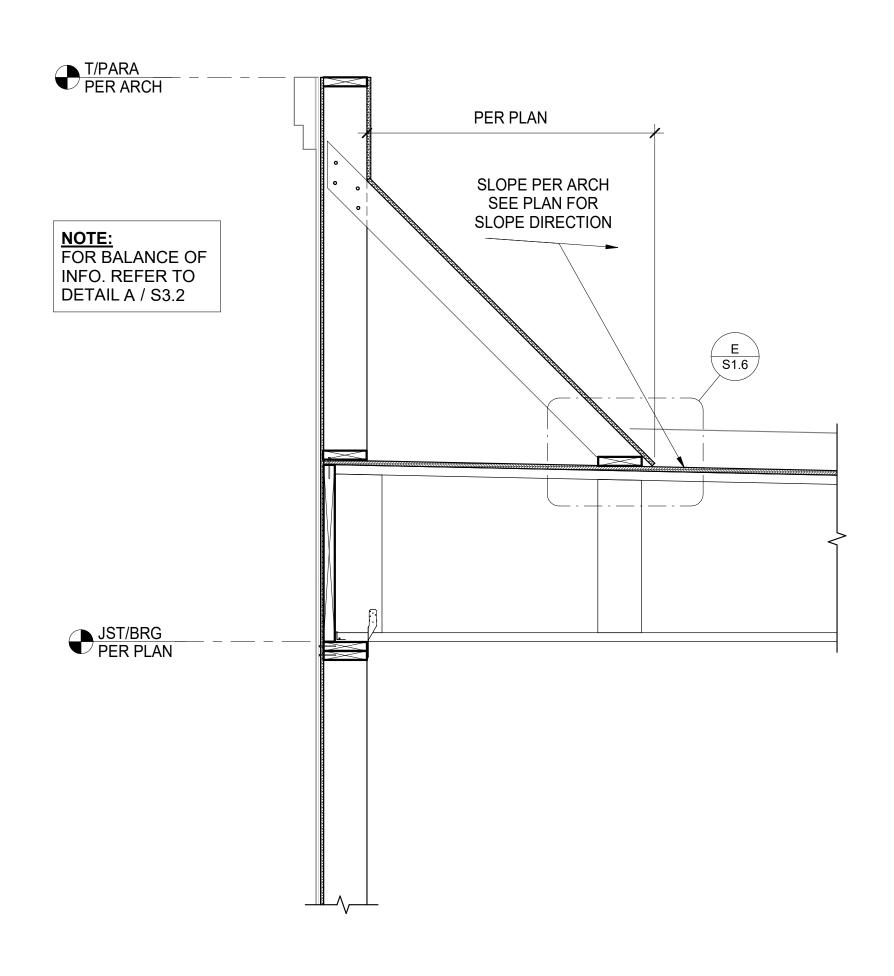
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

FRAMING SECTIONS

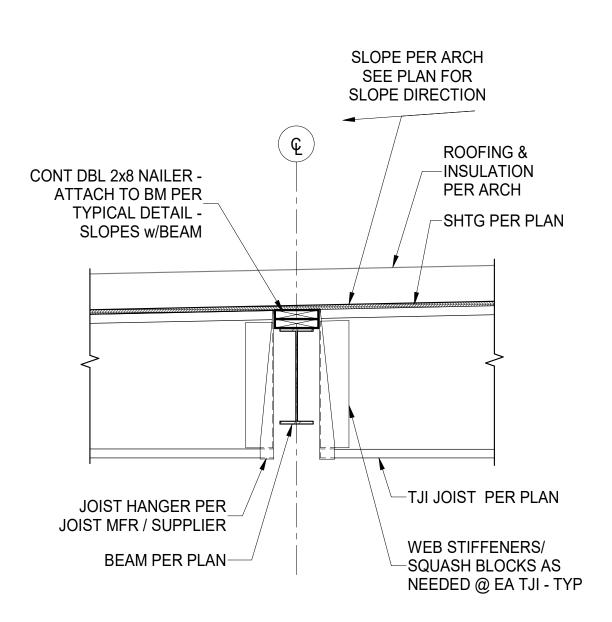
SHEET NUMBER:

S3.2



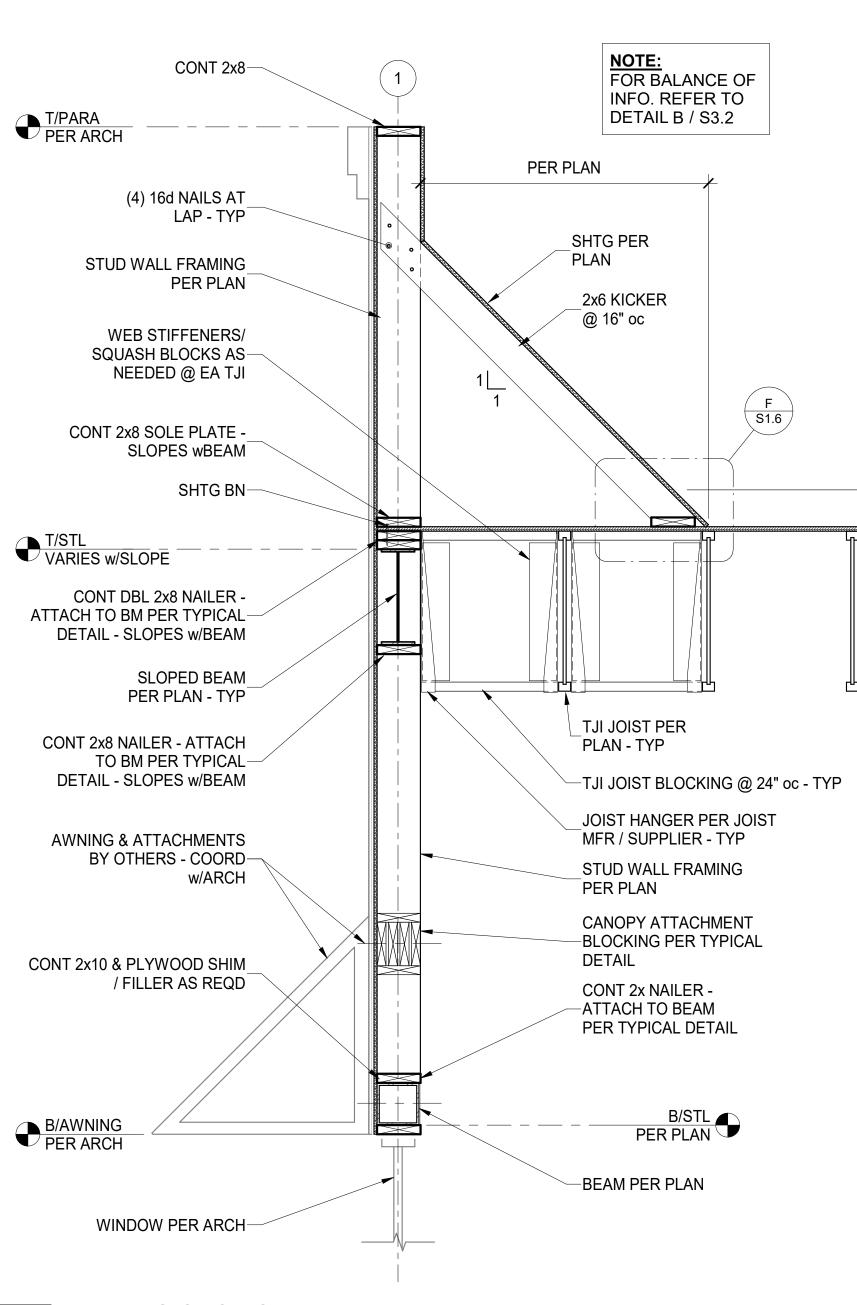
A FRAMING SECTION

s3.3 3/4" = 1'-0"



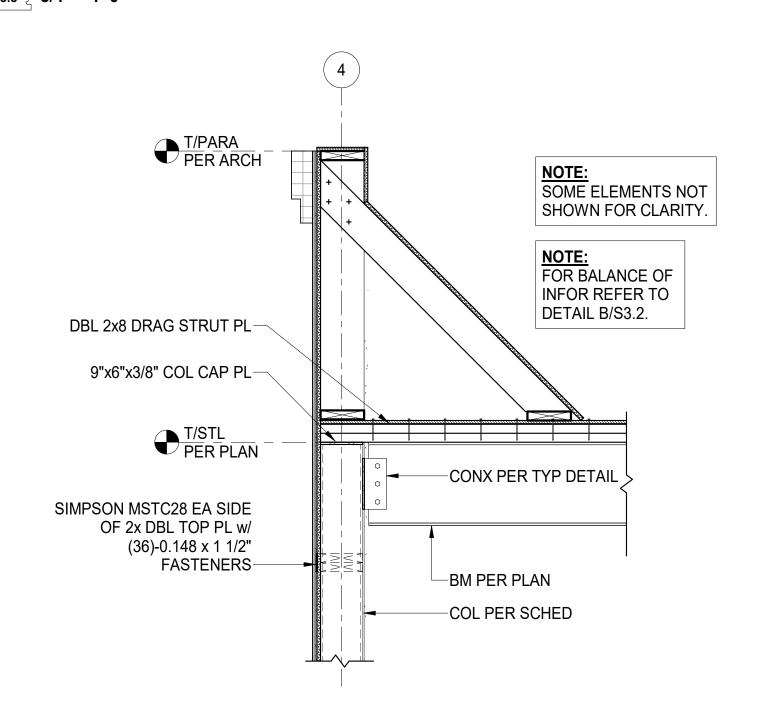
FRAMING SECTION

\$3.3 \ 3/4" = 1'-0"

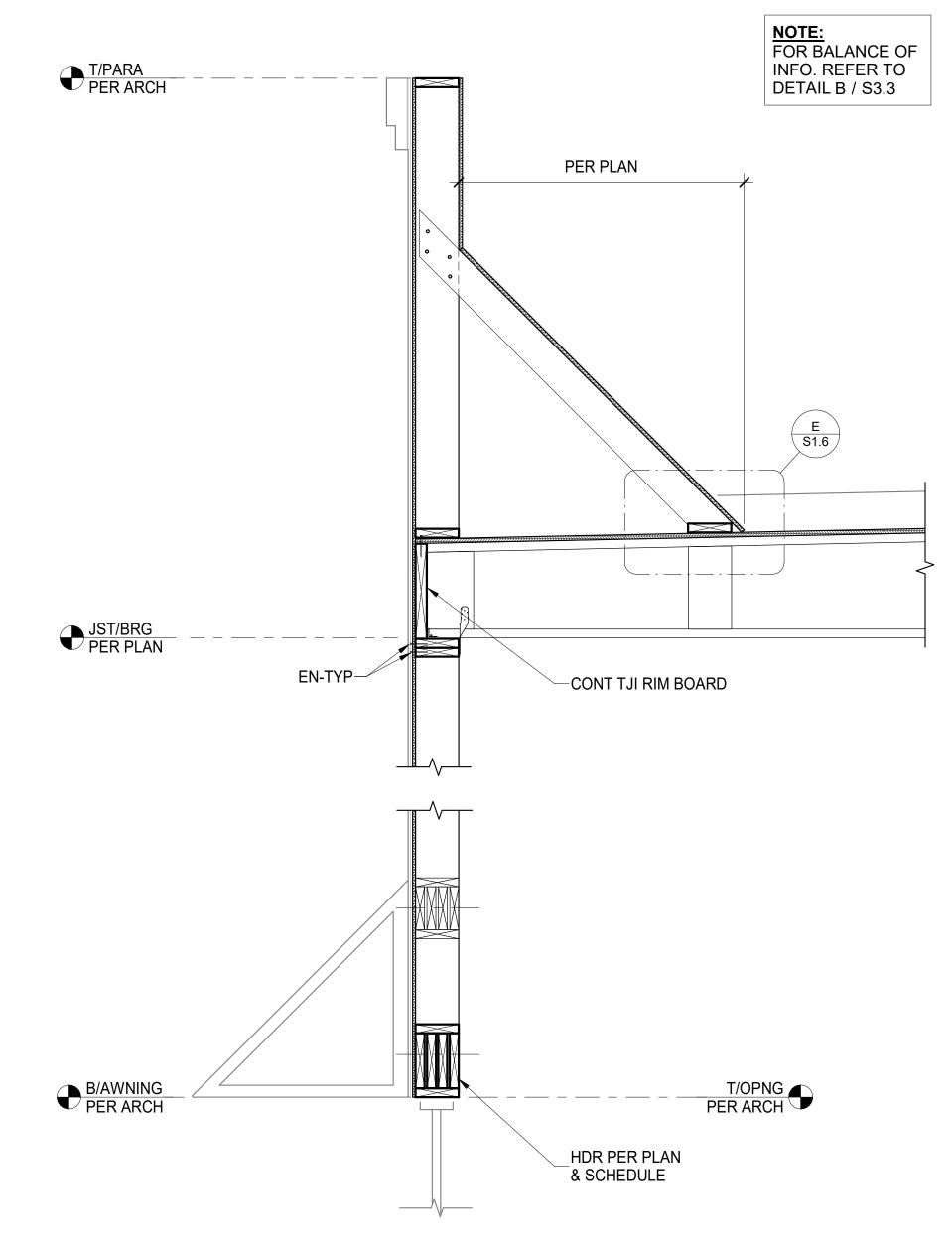


B FRAMING SECTION

S3.3 3/4" = 1'-0"



FRAMING SECTION3/4" = 1'-0"



c FRAMING SECTION

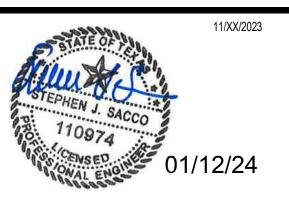
s3.3 3/4" = 1'-0"



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	CHECK SET - 11/15/2023
1	DEVELOPER COMMENTS - 01/12/2024
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SHERWIN WILLIAMS

STORE #:

ADDRES

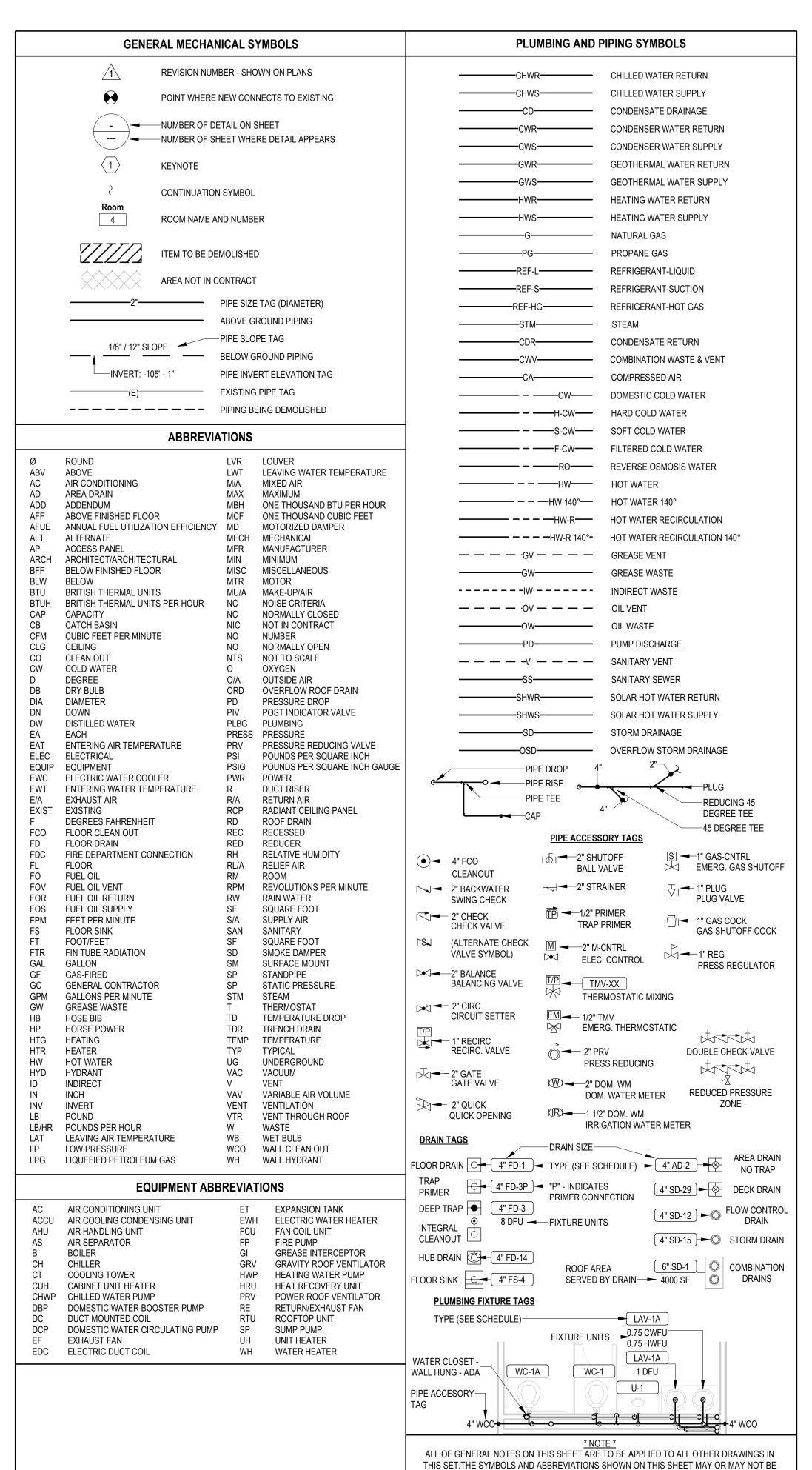
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SHEET TITLE:

FRAMING SECTIONS

SHEET NUMBER:

S3.3



USED IN THIS SET OF DRAWINGS.

	PLUMBING SHEET INDEX
P000	PLUMBING TITLE SHEET
P001	PLUMBING PLAN
P002	PLUMBING DETAILS
P003	PLUMBING SPECIFICATIONS
P004	PLUMBING RISERS PLAN



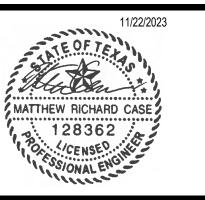
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PERMIT SET - 11/22/2023 1 DEVELOPER COMMENTS - 01/15/2024

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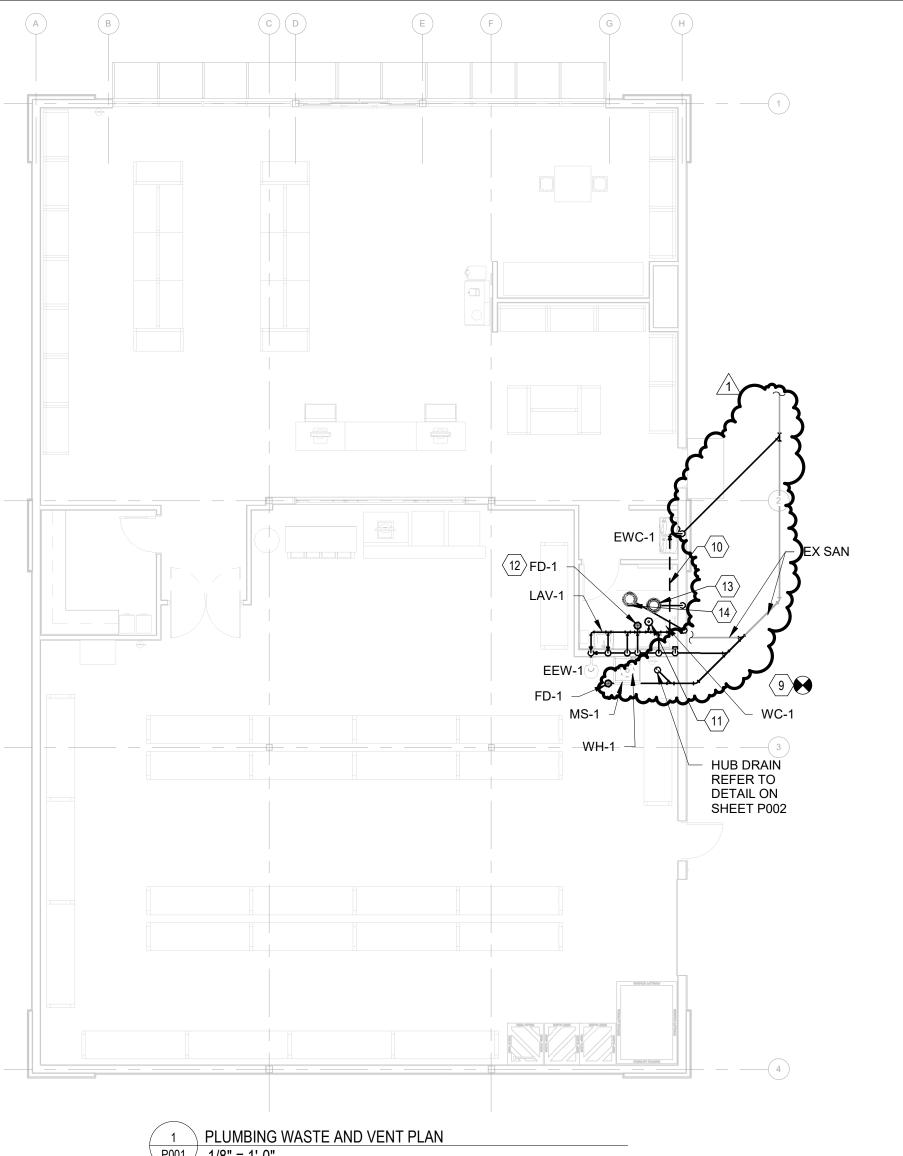
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

PLUMBING TITLE SHEET

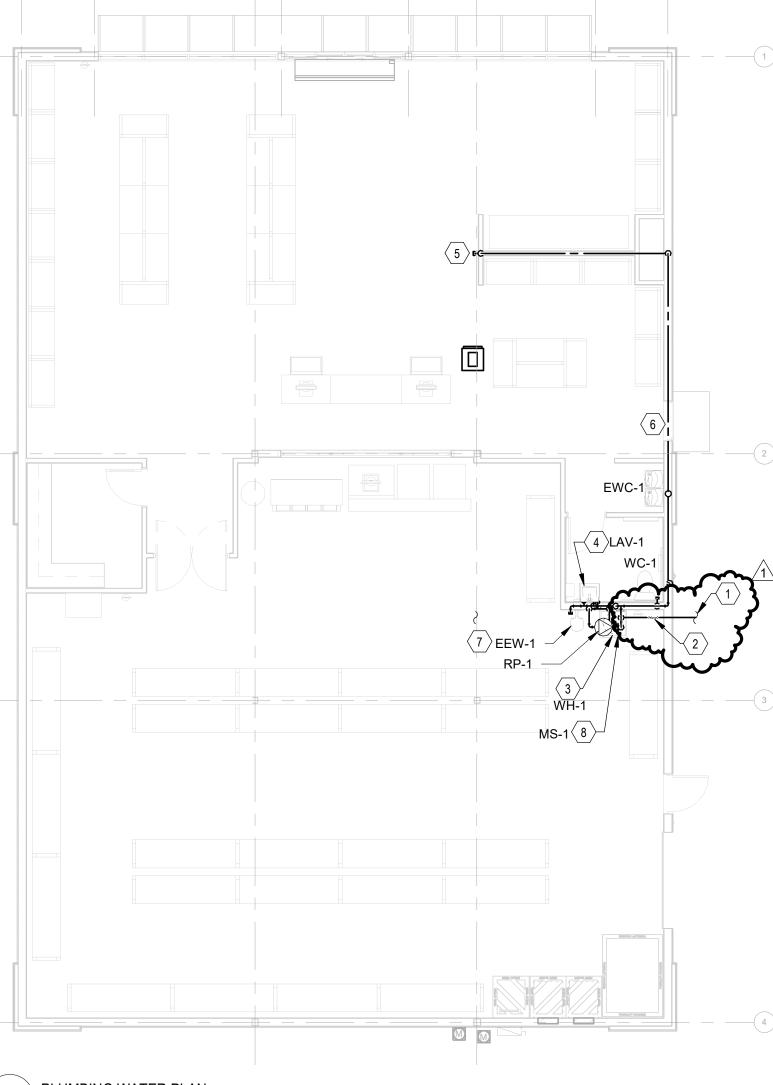
SHEET NUMBER:

P000



	FOUNTAI	N SCHEI	DULE			ACCEPTAB	LE MANUFACTURE	RS AND MODELS
MARK	FIXTURE	SAN.	VENT	C.W.	VOLT/PHASE	MANUFACTURER	MODEL#	REMARKS
EWC-1	ELECTRIC WATER COOLER WALL MOUNT HIGH EFFICIENCY VANDAL RESISTANT BI-LEVEL ADA COOLER	2"	2"	1/2"	115V/60Hz	ELKAY	VRCGRNTL8C	

	F	PLUN	IBIN	G FIX	TUF	RE SCHEDULE
MARK	FIXTURE	SAN.	VENT	C.W.	H.W.	REMARKS
WC-1	WATER CLOSET -ADA FLOOR SET	4"	2"	1/2"	-	WATER CLOSET: TOTO, ELONGATED BOWL, TWO PIECE, FLUSH VALVE PROVIDED BY BRADLEY, WHITE, TRIP LEVER INSTALLED ON WIDE SIDE OF STALL, ASSEMBLY CODE D2010300
LAV-1	LAVATORY - ADA	2"	2"	1/2"	1/2"	LAVATORY: AMERICAN STANDARD "COMRADE" 0124.024.020 WHITE, WALL HUNG OR EQUAL. FAUCET: BRADLEY CORP S53-315 "AERADA 1200 SERIES CS FAUCET", PLUG IN ADAPTER, CAPACITIVE SENSING ACTIVATION NO SUBSTITUTIONS.
MV	THERMOSTATIC MIXING VALVE POINT OF USE	-	-	1/2"	1/2"	ACORN ST-70 SET TO 105°
EEW-1	EMERGENCY EYE WASH	2"	2"	1/2" (MIXED)	-	EYE WASH: BRADLEY S19224DC WALL MOUNTED WITH EMERGENCY MIXING VALVE BRADLEY S19-20000EFX OR EQUAL
MS-1	UTILITY SINK	3"	2"	1/2"	1/2"	UTILITY SINK: ELKAY B1C24X24X STAINLESS STEEL, FAUCET: CHICAGO FAUCET 897 WITH WALL BRACE, PAIL HOOK, AND MALE HOSE THREADED OUTLET
FD-1	FLOOR DRAIN	2"	2"	-	-	J.R. SMITH 2010Y, CAST IRON FLANGED, ROUND
WH-1	WATER HEATER	-	-	3/4"	3/4"	AO SMITH MODEL DEL-20-4 ELECTRIC WATER HEATER. 20 GALLON STORAGE CAPACITY WITH 4 KW SINGLE HEATING ELEMENT. HEATING ELEMENT POWERED AT 120 V / 3 PH. PROVIDE 1/2" DRAIN PAN AND ROUTE 3/4" DRAIN LINE TO SERVICE SINK BELOW.
RP-1	CIRCULATING PUMP	-	-	3/4"	-	VARIABLE SPEED CONTROLLER PROVIDE WITH ALL ACCESSORIES, VALVES, AND INSTALL PER MANUFACTURER'S GUIDELINES



		WATER	HEATER SO	CHEDULE	Ξ		
MFR	MODEL	STORAGE	RECOVERY	°F. RISE	VOLT/PHASE	HEAT INPUT	REMARKS
A.O. SMITH	DEL-20	20 GAL	12 GPH	100	120V/1PH	3KW	1,2,3

1: SET WATER HEATER TEMPERATURE TO 140°f. 2: CONSULT MANUFACTURER PRIOR TO PURCHASE FOR EXACT MODEL AND ALL ACCESSORIES

FOR A COMPLETE SYSTEM. 3: CONFIRM VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO PURCHASE AND ROUGH IN.

ZURN Z100 FLOFORCE DATA

		4" DRA	IN		
1 X 5 O PIPE O		2 X 5 OF PIPE OL		4FT VER	
ROOF PONDING DEPTH (IN.)	FLOW RATE (GPM)	ROOF PONDING DEPTH (IN.)	FLOW RATE (GPM)	ROOF PONDING DEPTH (IN.)	FLO RAT (GPI
1.00	79.31	1.00	76.30	1.00	81.
2.00	306.65	2.00	306.58	2.01	314
3.04	376.36	3.03	446.73	3.01	580
4.02	383.20	4.01	453.45	3.99	618
5.01	390.66	5.01	459.53	5.00	624
5.99	397.10	5.89	464.23	6.02	630

INFORMATION IN THIS TABLE IS PERFORMANCE DATA PROVIDED BY ZURN INDUSTRIES, LLC AS PART OF THE MANUFACTURER'S SPECIFICATION DOCUMENTS AND IS SHOWN ON THIS SET OF DRAWINGS FOR REFERENCE.

IONS	ROOF DRAIN CALCULA
4,234	TOTAL OF FLAT ROOF AREA (SQ. FT.)=
293	PARAPET WALL LENGTH (FT.) =
4	PARAPET WALL HEIGHT (FT.) =
586.0	HALF OF TOTAL PARAPET AREA =
0.0	VERTICAL WALL AREAS ABOVE =
0.0	HALF OF VERTICAL WALL AREAS ABOVE =
4,820.0	TOTAL OF ROOF AND VERTICAL AREAS =
6.0 in.	RAINFALL RATE (IN. PER HR.) =
0.0624	GPM PER SQ. FT. =
300.8 GPM	TOTAL GPM =

PLUMBING SYMBOLS LEGEND

— CA —	COMPRESSED AIR PIPING
— с —	NATURAL GAS PIPING
— CD —	CONDENSATE DRAIN PIPING
	COLD WATER PIPING
	HOT WATER PIPING (140°F)
	HOT WATER RETURN PIPING
	SANITARY DRAIN PIPING
	UNDERGROUND SANITARY PIPING
	SANITARY VENT PIPING
VTR	VENT THROUGH ROOF
	PIPE TURNING DOWN
	PIPE TURNING UP
	CHECK VALVE
—— ——	UNION
AFF	ABOVE FINISHED FLOOR
co	CLEAN OUT
8	PRESSURE REGULATING VALVE (PRV)
	BALL VALVE
GCO	GRADE CLEAN OUT
	POINT OF CONNECTION

BALANCE VALVE

1. PLUMBING CONTRACTOR SHALL ABIDE BY THE LOCAL CODES AND ORDINANCES.

- 2. PLUMBING CONTRACTOR SHALL FIELD VERIFY THE EXACT LOCATIONS AND SIZES OF ALL UTILITIES, INCLUDING THE DEPTHS OF ALL BELOW GRADE SANITARY SEWERS, PRIOR TO START OF WORK. THIS DRAWING IS NOT INTENDED TO INDICATE ALL EXISTING UTILITIES.
- 3. CONTRACTOR SHALL BE FAMILIAR WITH LANDLORD'S STANDARDS, RULES AND REGULATIONS. ALL LANDLORD'S CRITERIA SHALL BE COMPILED WITH AND INCLUDED IN THIS BID.
- 4. CONTRACTOR SHALL VISIT SITE PRIOR TO SUBMITTING BID AND FIELD VERIFY EXISTING CONDITIONS TO ENSURE THAT THE WORK REPRESENTED ON THE DRAWINGS AND IN THESE SPECIFICATIONS CAN BE INSTALLED AS INDICATED. CONTRACTOR SHALL TAKE ALL INTERFERENCES INTO CONSIDERATION. PROVIDE ALL NECESSARY OFFSETS TO SUIT FIELD CONDITIONS AS REQUIRED.
- 5. CONTRACTOR SHALL VERIFY AND COORDINATE ALL UTILITY CONNECTION POINTS, INCLUDING SIZES AND INVERTS WITH EXISTING FIELD CONDITIONS PRIOR TO START OF WORK.
- 6. MAKE ALL UTILITY CONNECTIONS AND INSTALLATIONS IN FULL ACCORDANCE WITH ALL UTILITY REGULATIONS. PROVIDE ALL ADDITIONAL APPURTENANCES AS REQUIRED BY UTILITY COMPANY. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND
- 7. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS RELATED TO THE INSTALLATION OF THE WORK.
- 8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ALL AUTHORITIES HAVING JURISDICTION AND LANDLORD'S CRITERIA.
- 9. MAINTAIN ALL MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES FOR ALL FIXTURES AND EQUIPMENT. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF PLUMBING FIXTURES.
- 10. CUTTING OF ROOF AND FLASHING OF PIPE CURBS, SANITARY VENT THROUGH ROOF, ETC. SHALL BE COORDINATED WITH AND PERFORMED BY LANDLORD, S ROOFING CONTRACTOR, AT THIS CONTRACTOR'S EXPENSE, TO MAINTAIN ROOF WARRANTY. ALL VENT OUTLETS SHALL BE A MINIMUM OF 10'-0" AWAY FROM OR 3'-0" ABOVE ANY
- 11. ALL HORIZONTAL FIRE PROTECTION SPRINKLER PIPING AND ALL ABOVE GRADE EXPOSED HORIZONTAL PIPING IS TO BE INSTALLED AS HIGH AS POSSIBLE.
- 12. CONTRACTOR SHALL COORDINATE TIMES TO WORK IN SPECIFIC AREA OF THE EXISTING BUILDING WITH THE BUILDING MANAGER AND WITH THE OCCUPANTS OF THE AREA AFFECTED BY THE WORK.
- 13. CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE CONTRACT DOCUMENTS BEFORE COMMENCING ANY WORK.
- 14. SLEEVE AND SEAL ALL PIPE PENETRATIONS O WALLS AND FLOORS. APPLY INTUMESCENT FIRE SAFING COMPOUND AT PENETRATIONS AT FIRE RATED WALLS AND FLOORS, MAINTAINING INTEGRITY AND RATING OF FIRE SEPARATION. SLEEVES THROUGH FLOORS SHALL EXTEND 2" ABOVE FLOOR, BE GROUTED INTO PLACE AND WATERPROOFED. PIPING THROUGH EXTERIOR WALLS SHALL BE SLEEVED AND SEALED WEATHER TIGHT WITH SILICONE CAULK.
- 15. ALL DOMESTIC COLD, HOT AND TEMPERED WATER PIPING TO BE INSULATED WITH RIGID FIBERGLASS INSULATION WITH TYPE "ASJ" JACKET. COLD WATER PIPES TO HAVE $\frac{1}{2}$ " THICK INSULATION. DOMESTIC HOT AND TEMPERED WATER PIPES TO HAVE 1" THICK INSULATION.
- 16. THE P.C. IS TO INSPECT THE EXISTING SANITARY DRAIN TO VERIFY THAT IT HAS SUFFICIENT DEPTH FOR THE NEW WORK AND TO VERIFY THE DIRECTION OF FLOW. PRESSURE TEST THE EXISTING SANITARY DRAIN PRIOR TO THE START OF WORK. VERIFY THAT SEWER IS ACTIVE BY FLUSHING WITH WATER, A MINIMUM OF FIVE GALLONS PER MINUTE FOR FOUR HOURS PRIOR TO START OF WORK.



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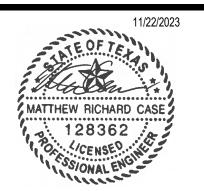
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(#) SHEET NOTES:

- 1. 1" DOMESTIC CW PIPE FROM OUTSIDE OF BUILDING. SEE CIVIL FOR CONTINUATION.
- 2. FURNISH AND INSTALL 1" BACKFLOW PREVENTER AND STRAINER FOR DOMESTIC WATER SERVICE. ROUTE RELIEF PIPING TO DISCHARGE INDIRECTLY IN TO SERVICE SINK DRAIN. SEE DOMESTIC WATER ENTRY DETAIL FOR MORE INFORMATION. ROUTE DOMESTIC WATER ENTRY ASSEMBLY EITHER ABOVE OR BELOW FIRE SPRINKLER RISER. CONTRACTOR TO COORDINATE IN FIELD.
- 3. MOUNT WATER HEATER ABOVE UTILITY SINK ON PLATFORM.
- 4. PROVIDE AND INSTALL ANTI-SCALD MIXING VALVE AT LAVATORY AND UTILITY SINK TO TEMPER HOT WATER FOR PUBLIC USE. SET VALVE TO DISCHARGE A MAXIMUM OF 110°F.
- 5. COLD WATER CONNECTION TO COFFEE MAKER. PROVIDE SHUTOFF VALVE AND BACKFLOW PREVENTER IN WALL IN A RECESSED VALVE BOX PRIOR TO CONNECTION TO EQUIPMENT.
- 6. ROUTE CW PIPING CONCEALED IN WALL ON WARM SIDE OF INSULATION. PIPING SHALL NOT BE EXPOSED IN SALES FLOOR.
- 7. ROUTE CW/HW PIPING DOWN TO EYEWASH MIXING VALVE. REFER TO DETAIL 6
- 8. ROUTE TEMPERATURE AND PRESSURE RELIEF VALVE DOWN AND INDIRECTLY DRAIN TO UTILITY SINK BELOW.
- 9. 4" SANITARY WASTE LINE OUT OF BUILDING. SEE CIVIL FOR CONTINUATION. PC TO VERIFY EXACT SIZE, LOCATION AND INVERT ELEVATION PRIOR TO WORK. CONTACT ENGINEER IF ANY DISCREPANCIES ARE DISCOVERED.
- 10. ALL VENT PIPING FROM ALL FIXTURES ARE 2" DIAMETER UNLESS SPECIFIED OTHERWISE.
- 11. ROUTE 3" SANITARY VENT UP THROUGH ROOF. MAINTAIN A MINIMUM CLEARANCE OF 10' FROM NEAREST AIR INTAKE. VERIFY EXACT LOCATION IN
- 12. INSTALL 2" FLOOR DRAIN IN BATHROOM FLOOR AS SHOWN.
- 13. ROUTE 4" PRIMARY STORM DOWN EXTERIOR WALL TO BELOW GRADE. PROVIDE WITH CLEANOUT PRIOR TO FLOOR PENETRATION. ROUTE BELOW GRADE STORM PIPING AT 2% TO SITE STORM SEWER CONNECTION. VERIFY ROUTING IN FIELD WITH EXISTING FIELD CONDITIONS AND LOCAL UTILITY REQUIREMENTS.
- 14. ROUTE 4" OVERFLOW STORM DOWN EXTERIOR WALL TO DISCHARGE 12" ABOVE GRADE VIA A SCUPPER.

GENERAL NOTES:

BRANCHES.

- 1. PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.
- 2. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH MECHANICAL, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, CIVIL, AND ARCHITECTURAL DIVISIONS. CONTRACTOR SHALL VERIFY SIZE & LOCATION OF EXISTING UTILITIES PRIOR TO COMMENCING WORK, COORDINATE WITH OTHER TRADES AND MAKE FINAL CONNECTION. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR PLUMBING SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER, PLUMBING PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUTS BEFORE CONCRETE IS POURED OR BLOCK SET. 3. PROVIDE ACCESSIBLE SHUT-OFF VALVES ON ALL NEW FIXTURE HW & CW
- 4. ALL WATER SUPPLY LINES LESS THAN 1" IN DIAMETER SHALL BE COPPER OR COPPER ALLOY. USE ONLY CAST AND WROUGHT COPPER AND COPPER ALLOY PRESS-CONNECT PRESSURE FITTINGS: ASME B16.51, DO NOT USE SOLDER OR BRAZED CONENCTIONS. PRESS-CONNECT JOINTS: PRESS-CONNECT JOINTS SHALL BE MADE IN ACCORDANCE WITH THE FITTING MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS USING A PRESS-CONNECT TOOL AND JAWS APPROVED FOR USE FOR THE MANUFACTURER'S SPECIFIC FITTING CONFIGURATION. COPPER ALLOY TUBE SHALL BE MECHANICALLY CLEANED AND REAMED PRIOR TO JOINING TO REMOVE ALL BURRS (INTERIOR AND EXTERIOR)

AND RESTORE FULL INSIDE DIAMETER AND A SMOOTH, CHAMFERED EXTERIOR

SURFACE. FITTINGS SHALL HAVE EPDM SEALING ELEMENTS. 5. PROVIDE TRAP PRIMERS FOR ALL FLOOR AND HUB DRAINS.

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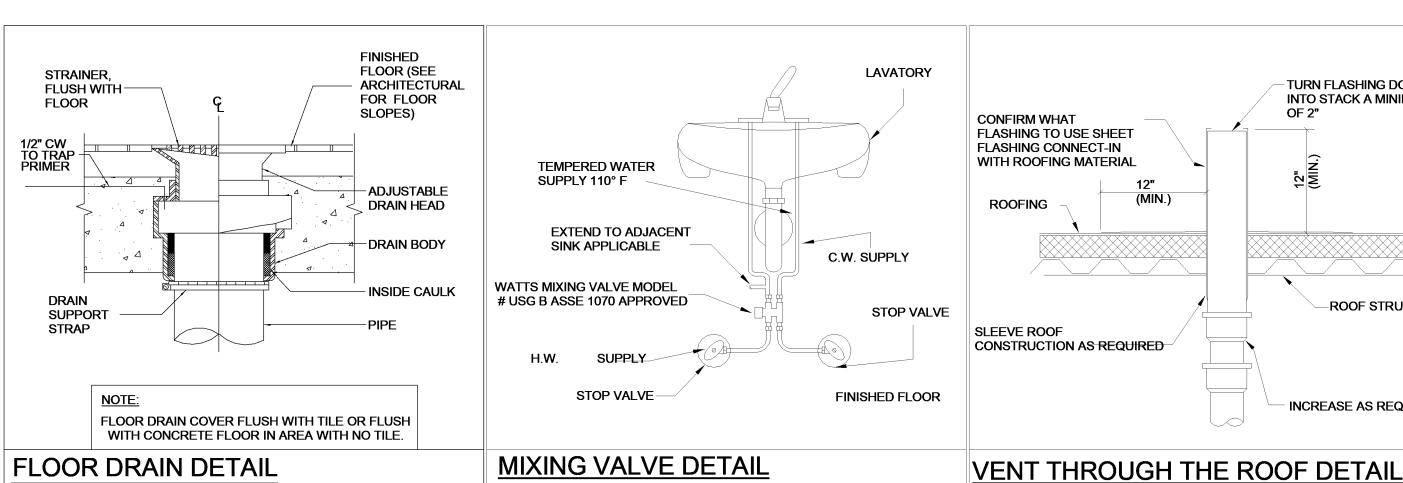
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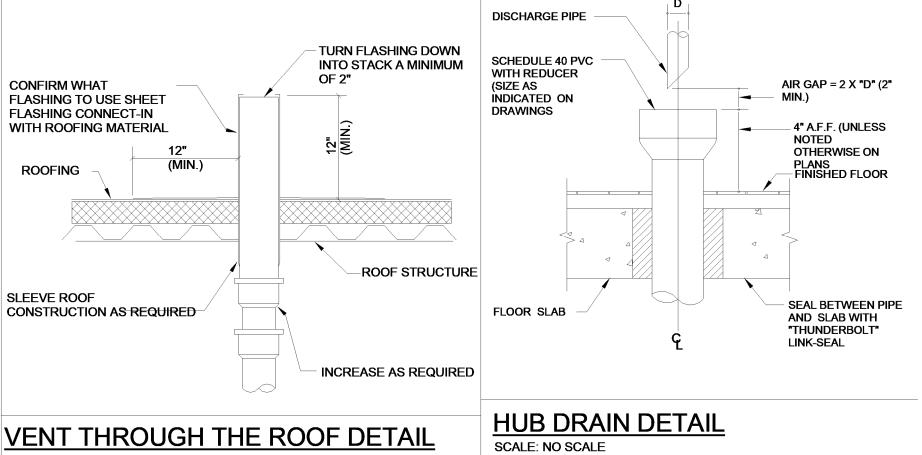
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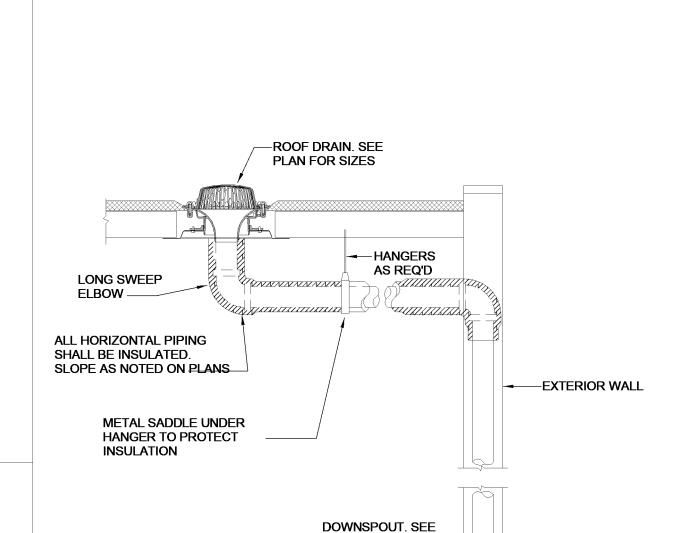
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SHEET TITLE:

PLUMBING PLAN







FLOOR -

1. ROOF DRAIN INSTALLATION METHOD AND

2. ALL HORIZONTAL STORM PIPING SHALL BE

PIPE SIZE ABOVE FINISHED FLOOR.

REQUIREMENTS.

INSULATED.

PROCEDURES SHALL BE CONSISTENT WITH TYPE

OF ROOF TO BE INSTALLED AND COMPLY WITH

WHEN A SIZE CHANGE IS INDICATED BETWEEN

HORIZONTAL PIPE SIZE SHALL CONTINUE THROUGH

THE ELBOW AND THEN REDUCE TO THE VERTICAL

HORIZONTAL AND VERTICAL PIPING, THE

ROOFING MANUFACTURERS INSTALLATION

PLANS FOR SIZES ---

LONG SWEEP FITTING

- SEE PLAN FOR SIZES

AND SLOPES

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SHEET TITLE:

PLUMBING DETAILS

SHEET NUMBER:

VACUUM RELIEF 1/2" THREADED ROD ANCHOR TO STRUCTURE (TOTAL OF FOUR BREAKER PRESSURE GAUGE THERMOSTAT 7" SCALE RED READER, FULLY ADJUSTABLE STEM AND SEPARABLE SOCKET RANGE 30°F - 180°F. 3₄" HW (140°F) ³⁄₃" CW VACUUM L1-1/2 x L1-1/2" **BREAKER** SUPPORT ANGLE, **EXPANSION TANK** STRAP, TYP. TEMPERATURE/PRESSURE RELIEF VALVE LOCATED LINE SIZE UNION, TYP. WITH THE TOP 6" OF THE **ELECTRIC WATER HEATER EWH-1** PLATFORM AND DRAIN PAN COMBINATION UNIT MAUNFURED BY HOLDRITE MODEL #50-SWIP 26" SQUARE ANCHOR

ELECTRIC WATER HEATER DETAIL SCALE: NO SCALE

NOMINAL PIPE DIAMETER NPS (IN)			MAXIM	UM SUPPORT SPA (FEET)	ACING			
	CAST IRON	COPPER	STEEL	SCH 40 PVC		SCH 40) CPVC	
				60°F	73°F	100°F	120°F	140°l
1/2		8		-	5	4.5	4.5	4
3/4		9		5	5	5	4.5	4
1	5	9		5.5	5.5	5.5	5	4.5
1 1/4	5	12	7	5.5	5.5	5.5	5.5	5
1 1/2	5	12	9	6	6	5.5	5.5	5
2	5	13	10	6	6	6	5.5	5
2 1/2	5	14	11	7	7	6.5	6.5	6
3	5	15	12	7	7	7	7	6
4	5	17	12	7.5	7.5	7.5	7	6.5
6	5	21	12	8.5	8.5	8	7.5	7
8	5	24	12	9	9.5	9.5	8.5	7.5
10	5	26	12	10	10.5	10.5	9.5	8
12	5	30	12	11.5	11.5	10.5	10	8.5

ADAPTOR AND CHROME PLATED **BRASS ESCUTCHEON** SUMMER POSIFIX **SUPPLY PIPING -**INSULATED SUPPORT BRACKETS OR APPROVED EQUAL GRID STRAINER **VENT PIPE** LAVATORY SUPPLY A.D.A. LAVATORY 2" WASTE, OFFSET, USE AS (MIN.), FOR REQUIRED TO LOCATION AND-ACHIEVE A.D.A. ROUTING OF COMPLIANCE WASTE, VENT & WATER PIPING REF. PLANS. LOCATE P-TRAP TO PROVIDE FOR MIN. KNEE CLEARANCE OF 8"(PER A.D.A.). HEAVY CHROME PLATED BRASS P-TRAP W/ CLEANOUT PLUG AND HEAVY CHROME PLATED ADAPTOR 2"x1-1/2" FOR BRASS ELBOW, INSULATE AS NEEDED (SINKS AND ALL EXPOSED SINK WASTE LAVS); AND WATER OUTLET SANITARY TAPPED TEE. (REF. ARCH DWV TRAP ADAPTOR AS DWG'S). NEEDED. PROVIDE ESCUTCHEON PLATE, (TYP. AT WASTE AND WATER WALL PENETRATIONS).

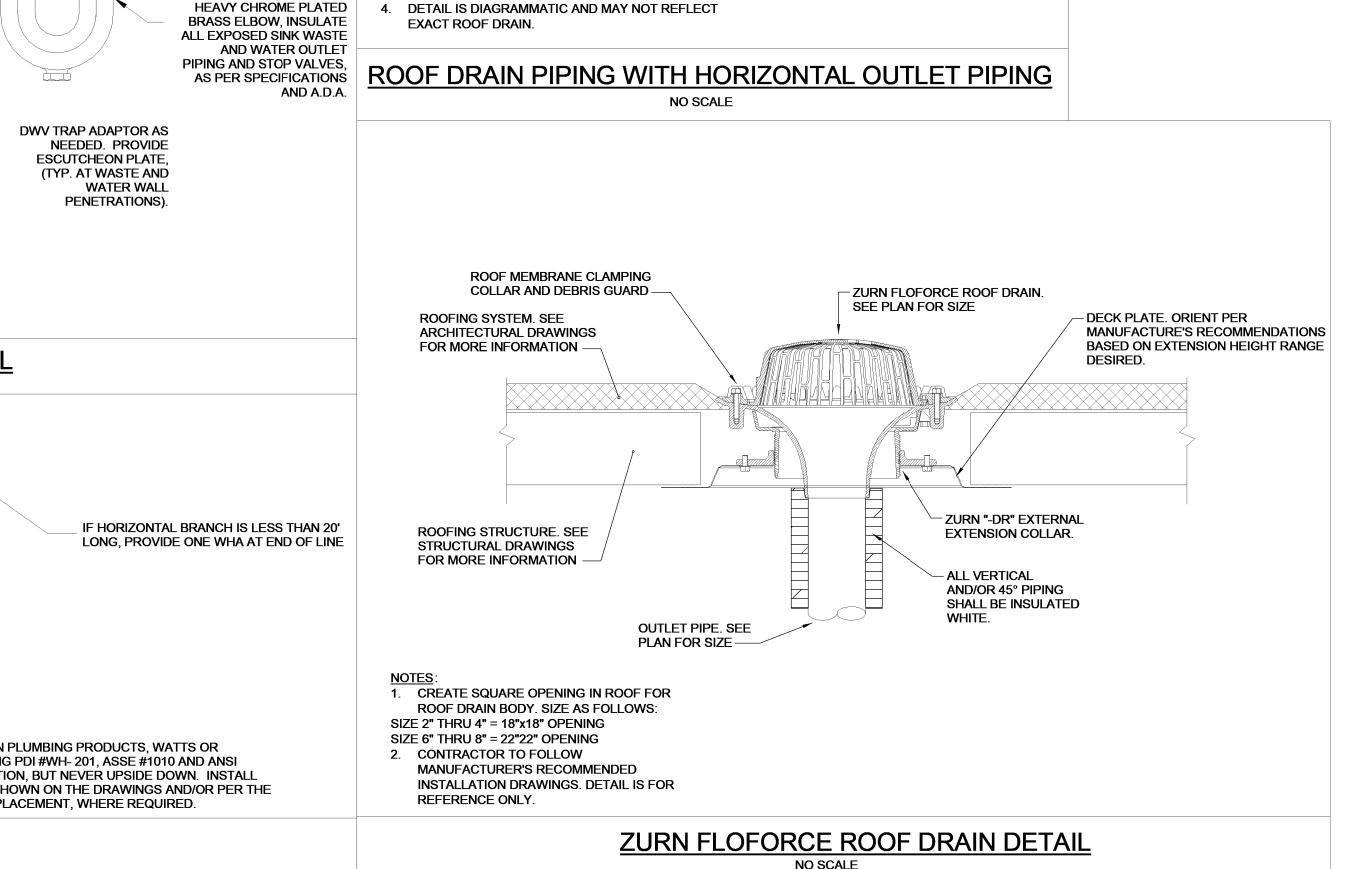
TYPICAL LAVATORY & SINK CONNECTION DETAIL SCALE: NONE

							
-	T 7		~ /	- HOT OR COLD WATER SU	JPPLY		
PDI SIZE "A" SINGI	STA MAN	TALL PER PD NDARDS ANI NUFACTUREF TRUCTIONS	S'S P	F BRANCH IS GREATER THE PROVIDE ANOTHER WHA INTACH SIZED FOR HALF THE INITS MULTIPLE FIXTUR	MIDDLE FIXTUI	.E,	IF HORIZONTAL BRANCH IS LESS THAN 20' LONG, PROVIDE ONE WHA AT END OF LINE
PDI	PIPE	FIXTURE		FIXTURE UNIT TABU	LATION		
SIZE	SIZE	UNIT LOAD		FIXTURE	COLD	НОТ	
Α	1/2"	1-11		VALVE WATER CLOSET	10	_	
В	3/4"	12-32		TANK WATER CLOSET	5	_	
С	1"	33-60		URINAL	5	_	
D	1-1/4"	61-113		LAVATORY/SINK	1.5	1.5	
Е	1-1/2"	114-154		JANITOR'S SINK	3	3	
F	2"			SHOWER/BATHTUB	2	2	
APF #A1 IN L	PROVED 112.26.1M LINE WIT	EQUIVALENT I CERTIFICAT IH WATER FL	F WITH P FION. IN OW DIRE	PISTON AND 0-RING CONST STALL IN HORIZONTAL OR ECTION IF POSSIBLE. SIZE	RUCTION VERTION THE U	ON, HAV CAL PO VITS AS	ION PLUMBING PRODUCTS, WATTS OR VING PDI #WH- 201, ASSE #1010 AND ANSI SITION, BUT NEVER UPSIDE DOWN. INSTALL S SHOWN ON THE DRAWINGS AND/OR PER THE REPLACEMENT, WHERE REQUIRED.

HAMMER ARRESTER DETAIL

ALL EXPOSED PIPING, VALVES, EQUIPMENT, ECT. TO BE A.D.A.

COMPLIANT.



THE "ARCHITECTURAL GENERAL CONDITIONS" GOVERN WORK UNDER THIS

BEFORE SUBMITTING A PROPOSAL, THIS CONTRACTOR SHALL VISIT THE SITE OF THE WORK AND SHALL CAREFULLY EXAMINE THE DRAWINGS AND SPECIFICATIONS. IT IS EXPRESSLY UNDERSTOOD THAT THIS PROPOSAL IS BASED BACKFILLING. ON THE ABOVE REQUIREMENTS AND THAT IT COVERS EVERYTHING NECESSARY TO DO AND COMPLETE THE WORK.

2. <u>INSPECTION AND COOPERATION</u>

NO DEVIATION FROM THE DRAWINGS AND /OR SPECIFICATIONS WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT OR ENGINEER. THIS CONTRACTOR SHALL COOPERATE WITH THE OTHER CONTRACTORS TO ALLOW FOR THE INSTALLATION OF THEIR WORK AS WELL AS HIS OWN.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR HIS WORK FITTING IN PLACE WITHOUT CONFLICT WITH THE OTHER TRADES, WHERE PROPER PLANNING COULD SPACING AND ALLOWANCE FOR THERMAL EXPANSION.

NOTHING IN THE DRAWINGS AND/OR SPECIFICATIONS SHALL BE INTERPRETED TO CONFLICT WITH ANY CITY OR PROVINCIAL LAW, REGULATION, CODE, ORDINANCE, RULING, OR FIRE UNDERWRITER'S REQUIREMENT APPLICABLE TO THIS CLASS OF

SHOULD THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH SUCH LAWS OR ORDINANCES, THE CONFLICTING PORTION OF THE WORK SHALL BE INSTALLED FILLED WITH GRAVEL. IF TRENCHES ARE DEEPER THAN BOTTOM OF FLOORING OR STRICTLY IN ACCORDANCE WITH SUCH LAWS AND ORDINANCES WITHOUT EXTRA

THIS CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY PERMITS AND INSPECTIONS REQUIRED FOR THIS INSTALLATION OF HIS WORK.

THE INFORMATION GIVEN HEREIN AND ON THE DRAWINGS IS AS EXACT AS COULD BE SECURED, BUT ITS EXTREME ACCURACY IS NOT GUARANTEED. THIS CONTRACTOR SHALL EXAMINE THE LOCATIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS AND EXISTING PIPE SIZES BEFORE STARTING THE WORK ABOVE THE PIPE. AFTER THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL AS ALL PIPING SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC ONLY.

THIS CONTRACTOR SHALL PROVIDE ALL NECESSARY OFFSETS, RAISED AND DROPS IN PIPING AND DUCTWORK AS REQUIRED BY BUILDING CONDITIONS AT NO OR SAGS TO THE PIPING SYSTEMS THAT OCCUR FROM THE IMPROPER

MECHANICAL DRAWINGS SHALL NOT BE USED FOR GENERAL CONSTRUCTION DIMENSIONS OR FOR TYPE OF MATERIAL USED. FOR EXACT BUILDING LAYOUT, THE ARCHITECTURAL DRAWINGS.

SHOP OR INSTALLATION DRAWINGS, FOUNDATION PLANS, EQUIPMENT OR APPARATUS DRAWINGS SHALL BE FURNISHED BY THIS CONTRACTOR. THESE DRAWINGS SHALL BE CLEARLY MARKED INDICATING WHICH ITEMS ARE TO BE SUPPLIED AND SHALL STATE CAPACITIES, SIZES AND GENERAL DESCRIPTION OF ALL EQUIPMENT. ANY CHANGES FROM THE SPECIFIED ITEMS SHALL BE NOTED ON THE SUBMITTALS.

SHOP DRAWINGS OF SPECIAL APPARATUS OR EQUIPMENT WHICH IS TO BE FABRICATED INDIVIDUALLY FOR THIS PROJECT AND IS NOT DESCRIBED BY STANDARD MANUFACTURER'S DRAWINGS OR BULLETINS SHALL BE SUBMITTED FOR PROCESSING BEFORE FABRICATION.

THESE DRAWINGS SHALL BE SUBMITTED IN A TIMELY MANNER.

IT SHALL BE THIS CONTRACTORS RESPONSIBILITY TO MAINTAIN LIAISON WITH ALL PARTIES CONCERNED WITH THE MATERIAL SUBMITTED. THIS CONTRACTOR SHALL NOT PURCHASE ANY EQUIPMENT UNTIL SHOP DRAWINGS HAVE BEEN PROCESSED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY FEES ACCRUED FROM THE RETURN OF FIXTURES PURCHASED PRIOR TO THE REVIEW OF SHOP DRAWINGS AND THAT ARE NOT APPROVED.

THIS CONTRACTOR SHALL SUBMIT NO DRAWINGS WITHOUT NOTATION INDICATING DATE OF CONTRACTOR'S REVIEW AND SIGNATURE OF CHECK FOR CONTRACTOR TOGETHER WITH CONTRACTOR'S NAME AND PROJECT IDENTIFICATION.

ARCHITECT'S PROCESSING WILL NOT CONSTITUTE A COMPLETE CHECK BUT WILL INDICATE ONLY THAT GENERAL METHOD OF CONSTRUCTION AND DETAILING IS SATISFACTORY

ARCHITECT'S PROCESSING WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR ERRORS SINCE THIS CONTRACTOR IS SOLELY RESPONSIBLE FOR DIMENSIONS AND DESIGNS OF ADEQUATE CONNECTIONS, DETAILS AND SATISFACTORY CONSTRUCTION OF ALL WORK, AS WELL AS FURNISHING MATERIALS AND WORKMANSHIP REQUIRED BY DRAWINGS AND SPECIFICATIONS WHICH MAY NOT BE INDICATED ON THE SUBMITTALS WHEN APPROVED.

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING ENGINEER 13. MOTORS, STARTERS AND DISCONNECTS REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. REVIEW OF A SPECIFIC ITEM SHALL NOT INCLUDE REVIEW OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. THE CONTRACTOR IS RESPONSIBLE FOR: EQUIPMENT VOLTAGES AND DIMENSIONS TO BE CONFIRMED AND CORRELATED WITH ALL DISCIPLINES PRIOR TO PURCHASE: INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION, COORDINATION OF THE WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING ALL WORK IN A SAFE AND SATISFACTORY MANNER.

6. SUBSTITUTIONS OF EQUIPMENT OR MATERIAL

THE BRAND NAMES OF EQUIPMENT OR MATERIALS SPECIFIED HEREIN SHALL ESTABLISH QUALITY, CAPACITY, TYPE AND DIMENSIONS TO BE INCLUDED IN THE

APPROVAL OF SUBSTITUTED ITEMS WILL BE BASED ON ABILITY AND CAPACITY TO PERFORM FUNCTION SERVED, QUALITY AND AVAILABILITY OF PARTS AND SERVICE, QUALITY OF EQUIPMENT, DELIVERY SCHEDULE, ETC. THE ARCHITECT SHALL REVIEW ALL SUCH REQUESTS BUT RESERVES THE SOLE RIGHT OF JUDGEMENT TO APPROVE OR REJECT THE PROPOSED SUBSTITUTIONS.

ACCEPTANCE OR REJECTION OF PROPOSED SUBSTITUTIONS SHALL NOT CAUSE ADDITIONAL COST. ANY CHANGES OF PIPING, DUCTWORK, ELECTRICAL CONTROLS OR INSTALLATION REQUIRED BECAUSE OF THE SUBSTITUTION OR EQUIPMENT SHALL BE PAID FOR BY THIS CONTRACTOR PROPOSING THE SUBSTITUTION.

ERECTION OF APPARATUS

ALL WORK SHALL BE DONE UNDER THE PERSONAL SUPERVISION OF THIS CONTRACTOR WHO SHALL PROVIDE A COMPETENT FOREMAN TO LAY OUT ALL WORK. ALL WORK SHALL BE LAID OUT WITH DUE REGARD FOR THE SPACE REQUIREMENTS OF THE OTHER CONTRACTORS. THIS CONTRACTOR SHALL REPORT ANY CONFLICTS OR DIFFICULTIES IN REGARD TO THE INSTALLATION

WHERE CROWDED LOCATIONS EXIST OR WHERE THERE IS A POSSIBILITY OF CONFLICT BETWEEN TRADES, THIS CONTRACTOR SHALL MAKE COMPOSITE DRAWINGS SHOWING THE EXACT LOCATIONS OF PIPES, DUCT, CONDUIT AND EQUIPMENT. DRAWINGS SHALL BE BASED ON FIELD MEASUREMENTS AND AFTER CONSULTATION AND AGREEMENT BETWEEN THE TRADES. SHALL BE APPROVED BY ARCHITECT AND ENGINEER BEFORE INSTALLATION OF THE WORK.

EQUIPMENT OF A TYPE TO REQUIRE REPLACEMENT, SERVICING, ADJUSTING OR MAINTENANCE SHALL BE LOCATED TO ALLOW EASY ACCESS AND SPACE FOR REMOVAL OF INTERNAL ASSEMBLIES, IT REQUIRED.

8. EXCAVATION AND BACKFILL

EQUIPMENT SHOWN ON THE PLANS OR REQUIRED FOR PROPER OPERATION. EXCESS EXCAVATION BELOW THE REQUIRED LEVEL SHALL BE BACKFILLED WITH EARTH AND THOROUGHLY TAMPED. UTILITIES SERVICES LINES SHALL BE INSPECTED AND APPROVED BY THE PROPER INSPECTION AUTHORITY BEFORE

INSTALL PLASTIC PIPE AND FITTINGS IN STRICT ACCORDANCE WITH THE INSTALLATION RECOMMENDATIONS OF THE PIPE AND FITTINGS MANUFACTURER, APPENDIX X1 OF ASTM D2265 (STORAGE AND INSTALLATION PROCEDURES FOR PLASTIC DRAIN, WASTE, AND VENT PIPING) AND FOR BURIED PIPE ASTM D2321 (STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY-FLOW APPLICATIONS). SUCH INSTRUCTIONS SHALL INCLUDE BUT ARE NOT LIMITED TO CUTTING, SOLVENT CEMENTING AND PRIMING, JOINTS, CONNECTIONS, TRANSITIONS, ALIGNMENT AND MANUFACTURERS, SUCH AS HAMMOND, NIBCO-SCOTT AND/OR JENKINS WILL BE GRADE, TRENCHING, BEDDING, BACKFILL AND COMPACTION, SUPPORTS AND

CAST IRON PIPING TRENCHING SHALL BE IN ACCORDANCE TO THE CAST IRON SOIL PIPE AND FITTINGS HANDBOOK ISSUED BY THE CAST IRON SOIL PIPE

THE BOTTOM OF TRENCHES SHALL BE TAMPED HARD AN GRADED TO SECURE THE REQUIRED FALL. ROCK, WHERE ENCOUNTERED SHALL BE EXCAVATED TO A DEPTH OF SIX INCHES (6") BELOW THE BOTTOM OF THE PIPE, AND BEFORE THE PIPE IS LAID, THE SPACE BETWEEN BOTTOM PIPE AND ROCK SURFACE SHALL BE CLOSER THAN THREE FEET (3'0") TO FOOTING THEY MUST BE FILLED WITH COHESIVE SOIL AND COMPACTED TO 95% OF MAXIMUM DENSITY, STANDARD PROCTOR, ASTM D-698. ALL OTHER EXCAVATIONS UNDER FLOOR SLABS COMPACTED TO 95% STANDARD PROCTOR.

WHEN EXCESS DIRT HAS BEEN REMOVED, THE TRENCH SHALL BE BROUGHT TO THE REQUIRED LEVEL WITH SAND AND GRAVEL FIRMLY COMPACTED.

TRENCHES AND EXCAVATION SHALL BE BACKFILLED IN 6" LAYERS OF EARTH, FREE FROM CLODS, AND STONES THOROUGHLY TAMPED TO A DEPTH OF 12" BE DONE IN 12" LAYERS, THOROUGHLY TAMPED.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO ANY DAMAGES **EXCAVATION AND BACKFILL METHODS.**

9. <u>EQUIPMENT SUPPORTS</u>

DIMENSIONS AND BUILDING MATERIAL USED, THIS CONTRACTOR SHALL REFER TO ANY STRUCTURAL STEEL MEMBERS REQUIRED TO ADAPT THE EQUIPMENT AND PIPING AS FURNISHED BY THIS CONTRACTOR, TO THE BUILDING STEEL OR STRUCTURE, SHALL BE INCLUDED IN THE BID OF THE CONTRACTOR FURNISHING THE EQUIPMENT OR PIPING. HANGING OF ALL EQUIPMENT AND REQUIRED SUPPORTING STEEL AND BRACING SHALL BE FURNISHED BY THE CONTRACTOR WHO SUPPLIES THE EQUIPMENT.

10. <u>CUTTING AND PATCHING</u>

THIS CONTRACTOR SHALL INCLUDE ALL CUTTING, PATCHING AND PAINTING OF PATCHED AREAS REQUIRED FOR AND RESULTING FROM THE INSTALLATION OF ALL OF THIS CONTRACTOR'S WORK, EXCEPT WHERE NOTED OTHERWISE.

ALL OPENINGS AROUND PIPE PENETRATIONS THROUGH SMOKE OR FIRE-RATED FLOORS, CEILINGS OR WALLS SHALL BE SEALED AIRTIGHT WITH MATERIAL HAVING A RATING EQUAL TO THE MATERIAL OF THE WALL, CEILING AND/OR FLOOR

ALL PATCHING SHALL BE NEATLY FINISHED TO THE SATISFACTION OF THE ARCHITECT.

11. ACCESS PANELS

THIS CONTRACTOR SHALL LOCATE AND FURNISH FOR INSTALLATION BY THE GENERAL CONTRACTOR, ALL ACCESS PANELS AS REQUIRED FOR ACCESS TO VALVES, AND THE PROPER SERVICING OF EQUIPMENT AND LINES INSTALLED UNDER THE CONTRACT.

ALL PANELS SHALL BE MILCOR, STYLE "M" FOR MASONRY, "A" FOR ACOUSTICAL TILE AND "K" FOR PLASTER; EXCEPT FOR FIRE-RATED UL 1-1/2 HOUR AND "B" LABEL ACCESS PANELS SHALL BE FURNISHED IN FIRE-RATED WALLS AND CEILINGS AS INDICATED ON THE DRAWINGS, ACCESS DOORS SHALL BE 12" X 12" MINIMUM SIZE FOR VALVES.

12. <u>DIELECTRIC UNIONS</u>

FOR THE PREVENTION OF ELECTROLYTIC CORROSION AT CONNECTIONS BETWEEN PIPE OF DISSIMILAR METALS OR BETWEEN PIPE AND EQUIPMENT CONNECTIONS OF DISSIMILAR METALS, PROVIDE DIELECTRIC UNIONS OR FI ANGES

UNLESS SPECIFIED TO BE FURNISHED WITH EQUIPMENT. ALL MOTOR STARTERS AND DISCONNECT SWITCHES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR.

THREADS ON SCREWED PIPE SHALL BE STANDARD, CLEAN BUTT AND TAPERE

PIPE SHALL BE REAMED OF BURRS AND KEPT CLEAN OF SCALE, DIRT AND SHAVINGS. TREADS SHALL BE MADE WITH FLAKED GRAPHITE AND LUBRICATING OIL OR APPROVED PIPE COMPOUND ON THE MALE THREAD ONLY.

COPPER-TO-STEEL AND COPPER-TO-BRASS JOINTS SHALL BE PRESS-CONNECT ALL OTHER COPPER-TO-COPPER JOINTS ABOVE GROUND SHALL BE PRESS-CONNECT. COPPER PIPE SHALL BE CUT SQUARE, BURRS REMOVED AND CARE SHALL BE GIVEN TO KEEP THE LINES FREE OF DIRT AND MOISTURE. ALL TUBING AND FITTINGS SHALL BE THOROUGHLY CLEANED.

UNIONS SHALL BE PROVIDED AT EACH SCREWED VALVE AND UNIONS OR FLANGES AT EACH EQUIPMENT CONNECTION.

15. EXPANSION JOINTS

FURNISH AND INSTALL FLEXONICS EXPANSION JOINTS IN PIPING SYSTEM WHERE SHOWN OR NECESSARY FOR EXPANSION AND CONTRACTION.

EXPANSION JOINTS IN PIPE 4" AND GREATER SHALL BE THE PACKLESS TYPE WITH STAINLESS STEEL BELLOWS AND HAVE WELDED OR FLANGED END. JOINTS SHALL HAVE TRAVERSE AS INDICATED ON THE PLANS. EXPANSION JOINTS SHALL BE OF 23. FIRE STOPPING THE CONTROLLED FLEXING TYPE.

EXPANSION JOINTS IN COPPER PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL BELLOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

EXPANSION JOINTS IN STEEL PIPE UNDER 4" IN SIZE SHALL BE OF THE COMPENSATOR TYPE CONSTRUCTED OF TWO-PLY STAINLESS STEEL ELBOWS AND CARBON STEEL SHROUDS AND END FITTINGS, INTERNAL GUIDES AND ANTI-TORQUE DEVICES.

PROVIDE GUIDES ON EACH SIDE OF EXPANSION JOINT, AT 4 PIPE DIAMETERS, 14 PIPE DIAMETERS, AND A THIRD GUIDE AS RECOMMENDED BY THE MANUFACTURER.

16. PIPE FLEXIBLE CONNECTIONS

THIS CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED TO INSTALL PIPES AND FLEXIBLE PIPE CONNECTIONS SHALL BE RESISTOFLEX #R6904 OR APPROVED EQUAL FLEXIBLE CONNECTIONS MADE FROM TEFLON.

> PROVIDE FOR MOVEMENT IN PIPING BY USE OF SWING JOINTS AT CONNECTION OF ALL BRANCHES TO MAINS AND RISERS. ALL BRANCHES FROM MAINS AND PERMIT PIPE MOVEMENT

THIS CONTRACTOR SHALL FURNISH AND INSTALL ALL VALVES OF ONE MANUFACTURER, FIGURE NUMBER AND TYPE THROUGHOUT THE ENTIRE INSTALLATION OF THE WORK, UNLESS OTHERWISE SPECIFIED. THE FOLLOWING NUMBERS ARE FROM THE CRANE CATALOG. EQUAL VALVES OF REPUTABLE

ALL VALVES SHALL BE BUILT FOR A MINIMUM OF 125 PSIG WORKING PRESSURE ISOLATION VALVES SHALL BE PROVIDED ON ALL INDIVIDUAL FIXTURES AND CHECK VALVES 2-1/2" AND SMALLER SHALL BE COPPER PRESS FITTING.

SWING-TYPE WITH BRONZE BODY AND BRONZE TRIM. BUTTERFLY VALVES 2" AND LARGER SHALL BE #12F, IRON BODY, CAST-IRON

BALL VALVE UP TO 3" IN SIZE SHALL BE APOLLO SERIES #70 BRONZE VALVE WITH CHROME-PLATED BALL AND TEFLON SEAT.

GAS LINE COCKS UP TO 4" SHALL BE #320. 1/2 PSI FOR INDOOR APPLIANCE CONNECTIONS SHALL CONFORM TO ANSI Z21.15 AND CSA 9.1, 5 PSI FOR INDOOR SHUTOFF SHALL CONFORM TO CGA 91-002 AND ASME B16.44

HOSE END VALVES SHALL BE #438 GATE VALVES WITH HOSE END NIPPLES.

18. <u>PIPE SLEEVES AND COLLARS</u>

THIS CONTRACTOR SHALL LAY OUT ALL HIS WORK AND SET SLEEVES IN NEW CONSTRUCTION AS CONCRETE FORMS AND WALL ARE ERECTED SO AS TO BE ABLE TO INSTALL HIS WORK WITHOUT CUTTING OR BREAKING OF FLOORS OR WALLS. ALL SLEEVES FOR INSULATED PIPING SHALL BE LARGE ENOUGH TO ALLOW INSULATION TO PASS THROUGH SLEEVE.

ALL SLEEVES PASSING THROUGH FLOORS WHICH ARE WATERPROOFED SHALL BE COPPER TUBING SLEEVES EXTENDING 1" ABOVE FINISHED FLOOR. ALL OTHER SLEEVES SHALL BE 24 GAUGE GALVANIZED PIPES AND SLEEVES TO BE THOROUGHLY PACKED WITH WATERPROOF SEALANT AND THE REMAINING SPACE FILLED WITH MASTIC AND MUST BE WATERTIGHT.

ALL SLEEVES PASSING THROUGH INNER WALLS SHALL BE STANDARD PIPE THIMBLES EQUAL TO THE THICKNESS OF THE WALL.

SPACES BETWEEN PIPES AND SLEEVES THROUGH OUTSIDE WALLS, ABOVE GRADE, SHALL BE CAULKED WITH CAULKING COMPOUND; THOSE BELOW GRADE SHALL BE MADE WATERTIGHT.

SPACE AROUND ALL PIPING THROUGH FIRE OR SMOKE RATED PARTITIONS OR FLOORS SHALL BE SEALED AIRTIGHT WITH MATERIALS OR EQUIPMENT AS SPECIFIED UNDER FIRESTOPPING.

ALL PIPE PENETRATIONS OF SLABS ON GRADE SHALL BE WRAPPED WITH #15 BUILDING FELTS OR FOAM WRAP.

- A. PIPE HANGER AND SUPPORT PRODUCTS INSTALLATION
- a. VERTICAL PIPING: MSS TYPE 8 OR 42 CLAMPS. b. INDIVIDUAL, STRAIGHT, HORIZONTAL PIPING RUNS: 100 FEET AND LESS: MSS TYPE 1, ADJUSTABLE, STEEL CLEVIS HANGERS. LONGER THAN 100 FEET: MSS TYPE 43, ADJUSTABLE ROLLER HANGERS. LONGER THAN 100 FEET IF INDICATED: MSS TYPE 49,
- SPRING CUSHION ROLLS. c. MULTIPLE, STRAIGHT, HORIZONTAL PIPING RUNS 100 FEET OR LONGER:MSS TYPE 44, PIPE ROLLS. SUPPORT PIPE ROLLS ON
- TRAPEZE. d. BASE OF VERTICAL PIPING: MSS TYPE 52, SPRING HANGERS.
- B. SUPPORT VERTICAL PIPING AND TUBING AT BASE AND AT EACH
- FLOOR. C. ROD DIAMETER MAY BE REDUCED ONE SIZE FOR DOUBLE-ROD
- HANGERS, TO A MINIMUM OF 3/8 INCH INSTALL HANGERS FOR ALL PIPING PER MSS SP-69. MANUFACTURERS MANUALS AND AS PER HANGER SUPPORT DETAIL ON DRAWINGS INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET
- INSTALL SUPPORTS FOR VERTICAL STEEL PIPING EVERY 15 FEET. SUPPORT PIPING AND TUBING NOT LISTED IN THIS ARTICLE ACCORDING TO MSS SP-69 AND MANUFACTURER'S WRITTEN INSTRUCTIONS.

20. DAMAGE BY LEAKS

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO THE GROUNDS, WALKS ROADS ALL BUILDING COMPONENTS AND FINISHES PIPING SYSTEMS ELECTRICAL SYSTEMS AND THEIR EQUIPMENT AND CONTENT, CAUSED BY LEAKS IN THE PIPING SYSTEMS BEING INSTALLED OR HAVING BEEN INSTALLED HEREIN. ALL REPAIRS WILL BE MADE AT THIS CONTRACTOR'S EXPENSE.

21. PIPE MARKERS

FURNISH AND INSTALL BRADY #B-350 THIN FILM OR APPROVED EQUAL PIPE MARKERS. MARKERS SHALL BE 1-1/8" HIGH FOR PIPES 3" AND UNDER AND 2-1/4" HIGH FOR PIPES OVER 3". MARKERS SHALL INDICATE TYPE OF SERVICE AND

DIRECTION OF FLOW

PIPE MARKERS SHALL BE LOCATED:

AT EQUIPMENT CONNECTIONS

AT ACCESS DOORS AT BRANCH MAINS

ON ALL ACCESSIBLE PIPE A MAXIMUM OF 75' BETWEEN MARKERS. AT ALL PENETRATIONS ON EITHER SIDE OF PENETRATION

22. FLOOR, WALL AND CEILING PLATES

PIPES PASSING THROUGH FLOORS AND FINISHED CEILINGS, FITTED WITH CHROME- PLATED PLATES OR ESCUTCHEONS LARGE ENOUGH TO COMPLETELY CLOSE OPENING AROUND PIPE OR PIPE COVERING AND FLOOR SUPPORT IN THE CASE OF VERTICAL PIPING. SECURELY HELD IN PLACE: CAULK WATERTIGHT AROUND PIPE IN UNFINISHED ROOMS.

THE PENETRATIONS OF FIRE AND/OR SMOKE RATED WALLS OR FLOORS SHALL BE NOT LESS THAN 100 PARTS PER MILLION OF AVAILABLE CHLORINE. THE SOLUTION 37. INSULATION PROTECTED BY A UL APPROVED MATERIAL TO RETAIN THE INTEGRITY OF THE TIME-RATED CONSTRUCTION BY MAINTAINING AS EFFECTIVE BARRIER AGAINST THE SPREAD OF FLAME, SMOKE AND GASES. IT SHALL BE USED IN ALL DUCT CABLE. CONDUIT AND PIPING PENETRATIONS THROUGH FLOOR SLABS AND TIME-RATED WALLS, AND/OR FLOORS. THE RATING OF THE FIRESTOPPING SHALL EQUAL THE RATING OF THE TIME-RATED ASSEMBLY.

FIRESTOPPING MATERIAL SHALL BE 3M FIRE BARRIER SEALING SYSTEM OF APPROVED EQUAL. FIRESTOPPING MATERIAL SHALL CONSTITUTE ONE OR MORE OF THE FOLLOWING PRODUCTS:

- CAULK: CP-25 PUTTY: #303
- WRAP/STRIP: FS195 COMPOSITE SHEET: CS195
- PENETRATING SEALING SYSTEMS: 7900 SERIES

INSTALLATION OF FIRESTOPPING SHALL BE INSTALLED IN ACCORDANCE WITH AND IN STRICT CONFORMITY WITH MANUFACTURER'S PRINTED INSTRUCTIONS AS TO SURFACE PREPARATION, INSTALLATION AND QUALITY CONTROL. AREAS OF WORK SHALL REMAIN ACCESSIBLE UNTIL INSPECTION AND APPROVAL BY THE APPLICABLE CODE AUTHORITIES.

ON INSULATED PIPES, THE FIRE-RATING CLASSIFICATION SHALL NOT REQUIRE REMOVAL OF THE INSULATION.

SUBMIT MANUFACTURER'S PRODUCT DATA, LETTER OF CERTIFICATION OR

MATERIALS MEET THE REQUIREMENTS SPECIFIED IN ASTM E814 AND ARE SO CLASSIFIED IN UL'S BUILDING MATERIALS DIRECTORY. MATERIALS SHALL MEET RISERS SHALL HAVE 1/4" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE TO AND BE ACCEPTABLE FOR USE BY ALL MODEL BUILDING CODES. MATERIALS SHALL MEET THE REQUIREMENTS OF NFPME61- LIFE SAFETY CODE AND NFPA 70 NATIONAL ELECTRICAL CODE.

SUBMITTALS: SUBMIT SHOP DRAWINGS, PRODUCT DATA, CERTIFICATES AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. SUBMIT MANUFACTURER'S PRODUCT DATA FOR ALL MATERIALS AND PREFABRICATED DEVICES, PROVIDING DESCRIPTIONS SUFFICIENT FOR IDENTIFICATION AT THE JOB SITE. INCLUDE MANUFACTURER'S INSTRUCTIONS FOR INSTALLATION

SUBMIT SHOP DRAWINGS SHOWING PROPOSED MATERIAL. REINFORCEMENT. ANCHORAGE, FASTENINGS, AND METHOD OF INSTALLATION. CONSTRUCTION DETAILS SHALL ACCURATELY REFLECT ACTUAL JOB CONDITIONS.

24. <u>CLEANUP AND ADJUSTMENT</u>

ALL PARTS WORK LEFT CLEAN: EQUIPMENT, FIXTURES, VALVES, PIPES AND FITTINGS CLEANED OF GREASE AND METAL CUTTINGS. ANY DISCOLORATION OR OTHER DAMAGE TO PORTIONS OF BUILDING, ITS FINISH OR FURNISHING DUE TO THIS CONTRACTORS FAILURE TO PROPERLY CLEAN INTERIOR OF PIPING

ADJUSTED FOR PROPER OPERATION. ALL SURPLUS MATERIALS AND ANY

OPERATING CONDITION. DAMAGE TO ANY PORTIONS MUST BE REPAIRED OF THE PART REPLACED BY THIS CONTRACTOR AND ALL PARTS LEFT WITHOUT DENTS, SCRATCHES, THROUGH THE FINISH PAINT, LOOSE PLASTER, STAINS OR OTHER BLEMISHES.

RUBBISH REMOVED AS IT ACCUMULATES. ALL EQUIPMENT LEFT IN SAFE, PROPER

25. PIPE TESTING AND START-UP ALL PIPING TO BE TESTED IN ACCORDANCE WITH THE FOLLOWING:

WATER - 100 PSI WATER PRESSURE ALL TESTING MUST HOLD FOR AT LEAST 24 HOURS WITHOUT LOSS OF PRESSURE OR VACUUM. ALL CONCEALED PIPING SHALL BE TESTED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE PRIOR TO COVERING. BEFORE STARTING ANY SYSTEM, ALL EQUIPMENT SHALL BE LUBRICATED PER MANUFACTURERS REQUIREMENTS BY THIS CONTRACTOR. TEST ENTIRE BUILDING SYSTEMS UNDER FULL LOAD CONDITIONS FOR A PERIOD OF NOT LESS THAT ONE (1) WEEK DURING WHICH TIME THE OPERATING PERSONNEL SHALL BE FULLY INSTRUCTED IN THE OPERATION AND MAINTENANCE OF THE PLANT. AFTER THE PLANT IS IN FULL OPERATION, THIS CONTRACTOR IS TO FURNISH WHATEVER ADDITIONAL SERVICE IS REQUIRED TO RECALIBRATE AND RESET CONTROLS, VALVES, BALANCING COCKS, ETC. TO ENSURE PROPER OPERATION OF THIS SYSTEM.

26. TESTING AND BALANCING

THIS CONTRACTOR SHALL AT THE TIME OF INSTALLATION ENSURE THAT ALL DEVICES TO COMPLETE TESTING AND BALANCING AS DIRECTED HEREIN ARE FURNISHED AND INSTALLED DURING FABRICATION AND INSTALLATION OF WORK THIS WORK SHALL BE PERFORMED PRIOR TO TURNOVER TO BUILDING OCCUPANT AND WITH AMPLE TIME TO MAKE ANY NECESSARY REPAIRS OR CHANGES TO ACHIEVE A PROPERLY OPERATING SYSTEM.

27. <u>SEISMIC RESTRAINTS ON MECHANICAL EQUIPMENT</u>

ALL PLUMBING EQUIPMENT SHALL BE PROVIDED WITH SEISMIC RESTRAINING SERVICES AS REQUIRED BY LOCAL BUILDING CODES. CONTRACTOR SHALL HAVE LOCAL BUILDING OFFICE REVIEW EACH PIECE OF EQUIPMENT WHEN INSTALLED AND THE CONTRACTOR SHALL INSTALL ALL REQUIRED TIE DOWN, ANCHORS, STRAPS OR OTHER DEVICES REQUIRED.

28. GUARANTEE

THIS CONTRACTOR SHALL GUARANTEE ALL EQUIPMENT, MATERIALS, AND LABOR FURNISHED UNDER THIS CONTRACT TO BE FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION AND SHALL REPAIR OR REPLACE ANY EQUIPMENT OR MATERIAL WHICH IS DEFECTIVE OR IMPROPERLY INSTALLED. IN ADDITION, THIS CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO THE BUILDINGS AND ITS CONTENTS OR OTHER EQUIPMENT, CAUSED BY DEFECTS OR IMPROPER INSTALLATION OF EQUIPMENT OR MATERIALS INSTALLED UNDER THIS SECTION OF THE SPECIFICATIONS.

TEMPORARY WATER SERVICE (IF REQUIRED) TO THE BUILDING SHALL BE PROVIDED BY THIS CONTRACTOR TO THE BUILDING FOR CONSTRUCTION PURPOSES. THIS CONTRACTOR TO MAINTAIN WATER SERVICE AS REQUIREL DURING CONSTRUCTION.

30. DOMESTIC WATER SERVICE

THIS CONTRACTOR SHALL COORDINATE EXACT AVAILABLE DELIVERY PRESSURE AND PROVIDE ALTERNATE FEE FOR A PRESSURE BOOSTING SYSTEM IF PRESSURE IS LESS THAN 65PSI STATIC. PROVIDE PRESSURE REDUCING VALVE WITH STRAINER IN SERVICE LINE IF REQUIRED BY LOCAL CODES OR PRESSURE IS ABOVE 80 PSI

ALL WATER SUPPLY LINES LESS THAN 1" IN DIAMETER SHALL BE COPPER OR COPPER ALLOY. USE ONLY CAST AND WROUGHT COPPER AND COPPER ALLOY PRESS-CONNECT PRESSURE FITTINGS: ASME B16.51, DO NOT USE SOLDER OR BRAZED CONNECTIONS. PRESS-CONNECT JOINTS: PRESS-CONNECT JOINTS SHALL BE MADE IN ACCORDANCE WITH THE FITTING MANUFACTURER'S WRITTE INSTALLATION INSTRUCTIONS USING A PRESS-CONNECT TOOL AND JAWS APPROVED FOR USE FOR THE MANUFACTURER'S SPECIFIC FITTING _CONFIGURATION. COPPER ALLOY TUBE SHALL BE MECHANICALLY CLEANED AND REAMED PRIOR TO JOINING TO REMOVE ALL BURRS (INTERIOR AND EXTERIOR) AND RESTORE FULL INSIDE DIAMETER AND A SMOOTH, CHAMFERED EXTERIOR SURFACE. FITTINGS SHALL HAVE EPDM SEALING ELEMENTS.

ABOVE GRADE - WHERE FITTINGS ARE PRESS-CONNECT 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.

CONTINUOUS WITH NO FITTING OR JOINTS BELOW GRADE. munum manus NOTE: WATER PIPE TO BE PROPERLY SECURED AND ALIGNED SO AS NOT TO EXERT VERTICAL OR HORIZONTAL STRESSES ON THE SEATING OF THE MATING

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL - PIPING SHALL BI

(MALE AND FEMALE) SURFACES OF THE UNIONS. MATERIALS - UNDERGROUND: TYPE "K" COPPER TUBE. SOFT TEMPER

THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE FLUSHED CLEAR PLUMBING EQUIPMENT: (REFER TO SCHEDULE ON THE DRAWINGS) OF ANY DEBRIS AND THOROUGHLY STERILIZED WITH A SOLUTION CONTAINING SHALL REMAIN IN THE SYSTEM FOR TWO (2) HOURS DURING WHICH TIME ALL VALVES AND FAUCETS SHALL BE OPENED AND CLOSED SEVERAL TIMES. AFTER STERILIZATION, THE SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH

STERILIZATION SHALL BE PERFORMED PRIOR TO TURNOVER TO OCCUPANT AS TO FLAME SPREAD 25 NOT ALLOW FOR THE WATER SYSTEM TO REMAIN STAGNANT FOR LONGER THAN SMOKE DEVELOPED 50 24 HOURS.

CLEAN WATER UNTIL THE RESIDUE CHLORINE CONTENT IS NOT GREATER THAN

THE CHLORINE LEVEL OF THE AVAILABLE WATER SUPPLY.

THIS CONTRACTOR SHALL HAVE THE WATER TESTED AND APPROVED BY THE HEALTH DEPARTMENT.

32. SANITARY SEWERS

THIS CONTRACTOR SHALL CONNECT SANITARY SEWER AS INDICATED ON THE DRAWINGS. VERIFY DIRECTION OF FLOW PRIOR TO ANY ROUGH-IN WORK.

EACH PIPE SHALL BE LAID TO THE LINE AND GRADE INDICATED ON THE PLANS AND SUCH A MANNER AS TO FORM A CLOSE CONCENTRIC JOINT WITH THE ADJOINING PIPE AND TO PRESENT OFFSETS IN FLOW LINE. ALL PIPE SHALL BE LAID WITH THE BELLS UPHILL.

CERTIFIED LABORATORY TEST REPORT THAT THE MATERIAL OR COMBINATION OF THE SUB-GRADES SHALL BE KEPT FREE FROM WATER WHILE PIPES ARE BEING LAID. ALL PIPE SHALL BE LAID WITH ENDS ABUTTING AND TRUE TO LINE AND GRADE. THEY SHALL BE FITTED AND MATCHED SO THAT THEY WILL FORM A SEWER WITH A SMOOTH AND UNIFORM INVERT.

EACH JOINT SHALL BE CLEANED AS IT IS LAID AND ALL BELLS SHALL BE CLEANED

PVC SEWER PIPE MAY BE USED IN LIEU OF THAT SPECIFIED ABOVE IF ALLOWED

ABS AND FOAM CORE PVC ARE NOT ACCEPTABLE MATERIALS.

SDR 35 IS NOT ACCEPTABLE FOR UNDER BUILDING USE

33. WASTE, SOIL, DRAIN AND VENT PIPING

THE DRAINS, SOIL WASTE AND VENT PIPE AND FITTINGS INCLUDING EXTENSIONS TO SEWERS SHALL BE OF THE SIZES INDICATED ON THE DRAWINGS. PIPE AND FITTINGS TO BE, CYLINDRICAL AND FREE FROM CRACKS OR OTHER DEFECTS. REPAIRED AT THIS CONTRACTOR'S EXPENSE. ALL AUTOMATIC CONTROL DEVISES ALL TRENCHES TO BE DUG WITH GRADUAL FALL, THE PIPING TO BE STRAIGHT

> THE ARRANGEMENT OF THE SYSTEM SHALL BE AS SHOWN ON THE DRAWINGS AND AS DIRECT AS POSSIBLE, AVOIDING ALL UNNECESSARY OFFSETS. THE STACKS SHALL BE FIRMLY SECURED IN POSITION WITH WROUGHT IRON CLAMPS

ALL CHANGES IN DIRECTION OF SOIL OR WASTE PIPE SHALL BE MADE BY MEANS OF "Y" BRANCHES AND 1/8 BENDS. NINETY DEGREE SHORT TURN FITTINGS WILL NOT BE PERMITTED EXCEPT TO INDIVIDUAL FIXTURE CONNECTIONS OR WHERE THE FLOW IS FROM THE HORIZONTAL TO THE VERTICAL

SANITARY CLEANOUTS ARE TO BE PROVIDED AT EVERY TURN GREATER THAN 45°, THREE AND FOUR HOUR TESTS. AT INTERVALS OF NO GREATER THAN 50', AT ANY STACK ROUTING BELOW GRADE. A.3 LISTED WITH FM (FACTORY MUTUAL) REQUIREMENTS FOR FLAMMABLE GAS NOT ALL CLEANOUTS LOCATIONS MAY BE SHOWN ON THE DRAWING. PIPING SYSTEMS. FOR SEISMIC RESISTANCE.

ALL TRAP SCREWS MUST BE OF FULL SIZE OF PIPE UP TO 4" AND 4" FOR ALL OVER FOR RESISTANCE TO ARCING FROM TRANSIENT ENERGY. THIS SIZE. CONNECTIONS BETWEEN OUTLETS OF FIXTURES AND SOIL OR WASTE PIPE SHALL BE MADE WITH "Y" BRANCHES TO "TY" BRANCHES WHEREVER POSSIBLE. ALL HORIZONTAL SOIL WASTE AND VENT PIPE SHALL BE GRADED TOWARD OUTLETS AND PIPE NOT BURIED SHALL BE INSTALLED ABOVE THE CEILING OR CLOSE AS POSSIBLE TO THE CONSTRUCTION ABOVE WHERE THERE IS

THE STACKS SHALL BE EXTENDED THROUGH ROOF OF BUILDING TO POINTS NOT LESS THAT 12" ABOVE ROOF. EXTENSIONS THROUGH ROOF SHALL BE MADE WATER- TIGHT BY MEANS OF A FLASHING OF FOUR POINTS SHEET LEAD SPREAD OVER A DISTANCE OF NOT LESS THAN TWELVE INCHES (12") AROUND PIPE. ROOF FLASHING SHALL CONNECT TO THE BASE AND EXTENDED OVER AND TURNED DOWN INTO END OF PIPE IN AN APPROVED MANNER.

CLEANOUTS IN FLOORS TO BE JOSAM #8360 OR EQUAL. ADJUSTABLE CLEANOUT WITH BODY TO MATCH THE PIPING MATERIAL, CAST BRASS SCORIATED COVER WITH LETTERS C.O. CAST IN TOP AND CONCEALED BRASS PLUG. CLEANOUTS SHALL BE INSTALLED IN BASE OF EACH STACK. CONCEALED

CLEANOUTS SHALL HAVE JOSAM #8600 OR EQUAL. CAST BRASS CHROMIUM

PLATED FLAT ACCESS COVER PLATES. ALL JOINTS OF CAST IRON PIPE SHALL BE MADE WITH MANUFACTURERS RECOMMENDED JOINING MATERIAL. AT THE CONTRACTOR'S OPTION HE MAY USE NO-HUB PIPE, FITTINGS, COUPLING AND GASKETS IN LIEU OF CAULKED JOINTS IF

IF APPROVED BY THE LOCAL CODES, SCHEDULE 40 PVC PIPE WITH DWV FITTINGS MAY BE USED FOR THE WASTE AND VENT SYSTEM. PVC PIPE AND FITTINGS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL CODES. ENCASEMENT OF PVC PIPES WITHIN RATED SHAFTS SHALL BE THE COST OF THIS CONTRACTOR.

SCHEDULE 40 PVC SHALL NOT BE INSTALLED WITHIN A PLENUM. ABS AND FOAM CORE PVC ARE NOT ACCEPTABLE MATERIALS.

APPROVED BY THE LOCAL CODES AND ORDINANCES.

SDR 35 IS NOT ACCEPTABLE FOR UNDER BUILDING USE

EACH VENT FLASHING SHALL BE MADE WATER-TIGHT WITH THE ROOF BY PROPER WATER PROOF FLASHING.

THE MINIMUM SIZE OF WASTE, VENT, AND WATER CONNECTION TO THE INDIVIDUAL FIXTURES SHALL BE AS SHOWN ON DRAWINGS. WHERE FIXTURES ARE GROUPED PIPES SHALL BE INCREASED IN PROPORTION: IN

ALL CASES THE SIZE ARRANGEMENTS AND CONNECTIONS OF WATER AND VENT PIPING SHALL NOT BE LESS THAN SIZE OF OPENINGS SPECIFIED FOR FIXTURES

AND APPEARING IN FIXTURE LIST. NO WATER PIPE LESS THAN 1/2" SHALL BE INSTALLED IN CONCEALED PLACES SUCH AS IN PARTITIONS OR WALLS ETC.

35. WASTE, VENT AND WATER CONNECTIONS

36. PLUMBING FIXTURES AND TRIM LUMBING FIXTURES SHALL BE FURNISHED AND INSTALLED IN A NEAT AND WORKMANLIKE MANNER WITH PROPER CONNECTIONS TO SUPPLY AND DRAINAGE PIPING. ALL FIXTURES SHALL BE FREE OF FLAWS AND DEFECTS OF ANY SORT IN MATERIAL AND WORKMANSHIP AND SHALL OPERATE PERFECTLY WHEN

MATERIALS: FIXTURES SHALL BE THE STANDARD PRODUCT OF ONE OF THE MANUFACTURER'S LISTED IN THE PLUMBING FIXTURE SCHEDULE, OR ANY EQUAL UNIT APPROVED BY THE ENGINEER.

INSTALLED IN ACCORDANCE WITH MANUFACTURER'S DIRECTION.

INSTALLATION: THIS CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF THE PLUMBING FIXTURES AND ACCESSORIES DURING CONSTRUCTION. HE SHALL REPLACE AT HIS EXPENSE ANY MATERIAL THAT IS MARRED, SCRATCHED, DEFACED AND/OR BROKEN. FIXTURES SHALL BE COVERED WITH BUILDING PAPER AND WOODEN CRATES DURING CONSTRUCTION.

CONTRACTOR SHALL COORDINATE EXACT AND PROVIDE ROUGH-IN LOCATIONS WITH FIELD CONDITIONS AND PLANS PRIOR TO ANY WORK. CONTRACTOR SHALL CONNECT ALL FIXTURES TO THE PLUMBING SYSTEM. ALL FIXTURES TO BE INSTALLED TO DIMENSIONS WITH CHROME-PLATED SUPPLIES WITH STOPS.

WATER CLOSETS SHALL HAVE CAULKING BETWEEN THE FLOOR AND UNDERSIDE OF THE WATER CLOSET.

ALL FIXTURES INSTALLED TO DIMENSIONS SHOWN ON THE DRAWINGS. ALL

ALL INSULATION SHALL HAVE COMPOSITE (INSULATION, JACKET OR FACINGS AND ADHESIVE USED TO ADHERE THE FACING OR JACKET TO THE INSULATION) FIRE AND SMOKE HAZARD RATINGS AS TESTED BY PROCEDURE ASTM E-84, NFPA 225 UL 723 NOT EXCEEDING:

ALL ACCESSORIES SUCH AS ADHESIVES, MASTICS, CEMENTS, TAPES AND CLOTH FOR FITTINGS SHALL HAVE THE SAME COMPONENTS RATINGS AS LISTED ABOVE.

INSULATION SHALL BE APPLIED ON CLEAN, DRY SURFACES AND AFTER INSPECTION AND RELEASE FOR INSULATION APPLICATION. ALL INSULATION SHALL BE CONTINUOUS THROUGH WALL AND CEILING OPENINGS AND SLEEVES. INSULATION ON ALL COLD SURFACES WHERE VAPOR BARRIER JACKETS ARE USED, WILL BE APPLIED WITH A CONTINUOUS, UNBROKEN VAPOR SEAL, INCLUDING ALL FITTINGS AND VALVES. ALL INSULATION TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S. FITTINGS SHALL BE FINISHED WITH 1/4" COAT OF INSULATING CEMENT AND CANVAS.

DOMESTIC COLD WATER - 1/2" THICK ARMAFLEX (FLAME SPREAD 25/ SMOKE DEVELOPED 50)

DOMESTIC HOT WATER - 1" THICK ARMAFLEX (FLAME SPREAD 25/ SMOKE DEVELOPED 50) DOMESTIC HOT WATER RETURN- 1" THICK ARMAFLEX (FLAME SPREAD 25/ SMOKE

DEVELOPED 50) EXPOSED STORM WASTE AND SANITARY WASTE - 1/2" THICK ARMAFLEX (FLAME SPREAD 25/ SMOKE DEVELOPED 50)

ALL MATERIALS USED SHALL COMPLY WITH SECTIONS 1712 AND 1713 OF THE UBC.

38. NATURAL GAS PIPING SYSTEM

ALL PIPING FROM GAS METER TO GAS-FIRED EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR.

ALL GAS PIPING TO BE IN ACCORDANCE WITH LOCAL CODES, NFPA-54, IFGC AND UPC ALL GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH NFPA-54, LOCAL

ALL GAS PIPING SHALL BE SCHEDULE 40 BLACK OR GALVANIZED STEEL WITH BLACK OR GALVANIZED WITH MALLEABLE SCREWED FITTINGS. USE TEFLON TAPE ON ALL THREADED JOINTS. FITTINGS LARGER THAN TWO INCHES (2") SHALL BE WELDED. PROVIDE UNIONS AND GAS SHUT-OFF VALVES AT EACH PIECE OF GAS FIRED EQUIPMENT OR APPLIANCE. ANY GAS PIPING CONCEALED IN CHASES AND/OR INACCESSIBLE CEILING IS TO BE WELDED WITH WELDED FITTINGS.

FLEXIBLE CSST PIPING MATERIAL IS AN ACCEPTABLE ALTERNATE ONLY IF ALLOWED BY LOCAL AHJ AND RESIZED PER MANUFACTURERS SIZING GUIDELINES.

ALL FLEXIBLE GAS PIPING SYSTEM COMPONENTS MUST BE: A.1 CSA INTERNATIONAL CERTIFIED CORRUGATED STAINLESS STEEL TUBING (CSST) FLEXIBLE GAS PIPING WITH MECHANICAL ATTACHMENT AUTOFLARE® FITTINGS THAT CONFORM TO THE LATEST ANSI STANDARDS FOR SAFE PERFORMANCE ANSI LC-1 /CSA 6.26. A.2 UNDERWRITERS LABORATORIES CLASSIFICATION LISTED FOR THRU

PENETRATION FIRE STOP REQUIREMENTS RATINGS TO INCLUDE ONE, TWO,

A.4 TUBING SHALL BE TESTED AND LISTED IN ACCORDANCE WITH ICC LC-1024

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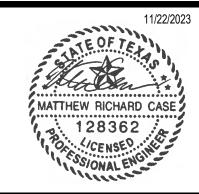
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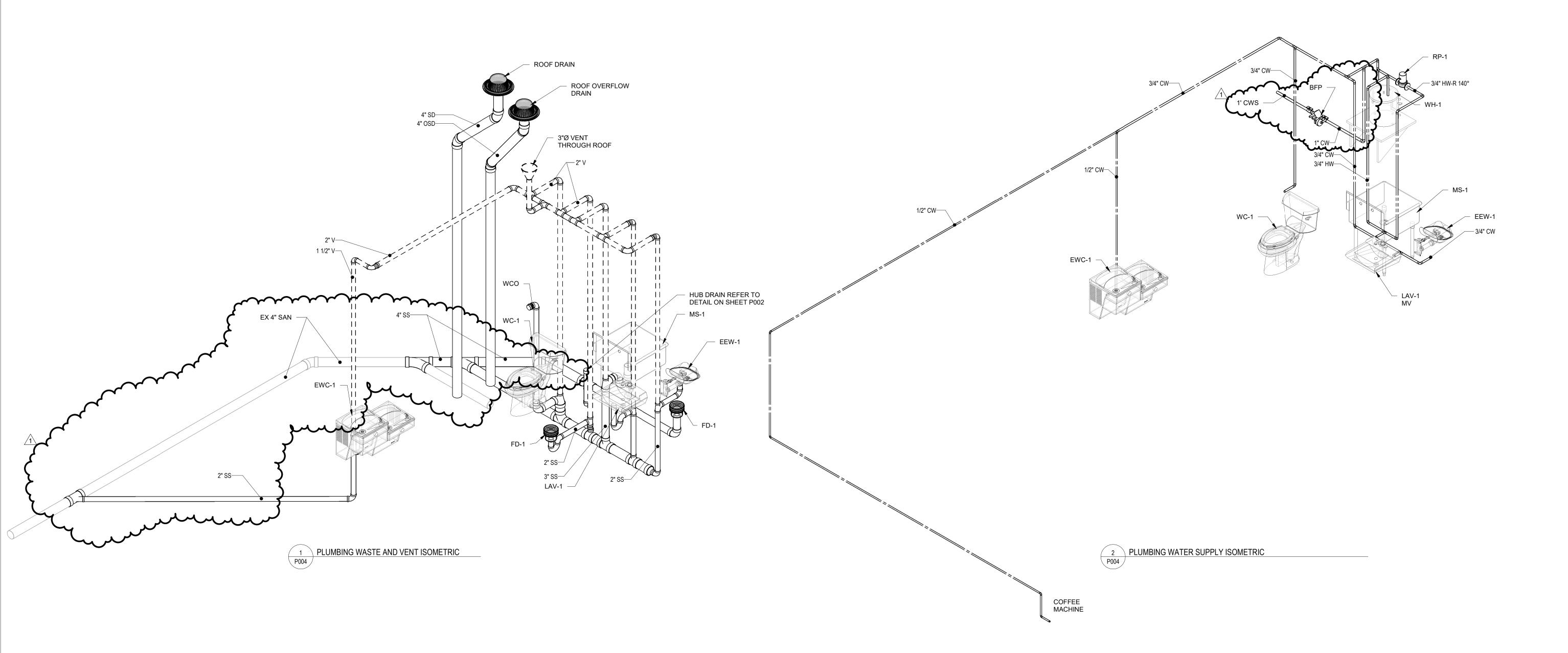
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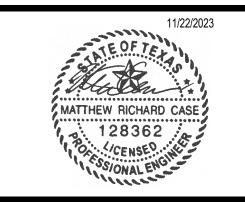
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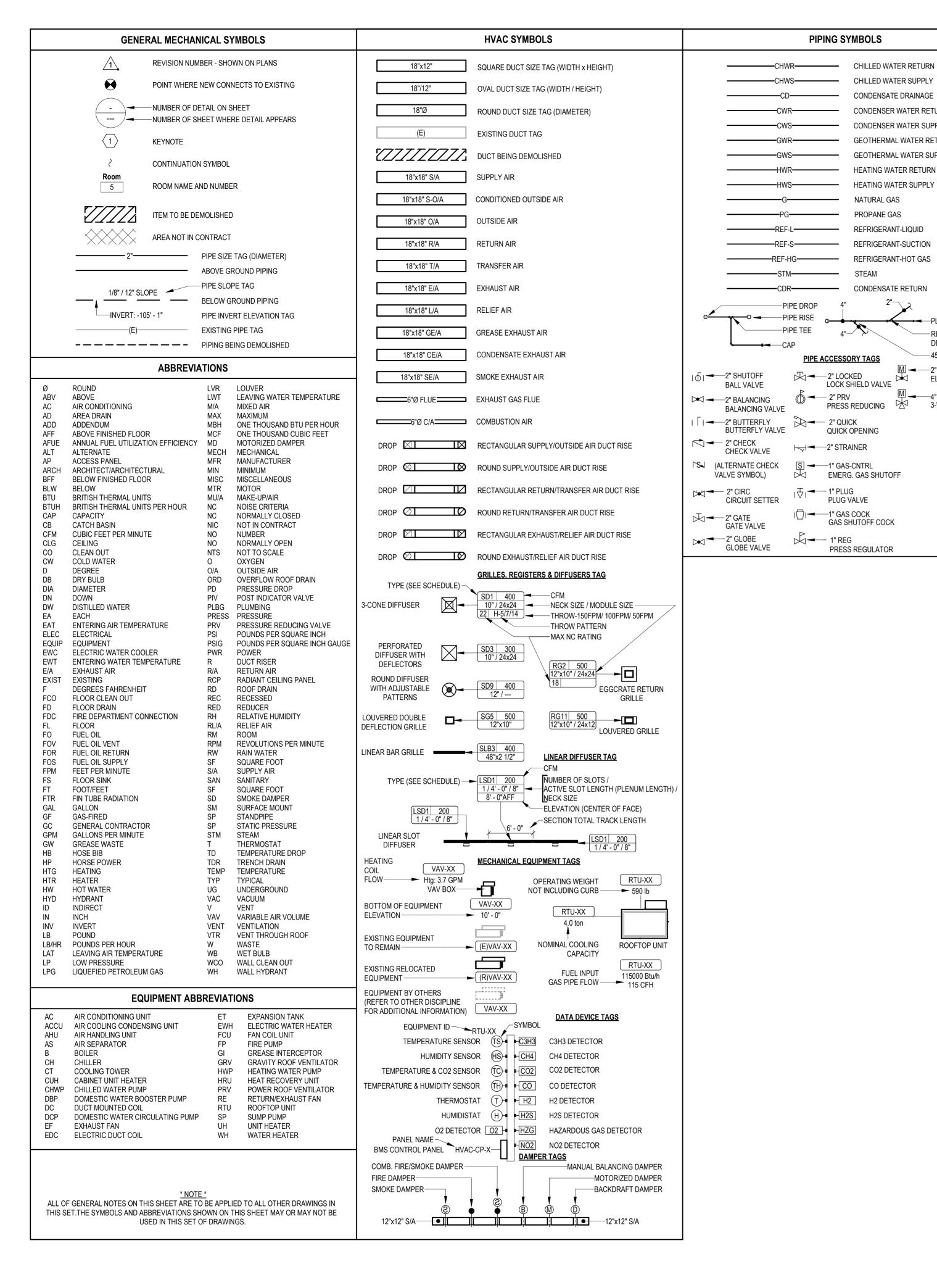
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SHEET TITLE:

PLUMBING RISERS PLAN

SHEET NUMBER:

P004



MECHANICAL GENERAL NOTES

DO NOT SCALE DRAWINGS

PIPING SYMBOLS

-CHWS------- CHILLED WATER SUPPLY

CONDENSATE DRAINAGE

CONDENSER WATER RETURN

CONDENSER WATER SUPPLY

GEOTHERMAL WATER RETURN

GEOTHERMAL WATER SUPPLY

HEATING WATER RETURN

HEATING WATER SUPPLY

REFRIGERANT-LIQUID

REFRIGERANT-SUCTION

REFRIGERANT-HOT GAS

CONDENSATE RETURN

-REDUCING 45

DEGREE TEE

M −−2" M-CNTRL

M → 4" 3-WAY CNTRL

-45 DEGREE TEE

ELEC. CONTROL

3-WAY ELEC. CONTROL

-PIPE TEE

PIPE ACCESSORY TAGS

LOCK SHIELD VALVE

QUICK OPENING

PLUG VALVE

ı∏ı**⊸**1" GAS COCK

EMERG. GAS SHUTOFF

GAS SHUTOFF COCK

PRESS REGULATOR

PRESS REDUCING 🔀

Z" LOCKED

≥ 2" QUICK

 \bowtie

2" STRAINER

──CAP

NATURAL GAS

PROPANE GAS

- . CONTRACTOR SHALL COORDINATE WORK INDICATED HEREON W/ PLUMBING. ELECTRICAL & FIRE PROTECTION SECTIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR DUCT SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER, PIPING & ELECTRICAL CONDUIT MAINS.
- 3. UNLESS NOTED OTHERWISE, BRANCH DUCTS TO INDIVIDUAL TERMINALS, DIFFUSERS AND GRILLES SHALL BE SAME SIZE AS NECK INLET.
- 4. PROVIDE EQUIPMENT SCHEDULED OR INDICATED ON THE DRAWINGS BUT NOT INCLUDED WITHIN THE SPECIFICATIONS. INSTALLATION SHALL CONFORM TO MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODES. PROVIDE SUBMITTALS.
- ELECTRICAL CHARACTERISTICS OF MECHANICAL EQUIPMENT SHALL BE VERIFIED WITH ELECTRICAL DRAWINGS PRIOR TO EQUIPMENT ORDER RELEASE. ADDITIONAL ELECTRICAL WORK RESULTING FROM EQUIPMENT SUBSTITUTION IS THE RESPONSIBILITY OF THIS CONTRACTOR.
- LENGTH OF FLEXIBLE DUCTWORK SHALL BE LIMITED TO 5'-0" MAX. HORIZONTAL RUN WITH ONLY ONE 90 DEG. ELBOW PERMITTED. SECURE FLEXIBLE DUCTWORK WITH SCREWS & DRAW BANDS.
- DUCT SIZES INDICATED ARE NET INSIDE CLEAR DIMENSIONS.
- 3. PROVIDE CEILING OPERATIONS FOR INACCESSIBLE M.V.D.'S WHERE INDICATED, EQUAL TO YOUNG REGULATOR, REMOTE FEAR OPERATED, WITH CEILING ESCUTCHEON.
- 9. ITEM DESIGNATIONS INDICATED HEREON ARE FOR PURPOSES OF THESE DOCUMENTS ONLY. CONTRACTOR SHALL VERIFY W/ OWNERS REPRESENTATIVE ACTUAL "TAGGING" INFORMATION TO BE PROVIDED FOR EACH ITEM OF MECHANICAL EQUIP. PRIOR TO NAMEPLATE ORDER RELEASE.
- 10. CEILING DIFFUSERS SHALL BE 36" MIN. FORM CEILING MOUNTED SMOKE DETECTORS. COORD. W/ ELECTRICAL
- 11. SECURE DIFFUSERS & GRILLES TO T-BAR CEILINGS, WHERE APPLICABLE. SUBMIT SHOP DWG. FOR APPROVAL PRIOR TO BEGIN. WORK.
- 12. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATION OF GRILLES & DIFFUSERS IN CEILING, AS WELL AS ACCESS DOORS.
- 13. COORDINATE EQUIP, DIMENSIONS AND LAYOUT W/ PLUMBING SECTION WHERE FLOOR SINKS ARE INDICATED.
- 14. PIPES PASSING THRU FIRE RATED WALLS & FLOORS SHALL BE SEALED WITH U.L. LISTED MATERIAL EQUAL TO
- 3M FIRE BARRIER, CAULK OR PUTTY. SEALANT'S RATING SHALL MATCH THE RATING OF THE ASSEMBLY.
- 15. PROVIDE VALVE TAGS AND PIPE IDENTIFICATION BANDS. TAGS SHALL BE BRASS W/ CHAIN. IDENTIFICATION BANDS SHALL BE LOCATED EVERY 25 FEET AND ON EITHER SIDE OF INTERMEDIATE BARRIER.
- 16. PROVIDE 18" X 18" MIN. ACCESSIBLE CEILINGS AND WALLS FOR EQUIP. REQUIRING ACCESS OR ADJUSTMENT. COORDINATE LOCATIONS AND SUBMIT TO ARCHITECT FOR APPROVAL PRIOR TO BEGINNING WORK.
- 17. TURNING VANE RUNNERS SHALL HAVE A VANE IN EVERY SLOT IN STRICT CONFORMANCE WITH MFR. 'S INSTRUCTIONS AND SMACNA DUCT CONSTRUCTION STANDARDS.
- 18. VERIFY FIT DUCTWORK AND PIPING PRIOR TO FABRICATION.
- 19. INSULATED PIPING EXPOSED TO VIEW (THROUGHOUT THE FACILITY), SHALL BE COVERED FINISHED W/ PVC JACKET EQUAL TO MANVILLE PVC/ PERMA-WELD PIPE JACKETING SYSTEM USING 30 MIL THICK JACKET. FITTINGS, FLANGES VALVES & ACCESSORIES SHALL BE JACKETED. INSTALL PER MFRS. INSTRUCTIONS W/ SEAM ON TOP OF PIPE SO AS NOT TO BE VISIBLE FROM OCCUPIED SPACE.
- 20. DUCTWORK LOCATED BEL. 7'-6" IN MECHANICAL ROOMS SHALL BE EQUIPPED W/ PADDING MATERIAL ON ALL CORNERS, EDGES & OTHER SURFACES WHICH MAY BE HAZARDOUS.
- 21. COORDINATE & VERIFY ACTUAL APPROVED EQUIP. DIMENSIONS PRIOR TO POURING EQUIP. PADS
- 22. DUCT MOUNTED SMOKE DETECTORS SHALL BE ZERO VELOCITY TYPE WHERE INDICATED ON DRAWINGS
- 23. DRAIN PIPING FROM A/C EQUIPMENT SHALL BE ROUTE SO AS NOT TO CREATE A TRIPPING HAZARD. COORDINATE ACTUAL DRAIN CONNECTIONS WITH PLUMBING SECTIONS. COORDINATE FLOOR SINK LOCATIONS
- 24. CONDENSATE DRAIN TRAPS SHALL BE 3" DEEP, MINIMUM.
- 25. COORDINATE ALL CHASE, SLEEVE AND SLAB BLOCK OUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.
- 26. PROVIDE ACCESS DOOR IN DUCTWORK UPSTREAM OF EACH REHEAT COIL. DUCTMATE METU ROUND DUCT ACCESS DOOR.
- 27. DUCTWORK VISIBLE BEHIND DIFFUSERS, RESISTERS, OR GRILLES SHALL BE PAINTED FLAT BLACK.
- 28. REFER TO EQUIPMENT DRAWINGS, SPECS, & SHOP DRAWINGS FOR CONNECTIONS TO EQUIPMENT.
- 29. MANUAL VOLUME DAMPERS AND VALES ON INSULATED DUCTWORK AND PIPING SHALL HAVE EXTENDED STEMS TO ALLOW FOR THE INSULATION THICKNESS. PROVIDE MIN. 12" LONG RED RIBBON QUADRANT LOCATOR ON VOLUME DAMPER HANDLES.
- 30. HVAC EQUIPMENT SHALL BE SEALED OFF, KEPT FREE FROM DEBRIS, AND SHALL REMAIN UNOPERATIONAL DURING CONSTRUCTION FOR ANY REASON, CONTRACTOR SHALL PROVIDE TEMPORARY HEAT AS REQUIRED.
- 31. THE CONTRACTOR SHALL BRING ERRORS AND OMISSIONS WHICH MAY OCCUR IN THE CONTRACT DOCUMENTS TO THE ATTENTION OF THE ARCHITECT VERBALLY AND IN WRITING. WRITTEN INSTRUCTIONS SHALL BE OBTAINED BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY ERRORS, DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS, OF WHICH THE CONTRACTOR FAILED TO NOTIFY THE ARCHITECT BEFORE CONSTRUCTION AND/OR FABRICTION OF THE WORK.

HVAC SHEET INDEX

M000 HVAC TITLE SHEET M001 MECHANICAL SPECIFICATIONS M002 MECHANICAL SPECIFICATIONS M100 MECHANICAL FLOOR PLAN

M200 ROOF MECHANICAL PLAN

M400 MECHANICAL DETAILS M500 MECHANICAL SCHEDULES SHEET COUNT: 7

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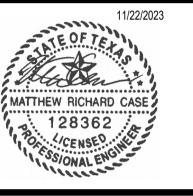
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HVAC TITLE SHEET

GENERAL SPECIFICATIONS

1 CCODE

PROVIDE ALL MATERIALS, LABOR, TOOLS AND INCIDENTALS NECESSARY TO INSTALL AND MAKE READY FOR OWNER'S USE COMPLETE SYSTEMS OF HEATING, VENTILATION, AIR CONDITIONING (HVAC), PLUMBING, FOR THE PROPOSED WORK AND BUILDING RENOVATIONS AS SHOWN ON THE DRAWINGS AND CALLED FOR IN THESE SPECIFICATIONS.

VISIT THE SITE TO OBTAIN DIMENSIONS, EXISTING LAYOUTS AND LOCATIONS AND EXISTING CONSTRUCTION DETAILS NOT SHOWN ON THESE DRAWINGS.

THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION WITH OTHER DIVISIONS OF WORK FOR THE FULL EXTENT OF THE SCOPE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL ASPECTS, COMPONENTS, SYSTEMS, ETC. AND ACCOMMODATE THE PERFORMANCE INTENT OF THE CONSTRUCTION DOCUMENTS THROUGHOUT THE PROJECT SCOPE.

2. BIDDERS RESPONSIBILITY:

EXAMINE THE DRAWINGS AND SPECIFICATIONS AND VISIT THE WORK SITE. BECOME FAMILIAR WITH THE CHARACTER OF THE WORK, THE COORDINATION WITH OTHER TRADES REQUIRED, AND ANY OTHER CONDITIONS THAT AFFECT THE COMPLETION OF THIS WORK.

3. PERMITS, CODES AND LAWS:

APPLY FOR ALL PERMITS AND PAY ALL FEES.

UNDERWRITER'S LABORATORIES, INC. (U.L.)

ALL WORK SHALL BE IN ACCORDANCE WITH LATEST EDITIONS OF THE FOLLOWING RULES AND REGULATIONS, HEREIN REFERRED TO AS "CODES":

THE LATEST OR ADOPTED EDITION OF THE APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING, MECHANICAL, SANITATION, PLUMBING, ETC. CODES.

NATIONAL FIRE PROTECTION ASSOCIATION (N.F.P.A.)

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (O.S.H.A)

WHERE ANY OF THESE CODES ARE AT VARIANCE WITH THE DRAWINGS AND SPECIFICATIONS, THEIR REQUIREMENTS SHALL TAKE PRECEDENCE, UNLESS THE DRAWINGS AND SPECIFICATIONS REQUIREMENTS EXCEED THESE CODES. INCLUDE ANY COST NECESSARY TO MEET THESE CODES IN THE BID PRICE.

4. MECHANICAL PLANS:

THE MECHANICAL PLANS ARE DIAGRAMMATIC AND BASED ON ONE MANUFACTURER'S EQUIPMENT. THEY ARE NOT INTENDED TO SHOW EVERY ITEM IN ITS EXACT LOCATION, THE EXACT DIMENSIONS, OR ALL THE DETAILS OF THE EQUIPMENT. VERIFY THE ACTUAL DIMENSIONS OF THE EQUIPMENT PROPOSED TO BE USED.

INSTALLATION SHALL BE WITHIN THE LIMITATIONS IMPOSED BY THE ARCHITECTURAL, STRUCTURAL, HVAC, ELECTRICAL, AND PLUMBING REQUIREMENTS WITH ADEQUATE SPACE FOR MAINTENANCE.

5. QUESTIONS AND CLARIFICATIONS OF BID DOCUMENTS:

BIDDERS SHALL NOT RELY ON ANY ORAL CLARIFICATION OF THE DRAWINGS OR SPECIFICATIONS. ANY QUESTIONS

OR CLARIFICATIONS SHALL BE REFERRED IN WRITING TO THE ARCHITECT.

6. GUARANTEES:
ALL EQUIPMENT, MATERIALS, AND WORKMANSHIP SHALL BE GUARANTEED IN WRITING. WARRANTIES SHALL

INCLUDE FACTORY WARRANTIES FOR EACH PIECE OF EQUIPMENT. PROVIDE A CERTIFICATE FOR EACH PIECE OF

EQUIPMENT. CLEARLY INDICATE ON EACH WARRANTY CERTIFICATE THE MODEL NO., SERIAL NO., LOCATION, AND

OWNER'S NAME UNLESS OTHERWISE REQUIRED BY THE OWNER.

ALL WARRANTIES SHALL BE FULLY TRANSFERABLE TO ANY AND ALL SUBSEQUENT BUILDING AND/OR CONDOMINIUM OWNERS, AND THEIR AGENTS, FOR THE LIFE OF EACH WARRANTY.

BIND THE ORIGINAL COPIES OF WARRANTIES FOR EACH PIECE OF EQUIPMENT IN A RING BINDERS, FOR THE BUILDING AND CONDOMINIUM UNIT, AND TURN OVER TO THE BUILDING OWNER AT FINAL ACCEPTANCE OF THE PROJECT, FOR DISTRIBUTION TO THE CONDOMINIUM OWNERS. ORGANIZE THE WARRANTIES WITHIN THE BINDER USING INDEX AND TABS, AS TO LOCATION WITHIN THE BUILDING.

INCLUDE COPIES OF THESE WARRANTIES IN THE MAINTENANCE MANUALS, SEE OPERATION AND MAINTENANCE MANUAL SPECIFICATION SECTION.

7. COMPLETE SYSTEM:

ALL PRODUCTS, MATERIALS AND ACCESSORIES SHALL BE FURNISHED AND INSTALLED AS REQUIRED FOR A COMPLETE SYSTEM READY FOR OWNER'S BENEFICIAL USE.

8. WORKMANSHIP:

ALL WORK SHALL BE PERFORMED BY COMPETENT MECHANICS USING PROPER TOOLS AND EQUIPMENT TO PRODUCE FIRST QUALITY WORK. ALL WORK SHALL BE NEATLY INSTALLED, ACCESSIBLE FOR MAINTENANCE, AND COMPLETE WITH ALL ACCESSORIES REQUIRED.

9. ACCESSIBILITY:

INSTALL ALL EQUIPMENT AND THEIR APPURTENANCES SUCH AS, BUT NOT LIMITED TO, VALVES, COILS, DRAIN PANS, DRAINS, DAMPERS, CONTROLS, MOTORS, CONTROLLERS, ETC., SO THAT THEY CAN BE SERVICED, RESET, REPLACED OR RECALIBRATED, ETC. INSTALL ALL NECESSARY ACCESS PANELS AND BUILDING ACCESS DOORS, AS BELOW, WHERE REQUIRED TO ACCOMPLISH THIS. IF ANY EQUIPMENT OR COMPONENTS DO NOT FIT WHERE INTENDED, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING, REQUESTING FURTHER GUIDANCE.

PROVIDE BUILDING ACCESS DOORS FOR ALL MECHANICAL EQUIPMENT REQUIRING SERVICE, INCLUDING BUT NOT LIMITED TO, AHU'S, FANS, DAMPERS, DUCT ACCESS PANELS, CONTROLS, PIPING, VALVES, REGULATORS, TRAPS, ETC., INSTALLED ABOVE HARD CEILINGS, BEHIND WALLS, AND BELOW FLOORS, FOR INSTALLATION BY OTHER DIVISIONS OF THE WORK. BUILDING ACCESS DOORS ARE NOT REQUIRED WHERE THE MECHANICAL EQUIPMENT IS INSTALLED ABOVE LAY-IN AND ACCESSIBLE SPLINE CEILINGS. OTHER TYPES OF SPLINE CEILINGS REQUIRE BUILDING ACCESS DOORS.

SIZE THE BUILDING ACCESS DOORS FOR THE USE INTENDED, BUT NOT LESS THAN 12 INCHES BY 12 INCHES. WHERE HUMAN ACCESS IS REQUIRED, PROVIDE 24 INCHES BY 24 INCHES, OR LARGER.

WHERE BUILDING ACCESS DOORS CANNOT BE INSTALLED FOR STRUCTURAL OR ARCHITECTURAL REASONS, NOTIFY THE ARCHITECT.

PRIME COAT BUILDING ACCESS DOORS IN PAINTED AREAS WITH FINISH PAINTING AS SPECIFIED IN OTHER

DIVISIONS.

IN WET AREAS, TOILET ROOMS, OR AREAS WITH CERAMIC TILE FLOORS OR WALLS, PROVIDE STAINLESS STEEL BUILDING ACCESS DOORS.

PROVIDE BUILDING ACCESS DOORS WITH A CONCEALED KEY OPERATED LOCK AND CONCEALED HINGES. ALL LOCKS SHALL BE KEYED ALIKE.

PROVIDE BUILDING ACCESS DOORS AS SPECIFIED IN OTHER DIVISIONS OF THE WORK OR PROVIDE MILCOR DOORS, OR EQUIVALENT, SUITABLE FOR THE INSTALLATION INTENDED. PROVIDE FIRE RATED DOORS FOR ALL FIRE RATED WALLS, PARTITIONS, AND CEILINGS.

10. WORK BY OTHER TRADES:

FURNISH ALL SLEEVE FRAMES, BUILDING ACCESS DOORS, PREFABRICATED EQUIPMENT CURBS, ROOF CURBS, ETC. FOR INSTALLATION BY OTHER TRADES.

INSTALL ALL MOTORS AND FURNISH THE STARTING EQUIPMENT AND DISCONNECTS TO THE ELECTRICAL SUBCONTRACTOR FOR INSTALLATION. CONTROL WIRING, INCLUDING SWITCHES, THERMOSTATS, INTERLOCKS, ETC. SHALL BE FURNISHED BY MECHANICAL SUBCONTRACTOR. ENSURE THAT THE ELECTRICAL EQUIPMENT MOUNTED NEAR THE MECHANICAL EQUIPMENT DOES NOT BLOCK ACCESS TO SERVICE AREAS OF THE MECHANICAL EQUIPMENT. DO NOT ALLOW ANY EQUIPMENT TO BE INSTALLED ON THE HVAC EQUIPMENT ENCLOSURES.

11. FIRE STOPPING

ALL PENETRATIONS OF FLOORS AND OTHER FIRE-RATED ASSEMBLIES SHALL BE FIRE AND SMOKE-STOPPED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES.

12. FOUNDATIONS AND SPECIAL SUPPORTS:

FURNISH AND INSTALL ALL SPECIAL FOUNDATIONS AND SUPPORTS REQUIRED FOR EQUIPMENT INSTALLED UNDER THIS SECTION. UNLESS THEY ARE A PART OF THE BUILDING STRUCTURE AND ARE SHOWN IN OTHER SECTIONS.

13. CLEANING AND PAINTING:

THOROUGHLY CLEAN ALL EQUIPMENT AND REMOVE ALL TRASH, CARTONS, ETC. MAKE ANY NECESSARY CORRECTIONS OR REPAIR/REPLACE ANY DAMAGED MATERIALS OR EQUIPMENT. LEAVE THE ENTIRE SYSTEM IN A THOROUGHLY CLEAN AND ORDERLY MANNER.

ANY FINISHED SURFACES THAT HAVE BEEN SCRATCHED OR DISCOLORED SHALL BE TOUCHED-UP OR REPAINTED BREAK TO BREAK WITH PAINT TO MATCH THE ORIGINAL COLOR. TOUCH UP PAINTED SURFACES OR REPAINT THE ENTIRE PAINTED SURFACE IF TOUCH UP IS UNACCEPTABLE. SEE ARCHITECTURAL PAINTING SPECIFICATIONS.

ALL METAL ITEMS SUBJECT TO RUSTING, INSIDE OR EXPOSED TO WEATHER SHALL BE GIVEN ONE COAT OF PROPER TYPE RUST PREVENTATIVE PRIMER AS SOON AS INSTALLED. APPLY TWO FINISH COATS WITH COLOR TO BE SELECTED BY THE ARCHITECT.

FOR ALL INTERIOR OR EXTERIOR STRUCTURAL GALVANIZED STEEL, COLD GALVANIZE ALL EXPOSED METAL CUT ENDS, HOLES, WELDS, SCRATCHES, ETC., OR HOT DIP GALVANIZE THE ENTIRE STRUCTURE OR FRAME AFTER FABRICATION AND MOUNTING HOLES ARE CUT.

UPON COMPLETION OF THE INSTALLATION, BUT NOT BEFORE, AND BEFORE ACCEPTANCE., THOROUGHLY CLEAN ALL EXPOSED EQUIPMENT, PIPING, DUCTWORK, INSULATION JACKETS, ETC., REMOVING ALL STICKERS, LABELS, MARKING, WRITING, FABRICATION MARKINGS, IDENTIFICATION, ADHESIVE, SEALER, GLUE, RUST, CORROSION, ETC., FROM THEIR EXTERIOR SURFACES.

THE CLEANLINESS AND PAINTING ACCEPTABILITY IS AT THE SOLE DISCRETION OF THE ARCHITECT AND MAY REQUIRE ADDITIONAL CLEANING AND COATS OF PAINT BEFORE ANY SURFACE IS ACCEPTED.

14. SUBMITTALS:

SUBMITTAL AND SHOP DRAWINGS:

SUBMIT MANUFACTURER'S CERTIFIED DATA RELATIVE TO ALL EQUIPMENT, PIPING, DUCTWORK, CONTROLS, ETC. REQUIRED FOR THE INSTALLATION OF THE HVAC, PLUMBING AND FIRE PROTECTION SYSTEMS. SUBMIT FOR REVIEW ALL NECESSARY ENGINEERING, PRODUCT AND INSTALLATION DATA, SHOP DRAWINGS, SAMPLES ETC. FOR ALL EQUIPMENT, MATERIAL, AND SYSTEMS TO ASCERTAIN COMPLIANCE WITH THE TECHNICAL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

SUBMIT ELECTRONIC (PDF) COPIES OF ALL NECESSARY DATA, CUTS, MANUFACTURER'S SELECTIONS, CATALOGS, BULLETINS, INSTALLATION INSTRUCTIONS, DRAWINGS, DIAGRAMS, CURVES, ETC. CLEARLY INDICATE ON THE SUBMITTED DATA, THE MANUFACTURER'S NAME, PRODUCT NUMBER(S), OPTIONS, EQUIPMENT CAPACITY, DIMENSIONAL DATA, WEIGHTS, AND OTHER APPLICABLE TECHNICAL DATA FOR THE PROJECT.

TRADE NAMES, MANUFACTURERS, AND CATALOGUE NUMBERS ARE MENTIONED HEREIN AND ON THE DRAWINGS SOLELY IN ORDER TO ESTABLISH A STANDARD FOR THE TYPE, GENERAL DESIGN, AND QUALITY OF PRODUCT REQUIRED. OTHER PRODUCTS SIMILAR IN DESIGN OF EQUIVALENT QUALITY CAPABLE OF FITTING WITHIN THE SPACES ALLOCATED AND COMPLYING WITH THE DRAWINGS AND SPECIFICATIONS WILL BE CONSIDERED AFTER THE CONTRACT IS LET UNLESS "PRIOR APPROVAL" REQUIREMENTS ARE SET FORTH IN THESE DOCUMENTS.

WHERE TWO OR MORE MANUFACTURERS OR MATERIALS ARE NAMED, THE CONTRACTOR MAY SUBMIT ANY OF THOSE NAMES, PROVIDED THEY CONFORM TO THE SPECIFICATIONS AND DESIGN INTENT. CONTRACTOR SHALL INCLUDE WITH THE SUBMITTAL A LIST OF ALL COMPARATIVE FEATURES INDICATING COMPLIANCE WITH THE SPECIFICATIONS.

THE ARCHITECT AND/OR ENGINEER MAY REQUIRE THE SUBMISSION OF SAMPLES, PARTICULARLY WHEREVER EQUIPMENT OR APPLIANCES ARE VISIBLE IN FINISHED AREAS, SUCH AS CEILINGS, INTERIOR AND EXTERIOR WALLS. THE CONTRACTOR AND SUPPLIER SHALL ARRANGE FOR DEMONSTRATIONS OF THE INSTALLATION OF ANY OF THESE PRODUCT'S AND THEIR ABILITY TO PERFORM AS SPECIFIED, IF REQUIRED.

REVIEW OF SUBMITTALS AND SHOP DRAWINGS DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY FOR FITTING THE EQUIPMENT IN THE SPACE ALLOTTED WITH SPACE FOR ALL CONNECTIONS AND SERVICING AND FOR THE COORDINATION OF THE WORK WITH WORK OF OTHER TRADES.

THE CONTRACTOR SHALL REVIEW ALL SUBMITTALS AND SHOP DRAWINGS AND INDICATE BY STAMP OR LETTER THAT HE HAS REVIEWED THEM, BEFORE FORWARDING THEM TO THE ARCHITECT AND/OR ENGINEER. SUBMITTALS AND DRAWINGS WILL BE RETURNED AFTER REVIEW INDICATING WHETHER EXCEPTIONS ARE TAKEN, THE SUBMITTAL RETURNED WITH CORRECTIONS, OR IS COMPLETELY REJECTED. RESUBMISSION OF REVISED SUBMITTALS AND SHOP DRAWINGS, IF REQUIRED, SHALL BE DONE BEFORE INSTALLATION AND CONSTRUCTION IS BEGUN

CORRECTIONS OR COMMENTS MADE ON THE SUBMITTALS AND DRAWINGS DURING THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THIS REVIEW IS FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, FABRICATION PROCESSES, TECHNIQUES OF CONSTRUCTION, COORDINATING THE WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING WORK IN A SAFE AND SATISFACTORY MANNER. REVIEW OF THE SUBMITTALS SHALL NOT PERMIT ANY DEVIATION FROM PLANS AND SPECIFICATIONS.

SUBMITTALS FOR A SPECIFIC CLASS OF PRODUCTS, SYSTEMS, INSTALLATION PROCEDURES, SHOP DRAWINGS, ETC. WILL BE REVIEWED BY THE ENGINEER ONE TIME AND ITS RESUBMITTAL ONE TIME, IF NECESSARY, AS ABOVE, AT NO COST TO THE CONTRACTOR. THE CONTRACTOR WILL BEAR THE FULL COST FOR ALL SUBSEQUENT RESUBMITTAL REVIEWS AT THE ENGINEER'S STANDARD HOURLY RATES. PAYMENT WILL BE REQUIRED AT COMPLETION OF RESPECTIVE REVIEW.

REQUIRED SHOP DRAWINGS:

SUBMIT THE FOLLOWING SHOP DRAWINGS BEFORE ANY MECHANICAL DUCTWORK, PIPING, EQUIPMENT, ETC. IS FABRICATED AND INSTALLED. SUBMIT THESE SHOP DRAWINGS IN 1/4 INCH PER FOOT MINIMUM SCALE WITH NECESSARY PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ISOMETRICS. SUBMIT SIX (6) PAPER COPIES AND ONE (1) CD-ROM WITH ALL THESE DRAWINGS IN AUTOCAD DRAWING DWG FILES, LATEST AUTOCAD FORMAT.

SOON AFTER AWARD OF THE CONTRACT, DETERMINE WHERE THERE MAY BE INSTALLATION, SPACE CONCERNS, AND/OR WHERE OTHER CONFLICTS MAY OCCUR. SUBMIT COORDINATION DRAWINGS, RELATING TO THESE CONFLICTS WITH THE MECHANICAL EQUIPMENT, DUCT, PIPING, ELECTRICAL, STRUCTURAL AND ARCHITECTURAL SYSTEMS ETC., SHOWING CLEARANCES AND RELATIONSHIP TO STRUCTURAL MEMBERS, PIPING, LIGHTS, CONDUITS, ELECTRICAL EQUIPMENT, AND BUILDING COMPONENTS. IN PREPARING THESE SHOP DRAWINGS, ESTABLISH LINES AND LEVELS FOR ALL DIVISIONS OF THE WORK IN THE AFFECTED AREA. IMMEDIATELY CALL TO THE ATTENTION OF THE ARCHITECT ANY INTERFERENCE OR CONFLICT FOR CLARIFICATION IN WRITING.

SUBMIT SHOP DRAWINGS FOR ALL DUCTWORK.

SUBMIT LAYOUT DRAWINGS OF EACH MECHANICAL SYSTEM SHOWING THE LOCATION, ARRANGEMENT, ETC. OF ALL EQUIPMENT, ALL TRADES, ETC. TO BE INSTALLED RELATED TO THE RESPECTIVE SYSTEM.

MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONSTRUCTION DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT THREE COPIES, ONE REPRODUCIBLE.

15. AS-BUILT DRAWINGS:

MAINTAIN DAILY UPDATED DRAWINGS SHOWING DEVIATIONS FROM CONSTRUCTION DOCUMENTS. AT THE END OF THE PROJECT, PROFESSIONALLY PREPARE AS-BUILT DRAWINGS AND SUBMIT THREE COPIES, ONE REPRODUCIBLE.

16. OPERATION AND MAINTENANCE MANUALS:

UPON COMPLETION OF THE PROJECT, SUBMIT THREE COPIES OF ALL OPERATION AND MAINTENANCE MANUALS, WARRANTIES, SPARE PARTS LIST, AS-BUILT DRAWINGS, TEST AND BALANCE REPORTS, AND LETTER OF GUARANTEE ALL BOUND IN THREE RING BINDERS, CLEARLY SHOWING WHICH EQUIPMENT WAS SUPPLIED TO THE JOB.

17. PROJECT COMPLETION:

BEFORE STARTING AND TESTING ANY SYSTEM, HVAC, OR PLUMBING, TO PREVENT INADVERTENT OPERATION OF THE MECHANICAL EQUIPMENT BEFORE THE MANUFACTURER'S INSPECTION AND TESTING, THE CONTRACTOR SHALL:

VERIFY THAT ALL ELECTRICAL POWER IS OFF TO ALL MECHANICAL EQUIPMENT, INCLUDING THE AHU'S, ACCU'S, BOOSTER PUMPS, FIRE PUMPS, ETC.

LOCK OUT EACH SYSTEM USING SETON MODEL NUMBER 70329; "DO NOT OPERATE" LOCK ON LOCKOUT TAGS, OR EQUIVALENT. INSTALL LOCKOUT TAGS AT EACH PIECE OF EQUIPMENT, ELECTRICAL DISCONNECTS, STARTERS, SWITCHES, ETC.

REMOVE THESE TAGS ONLY WHEN THE MANUFACTURER APPROVES OF THE EQUIPMENT INSTALLATION IN WRITING.

EACH MANUFACTURER OR THEIR REPRESENTATIVE SHALL INSPECT THEIR EQUIPMENT FOR COMPLIANCE TO THEIR INSTALLATION REQUIREMENTS AND RECOMMENDATIONS.

IN ADDITION, THE COMPRESSOR MANUFACTURER SHALL INSPECT EACH REFRIGERANT PIPING INSTALLATION FOR ADHERENCE TO THE APPROVED REFRIGERANT PIPING DIAGRAMS, ROUTING.

EACH MANUFACTURER SHALL PREPARE A PUNCH LIST OF ALL DEFICIENCIES, IN WRITING WITH COPIES TO THE ARCHITECT AND CONTRACTOR.

EACH MANUFACTURER SHALL REINSPECT THE EQUIPMENT AFTER THE CONTRACTOR HAS CORRECTED ALL DEFICIENCIES.

WHEN THE MANUFACTURER HAS GIVEN THEIR WRITTEN APPROVAL WITH COPIES TO THE ARCHITECT AND CONTRACTOR, THE CONTRACTOR MAY REMOVE THE LOCKOUT TAGS, SAFELY START, AND TEST THE EQUIPMENT, AS REQUIRED HEREIN.

CONTRACTOR SHALL PROVIDE FOR ALL NECESSARY DRILLING OF WALL STUDS, CEILING JOISTS, PLATES, FINISHES, ETC. TO ACCOMMODATE ROUTING AND INSTALLATION OF ALL PIPING, DUCT, ETC.

18. VALUE ENGINEERING

IF THE OWNER, ARCHITECT, OR CONTRACTOR RETAINS THE SERVICES OF A VALUE ENGINEER (VE) TO REVIEW THESE PLANS PREPARED BY THE CONSULTANT, THESE SERVICES SHALL BE AT THEIR SOLE EXPENSE AND SHALL BE PERFORMED IN A TIMELY MANNER SO AS NOT TO DELAY THE ORDERLY PROGRESS OF THE CONSULTANT 'S SERVICES. THE CONSULTANT SHALL BE NOTIFIED IN WRITING OF THE VE AND THE VE SCOPE OF SERVICES. ALL RECOMMENDATIONS OF THE VE SHALL BE GIVEN TO THE CONSULTANT FOR REVIEW, AND ADEQUATE TIME WILL BE PROVIDED FOR THE CONSULTANT TO RESPOND TO THESE RECOMMENDATIONS.

IF THE CONSULTANT OBJECTS TO ANY RECOMMENDATIONS MADE BY THE VE, IS SHALL SO STATE IN WRITING, ALONG WITH THE REASONS FOR OBJECTING. IF, IN SPITE OF THE CONSULTANT'S OBJECTIONS, CHANGES IN THE CONSTRUCTION DOCUMENTS ARE ORDERED BY THE OWNER, ARCHITECT, OR CONTRACTOR, THEY AGREE, TO THE FULLEST EXTENT PERMITTED BY LAW, TO WAIVE ALL CLAIMS AGAINST THE CONSULTANT AND TO INDEMNIFY AND HOLD HARMLESS THE CONSULTANT FROM ANY DAMAGES, LIABILITIES OR INCORPORATION OF SUCH DESIGN CHANGES ORDERED.

IN ADDITION, THE CONSULTANT SHALL BE COMPENSATED FOR SERVICES NECESSARY TO INCORPORATE RECOMMENDED VALUE ENGINEERING CHANGES INTO REPORTS, DRAWINGS, SPECIFICATIONS, BIDDING OR OTHER DOCUMENTS. THE CONSULTANT SHALL BE COMPENSATED AS ADDITIONAL SERVICE FOR ALL TIME SPENT TO PREPARE FOR, REVIEW AND RESPOND TO THE RECOMMENDATIONS OF THE VE. THE CONSULTANTS TIME PERFORMANCE OF ITS SERVICES SHALL BE EQUITABLY ADJUSTED.

DIVISION 23 SPECIFICATIONS:

HVAC EQUIPMENT, METHODS AND MATERIALS

19. DUCTWORK GENERAL:

DUCT SIZES SHOWN ON THE DRAWINGS ARE INSIDE DIMENSIONS AND DO NOT TAKE INTO ACCOUNT LINING THICKNESS. DUCTWORK SHALL BE GALVANIZED SHEET METAL WITH GAUGES, CONSTRUCTION DETAILS AND INSTALLATION ACCORDING TO N.F.P.A. STANDARD 90A, ASHRAE, AND SMACNA DUCT CONSTRUCTION MANUALS AND REQUIREMENTS.

PROVIDE FLEXIBLE CONNECTIONS AT AIR HANDLING UNITS AND FANS.

PROVIDE SINGLE THICKNESS TURNING VANES IN ELBOWS.

ALL DUCTS 18" AND OVER SHALL BE CROSSBROKEN.

PAINT DUCTS, SLEEVES, PLENUMS, ETC., INTERIORS VISIBLE THROUGH AIR DEVICES WITH A MINIMUM OF ONE COAT OF PROPER TYPE RUST PREVENTATIVE PRIMER, SUITABLE FOR GALVANIZED STEEL, AND TWO FINISH COATS OF FLAT BLACK PAINT.

20. DUCT CONSTRUCTION MATERIALS:

RECTANGULAR SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST: LINED GALVANIZED SHEET METAL. ROUND DUCT AND RUN-OUTS: EXTERNALLY INSULATED GALVANIZED SHEET METAL DUCTS WITH SPIRAL LOCK SEAMS.

FLEXIBLE DUCT: PRE-INSULATED FLEXIBLE DUCT. NO FLEXIBLE DUCT RUNS LONGER THAN 5 FEET.

PROVIDE DRYER VENT PIPING INSTALLED AS REQUIRED BY THE MANUFACTURER AND PER CODE USING 4 INCH

ROUND GALVANIZED STEEL, SEALED AND SUPPORTED. THE USE OF FLEXIBLE DRYER VENT PIPE IS PROHIBITED.

21. FABRICATION, ERECTION, AND SUPPORT:

ALL DUCTWORK SHALL BE FABRICATED, ERECTED, BRACED, AND SUPPORTED IN STRICT ACCORDANCE WITH THE LATEST EDITIONS OF SMACNA AND ASHRAE REQUIREMENTS.

22. ACOUSTIC LINED DUCTWORK:

ACOUSTICALLY AND THERMALLY LINE 10' OF RECTANGULAR SUPPLY, RETURN, OUTSIDE AIR, AND EXHAUST DUCT AND PLENUMS WITH 1-1/2" THICK, 1-1/2" PCF FIBERGLASS DUCT LINER (R-6 MIN.), APPLIED PER THE MANUFACTURER'S AND NAIMA REQUIREMENTS. DUCT LINER SHALL MEET OR EXCEED ASHRAE'S I.A.Q. STANDARD 62 AND IEEC. USE WELDED STICK CLIPS, IN LIEU OF ADHESIVE TYPE FASTENERS AND FULL COVERAGE ADHESIVE. PROVIDE EDGE NOSINGS WERE REQUIRED. COAT ALL EXPOSED FIBERGLASS WITH HARDCAST "LAG-GRIP 671".

23. JOINT SEALING:

SEAL ALL DUCT JOINTS AND SEAMS (LONGITUDINAL AND TRANSVERSE) WITH HIGH PRESSURE DUCT SEALER, HARDCAST "IRON-GRIP 601" OR APPROVED EQUIVALENT. REINFORCED FOIL BACKED TAPES, CLOTH OR PLASTIC BACKED TAPES (DUCT TAPE) ARE NOT ACCEPTABLE.

24. FLEXIBLE AIR DUCT:

DUCT SHALL BE UL LISTED UL-181, CLASS I AIR DUCT MATERIAL AND SHALL COMPLY WITH N.F.P.A 90A AND 90B AND ALL LOCAL REQUIREMENTS DUCT SHALL HAVE AN OPERATING AIR PRESSURE OF 6 INCHES WG POSITIVE AND 4 INCHES WG NEGATIVE, ACOUSTICAL DOUBLE LAMINATED INNER FABRIC BONDED TO A STEEL HELIX WIRE. OUTER JACKET FIRE RETARDANT REINFORCED ALUMINUM MYLAR WITH FIBER GLASS INSULATION. FLEXMASTER TYPE "8M" ACOUSTICAL INSULATED OR EQUIVALENT.

MAKE ALL FLEXIBLE DUCT CONNECTIONS TO HARD DUCT USING STAINLESS STEEL SCREW CLAMPING BANDS AND SEALED AIR TIGHT WITH HIGH PRESSURE DUCT SEALER. PLASTIC BANDS ARE NOT ACCEPTABLE.

SEAL FLEXIBLE DUCT VAPOR BARRIER TO HARD DUCT AND/OR ADJACENT INSULATION. NO EXPOSED FIBERGLASS SHALL BE VISIBLE.

25. AIR DISTRIBUTION DEVICES:

COORDINATE THE EXACT LOCATIONS OF ALL AIR DEVICE NEEDS WITH THE ARCHITECTURAL DRAWINGS PRIOR TO INSTALLATION. COORDINATE THE EXACT LOCATION OF EACH OUTLET WITH THE ARCHITECT WITH REGARD TO CEILING AND WALL SPACING, CENTERING ALONG SOFFITS, WALLS, ETC.

FURNISH AND INSTALL WHERE SHOWN ON THE DRAWINGS ALL DIFFUSERS, GRILLES, AND REGISTERS OF THE SIZE, TYPE, AND CAPACITY AS INDICATED IN THE AIR DEVICE SCHEDULE.

ELBOWS:

26. TURNING VANES AND SMOOTH RADIUS ELBOW (WITHOUT VANES):

AT ALL DUCT TURNS OF 45 DEGREES OR MORE, PROVIDE SINGLE THICKNESS TURNING VANES PER SMACNA REQUIREMENTS. ALTERNATIVELY, USE SMOOTH RADIUS ELBOW (R/W = 1.5).

27. BRANCH TAKEOFF FITTINGS:

AT ALL MAIN TO BRANCH DUCT TAPS, TAKEOFFS, OR RUN-OUTS PROVIDE 45 DEGREE ENTRANCE TAPS, AS DETAILED BY SMACNA STANDARDS.

28. DUCT MOUNTED ACCESS PANELS:

INSTALL ACCESS PANELS AS FOLLOWS:

AT INLET OF EACH DUCT MOUNTED FIRE AND MOTORIZED DAMPER.

FOR DUCT MOUNTED CONTROLS.

AS REQUIRED AND DIRECTED BY THE TEST AND BALANCE CONTRACTOR.

WHERE REQUIRED FOR DUCT INSPECTION, MAINTENANCE, AND CLEANING

ACCESS PANELS SHALL BE 18 INCHES X 18 INCHES OR LARGEST DUCT WILL ALLOW. NORMALLY CENTER THE ACCESS PANEL IN THE BOTTOM OF THE DUCT AS CLOSE AS POSSIBLE TO THE DUCT MOUNTED DEVICE. ACCESS PANELS MAY BE INSTALLED ON THE SIDE OF THE DUCT, WHERE NECESSARY.

ACCESS PANELS SHALL BE DOUBLE WALL INSULATED HINGED WITH NEOPRENE GASKETS AND CAM LOCKS ON EACH UNHINGED SIDE. WHERE REQUIRED BECAUSE OF PANEL OPENING CLEARANCE, SUBSTITUTE UNHINGED ACCESS PANELS WITH CAM LOCKS ON EACH SIDE AND CAPTIVE CHAIN. ACCESS PANELS SHALL BE FLEXMASTER "TBSM-TAB DOOR" GREENHECK MODEL "HAD-10", OR EQUIVALENT.

REFRIGERANT PIPIN

OO OFNEDAL

REFRIGERANT PIPING SHALL CONFORM TO THE REQUIREMENTS OF THE SAFETY CODES FOR MECHANICAL REFRIGERATION AND REFRIGERANT PIPING AND THE MANUFACTURER REQUIREMENTS.

RUN ALL PIPING SQUARE TO BUILDING LINES WHEREVER POSSIBLE. FIELD ROUTE PIPING IN ORDER TO PROVIDE FOR EASE OF ACCESS TO VALVES AND OTHER APPURTENANCES.

SUPPORT INTERIOR PIPING FROM THE BUILDING STRUCTURE USING COPPER OR PVC COATED HANGERS. SUPPORT REFRIGERANT PIPING 4 FOOT ON CENTER AND AT EACH CHANGE OF DIRECTION. PROVIDE 4" WIDE INSULATION SADDLES

SUBMIT REFRIGERANT PIPING LAYOUT SHOP DRAWINGS FOR EACH UNIQUE SYSTEM, REVIEWED AND APPROVED BY THE MANUFACTURER, IN WRITING. SHOW ALL FILTERS, DRIERS, SIGHT-GLASSES, VALVES, ETC. AS REQUIRED BY THE MANUFACTURER.

30. MATERIAL AND INSTALLATION

USE REFRIGERANT GRADE, TYPE "K" HARD DRAWN COPPER PIPE WITH LONG RADIUS ELBOWS. NO CAST FITTINGS ARE ACCEPTABLE.

INSTALL FILTER DRIER EQUIVALENT TO SPORLAN CATCH-ALL.

INSTALL SIGHT GLASSES WITH MOISTURE INDICATORS COVERED BY A PROTECTIVE CAP. LOCATE THE SIGHT GLASSES INSIDE THE BUILDINGS, CLOSE TO THE FAN COIL IN THEIR RESPECTIVE MECHANICAL CLOSETS.

PROVIDE EXTERNAL FRONT SEATED BRASS SERVICE VALVES WITH SWEAT CONNECTIONS, WITH SERVICE PORTS FOR CHECKING OPERATING REFRIGERANT PRESSURES.

COPPER SHALL BE CLEANED AND SHINED BEFORE BRAZING. BRAZE USING J.W. HARRIS "DYNAFLOW" 6% SILVER BRAZING ALLOY.

31. PURGING

PIPING SHALL BE PURGED WITH DRY NITROGEN WHILE BRAZING TO PREVENT OXIDATION. UPON COMPLETION OF A WELD, THE WELD SHALL BE WIPED WITH A DAMP RAG TO REMOVE FLUX WHILE STILL HOT.

ALL PIPING SHALL BE TESTED FOR 24 HOURS IN ACCORDANCE WITH THE FOLLOWING SCHEDULE AND PROVEN TIGHT:

DISCHARGE AND LIQUID REFRIGERANT PIPING--300 PSIG, NITROGEN.

SUCTION REFRIGERANT PIPING--150 PSIG NITROGEN.

REFRIGERANT PIPING, AFTER PROVEN TIGHT, SHALL BE EVACUATED BY MEANS OF AN APPROVED VACUUM PUMP TO A VACUUM OF 2.5 MM HG ABSOLUTE. SYSTEMS SHALL STAND UNDER VACUUM WITH VACUUM PUMP OFF FOR A MINIMUM OF 12 HOURS. SYSTEMS MAY BE CHARGED WITH PROPER REFRIGERANT AFTER ARCHITECT'S APPROVAL OF VACUUM TEST. A DEHYDRATOR SHALL BE USED IN CHARGING HOSE DURING CHARGING OF SYSTEMS WITH

REFRIGERANT. INSULATION:

OCNEDAL

THIS SECTION APPLIES TO ALL MECHANICAL WORK.

ALL INSULATION SHALL BE IN STRICT ACCORDANCE WITH ASHRAE STANDARDS AND ALL LOCAL AND STATE

THE INSULATION WORK SHALL BE PERFORMED BY A FIRM REGULARLY ENGAGED IN THIS TYPE WORK USING MECHANICS SKILLED IN THE TRADE.

INSTALL ALL MATERIALS AS RECOMMENDED BY THE MANUFACTURER FOR THE SERVICE INTENDED. ALL INSULATION MATERIAL, INCLUDING SEALER MATERIAL, ADHESIVES, COVERING MATERIAL, FINISH, ETC. SHALL HAVE A U. L. LISTED FLAME SPREAD RATING NOT OVER 24 WITHOUT EVIDENCE OF CONTINUED PROGRESSIVE

FOR HOT SERVICE SHALL BE BREATHER TYPE AND VAPOR BARRIER TYPE FOR COLD SERVICE. 34. HVAC PIPING

INSULATE REFRIGERANT SUCTION LINES AND ALL CONDENSATE DRAIN LINES WITH (CODE REQUIRED THICKNESS) CLOSE CELLED ELASTOMERIC INSULATION INSTALLED PER THE MANUFACTURERS REQUIREMENTS. PAINT EXTERIOR INSULATION WITH TWO COATS PAINT AS REQUIRED BY THE INSULATION MANUFACTURER.

COMBUSTION AND WITH A SMOKE DEVELOPED RATING NOT HIGHER THAN 50. ALL COATINGS AND COVERINGS

35. EXTERNALLY INSULATED DUCTS:

EXTERNALLY INSULATE ALL SUPPLY AND RETURN DUCTWORK WITH 1-1/2" THICK (R-6 MIN.) DUCT WRAP FOR DUCTS LOCATED IN UNCONDITIONED SPACES AND A 2" THICK (R-8 MIN.) DUCT WRAP FOR DUCTS LOCATED OUTSIDE THE BUILDING, EXCEPT PRE-INSULATED FLEXIBLE DUCT. EXTERNALLY INSULATE ALL OUTSIDE AIR DUCTWORK WITH 2" THICK (R-8) DUCT WRAP WITH ALUMINUM ALL SERVICE JACKET, VAPOR BARRIER. ALL DUCT WRAPS SHALL MEET OR EXCEED ASHRAE'S I.A.Q. STANDARD 62 AND IEEC.

36. CHILLED WATER PIPING INSULATE INDOOR CHILLED WATER PIPING WITH 1\" THINK HEAVY DENSITY FIBERGLASS PIPE INSULATION WITH

FLAME SAFE, ALL-PURPOSE BARRIER JACKET. INSULATE EXTERIOR CHILLED WATER PIPING AS SPECIFIED ABOVE, BUT DOUBLE THICKNESS WITH ALUMINUM JACKET BANDED IN PLACE. INSULATE INDOOR, SMALL RUN OUT, CHILLED WATER PIPING WITH [" THICK FIRE RETARDANT INSULATION.

37. EQUIPMENT:

CAPACITY, PERFORMANCE AND CHARACTERISTICS OF EQUIPMENT SHALL BE AS INDICATED ON THE DRAWINGS

AND AS SPECIFIED OR IMPLIED HEREIN. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY INCREASED COST TO

REGARDLESS OF COST AFFECT, THE ARCHITECT MUST APPROVE ANY DEVIATION FROM THE DRAWINGS AND THE

HIMSELF OR OTHERS FOR EQUIPMENT WHICH DEVIATES FROM THAT SCHEDULED OR IMPLIED HEREIN.

SPECIFICATION. 38. MOTORS AND STARTERS:

PRODUCE AN OBJECTIONABLE "MOTOR NOISE" IN THE SPACE.

ALL ELECTRIC MOTORS SHALL BE HIGH EFFICIENCY TYPE WITH MAXIMUM OF 1750 RPM WITH OPEN DRIP PROOF OR TEFC ENCLOSURES, UNLESS OTHERWISE NOTED. MOTORS LOCATED ON AIR HANDLING UNITS SHALL BE MOUNTED IN RUBBER SUPPORTS OR THE FAN SHALL BE INDEPENDENTLY SUPPORTED ON SPRING ISOLATORS. MOTORS LOCATED IN THE CONDITIONED SPACE SHALL BE SELECTED FOR QUIET OPERATION AND SHALL NOT

ELECTRICAL CHARACTERISTIC SHALL BE VERIFIED FROM THE ELECTRICAL DRAWINGS, PRIOR TO BIDDING, AND VERIFIED ON THE JOB WITH THE ELECTRICAL SUB-CONTRACTOR. IF A CONFLICT ARISES, THE ELECTRICAL DRAWINGS SHALL BE THE AUTHORITY.

SHALL BE SQUARE-D OR EQUIVALENT WITH OVERLOAD TRIP ELEMENT IN EACH PHASE. LARGER MOTORS AND THEIR STARTERS SHALL MEET THE REQUIREMENTS OF THE UTILITY COMPANY AS TO INRUSH ALLOWABLE AND THE TYPE OF STARTING PERMITTED.

PROVIDE MOTOR STARTERS AND PROPER HEATER ELEMENTS SIZED IN ACCORDANCE WITH NFPA 70. STARTERS

SHOULD ANY MECHANICAL EQUIPMENT REQUIRE EXTRA WORK BY OTHER TRADES, FOR PROPER INSTALLATION, THIS CONTRACTOR SHALL BEAR ALL COSTS, SUCH AS INCREASED ELECTRICAL, STRUCTURAL, ROOFING, ETC.

SYSTEMS TEST AND BALANCE:

39. GENERAL REQUIREMENTS:

THE REQUIRED TEST & BALANCE OF THE HVAC SYSTEM SHALL BE PERFORMED BY AN APPROVED INDEPENDENT TESTING AGENCY AS SPECIFIED BELOW.

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AUTHORIZATION FROM THE ARCHITECT.

CERTIFICATE OF AUTHORITY NO. 10975461-0143



PROJECT #: TBD

DRAWN BY: EC CHECKED BY: LV

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SHERWIN WILLIAMS

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MECHANICAL

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GENERAL SPECIFICATIONS (CONTINUED)

40. AGENCY QUALIFICATIONS:

TEST & BALANCE AGENCY (TBA) SHALL BE PERFORMED BY AN INDEPENDENT AGENCY ENGAGED SOLELY IN TEST AND BALANCE WORK. AGENCY SHALL BE MEMBER OF THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU, (NEBB).

SUBMIT A WRITTEN REPORT WITHIN 30 DAYS OF COMMENCING WORK, WITH ANY RECOMMENDED CHANGES TO INSURE BALANCING CAPABILITY.

SUBMIT A DETAILED TEST PLAN TO THE ARCHITECT ILLUSTRATING ALL FORMATS, DRAWINGS, AND TEST PROCEDURE TO BE USED FOR TESTING THE COMPLETED SYSTEM. THE APPROVED PLAN WILL BE USED FOR TESTING THE SYSTEMS. PROCEDURES SHALL INCLUDE REQUIREMENTS LISTED IN AABC / NEBB STANDARDS, LATEST EDITION AND ANY SPECIAL REQUIREMENTS FOR THIS PROJECT.

MAKE PROJECT VISITS AS REQUIRED DURING CONSTRUCTION PERIOD INSPECTING FOR PROPER INSTALLATION OF THE SYSTEM AND RELATED BALANCING DEVICES. PROJECT VISIT REPORTS SHALL BE MADE TO THE ARCHITECT IN WRITING.

41. CONTRACTORS REQUIREMENTS PRIOR TO TEST & BALANCE:

THE CONTRACTOR SHALL PERFORM ALL REQUIRED PRELIMINARY TESTS AND OTHER PREPARATORY WORK, INCLUDING BUT NOT LIMITED TO:

MAKE SURE ALL FANS ARE OPERATING, CHECK ROTATION, RPM, AND AMPS.

CHECK ALL DAMPERS FOR OPERATION.
PUT ALL HVAC EQUIPMENT IN FULL OPERATION INCLUDING AIR UNITS, ACCU'S AND FANS.

MAKE SURE ALL HVAC CONTROLS ARE INSTALLED AND FULLY OPERATIONAL.

CLEAN/REPLACE FILTERS JUST PRIOR TO TESTING.
PROVIDE ALL BALANCING DEVICES AND DRIVE CHANGES THAT ARE DEEMED NECESSARY BY T & B AGENCY FOR

BALANCE AT NO ADDITIONAL COST TO THE OWNER.

42. TEST AND BALANCE:

TEST & BALANCE AGENCY SHALL BALANCE ALL AIR SYSTEMS FOR OPERATION WITHIN DESIGN CRITERIA. PRIME MOVERS SHALL BE WITHIN 5% OF DESIGN AND TERMINALS WITHIN 10% OF DESIGN.

AIR SYSTEMS SHALL BE BALANCED AS DESCRIBED HEREIN.

43. TEST REPORT:

THE TBA SHALL PROVIDE AN ELECTRONIC (PDF) COPY OF A FINAL COMPREHENSIVE TEST REPORT IN THE FOLLOWING FORMAT.

REPORT SHALL BE BOUND 8-1/2 X 11" WITH SUBSTANTIAL COVERS USING APPROVED FORMS, TYPED OR COMPUTER GENERATED REPORTS ARE ACCEPTABLE.

REPORT SHALL BE INDEXED.

TABLE OF CONTENTS SHALL LIST ALL REPORTS.

ALL AIR OUTLETS SHALL BE LOCATED ON CODED DRAWINGS PREPARED BY THE T&B AGENCY. AIR OUTLETS FORMS SHALL BE PREPARED AND CORRELATED TO THE CODED DRAWINGS.

TEST SUMMARY SHALL DESCRIBE FINAL TEST PROCEDURES AND SPECIAL CONDITIONS DURING TESTS (SUCH AS THERMOSTAT OUTSIDE/RETURN AIR RELATIONSHIP, AND DUCT STATIC PRESSURE.

DESCRIBE OTHER DATA THAT MAY ASSIST OPERATING PERSONNEL IN THE CONTINUING OPERATION OF THE SYSTEM.

T&B CONTRACTOR SHALL TAKE AND RECORD ALL NECESSARY READINGS AT THE FINAL BALANCE POINTS, SUCH AS BUT NOT LIMITED TO: AIR QUANTITIES, PRESSURES, SETPOINTS, ENTERING AND LEAVING COIL TEMPERATURES, SPACE INDOOR AND OUTSIDE WET AND DRY BULB TEMPERATURES, OUTDOOR WEATHER

TEST REPORT SHALL CONTAIN TBA CERTIFICATION OF TEST DATA AND SYSTEM CONDITIONS.

CONDITIONS, ELECTRICAL READINGS OF ALL NEW AND EXISTING MOTORS, COMPRESSORS, ETC.

SUBMIT THE TEST REPORTS, FOR REVIEW, BEFORE SUBSTANTIAL COMPLETION.



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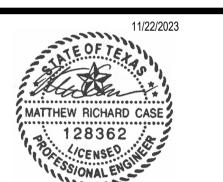
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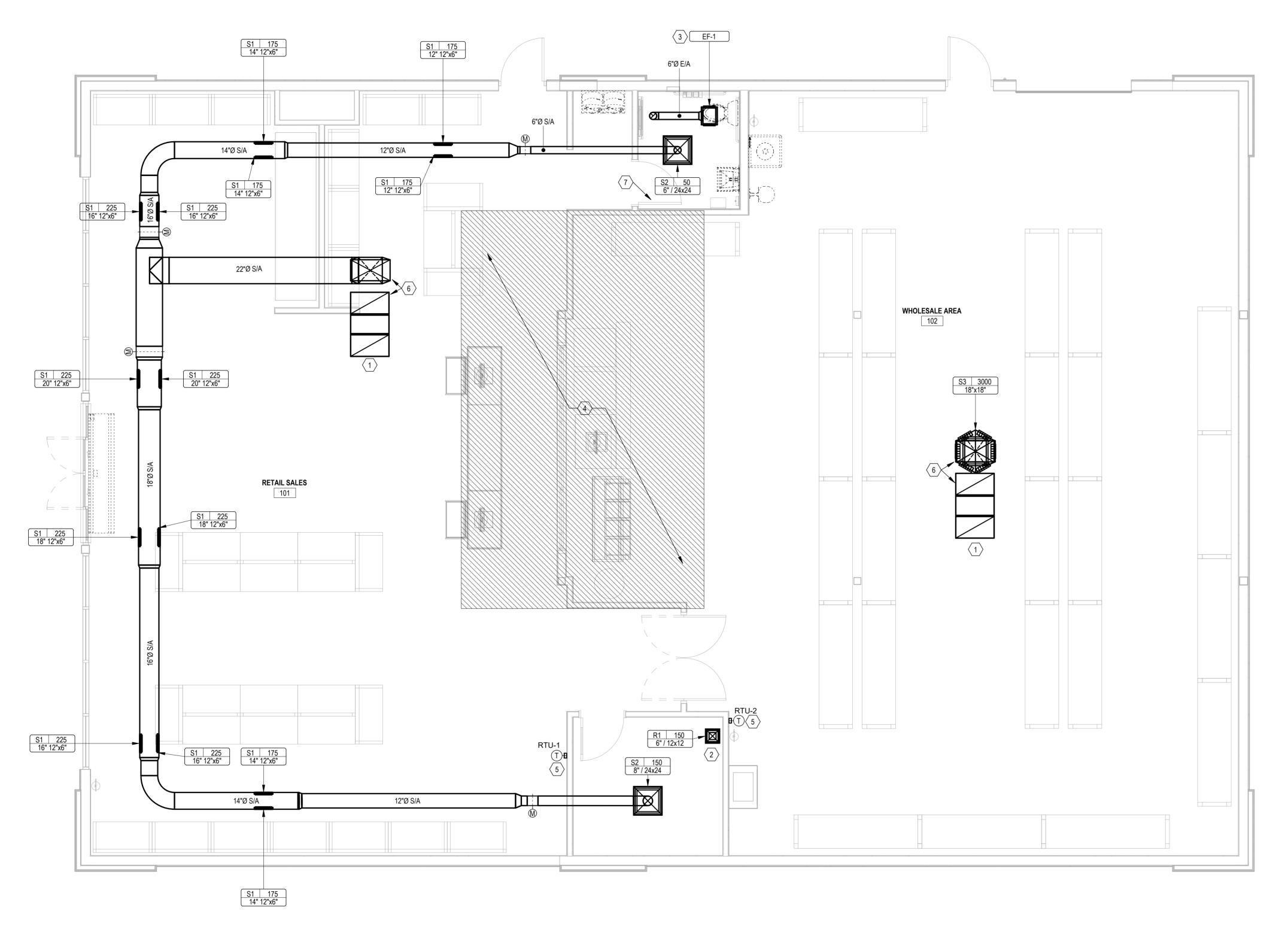
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CUEET TITLE.

MECHANICAL SPECIFICATIONS

SHEET NUMBER:

M002



1 MECHANICAL FLOOR PLAN
1/4" = 1'-0"

GENERAL NOTES

1. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

2. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR MECHANICAL SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK, & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.

3. BOTTOM OF ALL DUCTWORK SHALL NOT BE LOWER THAN 12'-0" AFF.

4. FURNISH AND INSTALL GALVANIZED STEEL DUCTWORK, SIZES AS NOTED ON DRAWINGS. SIZES SHOWN ARE CLEAR, INSIDE DIMENSIONS. SEE ARCHITECTURAL DRAWINGS FOR EXTERNAL FINISH. SUSPEND WITH AIRCRAFT CABLE.

MECHANICAL KEYNOTES

- 1 INSTALL TWO 90° ELBOWS TO TURN DUCT UP TOWARDS STRUCTURE.
 TERMINATE RA DUCT WITH 1/2" WIRE MESH APPROX. 18" BELOW
 STRUCTURE.
- 2 INSTALL RETURN GRILLE IN OFFICE CEILING AS SHOWN. LEAVE OPEN TO SPACE ABOVE CEILING.
- SPACE ABOVE CEILING.

 3 NSTALL EF-1 IN BATHROOM CEILING AS SHOWN. ROUTE 6" DUCT FROM FAN UP THROUGH ROOF ABOVE. TERMINATE WITH RAINCAP AND
- BIRDSCREEN. VERIFY LOCATION IN FIELD.

4 DO NOT INSTALL ANY DUCTWORK, PLENUMS, ETC. IN THIS AREA.

- FURNISH AND INSTALL 24/7 PROGRAMABLE THERMOSTAT WITH AUTO CHANGEOVER AND RELATED WIRING TO CONTROL ROOFTOP UNIT. MOUNT AT 42" AFF IN LOCATION SHOWN. THERMOSTAT TO BE HONEYWELL VISIONPRO 8000 WITH REDLINK OR APPROVED EQUAL. VERIFY FINAL MOUNTING LOCATION WITH OWNER/ARCH. VERIFY PROPER OPERATION IN FIELD. PROVIDE 100' T-STAT WIRE.
- 6 33"x18" SA AND 32"x18" RA DOWN FROM RTU ON ROOF. SEE ROOF PLAN ON SHEET M200.
- 7 GENERAL CONTRACTOR TO UNDERCUT DOOR 3/4" ABOVE THRESHOLD FOR TRANSFER AIR.



158 WEST MAIN STREET LENA, IL 61048 815.369.9155 1764 BLAKE ST

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CASE Engineering Inc.

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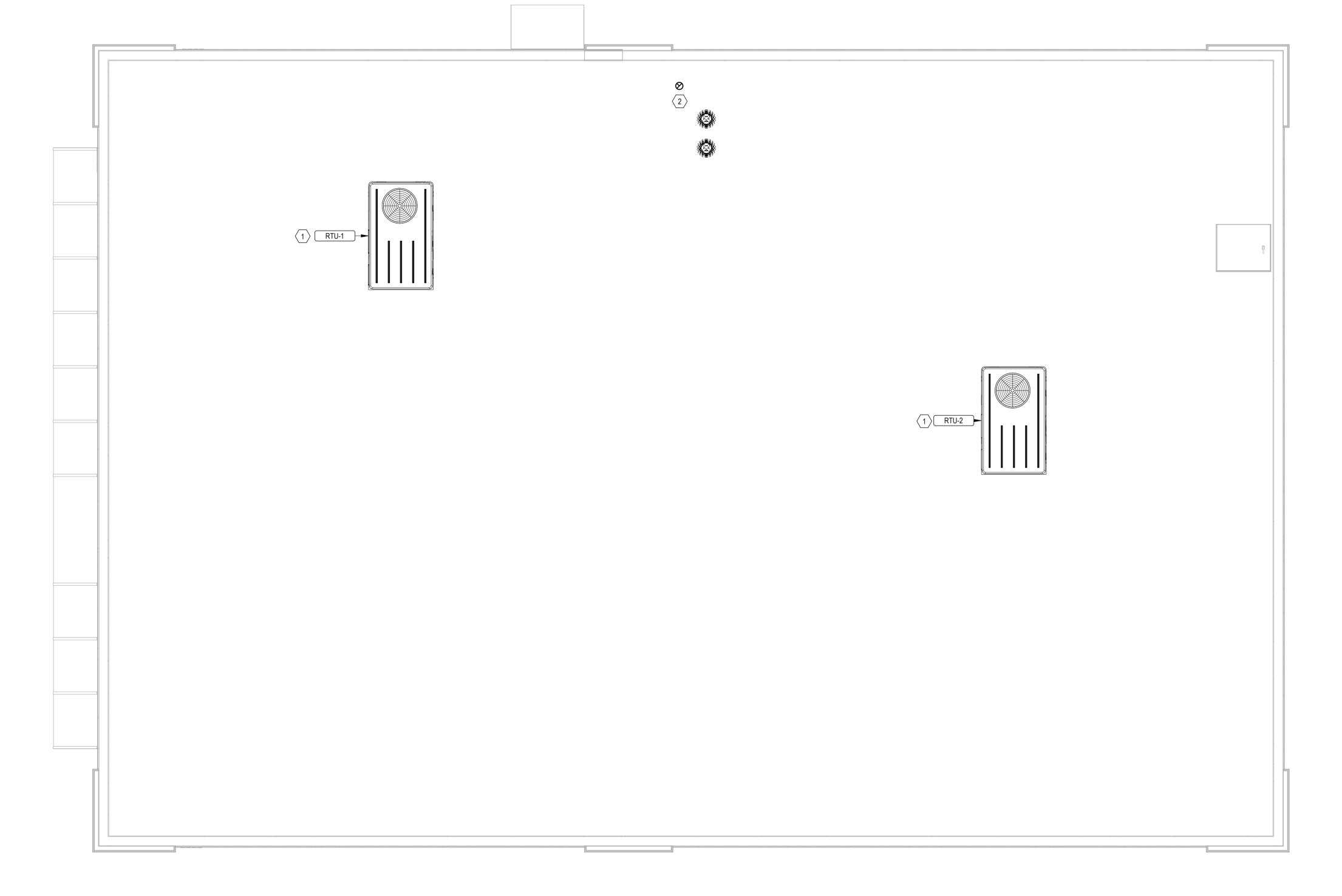
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

MECHANICAL FLOOR PLAN

SHEET NUMBER:

M100



1 MECHANICAL ROOF PLAN
1/4" = 1'-0"



GENERAL NOTES

1. MECHANICAL DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. DRAWINGS ARE NOT TO BE SCALED FOR DIMENSIONS. TAKE ALL DIMENSIONS FROM ARCHITECTURAL DRAWINGS, CERTIFIED EQUIPMENT DRAWINGS AND FROM THE STRUCTURE ITSELF BEFORE FABRICATING ANY WORK, VERIFY ALL SPACE REQUIREMENTS COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

2. CONTRACTOR SHALL COORDINATE WORK INDICATED WITH PLUMBING, ELECTRICAL, FIRE PROTECTION, STRUCTURAL, AND ARCHITECTURAL DIVISIONS. SUBMIT 1/4" SCALE SHOP DRAWINGS FOR MECHANICAL SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR PLUMBING PIPING, MECHANICAL PIPING, MECHANICAL DUCTWORK, & ELECTRICAL CONDUIT MAINS. VERIFY FIT OF MECHANICAL SYSTEMS PRIOR TO FABRICATION. COORDINATE ALL CHASE, SLEEVE, AND SLAB BLOCKOUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.

MECHANICAL KEYNOTES

1 INSTALL RTU IN LOCATION SHOWN PER MANUFACTURE'S SPECIFICATIONS. RTU LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS ARE TO BE VERIFIED WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

2 EXHAUST FAN DUCT UP THROUGH ROOF TO APPROVED VENT CAP & BIRDSCREEN.





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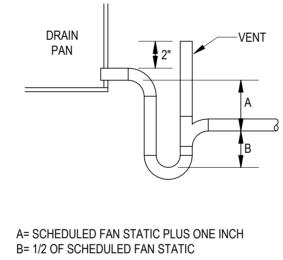
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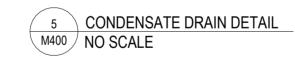
SHEET TITL

ROOF MECHANICAL PLAN

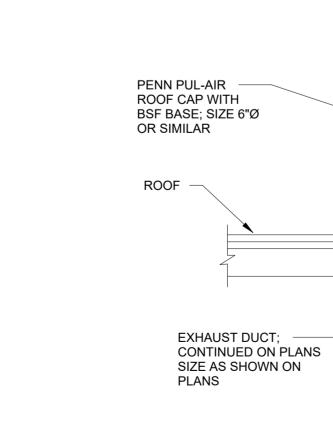
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M200

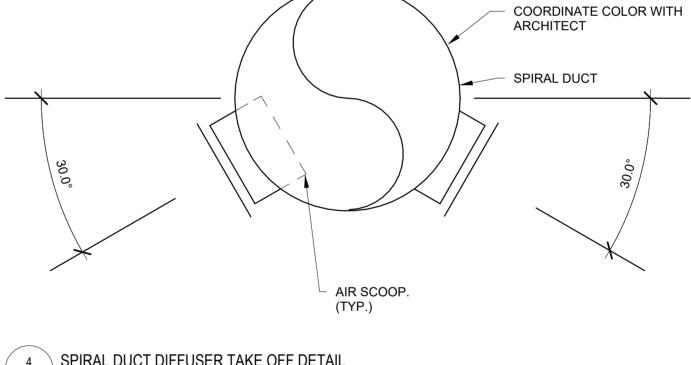




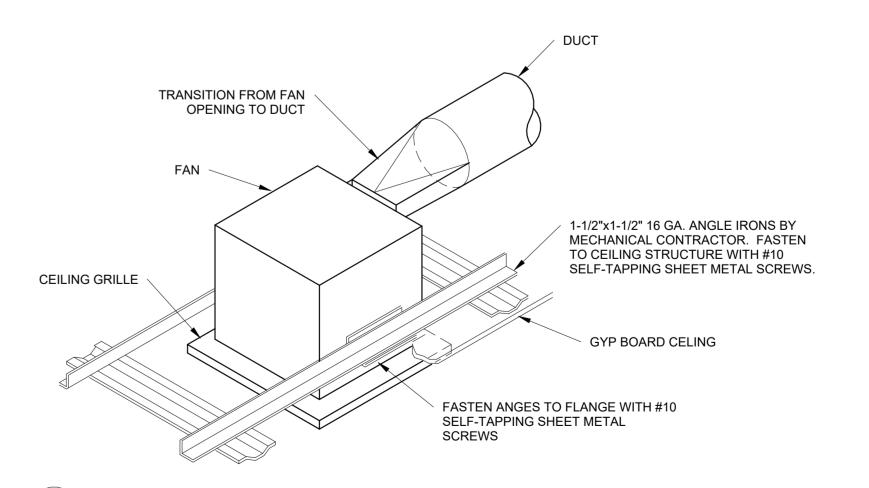
FLASHING AND COUNTERFLASHING



2 EXHAUST THROUGH ROOF DETAIL NOT TO SCALE







1 CEILING EXHAUST FAN DETAIL NOT TO SCALE

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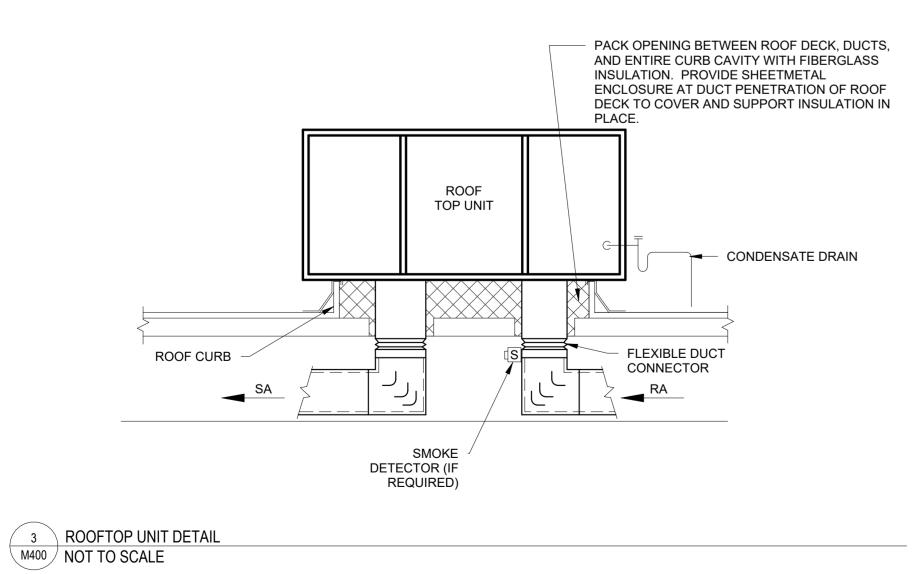
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STORE #: XXXX

2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

MECHANICAL DETAILS



								ROOFTC	P UNIT	SCHE	DUL	E (E	LECT	RIC HE	ATING	6 - DX (COOLI	NG)						
						SUPPLY FAN			ELEC1	TRIC HEATING	CAPACITY	,		(COOLING CAF	PACITY								
TAG	MANUFACTURER/ MODEL	LOCATION/ SERVICE	UNIT TON	TOTAL CFM	OUTDOOR AIR CFM	SUPPLY ESP (IN W.C.)	DRIVE	MAX FAN MOTOR RPM	HEATING KW	OUTPUT (MBH)	EAT	LAT	TOTAL MBH	SENSIBLE MBH	EER	EAT (DB/WB)	LAT (DB/WB)	EFFICIENCY (IEER)	MCA	MOCP	VOLT/PH/HZ	WEIGHT* (LBS)	OVERALL DIMENSIONS	NOTES
RTU-1	TRANE/ TSJ102A	ROOF/ SALES AREA	8.5	3400	550	0.89	DIRECT	1225	36	122.9	58.8	91.3	94.75	86.03	11.20	78.1/62.7	53.6/52.4	14.8	107	110	208/3/60	1100	SEE MANUF.	1-7
RTU-2	TRANE/ TSJ090A	ROOF/ WHOLESALE AREA	7.5	3000	525	0.81	DIRECT	1118	36	122.9	53.3	90.2	83.0	83.0	11.20	79.6/62.5	53.2/52.4	14.8	107	110	208/3/60	1000	SEE MANUF.	1-7

OR EQUIVALENT BY OTHERS

1. FURNISH AND INSTALL ROOFTOP UNIT. PROVIDE WITH 100% OA ECONOMIZER, 2" MERV 8 FILTERS, MODULATING OA DAMPER, STANDARD EFFICIENCY UNIT, TWO STAGE HEATING, BAROMETRIC RELIEF, COIL HAIL GUARD, AND MANUF. RECOMMENDED ROOF CURB. VERIFY LOCATION IN FIELD WITH STRUCTURAL ENGINEER.

2. VERIFY ELECTRICAL VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

3. PROVIDE WITH 24/7 PROGRAMABLE THERMOSTAT. THERMOSTAT TO BE HONEYWELL VISIONPRO 8000 WITH REDLINK OR APPROVED EQUAL. SEE FLOOR PLAN FOR MORE INFORMATION.

4. PROVIDE WITH RA MOUNTED SMOKE DETECTOR WITH UNIT CONTROLS AND WIRE TEST STATION INSTALLED PER LOCAL CODE.

5. PROVIDE WITH ETL OR UL LISTED NON-FUSED DISCONNECT SWITCH.

6. PROVIDE UN-POWERED CONVENIENCE OUTLET TO BE WIRED ON SEPERATE CIRCUIT BY ELECTRICAL CONTRACTOR.

7. FAN MOTORS ARE TO BE PROVIDED WITH NEMA PREMIUM EFFICIENCY MOTORS RATED.

*WEIGHT INCLUDES WEIGHT OF ADDED ACCESSORIES

FAN SCHEDULE										
TAG	MANUFACTURER/ MODEL	LOCATION/ SERVICE	CFM	ESP (IN. WC)	AMPS	VOLT/HZ/ PHASE	WEIGHT (LBS)	OVERALL DIMENSIONS	METHOD OF CONTROL	NOTES
<u>EF-1</u>	GREENHECK/ SP-A125	CEILING/ RESTROOM	100	0.25	0.62	115/60/1	17	SEE MANUF.	LIGHT SWITCH	1-2

OR EQUIVALENT BY COOK, ACME, AND S&P

NOTES:

1. PROVIDE WITH BACKDRAFT DAMPER, ROOF PORTAL, TALL FLASHING CONE, STORM COLLAR, RAINCAP AND BIRDSCREEN.

2. INTERLOCK OPERATION WITH LIGHT SWITCH.

	GRILLE, DIFFUSER, AND REGISTER SCHEDULE								
TAG	USE	PATTERN	ACCESSORIES	FINISH	MAKE & MODEL	REMARKS			
<u>S1</u>	SPIRAL DUCT DIFFUSER	AS SHOWN	AIR SCOOP	BY ARCH	PRICE SDG	NOMINAL SIZE VARIES, SEE DRAWINGS			
<u>S2</u>	CEILING DIFFUSER	4-WAY	O.B.D.	BY ARCH	PRICE SCD	24"x24" FACE NECK SIZE VARIES, SEE DRAWINGS			
<u>S3</u>	CONCENTRIC DIFFUSER	6-WAY		BY ARCH	UNITED ENERTECH DPD6-7.5T	12"x6" GRILLE SIZE 3000 CFM			
<u>R1</u>	CEILING RETURN GRILLE	N/A	RA BOOT	BY ARCH	PRICE PDDR	12"x12" FACE NECK SIZE VARIES, SEE DRAWINGS			

OR EQUIVALENT BY TITUS, KRUEGER, METAL-AIRE, OR NAILOR

NOTES:

1. UNLESS SPECIFICALLY INDICATED ON PLANS, GRILLE, REGISTER AND DIFFUSER RUN-OUT SIZES ARE AS FOLLOWS:

41-100

RUN-OUT CFM 4"Ø <40 6"Ø 41-100 8"Ø 101-2' 10"Ø 211-3 101-210 211-375 12"Ø 376-600 14"Ø 601-910

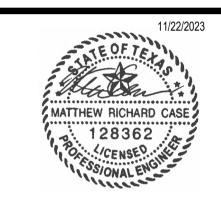
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MECHANICAL SCHEDULES

SYMBOL LEGEND

LICHTING RATTERY BACK-LIP AND LIGHTING CONTROL SYSTEM

<u>LIGHT</u>	ING, BATTERY BACK-UP AND LIGHTING CONTROL SY
	2X4 LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	2X4 LIGHTING FIXTURE-LIFE SAFETY BRANCH, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	2X2 LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	2X2 LIGHTING FIXTURE-LIFE SAFETY BRANCH POWERED, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	FIXTURE WITH EMERGENCY BATTERY BACK-UP BALLAST, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	EMERGENCY FIXTURE W/BATTERY BACKUP,SEE FIXTURE SCHEDULE FOR EXACT TYPE
	POLE BASE, POLE AND POLE MOUNTED LIGHT FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
\bigcirc	RECESSED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACK- UP BALLAS, SEE FIXTURE SCHEDULE FOR EXACT TYPE
$\bigcirc\rangle$	RECESSED WALL WASHER LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
O ⁺	WALL MOUNTED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
$\triangle \triangle \triangle$	TRACK LIGHTING, SEE FIXTURE FOR EXACT TYPE
\bigotimes	CEILING MOUNTED EXIT LIGHT FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE. PROVIDE ARROWS WHERE SHOWN
€H	WALL MOUNTED EXIT LIGHT FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE. PROVIDE ARROWS WHERE SHOWN
★ +	WALL MOUNTED EXIT LIGHT FIXTURE – SELF-CONTAINED, BATTERY OPERATED WITH EMERGENCY HEADS. SEE FIXTURE SCHEDULE FOR EXACT TYPE
\$ \$3	SINGLE POLE SWITCH (MOUNTED AT 48" A.F.F.) THREE WAY SWITCH (MOUNTED AT 48" A.F.F.)
\$ 4	FOUR WAY SWITCH (MOUNTED AT 48" A.F.F.)
∳ DIM	DIMMER SWITCH (MOUNTED AT 48" A.F.F.)
\$ P	WALL MOUNTED PIR OCCUPANCY SENSOR (MOUNTED AT 48" A.F.F.)
∮ DD	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY DIMMABLE SENSOR (MOUNTED AT 48" A.F.F.)
∱ DT	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR (MOUNTED AT 48" A.F.F.)
∱ TS	WALL MOUNTED DIGITAL TIMER SWITCH (MOUNTED AT 48" A.F.F.)
ģυ	WALL MOUNTED ULTRASONIC OCCUPANCY SENSOR (MOUNTED AT 48" A.F.F.)
_{\$} OR	WALL MOUNTED OVERRIDE SWITCH (MOUNTED AT 48" A.F.F.)
\$ LV1	WALL MOUNTED LOW VOLTAGE SWITCH (MOUNTED AT 48" A.F.F.)
\$ 5B	WALL MOUNTED 5 BUTTON SCENE CONTROLLER (MOUNTED AT 48" A.F.F.)
OS P	CEILING MOUNTED PIR OCCUPANCY SENSOR
OS DT	DLM CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
OS DT1	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
OS U	CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR
PS	CEILING MOUNTED PHOTOSENSOR
PC	CEILING MOUNTED PHOTOCELL
LC	LIGHTING CONTACTOR
LC1	LIGHTING CONTROL DEVICE

RECE	PTACLES
\Box	DUPLEX RECEPTACLE (MOUNTED AT 18" A.F.F.)
\bigoplus	GROUND FAULT CIRCUIT INTERRUPTED DUPLEX RECEPTACLE
$\widehat{\bigoplus}$	TAMPER PROOF DUPLEX RECEPTACLE
\Box	DUPLEX RECEPTACLE WITH USB
•	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
⊕ H	DUPLEX RECEPTACLE MOUNTED HORIZONTAL (MOUNTED ABOVE COUNTER BACKSPLASH)
j	GROUND FAULT CIRCUIT INTERRUPTED DUPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
Θ^{+XX}	DUPLEX RECEPTACLE (MOUNTED XX" A.F.F.)
\bigoplus_{D}	DEDICATED DUPLEX RECEPTACLE (MOUNTED THAT 18" A.F.F.)
⊎E	DUPLEX RECEPTACLE ON EMERGENCY POWER
WP	DUPLEX RECEPTACLE WITH WATERPROOF COVER (MOUNTED 18" A.F.F.) FS BOX WITH WATERPROOF COVER
EWC	DUPLEX RECEPTACLE MOUNTED BEHIND ELECTRICAL WATER COOLER
CLG	DUPLEX RECEPTACLE MOUNTED AND CEILING
\bigoplus	DOUBLE DUPLEX (QUAD) RECEPTACLE (MOUNTED AT 18" A.F.F.)
• •	GROUND FAULT CIRCUIT INTERRUPTED DOUBLE DUPLEX (QUAD) RECEPTACLE
<u></u>	TAMPER PROOF DOUBLE DUPLEX (QUAD) RECEPTACLE
	DOUBLE DUPLEX (QUAD) RECEPTACLE WITH USB
	DOUBLE DUPLEX (QUAD) RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
Ď	GROUND FAULT CIRCUIT INTERRUPTED DOUBLE DUPLEX (QUAD) RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
+XX	DOUBLE DUPLEX (QUAD) RECEPTACLE (MOUNTED XX" A.F.F.)

SPECIAL-PURPOSE OUTLET - SEE PLANS FOR TYPE VERIFY

POWER POLE PROVIDED BY SYSTEM FURNITURE

WIREMOLD - SEE PLANS FOR EXACT SPECIFICATIONS AND MOUNTING HEIGHT. TYPE W/ EQUIPMENT SHOP DRAWINGS PRIOR TO ROUGH-IN

ELECTRICAL CONNECTIONS

(Fa)	120V, SINGLE PHASE ELECTRICAL CONNECTION,	DISCONNECT PROVIDE
(E1)	WITH FOURMENT	2.00020

- WITH EQUIPMENT. 208V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED
- WITH EQUIPMENT.
- 208V, THREE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.
- 277V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT. 480V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED
- 480V, THREE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.

MOTOR CONNECTIONS

- 120V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED
- 208V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.
- 208V, THREE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.
- 277V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.
- 480V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED 480V, THREE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED
- WITH EQUIPMENT. MOTOR AND DISCONNECT. DISCONNECT SHALL BE FURNISHED AND
- MOTOR AND COMBINATION MOTOR STARTER. COMBINATION MOTOR STARTER SHALL BE FURNISHED AND INSTALL BY E.C.
- MOTOR AND VFD. VFD SHALL BE FURNISHED BY OTHERS AND INSTALL BY
- JUNCTION BOX OR PULL BOX.

ELECTRICAL DISTRIBUTION EQUIPMENT

	RECESSED 120/208V PANELBOARD
	RECESSED 277/480V PANELBOARD
	SURFACE 277/480V PANELBOARD
	SURFACE 277/480V PANELBOARD
M	METER

- TRANSFORMER NON FUSED DISCONNECT SWITCH
- FUSED DISCONNECT SWITCH COMBINATION MAGNETIC MOTOR STARTER
- VARIABLE FREQUENCY DRIVE (FURNISHED BY OTHERS AND INSTALLED BY E.C.)
- MANUAL MOTOR STARTER

CEILING FAN

SMOKE DAMPER - 120V (PROVIDED BY OTHERS)

RACEWAY ABBREVIATIONS

- C INDICATES CONDUIT. P - INDICATES SCHEDULE 40 PVC
- E INDICATES EMT

RACEWAY IN GRADE OR CONCEALED IN FLOOR SLAB.

RACEWAY - LONG STROKE INDICATES NEUTRAL CONDUCTORS. SHORT STROKE INDICATES PHASE OR SWITCHED WIRES. LONG STROKE WITH HOOK INDICATES GROUNDING CONDUCTOR. LONG STROKE WITH HOOK AND CROSS INDICATES ISOLATED GROUND.

HOMERUN TO BE #12 THHN IN 1/2" EMT UNLESS NOTED

- OTHERWISE MC CABLE INSTALLED IN CEILING OR DRYWALL PARTITIONS. (90° THHN) ALL MC CABLE IS #12 AWG U.N.O.
- MODULAR SYSTEM CABLE INSTALLED IN CEILING OR EXPOSED FOR LIGHTING ONLY.
 - CONDUIT UP, CONDUIT DOWN
 - \pm 3/4" x 10'-0" COPPER CLAD GROUND ROD OR AS NOTED.

FIRE ALARM HORN/STROBE SYSTEM

FIRE ALARM HORN/STROBE - CEILING MOUNTED. 15/75

FIRE ALARM TAMPER SWITCH - VALVE SUPERVISION (FBO)

FIRE ALARM SMOKE DETECTOR - ELEVATOR RECALL

CANDELLA UNLESS OTHERWISE NOTED.

FIRE ALARM WATER FLOW SWITCH (FBO)

FIRE ALARM DUCT DETECTOR

FIRE ALARM SMOKE DETECTOR

FIRE ALARM HEAT DETECTOR

FIRE ALARM CONTROL PANEL

FIRE ALARM FIREMAN'S JACK

FIRE ALARM ANNUCIATOR PANEL

FIRE ALARM MONITORING MODULE

FIRE ALARM CONTROL MODULE (RELAY)

FIRE ALARM DOOR HOLD OPEN DEVICE

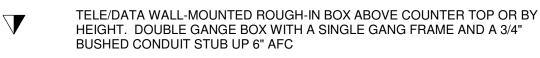
FIRE ALARM HORN - WALL MOUNTED

	FIRE ALARM PULL STATION		
	FIRE ALARM STROBE - WALL MOUNTED. 15/75 CANDELLA UNLESS OTHERWISE NOTED.		ELECTRICAL SHEET INDEX
	FIRE ALARM HORN/STROBE - WALL MOUNTED. 15/75	SHEET	DESCRIPTION
S/S	CANDELLA UNLESS OTHERWISE NOTED.	E000	ELECTRICAL TITLE SHEET
	FIRE ALARM STROBE - CEILING MOUNTED. 15/75 CANDELLA	E001	ELECTRICAL SITE PLAN
	NLESS OTHERWISE NOTED.	E002	SITE PHOTOMETRIC PLAN
	FIDE ALADMALIODAL, CEILING MOUNTED	E100	ELECTRICAL SPECIFICATIONS
	FIRE ALARM HORN - CEILING MOUNTED.	F101	ELECTRICAL SPECIFICATIONS

	ELECTRICAL SHEET INDEX			
SHEET	DESCRIPTION			
E000	ELECTRICAL TITLE SHEET			
E001	ELECTRICAL SITE PLAN			
E002	SITE PHOTOMETRIC PLAN			
E100	ELECTRICAL SPECIFICATIONS			
E101	ELECTRICAL SPECIFICATIONS			
E200	LIGHTING PLAN			
E300	POWER PLAN			
E400	ELECTRICAL RISER & SCHEDULES			
SHEET COUNT: 8				

TELE/DATA SYSTEMS

$\overline{}$	TELE/DATA WALL-MOUNTED ROUGH-IN BOX (18" A.F.F.). DOUBLE GA
	BOX WITH A SINGLE GANGE FRAME AND A 3/4" BUSHED CONDUIT S
	UP 6" AFC





SINGLE GANG FRAME AND A 3/4" BUSHED CONDUIT KNOCKOUT. TELEPHONE OUTLET WALL-MOUNTED ROUGH-IN BOX (48" A.F.F. - U.N.O.)

TELE/DATA OUTLET CEILING MOUNTED. DOUBLE GANGE BOX WITH A



DOUBLE GANG BOX WITH A SINGLE GANG FRAME AND A 3/4" BUSHED CONDUIT STUB UP 6" AFC.



WIRELESS ACCESS POINT ROUGH IN ABOVE CEILING.



EQUIPMENT DESIGN, LOADS, ROUGH-IN BASED ON UNVERIFIED OR ASSUMED INFORMATION. VERIFY ALL REQUIRED INFO. W/ VENDOR, SHOP DRAWINGS AND SCOPE OF WORK PRIOR TO ROUGH-IN.

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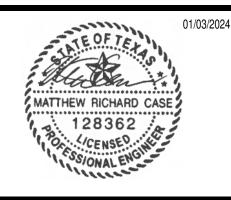
158 WEST MAIN STREET

LENA, IL 61048

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1	DEVELOPER COMMENTS - 1/15/2024
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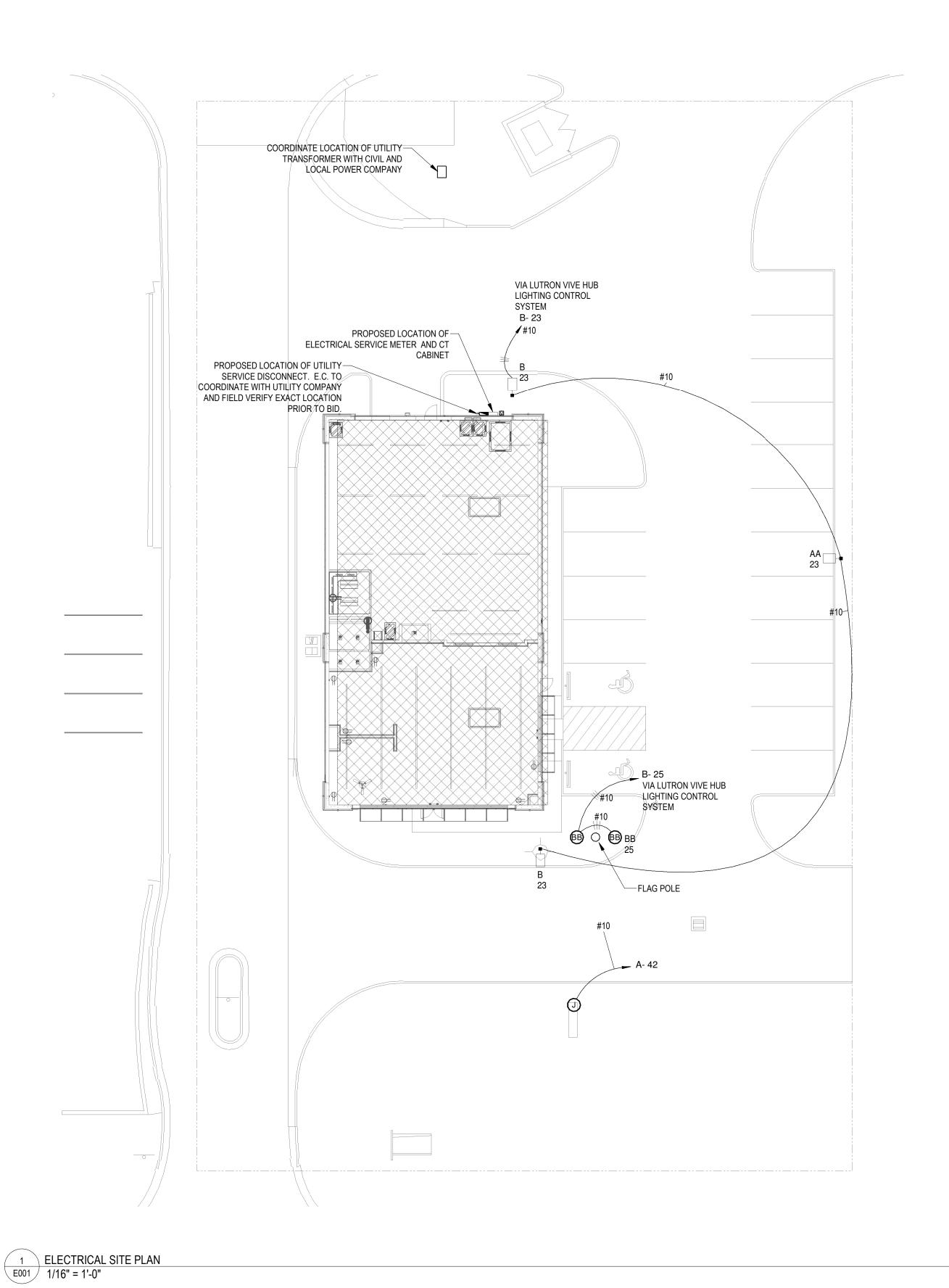
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12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:

ELECTRICAL TITLE SHEET



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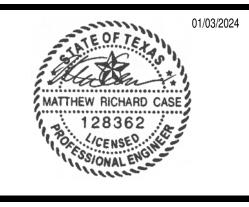
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STORE #: XXXX

ADDE

12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:

ELECTRICAL SITE PLAN

SHEET NUMBER:

E001

Schedule	I	1									
Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	POLE HEIGHT
			2	Lithonia Lighting	DSX1 LED P5 40K 70CRI T5W	D-Series Size 1 Area Luminaire P5 Performance Package 4000K CCT 70 CRI Type 5 Wide	1	18708	0.8	414.48	20'
۰	В										
			1	LSI INDUSTRIES, INC.	MRS-LED-15L-SIL-3-40- 70CRI-IH		1	12572	0.93	111	20'
	AA										
			10	PROGRESS	P5641-20/30K BZ	OUTDOOR CYNLINER	1	2029	0.93	20.1	N/A
	Н										
			1	GE CURRENT	EWLS02140AF740N3CDBKBZ	WALL PACK W/PHOTOCELL	1	4102	0.93	41	N/A
	G										
			2	COOPER	BOCA 696 - 4000 KELVINS	WET PROTECTED-GROUND MOUNTED UPLIGHT	2	-	-	8	N/A
	ВВ										

Statistics						
Description	Symbol	Avg	Max	Min	Avg/Min	Max/Min
Calc Zone #3	+	2.2 fc	16.7 fc	0.0 fc	N/A	N/A



LINGLEDESIGNGROUP, INC

158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

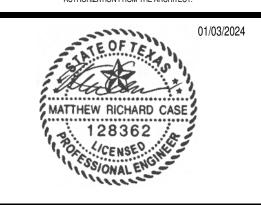
1764 BLAKE ST
DENVER, CO 80202
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St. Louis, MO 63026 F 636.349.1730 CERTIFICATE OF AUTHORITY NO. F-20080

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CHECKED BY: Checker

PROJECT #:
Project Number

DRAWN BY: Author

CHECK SET - 11/01/23

SHERWIN WILLIAMS

<u>5</u>1

ADDR

12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:

SITE PHOTOMETRIC PLAN

SHEET NUMBER:

E002

- A. GENERAL AND SUPPLEMENTARY CONDITIONS WITHIN THE SPECIFICATIONS ARE HEREBY INCORPORATED AND BECOME PART OF THESE SPECIFICATIONS AND AS SUCH SHALL BE APPLICABLE TO THE WORK OF THE ELECTRICAL CONTRACT.
- B. PRIOR TO SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL EXISTING CONDITIONS AND LIMITATIONS THAT IMPACT THE WORK OF THIS CONTRACT. NO ADDITIONAL COSTS TO THE OWNER SHALL BE PERMITTED FOR CHANGES TO THE WORK AS A RESULT OF THE CONTRACTORS FAILURE TO VISIT THE SITE PRIOR TO BIDDING AND IDENTIFY ITEMS THAT WERE ABLE TO BE VERIFIED DURING A SITE VISIT PRIOR TO THE SUBMISSION OF A BID PROPOSAL.
- C. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, EQUIPMENT, RIGGING, AND MISCELLANEOUS ITEMS AS REQUIRED FOR A COMPLETE, OPERATIONAL, FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION AS SHOWN ON THE DRAWINGS AND AS SPECIFIED IN THESE SPECIFICATIONS.

LANDLORDS REQUIREMENTS

- A. ALL WORK OF THIS CONTRACT SHALL BE COMPLETED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE LANDLORD'S WORK LETTER, LANDLORD'S CONSTRUCTION CRITERIA AND/OR THE TENANT/LANDLORD AGREEMENT. THIS CONTRACTOR SHALL EXAMINE THESE DOCUMENTS PRIOR TO THE SUBMISSION OF A BID PROPOSAL.
- B. ALL APPLICABLE REQUIREMENTS OF THE LANDLORD'S WORK LETTER, LANDLORDS CONSTRUCTION CRITERIA AND/OR THE TENANT/LANDLORD AGREEMENT DOCUMENTS SHALL BE CONSIDERED PART OF THESE SPECIFICATIONS.

EXISTING CONDITIONS

A. THE CONTRACT DOCUMENTS ARE BASED ON INFORMATION PROVIDED TO THE CONSULTANT AT THE TIME OF DESIGN. THIS CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID PROPOSAL.

BIDS AND SUBSTITUTIONS

- A. PRIOR TO SUBMISSION OF A BID PROPOSAL, CONTRACTOR SHALL THOROUGHLY REVIEW THE BID INSTRUCTIONS AND ALL CIVIL, ARCHITECTURAL, STRUCTURAL, FOOD SERVICE AND MEPFP CONSTRUCTION DOCUMENTS.
- B. SHOULD THE CONTRACTOR WISH TO SUBMIT AN ALTERNATE PRODUCT TO THE MANUFACTURERS NAMED IN THESE SPECIFICATIONS OR ON THE DRAWINGS FOR ANY **EQUIPMENT, THE CONTRACTOR SHALL SUBMIT A VOLUNTARY ALTERNATIVE A MINIMUM** OF SEVEN (7) CALENDAR DAYS PRIOR TO BID, STATING THE MANUFACTURER'S NAME, MODEL NUMBER, WRITTEN, DETAILED PRODUCT DATA.
- C. WORK PERFORMED OR CONSTRUCTED WITH UNAPPROVED EQUALS IS AT CONTRACTOR'S RISK AND ANY REQUIRED CORRECTION OF WORK INCORPORATING UNAPPROVED EQUALS SHALL BE AT CONTRACTOR'S SOLE COST AND EXPENSE.
- D. NO SUBSTITUTIONS PERMITTED FOR LIGHTING FIXTURES.

QUALITY ASSURANCE

- A. ALL MATERIALS AND EQUIPMENT SHALL BE NEW.
- B. PROVIDE PERMITS, INSPECTIONS, FINAL CERTIFICATES OF INSPECTION BY THE AUTHORITY HAVING JURISDICTION, PERMIT AND INSPECTION FEES AND ALL MATERIALS, EQUIPMENT AND LABOR AS REQUIRED FOR A COMPLETE, FUNCTIONAL, FULLY OPERATIONAL AND CODE COMPLIANT ELECTRICAL SYSTEM.
- C. THIS CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR AND ACCESSORIES FOR A COMPLETE FUNCTIONAL AND CODE COMPLIANT ELECTRICAL INSTALLATION, WHETHER OR NOT SHOWN ON THE DRAWINGS OR SPECIFIED IN THESE SPECIFICATIONS.
- D. EC SHALL VERIFY THE VOLTAGE AND AMPERAGE REQUIREMENTS OF ALL EQUIPMENT DELIVERED TO THE SITE PRIOR TO CONNECTION. EC SHALL NOTIFY THE OWNER OF ANY
- E. REQUIREMENTS OF REGULATORY AGENCIES:
- 1. PERMITS: ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND UTILITY CONNECTIONS REQUIRED.
- 2. PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING
- 3. PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE COMPLETION OF THE PROJECT. INCLUDE IN OPERATION AND MAINTENANCE MANUALS.

E. CODES AND STANDARDS

- 1. COMPLY WITH SPECIFIED CODES AND STANDARDS. IF CONFLICT EXISTS BETWEEN CODES OR STANDARDS AND DRAWINGS, PROJECT MANUAL OR ADDENDA REQUIREMENTS, REQUEST CLARIFICATION FROM ARCHITECT/ENGINEER.
- 2. CONFORM TO THE INSTALLATION RULES AND REGULATIONS OF THE CODES AND STANDARDS LISTED INCLUDING ALL SUBSEQUENTLY PUBLISHED AMENDMENTS THERETO ISSUED PRIOR TO THE DATE OF THE BIDDING DOCUMENTS.
- 3. CONFORM TO THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL AGENCIES WHICH HAVE AUTHORITY OVER THIS PROJECT.
- 4. COMPLY WITH THE APPLICABLE EDITION OF THE FOLLOWING CODES AND STANDARDS THAT HAVE BEEN ADOPTED BY AND ARE ENFORCED BY THE AUTHORITY HAVING JURISDICTION:
- a. INTERNATIONAL BUILDING CODE.
- b. INTERNATIONAL ENERGY CONSERVATION CODE
- c. INTERNATIONAL MECHANICAL CODE
- d. NATIONAL ELECTRICAL CODE e. INTERNATIONAL FIRE CODE
- f. LIFE SAFETY CODE, NFPA 101
- g. AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES h. ALL LOCAL CODES AND ORDINANCES ADOPTED AND ENFORCED BY THE
- **AUTHORITY HAVING JURISDICTION.**

F. REFERENCED STANDARDS:

- 1. ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE RATED, TESTED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE INDUSTRY
- FURNISH ONLY MATERIAL AND EQUIPMENT THAT IS LISTED, LABELED, CERTIFIED (OR ALL THREE) BY A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE TYPES OF

A. THE ELECTRICAL DRAWINGS (DRAWINGS) AND THE SPECIFICATIONS SHALL TOGETHER

- FORM A SET OF CONTRACT DOCUMENTS FOR THE ELECTRICAL WORK. NEITHER THE DRAWINGS OR THE SPECIFICATIONS SHALL BE COMPLETE WITHOUT THE OTHER. ANY ITEM SHOWN ONLY ON THE DRAWINGS OR SPECIFIED ONLY IN THE SPECIFICATIONS SHALL BE CONSIDERED AS IF SHOWN AND SPECIFIED IN BOTH.
- B. ELECTRICAL DRAWINGS AND SPECIFICATIONS: COMPLY WITH THE FOLLOWING
- 1. CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL DRAWINGS AND SPECIFICATIONS WITHIN THE CONTRACT DOCUMENTS, INCLUDING, BUT NOT NECESSARILY LIMITED TO, GEOTECHNICAL, LANDSCAPE, CIVIL, ARCHITECTURAL, STRUCTURAL, FOOD SERVICE, MECHANICAL, PLUMBING, TELECOMMUNICATION AND FIRE PROTECTION DRAWINGS AND SPECIFICATIONS.
- 2. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND ARE INTENDED TO INDICATE APPROXIMATE LOCATION ONLY OF ELECTRICAL WORK. THE ACTUAL LOCATION OF ANY ELECTRICAL WORK SHALL NOT INTERFERE WITH THE LOCATION. CLEARANCES, ETC. REQUIRED BY THE WORK OF OTHER TRADES.
- WITH THE ARCHITECTURAL WALL ELEVATIONS, CASEWORK/CABINETRY ELEVATIONS AND DETAILS AND THE FINAL, APPROVED FOOD SERVICE SHOP DRAWINGS.
- C. DEFINITIONS: THE FOLLOWING TERMS ARE USED ON THE ELECTRICAL DRAWINGS AND IN THE SPECIFICATIONS AND SHALL BE DEFINED AS FOLLOWS:

3. PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE ALL DEVICE LOCATIONS

- 1. CONTRACTOR THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.
- 2. WORK ALL MATERIAL, LABOR, TRANSPORTATION OF THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.

- 3. FURNISH PURCHASE, SUBMIT FOR REVIEW AND APPROVAL, COORDINATE WITH THE CONTRACT DOCUMENTS AND DELIVER TO THE PROJECT SITE IN NEW, UNDAMAGED CONDITION, STORE AS DIRECTED, PROTECT FROM DAMAGE DURING
- 4. INSTALL INSTALL IN PLACE, MAKE READY FOR CONNECTION TO THE REQUIRED
- 5. CONNECT CONNECT TO THE REQUIRED SERVICE AS REQUIRED FOR PROPER OPERATION, TEST FOR PROPER OPERATION AND FUNCTIONALITY IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND REQUIREMENTS SPECIFIED WITHIN THESE SPECIFICATIONS AND TURN OVER TO THE OWNER IN FULL OPERATING CONDITION.
- 6. PROVIDE FURNISH, INSTALL AND CONNECT AS DEFINED HEREIN FOR A COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION READY FOR INTENDED USE.
- 7. FINISHED SPACE SPACES HAVING WALLS PAINTED OR FINISHED WITH WALL COVERING, LAY-IN OR DRYWALL CEILINGS, AND FINISHED FLOORING MATERIALS. EXAMPLES OF FINISHED SPACES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, ALL SPACES IN A DWELLING UNIT, OFFICES, LOBBIES, CORRIDORS, TOILET ROOMS,
- 8. UNFINISHED SPACES SPACES WITH UNFINISHED WALLS AND FLOORS AND TYPICALLY ARE NOT EQUIPPED WITH A CEILING. EXAMPLES INCLUDE, BUT ARE NOT NECESSARILY LIMITED TO, MECHANICAL ROOMS, ELECTRICAL ROOMS, SERVICE
- SHALL ACTION THAT IS REQUIRED WITHOUT OPTION OR QUALIFICATION.
- 10. REMOVE DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF SITE UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND RE-INSTALLED.
- 11. REMOVE AND SALVAGE CAREFULLY DETACH FROM EXISTING CONSTRUCTION IN A MANNER TO PREVENT DAMAGE AND DELIVER TO OWNER READY FOR RE-USE.
- 12. REMOVE AND REINSTALL DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE FOR RE-USE, RE-INSTALL AND RECONNECT WHERE INDICATED SUCH THAT THE **RE-INSTALLED ITEM IS FULLY OPERATIONAL.**
- 13. EXISTING TO REMAIN EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE PERMANENTLY REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED OR REMOVED AND RE-INSTALLED.

- A. REVIEW OF THE SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR OF BUILDING CONDITIONS: NOR SHALL IT BE CONSTRUED AS RELIEVING THE CONTRACTOR'S OF BASIC RESPONSIBILITIES UNDER HIS CONTRACT. ARCHITECT/ENGINEER WILL REVIEW SHOP DRAWINGS ONLY FOR CONFORMANCE WITH DESIGN CONCEPT OF THE PROJECT. REVIEW BY THE ARCHITECT/ENGINEER SHALL NOT BE CONSTRUED:
- AS PERMITTING ANY DEPARTURE FROM THE CONTRACT REQUIREMENTS.
- 2. AS RELIEVING THE CONTRACTOR OF THE RESPONSIBILITY FOR ANY ERROR IN DETAILS, DIMENSIONS OR OTHERWISE THAT MAY EXIST.
- 3. AS APPROVED DEPARTURES FROM ADDITIONAL DETAILS OR INSTRUCTIONS PREVIOUSLY FURNISHED BY THE ARCHITECT/ENGINEER.

- 1. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND DESCRIPTIVE LITERATURE OF EQUIPMENT TO BE FURNISHED UNDER THIS CONTRACT. DRAWINGS SHALL STATE CAPACITIES, SIZES, ETC., OF ALL EQUIPMENT AND SHALL BE CERTIFIED. SEE GENERAL CONDITIONS AND SUPPLEMENTARY CONDITIONS FOR ADDITIONAL REQUIREMENTS.
- 2. PROVIDE SUBMITTALS FOR LIGHTING FIXTURES, TRANSFORMERS, PANELBOARDS, LIGHTING CONTROL DEVICES, CONTACTORS, WIRING DEVICES, DISCONNECT SWITCHES, POWER SYSTEM STUDY.
- C. THE CONTRACTOR SHALL PERFORM NO PORTION OF THE WORK REQUIRING SUBMITTAL AND REVIEW OF SHOP DRAWINGS, PRODUCT DATA, SAMPLES OR SIMILAR SUBMITTALS UNTIL THE RESPECTIVE SUBMITTALS HAS BEEN APPROVED BY THE ENGINEER.

ELECTRICAL COORDINATION DRAWINGS

- A. PREPARE ELECTRICAL COORDINATION DRAWINGS AS REQUIRED BY THE WORK AND AS DIRECTED BY THE GENERAL CONTRACTOR.
- B. MEET WITH REPRESENTATIVES OF THE OTHER DISCIPLINES/TRADES TO COORDINATE THE ELECTRICAL WORK WITH THE WORK OF EACH DISCIPLINE AND TO OBTAIN INFORMATION REGARDING THEIR WORK THAT IS TO BE INDICATED ON THE COORDINATION DRAWINGS.

POWER SYSTEM STUDIES - GENERAL

- A. PROVIDE COMPUTER-BASED, POWER SYSTEM STUDIES THAT INCLUDES:
- 1. A SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES;
- 2. AN ARC-FLASH STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR **NEAR ELECTRICAL EQUIPMENT.**
- B. STUDIES SHALL BE PERFORMED UTILIZING COMPUTER PROGRAMS THAT ARE DISTRIBUTED NATIONALLY AND ARE IN WIDE USE. SOFTWARE ALGORITHMS SHALL COMPLY WITH REQUIREMENTS OF STANDARDS AND GUIDES SPECIFIED IN THIS SECTION. MANUAL CALCULATIONS ARE UNACCEPTABLE.
- C. SOFTWARE DEVELOPERS: SUBJECT TO COMPLIANCE WITH SPECIFIED REQUIREMENTS. PERFORM STUDIES UTILIZING SOFTWARE PRODUCTS BY ONE OF THE FOLLOWING:
- EASY POWER
- 2. POWER ANALYTICS CORPORATION
- 3. SKM SYSTEMS ANALYSIS
- D. ALL STUDIES SHALL BE BASED ON THE DEVICE CHARACTERISTICS OF ACTUAL EXISTING COMPONENTS AND THE NEW COMPONENTS BEING INSTALLED.
- PROVIDE ALL FIELD LABOR AS REQUIRED TO OBTAIN ALL DATA NECESSARY TO CONDUCT THE STUDIES SPECIFIED HEREIN.
- SUBMIT STUDIES FOR REVIEW BEFORE SUBMITTING THE SYSTEM OVERCURRENT PROTECTIVE DEVICE AND POWER DISTRIBUTION EQUIPMENT SUBMITTALS. SUBMIT STUDY REPORT FOR REVIEW PRIOR TO RECEIVING FINAL APPROVAL OF THE OVERCURRENT PROTECTIVE DEVICE AND DISTRIBUTION EQUIPMENT SUBMITTALS.
- G. WHERE FORMAL COMPLETION OF STUDIES WILL CAUSE A DELAY IN THE ORDERING AND MANUFACTURING OF OVERCURRENT PROTECTIVE DEVICES AND POWER DISTRIBUTION EQUIPMENT, OBTAIN APPROVAL FROM ENGINEER FOR PRELIMINARY SUBMITTAL OF SUFFICIENT STUDY DATA TO ENSURE THAT THE SELECTION OF DEVICES AND ASSOCIATED CHARACTERISTICS IS SATISFACTORY AND IN COMPLIANCE WITH THE RESULTS OF THE STUDIES BEING PERFORMED.

SHORT CIRCUIT STUDY

- A. PROVIDE A COMPUTER-BASED, SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES.
- B. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT.

C. FOR EXISTING RELOCATED EQUIPMENT AND EXISTING EQUIPMENT THAT IS EXISTING TO

REMAIN, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD

- INVESTIGATION AND SURVEYS, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS. THE QUALIFICATIONS OF TECHNICIANS AND ENGINEERS SHALL BE QUALIFIED AS DEFINED D. GATHER AND TABULATE ALL REQUIRED DATA TO SUPPORT THE SHORT-CIRCUIT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 551 AS TO THE AMOUNT OF DETAIL THAT IS
- REQUIRED TO BE ACQUIRED IN THE FIELD. E. BEGIN SHORT-CIRCUIT CURRENT ANALYSIS AT THE SERVICE. EXTENDING DOWN TO THE
- SYSTEM OVERCURRENT PROTECTIVE DEVICES AS FOLLOWS: 1. TO NORMAL SYSTEM LOW-VOLTAGE LOAD BUSES WHERE FAULT CURRENT IS 10 KA
- OR LESS.

ARC FLASH HAZARD STUDY

- A. PROVIDE A COMPUTER-BASED, ARC-FLASH HAZARD STUDY TO DETERMINE THE ARC-FLASH HAZARD DISTANCE AND THE INCIDENT ENERGY TO WHICH PERSONNEL COULD BE EXPOSED DURING WORK ON OR NEAR EXISTING AND NEW ELECTRICAL EQUIPMENT.
- B. ELECTRICAL SURVEY DATA: GATHER AND TABULATE ALL REQUIRED INPUT DATA TO SUPPORT STUDY. COMPLY WITH RECOMMENDATIONS IN IEEE 1584 AND NFPA 70E AS TO THE AMOUNT OF DETAIL THAT IS REQUIRED TO BE ACQUIRED IN THE FIELD.
- C. FOR NEW EQUIPMENT, USE CHARACTERISTICS SUBMITTED UNDER THE PROVISIONS OF ACTION SUBMITTALS AND INFORMATION SUBMITTALS FOR THIS PROJECT.
- D. FOR EXISTING EQUIPMENT, WHETHER OR NOT RELOCATED, OBTAIN REQUIRED ELECTRICAL DISTRIBUTION SYSTEM DATA BY FIELD INVESTIGATION AND SURVEYS,
- E. HAZARD LABELS SHALL HAVE AN ORANGE HEADER WITH THE WORDING. "WARNING. ARC-FLASH HAZARD," AND SHALL INCLUDE THE FOLLOWING INFORMATION TAKEN DIRECTLY FROM THE ARC-FLASH HAZARD ANALYSIS:

CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS.

- 1. LOCATION DESIGNATION.
- NOMINAL VOLTAGE.
- 3. FLASH PROTECTION BOUNDARY
- 4. HAZARD RISK CATEGORY.
- 5. INCIDENT ENERGY.
- WORKING DISTANCE.
- 7. ENGINEERING REPORT NUMBER, REVISION NUMBER, AND ISSUE DATE.
- F. ARC FLASH HAZARD WARNING LABELS SHALL BE A 3.5-BY-5-INCH THERMAL TRANSFER LABEL OF HIGH-ADHESION POLYESTER FOR EACH WORK LOCATION INCLUDED IN THE
- G. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD-APPLIED MARKINGS.

- A. DURING THE PROGRESS OF THE WORK, CONTRACTOR SHALL MAINTAIN A CURRENT (DAILY) AS-BUILT SET OF THE DRAWINGS AND SPECIFICATIONS, INDICATING THEREON ALL WORK INSTALLED AT VARIANCE WITH SUCH CONTRACT DOCUMENTS INCLUDING, WITHOUT LIMITATION, WORK COVERED BY ADDENDA, FIELD WORK ORDERS, CHANGE ORDERS, AND ENGINEERS
- B. CONTRACTOR SHALL PROVIDE THE TENANT WITH THE FINAL AS-BUILT SET OF DRAWINGS AT THE COMPLETION OF THE WORK.

COORDINATION WITH LANDLORD AND UTILITY COMPANIES

- A. PRIOR TO COMMENCEMENT OF WORK, CONTRACTOR SHALL COORDINATE THE WORK OF THIS CONTRACT WITH THE LANDLORD'S AUTHORIZED REPRESENTATIVE AND AUTHORIZED REPRESENTATIVES OF EACH SERVING UTILITY THAT WILL PROVIDE SERVICE TO THIS SITE, INCLUDING BUT NOT NECESSARILY LIMITED TO, ELECTRIC, TELEPHONE AND CABLE/SATELLITE TV SERVICE PROVIDERS.
- B. CONTRACTOR SHALL MEET WITH AUTHORIZED REPRESENTATIVES OF THE LANDLORD AND EACH UTILITY TO DISCUSS LANDLORD UTILITY COMPANY SCOPE OF WORK, CONTRACTOR SCOPE OF WORK, POINT OF SERVICE PICK-UP, DETAILS REGARDING SYSTEM INTERFACE, UTILITY COMPANY STANDARDS TO BE COMPLIED WITH, ETC.

COORDINATION WITH OTHER TRADES

- A. ELECTRICAL WORK SHALL BE INSTALLED SO AS TO NOT CONFLICT WITH THE WORK OF OTHER TRADES.
- B. SET ALL SLEEVES AND CUT AND PATCH ALL MISCELLANEOUS HOLES NECESSARY FOR THE
- CONVENIENT AND PROPER INSTALLATION OF THE WORK. C. CONFER WITH THE OTHER CONTRACTORS REGARDING THE LOCATION AND SIZE OF PIPES, **EQUIPMENT, DUCTS, OPENINGS AND SPECIAL ARCHITECTURAL TREATMENTS IN ORDER**

THAT THERE MAY BE NO INTERFERENCES BETWEEN THE INSTALLATION OR THE PROGRESS

D. ALL LINE VOLTAGE WIRING AND FINAL CONNECTIONS TO COMPLETE MECHANICAL

OF THE WORK OF ANY CONTRACTOR ON THE PROJECT.

- SYSTEMS SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. E. PROVIDE FINAL ELECTRICAL CONNECTIONS TO EQUIPMENT FURNISHED/PROVIDED BY OTHERS, (HVAC EQUIPMENT, PLUMBING EQUIPMENT, COMMERCIAL KITCHEN
- F. COORDINATE THE NEMA CONFIGURATION OF THE RECEPTACLE TO BE PROVIDED WITH THE NEMA PLUG CONFIGURATION OF THE CORD/PLUG ASSEMBLY FURNISHED WITH THE EQUIPMENT TO BE INSTALLED. PROVIDE RECEPTACLES HAVING A NEMA CONFIGURATION
- THAT MATCHES THE NEMA CONFIGURATION OF THE PLUG ON THE EQUIPMENT. G. PROVIDE FINAL COORDINATION OF AVAILABLE POWER (VOLTAGE/PHASE) WITH OTHER TRADES PRIOR TO THEIR ORDERING OF EQUIPMENT.
- H. REFER TO MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING

ELECTRICAL WORK TO BE PROVIDED ASSOCIATED WITH MECHANICAL EQUIPMENT.

I. WHERE ELECTRICAL WORK (CONDUIT BOXES, RECEPTACLES, DISCONNECT SWITCHES, ETC.) ARE SECURED DIRECTLY TO THE HOUSING OF MECHANICAL EQUIPMENT, THEY SHALL BE INSTALLED ON A PORTION OF THE EQUIPMENT HOUSING NOT REQUIRED TO BE REMOVED FOR ROUTINE MAINTENANCE. PRIOR TO INSTALLATION, COORDINATE ALL ELECTRICAL WORK AT MECHANICAL EQUIPMENT WITH MECHANICAL CONTRACTOR.

TEMPORARY POWER

- A. THE CONTRACTOR SHALL PROVIDE ALL REQUIRED TEMPORARY CONSTRUCTION POWER AND LIGHTING TO ALLOW ALL CONTRACTORS AND SUB-CONTRACTORS TO PERFORM THE WORK OF THEIR CONTRACTS.
- B. PRIOR TO THE SUBMISSION OF A BID PROPOSAL, THE CONTRACTOR SHALL CONTACT THE GENERAL CONTRACTOR TO COORDINATE THE TYPE OF EQUIPMENT TO BE UTILIZED DURING THE WORK OF THIS CONTRACT

SEQUENCING AND SCHEDULING

A. COORDINATE ELECTRICAL EQUIPMENT INSTALLATION WITH OTHER BUILDING COMPONENTS AND THE PROJECT PHASING PLAN.

UTILITY COMPANY METERING EQUIPMENT

- A. PROVIDE ALL EQUIPMENT REQUIRED FOR ELECTRICITY METERING BY UTILITY COMPANY. ALL METERING EQUIPMENT AND THE INSTALLATION OF THE EQUIPMENT SHALL BE IN COMPLIANCE WITH ALL UTILITY COMPANY REQUIREMENTS.
- B. ELECTRICAL SERVICE CONNECTIONS: COORDINATE WITH UTILITY COMPANIES AND COMPONENTS THEY FURNISH AS FOLLOWS:
- 1. COMPLY WITH REQUIREMENTS OF UTILITIES PROVIDING ELECTRICAL POWER
- 2. COORDINATE INSTALLATION AND CONNECTION OF UTILITIES AND SERVICES, INCLUDING PROVISION FOR ELECTRICITY-METERING COMPONENTS.
- C. METERS SHALL BE FURNISHED BY UTILITY COMPANY; INSTALLED BY ELECTRICAL CONTRACTOR.

D. METER SOCKETS: COMPLY WITH REQUIREMENTS OF ELECTRICAL-POWER UTILITY

GROUNDING CONNECTIONS AS REQUIRED BY UTILITY COMPANY.

E. INSTALL ALL CONDUITS AND EQUIPMENT ACCORDING TO UTILITY COMPANY'S WRITTEN REQUIREMENTS. PROVIDE EMPTY CONDUITS FOR METERING LEADS AND EXTEND

FIRE STOPPING

- A. PROVIDE FIRE STOPPING FOR PENETRATIONS BY CONDUIT OR CABLES AND OTHER FOUIPMENT THROUGH FIRE-RATED VERTICAL BARRIERS (WALLS AND PARTITIONS). HORIZONTAL BARRIERS (FLOOR/CEILING ASSEMBLIES) AND VERTICAL SHAFT WALLS AND PARTITIONS.
- B. FIRESTOP SYSTEM INSTALLATION SHALL COMPLY WITH THE REQUIREMENTS OF ATME E 814 OR UL 1479 TESTED ASSEMBLIES THAT PROVIDE A FIRE RATING EQUAL TO OR

GREATER THAN THAT OF THE CONSTRUCTION BEING PENETRATED.

- A. PROVIDE SEISMIC RESTRAINT FOR ELECTRICAL WORK AND SYSTEMS AND EQUIPMENT IN STRICT ACCORDANCE WITH THE APPLICABLE BUILDING CODE AND THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
- B. SUBMIT ALL REQUIRED DETAILS TO THE AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL.

CUTTING & PATCHING

- A. PRIOR TO CORE DRILLING OR SAW CUTTING OPERATIONS, CONTRACTOR SHALL X-RAY OR GROUND PENETRTING RADAR (GPR) THE EXISTING SLAB TO DETERMINE THE LOCATION OF ANY EXISTING UTILITIES, STRUCTURAL MEMBERS. ETC. COORDINATE ALL SCANNING, CUTTING AND CORE DRILLING OPERATIONS WITH GC AND LANDLORD PRIOR TO COMMENCEMENT OF WORK.
- B. CORE-DRILL OR SAW-CUT EXISTING FLOORS, WALLS, ROOF, ETC., AS REQUIRED FOR THE INSTALLATION OF THE ELECTRICAL WORK. STRUCTURAL COMPONENTS, INCLUDING BUT NOT NECESSARILY LIMITED TO, COLUMNS, BEAMS, GIRDERS, PLATES OR JOISTS SHALL
- C. PATCH SURROUNDING AREAS FLUSH WITH ADJACENT SURFACES AND PREPARE TO RECEIVE SPECIFIED FINISHES. PATCH AND REPAIR ROOF TO MATCH EXISTING ROOFING SYSTEM. ALL ROOF WORK SHALL BE PERFORMED TO MEET THE WARRANTY REQUIREMENTS OF THE EXISTING ROOFING SYSTEM.

- A. PROVIDE ELECTRICAL SYSTEM AND EQUIPMENT GROUNDING IN ACCORDANCE WITH APPLICABLE N.E.C. REQUIREMENTS.
- B. THE METALLIC CONDUIT SYSTEM SHALL BE GROUNDED AND BONDED TO FORM AN **EQUIPMENT GROUNDING CONDUCTOR.**
- C. PROVIDE AN INSULATED EQUIPMENT GROUND CONDUCTOR WITHIN ALL FEEDERS AND BRANCH CIRCUITS. THIS EQUIPMENT GROUND CONDUCTOR SHALL BE IN ADDITION TO THE EQUIPMENT GROUND CONDUCTOR FORMED BY THE METALLIC CONDUIT SYSTEM.
- D. PROVIDE AN ISOLATED GROUND CONDUCTOR IN ADDITION TO THE EQUIPMENT GROUNDING CONDUCTOR IN SELECT BRANCH CIRCUITS AS NOTED ON THE DRAWINGS.
- PROVIDE A #6 AWG GREEN INSULATED GROUNDING CONDUCTOR FROM THE GROUND BAR AT TELEPHONE TERMINAL BOARD TO THE ELECTRICAL SERVICE GROUND.
- F. PROVIDE A COPPER GROUNDING BAR AT THE TELEPHONE TERMINAL BACKBOARD. GROUNDING BAR SHALL BE ¼ INCH X 4 INCHES X 12 INCHES, PRE-DRILLED FOR CONDUCTOR TERMINATIONS, WITH NON-METALLIC STAND-OFF BRACKETS WITH INSULATORS. CHATSWORTH PRODUCTS 10622-012 OR APPROVED EQUAL.

EQUIPMENT IDENTIFICATION

- A. PROVIDE EQUIPMENT LABELS ON PANELBOARDS, DISCONNECT SWITCHES, CONTACTORS, TRANSFORMERS, CONTROLS, ETC. EQUIPMENT LABELS SHALL BE ENGRAVED PHENOLIC RESIN NAMEPLATES ATTACHED TO ENCLOSURE WITH MECHANICAL FASTENERS. SELF-ADHESIVE NAMEPLATES ARE NOT ACCEPTABLE. LETTERING SHALL BE 1/2" HIGH, BLACK TEXT ON WHITE BACKGROUND.
- B. ENGRAVED NAMEPLATES ATTACHED TO COMPONENTS SHALL IDENTIFY THE EQUIPMENT DESIGNATION, NAME OF THE "UPSTREAM" POWER SOURCE (AS APPLICABLE), VOLTAGE
- C. THE COVERS OF ALL OUTLET AND JUNCTION BOXES INSTALLED ABOVE CEILINGS AND INSTALLED EXPOSED IN UNFINISHED SPACES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL, VOLTAGE, PHASE AND CIRCUIT NUMBERS CONTAINED WITHIN THE BOX
- LABEL SHALL BE LEGIBLY HANDWRITTEN WITH BLACK, FELT TIP PERMANENT MARKER. D. THE COVER PLATES OF ALL WIRING DEVICES SHALL BE LABELED TO IDENTIFY THE SERVING PANEL AND THE CIRCUITS SERVING THE DEVICE. LABELS SHALL BE MACHINE PRINTED,

BLACK TEXT ON A CLEAR, SELF ADHESIVE LABEL.

- A. ALL INTERIOR AND EXTERIOR CONDUITS SHALL BE INSTALLED AND SUPPORTED IN
- ACCORDANCE WITH N.E.C. REQUIREMENTS. B. MINIMUM CONDUIT SIZE SHALL BE ¾" TRADE SIZE. SWITCH LEGS SHALL BE ½" TRADE
- C. WITHIN INTERIOR FINISHED AREAS, ALL CONDUIT SHALL BE INSTALLED CONCEALED WITHIN NEW AND EXISTING WALLS AND ABOVE NEW AND EXISTING CEILINGS.

D. CONDUIT INSTALLED WITHIN THE INTERIOR OF THE BUILDING SHALL BE GALVANIZED

ELECTRICAL METALLIC TUBING (EMT). CONDUIT FITTINGS FOR INDOOR EMT CONDUITS SHALL BE CAST METAL, COMPRESSION TYPE. E. EMT SHALL BE USED FOR INTERIOR FEEDERS AND BRANCH CIRCUITS INSTALLED EXPOSED

IN UNFINISHED SPACES, CONCEALED ABOVE NEW OR EXISTING CEILINGS OR CONCEALED

- WITHIN EXISTING AND NEW INTERIOR PARTITIONS. F. CONDUITS INSTALLED EXPOSED ON THE EXTERIOR OF THE BUILDING SHALL BE
- GALVANIZED RIGID STEEL. FITTINGS SHALL BE THREADED TYPE. G. CONDUITS INSTALLED UNDER SLAB ON GRADE CONSTRUCTION SHALL BE RIGID NON-METALLIC (RNC), SCHEDULE 40 PVC. RNC COMPLYING WITH NEMA TC 2 AND UL 651 UNLESS OTHERWISE INDICATED. FITTINGS FOR RIGID NON-METALLIC CONDUIT SHALL
- COMPLY WITH NEMA TC 3: MATCH TO CONDUIT TYPE AND MATERIAL.
- H. PROVIDE CONDUIT EXPANSION FITTINGS IN ALL CONDUIT RUNS THAT EXTEND ACROSS BUILDING EXPANSION JOINTS AND WHERE MOVEMENT MAY BE ENCOUNTERED.
- I. CONDUIT SHALL BE SUPPORTED FROM STRUCTURE ONLY.

EXPANSION AND CONTRACTION.

WHEATLAND, ELECTRI-FLEX AND ANACONDA.

- J. PVC CONDUIT SHALL ONLY BE USED BELOW GRADE. K. PROVIDE FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT
- WITHIN INTERIOR DRY LOCATIONS. MAXIMUM CONDUIT LENGTH SHALL BE 36 INCHES. L. PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR CONNECTIONS TO VIBRATING EQUIPMENT IN WET OR OUTDOOR LOCATIONS. MAXIMUM CONDUIT LENGTH SHALL BE
- M. PROVIDE FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO RECESSED LIGHT

FIXTURES (FIXTURE WHIPS). MAXIMUM CONDUIT LENGTH SHALL BE 72 INCHES.

MECHANICAL EQUIPMENT INSTALLED ON A CURB SHALL BE ROUTED WITHIN THE

EXPANSION JOINTS FOR CONDUIT AS REQUIRED TO COMPENSATE FOR THERMAL

- N. PROVIDE LIQUID-TIGHT FLEXIBLE METAL CONDUIT FOR FINAL ELECTRICAL CONNECTIONS TO FOOD SERVICE EQUIPMENT. O. CONDUITS THAT EXTEND UP TO THE ROOF LEVEL TO SERVE ROOF MOUNTED
- EQUIPMENT CURB. COORDINATE ELECTRICAL WORK WITH MECHANICAL EQUIPMENT INSTALLER. P. PROVIDE CONDUIT SEALING FITTINGS IN ALL CONDUITS THAT EXTEND FROM NON-REFRIGERATED SPACES TO REFRIGERATED SPACES PER NEC 300.7(A). PROVIDE
- Q. ALL CONDUITS INSTALLED IN ASSOCIATION WITH THE WALK-IN COOLER FREEZER SHALL BE INSTALLED IN ACCORDANCE WITH THE WALK-IN MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS. COORDINATE ALL CONDUIT INSTALLATION WITH WALK-IN EQUIPMENT INSTALLER.

R. ACCEPTABLE MANUFACTURERS FOR GALVANIZED RIGID CONDUIT, EMT, FLEXIBLE METAL

CONDUITS AND LIQUID-TIGHT FLEXIBLE METAL CONDUITS SHALL BE ALLIED, REPUBLIC,

S. ACCEPTABLE MANUFACTURERS FOR CONDUIT FITTINGS SHALL BE THOMAS AND BETTS OR APPROVED EQUAL.

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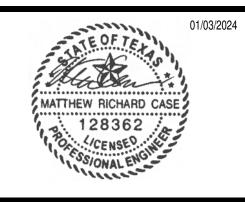
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CERTIFICATE OF AUTHORITY NO. F-20080



Project Number

CHECK SET - 11/01/23

DEVELOPER COMMENTS - 1/15/2024

STRANDED.

- A. ALL CONDUCTORS SHALL BE SOFT DRAWN, ANNEALED COPPER, #12 AWG MINIMUM.
- B. CONDUCTORS #12 AND #10 AWG SHALL BE SOLID; #8 AWG AND LARGER SHALL BE
- C. THE USE OF ALUMINUM CONDUCTORS IS NOT ACCEPTABLE.
- D. EXPOSED, INTERIOR FEEDERS: TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT.
- E. FEEDERS INSTALLED CONCEALED IN CEILINGS, WALLS, PARTITIONS: TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT.
- F. FEEDERS INSTALLED CONCEALED IN CONCRETE, BELOW SLABS-ON-GRADE AND UNDERGROUND: TYPE THHN-THWN, SINGLE CONDUCTORS IN PVC CONDUIT.
- G. EXPOSED, INTERIOR, BRANCH CIRCUITS: TYPE THHN-THWN, SINGLE CONDUCTORS IN
- H. BRANCH CIRCUITS CONCEALED IN EXISTING AND NEW CEILINGS, WALLS, AND
- PARTITIONS: TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT. BRANCH CIRCUITS CONCEALED BELOW SLABS-ON-GRADE, AND UNDERGROUND:
- TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT.
- J. ACCEPTABLE MANUFACTURERS FOR CONDUCTORS: GENERAL CABLE COMPANY, CAROL, ANACONDA, ROME, SOUTHWIRE.
- K. CLASS 1 CONTROL CIRCUITS: TYPE THHN-THWN, IN CONDUIT.

THOMAS AND BETTS LOCK-TITE FOR #6 AND LARGER.

GAGE (AWG - BROWN AND SHARPE).

- L. CLASS 2 CONTROL CIRCUITS: POWER-LIMITED PLENUM RATED CABLE, CONCEALED IN
- M. THE USE OF NON-METALLIC-SHEATHED CABLE (TYPE NM) AND ARMORED CABLE (TYPE AC
- RE CONNECTORS SHALL BE EQUAL TO SCOTCH LOCK FOR #8 AWG AND SMALLER,
- D. PROVIDE #10 AWG CONDUCTORS FOR BRANCH CIRCUITS HAVING A CONDUCTOR LENGTH

LONGER THAN 60 FEET.

- Q. INSTALL ALL WIRING IN APPROVED RACEWAY AND ENCLOSURES, EXCEPT WHERE SPECIFIED OR INDICATED, FOR LOW-VOLTAGE WIRING OR, WHERE TYPE MC CABLE IS INDICATED, SPECIFIED AS ACCEPTABLE, OR BOTH.
- R. SUPPORT ALL CONDUCTORS AND CABLES IN VERTICAL INSTALLATIONS, AS REQUIRED BY NFPA-70, BY INSTALLING CABLE SUPPORTS OR PLUG-TYPE CONDUIT RISER SUPPORTS, OR WIRE-MESH SAFETY GRIPS.
- S. INSTALL ALL CONDUCTORS AND CABLE IN RACEWAYS CONTINUOUS WITHOUT TAPS OR SPLICES. SPLICE OR TAP ONLY IN APPROVED BOXES AND ENCLOSURES WITH APPROVED SOLDERLESS CONNECTORS, OR CRIMP CONNECTORS AND TERMINAL BLOCKS FOR CONTROL WIRING, AND KEEP TO THE MINIMUM REQUIRED. INSULATE ALL SPLICES, TAPS, AND JOINTS AS REQUIRED BY CODE.
- . ALL MATERIALS USED TO TERMINATE, SPLICE OR TAP CONDUCTORS: DESIGNED, PROPERLY SIZED, AND UL LISTED FOR THE SPECIFIC APPLICATION AND CONDUCTORS INVOLVED, AND INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, USING THE MANUFACTURER'S RECOMMENDED TOOLS.
- . WHERE WIRING IS INDICATED AS INSTALLED, BUT THE CONNECTION IS INDICATED "FUTURE" OR "BY OTHER DIVISION, TRADES, OR CONTRACTS", LEAVE A MINIMUM OF 3' FOOT "PIGTAIL" AT THE BOX, TAPE THE ENDS OF CONDUCTORS, AND COVER THE BOX.

OLYAGE DROP IN BRAINCH CIRCLIES SHALL MOT EXCEED 3 PERGENT. W. WIRE SIZE SHALL BE CONTINUOUS THROUGH THE ENTIRE RUN.

X. ALL HOMERUNS FROM PANEL BOARD TO FIRST DEVICE SERVED SHALL BE IN EMT

- A.A. TYPE MC CABLE: 600V, UNJACKETED: ANSI E119 AND E814, UL STANDARDS 44 OR 83 (AS APPLICABLE), AND 1569, NFPA 70 ARTICLE 330; ALUMINUM OR GALVANIZED STEEL INTERLOCKED ARMOR; THHM- OR XHHW-INSULATED CONDUCTORS; COLOR CODE: ICEA METHOD 1, WITH GREEN INSULATED GROUNDING CONDUCTOR.
- A.B. IN LIEU OF FLEXIBLE CONDUIT AND WIRING FROM LIGHT FIXTURES IN ACCESSIBLE CEILINGS TO JUNCTION BOXES (ATTACHED TO BUILDING STRUCTURE) ABOVE THE CEILING. PROVIDE CABLE WHIPS OF SUFFICIENT LENGTHS TO ALLOW FOR RELOCATING EACH LIGHT FIXTURE WITHIN A 5' FOOT RADIUS OF ITS INSTALLED LOCATION, BUT NOT EXCEEDING 6' FEET IN UNSUPPORTED LENGTHS.
- A.C. FOR VERTICAL DROPS IN STUD WALLS.

B. USES NOT PERMITTED:

- D1. HOMERUNS TO PANELBOARDS.
- D2. WHERE EXPOSED TO VIEW. D3. WHERE EXPOSED TO DAMAGE
- D4. HAZARDOUS LOCATIONS.
- D5. WET LOCATIONS.
- 66. INSTALLED HORIZONTALLY WITHIN STUD WALL.
- D6. WHEN RESTRICTED OTHERWISE ABOVE, AND WHEN SPECIFICALLY DISALLOWED BY THE LOCAL AHJ, OWNER OR BOTH.

CONDUCTOR COLOR CODING

- A. PROVIDE COLOR CODING SYSTEM AS LISTED BELOW FOR ALL FEEDERS AND BRANCH CIRCUITS AND USED AS A BASIS FOR BALANCING LOAD ON PANELS.
- B. COLOR CODING FOR CONDUCTOR #12 AWG THROUGH #6 AWG SHALL CONSIST OF COLOR CODED THERMOPLASTIC INSULATION OF THE COLORS SPECIFIED HEREIN.
- C. COLOR CODING FOR CONDUCTORS #8 AWG AND LARGER SHALL BE FIELD APPLIED SELF ADHESIVE TAPE OF THE COLOR SPECIFIED HEREIN FOR THE PARTICULAR PHASE.
- D. 120/208V: PHASE A--BLACK, PHASE B--RED, PHASE C--BLUE, NEUTRAL--WHITE,
- EQUIPMENT GROUND-GREEN, ISOLATED GROUND-GREEN WITH DISTINCTIVE WHITE OR

BOXES AUD TIMUES

- A. FURNISH ONLY MATERIAL AND EQUIPMENT THAT IS LISTED, LABELED, CERTIFIED (OR ALL THREE) BY A NATIONALLY RECOGNIZED TESTING LABORATORY FOR THE TYPES OF
- MATERIAL AND EQUIPMENT SELECTED.

 SHEET METAL OUTLET AND DEVICE BOXES FOR DRY, INTERIOR APPLICATIONS: COMPLY WITH NEMA OS 1 AND UL 514A.
- C. CAST-METAL OUTLET AND DEVICE BOXES FOR EXTERIOR APPLICATIONS: COMPLY WITH
- D. OUTLET BOXES INSTALLED WITHIN FIRE RATED ASSEMBLIES SHALL HAVE A FIRE RATING

NEMA FB 1, FERROUS ALLOY, TYPE FS OR FD, WITH GASKETED COVER.

AND CONDUCTORS ASSOCIATED WITH THE PULLBOX.

- EQUAL TO OR GREATER THAN THE RATING OF THE WALL IN WHICH IT IS INSTALLED. E. OUTLET BOXES SHALL BE 4 INCHES SQUARE BY 2 1/8 INCHES DEEP , EXCEPT FOR 2"
- PARTITIONS SHALL BE AT LEAST 1-1/2" DEEP.
- INCHES DEEP. G. ALL PULLBOXES SHALL BE CONSTRUCTED OF GALVANIZED STEEL, OF METAL GAUGE AND PHYSICAL SIZE AS REQUIRED BY THE N.E.C. FOR THE NUMBER AND SIZE OF CONDUITS

F. OUTLET BOXES FOR VOICE AND DATA DEVICES SHALL BE 4 11/16 INCHES SQUARE BY 2 1/8

H. FIXTURE OUTLET BOXES IN/OR ON CEILINGS SHALL NOT BE LESS THAN 1-1/2" DEEP OR

- LESS THAN 4" SQUARE. ALL OUTLET BOXES INTENDED TO SUPPORT FIXTURES SHALL BE EQUIPPED WITH 3/8" FIXTURE STUDS FASTENED THROUGH THE BOTTOM OF THE BOX WITH FOUR BOLTS.
- I. NEW OUTLET BOXES INSTALLED WITHIN NEW OR EXISTING STUD WALL CONSTRUCTION SHALL BE MOUNTED TO A STUD OR MOUNTED IN A BRACKET THAT SPANS STUD-TO-STUD, CADDY TSGB BRACKET OR APPROVED EQUAL. THE USE OF "OLD WORK"
- . PROVIDE JUNCTION BOXES, PULL BOXES, CABINETS, AND WIREWAYS AS NECESSARY FOR PROPER INSTALLATION OF VARIOUS ELECTRICAL SYSTEMS PER NFPA 70. SIZE AS REQUIRED FOR THE SPECIFIC FUNCTION PER NFPA 70. CONSTRUCTION SHALL BE A NEMA

- A. PANELBOARDS SHALL BE LIGHTING AND APPLIANCE TYPE, DEAD FRONT, SAFETY TYPE FURNISHED WITH BRANCH CIRCUIT BREAKER OVERCURRENT PROTECTIVE DEVICES, COPPER PHASE, NEUTRAL AND EQUIPMENT GROUNDING BUS BARS, MAIN CIRCUIT BREAKER OR MAIN LUG ONLY AS NOTED ON THE DRAWINGS. MAIN BUSES AND CONNECTORS SHALL BE HARD DRAWN COPPER OF 98% CONDUCTIVITY. LOAD CENTERS ARE NOT ACCEPTABLE FOR USE.
- B. CIRCUIT BREAKERS SHALL BE MOLDED CASE, BOLT-ON TYPE SUITABLE FOR VOLTAGE AND AMPERE RATINGS INDICATED ON DRAWINGS AND IN PANEL SCHEDULES. REFER TO THE PANEL SCHEDULES ON THE DRAWINGS FOR ADDITIONAL ACCESSORIES TO BE PROVIDED AT SELECT CIRCUIT BREAKERS.
- C. CIRCUIT BREAKERS SHALL HAVE A MINIMUM AMPERE INTERRUPTING CAPACITY (AIC) OF 10,000 AMPERES FOR 120/208V SYSTEMS, 14,000 FOR 277/480V SYSTEMS
- D. WHERE THE POWER SYSTEM STUDY IDENTIFIES AVAILABLE FAULT CURRENT VALUES AT EXISTING AND NEW PANELS THAT ARE HIGHER THAN THE MINIMUM AIC RATINGS SPECIFIED HEREIN, PROVIDE CIRCUIT BREAKERS IN THE PANELS THAT HAVE AIC RATINGS GREATER THAN THE AVAILABLE FAULT CURRENT AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY.
- PROVIDE NEMA 1 ENCLOSURES FOR INTERIOR PANELS.
- PANELBOARDS SHALL BE EQUIPPED WITH FLUSH TYPE LOCK AND CATCH. ALL LOCKS SHALL BE KEYED ALIKE, WITH TWO KEYS SUPPLIED WITH EACH LOCK.
- G. CIRCUIT BREAKERS SERVING LIGHTING CIRCUITS SHALL BE RATED FOR SWITCH DUTY.
- H. CIRCUIT BREAKERS SERVING HVAC EQUIPMENT SHALL BE HACR RATED.
- I. ALL LUGS SHALL BE OF THE SOLDERLESS TYPE AND RATED AT A MINIMUM OF 75°C.
- J. PROVIDE NEW CIRCUIT DIRECTORIES WITHIN NEW PANELS TO REFLECT THE WORK OF THIS CONTRACT. DIRECTORY SHALL BE TYPEWRITTEN OR COMPUTER GENERATED. HANDWRITTEN CIRCUIT DIRECTORIES ARE NOT ACCEPTABLE.
- K. UTILIZE FINAL, OWNER ASSIGNED ROOM NAMES AND NUMBERS TO IDENTIFY SPACES WITHIN THE CIRCUIT DIRECTORIES. COMPLY WITH NEC 408.4 WHEN IDENTIFYING CIRCUITS IN CIRCUIT DIRECTORIES.
- L. PANEL CIRCUITS SHALL BE CONFIGURED SUCH THAT THE LOAD IS DISTRIBUTED EVENLY ACROSS ALL THREE PHASES TO WITHIN 10% IN ACCORDANCE WITH N.E.C. REQUIREMENTS.
- M. ALL NEW PANELBOARDS SHALL BE LABELED TO IDENTIFY THE AMOUNT OF FAULT CURRENT AVAILABLE AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY TO BE PERFORMED. LABEL SHALL BE MACHINE PRINTED, BLACK TEXT ON CLEAR, SELF ADHESIVE TAPE. INSTALL LABEL ADJACENT TO PANELBOARDS ENGRAVED NAMEPLATE.
- N. ALL NEW PANELBOARDS SHALL BE LABELED TO IDENTIFY THE ARC FLASH HAZARD CHARACTERISTICS AT THE PANEL AS DETERMINED BY THE POWER SYSTEM STUDY TO BE PERFORMED.
- O. ALL "SPARE" CIRCUIT BREAKERS SHALL BE SET TO THE "OFF" POSITION.
- P. PROVIDE THREE (3) EMPTY 1 INCH CONDUITS FROM EACH FLUSH MOUNTED PANEL STUBBED UP TO ABOVE ACCESSIBLE CEILING.
- Q. PROVIDE HANDLE TIES ON ALL MULTI-WIRE BRANCH CIRCUITS IN ACCORDANCE WITH
- ACCEPTABLE MANUFACTURERS FOR PANELBOARDS BY SCHNEIDER, ABB, SIEMENS OR EATON.

SWITCHES

- A. TOGGLE SWITCHES SHALL BE SINGLE POLE, 3-WAY OR 4-WAY AS NOTED ON THE DRAWINGS, 20 AMPERES, 120/277 VOLT AC TYPE, SPECIFICATION GRADE WITH SCREW TERMINALS. HUBBELL 1221-X. 1223-X OR 1224-X OR APPROVED EQUIVALENT BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.
- B. TOGGLE SWITCHES SHALL BE MOUNTED AT DOORS, INSTALLED ADJACENT TO THE TRIM ON THE STRIKING SIDE OF THE DOOR, REGARDLESS OF THE LOCATION INDICATED ON THE DRAWINGS. VERIFY ALL DOOR SWINGS PRIOR TO INSTALLATION OF OUTLET BOXES FOR
- C. PROVIDE A NEUTRAL CONDUCTOR TO ALL SWITCH LOCATIONS
- D. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES: LEGRAND, LEVITON.

RECEPTACLES

- A. RECEPTACLES SHALL BE 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE, NEMA 5-20R WITH SCREW TERMINALS. HUBBELL 5362-W OR APPROVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.
- B. GFCI RECEPTACLES SHALL BE 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE, FEED THROUGH TYPE CAPABLE OF PROTECTING DOWNSTREAM RECEPTACLES ON A SINGLE CIRCUIT, SOLID STATE GROUND FAULT SENSING AND SIGNALING, 5 MILLIAMP TRIP LEVEL, NEMA 5-20R WITH SCREW TERMINALS. HUBBELL GF5362-X OR APPROVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.
- C. ISOLATED GROUND RECEPTACLES SHALL BE ORANGE, 20 AMP, 125 VOLT, 2-POLE, 3-WIRE, GROUNDING TYPE, NEMA 5-20R WITH SCREW TERMINALS. HUBBELL IG-5362-W OR APPROVED EQUAL BY ONE OF THE ADDITIONAL MANUFACTURERS SPECIFIED HEREIN.
- D. PROVIDE SPECIAL PURPOSE RECEPTACLES HAVING NEMA CONFIGURATIONS THAT MATE AND MATCH THE NEMA PLUG CONFIGURATION PROVIDED WITH THE EQUIPMENT TO BE
- E. COVER PLATES FOR EXTERIOR RECEPTACLES SHALL BE RATED FOR "WEATHERPROOF WHILE IN USE"
- ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES AND RECEPTACLES:
- GRAND, EVITOR CONTROL OF THE PROPERTY OF THE P
- G. DEDICATED CIRCUITS (CIRCUITS SERVING A SINGLE DEVICE) SHALL HAVE SEPARATE NEUTRAL AND GROUND WIRES AND SHALL HAVE GRAY TRIM AND GRAY FACE PLATES. UNLESS NOTED OTHERWISE.
- H. INSTALL BLUE COLORED 20A RATED SURGE PROTECTOR RECEPTACLES WITH LIGHT AND ALARM, HUBBELL HBL5362SA OR EQUAL.
- INSTALL "D" TYPE OUTLETS WHERE, AND AT THE HEIGHTS SHOWN. EACH "D" OUTLET SHALL BE WIRED TO A DEDICATED, 20-AMP, SINGLE PHASE, 120 VOLT CIRCUIT AND SHALL RECEIVE A GRAY DUPLEX RECEPTACLE.
- INSTALL "S" TYPE OUTLETS WHERE, AND AT THE HEIGHTS SHOWN. THESE OUTLETS SHALL BE INSTALLED IN A RECESSED BOX, ARLINGTON INDUSTRIES TVBS503 AND WIRED THROUGH TO THE MASTER 8-BUTTON SWITCH LOCATED INSIDE THE OFFICE AND BEHIND THE DOOR. THESE OUTLETS SHALL RECEIVE A WHITE DUPLEX RECEPTACLE AND COVER PLATE.
- K. INSTALL RECEPTACLES PER NFPA AND LOCAL ELECTRICAL CODE AND WHEN: K.A. VERTICALLY ALIGNED, WITH THE GROUND SLOT MOUNTED AT THE TOP:
- K.B. HORIZONTALLY ALIGNED, WITH THE NEUTRAL SLOT AT THE TOP.

- A. ALL KITCHEN SINGLE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 50 AMPS OR LESS AND THREE PHASE RECEPTACLES RATED 150 VOLTS TO GROUND OR LESS, 100 AMPS OR LESS SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH NEC 210.8, (B), (1) - (10), OR THE EQUIVALENT REQUIREMENT WITHIN THE APPLICABLE ELECTRICAL CODE.
- B. THE "GFCI" NOTATION AT A DEVICE OR CIRCUIT BREAKER INDICATES THAT GFCI PROTECTION SHALL BE PROVIDED FOR THE CIRCUIT OR CIRCUITS INDICATED. GFCI PROTECTION SHALL BE PROVIDED BY ONE OF THE FOLLOWING MEANS: • INTEGRAL GFCI PROTECTION WITHIN THE DEVICE (NEMA 5-20R RECEPTACLES), WHEN THE
- APPLICABLE ELECTRICAL CODE. • GFCI CIRCUIT BREAKER INSTALLED WITHIN THE PANEL FOR SERVICE TO THE CIRCUIT OR

DEVICE IS ABLE TO BE INSTALLED IN A READILY ACCESSIBLE LOCATION AS DEFINED BY THE

- CIRCUITS. • GFCI CIRCUIT BREAKER INSTALLED WITHIN AN INDIVIDUAL ENCLOSURE EXTERNAL TO THE
- PANEL FOR SERVICE TO THE CIRCUIT. • DEAD-FRONT GFCI DEVICE INSTALLED IN A READILY ACCESSIBLE LOCATION AS DEFINED BY
- THE NEC (APPLICABLE TO 20 AMP, 120 VOLT CIRCUITS). • AN INDIVIDUALLY MOUNTED EXTERNAL SPECIAL PURPOSE GROUND FAULT CIRCUIT INTERRUPTER (SPGFCI) DEVICE SIMILAR TO "SHOCK BLOCK" PRODUCTS AS
- DEAD FRONT DEVISES SHALL BE BE LABELED TO IDENTIFY THE CIRCUIT AND THE LOAD SERVED BY THE DEVICE.

COVER PLATES FOR TOGGLE SWITCHES AND RECEPTACLES

MANUFACTURED BY LITTLEFUSE, OR APPROVED EQUAL.

A. COVER PLATES WITHIN NON-FOOD SERVICE AREAS SHALL BE NYLON, OF CONFIGURATION TO MATCH THE WIRING DEVICE.

MOUNTING HEIGHTS FOR ELECTRICAL DEVICES AND EQUIPMENT

- A. DEVICES AND EQUIPMENT SHALL BE INSTALLED AT THE MOUNTING HEIGHTS NOTED BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS OR REQUIRED BY APPLICABLE CODES AND STANDARDS:
- 1. TOGGLE SWITCHES, WALL SWITCH OCCUPANCY SENSORS AND DIMMERS FOR LIGHTING CONTROL - TOP OF DEVICE 48" AFF
- 2. CONVENIENCE RECEPTACLES -TOP OF DEVICE 18" AFF
- 3. CONVENIENCE RECEPTACLES AT COUNTERTOPS BOTTOM OF DEVICE 44" AFF OR AS NOTED ON THE DRAWINGS
- 4. TELEPHONE AND DATA OUTLETS TOP OF DEVICE 18" AFF OR AS REQUIRED BY THE ADJACENT CASEWORK
- 5. DISCONNECT SWITCHES TOP OF ENCLOSURE 66" AFF
- 6. PANELBOARDS TOP OF ENCLOSURE 72" AFF

DISCONNECT SWITCHES

- A. DISCONNECT SWITCHES SHALL BE HEAVY DUTY TYPE, UL LISTED AND LABELED, EQUIPPED
- WITH A LUG FOR TERMINATION OF THE EQUIPMENT GROUNDING CONDUCTOR. B. DISCONNECT SWITCHES SHALL HAVE NEMA 1 ENCLOSURES FOR DRY, INDOOR
- APPLICATIONS; NEMA 3R ENCLOSURES FOR OUTDOOR OR WET LOCATION APPLICATIONS. C. DISCONNECT SWITCHES INSTALLED EXPOSED IN FOOD SERVICE AREAS SHALL BE NEMA 4X
- STAINLESS STEEL. D. ALL DISCONNECT SWITCHES SHALL BE EQUIPPED WITH AN ENGRAVED NAMEPLATE TO

IDENTIFY THE SERVING PANEL, CIRCUIT NUMBERS AND THE LOAD SERVED BY THE

E. ACCEPTABLE MANUFACTURERS FOR DISCONNECT SWITCHES: SCHNEIDER, ABB, SIEMENS

OR EATON.

- A. PROVIDE CARTRIDGE FUSES RATED FOR 250 VAC AND 600 VAC AND LESS FOR USE AS
- B. COORDINATE FUSE RATINGS WITH UTILIZATION EQUIPMENT NAMEPLATE LIMITATIONS OF MAXIMUM FUSE SIZE AND WITH SYSTEM SHORT-CIRCUIT CURRENT LEVELS.
- C. CARTRIDGE FUSE APPLICATIONS:
 - 1. FEEDERS, UP TO AND INCLUDING 600 AMPS: CLASS RK1, BUSSMANN LPN-RK-SP FOR 250 VOLTS, BUSSMANN LPS-RK-SP FOR 600 VOLTS.
 - 2. CONTROL POWER TRANSFORMER (CPT) CIRCUITS: CLASS CC, TIME DELAY, CONTROL TRANSFORMER DUTY.
 - 3. BASIS OF DESIGN FOR FUSES SHALL BE BUSSMANN. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SPECIFIED FUSES SHALL BE LITTLEFUSE AND MERSEN.

LIGHTING FIXTURES

- A. ALL LIGHTING FIXTURES AND LIGHT SOURCES SHALL BE FURNISHED, INSTALLED AND CONNECTED BY THE ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
- B. THIS CONTRACTOR SHALL INSTALL LIGHTING FIXTURES AND LIGHT SOURCES AS INDICATED ON THE DRAWINGS AND AS SPECIFIED BELOW. PROVIDE LIGHTING FIXTURES COMPLETE WITH HANGERS, PLASTER FRAMES, AND ALL OTHER NECESSARY ACCESSORIES
- C. LED DRIVERS SHALL BE SOLID STATE AND ACCEPT 120 THROUGH 277 VAC AT 60 HZ INPUT.
- D. THE LED LIGHT SOURCE SHALL BE FULLY DIMMABLE WITH USE OF COMPATIBLE DIMMER SWITCH DESIGNATED FOR LOW VOLTAGE LOADS.
- E. THE CONTRACTOR SHALL PROVIDE LIGHTING CONTROL DEVICES (DIMMERS) THAT ARE COMPATIBLE WITH LED DRIVER BEING PROVIDED WITH THE FIXTURE.

LIGHTING CONTROLS

- A. TIME SWITCHES, PHOTOCELLS AND CONTACTORS SHALL BE AS DETAILED ON DRAWINGS.
- B. WALL SWITCH OCCUPANCY SENSORS SHALL BE WATT STOPPER WS-250 OR APPROVED EQUAL.

A. PROVIDE A ROUGH-IN SYSTEM AS SPECIFIED HEREIN FOR SERVICE TO THE OWNER'S

C. PROVIDE A NEUTRAL CONDUCTOR TO ALL SWITCH LOCATIONS

ROUGH-IN SYSTEM FOR VOICE AND DATA

- B. PROVIDE A 4'x8'x3/4 INCH PLYWOOD BOARD TO SUPPORT SHERWIN-WILLIAMS PHONE, COMPUTER AND SATELLITE EQUIPMENT. SEE ELEVATIONS
- FOR INSTALLATION INSTRUCTIONS AND SPECIAL ELECTRICAL REQUIREMENTS. PLYWOOD SHALL BE MINIMUM APA STRUCTURAL I RATED SHEATHING EXTERIOR C-C
- SQUARE BY 2 1/8 INCH DEEP OUTLET BOXES WITH SINGLE DEVICE COVER. D. PROVIDE A 3" EMPTY CONDUIT WITH PULLSTRING FROM THE WALL MOUNTED PLYWOOD TELEPHONE TERMINAL BOARD IN THE TENANT SPACE TO THE LANDLORDS

. OUTLET BOXES FOR TELEPHONE AND DATA DEVICES SHALL CONSIST OF 4 11/16 IN

ON EACH END OF CONDUIT FOR CABLE PROTECTION. ROUGH-IN FOR WIRING DROPS TO WALL MOUNTED VOICE AND DATA DEVICES SHALL BE INSTALLED WITHIN EMT CONDUIT, 1". PROVIDE A CONDUIT STUB FROM THE DEVICE BOX TO ABOVE ACCESSIBLE CEILING. PROVIDE A PLENUM RATED NYLON BUSHING ON THE END OF THE CONDUIT STUB FOR PROTECTION OF THE WIRING.

TELEPHONE DISTRIBUTION OR POINT OF SERVICE DELIVERY. PROVIDE A NYLON BUSHING

PRIOR TO BEGINNING WORK, THIS CONTRACTOR SHALL FULLY COORDINATE HIS CONSTRUCTION OPERATIONS AND ALL TERMINATION LOCATIONS WITH AUTHORIZED REPRESENTATIVE OF THE TELEPHONE UTILITY COMPANY AND THE OWNER'S DATA NETWORK PROVIDER BY TIMELY NOTICE OR SCHEDULING OF SERVICE EQUIPMENT DATES, SERVICE MODIFICATION DATES AND NOTIFICATION OF REQUIRED OWNER

G. PROVIDE PHONE AND DATA JACKS WHERE. AND AT THE HEIGHTS SHOWN. PROVIDE 3/4" EMT CONDUIT AND PULL STRING FROM EACH TELEPHONE/DATA OUTLET. ROUTE TO DATA BOARD, LOW VOLTAGE WIRING AND DEVICES BY OTHERS.

- E. PROVIDE A 120 VOLT POWER SOURCE TO ALL DUCT MOUNTED SMOKE DETECTORS INSTALLED WITHIN NEW AND EXISTING MECHANICAL EQUIPMENT
- F. PROVIDE A DUCT MOUNTED SMOKE DETECTORS WITHIN NEW AND EXISTING MECHANICAL EQUIPMENT AS REQUIRED BY APPLICABLE CODES. FINAL ELECTRICAL CONNECTION AND ALL INTERLOCK WIRING BY THE ELECTRICAL CONTRACTOR.
- G. PROVIDE ALL INTERLOCK WIRING IN CONDUIT BETWEEN ALL DUCT DETECTORS SUCH THAT UPON DETECTING SMOKE IN ANY ONE DETECTOR, ALL ROOF TOP UNITS SHALL BE
- H. PROVIDE TEST/RESET SWITCH AND PIEZO ALERT SOUNDER AND REMOTE ANNUNCIATOR ALARM LED MOUNTED AS DIRECTED BY LOCAL AHJ. EC TO PROVIDE ALL REQUIRED
- REFER TO DETAILS ON MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

INTERLOCK WIRING BETWEEN DUCT DETECTOR AND REMOTE SWITCH.

- A. PROVIDE ALL TESTS AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
- B. PROVIDE THE TESTS AS OUTLINED HEREINAFTER AND OTHER TESTS REQUIRED TO ESTABLISH THE ADEQUACY, QUALITY, SAFETY, COMPLETED STATUS AND SUITABLE OPERATION OF EACH SYSTEM.
- C. PROMPTLY CORRECT ANY FAILURES, DEFICIENCIES AND/OR DEFECTS REVEALED BY THESE TESTS. AFTER CORRECTING FAILURES, DEFICIENCIES OF DEFECTS, CONDUCT NEW TESTING TO VERIFY THAT THE DEFICIENCY HAS BEEN RECTIFIED AND THE SYSTEM IS FUNCTIONING
- D. NEW AND EXISTING PANELBOARDS SHALL HAVE PHASE CURRENTS BALANCED TO WITHIN +/- 10% VARIATION BETWEEN AVERAGE PHASE CURRENT AND MEASURED INDIVIDUAL
- E. AN OPERATIONAL TEST OF THE EMERGENCY LIGHTING/EXIT SIGNAGE SYSTEM SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER AND THE AUTHORITY HAVING JURISDICTION TO DEMONSTRATE PROPER OPERATION AND COMPLIANCE WITH APPLICABLE CODES AND SPECIFIED REQUIREMENTS.

OPERATION AND MAINTENANCE MANUALS

- A. THIRTY (30) DAYS PRIOR TO SUBSTANTIAL COMPLETION, SUBMIT OPERATING AND MAINTENANCE MANUALS FOR EQUIPMENT TO ENGINEER FOR APPROVAL. INCLUDE ONE COPY OF EACH FINAL APPROVED SUBMITTAL FOR RECORD PURPOSES, INDICATING THE ACTUAL PRODUCT INSTALLED. INCLUDE SIGNIFICANT CHANGES IN THE PRODUCT DELIVERED TO PROJECT SITE AND CHANGES IN MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLATION.
- B. PROVIDE COMPREHENSIVE CONTACT LIST INCLUDING CONTRACTOR AND SUBCONTRACTOR'S NAMES, ADDRESSES, TELEPHONE AND CONTACT PERSON FOR

TRAINING OF OWNER'S DESIGNATED PERSONNEL

A. PREPARE AND SUBMIT OPERATING INSTRUCTIONS AND PROVIDE ON-SITE TRAINING OF OWNER'S PERSONNEL IN USE AND MAINTENANCE OF OPERATING EQUIPMENT.

- A. THE CONTRACTOR SHALL GUARANTEE ALL MATERIALS, EQUIPMENT AND THE INSTALLATION TO BE FREE OF DEFECTS THAT MAY DEVELOP IN ANY PART OF THEIR WORK CAUSED BY FAULTY WORKMANSHIP, MATERIAL OR EQUIPMENT FAILURES, FOR A MINIMUM OF ONE (1) YEAR FROM THE DATE OF SUBSTANTIAL COMPLETION OR FOR AS LONG AS NORMAL EQUIPMENT MANUFACTURER WARRANTIES ARE IN EFFECT FROM THE
- DATE OF OWNER ACCEPTANCE OF THE PROJECT, WHICHEVER IS LATER. B. DURING THE ONE (1) YEAR WARRANTY PERIOD, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR DEFECTS IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED UNDER THE WORK OF THE ELECTRICAL CONTRACT.

FIRE ALARM SYSTEM

- A. FIRE ALARM SYSTEM WORK IS A DELEGATED DESIGN AND IS NOT INCLUDED AS PART OF THE ELECTRICAL SCOPE OF WORK.
- B. FIRE ALARM SYSTEM WORK SHALL BE PROVIDED BY THE GENERAL CONTRACTOR AS A DELEGATED DESIGN. C. GENERAL CONTRACTOR (GC) SHALL BE RESPONSIBLE FOR RETAINING THE SERVICES OF A

FIRE ALARM SYSTEM VENDOR/DESIGN PROFESSIONAL TO PREPARE THE FIRE ALARM

AND THE AUTHORITY HAVING JURISDICTION. D. GC/VENDOR/DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR VERIFYING ALL APPLICABLE CODE REQUIREMENTS AND ALL LOCAL FIRE ALARM SYSTEM REQUIREMENTS

SYSTEM DESIGN, DETAILS, CALCULATIONS, ETC. AS REQUIRED BY ALL APPLICABLE CODES

- WITH THE LOCAL AUTHORITY HAVING JURISDICTION. E. GC/VENDOR/DESIGN PROFESSIONAL SHALL BE RESPONSIBLE FOR PROVIDING ALL REQUIRED SUBMITTAL DRAWINGS TO THE AUTHORITY HAVING JURISDICTION FOR
- REVIEW AND APPROVAL PRIOR TO COMMENCING WORK. F. GC/VENDOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS FOR THE

BUZZER SYSTEM

FIRE ALARM WORK

THE ENTRY DOORS TO THE SALES ARE.

A. PROVIDE THE OPTEX CHIME SYSTEM. INSTALL THE CHIME RECEIVER UNIT AND REQUIRED ELECTRICAL RECEPTACLE ON THE WALL WHERE SHOWN. INSTALL THE BATTERY POWERED CHIME SENSOR UNITS AT THE ROOF STRUCTURE AND AIMED AT

SHOWN ON. INSTALL A WEATHER PROOF BUZZER BUTTON ON THE EXTERIOR WALL BETWEEN THE

PROVIDE INSTALL THE BUZZER SYSTEM. INSTALL THE BUZZER ON THE WALL WHERE

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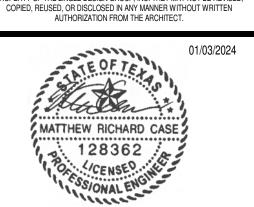
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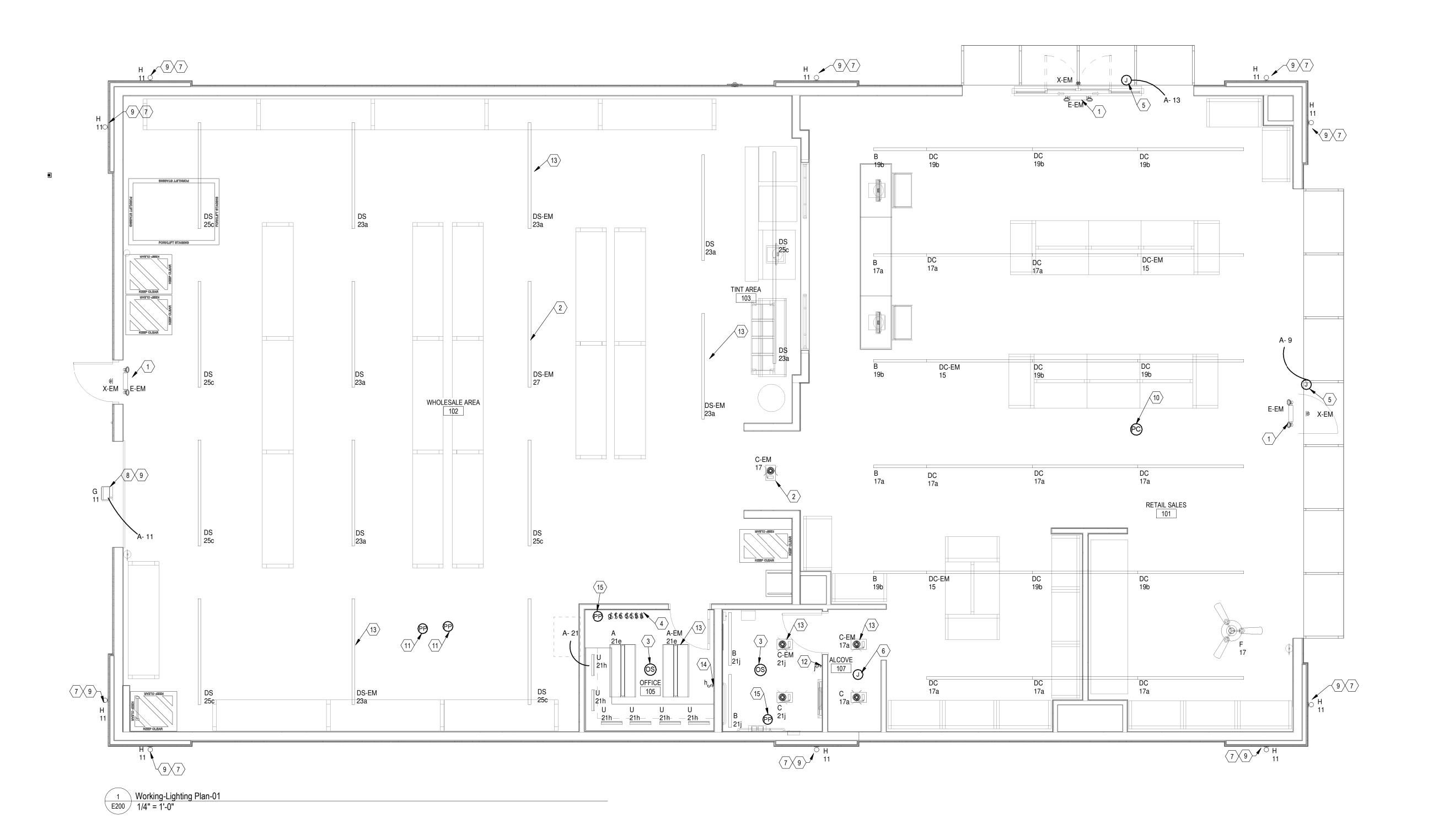


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Lighting Fixture Schedule							
Type Mark	Count	Description	Manufacturer	Model	Lamp	Comments	
Α	1	2'x4' Troffer	GE Current	LVT24B048MM840VQ LTWHTE	LED	To be sourced from Wesco	
A-EM	1	2'x4' Emergency Troffer	GE Current	LVT24B048MM840VQ LTWHTEEL	LED	To be sourced from Wesco - Connect to non-switched emergency circuit	
В	7	48" Standalone Strip	GE CurrentA	LV204T04T481DSQV QSTKQW	LED	To be sourced from Wesco	
С	2	6" 1,000 Lumen LED Trim	GE Current	LRXBR61X9CWVQ	LED	To be sourced from Wesco	
C-EM	3	6" 1,000 Recessed EM Can	GE Current	LRXR610840MDEL	LED	To be sourced from Wesco - Connect to non-switched emergency circuit	
DC	15	8' Continuous Strip	GE CurrentA	LV208T08T481DCQV QSTKQW	LED	To be sourced from Wesco	
DC-EM	3	8' Continuous EM Strip	GE CurrentA	LV208T08T481DCQV ESTKQW	LED	To be sourced from Wesco - Connect to non-switched emergency circuit	
DS	13	8' Standalone Strip	GE CurrentA	LV208T08T481DSQV QSTKQW	LED	To be sourced from Wesco	
DS-EM	3	8' Standalone EM Strip	GE CurrentA	LV208T08T481DSQV ESTKQW	LED	To be sourced from Wesco - Connect to non-switched emergency circuit	
E-EM	3	Exit signage w/ Emergency Lighting	COOPER	APCH7R	LED	Exit sign/ Emergency combo fixture with 90 minute battery backup	
F	1	Ceiling Fan	Craftmade	MND54BNK3 - 54"		Mount @ 8'-0" A.F.FInstall "lighting box" for stability	
G	1	Wall Pack W/Photocell	GE Current	EWLS02140AF740N3 CBDKBZ	LED		
Н	10	Outdoor Cylinder	PROGRESS	P5641II20/30K BZ	LED	Mount @ 9'-0" A.F.FInstall "lighting box" for stability	
U	6	22" Undercabinet	JUNO	UPLD 22IN SWW4 90CRI W H	LED	Use splice box & jumper connectors	
X-EM	3	Remote LED Emergency Heads	COOPER	APWR2	LED	Remote from Exit sign/Emergency combo fixture	

LIGHTING CONTROL NOTES:

RETAIL AND WHOLESALE SALES LIGHTING TO BE TIMECLOCK ON/OFF WITH MANUAL OVERRIDE AT SWITCHBANK.

OFFICE AND RESTROOM LIGHTING TO BE OCCUPANCY SENSOR ON/OFF WITH MANUAL

OVERRIDE SWITCH/DIMMER PER PLANS.

EXTERIOR LIGHTING AND SIGNAGE TO BE PHOTOCELL ON/TIMECLOCK OFF.

FLAG POLE LIGHTING TO BE PHOTOCELL ON/OFF.

COORDINATE TIMECLOCK ON/OFF TIMES WITH OWNER.

LIGHTING CONTROL DEVICES ON PLANS REPRESENT DESIGN INTENT ONLY. COORDINATE ALL DEVICES WITH LUTRON REPRESENTATIVE TO ENSURE A COMPLETE SYSTEM.

KEYNOTES

- 1 CONNECT EMERGENCY EGRESS LIGHTING FIXTURES AHEAD OF ALL LIGHTING CONTROLS OF GENERAL
- LIGHTING CIRCUIT SERVING AREA. NIGHT LIGHTING TO BE CONNECTED TO UNSWITCHED LEG OF CIRCUIT SERVING SPACE. VERIFY EXACT
- LOCATION PRIOR TO ROUGH-IN AND INSTALLATION. 3 E.C. TO PROVIDE LUTRON #LFR2-OCR28-0-WH OCCUPANCY SENSOR FOR CONTROL OF AREA LIGHTING AT CEILING MOUNTED HEIGHT OR AS DIRECTED BY G.C. INSTALL PER MANUFACTURER SPECIFICATIONS.
- INSTALL A DEDICATED 20-AMP, SINGLE PHASE, 120 VOLT CIRCUIT THROUGH AN ELECTRONIC TIME CONTROL PANEL AND TERMINATE IN A J-BOX JUST BEHIND THE EXTERIOR WALL/FACIA AT EACH LOCATION SHOWN. SHERWIN WILLIAMS WILL INSTALL SIGNAGE AT THESE LOCATIONS. THE LANDLORD
- TO PROVIDE LORON #AS-O MANUBATTANTER TED TIME CLOCK ABOVE SELLING AS RECORDED
- EXTERIOR LIGHTING CIRCUITS CONTROLLED THROUGH LUTRON VIVE HUB LIGHTING CONTROL SYSTEM. VERIFY EXACT FIXTURE MOUNTING HEIGHT PRIOR TO ROUGH-IN AND INSTALLATION.
- EXTERIOR WALL MOUNTED LED FIXTURE TO BE INSTALLED ABOVE OVERHEAD DOOR. LIGHT SHALL BE CONTROLLED VIA PHOTO-EYE SWITCH. COORDINATE EXACT LOCATION WITH G.C. PRIOR TO
- COORDINATE FIXTURE MOUNTING HEIGHT WITH ARCHITECTURAL PLANS AND G.C.
- PROVIDE LUTRON EXTERIOR DAYLIGHT CONTROL PACKAGE FOR CONTROL OF EXTERIOR LIGHTING. PROPOSED LOCATION OF LUTRON #RMJS-8T-DV-B DIMMING MODULE FOR 0-10V DIMMING CONTROL OF LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN.
- 12 E.C. TO PROVIDE LUTRON #PJ2-4B-GWH-L01 (CW-1-WH) PICO 4 BUTTON CONTROL FOR LIGHTING CONTROL SWITCHING. CONNECT TO ASSOCIATED POWER PACK DIMMING MODULE FOR CONTROL DIMMING OF
- 13 CONNECT FIXTURE TO SWITCHED LEG AND CONNECT EMERGENCY DRIVER TO UNSWITCHED LEG OF
- CIRCUIT NOTED. 14 E.C. TO PROVIDE LUTRON #MRF2S-6ELV120-WH WIRELESS DIMMING CONTROL SWITCHING FOR CONTROL OF UNDER COUNTER TASK LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND MANUFACTURER SPECIFICATIONS.
- PROPOSED LOCATION OF LUTRON #RMJS-5R-DV-B POWER PACK RELAY MODULE FOR CONTROL OF AREA LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN.

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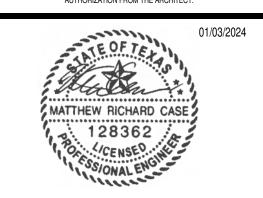
Engineering Inc.

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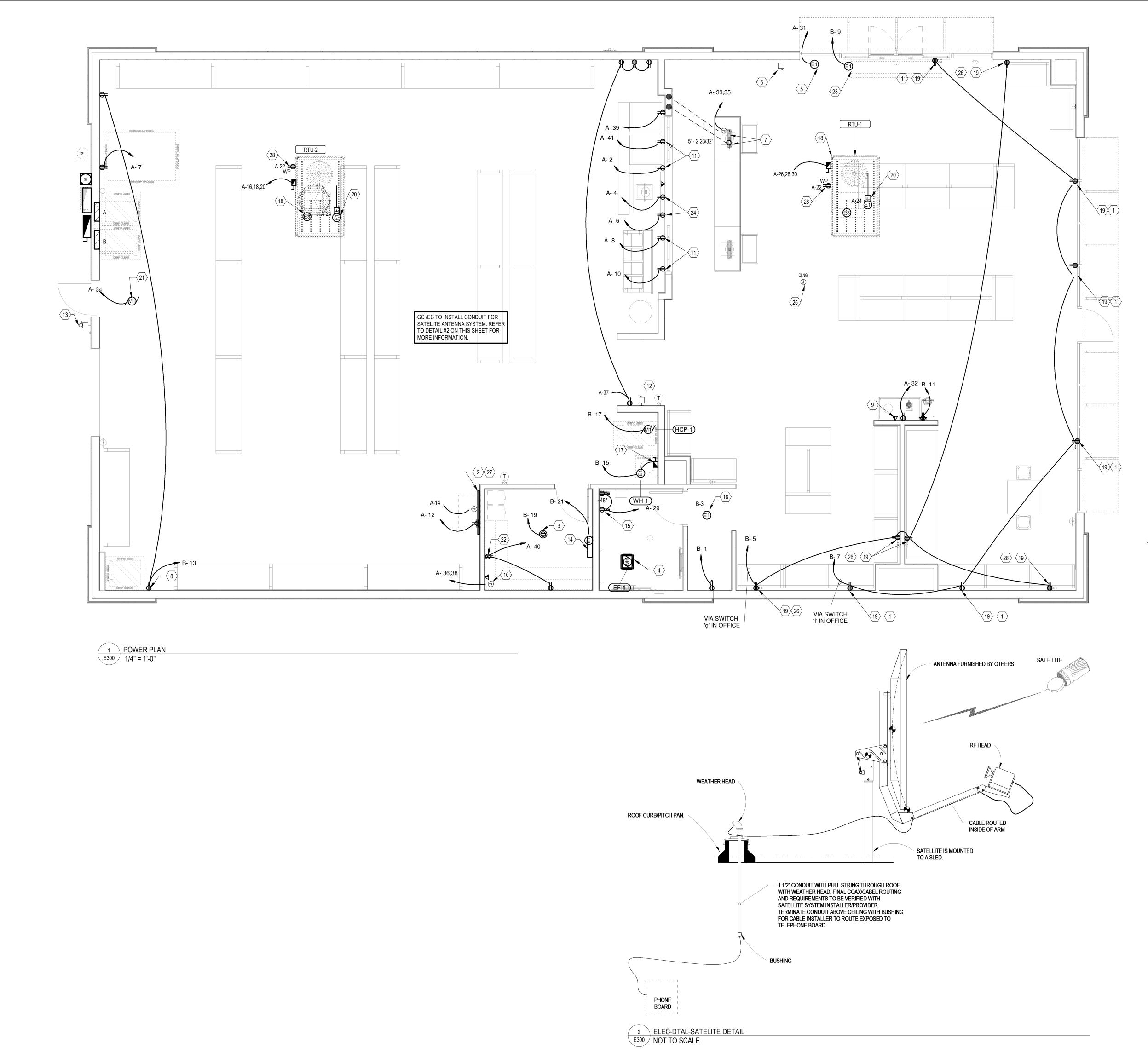
SHERWIN WILLIAMS

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SHEET TITLE:

LIGHTING PLAN



KEYNOTES

- E.C. TO PROVIDE DUPLEX RECEPTACLE MOUNTED IN SOFFIT ABOVE WINDOW FOR SHOW WINDOW REQUIREMENTS PER NEC 210.62 FIELD VERIFY EXACT LOCATION PRIOR TO ROUGH-IN AND INSTALLATION.
- E.C. TO INSTALL TTB / PHONE BOARD FOR CONNECTION TO LOW VOLTAGE EQUIPMENT AND DATA REQUIREMENTS. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN AND INSTALLATION. INSTALL PER MANUFACTURER RECOMMENDATIONS. SEE DETAIL ON
- SHEET E400 FOR MORE INFORMATION E.C. TO PROVIDE J-BOX IN OFFICE FOR INSTALLATION OF CEILING MOUNTED DUPLEX OUTLET. VERIFY EXACT LOCATION WITH G.C. PRIOR TO ROUGH-IN AND INSTALLATION.
- LIGHTING SENSOR. COORDINATE INSTALLATION WITH M.C. E.C. TO PROVIDE J-BOX AT 10'-0" A.F.F. OR AS DIRECTED BY G.C. FOR CONNECTION TO AUTOMATIC DOOR CONTROL. VERIFY CONNECTION REQUIREMENTS AND INSTALL PER

BATHROOM EXHAUST FAN TO BE AUTOMATICALLY CONTROLLED WITH AREA OCCUPANCY

- MANUFACTURER SPECIFICATIONS. 6 E.C. TO PROVIDE LOW VOLTAGE CONDUIT FROM AUTOMATIC DOOR SENSOR TO OFFICE FOR FUNCTION OF DOOR CONTROL COORDINATE EXACT REQUIREMENTS WITH
- MANUFACTURER SPECIFICATIONS. E.C. TO PROVIDE J-BOXES RECESSED INTO SLAB IN SALES. PULL BOX 'A' SHALL RECEIVE TWO (2) DEDICATED 20A, 1P,120V CIRCUITS ((1) 1-1/4" CONDUIT WITH PULL STRING TERMINATING AT TTB / PHONE BOARD).
- 8 E.C. TO PROVIDE DUPLEX AT +48" A.F.F. OR AS DIRECTED BY FOR CONNECTION TO FORKLIFT CHARGING STATION.
- 9 E.C. TO INSTALL DUPLEX AND DATA OUTLET AT +83" A.F.F. TO TOP OF RECESSED ELECTRICAL BOX. REFER TO NOTE #2 AND #3 ON SHEET A300 FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATIONS WITH G.C. PRIOR TO ROUGH-IN AND
- 10 E.C. TO PROVIDE J-BOX AS DIRECTED BY G.C. ABOVE COUNTER FOR CONNECTION TO (2) OFFICE RACEWAYS.
- RACEWAY TO BE INSTALLED BY G.C. / E.C. VERIFY SCOPE OF WORK PRIOR TO BID. OUTLET MOUNTED AT +40" A.F.F. RECEPTACLE SHALL BE DEDICATED 20A, 1P, 120V CIRCUIT WITH GRAY DUPLEX RECEPTACLE AND COVER PLATE PER ARCHITECT
- INSTALL OPTEX CHIME SYSTEM RECEIVER UNIT. BUZZER AND REQUIRED STANDARD OUTLET ON STAGING WALL AT +108". PROVIDE CONNECTION TO EXTERIOR WEATHERPROOF BUZZER BUTTON AS SHOWN. CHIME RECEIVER SHALL BE OPTEX MODEL #RCTD-20U. BUZZER SHALL BE EDWARDS COMPANY MODEL #725.
- EXTERIOR WEATHERPROOF BUZZER BUTTON TO BE INSTALLED AT +48" A.F.F. AS SHOWN. VERIFY CONNECTION REQUIREMENTS PRIOR TO ROUGH-IN AND INSTALLATION. BUZZER BUTTON SHALL BE EDWARDS COMPANY MODEL #1786-B.
- 14 E.C. TO COORDINATE WITH AUTOMATIC DOOR MANUFACTURER. MANUFACTURER SPECIFICATIONS FOR INSTALLATION OF AUTOMATIC DOOR CONTROL PANEL. VERIFY CONNECTION AND POWER REQUIREMENTS PRIOR TO ROUGH-IN AND INSTALLATION.
- 15 E.C. TO PROVIDE GFCI PROTECTED OUTLETS FOR CONNECTION TO AUTOMATIC FAUCETS BENEATH LAVATORY. COORDINATE WITH P.C. VERIFY CONNECTION AND POWER REQUIREMENTS PRIOR TO ROUGH-IN AND INSTALLATION.
- 16 E.C. TO PROVIDE LUTRON #HJS-O-FM HUB WITH INTEGRATED TIMECLOCK ABOVE CEILING AS REQUIRED TO CONTROL LIGHTING AND SIGNAGE. SEE LIGHTING CONTROL PANEL DIAGRAM ON SHEET E400 FOR ADDITIONAL INFORMATION. E.C. TO PROVIDE J-BOX AND 30A, 3P, 208V DISCONNECT SWITCH WITH 4#10 WIRE IN 3/4"
- CONDUIT TO ELECTRIC WATER HEATER. COORDINATE CONNECTION REQUIREMENTS PER MANUFACTURER RECOMMENDATIONS. VERIFY MOUNTING HEIGHT OF J-BOX WITH ARCHITECT PRIOR TO ROUGH-IN AND INSTALLATION.
- 18 E.C. TO COORDINATE PER MECHANICAL PLANS FOR ALL WORK REQUIRED FOR RTU-1 & RTU-2. VERIFY SCOPE OF WORK PRIOR TO ANY BID. PROVIDE NEW WEATHERPROOF GFCI PROTECTED RECEPTACLE.
- 19 E.C. TO INSTALL OUTLETS AT LOCATION AND HEIGHTS NOTED. OUTLETS SHALL BE WIRED TO ASSOCIATED LUTRON #RMJS-20R-DV-B RECEPTACLE CONTROL RELAY MODULE AND CONTROLLED VIA MAIN SWITCHBANK LOCATED INSIDE OFFICE AND BEHIND DOOR. OUTLETS SHALL BE WHITE DUPLEX RECEPTACLE AND COVER PLATE. SHALL BE INSTALLED HORIZONTALLY AND SHALL BE PAINTED TO MATCH SURROUNDING WALL. INSTALL SAME TYPE OF OUTLET IN HEADER OF EACH RUN OF STOREFRONT. ALL OUTLETS MOUNTED AT 18" A.F.F. UNLESS OTHERWISE NOTED.
- RETURN-AIR DUCT SMOKE DETECTOR FURNISHED WITH RTU. EC TO CONNECT TO CIRCUIT NOTED. PROVIDE TEST/RESET SWITCH AND PIEZO ALERT SOUNDER AND
- REMOTE ANNUNCIATOR ALARM LED MOUNTED AS DIRECTED BY LOCATION AHJ. E.C. TO PROVIDE CONNECTION FOR MOTORIZED DOOR. COORDINATE REQUIREMENTS WITH DOOR VENDOR AND VERIFY ALL CONNECTION AND DISCONNECTING
- REQUIREMENTS PRIOR TO INSTALLATION. VERIFY SCOPE OF WORK PRIOR TO BID. 22 UNDER COUNTER TYPICAL OF 2.
- 23 DEDICATED CIRCUIT FOR FUTURE AIR CURTAIN. COORDINATE LOCATION IN FIELD WITH MECHANICAL CONTRACTOR. BLUE HUBBELL HBL5362SA 4-PLEX SURGE SUPPRESSION RECEPTACLE.
- J-BOX WITH CONDUIT AND PULL WIRES INSTALLED AT ROOF STRUCTURE. 26 MOUNT OUTLETS AT 86" A.F.F.
- THE EC SHALL INSTALL A 4'X8'X3/4 INCH PLYWOOD BOARD TO SUPPORT SHERW IN-WILLIAMS PHONE, COMPUTER AND SATELLITE EQUIPMENT. PLYWOOD SHALL BE MINIMUM APA STRUCTURAL I RATED SHEATHING EXTERIOR C-C.
- 28 WEATHER PROOF GFCI DUPLEX RECEPTACLE FURNISHED WITH RTU. EC TO CONNECT TO CIRCUIT NOTED.

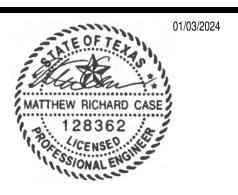


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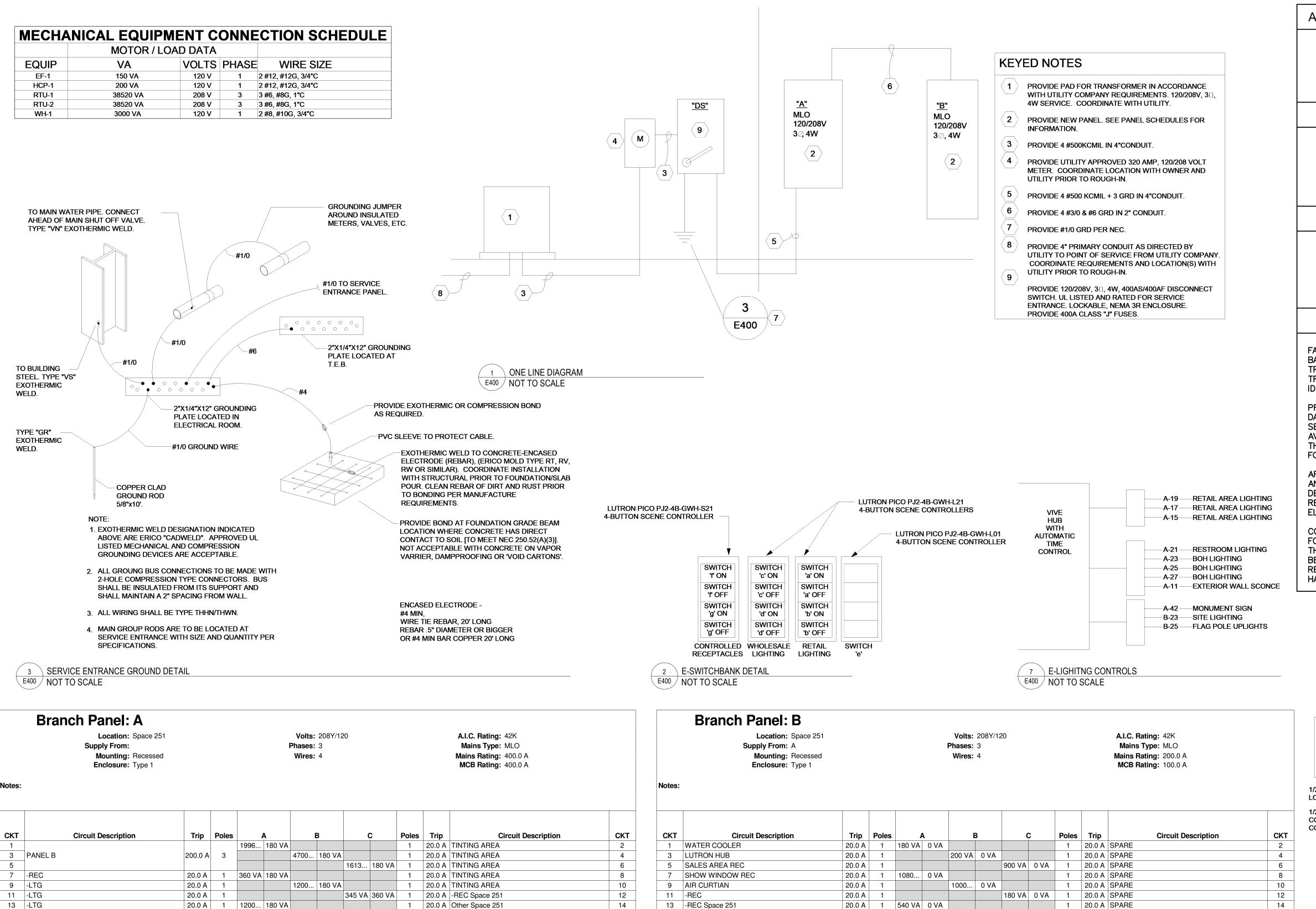
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SHEET TITLE:

POWER PLAN

SHEET NUMBER:

E300



15 -WTR Space 251

17 -MTR Space 251

23 SITE LIGHTING

25 SITE LIGHTING

21 -PWR

27 SPACE

29 SPACE

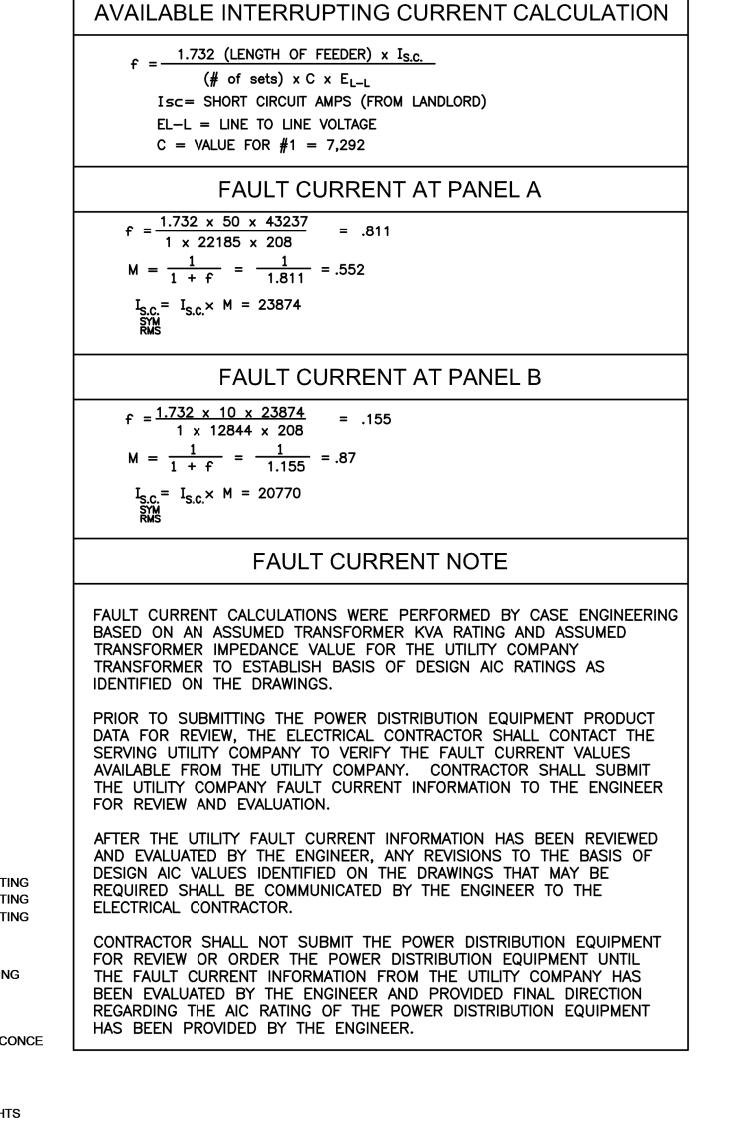
31 SPACE

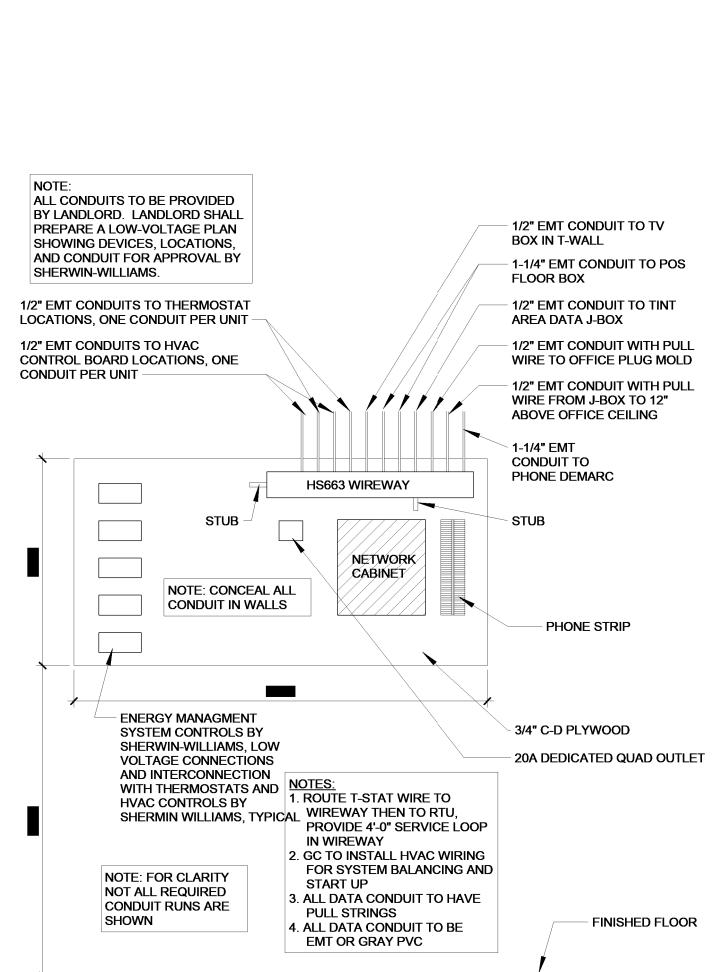
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32

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19 Receptacle Space 250



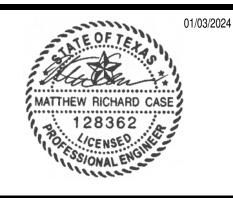




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SHEET TITLE:

ELECTRICAL RISER & SCHEDULES

SHEET NUMBER:

14 16 18 22 24 26 32

DATA SWITCHBOARD

 \setminus E400 ig/ NOT TO SCALE

Legend: **Estimated Demand Panel Totals** Load Classification **Connected Load Demand Factor** 180 VA 100.00% 180 VA 357 VA 100.00% 357 VA Total Conn. Load: 97185 VA 180 VA 100.00% 180 VA Total Est. Demand: 98592 VA Receptacle Total Conn.: 269.8 A 2600 VA 100.00% 2600 VA -LTG 5428 VA 125.00% 6785 VA Total Est. Demand: 273.7 A -HVAC 77040 VA 77040 VA 100.00% -WTR 3000 VA 100.00% 3000 VA -MTR 200 VA 125.00% 250 VA -REC 8200 VA 100.00% 8200 VA

114 VA 1284...

286 VA 360 VA

72 VA | 1284...

180 VA 500 VA

180 VA 360 VA

33992 VA

285.7 A

551 VA 1284... 3 110.0 A RTU-2

360 VA 1284..

180 VA 500 VA

30633 VA

255.3 A

1 20.0 A -REC

3 20.0 A RTU-1

1 20.0 A -REC

2 20.0 A -REC

1 20.0 A -REC

180 VA 8 VA 1 20.0 A Lighting

1 20.0 A -PWR Space 251

576 VA 100 VA 1 20.0 A -PWR Space 251

20.0 A 1

20.0 A | 1 | 380 VA | 1284...

20.0 A 1 504 VA 1284...

20.0 A | 1 | 500 VA | 180 VA |

20.0 A | 1 | 720 VA | 500 VA |

Total Load: 32560 VA

Total Amps: 273.8 A

15 -LTG

17 -LTG

19 -LTG

21 -LTG

23 -LTG

25 -LTG

27 -LTG

29 -REC

31 AUTO DOOR OPENER

POS RECEPTACLES

39 TINTING AREA

41 TINTING AREA

37 TENT AREA RECEPTACLES

33 SPACE 34 SPACE 35 SPACE 37 SPACE SPACE 39 SPACE SPACE 40 41 SPACE 42 1613 VA Total Load: 4700 VA 1996 VA Total Amps: 17.1 A 39.7 A 13.4 A Legend: **Load Classification Panel Totals** Connected Load **Demand Factor** Estimated Demand 349 VA 349 VA 100.00% 180 VA 100.00% 180 VA Total Conn. Load: 8309 VA Receptacle -PWR 1500 VA 100.00% 1500 VA Total Est. Demand: 8409 VA -LTG 200 VA 250 VA Total Conn.: 23.1 A 125.00% -WTR 3000 VA 100.00% 3000 VA Total Est. Demand: 23.3 A -MTR 200 VA 125.00% 250 VA -REC 2880 VA 100.00% 2880 VA

3000... 0 VA

500 VA 0 VA

20.0 A 1

20.0 A 1

20.0 A 1

20.0 A 1

20.0 A 1 16 VA 0 VA

180 VA 0 VA

1 20.0 A SPARE

1 20.0 A SPARE

1 | 20.0 A | SPARE

20.0 A SPARE

SPACE

200 VA 0 VA 1 20.0 A SPARE

333 VA 0 VA 1 20.0 A SPARE