



Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

EXISTING SURVEY
MILBREW - 7 BREW
3702 S. 27TH ST. • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

DEC. 20, 2024

JAN. 28, 2025

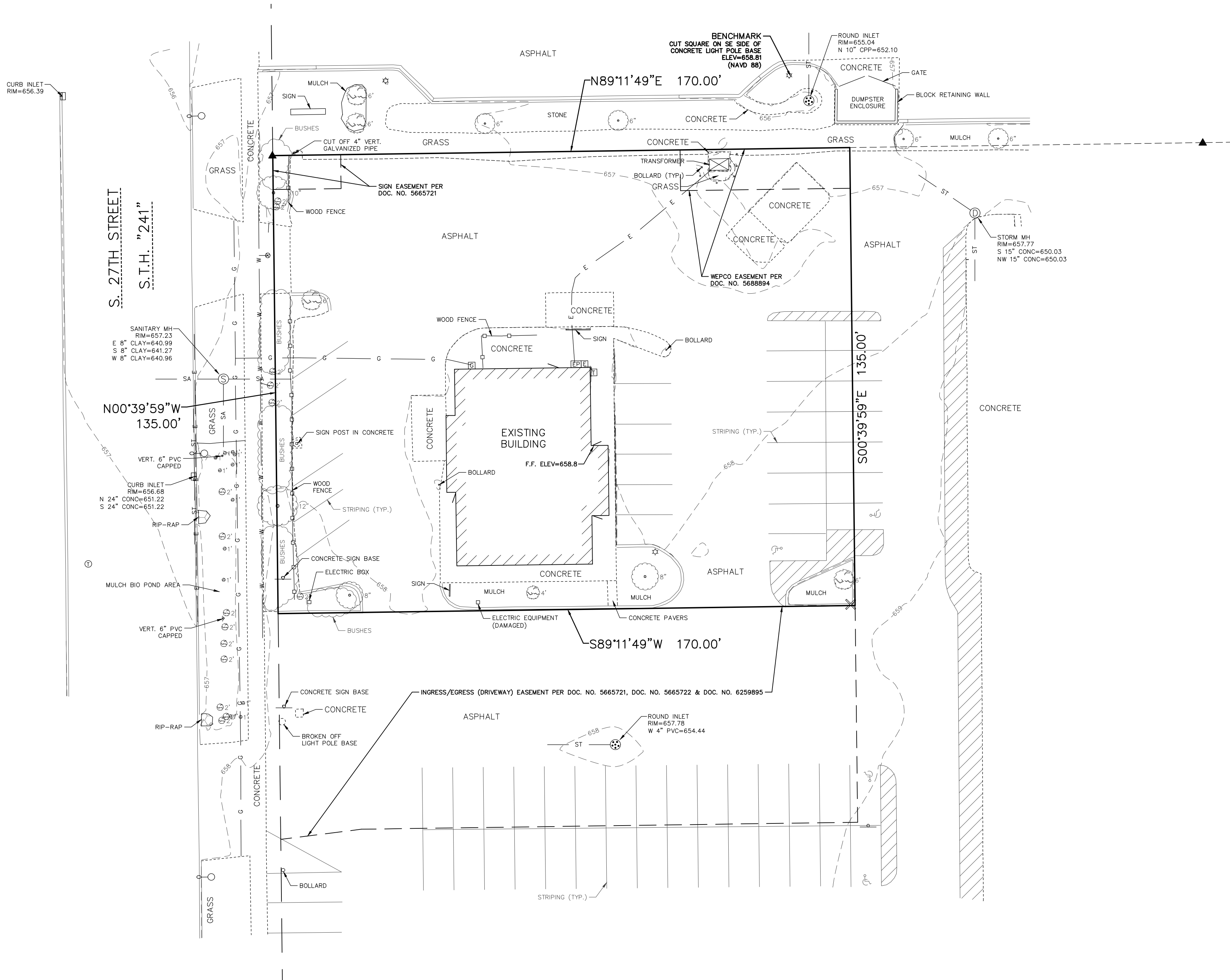
NOT FOR CONSTRUCTION

JOB NUMBER

240268000

SHEET NUMBER

ES



LEGEND:	
	WATER VALVE IN BOX
	TELEPHONE MANHOLE
	ROUND CATCH BASIN
	CURB INLET
	STREET LIGHT
	ELECTRIC TRANSFORMER
	LIGHT POLE
	SIGN
	HANDICAP PARKING STALL
	ELECTRIC METER
	ELECTRIC PANEL
	GAS METER
	TELEPHONE PANEL
	1" IRON PIPE FOUND
	CUT "X" FOUND
	DECIDUOUS TREE
	SHRUB
	HEDGE
	STORM SEWER AND MANHOLE
	SANITARY SEWER AND MANHOLE
	WATER LINE
	UNDERGROUND ELECTRIC CABLE
	UNDERGROUND GAS LINE
	CURB AND GUTTER
	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	INTERNAL LOT LINE
	EASEMENT LINE
	EXISTING GROUND CONTOUR
	WOOD FENCE

NOTE: PROPERTY LINES AND EASEMENTS SHOWN ON THIS SURVEY WERE DRAFTED FROM INFORMATION CONTAINED IN TITLE COMMITMENT FILE NO. 2314610, BY KNIGHT BARRY TITLE GROUP, DATED JANUARY 16, 2025. AN UPDATED PLAT OF SURVEY, CERTIFIED SURVEY MAP OR ALTA SURVEY HAS NOT BEEN AUTHORIZED.

NOTE: SURFACE INDICATIONS OF UTILITIES ALONG WITH DIGGER'S HOTLINE MARKINGS PER TICKET NO. 20244703525 HAVE BEEN SHOWN. SIZES AND ELEVATION OF UNDERGROUND UTILITIES SHOWN HEREON ARE BASED ON FIELD MEASUREMENTS OF VISIBLE STRUCTURES IN COMBINATION WITH AVAILABLE DATA PROVIDED TO EXCEL ENGINEERING. EXCEL ENGINEERING MAKES NO GUARANTEE THAT ALL THE EXISTING UTILITIES IN THE SURVEYED AREA HAVE BEEN SHOWN NOR THAT THEY ARE IN THE EXACT LOCATION INDICATED. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. THIS PLAN IS IN NO WAY A SUBSTITUTE FOR UTILITY LOCATING AT THE TIME OF EXCAVATION.

EXISTING SURVEY

PROPOSED COFFEE SHOP FOR: 7-BREW MILWAUKEE

MILWAUKEE, WI

PROJECT INFORMATION

SITE INFORMATION:

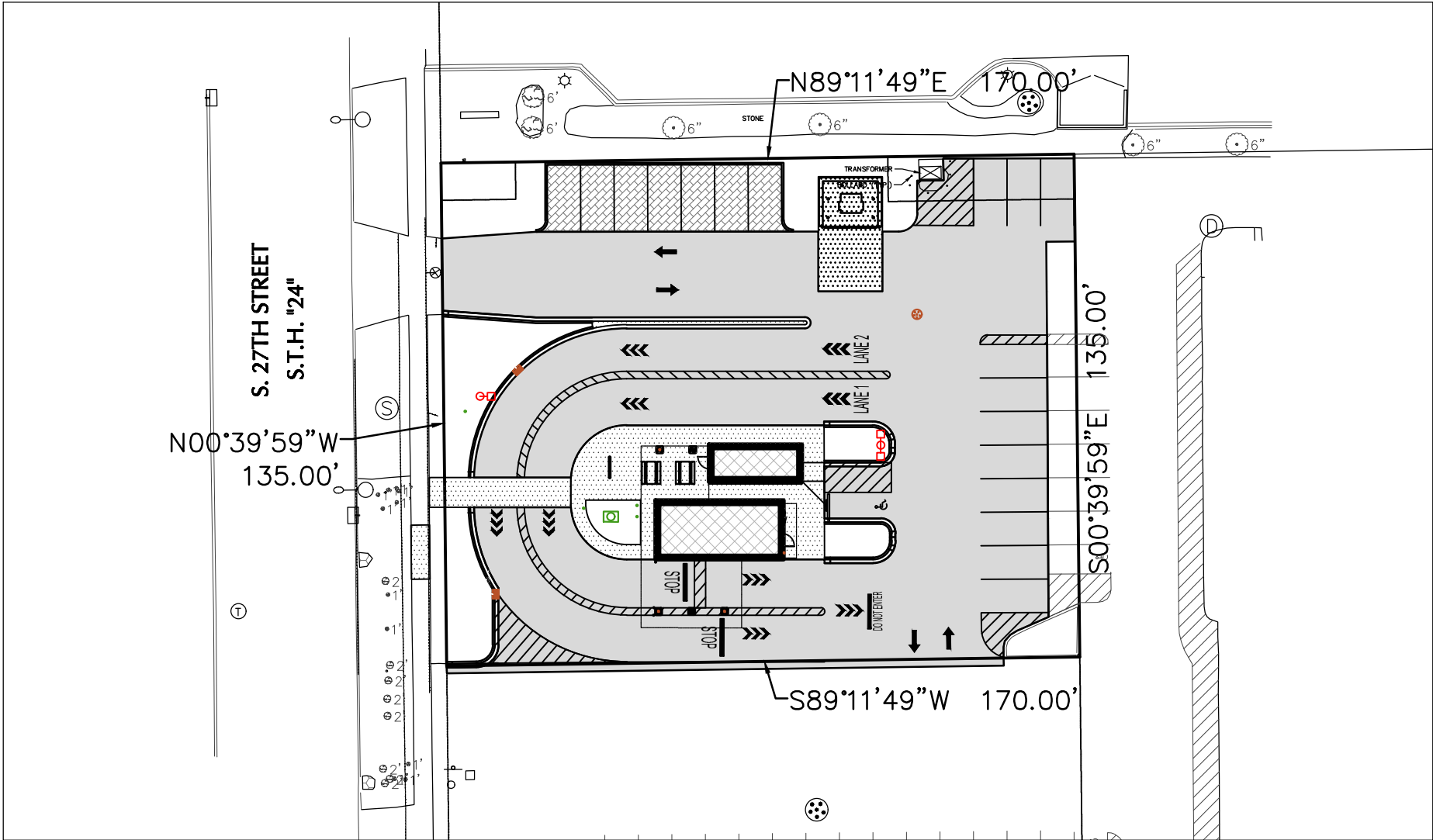
PROPERTY AREA: 22,955 S.F. (0.53 ACRES).
EXISTING ZONING: LB1 - COMMERCIAL LOCAL BUSINESS
PROPOSED ZONING: LB1 - COMMERCIAL LOCAL BUSINESS
PROPOSED USE: RESTAURANT W/ DRIVE THRU
AREA OF SITE DISTURBANCE: ± 10,850 S.F. (0.25 ACRES)
SETBACKS:
BUILDING: MIN. FRONT(WEST) = 0'
MAX. FRONT (WEST) = 70'
SIDE(NORTH/SOUTH) = 0'
REAR(EAST) = 0'
PAVEMENT: FRONT(WEST) = 0'
SIDE(NORTH/SOUTH) = 0'
REAR(EAST) = 0'
PROPOSED BUILDING HEIGHT: 19'-10" (MAX. HEIGHT ALLOWED: 45')
PARKING REQUIRED: 1 SPACE PER 1,000 S.F. (1 SPACES REQ.)
MAX. PARKING ALLOWED: 5 SPACES PER 1,000 S.F. (4 SPACES MAX.)
PARKING PROVIDED: 19 SPACES (1 H.C. ACCESSIBLE)
HANDICAP STALLS REQUIRED: 1, HANDICAP STALLS PROVIDED: 1

EXISTING SITE DATA

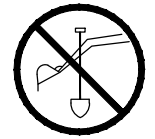
	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	0.06	2,485	10.8%
PAVEMENT (ASP. & CONC.)	0.43	18,809	81.9%
TOTAL IMPERVIOUS	0.49	21,294	92.8%
LANDSCAPE/ OPEN SPACE	0.04	1,661	7.2%
PROJECT SITE	0.53	22,955	100.0%

PROPOSED SITE DATA

	AREA (AC)	AREA (SF)	RATIO
BUILDING FLOOR AREA	0.02	780	3.4%
PAVEMENT (ASP. & CONC.)	0.42	18,252	79.5%
TOTAL IMPERVIOUS	0.44	19,032	82.9%
LANDSCAPE/ OPEN SPACE	0.09	3,923	17.1%
PROJECT SITE	0.53	22,955	100.0%



SITE PLAN OVERVIEW



TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES BEFORE YOU DIG IN WISCONSIN

CALL DIGGERS HOTLINE
1-800-242-8511

TOLL FREE TELEFAX (414) 259-0947
TDD (FOR THE HEARING IMPAIRED)
1-800-542-2289

WISCONSIN STATUTE 182.0175 (1974)
REQUIRES MINIMUM OF 3 WORK DAYS
NOTICE BEFORE YOU EXCAVATE

PROJECT CONTACTS

OWNER INFORMATION:

MilBrew Holdings LLC
Corbin Terlip
27 Cortland Ave
Cortland, NY 13045
Phone: (620) 249-9079
Email: cterlip@7brewmke.com

CIVIL:

EOR: Eric Draskowski, P.E.
Contact: Casey Scholz
Phone: (920) 926-3252
E-mail: casey.scholz@excelengineer.com

CITY PLANNER:

Kristin Connelly
Phone: (414) 286-5726
E-mail: planadmin@milwaukee.gov

CITY ENGINEER:

Zafar Yousuf (PE-City MKE Sewer Design, Infrastructure)
Phone: (414) 286-2467
E-mail: zyousu@milwaukee.gov

CITY FIRE CHIEF:

Aaron D. Lipski
Phone: (414) 286-8948

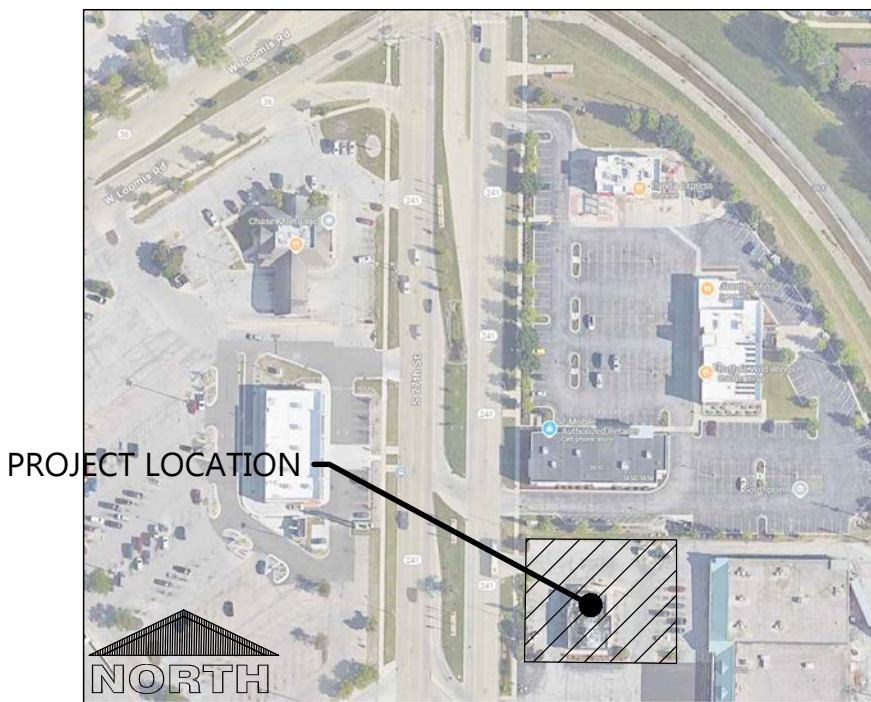
CITY BUILDING INSPECTOR:

Phone: (414) 286-8210
E-mail: DevelopmentCenterInfo@milwaukee.gov

CITY DIRECTOR OF PUBLIC WORKS:

Jerrel Kruschke, P.E.
Phone: (414) 286-2489
E-mail: dpwmilw@milwaukee.gov

LOCATION MAP



PROJECT NOTES

GENERAL PROJECT NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL WORK IN ROW PERMITS.

SHEET INDEX

SHEETS BELOW INTENDED TO BE PRINTED IN: **COLOR**. REFER TO DIGITAL FORMAT DRAWINGS IF PRINTED GRAYSCALE TO ENSURE SCOPE CLARITY.

NUMBER	SHEET NAME / DESCRIPTION
C0.1	CIVIL COVER SHEET
C0.2	CIVIL SPECIFICATIONS
C1.0	EXISTING SITE AND DEMOLITION PLAN
C1.1A	SITE PLAN
C1.1B	STRIPING PLAN
C1.2	GRADING AND EROSION CONTROL PLAN
C1.3	UTILITY PLAN
C1.4	LANDSCAPE AND RESTORATION PLAN
C2.0	DETAILS
C2.1	DETAILS
C3.1	SITE PHOTOMETRIC PLAN & DETAILS

LEGEND

NOTE: ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

SYM.	IDENTIFICATION	SYM.	IDENTIFICATION
SPOT ELEVATIONS			
1000.00	PROPOSED SPOT ELEVATIONS (FLOW LINE OF CURB UNLESS OTHERWISE SPECIFIED)	1000.00	PROPOSED SPOT ELEVATIONS (TOP OF CURB, FLOWLINE OF CURB)
1000.00	EXISTING GRADE SPOT ELEVATIONS	1000.00	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
1000.00	PROPOSED SPOT ELEVATIONS (REFERENCE R-WALL DETAIL) BG-FINISHED SURFACE GRADE AT BACK OF WALL	1000.00	PROPOSED SPOT ELEVATIONS (TOP OF WALK, BOTTOM OF WALK @ FLOWLINE)
1000.00	FG-FINISHED SURFACE GRADE AT FRONT OF WALL		

EXISTING SITE SYMBOLS	
EXISTING SIGN	EXISTING UTILITY POLE
EXISTING HANDICAP PARKING STALL	EXISTING UTILITY POLE WITH GUY WIRE
EXISTING WATER VALVE IN BOX	EXISTING STREET LIGHT
EXISTING WATER VALVE IN MANHOLE	EXISTING TELEPHONE PEDESTAL
EXISTING WATER SERVICE VALVE	EXISTING ELECTRIC PEDESTAL
EXISTING WELL	EXISTING ELECTRIC BOX
EXISTING STORM CATCH BASIN	EXISTING FLOOD LIGHT
EXISTING STORM CURB INLET	EXISTING TELEPHONE MANHOLE
EXISTING SQUARE CATCH BASIN	EXISTING CABLE TV PEDESTAL
EXISTING LIGHT POLE	EXISTING GAS VALVE
1-1/4" REBAR SET WEIGHING 4.30 LB/FT.	EXISTING HEDGE
3/4" REBAR SET WEIGHING 1.50 LB/FT.	EXISTING WOODED AREA
1-1/4" REBAR FOUND	EXISTING MARSH AREA
3/4" REBAR FOUND	EXISTING DECIDUOUS TREE WITH TRUNK DIAMETER
2" IRON PIPE FOUND	EXISTING CONIFEROUS TREE
1" IRON PIPE FOUND	EXISTING SHRUB
SECTION CORNER	EXISTING STUMP

PROPOSED SITE SYMBOLS	
PROPOSED SIGN	PROPOSED STORM FIELD INLET - ST FI
PROPOSED HANDICAP PARKING STALL	PROPOSED LIGHT POLE
PROPOSED WATER VALVE IN BOX	PROPOSED DRAINAGE FLOW
PROPOSED WATER VALVE IN MANHOLE	PROPOSED APRON END SECTION
PROPOSED WATER SERVICE VALVE	SOIL BORING
PROPOSED WELL	CENTER LINE
PROPOSED STORM CATCH BASIN - ST CB	PROPOSED CLEANOUT
PROPOSED STORM CURB INLET - ST CI	PROPOSED DOWNSPOUT TO GRADE
	PROPOSED DOWNSPOUT TO RISER

EXISTING LINETYPES	
EXISTING CHAINLINK FENCE	POL - EXISTING POLISH SEWER AND MANHOLE
EXISTING WOOD FENCE	P - EXISTING PROCESS SEWER AND MANHOLE
EXISTING BARBED WIRE FENCE	CLW - EXISTING CLEAR WATER LINE
EXISTING CURB AND GUTTER	FO - EXISTING UNDERGROUND FIBER OPTIC LINE
EXISTING GUARD RAIL	E - EXISTING UNDERGROUND ELECTRIC CABLE
EXISTING GROUND CONTOUR	T - EXISTING UNDERGROUND TELEPHONE CABLE
ST - EXISTING STORM SEWER AND MANHOLE	G - EXISTING UNDERGROUND GAS LINE
SA - EXISTING SANITARY SEWER AND MANHOLE	OU - EXISTING OVERHEAD UTILITY LINE
EXISTING WATER LINE AND HYDRANT	RAILROAD TRACKS
INTERIOR PROPERTY LINE	RIGHT-OF-WAY LINE

PROPOSED LINETYPES	
PROPOSED CHAINLINK FENCE	POL - PROPOSED POLISH SEWER AND MANHOLE
PROPOSED WOOD FENCE	P - PROPOSED PROCESS SEWER AND MANHOLE
PROPOSED BARBED WIRE FENCE	CLW - PROPOSED CLEAR WATER LINE
PROPOSED CURB AND GUTTER	FO - PROPOSED UNDERGROUND FIBER OPTIC LINE
PROPOSED GUARD RAIL	E - PROPOSED UNDERGROUND ELECTRIC CABLE
PROPOSED GROUND CONTOUR	T - PROPOSED UNDERGROUND TELEPHONE CABLE
ST - PROPOSED STORM SEWER AND MANHOLE - ST MH	G - PROPOSED UNDERGROUND GAS LINE
SA - PROPOSED SANITARY SEWER AND MANHOLE - SAN MH	OU - PROPOSED OVERHEAD UTILITY LINE
PROPOSED WATER LINE AND HYDRANT	MATCHLINE
PROPOSED PROPERTY LINE	GRADING/SEEDING LIMITS



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PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

APR. 14, 2025

JOB NUMBER

240268000

SHEET NUMBER

C0.1

CIVIL COVER SHEET

CIVIL SPECIFICATIONS

DIVISION 31 EARTH WORK

31 10 00 SITE CLEARING (DEMOLITION)

- A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING SITE DEMOLITION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. CONTRACTOR TO FIELD TELEVIEW ALL EXISTING SANITARY LATERALS THAT ARE SCHEDULED TO BE RE-USED AND/OR CONNECTED TO ON SITE AT TIME OF DEMOLITION. THE TELEVIEWING SHALL BE COMPLETED TO ENSURE THE EXISTING LATERALS ARE FREE OF OBSTRUCTIONS AND IN SOUND STRUCTURAL CONDITION. TELEVIEWING OF THESE LATERALS SHOULD BE COMPLETED AT BEGINNING OF CONSTRUCTION AND DESIGN ENGINEER SHALL BE NOTIFIED OF ANY PIPE OBSTRUCTIONS AND/OR STRUCTURAL DEFICIENCIES IMMEDIATELY AFTER COMPLETION OF FIELD TELEVIEWING.
- C. DEMOLITION PLAN IS AN OVERVIEW OF DEMOLITION TO TAKE PLACE ON SITE. CONTRACTOR TO FIELD VERIFY EXISTING SITE CONDITIONS PRIOR TO BIDDING. CONTRACTOR SHALL REMOVE, REPLACE, OR DEMOLISH ALL ITEMS AS NEEDED DURING CONSTRUCTION.
- D. CONTRACTOR TO PROTECT EXISTING IMPROVEMENTS THAT ARE SCHEDULED TO REMAIN. ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPLACED AT CONTRACTORS EXPENSE.
- E. ALL CONCRETE NOTED TO BE REMOVED SHALL BE REMOVED TO THE NEAREST CONTROL JOINT.

31 20 00 EARTH MOVING

- A. CONTRACTOR SHALL CALL DIGGER'S HOT LINE AND CONDUCT A PRIVATE UTILITY LOCATE AS REQUIRED TO ENSURE THAT ALL UTILITIES HAVE BEEN LOCATED BEFORE STARTING EXCAVATION. DESIGN ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BETWEEN PLAN AND FIELD CONDITIONS PRIOR TO CONSTRUCTION.
- B. PROVIDE ALL LABOR, MATERIALS AND EQUIPMENT FOR ALL EXCAVATION, GRADING, FILL AND BACKFILL WORK AS REQUIRED TO COMPLETE THE GENERAL CONSTRUCTION WORK. ALL EXCAVATION AND BACKFILL FOR ELECTRICALS AND MECHANICALS ARE THE RESPONSIBILITY OF THE RESPECTIVE CONTRACTOR UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS.
- C. ALL ORGANIC TOPSOIL INSIDE THE BUILDING AREA, UNDER PAVED AREAS, AND AT SITE FILL AREAS SHALL BE REMOVED. PROOF ROLL SUBGRADE BEFORE PLACING FILL WITH HEAVY PNEUMATIC-TIRED EQUIPMENT, SUCH AS A FULLY-LOADED TANDEM AXLE DUMP TRUCK, TO IDENTIFY SOFT POCKETS AND AREAS OF EXCESS YIELDING. CONTRACTOR SHALL VERIFY TOPSOIL DEPTHS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL REVIEW AND FOLLOW THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT AND ACCOUNT FOR EXISTING CONDITIONS PRIOR TO SUBMITTING BID FOR THE PROJECT. EXCESS MATERIALS SHALL BE REMOVED FROM THE SITE UNLESS OTHERWISE DIRECTED IN THE PLANS OR BY LOCAL ZONING REQUIREMENTS.
- D. PLACE AND COMPACT FILL MATERIAL IN LAYERS TO REQUIRED ELEVATIONS. UNIFORMLY MOISTEN OR AERATE SUBGRADE AND EACH SUBSEQUENT FILL OR BACKFILL LAYER BEFORE COMPACTION AS RECOMMENDED TO ACHIEVE SPECIFIED DRY DENSITY. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY, OTHERWISE SATISFACTORY SOIL MATERIAL THAT IS TOO WET TO COMPACT TO SPECIFIED DRY DENSITY.
- E. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4" IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS.
- F. COMPACT THE SOIL TO NOT LESS THAN THE FOLLOWING PERCENTAGES OF MAXIMUM DRY DENSITY ACCORDING TO ASTM D 698, STANDARD PROCTOR TEST. FILL MAY NOT BE PLACED ON FROZEN GROUND AND NO FROZEN MATERIALS MAY BE USED FOR BACK FILL. APPLY THE MORE STRINGENT REQUIREMENTS WHEN COMPARING BETWEEN THE FOLLOWING AND THE GEOTECHNICAL REPORT.
- UNDER FOUNDATIONS - SUBGRADE, AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 98 PERCENT.
 - UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS MORE THAN 3 FEET BELOW THE SLAB - PLACE A DRAINAGE COURSE LAYER OF 3/4" CRUSHED STONE, WITH 5% TO 12% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
 - UNDER INTERIOR SLAB-ON-GRADE WHERE GROUNDWATER IS WITHIN 3 FEET OF THE SLAB SURFACE - PLACE A DRAINAGE COURSE LAYER OF CLEAN 3/4" CRUSHED STONE, WITH NO MORE THAN 5% FINES, PER THICKNESS INDICATED ON FOUNDATION PLANS ON PREPARED SUBGRADE. COMPACT THE SUBGRADE AND DRAINAGE COURSE TO NOT LESS THAN 95 PERCENT.
 - UNDER EXTERIOR CONCRETE AND ASPHALT PAVEMENTS - COMPACT THE SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 95 PERCENT.
 - UNDER WALKWAYS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO NOT LESS THAN 95 PERCENT.
 - UNDER LAWN OR UNPAVED AREAS - COMPACT SUBGRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL, TO NOT LESS THAN 85 PERCENT.
- G. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO PERFORM FIELD TESTS AND INSPECTIONS. CONTRACTOR SHALL PROVIDE DOCUMENTATION OF PASSING DENSITY TESTING AND PROOF-ROLLING TO ENGINEER UPON COMPLETION. IT IS SUGGESTED THAT THE GEOTECHNICAL FIRM USED TO PERFORM THE SUBSURFACE SOIL INVESTIGATION BE ENGAGED FOR THE FIELD QUALITY CONTROL TESTS. THE GEOTECHNICAL REPORT WAS PERFORMED BY **TED**.
- H. ALLOW THE TESTING AGENCY TO TEST AND INSPECT SUBGRADES AND EACH FILL OR BACKFILL LAYER. PROCEED WITH SUBSEQUENT EARTHWORK ONLY AFTER TEST RESULTS FOR PREVIOUSLY COMPLETED WORK COMPLY WITH REQUIREMENTS. PROVIDE ONE TEST FOR EVERY 2000 SQUARE FEET OF PAVED AREA OR BUILDING SLAB, ONE TEST FOR EACH SPREAD FOOTING, AND ONE TEST FOR EVERY 50 LINEAR FEET OF WALL STRIP FOOTING.
- I. WHEN THE TESTING AGENCY REPORTS THAT SUBGRADES, FILLS, OR BACKFILLS HAVE NOT ACHIEVED DEGREE OF COMPACTION SPECIFIED, SCARIFY AND MOISTEN OR AERATE, OR REMOVE AND REPLACE SOIL TO DEPTH REQUIRED; RECOMPACT AND RETEST UNTIL SPECIFIED COMPACTION IS OBTAINED.
- J. THE BUILDING SITE SHALL BE GRADED TO PROVIDE DRAINAGE AWAY FROM THE BUILDING AS INDICATED ON THE PLANS. SITE EARTHWORK SHALL BE GRADED TO WITHIN 0.10' OF REQUIRED EARTHWORK ELEVATIONS ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE GRADING PLAN.

TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE

Utility	Material	Pipe Code	Fitting Code	Joint Code
Water Lateral	C901/906 PE	AWWA C901/C906	ASTM D2609, ASTM D2683, ASTM D3261	Heat fusion: ASTM D2657
*Sanitary Sewer	SCH-40 PVC	ASTM D1785, ASTM D2665, ASTM F891	ASTM F11336	Primer: ASTM F656 Solvent Cement: ASTM D2564
Sanitary Sewer	SDR 35 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F11336	Push On: ASTM D3212 for Tightness Elastomeric Gasket: ASTM F477
Storm Sewer	SDR 35 PVC	ASTM D1785, ASTM D2665, ASTM D3034, ASTM F891	ASTM F11336	Push On: ASTM D3212 for Tightness Elastomeric Seal: ASTM F477
Storm Sewer	HDPE	ASTM F2648, ASTM F2306, AASHTO M252, TYPE S (4 IN - 10 IN), AASHTO M294, TYPE S (12 IN - 60 IN)	ASTM F2648, ASTM F2306, AASHTO M252, or AASHTO M294	Joint: ASTM F2648, ASTM F2306, AASHTO M252, or AASHTO M294 Elastomeric Seal: ASTM F477
4" CPP Pavement Underdrain	Single Wall HDPE-Socketed	ASTM F667	ASTM F667	ASTM D1056 Grade 2A2 Gasketed

31 30 00 EROSION CONTROL

- A. THE GRADING PLAN REFLECTS LESS THAN 1 ACRE OF DISTURBED AREA. THE SITE IS THEREFORE EXEMPT FROM WISCONSIN DEPARTMENT OF NATURAL RESOURCES NR 216 NOTICE OF INTENT REQUIREMENTS. THE DESIGN ENGINEER SHALL PREPARE AN EROSION CONTROL PLAN TO MEET NR 151.105 CONSTRUCTION SITE PERFORMANCE STANDARDS FOR NON-PERMITTED SITES.
- B. EROSION AND SEDIMENT CONTROL IMPLEMENTED DURING CONSTRUCTION SHALL STRICTLY COMPLY WITH THE GUIDELINES AND REQUIREMENTS SET FORTH IN WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151, THE STATE OF WISCONSIN DEPARTMENT OF NATURAL RESOURCES RUNOFF MANAGEMENT PERFORMANCE STANDARDS. TECHNICAL STANDARDS PUBLISHED BY THE WISCONSIN DNR SHALL ALSO BE UTILIZED TO IMPLEMENT THE REQUIRED PERFORMANCE STANDARDS. THE METHODS AND TYPES OF EROSION CONTROL WILL BE DEPENDENT ON THE LOCATION AND TYPE OF WORK INVOLVED. ALL SEDIMENT CONTROL MEASURES SHALL BE ADJUSTED TO MEET FIELD CONDITIONS AT THE TIME OF CONSTRUCTION, AND INSTALLED PRIOR TO ANY GRADING OR DISTURBANCE OF EXISTING SURFACE MATERIAL. BELOW IS A LIST OF EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES TO ACHIEVE THE PERFORMANCE STANDARDS REQUIRED.
- SILT FENCE SHALL BE PLACED ON SITE AT LOCATIONS SHOWN ON THE EROSION CONTROL PLAN. SILT FENCE SHALL ALSO BE PROVIDED AROUND THE PERIMETER OF ALL SOIL STOCKPILES THAT WILL EXIST FOR MORE THAN 7 DAYS. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1056 (CURRENT EDITION).
 - STONE TRACKING PADS AND TRACKOUT CONTROL PRACTICES SHALL BE PLACED AT ALL CONSTRUCTION SITE ENTRANCES AND SHALL BE INSTALLED PRIOR TO ANY TRAFFIC LEAVING THE CONSTRUCTION SITE. SEE THE EROSION CONTROL PLAN FOR LOCATIONS. THE AGGREGATE USED FOR THE STONE TRACKING PAD SHALL BE 3/8" TO 3/4" INCH CLEAR OR WASHED STONE AND SHALL BE PLACED IN A LAYER AT LEAST 12 INCHES THICK. THE STONE SHALL BE UNDERLAIN WITH A WISDOT TYPE R GEOTEXTILE FABRIC AS NEEDED. THE TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT (1/2" MIN WIDTH) AND SHALL BE A MINIMUM OF 50 FEET LONG. SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. OTHER TRACKOUT CONTROL PRACTICES INCLUDING STABILIZED WORK SURFACES, MANUFACTURED TRACKOUT CONTROL DEVICES, TIRE WASHING, AND STREET/PAVEMENT CLEANING SHALL BE IMPLEMENTED AS NECESSARY TO MITIGATE THE TRACKOUT OF SEDIMENT OFFSITE. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1057 (CURRENT EDITION).
 - STORM DRAIN INLET PROTECTION SHALL BE PROVIDED FOR ALL NEW AND DOWNSTREAM STORM CATCH BASINS AND CURB INLETS. TYPE B OR C PROTECTION SHOULD BE PROVIDED AND SHALL BE IN CONFORMANCE WITH WISCONSIN DNR TECHNICAL STANDARD 1060 (CURRENT EDITION).
 - DUST CONTROL MEASURES SHALL BE PROVIDED TO REDUCE OR PREVENT THE SURFACE AND AIR TRANSPORT OF DUST DURING CONSTRUCTION. CONTROL MEASURES INCLUDE APPLYING MULCH AND ESTABLISHING VEGETATION, WATER SPRAYING, SURFACE ROUGHENING, APPLYING POLYMERS, SPRAY-ON TACKIFIERS, CHLORIDES, AND BARRIERS. SOME SITES MAY REQUIRE AN APPROACH THAT UTILIZES A COMBINATION OF MEASURES FOR DUST CONTROL. FOLLOW PROCEDURES FOUND IN WISCONSIN DNR TECHNICAL STANDARD 1068 (CURRENT EDITION).
 - THE USE, STORAGE, AND DISPOSAL OF CHEMICALS, CEMENT, AND OTHER COMPOUNDS AND MATERIALS USED ON SITE SHALL BE MANAGED DURING THE CONSTRUCTION PERIOD TO PREVENT THEIR TRANSPORT BY RUNOFF INTO WATERS OF THE STATE.
 - CONTRACTOR SHALL PROVIDE AN OPEN AGGREGATE CONCRETE TRUCK WASHOUT AREA ON SITE. CONTRACTOR TO ENSURE THAT CONCRETE WASHOUT SHALL BE CONTAINED TO THIS DESIGNATED AREA AND NOT BE ALLOWED TO RUN INTO STORM INLETS OR INTO THE OVERLAND STORMWATER DRAINAGE SYSTEM. WASHOUT AREA SHALL BE REMOVED UPON COMPLETION OF CONSTRUCTION.
 - TEMPORARY SITE RESTORATION SHALL TAKE PLACE IN DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE OR ON WHICH LAND DISTURBING ACTIVITIES WILL NOT BE PERFORMED FOR A PERIOD GREATER THAN 14 DAYS AND REQUIRES VEGETATIVE COVER FOR LESS THAN ONE YEAR. THIS TEMPORARY SITE RESTORATION REQUIREMENT ALSO APPLIES TO SOIL STOCKPILES THAT EXIST FOR MORE THAN 7 DAYS. PERMANENT RESTORATION APPLIES TO AREAS WHERE PERENNIAL VEGETATIVE COVER IS NEEDED TO PERMANENTLY STABILIZE AREAS OF EXPOSED SOIL. PERMANENT STABILIZATION SHALL OCCUR WITHIN 3 WORKING DAYS OF FINAL GRADING. TOPSOIL, SEED, AND MULCH SHALL BE IN GENERAL CONFORMANCE WITH TECHNICAL STANDARDS 1058 AND 1059 AND SHALL MEET THE SPECIFICATIONS FOUND IN THE LANDSCAPING AND SITE STABILIZATION SECTION OF THIS CONSTRUCTION DOCUMENT. ANY SOIL EROSION THAT OCCURS AFTER FINAL GRADING AND/OR FINAL STABILIZATION MUST BE REPAIRED AND THE STABILIZATION WORK REDONE.
 - IF SITE DEWATERING IS REQUIRED FOR PROPOSED CONSTRUCTION ACTIVITIES, ALL SEDIMENT LADEN WATER GENERATED DURING THE DEWATERING PROCESS SHALL BE TREATED TO REMOVE SEDIMENT PRIOR TO DISCHARGING OFF-SITE OR TO WATERS OF THE STATE. FOLLOW ALL PROCEDURES FOUND IN TECHNICAL STANDARD 1061.
 - ALL OFF-SITE SEDIMENT DEPOSITS OCCURRING AS A RESULT OF CONSTRUCTION WORK OR A STORM EVENT SHALL BE CLEANED UP BY THE END OF EACH WORKING DAY. DUST CONTROL REQUIREMENTS SHALL BE FOLLOWED PER WJ DNR TECHNICAL STANDARD 1068 (CURRENT EDITION). FLUSHING SHALL NOT BE ALLOWED.
- C. ALL EROSION CONTROL DEVICES SHALL AT A MINIMUM BE INSPECTED EVERY 7 CALENDAR DAYS OR EVERY 14 DAYS AND WITHIN 24 HOURS OF THE END OF A RAIN EVENT OF 0.5" OR MORE. MAINTENANCE SHALL BE PERFORMED PER WISCONSIN ADMINISTRATIVE CODE (W.A.C.) NR 151 STORMWATER MANAGEMENT TECHNICAL STANDARD REQUIREMENTS.
- D. EROSION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL THE AREA(S) SERVED HAVE ESTABLISHED VEGETATIVE COVER.
- E. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL LOCAL EROSION CONTROL PERMITS.

DIVISION 32 EXTERIOR IMPROVEMENTS

32 10 00 PERVIOUS PAVERS

- A. PERVIOUS PAVERS ON PLANS - UNLOCK ECO PRIORA OR EQUIVALENT. PERVIOUS PAVERS TO BE COMMERCIAL GRADE AND HAVE AN UNDERDRAIN SYSTEM.
- B. VERIFY FINAL SELECTION OF TYPE, COLOR, AND PATTERN WITH ENGINEER AND OWNER PRIOR TO BIDDING PHASE.
- C. CONTRACTOR TO COMPACT THE AGGREGATE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL GRAVEL AREAS SHALL BE GRADED TO WITHIN 0.10' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1% SLOPE SHALL BE MAINTAINED IN ALL PAVER AREAS.

32 20 00 AGGREGATE BASE & ASPHALT PAVEMENT

- A. CONTRACTOR TO PROVIDE COMPACTED AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT WHERE INDICATED ON THE PLANS. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. PROVIDE HOT MIX ASPHALT MIXTURE TYPES PER SECTION 460 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. CONTRACTOR SHALL OBTAIN AND REVIEW SOILS REPORT FOR RECOMMENDATIONS FOR GEO-GRID / GEOTEXTILE BELOW CRUSHED AGGREGATE (IF APPLICABLE). CONTRACTOR TO PROVIDE AGGREGATE BASE AND HOT MIX ASPHALT PAVEMENT TYPES AND DEPTHS AS INDICATED BELOW:
- | | |
|--|--|
| STANDARD ASPHALT PAVING SECTION | HEAVY ASPHALT PAVING SECTION |
| 1-1/2" SURFACE COURSE (5 LT 58-285) | 1-1/2" SURFACE COURSE (5 LT 58-285) |
| WISDOT 455.2.5 TACK COAT (STAGED PAVING) | WISDOT 455.2.5 TACK COAT (STAGED PAVING) |
| 2" BINDER COURSE (4 LT 58-285) | 2-1/2" BINDER COURSE (4 LT 58-285) |
| 10" OF 1-1/4" CRUSHED AGGREGATE | 12" OF 1-1/4" CRUSHED AGGREGATE |
- B. CONTRACTOR TO COMPACT THE AGGREGATE BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL ASPHALT PAVEMENT AREAS SHALL BE PAVED TO WITHIN 0.05' OF DESIGN SURFACE GRADES WITH POSITIVE DRAINAGE BEING MAINTAINED IN ACCORDANCE WITH DESIGN PLANS. A MINIMUM OF 1.0% SLOPE SHALL BE MAINTAINED IN ALL ASPHALT PAVEMENT AREA.
- C. HOT MIX ASPHALT CONSTRUCTION TO BE PROVIDED FOR MORE STRINGENT REQUIREMENTS OF GEOTECHNICAL REPORT OR CONSTRUCTION DOCUMENTS.
- D. SEE SHEET C1.18 FOR STRIPING PLAN OF PAVEMENT AREAS.

32 30 00 CONCRETE AND AGGREGATE BASE

- A. CONTRACTOR TO PROVIDE CRUSHED AGGREGATE BASE AND CONCRETE WHERE INDICATED ON THE PLANS.
- B. ALL AGGREGATE PROVIDED MUST COMPLY WITH SECTION 305 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION. ALL AGGREGATE PLACED MUST BE COMPACTED TO AN AVERAGE DENSITY PER WISCONSIN STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.
- C. DESIGN AND CONSTRUCTION OF ALL CAST-IN-PLACE EXTERIOR CONCRETE FLAT WORK SHALL CONFORM TO ACI 308-08 & ACI 318-08.
- D. EXTERIOR CONCRETE FLAT WORK CONSTRUCTION TO BE PROVIDED PER MORE STRINGENT REQUIREMENTS OF THE GEOTECHNICAL REPORT OR THIS SPECIFICATION. CONCRETE FLAT WORK CONSTRUCTION IS AS FOLLOWS:
- SIDEWALK CONCRETE - 4" OF CONCRETE OVER 4" OF 3/4" CRUSHED AGGREGATE BASE. CONSTRUCTION JOINTS SHALL CONSIST OF 1/8" WIDE BY 1" DEEP TOOLED JOINT WHERE INDICATED ON THE PLANS.
 - DUMPSITER PAD/APRON CONCRETE - 10" OF CONCRETE WITH 40 BARS @ 10" O.C. EACH WAY, OVER 4" OF GRAVEL BASE, OVER UNDISTURBED EARTH.
 - DUMPSITER PAD CONCRETE JOINTING SHALL BE AS FOLLOWS:
 - CONSTRUCTION SAWCUT JOINT - CONTRACTOR SHALL PROVIDE A SAWCUT JOINT AT MAXIMUM SPACING OF 15' ON CENTER. SAWCUT SHALL BE 2" IN DEPTH.
 - TYPICAL POUR CONTROL JOINT - POUR CONTROL JOINT SHALL BE PROVIDED WITH 1-1/4" DIAMETER BY 20" LONG SMOOTH DOWEL PLACED AT 12' O.C. ONE HALF OF THE DOWEL SHALL BE GREASED. GREENSTREAK 9" SPEED DOWEL TUBES SHALL BE USED.
- E. DESIGN MIXES SHALL BE IN ACCORDANCE WITH ASTM C94
- STRENGTH TO BE MINIMUM OF 4,500 PSI AT 28 DAYS FOR EXTERIOR CONCRETE.
 - MAXIMUM WATER/CEMENT RATIO SHALL BE 0.45.
 - SLUMP SHALL NOT EXCEED 4" FOR EXTERIOR CONCRETE FLAT WORK
 - SLUMP SHALL BE 2.5" OR LESS FOR SLIP-FORMED CURB AND GUTTER
 - SLUMP SHALL BE BETWEEN 1.5" TO 3" FOR NON SLIP-FORMED CURB AND GUTTER.
 - ALL EXTERIOR CONCRETE SHALL BE AIR ENTRAINMENT WITH 4% TO 7% AIR CONTENT. NO OTHER ADMIXTURES SHALL BE USED WITHOUT APPROVAL OF EXCEL ENGINEERING, INC. CALCIUM CHLORIDE SHALL NOT BE USED.
 - MAXIMUM AGGREGATE SIZE FOR ALL EXTERIOR CONCRETE SHALL BE 0.75 INCHES.
- F. VERIFY EQUIPMENT CONCRETE PAD SIZES WITH CONTRACTOR REQUIRING PAD. PADS SHALL HAVE FIBERMESH 300 FIBERS AT A RATE OF 1.5 LBS/CU. YD. OR 6 X 6 W/4 X 6 W/4 WELDED WIRE MESH WITH MINIMUM 1 INCH COVER. EQUIPMENT PADS SHALL BE 5.5 INCHES THICK WITH 1 INCH CHAMFER UNLESS SPECIFIED OTHERWISE. CONCRETE SHALL BE PROVIDED ON 6" OF 3/4" CRUSHED AGGREGATE BASE. COORDINATE ADDITIONAL PAD REQUIREMENTS WITH RESPECTIVE CONTRACTOR.
- G. ALL CONCRETE FLAT WORK SURFACES AND CONCRETE CURB FLOWLINES SHALL BE CONSTRUCTED TO WITHIN 0.05' OF DESIGN SURFACE AND FLOWLINE GRADES ASSUMING POSITIVE DRAINAGE IS MAINTAINED IN ACCORDANCE WITH THE DESIGN PLANS.
- H. CONCRETE FLAT WORK SHALL HAVE CONSTRUCTION JOINTS OR SAW CUT JOINTS PLACED AS INDICATED ON THE PLANS OR PER THIS SPECIFICATION. SAWCUTS SHALL BE DONE AS SOON AS POSSIBLE, BUT NO LATER THAN 24 HOURS AFTER CONCRETE IS PLACED. CONCRETE CURB AND GUTTER JOINTING SHALL BE PLACED EVERY 10' OR CLOSER (6' MIN). IF CONCRETE PAVEMENT IS ADJACENT TO CONCRETE CURB, JOINTING IN THE PAVEMENT AND CURB SHALL ALIGN. ALL EXTERIOR CONCRETE SHALL HAVE A BROOM FINISH UNLESS NOTED OTHERWISE. A UNIFORM COAT OF A HIGH SOLIDS CURING COMPOUND MEETING ASTM C309 SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES. ALL CONCRETE IS TO BE CURED FOR 7 DAYS. EXTERIOR CONCRETE SHALL BE SEPARATED FROM BUILDINGS WITH CONTINUOUS 0.5 INCH FIBER EXPANSION JOINT AND/OR 0.25 INCH FIBER EXPANSION JOINT AT DECORATIVE MASONRY UNITS.
- I. ALL REINFORCING BARS SHALL BE ASTM A615 GRADE 60. THICKNESS OF CONCRETE COVER OVER REINFORCEMENT SHALL BE NOT LESS THAN 3" WHERE CONCRETE IS DEPOSITED AGAINST THE GROUND WITHOUT THE USE OF FORMS AND NOT LESS THAN 1.5" FOR UP TO #5 BARS AND 2" FOR #6 TO #10 BARS IN ALL OTHER LOCATIONS. ALL REINFORCING SHALL BE LAPPED 48 DIAMETERS FOR UP TO #6 BARS, 62 DIAMETERS FOR #7 TO #9 BARS, 68 DIAMETERS FOR #10 BARS OR AS NOTED ON THE DRAWINGS AND EXTENDED AROUND CORNERS WITH CORNER BARS. PLACING AND DETAILING OF STEEL REINFORCING AND REINFORCING SUPPORTS SHALL BE IN ACCORDANCE WITH CRSI AND ACI MANUAL AND STANDARD PRACTICES. THE REINFORCEMENT SHALL NOT BE PAINTED AND MUST BE FREE OF GREASE/OIL, DIRT OR DEEP RUST WHEN PLACED IN THE WORK. ALL WELDED WIRE FABRIC SHALL MEET THE REQUIREMENTS OF ASTM A 1064. WELDED WIRE FABRIC SHALL BE PLACED 2" FROM TOP OF SLAB, UNLESS INDICATED OTHERWISE.
- J. CONTRACTOR SHALL ENGAGE A QUALIFIED INDEPENDENT TESTING AND INSPECTING AGENCY TO SAMPLE MATERIALS, PERFORM TESTS, AND SUBMIT TEST REPORTS DURING CONCRETE PLACEMENT. TESTS WILL BE PERFORMED ACCORDING TO ACI 301, CAST AND LABORATORY CURE ONE SET OF FOUR STANDARD CYLINDERS FOR EACH COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX EXCEEDING 5 CU. YD., BUT LESS THAN 25 CU. YD., PLUS ONE SET FOR EACH ADDITIONAL 50 CU. YD. OR FRACTION THEREOF. PERFORM COMPRESSIVE STRENGTH TESTS ACCORDING TO ASTM C 39. TEST TWO SPECIMENS AT 7 DAYS AND TWO SPECIMENS AT 28 DAYS. PERFORM SLUMP TESTING ACCORDING TO ASTM C 143. PROVIDE ONE TEST AT POINT OF PLACEMENT FOR EACH COMPOSITE SAMPLE, BUT NOT LESS THAN ONE TEST FOR EACH DAY'S POUR OF EACH CONCRETE MIX. PERFORM ADDITIONAL TESTS WHEN CONCRETE CONSISTENCY APPEARS TO CHANGE.

- K. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. IN HOT, DRY, AND WINDY WEATHER, APPLY AN EVAPORATION-CONTROL COMPOUND ACCORDING TO MANUFACTURER'S INSTRUCTIONS AFTER SCREEDING AND BULL FLOATING, BUT BEFORE POWER FLOATING AND TROWELLING.
- L. LIMIT MAXIMUM WATER-CEMENTITIOUS RATIO OF CONCRETE EXPOSED TO FREEZING, THAWING AND DECING SALTS TO 0.45.
- M. TEST RESULTS WILL BE REPORTED IN WRITING TO THE DESIGN ENGINEER, READY-MIX PRODUCER, AND CONTRACTOR WITHIN 24 HOURS AFTER TESTS. REPORTS OF COMPRESSIVE STRENGTH TESTS SHALL CONTAIN THE PROJECT IDENTIFICATION NAME AND NUMBER, DATE OF CONCRETE PLACEMENT, NAME OF CONCRETE TESTING SERVICE, CONCRETE TYPE AND CLASS, LOCATION OF CONCRETE BATCH ON SITE, DESIGN COMPRESSIVE STRENGTH AT 28 DAYS, CONCRETE MIX PROPORTIONS AND MATERIALS, COMPRESSIVE BREAKING STRENGTH, AND TYPE OF BREAK FOR BOTH 7-DAY TESTS AND 28-DAY TESTS.

32 40 00 LANDSCAPING AND SITE STABILIZATION

- A. **TOPSOIL:** CONTRACTOR TO PROVIDE A MINIMUM OF 6" OF TOPSOIL FOR ALL DISTURBED OPEN AREAS, OTHER THAN A LANDSCAPE ISLANDS SHALL BE PROVIDED WITH A MINIMUM OF 10" OF TOPSOIL. REUSE SURFACE SOIL STOCKPILED ON SITE AND SUPPLEMENT WITH IMPORTED OR MANUFACTURED TOPSOIL FROM OFF SITE SOURCES WHEN QUANTITIES ARE INSUFFICIENT. EXCAVATOR SHALL BE RESPONSIBLE FOR DOUGH PLACEMENT OF TOPSOIL TO WITHIN 1" OF FINAL GRADE PRIOR TO LANDSCAPER FINAL GRADING. LANDSCAPER TO PROVIDE PULVERIZING AND FINAL GRADING OF TOPSOIL. PROVIDE SOIL ANALYSIS BY A QUALIFIED SOIL TESTING LABORATORY AS REQUIRED TO VERIFY THE SUITABILITY OF SOIL TO BE USED AS TOPSOIL AND TO DETERMINE THE NECESSARY SOIL AMENDMENTS. TEST SOIL FOR PRESENCE OF ATRAZINE AND INFORM EXCEL ENGINEERING, INC. IF PRESENT PRIOR TO BIDDING PROJECT. TOPSOIL SHALL HAVE A PH RATIO OF 5.5 TO 8, CONTAIN A MINIMUM OF 5 PERCENT ORGANIC MATERIAL CONTENT, AND SHALL BE FREE OF STONES 1 INCH OR LARGER IN DIAMETER. ALL MATERIALS HARMFUL TO PLANT GROWTH SHALL ALSO BE REMOVED.
- TOPSOIL INSTALLATION:** LOOSEN SUBGRADE TO A MINIMUM DEPTH OF 6 INCHES AND REMOVE STONES LARGER THAN 1" IN DIAMETER. ALSO REMOVE ANY STICKS, ROOTS, RUBBISH, AND OTHER EXTRANEOUS MATTER AND DISPOSE OF THEM OFF THE PROPERTY. SPREAD TOPSOIL TO A DEPTH OF 6" BUT NOT LESS THAN WHAT IS REQUIRED TO MEET FINISHED GRADES AFTER LIGHT ROLLING AND NATURAL SETTLEMENT. DO NOT SPREAD TOPSOIL IF SUBGRADE IS FROZEN, MUDDY, OR EXCESSIVELY WET. GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN 0.05 FEET OF FINISHED GRADE ELEVATION.
- B. **SEEDED LAWNS:**
- PERMANENT LAWN AREAS SHALL BE SEEDDED WITH THE FOLLOWING MIXTURE: 65% KENTUCKY BLUEGRASS BLEND (2.0-2.6 LBS/1,000 S.F.), 20% PERENNIAL RYEGRASS (0.6-0.8 LBS/1,000 S.F.), 15% PINE FESCUE (0.4-0.6 LBS/1,000 S.F.), STRAW AND MULCH SHALL BE LAID AT 100 LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. ALL SITE DISTURBED AREAS NOT DESIGNATED FOR OTHER LANDSCAPING AND SITE STABILIZATION METHODS SHALL BE SEEDDED AS PERMANENT LAWN. NO BARE TOPSOIL SHALL BE LEFT ONSITE. FOLLOW PROCEDURES FOUND IN WJNR TECHNICAL STANDARDS 1058 & 1059.
 - ALL PERMANENT AND TEMPORARY STORM WATER CONVEYANCE SWALE BOTTOMS AND SIDE SLOPES SHALL BE SEEDDED WITH THE FOLLOWING MIXTURE: 45% KENTUCKY BLUEGRASS (0.60 LBS/1,000 S.F.), 40% CREEPING RED FESCUE (0.50 LBS/1,000 S.F.), AND 15% PERENNIAL RYEGRASS (0.20 LBS/1,000 S.F.). FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WJNR TECHNICAL STANDARDS 1058 & 1059.
 - ALL TEMPORARY SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE: 100% RYEGRASS AT 19 LBS/1,000 S.F. STRAW AND MULCH SHALL BE LAID AT 100 LBS/1,000 S.F. FERTILIZE AS PER SOIL TEST OR APPLY 5-10-10 OR EQUIVALENT AT 5-6 LBS/1,000 S.F. SEE EROSION MATTING SPECIFICATIONS AS REQUIRED. FOLLOW PROCEDURES FOUND IN WJNR TECHNICAL STANDARDS 1058 & 1059.
- C. **SEEDED LAWN MAINTENANCE:** CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. AT THE END OF THE MAINTENANCE PERIOD, A HEALTHY, UNIFORM, CLOSE STAND OF GRASS SHOULD BE ESTABLISHED FREE OF WEEDS AND SURFACE IRREGULARITIES. LAWN COVERAGE SHOULD EXCEED 90% AND BARE SPOTS SHOULD NOT EXCEED 5"x5". CONTRACTOR SHOULD REESTABLISH LAWNS THAT DO NOT COMPLY WITH THESE REQUIREMENTS AND CONTINUE MAINTENANCE UNTIL LAWNS ARE SATISFACTORY.
- D. **EROSION MATTING:**
- CONTRACTOR TO PROVIDE EROSION CONTROL MATTING (NORTH-AMERICAN GREEN S150) OR EQUIVALENT ON ALL SLOPES THAT ARE 4:1 AND GREATER. LAWN SEED SHALL BE PLACED **BELOW** MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
 - CONTRACTOR TO PROVIDE EROSION MATTING (NORTH AMERICAN GREEN C125) OR EQUIVALENT IN ALL SWALE BOTTOMS AND SIDE SLOPES AS REQUIRED. LAWN SEED SHALL BE PLACED **BELOW** MATTING IN ACCORDANCE WITH SEEDING REQUIREMENTS AND MANUFACTURER SPECIFICATIONS.
- E. **TREES AND SHRUBS:** FURNISH NURSERY-GROWN TREES AND SHRUBS WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, AND HEALTHY LOOKING STOCK. STOCK SHOULD ALSO BE FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT. SEE THE LANDSCAPE PLAN FOR SPECIFIC SPECIE TYPE, SIZE, AND LOCATION.
- F. **TREE AND SHRUB INSTALLATION:** EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE, LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL. EXCAVATE PIT APPROXIMATELY THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER. SET TREES AND SHRUBS PLUMB AND IN CENTER OF PIT WITH TOP OF BALL 1" ABOVE ADJACENT FINISHED GRADES. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS AND TAMP TO SETTLE MIX. WATER ALL PLANTS THOROUGHLY. PROVIDE TEMPORARY STAKING FOR TREES AS REQUIRED.
- G. **TREE AND SHRUB MAINTENANCE/WARRANTY:** CONTRACTOR TO PROVIDE MAINTENANCE OF ALL LANDSCAPING FOR A PERIOD OF 90 DAYS FROM THE DATE OF INSTALLATION. MAINTENANCE TO INCLUDE REGULAR WATERING AS REQUIRED FOR SUCCESSFUL PLANT ESTABLISHMENT. CONTRACTOR TO PROVIDE 1 YEAR WARRANTY ON ALL TREES, SHRUBS, AND PERENNIALS.
- H. **MINERAL MULCH:** PROVIDE 3" MINIMUM THICK BLANKET OF 1.5" MINIMUM TO 2.5" MAXIMUM CRUSHED DECORATIVE STONE AT ALL PLANTING AREAS INDICATED ON THE LANDSCAPE PLAN. INSTALL OVER NON-WOVEN WEED WEDDING FABRIC. COLOR BY OWNER.
- I. **PLASTIC EDGING:** INSTALL VALLEY VEW INDUSTRIES BLACK DIAMOND LAWN EDGING TO SEPARATE ALL PLANTING BEDS FROM LAWN AREAS. EDGING TO BE 5.5" TALL WITH METAL STAKES INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

DIVISION 33 UTILITIES

33 10 00 SITE UTILITIES

- A. CONTRACTOR TO FIELD VERIFY ALL EXISTING UNDERGROUND UTILITIES ON SITE. CONTRACTOR TO VERIFY PIPE LOCATIONS, SIZES, AND DEPTHS AT POINT OF PROPOSED CONNECTIONS AND VERIFY PROPOSED UTILITY ROUTES ARE CLEAR (PER CODE) OF ALL EXISTING UTILITIES AND OTHER OBSTRUCTIONS PRIOR TO CONSTRUCTION. COSTS INCURRED FOR FAILURE TO DO SO SHALL BE THE CONTRACTORS RESPONSIBILITY.
- B. CONTRACTOR TO FIELD TELEVIEW ALL EXISTING SANITARY LATERALS THAT ARE SCHEDULED TO BE RE-USED AND/OR CONNECTED TO ON SITE. THE TELEVIEWING SHALL BE COMPLETED TO ENSURE THE EXISTING LATERAL(S) ARE FREE OF OBSTRUCTIONS AND IN SOUND STRUCTURAL CONDITION. TELEVIEWING OF THESE LATERAL(S) SHOULD BE COMPLETED AT BEGINNING OF CONSTRUCTION AND DESIGN ENGINEER SHALL BE NOTIFIED OF ANY PIPE OBSTRUCTIONS AND/OR STRUCTURAL DEFICIENCIES IMMEDIATELY AFTER COMPLETION OF FIELD TELEVIEWING.
- C. ALL SANITARY PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. INSULATION SHALL BE PROVIDED PER STATE PLUMBING CODES AS NECESSARY BASED ON PROPOSED DEPTH PER PLANS.
- D. CLEANOUTS SHALL BE PROVIDED FOR THE SANITARY SERVICES AT LOCATIONS INDICATED ON THE UTILITY PLAN. THE CLEANOUT SHALL CONSIST OF A COMBINATION WYE FITTING IN LINE WITH THE SANITARY SERVICE WITH THE CLEANOUT LEG OF THE COMBINATION WYE FACING STRAIGHT UP. THE CLEANOUT SHALL CONSIST OF A 4" VERTICAL PVC PIPE WITH A WATER TIGHT REMOVABLE CLEANOUT PLUG. AN 8" PVC FROST SLEEVE SHALL BE PROVIDED. THE BOTTOM OF THE FROST SLEEVE SHALL TERMINATE 12" ABOVE THE TOP OF THE SANITARY LATERAL OR AT LEAST 6" BELOW THE PREDICTED FROST DEPTH, WHICHEVER IS SHALLOWER. THE CLEANOUT SHALL EXTEND JUST ABOVE THE SURFACE GRADE IN LAWN OR LANDSCAPE AREAS WITH THE FROST SLEEVE TERMINATING AT THE GRADE SURFACE. THE CLEANOUT SHALL EXTEND TO 4 INCHES BELOW SURFACE GRADE IN PAVED SURFACES WITH A ZURN (2-1474-N) HEAVY DUTY CLEANOUT HOUSING PLACED OVER THE TOP OF THE CLEANOUT FLUSH WITH THE SURFACE GRADE IN PAVED SURFACES. THE FROST SLEEVE SHALL TERMINATE IN A CONCRETE PAD AT LEAST 6" THICK AND EXTENDING AT LEAST 9" FROM THE SLEEVE ON ALL SIDES, SLOPING AWAY FROM THE SLEEVE. THE CLEANOUT HOUSING SHALL BE CONSTRUCTED PER MANUFACTURERS REQUIREMENTS.
- E. ALL PROPOSED WATER PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. 6" MINIMUM COVER SHALL BE PROVIDED OVER ALL WATER PIPING UNLESS OTHERWISE SPECIFIED.
- F. ALL PROPOSED STORM PIPE SHALL BE IN ACCORDANCE WITH MATERIALS SPECIFIED IN TABLE A: ALLOWABLE PIPE MATERIAL SCHEDULE. SEE UTILITY PLANS FOR ALL STORM PIPE MATERIAL TYPES TO BE USED. PIPE SHALL BE PLACED MIN. 8" HORIZONTALLY FROM FOUNDATION WALLS.
- G. SANITARY, STORM, AND WATER UTILITY PIPE INVERTS SHALL BE CONSTRUCTED WITHIN 0.10' OF DESIGN INVERT ELEVATIONS ASSUMING PIPE SLOPE AND SEPARATION IS MAINTAINED PER THE UTILITY DESIGN PLANS AND STATE REQUIREMENTS.
- H. SITE UTILITY CONTRACTOR SHALL RUN SANITARY SERVICE TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN STORM SEWER FOR INTERNALLY DRAINED BUILDINGS TO A POINT WHICH IS A MAXIMUM OF 5' FROM THE EXTERIOR WALL OF THE FOUNDATION. SITE UTILITY CONTRACTOR SHALL RUN DOWNSPOUT LEADS TO BUILDING FOUNDATION AND UP 6" ABOVE SURFACE GRADE FOR CONNECTION TO DOWNSPOUT FOR ALL DOWNSPOUT TO RISER (DSR) CONNECTIONS. ALL DOWNSPOUT LOCATIONS SHOULD BE VERIFIED WITH ARCHITECTURAL PLANS AND DOWNSPOUT CONTRACTOR/GC PRIOR TO INSTALLATION OF DOWNSPOUT LEADS. DOWNSPOUT LEADS SHALL NOT UNDERMINE BUILDING FOUNDATIONS. SITE UTILITY CONTRACTOR SHALL RUN WATER SERVICE TO A POINT WITHIN THE FOUNDATION SPECIFIED BY THE PLUMBING PLANS. CONTRACTOR TO CUT AND CAP WATER SERVICE 12" ABOVE FINISHED FLOOR ELEVATION.
- I. ALL UTILITIES SHALL BE INSTALLED WITH PLASTIC COATED TRACER WIRE (10 TO 14 GAUGE SOLID COPPER, OR COPPER COATED STEEL WIRE). PLASTIC WIRE MAY BE TAPED TO PLASTIC WATER OR SEWER PIPE. IF ATTACHED, THE TRACER WIRE SHALL BE SECURED EVERY 6" TO 20 FEET AND AT ALL BENDS. TRACER WIRE SHALL HAVE ACCESS POINTS AT LEAST EVERY 300 FEET. TRACER WIRE SHALL TERMINATE IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS AT GRADE OR IN TERMINATION BOX PER LOCAL/STATE REQUIREMENTS.
- J. ALL UTILITIES SHALL BE INSTALLED PER STATE, LOCAL, AND INDUSTRY STANDARDS. WATER, SANITARY, AND STORM SEWER SHALL BE INSTALLED PER "STANDARD SPECIFICATION FOR SEWER AND WATER CONSTRUCTION IN WISCONSIN". THE EXCEL ENGINEERING DESIGN ENGINEER SHALL BE RESPONSIBLE FOR OBTAINING STATE PLUMBING REVIEW APPROVAL (IF REQUIRED). THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL OTHER PERMITS REQUIRED TO INSTALL WATER, SANITARY AND STORM SEWER.
- K. SEE PLANS FOR ALL OTHER UTILITY SPECIFICATIONS AND DETAILS.



PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

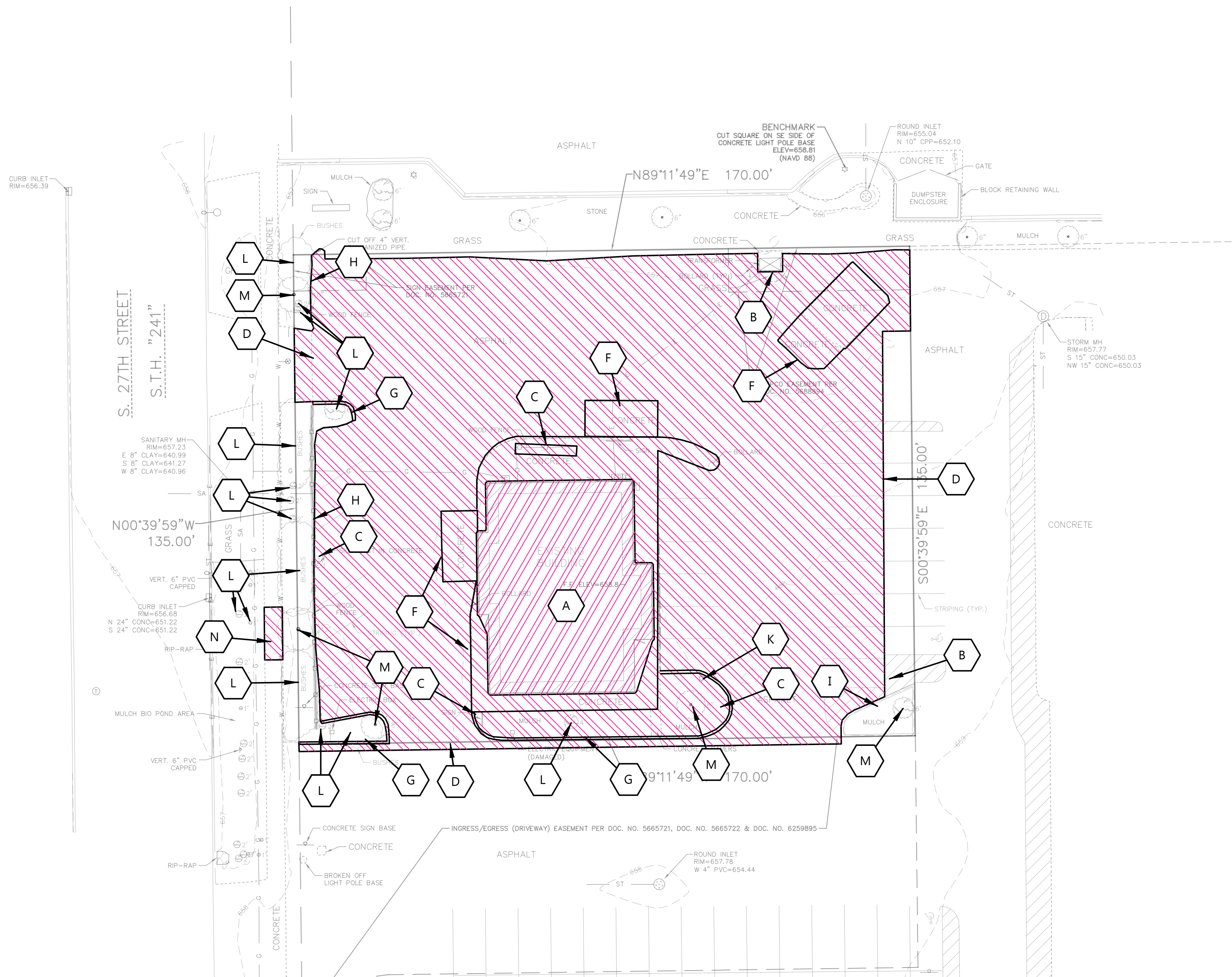
APR. 14, 2025

JOB NUMBER

240268000

SHEET NUMBER

C0.2



GENERAL NOTES:

- SEE C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

LEGEND:



KEYNOTES

A	REMOVE BUILDING AND DISCONNECT ASSOCIATED SERVICES
B	PROTECT
C	REMOVE SIGN
D	SAWCUT (AS NECESSARY) AND REMOVE ASPHALT AND PROTECT BASE
F	SAWCUT (AS NECESSARY) AND REMOVE CONCRETE AND PROTECT BASE
G	REMOVE CURB. SAWCUT (AS NECESSARY)
H	REMOVE FENCE
I	PROTECT CURB
K	REMOVE LIGHT POLE
L	REMOVE SHRUB
M	REMOVE TREE
N	SAWCUT (AS NECESSARY) AND REMOVE CONCRETE SIDEWALK FOR UTILITY INSTALLATION. OBTAIN WORK IN R.O.W. PERMIT PRIOR TO CONSTRUCTION.

PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

NOV. 19, 2024
DEC. 20, 2024
FEB. 3, 2025
MAR. 21, 2025
MAR. 24, 2025
APR. 14, 2025

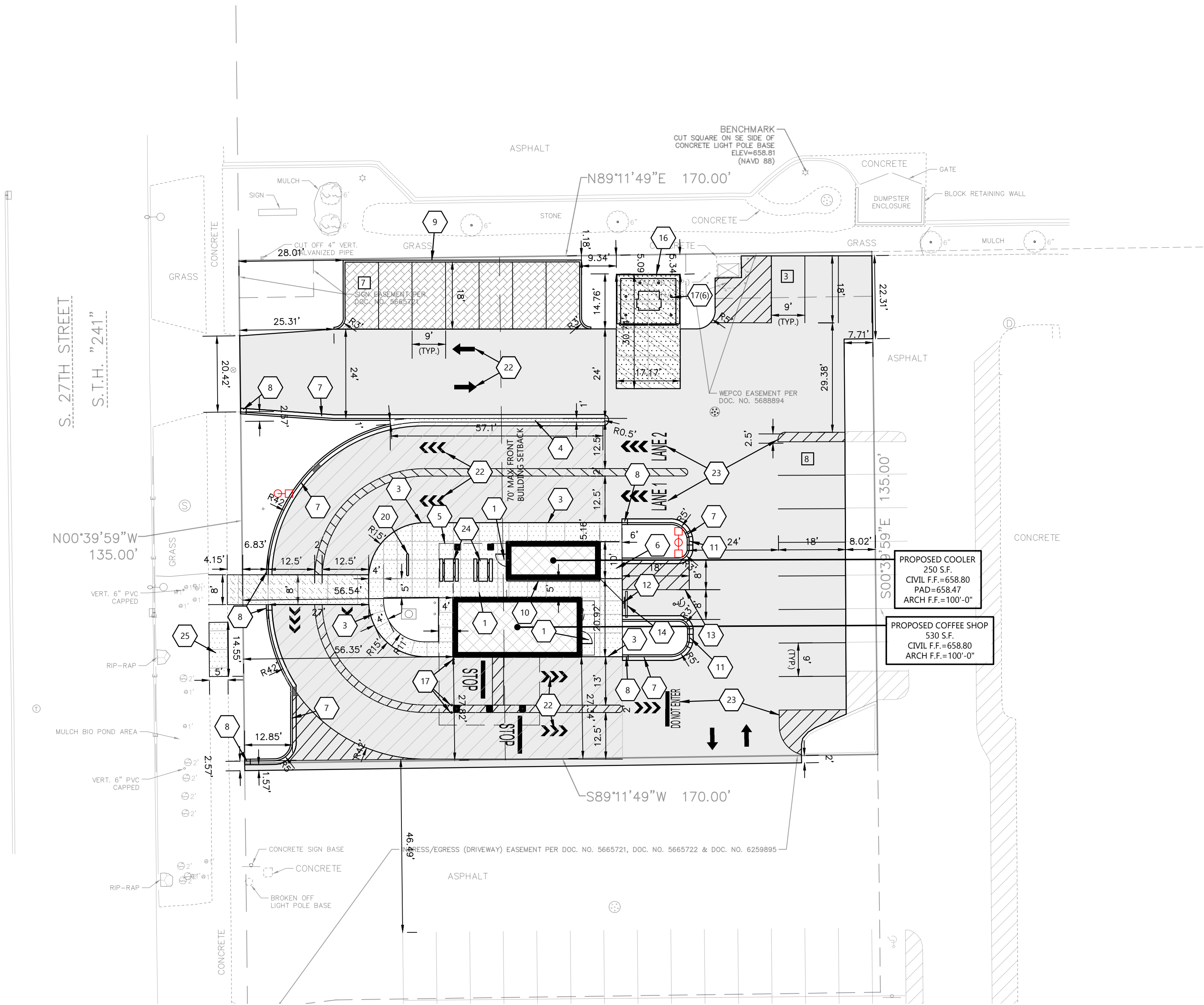
JOB NUMBER

240268000

SHEET NUMBER

C1.0





GENERAL NOTES:

- SEE C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

LEGEND:

HATCH	PAVEMENT SECTION
	ASPHALT MILL & OVERLAY
	HEAVY DUTY ASPHALT
	PERVIOUS PAVERS
	SIDEWALK CONCRETE
	COLORS SIDEWALK CONCRETE (COLOR BY OWNER)
	DUMPSTER PAD / APRON CONCRETE
	INVERTED CURB & GUTTER

KEYNOTES

1	CONCRETE STOOP (SEE STRUCTURAL PLANS FOR DETAILS)
3	FLUSH WALK (SEE DETAIL)
4	RAISED MEDIAN (SEE DETAIL)
5	BUILDING CANOPY (SEE ARCH PLANS FOR DETAILS)
6	ADA CURB RAMP (SEE DETAIL)
7	18" CURB & GUTTER (SEE DETAIL)
8	CURB TAPER (SEE DETAIL)
9	6" FLUSH PAVER CURB HEAD (SEE DETAIL)
10	6" CURB HEAD ALONG BUILDING (SEE DETAIL)
11	CURB CUT (SEE DETAIL)
12	HANDICAP SIGN PER STATE CODE (SEE DETAIL)
13	HANDICAP STALL & STRIPING PER STATE CODES
14	PRECAST CONCRETE WHEEL STOP (TYP.)
16	DUMPSTER ENCLOSURE (SEE ARCH PLANS FOR DETAILS)
17	6" CONCRETE BOLLARDS (TYP.) (SEE ARCH PLANS FOR DETAILS)
20	BIKE RACK (TYP.) (TYPE & COLOR BY OWNER)
22	TRAFFIC FLOW ARROWS (TYP.) COLOR TO MATCH PARKING STALL STRIPING
23	PAINT STRIPING (TYP.) COLOR TO MATCH PARKING STALL STRIPING
24	PICNIC TABLE (DETAILS BY SUPPLIER)
25	REPLACE CONCRETE SIDEWALK PER CITY STANDARDS, TO MATCH EXISTING SECTION, THICKNESS, AND MATERIALS.

SCALE: 1"= 20'



CIVIL SITE PLAN



Always a Better Plan

100 Camelot Drive
Fond du Lac, WI 54935
920-926-9800
excelengineer.com

PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

NOV. 19, 2024
DEC. 20, 2024
FEB. 3, 2025
FEB. 17, 2025
MAR. 21, 2025
MAR. 24, 2025
APR. 14, 2025

JOB NUMBER

240268000

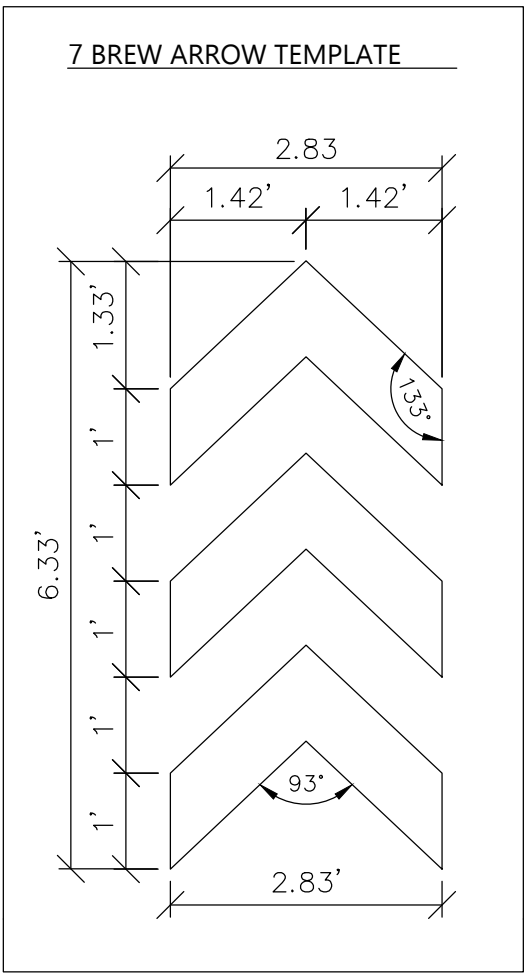
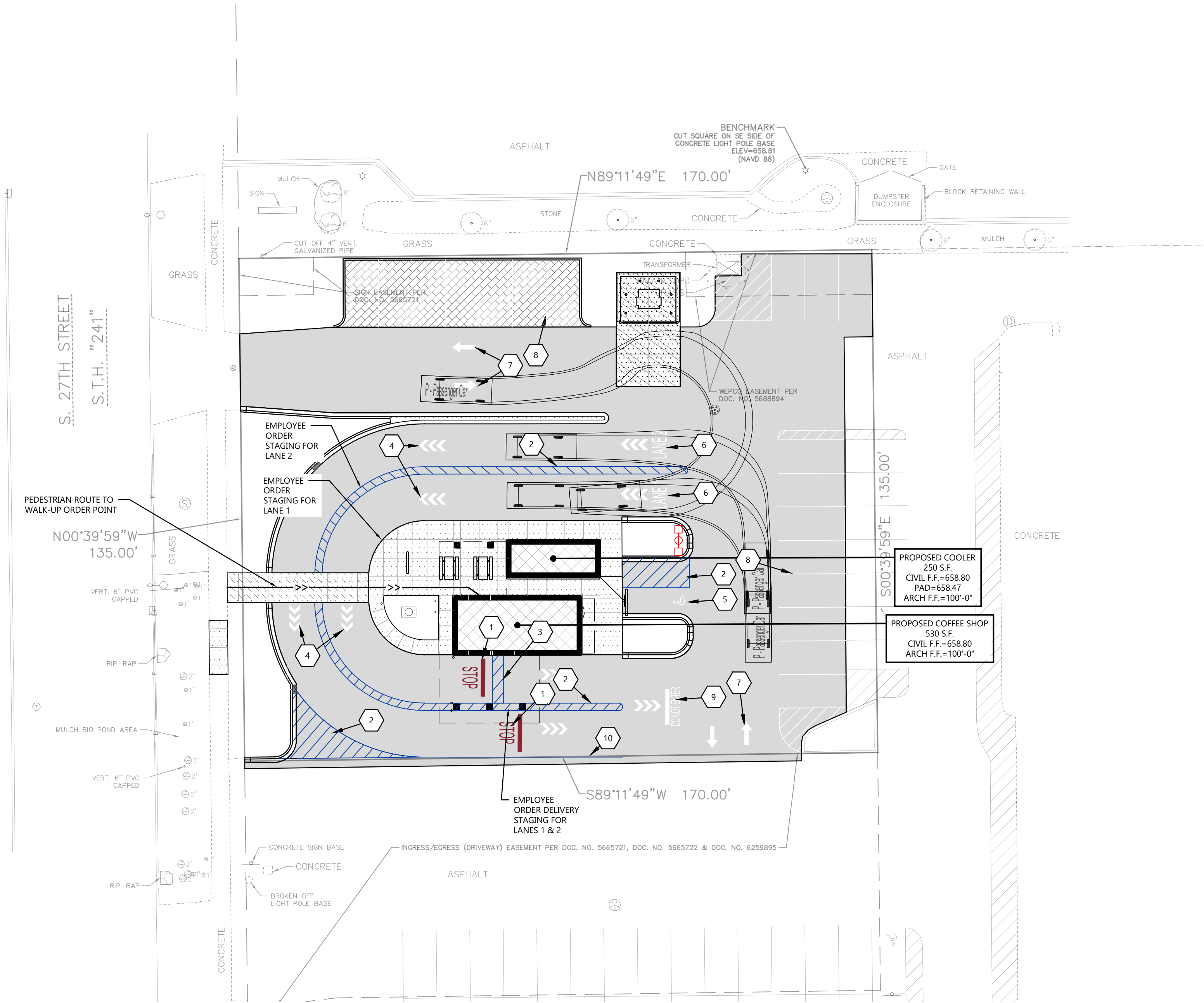
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C1.1A

NOT FOR CONSTRUCTION

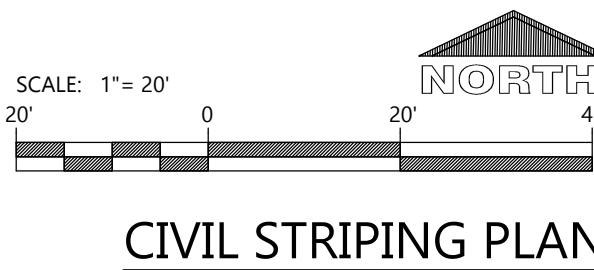


WALK-UP ORDER POINT WITH MENU BOARD
NOT TO SCALE



STRIPING PAINT COLORS:	
SUBSTITUTION TO COLORS MUST BE APPROVED BY 7 BREW	
PMS 000C C: 0% M: 0% Y: 0% K: 0%	WHITE
R: 255 G: 255 B: 255	
HEX: FFFFFFFF	
PMS 293 C: 100% M: 63% Y: 0% K: 35%	BLUE
R: 0 G: 61 B: 165	
HEX: 003DA5	
PMS 202 C: 29.54% M: 95.11% Y: 74.72% K: 29.59%	RED
R: 138 G: 36 B: 50	
HEX: 8A2432	
PAINT TYPE:	
SHERWIN- WILLIAMS PRO PARK, SETFAST, HOTLINE OR AN APPROVED EQUAL.	

STRIPING PLAN KEYNOTES	
1	12" TALL RED STOP BAR WITH 48-INCH TALL "STOP" TEXT PAINTED IN RED
2	4" SOLID BLUE PAVEMENT MARKER, TYPICAL MIDLINES SPACED AT 24" O.C.
3	ALIGN 4" SOLID BLUE CROSS WALK MARKER WITH SLIDING DOOR PANEL AT FRONT OPENING
4	SOLID WHITE TRIPLE ARROW PAVEMENT MARKER
5	WHITE PAINTED ADA ACCESSIBLE PARKING SYMBOL
6	48-INCH TALL "LANE #" PAINTED IN WHITE
7	SOLID WHITE DIRECTIONAL ARROW PAVEMENT MARKING
8	4" SOLID WHITE PAVEMENT MARKER, TYPICAL
9	12" TALL WHITE BAR WITH 12" TALL "DO NOT ENTER" TEXT PAINTED IN WHITE
10	4" SOLID BLUE PAVEMENT MARKER



CIVIL STRIPING PLAN

PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
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PROFESSIONAL SEAL

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MAR. 21, 2025
MAR. 24, 2025
APR. 14, 2025
MAY 2, 2025

JOB NUMBER

240268000

SHEET NUMBER

C1.1B

NOT FOR CONSTRUCTION



PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

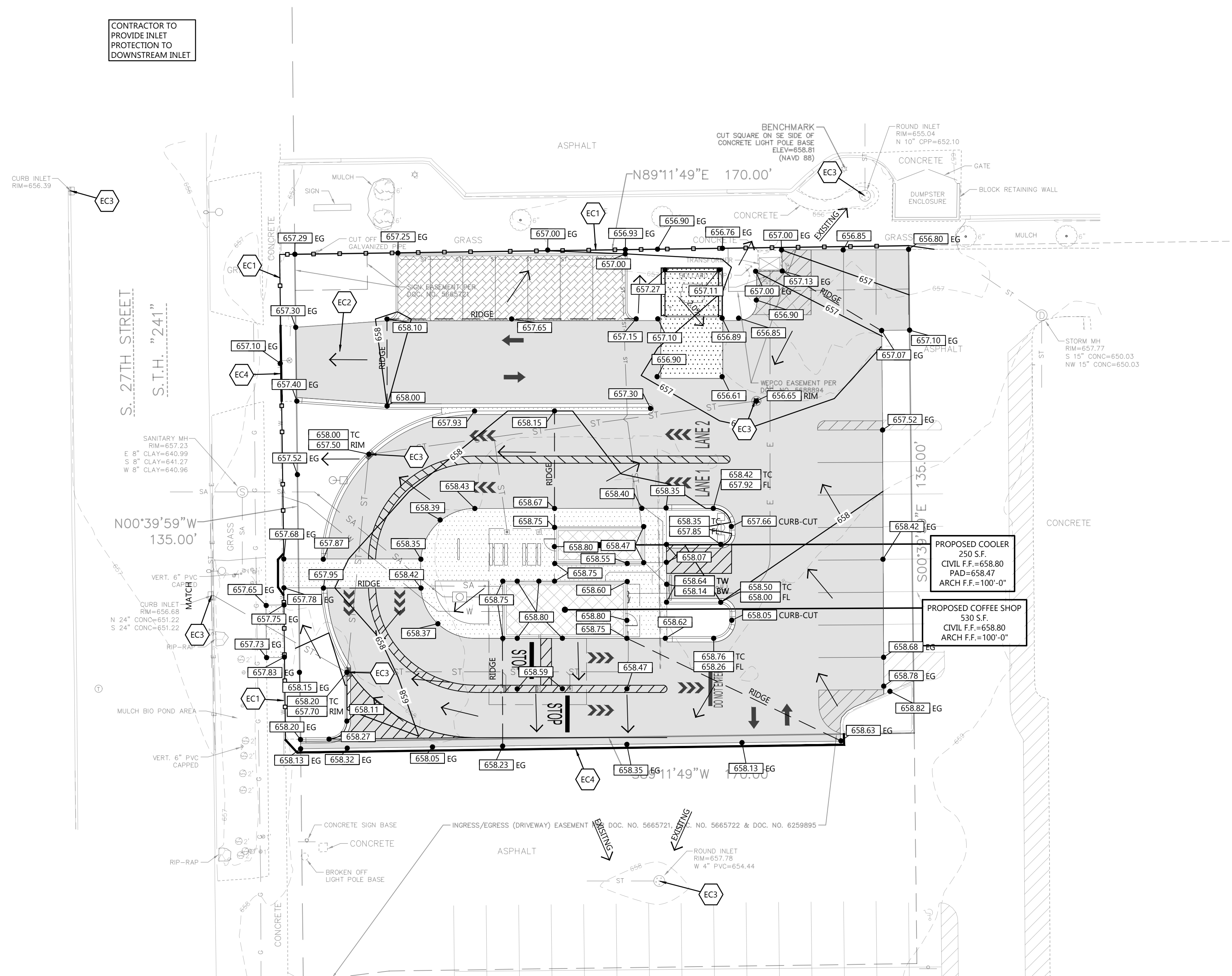
PR. 14, 2025

40268000

C1.2

- HANDICAP STALL AND ACCESS AISLES SHALL NOT EXCEED A SLOPE OF 1.50% IN ANY DIRECTION. HANDICAP STALL & ACCESS AISLES SHALL CONFORM TO ADA REQUIREMENTS (CURRENT EDITION)
- ALL SIDEWALKS SHALL NOT EXCEED A MAXIMUM CROSS SLOPE OF 1.50% AND RUNNING SLOPE OF 4.50% UNLESS OTHERWISE SPECIFIED.
- CONTRACTOR SHALL PROVIDE STABILIZED CONSTRUCTION ENTRANCE AT CONSTRUCTION ENTRANCE FOR PROPOSED IMPROVEMENTS AS REQUIRED PER CODE.
- CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT AS REQUIRED PER CODE. FINAL LOCATION TBD BY CONTRACTOR.
- CONTRACTOR SHALL PROVIDE TEMPORARY INLET PROTECTION FOR ALL CURB INLETS & CATCH BASINS ONSITE & OFFSITE IMMEDIATELY DOWNSTREAM OF THE PROJECT SITE PER LOCAL CODE.

EC 1	SILT FENCE
EC 2	STABILIZED CONSTRUCTION ENTRANCE
EC 3	INLET PROTECTION
EC 4	SEDIMENT LOG



CIVIL GRADING AND EROSION CONTROL PLAN

GENERAL NOTES:
• SEE C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

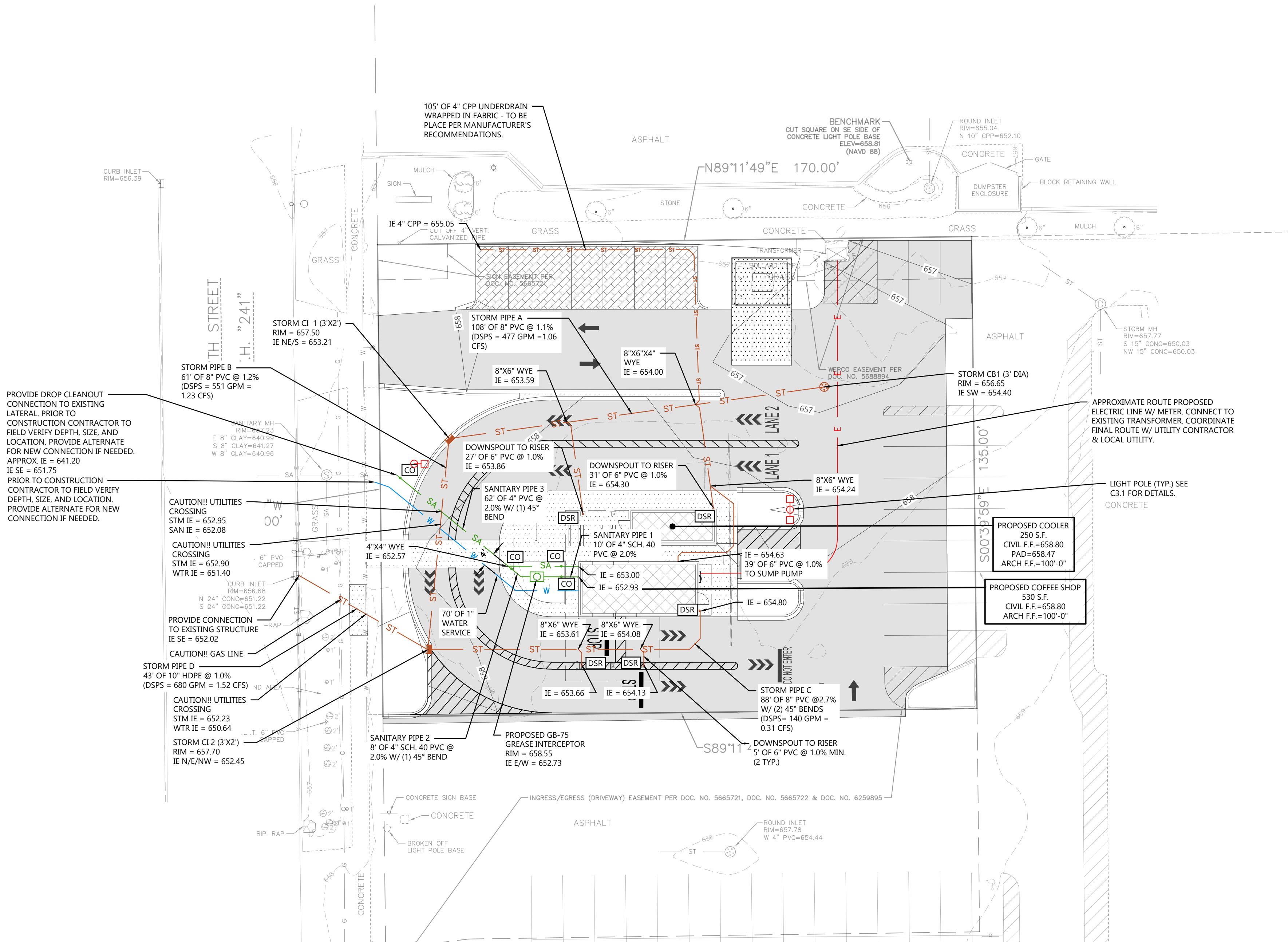
APR. 14, 2025

JOB NUMBER

240268000

SHEET NUMBER

C1.3



CIVIL UTILITY PLAN

PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
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PROFESSIONAL SEAL

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MAR. 24, 2025
APR. 14, 2025

JOB NUMBER

240268000

SHEET NUMBER

C1.4

GENERAL NOTES:

- SEE C0.2 FOR PLAN SPECIFICATIONS AND REQUIREMENTS

HATCH KEY:

HATCH

LANDSCAPE MATERIAL

MINERAL MULCH

LANDSCAPING CALCULATIONS

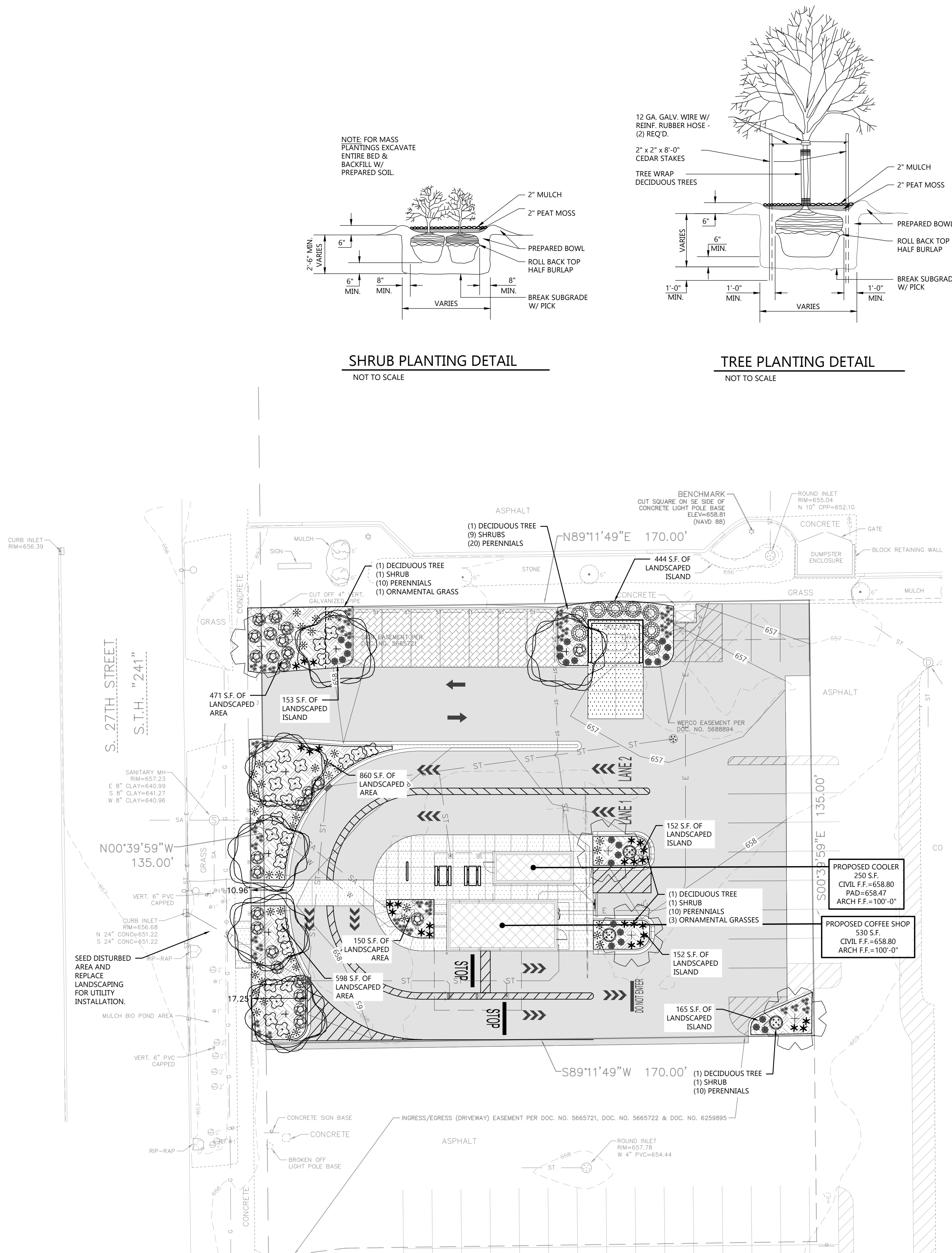
ZONE	REQ. PLANTS	PLANTS PROVIDED
PARKING LOT SCREENING	LB1 ZONING: (OPTION A: MIN. 10' WIDTH) 1 CANOPY TREE PER 20 LF (110 LF / 20 LF = 5.5 TREES REQ.) 4 SHRUBS PER 10 LF (110 LF / 10 LF X 4 SHRUBS = 44 SHRUBS REQ.) OR 8 PERENNIALS/ORNAMENTAL GRASSES PER 10 LF (110 LF / 10 LF) X 8 P/O = 440 P/O REQ.) DIZ OVERLAY: MIN. 5' WIDTH LANDSCAPE STREET SCREENING (INCREASED BY 2' IN WIDTH IF PARKING EXCEEDS MAX. ALLOWED AND CONTAINS COMBINATION OF TREES AND SHRUBS)	LB1 ZONING: (MIN. 10.96' WIDTH PROVIDED) 5 DECIDUOUS TREES PROVIDED - SHRUBS REQ. :(6) TREES REQ. = 5 + (1) TREE EQUIVALENT : 1 TREE EQUIV. X 2 SHRUBS/TREE = + (2) SHRUBS REQ. 46 SHRUBS PROVIDED - SHRUB REQ. MET PERENNIAL/ORNAMENTAL GRASSES NOT REQUIRED ADDITIONAL 49 PERENNIAL/ORNAMENTAL GRASSES PROVIDED DIZ OVERLAY: MIN. 10.96' LANDSCAPING WIDTH PROVIDED - PARKING EXCEEDS MAX. ALLOWED (SEE LB1 ZONING ABOVE FOR TREES AND SHRUBS PROVIDED)
INTERNAL PARKING LOT ISLANDS	LB1 ZONING: 1 CANOPY TREE PER 4 PARKING SPACES (19 SPACES / 4 SPACES = 4.75 TREES REQ.) 100 S.F. LANDSCAPED AREA PER 4 PARKING SPACES (19 SPACES / 4 SPACES) X 100 S.F. = 475 S.F. REQ.) DIZ OVERLAY: 1 DECIDUOUS TREE PER ISLAND (2.5' MIN) (5 ISLANDS = 5 TREES REQ.) 1 SHRUB (2' MIN) OR 1 NATIVE/ORNAMENTAL GRASS (5 ISLANDS = 5 SHRUBS REQ.) 10 GROUND COVER PLANTS (2' MIN) OR PERENNIALS (4.5' MIN CONTAINER) (5 ISLANDS X 10 PLANTS = 50 PLANTS REQ.)	LB1 ZONING: 5 CANOPY TREES PROVIDED - TREE REQ. MET 1,066 S.F. INTERNAL LANDSCAPED AREA PROVIDED DIZ OVERLAY: TREE REQ. MET (SEE LB1 ZONING ABOVE) 5 SHRUBS PROVIDED - SHRUB REQ. MET 50 PERENNIALS PROVIDED - PERENNIAL REQ. MET
DUMPSTER SCREENING	LB1 ZONING: 4' TALL MASONRY WALL 2 SHRUBS PER 10 LF OF MASONRY WALL (44 LF / 10 LF) X 2 SHRUBS = 8.8 SHRUBS REQ.) DIZ OVERLAY: SCREEN TRASH AREAS FROM VIEW OF R.O.W. WITH FENCING AND/OR LANDSCAPING.	LB1 ZONING: 6'-8" TALL MODULAR BRICK WALL PROVIDED - WALL REQ. MET 9 SHRUBS PROVIDED - SHRUB REQ. MET DIZ OVERLAY: SCREENING PROVIDED ALONG S. 27TH STREET - REQ. MET
REAR LOT SCREENING	LB1 ZONING: NONE DIZ OVERLAY: 1 CANOPY TREE PER 50 LF (135 LF / 50 LF = 2.7 TREES REQ.) SHRUBS IN 2 STAGGERED ROWS PER 20 LF (135 LF / 20 LF = 6.75 SHRUBS IN 2 ROWS REQ.)	LB1 ZONING: NONE DIZ OVERLAY: NOT APPLICABLE - EXISTING COMMERCIAL DEVELOPMENT IN REAR LOT

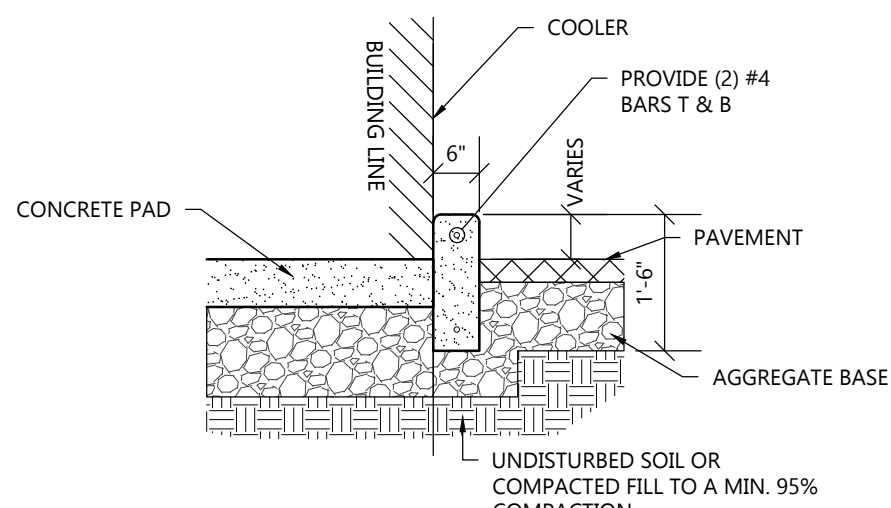
LANDSCAPING PLANTING SCHEDULE

SYMBOL	COMMON NAME	BOTANICAL NAME	PLANTED SIZE	QUANTITY
CANOPY/DECIDUOUS TREES				
	Autumn Blaze Maple	Acer x freemanii 'Jeffersred'	2.5"	6
	River Birch	Betula nigra	2.5"	4
DECIDUOUS SHRUBS				
	Blue Muffin Viburnum	Viburnum dentatum 'Blue Muffin'	24"	26
	Burning Bush	Evonymus alatus 'Compactus'	30"-36"	28
EVERGREEN SHRUBS				
	Wintergreen Boxwood	Buxus sinica var. insularis 'Wintergreen'	24"	3
	Emerald Green Arborvitae	Thuja occidentalis 'Emerald Green'	2'	8
PERENNIALS/ORNAMENTAL GRASSES				
	Hostas	Hostas 'Royal Standard'	1 gal pot	27
	Daylilies 'Stella de Oro'	Hemerocallis 'Stella de Oro'	1 gal pot	35
	Karl Foerster Reed Grass	Clamagrostis x acutiflora 'Karl Foerster'	2 gal pot	42
	Blue Autumn Aster	Aster 'blue autumn'	1 gal pot	26

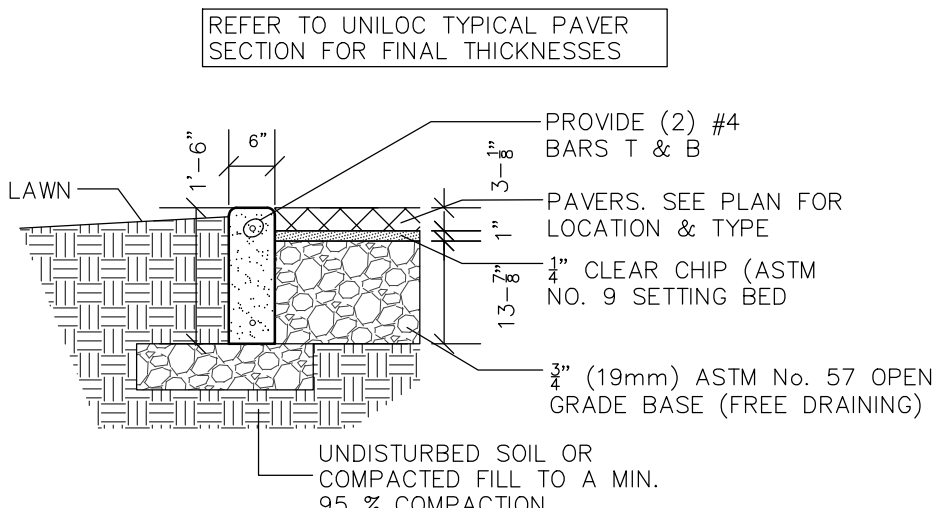


CIVIL LANDSCAPE AND RESTORATION PLAN

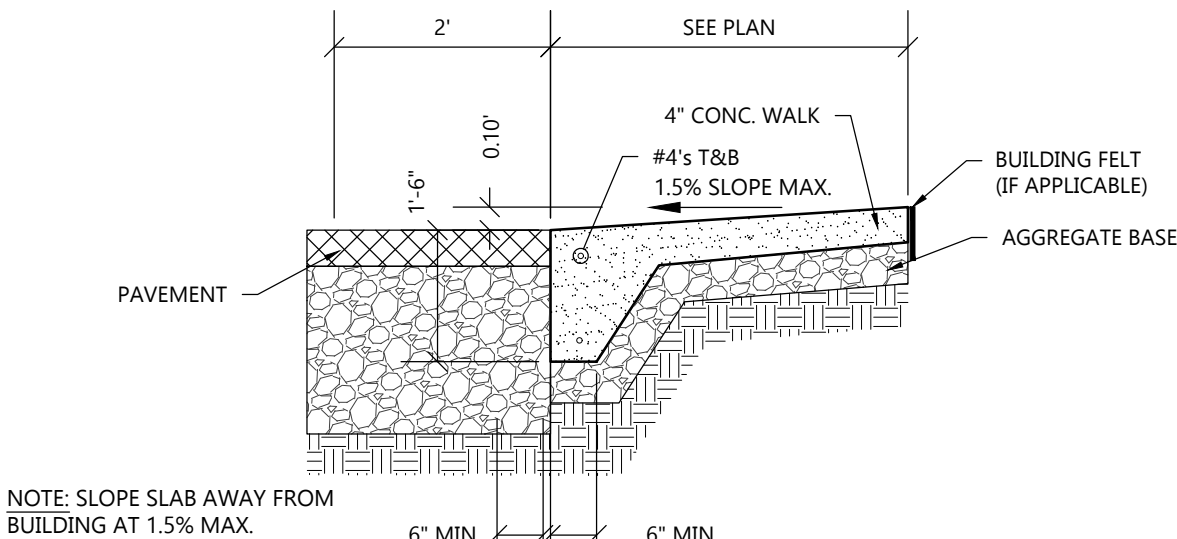




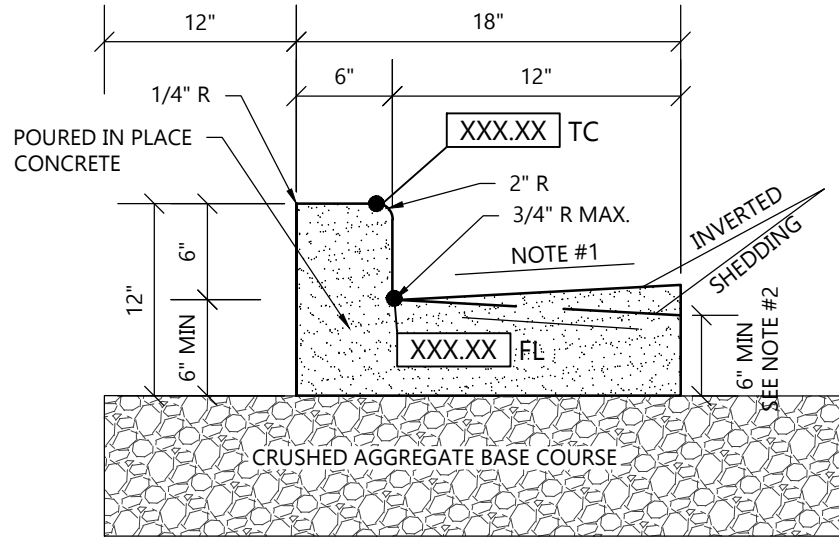
6" CURB HEAD DETAIL
NOT TO SCALE



6" FLUSH PAVER CURB HEAD DETAIL
NO SCALE

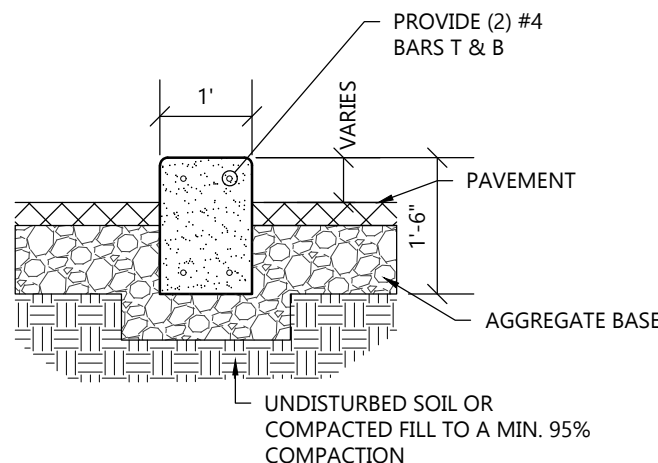


FLUSH WALK DETAIL
NOT TO SCALE

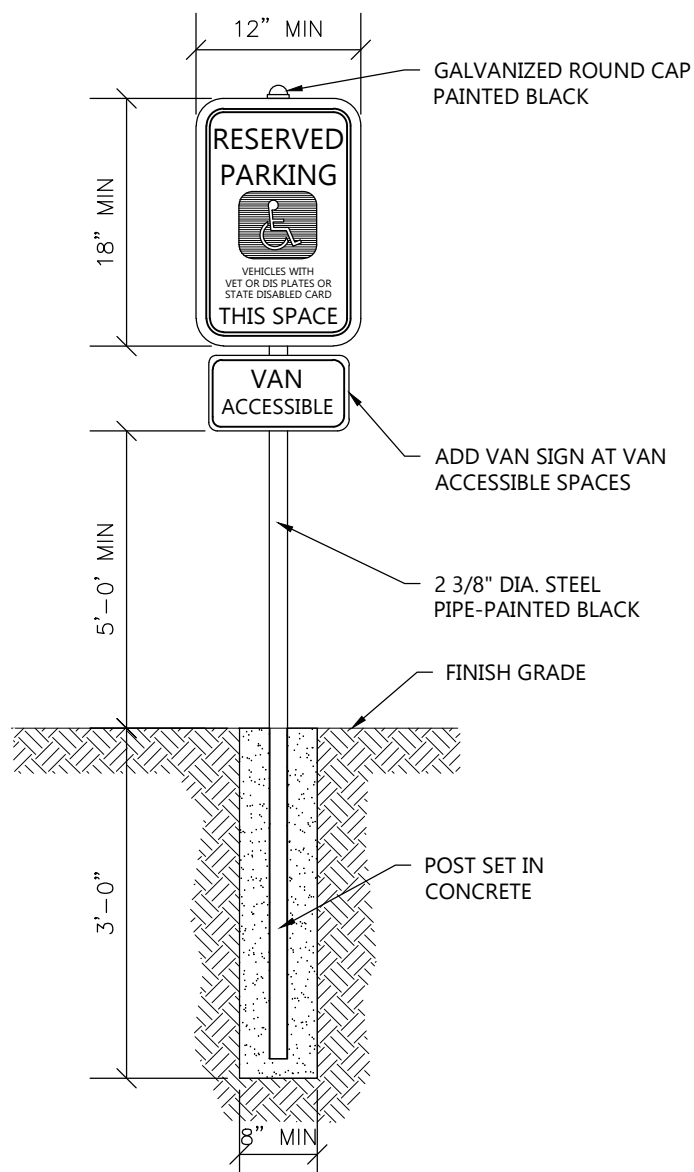


- NOTE:
- USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
 - THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MIN. GUTTER THICKNESS IS MAINTAINED.
 - SEE SITE PLAN & GRADING PLAN FOR INVERTED & SHEDDING CURB LOCATIONS

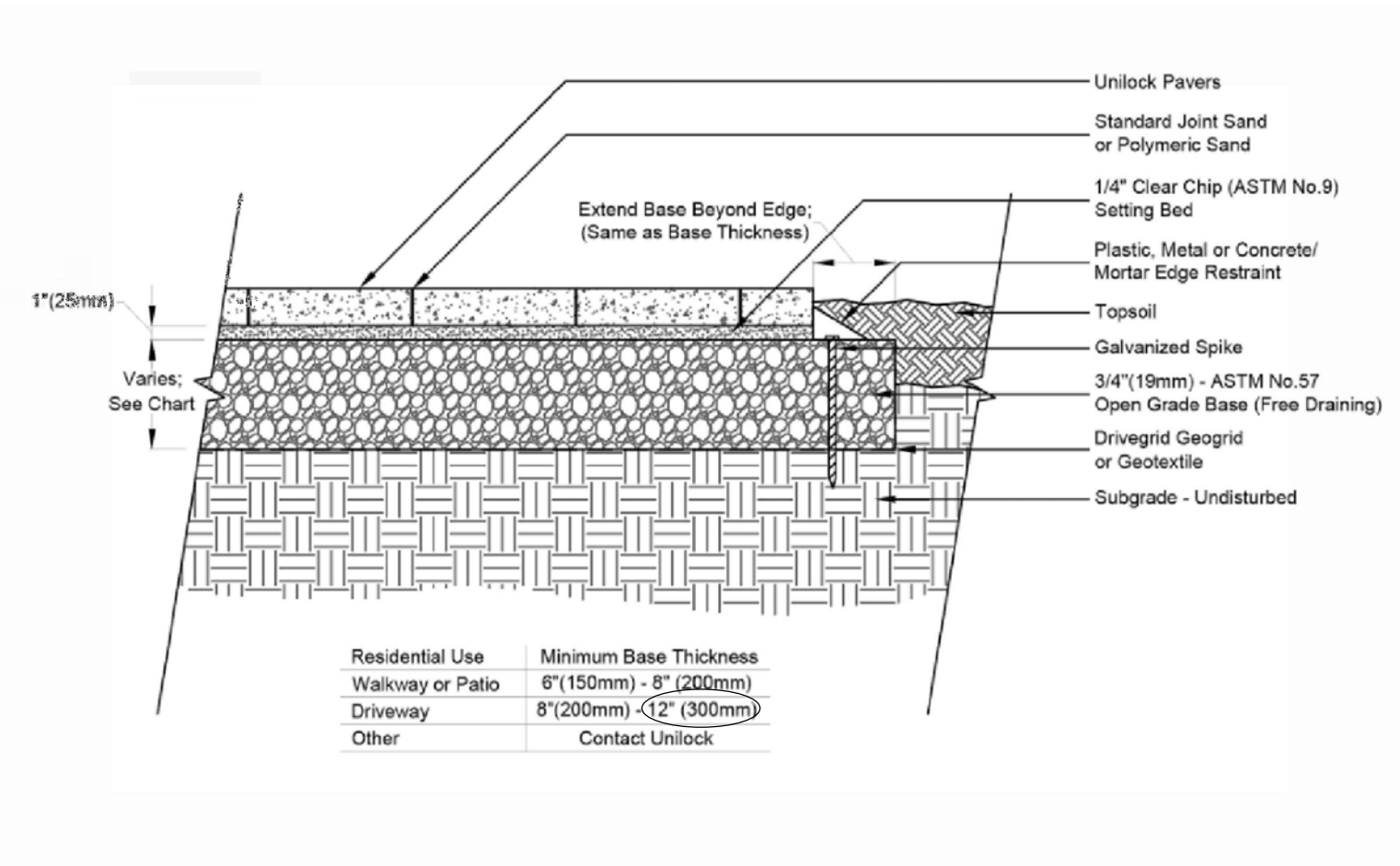
18" CONCRETE CURB & GUTTER DETAIL
NOT TO SCALE



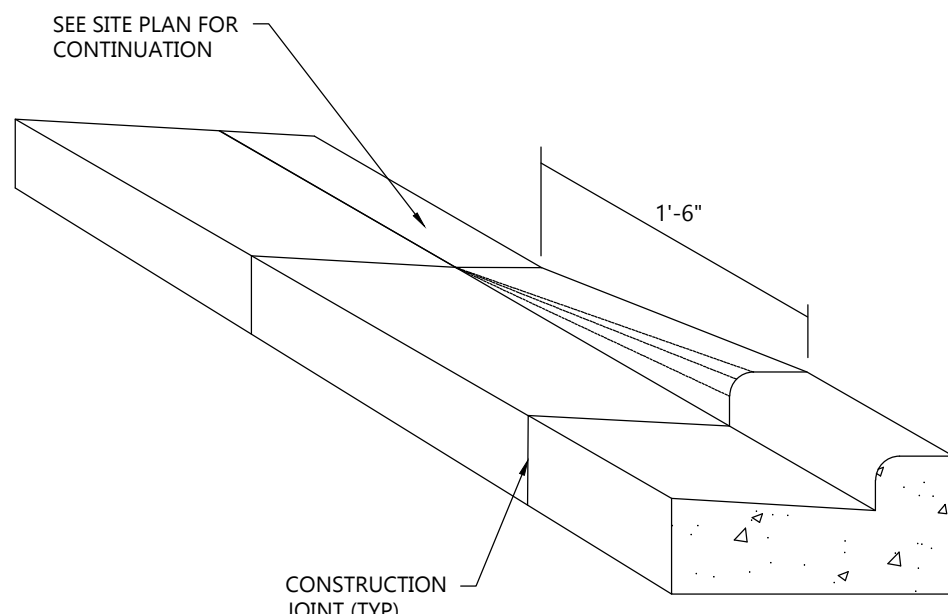
RAISED MEDIAN
NOT TO SCALE



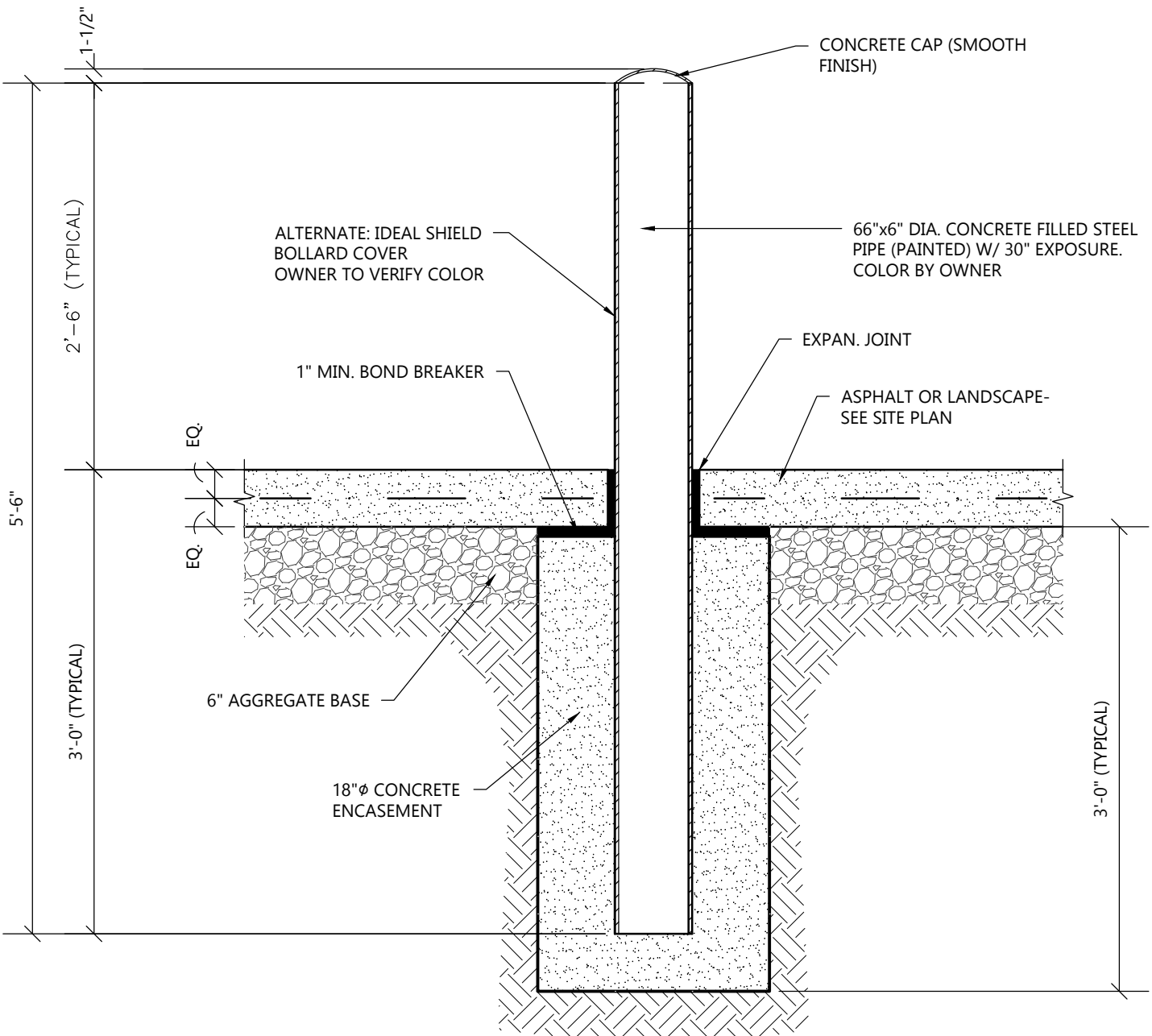
HANDICAP SIGNAGE WITH CONCRETE BASE DETAIL
NOT TO SCALE



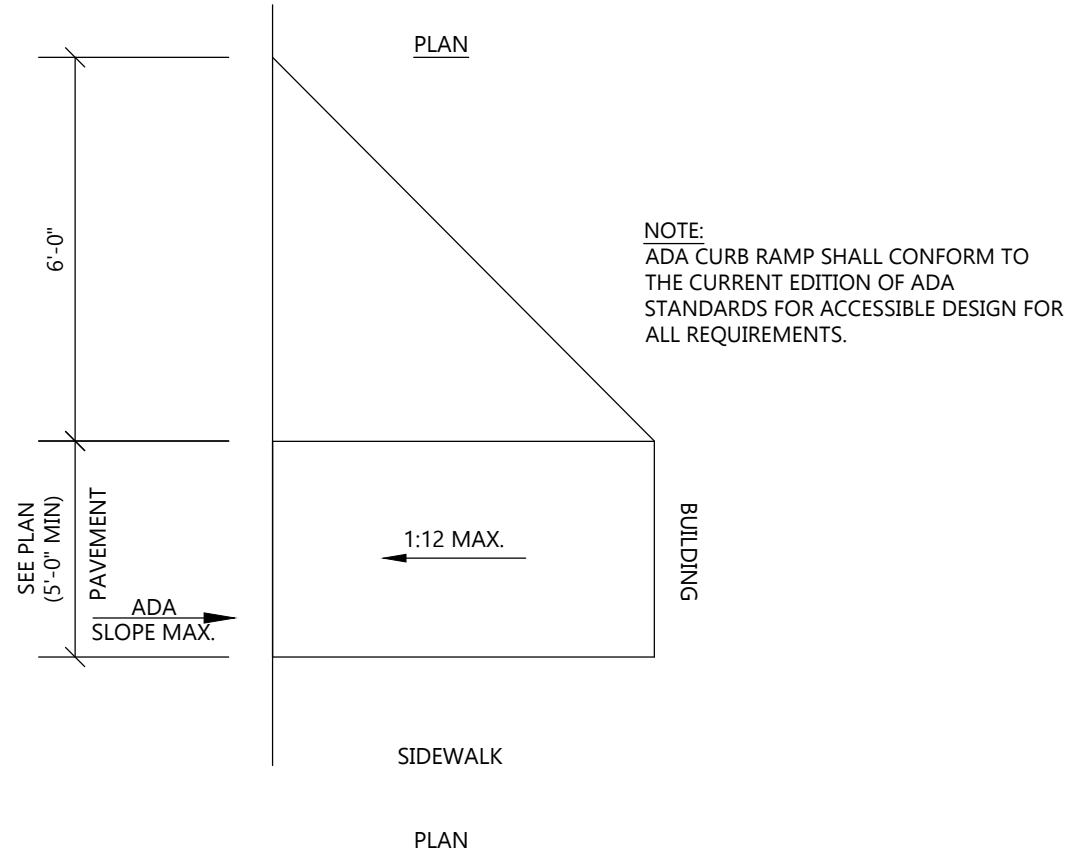
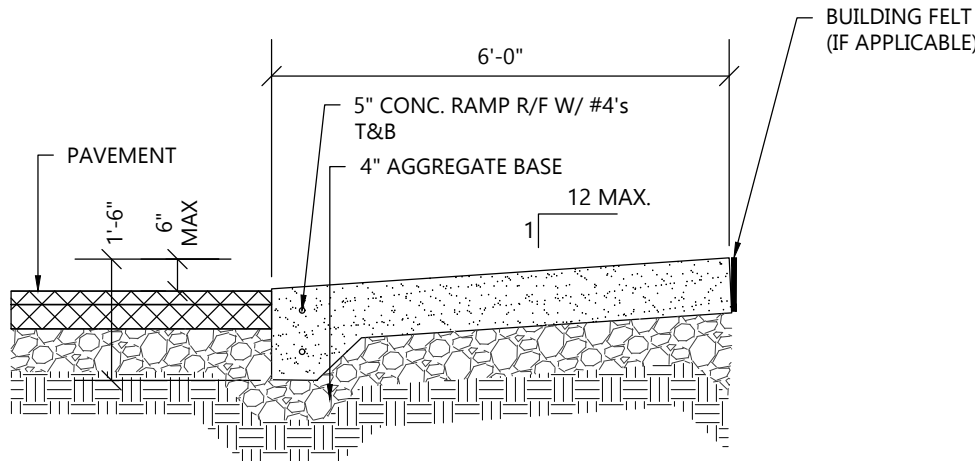
TYPICAL PAVER SECTION
NO SCALE



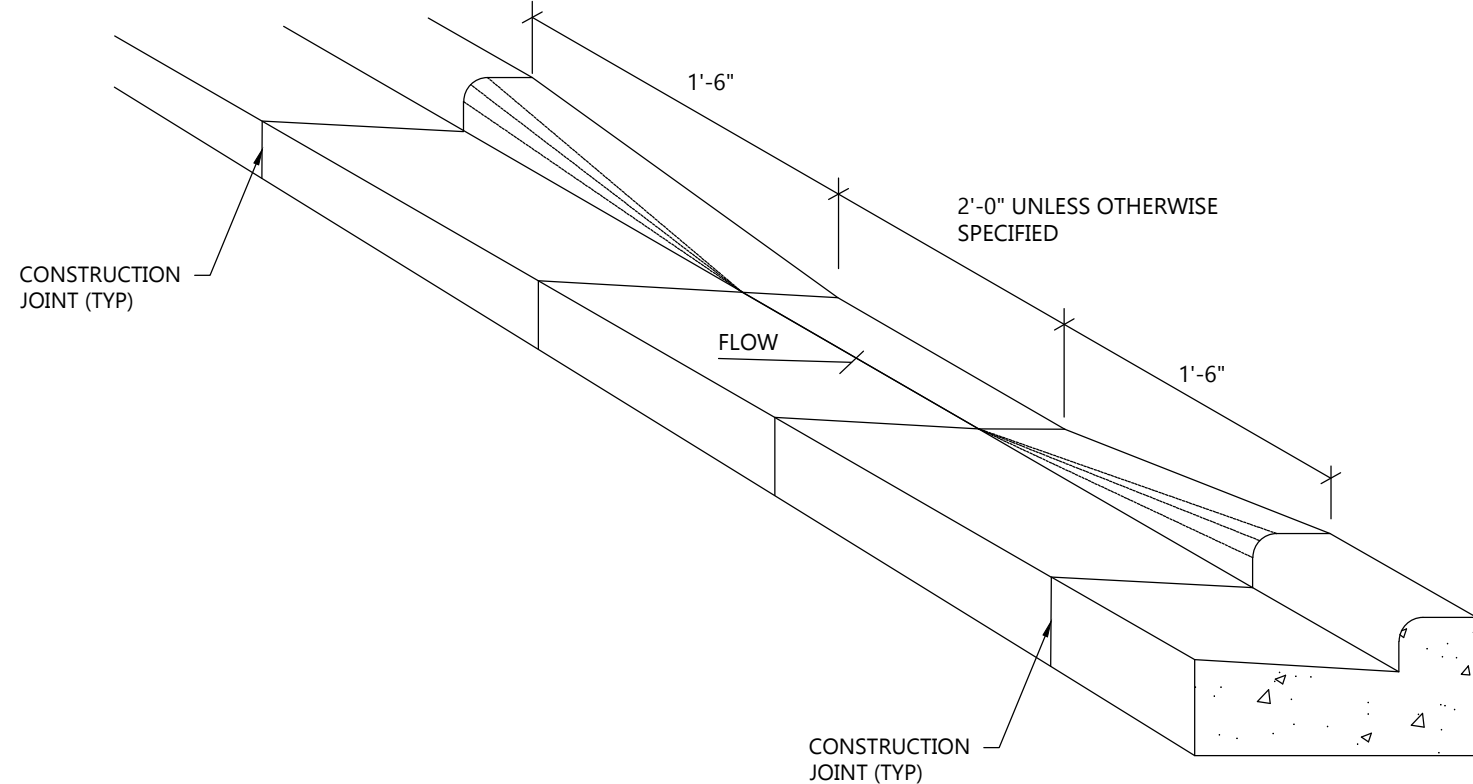
CURB TAPER DETAIL
NOT TO SCALE



6" PIPE BOLLARD DETAIL
NOT TO SCALE



ADA SIDEWALK RAMP DETAIL
NOT TO SCALE



CURB CUT DETAIL
NOT TO SCALE

PROJECT INFORMATION

PROPOSED COFFEE SHOP FOR:
7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

PRELIMINARY DATES

APR. 14, 2025

JOB NUMBER

240268000

SHEET NUMBER

C2.0

PROJECT INFORMATION

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7-BREW MILWAUKEE
3702 S 27TH STREET • MILWAUKEE, WI 53221

PROFESSIONAL SEAL

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APR. 14, 2025

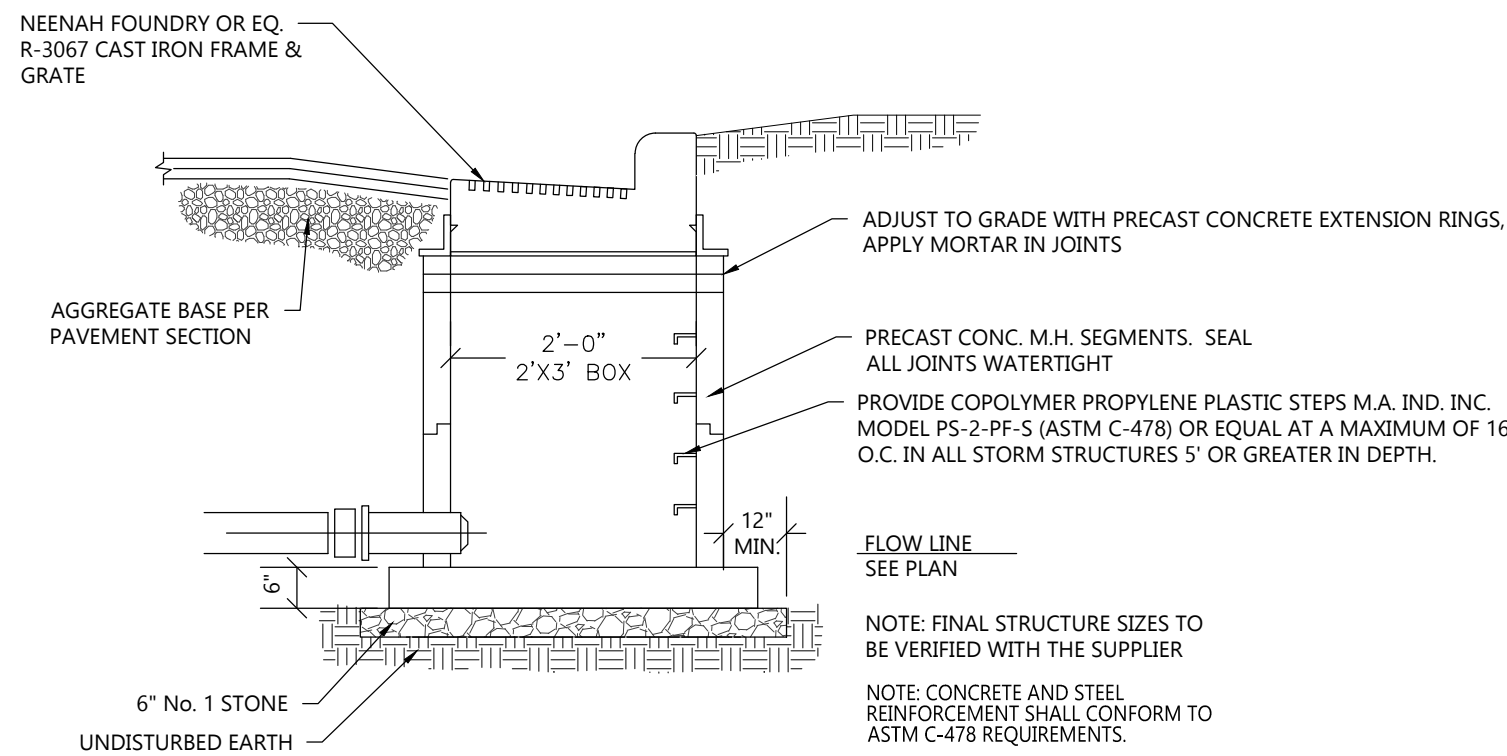
NOT FOR CONSTRUCTION

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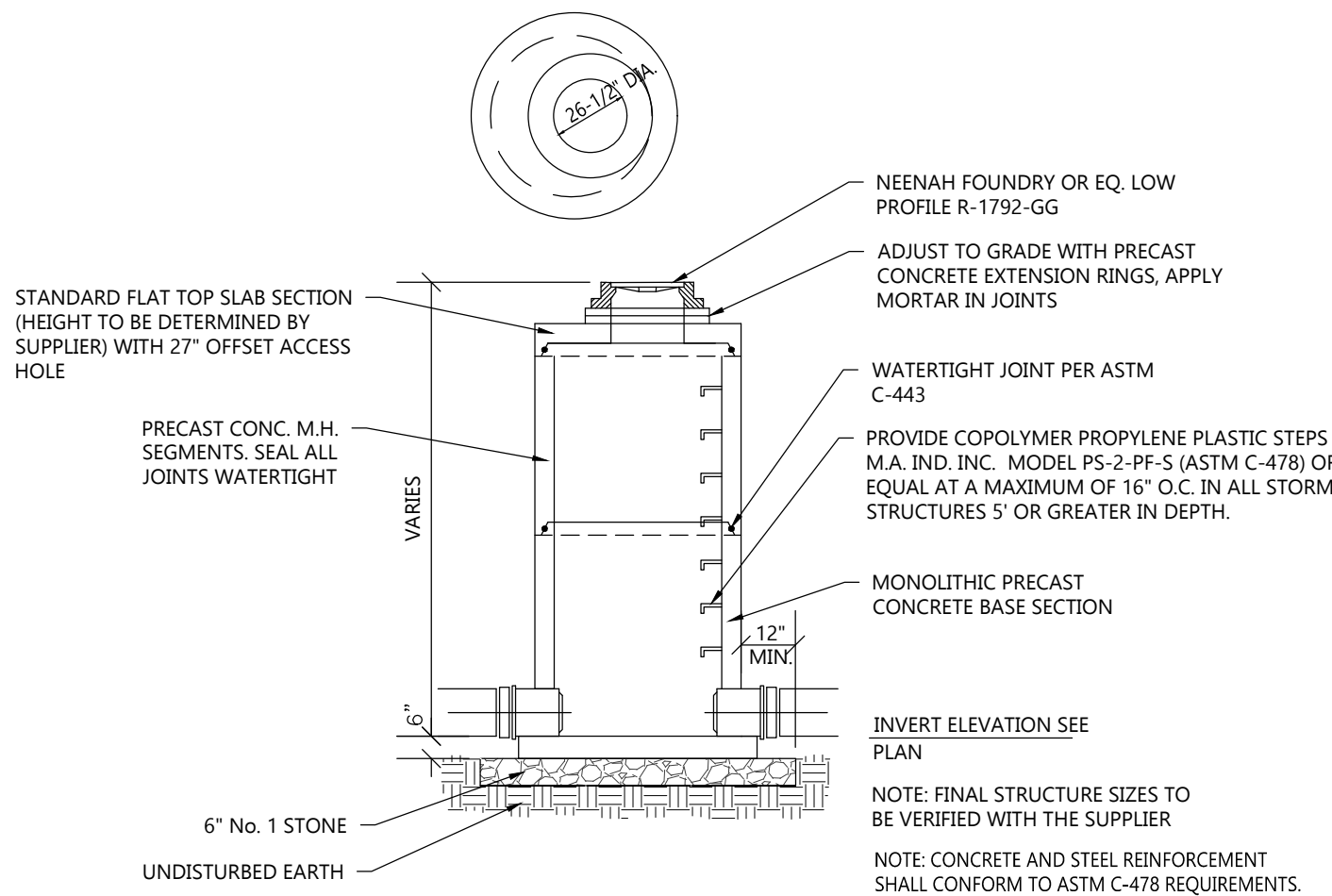
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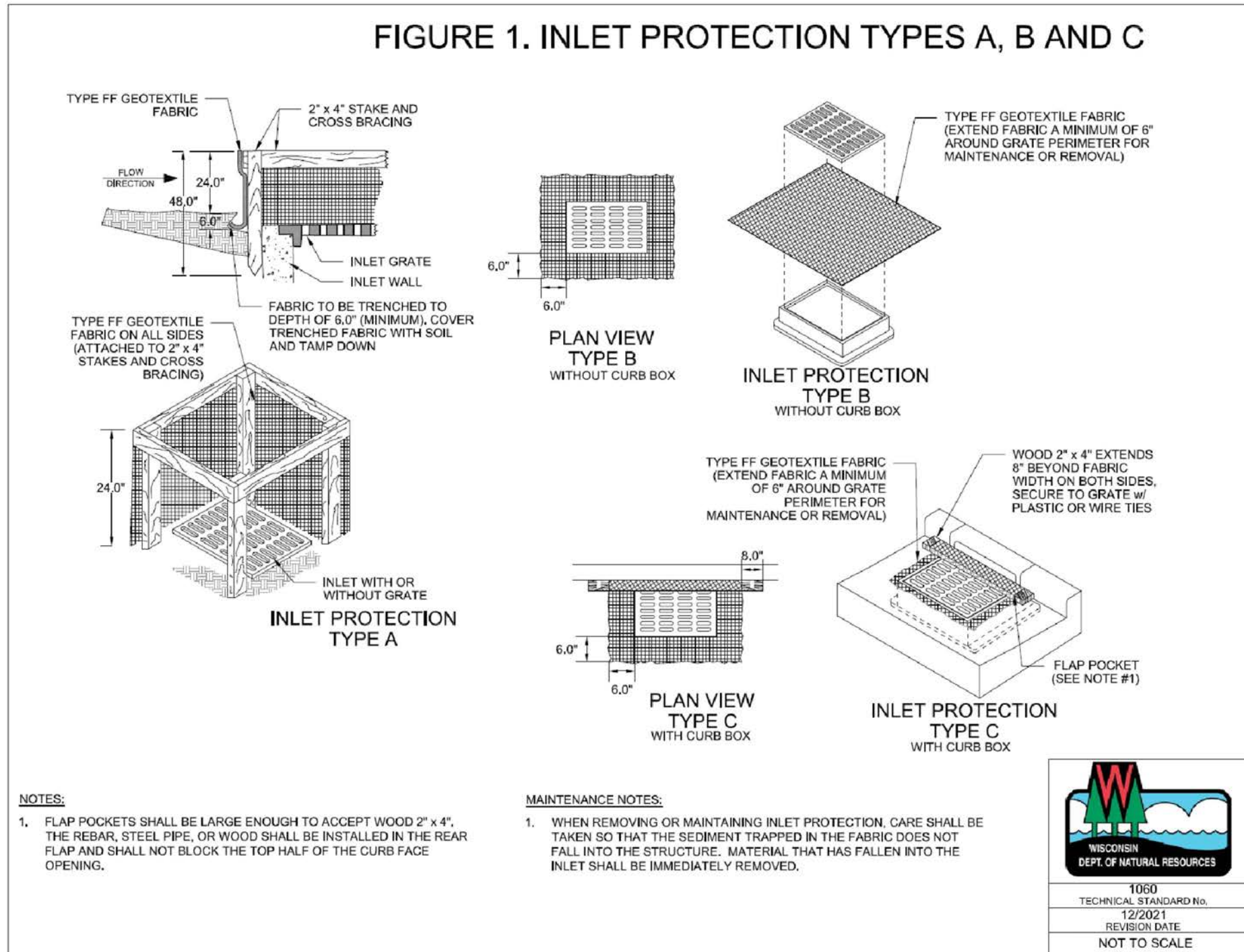
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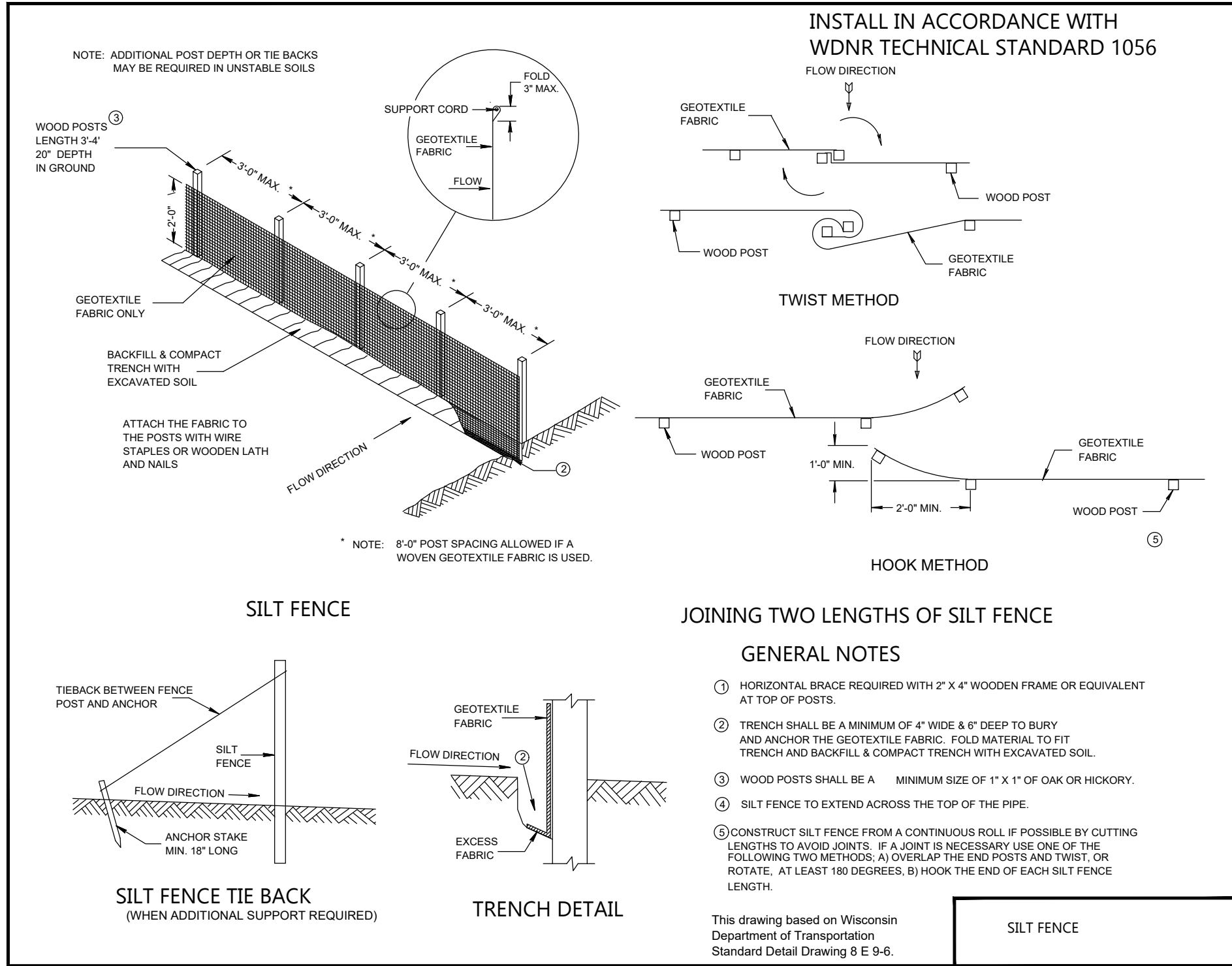
STORM CURB INLET DETAIL
NOT TO SCALE



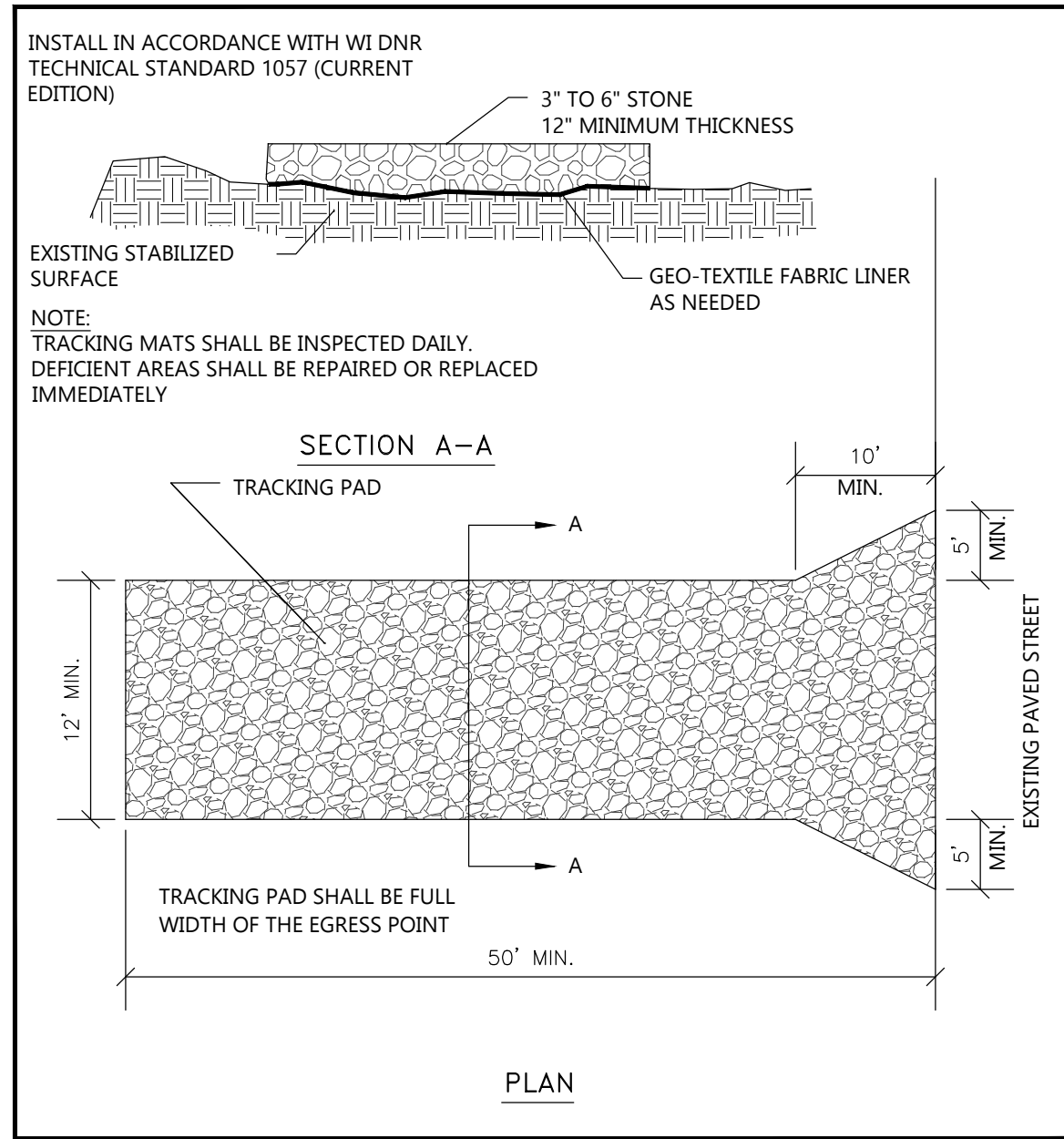
STORM CATCH BASIN DETAIL
NOT TO SCALE



INLET PROTECTION DETAIL
NOT TO SCALE



SILT FENCE - INSTALLATION DETAIL
NOT TO SCALE



TRACKPAD DETAILS
NOT TO SCALE

CONSTRUCTION SEQUENCE

PHASE	TYPE OF ACTION
1. PRE-CONSTRUCTION ACTION	<ol style="list-style-type: none">CONTRACTOR TO CALL DIGGERS HOTLINE AT A MINIMUM OF 3 DAYS PRIOR TO CONSTRUCTION.CONTRACTOR TO FIELD VERIFY LOCATION AND DEPTH OF ALL UTILITIES WITHIN THE PROJECT AREA PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF DISCREPANCIES.PLACE ALL SILT FENCE AND INLET PROTECTION.CONSTRUCT TRACKING STONE ENTRANCES AND ANY TEMPORARY CONSTRUCTION ROADWAYS AS NEEDED.CONSTRUCT PERMANENT STORMWATER CONVEYANCE SYSTEMS.CONSTRUCT ANY TEMPORARY STORMWATER CONVEYANCE SYSTEMS AS NEEDED.STABILIZE ALL TEMPORARY AND PERMANENT EROSION CONTROL AND STORMWATER CONVEYANCE SYSTEMS BEFORE TOPSOIL CAN BE STRIPPED.
2. CONSTRUCTION ACTION	<ol style="list-style-type: none">SITE DEMOLITION AS REQUIRED.STRIP AND RELOCATE TOPSOIL TO THE DESIGNATED TOPSOIL STOCKPILE. LOCATION BY OWNER. FINAL LOCATION BY CONTRACTOR. PROVIDE PERIMETER SILT FENCE UNTIL STABILIZED.BEGIN MASS EARTH WORK FOR THE BUILDING PAD AND PAVEMENT AREAS.CONSTRUCT ANY REMAINING STORMWATER CONVEYANCE SYSTEMS, AND INSTALL ALL OTHER UTILITIES ON SITE.DIG AND POUR ALL BUILDING FOOTINGS.PLACE GRAVEL FOR ALL PROPOSED PAVEMENT AREAS, INCLUDING FIRE LANES.TOPSOIL, SEED, AND MULCH ALL DISTURBED AREAS OUTSIDE THE BUILDING AND PROPOSED PAVEMENT AREAS.CONSTRUCT BUILDING.PAVE DRIVEWAYS AND PARKING AREAS.TOPSOIL, SEED, AND MULCH ALL OTHER DISTURBED AREAS.
3. POST CONSTRUCTION ACTION	<ol style="list-style-type: none">CONTRACTOR TO REMOVE TEMPORARY EROSION CONTROL MEASURES UPON SITE STABILIZATION.

CONTRACTOR TO FOLLOW THE EROSION CONTROL SPECIFICATIONS FOR CONSTRUCTION EROSION CONTROL INSPECTION AND MAINTENANCE.

100 Camelot Drive
Fond du Lac, WI 54935
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excelengineer.com

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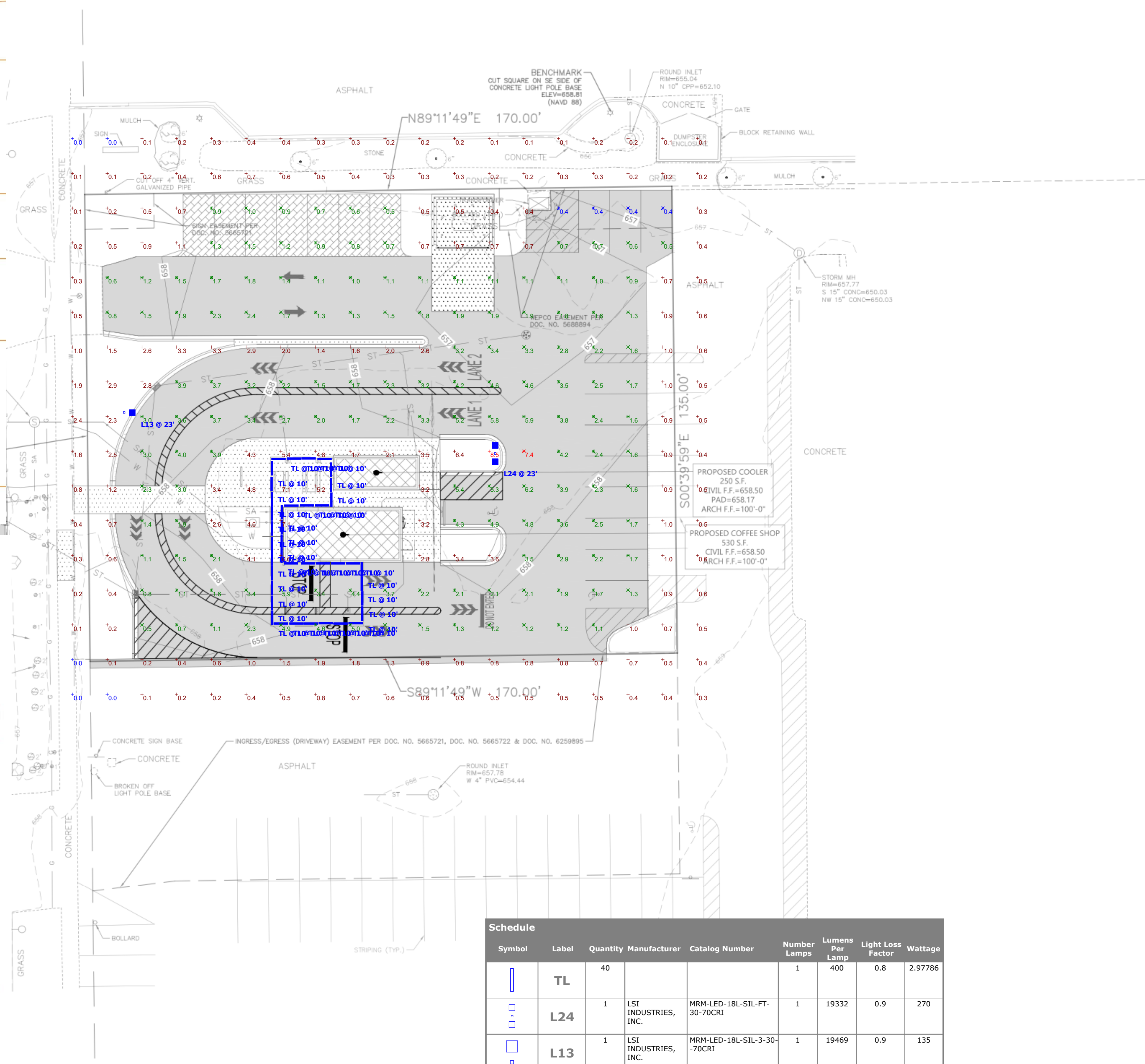
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JOB NUMBER

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SHEET NUMBER

C3.1

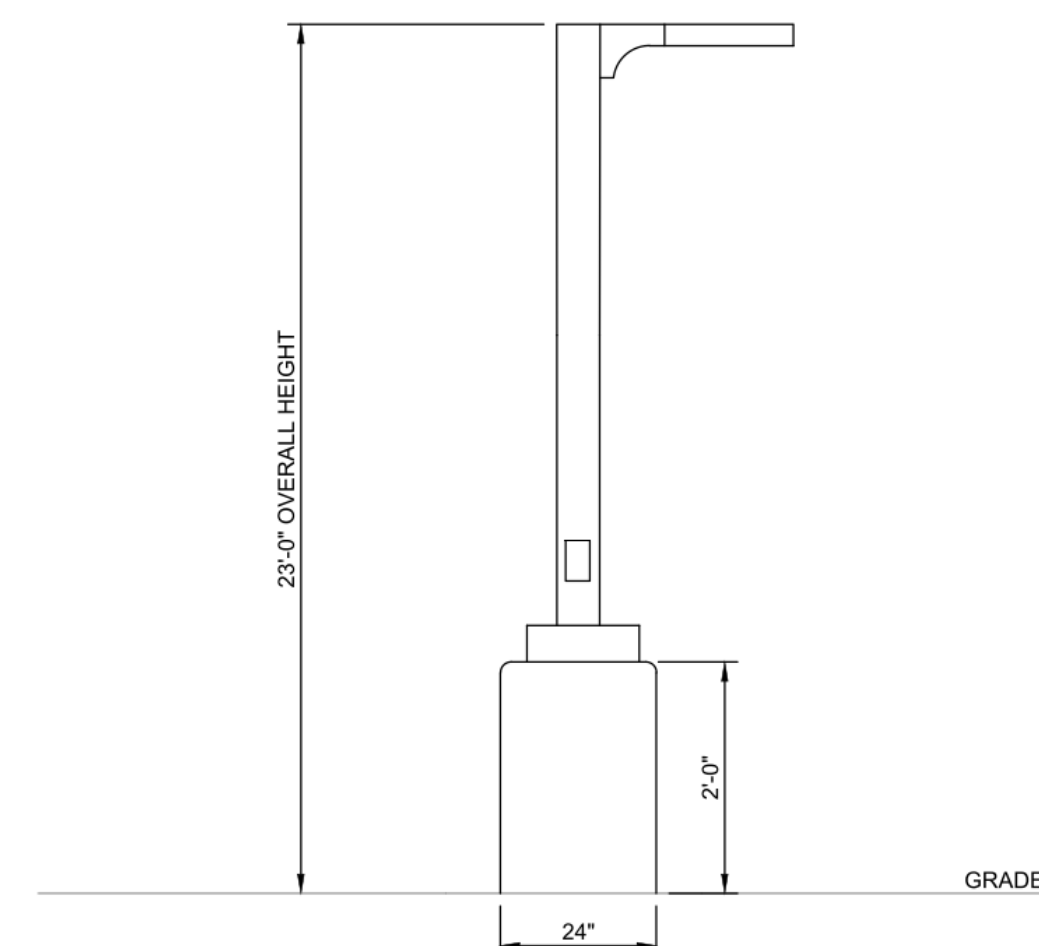


Schedule								
Symbol	Label	Quantity	Manufacturer	Catalog Number	Number Lamps	Lumens Per Lamp	Light Loss Factor	Wattage
	TL	40			1	400	0.8	2.97786
	L24	1	LSI INDUSTRIES, INC.	MRM-LED-18L-SIL-FT-30-70CRI	1	19332	0.9	270
	L13	1	LSI INDUSTRIES, INC.	MRM-LED-18L-SIL-3-30-70CRI	1	19469	0.9	135

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PARKING LOT	✗	2.3 fc	7.4 fc	0.4 fc	18.5:1	5.8:1
Calc Zone #1	+	1.7 fc	8.5 fc	0.0 fc	N/A	N/A



CIVIL SITE PHOTOMETRIC PLAN & DETAILS

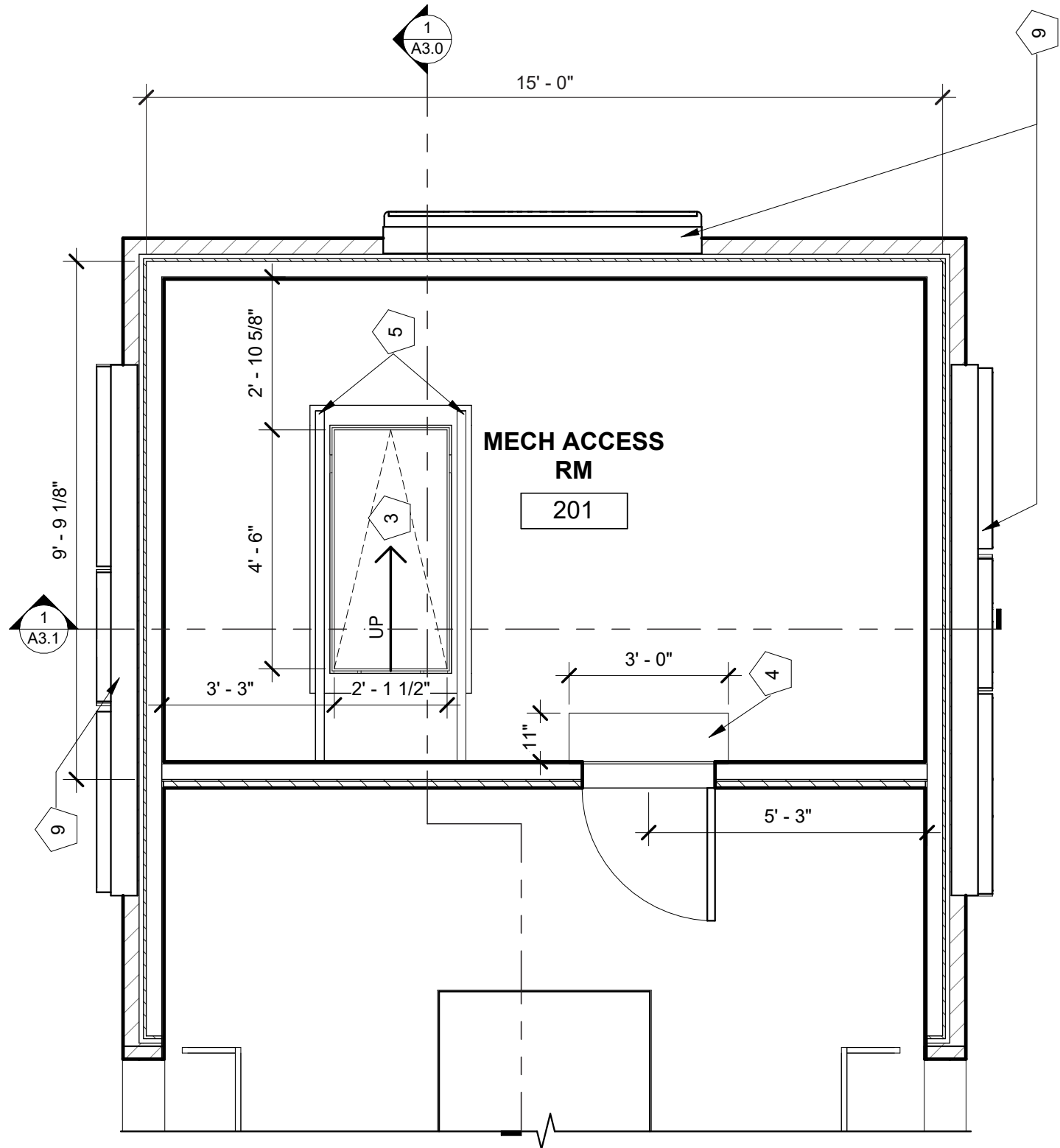


LIGHT POLE DETAIL

NO SCALE

LSI Industries Inc. 10000 Alliance Rd. Cincinnati, OH 45242 • (513) 372-3200 • www.lsicorp.com Page 1/11 Rev. 07/11/24

Page 1/11 Rev. 07/11/24



2 MECH ACCESS RM
3/8" = 1'-0"

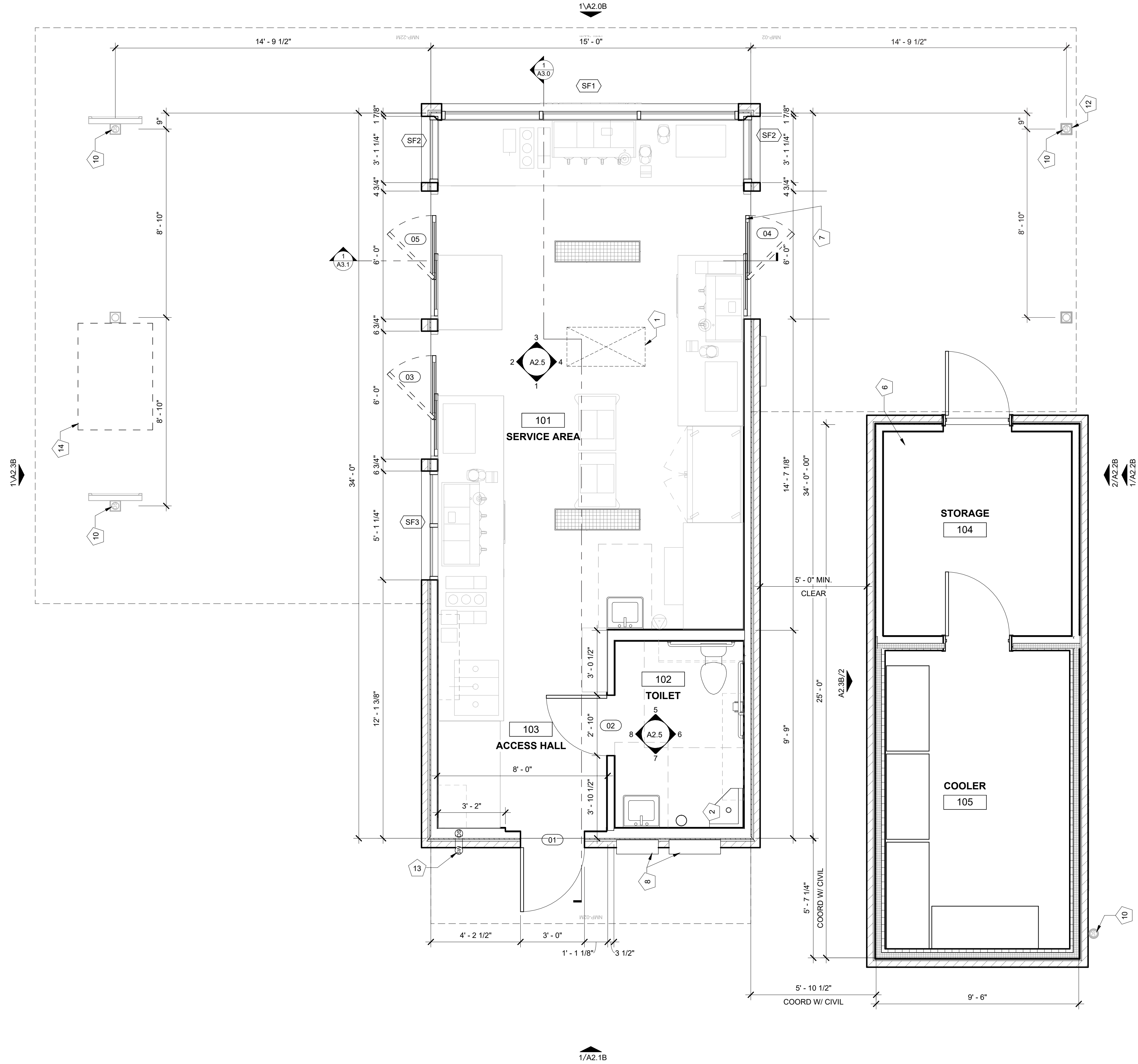
FLOOR PLAN KEYNOTES	
Note Number	Note Text
1	ACCESS DOOR FOR CRAWLSPACE ACCESS
2	MOP SINK RE: PLUMBING DRAWINGS
3	MECH. ACCESS DOOR AND LADDER - SUPPLIED BY OWNER
4	STEP, CENTER ON DOOR
5	PREFABRICATED COMPLIANT MECHANICAL SERVICE GUARDRAIL PER IBC SECTION 1015 - EACH SIDE
6	PREFABRICATED COOLER BY NATIONAL MODULAR MANUFACTURING; COORD LOCATION & SPECS WITH CIVIL & STRUCT
7	ADA AUTO/MANUAL EGRESS CAPABLE
8	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; SEE ELECTRICAL
9	STOREFRONT SIGNS - SUPPLIED AND INSTALLED BY SIGN CONTRACTOR
10	DOWNSPOUT CONNECTION TO STORMWATER SYSTEM; REF CIVIL
11	DOWNSPOUT SCUPPER TO GRADE; REF CIVIL
12	SITE CONTRACTOR TO COORDINATE CIVIL AND STRUCTURAL DRAWINGS TO ENSURE ALL CANOPY COLUMN FOUNDATION PLATES AND BOLTS ARE CONSTRUCTED IN A MANNER THAT CONCEALS THEIR CONNECTIONS COMPLETELY BELOW GRADE; TYP.
13	DOWNSPOUT OUTLET - STORMWATER CONNECTION
14	WARMING HUT

CANOPY COLUMN FOOTING NOTES:

DO NOT POUR TOP OF CANOPY COLUMN FOOTINGS MORE THAN 6" BELOW TOP OF BUILDING FOUNDATION WALL.

TOP OF FOOTINGS SHOULD BE A MINIMUM OF 6" BELOW ADJACENT PAVING ELEVATION.

1 FLOOR PLAN
3/8" = 1'-0"



PLAN NORTH

EQUIPMENT AND FIXTURE SCHEDULE

MARK	QTY.	MANUFACTURER	PRODUCT	PRODUCT NO.	SIZE	NOTES
EQ-1	1	NATIONAL MODULAR MANUFACTURING	REMOTE WALK-IN COOLER W/ STORAGE	CUSTOM	282 SQUARE FEET	
EQ-1.2	1	SUPPLIED WITH COOLER	CONDENSER			
EQ-2	1	BUNN WATER HEATER	HOT WATER MACHINE	HSX-ELEMENT		
EQ-3	1	LA MARZOCCO	ESPRESSO MACHINE	LINEA PB (AV) - 3		
EQ-4	2	LA MARZOCCO	ESPRESSO MACHINE	LINEA PB (AV) - 4		
EQ-5	2	MANITOWOC	ICE MAKER HEADS	IYF 1800 C		A
EQ-6	1	MANITOWOC	ICE MAKER BIN	LB 1760	60"	
EQ-7	27	TORRANI	SYRUP RACK			C
EQ-8	3	VITAMIX	BLENDER			C
EQ-9	3	STAINLESS STEEL VENDOR	STAINLESS STEEL STORAGE SHELVING		(A) 55 42" x 36" x 36" (B) 55 36" x 60" x 72" (C) 55 12" x 36" x 80" (D) 55 36" x 36" x 84"	B
EQ-10	2	SPACEMAN	CHILLER MACHINE	6695-C		
EQ-10.1	1	SPACEMAN	STAND/ROLLING CART	CART-550		
EQ-11	3	MAZZER	COFFEE BEAN GRINDER	ROBUR S NERO		
EQ-12	1	MAZZER	DECAF COFFEE BEAN GRINDER	SUPER JOLLY PRO V (E) NERO		
EQ-13	3	RUBBERMAID	TRASH CONTAINER			C
EQ-14	1	ATOSA	REACH-IN COOLER	MCF8723GR	54"	B
EQ-15	3	LA CROSSR	MOBILE ICE BINS	513034 CL-24ICCAR-31	36"	B
EQ-16	1	TRAULSEN	UNDERCOUNTER COOLER	CULC-36R-GD	36"	B
EQ-17	3	STRONGWAY	AIR CURTAIN	49947	36"	D
EQ-18	4	BLEND TECH	RAPID RINSER			B
EQ-19	3	T&S BRASS	RINSE WELL W/ STEM	B-2282-01-F05		
EQ-20	1	ATOSA	HAND WASH SINK	MRS-HS-18(W)	18" x 14" x 5"	B
EQ-21	2	EPOXY-COATED WALL SHELF	WALL-MOUNTED SHELF		48" x 14"	B
EQ-22	4	EPOXY-COATED SHELVING UNIT	COOLER SHELVING		(A) 24" x 48" (B) 24" x 60"	B
EQ-23	1	STAINLESS WALL SHELF	WALL-MOUNTED SHELF		36" x 14"	B
EQ-24	1	MULTIPURPOSE DRY CHEMICAL (2A:10BC) FIRE EXTINGUISHER	FIRE EXTINGUISHER	PER NFPA 10		C

GENERAL SCHEDULE NOTES:

ALL EQUIPMENT TO BE INSTALLED BY A LICENSED INSTALLER AND TO MANUFACTURER SPECIFICATIONS

EQUIPMENT SCHEDULE NOTES:

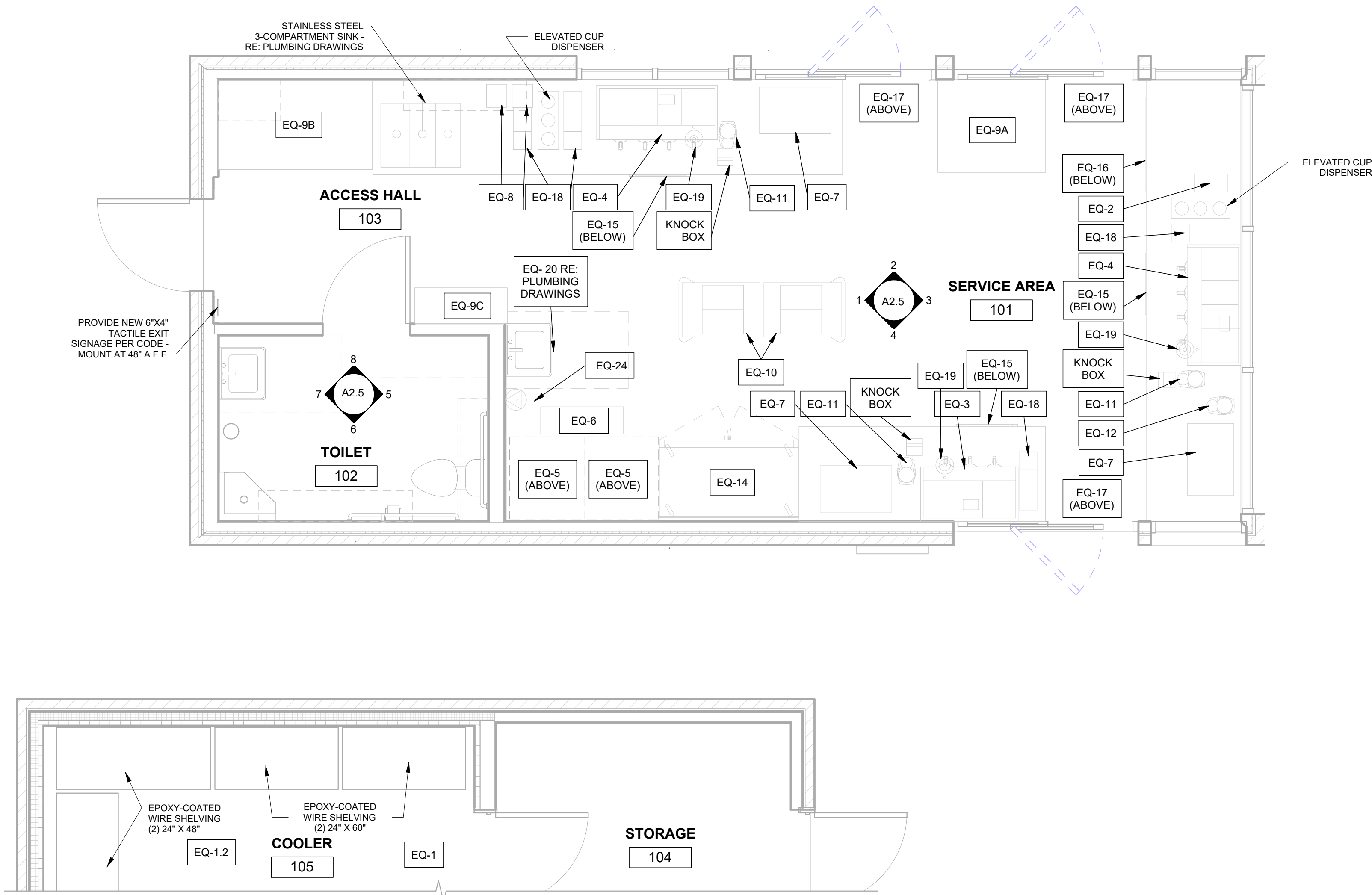
- A. REMOTE CONDENSER - IF 1800C
- B. EQUIPMENT MANUFACTURER IS OPTIONAL BUT MUST BE EQUAL APPROVED BY 7BREW - U.N.O.
- C. PROVIDED BY SMALLWARES PROVIDER
- D. PROVIDED BY BUILDING MANUFACTURER

FINISH MATERIALS SCHEDULE

CODE	ITEM	DESCRIPTION	REMARKS
BRK-1	MODULAR BRICK	BRAND: GLEN GERY COLOR: BLACK PEARL FINISH: WIRE CUT	EXTERIOR WAINSCOT AND REAR WALL a., d.
BRK-2	MODULAR BRICK	BRAND: GLEN GERY COLOR: STONE GREY FINISH: KLAYCOAT	EXTERIOR WALLS ABOVE WAINSCOT & ATTIC REAR b.
FRP-1	FRP WALL COVERING	BRAND: NUDO FIBERLITE COLOR: WHITE SIZE: 4'x FULL HEIGHT x .090"	SERVICE AREA & TOILET a.
MP-2	BRAKE METAL	BRAND: BERRIDGE COLOR: ROYAL BLUE FINISH: LOW SHEEN SMOOTH	METAL ROOF AND CANOPIES a.
MP-3	BRAKE METAL	BRAND: BERRIDGE COLOR: ZINC GREY FINISH: LOW SHEEN SMOOTH	METAL COPING AT REAR WALL a.
MP-4	BRAKE METAL	BRAND: BERRIDGE COLOR: ZINC GREY FINISH: LOW SHEEN SMOOTH	METAL COPING AT SIDE WALLS a.
PT-1	PAINT	BRAND: SHERWIN WILLIAMS COLOR: "INDIGO" SW 6531 FINISH: EGGSHELL	CEILING TRIMS AND MISC TRIMS a., c.
PT-2	PAINT	BRAND: SHERWIN WILLIAMS COLOR: "FIRST STAR" SW 7646 FINISH: SEMI-GLOSS	CEILING, INTERIOR TOILET ROOM WALLS, DOORS, AND FRAMES a., c.
VB-1	RESILIENT VINYL BASE	BRAND: AMARCO COLOR: LIGHT GRAY STYLE: PROTECT-ALL BASE	SERVICE AREA AND TOILET a.
VT-1	RESILIENT VINYL FLOORING	BRAND: AMARCO COLOR: LIGHT GRAY STYLE: PROTECT-ALL FLOORING	SERVICE AREA AND TOILET a.

FINISH MATERIALS SCHEDULE NOTES:

- a. SITE CONTRACTOR TO COORDINATE WITH PREFABRICATOR DIRECTLY TO DETERMINE SCOPE SPLIT OF ITEMS PROVIDED/INSTALLED/FINISHED WITHIN FABRICATION FACILITY VERSUS ON-SITE.
- b. PROVIDE COMPLETE ARCHITECTURAL SIDING SYSTEM AND ACCESSORIES, INCLUDING MATCHING MANUF FABRICATED CORNERS, FLASHINGS, AND TRIMS. SIDING INSTALLATION PER MANUF INSTALLATION INSTRUCTIONS.
- c. PROVIDE A MINIMUM OF TWO (2) COATS PAINT OVER ONE (1) COAT PRIMER ON ALL EXPOSED GYP BD IN SERVICE AREA AND TOILET.
- d. PROVIDE COMPLETE NICHIIA SYSTEM AND ACCESSORIES INCLUDING MATCHING MANUF. FABRICATED CORNERS, FLASHINGS, AND TRIMS. INSTALL PER MANUF. INSTALLATION INSTRUCTIONS.



1 FIXTURE PLAN

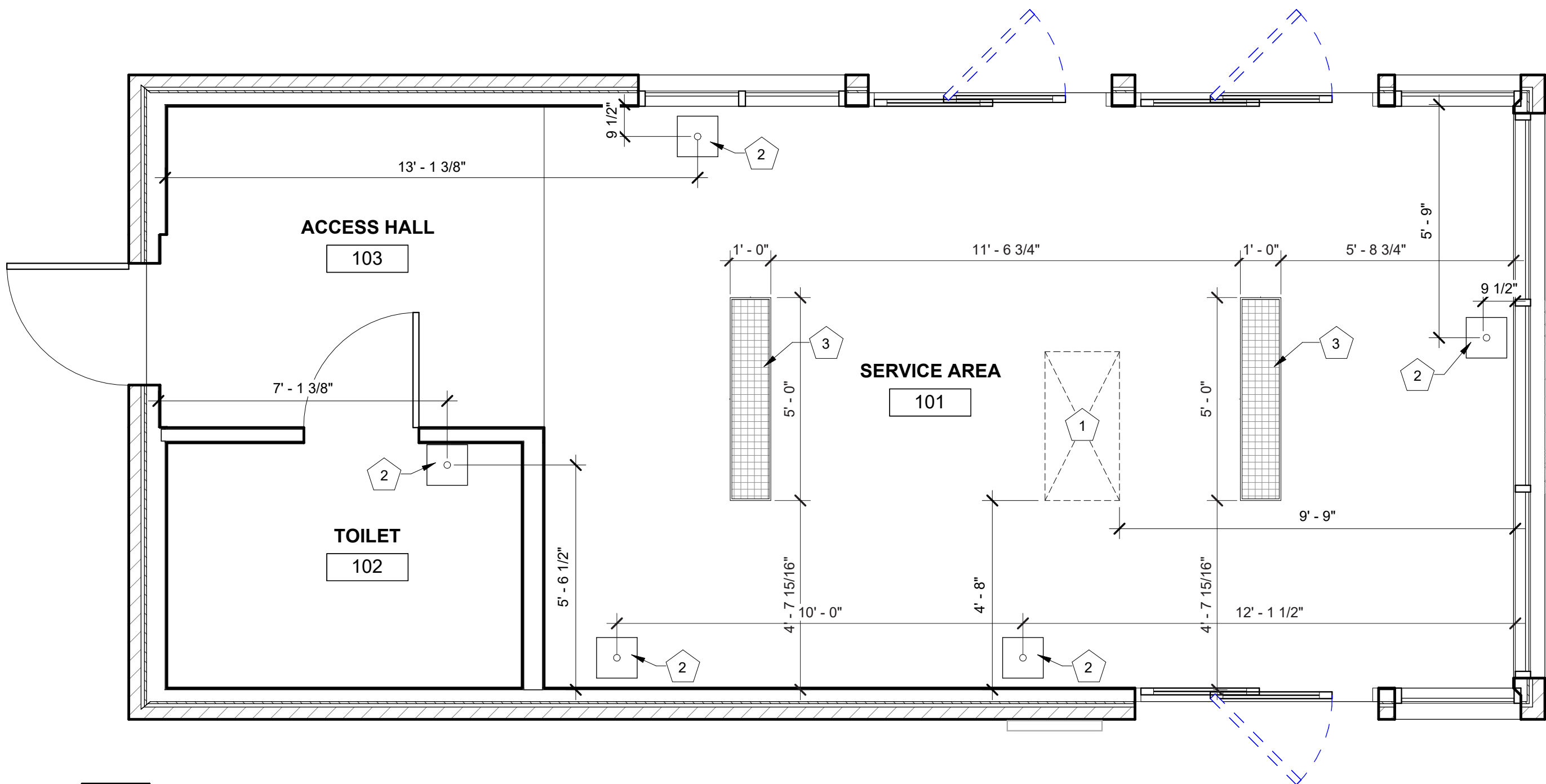
3/8" = 1'-0"

FLOOR FINISH GENERAL NOTES

- 1. PROTECT-ALL VINYL FLOORING AND COVE BASE THROUGHOUT SERVICE AREA AND TOILET - TYP.

FLOOR FINISH KEYNOTES

NOTE NO.	NOTE TEXT
1	ACCESS DOOR FOR CRAWLSPACE ACCESS
2	12"x12" FLOOR SINK WITH 3/4 GRATE
3	12"x60" FLOOR DRAIN AND GRID GRATE



2 FLOOR FINISH PLAN

3/8" = 1'-0"

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sheet issue date:
04/11/2025

project no.:
22.23.10

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FINISH AND FIXTURE
PLANS

sheet no.:

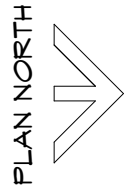
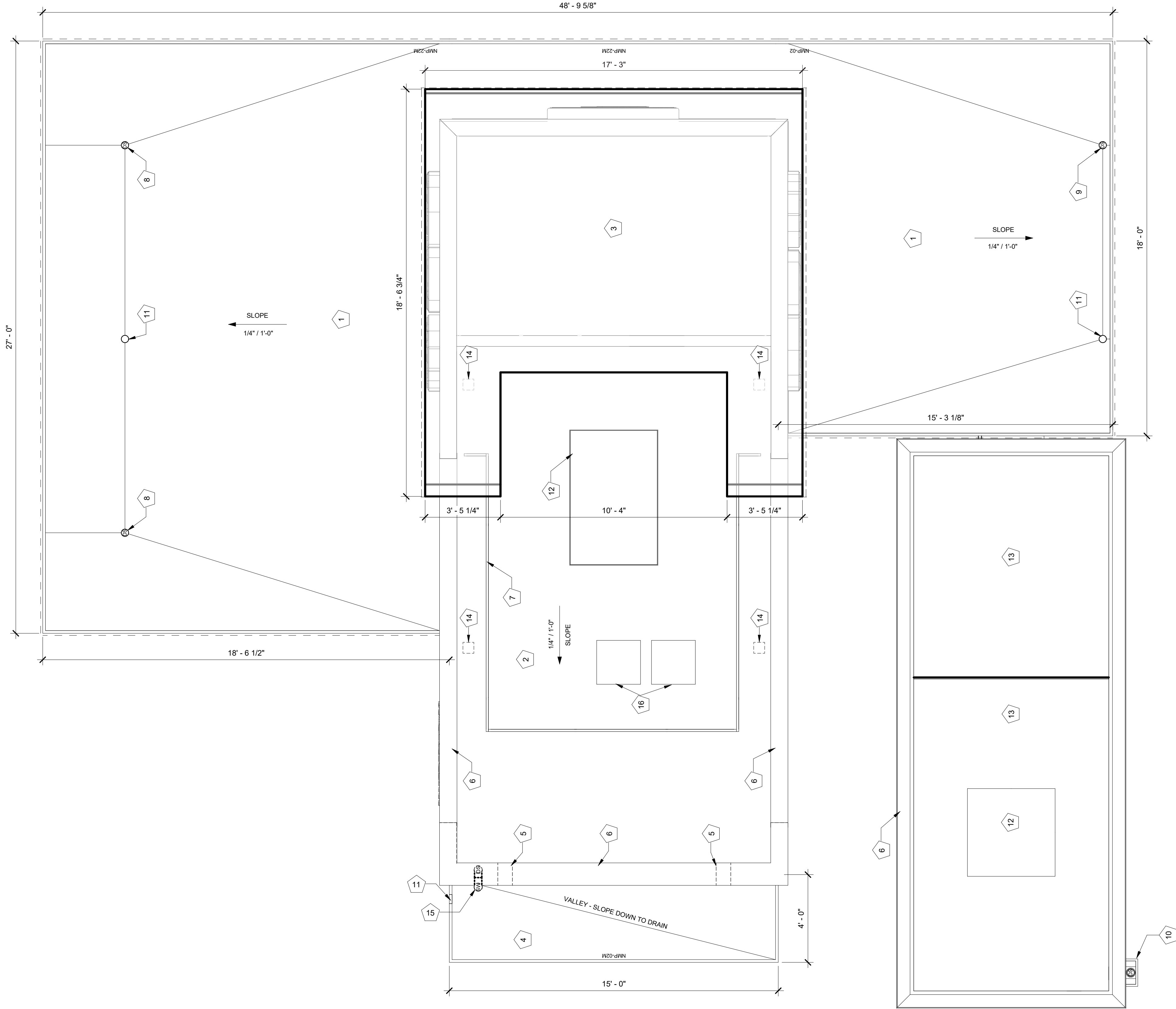
A1.3

ROOF PLAN KEYNOTES	
Note Number	Note Text
1	PRE-ENGINEERED CANOPY AND FRAMING; RE: CANOPY SHOP DRAWINGS
2	TPO ROOFING ON 5/8" CDX ROOF SHEATHING
3	CORRUGATED ARC METAL ROOF ON #15 FELT ON PLYWOOD ROOF SHEATHING
4	TPO ROOFING ON 5/8" CDX ROOF SHEATHING ON BUILT-UP 2x CRICKET FRAMING
5	8" WIDE X 4" HIGH TPO ROOF SCUPPER WITH SHEET METAL UNDERLAYMENT AT REAR WALL
6	BRAKE METAL CAP; REF ELEVATIONS
7	3' - 6" GUARDRAIL
8	ROOF DRAIN WITHIN STRUCTURAL COLUMN; CONNECT TO STORMWATER COLLECTION SYSTEM; REF CIVIL
9	ROOF DRAIN WITHIN STRUCTURAL COLUMN; DOWNSPOUT SCUPPER TO GRADE; REF CIVIL
10	ROOF DRAIN; DOWNSPOUT TO BE GALVANIZED, PAINTED, STEEL; CONNECT TO SUB-GRADE STORMWATER COLLECTION SYSTEM; RE: CIVIL
11	OVERFLOW ROOF DRAIN
12	HVAC EQUIPMENT
13	ROOFING PER COOLER MANUF
14	MODULAR BUILDING PICK POINTS WITH ROOFING COLLAR; REF STRUCT
15	CONNECT ABOVE-GRADE DOWNSPOUT OUTLET TO SUB-GRADE STORMWATER COLLECTION SYSTEM; REF CIVIL
16	ICE MACHINE CONDENSERS; SITE CONTRACTOR TO DETERMINE FINAL LOCATION

1

ROOF PLAN

3/8" = 1'-0"



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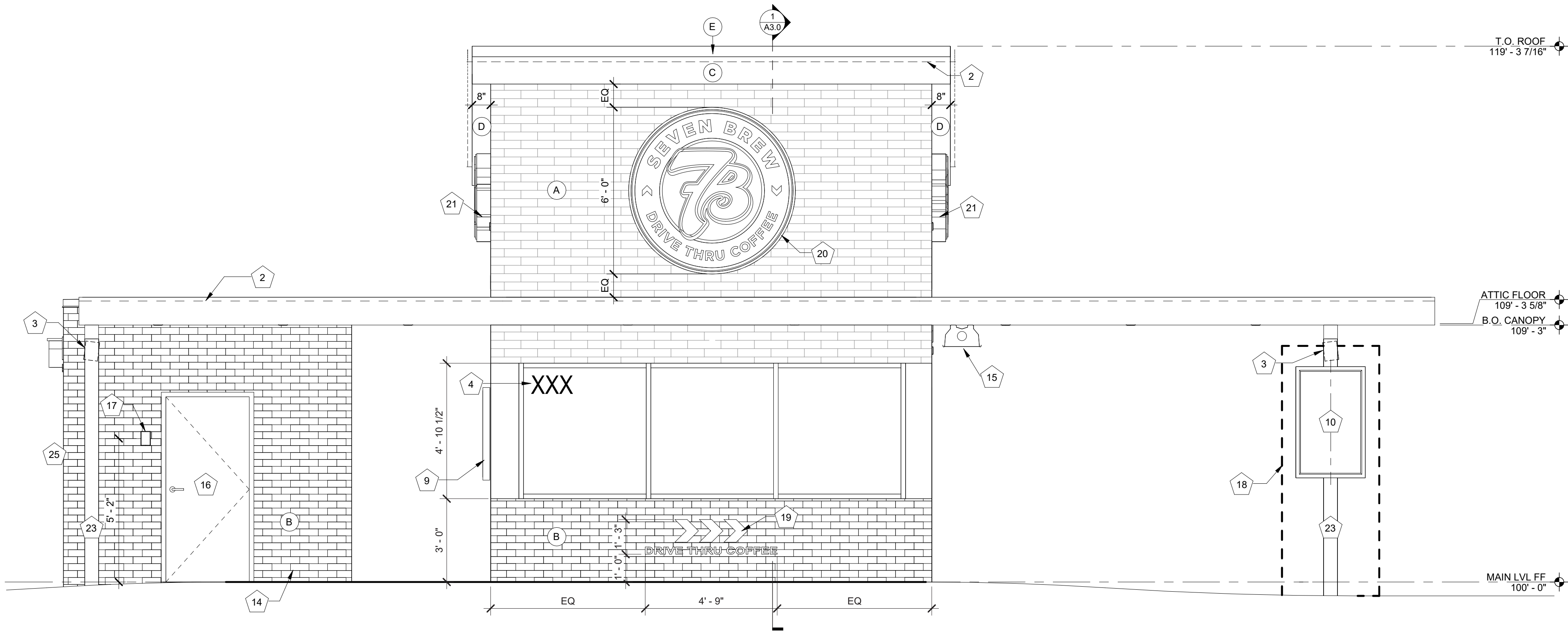
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ROOF PLAN

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1

EXTERIOR ELEVATION - WEST

3/8" = 1'-0"



EXTERIOR ELEVATION KEYNOTES

Note Number	Note Text
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	SURFACE-MOUNTED LED NEON FLEX LIGHTING AS INDICATED (SHOWN DASHED); TY; REF ELECTRICAL
3	MOUNTED SPEAKER SYSTEM; SEE SYSTEMS PLAN
4	ADDRESS NUMBERS TO BE 8" TALL x 2" BRUSH STROKE
5	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
6	FROST-PROOF FLUSH HOSE BIB
7	EXTERIOR WEATHER-PROOF OUTLET; REF ELECTRICAL
8	THROUGH WALL SCUPPER ROOF DRAIN
9	SURFACE-MOUNTED LIGHTED SIGN BOX
10	SAMSUNG DIGITAL DISPLAYS -INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
11	GUARDRAIL: 3' - 6' ABOVE ATTIC FLOOR
12	HVAC EQUIPMENT
13	OUTLINE OF MECHANICAL UNIT BEYOND
14	PREFABRICATED COOLER BY NATIONAL MODULAR MANUFACTURING; COORD LOCATION & SPECS WITH CIVIL & STRUCT
15	CANOPY HEATER
16	36" COOLER DOOR
17	COOLER LOCK & CONTROLS
18	WARMING HUT
19	1/4" THICK ACRYLIC SIGNAGE APPLIED TO SIDING WITH VH DOUBLE SIDE TAPE
20	ROUND STOREFRONT SIGN; SUPPLIED AND INSTALLED BY SIGN CONTRACTOR
21	ILLUMINATED STOREFRONT SIGNAGE BY SIGN CONTRACTOR
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23	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
24	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
25	EXPOSED DOWNSPOUT, GALVANIZED, PAINTED; CONNECT TO SUB-GRADE STORM WATER COLLECTION SYSTEM; REF CIVIL

EXTERIOR ELEVATION MATERIALS LEGEND

Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)

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EXTERIOR ELEVATIONS

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7 BREW DRIVE THRU - MILWAUKEE WI - S 27TH ST

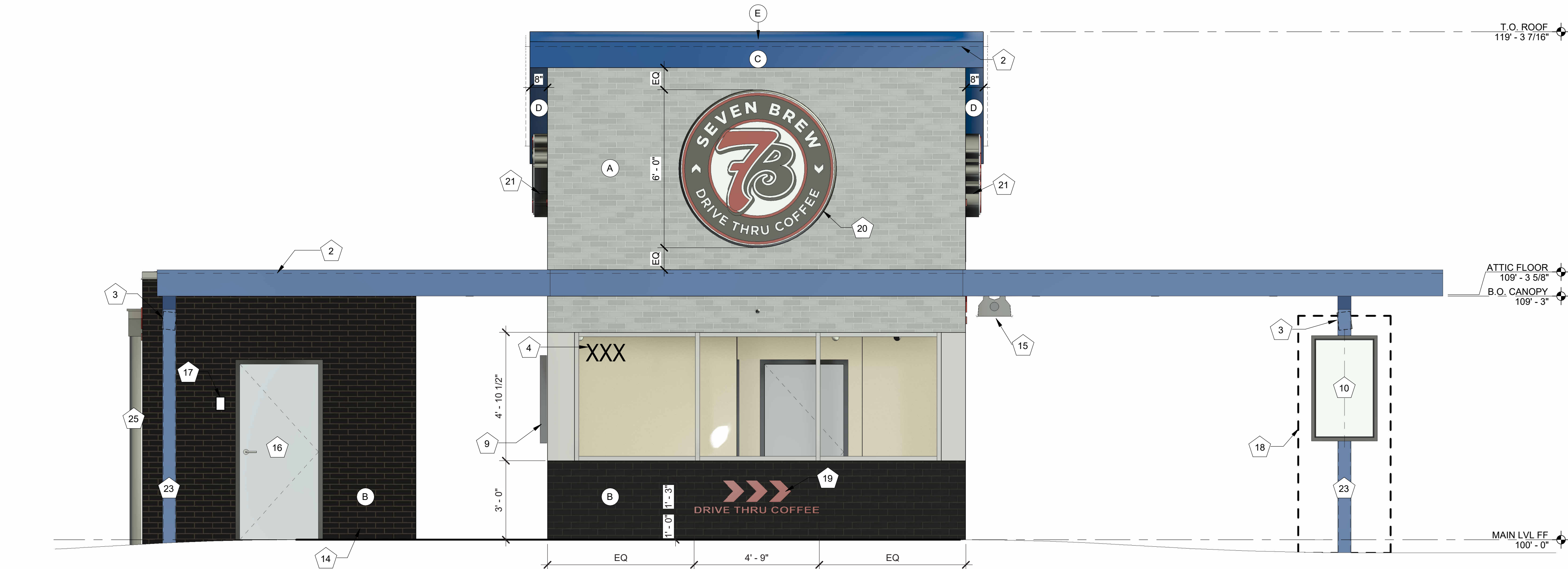
MILBREW HOLDINGS LLC

3702 SOUTH 27TH STREET, MILWAUKEE, WISCONSIN 53221

veritas

architecture + design

707 n. 6th street
kansas city, ks 66101
www.veritas-ad.com
913.308.1460
consulting engineer:



1 EXTERIOR ELEVATION - WEST
3/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES	
Note Number	Note Text
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	SURFACE-MOUNTED LED NEON FLEX LIGHTING AS INDICATED (SHOWN DASHED); TY; REF ELECTRICAL
3	MOUNTED SPEAKER SYSTEM; SEE SYSTEMS PLAN
4	ADDRESS NUMBERS TO BE 8" TALL x 2" BRUSH STROKE
5	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
6	FROST-PROOF FLUSH HOSE BIB
7	EXTERIOR WEATHER-PROOF OUTLET; REF ELECTRICAL
8	THROUGH WALL SCUPPER ROOF DRAIN
9	SURFACE-MOUNTED LIGHTED SIGN BOX
10	SAMSUNG DIGITAL DISPLAYS -INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
11	GUARDRAIL: 3' - 6" ABOVE ATTIC FLOOR
12	HVAC EQUIPMENT
13	OUTLINE OF MECHANICAL UNIT BEYOND
14	PREFABRICATED COOLER BY NATIONAL MODULAR MANUFACTURING; COORD LOCATION & SPECS WITH CIVIL & STRUCT
15	CANOPY HEATER
16	36" COOLER DOOR
17	COOLER LOCK & CONTROLS
18	WARMING HUT
19	1/4" THICK ACRYLIC SIGNAGE APPLIED TO SIDING WITH VH DOUBLE SIDE TAPE
20	ROUND STOREFRONT SIGN; SUPPLIED AND INSTALLED BY SIGN CONTRACTOR
21	ILLUMINATED STOREFRONT SIGNAGE BY SIGN CONTRACTOR
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24	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
25	EXPOSED DOWNSPOUT, GALVANIZED, PAINTED; CONNECT TO SUB-GRADE STORM WATER COLLECTION SYSTEM; REF CIVIL

EXTERIOR ELEVATION MATERIALS LEGEND	
Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)



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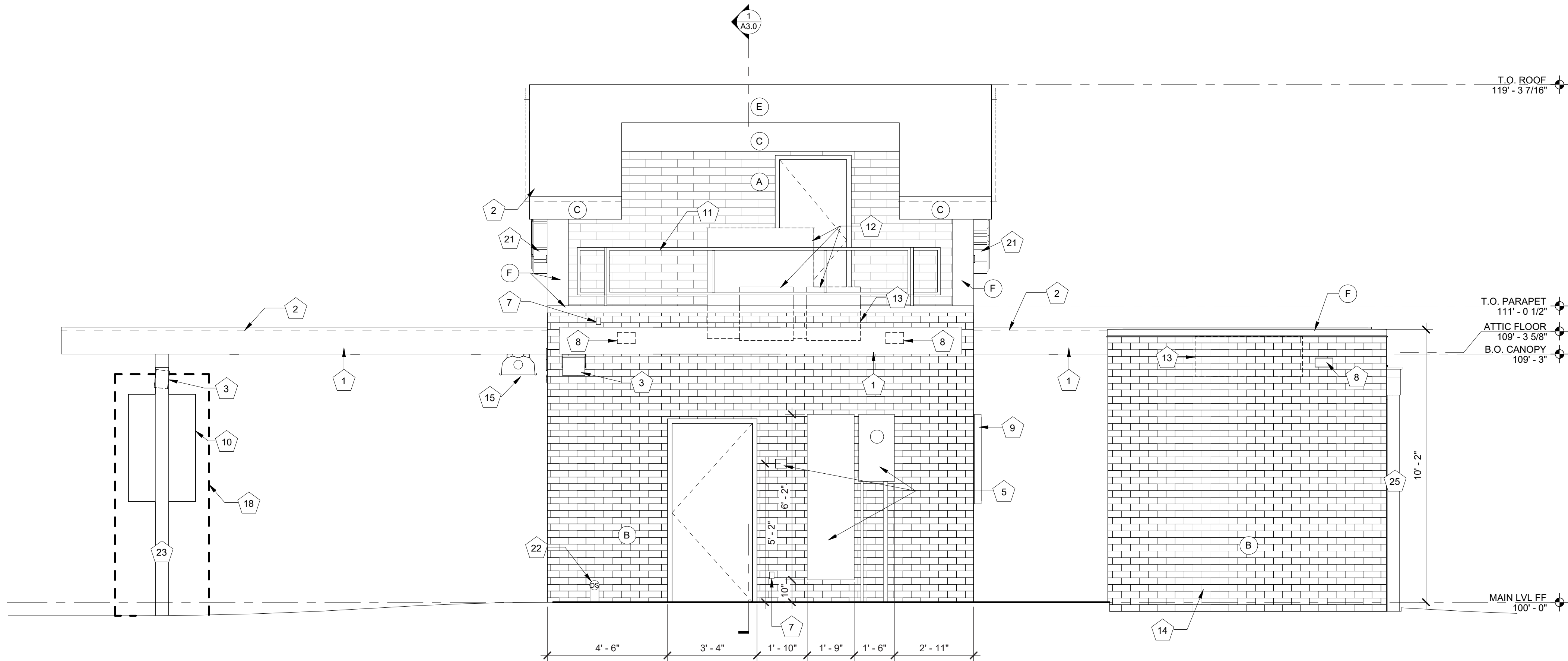
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No.	Description	Date

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04/11/2025

project no.:
22.23.10

sheet contents:
EXTERIOR ELEVATIONS

sheet no.:
A2.0B



1 EXTERIOR ELEVATION - EAST
3/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES	
Note Number	Note Text
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	SURFACE-MOUNTED LED NEON FLEX LIGHTING AS INDICATED (SHOWN DASHED); TY; REF ELECTRICAL
3	MOUNTED SPEAKER SYSTEM; SEE SYSTEMS PLAN
4	ADDRESS NUMBERS TO BE 8" TALL x 2" BRUSH STROKE
5	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
6	FROST-PROOF FLUSH HOSE BIB
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15	CANOPY HEATER
16	36" COOLER DOOR
17	COOLER LOCK & CONTROLS
18	WARMING HUT
19	1/4" THICK ACRYLIC SIGNAGE APPLIED TO SIDING WITH VH DOUBLE SIDE TAPE
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24	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
25	EXPOSED DOWNSPOUT, GALVANIZED, PAINTED; CONNECT TO SUB-GRADE STORM WATER COLLECTION SYSTEM; REF CIVIL

EXTERIOR ELEVATION MATERIALS LEGEND	
Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)



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www.veritas-ad.com
913.308.1460
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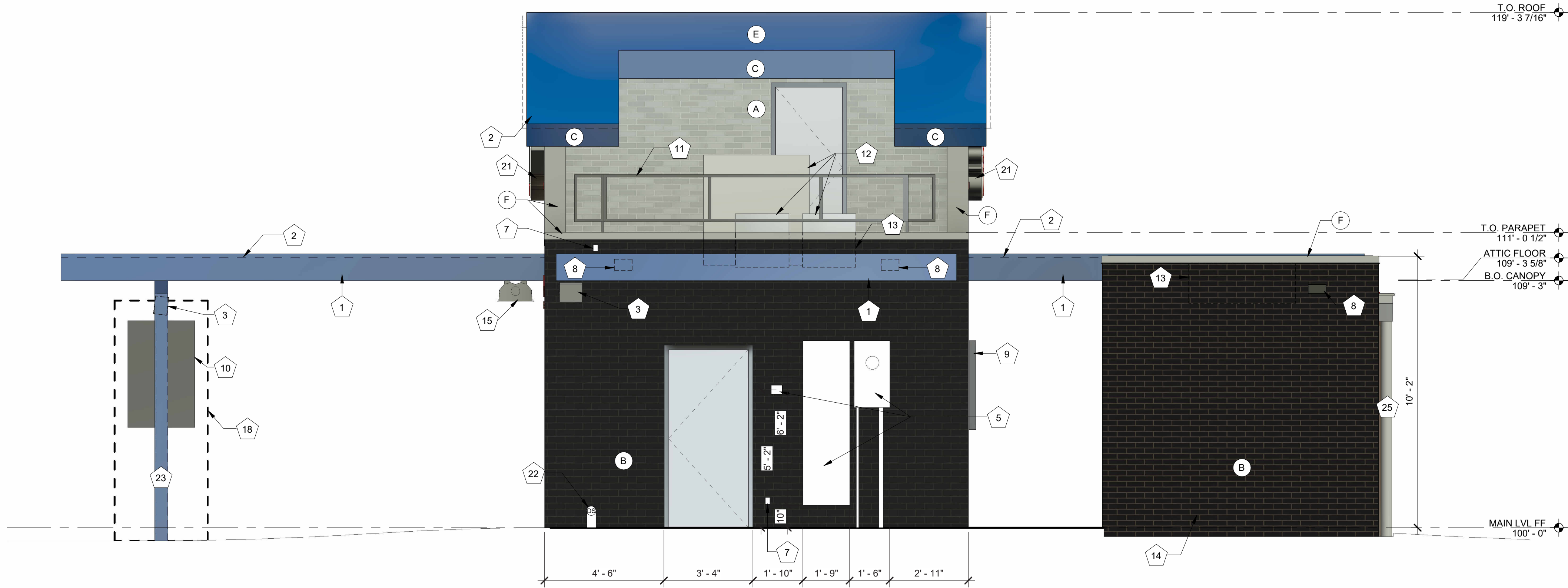
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04/11/2025

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22.23.10

sheet contents:
EXTERIOR ELEVATIONS

sheet no.:
A2.1



1 EXTERIOR ELEVATION - EAST
3/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES	
Note Number	Note Text
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	SURFACE-MOUNTED LED NEON FLEX LIGHTING AS INDICATED (SHOWN DASHED); TY; REF ELECTRICAL
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EXTERIOR ELEVATION MATERIALS LEGEND	
Note Number	Note Text
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F	METAL BRAKE CAP (MP-3)



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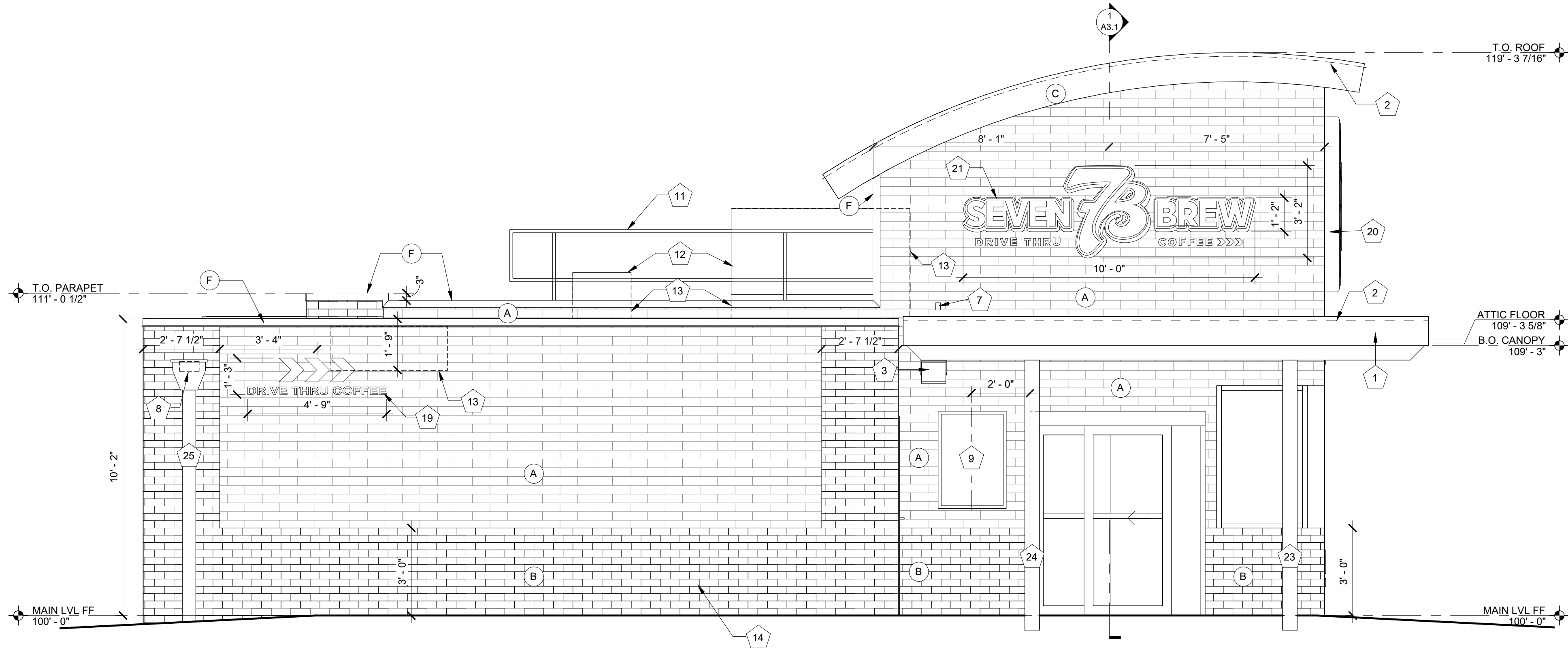
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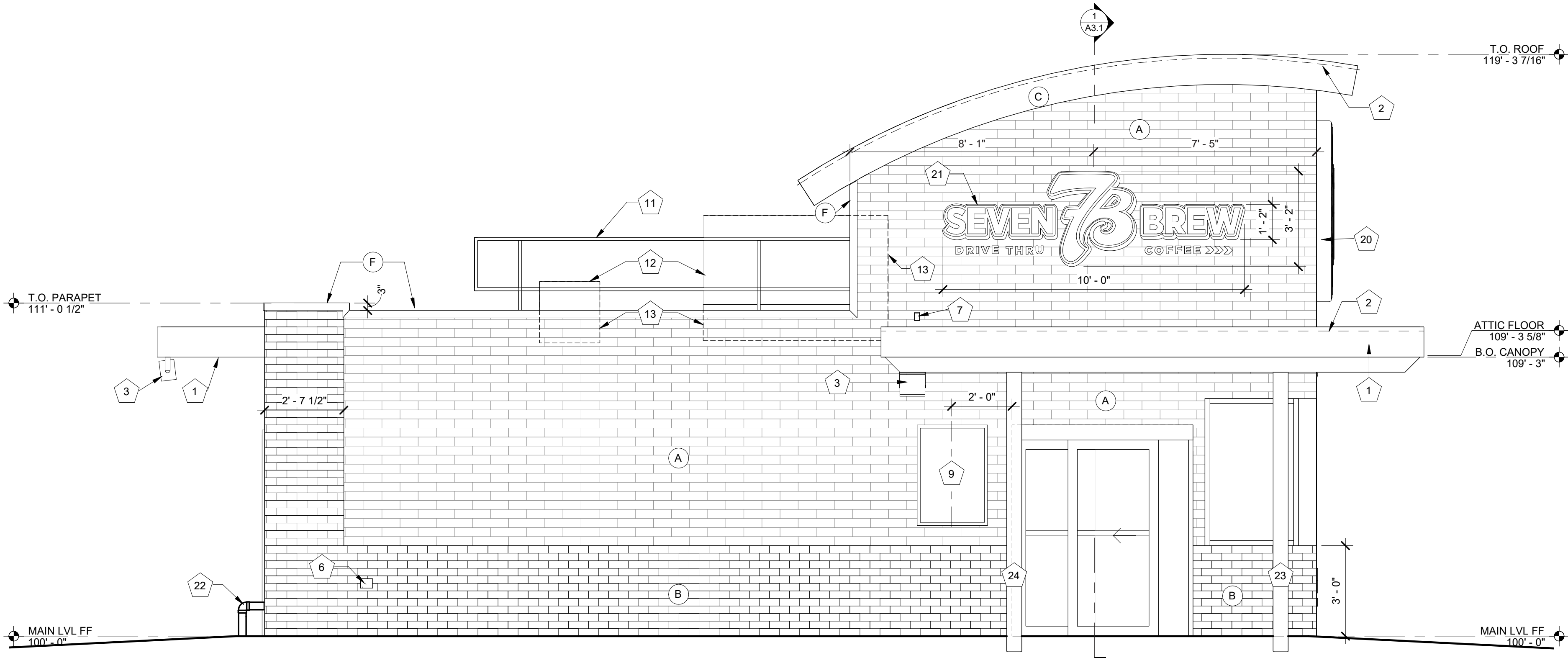
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sheet contents:
EXTERIOR ELEVATIONS

sheet no.:
A2.1B



2 EXTERIOR ELEVATION - NORTH W/ COOLER
3/8" = 1'-0"



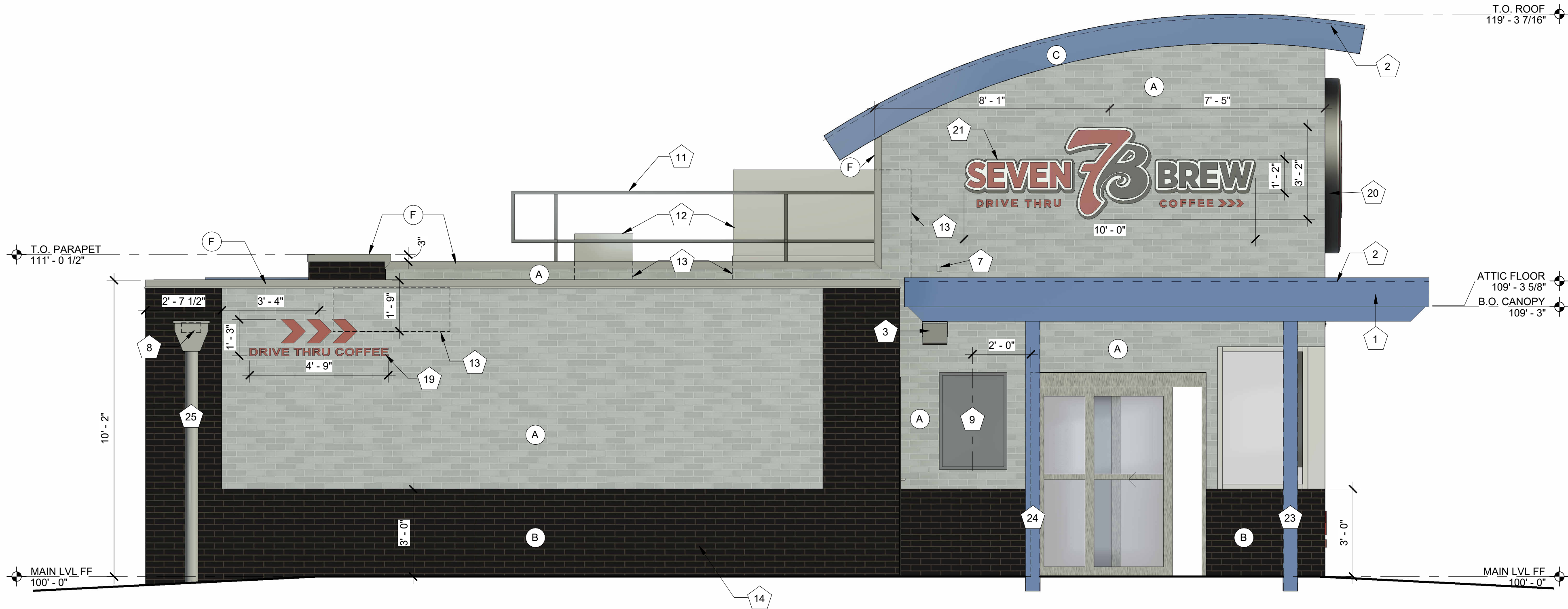
1 EXTERIOR ELEVATION - NORTH
3/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES

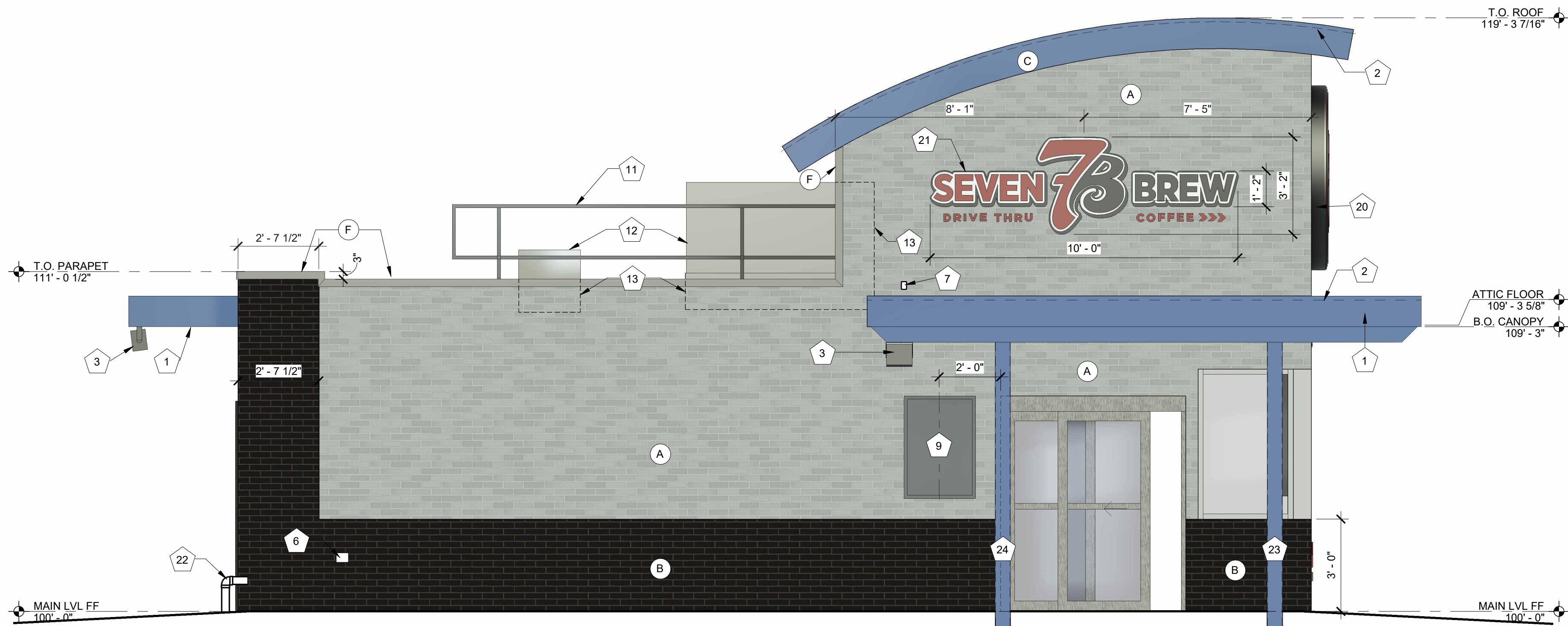
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EXTERIOR ELEVATION MATERIALS LEGEND

Note Number	Note Text
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B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)



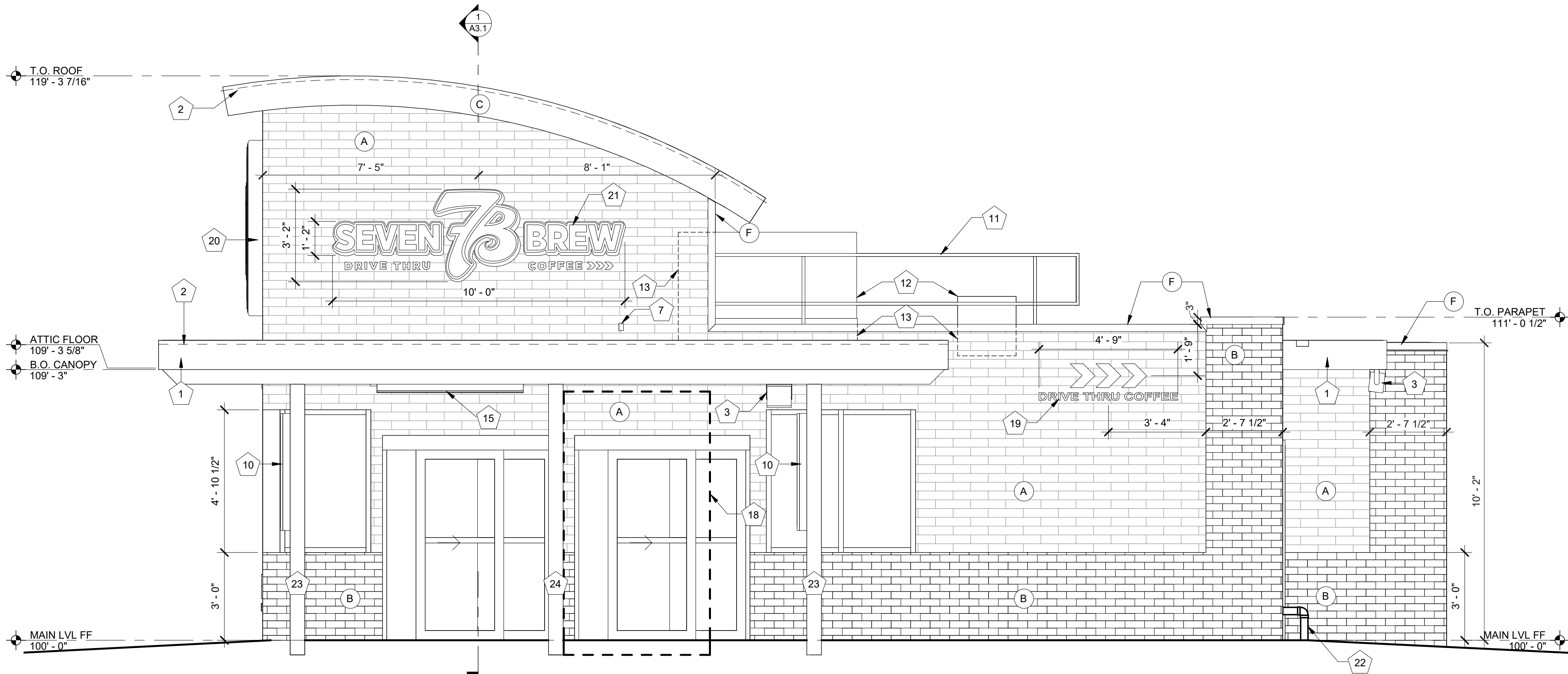
2 EXTERIOR ELEVATION - NORTH W/ COOLER
3/8" = 1'-0"



1 EXTERIOR ELEVATION - NORTH
3/8" = 1'-0"

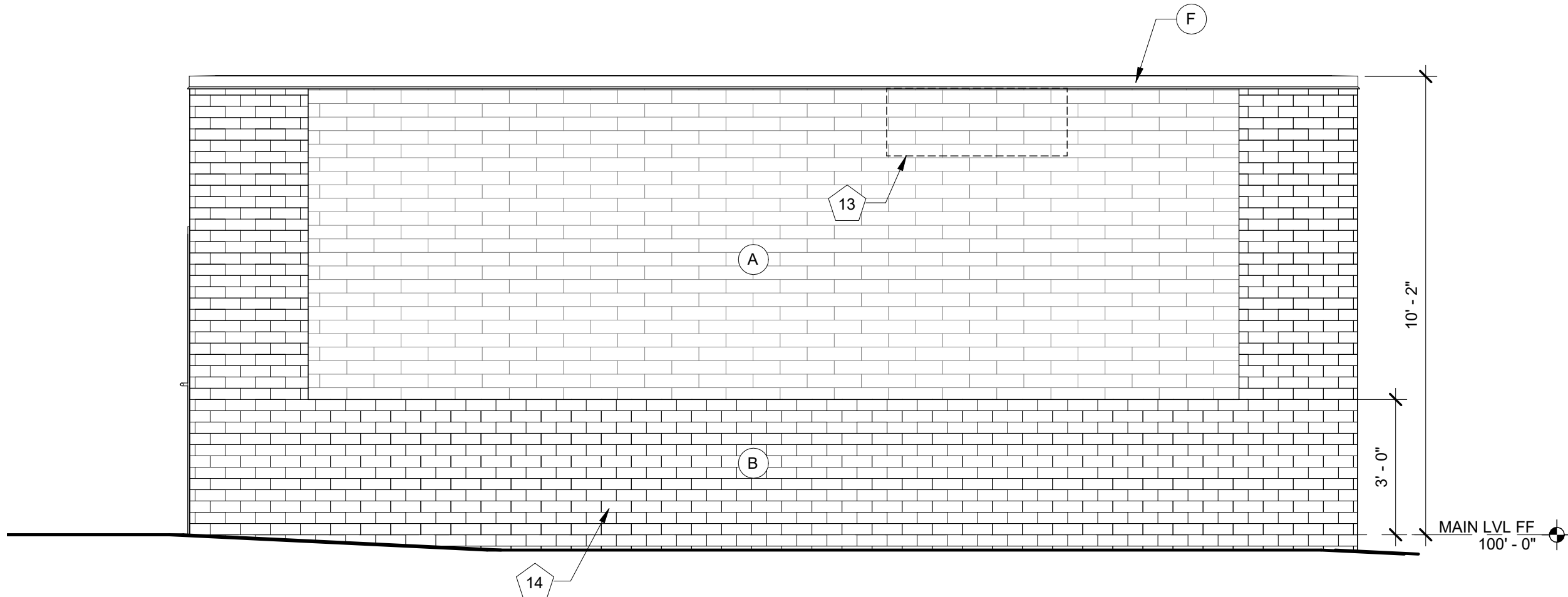
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17	COOLER LOCK & CONTROLS
18	WARMING HUT
19	1/4" THICK ACRYLIC SIGNAGE APPLIED TO SIDING WITH VH DOUBLE SIDE TAPE
20	ROUND STOREFRONT SIGN; SUPPLIED AND INSTALLED BY SIGN CONTRACTOR
21	ILLUMINATED STOREFRONT SIGNAGE BY SIGN CONTRACTOR
22	DOWNSPOUT OUTLET; CONNECT TO SUBGRADE STORMWATER CONNECTION; REF CIVIL
23	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
24	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
25	EXPOSED DOWNSPOUT, GALVANIZED, PAINTED; CONNECT TO SUB-GRADE STORM WATER COLLECTION SYSTEM; REF CIVIL

EXTERIOR ELEVATION MATERIALS LEGEND	
Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)



1 EXTERIOR ELEVATION - SOUTH
3/8" = 1'-0"

2 COOLER ELEVATION - SOUTH
3/8" = 1'-0"



EXTERIOR ELEVATION KEYNOTES	
Note Number	Note Text
1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
2	SURFACE-MOUNTED LED NEON FLEX LIGHTING AS INDICATED (SHOWN DASHED); TY; REF ELECTRICAL
3	MOUNTED SPEAKER SYSTEM; SEE SYSTEMS PLAN
4	ADDRESS NUMBERS TO BE 8" TALL x 2" BRUSH STROKE
5	ELECTRICAL EQUIPMENT, PAINTED TO MATCH BUILDING; REF ELECTRICAL
6	FROST-PROOF FLUSH HOSE BIB
7	EXTERIOR WEATHER-PROOF OUTLET; REF ELECTRICAL
8	THROUGH WALL SCUPPER ROOF DRAIN
9	SURFACE-MOUNTED LIGHTED SIGN BOX
10	SAMSUNG DIGITAL DISPLAYS -INSTALLED IN FIELD BY IT PROVIDER; CHASE FOR DATA CABLE INSTALLED AT BUILDING MANUFACTURING FACILITY
11	GUARDRAIL: 3' - 6" ABOVE ATTIC FLOOR
12	HVAC EQUIPMENT
13	OUTLINE OF MECHANICAL UNIT BEYOND
14	PREFABRICATED COOLER BY NATIONAL MODULAR MANUFACTURING; COORD LOCATION & SPECS WITH CIVIL & STRUCT
15	CANOPY HEATER
16	36" COOLER DOOR
17	COOLER LOCK & CONTROLS
18	WARMING HUT
19	1/4" THICK ACRYLIC SIGNAGE APPLIED TO SIDING WITH VH DOUBLE SIDE TAPE
20	ROUND STOREFRONT SIGN; SUPPLIED AND INSTALLED BY SIGN CONTRACTOR
21	ILLUMINATED STOREFRONT SIGNAGE BY SIGN CONTRACTOR
22	DOWNSPOUT OUTLET; CONNECT TO SUBGRADE STORMWATER CONNECTION; REF CIVIL
23	PAINTED STRUCTURAL CANOPY COLUMN; RAINWATER DOWNSPOUT WITHIN; CONNECT BASE OF CANOPY COLUMN DOWNSPOUT TO STORMWATER MANAGEMENT SYSTEM; REF CIVIL
24	PAINTED STRUCTURAL CANOPY COLUMN; REF CIVIL
25	EXPOSED DOWNSPOUT, GALVANIZED, PAINTED; CONNECT TO SUB-GRADE STORM WATER COLLECTION SYSTEM; REF CIVIL

EXTERIOR ELEVATION MATERIALS LEGEND	
Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)

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architecture + design

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kansas city, ks 66101

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consulting engineer:

7 BREW DRIVE THRU - MILWAUKEE WI - S 27TH ST

MILBREW HOLDINGS LLC

3702 SOUTH 27TH STREET, MILWAUKEE, WISCONSIN 53221

REVISIONS

No.	Description	Date
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sheet issue date:

04/11/2025

project no.:

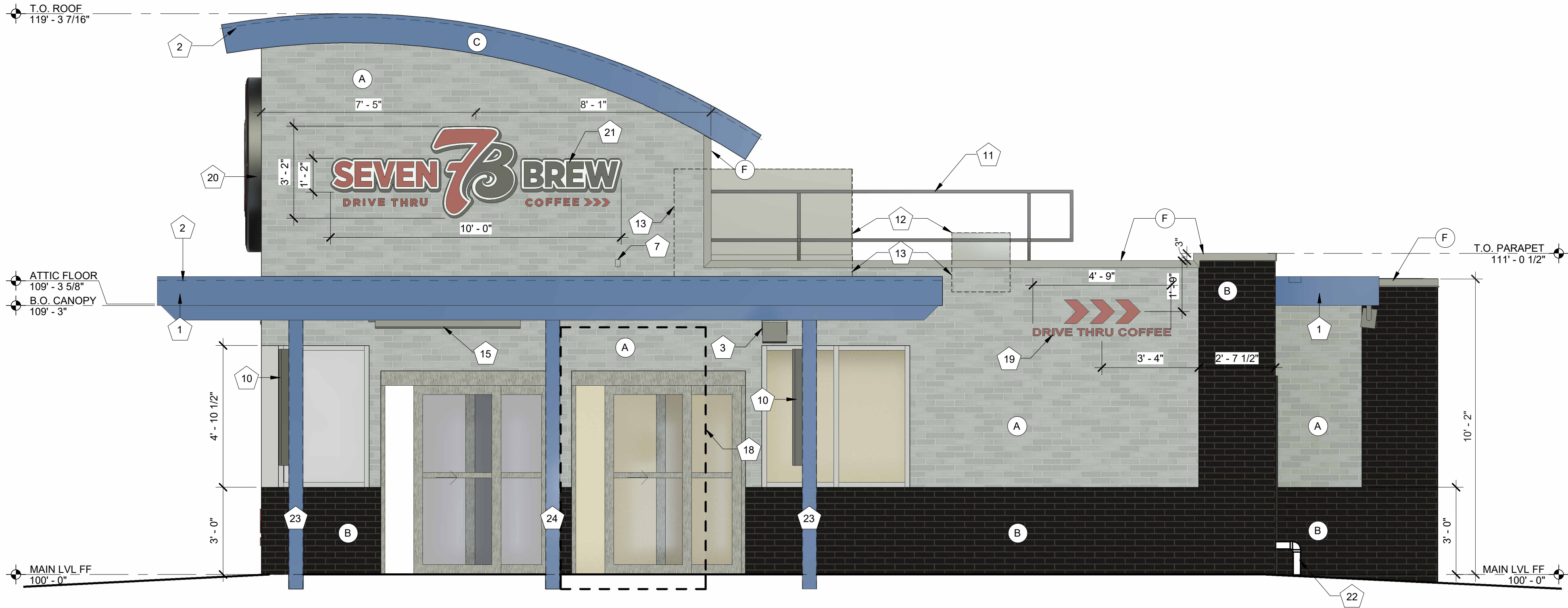
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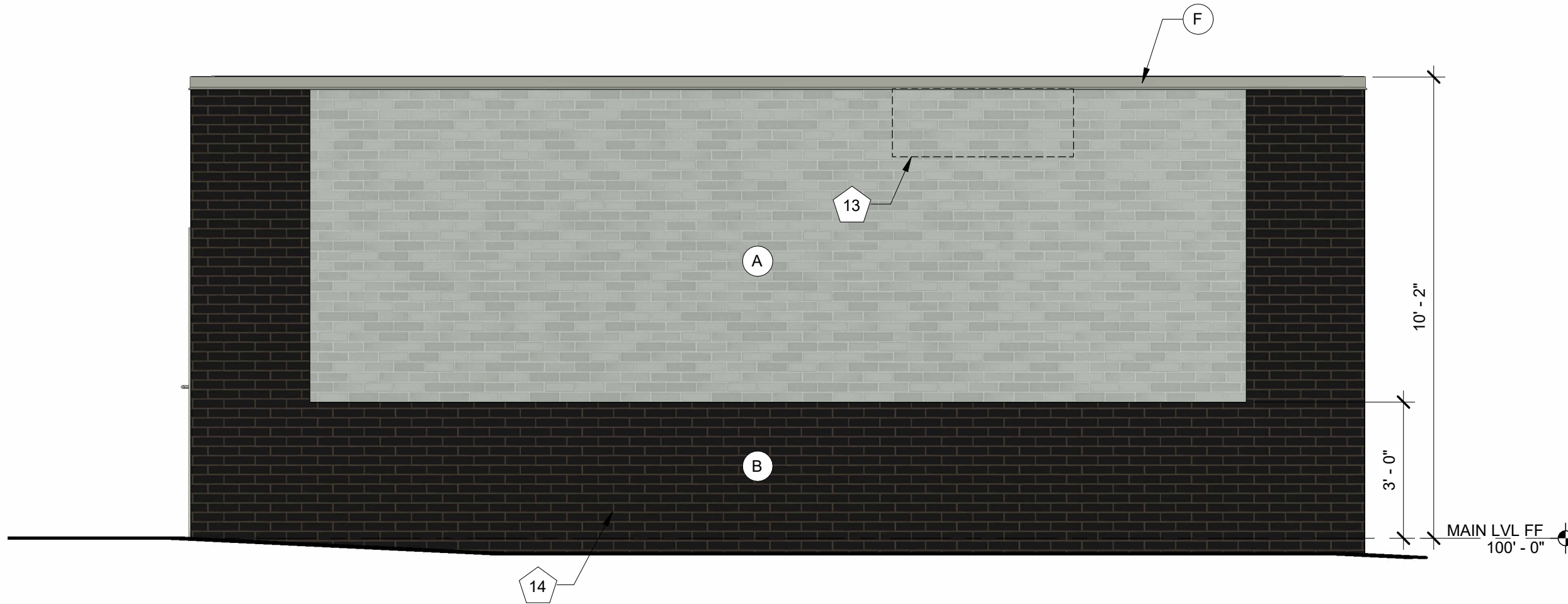
EXTERIOR ELEVATIONS

sheet no.:

A2.3



1 EXTERIOR ELEVATION - SOUTH
3/8" = 1'-0"



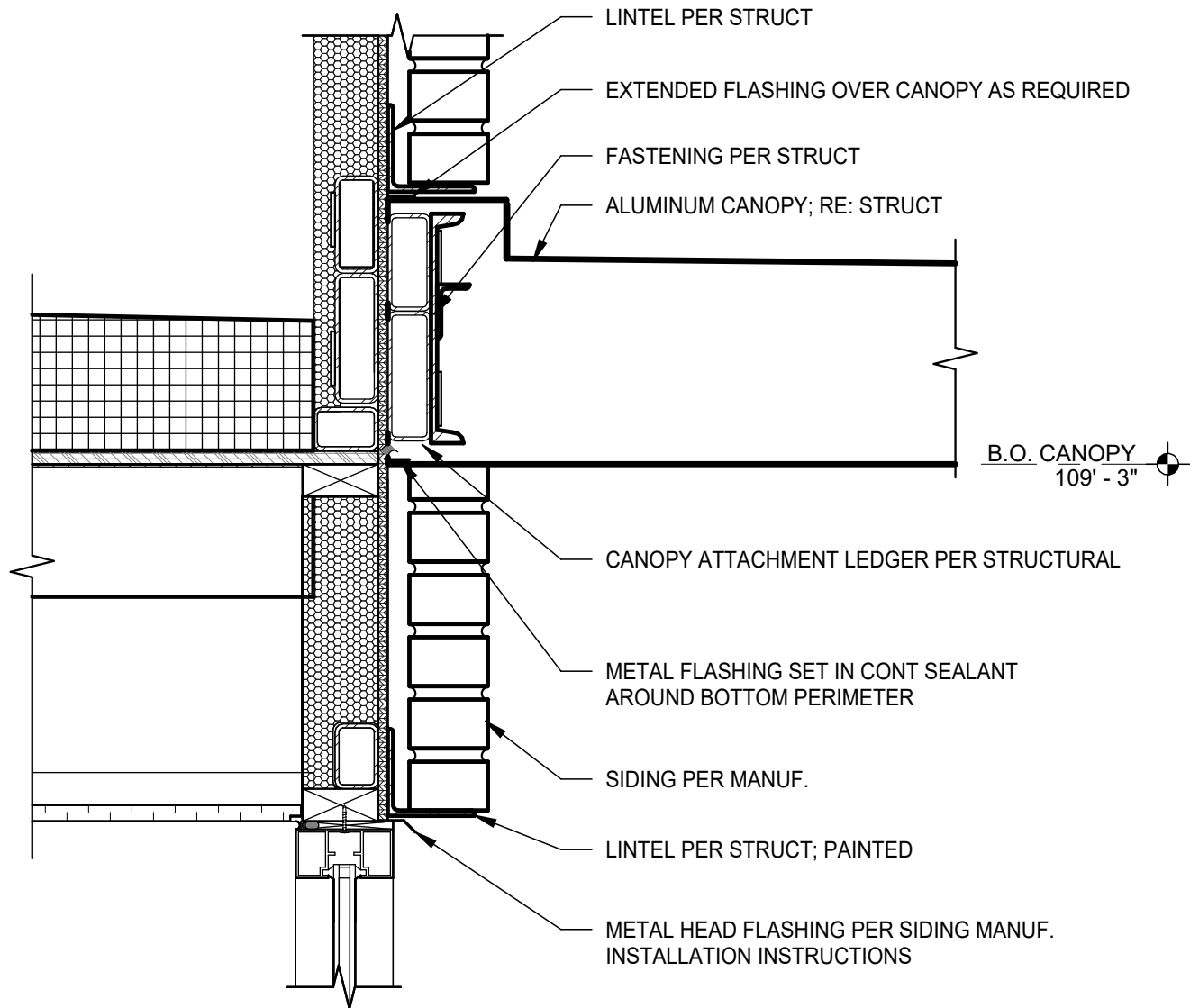
2 COOLER ELEVATION - SOUTH
3/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES

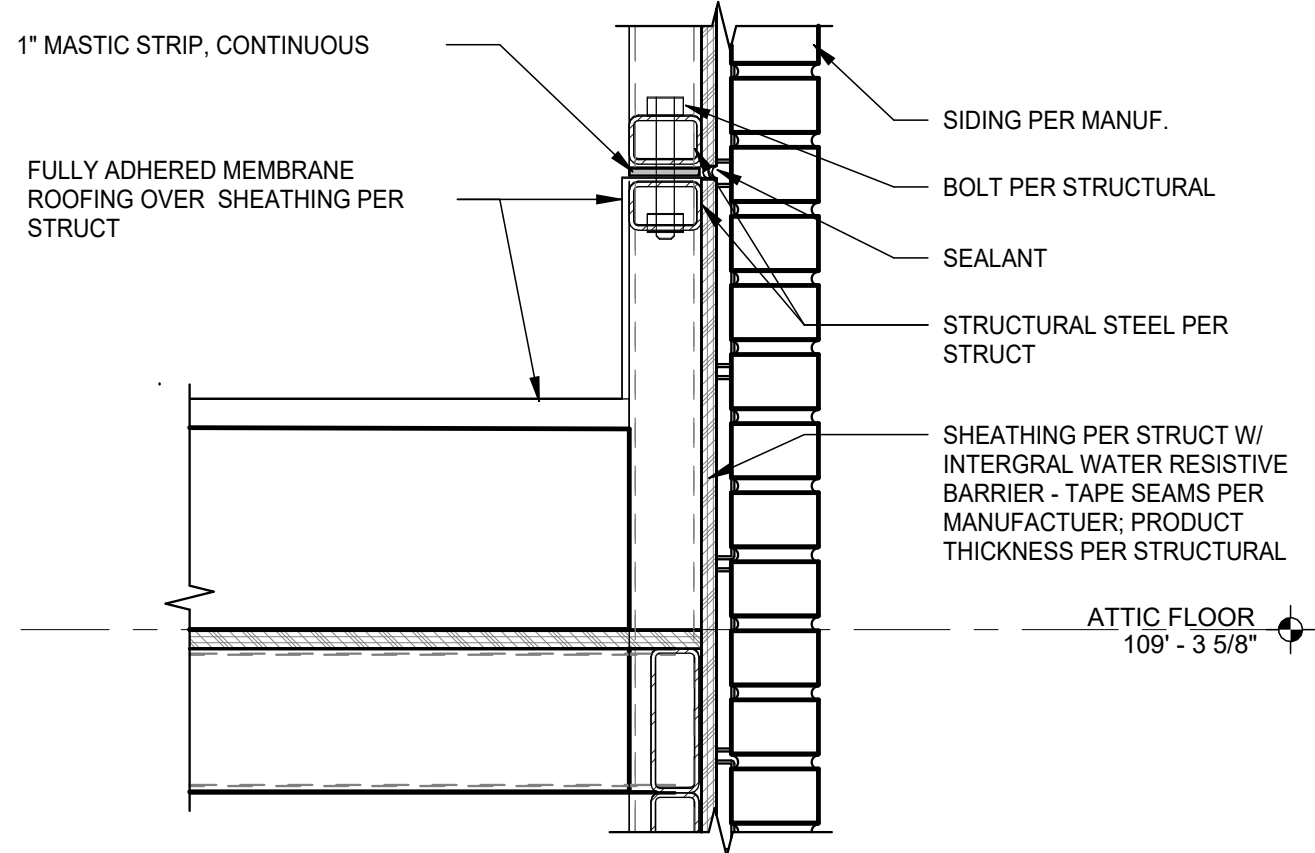
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1	PRE-ENGINEERED ALUMINUM CANOPY BY OTHERS; REF STRUCTURAL
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EXTERIOR ELEVATION MATERIALS LEGEND

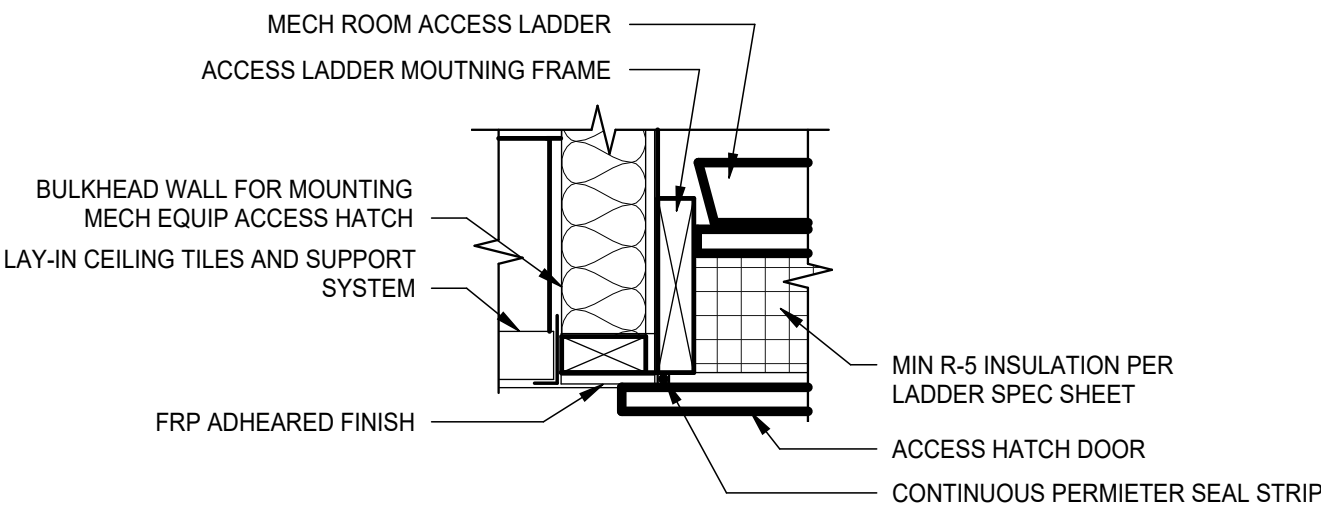
Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)
C	BRAKE METAL FACIA (MP-2)
D	SOFFIT PANELS (MP-2)
E	STANDING SEAM ROOF PANELS (MP-2)
F	METAL BRAKE CAP (MP-3)



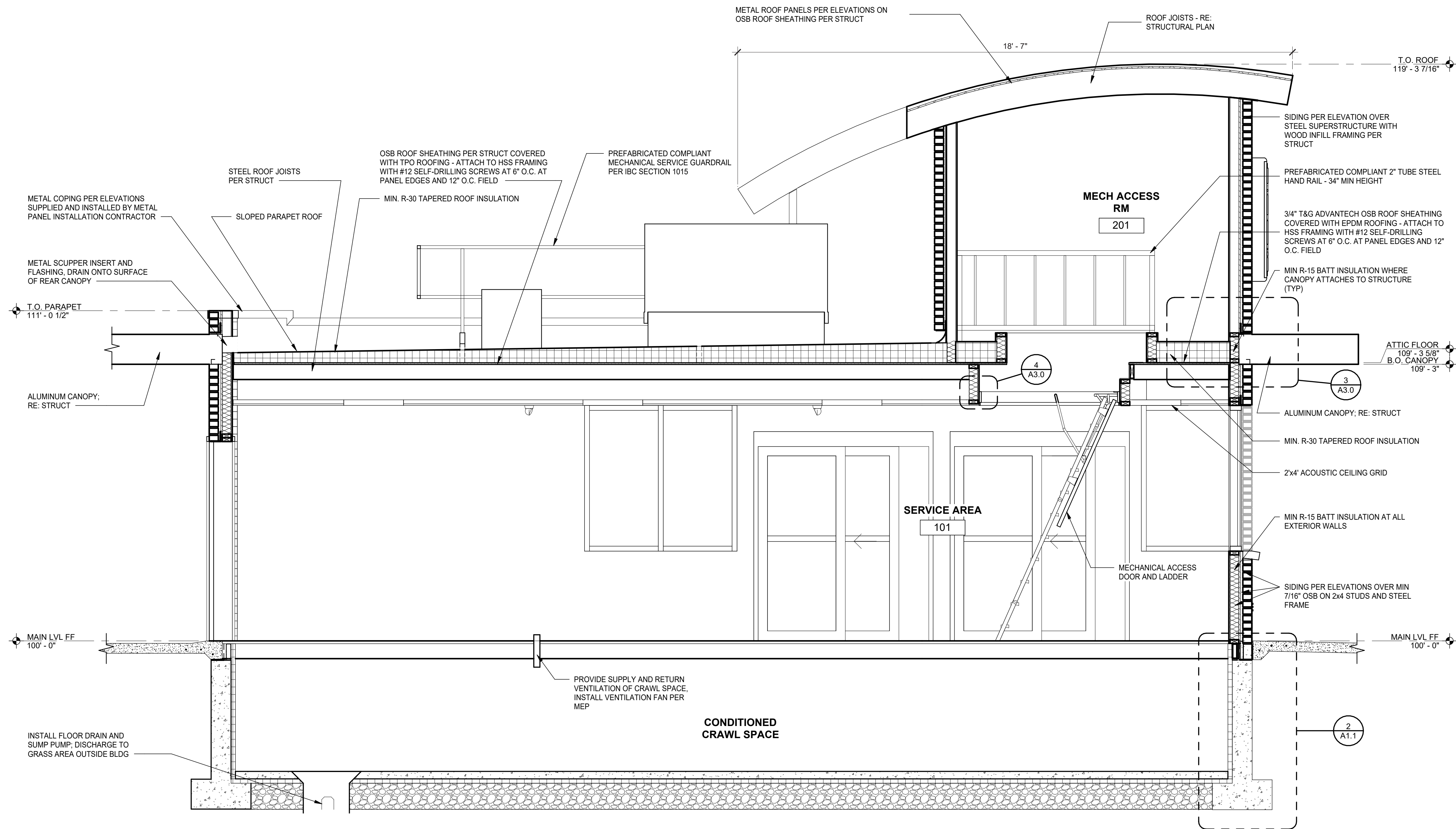
2 CANOPY CONNECTION
1 1/2" = 1'-0"



3 CONNECTION AT BASE/TOP
1 1/2" = 1'-0"



4 MECH ACCESS HATCH CONNECTION
1 1/2" = 1'-0"



1 BUILDING SECTION
1/2" = 1'-0"

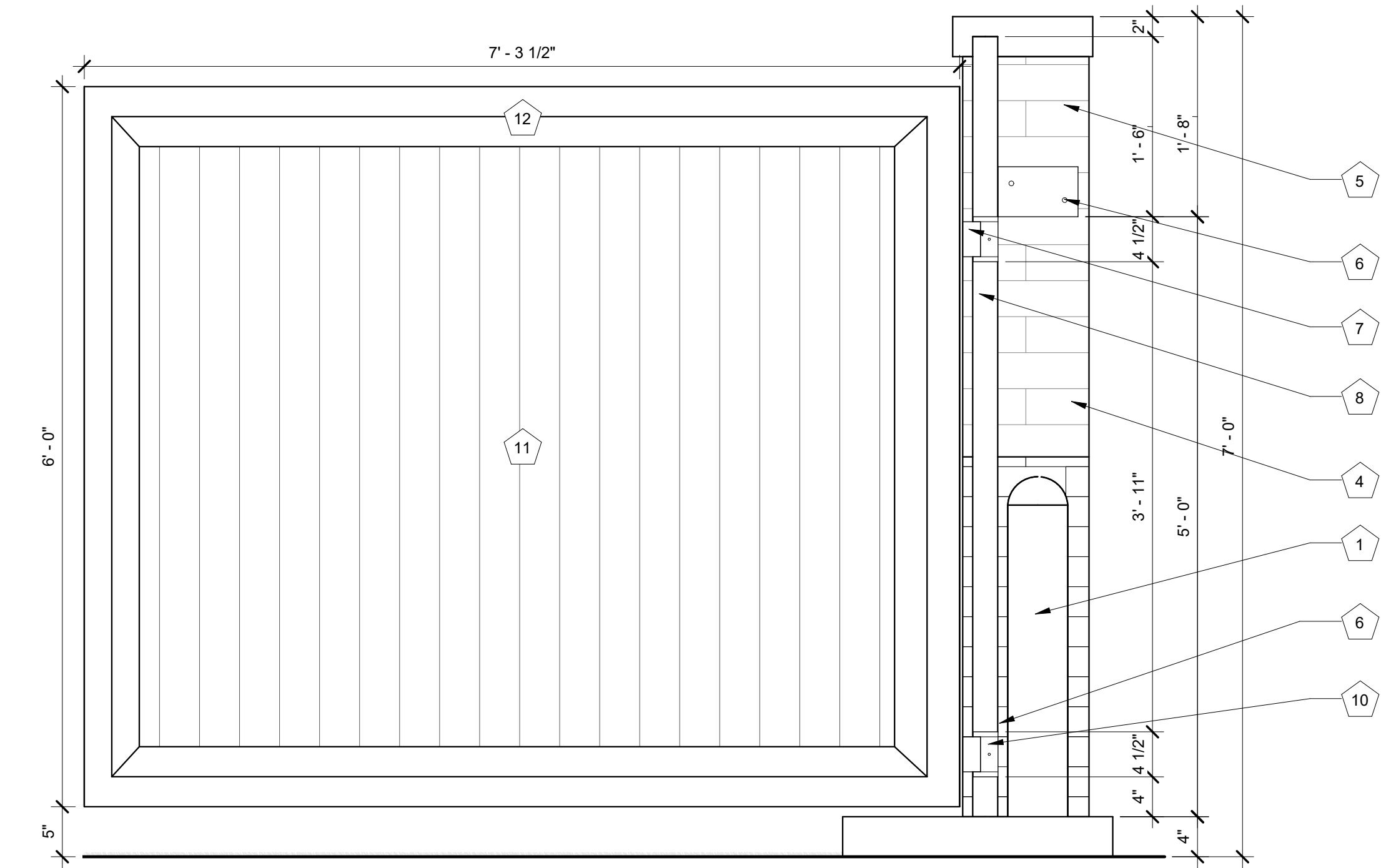
REVISIONS		
No.	Description	Date

sheet issue date:
04/11/2025

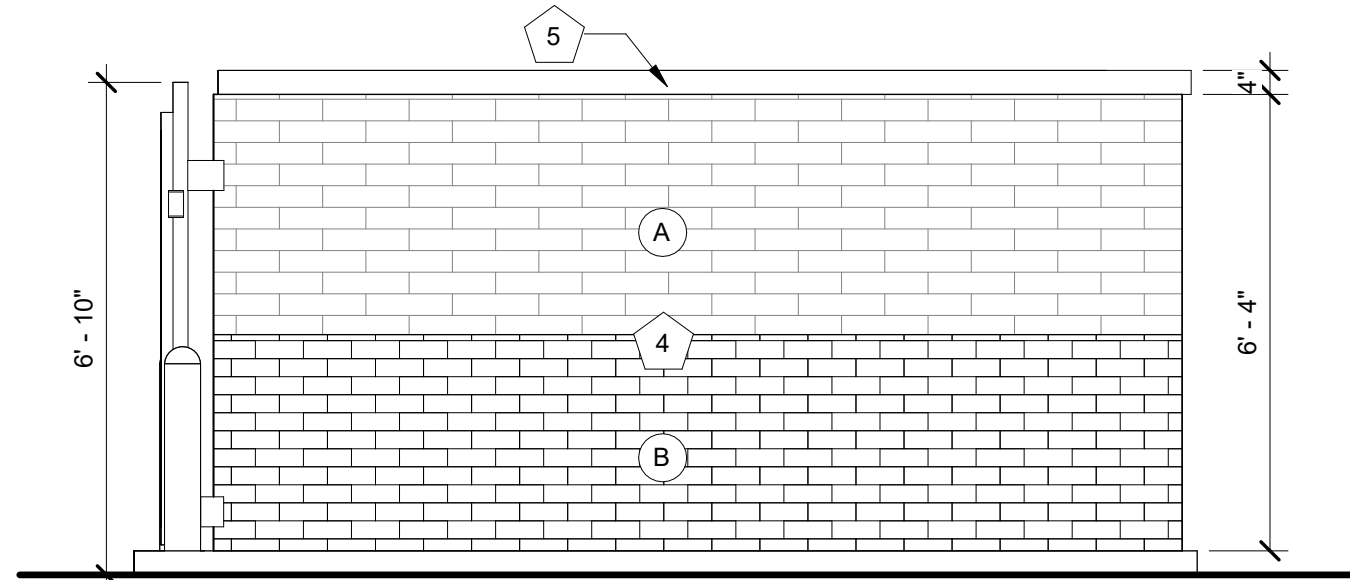
project no.:
22.23.10

sheet contents:
BUILDING SECTION

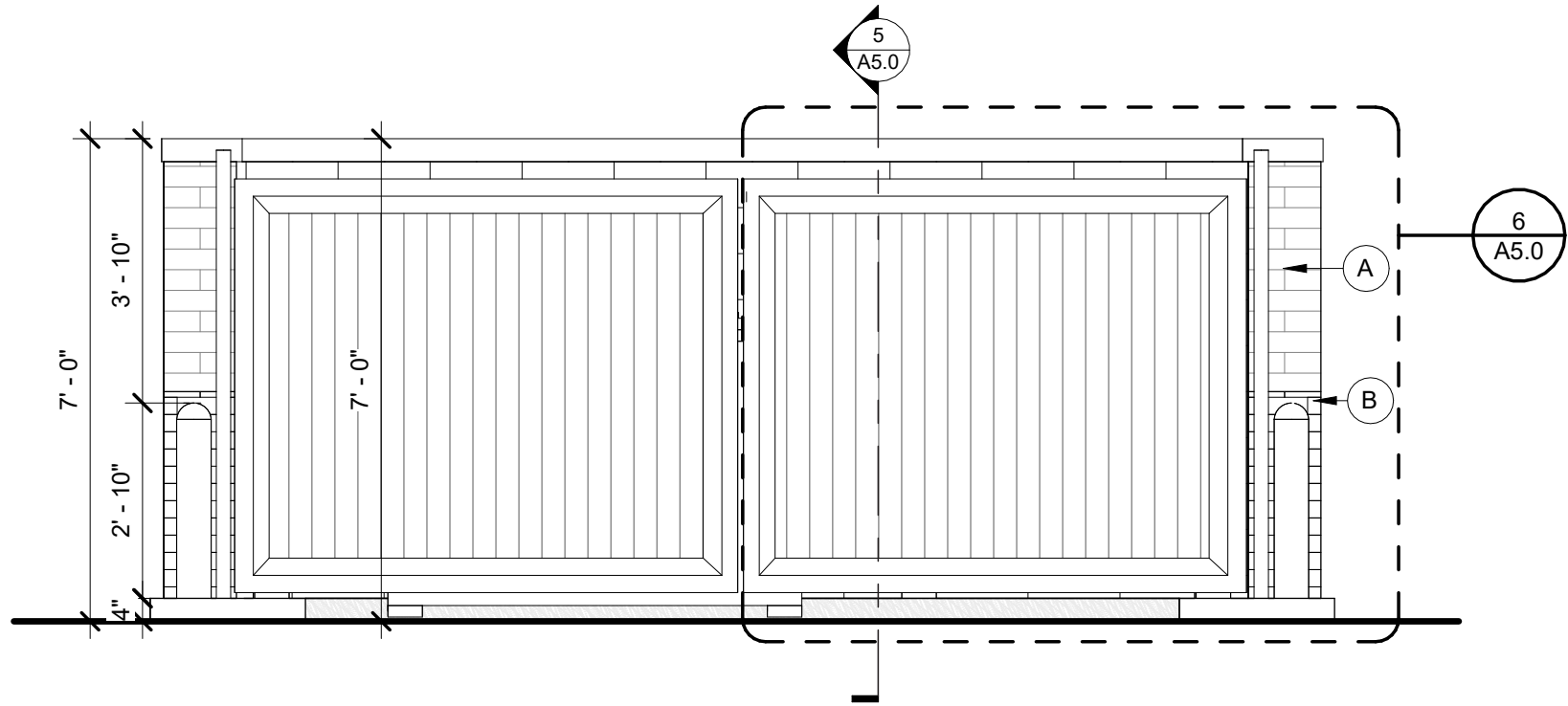
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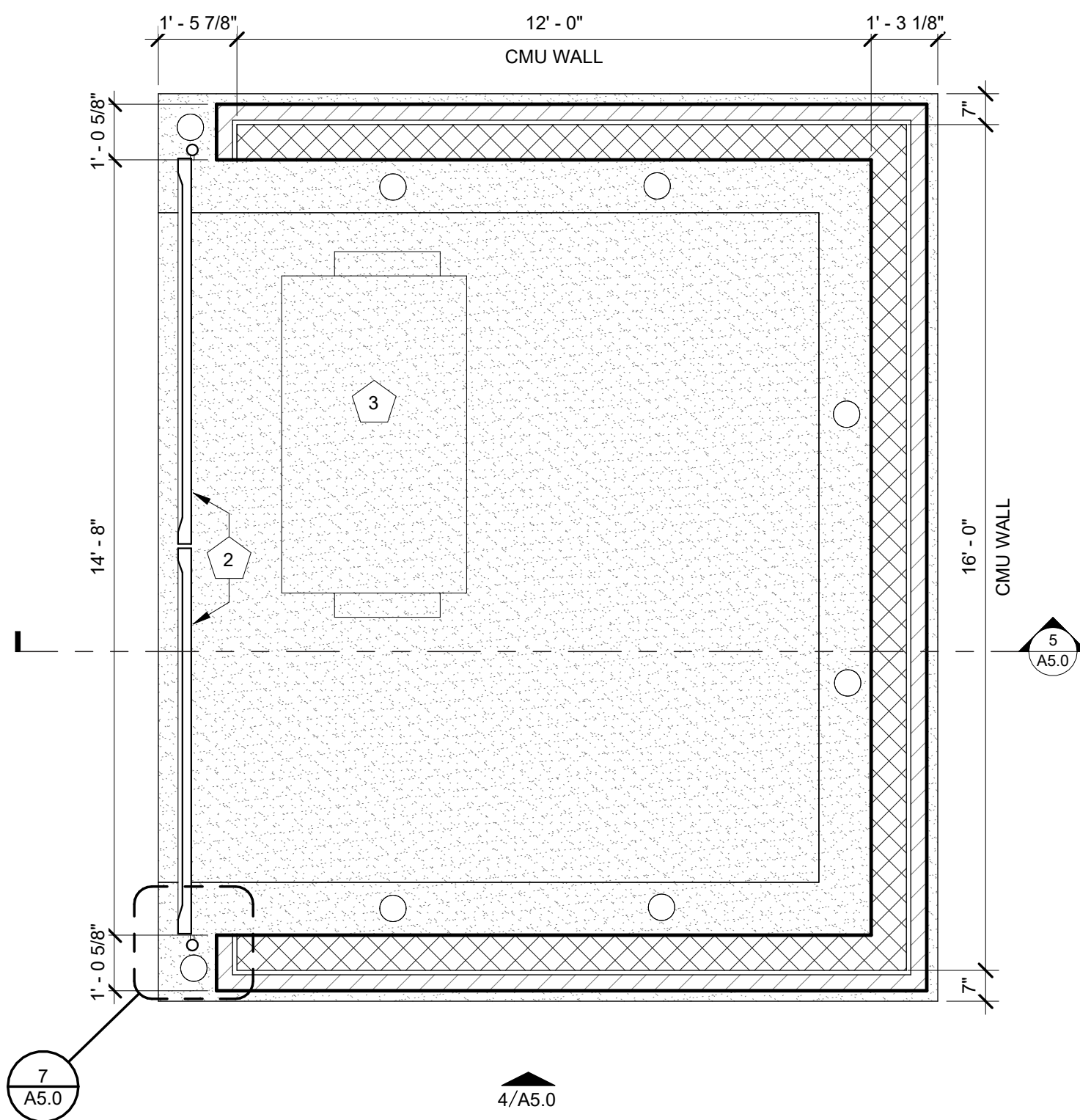
6 DOOR / HINGE DETAIL
1" = 1'-0"



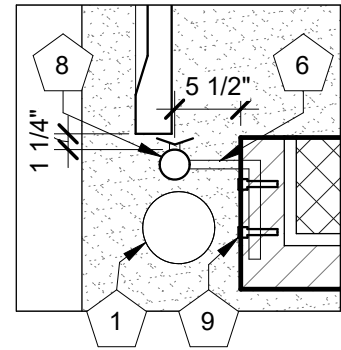
4 TRASH ENCLOSURE - SIDE ELEVATION
3/8" = 1'-0"



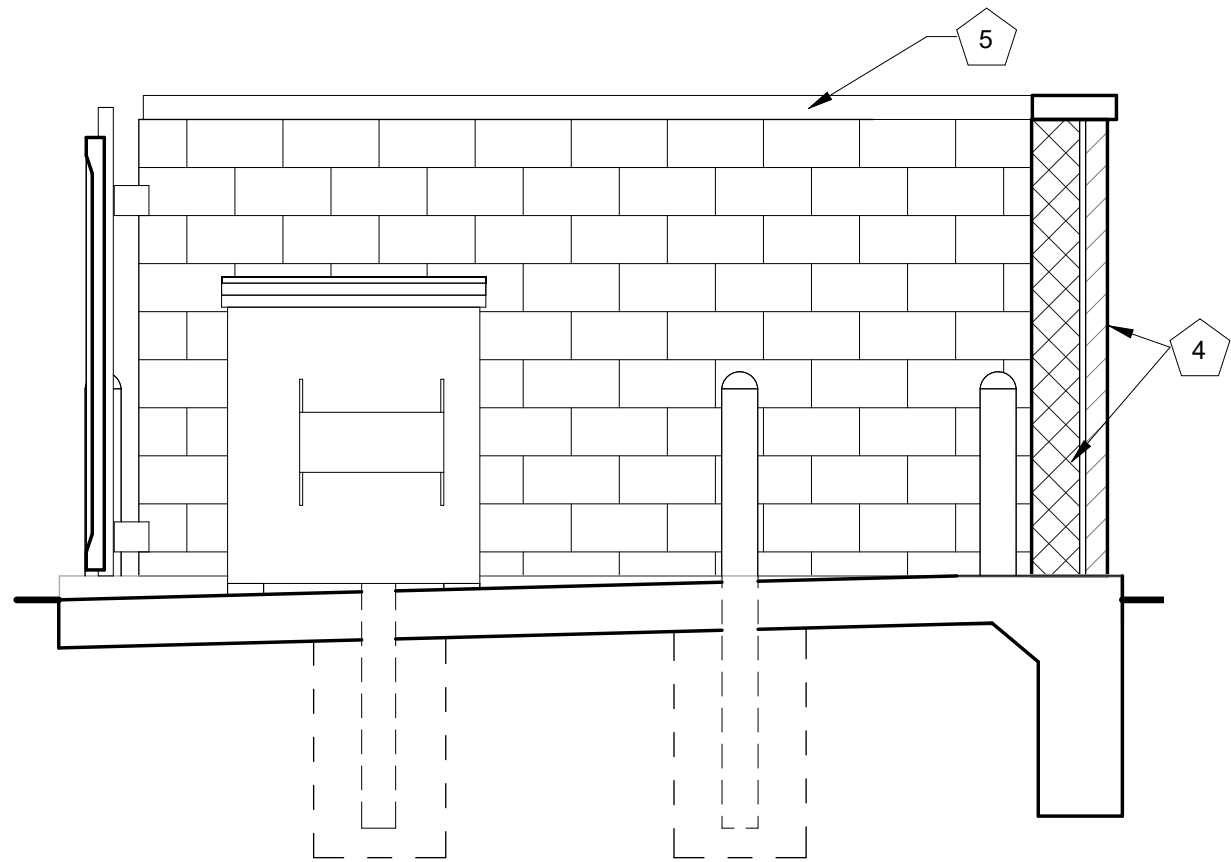
3 TRASH ENCLOSURE - FRONT ELEVATION
3/8" = 1'-0"



2 TRASH ENCLOSURE PLAN
3/8" = 1'-0"



7 TRASH ENCLOSURE PLAN DETAIL
3/4" = 1'-0"



5 SECTION THRU TRASH ENCLOSURE
3/8" = 1'-0"

TRASH ENCLOSURE GENERAL NOTES

- PRE-PAINT ALL BARE METAL WITH POR-15 PRIMER PRIOR TO INSTALLATION.
- PAINT DOOR FRAMES, HINGES, AND BOLLARDS TO MATCH THE CANOPY OF THE PREFABRICATED BUILDING - MORIN REGAL BLUE.

TRASH ENCLOSURE KEYNOTES

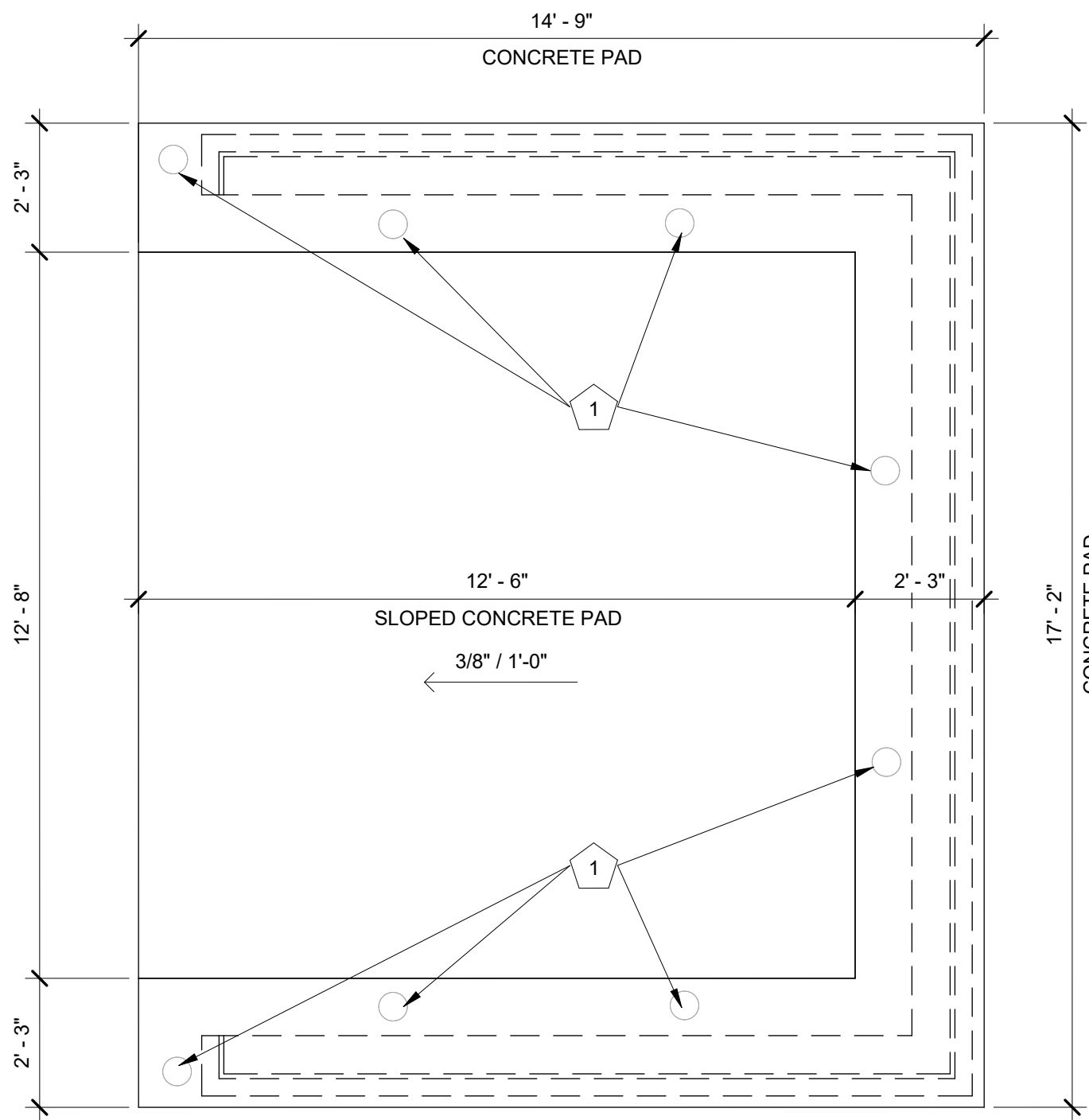
Note Number	Note Text
1	Ø6" CONCRETE FILLED BOLLARD - TYP. OF (8)
2	CUSTOM GATES: SEE 6/A5.0
3	MECH. ACCESS DOOR AND LADDER - SUPPLIED BY OWNER
4	BRICK OVER 8" CMU BLOCK
5	4" MASONRY CAP ON TOP OF CMU WALL
6	5" PLATE STEEL BRACE WELDED TO CENTER OF 2" POST; SEE 6/A5.0 FOR HEIGHT
7	3" STEEL BRACE AT EACH HINGE
8	Ø2" STEEL POST
9	2 1/2" BOLTS
10	HINGE WITH GREASE FITTING - TYP. OF 2 PER DOOR
11	1x8 STAINED CEDAR PLANKS
12	3" x 3" TUBE STEEL FRAME ROTATED 45 DEGREES

DUMPSTER ENCLOSURE MATERIALS KEYNOTES

Note Number	Note Text
A	MODULAR BRICK SIDING (BRK-2)
B	MODULAR BRICK SIDING (BRK-1)

MODULAR BRICK

BRAND: GLEN GERY
COLOR: BLACK PEARL
FINISH: WIRE CUT



1 TRASH ENCLOSURE - CONCRETE PLAN
3/8" = 1'-0"

REVISIONS

No.	Description	Date
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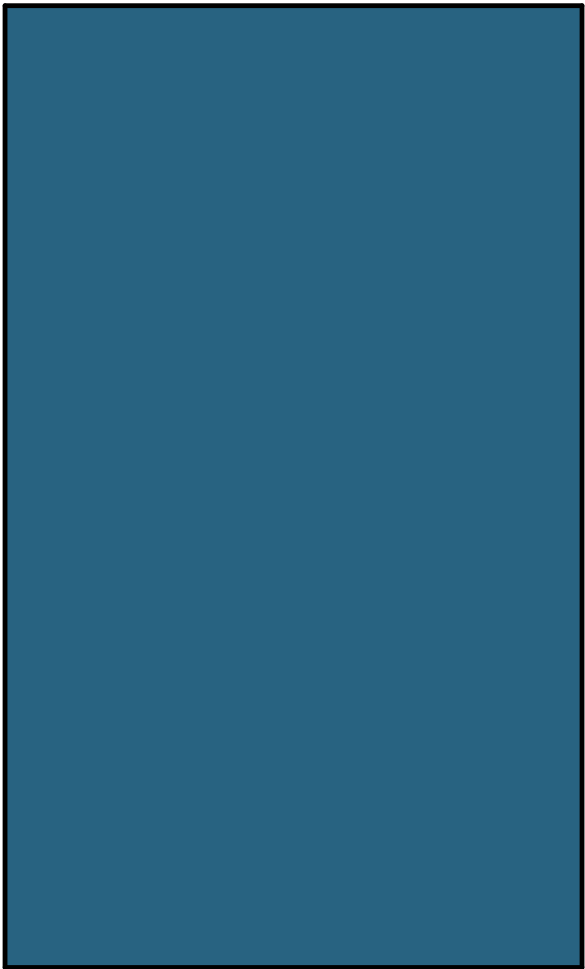
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project no.:
22.23.10

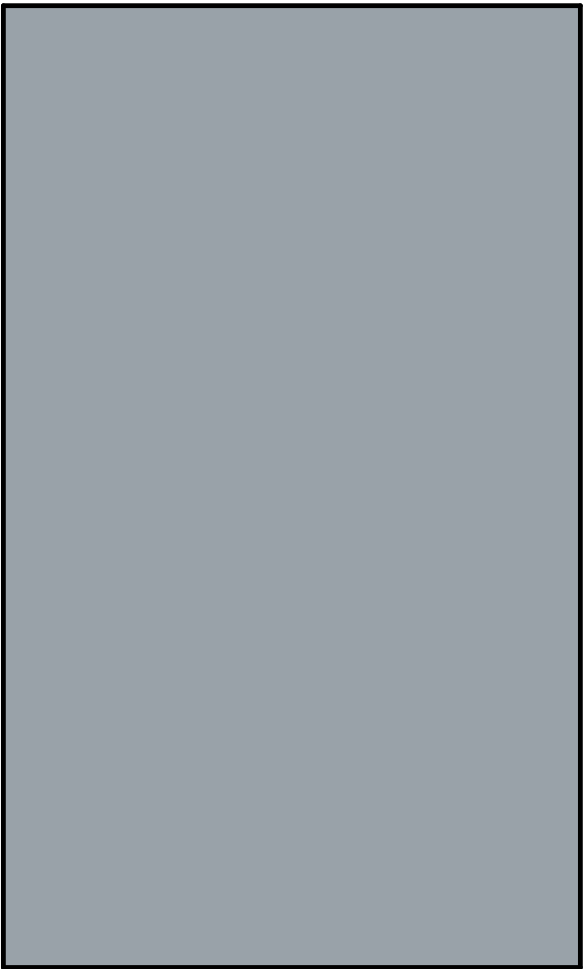
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TRASH ENCLOSURE

sheet no.:

A5.0



BLUE METAL PANEL MP-2
BRAND: BERRIDGE
COLOR: ROYAL BLUE
FINISH: LOW SHEEN SMOOTH - REFLECTIVITY .26



COPING TRIM METAL MP-3
BRAND: BERRIDGE
COLOR: ZINC GREY
FINISH: LOW SHEEN SMOOTH - REFLECTIVITY .39



MODULAR BRICK SIDING - BRK-2
BRAND: GLEN GERY
COLOR: STONE GREY
FINISH: KLAYCOAT



MODULAR BRICK SIDING - BRK-1
BRAND: GLEN GERY
COLOR: BLACK PEARL
FINISH: WIRE CUT

22.23.10
7 BREW DRIVE THRU -
MILWAUKEE WI - S
27TH ST
04/11/2025

MATERIAL COLOR
BOARD



22.23.10
7 BREW DRIVE THRU -
MILWAUKEE WI - S
27TH ST
04/11/2025

RENDERING

3702 S 27th Street - Site Photos



Looking Southeast at Existing Building



Looking East at Existing Building



Looking Northeast at Existing Building



Looking North at Existing Building



Looking Northwest at Existing Building



Looking West at Existing Building



Looking South at Existing Building



Black Pearl Wirecut



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[See this brick on your house](#)



**Project
Estimation
Calculator**

Enter wall area (ft²)

Quantity of brick

Full Calculator

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Product Information:

Type: Facebrick

Color: Black

Style: [Extruded](#)

Plant: [Hanley](#)

Series: [Emporium+ Series](#)

Texture/Finish: Wirecut

Project Gallery	Sizes	Technical Information
-----------------	-------	-----------------------

Test Report: [Black Pearl \(WA11-9003\) Test Report](#)

Cleaning Document: [Black Pearl \(WA11-9003\) Cleaning Document](#)

Product Profile: [Extruded Brick Product Profile](#)
[Emporium+ Series Technical Data Sheet](#)

Unit Specifications

Glen-Gery extruded bricks are typically manufactured to conform to the requirements of American Society for Testing and Materials (ASTM) Standard Specification C 216, Grade SW, Type FBS and all grades of ASTM C 62. In some instances brick are manufactured to conform to ASTM C652 which includes increased core volume. These products also conform to the requirements of ASTM C 216, Grade MW. Certain products meet the requirements of ASTM C 216, Type FBX, ASTM C 902, ASTM C 652, or ASTM C 32. Inquiries should be made for specific applications or conformance to standards other than ASTM C 216 or C 62.

Dimensional Tolerances

Glen-Gery extruded bricks are manufactured to provide specific dimensional tolerances. The dimensional tolerances of the product are intended to be

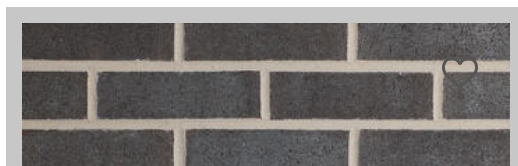
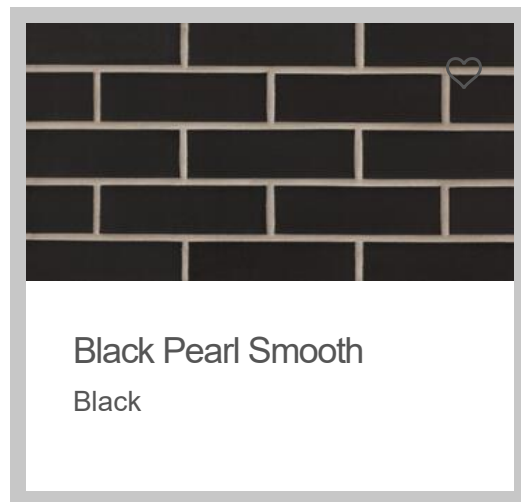
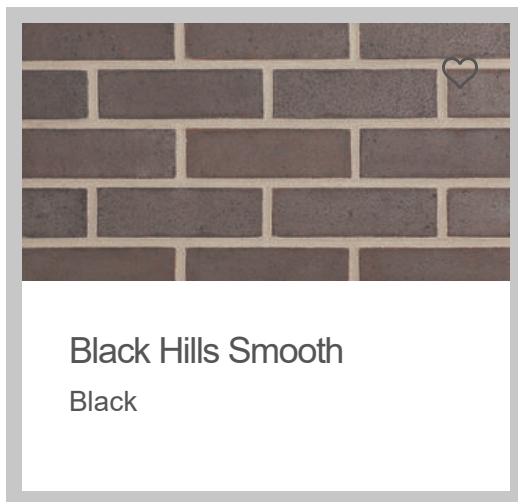
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and firing processes, and the desired finish and color. Thus, for some products, all the units may be slightly over or slightly under the specified dimensions. Inquiries should be made regarding the dimensional variations which might be expected if project detailing requires precise coursing. Specialty products or gauged products may be desirable for such applications.

Finishes

Glen-Gery extruded bricks are available in a variety of textures. The textures include smooth, velour, bar, rug, matt, paper cut, scored, rockface, slurry and sand finishes. The availability of a particular finish is usually dependent on the specific product. Certain finishes (i.e. bark) are not available on shapes.

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Stone Grey Klaycoat



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[See this brick on your house](#)



**Project
Estimation
Calculator**

Enter wall area (ft²)

0

Quantity of brick

0

Full Calculator

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Accept

Product Information:

Type: Facebrick

Color: Grey

Style: [Klaycoat](#)

Plant: [Hanley](#)

Series: [Designer Klaycoat® Series](#)

Texture/Finish: Smooth

Project Gallery	Sizes	Technical Information	Mortar Colors
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[Bronx Point - Hip Hop Museum](#)

[The Junction](#)



[32 Oakland Avenue](#)

[American Fertility Hospital Clinic](#)



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Glen-Gery Extruded Brick

General

Glen-Gery manufactures many sizes of extruded bricks in a multitude of shades and textures to accommodate the visual requirements of most projects. The more popular extruded bricks have a nominal four inch bed depth. These extruded units are often referred to as cored, stiff mud, or wirecut bricks. To differentiate between wirecut bricks and wirecut finishes, Glen-Gery refers to the wirecut finish as a velour texture.



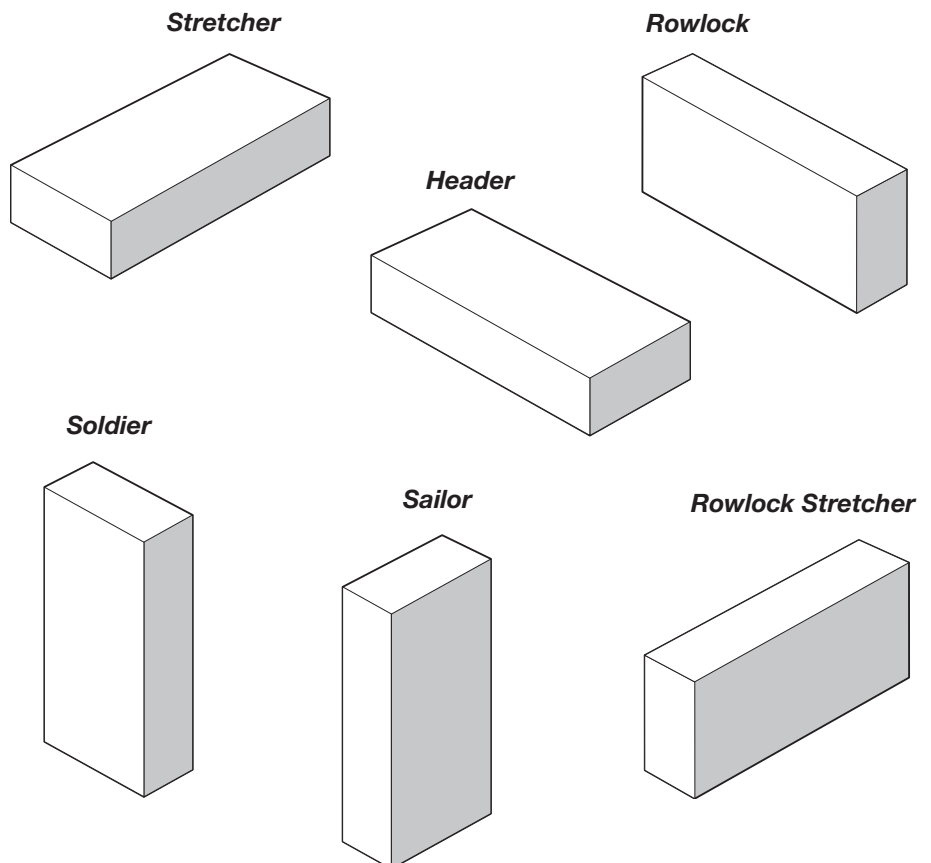
Unit Specifications

Glen-Gery extruded bricks are typically manufactured to conform to the requirements of American Society for Testing and Materials (ASTM) Standard Specification C 216, Grade SW, Type FBS and all grades of ASTM C 62. In some instances brick are manufactured to conform to ASTM C652 which includes increased core volume. These products also conform to the requirements of ASTM C 216, Grade MW. Certain products meet the requirements of ASTM C 216, Type FBX, ASTM C 902, ASTM C 652, or ASTM C 32. Inquiries should be made for specific applications or conformance to standards other than ASTM C 216 or C 62. When specifying this product, the specifications should cite:

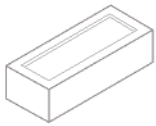
- 1) The product name and state "as manufactured by Glen-Gery Corporation."
- 2) Conformance to the requirements of the appropriate standard, (typically, ASTM C 216 or C652).
- 3) The actual unit dimensions listed as thickness x height x length.

Example: Glenrose Battlefield as manufactured by Glen-Gery Corporation to conform to the requirements of ASTM C 216, Grade SW, Type FBS. The units shall have dimensions of 3-5/8" X 2-1/4" X 7-5/8".

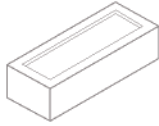
Brick Positions in a Wall



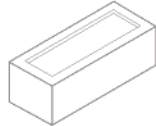
Glen-Gery Brick Sizes



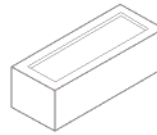
Modular
3-5/8 x 2-1/4 x 7-5/8
6.75 units/sq. ft.



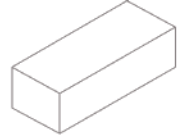
Standard
3-5/8 x 2-1/4 x 8
6.55 units/sq. ft.



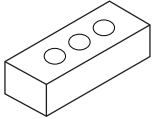
Engineer Modular
3-5/8 x 2-3/4 x 7-5/8
5.63 units/sq. ft.



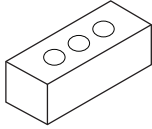
Engineer Standard
3-5/8 x 2-3/4 x 8
5.39 units/sq. ft.



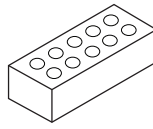
Handmade Oversized
4 x 2-3/4 x 8-1/2
5.00 units/sq. ft.



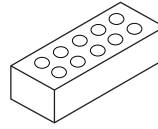
Lightweight Modular
3-1/2 x 2-1/4 x 7-5/8
6.75 units/sq. ft.



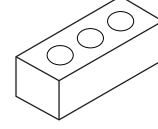
Lightweight Engineer Modular
3-1/2 x 2-3/4 x 7-5/8
5.63 units/sq. ft.



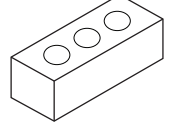
Modular
3-5/8 x 2-1/4 x 7-5/8
6.75 units/sq. ft.



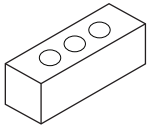
Standard
3-5/8 x 2-1/4 x 8
6.55 units/sq. ft.



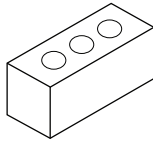
Engineer Modular
3-5/8 x 2-3/4 x 7-5/8
5.63 units/sq. ft.



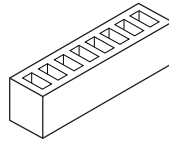
Engineer Standard
3-5/8 x 2-3/4 x 8
5.39 units/sq. ft.



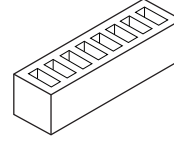
Queen
3 x 2-3/4 x 7-5/8
5.63 units/sq. ft.



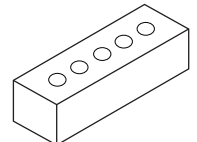
Econo
3-5/8 x 3-5/8 x 7-5/8
4.50 units/sq. ft.



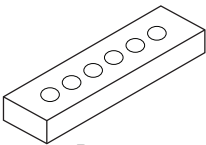
Engineer King
2-13/16 x 2-13/16 x 9-5/8
4.55 units/sq. ft.



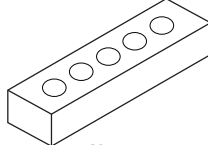
King Narrow-Bed
3-1/8 x 2-3/4 x 9-5/8
4.55 units/sq. ft.



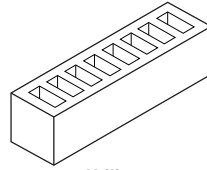
King
3-5/8 x 2-3/4 x 9-5/8
4.55 units/sq. ft.



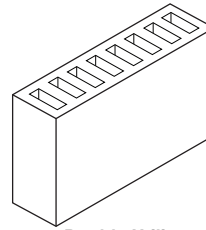
Roman
3-5/8 x 1-5/8 x 11-5/8
6.00 units/sq. ft.



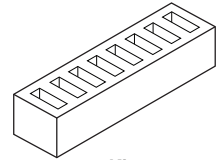
Norman
3-5/8 x 2-1/4 x 11-5/8
4.50 units/sq. ft.



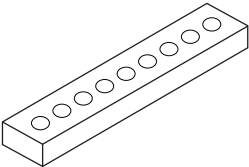
Utility
3-5/8 x 3-5/8 x 11-5/8
3.00 units/sq. ft.



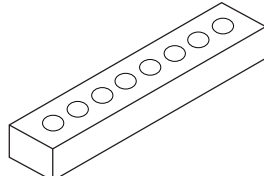
Double Utility
3-5/8 x 7-5/8 x 11-5/8
1.50 units/sq. ft.



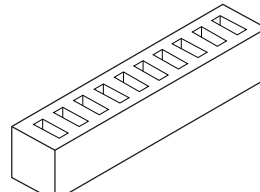
Kingston
3-5/8 x 2-3/4 x 11-5/8
3.75 units/sq. ft.



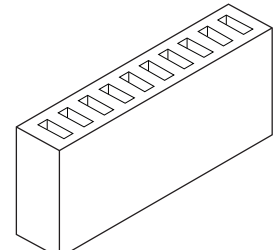
Viking
3-1/2 x 1-5/8 x 15-5/8
4.50 units/sq. ft.



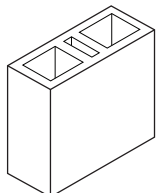
Saxon
3-5/8 x 2-1/4 x 15-5/8
3.38 units/sq. ft.



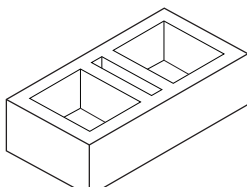
Titan
3-5/8 x 3-5/8 x 15-5/8
2.25 units/sq. ft.



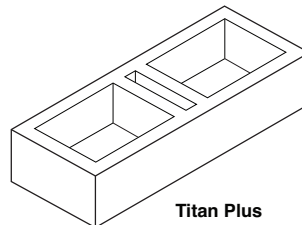
Double Titan
3-5/8 x 7-5/8 x 15-5/8
2.25 units/sq. ft.



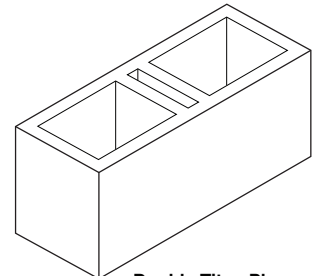
8-Square
3-5/8 x 7-5/8 x 7-5/8
2.25 units/sq. ft.



Regent
7-5/8 x 3-5/8 x 11-5/8
3.00 units/sq. ft.



Titan Plus
7-5/8 x 3-5/8 x 15-5/8
2.25 units/sq. ft.



Double Titan Plus
7-5/8 x 7-5/8 x 15-5/8
1.13 units/sq. ft.

Coring and frogs are at the manufacturer's option. Actual coring patterns may not match the illustrations. Contact plant for specific information on sizing and coring.

TABLE 1
Brick Size, Coverage and Weight

Brick Size	Specified Dimension						Brick per square foot	Average Weight per unit (kg)	
	Thickness (inches) (mm)	Height (inches) (mm)	Length (inches) (mm)	Length (inches) (mm)	Length (inches) (mm)	Length (inches) (mm)			
Queen	3	76	2-3/4	70	7-5/8	194	5.63	4.0	1.8
Lightweight Modular	3-1/2	89	2-1/4	57	7-5/8	194	6.75	3.4	1.5
Lightweight Engineer Modular	3-1/2	89	2-3/4	70	7-5/8	194	5.63	4.0	1.8
Modular	3-5/8	92	2-1/4	57	7-5/8	194	6.75	4.0	1.8
Engineer Modular	3-5/8	92	2-3/4	70	7-5/8	194	5.63	4.8	2.2
Econo	3-5/8	92	3-5/8	92	7-5/8	194	4.50	6.2	2.8
8-Square	3-5/8	92	7-5/8	194	7-5/8	194	2.25	14.1	6.4
Standard	3-5/8	92	2-1/4	57	8	203	6.55	4.2	1.9
Engineer Standard	3-5/8	92	2-3/4	70	8	203	5.39	5.0	2.3
King Narrow-Bed	3-1/8	79	2-3/4	70	9-5/8	244	4.55	4.8	2.2
Engineer King	2-13/16	71	2-13/16	71	9-5/8	244	4.55	5.0	2.3
King	3-5/8	92	2-3/4	70	9-5/8	244	4.55	7.5	3.4
Roman	3-5/8	92	1-5/8	41	11-5/8	295	6.00	3.0	1.4
Norman	3-5/8	92	2-1/4	57	11-5/8	295	4.50	6.0	2.7
Utility	3-5/8	92	3-5/8	92	11-5/8	295	3.00	9.6	4.4
Double Utility	3-5/8	92	7-5/8	194	11-5/8	295	1.50	19.2	8.7
Kingston	3-5/8	92	2-3/4	70	11-5/8	295	3.75	7.0	3.2
Viking	3-1/2	89	1-5/8	41	15-5/8	397	4.50	5.9	2.7
Saxon	3-5/8	92	2-1/4	57	15-5/8	397	3.38	7.7	3.5
Titan	3-5/8	92	3-5/8	92	15-5/8	397	2.25	14.1	6.4
Double Titan	3-5/8	92	7-5/8	194	15-5/8	397	1.13	27.0	12.2
Regent*	7-5/8	194	3-5/8	92	11-5/8	295	3.00	15.5	7.0
Titan Plus*	7-5/8	194	3-5/8	92	15-5/8	397	2.25	20.0	9.1
Double Titan Plus*	7-5/8	194	7-5/8	184	15-5/8	397	1.13	40.0	18.1

*Manufactured to meet ASTM C652 H40V

Design Criteria

Size:

Table 1 provides the many sizes in which Glen-Gery manufacturers extruded brick.

Dimensional Tolerances:

Glen-Gery extruded bricks are manufactured to provide specific dimensional tolerances. The dimensional tolerances of the product are intended to be within the requirements of ASTM C 216, Type FBS for general use. Some products (including but not limited to those manufactured at the Hanley Plant) are manufactured to meet Type FBX. The product ordered will generally contain a number of units which are over or under the specified dimensions. The dimensional variations are related to

the raw materials, forming, drying and firing processes, and the desired finish and color. Thus, for some products, all the units may be slightly over or slightly under the specified dimensions. Inquiries should be made regarding the dimensional variations which might be expected if project detailing requires precise coursing. Specialty products or gauged products may be desirable for such applications.

Configurations:

These units are manufactured to conform to the requirements of applicable ASTM standards. The solid units (meeting ASTM C216 or C62) may have cores which create an aggregate void space of up to 25% of the gross cross-sectional area in every plane parallel to the bearing surface. Hollow

Units, meeting ASTM C652 H40V, may be cored up to 40% of the gross cross sectional area parallel to the bearing surface. Core size, shape and location are determined by the manufacturing facility. The units may also be available as 100% solid units. If 100% solid units are desired, availability must be confirmed when ordering. In addition to 100% solid units, variations in core size and configuration may be available on special order.

Weight:

The weight of the brick units varies with the raw material, size, manufacturing processes, and the amount and configuration of the coring. While actual weight of specific brick should be confirmed, average weight of each size extruded brick manufactured by Glen-Gery is included in Table 1.

Finishes:

Glen-Gery extruded bricks are available in a variety of textures. The textures include smooth, velour, bar, rug, matt, paper cut, scored, rockface, slurry and sand finishes. The availability of a particular finish is usually dependent on the specific product. Certain finishes (i.e. bark) are not available on shapes.

Color:

Glen-Gery extruded brick are available in a multitude of color blends. The colors available include various shades of red, brown, gray, buff, and white. Some colors are the natural colors of the fired raw materials, while others are produced by fusing a surface treatment onto the surface of the brick during firing or adding minerals to the bodies of the brick. If through body colors are desired, inquiries should be made regarding the availability of the desired colors. The color selection may also be limited by the product selected and the desired finish.

Shapes:

Standard brick shapes are dimensioned to course properly with nominal 4" thick brick sizes. While the 'standard' brick shapes are described in the Glen-Gery Standard Shapes Catalog, "Brick Shapes", they are not stock items. Typical extruded brick shapes, as described in the catalogue, include various configurations of bullnose, watertable, corner, radial, shelf angle, sill, and coping units. Shapes dimensioned for coursing with other brick sizes, and shapes having configurations to fit specific project requirements are also available. These nonstandard shapes require detailed dimension drawings which must be submitted to and approved by Glen-Gery. In order to achieve the effects desired by the designer, some shape designs may require coring which does not meet the requirements of ASTM C 216. All shapes should be identified early in the project design because certain shape configurations may require special forming, drying, or firing processes. These processes may require more time or different scheduling than the non-shape brick.

Physical Properties of Units

Compressive Strength:

Average gross compressive strength exceeds 3,000 psi when tested with the loads applied normal to the bedding surface. Typically, the average compressive strength exceeds 7,000 psi and may be as high as 30,000 psi for brick manufactured to meet ASTM C216. The actual compressive strength depends upon the specific product, and size selected.

Water Absorption:

The average maximum hot-water absorption by submersion in boiling water for five hours is less than 17% and will typically be less than 9%. The average saturation coefficient is generally less than 0.78. In instances where the saturation coefficient exceeds 0.78, the cold water absorption for Glen-Gery brick is less than 8% and the units meet the requirements of ASTM C216, Grade SW.

Initial Rate of Absorption (IRA):

The initial rate of absorption (suction) normally does not exceed 30 grams per 30 square inches per minute under laboratory conditions. However, brick can be checked on the site to determine if wetting is necessary prior to laying unless familiarity with the product has demonstrated that wetting is not required. The procedure for determining wetting requirements is the field test procedure described in ASTM C 67. If this test is not practical, the need for wetting may be estimated by the following field test:

- 1) Place a \$.25 piece on a bearing surface of a typical unit.
- 2) Draw a ring around the quarter with a wax pencil.
- 3) Place twenty drops of water within the ring.
- 4) If unabsorbed water remains after 1-1/2 minutes, the units likely do not require wetting. If all the water is absorbed into the unit, the units should be wetted prior to laying.

Properties of Walls

Compressive Strength:

The minimum assumed compressive strength for a brick wall, using good workmanship and ASTM C270 Type N mortar, is 1,000 psi. Assemblies constructed with most Glen-Gery extruded bricks manufactured to meet ASTM C216 will provide a minimum assumed compressive strength of 2,000 psi, when used with good workmanship and Type N mortar. Specific products may provide assumed wall compressive strengths as high as 3,000 psi when used with good workmanship and Type N mortar. For grouted clay masonry, use grout that conforms to ASTM C476 with a minimum compressive strength of 2,000 psi. Reference: Specification for Masonry Structures (TMS 602/ACI 530.1/ASCE 6).

Thermal Performances:

The thermal resistivity of Glen-Gery extruded brick is approximately 0.11 (hr • sq. ft. • deg f)/(Btu • in.). A nominal four-inch wythe, excluding air films, will provide a thermal resistance of approximately 0.40 (hr • sq. ft. • deg f)/(Btu). The thermal resistivity is used to predict the thermal performance of wall elements under steady-state conditions. The mass and specific heat of this product provide additional benefit when subjected to the dynamic conditions of the natural environment. As described in the American Society of Heating Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 90.1, the effects of mass, specific heat, and the color of the brick should be considered. Reference: BIA Technical Notes on Brick Construction 4 Revised, "Heat Transmission Coefficients of Brick Masonry Walls", 4B Revised, "Energy Code Compliance of Brick Masonry Walls" and 43D, "Brick Passive Solar Heating Systems, Part IV – Material Properties."

Sound Transmission:

A nominal four-inch wythe of brick masonry has a sound transmission classification (STC) of approximately 45. Reference: BIA Technical Notes on Brick Construction 5A, "Sound Insulation – Clay Masonry Walls."

Fire Resistance:

Fire resistance ratings are directly related to wall assembly including the equivalent thickness of masonry. For example: A nominal 4-inch wythe of clay masonry alone provides a one hour fire rating while a fully grouted regent size unit (7-5/8" thick) can provide a 4-hour fire rating. Fire ratings can be determined through Testing (per ASTM E119) or calculated in accordance with the International Building Code (IBC) or Code Requirements for Determining Fire Resistance of Concrete Masonry Construction Assemblies ACI 216.1/TMS 0216. Reference: BIA Technical Notes on Brick Construction 16 Revised, "Fire Resistance of Brick Masonry."

Coefficient of Thermal Expansion:

Brick walls constructed of Glen-Gery extruded brick have a coefficient of thermal expansion of approximately 0.000004 in. (in. • °F) as listed in The Building Code Requirements for Masonry Structures (TMS 402/ACI 530/ASCE 5) . A one hundred foot length (or height) of wall constructed of Glen-Gery extruded brick, and exposed to an annual extreme temperature difference of 100 °F, is expected to experience a total thermal movement of approximately one-half inch.

Coefficient of Moisture Expansion:

The coefficient of moisture expansion of Glen-Gery extruded brick veneer is less than 0.0005 in./in. Although most of the

moisture expansion of Glen-Gery extruded brick occurs immediately after the brick are fired, before the brick arrive at the job site, the maximum design moisture expansion of one-hundred foot long (or high) wall constructed of these products is less than five-eighths of an inch.

Construction

Storage and Protection:

Store brick off ground to avoid contamination by water, mud, dust or materials likely to cause staining or other defects. Do not use cubes of brick as supports or work surfaces. Cover units with a weather resistant membrane held securely in place or otherwise protect units from the elements.

TABLE 2
Brick and Mortar Quantities¹
Nominal 3/8 Inch Mortar Joints

Brick Size	Vertical Coursing in courses per inch	Units per square foot	Cubic Foot per 100 square foot	Quantity of Mortar per 1000 units
Queen	5 Courses per 16"	5.63	3.97	7.05
Lightweight Modular	3 Courses per 8"	6.75	5.28	7.82
Lightweight Engineer Modular	5 Courses per 16"	5.63	4.63	8.22
Modular	3 Courses per 8"	6.75	5.46	8.10
Engineer Modular	5 Courses per 16"	5.63	4.79	8.52
Econo	1 Course per 4"	4.50	4.12	9.15
8-Square	1 Course per 8"	2.25	2.77	12.29
Standard	3 Courses per 8"	6.55	4.12	6.29
Engineer Standard	5 Courses per 16"	5.39	4.75	8.81
King Narrow-Bed	5 Courses per 16"	4.55	3.96	8.70
Engineer King	5 Courses per 16"	4.55	2.67	5.87
King	5 Courses per 16"	4.55	4.59	10.09
Roman	4 Courses per 8"	6.00	6.43	10.72
Norman	3 Courses per 8"	4.50	5.06	11.24
Utility	1 Course per 4"	3.00	3.69	12.29
Double Utility	1 Course per 8"	1.50	2.32	15.44
Kingston	5 Courses per 16"	3.75	4.37	11.66
Viking	4 Courses per 8"	4.50	5.06	11.24
Saxon	3 Courses per 8"	3.38	4.86	14.39
Titan	1 Course per 4"	2.25	3.47	15.44
Double Titan	1 Course per 8"	1.13	2.10	18.59
Regent*	1 Course per 4"	3.00	6.98	23.27
Titan Plus*	1 Course per 4"	2.25	6.58	29.23
Double Titan Plus*	2 Courses per 16"	1.13	2.63	23.27

¹ These values are actual quantities and must be increased for waste and any possible construction requirements which may necessitate additional quantities.

*Manufactured to meet ASTM C652 H40V

Wetting:

As deemed necessary(see IRA), wet units prior to laying. Wetting typically consists of saturating the units three to twenty four hours before laying the units. Units should be saturated but surface dry when laid.

Weather Extremes:

Follow the procedures required by developed by The International Building Code (IBC) references cold and hot weather construction provisions for masonry that are based on those found in Specification for Masonry Structures (TMS 602/ACI 530.1/ASCE 6) and required by Building Code Requirements for Masonry Structures (TMS 402/ACI 530/ASCE 5). While specific cold and hot weather provisions are not included within the International Residential Code (IRC) the IRC states that mortar for use in masonry construction shall comply with ASTM C 270, which requires mortar for other than masonry veneer to be prepared in accordance with the Masonry Industry Council's "Hot and Cold Weather Masonry Construction Manual." Further information is also available in the BIA Technical Notes on Brick Construction 1, "Cold and Hot Weather Construction."

Installation:

Place units in full mortar joints, taking special care to assure that the head joints are full. Use a Portland cement lime mortar conforming to ASTM C 270. A prepackaged mortar mix conforming to these specifications is Glen-Gery Color Mortar Blend. Reference: Glen-Gery Product Profile "Glen-Gery Color Mortar Blend."

Tooling:

When thumbprint hard, tool all joints to produce a concave, grapevine, or vee joint finish.

Protection of Work:

At the end of each day or shut down period, cover all work with a strong weather resistant membrane which is held in place securely. Scaffold boards closest to the wall should be tilted up at

TABLE 3
Units Per Linear Foot in Various Positions
Nominal 3/8 Inch Mortar Joints

Brick Size	Stretcher	Rowlock	Soldier	Header
Queen	1.50	3.75	3.75	3.55
Lightweight Modular	1.50	4.50	4.50	3.09
Lightweight Engineer Modular	1.50	3.75	3.75	3.09
Modular	1.50	4.50	4.50	3.00
Engineer Modular	1.50	3.75	3.75	3.00
Econo	1.50	3.00	3.00	3.00
8-Square	1.50	1.50	1.50	3.00
Standard	1.43	4.50	4.50	3.00
Engineer Standard	1.43	3.75	3.75	3.00
King Narrow-Bed	1.20	3.75	3.75	3.42
Engineer King	1.20	4.26	4.26	4.26
King	1.20	3.75	3.75	3.00
Roman	1.00	6.00	6.00	3.00
Norman	1.00	4.50	4.50	3.00
Utility	1.00	3.00	3.00	3.00
Double Utility	1.00	1.50	1.50	3.00
Kingston	1.00	3.75	3.75	3.00
Viking	0.75	6.00	6.00	3.00
Saxon	0.75	4.50	4.50	3.00
Titan	0.75	3.00	3.00	3.00
Double Titan	0.75	1.50	1.50	3.00
Regent	1.00	3.00	3.00	1.50
Titan Plus	0.75	3.00	3.00	1.50
Double Titan Plus	0.75	1.65	1.65	1.50

days end to prevent splatter during rain. Care should also be taken to protect brickwork located near the ground from mud and dirt.

Cleaning:

At the end of each shift, remove excess mortar with a stiff bristle brush. Clean with wooden paddles and stiff fiber brushes using clean water. If a cleaning agent is necessary, presoak the wall with clean water prior to applying the cleaning agent and thoroughly rinse the wall with clean water after cleaning. Prior to determining a final cleaning solution, test the procedure and cleaning agent on a small

sample area to observe the effectiveness of the overall cleaning solution and, most importantly, to detect any possible deleterious effects or changes in appearance of the brick. Additional information is available in the Glen-Gery Technical Profile "Cleaning New Brickwork." Check with your Glen-Gery Distributor or District Sales Manager prior to making a final selection of a cleaning procedure and solution. When using Type N mortars, clean down should never occur prior to 7 days after work is completed to assure appropriate curing of the mortar. Reference: BIA Technical Notes on Brick Construction 20, "Cleaning Brickwork."

Estimating:

The quantities of brick and mortar required for a project vary with the size of the brick unit, the wall construction, the number of field cuts necessary, the coring configuration of the units, and the workmanship. Table 2 provides the quantities of brick and mortar quantities per 1,000 brick units. The figures are based on the units being placed in the wall as stretchers in stack or running bond. The quantities are provided

for a single wythe of brickwork. Additional information regarding mortar or grout for collar joint or grouted applications can be found in the referenced BIA Technical Notes. The values provided are estimates of the quantities in the finished wall and do not account for waste. The values provided in Table 3 may be useful in approximating the number of units for caps, sills, bands, etc. These values represent the actual number of units per linear foot for the various brick sizes placed on the four most frequently used

positions in the wall. The values are based on a nominal three-eighth inch mortar joint. Reference: BIA Technical Notes on Brick Construction 10, "Dimensioning and Estimating Brick Masonry."

For further information contact:
Glen-Gery Technical Services
433 South Pottsville Pike
Shoemakersville, PA 19555
(610) 562-3076



info@glengery.com
www.glengery.com

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