

PROJECT TEAM DIRECTORY	
OWNER	
COMPANY NAME:	LIBERTY HILL DEVELOPMENT GROUP, LLC
CONTACT NAME:	GAVIN MELIA & EVA NEWTON
ADDRESS:	PO BOX 3289, 120 MARKET SQ., FLOOR 2 PINEHURST, NC 28374
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

SHERWIN WILLIAMS

2101 AVONDALE-HASLET
RD, HASLET, TX 76052



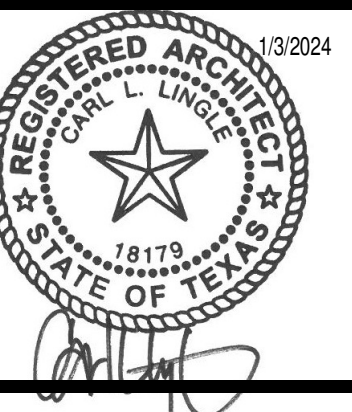
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LINGLEDESIGNGROUP, INC.
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155
1764 BLAKE ST
DENVER, CO 80202
303.974.5875
WWW.LINGLEDESIGN.COM

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PROJECT #: TBD
DRAWN BY: BA CHECKED BY: MP

PERMIT SET - 11/22/2023

REV 1 - 1/3/2024

CONSTRUCTION PHASE NOTE	VICINITY MAP	STATEMENT OF COMPLIANCE	SYMBOL LEGEND	CODE / BUILDING INFORMATION
<p>ARCHITECT'S DESIGN WITHOUT CONSTRUCTION PHASE SERVICES</p> <p>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 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 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 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.</p>	<p>NOTE: CONSTRUCTOR SHALL VISIT THE SITE PRIOR TO BID, TO CONFIRM FIELD CONDITIONS FOR DUCTWORK RUNS, EXHAUST AND CHASE LOCATIONS.</p>	<p>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.</p> <p>SIGNATURE: </p> <p>ARCHITECT</p> <p>REGISTRATION NO.: 18179</p> <p>DATE: 9/30/2024</p>	<p>SYMBOL LEGEND</p> <p>WALL SECTION MARKER: #, ##, ###, SHEET NUMBER</p> <p>BUILDING SECTION MARKER: #, ##, ###, SHEET NUMBER</p> <p>ELEVATION MARKER: #, ##, ###, SHEET NUMBER</p> <p>FINISH TYPE MARK: XX-X</p> <p>DOOR TYPE: ###</p> <p>WINDOW TYPE: #, ##, ###, SHEET NUMBER</p> <p>ELEVATION MARKER: Name, Elevation</p>	<p>CODE / BUILDING INFORMATION</p> <p>BUILDING CODES:</p> <p>BUILDING: 2021 INTERNATIONAL BUILDING CODE</p> <p>MECHANICAL: 2021 INTERNATIONAL MECHANICAL CODE</p> <p>ELECTRICAL: 2020 NATIONAL ELECTRICAL CODE</p> <p>PLUMBING: 2021 INTERNATIONAL PLUMBING CODE</p> <p>FUEL GAS: 2021 INTERNATIONAL FUEL GAS CODE</p> <p>FIRE: 2021 INTERNATIONAL FIRE CODE</p> <p>ENERGY: 2015 INTERNATIONAL ENERGY CONSERVATION CODE</p> <p>ACCESSIBILITY: 2009 ICC/ANSI A117.1</p> <p>BUILDING INFORMATION:</p> <p>CONSTRUCTION TYPE: V-B</p> <p>SCOPE OF WORK: NEW CONSTRUCTION</p> <p>FLOOR AREA: 4,466 SQ. FT.</p> <p>STORIES / HEIGHT: 1 STORY / 24'-6"</p> <p>FIRE PROTECTION: PORTABLE FIRE EXTINGUISHERS</p> <p>INTERIOR FINISHES: CLASS C FLAME SPREAD RATING</p> <p>NUMBER OF EMPLOYEES: 4</p> <p>OCCUPANCY: M (MERCANTILE) - OCCUPANT LOAD: 72</p>

ABBREVIATIONS

# POUND OR NUMBER	C.M. CONSTRUCTION MANAGER	DN DOWN	FEC FIRE EXTINGUISHER	HTG. HEATING	M.H. MANHOLE	OFOI OWNER FURNISHED / OWNER INSTALLED	R.A. RETURN AIR	SLP. SLOPE	TINT TINTED
(E) EXISTING	C.M.U. CONCRETE MASONRY UNIT	DW DISHWASHER	CABINET	HVAC HEATING / VENTILATION / AIR CONDITIONING	M.O. MASONRY OPENING	OVERHEAD	R.D. ROOF DRAIN	SPEC. SPECIFICATION	TMPD TEMPERED
(N) NEW	CJ CEILING JOIST	DWG. DRAWING	FIN. FINISH	I.D. INSIDE DIAMETER	M.A.S. MASONRY	OH. OVERHEAD	R.H. RIGHT HAND	SPKR SPEAKER	TOL TOLERANCE
+/- PLUS OR MINUS	CO CLEANOUT	E. EAST	FIXT. FIXTURE	IN. INCH	MATL. MATERIAL	OPG. OPENING	R.O. ROUGH OPENING	SQ. SQUARE	TYP. TYPICAL
@ AT	CJ CONTROL JOINT	E.P. ELECTRIC PANEL	FLOUR. FLOURESCENT	INSUL. INSULATE / INSULATION	MAX. MAXIMUM	OPP. OPPOSITE	R.O.W. RIGHT OF WAY	SS. STAINLESS STEEL	U.N.O. UNLESS NOTED OTHERWISE
Ø DIAMETER	CL CENTER LINE	E.W. EACH WAY	FLR. FLOOR	INT. INTERIOR	MECH. MECHANICAL	OPAQUE	RAD. RADIUS	SSK. SERVICE SINK	UBC UNIFORM BUILDING CODE
A.B. ANCHOR BOLT	CLG. CEILING	EA. EACH	FND. FOUNDATION	INV. INVERT	MEMB. MEMBRANE	P.L. PROPERTY LINE	RB RUBBER BASE	STD. STANDARD	UNFIN. UNFINISH(ED)
A.C.T. ACOUSTICAL (CLG) TILE	CLR. CLEAR	EJ EXPANSION JOINT	FT. FOOT/FEET	J-BOX JUNCTION BOX	MFR. MANUFACTURE(ER)(ING)	P.T. PARTITION	REF. REFERENCE	STL. STEEL	V.B. VINYL BASE
A.C.T. ACOUSTICAL (CLG) TILE	COL. COLUMN	EL. ELEVATION	FTG. FOOTING	JST. JOIST	MIN. MINIMUM	PARTN PARTN	REFR. REFRIGERATOR	STRUC STRUCT	V.C.T. VINYL COMPOSITION TILE
A.F.F. ABOVE FINISH FLOOR	COMP. COMPOSITE	ELEC. ELECTRICAL	FUT. FUTURE	JT. JOINT	MISC. MISCELLANEOUS	PCF POUNDS PER CUBIC FOOT	REINF. REINFORCED	SYM. SYMETRICAL	V.T.R. VENT THROUGH ROOF
A.H.U. AIR HANDLING UNIT	CONC. CONCRETE	EMER. EMERGENCY	G.C. GENERAL CONTRACTOR	KO. KNOCKOUT	MOD. MODULAR / MODULE	PERF PERFORATED	REQD. REQUIRED	SYS. SYSTEM	VERT. VERTICAL
A.S.S. AUTOMATIC SPRINKLER SYSTEM	COND. CONDENSING UNIT	EQU. EQUIPMENT	G.I. GALVANIZED IRON	KPL. KICKPLATE	MTD. MOUNTED	PFL POUNDS PER LINEAR FOOT	RESIL. RESILIENT	T&G TONGUE AND GROOVE	W. WEST
A/C AIR CONDITIONING	CONN. CONNECTION	EXIS. EXISTING	GA. GAUGE	L. LENGTH	MTFR METAL FURRING	PL PLATE	RET. RETURN	T. TREAD	W.B. WEATHER BARRIER
ABV. ABOVE	CONSTR. CONSTRUCTION	EXT. EXTERIOR	GALV. GALVANIZED	L.B. LAG BOLT	MTL. METAL	PLAM PLASTIC LAMINATE	REV. REVISION	T.B.D. TO BE DETERMINED	W.C. WATER CLOSET
ACOUS. ACOUSTICAL	CONT. CONTINUOUS / CONTINUE	F.F. FINISH FLOOR	GL. GLASS / GLAZING	L.H. LEFT HAND	MUL. MULLION	PLBG. PLASTER	RFG. ROOFING	T.O.B. TOP OF BEAM	W.H. WATER HEATER
ALUM. ALUMINUM	CONTR. CONTRACTOR	F.H. FIRE HYDRANT	GND. GROUND	L.L. LEFT LOAD	N. NORTH	PLWD. PLYWOOD	RM. ROOM	T.O.C. TOP OF CURB / CONCRETE	W.M. WIRE MESH
APPROX. APPROXIMATE	CTR. CENTER	F.L. FLOW LINE	GR. GRADE / GRADING	L.V.L. LIVE LOAD	N.I.C. NOT IN CONTRACT	PRKG. PARKING	R.VRS. REVERSE	T.O.P. TOP OF PARAPET	W.R. WATER RESISTANT
ARCH. ARCHITECT(URAL)	CU FT CUBIC FOOT	F.O.C. FACE OF CONCRETE	GWB. GYPSUM WALL BOARD	L.V.L. LAMINATED VENEER LUMBER	N.T.S. NOT TO SCALE	PSF POUNDS PER SQUARE FOOT	S. SOUTH	T.O.S. TOP OF SHEATHING	W.T. WALL TILE
B.M. BENCH MARK	CU YD CUBIC YARD	F.O.F. FACE OF FINISH	GYP BD GYPSUM BOARD	L.V.L. LAMINATED VENEER LUMBER	NO. NUMBER	PSI POUNDS PER SQUARE INCH	S.A.T. SUSPENDED ACOUSTICAL TILE	T.O.T. TOP OF TIE	W.W.F. WELDED WIRE FABRIC
B.O.C. BOTTOM OF CURB BOARD	D.F. DRINKING FOUNTAIN	F.O.S. FACE OF MASONRY	GYP GYPSUM	L.V.L. LAMINATED VENEER LUMBER	N.O.M. NOMINAL	PTD. PAINT(ED)	S.C. SOLID CORE	T.O.W. TOP OF WALL	W/ WITH
B.D.G. BUILDING BOARD	D.S. DOWNSPOUT	F.O.S.H. FACE OF SHEATHING	H.B. HOSE BIB	L.V.L. LAMINATED VENEER LUMBER	O.A. OVERALL	PVC POLYVINYL CHLORIDE	S.D. STORM DRAIN	TEL. TELEPHONE	WO WITHOUT
BLK. BLOCK(ING)	DOUBLE	F.S.R. FIRE SPRINKLER RISER	H.C. HOLLOW CORE	L.V.L. LAMINATED VENEER LUMBER	O.C. ON CENTER	PVMT. PAVEMENT	SCHED. SCHEDULE	TFCI TENANT FURNISHED / CONTRACTOR INSTALLED	WD. WOOD
BLW. BELOW	DEPT. DEPARTMENT	F.S. FLOOR SINK	H.M. HOLLOW METAL	L.V.L. LAMINATED VENEER LUMBER	O.D. OVERHEAD DIAMETER	Q.T. QUARRY TILE	SECT. SECTION	TFTI TENANT FURNISHED / TENANT INSTALLED	WSCT. WAINSCOT
BRG. BEARING	DET. DETAIL	FCO FLOOR CLEANOUT	H.D. HEADER	L.V.L. LAMINATED VENEER LUMBER	O.H.D. OWNER FURNISHED / CONTRACTOR INSTALLED	QTY. QUANTITY	SF SQUARE FEET	THK. THICK(NESS)	
BRG. PL. BEARING PLATE	DIA. DIAMETER	FD FLOOR DRAIN	HDW. HARDWARE	L.V.L. LAMINATED VENEER LUMBER	OFCI OWNER FURNISHED / CONTRACTOR INSTALLED	R. RISER	SHT. SHEET	THRES THRESHOLD	
BS BUILDING SECTION	DIAG. DIAGONAL	FE FIRE EXTINGUISHER	HDWD. HARDWOOD	L.V.L. LAMINATED VENEER LUMBER	OFDI OVERFLOW DRAIN		SHTG. SHEATHING		
	DISP. DISPENSER / DISPOSAL		HOR. HORIZONTAL	L.V.L. LAMINATED VENEER LUMBER			SIM. SIMILAR		
	DL DEAD LOAD		HT. HEIGHT	L.V.L. LAMINATED VENEER LUMBER					

SHERWIN WILLIAMS

STORE #: XXXX

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

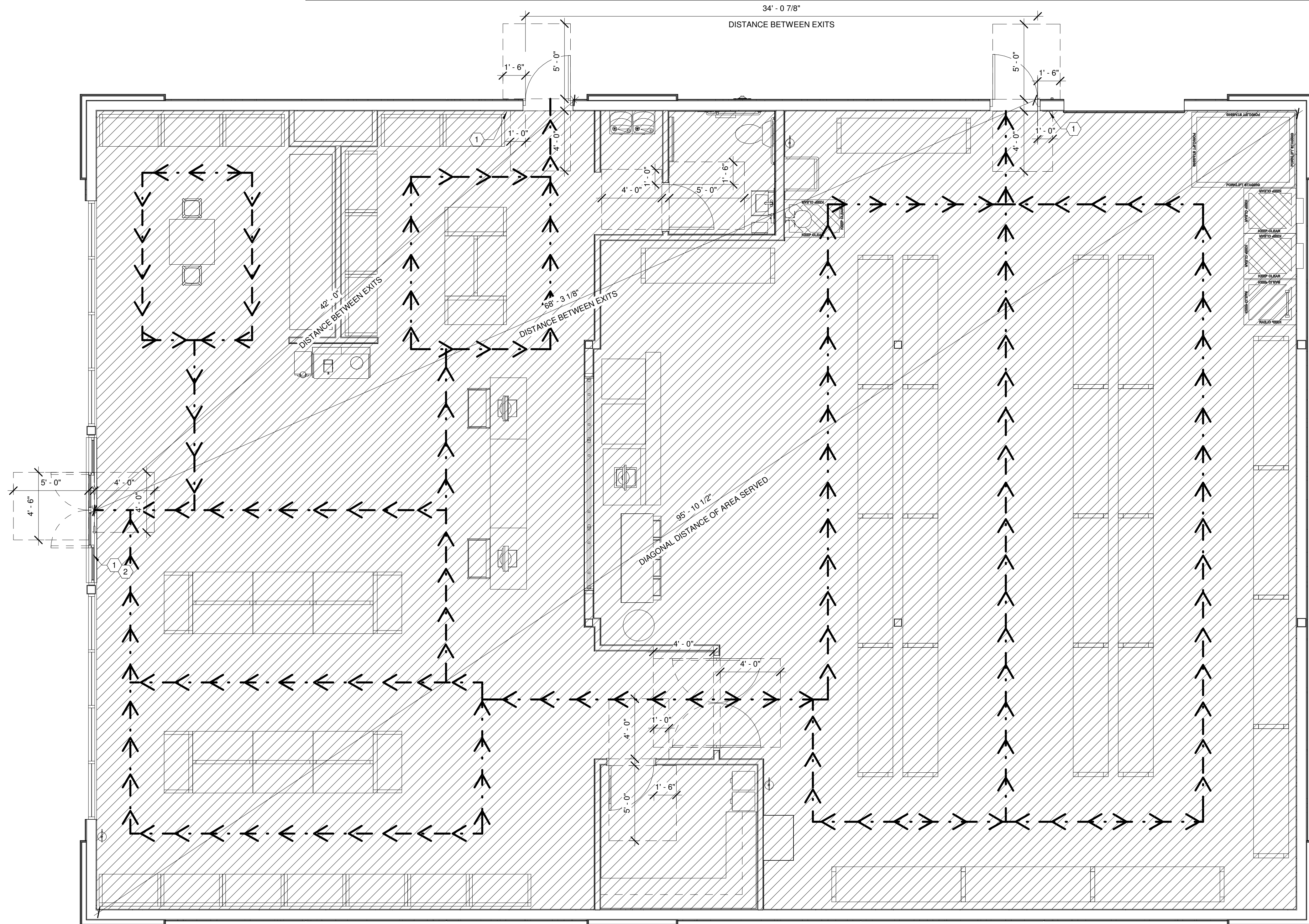
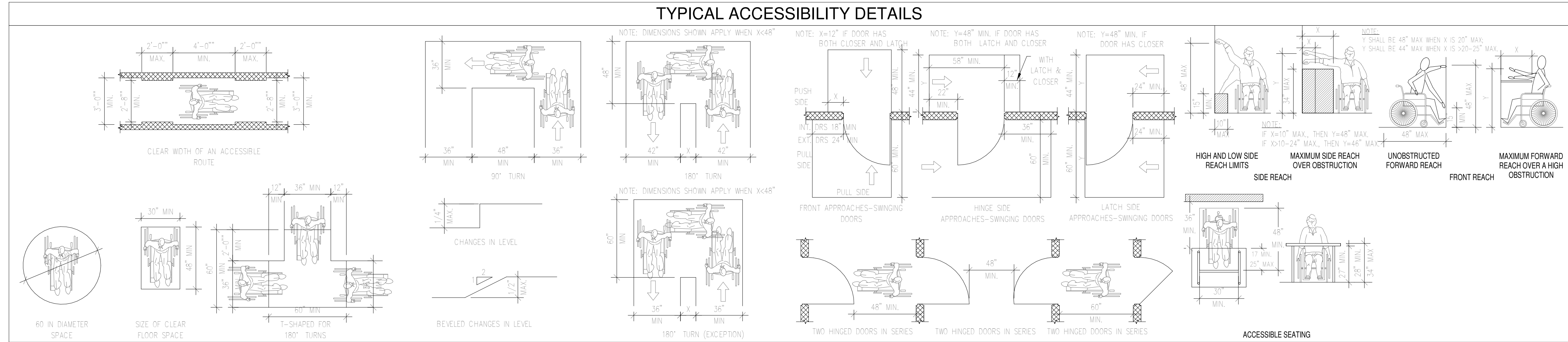
SHEET TITLE:

Cover Sheet

SHEET NUMBER:

G001

TYPICAL ACCESSIBILITY DETAILS



ACCESSIBILITY PLAN CODED NOTES

- TACTILE SIGNAGE AT EXTERIOR EXIT DOORS - SIGNAGE TO READ "EXIT" PER IBC 1011.4
- SIGNAGE: "MAXIMUM OCCUPANCY 71 PERSONS"

RESTROOM FIXTURES

	REQUIRED	PROVIDED
WATER CLOSET	1 PER 500	1
URINAL	>50% OF WC	0
LAVATORIES	1 PER 750	1
SERVICE SINK	1	1

GENERAL NOTES

- G.C. TO VERIFY QUANTITY & LOCATIONS OF FIRE EXTINGUISHERS WITH LOCAL AUTHORITIES. FIRE EXTINGUISHERS TO BE SUPPLIED BY G.C. - REFER TO FLOOR PLAN.
- 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 CONTRACTOR (IF APPLICABLE).
- ALL CLEAR FLOOR SPACE AND TURNING SPACE TO BE NO GREATER THAN 2% SLOP PER ADA 304.2 & 305.2

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

LINGLE DESIGN GROUP, 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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REGISTERED ARCHITECT
 STATE OF TEXAS
 13/2024

PROJECT #:
 TBD

DRAWN BY: BA CHECKED BY: MP

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

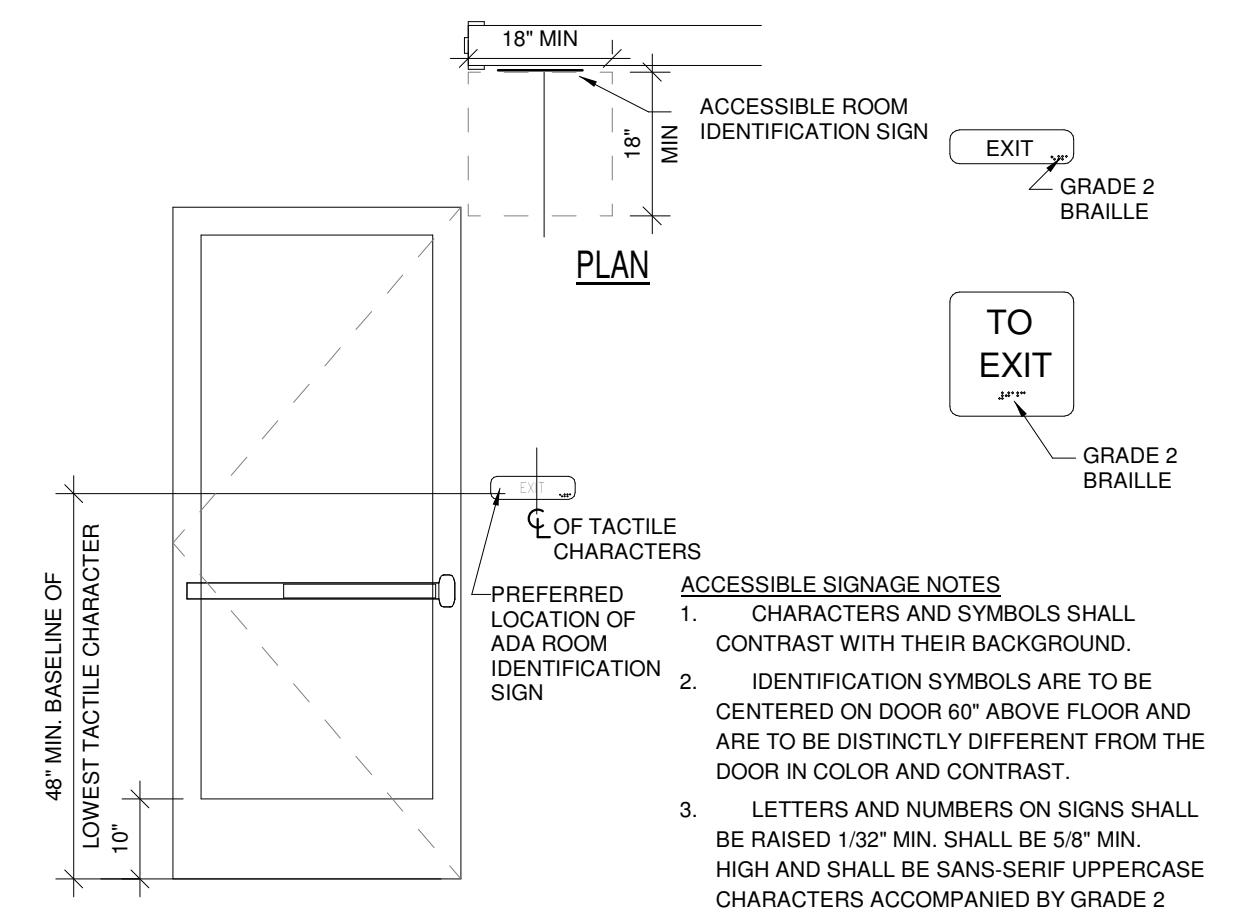
SHERWIN WILLIAMS

STORE #:
 XXXX

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

Accessibility & Egress Plan

SHEET NUMBER:
G100



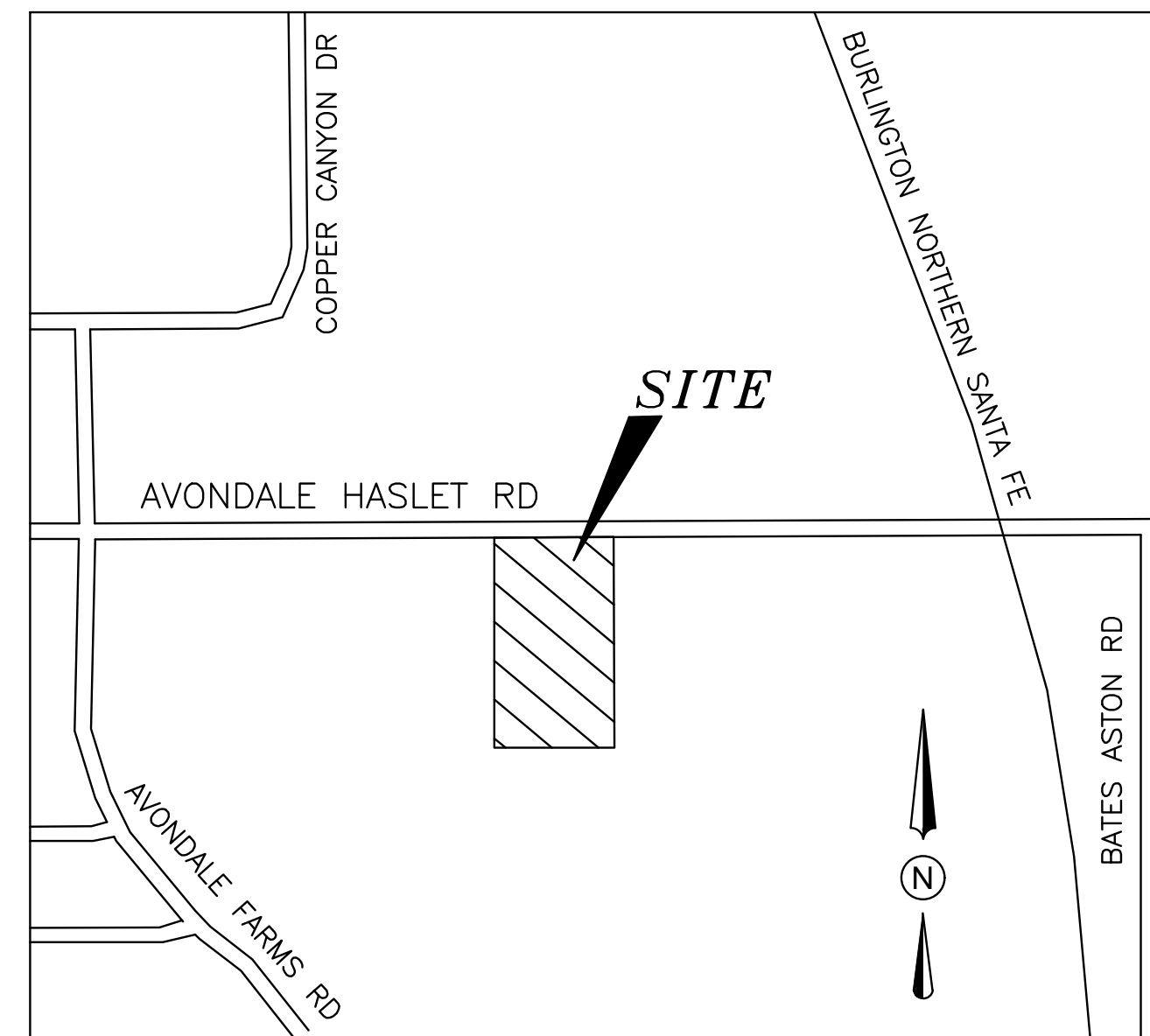
- ACCESSIBLE SIGNAGE NOTES
- CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND.
 - IDENTIFICATION SYMBOLS ARE TO BE CENTERED ON DOOR 60" ABOVE FLOOR AND ARE TO BE DISTINCTLY DIFFERENT FROM THE DOOR IN COLOR AND CONTRAST.
 - LETTERS AND NUMBERS ON SIGNS SHALL BE RAISED 1/32" MIN. SHALL BE 5/8" MIN. HIGH AND SHALL BE SANS-SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2 BRAILLE.

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	
<p style="text-align: center;">ENGINEER TRIANGLE ENGINEERING LLC 1782 W MCDERMOTT DRIVE ALLEN, TEXAS 75013 CONTACT: JACK ZANGER TEL: 469-331-8566</p>	<p style="text-align: center;">OWNER/DEVELOPER FORT WORTH DEVELOPMENT GROUP, LLC 120 MARKET SQ., FLOOR 2, PINEHURST, NC 28374 CONTACT: GAVIN MELIA TEL: 910 724 6720</p>
<p style="text-align: center;">SURVEYOR TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339</p>	

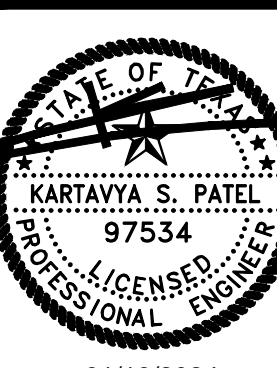


VICINITY MAP
N.T.S.

DRAWING SHEET INDEX	
SHEET NO.	DESCRIPTION
C-1.0	COVER SHEET
C-2.0	PLAT
C-3.0	SURVEY
C-4.0	SITE PLAN
C-4.1	SITE DETAILS
C-5.0	GRADING PLAN
C-6.0	PRE-DRAINAGE PLAN
C-6.1	POST-DRAINAGE PLAN
C-6.2	STORM SEWER PLAN AND PROFILE
C-6.3	STORM SEWER DETAILS
C-7.0	PAVING PLAN
C-7.1	PAVING DETAILS
C-8.0	UTILITY PLAN
C-8.1	UTILITY DETAILS
C-9.0	EROSION CONTROL PLAN
C-9.1	EROSION CONTROL DETAILS
C-10.0	URBAN FORESTRY PERMIT
L1	LANDSCAPE PLAN
L2	LANDSCAPE SPECIFICATIONS
L3	IRRIGATION PLAN
L4	IRRIGATION SPECIFICATIONS



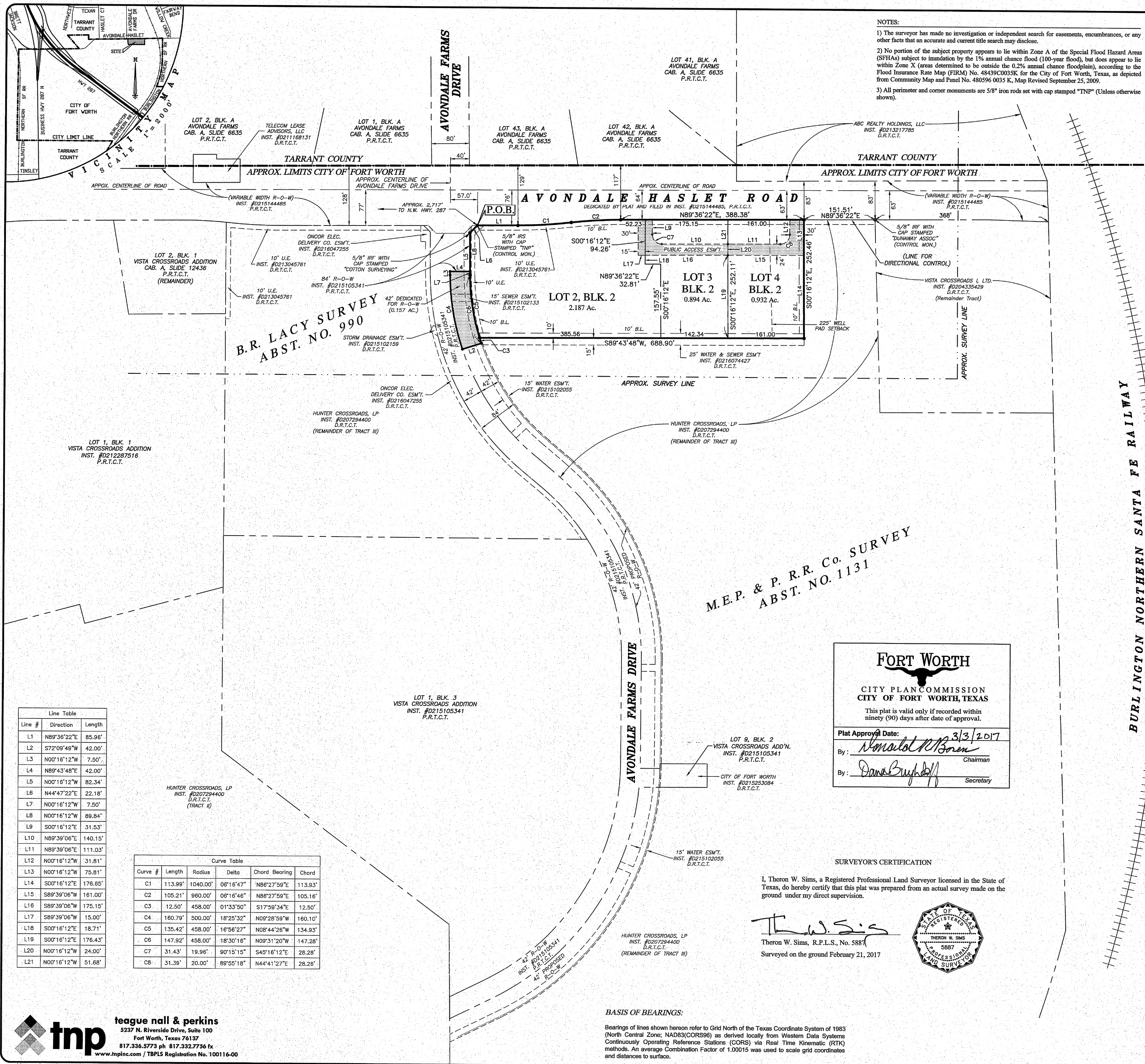
NO.	DATE	DESCRIPTION	BY
1	12-21-23	1ST SUBMITTAL	KP
2	01-10-24	2ND SUBMITTAL	KP
3	01-16-24	BIKE RACK ADDED	KP



COVER SHEET
SHERWIN WILLIAMS
2101 AVONDALE HASLET ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS

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

SHEET #
C-1.0



NOTES:

- 1) The surveyor has made no investigation or independent search for easements, encumbrances, or any other facts that an accurate and current title search may disclose.
- 2) No portion of the subject property appears to lie within Zone A of the Special Flood Hazard Areas (SFHA) subject to inundation by the 1% annual chance flood (100-year flood), but does appear to lie within Zone X (area determined to be outside the 0.2% annual chance floodplain), according to the Flood Insurance Rate Map (FIRM) No. 48439C003K for the City of Fort Worth, Texas, as depicted from Community Map and Panel No. 480596 0035 K, Map Revised September 25, 2009.
- 3) All perimeter and corner monuments are 5/8" iron rods set with cap stamped "TNP" (Unless otherwise shown).

Site Drainage Study

A site drainage study, showing conformance with the approved roadway drainage plan, may be required should any building permit will be issued on this site (a grading plan in some instances may be adequate.) If the site does not conform, then a drainage study may be required along with a CFA for any required drainage improvements and the current owner shall submit a letter to the Department of Transportation and Public Works stating awareness that a Site Drainage Study will be required before any permit is issued. The current owner will inform each buyer of the same.

Construction Prohibited Over Easements

No permanent buildings or structures shall be constructed over any existing or planned water, sanitary sewer, drainage, gas, electric, cable or other utility easement of any type.

Utility Easements

Any public utility, including the City of Fort Worth, shall have the right to move and keep removed all or part of any building, fence, tree, shrub, other growth or improvement which in any way endangers or interferes with the construction, maintenance, or efficiency of its respective systems on any of the easements shown on the plat and they shall have the right at all times to ingress and egress upon said easements for the purpose of construction, reconstruction, inspection, maintaining, and adding to or removing all or part of its respective systems without the necessity of any time of proceeding the permission of anyone.

Sidewalks

Sidewalks are required adjacent to both sides of all public and private streets, in conformance with the Sidewalk Policy per "City Development Design Standards".

Private Maintenance

The City of Fort Worth shall not be responsible for maintenance of private streets, drives, emergency access easements, recreation areas, open spaces and drainage facilities, and shall require the owner to indemnify and save harmless the City of Fort Worth, Texas, from claim, damages and losses arising out of or from performance of the obligation of said owners set forth in this paragraph.

Building Permits

No building permits shall be issued for any lot in this Subdivision until an appropriate CFA or other acceptable provisions are made for the construction of any applicable water, sewer, storm, gas, street lights, sidewalks, or paving improvements, and approval is first obtained from the City of Fort Worth.

Parkway Permit

Parkway improvements such as curb & gutter, pavement tie-in, drive approaches, sidewalks and drainage holes may be required at time of building permit issuance via a parkway permit.

Transportation Impact Fees

The City of Fort Worth has an ordinance implementing the assessment and collection of transportation impact fees. The total amount assessed is established on the approved date of this plat application, based upon Schedule I of the impact fee ordinance in effect as of the date of the plat. The amount to be collected is determined under Schedule II of said ordinance, and is due on the date a building permit is issued.

Water / Wastewater Impact Fees

The City of Fort Worth has an ordinance implementing the assessment and collection of water and wastewater impact fees. The total amount assessed is established on the filing date of this plat application, based upon Schedule I of the current impact fee ordinance. The amount to be collected is determined under Schedule II of said ordinance, and becomes effective on the date a building permit is issued, or on the connection date to the municipal water and/or wastewater system.

P.R.V. Required

Private P.R.V.s will be required if water pressure exceeds 80 P.S.I.

Private Booster Pumps Required

Private Booster Pumps required for proposed building with finish floor elevation requiring North Side 4 pressure plane for water service. In the absence of north side 4, buildings will have to install privately owned and maintained Booster Pump to enhance water pressure.

STATE OF TEXAS COUNTY OF TARRANT

WHEREAS Hunter Crossroads, LP, is the owner of 4.170 acres of land situated in the B.R. Lacy Survey, Abstract No. 990, City of Fort Worth, Tarrant County, Texas and being a portion of that certain remainder tract of land described in deed recorded in Public Records of Tarrant County, Texas, as filed in County Clerk's No. (C.C.) #D207294400, Deed Records of Tarrant County, Texas (D.R.T.C.T.), and also being a portion of Tract 13, R.B. Bishop's Subdivision, an addition to Tarrant County, Texas, according to the plat recorded in Volume 63, Page 148, Plat Records of Tarrant County, Texas (P.R.T.C.T.) and being more particularly described by metes and bounds as follows:

BEGINNING at a 5/8 inch iron rod with cap stamped "TNP", set at a northwest corner of said Tract III remainder tract, also being the intersection of the south Right-of-Way (R-O-W) line of Avondale Haslet Road (variable width) dedicated by plat, according to the plat filed in Instrument #D215144485, P.R.T.C.T., with the northeast corner of the R-O-W line of Avondale Farms Drive (variable width) dedicated by plat, according to the plat filed in Instrument #D215105341, P.R.T.C.T.;

THENCE along the south R-O-W line of said Avondale Haslet Road and along a north line of said Tract III remainder tract, the following courses and distances;

N 89°36'22" E, a distance of 85.96 feet to a 5/8 inch iron rod with cap stamped "TNP", set at the beginning of a tangent curve to the left whose radius is 1040.00 feet and whose long chord bears N 86°27'59" E, a distance of 113.93 feet;

Along said curve in a northeasterly direction through a central angle of 06°16'47", an arc length of 113.99 feet to a 5/8 inch iron rod with cap stamped "TNP", set at the beginning of a reverse curve to the right whose radius is 960.00 feet and whose long chord bears N 86°27'59" E, a distance of 105.16 feet;

Along said curve in a northeasterly direction through a central angle of 06°16'46", an arc length of 105.21 feet to a 5/8 inch iron rod set with cap stamped "TNP";

N 89°36'22" E, a distance of 388.38 feet to a 5/8 inch iron rod with cap stamped "TNP", set, from which a 5/8 inch iron rod found with cap stamped "Dunaway Assoc.", at a northeast corner of said Tract III remainder tract, also being a northwest corner of a remainder tract of land conveyed to Vista Crossroads L, LTD, according to the deed filed in Instrument No. D204335429, D.R.T.C.T., bears N 89°36'22" E, a distance of 151.51 feet;

THENCE over and across said Tract III remainder tract, the following courses and distances;

S 00°16'12" E, a distance of 252.46 feet to a 5/8 inch iron rod set with cap stamped "TNP";

S 89°43'48" W, a distance of 688.90 feet to a 5/8 inch iron rod set with cap stamped "TNP", at the beginning of a non-tangent curve to the left whose radius is 458.00 feet and whose long chord bears S 17°59'34" E, a distance of 12.50 feet;

Along said curve in a southeasterly direction through a central angle of 01°33'50", an arc length of 12.50 feet to a 5/8 inch iron rod with cap stamped "TNP", set;

S 72°09'49" W, a distance of 42.00 feet to a 5/8 inch iron rod with cap stamped "TNP", set in the east R-O-W line of said Avondale Farms Drive (Inst. #D215105341, P.R.T.C.T.), and being the beginning of a non-tangent curve to the right whose radius is 500.00 feet and whose long chord bears N 09°25'59" W, a distance of 160.10 feet;

Along said curve and said east R-O-W line in a northeasterly direction through a central angle of 18°25'32", an arc length of 160.79 feet to a 5/8 inch iron rod with cap stamped "TNP", set;

THENCE continuing along said R-O-W line, the following courses and distance;

N 00°16'12" W, a distance of 7.50 feet to a 5/8 inch iron rod with cap stamped "TNP", set;

N 89°43'48" E, a distance of 42.00 feet to a 5/8 inch iron rod with cap stamped "TNP", set;

N 00°16'12" W, a distance of 82.34 feet to a 5/8 inch iron rod found with cap stamped "Cotton Surveying";

N 44°47'22" E, continuing along said R-O-W line, a distance of 22.18 feet to the POINT OF BEGINNING and containing 181,643 square feet or 4.170 acres of land.

NOW, THEREFORE KNOW ALL MEN BY THESE PRESENTS THAT Hunter Crossroads, LP, does hereby adopt this plat as:

LOTS 2, 3 & 4, BLOCK 2 VISTA CROSSROADS ADDITION

An addition to the City of Fort Worth, Tarrant County, Texas and does hereby dedicate to the public's use forever the easements and rights-of-way shown hereon.

WITNESS my hand on this 20th day of February, 2017.

By: *Scott Rohman*
Scott Rohman,
as Manager of the General Partner of Hunter Crossroads, LP

STATE OF TEXAS COUNTY OF DALLAS

Before me, the undersigned authority, on this day personally appeared Scott Rohman, as Manager of the General Partner of Hunter Crossroads, LP, in his capacity to me to be the person whose name is subscribed to the above and foregoing instrument and acknowledged to me that he executed the same for the purpose and consideration therein expressed, and in the capacity therein stated.

Given under my hand and seal of office this 20th day of February, 2017.

Notary Public in and for the State of Texas
My Commission expires *Aug 22, 2020*

THIS PLAT FILED IN C.C. # _____, DATE: / / 2017.

FINAL PLAT OF
LOTS 2, 3 & 4, BLOCK 2 VISTA CROSSROADS ADDITION

An addition to the City of Fort Worth, Tarrant County, Texas, situated in the B.R. Lacy Survey, Abstract No. 990, City of Fort Worth, Tarrant County, Texas and being a portion of Tract 13, R.B. Bishop's Subdivision, an addition to Tarrant County, Texas, according to the plat recorded in Volume 63, Page 148, Plat Records of Tarrant County, Texas and containing 4.170 acres of land total.

Line Table

Line #	Direction	Length
L1	N89°36'22"E	85.96'
L2	S72°09'49"W	42.00'
L3	N00°16'12"W	7.50'
L4	N89°43'48"E	42.00'
L5	N00°16'12"W	82.34'
L6	N44°47'22"E	22.18'
L7	N00°16'12"W	7.50'
L8	N00°16'12"W	89.84'
L9	S00°16'12"E	31.53'
L10	N89°39'06"E	140.15'
L11	N89°39'06"E	111.03'
L12	N00°16'12"W	31.81'
L13	N00°16'12"W	75.81'
L14	S00°16'12"E	176.65'
L15	S89°39'06"W	161.00'
L16	S89°39'06"W	175.15'
L17	S89°39'06"W	15.00'
L18	S00°16'12"E	18.71'
L19	S00°16'12"E	176.43'
L20	N00°16'12"W	24.00'
L21	N00°16'12"W	51.68'

Curve Table

Curve #	Length	Radius	Delta	Chord Bearing	Chord
C1	113.99'	1040.00'	06°16'47"	N86°27'59"E	113.93'
C2	105.21'	960.00'	06°16'46"	N86°27'59"E	105.16'
C3	12.50'	458.00'	01°33'50"	S17°59'34"E	12.50'
C4	160.79'	500.00'	18°25'32"	N09°28'59"W	160.10'
C5	135.42'	458.00'	16°56'27"	N08°44'28"W	134.93'
C6	147.92'	458.00'	16°30'16"	N09°31'20"W	147.28'
C7	31.43'	19.96'	90°15'15"	S45°16'12"E	28.28'
C8	31.39'	20.00'	89°55'18"	N44°41'27"E	28.28'

M.E.P. & P. R.R. Co. SURVEY ABST. NO. 1131

FORT WORTH CITY PLAN COMMISSION CITY OF FORT WORTH, TEXAS

This plat is valid only if recorded within ninety (90) days after date of approval.

Plat Approval Date: *3/3/2017*

By: *Donald R. Brown* Chairman

By: *Dana Buehler* Secretary

SURVEYOR'S CERTIFICATION

I, Theron W. Sims, a Registered Professional Land Surveyor licensed in the State of Texas, do hereby certify that this plat was prepared from an actual survey made on the ground under my direct supervision.

Theron W. Sims
Theron W. Sims, R.P.L.S., No. 5887
Surveyed on the ground February 21, 2017

BASIS OF BEARINGS:

Bearings of lines shown hereon refer to Grid North of the Texas Coordinate System of 1983 (North Central Zone; NAD83/CORS96) as derived locally from Western Data Systems Continuously Operating Reference Stations (CORS) via Real Time Kinematic (RTK) methods. An average Combination Factor of 1.00015 was used to scale grid coordinates and distance to surface.

teague nall & perkins
5237 N. Riverside Drive, Suite 100
Fort Worth, Texas 76137
817.334.7773 ph 817.332.7756 fx
www.tnplc.com / TBPLS Registration No. 100116-00

OWNER:
Hunter Crossroads, LP
3890 W. Northwest Hwy., Suite 100
Dallas, TX 75220

DATE: 2/20/2017
FP 15-007
Ref. PP 14-053

SHERWIN WILLIAMS

TRANGLE ENGINEERING LLC

TX PE FIRM #11525

Planning | Civil Engineering | Construction Management

T: 817.331.8566 | F: 817.331.7145 | E: info@trangle-eng.com
W: trangle-eng.com | 101782 W. McCombs Drive, TX 75203

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

101/16/2024

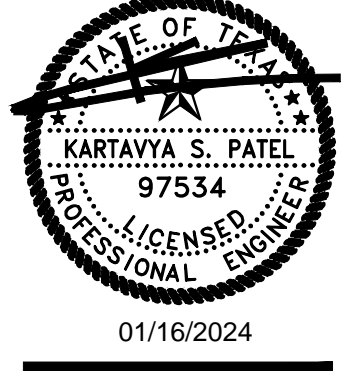
PLAT
SHERWIN WILLIAMS
2101 AVONDALE HASLET ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS

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

SHEET #
C-2.0



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



01/16/2024

SURVEY
SHERWIN WILLIAMS
2101 AVONDALE HASLETT ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS

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

SHEET #
C-3.0

LAND DESCRIPTION

Tract 1:
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, Tarrant County, Texas.

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
Date:

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

LEGEND

---	BOUNDARY LINE
---	ADJOINER BOUNDARY LINE
---	EASEMENT LINE (AS NOTED)
---	WATER LINE
---	SANITARY SEWER LINE
---	STORM DRAIN LINE (AS NOTED)
---	OVERHEAD ELECTRIC LINE
---	CHAIN LINK FENCE
---	WOOD FENCE
○	5/8" IRON ROD SET WITH A YELLOW CAP STAMPED "TRAVERSE LS"
●	FOUND IRON ROD (AS NOTED)
⊗	"X" CUT FOUND
⊙	"X" CUT SET
⊕	WATER METER
⊖	FIRE HYDRANT
⊗	WATER VALVE
⊘	IRRIGATION CONTROL VALVE
⊙	SANITARY SEWER MAN HOLE
⊙	SEWER CLEAN OUT
⊙	VAULT
⊙	TRANSFORMER
⊙	ELECTRIC VAULT
⊙	ELECTRIC METER
⊙	ELECTRIC BOX
⊙	CABLE VAULT
⊙	TELEPHONE JUNCTION BOX
⊙	TRAFFIC SIGNAL LIGHT
⊙	TRAFFIC SIGN
⊙	STORM MAN HOLE
⊙	LIGHT POLE
⊙	POWER POLE
⊙	GAS METER
⊙	AIR CONDITIONER UNIT
⊙	BENCH MARK
⊙	CONTROL MONUMENT
O.P.R.T.C.T.	OFFICIAL PUBLIC RECORDS TARRANT COUNTY, TEXAS
D.R.T.C.T.	DEED RECORDS TARRANT COUNTY, TEXAS

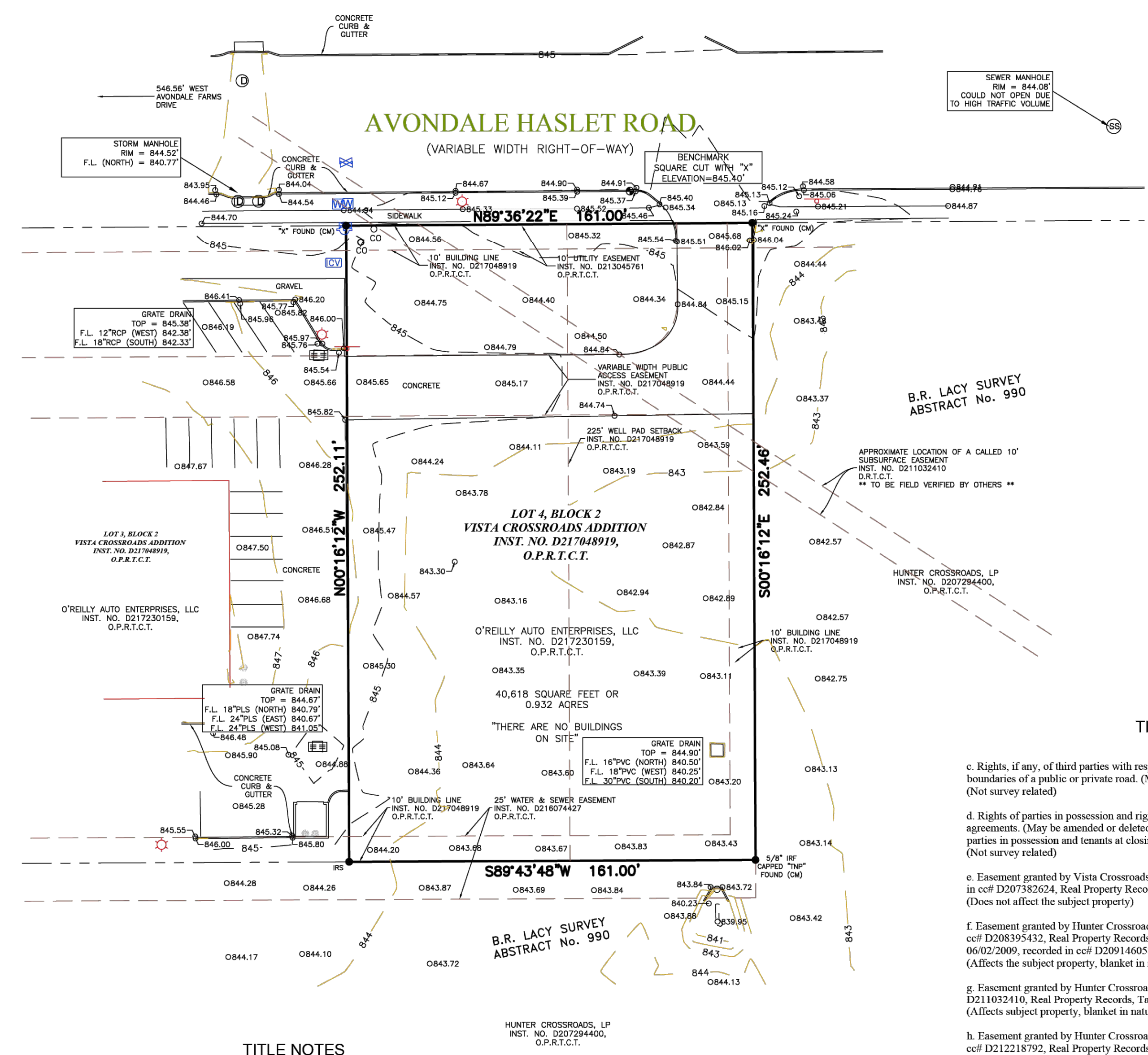
ALTA/NSPS LAND TITLE SURVEY

LOT 4, BLOCK 2,
VISTA CROSSROADS ADDITION
B.R. LACY SURVEY, ABSTRACT NO. 990
CITY OF FORT WORTH, TARRANT COUNTY, TEXAS



DRAWN	CHECK	DATE	SCALE	PROJECT NO.	SHEET NO.
TD	DM	06/28/2023	1" = 30'	TR-59-23	1

NO.	DATE	DESCRIPTION	BY



TITLE NOTES

- 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)
- 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)
- Easement granted by Vista Crossroads I, Ltd., to the City of Fort Worth, filed 10/25/2007, recorded in ccf# D207382624, Real Property Records, Tarrant County, Texas. (Does not affect the subject property)
- Easement granted by Hunter Crossroads, LP, to Hollis R. Sullivan, Inc., filed 10/16/2008, recorded in ccf# D208395432, Real Property Records, Tarrant County, Texas. Affected by Assignment filed 06/02/2009, recorded in ccf# D209146058, Real Property Records, Tarrant County, Texas. (Affects the subject property, blanket in nature)
- Easement granted by Hunter Crossroads, LP, to XTO Energy Inc., filed 02/09/2011, recorded in ccf# D211032410, Real Property Records, Tarrant County, Texas. (Affects subject property, blanket in nature)
- Easement granted by Hunter Crossroads, LP, to the City of Fort Worth, filed 09/06/2012, recorded in ccf# D212218792, Real Property Records, Tarrant County, Texas. (Does not affect the subject property)
- Terms, provisions, conditions, and easements contained in Public Utility Easement, filed 02/22/2013, recorded in ccf# D213045761, Real Property Records, Tarrant County, Texas. (Affects the subject property, as shown on survey)
- Terms, provisions, conditions, and easements contained in Development and Easement Agreement, filed 07/02/2015, recorded in ccf# D215144097, Real Property Records, Tarrant County, Texas. (Does not affect the subject property)
- Easement granted by Hunter Crossroads, LP, to the City of Fort Worth, filed 04/12/2016, recorded in ccf# D216074427, Real Property Records, Tarrant County, Texas. (Affects subject property, as shown on survey)
- The following easements and/or building lines, as shown on plat recorded in filed 03/03/2017, recorded in ccf# D217048919, Plat Records, Tarrant County, Texas: Portion of a 225' well pad setback; 10' building line; Variable width public access easement. (Affects subject property, as shown on survey)
- 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 refilled 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)
- Mineral lease together with all rights, privileges and immunities incident thereto, to Calho Oil Company, from Lois Price Witscherke, 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)

GENERAL NOTES

- All underground utilities shown hereon were taken from existing plans, none of the underground utilities shown hereon have been field verified by the surveyor.
- 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 using a surface scale factor of 1.00012.

FLOOD NOTES

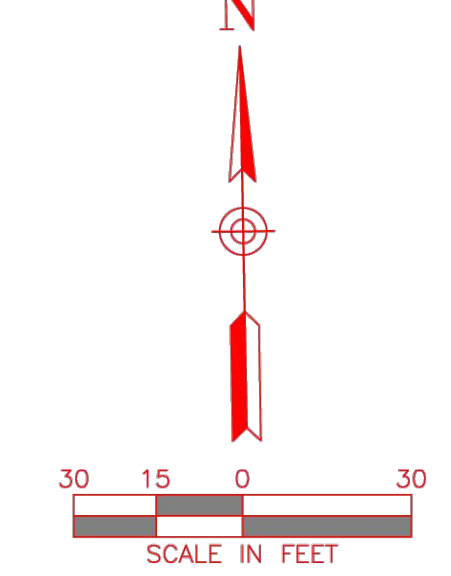
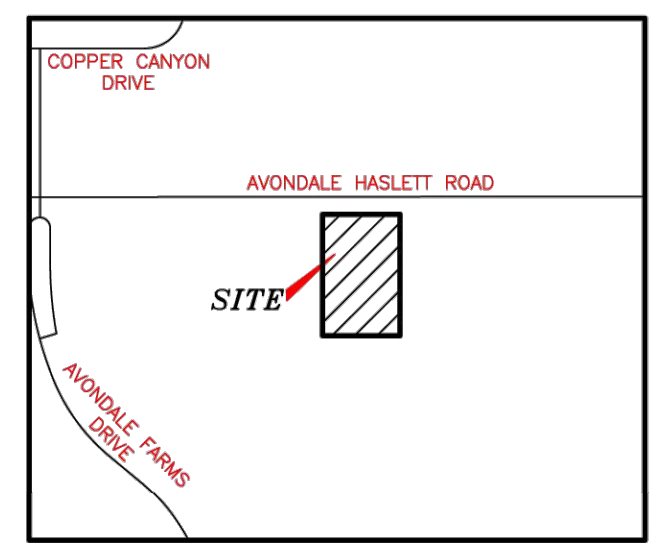
No portion of the subject property shown hereon lies within the 100 year flood hazard area according to the Flood Insurance Rate Map, Community Panel No. 48439C0035L, dated March 21, 2019. The subject property is located in the area designated as Zone "X", (areas determined to be outside the 0.2% annual chance floodplain).

TITLE NOTES

- 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. (As shown on survey)
- 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)
- (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. (Not provided)
- (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. (As shown on survey)
- 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 and lots. (As shown on survey)
- (No parking spaces observed at the time of the survey.) 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.
- 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)
- As specified by the client, distance to the nearest intersecting street. (As shown on survey)
- 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.)
- 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)

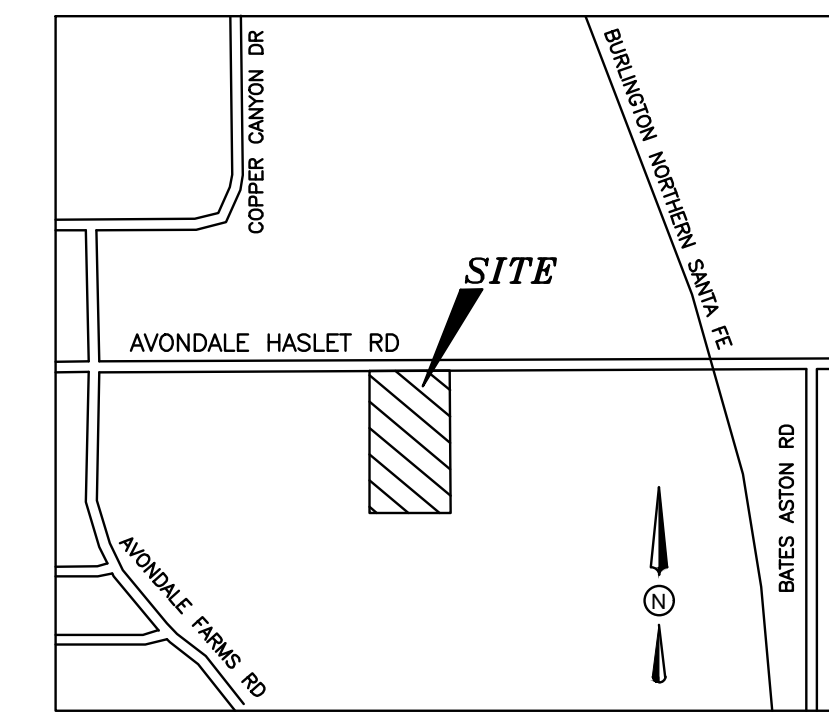
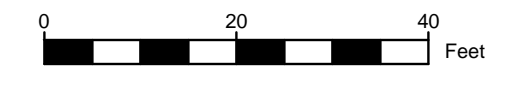
SCHEDULE B EXCEPTIONS FROM COVERAGE

- 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 ccf# 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 deleted.
 - Any discrepancies, conflicts, or shortages in area or boundary lines, or any encroachments or protrusions, or any overlapping of improvements. (Not survey related)
 - 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)
 - 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 government, or
 - 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)



VICINITY MAP
NOT TO SCALE

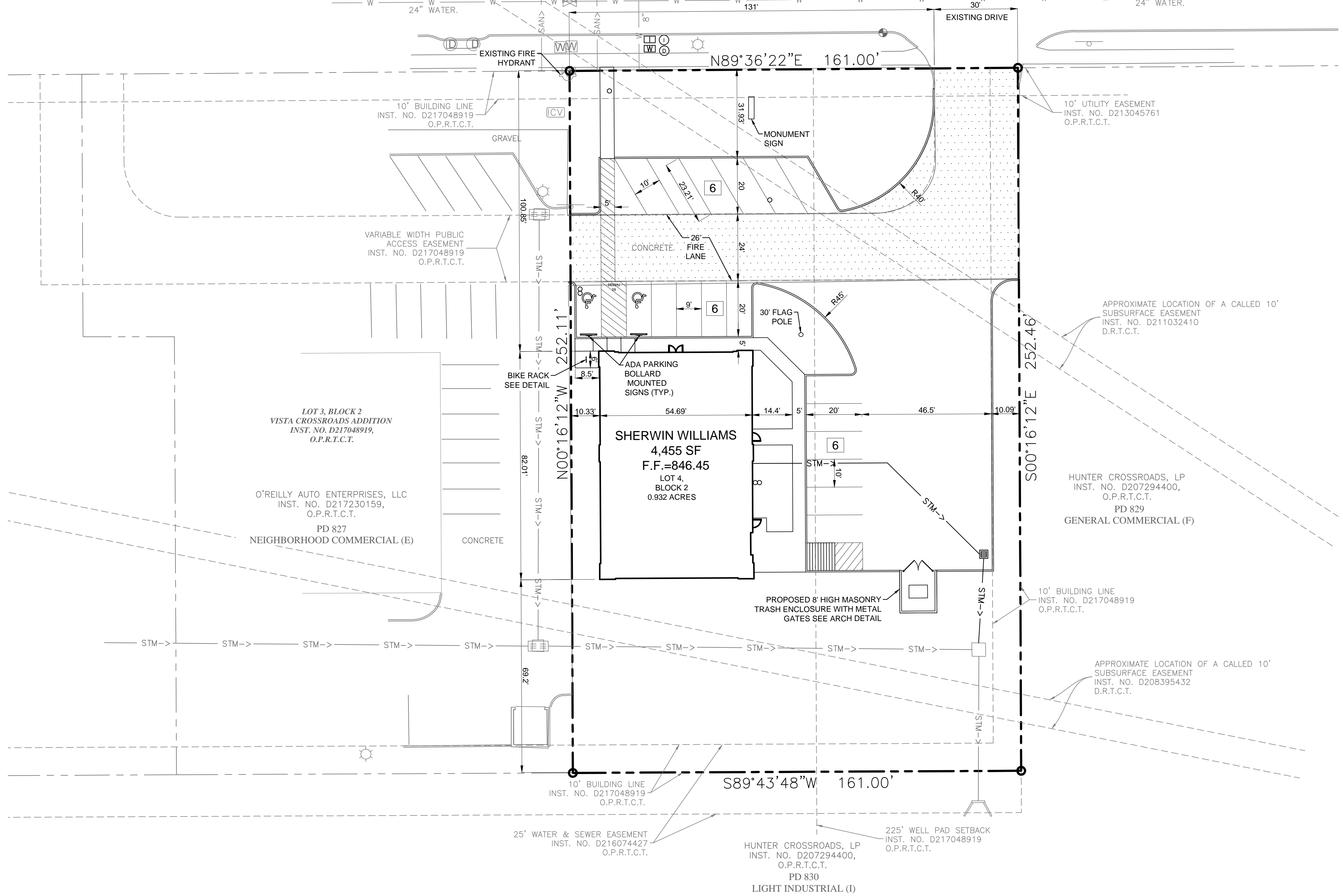
TABLE A ITEMS



VICINITY MAP
N.T.S.

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)



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 SHALL 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 LANE.
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 NEIGHBORHOOD COMMERCIAL (E)
PROPOSED ZONING:	PD 827 NEIGHBORHOOD COMMERCIAL (E)
PROPOSED USE:	RETAIL
BUILDING AREA:	4,455 S.F.
NUMBER OF STORIES:	1
BUILDING HEIGHT:	26'
FACADE:	STUCCO
PARKING REQUIRED:	18 PARKING SPACES 4 PER 1000 FT. SF
REGULAR PARKING PROVIDED:	16 PARKING SPACES
HANDICAP PARKING REQUIRED:	1 SPACE (1 VAN ACCESSIBLE)
HANDICAP PARKING PROVIDED:	2 SPACE (1 VAN ACCESSIBLE)
TOTAL PARKING PROVIDED:	18 PARKING SPACES
IMPERVIOUS COVERAGE:	20,477 S.F. OR 50.43%
PERVIOUS/LANDSCAPE AREA:	20,121 S.F. OR 49.57%
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.

PROJECT CONTACT LIST	
ENGINEER TRIANGLE ENGINEERING LLC 1782 W MCDERMOTT DRIVE ALLEN, TEXAS 75013 CONTACT: JACK ZANGER TEL: 469-331-8566	OWNER/DEVELOPER FORT WORTH DEVELOPMENT GROUP, LLC 120 MARKET SQ., FLOOR 2, PINEHURST, NC 28374 CONTACT: GAVIN MELIA TEL: 910 724 6720
SURVEYOR TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339	

WATER METER & SANITARY SEWER SCHEDULE				
ID	TYPE	SIZE	NO.	SAN. SEW.
(D)	DOM.	1"	1	4"
(I)	IRR.	1"	1	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	WATER VALVE
- - - ADJOINER BOUNDARY LINE	TRAFFIC SIGNAL BOX
- - - EASEMENT LINE (AS NOTED)	GAS SIGN MARKER
--- WATER LINE	WATER METER
--- SANITARY SEWER LINE	ELECTRIC PEDESTAL
--- STORM DRAIN LINE (AS NOTED)	TELEPHONE MANHOLE
--- OVERHEAD ELECTRIC LINE	STORM MAN HOLE
--- GAS LINE	LIGHT POLE
--- UNDERGROUND FIBER OPTIC LINE	POWER POLE
○ SIGN	BENCH MARK
○ SET IRON ROD (AS NOTED)	CONTROL MONUMENT
○ FOUND IRON ROD (AS NOTED)	SANITARY SEWER CLEANOUT
○ "X" CUT FOUND	OFFICIAL PUBLIC RECORDS
○ "X" CUT SET	BOWIE COUNTY, TEXAS
○ FH FIRE HYDRANT	D.R.B.C.T. DEED RECORDS
○ SANITARY SEWER MAN HOLE	BOWIE COUNTY, TEXAS
	UNDERGROUND UTILITIES (SUE)



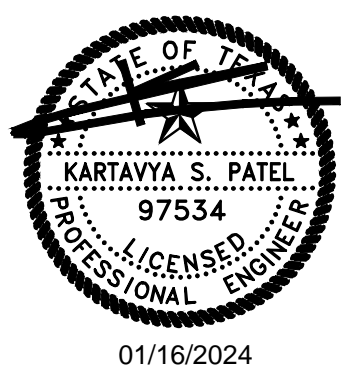
TX PE FIRM #11525

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 W: triangle-eng.com | O: 1782 W. McDermott Drive, TX 75013

Planning | Civil Engineering | Construction Management

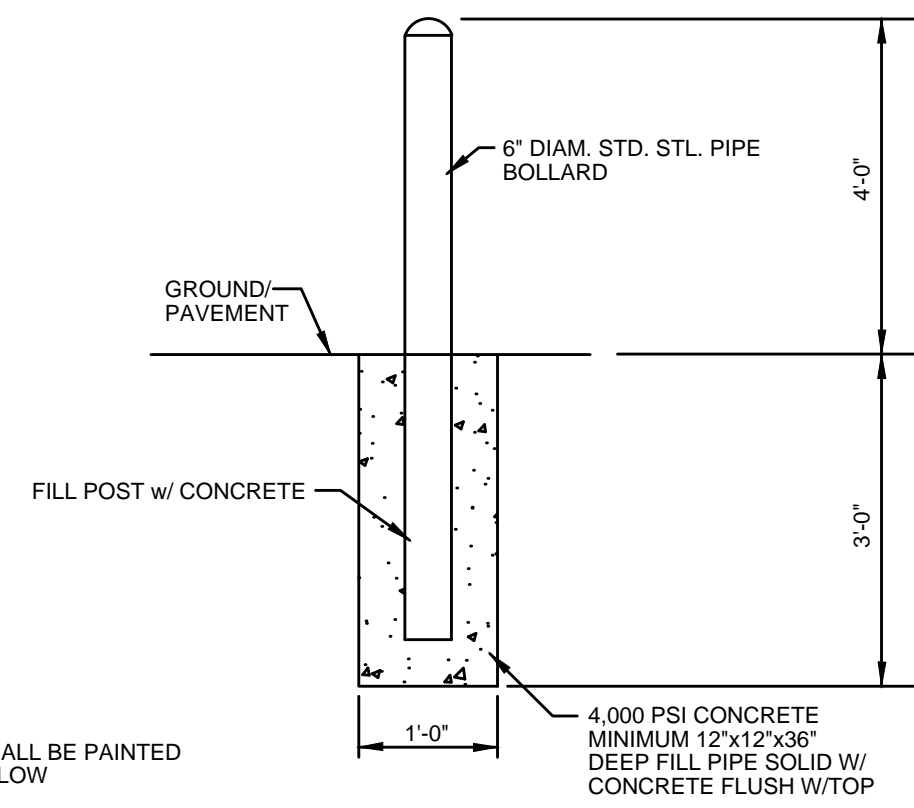
NO.	DATE	DESCRIPTION	BY
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2	01-10-24	2ND SUBMITTAL	KP
3	01-16-24	BIKE RACK ADDED	KP



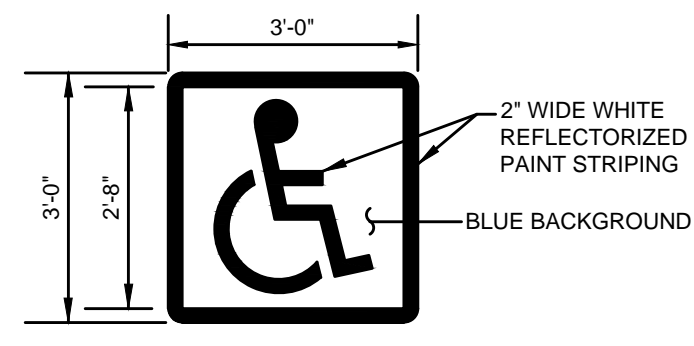
SITE PLAN
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

SHEET #
C-4.0

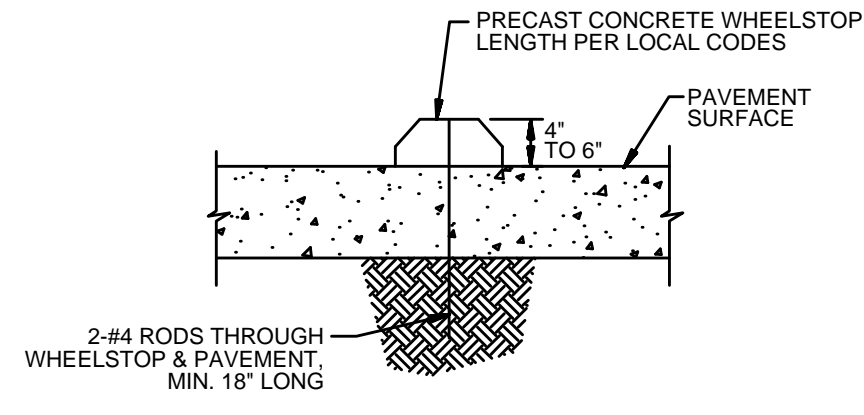


BOLLARD DETAIL
N.T.S.

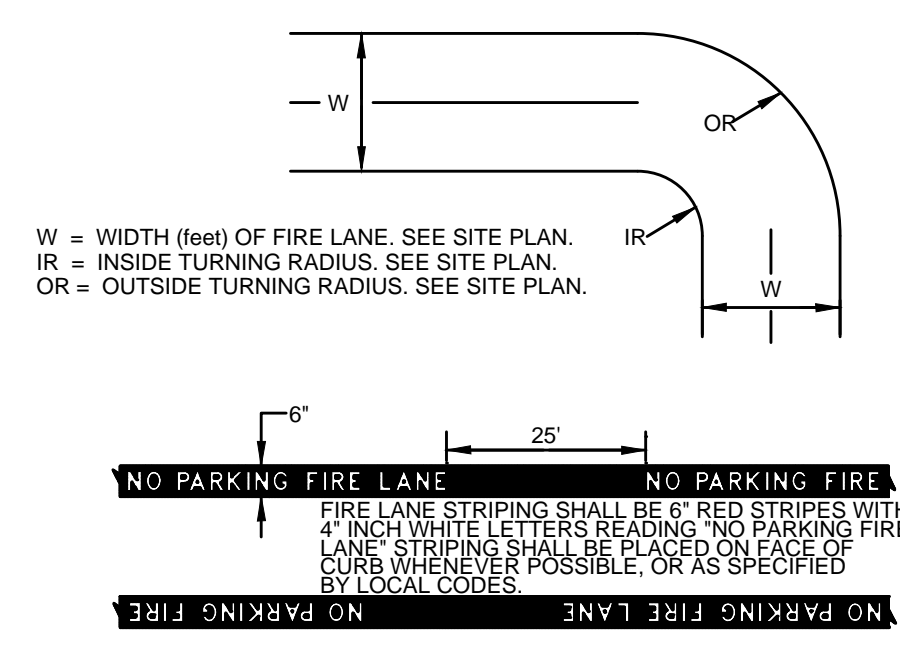


- NOTES:
 1. STENCIL ONE SYMBOL ONTO PARKING SURFACE IN EACH ACCESSIBLE STALL.
 2. LOCATE PER ACCESSIBLE PARKING STALL DETAIL(S).
 3. ALL LINES 2" WIDE PAINTED ON WHITE ON BLUE BACKGROUND.

ACCESSIBLE PARKING EMBLEM DETAIL
N.T.S.

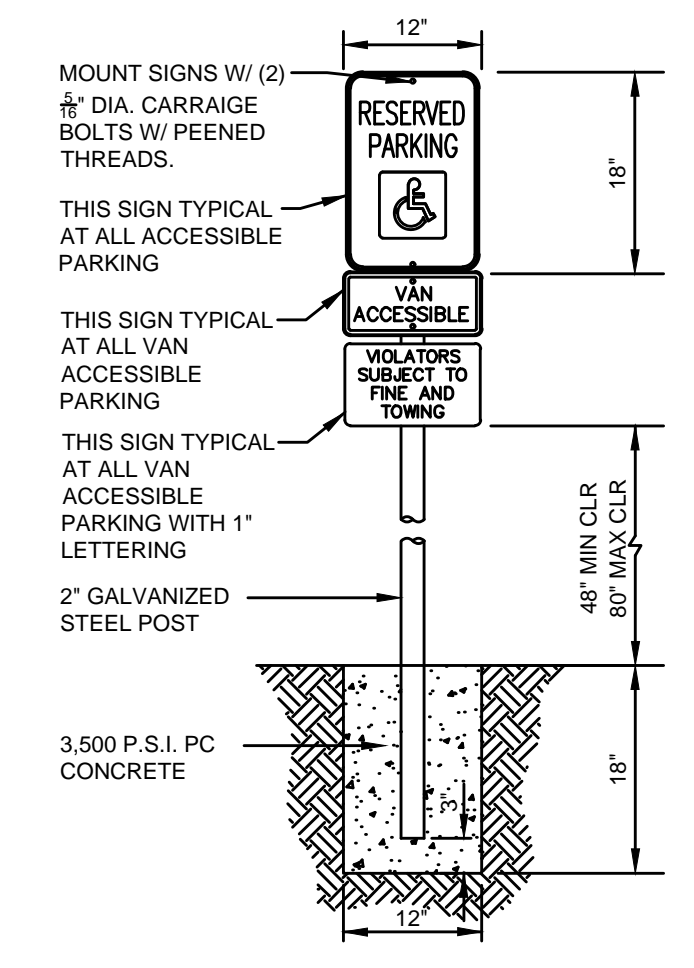


PRECAST CONCRETE WHEEL STOP DETAIL
N.T.S.

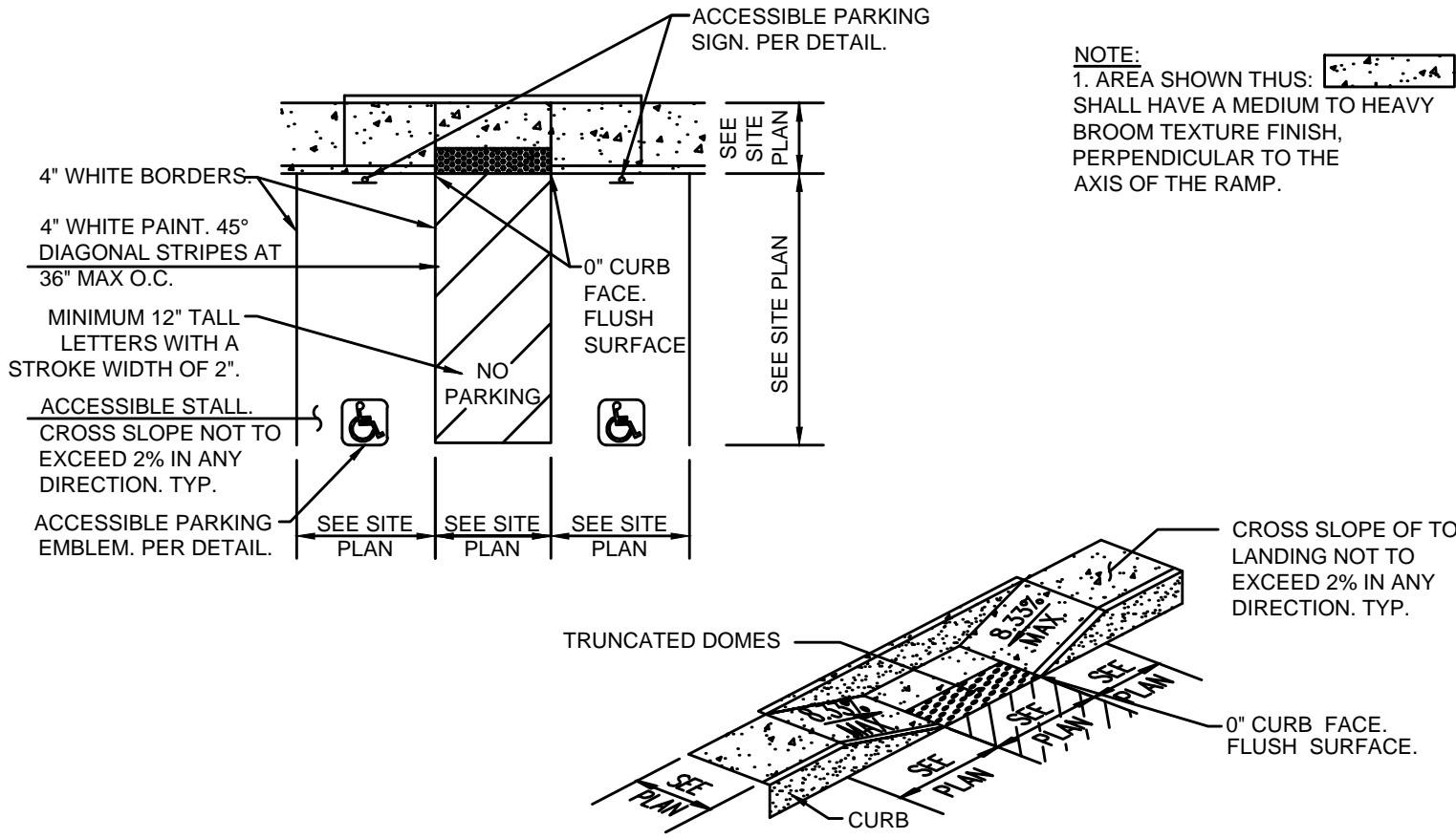


FIRE LANE MARKING

FIRE LANE DETAIL



ACCESSIBLE PARKING SIGN DETAIL
N.T.S.

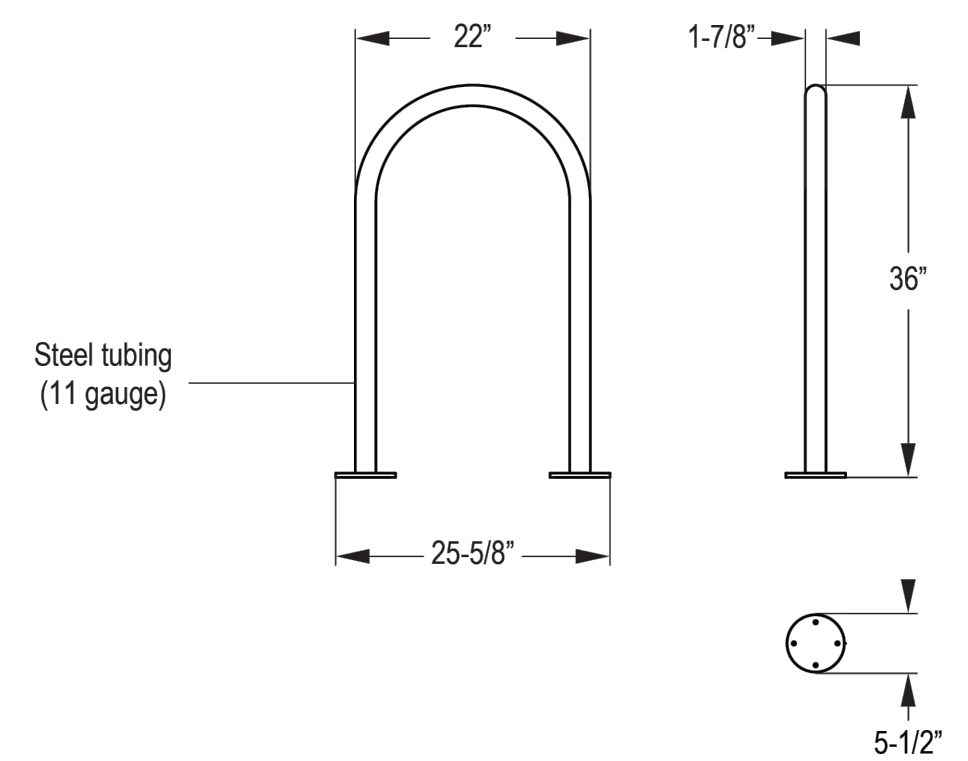


ACCESSIBLE PARKING STALL DETAIL
N.T.S.

BELSON OUTDOORS
 627 Amersale Dr
 Naperville, IL 60563
 Phone: (800) 323-5664
 Fax: (630) 897-0573
 sales@belson.com

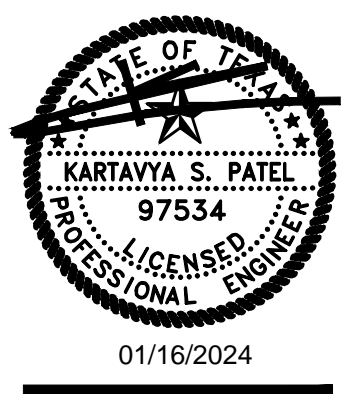
Model # CBBR-2UR-SS Dimension Sheet

2 Bike 'U' Bike Rack, Stainless Steel, Surface Mount



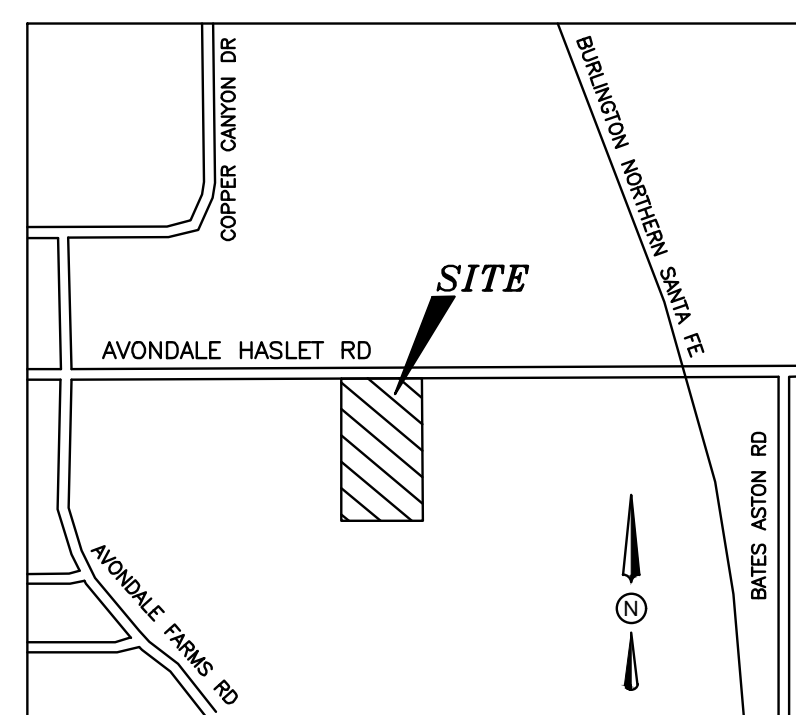
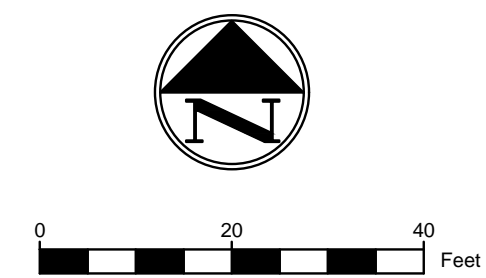
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01/16/2024
 SITE DETAILS
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

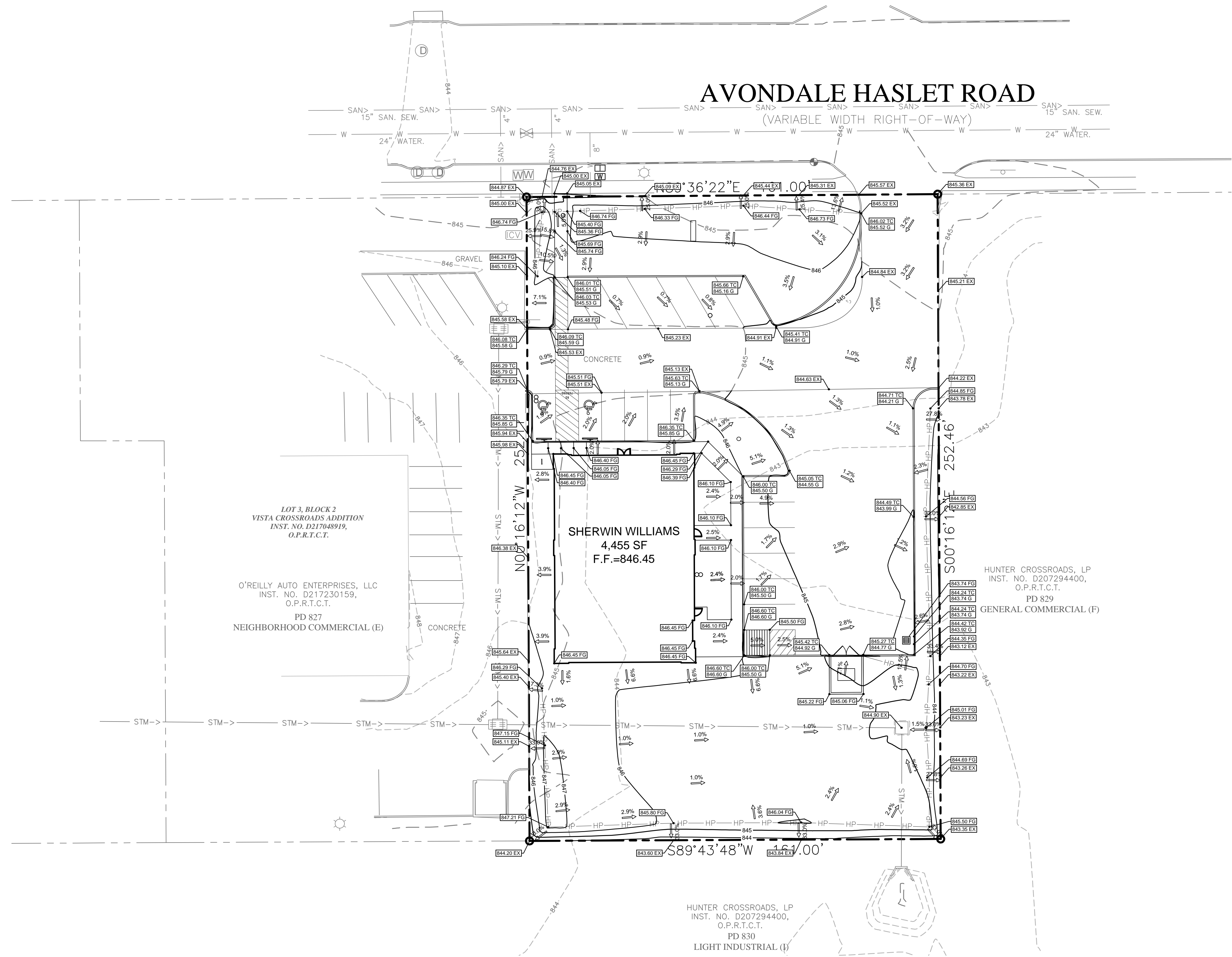
DATE	PROJECT
01/16/24	049-23
P.E.	DESIGN
KP	JZ



VICINITY MAP
N.T.S.

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)



GRADING GENERAL NOTES

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 SHALL BE PLACED ON SUCH PROPERTY WITH THE WRITTEN CONSENT OF THE OWNER(S) OF SUCH PROPERTY. A COPY OF SUCH WRITTEN CONSENT SHALL BE PROVIDED TO THE OWNER. IF THE CONTRACTOR WISHES TO DISPOSE OF 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 TARRANT COUNTY, TEXAS AND INCORPORATED AREAS.

BENCHMARKS

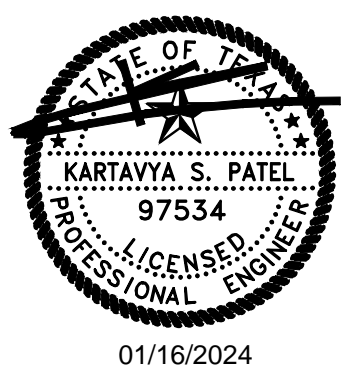
THE BASIS OF BEARINGS IS FROM THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE AS DERIVED FROM GPS OBSERVATIONS USING THE ALLTERRA R TK NETWORK AND ADJUSTED TO SURFACE USING A SURFACE SCALE FACTOR OF 1.00012.

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	600.00 FG
EXISTING GRADE	600.00 EX
DRAINAGE FLOW DIRECTION	2.0%
MINOR CONTOURS	----- 740 -----
MAJOR CONTOURS	----- 740 -----
SWALE	HP-HP-HP-HP-HP-HP
HIGH POINT	HP
STORM PIPE	STM-> STM->
CURB INLET	⊠
STORM MANHOLE	⊞
STORM CLEANOUT	⊞
RETAINING WALL	▬
RIP RAP	▨

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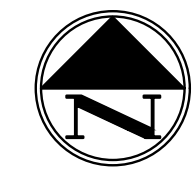
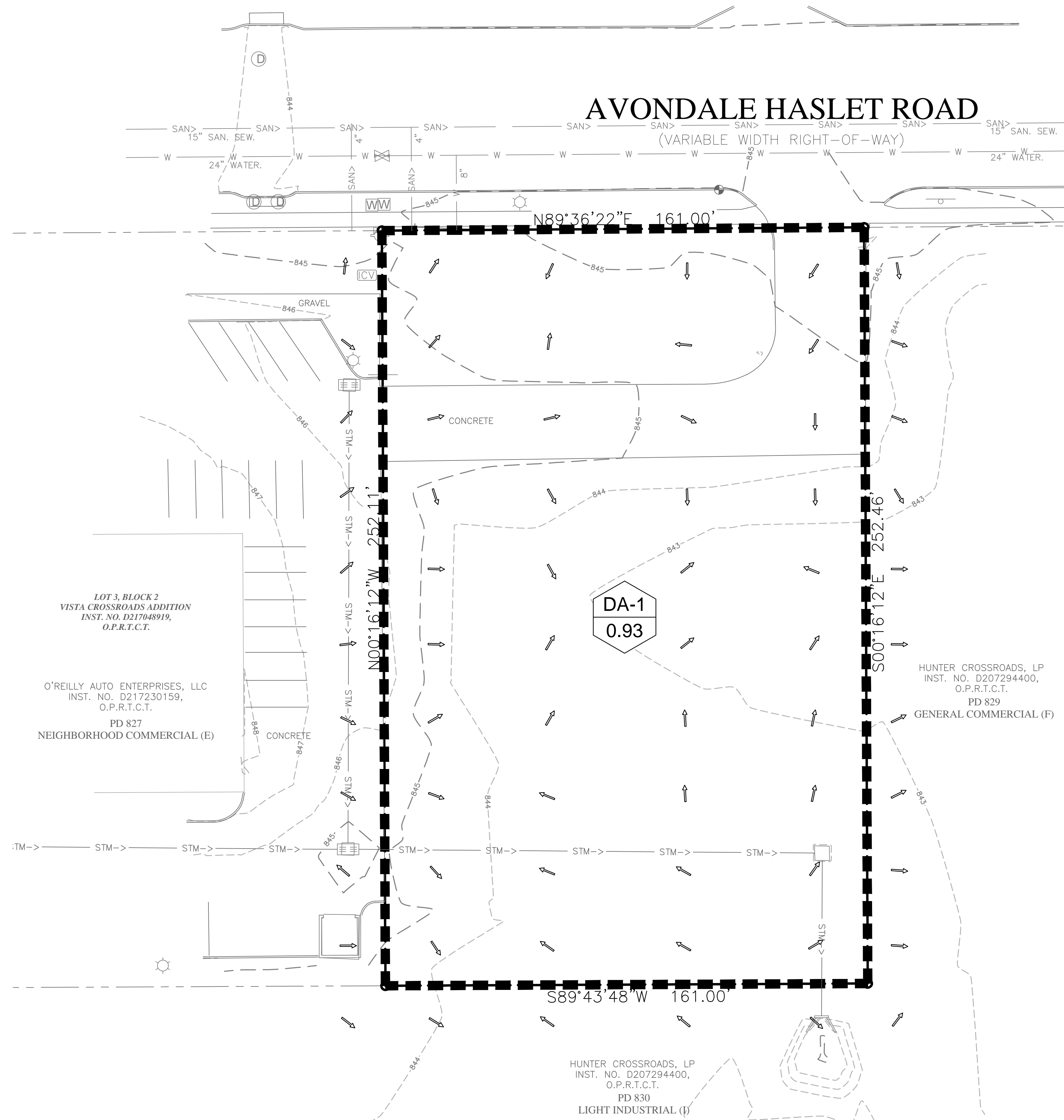


01/16/2024

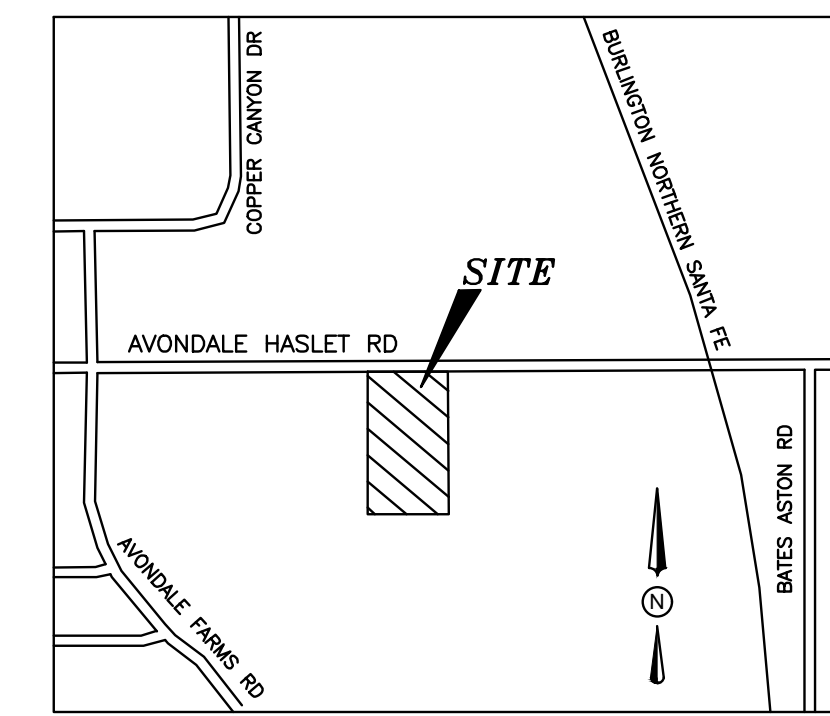
GRADING PLAN
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

SHEET #
C-5.0



0 20 40 Feet



VICINITY MAP
N.T.S.

PRE-DRAINAGE LEGEND

EXISTING MINOR CONTOURS	---	750
EXISTING MAJOR CONTOURS	---	750
DRAINAGE AREA NO.	DA-1	
DRAINAGE AREA ACREAGE	0.25	
DRAINAGE DIVIDE	---	
DRAINAGE FLOW DIRECTION	→	

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

PRE-DEVELOPED DRAINAGE CALCULATIONS												
DRAINAGE AREA	C	Tc (min)	I-2 (in/hr)	I-10 (in/hr)	I-25 (in/hr)	I-100 (in/hr)	A (acres)	Q-2 (cfs)	Q-10 (cfs)	Q-25 (cfs)	Q-100 (cfs)	REMARKS
DA-1	0.38	10	4.21	6.44	7.72	11.99	0.93	1.49	2.28	2.73	4.24	4'X4' AREA INLET
TOTAL							0.93	1.49	2.28	2.73	4.24	

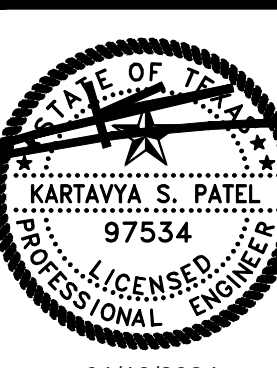
Based on (SIWM) Technical Manual and the National Oceanic and Atmospheric Administration's (NOH) Atlas 14
Precipitation-Frequency Atlas Of the United States, Volume 11 Version 2.0: Texas' (Perica et al-2018), Annual Maximum Series

WEIGHTED RUNOFF COEFF. CALCS FOR DRAINAGE AREA A
 $C = \frac{0.30 \times 0.90 + 0.90 \times 0.13}{0.93} = 0.38$



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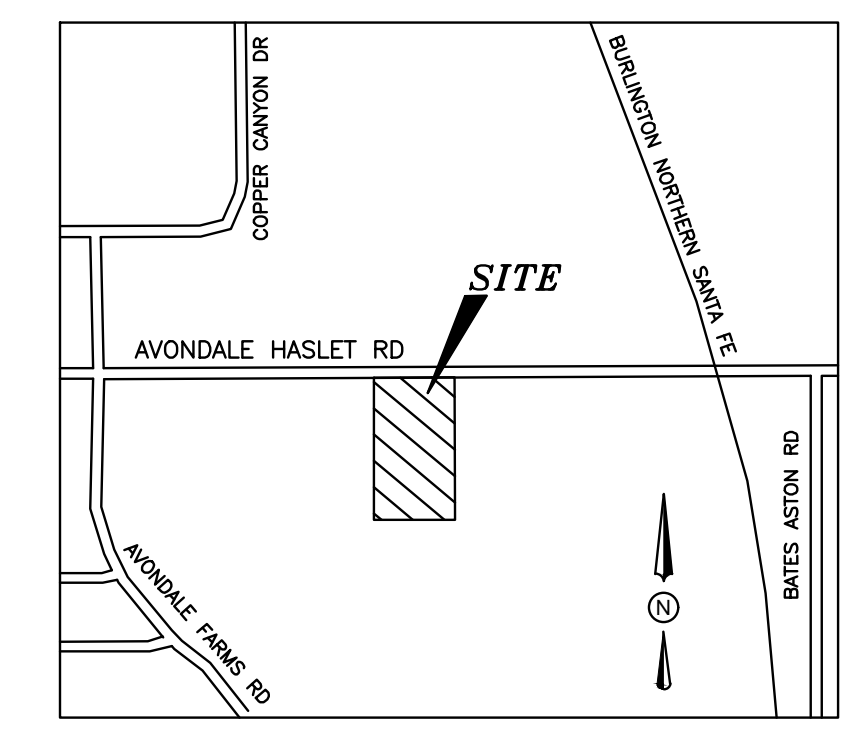
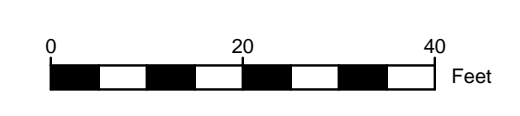
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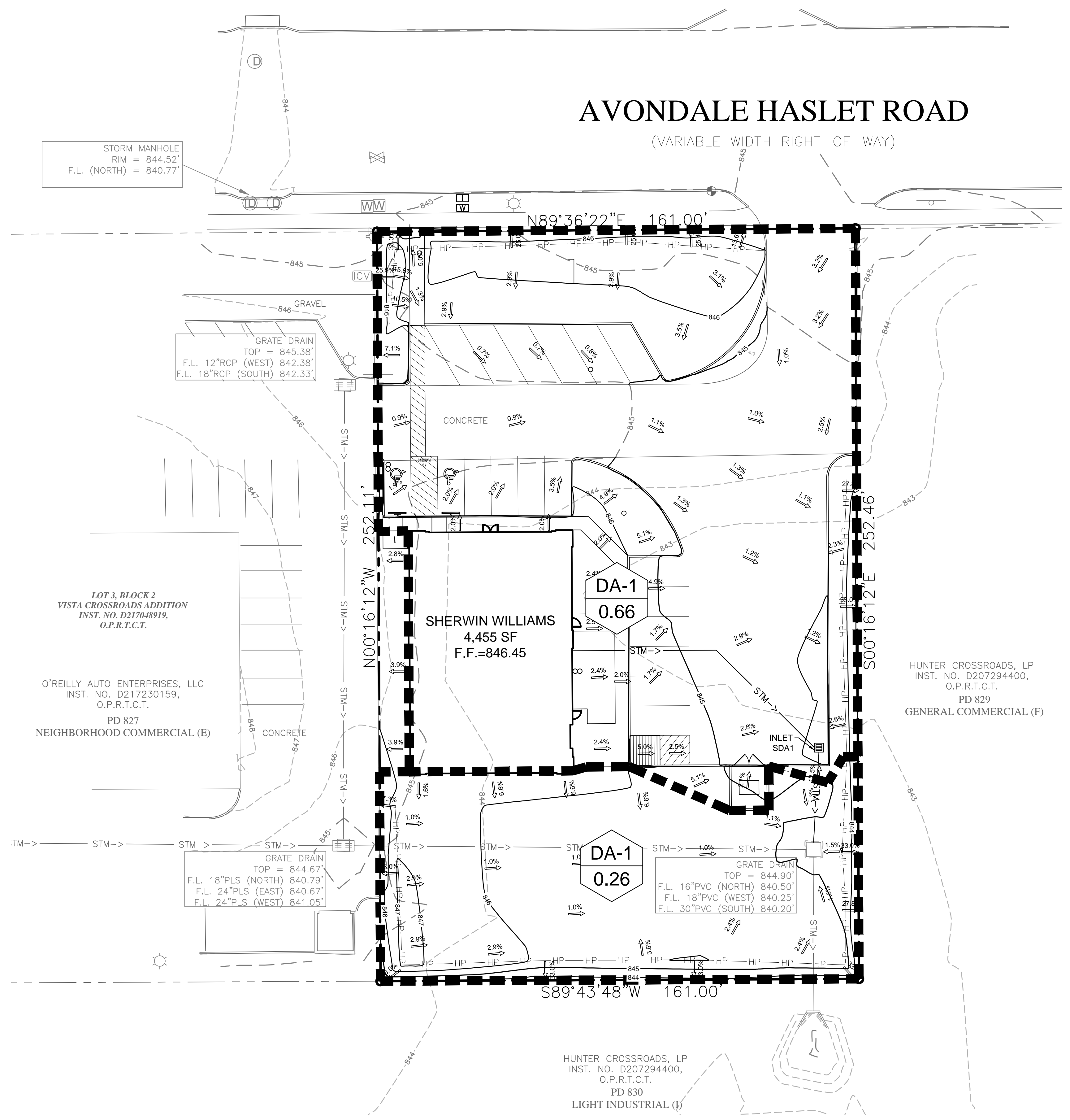
PRE DRAINAGE PLAN
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

SHEET #
C-6.0



VICINITY MAP
N.T.S.



POST-DRAINAGE LEGEND

EXISTING MINOR CONTOURS	---	750
EXISTING MAJOR CONTOURS	- - -	750
MINOR CONTOURS	---	740
MAJOR CONTOURS	- - -	740

DRAINAGE AREA NO. **DA-2**

DRAINAGE AREA ACREAGE **0.50**

DRAINAGE DIVIDE **---**

DRAINAGE FLOW DIRECTION **1.0%**

HIGH POINT **HP**

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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

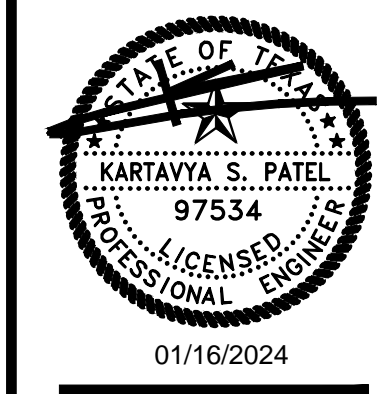
POST-DEVELOPED DRAINAGE CALCULATIONS

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DA-1	0.60	10	4.21	6.44	7.72	11.99	0.66	1.67	2.55	3.06	4.75	4'X4' AREA INLET
DA-2	0.60	10	4.21	6.44	7.72	11.99	0.26	0.66	1.00	1.20	1.87	4'X4' AREA INLET
TOTAL							0.92	2.32	3.55	4.26	6.62	

Based on (ISWM) Technical Manual and the National Oceanic and Atmospheric Administration's (NOH) Atlas 14
 Precipitation-Frequency Atlas Of the United States, Volume 11 Version 2.0: Texas' (Perica et al- 2018), Annual Maximum Series

WEIGHTED RUNOFF COEFF. CALCS FOR DRAINAGE AREA A
 $C = \frac{0.30 \times 0.47 + 0.90 \times 0.46}{0.93} = 0.60$

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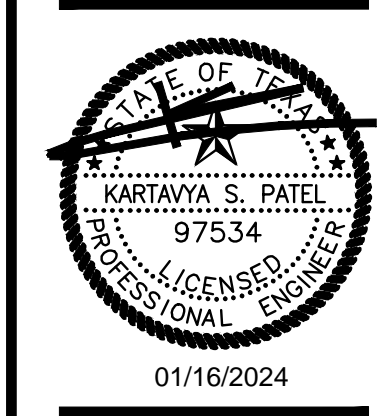


01/16/2024

POST DRAINAGE PLAN
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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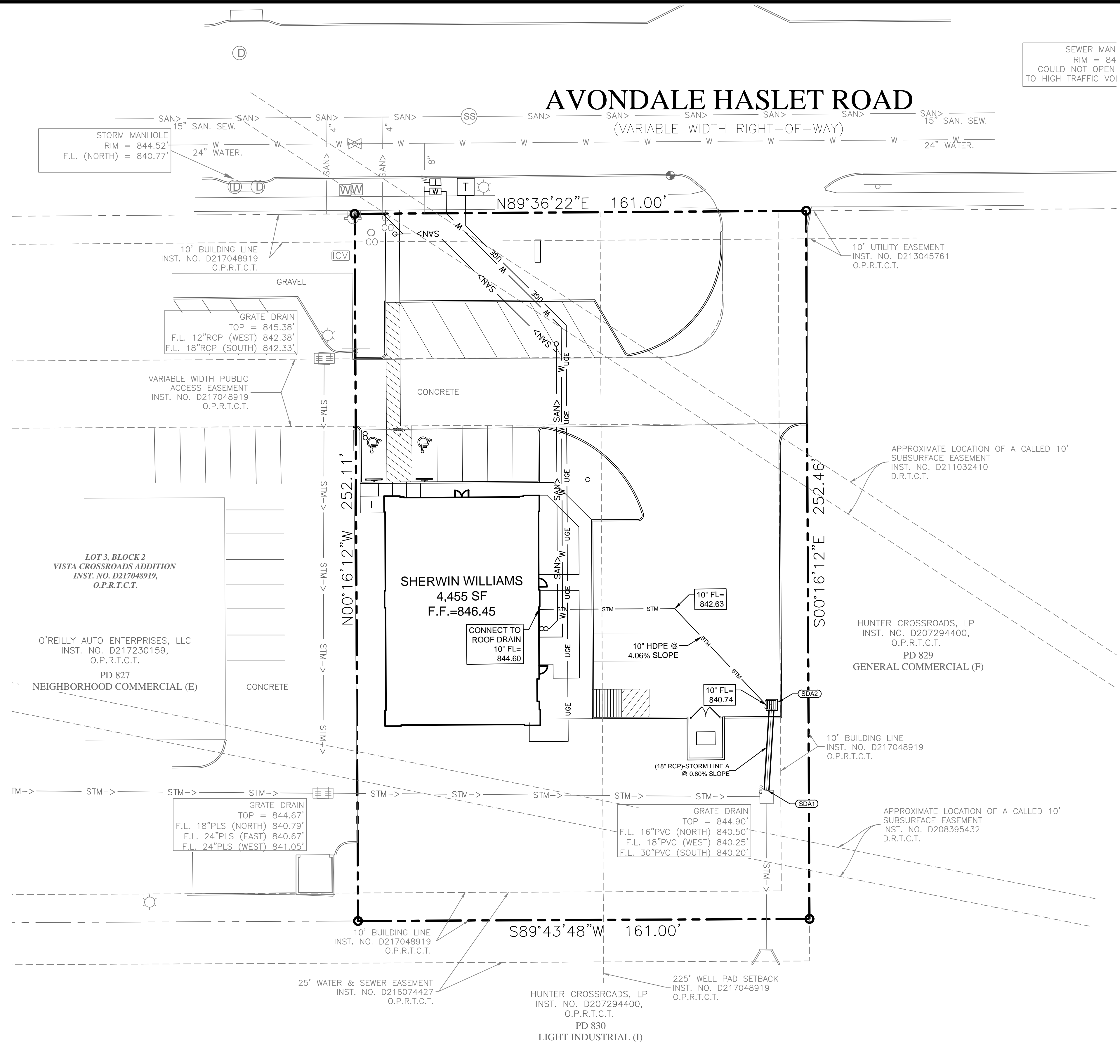
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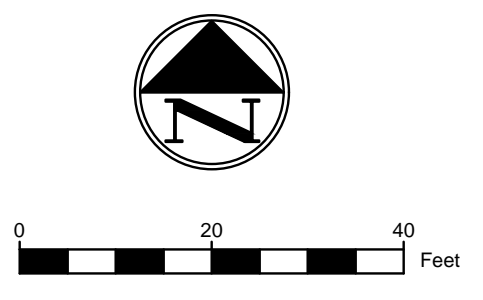
STORM SEWER PROFILES
 SHERWIN WILLIAMS
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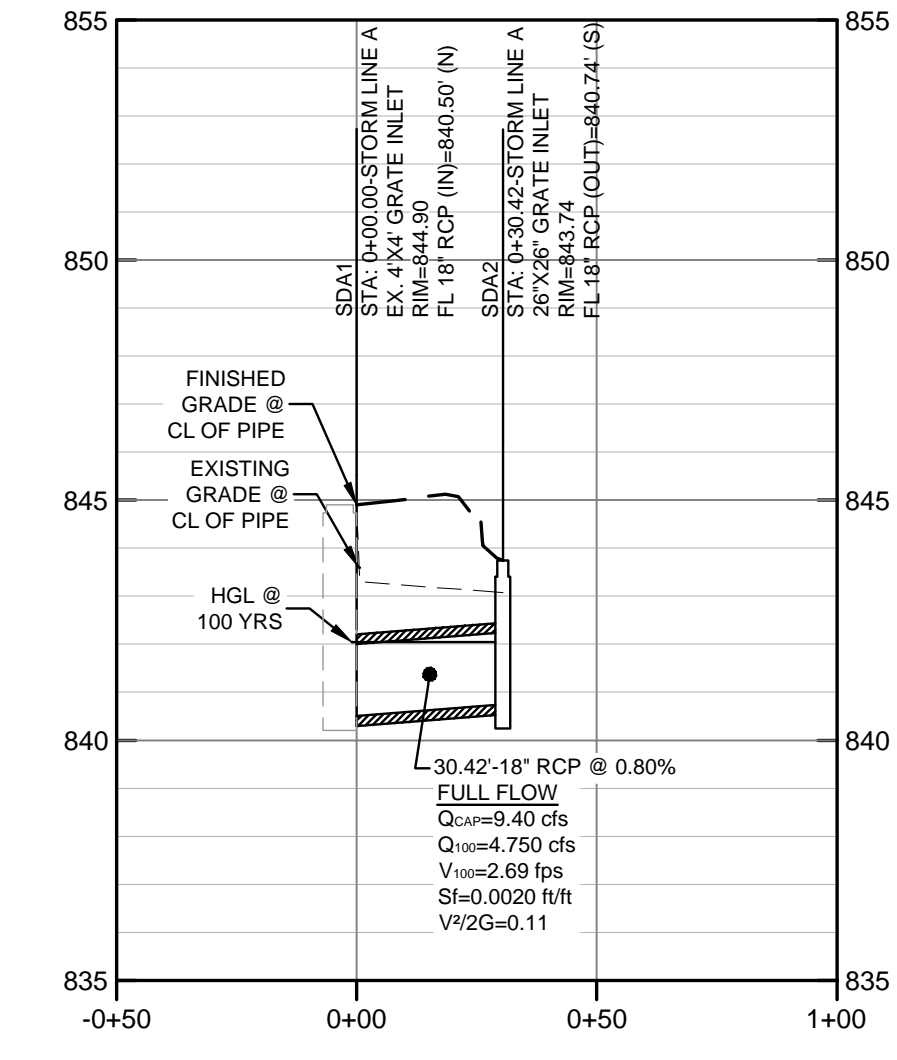
SHEET #
C-6.2



SEWER MAN
 RIM = 84
 COULD NOT OPEN
 TO HIGH TRAFFIC VOLUME



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



UTILITY LEGEND

UNDERGROUND TELEPHONE LINE	— UGT —
UNDERGROUND ELECTRIC LINE	— UGE —
GAS LINE	— G —
SANITARY SEWER LINE	— SAN —
WATER MAIN	— W —
DOMESTIC WATER LINE	— D —
STORM LINE	— S —

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	⊙
FIRE HYDRANT	⊙
TRANSFORMER	⊙
LIGHT POLE	⊙
POWER POLE	⊙

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

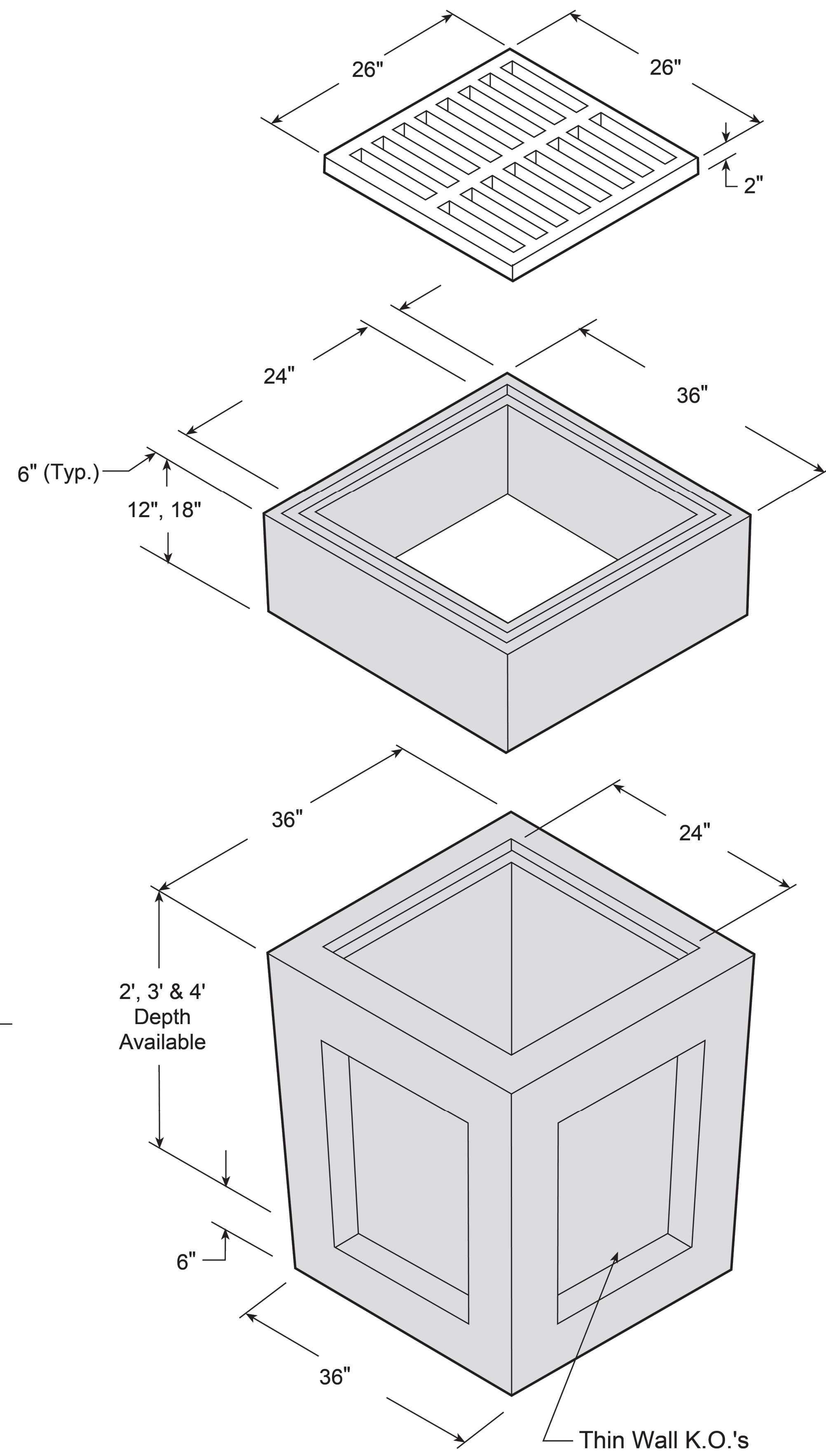
GRATE INLET IN SUMP

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

NOTE: CAPACITY FOR A GRATE INLET IN SUMP IS Q = 4.82A^{1.49} * 0.5

Line No.	Line ID	Line Length (ft)	Known Q (cfs)	Flow Rate (cfs)	Capac Full (cfs)	Vel Ave (ft/s)	Line Size (in)	Line Slope (%)	Invert Dn (ft)	Invert Up (ft)	HGL Dn (ft)	HGL Up (ft)	Gnd/Rim El Dn (ft)	Gnd/Rim El Up (ft)	J-Loss Coeff	Sf Ave (%)	Vel Hd Up (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

Precast Drainage Structures



Materials & Features

MAXIMUM PIPE SIZE: 18" I.D. R.C.P.

CONCRETE: 5,000 PSI

REINFORCING: per ASTM A-615 or A-185

CAST IRON FRAME & GRATE
per ASTM A 48; Class 30/35

GRATE WEIGHT: 100 Lbs.

CATCH BASIN WEIGHT:
2' 1,580 Lbs.
3' 2,500 Lbs.
4' 3,420 Lbs.

EXTENSION WEIGHT:
12" 500 Lbs.
18" 750 Lbs.

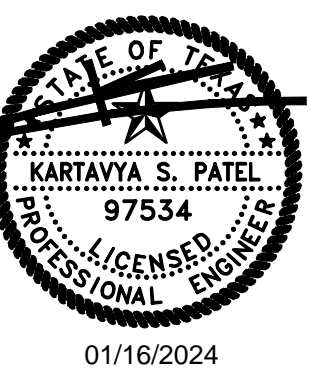
-No Scale-
All dimensions subject to allowable
specification tolerances.

TITLE	PLANT	STATE	SECTION/PAGE	DATE
#26 Catch Basin	Waco	TX	8.6	Feb 2016



TX PE FIRM #11525
TRIANGLE ENGINEERING LLC
 T: 409.331.8566 | F: 409.213.7145 | E: info@triangle-engr.com
 W: triangle-engr.com | O: 1782 W. McDermott Drive, TX 75013
 Planning | Civil Engineering | Construction Management

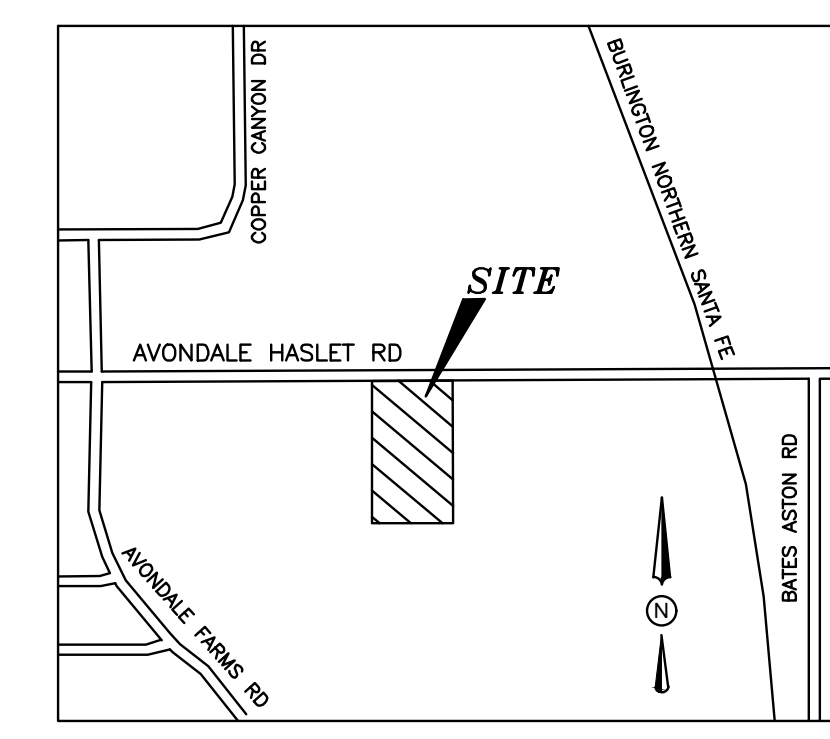
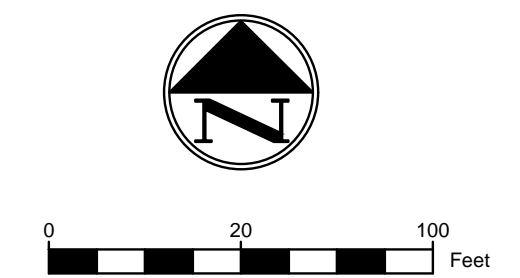
NO.	DATE	DESCRIPTION	BY
1	12-21-23	1ST SUBMITTAL	KP
2	01-10-24	2ND SUBMITTAL	KP
3	01-16-24	BIKE RACK ADDED	KP



STORM SEWER DETAILS
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

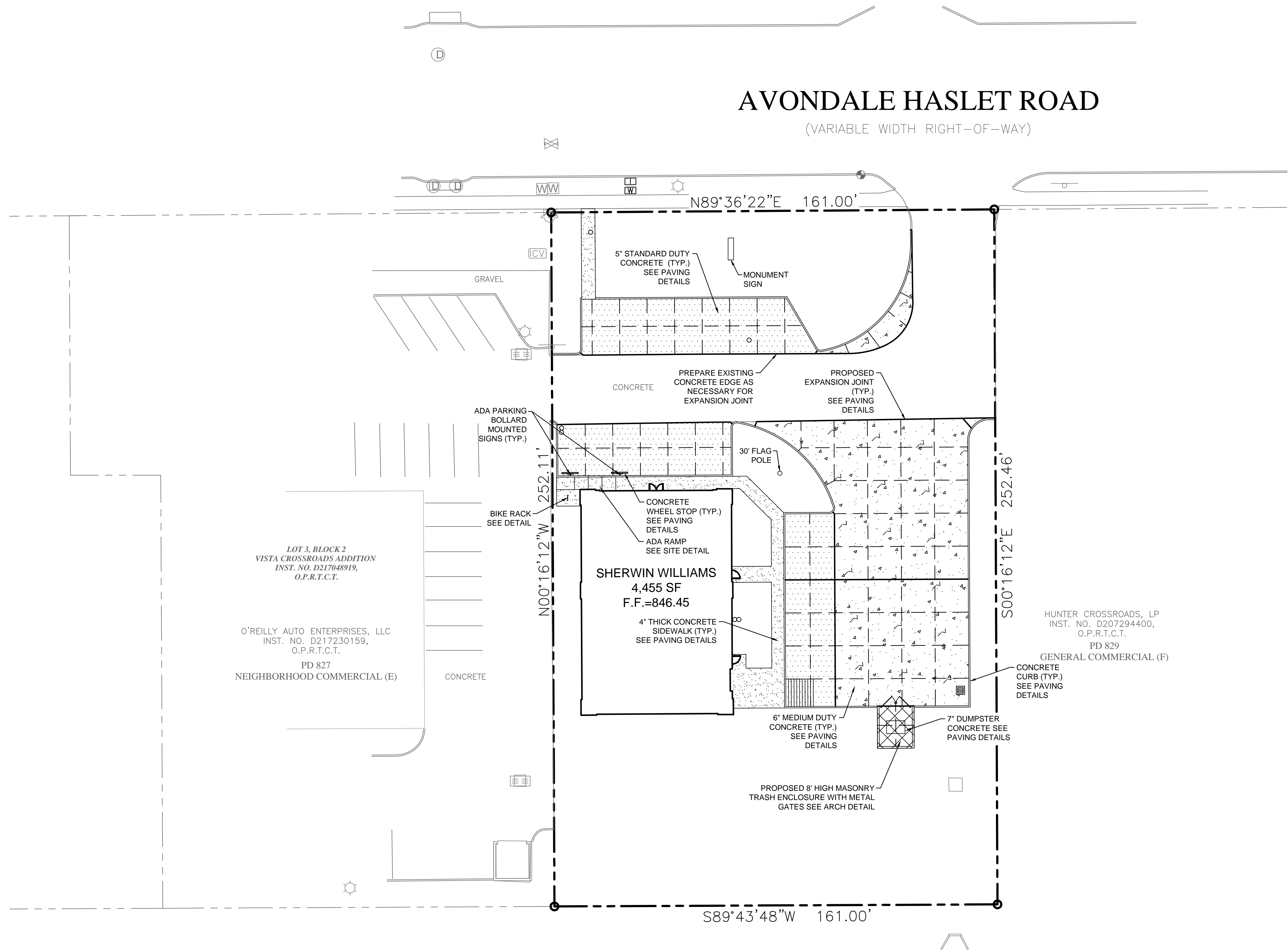
SHEET #
C-6.3



VICINITY MAP
N.T.S.

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)



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.
 3. SIDEWALK AROUND THE BUILDING SHALL NOT BE STRUCTURALLY CONNECTED TO THE BUILDING FOUNDATION UNLESS IT'S NOTED ON THE STRUCTURAL PLANS.

PAVING LEGEND

EXPANSION JOINT (@ 60' MAX.)	
SAWCUT JOINT (@ 15' MAX.)	
IRRIGATION SLEEVES	
5' STANDARD DUTY CONCRETE	
6' MEDIUM DUTY CONCRETE	
7' DUMPSTER CONCRETE	
4' SIDEWALK	

EASEMENT/SETBACK LEGEND

BUILDING SETBACK	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

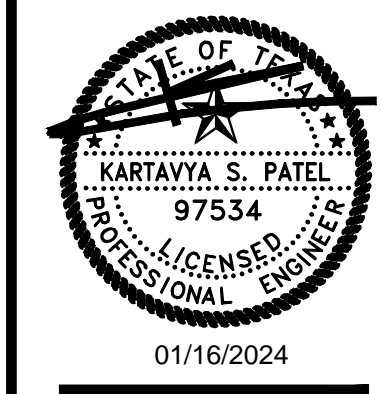
	BOUNDARY LINE		WATER VALVE
	ADJOINTER BOUNDARY LINE		TRAFFIC SIGNAL BOX
	EASEMENT LINE (AS NOTED)		GAS SIGN MARKER
	WATER LINE		WATER METER
	SANITARY SEWER LINE		ELECTRIC PEDESTAL
	STORM DRAIN LINE (AS NOTED)		TELEPHONE MANHOLE
	OVERHEAD ELECTRIC LINE		STORM MAN HOLE
	GAS LINE		LIGHT POLE
	UNDERGROUND FIBER OPTIC LINE		POWER POLE
	SIGN		BENCH MARK
	SET IRON ROD (AS NOTED)		CONTROL MONUMENT
	FOUND IRON ROD (AS NOTED)		SANITARY SEWER CLEANOUT
	"X" CUT FOUND		OFFICIAL PUBLIC RECORDS
	"X" CUT SET		DEED RECORDS
	FIRE HYDRANT		D.R.B.C.T.
	SANITARY SEWER MAN HOLE		DEED RECORDS
			UNDERGROUND UTILITIES (SUE)

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)

HUNTER CROSSROADS, LP
 INST. NO. D207294400,
 O.P.R.T.C.T.
 PD 829
 GENERAL COMMERCIAL (F)

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

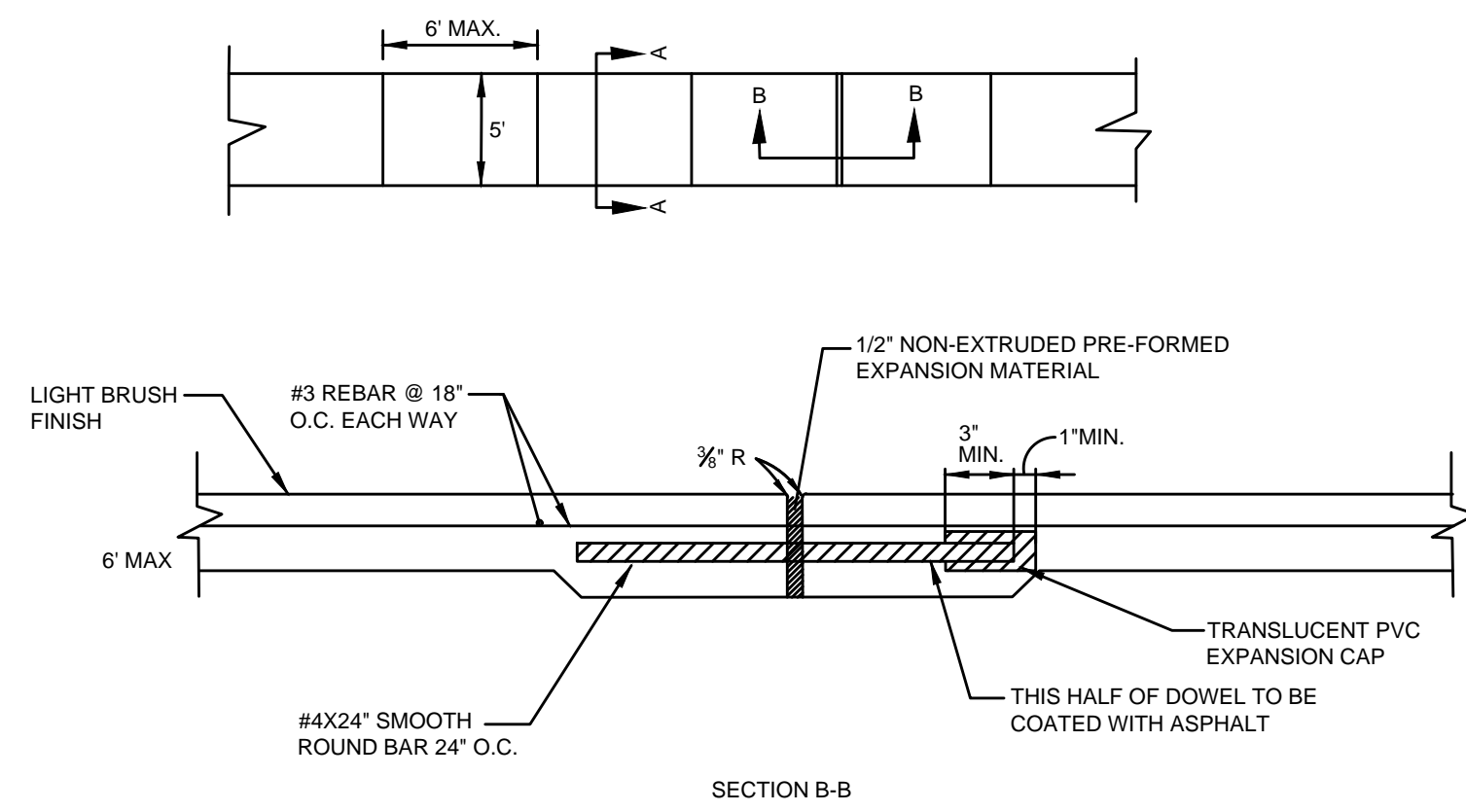
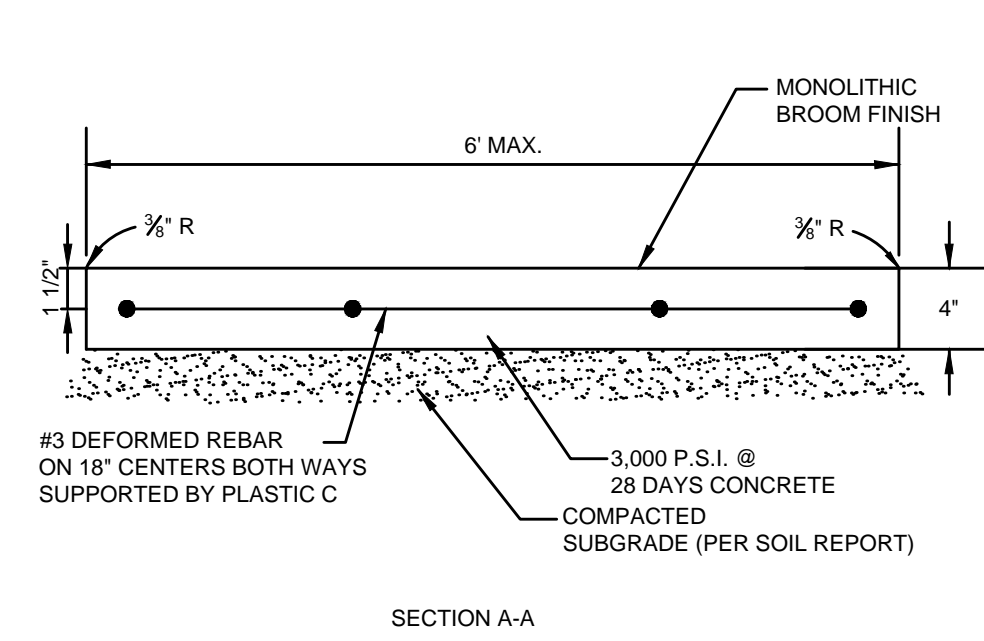
NO.	DATE	DESCRIPTION
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2	01-10-24	2ND SUBMITTAL
3	01-16-24	BIKE RACK ADDED



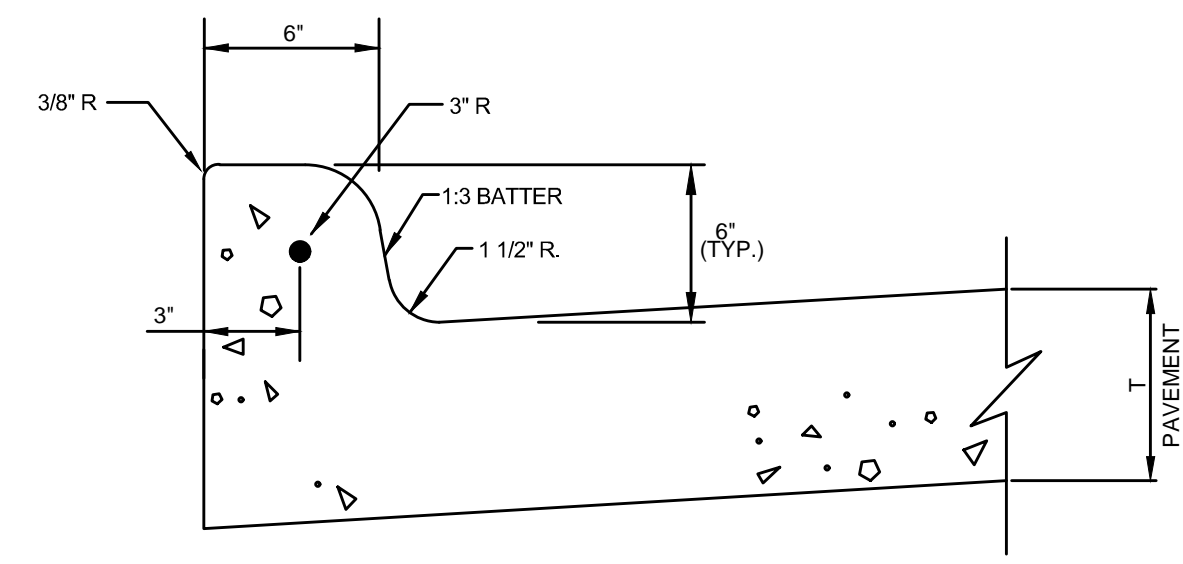
01/16/2024
PAVING PLAN
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

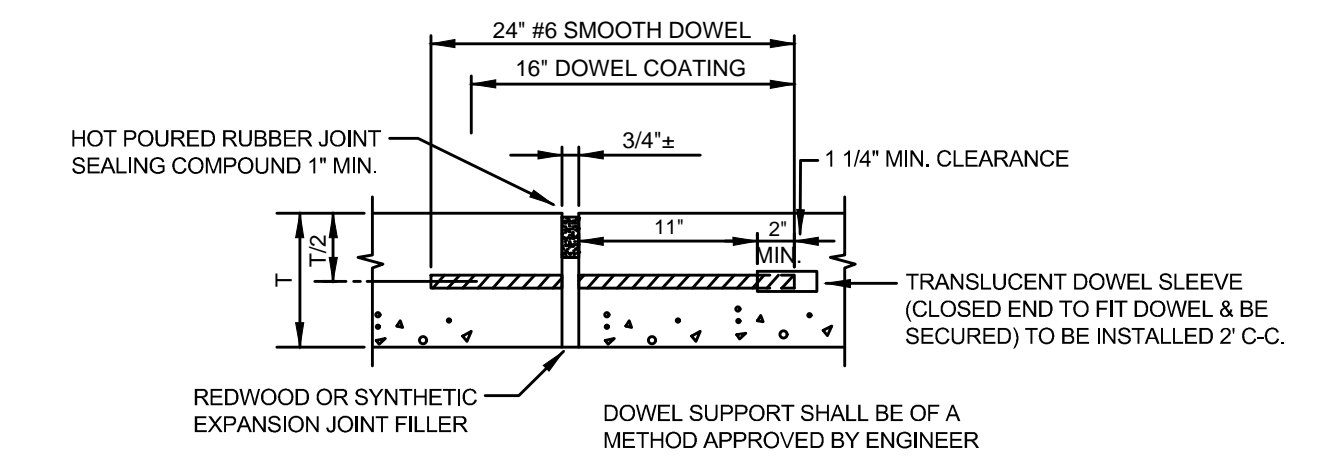
SHEET #
C-7.0



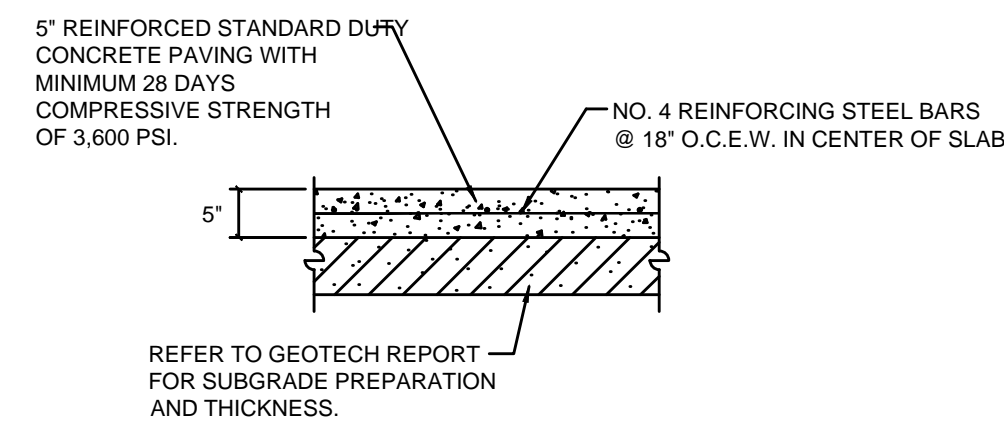
SIDEWALK DETAIL
N.T.S.



TYPICAL CURB DETAIL
N.T.S.

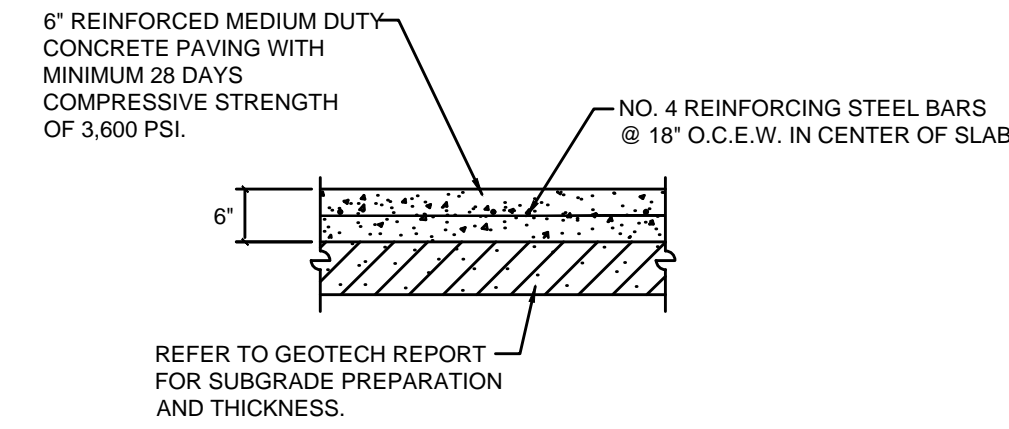


TYPICAL EXPANSION JOINT DETAIL
N.T.S.



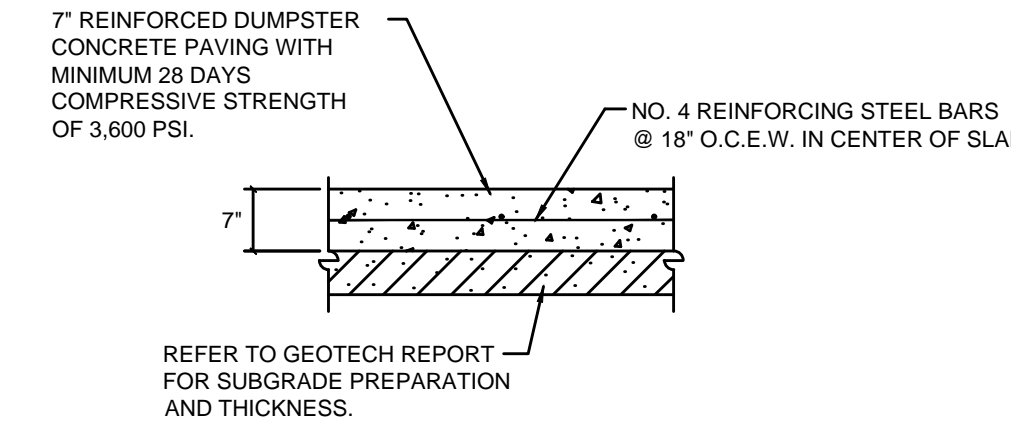
NOTE:
1. CONTRACTOR TO VERIFY WITH CITY REQUIREMENTS. SHOULD THE CITY REQUIREMENTS DIFFER FROM DETAIL, THE CITY REQUIREMENTS WILL SUPERCEDE.
2. CONTRACTOR TO VERIFY REQUIREMENTS FOR INSTALLATION OF PAVEMENT IN FIRE LANE. CONTRACTOR TO INSTALL ACCORDING TO LOCAL, STATE OR GOVERNMENT JURISDICTION.

5" CONCRETE PAVEMENT
N.T.S.



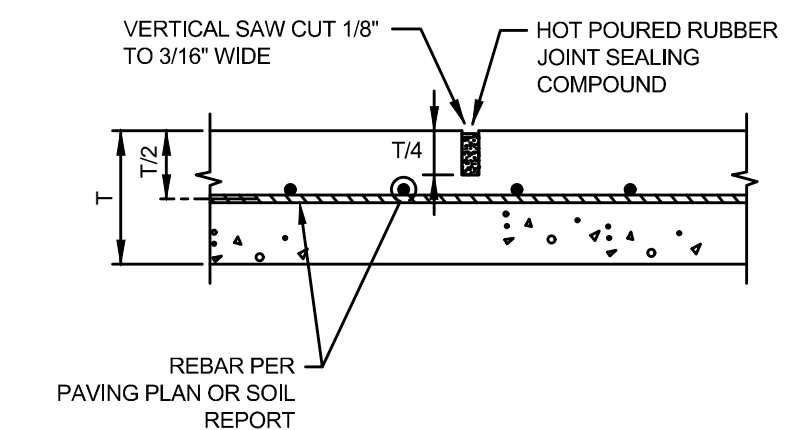
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6" CONCRETE PAVEMENT
N.T.S.

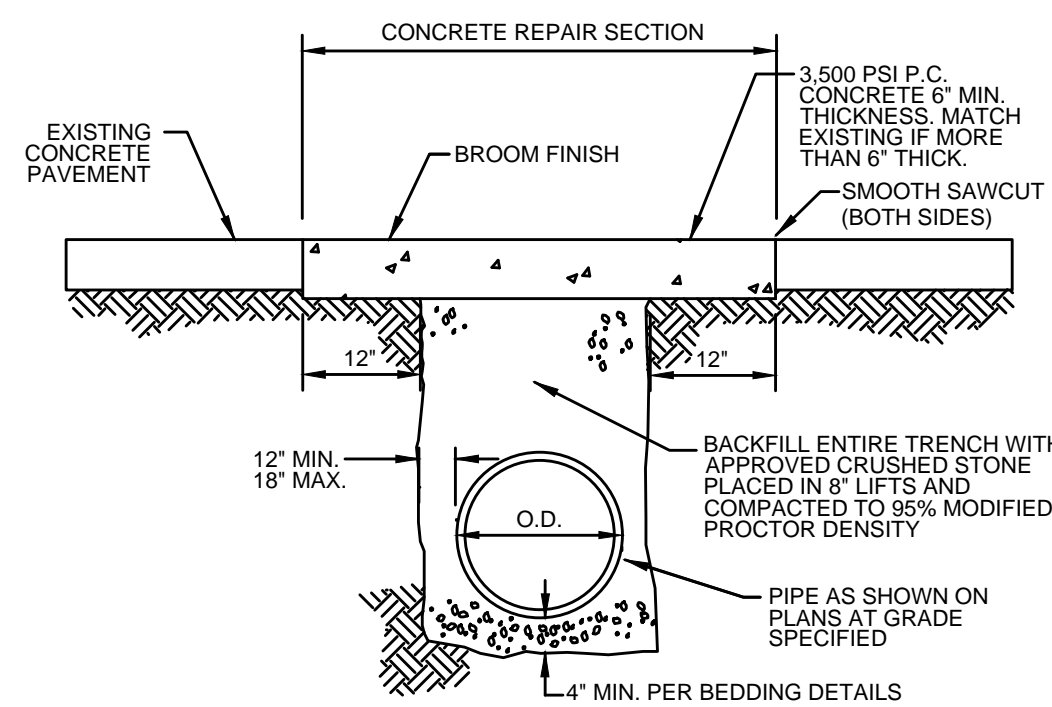


NOTE:
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2. CONTRACTOR TO VERIFY REQUIREMENTS FOR INSTALLATION OF PAVEMENT IN FIRE LANE. CONTRACTOR TO INSTALL ACCORDING TO LOCAL, STATE OR GOVERNMENT JURISDICTION.

7" CONCRETE PAVEMENT
N.T.S.



TYPICAL SAW CUT DETAIL
N.T.S.

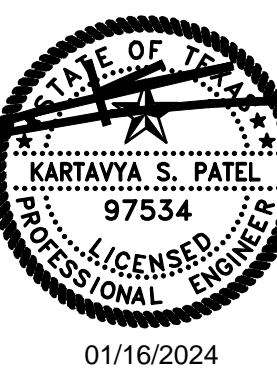


CONCRETE STREET OR DRIVE CUT/REPAIR DETAIL
N.T.S.



TX PE FIRM #11525
TRIANGLE ENGINEERING LLC
T: 469.331.8566 | F: 469.213.7145 | E: info@triangle-eng.com
W: triangle-eng.com | O: 1782 W. McDemott Drive, TX 75013
Planning | Civil Engineering | Construction Management

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



01/16/2024

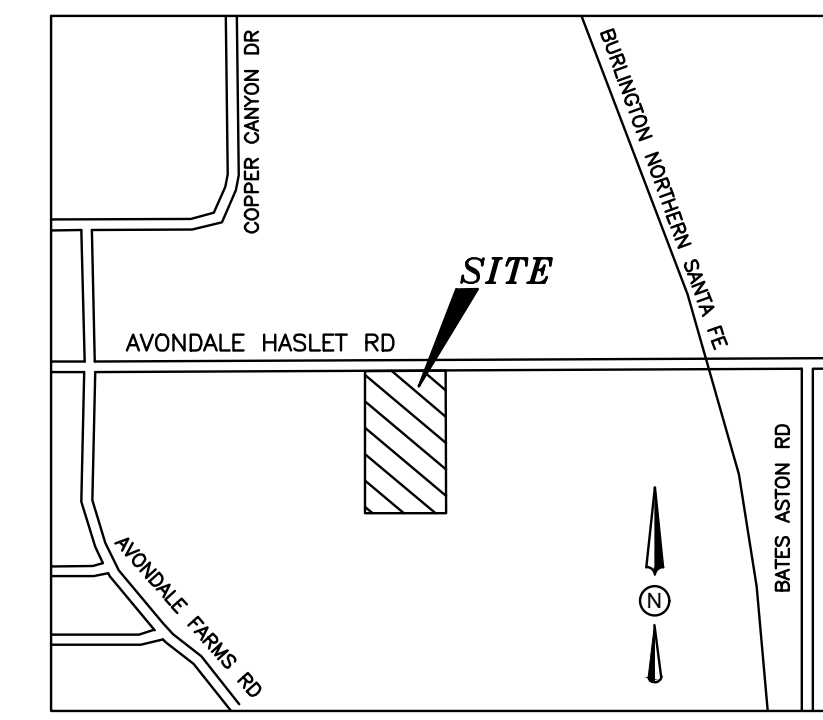
PAVING DETAILS
SHERWIN WILLIAMS
2101 AVONDALE HASLETT ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS

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

SHEET #
C-7.1



0 20 40 Feet



VICINITY MAP
N.T.S.

IRRIGATION SERVICE
INSTALL:
1-1" IRRIGATION METER
TO BE INSTALLED BY CITY
1-RPZ BACK FLOW PREVENTER

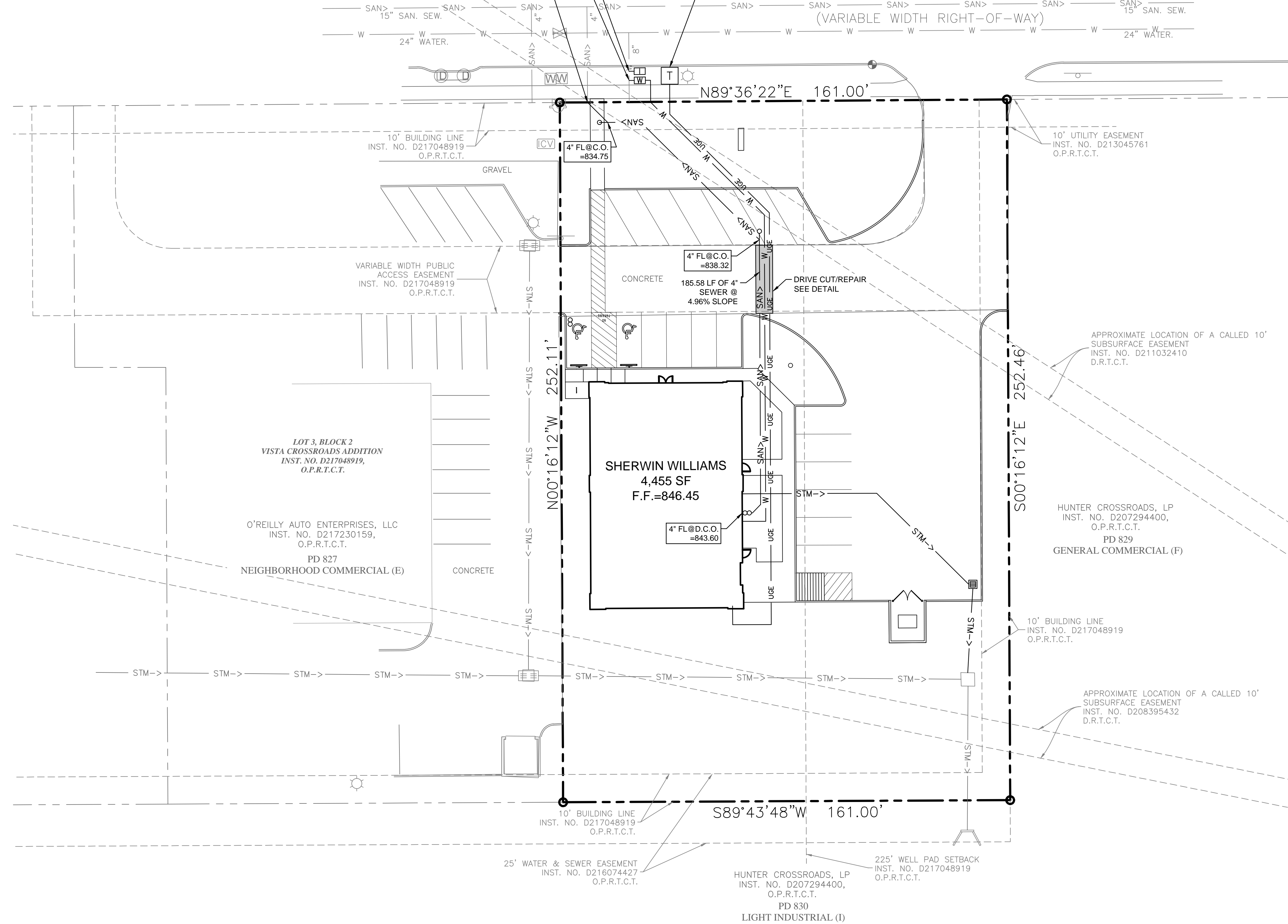
DOMESTIC SERVICE
INSTALL:
1-1" DOMESTIC METER
TO BE INSTALLED BY CITY
1-RPZ BACK FLOW PREVENTER
1-187 L.F. 1" DOM. WATER TO
THE BUILDING

CONNECT TO EXISTING 4"
SANITARY SEWER STUB OUT
INSTALL:
EX. FL=834.24
BASED ON FORT WORTH PLANS
PROJECT # S-1612-08 W.O. # 56
FIELD VERIFY & ADJUST
PROP. 4" FL= MATCH EXISTING

ELECTRIC SERVICE BY SERVICE
PROVIDER. GC TO INSTALL 1-4"
CONDUIT AND SECONDARY WIRE
FROM TRANSFORMER TO BUILDING.
COORDINATE W/LOCAL SERVICE
PROVIDER FOR TYPE OF
TRANSFORMER.

AVONDALE HASLET ROAD

(VARIABLE WIDTH RIGHT-OF-WAY)



EXISTING LEGEND	
---	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
○	SET IRON ROD (AS NOTED)
⊙	FOUND IRON ROD (AS NOTED)
⊗	"X" CUT FOUND
⊕	"X" CUT SET
⊙	FIRE HYDRANT
⊙	SANITARY SEWER MAN HOLE
⊕	WATER VALVE
⊕	TRAFFIC SIGNAL BOX
⊕	GAS SIGN MARKER
⊕	WATER METER
⊕	ELECTRIC PEDESTAL
⊕	STORM MAN HOLE
⊕	TELEPHONE MANHOLE
⊕	LIGHT POLE
⊕	POWER POLE
⊕	BENCH MARK
⊕	CONTROL MONUMENT
⊕	SANITARY SEWER CLEANOUT
⊕	OFFICIAL PUBLIC RECORDS BOWIE COUNTY, TEXAS
⊕	DEED RECORDS BOWIE COUNTY, TEXAS
⊕	UNDERGROUND UTILITIES (SUE)

UTILITY LEGEND	
---	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
---	GREASE TRAP
---	WATER METER
---	IRRIGATION METER
---	GAS METER
---	FIRE HYDRANT
---	FIRE DEPARTMENT CONNECTION-FDC
---	TRANSFORMER
---	LIGHT POLE
---	POWER POLE

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.

SHERWIN WILLIAMS

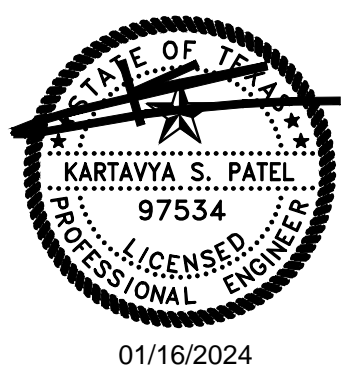
TX PE FIRM #11525

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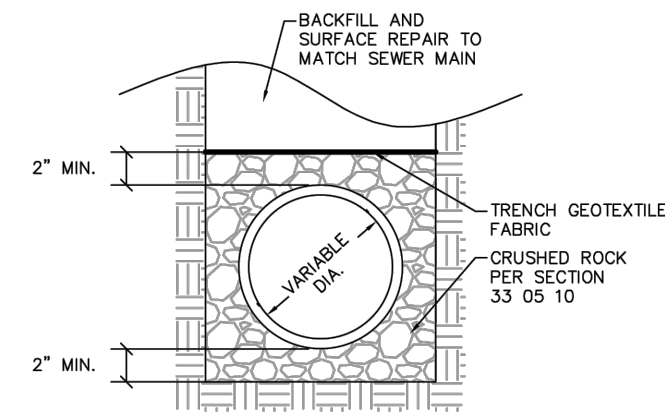
NO.	DATE	DESCRIPTION
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2	01-10-24	2ND SUBMITTAL
3	01-16-24	BIKE RACK ADDED



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

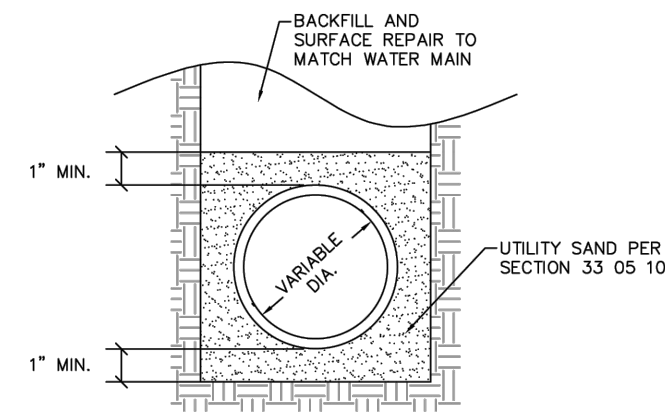
SHEET #
C-8.0

UTILITY PLAN
SHERWIN WILLIAMS
2101 AVONDALE HASLET ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS



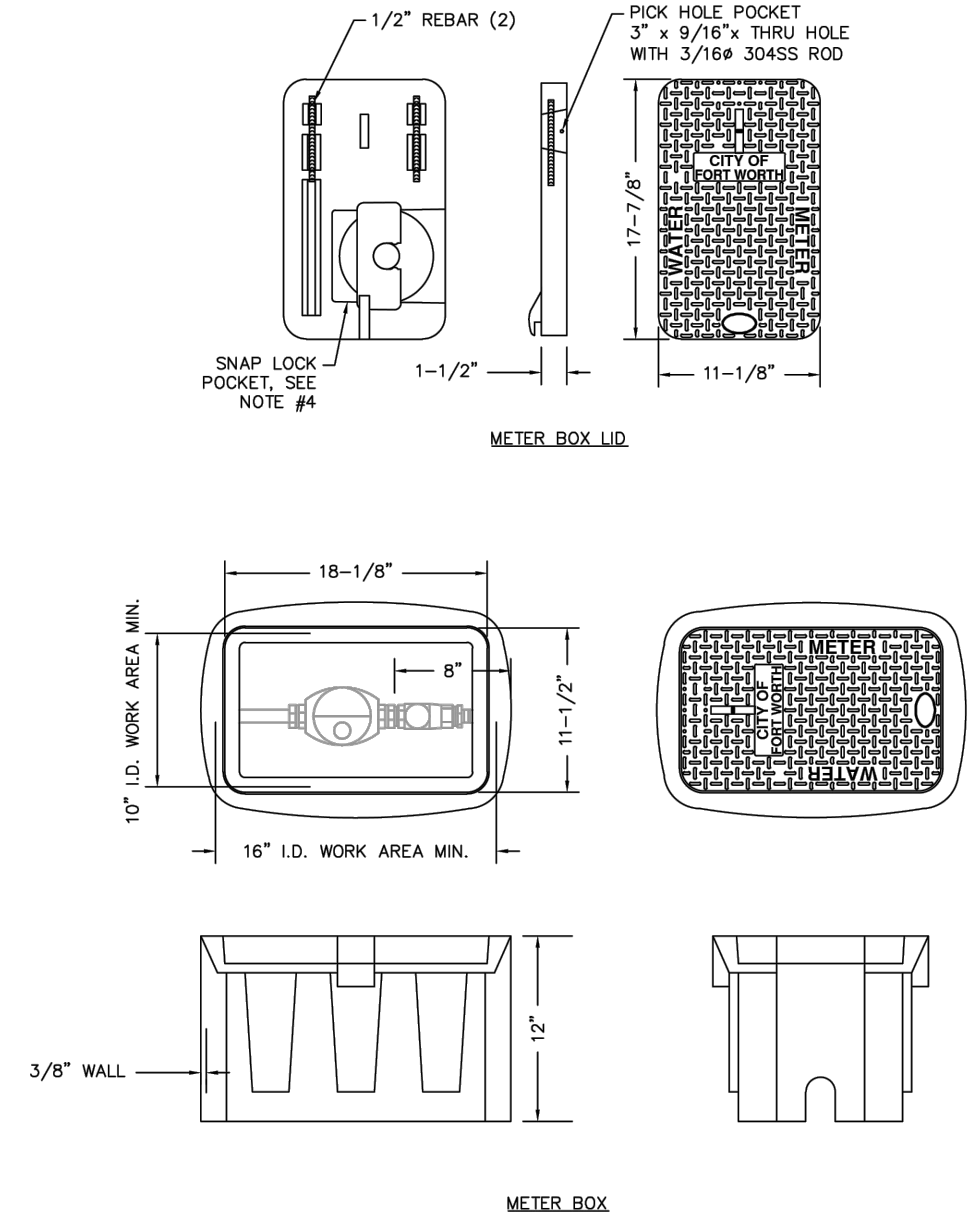
CITY OF FORT WORTH, TEXAS
EMBEDMENT FOR SANITARY SEWER SERVICES

REVISED: 12-01-2021
33 05 10-D202



CITY OF FORT WORTH, TEXAS
EMBEDMENT FOR WATER SERVICES

DATE: 12-01-2021
33 05 10-D104

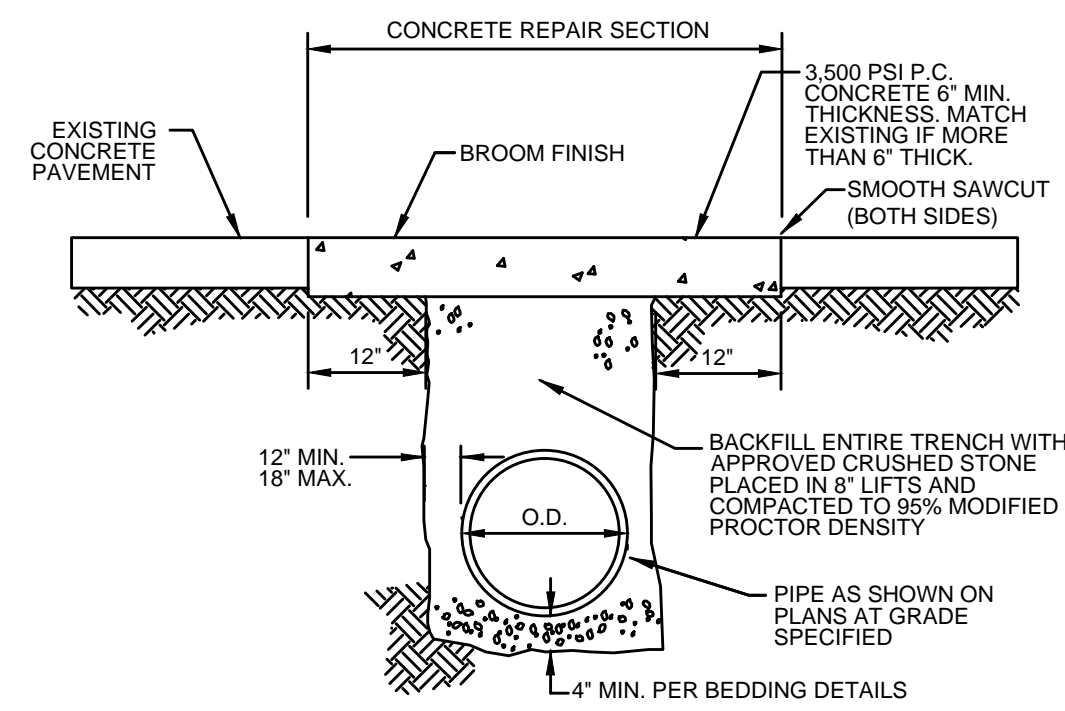


NOTE:
 1. USE THIS METER BOX IN NON-PAVED AREAS ONLY.
 2. DIMENSIONS ± 1/8" U.L.D.
 3. WALL THICKNESS: 3/8" MIN.
 4. SNAP LOCK POCKET WILL RECEIVE AMB/AM DEVICE ENDPOINT. SNAP LOCK SLOT IS 1-7/8" ± .015" TO ALLOW FOR A FINGER FORCE INSTALL. POCKET HEIGHT IS 3/8" FOR MIN 1/8" AIR GAP.

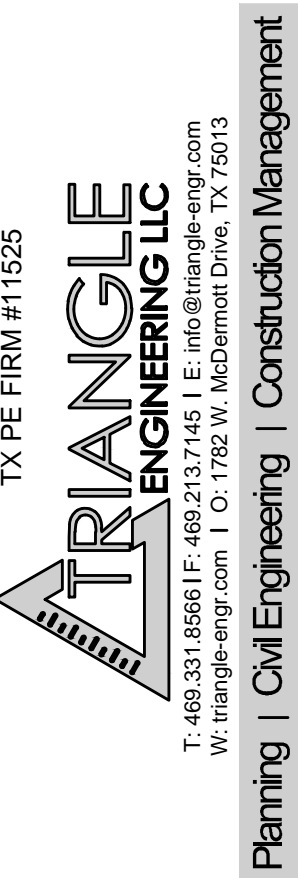


CITY OF FORT WORTH, TEXAS
1-INCH STANDARD PLASTIC METER BOX (3/4 & 1-INCH METERS) (CLASS A)

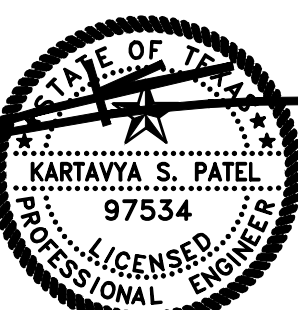
REVISED: 01-04-2017
33 12 10-D113



CONCRETE STREET OR DRIVE CUT/REPAIR DETAIL
 N.T.S.



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

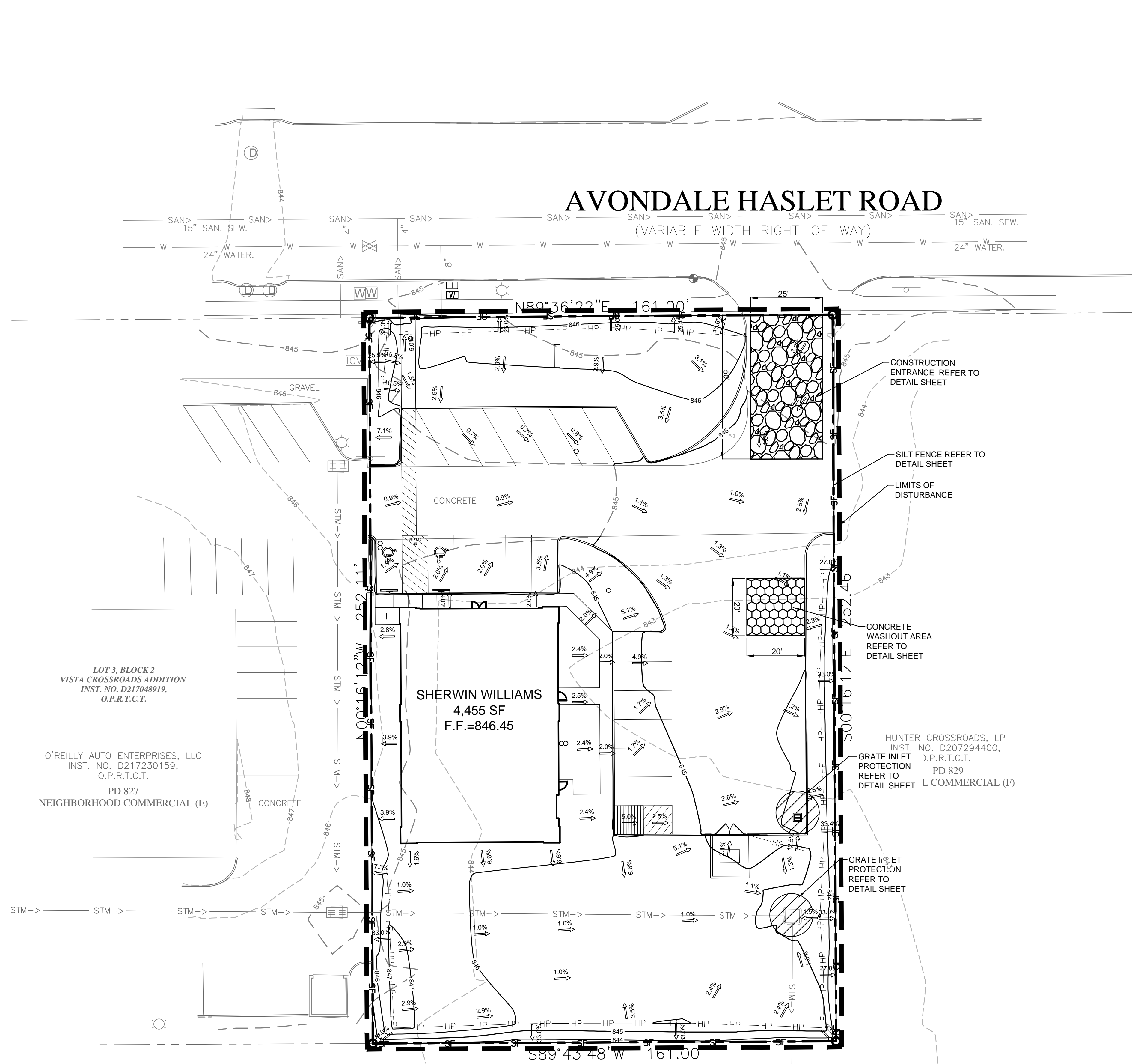


01/16/2024

UTILITY DETAILS
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

SHEET #
C-8.1



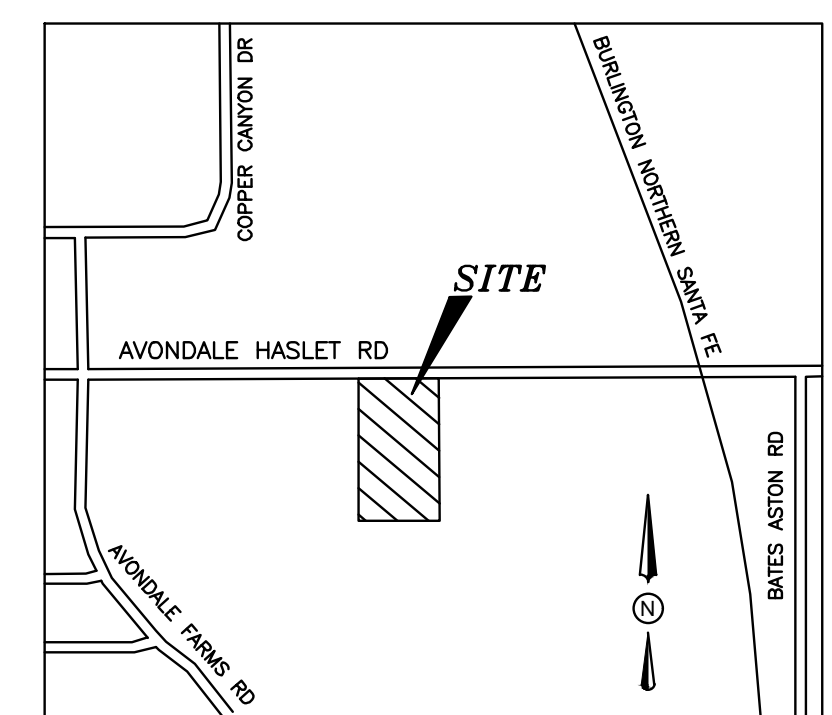
LOT 3, BLOCK 2
VISTA CROSSROADS ADDITION
INST. NO. D217048919,
O.P.R.T.C.T.

O'REILLY AUTO ENTERPRISES, LLC
INST. NO. D217230159,
O.P.R.T.C.T.
PD 827
NEIGHBORHOOD COMMERCIAL (E)

SHERWIN WILLIAMS
4,455 SF
F.F.=846.45

HUNTER CROSSROADS, LP
INST. NO. D207294400,
O.P.R.T.C.T.
PD 829
L COMMERCIAL (F)

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



VICINITY MAP
N.T.S.

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 BETTER.
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.

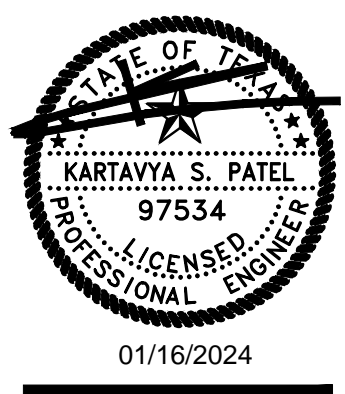
EROSION CONTROL LEGEND	
TEMPORARY CONSTRUCTION ENTRANCE	
TEMPORARY CONCRETE WASHOUT AREA	
RIP RAP	
TURF REINFORCEMENT MAT	
TEMPORARY SILT FENCE	
TEMPORARY COMPOST FILTER SOCK	
LIMITS OF DISTURBANCE	
TEMPORARY INLET PROTECTION	
HIGH POINT	
ROCK BERM	

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 ACTIVITIES:	SOIL DISTURBING ACTIVITIES WILL INCLUDE 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

EROSION & SEDIMENT CONTROLS	
SOIL STABILIZATION PRACTICES: SELECT T = TEMPORARY OR P = PERMANENT (AS APPLICABLE)	
	MULCHING (HAY OR STRAW)
	BUFFER ZONES
	PLANTING
	SEEDING
	SODDING
	PRESERVATION OF NATURAL RESOURCES
	FLEXIBLE CHANNEL LINER
	RIGID CHANNEL LINER
	SOIL RETENTION BLANKET
	COMPOST MANUFACTURED TOPSOIL
	EROSION CONTROL BLANKET



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



EROSION CONTROL PLAN
SHERWIN WILLIAMS
2101 AVONDALE HASLET ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS

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

SHEET #
C-9.0

USAGE NOTES:
 1. ANCHORING STAKES SHALL BE SIZED, SPACED, AND BE OF A MATERIAL THAT EFFECTIVELY SECURES THE FILTER SOCK.
 STAKE SPACING SHALL BE A MAXIMUM OF THREE FEET.
 2. OVERLAP ENDS OF SOCK PER MANUFACTURER'S RECOMMENDATIONS. (1 MIN. 3 MAX.)
 3. USE 8" TO 12" DIA. SOCK ON CURBSIDE IN TRAFFIC AREAS.
 4. USE 12" - 18" DIA. SOCK IN NON-TRAFFIC AREAS OR AREAS WHERE SAFETY IS NOT A CONCERN.

DESIGN CRITERIA:
 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 RATES FOR COMPOST FILTER SOCKS ARE 50% GREATER THAN SILT FENCE FILTER FABRIC. GREATER HYDRAULIC FLOW-THROUGH RATES REDUCE PONDING. COMPOST FILTER SOCKS SHALL MEET THE NETTING

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:
 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 - 90% PASSING A 2 IN (50MM) SIEVE AND A MAXIMUM OF 40% PASSING A 3/4 IN (19.5MM) SIEVE, IN ACCORDANCE WITH TMECC 02-02-B, "SAMPLE SIEVING FOR AGGREGATE SIZE CLASSIFICATION". (NOTE- IN THE FIELD,

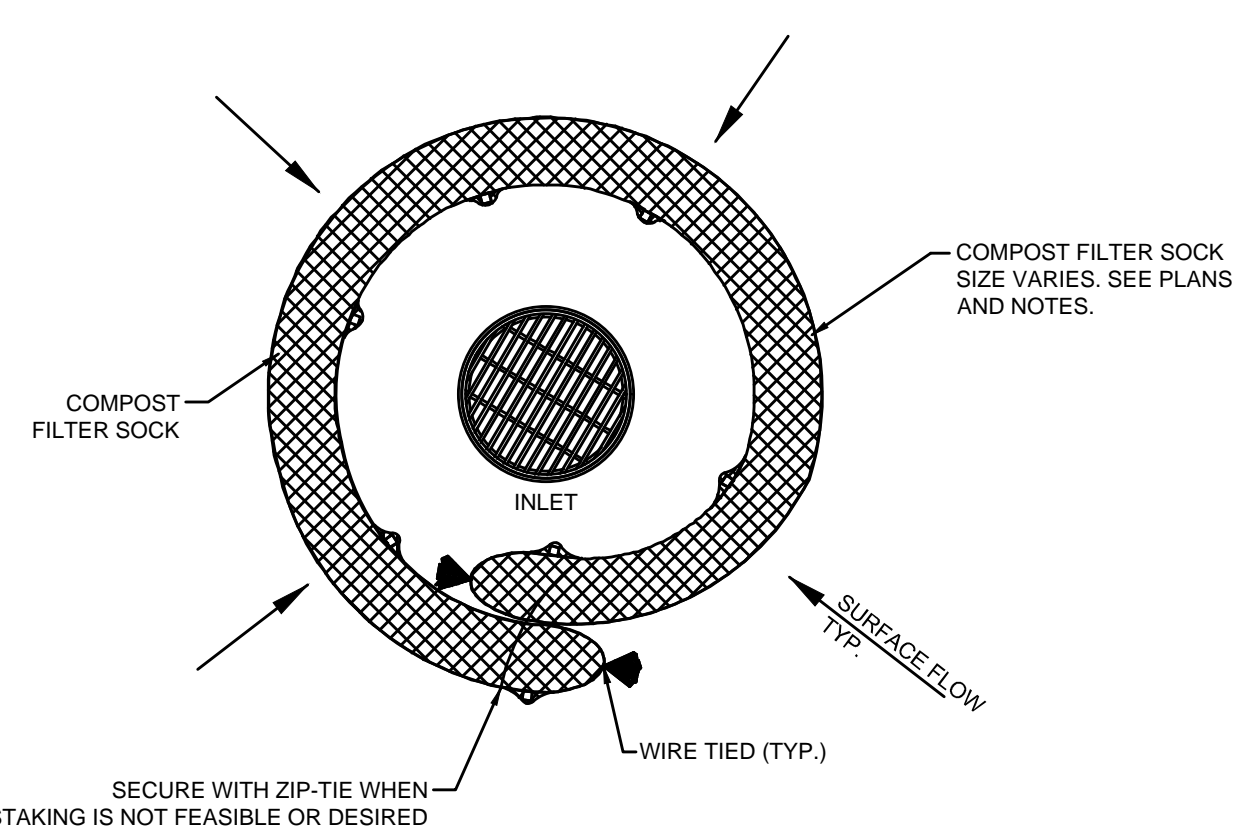
PRODUCT COMMONLY IS BETWEEN 1/2 IN (12.5MM) AND 2 IN (50MM) PARTICLE SIZE.)
 C. MOISTURE CONTENT OF LESS THAN 60% IN ACCORDANCE WITH STANDARDIZED TEST METHODS FOR MOISTURE DETERMINATION.
 D. MATERIAL SHALL BE RELATIVELY FREE (<1% BY DRY WEIGHT) OF INERT OF FOREIGN MAN MADE MATERIALS.
 E. A SAMPLE SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO BEING USED AND MUST COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

CONSTRUCTION SPECIFICATIONS:
 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 SLOPE.
 2. STAKES SHALL BE INSTALLED THROUGH THE MIDDLE OF THE COMPOST FILTER SOCK ON 10 FT (3M) CENTERS, USING 2 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.

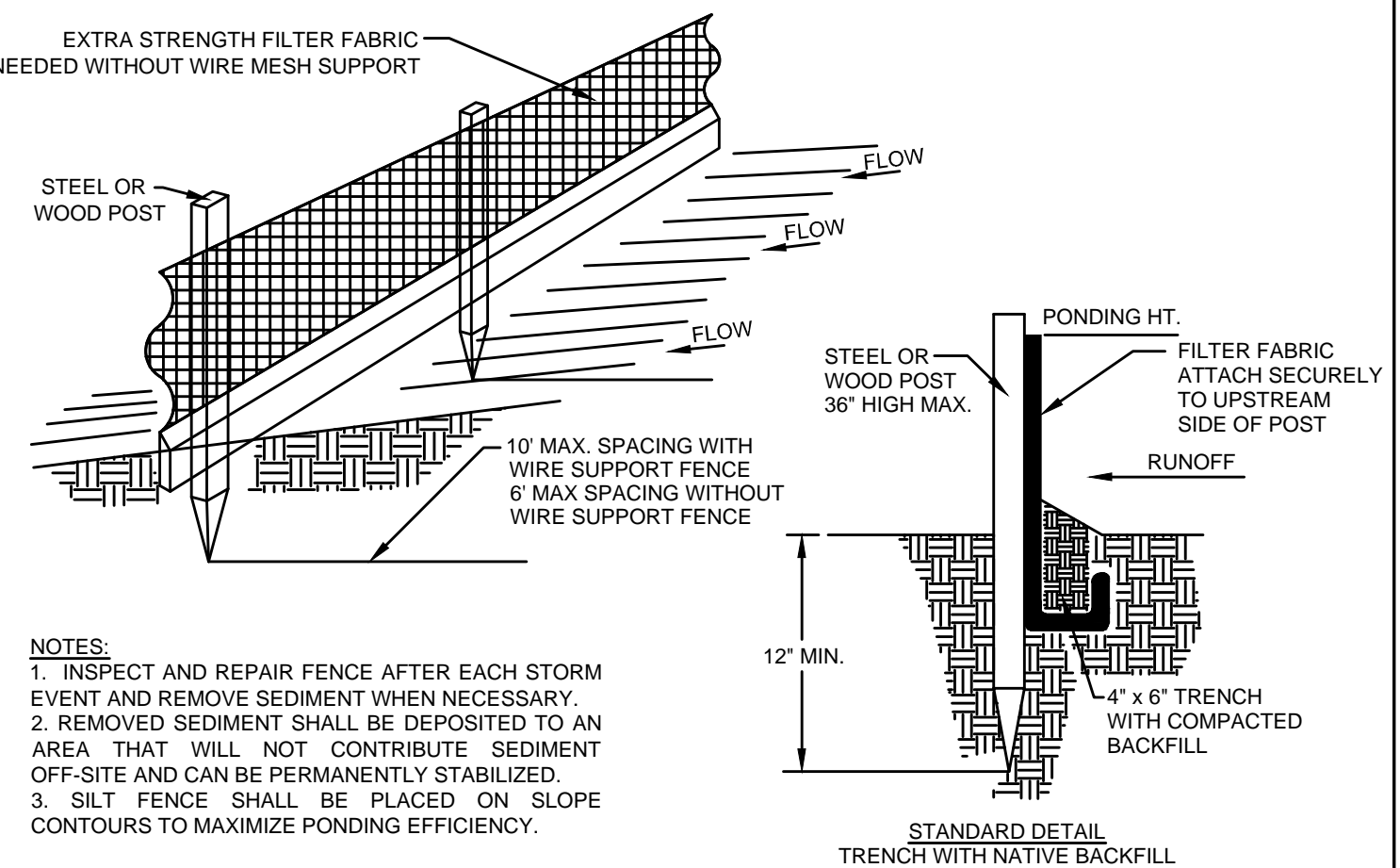
5. IF THE COMPOST FILTER SOCK IS TO BE LEFT AS A PERMANENT FILTER OR PART OF THE NATURAL LANDSCAPE, IT MAY BE SEEDED AT TIME OF INSTALLATION FOR ESTABLISHMENT OF PERMANENT VEGETATION. THE ENGINEER WILL SPECIFY SEED REQUIREMENTS.
 6. COMPOST FILTER SOCKS ARE NOT TO BE USED IN PERENNIAL, EPHEMERAL, OR INTERMITTENT STREAMS.
MAINTENANCE:
 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.

NOTES:
 1. SEE PLAN VIEW FOR CWA INSTALLATION LOCATION.
 2. DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE 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 SITE.
 4. CWA SHALL INCLUDE FLAT SUBSURFACE PIT THAT IS AT LEAST 8' x 8' 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 BY THE LOCAL JURISDICTION.

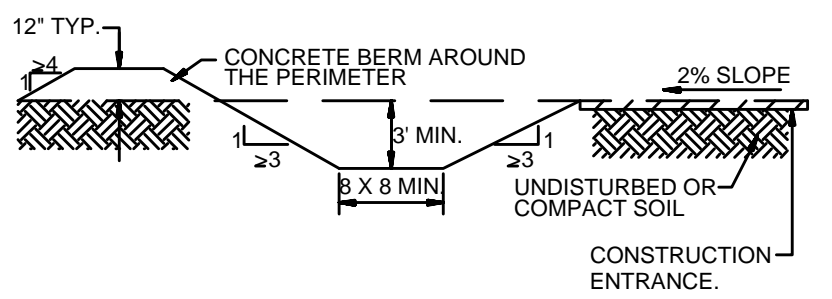
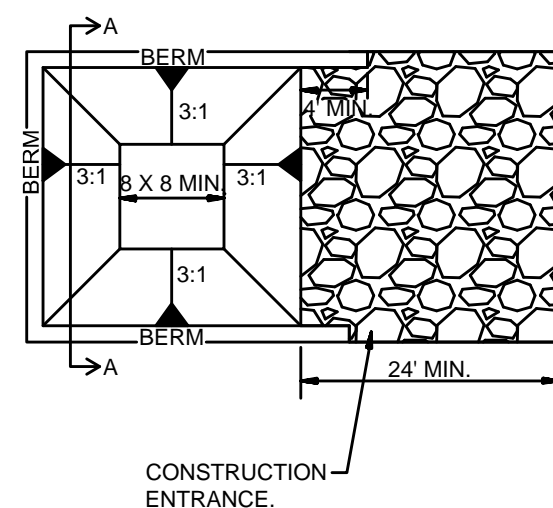
COMPOST FILTER SOCK NOTES
 N.T.S.



AREA/GRATE INLET PROTECTION DETAIL
 N.T.S.



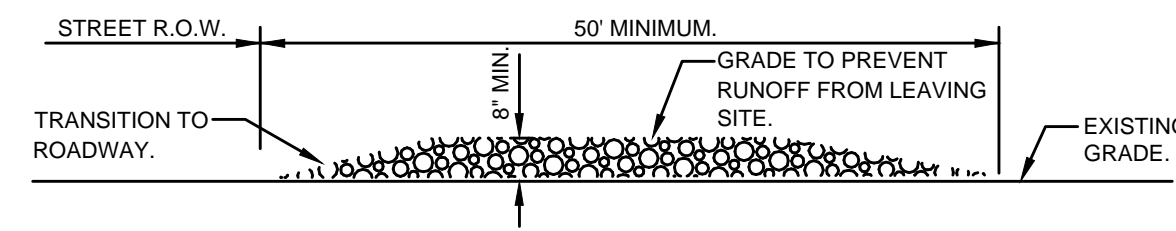
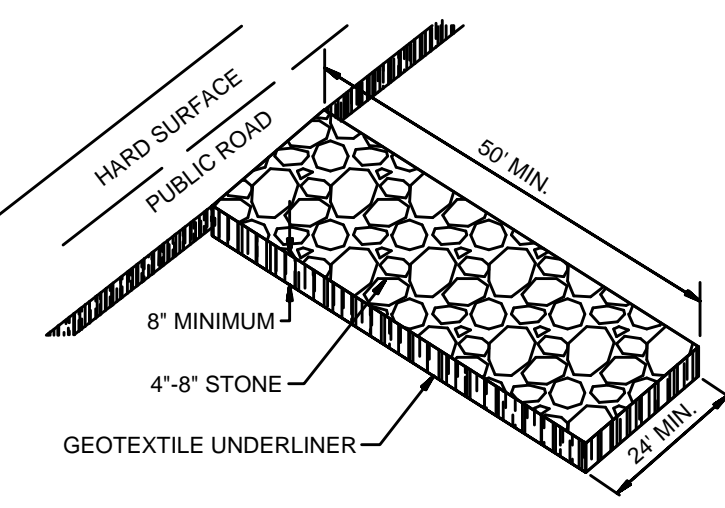
SILT FENCE DETAIL
 N.T.S.



CONCRETE WASHOUT AREA DETAIL
 N.T.S.

NOTES:
 1. 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 RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

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. 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.

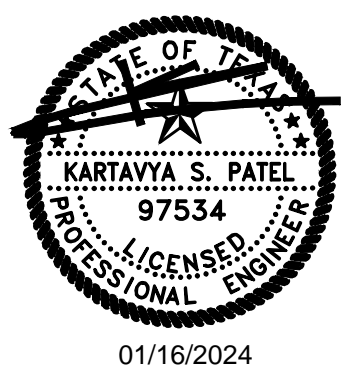


CONSTRUCTION ENTRANCE DETAIL
 N.T.S.



TX PE FIRM #11525
TRIANGLE ENGINEERING LLC
 ENGINEERING
 T: 469.331.8566 | F: 469.213.7145 | E: info@triangle-eng.com
 W: triangle-eng.com | O: 1782 W. McDermott Drive, TX 75013
 Planning | Civil Engineering | Construction Management

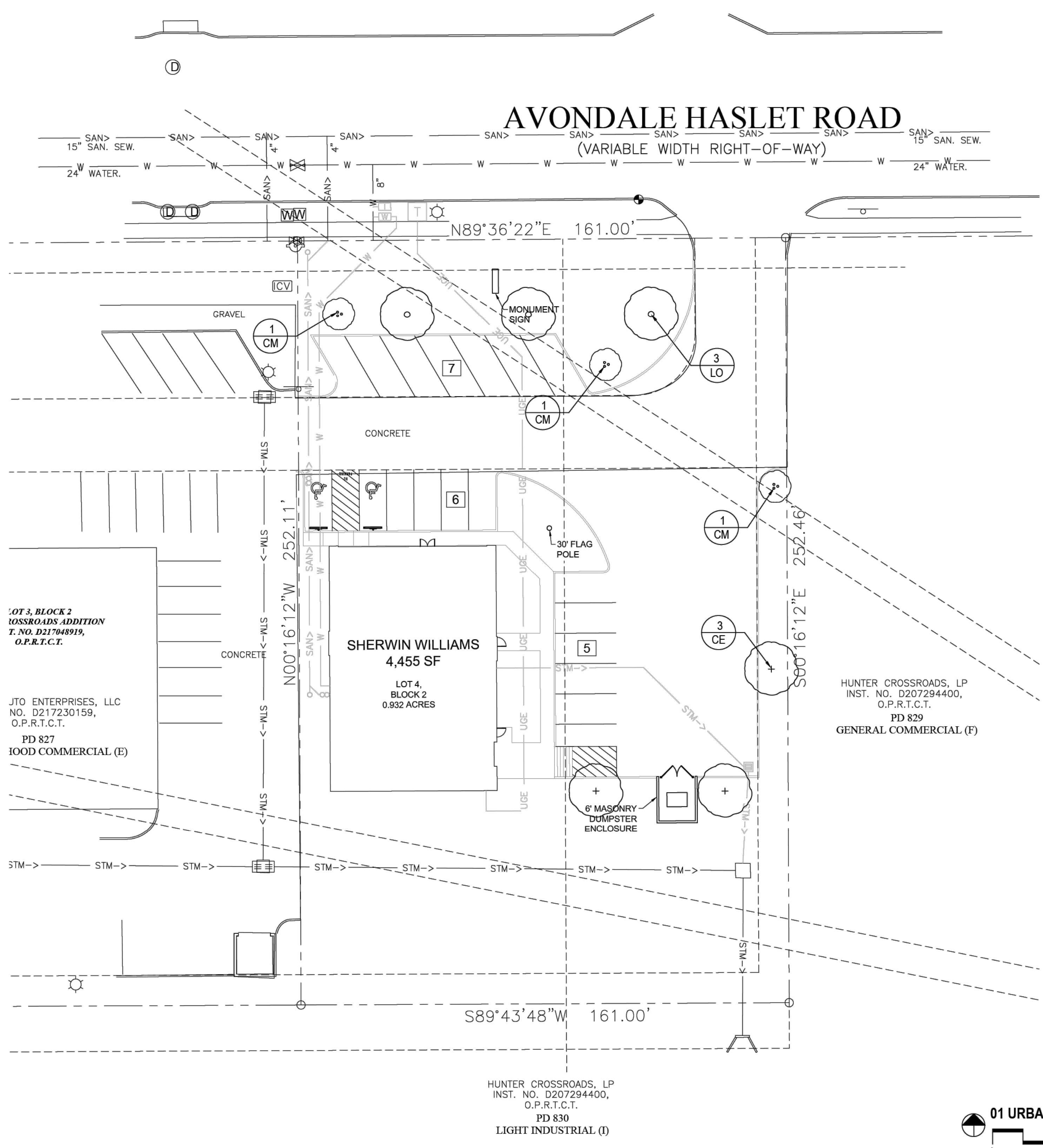
NO.	DATE	DESCRIPTION	BY
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2	01-10-24	2ND SUBMITTAL	KP
3	01-16-24	BIKE RACK ADDED	KP



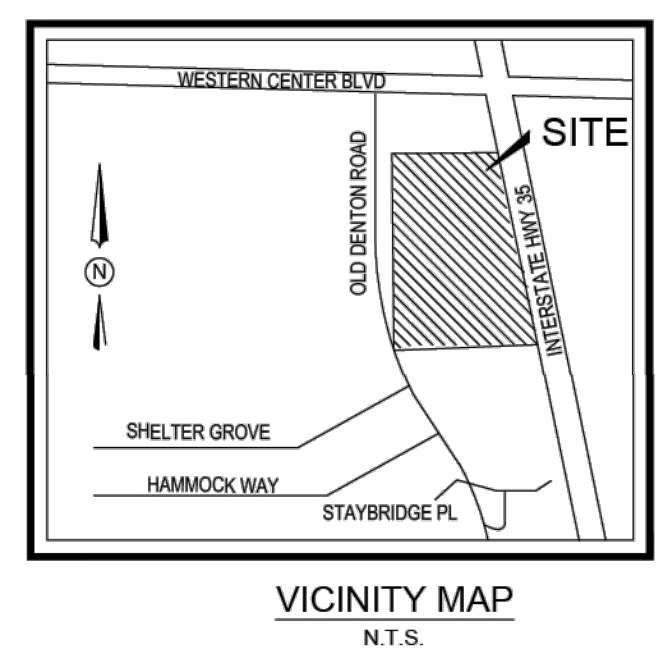
EROSION CONTROL DETAILS
 SHERWIN WILLIAMS
 2101 AVONDALE HASLET ROAD
 VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
 CITY OF FORT WORTH
 TARRANT COUNTY, TEXAS

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

SHEET #
 C-9.1



AVONDALE HASLET ROAD
(VARIABLE WIDTH RIGHT-OF-WAY)



LANDSCAPE ARCHITECT
1782 W McDERMOTT DR.
ALLEN, TEXAS 75013
(469) 368-4448
CHRIS@STUDIOGREENSPOT.COM



URBAN FORESTRY CALCULATIONS

New Tree Planting (phase 2)			
O	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
Q	0 medium 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
Parking Areas: 1 or 2 family residential are exempt (phase 2)			
T	Area of parking	→	12,966 S.F. 0.24
U	Required canopy coverage of parking areas (40%)	(T x .40)	5,187 S.F. 0.10
V	Area of canopy coverage being provided for parking	→	6,100 S.F. 0.14
W	Excess/deficient parking canopy	(V-U)	913 S.F. 0.04
Fulfillment of Requirements (phase 2)			
X	Total required canopy coverage for site	(F)	10,276 S.F. 0.20
Y	Provided canopy coverage	(M+S+dd)	12,300 S.F. 0.23
Z	Excess/deficient overall canopy	(Y-X)	2,024 S.F. 0.03

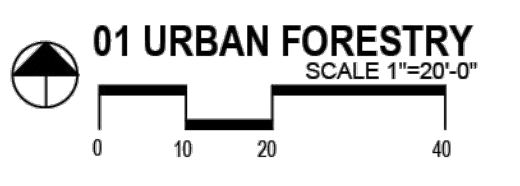
PLANT MATERIAL SCHEDULE

TREES	TYPE	QTY	COMMON NAME	BOTANICAL NAME	SIZE	REMARKS
	CE	3	Cedar Elm	<i>Ulmus crassifolia</i>	3" cal.	B&B, 12 ht., 6' spread, 5' clear trunk container, 12' ht., 6' spread, 5' clear trunk container, 8' ht., tree form
	LO	3	Live Oak	<i>Quercus virginiana</i>	3" cal.	
	CM	3	Crepe Myrtle	<i>Lagerstroemia indica</i>	2" cal.	

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 within varieties.

UFC23-0236
Approved UF-2

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



SHERWIN WILLIAMS
2101 AVONDALE HASLET RD.
FORT WORTH, TEXAS

SHERWIN WILLIAMS
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	OWNER/DEVELOPER FORT WORTH DEVELOPMENT GROUP, LLC 120 MARKET SQ., FLOOR 2, PINEHURST, NC 28374 CONTACT: GAVIN MELIA TEL: 910 724 6720
SURVEYOR TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339	

ISSUE:
FOR APPROVAL 10.26.2023

DATE:
10.26.2023

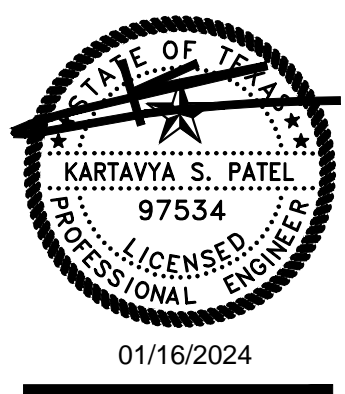
SHEET NAME:
URBAN FORESTRY- PHASE 2

SHEET NUMBER:
UF-2



TX PE FIRM #11525
TRIANGLE ENGINEERING LLC
T: 469.331.8566 | F: 469.213.7145 | E: info@triangle-eng.com
W: triangle-eng.com | C: 1782 W. McDermott Drive, TX 75013
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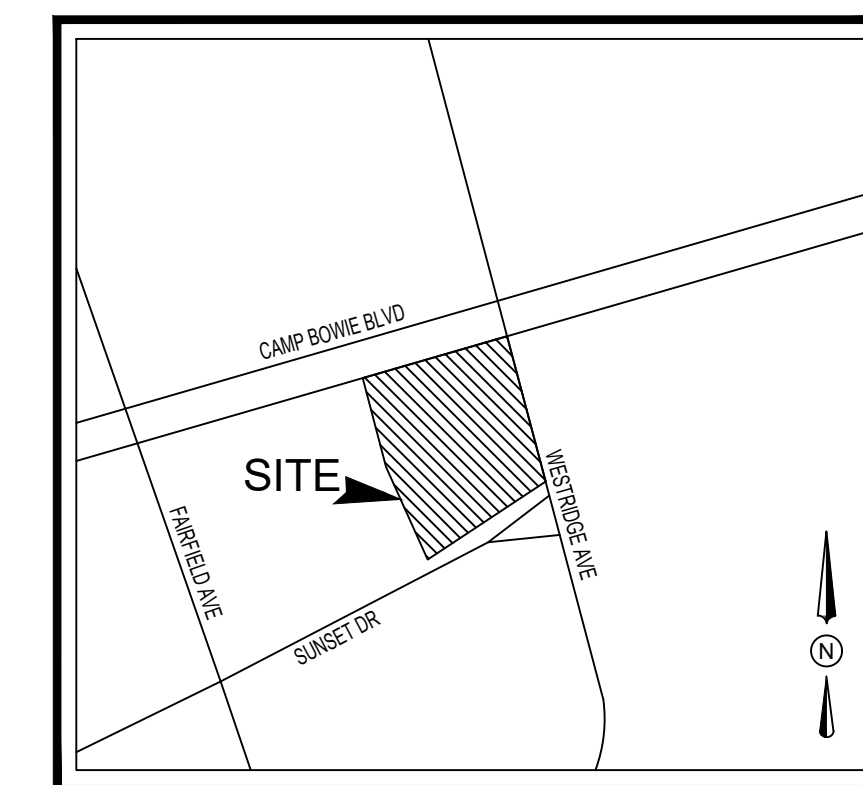
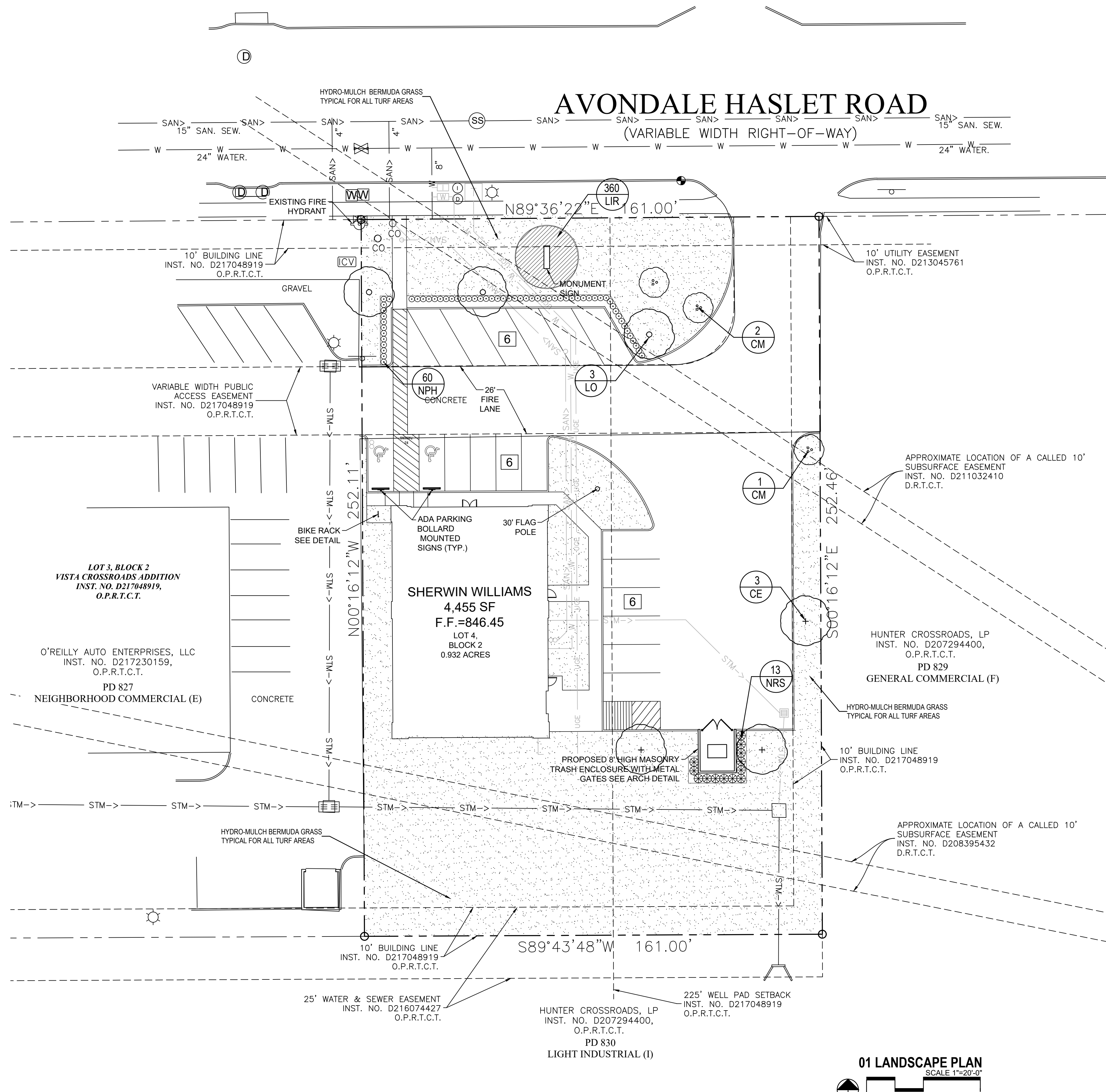
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EROSION CONTROL PLAN
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2101 AVONDALE HASLET ROAD
VISTA CROSSROADS ADDITION BLOCK 2, LOT 4
CITY OF FORT WORTH
TARRANT COUNTY, TEXAS

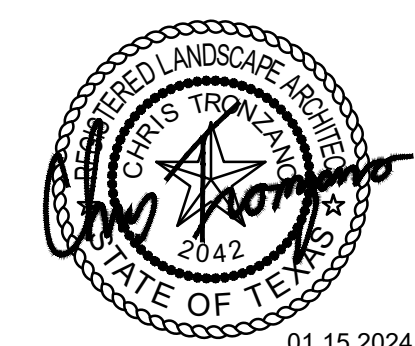
DATE	PROJECT
01/16/24	049-23
P.E.	DESIGN
KP	JZ

SHEET #
C-9.0



VICINITY MAP
N.T.S.

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



01.15.2024

GENERAL LAWN NOTES

1. FINE GRADE AREAS TO ACHIEVE FINAL CONTOURS INDICATED ON CIVIL PLANS.
2. 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.
3. ALL LAWN AREAS TO RECEIVE SOLID SOD SHALL BE LEFT IN A MAXIMUM OF 1" BELOW FINAL FINISH GRADE. CONTRACTOR TO COORDINATE OPERATIONS WITH ON-SITE CONSTRUCTION MANAGER.
4. IMPORTED TOPSOIL SHALL BE NATURAL, FRIABLE SOIL FROM THE 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 CLOUDS, STICKS, CONCRETE SPOOLS, 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.

HYDROMULCH NOTES

1. ALL LAWN AREAS TO BE HYDROMULCH BERMUDAGRASS, UNLESS NOTED OTHERWISE ON DRAWINGS.
2. CONTRACTOR SHALL SCARIFY, RIP, LOOSEN ALL AREAS TO BE HYDROMULCHED TO A MINIMUM DEPTH OF 4" PRIOR TO TOPSOIL AND HYDROMULCH INSTALLATION.
3. 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 RESPONSIBILITY OF THE CONTRACTOR TO SCALP EXISTING GRASS, BAG CLIPPINGS, AND SCARIFY SOIL TO A DEPTH OF 1" PRIOR TO PERMANENT 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.
12. CONTRACTOR SHALL GUARANTEE ESTABLISHMENT OF AN ACCEPTABLE TURF AREA AND SHALL PROVIDE REPLACEMENT FROM LOCAL SUPPLY AS NECESSARY.

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.
3. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED LANDSCAPE AND IRRIGATION PERMITS.
4. 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.

PLANT MATERIAL SCHEDULE -

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

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 within varieties.

LANDSCAPE TABULATIONS -

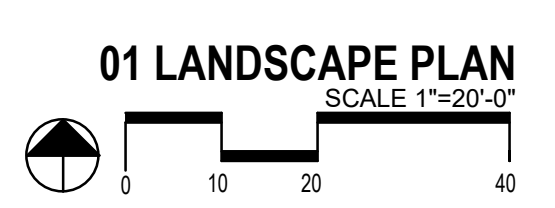
	REQUIRED	PROVIDED
GROSS SITE AREA (S.F.)	40,617.97 S.F.	
LESS BUILDING AREA (S.F.)	4,455 S.F.	
NET SITE AREA (S.F.)	36,162.97 S.F.	
REQUIRED LANDSCAPE (X 10%)	3,616.30 S.F.	19,299.47 S.F.
REQUIRED SHRUBS	73	73
5 GALLON MIN. (DIVIDED BY 50)		
LANDSCAPE AREA IN FRONT YARD (75%)	2,712.23 S.F.	5,420.61 S.F.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

SHERWIN WILLIAMS

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

PROJECT CONTACT LIST

<p>ENGINEER TRIANGLE ENGINEERING LLC 1782 W McDERMOTT DRIVE ALLEN, TEXAS 75013 CONTACT: JACK ZANGER TEL: 469-331-8566</p>	<p>OWNER/DEVELOPER FORT WORTH DEVELOPMENT GROUP, LLC 120 MARKET SQ., FLOOR 2, PINEHURST, NC 28374 CONTACT: GAVIN MELIA TEL: 910 724 6720</p>
<p>SURVEYOR TRAVERSE LAND SURVEYING LLC 14200 MIDWAY ROAD, SUITE 130 DALLAS, TX 75224 CONTACT: GRAYSON CEBALLOS TEL: 469-426-7339</p>	



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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.1

SECTION 02900 - LANDSCAPE

PART 1 - GENERAL

1.1 REFERENCED DOCUMENTS

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

1.2 DESCRIPTION OF WORK

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
- Water and Maintenance until final acceptance
- Guarantee

1.3 REFERENCE STANDARDS

- American Standard for Nursery Stock published by American Association of Nurserymen; 27 October 1960, Edition; by American National Standards Institute, Inc. (Z60.1) – plant material.
- American Joint Committee on Horticultural Nomenclature: 1942 Edition of Standardized Plant Names.
- 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 project.
- 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 project.
- Product Data: Submit complete product data and specifications on all other specified materials.
- 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 with Architect, if required.
- Soil Analysis: Provide sandy loam soil analysis if requested by the Architect.

PART 3 - EXECUTION

3.1 BED PREPARATION & FERTILIZATION

- Landscape Contractor to inspect all existing conditions and report any deficiencies to the Owner.
- All planting areas shall be conditioned as follows:
 - 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. Apply fertilizer as per manufacturers recommendations. Add six (6") inches of 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 (1,000) square feet.
 - All planting areas shall receive a two (2") inch layer of specified mulch.
 - 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., placed in nine (9") inch layers and watered in thoroughly.
- Grass Areas:
 - 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 smooth, even surface. The joints between the blocks of sod should be filled with topsoil where they are evidently gapped open, then watered thoroughly.
 - Areas to be Hydromulch Common Bermudagrass: Hydromulch with bermudagrass seed at a rate of two (2) pounds per one thousand (1,000) square feet. Use a 4' x 8' batter board against the bed areas.

3.2 INSTALLATION

- 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.
- 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 plants remain the property of the Contractor until final acceptance.
- Position the trees and shrubs in their intended location as per plan.
- Notify the Landscape Architect for inspection and approval of all positioning of plant materials.
- 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 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.

- Steel Curbing Installation:
 - Curbing shall be aligned as indicated on plans. Stake out limits of steel curbing and obtain Owners approval prior to installation.
 - All steel curbing shall be free of kinks and abrupt bends.
 - Top of curbing shall be 3/4" maximum height above grade.
 - Stakes are to be installed on the planting bed side of the curbing, as opposed to the grass side.
 - Do not install steel edging along sidewalks.
 - Cut steel edging at 45 degree angle where edging meets sidewalk.

3.3 CLEANUP AND ACCEPTANCE

- Cleanup: During the work, the premises shall be kept neat and orderly at all times. 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 areas clean by sweeping or hosing at end of each days work.

END OF SECTION

JOB CONDITIONS

- 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.
 - 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.
 - After final acceptance of installation, the Landscape Contractor will not be required to do any of the above listed work.
- Guarantee:
 - 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.
 - 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 repaired.
 - 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.
 - When plant replacements are made, plants, soil mix, fertilizer and mulch are to be utilized as originally specified and reinspected for full compliance with Contractor requirements. All replacements are to be included under "Work" of this section.

1.7 QUALITY ASSURANCE

- General: Comply with applicable Federal, State, County and Local regulations governing landscape materials and work.
- 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 specifications.
- 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.
- 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 quality.
- 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.
- 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

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

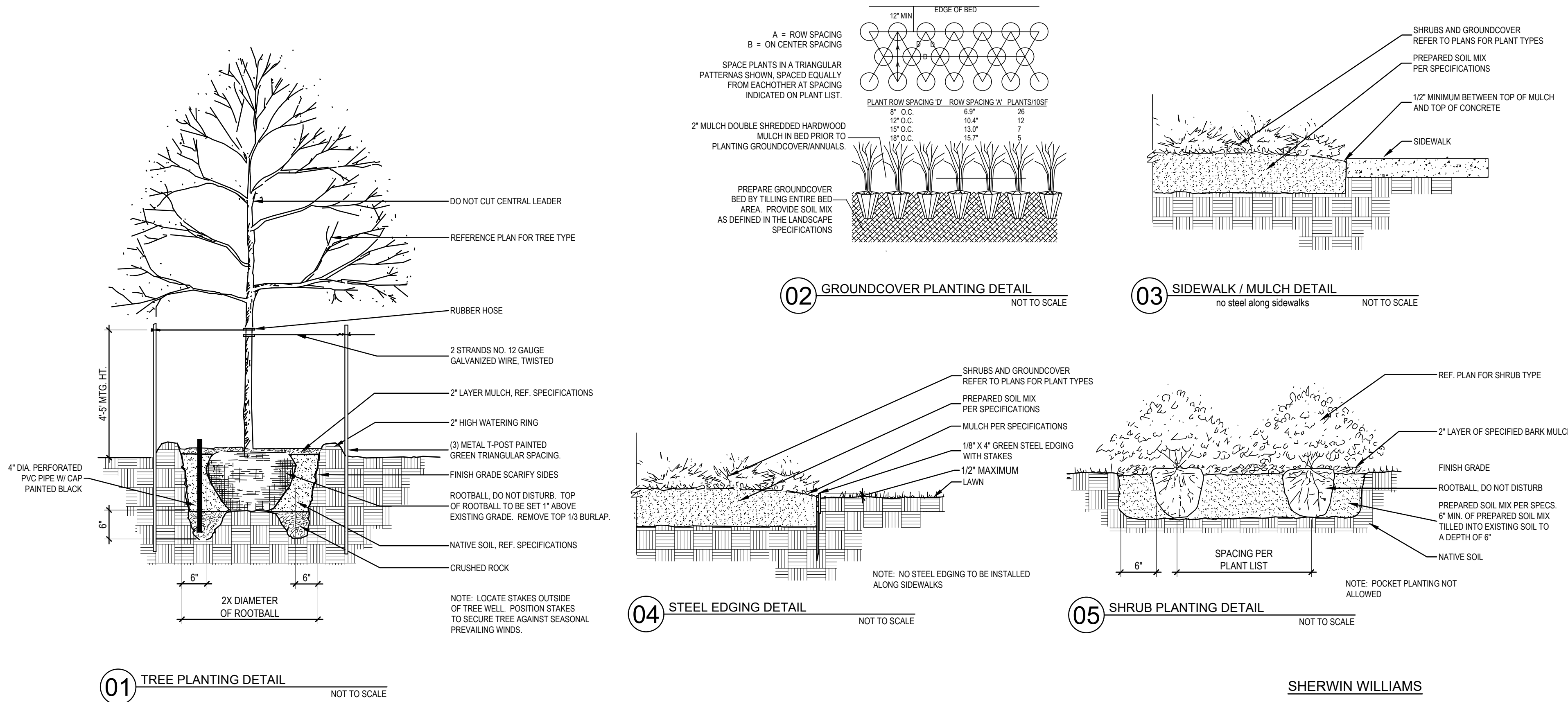
A. Delivery:

- Deliver packaged materials in sealed containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at site.
- Deliver only plant materials that can be planted in one day unless adequate storage and watering facilities are available on job site.
- Protect root balls by heating in with sand/soil or other approved moisture retaining material if not planted within 24 hours of delivery.
- 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.
- Notify Architect of delivery schedule 72 hours in advance so plant material may be observed upon arrival at job site.
- Remove rejected plant material immediately from site.
- 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.
- 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") inches in diameter for each one (1") inch of trunk diameter. Measured six (6") inches above ball. Nomenclature conforms to the customary nursery usage: for clarification, the term "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 executed by the Landscape Contractor at no additional cost to the Owner.



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



10.26.2023

2.2 SOIL PREPARATION MATERIALS

- Sandy Loam:
 - 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.
 - Physical properties as follows:
 - Clay – between 7-27 percent
 - Silt – between 15-25 percent
 - Sand – less than 52 percent
 - Organic matter shall be 3%-10% of total dry weight.
 - 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.
- 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.
- Organic Fertilizer: Fertilid, 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, plus micronutrients.
- Peat: Commercial sphagnum peat moss or partially decomposed shredded pine bark or other approved organic material.

2.3 MISCELLANEOUS MATERIALS

- Steel Edging: Shall be Ryerson "Estate Curbing", 1/8" x 4" with stakes 4" on center.
- Staking Material for Shade Trees:
 - Post: Studed T-Post, #1 Armo with anchor plate; 6'-0" length; paint green.
 - Wire: 12 gauge, single strand, galvanized wire.
 - Rubber hose: 2 ply, fiber reinforced hose, minimum 3/8 inch inside diameter. Color: Black.
- 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.

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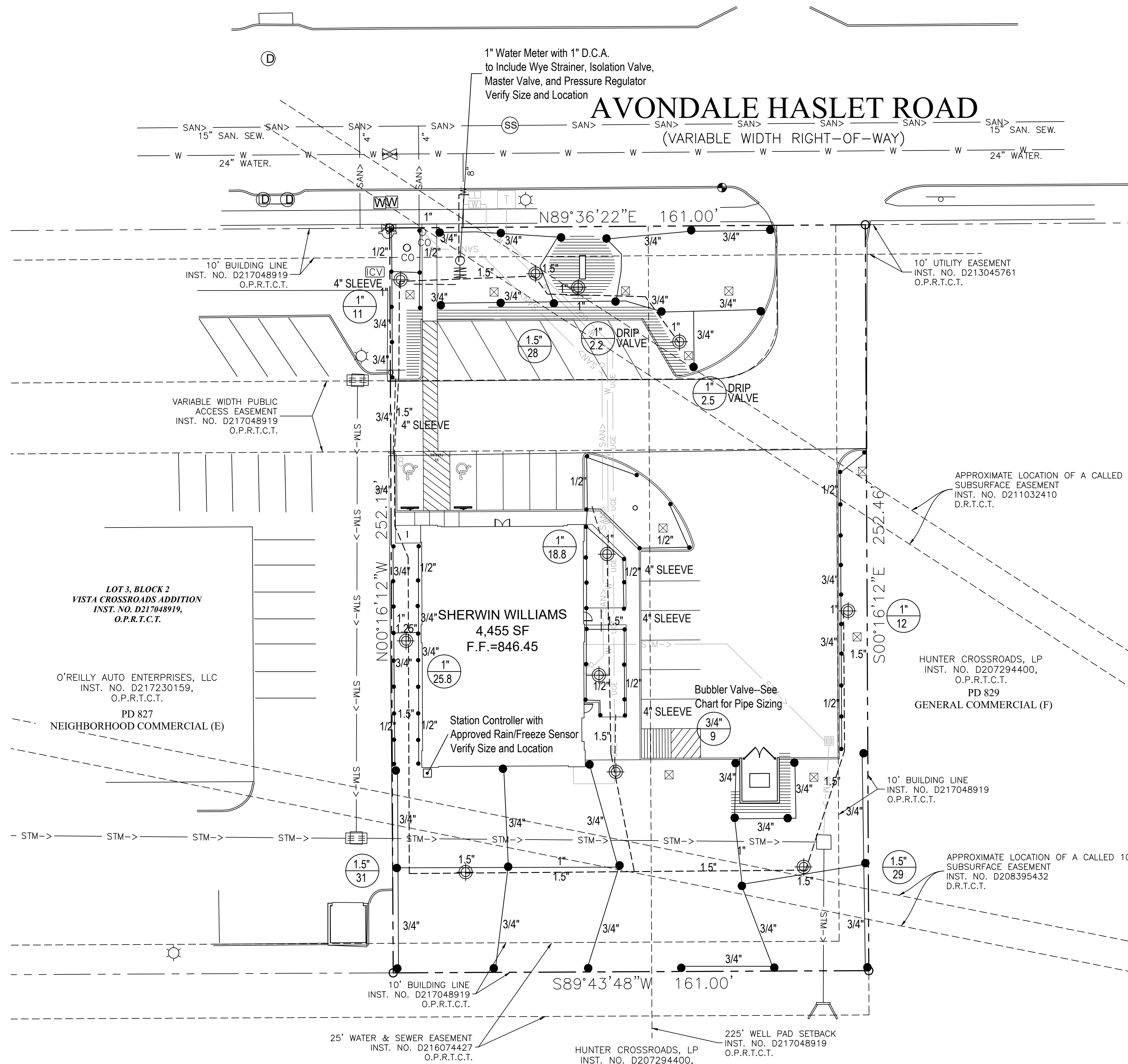
ISSUE:
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DATE:
10.26.2023

SHEET NAME:
LANDSCAPE SPECIFICATIONS

SHEET NUMBER:

L.2



01 IRRIGATION PLAN
SCALE 1"=20'-0"

TCEQ NOTES

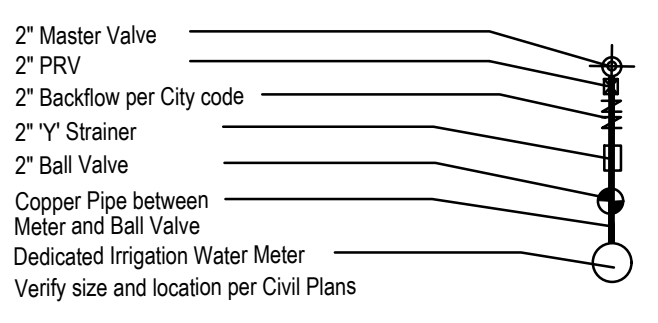
- All irrigation equipment to be located no closer than 4' to any pavement and / or structure
- Electrical splices at each valve and controller only.
- Irrigation in Texas is regulated by the Texas Commission on Environmental Quality (TCEQ) MC-178 / P.O. BOX 13087 Austin, Texas 78711-3087 www.tceq.state.tx.us

BUBBLER PIPING CHART

- 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 PRS30-12 12" Pop-up Spray Head with Plastic Hunter Pro Adjustable Nozzle
- Hunter PGP Ultra-04 Rotors
- Hunter Multi-Stream Bubblers on Hunter PRS30-06 Pop-up Spray Head
- Spray, Rotor & Bubblers Zones-Hunter PGP 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
- VALVE SIZE GPM
- 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

- Contractor shall lay sleeves and conduits at twenty-four (24) inches below finish grade of the top of pavement.
- Contractor shall extend sleeves one (1) foot beyond edge of all pavement.
- Contractor shall cap pipe ends using PVC caps.
- 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

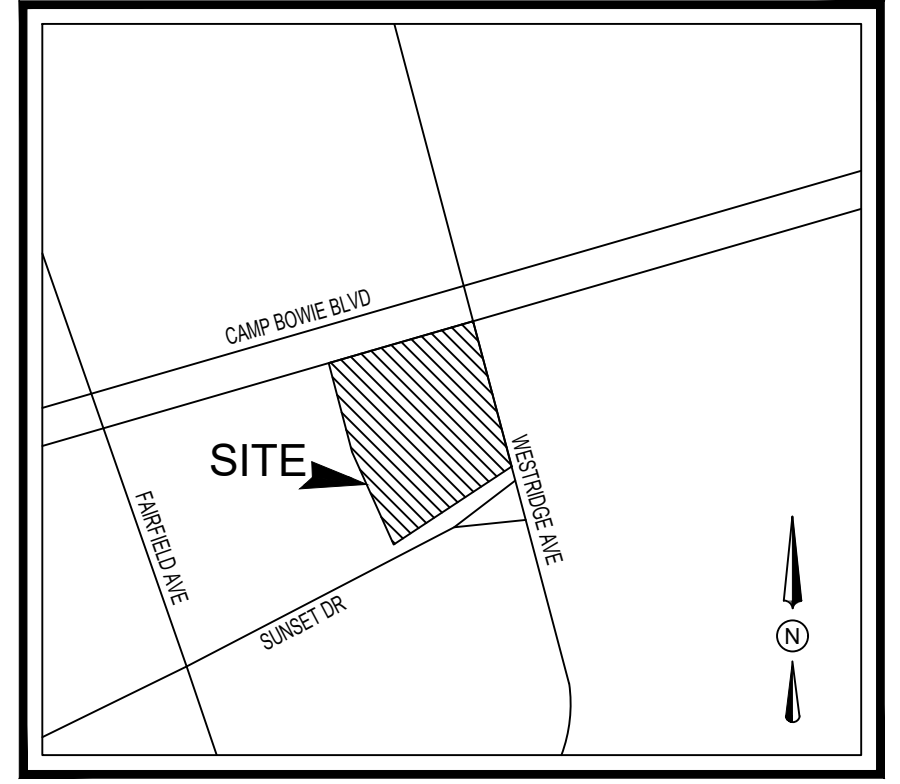
Static Pressure (at the water meter)- 65 psi
Design Pressure for Remote Zone- 54.6 psi
Pressure Losses for Remote Zone and Meter Components- 19.6 psi

Water Meter Components- Pressure Losses

Master Valve Pressure- 2 psi
Pressure Regulator- 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
N.T.S.

IRRIGATION NOTES

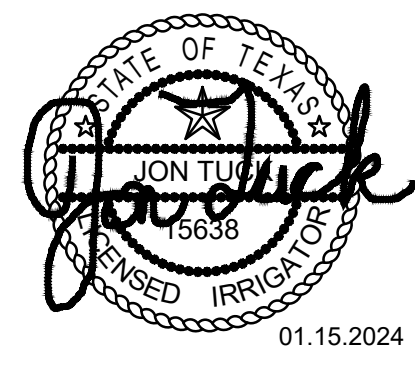
- All sprinkler equipment numbers reference the HUNTER equipment catalog unless otherwise indicated.
- LAWN SPRAY HEADS are SRS-04 installed as per detail shown.
- SHRUB SPRAY HEADS are SRS-12 installed as per detail shown.
- ELECTRIC CONTROL VALVES shall be HUNTER PGP-S SERIES installed per detail shown. Size valves as shown on plan. Valves shall be installed in valve boxes large enough to permit manual operation, removal of solenoid and/or valve cover without any earth excavation.
- 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.
- All 24 volt valve wiring is to be UF 14 single conductor. All wire splices are to be permanent and waterproof.
- SLEEVES shall be installed by General Contractor. Sleeve material shall be Schedule 40. Size as indicated on plan.
- 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 than 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.
- 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.
- 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.
- Landscape Contractor shall be required to follow Manufacturer's Specifications and installation guidelines for drip system.
- PRESSURE COMPENSATING EMITTERS shall be: Multiset Rain Bug EM6-M101, Multi outlet Shrub Bug EM16-M101 or approved equal. (1 PER EVERY 6 - 4" POTS)
- SINGLE OUTLET PRESSURE COMPENSATING EMITTERS shall be: Rain Bug Emitters EM-M05, -M10, -M20 and Shrub Bug Emitters EMT-M10, -M20 or approved equal. (1 PER EACH 1 OR 5 GAL PLANT)
- DRIP PRESSURE REGULATORS shall be: PSI-HLA-15, PSI-HLA-20, PSI-HMB-20, PSI-HMB-25 or approved equal.
- Y-FILTERS shall be: RBY-075-200, RBY-100-200 or approved equal.
- MAIN IRRIGATION TUBING shall be: RBT-150P, RBT-160V or approved equal.
- EMITTER DISTRIBUTION TUBING shall be: RBT-150P, RBT-160V or approved equal.
- SUBTERRANEAN EMITTER BOX shall be: SEB-6 or approved equal.
- 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.
- Contractor shall verify that all drip system valves and spray system valves are sectioned separately on controller.

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



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SHERWIN WILLIAMS

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ISSUE:

FOR APPROVAL 10.26.2023
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DATE:
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SHEET NAME:
IRRIGATION PLAN

SHEET NUMBER:

L.3

SECTION 02810 - IRRIGATION

PART 1 - GENERAL

1.1 SCOPE

- A. Provide complete sprinkler installation as detailed and specified herein, including furnishing all labor, materials, and equipment for the proper installation. Work includes but is not limited to:
 1. Trenching and backfill
 2. 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.
- B. 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
- C. 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. D2454 Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Thread, Schedule 80
 3. 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 Fittings

1.4 MAINTENANCE AND GUARANTEE

- A. Materials and workmanship shall be fully guaranteed for one (1) year after final acceptance.
- B. 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.
- C. Guarantee is limited to repair and replacement of defective materials or workmanship, including repair of backfill settlement.

1.5 SUBMITTALS

- A. Procedure: Comply with Division I requirements.
- B. Product Data: Submit (5) copies of equipment manufacturer's specifications and literature for approval by Landscape Architect prior to installation.
- C. Project Record Documents
 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 equipment.
- D. Quick Coupler Keys: Provide 3 coupler keys with boiler drains attached using brass reducer.
- E. Controller Keys: Provide three sets of keys to controller enclosure(s).
- F. 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 general by item specified.
- G. 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 sprinkler.
- H. 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 originally designed and specified system.
- I. 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 irrigated.

1.6 TESTING

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

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.
- B. PVC Pipe: Class 200 SPR 21 Copper Tubing (City Connection); Type "M" 24V Wire: Size 14, Type U.F.
- C. Electric valves to be all plastic construction as indicated on plans.
- D. Refer to drawing for backflow prevention requirements and flow valve.

PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- A. 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 proceeding.
- B. 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.
- C. Backfill: Flood or hand-tamp to prevent after setting. Hand rake trenches and adjoining area to leave grade in as good or better condition than before installation.
- D. 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 trees or shrubs.

3.2 PIPE INSTALLATION

- A. Sprinkler Mains: Install a four (4") inch minimum trench with a minimum of eighteen (18") inches of cover.
- B. 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 cover.
- C. 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

- A. 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.
- B. 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.

3.4 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.

3.7 WIRING

- A. 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 piping.
- B. 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 control.
- C. 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 waterproof.

3.8 AUTOMATIC SPRINKLER CONTROLS

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

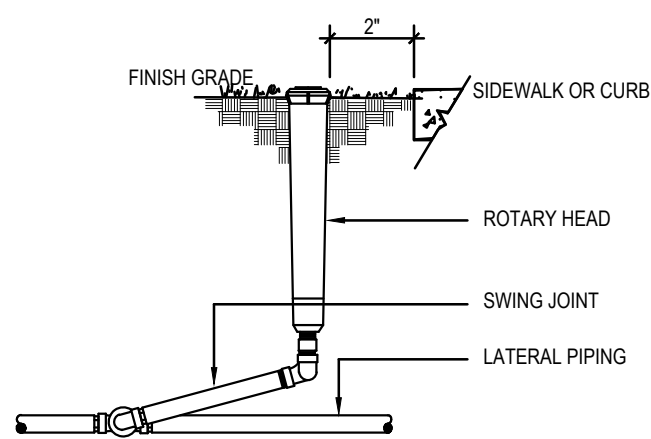
3.9 TESTING

- 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.

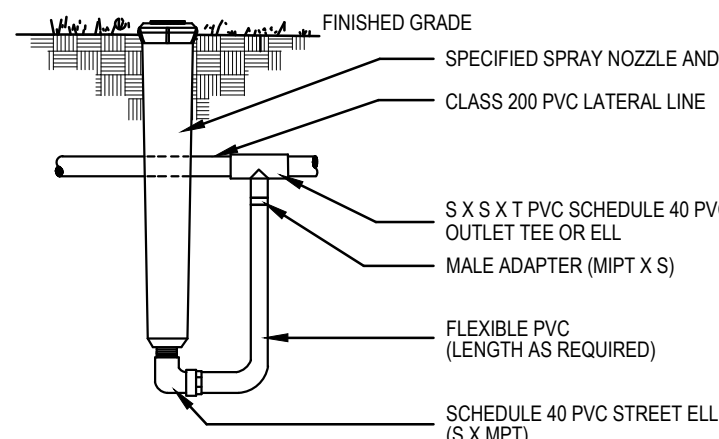
3.10 FINAL ADJUSTMENT

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 burning 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 nozzle for proper coverage. Prevailing wind conditions may indicate that each of angle of spray should be other than shown on drawings. In this case, change nozzles to provide correct coverage.

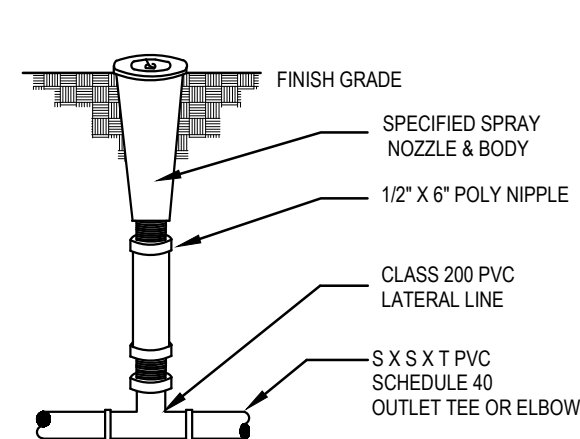
END OF SECTION



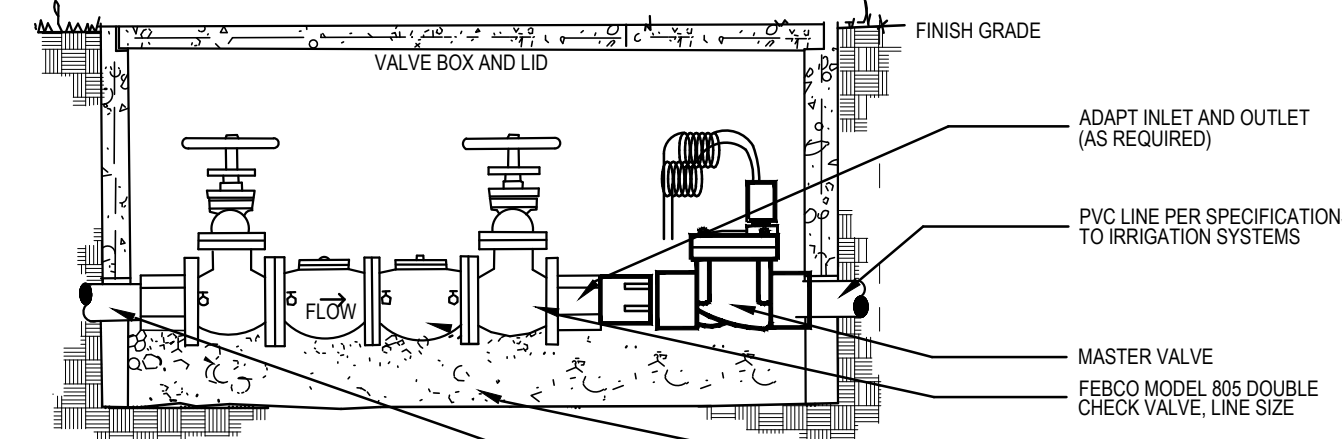
01 ROTARY HEAD NOT TO SCALE



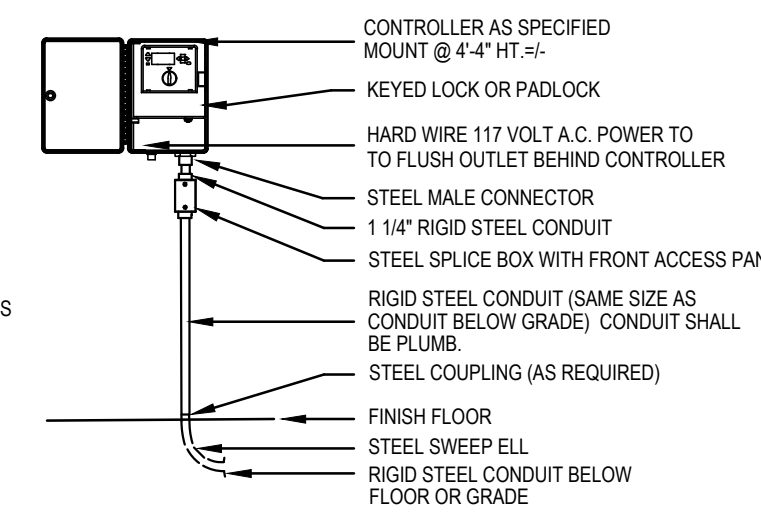
02 HIGH POP-UP SPRAY ASSEMBLY NOT TO SCALE



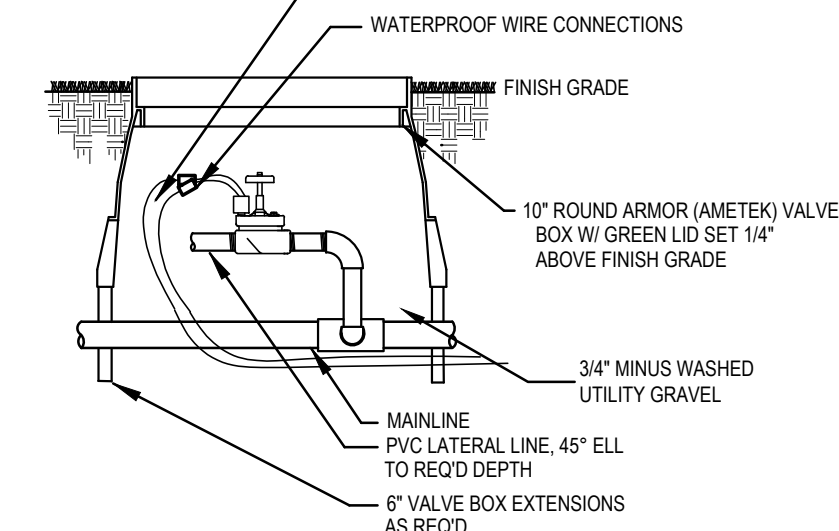
03 POP-UP LAWN SPRAY ASSEMBLY NOT TO SCALE



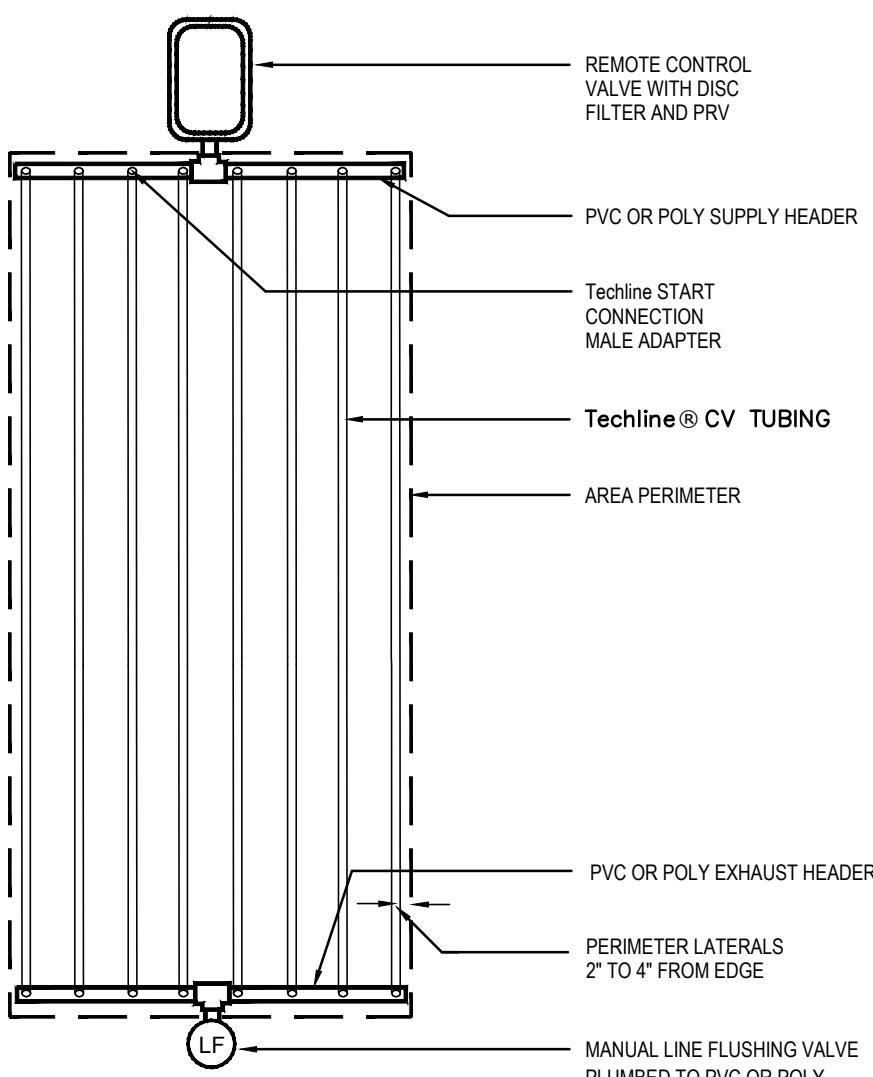
04 BACKFLOW PREVENTER NOT TO SCALE



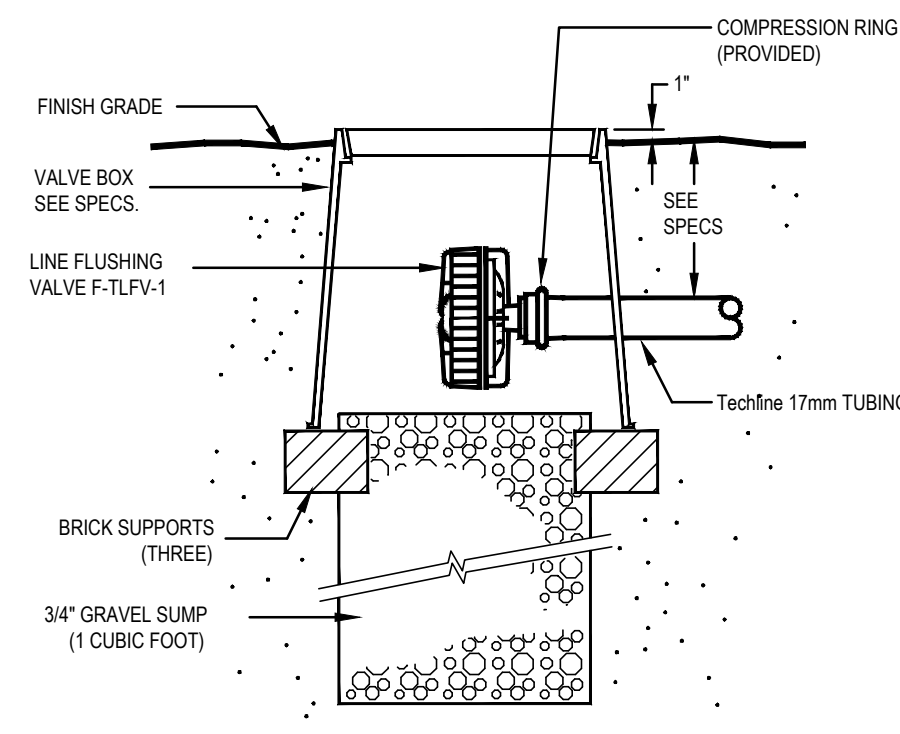
05 WALL MOUNTED CONTROLLER NOT TO SCALE



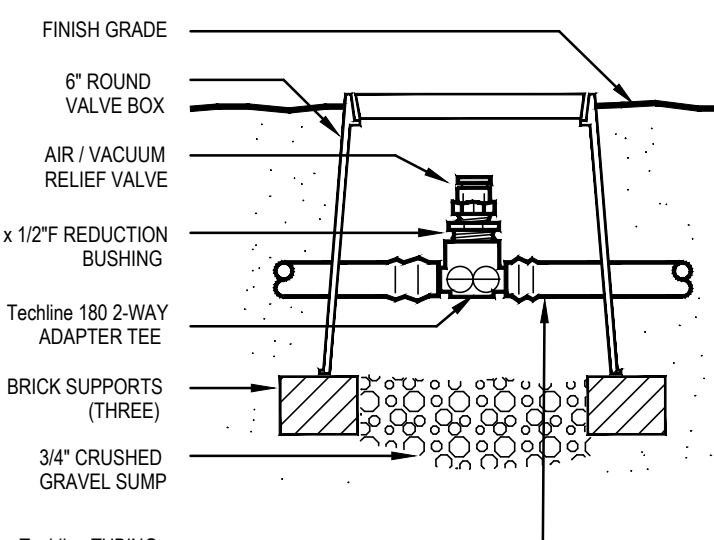
06 REMOTE CONTROL VALVE NOT TO SCALE



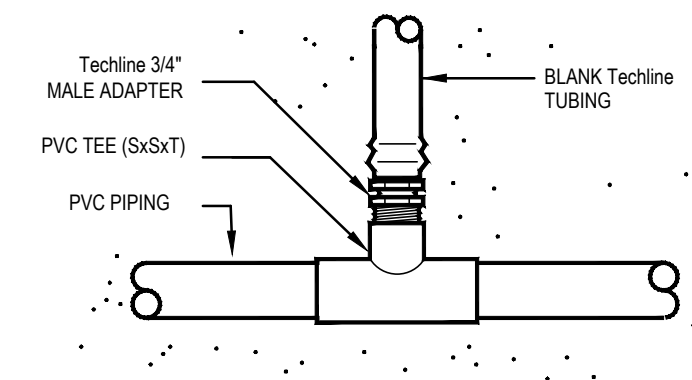
07 TechLine CV END FEED LAYOUT NOT TO SCALE



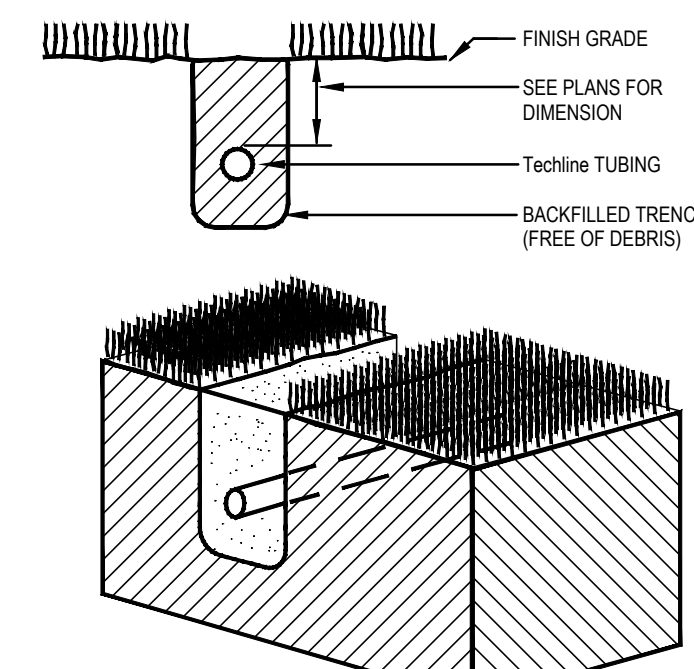
08 TechLine LINE FLUSHING VALVE NOT TO SCALE



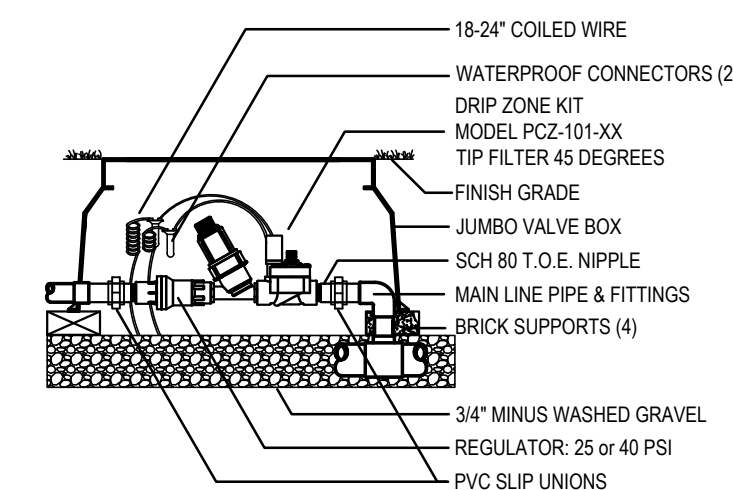
09 TechLine AIR/VACUUM RELIEF NOT TO SCALE



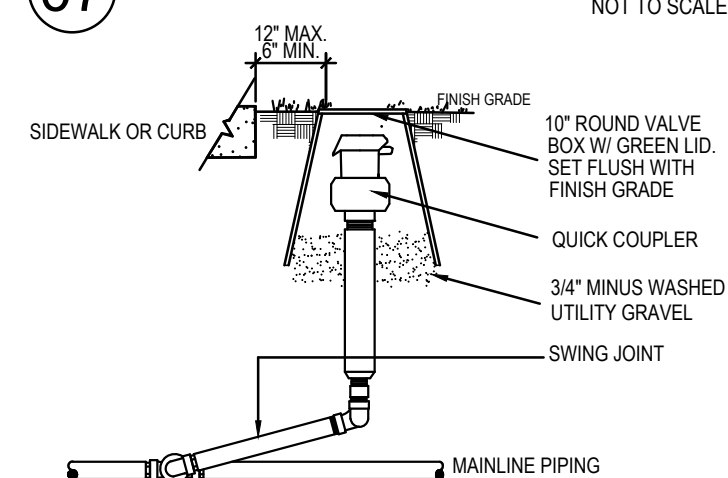
11 TechLine START CONNECTION NOT TO SCALE



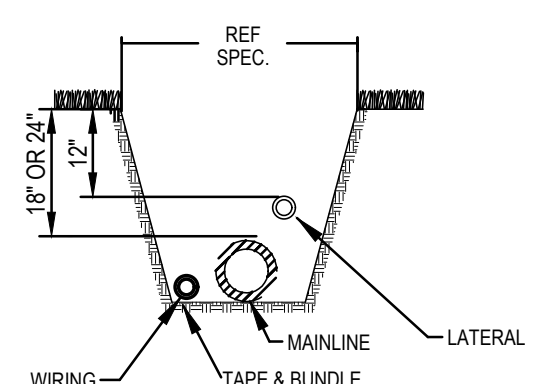
12 TechLine TRENCHING NOT TO SCALE



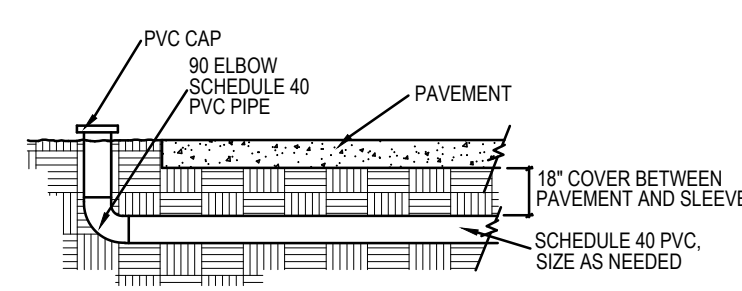
13 DRIP CONTROL VALVE NOT TO SCALE



14 QUICK COUPLER NOT TO SCALE

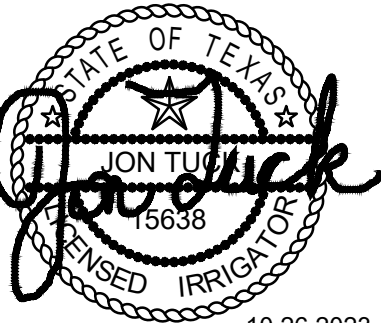


15 TRENCH DETAIL NOT TO SCALE



16 SLEEVE DETAIL NOT TO SCALE

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



10.26.2023

SHERWIN WILLIAMS

2101 AVONDALE HASLET RD.
FORT WORTH, TEXAS

SHERWIN WILLIAMS

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

PROJECT CONTACT LIST

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

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

ISSUE:
FOR APPROVAL 10.26.2023

DATE:
10.26.2023

SHEET NAME:
IRRIGATION SPECIFICATIONS

SHEET NUMBER:

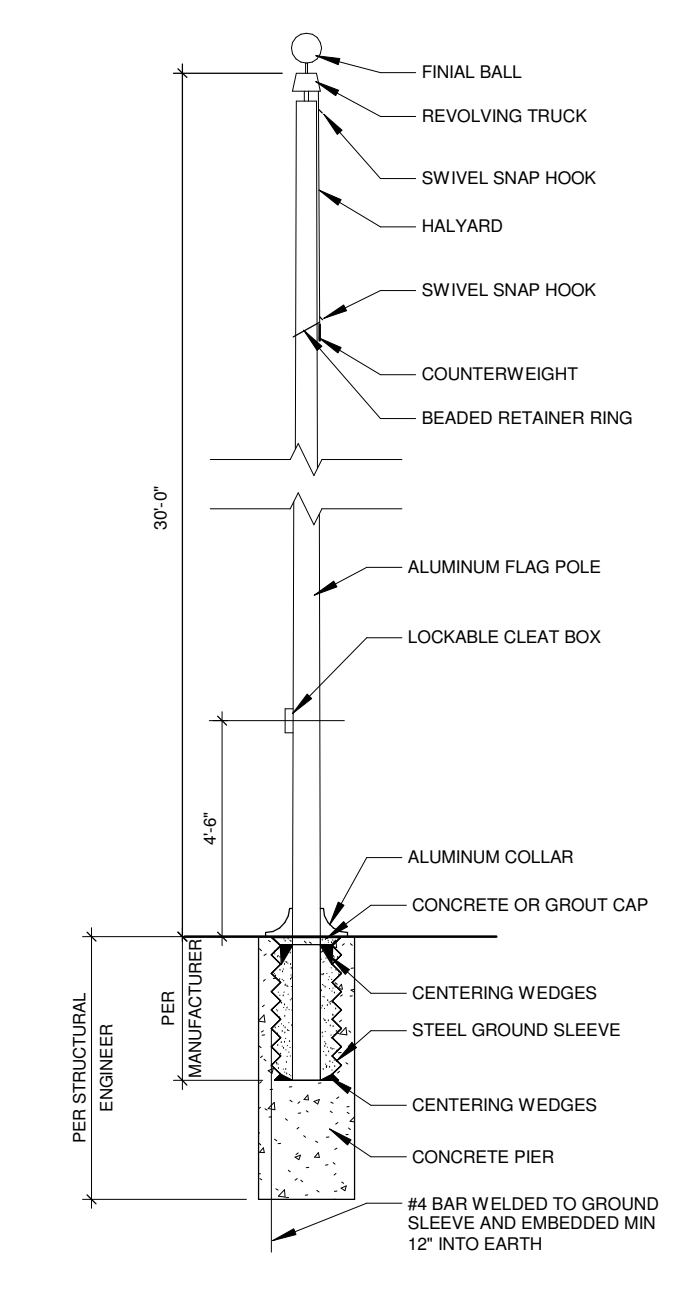
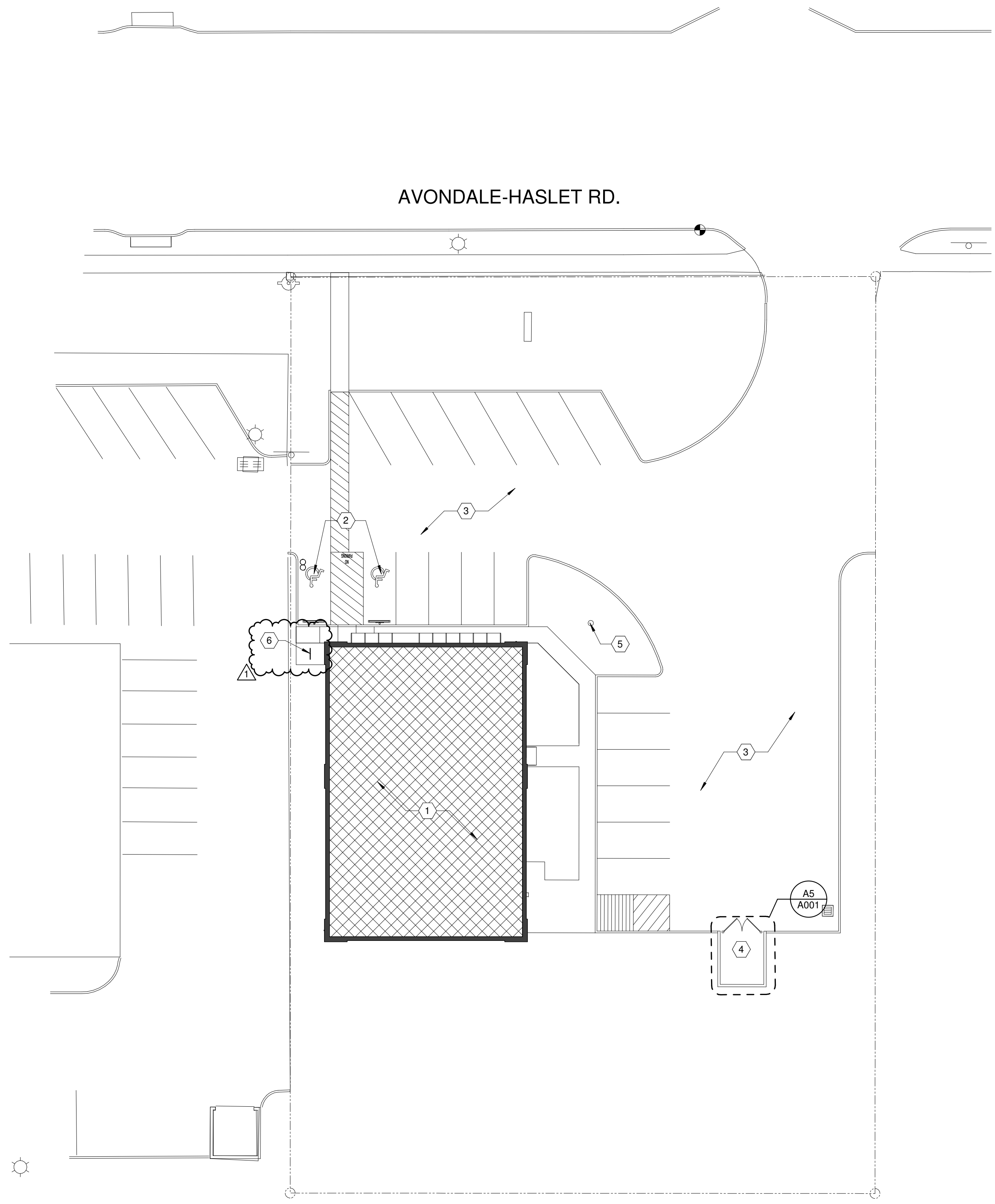
L.4

SITE PLAN CODED NOTES

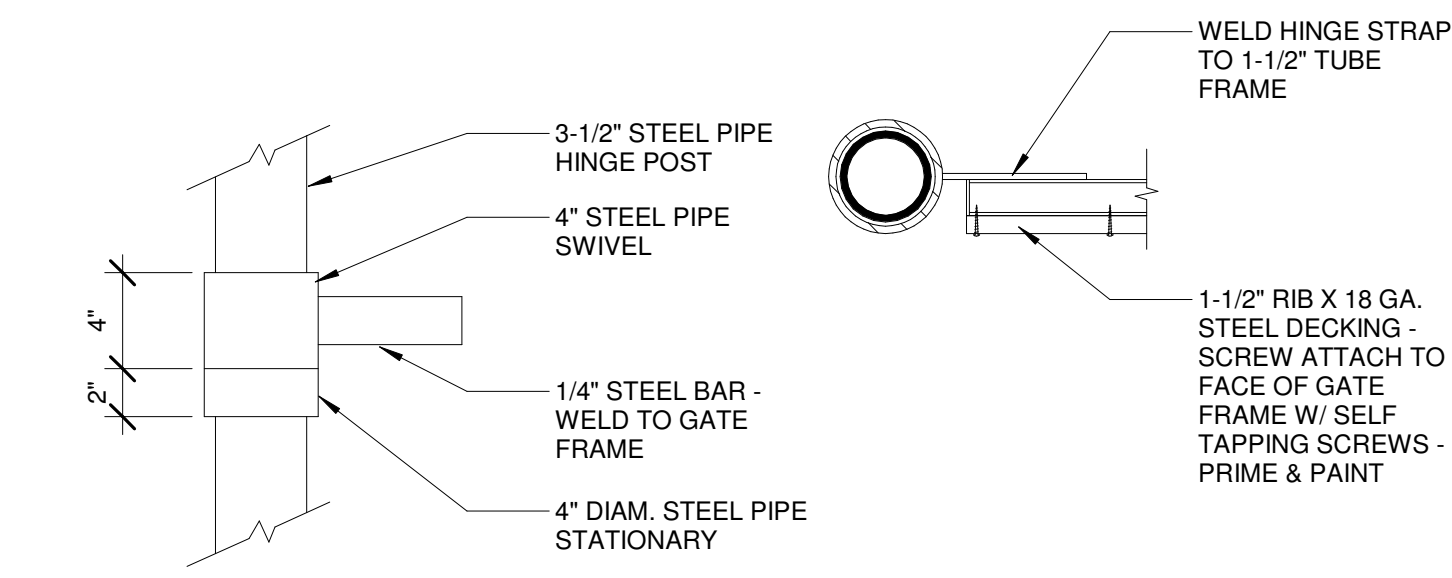
1	TENANT BUILDING
2	NEW ACCESSIBLE PARKING - REFER CIVIL FOR DETAILS
3	NEW SITEWORK & PARKING - REFER CIVIL
4	TRASH ENCLOSURE - REFER CIVIL
5	FLAG POLE
6	BIKE RACK

GENERAL NOTES

- UNLESS OTHERWISE NOTED, ALL SITE & CIVIL WORK PERFORMED UNDER SEPARATE PERMIT.
- REFERENCE CIVIL PERMIT SET.
- GENERAL CONTRACTOR TO COORDINATE ALL UTILITIES SCHEDULING & CONNECTIONS.

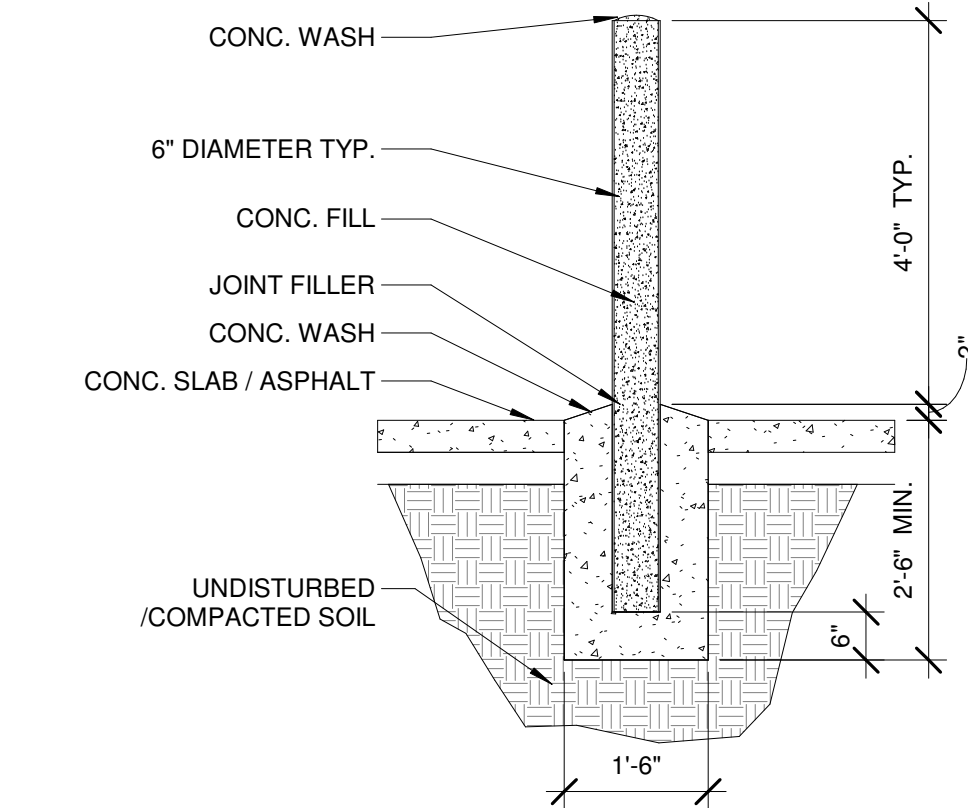


C4 FLAG POLE
1/4" = 1'-0"

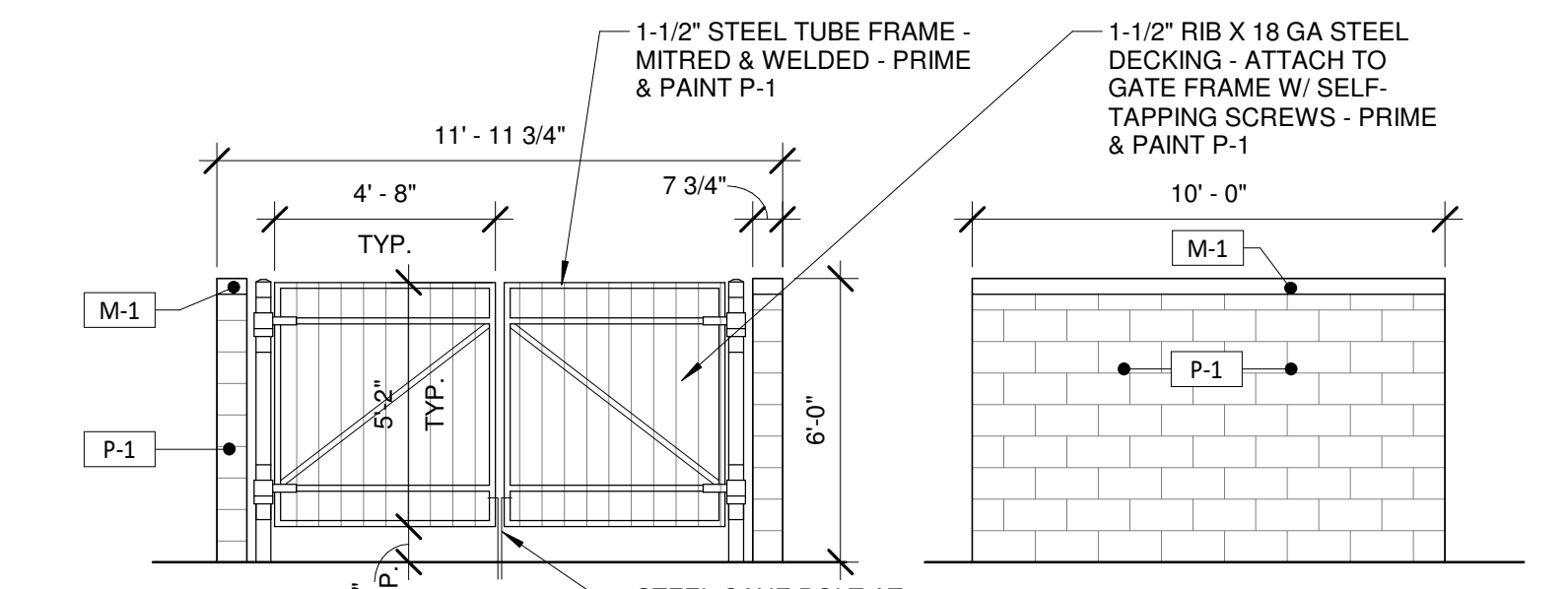


C5 HINGE DETAIL
1 1/2" = 1'-0"

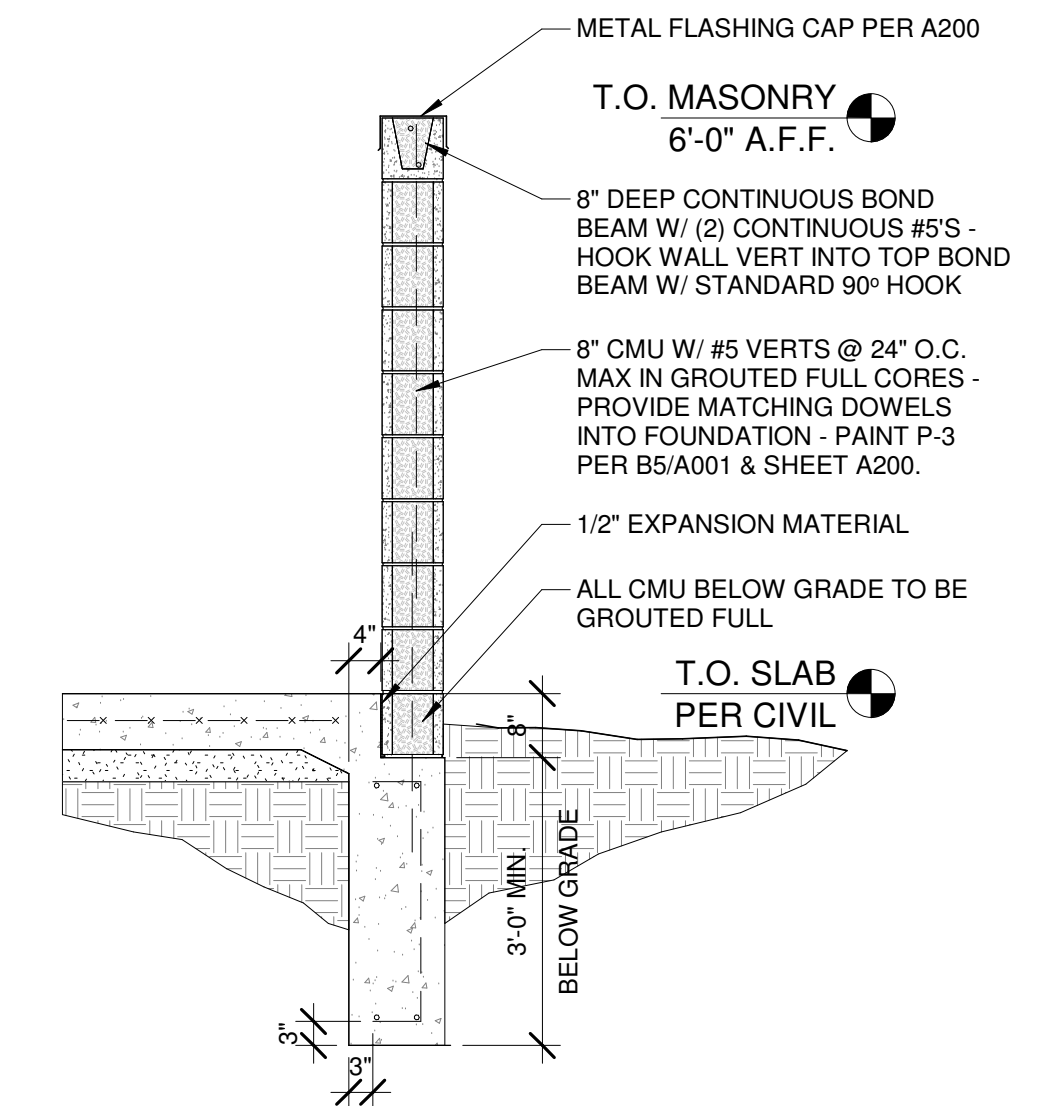
NOTE: SEE PLAN FOR LOCATION



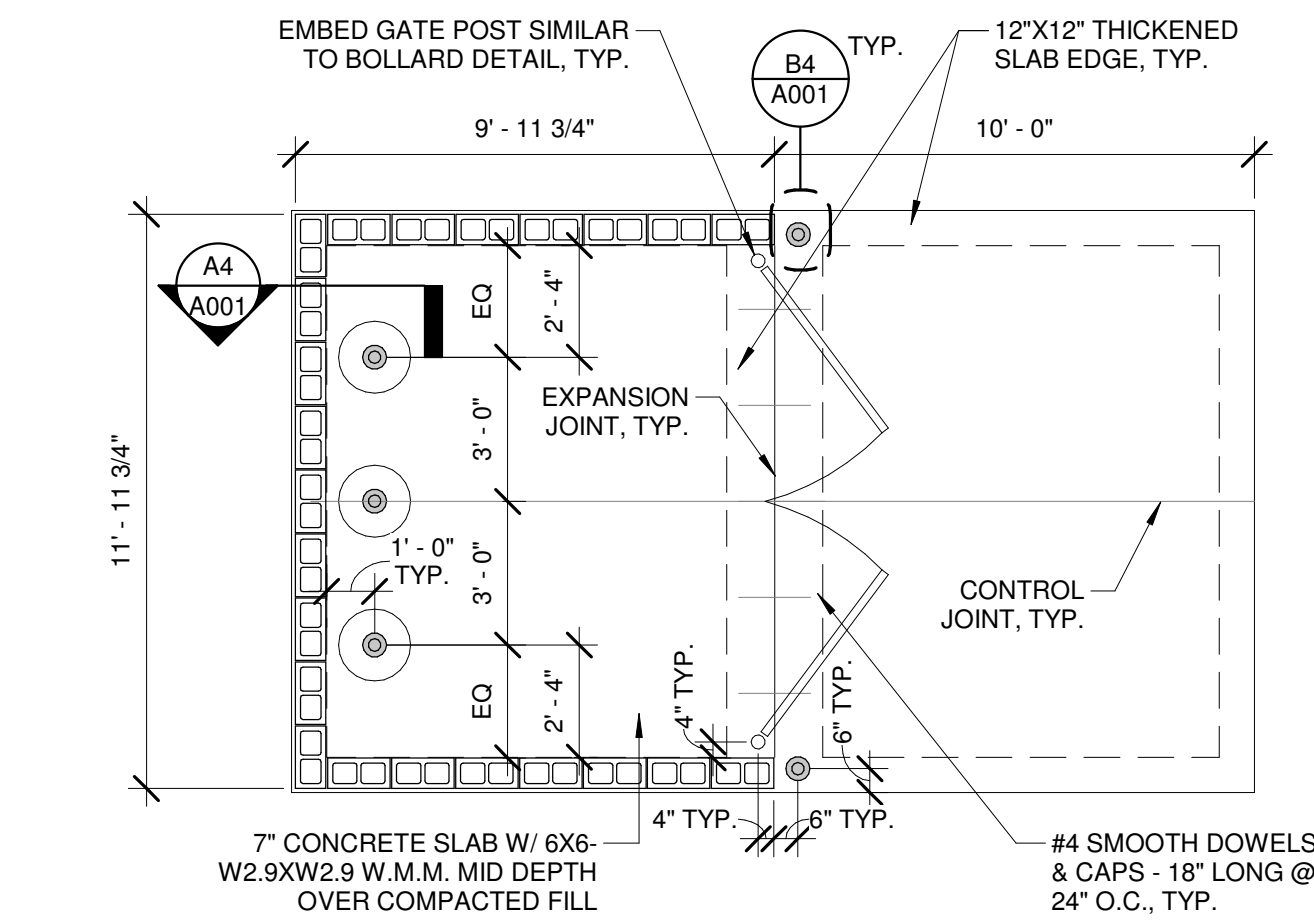
B4 BOLLARD DETAIL
1/2" = 1'-0"



B5 TRASH ENCLOSURE ELEVATIONS CMU
1/4" = 1'-0"



A4 TRASH ENCLOSURE WALL SECTION CMU
1/2" = 1'-0"

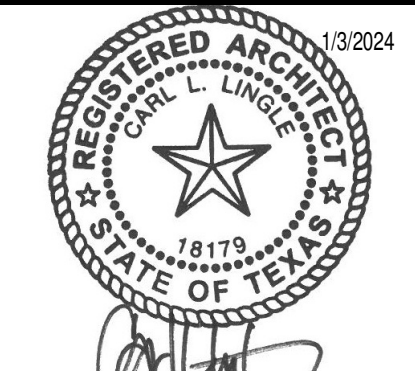


A5 TRASH ENCLOSURE PLAN CMU
1/4" = 1'-0"

A1 SITE PLAN
1" = 20'-0"

LINGLE DESIGN GROUP, 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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PROJECT #:
TBD
DRAWN BY: BA
CHECKED BY: MP

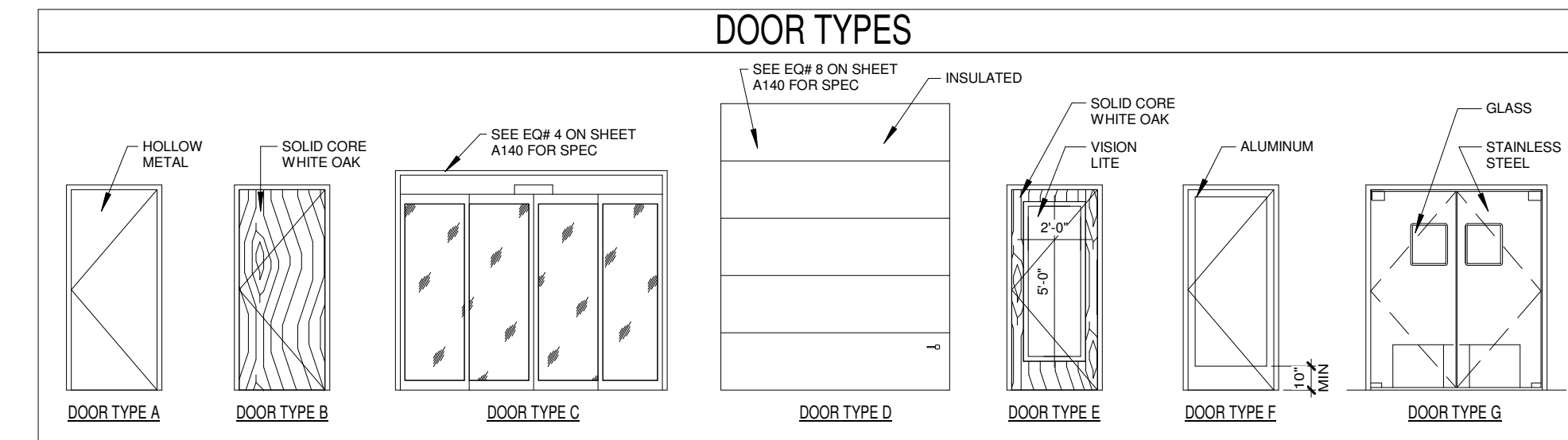
PERMIT SET - 11/22/2023
REV 1 - 1/3/2024

SHERWIN WILLIAMS

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

SHEET TITLE:
Architectural Site Plan

SHEET NUMBER:
A001



Door Schedule

Mark	Width	Height	Thickness	DOOR TYPE	DOOR MATERIAL	FRAME MATERIAL	HARDWARE GROUP
101	10'-0"	7'-8"	0'-4 1/2"	C	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"	A	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"	B	WOOD	HM-STL	GROUP 2
107	6'-0"	7'-0"	0'-1 1/2"	G	STLS-STL	STLS-STL	---

HARDWARE SCHEDULE

GROUP 1 - SLIDING DOORS

2 EA.	EXIT DEVICE	MOTION DETECTION UNIT
1 EA.	LOCK	MANUFACTURER LOCK SYSTEM
2 EA.	CLOSER	AUTOMATIC DOORS
1 EA.	SIGNAGE	"DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS"
1 EA.	SIGNAGE	"MAXIMUM OCCUPANCY" - POST AT MAIN ENTRY
1 EA.	THRESHOLD	MANUFACTURER THRESHOLD SYSTEM

GROUP 2 - RESTROOM DOORS (PRIVACY SET)

3 PR.	HINGE	STANLEY - #FBB179 - 4-1/2" X 4-1/2"
1 EA.	LATCH	SCHLAGE - ND40S-TLR (PRIVACY HARDWARE) - 626 FINISH
1 EA.	CLOSER	DORMA - 8616FHP
3 EA.	SILENCERS	GLYNN - GJ64
1 EA.	SIGNAGE	"RESTROOM" SIGNAGE PER DETAIL ON SHEET A400
1 EA.	STOP	AS REQUIRED - WALL: #407 1/2 PA28 - FLOOR: #436 OR #438 PA28

GROUP 3 - OFFICE DOOR

3 PR.	HINGE	STANLEY - #FBB179 - 4-1/2" X 4-1/2"
1 EA.	LATCH	SCHLAGE - ND50PD-TLR-SFIC - 626 FINISH
1 EA.	LOCK	LATCH-COMPATIBLE SMALL FORMAT INTERCHANGEABLE CORE
3 EA.	SILENCERS	GLYNN - GJ64
1 EA.	STOP	AS REQUIRED - WALL: #407 1/2 PA28 - FLOOR: #436 OR #438 PA28
1 EA.	VISION LITE	FULL GLASS - VERIFY W/ SHERWIN-WILLIAMS CORPORATE

GROUP 4 - SERVICE DOOR

3 PR.	HINGE	STANLEY - #FBB179 - 4-1/2" X 4-1/2"
1 EA.	PULL	YALE - 632F-626
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
1 EA.	THRESHOLD	PEMCO - #171A - SIZE AS REQUIRED
1 EA.	SWEEP	PEMCO - #307AV - SIZE AS REQUIRED
1 EA.	WEATHERSTRIP	PEMCO - #303AV - SIZE AS REQUIRED

GROUP 5 - DELIVERY DOOR

1 EA.	OPENER/LOCK	MOTORIZED OPERATOR - LIFTMASTER LJ8900W
1 EA.	WEATHERSTRIP	PEMCO - #303AV - SIZE AS REQUIRED

GROUP 6 - STOREFRONT DOOR

3 PR.	HINGE	4-1/2" X 4-1/2" B.B. WITT NON REMOVABLE PINS
1 EA.	LOCK	KEYED DEADBOLTS WITH INSIDE THUMBTURN
1 EA.	EXIT DEVICE	PUSH SET
1 EA.	PULL	ELMES G500-01-023-L300 OR APPROVED SIMILAR
1 EA.	CLOSER	LCN-4041 (4040 SERIES) - HEAVY DUTY CLOSER
1 EA.	THRESHOLD	PEMCO - #171A - SIZE AS REQUIRED
1 EA.	SWEEP	PEMCO - #307AV - SIZE AS REQUIRED

DOOR AND HARDWARE NOTES:

- G.C. TO FURNISH & INSTALL MEDECO CYLINDER IN ALL PERIMETER DOORS. SHERWIN-WILLIAMS CORPORATE WILL RE-KEY TO SHERWIN-WILLIAMS MASTER KEY SYSTEM. PROVIDE KEYWAY ON EXTERIOR FACE.
- G.C. TO FURNISH & INSTALL MEDECO CYLINDER IN ALL INTERIOR H.M. DOORS. ALL INTERIOR DOORS TO BE KEYPED ALIKE. PROVIDE KEYWAY ON EXTERIOR FACE.
- ALL HOLLOW METAL DOOR FRAMES ARE TO BE WELDED.
- G.C. TO FURNISH & INSTALL PANIC HARDWARE PER ALL APPLICABLE REGULATIONS & CODES HAVING JURISDICTION.
- DOOR STOPS AND BUMPERS TO BE INSTALLED BEHIND ALL DOORS.
- ALL HARDWARE TO BE US26D BRUSHED CHROME, CLEAR ANODIZED FINISH.
- UNDERCUT RESTROOM & OFFICE DOORS 1"
- U.N.O. ALL PAINTED DOORS & DOOR JAMBS TO BE PAINTED P-1.

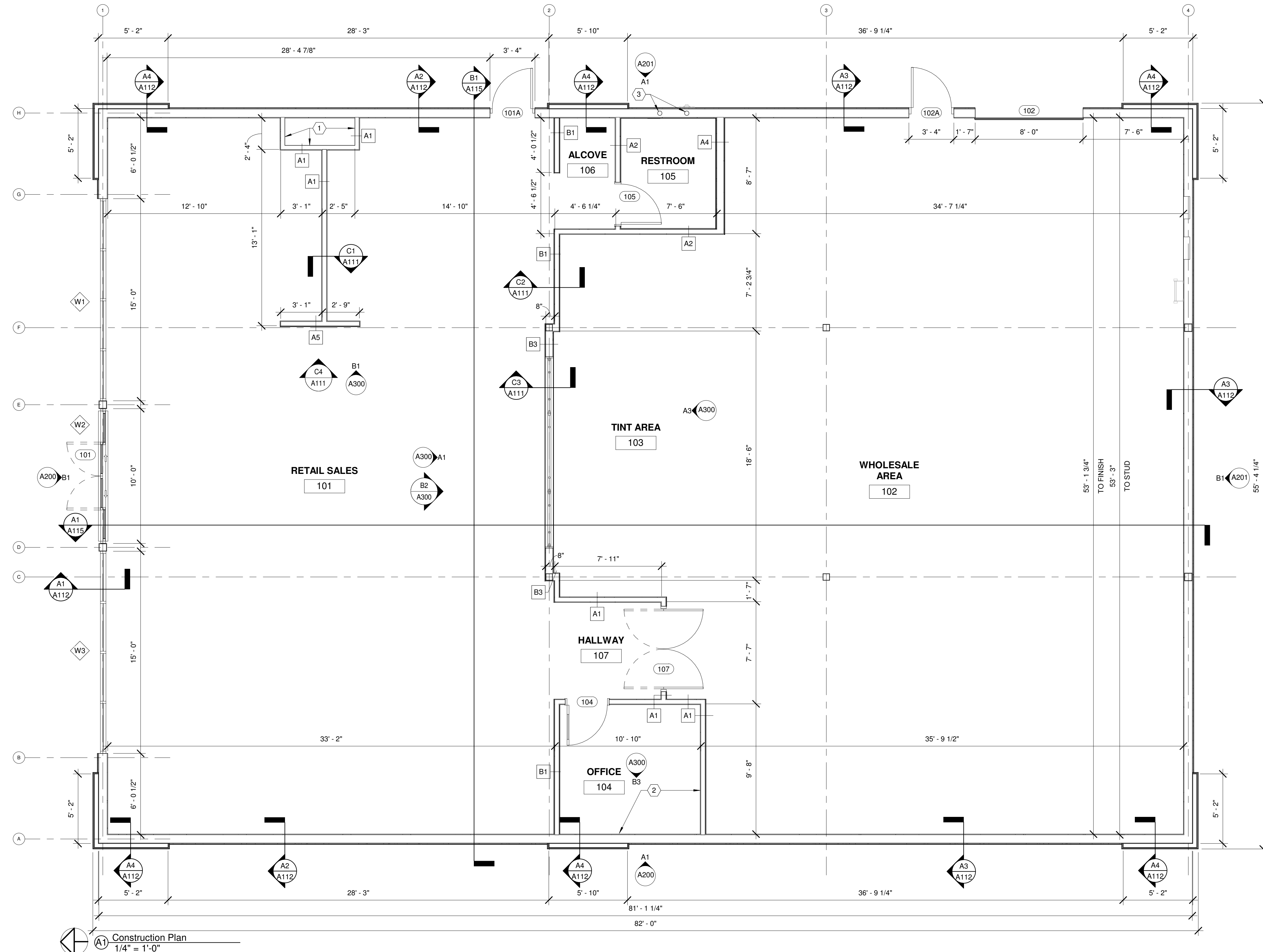
GENERAL NOTES

- G.C. TO PROVIDE BLOCKING FOR SUPPORT OF RESTROOM AND CASEWORK ACCESSORIES AS RECOMMENDED BY MANUFACTURER. SEE ENLARGED RESTROOM AND CASEWORK ELEVATIONS.
- OCCUPANCY LOAD SIGN SUPPLIED AND INSTALLED BY G.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.
- REFERENCE THE FOLLOWING SHEETS: G001 GENERAL NOTES, ABBREVIATIONS AND SYMBOLS; G100 ACCESSIBILITY PLANS.
- ALL DIMENSIONS NOTED ARE FROM FACE OF STUD TO FACE OF STUD, UNO.
- ELECTRICAL EQUIPMENT BY G.C. SEE ELECTRICAL DRAWINGS.
- PLUMBING EQUIPMENT BY G.C. SEE PLUMBING DRAWINGS.
- ALL CONSTRUCTION MUST BE PERFORMED WITHOUT ANY PENETRATION OF STOREFRONT IN ANY WAY, INCLUDING, BUT NOT LIMITED TO SCREWS, BOLTS AND DRILLING.
- 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

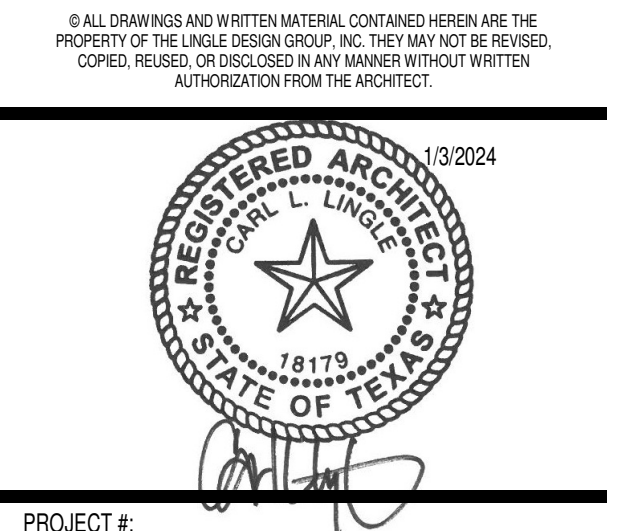
CONSTRUCTION PLAN CODED NOTES

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



A1 Construction Plan
1/4" = 1'-0"

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



PROJECT #: TBD
 DRAWN BY: BA CHECKED BY: MP

PERMIT SET - 11/22/2023
 REV 1 - 1/13/2024

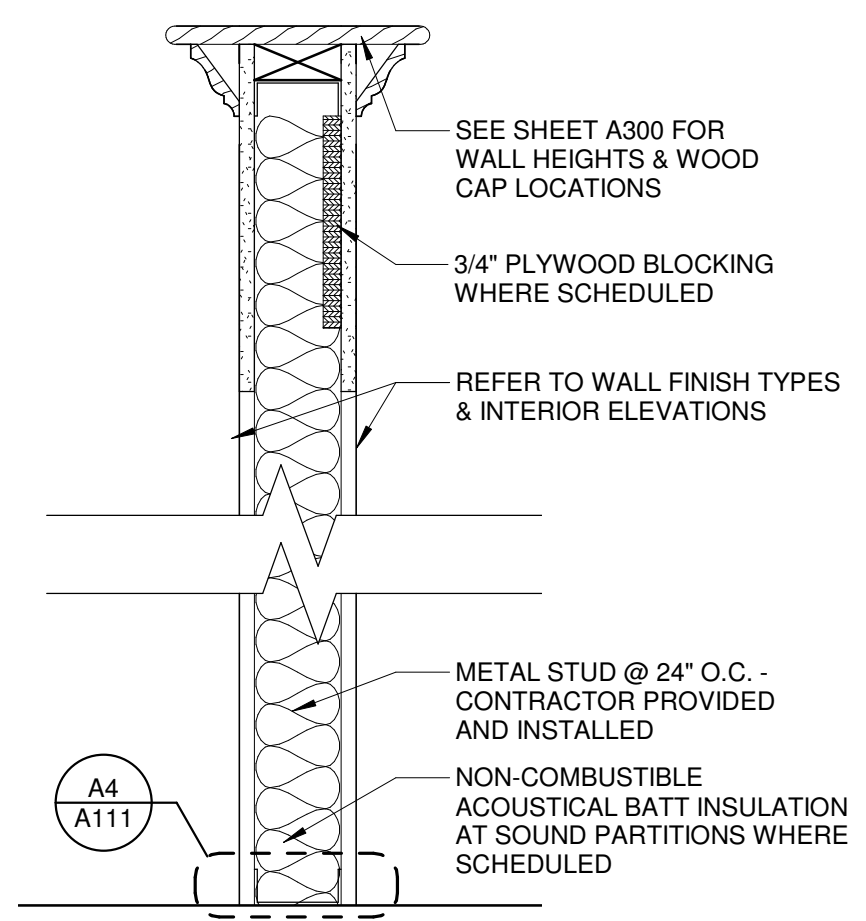
SHERWIN WILLIAMS

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

SHEET TITLE:
Construction Plan

SHEET NUMBER:
A110

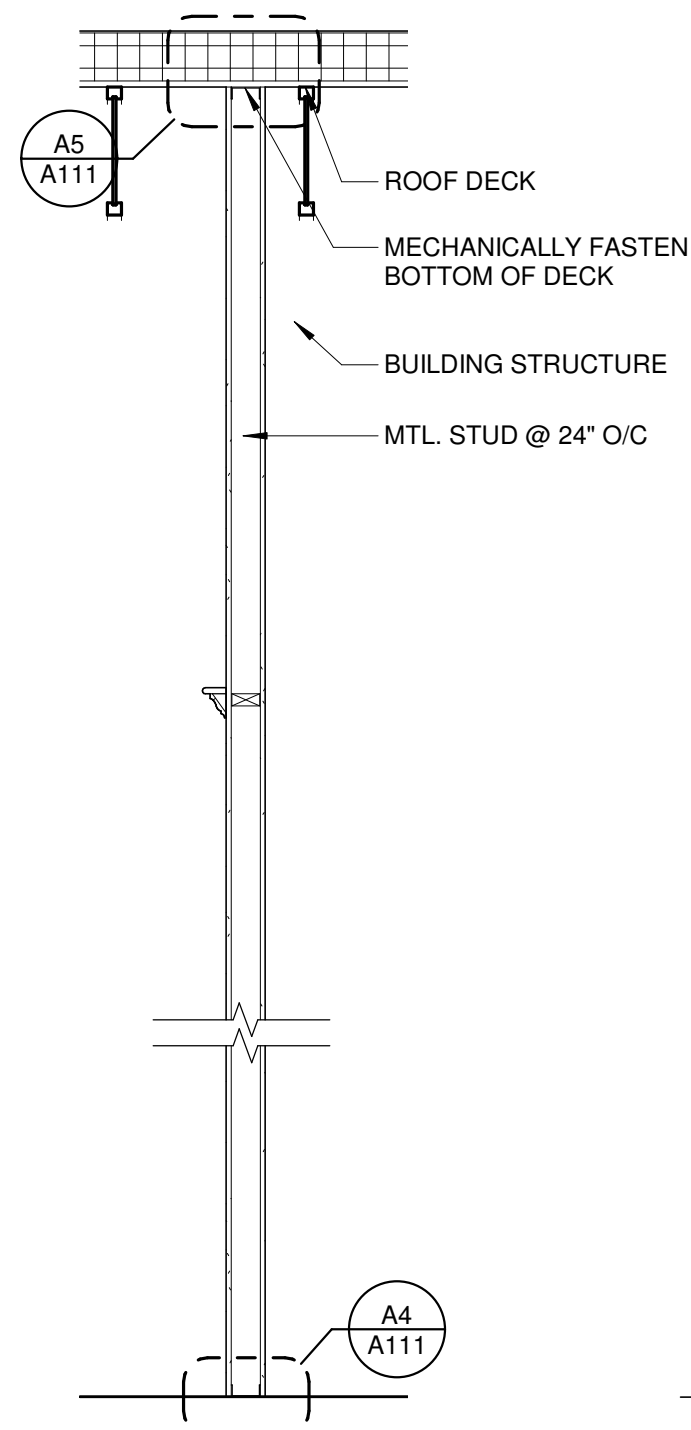
NOTE:
 • G.C. TO VERIFY STUD SIZE & SPACING PER A1/A111
 • ALL DRYWALL SHALL BE PATCHED & REPAIRED TO A SMOOTH, LEVEL SURFACE FREE OF VISIBLE IMPERFECTIONS



WALL TYPE "A"

- A1 3 5/8" METAL STUD
- A2 3 5/8" METAL STUD W/ BATT INSULATION
- A3 NOT USED
- A4 6" METAL STUD W/ BATT INSULATION
- A5 3 5/8" METAL STUD W/ PLYWOOD BLOCKING

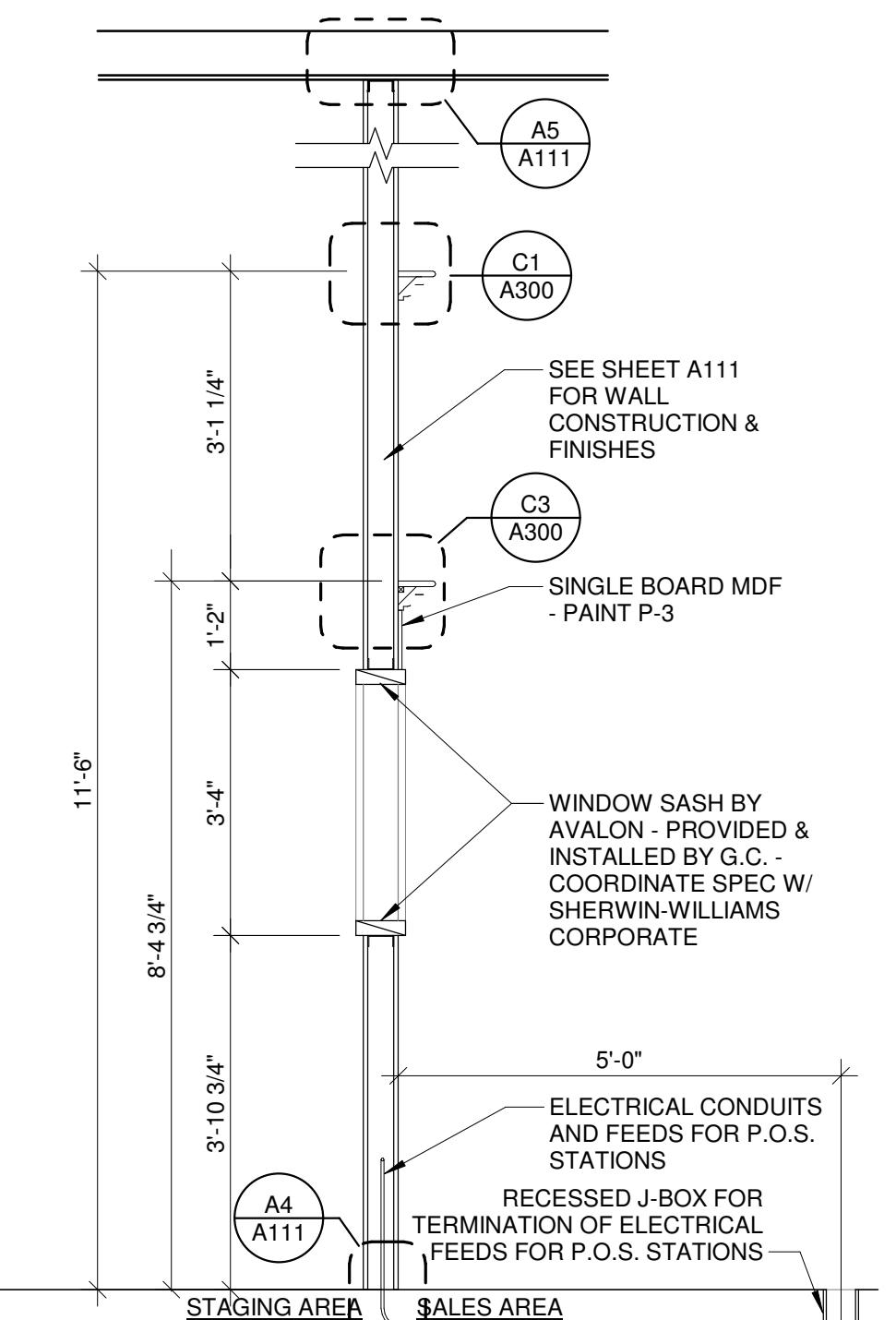
WALL TYPE A
1 1/2" = 1'-0"



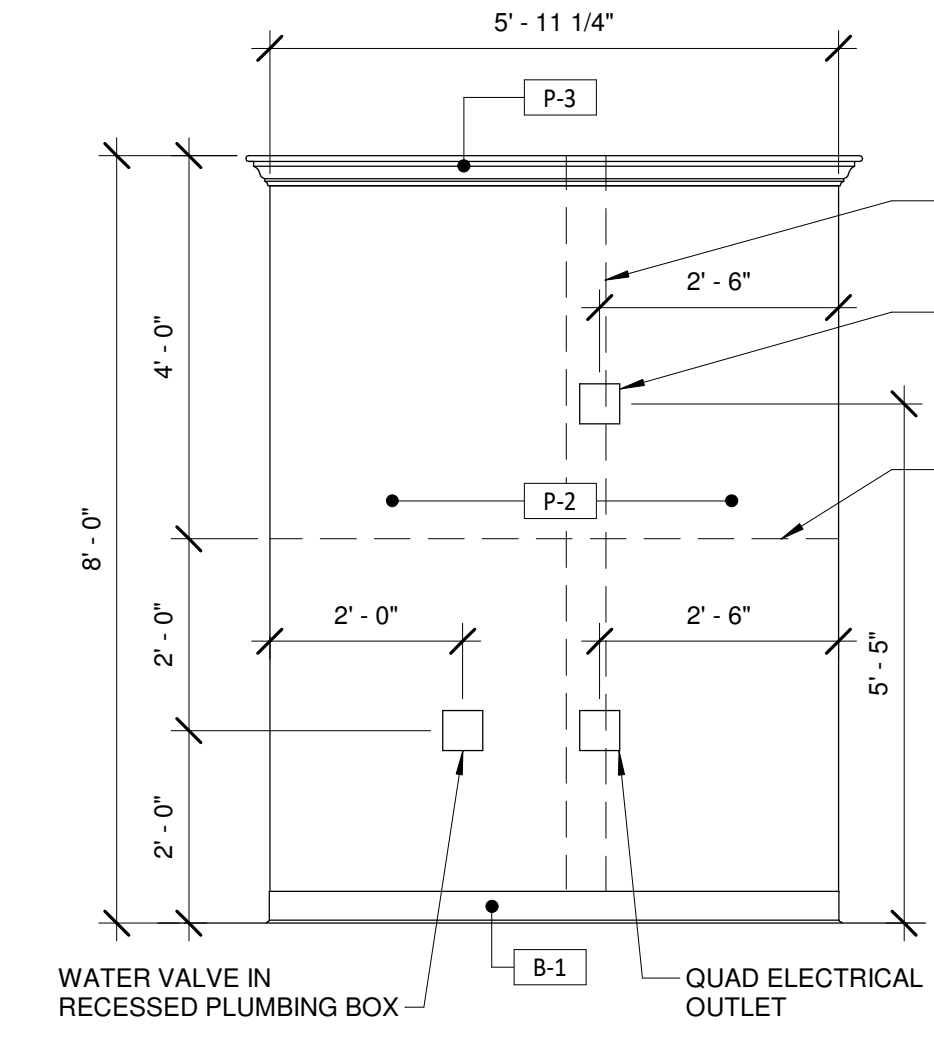
WALL TYPE "B"

- B1 3 5/8" METAL STUD
- B2 NOT USED
- B3 6" METAL STUD

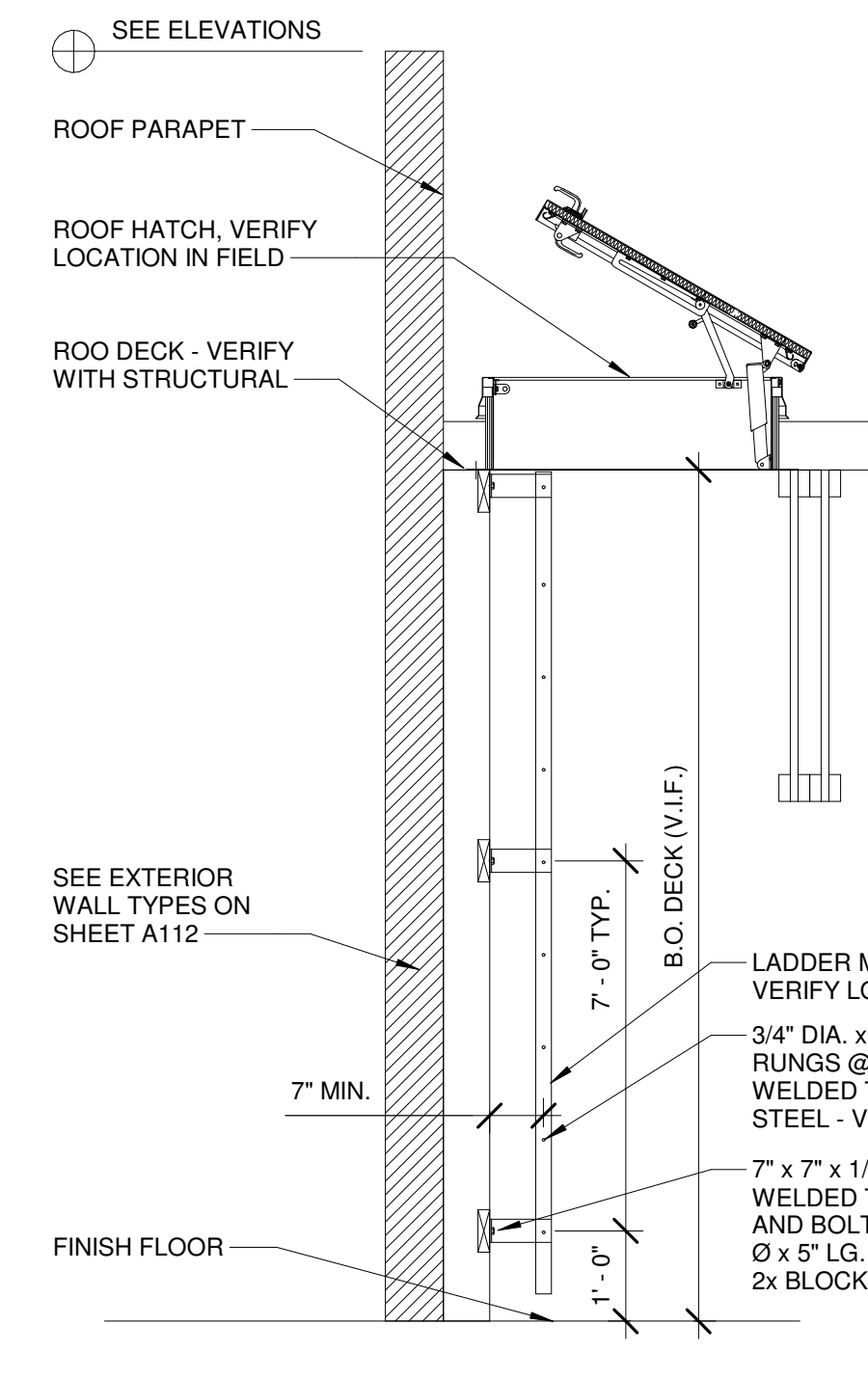
WALL TYPE B
1/2" = 1'-0"



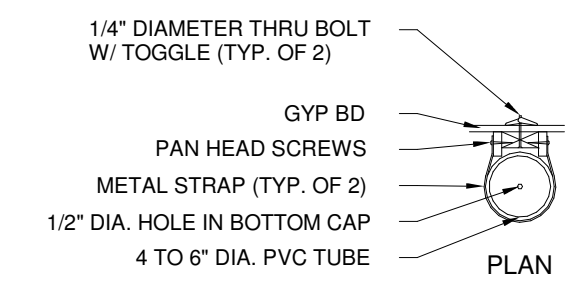
SECTION AT ACCENT WALL
1/2" = 1'-0"



T WALL DETAIL
1/2" = 1'-0"



SECTION AT ROOF LADDER, TYP.
N.T.S.

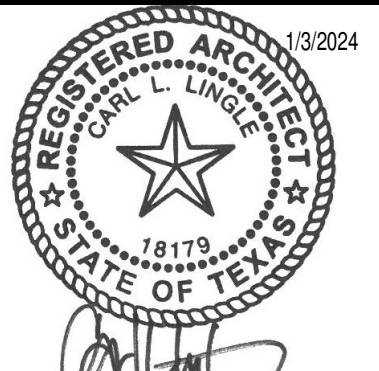


PLANS STORAGE, TYP.
N.T.S.

NOTE: UPON COMPLETION OF THE PROJECT, GENERAL CONTRACTOR MUST RUN A NEW BLUEPRINT SET FOR THE COMPLETED STORE DRAWINGS (ARCHITECTURAL, MECHANICAL, AND ELECTRICAL) AND PLACE BLUEPRINTS INTO THE PLAN TUBE HOLDER, LABEL (WITH CLEAR TAPE) STATING THIS TUBE CONTAINS STORE DRAWINGS AND IS NOT TO BE REMOVED WITHOUT THE CONSENT OF THE STORE MANAGER. TENANT G.C. TO SUPPLY AND INSTALL DRAWING TUBE ASSEMBLY ABOVE DOOR OR OTHER APPROVED LOCATION TO BE DETERMINED.

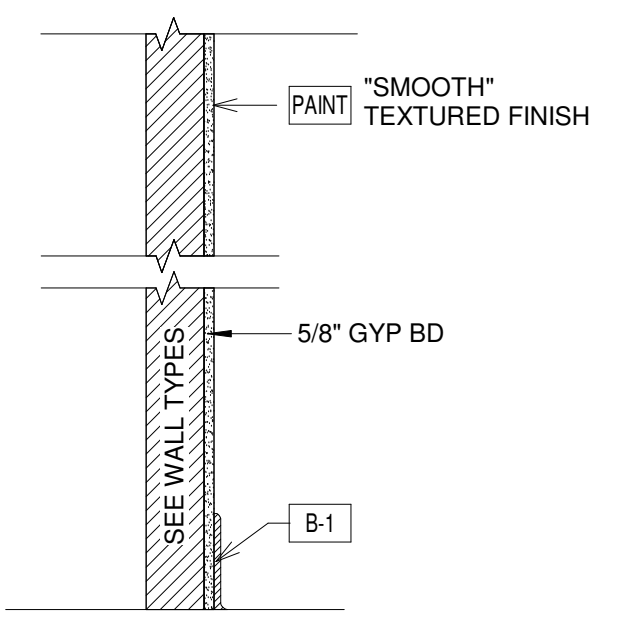
LINGLE DESIGN GROUP, INC.
 LINGLEDESIGNGROUP,INC
 158 WEST MAIN STREET
 LENA, IL 61048
 815.369.9155
 1764 BLAKE ST
 DENVER, CO 80202
 303.974.5875
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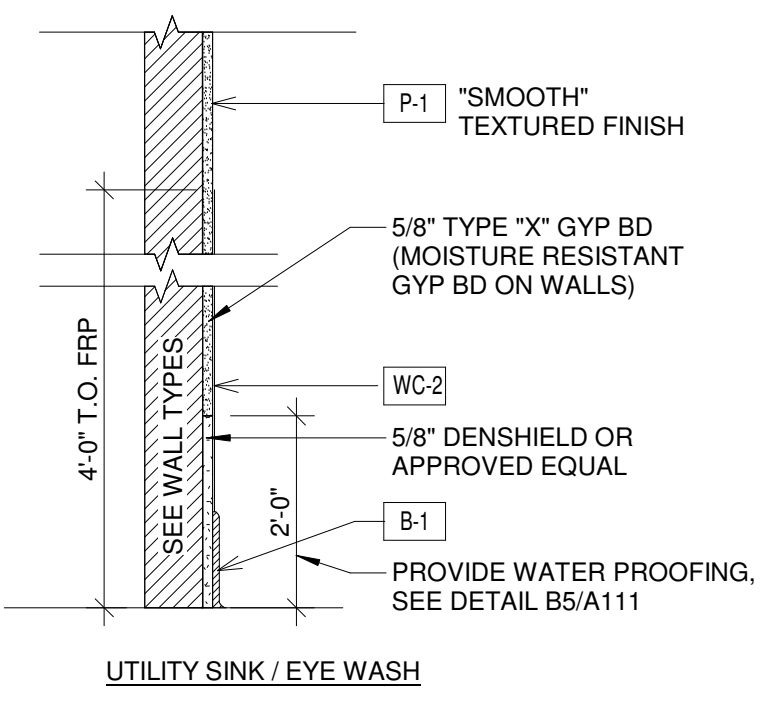


PROJECT #:
TBD
 DRAWN BY: BA
 CHECKED BY: MP

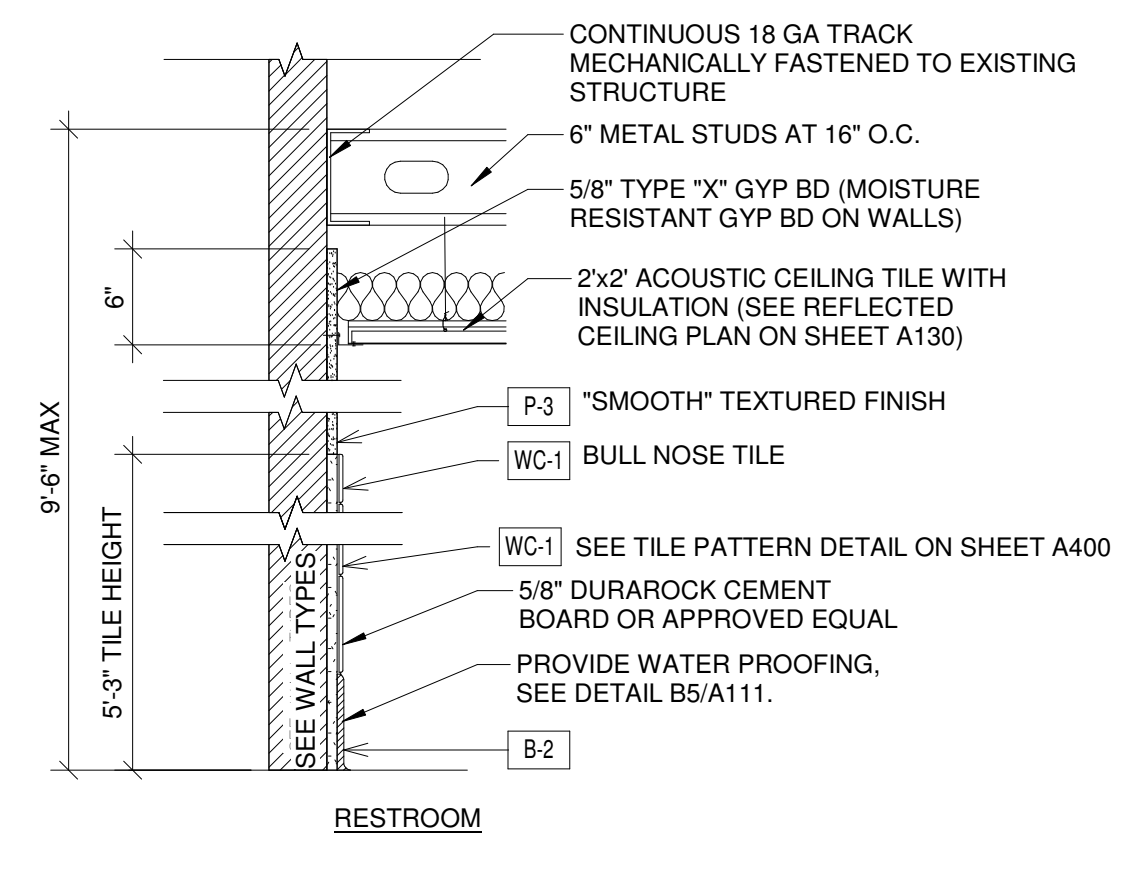
PERMIT SET - 11/22/2023
 REV 1 - 1/13/2024



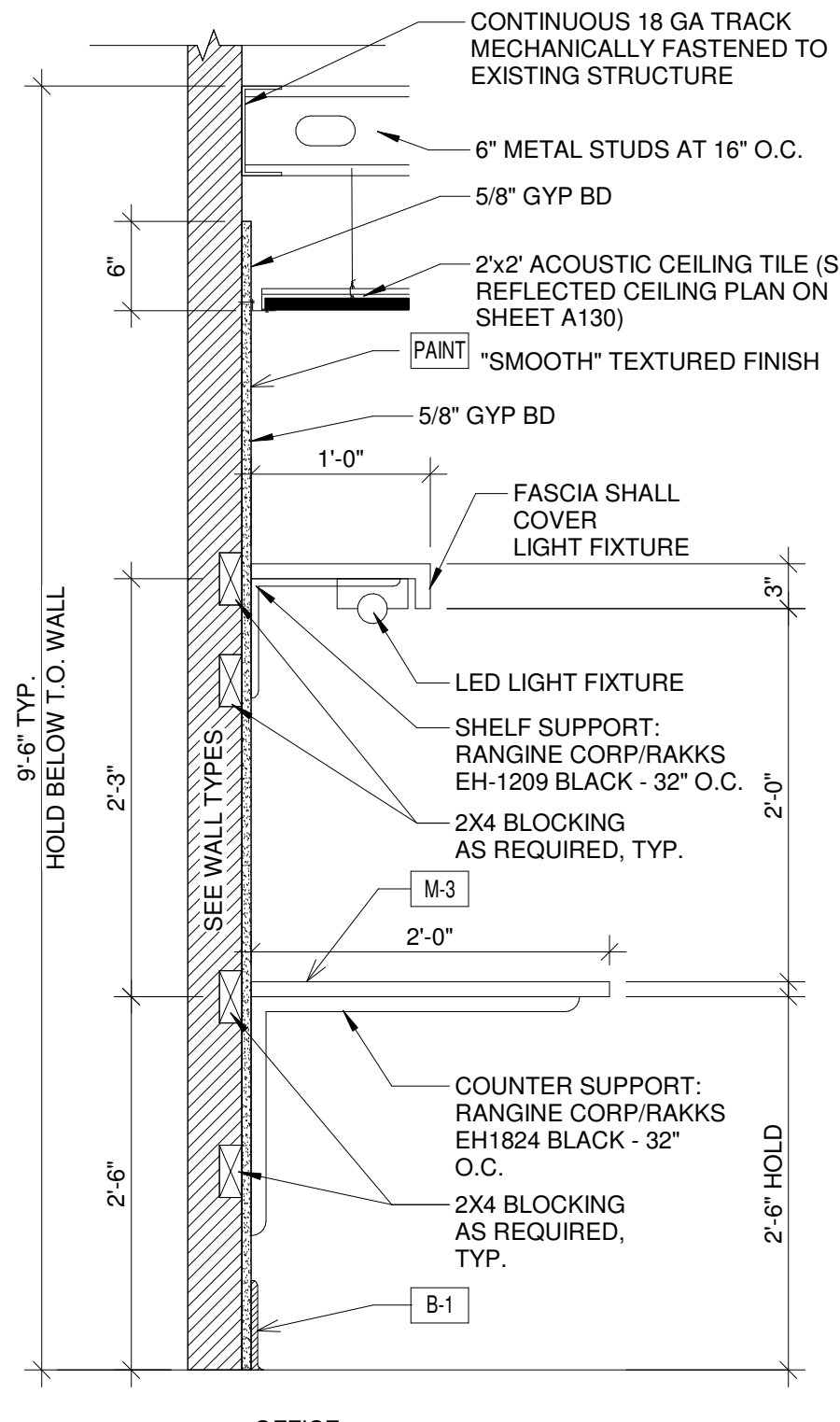
WALL FINISH 1 (SALES & WHOLESALE)
1" = 1'-0"



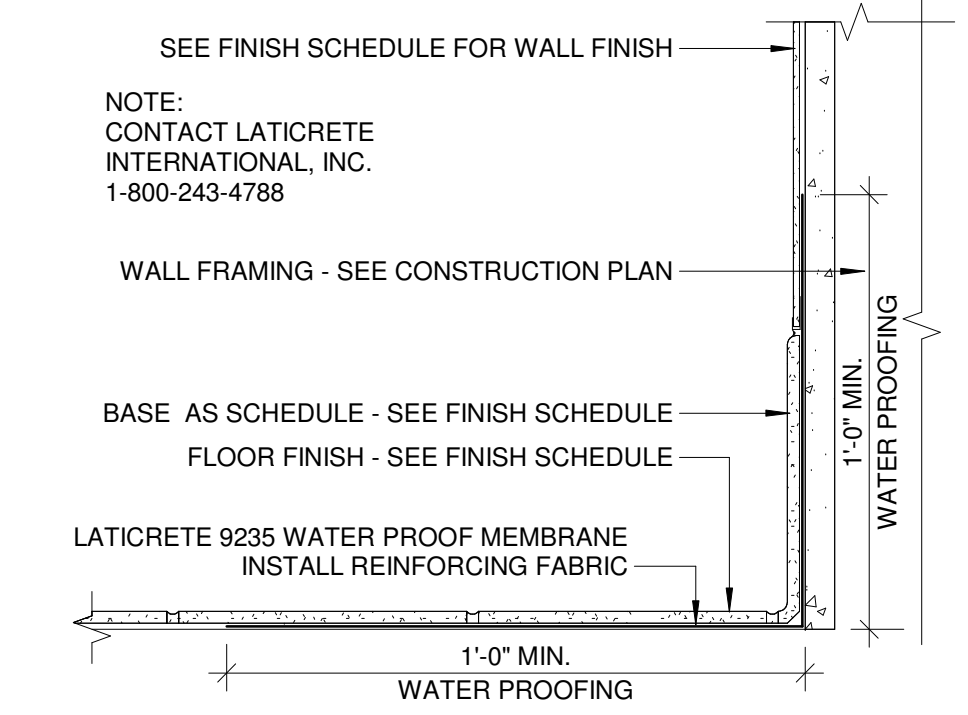
WALL FINISH 2 (UTILITY SINK)
1" = 1'-0"



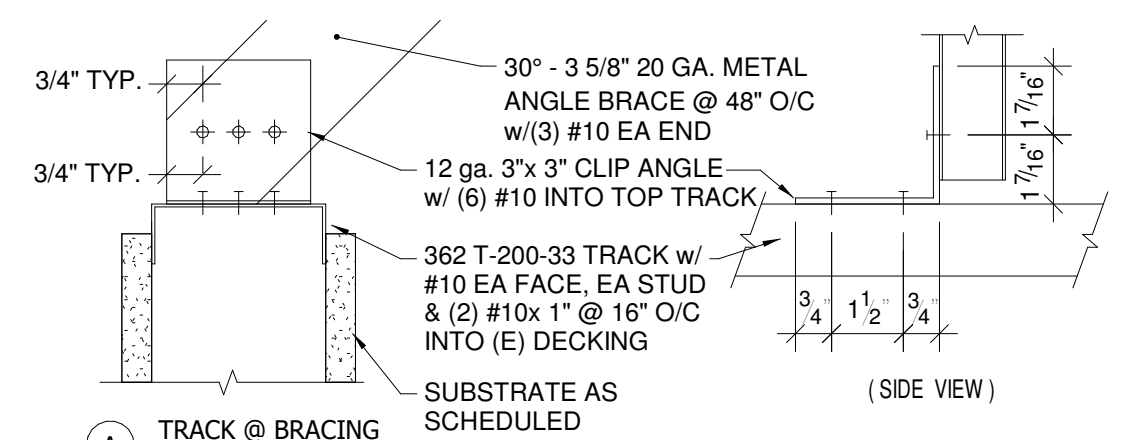
WALL FINISH 3 (RESTROOM)
1" = 1'-0"



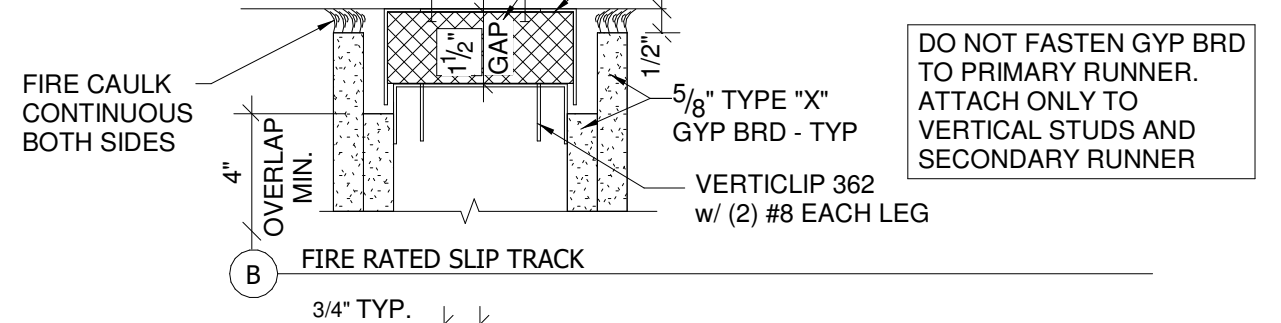
WALL FINISH 4 (OFFICE)
1" = 1'-0"



TYPICAL WATERPROOFING DETAIL
3" = 1'-0"



TRACK @ BRACING



FIRE RATED SLIP TRACK



STANDARD HEAD DETAIL

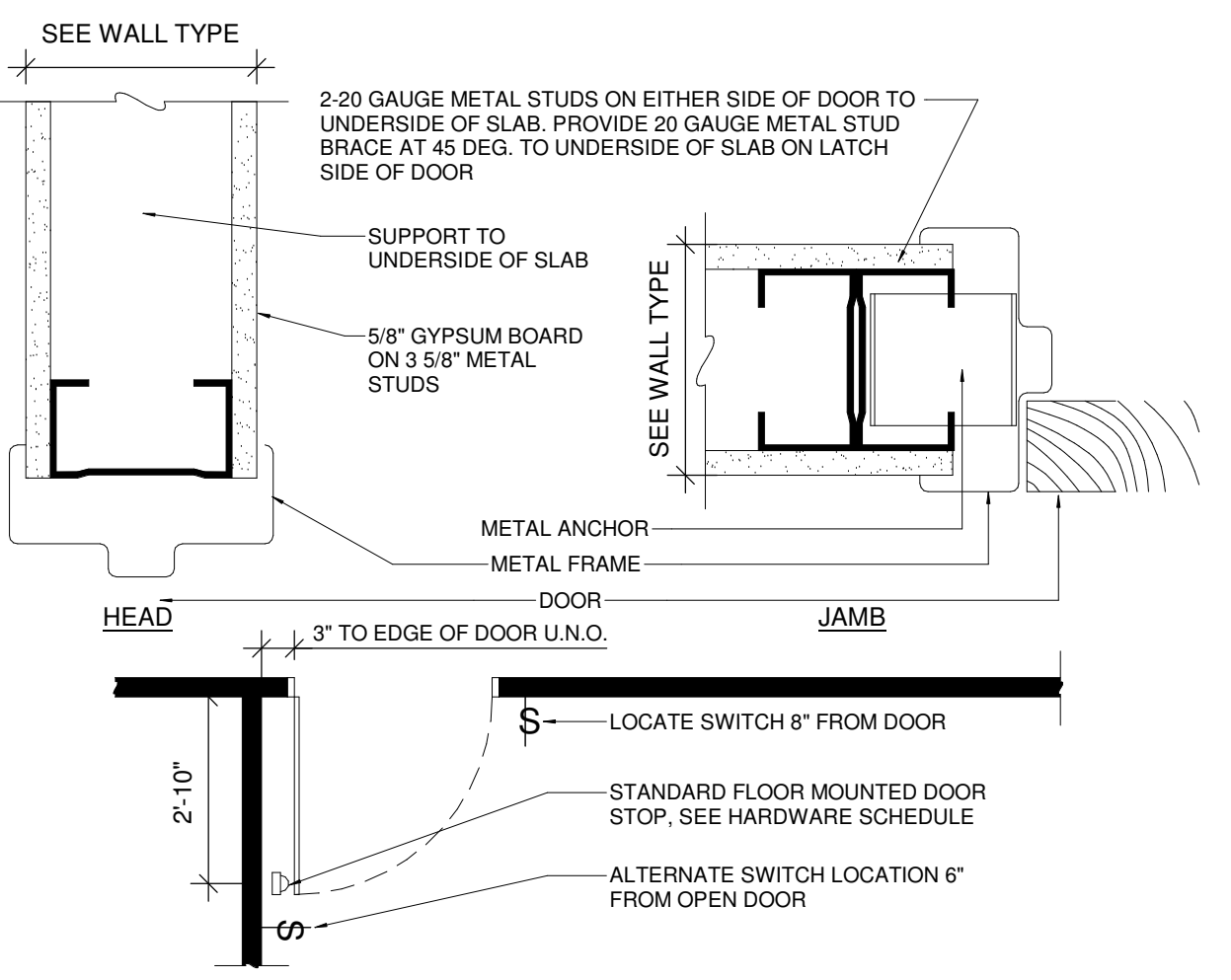
TYPICAL INTERIOR NON-LOAD BEARING STUD WALL - SLIP TRACK AT TOP

STUDS TO BE USED (ICC-ES ESR-3016):

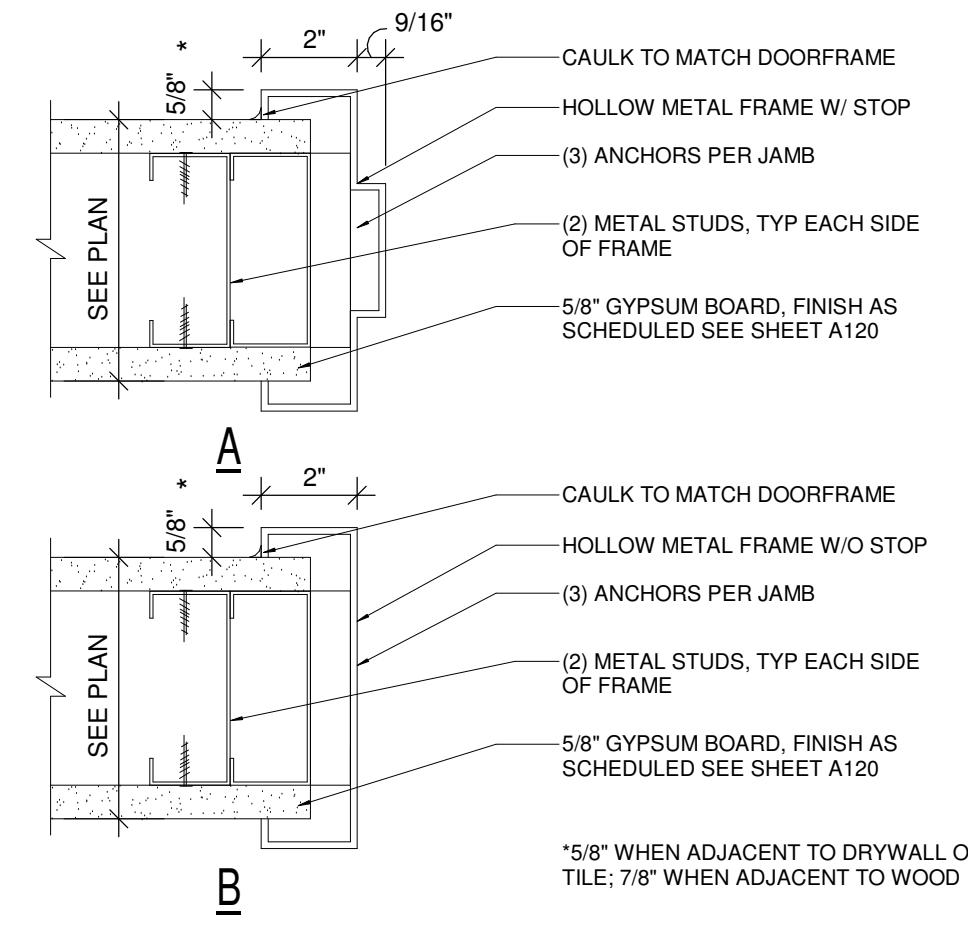
SIZE	SPACING	ALLOWABLE HEIGHT	BOTTOM TRACK GAUGE	TOP - "SLIP" TRACK GAUGE 3" DEEP TRACK
3/8" - 25G STR	16"	15.4'	20	18
3/8" - 20G STR	16"	17.0'	20	18
3/8" - 18 G HDS	16"	22.6'	20	18
6" - 20G STR	16"	24.5'	20	18
6" - 18G HDS	16"	33.6'	20	18

NOTES:
 BUILDING CODE REQUIRES THAT INTERIOR PARTITION WALLS BE DESIGNED FOR A LATERAL LOAD OF 5 PSL. THE FOLLOWING GUIDELINES ARE BASED ON THIS LOAD. ALL STUDS GIVEN ARE ASSUMED TO BE EQUIVALENT TO THOSE MANUFACTURED BY DETRICH INDUSTRIES, INC. ALL STUDS AND TRACKS ARE ASSUMED TO HAVE AN Fy = 33.0 KSI. ALL STUDS ARE ASSUMED TO HAVE 3/8" GYP BD ON BOTH FACES FOR THE FULL HEIGHT OR ARE PROVIDED WITH BRIDGING AS REQUIRED. DETAILS ARE PROVIDED TO ACCOMMODATE VERTICAL MOVEMENT AT THE TOP USING A 3" DEEP TRACK CONNECTION OR NO MOVEMENT. MAXIMUM HORIZONTAL DEFLECTION IS ASSUMED TO BE LIMITED TO H/240. PROVIDE LATERAL BRACING PER SCHEDULE.

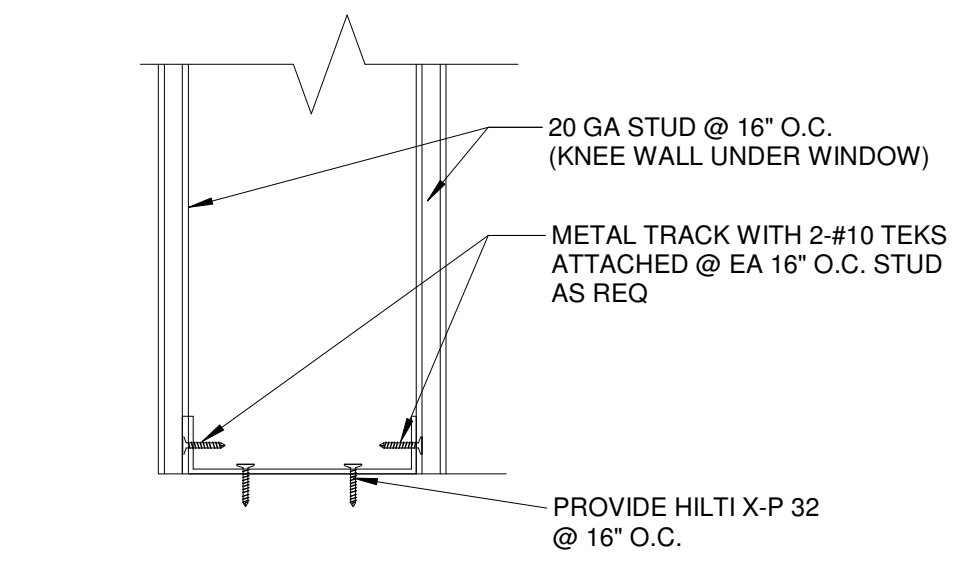
- BOTTOM TRACK GAGES MAY BE SUBSTITUTED FOR TOP-SLIP TRACK GAGES IF STUDS ARE PERMANENTLY ATTACHED TO BOTH FLANGES OF THE TRACK WITH #10 SCREWS.
- ATTACH BOTTOM TRACK TO SLAB WITH HILTI X-DNI 32 PRSIS @ 3'-0" O.C.
- IF GYP BD IS ON ONE SIDE ONLY, ADD HORIZONTAL BRIDGING AT 5'-0" O.C. VERTICALLY.
- IF YOU HAVE A CASE THAT DIFFERS FROM THE ABOVE, PLEASE CONTACT THE ARCHITECT.



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



TYPICAL DOOR JAMB DETAILS
3" = 1'-0"



TYP. FLOOR CONNECTION DETAIL
3" = 1'-0"

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

SHERWIN WILLIAMS

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

Wall Types & Details

SHEET NUMBER:

A111

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PROJECT #:
 TBD
 DRAWN BY: BA CHECKED BY: MP

PERMIT SET - 11/22/2023

△	REV 1 - 1/3/2024
△	
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SHERWIN WILLIAMS

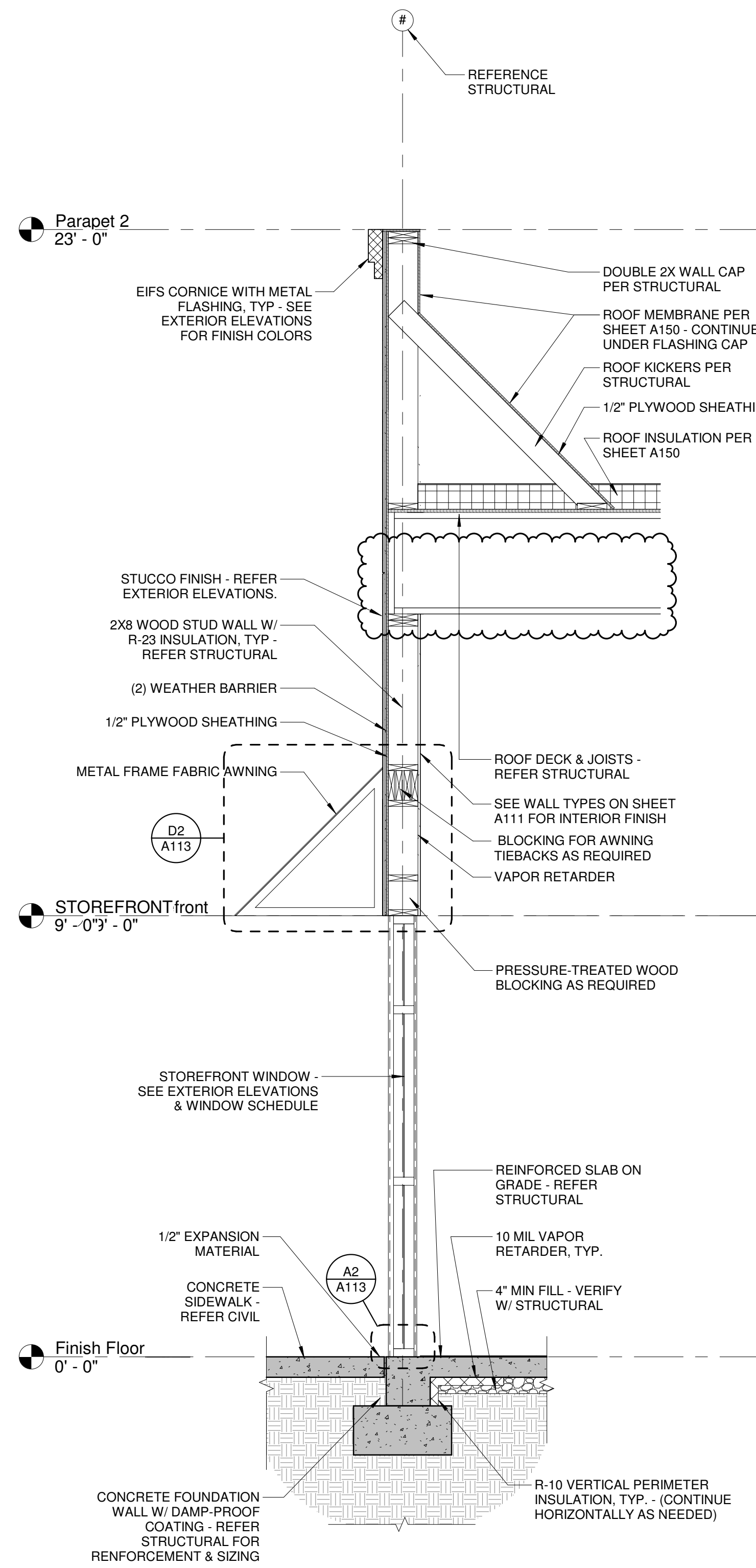
STORE #:
 XXXX
 ADDRESS:
 2101 AVONDALE-HASLET
 RD, HASLET, TX 76052

SHEET TITLE:

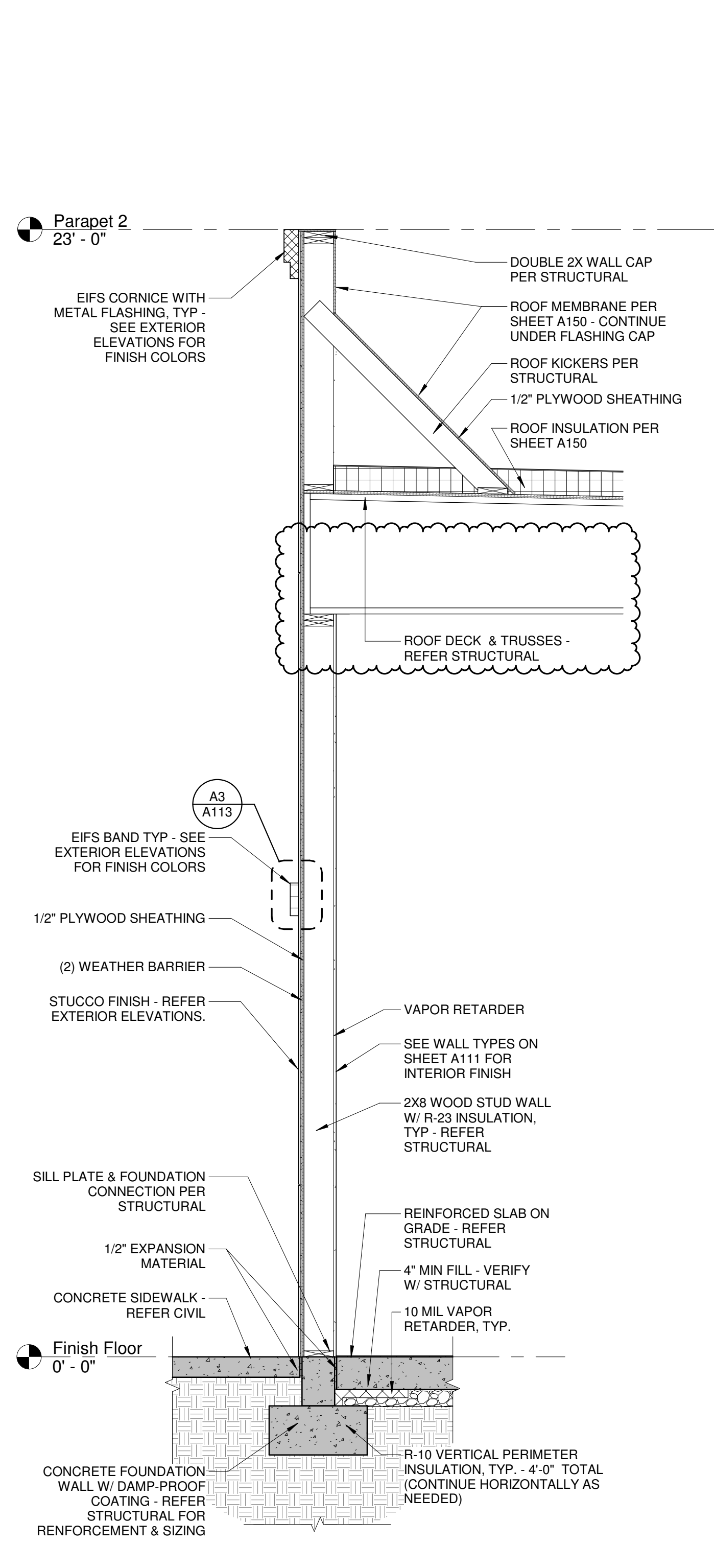
Exterior Wall Types

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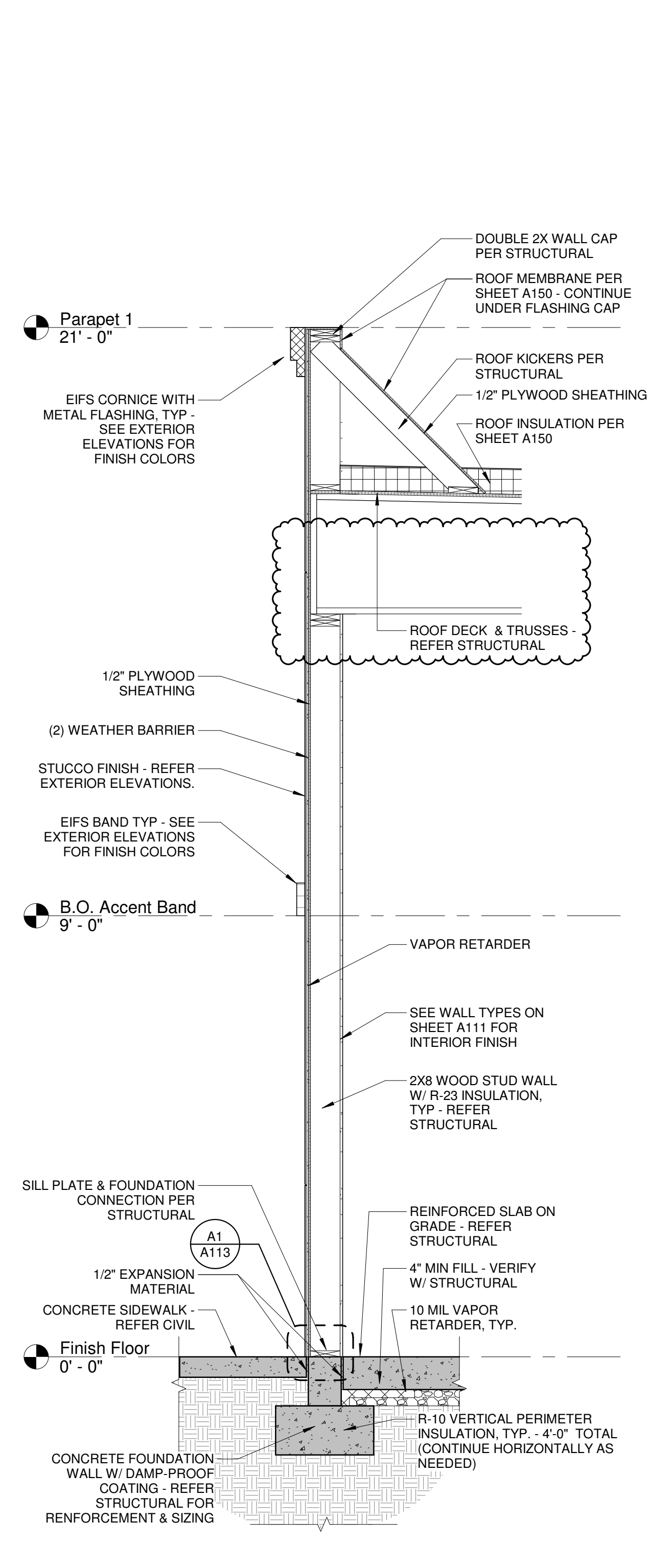
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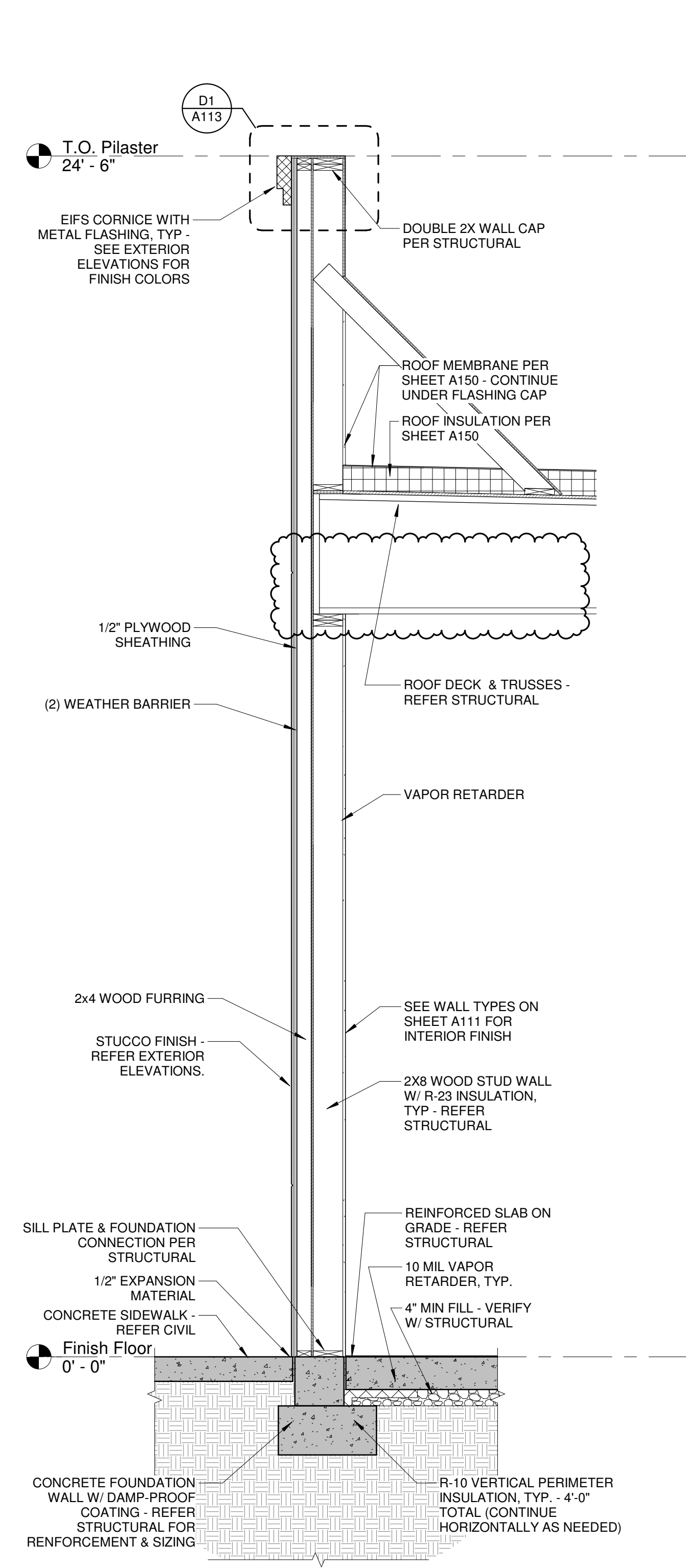
A1 WALL SECTION
 1/2" = 1'-0"



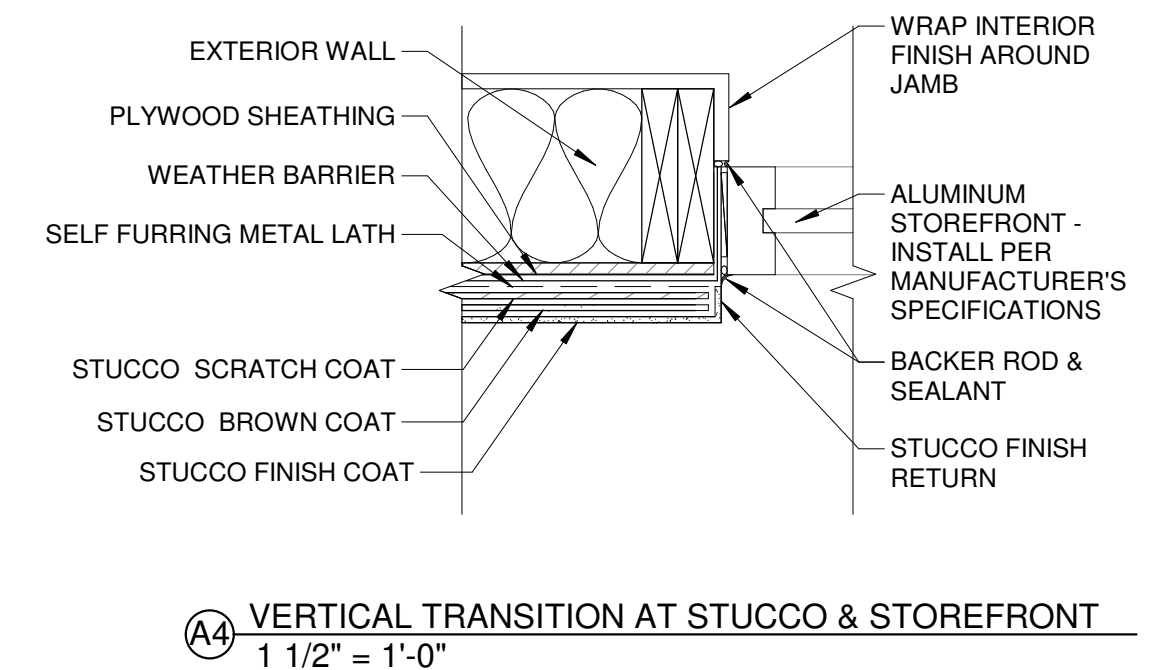
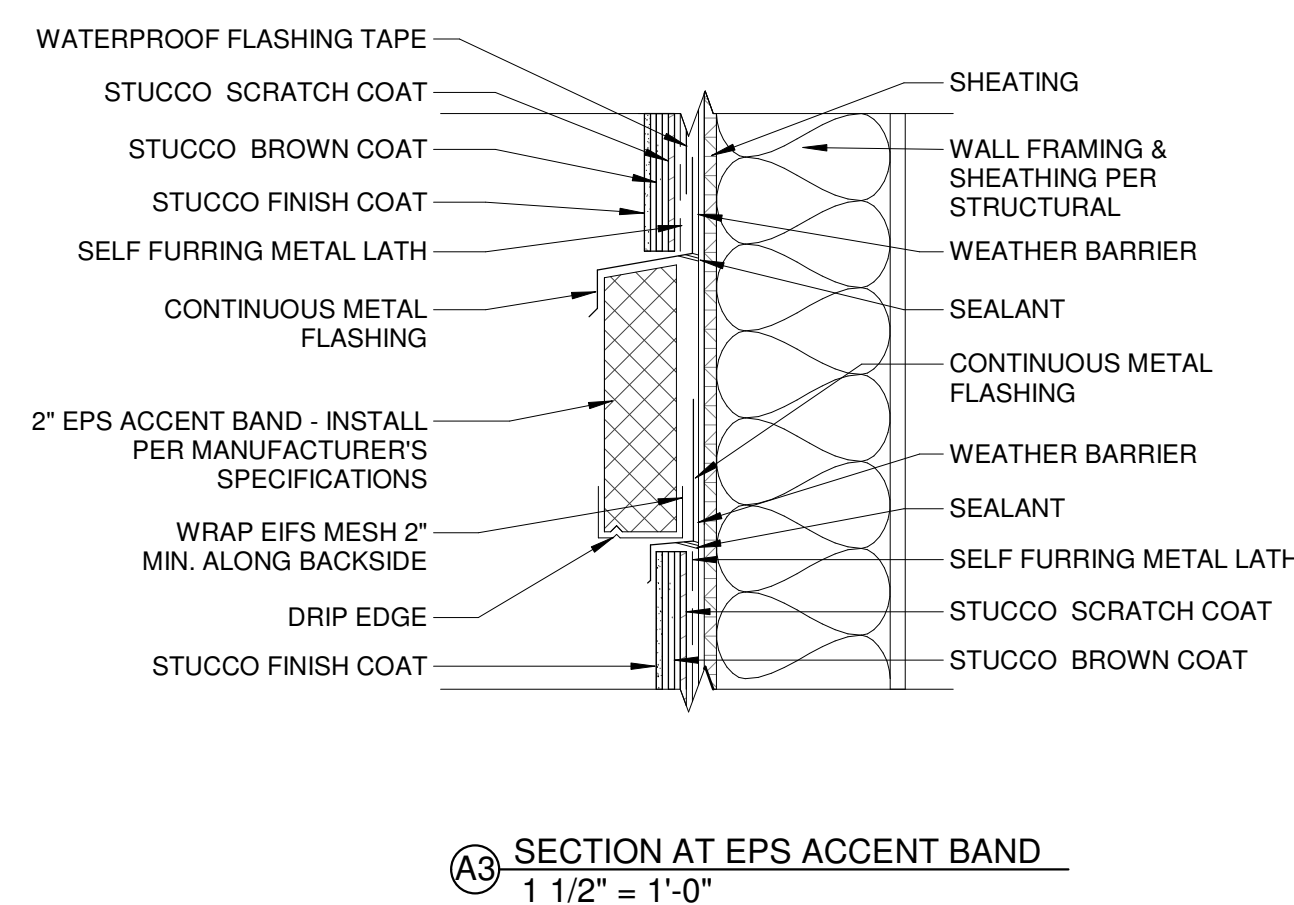
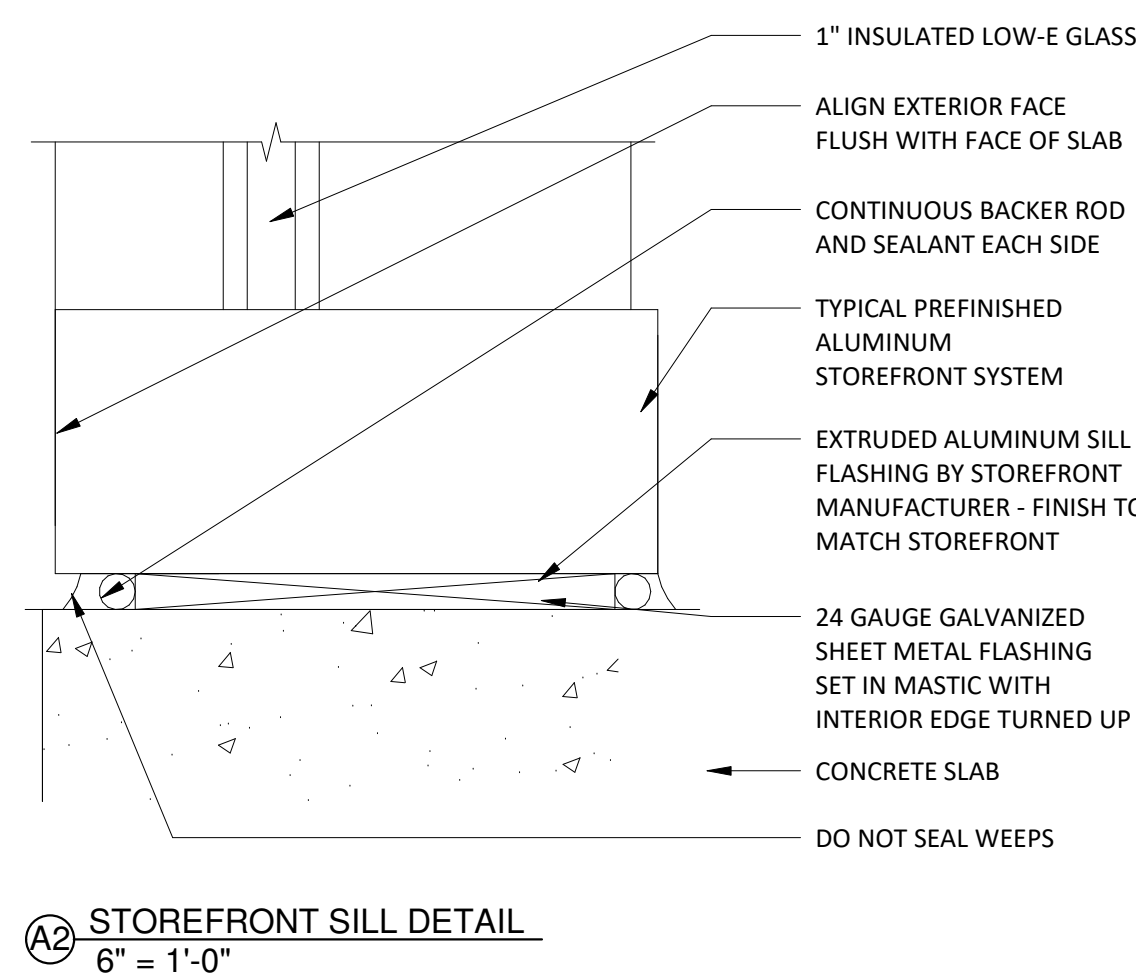
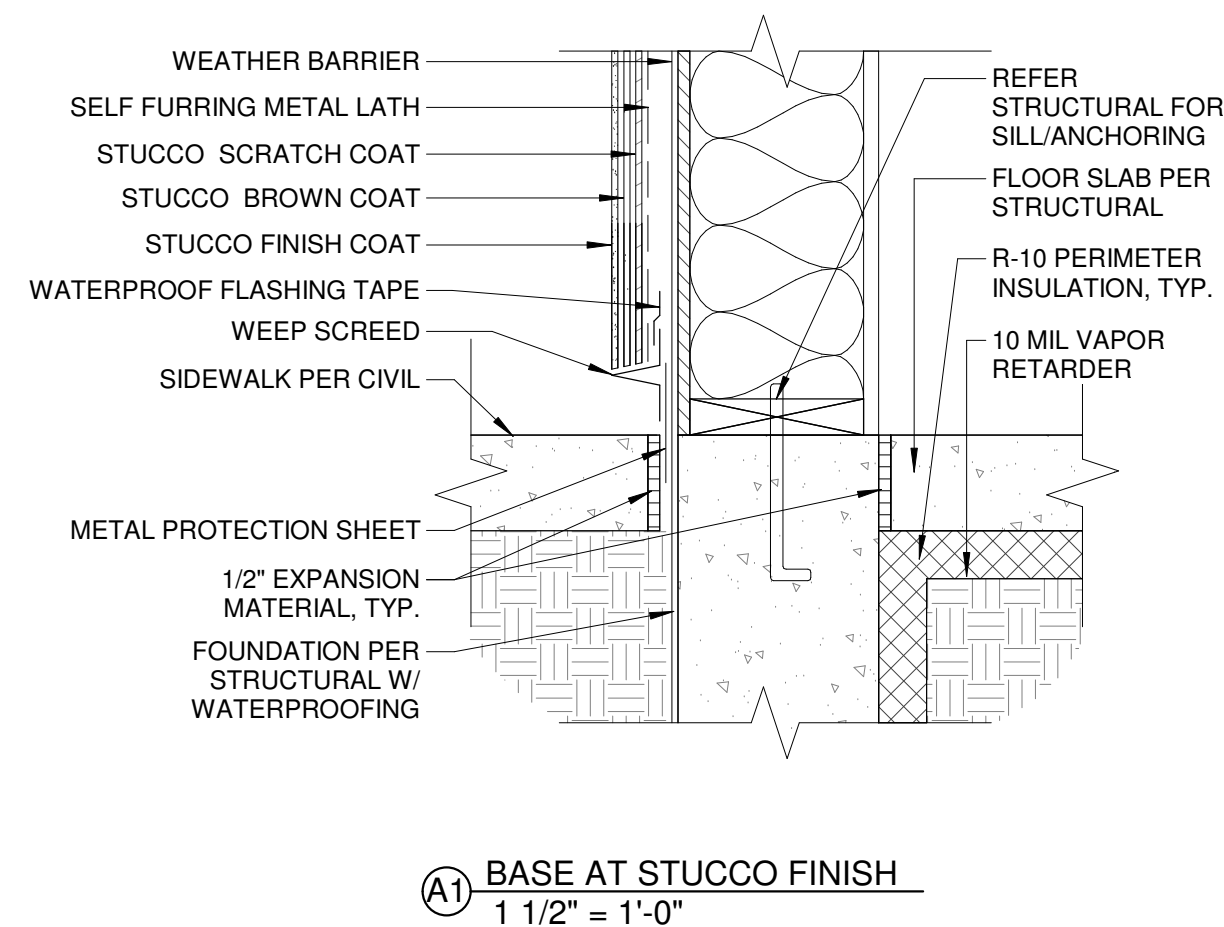
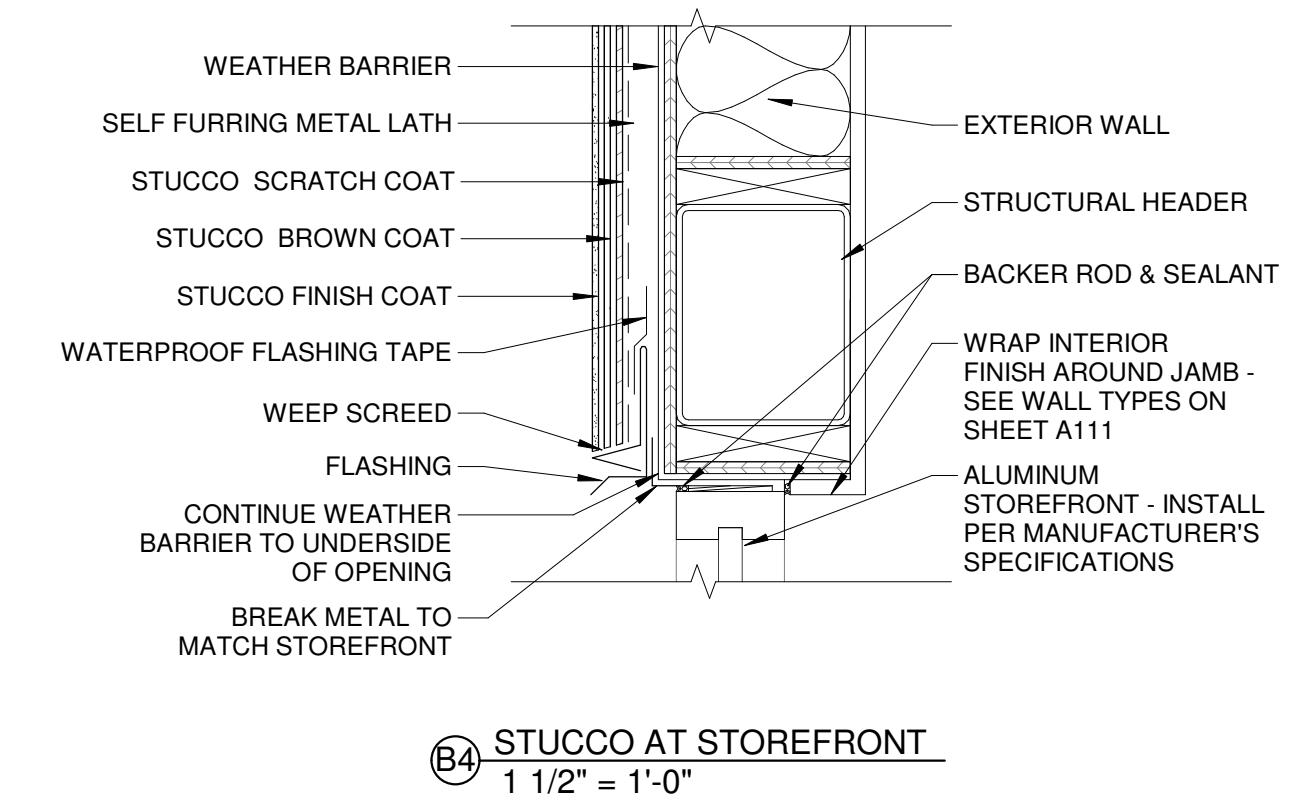
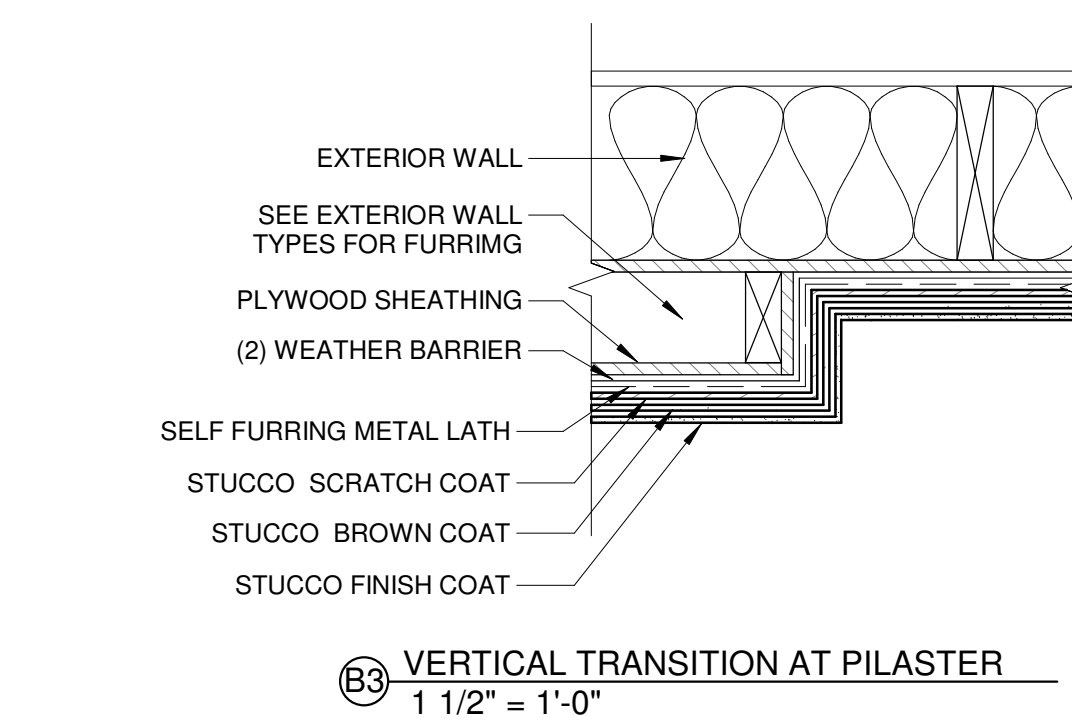
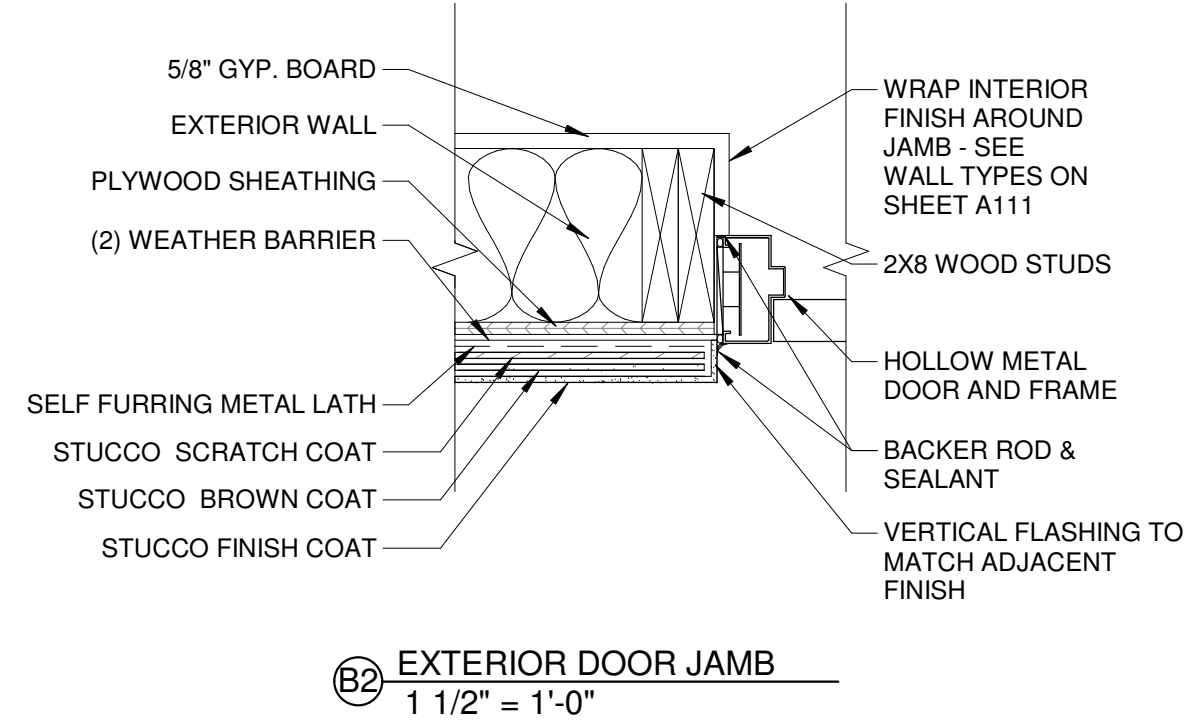
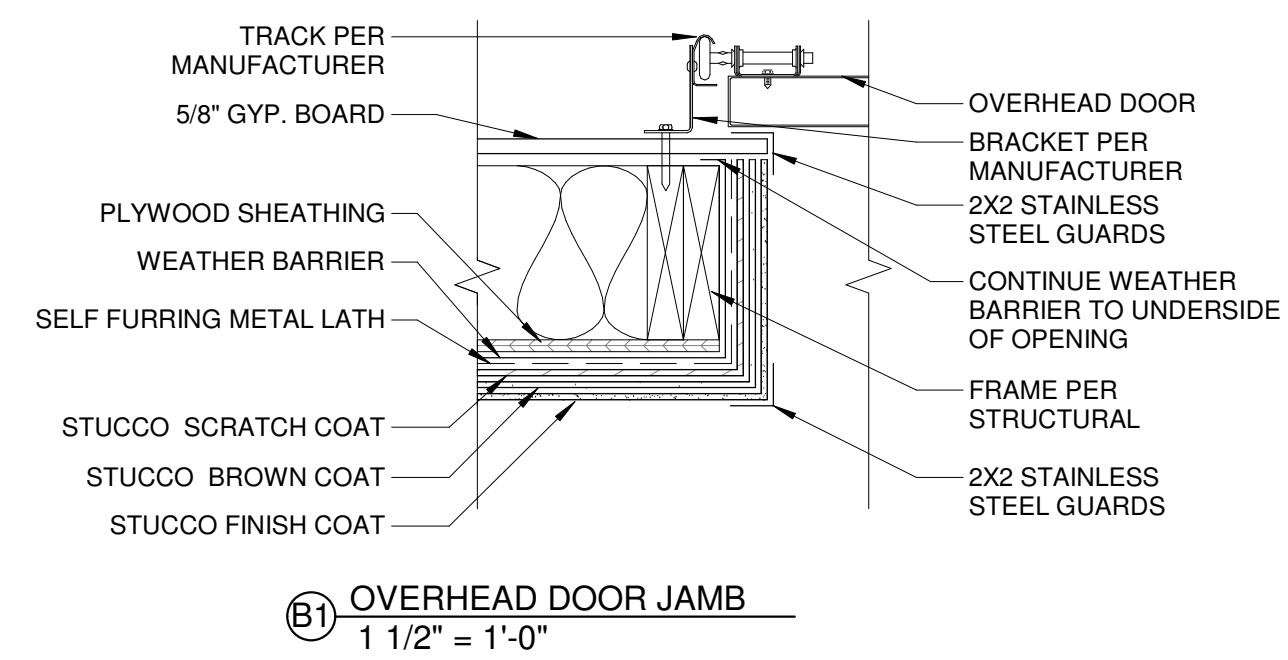
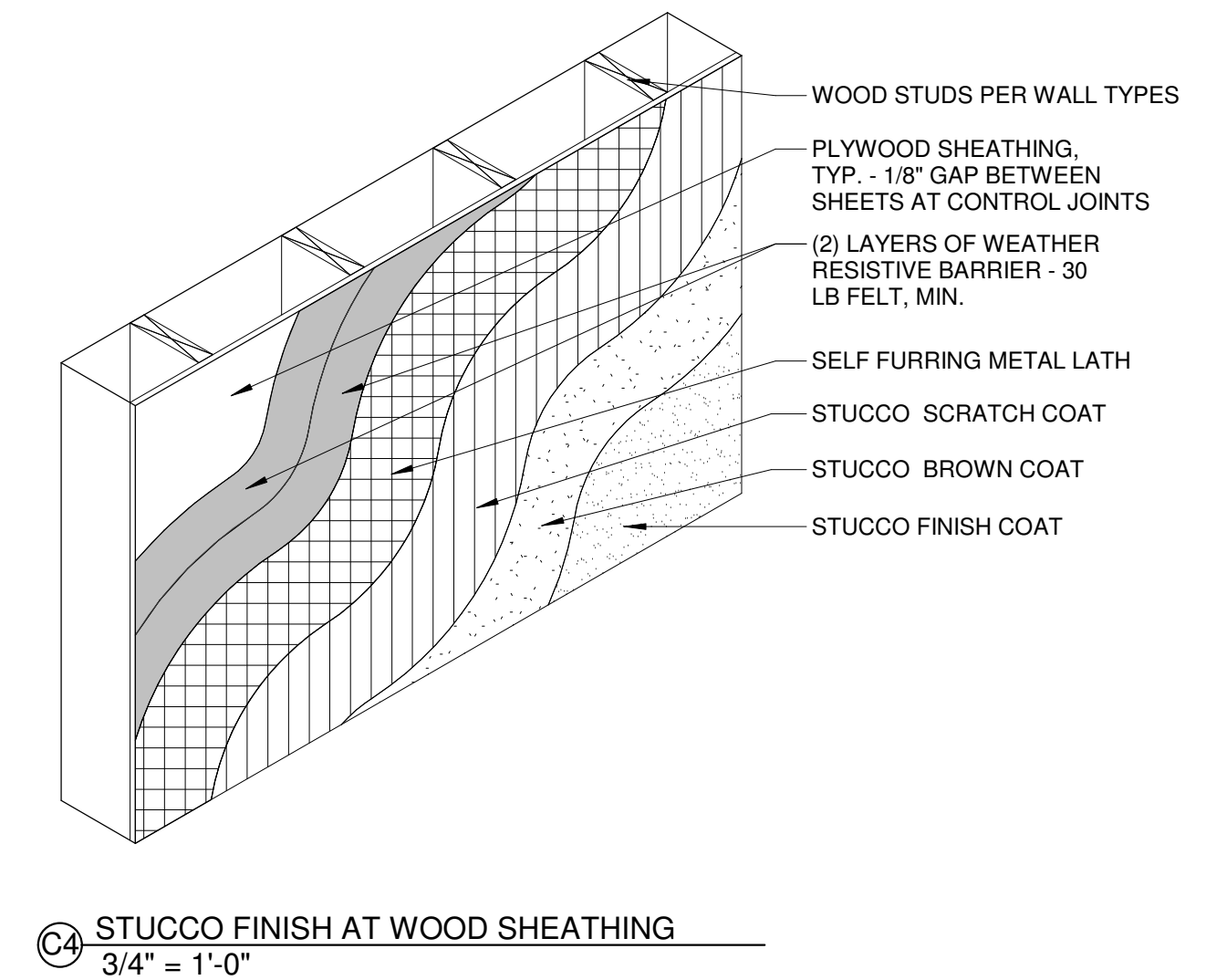
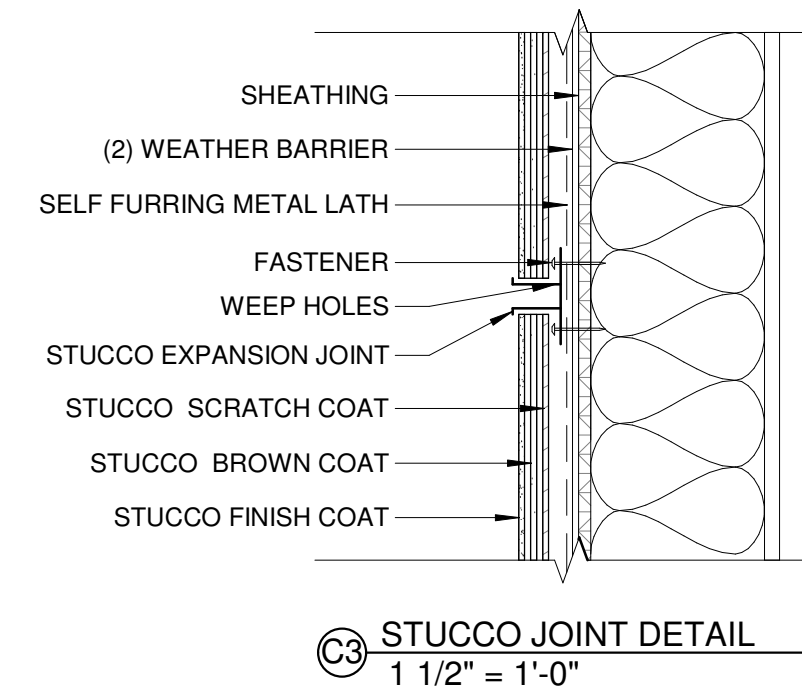
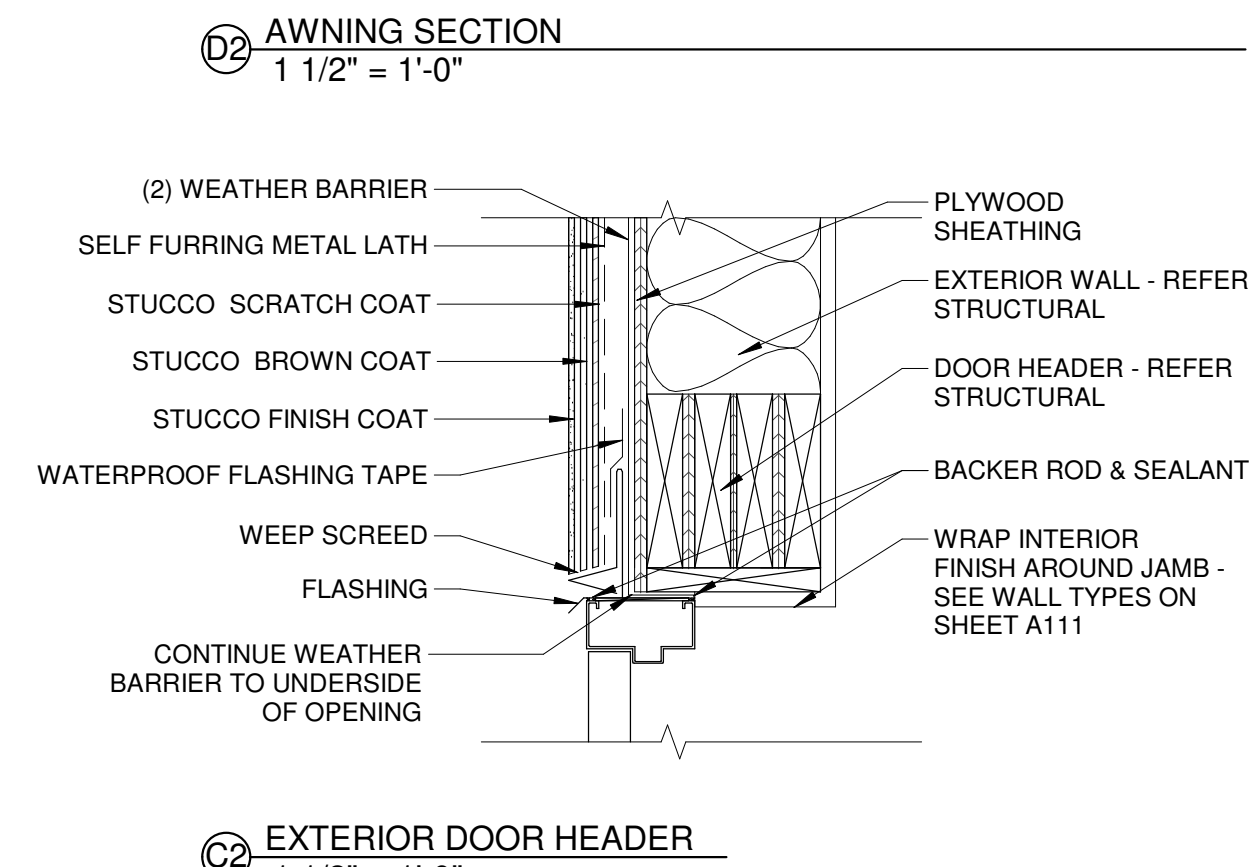
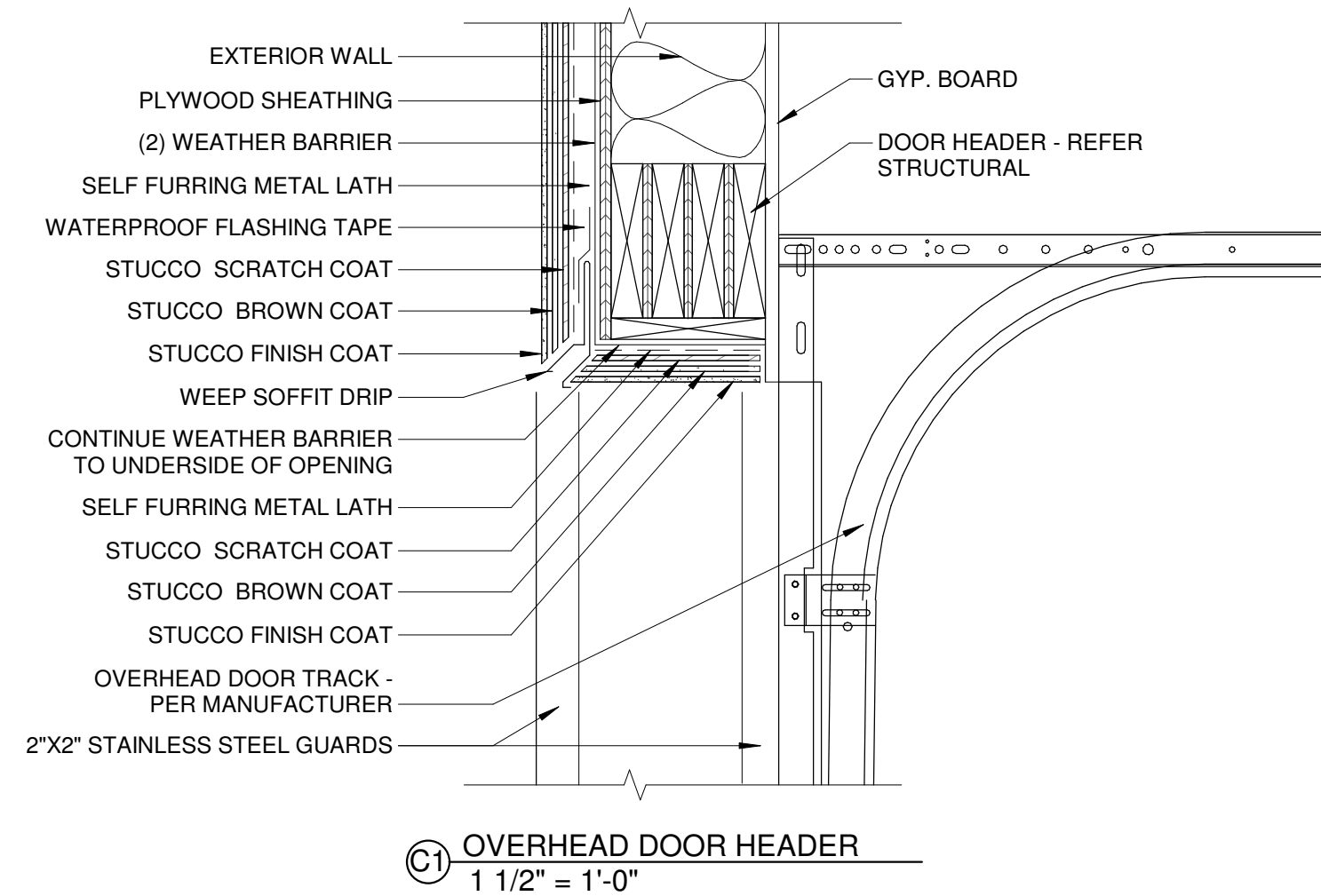
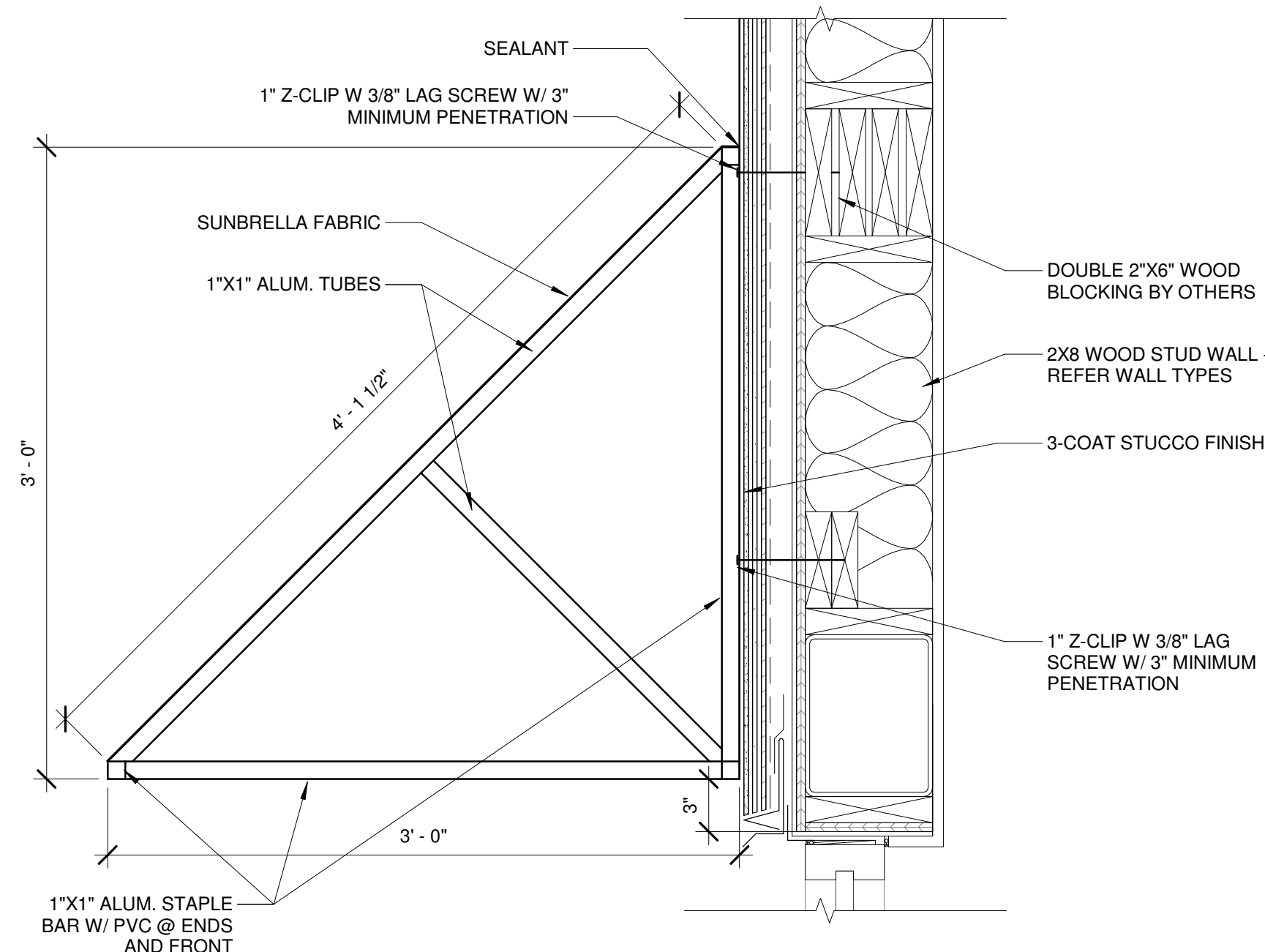
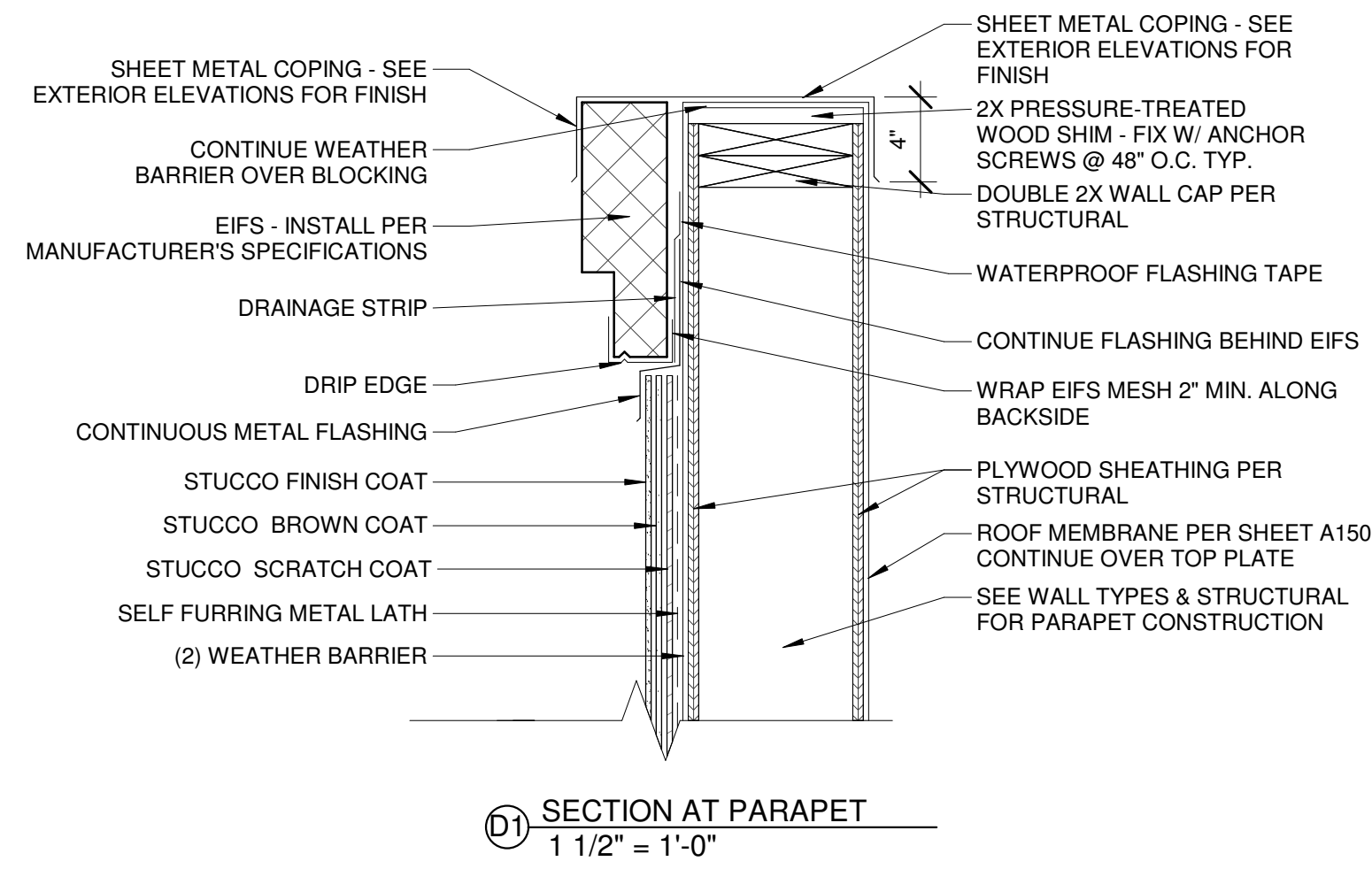
A2 WALL SECTION
 1/2" = 1'-0"



A3 WALL SECTION
 1/2" = 1'-0"

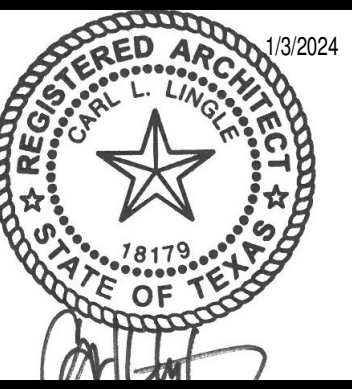


A4 WALL SECTION
 1/2" = 1'-0"



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158 WEST MAIN STREET
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815.369.9155
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PROJECT #:
TBD
DRAWN BY: BA
CHECKED BY: MP

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△	

SHERWIN WILLIAMS

STORE #:
XXXX

ADDRESS:

2101 AVONDALE-HASLET
RD, HASLET, TX 76052

SHEET TITLE:

Exterior Wall Details

SHEET NUMBER:

A113

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PROJECT #:
 TBD
 DRAWN BY: Author CHECKED BY: Checker

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SHERWIN WILLIAMS

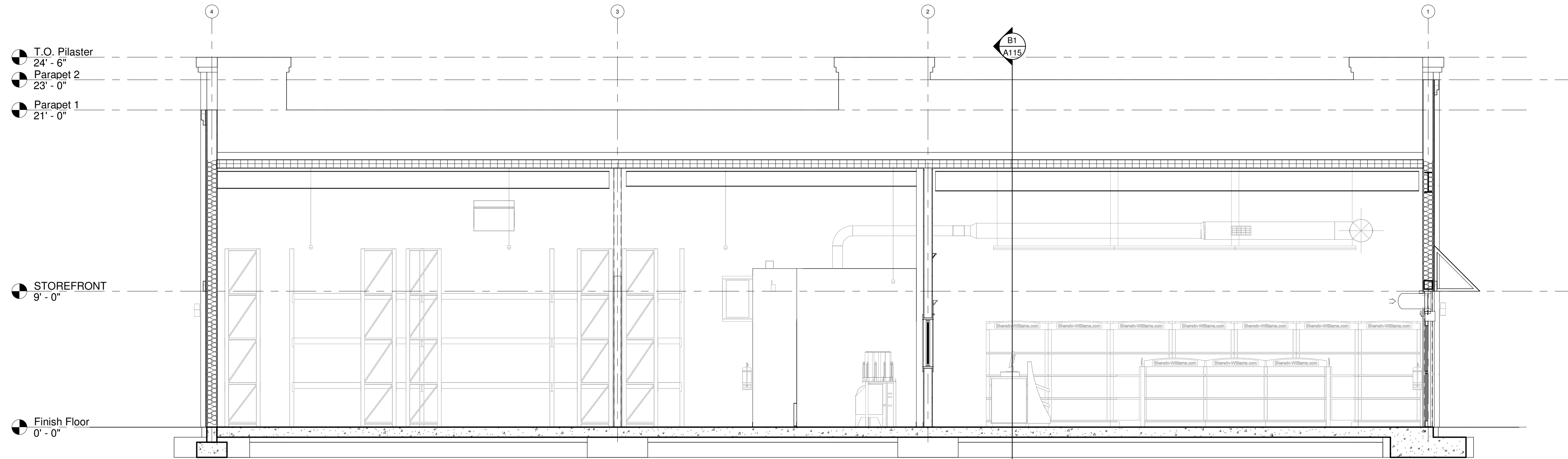
STORE #:
 XXXX
 ADDRESS:
 2101 AVONDALE-HASLET
 RD, HASLET, TX 76052

SHEET TITLE:
 Building Sections

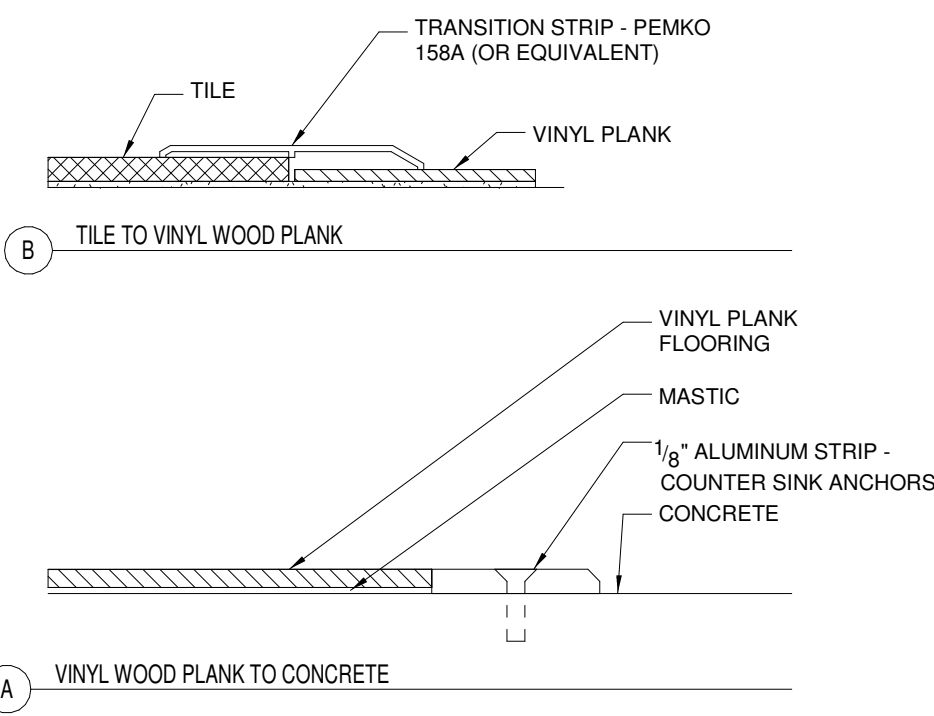
SHEET NUMBER:
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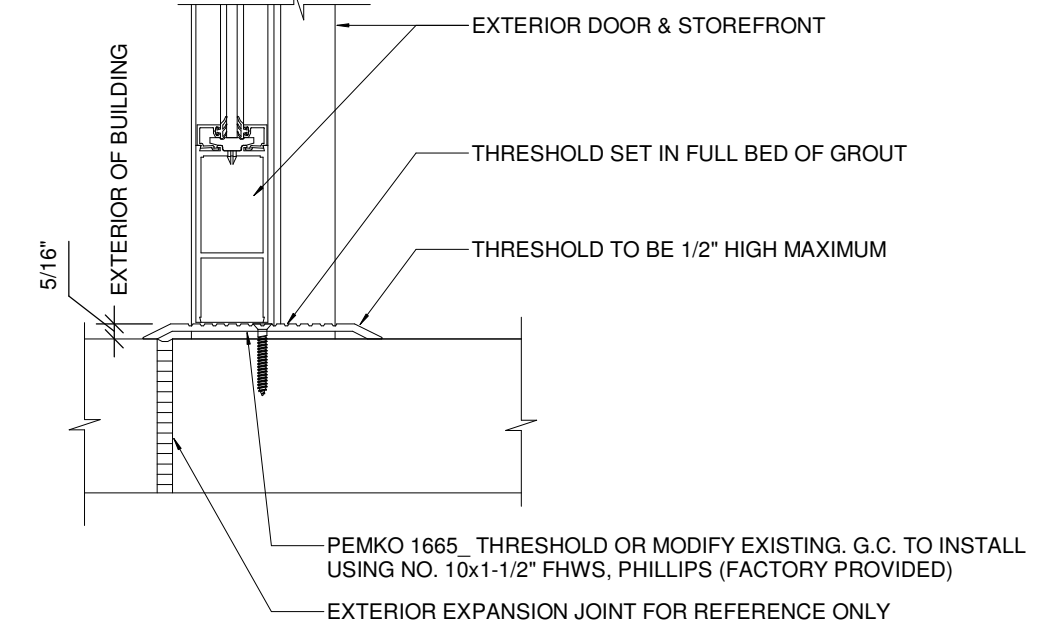
(B1) BUILDING SECTION
 1/4" = 1'-0"



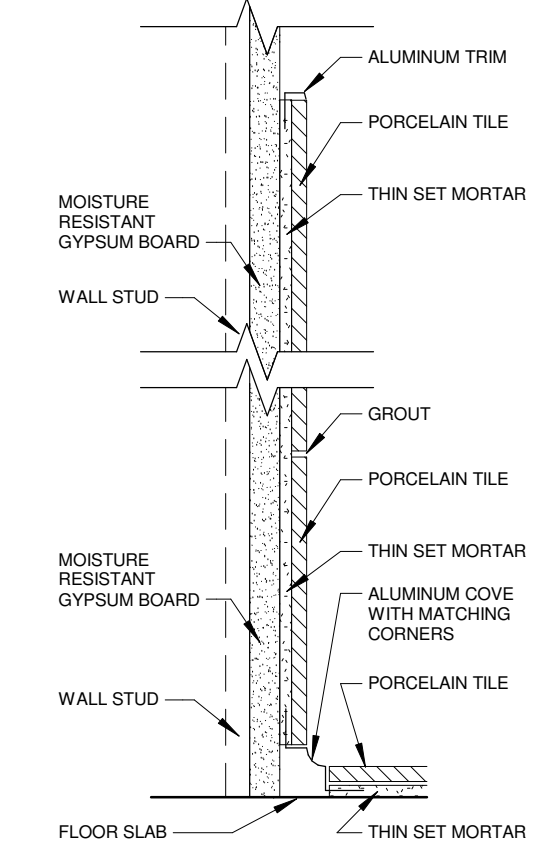
(A1) BUILDING SECTION
 1/4" = 1'-0"



D1 Flooring Transition Details
3" = 1'-0"



D2 THRESHOLD AT EXTERIOR DOOR
3" = 1'-0"



D3 TILE COVE BASE
3" = 1'-0"

GENERAL NOTES

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 REQUIRED.

B. COORDINATE FLOORING TRANSITIONS AND BASE TILE INSTALLATION WITH MILLWORK SHOP DRAWINGS AND FIELD CONDITIONS.

C. ALL THRESHOLDS SHALL HAVE A MAXIMUM HEIGHT OF 1/2" ABOVE EXISTING CONCRETE SLAB AND/OR INTERIOR FINISHES.

D. TILE TRANSITION BETWEEN ROOMS TO BE CENTERED ON DOOR FRAME.

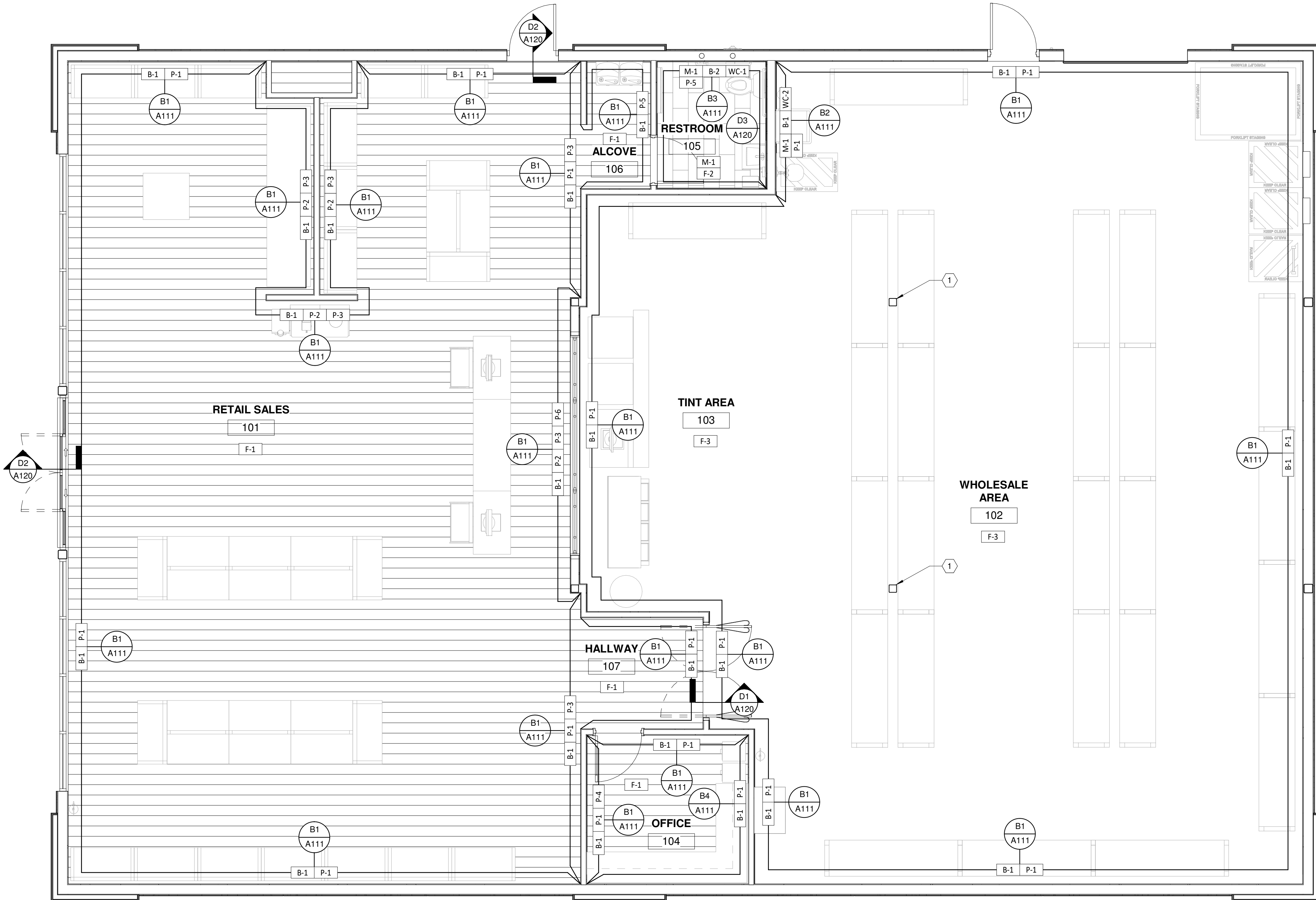
E. SEE PLUMBING DRAWINGS FOR DIMENSIONS AND LOCATIONS OF FLOOR DRAINS AND FLOOR SINKS.

F. ALL INTERIOR FINISHES TO HAVE A FLAME SPREAD RATING OF 25 OR LESS, WITH A MAXIMUM SMOKE GENERATION FACTOR OF 450.

G. TILE INSTALLER SHALL COORDINATE WITH GENERAL CONTRACTOR AND PROVIDE LAYOUT OF ALL WALL TILE PRIOR TO INSTALLATION. GENERAL CONTRACTOR SHALL PREPARE WALLS AS TO MINIMIZE CUT TILES IN THE HORIZONTAL DIRECTION AND ELIMINATE CUT TILES IN THE VERTICAL DIRECTION ON ANY WALLS. CONTACT ARCHITECT OF ANY DISCREPANCIES IN DIMENSIONS FOR DIRECTION PRIOR TO INSTALLATION. FAILURE TO ADHERE TO THESE REQUIREMENTS RESULTING IN ANY REMEDIATION REQUIRED TO MEET DESIGN INTENT WILL BE AT CONTRACTORS COST.

INTERIOR FINISH LEGEND			
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. INSTALL IN RESTROOM
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#300)
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 KB6SC2000 - 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
MISCELLANEOUS			
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 WM781 H	USE FOR ALL EXPOSED SURFACES OF COUNTER AND SHELVING IN OFFICE
WALL COVERING			
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.
NOTES:			
A.	CONFIRM PAINT FINISH AND COATING/PRIMING REQUIREMENTS WITH PAINT SPECIFICATIONS ON SHEET A121		

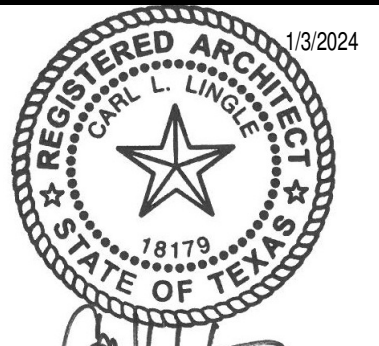
FINISH PLAN CODED NOTES	
1	STRUCTURAL COLUMNS TO BE PAINTED "P-1"



A1 Finish Plan
1/4" = 1'-0"

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SHERWIN WILLIAMS

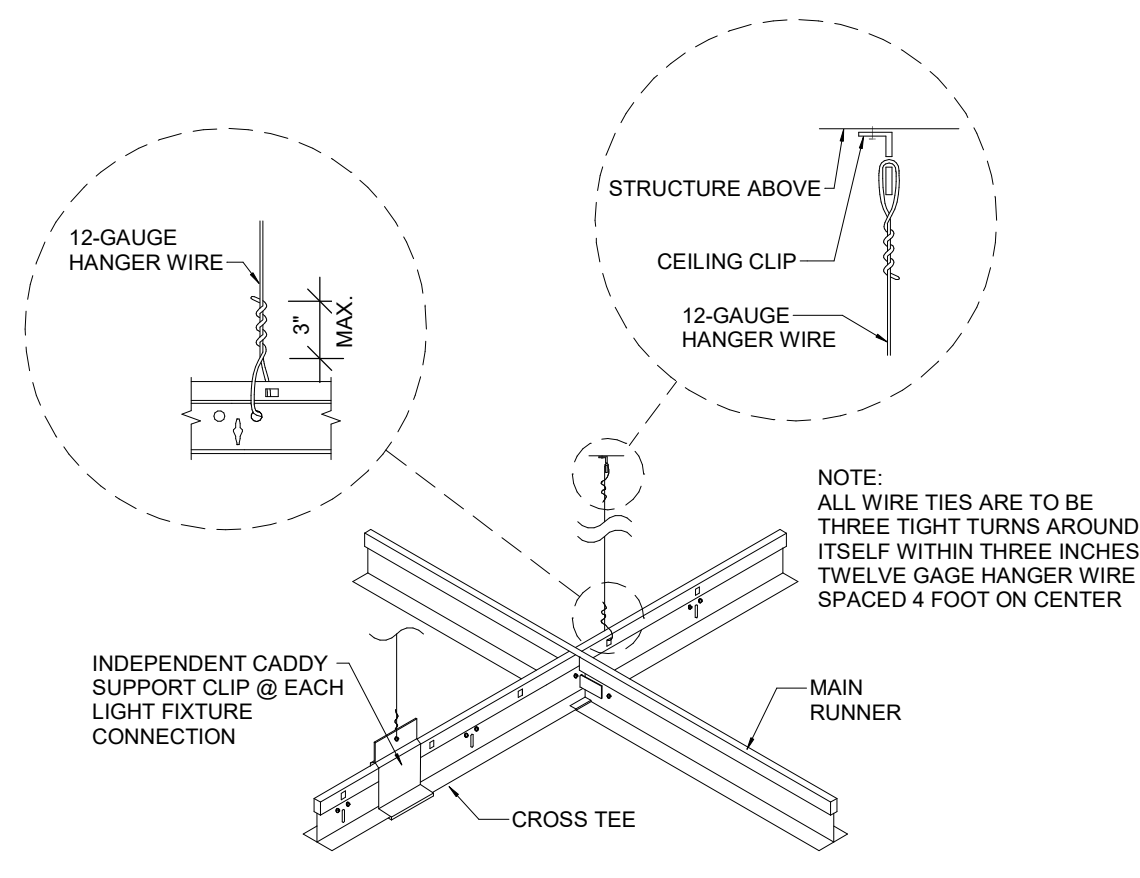
STORE #:
XXXX
ADDRESS:
2101 AVONDALE-HASLET
RD, HASLET, TX 76052

SHEET TITLE:

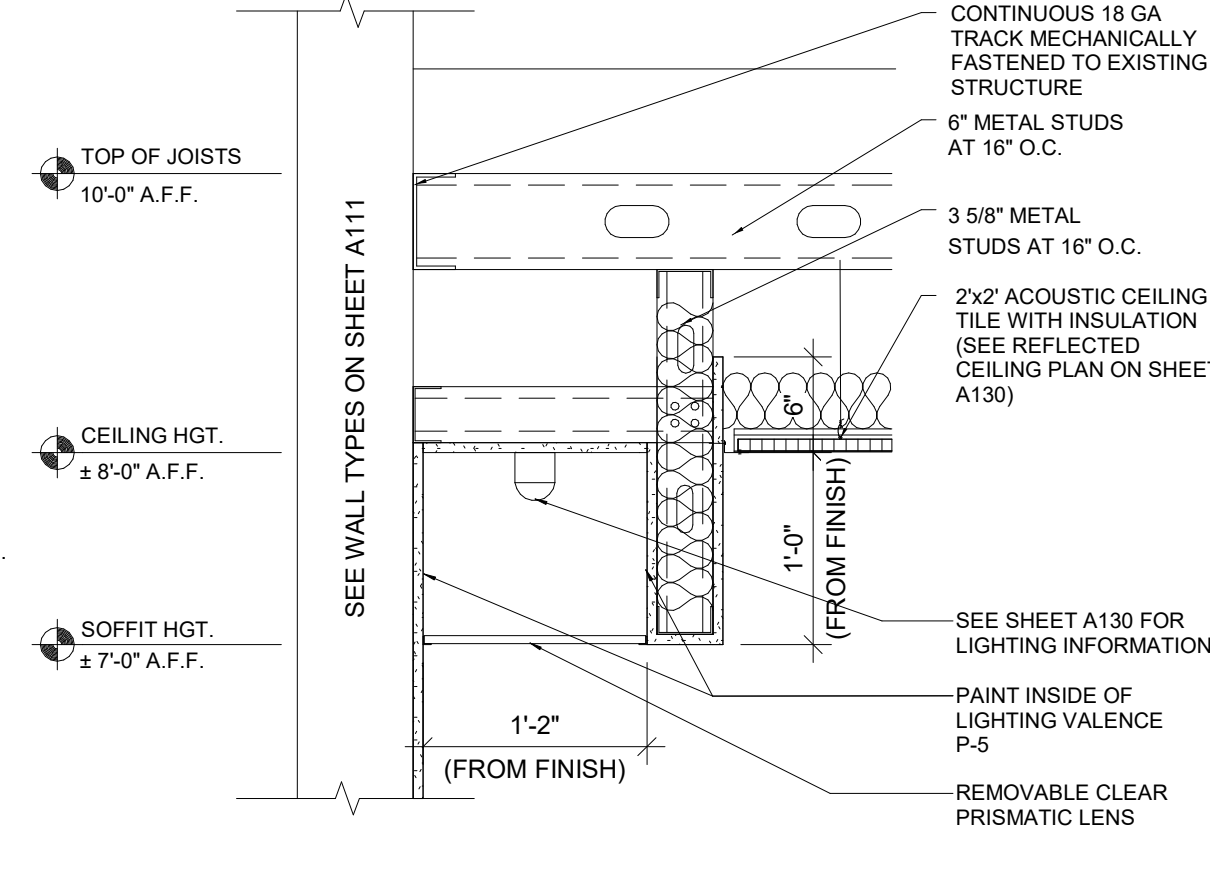
Finish Plan

SHEET NUMBER:

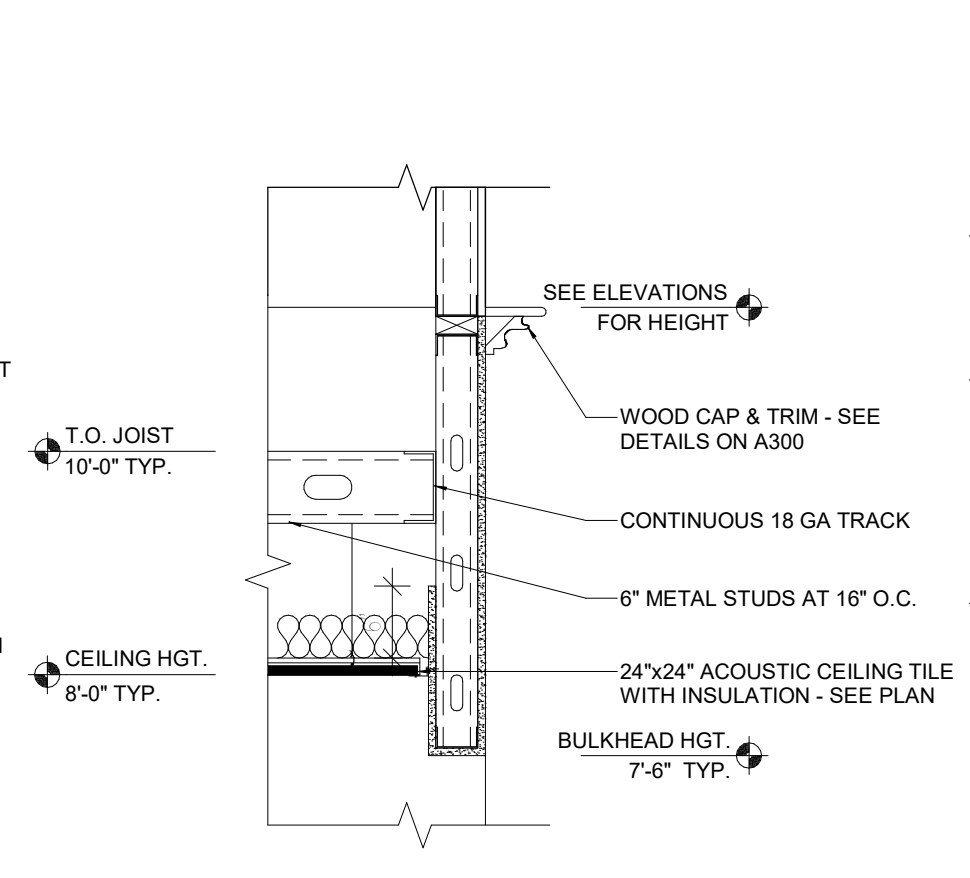
A120



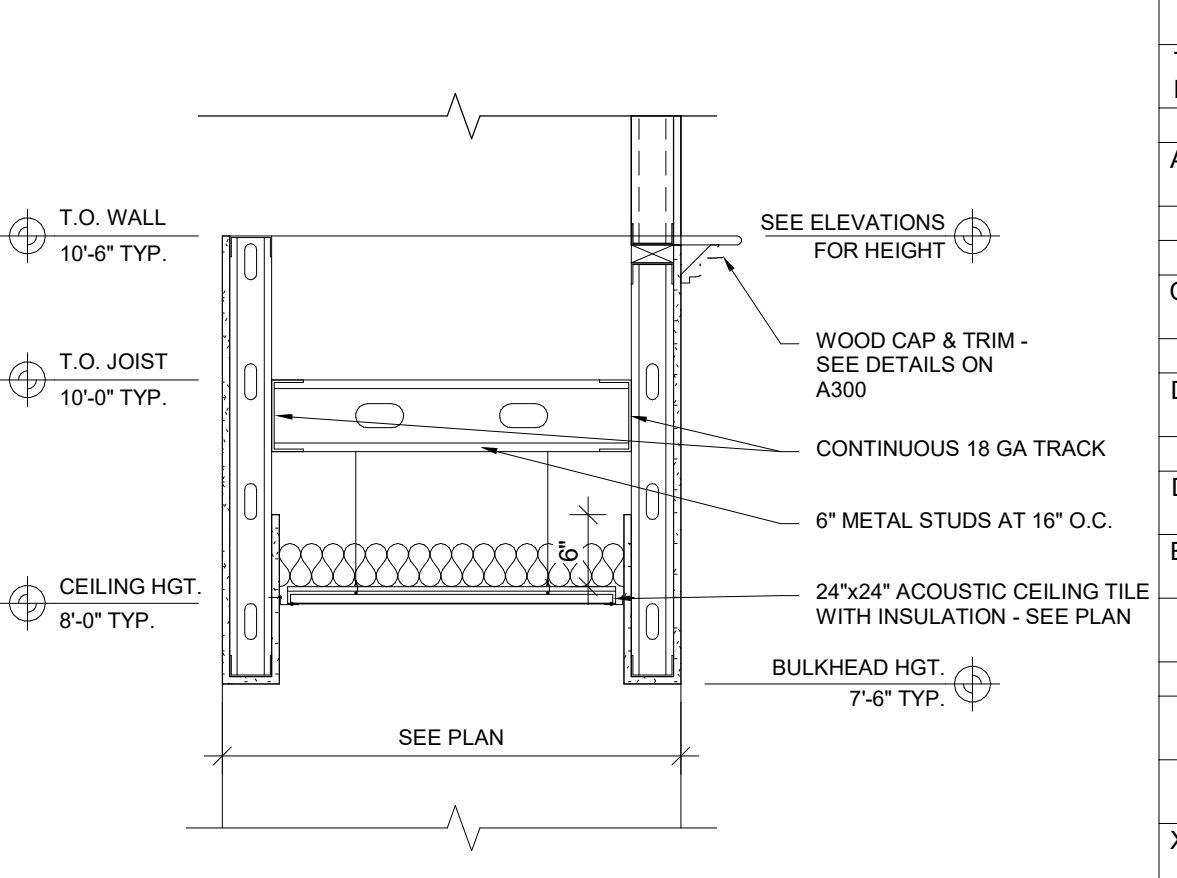
D1 Typical Suspended Ceiling
1/4" = 1'-0"



D2 Restroom Lighting Valence Section
1" = 1'-0"



D3 Bulkhead Section
3/4" = 1'-0"



D4 Hallway Bulkhead Section
3/4" = 1'-0"

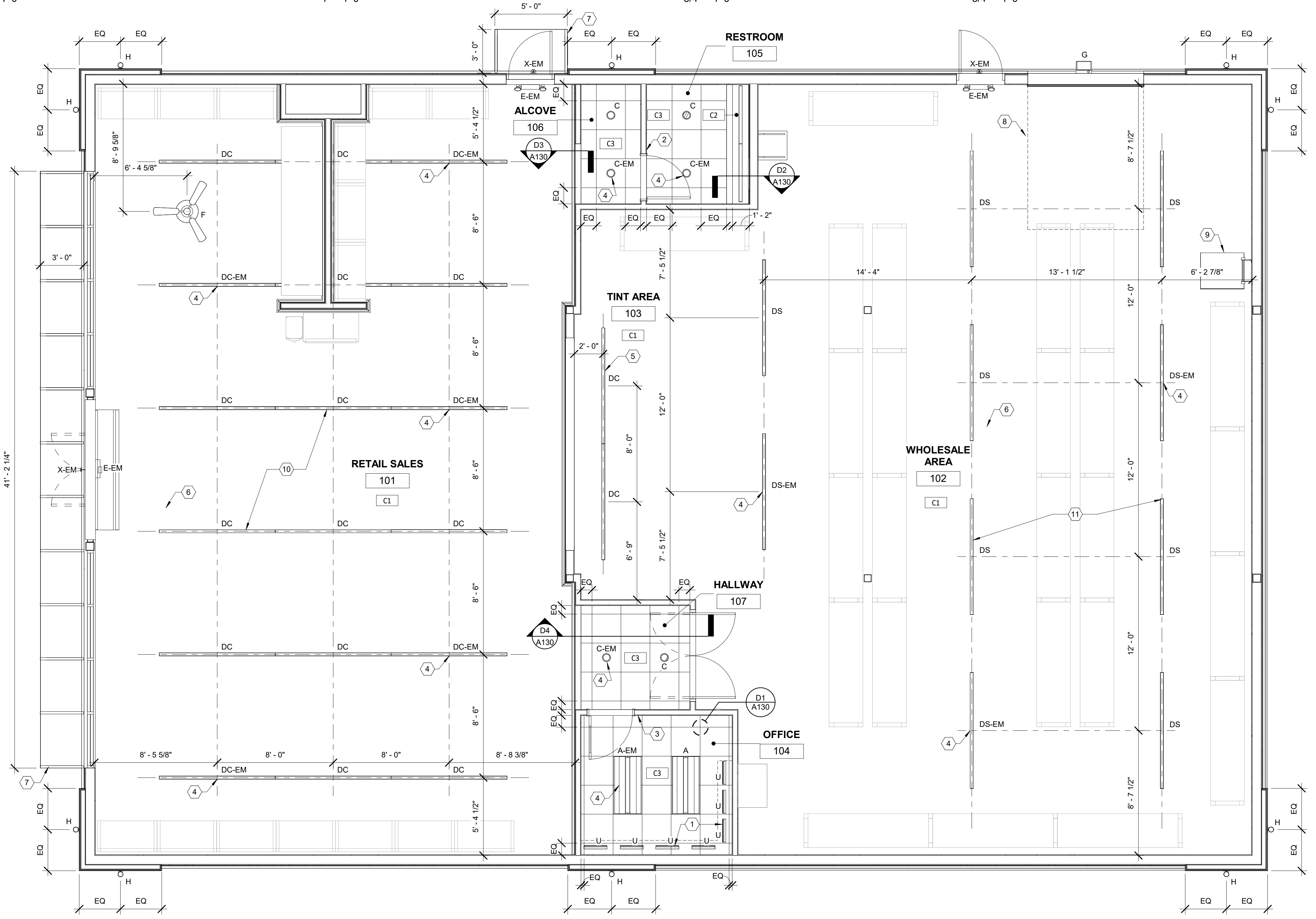
Type Mark	Count	Description	Manufacturer	Model	Lamp	Comments
A	1	2x4 Troffer	GE Current	LVT24B048MM840VQLTWHTE	LED	To be sourced from Wesco
A-EM	1	2x4 Emergency Troffer	GE Current	LVT24B048MM840VQLTWHTEEL	LED	To be sourced from Wesco - Connect to non-switched emergency circuit
B	2	48\"/>				

RCP CODED NOTES	
1	INSTALL LIGHTS ON UNDERSIDE OF OFFICE SHELF - SWITCH WITH OTHER OFFICE LIGHTS - SEE DETAIL B3/A111
2	INSTALL AUTOMATIC MOTION SENSING SWITCHES (15-MINUTE GRACE PERIOD) TO CONTROL ALL LIGHTING AND EXHAUST FANS (IF APPLICABLE)
3	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
7	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:

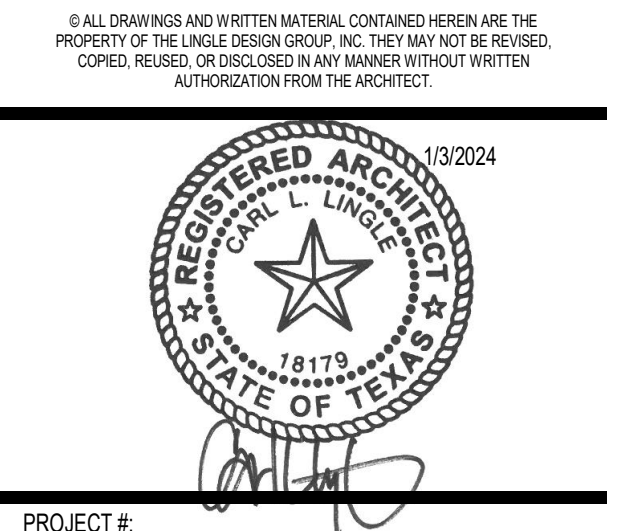
A. VERIFY ALL PLACEMENTS OF LIGHTS WITH ARCHITECT PRIOR TO INSTALLATION.
 B. SEE ELECTRICAL PLANS FOR ADDITIONAL LIGHTING INFORMATION
 C. ALL CEILING MATERIAL SHALL NOT EXCEED FLAME CLASS II - FLAME SPREAD INDEX 25-75.
 D. G.C. SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES INVOLVED IN THE CEILING WORK TO ENSURE THAT PROPER CLEARANCES FOR DUCTS, LIGHTS, PIPING, ETC. ARE MET AND THAT THE CEILING HEIGHTS 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
 PHONE: (440) 554-4669

CEILING FINISH SCHEDULE	
DESCRIPTION:	NOTES:
C1 CEILING: EXPOSED TO STRUCTURE FINISH: PAINT P-3	HVAC DUCTWORK TO BE PAINTED P-3
C2 CEILING: INSTALL 5/8" GYP. BD. CEILING FINISH: PAINT P-3 U.N.O.	
C3 MFG: USG FINISH: 24"x24" SANDRIFT #608 COLOR: WHITE HEIGHT: 8'-0" A.F.F. U.N.O.	GRID: USG DX GRID SYSTEM - GC SUPPLY/INSTALL - FACTORY PAINTED WHITE



A1 Reflective Ceiling Plan
1/4" = 1'-0"

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 158 WEST MAIN STREET
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 815.369.9155
 1764 BLAKE ST
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 303.974.5875
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PROJECT #:
TBD
 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:
 Reflected Ceiling Plan

SHEET NUMBER:
 A130

HAZARDOUS MATERIALS STORAGE

FLAMMABLE CLASS	MAX. STORAGE HEIGHT	MAX. AMOUNT	ACTUAL AMOUNT
1A	4'-0"	60 GAL	0 GAL
1B	4'-0"		287 GAL
1C	4'-0"		92 GAL
TOTAL		7,500 GAL	1129 GAL
II	6'-0"		750 GAL
IIIA	6'-0"		0 GAL
IIIB	6'-0"	UNLIMITED	29 GAL
TOTAL			84 LBS
AEROSOL LEVEL 1	8'-0"	24,000 LBS	24,000 LBS
AEROSOL LEVEL 2	8'-0"	2,000 LBS	196 LBS
AEROSOL LEVEL 3	8'-0"		40 LBS
TOTAL			236 LBS

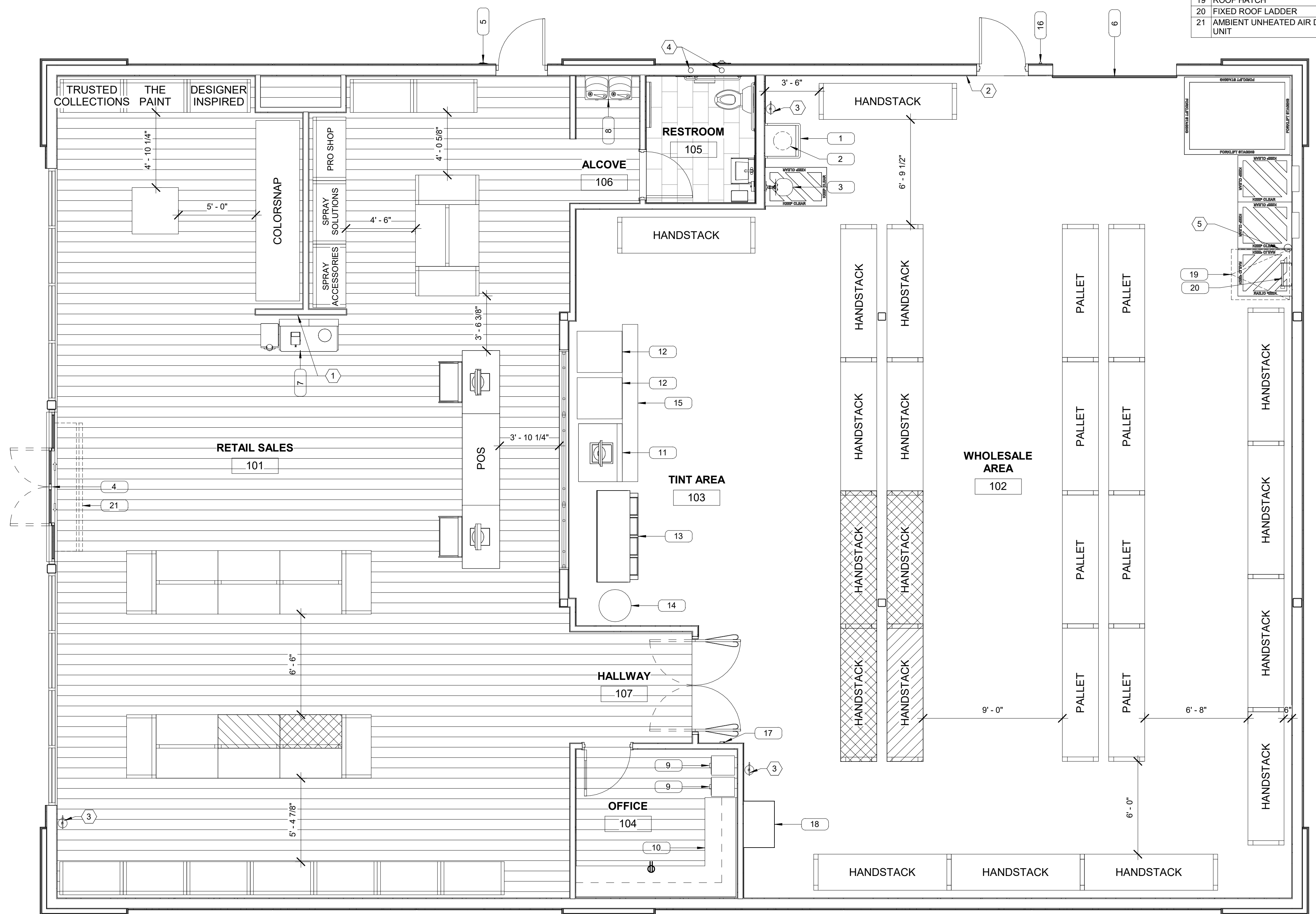
NOTE: TENANT WILL BE RESPONSIBLE FOR ADDING PERMANENT SIGNS ON EACH STORAGE SHELF OR RACK STATING THE ABOVE STORAGE LIMITATIONS AND TRAINING STORE STAFF IN PROPER STORAGE OF FLAMMABLE AND COMBUSTIBLE LIQUIDS. STORE OWNER WILL BE RESPONSIBLE FOR ADDING SIGNAGE TO SHELF AND RACK STORAGE WHERE FLAMMABLE AND COMBUSTIBLE LIQUIDS ARE STORED THAT "WARNING, NO COMBUSTIBLE PRODUCTS ARE TO BE STORED ABOVE ANY FLAMMABLE OR COMBUSTIBLE LIQUIDS" PER 2021 IFC.

FIXTURE PLAN CODED NOTES

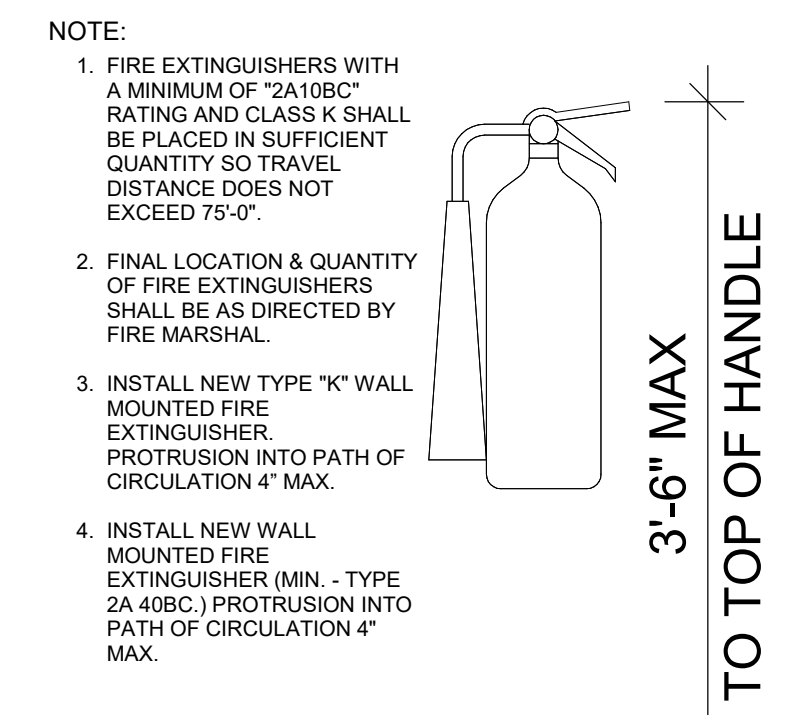
1	COLD WATER LINE FOR COFFEE MAKER - SEE PLUMBING SHEETS
2	TIME CLOCK & LUTRON VIVE LIGHTING CONTROL SYSTEM - VERIFY W/ ELECTRICAL
3	FIRE EXTINGUISHER
4	4" PVC ROOF DRAIN PIPE
5	AS-BUILT DRAWING TUBE

EQUIPMENT LIST

TAG	DESCRIPTION	MANUFACTURER	MODEL	PROVIDED BY	INSTALLED BY	REMARKS
1	UTILITY SINK	ELKAY	B1C24X24X	GC	GC	ELEVATED ON METAL LEGS
2	WATER HEATER	A. O. SMITH	DEL-20	GC	GC	MOUNT ON SHELF ABOVE UTILITY SINK - VERIFY SPEC W/ PLUMBING
3	EYEWASH STATION	BRADLEY	S19224DC	GC	GC	WALL MOUNTED - PLUMB TO HOT/COLD WATER (W/ MIXING VALVE) & SANITARY SEWER
4	SLIDING GLASS DOOR	TORMAX	TX9200	TENANT	GC	
5	EMERGENCY KEY CABINET	KNOX BOX	3200 RECESSED MOUNTED	GC	GC	MOUNT 4'-0" A.F.F. - COORDINATE FINAL PLACEMENT WITH FIRE PREVENTION BUREAU
6	OVERHEAD DELIVERY DOOR	OVERHEAD DOOR	470	GC	GC	8'-0" W X 10'-0" OPENING - LIGHT GRAY - WALL-MOUNTED MOTORIZED OPERATOR: LIFT MASTER LJ8900W
7	COFFEE BAR W/ WATER COOLER			TENANT	TENANT	
8	HIGH/LOW DRINKING FOUNTAIN	ELKAY	EDFP217C	GC	GC	REFER PLUMBING
9	FILE CABINET			TENANT	TENANT	
10	ALUMINUM RACEWAY	LEGRAND	ALA4800 & ALA-G	TENANT	GC	ALTERNATES: HUBBLE HBLALU4800 & MONOSYSTEMS SW44800
11	ACCUTINTER	MILLER	ACCUTINTER 8012	TENANT	TENANT	VERIFY SPEC W/ SHERWIN-WILLIAMS
12	5 GALLON MIXER	RED DEVIL	05025U	TENANT	TENANT	VERIFY SPEC W/ SHERWIN-WILLIAMS
13	1 GALLON MIXER	RED DEVIL	1015-PB-SQ	TENANT	TENANT	VERIFY SPEC W/ SHERWIN-WILLIAMS
14	MANUAL TINTER	FLUID MANAGEMENT	HARBIL NSC80	TENANT	TENANT	VERIFY SPEC W/ SHERWIN-WILLIAMS
15	CONVEYOR ROLLER			TENANT	TENANT	VERIFY SPEC W/ SHERWIN-WILLIAMS
16	EXTERIOR BUZZER BUTTON	EDWARDS	1786-B	GC	GC	MOUNT 4'-0" A.F.F. - REFER ELECTRICAL
17	BUZZER RECEIVER	OPTEX	RCTD-20U			
18	DATA CABINET			TENANT	TENANT	INSTALL PHONE/COMPUTER BOARD AT DATA CABINET
19	ROOF HATCH	BILCO	GS-50TB - 36x30			
20	FIXED ROOF LADDER			GC	GC	18 INCH WIDE LADDER
21	AMBIENT UNHEATED AIR DOOR UNIT	BERNER	CHD10-2072A			



- ### CONSTRUCTION NOTES
- 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.
 - 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 R-VALUE INDICATED IN THE DESIGN GUIDELINES. SEE THE DESIGN GUIDELINES FOR MORE INFORMATION.
 - THE GC SHALL INSTALL ALL WALLS FACING INTO THE SALES AREA TO BE FLAT, WITH NO PROTRUSIONS.
 - 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.
 - 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.
 - THE GC SHALL INSTALL RESTROOM ACCESSORIES. SEE THE DESIGN GUIDELINES FOR A LISTING OF THOSE ACCESSORIES AND PRODUCT SELECTIONS.
 - SEE THE REFLECTED CEILING PLAN FOR CEILING LAYOUT AND OTHER RELATED INFORMATION.
 - 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 THE DESIGN GUIDELINES FOR PRODUCT AND COLOR SELECTIONS.
 - 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.
 - 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.
 - 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.
 - 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.
 - 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"

LINGLE DESIGN GROUP, INC.
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155
1764 BLAKE ST
DENVER, CO 80202
303.974.5875
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REGISTERED ARCHITECT
13/2024
STATE OF TEXAS
18179
PROJECT #:
TBD
DRAWN BY: BA
CHECKED BY: MP

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

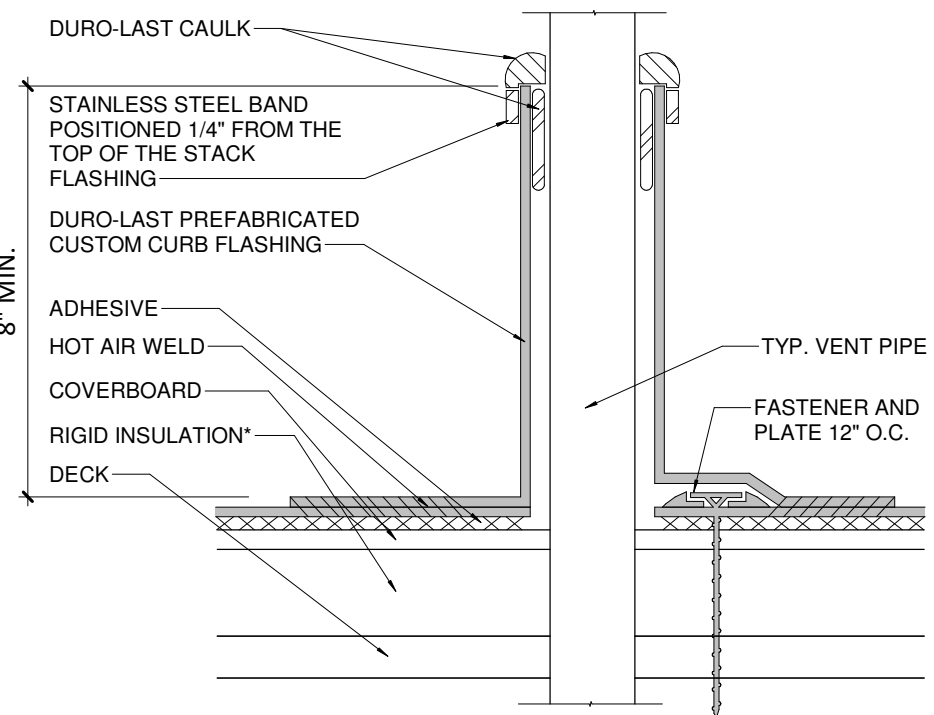
SHERWIN WILLIAMS

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

SHEET TITLE:
Fixture Plan &
Schedule

SHEET NUMBER:
A140

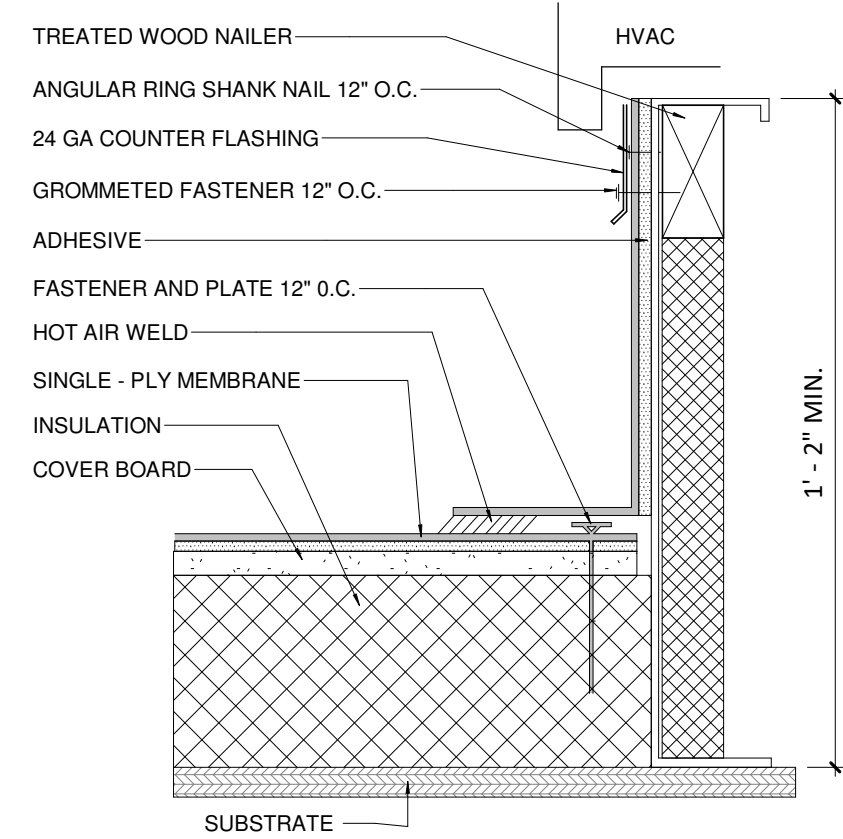
(A1) Fixture Plan
1/4" = 1'-0"



NOTE:

1. WITH MECHANICALLY FASTENED OR BALLASTED SPECIFICATIONS, MEMBRANE MUST BE MECHANICALLY ATTACHED WITH 2" (50 mm) ANCHOR DISC AND ACCEPTABLE FASTENERS (MINIMUM OF 4 PER PIPE).
2. DO NOT OVERLAP THE FLANGES FROM ADJACENT PIPE FLASHINGS.
3. ANY SEAM UNDER BOOT FLANGE TO BE TREATED AS T-JOINT.
4. BOTH SURFACES TO BE MATED MUST BE CLEANED WITH TAPE PRIMER/WASH. EPDM TAPE PRIMER/WASH MUST BE COMPLETELY DRY AND TACK FREE BEFORE APPLYING EPDM LAP CEMENT.
5. IF A LEAD FLASHING IS PRESENT ON THE PIPE, IT MUST BE REMOVED BEFORE A DURO-LAST STACK FLASHING IS INSTALLED.
6. MEMBRANE ATTACHMENT AROUND THE PENETRATION WILL BE THE SAME AS THE DECK MEMBRANE. MAX 18" O.C. AND A MINIMUM OF ONE PLATE/FASTENER PER FLASHING. *R-VALUE AND THICKNESS TO BE LISTED IN THE SPECIFICATIONS AND/OR BUILDING WALL SECTIONS.

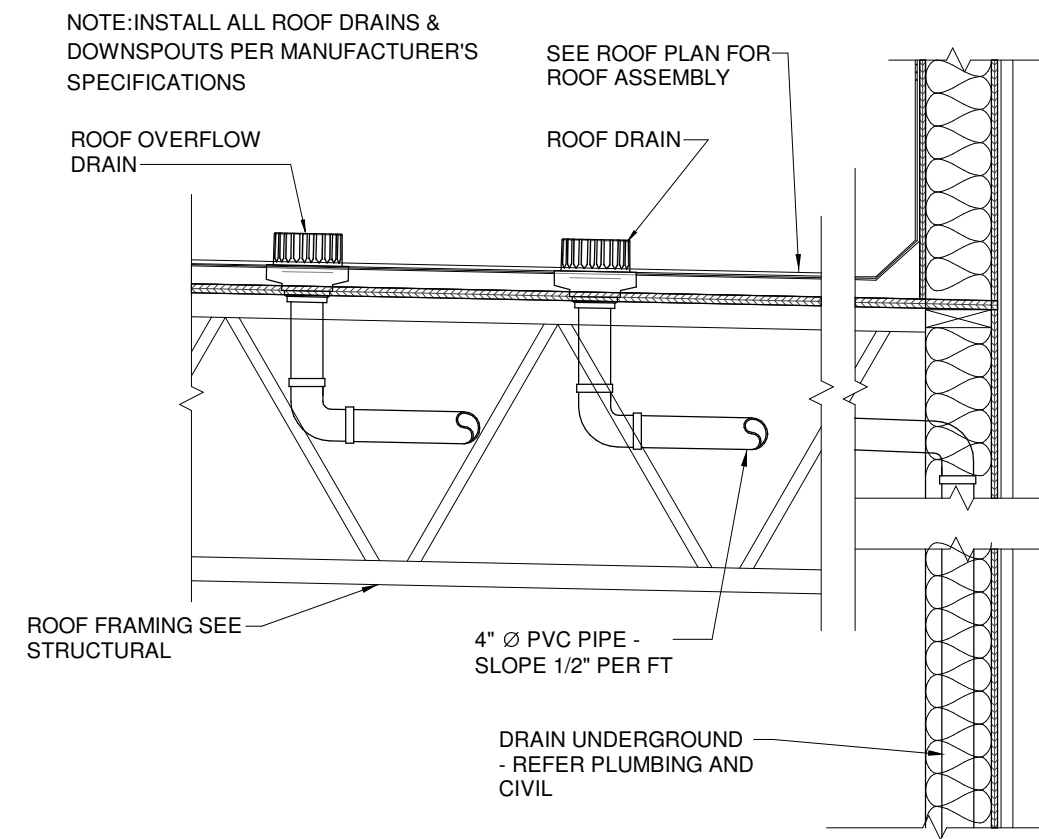
D1 TYPICAL BOOT DETAIL
3/8" = 1'-0"



NOTES:

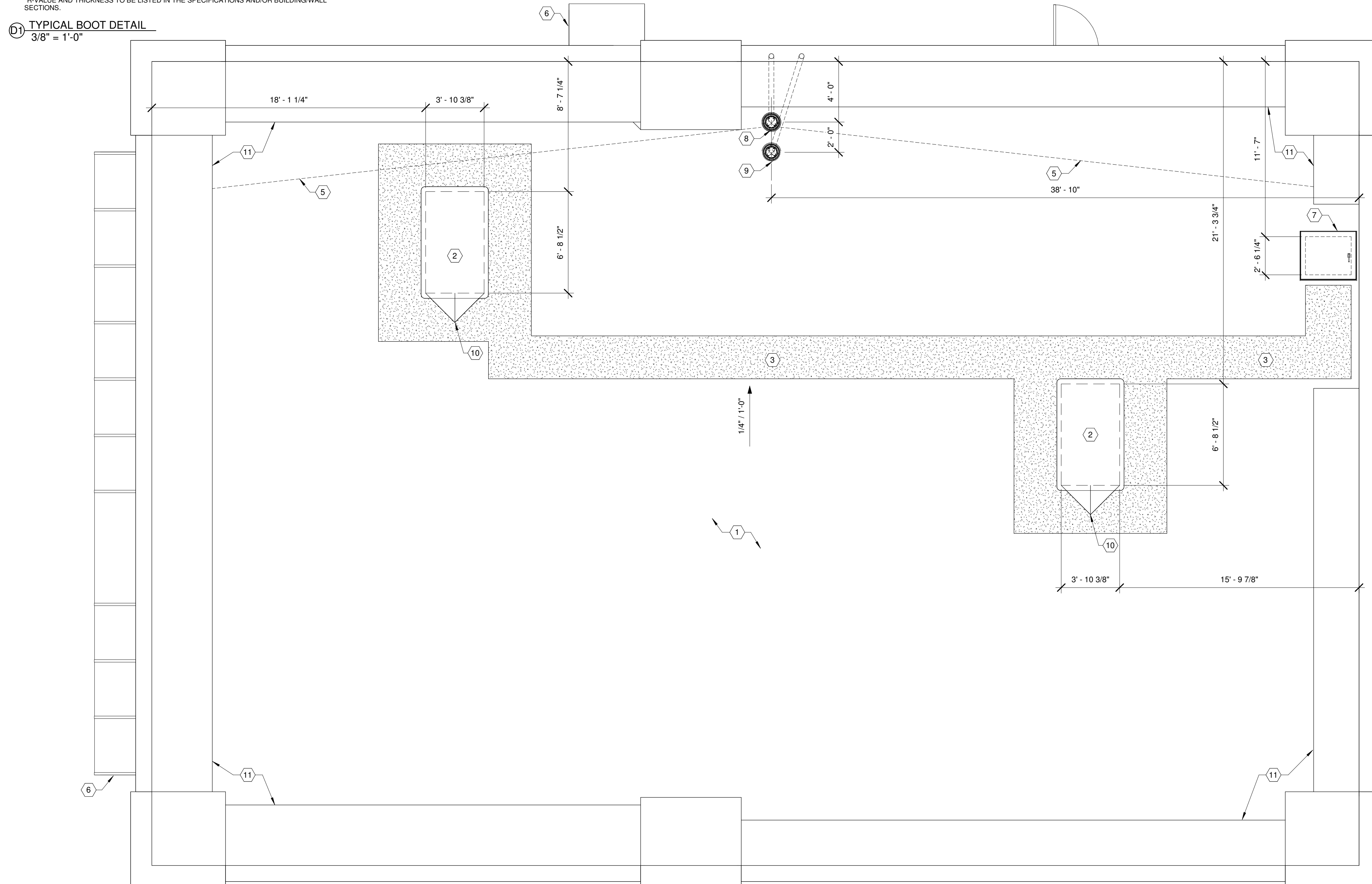
1. USE PREFABRICATED OUTSIDE CORNERS.

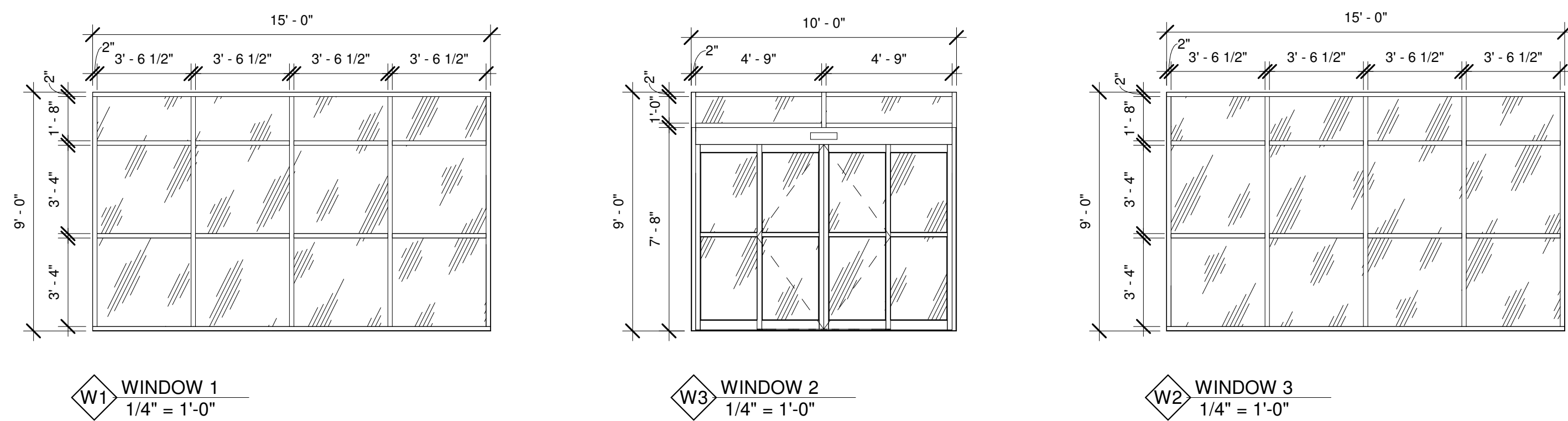
D2 TYPICAL CURB FLASHING
3" = 1'-0"



D3 TYPICAL ROOF DRAINAGE
3/4" = 1'-0"

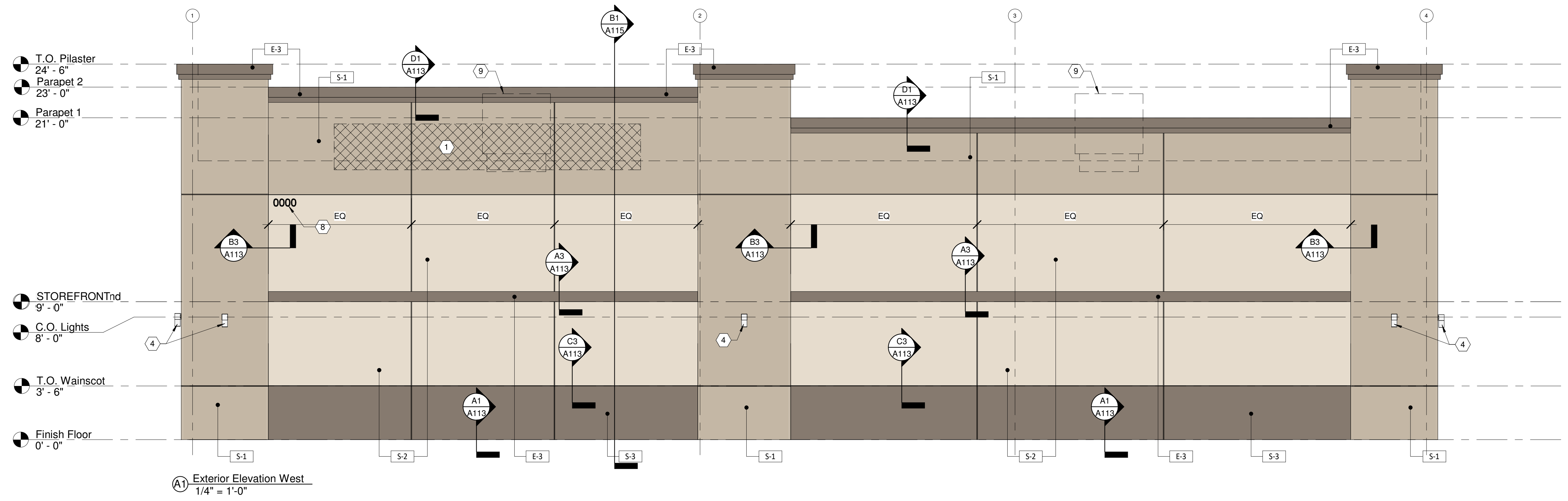
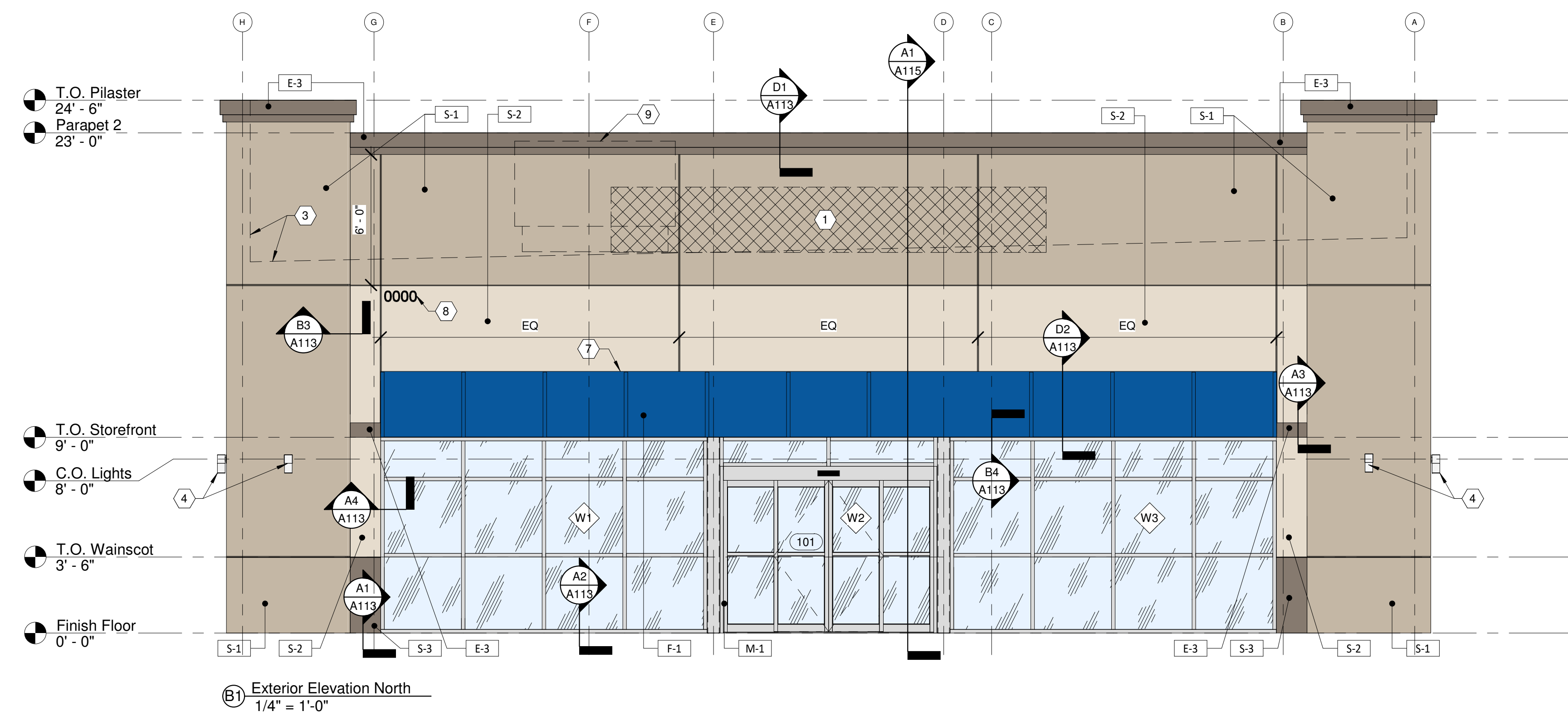
ROOF PLAN CODED NOTES	
1	WHITE (SRI 29 MIN.) 45 MIL TPO MEMBRANE ROOF OVER R-49 RIGID INSULATION - INSTALL PER MANUFACTURER'S SPEC - ROOF DECK PER STRUCTURAL - 2% SLOPE MIN.
2	MECHANICAL ROOFTOP UNIT - SEE MECHANICAL FOR INFORMATION, REINFORCE PER STRUCTURAL.
3	REINFORCED WALKWAY FOR EQUIPMENT ACCESS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



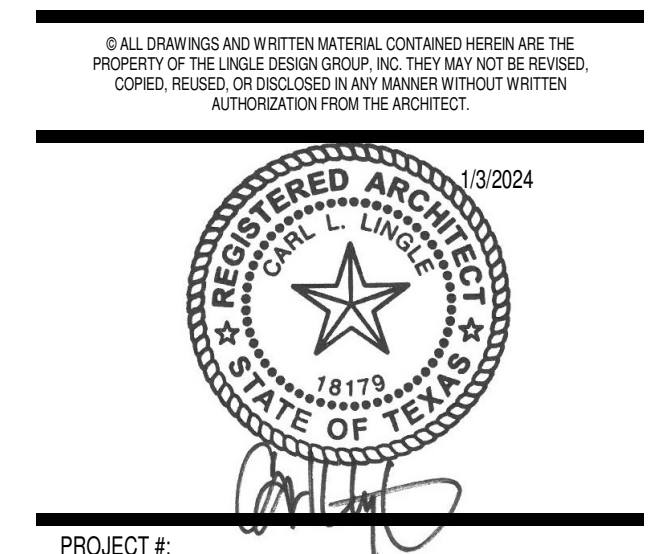


EXTERIOR FINISH SCHEDULE			
MARK	DESCRIPTION	MANUFACTURER & SPEC	SAMPLE
E-1	EIFS - FIELD	SHERWIN-WILLIAMS COLOR: SW 7506 LOGGIA (SCORE LINES PER ELEVATIONS)	
P-1	PAINT		
E-2	EIFS - BAY	SHERWIN-WILLIAMS COLOR: SW 6105 DIVINE WHITE (PARAPET FLASHING TO MATCH)	
P-2	PAINT		
E-3	EIFS - FIELD	SHERWIN-WILLIAMS COLOR: SW 7025 BACKDROP (SCORE LINES PER ELEVATIONS)	
P-3	PAINT		
M-1	ANODIZED ALUMINUM	COLOR: CLEAR ANODIZED ALUMINUM	
F-1	FABRIC OVER METAL FRAME AWNING	COLOR: SHERWIN WILLIAMS BLUE (AWNINGS)	

EXTERIOR ELEVATION CODED NOTES	
1	SIGNAGE UNDER SEPARATE PERMIT
2	UTILITY METER BANK - PAINT TO MATCH ADJACENT FINISH - COORDINATE WITH CIVIL
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
6	BUZZER BUTTON
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



LINGLE DESIGN GROUP, INC.
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155
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303.974.5875
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REVISION	DATE
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△	REV 1 - 11/3/2024
△	
△	
△	
△	

SHERWIN WILLIAMS

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

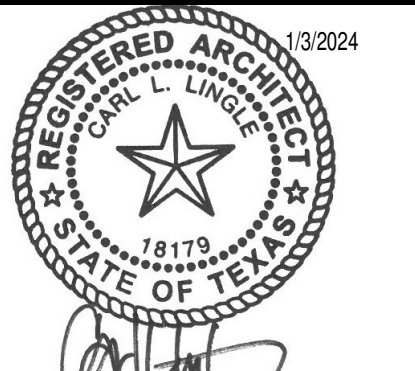
SHEET TITLE:
Exterior Elevations &
Window Schedule

SHEET NUMBER:
A200

EXTERIOR FINISH SCHEDULE			
MARK	DESCRIPTION	MANUFACTURER & SPEC	SAMPLE
E-1	EIFS - FIELD	SHERWIN-WILLIAMS COLOR: SW 7506 LOGGIA (SCORE LINES PER ELEVATIONS)	
P-1	PAINT		
E-2	EIFS - BAY	SHERWIN-WILLIAMS COLOR: SW 6105 DIVINE WHITE (PARAPET FLASHING TO MATCH)	
P-2	PAINT		
E-3	EIFS - FIELD	SHERWIN-WILLIAMS COLOR: SW 7025 BACKDROP (SCORE LINES PER ELEVATIONS)	
P-3	PAINT		
M-1	ANODIZED ALUMINUM	COLOR: CLEAR ANODIZED ALUMINUM	
F-1	FABRIC OVER METAL FRAME AWNING	COLOR: SHERWIN WILLIAMS BLUE (AWNINGS)	

LINGLED DESIGN GROUP, INC.
 158 WEST MAIN STREET
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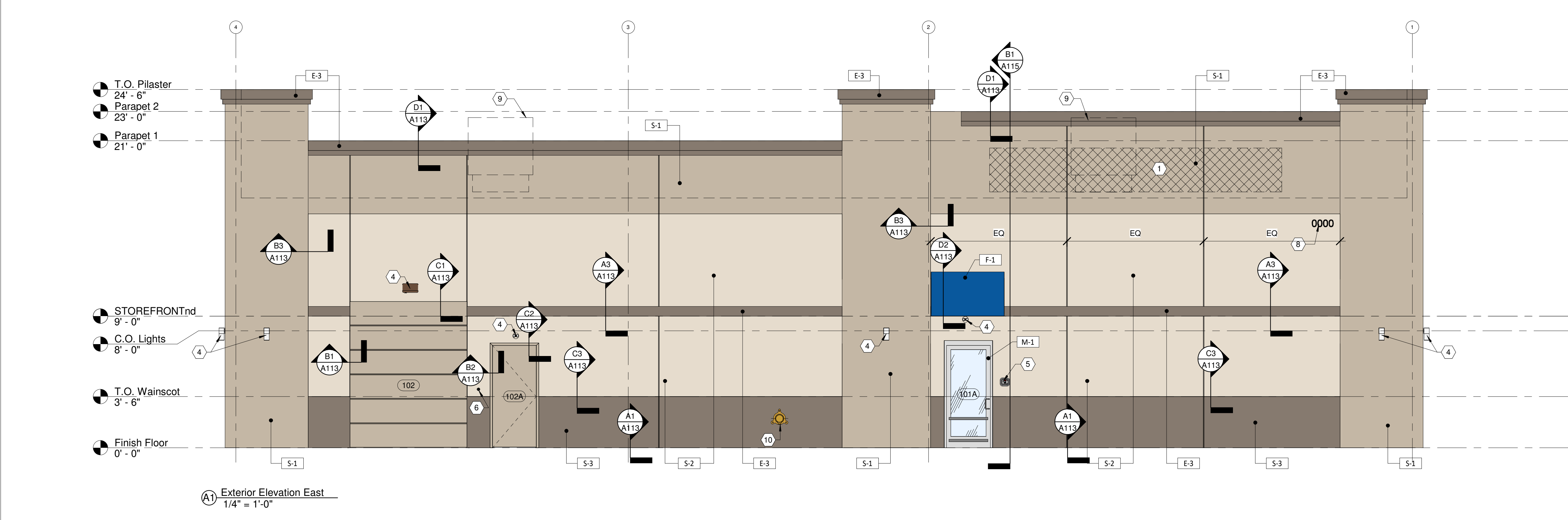
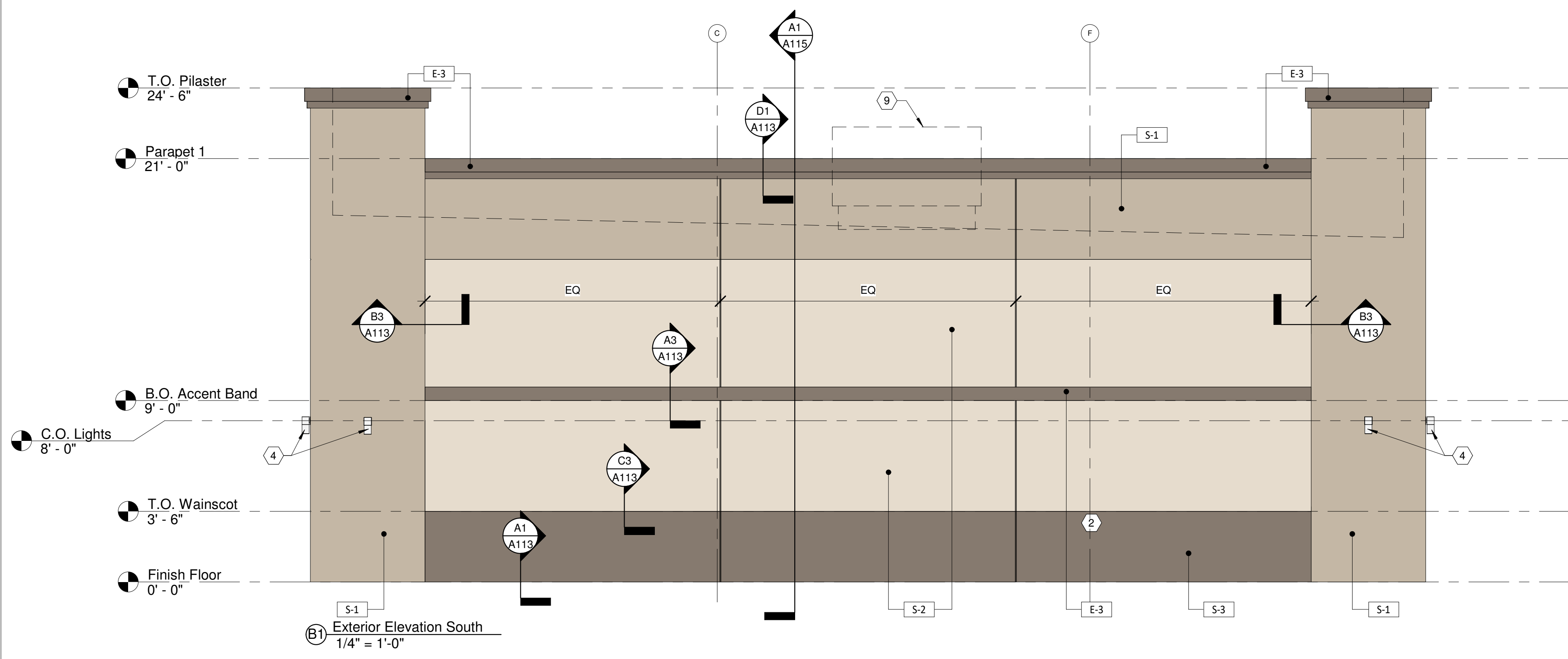
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- | EXTERIOR ELEVATION CODED NOTES | |
|--------------------------------|---|
| 1 | SIGNAGE UNDER SEPARATE PERMIT |
| 2 | UTILITY METER BANK - PAINT TO MATCH ADJACENT FINISH - COORDINATE WITH CIVIL |
| 3 | ROOF LINE BEHIND PARAPET |
| 4 | EXTERIOR LIGHTING - SEE SCHEDULE ON SHEET A130 |
| 5 | KNOX BOX - MODEL 3200 RECESSED - COORDINATE PLACEMENT WITH FIRE PREVENTION BUREAU |
| 6 | BUZZER BUTTON |
| 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 |



SHERWIN WILLIAMS

STORE #:
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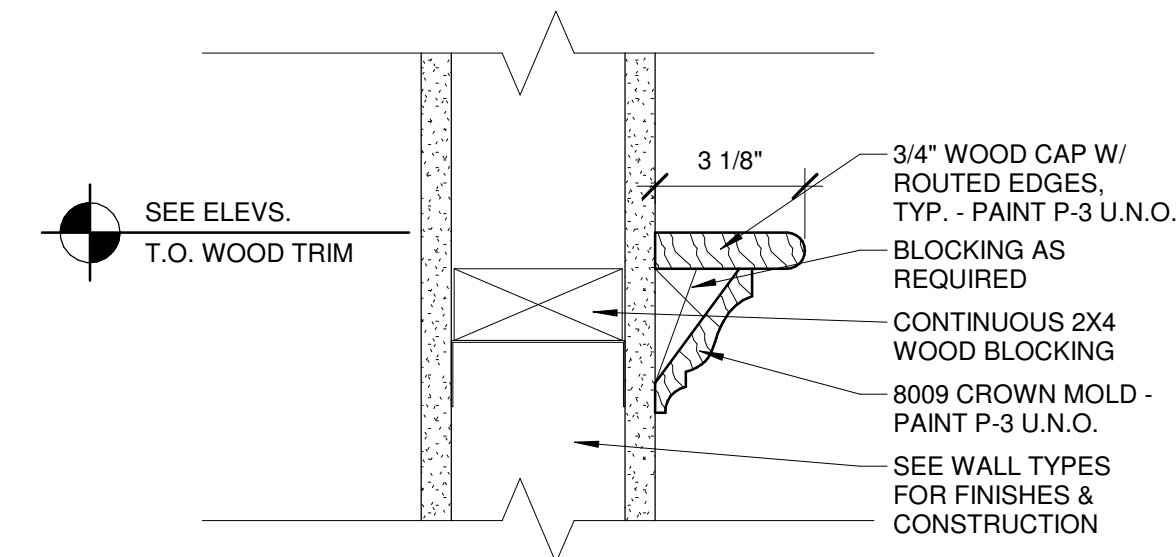
ADDRESS:
2101 AVONDALE-HASLET
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SHEET TITLE:
Exterior Elevations

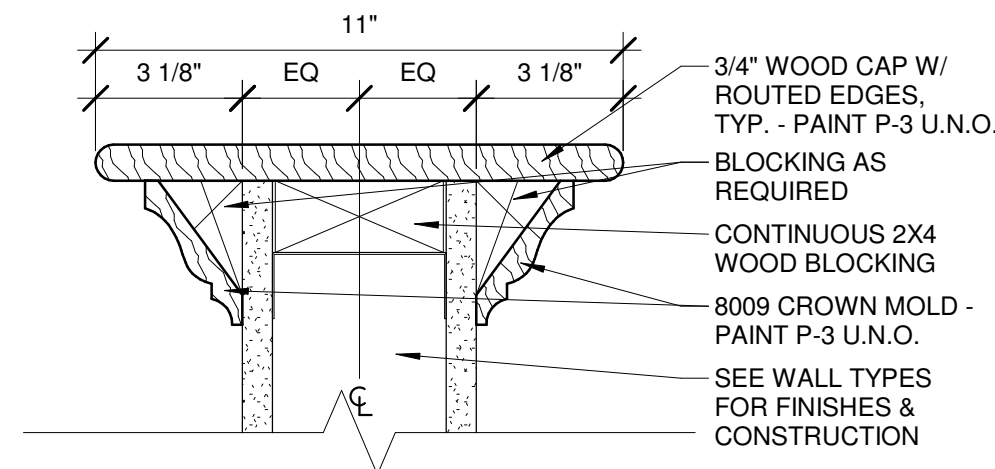
SHEET NUMBER:
A201

INTERIOR ELEVATION CODED NOTES

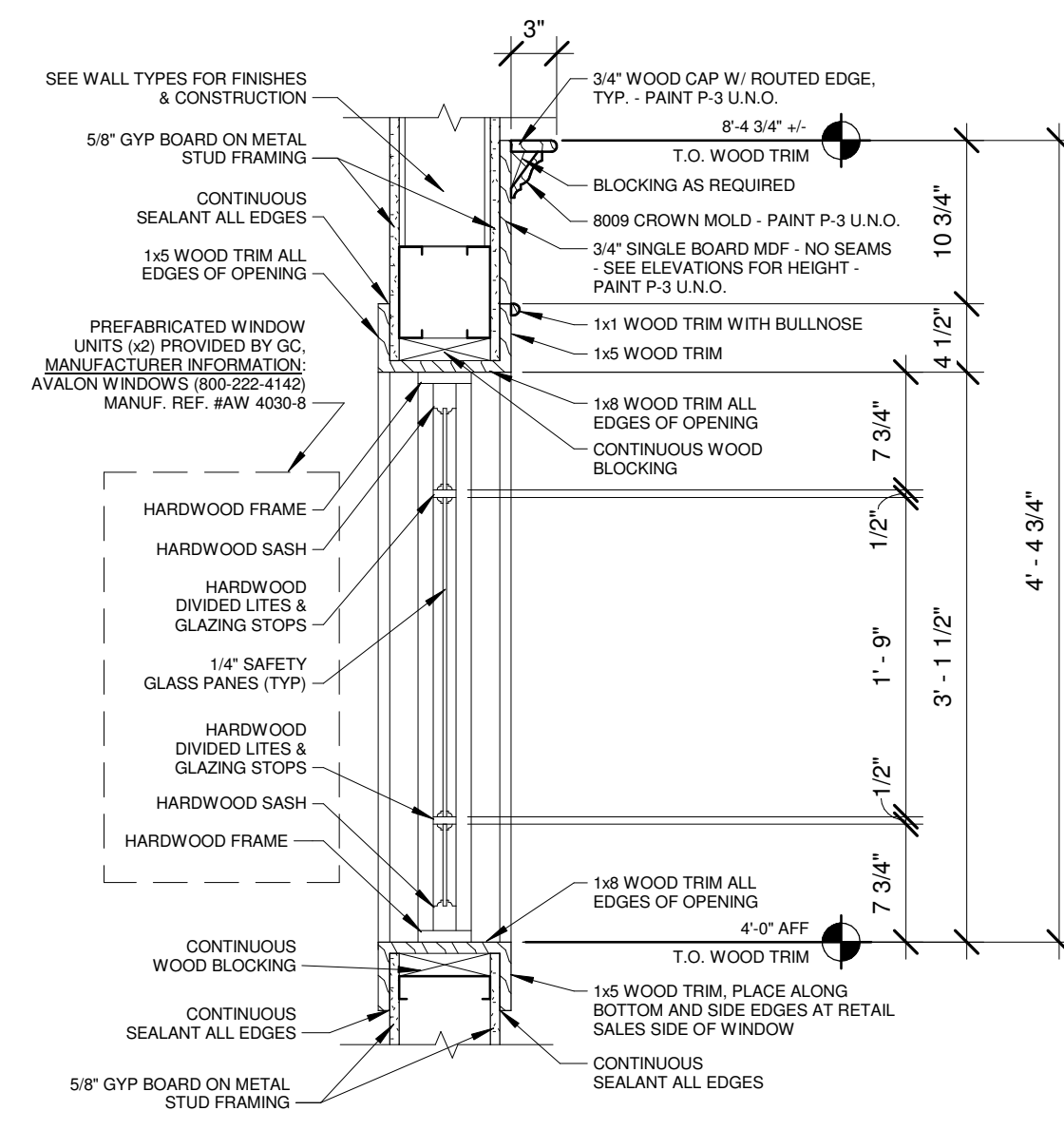
- 1 3/4" PLYWOOD BACKING BOARD
- 2 QUAD OUTLET & WATER VALVE IN RECESSED BOX - COORDINATE W/ ELECTRICAL & PLUMBING
- 3 EXTEND CONDUIT FOR DATA J-BOX THROUGH PLYWOOD BACKING BOARD - TVL508 - COORDINATE W/ ELECTRICAL - TERMINATE AT DATA BOARD
- 4 CASED WINDOW BY AVALON - G.C. TO PROVIDE & INSTALL - COORDINATE SPEC W/ SHERWIN-WILLIAMS CORPORATE
- 5 CONFIRM HVAC DUCTWORK AND DIFFUSER/RETURN LOCATIONS WITH MECHANICAL SHEETS - RUN DUCTWORK IN BETWEEN TRUSSES



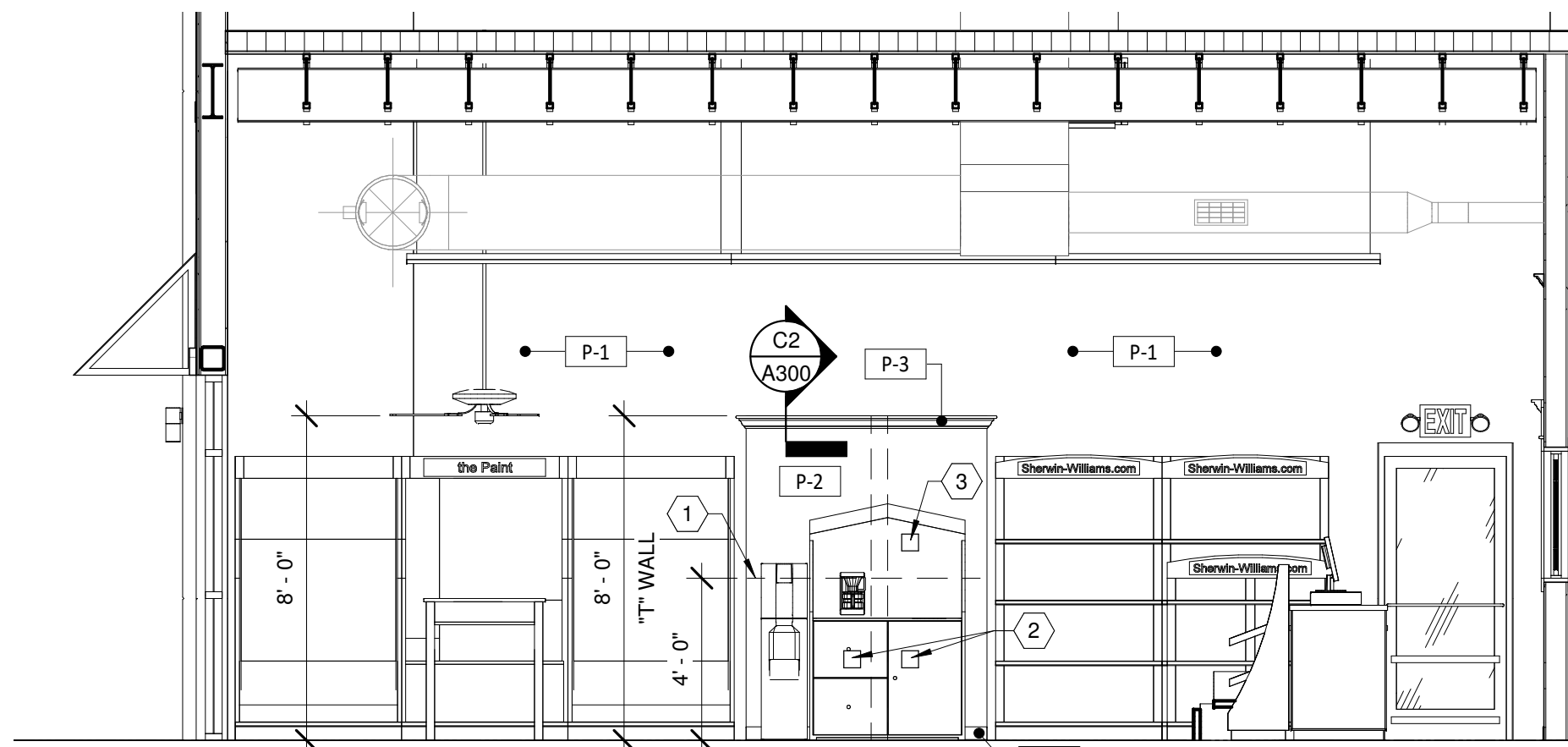
C1 WOOD CAP & TRIM (SINGLE)
3" = 1'-0"



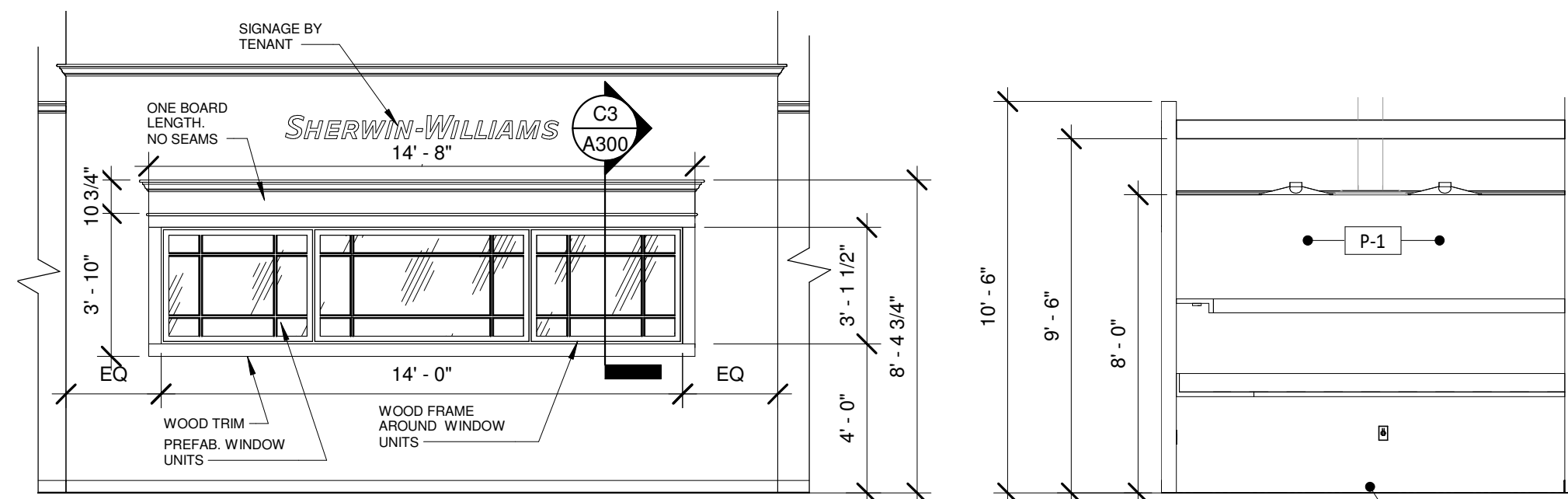
C2 WOOD CAP & TRIM (DOUBLE)
3" = 1'-0"



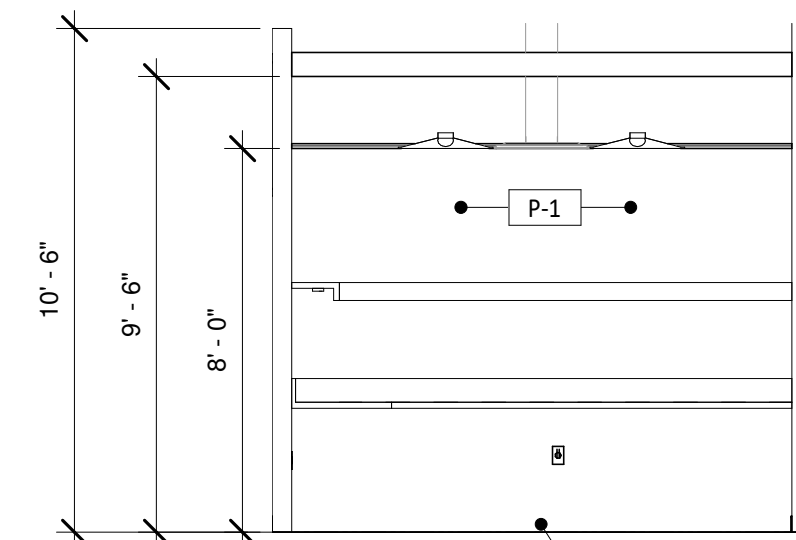
C3 WOOD TRIM (TINT WINDOW)
1" = 1'-0"



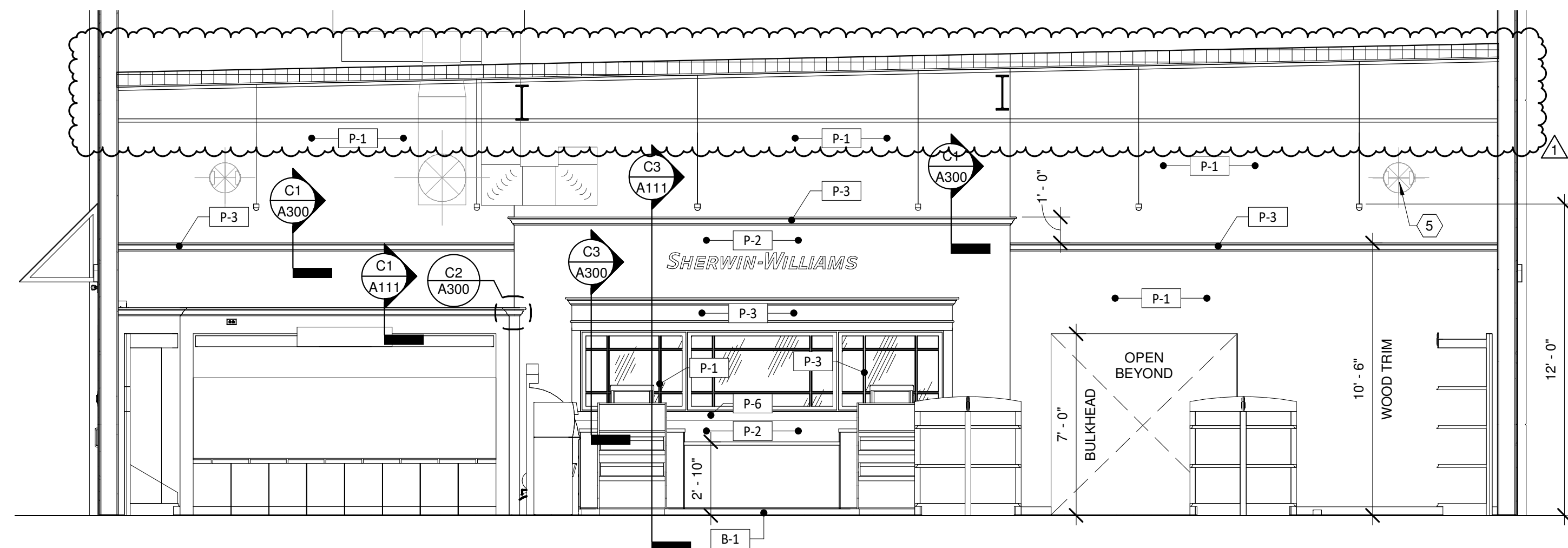
B1 ELEVATION AT SALES AREA
1/4" = 1'-0"



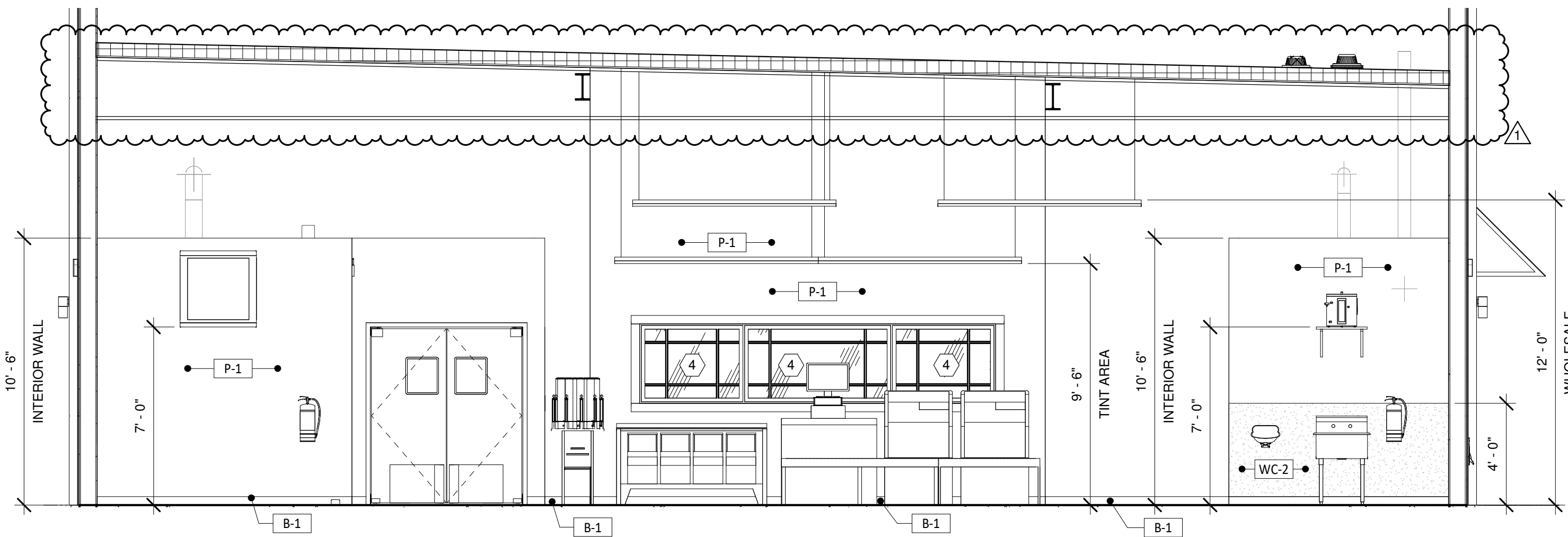
B2 FEATURE WINDOW
1/4" = 1'-0"



B3 OFFICE ELEVATION
1/4" = 1'-0"



A1 ELEVATION AT FEATURE WINDOW
1/4" = 1'-0"



A3 ELEVATION AT UTILITY SINK/TINT AREA
1/4" = 1'-0"

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LENA, IL 61048
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1764 BLAKE ST
DENVER, CO 80202
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DRAWN BY: BA
CHECKED BY: MP

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

SHERWIN WILLIAMS

STORE #:
XXXX

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

SHEET TITLE:

Interior Elevations

SHEET NUMBER:

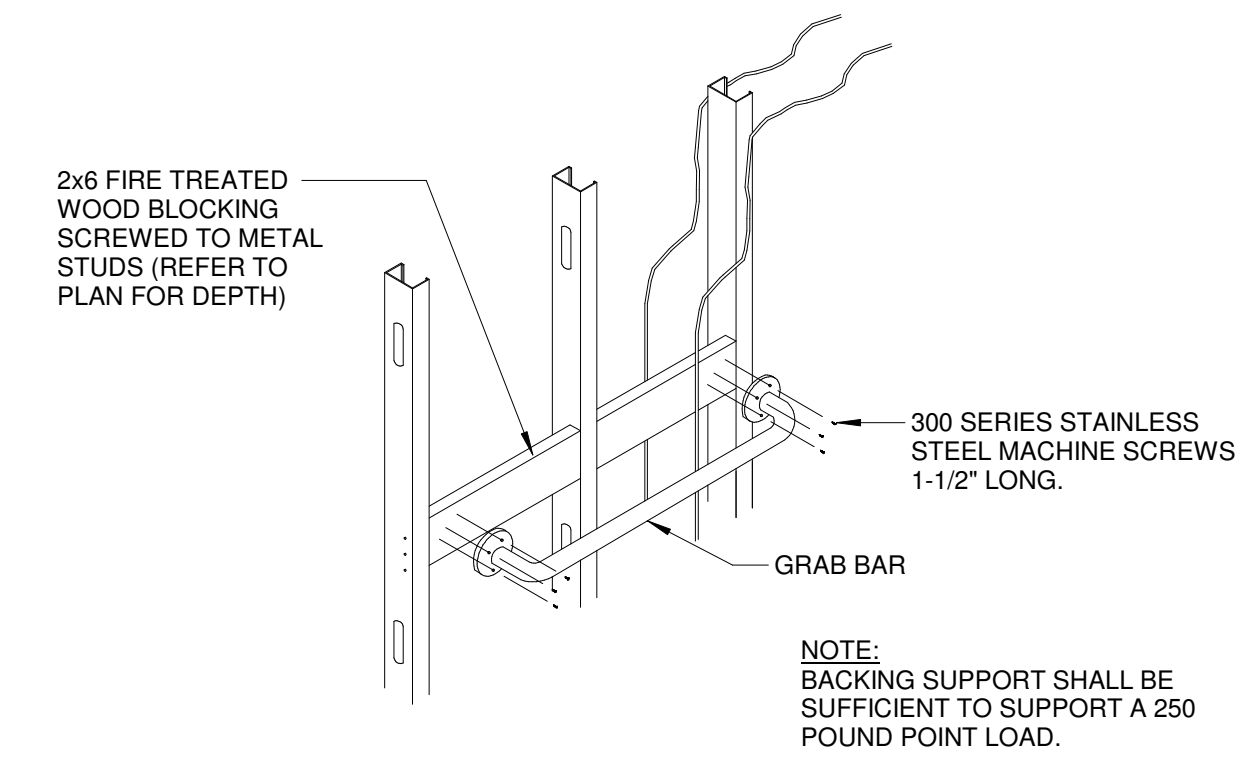
A300

RESTROOM FIXTURE SCHEDULE					
TAG	DESCRIPTION	MANUFACTURER	MODEL	REMARKS	PROVIDED/INSTALLED BY
A	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
B	18" GRAB BAR	BOBRICK	B-6808 X 18	2X6 WOOD BLOCKING FOR 18" VERTICAL GRAB BAR	GC
C	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 RECOMMENDATIONS	TENANT
E	WATER CLOSET	TOTO		1 GALLON PER FLUSH - ENLARGED 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 RECOMMENDATIONS	GC
H	SOAP DISPENSER	BOBRICK	B-2112	INSTALL BLOCKING PER MANUFACTURER RECOMMENDATIONS	TENANT
I	PAPER TOWEL DISPENSER	CINTAS	AUTOMATIC	INSTALL BLOCKING PER MANUFACTURER RECOMMENDATIONS	TENANT
J	SANITARY NAPKIN DISPOSAL	BOBRICK	B-353	RECESSED MOUNTED - INSTALL BLOCKING PER MANUFACTURER RECOMMENDATIONS	TENANT
K	BABY CHANGING STATION	BOBRICK	KB200-01	INSTALL BLOCKING PER MANUFACTURER RECOMMENDATIONS	TENANT

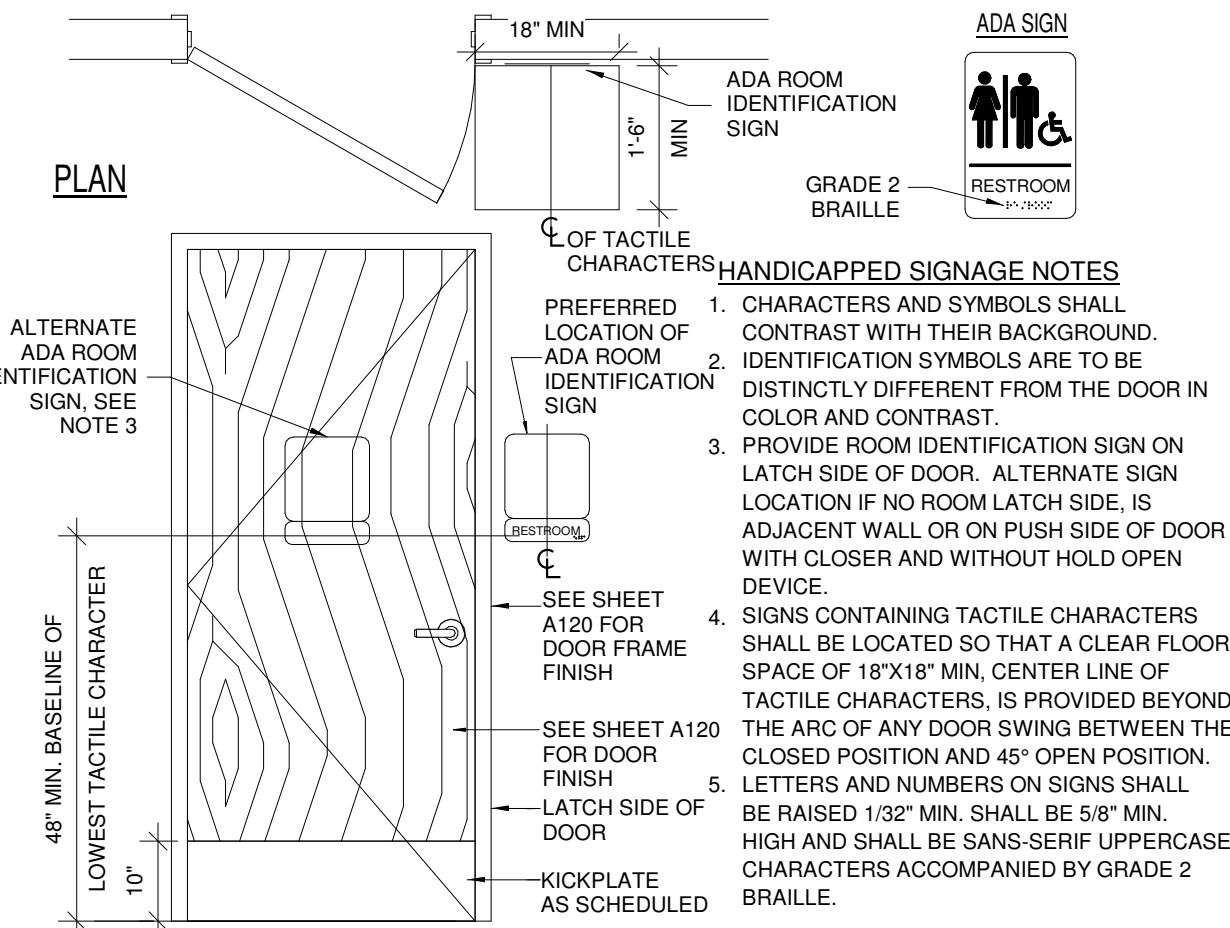
GENERAL NOTES

- 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.
- 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.
- THE FORCE REQUIRED TO ACTIVATE WATER CLOSET AND URINAL FLUSH VALVE CONTROLS, AND FAUCET AND OPERATING CONTROLS, SHALL BE NO GREATER THAN 5 LBF.
- SEE SHEET A110 FOR WALL DIMENSIONS.
- USE MOISTURE RESISTANT GYPSUM BOARD AT WALLS BEHIND PLUMBING FIXTURES.
- PROVIDE BATT INSULATION IN WALLS WHERE SCHEDULED ON SHEET A110.

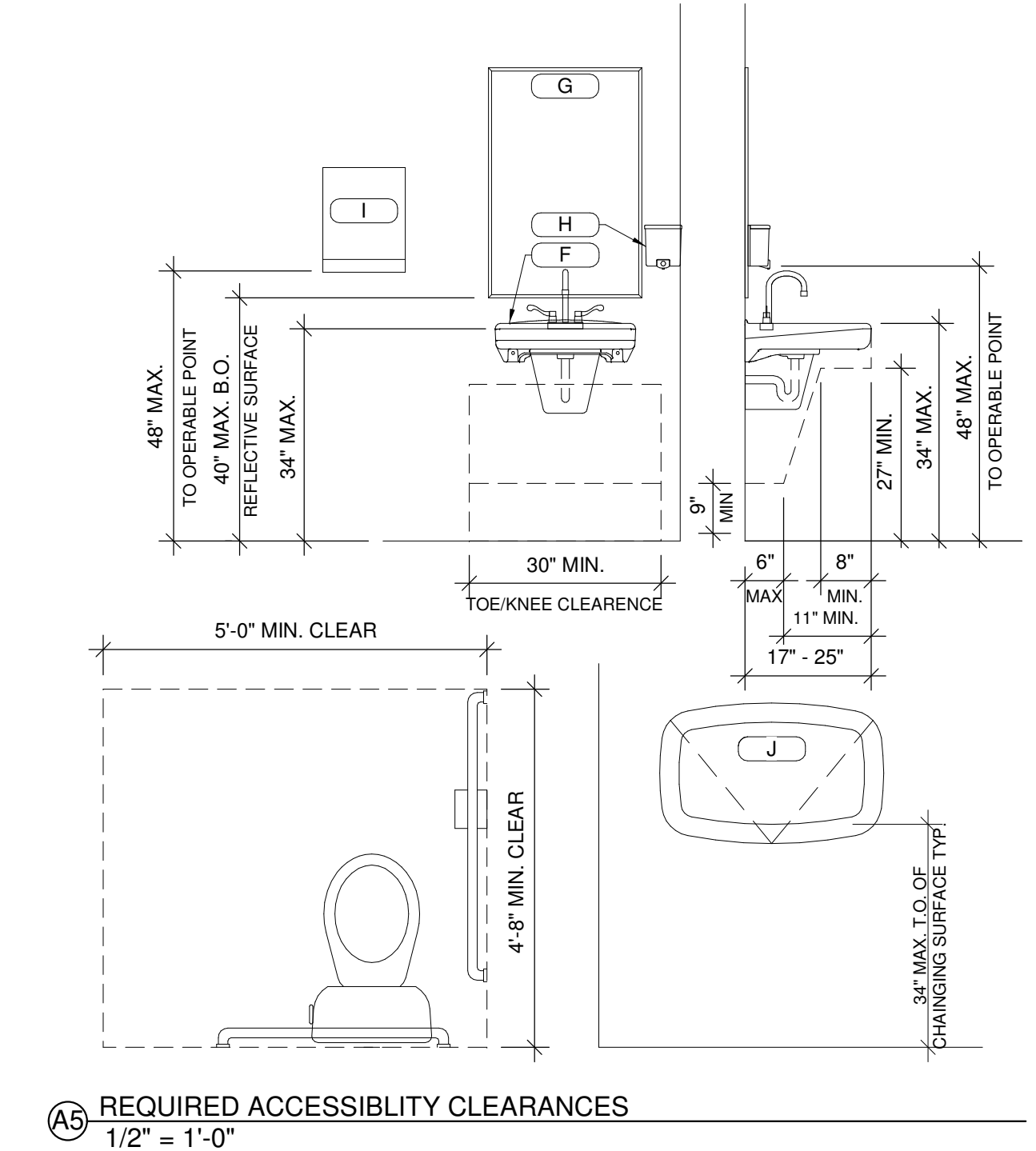
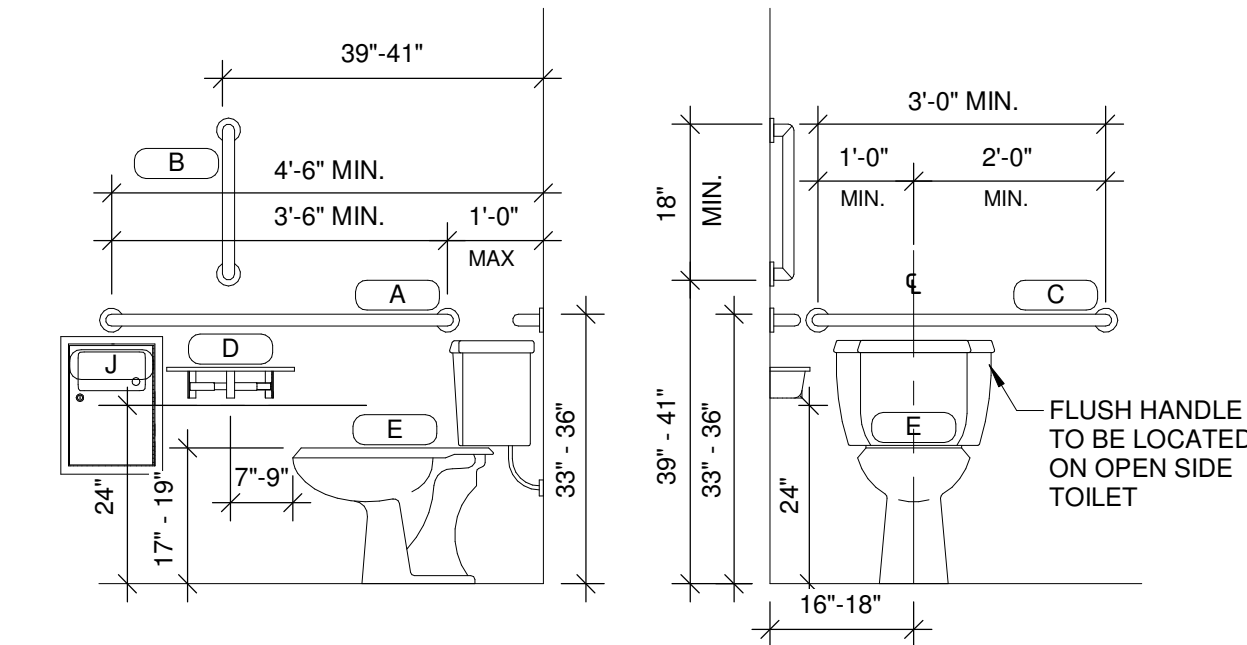
- XX-X FINISH TAG - SEE FINISH SCHEDULE ON SHEET A120
- # DOOR TAG - SEE DOOR SCHEDULE ON SHEET A110



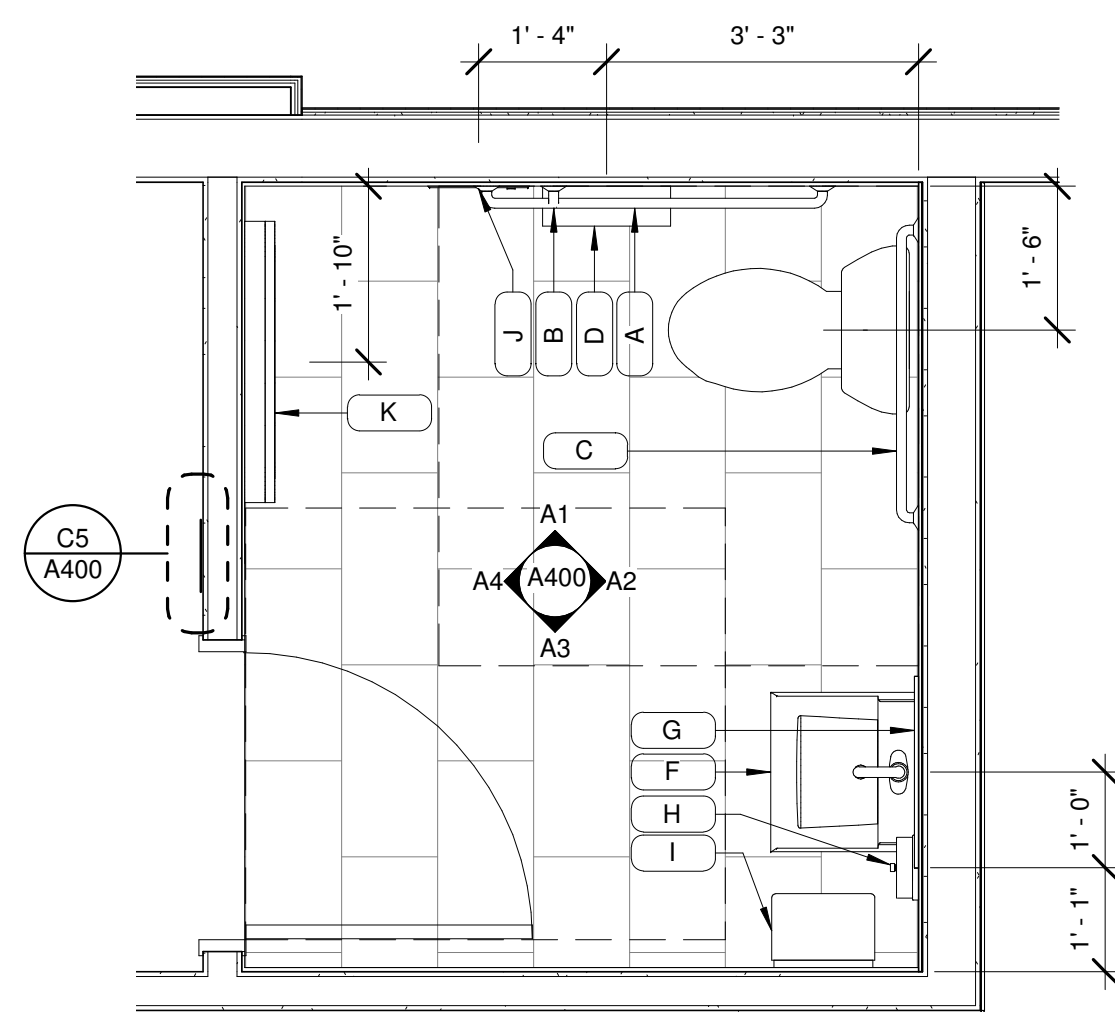
D5 TYP. GRAB BAR ATTACHMENT DETAIL
1/2" = 1'-0"



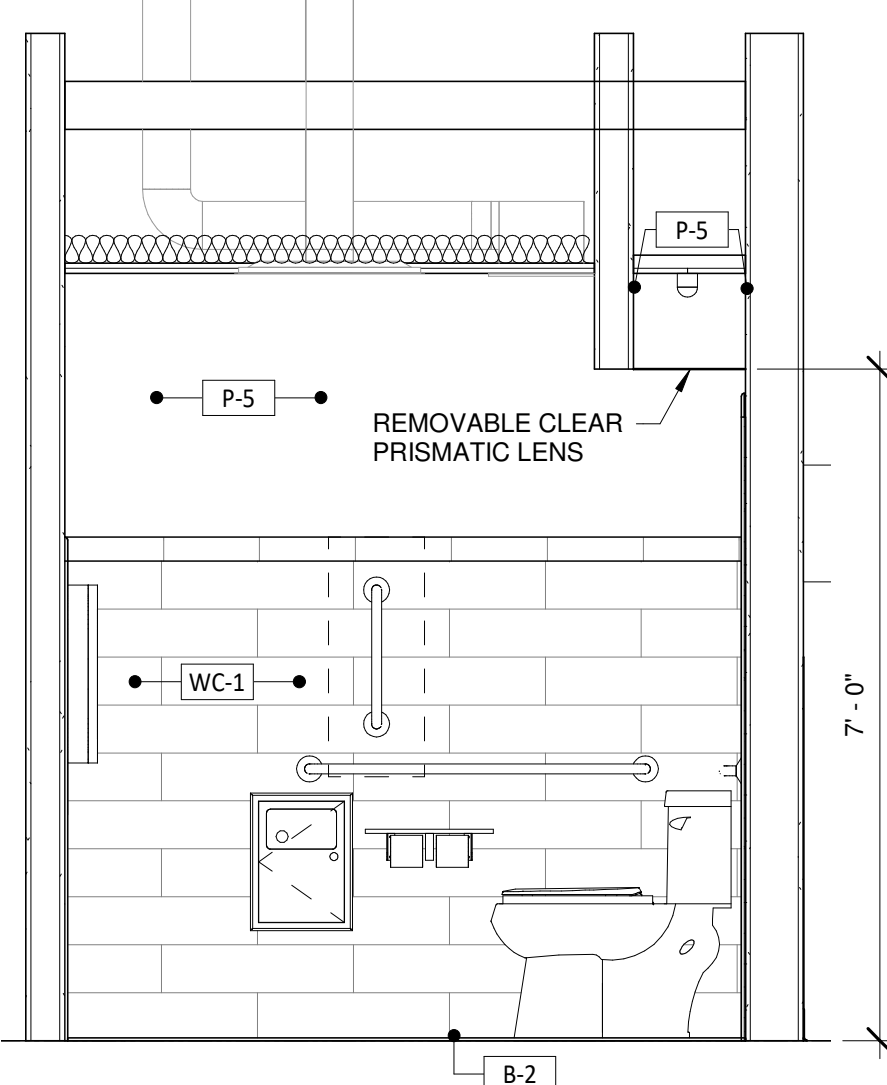
C5 RESTROOM SIGNAGE DETAIL PER ICC A117.1
1/2" = 1'-0"



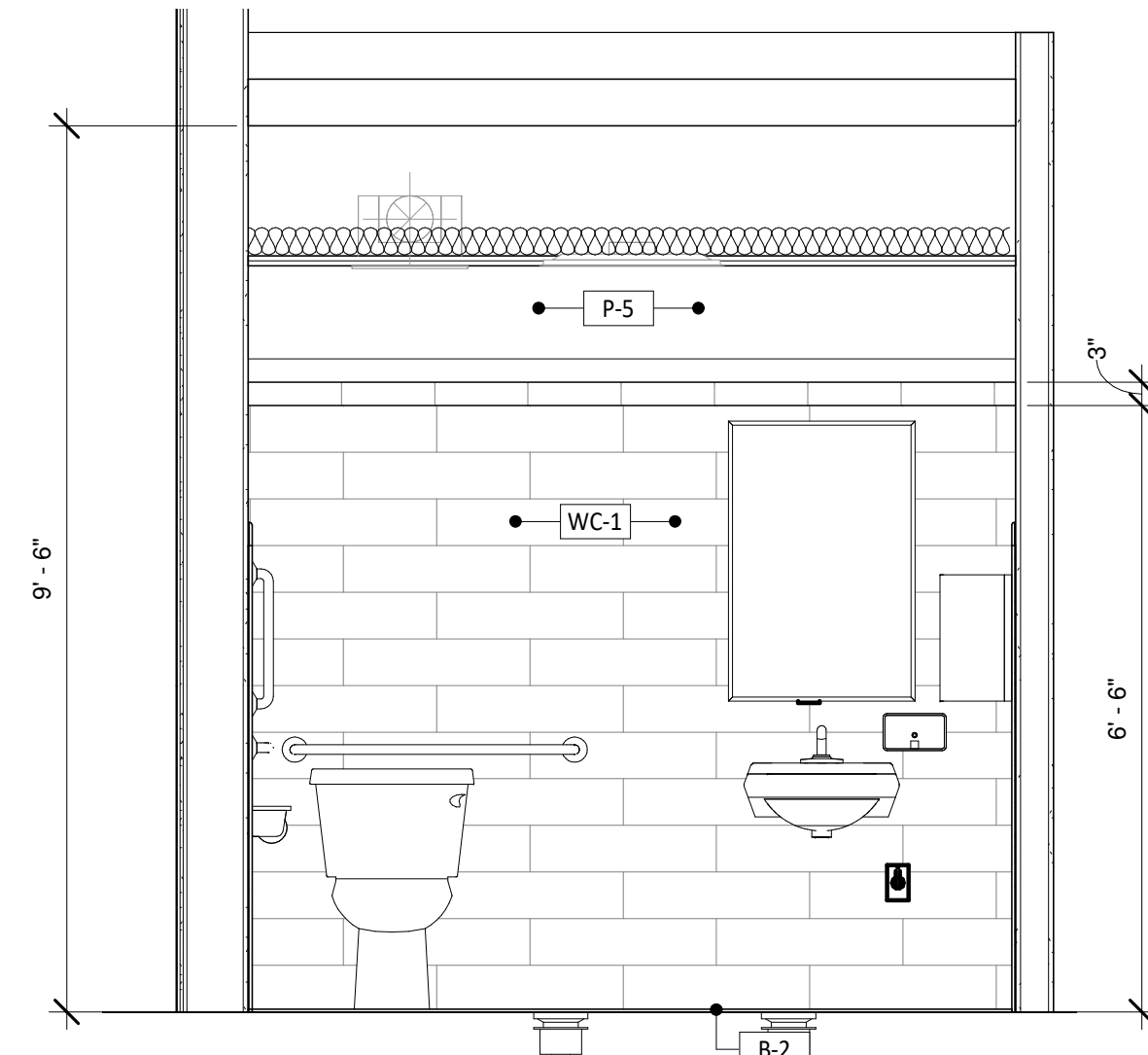
A5 REQUIRED ACCESSIBILITY CLEARANCES
1/2" = 1'-0"



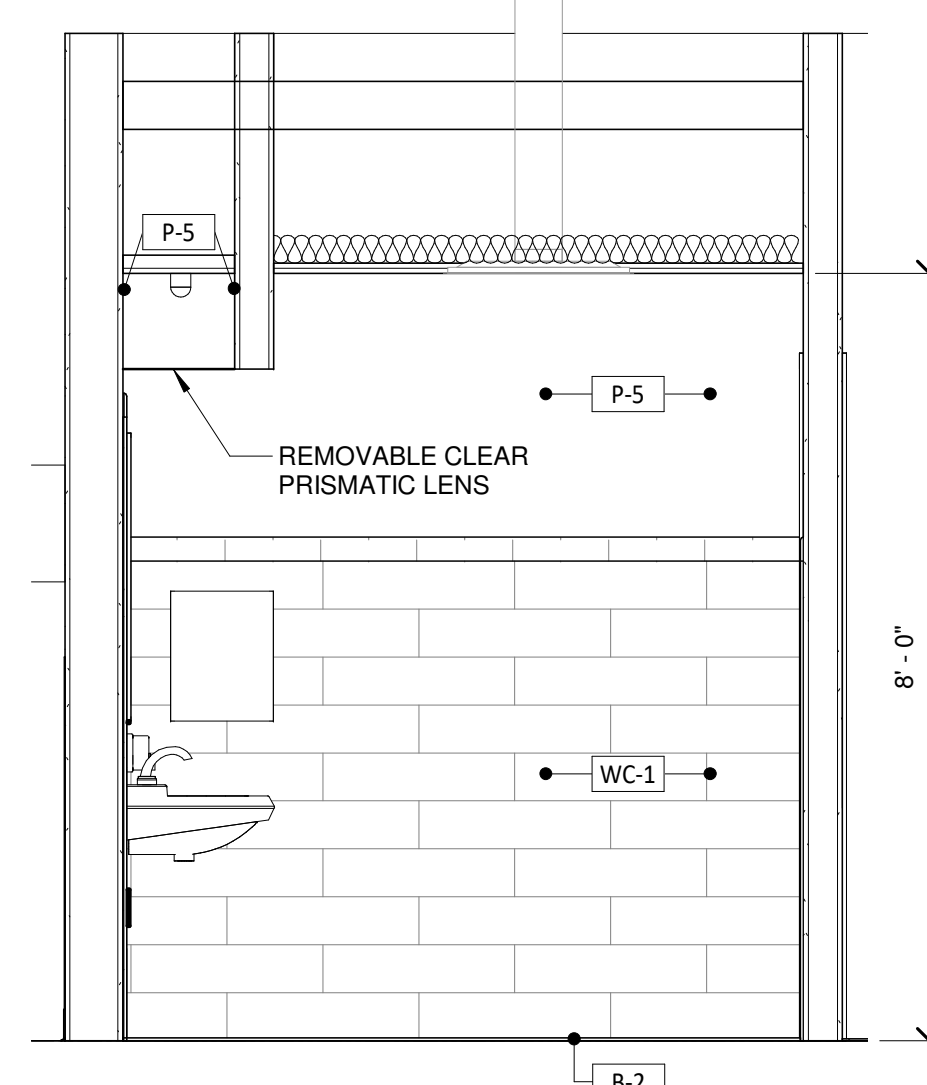
C1 Enlarged Restroom Plan
1/2" = 1'-0"



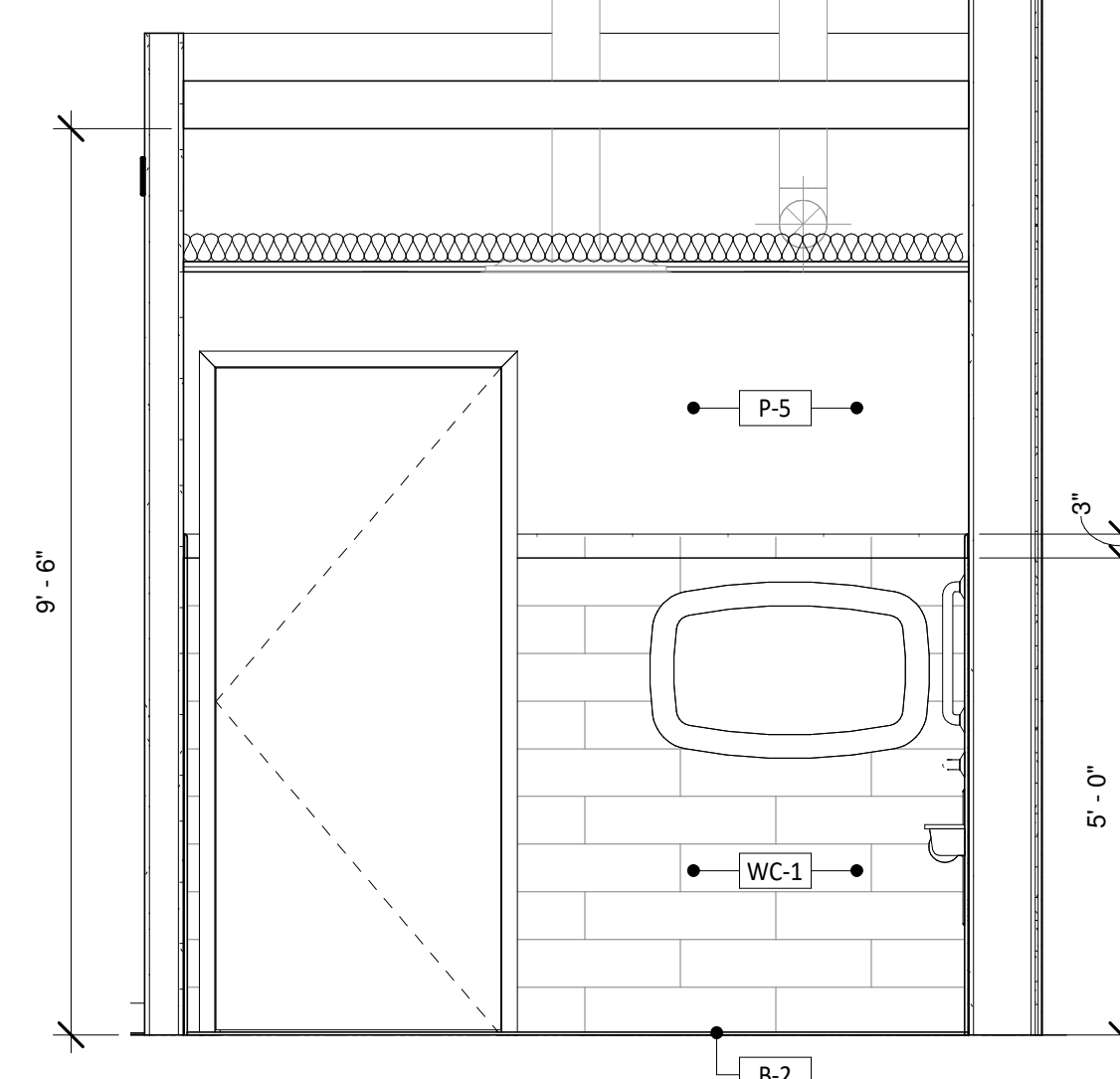
A1 RESTROOM ELEVATION
1/2" = 1'-0"



A2 RESTROOM ELEVATION
1/2" = 1'-0"



A3 RESTROOM ELEVATION
1/2" = 1'-0"



A4 RESTROOM ELEVATION
1/2" = 1'-0"

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

REGISTERED ARCHITECT
STATE OF TEXAS
18179
13/2024
PROJECT #:
TBD
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:
Enlarged Restroom
Plan

SHEET NUMBER:
A400

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 DRAWINGS.
- 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 REINFORCEMENT.
- 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.
- HOOKEED 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	fc = 4,000 psi	fc = 4,500 psi	fc = 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

- 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.
- 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)								
fc =	3,500psi	3,500psi	4,000psi	4,000psi	4,500psi	4,500psi	5,000psi	5,000psi
BAR SIZE	CASE 1	CASE 2	CASE 1	CASE 2	CASE 1	CASE 2	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 BIT.
- 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). 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%
- 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.

LUMBER TABLE		
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 OVERTURNE 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"	VARIABLES 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 AISC "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 = M
- 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
- 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, (fm) = 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 FOUNDATION PLAN.
- 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 NOTED OTHERWISE.
- 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.
- 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.
- REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60, UNLESS NOTED ON DRAWINGS. REINFORCING TO BE WELDED SHALL CONFORM TO ASTM A706.
- 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 CAST.
- SPLICED REINFORCING SHALL BE LAPPED ACCORDING TO "MASONRY LAP SPLICE LENGTH" TABLE. SPLICED BARS SHALL BE WIRED TOGETHER. CONTRACTOR MAY OPT TO STAGGER SPLICES.
- VERTICAL BARS SHALL BE HELD IN POSITION AT TOP AND BOTTOM AND AT INTERVALS NOT EXCEEDING 192 DIAMETERS OF THE REINFORCING OR 10'-0"
- REINFORCING STEEL SHALL BE SECURELY TIED IN PLACE AND INSPECTED BEFORE GROUTING STARTS.
- VERTICAL GROUTING MAY BE EITHER "LOW LIFT" OR "HIGH LIFT" AT THE CONTRACTOR'S OPTION.
- VERTICAL CELLS THAT WILL BE GROUTED SHALL HAVE VERTICAL ALIGNMENT TO MAINTAIN A CONTINUOUS UNOBSTRUCTED CELL AREA NOT LESS THAN 2"x3".
- GROUTING OF MASONRY BEAMS OVER OPENINGS SHALL BE DONE IN ONE CONTINUOUS OPERATION.
- 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.
- INSULATION INSERTS ARE NOT PERMITTED IN GROUTED CELLS.
- 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.

fm = 1,500 psi - MASONRY LAP SPLICE LENGTH TABLE (INCHES)						
BAR SIZE	CMU SIZE	8"	10"	10"	12"	12"
			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

LINGLE DESIGN GROUP, INC.

LINGLEDESIGNGROUP,INC
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDESIGN.COM

CASE
Engineering Inc.

796 Merus Court
St. Louis, MO 63026

T 636.349.1600
F 636.349.1730

CERTIFICATE OF AUTHORITY NO. F-20080

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1100X2023

01/12/24

PROJECT #:
LDG-TX-05-23

DRAWN BY: KJG CHECKED BY: RLR / SJS

- CHECK SET - 11/15/2023
- DEVELOPER COMMENTS - 01/12/2024
- △ .
 - △ .
 - △ .
 - △ .
 - △ .
 - △ .

SHERWIN WILLIAMS

STORE #:
XXXX

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

SHEET TITLE:

GENERAL NOTES

SHEET NUMBER:

S1.2

SPECIAL INSPECTIONS

- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- SPECIAL INSPECTIONS AND TESTS ARE NOT REQUIRED FOR PORTIONS OF STRUCTURES DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE COLD-FORMED 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 - 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 ELEMENTS AND ASSEMBLIES, 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 NOT REQUIRED FOR FABRICATORS APPROVED BY THE BUILDING OFFICIAL IN ACCORDANCE WITH THE CODE

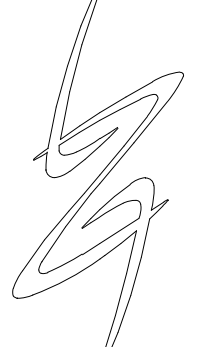
SPECIAL INSPECTIONS - STEEL TABLE		
ITEM	INSPECTION FREQUENCY	SCOPE
MATERIAL VERIFICATION	PERIODIC	HIGH STRENGTH BOLTS, NUTS, AND WASHERS: REVIEW MANUFACTURER'S CERTIFICATE OF COMPLIANCE; IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE CONSTRUCTION DOCUMENTS
MATERIAL VERIFICATION	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) FOR OCCUPANCY 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 f _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

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

LINGLE DESIGN GROUP, INC.



LINGLEDISIGNGROUP,INC
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDISIGN.COM

CASE Engineering Inc.

796 Menus Court St. Louis, MO 63026 T 636.349.1600 F 636.349.1730
CERTIFICATE OF AUTHORITY NO. F-20080

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11/0X/2023



01/12/24

PROJECT #:
LDG-TX-05-23
DRAWN BY: KJG CHECKED BY: RLR / SJS

- CHECK SET - 11/15/2023
- △ DEVELOPER COMMENTS - 01/12/2024
 - △ -
 - △ -
 - △ -
 - △ -
 - △ -

SHERWIN WILLIAMS

STORE #:
XXXX

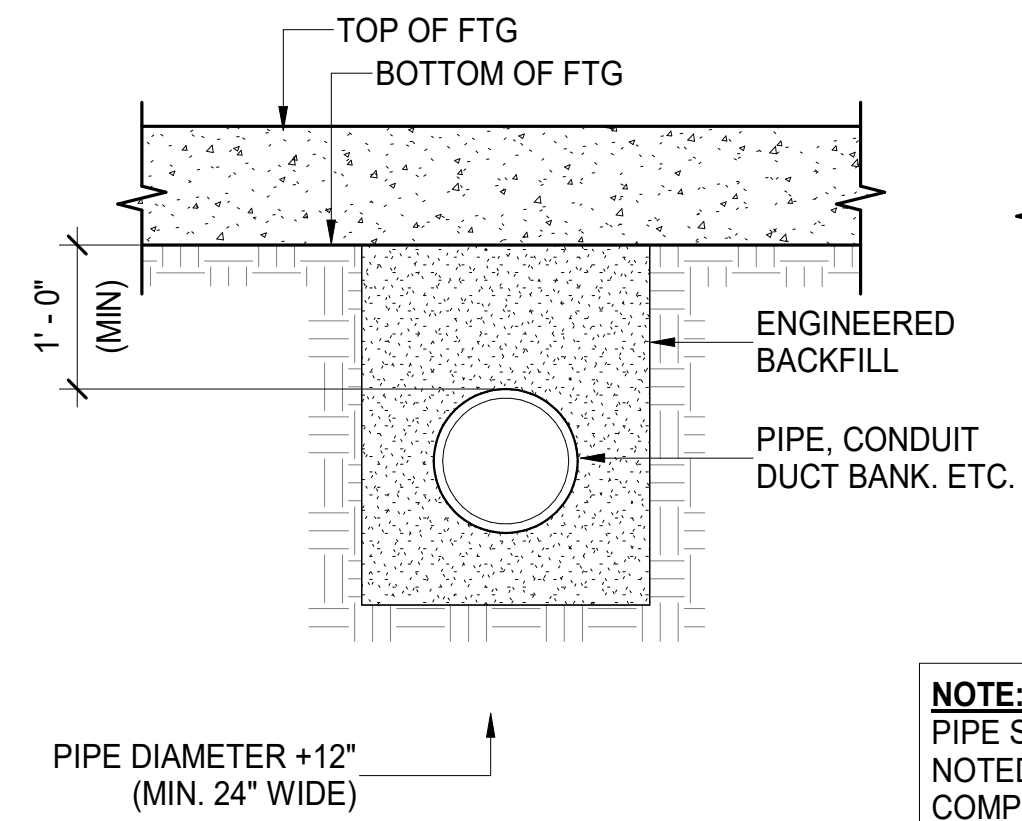
ADDRESS:
2101 AVONDALE-HASLET RD, HASLET, TX 76052

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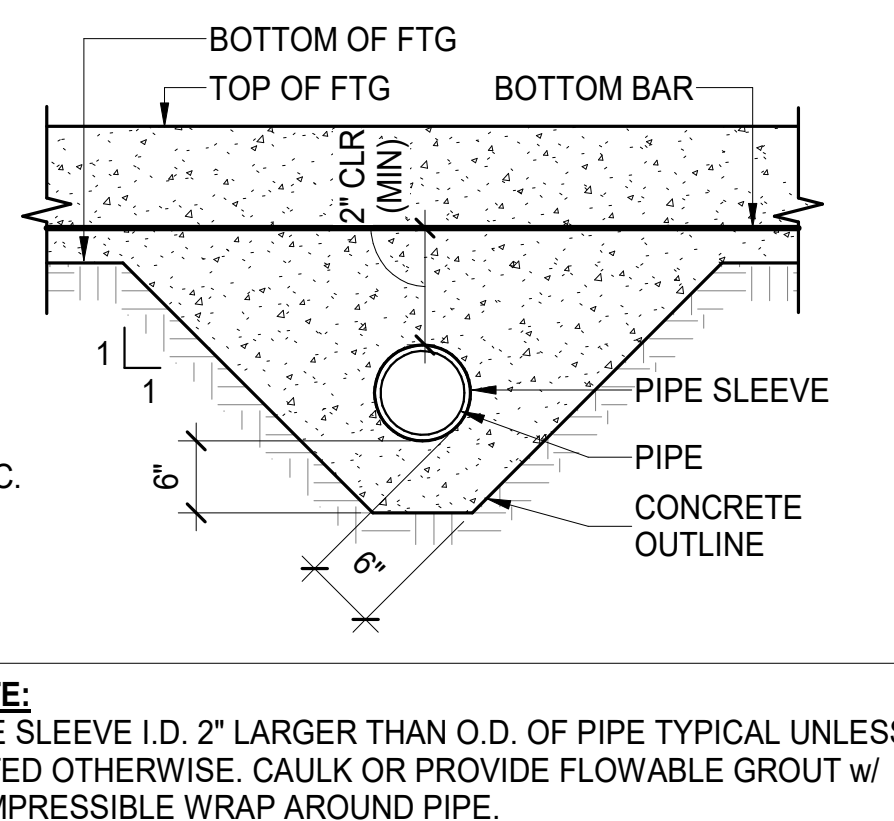
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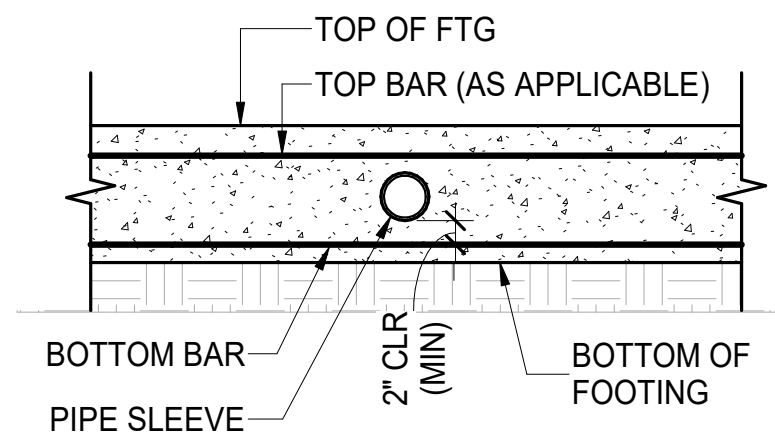
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BELOW BOTTOM OF FOOTING

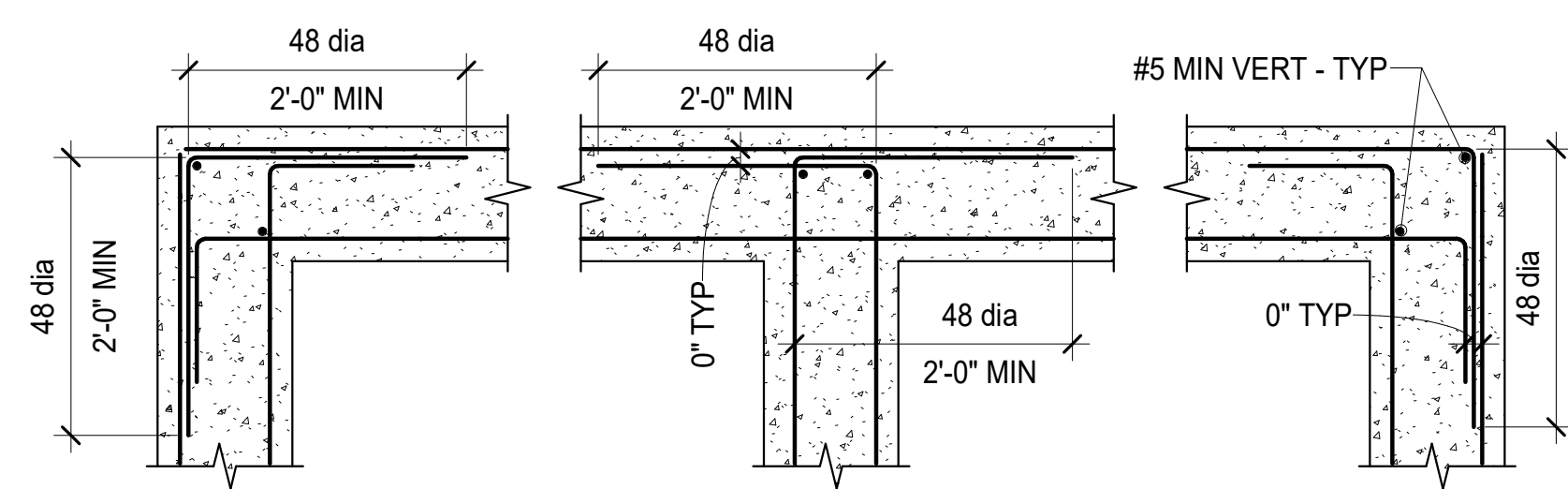


CLOSE TO BOTTOM OF FOOTING

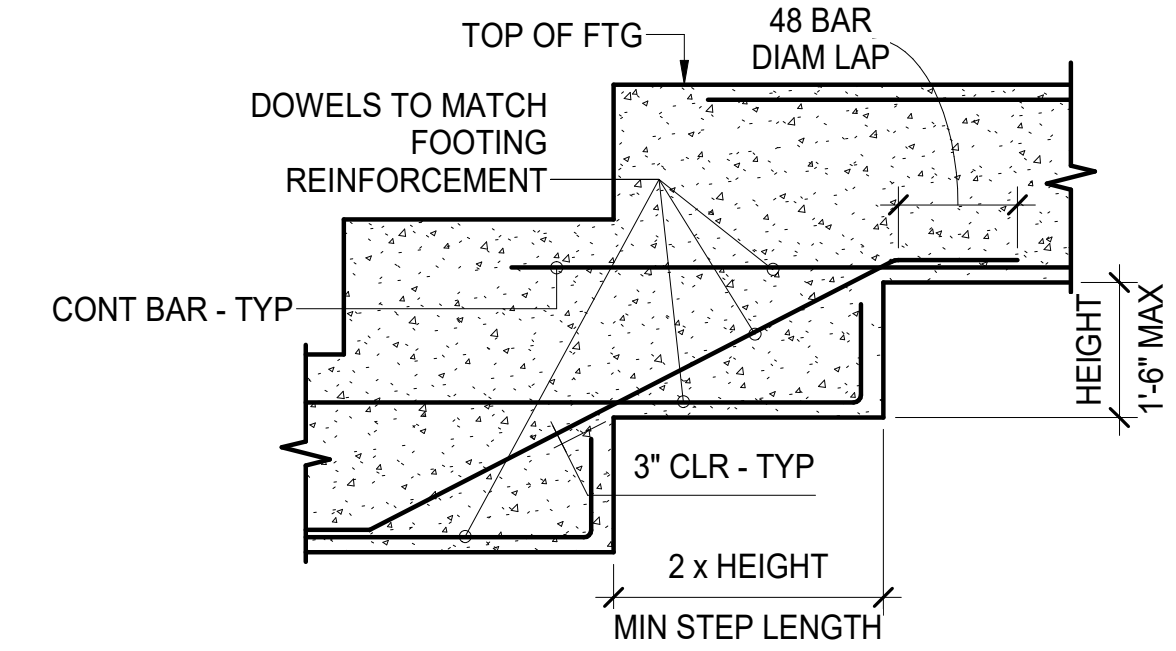


CLEAR OF TOP & BOTTOM BAR IN FOOTING OR FOUNDATION WALL (OR TRENCH FOOTING/GRADE BM.)

- NOTES:**
- WHERE SINGLE CURTAIN OF REINFORCING OCCURS, BEND BARS AS SHOWN FOR OUTSIDE BARS.
 - FOR MORE THAN 2 BARS PER LAYER, EXTEND INNER BARS 12" INTO PERPENDICULAR FOOTING. OUTER BARS SHALL BE PLACED AS INDICATED.
 - CORNER BARS TO MATCH WALL REINFORCEMENT.



TYP CONCRETE WALL REINFORCEMENT



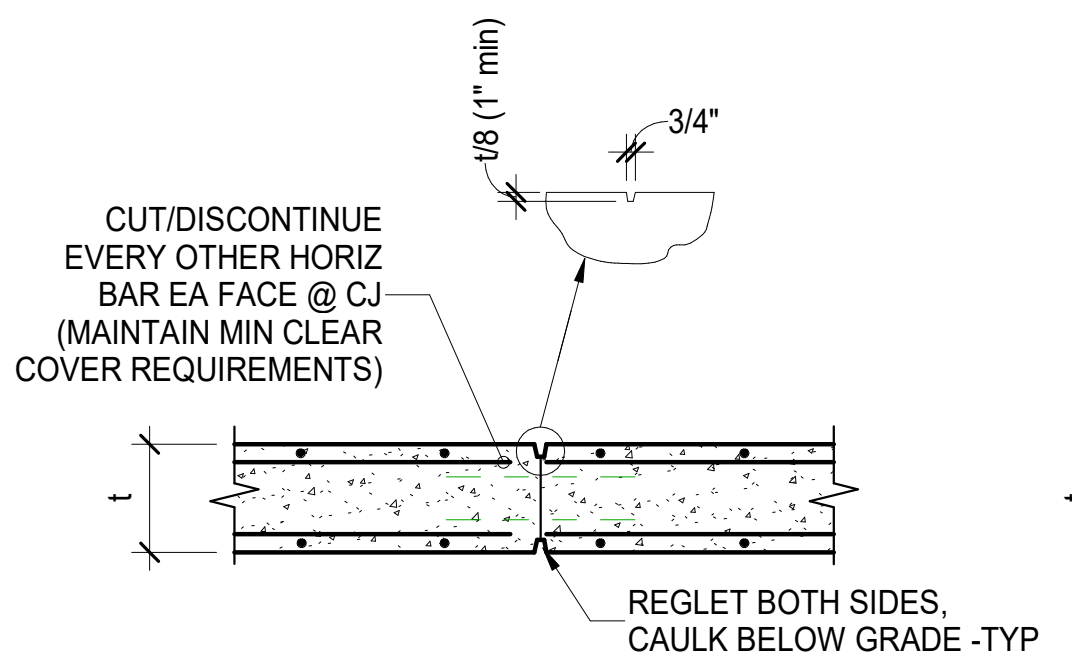
TYP FOOTING STEP

TYP FOUNDATION PIPE PENETRATION DETAILS

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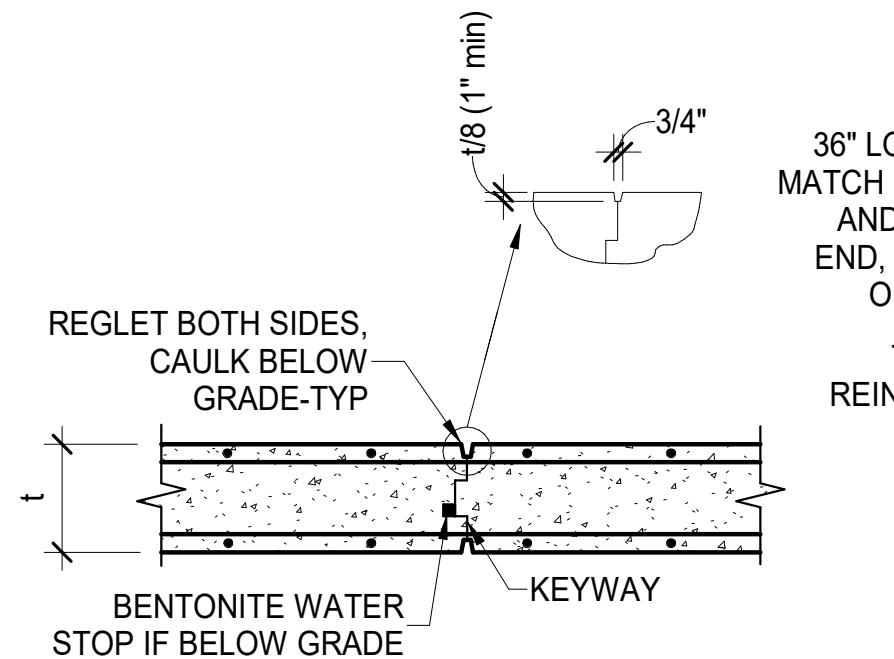
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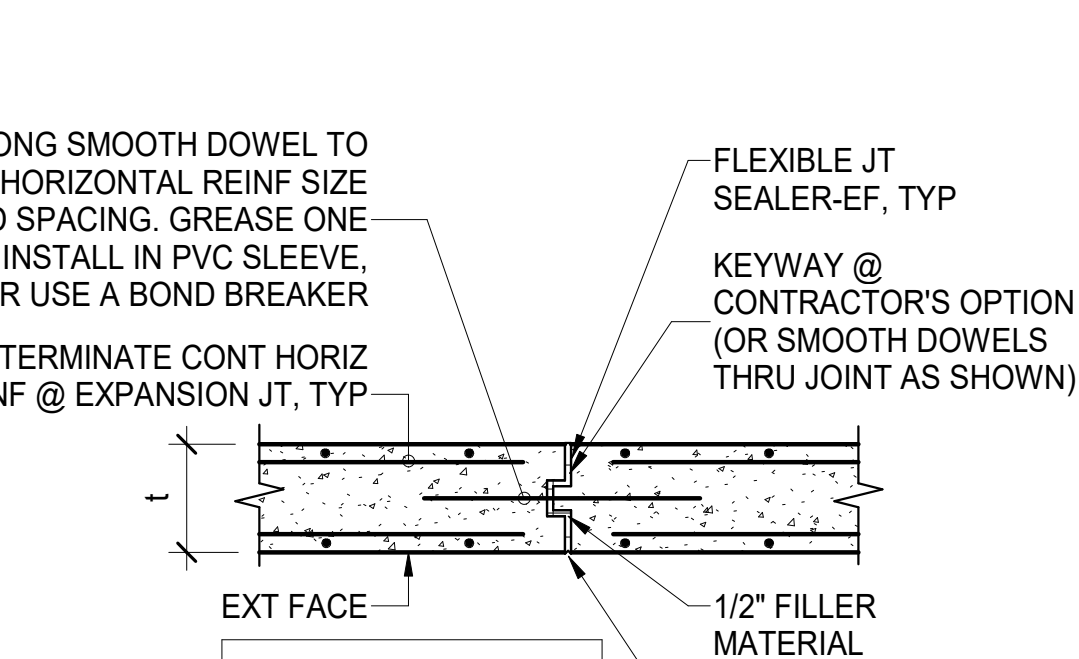
NOTE:
25'-0"oc MAX. SPACING OR AS APPROVED BY OWNER/ARCHITECT/ENGINEER

CONTROL JOINT



NOTE:
LOCATION TO BE BY CONTRACTOR.

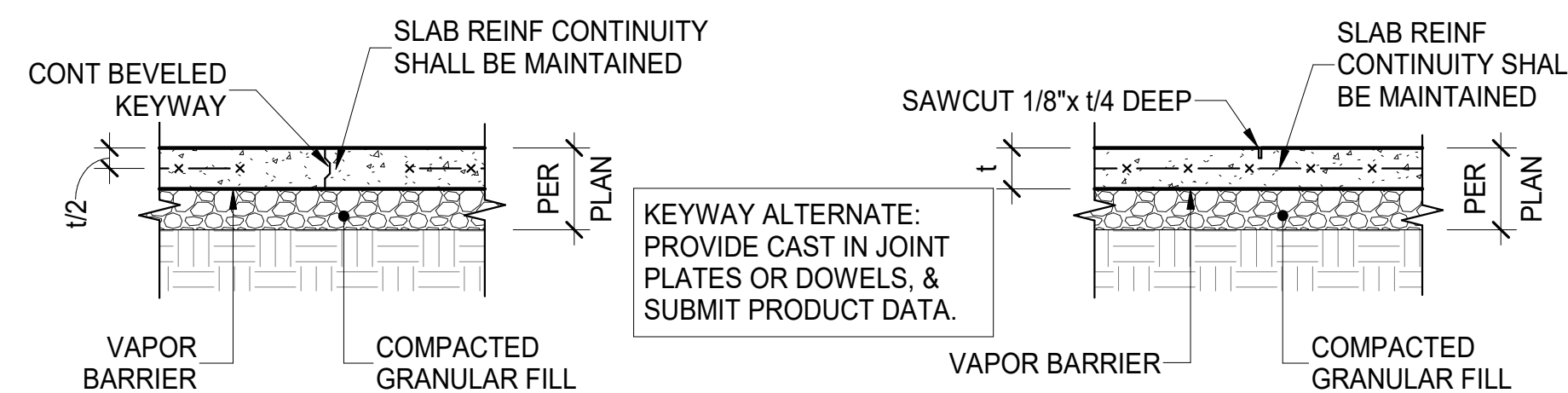
CONSTRUCTION JOINT



NOTE:
MAX EXPANSION JOINT SPACING = 100'-0"

EXPANSION JOINT

- NOTES:**
- SAW-CUT CONTROL JOINTS TO BE CUT AS SOON AS SURFACE WILL NOT BE TORN, ABRADED, OR OTHERWISE DAMAGED BY CUTTING ACTION. (WITHIN 8 TO 10 HOURS OF BURNISHING)
 - SPACE CONTROL JOINTS AT 15'-0" MAX. FOR INTERIOR SLABS UNO ON PLANS.
 - CONSTRUCTION JOINTS TO BE USED AT END OF EACH POUR.

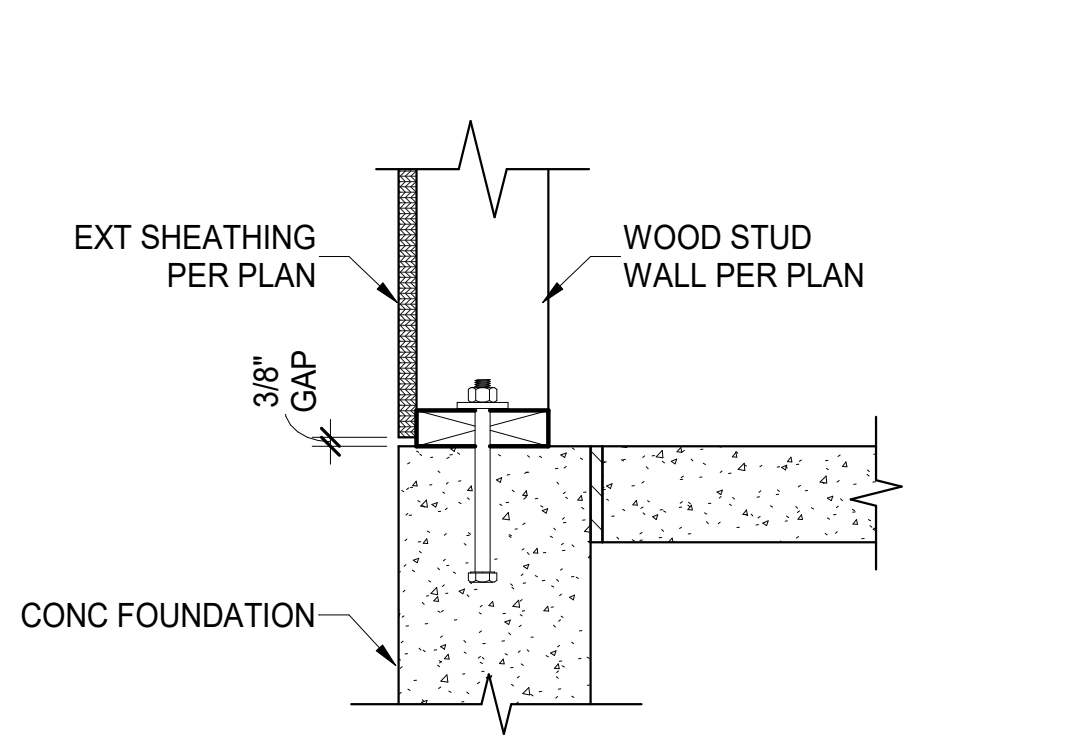


TYP SLAB-ON-GRADE CONSTRUCTION JOINT DETAILS

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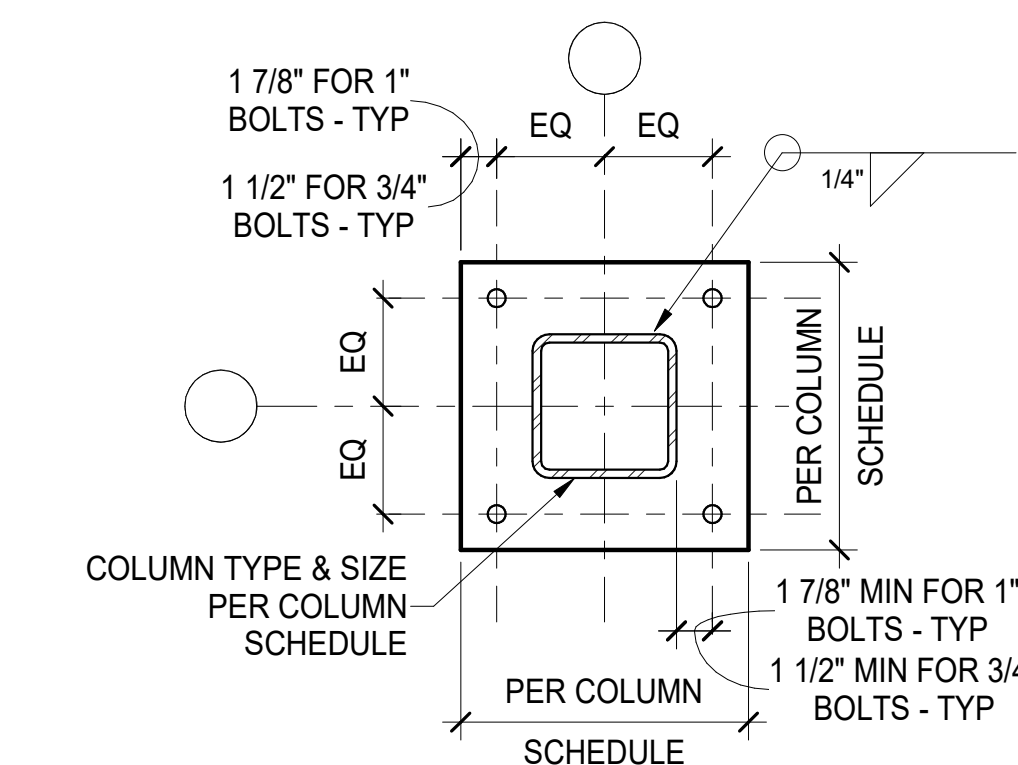
TYP REIN @ INTERIOR CORNERS

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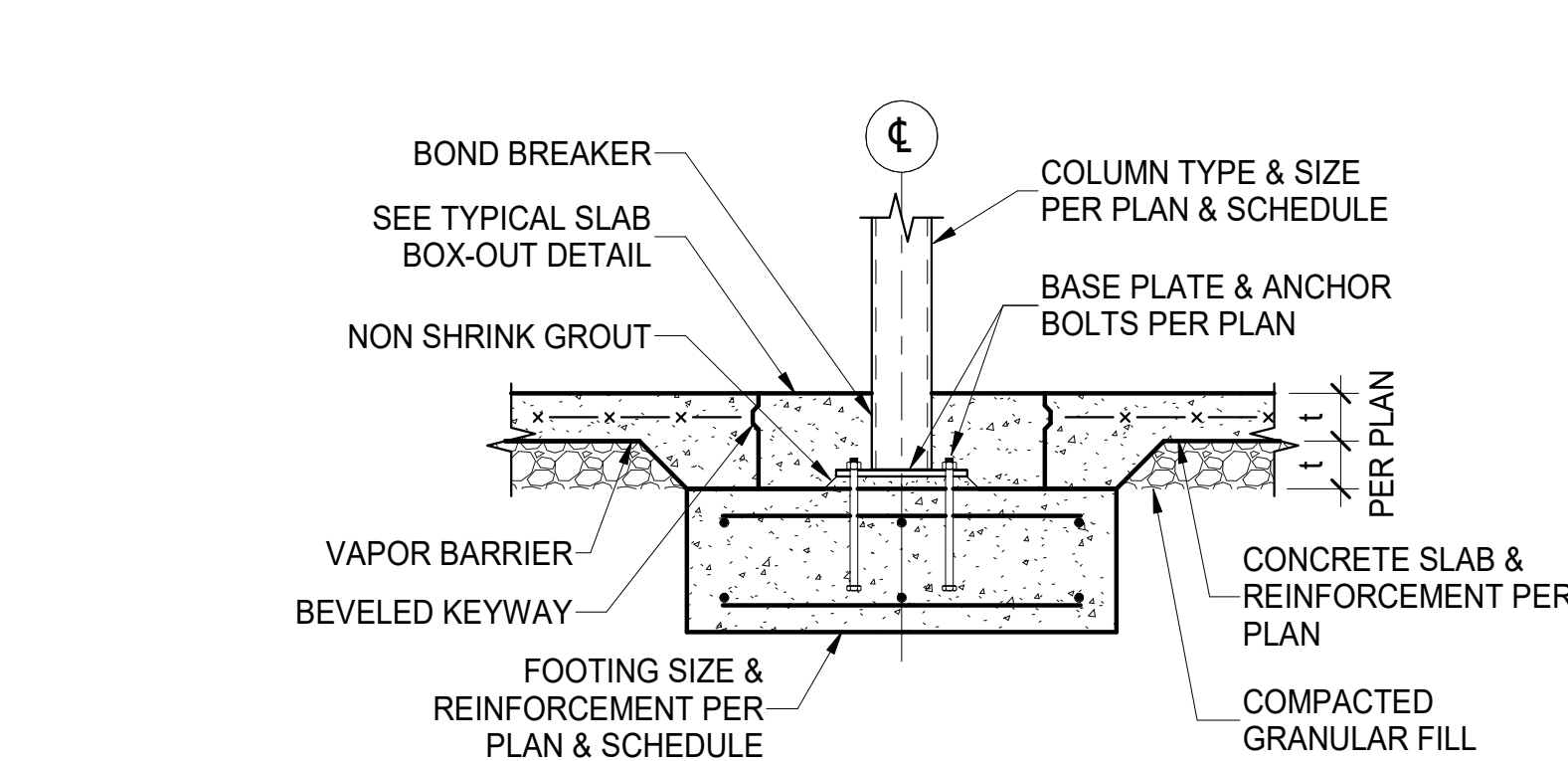
TYPICAL SHEATHING GAP DETAIL

S1.4 N.T.S.



TYP BASE PLATE DETAIL

S1.4 N.T.S.



TYP INTERIOR COLUMN

S1.4 N.T.S.

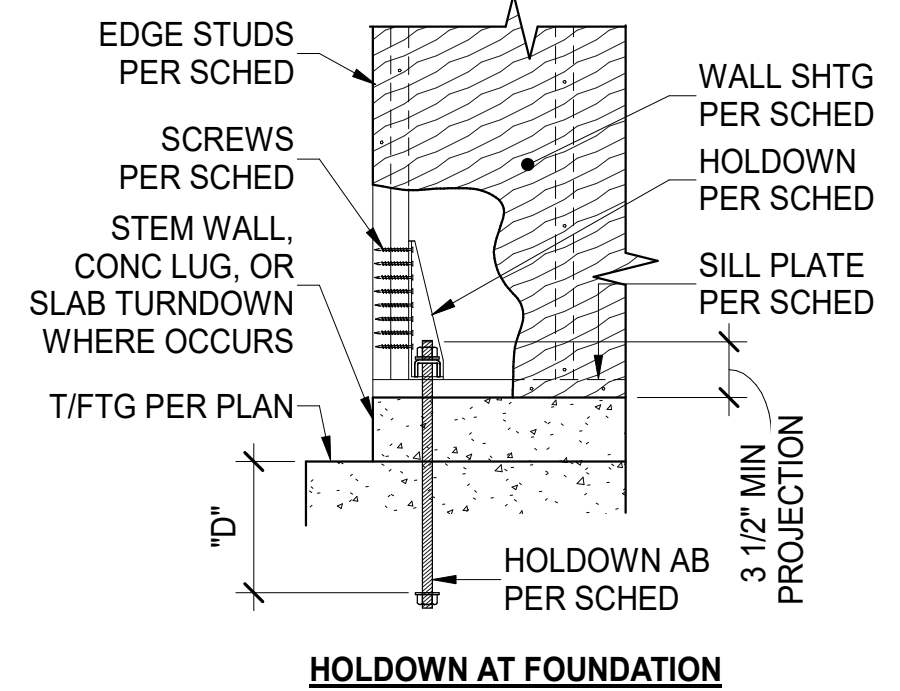
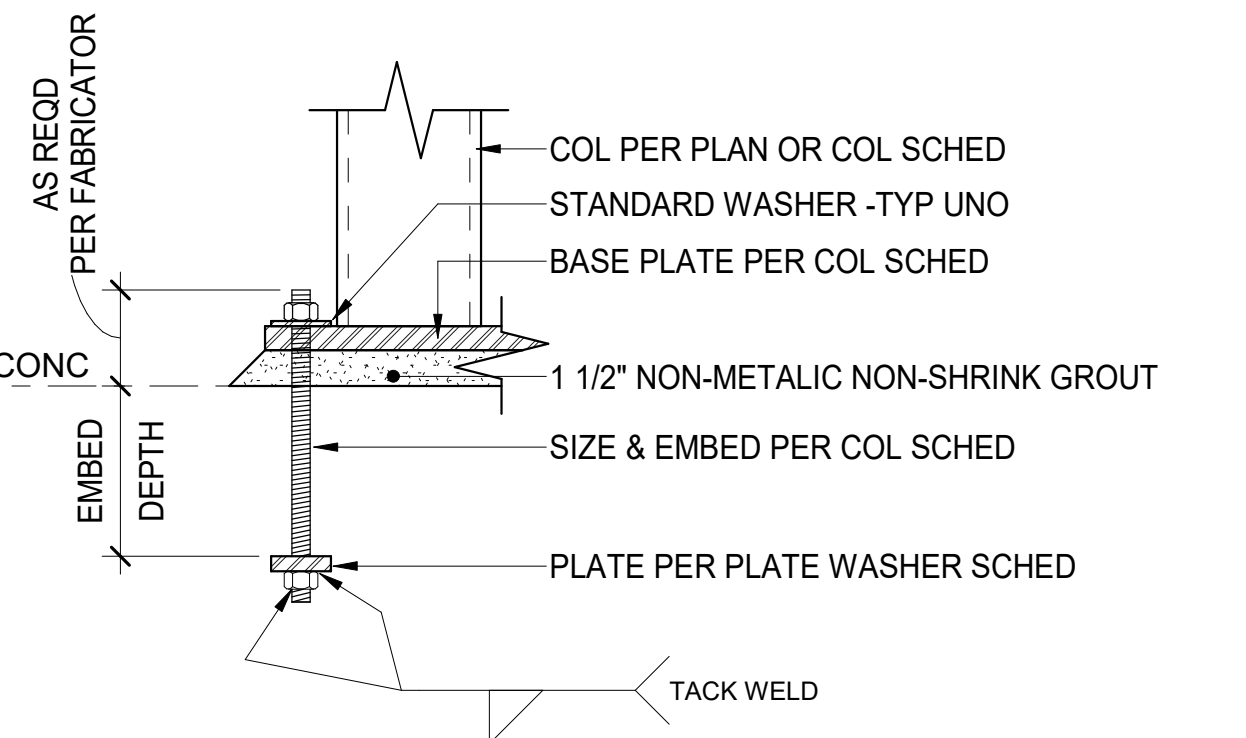
NOTE:
ANCHOR RODS TO BE ASTM F1554, GRADE 36, FULLY-THREADED RODS w/ PLATE WASHER & NUT ON BOTTOM-TYP, UNO

ANCHOR ROD DIAMETER	PLATE WASHER SIZE
LESS THAN 3/4"	2 1/2" x 2 1/2" x 1"
3/4"	2 1/2" x 2 1/2" x 5/8"
1"	3" x 3" x 5/8"
1 1/4"	3 1/2" x 3 1/2" x 5/8"
1 1/2"	4" x 4" x 5/8"

*t = ANCHOR ROD DIAMETER, MIN

TYP ANCHOR BOLT DETAIL

S1.4 N.T.S.



TYP HOLDOWN SCHEDULE & DETAILS

S1.4 N.T.S.

MARK	EDGE STUDS	HOLDOWN SCHEDULE			
		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"
(B)	2 - 2x	HDU4-SDS2.5	10	5/8" GR.36	10"
(C)	2 - 2x	HDU5-SDS2.5	14	5/8" GR.36	12"
(D)	3 - 2x	HDU8-SDS2.5	20	7/8" GR.36	14"
(E)	6x	HHDU11-SDS2.5	30	1" GR.36	16"

- NOTES:**
- 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 ALLOWED.
 - 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.

- NOTES:**
- TYPICAL ANCHOR BOLT END DISTANCE L = 4 1/2" MIN, 12" MAX.
 - 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.
 - 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 EMBEDDED 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.

TYPICAL SILL PLATE ANCHOR BOLT DETAIL

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

CASE Engineering Inc.
796 Menus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. F-20080

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STATE OF TEXAS
STEPHEN J. SACCO
110974
LICENSED PROFESSIONAL ENGINEER
01/12/24

PROJECT #
LDG-TX-05-23
DRAWN BY: K/JG
CHECKED BY: RLR/SJS

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

SHERWIN WILLIAMS

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

SHEET TITLE:

TYPICAL DETAILS

SHEET NUMBER:

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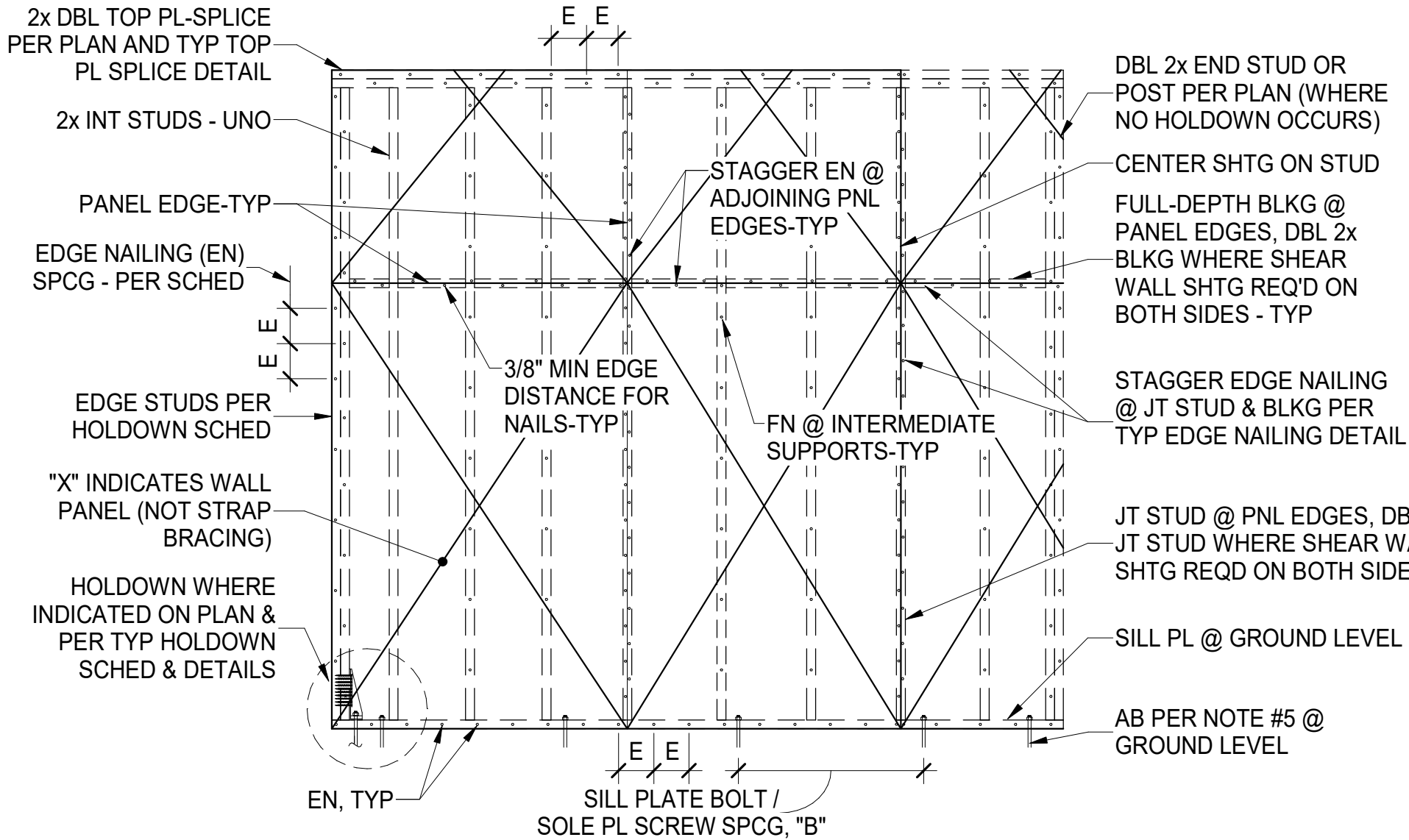
SILL PL BOLTS & SOLE PL SCREWS SCHEDULE			
MARK	WALL SIDES SHEATHED	FASTENER SPACING "B" (NOTES #5-6)	
		BOLT	SCREW
⑥	1	34"	5"
	2	16"	2"
④	1	22"	3"
	2	10"	1.5"
③	1	16"	2"
	2	8"	1"

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"

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

NOTES:

- 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 GREATER.
- 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.

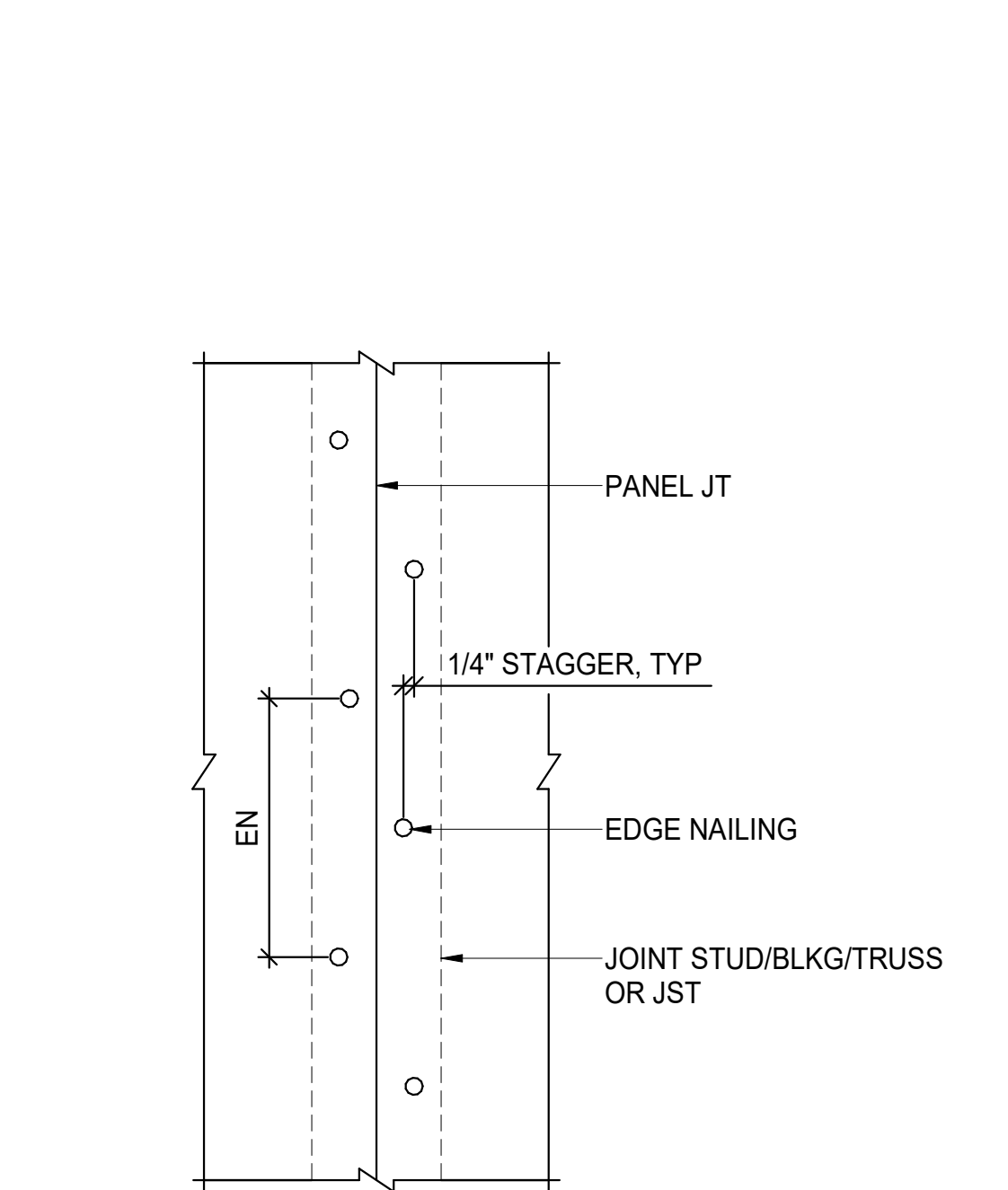
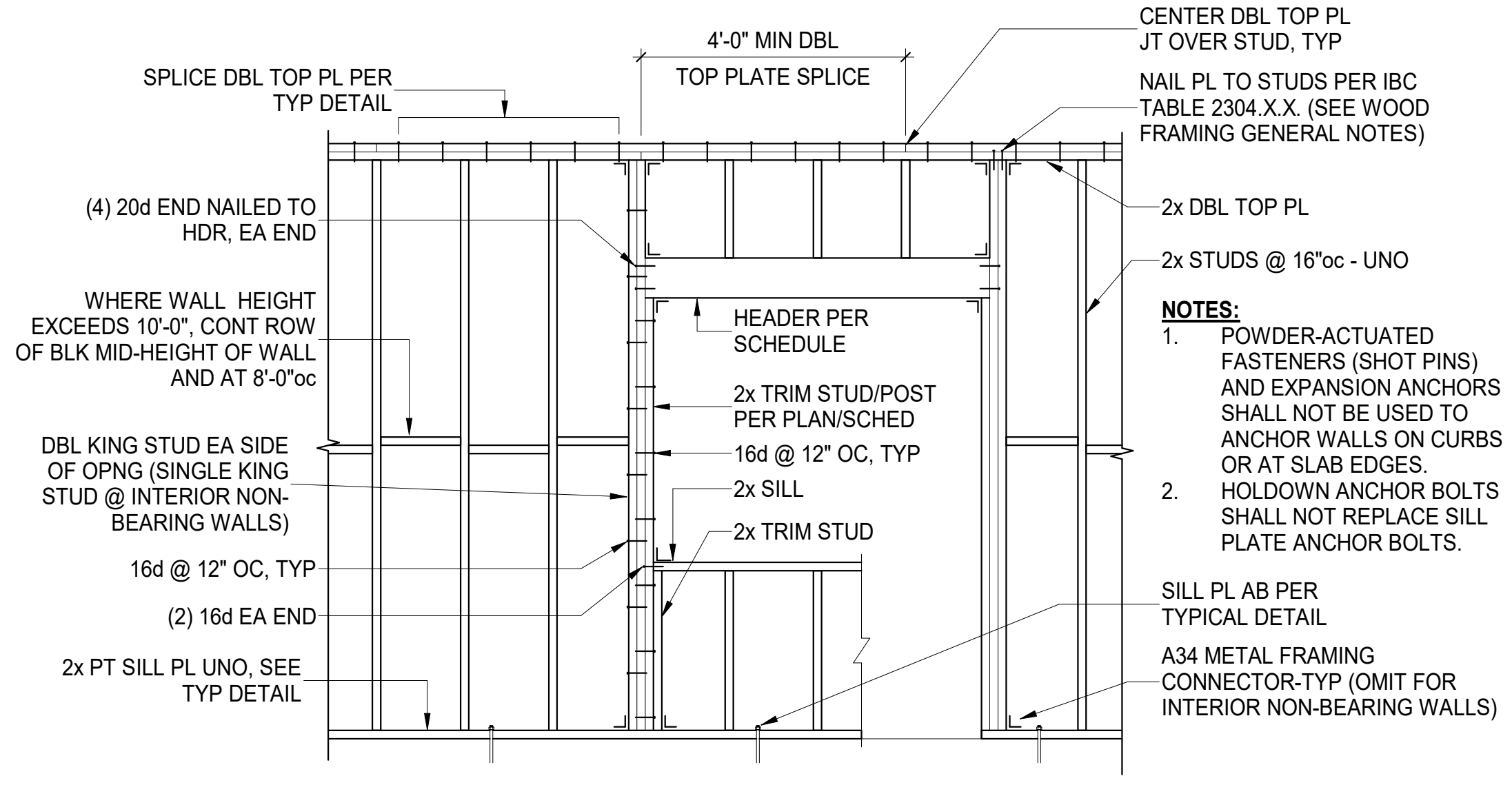


A TYP SHEAR WALL SHEATHING AND FASTENER SCHEDULE - WOOD CONSTRUCTION

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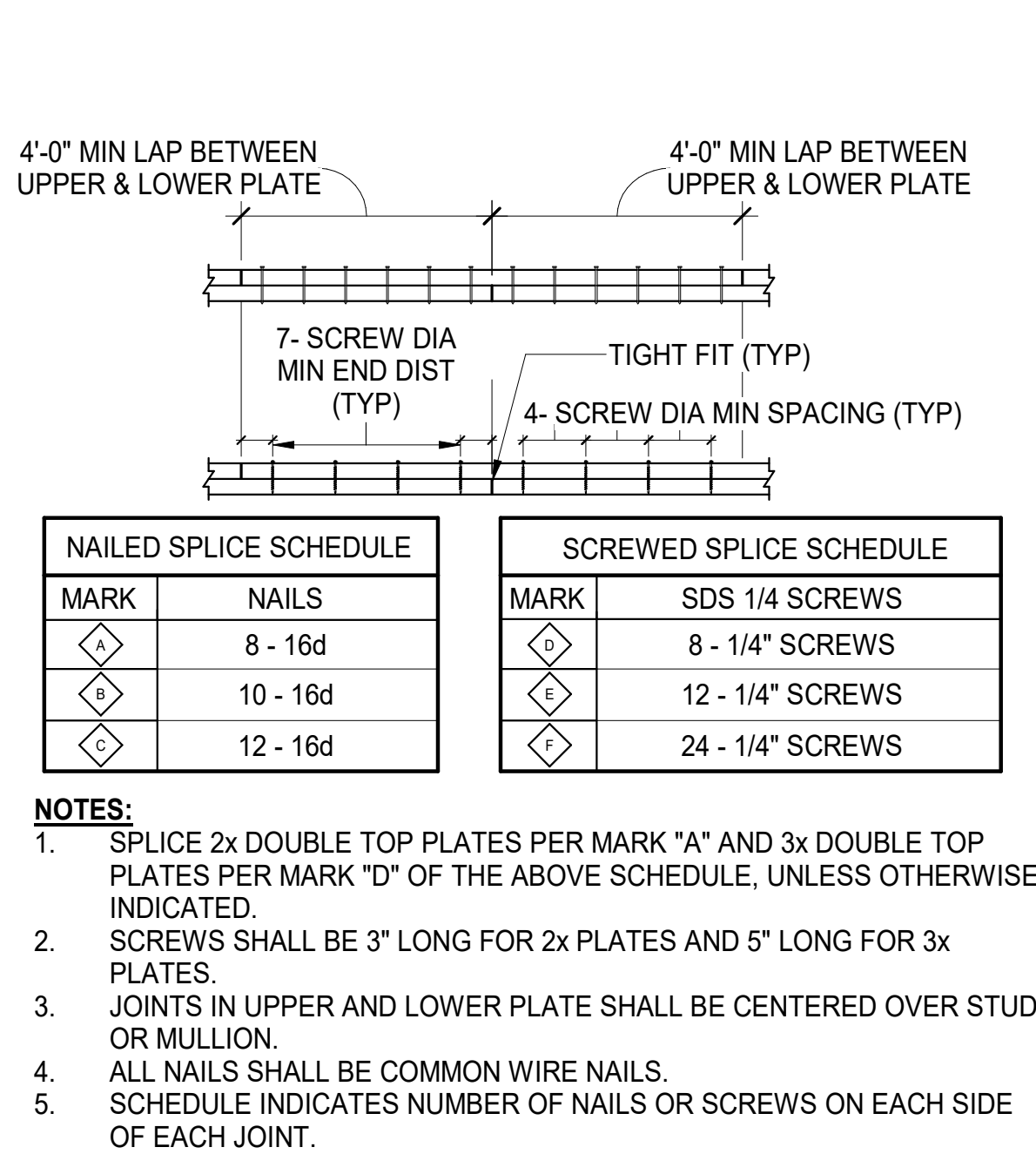
B TYP STRUCTURAL WALL PANEL FRAMING ELEVATION

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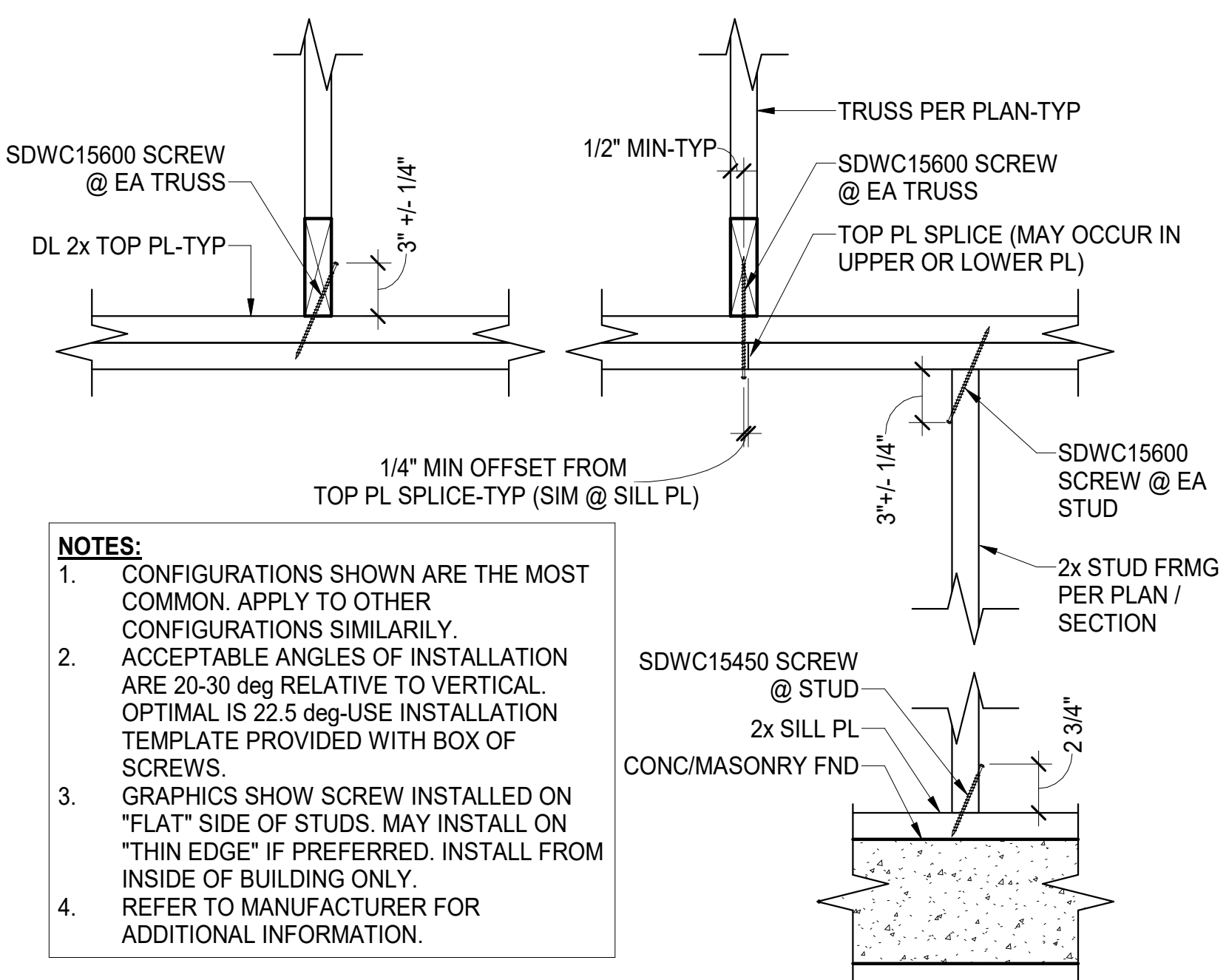
C TYP STAGGERED EDGE NAILING DETAIL

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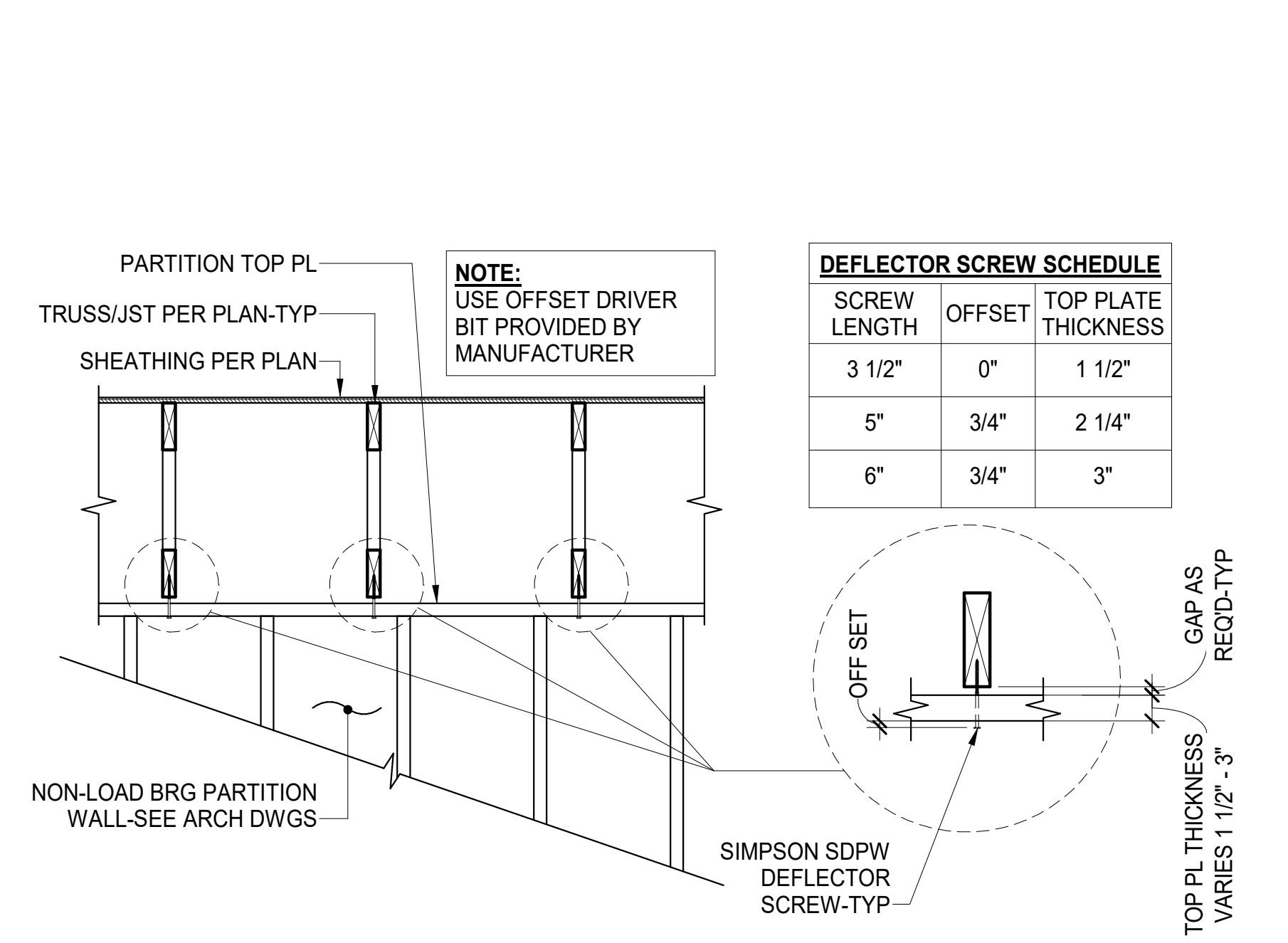
D TYPICAL TOP PLATE SPLICE DETAIL

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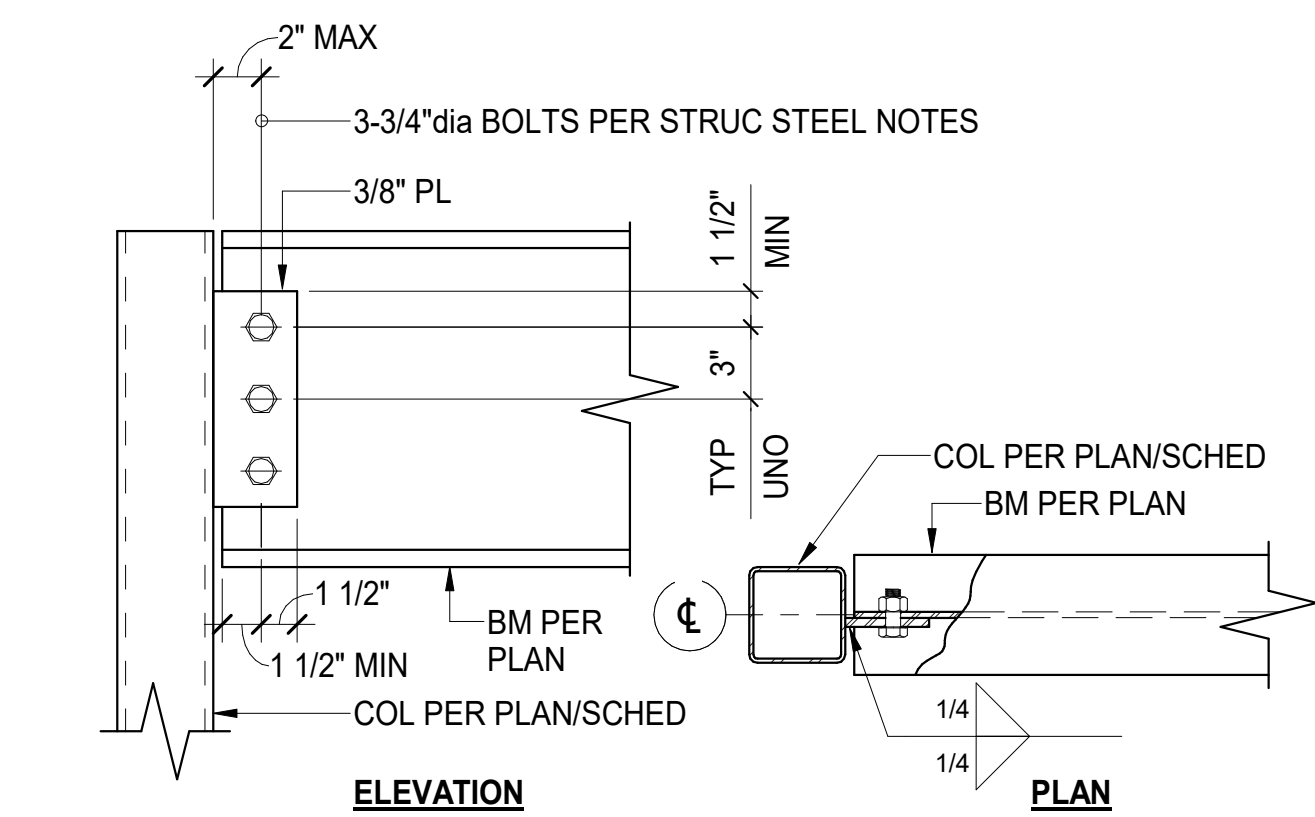
E TYPICAL SIMPSON SDWC TRUSS SCREW DETAIL

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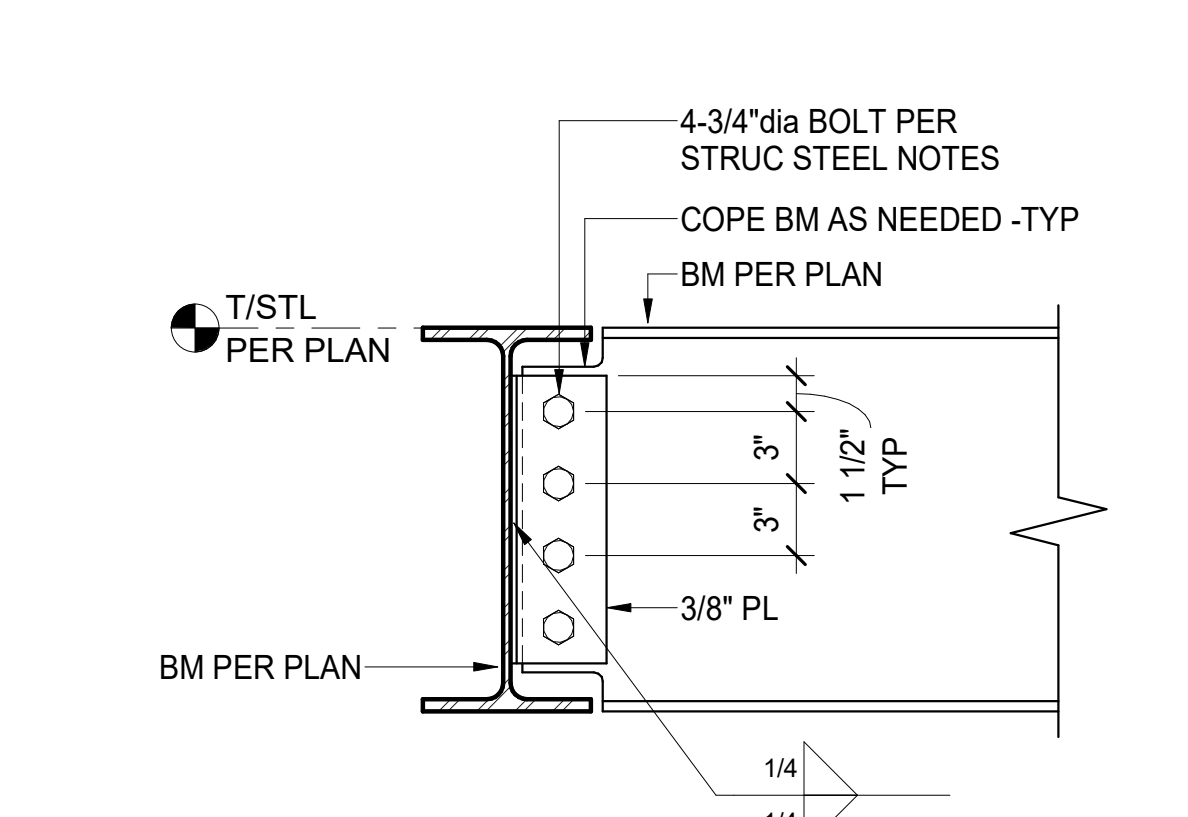
F TYP SLIP CONNECTION @ NON LOAD-BRG WOOD PARTITION WALL

S1.5 N.T.S.



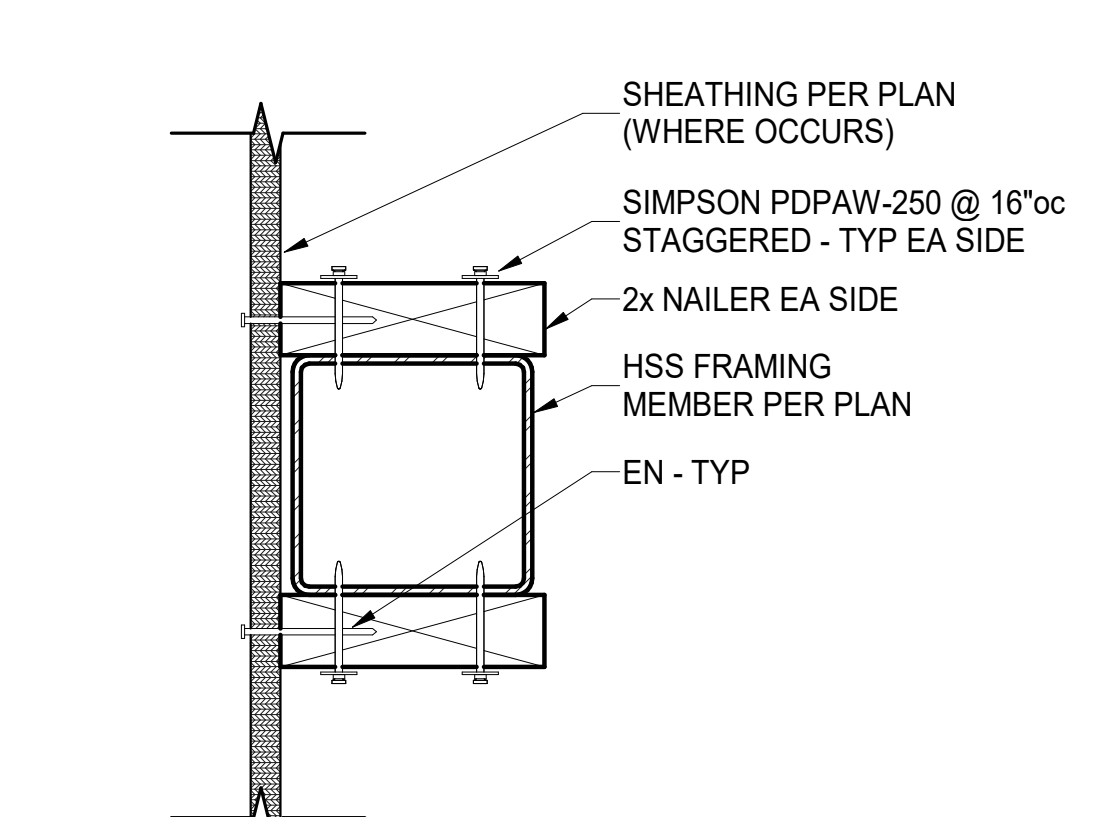
G TYP BM TO COL CONNECTION DETAILS

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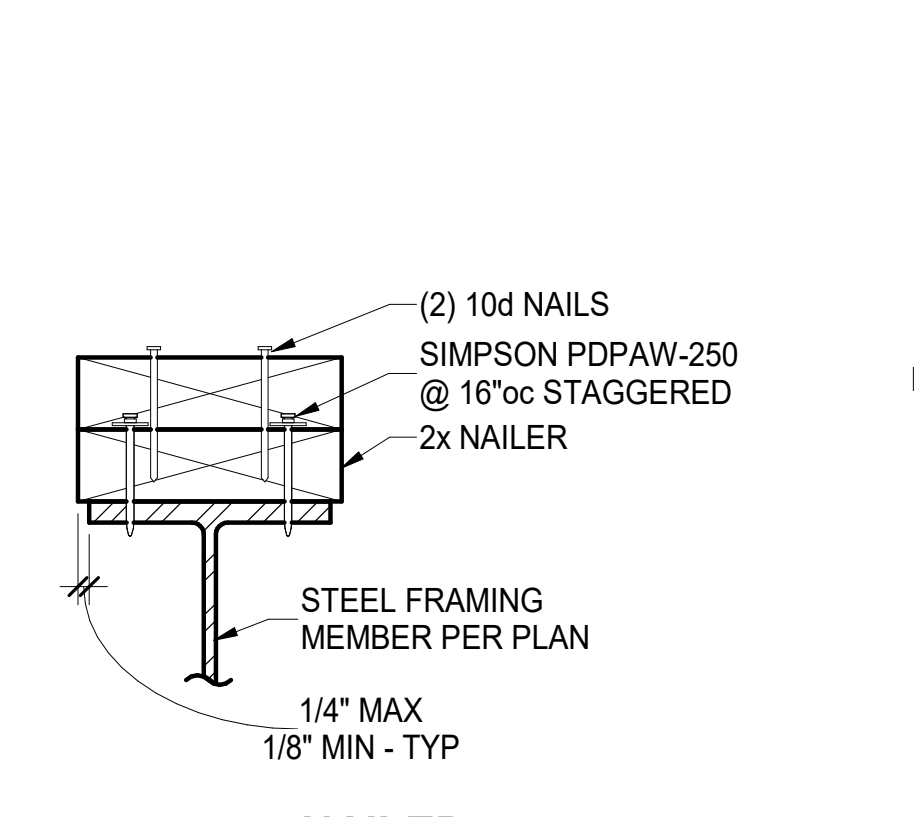
H TYPICAL BEAM-TO-BEAM CONNECTION

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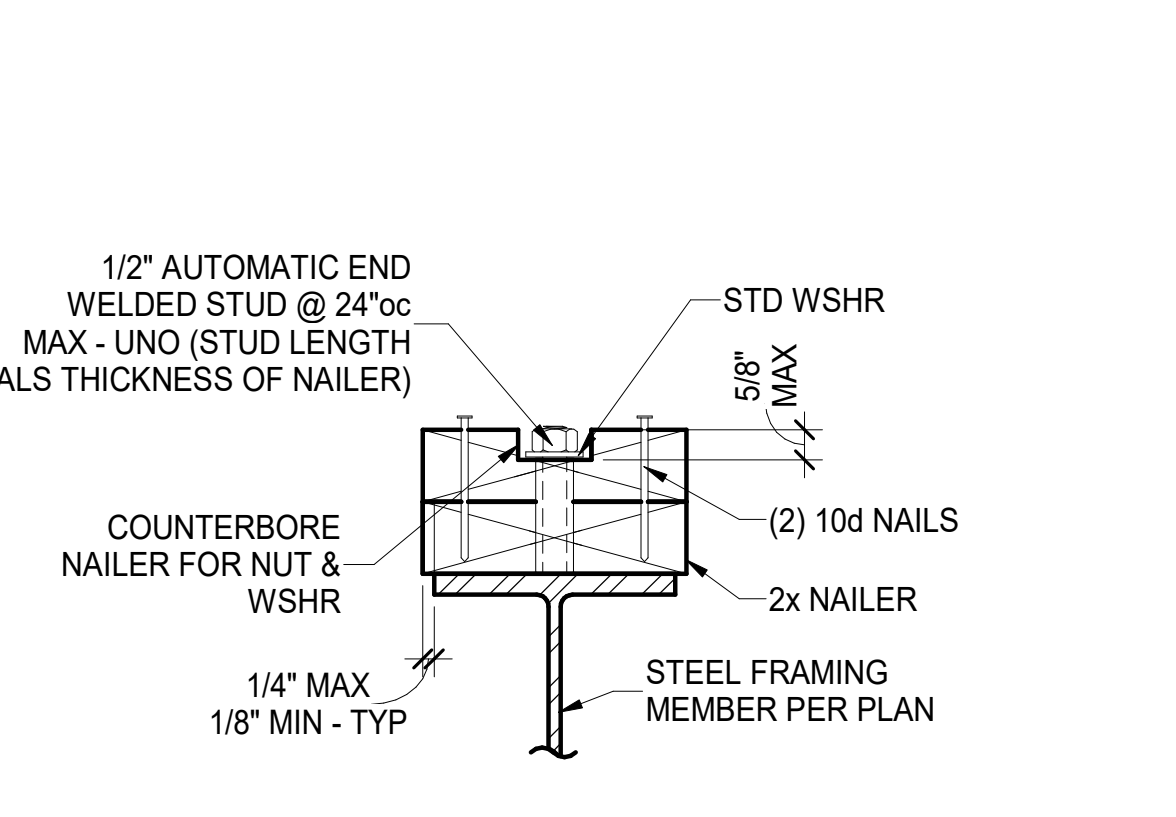
J TYP NAILER @ HSS COLUMN-NAILED

S1.5 N.T.S.



K TYP DOUBLE NAILER ON BEAM

S1.5 N.T.S.



L TYP OPTIONAL WELDED STUD

S1.5 N.T.S.

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

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St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
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1100X2023
STATE OF TEXAS
STEPHEN J. SACCO
110974
LICENSED PROFESSIONAL ENGINEER
01/12/24

PROJECT #:
LDG-TX-05-23
DRAWN BY: K/JG
CHECKED BY: RLR / SJS

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

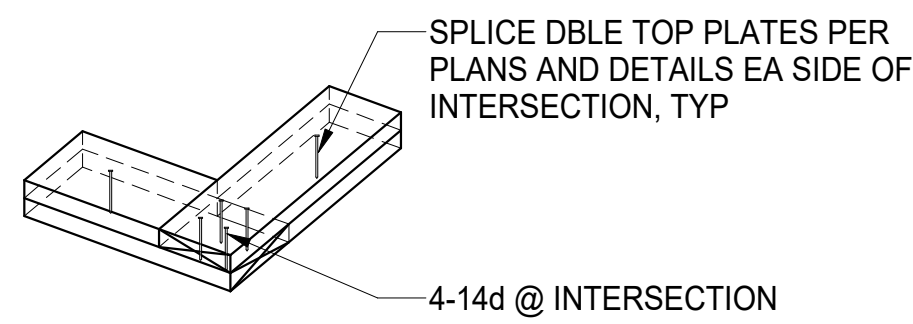
SHERWIN WILLIAMS

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ADDRESS:
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RD, HASLET, TX 76052

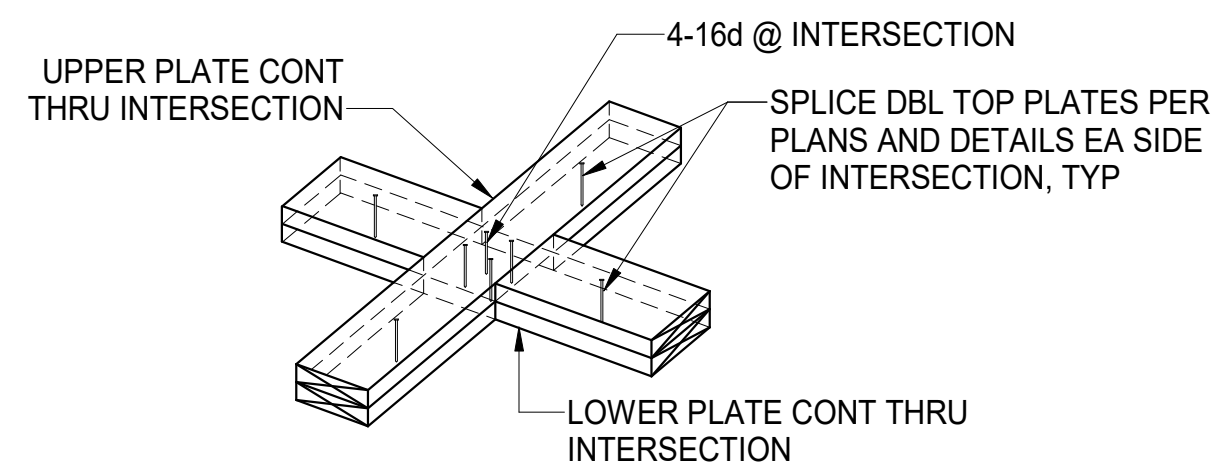
SHEET TITLE:
TYPICAL DETAILS

SHEET NUMBER:

S1.5

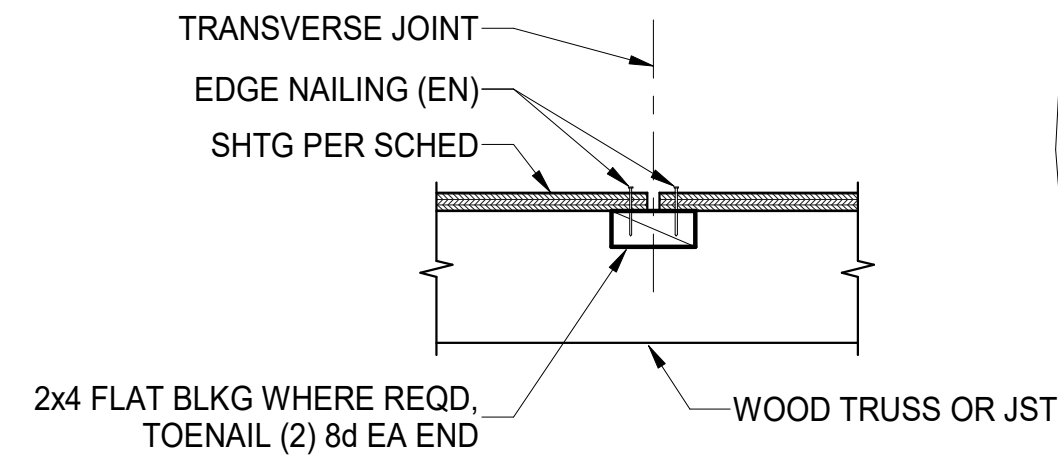


TYPICAL CORNER



TYPICAL INTERSECTION

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



SECTION A-A

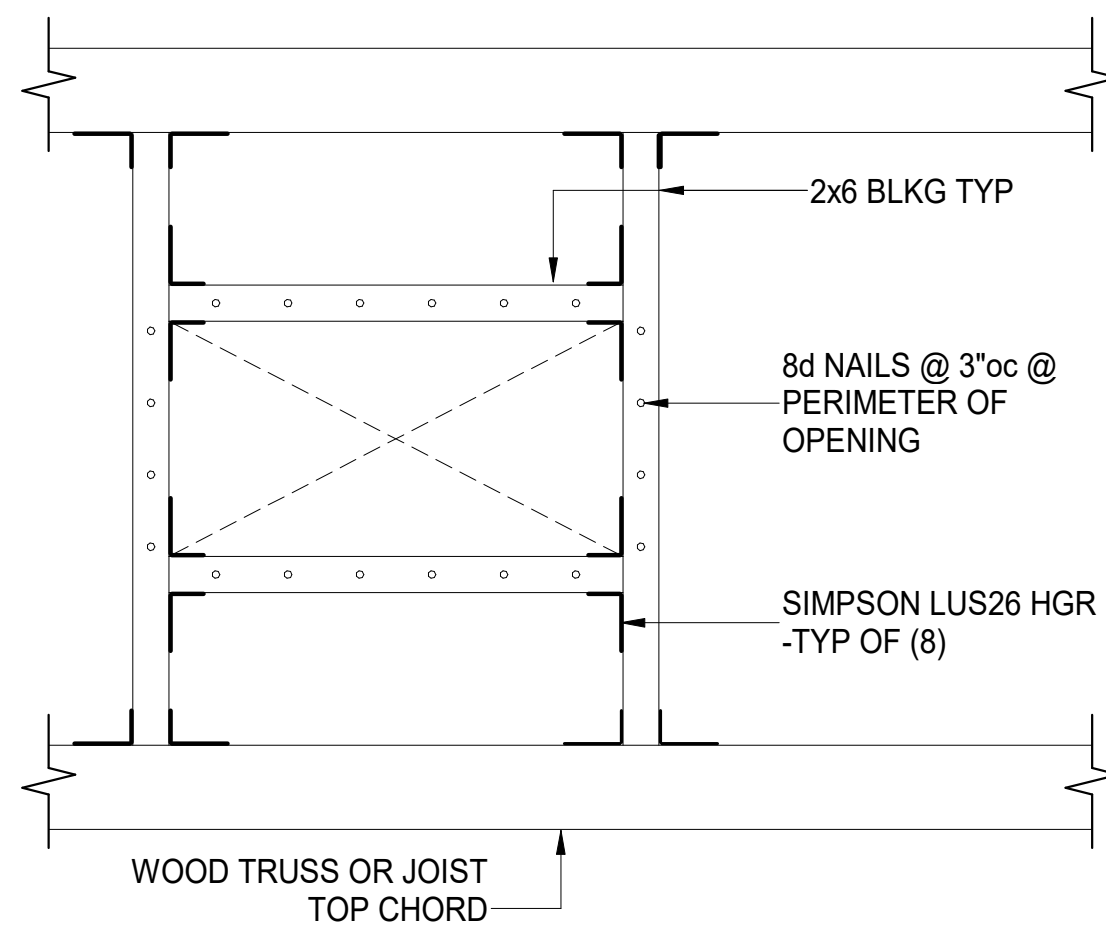
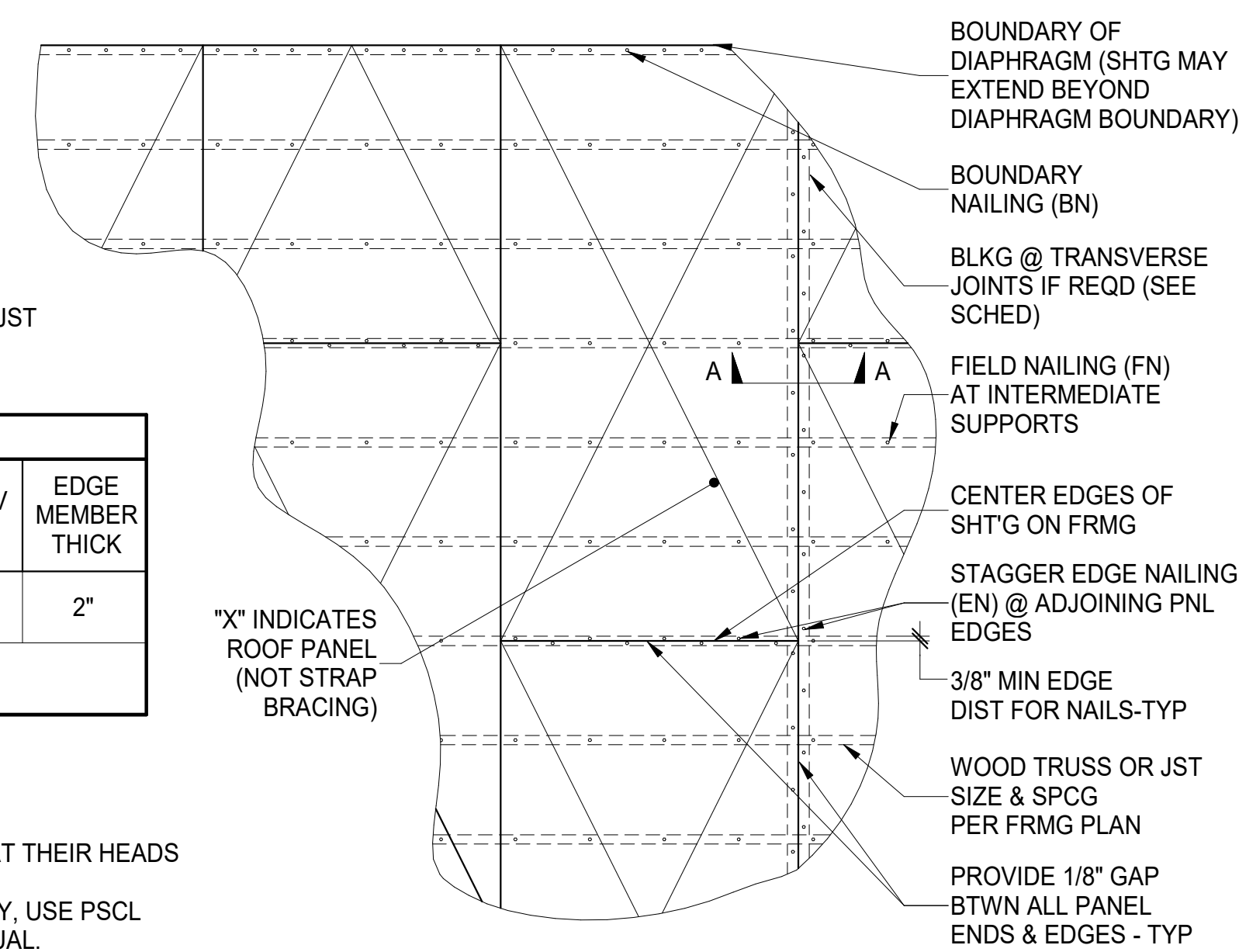
DIAPHRAGM SHEATHING & NAILING SCHEDULE							
MARK	SHTG SPEC	NAILS IZE	BN SPCG	EN SPCG	FN SPCG	TRANSV BLKG	EDGE MEMBER THICK
R1	19/32" *	10d	6"	6"	12"	NO	2"

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

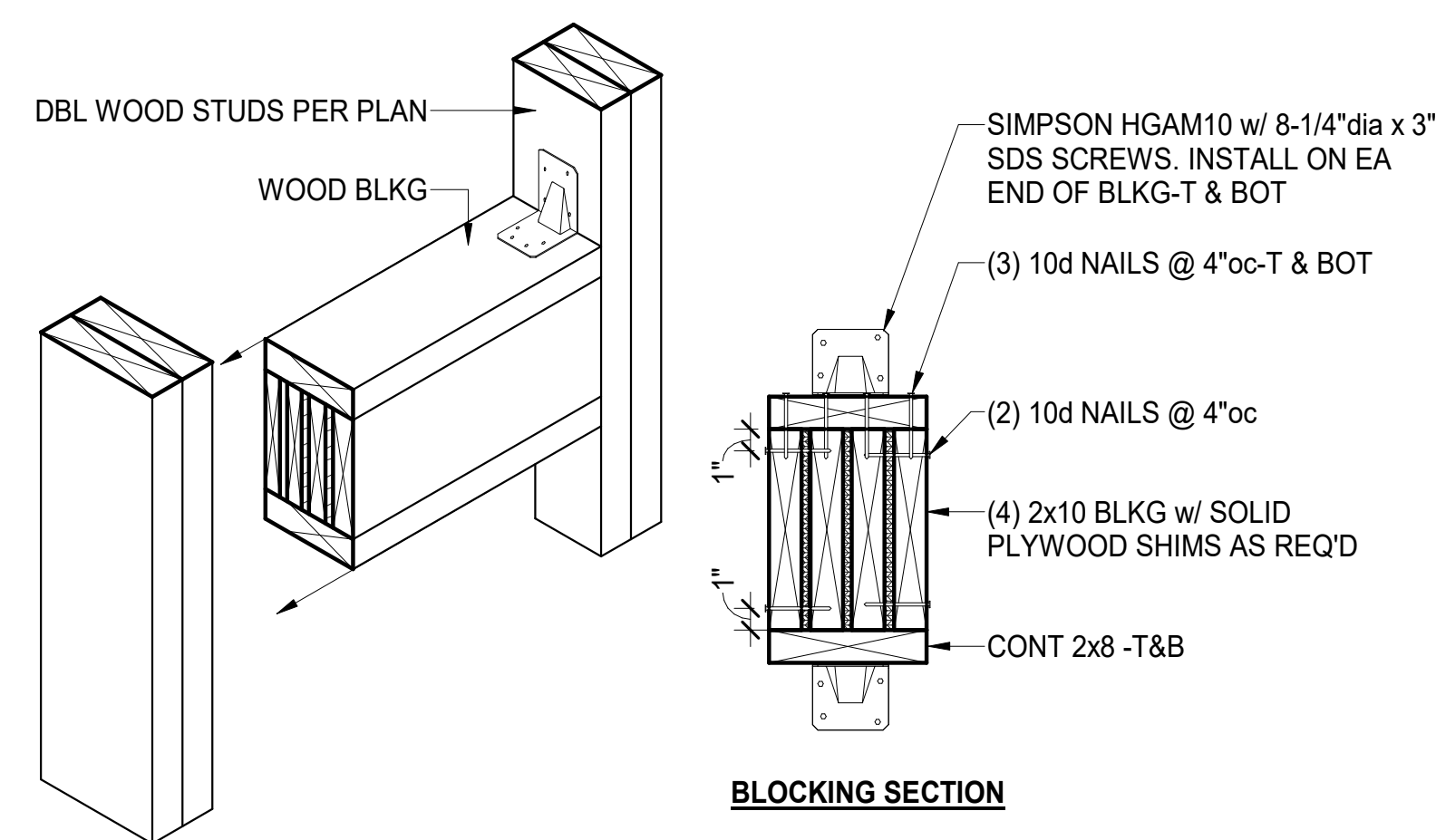
NOTE:

- DIAPHRAGM SHEATHING NAILS SHALL BE DRIVEN SO THAT THEIR HEADS ARE FLUSH WITH THE SURFACE OF THE SHEATHING.
- PROVIDE T & G SHEATHING AT ALL ROOF. ALTERNATIVELY, USE PSCL 19/32 CLIPS BY SIMPSON STRONG-TIE OR APPROVED EQUAL.
- 10d COMMON NAILS CAN BE SUBSTITUTED WITH #9 x 2" SCREW WSV2 BY SIMPSON STRONG-TIE.

B TYP ROOF SHEATHING DETAIL - WOOD CONSTRUCTION
S1.6 N.T.S.

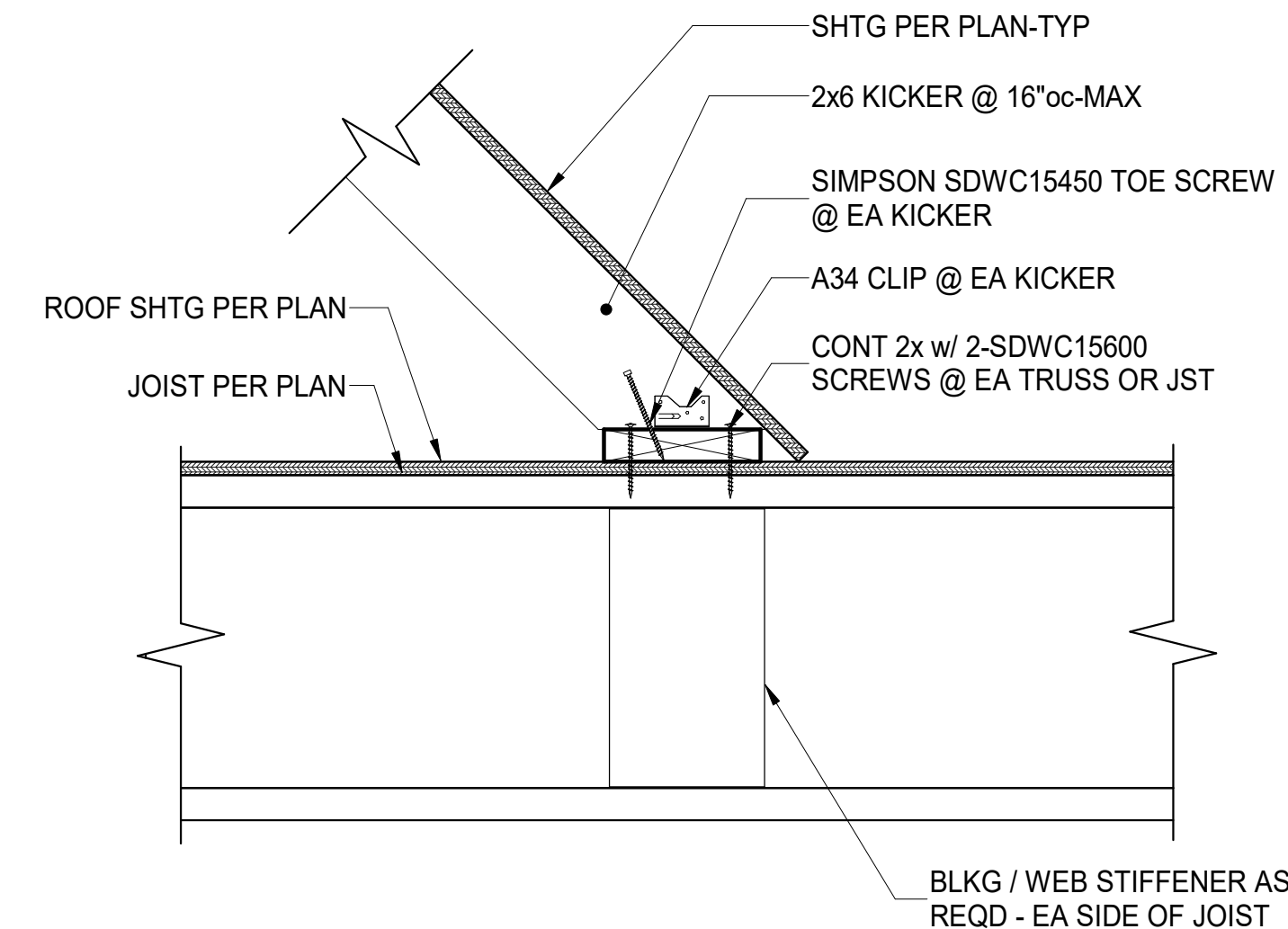


C TYP BLKG @ ROOF OPENING
S1.6 N.T.S.

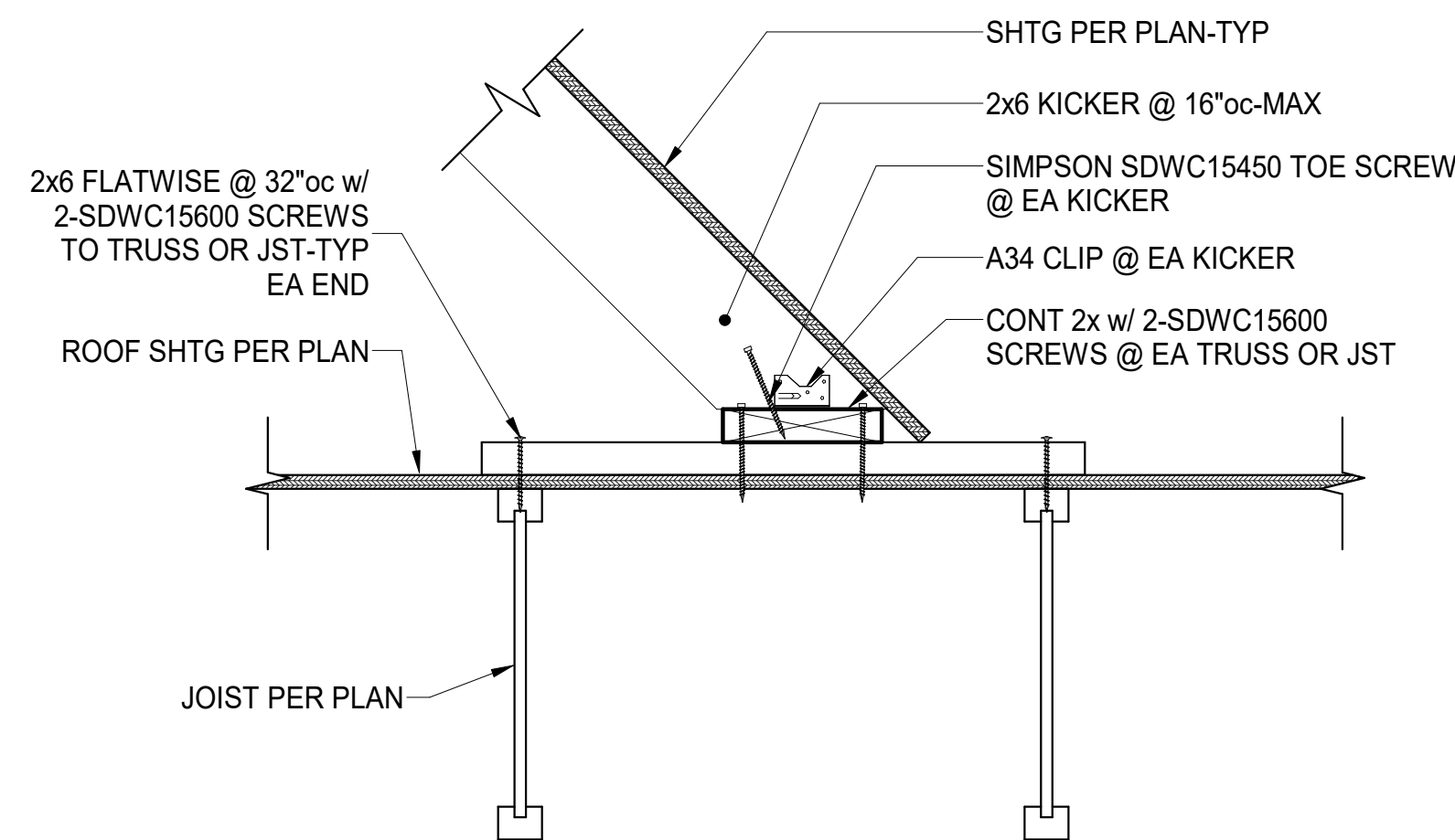


BLOCKING SECTION

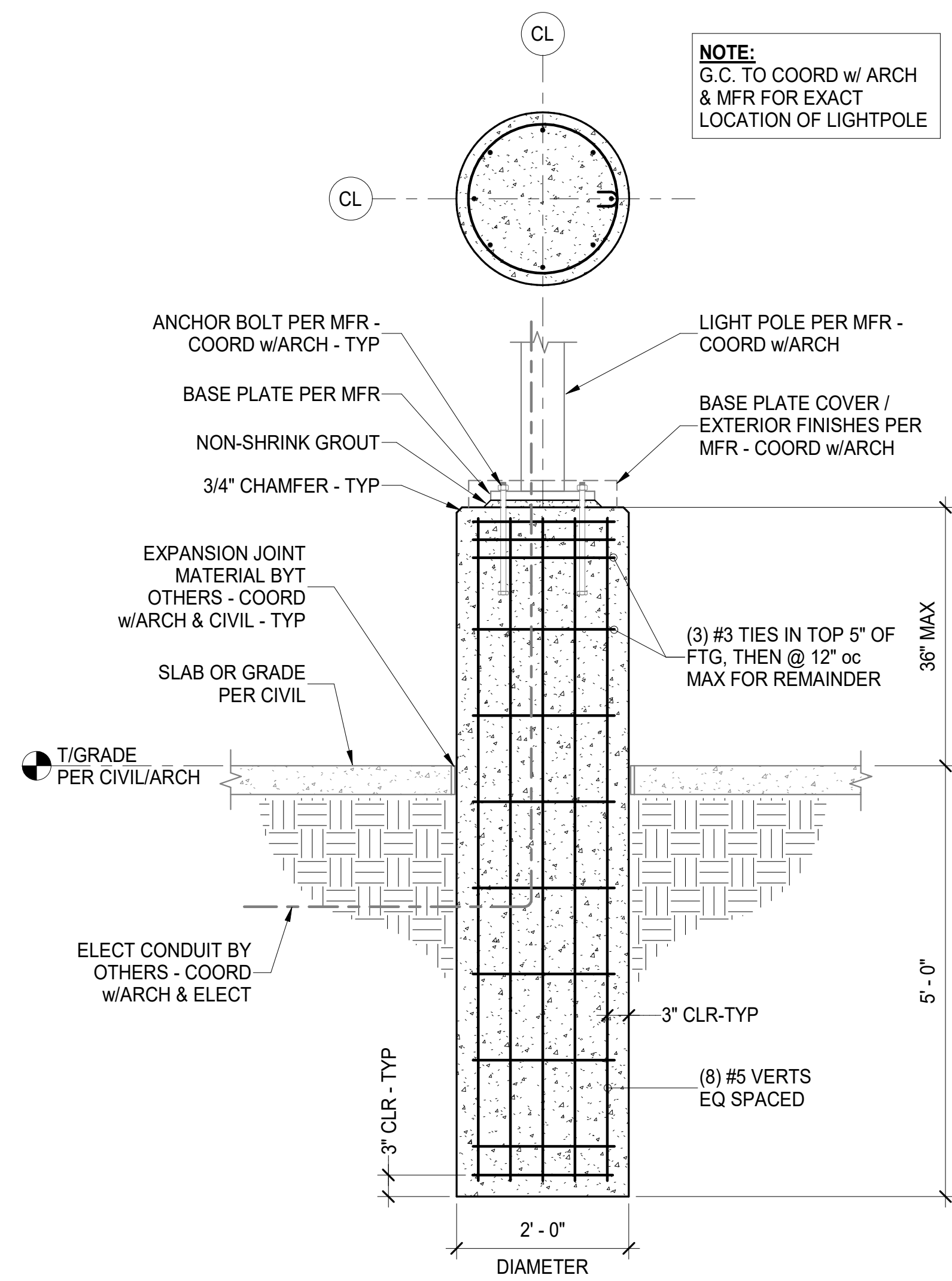
D TYPICAL CANOPY ATTACHMENT BLOCKING @ WOOD STUDS
S1.6 N.T.S.



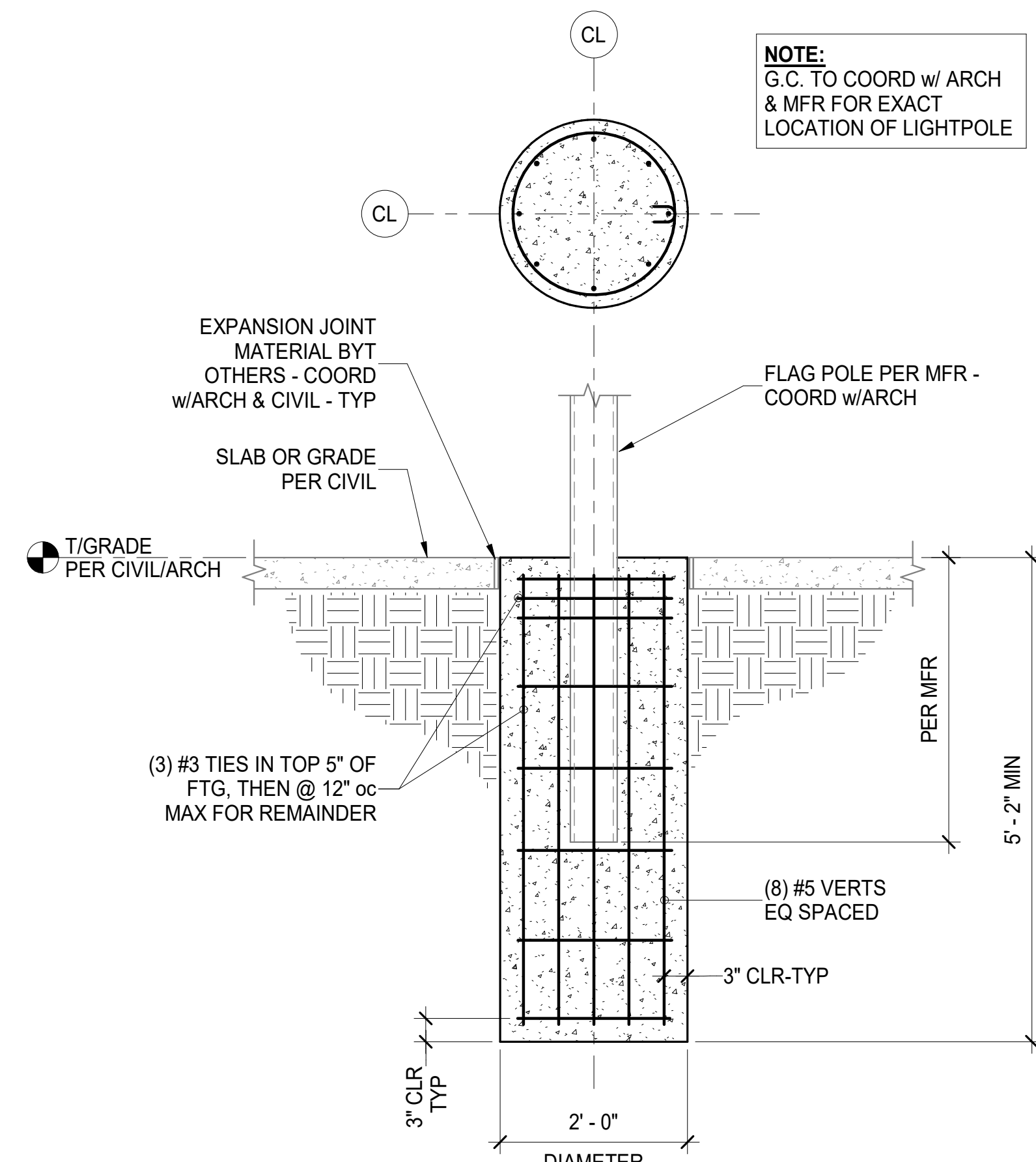
E TYP KICKER CONNX. TO TRUSS/JST (PARALLEL)
S1.6 N.T.S.



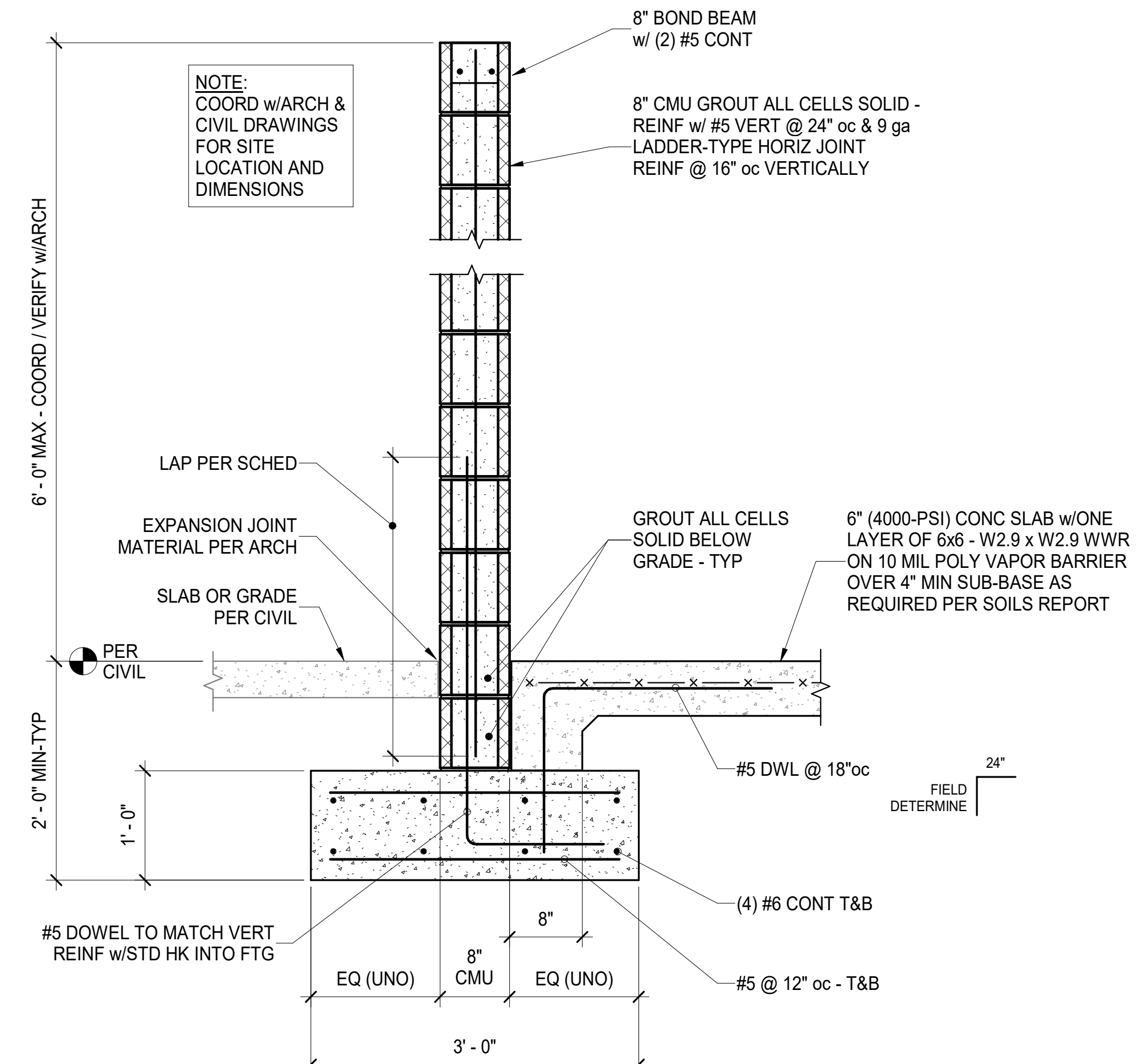
F TYP KICKER CONN TO TRUSS/JST (PERPENDICULAR)
S1.6 N.T.S.



A TYPICAL LIGHT POLE FOOTING DETAIL
S1.7 N.T.S.



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



C TYPICAL DUMPSTER ENCLOSURE SECTION
S1.7 N.T.S.

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

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Engineering Inc.
796 Merus Court
St. Louis, MO 63026
F 636.349.1600
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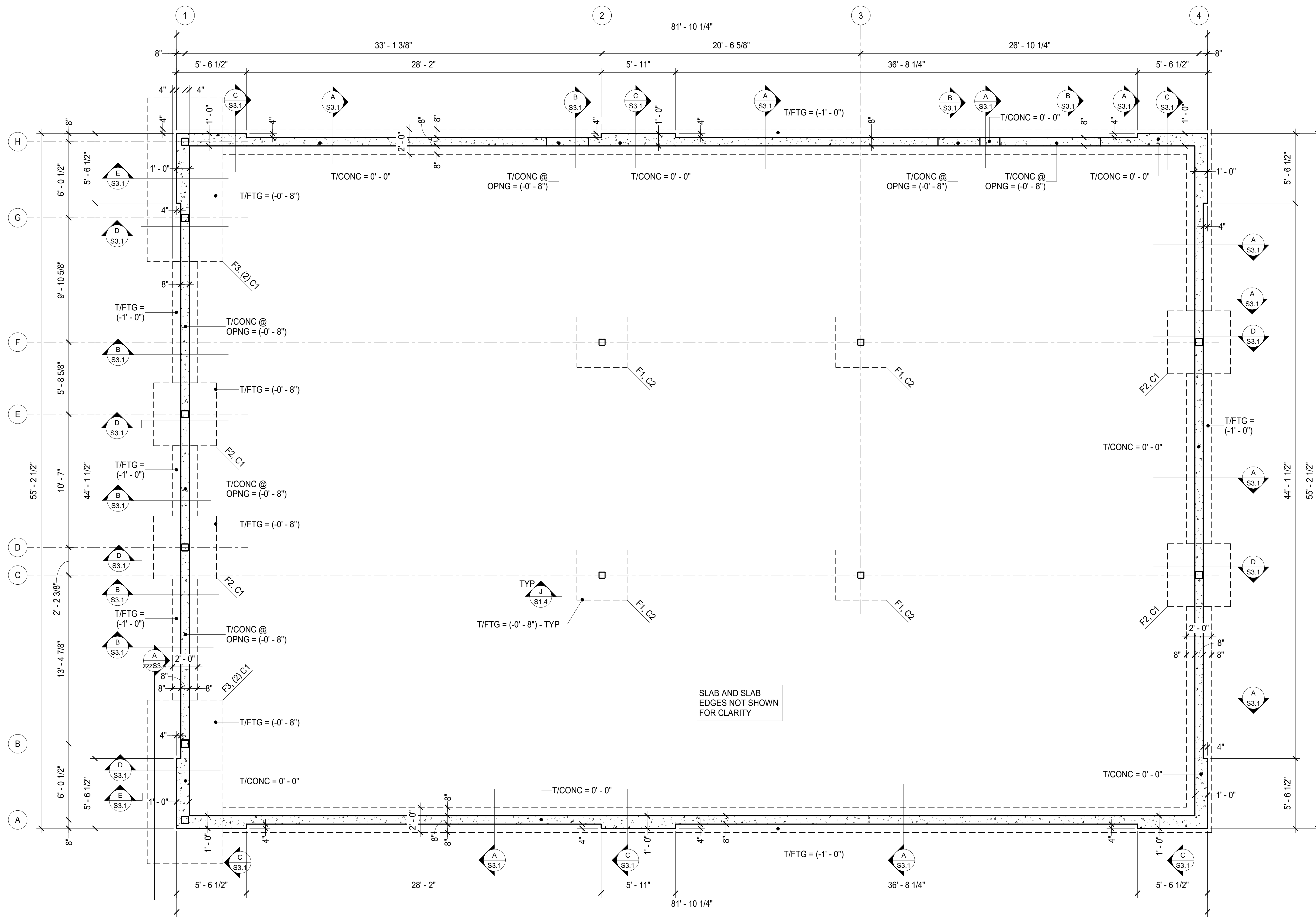
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SHEET TITLE:
TYPICAL DETAILS

SHEET NUMBER:
S1.7

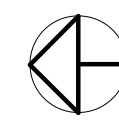


FOUNDATION PLAN

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

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



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

COLUMN SCHEDULE

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

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

CASE
 Engineering Inc.

796 Menus Court
 St. Louis, MO 63026
 T 636.349.1600
 F 636.349.1730
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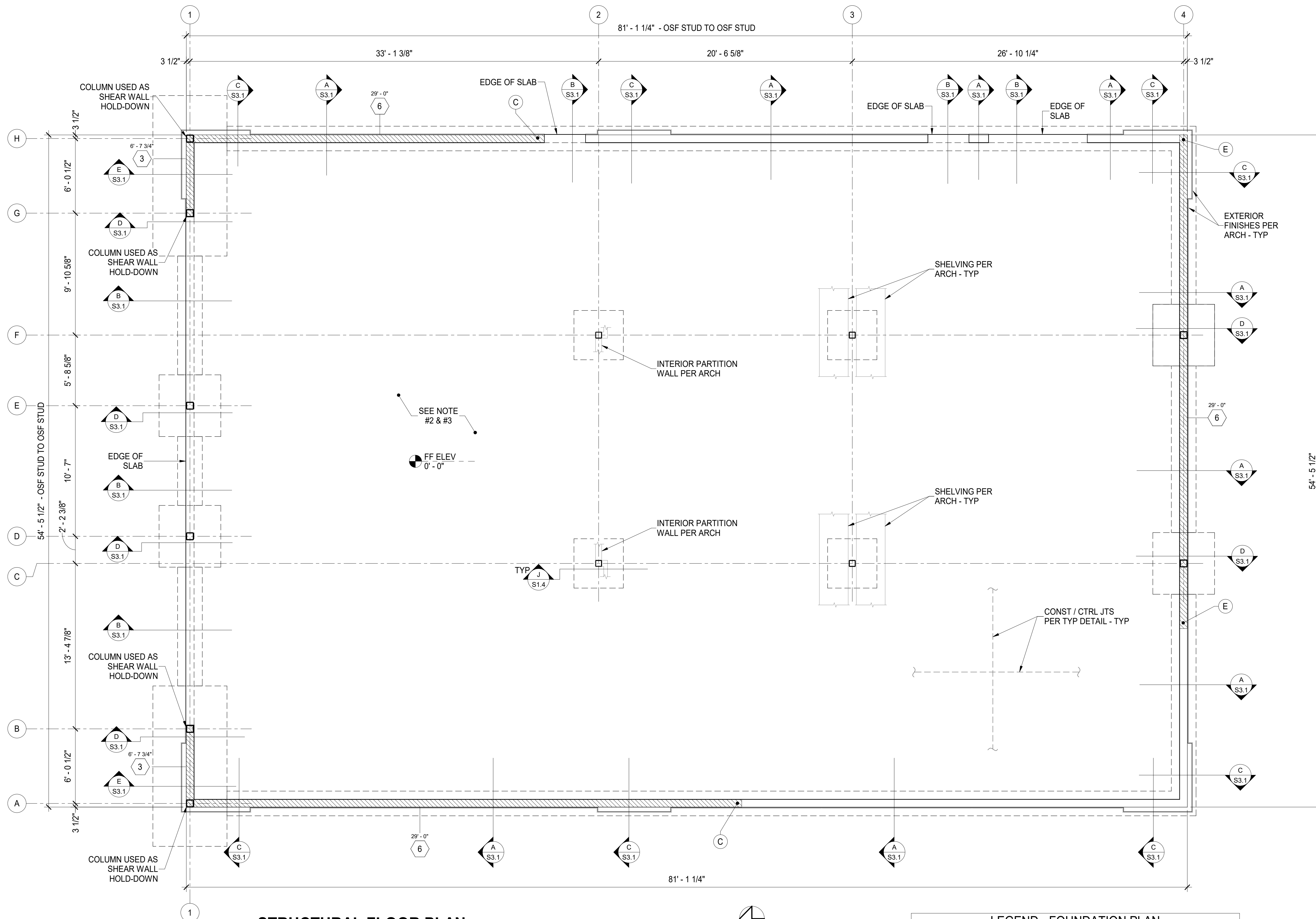
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SHEET TITLE:
FOUNDATION PLAN

SHEET NUMBER:
S2.1



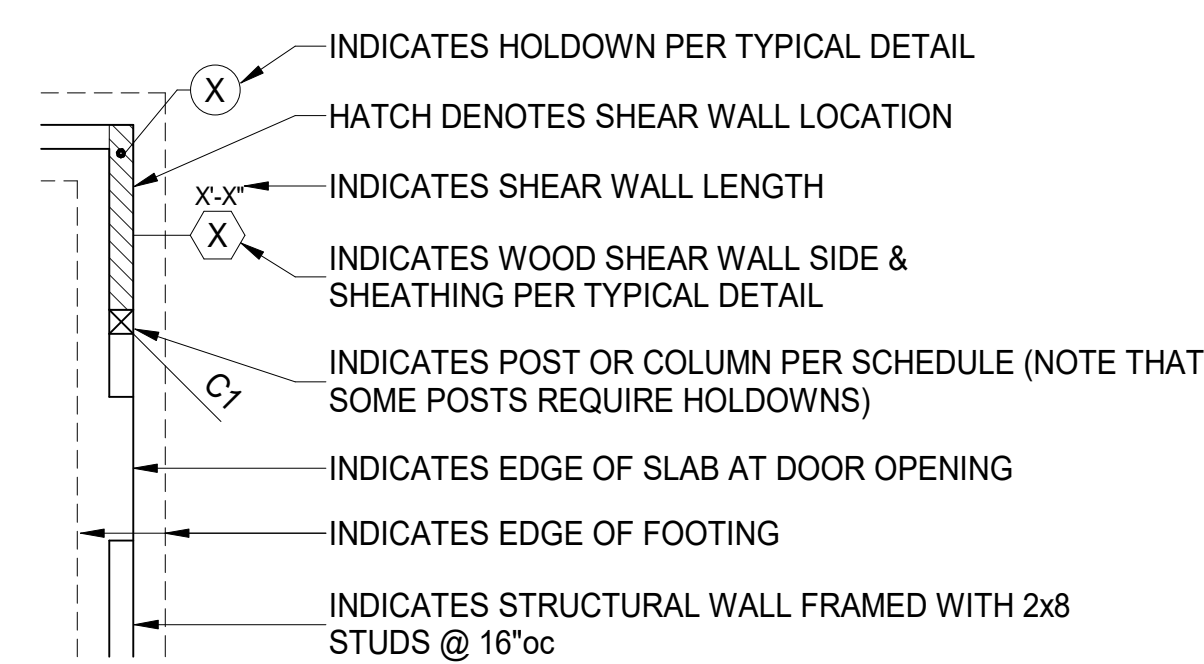
STRUCTURAL FLOOR PLAN

PLAN NOTES

- SEE SHEETS S1.1 - S1.7 FOR GENERAL NOTES AND TYPICAL DETAILS.
- 6" CONCRETE SLAB REINFORCED WITH ONE LAYER OF 6x6 - W2.9xW2.9 WWR ON 10 MIL. POLY VAPOR BARRIER OVER 6" MINIMUM COMPACTED SUB-BASE AS RECOMMENDED BY THE SOILS REPORT. REINFORCEMENT TO BE LOCATED IN THE MIDDLE OF THE SLAB.
- FLOOR FLATNESS PER ACI 117 (SPECIFIED OVERALL, MINIMUM LOCAL): (75, 38); LOOR LEVELNESS PER ACI 117 (SPECIFIED OVERALL, MINIMUM LOCAL): (50, 25).
- 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.
- 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
- ALL EXTERIOR WALL SHEATHING NOT SPECIFIED AS "SHEAR WALL SHEATHING" IS TO BE 1/2" OSB SHEATHING AND ATTACHED PER IBC TABLE 2304.9.1 UNLESS OTHERWISE INDICATED BY ARCHITECT.
- ALL DIMENSIONS ARE OUTSIDE FACE OF STUD TO OUTSIDE FACE OF STUD
- SEE SHEET S2.1 FOR BALANCE OF INFORMATION

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

LEGEND - FOUNDATION PLAN



LINGLE DESIGN GROUP, INC.
 158 WEST MAIN STREET
 LENA, IL 61048
 815.369.9155
 1764 BLAKE ST
 DENVER, CO 80202
 303.974.5875
 WWW.LINGLEDESIGN.GDM

CASE Engineering Inc.
 796 Menus Court
 St. Louis, MO 63026
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STATE OF TEXAS
 LICENSED PROFESSIONAL ENGINEER
 110974
 01/12/24

PROJECT #
 LDG-TX-05-23
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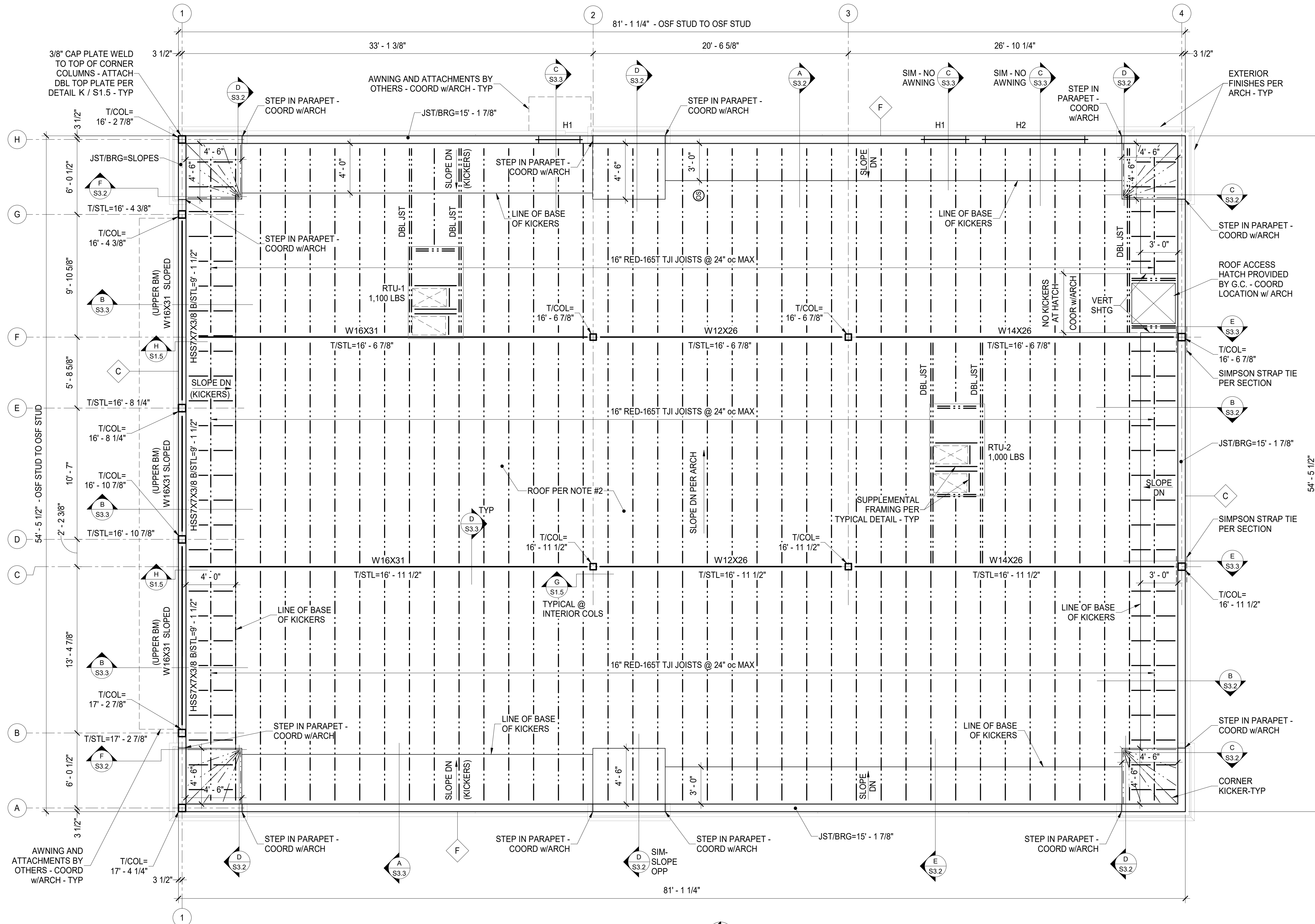
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SHEET TITLE
STRUCTURAL FLOOR PLAN

SHEET NUMBER
S2.2

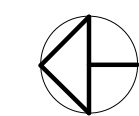


ROOF FRAMING PLAN

PLAN NOTES

- SEE SHEETS S1.1 - S1.7 FOR GENERAL NOTES AND TYPICAL DETAILS.
- ROOF CONSTRUCTION: PER MARK "R1" IN TYPICAL ROOF SHEATHING DETAIL.
- PROVIDE JOIST BRIDGING AND SPACING PER TRUSS SUPPLIER.
- JOIST MANUFACTURER/SUPPLIER TO COORDINATE WITH CONTRACTORS TO DETERMINE RTU AND TRANSFORMER LAYOUTS, WEIGHTS, AND FOOTPRINTS. MANUFACTURER TO COORDINATE WITH ROOF HATCH SUPPLIER FOR SIZE AND LOCATION. RTU AND EXHAUST HOOD LOADS ARE TO BE IN ADDITION TO OTHER DESIGN LOADS.
- MAXIMUM JOIST SPACING = 2'-0" UNO
- SEE ARCHITECTURAL DRAWINGS FOR DIMENSIONS, SECTIONS, AND ELEVATIONS NOT SHOWN HEREON.
- ALL ELEVATIONS ARE REFERENCED FROM FINISHED MAIN FLOOR = 0' - 0"
 - B/STL = BOTTOM OF STEEL ELEVATION = PER PLAN
 - T/STL = TOP OF STEEL ELEVATION = PER PLAN
 - JST/BRG = JOIST BEARING ELEVATION = PER PLAN

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



LEGEND - FRAMING PLAN

- INDICATES WINDOW OPENING PER ARCHITECTURAL DRAWINGS
- INDICATES HEADER PER DETAIL SCHEDULE
- INDICATES DOUBLE TOP PLATE SPLICE PER TYPICAL DETAIL
- INDICATES STRUCTURAL WALL FRAMED WITH 2x8 STUDS @ 16" oc

HEADER SCHEDULE

MARK	SIZE	TRIM STUDS	KING STUDS	CONNECTION
H1	(4) 2x6	(1) 2x8	(2) 2x8	PER TYPICAL DETAIL
H2	(4) 2x8	(1) 2x8	(2) 2x8	PER TYPICAL DETAIL

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 LENA, IL 61048
 815.369.9155
 1764 BLAKE ST
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 303.974.5875
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796 Menus Court
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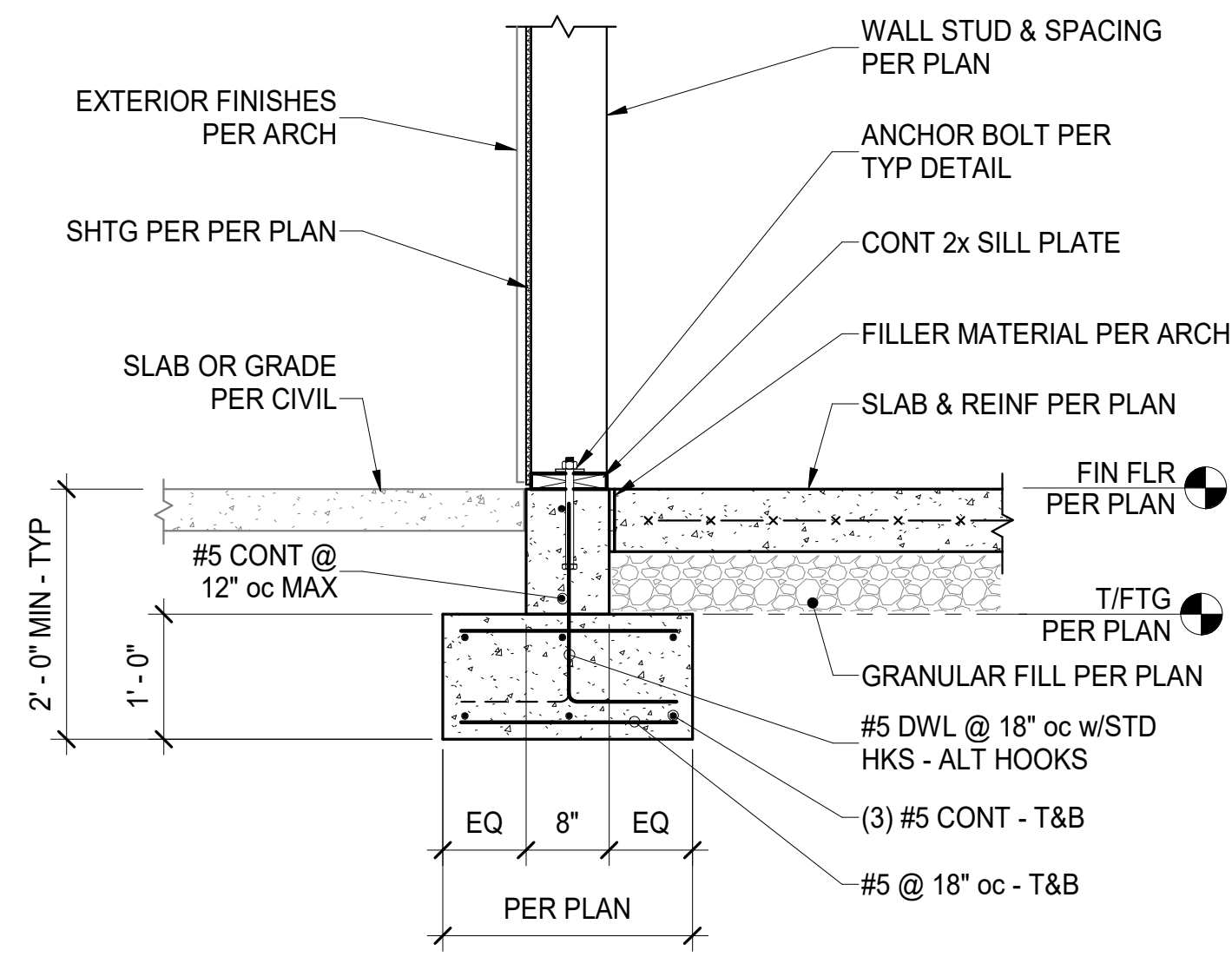
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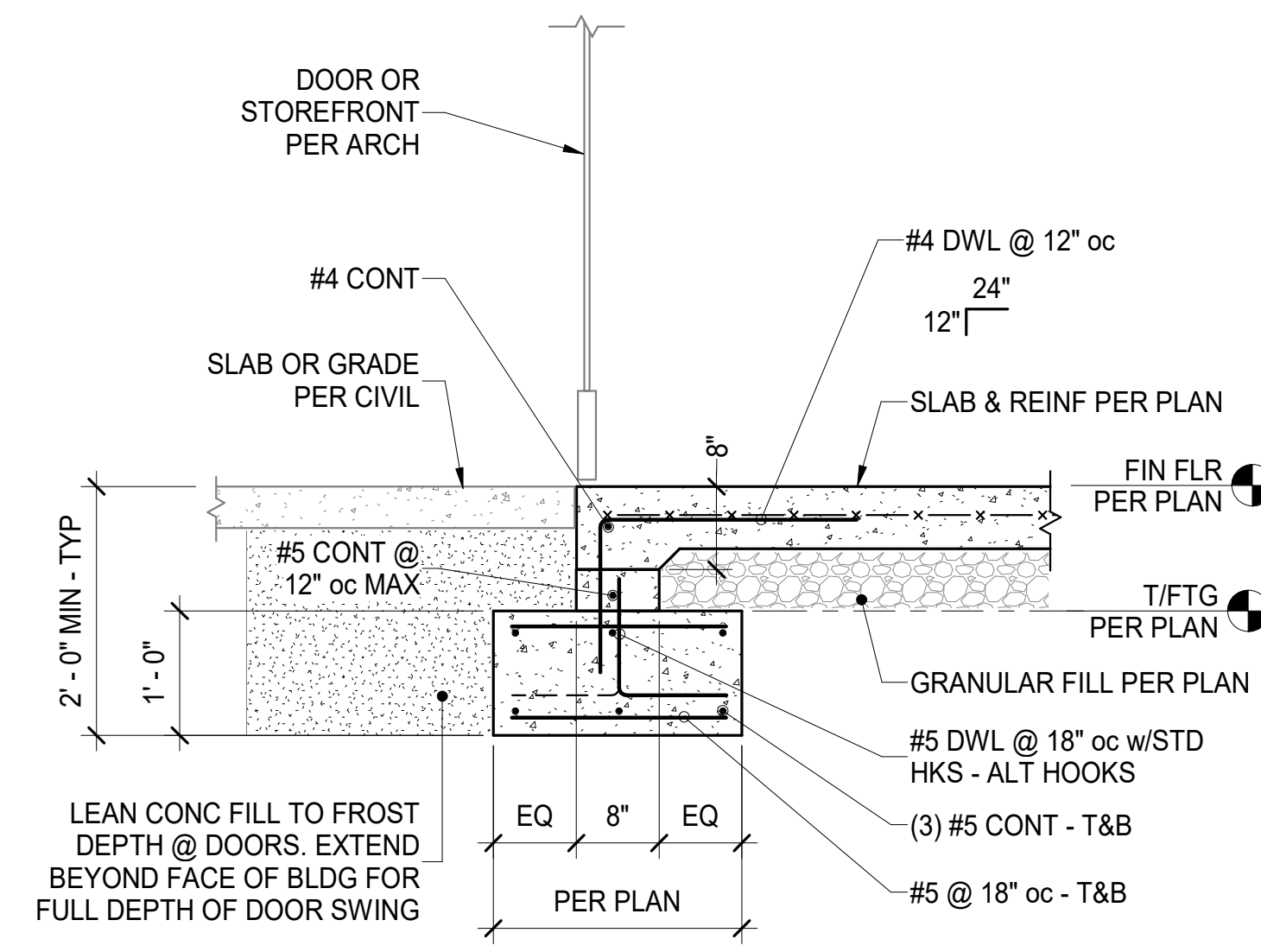
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ROOF FRAMING PLAN

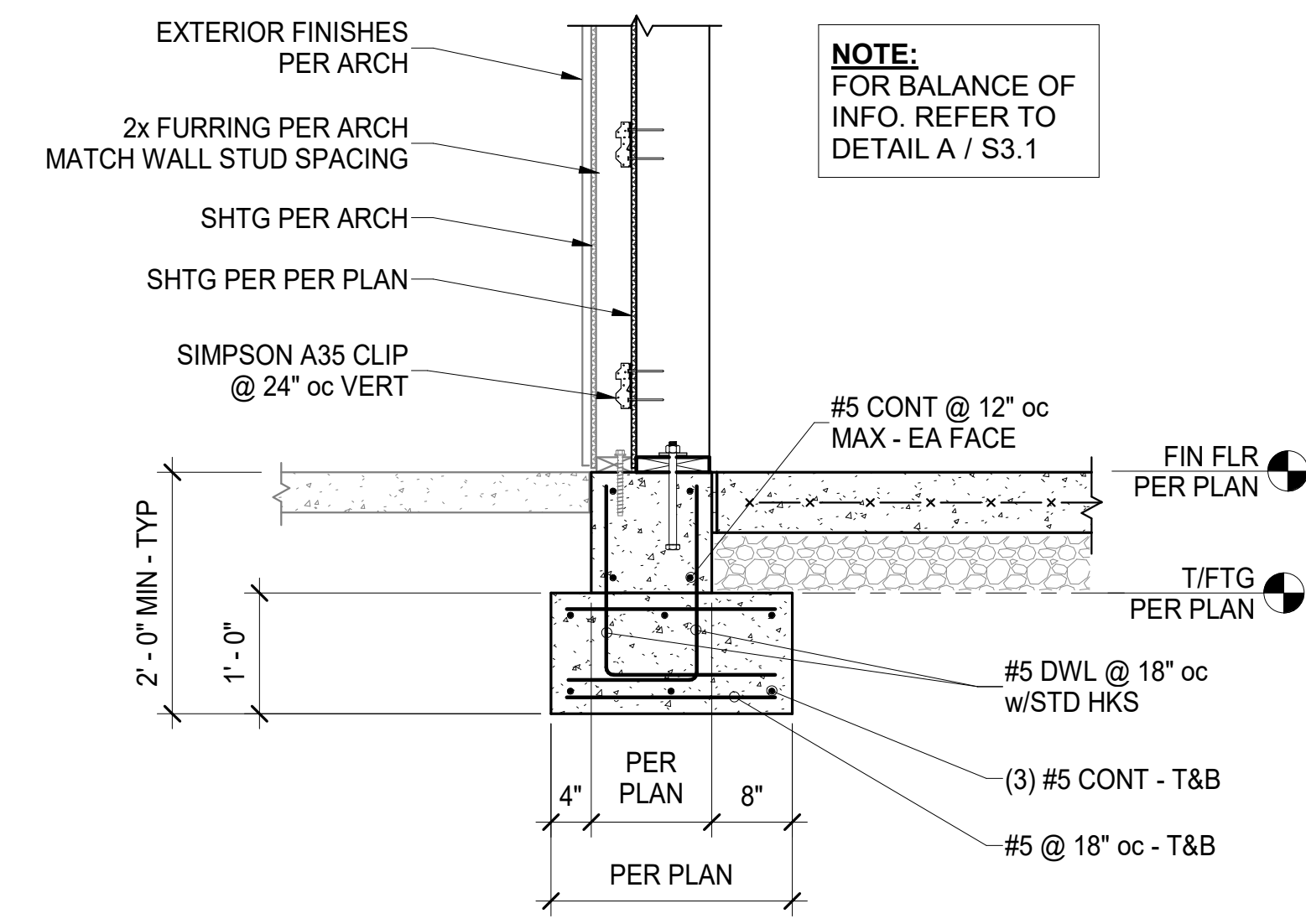
S2.3



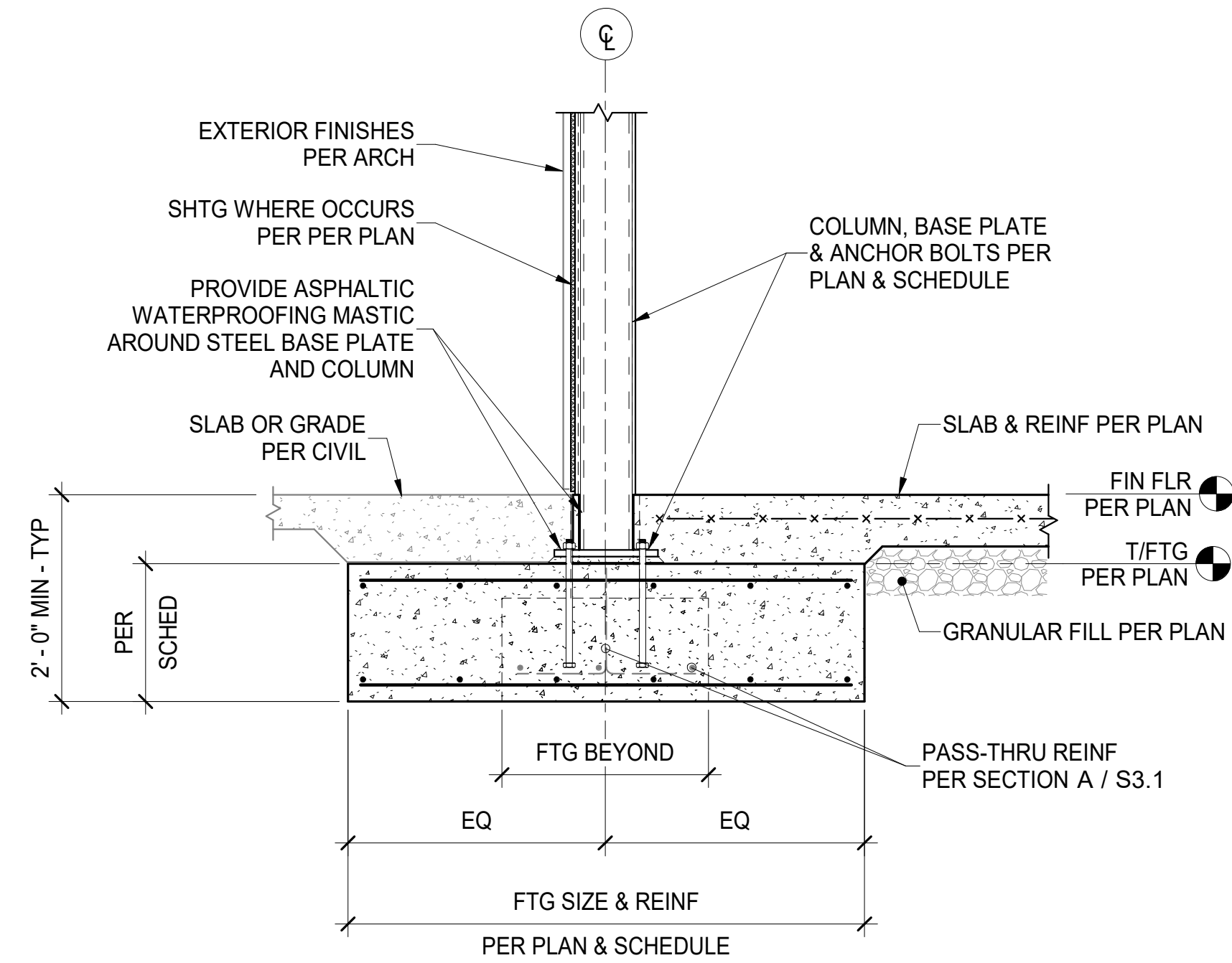
A FOUNDATION SECTION
S3.1 3/4" = 1'-0"



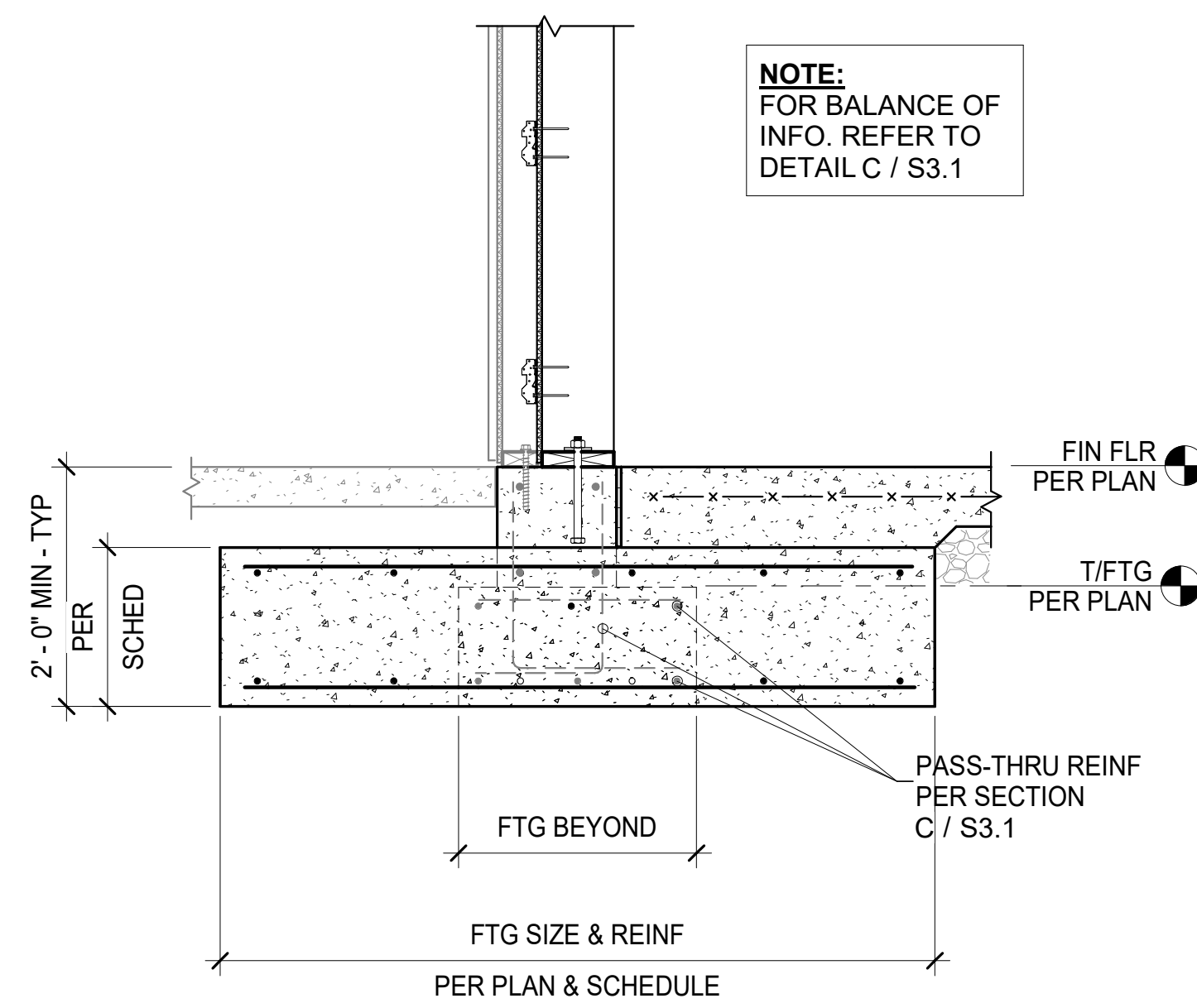
B FOUNDATION SECTION
S3.1 3/4" = 1'-0"



C FOUNDATION SECTION
S3.1 3/4" = 1'-0"



D FOUNDATION SECTION
S3.1 3/4" = 1'-0"



E FOUNDATION SECTION
S3.1 3/4" = 1'-0"

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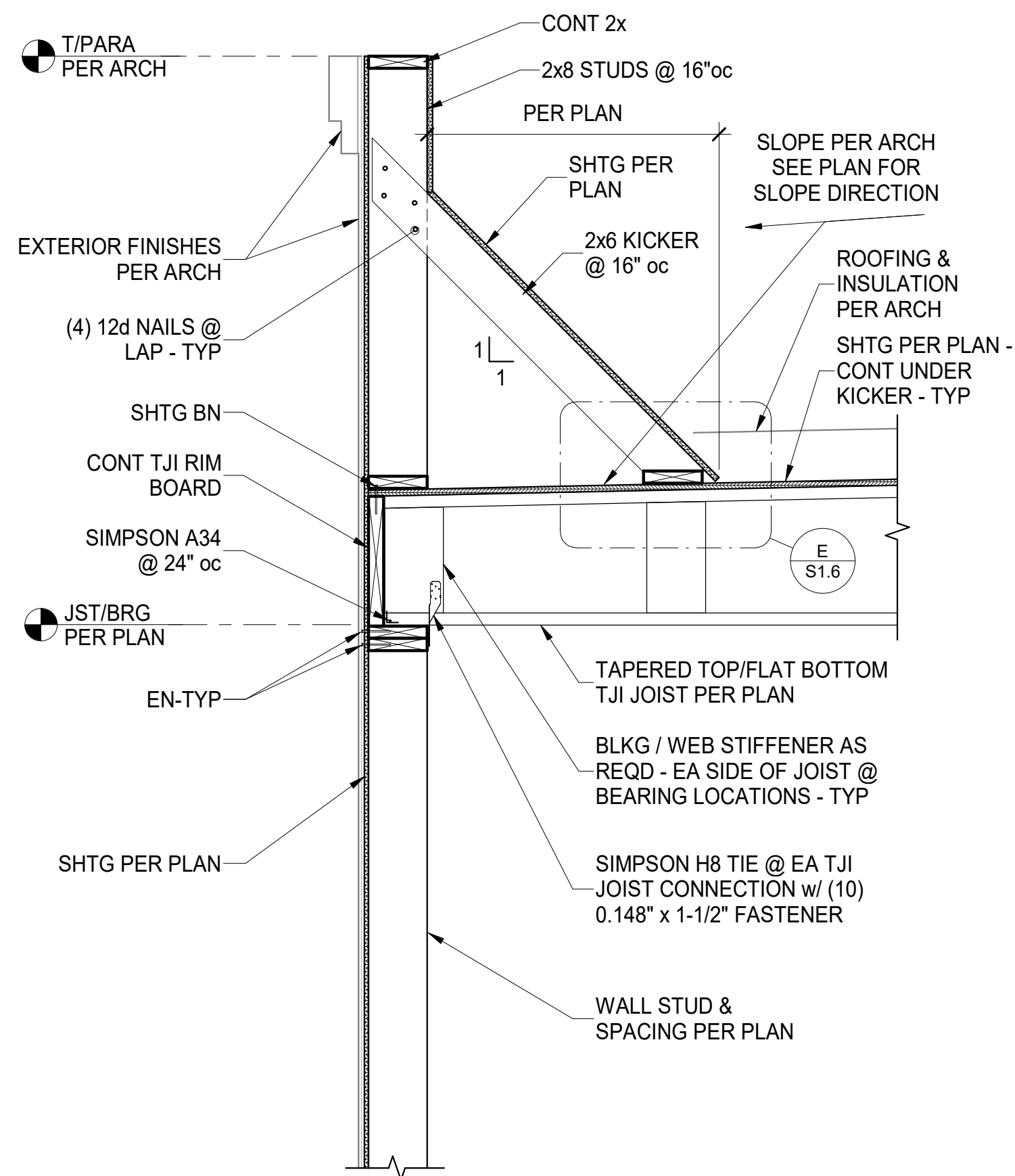
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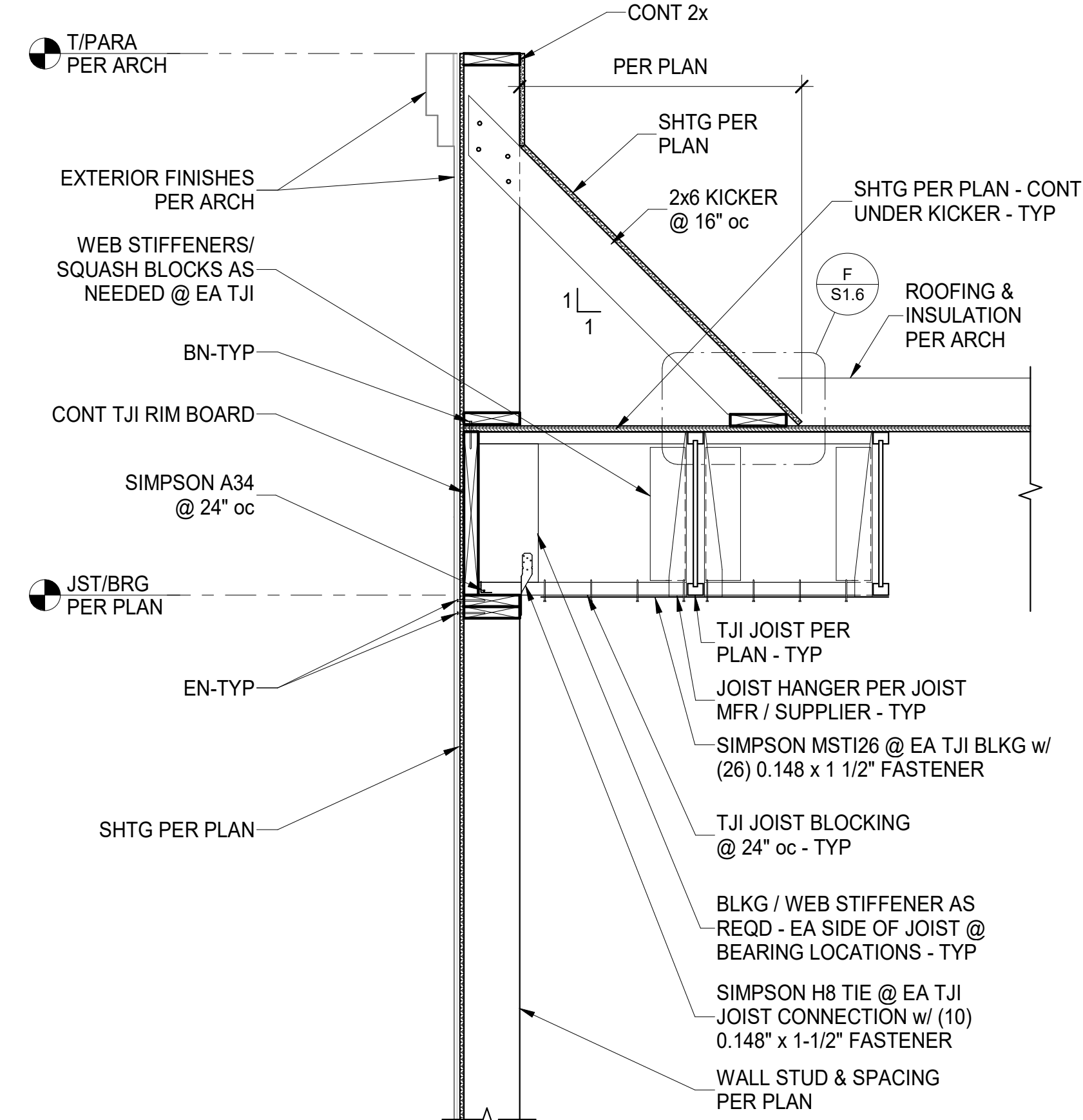
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SHEET TITLE:
FOUNDATION SECTIONS

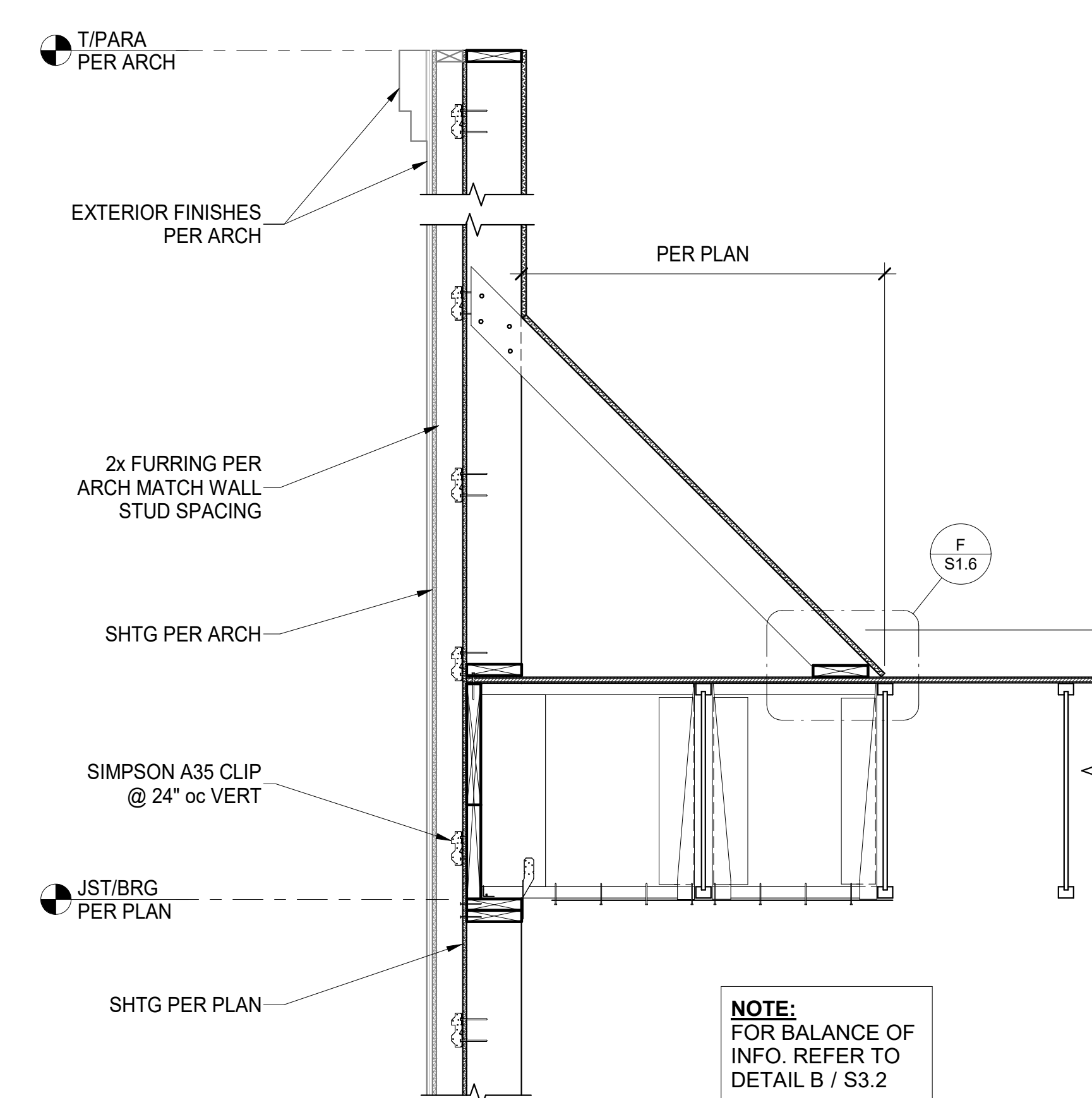
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S3.1



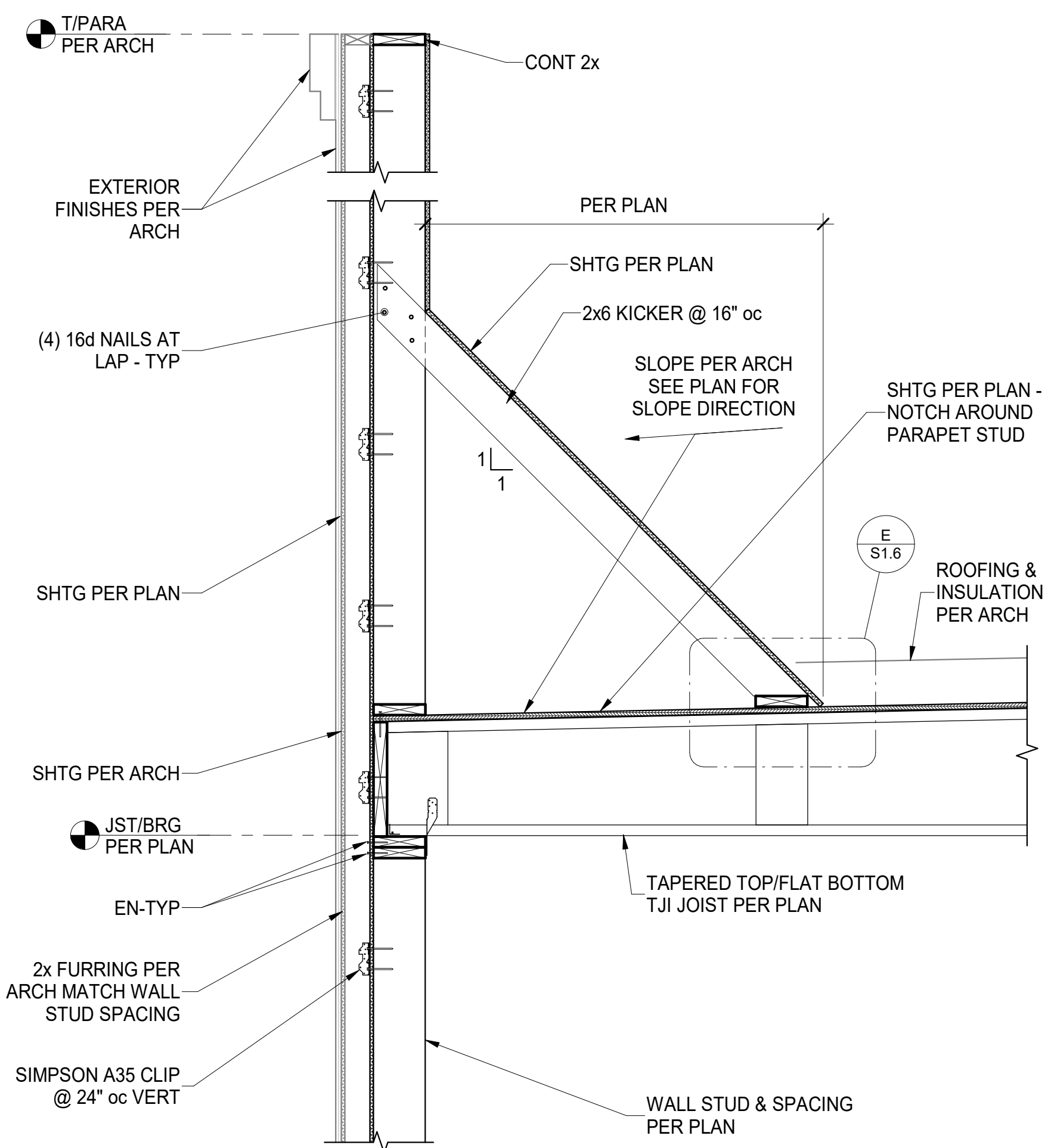
A FRAMING SECTION
S3.2 3/4" = 1'-0"



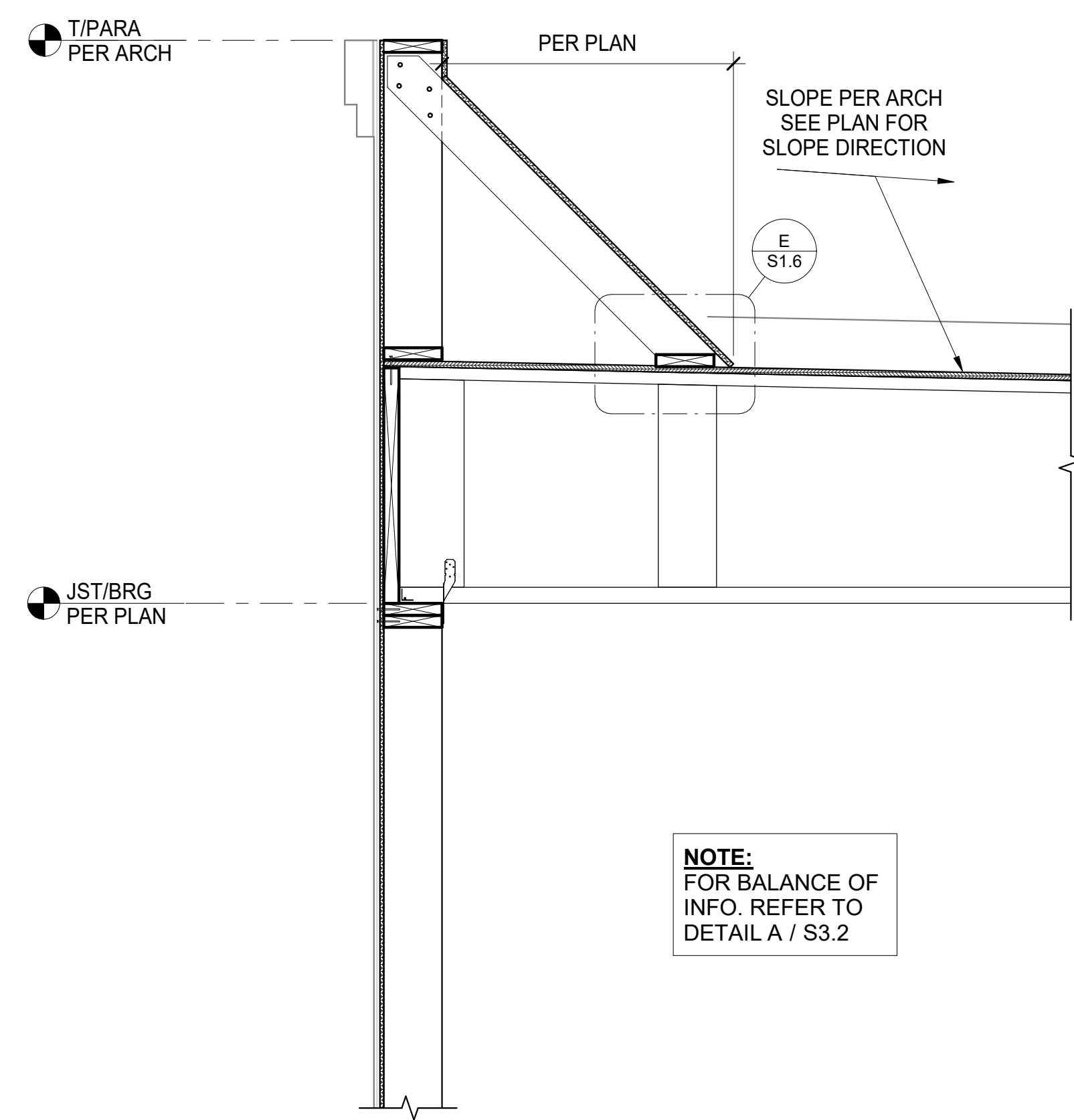
B FRAMING SECTION
S3.2 3/4" = 1'-0"



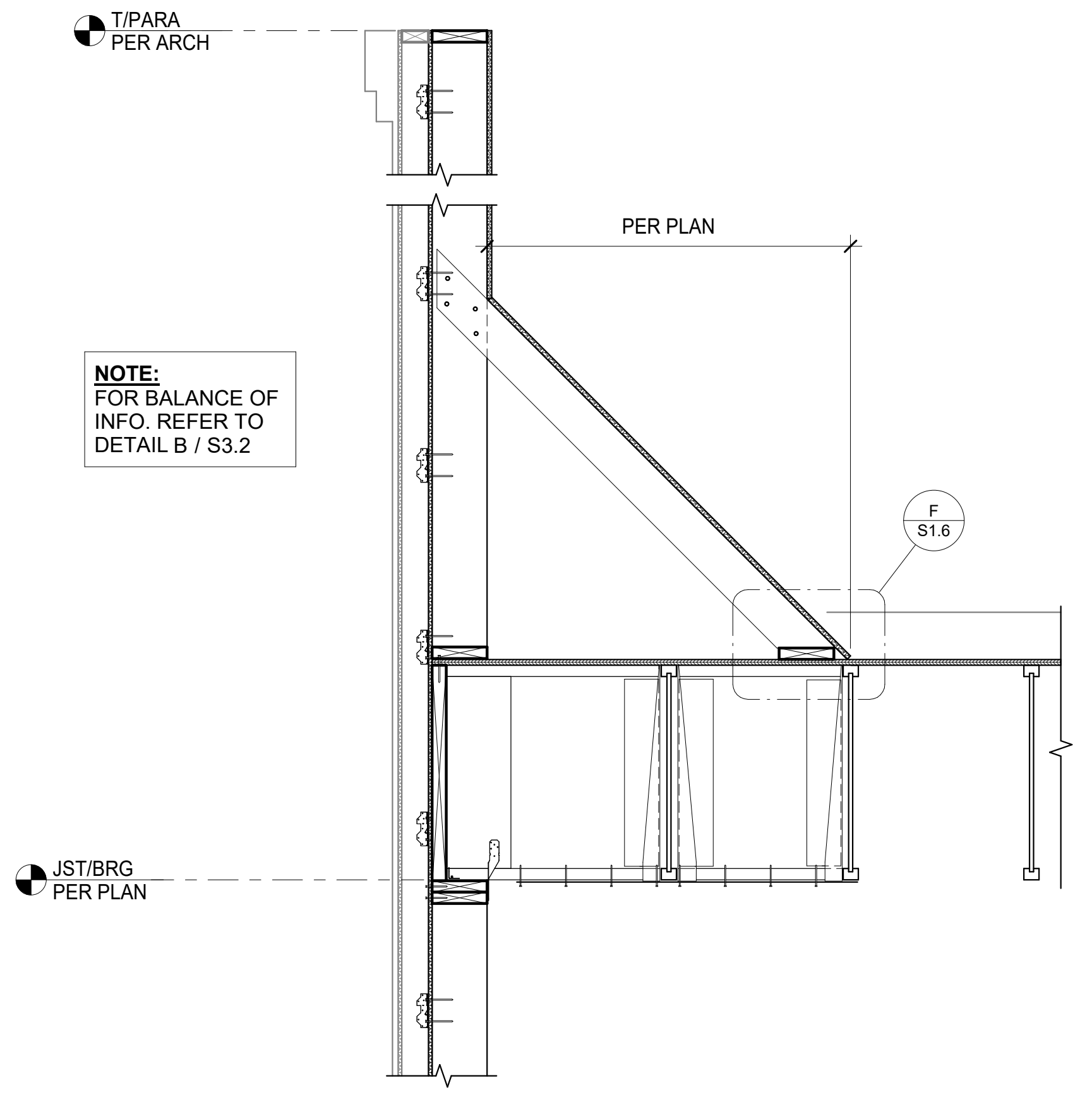
C FRAMING SECTION
S3.2 3/4" = 1'-0"



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



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



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

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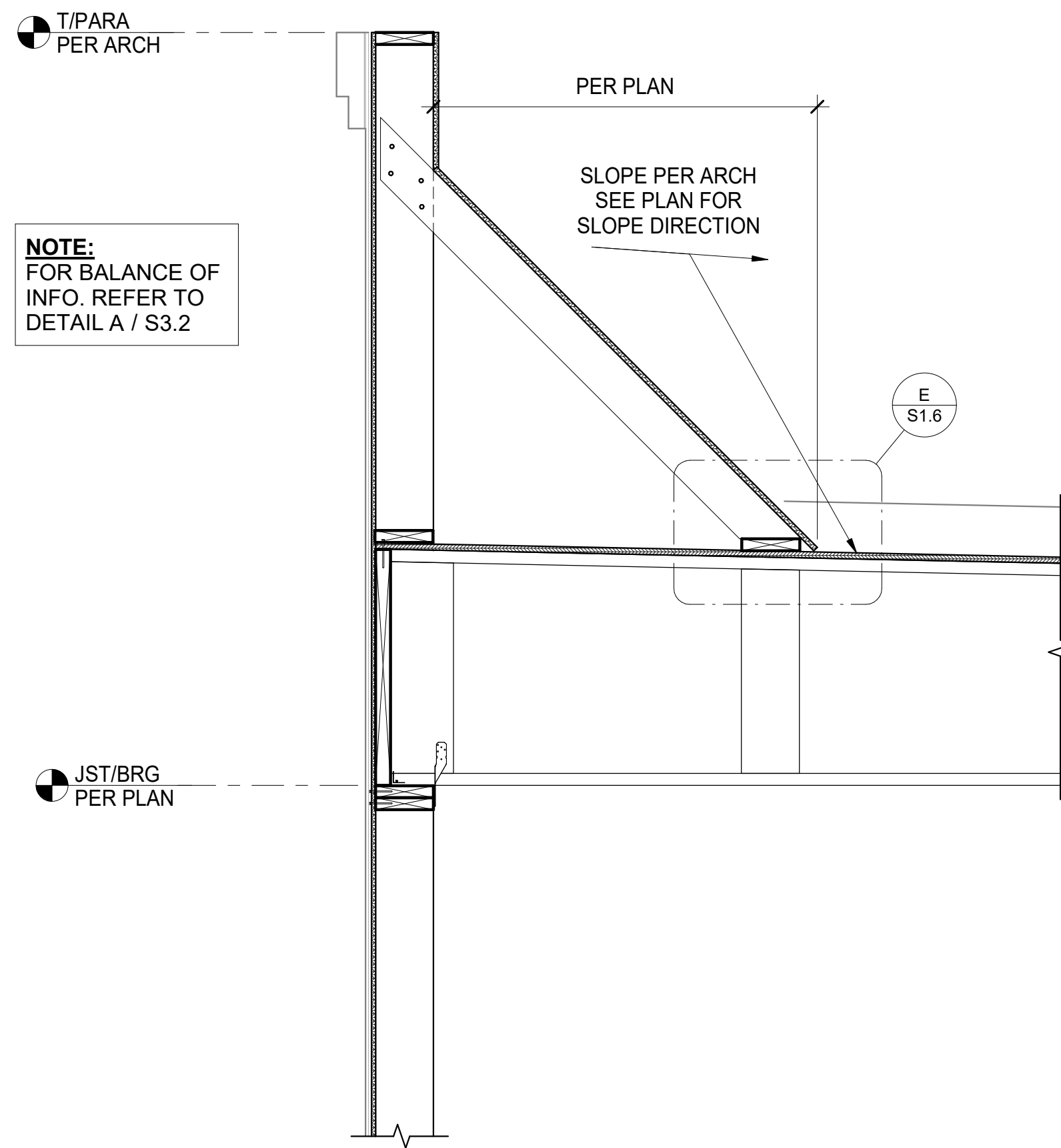
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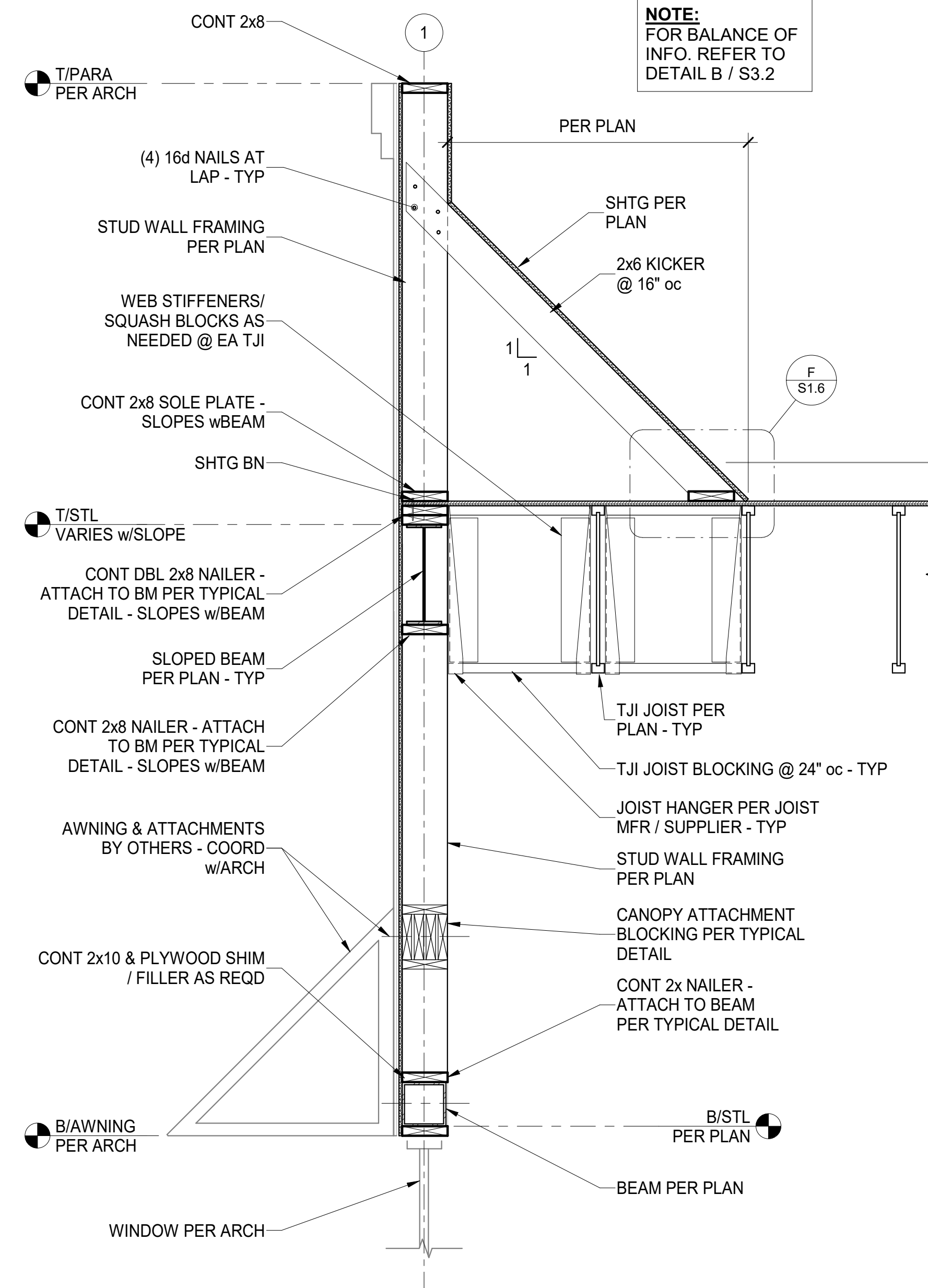
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FRAMING SECTIONS

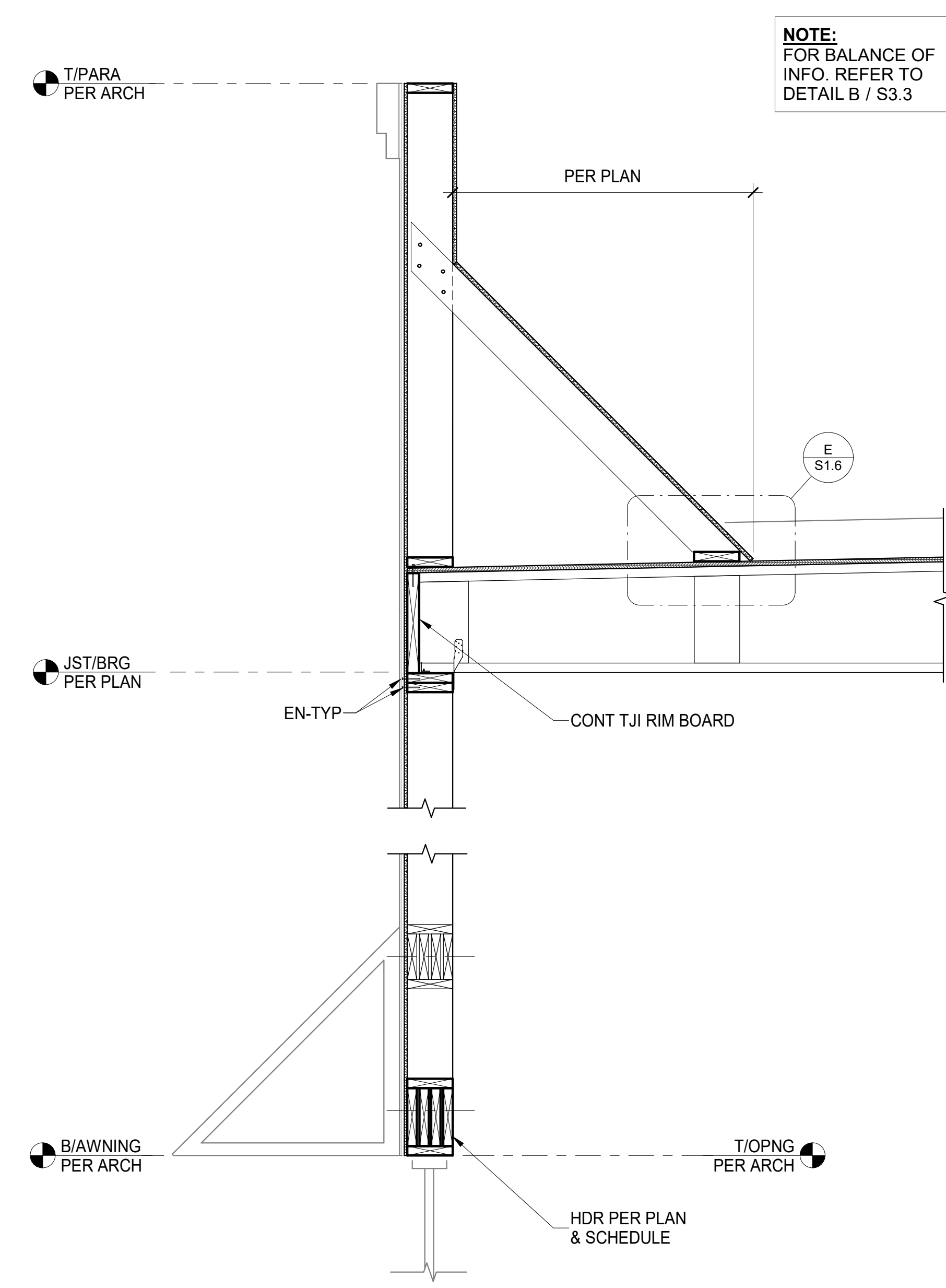
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S3.2



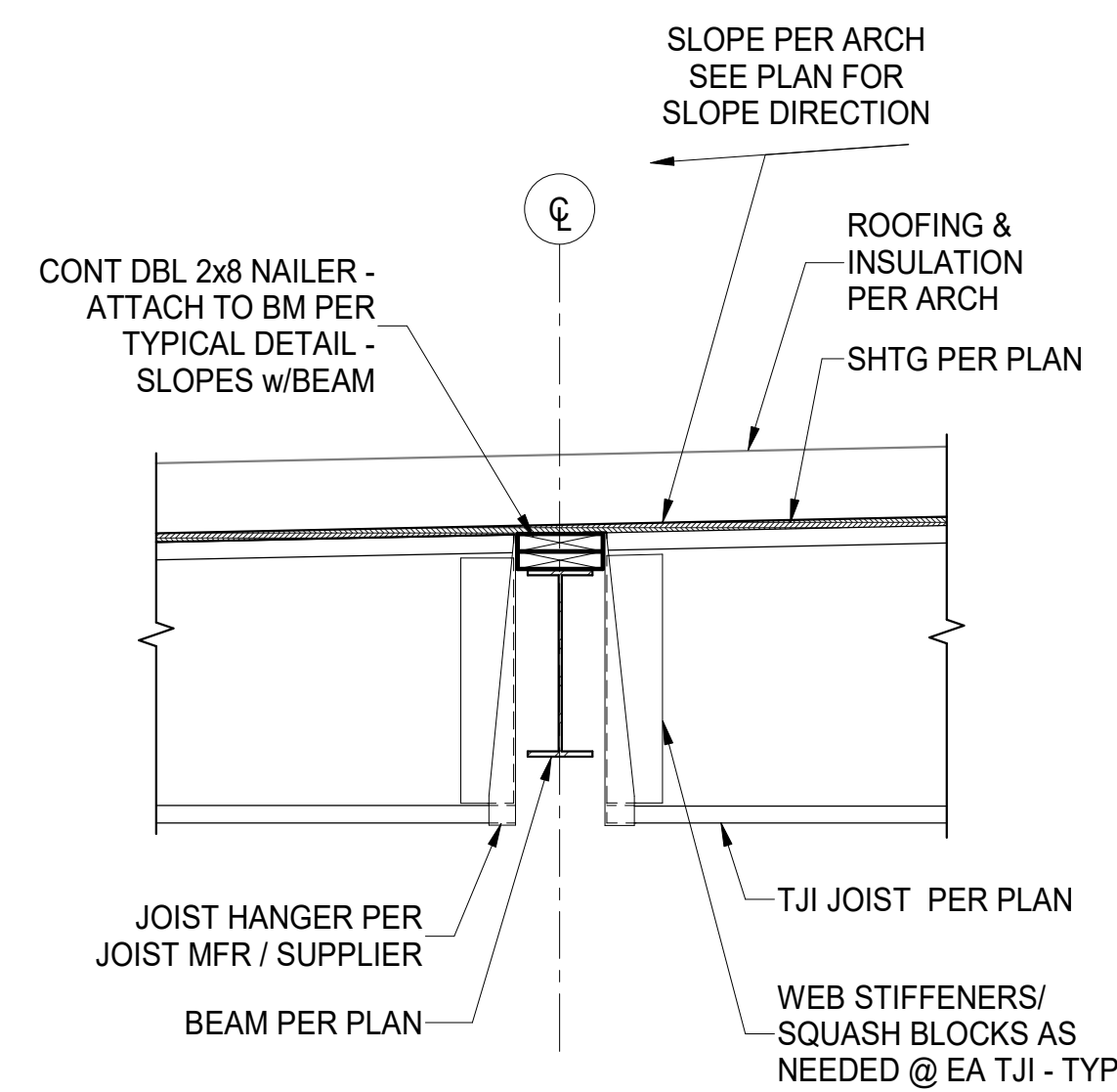
A FRAMING SECTION
S3.3 3/4" = 1'-0"



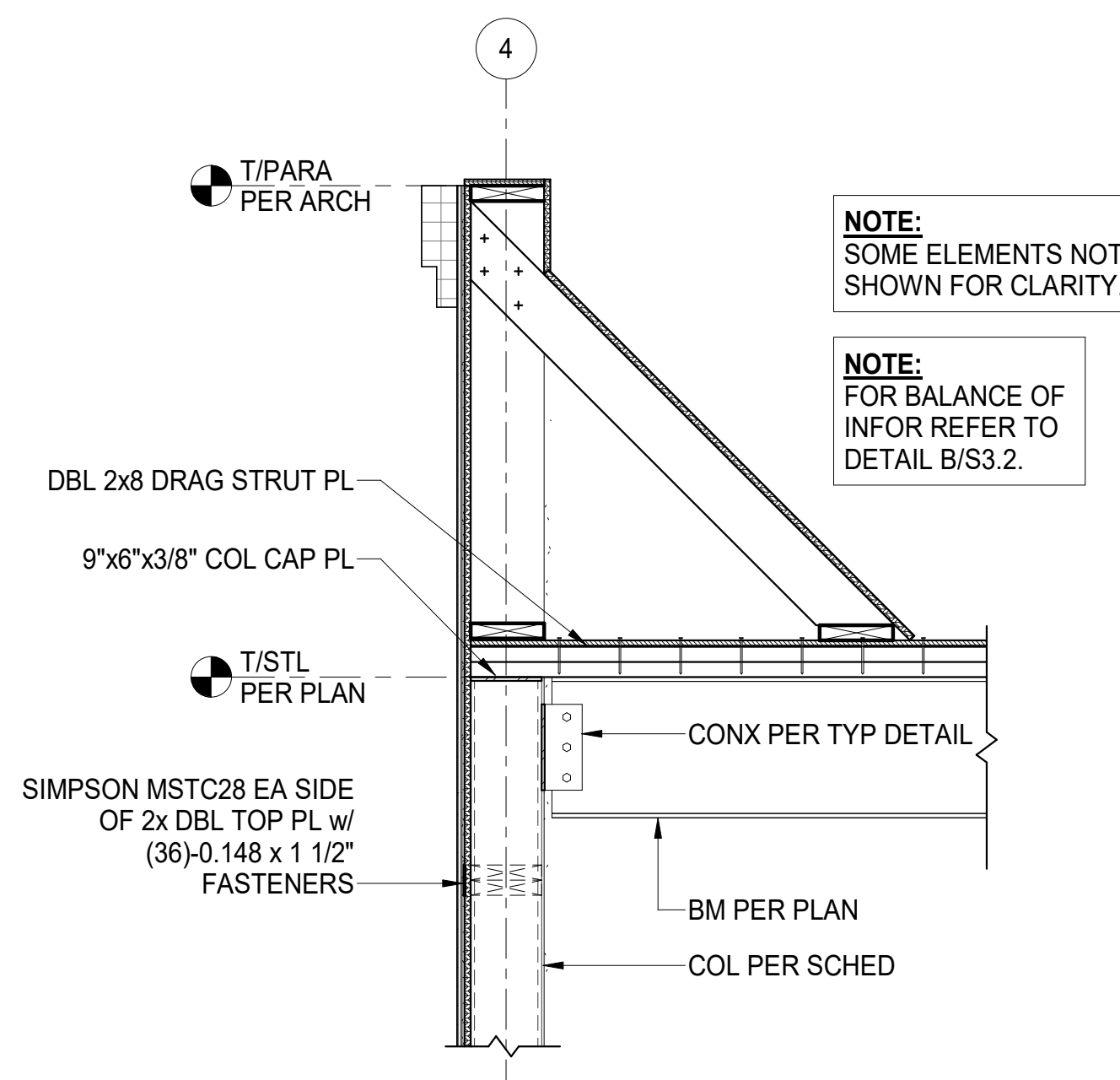
B FRAMING SECTION
S3.3 3/4" = 1'-0"



C FRAMING SECTION
S3.3 3/4" = 1'-0"



D FRAMING SECTION
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E FRAMING SECTION
S3.3 3/4" = 1'-0"

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SHEET TITLE: FRAMING SECTIONS

SHEET NUMBER: S3.3

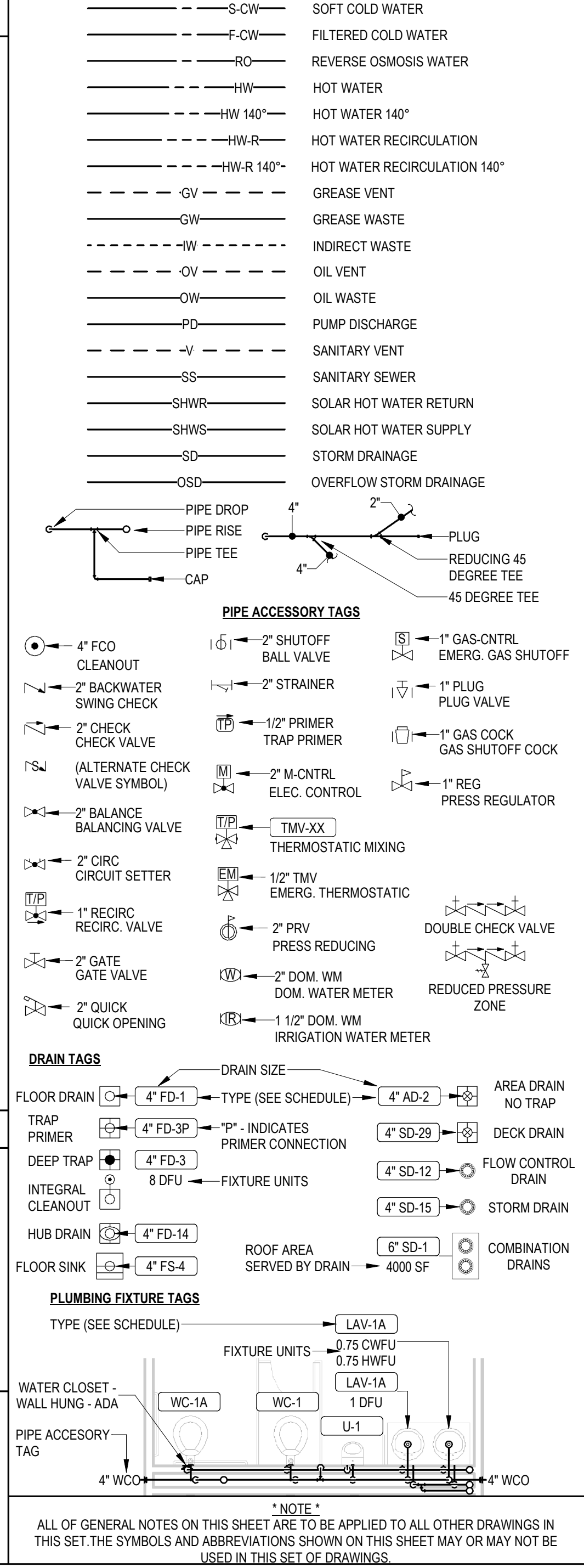
GENERAL MECHANICAL SYMBOLS	
	REVISION NUMBER - SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	NUMBER OF DETAIL ON SHEET
	NUMBER OF SHEET WHERE DETAIL APPEARS
	KEYNOTE
	CONTINUATION SYMBOL
	ROOM NAME AND NUMBER
	ITEM TO BE DEMOLISHED
	AREA NOT IN CONTRACT
	PIPE SIZE TAG (DIAMETER)
	ABOVE GROUND PIPING
	PIPE SLOPE TAG
	BELOW GROUND PIPING
	PIPE INVERT ELEVATION TAG
	EXISTING PIPE TAG
	PIPING BEING DEMOLISHED

PLUMBING AND PIPING SYMBOLS	
	CHILLED WATER RETURN
	CHILLED WATER SUPPLY
	CONDENSATE DRAINAGE
	CONDENSER WATER RETURN
	CONDENSER WATER SUPPLY
	GEO THERMAL WATER RETURN
	GEO THERMAL WATER SUPPLY
	HEATING WATER RETURN
	HEATING WATER SUPPLY
	NATURAL GAS
	PROPANE GAS
	REFRIGERANT-LIQUID
	REFRIGERANT-SUCTION
	REFRIGERANT-HOT GAS
	STEAM
	CONDENSATE RETURN
	COMBINATION WASTE & VENT
	COMPRESSED AIR
	DOMESTIC COLD WATER
	HARD COLD WATER
	SOFT COLD WATER
	FILTERED COLD WATER
	REVERSE OSMOSIS WATER
	HOT WATER
	HOT WATER 140°
	HOT WATER RECIRCULATION
	HOT WATER RECIRCULATION 140°
	GREASE VENT
	GREASE WASTE
	INDIRECT WASTE
	OIL VENT
	OIL WASTE
	PUMP DISCHARGE
	SANITARY VENT
	SANITARY SEWER
	SOLAR HOT WATER RETURN
	SOLAR HOT WATER SUPPLY
	STORM DRAINAGE
	OVERFLOW STORM DRAINAGE

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

ABBREVIATIONS			
Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	MA	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MECH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MU/A	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CLG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIN	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRESS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EW/C	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FOO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FDC	FIRE DEPARTMENT CONNECTION	RH	RELATIVE HUMIDITY
FL	FLOOR	R/LA	RELIEF AIR
FO	FUEL OIL	RM	ROOM
FV	FUEL OIL VENT	RP	REVOLUTIONS PER MINUTE
FOR	FUEL OIL RETURN	RW	RAIN WATER
FOS	FUEL OIL SUPPLY	SF	SQUARE FOOT
FFM	FEET PER MINUTE	S/A	SUPPLY AIR
FS	FLOOR SINK	SAN	SANITARY
FT	FOOT/FEET	SF	SQUARE FOOT
FTR	FIN TUBE RADIATION	SD	SMOKE DAMPER
GAL	GALLON	SM	SURFACE MOUNT
GF	GAS-FIRED	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HYD	HYDRANT	VAC	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VENT	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LB/HR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

EQUIPMENT ABBREVIATIONS			
AC	AIR CONDITIONING UNIT	ET	EXPANSION TANK
ACCU	AIR COOLING CONDENSING UNIT	EW/H	ELECTRIC WATER HEATER
AHU	AIR HANDLING UNIT	FCU	FAN COIL UNIT
AS	AIR SEPARATOR	FP	FIRE PUMP
B	BOILER	GI	GREASE INTERCEPTOR
CH	CHILLER	GRV	GRAVITY ROOF VENTILATOR
CT	COOLING TOWER	HWP	HEATING WATER PUMP
CUH	CABINET UNIT HEATER	HRU	HEAT RECOVERY UNIT
CHWP	CHILLED WATER PUMP	PRV	POWER ROOF VENTILATOR
DBP	DOMESTIC WATER BOOSTER PUMP	RE	RETURN/EXHAUST FAN
DC	DUCT MOUNTED COIL	RTU	ROOFTOP UNIT
DCP	DOMESTIC WATER CIRCULATING PUMP	SP	SUMP PUMP
EF	EXHAUST FAN	UH	UNIT HEATER
EDC	ELECTRIC DUCT COIL	WH	WATER HEATER



LINGLE DESIGN GROUP, INC.

LINGLEDESIGNGROUP, INC
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDESIGN.COM

CASE Engineering Inc.

796 Merus Court St. Louis, MO 63026
1764 Blake St Denver, CO 80202
T 636.349.1600 F 636.349.1730
CERTIFICATE OF AUTHORITY NO. 10975461-0143

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TBD

DRAWN BY: DM CHECKED BY: NH

- PERMIT SET - 11/22/2023
- △ DEVELOPER COMMENTS - 01/15/2024
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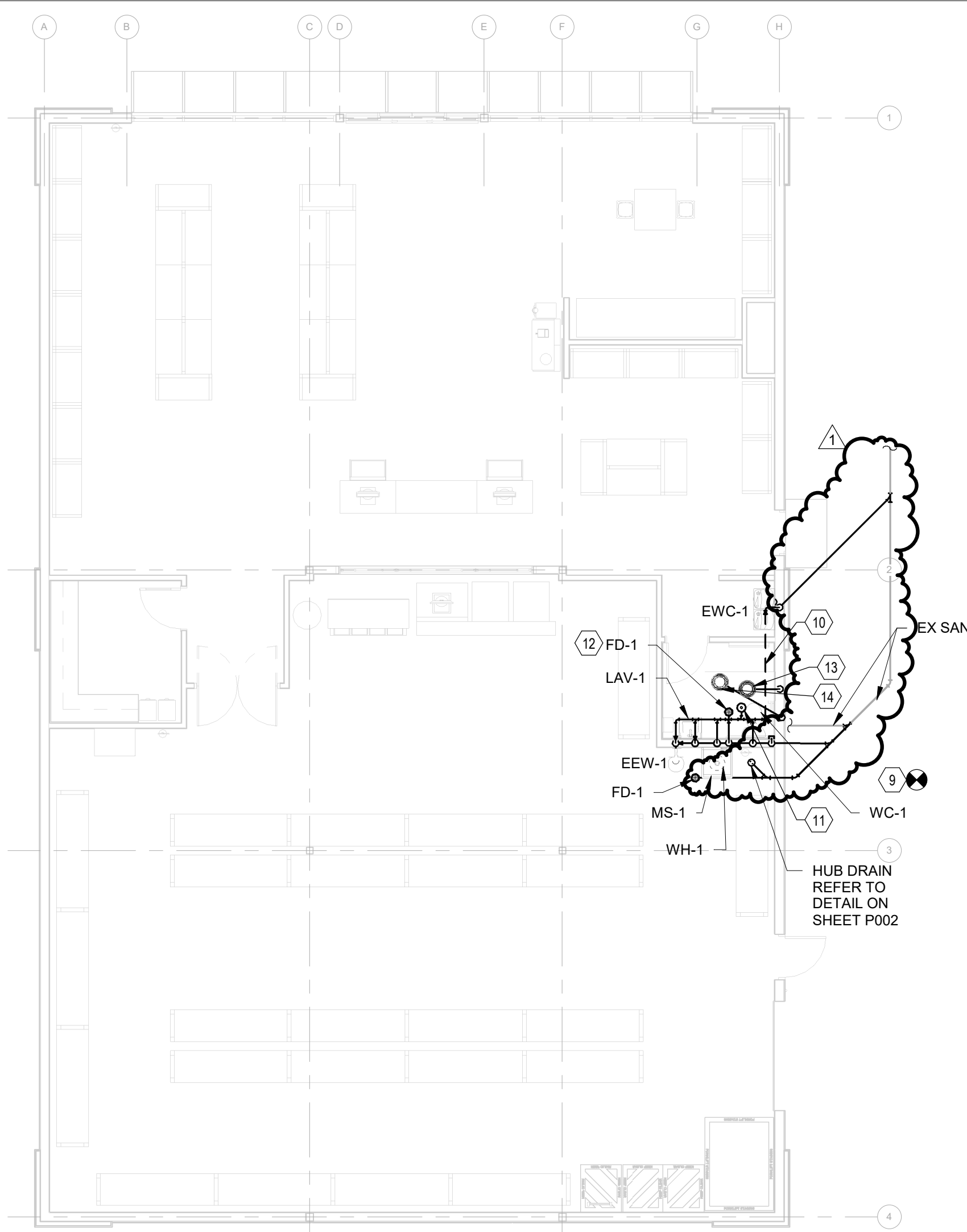
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STORE #
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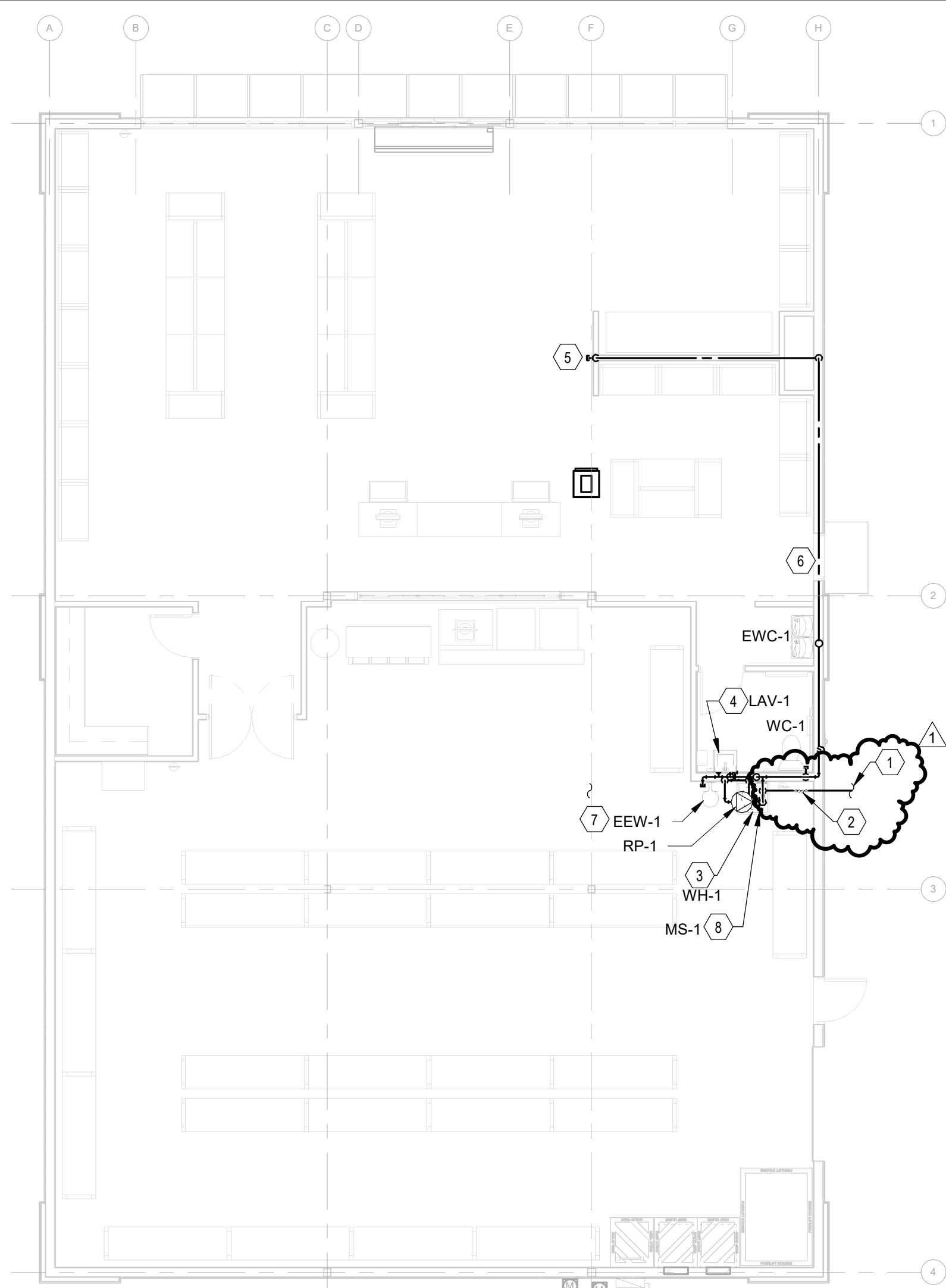
ADDRESS
2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE
PLUMBING TITLE SHEET

SHEET NUMBER
P000



1 PLUMBING WASTE AND VENT PLAN
1/8" = 1'-0"



2 PLUMBING WATER PLAN
1/8" = 1'-0"

PLUMBING SYMBOLS LEGEND

CA	COMPRESSED AIR PIPING
G	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
AFF	ABOVE FINISHED FLOOR
CO	CLEAN OUT
+	PRESSURE REGULATING VALVE (PRV)
+	BALL VALVE
GCO	GRADE CLEAN OUT
○	POINT OF CONNECTION
○	BALANCE VALVE

- PLUMBING CONTRACTOR SHALL ABIDE BY THE LOCAL CODES AND ORDINANCES.
- 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.
- CONTRACTOR SHALL BE FAMILIAR WITH LANDLORD'S STANDARDS, RULES AND REGULATIONS. ALL LANDLORD'S CRITERIA SHALL BE COMPILED WITH AND INCLUDED IN THIS BID.
- 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.
- CONTRACTOR SHALL VERIFY AND COORDINATE ALL UTILITY CONNECTION POINTS, INCLUDING SIZES AND INVERTS WITH EXISTING FIELD CONDITIONS PRIOR TO START OF WORK.
- 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 INSTALLATION.
- THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS RELATED TO THE INSTALLATION OF THE WORK.
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ALL AUTHORITIES HAVING JURISDICTION AND LANDLORD'S CRITERIA.
- MAINTAIN ALL MANUFACTURER'S RECOMMENDED SERVICE CLEARANCES FOR ALL FIXTURES AND EQUIPMENT. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATIONS OF PLUMBING FIXTURES.
- 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 AIR INTAKES ON HVAC EQUIPMENT.
- ALL HORIZONTAL FIRE PROTECTION SPRINKLER PIPING AND ALL ABOVE GRADE EXPOSED HORIZONTAL PIPING IS TO BE INSTALLED AS HIGH AS POSSIBLE.
- 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.
- CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE CONTRACT DOCUMENTS BEFORE COMMENCING ANY WORK.
- 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.
- ALL DOMESTIC COLD, HOT AND TEMPERED WATER PIPING TO BE INSULATED WITH RIGID FIBERGLASS INSULATION WITH TYPE "ASJ" JACKET. COLD WATER PIPES TO HAVE 3/4" THICK INSULATION. DOMESTIC HOT AND TEMPERED WATER PIPES TO HAVE 1" THICK INSULATION.
- 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.

FOUNTAIN SCHEDULE					ACCEPTABLE MANUFACTURERS AND MODELS			
MARK	FIXTURE	SAN.	VENT	C.W.	VOLT/PHASE	MANUFACTURER	MODEL#	REMARKS
EWC-1	ELECTRIC WATER COOLER WALL MOUNT HIGH EFFICIENCY VANDAL RESISTANT BLEVEL ADA COOLER	2"	2"	1/2"	115V/60Hz	ELKAY	VRCGN1L8C	

WATER HEATER SCHEDULE						
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" DRAIN					
1 X 5 OFFSET PIPE OUTLET		2 X 5 OFFSET PIPE OUTLET		4FT VERTICAL PIPE OUTLET	
ROOF PONDING DEPTH (IN.)	FLOW RATE (GPM)	ROOF PONDING DEPTH (IN.)	FLOW RATE (GPM)	ROOF PONDING DEPTH (IN.)	FLOW RATE (GPM)
1.00	79.31	1.00	76.30	1.00	81.68
2.00	306.65	2.00	306.58	2.01	314.14
3.04	376.36	3.03	446.73	3.01	580.74
4.02	383.20	4.01	453.45	3.99	618.29
5.01	390.66	5.01	459.53	5.00	624.89
5.99	397.10	5.89	464.23	6.02	630.21

NOTE:
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.

ROOF DRAIN CALCULATIONS

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

SHEET NOTES:

- 1" DOMESTIC CW PIPE FROM OUTSIDE OF BUILDING. SEE CIVIL FOR CONTINUATION.
- FURNISH AND INSTALL 1" BACKFLOW PREVENTER AND STRAINER FOR DOMESTIC WATER SERVICE. ROUTE RELIEF PIPING TO DISCHARGE INDIRECTLY INTO 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.
- MOUNT WATER HEATER ABOVE UTILITY SINK ON PLATFORM.
- 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.
- COLD WATER CONNECTION TO COFFEE MAKER. PROVIDE SHUTOFF VALVE AND BACKFLOW PREVENTER IN WALL IN A RECESSED VALVE BOX PRIOR TO CONNECTION TO EQUIPMENT.
- ROUTE CW PIPING CONCEALED IN WALL ON WARM SIDE OF INSULATION. PIPING SHALL NOT BE EXPOSED IN SALES FLOOR.
- ROUTE CW/HW PIPING DOWN TO EYEWASH MIXING VALVE. REFER TO DETAIL 6 ON P004.
- ROUTE TEMPERATURE AND PRESSURE RELIEF VALVE DOWN AND INDIRECTLY ROUTE TO UTILITY SINK BELOW.
- 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.
- ALL VENT PIPING FROM ALL FIXTURES ARE 2" DIAMETER UNLESS SPECIFIED OTHERWISE.
- ROUTE 3" SANITARY VENT UP THROUGH ROOF. MAINTAIN A MINIMUM CLEARANCE OF 10' FROM NEAREST AIR INTAKE. VERIFY EXACT LOCATION IN FIELD.
- INSTALL 2" FLOOR DRAIN IN BATHROOM FLOOR AS SHOWN.
- 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.
- ROUTE 4" OVERFLOW STORM DOWN EXTERIOR WALL TO DISCHARGE 12" ABOVE GRADE VIA A SCUPPER.

GENERAL NOTES:

- PLUMBING DRAWINGS ARE DIAGRAMMATIC AND DO NOT NECESSARILY INDICATE EVERY REQUIRED OFF-SET, 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.
- 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.
- PROVIDE ACCESSIBLE SHUT-OFF VALVES ON ALL NEW FIXTURE HW & CW BRANCHES.
- 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 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 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.
- PROVIDE TRAP PRIMERS FOR ALL FLOOR AND HUB DRAINS.

PLUMBING FIXTURE 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 553-315 "MERADA 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 S19-200009FX OR EQUAL
MS-1	UTILITY SINK	3"	2"	1/2"	1/2"	UTILITY SINK: ELKAY 91C24X24X 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

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

CASE Engineering Inc.
796 Meus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. 10975461-0143

11/22/2023
STATE OF TEXAS
MATHIEW RICHARD CASE
128362
LICENSED PROFESSIONAL ENGINEER

PROJECT # TBD
DRAWN BY: DM CHECKED BY: NH

PERMIT SET - 11/22/2023
△ DEVELOPER COMMENTS - 01/15/2024
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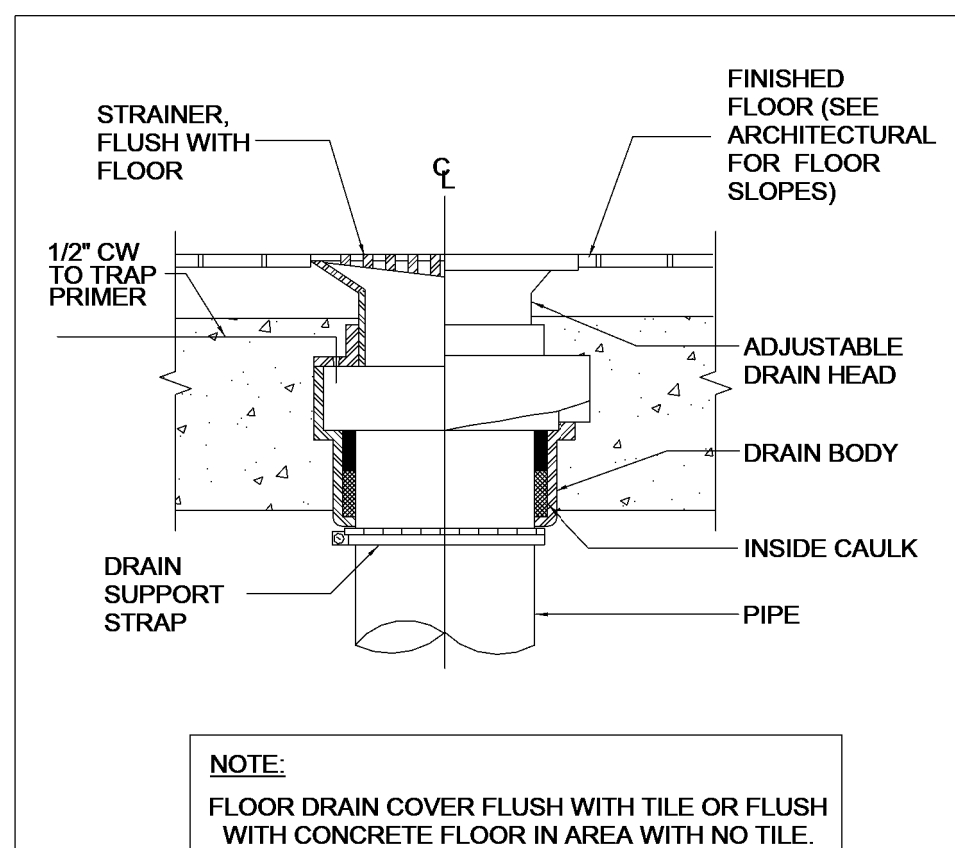
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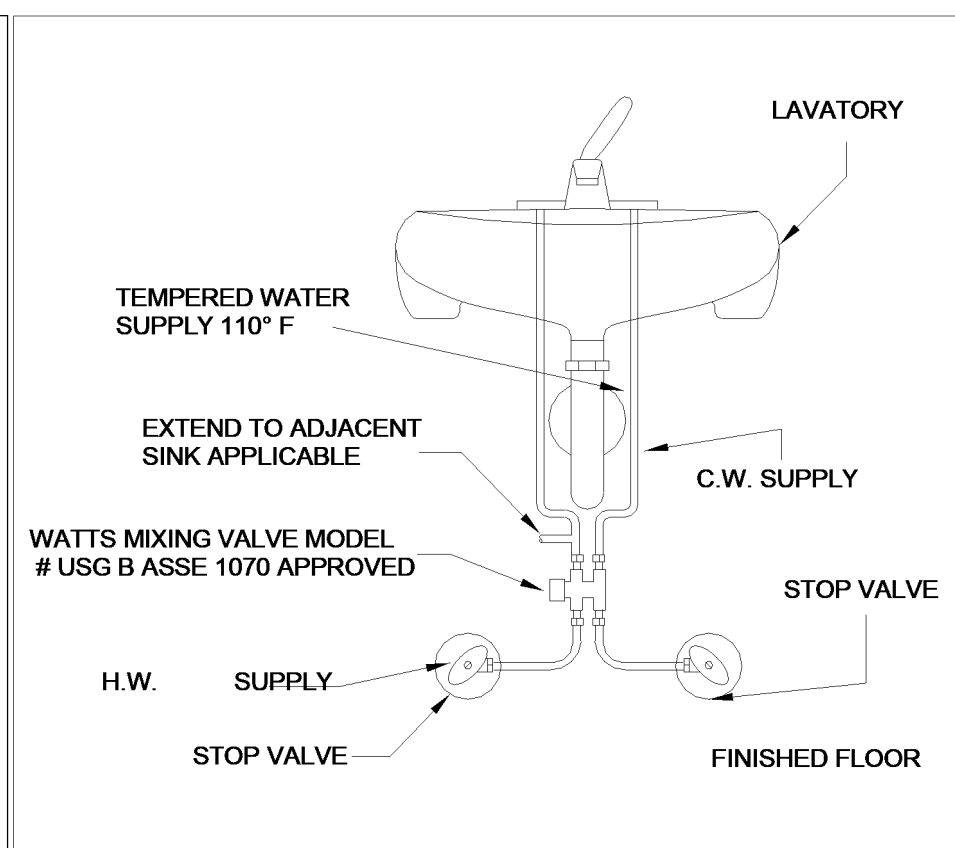
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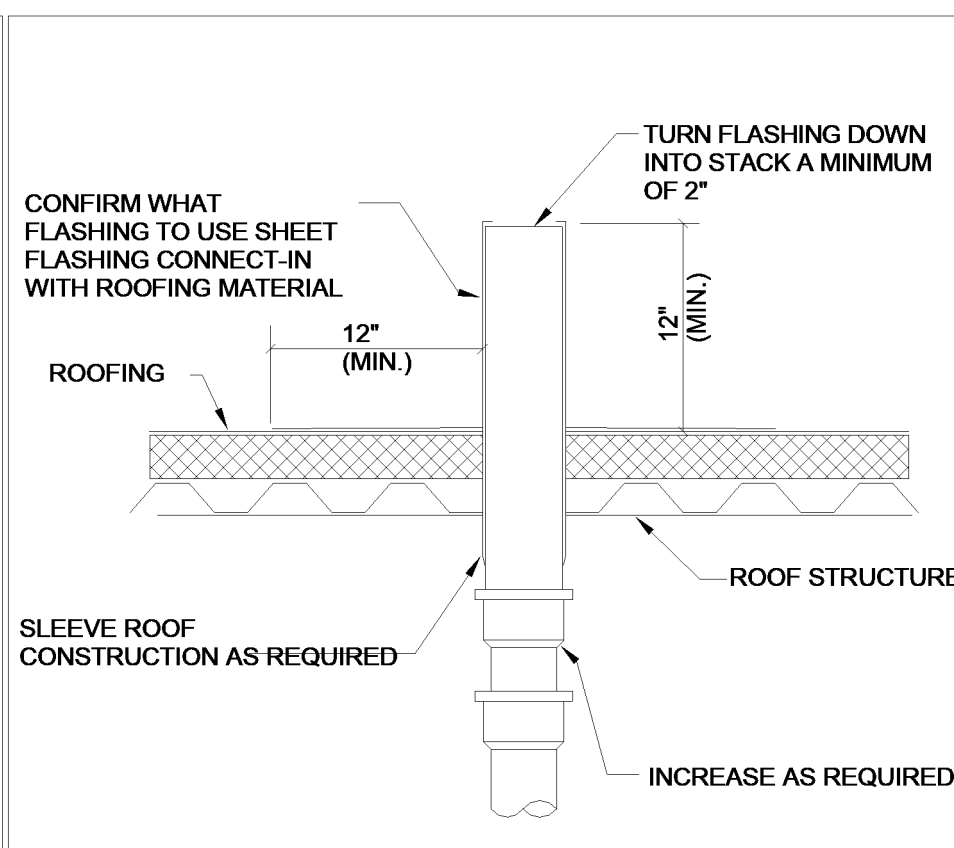
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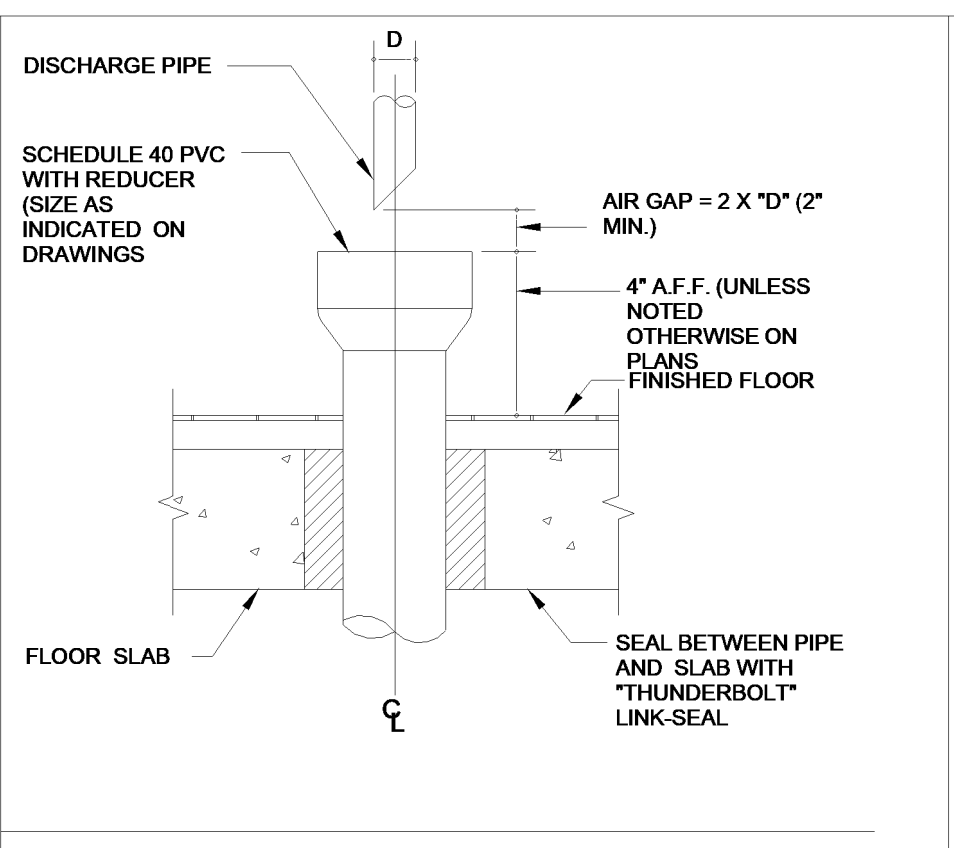
FLOOR DRAIN DETAIL
SCALE: NONE



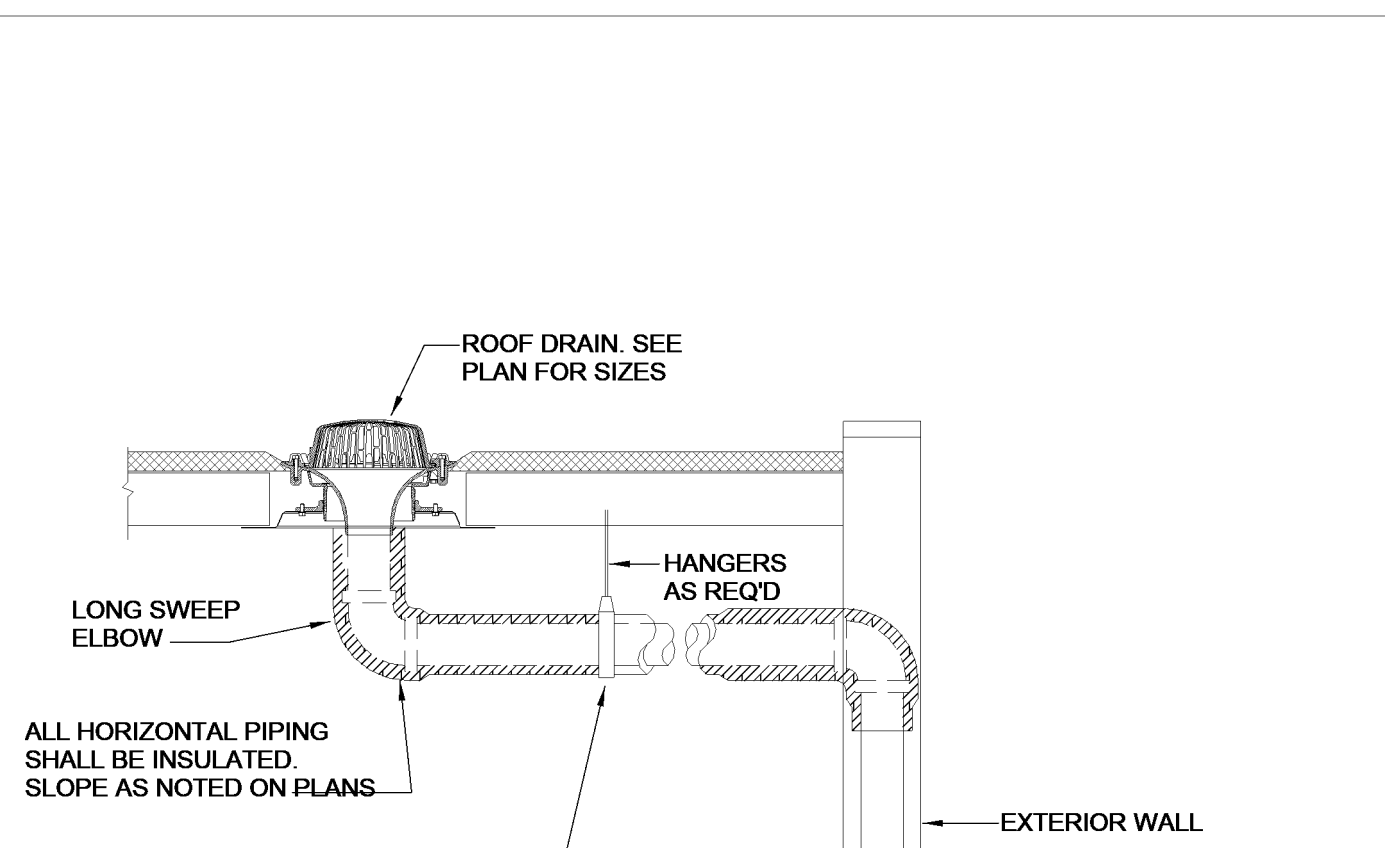
MIXING VALVE DETAIL
SCALE: NONE



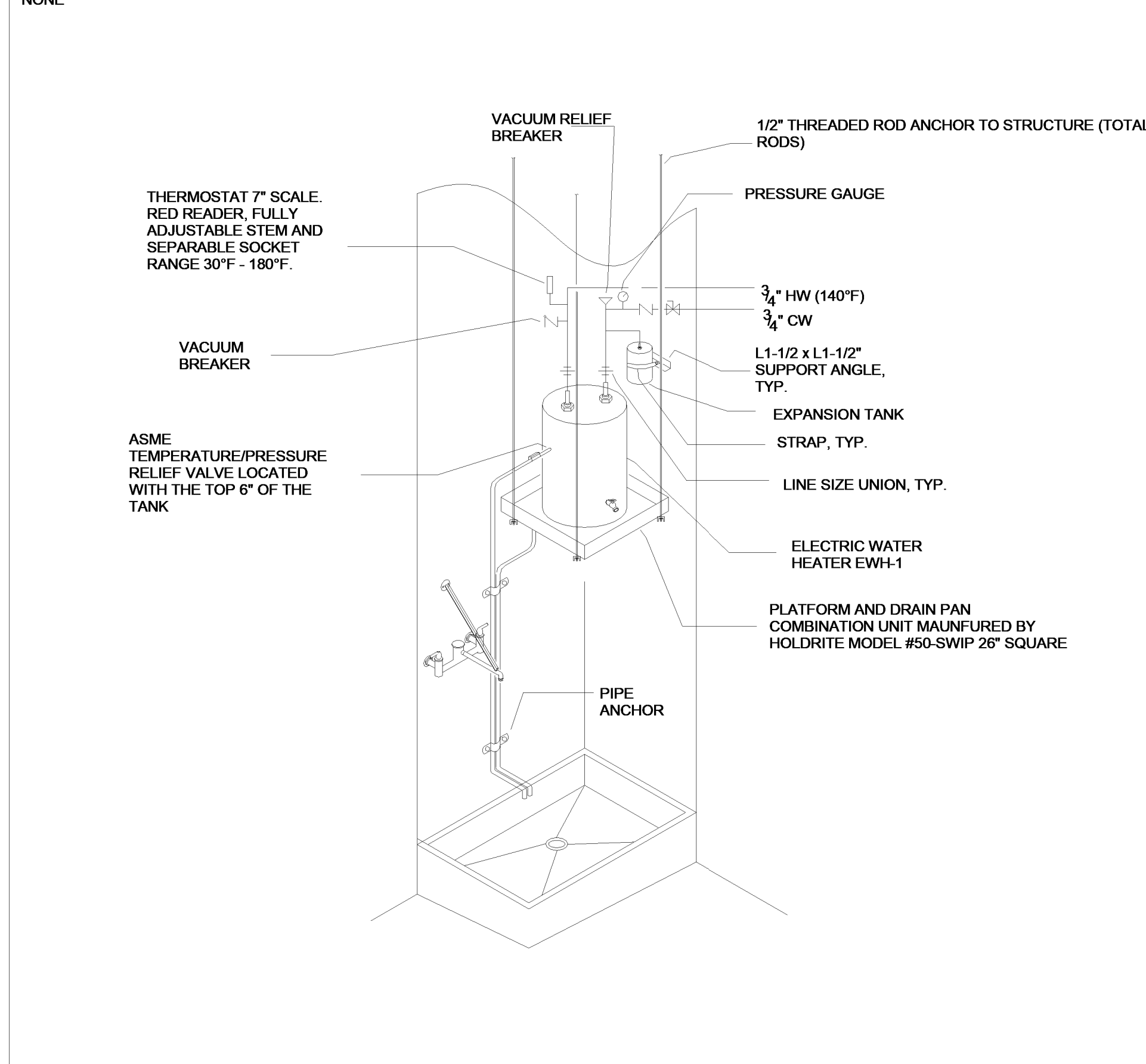
VENT THROUGH THE ROOF DETAIL



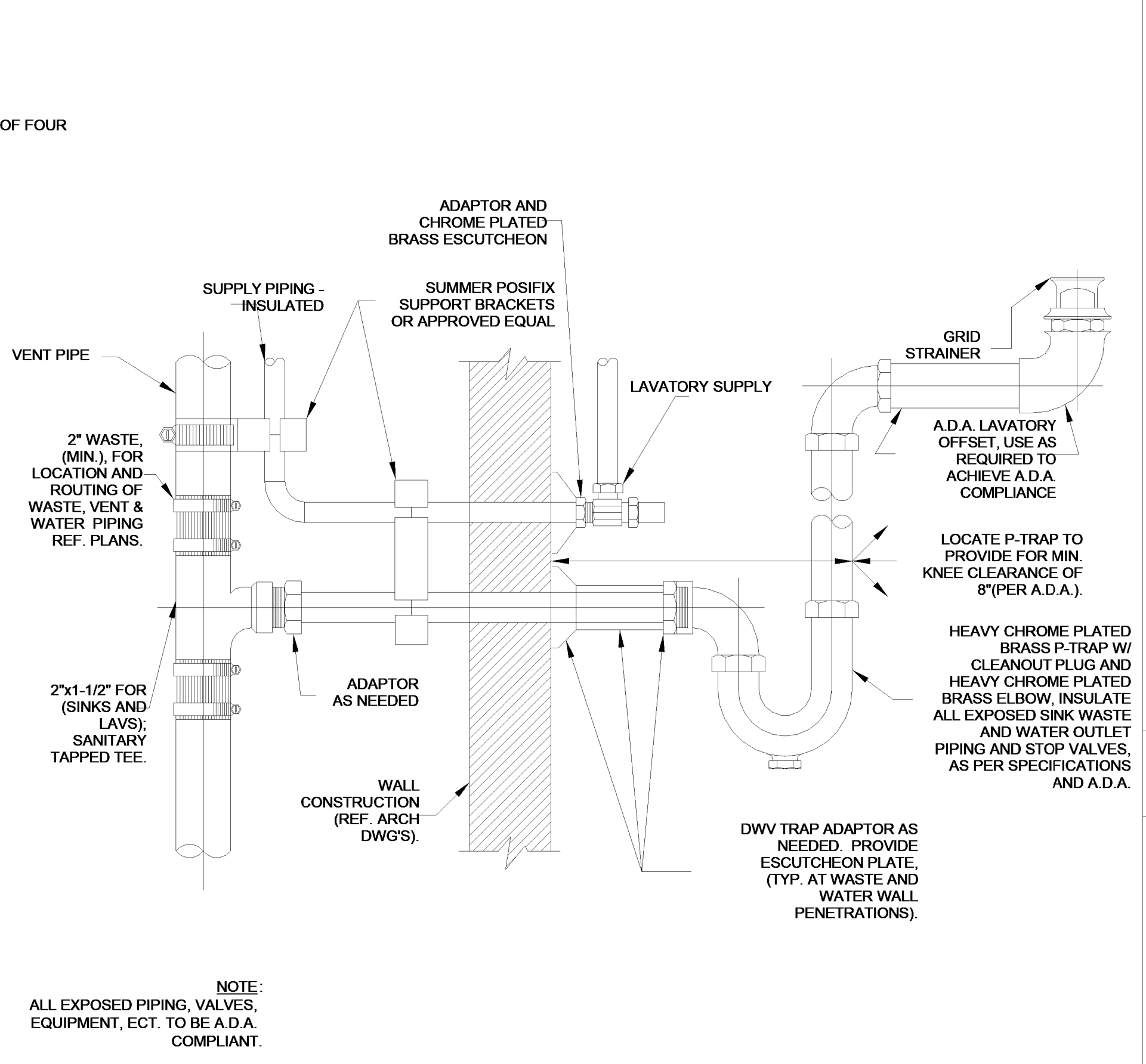
HUB DRAIN DETAIL
SCALE: NO SCALE



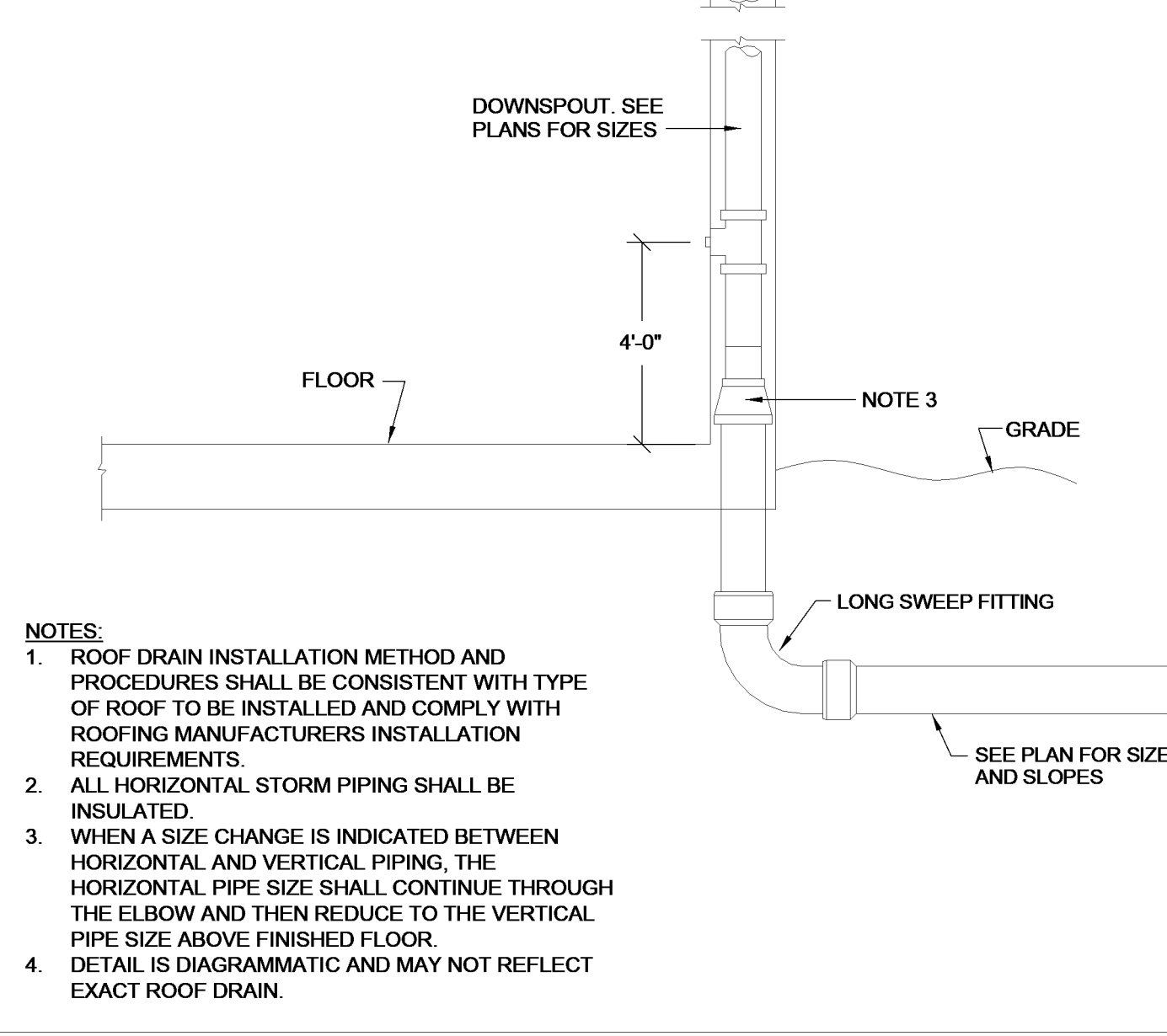
ROOF DRAIN PIPING WITH HORIZONTAL OUTLET PIPING
NO SCALE



ELECTRIC WATER HEATER DETAIL
SCALE: NO SCALE



TYPICAL LAVATORY & SINK CONNECTION DETAIL
SCALE: NONE

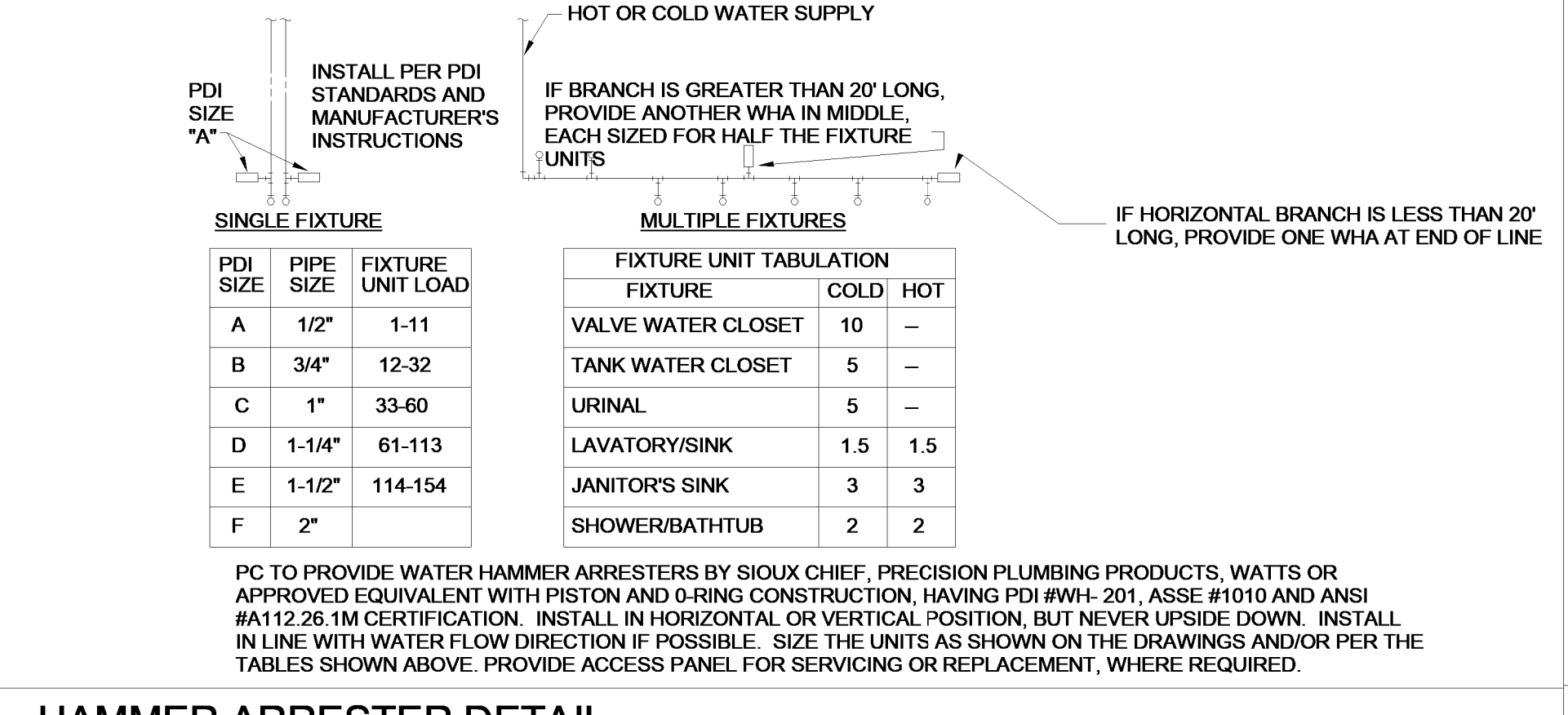


ZURN FLOFORCE ROOF DRAIN DETAIL
NO SCALE

PIPE SUPPORT SCHEDULE

NOMINAL PIPE DIAMETER NPS (IN)	MAXIMUM SUPPORT SPACING (FEET)							
	CAST IRON	COPPER	STEEL	SCH 40 PVC	SCH 40 CPVC			
				60°F	73°F	100°F	120°F	140°F
1/2		8		-	5	4.5	4.5	4
3/4		9			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
1 1/2	5	12	9	6	6	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

1. SUPPORT SPACING ABOVE IS FOR STRAIGHT HORIZONTAL PIPE. PROVIDE SUPPORTS ON EACH SIDE OF ELBOWS, FLANGES, VALVES, SPECIALTIES, ETC.
2. ALL PIPING SUPPORTS, THREADED ROD SIZES AND HANGERS SHALL BE PER MSS SP-69



HAMMER ARRESTER DETAIL
SCALE: NONE

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

CASE Engineering Inc.
796 Merus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. 10975461-0143

11/22/2023
STATE OF TEXAS
MATTHEW RICHARD CASE
128362
LICENSED PROFESSIONAL ENGINEER

PROJECT # TBD
DRAWN BY: DM CHECKED BY: NH

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

SHERWIN WILLIAMS

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

SHEET TITLE:

PLUMBING DETAILS

SHEET NUMBER:

P002

PLUMBING SPECIFICATIONS

1. GENERAL. THE ARCHITECTURAL GENERAL CONDITIONS GOVERN WORK UNDER THIS SECTION.

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 ON THE ABOVE REQUIREMENTS AND THAT IT COVERS EVERYTHING NECESSARY TO DO AND COMPLETE THE WORK.

2. INSPECTION AND COOPERATION 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 AVOID INTERFERENCE.

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

SHOULD THE DRAWINGS AND/OR SPECIFICATIONS CONFLICT WITH SUCH LAWS OR ORDINANCES, THE CONFLICTING PORTION OF THE WORK SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH SUCH LAWS AND ORDINANCES WITHOUT EXTRA COST.

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

4. ACCURACY OF DATA THE INFORMATION CONTAINED 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 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 ADDITIONAL COST.

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

5. SHOP 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 SHOWN. 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 INCURRED 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 CONTRACTORS REVIEW AND SIGNATURE OF CHECK FOR CONTRACTOR TOGETHER WITH CONTRACTORS 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 DESIGN DETAILS AND THE QUALITY OF PARTS 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 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 COMPARED 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 BASE BID.

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.

7. 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 IMMEDIATELY.

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

THIS CONTRACTOR SHALL DO ALL EXCAVATION REQUIRED TO INSTALL PIPES AND 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 BACKFILLING.

INSTALL PLASTIC PIPE AND FITTINGS IN STRICT ACCORDANCE WITH THE INSTALLATION RECOMMENDATIONS OF THE PIPE AND FITTINGS MANUFACTURER. APPENDIX X1 OF ASTM D2285 (STORAGE AND INSTALLATION PROCEDURES FOR PLASTIC DRINK WATER AND VENT PIPING) AND FOR BURIED PIPE ASTM D3231 (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 GRADE, TRENCHING, BEDDING, BACKFILL AND CONTACTION, SUPPORTS AND SPACING AND ALLOWANCE FOR THERMAL EXPANSION.

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

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 FILLED WITH GRAVEL. IF TRENCHES ARE DEEPER THAN BOTTOM OF FLOORING OR CLOSER THAN THREE FEET (3') TO FOOTING THEY MUST BE FILLED WITH COHESIVE SOIL AND COMPACTED TO 95% OF MAXIMUM DENSITY, STANDARD PROCTOR ASTM D 699. 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" ABOVE THE PIPE. AFTER THAT DEPTH HAS BEEN REACHED, BACKFILLING SHALL BE DONE IN 12" LAYERS, THOROUGHLY TAMPED.

THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ANY REPAIRS TO ANY DAMAGED OR SAGS TO THE PIPING SYSTEMS THAT OCCUR FROM THE IMPROPER EXCAVATION AND BACKFILL METHODS.

9. EQUIPMENT SUPPORTS

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. CUTTING AND PATCHING

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, CEILING OR WALLS SHALL BE SEALED AIRTIGHT WITH MATERIAL HAVING A RATING EQUAL TO THE MATERIAL OF THE WALL, CEILING AND/OR FLOOR PENETRATED.

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 CEILING. ALL PANELS SHALL BE SHOWN ON THE DRAWINGS. ACCESS DOORS SHALL BE 12" X 12" MINIMUM SIZE FOR VALVES.

12. DIELECTRIC UNIONS

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 FLANGES.

13. MOTORS, STARTERS AND DISCONNECTS

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

14. JOINTS AND FITTINGS

THREADS ON SCREWED PIPE SHALL BE STANDARD, CLEAN BUTT AND TAPERED. PIPE SHALL BE REAMED OF BURRS AND KEPT CLEAN OF SCALE, DIRT AND SWAKINGS. TRENDS 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 BELLOWNS AND HAVE WELDED OR FLANGED END. JOINTS SHALL BE SECURED AS INDICATED ON THE PLANS. EXPANSION JOINTS SHALL BE OF 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 BELLOWNS 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 ELBOWNS 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

FLEXIBLE PIPE CONNECTIONS SHALL BE RESISTOFLX #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 RISERS SHALL HAVE 1/4" CLEARANCE BETWEEN PIPE INSULATION AND SLEEVE TO PERMIT PIPE MOVEMENT.

17. VALVES

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 MANUFACTURERS, SUCH AS HAMMOND, NISCO-SCOTT AND/OR JENKINS WILL BE CONSIDERED EQUIVALENT.

ALL VALVES SHALL BE BUILT FOR A MINIMUM OF 125 PSIG WORKING PRESSURE. ISOLATION VALVES SHALL BE PROVIDED ON ALL INDIVIDUAL FIXTURES AND FIXTURE GROUPS.

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 WAFER W/LOCK LEVER.

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. PIPE SLEEVES AND COLLARS

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 EXCEEDING 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 WATER TIGHT.

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.

19. HANGERS

- A. PIPE HANGER AND SUPPORT PRODUCTS INSTALLATION
 - a. VERTICAL PIPING: MSS TYPE B 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.
- D. INSTALL HANGERS FOR ALL PIPING PER MSS SP-69, MANUFACTURERS MANUALS AND AS PER HANGER SUPPORT DETAIL ON DRAWINGS.
- E. INSTALL SUPPORTS FOR VERTICAL COPPER TUBING EVERY 10 FEET.
- F. INSTALL SUPPORTS FOR VERTICAL STEEL PIPING EVERY 15 FEET.
- G. 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 ESCUTCHIONS 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.

23. FIRE STOPPING

THE PENETRATIONS OF FIRE AND/OR SMOKE RATED WALLS OR FLOORS SHALL BE PROTECTED BY A UL APPROVED MATERIAL, TO RETAIN THE INTEGRITY OF THE TIME-RATED CONSTRUCTION BY MAINTAINING AN 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: #503
- 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 AND 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.

QUALITY ASSURANCE: SUBMIT MANUFACTURER'S PRODUCT DATA, LETTER OF CERTIFICATION OR CERTIFIED LABORATORY TEST REPORT THAT THE MATERIAL OR COMBINATION OF MATERIALS MEET THE REQUIREMENTS SPECIFIED IN ASTM E814 AND ARE SO CLASSIFIED IN UL'S BUILDING MATERIALS DIRECTORY. MATERIALS SHALL MEET AND BE ACCEPTABLE FOR USE BY ALL MODEL BUILDING CODES.

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 BEFORE PIPES ARE JOINED.

PVC SEWER PIPE MAY BE USED IN LIEU OF THAT SPECIFIED ABOVE IF ALLOWED BY LOCAL CODES.

ABS AND FOAM CORE PVC ARE NOT ACCEPTABLE MATERIALS.

SDR 35 IS NOT ACCEPTABLE FOR UNDER BUILDING USE.

30. DRAIN, SOIL, DRAIN AND VENT PIPING THE WAISTS, 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.

ALL TRENCHES TO BE DUG WITH GRADUAL FALL, THE PIPING TO BE STRAIGHT AND FREE FROM ANY SAGS.

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 AT EACH FLOOR.

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°, AT INTERVALS OF NO GREATER THAN 50'; AT ANY STACK ROUTING BELOW GRADE, NOT ALL CLEANOUTS LOCATIONS MAY BE SHOWN ON THE DRAWING.

ALL TRAP SCREWS MUST BE OF FULL SIZE OF PIPE UP TO 4" AND 4" FOR ALL OVER THIS SIZE. CONNECTIONS BETWEEN OUTLETS OF FIXTURES AND SOIL OR WASTE PIPE SHALL BE MADE WITH "Y" BRANCHES TO "T" 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 NO CEILING.

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 THAN 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 CONTROL 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 COMPLETED PRIOR TO TURNOVER TO BUILDING OCCUPANT AND WITH AMPLE TIME TO MAKE ANY NECESSARY REPAIRS OR CHANGES TO ACHIEVE A PROPERLY OPERATING SYSTEM.

27. SEISMIC RESTRAINTS ON MECHANICAL EQUIPMENT

ALL PLUMBING EQUIPMENT SHALL BE PROVIDED WITH SEISMIC RESTRAINING SERVICES AS REQUIRED BY LOCAL BUILDING CODES. CONTRACTOR SHALL HAVE LOCAL BUILDING DEPT. SIGN OFF ON 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, THE 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.

29. TEMPORARY WATER

TEMPORARY WATER SERVICE (IF REQUIRED) TO THE BUILDING SHALL BE PROVIDED BY THIS CONTRACTOR UNTIL THE BUILDING IS UNDER CONSTRUCTION PURPOSES. THIS CONTRACTOR TO MAINTAIN WATER SERVICE AS REQUIRED 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 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.

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.

BELOW GRADE, OR FLOOR SLAB ON EARTH OR STONE FILL - PIPING SHALL BE CONTINUOUS WITH NO FITTING OR JOINTS BELOW GRADE.

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

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

31. STERILIZATION OF DOMESTIC WATER SYSTEM THE ENTIRE DOMESTIC WATER DISTRIBUTION SYSTEM SHALL BE FLUSHED CLEAR OF ANY DEBRIS AND THOROUGHLY STERILIZED WITH A SOLUTION CONTAINING NOT LESS THAN 100 PARTS PER MILLION OF AVAILABLE CHLORINE. THE SOLUTION SHALL REMAIN IN THE SYSTEM FOR TWO (2) HOURS DURING WHICH TIME ALL CODES AND REGULATIONS SHALL BE MAINTAINED AND CLOSURE TIMES. AFTER STERILIZATION, THE SOLUTION SHALL BE FLUSHED FROM THE SYSTEM WITH CLEAN WATER UNTIL THE RESIDUE CHLORINE CONTENT IS NOT GREATER THAN THE CHLORINE LEVEL OF THE AVAILABLE WATER SUPPLY.

STERILIZATION SHALL BE PERFORMED PRIOR TO TURNOVER TO OCCUPANT AS TO NOT ALLOW FOR THE WATER SYSTEM TO REMAIN STAGNANT FOR LONGER THAN 24 HOURS.

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.

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 BEFORE PIPES ARE JOINED.

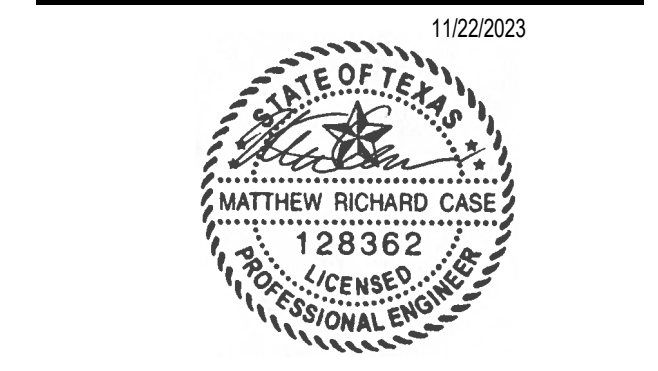
PVC SEWER PIPE MAY BE USED IN LIEU OF THAT SPECIFIED ABOVE IF ALLOWED BY LOCAL CODES.

ABS AND FOAM CORE PVC ARE NOT ACCEPTABLE MATERIALS.

SDR 35 IS NOT ACCEPTABLE FOR UNDER BUILDING USE.

33. DRAIN, SOIL, DRAIN AND VENT PIPING

THE WAISTS, SOIL, WASTE AND VENT PIPE AND FITTINGS INCLUDING EXTENSIONS TO SEWERS SHALL BE OF THE SIZES IND



PERMIT SET - 11/22/2023
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SHERWIN WILLIAMS

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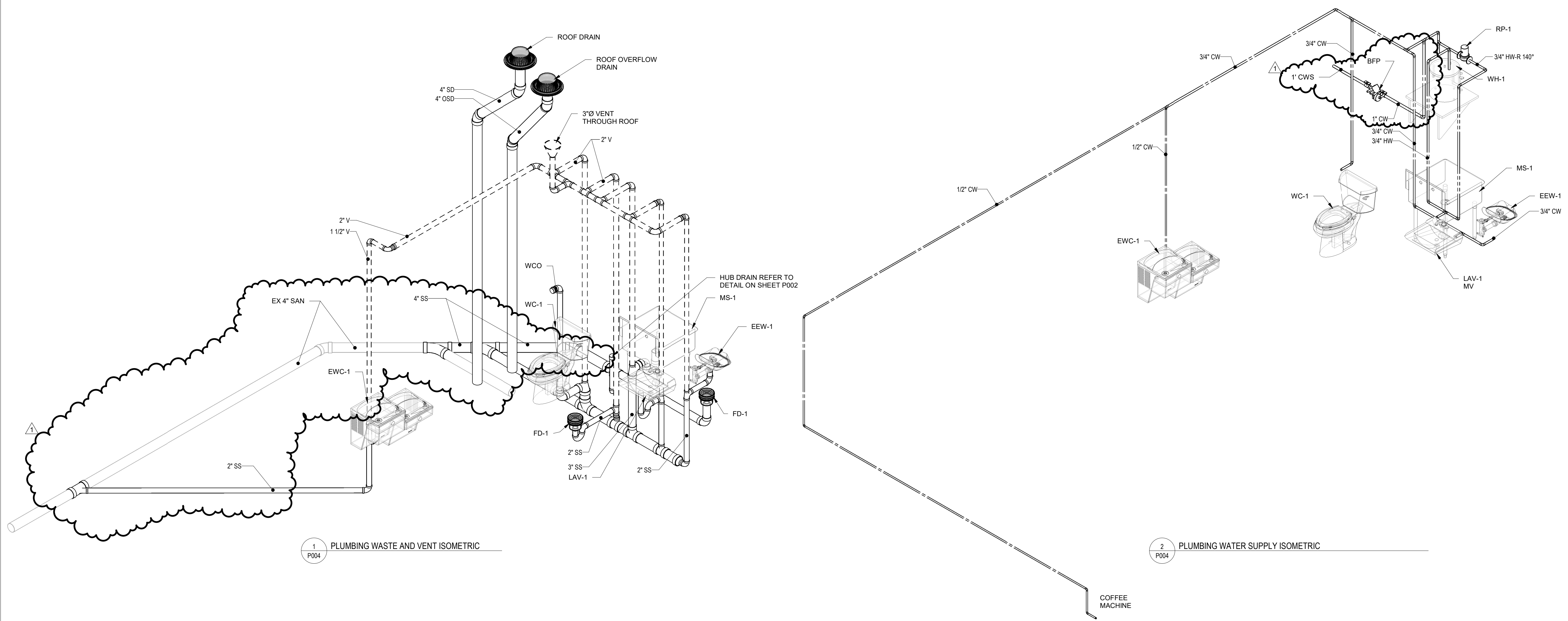
ADDRESS: 2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:

PLUMBING RISERS PLAN

SHEET NUMBER:

P004



1 PLUMBING WASTE AND VENT ISOMETRIC
 P004

2 PLUMBING WATER SUPPLY ISOMETRIC
 P004

GENERAL MECHANICAL SYMBOLS

	REVISION NUMBER - SHOWN ON PLANS
	POINT WHERE NEW CONNECTS TO EXISTING
	NUMBER OF DETAIL ON SHEET
	NUMBER OF SHEET WHERE DETAIL APPEARS
	KEYNOTE
	CONTINUATION SYMBOL
	ROOM NAME AND NUMBER
	ITEM TO BE DEMOLISHED
	AREA NOT IN CONTRACT
	PIPE SIZE TAG (DIAMETER)
	ABOVE GROUND PIPING
	PIPE SLOPE TAG
	BELOW GROUND PIPING
	PIPE INVERT ELEVATION TAG
	EXISTING PIPE TAG
	PIPING BEING DEMOLISHED

HVAC SYMBOLS

	SQUARE DUCT SIZE TAG (WIDTH x HEIGHT)
	OVAl DUCT SIZE TAG (WIDTH / HEIGHT)
	ROUnD DUCT SIZE TAG (DIAMETER)
	EXISTING DUCT TAG
	DUCT BEING DEMOLISHED
	SUPPLY AIR
	CONDITIOUnED OUTSIDE AIR
	OUTSIDE AIR
	RETURn AIR
	TrAnSFER AIR
	EXHAnST AIR
	RELIEF AIR
	GREASE EXHAnST AIR
	CONDENSATe EXHAnST AIR
	SMOKE EXHAnST AIR
	EXHAnST GAS FLUE
	COMBUSTIOUn AIR
	RECTANGULAR SUPPLY/OUTSIDE AIR DUCT RISE
	ROUnD SUPPLY/OUTSIDE AIR DUCT RISE
	RECTANGULAR RETURn/TrAnSFER AIR DUCT RISE
	ROUnD RETURn/TrAnSFER AIR DUCT RISE
	RECTANGULAR EXHAnST/RELIEF AIR DUCT RISE
	ROUnD EXHAnST/RELIEF AIR DUCT RISE

PIPING SYMBOLS

	CHILLED WATER RETURn
	CHILLED WATER SUPPLY
	CONDENSATe DRAINAGE
	CONDENSER WATER RETURn
	CONDENSER WATER SUPPLY
	GEOTHERMAl WATER RETURn
	GEOTHERMAl WATER SUPPLY
	HEATING WATER RETURn
	HEATING WATER SUPPLY
	NATURAL GAS
	PROPANE GAS
	REFRIGERANT-LIQUID
	REFRIGERANT-SUCTIOUn
	REFRIGERANT-HOT GAS
	STEAM
	CONDENSATe RETURn

PIPE ACCESSORY TAGS

	2" SHUTOFF BALL VALVE
	2" LOCKED LOCK SHIELD VALVE
	2" BALANCING BALANCING VALVE
	2" BUTTERFLY BUTTERFLY VALVE
	2" CHECK CHECK VALVE
	2" ALTERNATE CHECK VALVE SYMBOL
	2" GATE GATE VALVE
	2" GLOBE GLOBE VALVE
	2" PLUG PLUG VALVE
	1" GAS-CNTRL GAS SHUTOFF
	1" GAS COCK GAS SHUTOFF
	1" REG PRESS REGULATOR
	2" M-CNTRL ELEC. CONTROL
	4" 3-WAY CNTRL 3-WAY ELEC. CONTROL
	REDUCING 45 DEGREE TEE
	45 DEGREE TEE

ABBREVIATIONS

Ø	ROUND	LVR	LOUVER
ABV	ABOVE	LWT	LEAVING WATER TEMPERATURE
AC	AIR CONDITIONING	M/A	MIXED AIR
AD	AREA DRAIN	MAX	MAXIMUM
ADD	ADDENDUM	MBH	ONE THOUSAND BTU PER HOUR
AFF	ABOVE FINISHED FLOOR	MCF	ONE THOUSAND CUBIC FEET
AFUE	ANNUAL FUEL UTILIZATION EFFICIENCY	MD	MOTORIZED DAMPER
ALT	ALTERNATE	MCH	MECHANICAL
AP	ACCESS PANEL	MFR	MANUFACTURER
ARCH	ARCHITECT/ARCHITECTURAL	MIN	MINIMUM
BFF	BELOW FINISHED FLOOR	MISC	MISCELLANEOUS
BLW	BELOW	MTR	MOTOR
BTU	BRITISH THERMAL UNITS	MUA	MAKE-UP/AIR
BTUH	BRITISH THERMAL UNITS PER HOUR	NC	NOISE CRITERIA
CAP	CAPACITY	NC	NORMALLY CLOSED
CB	CATCH BASIN	NIC	NOT IN CONTRACT
CFM	CUBIC FEET PER MINUTE	NO	NUMBER
CG	CEILING	NO	NORMALLY OPEN
CO	CLEAN OUT	NTS	NOT TO SCALE
CW	COLD WATER	O	OXYGEN
D	DEGREE	O/A	OUTSIDE AIR
DB	DRY BULB	ORD	OVERFLOW ROOF DRAIN
DIA	DIAMETER	PD	PRESSURE DROP
DN	DOWN	PIV	POST INDICATOR VALVE
DW	DISTILLED WATER	PLBG	PLUMBING
EA	EACH	PRSS	PRESSURE
EAT	ENTERING AIR TEMPERATURE	PRV	PRESSURE REDUCING VALVE
ELEC	ELECTRICAL	PSI	POUNDS PER SQUARE INCH
EQUIP	EQUIPMENT	PSIG	POUNDS PER SQUARE INCH GAUGE
EWC	ELECTRIC WATER COOLER	PWR	POWER
EWT	ENTERING WATER TEMPERATURE	R	DUCT RISER
E/A	EXHAUST AIR	R/A	RETURN AIR
EXIST	EXISTING	RCP	RADIANT CEILING PANEL
F	DEGREES FAHRENHEIT	RD	ROOF DRAIN
FCO	FLOOR CLEAN OUT	REC	RECESSED
FD	FLOOR DRAIN	RED	REDUCER
FDC	FIRE DEPARTMENT CONNECTION	RH	RELATIVE HUMIDITY
FL	FLOOR	RLA	RELIEF AIR
FO	FUEL OIL	ROOM	ROOM
FOV	FUEL OIL VENT	RP	REVISIONS PER MINUTE
FOR	FUEL OIL RETURN	RW	RAIN WATER
FOS	FUEL OIL SUPPLY	SF	SQUARE FOOT
PFM	FEET PER MINUTE	S/A	SUPPLY AIR
FS	FLOOR SINK	SAN	SANITARY
FT	FOOT/FEET	SF	SQUARE FOOT
FTR	FIN TUBE RADIATION	SD	SMOKE DAMPER
GAL	GALLON	SM	SURFACE MOUNT
GF	GAS-FIRED	SP	STANDPIPE
GC	GENERAL CONTRACTOR	SP	STATIC PRESSURE
GPM	GALLONS PER MINUTE	STM	STEAM
GW	GREASE WASTE	T	THERMOSTAT
HB	HOSE BIB	TD	TEMPERATURE DROP
HP	HORSE POWER	TDR	TRENCH DRAIN
HTG	HEATING	TEMP	TEMPERATURE
HTR	HEATER	TYP	TYPICAL
HW	HOT WATER	UG	UNDERGROUND
HY	HYDRANT	V	VACUUM
ID	INDIRECT	V	VENT
IN	INCH	VAV	VARIABLE AIR VOLUME
INV	INVERT	VAV	VENTILATION
LB	POUND	VTR	VENT THROUGH ROOF
LBHR	POUNDS PER HOUR	W	WASTE
LAT	LEAVING AIR TEMPERATURE	WB	WET BULB
LP	LOW PRESSURE	WCO	WALL CLEAN OUT
LPG	LIQUEFIED PETROLEUM GAS	WH	WALL HYDRANT

MECHANICAL EQUIPMENT TAGS

TYPE (SEE SCHEDULE)

	SD1 400	CFM	10' / 24x24	NECK SIZE / MODULE SIZE
	22 H-57/74			THROW-150FPM/ 100FPM/ 50FPM
				THROW PATTERN
				MAX NC RATING
	SD3 300		10' / 24x24	
	SD9 400		12' / ---	
	SG6 500		12'x10"	
				EGGCRATE RETURn GRILLE
				LOUVERED GRILLE

LINEAR BAR GRILLE TAG

TYPE (SEE SCHEDULE)

	LSB1 400	CFM	1' 4" / 0' 8"	NUMBER OF SLOTS / ACTIVE SLOT LENGTH (PLENUM LENGTH) / NECK SIZE
				ELEVATION (CENTER OF FACE)
				SECTION TOTAL TRACK LENGTH
	LSD1 200		1' 4" / 0' 8"	

MECHANICAL EQUIPMENT TAGS (CONT)

	Hg 3.7 GPM	OPERATING WEIGHT NOT INCLUDING CURB	590 lb
	VAV-XX	ELEVATION	10' - 0"
	EIVAV-XX	NOMINAL COOLING CAPACITY	ROOFTOP UNIT
	RIVAV-XX	FUEL INPUT	RTU-XX 115000 Btu/h
		GAS PIPE FLOW	115 CFH
EQUIPMENT BY OTHERS (REFER TO OTHER DISCIPLINE FOR ADDITIONAL INFORMATION)			

DATA DEVICE TAGS

	RTU-XX	SYMBOL	
	TS-1	C3H3	C3H3 DETECTOR
	HS-1	CH4	CH4 DETECTOR
	TC-1	CO2	CO2 DETECTOR
	TH-1	CO	CO DETECTOR
	T-1	H2	H2 DETECTOR
	H-1	H2S	H2S DETECTOR
	O2-1	H2G	HAZARDOUS GAS DETECTOR
	NO2-1		NO2 DETECTOR
DAMPER TAGS			
			MANUAL BALANCING DAMPER
			MOTORIZED DAMPER
			BACKDRAFT DAMPER

EQUIPMENT ABBREVIATIONS

AC	AIR CONDITIONING UNIT	ET	EXPANSION TANK
ACCU	AIR COOLING CONDENSING UNIT	EWH	ELECTRIC WATER HEATER
AHU	AIR HANDLING UNIT	FCU	FAN COIL UNIT
AS	AIR SEPARATOR	FP	FIRE PUMP
B	BOILER	GI	GREASE INTERCEPTOR
CH	CHILLER	GRV	GRAVITY ROOF VENTILATOR
CT	COOLING TOWER	HWP	HEATING WATER PUMP
CUH	CABINET UNIT HEATER	HUR	HEAT RECOVERY UNIT
CHWP	CHILLED WATER PUMP	PRV	POWER ROOF VENTILATOR
DBP	DOMESTIC WATER BOOSTER PUMP	RE	RETURN/EXHAUST FAN
DC	DUCT MOUNTED COIL	RTU	ROOFTOP UNIT
DCP	DOMESTIC WATER CIRCULATING PUMP	SP	SUMP PUMP
EF	EXHAUST FAN	UH	UNIT HEATER
EDC	ELECTRIC DUCT COIL	WH	WATER HEATER

NOTE

ALL OF THE GENERAL NOTES ON THIS SHEET ARE TO BE APPLIED TO ALL OTHER DRAWINGS IN THIS SET. THE SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET MAY OR MAY NOT BE USED IN THIS SET OF DRAWINGS.

MECHANICAL GENERAL NOTES

- DO NOT SCALE DRAWINGS.
- CONTRACTOR SHALL COORDINATE WORK INDICATED HEREON W/ PLUMBING, ELECTRICAL & FIRE PROTECTION SECTIONS. SUBMIT 1/2" SCALE SHOP DRAWINGS FOR DUCT SYSTEMS, DIMENSIONED TO INCORPORATE THE WORK OF OTHER TRADES. INDICATE SPACES RESERVED FOR FIRE SPRINKLER, PIPING & ELECTRICAL CONDUIT MAINS.
- UNLESS NOTED OTHERWISE, BRANCH DUCTS TO INDIVIDUAL TERMINALS, DIFFUSERS AND GRILLES SHALL BE SAME SIZE AS NECK INLET.
- 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.
- PROVIDE CEILING OPERATIONS FOR INACCESSIBLE M.V.D.'S WHERE INDICATED, EQUAL TO YOUNG REGULATOR, REMOTE FEAR OPERATED, WITH CEILING ESCUTCHEON.
- 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.
- CEILING DIFFUSERS SHALL BE 36" MIN. FORM CEILING MOUNTED SMOKE DETECTORS. COORD. W/ ELECTRICAL DIVISION.
- SECURE DIFFUSERS & GRILLES TO T-BAR CEILINGS, WHERE APPLICABLE. SUBMIT SHOP DWG. FOR APPROVAL PRIOR TO BEGIN WORK.
- REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR ACTUAL LOCATION OF GRILLES & DIFFUSERS IN CEILING, AS WELL AS ACCESS DOORS.
- COORDINATE EQUIP. DIMENSIONS AND LAYOUT W/ PLUMBING SECTION WHERE FLOOR SINKS ARE INDICATED.
- 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.
- 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.
- 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.
- TURNING VANE RUNNERS SHALL HAVE A VANE IN EVERY SLOT IN STRICT CONFORMANCE WITH MFR.'S INSTRUCTIONS AND SMACNA DUCT CONSTRUCTION STANDARDS.
- VERIFY FIT DUCTWORK AND PIPING PRIOR TO FABRICATION.
- 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.
- DUCTWORK LOCATED BEL. 7'-6" IN MECHANICAL ROOMS SHALL BE EQUIPPED W/ PADDING MATERIAL ON ALL CORNERS, EDGES & OTHER SURFACES WHICH MAY BE HAZARDOUS.
- COORDINATE & VERIFY ACTUAL APPROVED EQUIP. DIMENSIONS PRIOR TO POURING EQUIP. PADS
- DUCT MOUNTED SMOKE DETECTORS SHALL BE ZERO VELOCITY TYPE WHERE INDICATED ON DRAWINGS
- 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 ACCORDINGLY.
- CONDENSATE DRAIN TRAPS SHALL BE 3" DEEP, MINIMUM.
- COORDINATE ALL CHASE, SLEEVE AND SLAB BLOCK OUT REQUIREMENTS BEFORE CONCRETE IS POURED OR BLOCK IS SET.
- PROVIDE ACCESS DOOR IN DUCTWORK UPSTREAM OF EACH REHEAT COIL. DUCTMATE METU ROUND DUCT ACCESS DOOR.
- DUCTWORK VISIBLE BEHIND DIFFUSERS, RESISTERS, OR GRILLES SHALL BE PAINTED FLAT BLACK.
- REFER TO EQUIPMENT DRAWINGS, SPECS, & SHOP DRAWINGS FOR CONNECTIONS TO EQUIPMENT.
- 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.
- 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.
- 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 FABRICATION OF THE WORK.

HVAC SHEET INDEX

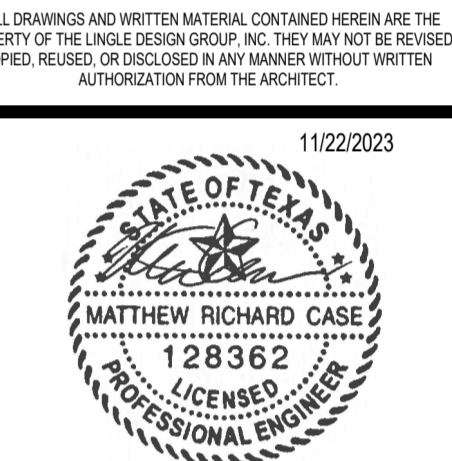
M000	HVAC TITLE SHEET
M001	MECHANICAL SPECIFICATIONS
M002	MECHANICAL SPECIFICATIONS
M100	MECHANICAL FLOOR PLAN
M200	ROOF MECHANICAL PLAN
M400	MECHANICAL DETAILS
M500	MECHANICAL SCHEDULES
SHEET COUNT: 7	

CASE Engineering Inc.

796 Menus Court
St. Louis, MO 63026
CERTIFICATE OF AUTHORITY NO. 10975461-0143

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDISEIGN.COM



PROJECT#:
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DRAWN BY: EC CHECKED BY: LW

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SHERWIN WILLIAMS

STORE #:
XXXX

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

SHEET TITLE:
HVAC TITLE SHEET

SHEET NUMBER:
M000

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 CONDITIONS, ELECTRICAL READINGS OF ALL NEW AND EXISTING MOTORS, COMPRESSORS, ETC.

TEST REPORT SHALL CONTAIN TBA CERTIFICATION OF TEST DATA AND SYSTEM CONDITIONS.

SUBMIT THE TEST REPORTS, FOR REVIEW, BEFORE SUBSTANTIAL COMPLETION.

LINGLE DESIGN GROUP, INC.



LINGLEDESIGNGROUP,INC
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDESIGN.COM

CASE Engineering Inc.

796 Merus Court St. Louis, MO 63026 T 636.349.1600 F 636.349.1730
CERTIFICATE OF AUTHORITY NO. 10975461-0143

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11/22/2023



PROJECT#:
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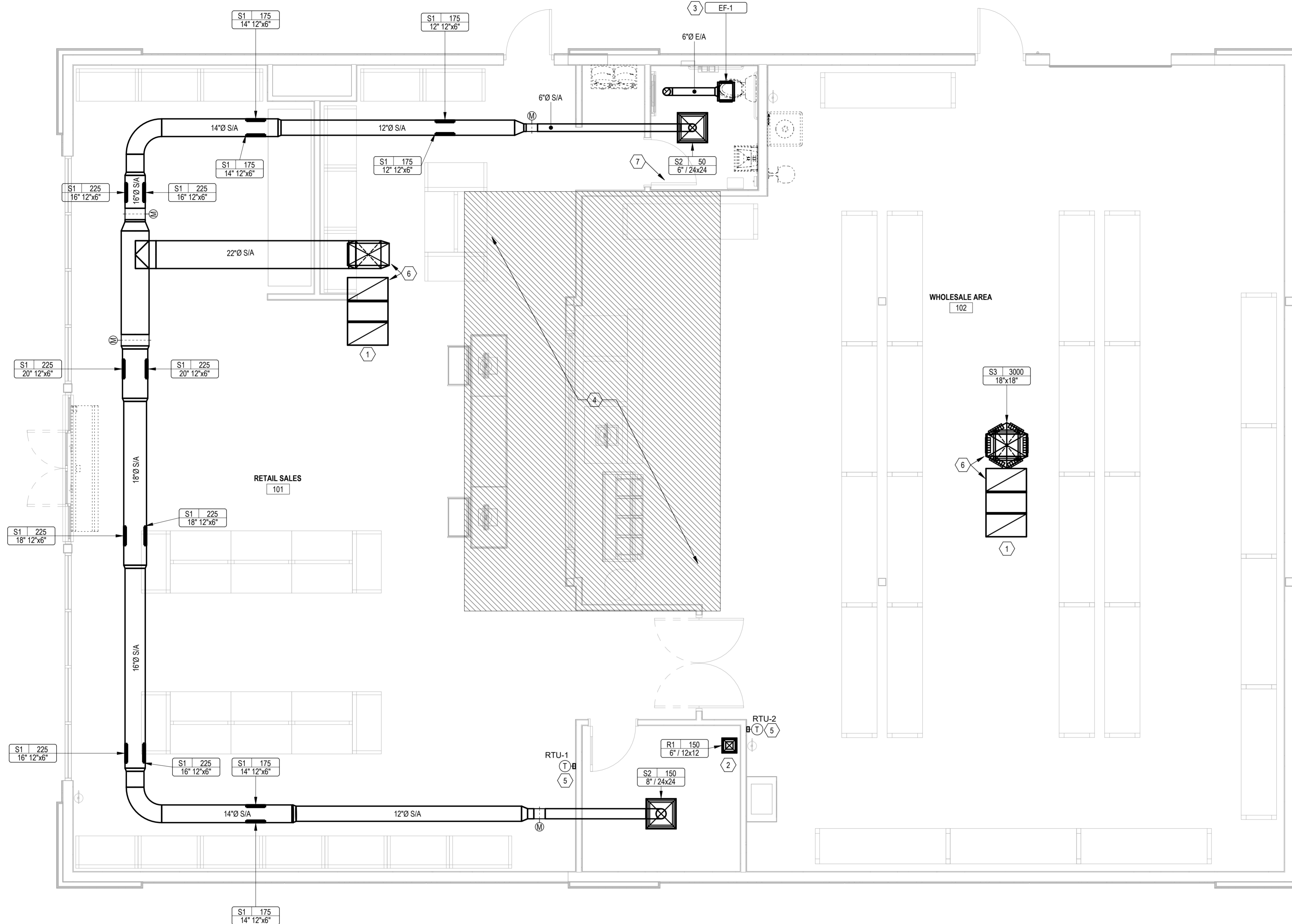
2101 AVONDALE-HASLET
RD, HASLET, TX 76052

SHEET TITLE:

MECHANICAL SPECIFICATIONS

SHEET NUMBER:

M002



1 MECHANICAL FLOOR PLAN
M100 1/4" = 1'-0"

GENERAL NOTES

- 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.
- 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.
- BOTTOM OF ALL DUCTWORK SHALL NOT BE LOWER THAN 12'-0" AFF.
- 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

- INSTALL TWO 90° ELBOWS TO TURN DUCT UP TOWARDS STRUCTURE. TERMINATE RA DUCT WITH 1/2" WIRE MESH APPROX. 18" BELOW STRUCTURE.
- INSTALL RETURN GRILLE IN OFFICE CEILING AS SHOWN. LEAVE OPEN TO SPACE ABOVE CEILING.
- INSTALL EF-1 IN BATHROOM CEILING AS SHOWN. ROUTE 6" DUCT FROM FAN UP THROUGH ROOF ABOVE. TERMINATE WITH RA NCAP AND BIRDSCREEN. VERIFY LOCATION IN FIELD.
- DO NOT INSTALL ANY DUCTWORK, PLENUMS, ETC. IN THIS AREA.
- FURNISH AND INSTALL 247 PROGRAMMABLE 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.
- 33"x18" SA AND 32"x18" RA DOWN FROM RTU ON ROOF. SEE ROOF PLAN ON SHEET M200.
- GENERAL CONTRACTOR TO UNDERCUT DOOR 3/4" ABOVE THRESHOLD FOR TRANSFER AIR.

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

CASE
Engineering Inc.

796 Menus Court
St. Louis, MO 63026
CERTIFICATE OF AUTHORITY NO. 10975461-0143
T 636.349.1600
F 636.349.1730

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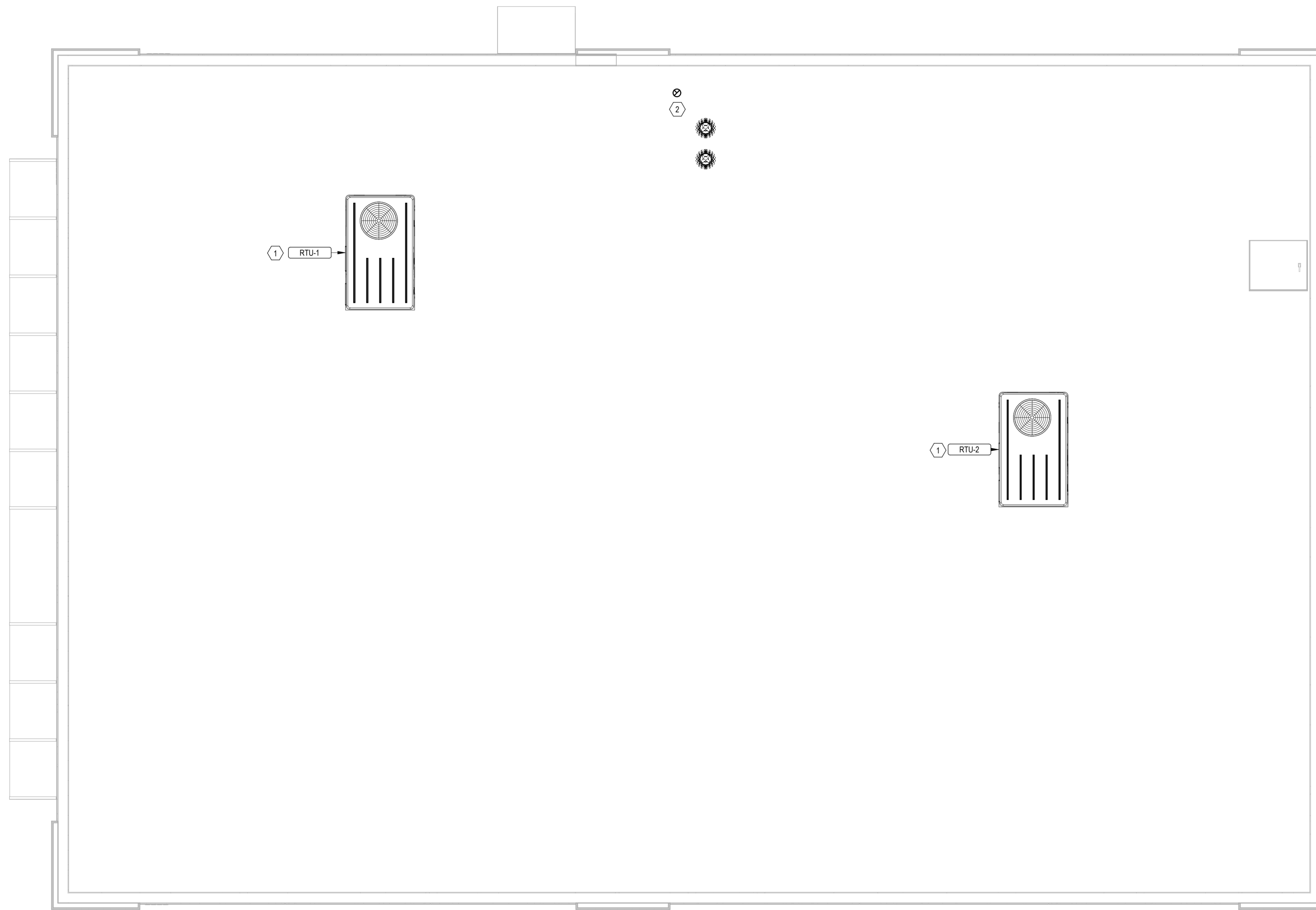
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STORE #: XXXX
ADDRESS:

2101 AVONDALE-HASLET RD, HASLET, TX 76052

SHEET TITLE:
MECHANICAL FLOOR PLAN

SHEET NUMBER:
M100



1 MECHANICAL ROOF PLAN
M200 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.

LINGLE DESIGN GROUP, INC.

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158 WEST MAIN STREET
LENA, IL 61048
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DENVER, CO 80202
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WWW.LINGLEDESIGN.COM

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SHEET TITLE: ROOF MECHANICAL PLAN

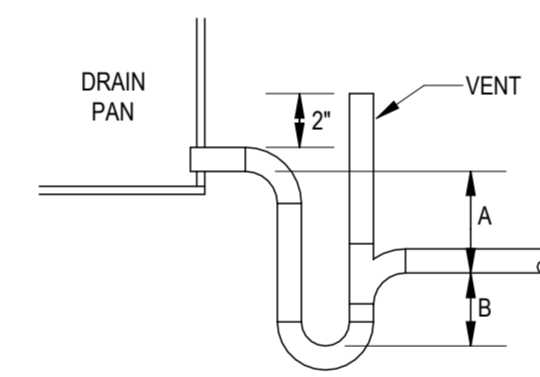
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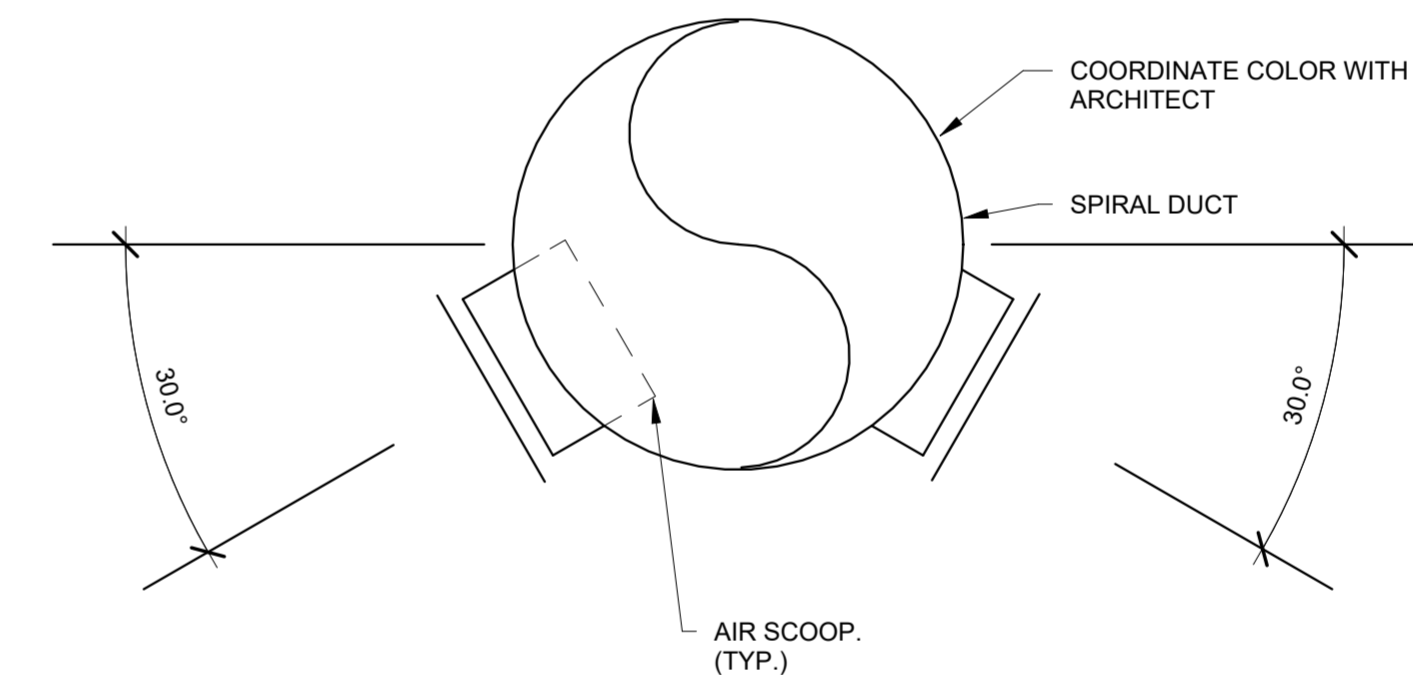
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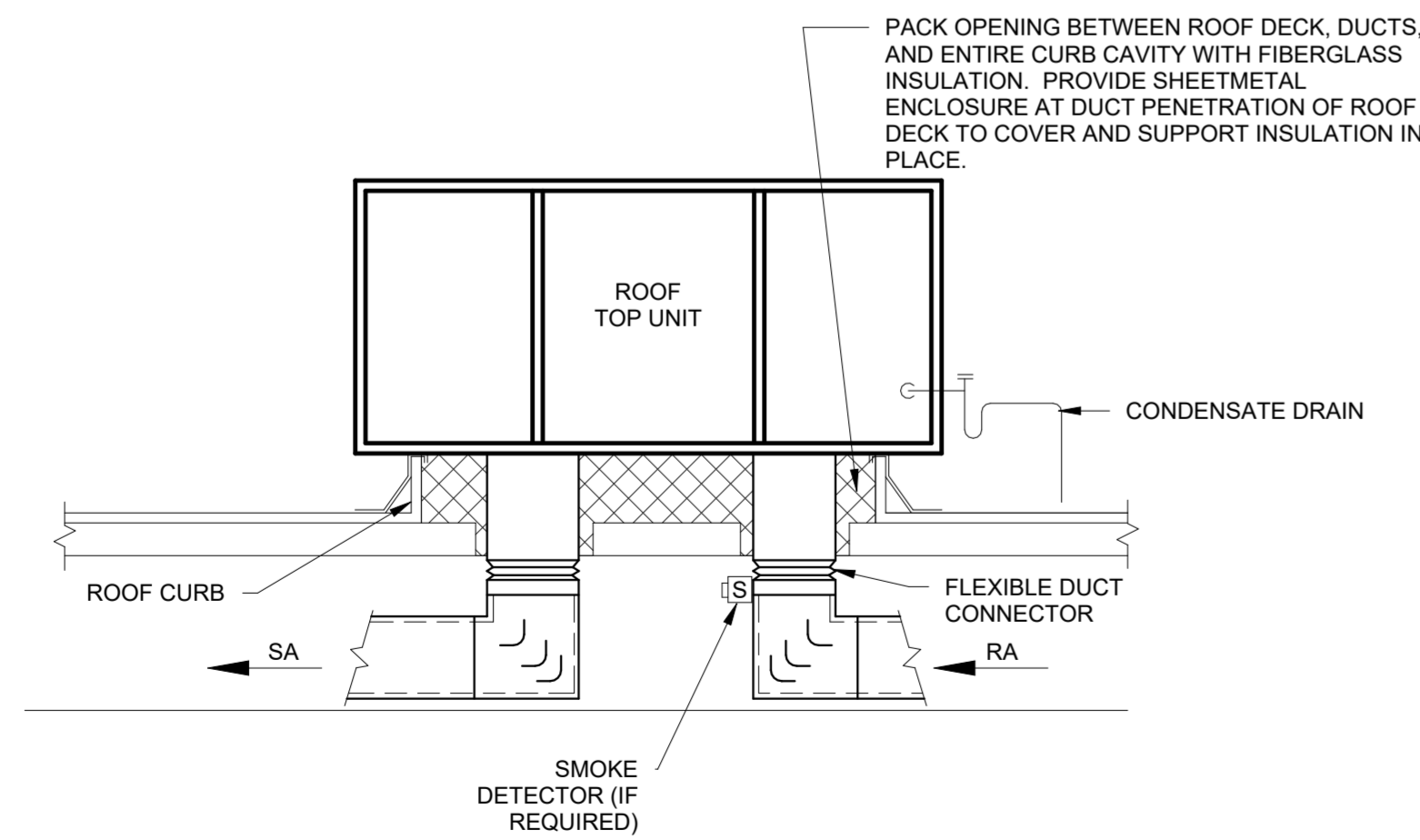


A= SCHEDULED FAN STATIC PLUS ONE INCH
 B= 1/2 OF SCHEDULED FAN STATIC

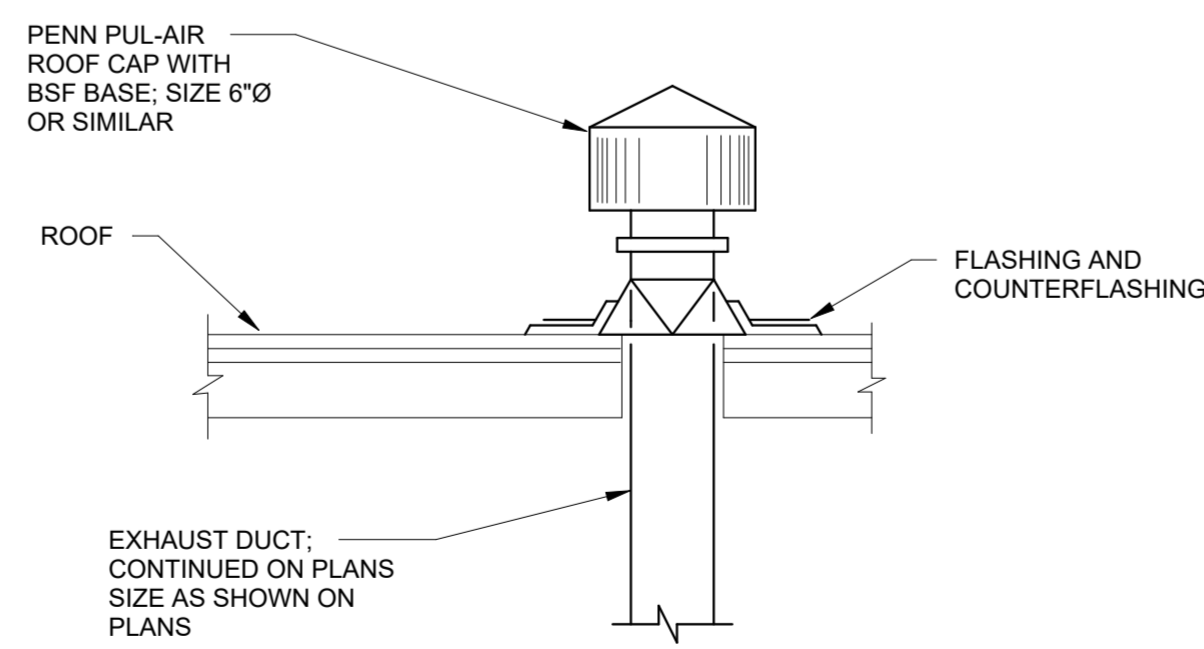
5 CONDENSATE DRAIN DETAIL
 M400 NOT TO SCALE



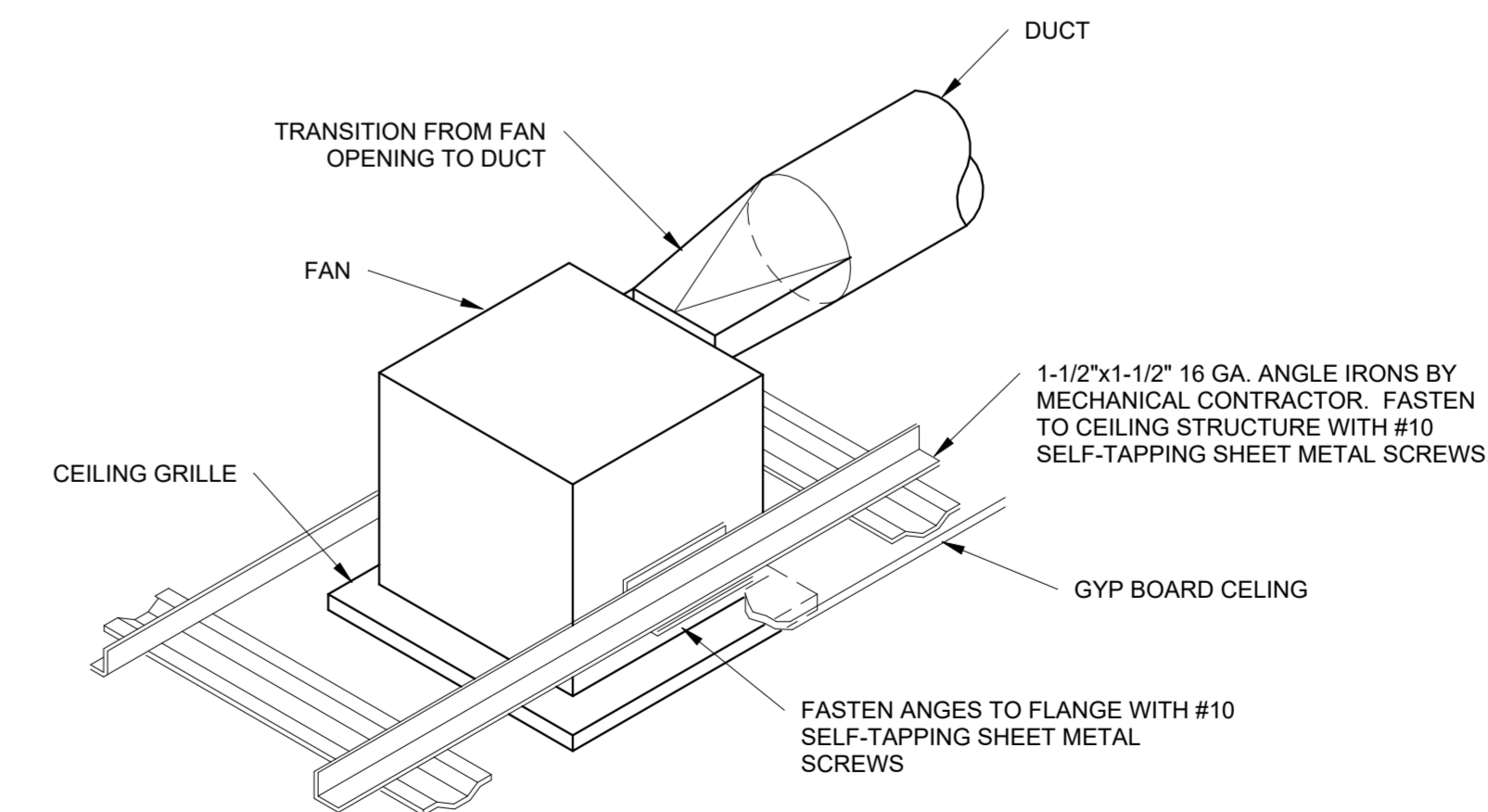
4 SPIRAL DUCT DIFFUSER TAKE OFF DETAIL
 M400 NOT TO SCALE



3 ROOFTOP UNIT DETAIL
 M400 NOT TO SCALE



2 EXHAUST THROUGH ROOF DETAIL
 M400 NOT TO SCALE



1 CEILING EXHAUST FAN DETAIL
 M400 NOT TO SCALE

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SHEET TITLE:

MECHANICAL DETAILS

SHEET NUMBER:

M400

ROOFTOP UNIT SCHEDULE (ELECTRIC HEATING - DX COOLING)

TAG	MANUFACTURER/ MODEL	LOCATION/ SERVICE	UNIT TON	SUPPLY FAN					ELECTRIC HEATING CAPACITY				COOLING CAPACITY				EFFICIENCY (IEER)	MCA	MOCP	VOLT/PH/Hz	WEIGHT* (LBS)	OVERALL DIMENSIONS	NOTES	
				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)
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

NOTES:

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 PROGRAMMABLE 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
EF-1	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
S1	SPIRAL DUCT DIFFUSER	AS SHOWN	AIR SCOOP	BY ARCH	PRICE SDG	NOMINAL SIZE VARIES, SEE DRAWINGS
S2	CEILING DIFFUSER	4-WAY	O.B.D.	BY ARCH	PRICE SCD	24"x24" FACE NECK SIZE VARIES, SEE DRAWINGS
S3	CONCENTRIC DIFFUSER	6-WAY		BY ARCH	UNITED ENERTECH DPD6-7.5T	12"x6" GRILLE SIZE 3000 CFM
R1	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:

RUN-OUT	CFM
4"Ø	<40
6"Ø	41-100
8"Ø	101-210
10"Ø	211-375
12"Ø	376-600
14"Ø	601-910

LINGLE DESIGN GROUP, INC.

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158 WEST MAIN STREET
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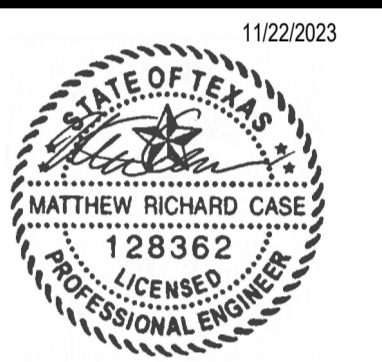
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SHEET TITLE:

MECHANICAL SCHEDULES

SHEET NUMBER:

M500

SYMBOL LEGEND

LIGHTING, BATTERY BACK-UP AND LIGHTING CONTROL SYSTEM

	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
	RECESSED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	RECESSED LIGHTING FIXTURE WITH EMERGENCY BATTERY BACK-UP BALLAS, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	RECESSED WALL WASHER LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	WALL MOUNTED LIGHTING FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE
	TRACK LIGHTING, SEE FIXTURE FOR EXACT TYPE
	CEILING MOUNTED EXIT LIGHT FIXTURE, SEE FIXTURE SCHEDULE FOR EXACT TYPE. PROVIDE ARROWS WHERE SHOWN
	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
	SINGLE POLE SWITCH (MOUNTED AT 48" A.F.F.)
	THREE WAY SWITCH (MOUNTED AT 48" A.F.F.)
	FOUR WAY SWITCH (MOUNTED AT 48" A.F.F.)
	DIMMER SWITCH (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED PIR OCCUPANCY SENSOR (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY DIMMABLE SENSOR (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED DIGITAL TIMER SWITCH (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED ULTRASONIC OCCUPANCY SENSOR (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED OVERRIDE SWITCH (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED LOW VOLTAGE SWITCH (MOUNTED AT 48" A.F.F.)
	WALL MOUNTED 5 BUTTON SCENE CONTROLLER (MOUNTED AT 48" A.F.F.)
	CEILING MOUNTED PIR OCCUPANCY SENSOR
	DLM CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR
	CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR
	CEILING MOUNTED PHOTOSENSOR
	CEILING MOUNTED PHOTOCCELL
	LIGHTING CONTACTOR
	LIGHTING CONTROL DEVICE

RECEPTACLES

	DUPLEX RECEPTACLE (MOUNTED AT 18" A.F.F.)
	GROUND FAULT CIRCUIT INTERRUPTED DUPLEX RECEPTACLE
	TAMPER PROOF DUPLEX RECEPTACLE
	DUPLEX RECEPTACLE WITH USB
	DUPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
	DUPLEX RECEPTACLE MOUNTED HORIZONTAL (MOUNTED ABOVE COUNTER BACKSPLASH)
	GROUND FAULT CIRCUIT INTERRUPTED DUPLEX RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
	DUPLEX RECEPTACLE (MOUNTED XX" A.F.F.)
	DEDICATED DUPLEX RECEPTACLE (MOUNTED THAT 18" A.F.F.)
	DUPLEX RECEPTACLE ON EMERGENCY POWER
	DUPLEX RECEPTACLE WITH WATERPROOF COVER (MOUNTED 18" A.F.F.) FS BOX WITH WATERPROOF COVER
	DUPLEX RECEPTACLE MOUNTED BEHIND ELECTRICAL WATER COOLER
	DUPLEX RECEPTACLE MOUNTED AND CEILING
	DOUBLE DUPLEX (QUAD) RECEPTACLE (MOUNTED AT 18" A.F.F.)
	GROUND FAULT CIRCUIT INTERRUPTED DOUBLE DUPLEX (QUAD) RECEPTACLE
	TAMPER PROOF DOUBLE DUPLEX (QUAD) RECEPTACLE
	DOUBLE DUPLEX (QUAD) RECEPTACLE WITH USB
	DOUBLE DUPLEX (QUAD) RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
	GROUND FAULT CIRCUIT INTERRUPTED DOUBLE DUPLEX (QUAD) RECEPTACLE MOUNTED ABOVE COUNTERTOP BACK SPLASH
	DOUBLE DUPLEX (QUAD) RECEPTACLE (MOUNTED XX" A.F.F.)
	SPECIAL-PURPOSE OUTLET - SEE PLANS FOR TYPE VERIFY

	SINGLE RECEPTACLE - AMPERAGE/PHASE AS NOTED
	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

	120V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED 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 WITH EQUIPMENT.
	480V, THREE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.

MOTOR CONNECTIONS

	120V, SINGLE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED 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 WITH EQUIPMENT.
	480V, THREE PHASE ELECTRICAL CONNECTION, DISCONNECT PROVIDED WITH EQUIPMENT.
	MOTOR AND DISCONNECT. DISCONNECT SHALL BE FURNISHED AND INSTALL BY E.C.
	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 E.C.
	JUNCTION BOX OR PULL BOX.

ELECTRICAL DISTRIBUTION EQUIPMENT

	RECESSED 120/208V PANELBOARD
	RECESSED 277/480V PANELBOARD
	SURFACE 277/480V PANELBOARD
	SURFACE 277/480V PANELBOARD
	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
	3/4" x 10'-0" COPPER CLAD GROUND ROD OR AS NOTED.

FIRE ALARM HORN/STROBE SYSTEM

	FIRE ALARM HORN - WALL MOUNTED
	FIRE ALARM PULL STATION
	FIRE ALARM STROBE - WALL MOUNTED. 15/75 CANDELLA UNLESS OTHERWISE NOTED.
	FIRE ALARM HORN/STROBE - WALL MOUNTED. 15/75 CANDELLA UNLESS OTHERWISE NOTED.
	FIRE ALARM STROBE - CEILING MOUNTED. 15/75 CANDELLA UNLESS OTHERWISE NOTED.
	FIRE ALARM HORN - CEILING MOUNTED.
	FIRE ALARM HORN/STROBE - CEILING MOUNTED. 15/75 CANDELLA UNLESS OTHERWISE NOTED.
	FIRE ALARM DUCT DETECTOR
	FIRE ALARM WATER FLOW SWITCH (FBO)
	FIRE ALARM TAMPER SWITCH - VALVE SUPERVISION (FBO)
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM SMOKE DETECTOR - ELEVATOR RECALL
	FIRE ALARM HEAT DETECTOR
	FIRE ALARM MONITORING MODULE
	FIRE ALARM CONTROL MODULE (RELAY)
	FIRE ALARM DOOR HOLD OPEN DEVICE
	FIRE ALARM CONTROL PANEL
	FIRE ALARM ANNUNCIATOR PANEL
	FIRE ALARM FIREMAN'S JACK

TELE/DATA SYSTEMS

	TELE/DATA WALL-MOUNTED ROUGH-IN BOX (18" A.F.F.). DOUBLE GANG BOX WITH A SINGLE GANG FRAME AND A 3/4" BUSHED CONDUIT STUB UP 6" AFC
	TELE/DATA WALL-MOUNTED ROUGH-IN BOX ABOVE COUNTER TOP OR BY HEIGHT. DOUBLE GANGE BOX WITH A SINGLE GANG FRAME AND A 3/4" BUSHED CONDUIT STUB UP 6" AFC
	TELE/DATA OUTLET CEILING MOUNTED. DOUBLE GANGE BOX WITH A SINGLE GANG FRAME AND A 3/4" BUSHED CONDUIT KNOCKOUT.
	TELEPHONE OUTLET WALL-MOUNTED ROUGH-IN BOX (48" A.F.F. - U.N.O.) 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.

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	

LINGLE DESIGN GROUP, INC.

LINGLEDESIGNGROUP, INC
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDESIGN.COM

CASE Engineering Inc.

796 Menus Court
St. Louis, MO 63026

T 636.349.1600
F 636.349.1730

CERTIFICATE OF AUTHORITY NO. F-20080

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01/03/2024

PROJECT #:	
Project Number	
DRAWN BY: Author	CHECKED BY: Checker

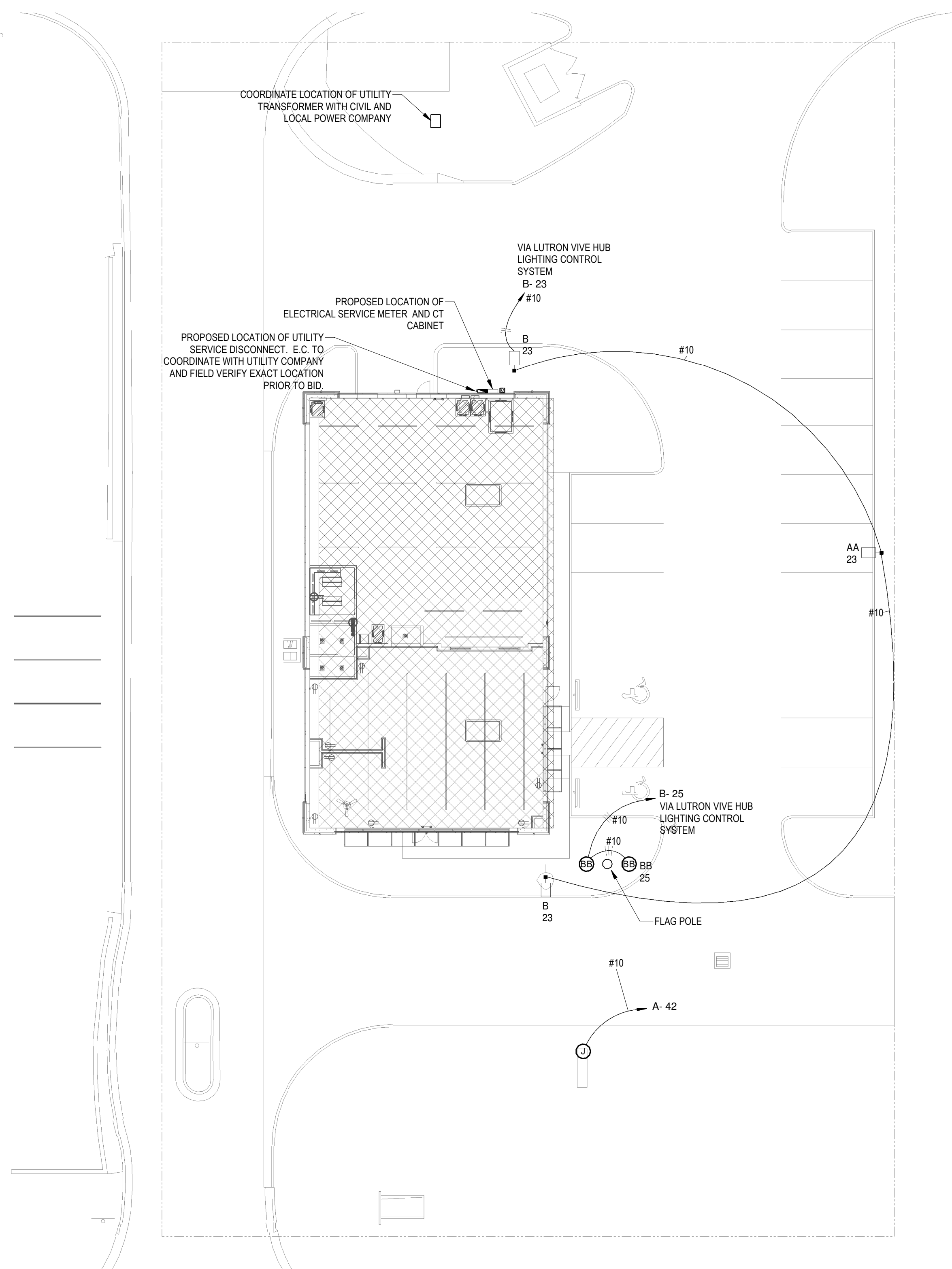
CHECK SET - 11/01/23	
	DEVELOPER COMMENTS - 1/15/2024
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SHERWIN WILLIAMS

STORE #:	XXXX
ADDRESS:	12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:	ELECTRICAL TITLE SHEET
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SHEET NUMBER:	E000
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1 E001 ELECTRICAL SITE PLAN
1/16" = 1'-0"

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

CASE
 Engineering Inc.
 796 Menus Court
 St. Louis, MO 63026
 T 636.349.1600
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PROJECT #:
 Project Number
 DRAWN BY: Author CHECKED BY: Checker

CHECK SET - 11/01/23

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SHERWIN WILLIAMS

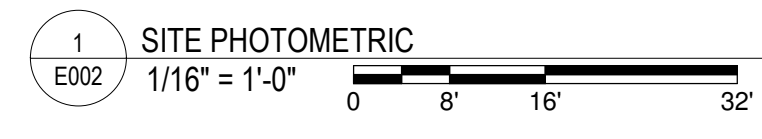
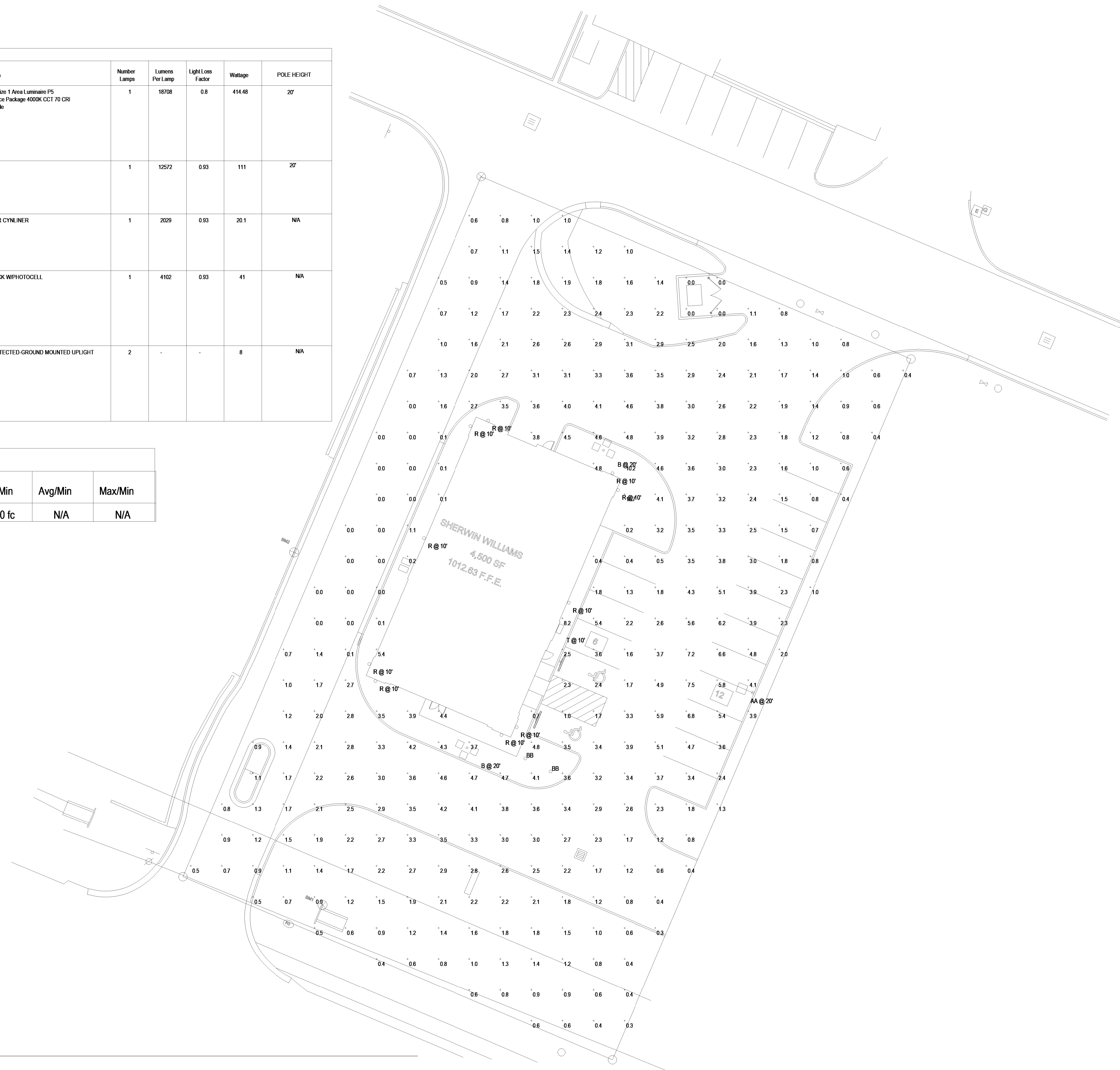
STORE #:
 XXXX
 ADDRESS:
 12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:
 ELECTRICAL SITE PLAN

SHEET NUMBER:
E001

Symbol	Label	Image	Quantity	Manufacturer	Catalog Number	Description	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage	POLE HEIGHT
	B		2	Lithonia Lighting	DSX1 LED P5 40K 70CR TSW	D-Series Size 1 Area Luminaire P5 Performance Package 4000K CCT 70 CRI Type 5 Wide	1	18708	0.8	414.48	20'
	AA		1	LSI INDUSTRIES, INC.	MRS-LED-15L-SL-3-40-70CRI-IH		1	12572	0.93	111	20'
	H		10	PROGRESS	P5641-2030K-BZ	OUTDOOR CYNLINER	1	2029	0.93	20.1	N/A
	G		1	GE CURRENT	EWL-S02140AF740N3C00RKBZ	WALL PACK WIPHOTOCELL	1	4102	0.93	41	N/A
	BB		2	COOPER	BOCA 606 - 4000 KELVINS	WET PROTECTED-GROUND MOUNTED UPLIGHT	2	-	-	8	N/A

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



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 WWW.LINGLEDESIGN.COM

CASE
 Engineering Inc.
 796 Menus Court
 St. Louis, MO 63026
 T 636.349.1600
 F 636.349.1730
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PROJECT #:
 Project Number
 DRAWN BY: Author CHECKED BY: Checker

- CHECK SET - 11/01/23
- △ DEVELOPER COMMENTS - 11/15/2024
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STORE #:
 XXXX
 ADDRESS:
 12360 W. SH 29, LIBERTY
 HILL, TX, 78642

SHEET TITLE:
 SITE PHOTOMETRIC
 PLAN

SHEET NUMBER:
E002

SUMMARY

- 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 MEPP 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 DIFFERENCES
- E. REQUIREMENTS OF REGULATORY AGENCIES:
- PERMITS: ARRANGE AND PAY FOR ALL PERMITS, INSPECTIONS AND UTILITY CONNECTIONS REQUIRED.
 - PROVIDE ALL TESTS AND INSPECTIONS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.
 - PROVIDE A SIGNED CERTIFICATE OF INSPECTION AT THE COMPLETION OF THE PROJECT. INCLUDE IN OPERATION AND MAINTENANCE MANUALS.
- F. CODES AND STANDARDS
- 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.
 - 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.
 - CONFORM TO THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL AGENCIES WHICH HAVE AUTHORITY OVER THIS PROJECT.
 - COMPLY WITH THE APPLICABLE EDITION OF THE FOLLOWING CODES AND STANDARDS THAT HAVE BEEN ADOPTED BY AND ARE ENFORCED BY THE AUTHORITY HAVING JURISDICTION:
 - INTERNATIONAL BUILDING CODE.
 - INTERNATIONAL ENERGY CONSERVATION CODE
 - INTERNATIONAL MECHANICAL CODE
 - NATIONAL ELECTRICAL CODE
 - INTERNATIONAL FIRE CODE
 - LIFE SAFETY CODE, NFPA 101
 - AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
 - ALL LOCAL CODES AND ORDINANCES ADOPTED AND ENFORCED BY THE AUTHORITY HAVING JURISDICTION.

REFERENCED STANDARDS:

- ALL EQUIPMENT, APPARATUS, MATERIALS AND SYSTEMS SHALL BE RATED, TESTED, FABRICATED AND INSTALLED IN ACCORDANCE WITH THE APPLICABLE INDUSTRY STANDARDS.
- 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

ELECTRICAL CONTRACT DOCUMENTS

- 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 REQUIREMENTS:
- 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.
 - 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.
 - PRIOR TO ROUGH-IN, CONTRACTOR SHALL COORDINATE ALL DEVICE LOCATIONS 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:
- CONTRACTOR - THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.
 - WORK - ALL MATERIAL, LABOR, TRANSPORTATION OF THE ELECTRICAL CONTRACTOR OR ANY OF THEIR SUB-CONTRACTORS.

- 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 STORAGE.
- INSTALL - INSTALL IN PLACE, MAKE READY FOR CONNECTION TO THE REQUIRED SERVICE.
- 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.
- PROVIDE - FURNISH, INSTALL AND CONNECT AS DEFINED HEREIN FOR A COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION READY FOR INTENDED USE.
- 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, ETC.
- 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 AREAS, ETC.
- SHALL - ACTION THAT IS REQUIRED WITHOUT OPTION OR QUALIFICATION.
- 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.
- REMOVE AND SALVAGE - CAREFULLY DETACH FROM EXISTING CONSTRUCTION IN A MANNER TO PREVENT DAMAGE AND DELIVER TO OWNER READY FOR RE-USE.
- 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.
- 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.

SUBMITTALS

- 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.
 - AS RELIEVING THE CONTRACTOR OF THE RESPONSIBILITY FOR ANY ERROR IN DETAILS, DIMENSIONS OR OTHERWISE THAT MAY EXIST.
 - AS APPROVED DEPARTURES FROM ADDITIONAL DETAILS OR INSTRUCTIONS PREVIOUSLY FURNISHED BY THE ARCHITECT/ENGINEER.
- B. SHOP DRAWINGS:
- 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.
 - 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:
- A SHORT CIRCUIT STUDY TO DETERMINE THE MINIMUM INTERRUPTING CAPACITY OF CIRCUIT PROTECTIVE DEVICES;
 - 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
 - POWER ANALYTICS CORPORATION
 - SKM SYSTEMS ANALYSIS
- D. ALL STUDIES SHALL BE BASED ON THE DEVICE CHARACTERISTICS OF ACTUAL EXISTING COMPONENTS AND THE NEW COMPONENTS BEING INSTALLED.
- E. PROVIDE ALL FIELD LABOR AS REQUIRED TO OBTAIN ALL DATA NECESSARY TO CONDUCT THE STUDIES SPECIFIED HEREIN.
- F. 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 BY NFPA 70E.
- 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:

- 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, CONDUCTED BY QUALIFIED TECHNICIANS AND ENGINEERS.
- 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:
- LOCATION DESIGNATION.
 - NOMINAL VOLTAGE.
 - FLASH PROTECTION BOUNDARY.
 - HAZARD RISK CATEGORY.
 - INCIDENT ENERGY.
 - WORKING DISTANCE.
 - 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 ANALYSIS.
- G. LABELS SHALL BE MACHINE PRINTED, WITH NO FIELD-APPLIED MARKINGS.

RECORD DOCUMENTS

- 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 OF THE WORK OF ANY CONTRACTOR ON THE PROJECT.
- D. ALL LINE VOLTAGE WIRING AND FINAL CONNECTIONS TO COMPLETE MECHANICAL 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 EQUIPMENT, ETC.
- 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:
- COMPLY WITH REQUIREMENTS OF UTILITIES PROVIDING ELECTRICAL POWER SERVICES.
 - 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 COMPANY.
- E. INSTALL ALL CONDUITS AND EQUIPMENT ACCORDING TO UTILITY COMPANY'S WRITTEN REQUIREMENTS. PROVIDE EMPTY CONDUITS FOR METERING LEADS AND EXTEND GROUNDING CONNECTIONS AS REQUIRED BY UTILITY COMPANY.

FIRE STOPPING

- A. PROVIDE FIRE STOPPING FOR PENETRATIONS BY CONDUIT OR CABLES AND OTHER EQUIPMENT 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.

SEISMIC RESTRAINT

- 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 PENETRATING 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 NOT BE CUT.
- 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.

GROUNDING

- 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.
- E. 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 AND PHASE.
- 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.

CONDUIT AND FITTINGS

- 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 ¾" TRADE SIZE.
- 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.
- 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 36 INCHES.
- M. PROVIDE FLEXIBLE METAL CONDUIT FOR FINAL CONNECTIONS TO RECESSED LIGHT FIXTURES (FIXTURE WHIPS). MAXIMUM CONDUIT LENGTH SHALL BE 72 INCHES.
- 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 MECHANICAL EQUIPMENT INSTALLED ON A CURB SHALL BE ROUGH WITHIN THE 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 EXPANSION JOINTS FOR CONDUIT AS REQUIRED TO COMPENSATE FOR THERMAL EXPANSION AND CONTRACTION.
- 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, WHEATLAND, ELECTRI-FLEX AND ANACONDA.
- S. ACCEPTABLE MANUFACTURERS FOR CONDUIT FITTINGS SHALL BE THOMAS AND BETTS OR APPROVED EQUAL.



LINGLEDESIGNGROUP,INC
158 WEST MAIN STREET
LENA, IL 61048
815.369.9155

1764 BLAKE ST
DENVER, CO 80202
303.974.5875

WWW.LINGLEDESIGN.COM

CASE

Engineering Inc.

796 Menus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. F-20080

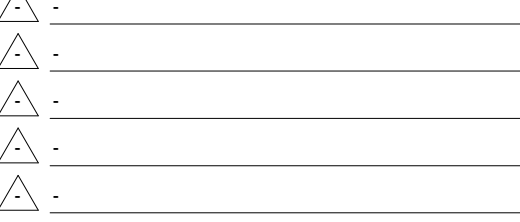
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SHERWIN WILLIAMS

STORE #:
XXXX

ADDRESS:
12360 W. SH 29, LIBERTY
HILL, TX, 78642

SHEET TITLE:

ELECTRICAL SPECIFICATIONS

SHEET NUMBER:

E100

CONDUCTORS

- 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 STRANDED.
- 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 CONDUIT.
- H. BRANCH CIRCUITS CONCEALED IN EXISTING AND NEW CEILINGS, WALLS, AND PARTITIONS: TYPE THHN-THWN, SINGLE CONDUCTORS IN CONDUIT.
- I. 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.
- L. CLASS 2 CONTROL CIRCUITS: POWER-LIMITED PLENUM RATED CABLE, CONCEALED IN BUILDING FINISHES.
- M. THE USE OF NON-METALLIC-SHEATHED CABLE (TYPE NM) AND ARMORED CABLE (TYPE AC OR BX) IS NOT ACCEPTABLE.

WIRE CONNECTORS SHALL BE EQUAL TO SCOTCH LOCK FOR #8 AWG AND SMALLER, THOMAS AND BETTS LOCK-TITE FOR #6 AND LARGER.

THE USE OF CONDUITS WITH GALVANIC ANODES IS SPECIFIED IN THE AMERICAN WIRE GAGE (AWG - BROWN AND SHARPE).

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.

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.

INSTALL ALL CONDUCTORS AND CABLE IN RACEWAYS CONTINUOUS WITHOUT TAPS OR SPLICES. SPICE 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, SPICE 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.

WIRE SIZE SHALL BE CONTINUOUS THROUGH THE ENTIRE RUN.

X. ALL HOMERUNS FROM PANEL BOARD TO FIRST DEVICE SERVED SHALL BE IN EMT CONDUIT.

TYPE MC CABLE

- A. USES PERMITTED
 - 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.
 - D6. 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 YELLOW MARKINGS.
- E. **BOXES AND FITTINGS**
 - 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.
 - B. 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 NEMA FB 1, FERROUS ALLOY, TYPE FS OR FD, WITH GASKETED COVER.
 - D. OUTLET BOXES INSTALLED WITHIN FIRE RATED ASSEMBLIES SHALL HAVE A FIRE RATING 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.
 - F. OUTLET BOXES FOR VOICE AND DATA DEVICES SHALL BE 4 11/16 INCHES SQUARE BY 2 1/8 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 AND CONDUCTORS ASSOCIATED WITH THE PULLBOX.
 - 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" TYPE BOXES THAT.

I. ACCEPTABLE MANUFACTURERS FOR BOXES: ARBITRON, STEEL CITY, TACO

K. 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 DESIGN SUITABLE FOR THE ENVIRONMENT INSTALLED.

PANELBOARDS

- 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.
- E. PROVIDE NEMA 1 ENCLOSURES FOR INTERIOR PANELS.
- F. 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 NEC 210.4(B)
- R. 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 SWITCHES.
- 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 MILLIAMPER 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 CONNECTED.
- E. COVER PLATES FOR EXTERIOR RECEPTACLES SHALL BE RATED FOR "WEATHERPROOF WHILE IN USE".
- F. ADDITIONAL ACCEPTABLE MANUFACTURERS FOR SWITCHES AND RECEPTACLES: LEGRAND, LEVITON.
- 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 HBL53625A OR EQUAL.
- I. 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.
- J. INSTALL "S" TYPE OUTLETS WHERE, AND AT THE HEIGHTS SHOWN. THESE OUTLETS SHALL BE INSTALLED IN A RECESSED BOX, ARLINGTON INDUSTRIES TVB503 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.
- L. RECEPTACLES SHALL BE COMMERCIAL GRADE OVER PROTECTION.

- 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 DEVICE IS ABLE TO BE INSTALLED IN A READILY ACCESSIBLE LOCATION AS DEFINED BY THE APPLICABLE ELECTRICAL CODE.
 - GFCI CIRCUIT BREAKER INSTALLED WITHIN THE PANEL FOR SERVICE TO THE CIRCUIT OR 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 MANUFACTURED BY LITTLEFUSE, OR APPROVED EQUAL.
- DEAD FRONT DEVICES SHALL BE LABELED TO IDENTIFY THE CIRCUIT AND THE LOAD SERVED BY THE DEVICE.

COVER PLATES FOR TOGGLE SWITCHES AND RECEPTACLES

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 SWITCH.
- E. ACCEPTABLE MANUFACTURERS FOR DISCONNECT SWITCHES: SCHNEIDER, ABB, SIEMENS OR EATON.

FUSES

- A. PROVIDE CARTRIDGE FUSES RATED FOR 250 VAC AND 600 VAC AND LESS FOR USE AS SPECIFIED HEREIN.
- 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 DRIVERS 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.
- C. PROVIDE A NEUTRAL CONDUCTOR TO ALL SWITCH LOCATIONS

ROUGH-IN SYSTEM FOR VOICE AND DATA

- A. PROVIDE A ROUGH-IN SYSTEM AS SPECIFIED HEREIN FOR SERVICE TO THE OWNER'S VOICE AND DATA NETWORK ONLY.
 - 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.
 - C. OUTLET BOXES FOR TELEPHONE AND DATA DEVICES SHALL CONSIST OF 4 11/16 INCH SQUARE BY 2 1/8 INCH DEEP OUTLET BOXES WITH SINGLE DEVICE COVER.
 - D. PROVIDE A 3" EMPTY CONDUIT WITH PULLSTRINGS FROM THE WALL, MOUNTED PLYWOOD TELEPHONE TERMINAL BOARD IN THE TENANT SPACE TO THE LANDLORDS TELEPHONE DISTRIBUTION OR POINT OF SERVICE DELIVERY. PROVIDE A NYLON BUSHING ON EACH END OF CONDUIT FOR CABLE PROTECTION.
 - E. 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.
 - F. 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

EXCEPT NOTATIONS INVOLVING THE TILT COMPONENT

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.

DUCT MOUNTED SMOKE DETECTORS

- 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 DETECTOR 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 SHUT DOWN.
- 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 INTERLOCK WIRING BETWEEN DUCT DETECTOR AND REMOTE SWITCH.
- I. REFER TO DETAILS ON MECHANICAL DRAWINGS FOR ADDITIONAL INFORMATION.

TESTING

- 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 PROPERLY.
- D. NEW AND EXISTING PANELBOARDS SHALL HAVE PHASE CURRENTS BALANCED TO WITHIN +/- 10% VARIATION BETWEEN AVERAGE PHASE CURRENT AND MEASURED INDIVIDUAL PHASE.
- 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 OWNER'S USE.

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.

WARRANTY

- 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 SYSTEM DESIGN, DETAILS, CALCULATIONS, ETC. AS REQUIRED BY ALL APPLICABLE CODES 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 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 FIRE ALARM WORK.

CHIME SYSTEM

- A. PROVIDE THE OPTX 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 THE ENTRY DOORS TO THE SALES ARE.

BUZZER SYSTEM

- A. PROVIDE INSTALL THE BUZZER SYSTEM. INSTALL THE BUZZER ON THE WALL WHERE SHOWN ON. INSTALL A WEATHER PROOF BUZZER BUTTON ON THE EXTERIOR WALL BETWEEN THE OVERHEAD DOOR AND THE ADJACENT PERSONNEL DOOR AT 48 INCHES ABOVE THE PAVING.



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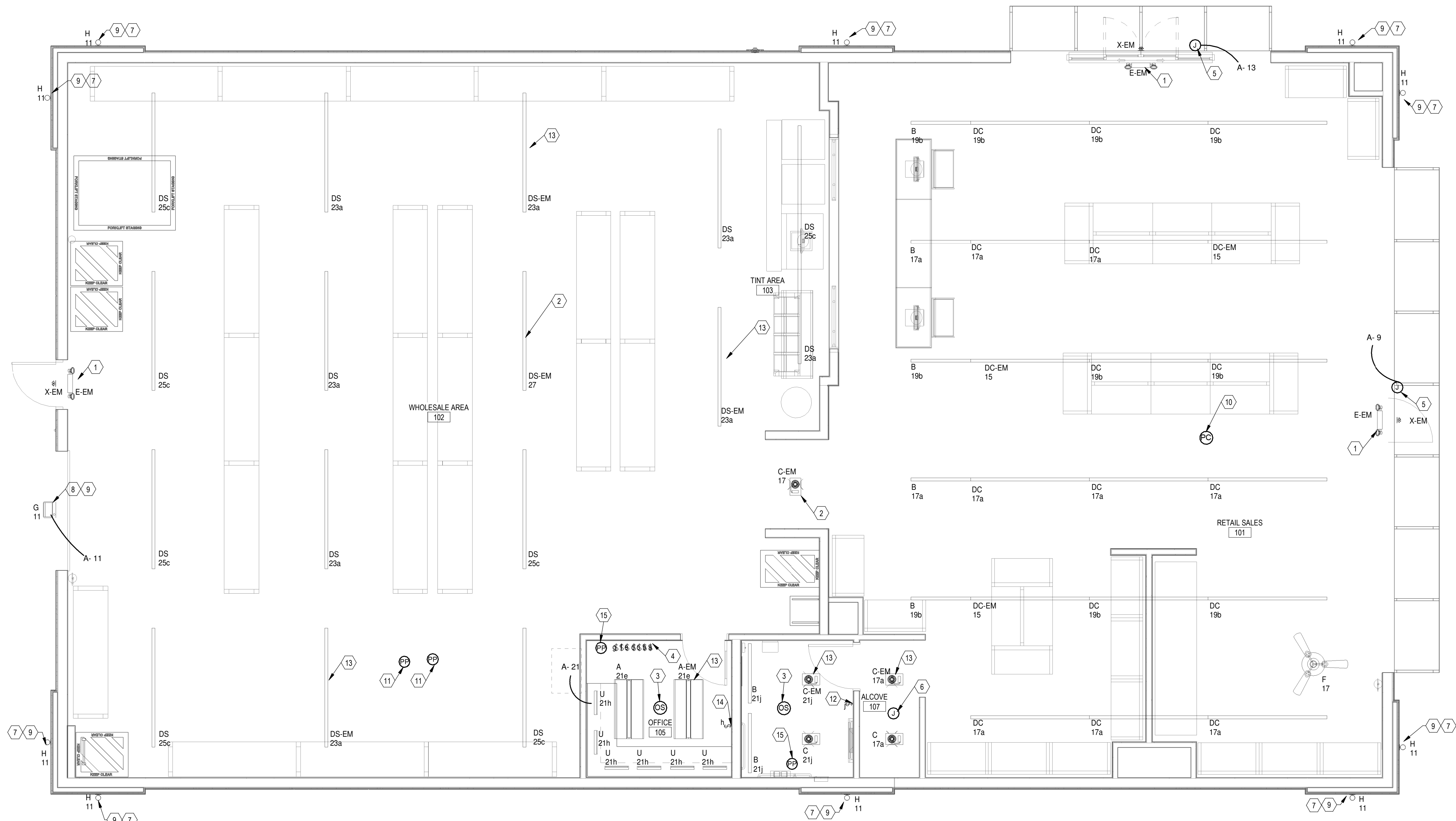
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SHEET TITLE:

ELECTRICAL SPECIFICATIONS

SHEET NUMBER:

E101



1 Working-Lighting Plan-01
E200 1/4" = 1'-0"

Type Mark	Count	Description	Manufacturer	Model	Lamp	Comments
A	1	2x4' Troffer	GE Current	LVT24B048MM840VQ L7WHTE	LED	To be sourced from Wesco
A-EM	1	2x4' Emergency Troffer	GE Current	LVT24B048MM840VQ L7WHTEEL	LED	To be sourced from Wesco - Connect to non-switched emergency circuit
B	7	48" Standalone Strip	GE Current	ALV2081047481DSQV QSTKQW	LED	To be sourced from Wesco
C	2	6" 1,000 Lumen LED Trim	GE Current	LRXR61X9CWWQ	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	ALV2081081481DCQV QSTKQW	LED	To be sourced from Wesco
DC-EM	3	8' Continuous EM Strip	GE Current	ALV2081081481DCQV QSTKQW	LED	To be sourced from Wesco - Connect to non-switched emergency circuit
DS	13	8' Standalone Strip	GE Current	ALV2081081481DSQV QSTKQW	LED	To be sourced from Wesco
DS-EM	3	8' Standalone EM Strip	GE Current	ALV2081081481DSQV QSTKQW	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.F. -install "lighting box" for stability
G	1	Wall Pack W/Photocell	GE Current	EWLS02140AF740N3 CBDBKZ	LED	
H	10	Outdoor Cylinder	PROGRESS	P56412030K BZ	LED	Mount @ 9'-0" A.F.F. -install "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 TIMELOCK 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

- 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.
- 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.
- LOCATION OF MAIN LIGHTING SWITCHBANK. REFER TO SWITCHBANK RETAIL ON SHEET E400 FOR ADDITIONAL INFORMATION. PROVIDE PERMANENT LABELS.
- 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 SHALL CONNECT THE SIGNAGE TO THESE CIRCUITS.
- TO PROVIDE PHOTO-EYE SWITCH TO CONTROL LIGHTING AND SIGNAGE. SEE VIVE LIGHTING CONTROL HUB DIAGRAM ON SHEET E400 FOR ADDITIONAL INFORMATION.
- 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 INSTALLATION.
- 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 #RMFS-8T-DV-B DIMMING MODULE FOR 0-10V DIMMING CONTROL OF LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN.
- 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 LIGHTING.
- CONNECT FIXTURE TO SWITCHED LEG AND CONNECT EMERGENCY DRIVER TO UNSWITCHED LEG OF CIRCUIT NOTED.
- E.C. TO PROVIDE LUTRON #MRFS-6ELV120-WH WIRELESS DIMMING CONTROL SWITCHING FOR CONTROL OF UNDER COUNTER TASK LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND MANUFACTURER SPECIFICATIONS.
- PROPOSED LOCATION OF LUTRON #RMFS-8R-DV-B POWER PACK RELAY MODULE FOR CONTROL OF AREA LIGHTING. COORDINATE WITH LUTRON SYSTEMS AND ASSOCIATED SWITCHING AS SHOWN.

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

CASE Engineering Inc.

796 Menus Court St. Louis, MO 63026
T 636.349.1600 F 636.349.1730
CERTIFICATE OF AUTHORITY NO. F-20080

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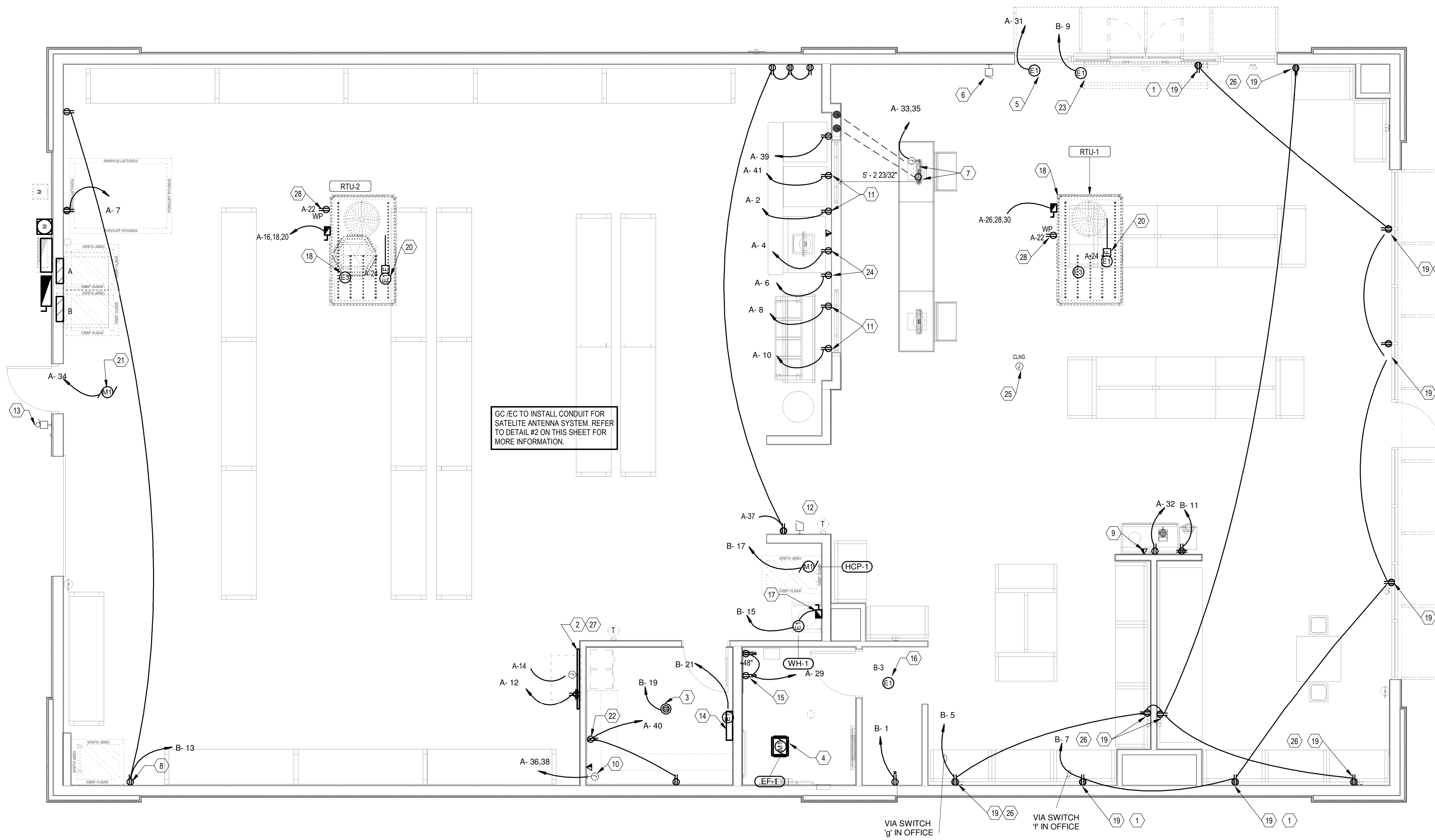
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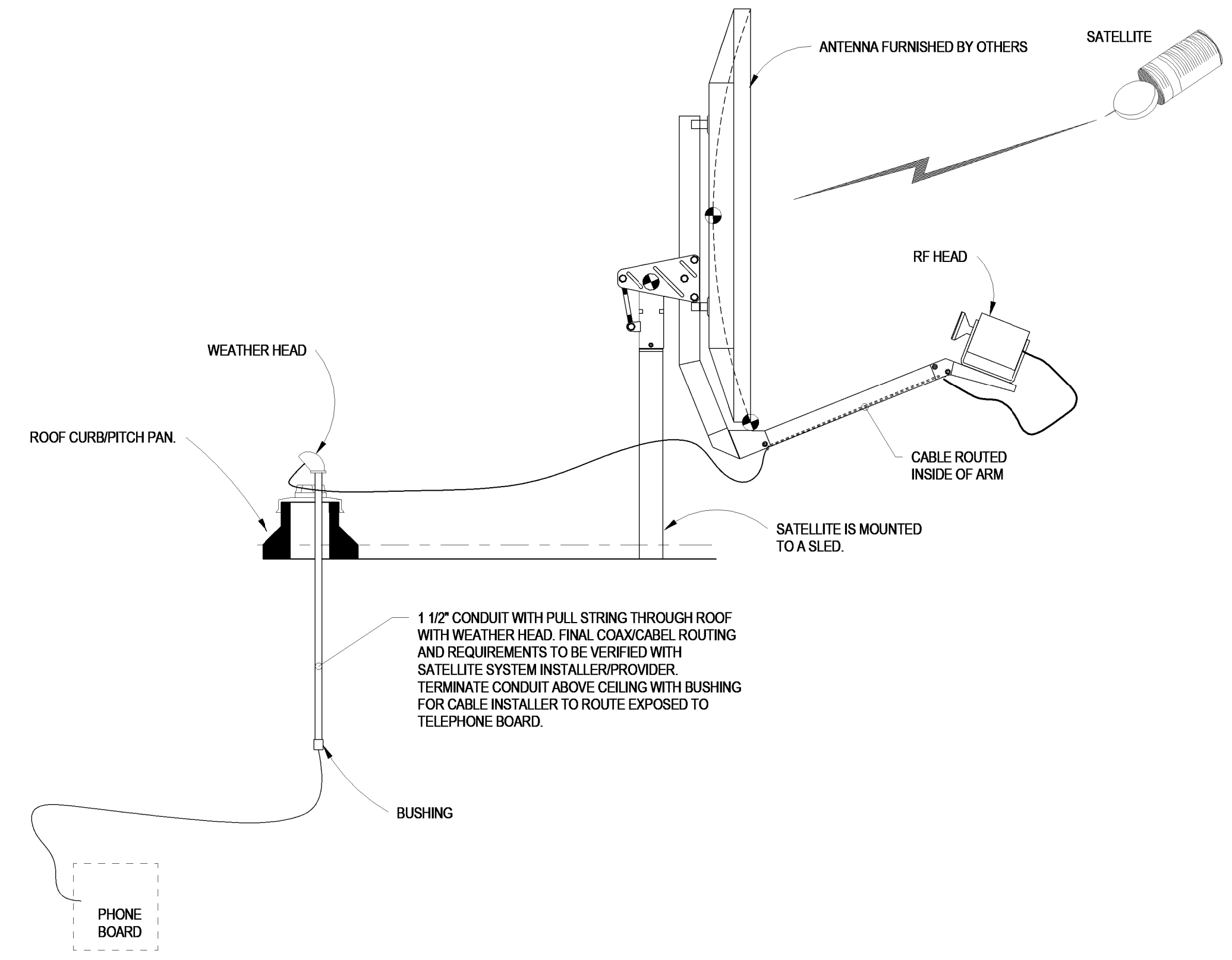
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12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:
LIGHTING PLAN
SHEET NUMBER:
E200



- ### 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.
 - BATHROOM EXHAUST FAN TO BE AUTOMATICALLY CONTROLLED WITH AREA OCCUPANCY 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 MANUFACTURER SPECIFICATIONS.
 - 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).
 - E.C. TO PROVIDE DUPLEX AT +48" A.F.F. OR AS DIRECTED BY FOR CONNECTION TO FORKLIFT CHARGING STATION.
 - E.C. TO INSTALL DUPLEX AND DATA OUTLET AT +33" 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 INSTALLATION.
 - E.C. TO PROVIDE J-BOX AS DIRECTED BY G.C. ABOVE COUNTER FOR CONNECTION TO (2) OFFICE RACEWAYS.
 - OUTLET MOUNTED AT +40" A.F.F. RECEPTACLE SHALL BE DEDICATED 20A, 1P, 120V CIRCUIT WITH GRAY DUPLEX RECEPTACLE AND COVER PLATE PER ARCHITECT SPECIFICATIONS.
 - 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 #PDT-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.
 - 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.
 - 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.
 - E.C. TO PROVIDE LUTRON #HLS-Q-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.
 - 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.
 - E.C. TO INSTALL OUTLETS AT LOCATION AND HEIGHTS NOTED. OUTLETS SHALL BE WIRED TO ASSOCIATED LUTRON #RMS-20R-DV-B RECEPTACLE CONTROL RELAY MODULE AND CONTROLLED VIA MAIN SWITCH/BACK 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 AHU.
 - 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.
 - UNDER COUNTER TYPICAL OF 2.
 - 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.
 - MOUNT OUTLETS AT 86" A.F.F.
 - THE EC SHALL INSTALL A 4"x8"x3/4" INCH PLYWOOD BOARD TO SUPPORT SHERWIN-WILLIAMS PHONE, COMPUTER AND SATELLITE EQUIPMENT. PLYWOOD SHALL BE MINIMUM APA STRUCTURAL I RATED SHEATHING EXTERIOR C-C.
 - WEATHER PROOF GFCI DUPLEX RECEPTACLE FURNISHED WITH RTU. EC TO CONNECT TO CIRCUIT NOTED.

1 POWER PLAN
E300 1/4" = 1'-0"



2 ELEC-DTAL-SATELLITE DETAIL
E300 NOT TO SCALE

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

CASE Engineering Inc.
796 Menus Court
St. Louis, MO 63026
T 636.349.1600
F 636.349.1730
CERTIFICATE OF AUTHORITY NO. F-20080

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01/03/2024
PROJECT #:
Project Number
DRAWN BY: Author CHECKED BY: Checker

CHECK SET - 11/01/23
△ DEVELOPER COMMENTS - 1/15/2024
△
△
△
△
△
△

SHERWIN WILLIAMS

STORE #:
XXXX
ADDRESS:

12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:

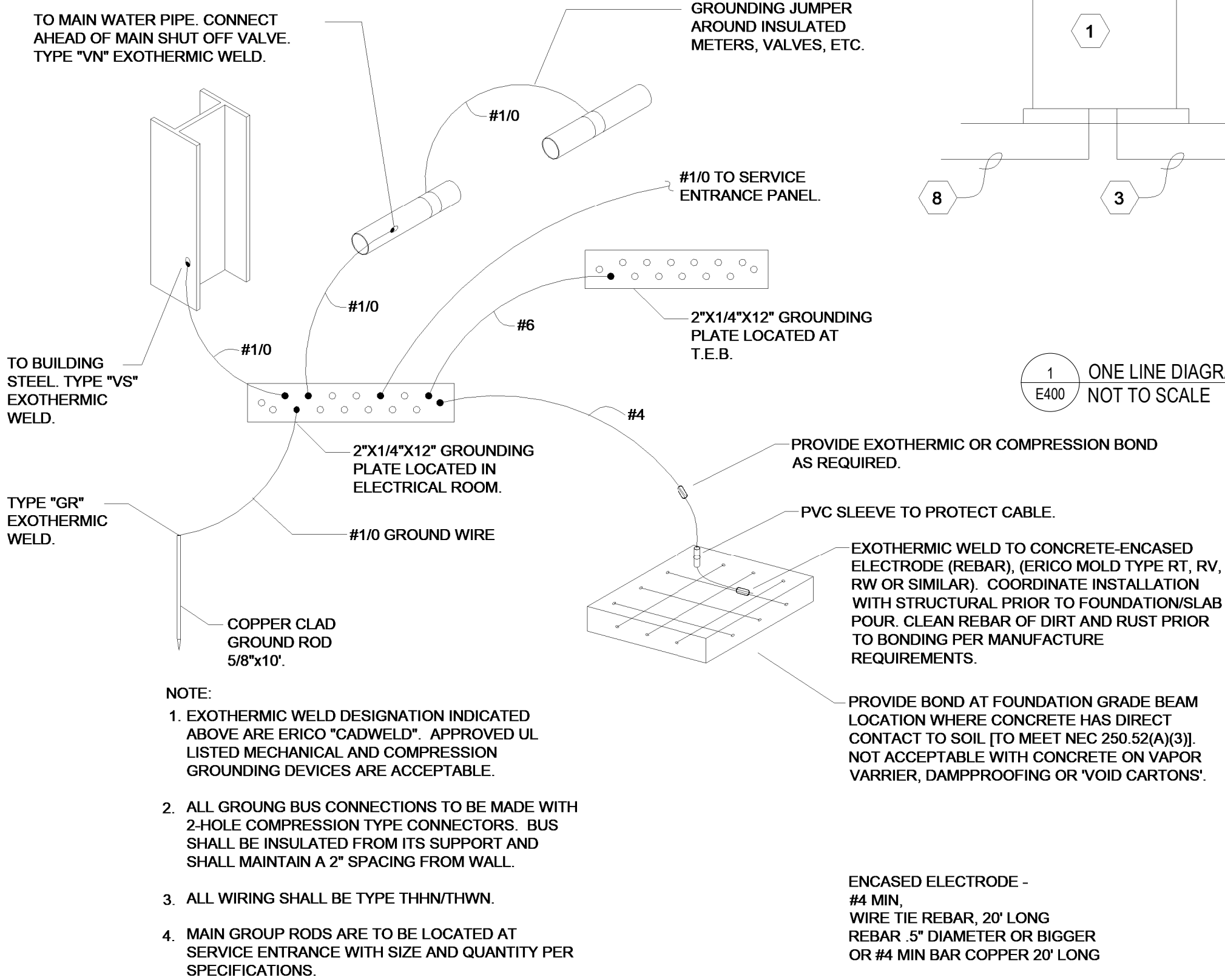
POWER PLAN

SHEET NUMBER:

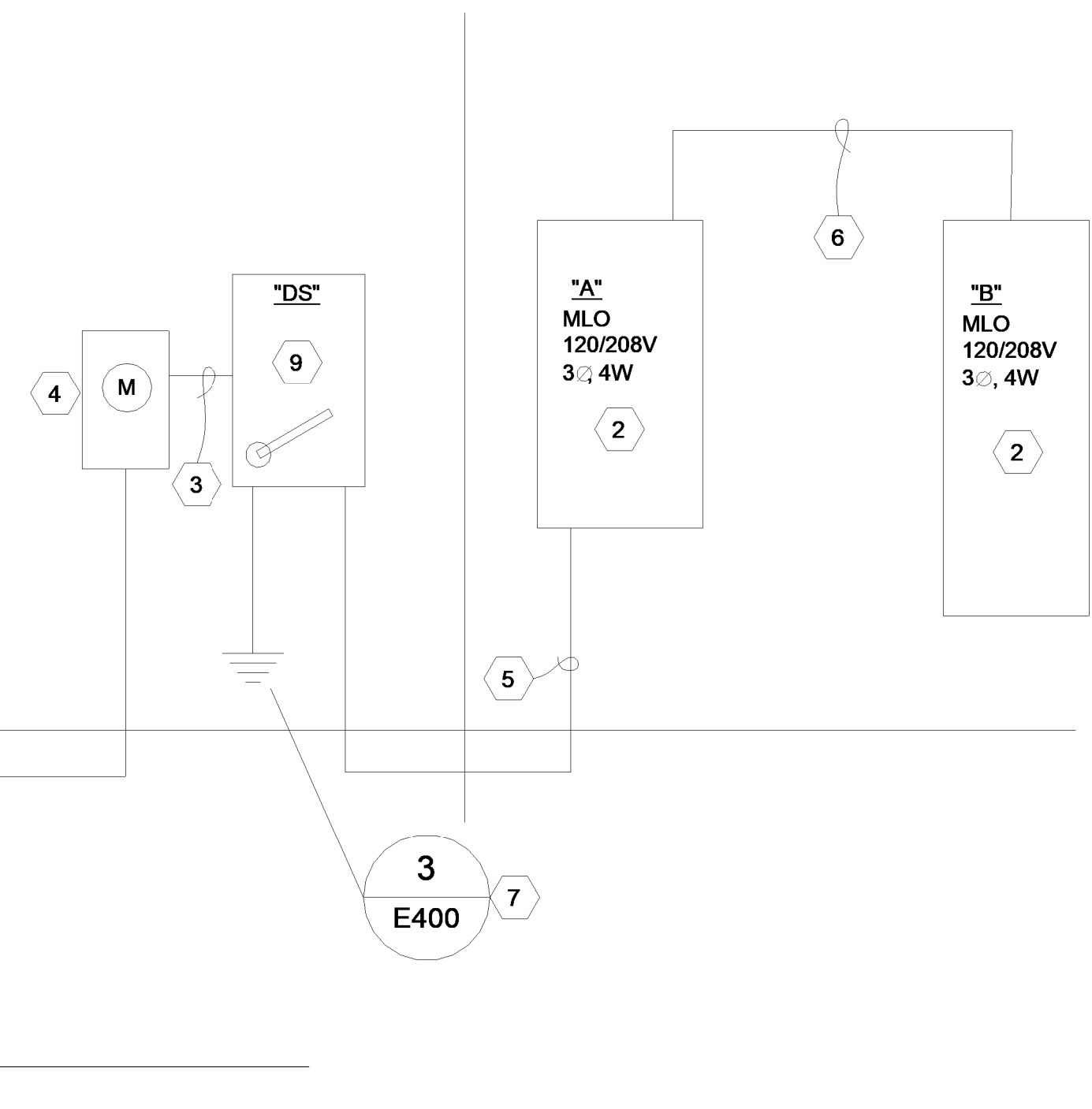
E300

MECHANICAL EQUIPMENT CONNECTION SCHEDULE

EQUIP	MOTOR / LOAD DATA			
	VA	VOLTS	PHASE	WIRE SIZE
EF-1	150 VA	120 V	1	2 #12, #12G, 3/4"C
HCP-1	200 VA	120 V	1	2 #12, #12G, 3/4"C
RTU-1	38520 VA	208 V	3	3 #6, #6G, 1"C
RTU-2	38520 VA	208 V	3	3 #6, #6G, 1"C
WH-1	3000 VA	120 V	1	2 #8, #10G, 3/4"C

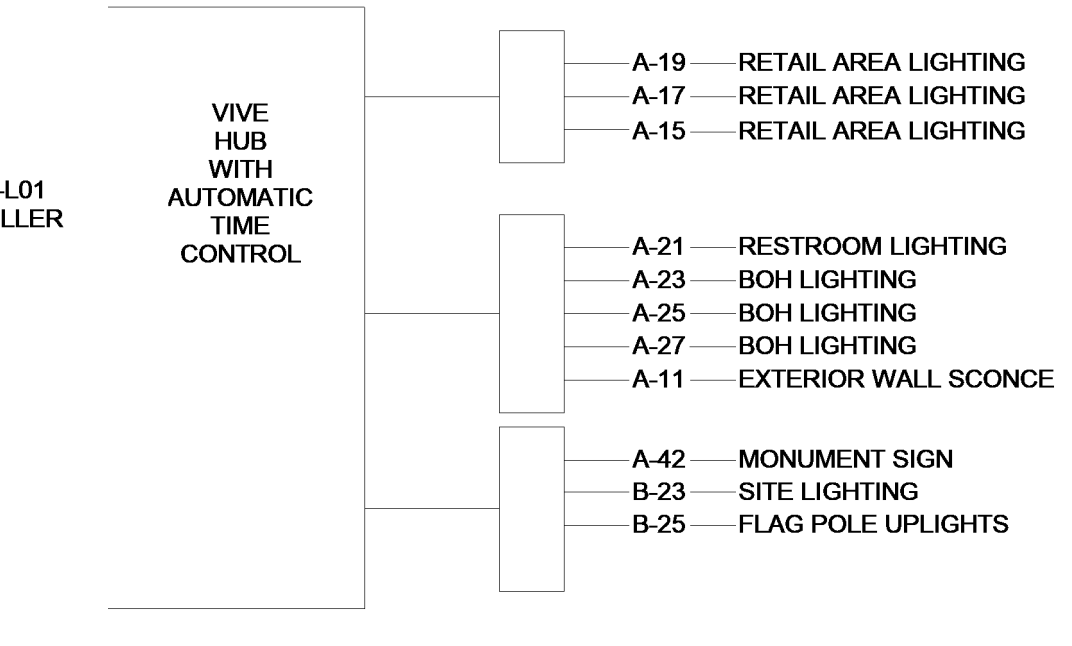
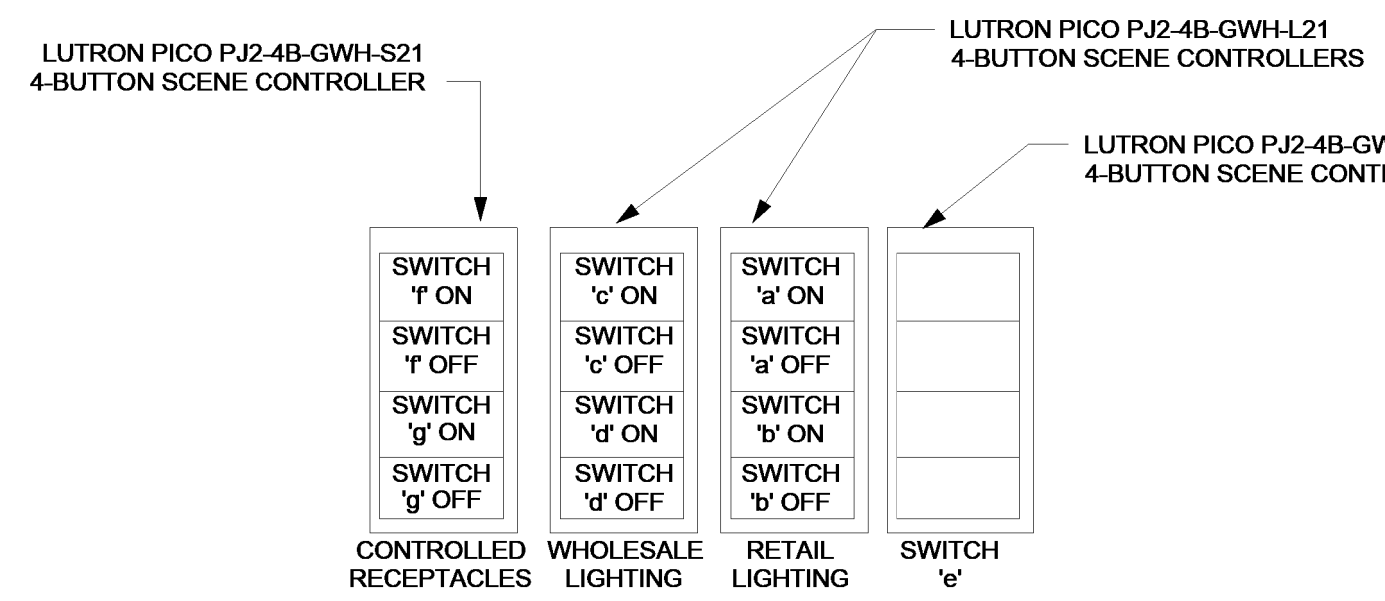


3 SERVICE ENTRANCE GROUND DETAIL NOT TO SCALE



KEYED NOTES

- PROVIDE PAD FOR TRANSFORMER IN ACCORDANCE WITH UTILITY COMPANY REQUIREMENTS. 120/208V, 3Ø, 4W SERVICE. COORDINATE WITH UTILITY.
- PROVIDE NEW PANEL. SEE PANEL SCHEDULES FOR INFORMATION.
- PROVIDE 4 #500KCMIL IN 4" CONDUIT.
- PROVIDE UTILITY APPROVED 320 AMP, 120/208 VOLT METER. COORDINATE LOCATION WITH OWNER AND UTILITY PRIOR TO ROUGH-IN.
- PROVIDE 4 #500 KCMIL + 3 GRD IN 4" CONDUIT.
- PROVIDE 4 #3/0 & #6 GRD IN 2" CONDUIT.
- PROVIDE #1/0 GRD PER NEC.
- PROVIDE 4" PRIMARY CONDUIT AS DIRECTED BY UTILITY TO POINT OF SERVICE FROM UTILITY COMPANY. COORDINATE REQUIREMENTS AND LOCATION(S) WITH UTILITY PRIOR TO ROUGH-IN.
- PROVIDE 120/208V, 3Ø, 4W, 400AS/400AF DISCONNECT SWITCH. UL LISTED AND RATED FOR SERVICE ENTRANCE. LOCKABLE, NEMA 3R ENCLOSURE. PROVIDE 400A CLASS "J" FUSES.



AVAILABLE INTERRUPTING CURRENT CALCULATION

$$f = \frac{1.732 (\text{LENGTH OF FEEDER}) \times I_{sc}}{(\# \text{ of sets}) \times C \times E_{L-L}}$$

I_{sc} = SHORT CIRCUIT AMPS (FROM LANDLORD)
 E_{L-L} = LINE TO LINE VOLTAGE
 C = VALUE FOR #1 = 7,292

FAULT CURRENT AT PANEL A

$$f = \frac{1.732 \times 50 \times 43237}{1 \times 22185 \times 208} = .811$$

$$M = \frac{1}{1 + f} = \frac{1}{1.811} = .552$$

$$I_{sc} = I_{sc} \times M = 23874$$

FAULT CURRENT AT PANEL B

$$f = \frac{1.732 \times 10 \times 23874}{1 \times 12844 \times 208} = .155$$

$$M = \frac{1}{1 + f} = \frac{1}{1.155} = .87$$

$$I_{sc} = I_{sc} \times M = 20770$$

FAULT CURRENT NOTE

FAULT CURRENT CALCULATIONS WERE PERFORMED BY CASE ENGINEERING BASED ON AN ASSUMED TRANSFORMER KVA RATING AND ASSUMED TRANSFORMER IMPEDANCE VALUE FOR THE UTILITY COMPANY TRANSFORMER TO ESTABLISH BASIS OF DESIGN AIC RATINGS AS IDENTIFIED ON THE DRAWINGS.

PRIOR TO SUBMITTING THE POWER DISTRIBUTION EQUIPMENT PRODUCT DATA FOR REVIEW, THE ELECTRICAL CONTRACTOR SHALL CONTACT THE SERVING UTILITY COMPANY TO VERIFY THE FAULT CURRENT VALUES AVAILABLE FROM THE UTILITY COMPANY. CONTRACTOR SHALL SUBMIT THE UTILITY COMPANY FAULT CURRENT INFORMATION TO THE ENGINEER FOR REVIEW AND EVALUATION.

AFTER THE UTILITY FAULT CURRENT INFORMATION HAS BEEN REVIEWED AND EVALUATED BY THE ENGINEER, ANY REVISIONS TO THE BASIS OF DESIGN AIC VALUES IDENTIFIED ON THE DRAWINGS THAT MAY BE REQUIRED SHALL BE COMMUNICATED BY THE ENGINEER TO THE ELECTRICAL CONTRACTOR.

CONTRACTOR SHALL NOT SUBMIT THE POWER DISTRIBUTION EQUIPMENT FOR REVIEW OR ORDER THE POWER DISTRIBUTION EQUIPMENT UNTIL THE FAULT CURRENT INFORMATION FROM THE UTILITY COMPANY HAS BEEN EVALUATED BY THE ENGINEER AND PROVIDED FINAL DIRECTION REGARDING THE AIC RATING OF THE POWER DISTRIBUTION EQUIPMENT HAS BEEN PROVIDED BY THE ENGINEER.

Branch Panel: A
 Location: Space 251
 Supply From: A
 Mounting: Recessed
 Enclosure: Type 1

Volts: 208Y/120
 Phases: 3
 Wires: 4

A.I.C. Rating: 42K
 Mains Type: MLO
 Mains Rating: 400.0 A
 MCB Rating: 400.0 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	PANEL B	200.0 A	3	1996... 180 VA	4700... 180 VA	1613... 180 VA	1	20.0 A	TINTING AREA	2	
3	-REC	20.0 A	1	360 VA 180 VA			1	20.0 A	TINTING AREA	4	
5	-LTG	20.0 A	1	1200... 180 VA			1	20.0 A	TINTING AREA	6	
7	-LTG	20.0 A	1		345 VA 360 VA		1	20.0 A	TINTING AREA	8	
9	-LTG	20.0 A	1	1200... 180 VA			1	20.0 A	-REC Space 251	10	
11	-LTG	20.0 A	1		114 VA 1284...		1	20.0 A	Other Space 251	12	
13	-LTG	20.0 A	1		551 VA 1284...		3	110.0 A	RTU-2	14	
15	-LTG	20.0 A	1				1	20.0 A	-REC	16	
17	-LTG	20.0 A	1				1	20.0 A	-MTR Space 251	18	
19	-LTG	20.0 A	1	380 VA 1284...	286 VA 360 VA		1	20.0 A	-REC	20	
21	-LTG	20.0 A	1	504 VA 1284...			1	20.0 A	-PWR Space 251	22	
23	-LTG	20.0 A	1		576 VA 100 VA		1	20.0 A	-PWR Space 251	24	
25	-LTG	20.0 A	1	504 VA 1284...			3	20.0 A	RTU-1	26	
27	-LTG	20.0 A	1		72 VA 1284...		1	20.0 A	-REC	28	
29	-REC	20.0 A	1	500 VA 180 VA	360 VA 1284...		1	20.0 A	-REC	30	
31	AUTO DOOR OPENER	20.0 A	1		180 VA 500 VA		1	20.0 A	-REC	32	
33	POS RECEPCTACLES	20.0 A	2				1	20.0 A	-PWR Space 251	34	
35	TENT AREA RECEPCTACLES	20.0 A	1	720 VA 500 VA	180 VA 500 VA		2	20.0 A	-REC	36	
37	TINTING AREA	20.0 A	1		180 VA 360 VA		1	20.0 A	-REC	38	
39	TINTING AREA	20.0 A	1				1	20.0 A	-REC	40	
41	TINTING AREA	20.0 A	1				1	20.0 A	Lighting	42	
Total Load:				32560 VA	33992 VA	30633 VA					
Total Amps:				273.8 A	285.7 A	255.3 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Other	180 VA	100.00%	180 VA	
Lighting	357 VA	100.00%	357 VA	
Receptacle	180 VA	100.00%	180 VA	
-PWR	2600 VA	100.00%	2600 VA	
-LTG	5428 VA	125.00%	6785 VA	
-HVAC	77040 VA	100.00%	77040 VA	
-WTR	3000 VA	100.00%	3000 VA	
-MTR	200 VA	125.00%	250 VA	
-REC	8200 VA	100.00%	8200 VA	
Total Conn. Load:				97185 VA
Total Est. Demand:				98592 VA
Total Conn.:				269.8 A
Total Est. Demand:				273.7 A

Branch Panel: B
 Location: Space 251
 Supply From: A
 Mounting: Recessed
 Enclosure: Type 1

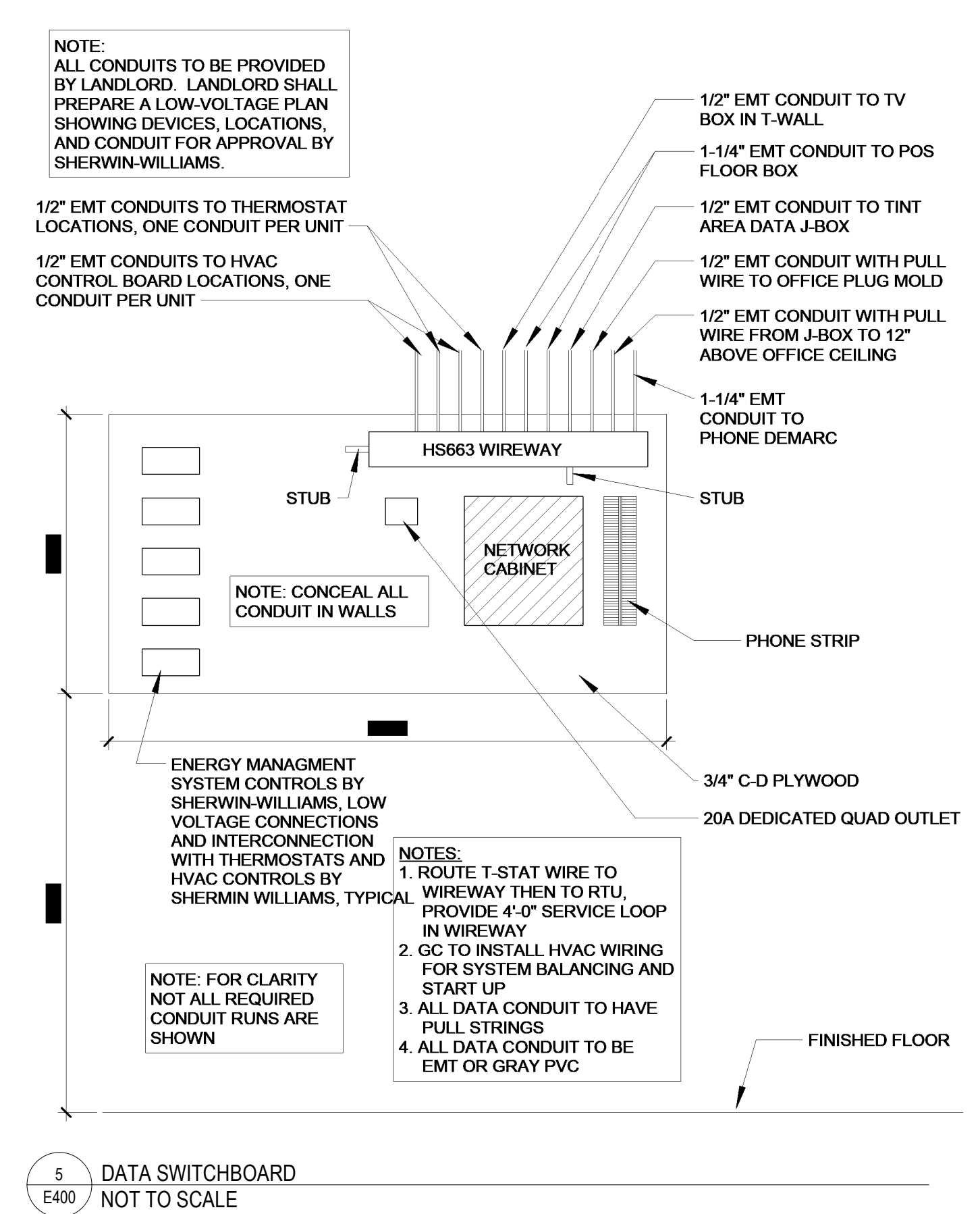
Volts: 208Y/120
 Phases: 3
 Wires: 4

A.I.C. Rating: 42K
 Mains Type: MLO
 Mains Rating: 200.0 A
 MCB Rating: 100.0 A

CKT	Circuit Description	Trip	Poles	A	B	C	Poles	Trip	Circuit Description	CKT	
1	WATER COOLER	20.0 A	1	180 VA	0 VA		1	20.0 A	SPARE	2	
3	LUTRON HUB	20.0 A	1		200 VA 0 VA		1	20.0 A	SPARE	4	
5	SALES AREA REC	20.0 A	1			900 VA 0 VA	1	20.0 A	SPARE	6	
7	SHOW WINDOW REC	20.0 A	1	1080... 0 VA	1000... 0 VA		1	20.0 A	SPARE	8	
9	AIR CURTIAN	20.0 A	1				1	20.0 A	SPARE	10	
11	-REC	20.0 A	1			180 VA 0 VA	1	20.0 A	SPARE	12	
13	-REC Space 251	20.0 A	1	540 VA 0 VA	3000... 0 VA		1	20.0 A	SPARE	14	
15	-WTR Space 251	20.0 A	1			200 VA 0 VA	1	20.0 A	SPARE	16	
17	-MTR Space 251	20.0 A	1				1	20.0 A	SPARE	18	
19	Receptacle Space 250	20.0 A	1	180 VA 0 VA	500 VA 0 VA		1	20.0 A	SPARE	20	
21	-PWR	20.0 A	1				1	20.0 A	SPARE	22	
23	SITE LIGHTING	20.0 A	1			333 VA 0 VA	1	20.0 A	SPARE	24	
25	SITE LIGHTING	20.0 A	1	16 VA 0 VA			1	20.0 A	SPARE	26	
27	SPACE	--	1	--	--	--	1	--	SPACE	28	
29	SPACE	--	1	--	--	--	1	--	SPACE	30	
31	SPACE	--	1	--	--	--	1	--	SPACE	32	
33	SPACE	--	1	--	--	--	1	--	SPACE	34	
35	SPACE	--	1	--	--	--	1	--	SPACE	36	
37	SPACE	--	1	--	--	--	1	--	SPACE	38	
39	SPACE	--	1	--	--	--	1	--	SPACE	40	
41	SPACE	--	1	--	--	--	1	--	SPACE	42	
Total Load:				1996 VA	4700 VA	1613 VA					
Total Amps:				17.1 A	39.7 A	13.4 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals
Lighting	348 VA	100.00%	348 VA	
Receptacle	180 VA	100.00%	180 VA	
-PWR	1500 VA	100.00%	1500 VA	
-LTG	200 VA	125.00%	250 VA	
-WTR	3000 VA	100.00%	3000 VA	
-MTR	200 VA	125.00%	250 VA	
-REC	2880 VA	100.00%	2880 VA	
Total Conn. Load:				8309 VA
Total Est. Demand:				8409 VA
Total Conn.:				23.1 A
Total Est. Demand:				23.3 A



5 DATA SWITCHBOARD NOT TO SCALE

LINGLEDESIGNGROUP, INC
 158 WEST MAIN STREET
 LENA, IL 61048
 815.369.9155

1764 BLAKE ST
 DENVER, CO 80202
 303.974.5875

WWW.LINGLEDESIGN.COM

CASE Engineering Inc.
 796 Menus Court
 St. Louis, MO 63026
 T 636.349.1600
 F 636.349.1730
 CERTIFICATE OF AUTHORITY NO. F-20080

STATE OF TEXAS
 MATTHEW RICHARD CASE
 128362
 LICENSED PROFESSIONAL ENGINEER

PROJECT #:
 Project Number
 DRAWN BY: Author
 CHECKED BY: Checker

CHECK SET - 11/01/23
 DEVELOPER COMMENTS - 1/15/2024

SHERWIN WILLIAMS

STORE #:
 XXXX

ADDRESS:
 12360 W. SH 29, LIBERTY HILL, TX, 78642

SHEET TITLE:
ELECTRICAL RISER & SCHEDULES

SHEET NUMBER:
E400