KY

Lexington-Fayette Urban County Govt.

TOWN BRANCH WASTEWATER TREATMENT PLANT

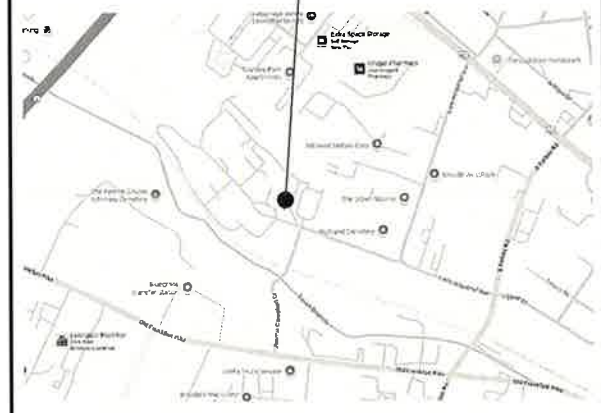
301 JIMMIE CAMPBELL DR.,
LEXINGTON, KY 40504
PROJECT #0826-25
EXTERIOR WINDOW REPLACEMENT

WEST POINT ENGINEERS PLLC

(502)890-2210 * WESTPOINTENGINEERS.COM
1941 BISHOP LANE, STE. 400 * LOUISVILLE KY 40218

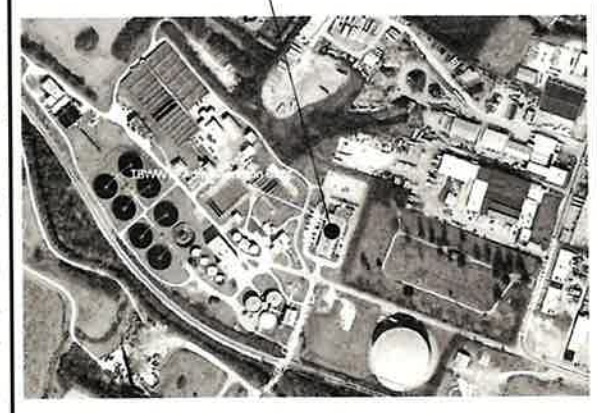
PROJECT LOCATION MAP

TOWN BRANCH WASTEWATER TREATMENT PLANT



PROJECT SITE MAP

TOWN BRANCH WASTEWATER TREATMENT PLANT



SIGNATURE BLOCK

DIRECTOR _____ DATE _____

CHIEF, ENGINEERING _____ DATE _____

SAFETY OFFICER _____ DATE _____

BUILDING INSPECTOR _____ DATE _____

DRAWING INDEX

Project Number 0826-25
Building Number ADMIN&LAB BLDG
Drawing Number G1001

Project Title: EXTERIOR WINDOW REPLACEMENT
Location: TOWN BRANCH WASTEWATER TREATMENT PLANT, 301 JIMMIE CAMPBELL DR., LEXINGTON, KY 40504
Issue Date: 15-JAN-2026
Checked: BVG
Drawn: SAB

Phase: FOR CONSTRUCTION

Drawing Title: COVER SHEET
Approved:

STAMP

ARCHITECT/ENGINEER OF RECORD
WEST POINT ENGINEERS PLLC
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Revisions: Date

GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FIELD CONDITIONS BEFORE CONSTRUCTION STARTS AND SHALL NOTIFY THE OWNER OF ANY DISCREPANCIES.
2. THE CONTRACTOR SHALL REVIEW THE CONTRACT DOCUMENTS FOR CONFLICTS. WHERE CONFLICTS EXIST WITHIN THE DRAWINGS, WORK SHALL NOT PROCEED UNTIL THE OWNER IS NOTIFIED AND DIRECTION IS GIVEN.
3. WHERE INCIDENTAL WORK IS REQUIRED TO ACCOMPLISH WORK SHOWN ON THE DRAWINGS, THIS WORK IS IMPLIED AND SHALL BE INCLUDED AS PART OF THE BASE BID.
4. BEFORE ANY WORK COMMENCES IN AN AREA, THE CONTRACTOR SHALL NOTIFY THE OWNER OF HIS INTENTION TO WORK IN THE AREA AND SHALL SCHEDULE A WALK-THROUGH WITH THE OWNER TO DETERMINE EXISTING CONDITIONS, PREPARE AN ACTIVITY HAZARD ANALYSIS AND SUBMIT A PLAN TO COMPLETE THE WORK TO THE OWNER FOR APPROVAL. THE AREAS OF WORK SHALL BE RETURNED TO THEIR ORIGINAL STATE BEFORE REQUESTING FINAL APPROVAL OF THE WORK FROM THE OWNER.
5. AFTER CONSTRUCTION COMPLETION, THE CONTRACTOR SHALL CLEAN ALL SURFACES OF CONSTRUCTION DEBRIS. SURFACES SHALL BE WIPED CLEAN OF DUST, INCLUDING FIXTURES, WINDOWS AND WINDOW SILLS, DOOR FRAMES, ETC. THE CONTRACTOR SHALL CLEAN USING VAMC-APPROVED PRODUCTS.
6. CONTRACTOR IS RESPONSIBLE FOR CONFORMING TO ALL BUILDING CODES AND SHALL NOT KNOWINGLY EXECUTE WORK WHICH IS NOT IN CONFORMANCE.
7. CONTRACTOR TO INSPECT ALL WALLS FOR FUNCTION. NOTIFY THE OWNER OF ANY CONDITIONS THAT WILL PREVENT THE CONTRACTOR TO ACHIEVE A COMPLETE PROJECT.
8. CONTRACTOR TO PROTECT ALL PORTIONS OF THE EXISTING BUILDING TO REMAIN DURING DEMOLITION/ CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY/ALL DAMAGES DURING THE WORK.
9. CONTRACTOR SHALL MAINTAIN ALL EXISTING ACCESS PANELS AND PROVIDE NEW ACCESS PANELS AS REQUIRED IN AREAS OF RENOVATION AND NEW CONSTRUCTION.
10. CONTRACTOR TO REMOVE ANY AND ALL UNUSED SCREWS, CLIPS AND FASTENERS PATCH AND PREP THE HOLES.
11. ALL DIMENSIONS ARE TO FINISH FACE OF WALL UNLESS OTHERWISE NOTED.
12. PAINTING: SAND EXISTING SURFACES, REMOVE ANY DEFECTS, PRIME AND PAINT FROM CEILING TO THE NEAREST INSIDE/OUTSIDE CORNERS. UNLESS NOTED OTHERWISE.
13. ALL SEALANTS SHALL BE DRY TOOLED. SUPPLY AND UTILIZE A TEST AREA, COORDINATED WITH THE OWNER, FOR FINISH PRODUCT REFERENCE.
14. THE CONSTRUCTION AREAS WILL BE TURNED OVER TO THE CONTRACTOR FOR THE LIFE OF THE SCHEDULED / PHASED SITE WORK.
15. CONTRACTOR TO PROTECT ALL EXISTING UTILITIES.
16. COORDINATE WITH THE OWNER ON CONTRACTOR PARKING LOCATION.
17. THE CONTRACTOR IS RESPONSIBLE FOR PROTECTING SIDEWALKS, PAVEMENT, AND CURBS. REPLACE COMPLETE SECTIONS WITH NEW IF DAMAGED.

BRICK
CMU / CONCRETE MASONRY UNIT
RIGID INSULATION
BATT INSULATION
WOOD BLOCKING / WOOD FRAMING
PLYWOOD
STONE
CONCRETE
METAL IN SECTION
METAL IN ELEVATION
COMPACTED FILL
COMPACTED GRANULAR FILL

3 / A5-06 — SECTION NUMBER / SHEET NUMBER
3 / A5-06 — DETAIL NUMBER / SHEET NUMBER
3 / A5-06 — ELEVATION NUMBER / SHEET NUMBER
X-Y-Z — WINDOW NUMBER
B — COLUMN BUBBLE
STRUCTURAL COLUMN GRID
CEILING HEIGHT X'-0" — SOFFIT OR CEILING HEIGHT
XX — WALL TYPE
HANDICAPPED ACCESS
DATUM / HEIGHT
S - # — SEALANT ASSIGNMENT

EXIT LIGHT FIXTURE
SPRINKLER HEAD
5 / 25-A2900 — PHOTOGRAPH NUMBER / SHEET NUMBER
BH — 1,2,3 HOUR SMOKE WALL
FR — 1,2,3 HOUR FIRE WALL
BFR — 1,2,3 HOUR SMOKE AND FIRE WALL

NOTE: SYMBOLS & LEGEND ARE STANDARD. ALL SYMBOLS MAY NOT BE USED.

AB	ANCHOR BOLT	CMP	CORRUGATED METAL PIPE	ELEV	ELEVATOR/ELEVATION	HD	HAND DRYER	MFG	MANUFACTURING			SYM	SYMMETRICAL
ABV	ABOVE	CMT	CERAMIC MOSAIC TILE	ENCL	ENCLOSURE	HDPE	HIGH DENSITY POLYETHYLENE	MH	MANHOLE	R	RADIUS/RISER/THERMAL RESISTANCE	SYST	SYSTEM
AC	ASPHALTIC CONCRETE	CMU	CONCRETE MASONRY UNIT	EO	EQUIPMENT BY OWNER	HDW	HARDWARE	MHT	MOUNTING HEIGHT	RA	RETURN AIR		
A/C	AIR CONDITIONING			EP	ELECTRICAL PANEL	HM	HOLLOW METAL	MIN	MINIMUM	RAD	RADIATOR	T	TREAD
ACT	ACOUSTICAL TILE OR PANEL	CNTRSK	COUNTERSUNK	EPDM	ETHYLENE PROPYLENE DIENE	HORIZ	HORIZONTAL	MISC	MISCELLANEOUS	RB	RUBBER BASE	TB	TOWEL BAR/TEST BORING
AD	ACCESS DOOR	CO	CLEANOUT	EQ	EQUAL	HP	HIGH POINT/HORSEPOWER	ML	MATCH LINE	RBR	RUBBER	T&B	TOP AND BOTTOM
ADD	ADDENDUM	COL	COLUMN	EQUIP	EQUIPMENT	HR	HOUR	MNFR	MANUFACTURER(S)	RCP	REINFORCED CONCRETE PIPE/ REFLECTED CEILING PLAN	TC	TOP OF CURB
ADF	ALUMINUM DEMOUNTABLE FRAME	COMB	COMBINATION	ES	EDGE STRIP	HT	HEIGHT	MO	MASONRY OPENING			TD	TRENCH DRAIN/TOWEL DISPENSER
ADJ	ADJUSTABLE	COMP	COMPOSITION	EW	EACH WAY	HVAC	HEATING, VENTILATING AIR CONDITIONING	MTL	METAL	RD	ROOF DRAIN	TDD	TOWEL DISPENSER & DISPOSAL
ADJC	ADJACENT	CONC	CONCRETE	E/W	EAST/WEST	HVY	HEAVY	MTD	MOUNTED	REC	RECESSED	TEL	TELEPHONE
AFF	ABOVE FINISHED FLOOR	COND	CONDENSER	EWC	ELECTRIC WATER COOLER EX	HYD	HYDRANT	MTP	METAL TOILET PARTITION	RECOM	RECOMMENDED	TER	TERRAZZO
AFG	ABOVE FINISHED GRADE	CONF	CONFERENCE	EXC	EXCAVATE/EXCAVATION			MW	MONITORING WELL	RECPT	RECEPTACLE	T&G	TONGUE & GROOVE
AHU	AIR HANDLING UNIT	CONN	CONNECT/CONNECTION	EXIST	EXISTING	ICRA	INFECTION CONTROL RISK ASSESSMENT			REF	REFERENCE	THK	THICK
AL	ALUMINUM	CONST	CONSTRUCTION	EXP	EXPANSION	ID	INSIDE DIAMETER	N	NORTH	REFR	REFRIGERATOR	TMR	TILTING MIRROR
ALT	ALTERNATE/ALTERNATIVE	CONT	CONTINUOUS	EXPD	EXPOSED	IF	INSIDE FACE	NA	NOT APPLICABLE	REINF	REINFORCING	TOC	TOP OF CONCRETE
AMT	AMOUNT	CONTR	CONTRACTOR	EXT	EXTERIOR	IMP	INSULATED METAL PANEL	NIC	NOT IN CONTRACT	REQD	REQUIRED	TOF	TOP OF FOOTING
ANOD	ANODIZED	COORD	COORDINATE	EXTR	EXTRUDED/EXTRUSION	IN	INCH	NO	NUMBER	RES	RESILIENT	TOJ	TOP OF JOIST
APPROX	APPROXIMATELY	CORR	CORRIDOR / CORRUGATED			INCL	INCLUDING, INCLUDED	NOM	NOMINAL	RET	RETURN	TOP	TOP OF PIER
ARCH	ARCHITECT/ARCHITECTURAL	CP	CONCRETE PIPE	FCU	FAN COIL UNIT	IND	INDICATED	NRC	NOISE REDUCTION COEFFICIENT	RFG	ROOFING	TOS	TOP OF STEEL
ASSY	ASSEMBLY	CPT	CARPET	FD	FLOOR DRAIN	INSUL	INSULATION/INSULATED	NTS	NOT TO SCALE	RFH	ROOF HATCH	TOW	TOP OF WALL
AWG	AMERICAN WIRE GAUGE	CPRS	COMPRESSIBLE	FDN	FOUNDATION	INT	INTERIOR			RH	RIGHT HAND	TP	TOP OF PAVEMENT
		CRS	COLD ROLLED STEEL	FE	FIRE EXTINGUISHER	INV	INVERT	OC	ON CENTER	RHR	RIGHT HAND REVERSE	TSCD	TOILET SEAT COVER DISPENSER
B/B	BACK TO BACK	CQC	CONTRACTOR QUALITY CONTROL	FEC	FIRE EXTINGUISHER CABINET	IP	IRON PIPE	OD	OUTSIDE DIAMETER	RL	ROOF LEADER	TTH	TOILET TISSUE HOLDER
BC	BOTTOM OF CURB/BRICK COURSE	CT	CERAMIC TILE	FF	FINISHED FLOOR	IPS	IRON PIPE SIZE	OF	OUTSIDE FACE	RM	ROOM	TYP	TYPICAL
BD	BOARD	CUST	CUSTODIAN	F/F	FACE TO FACE			OFCI	OWNER FURNISHED-CONTRACTOR INSTALLED	RO	ROUGH OPENING		
BITUM	BITUMINOUS			FH	FIRE HYDRANT	JAN	JANITOR			ROW	RIGHT OF WAY	UC	UNDERCUT
BKSPL	BACKSPLASH	D	DEEP/DEPTH	FHC	FIRE HOSE CABINET	JT	JOINT	OH	OVERHEAD	RR	RAILROAD	UCL	UNDER CABINET LIGHT
BLDG	BUILDING	DBL	DOUBLE	FIN	FINISH	JST	JOIST	OPG	OPENING	RST	RUBBER STAIR TREAD	UG	UNDERGROUND
BLK	BLOCK	DBLT	DOUBLE TEE	FL	FLASHING			OPP	OPPOSITE	RTU	ROOF TOP UNIT	UH	UNIT HEATER
BLKC	BLOCK COURSE	DEMO	DEMOLISH/DEMOLITION	FLR	FLOOR	LAB	LABORATORY	OPH	OPPOSITE HAND	RV	ROOF VENT	UNFIN	UNFINISHED
BLKG	BLOCKING	DEPT	DEPARTMENT	FND	FEMININE NAPKIN DISPOSAL	LAM	LAMINATED					UNO	UNLESS NOTED OTHERWISE
BM	BEAM/BENCH MARK	DET	DETAIL	FNDN	FOUNDATION	LAV	LAVATORY	PA	PLANTING AREA	S	SOUTH	UR	URINAL
BRK	BRICK	DF	DRINKING FOUNTAIN	FOC	FACE OF CONCRETE	LB	POUND	PBD	PARTICLE BOARD	SA	SANITARY DRAINAGE LINE/ SUPPLY AIR	UTIL	UTILITY
BS	BOTH SIDES	DH	DOUBLE HUNG	FOM	FACE OF MASONRY	LF	LINEAR FEET	PC	PRECAST CONCRETE/PIECE	SC	SPECIAL COATING/SOLID CORE		
BSMT	BASEMENT	DI	DROP INLET	FR	FRAME	LG	LONG	PCF	POUNDS PER CUBIC FOOT	SCH	SCHEDULE	VAIH	VA'S INDUSTRIAL HYGIENIST
BTWN	BETWEEN	DIA	DIAMETER	FRGWB	FIBER REINFORCED GYPSUM WALL BOARD	LGH	LENGTH	PERF	PERFORATED	SD	SOAP DISPENSER	VCT	VINYL COMPOSITION TILE
BTM	BOTTOM	DIAG	DIAGONAL	FS	FOOD SERVICE	LH	LEFT HAND	PGBD	PEGBOARD	SECT	SECTION	VERT	VERTICAL
BTU	BRITISH THERMAL UNIT	DIFF	DIFFUSER	FT	FEET/FOOT	LHR	LEFT HAND REVERSE	PL	PLATE/PROPERTY LINE	SF	SQUARE FOOT/SQUARE FEET	VEST	VESTIBULE
BUR	BUILT UP ROOF	DIM	DIMENSION	FTG	FOOTING	LIN	LINEAR	PLAM	PLASTIC LAMINATE	SGFT	STRUCTURAL GLAZED FACING TILE	VL	VISION LITE AND LOUVERED
BW	BOTH WAYS	DISP	DISPENSER	FTR	FINNED TUBE RADIATION	LKR	LOCKER	PLAS	PLASTER	SHT	SHEET	VTR	VENT THROUGH ROOF
		DMH	DRAINAGE MAN HOLE	FURR	FURRING	LLH	LONG LEG HORIZONTAL	PLBG	PLUMBING	SHR	SHOWER	VWC	VINYL WALL COVERING
C	CHANNEL	DN	DOWN			LLV	LONG LEG VERTICAL	PLYWD	PLYWOOD	SHTG	SHEATHING		
CAB	CABINET	DO	DITTO	G	GAS	LL	LIVELOAD	PMEJ	PREMOLDED EXPANSION JOINT	SHV	SHELVING	W	WEST/WIDE FLANGE/WIDE
CB	CATCH BASIN	DP	DEMOUNTABLE PARTITION	GA	GAUGE	LOC	LOCATION	PNT	PAINT/PAINTED	SIM	SIMILAR	W/	WITH
C/C	CENTER TO CENTER	DR	DOOR	GAL	GALLON	LP	LOWPOINT	PIC	PICTURE	SMH	SANITARY MAN-HOLE	W/O	WITHOUT
CEM	CEMENT	DS	DOWN SPOUT	GALV	GALVANIZED	LT	LIGHT	PREF	PREFINISHED	SNT	SEALANT	WC	WATER CLOSET
CG	CORNER GUARD	DW	DRYWALL	GB	GRAB BAR/GRADE BEAM	LVR	LOUVER	PREFAB	PREFABRICATED	S.O.G.	SLAB-ON-GRADE	WD	WOOD
CI	CAST IRON	DWG	DRAWING	GC	GENERAL CONTRACTOR			PSC	PRE STRESSED CONCRETE	SPECS	SPECIFICATIONS	WG	WATER GAUGE
CJ	CONTROL JOINT	DWV	DOMESTIC WATER VALVE	GDR	GUARD RAIL	MAR	MARBLE	PSF	POUNDS PER SQUARE FOOT	SQ	SQUARE	WGL	WIRE GLASS
CL	CENTER LINE			GL	GLASS	MAS	MASONRY	PSI	POUNDS PER SQUARE INCH	SRC	SHOWER ROD AND CURTAIN	WL	WATER LINE
CLG	CEILING	E	EAST	GND	GROUND	MATL	MATERIAL	PT	PORCELAIN TILE/PAVER TILE	SS	STAINLESS STEEL	WOM	WOMEN
CLK	CHAIN LINK	EA	EACH	GR	GRADE	MAX	MAXIMUM	PTD	PAPER TOWEL DISPENSER	ST	SMART TAP	WS	WEATHER-STRIPPING
CLL	CONTRACT LIMIT LINE	EC	EXPOSED CONSTRUCTION	GWB	GYPSUM WALL BOARD	MB	MACHINE BOLT	PTN	PARTITION	STD	STANDARD	WSCT	WAINSCOT
CLNG	CEILING	EF	EXHAUST FAN/EACH FACE	GYP	GYPSUM	MC	MISCELLANEOUS CHANNEL	PVMT	PAVEMENT	STL	STEEL	WT	WEIGHT/TEE CUT FROM W SHAPE
CLO	CLOSET	EIFS	EXTERIOR INSULATION & FINISH SYSTEM			MECH	MECHANICAL	PVC	POLYVINYL CHLORIDE	STRUCT	STRUCTURAL	WWF	WELDED WIRE FABRIC
CLR	CLEAR	EJ	EXPANSION JOINT	H	HIGH	MED	MEDIUM			SUSP	SUSPENDED		
CLRM	CLASSROOM	EL	ELEVATION	HB	HOSE BIBB	MEP	MECHANICAL/ELECTRICAL/PLUMBING	QT	QUARRY TILE	S&V	STAIN AND VARNISH		
CLS	CLOSURE	ELEC	ELECTRICAL	HC	HANDICAPPED	MEZZ	MEZZANINE	QTY	QUANTITY	SV	SHEET VINYL		

Project Number: 0826-25
Building Number: ADMIN&LAB BLDG
Drawing Number: G1002
Project Title: EXTERIOR WINDOW REPLACEMENT
Location: TOWN BRANCH WASTEWATER TREATMENT PLANT, 301 LAMAR CAMPBELL DR, LEXINGTON, KY 40504
Issue Date: 15-JAN-2026
Drawn: SAB
Checked: BVG

FOR CONSTRUCTION

Drawing Title: GENERAL NOTES AND LEGEND
Approved:

STAMP

ARCHITECT/ENGINEER OF RECORD
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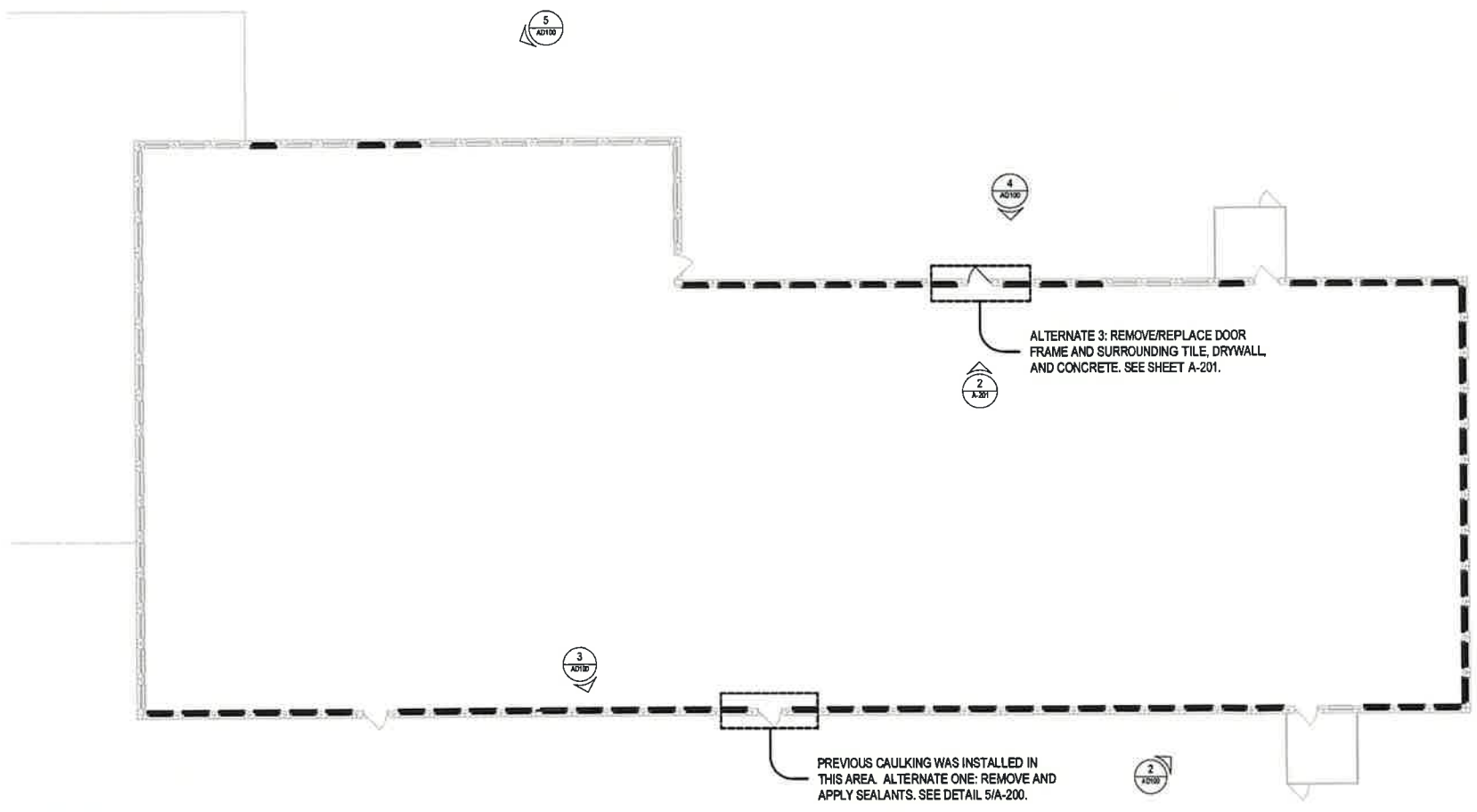
1941 BISHOP LANE, STE. 400 * LOUISVILLE, KY 40218

Revisions: Date:



1 AD100 FLOOR PLAN
3/32" = 1'-0"

GENERAL NOTES:

A. REMOVE ALL MARKED WINDOWS, SEE WINDOW SCHEDULE ON A-600.

B. SCHEDULE WORK AREA RELOCATION 5 WORKING DAYS AHEAD OF THE ANTICIPATED MOVE. MOVING OUT IS THE RESPONSIBILITY OF THE OWNER.

C. SCHEDULE WORK AREA MOVE BACK BY OWNER 5 WORKING DAYS AHEAD OF THE ANTICIPATED MOVE.

D. CONTRACTOR TO PROVIDE NEW RAM BOARD OR EQUAL FLOORING PROTECTION IN EACH WORK AREA.

E. SEALANT (CAULKING) AROUND EACH WINDOW LOCATION SHALL BE REMOVED TO THE SUBSTRATE.

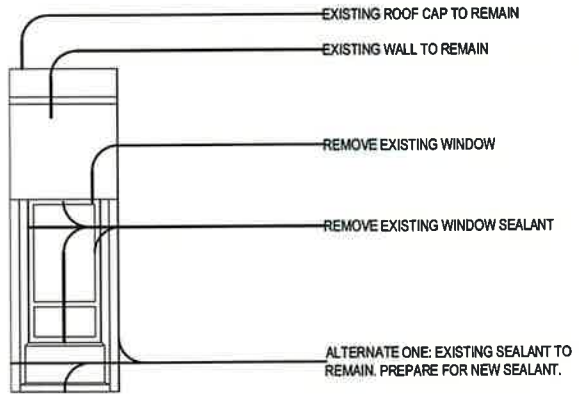
F. CONTRACTOR TO PREPARE BUILDING AREA FOR NEW SEALANT APPLICATION. SEE BASIS OF DESIGN SHEET A-600.

2 AD100 FRONT OF BUILDING BY ENTRANCE

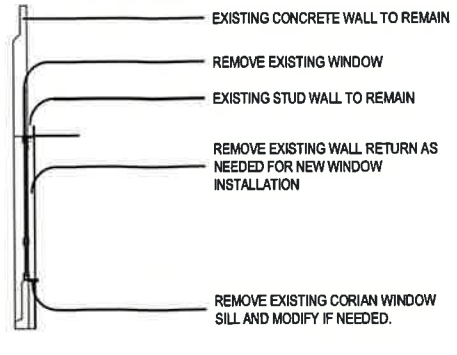
3 AD100 INSIDE WINDOW CONSTRUCTION

4 AD100 OUTSIDE EXIT OF ROOM 121

5 AD100 SHORTER WINDOWS ON BACK



6 AD100 WINDOW AND WALL PANEL DETAIL



7 AD100 WALL DETAIL

KEYPLAN
NTS

PLAN NORTH

TRUE NORTH

Project Number 0826-25
Building Number ADMIN&LAB BLDG
Drawing Number AD100

Project Title
EXTERIOR WINDOW REPLACEMENT

Location
TOWN BRANCH WASTEWATER TREATMENT PLANT
301 JIMMIE CAMPBELL DR., LEXINGTON, KY 40504

Issue Date 16-JAN-2026
Checked BVG
Drawn SAB

Phase
FOR CONSTRUCTION

Drawing Title
DEMOLITION

Approved:

STAMP

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Revisions: Date

GENERAL NOTES:

A. CLEAN (SEE BASIS OF DESIGN ON SHEET A-600) AND APPLY NEW CAULKING TO OUTSIDE WALLS (SEE DETAIL 5/A-200). SEAL WALLS AFTER NEW WINDOWS ARE INSTALLED AND ALL CAULKING IS CURED. PROTECT NEW WINDOWS WITH MANUFACTURER'S APPROVED PRACTICES. NO CLEANING OR SEALERS ARE PERMITTED ON THE NEW WINDOW OR GLAZING.

B. PERFORM A UNIFORMITY TEST ON EACH PANEL AND ENSURE THAT THE SEALER BEADS UP CONSISTENTLY WITH NO DARK SPOTS OR LOCATIONS OF ABSORPTION. TEST SHALL BE COMPLETED BY THE MANUFACTURER'S REPRESENTATIVE.

C. BACK ROLL ALL WALL SEALER TO PREVENT MILKY OR STREAKING FINISHES.

D. EXISTING CORIAN WINDOW SILLS SHALL BE CAREFULLY REMOVED, PROTECTED, AND REINSTALLED AT ALL RENOVATED WINDOWS.

E. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING DEMOLITION AND CONSTRUCTION TO AVOID DAMAGE TO EXISTING CORIAN SILLS INTENDED FOR REUSE.

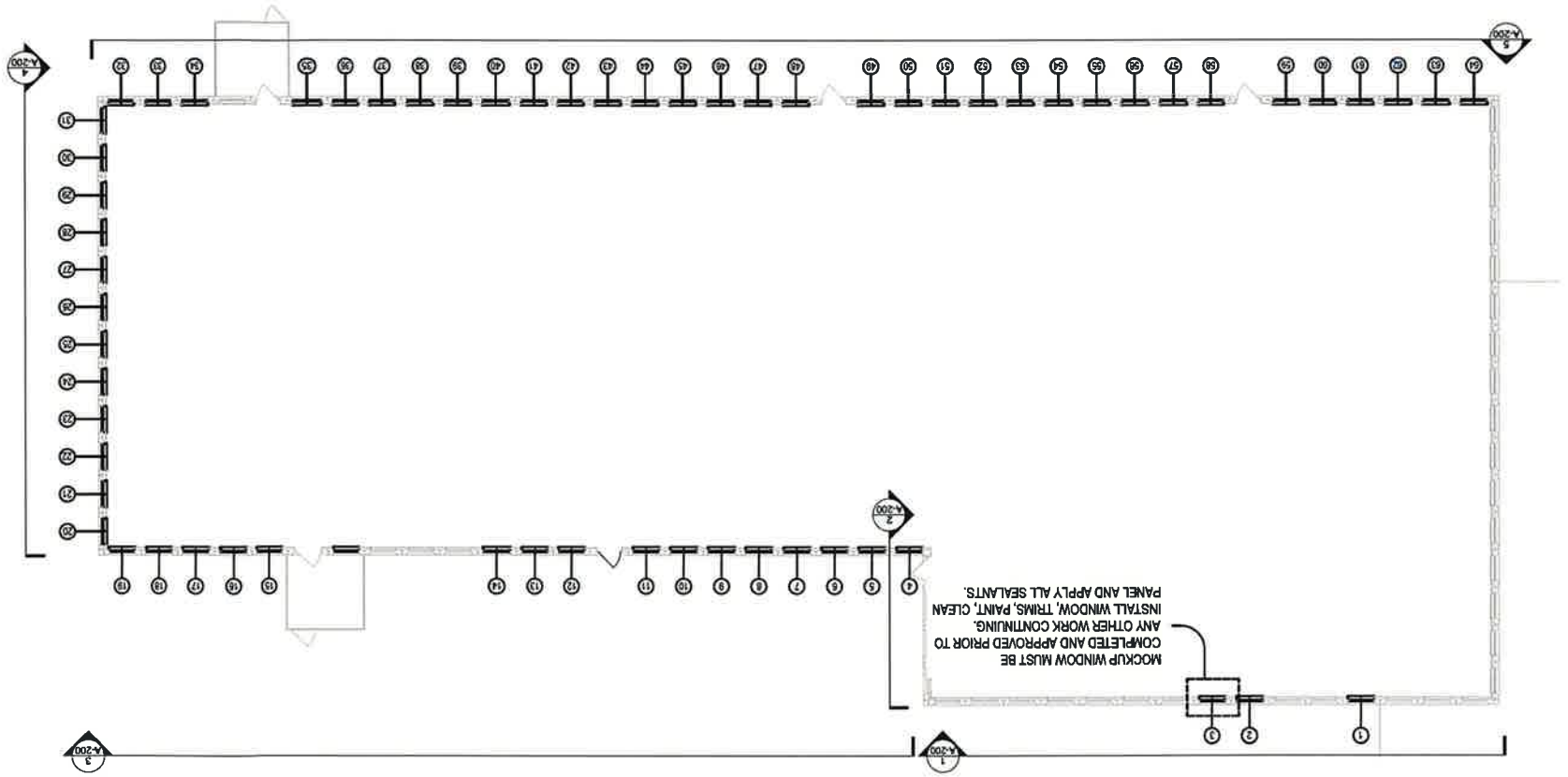
F. IF ANY EXISTING CORIAN SILL IS DAMAGED BEYOND REPAIR OR CANNOT BE SUCCESSFULLY REINSTALLED, CONTRACTOR SHALL REPLACE CORIAN SILL MATCHING THE EXISTING COLOR, PROFILE, AND THICKNESS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER.

G. WINDOW TRIM NOTES (SEE DETAILS 2/A-100 & 3/A-100):

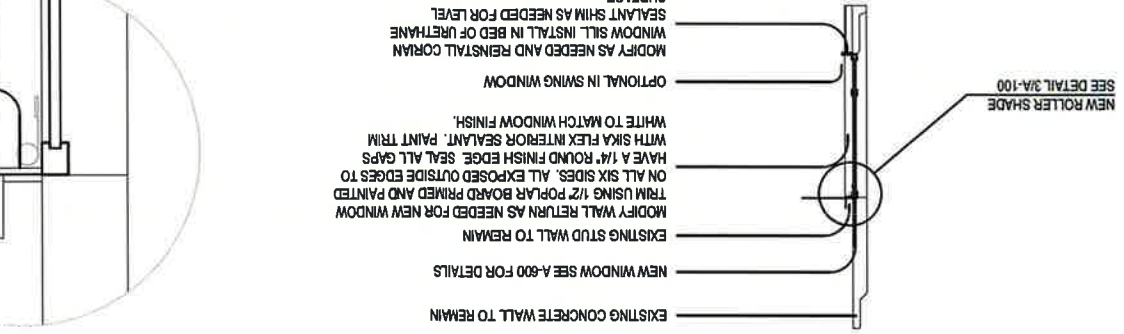
G.A. EXISTING TEXTURED WALLPAPER IS TO REMAIN UNDISTURBED AND UNDAMAGED.

G.B. INSTALL NEW 1/2" PAINTED HARDWOOD TRIM OVER EXISTING TEXTURED WALLPAPER AS SHOWN. TRIM SHALL BE CAREFULLY SCRIBED AND APPLIED IN A MANNER THAT ELIMINATES THE NEED TO CUT, PATCH, OR OTHERWISE DISTURB THE EXISTING WALLPAPER.

G.C. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING TRIM INSTALLATION TO PROTECT EXISTING WALLPAPER. ANY DAMAGE TO THE TEXTURED/SMOOTH WALLPAPER CAUSED BY CONTRACTOR OPERATIONS SHALL BE REPAIRED OR REPLACED TO MATCH EXISTING AT NO ADDITIONAL COST TO OWNER.

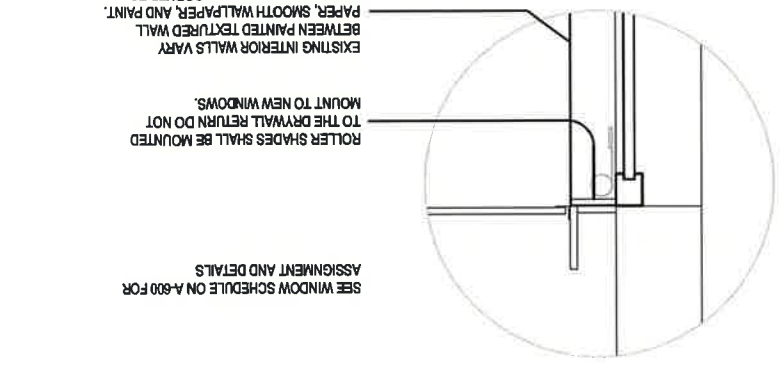


1 A-100 FLOOR PLAN 3/32" = 1'-0"



TYPICAL WALL CUT

2 A-100 WALL DETAIL 1/4" = 1'-0"



3 A-100 ROLLER SHADES ELEVATION 1 1/2" = 1'-0"

Revisions:	
Date:	

ARCHITECT/ENGINEER OF RECORD

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Drawing Title: FLOOR PLAN
Approved:

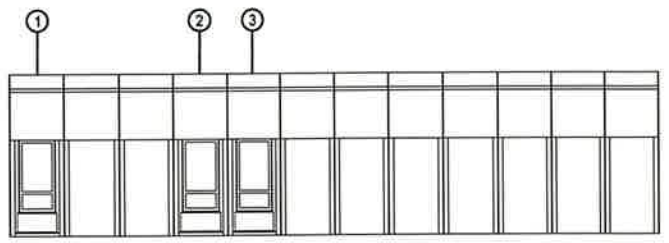
Phase: FOR CONSTRUCTION

Project Title: EXTERIOR WINDOW REPLACEMENT

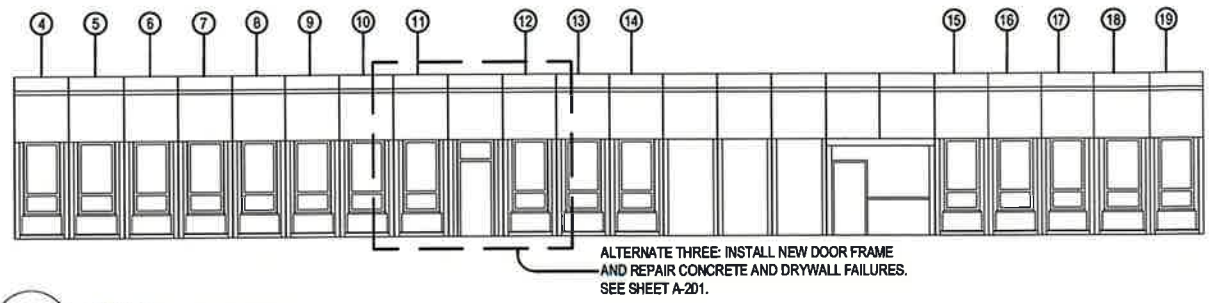
Location: TOWN BRANCH WASTEWATER TREATMENT PLANT
301 JAIMIE CAMPBELL LEXINGTON, KY 40511

Issue Date	Checked	Drawn
16-JAN-2026	BVG	SAB

Project Number: 0826-25
Building Number: ADMIN&LAB BLDG
Drawing Number: A-100



1 A-200 EAST ELEVATION
1/8" = 1'-0"



3 A-200 EAST ELEVATION
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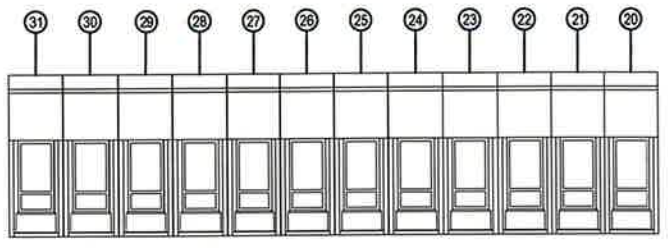
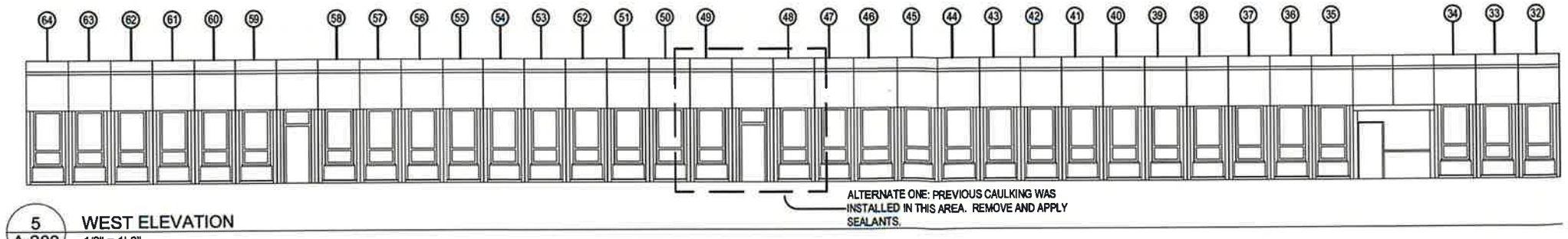
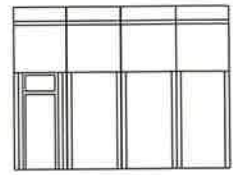


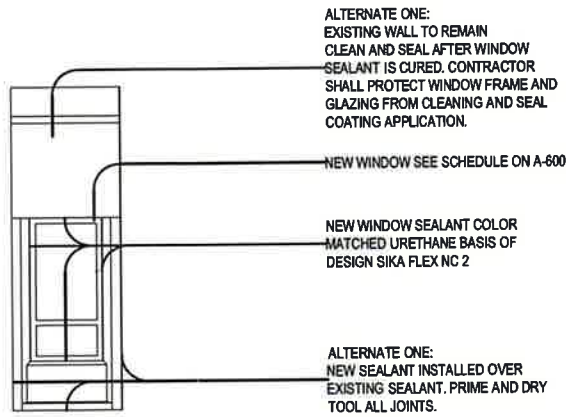
4 A-200 NORTH ELEVATION
1/8" = 1'-0"



5 A-200 WEST ELEVATION
1/8" = 1'-0"



2 A-200 NORTH ELEVATION
1/8" = 1'-0"



6 A-200 TYPICAL WALL EXTERIOR WALL ELEVATION
NTS

Project Number 0826-25
Building Number ADMIN&LAB BLDG
Drawing Number A-200
Project Title EXTERIOR WINDOW REPLACEMENT
Location TOWN BRANCH WASTEWATER TREATMENT PLANT 301 LEBANON ROAD BARDSTOWN, KY 40004
Issue Date 15-JAN-2026
Checked BVG
Drawn SAB
Phase FOR CONSTRUCTION
Drawing Title ELEVATION PLAN
Approved:
STAMP
ARCHITECT/ENGINEER OF RECORD
WEST POINT ENGINEERS PLLC
(502) 890-2115 * WESTPOINTENGINEERS.COM
1941 BISHOP LANE, STE. 405 * LOUISVILLE, KY 40218
Revisions: Date:

2 A-201 INTERIOR OF DOOR TO BE RENOVATED

3 A-201 INTERIOR DRYWALL & TILING LEFT SIDE

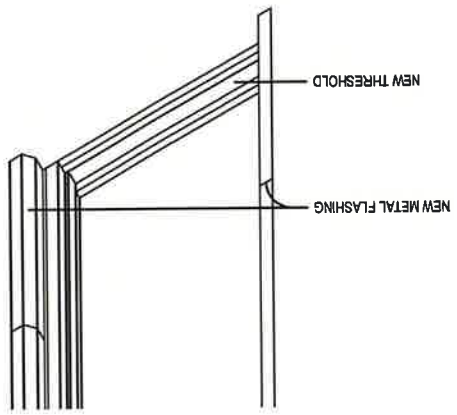
4 A-201 INTERIOR DRYWALL & TILING RIGHT SIDE

5 A-201 EXTERIOR OF DOOR TO BE RENOVATED

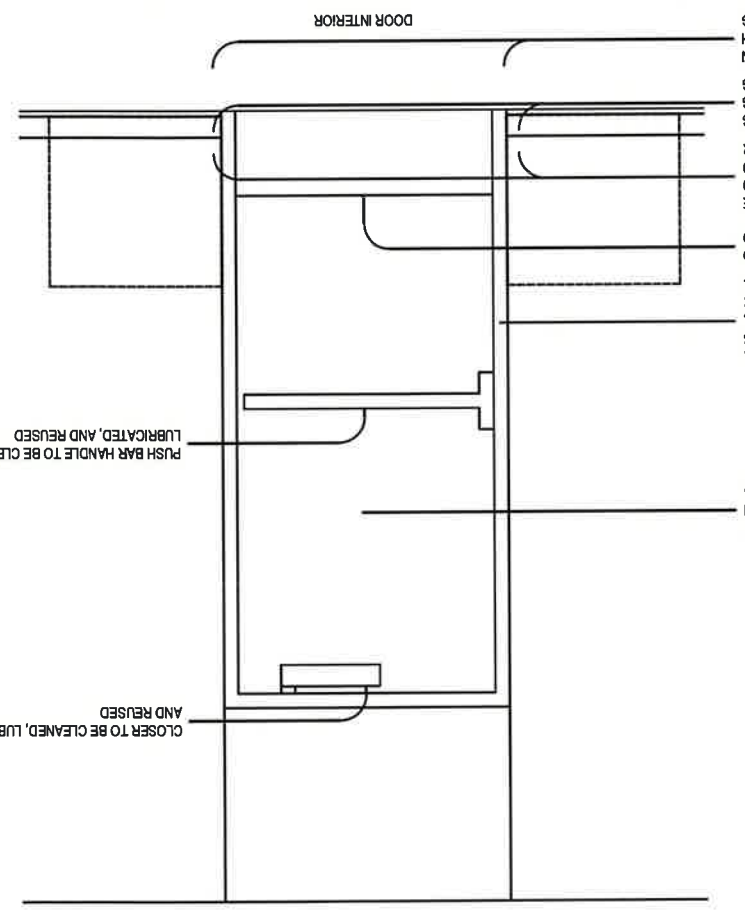
6 A-201 EXTERIOR CONCRETE LEFT SIDE

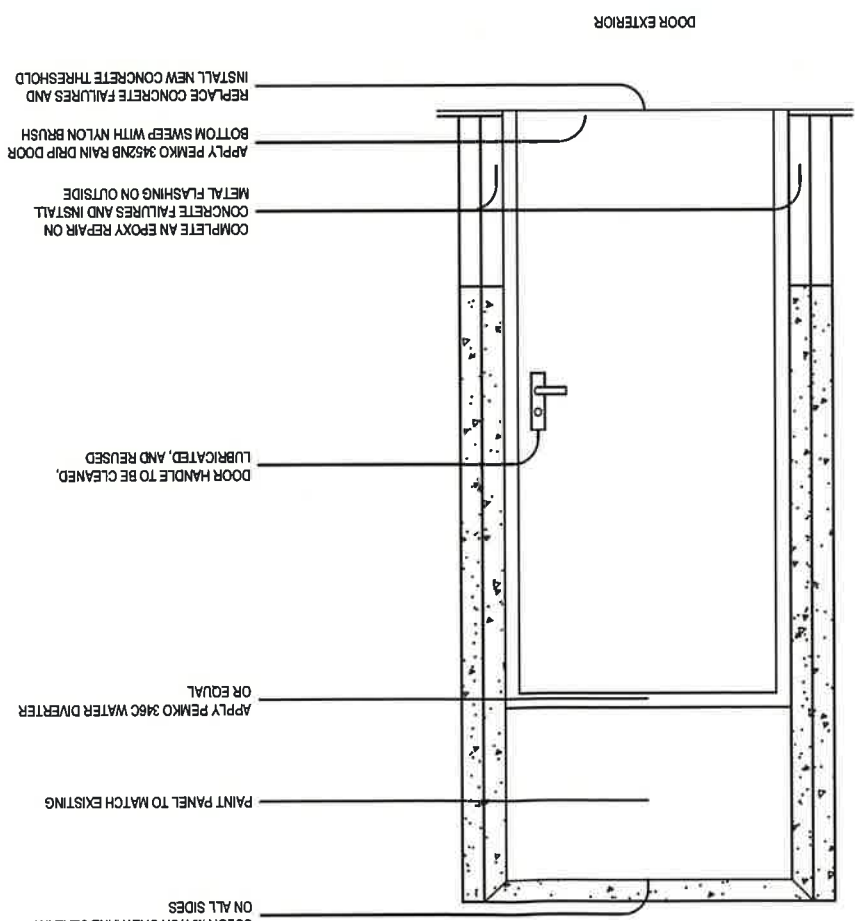
7 A-201 EXTERIOR CONCRETE RIGHT SIDE

8 A-201 EXTERIOR CONCRETE LEFT SIDE



1 A-201 ALTERNATE THREE - DOOR RENOVATION DETAILS





GENERAL NOTES:

A. REUSE EXISTING DOOR LEAF. REMOVE ALL EXISTING HARDWARE PRIOR TO PAINTING. HARDWARE SHALL BE REUSED, CLEANED, AND LUBRICATED. REPLACE FASTENERS WITH NEW STAINLESS STEEL TO MATCH EXISTING. CLEAN AND PREPARE SURFACES AS REQUIRED. APPLY EPOXY PRIMER FOLLOWED BY TWO (2) COATS OF URETHANE PAINT. COLOR TO BE SELECTED BY OWNER

B. INSTALL NEW DOOR FRAME (EPOXY-PRIMED STEEL), APPLY RUBBERIZED BACKCOATING TO FRAME INTERIOR PRIOR TO INSTALLATION. FINISH EXPOSED SURFACES WITH TWO (2) COATS OF URETHANE PAINT. COLOR TO BE SELECTED BY OWNER.

C. GROUT NEW WELDED METAL FRAME PER ASTM C476. ENSURE FULL GROUTING OF FRAME VOIDS.

D. INSTALL PEMKO 330V (OR APPROVED EQUAL) PERIMETER GASKET WEATHERSTRIPPING TO DOOR FRAME STOPS.

E AT TWO (2) LOCATIONS AS DETAILED: REMOVE EXISTING DRYWALL, FRAMING, AND INSULATION AS REQUIRED. INSTALL NEW DRYWALL, FRAMING, AND INSULATION TO MATCH EXISTING CONDITIONS. REPAINT DISTURBED AREAS TO MATCH ADJACENT EXISTING FINISHES.

F. REMOVE AND REPLACE FLOOR TILES IMMEDIATELY IN FRONT OF DOOR WITH NEW TILES TO MATCH EXISTING.

G. FOR EXTERIOR SURFACES: PREP AND PRIME PANEL ABOVE DOOR FRAME. APPLY URETHANE COATING TO EXTERIOR FACE OF DOOR PANEL AND EXTERIOR SIDE OF DOOR LEAF.

H. INSTALL PEMKO 346C (OR APPROVED EQUAL) WATER DIVERTER TO DOOR HEADER.

I. INSTALL PEMKO 345ZNB (OR APPROVED EQUAL) RAIN DRIP BOTTOM SWEEP WITH NYLON BRUSH TO BOTTOM OF DOOR.

J. PERFORM EPOXY REPAIR TO EXISTING CONCRETE FAILURES/THRESHOLD AREA AS REQUIRED. INSTALL NEW ALUMINUM THRESHOLD BELOW DOOR.

K. INSTALL 12-GAUGE METAL BENT PLATE FLASHING (BRUSHED FINISH) EXTENDING 24 INCHES UP WALL ON BOTH SIDES OF OPENING. SECURE WITH STAINLESS STEEL TYPE 316 AND MATCHING STAINLESS STEEL TRUSS-HEAD FASTENERS.

L. ALL EXTERIOR INSIDE CORNERS TO RECEIVE SIKAFLEX-2c NS.

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1841 SIMMON LANE, STE. 400 * LOUISVILLE, KY 40216

ARCHITECT/ENGINEER OF RECORD

STAMP

Revisions:	
Date	

Drawing Title: DOOR DETAILS

Approved:

Phase: FOR CONSTRUCTION

Project Title: EXTERIOR WINDOW REPLACEMENT

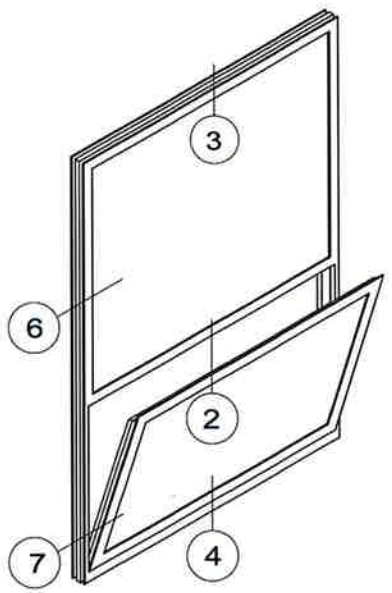
Location: TOWN BRANCH WASTEWATER TREATMENT PLANT, 351 JIMMIE CAMPBELL DR., LEXINGTON, KY 40504

Issue Date	Checked	Drawn
16-JAN-2026	BVG	SAB

Project Number: 0826-25

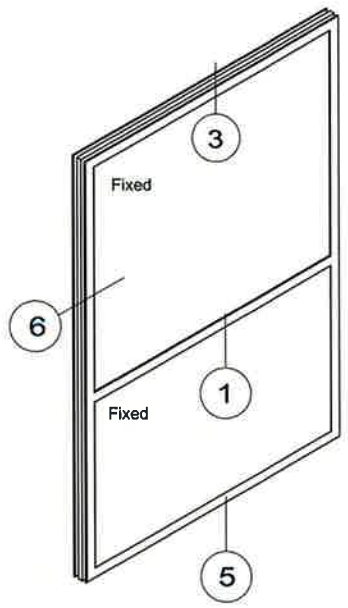
Building Number: ADMIN&LAB BLDG

Drawing Number: A-201

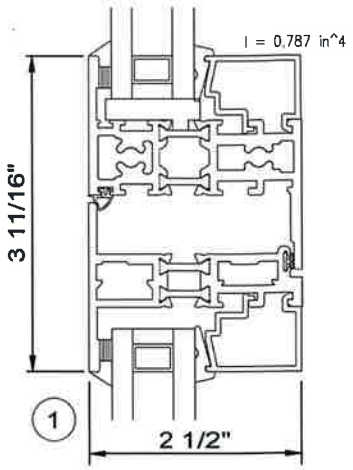


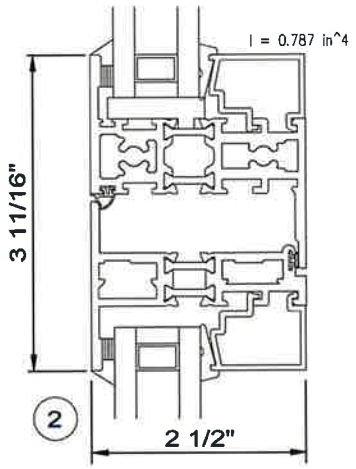
PROJECT-IN HOPPER WINDOW

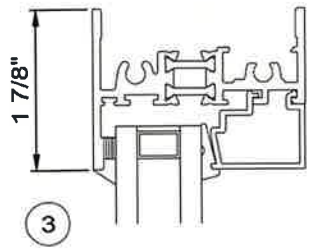
WINDOW UNIT W-1 HOPPER STYLE

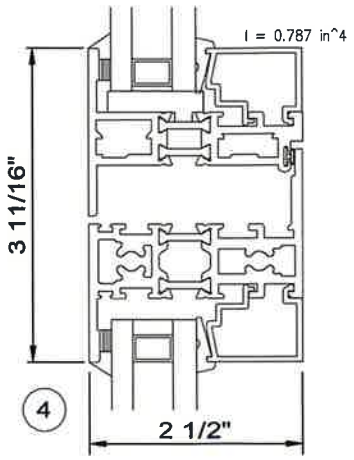


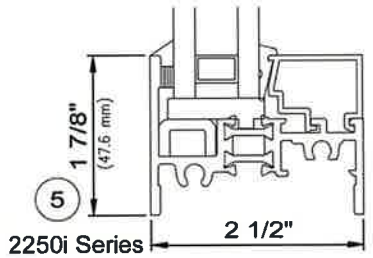
WINDOW UNIT W-2

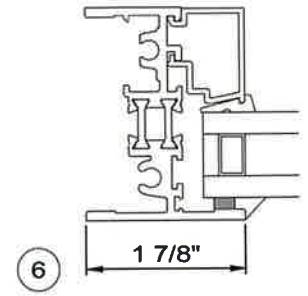




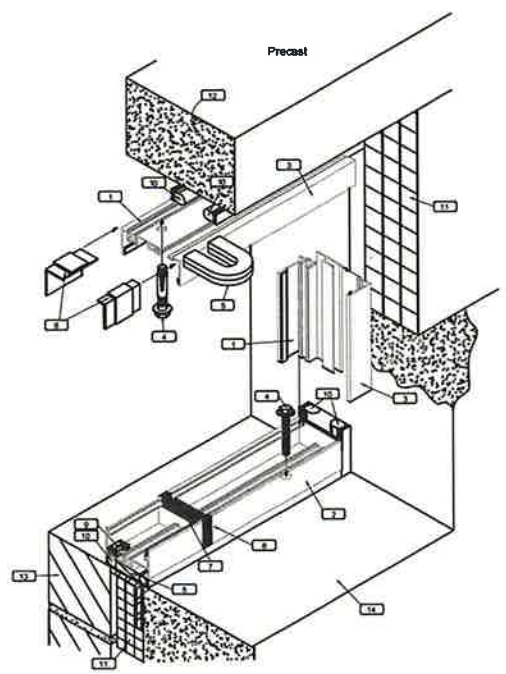








WAUSAU 2250 SERIES STANDARD DETAILS



Key:

1. Extruded Aluminum Head And Jamb Starter With Polyamide Thermal Barrier
2. Extruded Aluminum Sill Starter With Polyamide Thermal Barrier
3. Drive-On Starter Strip
4. Structural Attachment May Vary Per Conditions - Field Seal All Fastener Heads
5. Erector Installed Full-Bearing Shims
6. Aluminum Splices With Bond Breaker Tape - Erector Set In Sealant and Exterior Applied Sealant Joint
7. Aluminum Splice - Erector Set In Sealant
8. Erector Installed And Tooled Expansion / Splice Joint
9. Foam Baffle Weep Back-Up
10. Perimeter Sealant Joint, Specified Sealant And Backer Rod
11. Insulation
12. Stone Lintel
13. Brick
14. Interior Concrete Block

Note: Installation Conditions Vary...

WAUSAU - 2250i INvent Series Shown

WAUSAU 2250 SERIES STANDARD STARTER

WIND LOADS SHALL MEET OR EXCEED LOCAL BUILDING CODES.

ALL WINDOWS SHALL CERTIFY:
- THEY MEET THE NAFS-2011 FOR ARCHITECTURAL AW PERFORMANCE CLASS WINDOWS, PERFORMANCE GRADE 100 (AW100).
- EACH UNIT TYPE MEETS OR EXCEEDS BOTH ASTM E331 AND ASTM E547.
- STRUCTURAL TESTING ON EACH TYPE OF WINDOW MEETS OR EXCEEDS ASTM E330.
- LIFE CYCLE TESTING MEETS OR EXCEEDS AAMA 910-10.
- THERMAL TESTING IS IN ACCORDANCE WITH NFRC 102 AND/OR AAMA 1503.
- CONTAINS A 15% MINIMUM RECYCLED CONTENT.
- FACTOR QUALITY CONTROL SHALL BE PROVIDED FOR MOST CURRENT RUN DATE.
- CONTRACTOR SHALL PROVIDE AND ASSUME ALL RISK FOR FINAL MEASUREMENTS. THE DRAWINGS ARE REFERENCE ONLY.
- ALL WINDOW UNITS CARRY A 10 YEAR WARRANTY.

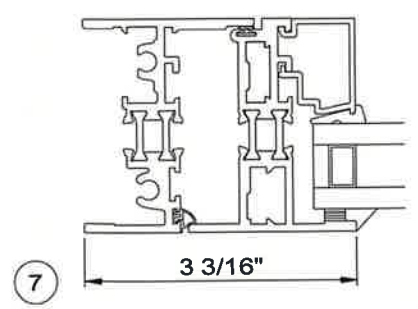
GLAZING SHALL CERTIFY:
- ALL GLAZING IS 1/4" GLASS WITH 1/2" AIR SPACE
- SHALL MEET WATER = 15 PSF AND A SOUND TRANSMISSION CLASS OF 31.

THE BASIS OF DESIGN WINDOW HAS BEEN CERTIFIED TO WORK WITH THE SIKAFLEX-2c NS EZ MIX COLOR MATCHED SEALANT SYSTEM INCLUDING THE SIKAFLEX BACKER ROD AND ANY PRIMERS NEEDED OR ADHESION WITHOUT DISCOLORATION OF THE EXISTING STRUCTURE. THE CONTRACTOR SHALL ALLOW PROPER CURE TIME FOR CAULKING BEFORE APPLYING REVEAL AND SILOXANE PD. DURING THIS PROCESS PLASTIC SHALL BE INSTALLED AND 100% TAPED OFF AS TO ENSURE NO DAMAGE TO THE NEWLY INSTALLED WINDOWS.

DURING THE BID PROCESS IF THE CONTRACTOR OFFERS SUBSTITUTIONS FOR ANY OF THESE PRODUCTS THEY MUST PROVIDE LETTERS FROM EACH MANUFACTURER'S THAT THEIR PROPOSED PRODUCTS WILL WORK TOGETHER TO PROVIDE A COMPLETE SYSTEM THAT MEETS OR EXCEEDS THE STANDARDS OF THE BASIS OF DESIGN.

WINDOW U-FACTOR SHALL MEET OR EXCEED:
OPERABLE WINDOW: 0.440
FIXED WINDOW: 0.335

WINDOW SOLAR HEAT GAIN COEFFICIENT (SHGC) SHALL MEET OR EXCEED:
OPERABLE WINDOW: 0.263
FIXED WINDOW: 0.337



Project Number: 0826-25
Building Number: ADMIN&LAB BLDG
Drawing Number: A-400
Project Title: EXTERIOR WINDOW REPLACEMENT
Location: TOWN BRANCH WASTEWATER TREATMENT PLANT, 301 JAIME CAMPBELL DR, LEXINGTON, KY 40524
Drawn: SAB
Checked: BVG
Issue Date: 16-JAN-2026
Phase: FOR CONSTRUCTION
Drawing Title: FLOOR PLAN
Approved:
STAMP
ARCHITECT/ENGINEER OF RECORD
WEST POINT ENGINEERS PLLC
(502) 890-2210 / WESTPOINTENGINEERS.COM
1941 BISHOP LANE, STE. 400 * LOUISVILLE, KY 40218
Revisions: Date:

WINDOW NUMBER	FRAME COLOR	WINDOW TYPE	WINDOW WIDTH	WINDOW HEIGHT	HARDWARE TYPE	WINDOW SCREEN	EXTERIOR SEALANT	INTERIOR SEALANT	ROLLER SHADES	WALL SEALANT	WINDOW WALL INTERIOR FINISH
1	P1	W1	40-1/4"	60-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
2	P1	W1	40-1/4"	60-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
3	P1	W1	40-1/4"	60-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
4	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
5	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
6	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
7	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
8	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
9	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	RS-2	S-3	P-1
10	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	RS-2	S-3	P-1
11	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	RS-2	S-3	P-1
12	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	RS-2	S-3	P-1
13	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	RS-2	S-3	P-1
14	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	RS-2	S-3	P-1
15	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
16	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
17	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
18	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
19	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
20	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
21	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
22	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
23	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
24	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
25	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
26	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
27	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
28	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
29	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
30	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
31	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
32	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
33	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
34	P1	W2	40-1/4"	80-1/4"	H1	NO	S-1	S-2	N/A	S-3	P-1
35	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
36	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
37	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
38	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
39	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
40	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
41	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
42	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
43	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
44	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
45	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
46	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
47	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
48	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
49	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
50	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
51	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
52	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
53	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
54	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
55	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
56	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
57	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
58	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
59	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
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61	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
62	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
63	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1
64	P1	W1	40-1/4"	80-1/4"	H1	YES	S-1	S-2	N/A	S-3	P-1

P1 - WHITE FACTORY FINISH WINDOW AND TRIM WITH 10 YEAR WARRANTY

W1 - WINDOW SERIES BASIS OF DESIGN WAUSAU 2250I WITH 2250 SERIES STANDARD STARTER

W2 - WINDOW SERIES BASIS OF DESIGN WAUSAU 3250I WITH 3250 SERIES STANDARD STARTER

G1 - GLAZING TYPE 1/4" - 1/2" - 1/4" NON COATED

HC1 - MANUFACTURER HARDWARE COLOR NICKEL / CHROME FINISH

H1 - MANUFACTURER HARDWARE TYPE 2250I STANDARD HARDWARE WITH 10 YEAR WARRANTY

WINDOW SCREEN TYPE AND FINISH: FRAME WHITE TO MATCH WINDOWS. USE ALUMINUM MESH WITH 0.011 DIA WIRE PAINTED WHITE TO MATCH WINDOWS.

S-1/S-3 - SEALANT TYPES BASIS OF DESIGN SIKAFLEX-2C NS EZ MIX

S-2 - WHITE PAINT AS NEEDED SIKAFLEX - 201 US.

N/A - SINGLE ROLLER SHADE 95% LIGHT BLOCK - CLUTCH ROLLER SYSTEM, CHAIN DRIVE, CASSETTE VALANCE. PROVIDE BRACKETS AND HARDWARE FOR AN INTERIOR FIT MOUNTED TO THE HEAD OF THE WALL RETURNING TO THE NEW WINDOW DO NOT MOUNT TO WINDOW FRAME. COMPLETE UNIT SHALL BE MADE IN THE USA.

RS-2 - DOUBLE ROLLER SHADE 95% AND ROOM DARK WITH LIGHT CHANNELS - CLUTCH ROLLER SYSTEM, CHAIN DRIVE, CASSETTE VALANCE. PROVIDE BRACKETS AND HARDWARE FOR AN INTERIOR FIT MOUNTED TO THE HEAD OF THE WALL RETURNING TO THE NEW WINDOW DO NOT MOUNT TO WINDOW FRAME. COMPLETE UNIT SHALL BE MADE IN THE USA .

P-1 - INTERIOR WINDOW WALL CORNER TO CORNER CEILING TO FLOOR LATEX PAINT BASIS OF DESIGN SW PROMAR 200, MATCH COLOR AND SHEEN. WALLS HAVE TEXTURED WALL PAPER APPLIED. COORDINATE COLOR WITH OWNER.

BASIS OF DESIGN

ReVeal

Sure Klean ReVeal is a restoration cleaner designed to remove stubborn atmospheric and carbon staining on masonry and stone. It reveals the intended appearance of buildings soiled by decades of auto exhaust and other air pollutants. This highly efficient liquid restoration cleaner is suitable for a wide variety of stone and masonry, including unpolished limestone and marble.
ReVeal also removes soiling and hard-to-remove deposits on window glass, including white scum. Unlike many conventional restoration cleaners, low-odor, non-fuming ReVeal is safe for use around most architectural metal.

ADVANTAGES
Fast and effective on most masonry surfaces. Safe for unpolished limestone, marble & travertine. Safer and less corrosive than conventional restoration cleaners based on hydrofluoric acid or ammonium bi-fluoride. Restores clarity of most common flush window glass streaked and damaged by pollution and water rundown from adjacent building materials. Always test to ensure desired results. Low-odor, non-fuming formulation. Removes rust stains and red clay stains from brick.

Limitations
Not for polished marble, polished limestone, or polished travertine.
May etch or discolor certain types of architectural metals such as anodized aluminum. Always test.
Not intended for routine maintenance glass cleaning.
Repeated applications may damage glass and/or glazing. ALWAYS TEST for acceptable results before overall application.
Do not use on treated low-E glass; acrylic and polycarbonate sheet glazing; and glazing with surface-applied reflective, metallic or other synthetic coatings or films.

COLOR MATCHED URETHANE SEALANTS S - 1 / S - 2

PRODUCT DATA SHEET

SIKAFLEX-2C NS EZ MIX

Two-component, non-sag, polyurethane elastomeric sealant

TYPICAL TECHNICAL DATA

FORM	Clear, light yellow liquid, mild odor
SPECIFIC GRAVITY	1.16
pH	<1.00
WT/GAL	9.68 lbs
ACTIVE CONTENT	not applicable
TOTAL SOLIDS	not applicable
VOC CONTENT	<0.1%
FLASH POINT	>212° F (>100° C) ASTM D 3278
FREEZE POINT	32° F (0° C)
SHELF LIFE	3 years in tightly sealed, unopened container

PRODUCT DESCRIPTION
Sikaflex -2c NS EZ Mix is a 2-component, premium-grade, polyurethane-based, elastomeric sealant. It is principally a chemical cure in a non-sag consistency. Meets ASTM C 920, Type M, Grade NS, Class 25, use T, NT, M, G, A, O, I and Federal specification TT-S-00227E, Type II, Class A. Meets Canada Standard CAN/CGSB 19.24 - M90.

USES
Intended for use in all properly designed working joints with a minimum depth of ¼ inch. Ideal for horizontal, vertical, and overhead applications. Placeable at temperatures as low as 40 °F. Adheres to most substrates commonly found in construction An effective sealant for use in Exterior Insulation Finish Systems (EIFS). Submerged environments, such as canal and reservoir joints.

CHARACTERISTICS / ADVANTAGES
Capable of +50 % joint movement. Chemical cure allows the sealant to be placed in joints exceeding ½ in. in depth. High elasticity with a tough, durable, flexible consistency. Exceptional cut and tear resistance. Exceptional adhesion to most substrates without priming. Available in 35 architectural colors. Color uniformity assured via Color-pak system. Available in pre-pigmented Limestone Gray (no Color-pak needed). Non-sag even in wide joints. Certified to the NSF/ANSI Standard 61 for potable water. Easy to mix. Paintable with water-, oil-, and rubber-base paints. Jet fuel resistant. Cold weather booster for initial tack (see reverse side for data). Shore A hardness can be increased by using "TG" additive. See Sikaflex-2c NS TG data sheet for specific details.

ENVIRONMENTAL INFORMATION
LEED EQc 4.1
SCAQMD, Rule 1168
BAAQMD, Reg. 8, Rule 51

APPROVALS / STANDARDS
Certified to NSF/ANSI standard 61 for portable water
2-hour UL Fire Rated Joint System Nos. FF-S-1034, FW-S-1020, HW-S-1018, WW-S-1037.

REGULATORY COMPLIANCE
VOC Compliance
Sure Klean ReVeal is compliant with all national, state and district VOC regulations.

SAFETY INFORMATION
Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job-site controls during application and handling.
24-Hour Emergency Information:
INFOTRAC at 800-535-5053

Siloxane PD

Sure Klean Weather Seal Siloxane PD (prediluted) is a ready-to-use, water-based silane/siloxane water repellent for concrete and most masonry and stucco surfaces. Siloxane PD will not impair the natural breathing characteristics of treated surfaces. It helps masonry resist cracking, spalling, staining and other damage related to water intrusion. Low odor and alkaline stable, Siloxane PD is ideal for field and in-plant application.

SAFETY INFORMATION
Always read full label and SDS for precautionary instructions before use. Use appropriate safety equipment and job site controls during application and handling.

24-Hour Emergency Information:
INFOTRAC at 800-535-5053

ADVANTAGES
Penetrates deeply for long-lasting protection on vertical or horizontal surfaces. Service life is estimated at more than 10 years. Treated surfaces "breathe" does not trap moisture. Water-based formula minimizes explosion and fire hazards compared to solvent-based water repellents. Easy cleanup with Enviro Klean 2010 All Surface Cleaner. Low odor for safer application to occupied buildings. Alkaline stable – suitable for new green concrete, 14–28 days old. Ready-to-use. No on-site dilution required.

Issued to: PROSOCO Inc.
Product: Sure Klean Weather Seal Siloxane PD
ASTM D 6532: Water Absorption Reduction – Mortar 98.34%
ASTM C 67: Water Absorption Reduction – Brick 69.14%
ASTM C 140: Water Absorption Reduction – CMU 92.55%

CLEAR PENETRATING VERTICAL WATER REPELLENT VALIDATION PROGRAM

ASTM D 6490: Water Vapor Transmission WVT (grains/h ft2) 1.81; Permeance 4.43

Validation Date: 2/15/18 2/14/23

Limitations
Will not keep water out of cracks, defects or open joints.
Not recommended for below-grade application.
Not suitable for application to synthetic resin paints, gypsum, or other non masonry surfaces.

REGULATORY COMPLIANCE
VOC Compliance
Sure Klean Weather Seal Siloxane PD is compliant with the US Environmental Protection Agency's AIM VOC regulations. Visit www.prosoco.com/voccompliance to confirm compliance with individual district or state regulations.

Project Number 0826-25
Building Number ADMIN&LAB BLDG
Drawing Number A-600
Project Title EXTERIOR WINDOW REPLACEMENT
Location TOWN BRANCH WASTEWATER TREATMENT PLANT 301 JIMMIE CAMPBELL DR, LEXINGTON, KY 40504
Issue Date 16-JAN-2026
Checked BVG
Drawn SAB
Phase FOR CONSTRUCTION
Drawing Title SCHEDULE
Approved:
STAMP
ARCHITECT/ENGINEER OF RECORD
WEST POINT ENGINEERS PLLC
(502) 890-2210 | WESTPOINTENGINEERS.COM
1941 BISHOP LANE, STE. 400 · LOUISVILLE, KY 40218
Revisions: Date:

MAYOR LINDA GORTON

LEXINGTON

TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #2

Bid Number:#22-2026

Date: March 6, 2026

Subject: Town Branch Window Replacement

Address inquiries to:
Brian Marcum
brianm@lexingtonky.gov
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

RFI: The window spec does not specifically state a finish. Are the windows to be clear, dark bronze, black anodized or a painted finish?

Response:
Glazing:
Glazing Performance Requirements – See Sheet A-400
Provide insulated glass units (IGUs) with the following makeup and certified performance:

- Configuration: ¼" (6 mm) exterior glass lite / ½" (13 mm) air space (or argon-filled for enhanced performance)
- All IGUs shall incorporate a **factory-applied low-emissivity (low-E) coating** see section 08 80 00 / 3/9 -A.

Glazing shall be certified (via NFRC labels or equivalent manufacturer testing/simulation per NFRC 100/200 standards), see specification 08 51 13, to meet or exceed the following minimum performance criteria (whole-unit values preferred; center-of-glass acceptable if clearly documented and frame-compatible):

- Water Penetration Resistance: Minimum 15 psf (tested per ASTM E1105 or equivalent).
- Sound Transmission Class (STC): Minimum 31.
- U-Factor (thermal transmittance): Maximum 0.444 (lower value preferred/better; argon fill and warm-edge spacers recommended to achieve compliance).

Solar Heat Gain Coefficient (SHGC): Operable units: Maximum 0.263.

Fixed units: Maximum 0.337.

Window Frame:
Per Sheet A-600, Window finish schedule calls for all frame colors to be P1. P1 is white factory finished and trim with 10 year warranty.

Specification section 08 51 13 - Aluminum Windows, Page 6 calls for clear anodic finish, baked-enamel, or powder-coat finish as shown in Section 2.6. Color and gloss to be selected by owner.

2.6 ALUMINUM FINISHES
A. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

B. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.
1. Color: As selected by Owner from full range of industry colors and color densities.
C. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Color and Gloss: As selected by Owner from manufacturer's full range.

RFI: Are these (64) new windows to be all fixed windows (top & bottom) or is the larger window opening at the top to be fixed with an operable out-swing vent at the lower window opening with screens?

Response:
See Window Replacement schedule on sheet A-600. Install new windows as specified in Window Type and Hardware Type.
W1 - WINDOW SERIES BASIS OF DESIGN WAUSAU 2250i WITH 2250 SERIES STANDARD STARTER
W2 - WINDOW SERIES BASIS OF DESIGN WAUSAU 3250i WITH 3250 SERIES STANDARD STARTER

H1 - MANUFACTURER HARDWARE TYPE 2250i STANDARD HARDWARE WITH 10 YEAR WARRANTY WINDOW SCREEN TYPE AND FINISH: FRAME WHITE TO MATCH WINDOWS. USE ALUMINUM MESH WITH 0.011 DIA WIRE PAINTED WHITE TO MATCH WINDOWS.

RFI: Are there existing windows to remain and just remove/recaulk these windows? If so, how many if any?

Response:
See Window Replacement schedule on sheet A-600. Replace windows as specified in schedule. See columns Exterior Sealant, Interior Sealant, and Wall Sealant for caulking/sealing.
S-1/S-3 - SEALANT TYPES BASIS OF DESIGN SIKAFLEX-2C NS EZ MIX

S-2 - WHITE PAINT AS NEEDED SIKAFLEX - 201 US.

Todd Slatin

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: Metford Contracting

ADDRESS: 109 Fieldview Drive, Versailles, KY 40383

SIGNATURE OF BIDDER:

MAYOR LINDA GORTON

LEXINGTON

TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #3

Bid Number #22-2026

Date: March 17, 2026

Subject: Town Branch Window Replacement

Address inquiries to:
Brian Marcum
brianm@lexingtonky.gov
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

The bid date has been extended to open on March 27, 2026 at 2:00 PM EST.

Todd Slatin

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: Mefford Contracting

ADDRESS: 109 Fieldview Drive, Versailles, KY 40383

SIGNATURE OF BIDDER: Zach Long

MAYOR LINDA GORTON

LEXINGTON

TODD SLATIN
DIRECTOR
CENTRAL PURCHASING

ADDENDUM #1

Bid Number:**#22-2026**

Date: March 4, 2026

Subject: Town Branch Window Replacement

Address inquiries to:
Brian Marcum
brianm@lexingtonky.gov
(859) 258-3320

TO ALL PROSPECTIVE SUBMITTERS:

Please be advised of the following clarifications to the above referenced Bid:

1. The drawings have been attached.
2. One other change (please see the attached word doc). We will only be replacing the seal for the exterior door and not replacing the existing door itself.

Todd Slatin, Director
Division of Central Purchasing

All other terms and conditions of the Bid and specifications are unchanged.
This letter should be signed, attached to and become a part of your Bid.

COMPANY NAME: _____

ADDRESS: _____

SIGNATURE OF BIDDER: _____

PART IX

TECHNICAL SPECIFICATIONS

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Wood products.
2. Wood-preservative-treated lumber.
3. Fire-retardant-treated lumber.
4. Miscellaneous lumber.

1.2 DEFINITIONS

A. Boards or Strips: Lumber of less than 2 inches nominal size in least dimension.

B. Dimension Lumber: Lumber of 2 inches nominal size or greater but less than 5 inches nominal size in least dimension.

C. Exposed Framing: Framing not concealed by other construction.

D. SBX: An inorganic boron used to prevent termites and fungal decay.

E. Lumber grading agencies, and abbreviations used to reference them, include the following:

1. NeLMA: Northeastern Lumber Manufacturers' Association.
2. NLGA: National Lumber Grades Authority.
3. RIS: Redwood Inspection Service.
4. SPIB: The Southern Pine Inspection Bureau.
5. WCLIB: West Coast Lumber Inspection Bureau.
6. WWPA: Western Wood Products Association.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product. Indicate component materials and dimensions and include construction and application details.

1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used and net amount of preservative retained.
2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.

3. For fire-retardant treatments, include physical properties of treated lumber both before and after exposure to elevated temperatures, based on testing by a qualified independent testing agency in accordance with ASTM D5664.
4. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

1.4 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For dimension lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by the ALSC Board of Review.
2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained.

1.5 QUALITY ASSURANCE

1.6 DELIVERY, STORAGE, AND HANDLING

A. Stack wood products flat with spacers beneath and between each bundle to provide air circulation. Protect wood products from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.1 WOOD PRODUCTS

A. Lumber: Comply with DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, comply with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Grade lumber by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. For exposed lumber indicated to receive a stained or natural finish, mark grade stamp on end or back of each piece or omit grade stamp and provide certificates of grade compliance issued by grading agency.
3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry wood products.
4. Dress lumber, S4S, unless otherwise indicated.

B. Maximum Moisture Content:

1. Boards: 15 percent.
2. Dimension Lumber: 15 percent for 2-inch nominal thickness or less; 19 percent for more than 2-inch nominal thickness unless otherwise indicated.

2.2 WOOD-PRESERVATIVE-TREATED LUMBER

A. Wood-Preservative-Treated Lumber by Pressure Process: AWPA U1, use categories as follows:
   1. UC3A, Above Ground, Protected (Commodity Specification A): Coated wood products in exterior construction not in contact with ground but exposed to all weather cycles including intermittent wetting. Include all rough carpentry.
      a. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
   2. UC3A, Above Ground, Protected (All Other Commodity Specifications): Wood products in exterior construction not in contact with ground, exposed to all weather cycles but either coated and installed in a manner that prevents prolonged wetting, or fully protected from liquid water by building design and construction. Include all rough carpentry.
      a. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
   3. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium. Do not use inorganic boron (SBX) for sill plates.
   4. After treatment, redry dimension lumber to 19 percent maximum moisture content.

B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or that does not comply with requirements for untreated material.

C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.
   1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by inspection agency.

D. Application: Treat all rough carpentry unless otherwise indicated.
   1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
   2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
   3. Wood framing and furring attached directly to the interior of below-grade exterior masonry or concrete walls.

2.3 FIRE-RETARDANT-TREATED LUMBER

A. General: Where fire-retardant-treated materials are indicated, materials are to comply with requirements in this article, that are acceptable to authorities having jurisdiction,

and with fire-test-response characteristics specified as determined by testing identical products per test method indicated by a qualified testing agency.

B. Fire-Retardant-Treated Lumber and Plywood by Pressure Process: Products with a flame-spread index of 25 or less when tested in accordance with ASTM E84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 ft. beyond the centerline of the burners at any time during the test.

1. Treatment is not to promote corrosion of metal fasteners.
2. Exterior Type: Treated materials are to comply with requirements specified above for fire-retardant-treated lumber and plywood by pressure process after being subjected to accelerated weathering in accordance with ASTM D2898. Use for exterior locations and where indicated.
3. Interior Type A: Treated materials are to have a moisture content of 28 percent or less when tested in accordance with ASTM D3201/D3201M at 92 percent relative humidity. Use where exterior type is not indicated.
4. Design Value Adjustment Factors: Treated lumber is to be tested in accordance with ASTM D5664 and design value adjustment factors are to be calculated in accordance with ASTM D6841. For enclosed roof framing, framing in attic spaces, and where high temperature fire-retardant treatment is indicated, provide material with adjustment factors of not less than 0.85 modulus of elasticity and 0.75 for extreme fiber in bending for Project's climatological zone.

C. Kiln-dry lumber after treatment to maximum moisture content of 19 percent. Kiln-dry plywood after treatment to maximum moisture content of 15 percent.

D. Identify fire-retardant-treated wood with appropriate classification marking of qualified testing agency and other information required by authorities having jurisdiction.

1. For exposed lumber indicated to receive a stained or natural finish, mark end or back of each piece or omit marking and provide certificates of treatment compliance issued by testing agency.

E. For exposed items indicated to receive a stained or natural finish, chemical formulations are not to bleed through, contain colorants, or otherwise adversely affect finishes.

F. Application: Treat all rough carpentry unless otherwise indicated.
1. Concealed blocking.
2. Framing for non-load-bearing partitions.
3. Framing for non-load-bearing exterior walls.
4. Wood cants, nailers, curbs, equipment support bases, blocking, and similar members in connection with roofing.

2.4 DIMENSION LUMBER FRAMING

A. Load-Bearing Partitions by Grade:

1. Grade: No. 2 Construction or No. 2 Construction, Stud, or No..
2. Application: Exterior walls.

3. Species:

a. Hem-fir (north); NLGA.
b. Southern pine; SPIB.
c. Douglas fir-larch; WCLIB or WWPA.
d. Southern pine or mixed southern pine; SPIB.
e. Spruce-pine-fir; NLGA.
f. Douglas fir-south; WWPA.
g. Hem-fir; WCLIB or WWPA.
h. Douglas fir-larch (north); NLGA.
i. Spruce-pine-fir (south); NeLMA, WCLIB, or WWPA.

B. Load-Bearing Partitions by Performance:

1. Application: Exterior walls

2.5 FASTENERS

A. General: Fasteners are to be of size and type indicated and comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches into wood substrate.

1. Where rough carpentry is exposed to weather, in ground contact, pressure-preservative treated, or in area of high relative humidity, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M or ASTM F2329 of Type 304 stainless steel.

B. Nails, Brads, and Staples: ASTM F1667.

C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.

D. Post-Installed Anchors: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC01 ICC-ES AC58 ICC-ES AC193 or ICC-ES AC308 as appropriate for the substrate.

PART 3 - EXECUTION

3.1 INSTALLATION OF ROUGH CARPENTRY, GENERAL

A. Framing Standard: Comply with AF&PA's WCD 1, "Details for Conventional Wood Frame Construction," unless otherwise indicated.

B. Set work to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry accurately to other construction. Locate furring, nailers, blocking, grounds, and similar supports to comply with requirements for attaching other construction.

C. Plywood Backing Panels: Install backing panels by fastening to studs; coordinate

locations with utilities requiring backing panels. Install fire-retardant-treated plywood backing panels with classification marking of testing agency exposed to view.

D. Metal Framing Anchors: Install anchors to comply with manufacturer's written instructions. Install fasteners through each fastener hole.

E. Sill-Sealer Gasket: Install gasket to form continuous seal between sill plates and foundation walls.

F. Sill-Sealer Gasket and Termite Barrier: Install gasket and termite barrier in accordance with manufacturer's written instructions at the underside of wall bottom track or rim track and at the top of foundation wall or slab at stud or joist locations.

G. Do not splice structural members between supports unless otherwise indicated.

H. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.

1. Provide metal clips for fastening gypsum board or lath at corners and intersections where framing or blocking does not provide a surface for fastening edges of panels. Space clips not more than 16 inches o.c.

I. Provide fire blocking in furred spaces, stud spaces, and other concealed cavities as indicated and as follows:

1. Fire block furred spaces of walls, at each floor level, at ceiling, and at not more than 96 inches o.c. with solid wood blocking or noncombustible materials accurately fitted to close furred spaces.
2. Fire block concealed spaces of wood-framed walls and partitions at each floor level, at ceiling line of top story, and at not more than 96 inches o.c. Where fire blocking is not inherent in framing system used, provide closely fitted solid wood blocks of same width as framing members and 2-inch nominal thickness.
3. Fire block concealed spaces between floor sleepers with same material as sleepers to limit concealed spaces to not more than 100 sq. ft. and to solidly fill space below partitions.
4. Fire block concealed spaces behind combustible cornices and exterior trim at not more than 20 ft. o.c.

J. Sort and select lumber so that natural characteristics do not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.

K. Field Application of Preservative Treatment: Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.

1. Use inorganic boron (SBX) for items that are continuously protected from liquid water.
2. Use copper naphthenate for items not continuously protected from liquid water.

L. Securely attach rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:

1. Table 2304.10.1, "Fastening Schedule," in ICC's "International Building Code" (IBC).
2. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in ICC's "International Residential Code for One- and Two-Family Dwellings."
3. ICC-ES evaluation report for fastener.

M. Use steel common nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting wood. Drive nails snug but do not countersink nail heads unless otherwise indicated.

3.2 INSTALLATION OF WOOD BLOCKING

A. Install wood blocking where indicated on Drawings and where required for screeding or attaching other work. Form to shapes indicated and cut as required for true line and level of attached work. Coordinate locations with other work involved.

B. Provide permanent grounds of dressed, pressure-preservative-treated, key-beveled lumber not less than 1-1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material. Remove temporary grounds when no longer required.

3.3 INSTALLATION OF WOOD FURRING

A. Install wood furring level and plumb with closure strips at edges and openings. Shim with wood as required for tolerance of finish work.

3.4 INSTALLATION OF WALL AND PARTITION FRAMING

A. General: Provide single bottom plate and double top plates using members of 2-inch nominal thickness whose widths equal that of studs, except single top plate may be used for non-load-bearing partitions and for load-bearing partitions where framing members bearing on partition are located directly over studs. Fasten plates to supporting construction unless otherwise indicated.

1. For exterior walls, provide 2-by-6-inch nominal or 2-by-4-inch nominal size wood studs spaced 24 inches 16 inches o.c. unless otherwise indicated.
2. Provide continuous horizontal blocking at midheight of partitions more than 96 inches high, using members of 2-inch nominal thickness and of same width as wall or partitions.

B. Construct corners and intersections with three or more studs, except that two studs may be used for interior non-load-bearing partitions.

C. Frame openings with multiple studs and headers. Provide nailed header members of thickness equal to width of studs. Support headers on jamb studs.

1. For load-bearing walls, provide double-jamb studs for openings 60 inches and less in width, and triple-jamb studs for wider openings. Provide headers of depth indicated [or, if not indicated, in accordance with Table R602.7(1) or Table R602.7(2), as applicable, in ICC's "International Residential Code for One- and Two-Family Dwellings".

D. Provide diagonal bracing in exterior walls, at both walls of each external corner, at 45-degree angle, full-story height unless otherwise indicated. Use [1-by-4-inch nominal-size boards, let-in flush with faces of studs][metal wall bracing, let into studs in saw kerf].

3.5 PROTECTION

A. Protect wood that has been treated with inorganic boron (SBX) from weather. If, despite protection, inorganic boron-treated wood becomes wet, apply EPA-registered borate treatment. Apply borate solution by spraying to comply with EPA-registered label.

END OF SECTION 061000

SECTION 079200 - JOINT SEALANTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Urethane joint sealants.

1.2 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.3 ACTION SUBMITTALS

A. Product Data:
   1. Urethane joint sealants.

B. Samples for Initial Selection: Manufacturer's standard color charts consisting of strips of cured sealants showing the full range of colors available for each product exposed to view.

C. Samples for Verification: For each type and color of joint sealant required, provide Samples with joint sealants in 1/2-inch- wide joints formed between two 6-inch- long strips of material matching the appearance of exposed surfaces adjacent to joint sealants.

D. Joint-Sealant Schedule: Include the following information:

   1. Joint-sealant application, joint location, and designation.
   2. Joint-sealant manufacturer and product name.
   3. Joint-sealant formulation.
   4. Joint-sealant color.

1.4 INFORMATIONAL SUBMITTALS

A. Preconstruction Laboratory Test Schedule: Include the following information for each joint sealant and substrate material to be tested:

   1. Joint-sealant location and designation.
   2. Manufacturer and product name.
   3. Type of substrate material.
   4. Proposed test.
   5. Number of samples required.

B. Preconstruction Laboratory Test Reports: For each joint sealant and substrate material

to be tested from sealant manufacturer, indicating the following:

1. Materials forming joint substrates and joint-sealant backings have been tested for compatibility and adhesion with joint sealants.
2. Interpretation of test results and written recommendations for primers and substrate preparation are needed for adhesion.

C. Field Quality-Control Reports: For field-adhesion-test reports, for each sealant application tested. (Perform in 10 locations)

D. Sample warranties.

1.5 CLOSEOUT SUBMITTALS

A. Manufacturers' special warranties.

B. Installer's special warranties.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Authorized representative who is trained and approved by manufacturer.

B. Testing Agency Qualifications: Qualified in accordance with ASTM C1021 to conduct the testing indicated.

1.7 MOCKUPS

A. Install sealant in mockups of assemblies specified in other Sections that are indicated to receive joint sealants specified in this Section. Use materials and installation methods specified in this Section.

1.8 PRECONSTRUCTION TESTING

A. Preconstruction Laboratory Testing: Submit to joint-sealant manufacturers, for testing indicated below, samples of materials that will contact or affect joint sealants.

1. Adhesion Testing: Use ASTM C794 to determine whether priming and other specific joint preparation techniques are required to obtain rapid, optimum adhesion of joint sealants to joint substrates.
2. Compatibility Testing: Use ASTM C1087 to determine sealant compatibility when in contact with glazing and gasket materials.
3. Stain Testing: Use ASTM C1248 to determine stain potential of sealant when in contact with concrete substrates.
4. Submit manufacturer's recommended number of pieces of each type of material, including joint substrates, joint-sealant backings, and miscellaneous materials.

5. Schedule sufficient time for testing and analyzing results to prevent delaying the Work.
6. For materials failing tests, obtain joint-sealant manufacturer's written instructions for corrective measures, including use of specially formulated primers.
7. Testing will not be required if joint-sealant manufacturers submit data that are based on previous testing, not older than 24 months, of sealant products for adhesion to, staining of, and compatibility with joint substrates and other materials matching those submitted.

B. Preconstruction Field-Adhesion Testing: Before installing sealants, field test their adhesion to Project joint substrates as follows:

1. Locate test joints where indicated on Project or, if not indicated, as directed by Lexington-Fayette Urban County Government.
2. Conduct field tests for each kind of sealant and joint substrate.
3. Notify Lexington-Fayette Urban County Government seven days in advance of dates and times when test joints will be erected.
4. Arrange for tests to take place with joint-sealant manufacturer's technical representative present.
5. Test Method: Test joint sealants in accordance with Method A, Tail Procedure, in ASTM C1521.

    a. For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.

6. Report whether sealant failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. For sealants that fail adhesively, retest until satisfactory adhesion is obtained.
7. Evaluation of Preconstruction Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing, in absence of other indications of noncompliance with requirements, will be considered satisfactory. Do not use sealants that fail to adhere to joint substrates during testing.

1.9 FIELD CONDITIONS (Follow Manufacturer Recommendations)

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

1.10 WARRANTY

A. Special Installer's Warranty: Installer agrees to repair or replace joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Two years from date of Substantial Completion.

B. Special Manufacturer's Warranty: Manufacturer agrees to furnish joint sealants to repair or replace those joint sealants that do not comply with performance and other requirements specified in this Section within specified warranty period.

1. Warranty Period: Five years from date of Substantial Completion.

C. Special warranties specified in this article exclude deterioration or failure of joint sealants from the following:

1. Movement of the structure caused by stresses on the sealant exceeding sealant manufacturer's written specifications for sealant elongation and compression.
2. Disintegration of joint substrates from causes exceeding design specifications.
3. Mechanical damage caused by individuals, tools, or other outside agents.
4. Changes in sealant appearance caused by accumulation of dirt or other atmospheric contaminants.

PART 2 - PRODUCTS (See Drawings)

2.1 SOURCE LIMITATIONS

A. Obtain joint sealants from single manufacturer for each sealant type.

2.2 JOINT SEALANTS, GENERAL

A. Compatibility: Provide joint sealants, backings, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

B. Colors of Exposed Joint Sealants: As indicated by manufacturer's designations.

2.3 MISCELLANEOUS MATERIALS

A. Primer: Material recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint-sealant-substrate tests and field tests.

B. Cleaners for Nonporous Surfaces: Chemical cleaners acceptable to manufacturers of sealants and sealant backing materials, free of oily residues or other substances capable of staining or harming joint substrates and adjacent nonporous surfaces in any

way, and formulated to promote optimum adhesion of sealants to joint substrates.

C. Masking Tape: Nonstaining, nonabsorbent material compatible with joint sealants and surfaces adjacent to joints.

PART 3 - EXECUTION (All sealants shall be dry tooled)

3.1 EXAMINATION

A. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions and the following requirements:

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, paints (except for permanent, protective coatings tested and approved for sealant adhesion and compatibility by sealant manufacturer), old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.
2. Clean porous joint substrate surfaces by brushing, grinding, mechanical abrading, or a combination of these methods to produce a clean, sound substrate capable of developing optimum bond with joint sealants. Remove loose particles remaining after cleaning operations above by vacuuming or blowing out joints with oil-free compressed air. Porous joint substrates include the following:

    a. Concrete.
    b. Exterior insulation and finish systems.
3. Remove laitance and form-release agents from concrete.
4. Clean nonporous joint substrate surfaces with chemical cleaners or other means that do not stain, harm substrates, or leave residues capable of interfering with adhesion of joint sealants. Nonporous joint substrates include the following:

    a. Metal.
    b. Glass.

B. Joint Priming: Prime joint substrates where recommended by joint-sealant manufacturer or as indicated by preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

C. Masking Tape: Use masking tape where required to prevent contact of sealant or primer with adjoining surfaces that otherwise would be permanently stained or damaged by such contact or by cleaning methods required to remove sealant smears. Remove tape immediately after tooling without disturbing joint seal.

3.3 INSTALLATION OF JOINT SEALANTS

A. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.

B. Sealant Installation Standard: Comply with recommendations in ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions indicated.

C. Install sealant backings of type indicated to support sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Do not leave gaps between ends of sealant backings.
2. Do not stretch, twist, puncture, or tear sealant backings.
3. Remove absorbent sealant backings that have become wet before sealant application, and replace them with dry materials.

D. Install bond-breaker tape behind sealants where sealant backings are not used between sealants and backs of joints.

E. Install sealants using proven techniques that comply with the following and at the same time backings are installed:

1. Place sealants so they directly contact and fully wet joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

F. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants in accordance with requirements specified in subparagraphs below to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

1. Remove excess sealant from surfaces adjacent to joints.
2. Provide flush joint profile at locations indicated on Drawings in accordance with Figure 8B in ASTM C1193.

3.4 FIELD QUALITY CONTROL

A. Testing Agency: The contractor shall provide a qualified testing agency to perform tests and inspections.

B. Tests and Inspections:

1. Field-Adhesion Testing: Field test joint-sealant adhesion to joint substrates as

follows:

a. Extent of Testing: Test completed and cured sealant joints as follows:

1) Perform 10 tests

b. Test Method: Test joint sealants in accordance with Method A, Tail Procedure, in ASTM C1521.

1) For joints with dissimilar substrates, verify adhesion to each substrate separately; extend cut along one side, verifying adhesion to opposite side. Repeat procedure for opposite side.

c. Inspect tested joints and report on the following:

1) Whether sealants filled joint cavities and are free of voids.
2) Whether sealant dimensions and configurations comply with specified requirements.
3) Whether sealants in joints connected to pulled-out portion failed to adhere to joint substrates or tore cohesively. Include data on pull distance used to test each kind of product and joint substrate. Compare these results to determine if adhesion complies with sealant manufacturer's field-adhesion hand-pull test criteria.

d. Record test results in a field-adhesion-test log. Include dates when sealants were installed, names of persons who installed sealants, test dates, test locations, whether joints were primed, adhesion results and percent elongations, sealant material, sealant configuration, and sealant dimensions.

e. Repair sealants pulled from test area by applying new sealants following same procedures used originally to seal joints. Ensure that original sealant surfaces are clean and that new sealant contacts original sealant.

2. Evaluation of Field-Adhesion-Test Results: Sealants not evidencing adhesive failure from testing or noncompliance with other indicated requirements will be considered satisfactory. Remove sealants that fail to adhere to joint substrates during testing or to comply with other requirements. Retest failed applications until test results prove sealants comply with indicated requirements.

C. Prepare test and inspection reports.

3.5 CLEANING

A. Clean off excess sealant or sealant smears adjacent to joints as the Work progresses by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.

3.6 PROTECTION

A. Protect joint sealants during and after curing period from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out, remove, and repair damaged or deteriorated joint sealants immediately so installations with repaired areas are indistinguishable from original work.

END OF SECTION 079200

SECTION 085113 - ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Aluminum windows.

1.2 DEFINITIONS

A. Combination Assemblies: An assembly formed by a combination of two or more separate fenestration products whose frames are mulled together utilizing a combination mullion or reinforcing mullion.

B. Combination Mullions: A horizontal or vertical member formed by joining two or more individual fenestration units together without a mullion stiffener.

C. Reinforcing Mullions: A horizontal or vertical member with an added continuous mullion stiffener and joining two or more individual fenestration units along the sides of the mullion stiffener.

1.3 COORDINATION

A. Finish Matching: Coordinate all exposed exterior aluminum components and trim to ensure uniform and consistent color and appearance. Use products specified in this Section as a benchmark. Engineer's decision will be final as to whether a proposed product matches.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, glazing and fabrication methods, dimensions of individual components and profiles, hardware, and finishes.

B. Shop Drawings:

1. Plans, elevations, sections, hardware, accessories, insect screens, operational clearances, and details of installation, including anchor, flashing, and sealant installation.

C. Samples for Initial Selection: Manufacturer's standard color sheets, showing full range of available colors for each type of exposed finish.

D. Samples for Verification: Actual sample of finished products for each type of exposed finish:

1. Exposed Aluminum Finishes: Manufacturers' standard size.
2. Exposed Hardware: Full-size units.

E. Product Schedule: For aluminum windows. Use same designations indicated on Drawings.

F. Delegated Design Submittals: For reinforcing mullions, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

A. Test and Evaluation Reports:

1. Product Test Reports: For each aluminum window, for tests performed by qualified testing agency manufacturer and witnessed by a qualified testing agency.

B. Qualification Statements: For manufacturer and Installer.

C. Delegated Design Engineer Qualifications: For reinforcing mullions.

D. Sample warranties.

1.6 CLOSEOUT SUBMITTALS

A. Warranty Documentation:

1. Manufacturers' special warranties.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: A manufacturer capable of fabricating aluminum windows that meet or exceed performance requirements indicated and of documenting this performance by test reports and calculations.

B. Installer Qualifications: Authorized representative who is trained and approved by aluminum window manufacturer.

C. Delegated Design Engineer Qualifications: A professional engineer who is legally qualified to practice in state where Project is located and who is experienced in providing engineering services of the type indicated.

D. Testing Agency Qualifications: An FGIA-accredited testing agency for testing indicated.

1.8 MOCKUPS (See Drawings for location)

1.9 DELIVERY, STORAGE, AND HANDLING

A. Deliver aluminum windows to Project site in original, unopened packages and store them in accordance with manufacturer's written instructions. Protect aluminum windows against damage from moisture, humidity, temperature extremes, direct sunlight, surface contamination, and other causes.

B. Handle aluminum windows in a manner that prevents damage before, during, and after installation.

1.10 FIELD CONDITIONS

A. Environmental Limitations: Do not install aluminum windows outside of limits recommended in writing by manufacturer.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Failure to meet performance requirements.
b. Structural failures, including excessive deflection, water leakage, condensation, and air infiltration.
c. Faulty operation of movable sash and hardware.
d. Deterioration of materials and finishes beyond normal weathering.
e. Failure of insulating glass.

2. Warranty Period:

a. Window: 10 years from date of Substantial Completion.
b. Glazing Units: 10 years from date of Substantial Completion.
c. Hardware: Three years from date of Substantial Completion.
d. Aluminum Finish: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain aluminum windows from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design reinforcing mullions.

B. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.

1. Window Certification: FGIA certified with label attached to each window.

C. Life Cycle Testing: Tested in accordance with AAMA 910-10

D. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:

1. Minimum Performance Class: AW.
2. Minimum Performance Grade: 100.
3. Mulled Window Systems: Evaluate and rate combination assemblies as single systems as determined by AAMA 450 in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 requirements.

E. Energy Performance: Certified and labeled by manufacturer for energy performance as follows:

1. Thermal Transmittance (U-factor): As determined in accordance with NFRC 100:

a. Fixed Windows: Not more than 0.335 Btu/sq. ft. x h x deg F.
b. Operable Windows: Not more than 0.44 Btu/sq. ft. x h x deg F.

2. Solar Heat-Gain Coefficient (SHGC): As determined in accordance with NFRC 200:

a. Fixed Windows: Not more than 0.337.
b. Operable Windows: Not more than 0.263 as determined in accordance with NFRC 200.

3. Condensation-Resistance Factor (CRF): Provide aluminum windows tested for thermal performance in accordance with AAMA 1503, showing a CRF of 61 for frame and 65 for glass.

F. Thermal Movements: Provide aluminum windows, including anchorage, which allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change: -30 deg F to 180 deg F.

G. Outdoor-Indoor Transmission Class (OITC): Rated for not less than 25 OITC when

tested for laboratory sound transmission loss in accordance with ASTM E90.

H. Sustainable Design Features:
1. Recycled Content of Aluminum Components: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 15 percent.

2.3 ACCESSORIES

A. Dividers (False Muntins): Provide manufacturer's standard extruded-aluminum divider grilles in designs indicated for each sash lite.

1. Type: Permanently located at exterior lite or Permanently located between insulating-glass lites.
2. Pattern: As indicated on Drawings.
3. Profile: As selected by Engineer from manufacturer's full range.

B. Subsills: Thermally broken / Nonthermal, extruded-aluminum subsills in configurations indicated on Drawings.

C. Interior Trim: Extruded-aluminum profiles in sizes and configurations indicated on Drawings.

D. Panning Trim: Profiles in sizes and configurations indicated on Drawings.

E. Nail Fins: Manufacturer's standard mounting flanges with holes pre-punched for mechanical fasteners.

2.4 FABRICATION

A. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.

B. Glaze aluminum windows in the factory.

C. Weather strip each operable sash to provide weathertight installation.

D. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior.

E. Provide water-shed members above side-hinged sashes and similar lines of natural water penetration.

F. Window Assemblies: Bow/Bay/Combination. Provide window units in configuration indicated on Drawings. Provide window frames, sashes, hardware, and other trim and components necessary for a complete, secure, and weathertight installation, including the following:

1. Combination and reinforcing mullions with interior and exterior trim.
2. Interior and exterior extension and trim.
3. Exterior head and sill casings and trim.

G. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation.

2.5 GENERAL FINISH REQUIREMENTS

A. Comply with NAAMM/NOMMA AMP 500 "Metal Finishes Manual for Architectural and Metal Products," for recommendations for applying and designating finishes.

B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

C. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.6 ALUMINUM FINISHES

A. Clear Anodic Finish: AAMA 611, AA-M12C22A41, Class I, 0.018 mm or thicker.

B. Color Anodic Finish: AAMA 611, AA-M12C22A42/A44, Class I, 0.018 mm or thicker.

1. Color: As selected by Owner from full range of industry colors and color densities.

C. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Color and Gloss: As selected by Owner from manufacturer's full range.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Verify rough opening dimensions, levelness of sill plate, and operational clearances.

C. Examine wall flashings, vapor retarders, air and weather barriers, and other built-in components to ensure weathertight window installation.

D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E2112.

B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.

C. Mullions: Install combination and reinforcing mullions for combination assemblies in accordance with manufacturer's written instructions.

D. Install windows and components to drain water passing joints and condensation to the exterior.

E. Separate aluminum from sources of corrosion or electrolytic action at points of contact with other materials.

3.3 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

1. Testing and inspecting agency will interpret tests and state in each report whether tested work complies with or deviates from requirements.

B. Testing Services: Testing and inspection of installed windows as follows:

1. Testing Methodology: Testing of windows for air infiltration and water resistance in accordance with AAMA 502.
2. Air-Infiltration Testing:

    a. Test Pressure: As required to determine compliance in accordance with AAMA/WDMA/CSA 101/I.S.2/A440 for performance class indicated.
    b. Allowable Air-Leakage Rate: 1.5 times the applicable AAMA/WDMA/CSA 101/I.S.2/A440 rate for product type and performance class rounded down to one decimal place.

3. Water-Resistance Testing:

    a. Test Pressure: Two-thirds times test pressure required to determine compliance with AAMA/WDMA/CSA 101/I.S.2/A440 performance grade indicated.
    b. Allowable Water Infiltration: No water penetration.

4. Testing Extent: Three window(s) of each type as selected by Engineer and a qualified independent testing and inspecting agency. Windows will be tested immediately after installation.

5. Test Reports: Prepared in accordance with AAMA 502.

C. Tests and Inspections:

1. Windows will be considered defective if they do not pass tests and inspections.

D. Prepare test and inspection reports.

3.4 ADJUSTING

A. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.

3.5 CLEANING AND PROTECTION

A. Clean exposed surfaces immediately after installing windows using manufacturer's written instructions. Avoid damaging finishes. Remove excess sealants, glazing materials, dirt, and other substances.

B. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.

C. Protect window surfaces from contact with contaminating substances resulting from construction operations. If contaminating substances do contact window surfaces, remove contaminants immediately in accordance with manufacturer's written instructions.

END OF SECTION 085113

SECTION 088000 - GLAZING

PART 1 - GENERAL

1. Insulating glass.
2. Glazing tapes.
3. Miscellaneous glazing materials.

1.2 DEFINITIONS

A. Glass Manufacturers: Firms that produce primary glass, fabricated glass, or both, as defined in referenced glazing publications.

B. Glass Thicknesses: Indicated by thickness designations in millimeters in accordance with ASTM C1036.

C. IBC: International Building Code.

D. Interspace: Space between lites of an insulating-glass unit.

1.3 COORDINATION

A. Coordinate glazing channel dimensions to provide necessary bite on glass, minimum edge and face clearances, and adequate sealant thicknesses, with reasonable tolerances to achieve proper safety margins for glazing retention under each design load case, load case combination, and service condition.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Review temporary protection requirements for glazing during and after installation.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Glass Samples: For each type of glass product other than clear monolithic vision glass; 12 inches square.

1. Coated glass.
2. Laminated glass.
3. Insulating glass.

C. Glazing Accessory Samples: For sealants and colored spacers, in 12-inch lengths. Install sealant Samples between two strips of material representative in color of adjoining framing system.

D. Glazing Schedule: List glass types and thicknesses for each size opening and location. Use same designations indicated on Drawings.

E. Delegated Design Submittals: For glass indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by qualified professional engineer responsible for their preparation.

1.6 INFORMATIONAL SUBMITTALS

A. Product Certificates: For glass.

B. Product Test Reports: For fabricated glass and glazing sealants, for tests performed by a qualified testing agency.

1. For glazing sealants, provide test reports based on testing current sealant formulations within previous 36-month period.

C. Preconstruction adhesion and compatibility test report.

D. Qualification Statements: For Installer manufacturers of fabricated glass units glass testing agency and sealant testing agency.

E. Sample Warranties: For special warranties.

1.7 QUALITY ASSURANCE

A. Fabricated-Glass Manufacturer Qualifications: A qualified manufacturer of fabricated glass units who is approved and certified by primary glass manufacturer.

B. Installer Qualifications: A qualified glazing contractor for this Project who is certified under the North American Contractor Certification Program (NACC) for Architectural Glass & Metal (AG&M) contractors and who employs glazing technicians certified under the Architectural Glass and Metal Technician (AGMT) certification program.

C. Glass Testing Agency Qualifications: A qualified independent testing agency accredited according to the NFRC CAP 1 Certification Agency Program.

D. Sealant Testing Agency Qualifications: An independent testing agency qualified according to ASTM C1021 to conduct the testing indicated.

1.8 MOCKUPS

A. Build mockups to demonstrate aesthetic effects and to set quality standards for materials and execution.

1. Install glazing in mockups specified in Section 085113 "Aluminum Windows" to match glazing systems required for Project, including glazing methods.
2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations by Change Order.
3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.9 PRECONSTRUCTION TESTING

A. Preconstruction Adhesion and Compatibility Testing: Test each glass product, tape sealant, gasket, glazing accessory, and glass-framing member for adhesion to and compatibility with elastomeric glazing sealants.

1. Testing is not required if data are submitted based on previous testing of current sealant products and glazing materials matching those submitted.
2. Use ASTM C1087 to determine whether priming and other specific joint-preparation techniques are required to obtain rapid, optimum adhesion of glazing sealants to glass, tape sealants, gaskets, and glazing channel substrates.
3. Test no fewer than eight Samples of each type of material, including joint substrates, shims, sealant backings, secondary seals, and miscellaneous materials.
4. Schedule enough time for testing and analyzing results to prevent delaying the Work.
5. For materials failing tests, submit sealant manufacturer's written instructions for corrective measures including use of specially formulated primers.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Protect glazing materials in accordance with manufacturer's written instructions. Prevent damage to glass and glazing materials from condensation, temperature changes, direct exposure to sun, or other causes.

B. Comply with insulating-glass manufacturer's written instructions for venting and sealing units to avoid hermetic seal ruptures due to altitude change.

1.11 FIELD CONDITIONS

A. Environmental Limitations: Do not proceed with glazing when ambient and substrate temperature conditions are outside limits permitted by glazing material manufacturers and when glazing channel substrates are wet from rain, frost, condensation, or other causes.

1. Do not install glazing sealants when ambient and substrate temperature conditions are outside limits permitted by sealant manufacturer or are below 40 deg F.

1.12 WARRANTY

A. Manufacturer's Special Warranty for Coated-Glass Products: Manufacturer agrees to replace coated-glass units that deteriorate within specified warranty period. Deterioration of coated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning coated glass contrary to manufacturer's written instructions. Defects include peeling, cracking, and other indications of deterioration in coating.

1. Warranty Period: 10 years from date of Substantial Completion.

B. Manufacturer's Special Warranty for Laminated Glass: Manufacturer agrees to replace laminated-glass units that deteriorate within specified warranty period. Deterioration of laminated glass is defined as defects developed from normal use that are not attributed to glass breakage or to maintaining and cleaning laminated glass contrary to manufacturer's written instructions. Defects include edge separation, delamination materially obstructing vision through glass, and blemishes exceeding those allowed by referenced laminated-glass standard.

1. Warranty Period: 10 years from date of Substantial Completion.

C. Manufacturer's Special Warranty for Insulating Glass: Manufacturer agrees to replace insulating-glass units that deteriorate within specified warranty period. Deterioration of insulating glass is defined as failure of hermetic seal under normal use that is not attributed to glass breakage or to maintaining and cleaning insulating glass contrary to manufacturer's written instructions. Evidence of failure is obstruction of vision by dust, moisture, or film on interior surfaces of glass.

1. Warranty Period: 10 years from date of Substantial Completion.

D. Manufacturer's Special Warranty for Heat-Soaked Tempered Glass: Manufacturer agrees to replace heat-soaked tempered glass units that spontaneously break due to nickel sulfide (NiS) inclusions at a rate exceeding 0.3 percent (3/1000) within specified warranty period. Coverage for any other cause is excluded.

1. Warranty Period: 10 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Source Limitations for Glass: Obtain coated glass from single source from single manufacturer.

B. Source Limitations for Glazing Accessories: For each product and installation method, obtain from single source from single manufacturer.

2.2 PERFORMANCE REQUIREMENTS

A. General: Installed glazing systems to withstand normal thermal movement and wind and impact loads (where applicable) without failure, including loss or glass breakage attributable to defective manufacture, fabrication, or installation; failure of sealants or gaskets to remain watertight and airtight; deterioration of glazing materials; or other defects in construction.

B. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design glazing.

C. Structural Performance: Glazing to withstand the following design loads within limits and under conditions indicated determined in accordance with the IBC and ASTM E1300:

1. Design Wind Pressures: Determine design wind pressures applicable to Project in accordance with ASCE/SEI 7, based on heights above grade indicated on Drawings.

    a. Wind Design Data: As indicated on Drawings.
    b. Basic Wind Speed: 115.
    c. Importance Factor: 1.0.
    d. Exposure Category: B/C/D.

2. Maximum Lateral Deflection: For glass supported on all four edges, limit center-of-glass deflection at design wind pressure to not more than 1/50 times the short-side length or 1 inch, whichever is less.
3. Thermal Loads: Design glazing to resist thermal stress breakage induced by differential temperature conditions and limited air circulation within individual glass lites and insulated glazing units.

D. Windborne-Debris-Impact Resistance: Exterior glazing must pass ASTM E1886 missile-impact and cyclic-pressure tests in accordance with ASTM E1996 for Wind Zone [1][2][3][4] for basic protection.

1. Large-Missile Test: For glazing located within 30 ft. of grade.
2. Small-Missile Test: For glazing located between 30 ft. and 60 ft. above grade.

E. Safety Glazing: Where safety glazing is indicated, provide glazing that complies with 16 CFR 1201, Category II.

F. Thermal and Optical Performance Properties: Provide glass with performance properties specified, as indicated in manufacturer's published test data, based on procedures indicated below:

1. For monolithic-glass lites, properties are based on units with lites of thickness indicated.
2. For laminated-glass lites, properties are based on products of construction indicated.
3. For insulating-glass units, properties are based on units of thickness indicated for overall unit and for each lite.

4. U-Factors: Center-of-glazing values, in accordance with NFRC 100 and based on most current non-beta version of LBL's WINDOW computer program, expressed as Btu/sq. ft. x h x deg F.
5. SHGC and Visible Transmittance: Center-of-glazing values, in accordance with NFRC 200 and based on most current non-beta version of LBL's WINDOW computer program.
6. Visible Reflectance: Center-of-glazing values, in accordance with NFRC 300.

G. Acoustic Performance:

1. Exterior Glazing: 25 OITC.
2. Interior Glazing: 31 STC.

2.3 GLASS, GENERAL

A. Glazing Publications: Comply with written instructions of glass product manufacturers and organizations below unless more stringent requirements are indicated. See these publications for glazing terms not otherwise defined in this Section or in referenced standards.

1. NGA Publications: "Laminated Glazing Reference Manual" and "Glazing Manual."
2. AAMA Publications: AAMA GDSG-1 and AAMA TIR A7.
3. IGMA Publication for Sloped Glazing: IGMA TB-3001.
4. IGMA Publication for Insulating Glass: IGMA TM-3000.

B. Safety Glazing Labeling: Where safety glazing is indicated, permanently mark glazing with certification label of the SGCC or another certification agency acceptable to authorities having jurisdiction or manufacturer. Label indicates manufacturer's name, type of glass, thickness, and safety glazing standard with which glass complies.

C. Thickness: Where glass thickness is indicated, it is a minimum. Provide glass that complies with performance requirements and is not less than thickness indicated.

1. Minimum Glass Thickness for Exterior Lites: 6 mm.
2. Thickness of Tinted Glass: Provide same thickness for each tint color indicated throughout Project.

D. Strength: Where annealed float glass is indicated, provide annealed float glass, heat-strengthened float glass, or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where heat-strengthened float glass is indicated, provide heat-strengthened float glass or fully tempered float glass as needed to comply with "Performance Requirements" Article. Where fully tempered float glass is indicated, provide fully tempered float glass.

2.4 GLAZING TAPES

A. Back-Bedding Mastic Glazing Tapes: Preformed, butyl-based, 100 percent solids elastomeric tape; nonstaining and nonmigrating in contact with nonporous surfaces; with or without spacer rod as recommended in writing by tape and glass manufacturers

for application indicated; and complying with ASTM C1281 and AAMA 800 for products indicated below:

1. AAMA 804.3 tape, where indicated.
2. AAMA 806.3 tape, for glazing applications in which tape is subject to continuous pressure.
3. AAMA 807.3 tape, for glazing applications in which tape is not subject to continuous pressure.

B. Expanded Cellular Glazing Tapes: Closed-cell, PVC or acrylic foam tapes; factory coated with adhesive on both surfaces; and complying with AAMA 800 for the following types:

1. AAMA 810.1, Type 1, for glazing applications in which tape acts as primary sealant.
2. AAMA 810.1, Type 2, for glazing applications in which tape is used in combination with a full bead of liquid sealant.

2.5 MISCELLANEOUS GLAZING MATERIALS

A. General: Provide products of material, size, and shape complying with referenced glazing standard, recommended in writing by manufacturers of glass and other glazing materials for application indicated, and with a proven record of compatibility with surfaces contacted in installation.

B. Cleaners, Primers, and Sealers: Types recommended by sealant or gasket manufacturer.

C. Setting Blocks:

1. Type: Silicone with Shore A durometer hardness of 85, plus or minus 5.
2. Type recommended in writing by sealant or glass manufacturer.

D. Spacers:

1. Type: Neoprene blocks or continuous extrusions of hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
2. Type recommended in writing by sealant or glass manufacturer.

E. Edge Blocks:

1. Type: Silicone with Shore A durometer hardness per manufacturer's written instructions.
2. Type recommended in writing by sealant or glass manufacturer.

F. Cylindrical Glazing Sealant Backing: ASTM C1330, Type O (open-cell material), of size and density to control glazing sealant depth and otherwise produce optimum glazing sealant performance.

2.6 FABRICATION OF GLAZING UNITS

A. Fabricate glazing units in sizes required to fit openings indicated for Project, with edge and face clearances, edge and surface conditions, and bite complying with written instructions of product manufacturer and referenced glazing publications, to comply with system performance requirements.

1. Allow for thermal movements from ambient and surface temperature changes acting on glass framing members and glazing components.

a. Temperature Change: -30 deg F to 180 deg F..

B. Clean-cut or flat-grind vertical edges of butt-glazed monolithic lites to produce square edges with slight chamfers at junctions of edges and faces.

C. Grind smooth and polish exposed glass edges and corners.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine framing, glazing channels, and stops, with Installer present, for compliance with the following:

1. Manufacturing and installation tolerances, including those for size, squareness, and offsets at corners.
2. Presence and functioning of weep systems.
3. Minimum required face and edge clearances.
4. Effective sealing between joints of glass-framing members.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean glazing channels and other framing members receiving glass immediately before glazing. Remove coatings not firmly bonded to substrates.

B. Examine glazing units to locate exterior and interior surfaces. Label or mark units as needed so that exterior and interior surfaces are readily identifiable. Do not use materials that leave visible marks in the completed Work.

3.3 GLAZING, GENERAL

A. Comply with combined written instructions of manufacturers of glass, sealants, gaskets, and other glazing materials, unless more stringent requirements are indicated, including those in referenced glazing publications.

B. Protect glass edges from damage during handling and installation. Remove damaged glass from Project site and legally dispose of off Project site. Damaged glass includes glass with edge damage or other imperfections that, when installed, could weaken glass, impair performance, or impair appearance.

C. Apply primers to joint surfaces where required for adhesion of sealants, as determined by preconstruction testing.

D. Install setting blocks in sill rabbets, sized and located to comply with referenced glazing publications, unless otherwise required by glass manufacturer. Set blocks in thin course of compatible sealant suitable for heel bead.

E. Do not exceed edge pressures stipulated by glass manufacturers for installing glass lites.

F. Provide spacers for glass lites where length plus width is larger than 50 inches.

1. Locate spacers directly opposite each other on both inside and outside faces of glass. Install correct size and spacing to preserve required face clearances, unless gaskets and glazing tapes are used that have demonstrated ability to maintain required face clearances and to comply with system performance requirements.
2. Provide 1/8-inch- minimum bite of spacers on glass and use thickness equal to sealant width. With glazing tape, use thickness slightly less than final compressed thickness of tape.

G. Provide edge blocking where indicated or needed to prevent glass lites from moving sideways in glazing channel, as recommended in writing by glass manufacturer and in accordance with requirements in referenced glazing publications.

H. Set glass lites in each series with uniform pattern, draw, bow, and similar characteristics.

I. Set glass lites with proper orientation so that coatings face exterior or interior as specified.

J. Where wedge-shaped gaskets are driven into one side of channel to pressurize sealant or gasket on opposite side, provide adequate anchorage so gasket cannot walk out when installation is subjected to movement.

K. Square cut wedge-shaped gaskets at corners and install gaskets in a manner recommended by gasket manufacturer to prevent corners from pulling away; seal corner joints and butt joints with sealant recommended in writing by gasket manufacturer.

3.4 INSTALLATION OF GLAZING TAPES

A. Position tapes on fixed stops so that, when compressed by glass, their exposed edges are flush with or protrude slightly above sightline of stops.

B. Install tapes continuously, but not necessarily in one continuous length. Do not stretch tapes to make them fit opening.

C. Cover vertical framing joints by applying tapes to heads and sills first, then to jambs. Cover horizontal framing joints by applying tapes to jambs, then to heads and sills.

D. Place joints in tapes at corners of opening with adjoining lengths butted together, not lapped. Seal joints in tapes with compatible sealant approved by tape manufacturer.

E. Do not remove release paper from tape until right before each glazing unit is installed.

F. Apply heel bead of elastomeric sealant.

G. Center glass lites in openings on setting blocks, and press firmly against tape by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings.

H. Apply cap bead of elastomeric sealant over exposed edge of tape.

3.5 INSTALLATION OF GLAZING GASKET (DRY)

A. Cut compression gaskets to lengths recommended by gasket manufacturer to fit openings exactly, with allowance for stretch during installation.

B. Insert soft compression gasket between glass and frame or fixed stop so it is securely in place with joints miter cut and bonded together at corners.

C. Installation with Drive-in Wedge Gaskets: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket by inserting dense compression gaskets formed and installed to lock in place against faces of removable stops. Start gasket applications at corners and work toward centers of openings. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended in writing by gasket manufacturer.

D. Installation with Pressure-Glazing Stops: Center glass lites in openings on setting blocks, and press firmly against soft compression gasket. Install dense compression gaskets and pressure-glazing stops, applying pressure uniformly to compression gaskets. Compress gaskets to produce a weathertight seal without developing bending stresses in glass. Seal gasket joints with sealant recommended in writing by gasket manufacturer.

E. Install gaskets so they protrude past face of glazing stops.

3.6 INSTALLATION OF GLAZING SEALANT

A. Install continuous spacers, or spacers combined with cylindrical sealant backing,

between glass lites and glazing stops to maintain glass face clearances and to prevent sealant from extruding into glass channel and blocking weep systems until sealants cure. Secure spacers or spacers and backings in place and in position to control depth of installed sealant relative to edge clearance for optimum sealant performance.

B. Force sealants into glazing channels to eliminate voids and to ensure complete wetting or bond of sealant to glass and channel surfaces.

C. Tool exposed surfaces of sealants to provide a substantial wash away from glass.

3.7 CLEANING

A. Immediately after installation, remove nonpermanent labels and clean surfaces.

B. Wash glass on both exposed surfaces not more than four days before date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended in writing by glass manufacturer.

3.8 PROTECTION

A. Protect glass from contact with contaminating substances resulting from construction operations. Examine glass surfaces adjacent to or below exterior concrete and other masonry surfaces at frequent intervals during construction, but not less than once a month, for buildup of dirt, scum, alkaline deposits, or stains.

1. If, despite such protection, contaminating substances do contact with glass, remove substances immediately as recommended in writing by glass manufacturer. Remove and replace glass that cannot be cleaned without damage to coatings.

B. Remove and replace glass that is damaged during construction period.

3.9 INSULATING GLASS SCHEDULE

A. Low-E-Coated, Clear Insulating Glass Type: A-500 & A-600

1. Basis-of-Design Product:
2. Overall Unit Thickness: 1 inch
3. Minimum Thickness of Each Glass Lite: Follow Manufacturer's recommendations
4. Outdoor Lite: Heat-strengthened float glass.
5. Interspace Content: 1/4" LowE #2, ½" Argon, ¼" clear with thermal spacer.
6. Indoor Lite: Heat-strengthened float glass.
7. COG u-factor: .24
8. Safety glazing required.

END OF SECTION 088000

SECTION 099123 - INTERIOR PAINTING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Surface preparation of interior substrates and application of the following:

1. Primers.
2. Water-based finish coatings.

B. Related Requirements:

1.2 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include preparation requirements and application instructions.
2. Indicate VOC content.

B. Samples: For each type of topcoat product.

C. Samples for Initial Selection: For each type of topcoat product.

D. Product List: Cross-reference to paint system and locations of application areas. Use same designations indicated on Drawings and in applicable interior painting schedule articles to cross-reference paint systems specified in this Section. Include color designations.

1.3 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match paint products applied and that are packaged with protective covering for storage and identified with labels describing contents.

1. Paint Products: 5 percent, but not less than 1 gal. of each material and color applied.

1.4 MOCKUPS

A. Apply mockups of each paint system indicated and each color and finish selected to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.

1. Engineer will select one surface to represent surfaces and conditions for application of each paint system.

a. Vertical and Horizontal Surfaces: Provide samples of at least 100 sq. ft..

b. Other Items: Engineer will designate items or areas required.

2. Final approval of color selections will be based on mockups.

a. If preliminary color selections are not approved, apply additional mockups of additional colors selected by Engineer at no added cost to Owner.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Owner specifically approves such deviations by Change Order.
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Store materials not in use in tightly covered containers in well-ventilated areas with ambient temperatures continuously maintained at not less than 45 deg F.

1. Maintain containers in clean condition, free of foreign materials and residue.
2. Remove rags and waste from storage areas daily.

1.6 FIELD CONDITIONS

A. Apply paints only when temperature of surfaces to be painted and ambient air temperatures are between 50 and 95 deg F.

B. Do not apply paints when relative humidity exceeds 85 percent; at temperatures of less than 5 deg F above the dew point; or to damp or wet surfaces.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain each paint product from single source from single manufacturer.

2.2 INTERIOR PAINTS, GENERAL

A. Interior Paints: Subject to compliance with requirements, available products that may be incorporated into the Work include but are not limited to products listed in product types below and applicable interior painting schedule articles for the paint category indicated.

B. Material Compatibility:

1. Materials for use within each paint system must be compatible with one another

and substrates indicated, under conditions of service and application as demonstrated by manufacturer based on testing and field experience.

2. For each coat in a paint system, provide products recommended in writing by topcoat manufacturer for use in paint system and on substrate indicated.
3. Low-Emitting Materials: Verify VOC emissions comply with requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers." Verify formaldehyde emissions do not exceed 9 mcg/cu. m or 7 ppb, whichever is less.
4. Verify VOC content does not exceed limits of authorities having jurisdiction and the following:

    a. Flat Coatings: 50 g/L.
    b. Nonflat Coatings: 100 g/L.
    c. Nonflat - High-Gloss Coatings: 150 g/L.
    d. Concrete/Masonry Sealers: 100 g/L.
    e. Floor Coatings: 100 g/L.
    f. Industrial Maintenance Coatings: 250 g/L.
    g. Low-Solids Coatings: 120 g/L.
    h. Mastic Texture Coatings: 100 g/L.
    i. Metallic Pigmented Coatings: 500 g/L.
    j. Pretreatment Wash Primers: 420 g/L.
    k. Primers, Sealers, and Undercoaters: 100 g/L.
    l. Reactive Penetrating Sealers: 350 g/L.
    m. Recycled Coatings: 250 g/L.
    n. Rust-Preventive Coatings: 250 g/L.

C. Colors: As selected by owner from manufacturer's full range .

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates and conditions, with Applicator present, for compliance with requirements for maximum moisture content and other conditions affecting performance of the Work.

B. Maximum Moisture Content of Substrates: When measured with an electronic moisture meter as follows:

1. Concrete: 12 percent.
2. Cementitious Composition Board: 12 percent.
3. Masonry (Clay and CMU): 12 percent.
4. Wood: 15 percent.
5. Gypsum Board: 12 percent. Verify that finishing compound is dry and sanded smooth.
6. Plaster: 12 percent. Verify that plaster is fully cured.

C. Verify suitability of substrates, including surface conditions and compatibility, with

finishes and primers. Proceed with coating application only after unsatisfactory conditions have been corrected.

1. Application of coating indicates acceptance of surfaces and conditions.

3.2 PREPARATION

A. Comply with manufacturer's written instructions applicable to substrates and paint systems indicated.

B. Remove hardware, covers, plates, and similar items already in place that are removable and are not to be painted. If removal is impractical or impossible because of size or weight of item, provide surface-applied protection before surface preparation and painting.

1. After completing painting operations, use workers skilled in the trades involved to reinstall items that were removed. Remove surface-applied protection if any.

C. Clean substrates of substances that could impair bond of paints, including dust, dirt, oil, grease, and incompatible paints and encapsulants.

1. Remove incompatible primers and reprime substrate with compatible primers or apply tie coat as required to produce paint systems indicated.

D. Concrete Substrates: Remove release agents, curing compounds, efflorescence, and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces to be painted exceeds that permitted in manufacturer's written instructions.

E. Masonry Substrates: Remove efflorescence and chalk. Do not paint surfaces if moisture content or alkalinity of surfaces or mortar joints to be painted exceeds that permitted in manufacturer's written instructions.

F. Steel Substrates: Remove loose rust, loose mill scale, loose shop primer, and other loose foreign matter. Clean using methods recommended in writing by paint manufacturer .

1. SSPC-SP 2.
2. SSPC-SP 3.
3. SSPC-SP 7/NACE No. 4.
4. SSPC-SP 11.

G. Shop-Primed Steel Substrates: Clean field welds, bolted connections, and areas where shop paint is abraded. Paint exposed areas with the same material as used for shop priming to comply with SSPC-PA 1 for touching up shop-primed surfaces.

H. Galvanized Metal Substrates: Remove grease and oil residue from galvanized metal by mechanical methods to produce clean, lightly etched surfaces that promote adhesion of subsequently applied paints.

I. Aluminum Substrates: Remove loose surface oxidation.

J. Wood Substrates:

1. Scrape and clean knots. Before applying primer, apply coat of wood-knot sealer.
2. Sand surfaces that will be exposed to view and remove sanding dust.
3. Prime edges, ends, faces, undersides, and backsides of wood.
4. After priming, fill holes and imperfections in the finish surfaces with putty or plastic wood filler. Sand smooth when dried.

K. Canvas and Cotton Insulation Covering Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

L. Plastic Trim Fabrication Substrates: Remove dust, dirt, and other foreign material that might impair bond of paints to substrates.

3.3 APPLICATION OF INTERIOR PAINT PRODUCTS

A. Apply paints in accordance with manufacturer's written instructions.

1. Use applicators and techniques suited for paint and substrate indicated.
2. Paint surfaces behind movable equipment and furniture same as similar exposed surfaces. Before final installation, paint surfaces behind permanently fixed equipment or furniture with prime coat only.
3. Paint front and backsides of access panels, removable or hinged covers, and similar hinged items to match exposed surfaces.
4. Do not paint over labels of independent testing agencies or equipment name, identification, performance rating, or nomenclature plates.
5. Primers specified in the applicable interior painting schedule articles may be omitted on items that are factory primed or factory finished if compatible with intermediate and topcoat coatings and acceptable to intermediate and topcoat paint manufacturers.

B. If undercoats or other conditions show through topcoat, apply additional coats until cured film has a uniform paint finish, color, and appearance.

C. Apply paints to produce surface films without cloudiness, spotting, holidays, laps, brush marks, roller tracking, runs, sags, ropiness, or other surface imperfections. Cut in sharp lines and color breaks.

3.4 FIELD QUALITY CONTROL

A. Contractor shall supply photograph and report 10 wet film gauge test in compliance with manufacturer recommendations.

3.5 CLEANING

A. At end of each workday, remove rubbish, empty cans, rags, and other discarded materials from Project site.

1. Do not clean equipment with free-draining water and prevent solvents, thinners, cleaners, and other contaminants from entering into waterways, sanitary and storm drain systems, and ground.
2. Dispose of contaminants in accordance with requirements of authorities having jurisdiction.
3. Allow empty paint cans to dry before disposal.
4. Collect waste paint by type and deliver to recycling or collection facility.

B. After completing paint application, clean spattered surfaces. Remove spattered paints by washing, scraping, or other methods. Do not scratch or damage adjacent finished surfaces.

3.6 PROTECTION

A. Protect work of other trades against damage from paint application. Correct damage to work of other trades by cleaning, repairing, replacing, and refinishing, as approved by Engineer, and leave in an undamaged condition.

B. At completion of construction activities of other trades, touch up and restore damaged or defaced painted surfaces.

3.7 INTERIOR PAINTING SCHEDULE, CONCRETE SUBSTRATES

A. Vertical (Nontraffic) Surfaces:
1. High-Performance Architectural Latex System:

a. Prime Coat: Alkali-resistant, water-based primer.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior, high-performance architectural latex.
d. Topcoat: Aluminum paint.

3.8 INTERIOR PAINTING SCHEDULE, WOOD SUBSTRATES

1. High-Performance Architectural Latex System:

a. Prime Coat: Interior, latex primer for wood.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior, high-performance architectural latex.

1) Gloss and Sheen Level: To be selected by Owner.

3.9 INTERIOR PAINTING SCHEDULE, GYPSUM-BASED SUBSTRATES

A. Gypsum Board and Plaster Substrates:
1. Latex over Alkyd Primer System (for Plaster Only):

a. Prime Coat: Interior alkyd primer sealer.
b. Intermediate Coat: Matching topcoat.
c. Topcoat: Interior latex paint:

1) Gloss and Sheen Level: To be selected by Owner.

END OF SECTION 099123