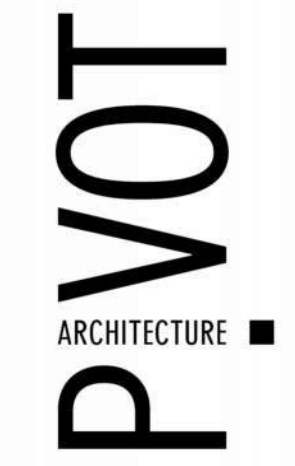


# S.M.A.R.T. FACILITY IMPROVEMENTS

## CITY OF WILSONVILLE

28879 SW BOBERG RD,  
WILSONVILLE, OR 97070



### ABBREVIATIONS

@	AT
AB	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
ACOUS	ACOUSTIC
ACT	ACOUSTICAL TILE CEILING SYSTEM
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
BLDG	BUILDING
BO	BOTTOM OF
CB	CATCH BASIN
CFCI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CJ	CONTROL JOINT
CL	CENTER LINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONT	CONTINUOUS
CPT	CARPET
DBL	DOUBLE
DEMO	DEMOLITION/DEMOLISH
DF	DOUGLAS FIR, DRINKING FOUNTAIN
DIAG	DIAGONAL
DIA	DIAMETER
DISP	DISPENSER
DN	DOWN
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
(E)	EXISTING
EA	EACH
EJ	EXPANSION JOINT
EL_ELEV	ELEVATION
ELEC	ELECTRICAL
ENAM	ENAMEL
EQ	EQUAL
EW	EACH WAY
EXT	EXTERIOR
FD	FLOOR DRAIN
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FEE	FINISH FLOOR ELEVATION
FF	FINISH FLOOR
FIN	FINISH/FINISHED
FLOOR	FLOOR
FO	FACE OF
FOP	FACE OF FINISH
FRP	FIBER REINFORCED PANEL
FTG	FOOTING
GA	GAUGE
GB	GRAB BAR
GLB	GLUE LAM BEAM
GYP BD	GYP SUM BOARD
GYP	GYP SUM BOARD
HGT	HEIGHT
HORIZ	HORIZONTAL
HR	HANDRAIL
HM	HOLLOW METAL
INSUL	INSULATION
INT	INTERIOR
JOINT	JOINT
JT	KNOCK DOWN
KD	KNOCK DOWN
LAV	LAVATORY
LOC	LOCATION
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIMENSION
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED OWNER INSTALLED
OFS	OUTSIDE FACE OF STUD
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
PJ	PANEL JOINT
PLAM	PLASTIC LAMINATE
PS	PAINT SYSTEM
PT	PRESSURE TREATED
PTD	PAINTED
PLY	PLYWOOD
RT	RADIUS
RB	RUBBER BASE
RD	ROOF DRAIN
RM	ROOM
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RUB	RUBBER
RVL	REVEAL
SD	STORM DRAIN
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPECS	SPECIFICATIONS
SQFT_SF	SQUARE FOOT
S STL	STAINLESS STEEL
STD	STANDARD
STL	STEEL
STRUC	STRUCTURAL
T	TEMPERED
T&B	TOP & BOTTOM
T&G	TONGUE AND GROOVE
TEMP	TEMPORARY
TOP OF	TOP OF
TOC	TOP OF CONCRETE
TOW	TOP OF WALL
TOS	TOP OF STRUCTURE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VFY	VERIFY
VIF	VERIFY IN FIELD
WA	WALL ASSEMBLY
W	WITH
WD	WOOD
WP	WATER PROOF
WRB	WATER RESISTIVE BARRIER

### ARCHITECTURAL SYMBOLS

**BUILDING ELEVATION**  
A201 ■ 3

**INTERIOR ELEVATION**  
A541

**BUILDING SECTION**  
1  
A101

**WALL SECTION**  
1  
A101

**DETAIL SECTION**  
1  
A511 TYP

**DETAIL CALLOUT**  
1  
A511

**SPECIFICATION KEYNOTE\***  
05 5000-A  
\*LETTER IS A DESIGNATOR AND IS NOT LINKED TO A SPECIFIC SPEC ITEM

**KEYNOTE**  
08

**FINISH TAG**  
P - 1

**ROOM FINISH TAG**  
100  
XXX/XXX  
XXX/XXX  
XXX/XXX  
XXX/XXX

**ROOM NAME & NUMBER**  
ROOM NAME  
A101

**DOOR SYMBOL**  
101A

**CEILING HEIGHT SYMBOL**  
20'-0"

**VERTICAL ELEVATION**

**INTERIOR WALL TYPE WITH NO SOUND ATTENUATION**  
HH

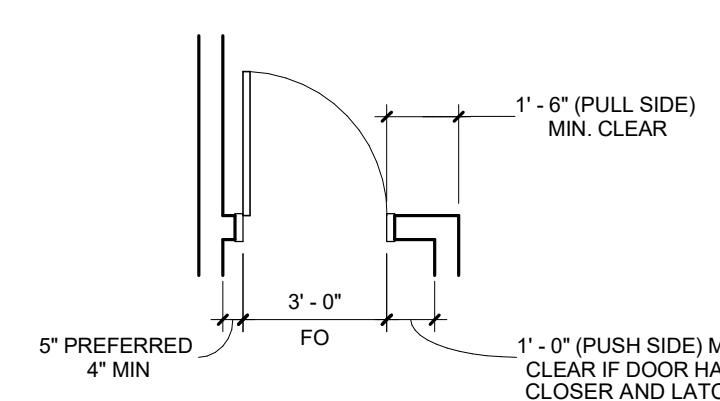
**FIRE EXTINGUISHER**  
F

**EXIT SIGN**  
EXIT

**SLOPE ARROW (SLOPE AS INDICATED)**  
SLOPE  
4:12

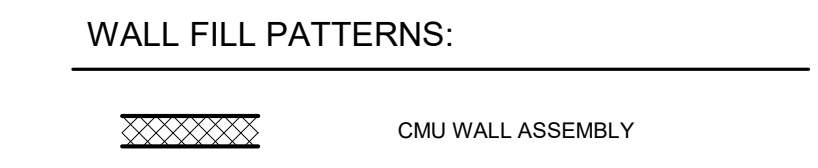
**REVISION TAG**  
XXX  
XXX

### GENERAL NOTES - DIM. PLANS



A. DOORS SHOWN ADJACENT TO A FLANKING WALL OR OTHER FIXED OBSTRUCTION, SHALL BE LOCATED AS SHOWN ABOVE.

B. OTHER LOCATIONS SHALL BE ON CENTERLINE OF ROOM OR AS SPECIFICALLY DIMENSIONED.



### SHEET INDEX

GENERAL	TITLE SHEET
	G010 CODE REVIEW INFORMATION
	G011 LIFE SAFETY PLAN
CIVIL	C100 GRADING PLAN
	C101 MATERIALS AND JOINTING PLAN
	C102 CIVIL DETAILS
	C103 ACCESS ROAL EXPANSION ALIGNMENT AND PROFILE
	C104 WALL ALIGNMENT AND PROFILE
	C105 STRIPING PLAN
	C106 EROSION CONTROL PLAN
	C107 EROSION CONTROL NOTES
	C200 INDUSTRIAL SITE GANTRY WASH SYSTEM
LANDSCAPE	L100 TREE REMOVAL AND PROTECTION PLAN
	L200 IRRIGATION PLAN
	L201 IRRIGATION LEGEND AND NOTES
	L300 LANDSCAPE PLAN
	L301 EXISTING LANDSCAPE LEGEND AND NOTES
	L302 PROPOSED LANDSCAPE LEGEND AND NOTES
	L400 IRRIGATION DETAILS
	L401 LANDSCAPE DETAILS
ARCHITECTURE	A001 SITE PLAN
	A010 SITE DETAILS - NEW SLIDING GATE
	A101 FLOOR PLAN
	A121 REFLECTED CEILING PLAN AND ROOF PLAN
	A201 OVERALL EXTERIOR ELEVATIONS
	A301 BUILDING SECTIONS
	A311 WALL SECTIONS
	A321 BUILDING DETAILS
	A322 ROOF DETAILS
	A323 LOUVER DETAILS
	A541 INTERIOR ELEVATIONS
	A641 DOOR DETAILS
STRUCTURAL	S001 STRUCTURAL GENERAL NOTES
	S002 STRUCTURAL GENERAL NOTES
	S003 STRUCTURAL GENERAL NOTES
	S100 SITE WALL FOUNDATION PLAN
	S101 FOUNDATION PLAN
	S131 ROOF FRAMING PLAN
	S201 WALL ELEVATIONS
	S501 TYPICAL CONCRETE DETAILS
	S502 TYPICAL CONCRETE DETAILS
	S503 CONCRETE DETAILS
	S504 CONCRETE RETAINING WALL DETAILS
	S505 CONCRETE RETAINING WALL DETAILS
	S601 TYPICAL CMU DETAILS
	S701 TYPICAL STEEL DETAILS
	S702 STEEL DETAILS
MECHANICAL	M000 GENERAL NOTES
	M103 FLOOR PLAN
	M131 ROOF PLAN
	M500 MECHANICAL DETAILS
	M600 MECHANICAL SCHEDULES
PLUMBING	P000 GENERAL NOTES & SYMBOLS
	P010 SITE PLAN
	P103 FLOOR PLAN
	P500 PLUMBING DETAILS
	P600 PLUMBING SCHEDULES
ELECTRICAL	E000 GENERAL SYMBOLS
	E001 GENERAL NOTES
	E010 SITE PLAN
	E101 FLOOR PLAN
	E102 LIGHTING PLAN - ELECTRICAL
	E200 PANEL SCHEDULES
	E201 ELECTRICAL SCHEDULES
	E300 ELECTRICAL DIAGRAMS
	E301 ELECTRICAL DETAILS
TECHNOLOGY	T000 GENERAL SYMBOLS
	T010 SITE PLAN
	T101 FLOOR PLAN
	T102 ELEVATION
	T500 DETAILS

### CONSTRUCTION DOCUMENTS - ISSUED FOR BID

06.17.2024

2309.00

### PROJECT TEAM

#### OWNER

CITY OF WILSONVILLE  
28879 SW BOBERG RD  
WILSONVILLE, OR 97070  
PHONE: (503) 682-4523  
CONTACT: KELSEY LEWIS

#### ARCHITECT

PIVOT ARCHITECTURE PC  
44 WEST BROADWAY, SUITE 300  
EUGENE, OR 97401  
PHONE: (541) 342-7291  
CONTACT: BURKE WARDLE

#### STRUCTURAL ENGINEER

HOHBACH-LEWIN  
296 EAST 5TH AVENUE, SUITE 302  
EUGENE, OR 97401  
PHONE: (541) 349-1701  
CONTACT: BRENT CRAWFORD

#### CIVIL ENGINEER

WSP  
1300 SW 5TH AVENUE, SUITE 3100  
PORTLAND, OR  
PHONE: (503) 432-6749  
CONTACT: CHRISTOPHER HEMMER

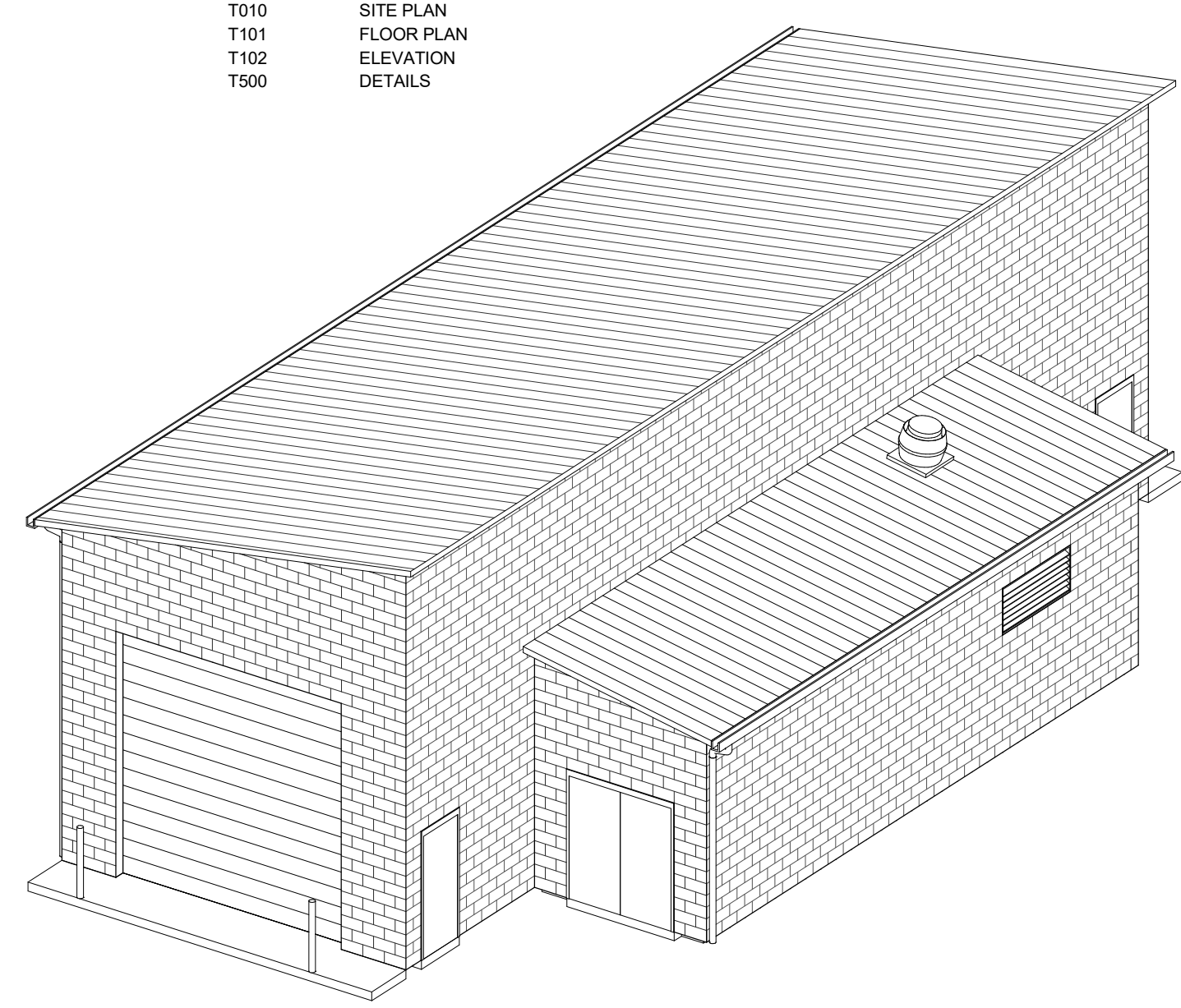
#### MECHANICAL/PLUMBING/ELECTRICAL ENGINEER

KCL ENGINEERING  
312 NW 10TH AVENUE, SUITE 100  
PORTLAND, OR 97209  
PHONE: (503) 879-6954  
CONTACT: ADAM KOBLE

#### LANDSCAPE ARCHITECT

GREENWORKS  
110 SE MAIN ST, SUITE 100  
PORTLAND, OR 97214  
PHONE: (503) 222-5612  
CONTACT: PATRICK GAYNOR

### VICINITY MAP



CONSTRUCTION DOCUMENTS - ISSUED FOR BID

S.M.A.R.T. FACILITY IMPROVEMENTS

PROJECT #: 2309.00  
CITY OF WILSONVILLE  
28879 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**TITLE SHEET**

REVISIONS:

#	DESCRP.	DATE

ISSUE DATE: 06.05.2024

**TITLE**

**APPLICABLE CODE:**

2022 OREGON STRUCTURAL SPECIALTY CODE  
 2021 OREGON ELECTRICAL SPECIALTY CODE  
 2021 OREGON ENERGY EFFICIENCY SPECIALTY CODE  
 2022 OREGON MECHANICAL SPECIALTY CODE  
 2021 OREGON PLUMBING SPECIALTY CODE  
 2019 OREGON FIRE CODE  
 2018 NFPA 1, 10  
 2016 NFPA 13  
 ICC 117.1-2017 ACCESSIBILITY CODE

**SITE DATA SUMMARY**

TOTAL SITE AREA: 136,300 SF

**EXISTING IMPERVIOUS SURFACE AREA**

LOCATION	GSF
ROOF:	15,169 GSF
PAVING:	66,030 GSF
TOTAL:	81,199 GSF

**PROPOSED IMPERVIOUS SURFACE AREA**

LOCATION:	GSF
ROOF, BUILDING:	2,038 GSF
ROOF, 3 CANOPIES:	0 GSF
PAVING:	30,730 GSF
TOTAL:	32,768 GSF

**LAND USE CODE INFORMATION**

ADDRESS: 28879 SW BOBERG ROAD, WILSONVILLE, OREGON 97070

MAP & TAX LOT #: TAX LOT 1600, SECTION 14, T3S-R1W, CLACKAMAS COUNTY

ZONE: PDI - PLANNED DEVELOPMENT INDUSTRIAL  
 SRQZ - SIGNIFICANT RESOURCE OVERLAY ZONE

**SETBACKS:**  
 MINIMUM FRONT & INTERIOR YARD: 30'

**BUILDING CODE INFORMATION**

**SEISMIC DESIGN:**  
 SEISMIC OCCUPANCY CATEGORY (TABLE 1604.5): II  
 SEISMIC DESIGN CATEGORY (SECTION 1613): D  
 SEE STRUCTURAL FOR ADDITIONAL DESIGN CRITERIA

**CONSTRUCTION TYPE:**  
 II-B NOT SPRINKLERED

**AUTOMATIC SPRINKLER SYSTEM (903):**  
 NOT PROVIDED

**OCCUPANCIES (CHAPTER 3):**  
 F-1 FACTORY GROUP

**ALLOWABLE AREA, BASE (506.2):**  
 F-1: 15,500 NOT SPRINKLERED  
 PROPOSED: 1,800 SF

**OCCUPANCY SEPARATIONS (508.4):**  
 NONE REQUIRED BETWEEN F-1 AND F-1.

**BUILDING HEIGHT (504.3)**  
 ALLOWABLE: 2 STORY, 35'  
 PROPOSED: 1 STORY, 23'

**DESIGN OCCUPANT LOAD**  
 PROPOSED: 17

**EXISTING PARKING SUMMARY (NO PROPOSED CHANGES)**

**VEHICLE PARKING:**  
 STANDARD SPACES: 43  
 COMPACT SPACES: 0  
 ADA SPACES: 2  
**TOTAL SPACES: 45**

**BIKE PARKING:**  
 (6) SPACES

**PLUMBING FIXTURE CALCULATIONS:****SDC INFORMATION - PLUMBING FIXTURE COUNT**

FIXTURE	REMOVED	ADDED	NET CHANGE
COMMERCIAL WASHER			
DRINKING FOUNTAIN			
FLOOR DRAIN			
FLOOR SINK			
JANITORY SINK			
LAVATORY (RESTROOM)			
SHOWER			
SINK			
TRENCH DRAIN		1	1
URINAL			
WATER CLOSET			

**DEFERRED SUBMITTALS**

- FALL ARREST SYSTEM  
 - BUS WASH EQUIPMENT

**SPECIAL INSPECTIONS**

- SEE STRUCTURAL AND CIVIL DRAWINGS

CONSTRUCTION DOCUMENTS - ISSUED FOR BID

S.M.A.R.T. FACILITY IMPROVEMENTS

PROJECT #: 2309.00

CITY OF WILSONVILLE

28879 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:

**CODE REVIEW  
 INFORMATION**

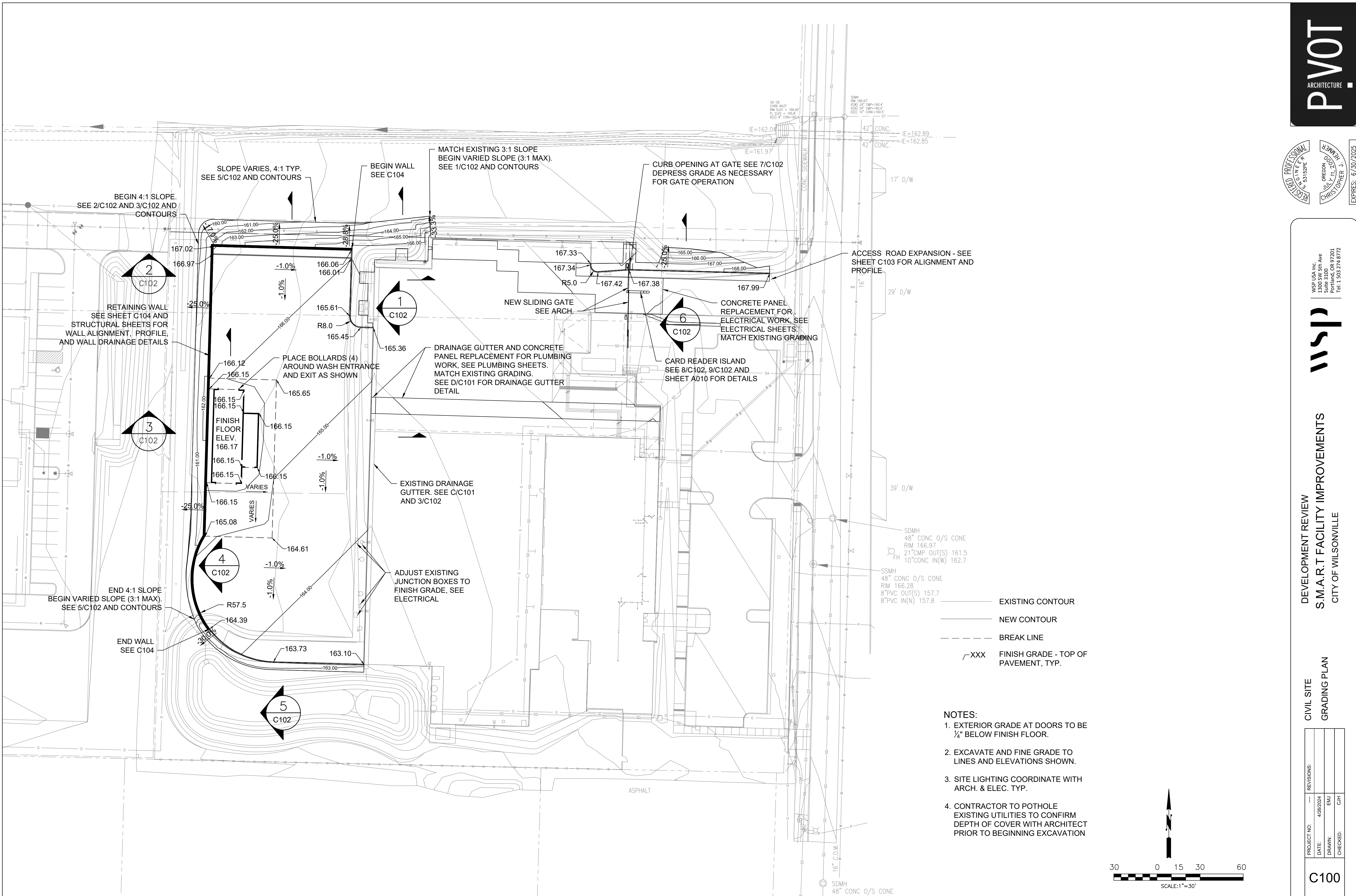
REVISIONS:

# DESCRP. DATE

ISSUE DATE: 06.05.2024

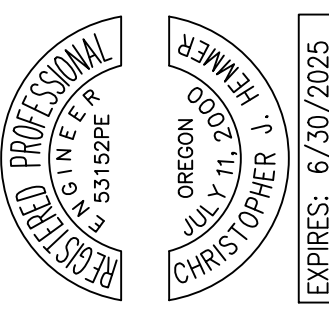
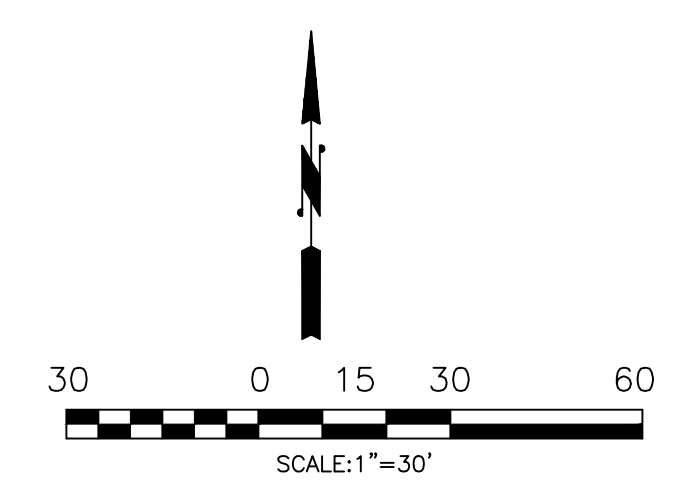
**G010**

PRINTED ON: 4/19/2024 12:41 PM FROM FILE: J:\30902892\_WILSONVILLE SMART EXPANSION\CADD\SHEETFILES\C100.DWG BY: JENKINS, ERIN



- EXISTING CONTOUR
- NEW CONTOUR
- - - BREAK LINE
- XXX FINISH GRADE - TOP OF PAVEMENT, TYP.

- NOTES:**
1. EXTERIOR GRADE AT DOORS TO BE 1/4" BELOW FINISH FLOOR.
  2. EXCAVATE AND FINE GRADE TO LINES AND ELEVATIONS SHOWN.
  3. SITE LIGHTING COORDINATE WITH ARCH. & ELEC. TYP.
  4. CONTRACTOR TO POT HOLE EXISTING UTILITIES TO CONFIRM DEPTH OF COVER WITH ARCHITECT PRIOR TO BEGINNING EXCAVATION



**wsp**

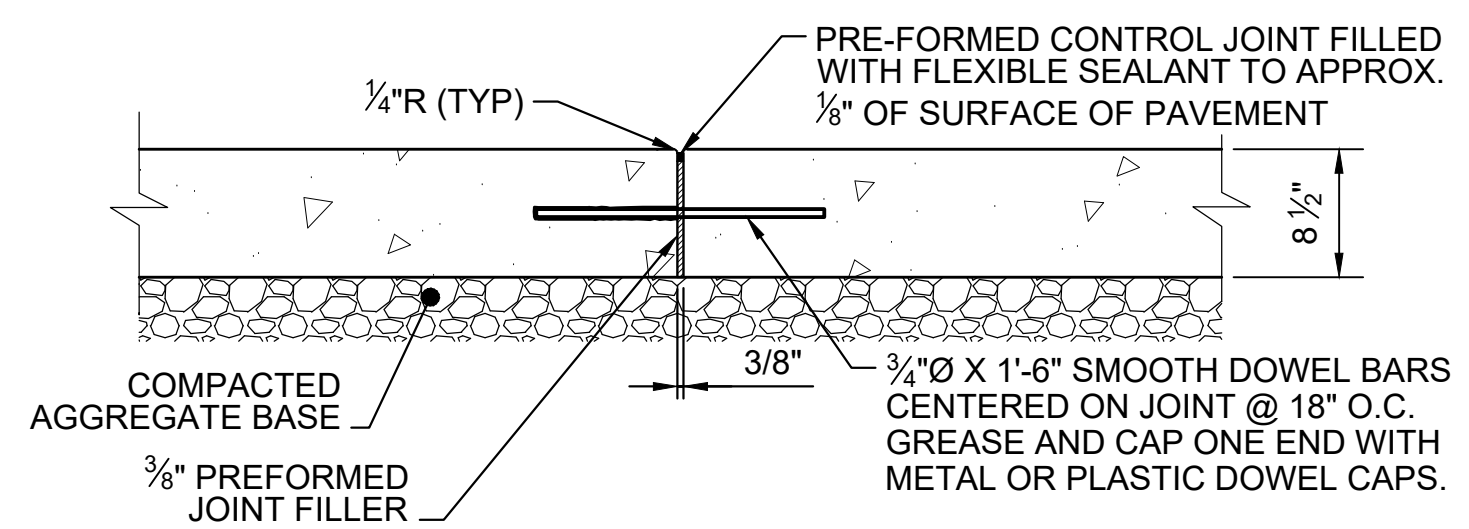
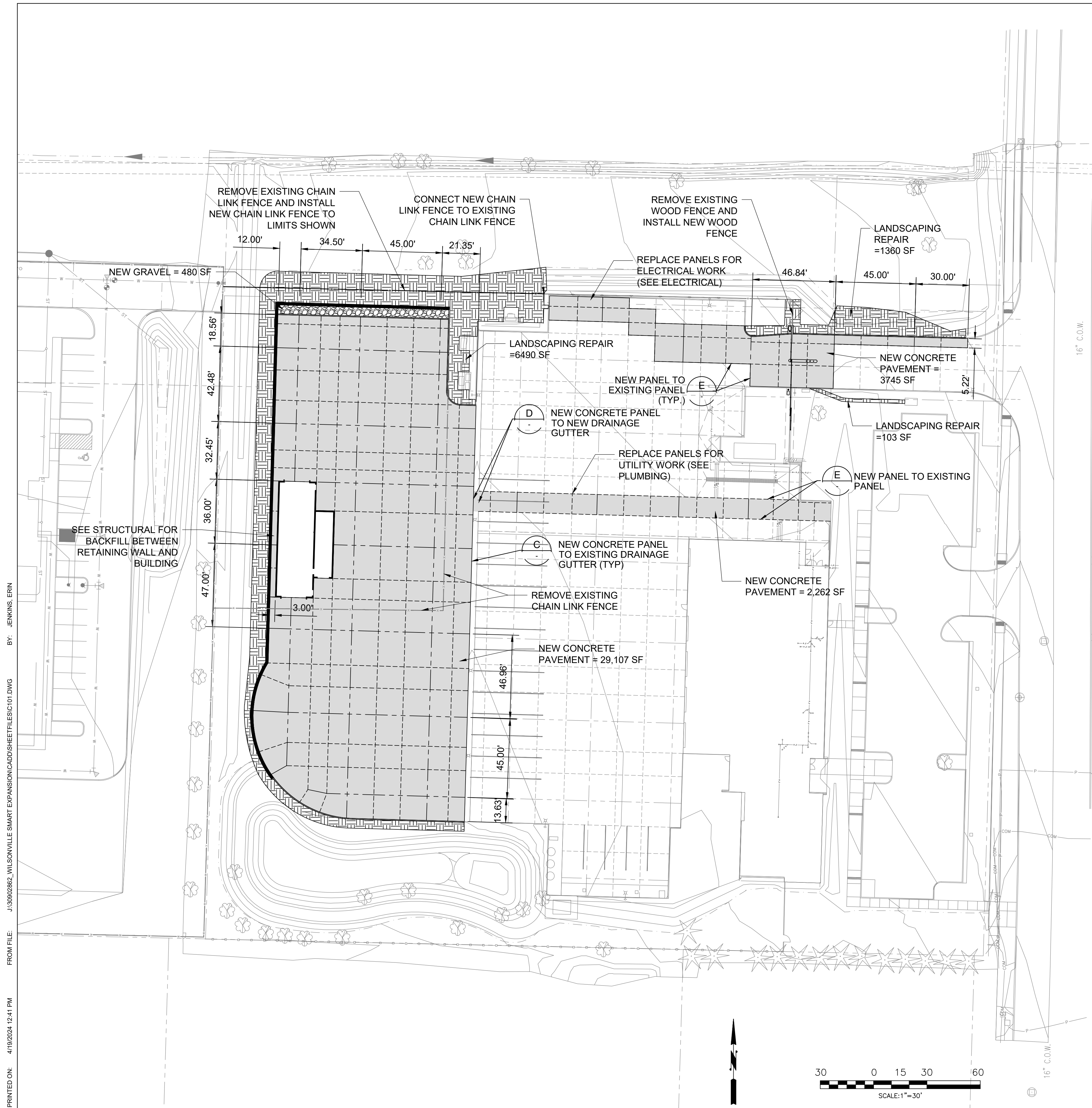
DEVELOPMENT REVIEW  
S.M.A.R.T. FACILITY IMPROVEMENTS  
CITY OF WILSONVILLE

WSP USA INC.  
1300 SW 5th Ave  
Suite 3100  
Portland, OR 97201  
Tel: 1.503.274.8772

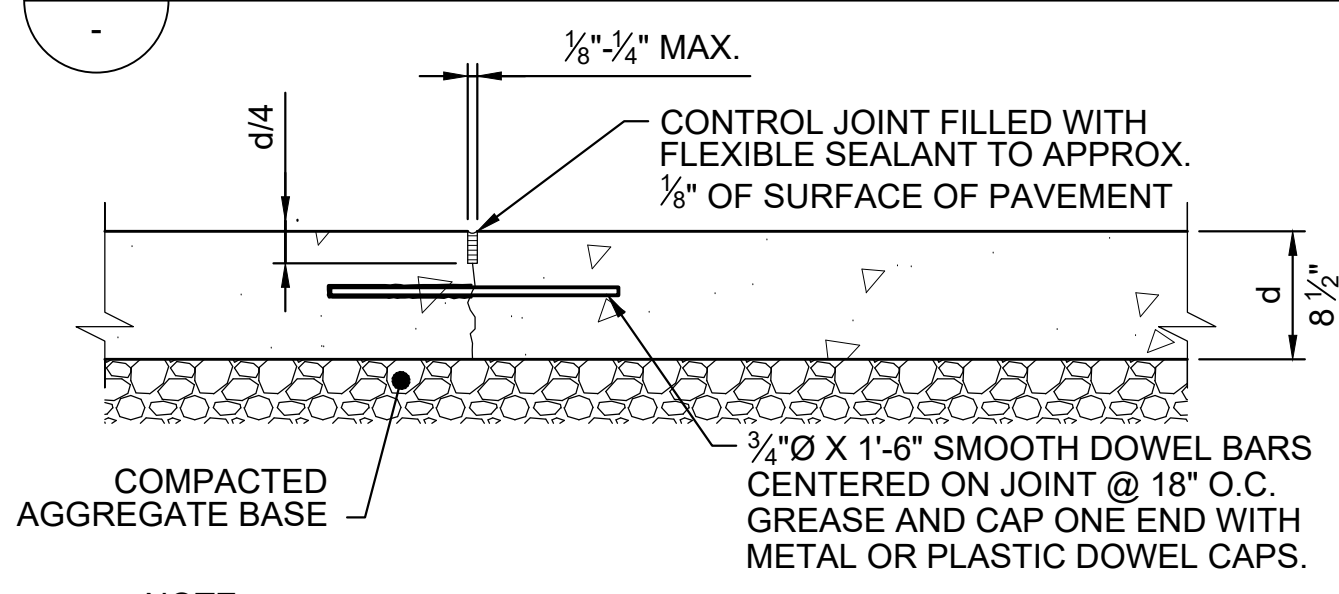
CIVIL SITE  
GRADING PLAN

PROJECT NO:	REVISIONS:
4/19/2024	4/19/2024
DATE:	DATE:
DRAWN: EM	DRAWN: EM
CHECKED: CJH	CHECKED: CJH

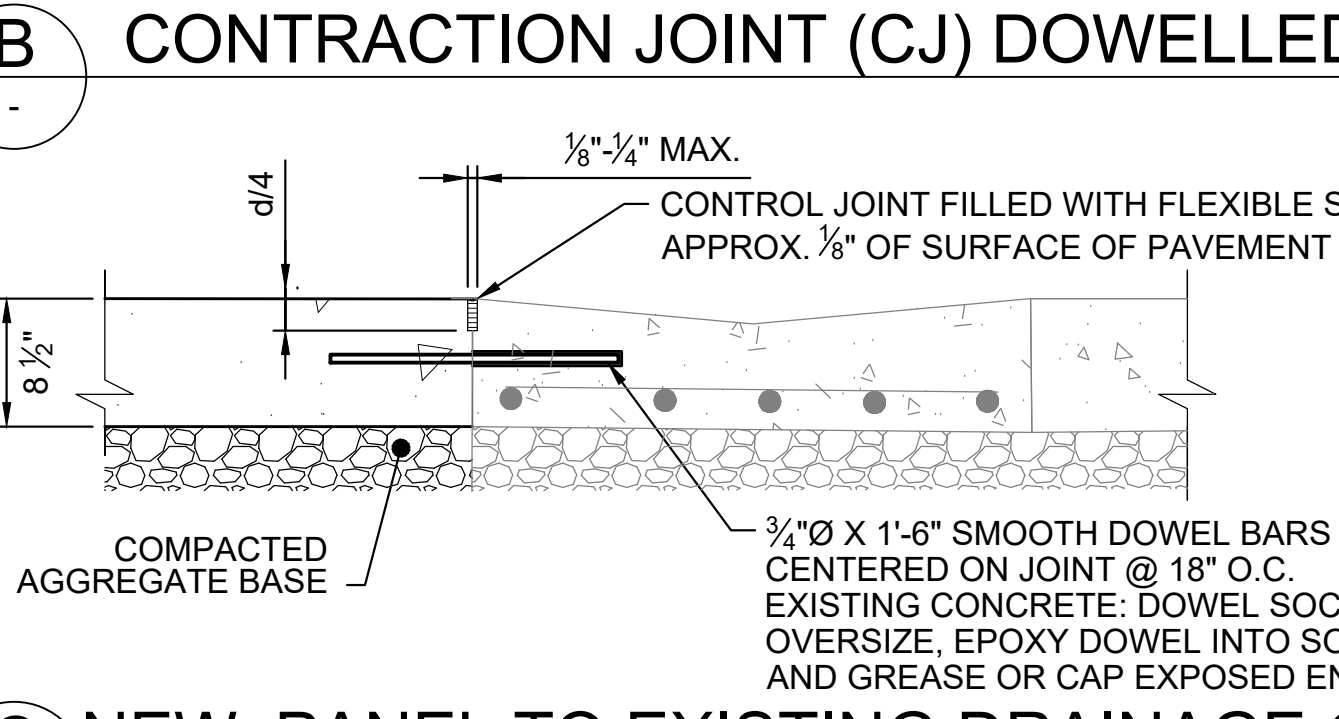
C100



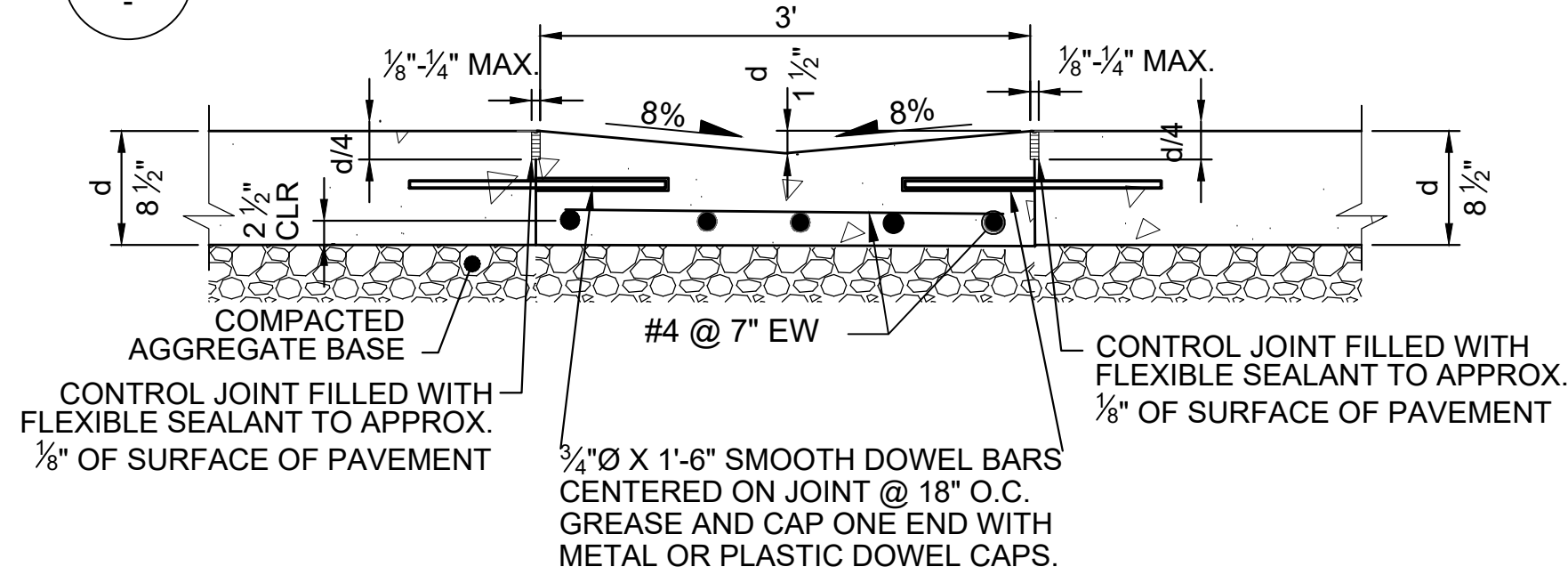
**A EXPANSION JOINT (EJ) DOWELLED**



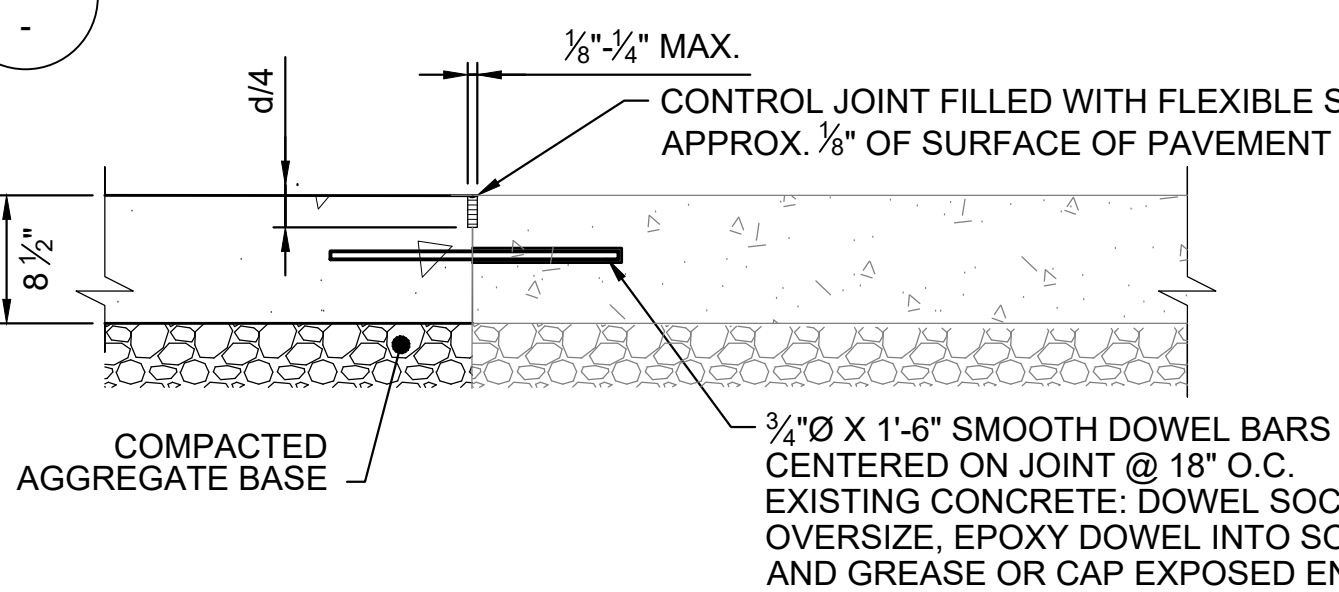
**B CONTRACTION JOINT (CJ) DOWELLED**



**C NEW PANEL TO EXISTING DRAINAGE GUTTER**



**D NEW PANEL TO NEW DRAINAGE GUTTER**



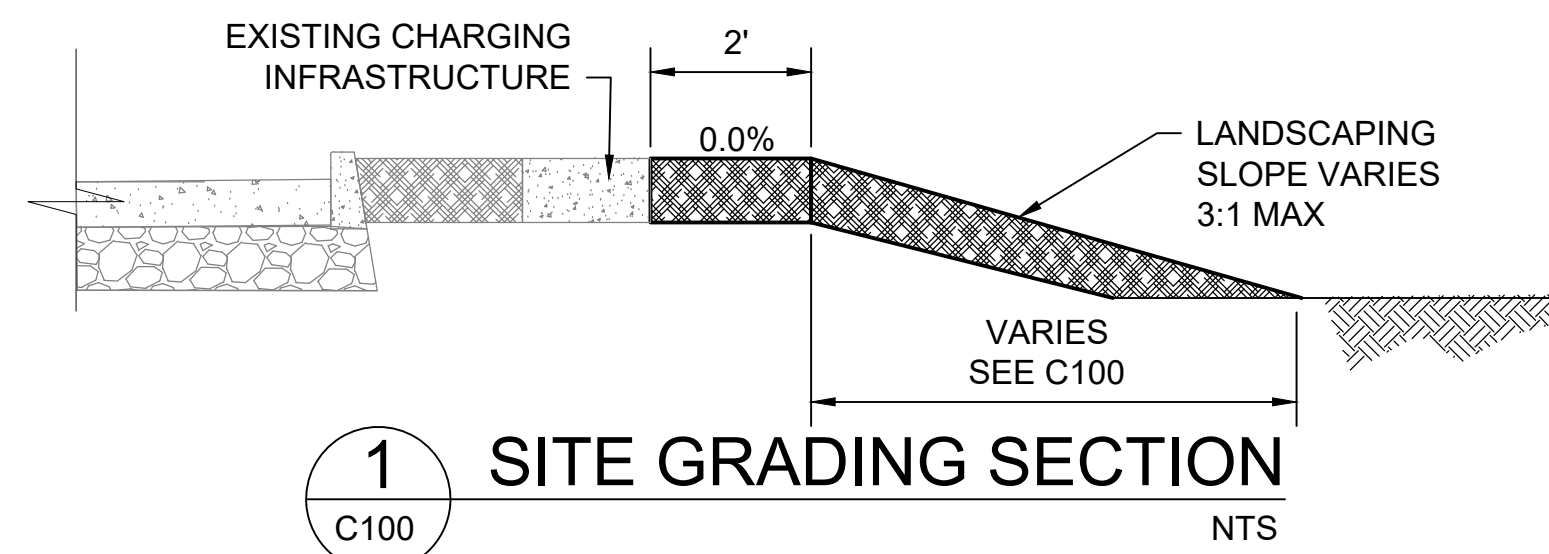
**E NEW PANEL TO EXISTING PANEL**

- EXPANSION JOINT SEE DETAIL A
- CONTRACTION JOINT SEE DETAIL B
- DOWELLED PCC
- GRAVEL
- LANDSCAPING REPAIR

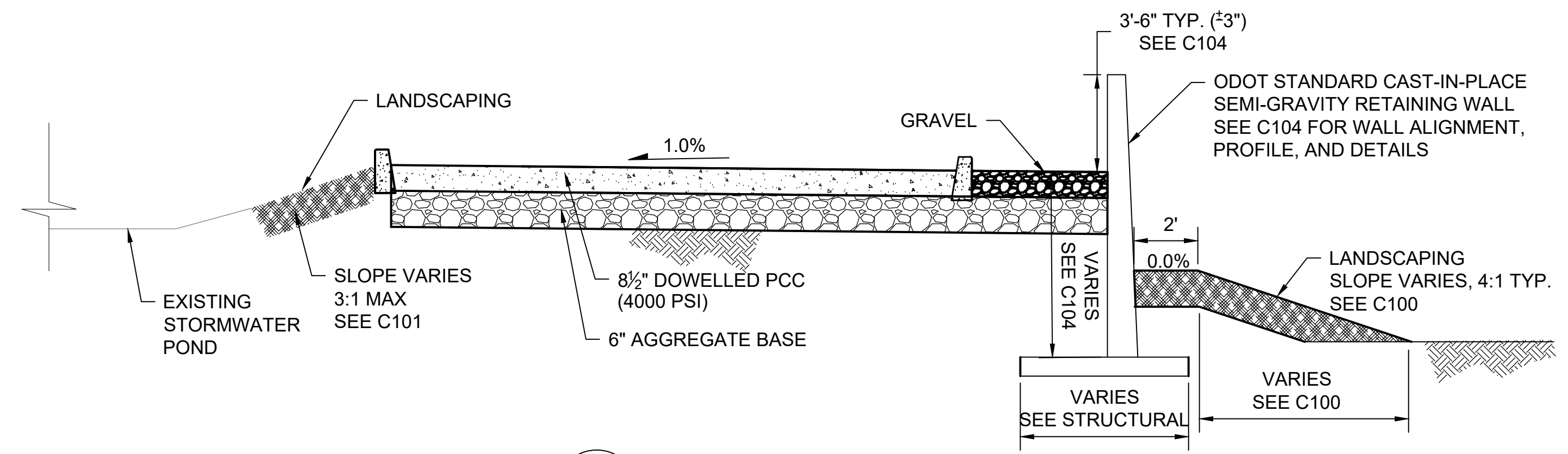
**NOTES:**  
SEE SITE GRADING SECTIONS SHEET C102 FOR MORE INFORMATION.

PROJECT NO.	REVISIONS:
DATE:	4/22/2024
DRAWN:	EM
CHECKED:	CMH

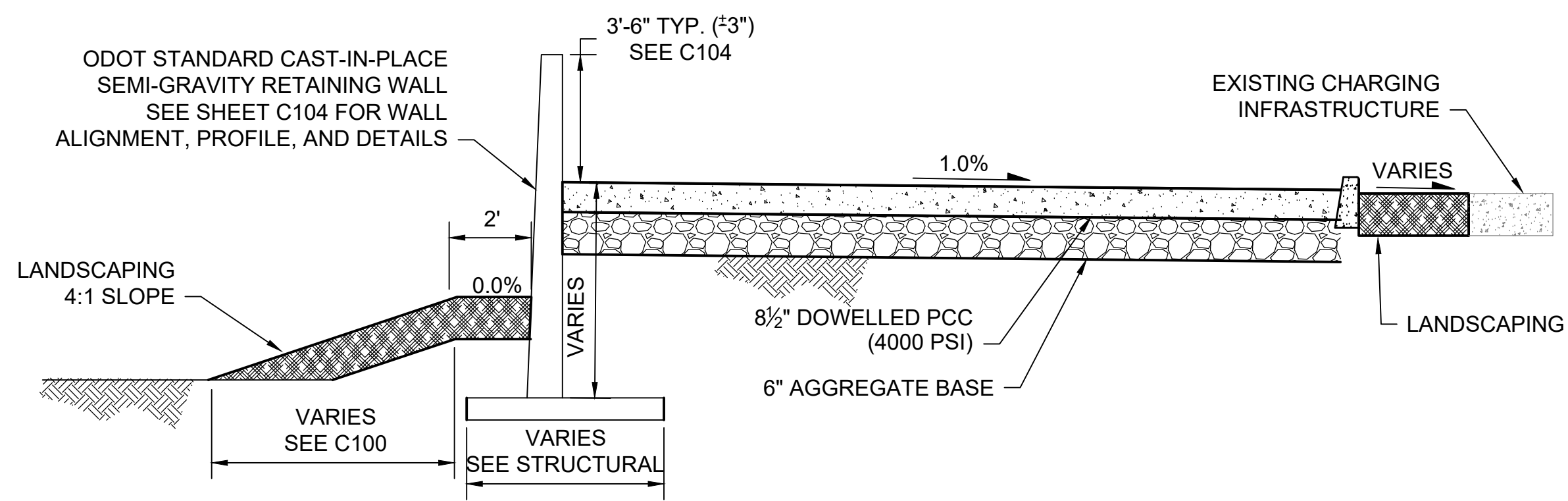
PRINTED ON: 4/19/2024 12:41 PM FROM FILE: J:\30902892\_WILSONVILLE SMART EXPANSION\CADD\SHEETFILES\C101.DWG BY: JENKINS, ERIN



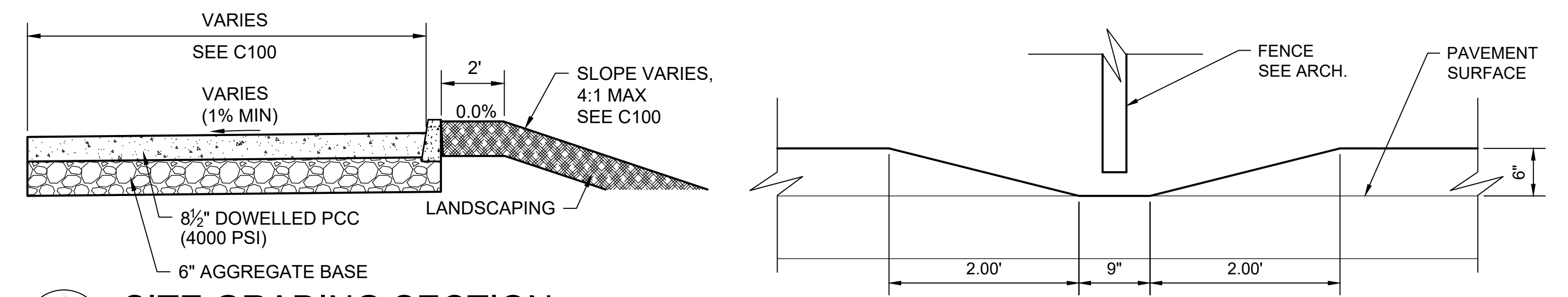
**1 SITE GRADING SECTION**  
C100 NTS



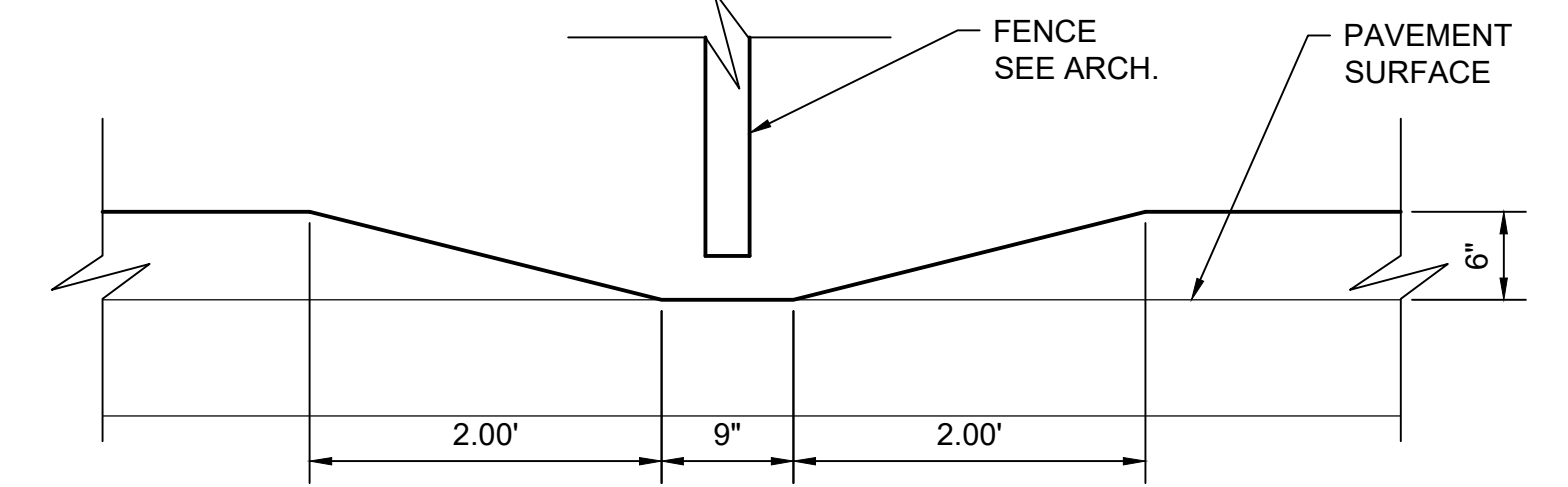
**5 SITE GRADING SECTION**  
C100 NTS



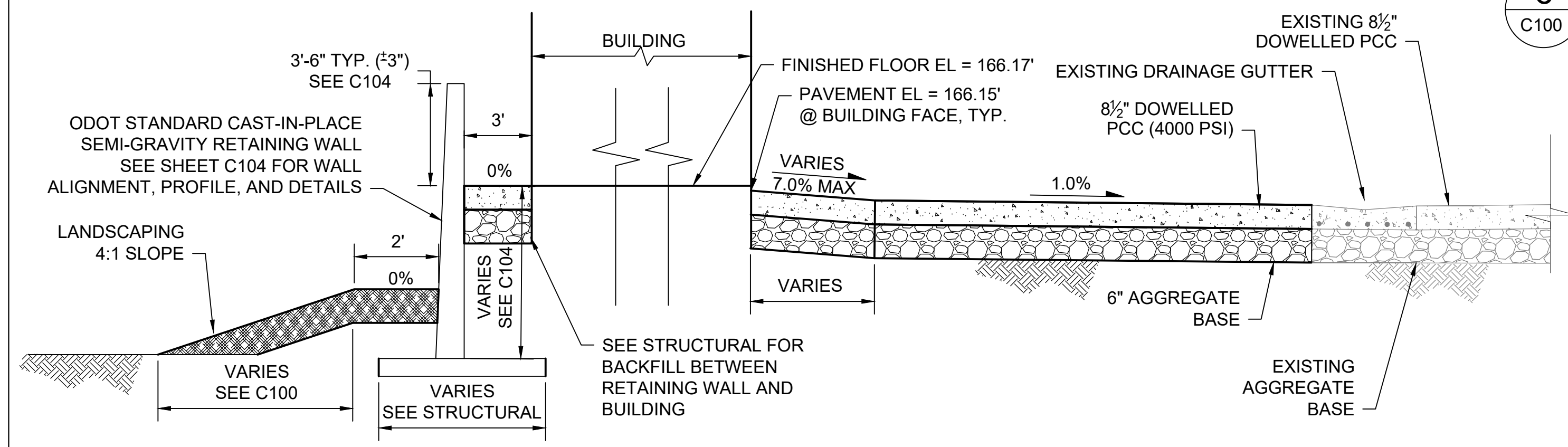
**2 SITE GRADING SECTION**  
C100 NTS



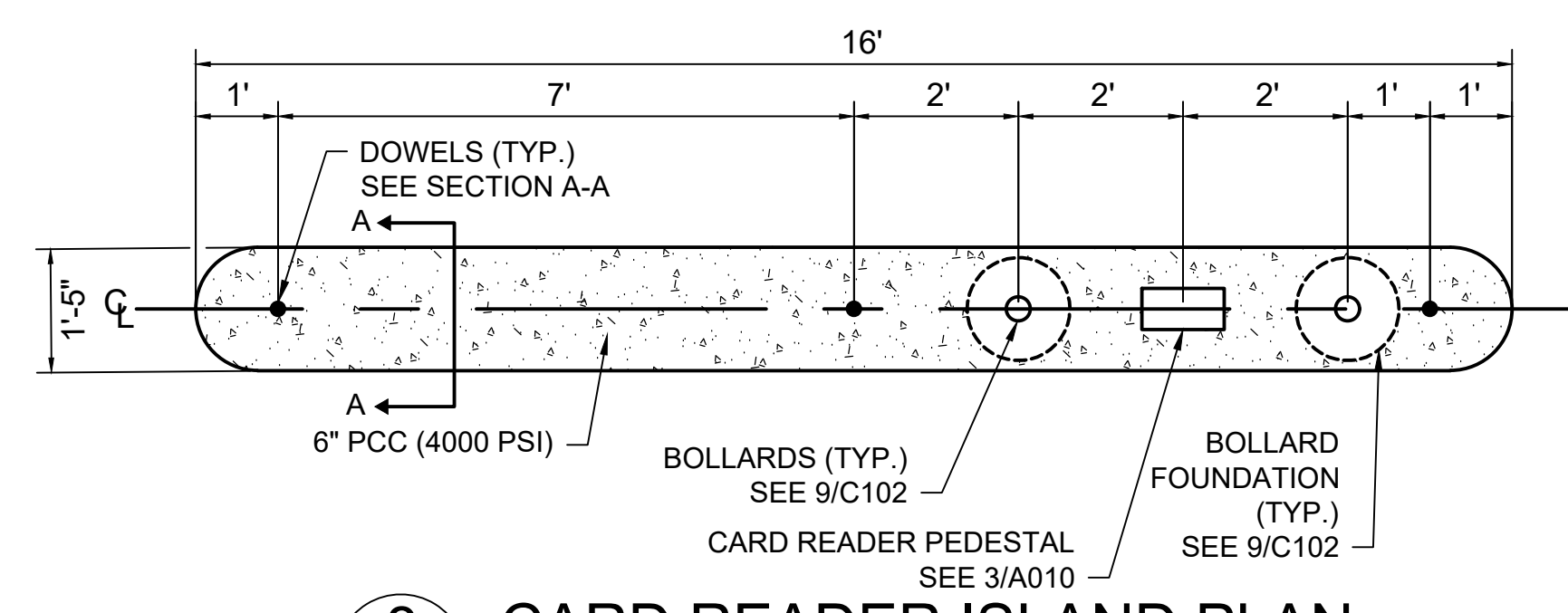
**6 SITE GRADING SECTION**  
C100 NTS



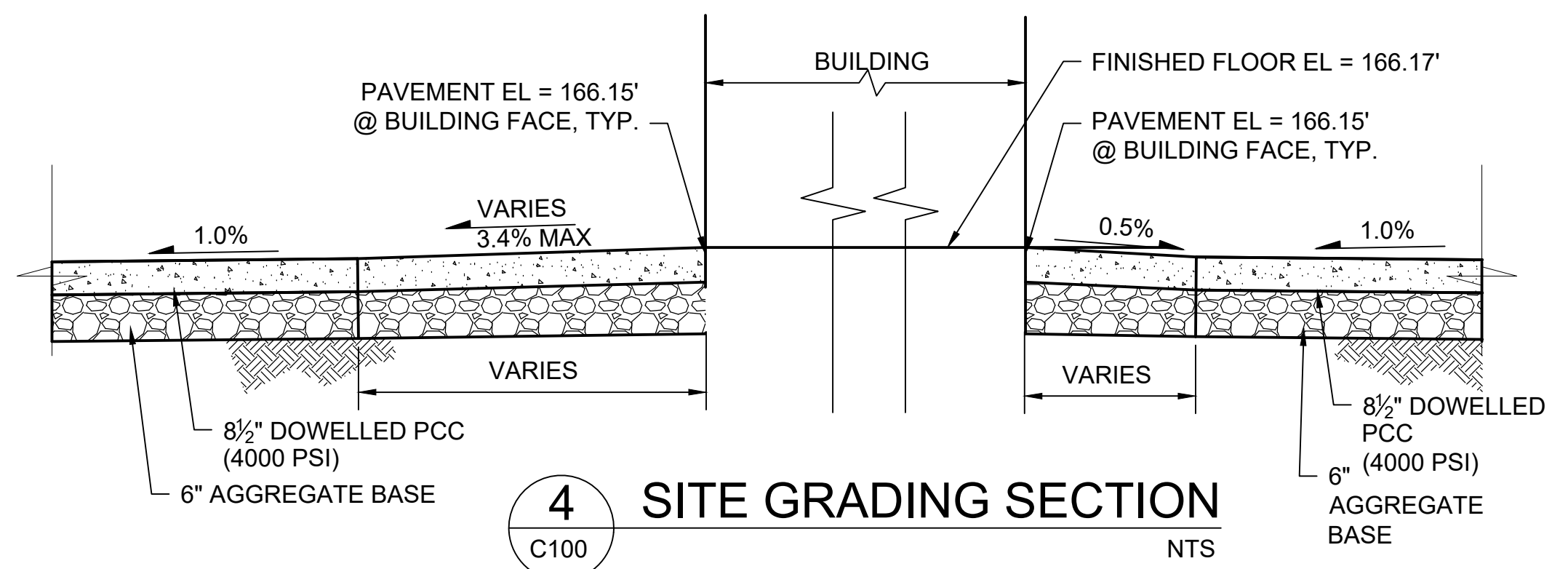
**7 CURB OPENING AT GATE**  
C100 NTS



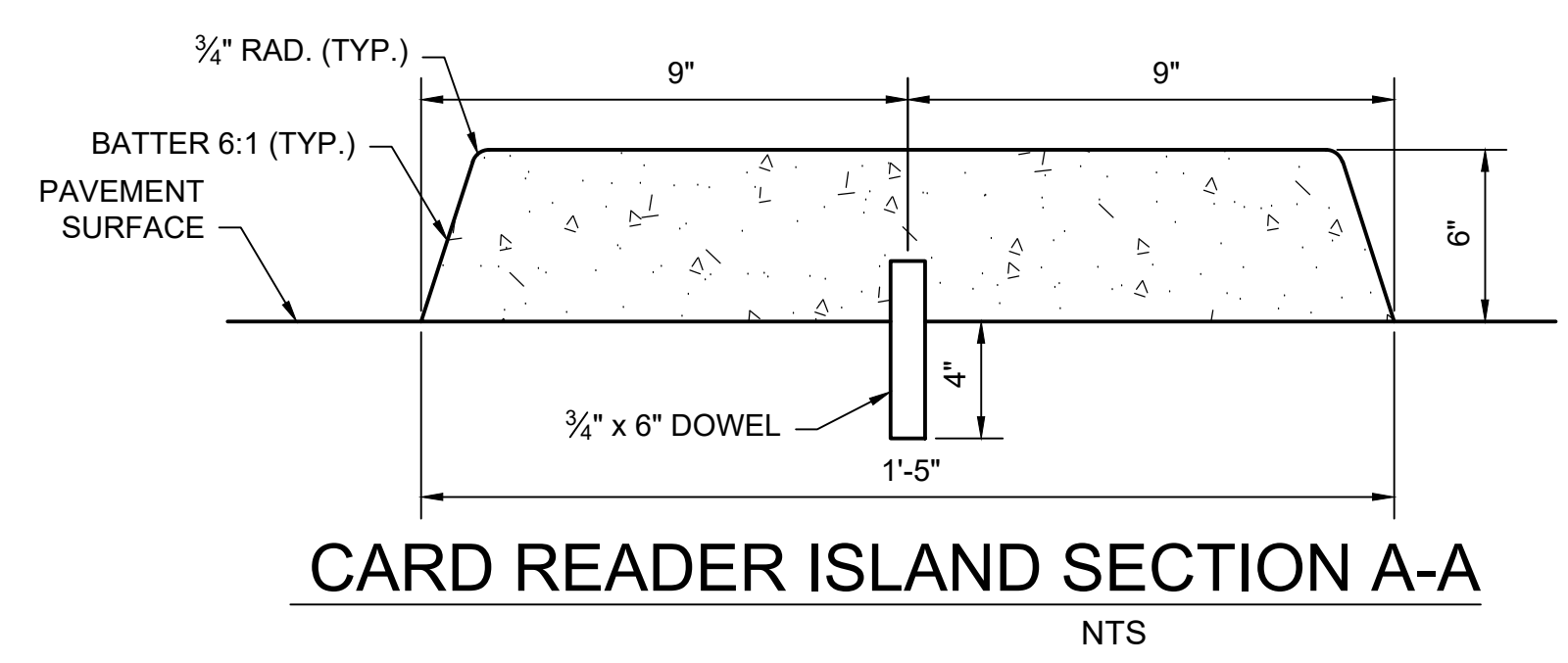
**3 SITE GRADING SECTION**  
C100 NTS



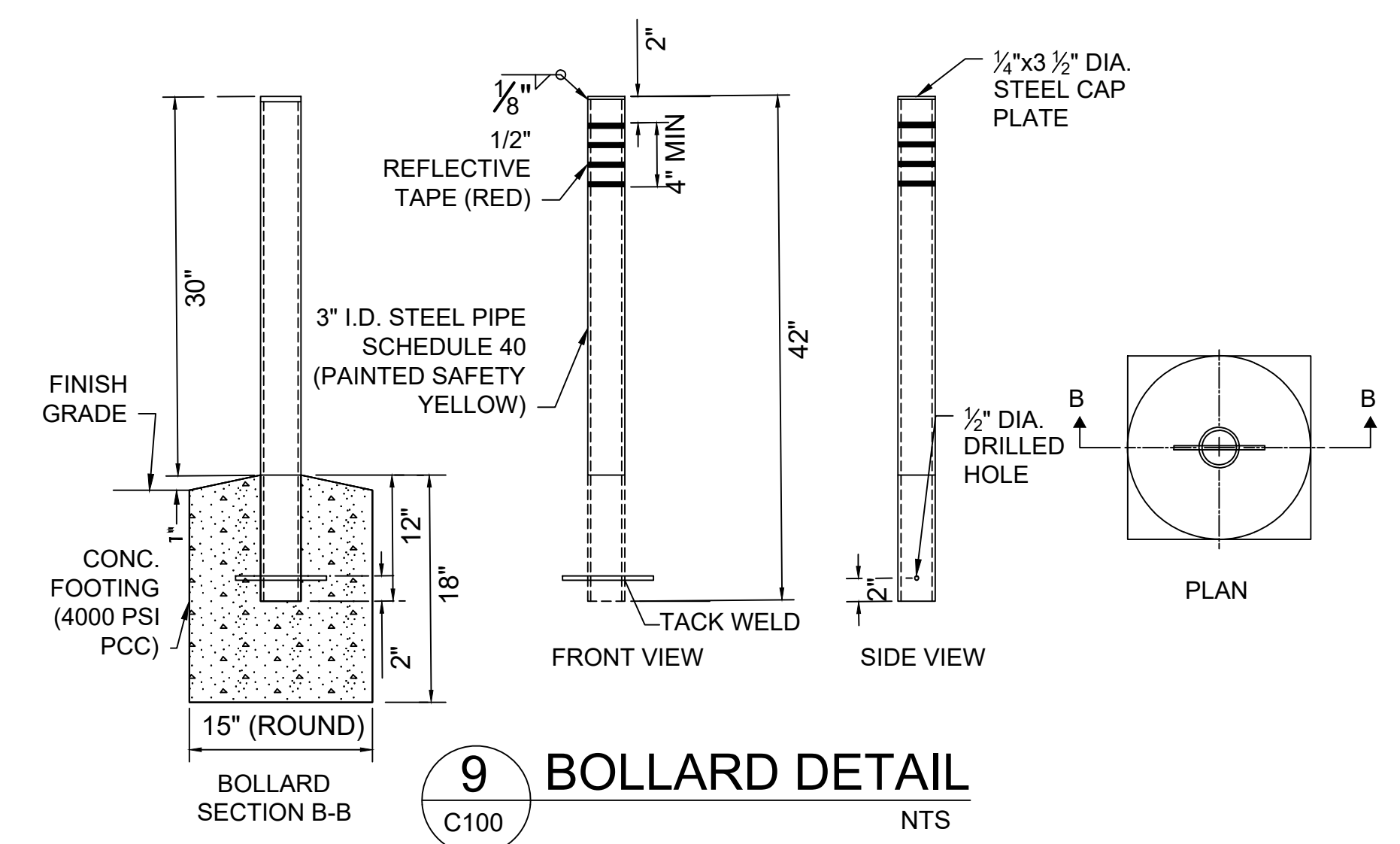
**8 CARD READER ISLAND PLAN**  
C100 NTS



**4 SITE GRADING SECTION**  
C100 NTS

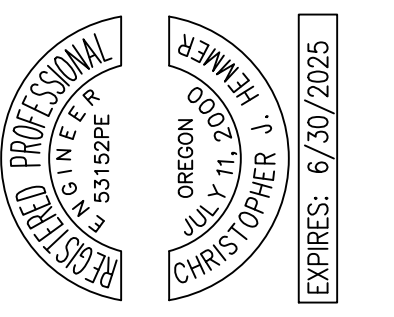


**CARD READER ISLAND SECTION A-A**  
NTS

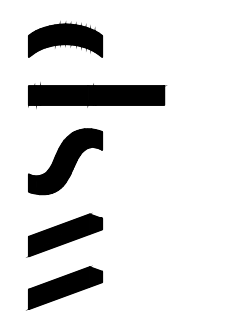


**9 BOLLARD DETAIL**  
C100 NTS

PRINTED ON: 4/19/2024 12:41 PM  
 FROM FILE: J:\30902892\_WILSONVILLE SMART EXPANSION\CADD\SHEETFILES\C102.DWG  
 BY: JENKINS, ERIN



WSP USA INC.  
 1300 SW 5th Ave  
 Suite 3100  
 Portland, OR 97201  
 Tel: 1 503 274 8772

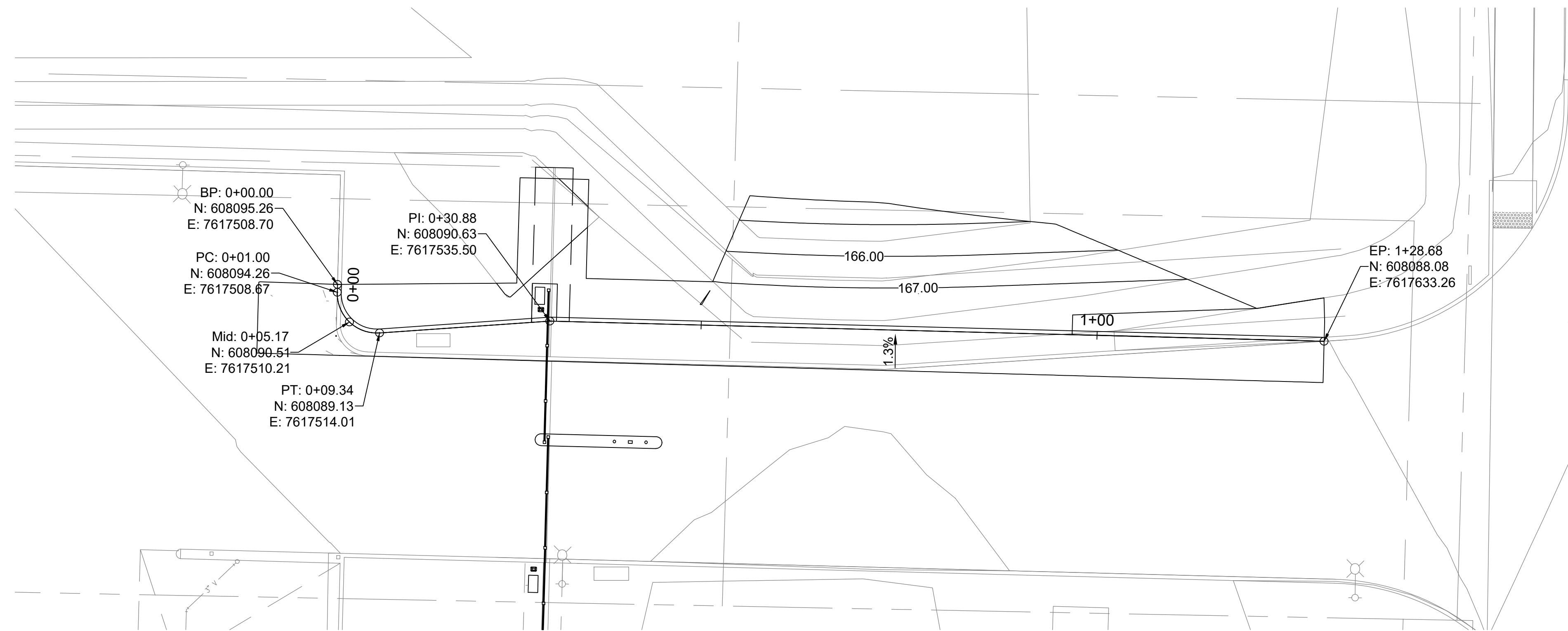


DEVELOPMENT REVIEW  
**S.M.A.R.T FACILITY IMPROVEMENTS**  
 CITY OF WILSONVILLE

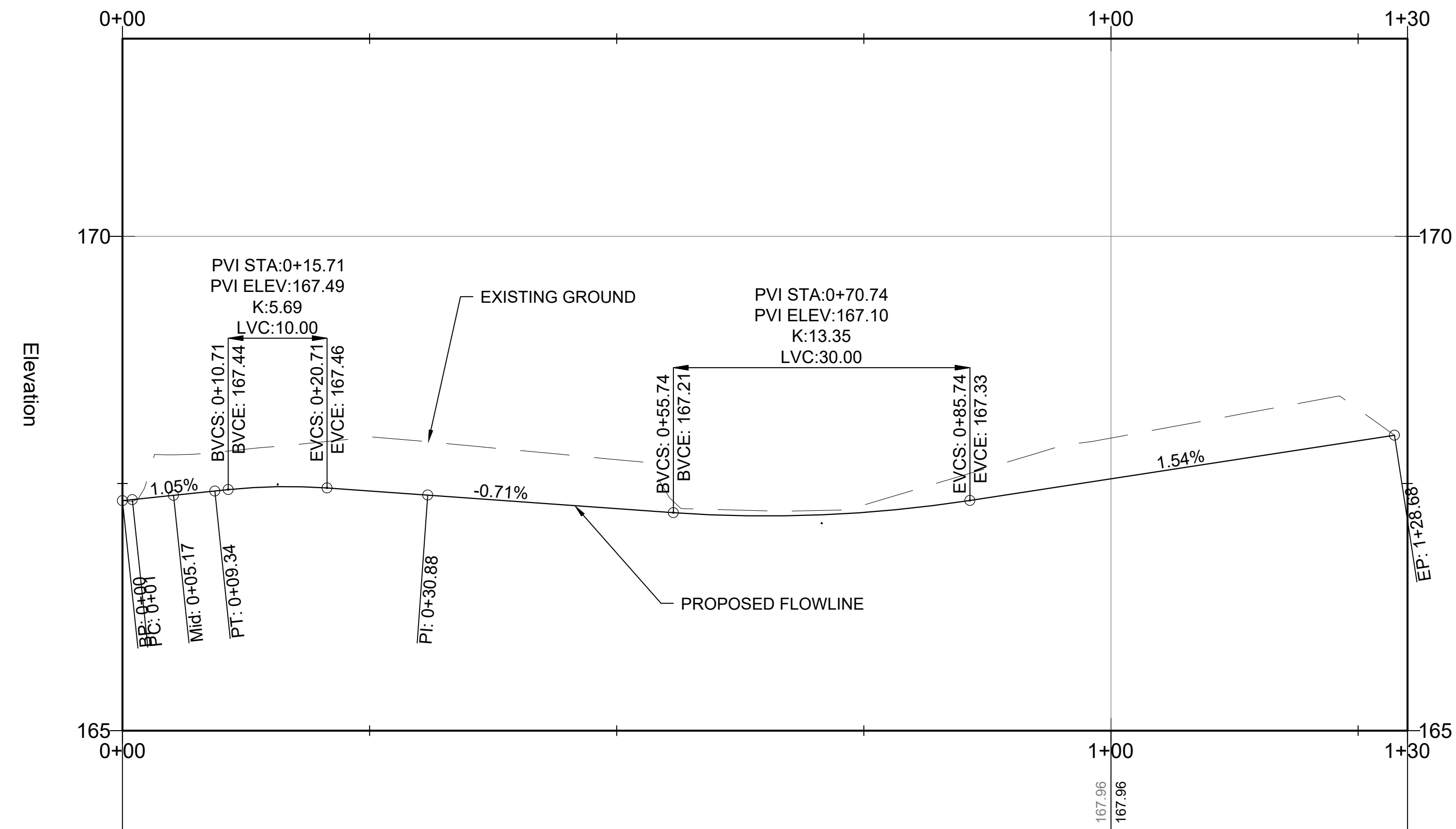
CIVIL SITE  
 CIVIL DETAILS

PROJECT NO.	REVISIONS:
4/09/2024	EM
	EM
	CH

**C102**



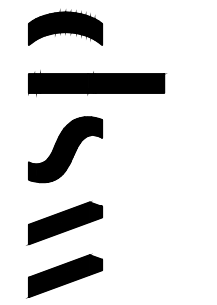
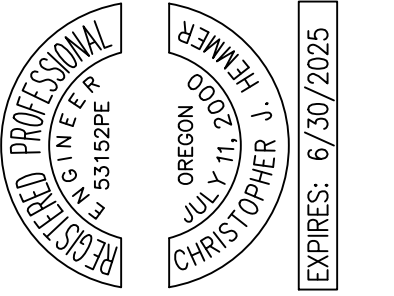
ACCESS ROAD EXPANSION ALIGNMENT



ACCESS ROAD EXPANSION PROFILE

LEGEND:

- EXISTING CONTOUR
- NEW CONTOUR
- BREAK LINE



WSP USA INC.  
1300 SW 5th Ave  
Suite 3100  
Portland, OR 97201  
Tel: 1.503.274.8772

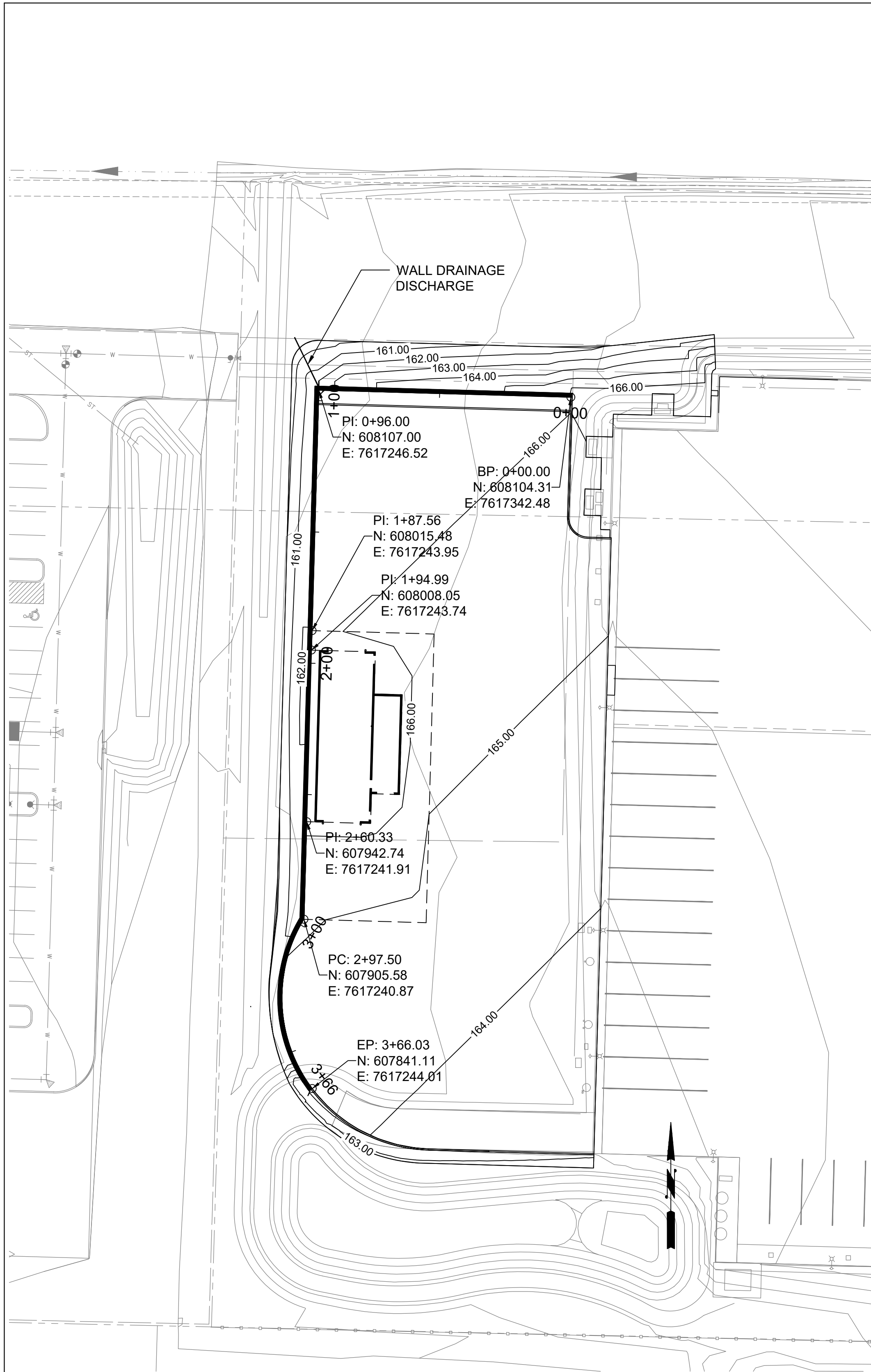
CIVIL SITE DEVELOPMENT REVIEW  
ACCESS ROAD EXPANSION S.M.A.R.T FACILITY IMPROVEMENTS  
ALIGNMENT AND PROFILE CITY OF WILSONVILLE

PROJECT NO:	REVISIONS:
DATE:	4/02/2024
DRAWN:	EMJ
CHECKED:	CMH

C103



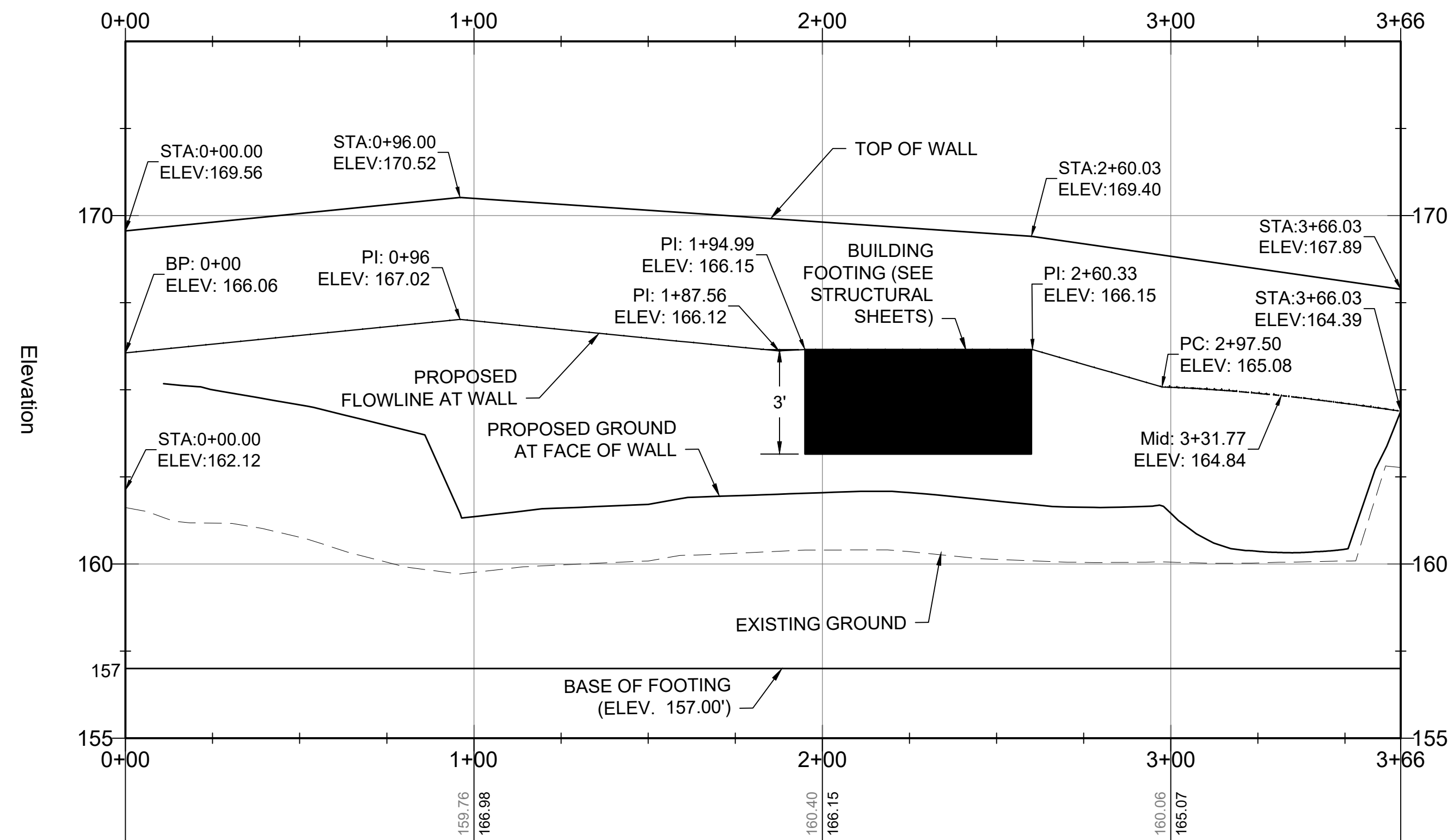
PRINTED ON: 4/19/2024 12:41 PM FROM FILE: J:\30902892\_WILSONVILLE SMART EXPANSION\CADD\SHEETFILES\C104.DWG BY: JENKINS, ERIN



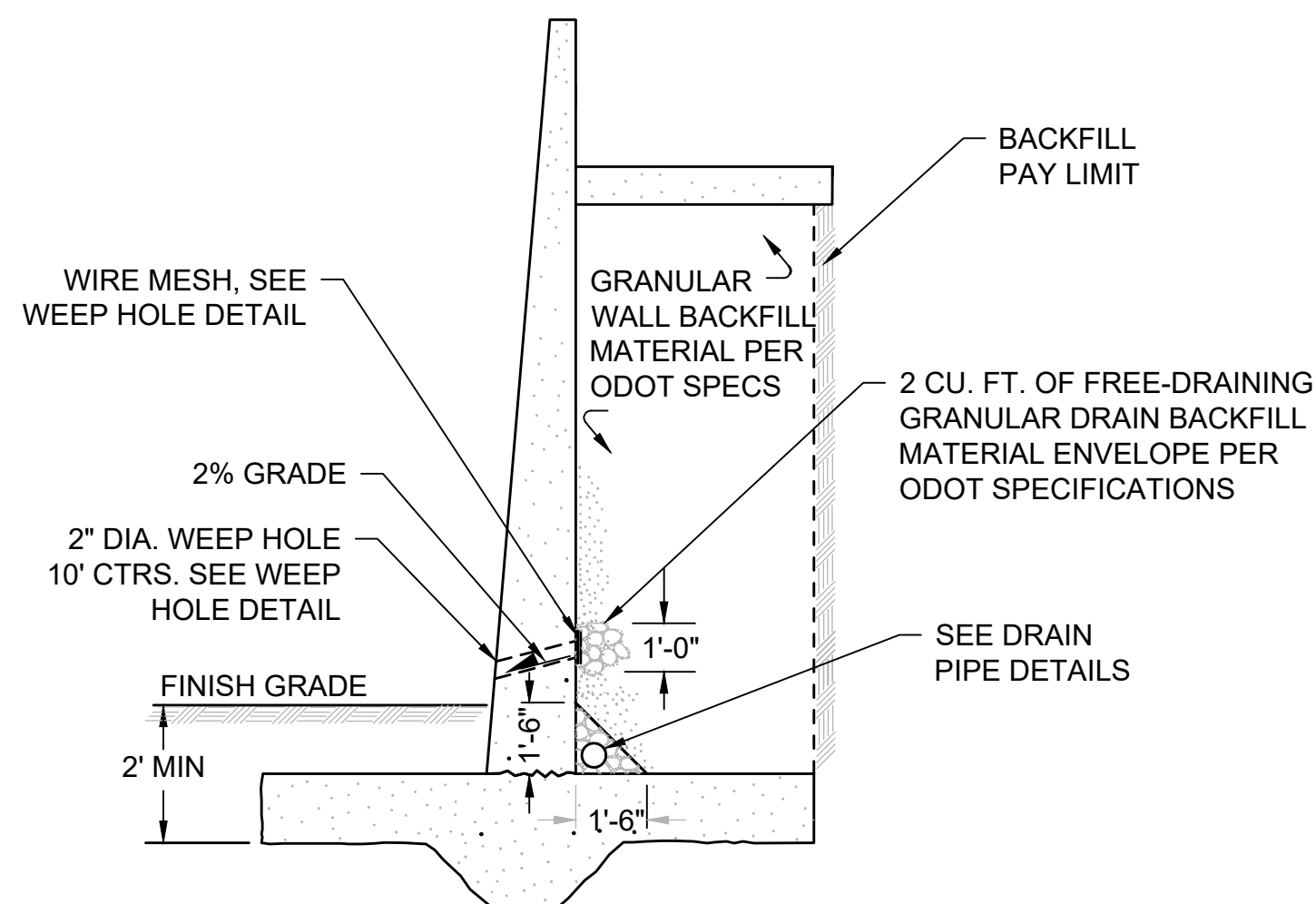
WALL ALIGNMENT

LEGEND:

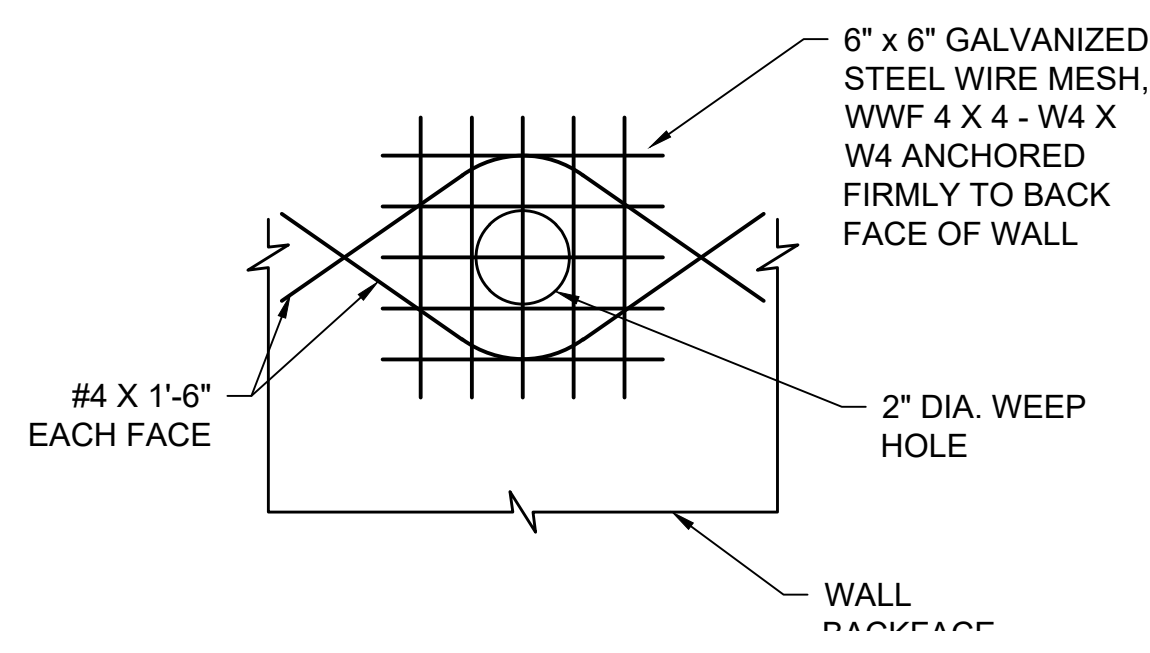
- EXISTING CONTOUR
- NEW CONTOUR
- - - BREAK LINE



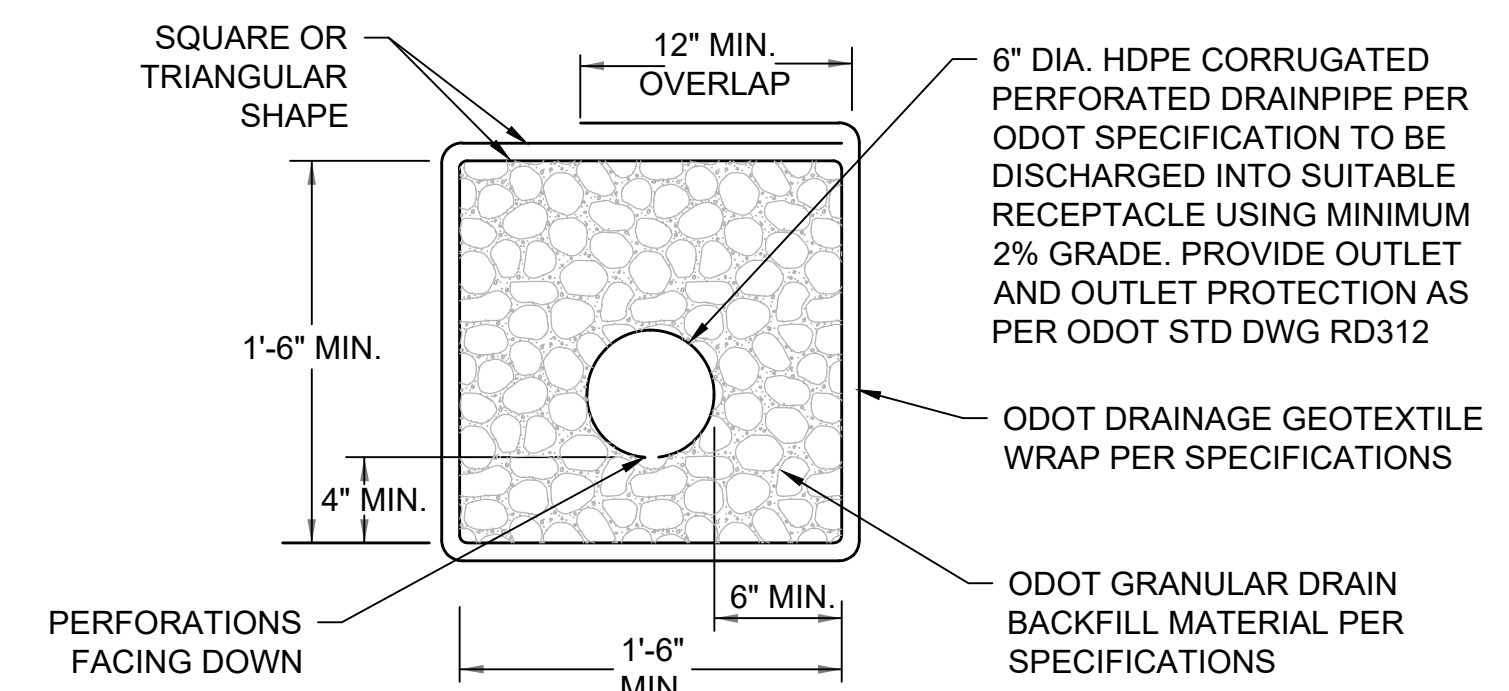
WALL PROFILE



WALL DRAINAGE DETAIL  
N.T.S.



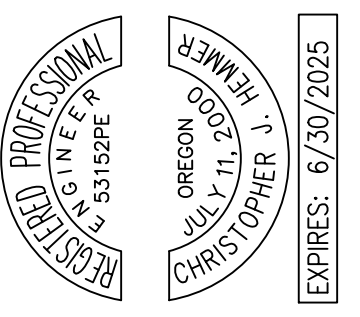
WEEP HOLE DETAIL  
N.T.S.



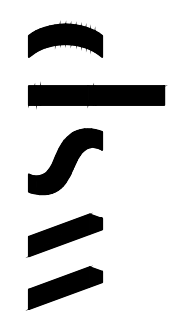
DRAIN PIPE DETAIL  
N.T.S.

NOTES:

1. WALL ALIGNMENT IS ALONG EDGE OF PAVEMENT (YARD SIDE FACE OF WALL)
2. PROVIDE DRAINAGE SO THAT HYDROSTATIC PRESSURES DO NOT BUILD UP BEHIND WALL
3. SEE STRUCTURAL SHEETS FOR ADDITIONAL DETAILS



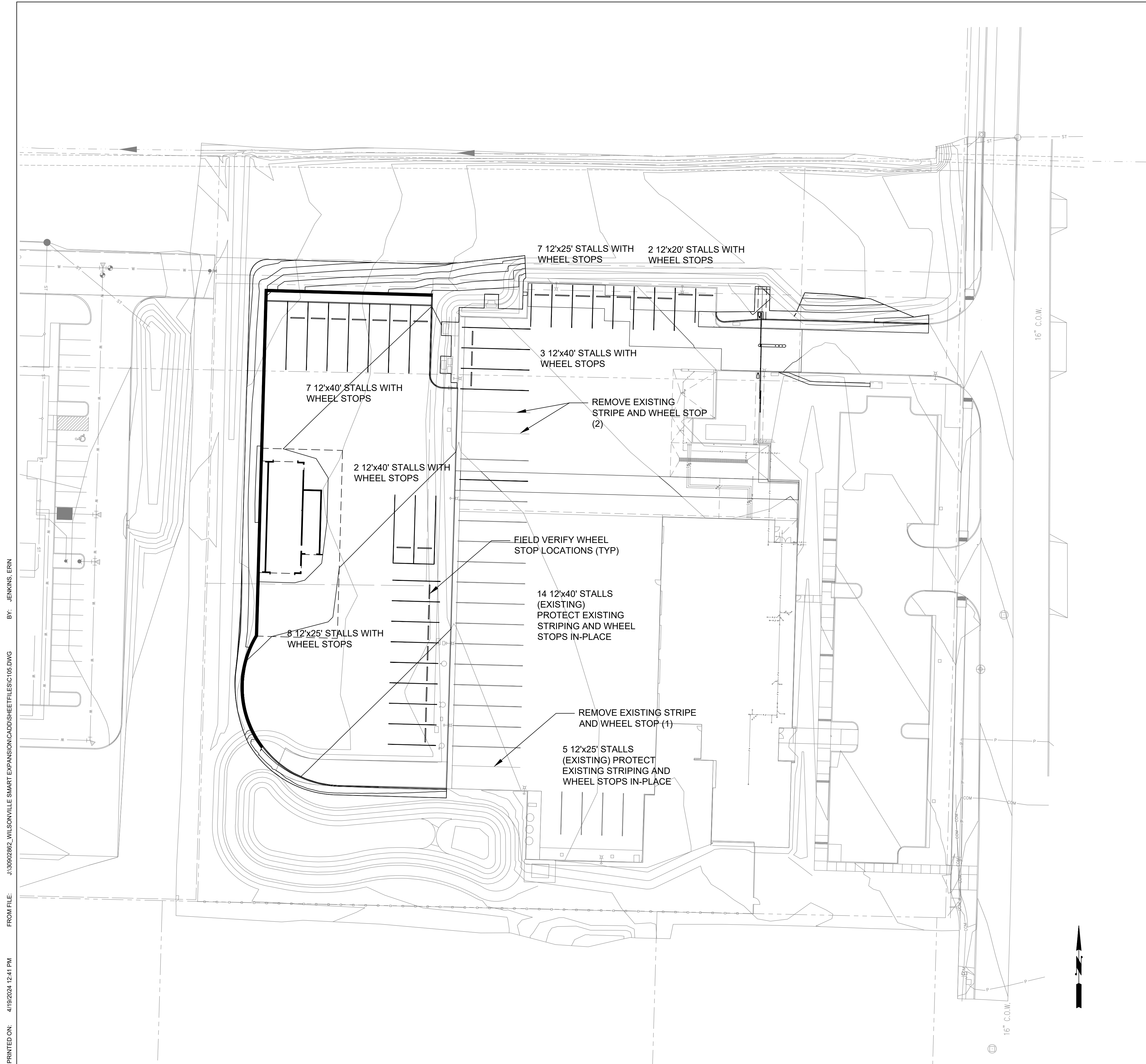
WSP USA INC.  
1300 SW 5th Ave  
Suite 3100  
Portland, OR 97201  
Tel: 1.503.274.8772



DEVELOPMENT REVIEW  
CIVIL SITE  
WALL ALIGNMENT AND PROFILE  
S.A.R.T. FACILITY IMPROVEMENTS  
CITY OF WILSONVILLE

PROJECT NO.	REVISIONS:
4/19/2024	EM
	CM

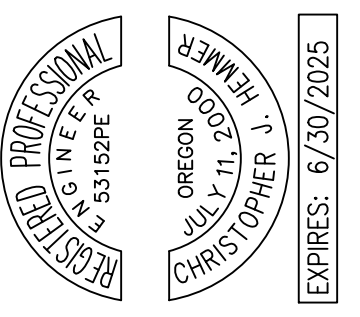
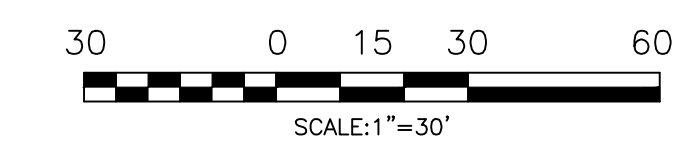
C104



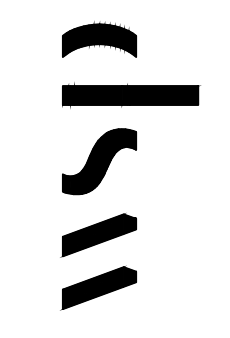
PRINTED ON: 4/19/2024 12:41 PM FROM FILE: J:\30902892\_WILSONVILLE SMART EXPANSION\CADD\SHEETFILES\C105.DWG BY: JENKINS, ERIN

NOTES:

1. PARKING STALL STRIPING TO BE 4" WHITE PAINT LINE (TYP)
2. REUSE REMOVED WHEEL STOPS IN NEW STALLS. SHIFT EXISTING WHEEL STOPS TO ALIGN WITH MODIFIED STALLS.



WSP USA Inc.  
1300 SW 5th Ave  
Suite 3100  
Portland, OR 97201  
Tel: 1.503.274.8772



DEVELOPMENT REVIEW  
S.M.A.R.T FACILITY IMPROVEMENTS  
CITY OF WILSONVILLE

CIVIL SITE  
STRIPING PLAN

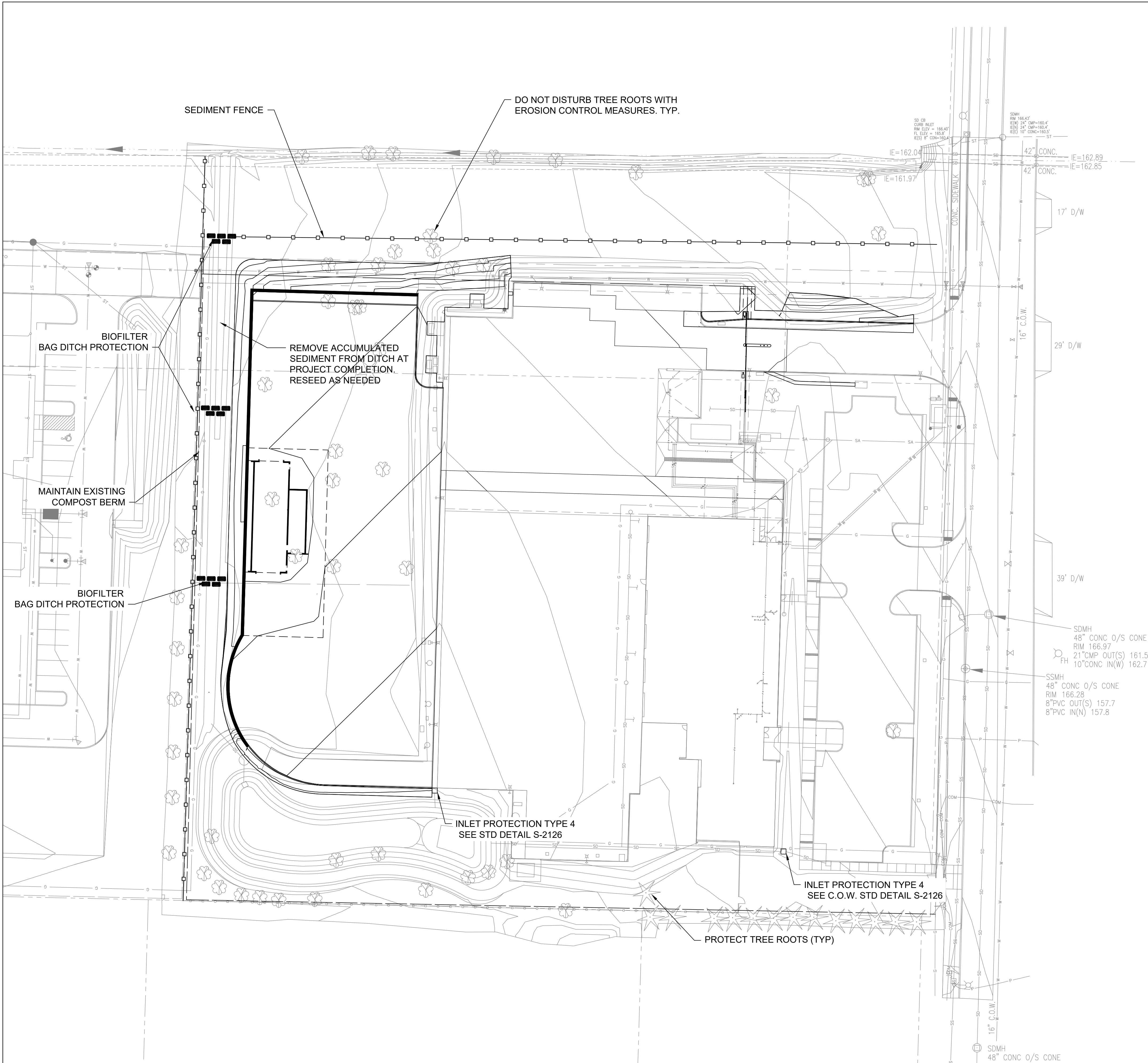
PROJECT NO:	REVISIONS:
DATE:	4/02/2024
DRAWN:	EM
CHECKED:	CM

C105

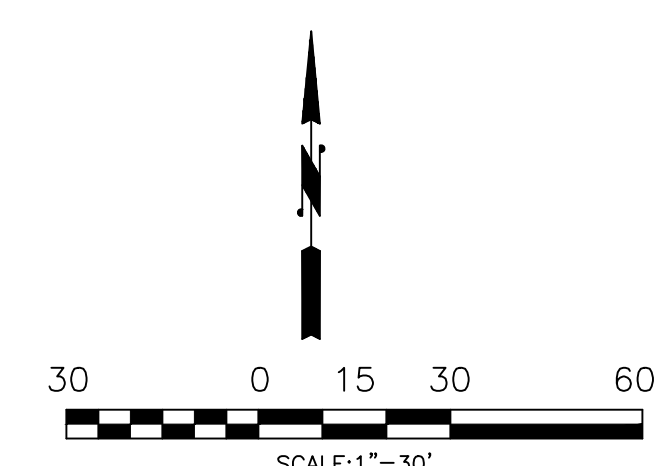




PRINTED ON: 4/19/2024 12:41 PM FROM FILE: J:\30902892\_WILSONVILLE SMART EXPANSION\CADD\SHEETFILES\C106.DWG BY: JENKINS, ERIN



- NOTES:**
1. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AT THE DIRECTION OF THE ARCHITECT
  2. REMOVE TEMPORARY FENCING AND TREE PROTECTION AT THE DIRECTION OF THE ARCHITECT
  3. PERFORM CONCRETE TRUCK WASHOUT AT CONCRETE PLANT OR INTO A CONCRETE WASHOUT TUB DESIGNED FOR THE PURPOSE. WASHOUT ONTO SITE GRADE IS PROHIBITED.



**City of Wilsonville Erosion and Sediment Control Notes:**

**1. Responsible party.** The property owner or designee shall be responsible for proper installation, maintenance and removal of all erosion and sediment control (ESC) measures, in accordance with the City of Wilsonville, state, and federal regulations.

**2. Installation of ESC measures prior to clearing & grading.** The ESC measures shown in these plans shall be constructed and approved by the City's authorized representative prior to clearing and grading activities, and in such a manner as to ensure that sediment and sediment laden water does not enter the drainage system, roadways, or violate applicable stormwater discharge standards.

**3. Inspections. Initial and final ESC inspections are required.** The City's 24 hour Building/ESC inspection number is (503) 682-4159. All calls requesting inspections that are received by 7:00 A.M. shall be inspected by the end of the day the call was received (no inspections Saturday, Sunday, or Holidays). Tree protection shall be installed, inspected and approved before any ESC measures are placed. The initial ESC inspection shall not occur until tree inspection and approval has occurred. The Property owner or designee shall remove ESC measures, establish permanent groundcover on all exposed soils; solely straw or plastic sheeting is not permanent ground cover; clean and remove trash, construction waste and sediment deposits before receiving a final ESC inspection approval.

**4. Daily inspection.** The ESC measures shall be inspected daily by the property owner or designee and maintained as necessary to ensure proper functioning. All ESC measures requiring maintenance or repair shall be completed immediately.

**5. State 1200-C (DEQ) and 1200-CN (City) permits.** If a site requires an Oregon Department of Environmental Quality (DEQ) 1200-C permit for disturbing five acres or more, an approved copy of the 1200-C shall be submitted to the City's authorized representative before any clearing or grading shall be allowed to proceed. Construction activities including clearing, grading, excavation, and stockpiling that will disturb five (5) or more acres and that may discharge to surface waters or conveyance systems leading to surface waters of the state, require a DEQ 1200-C permit. A DEQ 1200-C permit is also required for construction activities with a cumulative impact that will ultimately disturb five acres or more and which may discharge to surface waters or conveyance systems leading to surface waters of the state. For construction activities that disturb five (5) or more acres, a public review process is required. The property owner or designee is required to follow all 1200-C requirements and make the 1200-C permit available for review if requested by the City's authorized representative. The DEQ 1200-C permits are obtained directly from DEQ. A 1200-CN permit, for disturbing one to five acres, for automatically covered construction activities is issued by the City of Wilsonville for sites meeting applicable ordinance and code requirements.

**6. Code conformance.** The property owner or designee shall install, operate, and maintain adequate ESC measures in conformance with the standards adopted by the City of Wilsonville Erosion Control Ordinance during the construction of any public utilities and private improvements until such time as approved permanent vegetative materials have been installed. The contractor shall read and be familiar with the City's Erosion Control standards and ODOT construction Erosion Control standards. The contractor shall adhere to the more restrictive of the two standard requirements when performing Public Works Projects. Refer to [https://library.municode.com/or/wilsonville/codes/code\\_of\\_ordinances?nodeId=CH8EN\\_ST\\_8.317ERPRSECO](https://library.municode.com/or/wilsonville/codes/code_of_ordinances?nodeId=CH8EN_ST_8.317ERPRSECO).

**7. Scope of responsibility.** The implementation of the approved ESC plan, including the installation, construction, maintenance, replacement, upgrading and removal of the ESC measures are the responsibility of the property owner or designee until all construction is completed and approved, and all vegetation/landscaping is established. The property owner or designee shall be responsible for maintenance of the ESC measures until they relinquish ownership of the property.

**8. Erosion control.** No person shall create physical erosion by dragging, dropping, tracking, or otherwise placing or depositing, or permitting to be deposited, mud, dirt, rock, or other such debris on a public street, or into any part of the public stormwater and surface water system, or into any part of a private stormwater and surface water system that drains or connects to the public stormwater and surface water system. Any such deposited material shall be immediately removed by hand labor or mechanical means. No material shall be washed or flushed into any part of the stormwater and surface water system until all mechanical means to remove the debris are exhausted and preventive sediment filtration is in place. No discharge containing visible solids is allowed. All above ground treatment facilities (swales, ponds, etc.) shall be completed and approved prior to any stormwater being allowed to enter facility.

**9. Minimum requirements – upgrades & retrofits expected.** The ESC measures depicted in these plans are considered minimum requirements for anticipated site conditions. During the construction period, these ESC measures shall be upgraded as needed for unexpected storm events and changes in construction activities, to ensure that sediment and sediment-laden water does not leave the construction site.

**10. Clearing limits.** The boundaries of the clearing limits depicted on the ESC plan shall be clearly marked in the field prior to clearing. During the construction period, no disturbance beyond the clearing limits shall be permitted. The clearing limit markings shall be maintained by the property owner or designee for the duration of construction.

**11. Toxic & hazardous materials.** Any use of toxic or hazardous materials shall include proper storage, application, and disposal. The property owner or designee shall properly manage hazardous wastes, used oils, contaminated soils, concrete waste, sanitary waste, liquid waste, or other toxic substances discovered or generated during construction.

**12. On-site concrete truck wash area.** The ESC plan shall designate areas for on-site washing of concrete trucks and the disposal of accumulated concrete waste.

**13. Securing of portable toilets.** If required, the property owner or designee shall secure portable toilets, by cable or chain, to posts or stable anchor to prevent them from over-turning and spilling.

**14. Resources for ESC facility design & development.** The property owner or designee shall refer to the Clackamas County Water Environment Services most current version of the "Erosion Prevention and Sediment Control Planning and Design Manual," available on line at <http://www.clackamas.us/wes/designmanual.jsp> and the City of Wilsonville's "Erosion Control Ordinance".

**15. Construction entrances.** Stabilized gravel entrances, with subgrade reinforcement geotextile fabric, shall be installed and maintained for the duration of the project in conformance with Detail S-2240. Additional measures such as a wheel wash may be required to ensure that all paved areas are kept clean for the duration of the project. The construction entrance shall not block existing public accessible routes unless proper closures are approved by the City of Wilsonville Engineering authorized representative.

**16. Protection of stormwater facilities, drains & inlets.** Storm drain inlets, basins, and area drains shall be protected until completion of project. Although there are a number of approved measures for inlet protection, low flow siltsack inserts (no overflow) with biobags around curb inlets are the preferred measures for inlet protection, where applicable. Per DEQ requirements overflow silt sack inserts are not allowed. Low flow siltsack inserts (no overflow) shall be used for street inlets (unless inlet in curb). All storm drain inlet protection measures located in public streets shall not create a hazard to vehicular traffic, bike or pedestrian traffic. If required by the City's authorized representative, a minimum of six (6) extra biobags shall be kept on site at all times for upgrading and repairs.

**17. Cleaning sediment barriers.** At no time shall sediment be allowed to accumulate more than 1/3 of barrier height. Cleaning operations shall not allow sediment-laden water to be intentionally washed into storm sewers, drainage ways or waterbodies. Dry sweeping shall be used to clean up released sediments using appropriate dust control measures.

**18. Permanent ground cover.** Pavement surfaces and permanent vegetation are to be installed as soon as possible. Impervious surfaces shall not be installed until stormwater detention and water quality facilities have been constructed and approved by the City's authorized representative.

**19. Seeding.** Seeding shall be established only between March 1 through May 15 and September 1 through October 15 for each phase of construction. If an irrigation system is installed, seeding may be established from March 1 through November 15.

**20. Wet weather requirements.** Exposed soils and un-vegetated surfaces not fully established by October 15, site shall be subject to wet weather erosion prevention measures in effect through April 30. For requirements, see Clackamas County Water Environment Services' most current version of "Erosion Prevention and Sediment Control Planning and Design Manual," and the City of Wilsonville Erosion Control Ordinance. Any open ground (regardless of slope) is to be covered during the wet weather season if not under active construction (active construction to be determined by the City's authorized representative).

**21. Dust control.** During all phases of work the contractor shall take precautions to abate any dust nuisance. Dust shall be minimized to the extent practicable and prevention measures shall be continuous until final inspection by the City's authorized representative. Additional measures for dust control, if required by the City's authorized representative, shall include at least one (1) water truck on site at all times from June 1 to October 31. In areas subject to wind erosion, appropriate BMP's must be used which may include the application of fine water spraying, plastic sheeting, mulching, or other approved measures.

**22. Use of straw.** Solid straw bales are not to be used for any ESC measures. Straw should only be used loose, to spread as temporary ground cover. A minimum of two inches is to be applied, covering all exposed soils (no visible soils).

**23. Plans.** All ESC plans shall include an appropriate erosion control legend and erosion control details, which are consistent with the City of Wilsonville's Erosion and Sediment Control Notes (Including Sediment Fence Notes). Legend symbols are found in the Clackamas County Water Environment Services "Erosion Prevention and Sediment Control Planning and Design Manual," in Appendix A. Erosion control details are also found at <http://www.ci.wilsonville.or.us/Index.aspx?page=404> or [WWW.ci.wilsonville.or.us](http://WWW.ci.wilsonville.or.us) then ... City Hall> Community Development> Engineering> Public Works Standards and the "Erosion Prevention and Sediment Control Planning and Design Manual".

**24. ESC protection behind curbs.** Installation of a ¾" – 0 crushed aggregate is the preferred ESC application where ground is exposed along existing curbing.

**City of Wilsonville Sediment Fence Notes:**

**1. Sediment Fence.** Filter fabric sediment fences shall be installed in conformance with Detail S-2245.

**2. Stitched post loops.** Standard or heavy duty filter fence shall have manufactured stitched post loops with stapled 2"x 2" x 4' posts for installation. Stitched post loops shall be installed on the uphill side of the sloped area.

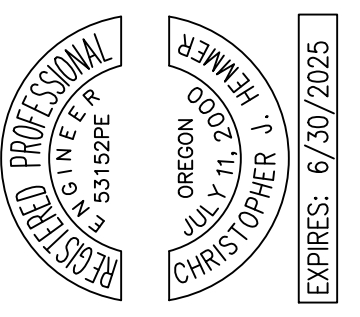
**3. Continuous run / construction of joints.** The filter fabric shall be purchased in a continuous roll, and cut to length in the field to avoid the use of joints. When joints are necessary, connect silt fence ends by spinning 2"x 2" x 4' posts together two to three times and bury as one post.

**4. Installation on contour / finish at termination points.** The filter fence shall be installed to follow the contours where feasible. The posts shall be spaced a maximum of six feet apart and driven securely into the ground. When sediment fence approaches its termination point, turn fence uphill and extend one (1) full panel (6 feet).

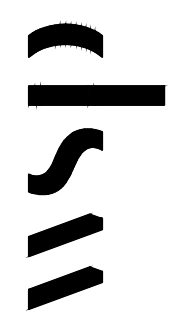
**5. Burial of fabric.** The filter fabric shall have a minimum vertical burial of six inches. All excavated material from filter fabric fence installation shall be backfilled and compacted on both sides of fence along the entire disturbed area.

**6. Inspection.** Filter fabric fences shall be inspected by property owner or designee immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs, maintenance or needed upgrades shall be made immediately. If required by the City's authorized representative, a minimum of one (1) full roll of extra filter fabric fencing shall be on site at all times for upgrading and repairs.

**7. Removal.** Filter fabric fences shall be removed when they have served their useful purpose, but not before the upslope area has been permanently protected and stabilized.



WSP USA INC.  
1300 SW 5th Ave  
Suite 3100  
Portland, OR 97201  
Tel: 1 503 274 8772



DEVELOPMENT REVIEW  
CIVIL SITE  
EROSION CONTROL NOTES  
S.M.A.R.T FACILITY IMPROVEMENTS  
CITY OF WILSONVILLE

PROJECT NO:	REVISIONS:
DATE:	4/26/2024
DRAWN:	EM
CHECKED:	CH

C107

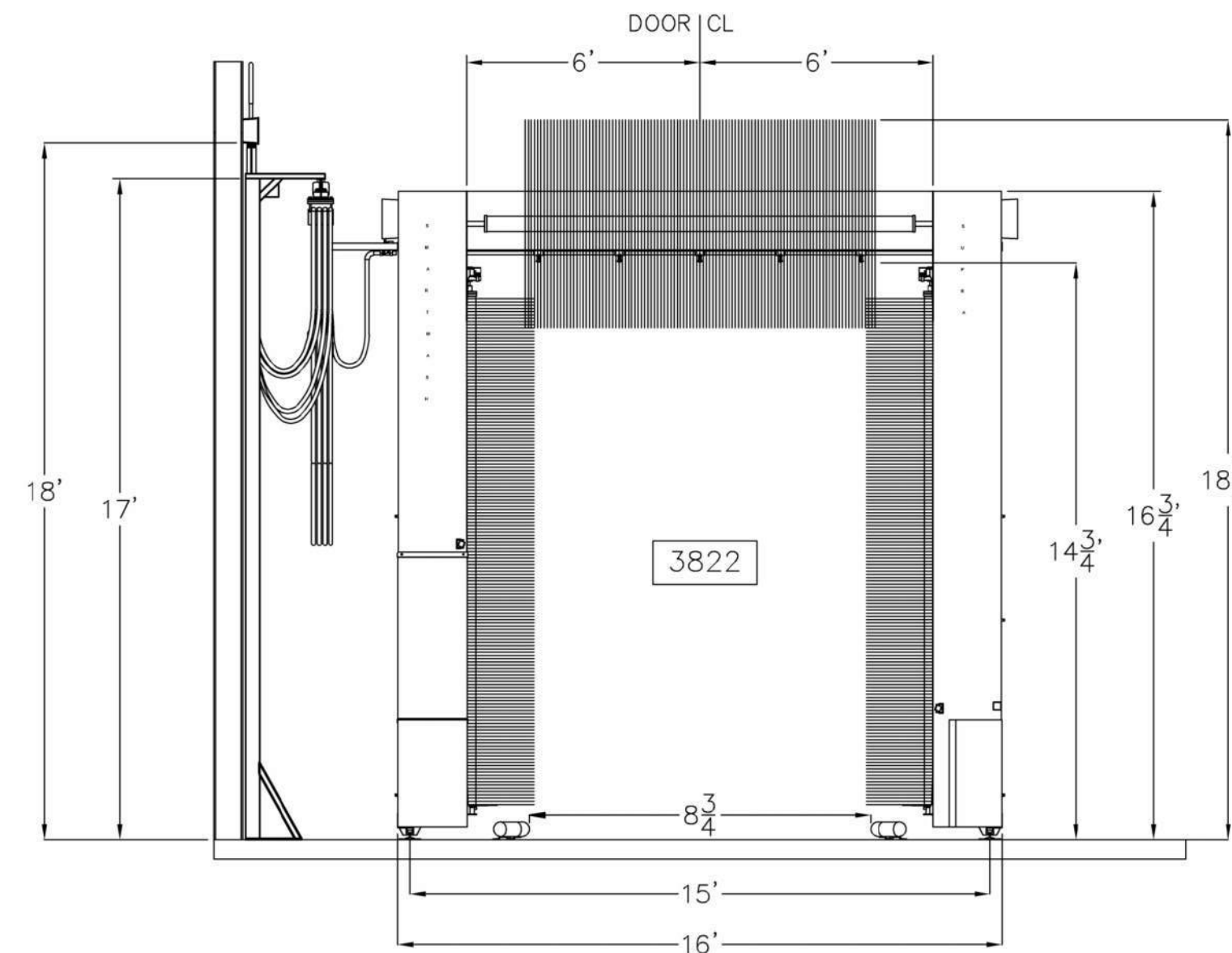
PRINTED ON: 4/24/2024 11:21 AM FROM FILE: C:\USERS\USER1670488\WSP\0365\WILSONVILLE SMART BASE EXPANSION - GENERAL\ADD\WORKING\FACILITIES\CIVIL\WORKING\PP-CIVIL - FFD.DWG BY: TAURO, ERIC



1 SITE PLAN

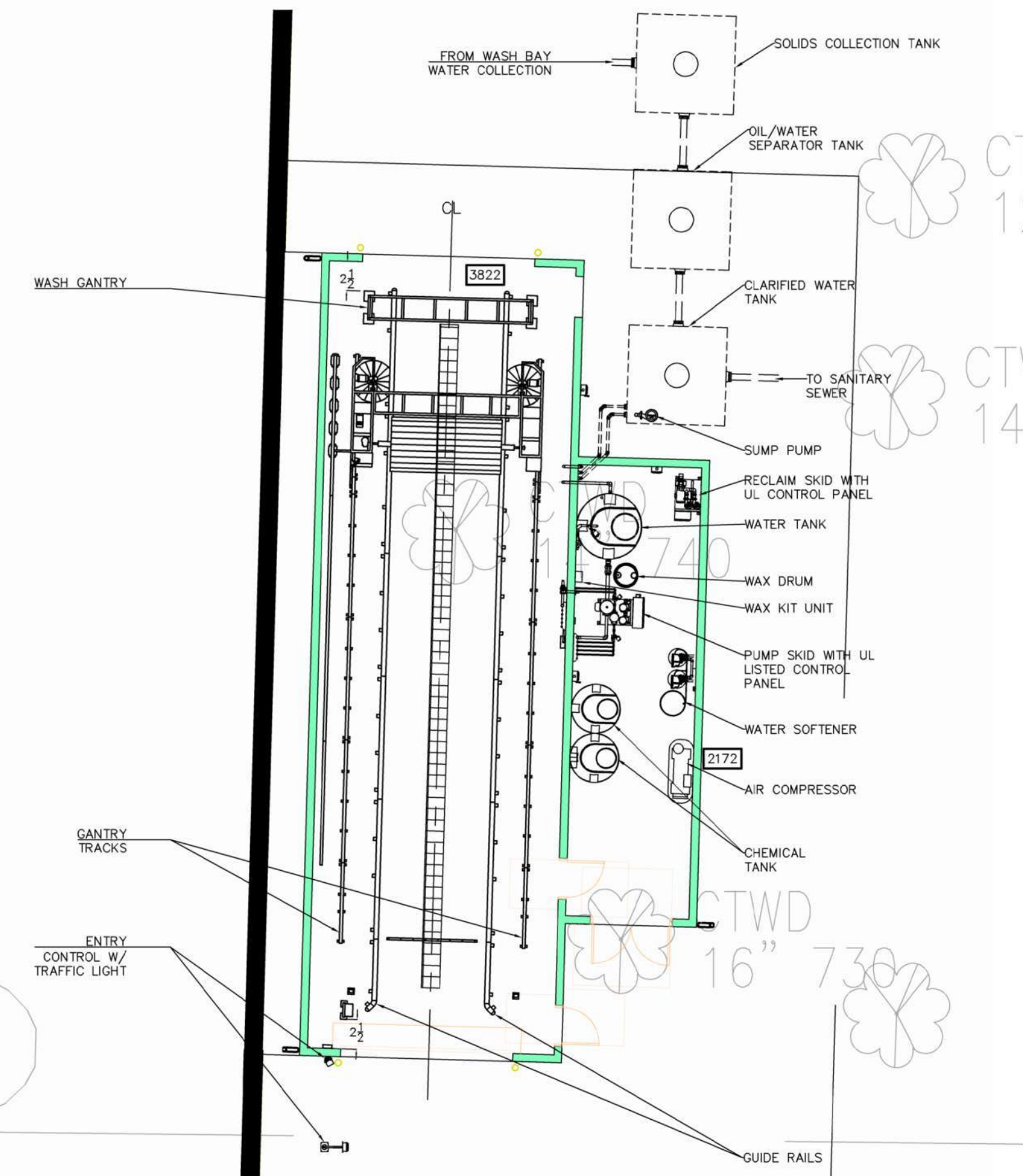
1" = 30'-0"

EQUIPMENT SCHEDULE	
EQUIPMENT	DESCRIPTION
PUMP SKID	UL LISTED CONTROL PANEL, CR 32 HIGH PRESSURE PUMP, CR-5 PUMP AND 2 CHEMICAL PUMPS. FUSIBLE DISCONNECT - 400 AMP (FLA 176) - PUMP SKID FROM BUILDING MAIN POWER PULL POWER WIRES AND GROUND WIRE IN CONDUIT TO LINE SIDE OF DISCONNECT, 4' A.F.F. TO BOTTOM OF DISCONNECT. FROM LOAD SIDE OF DISCONNECT TO THE APPROPRIATELY LABELED TERMINALS IN THE UL CONTROL PANEL OF PUMP SKID PULL CAT5e ETHERNET WIRE FROM CUSTOMER NETWORK SERVER LOCATION, TO PUMP SKID PANEL
WATER SOFTENER	CULLIGAN MODEL HET-120; 115 VOLT OUTLET - 20 AMP
RECLAIM SKID	100 GALLON/MIN WITH UL CONTROL PANEL FUSIBLE DISCONNECT - 30 AMP (FLA 24) - RECLAIM SKID FROM BUILDING MAIN POWER PULL POWER WIRES AND GROUND WIRE IN CONDUIT TO LINE SIDE OF DISCONNECT. DISCONNECT TO 4' A.F.F. TO BOTTOM OF BOX. FROM LOAD SIDE OF DISCONNECT TO APPROPRIATELY LABELED TERMINALS IN THE UL CONTROL PANEL OF RECLAIM SKID. SERVICE DISCONNECT - 30 AMP - TRANSFER PUMP FROM UL CONTROL PANEL OF RECLAIM SKID IN CONDUIT PULL POWER WIRES AND GROUND WIRE TO LINE SIDE OF SERVICE DISCONNECT, 4' A.F.F. TO BOTTOM OF SERVICE DISCONNECT. FROM LOAD SIDE OF DISCONNECT IN CONDUIT TO TRANSFER PUMP
ENTRY SYSTEM	ENTRY CONTROL JUNCTION BOX, "J" BOX 12"x12"x4" PVC - 8' A.F.F. PULL IN 1" CONDUIT 3 QTY. #14 AWG. POWER AND GROUND WIRES, 2 QTY. BELDEN (8723) WIRES AND 1 QTY. CAT5e WIRE, FROM UL CONTROL PANEL OF PUMP SKID FROM ENTRY CONTROL JUNCTION BOX, PULL 2 QTY. BELDEN (8723) WIRES IN 3/4" CONDUIT TO ENTRY CONTROL TRAFFIC LIGHT - 8' A.F.F. INSTALL THE ENTRY KEY SYSTEM OUTSIDE ON POLE (2) PULL 3 QTY. #14 AWG. WIRES AND 1 QTY. CAT5e WIRES IN 3/4" CONDUIT UNDERGROUND FROM THE JUNCTION BOX



2 GANTRY WASH ELEVATION

3" = 1'-0"



3 ENLARGED BUILDING PLAN

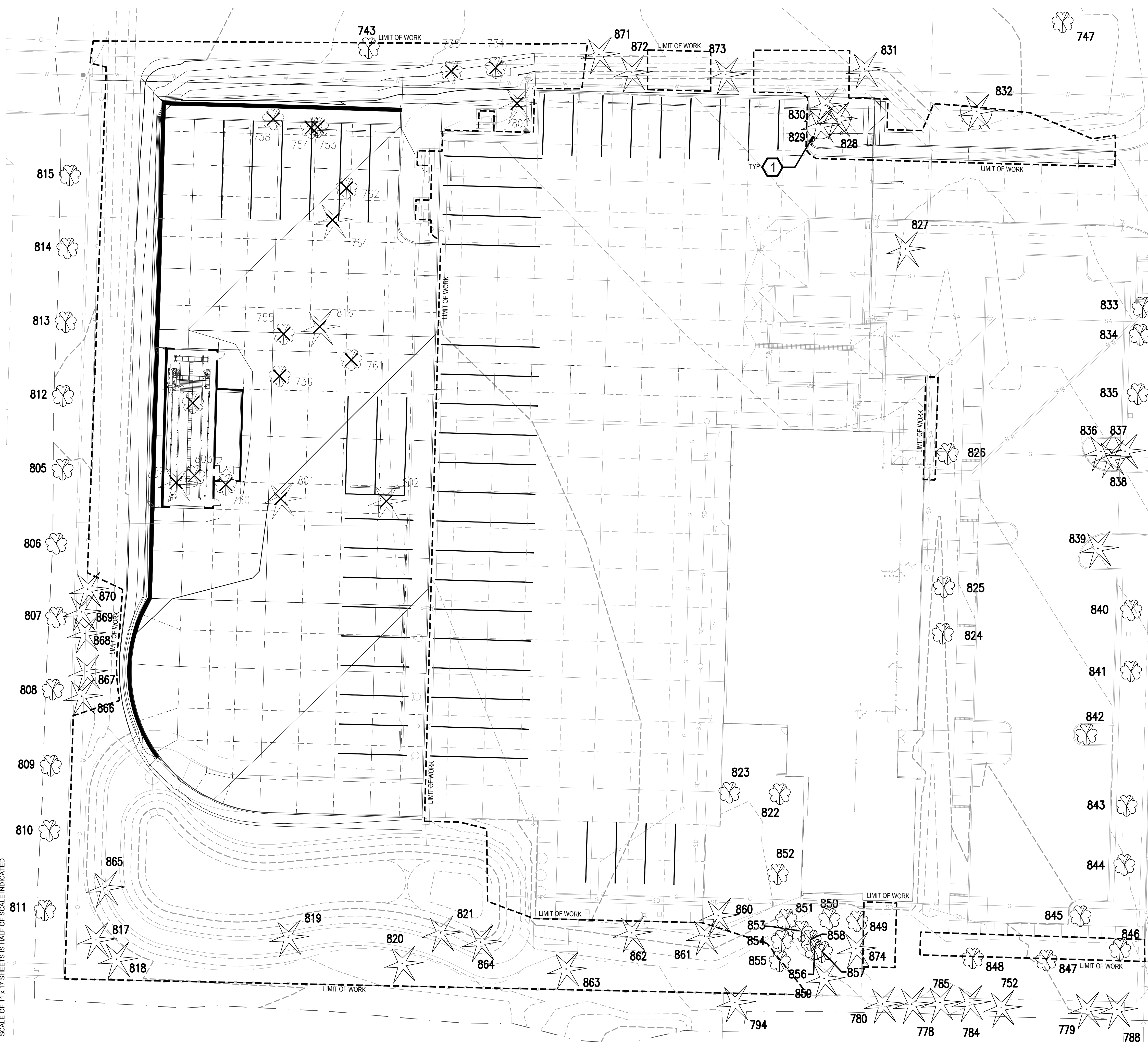
1" = 10'-0"

NOTES:  
4 DIGIT MARK NUMBERS WITH OR WITHOUT ALPHA EXTENSION REPRESENT NEW EQUIPMENT TO BE FURNISHED AND INSTALLED AS GRAPHICALLY INDICATED AND SHOWN IN SECTION 11000 SCHEDULES FOR EQUIPMENT.

ALL NEW EQUIPMENT SHOWN ON THESE DRAWINGS IS BASED ON SPECIFIED MANUFACTURER. ANY MODIFICATIONS AND / OR SUBSTITUTIONS OF SAID EQUIPMENT MUST BE COORDINATED BY THE CONTRACTOR INCLUDING ALL CONNECTIONS, SERVICES, OPENING SIZES, AND ANY OTHER CONSTRUCTION RELATED REQUIREMENTS.

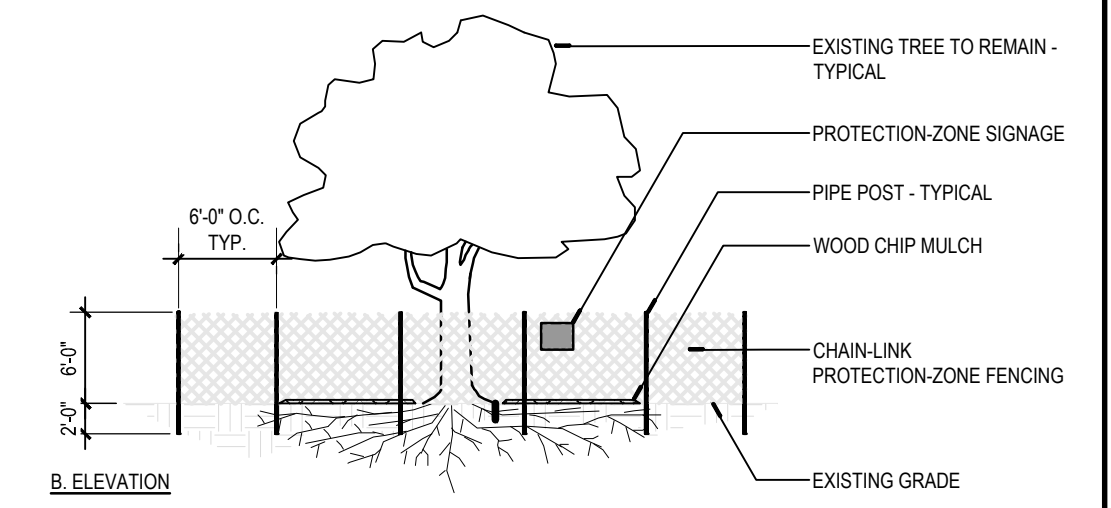
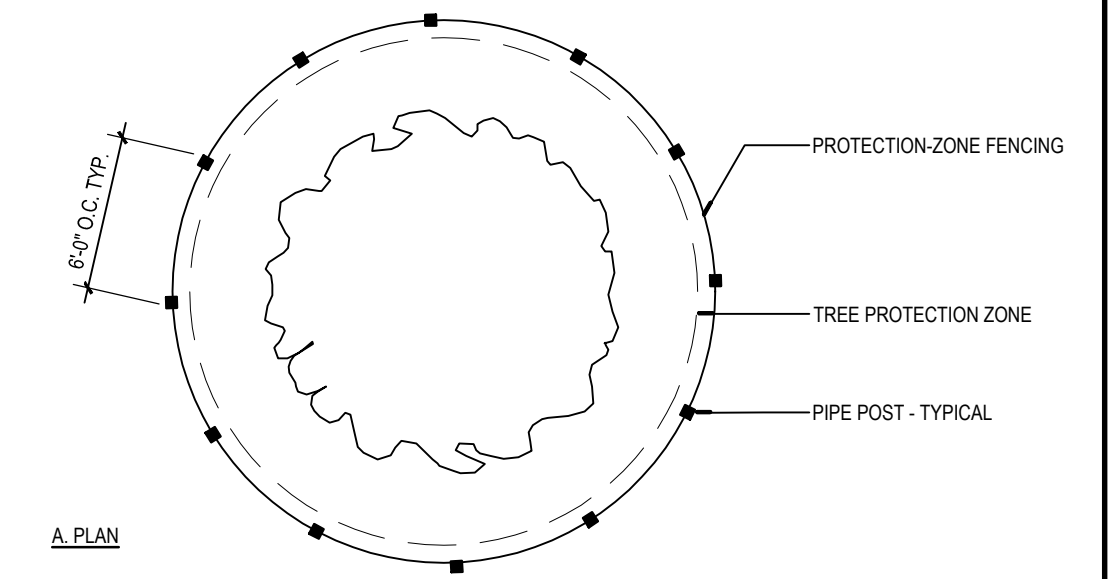
VERIFY AND COORDINATE ALL STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING REQUIREMENTS OF EQUIPMENT WITH MANUFACTURER PRIOR TO INSTALLATION.

PROJECT NO:	REVISIONS:
DATE: 4/26/2024	ET
DRAWN:	MM
CHECKED:	

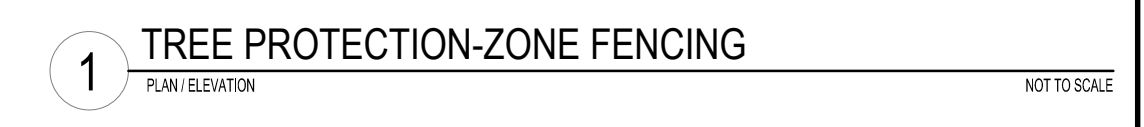


### TREE LEGEND

- TREES
- EXISTING DECIDUOUS AND CONIFER TREES TO BE REMOVED
- EXISTING DECIDUOUS AND CONIFER TREES TO REMAIN UNDISTURBED
- SITE ELEMENTS
- TREE PROTECTION FENCING



- NOTES:
- DO NOT INSTALL ANY COMPONENT OF TREE PROTECTION FENCING WITHIN TREE PROTECTION ZONES UNLESS INDICATED ON THE DRAWINGS OTHERWISE.
  - THE FOLLOWING PRACTICES ARE PROHIBITED WITHIN TREE PROTECTION ZONES: STORAGE OF CONSTRUCTION MATERIALS, DEBRIS, OR EXCAVATED MATERIAL; CLEANING OF MATERIALS OR EQUIPMENT; MOVING OR PARKING VEHICLES OR EQUIPMENT; FOOT TRAFFIC; ERECTION OF STRUCTURES; IMPOUNDMENT OF WATER; EXCAVATION OR OTHER DIGGING UNLESS OTHERWISE INDICATED; ATTACHMENT OF SIGNS TO OR WRAPPING MATERIALS AROUND TREES; USE OF FASTENERS OF ANY TYPE INTO THE TREE.
  - THE CITY OF WILSONVILLE SHALL BE NOTIFIED WITHIN 24 HOURS OF ANY SUSPECTED DAMAGE TO EXISTING TREES WITHIN THE PROJECT AREA THAT WERE NOT IDENTIFIED AND APPROVED FOR REMOVAL OR RELOCATION. IF DAMAGE OCCURS DURING CONSTRUCTION, THE CONSTRUCTION APPLICANT SHALL HAVE THE TREE RESTORED WITHIN 24 HOURS BY A CERTIFIED ARBORIST.



### GENERAL NOTES

EXISTING TREES SURVEYED: 103  
 EXISTING TREES TO BE RETAINED: 85  
 EXISTING TREES TO BE REMOVED AND REPLACED: 18  
 PROPOSED TREES: 69

### KEY NOTES

- TREE PROTECTION FENCING - 6' HEIGHT CHAIN-LINK. INSTALL AT OUTER LIMIT OF TREE CANOPY UNLESS OTHERWISE IMPACTED BY SITE DEVELOPMENT.



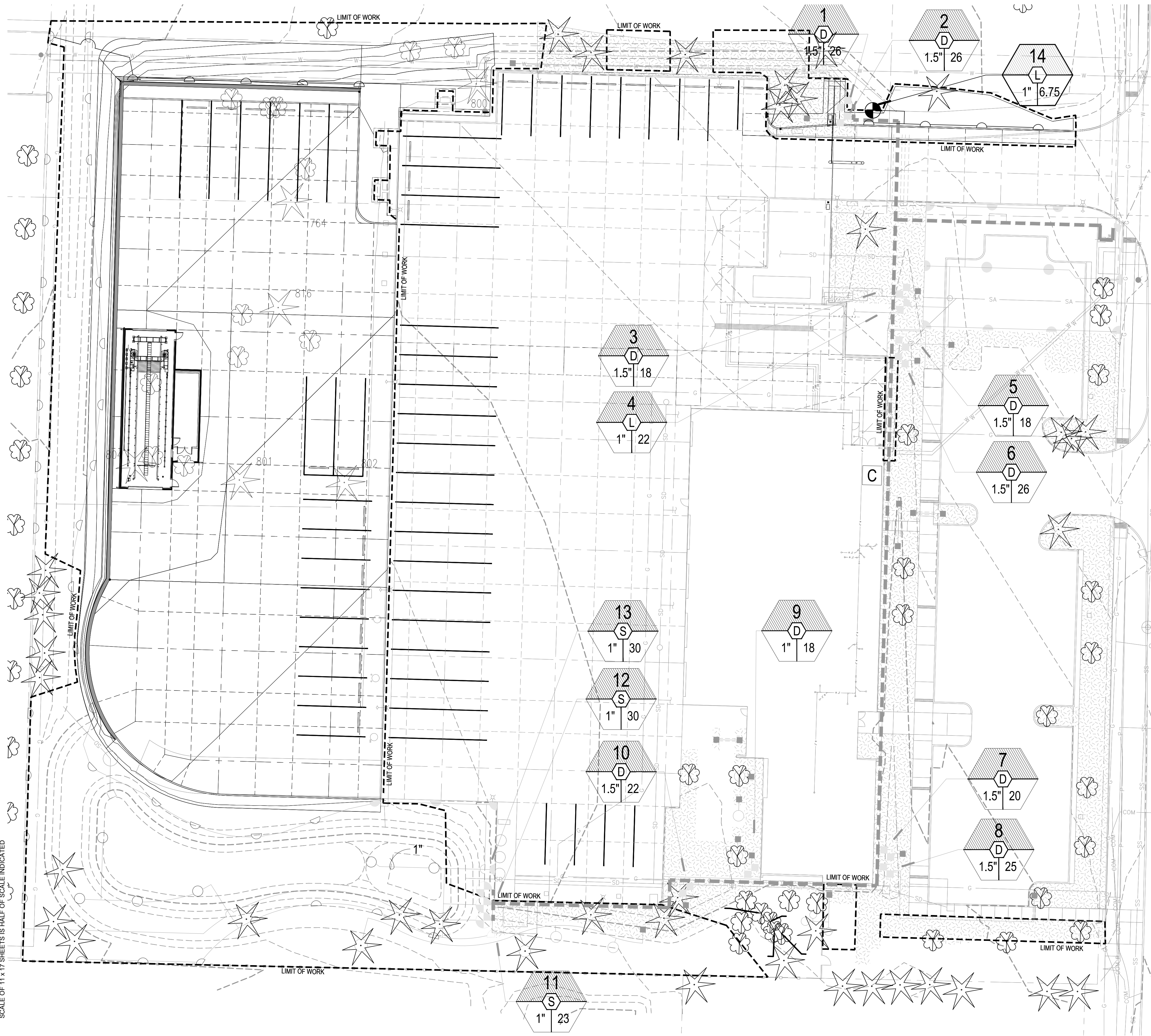
100% CONSTRUCTION DOCUMENTS  
**S.M.A.R.T. FACILITY IMPROVEMENTS**  
 PROJECT # 2208.00  
 CITY OF WILSONVILLE  
 28875 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**TREE REMOVAL AND PROTECTION PLAN**

REVISIONS:  
 # DESCRP. DATE

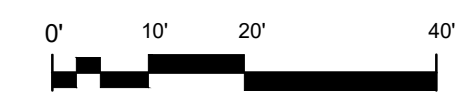
ISSUE DATE: 04/26/2024





**GENERAL NOTES**

A. REFER TO SHEET L201 FOR LEGENDS AND NOTES.



100% CONSTRUCTION DOCUMENTS

S.M.A.R.T. FACILITY IMPROVEMENTS

PROJECT #: 2308.00

CITY OF WILSONVILLE  
28875 SW BOBERG RD, WILSONVILLE, OR 97170

SHEET TITLE:

**IRRIGATION PLAN**

REVISIONS:

#	DESCRP.	DATE

ISSUE DATE: 04/26/2024

**L200**



**PIVOT**  
ARCHITECTURE

GREENWORKS

### EXISTING IRRIGATION LEGEND

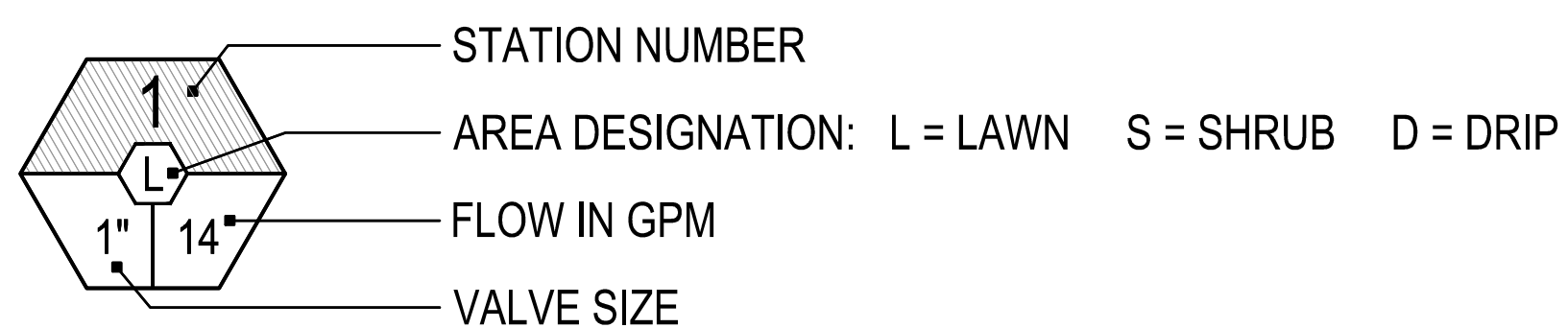
#### IRRIGATION HEADS

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.	ARC	PSI	RAD.	GPM
	ROTARY NOZZLE / SPRAY	HUNTER	MP3000-PROS-12-PRS40-CV	90°	30	25'	0.69
	ROTARY NOZZLE / SPRAY	HUNTER	MP3000-PROS-12-PRS40-CV	180°	30	25'	1.44
	ROTARY NOZZLE / SPRAY	HUNTER	MP3000-PROS-12-PRS40-CV	360°	30	25'	2.88
	ROTARY NOZZLE / STAKED	HUNTER	MP3000 - ON STAKED RISER	90°	30	25'	0.69
	ROTARY NOZZLE / STAKED	HUNTER	MP3000 - ON STAKED RISER	180°	30	25'	1.44
	ROTARY NOZZLE / STAKED	HUNTER	MP3000 - ON STAKED RISER	360°	30	25'	2.88
	DRIPLINE - DRIP ZONE ROW SPACING = 12" O.C.	RAINBIRD	XFD-09-18	NA	NA	NA	NA

#### IRRIGATION EQUIPMENT

SYMBOL	DESCRIPTION	MANUF.	MODEL NO.
	WATER METER - SEE CIVIL DRAWINGS		
	REMOTE CONTROL VALVE	RAINBIRD	PEB SERIES
	DRIP ZONE CONTROL KIT	RAINBIRD	XCZ-150-COM
	FLUSH VALVE		
	AIR VACUUM RELIEF VALVE		
	QUICK COUPLER		
	GATE VALVE		
	BACKFLOW PREVENTION DEVICE		
	IRRIGATION CONTROLLER	HUNTER	ICC-600M -18 STATION W/ SOLAR SYNC MODULE
	MANUAL DRAIN VALVE		
	IRRIGATION LATERAL LINE		
	IRRIGATION LATERAL LINE - DRIP ZONE CONNECTION		
	IRRIGATION MAIN LINE		
	IRRIGATION SLEEVE		

#### CONTROL VALVE TARGET



### PROPOSED IRRIGATION LEGEND

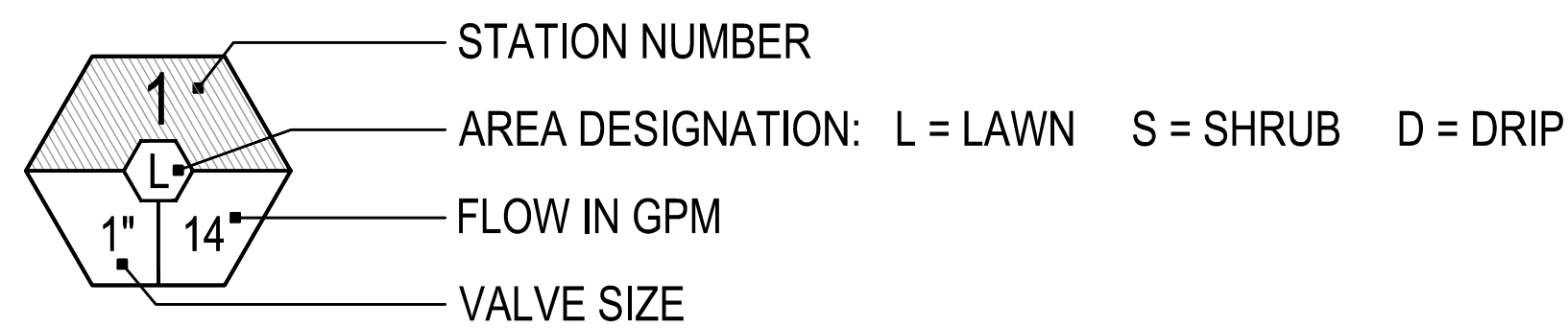
#### IRRIGATION HEADS

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.	ARC	PSI	RAD.	GPM
	ROTARY NOZZLE / STAKED	RAINBIRD	R-VAN24 ON STAKED RISER	180°	45	23'	1.68
	DRIPLINE - DRIP ZONE ROW SPACING = 12" O.C.	RAINBIRD	XFD-09-18	NA	NA	NA	NA

#### IRRIGATION EQUIPMENT

SYMBOL	DESCRIPTION	MANUF.	MODEL NO.
	REMOTE CONTROL VALVE	RAINBIRD	PEB SERIES
	IRRIGATION LATERAL LINE - SCHEDULE 40		
	IRRIGATION LATERAL LINE - DRIP ZONE CONNECTION		

#### CONTROL VALVE TARGET



#### IRRIGATION PLAN NOTES

1. CALL UTILITIES TO LOCATE EXISTING SERVICES PRIOR TO EXCAVATION.
2. SYSTEM OPERATION AND DESIGN IS BASED ON 55 POUNDS OF PRESSURE AND 30 GALLONS PER MINUTE AT THE SHUTOFF VALVE. THE CONTRACTOR SHALL VERIFY THE DESIGN PRESSURE AND VOLUME BEFORE INSTALLATION AND NOTIFY OWNER IF THERE IS A DISCREPANCY.
3. CONTRACTOR SHALL REFERENCE PLANTING PLAN(S) PRIOR TO INSTALLATION OF VALVES. LOCATE VALVES IN PLANTING BEDS WHEREVER POSSIBLE. ADJUST VALVE LOCATIONS TO ELIMINATE CONFLICT WITH PROPOSED PLANTINGS AND PLANTING PATTERNS.
4. VALVE LOCATIONS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF NEW IRRIGATION SYSTEM.
5. THE CONTRACTOR SHALL VERIFY THE DIMENSIONS AND LAYOUT OF ALL NEW PLANTING AND LAWN AREAS ON SITE BEFORE STARTING WORK AND IMMEDIATELY NOTIFY OWNER OF ANY DEVIATIONS FROM PLAN.
6. NEW TREE LOCATIONS SHALL BE STAKED BY THE CONTRACTOR AND APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION OF NEW IRRIGATION SYSTEM.
7. PHASE 1 IRRIGATION SHOWN FOR REFERENCE.

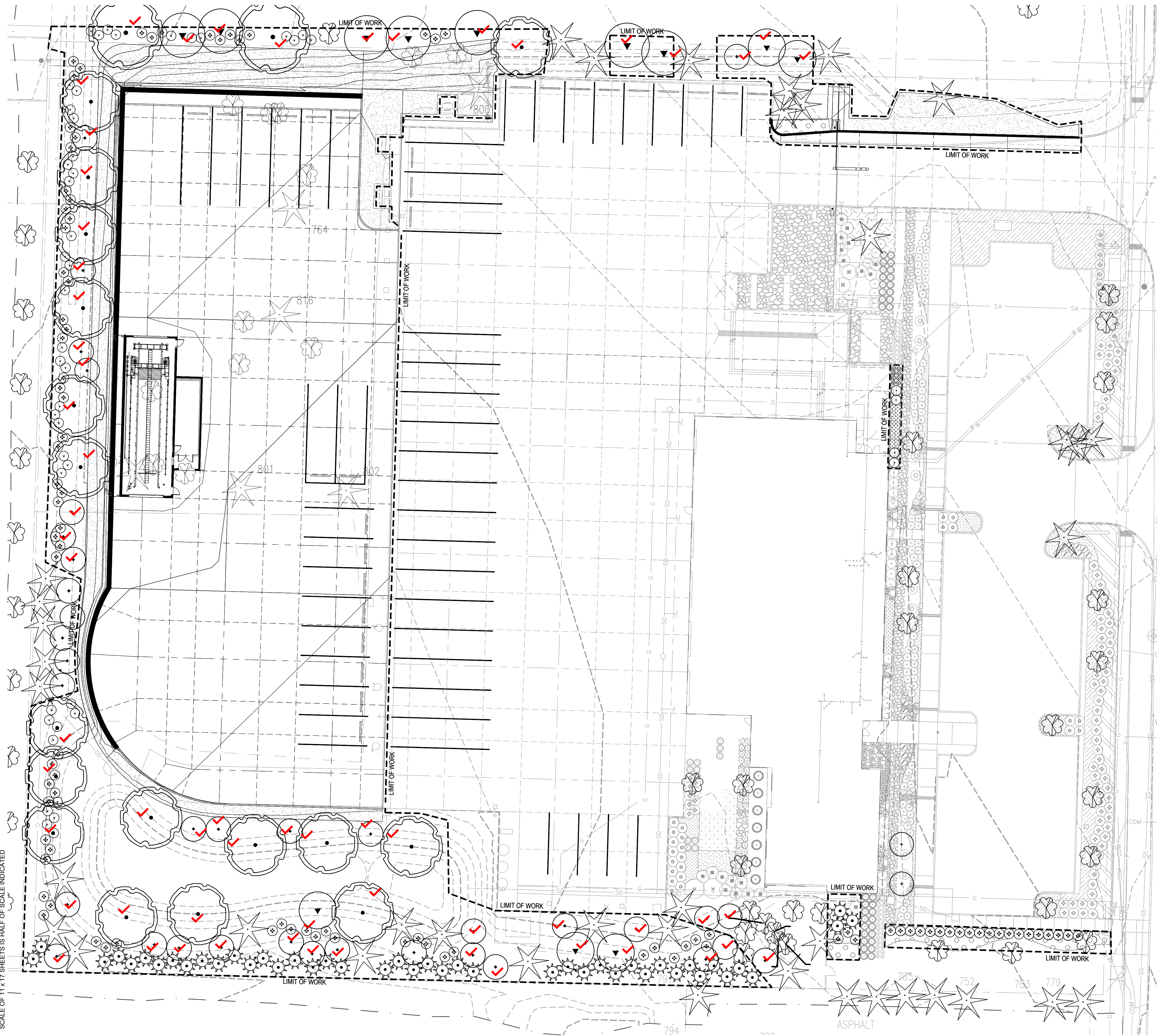


100% CONSTRUCTION DOCUMENTS  
 S.M.A.R.T. FACILITY IMPROVEMENTS  
 PROJECT #: 2024.00  
 CITY OF WILSONVILLE  
 28875 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**IRRIGATION LEGENDS AND NOTES**

REVISIONS:  
 #    DESCRP.    DATE

ISSUE DATE: 04/26/2024



GENERAL NOTES

- A. REFER TO SHEETS L301 & L302 FOR LEGENDS AND NOTES.
- B. PHASE 1 PLANTINGS SHOWN FOR REFERENCE.
- C. BUFFER LANDSCAPE STANDARD:
  - SOUTHERN PROPERTY LINE: HIGH SCREEN
  - WESTERN PROPERTY LINE: GENERAL
  - NORTHERN PROPERTY LINE: GENERAL



100% CONSTRUCTION DOCUMENTS  
 S.M.A.R.T. FACILITY IMPROVEMENTS  
 PROJECT # 2308.00  
 CITY OF WILSONVILLE  
 28879 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**LANDSCAPE PLAN**

REVISIONS:		
#	DESCRP.	DATE
REV 1		Date 1

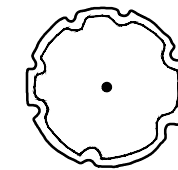


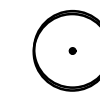
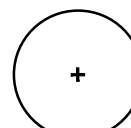
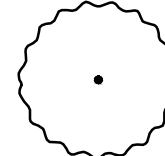
ISSUE DATE: 04/26/2024

L300

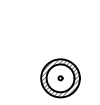






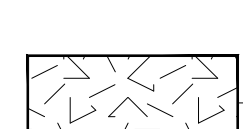
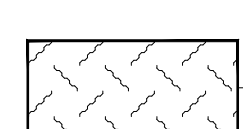
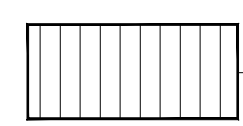
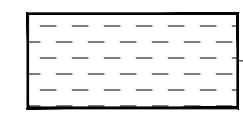
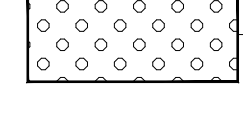
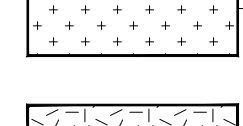

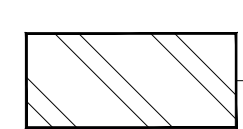
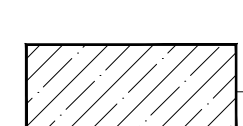
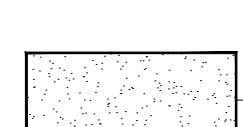
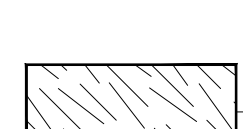
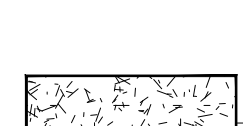
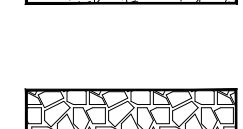
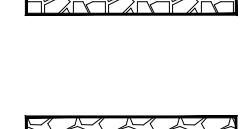
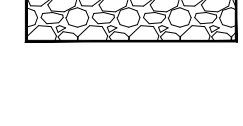
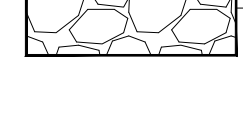

# EXISTING PLANT LEGEND

## TREES

	ALNUS RUBRA RED ALDER; 2" CAL., B&B
	THUJA PLICATA 'FASTIGIATA' HOGAN CEDAR; 6'-7' B&B, SPACE AS SHOWN
	PSEUDOTSUGA MENZIESII DOUGLAS FIR; 6'-7' B&B, SPACE AS SHOWN
	CERCIS CANADENSIS EASTERN REDBUD; 2" CAL., B&B, SPACE AS SHOWN
	ACER CIRCINATUM VINE MAPLE; 8"-10', B&B, SPACE AS SHOWN - MATCHED - UPRIGHT SELECT SPECIMENS
	GINKGO BILOBA 'MAGYAR' MAGYAR GINKGO; 2 1/2" CAL., B&B, SPACE AS SHOWN

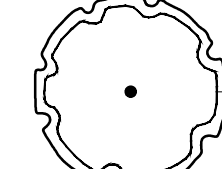
## SHRUBS / GRASSES / GROUND COVER

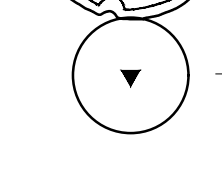
	SPIRAEA DOUGLASII DOUGLAS SPIREA; 5 GAL. CONT., SPACE AS SHOWN
	POLYSTICHUM MUNITUM SWORDFERN; 2 GAL. CONT., 2' O.C.
	RIBES SANGUINEUM RED FLOWERING CURRANT; 5 GAL. CONT., SPACE AS SHOWN
	SALVIA GREGII 'FURMANS RED' FURMANS RED AUTUMN SAGE; 2 GAL. CONT., SPACE AS SHOWN
	SPIRAEA BETULIFOLIA 'TOR' BIRCHLEAF SPIREA; 2 GAL. CONT., SPACE AS SHOWN
	VACCINIUM OVATUM EVERGREEN HUCKLEBERRY; 5 GAL. CONT., SPACE AS SHOWN
	CORNUS SERICEA 'FLAVIRAMEA' YELLOW TWIG DOGWOOD; 5 GAL. CONT., SPACE AS SHOWN
	CORNUS SERICEA RED TWIG DOGWOOD; 5 GAL. CONT., SPACE AS SHOWN
	CALAMAGROSTIS X ACUTIFLORA 'OVERDAM' VARIEGATED FEATHER REED GRASS; 2 GAL. CONT., SPACE AS SHOWN
	ROSA NUTKANA NUTKA ROSE; 5 GAL. CONT., SPACE AS SHOWN
	SYMPHORICARPUS ALBUS SNOWBERRY; 5 GAL. CONT., SPACE AS SHOWN
	YUCCA FILAMENTOSA 'BRIGHT EDGE' BRIGHT EDGE VARIEGATED YUCCA; 5 GAL. CONT., SPACE AS SHOWN
	HOLODISCUS DISCOLOR OCEANSPRAY; 5 GAL. CONT., SPACE AS SHOWN
	PANICUM VIRGATUM 'SHENANDOAH' SHENANDOAH SWITCH GRASS; 3 GAL. CONT., SPACE AS SHOWN
	SCHIZACHRYIUM SCOPARIUM LITTLE BLUESTEM; 2 GAL. CONT., SPACE AS SHOWN
	HEMEROCALLIS X 'MOND' STARBURST RED EVERGREEN DAYLILY; 2 GAL. CONT., SPACE AS SHOWN

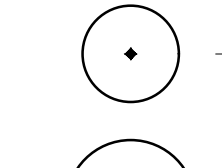
	WOODWARDIA FIMBRIATA GIANT CHAIN FERN; 7 GAL. CONT., SPACE AS SHOWN
	BERGENIA CORDIFOLIA HEARTLEAF BERGENIA; 1 GAL. CONT., SPACE AS SHOWN
	SISYRINCHIUM CALIFORNICUM YELLOW-EYED GRASS; 1 GAL. CONT., SPACE AS SHOWN
	HEMEROCALLIS 'STELLA DE ORO' STELLA DE ORO DAYLILY; 1 GAL. CONT., 2' O.C.
	MAHONIA AQUIFOLIUM 'COMPACTA' COMPACT OREGON GRAPE; 5 GAL. CONT., 3' O.C.
	GAULTHERIA SHALLON SALAL; 1 GAL. CONT., 2' O.C.
	CAREX Densa DENSE SEDGE; 4" POTS, 18" O.C.
	MAHONIA NERVOSA CASCADE OREGON GRAPE; 1 GAL. CONT., 2' O.C.
	MAHONIA REPENS CREEPING MAHONIA; 1 GAL. CONT., 18" O.C.
	SEDUM 'AUTUMN JOY' AUTUMN JOY STONECROP; 4" POTS., 12" O.C.
	HELICTOTRICHON SEMPERVIRENS BLUE OAT GRASS; 1 GAL. CONT., 24" O.C.
<b>PERENNIALS / GROUND COVER</b>	
	FRAGARIA CHILOENSIS BEACH STRAWBERRY; 12" O.C.; 4" POTS
	ARCTOSTAPHYLOS UVA-URSI KINNIKINNICK; 18" O.C.; 1 GAL. CONT.
	SEEDED LAWN SEE SPECIFICATIONS
	SEEDED SWALE SEE SPECIFICATIONS
	SEEDED WILDFLOWER / FIELDGRASS - APPLY TO AREAS SHOWN, AND AREAS NOT RECEIVING PLANTINGS, BUT HAVE BEEN DISTURBED BY CONSTRUCTION ACTIVITIES SEE SPECIFICATIONS
	3" OF 3/8" ROUND ROCK MULCH INTERPLANT WITH JUNCUS PATENS - 1 GAL. CONT., 18" O.C.
	3" OF 3/4" - 1 1/2" ROUND ROCK MULCH FILTER FABRIC BETWEEN MULCH AND PLANTING SOIL
	4" OF 1 1/2" - 4" ROUND ROCK MULCH - FILTER FABRIC BETWEEN MULCH AND PLANTING SOIL
	3" OF COMPACTED DECOMPOSED GRANITE FILTER FABRIC BETWEEN GRANITE MULCH AND SUBGRADE
	BASALT BOULDERS - SIZE PER PLAN - MIN. 18" DEPTH SEE SPECIFICATIONS

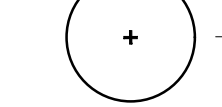
# PROPOSED PLANT LEGEND

## TREES

- 

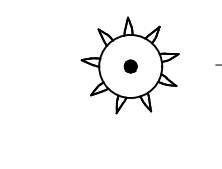
 QTY | ALNUS RUBRA  
 19 RED ALDER; 2" CAL., B&B
- 

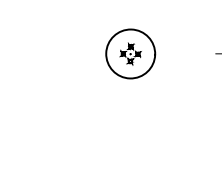
 QTY | PSEUDOTSUGA MENZIESII  
 12 DOUGLAS FIR; 6'-7' B&B, SPACE AS SHOWN
- 

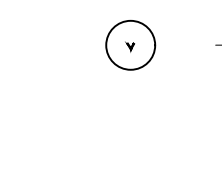
 QTY | THUJA PLICATA 'FASTIGIATA'  
 36 HOGAN CEDAR; 6'-7' B&B, SPACE AS SHOWN
- 

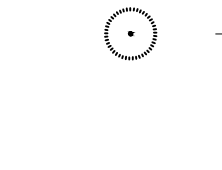
 QTY | ACER CIRCINATUM  
 2 VINE MAPLE; 8'-10', B&B, SPACE AS SHOWN - MATCHED - UPRIGHT SELECT SPECIMENS

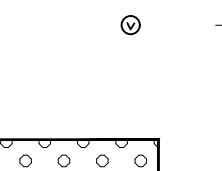
## SHRUBS / GRASSES / GROUNDCOVER

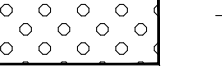
- 

 QTY | MYRICA CALIFORNICA  
 44 PACIFIC WAX MYRTLE; 5 GAL. CONT., SPACE AS SHOWN
- 

 QTY | VACCINIUM OVATUM  
 96 EVERGREEN HUCKLEBERRY; 5 GAL. CONT., SPACE AS SHOWN
- 

 QTY | ROSA NUTKANA  
 43 NUTKA ROSE; 5 GAL. CONT., SPACE AS SHOWN
- 

 QTY | SYMPHORICARPUS ALBUS  
 4 SNOWBERRY; 5 GAL. CONT., SPACE AS SHOWN
- 

 QTY | HEMEROCALLIS 'STELLA DE ORO'  
 8 STELLA DE ORO DAYLILY; 1 GAL. CONT., 2' O.C.
- 

 QTY | MAHONIA REPENS  
 154 CREEPING MAHONIA; 1 GAL CONT., 24" O.C.

532 SF

## SEEDED AREAS

- 

 QTY | SEEDED LAWN  
 7,820 SF SEE SPECIFICATIONS

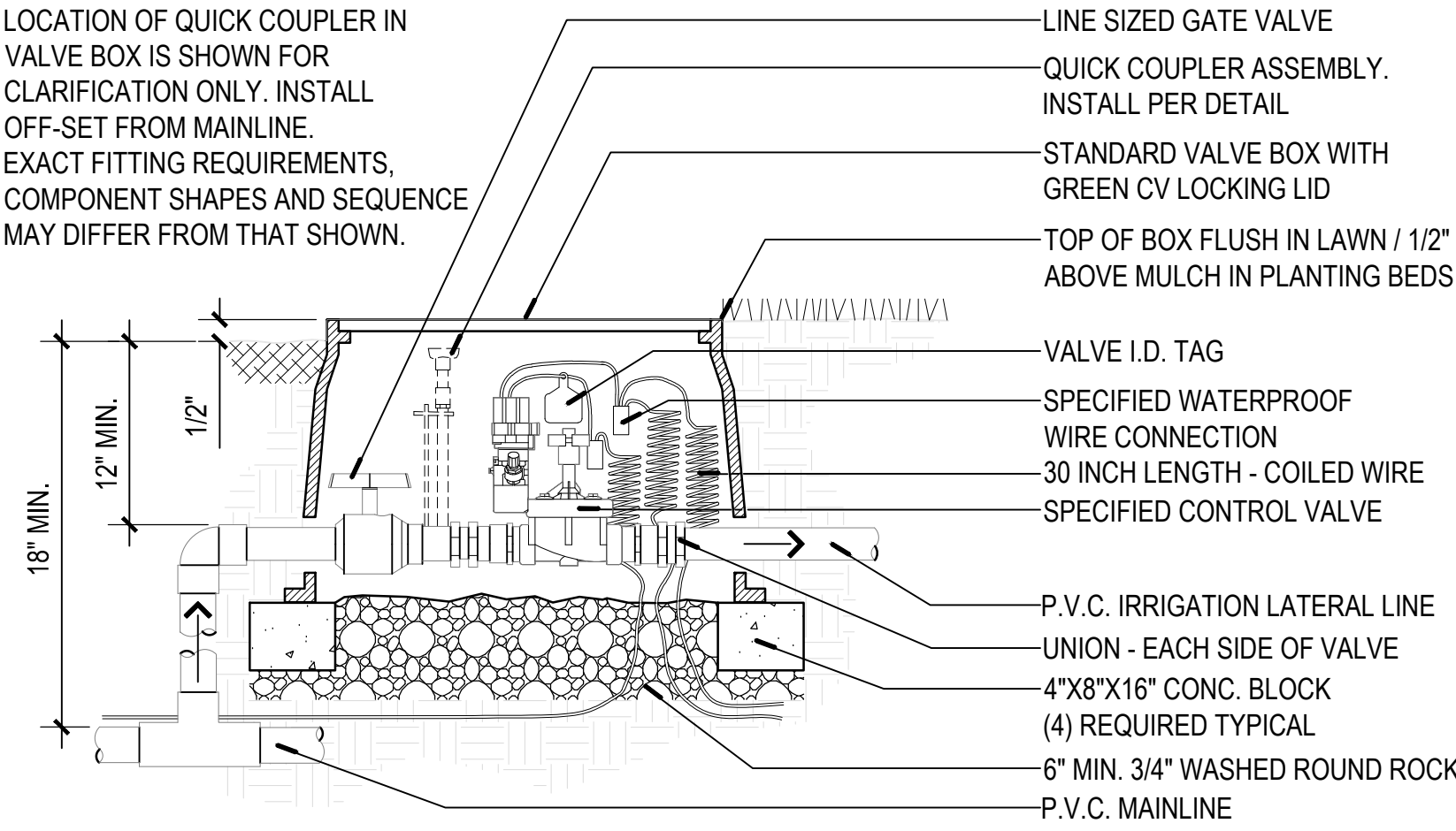
## NOTES:

1. ALL NEW PLANTING AREAS SHALL BE IRRIGATED UTILIZING A FULLY AUTOMATIC UNDERGROUND IRRIGATION SYSTEM. IRRIGATION SYSTEM SHALL INCORPORATE A SMART CONTROLLER, IN COMBINATION WITH LOW PRECIPITATION SPRAY HEADS AND DRIP DISTRIBUTION TUBING. IRRIGATION INTENT IS TO PROVIDE SUFFICIENT WATER TO ESTABLISH NEW PLANTINGS WITHIN THE FIRST TWO YEARS, AND THEN SLOWLY DECREASE WATERING, LIMITED TO DRY MONTHS, OR PERIODS OF DROUGHT THE FOLLOWING (3) YEARS.
2. CONTRACTOR SHALL PROVIDE TOPSOIL, SOIL AMENDMENTS AND MULCH AS SPECIFIED.
3. QUANTITIES ARE LISTED FOR THE CONTRACTOR'S CONVENIENCE ONLY. ALL COUNTS MUST BE VERIFIED BY THE CONTRACTOR. IN THE CASE OF A DISCREPANCY BETWEEN THE LEGEND AND THE PLAN, PLANTS INDICATED ON THE PLAN SHALL SUPERCEDE QUANTITIES LISTED IN THE LEGEND.
4. TREE REMOVAL AND PROTECTION SHALL BE PER ARBORIST RECOMMENDATION. REFER TO TREE PROTECTION SPECIFICATIONS.

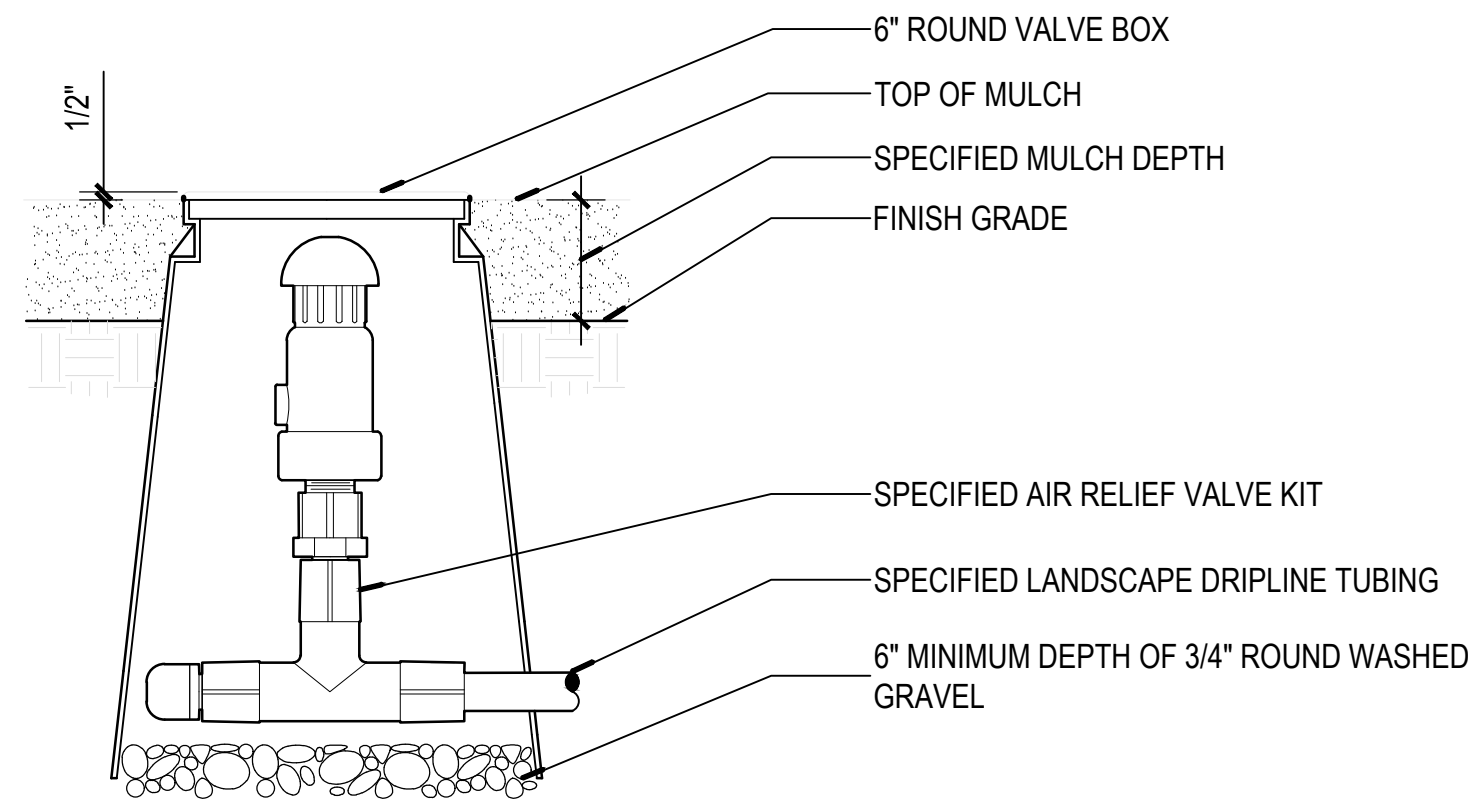


NOTES:

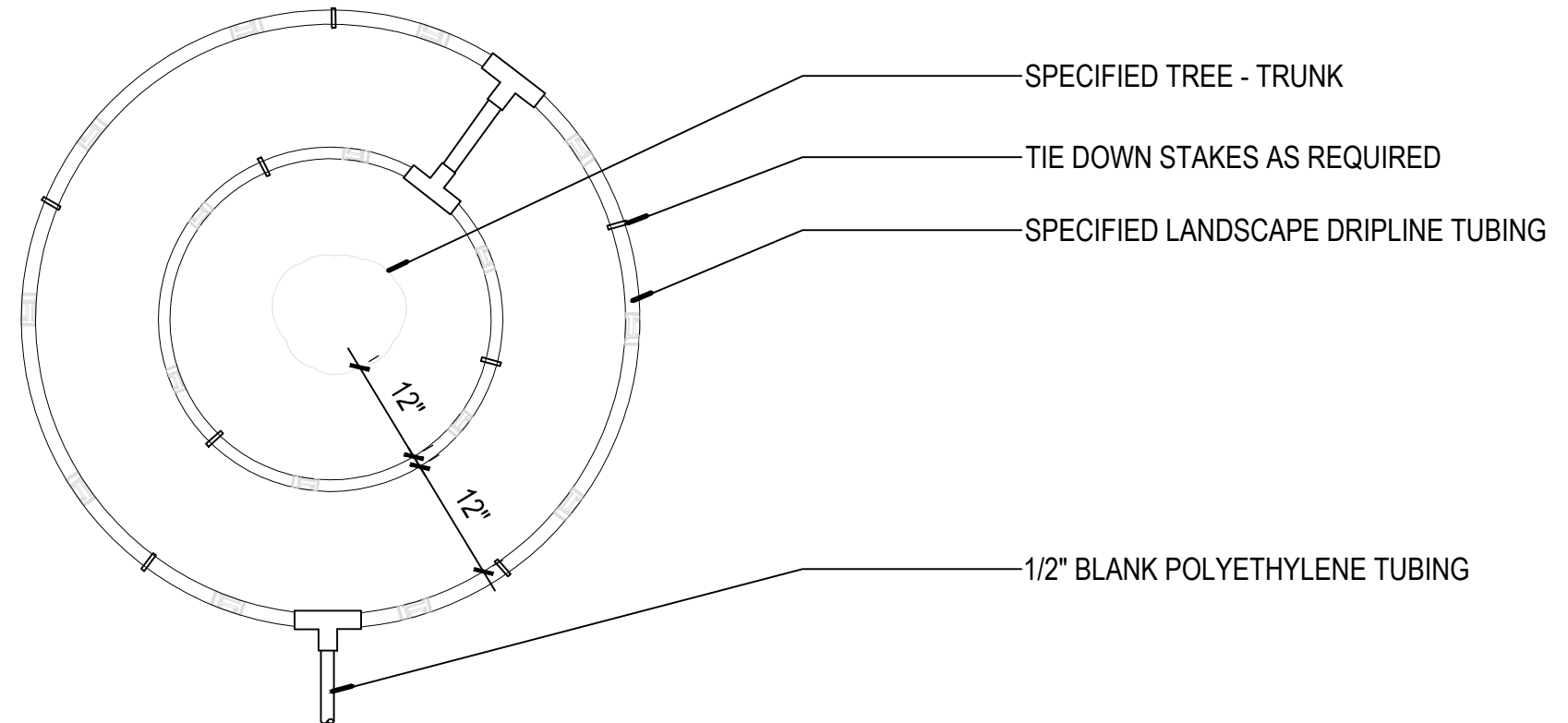
1. LOCATION OF QUICK COUPLER IN VALVE BOX IS SHOWN FOR CLARIFICATION ONLY. INSTALL OFF-SET FROM MAINLINE.
2. EXACT FITTING REQUIREMENTS, COMPONENT SHAPES AND SEQUENCE MAY DIFFER FROM THAT SHOWN.



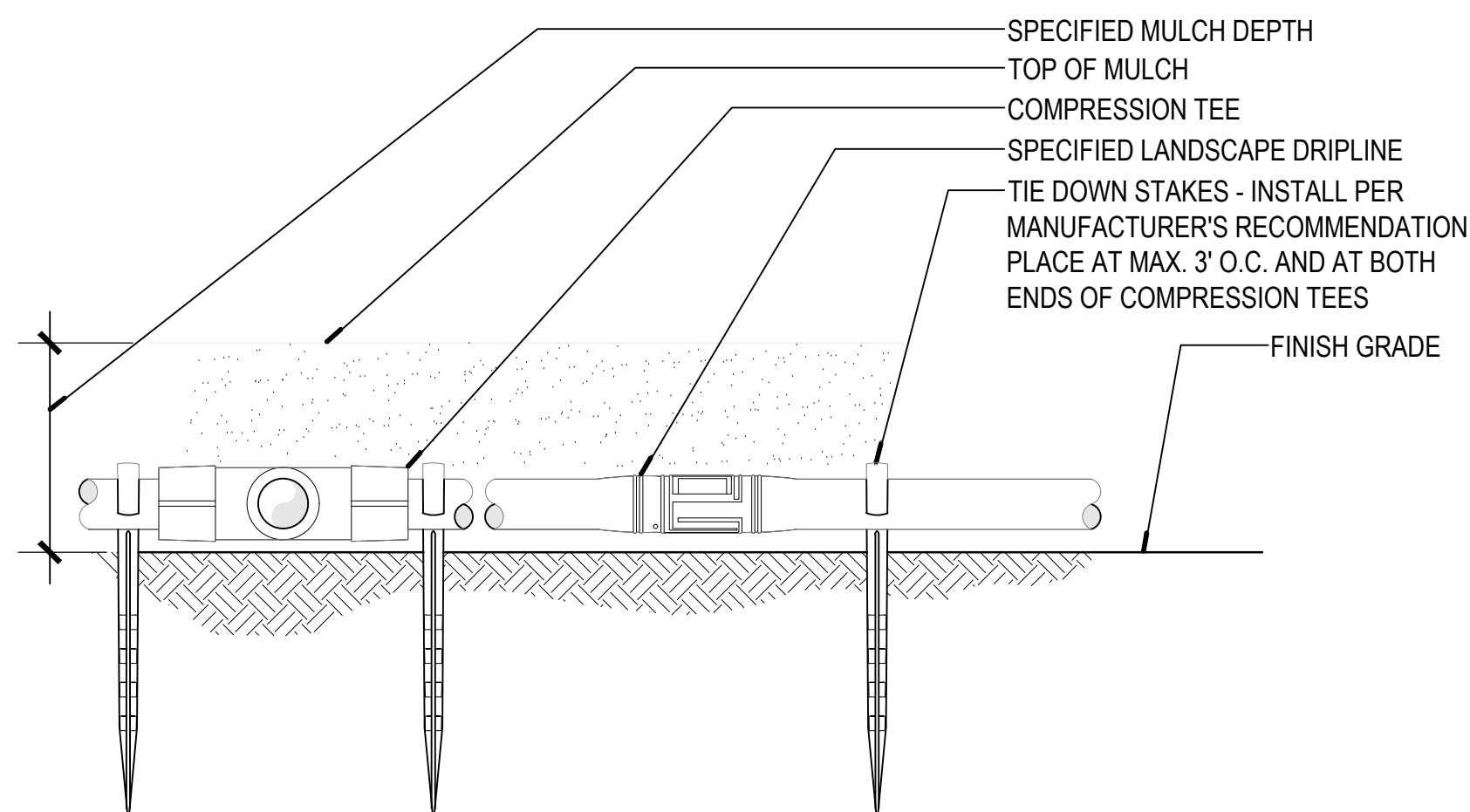
**1** AUTOMATIC CONTROL VALVE ASSEMBLY  
SECTION NOT TO SCALE



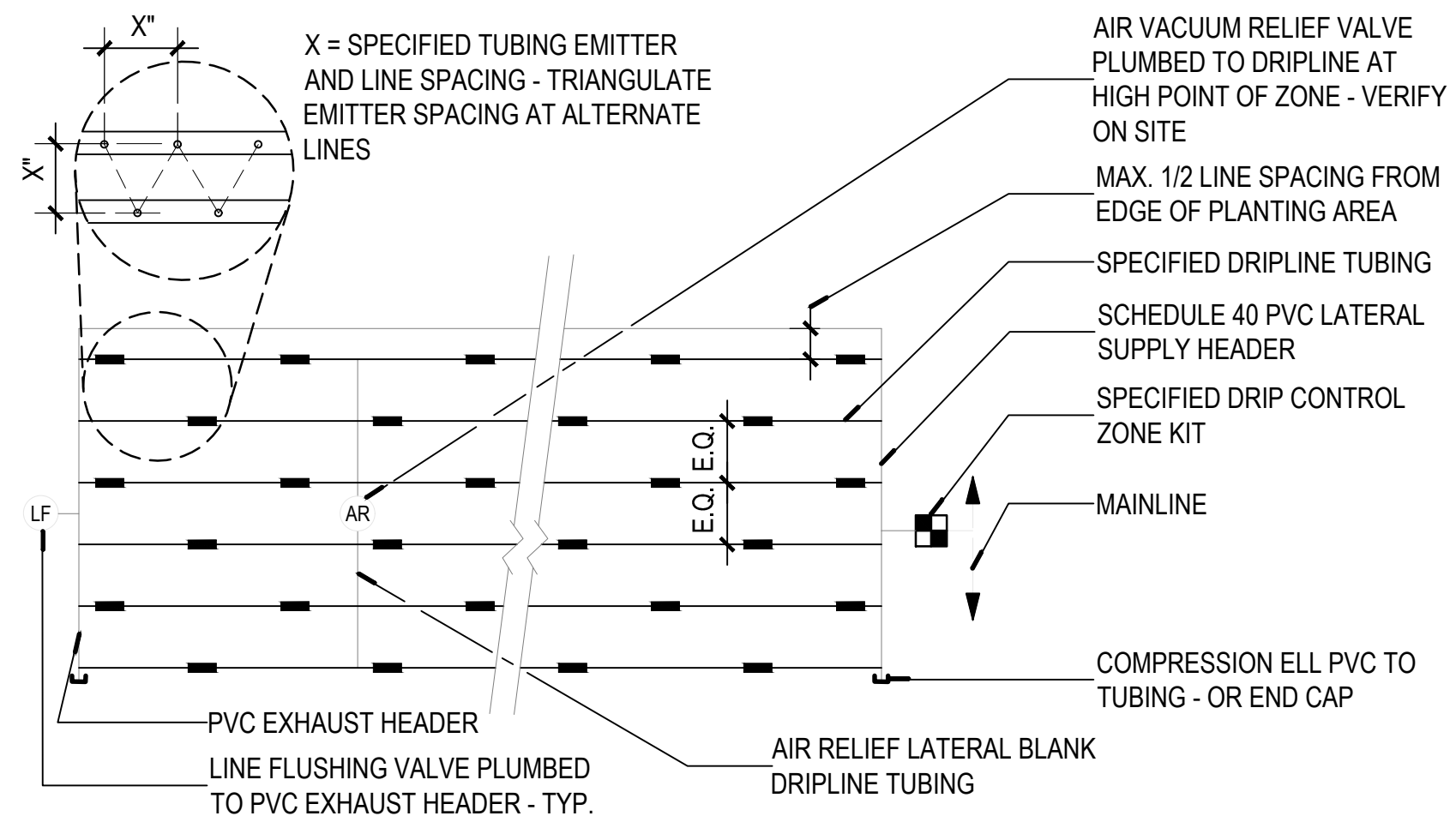
**2** VACUUM RELIEF VALVE  
SECTION NOT TO SCALE



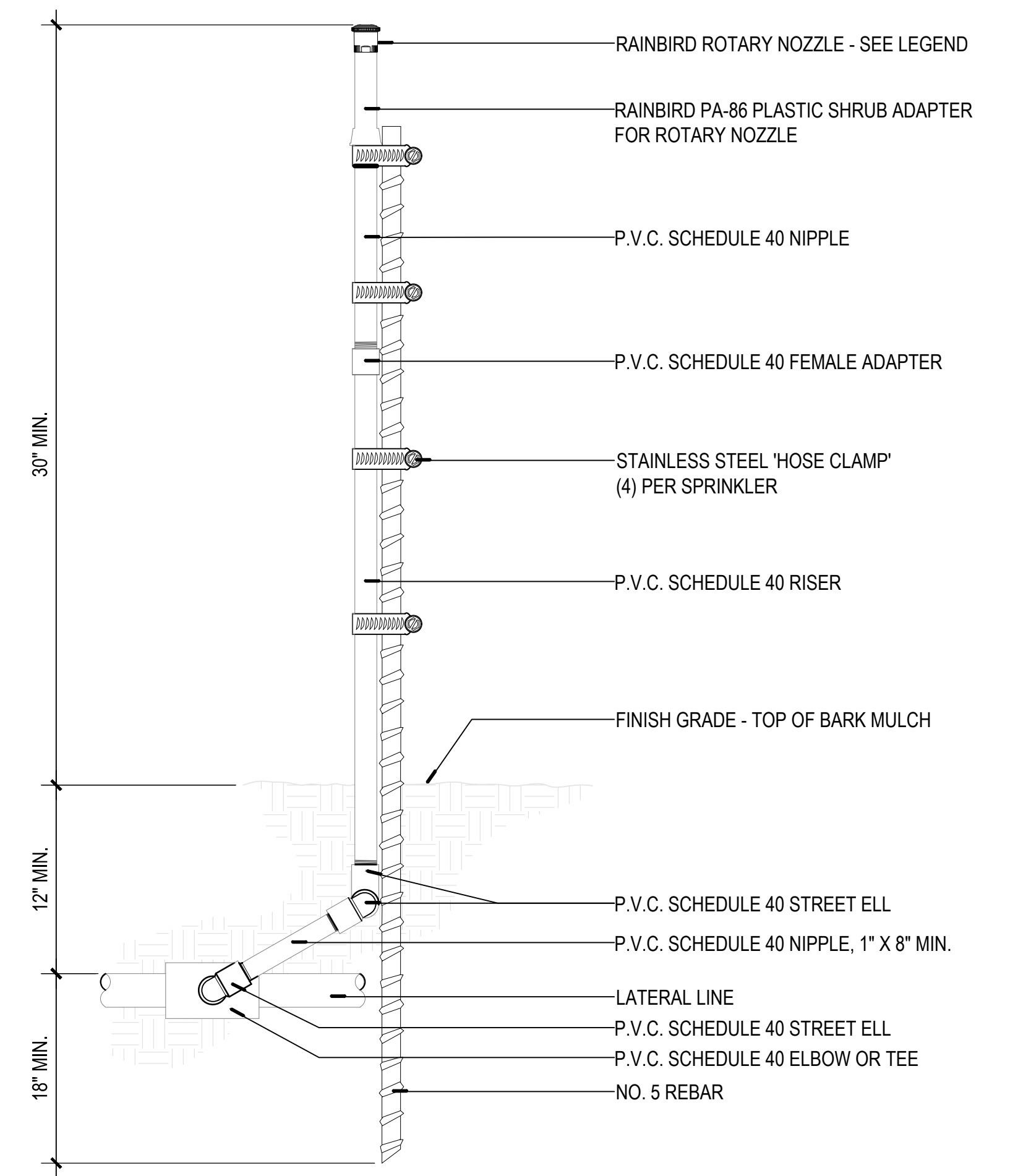
**3** DRIPLINE AROUND TREE  
TYPE NOT TO SCALE



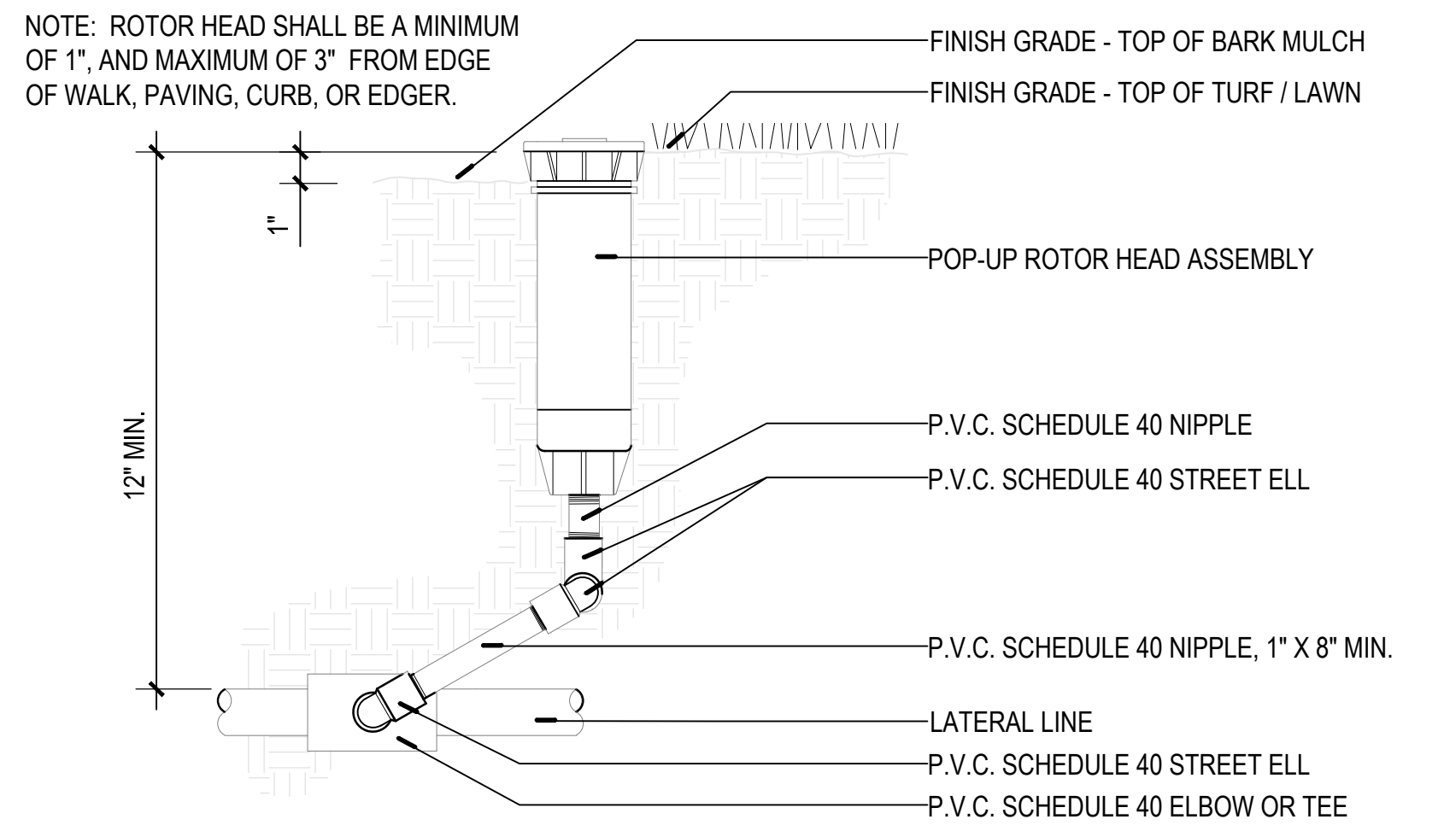
**4** LANDSCAPE DRIPLINE ON GRADE  
SECTION NOT TO SCALE



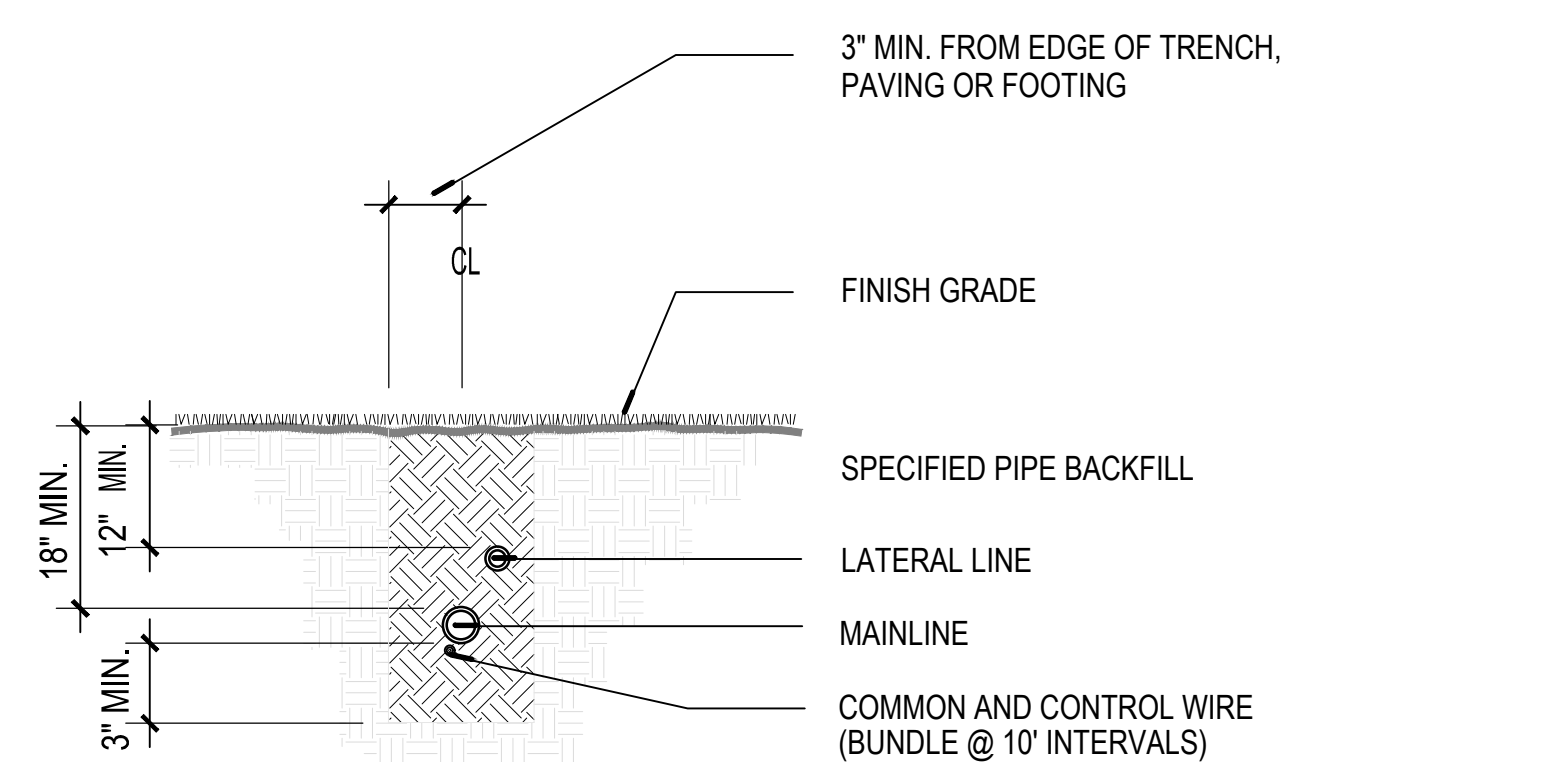
**5** INLINE EMITTER TUBING INSTALLATION  
SECTION



**8** TEMPORARY IRRIGATION ROTARY NOZZLE - PVC SWING JOINT ASSEMBLY  
SECTION NOT TO SCALE

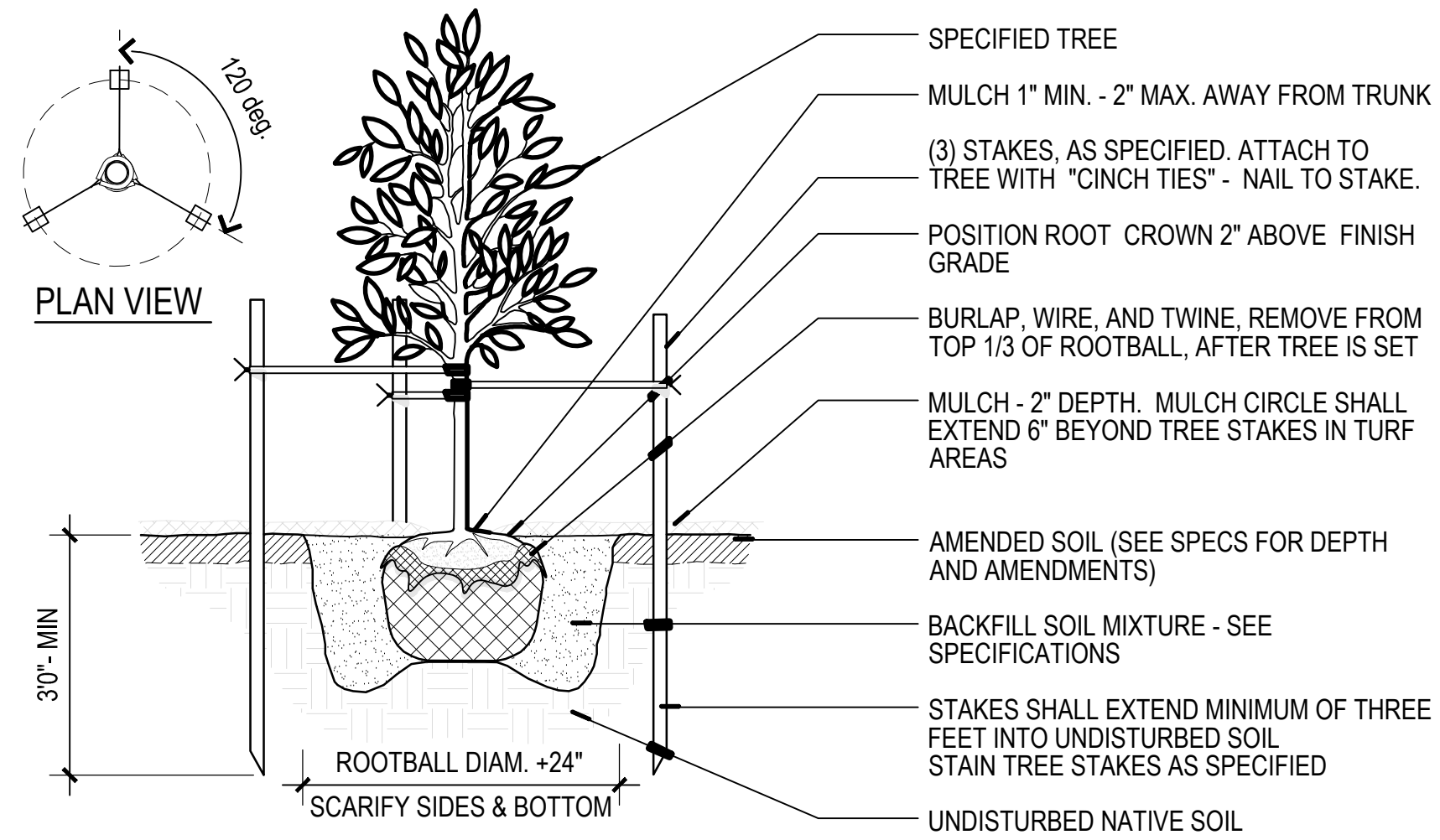


**6** ROTOR HEAD - PVC SWING JOINT ASSEMBLY  
SECTION NOT TO SCALE

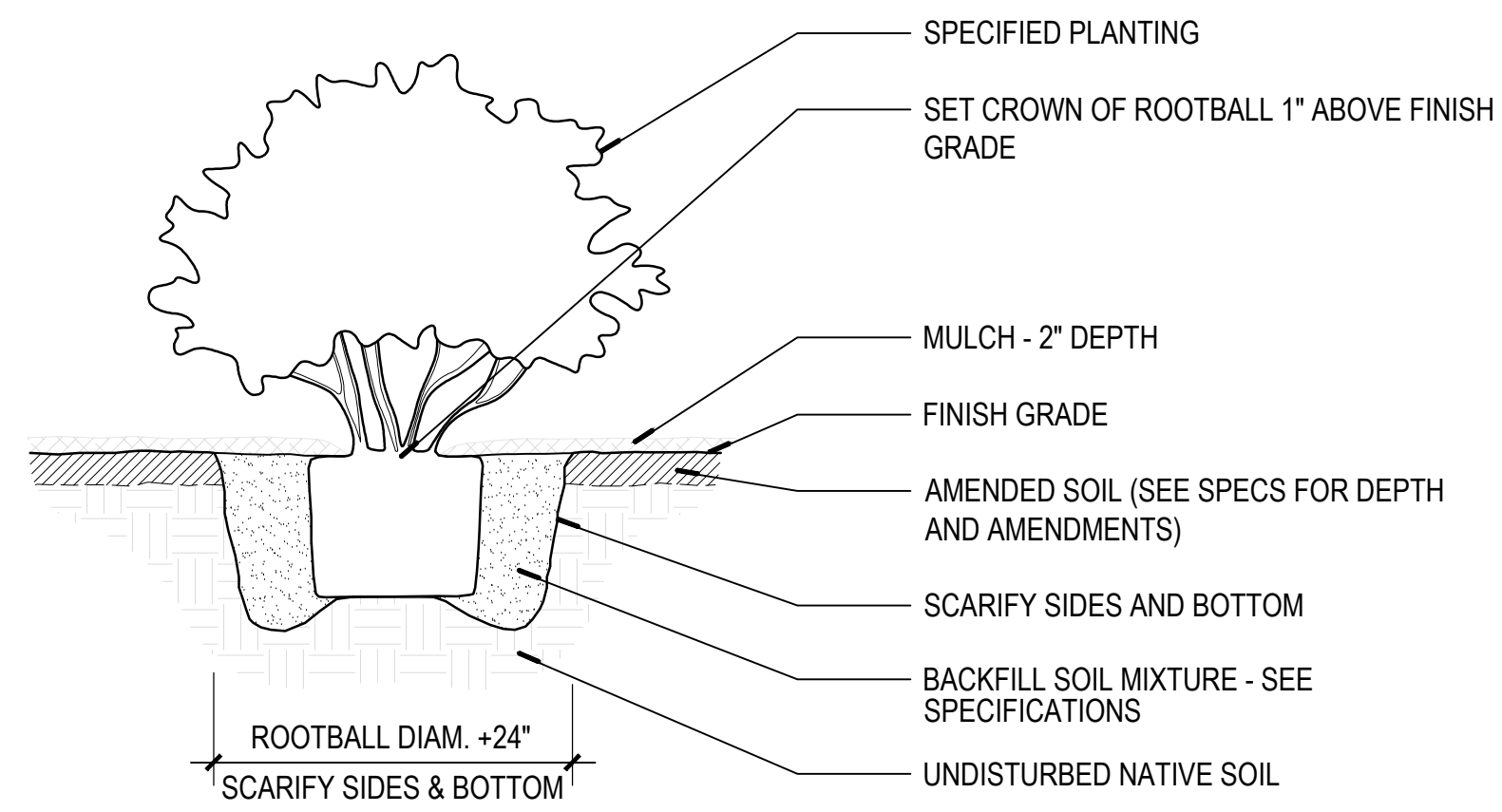
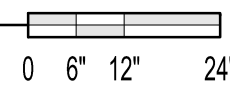


**7** TRENCHING IN PLANTING AREA  
SECTION

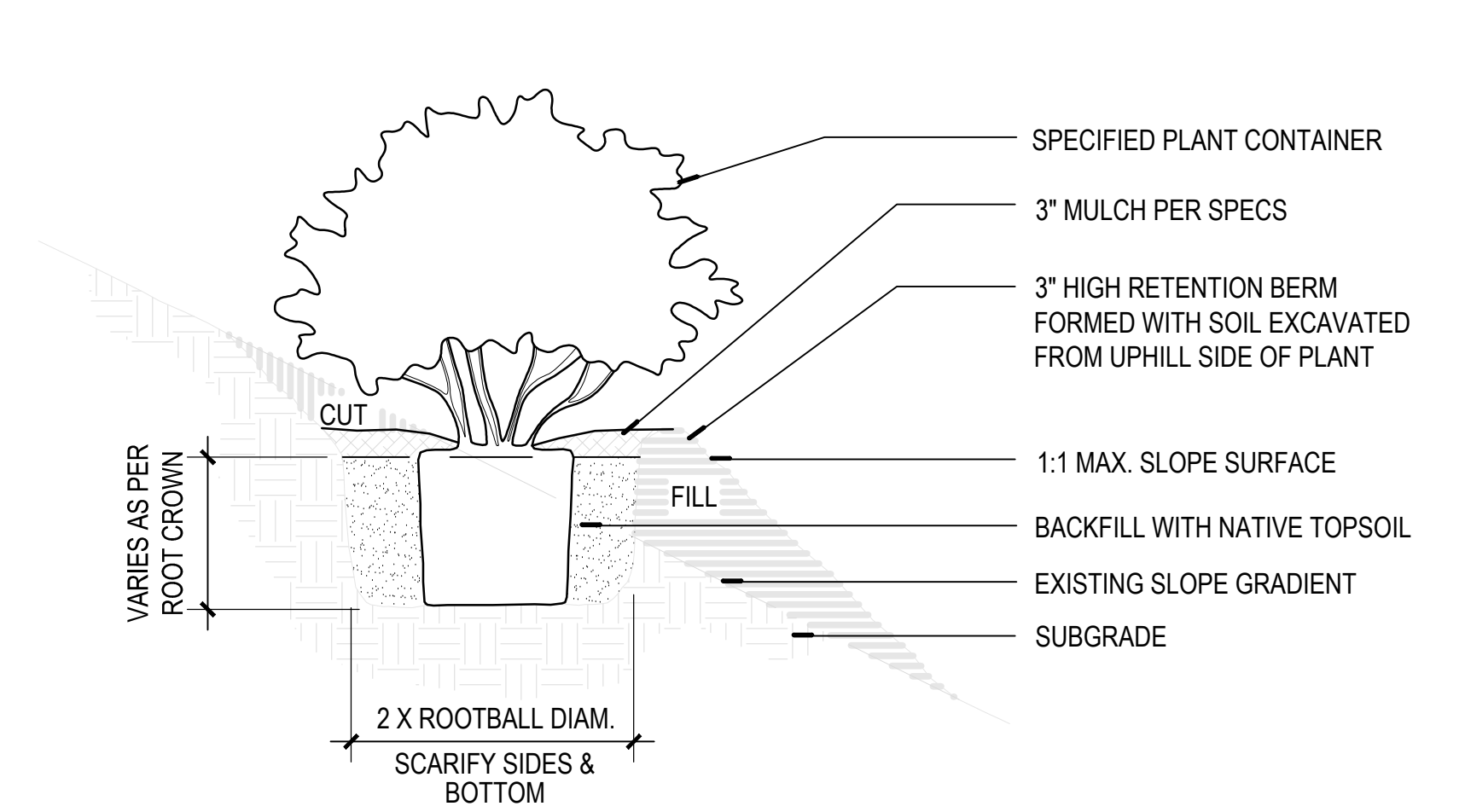
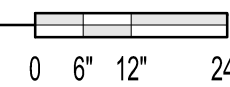
- NOTES:
1. CONTRACTOR SHALL REPAIR TRENCH SETTLEMENT AND RESTORE FINISH GRADES.



**1** DECIDUOUS TREE PLANTING - STAKING

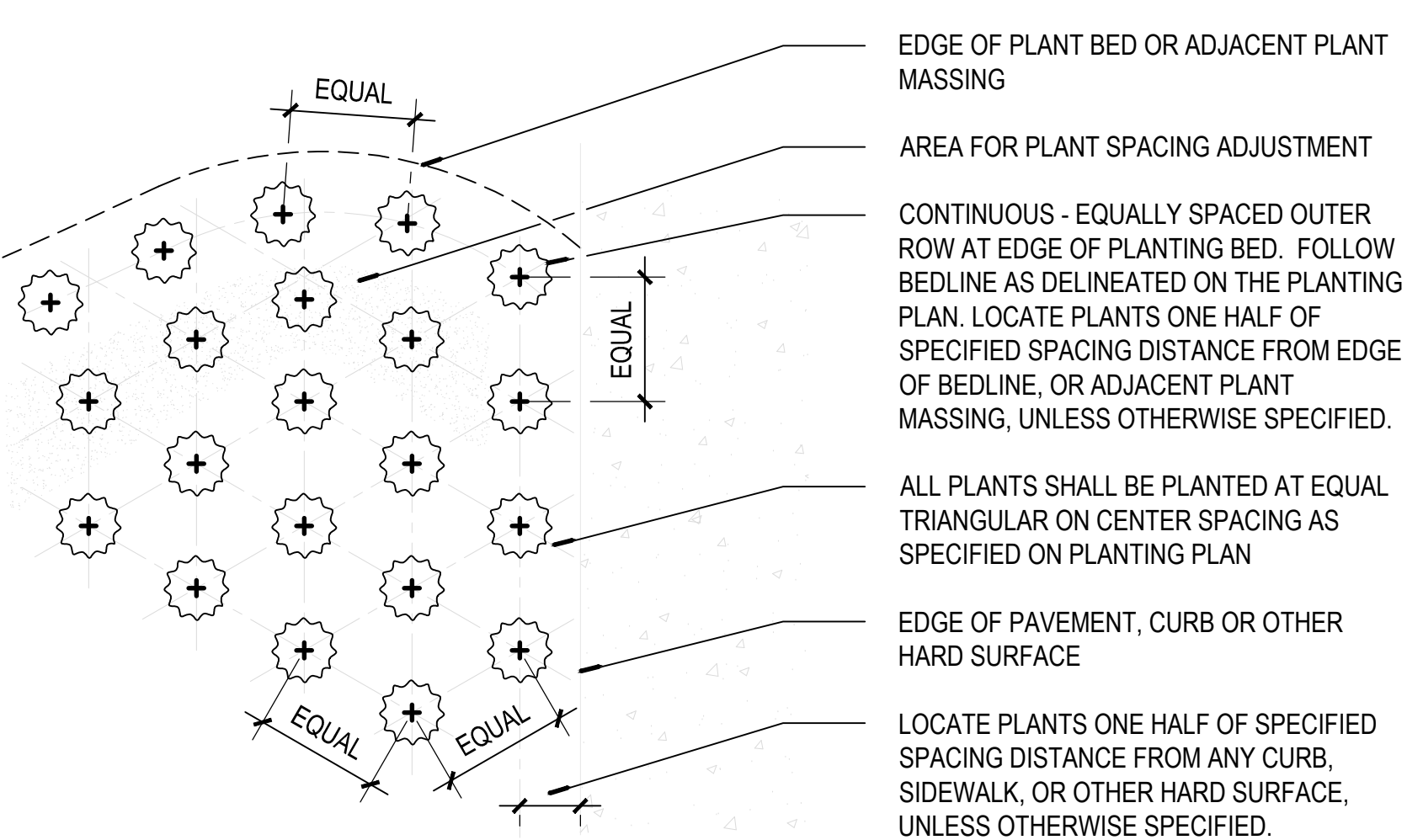


**2** SHRUB PLANTING - CONTAINER



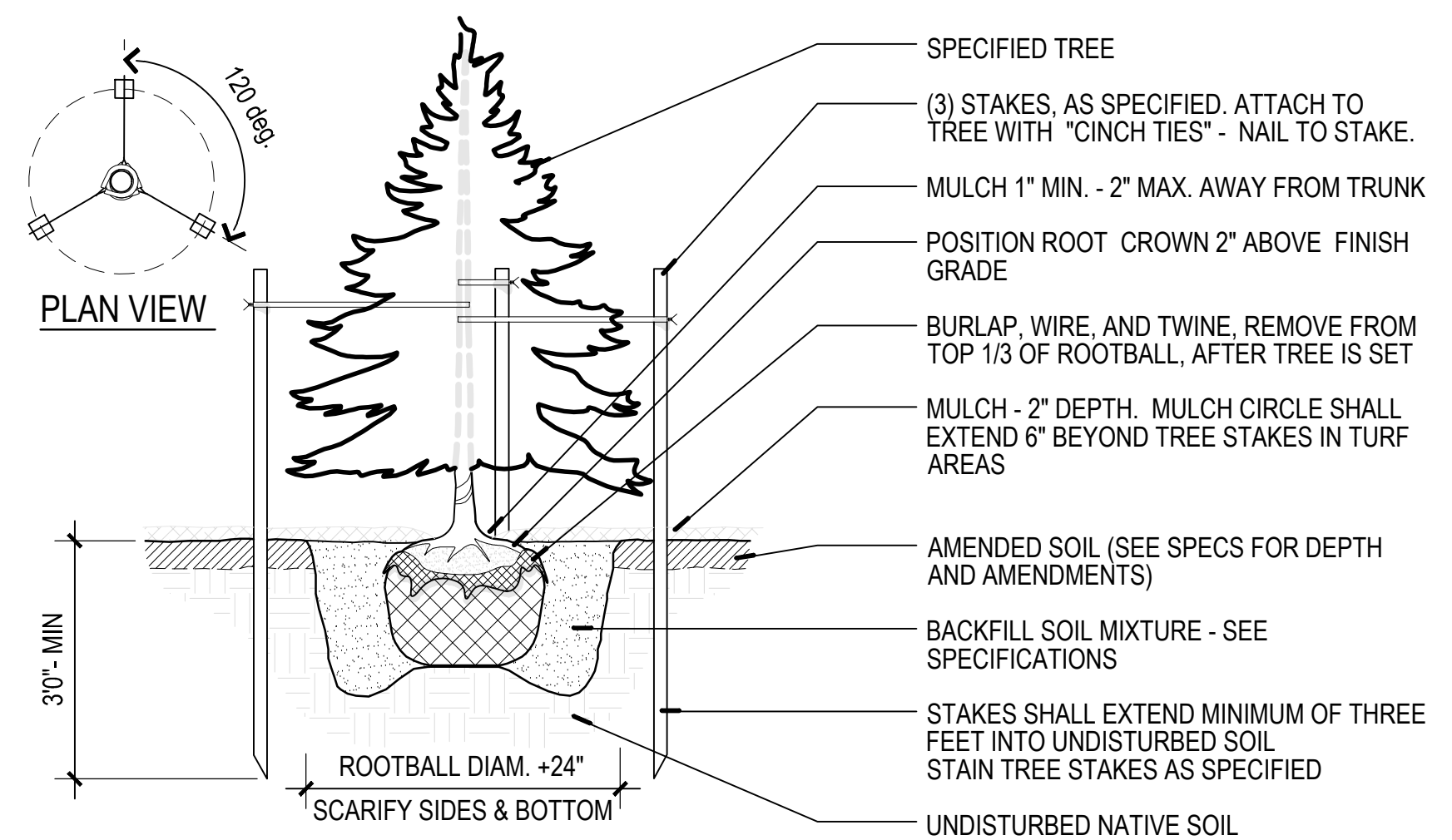
**3** CONTAINER PLANTING ON SLOPES

NOT TO SCALE



**4** GROUNDCOVER PLANTING

NOT TO SCALE

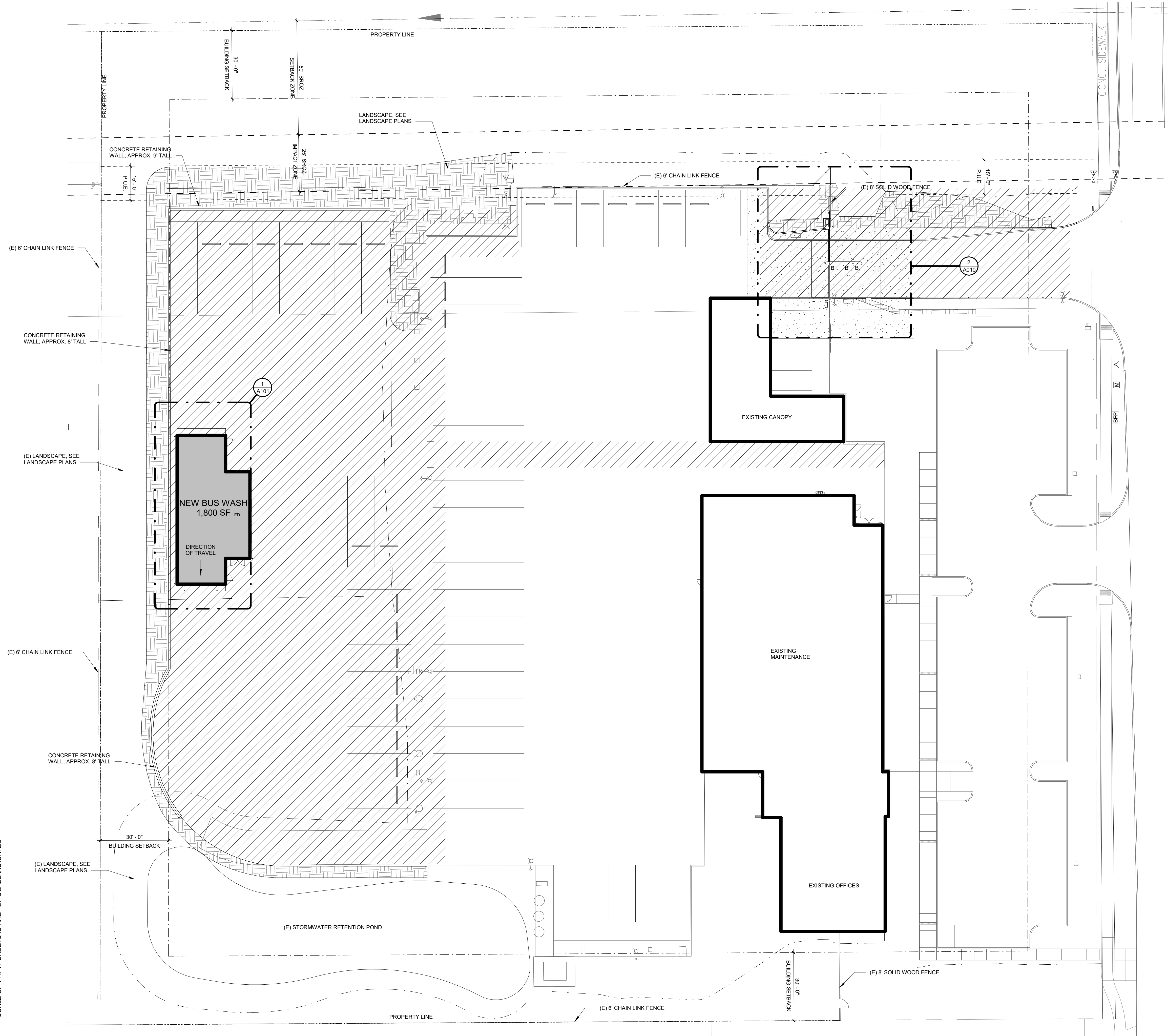


**5** CONIFER TREE PLANTING - STAKING



REVISIONS:

#	DESCRP.	DATE
REV 1		Date 1



**GENERAL NOTES - SITE PLAN**

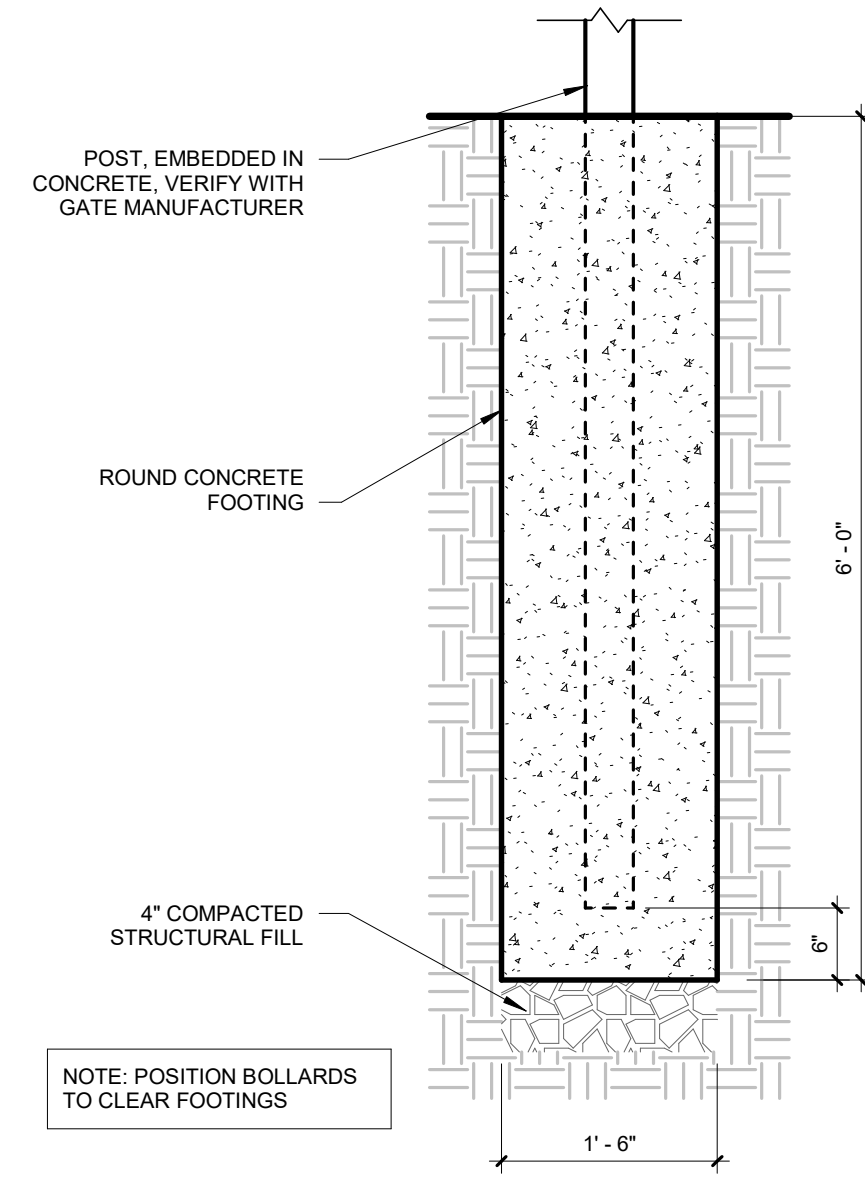
- A. VERIFY GRADES AT EXISTING FENCE AT NORTHEAST CORNER. COORDINATE FENCE LAYOUT WITH ARCHITECT.
- B. COORDINATE GRADES OF CONCRETE RETAINING WALL WITH THOSE SHOWN ON CIVIL AND STRUCTURAL PLANS.

**LEGEND**

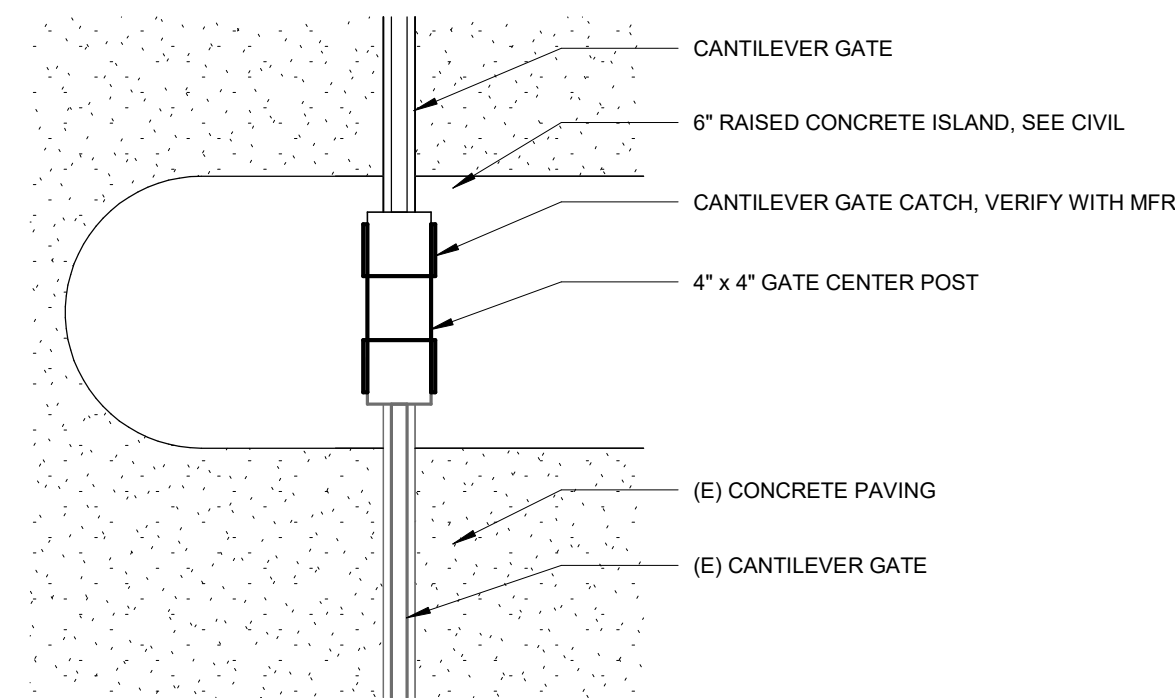
- NEW BUILDING
- EXISTING BUILDING
- PROJECT AREA
- PAVEMENT, SEE CIVIL
- LANDSCAPE, SEE LANDSCAPE
- POLE LIGHT - SEE ELECTRICAL
- AREA DRAIN - SEE CIVIL
- (E) FIRE HYDRANT
- ELECTRICAL VAULT - SEE ELECTRICAL
- TREES
- FENCING
- PROPERTY LINE
- WORK LIMIT
- BOLLARDS
- BACKFLOW PREVENTER VAULT, SEE CIVIL
- WATER METER SEE CIVIL
- EXISTING TREES

NAME	PROPOSED (SF)	PROPOSED COVERAGE (%)	TOTAL (SF)	TOTAL COVERAGE (%)
BUILDING AREA	1,800	1%	17,207	9%
PARKING AND DRIVES	30,730	16%	96,760	50%
LANDSCAPE	8,040	4%	78,033	41%
<b>TOTAL AREA</b>			<b>192,000</b>	<b>100%</b>

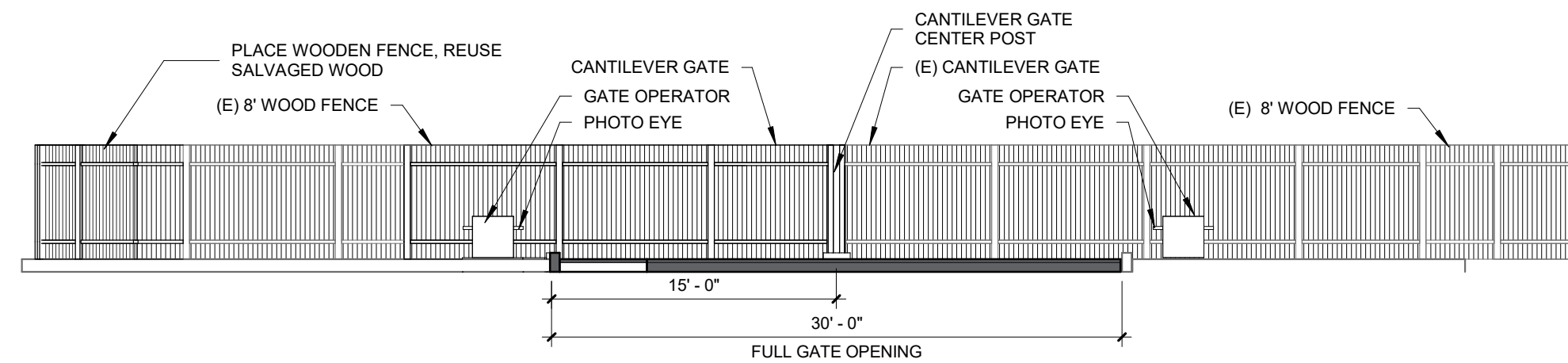
**1 SITE PLAN**  
3/64" = 1'-0"



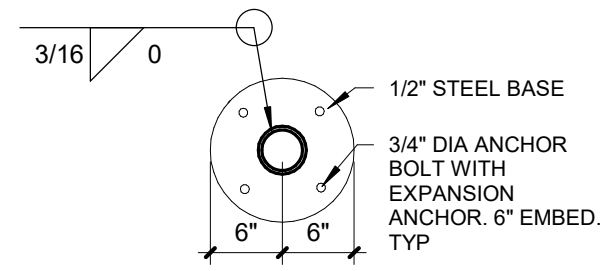
**7 FOOTING AT VEHICULAR GATE POST**  
3/4" = 1'-0"



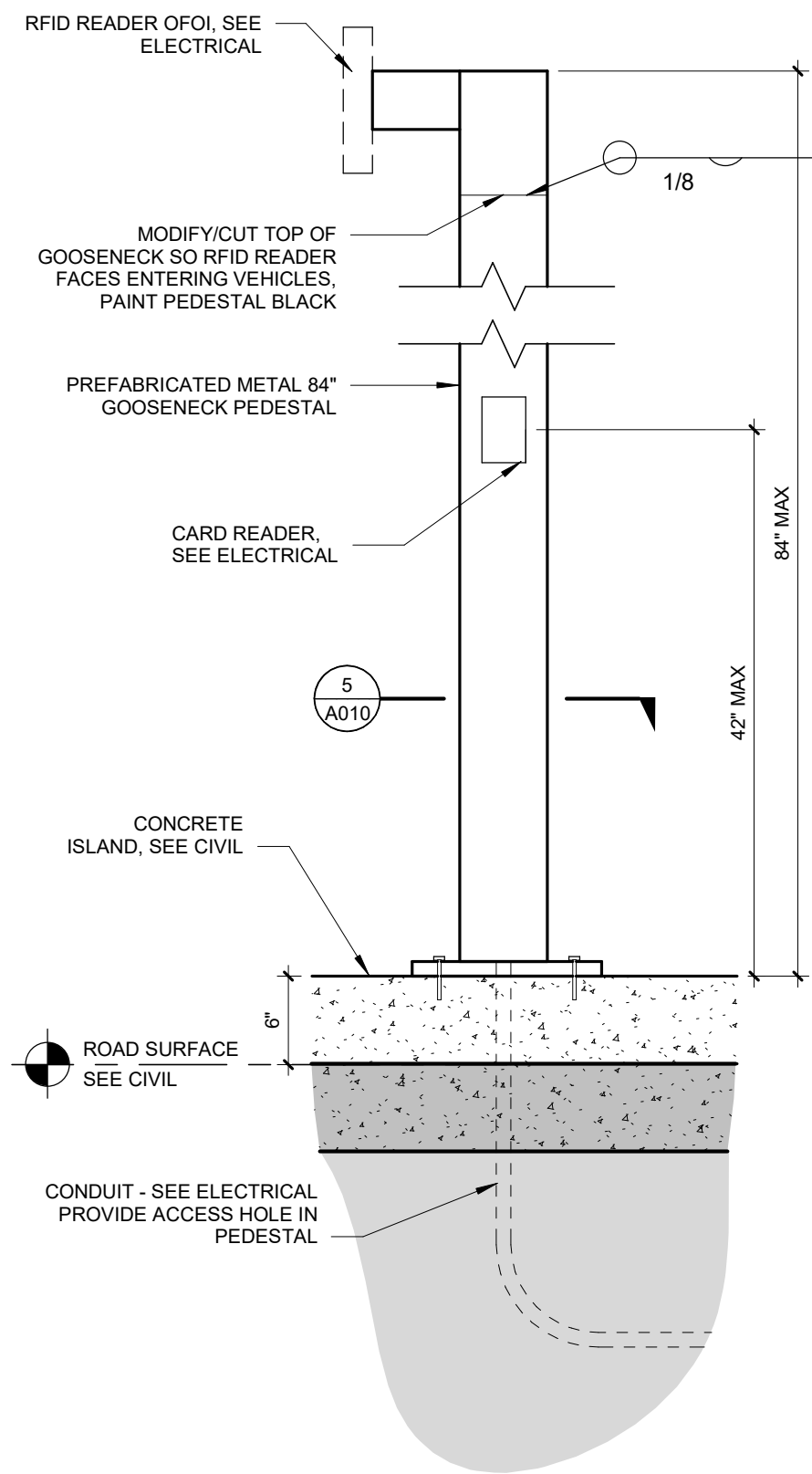
**6 CANTILEVER GATE CENTER POST**  
1" = 1'-0"



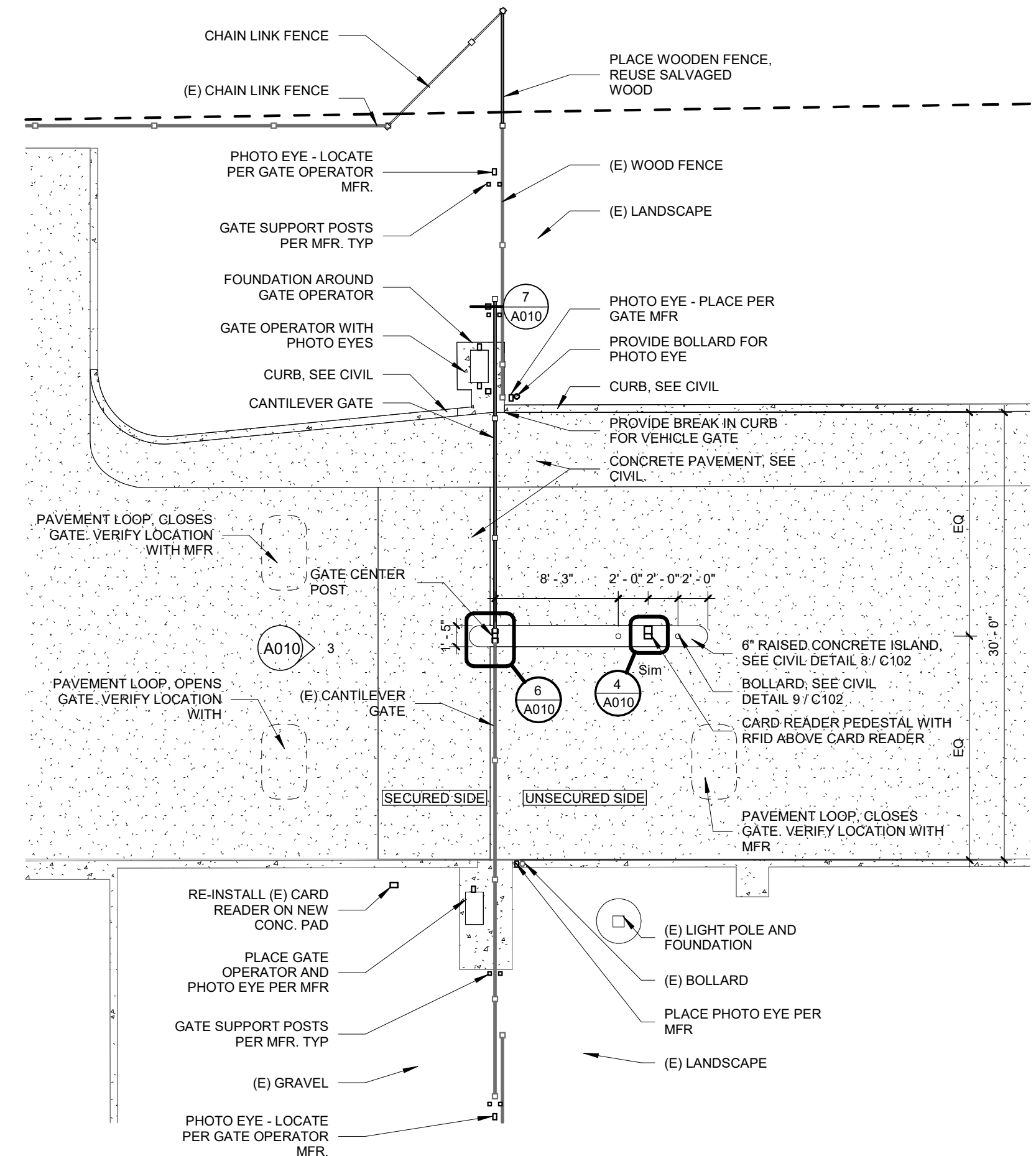
**3 GATE ELEVATION**  
1/8" = 1'-0"



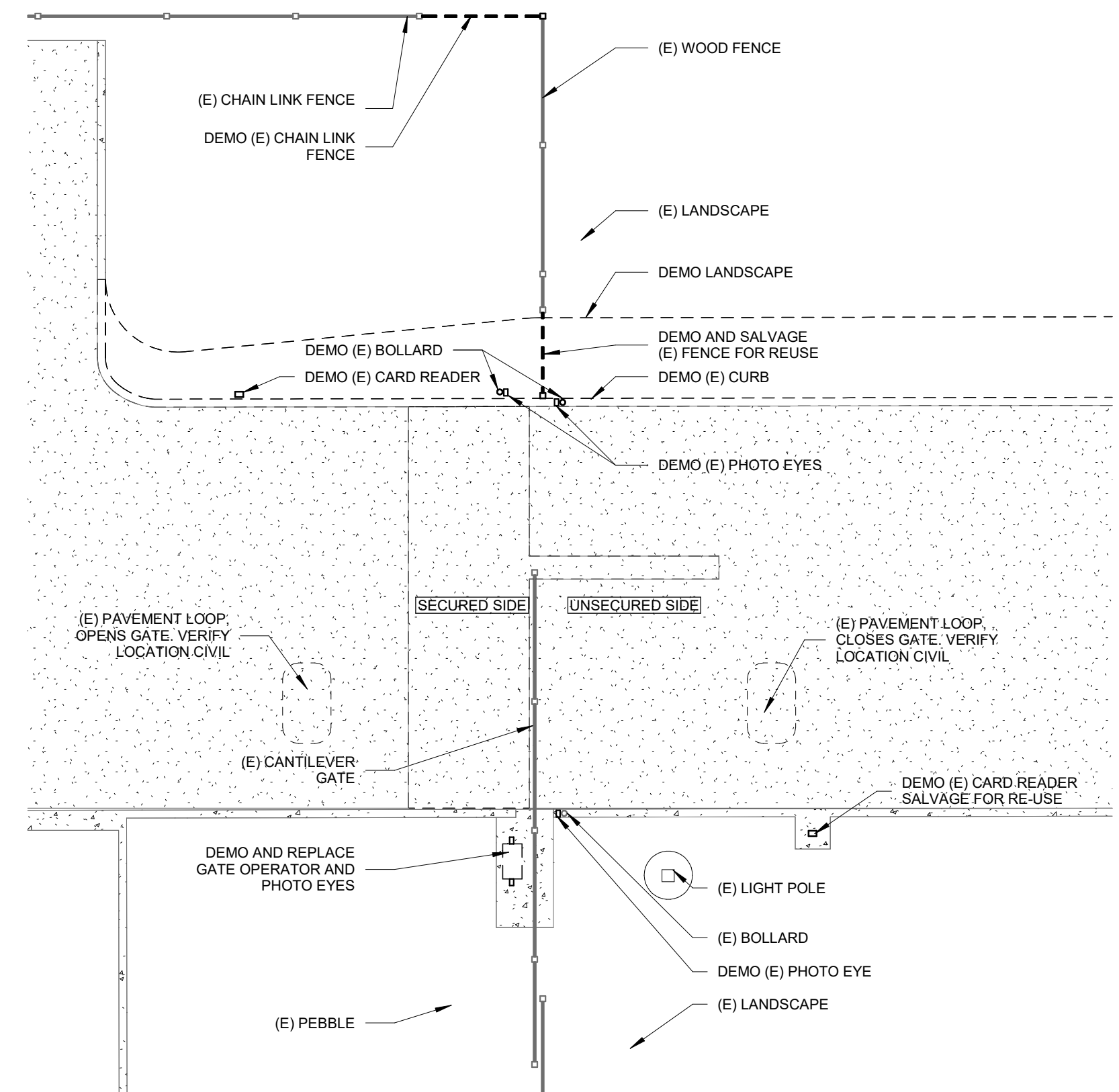
**5 CARD READER PEDESTAL PLAN**  
3/4" = 1'-0"



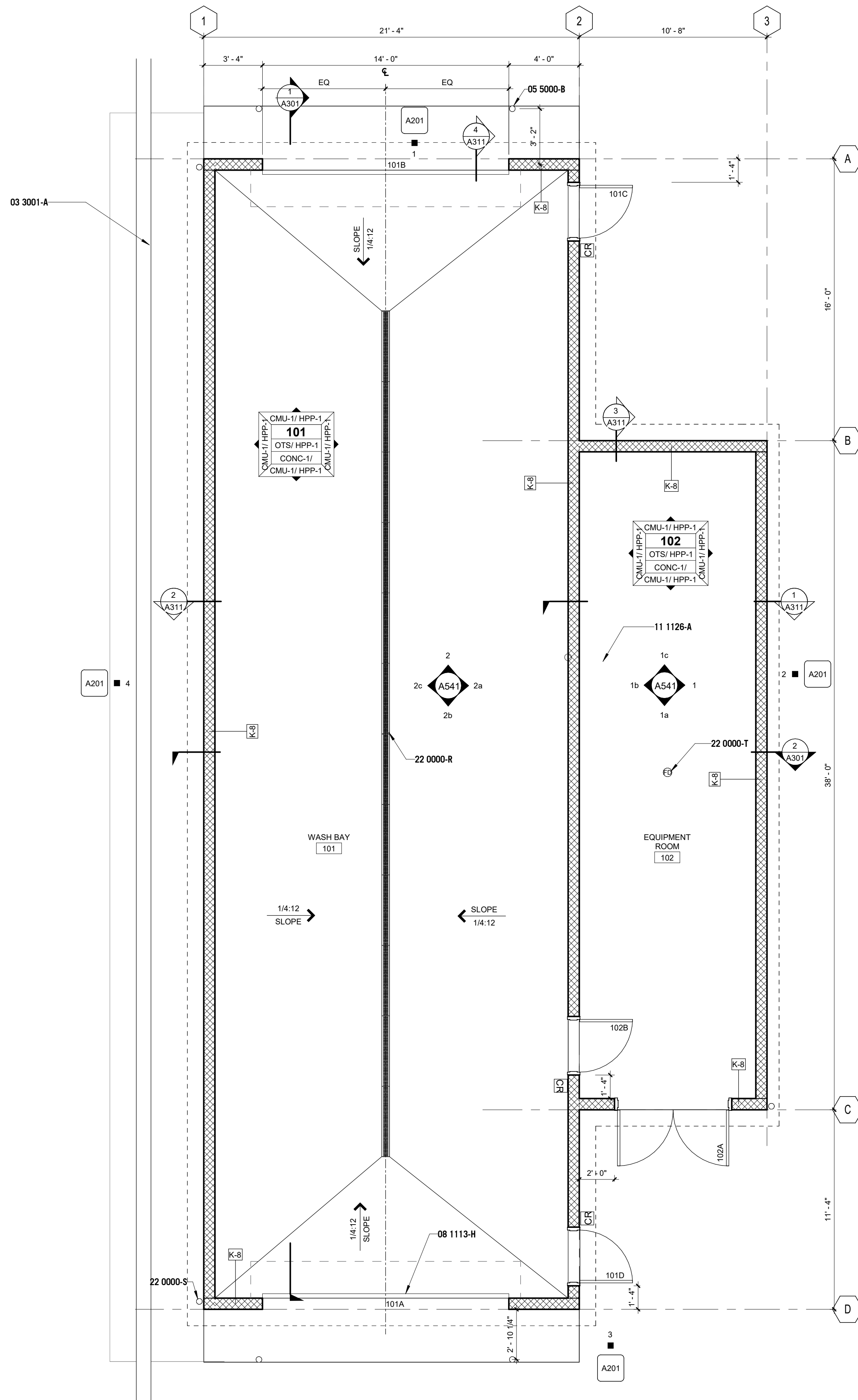
**4 CARD READER PEDESTAL**  
1" = 1'-0"



**2 NEW SLIDING GATE**  
1/8" = 1'-0"



**1 DEMO SLIDING GATE**  
1/8" = 1'-0"



**1 FIRST FLOOR PLAN**  
1/4" = 1'-0"

**GENERAL NOTES - FLOOR PLANS**

- A. DIMENSIONS SHOWN ARE TO THE FACE OF STUD, CONCRETE, OR MASONRY UNLESS OTHERWISE NOTED. CONTACT THE ARCHITECT FOR ANY ADDITIONAL DIMENSIONS REQUIRED TO LAY OUT THE WORK.
- B. MASONRY DIMENSIONS ARE THE ACTUAL MASONRY UNIT SIZES UNLESS OTHERWISE NOTED.
- C. REFER TO WALL ASSEMBLY INFORMATION FOR WALL CONSTRUCTION AND THICKNESS.
- D. ALL EXISTING AND NEW WALLS, AND GYP. BD. CEILINGS IN WORK AREAS TO BE PAINTED.
- E. REPAIR PATCHED SURFACES THAT ARE DAMAGED, LIFTED, DISCOLORED, OR SHOWING OTHER IMPERFECTIONS DUE TO PATCHING WORK. IF DEFECTS ARE DUE TO CONDITION OF SUBSTRATE, REPAIR SUBSTRATE PRIOR TO REPAIRING FINISH.
- F. REFERENCE PROJECT MANUAL, ARCHITECTURAL PLANS, AND STRUCTURAL DRAWINGS FOR LOCATIONS OF CONTROL AND EXPANSION JOINTS.
- G. STRUCTURAL FOUNDATIONS AND FOOTINGS SHOWN ONLY FOR COORDINATION. REFER TO STRUCTURAL DRAWINGS FOR SIZE AND DETAILS.
- H. COORDINATE LOCATION OF ALL UNDERSLAB UTILITIES WITH ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, AND PLUMBING PLANS.

**00 KEYNOTES - SPECIFICATION**

- 03 3001-A RETAINING WALL, SEE STRUCTURAL
- 05 5000-B BOLLARD
- 08 1113-H COILING DOOR
- 11 1126-A WASH EQUIPMENT, SEE EQUIPMENT DRAWINGS.
- 22 0000-R TRENCH DRAIN, SEE PLUMBING.
- 22 0000-S DOWNSPOT, SEE PLUMBING
- 22 0000-T FLOOR DRAIN, SEE PLUMBING

**ROOM FINISH AND MATERIALS LEGEND**

ABBV.	DESCRIPTION
CMU-1	TITLE SPECIFICATION: TYPE: MANUFACTURER: STYLE: COLOR: INSTALLATION: PRODUCT SIZE:
HPP-1	HIGH PERFORMANCE PAINT SPECIFICATION: TYPE: MANUFACTURER: STYLE: COLOR: INSTALLATION: PRODUCT SIZE:
CONC-1	CONCRETE SEALER SPECIFICATION: TYPE: MANUFACTURER: STYLE: COLOR: INSTALLATION: PRODUCT SIZE:

**GENERAL NOTES - WALL TYPES**

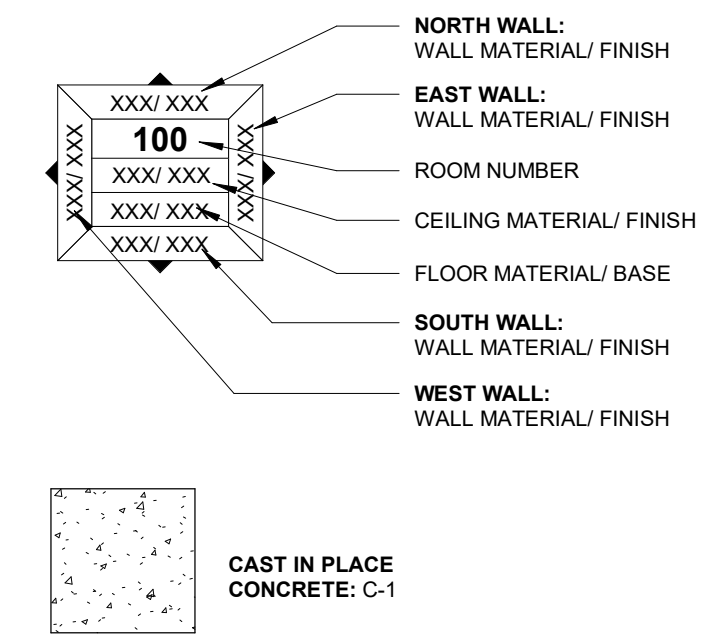
- 1. THERE ARE TWO SYMBOL DESIGNATION SYSTEMS USED. THE FIRST SYSTEM CONSISTS OF TWO AND THREE CHARACTERS. THE FIRST CHARACTER IS A LETTER INDICATING THE PARTITION TYPE. THE SECOND CHARACTER IS NUMERIC INDICATING THE STUD OR CMU WIDTH. REFER TO LEGEND BELOW. THIS SYSTEM IS USED TO DEFINE WALL TYPES: A, B, C, D, E, F, H, J, K, M, N, P
- 2. "LINE OF STRUCTURE" INDICATED FOR EACH PARTITION IS DIAGRAMMATIC ONLY AND DOES NOT INDICATE EXACT CONSTRUCTION CONDITIONS OR GEOMETRY.
- 3. ALL DIMENSIONS ON THIS SHEET ARE FROM FACE OF GYPSUM BOARD TO FACE OF GYPSUM BOARD. REFER TO PARTITION MATRICES FOR PARTITION WIDTH DIMENSIONS UNLESS INDICATED TO BE SHOWN ON PLAN.
- 4. NON-RATED PARTITIONS AND NON-RATED SMOKE RESISTANT PARTITIONS SHALL USE ACOUSTICAL SEALANT.
- 5. REFER TO SPECIFICATIONS FOR MINIMUM STUD THICKNESS, MAXIMUM SPACING AND ALLOWABLE LIMITING HEIGHTS DEFLECTION CRITERIA FOR GYPSUM BOARD ASSEMBLIES.
- 6. REFER TO STRUCTURAL DRAWINGS FOR REINFORCING INFORMATION.
- 7. MASONRY REINFORCEMENT: REFERENCE STRUCTURAL DRAWINGS.

NUMERIC CHARACTER	STUD WIDTH	CMU WIDTH
1	1 5/8"	
2	2 1/2"	
3	3 5/8"	
4	4"	3 5/8"
6	6"	5 5/8"
8	8"	7 5/8"
10		9 5/8"
12		11 5/8"

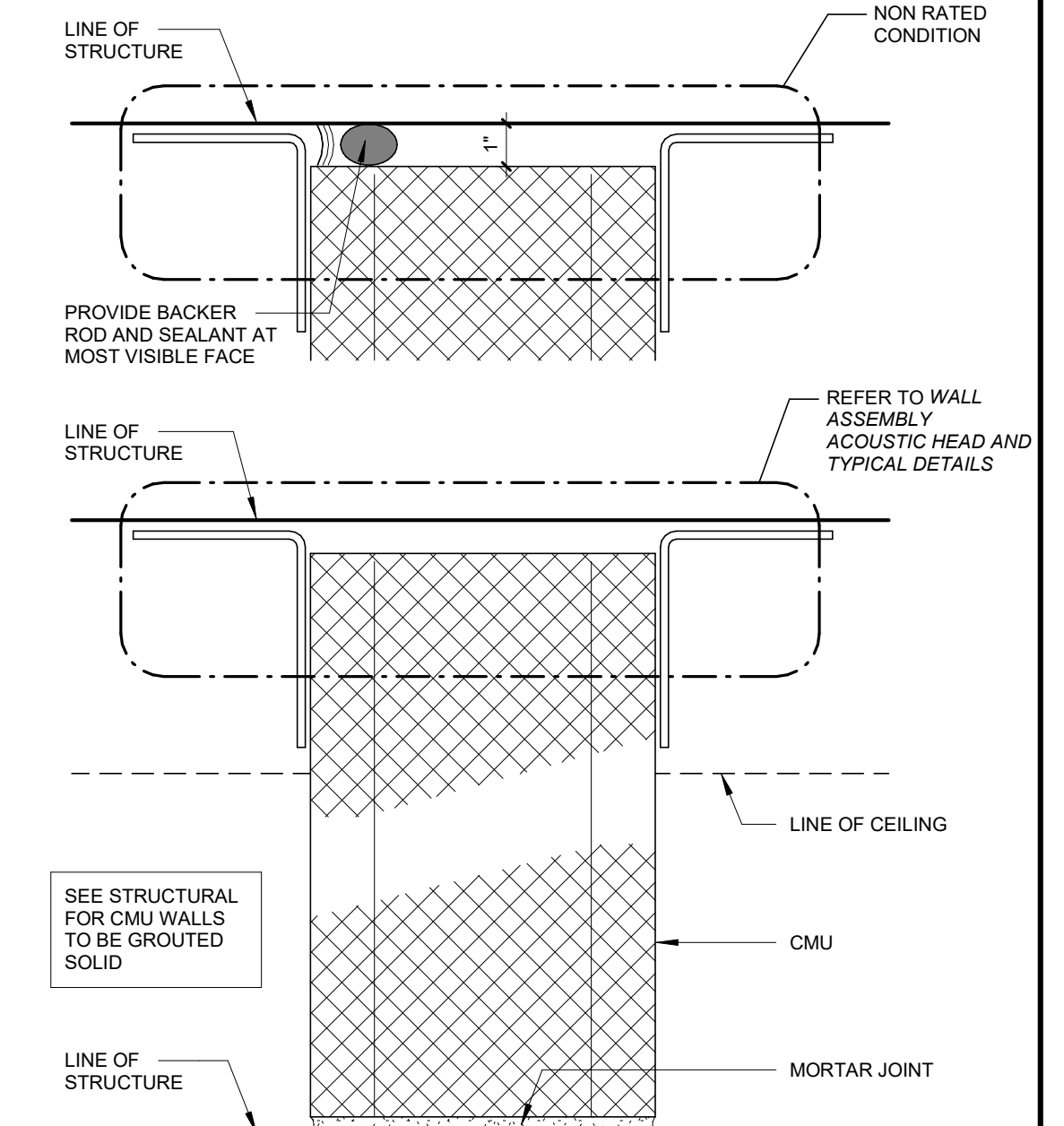
**GENERAL NOTES - FINISH SCHEDULE**

A WHERE "VARIES" SEE INTERIOR ELEVATION.

**FINISH PLAN LEGEND**



**TYPE "K"**

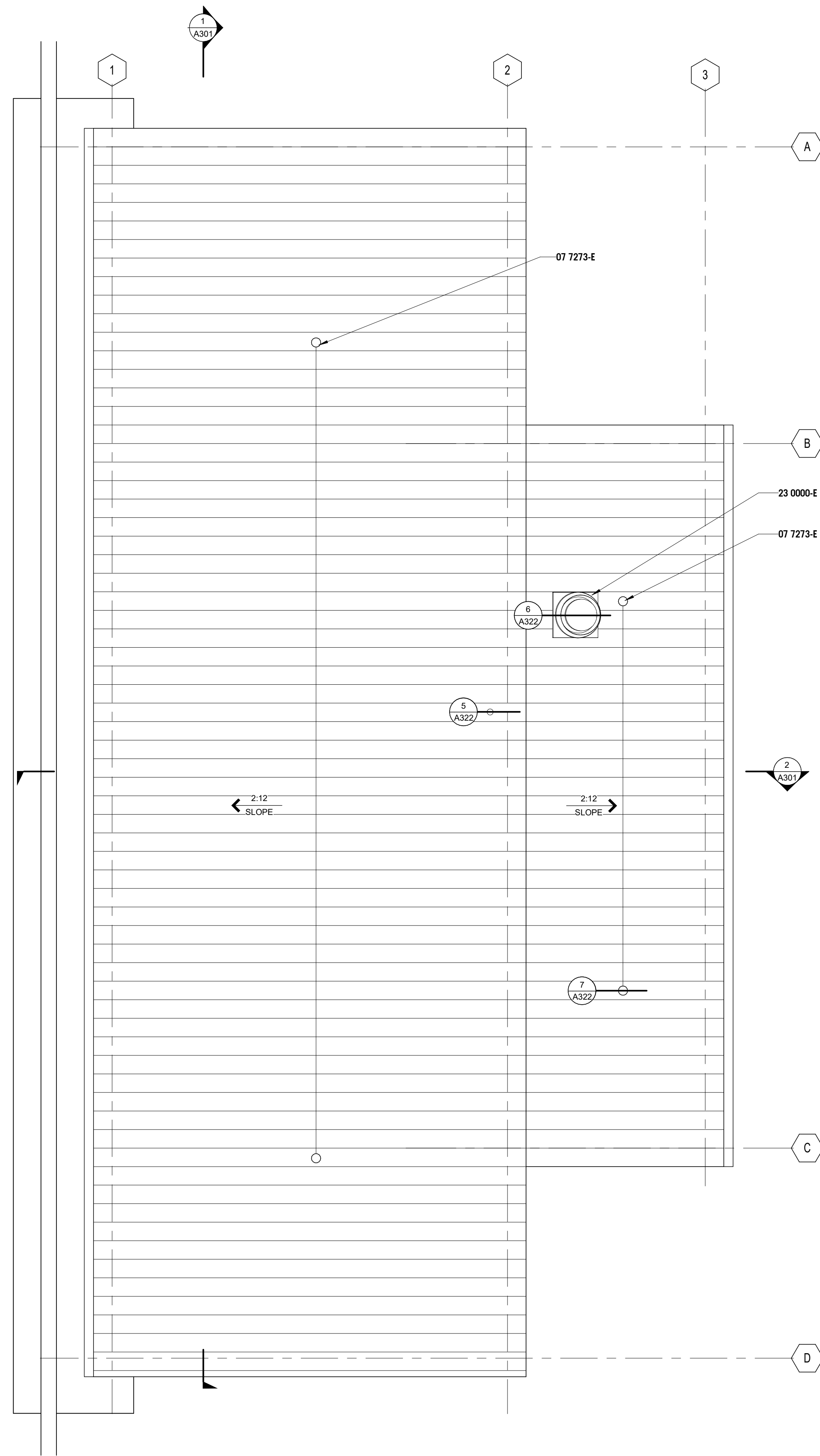


NON RATED	CMU WIDTH	PART WIDTH	UL LISTING	SOUND TRANS CLASS	REMARKS
[K-8]	7 5/8"	7 5/8"	N/A	45 55	GROUT FILLED STC 55

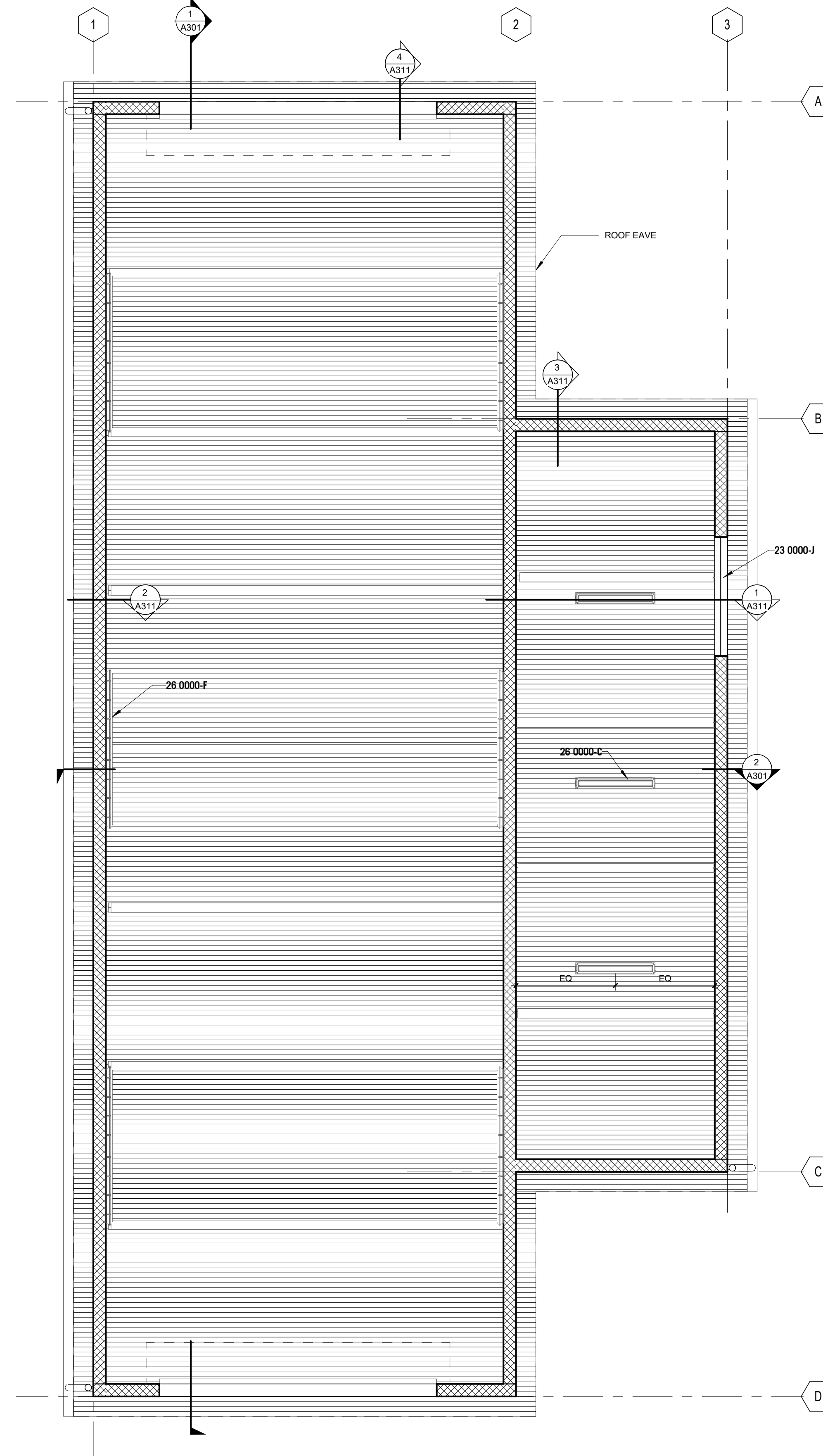


REVISIONS:

#	DESCRP.	DATE
ADD-2		07.08.24



**2 ROOF PLAN**  
1/4" = 1'-0"



**1 REFLECTED CEILING PLAN - FIRST FLOOR**  
1/4" = 1'-0"

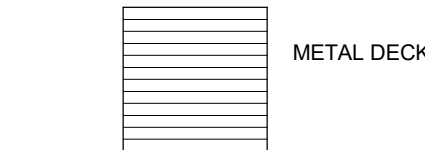
**GENERAL NOTES - REFLECTED CEILING PLAN**

- A. SEE MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS FOR ADDITIONAL CEILING INFORMATION
- B. ALL CEILING HEIGHTS SHOWN ARE FROM FINISHED FLOOR UNLESS NOTED OTHERWISE
- C. ALL DIMENSIONS FROM FACE OF STUD OR MASONRY WALL UNLESS NOTED OTHERWISE
- D. PAINT INTERIOR OF ALL EXPOSED METAL DECK AND ROOF FRAMING UNLESS OTHERWISE NOTED.
- E. SLOPED CEILING SURFACES SHOWN IN PLAN VIEW WILL APPEAR LESS THAN TRUE LENGTH. SEE SECTIONS AND DETAILS FOR ACTUAL DIMENSIONS.

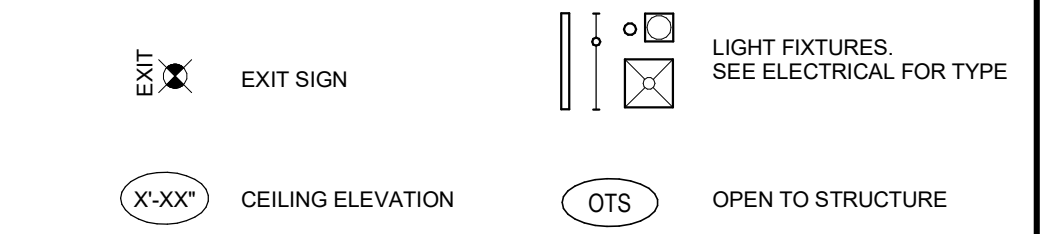
**00 KEYNOTES - SPECIFICATION**

- 07 7273-E FALL PROTECTION SYSTEM, SEE STRUCTURAL FOR ANCHORAGE
- 23 0000-E ROOF EXHAUST VENT, SEE MECHANICAL
- 23 0000-J LOUVER, SEE MECHANICAL
- 26 0000-C LIGHT, SEE ELECTRICAL
- 26 0000-F WALL MOUNTED LIGHT, SEE ELECTRICAL

**CEILING MATERIAL LEGEND**



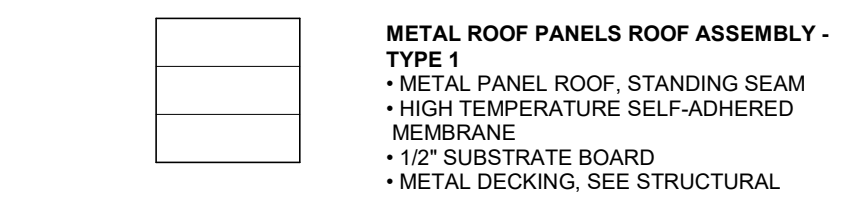
**CEILING SYMBOLS**



**GENERAL NOTES - ROOF PLANS**

- A. REFER TO MECHANICAL ELECTRICAL AND PLUMBING DRAWINGS FOR SIZE AND LOCATIONS OF ALL THROUGH ROOF PENETRATIONS, FLASH NEW PENETRATIONS TO ROOF IN ACCORDANCE WITH ROOFING MANUFACTURER'S STANDARD DETAILS
- B. FALL ARREST SYSTEM SHOWN IS SCHEMATIC. FINAL SYSTEM MAY VARY BASED ON DESIGN BY THE CONTRACTOR. SEE SPECIFICATIONS FOR DESIGN-BUILD REQUIREMENTS.

**ROOF ASSEMBLY LEGEND**



CONSTRUCTION DOCUMENTS - ISSUED FOR BID

S.M.A.R.T. FACILITY IMPROVEMENTS

PROJECT #: 2309.00

CITY OF WILSONVILLE

28875 SW BOBENS RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**REFLECTED CEILING PLAN AND ROOF PLAN**

REVISIONS:

#	DESCRP.	DATE

ISSUE DATE: 06.05.2024

A121





EXTERIOR COLOR INFORMATION		
ELEMENT	FINISH	COLOR
CMU-1	WR & AG FACTORY FINISH	CHARCOAL
METAL PANEL		OLD TOWN GRAY

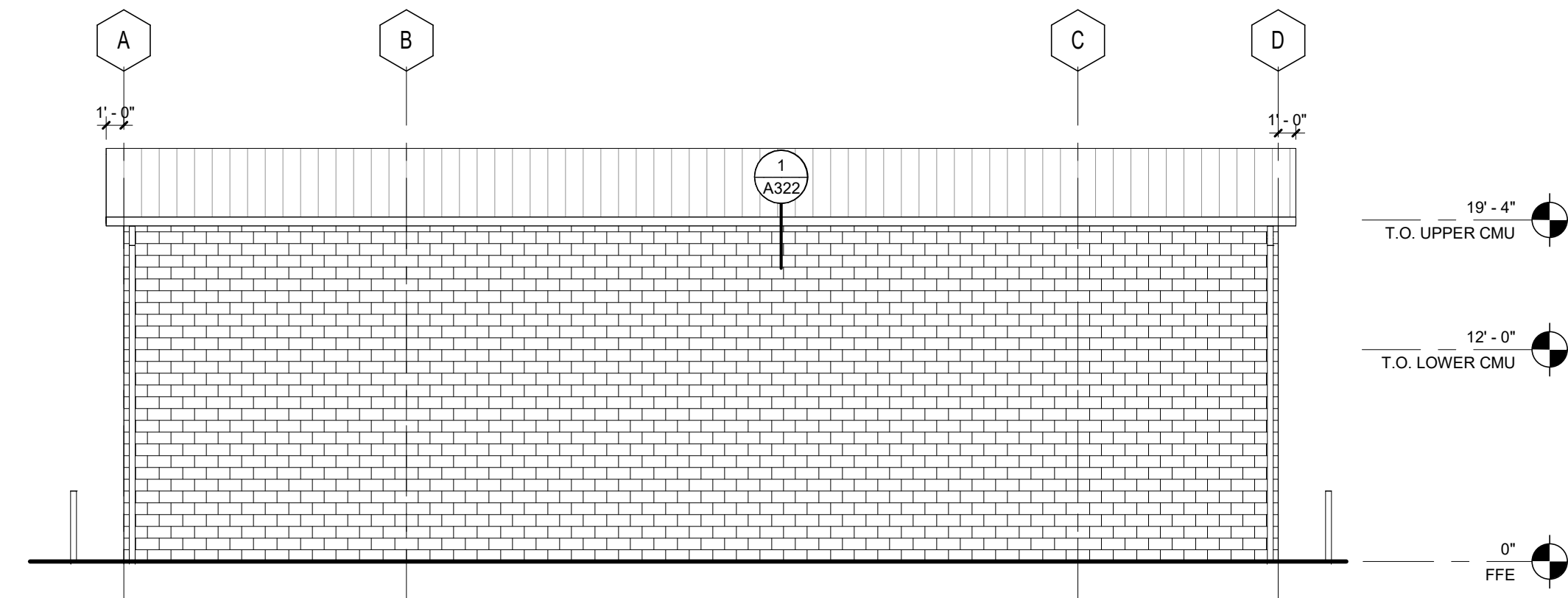
ADD-2



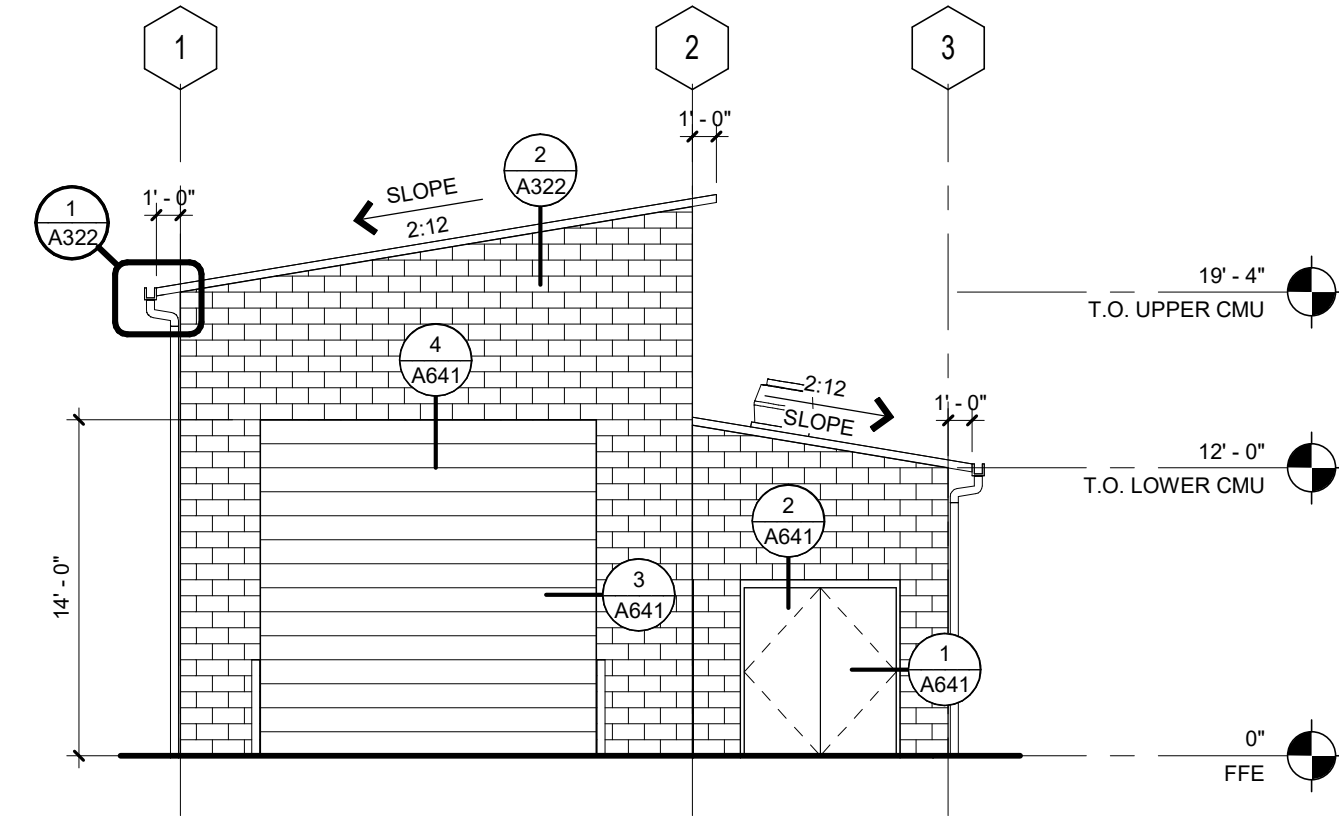
Old Town Gray



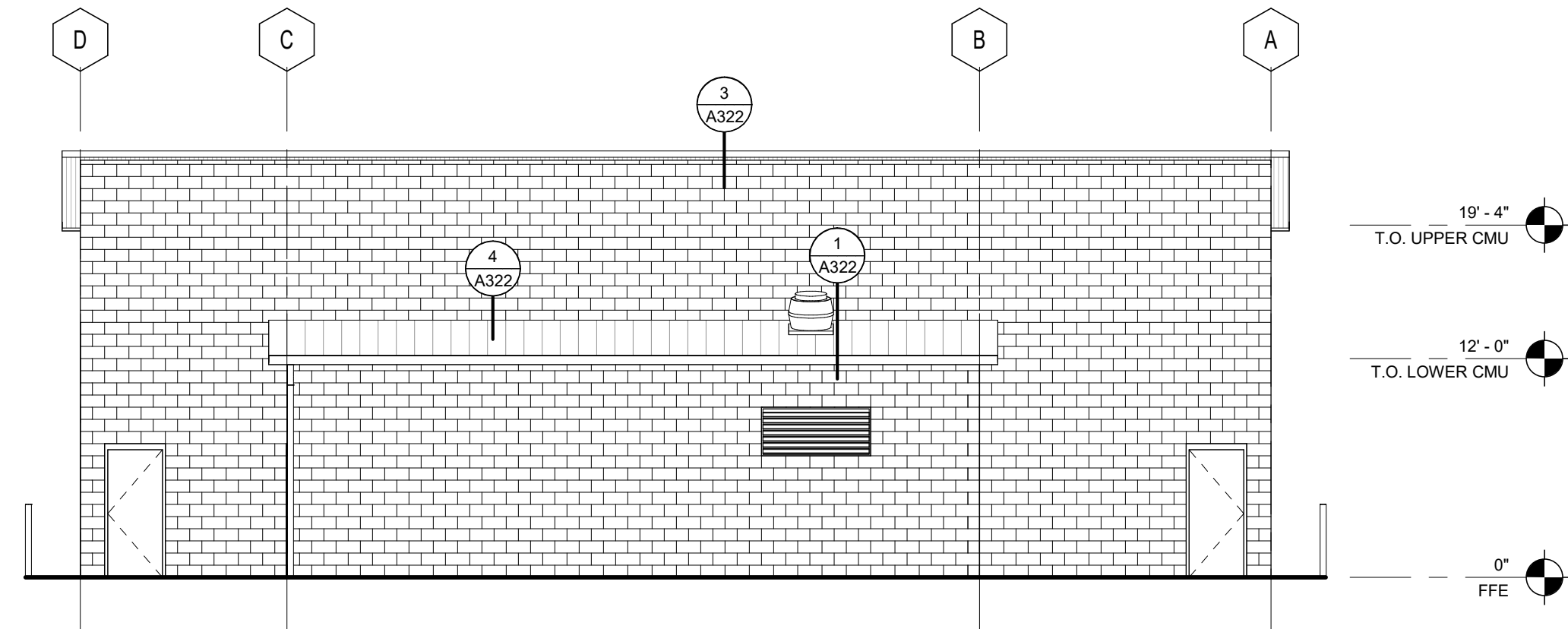
CHARCOAL



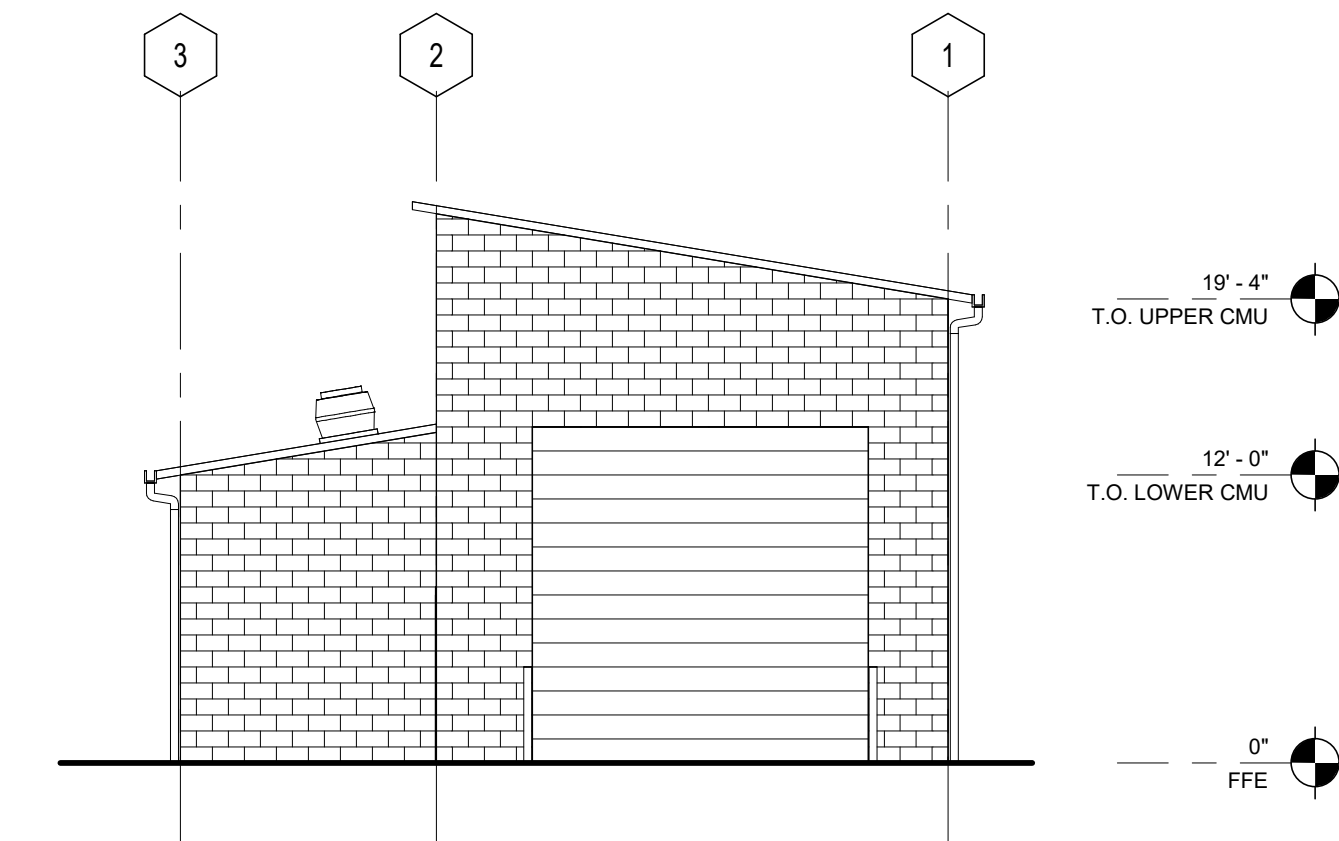
**4 WEST ELEVATION**  
1/8" = 1'-0"



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

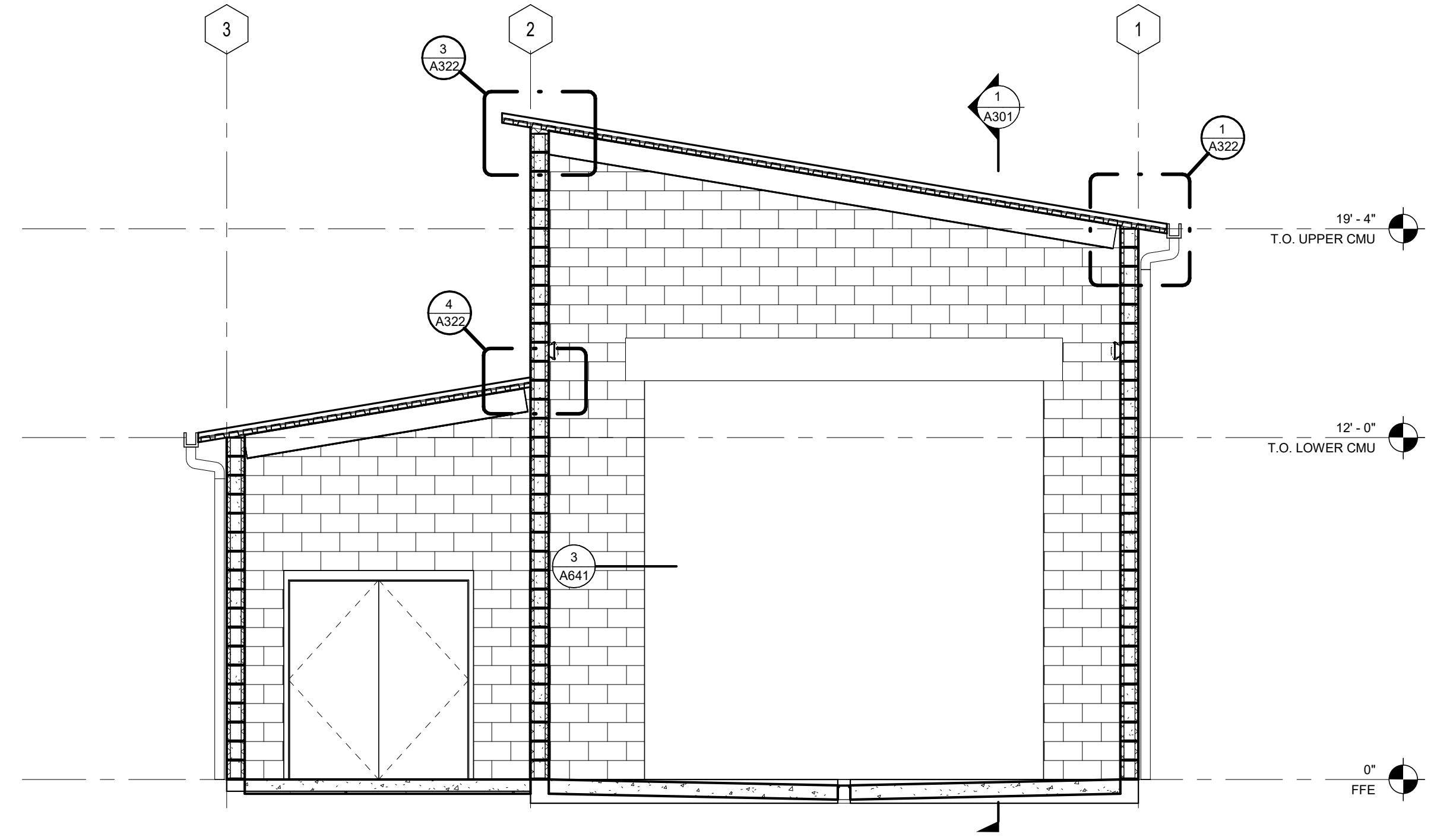


**2 EAST ELEVATION**  
1/8" = 1'-0"

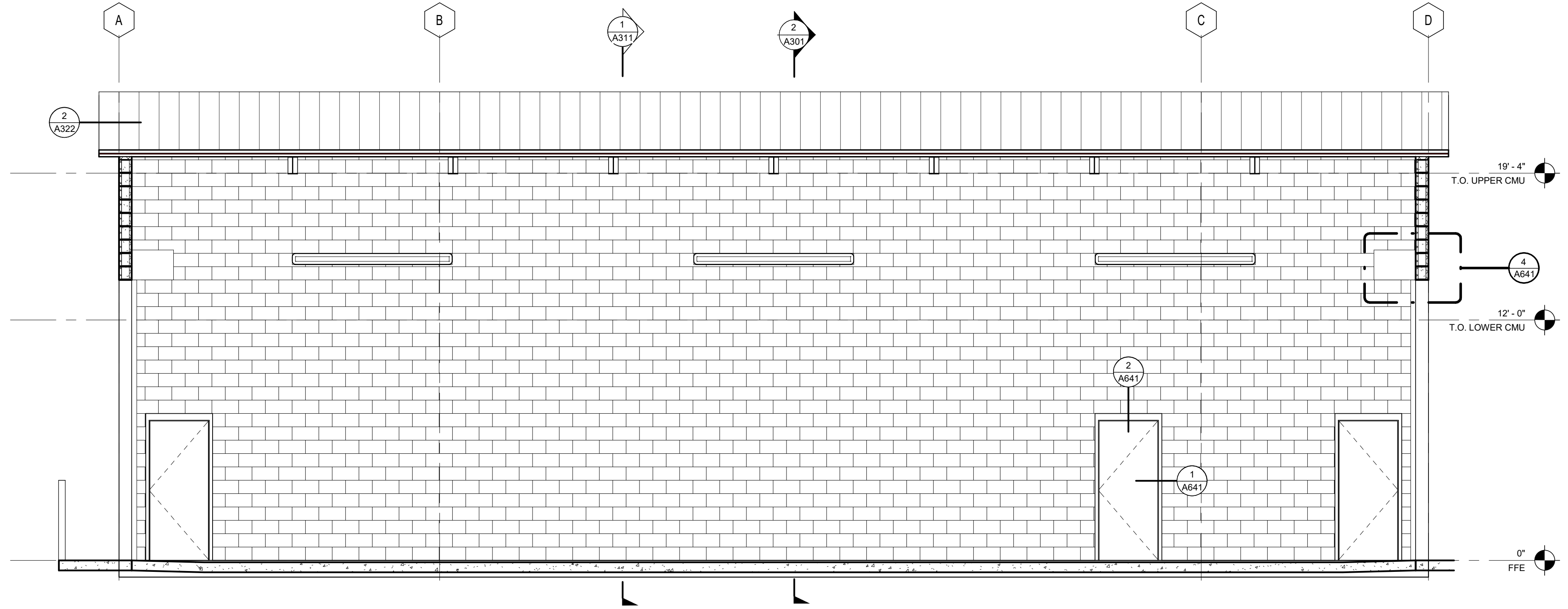


**1 NORTH ELEVATION**  
1/8" = 1'-0"

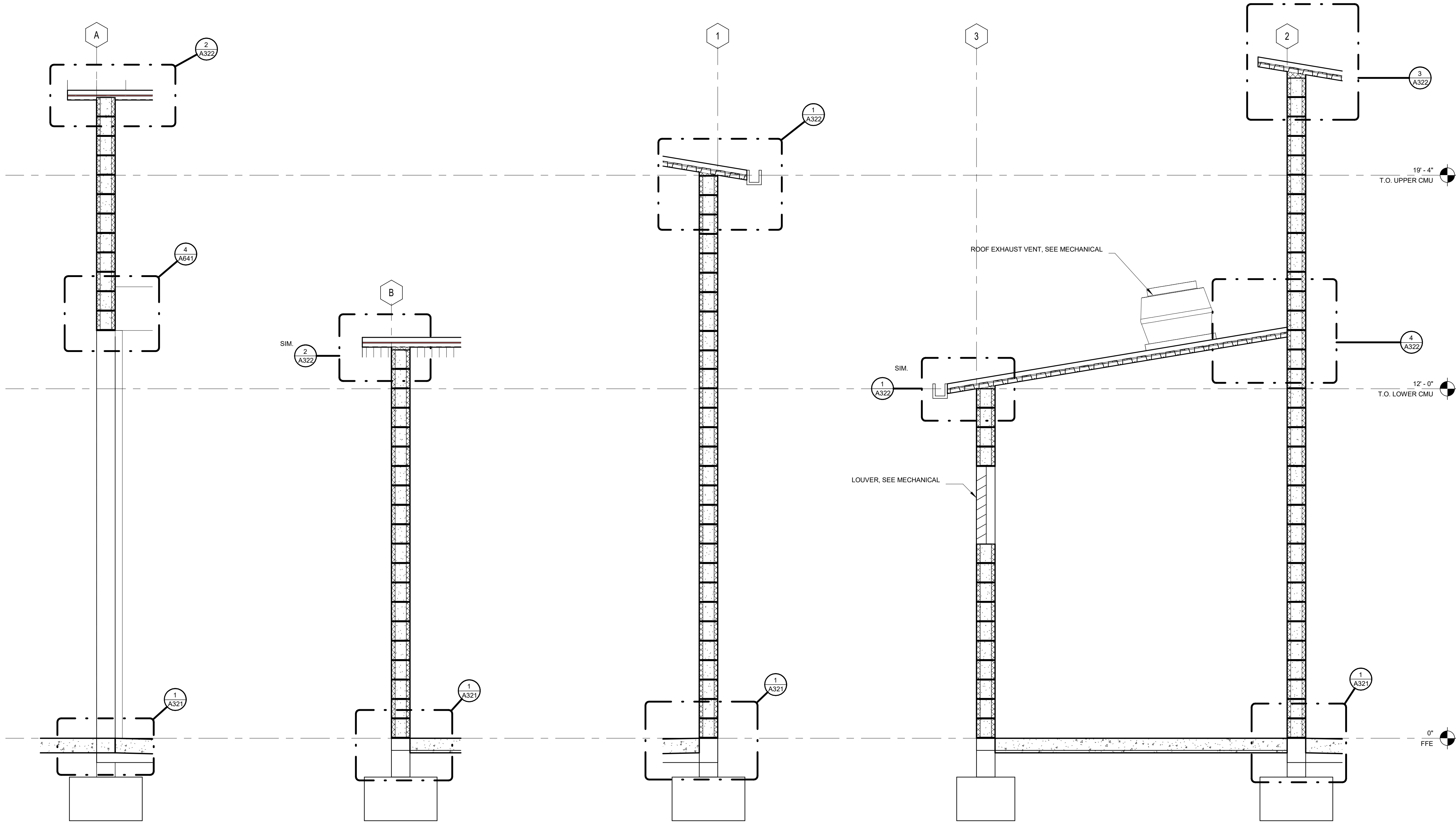
REVISIONS:		
#	DESCRP.	DATE
ADD-2		07.08.24



**2 E/W SECTION**  
1/4" = 1'-0"



**1 N/S SECTION**  
1/4" = 1'-0"



**4** Section 4  
1/2" = 1'-0"

**3** Section 3  
1/2" = 1'-0"

**2** Section 2  
1/2" = 1'-0"

**1** Section 1  
1/2" = 1'-0"

PLUMBING SHEET LIST	
P000	GENERAL NOTES & SYMBOLS
P010	SITE PLAN
P103	FLOOR PLAN
P500	PLUMBING DETAILS
P600	PLUMBING SCHEDULES

PLUMBING AND PIPING SYMBOLS		
SINGLE LINE		DOUBLE LINE
	90° ELBOW	
	90° ELBOW - SHORT SWEEP	
	90° ELBOW - LONG SWEEP	
	90° ELBOW - OUTLET DOWN	
	90° ELBOW - OUTLET UP	
	45° ELBOW	
	22° ELBOW	
	TEE	
	TEE - OUTLET DOWN	
	TEE - OUTLET UP	
	TEE - SANITARY	
	WYE	
	COMBINATION WYE & 1/8 BEND	
	DOUBLE COMBO	
	P-TRAP - PLAN VIEW	
	P-TRAP - SECTION	
	COUPLING	
	CAP	
	REDUCER	
	BALL VALVE	

PLUMBING PIPING LEGEND		
CA	—————	COMPRESSED AIR
DCW	-----	DOMESTIC COLD WATER
DHW	-----	DOMESTIC HOT WATER
DHWR	-----	DOMESTIC HOT WATER RETURN
SAN	—————	SANITARY
V	-----	VENT
G	—————	NATURAL GAS
SD	—————	STORM DRAIN
SO	—————	STORM OVERFLOW

**PLUMBING GENERAL NOTES:**

- COORDINATE PLUMBING WORK WITH ALL OTHER TRADES. BEGIN INSTALLATION AND ROUGH-IN AFTER COORDINATION WITH ALL TRADES ASSOCIATED WITH PROJECT SCOPE. COORDINATE PLUMBING SYSTEMS INSTALLATION WITH BUILDING STRUCTURE, ARCHITECTURAL ASSEMBLIES, SHEET METAL, DUCTWORK, LIGHTING FIXTURES, CONDUITS, CABLE TRAYS, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR REWORK ASSOCIATED WITH FAILURE TO COORDINATE.
- PROVIDE A COMPLETE PLUMBING SYSTEM INCLUDING PIPE, INSULATION, HANGERS, SUPPORTS, EQUIPMENT, WATER HEATERS, FIXTURES, MIXING VALVES, VALVES, ACCESSORIES AND SPECIALTIES. INSTALL ALL EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. SIZING AND INSTALLATION OF PLUMBING SYSTEMS TO COMPLY WITH ALL STATE AND LOCAL CODES AND PROJECT REQUIREMENTS.
- DRAWING PLANS, SCHEMATICS AND DIAGRAMS INDICATE GENERAL LOCATION AND ARRANGEMENT OF PLUMBING SYSTEM.
- INCORPORATE PLUMBING DRAWINGS, SPECIFICATIONS, STATE AND LOCAL CODES, AND PROJECT STANDARDS INTO WORK.
- EXISTING PLUMBING PIPING AND EQUIPMENT SHOWN ARE BASED ON NON-DESTRUCTIVE SITE OBSERVATION AND AS-BUILT DOCUMENTS PROVIDED BY THE OWNER. FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING LOCATION OF ALL PIPING CONCEALED IN BUILDING ASSEMBLIES WHERE WORK IS REQUIRED.
- CONTRACTOR IS RESPONSIBLE FOR MAKING PENETRATIONS WHERE REQUIRED IN EXISTING WALLS, FLOORS, CEILINGS AND ROOFS. MAKE PENETRATIONS NEAT. PATCH, CONCEAL OR CAULK ALL OVERCUT TO PREVENT NOISE TRANSFER BETWEEN SPACES. COVER EXPOSED WALL PENETRATIONS WITH ESCUTCHEONS OR SHEET METAL AS APPROPRIATE.
- REFER TO ARCHITECTURAL SPECIFICATIONS FOR THROUGH-PENETRATION FIRESTOPPING AND TO ARCHITECTURAL CODE PLAN FOR FIRE RATED WALLS, FLOORS AND CEILINGS. CONTRACTOR IS RESPONSIBLE TO FIRESTOP PENETRATIONS THROUGH RATED ASSEMBLIES. PROVIDE FIRE CAULKING FOR PENETRATIONS OF FIRE RATED ASSEMBLIES.
- CONTINUE PIPE INSULATION UNBROKEN THROUGH WALL, FLOOR AND CEILING PENETRATIONS. SEAL AROUND PIPE INSULATION AT PENETRATIONS.
- CREATE OPENINGS IN BUILDING AS REQUIRED TO REMOVE EXISTING BUILDING COMPONENTS AND BRING IN NEW EQUIPMENT. PATCH ALL OPENINGS CREATED. PATCH FINISH TO MATCH EXISTING CONDITIONS. INCLUDE THIS WORK IN BID.
- VERIFY WITH ENGINEER ANY FIXTURES NOT TAGGED OR PIPED PRIOR TO ANY WORK. UNLESS SPECIFICALLY NOTED AS EXCLUDED FROM SCOPE CONTRACTOR IS RESPONSIBLE FOR ALL PLUMBING FIXTURES SHOWN ON ARCHITECTURAL DRAWINGS; TAGGED OR NOT TAGGED ON PLUMBING DRAWINGS.

\*\*NOTE: ALL SYMBOLS MAY NOT APPLY TO THIS PROJECT\*\*

GENERAL SYMBOLS	
	EXISTING LINEWORK TO BE SHOWN AS "HALFTONE"
	NEW LINEWORK TO BE SHOWN AS BOLD AND BLACK
	DEMOLITION LINEWORK TO BE SHOWN AS BOLD DASHED AND BLACK
	HIDDEN LINEWORK TO BE SHOWN AS THIN DASHED AND BLACK
	NEW POINT OF CONNECTION
	POINT OF DISCONNECT
	KEYNOTE
	EQUIPMENT IDENTIFICATION

PLUMBING ABBREVIATIONS			
AD	ACCESS DOOR OR AREA DRAIN	GAL	GALLON
AFF	ABOVE FINISHED FLOOR	GALV	GALVANIZED
AFG	ABOVE FINISHED GRADE	GC	GENERAL CONTRACTOR
BOP	BOTTOM OF PIPE	GPH	GALLONS PER HOUR
BOT	BOTTOM	GPM	GALLONS PER MINUTE
BV	BALL VALVE	GW	GREASE WASTE
CB	CATCH BASIN	HB	HOSE BIBB
CI	CAST IRON	HR	HOUR
CL	CENTER LINE	ICW	INDUSTRIAL COLD WATER
CO	CLEAN OUT	IMB	ICE MAKER BOX
CONC	CONCRETE	JR	JANITOR RECEPTOR
COND	CONDENSATE	L	LAVATORY
CONTR	CONTRACTOR	MB	MOP BASIN
CP	CIRCULATION PUMP	MC	MECHANICAL CONTRACTOR
CU	COPPER	MECH	MECHANICAL
CWP	CIRCULATING WATER PUMP	MH	MANHOLE
DN	DOWN	NTS	NOT TO SCALE
DR	DRAIN	OD	OVERFLOW DRAIN
DS	DOWNSPOUT	PC	PLUMBING CONTRACTOR
DWV	DRAIN, WASTE & VENT	PRV	PRESSURE REDUCING VALVE
EC	ELECTRICAL CONTRACTOR	PSI	POUNDS PER SQUARE INCH
EEW	EMERGENCY EYE WASH	PVC	POLYVINYL CHLORIDE
EJ	EXPANSION JOINT	RD	ROOF DRAIN
EQUIP	EQUIPMENT	RV	RELIEF VALVE
ESE	EMERGENCY SHOWER/EYEWASH	SD	STORM DRAIN
EWC	ELECTRIC WATER COOLER	SH	SHOWER
EWT	ENTERING WATER TEMPERATURE	SK	SINK
EX	EXISTING	SO	STORM OVERFLOW
EXP	EXPANSION	TCC	TEMP. CONTROL CONTRACTOR
FCO	FLOOR CLEAN OUT	TP	TRAP PRIMER
FD	FLOOR DRAIN	TYP	TYPICAL
FLEX	FLEXIBLE	UR	URINAL
FLR	FLOOR DRAIN	VTR	VENT THROUGH ROOF
FPM	FEET PER MINUTE	WB	WALL BOX - CONDENSATE
FPS	FEET PER SECOND	WC	WATER CLOSET
FS	FLOOR SINK	WCO	WALL CLEANOUT
FSEC	FOOD SERVICE EQUIP. CONSULT.	WH	WATER HEATER
FTG	FOOTING	WHA	WATER HAMMER ARRESTOR
GA	GAGE	WMB	WASHING MACHINE BOX

ELEMENT PHASE ABBREVIATIONS	
(E)	EXISTING ITEM TO REMAIN
(ER)	NEW LOCATION OF EXISTING ITEM
(N)	NEW ITEM IN EXISTING LOCATION
(R)	EXISTING ITEM TO BE REMOVED, PATCH AND/OR COVER
(RN)	REPLACE EXISTING ITEM WITH NEW
(RR)	EXISTING ITEM TO BE REMOVED AND RELOCATED

**CONTACT 811 BEFORE YOU DIG:**

UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN SHOWN BASED UPON INFORMATION OBTAINED FROM FIELD LOCATIONS BY UTILITY COMPANIES, AVAILABLE SURVEYS AND RECORDS. THEIR LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. IT IS ALSO POSSIBLE THAT THERE MAY BE OTHER UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES IN EXISTENCE THAT ARE NOT SHOWN. IT IS THE RESPONSIBILITY OF EACH INDIVIDUAL PARTY REFERENCING THIS PLAN TO DETERMINE THE EXACT LOCATION AND TYPE OF UNDERGROUND FACILITIES ON THE SITE. HAND EXCAVATE AT CRITICAL POINTS AS NECESSARY TO VERIFY LOCATIONS, SIZES, ELEVATIONS, FLOW LINES, ETC. IF A PROBLEM OR INTERFERENCE EXISTS, NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING.

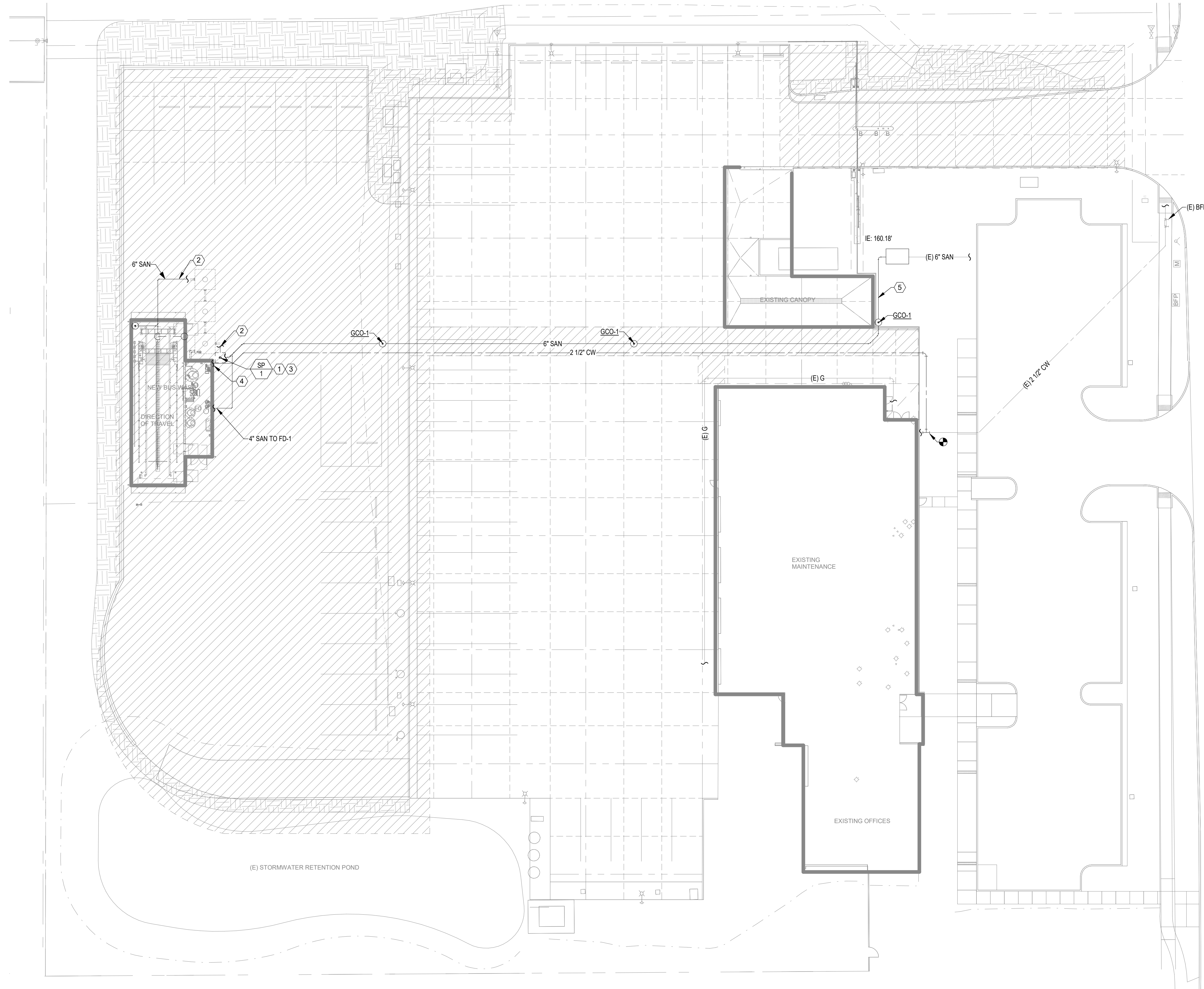


EXPIRES: JUN. 30, 2024

REVISIONS:		
#	DESCRIP.	DATE

# 1 SITE PLAN - PLUMBING

3/64" = 1'-0"

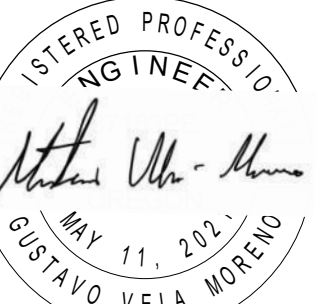


### GENERAL NOTES:

- A. REFER TO P000 FOR GENERAL NOTES & SYMBOLS.
- B. REFER TO P500 FOR PLUMBING DETAILS.
- C. REFER TO P600 FOR PLUMBING SCHEDULES.

### KEYNOTES

- 1 PROVIDE PIT FOR SP-1. COORDINATE PIT SIZE WITH SUMP PUMP REQUIREMENTS.
- 2 CONNECT TO EXISTING RECLAIM PROCESSING SYSTEM.
- 3 COORDINATE SUMP PIT INLET TO RECLAIM PROCESSING SYSTEM. CONNECT SP-1 DISCHARGE TO 6" SAN.
- 4 REFER TO BUS WASH MANUFACTURER'S DRAWINGS FOR CONNECTIONS.
- 5 TIE EXISTING DRAIN INTO NEW DRAIN LINE AND CONNECT TO EXISTING OIL / SAND SEPARATOR.

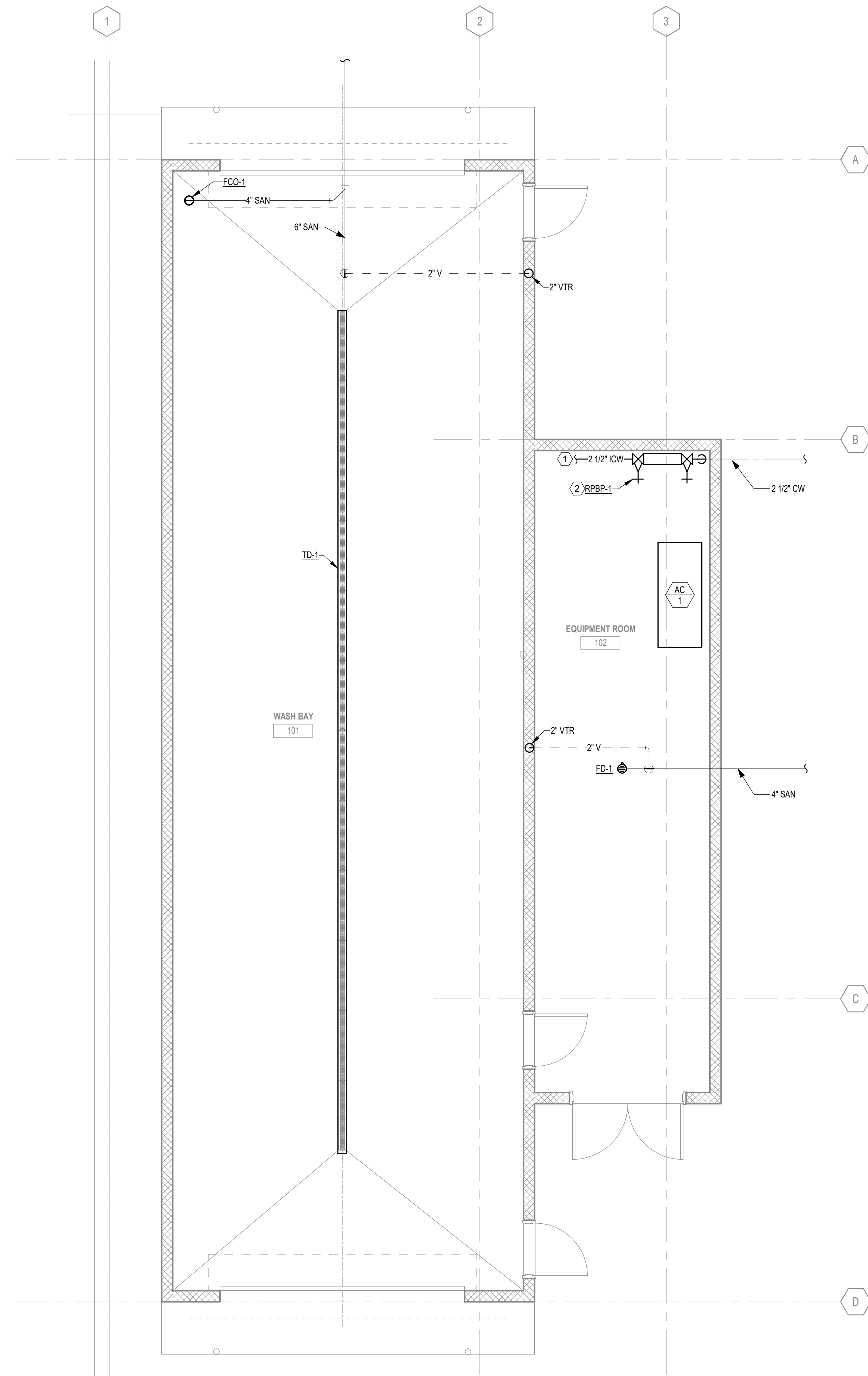


EXPIRES: JUN. 30, 2024

REVISIONS:

#	DESCRP.	DATE





**1 FLOOR PLAN - PLUMBING**  
 1/4" = 1'-0"

**GENERAL NOTES:**

- A. REFER TO P000 FOR GENERAL NOTES & SYMBOLS.
- B. REFER TO P500 FOR PLUMBING DETAILS.
- C. REFER TO P600 FOR PLUMBING SCHEDULES.

**KEYNOTES**

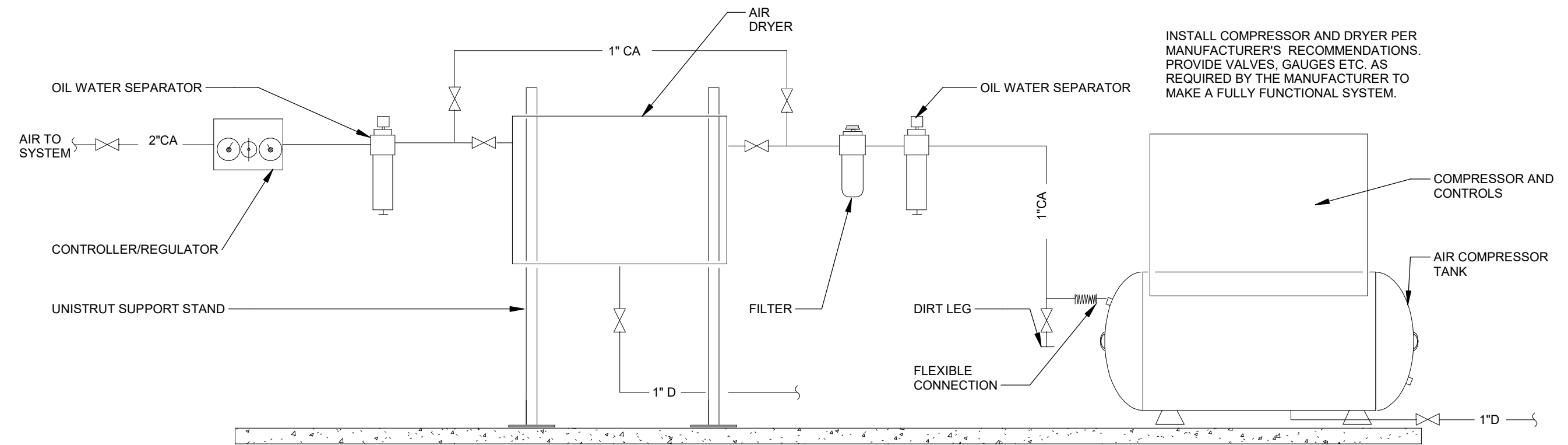
- 1 COORDINATE 2-1/2" ICW CONNECTION WITH BUS WASH EQUIPMENT MANUFACTURER.
- 2 PROVIDE REDUCED PRESSURE BACKFLOW PREVENTER, WATTS LF009 OR EQUIVALENT. PROVIDE WITH MANUFACTURER'S AIR GAP ACCESSORY. ROUTE 1" DRAIN ALONG NORTH WALL OF SHOP, THROUGH WALL, AND DAYLIGHT AT THE BUILDING EXTERIOR. PROVIDE TWO PRESSURE GAUGES, ONE ON EACH SIDE OF THE ASSEMBLY.



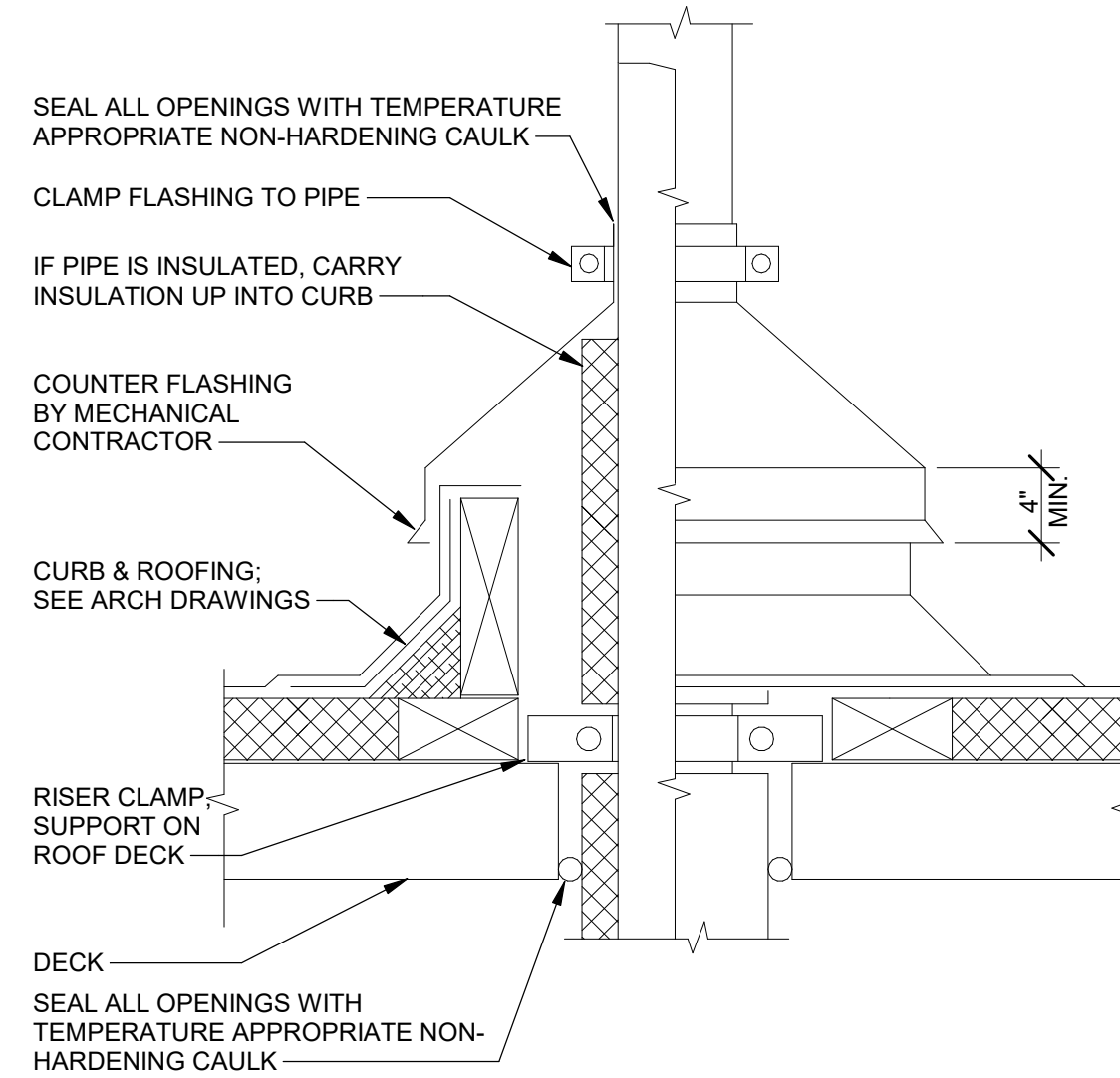
EXPIRES: JUN. 30, 2024

REVISIONS:

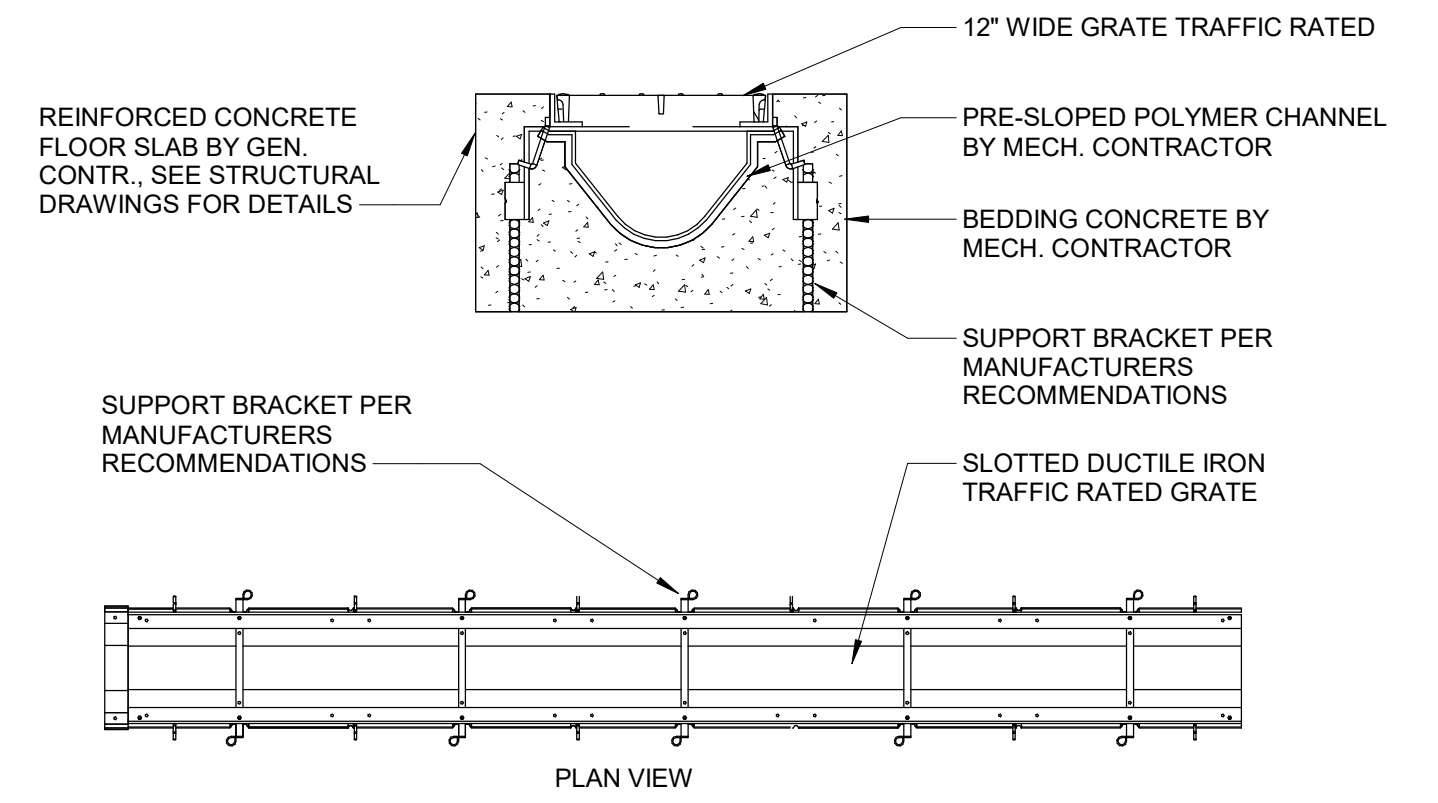
#	DESCRP.	DATE



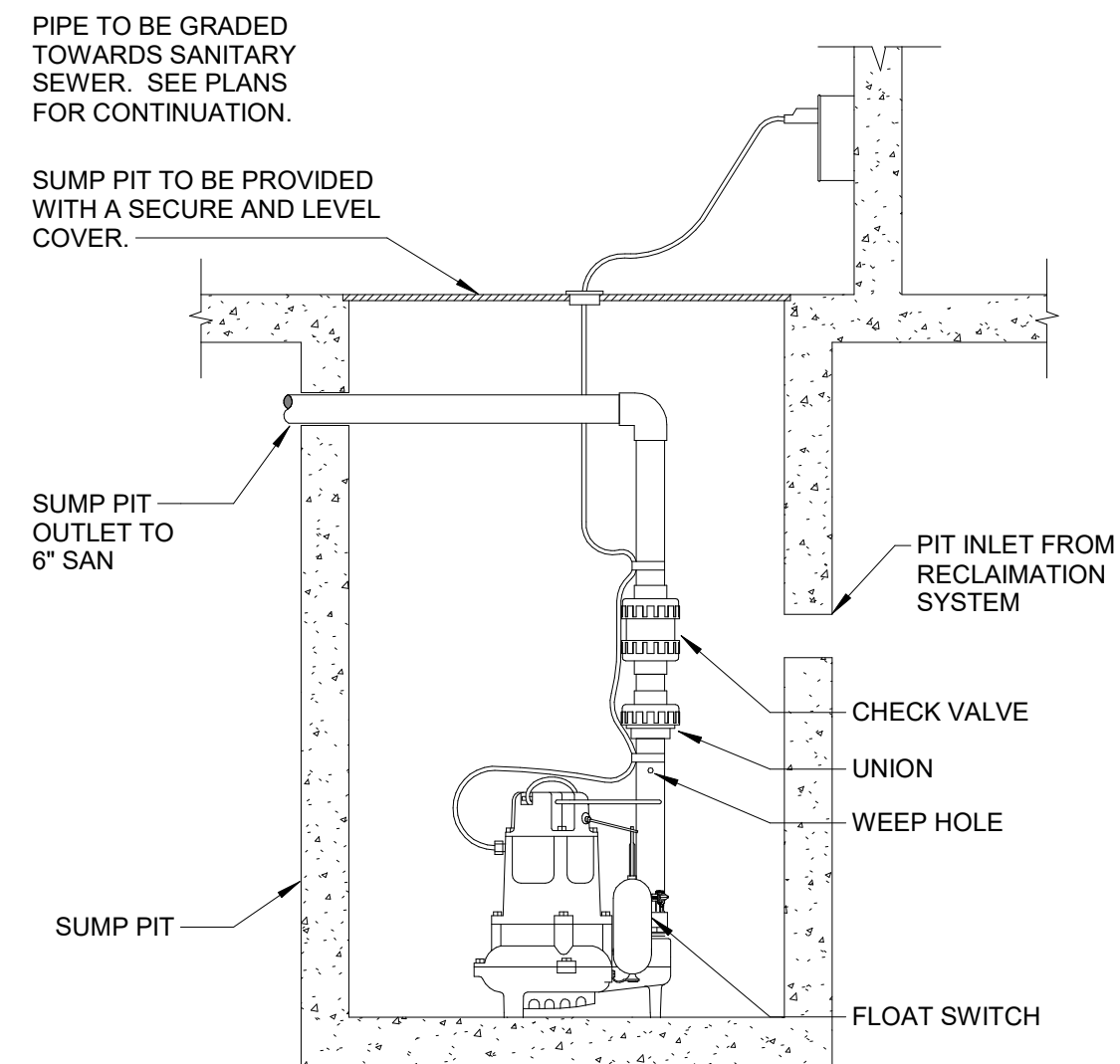
1 AIR COMPRESSOR AND DRYER SYSTEM DETAIL NOT TO SCALE



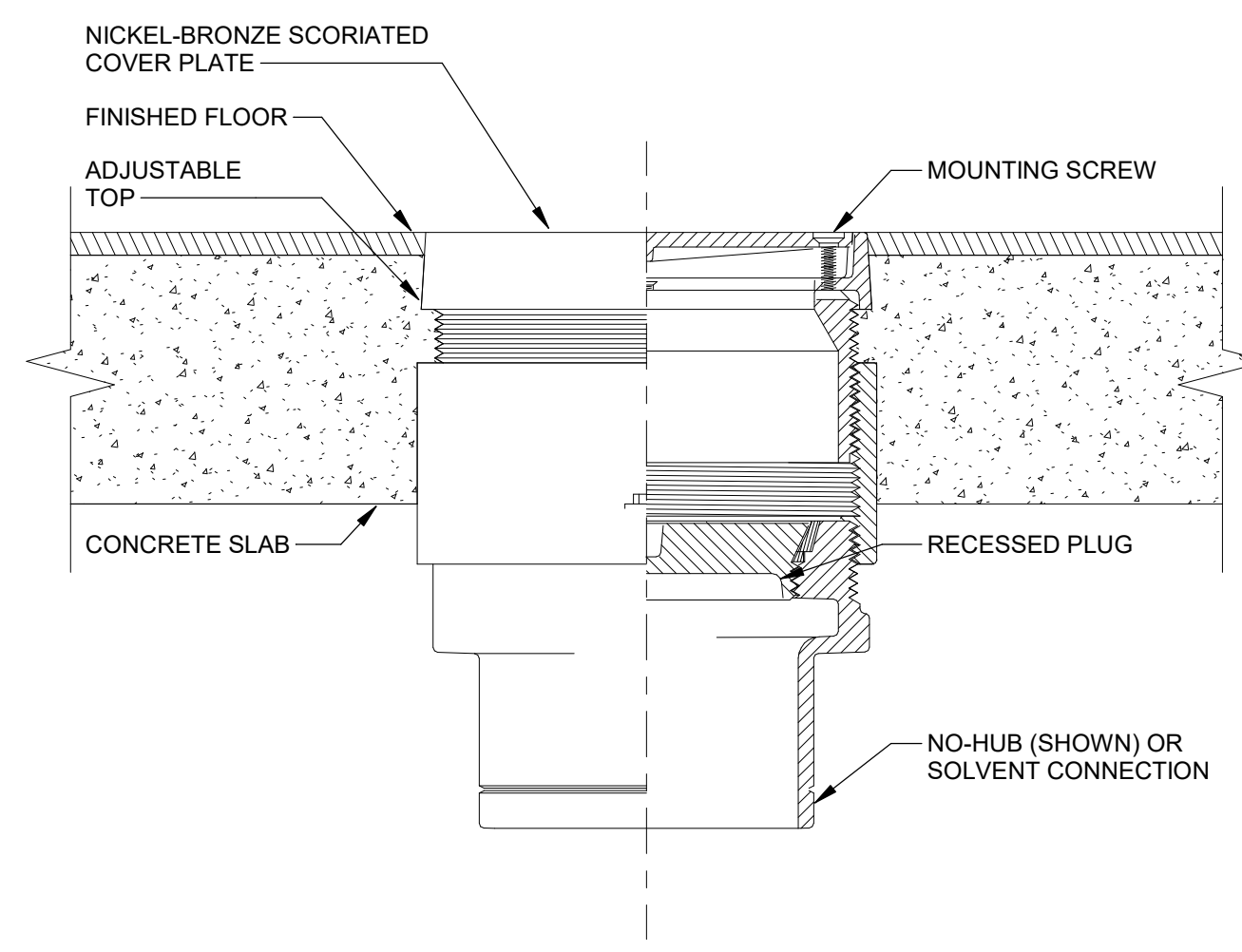
4 PIPE PENETRATING ROOF DETAIL NOT TO SCALE



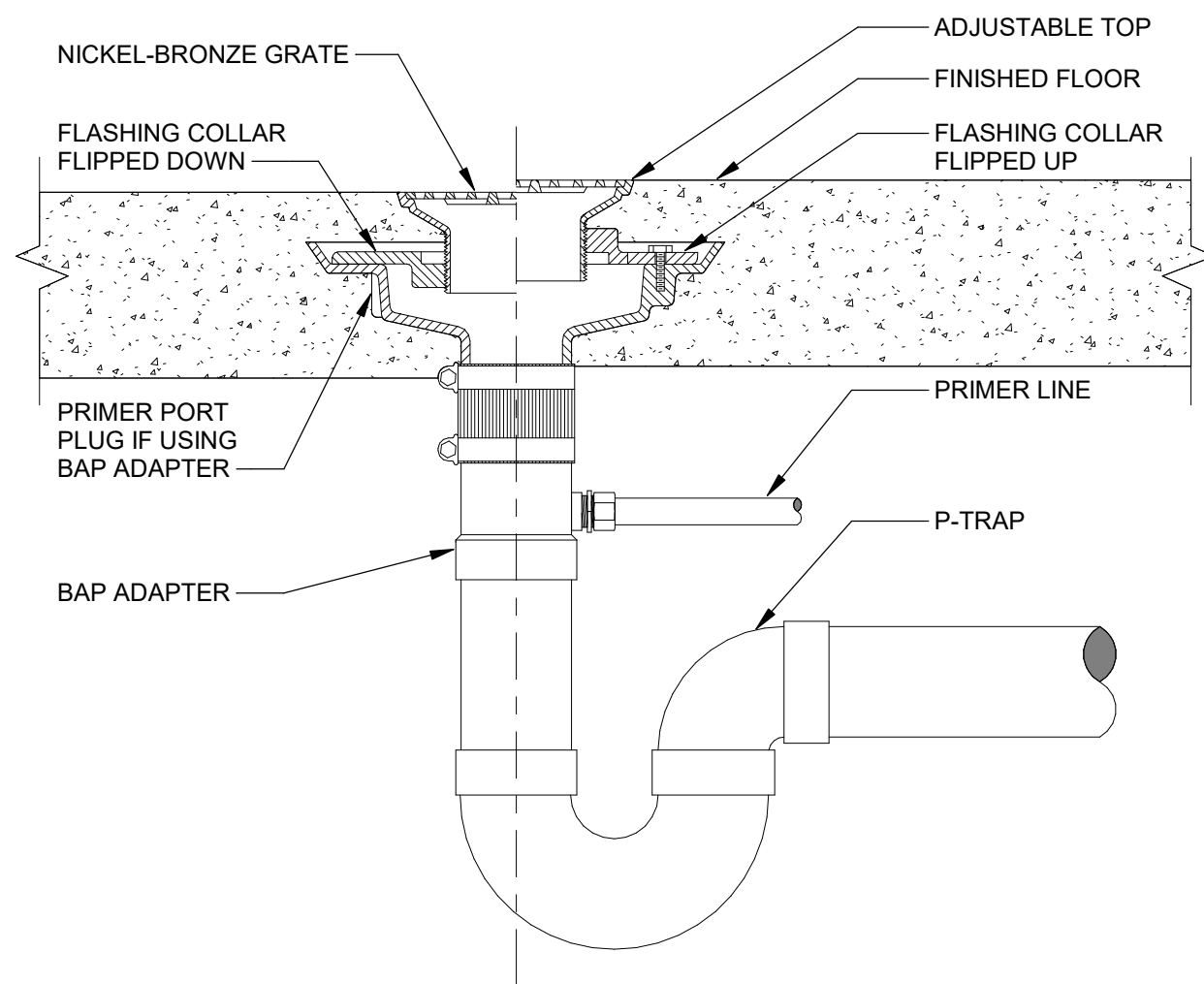
2 TRENCH DRAIN NOT TO SCALE



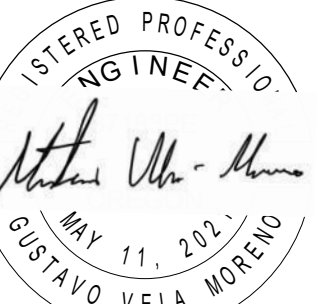
6 ELEVATOR PIT SUMP PUMP NOT TO SCALE



5 FLOOR CLEANOUT NOT TO SCALE



3 FLOOR DRAIN NOT TO SCALE



## PLUMBING FIXTURE SCHEDULE

<b>GENERAL:</b> A. ALL ROUGH-IN SIZES ARE MINIMUM CONNECTION SIZES. REFER TO DRAWINGS FOR FINAL SIZING. B. ALL VERTICAL WASTE RISERS TO FIXTURES AND ALL BELOW FLOOR WASTE PIPING SHALL BE A MINIMUM OF 2". <b>NOTES:</b> 1. LISTED FIXTURE AND TRIM ARE BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR APPROVED ALTERNATE MANUFACTURERS. COORDINATE SUBSTITUTIONS WITH ARCHITECT/OWNER.										
REFERENCE				ROUGH-IN				DESCRIPTION	TRIM	NOTES
ID-TAG	MANUFACTURER	MODEL	ADA	CW	HW	W	V			
FCO-1	ZURN	Z1400	N/A	-	-	SEE DWG	-	ADJUSTABLE FLOOR CLEANOUT, CAST IRON BODY, TAPERED THREAD PLUG AND ROUND NICKEL BRONZE SCORIATED CAST IRON HEAVY-DUTY SECURED TOP, ADJUSTABLE TO FINISHED FLOOR. OUTLET SIZE AS NOTED ON DRAWINGS.	N/A	1
FD-1	ZURN	Z415B-P	N	-	-	4"	2"	CAST IRON BODY FLOOR DRAIN, TYPE "B" 6" ROUND POLISHED NICKEL BRONZE STRAINER. OUTLET SIZE AS NOTED ON DRAWINGS.	PROVIDE WITH TRAP PRIMER 1/2" CONNECTIONS. REFER TO TP-1.	1
GCO-1	ZURN	Z1474	N/A	-	-	SEE DWG	-	GRADE CLEANOUT, ROUND, DURA-COATED CAST IRON, SIZE AS INDICATED, DOUBLE FLANGED HOUSING, HEAVY DUTY SECURED SCORIATED DURA-COATED CAST IRON COVER, LIFTING DEVICE, BRONZE CLEANOUT PLUG WITH GAS/WATER-TIGHT SEAL.	N/A	1
RPBP-1	WATTS	LF009	N/A	2 1/2"	-	-	-	BACKFLOW PREVENTER - REDUCED PRESSURE ZONE TYPE, BRONZE OR FDA APPROVED EPOXY COATED CAST IRON CONSTRUCTION, SIZE SAME AS CONNECTED PIPE, NON-CORROSIVE INTERNAL PARTS, STAINLESS STEEL SPRINGS, DIFFERENTIAL PRESSURE RELIEF VALVE BETWEEN SPRING-LOADED CHECK	BRONZE OR FDA APPROVED EPOXY COATED CAST IRON STRAINER UPSTREAM OF BACKFLOW PREVENTER, TO BE FURNISHED WITH BACKFLOW PREVENTER. PROVIDE TWO PRESSURE GAUGES, ONE ON EACH SIDE OF ASSEMBLY.	1
TD-1	TRENCHIFY	TPC600	N/A	-	-	4"	-	POLYMER CONCRETE SLOPED TRENCH DRAIN. 6.25 INCH WIDE X 48 INCH LONG POLYESTER POLYMER CONCRETE CHANNELS WITH TONGUE AND GROOVE CONNECTION. COORDINATE GALVANIZED SLOTTED GRATE STYLE AND OVERALL LENGTH WITH OWNER.	N/A	1
TP-1	PRECISION PLUMBING PRODUCTS	P1-500	N/A	1/2"	-	1/2"	-	MECHANICAL TRAP PRIMER. BRASS-PLATED CAP AND BODY. UPC/IAPMO LISTED. ACTIVATION WITH 10 PSIG PRESSURE DROP. SYSTEM OPERATING RANGE BETWEEN 20-80 PSI. 1/2" FIP INLET AND 1/2" MIP OUTLET.	N/A	1

## SUMP PUMP SCHEDULE

<b>NOTES:</b> 1. PROVIDE WITH WATERPROOF POWER CABLE, VERIFY FINAL LENGTH. CONFIRM LENGTH WHEN ORDERING. 2. PROVIDE WITH INTEGRAL FLOAT SWITCH OR PIGGY BACK FLOAT. 3. PROVIDE ZOELLER MODEL 10-4013 INDOOR ALARM WITH REED SENSOR.											
REFERENCE				MECHANICAL DATA			ELECTRICAL				NOTES
ID TAG	MFR	MODEL	SERVES	CONFIGURATION	FLOW (GPM)	OPERATING PRESSURE (FT. HEAD)	MOTOR SIZE (HP)	VOLTAGE (V)	PHASE	FREQUENCY (HZ)	
SP-1	ZOELLER	95	RECLAIM TANKS	SINGLE	80	26	0.5	115	1	60	1,2

## AIR COMPRESSOR AND DRYER SCHEDULE

<b>NOTES:</b> 1. LISTED FIXTURE AND TRIM ARE BASIS OF DESIGN. REFER TO SPECIFICATIONS FOR APPROVED ALTERNATE MANUFACTURERS. COORDINATE SUBSTITUTIONS WITH ARCHITECT/OWNER. 2. PROVIDE INTEGRAL DESICCANT AIR DRYER AND OTHER RELEVANT EQUIPMENT IN ORDER TO PROVIDE A FULLY FUNCTIONAL SYSTEM.										
ID-TAG	MANUFACTURER	MODEL	DESCRIPTION	CAPACITY (CFM)	ELECTRICAL				NOTES	
					MOTOR SIZE (HP)	VOLTAGE (V)	PHASE	FLA / MCA		
AC-1	SULLIVAN PALATEK	30D7	COMPLETE COMPRESSOR PACKAGE WITH MOUNTED DESICCANT AIR DRYER, HIGH EFFICIENCY COALESCING AIR FILTER, AND RECEIVER TANK.	115	30	208	3	77.4 / 96.8	1,2	



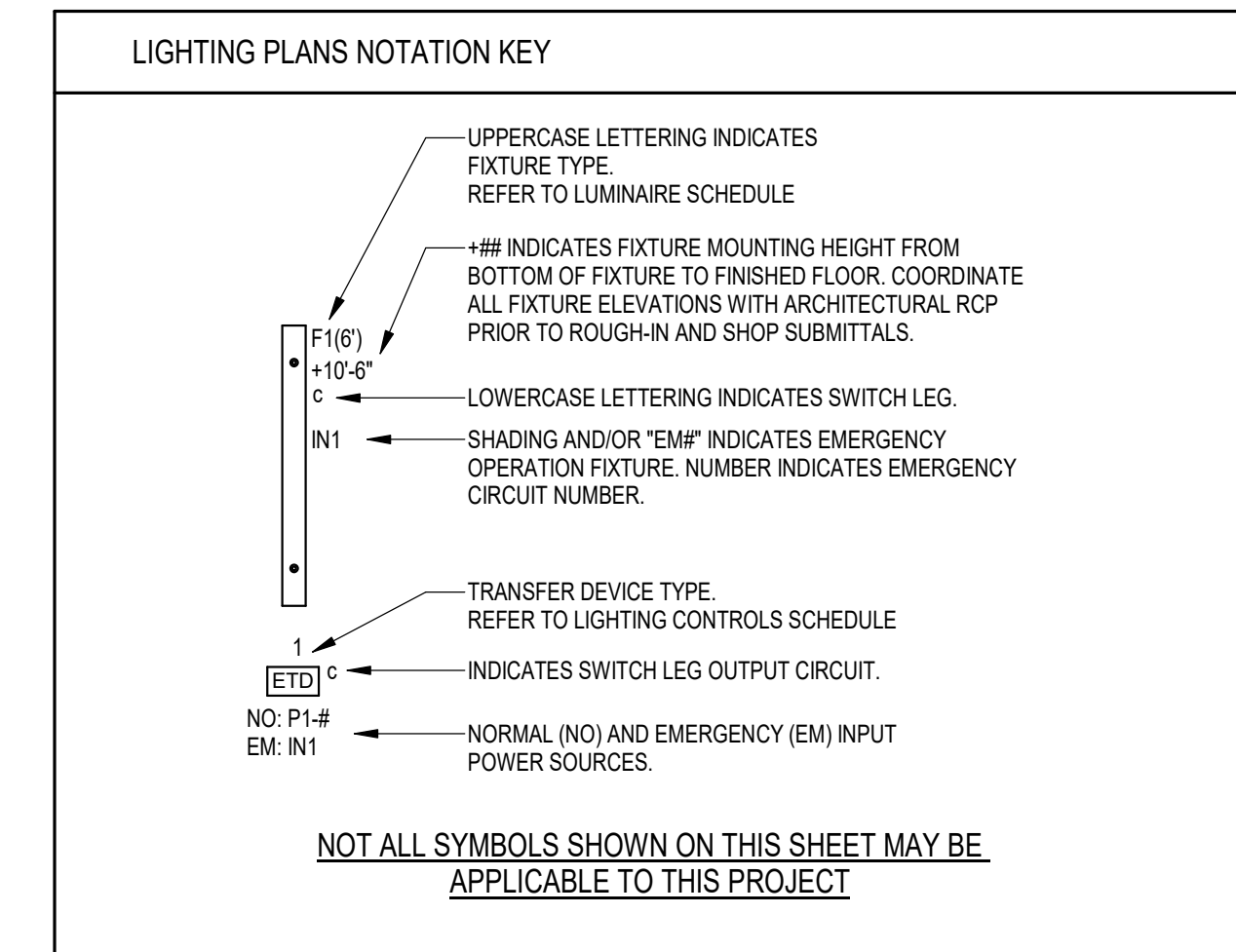
EXPIRES: JUN. 30, 2024



LIGHTING SYMBOLS	
	RECESSED LIGHT FIXTURE, LETTER INDICATES SWITCH LEG (TYPICAL), SHADING INDICATES EMERGENCY LIGHT (TYPICAL)
	ROUND LIGHT FIXTURE - SURFACE MOUNTED
	SQUARE LIGHT FIXTURE - SURFACE MOUNTED
	PENDANT MOUNTED LIGHT FIXTURE
	ROUND APERTURE RECESSED DOWNLIGHT FIXTURE, ARROW INDICATES WALLWASH
	SQUARE APERTURE RECESSED DOWNLIGHT FIXTURE, ARROW INDICATES WALLWASH
	SURFACE MOUNTED STRIP FIXTURE
	LINEAR PENDANT MOUNTED FIXTURE
	INDUSTRIAL STRIP LIGHT FIXTURE
	WALL MOUNTED STRIP LIGHT FIXTURE
	COVE LIGHT FIXTURE
	CONTINUOUS WALL MOUNTED FIXTURE
	EMERGENCY LIGHT FIXTURE, WALL MOUNT, +96" OR AS NOTED
	EMERGENCY LIGHT FIXTURE, CEILING MOUNT
	EXIT SIGN, WALL MOUNT +96", SHADED AREAS INDICATE NUMBER OF FACES, ARROWS INDICATE SIGN ARROWS
	EXIT SIGN, CEILING MOUNT, SHADED AREAS INDICATE NUMBER OF FACES, ARROWS INDICATE SIGN ARROWS
	COMBINATION EXIT SIGN & EMERGENCY LIGHT, WALL MOUNT +96", SHADED AREAS INDICATE NUMBER OF FACES, ARROWS INDICATE SIGN ARROWS
	COMBINATION EXIT SIGN & EMERGENCY LIGHT, CEILING MOUNT, SHADED AREAS INDICATE NUMBER OF FACES, ARROWS INDICATE SIGN ARROWS
	EXTERIOR LIGHT FIXTURE, WALL MOUNT +10', OR AS NOTED
	INTERIOR LIGHT FIXTURE, WALL MOUNT
	EXTERIOR POLE MOUNTED LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	BOLLARD LIGHT FIXTURE
	EXTERIOR FLOOD LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	EMERGENCY REMOTE HEAD LIGHT FIXTURE, REFER TO LIGHT FIXTURE SCHEDULE
	SINGLE POLE SWITCH, WALL MOUNT +48", OR AS NOTED, LETTER INDICATES SWITCH LEG
	THREE WAY SWITCH, WALL MOUNT +48", OR AS NOTED, LETTER INDICATES SWITCH LEG
	PILOT LIGHT SWITCH, WALL MOUNT +48", OR AS NOTED, LETTER INDICATES SWITCH LEG
	DIMMER SWITCH, WALL MOUNT +48", OR AS NOTED, LETTER INDICATES SWITCH LEG
	LIGHTING CONTROLS LOW VOLTAGE SWITCH, WALL MOUNT +48", OR AS NOTED, LETTER INDICATES SWITCH LEG, REFER TO LIGHTING CONTROLS SCHEDULE
	OCCUPANCY SENSOR, WALL MOUNT +48" OR AS NOTED, NUMBER INDICATES TYPE, LETTER INDICATES SWITCH LEG, REFER TO LIGHTING CONTROLS SCHEDULE
	OCCUPANCY SENSOR, CEILING MOUNT, NUMBER INDICATES TYPE, LETTER INDICATES SWITCH LEG, REFER TO LIGHTING CONTROLS SCHEDULE
	DAYLIGHTING SENSOR, CEILING MOUNT, NUMBER INDICATES TYPE, LETTER INDICATES SWITCH LEG, REFER TO LIGHTING CONTROLS SCHEDULE
	LIGHTING CONNECTION, REFER TO LIGHTING FIXTURE SCHEDULE FOR FIXTURE DESCRIPTION
	EMERGENCY TRANSFER DEVICE
	LIGHTING CONTRACTOR
	RELAY
	PHOTOCELL
	ROOMZONE CONTROLLER, MOUNT ABOVE ACCESSIBLE CEILING

POWER SYMBOLS	
	SINGLE RECEPTACLE, WALL MOUNT +18", OR AS NOTED
	DUPLEX RECEPTACLE, CEILING MOUNT
	DUPLEX RECEPTACLE, TAMPER-RESISTANT, WALL MOUNT +18", OR AS NOTED
	DUPLEX RECEPTACLE, SURFACE RACEWAY, WALL MOUNT +18", OR AS NOTED
	DUPLEX GFCI RECEPTACLE, TAMPER-RESISTANT, WALL MOUNT +18", OR AS NOTED
	DUPLEX RECEPTACLE, MOUNTED WITHIN WATER COOLER HOUSING, VERIFY HEIGHT, CONNECT TO GFCI, CIRCUIT BREAKER OR REMOTE WALL DEVICE
	DUPLEX GFCI WEATHER RESISTANT RECEPTACLE WITH WEATHER-PROOF IN-USE COVER, TAMPER-RESISTANT, WALL MOUNT +24", OR AS NOTED
	QUADRAPLEX RECEPTACLE, TAMPER-RESISTANT, WALL MOUNT +18", OR AS NOTED
	QUADRAPLEX GFCI RECEPTACLE, TAMPER-RESISTANT, WALL MOUNT +18", OR AS NOTED
	DUPLEX RECEPTACLE IN FLOORBOX, TAMPER-RESISTANT. REFER TO SCHEDULE.
	QUADRUPLEX RECEPTACLE IN FLOORBOX, TAMPER-RESISTANT. REFER TO SCHEDULE.
	FLOOR BOX, COMBINATION POWER AND DATA ENCLOSURE. QUANTITY OF CABLES AS NOTED. DEVICES AS NOTED. REFER TO SCHEDULE.
	SPECIAL RECEPTACLE, WALL MOUNT +18", OR AS NOTED, REFER TO ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR RECEPTACLE TYPE
	SPECIAL RECEPTACLE, CEILING MOUNT, REFER TO ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR RECEPTACLE TYPE
	EQUIPMENT CONNECTION, REFER TO ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR CONNECTION TYPE
	EQUIPMENT CONNECTION, WALL MOUNT +18", OR AS NOTED, REFER TO ELECTRICAL EQUIPMENT CONNECTION SCHEDULE FOR CONNECTION TYPE
	BLANK FACE GFCI DEVICE, WALL MOUNT +48", OR AS NOTED
	MOTORIZED DOOR OPERATOR CONTROL STATION, WALL MOUNT, +48", OR AS NOTED
	DOOR PUSH BUTTON (WEATHERPROOF), +48" OR AS NOTED
	GYM EQUIPMENT CONTROLLER, WALL MOUNT +48", OR AS NOTED
	JUNCTION BOX, WITH PULL STRING, WALL MOUNT, REFER TO PLAN OR DETAIL FOR MOUNTING HEIGHT
	HAND DRYER, WALL MOUNT, REFER TO ARCHITECTURAL ELEVATIONS FOR MOUNTING HEIGHT.
	GROUND BAR
	UTILITY TRANSFORMER
	UTILITY METER
	SURGE PROTECTIVE DEVICE
	POWER POLE RACEWAY
	SAFETY DISCONNECT SWITCH
	VFD
	VFD WITH INTEGRAL DISCONNECT
	EMERGENCY PUSH BUTTON
	PLUG STRIP, SURFACE MOUNTED. ELEVATION AS NOTED.
	PANELBOARD - SURFACE MOUNTED
	PANELBOARD - RECESSED IN WALL
	DISTRIBUTION PANELBOARD/SWITCHBOARD - SURFACE MOUNTED AS NOTED.
	CORD REEL, CEILING MOUNTED - REFER TO DETAIL
	GENERATOR

GENERAL SYMBOLS	
	CONDUIT SLEEVE
	CONDUIT UP, REFER TO TAG ON DRAWING FOR SIZE
	CONDUIT DOWN, REFER TO TAG ON DRAWING FOR SIZE
	JUNCTION BOX, CEILING OR FLOOR MOUNTED
	JUNCTION BOX, WALL MOUNTED, ELEVATION AS NOTED
	CIRCUIT HOMERUN, CONCEALED CONDUIT OR CABLE
	CIRCUIT HOMERUN, UNDER FLOOR CONDUIT OR CABLE
	KITCHEN EQUIPMENT TAG NUMBER, REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE
	KEYNOTE
	EQUIPMENT IDENTIFICATION TAG, REFER TO EQUIPMENT CONNECTION SCHEDULE
	DETAIL DRAWING REFERENCE TAG, SIM-SIMILAR, TYP-TYPICAL, OPP-OPPOSITE SHEET REFERENCE
	SECTION CUT REFERENCE TAG, SIM-SIMILAR, TYP-TYPICAL, OPP-OPPOSITE SHEET REFERENCE
	INTERIOR ELEVATION DRAWING REFERENCE TAG



ELECTRICAL SHEET LIST	
E000	GENERAL SYMBOLS
E001	GENERAL NOTES
E010	SITE PLAN
E101	FLOOR PLAN
E102	LIGHTING PLAN - ELECTRICAL
E200	PANEL SCHEDULES
E201	ELECTRICAL SCHEDULES
E300	ELECTRICAL DIAGRAMS
E301	ELECTRICAL DETAILS

**BUILDING EQUIPMENT COORDINATION NOTES - ELECTRICAL**

- REFER TO EQUIPMENT CONNECTION SCHEDULE FOR COORDINATION DETAILS BETWEEN MECHANICAL AND ELECTRICAL SYSTEMS.
- PROVIDE AND INSTALL ELECTRICAL SYSTEMS UNDER THIS CONTRACT MEETING THE REQUIREMENTS OF THE SPECIFIED MECHANICAL, FIRE PROTECTION, AND PLUMBING SYSTEMS. REFERENCE THE ENTIRE PROJECT DOCUMENTS, MANUALS, SCHEDULES, DETAILS, AND NOTES.
- PROVIDE ELECTRICAL CONNECTIONS AND ACCESSORIES INCLUDING STARTERS, DISCONNECTS, CONTROL WIRING, ETC. AS REQUIRED FOR THE BUILDING MECHANICAL EQUIPMENT. INFORMATION HEREIN AND ON THE DRAWINGS IS FOR GENERAL DESCRIPTION AND ESTIMATING PURPOSES ONLY. VERIFY VOLTAGE, AMPERAGE, PHASE, INRUSH, ETC. FOR EACH ITEM OF EQUIPMENT BEFORE PROCEEDING WITH INSTALLATION. INSTALL EQUIPMENT PER WIRING DETAILS AND INSTRUCTIONS FURNISHED BY THE SUPPLIERS OF THE EQUIPMENT TO PROVIDE PROPER OPERATION.
- REVIEW MECHANICAL EQUIPMENT SHOP DRAWINGS FOR COMPLIANCE AND COORDINATION WITH ELECTRICAL CONNECTIONS. NOTIFY ENGINEER IF CHANGES TO ELECTRICAL CONNECTIONS, WIRING, AND BREAKER REQUIREMENTS ARE NECESSARY TO ACCOMMODATE EQUIPMENT BEING SUPPLIED.
  - A. DO NOT RELEASE ELECTRICAL DISTRIBUTION EQUIPMENT UNTL ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL INFRASTRUCTURE HAS BEEN SUBMITTED AND APPROVED. MAKE COORDINATION ADJUSTMENTS TO BREAKER SIZES AND SIMILAR CHANGES TO ELECTRICAL EQUIPMENT PRIOR TO SUBMITTAL RELEASE. COORDINATE SCHEDULING OF SHOP DRAWINGS WITH ALL TRADES.
- PROVIDE DISCONNECTS RATED FOR EQUIPMENT AS REQUIRED AND AS INDICATED WITHIN EQUIPMENT CONNECTION SCHEDULE. COORDINATE DISCONNECT MOUNTING TO ALLOW EQUIPMENT REMOVAL WITHOUT DISCONNECT REMOVAL AND TO MINIMIZE WIRING WORK REQUIRED.
- PROVIDE HEAVY DUTY TYPE DISCONNECTS RATED FOR THE INSTALLED ENVIRONMENT. PROVIDE MINIMUM NEMA 3R RATED DISCONNECTS FOR EXTERIOR INSTALLATIONS OR AS NOTED.
- VERIFY LOCATIONS OF ALL EQUIPMENT. REFER TO MECHANICAL, PLUMBING, AND ARCHITECTURAL DRAWINGS AND COORDINATE WITH THE ASSOCIATED SUB-CONTRACTOR. ADJUST ELECTRICAL INSTALLATION AS REQUIRED.
- ALL ELECTRICAL COMPONENTS IN WASH BAYS TO BE RATED NEMA 4X.

**INSTALLATION NOTES - SYSTEMS**

- REFER TO TECHNOLOGY SERIES SHEETS FOR ROUGH-IN REQUIREMENTS.
- REFER TO ELECTRICAL/TECHNOLOGY SCOPE OF RESPONSIBILITY MATRIX.

**SITE NOTES - ELECTRICAL**

- UTILITIES SHOWN ON ELECTRICAL SITE PLAN ARE SCHEMATIC ONLY. VERIFY ALL SITE CONDITIONS AND DIMENSIONS ON SITE PRIOR TO SUBMITTING BID AND ORDERING EQUIPMENT.
- REPAIR ALL AFFECTED SURFACES AND RESTORE TO EXISTING CONDITIONS AT COMPLETION OF PROJECT.
- WARNING - CALL BEFORE YOU DIG: LAW REQUIRES ANYONE DOING EXCAVATION, FENCING, PLANTING OR DRILLING TO CALL 48 HOURS IN ADVANCE. HAND DIG WITHIN 18 INCHES OF ANY LOCATE MARK OR FLAG. ONE-CALL 811.

**PROJECT DELIVERY NOTES - ELECTRICAL**

- THE DELIVERY METHOD FOR THIS PROJECT IS INDIVIDUAL SUB-CONTRACTS TO ONE GENERAL CONTRACTOR. THIS CONTRACTOR IS RESPONSIBLE FOR MEETING WITH ALL SUB-CONTRACTORS TO COORDINATE LOCATIONS AND INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. REWORK OF INSTALLED EQUIPMENT WILL BE AT CONTRACTORS EXPENSE.

**INSTALLATION NOTES - ELECTRICAL**

- BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO BID.
- INCREASE CONDUCTOR SIZES ON 20A 120V-1 PHASE CIRCUITS EXCEEDING 100 FEET TO CENTER OF LOAD TO ACCOUNT FOR VOLTAGE DROP.
- RACEWAYS AND BOXES ARE SHOWN DIAGRAMMATICALLY ONLY AND INDICATE GENERAL AND APPROXIMATE LOCATIONS. LAYOUTS DO NOT ALWAYS SHOW THE TOTAL NUMBER OF RACEWAYS OR BOXES FOR THE CIRCUITS REQUIRED, NOR ARE THE LOCATIONS OF INDICATED RUNS INTENDED TO SHOW THE ACTUAL ROUTING OF THE RACEWAYS.
- LIGHT FIXTURES, SWITCHES, DEVICES, ETC. ARE SHOWN IN PREFERRED LOCATION. MODIFY CONDUIT, HANGERS, CIRCUITING, ETC. TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.
- PROVIDE A DEDICATED GREEN INSULATED GROUND CONDUCTOR TO ALL DEVICES. DO NOT USE CONDUIT SYSTEM AS THE ONLY EQUIPMENT GROUNDING METHOD.
- DO NOT INSTALL BOXES BACK-TO-BACK ON OPPOSITE SIDES OF THE SAME WALL. MAINTAIN MINIMUM OF 8" DISTANCE BETWEEN BOXES WHEREVER APPLICABLE.
- BALANCE PANEL LOADS DURING INSTALLATION. CIRCUIT NUMBERING SHOWN ON PLANS MAY BE ADJUSTED TO ACCOMODATE.
- PROVIDE TYPED PANEL DIRECTORY AT PROJECT COMPLETION FOR NEW PANELS AND EXISTING PANELS WITH CIRCUITS MODIFIED AS A RESULT OF THIS PROJECT. USE OWNER'S CURRENT ROOM NUMBERS AND EQUIPMENT NAMES.
- CONTRATOR IS RESPONSIBLE FOR OPENINGS IN WALLS, FLOORS, CEILINGS, AND ROOFS THAT ARE REQUIRED TO COMPLETE THEIR SCOPE OF WORK. SEAL PENETRATIONS IN ACCORDANCE WITH THE RATING OF THE AFFECTED ASSEMBLY. REFER TO ARCHITECTURAL CODE PLAN FOR RATED WALLS, FLOORS, AND CEILINGS.

**DEVICE INSTALLATION AND MATERIALS - ELECTRICAL**

- PROVIDE NORMAL WIRING DEVICES AS WHITE / ALMOND / GRAY / BLACK UNLESS OTHERWISE NOTED.
- PROVIDE EMERGENCY WIRING DEVICES AS RED / GRAY / ORANGE UNLESS OTHERWISE NOTED.
- PROVIDE DEVICES COVER PLATES AS PLASTIC / STAINLESS STEEL. MATCH WIRING DEVICES COLOR.
- PROVIDE GFCI TYPE RECEPTACLES AT ALL LOCATIONS REQUIRED BY THE NEC.
- INSTALL WALL MOUNTED RECEPTACLES AT +18" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED.
- INSTALL WALL MOUNTED LIGHT SWITCHES AT +48" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. EXCEPTION; INSTALL DEVICES ABOVE AN OBSTRUCTED HIGH FORWARD REACH OBSTACLE GREATER THEN 20 INCHES IN DEPTH AT +42".
- INSTALL ABOVE COUNTERTOP RECEPTACLES +8" ABOVE COUNTERTOP OR AS OTHERWISE INDICATED.
- AT A COMMON COUNTERTOP, INSTALL ALL RECEPTACLES AND SWITCHES AT THE SAME HEIGHT UNLESS OTHERWISE SPECIFICALLY INDICATED.

**INSTALLATION NOTES - LIGHTING**

- UNLESS NOTED OTHERWISE, CONNECT ALL EMERGENCY BATTERY FIXTURES WITH AN UN-SWITCHED LEG OF THE LIGHTING CIRCUIT THAT SERVES THE FIXTURES SPACE. MAINTAIN NORMAL SWITCHING SCHEME OF EMERGENCY FIXTURES UNDER NORMAL OPERATION. INSTALL PER EMERGENCY FIXTURE OR TRANSFER DEVICE INSTRUCTIONS.
- VERIFY CEILING TYPE (IE. GRID, GYP) WITH ARCHITECTURAL REFLECTED CEILING PLANS PRIOR TO RELEASE OF LIGHTING FIXTURE EQUIPMENT PACKAGE. ADJUST FIXTURE TYPE, CONSTRUCTION, FLANGE, OR OTHER COORDINATION DETAILS AS REQUIRED FOR CEILING TYPE.
- LIGHTING CONTROLS SENSORS ARE SHOWN ON PLANS AT SUGGESTED LOCATIONS ONLY. VERIFY LOCATIONS WITH MANUFACTURER GUIDELINES AND INSTALLATION RECOMMENDATIONS. ADJUST LOCATIONS AS REQUIRED TO MEET MANUFACTURER GUIDELINES.
- PROVIDE LIGHTING CONTROLS AS A COMPLETE SYSTEM AND INCLUDE MATERIAL AND INSTALLATION FOR ALL POWER PACKS, ACCESSORIES, CONTROLLERS, AND WIRING REQUIRED FOR OPERATION.

ELECTRICAL ABBREVIATIONS			
A	DEVICE MOUNTED +8" ABOVE COUNTER TOP (VERIFY LOCATION)	MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	NM	NONMETALLIC
ATS	AUTOMATIC TRANSFER SWITCH	NNIC	NOT IN CONTRACT
C	CEILING	NTS	NOT TO SCALE
CB	CIRCUIT BREAKER	OC	ON CENTER
CT	CURRENT TRANSFORMER	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
EC	ELECTRICAL CONTRACTOR	OFOI	OWNER FURNISHED, OWNER INSTALLED
EM	EMERGENCY LIGHT FIXTURE	SCCR	SHORT CIRCUIT CURRENT RATING
F	ROUGH IN FOR FUTURE DEVICE	T	TAMPER PROOF DEVICE
FAAP	FIRE ALARM ANNUNCIATOR PANEL	TCC	TEMP. CONTROL CONTRACTOR
FACP	FERN ALARM CONTROL PANEL	TV	TELEVISION
FSD	FIRE SMOKE DAMPER	TYP	TYPICAL
G	GROUND FAULT CIRCUIT INTERRUPTER	UPS	UNINTERRUPTIBLE POWER SUPPLY
GFP	GROUND FAULT PROTECTION	V	VOLTS
GND	GROUND	VA	VOLT-AMPERES
KVA	KILO-VOLT-AMPERES	WG	WIREGUARD COVER
KW	KILOWATTS	WP	WEATHERPROOF DEVICE
MC	MECHANICAL CONTRACTOR	WR	WEATHER RESISTANT DEVICE
MCB	MAIN CIRCUIT BREAKER	+24"	INDICATES MOUNTING HEIGHT CENTER LINE OF DEVICE TO FINISHED FLOOR
MDP	MAIN DISTRIBUTION PANEL		

ELEMEN PHASE ABBREVIATIONS	
(E)	EXISTING ITEM TO REMAIN
(ER)	NEW LOCATION OF EXISTING ITEM
(N)	NEW ITEM IN EXISTING LOCATION
(R)	EXISTING ITEM TO BE REMOVED, PATCH AND/OR COVER
(RN)	REPLACE EXISTING ITEM WITH NEW
(RR)	EXISTING ITEM TO BE REMOVED AND RELOCATED

**GENERAL NOTES - ELECTRICAL**

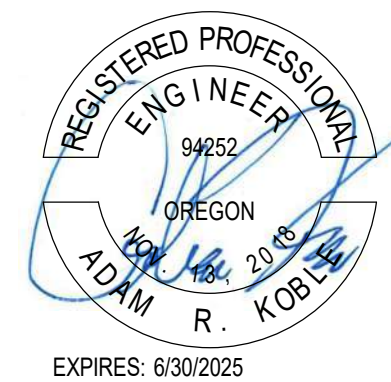
- COORDINATE LOCATION/INSTALLATION OF MECHANICAL AND ELECTRICAL WORK WITH ALL OTHER TRADES. BEGIN INSTALLATION AND ROUGH-IN ONLY AFTER PROPER AND TIMELY COORDINATION WITH ALL TRADES ASSOCIATED WITH THE INSTALLATION IS COMPLETE. COORDINATE WITH BUILDING STRUCTURE, ARCHITCTURE, MECHANICAL SHEET METAL, ALL PIPING SYSTEMS, LIGHT FIXTURES, CONDUITS, CABLE TRAYS, EQUIPMENT ACCESS/CLEARANCE, ETC. REFER TO ALL GENERAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE FOR REWORK OF INSTALLED EQUIPMENT RESULTING FROM INSUFFICIENT COORDINATION.
- ELECTRICAL DRAWINGS ARE ONLY A PORTION OF THE COMPLETE SET OF PLANS AND CONTRACT DOCUMENTS. THE ELECTRICAL SCOPE OF WORK IS DEFINED BY THE COMPLETE SET OF CONTRACT DOCUMENTS. THIS INCLUDES BUT IS NOT LIMITED TO REFERENCING; ARCHITECTURAL PLANS FOR DIMENSIONS AND DETAILS; EQUIPMENT PLANS FOR ROUGH-IN REQUIREMENTS; MECHANICAL PLANS FOR EQUIPMENT SIZES AND LOCATIONS.

**CODE NOTES - ELECTRICAL**

- PROVIDE ELECTRICAL INSTALLATION IN ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL CODES.
- THE CURRENT ADOPTED EDITION OF THE ELECTRICAL CODE IS THE STANDARD FOR THE ELECTRICAL INSTALLATION. VERIFY WITH LOCAL OFFICIALS WHEN PERMITS ARE OBTAINED. NOTIFY DESIGN TEAM OF ANY DESCREPANCIES BETWEEN THE PROJECT MANUAL OR DRAWINGS AND THE GOVERNING CODE.
- INSTALLATION SHALL FOLLOW REQUIREMENTS OF THE ADAAG –AMERICANS WITH DISABILITIES ACT.
- REFER TO PROJECT MANUAL AND PROJECT CODE REVIEW SHEET FOR LIST OF APPLICABLE CODES.

**DEMOLITION AND RENOVATION NOTES - ELECTRICAL**

- ELECTRICAL DEMOLITION DRAWINGS SHOWING EXISTING CONDITIONS HAVE BEEN PREPARED BASED ON FIELD OBSERVATION AND ORIGINAL DRAWINGS. FIELD VERIFY EXISTING CONDITIONS BEFORE WORK BEGINS. ADDITIONAL COMPONENTS MAY EXIST WHICH ARE NOT SHOWN. BECOME FAMILIAR WITH EXISTING ELECTRICAL SYSTEM WHICH WILL BE AFFECTED BY THE DEMOLITION WORK.
- PROVIDE EQUIPMENT, LABOR, AND MATERIALS TO REMOVE ELECTRICAL FACILITIES AND CLEAR THE AREA TO RECEIVE THE NEW WORK PROVIDED UNDER THIS CONTRACT.
- IN OCCUPIED AREAS BEYOND THE DEMOLITION SCOPE, KEEP EXISTING SYSTEMS NOT AFFECTED BY PROJECT SCOPE OPERATIONAL THROUGH THE DURATION OF THE PROJECT. OBTAIN PERMISSION FROM OWNER'S REPRESENTATIVE TO SHUT OFF SERVICES OR SYSTEMS WHICH MAY AFFECT OTHER AREAS BEYOND THE LIMITS OF THE DEMOLITION AREA. INFORM OWNER'S REPRESENTATIVE OF THE REASON FOR AND DURATION OF THE SHUTDOWN AND ENSURE THAT THE SHUTDOWN IS MADE WITH AS LITTLE INCONVENIENCE TO OTHER AREAS AS POSSIBLE.
- REMOVE CONDUITS, BOXES, ETC., AS REQUIRED BY WALL, CEILING, AND ADJACENT COMPONENTS DEMOLITION. REMOVE EXISTING WIRE UNLESS OTHERWISE NOTED.
- INSTALL NEW CONDUCTORS FOR NEW CIRCUITS IN REMODELED AREAS UNLESS SPECIFICALLY NOTED OTHERWISE. RETAIN EXISTING CONDUITS IN GOOD CONDITION WHERE APPROVED BY ENGINEER OR AS INDICATED.
- IDENTIFY DISCONNECTED BRANCH CIRCUIT LOCATION OR ITEM SERVED BEFORE DISCONNECTION. UPDATE PANEL/EQUIPMENT DIRECTORY ACCORDINGLY.
- MAINTAIN CIRCUITS SERVING AREAS BEYOND THE DEMOLITION AREA. EXTEND NEW WIRING AND BYPASS DEMOLISHED DEVICES TO MAINTAIN EXISTING CIRCUITS.
- KEEP EXISTING SYSTEMS OPERATIONAL DURING ALL PHASES OF CONSTRUCTION. DO NOT CUT EXISTING TELECOMMUNICATION WIRING, CABLES OR CONDUIT. CONTRACTORS WHO CUT IN-SERVICE CABLES ARE RESPONSIBLE FOR ALL DOWNTIME AND COSTS TO REPAIR.
- INSTALL BLANK COVER PLATES OVER OPENING AT REMOVED DEVICE LOCATIONS. THIS INCLUDES BUT IS NOT LIMITED TO, CLOCKS, RECEPTACLES, SWITCHES, JUNCTION BOXES, ETC.
- PROVIDE CUTTING AND PATCHING OF EXISTING MATERIALS AS REQUIRED FOR THE PROPER COMPLETION OF THE DEMOLITION WORK AND THE INSTALLATION OF THE NEW WORK.
- MAINTAIN FULL FUNCTIONAL AND AESTHETIC INTEGRITY OF DEVICES IDENTIFIED TO BE REMOVED AND RELOCATED. AND HANDLE WITH APPROPRIATE CARE TO ALLOW FOR REINSTALLATION. REPLACE DEVICES DAMAGED DURING DEMOLITION WITH NEW AT CONTRACTOR'S EXPENSE.
- EQUIPMENT AND SYSTEM THAT ARE REMOVED REMAIN THE PROPERTY OF THE OWNER UNLESS OTHERWISE NOTED. DISPOSE OF ALL MATERIALS NOT SALVAGED BY THE OWNER.
- REMOVE AND REINSTALL CEILING TILES REQUIRED FOR THE WORK BEING DONE UNDER THIS CONTRACT. REPLACE CEILING TILES DAMAGED DURING CONSTRUCTION TO MATCH EXISTING.



EXPIRES: 6/30/2025

**KCL**  
ENGINEERING  
312 NW 10th Ave, Suite 100  
Portland, OR  
97209  
503-212-4612

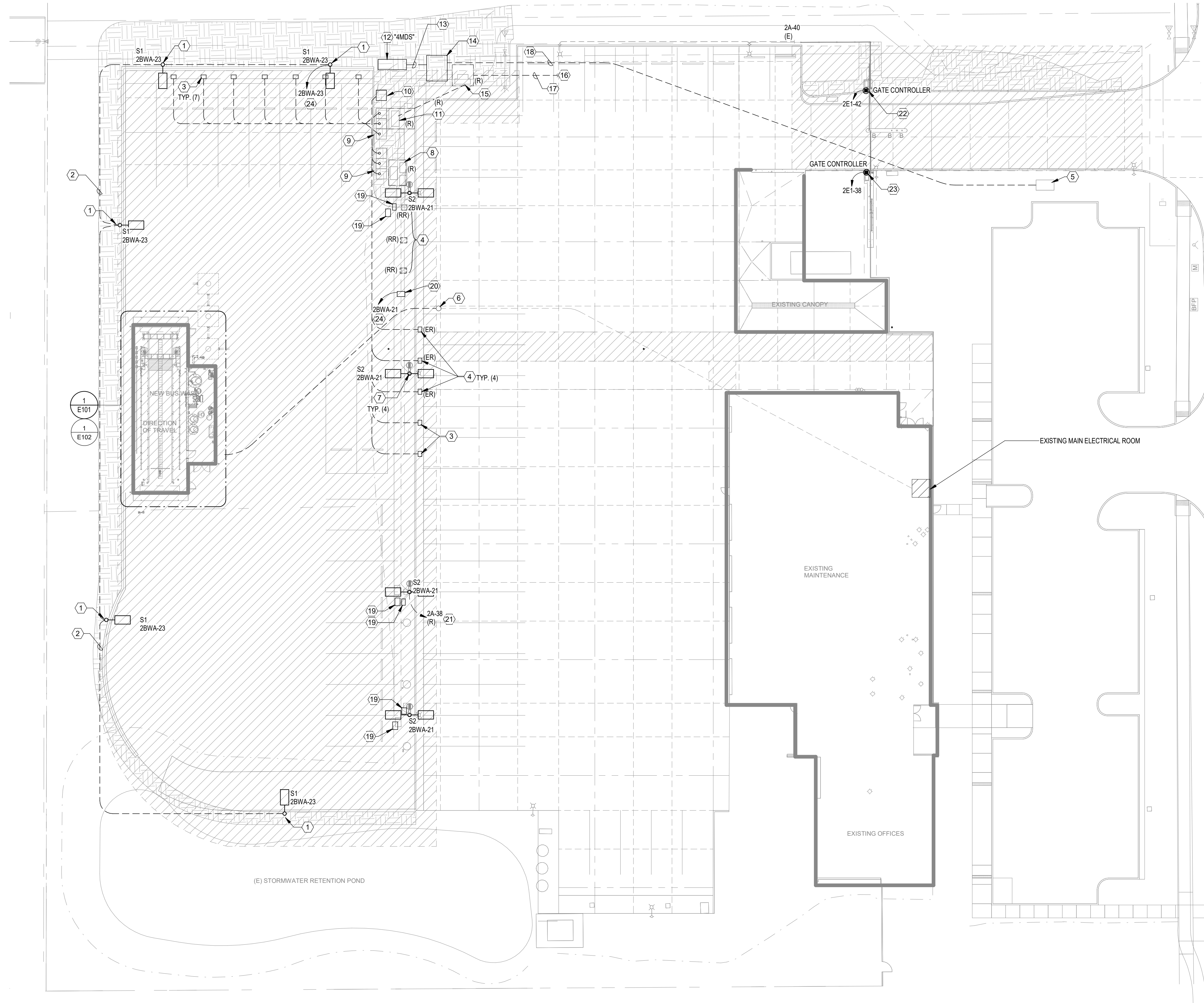
DEVELOPMENT REVIEW  
**S.M.A.R.T. FACILITY IMPROVEMENTS**  
 PROJECT #: 2398.00  
 CITY OF WILSONVILLE  
 28975 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**GENERAL NOTES**

REVISIONS:

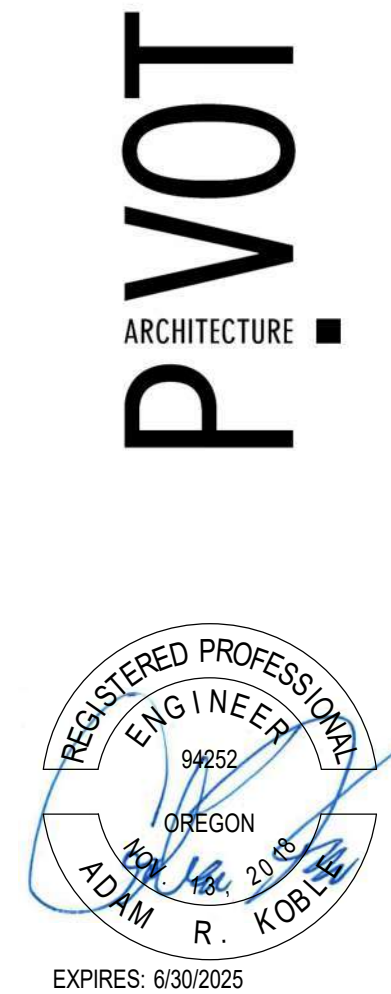
#	DESCRP.	DATE
---	---------	------

ISSUE DATE: 04/26/2024



- KEYNOTES** (#)
- 1 REFER TO STRUCTURAL DETAIL FOR CONCRETE POLE BASE.
  - 2 VERIFY CONDUIT ROUTING WITH CIVIL AND STRUCTURAL ENTITIES. COORDINATE INSTALLATION WITH FOOTING CONSTRUCTION.
  - 3 FUTURE BUS EV CHARGING CHARGE DISPENSER. PROVIDE (1)1-1/2" C FOR POWER CABLES AND (1)1" C FOR CONTROLS. HOMERUN TO DEDICATED 3'X5' CONCRETE PULLBOX LOCATED IN PLANTER NEAR CHARGING EQUIPMENT PAD.
  - 4 RELOCATE EXISTING BUS EV CHARGING DISPENSERS. PROVIDE (1)1-1/2" C FOR POWER CABLES AND (1)1" C FOR CONTROLS TO NEW CHARGING EQUIPMENT.
  - 5 EXISTING PGE PRIMARY VAULT. VERIFY CONNECTION POINT WITH PGE REPRESENTATIVE.
  - 6 NEW POWER FEEDER TO BUS WASH FACILITY AND PANEL. REFER TO ONE-LINE DIAGRAM. FIELD LOCATE, INTERCEPT AND EXTEND EXISTING SPARE CONDUITS TO BUS WASH FACILITY.
  - 7 REMOVE AND REPLACE SITE AREA LIGHT HEADS ALONG CENTER ISLAND WITH NEW DUAL-HEAD FIXTURE. EXISTING POLE AND BASE TO REMAIN.
  - 8 DISCONNECT AND REMOVE EXISTING BUS EV CHARGER EQUIPMENT, SALVAGE TO OWNER.
  - 9 FUTURE BUS EV CHARGING EQUIPMENT CONCRETE PAD LOCATIONS AND CONDUIT PROVISIONS. REFER TO ONE-LINE DIAGRAM.
  - 10 NEW PROPOSED BUS CHARGING EQUIPMENT AND CONCRETE PAD. REFER TO ONE-LINE DIAGRAM.
  - 11 DISCONNECT AND REMOVE EXISTING ELECTRICAL SERVICE AND UTILITY TRANSFORMER.
  - 12 NEW SERVICE SWITCHBOARD. REFER TO ONE-LINE DIAGRAM.
  - 13 SECONDARY SERVICE CONDUITS PER PGE REQUIREMENTS.
  - 14 UTILITY TRANSFORMER PAD-VAULT PER PGE REQUIREMENTS.
  - 15 DISCONNECT AND REMOVE EXISTING UTILITY TRANSFORMER AND CONCRETE PAD.
  - 16 EXISTING 4" PRIMARY TO EXISTING PGE VAULT.
  - 17 DISCONNECT AND REMOVE EXISTING PRIMARY SERVICE CONDUIT TO REMAIN IN PLACE AS SPARE.
  - 18 NEW PRIMARY SERVICE CONDUIT PER PGE REQUIREMENTS. REFER TO ONE-LINE DIAGRAM.
  - 19 FIELD LOCATE AND INTERCEPT EXISTING CONDUIT SYSTEM. REPLACE BOX AND LID WITH H-20 RATED BOX AND LID.
  - 20 NEW 11X17 CONCRETE PULL BOX. STAMP LID "LIGHTING". FIELD LOCATE EXISTING UNDERGROUND LIGHTING BRANCH CIRCUIT AND CONNECT NEW FIXTURES TO EXISTING SITE LIGHTING BRANCH CIRCUIT.
  - 21 FIELD LOCATE AND REMOVE EXISTING CIRCUIT, MAINTAIN EXISTING RACEWAY BETWEEN LIGHT FIXTURES.
  - 22 DISCONNECT AND REMOVE EXISTING GATE CONTROLLER. CONNECT TO NEW GATE CONTROLLER. RECONNECT TO EXISTING BRANCH CIRCUIT.
  - 23 CONNECT TO NEW GATE CONTROLLER. HOMERUN BRANCH CIRCUIT TO EXISTING PANEL AT ELECTRICAL ROOM AND CONNECT TO EXISTING SPARE CIRCUIT BREAKER POSITION. UPDATE EXISTING PANEL DIRECTORY.
  - 24 HOMERUN VIA EXTERIOR LIGHTING CONTROLS IN BUS WASH BUILDING. REFER TO NOTE 2 SHEET E102.

**1 SITE PLAN - ELECTRICAL**  
3/64" = 1'-0"



**KCL**  
ENGINEERING  
312 NW 10th Ave, Suite 100  
Portland, OR 97209  
503-212-4612

**DEVELOPMENT REVIEW**  
**S.M.A.R.T. FACILITY IMPROVEMENTS**  
PROJECT #: 2308.00  
CITY OF WILSONVILLE  
28979 SW BOBERG RD, WILSONVILLE, OR 97070

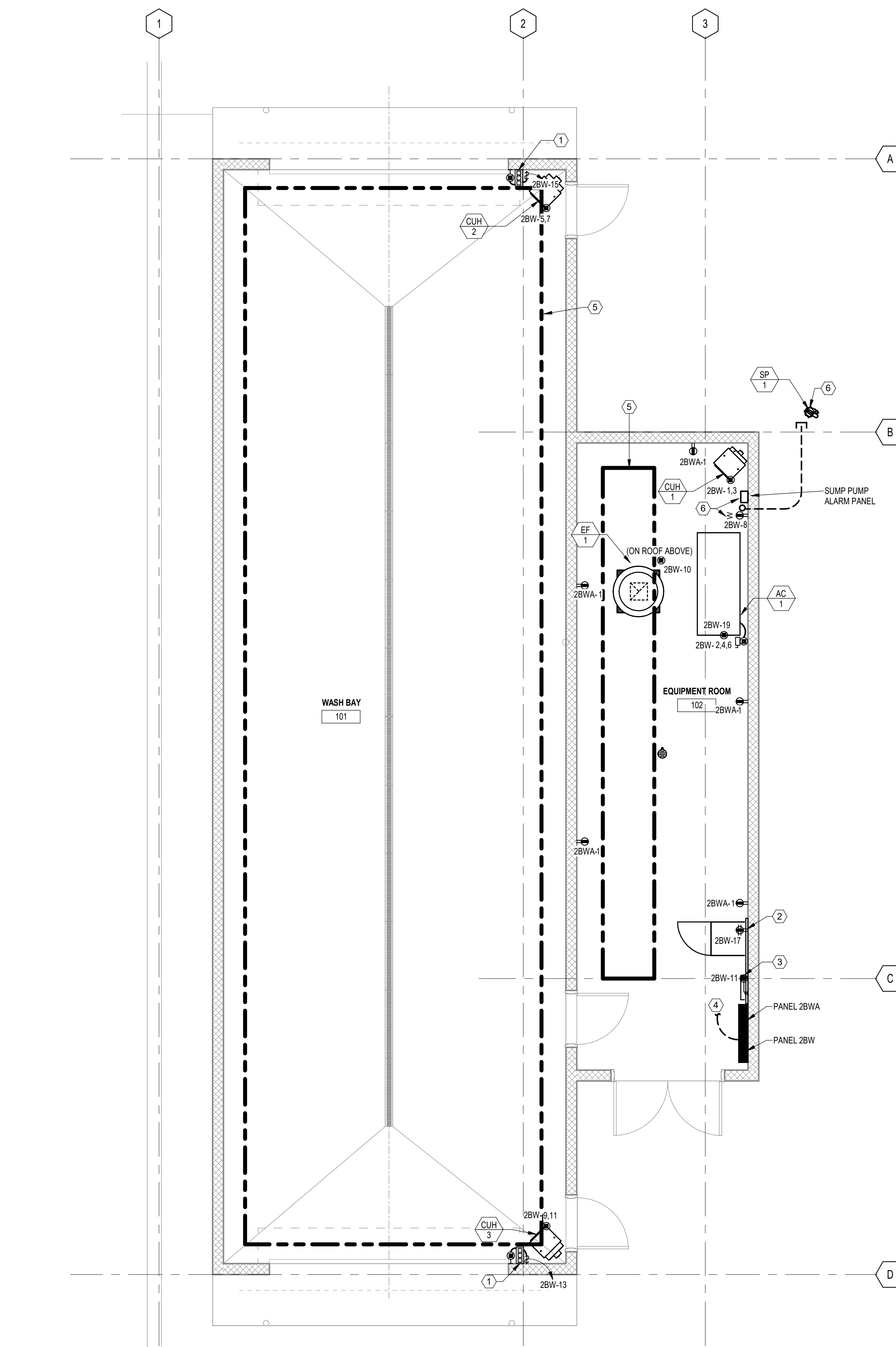
SHEET TITLE:  
**SITE PLAN**

REVISIONS:

#	DESCRP.	DATE

ISSUE DATE: 04/26/2024

**E010**



KEYNOTES

- 1 COORDINATE WITH OVERHEAD DOOR MANUFACTURER AND PROVIDE WIRING AND CONNECTIONS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
- 2 VERIFY QUAD RECEPTACLE LOCATION WITH TECHNOLOGY SYSTEM INSTALLER.
- 3 CONNECT TO DOOR ACCESS CONTROL PANEL.
- 4 3/4" C AND #4 CU GND, BOND GROUND BUS AT PANEL TO GROUND BAR.
- 5 ELECTRICAL INSTALLATION OF BUS WASH EQUIPMENT INCLUDING WIRING, CONDUIT, ROUGH-INS AND CONNECTIONS FROM EQUIPMENT TO SERVING PANEL ARE TO BE PROVIDED BY THE CONTRACTOR AS A DESIGN-BUILD SERVICE. REFER TO PERFORMANCE SPECIFICATIONS AND APPROVED BUS WASH SYSTEM SHOP DRAWINGS FOR QUANTITIES AND LOCATIONS OF EQUIPMENT, ROUGH-INS AND INSTALLATION REQUIREMENTS.
- 6 CONNECT TO SUMP PUMP. PROVIDE CONDUIT AT PATHWAY FOR POWER AND MONITORING/CONTROLS, (2) 2" C FROM WET WELL STUBBED INTO EQUIPMENT ROOM. CONNECT WIRING PER APPROVED SUMP PUMP SYSTEM SHOP DRAWINGS.

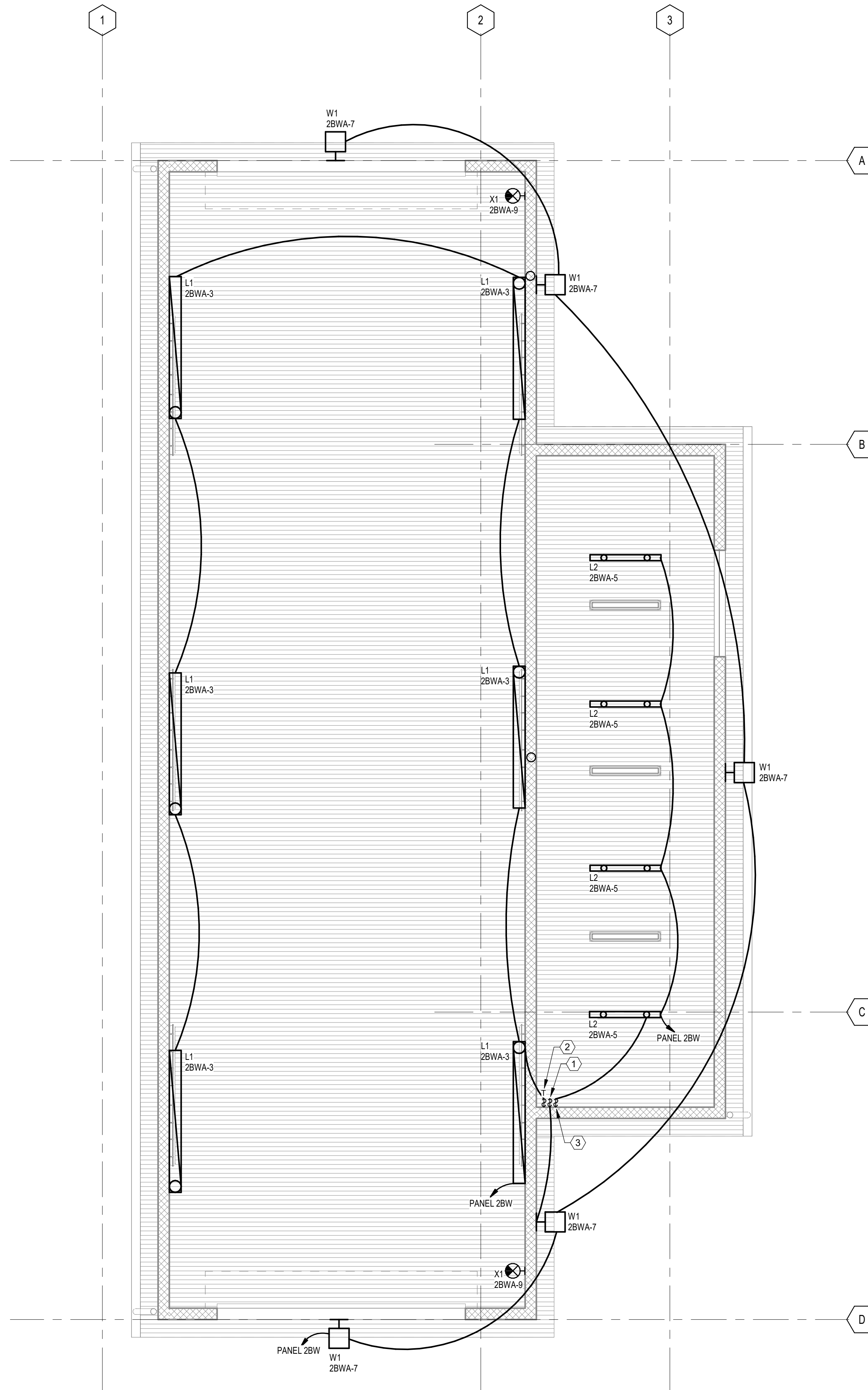


**1 FLOOR PLAN - ELECTRICAL**  
1/4" = 1'-0"



# 1 LIGHTING PLAN - ELECTRICAL

1/4" = 1'-0"



### KEYNOTES

- 1 LABEL 'BUS WASH LTG'.
- 2 LABEL 'EXTERIOR LTG'. 7-DAY ASTRONOMICAL TIMECLOCK SWITCH, LEVITON VPT-24 OR APPROVED EQUAL. ROUTE EXTERIOR BUILDING LIGHTING BRANCH CIRCUITS THROUGH SWITCH. PROVIDE LIGHTING CONTACTOR MOUNTED ON WALL ABOVE SWITCH FOR BRANCH CIRCUITS FEEDING EXTERIOR BUILDING LIGHTS AND SITE AREA LIGHTS.
- 3 LABEL 'EQUIPMENT ROOM LTG'.



**KCL**  
ENGINEERING  
312 NW 10th Ave, Suite 100  
Portland, OR 97209  
503-212-4612

DEVELOPMENT REVIEW  
**S.M.A.R.T. FACILITY IMPROVEMENTS**  
PROJECT #: 2309.00  
CITY OF WILSONVILLE  
28979 SW BOBERG RD, WILSONVILLE, OR 97070

SHEET TITLE:  
**LIGHTING PLAN - ELECTRICAL**

REVISIONS:  
# DESCRP. DATE

ISSUE DATE: 04/26/2024

LIGHTING FIXTURE SCHEDULE

NOTES:

- ALL FIXTURES SHALL BE U.L. OR SIMILARLY LISTED.
- INCLUDE A MINIMUM 1 YEAR WARRANTY FOR LIGHTING FIXTURES, WHERE NOT OTHERWISE SPECIFIED.
- REFER TO ARCHITECTURAL DOCUMENTS FOR EXACT MOUNTING LOCATIONS, DETAILS, AND CONFIGURATIONS OF ALL LUMINAIRES. IF ARCHITECTURAL DRAWINGS DO NOT CLARIFY EXACT MOUNTING LOCATION OR DETAIL, ISSUE AN RFI FOR ARCHITECT TO SPECIFICALLY CLARIFY PRIOR TO FIXTURE ROUGH-IN.
- VERIFY COMPATIBILITY OF LIGHT FIXTURES WITH CEILING MATERIAL, ADJACENT CONSTRUCTION, AND ADJACENT FINISHES PRIOR TO SHOP DRAWINGS SUBMITTAL. NOTIFY THE ARCHITECT OF ANY CONFLICTS WITH THE PROPOSED INSTALLATION.
- CONTRACTOR IS RESPONSIBLE FOR ALL MISCELLANEOUS HARDWARE NECESSARY TO INSTALL AND SUPPORT THE LUMINAIRES.
- AIM AND TARGET ADJUSTABLE INTERIOR AND EXTERIOR LIGHT FIXTURES UNDER THE OBSERVATION AND IN COMPLIANCE WITH RECOMMENDATIONS OF THE ARCHITECT. INCLUDE LABOR AND MATERIAL COSTS MADE NECESSARY BY THIS REQUIREMENT.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FILLING OUT ALL UTILITY REBATE FORMS FOR OWNER.

TYPE	MANUFACTURER	MODEL	DESCRIPTION	SOURCE-CCT	Lumens	Initial Color Temperature	VOLTAGE	LOAD-VA	APPROVED EQUALS
L1	LITHONIA	FEM LED SERIES	LED 8' WET LOCATION CERTIFIED FIXTURE	LED	14704 LM	4000 K	120 V	95 VA	
L2	LITHONIA	FEM LED SERIES	PENDANT FIXTURE - RECTANGULAR 2X4	LED	4080 LM	4000 K	120 V	24 VA	
S1	CREE LIGHTING	THE EDGE SQUARE SERIES	SINGLE HEAD LED EXTERIOR POLE LIGHT, 25FT, SILVER FINISH POLE AND HEADS WITH EXTENDED ARM MOUNT.	LED	7450 LM	4000 K	120 V	90 VA	
S2	CREE LIGHTING	THE EDGE SQUARE SERIES	DUAL HEAD LED EXTERIOR POLE LIGHT, 25FT, SILVER FINISH, POLE AND HEADS	LED	7418 LM	4000 K	120 V	100 VA	
W1	CREE LIGHTING	OSO SERIES	LED EXTERIOR WALL PACK, CUTOFF TYPE, IP66 RATED	LED	3870 LM	4000 K	120 V	20 VA	
X1	LITHONIA	LV SERIES	EXIT SIGN, UNIVERSAL MOUNTING, NEMA 4X RATED.	RED LED	-	0 K	120 V	5 VA	

EQUIPMENT CONNECTION SCHEDULE

GENERAL NOTES:

- INCLUDE AUXILIARY CONTACTS AND LOW-VOLTAGE WIRING TO AUXILIARY EQUIPMENT THAT RUNS IN TANDEM WITH EQUIPMENT, (I.E. 120V DAMPERS WITH 480V MOTORS).
- FOR EQUIPMENT VERIFY MOCB AND MCA REQUIREMENTS WITH APPROVED EQUIPMENT CUTSHEETS PRIOR TO PROCUREMENT.

ABBREVIATIONS:

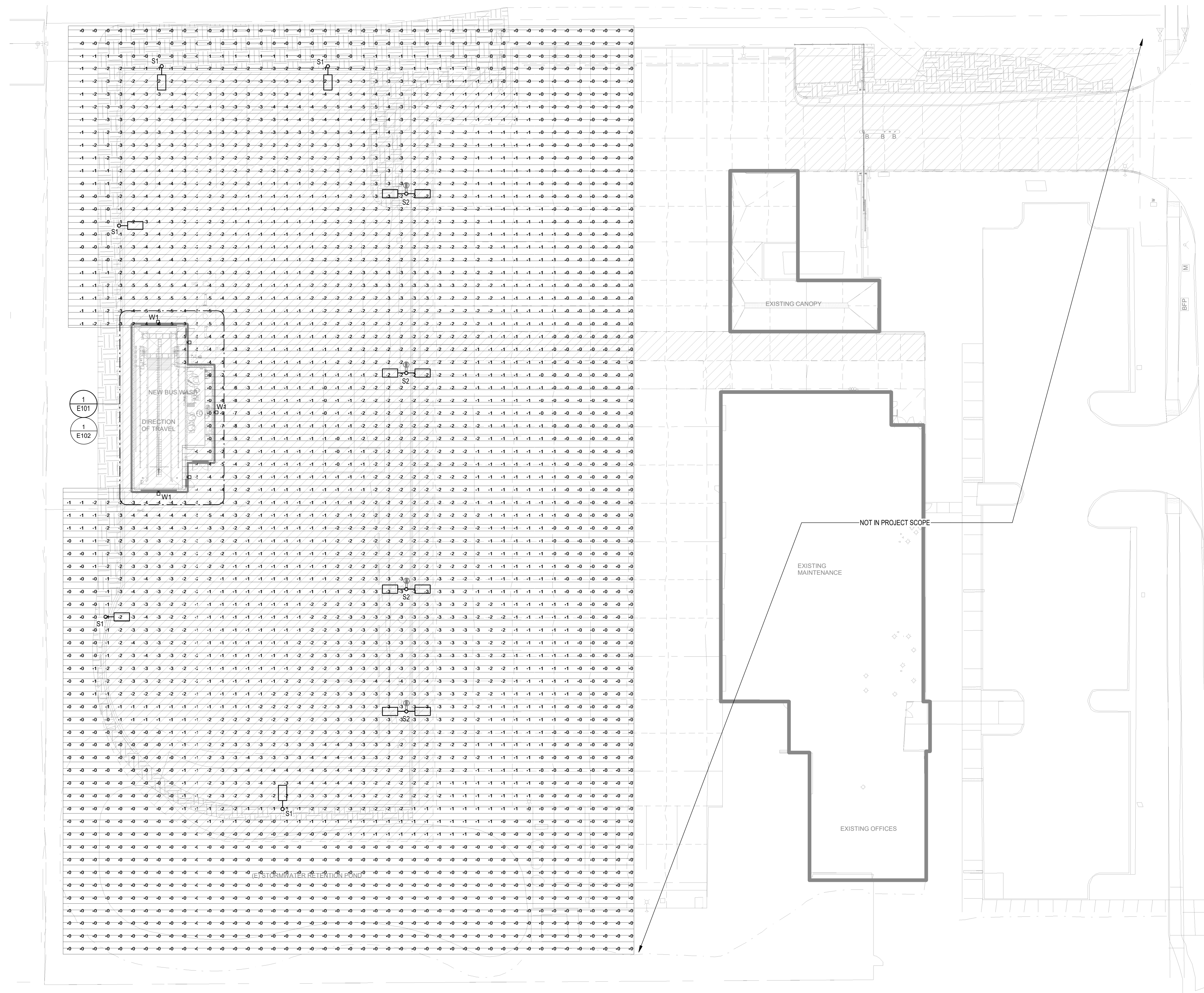
1	NEMA 1 ENCLOSURE	INT	INTEGRAL WITH EQUIPMENT FROM FACTORY
3R	NEMA 3R ENCLOSURE	MMS	MANUAL MOTOR STARTER WITH FUSES
4	NEMA 4 ENCLOSURE	NFD	NON-FUSED DISCONNECT SWITCH, HEAVY DUTY
4X	NEMA 4X ENCLOSURE	RD	RETURN AIR DUCT DETECTOR
BO	PROVIDED BY OTHERS	RSR	RUN STATUS RELAY, NORMALLY OPEN
CB	CIRCUIT BREAKER IN PANEL	SD	SUPPLY AIR DUCT DETECTOR
CSD	COMBINATION STARTER/DISCONNECT	SSP	START/STOP PUSHBUTTON WITH PILOT
CP	CORD AND PLUG PROVIDED WITH UNIT	SS	START/STOP PUSHBUTTON
ECB	ENCLOSED CIRCUIT BREAKER	ST	SHUNT TRIP
FAR	FIRE ALARM SHUTDOWN RELAY	TOR	TIME DELAY OFF RELAY
FDS	FUSED DISCONNECT SWITCH, HEAVY DUTY	TS	TOGGLE SWITCH WITH PLUG FUSE
GF	GROUND FAULT CIRCUIT INTERRUPTION	VFD	VARIABLE FREQUENCY DRIVE
HOA	HAND-OFF-AUTO		

TAG	ELECTRICAL CHARACTERISTICS					DISCONNECT				REMARKS
	VOLTAGE	PHASE	MOTOR HP	KW	MCA	TYPE	SIZE (AMPS)	NEMA RATING	FUSE SIZE (AMPS)	
AC-1	208 V	3	30		110	FDS	225	1	125	
AC-1		1			2	CB	20	1	-	
CONTROLS	120 V									
CUH-1	208 V	3	1/40	7.5	26	NFD	30	1	-	
CUH-2	208 V	3	1/15	10	35	NFD	60	4X	-	
CUH-3	208 V	3	1/15	10	35	NFD	60	4X	-	
EF-1	120 V	1	3/4		12.5	TS	20	3R	15	



### LUMINAIRE SCHEDULE

SYMBOL	TYPE	QTY	MANUFACTURER	MODEL	DESCRIPTION	LUMENS	COLOR TEMPERATURE
	S1	5	CREE LIGHTING	ARE-EDGE-4MB-DA-08-E-UL-SV-350	SINGLE HEAD LED EXTERIOR POLE LIGHT, 25FT, SILVER FINISH POLE AND HEADS WITH EXTENDED ARM MOUNT.	7450LM	4000K
	S2	4	CREE LIGHTING	EDGE-4M-06-E-UL-SV-350	DUAL HEAD LED EXTERIOR POLE LIGHT, 25FT, SILVER FINISH POLE AND HEADS	7418LM	4000K
	W1	5	CREE LIGHTING	OSQW-C-4L-40K7-2M-UL-WM-SV	LED EXTERIOR WALL PACK, CUTOFF TYPE, IP66 RATED	3870LM	4000K



**1 SITE PLAN - PHOTOMETRIC**  
3/64" = 1'-0"



# THE EDGE® Series

LED Area/Flood Luminaire

Rev. Date: V13 02/06/2024

## Product Description

THE EDGE® Series has a slim, low profile design. Its rugged cast aluminum housing minimizes wind load requirements and features an integral, weathertight LED driver compartment and high performance aluminum heat sinks. Various mounting choices: Adjustable Arm, Direct Arm, Direct Arm Long, or Side Arm (details on page 2). Includes a leaf/debris guard.

**Applications:** Parking lots, walkways, campuses, car dealerships, office complexes, and internal roadways

## Performance Summary

Patented NanoOptic® Product Technology

Assembled in the USA by Cree Lighting from US and imported parts

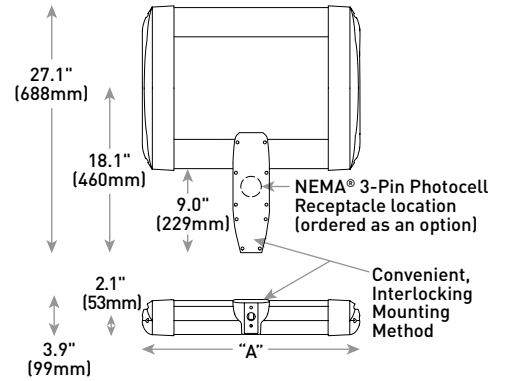
**CRI:** Minimum 70 CRI (4000K & 5700K); 80 CRI (3000K); 90 CRI (5000K)

**CCT:** Turtle Friendly Amber, 3000K (+/- 300K), 4000K (+/- 300K), 5000K (+/- 500K), 5700K (+/- 500K) standard

**Limited Warranty\*:** 10 years on luminaire/10 years on Colorfast DeltaGuard® finish/5 years on PML sensors/1 year on accessories

\*See <http://creelighting.com/warranty> for warranty terms

## DA Mount



## Accessories

Field-Installed	
<b>Bird Spikes</b> XA-BRDSPK <b>Hand-Held Remote</b> XA-SENSREM - For successful implementation of the programmable multi-level option, a minimum of one hand-held remote is required	<b>Backlight Control Shields</b> XA-20BLS-4 - Four-pack - Unpainted stainless steel <b>Shorting Cap</b> XA-XLSHRT <b>NEMA® 3-Pin Photocell</b> C-ACC-A-PCCELL-NEMA3-LV - On/off functionality only - Available with UL voltage only

LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

AA/DL/SA Mount - see page 22 for weight & dimensions

## Ordering Information

Example: ARE-EDG-2M-AA-12-E-UL-SV-350

Product	Optic	Mounting*	LED Count (x10)	Series	Voltage	Color Options	Drive Current	Options																							
ARE-EDG	2M Type II Medium	3MB Type III Medium w/BLS	4MP Type IV Medium w/Partial BLS	AA Adjustable Arm	02	E	UL Universal 120-277V	BK Black	350 350mA	DIM 0-10V Dimming - Control by others - Refer to <a href="#">Dimming spec sheet</a> for details - Can't exceed specified drive current - Not available with PML options	PML2 Programmable Multi-Level, 10-30' Mounting Height - Refer to <a href="#">PML spec sheet</a> for details - Intended for downlight applications at 0° tilt																				
					04																										
	2MB Type II Medium w/BLS	3MP Type III Medium w/Partial BLS	5M Type V Medium	DA Direct Arm	06							UH Universal 347-480V	SV Silver	700 700mA	F Fuse - Compatible only with 120V, 277V or 347V (phase to neutral) - Consult factory if fusing is required for 208V, 240V or 480V (phase to phase) - Refer to <a href="#">PML spec sheet</a> for availability with PML options - When code dictates fusing, use time delay fuse	R NEMA® 3-Pin Photocell Receptacle - 3-pin receptacle per ANSI C136.10 - Not available with SA mount - Intended for downlight applications with maximum 45° tilt - Requires photocell or shorting cap by others - Refer to <a href="#">PML spec sheet</a> for availability with PML options															
					08																										
	2MP Type II Medium w/BLS	3MP Type III Medium w/Partial BLS	5M Type V Medium	DL Direct Long Arm	10												WH White	- Available with 20-60 LEDs	HL Hi/Low (Dual Circuit Input) - Refer to <a href="#">HL spec sheet</a> for details - Sensor not included	30K 3000K Color Temperature - Minimum 80 CRI - Color temperature per luminaire	40K 4000K Color Temperature - Minimum 70 CRI - Color temperature per luminaire										
					12																										
	2MP Type II Medium w/BLS	3MP Type III Medium w/Partial BLS	5M Type V Medium	DL Direct Long Arm	14																	P Button Photocell - Refer to <a href="#">PML spec sheet</a> for availability with PML options - Available with UL voltage only	PML Programmable Multi-Level, 20-40' Mounting Height - Refer to <a href="#">PML spec sheet</a> for details - Intended for downlight applications at 0° tilt	50K 5000K Color Temperature - Minimum 90 CRI - Color temperature per luminaire	TRL Amber Turtle Friendly LEDs - Available only with 350mA - 600nm dominant wavelength - Additional shielding (by others) may be required for Florida Fish and Wildlife Conservation Commission compliance						
					16																										
	FLD-EDG	25 25° Flood	70 70° Flood	N6 NEMA® 6	AA Adjustable Arm																					E	UL Universal 120-277V	BK Black	350 350mA	DIM 0-10V Dimming - Control by others - Refer to <a href="#">Dimming spec sheet</a> for details - Can't exceed specified drive current - Not available with PML options	PML2 Programmable Multi-Level, 10-30' Mounting Height - Refer to <a href="#">PML spec sheet</a> for details - Intended for downlight applications at 0° tilt
25 25° Flood		70 70° Flood	N6 NEMA® 6	AA Adjustable Arm																											
					40 40° Flood	SN Sign	SA Side Arm - Available with 20-60 LEDs																								

\* Reference EPA and pole configuration suitability data beginning on page 19



US: [creelighting.com](http://creelighting.com) (800) 236-6800

Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234

**CREE** ⇄ LIGHTING®



**Product Specifications**

**CONSTRUCTION & MATERIALS**

- Slim, low profile, minimizing wind load requirements
- Luminaire sides are rugged die cast aluminum with integral, weathertight LED driver compartment and high performance heat sinks
- DA and DL mount utilizes convenient interlocking mounting method. Mounting is rugged die cast aluminum, mounts to 3-6" (76-152mm) square or round pole and secures to pole with 5/16-18 UNC bolts spaced on 2" (51mm) centers
- AA and SA mounts are rugged die cast aluminum and mount to 2" (51mm) IP, 2.375" (60mm) O.D. tenons
- Includes leaf/debris guard
- Exclusive Colorfast DeltaGuard® finish features an E-Coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Black, bronze, silver, and white are available
- **Weight:** See Dimensions and Weight Charts on pages 1 and 22

**ELECTRICAL SYSTEM**

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz, Class 1 drivers
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- DA and DL mounts designed with integral weathertight electrical box with terminal strips (12Ga-20Ga) for easy power hookup
- Integral 10kV/5kA surge suppression protection standard
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- **Maximum 10V Source Current:** 20 LED (350mA): 10mA; 20 LED (525 & 700mA) and 40-80 LED: 0.15mA; 100-160 LED: 0.30mA

**REGULATORY & VOLUNTARY QUALIFICATIONS**

- cULus Listed
- Suitable for wet locations
- Enclosure rated IP66 per IEC 60529 when ordered without P or R options
- Consult factory for CE Certified products
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards when ordered with AA, DA and DL mounts
- ANSI C136.2 10kV/5kA surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- RoHS compliant. Consult factory for additional details
- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

Electrical Data*								
LED Count (x10)	CCT	System Watts 120-480V	Total Current (A)					
			120V	208V	240V	277V	347V	480V
350mA								
02	30K/40K/50K/57K	25	0.21	0.13	0.11	0.10	0.08	0.07
	TRL	19	0.16	0.09	0.08	0.07	0.05	0.04
04	30K/40K/50K/57K	46	0.36	0.23	0.21	0.20	0.15	0.12
	TRL	35	0.29	0.17	0.15	0.13	0.10	0.07
06	30K/40K/50K/57K	66	0.52	0.31	0.28	0.26	0.20	0.15
	TRL	50	0.41	0.24	0.21	0.18	0.14	0.10
08	30K/40K/50K/57K	90	0.75	0.44	0.38	0.34	0.26	0.20
	TRL	68	0.57	0.33	0.28	0.25	0.20	0.14
10	30K/40K/50K/57K	110	0.92	0.53	0.47	0.41	0.32	0.24
	TRL	83	0.69	0.40	0.35	0.30	0.24	0.17
12	30K/40K/50K/57K	130	1.10	0.63	0.55	0.48	0.38	0.28
	TRL	99	0.82	0.48	0.41	0.36	0.28	0.21
14	30K/40K/50K/57K	158	1.32	0.77	0.68	0.62	0.47	0.35
	TRL	120	1.00	0.58	0.50	0.43	0.34	0.25
16	30K/40K/50K/57K	179	1.49	0.87	0.77	0.68	0.53	0.39
	TRL	136	1.13	0.65	0.57	0.49	0.39	0.28
525mA								
02	30K/40K/50K/57K	37	0.30	0.19	0.17	0.16	0.12	0.10
04	30K/40K/50K/57K	70	0.58	0.34	0.31	0.28	0.21	0.16
06	30K/40K/50K/57K	101	0.84	0.49	0.43	0.38	0.30	0.22
08	30K/40K/50K/57K	133	1.13	0.66	0.58	0.51	0.39	0.28
10	30K/40K/50K/57K	171	1.43	0.83	0.74	0.66	0.50	0.38
12	30K/40K/50K/57K	202	1.69	0.98	0.86	0.77	0.59	0.44
14	30K/40K/50K/57K	232	1.94	1.12	0.98	0.87	0.68	0.50
16	30K/40K/50K/57K	263	2.21	1.27	1.11	0.97	0.77	0.56
700mA								
02	30K/40K/50K/57K	50	0.41	0.25	0.22	0.20	0.15	0.12
04	30K/40K/50K/57K	93	0.78	0.46	0.40	0.36	0.27	0.20
06	30K/40K/50K/57K	134	1.14	0.65	0.57	0.50	0.39	0.29

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%

**THE EDGE® Series Ambient Adjusted Lumen Maintenance<sup>1</sup>**

Ambient	CCT	Initial LMF	25K hr Reported <sup>2</sup> LMF	50K hr Reported <sup>2</sup> LMF	75K hr Reported <sup>2</sup> / Estimated <sup>3</sup> LMF	100K hr Reported <sup>3</sup> / Estimated <sup>3</sup> LMF
5°C (41°F)	30K/40K/50K/57K	1.04	1.03	1.03	1.03 <sup>2</sup>	1.03
	TRL	1.06	1.06	1.06	1.06 <sup>3</sup>	1.06
10°C (50°F)	30K/40K/50K/57K	1.03	1.02	1.02	1.02 <sup>2</sup>	1.02
	TRL	1.04	1.04	1.04	1.04 <sup>3</sup>	1.04
15°C (59°F)	30K/40K/50K/57K	1.02	1.01	1.01	1.01 <sup>2</sup>	1.01
	TRL	1.03	1.03	1.03	1.03 <sup>3</sup>	1.03
20°C (68°F)	30K/40K/50K/57K	1.01	0.99	0.99	0.99 <sup>2</sup>	0.99
	TRL	1.01	1.01	1.01	1.01 <sup>3</sup>	1.01
25°C (77°F)	30K/40K/50K/57K	1.00	0.98	0.98	0.98 <sup>2</sup>	0.98
	TRL	1.00	1.00	1.00	1.00 <sup>3</sup>	1.00

<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

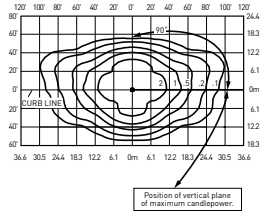
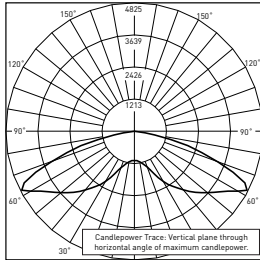
<sup>2</sup> In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

<sup>3</sup> Estimated values are calculated and represent time durations that exceed the 6x test duration of the LED.

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**2M**



RESTL Test Report #: PL10270-004B  
 ARE-EDG-2M-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 10,053

ARE-EDG-2M-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 17,504  
 Initial FC at grade

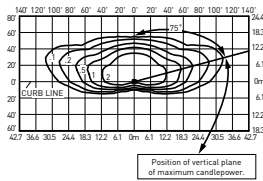
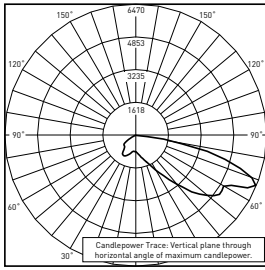
Type II Medium Distribution										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
350mA										
02	2,072	B1 U0 G1	2,501	B1 U0 G1	1,902	B1 U0 G1	2,551	B1 U0 G1	816	B0 U0 G0
04	4,143	B2 U0 G1	5,003	B2 U0 G2	3,803	B1 U0 G1	5,102	B2 U0 G2	1,633	B1 U0 G1
06	6,144	B2 U0 G2	7,418	B2 U0 G2	5,640	B2 U0 G2	7,565	B2 U0 G2	2,421	B1 U0 G1
08	8,192	B2 U0 G2	9,891	B3 U0 G3	7,519	B2 U0 G2	10,087	B3 U0 G3	3,228	B1 U0 G1
10	10,215	B3 U0 G3	12,334	B3 U0 G3	9,377	B3 U0 G3	12,578	B3 U0 G3	4,025	B2 U0 G1
12	12,258	B3 U0 G3	14,801	B3 U0 G3	11,252	B3 U0 G3	15,094	B3 U0 G3	4,830	B2 U0 G2
14	14,211	B3 U0 G3	17,158	B3 U0 G3	13,044	B3 U0 G3	17,498	B3 U0 G3	5,599	B2 U0 G2
16	16,241	B3 U0 G3	19,609	B3 U0 G3	14,908	B3 U0 G3	19,998	B4 U0 G3	6,399	B2 U0 G2
525mA										
02	2,943	B1 U0 G1	3,550	B1 U0 G1	2,702	B1 U0 G1	3,624	B1 U0 G1		N/A
04	5,886	B2 U0 G2	7,099	B2 U0 G2	5,403	B2 U0 G2	7,248	B2 U0 G2		N/A
06	8,729	B3 U0 G3	10,527	B3 U0 G3	8,012	B2 U0 G2	10,748	B3 U0 G3		N/A
08	11,638	B3 U0 G3	14,037	B3 U0 G3	10,683	B3 U0 G3	14,331	B3 U0 G3		N/A
10	14,513	B3 U0 G3	17,504	B3 U0 G3	13,322	B3 U0 G3	17,870	B3 U0 G3		N/A
12	17,415	B3 U0 G3	21,004	B4 U0 G4	15,986	B3 U0 G3	21,444	B4 U0 G4		N/A
14	20,189	B4 U0 G3	24,350	B4 U0 G4	18,532	B3 U0 G3	24,860	B4 U0 G4		N/A
16	23,074	B4 U0 G4	27,828	B4 U0 G4	21,179	B4 U0 G4	28,411	B4 U0 G4		N/A
700mA										
02	3,472	B1 U0 G1	4,189	B2 U0 G1	3,187	B1 U0 G1	4,275	B2 U0 G2		N/A
04	6,943	B2 U0 G2	8,379	B2 U0 G2	6,373	B2 U0 G2	8,549	B3 U0 G3		N/A
06	10,296	B3 U0 G3	12,425	B3 U0 G3	9,451	B3 U0 G3	12,678	B3 U0 G3		N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**2MB**



RESTL Test Report #: PL10023-003B  
 ARE-EDG-2MB-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 7,784

ARE-EDG-2MB-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 13,185  
 Initial FC at grade

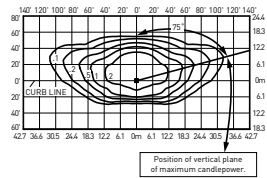
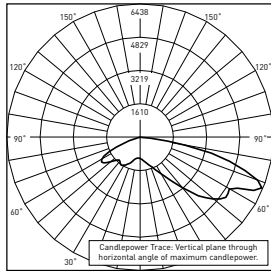
Type II Medium Distribution w/BLS										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
350mA										
02	1,560	B0 U0 G1	1,884	B0 U0 G1	1,432	B0 U0 G1	1,921	B0 U0 G1	615	B0 U0 G0
04	3,121	B0 U0 G1	3,768	B1 U0 G1	2,865	B0 U0 G1	3,843	B1 U0 G1	1,230	B0 U0 G1
06	4,628	B1 U0 G1	5,588	B1 U0 G1	4,248	B1 U0 G1	5,698	B1 U0 G1	1,824	B0 U0 G1
08	6,170	B1 U0 G1	7,450	B1 U0 G2	5,664	B1 U0 G1	7,598	B1 U0 G2	2,431	B0 U0 G1
10	7,695	B1 U0 G2	9,291	B1 U0 G2	7,063	B1 U0 G2	9,475	B1 U0 G2	3,032	B0 U0 G1
12	9,233	B1 U0 G2	11,149	B1 U0 G2	8,476	B1 U0 G2	11,370	B1 U0 G2	3,638	B1 U0 G1
14	10,704	B1 U0 G2	12,924	B1 U0 G2	9,825	B1 U0 G2	13,181	B1 U0 G2	4,218	B1 U0 G1
16	12,233	B1 U0 G2	14,771	B1 U0 G3	11,229	B1 U0 G2	15,063	B1 U0 G3	4,820	B1 U0 G1
525mA										
02	2,217	B0 U0 G1	2,674	B0 U0 G1	2,035	B0 U0 G1	2,730	B0 U0 G1		N/A
04	4,434	B1 U0 G1	5,348	B1 U0 G1	4,070	B1 U0 G1	5,460	B1 U0 G1		N/A
06	6,575	B1 U0 G2	7,930	B1 U0 G2	6,035	B1 U0 G1	8,096	B1 U0 G2		N/A
08	8,766	B1 U0 G2	10,573	B1 U0 G2	8,047	B1 U0 G2	10,794	B1 U0 G2		N/A
10	10,932	B1 U0 G2	13,185	B1 U0 G2	10,034	B1 U0 G2	13,461	B1 U0 G2		N/A
12	13,118	B1 U0 G2	15,821	B2 U0 G3	12,041	B1 U0 G2	16,153	B2 U0 G3		N/A
14	15,208	B1 U0 G3	18,341	B2 U0 G3	13,959	B1 U0 G2	18,726	B2 U0 G3		N/A
16	17,380	B2 U0 G3	20,962	B2 U0 G3	15,953	B2 U0 G3	21,401	B2 U0 G3		N/A
700mA										
02	2,615	B0 U0 G1	3,156	B0 U0 G1	2,400	B0 U0 G1	3,220	B0 U0 G1		N/A
04	5,230	B1 U0 G1	6,311	B1 U0 G2	4,801	B1 U0 G1	6,440	B1 U0 G2		N/A
06	7,755	B1 U0 G2	9,359	B1 U0 G2	7,119	B1 U0 G2	9,549	B1 U0 G2		N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**2MP**



RESTL Test Report #: PL10097-001B  
 ARE-EDG-2MP-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 9,149

ARE-EDG-2MP-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 15,458  
 Initial FC at grade

Type II Medium Distribution w/Partial BLS										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	1,829	B1 U0 G1	2,209	B1 U0 G1	1,679	B1 U0 G1	2,253	B1 U0 G1	721	B0 U0 G0
04	3,659	B1 U0 G1	4,418	B1 U0 G1	3,359	B1 U0 G1	4,505	B1 U0 G1	1,442	B0 U0 G1
06	5,426	B1 U0 G1	6,551	B1 U0 G1	4,980	B1 U0 G1	6,681	B1 U0 G1	2,138	B1 U0 G1
08	7,234	B2 U0 G1	8,735	B2 U0 G2	6,640	B1 U0 G1	8,908	B2 U0 G2	2,851	B1 U0 G1
10	9,021	B2 U0 G2	10,892	B2 U0 G2	8,281	B2 U0 G2	11,108	B2 U0 G2	3,555	B1 U0 G1
12	10,825	B2 U0 G2	13,071	B2 U0 G2	9,937	B2 U0 G2	13,330	B2 U0 G2	4,266	B1 U0 G1
14	12,550	B2 U0 G2	15,153	B2 U0 G2	11,520	B2 U0 G2	15,453	B2 U0 G2	4,945	B1 U0 G1
16	14,343	B2 U0 G2	17,317	B2 U0 G2	13,165	B2 U0 G2	17,661	B3 U0 G2	5,651	B1 U0 G1
<b>525mA</b>										
02	2,599	B1 U0 G1	3,135	B1 U0 G1	2,386	B1 U0 G1	3,200	B1 U0 G1		N/A
04	5,198	B1 U0 G1	6,270	B1 U0 G1	4,772	B1 U0 G1	6,401	B1 U0 G1		N/A
06	7,708	B2 U0 G2	9,297	B2 U0 G2	7,076	B2 U0 G1	9,492	B2 U0 G2		N/A
08	10,278	B2 U0 G2	12,396	B2 U0 G2	9,434	B2 U0 G2	12,656	B2 U0 G2		N/A
10	12,817	B2 U0 G2	15,458	B2 U0 G2	11,764	B2 U0 G2	15,782	B2 U0 G2		N/A
12	15,380	B2 U0 G2	18,549	B3 U0 G3	14,117	B2 U0 G2	18,938	B3 U0 G3		N/A
14	17,830	B3 U0 G2	21,504	B3 U0 G3	16,366	B2 U0 G2	21,954	B3 U0 G3		N/A
16	20,377	B3 U0 G3	24,576	B3 U0 G3	18,704	B3 U0 G3	25,091	B3 U0 G3		N/A
<b>700mA</b>										
02	3,066	B1 U0 G1	3,700	B1 U0 G1	2,814	B1 U0 G1	3,775	B1 U0 G1		N/A
04	6,132	B1 U0 G1	7,400	B2 U0 G1	5,628	B1 U0 G1	7,550	B2 U0 G2		N/A
06	9,092	B2 U0 G2	10,973	B2 U0 G2	8,346	B2 U0 G2	11,196	B2 U0 G2		N/A

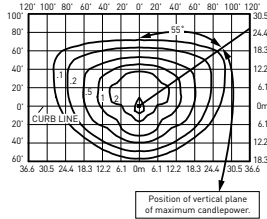
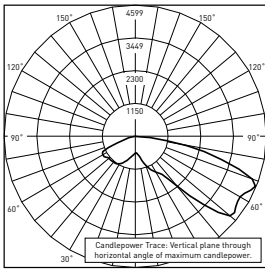
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**3M**



**RETL Test Report #:** PL09405-001A  
**ARE-EDG-3M-\*\*-06-E-UL-525-40K**  
**Initial Delivered Lumens:** 9,460

**ARE-EDG-3M-\*\*-10-E-UL-525-40K**  
**Mounting Height:** 25' (7.6m) A.F.G.  
**Initial Delivered Lumens:** 16,594  
**Initial FC at grade**

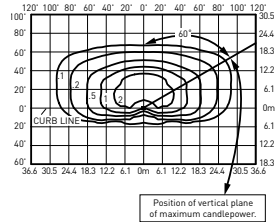
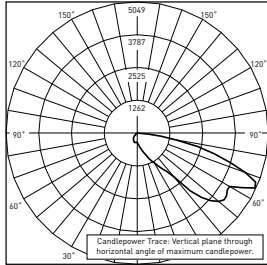
Type III Medium Distribution										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	1,964	B1 U0 G1	2,371	B1 U0 G1	1,803	B1 U0 G1	2,418	B1 U0 G1	774	B0 U0 G1
04	3,928	B1 U0 G1	4,743	B1 U0 G1	3,606	B1 U0 G1	4,837	B1 U0 G1	1,548	B1 U0 G1
06	5,825	B2 U0 G2	7,033	B2 U0 G2	5,347	B2 U0 G2	7,172	B2 U0 G2	2,295	B1 U0 G1
08	7,766	B2 U0 G2	9,377	B2 U0 G2	7,129	B2 U0 G2	9,563	B2 U0 G2	3,060	B1 U0 G1
10	9,685	B2 U0 G2	11,693	B3 U0 G3	8,890	B2 U0 G2	11,925	B3 U0 G3	3,816	B1 U0 G1
12	11,621	B3 U0 G3	14,032	B3 U0 G3	10,667	B3 U0 G3	14,310	B3 U0 G3	4,579	B1 U0 G1
14	13,472	B3 U0 G3	16,267	B3 U0 G3	12,367	B3 U0 G3	16,589	B3 U0 G3	5,309	B2 U0 G2
16	15,397	B3 U0 G3	18,591	B3 U0 G3	14,133	B3 U0 G3	18,959	B3 U0 G3	6,067	B2 U0 G2
<b>525mA</b>										
02	2,790	B1 U0 G1	3,365	B1 U0 G1	2,561	B1 U0 G1	3,436	B1 U0 G1	N/A	
04	5,581	B2 U0 G2	6,731	B2 U0 G2	5,122	B2 U0 G2	6,872	B2 U0 G2	N/A	
06	8,275	B2 U0 G2	9,981	B3 U0 G3	7,596	B2 U0 G2	10,190	B3 U0 G3	N/A	
08	11,034	B3 U0 G3	13,307	B3 U0 G3	10,128	B3 U0 G3	13,586	B3 U0 G3	N/A	
10	13,759	B3 U0 G3	16,594	B3 U0 G3	12,630	B3 U0 G3	16,942	B3 U0 G3	N/A	
12	16,511	B3 U0 G3	19,913	B3 U0 G3	15,155	B3 U0 G3	20,330	B3 U0 G3	N/A	
14	19,141	B3 U0 G3	23,085	B3 U0 G3	17,569	B3 U0 G3	23,569	B3 U0 G3	N/A	
16	21,875	B3 U0 G3	26,383	B4 U0 G4	20,079	B3 U0 G3	26,936	B4 U0 G4	N/A	
<b>700mA</b>										
02	3,291	B1 U0 G1	3,972	B1 U0 G1	3,021	B1 U0 G1	4,053	B1 U0 G1	N/A	
04	6,582	B2 U0 G2	7,944	B2 U0 G2	6,042	B2 U0 G2	8,105	B2 U0 G2	N/A	
06	9,761	B2 U0 G2	11,779	B3 U0 G3	8,960	B2 U0 G2	12,019	B3 U0 G3	N/A	

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**3MB**



RESTL Test Report #: PL10023-001B  
 ARE-EDG-3MB-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 7,602

ARE-EDG-3MB-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 12,275  
 Initial FC at grade

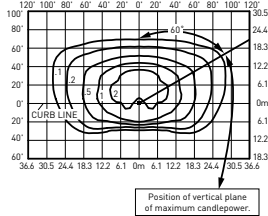
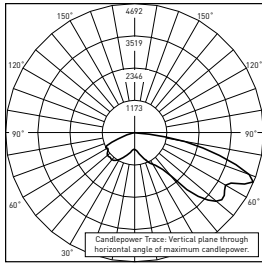
Type III Medium Distribution w/BLS										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	1,453	B0 U0 G1	1,754	B0 U0 G1	1,334	B0 U0 G1	1,789	B0 U0 G1	572	B0 U0 G0
04	2,906	B0 U0 G1	3,508	B1 U0 G1	2,667	B0 U0 G1	3,578	B1 U0 G1	1,145	B0 U0 G1
06	4,309	B1 U0 G1	5,202	B1 U0 G1	3,955	B1 U0 G1	5,305	B1 U0 G1	1,698	B0 U0 G1
08	5,745	B1 U0 G2	6,936	B1 U0 G2	5,273	B1 U0 G1	7,074	B1 U0 G2	2,264	B0 U0 G1
10	7,164	B1 U0 G2	8,650	B1 U0 G2	6,576	B1 U0 G2	8,821	B1 U0 G2	2,823	B0 U0 G1
12	8,597	B1 U0 G2	10,380	B1 U0 G2	7,891	B1 U0 G2	10,585	B1 U0 G2	3,387	B1 U0 G1
14	9,966	B1 U0 G2	12,033	B1 U0 G2	9,148	B1 U0 G2	12,272	B1 U0 G2	3,927	B1 U0 G1
16	11,390	B1 U0 G2	13,752	B2 U0 G3	10,455	B1 U0 G2	14,025	B2 U0 G3	4,488	B1 U0 G1
<b>525mA</b>										
02	2,064	B0 U0 G1	2,489	B0 U0 G1	1,895	B0 U0 G1	2,542	B0 U0 G1		N/A
04	4,128	B1 U0 G1	4,979	B1 U0 G1	3,789	B1 U0 G1	5,083	B1 U0 G1		N/A
06	6,121	B1 U0 G2	7,383	B1 U0 G2	5,619	B1 U0 G2	7,538	B1 U0 G2		N/A
08	8,162	B1 U0 G2	9,844	B1 U0 G2	7,492	B1 U0 G2	10,050	B1 U0 G2		N/A
10	10,178	B1 U0 G2	12,275	B1 U0 G2	9,342	B1 U0 G2	12,532	B1 U0 G2		N/A
12	12,213	B1 U0 G2	14,730	B2 U0 G3	11,211	B1 U0 G2	15,039	B2 U0 G3		N/A
14	14,159	B2 U0 G3	17,077	B2 U0 G3	12,996	B1 U0 G2	17,434	B2 U0 G3		N/A
16	16,181	B2 U0 G3	19,516	B2 U0 G3	14,853	B2 U0 G3	19,925	B2 U0 G3		N/A
<b>700mA</b>										
02	2,435	B0 U0 G1	2,938	B1 U0 G1	2,235	B0 U0 G1	2,998	B1 U0 G1		N/A
04	4,869	B1 U0 G1	5,876	B1 U0 G2	4,469	B1 U0 G1	5,996	B1 U0 G2		N/A
06	7,220	B1 U0 G2	8,714	B1 U0 G2	6,628	B1 U0 G2	8,891	B1 U0 G2		N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**3MP**



**RESTL Test Report #:** PL10097-002B  
**ARE-EDG-3MP-\*\*-06-E-UL-525-40K**  
**Initial Delivered Lumens:** 8,670

**ARE-EDG-3MP-\*\*-10-E-UL-525-40K**  
**Mounting Height:** 25' (7.6m) A.F.G.  
**Initial Delivered Lumens:** 14,548  
**Initial FC at grade**

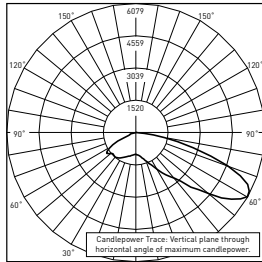
Type III Medium Distribution w/Partial BLS										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens <sup>*</sup>	BUG Ratings** Per TM-15-20	Initial Delivered Lumens <sup>*</sup>	BUG Ratings** Per TM-15-20	Initial Delivered Lumens <sup>*</sup>	BUG Ratings** Per TM-15-20	Initial Delivered Lumens <sup>*</sup>	BUG Ratings** Per TM-15-20	Initial Delivered Lumens <sup>*</sup>	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	1,722	B1 U0 G1	2,079	B1 U0 G1	1,581	B1 U0 G1	2,120	B1 U0 G1	678	B0 U0 G1
04	3,444	B1 U0 G1	4,158	B1 U0 G1	3,161	B1 U0 G1	4,240	B1 U0 G1	1,357	B0 U0 G1
06	5,107	B1 U0 G1	6,166	B1 U0 G2	4,687	B1 U0 G1	6,288	B1 U0 G2	2,012	B1 U0 G1
08	6,809	B1 U0 G2	8,221	B2 U0 G2	6,250	B1 U0 G2	8,384	B2 U0 G2	2,683	B1 U0 G1
10	8,491	B2 U0 G2	10,252	B2 U0 G2	7,794	B2 U0 G2	10,455	B2 U0 G2	3,346	B1 U0 G1
12	10,189	B2 U0 G2	12,302	B2 U0 G3	9,352	B2 U0 G2	12,546	B2 U0 G3	4,015	B1 U0 G1
14	11,812	B2 U0 G2	14,261	B3 U0 G3	10,842	B2 U0 G2	14,544	B3 U0 G3	4,654	B1 U0 G1
16	13,499	B2 U0 G3	16,299	B3 U0 G3	12,391	B2 U0 G3	16,622	B3 U0 G3	5,319	B1 U0 G2
<b>525mA</b>										
02	2,446	B1 U0 G1	2,950	B1 U0 G1	2,245	B1 U0 G1	3,012	B1 U0 G1		N/A
04	4,893	B1 U0 G1	5,901	B1 U0 G2	4,491	B1 U0 G1	6,024	B1 U0 G2		N/A
06	7,255	B2 U0 G2	8,750	B2 U0 G2	6,659	B1 U0 G2	8,933	B2 U0 G2		N/A
08	9,673	B2 U0 G2	11,667	B2 U0 G2	8,879	B2 U0 G2	11,911	B2 U0 G2		N/A
10	12,063	B2 U0 G3	14,548	B3 U0 G3	11,072	B2 U0 G2	14,853	B3 U0 G3		N/A
12	14,475	B3 U0 G3	17,458	B3 U0 G3	13,287	B2 U0 G3	17,824	B3 U0 G3		N/A
14	16,781	B3 U0 G3	20,239	B3 U0 G3	15,403	B3 U0 G3	20,663	B3 U0 G3		N/A
16	19,178	B3 U0 G3	23,130	B3 U0 G3	17,604	B3 U0 G3	23,615	B3 U0 G3		N/A
<b>700mA</b>										
02	2,885	B1 U0 G1	3,482	B1 U0 G1	2,649	B1 U0 G1	3,553	B1 U0 G1		N/A
04	5,771	B1 U0 G2	6,964	B1 U0 G2	5,297	B1 U0 G1	7,106	B2 U0 G2		N/A
06	8,557	B2 U0 G2	10,327	B2 U0 G2	7,855	B2 U0 G2	10,537	B2 U0 G2		N/A

\* Initial delivered lumens at 25°C [77°F]. Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

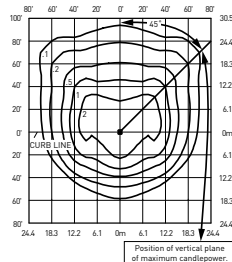
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**4M**



RESTL Test Report #: PL10270-001B  
 ARE-EDG-4M-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 10,483



ARE-EDG-4M-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 17,504  
 Initial FC at grade

Type IV Medium Distribution										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	2,072	B1 U0 G1	2,501	B1 U0 G1	1,902	B1 U0 G1	2,551	B1 U0 G1	816	B0 U0 G1
04	4,143	B1 U0 G1	5,003	B2 U0 G1	3,803	B1 U0 G1	5,102	B2 U0 G1	1,633	B1 U0 G1
06	6,144	B2 U0 G1	7,418	B2 U0 G2	5,640	B2 U0 G1	7,565	B2 U0 G2	2,421	B1 U0 G1
08	8,192	B2 U0 G2	9,891	B2 U0 G2	7,519	B2 U0 G2	10,087	B2 U0 G2	3,228	B1 U0 G1
10	10,215	B2 U0 G2	12,334	B3 U0 G2	9,377	B2 U0 G2	12,578	B3 U0 G2	4,025	B1 U0 G1
12	12,258	B2 U0 G2	14,801	B3 U0 G3	11,252	B2 U0 G2	15,094	B3 U0 G3	4,830	B1 U0 G1
14	14,211	B3 U0 G3	17,158	B3 U0 G3	13,044	B3 U0 G2	17,498	B3 U0 G3	5,599	B2 U0 G1
16	16,241	B3 U0 G3	19,609	B3 U0 G3	14,908	B3 U0 G3	19,998	B3 U0 G3	6,399	B2 U0 G1
<b>525mA</b>										
02	2,943	B1 U0 G1	3,550	B1 U0 G1	2,702	B1 U0 G1	3,624	B1 U0 G1		N/A
04	5,886	B2 U0 G1	7,099	B2 U0 G2	5,403	B2 U0 G1	7,248	B2 U0 G2		N/A
06	8,729	B2 U0 G2	10,527	B2 U0 G2	8,012	B2 U0 G2	10,748	B2 U0 G2		N/A
08	11,638	B2 U0 G2	14,037	B3 U0 G2	10,683	B2 U0 G2	14,331	B3 U0 G2		N/A
10	14,513	B3 U0 G3	17,504	B3 U0 G3	13,322	B3 U0 G2	17,870	B3 U0 G3		N/A
12	17,415	B3 U0 G3	21,004	B3 U0 G3	15,986	B3 U0 G3	21,444	B3 U0 G3		N/A
14	20,189	B3 U0 G3	24,350	B3 U0 G3	18,532	B3 U0 G3	24,860	B4 U0 G3		N/A
16	23,074	B3 U0 G3	27,828	B4 U0 G3	21,179	B3 U0 G3	28,411	B4 U0 G3		N/A
<b>700mA</b>										
02	3,472	B1 U0 G1	4,189	B1 U0 G1	3,187	B1 U0 G1	4,275	B1 U0 G1		N/A
04	6,943	B2 U0 G1	8,379	B2 U0 G2	6,373	B2 U0 G1	8,549	B2 U0 G2		N/A
06	10,296	B2 U0 G2	12,425	B3 U0 G2	9,451	B2 U0 G2	12,678	B3 U0 G2		N/A

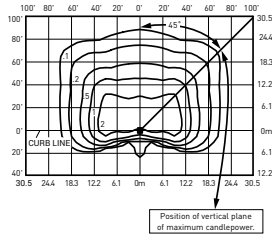
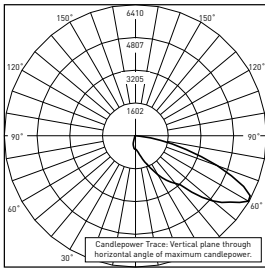
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>



**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**4MB**



RESTL Test Report #: PL10023-002B  
 ARE-EDG-4MB-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 7,985

ARE-EDG-4MB-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 13,185  
 Initial FC at grade

Type IV Medium Distribution w/BLS										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	1,560	B0 U0 G1	1,884	B0 U0 G1	1,432	B0 U0 G1	1,921	B0 U0 G1	615	B0 U0 G0
04	3,121	B1 U0 G1	3,768	B1 U0 G1	2,865	B0 U0 G1	3,843	B1 U0 G1	1,230	B0 U0 G1
06	4,628	B1 U0 G1	5,588	B1 U0 G1	4,248	B1 U0 G1	5,698	B1 U0 G2	1,824	B0 U0 G1
08	6,170	B1 U0 G2	7,450	B1 U0 G2	5,664	B1 U0 G2	7,598	B1 U0 G2	2,431	B0 U0 G1
10	7,695	B1 U0 G2	9,291	B1 U0 G2	7,063	B1 U0 G2	9,475	B1 U0 G2	3,032	B1 U0 G1
12	9,233	B1 U0 G2	11,149	B1 U0 G2	8,476	B1 U0 G2	11,370	B1 U0 G2	3,638	B1 U0 G1
14	10,704	B1 U0 G2	12,924	B1 U0 G2	9,825	B1 U0 G2	13,181	B1 U0 G2	4,218	B1 U0 G1
16	12,233	B1 U0 G2	14,771	B2 U0 G2	11,229	B1 U0 G2	15,063	B2 U0 G2	4,820	B1 U0 G1
<b>525mA</b>										
02	2,217	B1 U0 G1	2,674	B1 U0 G1	2,035	B1 U0 G1	2,730	B1 U0 G1		N/A
04	4,434	B1 U0 G1	5,348	B1 U0 G1	4,070	B1 U0 G1	5,460	B1 U0 G1		N/A
06	6,575	B1 U0 G2	7,930	B1 U0 G2	6,035	B1 U0 G2	8,096	B1 U0 G2		N/A
08	8,766	B1 U0 G2	10,573	B1 U0 G2	8,047	B1 U0 G2	10,794	B1 U0 G2		N/A
10	10,932	B1 U0 G2	13,185	B1 U0 G2	10,034	B1 U0 G2	13,461	B2 U0 G2		N/A
12	13,118	B1 U0 G2	15,821	B2 U0 G3	12,041	B1 U0 G2	16,153	B2 U0 G3		N/A
14	15,208	B2 U0 G2	18,341	B2 U0 G3	13,959	B2 U0 G2	18,726	B2 U0 G3		N/A
16	17,380	B2 U0 G3	20,962	B2 U0 G3	15,953	B2 U0 G3	21,401	B2 U0 G3		N/A
<b>700mA</b>										
02	2,615	B1 U0 G1	3,156	B1 U0 G1	2,400	B1 U0 G1	3,220	B1 U0 G1		N/A
04	5,230	B1 U0 G1	6,311	B1 U0 G2	4,801	B1 U0 G1	6,440	B1 U0 G2		N/A
06	7,755	B1 U0 G2	9,359	B1 U0 G2	7,119	B1 U0 G2	9,549	B1 U0 G2		N/A

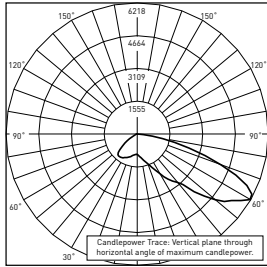
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

THE EDGE® LED Area/Flood Luminaire

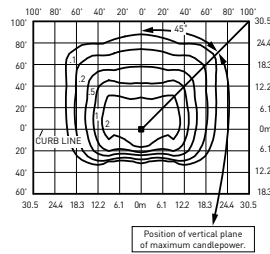
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**4MP**



RESTL Test Report #: PL10097-003B  
 ARE-EDG-4MP-\*\*-06-E-UL-525-40K  
 Initial Delivered Lumens: 9,410



ARE-EDG-4MP-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G.  
 Initial Delivered Lumens: 15,458  
 Initial FC at grade

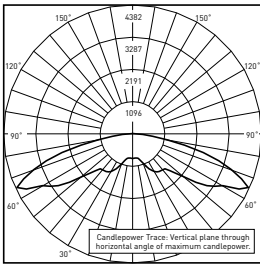
Type IV Medium Distribution w/Partial BLS										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	1,829	B1 U0 G1	2,209	B1 U0 G1	1,679	B1 U0 G1	2,253	B1 U0 G1	721	B0 U0 G0
04	3,659	B1 U0 G1	4,418	B1 U0 G1	3,359	B1 U0 G1	4,505	B1 U0 G1	1,442	B1 U0 G1
06	5,426	B1 U0 G1	6,551	B2 U0 G1	4,980	B1 U0 G1	6,681	B2 U0 G1	2,138	B1 U0 G1
08	7,234	B2 U0 G2	8,735	B2 U0 G2	6,640	B2 U0 G1	8,908	B2 U0 G2	2,851	B1 U0 G1
10	9,021	B2 U0 G2	10,892	B2 U0 G2	8,281	B2 U0 G2	11,108	B2 U0 G2	3,555	B1 U0 G1
12	10,825	B2 U0 G2	13,071	B2 U0 G2	9,937	B2 U0 G2	13,330	B2 U0 G2	4,266	B1 U0 G1
14	12,550	B2 U0 G2	15,153	B2 U0 G2	11,520	B2 U0 G2	15,453	B3 U0 G2	4,945	B1 U0 G1
16	14,343	B2 U0 G2	17,317	B3 U0 G2	13,165	B2 U0 G2	17,661	B3 U0 G2	5,651	B1 U0 G1
<b>525mA</b>										
02	2,599	B1 U0 G1	3,135	B1 U0 G1	2,386	B1 U0 G1	3,200	B1 U0 G1		N/A
04	5,198	B1 U0 G1	6,270	B2 U0 G1	4,772	B1 U0 G1	6,401	B2 U0 G1		N/A
06	7,708	B2 U0 G2	9,297	B2 U0 G2	7,076	B2 U0 G2	9,492	B2 U0 G2		N/A
08	10,278	B2 U0 G2	12,396	B2 U0 G2	9,434	B2 U0 G2	12,656	B2 U0 G2		N/A
10	12,817	B2 U0 G2	15,458	B3 U0 G2	11,764	B2 U0 G2	15,782	B3 U0 G2		N/A
12	15,380	B3 U0 G2	18,549	B3 U0 G2	14,117	B2 U0 G2	18,938	B3 U0 G3		N/A
14	17,830	B3 U0 G2	21,504	B3 U0 G3	16,366	B3 U0 G2	21,954	B3 U0 G3		N/A
16	20,377	B3 U0 G3	24,576	B3 U0 G3	18,704	B3 U0 G3	25,091	B3 U0 G3		N/A
<b>700mA</b>										
02	3,066	B1 U0 G1	3,700	B1 U0 G1	2,814	B1 U0 G1	3,775	B1 U0 G1		N/A
04	6,132	B2 U0 G1	7,400	B2 U0 G2	5,628	B1 U0 G1	7,550	B2 U0 G2		N/A
06	9,092	B2 U0 G2	10,973	B2 U0 G2	8,346	B2 U0 G2	11,196	B2 U0 G2		N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

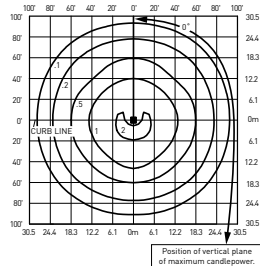
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**5M**



RESTL Test Report #: PL09285-001  
ARE-EDG-5M-\*\*-06-E-UL-700-40K  
Initial Delivered Lumens: 13,136



ARE-EDG-5M-\*\*-10-E-UL-525-40K  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 18,413  
Initial FC at grade

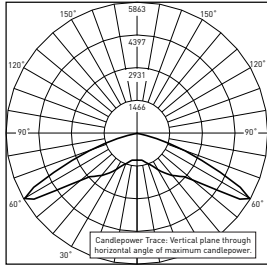
Type V Medium Distribution										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	2,179	B2 U0 G1	2,631	B2 U0 G1	2,000	B1 U0 G1	2,683	B2 U0 G1	859	B1 U0 G1
04	4,358	B3 U0 G1	5,262	B3 U0 G1	4,001	B2 U0 G1	5,367	B3 U0 G1	1,717	B1 U0 G1
06	6,463	B3 U0 G1	7,804	B3 U0 G2	5,932	B3 U0 G1	7,958	B3 U0 G2	2,547	B2 U0 G1
08	8,617	B3 U0 G2	10,405	B4 U0 G2	7,910	B3 U0 G2	10,611	B4 U0 G2	3,395	B2 U0 G1
10	10,746	B4 U0 G2	12,975	B4 U0 G2	9,864	B3 U0 G2	13,232	B4 U0 G2	4,234	B3 U0 G1
12	12,895	B4 U0 G2	15,570	B4 U0 G3	11,836	B4 U0 G2	15,878	B4 U0 G3	5,081	B3 U0 G1
14	14,949	B4 U0 G3	18,049	B4 U0 G3	13,722	B4 U0 G2	18,407	B4 U0 G3	5,890	B3 U0 G1
16	17,085	B4 U0 G3	20,628	B5 U0 G3	15,682	B4 U0 G3	21,037	B5 U0 G3	6,732	B3 U0 G2
<b>525mA</b>										
02	3,096	B2 U0 G1	3,734	B3 U0 G1	2,842	B2 U0 G1	3,812	B3 U0 G1		N/A
04	6,192	B3 U0 G1	7,468	B3 U0 G2	5,684	B3 U0 G1	7,625	B3 U0 G2		N/A
06	9,182	B3 U0 G2	11,074	B4 U0 G2	8,428	B3 U0 G2	11,306	B4 U0 G2		N/A
08	12,243	B4 U0 G2	14,766	B4 U0 G2	11,238	B4 U0 G2	15,075	B4 U0 G3		N/A
10	15,267	B4 U0 G3	18,413	B4 U0 G3	14,014	B4 U0 G2	18,799	B4 U0 G3		N/A
12	18,320	B4 U0 G3	22,096	B5 U0 G3	16,816	B4 U0 G3	22,558	B5 U0 G3		N/A
14	21,238	B5 U0 G3	25,615	B5 U0 G3	19,495	B4 U0 G3	26,151	B5 U0 G3		N/A
16	24,272	B5 U0 G3	29,274	B5 U0 G3	22,280	B5 U0 G3	29,887	B5 U0 G3		N/A
<b>700mA</b>										
02	3,652	B3 U0 G1	4,407	B3 U0 G1	3,352	B2 U0 G1	4,497	B3 U0 G1		N/A
04	7,304	B3 U0 G2	8,814	B3 U0 G2	6,704	B3 U0 G2	8,993	B3 U0 G2		N/A
06	10,831	B4 U0 G2	13,070	B4 U0 G2	9,941	B3 U0 G2	13,336	B4 U0 G2		N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

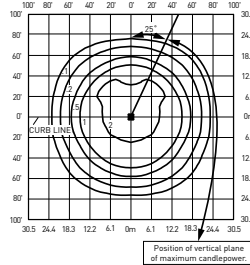
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

55



RESTL Test Report #: PL09286-001A  
ARE-EDG-5S-\*\*-06-E-UL-700-40K  
Initial Delivered Lumens: 14,123



ARE-EDG-5S-\*\*-10-E-UL-525-40K  
Mounting Height: 25' (7.6m) A.F.G.  
Initial Delivered Lumens: 20,459  
Initial FC at grade

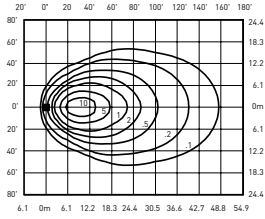
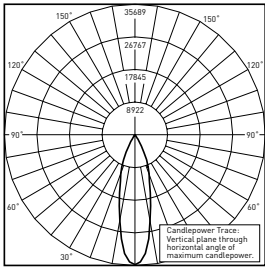
Type V Short Distribution										
LED Count (x10)	3000K		4000K		5000K		5700K		TRL	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
<b>350mA</b>										
02	2,421	B1 U0 G0	2,924	B2 U0 G0	2,223	B1 U0 G0	2,982	B2 U0 G0	954	B1 U0 G0
04	4,843	B2 U0 G1	5,847	B3 U0 G1	4,445	B2 U0 G1	5,963	B3 U0 G1	1,908	B1 U0 G0
06	7,181	B3 U0 G1	8,671	B3 U0 G1	6,592	B3 U0 G1	8,842	B3 U0 G1	2,830	B2 U0 G0
08	9,575	B3 U0 G1	11,561	B3 U0 G2	8,789	B3 U0 G1	11,790	B3 U0 G2	3,773	B2 U0 G1
10	11,940	B3 U0 G2	14,416	B4 U0 G2	10,960	B3 U0 G2	14,702	B4 U0 G2	4,705	B2 U0 G1
12	14,328	B4 U0 G2	17,300	B4 U0 G2	13,152	B3 U0 G2	17,642	B4 U0 G2	5,646	B3 U0 G1
14	16,610	B4 U0 G2	20,055	B4 U0 G2	15,246	B4 U0 G2	20,453	B4 U0 G2	6,545	B3 U0 G1
16	18,983	B4 U0 G2	22,920	B4 U0 G2	17,424	B4 U0 G2	23,374	B4 U0 G2	7,480	B3 U0 G1
<b>525mA</b>										
02	3,440	B2 U0 G0	4,149	B2 U0 G1	3,158	B2 U0 G0	4,236	B2 U0 G1		N/A
04	6,880	B3 U0 G1	8,298	B3 U0 G1	6,315	B3 U0 G1	8,472	B3 U0 G1		N/A
06	10,202	B3 U0 G2	12,305	B3 U0 G2	9,365	B3 U0 G1	12,563	B3 U0 G2		N/A
08	13,603	B3 U0 G2	16,406	B4 U0 G2	12,486	B3 U0 G2	16,750	B4 U0 G2		N/A
10	16,963	B4 U0 G2	20,459	B4 U0 G2	15,571	B4 U0 G2	20,887	B4 U0 G2		N/A
12	20,356	B4 U0 G2	24,551	B4 U0 G2	18,685	B4 U0 G2	25,065	B4 U0 G2		N/A
14	23,598	B4 U0 G2	28,461	B5 U0 G3	21,661	B4 U0 G2	29,057	B5 U0 G3		N/A
16	26,969	B4 U0 G2	32,527	B5 U0 G3	24,755	B4 U0 G2	33,208	B5 U0 G3		N/A
<b>700mA</b>										
02	4,058	B2 U0 G1	4,897	B2 U0 G1	3,725	B2 U0 G1	4,996	B2 U0 G1		N/A
04	8,115	B3 U0 G1	9,793	B3 U0 G1	7,449	B3 U0 G1	9,993	B3 U0 G2		N/A
06	12,034	B3 U0 G2	14,523	B4 U0 G2	11,046	B3 U0 G2	14,818	B4 U0 G2		N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

25°



RESTL Test Report #: PL09832-003B  
FLD-EDG-25-\*\*-06-E-UL-700-40K  
Initial Delivered Lumens: 14,998

FLD-EDG-25-\*\*-10-E-UL-525-40K  
Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
Initial Delivered Lumens: 20,913  
Initial FC at grade

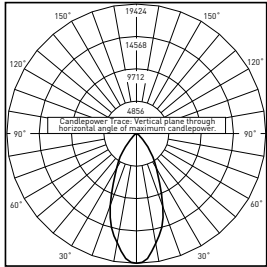
25° Flood Distribution					
LED Count (x10)	3000K	4000K	5000K	5700K	TRL
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
<b>350mA</b>					
02	2,475	2,989	2,272	3,048	975
04	4,950	5,977	4,544	6,096	1,951
06	7,341	8,863	6,738	9,039	2,892
08	9,788	11,818	8,984	12,052	3,857
10	12,205	14,737	11,203	15,029	4,809
12	14,646	17,684	13,444	18,035	5,771
14	16,979	20,501	15,585	20,907	6,690
16	19,405	23,429	17,812	23,894	7,646
<b>525mA</b>					
02	3,516	4,241	3,228	4,330	N/A
04	7,033	8,482	6,456	8,660	N/A
06	10,429	12,578	9,573	12,842	N/A
08	13,905	16,771	12,764	17,122	N/A
10	17,340	20,913	15,917	21,352	N/A
12	20,808	25,096	19,100	25,622	N/A
14	24,122	29,093	22,142	29,703	N/A
16	27,568	33,250	25,305	33,946	N/A
<b>700mA</b>					
02	4,148	5,006	3,807	5,107	N/A
04	8,296	10,011	7,615	10,215	N/A
06	12,301	14,845	11,292	15,147	N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

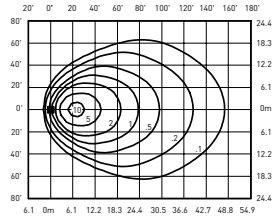
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**40°**



RESTL Test Report #: PL09832-002B  
 FLD-EDG-40-\*\*-06-E-UL-700-40K  
 Initial Delivered Lumens: 13,808



FLD-EDG-40-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
 Initial Delivered Lumens: 20,459  
 Initial FC at grade

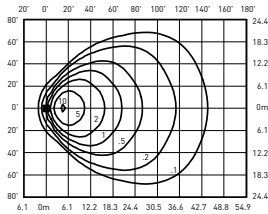
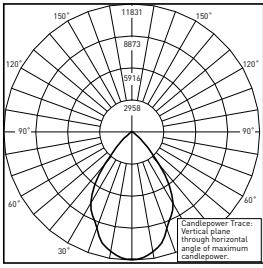
40° Flood Distribution					
LED Count (x10)	3000K	4000K	5000K	5700K	TRL
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
<b>350mA</b>					
02	2,421	2,924	2,223	2,982	954
04	4,843	5,847	4,445	5,963	1,908
06	7,181	8,671	6,592	8,842	2,830
08	9,575	11,561	8,789	11,790	3,773
10	11,940	14,416	10,960	14,702	4,705
12	14,328	17,300	13,152	17,642	5,646
14	16,610	20,055	15,246	20,453	6,545
16	18,983	22,920	17,424	23,374	7,480
<b>525mA</b>					
02	3,440	4,149	3,158	4,236	N/A
04	6,880	8,298	6,315	8,472	N/A
06	10,202	12,305	9,365	12,563	N/A
08	13,603	16,406	12,486	16,750	N/A
10	16,963	20,459	15,571	20,887	N/A
12	20,356	24,551	18,685	25,065	N/A
14	23,598	28,461	21,661	29,057	N/A
16	26,969	32,527	24,755	33,208	N/A
<b>700mA</b>					
02	4,058	4,897	3,725	4,996	N/A
04	8,115	9,793	7,449	9,993	N/A
06	12,034	14,523	11,046	14,818	N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

70°



RESTL Test Report #: PL09832-001B  
 FLD-EDG-70-\*\*-06-E-UL-700-40K  
 Initial Delivered Lumens: 13,888

FLD-EDG-70-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
 Initial Delivered Lumens: 18,640  
 Initial FC at grade

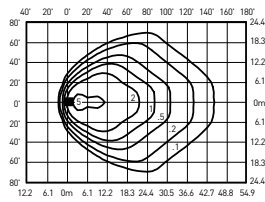
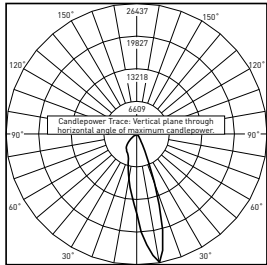
70° Flood Distribution					
LED Count (x10)	3000K	4000K	5000K	5700K	TRL
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
<b>350mA</b>					
02	2,206	2,664	2,025	2,716	869
04	4,412	5,327	4,050	5,433	1,739
06	6,543	7,900	6,006	8,056	2,578
08	8,724	10,533	8,008	10,742	3,437
10	10,879	13,135	9,986	13,395	4,286
12	13,054	15,762	11,983	16,074	5,144
14	15,133	18,272	13,891	18,635	5,963
16	17,295	20,883	15,876	21,297	6,815
<b>525mA</b>					
02	3,134	3,780	2,877	3,859	N/A
04	6,269	7,560	5,754	7,719	N/A
06	9,295	11,211	8,532	11,446	N/A
08	12,394	14,948	11,377	15,261	N/A
10	15,455	18,640	14,187	19,031	N/A
12	18,546	22,368	17,024	22,837	N/A
14	21,500	25,931	19,735	26,474	N/A
16	24,572	29,636	22,555	30,256	N/A
<b>700mA</b>					
02	3,697	4,461	3,393	4,552	N/A
04	7,394	8,923	6,787	9,104	N/A
06	10,964	13,232	10,064	13,501	N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens

**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**SN**



RESTL Test Report #: PL10142-001B  
 FLD-EDG-SN-\*\*-06-E-UL-700-40K  
 Initial Delivered Lumens: 13,701

FLD-EDG-SN-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
 Initial Delivered Lumens: 18,868  
 Initial FC at grade

SN Flood Distribution					
LED Count (x10)	3000K	4000K	5000K	5700K	TRL
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
<b>350mA</b>					
02	2,233	2,696	2,050	2,750	880
04	4,466	5,392	4,099	5,499	1,760
06	6,623	7,996	6,079	8,155	2,609
08	8,830	10,662	8,105	10,873	3,479
10	11,011	13,295	10,107	13,559	4,339
12	13,213	15,954	12,129	16,270	5,206
14	15,318	18,495	14,061	18,862	6,036
16	17,506	21,137	16,069	21,556	6,898
<b>525mA</b>					
02	3,172	3,826	2,912	3,906	N/A
04	6,345	7,653	5,824	7,813	N/A
06	9,409	11,348	8,636	11,585	N/A
08	12,545	15,130	11,515	15,447	N/A
10	15,644	18,868	14,360	19,263	N/A
12	18,773	22,641	17,231	23,115	N/A
14	21,763	26,247	19,976	26,797	N/A
16	24,871	29,997	22,830	30,625	N/A
<b>700mA</b>					
02	3,742	4,516	3,435	4,608	N/A
04	7,484	9,032	6,870	9,215	N/A
06	11,098	13,393	10,187	13,665	N/A

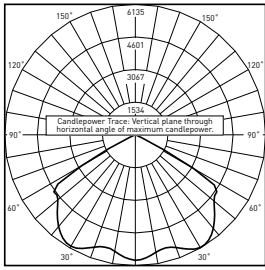
\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens



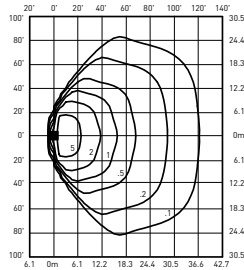
**Photometry**

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/area/cree-edge-series-1>

**N6**



RESTL Test Report #: PL09832-004B  
 FLD-EDG-N6-\*\*-06-E-UL-700-40K  
 Initial Delivered Lumens: 15,251









FLD-EDG-N6-\*\*-10-E-UL-525-40K  
 Mounting Height: 25' (7.6m) A.F.G., 60° Tilt  
 Initial Delivered Lumens: 20,913  
 Initial FC at grade

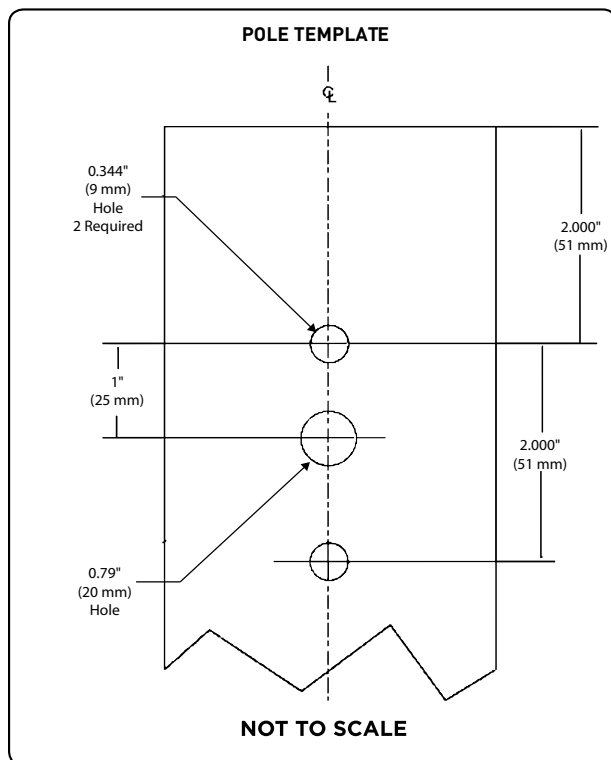
NEMA® 6 Flood Distribution					
LED Count (x10)	3000K	4000K	5000K	5700K	TRL
	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*	Initial Delivered Lumens*
<b>350mA</b>					
02	2,475	2,989	2,272	3,048	975
04	4,950	5,977	4,544	6,096	1,951
06	7,341	8,863	6,738	9,039	2,892
08	9,788	11,818	8,984	12,052	3,857
10	12,205	14,737	11,203	15,029	4,809
12	14,646	17,684	13,444	18,035	5,771
14	16,979	20,501	15,585	20,907	6,690
16	19,405	23,429	17,812	23,894	7,646
<b>525mA</b>					
02	3,516	4,241	3,228	4,330	N/A
04	7,033	8,482	6,456	8,660	N/A
06	10,429	12,578	9,573	12,842	N/A
08	13,905	16,771	12,764	17,122	N/A
10	17,340	20,913	15,917	21,352	N/A
12	20,808	25,096	19,100	25,622	N/A
14	24,122	29,093	22,142	29,703	N/A
16	27,568	33,250	25,305	33,946	N/A
<b>700mA</b>					
02	4,148	5,006	3,807	5,107	N/A
04	8,296	10,011	7,615	10,215	N/A
06	12,301	14,845	11,292	15,147	N/A

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens










**Luminaire EPA**

Fixed Arm Mount – ARE-EDG-DA						
LED Count (x10)	Single	2 @ 90°	2 @ 180°	3 @ 90°	3 @ 120°	4 @ 90°
						
02	0.60	0.87	1.20	1.47	1.47	1.75
04	0.60	0.87	1.20	1.47	1.47	1.75
06	0.60	0.92	1.20	1.51	1.51	1.83
08	0.60	0.96 N/A with 3" poles	1.20	1.55 N/A with 3" poles	1.55	1.91 N/A with 3" poles
10	0.60	1.00 N/A with 3" poles	1.20	1.60 N/A with 3" poles	1.60	2.00 N/A with 3" poles
12	0.60	1.04 N/A with 3" poles	1.20	1.64 N/A with 3" poles	1.64	2.08 N/A with 3" poles
14	0.60	1.08 N/A with 3" or 4" poles	1.20	1.68 N/A with 3" or 4" poles	1.68	2.16 N/A with 3" or 4" poles
16	0.60	1.12 N/A with 3" or 4" poles	1.20	1.72 N/A with 3" or 4" poles	1.72	2.24 N/A with 3" or 4" poles
Fixed Arm Mount – ARE-EDG-DL						
02	0.75	1.02	1.50	1.77	1.77	1.91
04	0.75	1.02	1.50	1.77	1.77	1.91
06	0.75	1.07	1.50	1.82	1.82	1.98
08	0.75	1.11	1.50	1.86	1.86	2.04
10	0.75	1.15	1.50	1.90	1.90	2.10
12	0.75	1.19	1.50	1.94	1.94	2.16
14	0.75	1.23	1.50	1.98	1.98	2.22
16	0.75	1.27	1.50	2.02	2.02	2.28

**Fixture Mounting Drill Pattern for DA and DL Mounts**



Luminaire EPA

Adjustable Arm Mount – ARE-EDG-AA/FLD-EDG-AA/SA									
LED Count (x10)	Single	2 @ 90°	2 @ 180°	In-Line 2 @ 180°	3 @ 90°	3 @ 120°	In-Line 3 @ 180°	4 @ 90°	In-Line 4 @ 180°
<b>Tenon Configuration</b> If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA									
									
	Vertical: PB-1A*; PT-1; PW-1A3** Horizontal: By others	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(90); PT-2(90)	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(180); PT-2(180)	Vertical: PB-2A*; PB-2R2.375	Vertical: PB-3A*; PB-3R2.375 Horizontal: PD-3A4(90); PT-3(90)	Vertical: PB-3A*; PB-3R2.375 Horizontal: PT-3(120)	Vertical: PB-3A*; PB-3R2.375	Vertical: PB-4A*(90); PB-4R2.375 Horizontal: PD-4A4(90) PT-4(90)	Vertical: PB-4A*(180); PB-4R2.375
<b>0° Tilt</b>									
02	0.66	0.98	1.32	1.32	1.77	1.64	1.98	1.91	2.64
04	0.66	0.98	1.32	1.32	1.64	1.64	1.98	1.97	2.64
06	0.66	1.02	1.32	1.32	1.68	1.68	1.98	2.05	2.64
08	0.66	1.07	1.32	1.32	1.80	1.72	1.98	2.29	2.64
10	0.66	1.11	1.32	1.32	1.76	1.76	1.98	2.21	2.64
12	0.66	1.15	1.32	1.32	1.80	1.80	1.98	2.29	2.64
14	0.66	1.19	1.32	1.32	1.84	1.84	1.98	2.38	2.64
16	0.66	1.23	1.32	N/A	1.89	1.89	N/A	2.46	N/A
<b>30° Tilt</b>									
02	0.71	1.37	1.42	1.42	2.08	2.08	2.13	2.73	2.84
04	0.71	1.37	1.42	1.42	2.08	2.08	2.13	2.73	2.84
06	0.82	1.48	1.64	1.64	2.30	2.30	2.46	2.95	3.28
08	0.93	1.59	1.86	1.86	2.52	2.52	2.79	3.17	3.72
10	1.04	1.70	2.08	2.08	2.74	2.74	3.12	3.40	4.16
12	1.15	1.81	2.30	2.30	2.96	2.96	3.45	3.62	4.60
14	1.26	1.92	2.52	2.52	3.18	3.18	3.78	3.84	5.04
16	1.37	2.03	2.74	N/A	3.40	3.40	N/A	4.06	N/A
<b>45° Tilt</b>									
02	0.89	1.55	1.78	1.78	2.45	2.45	2.67	3.10	3.56
04	0.89	1.55	1.78	1.78	2.45	2.45	2.67	3.10	3.56
06	1.03	1.69	2.06	2.06	2.72	2.72	3.09	3.38	4.12
08	1.17	1.83	2.34	2.34	3.00	3.00	3.51	3.66	4.68
10	1.31	1.97	2.62	2.62	3.28	3.28	3.93	3.94	5.24
12	1.45	2.11	2.90	2.90	3.56	3.56	4.35	4.21	5.80
14	1.59	2.25	3.18	3.18	3.83	3.83	4.77	4.49	6.36
16	1.73	2.38	3.46	N/A	4.11	4.11	N/A	4.77	N/A
<b>60° Tilt</b>									
02	1.20	1.86	2.40	2.40	3.06	3.06	3.60	3.72	4.80
04	1.20	1.86	2.40	2.40	3.06	3.06	3.60	3.72	4.80
06	1.39	2.05	2.78	2.78	3.44	3.44	4.17	4.10	5.56
08	1.58	2.23	3.16	3.16	3.81	3.81	4.74	4.47	6.32
10	1.77	2.42	3.54	3.54	4.19	4.19	5.31	4.84	7.08
12	1.95	2.61	3.90	3.90	4.56	4.56	5.85	5.22	7.80
14	2.14	2.80	4.28	4.28	4.94	4.94	6.42	5.59	8.56
16	2.33	2.98	4.66	N/A	5.31	5.31	N/A	5.97	N/A

Dual heads replacing single head at 4 locations.

\* Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"] for single, double or triple luminaire orientation or 4 [4"], 5 [5"], or 6 [6"] for quad luminaire orientation  
 \*\* These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 [3"], 4 [4"], 5 [5"], or 6 [6"]

**Luminaire EPA**

Adjustable Arm Mount – ARE-EDG-AA/FLD-EDG-AA/SA									
LED Count (x10)	Single	2 @ 90°	2 @ 180°	In-Line 2 @ 180°	3 @ 90°	3 @ 120°	In-Line 3 @ 180°	4 @ 90°	In-Line 4 @ 180°
<b>Tenon Configuration</b> If used with Cree Lighting tenons, please add tenon EPA with Luminaire EPA									
	Vertical: PB-1A*; PT-1; PW-1A3** Horizontal: By others	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(90); PT-2(90)	Vertical: PB-2A*; PB-2R2.375; PW-2A3** Horizontal: PD-2A4(180); PT-2(180)	Vertical: PB-2A*; PB-2R2.375	Vertical: PB-3A*; PB-3R2.375 Horizontal: PD-3A4(90); PT-3(90)	Vertical: PB-3A*; PB-3R2.375 Horizontal: PT-3(120)	Vertical: PB-3A*; PB-3R2.375	Vertical: PB-4A*(90); PB-4R2.375 Horizontal: PD-4A4(90) PT-4(90)	Vertical: PB-4A*(180); PB-4R2.375
<b>90° Tilt</b>									
02	1.85	2.51	3.70	3.64	4.36	4.36	5.55	5.02	7.40
04	1.85	2.51	3.70	3.64	4.36	4.36	5.55	5.02	7.40
06	2.14	2.80	4.28	4.22	4.94	4.94	6.42	5.59	8.56
08	2.43	3.09	4.86	4.78	5.51	5.51	7.29	6.17 N/A with horizontal tenon	9.72
10	2.71	3.37	5.42	5.34	6.08	6.08	8.13	6.74 N/A with horizontal tenon	10.84
12	3.00	3.66	6.00	5.90	6.66	6.66	9.00	7.31 N/A with horizontal tenon	12.00
14	3.29	3.95 N/A with PW-2A3**	6.58	6.48	7.23	7.23	9.87	7.89 N/A with horizontal tenon	13.16
16	3.57	4.23 N/A with PW-2A3**	7.14	N/A	7.81	7.81	N/A	8.46 N/A with horizontal tenon	N/A

\* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation  
 \*\* These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

**Tenon EPA**

Part Number	EPA
PB-1A*	None
PB-2A*	0.82
PB-3A*	1.52
PB-4A*(180)	2.22
PB-4A*(90)	1.11
PB-2R2.375	0.92
PB-3R2.375	1.62
PB-4R2.375	2.32
PD Series Tenons	0.09
PT Series Tenons	0.10
PW-1A3**	0.47
PW-2A3**	0.94
WM-2	0.08
WM-4	0.25
WM-DM	None

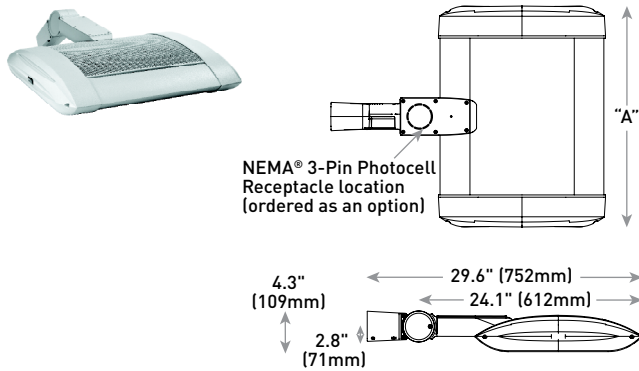
\* Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6") for single, double or triple luminaire orientation or 4 (4"), 5 (5"), or 6 (6") for quad luminaire orientation  
 \*\* These EPA values must be multiplied by the following ratio: Fixture Mounting Height/Total Pole Height. Specify pole size: 3 (3"), 4 (4"), 5 (5"), or 6 (6")

Tenons and Brackets <sup>†</sup> (must specify color)	
<p><b>Square Internal Mount Vertical Tenons (Steel)</b>                      - Mounts to 3-6" [76-152mm] square aluminum or steel poles                      PB-1A* – Single PB-4A*(90) – 90° Quad                      PB-2A* – 180° Twin PB-4A*(180) – 180° Quad                      PB-3A* – 180° Triple</p> <p><b>Square Internal Mount Horizontal Tenons (Aluminum)</b>                      - Mounts to 4" [102mm] square aluminum or steel poles                      PD-2A4(90) – 90° Twin PD-3A4(90) – 90° Triple                      PD-2A4(180) – 180° Twin PD-4A4(90) – 90° Quad</p> <p><b>Wall Mount Brackets</b>                      - Mounts to wall or roof                      WM-2 – Horizontal for AA and SA mounts                      WM-4 – L-Shape for AA and SA mounts                      WM-DM – Plate for DA and DL mounts</p>	<p><b>Round External Mount Vertical Tenons (Steel)</b>                      - Mounts to 2.375" [60mm] O.D. round aluminum or steel poles or tenons                      PB-2R2.375 – Twin PB-4R2.375 – Quad                      PB-3R2.375 – Triple</p> <p><b>Round External Mount Horizontal Tenons (Aluminum)</b>                      - Mounts to 2.375" [60mm] O.D. round aluminum or steel poles or tenons                      - Mounts to square pole with PB-1A* tenon                      PT-1 – Single (Vertical) PT-3(90) – 90° Triple                      PT-2(90) – 90° Twin PT-3(120) – 120° Triple                      PT-2(180) – 180° Twin PT-4(90) – 90° Quad</p> <p><b>Mid-Pole Bracket</b>                      - Mounts to square pole                      PW-1A3** – Single PW-2A3** – Double</p> <p><b>Ground Mount Post</b>                      - For ground mounted flood luminaires                      PGM-1                      - For use with AA and SA mounts</p>

<sup>†</sup> Refer to the [Bracket and Tenons spec sheet](#) for more details

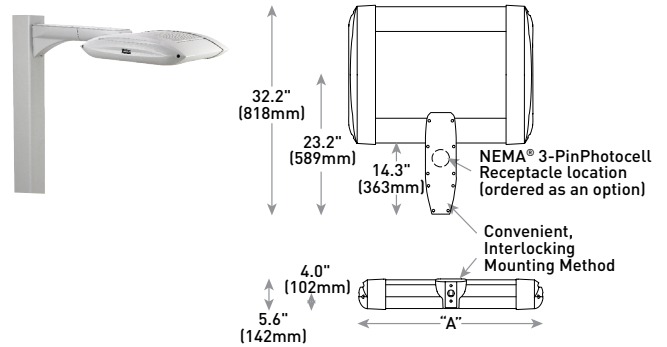
THE EDGE® LED Area/Flood Luminaire

**AA Mount**



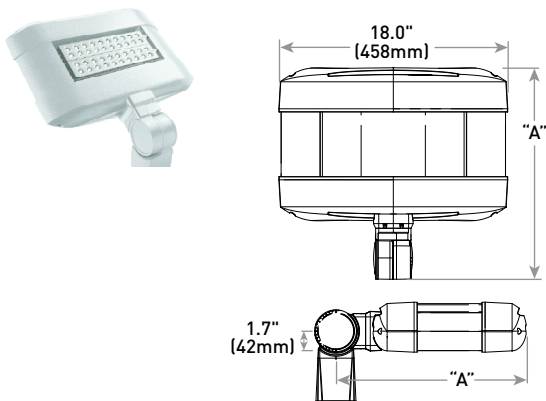
LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	21 lbs. (10kg)
04	12.1" (306mm)	24 lbs. (11kg)
06	14.1" (357mm)	27 lbs. (12kg)
08	16.1" (408mm)	28 lbs. (13kg)
10	18.1" (459mm)	32 lbs. (15kg)
12	20.1" (510mm)	34 lbs. (15kg)
14	22.1" (560mm)	37 lbs. (17kg)
16	24.1" (611mm)	41 lbs. (19kg)

**DL Mount**



LED Count (x10)	Dim. "A"	Weight
02	12.1" (306mm)	23 lbs. (10kg)
04	12.1" (306mm)	26 lbs. (12kg)
06	14.1" (357mm)	29 lbs. (13kg)
08	16.1" (408mm)	30 lbs. (14kg)
10	18.1" (459mm)	34 lbs. (15kg)
12	20.1" (510mm)	36 lbs. (16kg)
14	22.1" (560mm)	42 lbs. (19kg)
16	24.1" (611mm)	44 lbs. (20kg)

**SA Mount**



LED Count (x10)	Dim. "A"	Weight
02	16.0" (406mm)	25 lbs. (11kg)
04	18.0" (457mm)	26 lbs. (12kg)
06	20.0" (508mm)	28 lbs. (13kg)

© 2024 Cree Lighting USA LLC. All rights reserved. For informational purposes only. Content is subject to change. Patent [www.creelighting.com/patents](http://www.creelighting.com/patents). THE EDGE®, NanoOptic® and Colorfast DeltaGuard® are registered trademarks of Cree Lighting USA LLC. Cree® and the Cree Lighting logo are registered trademarks of SMART Global Holdings, Inc.. The UL logo is a registered trademark of UL LLC. NEMA® is a registered trademark of the National Electrical Manufacturers Association.

# OSQ Series

OSQW™ LED Wall Mount Luminaire featuring Patented NanoComfort™ Technology

Rev. Date: V2 01/04/2024

## Product Description

The OSQW™ LED wall mount luminaire has a slim, low profile design intended for outdoor wall mounted applications. The rugged lightweight aluminum housing and mounting box are designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes. The luminaire allows for through-wired or conduit entry from the top, bottom, sides and rear. The housing design is intended specifically for LED technology including a weathertight LED driver compartment and thermal management. Optic design features industry-leading NanoComfort Technology which provides superior glare reduction and visual comfort with high-efficiency illumination delivered precisely where it is needed.

**Applications:** General area and security lighting

## Performance Summary

Utilizes Patented NanoComfort™ Technology
Utilizes Cree TrueWhite® Technology on 5000K Luminaires
Assembled in the USA by Cree Lighting from US and imported parts
<b>Initial Delivered Lumens:</b> Up to 8,600
<b>Input Power:</b> 16 - 55 watts
<b>Efficacy:</b> Up to 159 LPW
<b>CRI:</b> Minimum 70 CRI (2700K, 3000K, 4000K & 5700K); 90 CRI (5000K)
<b>CCT:</b> 2700K, 3000K, 4000K, 5000K, 5700K
<b>Limited Warranty*:</b> 10 years for luminaire/10 years for Colorfast DeltaGuard® finish/up to 5 years for Synapse® accessories/1 year for accessories
<b>Limited Warranty Emergency Back Up (EB) Battery:</b> 1 year for Battery Back Up. Test regularly in accordance with local code

\* See <http://creelighting.com/warranty> for warranty terms. For Synapse accessories, consult Synapse spec sheets for details on warranty terms.

## Accessories

Field-Installed	
<b>Beauty Plate</b> WM-PLT12** - 12" (305mm) Square WM-PLT14** - 14" (356mm) Square - Covers holes left by incumbent wall packs <b>Synapse® SimplySnap 10V Interface</b> DIM10-220F - 120V-277V - Requires either Synapse Central Base Station or On-Site Controller - Refer to <a href="#">DIM10-220F</a> spec sheet for details <b>Synapse SimplySNAP Central Base Station</b> CBSSW-450-002 - Includes On-Site Controller (SS450-002) and 5-button switch - Indoor and Outdoor rated - Refer to CBSSW-450-002 spec sheet for details	<b>Synapse SimplySNAP On-Site Controller</b> SS450-002 - Verizon® LTE-enabled - Designed for indoor applications - Refer to SS450-002 spec sheet for details <b>Synapse Building Management System (BMS) Gateway</b> BMS-GW-002 - Required for BACnet integration - Refer to BMS-GW-002 spec sheet for details <b>Synapse Wireless Sensor</b> WSN-DPM - Motion and light sensor - Control multiple zones - Refer to WSN-DPM spec sheet for details

\*\* Must specify color

## Ordering Information

Example: OSQW-C-2L-27K7-2M-UL-WM-BK

OSQW	C								
Family	Series	Lumen Package*	CCT/CRI	Optic	Voltage	Mounting	Finish	Controls**	Options
OSQW	C	2L 2,550 lumens - Available only with UL voltage 4L 4,020 lumens 6L 6,075 lumens 8L 8,600 lumens	27K7 2700K, 70 CRI 30K7 3000K, 70 CRI 40K7 4000K, 70 CRI 50K9 5000K, 90 CRI 57K7 5700K, 70 CRI	2M Type II Mid 3M Type III Mid 4M Type IV Mid	UL Universal 120-277V UH Universal 347-480V - Not available with 2L lumen package, controls options, or EB option 34 347V - Available only with P control - Not available with 2L lumen package, BML or ML controls, or EB option	WM Wall	BK Black BZ Bronze SV Silver WH White	<b>BML Bluetooth® Technology Enabled Multi-Level Sensor</b> - Available only with UL voltage - Utilizes a multifunction sensor - Refer to BML spec sheet for details - 8-20" sensor lens installed on luminaire; 20-40" sensor lens and aisle shrouds included - Not available with other controls or EB option <b>ML Multi-Level</b> - Refer to ML spec sheet for details - Available only with UL voltage - Not available with other controls or EB option <b>P Button Photocell</b> - Available with UL and 34 voltages only - Not available with other controls or EB option	<b>20KV 20kV/10kA Surge Suppression</b> - Replaces standard 10kV/5kA surge protection <b>EB Emergency Battery Back-Up</b> - Provides 90 minutes and 7W of power in emergency mode - Available only with UL voltage - Not available with BML, ML or P controls

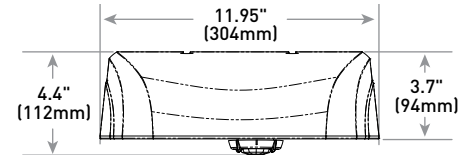
\* Lumen Package codes identify approximate light output only. Actual lumen output levels vary depending on CCT selection. Refer to Initial Delivered Lumen tables for specific lumen values.

\*\* Luminaires come standard with 0-10V dimming. Controls by others.

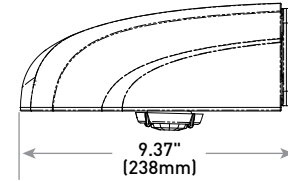


US: [creelighting.com](http://creelighting.com) (800) 236-6800

Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234

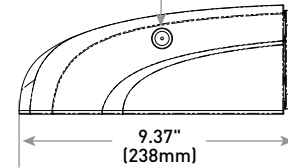


Multi-Level/Bluetooth Programmable Multi-Level Sensor location (ordered as an option)



EB Version

EB Test Switch location (ordered as an option)



Luminaire	Weight
Standard	9.0 lbs. (4.1kg)
Emergency	10.0 lbs. (4.5kg)

**CREE LIGHTING®**

# OSQW™ LED Wall Mount Luminaire featuring Patented NanoComfort™ Technology

## Product Specifications

### CREE LIGHTING NANOCOMFORT™ TECHNOLOGY

Cree Lighting's NanoComfort™ Technology ends the trade-offs in outdoor lighting by providing superior glare reduction and visual comfort in high-efficiency illumination delivered precisely where it is needed. The basic building block of NanoComfort™ Technology is a compact 4x4 array of LEDs. Each of the 16 LEDs in a module is in contact with its own acrylic polymer lens to capture and precisely direct light. With NanoComfort™ Technology, the acrylic optics are cut and sculpted into facets that relieve the glare and harshness while improving visual comfort – all while retaining superb efficacy and control.

### CREE TRUEWHITE® TECHNOLOGY

A revolutionary way to generate high-quality white light, Cree TrueWhite® Technology is a patented approach that delivers an exclusive combination of 90+ CRI, beautiful light characteristics and lifelong color consistency, all while maintaining high luminous efficacy – a true no compromise solution.

### CONSTRUCTION & MATERIALS

- Slim, low profile design
- Luminaire housing specifically designed for LED applications with advanced LED thermal management and driver
- Acrylic optic w/clear tempered glass lens
- Some versions are provided with full circuit board, but not fully populated with LEDs or optics to scale back lumen package
- Luminaire mounting box designed for installation over standard single gang J-Boxes and mud ring single gang J-Boxes
- Luminaire can also be direct mounted to a wall and surface wired
- Includes (4) 3/16" mounting holes for customer supplied hardware. Select hardware appropriate for mounting surface
- Conduit entry from top, bottom, sides, and rear
- Exclusive Colorfast DeltaGuard® finish features an E-coat epoxy primer with an ultra-durable powder topcoat, providing excellent resistance to corrosion, ultraviolet degradation and abrasion. Silver, black, white and bronze are available
- **Weight:** Standard - 9.0 lbs. (4.1kg); Emergency - 10.0 lbs. (4.5kg)

### ELECTRICAL SYSTEM

- **Input Voltage:** 120-277V or 347-480V, 50/60Hz
- **Power Factor:** > 0.9 at full load
- **Total Harmonic Distortion:** < 20% at full load
- Integral 10kV/5kA surge suppression protection standard; 20kV/10kA surge suppression protection optional
- When code dictates fusing, a slow blow fuse or type C/D breaker should be used to address inrush current
- Designed with 0-10V dimming capabilities. Dims to 10%. Controls by others
- 0-10V ANSI C137.1-2019 (8-Volt)
- **Maximum 10V Source Current:** 1 mA
- Refer to [Dimming spec sheet](#) for details
- **Operating Temperature Range:** -40°C - +50°C [-40°F - +122°F]; Minimum operating temperature with EB option: -20°C [-4°F]

### REGULATORY & VOLUNTARY QUALIFICATIONS

- cULus Listed
- Suitable for wet locations
- Designed for downlight applications only
- UL924 (EB Option) Maximum mounting height: 20.0'(6.1m)
- Enclosure rated IP66 per IEC 60598
- ANSI C136.2 10kV/5kA (standard) and 20kV/10kA (optional) surge protection, tested in accordance with IEEE/ANSI C62.41.2
- Meets FCC Part 15, Subpart B, Class A limits for conducted and radiated emissions
- Certified to ANSI C136.31-2001, 3G bridge and overpass vibration standards
- Luminaire and finish endurance tested to withstand 5,000 hours of elevated ambient salt fog conditions as defined in ASTM Standard B 117
- Lens meets IK09 requirements per IEC 60068-2

- Assembled in the USA by Cree Lighting from US and imported parts
- Meets Buy American requirements within ARRA
- RoHS compliant. Consult factory for additional details
- DarkSky Approved when ordered with 27K7 or 30K7 CCTs. (Pending) Please refer to <https://darksky.org/what-we-do/darksky-approved/products-companies/#/!/-/search/keyword=cree> for most current information
- **CA RESIDENTS WARNING:** Cancer and Reproductive Harm – [www.p65warnings.ca.gov](http://www.p65warnings.ca.gov)

Electrical Data*												
Lumen Package	System Watts 120-480V**	System Watts						EB System Watts 120-277V	Total Current (A)			
		120V	208V	240V	277V	347V**	480V**		120V	208V	240V	277V
2L	16	0.13	0.08	0.07	0.06	N/A	N/A	19	0.16	0.09	0.08	0.07
4L	27	0.22	0.13	0.11	0.10	0.08	0.06	30	0.24	0.14	0.12	0.11
6L	40	0.34	0.19	0.17	0.14	0.12	0.08	43	0.36	0.21	0.18	0.16
8L	55	0.47	0.27	0.23	0.20	0.16	0.12	58	0.49	0.28	0.24	0.21

\* Electrical data at 25°C (77°F). Actual wattage may differ by +/- 10% when operating between 120-277V or 347-480V +/- 10%.

\*\* 2L lumen package is only available with 120-277V.

OSQW Series Ambient Adjusted Lumen Maintenance Factors <sup>1</sup>					
Ambient	Initial LMF	25K hr Reported <sup>2</sup> LMF	50K hr Reported <sup>2</sup> LMF	75K hr Reported <sup>2</sup> LMF	100K hr Reported <sup>2</sup> LMF
5°C	1.02	0.99	0.93	0.88	0.83
10°C	1.02	0.98	0.93	0.87	0.82
15°C	1.01	0.98	0.92	0.87	0.82
20°C	1.01	0.97	0.92	0.86	0.81
25°C	1.00	0.97	0.91	0.86	0.81
30°C	0.99	0.96	0.90	0.85	0.80
35°C	0.99	0.95	0.90	0.85	0.80
40°C	0.98	0.95	0.89	0.84	0.79
45°C	0.98	0.94	0.89	0.84	0.79
50°C	0.97	0.94	0.88	0.83	0.78

<sup>1</sup> Lumen maintenance values at 25°C (77°F) are calculated per IES TM-21 based on IES LM-80 report data for the LED package and in-situ luminaire testing. Luminaire ambient temperature factors (LATF) have been applied to all lumen maintenance factors. Please refer to the [Temperature Zone Reference Document](#) for outdoor average nighttime ambient conditions.

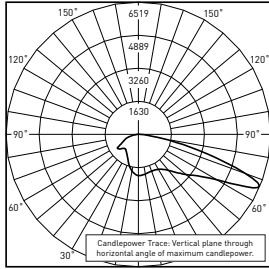
<sup>2</sup> In accordance with IES TM-21, Reported values represent interpolated values based on time durations that are up to 6x the tested duration in the IES LM-80 report for the LED.

Delivered Emergency Lumens				
Lumen Package	CCT/CRI			
	2700K/3000K, 70 CRI	4000K, 70 CRI	5000K, 90 CRI	5700K, 70 CRI
2L	1,070	1,120	810	1,120
4L	1,000	1,040	760	1,040
6L	1,020	1,060	780	1,060
8L	1,110	1,160	800	1,160

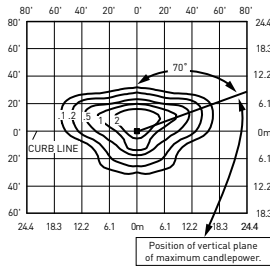
### Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall>

#### 2M



RESTL Test Report #: PL18035-001A  
OSQW-C-8L-30K7-2M-UL-WM-WH  
Initial Delivered Lumens: 8,577

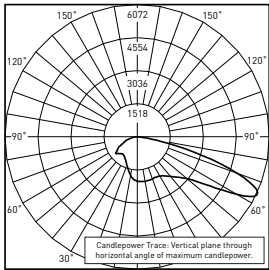


OSQW-C-4L-40K7-2M-Ux-WM-xx-xx  
Mounting Height: 15' (4.6) A.F.G.  
Initial Delivered Lumens: 4,020  
Initial FC at grade

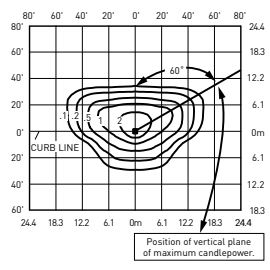
Type II Mid Distribution								
Lumen Package	2700K/3000K, 70CRI		4000K, 70CRI		5000K, 90CRI		5700K, 70CRI	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	2,450	B1 U0 G1	2,550	B1 U0 G1	1,860	B1 U0 G1	2,550	B1 U0 G1
4L	3,870	B1 U0 G1	4,020	B1 U0 G1	2,940	B1 U0 G1	4,020	B1 U0 G1
6L	5,825	B1 U0 G1	6,075	B1 U0 G1	4,430	B1 U0 G1	6,075	B1 U0 G1
8L	8,250	B2 U0 G2	8,600	B2 U0 G2	6,275	B1 U0 G1	8,600	B2 U0 G2

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

#### 3M



RESTL Test Report #: PL18036-001A  
OSQW-C-8L-30K7-3M-UL-WM-WH  
Initial Delivered Lumens: 8,543



OSQW-C-4L-40K7-3M-Ux-WM-xx-xx  
Mounting Height: 15' (4.6) A.F.G.  
Initial Delivered Lumens: 4,020  
Initial FC at grade

Type III Mid Distribution								
Lumen Package	2700K/3000K, 70CRI		4000K, 70CRI		5000K, 90CRI		5700K, 70CRI	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	2,450	B1 U0 G1	2,550	B1 U0 G1	1,860	B1 U0 G1	2,550	B1 U0 G1
4L	3,870	B1 U0 G1	4,020	B1 U0 G1	2,940	B1 U0 G1	4,020	B1 U0 G1
6L	5,825	B1 U0 G1	6,075	B1 U0 G1	4,430	B1 U0 G1	6,075	B1 U0 G1
8L	8,250	B2 U0 G2	8,600	B2 U0 G2	6,275	B1 U0 G1	8,600	B2 U0 G2

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.  
\*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>

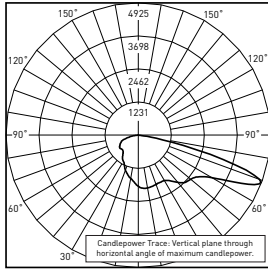


# OSQW™ LED Wall Mount Luminaire featuring Patented NanoComfort™ Technology

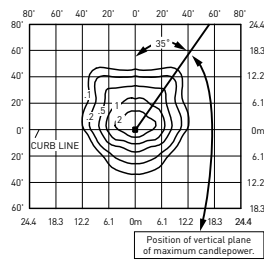
## Photometry

All published luminaire photometric testing performed to IES LM-79 standards. To obtain an IES file specific to your project consult: <http://creelighting.com/products/outdoor/wall-mount/xsp-series-wall>

### 4M



RESTL Test Report #: PL18037-001A  
 OSQW-C-8L-30K7-4M-UL-WM-WH  
 Initial Delivered Lumens: 8,441



OSQW-C-4L-40K7-4M-Ux-WM-xx-xx  
 Mounting Height: 15' (4.6) A.F.G.  
 Initial Delivered Lumens: 4,020  
 Initial FC at grade

Type IV Mid Distribution								
Lumen Package	2700K/3000K, 70CRI		4000K, 70CRI		5000K, 90CRI		5700K, 70CRI	
	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20	Initial Delivered Lumens*	BUG Ratings** Per TM-15-20
2L	2,450	B1 U0 G1	2,550	B1 U0 G1	1,860	B1 U0 G1	2,550	B1 U0 G1
4L	3,870	B1 U0 G1	4,020	B1 U0 G1	2,940	B1 U0 G1	4,020	B1 U0 G1
6L	5,825	B1 U0 G1	6,075	B1 U0 G1	4,430	B1 U0 G1	6,075	B1 U0 G1
8L	8,250	B2 U0 G2	8,600	B2 U0 G2	6,275	B1 U0 G1	8,600	B2 U0 G2

\* Initial delivered lumens at 25°C (77°F). Actual production yield may vary between -10 and +10% of initial delivered lumens.  
 \*\* For more information on the IES BUG (Backlight-Uplight-Glare) Rating visit: <https://www.ies.org/wp-content/uploads/2017/03/TM-15-11BUGRatingsAddendum.pdf>.

© 2023 Cree Lighting USA LLC. All rights reserved. For informational purposes only. Content is subject to change. Patent [www.creelighting.com/patents](http://www.creelighting.com/patents). Colorfast DeltaGuard® is a registered trademark, and NanoComfort™ and OSQW™ are trademarks of Cree Lighting USA LLC. TrueWhite®, Cree TrueWhite® and the Cree TrueWhite Technology logo are registered trademarks of CREEL, Inc. Cree® and the Cree logo are registered trademarks of SMART Global Holdings, Inc. The UL logo is a registered trademark of UL LLC. Synapse® is a registered trademark of Synapse Wireless, Inc. Verizon® is a registered trademark of Verizon Trademark Services LLC. DarkSky and the DarkSky Approved logo are trademarks of DarkSky International. LEVITON® is a registered trademark of Leviton Manufacturing Co., Inc. The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks is under license. Other trademarks, service marks, and trade names are those of their respective owners. IOS is a registered trademark or trademark of Cisco Systems, Inc. and/or its affiliates in the United States and certain other countries. Apple and App Store are trademarks of Apple Inc. Android is a trademark of Google, Inc.



US: [creelighting.com](http://creelighting.com) (800) 236-6800  
 Canada: [creelighting-canada.com](http://creelighting-canada.com) (800) 473-1234