

LOT 4A, PARKER POINT SUBDIVISION FILING NO. 1, AMENDMENT NO. 1

SITE PLAN FOR



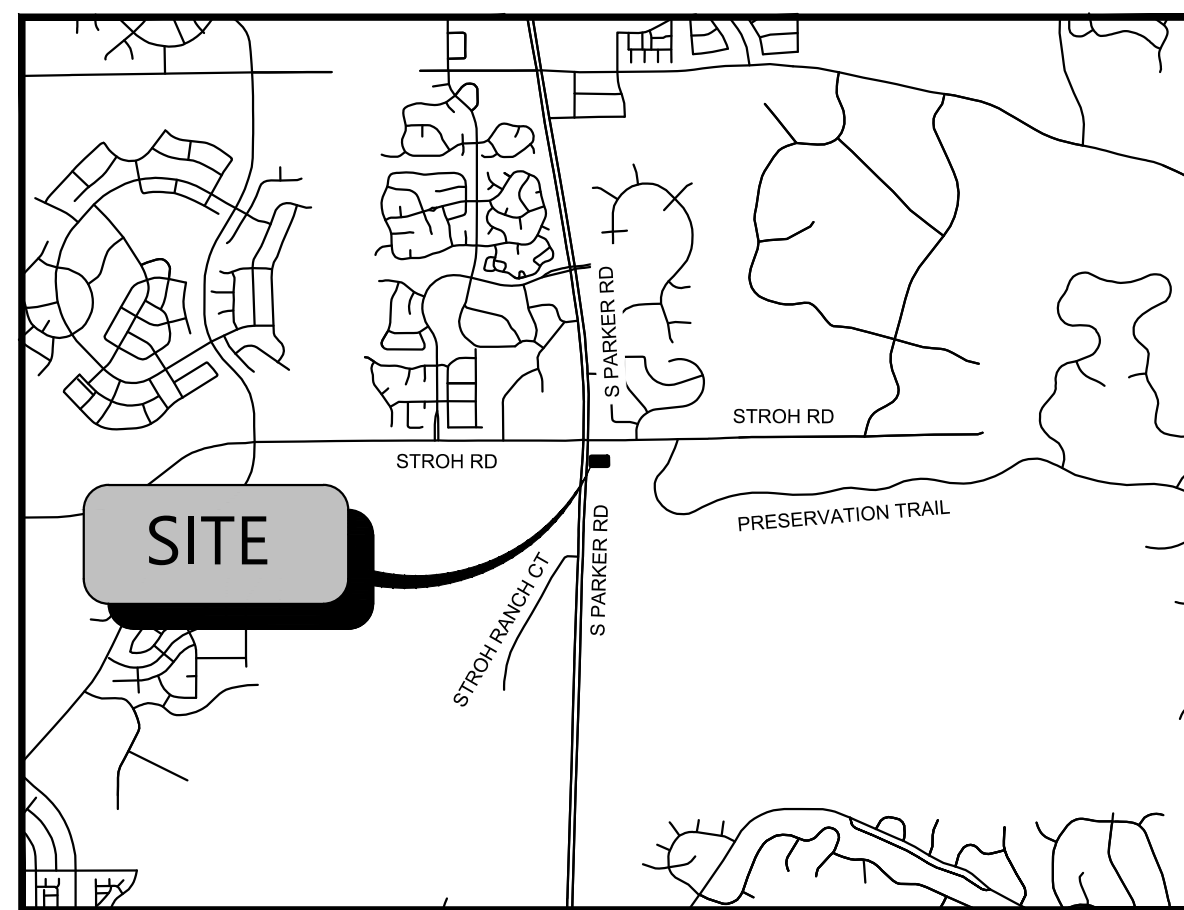
LOCATED AT S. PARKER RD & STROH RD
CITY OF PARKER, DOUGLAS COUNTY, STATE OF COLORADO
TOTAL SITE ACREAGE: 0.60 AC

CALL UTILITY NOTIFICATION CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

THE TYPE, SIZE, LOCATION, AND NUMBER OF ALL KNOWN UNDERGROUND UTILITIES ARE APPROXIMATE WHEN SHOWN ON THE DRAWINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ON THE SITE, AND OFFSITE IN WORK AREAS. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DATE OF CONSTRUCTION. FOR INFORMATION CONTACT: UTILITY NOTIFICATION CENTER OF COLORADO (UNCC) - 1-800-922-1987. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY SIZE AND HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING FACILITIES PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING IMPROVEMENTS AND UTILITIES AND SHALL REPAIR ANY DAMAGE AT HIS EXPENSE.

SITE AREA	
TOTAL PROPERTY AREA:	0.60 AC. / 25,933 SF.
DISTURBED AREA:	0.67 AC. / 29,406 SF.
IMPERVIOUS AREA:	0.40 AC. / 17,639 SF.
LANDSCAPED AREA:	0.19 AC. / 8,294 SF.
ZONING CLASSIFICATION	
JURISDICTION:	CITY OF PARKER
ZONING:	MIXED-USE COMMUNITY
ADJACENT ZONING:	PLANNED DEVELOPMENT
PROPOSED USE:	COMMERCIAL RESTAURANT WITH DRIVE THRU
BUILDING SETBACKS	
REQUIRED BUILDING SETBACK	
FRONT MIN BUILDING SETBACK	25'
FRONT MAX BUILDING SETBACK	NONE
SIDE MIN BUILDING SETBACK	5' (NONRESIDENTIAL)
SIDE MAX BUILDING SETBACK	10' (ADJACENT TO STREET)
REAR BUILDING SETBACK	5' MIN. WITH ALLEY
REAR BUILDING SETBACK	8' MIN. WITHOUT ALLEY
PROVIDED BUILDING SETBACK	
FRONT (W) BUILDING SETBACK	65.2'
SIDE (S) BUILDING SETBACK	18'
SIDE (N) BUILDING SETBACK	51.5'
REAR (E) BUILDING SETBACK	113.5'
BUILDING SUMMARY	
PROPOSED BUILDING AREA:	1,495 SF
REQUIRED BUILDING HEIGHT LIMIT:	45'
PROVIDED BUILDING HEIGHT:	±20'
PROPOSED NUMBER OF BUILDINGS:	1
PARKING SUMMARY	
PARKING REQUIREMENTS	1 SPACE PER EACH 4 PERSONS OF RATED CAPACITY OF 37 PEOPLE (EXCLUDING OUTDOOR SEATING)
TOTAL PARKING REQUIRED	10 SPACES
PARKING PROVIDED	12 SPACES (INCLUDING 1 ADA SPACE)
DRIVE-THROUGH STACKING PROVIDED	10 STACKING SPACES
BIKE SPACES REQUIREMENTS	1 REQUIRED - 10% OF VEHICLE SPACES PROVIDED
TOTAL BIKE PARKING PROVIDED	4 SPACES



VICINITY MAP
N.T.S.



FEMA MAP
N.T.S.

NOTE: BASED ON GRAPHIC DETERMINATION, THIS PROPERTY DOES NOT LIE IN A F.E.M.A./F.I.R.M SPECIAL FLOOD HAZARD AREA PER COMMUNITY PANEL NO. 08035C0182G DATED MARCH, 16 2016.



AERIAL MAP
N.T.S.

TOWN OF PARKER PLAN SET	
Sheet Number	Sheet Title
C0.00	COVER SHEET
C1.20	GENERAL NOTES
C2.00	SITE PLAN
SF-9	BICYCLE RACK
L1.01	LANDSCAPE PLAN
L1.02	LANDSCAPE SPECIFICATION AND NOTES
L1.03	LANDSCAPE DETAILS
L2.01	IRRIGATION PLAN
L2.02	IRRIGATION SPECIFICATIONS AND DETAILS
E0.1	ELECTRICAL NOTES & SYMBOLS
E1.0	ELECTRICAL SITE PLAN
E1.1	PHOTOMETRIC SITE PLAN
E1.2	EXTERIOR LIGHTING SPEC SHEETS
E4.0	ELECTRICAL ONE-LINE DIAGRAM
E4.1	ELECTRICAL PANEL SCHEDULES
E4.2	ELECTRICAL GEAR DETAILS
E5.0	ELECTRICAL SPECIFICATIONS
A1.0	DUMPSTER ENCLOSURE PLAN AND ELEVATIONS
A6.0	EXTERIOR ELEVATION (COLOR)
A6.1	EXTERIOR ELEVATION (COLOR)

BLACK ROCK COFFEE BAR
TOTAL SITE AREA: 0.60 AC. / 25,933 SF.
DISTURBED AREA: 0.67 AC. / 29,406 SF.
ZONING: MIXED-USE COMMUNITY (MC)

DEVELOPMENT TEAM

OWNER	CIVIL ENGINEER	SURVEYOR	DEVELOPER
DOUBLETREE VENTURES, LLC P.O. BOX 40326 DENVER, CO 80204 CONTACT: BRIAN ZUREK EMAIL: BRIAN@DOUBLETREEVENTURES.COM	ATWELL, LLC 9001 AIRPORT FREEWAY, SUITE 660 NORTH RICHLAND HILLS, TX 76180 PHONE: (###) ###-#### CONTACT: NICHOLAS SALAZAR EMAIL: NSALAZAR@ATWELL.COM	BARRON LAND 2790 N. ACADEMY BLVD., SUITE 311 COLORADO SPRINGS, CO 80917 PHONE: (719) 360-6827 CONTACT: SPENCER BARRON	BLACK ROCK COFFEE BAR 16307 NE CAMERON BLVD PORTLAND, OR 97230 PHONE: (541) 531-2149 CONTACT: TONY POLLOTTA

GOVERNING AGENCIES AND UTILITY CONTACTS

WATER & WASTEWATER	FIRE PROTECTION	GAS PROVIDER
PARKER WATER AND SANITATION DISTRICT 13939 ANCESTRY DRIVE PARKER, CO 80134 PHONE: (303) 841-4627 EMAIL: RRAMSEY@PWSD.ORG CONTACT: ROBERT RAMSEY	TOWN OF PARKER FIRE AND LIFE SAFETY 20120 E. MAINSTREET PARKER, CO 80138 PHONE: (303) 805-3169 CONTACT: RANDY CAPRA EMAIL: RCAPRA@PARKERONLINE.ORG	XCEL ENERGY 1123 WEST 3RD AVE, DENVER, CO 80223 PHONE: (303) 571-3927 CONTACT: BUILDER'S CALL LINE (800) 628-1212 X3
ENGINEERING DEPARTMENT	BUILDING PERMIT	PHONE PROVIDER
TOWN OF PARKER ENGINEERING & PUBLIC WORKS 20120 E. MAINSTREET PARKER, CO 80134 PHONE: (303) 840-9546 EMAIL: CKUDLAUSKAS@PARKERCO.GOV CONTACT: CHARLES KUDLAUSKAS	TOWN OR PARKING BUILDING DIVISION 20120 E. MAINSTREET PARKER, CO 80138 PHONE: (303) 841-1970 CONTACT: RANDY SALE EMAIL: RSALE@PARKERONLINE.ORG	CENTURYLINK 9750 EAST COSTILLA AVE. ENGLEWOOD, CO 80112 PHONE: (720) 578-5142
		ELECTRIC PROVIDER
		CORE ELECTRIC COOPERATIVE 5496 NORTH U.S. HIGHWAY 85 SEDALIA, CO 80135 PHONE: (303) 332-9540 CONTACT: BRUFF SHEA

PROJECT NARRATIVE

BLACK ROCK COFFEE BAR IS OWNED BY BLACK ROCK DEVELOPMENT COMPANY, LLC. THEY ARE A PREMIUM CRAFT COFFEE SHOP WITH MULTIPLE LOCATIONS ACROSS THE COUNTRY. THEY CONSIDER THEMSELVES A "PART OF LOCAL COMMUNITIES, EACH BLACK ROCK COFFEE BAR TEAM FINDS WAYS TO SERVE THEIR NEIGHBORHOODS, AND BY DOING SO WE HELP RAISE THE BAR FOR RELATIONSHIP AND COMPASSION." THEIR PROTOTYPE BUILDING IS ROUGHLY 600-700 SQUARE FEET IN SIZE, WITH STATE-OF-THE-ART DESIGN AND IDENTIFIABLE BRANDING ELEMENTS. THEY OFFER PATIO AND INDOOR SEATING WITH THE OPTION OF DRIVE-THRU AVAILABILITY.

A BUILDING WITH THE STANDARD DUAL-LANE ORDERING SINGLE LANE PICKUP IS BEING PROPOSED FOR THIS LOCATION. THIS PROJECT WOULD UTILIZE A PROPOSED ACCESS POINT TO DECLAN DRIVE.

LEGAL DESCRIPTION

LOT 4A, PARKER POINT SUBDIVISION FILING NO. 1, AMENDMENT NO. 1 ACCORDING TO THE PLAT AS RECORDED JULY 31, 2024 AT RECEPTION NO. 2024031650, COUNTY OF DOUGLAS, STATE OF COLORADO

ADDRESS OF RECORD:
6940 STROH ROAD, PARKER, CO

BENCHMARK

ELEVATIONS ARE BASED UPON DOUGLAS COUNTY GIS SECONDARY CONTROL MONUMENT "1.060032" (ELEVATION - 5903.17 NAVD88)

BASIS OF BEARINGS

BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SECTION 3, T7S, R66W OF THE 6TH PRINCIPAL MERIDIAN, MONUMENTED ON THE EAST WITH A #6 REBAR WITH 2" ALUMINUM CAP IN MONUMENT BOX STAMPED "PLS 22561" AND ON THE WEST WITH A #6 REBAR WITH A 3.25" ALUMINUM CAP IN MONUMENT BOX STAMPED "PLS 29761", AND IS ASSUMED TO BEAR S 89°59'29" W, A FIELD MEASURED DISTANCE OF 2648.43 FEET.

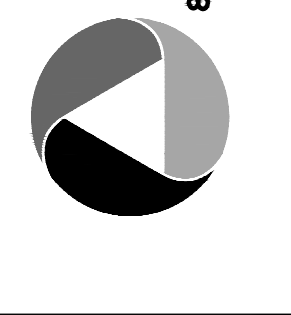


Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN BY AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN REPRESENTED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2025 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
www.atwell-group.com
866.850.4200
9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.256.8660



LOT 4A, PARKER POINT SUBD. FILING NO. 1, AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
BLACK ROCK COFFEE BAR
COVER SHEET

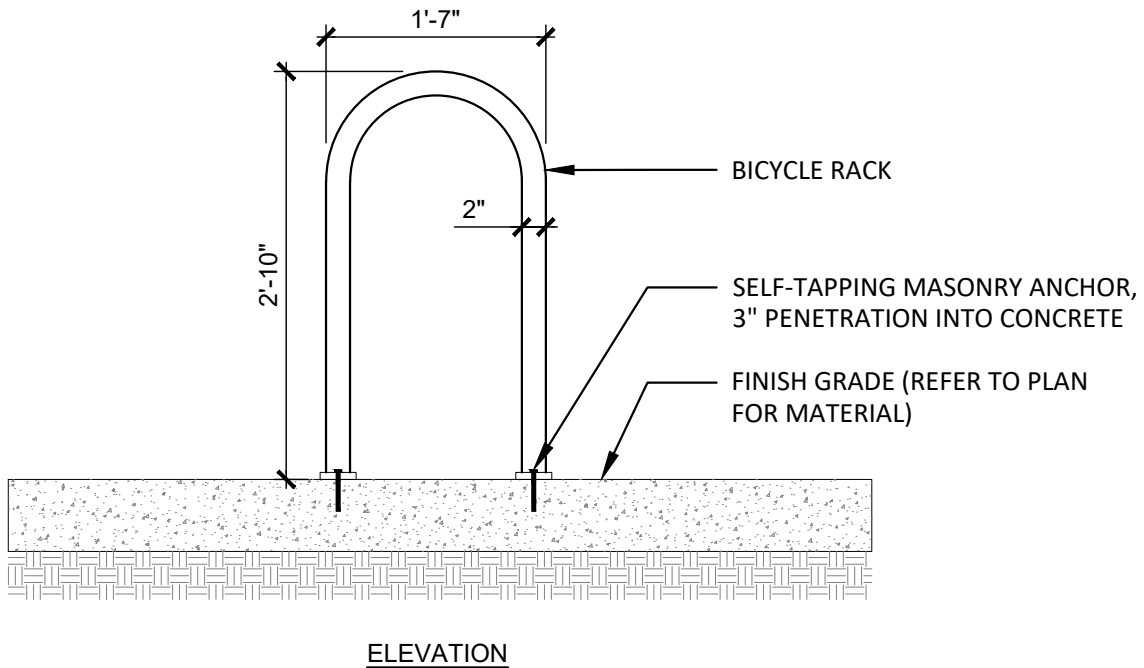
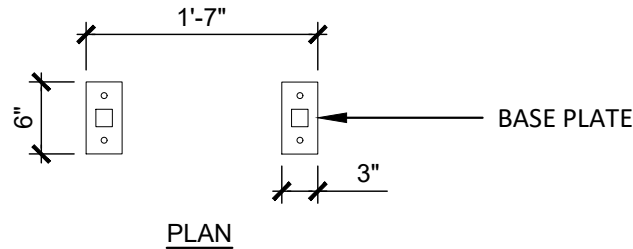
DATE: 2025-08-25

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO:

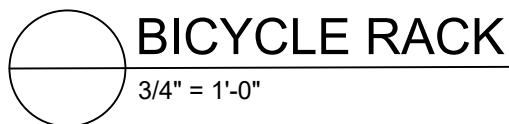
C0.00

TOWN OF PARKER STANDARD DETAILS



NOTES:

1. BASIS-OF-DESIGN: BIKE RACK (MADRAX U-200), SURFACE MOUNTED, COLOR: BLACK
2. FINAL LOCATION TO BE VERIFIED IN FIELD WITH OWNER AND DESIGN TEAM COORDINATE WITH OWNER ON EXACT LOCATION.
3. WHERE BICYCLE RACK SITS ON UNIT PAVING, MASONRY ANCHOR TO EXTEND THROUGH UNIT PAVING AND EMBED INTO C.I.P. CONCRETE FOOTING TO MIN. 3" DEPTH.



SECTION 32 9300 - LANDSCAPE
PART 1 - GENERAL

1.1 QUALIFICATIONS OF THE LANDSCAPE CONTRACTOR
A. ALL LANDSCAPE WORK SHALL BE PERFORMED BY A SINGLE FIRM SPECIALIZING IN LANDSCAPE PLANTING

1.2 REFERENCE DOCUMENTS
A. REFER TO LANDSCAPE PLANS, NOTES, SCHEDULES AND DETAILS FOR ADDITIONAL REQUIREMENTS

1.3 SCOPE OF WORK / DESCRIPTION OF WORK
A. WORK COVERED BY THESE SECTIONS INCLUDES: FURNISH ALL SUPERVISORS, LABOR, MATERIALS, SERVICES, EQUIPMENT AND APPLIANCES REQUIRED TO COMPLETE THE WORK COVERED IN CONJUNCTION WITH THE LANDSCAPING COVERED IN LANDSCAPE PLANS AND SPECIFICATIONS INCLUDING:

- 1. PLANTING (TREES, SHRUBS, GRASSES)
1. BED PREP AND FERTILIZATION
3. NOTIFICATION OF SOURCES
4. WATER AND MAINTENANCE UNTIL ACCEPTANCE

B. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS REQUIRED BY AUTHORITIES HAVING JURISDICTION OVER SUCH WORK, INCLUDING ALL INSPECTIONS AND PERMITS REQUIRED BY FEDERAL, STATE AND LOCAL AUTHORITIES IN SUPPLY, TRANSPORTATION AND INSTALLATION OF MATERIALS.

C. THE LANDSCAPE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITY LINES (WATER, SEWER, ELECTRICAL, TELEPHONE, GAS, CABLE, TELEVISION, ETC.) PRIOR TO THE START OF ANY WORK

1.4 REFERENCES
A. AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY AMERICAN ASSOCIATION OF NURSERMEN, 27 OCTOBER 1989, EDITION; BY AMERICAN NATIONAL STANDARDS INSTITUTE (260.1) - PLANT MATERIAL

B. AMERICAN JOINT COMMITTEE ON HORTICULTURE NOMENCLATURE, 1942 EDITION OF STANDARDIZED PLANT NAMES
C. TEXAS ASSOCIATION OF NURSERMEN, GRADES AND STANDARDS

1.5 SUBMITTALS
A. PROVIDE REPRESENTATIVE QUANTITIES OF EACH SOIL, MULCH, BED MIX, GRAVEL AND STONE BEFORE INSTALLATION. SAMPLES TO BE APPROVED BY OWNERS REPRESENTATIVE BEFORE USE.

B. SOIL AMENDMENTS AND FERTILIZERS SHOULD BE RESEARCHED AND BASED ON THE SOILS IN THE AREA.
C. BEFORE INSTALLATION, SUBMIT DOCUMENTATION THAT PLANT MATERIALS ARE AVAILABLE AND HAVE BEEN RESERVED. FOR ANY PLANT MATERIAL NOT AVAILABLE, SUBMIT REQUEST FOR SUBSTITUTION.

1.6 JOB CONDITIONS, DELIVERY, STORAGE AND HANDLING
A. GENERAL CONTRACTOR TO COMPLETE WORK BEFORE LANDSCAPE CONTRACTOR TO COMMENCE.

B. ALL PLANTING BED AREAS SHALL BE LEFT THREE INCHES BELOW FINAL GRADE OF SIDEWALKS, DRIVES AND CURBS. ALL AREAS TO RECEIVE SOLID SOIL SHALL BE LEFT ONE INCH BELOW THE FINAL GRADE OF WALKS, DRIVES AND CURBS. CONSTRUCTION DEBRIS SHALL BE REMOVED PRIOR TO LANDSCAPE CONTRACTOR BEGINNING WORK.
C. STORAGE OF MATERIALS AND EQUIPMENT AT THE JOB SITE WILL BE AT THE RISK OF THE LANDSCAPE CONTRACTOR. THE OWNER CANNOT BE HELD RESPONSIBLE FOR THEFT OR DAMAGE.

1.7 SEQUENCING
A. INSTALL TREES, SHRUBS, AND LINER STOCK PLANT MATERIALS PRIOR TO INSTALLATION OF LAWN/SOLID SOIL.
B. WHERE EXISTING TURF AREAS ARE BEING CONVERTED TO PLANTING BEDS, THE TURF SHALL BE CHEMICALLY ERADICATED TO MINIMIZE RE-GROWTH IN THE FUTURE. AREAS SHALL BE PROPERLY PREPARED WITH AMENDED ORGANIC MATTER.

1.8 MAINTENANCE AND GUARANTEE
MAINTENANCE:
A. THE LANDSCAPE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK FROM THE TIME OF PLANTING UNTIL FINAL ACCEPTANCE BY OWNER.

B. NO TREES, GRASS, GROUND COVER OR GRASS WILL BE ACCEPTED UNLESS THEY SHOW HEALTHY GROWTH AND SATISFACTORY FOLIAGE CONDITIONS.
C. MAINTENANCE SHALL INCLUDE WATERING OF TREES AND PLANTS, CULTIVATION, WEED SPRAYING, EDGING, PRUNING OF TREES, MOVING OF GRASS, CLEANING UP AND ALL OTHER WORK NECESSARY FOR MAINTENANCE.

D. A WRITTEN NOTICE REQUESTING FINAL INSPECTION AND ACCEPTANCE SHOULD BE SUBMITTED TO THE OWNER AT LEAST 7 DAYS PRIOR TO COMPLETION. AN ON SITE INSPECTION BY THE OWNERS AUTHORIZED REPRESENTATIVE WILL BE COMPLETED PRIOR TO WRITTEN ACCEPTANCE.
E. NOTIFY OWNER OR OWNERS REPRESENTATIVE SEVEN DAYS PRIOR TO THE EXPIRATION OF THE WARRANTY PERIOD.

F. REMOVE DEAD, UNHEALTHY AND UNSIGHTLY PLANTS DURING WARRANTY PERIOD.
G. REMOVE GUYING AND STAKING MATERIALS AFTER ONE YEAR
H. ALL LANDSCAPE MUST BE MAINTAINED AND GRASS MOVED/EDGED ON A WEEKLY SCHEDULE UNTIL ACCEPTANCE BY OWNER. REMOVE CLIPPINGS AND DEBRIS FROM SITE PROMPTLY.

I. REMOVE TRASH, DEBRIS, AND LITTER, WATER, PRUNE, RESTAKE TREES, FERTILIZE, WEED AND APPLY HERBICIDES AND FUNGICIDES AS REQUIRED.
J. COORDINATE THE OPERATION OF IRRIGATION SYSTEM TO ENSURE THAT PLANTS ARE ADEQUATELY WATERED. HAD WATER AREAS NOT RECEIVING ADEQUATE WATER FROM AN IRRIGATION SYSTEM.

K. THE LANDSCAPE CONTRACTOR SHALL MAINTAIN THE IRRIGATION SYSTEM IN ACCORDANCE TO THE MAINTENANCE SCHEDULE TO ENSURE THE SYSTEM IS IN PROPER WORKING ORDER WITH SCHEDULING ADJUSTMENTS BY SEASON TO MAXIMIZE WATER CONSERVATION.
L. REAPPLY MULCH TO BARE AND THIN AREAS.

M. SHOULD SEEDED AND/OR SODDED AREAS NOT BE COVERED BY AN AUTOMATIC IRRIGATION SYSTEM, THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THESE AREAS AND OBTAINING A FULL, HEALTHY STAND OF GRASS AT NO ADDITIONAL COST TO THE OWNER.
N. TO ACHIEVE FINAL ACCEPTANCE AT THE END OF THE MAINTENANCE PERIOD, ALL OF THE FOLLOWING CONDITIONS MUST OCCUR:

a. THE LANDSCAPE SHALL SHOW ACTIVE, HEALTHY GROWTH (WITH EXCEPTIONS MADE FOR SEASONAL DORMANCY). ALL PLANTS NOT MEETING THIS CONDITION SHALL BE REJECTED AND REPLACED BY HEALTHY PLANT MATERIAL PRIOR TO FINAL ACCEPTANCE.
b. ALL HARDSCAPE SHALL BE CLEANED PRIOR TO FINAL ACCEPTANCE.
c. SODDED AREAS MUST BE ACTIVELY GROWING AND MUST REACH A MINIMUM HEIGHT OF 3/12 INCHES BEFORE FIRST MOWING. HYDROMULCHED AREAS SHALL SHOW ACTIVE, HEALTHY GROWTH. BARE AREAS LARGER THAN TWELVE SQUARE INCHES MUST BE RESODDED OR RESEEDED (AS APPROPRIATE) PRIOR TO FINAL ACCEPTANCE. ALL SODDED TURF SHALL BE NEATLY MOWED.

GUARANTEE:
A. TREES, SHRUBS, GROUND COVER SHALL BE GUARANTEED (IN WRITING) FOR A 12 MONTH PERIOD (90 DAYS FOR ANNUAL PLANTING OR AT THE END OF THE SEASONAL COLOR GROWING SEASON, WHICHEVER COMES SOONER) AFTER FINAL ACCEPTANCE. THE CONTRACTOR SHALL REPLACE ALL DEAD MATERIALS AS SOON AS WEATHER PERMITS AND UPON NOTIFICATION OF THE OWNER.
B. PLANTS INCLUDING TREES, WHICH HAVE PARTIALLY DIED SO THAT SHAPE, SIZE OR SYMMETRY HAVE BEEN DAMAGED SHALL BE CONSIDERED SUBJECT TO REPLACEMENT. IN SUCH CASES, THE OPINION OF THE OWNER SHALL BE FINAL.

C. PLANTS USED FOR REPLACEMENT SHALL BE OF THE SAME SIZE AND KIND AS THOSE ORIGINALLY PLANTED OR SPECIFIED. ALL WORK INCLUDING MATERIALS, LABOR AND EQUIPMENT USED IN REPLACEMENTS SHALL CARRY A 12 MONTH GUARANTEE. ANY DAMAGE INCLUDING RUTS IN LAWN OR BED AREAS INCURRED AS A RESULT OF MAKING REPLACEMENTS SHALL BE IMMEDIATELY REPAIRED.
D. WHEN PLANT REPLACEMENTS ARE MADE, PLANTS, SOIL MIX, FERTILIZER AND MULCH ARE TO BE UTILIZED AS ORIGINALLY SPECIFIED AND RE-INSPECTED FOR FULL COMPLIANCE WITH THE CONTRACT REQUIREMENTS. ALL REPLACEMENTS ARE INCLUDED UNDER "WORK" OF THIS SECTION.
E. THE OWNER AGREES THAT FOR THE ONE YEAR WARRANTY PERIOD TO BE EFFECTIVE, HE WILL WATER PLANTS AT LEAST TWICE A WEEK DURING DRY PERIODS.
F. THE ABOVE GUARANTEE SHALL NOT APPLY WHERE PLANTS DIE AFTER ACCEPTANCE BECAUSE OF DAMAGE DUE TO ACTS OF GOD, VANDALISM, INSECTS, DISEASE, INJURY BY HUMANS, MACHINES, THEFT OR NEGLIGENCE BY OWNER.

G. ACCEPTANCE FOR ALL LANDSCAPE WORK SHALL BE GIVEN AFTER FINAL INSPECTION BY THE OWNER PROVIDED THE JOB IS IN A COMPLETE UNDAMAGED CONDITION AND THERE IS A STAND OF GRASS IN ALL LAWN AREAS. AT THAT TIME, THE OWNER WILL ASSUME MAINTENANCE ON THE ACCEPTED WORK.

1.9 QUALITY ASSURANCE
A. COMPLY WITH ALL FEDERAL, STATE, COUNTY AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.
B. EMPLOY PERSONNEL EXPERIENCED AND FAMILIAR WITH THE REQUIRED WORK AND SUPERVISION BY A FOREMAN.
C. MAKE CONTACT WITH SUPPLIERS IMMEDIATELY UPON OBTAINING NOTICE

OF CONTRACT ACCEPTANCE TO SELECT AND BOOK MATERIALS.
D. DEVELOP A PROGRAM OF MAINTENANCE (PRUNING AND FERTILIZATION) WHICH WILL ENSURE THE PURCHASED MATERIALS WILL MEET AND/OR EXCEED PROJECT SPECIFICATIONS.

E. DO NOT MAKE PLANT MATERIAL SUBSTITUTIONS IF THE LANDSCAPE MATERIAL SPECIFIED IS NOT READILY AVAILABLE, SUBMIT PROOF TO LANDSCAPE ARCHITECT ALONG WITH THE PROPOSED MATERIAL TO BE USED IN LIEU OF THE SPECIFIED PLANT.

F. AT THE TIME BIDS ARE SUBMITTED, THE CONTRACTOR IS ASSUMED TO HAVE LOCATED THE MATERIALS NECESSARY TO COMPLETE THE JOB AS SPECIFIED.
G. OWNERS REPRESENTATIVE SHALL INSPECT ALL PLANT MATERIAL AND RETAINS THE RIGHT TO INSPECT MATERIALS UPON ARRIVAL TO THE SITE AND DURING INSTALLATION. THE OWNERS REPRESENTATIVE HAS THE RIGHT TO REJECT ANY MATERIALS HE/SH SHE FEELS TO BE UNSATISFACTORY OR DEFECTIVE DURING THE WORK PROCESS. ALL PLANTS DAMAGED IN TRANSIT OR AT THE JOB SITE SHALL BE REJECTED.

1.10 PRODUCT DELIVERY, STORAGE AND HANDLING
A. PREPARATION
1. BALLED AND BURLAPPED 888 PLANTS; DIG AND PREPARE SHIPMENT IN A MANNER THAT WILL NOT DAMAGE ROOTS, BRANCHES, SHAPE AND FUTURE DEVELOPMENT.
2. CONTAINER GROWN PLANTS: DELIVER PLANTS IN RIGID CONTAINER TO HOLD BALL SHAPE AND PROTECT ROOT MASS.
B. DELIVERY
1. DELIVER PACKAGED MATERIALS IN SEALED CONTAINERS SHOWING WEIGHT, ANALYSIS AND NAME OF MANUFACTURER. PROTECT MATERIALS FROM DETRIORATION DURING DELIVERY AND WHILE STORED ON SITE.
2. DELIVER ONLY PLANT MATERIALS THAT MEET ALL CONSTRUCTION SPECIFICATIONS UNLESS ADEQUATE STORAGE AND WATERING FACILITIES ARE AVAILABLE ON SITE.
3. PROTECT ROOT BALLS BY HEELING IN WITH SAWDUST OR OTHER APPROVED MOISTURE RETAINING MATERIAL IF NOT PLANTED WITHIN 24 HOURS OF DELIVERY.

4. PROTECT PLANTS DURING DELIVERY TO PREVENT DAMAGE TO ROOT BALL OR DETRIORATION OF LEAVES.
5. KEEP PLANTS MOIST AT ALL TIMES. COVER ALL MATERIALS DURING TRANSPORT.
6. NOTIFY OWNERS REPRESENTATIVE OF DELIVERY 72 HOURS PRIOR TO DELIVERY PLANT MATERIAL AT JOB SITE.
7. REMOVE REJECTED PLANT MATERIAL IMMEDIATELY FROM JOB SITE.
8. TO AVOID DAMAGE OR STRESS, DO NOT LIFT, MOVE, ADJUST TO PLUMBS, OR OTHERWISE MANIPULATE PLANTS BY TRUNK OR STEMS.

PART 2 - PRODUCTS
2.1 PLANT MATERIALS
A. GENERAL: WELL FORMED NO. 1 GRADE OR BETTER NURSERY GROWN STOCK LISTED PLANT HEIGHTS ARE FROM TOPS OF FOOT BALLS TO NOMINAL TOPS OF PLANTS. PLANT SPREAD REFERS TO NOMINAL OUTER WIDTH OF THE PLANT NOT THE OUTER LEAF TIPS. PLANTS SHALL BE INDIVIDUALLY APPROVED BY THE OWNERS REPRESENTATIVE AND THEIR DECISION AS TO THEIR ACCEPTABILITY SHALL BE FINAL.
B. QUANTITIES: THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY. ANYTHING CALLED FOR ON ONE AND NOT THE OTHER IS AS SHOWN AND CALLED FOR ON BOTH. THE PLANT SCHEDULE IS AN AID TO BIDDERS ONLY. CO-ORDINATE ALL QUANTITIES WITH THE DRAWINGS.
C. QUANTITIES AND SIZE: PLANT MATERIALS SHALL CONFORM TO THE SIZE GIVEN ON THE PLAN AND SHALL BE HEALTHY, WELL SHAPED, FULL BRANCHED AND WELL ROOTED. SYMMETRY IS ALSO IMPERATIVE. PLANTS SHALL BE FREE FROM INSECTS, INJURY, DISEASE, BROKEN BRANCHES, DISFIGUREMENTS, INSECT EGGS AND ARE TO BE OF SPECIMEN QUALITY.
D. APPROVAL: ALL PLANTS WHICH ARE FOUND UNSUITABLE IN GROWTH OR ARE UNHEALTHY, BADLY SHAPED OR UNDERSIZED WILL BE REJECTED BY THE OWNERS REPRESENTATIVE EITHER BEFORE OR AFTER PLANTING AND SHALL BE REMOVED AT THE EXPENSE OF THE LANDSCAPE CONTRACTOR AND REPLACED WITH ACCEPTABLE SPECIMENS.
E. TREES SHALL BE HEALTHY, FULL BRANCHED, WELL SHAPED AND SHALL MEET THE MINIMUM REQUIREMENTS AS SPECIFIED ON THE PLANT SCHEDULE. ALL TREES SHALL BE OBTAINED FROM SOURCES WITHIN 200 MILES OF THE PROJECT SITE IF POSSIBLE, AND WITH SIMILAR CLIMATIC CONDITIONS.
F. PRUNING: ALL PRUNING OF TREES AND SHRUBS SHALL BE EXECUTED BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER, PRIOR TO FINAL ACCEPTANCE.
G. PLANTS SHALL CONFORM TO THE MEASUREMENTS SPECIFIED EXCEPT THE PLANTS LARGER THAN THOSE SPECIFIED MAY BE USED. USE OF LARGER PLANTS SHALL NOT INCREASE THE CONTRACT PRICE.
H. WHERE MATERIALS ARE PLANTED IN MASSES, PROVIDE PLANTS OF UNIFORM SIZE.
I. ROOT SYSTEMS SHALL BE HEALTHY, DENSELY BRANCHED, FIBROUS ROOT SYSTEMS, NON-POT-BOUND, FREE FROM ENCODING AND/OR GRINDING ROOTS, AND FREE FROM ANY OTHER ROOT DISEASES (SUCH AS L-SHAPED ROOTS).
J. ALL TREES SHALL BE STANDARD IN FORM, UNLESS OTHERWISE SPECIFIED. TREES WITH CENTRAL LEADERS WILL NOT BE ACCEPTED IF LEADER IS DAMAGED OR REMOVED. PRUNE ALL DAMAGED TWIGS AFTER PLANTING.
K. TREE TRUNKS TO BE STURDY, EXHIBIT HARDENED SYSTEMS AND VIGOROUS AND FIBROUS ROOT SYSTEMS. UNLESS OTHERWISE SPECIFIED, ALL TREES SHALL BE 1.5" IN CALIPER.
L. TREES WITH DAMAGED OR CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, DISFIGURING KNOTS, OR INSECT DAMAGE WILL BE REJECTED.
M. CALIPER MEASUREMENTS FOR STANDARD (SINGLE TRUNK) TREES SHALL BE AS FOLLOWS: SIX INCHES ABOVE THE ROOT FLARE FOR TREES UP TO AND INCLUDING FOUR INCHES IN CALIPER, AND TWELVE INCHES ABOVE THE ROOT FLARE FOR TREES EXCEEDING FOUR INCHES IN CALIPER.
N. MULTITRUNK TREES SHALL BE MEASURED BY THEIR OVERALL HEIGHT, MEASURED FROM THE TOP OF THE ROOT BALL.
O. ANY TREE OR SHRUB SHOWN TO HAVE EXCESS SOIL PLACED ON TOP OF THE ROOT BALL, SO THAT THE ROOT FLARE HAS BEEN COMPLETELY COVERED, SHALL BE REJECTED.
P. SOIL: PROVIDE WELL-ROTTED SOIL OF THE VARIETY NOTED ON THE PLANS. SOIL SHALL BE CUT FROM HEALTHY MATURE TURF WITH SOIL THICKNESS OF 3/4" TO 1". EACH PALLET OF SOIL SHALL BE ACCOMPANIED BY A CERTIFICATE FROM SUPPLIER STATING THE COMPOSITION OF THE SOIL.

2.2 SOIL PREPARATION MATERIALS
A. SANDY LOAM:
1. FRIABLE, FERTILE, DARK, LOAMY SOIL, FREE OF CLAY LUMPS, SUBSOIL, STONES AND OTHER EXTRANEEOUS MATERIAL AND REASONABLY FREE OF WEEDS AND FOREIGN GRASSES. LOAM CONTAINING DALLAS SOIL OR NATURAL GRASS SHALL BE REJECTED.
2. PHYSICAL PROPERTIES AS FOLLOWS:
a. CLAY - BETWEEN 7-27%
b. SILT - BETWEEN 15-25%
c. SAND - LESS THAN 52%
3. ORGANIC MATTER SHALL BE 3%-10% OF TOTAL DRY WEIGHT.
4. IF REQUESTED, LANDSCAPE CONTRACTOR SHALL PROVIDE A CERTIFIED SOIL ANALYSIS CONDUCTED BY AN APPROVED SOIL TESTING LABORATORY VERIFYING THAT SANDY LOAM MEETS THE ABOVE REQUIREMENTS.
B. ORGANIC MATERIAL: COMPOST WITH A MIXTURE OF 80% VEGETATIVE MATTER AND 20% ANIMAL WASTE. INGREDIENTS SHOULD BE A MIX OF COARSE AND FINE TEXTURED MATERIAL.
C. PREMIXED BEDDING SOIL AS SUPPLIED BY VITAL EARTH RESOURCES, GLADEWATER, TEXAS; PROFESSIONAL BEDDING SOIL AS SUPPLIED BY LIVING EARTH TECHNOLOGY, DALLAS, TEXAS; OR ACID GRO MUNICIPAL MIX AS SUPPLIED BY SOIL BUILDING SYSTEMS, DALLAS, TEXAS OR APPROVED EQUAL.

D. SHARP SAND: SHARP SAND MUST BE FREE OF SEEDS, SOIL PARTICLES AND WEEDS.
E. MULCH: DOUBLE SHREDDED HARDWOOD MULCH, PARTIALLY DECOMPOSED, DARK BROWN.
F. ORGANIC FERTILIZER: FERTILIZED, SUSTANE, OR GREEN SEEN OR EQUAL AS RECOMMENDED FOR REQUIRED APPLICATIONS. FERTILIZER SHALL BE DELIVERED TO THE SITE IN ORIGINAL UNOPENED CONTAINERS, EACH BEARING THE MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.
G. COMMERCIAL FERTILIZER: 10-20-10 OR SIMILAR ANALYSIS. NITROGEN SOURCE TO BE A MINIMUM 50% SLOW RELEASE ORGANIC NITROGEN (SCU OR UF) WITH A MINIMUM 8% SULFUR AND 4% IRON, PLUS MICROINERTS.
H. FEAT: COMMERCIAL SPAGNUM PEAT MOSS OR PARTIALLY DECOMPOSED SHREDDED PINE BARK OR OTHER APPROVED ORGANIC MATERIAL.

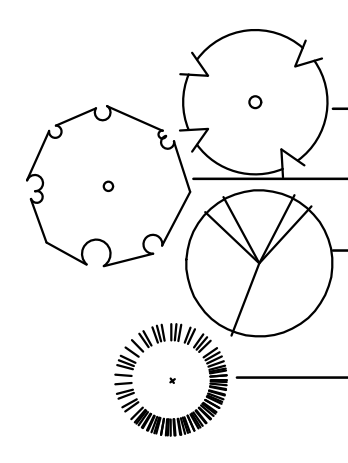
2.3 MISCELLANEOUS MATERIALS
A. STEEL EDGING - SHALL BE 3/16" X 4" X 16" DARK GREEN LANDSCAPE EDGING, DURABLE STEEL OR APPROVED EQUAL.
B. TREE STAKING - TREE STAKING SOLUTIONS OR APPROVED SUBSTITUTE; REFER TO DETAILS.
C. FILTER FABRIC - MIRAFI 1405 BY MIRAFI INC. OR APPROVED SUBSTITUTE. AVAILABLE AT LONE STAR PRODUCTS, INC. (469-523-0444)
D. SAND - UNIFORMLY GRADED, WASHED, CLEAN, BAY-BURN SAND.
E. GRAVEL: WASHED NATIVE GRAVEL GRADED 1" TO 1.5"
F. DECOMPOSED GRANITE - BASE MATERIAL OF NATURAL MATERIAL MIX OF GRANITE AGGREGATE NOT TO EXCEED 1/8" IN DIAMETER COMPOSED OF VARIOUS STAGES OF DECOMPOSITION.
G. ROCK - LOCALLY AVAILABLE NATIVE ROCK 1.5" IN DIAMETER.
H. PRE-EMERGENT HERBICIDES: ANY GRANULAR, NON-STAINING PRE-EMERGENT HERBICIDE THAT IS LABELED FOR THE SPECIFIC ORNAMENTALS OR TURF ON WHICH IT WILL BE UTILIZED. PRE-EMERGENT

HERBICIDES SHALL BE APPLIED PER THE MANUFACTURERS LABELED RATES.
PART 3 - EXECUTION
3.1 PREPARATION
A. LANDSCAPE CONTRACTOR TO INSPECT ALL EXISTING CONDITIONS AND REPORT ANY DEFICIENCIES TO THE OWNER.
B. ALL PLANTING AREAS SHALL BE CONDITIONED AS FOLLOWS:
1. PREPARE NEW PLANTING BEDS BY SCRAPING AWAY EXISTING GRASS AND WEEDS AS NECESSARY. TILL EXISTING SOIL TO A DEPTH OF SIX (6") INCHES PRIOR TO PLACING COMPOST AND FERTILIZER. APPLY FERTILIZER AS PER MANUFACTURER'S RECOMMENDATIONS. ADD SIX (6") INCHES OF COMPOST AND TILL INTO A DEPTH OF SIX (6") INCHES OF SPECIFIED MULCH (SETTLED THICKNESS).
2. BACKFILL FOR TREE PITS SHALL BE AS FOLLOWS: USE EXISTING TOP SOIL ON SITE (USE IMPORTED TOPSOIL AS NEEDED) FREE FROM LARGE CLUMPS, ROCKS, DEBRIS, CALICHE, SUBSOILS, ETC., PLACED IN NINE (9") INCH LAYERS AND WATERED IN THOROUGHLY.
C. GRASS AREAS:
1. BLOCKS OF SOD SHOULD BE LAID JOINT TO JOINT (STAGGERED JOINTS) AFTER FERTILIZING THE GROUND FIRST. ROLL GRASS AREAS TO ACHIEVE A SMOOTH, EVEN SURFACE. THE JOINTS BETWEEN THE BLOCKS OF SOD SHOULD BE FILLED WITH TOPSOIL WHERE THEY ARE GAPPED OPEN, THEN WATERED THOROUGHLY.

3.2 INSTALLATION
A. MAINTENANCE OF PLANT MATERIALS SHALL BEGIN IMMEDIATELY AFTER EACH PLANT IS DELIVERED TO THE SITE AND SHALL CONTINUE UNTIL CONSTRUCTION OF ALL PLANTING IS COMPLETELY ACCOMPLISHED.
B. PLANT MATERIALS SHALL BE DELIVERED TO THE SITE ONLY AFTER THE BEDS ARE PREPARED AND AREAS ARE READY FOR PLANTING. ALL SHIPMENTS OF NURSERY MATERIALS SHALL BE THOROUGHLY PROTECTED FROM THE WINDS DURING TRANSPORT. ALL PLANTS WHICH CANNOT BE PLANTED AT ONCE, AFTER DELIVERY TO THE SITE, SHALL BE WELL PROTECTED AGAINST THE POSSIBILITY OF DRYING BY WIND AND BALLS OF EARTH OR OTHER PLANTS WHICH WILL SETTLE WITH SOIL OR OTHER ACCEPTABLE MATERIAL. ALL PLANTS REMAIN THE PROPERTY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE.
C. POSITION THE TREES AND SHRUBS IN THEIR INTENDED LOCATION AS PER PLAN.
D. NOTIFY THE OWNER'S AUTHORIZED REPRESENTATIVE FOR INSPECTION AND APPROVAL OF ALL POSITIONING OF PLANT MATERIALS.
E. EXCAVATE PITS WITH VERTICAL SIDES AND HORIZONTAL BOTTOM. TREE PITS SHALL BE LARGE ENOUGH TO PERMIT HANDLING AND PLANTING WITHOUT INJURY TO BALLS OF EARTH OR ROOTS AND SHALL BE OF SUCH DEPTH THAT WHEN PLANTED AND SETTLED, THE CROWN OF THE PLANT SHALL BEAR THE SAME RELATIONSHIP TO THE FINISH GRADE AS IT DID TO SOIL SURFACE IN ORIGINAL PLACE OF GROWTH. THE SIDES OF THE HOLE SHOULD BE ROUGH AND JAGGED, NEVER SLICK OR GLAZED.
F. SHRUB AND TREE PITS SHALL BE NO LESS THAN TWENTY-FOUR (24") AND SIX (6") INCHES DEEPER THAN IT'S VERTICAL DIMENSION. REMOVE AND HAUL FROM SITE ALL ROCKS AND STONES OVER THREE-QUARTER (3/4") INCH IN DIAMETER. PLANTS SHOULD BE THOROUGHLY MOIST BEFORE REMOVING CONTAINERS.
G. PERCOLATION TEST: PERCUTE THE HOLE WITH WATER. IF THE WATER LEVEL DOES NOT PERCOLATE WITHIN 24 HOURS, THE TREE NEEDS TO MOVE TO ANOTHER LOCATION OR HAVE DRAINAGE ADDED. INSTALL A PVC STAND PIPE PER TREE IF THE PERCOLATION TEST FAILS.
H. BACKFILL ONLY WITH 5 PARTS EXISTING SOIL OR SANDY LOAM AND 1 PART BED PREPARATION. WHEN THE HOLE IS DUG IN SOLID ROCK, TOPSOIL FROM THE SAME AREA SHOULD NOT BE USED. CAREFULLY SETTLE BY WATERING TO PREVENT AIR POCKETS. REMOVE THE BURLAP (TOP 1/2) OF THE BALL, AS WELL AS ALL NYLON, PLASTIC STRING AND WIRE. CONTAINER TREES WILL USUALLY BE ROOT BOUND. IF SO FOLLOW STANDARD NURSERY PRACTICE OF "ROOT SCORING".
I. DO NOT WRAP TREES.
J. DO NOT OVER PRUNE.
K. REMOVE NURSERY TAGS AND STAKES FROM ALL PLANTS.
L. REMOVE BOTTOM OF PLANT BOXES PRIOR TO PLACING PLANTS. REMOVE SIDES AFTER PLACEMENT AND PARTIAL BACKFILLING.
M. REMOVE UPPER THIRD OF BURLAP FROM BALLED AND BURLAPPED TREES AFTER PLACEMENT.
N. PLACE PLANT UPRIGHT AND PLUMB IN CENTER OF HOLE. ORIENT PLANTS FOR BEST APPEARANCE.
O. MULCH THE TOP OF THE BALL. DO NOT PLANT GRASS ALL THE WAY TO THE TRUNK OF THE TREE. LEAVE THE AREA ABOVE THE TOP OF THE BALL AND MULCH WITH AT LEAST TWO (2") INCHES OF SPECIFIED MULCH.
P. ALL PLANT BEDS AND TREES TO BE MULCHED WITH A MINIMUM SETTLED THICKNESS OF TWO (2") INCHES OVER THE ENTIRE BED OR PIT.
Q. OBSTRUCTION BELOW GROUND: IN THE EVENT THAT ROCK, OR UNDERGROUND CONSTRUCTION WORK OR OBSTRUCTIONS ARE ENCOUNTERED IN ANY PLANT PIT EXCAVATION WORK TO BE DONE UNDER THIS SECTION, ALTERNATE LOCATIONS MAY BE SELECTED BY THE OWNER, WHERE LOCATIONS CANNOT BE CHANGED. THE OBSTRUCTIONS SHALL BE REMOVED TO A DEPTH OF NOT LESS THAN THREE (3") FEET BELOW GRADE AND NO LESS THAN SIX (6") INCHES BELOW THE BOTTOM OF BALL WHEN PLANTS ARE PROPERLY SET AT THE REQUIRED GRADE. THE WORK OF THIS SECTION SHALL INCLUDE THE REMOVAL FROM THE SITE OF SUCH ROCK OR UNDERGROUND OBSTRUCTIONS ENCOUNTERED AT THE COST OF THE LANDSCAPE CONTRACTOR.
R. TREES AND LARGE SHRUBS SHALL BE STAKED AS SITE CONDITIONS REQUIRE. POSITION STAKES TO SECURE TREES AGAINST SEASONAL PREVAILING WINDS.
S. PRUNING AND MULCHING: PRUNING SHALL BE DIRECTED BY THE LANDSCAPE ARCHITECT AND SHALL BE PERFORMED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE FOLLOWING FINE PRUNING, CLASS I PRUNING STANDARDS PROVIDED BY THE NATIONAL ARBORICULTURAL SOCIETY.
1. DEAD WOOD, SUCKERS, BROKEN AND BADLY BRUISED BRANCHES SHALL BE REMOVED. GENERAL TRIPPING OF THE BRANCHES IS NOT PERMITTED. DO NOT CUT TERMINAL BRANCHES.
2. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.
3. IMMEDIATELY AFTER PLANTING OPERATIONS ARE COMPLETED, ALL TREE PITS SHALL BE COVERED WITH A LAYER OF ORGANIC MATERIAL TWO (2") INCHES IN DEPTH. THIS LIMIT OF THE ORGANIC MATERIAL FOR TREES SHALL BE THE DIAMETER OF THE PLANT PIT.

3.3 CLEANUP AND ACCEPTANCE
A. CLEANUP: DURING THE WORK, THE PREMISES SHALL BE KEPT NEAT AND ORDERLY AT ALL TIMES. STORAGE AREAS FOR ALL MATERIALS SHALL BE SO ORGANIZED SO THAT THEY, TOO, ARE NEAT AND ORDERLY. ALL TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AS WORK PROGRESSES. KEEP PAVED AREAS CLEAN BY SWEEPING OR HOSEING THEM AT END OF EACH WORK DAY.
B. REPAIR RUTS, HOLES AND SCARS IN GROUND SURFACES.
C. ENSURE THAT WORK IS COMPLETE AND PLANT MATERIALS ARE IN VIGOROUS AND HEALTHY GROWING CONDITION.
D. UPON COMPLETION OF THE WORK, THE LANDSCAPE CONTRACTOR SHALL PROVIDE THE SITE CLEAN, FREE OF ALL DEBRIS AND SUITABLE FOR USE AS INTENDED. THE LANDSCAPE CONTRACTOR SHALL THEN REQUEST AN INSPECTION BY THE OWNER TO DETERMINE FINAL ACCEPTABILITY.
E. IF AT ANY TIME THE INSPECTED PLANTING WORK DOES NOT COMPLY WITH THE CONTRACT DOCUMENTS, THE LANDSCAPE CONTRACTOR SHALL REPLACE AND/OR REPAIR THE REJECTED WORK TO THE OWNERS SATISFACTION WITHIN 24 HOURS.
F. THE LANDSCAPE MAINTENANCE PERIOD WILL NOT COMMENCE UNTIL THE LANDSCAPE WORK HAS BEEN REINSPECTED BY THE OWNER AND FOUND TO BE ACCEPTABLE. AT THAT TIME, A WRITTEN NOTICE OF FINAL ACCEPTANCE WILL BE ISSUED BY THE OWNER, AND THE MAINTENANCE AND GUARANTEE PERIODS WILL COMMENCE.

END OF SECTION



PLANT SCHEDULE table with columns: QTY, LABEL, COMMON NAME, SCIENTIFIC NAME, SIZE, NOTES, MATURE SIZE, YEARS TO MATURITY. Includes sections for Deciduous Trees, Evergreen Trees, Total Trees, Deciduous Shrubs, Evergreen Shrubs, Total Evergreen Shrubs, Ornamental Grasses, Perennial, Evergreen Groundcover, and Groundcover.

Plant list is an aid to bidders only. Contractor shall verify all quantities on plan. All heights and spreads are minimums. Trees shall have a strong central leader and be of matching specimens. All plant material shall meet or exceed remarks as indicated.

A. INTERNAL LANDSCAPING table with columns: NET SITE AREA, LANDSCAPE AREA (REQUIRED, PROVIDED, SURPLUS/DEFICIT), % LIVE COVER (REQUIRED, PROVIDED, SURPLUS/DEFICIT).

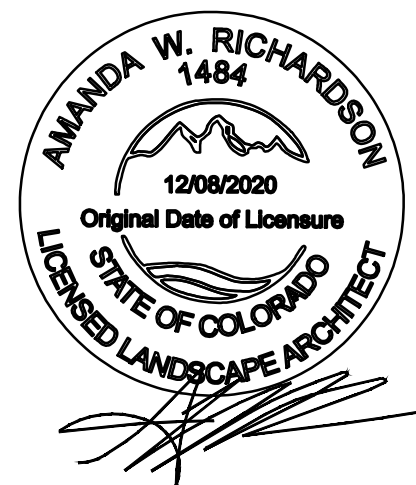
B. STREETScape LANDSCAPE table with columns: LOCATION, LENGTH, TREE REQUIREMENT 1/30 L.F., SHRUB REQUIREMENT 5/30 L.F., TREE EQUIVALENT CALCULATION (SHRUBS AVAILABLE FOR TREE EQUIVALENTS, TOTAL EQUIVALENT TREES, TOTAL TREE AND TREE EQUIVALENTS PROVIDED).

C. LANDSCAPE PERIMETER (STANDARD) table with columns: LOCATION, LENGTH, TREE REQUIREMENT 1/30 L.F., SHRUB REQUIREMENT 5/30 L.F., TREE EQUIVALENT CALCULATION (SHRUBS AVAILABLE FOR TREE EQUIVALENTS, TOTAL EQUIVALENT TREES, TOTAL TREE AND TREE EQUIVALENTS PROVIDED).

PARKING LOT INTERIOR table with columns: Parking area, 10% (REQUIRED, PROVIDED), TREE REQUIREMENT (REQUIRED, PROVIDED, SURPLUS/DEFICIT), SHRUB REQUIREMENT (REQUIRED, PROVIDED, SURPLUS/DEFICIT).

3.3 CLEANUP AND ACCEPTANCE table with columns: REQUIRED, PROVIDED, SURPLUS/DEFICIT for TREE REQUIREMENT and SHRUB REQUIREMENT.

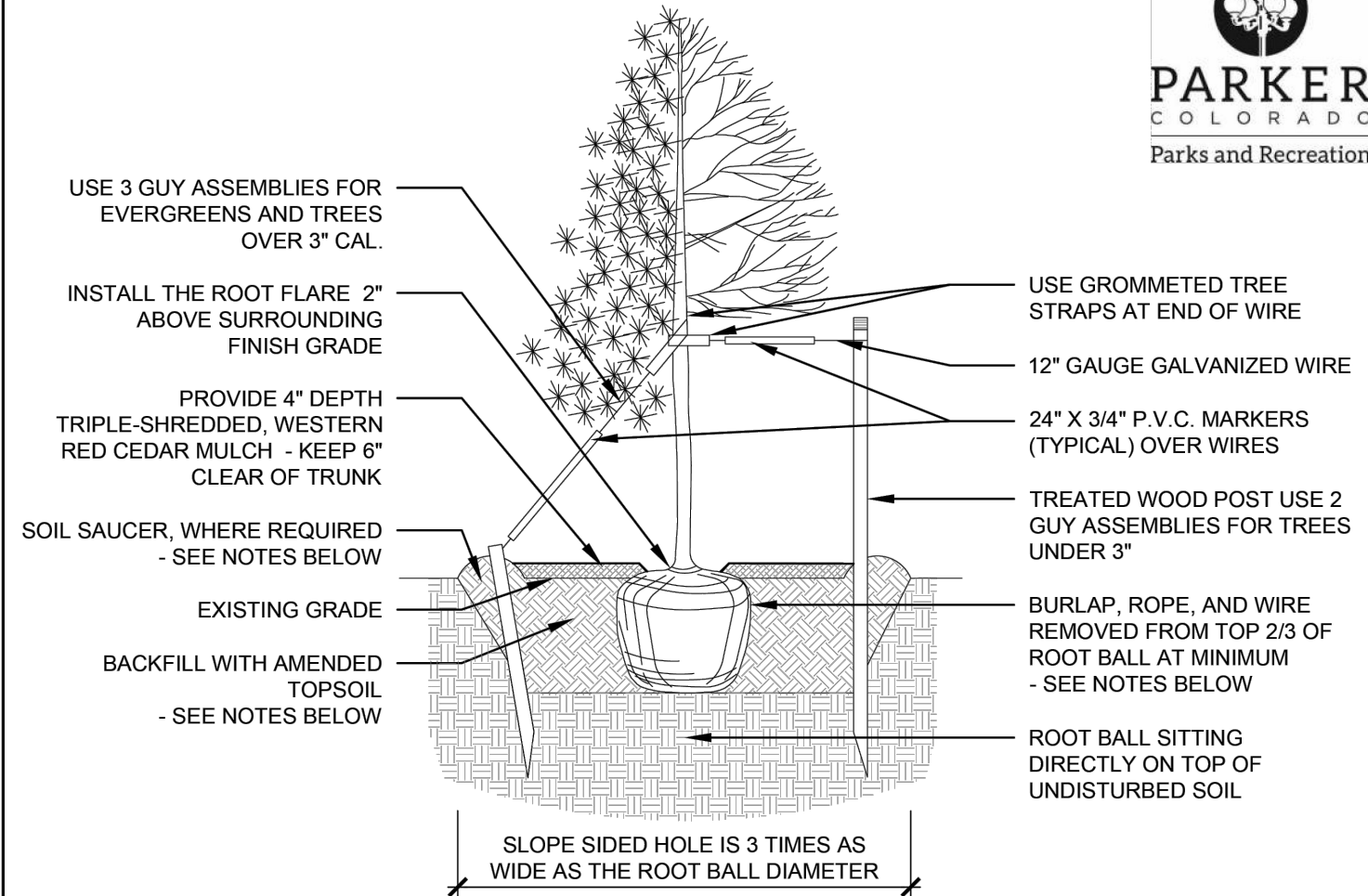
PLANTS USED FOR THESE CALCULATIONS SHOWN IN BLUE ON PLAN



CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987 CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

811 Know what's below. Call before you dig. ATWELL logo and contact information: 866.850.4200, www.atwell-group.com, 9001 AIRPORT FREEWAY, SUITE 660 NORTH RICHLAND HILLS, TX 76180. Includes project details: PARKER COFFEE BAR, 13135 DECLAN DRIVE, PARKER, CO, 80138.

TOWN OF PARKER STANDARD DETAILS

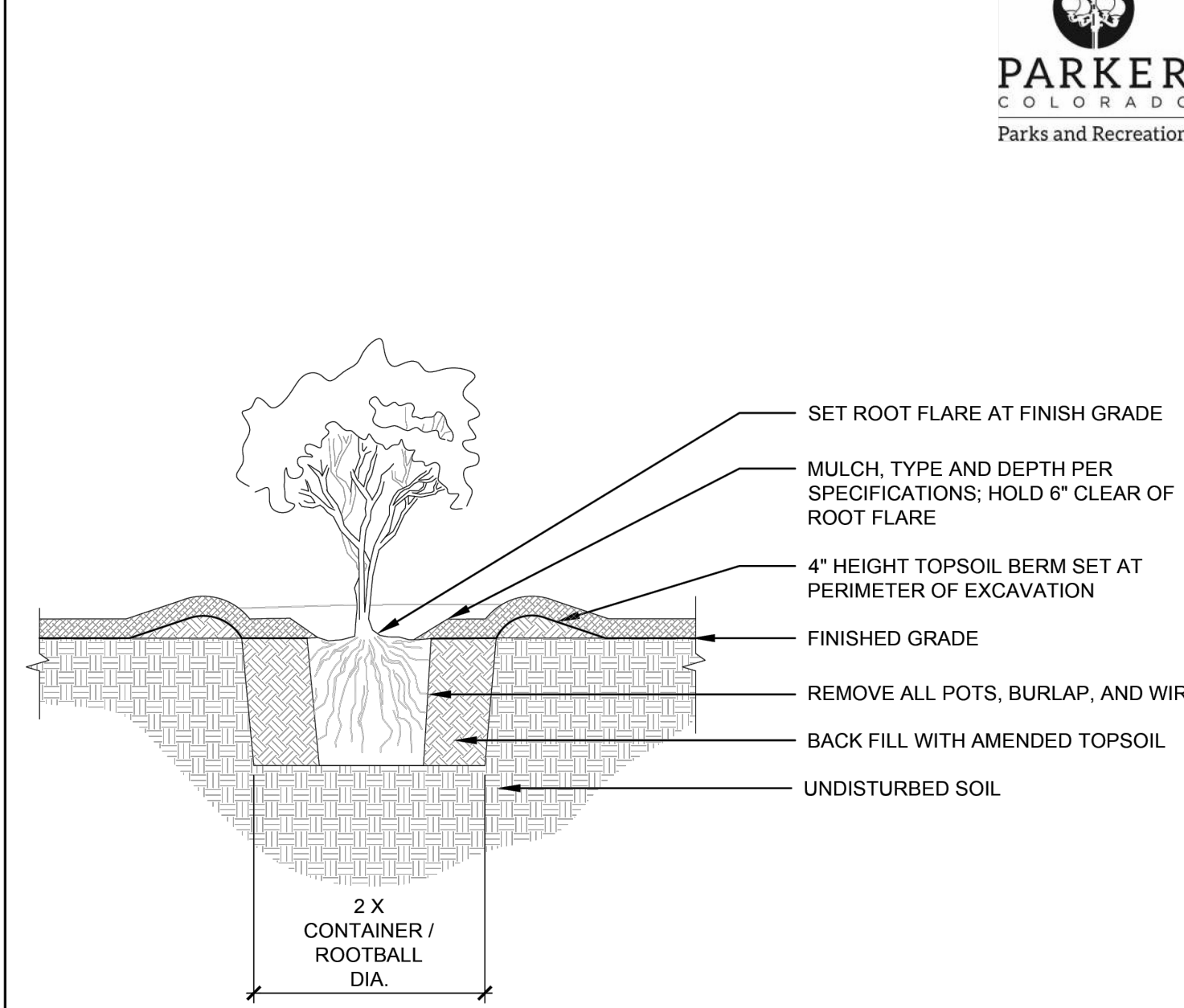


- NOTES:
- EXCAVATE PLANTING HOLES WITH SLOPING SIDES, MAKE EXCAVATIONS AT LEAST THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER AND NO DEEPER THAN THE DISTANCE FROM THE TOP OF THE ROOT BALL TO ALLOW FOR SETTLING. DO NOT DISTURB SOIL AT BOTTOM OF PLANTING HOLES, BUT DO SCORE THE SIDES OF THE PLANTING HOLE. THE PLANTING AREA SHALL BE LOOSENED AND AERATED AT LEAST THREE TIMES THE DIAMETER OF THE ROOT BALL.
 - BACKFILL SHALL CONSIST OF APPROVED ON-SITE TOPSOIL BLENDED W/ COMPOST AMENDMENT. IF ON-SITE TOPSOILS ARE NOT APPROVED FOR USE, BACKFILL W/ IMPORTED TOPSOIL BLENDED WITH COMPOST AMENDMENT. REFER TO SPECIFICATION SECTION 329113 FOR ADDITIONAL INFORMATION.
 - TREES SHALL BE PLANTED WITH THE ROOT COLLAR/FLARE VISIBLE ABOVE GRADE AND TWO OR MORE STRUCTURAL ROOTS LOCATED WITHIN THE TOP 1" TO 2" OF THE ROOT BALL/FINISHED GRADE MEASURED 3" TO 4" FROM TRUNK. THIS INCLUDES TREES THAT ARE SET ON SLOPES (SEE SLOPE PLANTING DETAIL). TREES THAT DO NOT HAVE A VISIBLE ROOT COLLAR SHALL BE REJECTED. DO NOT COVER THE ROOT BALL WITH SOIL.
 - WHEN ROOT BALL WILL REMAIN INTACT, CUT OFF BOTTOM 1/4 OF WIRE BASKET BEFORE PLACING TREE IN HOLE. CUT OFF REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE BASKET COMPLETELY. AT A MINIMUM, THE TOP 2/3 OF THE BURLAP AND BASKET SHALL BE REMOVED FROM THE ROOT BALL ON ALL TREES. REMOVE ALL NYLON TIES, TWINE, ROPE AND BURLAP. REMOVE UNNECESSARY PACKING MATERIAL.
 - FORM SOIL INTO A 6" TALL WATERING RING (SAUCER) AROUND PLANTING AREA. THIS IS NOT NECESSARY IN IRRIGATED TURF AREAS. APPLY 4" DEPTH OF SPECIFIED MULCH OVER PLANTING AREA AND INSIDE SAUCERS, AWAY FROM TRUNK.
 - STAKING AND GUYING OF TREES IS OPTIONAL IN MOST PLANTING SITUATIONS. IN AREAS OF EXTREME WINDS, OR ON STEEP SLOPES, STAKING MAY BE REQUIRED TO STABILIZE TREES. STAKING AND GUYING MUST BE REMOVED WITHIN 1 YEAR OF PLANTING DATE.
 - TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY AFTER CONSULTATION WITH THE TOWN ARBORIST.
 - RESETTING OF IMPROPERLY PLANTED TREES WILL ONLY BE ALLOWED IF IT IS DETERMINED THAT DOING SO WILL IN NO WAY COMPROMISE THE ROOT BALL, AND SHALL ONLY BE DONE WITH APPROVAL OF THE TOWN ARBORIST.

TREE PLANTING
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-3

TOWN OF PARKER STANDARD DETAILS

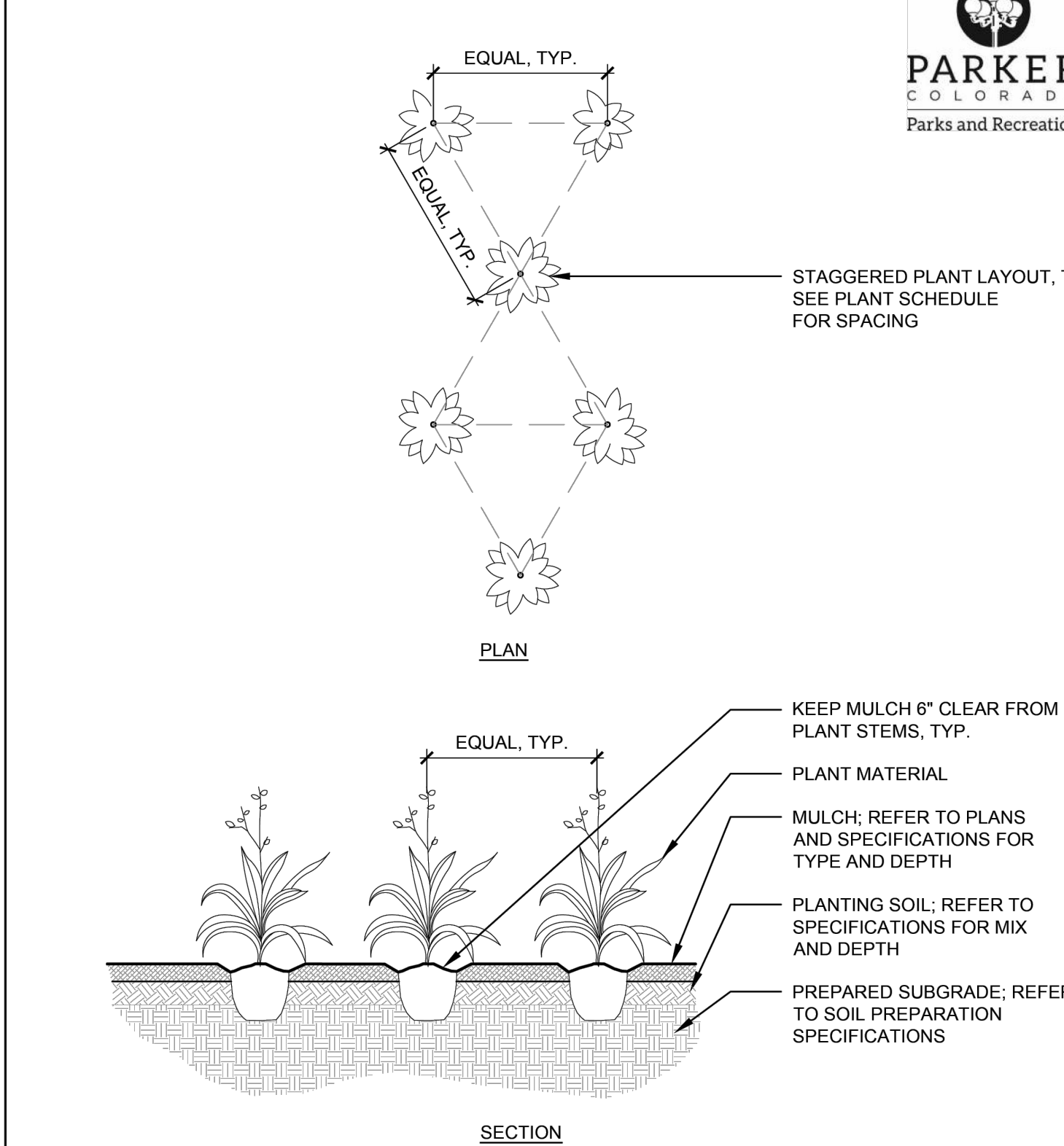


- NOTES:
- PRUNE ALL DAMAGED, DISEASED OR WEAK LIMBS.
 - CLEANLY PRUNE ALL DAMAGED ROOT ENDS.
 - DO NOT ALLOW ROOTS TO DRY OUT DURING INSTALLATION PROCESS.
 - DEEP WATER AFTER PLANTING.

SHRUB PLANTING
1/2" = 1'-0"

DATE: MAY 2023 | DETAIL SD-5

TOWN OF PARKER STANDARD DETAILS

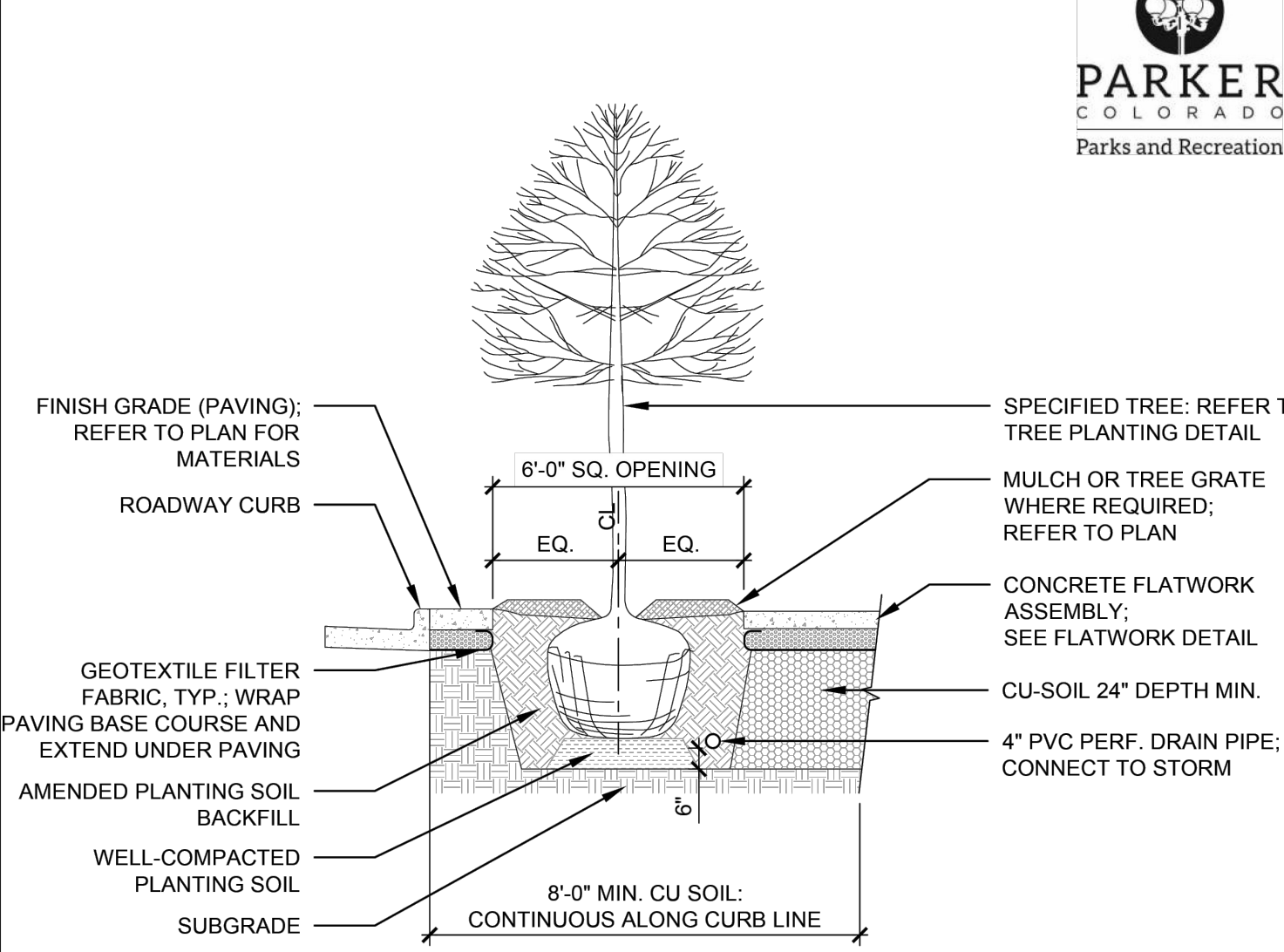


- NOTES:
- WHEN BACKFILLING AROUND PLANTS, DO NOT ALLOW AIR POCKETS TO FORM.
 - AFTER PLANTING, WATER THOROUGHLY.

PERENNIAL PLANTING
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-6

TOWN OF PARKER STANDARD DETAILS

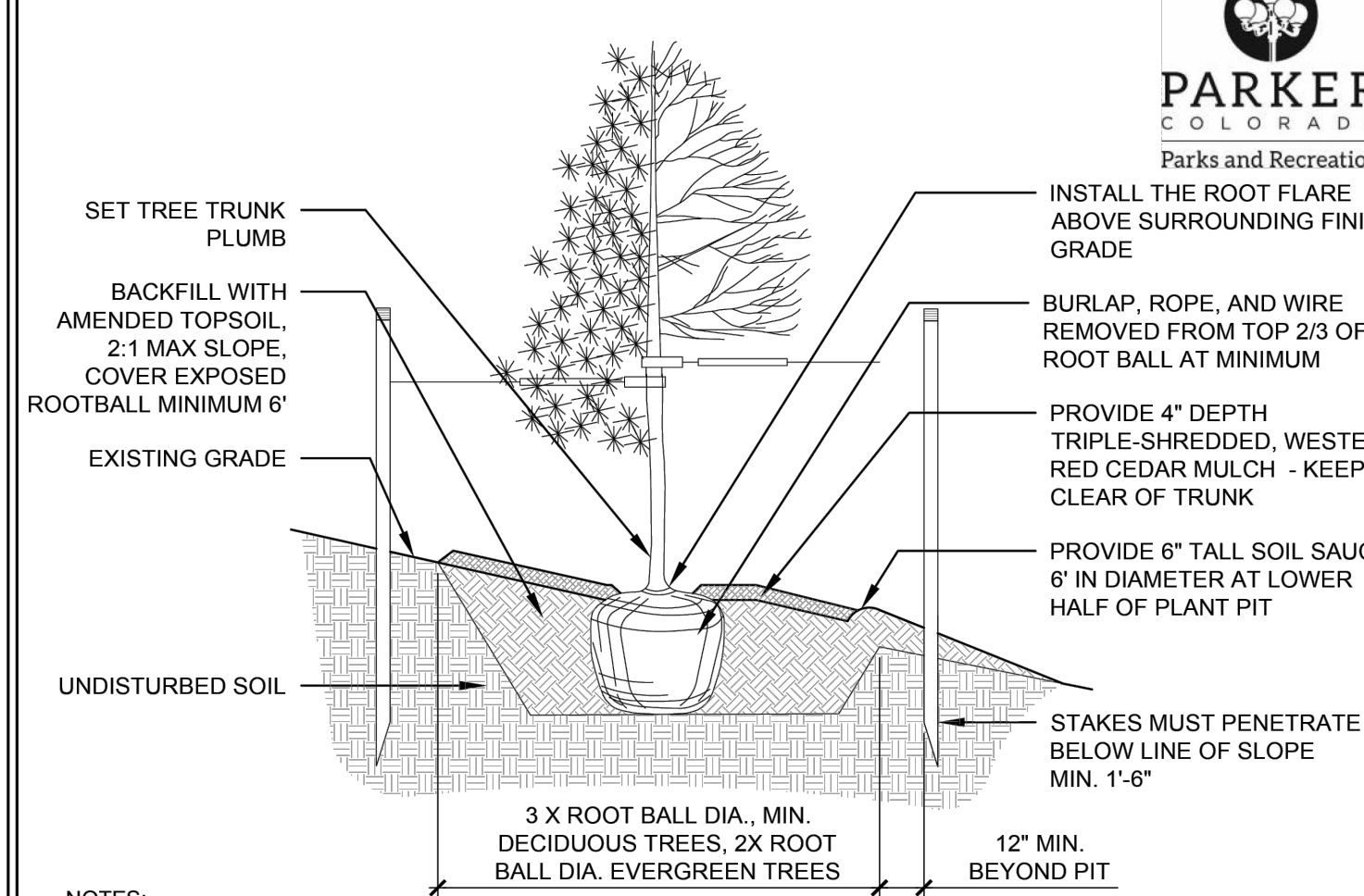


- NOTES:
- TREES SHALL BE PLANTED WITH THE ROOT COLLAR/FLARE VISIBLE ABOVE GRADE AND TWO OR MORE STRUCTURAL ROOTS LOCATED WITHIN THE TOP 1" TO 2" OF THE ROOT BALL/FINISHED GRADE MEASURED 3" TO 4" FROM TRUNK.
 - WHEN ROOT BALL WILL REMAIN INTACT, CUT OFF BOTTOM 1/4 OF WIRE BASKET BEFORE PLACING TREE IN HOLE. CUT OFF REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE BASKET COMPLETELY. AT A MINIMUM, THE TOP 2/3 OF THE BURLAP AND BASKET SHALL BE REMOVED FROM THE ROOT BALL ON ALL TREES. REMOVE ALL NYLON TIES, TWINE, ROPE AND BURLAP. REMOVE UNNECESSARY PACKING MATERIAL.
 - TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY AFTER CONSULTATION WITH THE TOWN ARBORIST.
 - RESETTING OF IMPROPERLY PLANTED TREES WILL ONLY BE ALLOWED IF IT IS DETERMINED THAT DOING SO WILL IN NO WAY COMPROMISE THE ROOT BALL, AND SHALL ONLY BE DONE WITH APPROVAL OF THE TOWN ARBORIST.

CU SOIL TREE PIT
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-2

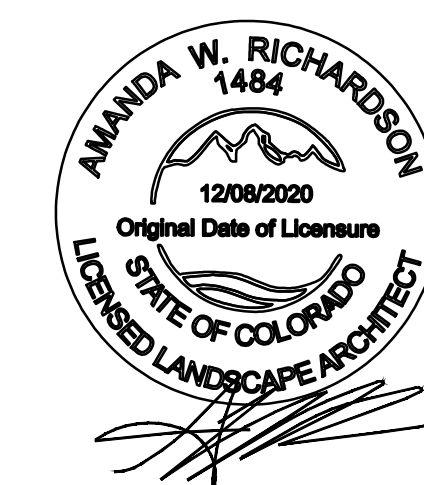
TOWN OF PARKER STANDARD DETAILS



- NOTES:
- THIS INSTALLATION SHALL APPLY TO ALL TREE TYPES AND SIZES PLANTED ON SLOPES 4:1 OF GREATER.
 - EXCAVATE PLANTING HOLES WITH SLOPING SIDES, MAKE EXCAVATIONS AT LEAST THREE TIMES AS WIDE AS THE ROOT BALL DIAMETER AND NO DEEPER THAN THE DISTANCE FROM THE TOP OF THE ROOT BALL TO ALLOW FOR SETTLING. DO NOT DISTURB SOIL AT BOTTOM OF PLANTING HOLES, BUT DO SCORE THE SIDES OF THE PLANTING HOLE. THE PLANTING AREA SHALL BE LOOSENED AND AERATED AT LEAST THREE TIMES THE DIAMETER OF THE ROOT BALL.
 - BACKFILL SHALL CONSIST OF APPROVED ON-SITE TOPSOIL BLENDED W/ COMPOST AMENDMENT. OF ON-SITE TOPSOILS ARE NOT APPROVED FOR USE, BACKFILL W/ IMPORTED TOPSOIL BLENDED WITH COMPOST AMENDMENT. REFER TO SPECIFICATION SECTION 329113 FOR ADDITIONAL INFORMATION.
 - TREES SHALL BE PLANTED WITH THE ROOT COLLAR/FLARE VISIBLE ABOVE GRADE AND TWO OR MORE STRUCTURAL ROOTS LOCATED WITHIN THE TOP 1" TO 2" OF THE ROOT BALL/FINISHED GRADE MEASURED 3" TO 4" FROM TRUNK. THIS INCLUDES TREES THAT ARE SET ON SLOPES (SEE SLOPE PLANTING DETAIL). TREES THAT DO NOT HAVE A VISIBLE ROOT COLLAR SHALL BE REJECTED. DO NOT COVER THE ROOT BALL WITH SOIL.
 - WHEN ROOT BALL WILL REMAIN INTACT, CUT OFF BOTTOM 1/4 OF WIRE BASKET BEFORE PLACING TREE IN HOLE. CUT OFF REMAINDER OF BASKET AFTER TREE IS SET IN HOLE. REMOVE BASKET COMPLETELY. AT A MINIMUM, THE TOP 2/3 OF THE BURLAP AND BASKET SHALL BE REMOVED FROM THE ROOT BALL ON ALL TREES. REMOVE ALL NYLON TIES, TWINE, ROPE AND BURLAP. REMOVE UNNECESSARY PACKING MATERIAL.
 - FORM SOIL INTO A 6" TALL WATERING RING (SAUCER) AROUND PLANTING AREA. THIS IS NOT NECESSARY IN IRRIGATED TURF AREAS. APPLY 4" DEPTH OF SPECIFIED MULCH OVER PLANTING AREA AND INSIDE SAUCERS, AWAY FROM TRUNK.
 - STAKING AND GUYING OF TREES IS OPTIONAL IN MOST PLANTING SITUATIONS. IN AREAS OF EXTREME WINDS, OR ON STEEP SLOPES, STAKING MAY BE REQUIRED TO STABILIZE TREES. STAKING AND GUYING MUST BE REMOVED WITHIN 1 YEAR OF PLANTING DATE.
 - TREE WRAP IS NOT TO BE USED ON ANY NEW PLANTINGS, EXCEPT IN LATE FALL PLANTING SITUATIONS, AND ONLY AFTER CONSULTATION WITH THE TOWN ARBORIST.
 - RESETTING OF IMPROPERLY PLANTED TREES WILL ONLY BE ALLOWED IF IT IS DETERMINED THAT DOING SO WILL IN NO WAY COMPROMISE THE ROOT BALL, AND SHALL ONLY BE DONE WITH APPROVAL OF THE TOWN ARBORIST.

TREE PLANTING ON SLOPE
1/4" = 1'-0"

DATE: MAY 2023 | DETAIL SD-4



AWR Designs, LLC
P.O. Box 1746
Aledo, Texas 76608
amanda@awr-designs.com
c. 512.517.5589

CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.



Know what's Below. Call before you dig. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND ASSUME FULL RESPONSIBILITY FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE: CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD RESPONSIBLE FOR ANY PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2023 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

24 HOUR EMERGENCY CONTACT



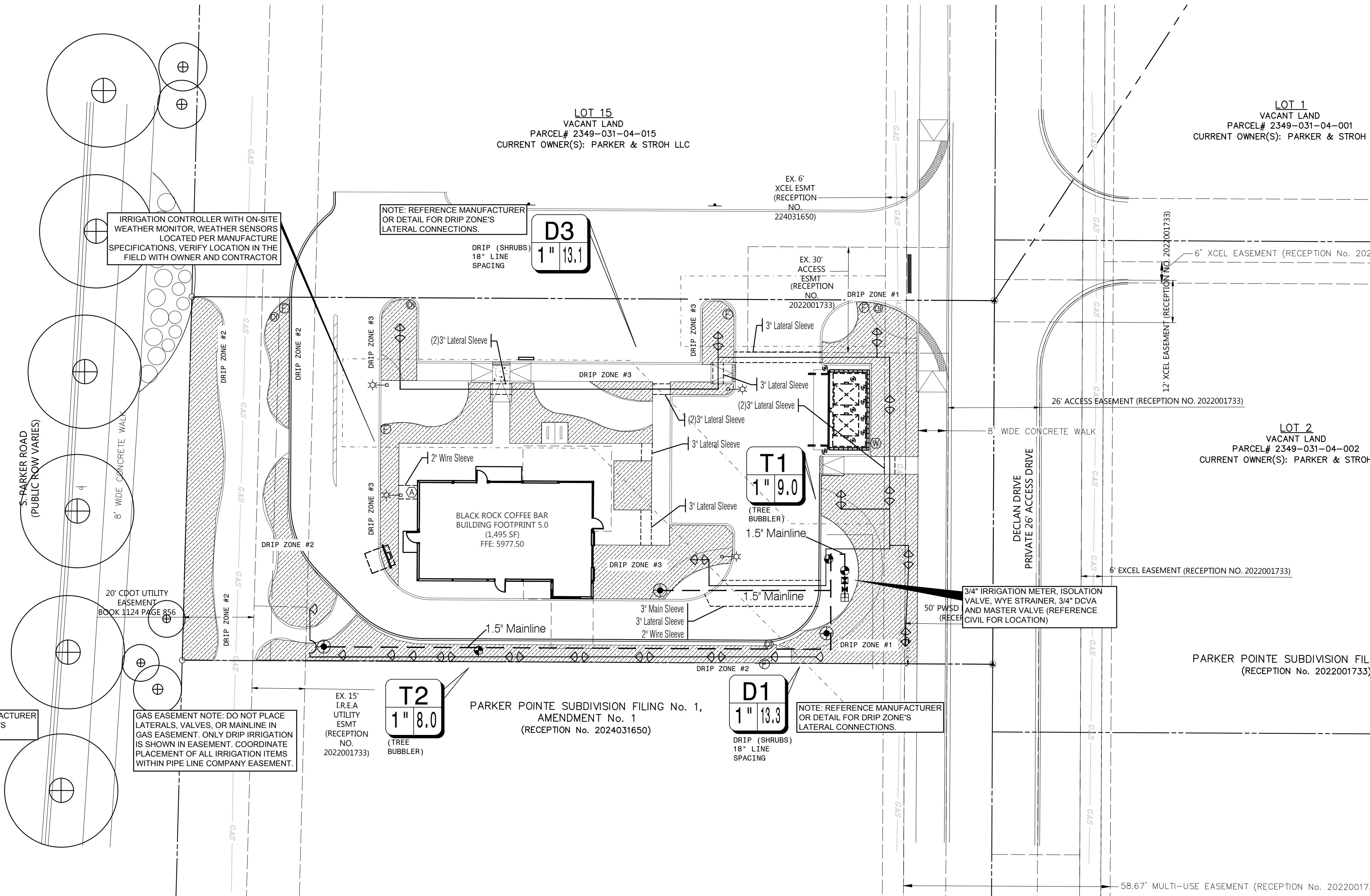
LOT 4A, PARKER POINTE SUBD. FILING NO. 1, AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
LANDSCAPE DETAILS

DATE: 2025-8-21

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO. L1.03



SLEEVING NOTES

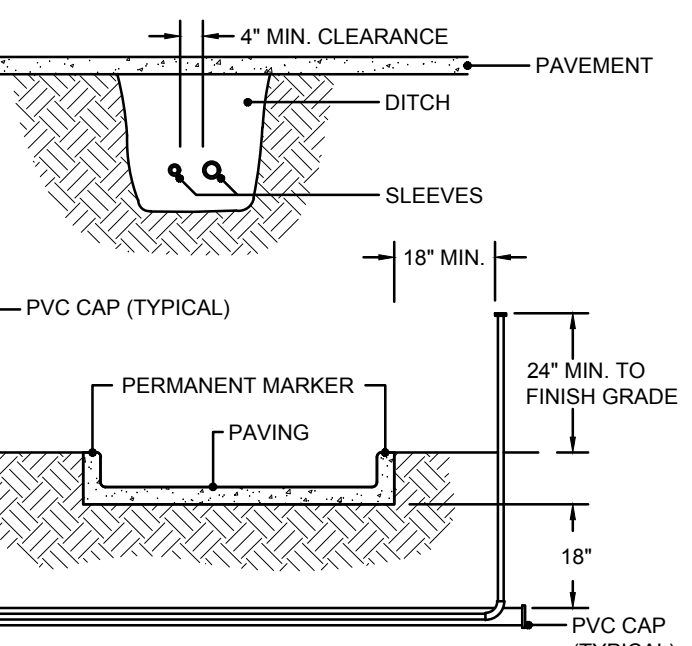
1. PIPING AND CONTROL WIRES SHALL BE INSTALLED IN SEPARATE SLEEVES UNDER PAVING. REFERENCE DRAWINGS FOR SLEEVE SIZE AND LOCATION.
2. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR.
3. INSTALLATION OF SLEEVES SHALL BE TWENTY (20) FEET BELOW TOP OF PAVEMENT OR FINISHED GRADE.
4. SLEEVES SHALL EXTEND ONE (1) FOOT BEYOND EDGE OF ALL PAVEMENT AND STAKED FOR LOCATION.
5. ALL SLEEVES SHALL BE SCHEDULE 40 PVC PIPE, CAPPED ON BOTH ENDS AND SIZED AT LEAST TWO TIMES LARGER THAN THE DIAMETER OF THE PIPE INSIDE THE SLEEVE.
6. SLEEVE LOCATIONS SHALL BE MARKED ON THE CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE TWO (2) INCHES LONG AND ONE (1) INCH APART.
7. CONTRACTOR IS RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND SHALL ALSO BE RESPONSIBLE FOR LOCATING ANY SLEEVE THAT CANNOT BE FOUND DURING THE INSTALLATION OF THE SYSTEM.
8. CONTRACTOR SHALL FURNISH OWNER AND IRRIGATION CONTRACTOR WITH AN AS-BUILT DRAWING SHOWING ALL SLEEVE LOCATIONS.

IRRIGATION GENERAL NOTES

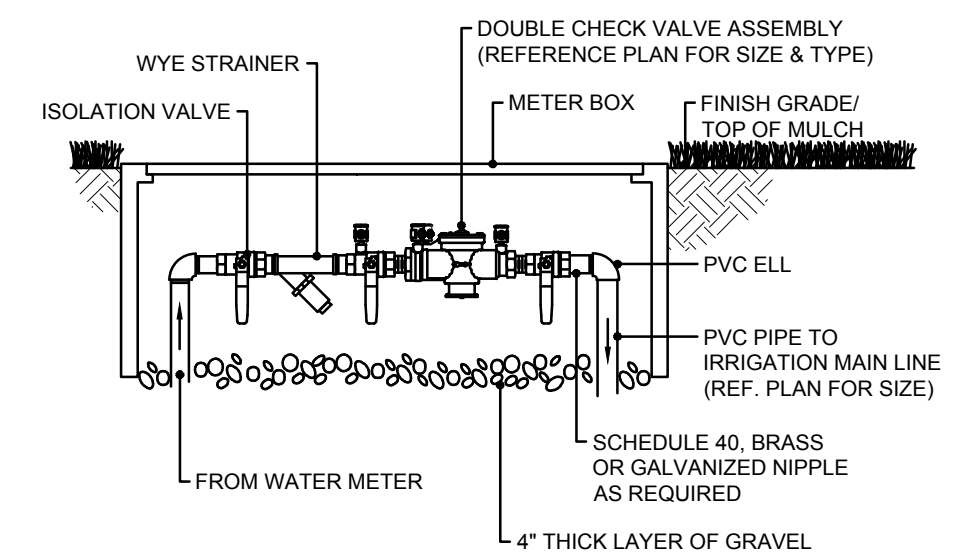
1. THE IRRIGATION CONTRACTOR SHALL COORDINATE INSTALLATION OF THE IRRIGATION SYSTEM WITH THE LANDSCAPE CONTRACTOR SO THAT ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO NOTIFY THE IRRIGATION DESIGNER OF SITE CONDITIONS OR ASSUME FULL RESPONSIBILITY FOR ANY AND ALL ON SITE REVISIONS NECESSARY.
3. CONTRACTOR TO VERIFY DESIGN AND ITS INTENT TO PROVIDE FULL COVERAGE TO ALL NEW PLANTING MATERIAL.
4. NOTIFY IRRIGATION DESIGNER OF ANY LAYOUT DISCREPANCIES PRIOR TO BIDDING.
5. LOCATE ALL UTILITIES AND SITE LIGHTING CONDUITS BEFORE IRRIGATION INSTALLATION BEGINS.
6. IRRIGATION CONTRACTOR TO PROCURE ALL PERMITS, LICENSES AND GIVE ALL NECESSARY NOTICES THROUGHOUT THE DURATION OF THE PROJECT.
7. THE CONTRACTOR SHALL BE A REGISTERED LICENSED IRRIGATOR IN GOOD STANDING WITH STATE BOARDS AND REGULATORS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL PLANT MATERIAL UPON ACCEPTANCE AND THROUGH THE WARRANTY PERIOD FOR DAMAGE DUE TO IRRIGATION SYSTEM FAILURE.
9. ALL ASPECTS OF THE IRRIGATION INSTALLATION SHALL CONFORM WITH THE PROPER GOVERNING AUTHORITIES, CODES AND ORDINANCES.
10. SLEEVES SHALL BE FURNISHED AND INSTALLED BY GENERAL CONTRACTOR. SLEEVE MATERIAL SHALL BE SCHEDULE 40, SIZE AS INDICATED ON PLAN. REFER TO SLEEVING NOTES.
11. ALL MAIN LINE AND LATERAL LINE PIPING IN PLANTING AND LAWN AREAS SHALL HAVE A MINIMUM OF 12 INCHES OF COVER. ALL PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18 INCHES OF COVER. CONTRACTOR TO VERIFY LOCAL FREEZE DEPTHS AND ADJUST DEPTH OF COVER ACCORDINGLY.
12. ZONE VALVES SHALL NOT BE LOCATED WITHIN THREE (3) FEET OF ANY DRIVEWAY, TRAFFIC AISLE, ISLAND ETC. WHERE THEY WILL BE DAMAGED BY VEHICLES DRIVING OVER CURBS.
13. ALL NOZZLES IN PARKING LOT ISLANDS AND PLANTING BEDS SHALL BE LOW ANGLE NOZZLES TO MINIMIZE OVER SPRAY ON PAVEMENT SURFACES.
14. AUTOMATIC CONTROLLER SHALL BE INSTALLED AT LOCATION SHOWN. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX WITHIN FIVE (5) FEET OF CONTROLLER. LOCATION BY OTHER TRADES. RAIN AND FREEZE SENSORS SHALL BE INSTALLED WITH EACH CONTROLLER.
15. ELECTRICAL SPLICES SHOULD BE LOCATED AT EACH VALVE AND CONTROLLER ONLY.
16. PROVIDE A 3/4\"/>

IRRIGATION PROJECT NOTES

1. THE LOCATION OF MAINLINE AND VALVES ON THIS PLAN MAY BE SHOWN IN PAVED AREAS FOR DESIGN CLARITY ONLY. IRRIGATION ELEMENTS HAVE BEEN SHOWN ON THIS PLAN AS ACCURATELY AS POSSIBLE WITHOUT THE FORTUIT OF DESIGN CLARITY AND INTENT. ALL PIPES AND VALVES SHALL BE INSTALLED WITHIN PERVIOUS AREAS. ALL PIPE AND WIRES THAT CROSS UNDER PAVING SHALL BE INSTALLED IN SEPARATE SLEEVES AS SPECIFIED.
2. ALL SPRINKLER EQUIPMENT NUMBERS REFERENCE THE HUNTER EQUIPMENT CATALOG UNLESS OTHERWISE INDICATED.
3. TEN DAYS PRIOR TO START OF CONSTRUCTION, IRRIGATION CONTRACTOR SHALL VERIFY STATIC WATER PRESSURE. THE IRRIGATION SYSTEM FOR THIS SITE IS DESIGNED TO OPERATE WITH A PRESSURE OF SIXTY (60 PSI) POUNDS PER SQUARE INCH. SHOULD THE DESIGN PRESSURE FOR THE SYSTEM BE HIGHER THAN THE EXISTING PRESSURE, THE IRRIGATION CONTRACTOR SHALL NOTIFY THE IRRIGATION DESIGNER IMMEDIATELY.
4. IRRIGATION CONTRACTOR SHALL COORDINATE THE LOCATION OF THE CONTROLLER AND SENSORS WITH THE GENERAL CONTRACTOR AND OWNER. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON THIS PLAN.
5. WATER SERVICE TAP, METER AND LEAD FOR THE IRRIGATION SYSTEM SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR. SERVICE LINE AND METER SHALL BE SIZED AS NOTED ON THIS PLAN.
6. TYPE AND INSTALLATION OF THE WATER METER AND BACK FLOW PREVENTION DEVICE SHALL BE DETERMINED BY THE GOVERNING AUTHORITY. AN ISOLATION VALVE SHALL BE PROVIDED BETWEEN THE WATER METER AND BACK FLOW DEVICE.
7. ALL CALCULATIONS FOR THIS IRRIGATION SYSTEM ARE BASED ON PRODUCTS AND EQUIPMENT INFORMATION PROVIDED BY HUNTER. INSTALLATION OF THESE PRODUCTS SHALL NOT EXCEED MANUFACTURERS RECOMMENDATIONS.
8. REFERENCE HUNTER GUIDELINES AND SPECIFICATIONS PRIOR TO INSTALLATION. CONFIRM REQUIREMENTS FOR CONTROLLER, WATERPROOF CONNECTIONS, GROUNDING, SURGE PROTECTORS, DECODERS, VALUES AND WIRING PRIOR TO INSTALLATION. HUNTER TECHNICAL SERVICES (760) 591-7383. WWW.HUNTERINDUSTRIES.COM
9. IRRIGATION REMOTE CONTROL VALVES SHALL BE 1\"/>



- 1 IRRIGATION PVC SLEEVES**
N.T.S.
1. ALL PVC IRRIGATION SLEEVES TO BE SCHEDULE 40 PIPE.
 2. ALL JOINTS TO BE SOLVENT WELDED AND WATER TIGHT.
 3. WHERE THERE IS MORE THAN ONE SLEEVE, EXTEND THE SMALLER SLEEVE TO 24-INCHES MINIMUM ABOVE FINISH GRADE.
 4. MECHANICALLY TAMP TO 85% PROCTOR.
 5. SLEEVE LOCATIONS SHALL BE MARKED ON TOP OF CURB WITH A SAWCUT OF TWO PARALLEL LINES THAT ARE 2\"/>



- 2 DOUBLE CHECK ASSEMBLY**
N.T.S.
1. INSTALL BACKFLOW PREVENTER AS REQUIRED BY LOCAL CODES AND HEALTH DEPARTMENT. VERIFY LOCAL REQUIREMENTS PRIOR TO INSTALLATION. PRIOR TO BACKFLOW PREVENTER, INSTALL A NOMINALLY SIZED ISOLATION VALVE.

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
⬇	MULTI-STREAM BUBBLERS	HUNTER	PROS-06-PRS30 W/ MSBN50H NOZZLES
⬇	REMOTE CONTROL VALVE	HUNTER	ICV
⬇	1\"/>		

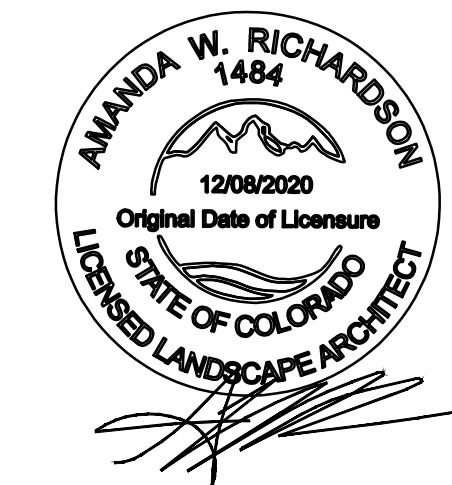
SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
⬇	HDL DRIPLINE	HUNTER	HDL-06-12-CV
⬇	LINE FLUSHING VALVE	HUNTER	AFV-B
⬇	PRESSURE OPERATOR INDICATOR	HUNTER	ECO-ID
⬇	DRIP CONTROL VALVE	HUNTER	ICZ-101-LF-25

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
⬇	1\"/>		

NOTE TO CONTRACTOR:
1. PLAN SHEETS DO NOT SHOW EXISTING AND PROPOSED UTILITIES FOR CLARITY ONLY. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO INSTALLATION. CONTRACTOR IS TO USE EXTREME CAUTION IN DIGGING AND TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES.

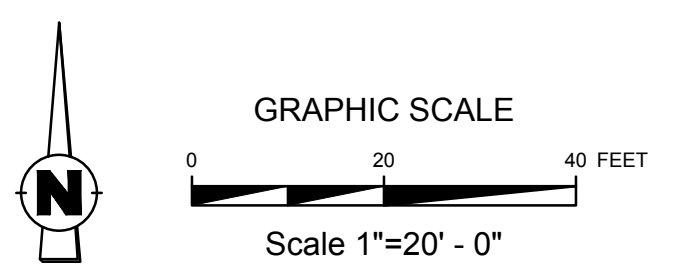
FLOW RANGE GPM	PIPE SIZE
0 - 6 GPM	3/4"
8 - 12 GPM	1"
12 - 22 GPM	1-1/4"
22 - 28 GPM	1-1/2"
28 + GPM	2"

- NOTE:**
1. ENTIRE SYSTEM SHALL BE INSTALLED PER STATE STANDARDS. MANUFACTURER'S SPECIFICATIONS AND ALL CITY CODES.
2. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, AND OTHER EQUIPMENT SHOWN WITHIN PAVED AREAS OR OUT OF PROPERTY BOUNDARIES ARE FOR DESIGN CLARIFICATION ONLY. AND SHALL BE INSTALLED IN PLANTING AREAS WITHIN THE PROPERTY LINES OR LIMITS INDICATED ON PLAN. THE IRRIGATION CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL ABOVE GROUND IRRIGATION EQUIPMENT WITH THE OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO INSTALLATION, OR IRRIGATION CONTRACTOR MAY BE REQUIRED TO MOVE SUCH ITEMS AT HIS OWN COST.
 3. VARIOUS AREAS ON PLAN ARE SHOWING SINGLE HEAD COVERAGE. IF OWNER SHOULD ELECT FOR FULL COVERAGE, CONTRACTOR TO PROCURE THE PROPER PERMITS AND BID ALTERNATE FOR THESE ADDITIONAL SPRAY HEADS, ZONES, AND CONTROLLER EXPANSION FOR THE SYSTEM.
 4. IRRIGATION CONTRACTOR IS TO COORDINATE LOCATION AND PLACEMENT OF ALL IRRIGATION ITEMS WITH THE GENERAL CONTRACTOR. CONTRACTOR IS TO USE EXTREME CAUTION IN TRENCHING TO AVOID EXISTING AND PROPOSED UTILITIES. CONTRACTOR TO LOCATE ALL UTILITIES PRIOR TO IRRIGATION INSTALLATION.
 5. IRRIGATION SPRAY NOZZLES TO BE ADJUSTED TO AVOID PAVEMENT, BUILDING, WALLS, FENCES, UTILITIES, EQUIPMENT, SIGNAGE, AND CALL BOX.
 6. REFERENCE LANDSCAPE PLAN FOR LOCATION OF GRAVEL, STEEL EDGING AND ALL PROPOSED PLANT MATERIAL.
 7. IN TURF AREAS (BOTH SOD AND HYDROMULCH AREAS) OUTSIDE OF IRRIGATION PERMANENT COVERAGE, CONTRACTOR TO PROVIDE TEMPORARY IRRIGATION UNTIL ESTABLISHED, TYP.
 8. CONTRACTOR TO TAKE ALL NECESSARY MEASURES TO PREVENT WATER HAMMER AND SYSTEM COLLAPSE BY DISCHARGING AIR DURING STARTUP AND ALLOWING AIR TO ENTER DURING SHUTDOWN. INSTALL THRUST BLOCKS AND AIR/VACUUM RELIEF VALVES AS NECESSARY TO PROTECT MAINLINE SYSTEM. FOR 3 INCH AND LARGER MAINLINE, INSTALL JOINT RESTRAINTS AT TURNS. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
 9. ALL MAINLINE PIPING 3 INCHES AND LARGER SHALL BE BELL AND GASKETED CLASS 200 PVC PIPE. SDR 21. INSTALL PER MANUFACTURER'S RECOMMENDATIONS. CONTACT MANUFACTURER OR DISTRIBUTOR FOR PRODUCT DEMONSTRATION.
 10. GROUP VALVES IN FIELD AS NECESSARY FOR MAINLINE SIZING. CENTER FEED LATERALS WHEN POSSIBLE.



AWR
AWR Designs, LLC
P.O. Box 1746
Aledo, Texas 76008
amanda@awr-designs.com
c. 512.517.5589

CALL UTILITY NOTIFICATION
CENTER OF COLORADO
1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE, OR EXCAVATE
FOR THE MARKING OF UNDERGROUND
MEMBER UTILITIES.



811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ON AN APPROXIMATE BASIS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE:
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE PROJECTOR SHALL BE LIABLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

24 HOUR EMERGENCY CONTACT

ATWELL
866.850.4200 www.atwell-group.com
9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.636.9860

LOT #4A PARKER POINTE SUBD. FILING NO. 1. AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
IRRIGATION PLAN

DATE: 2025-8-21

REVISIONS

DRAWN BY: K. SARWAR
CHECKED BY: N. SALAZAR
PROJECT MANAGER: N. SALAZAR
JOB #: 24003198
FILE CODE: ##
SHEET NO: L2.01

SECTION 32 8423 - UNDERGROUND IRRIGATION SLEEVES AND UTILITY CONDUITS

- PART 1 - GENERAL**
- DESCRIPTION
 - RELATED WORK
 - REFERENCE STANDARDS
 - MATERIALS
 - EXECUTION
- 3.1 INSTALLATION**
- A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.
 - SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY TWELVE (12) INCHES. CAP PIPE ENDS.
- 3.2 BACKFILL**
- BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE.
 - REPAIR ANY DAMAGE FROM IMPROPER COMPACTION.
- END OF SECTION

- 1.3 REFERENCE STANDARDS**
- AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.
- 1.4 QUALITY ASSURANCE AND REQUIREMENTS**
- PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.
 - MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURERS OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.
 - ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME.
 - HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.
- 1.5 SCHEDULE OF MATERIALS**
- A. MATERIALS LIST:**
- ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS NOTED ON THE PLANS.
 - THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
 - A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTALS SHOULD INCLUDE ALL MANUFACTURERS' SPECIFICATIONS AND LITERATURE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED.
 - APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.
 - MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.

- a. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS:**
- QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED USING BRASS REDUCER.
 - THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER
 - THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
- F. THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATED.**
- 1.5 MAINTENANCE AND GUARANTEE**
- MAINTENANCE AND WORKMANSHIP SHALL BE GUARANTEED FULLY FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE.
 - PROVIDE MAINTENANCE OF SYSTEM, CLEANING AND ADJUSTMENT OF THE HEADS, FOR ONE (1) YEAR AFTER COMPLETION OF INSTALLATION.
 - GUARANTEE IS LIMITED TO REPAIR AND REPLACEMENT OF DEFECTIVE MATERIALS AND WORKMANSHIP, INCLUDING THE REPAIR OF BACKFILL SETTLEMENT.
- 1.6 TESTING**
- PERFORM TESTING REQUIRED WITH OTHER TRADES INCLUDING EARTHWORK, PAVING, PLUMBING, ETC. TO AVOID CUTTING, PATCHING OR BORING.
 - WATER PRESSURE SHOULD BE FOUND PRIOR TO STARTING CONSTRUCTION. DETERMINE/CONFIRM THAT STATIC WATER PRESSURE IS MORE THAN THE WATER PRESSURE NEEDED FOR THE SYSTEM TO FUNCTION PROPERLY. IF STATIC PRESSURE IS LESS THAN THE DESIGN PRESSURE NEEDED, DO NOT START WORK UNTIL THE LANDSCAPE ARCHITECT IS NOTIFIED.
- 1.7 COORDINATION**
- COORDINATE INSTALLATION OF ALL PRODUCTS, INCLUDING EARTHWORK, PAVING AND PLUMBING.
 - COORDINATE TO ENSURE THAT ELECTRICAL POWER SOURCE IS IN PLACE.
 - COORDINATE INSTALLATION WITH WORK SPECIFIED IN OTHER SECTIONS.
 - COORDINATE WITH THE LANDSCAPE CONTRACTOR TO ENSURE PLANT MATERIAL IS UNIFORMLY WATERED IN ACCORDANCE WITH INTENT SHOWN ON DRAWINGS.
- PART 2 - PRODUCTS**
- 2.1 MATERIALS**
- REFER TO CONSTRUCTION DRAWINGS AND NOTES.
 - SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN
 - PVC PIPE - CLASS 200 SPR 21
 - COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
 - 24V WIRE - SIZE 14, TYPE UF
 - ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
 - REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION**
- SITE CONDITIONS:
 - ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS.
 - EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLIGENCE.
 - COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO

- INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.**
- 3.2 PREPARATION**
- PHYSICAL LAYOUT:
 - PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALLS AND WALLS WHEREVER POSSIBLE.
 - PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS.
 - ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 - WATER SUPPLY:
 - IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
 - CONNECTIONS SHALL BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.
- 3.3 INSTALLATION**
- TRENCHING
 - DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF PIPE.
 - REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.
 - PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.
 - PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
 - PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
 - NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.
 - BACKFILL
 - TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.
 - IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER CONSTRUCTION ARE NECESSARY, THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.
 - TRENCHING AND BACKFILL UNDER PAVING:
 - ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALTIC PAVING, OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.
 - ASSEMBLIES
 - INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.
 - MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED

- BEFORE APPLYING SOLVENT.**
- ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON HARDENING PIPE DOOR OR TEFLON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED. LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED, USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.
 - LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER.
 - WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TIE THEM TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPLICES WATERPROOF.
 - AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE DRAWINGS. EACH REMOTE CONTROL VALVE SHALL BE WIRED TO ONE STATION OF THE CONTROLLER.
 - REMOTE CONTROL VALVES:
 - INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE SIZED ACCORDING TO THE DRAWINGS.
 - INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
 - WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR PAINT.
 - FLUSHING OF SYSTEM:
 - AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
 - SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN ACCOMPLISHED.
 - SPRINKLER HEADS:
 - INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD CONDITIONS.
 - SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM RECOMMENDED BY THE MANUFACTURER.
 - ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.
- 3.4 TESTING**
- THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT, REPLACE JOINT OR JOINS AND REPEAT TEST.
 - A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD OF TEST.
 - WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.
 - UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.
- END OF SECTION

SECTION 32 8424 - IRRIGATION SYSTEM

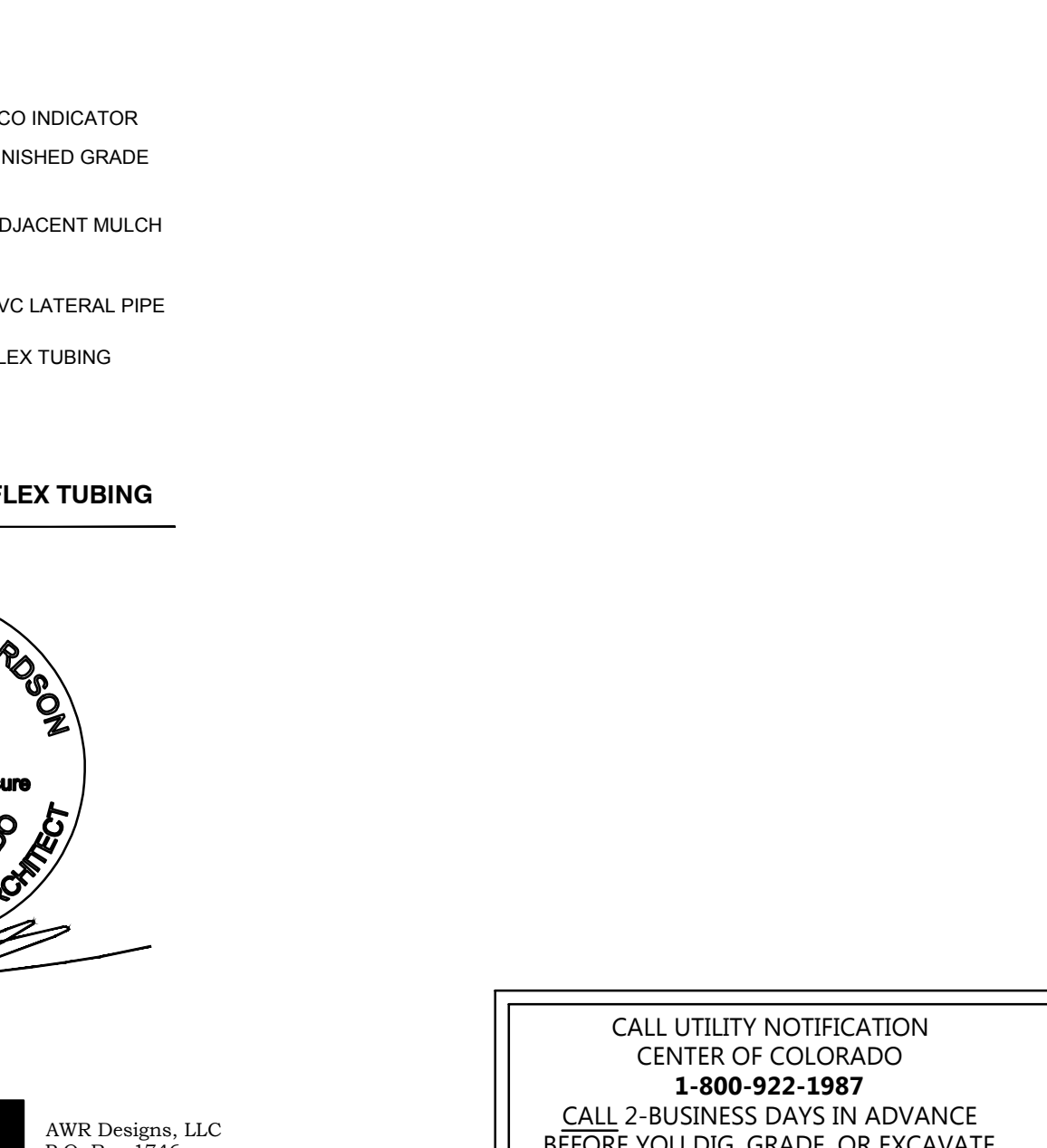
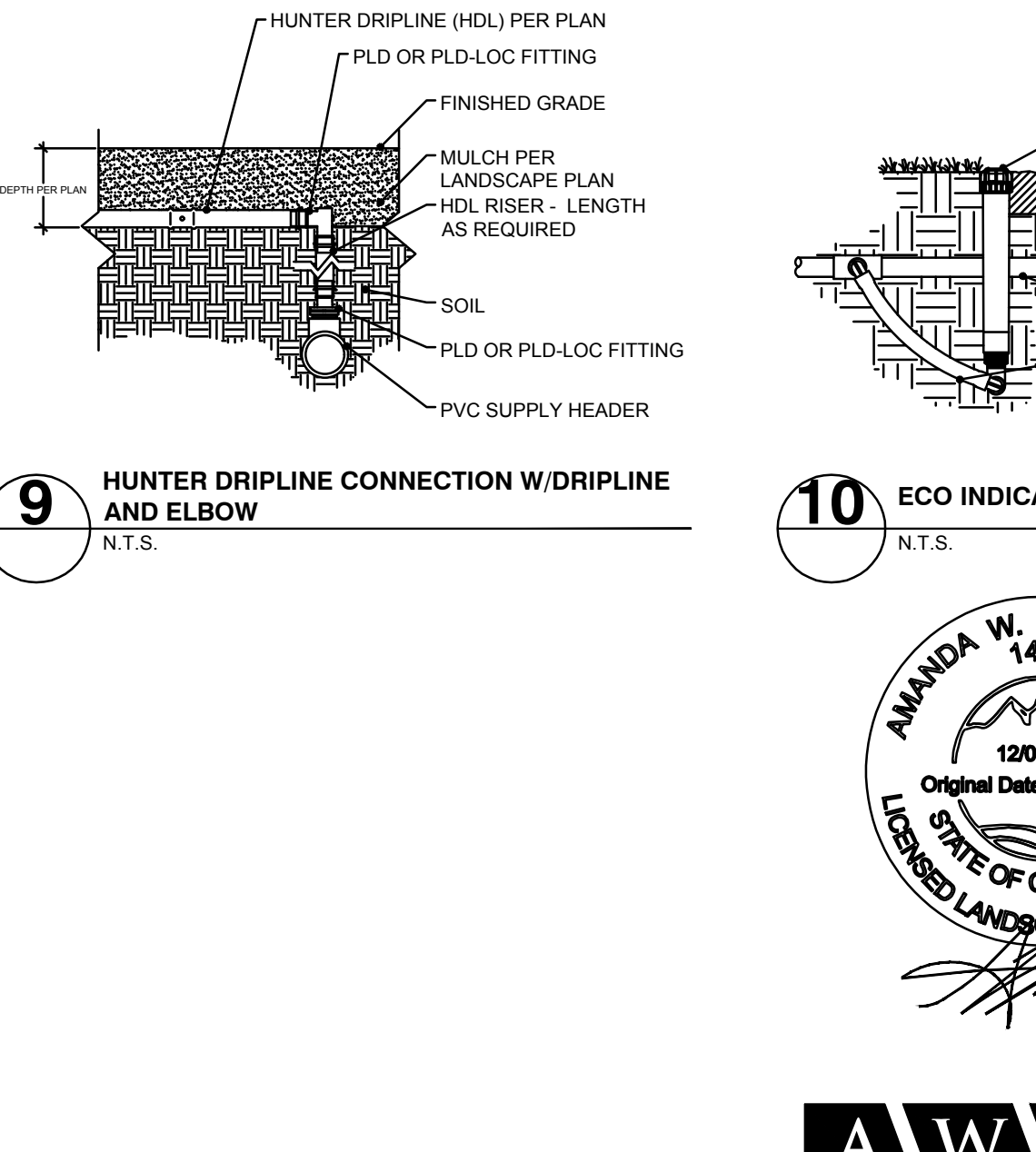
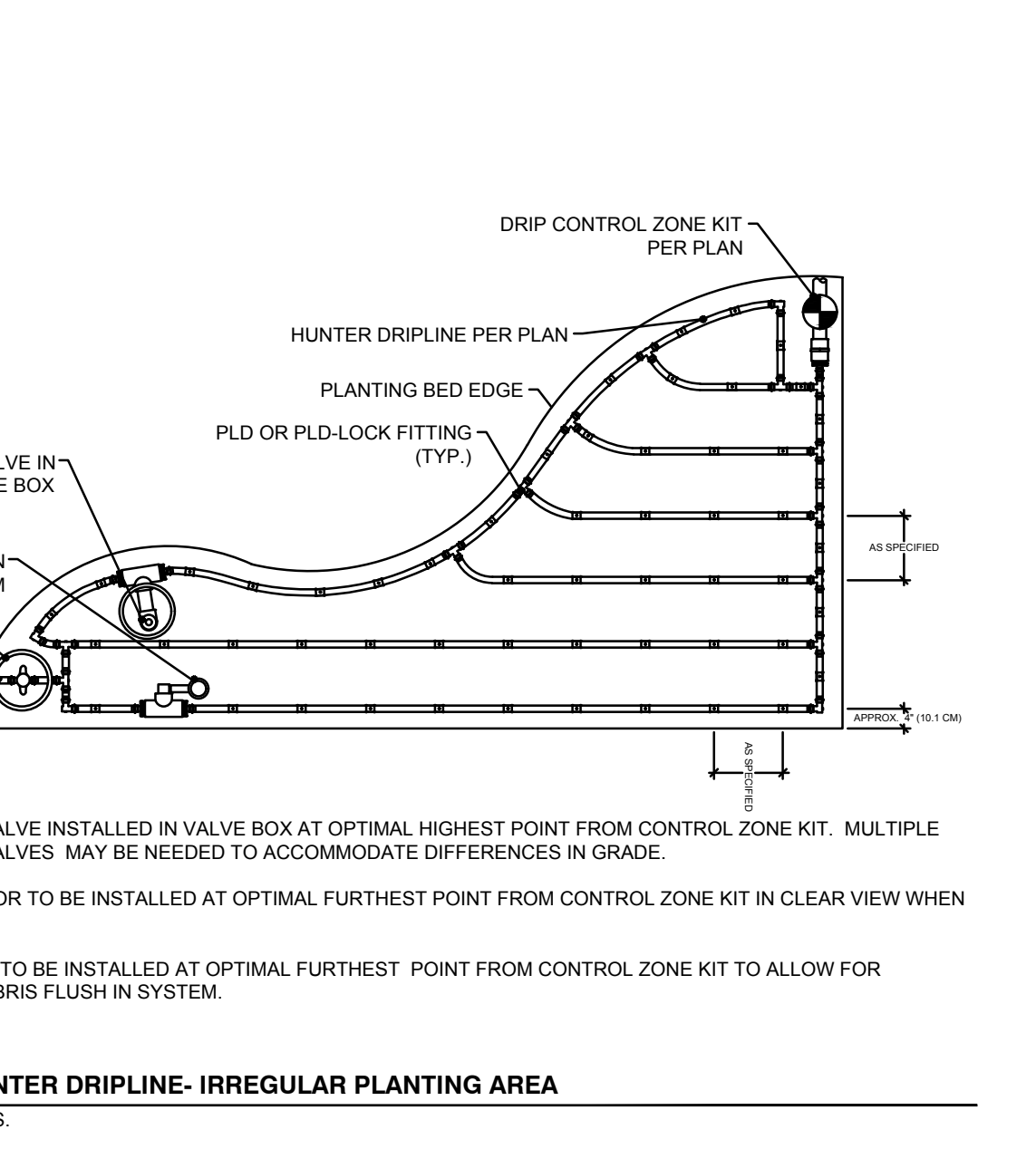
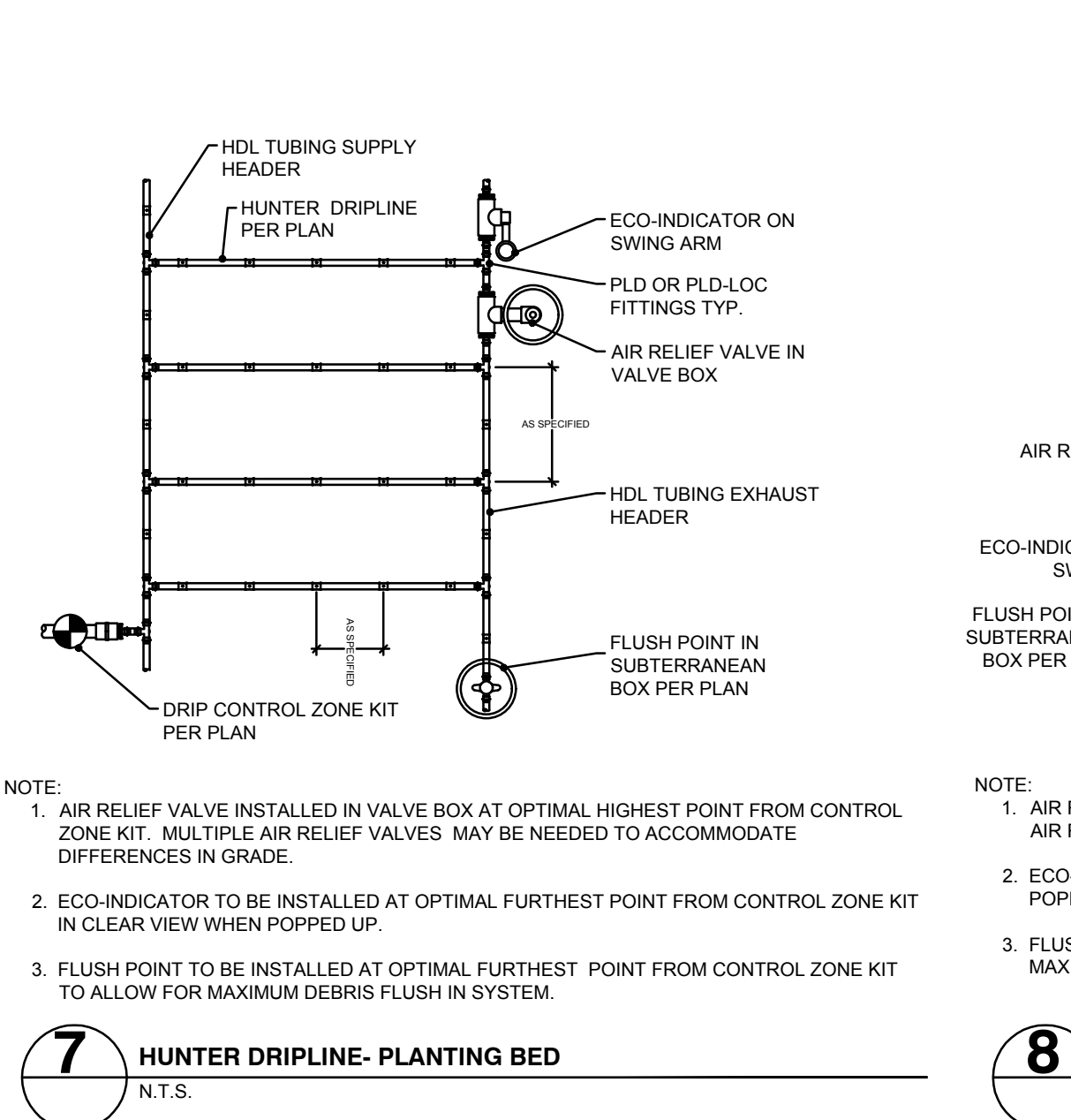
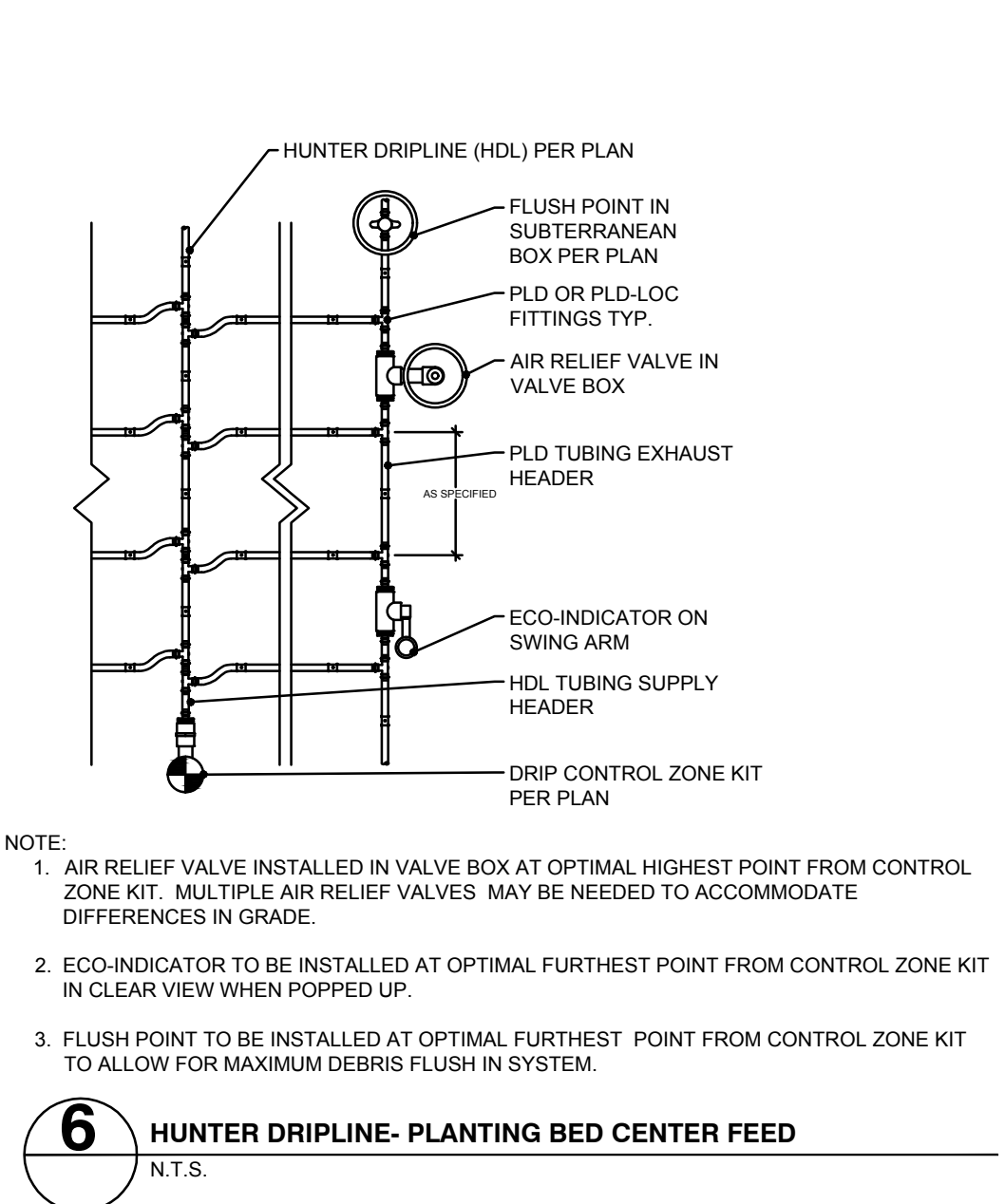
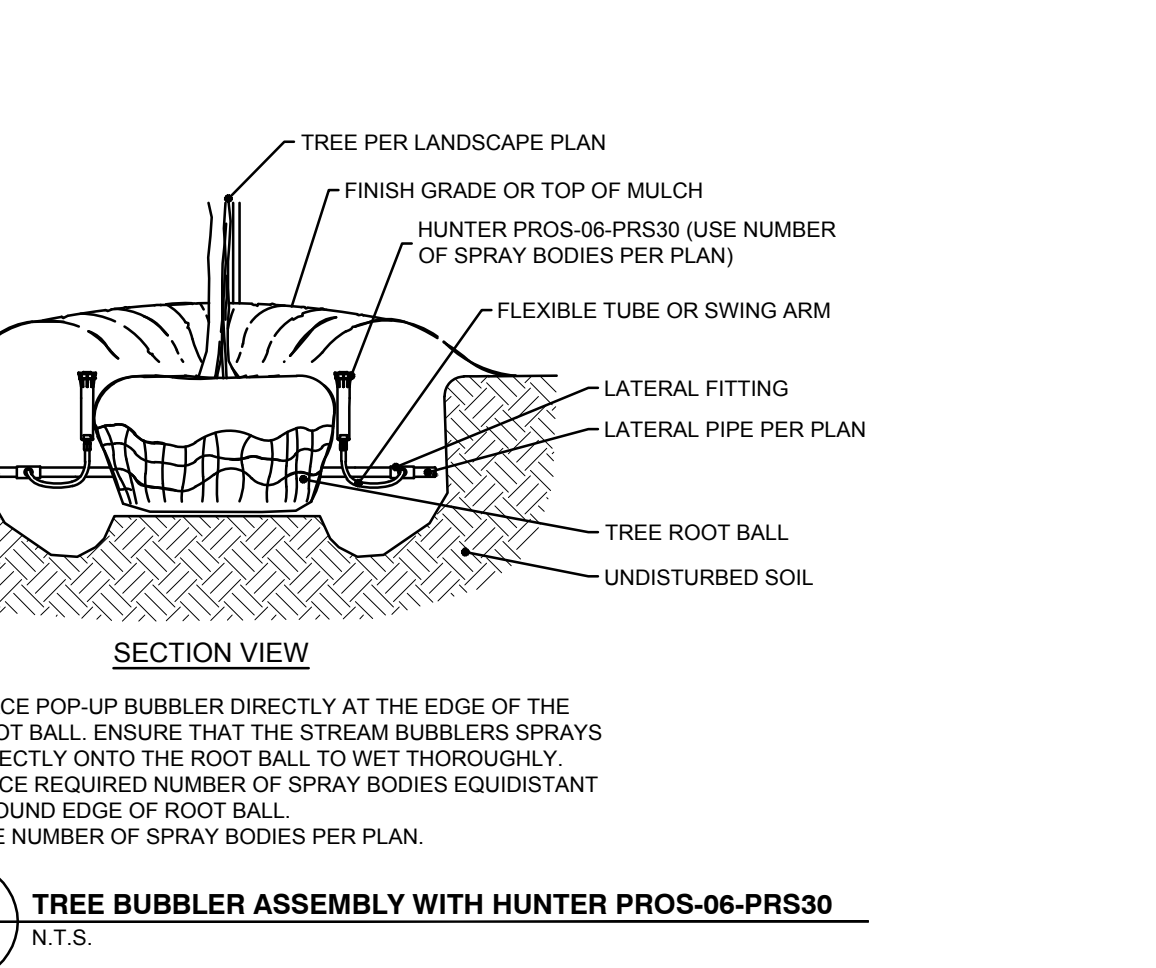
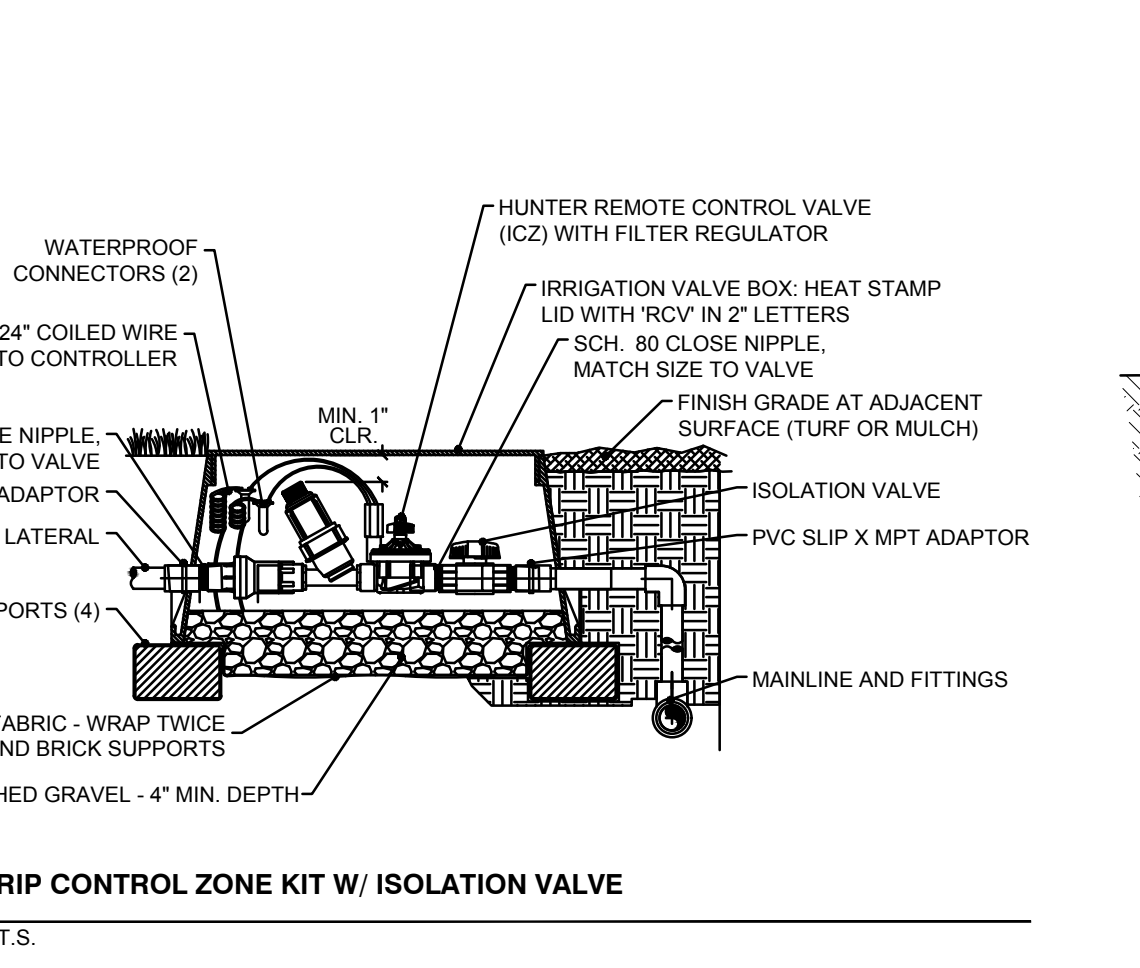
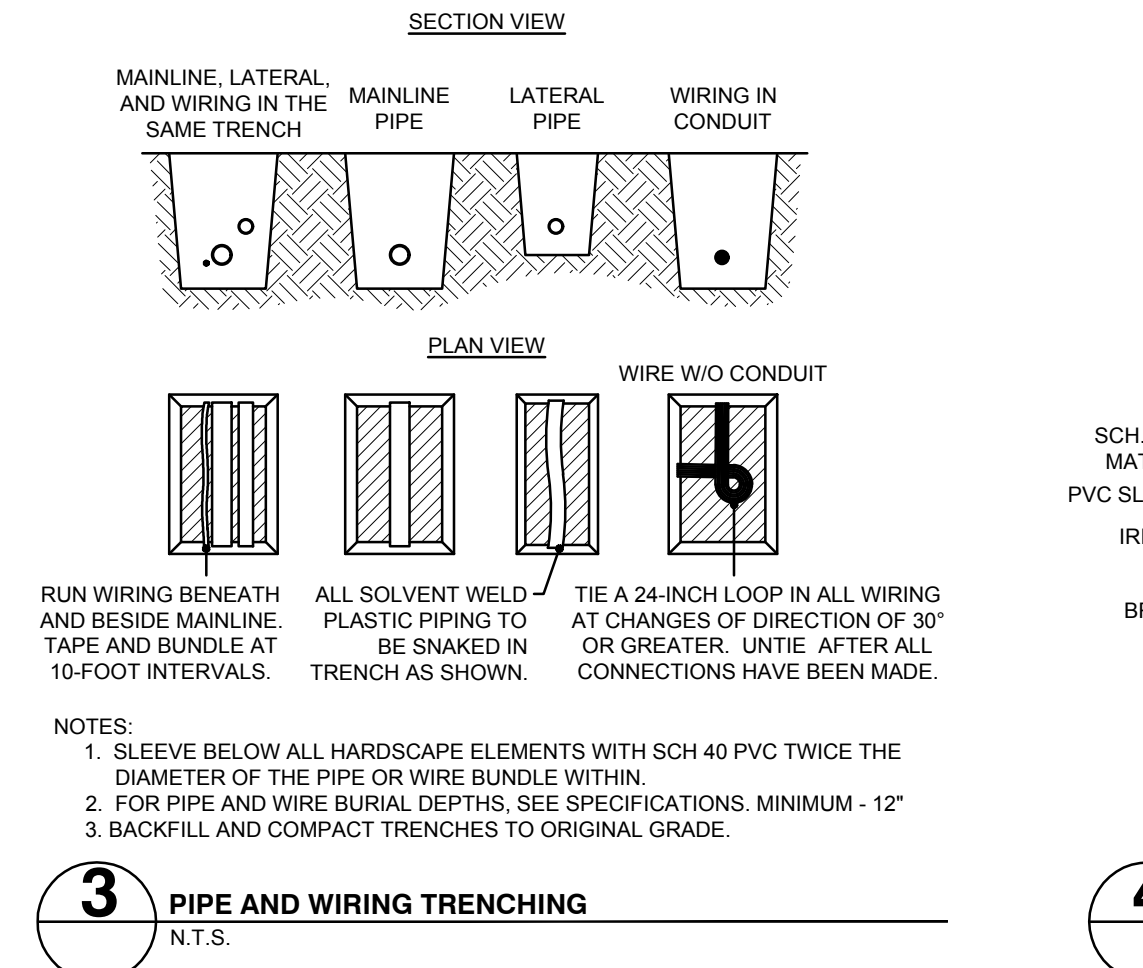
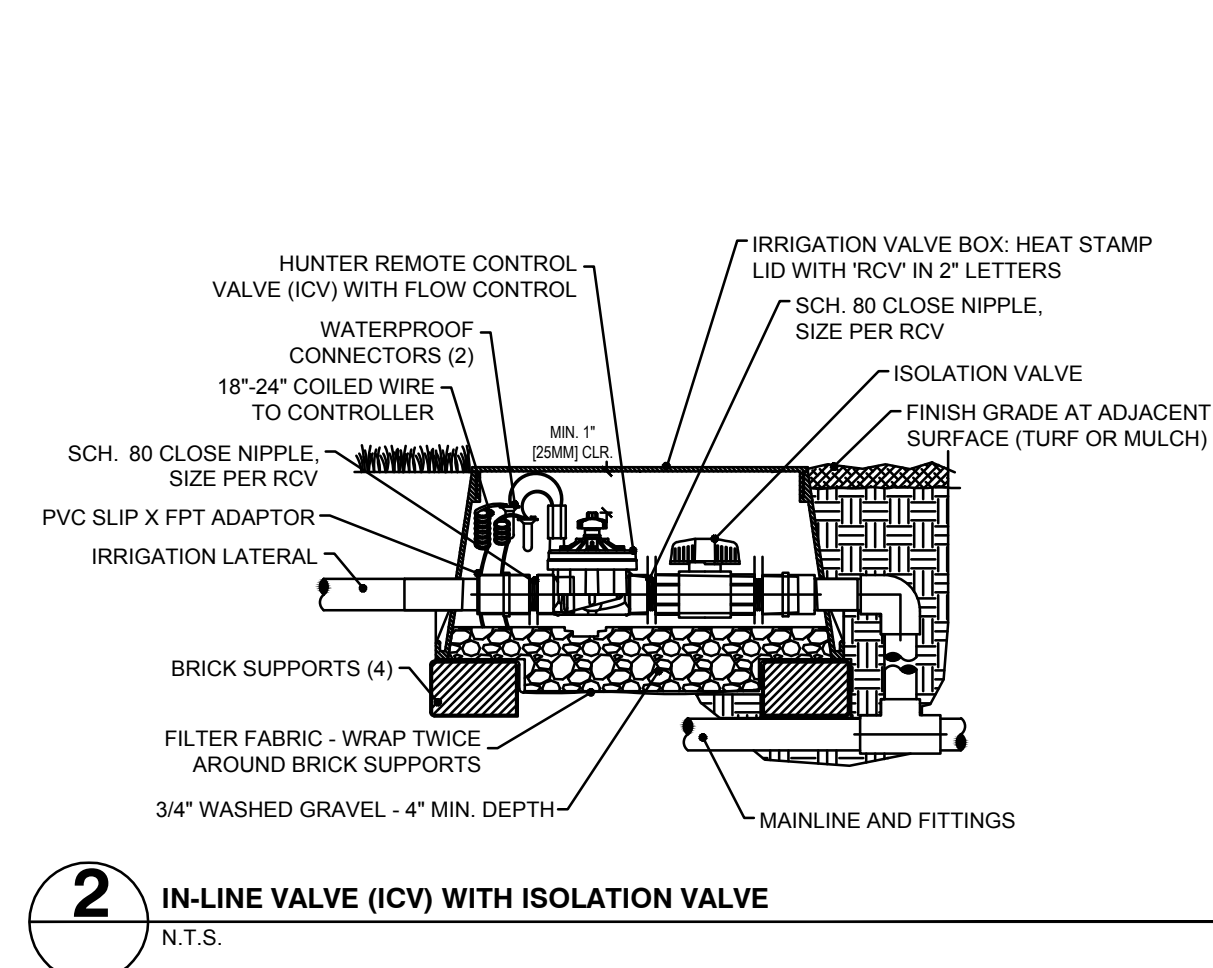
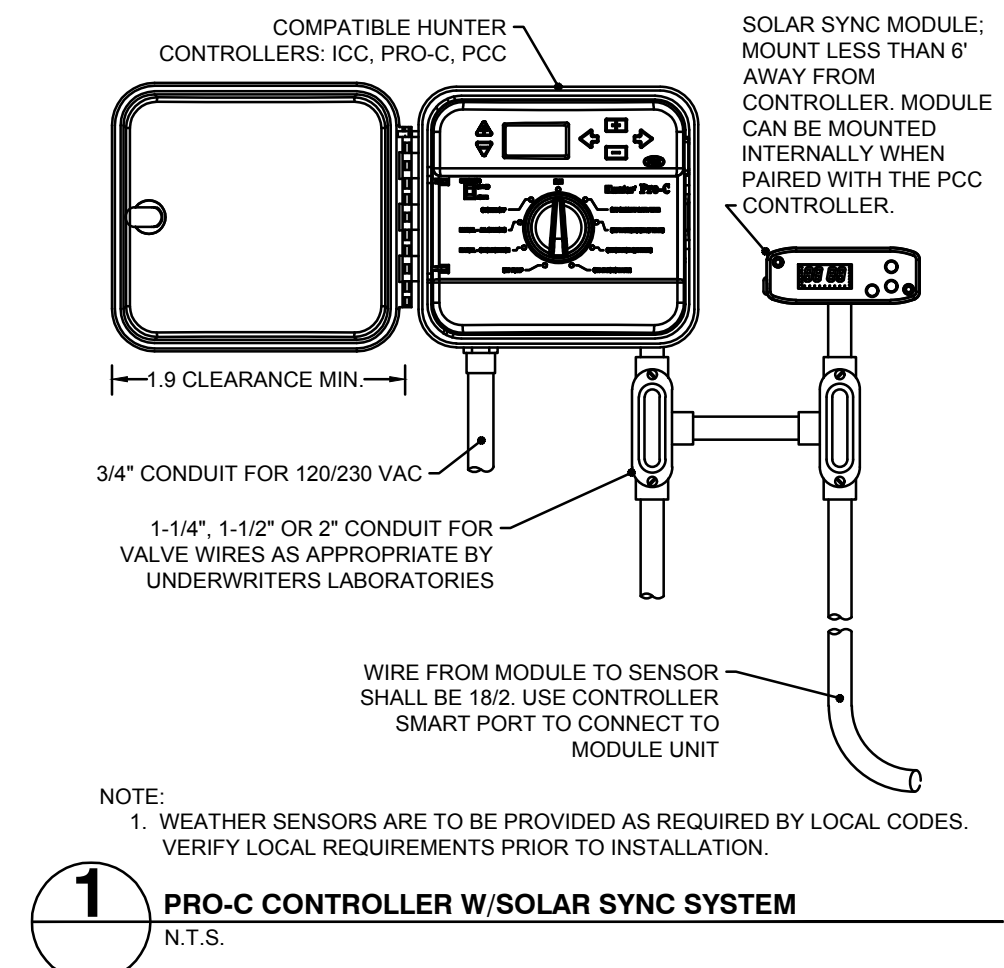
- PART 1 - GENERAL**
- DESCRIPTION
 - RELATED WORK
 - REFERENCE STANDARDS
 - MATERIALS
 - EXECUTION
- 3.1 INSTALLATION**
- A MINIMUM OF TWENTY FOUR (24) INCHES COVER SHALL BE PROVIDED OVER THE TOP OF SLEEVE FROM FINISH GRADE.
 - SLEEVES SHALL BE EXTENDED ONE (1) FOOT PAST THE EDGE OF PAVEMENT OF WALLS. INSTALL A NINETY DEGREE ELBOW ON EACH SLEEVE AND ADD ADDITIONAL LENGTH TO EXTEND ABOVE FINISH GRADE BY TWELVE (12) INCHES. CAP PIPE ENDS.
- 3.2 BACKFILL**
- BACKFILL SHALL BE PLACED OVER SLEEVES IN SIX (6) INCH LIFTS. SOIL SHALL BE TAMPED INTO PLACE, TAKING CARE TO NOT DAMAGE SLEEVE.
 - REPAIR ANY DAMAGE FROM IMPROPER COMPACTION.
- END OF SECTION

- 1.3 REFERENCE STANDARDS**
- AMERICAN STANDARD FOR TESTING AND MATERIALS (ASTM) - LATEST EDITION.
- 1.4 QUALITY ASSURANCE AND REQUIREMENTS**
- PERMITS AND FEES: THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS NECESSARY AND ALL OBSERVATIONS AS REQUIRED.
 - MANUFACTURER'S DIRECTIONS: MANUFACTURER'S DIRECTIONS AND DETAILED DRAWINGS SHALL BE FOLLOWED IN ALL CASES WHERE THE MANUFACTURERS OF ARTICLES USED IN THIS CONTRACT FURNISH DIRECTIONS COVERING POINTS NOT SHOWN IN THE DRAWINGS AND SPECIFICATIONS.
 - ORDINANCES, CODES, AND REGULATIONS: ALL LOCAL, MUNICIPAL AND STATE LAWS, AND RULES AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE A PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR. ANYTHING CONTAINED IN THESE SPECIFICATIONS SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY OF THE ABOVE RULES AND REGULATIONS AND REQUIREMENTS OF THE SAME.
 - HOWEVER, WHEN THESE SPECIFICATIONS AND DRAWINGS CALL FOR OR DESCRIBE MATERIALS, WORKMANSHIP, OR CONSTRUCTION OF A BETTER QUALITY, HIGHER STANDARD OR LARGER SIZE THAN IS REQUIRED BY THE ABOVE RULES AND REGULATIONS, THESE SPECIFICATIONS AND DRAWINGS SHALL TAKE PRECEDENCE.
- 1.5 SCHEDULE OF MATERIALS**
- A. MATERIALS LIST:**
- ALL EQUIPMENT MANUFACTURERS AND MODEL NUMBERS SHALL BE AS NOTED ON THE PLANS.
 - THE CONTRACTOR SHALL FURNISH THE ARTICLES, EQUIPMENT, MATERIALS, OR PROCESSES SPECIFIED BY NAME IN THE DRAWINGS AND SPECIFICATIONS. NO SUBSTITUTION WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT.
 - A COMPLETE MATERIAL LIST OF EQUIPMENT SHALL BE SUBMITTED BEFORE PERFORMING ANY WORK. SUBMITTALS SHOULD INCLUDE ALL MANUFACTURERS' SPECIFICATIONS AND LITERATURE FOR APPROVAL BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
 - EQUIPMENT OR MATERIALS INSTALLED OR FURNISHED WITHOUT PRIOR APPROVAL OF THE LANDSCAPE ARCHITECT MAY BE REJECTED.
 - APPROVAL OF ANY ITEM, ALTERNATE OR SUBSTITUTE INDICATES ONLY THAT THE PRODUCT OR PRODUCTS APPARENTLY MEET THE REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS ON THE BASIS OF THE INFORMATION OR SAMPLES SUBMITTED.
 - MANUFACTURER'S WARRANTIES SHALL NOT RELIEVE THE CONTRACTOR OF HIS LIABILITY UNDER THE GUARANTEE. SUCH WARRANTIES SHALL ONLY SUPPLEMENT THE GUARANTEE.

- a. SUPPLY AS PART OF THIS CONTRACT THE FOLLOWING TOOLS:**
- QUICK COUPLING KEYS, THREE (3) WITH BOILER DRAINS ATTACHED USING BRASS REDUCER.
 - THREE (3) KEYS FOR EACH AUTOMATIC CONTROLLER
 - THE ABOVE MENTIONED EQUIPMENT SHALL BE TURNED OVER TO THE OWNER AT THE CONCLUSION OF THE PROJECT.
- F. THE IRRIGATION CONTRACTOR SHOULD DEMONSTRATE THAT THE FINAL INSTALLED SYSTEM WILL OPERATE ACCORDING TO THE INTENT OF THE DESIGNED AND SPECIFIED SYSTEM. IRRIGATION CONTRACTOR SHALL GUARANTEE 100% COVERAGE TO ALL AREAS TO BE IRRIGATED.**
- 1.5 MAINTENANCE AND GUARANTEE**
- MAINTENANCE AND WORKMANSHIP SHALL BE GUARANTEED FULLY FOR ONE (1) YEAR AFTER FINAL ACCEPTANCE.
 - PROVIDE MAINTENANCE OF SYSTEM, CLEANING AND ADJUSTMENT OF THE HEADS, FOR ONE (1) YEAR AFTER COMPLETION OF INSTALLATION.
 - GUARANTEE IS LIMITED TO REPAIR AND REPLACEMENT OF DEFECTIVE MATERIALS AND WORKMANSHIP, INCLUDING THE REPAIR OF BACKFILL SETTLEMENT.
- 1.6 TESTING**
- PERFORM TESTING REQUIRED WITH OTHER TRADES INCLUDING EARTHWORK, PAVING, PLUMBING, ETC. TO AVOID CUTTING, PATCHING OR BORING.
 - WATER PRESSURE SHOULD BE FOUND PRIOR TO STARTING CONSTRUCTION. DETERMINE/CONFIRM THAT STATIC WATER PRESSURE IS MORE THAN THE WATER PRESSURE NEEDED FOR THE SYSTEM TO FUNCTION PROPERLY. IF STATIC PRESSURE IS LESS THAN THE DESIGN PRESSURE NEEDED, DO NOT START WORK UNTIL THE LANDSCAPE ARCHITECT IS NOTIFIED.
- 1.7 COORDINATION**
- COORDINATE INSTALLATION OF ALL PRODUCTS, INCLUDING EARTHWORK, PAVING AND PLUMBING.
 - COORDINATE TO ENSURE THAT ELECTRICAL POWER SOURCE IS IN PLACE.
 - COORDINATE INSTALLATION WITH WORK SPECIFIED IN OTHER SECTIONS.
 - COORDINATE WITH THE LANDSCAPE CONTRACTOR TO ENSURE PLANT MATERIAL IS UNIFORMLY WATERED IN ACCORDANCE WITH INTENT SHOWN ON DRAWINGS.
- PART 2 - PRODUCTS**
- 2.1 MATERIALS**
- REFER TO CONSTRUCTION DRAWINGS AND NOTES.
 - SPRINKLER HEADS IN LAWN AREAS AS SPECIFIED ON PLAN
 - PVC PIPE - CLASS 200 SPR 21
 - COPPER TUBING (FOR CITY CONNECTIONS): TYPE "M"
 - 24V WIRE - SIZE 14, TYPE UF
 - ELECTRIC VALVES TO BE ALL PLASTIC CONSTRUCTION AS INDICATED ON PLANS.
 - REFER TO DRAWING FOR BACKFLOW PREVENTION LOCATION - COORDINATE EXACT LOCATION WITH THE GENERAL CONTRACTOR.
- PART 3 - EXECUTION**
- 3.1 INSTALLATION**
- SITE CONDITIONS:
 - ALL SCALED DIMENSIONS ARE APPROXIMATE. THE CONTRACTOR SHALL CHECK AND VERIFY ALL SIZE DIMENSIONS.
 - EXERCISE EXTREME CARE IN EXCAVATING AND WORKING NEAR UTILITIES. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGES TO UTILITIES WHICH ARE CAUSED BY ANY OF HIS OPERATIONS OR NEGLIGENCE.
 - COORDINATE INSTALLATION OF IRRIGATION MATERIALS, INCLUDING PIPE, SO THERE SHALL BE NO

- INTERFERENCE WITH UTILITIES OR OTHER CONSTRUCTION DIFFICULTY IN PLANTING TREES, SHRUBS, AND GROUNDCOVERS. COORDINATE WORK WITH OTHER SITE CONTRACTORS.**
- 3.2 PREPARATION**
- PHYSICAL LAYOUT:
 - PIPING AND HEAD LAYOUT AS SHOWN ON PLANS IS SCHEMATIC ONLY. ALL PIPES TO BE INSTALLED DIRECTLY BEHIND CURBS, WALLS AND WALLS WHEREVER POSSIBLE.
 - PRIOR TO INSTALLATION CONTRACTOR SHALL STAKE OUT ALL PRESSURE SUPPLY LINES, ROUTING AND LOCATION OF SPRINKLER HEADS.
 - ALL LAYOUTS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
 - WATER SUPPLY:
 - IRRIGATION SYSTEM SHALL BE CONNECTED TO WATER SUPPLY POINTS OF CONNECTION AS INDICATED ON THE DRAWINGS.
 - CONNECTIONS SHALL BE MADE AT APPROXIMATE LOCATIONS AS SHOWN ON DRAWINGS. CONTRACTOR SHALL VERIFY IN FIELD AND BE RESPONSIBLE FOR MINOR CHANGES CAUSED BY ACTUAL SITE CONDITIONS.
- 3.3 INSTALLATION**
- TRENCHING
 - DIG TRENCHES STRAIGHT 6" WIDE WITH NEAR VERTICAL SIDE AND SUPPORT PIPE CONTINUOUSLY ON BOTTOM OF TRENCH. REMOVE LUMBER, RUBBISH, LARGE ROCKS ETC. FROM TRENCHES. LAY PIPE TO AN EVEN GRADE - WITH A FIRM, UNIFORM BEARING FOR ENTIRE LENGTH OF PIPE.
 - REMOVE FOREIGN MATTER OR DIRT FROM INSIDE OF PIPE BEFORE WELDING AND KEEP PIPING CLEAN BY ANY MEANS POSSIBLE DURING AND AFTER LAYING OF PIPE.
 - PROVIDE A MINIMUM OF EIGHTEEN (18) INCHES OF COVER FOR ALL PRESSURE SUPPLY LINES.
 - PROVIDE A MINIMUM OF TWELVE (12) INCHES OF COVER FOR ALL NON-PRESSURE LINES.
 - PROVIDE A MINIMUM COVER OF EIGHTEEN (18) INCHES FOR ALL CONTROL WIRING.
 - NO MACHINE TRENCHING, UNLESS APPROVED BY THE LANDSCAPE ARCHITECT, SHALL BE DONE WITHIN DRIP LINE OF EXISTING TREES. TRENCHING SHOULD BE DONE BY HAND, TUNNELING OR BORING OR OTHER METHODS APPROVED BY THE LANDSCAPE ARCHITECT. IT SHOULD BE UNDERSTOOD THAT PIPING LAYOUT IS DIAGRAMMATIC AND PIPING SHALL BE ROUTED AROUND TREES AND SHRUBS IN SUCH A MANNER TO AVOID DAMAGE TO PLANTS.
 - BACKFILL
 - TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL REQUIRED TESTS ARE PERFORMED. TRENCHES SHALL BE CAREFULLY BACKFILLED WITH THE EXCAVATED MATERIALS APPROVED FOR BACKFILLING, CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND OR OTHER APPROVED MATERIALS, FREE FROM LARGE CLODS, STONES OR STICKS.
 - IF SETTLEMENT OCCURS AND SUBSEQUENT ADJUSTMENTS IN PIPE, VALVES, SPRINKLER HEADS, LAWN OR PLANTING OR OTHER CONSTRUCTION ARE NECESSARY, THE CONTRACTOR SHALL MAKE ALL REQUIRED ADJUSTMENTS WITHOUT THE COST TO THE OWNER.
 - TRENCHING AND BACKFILL UNDER PAVING:
 - ALL IRRIGATION MAIN LINE AND LATERAL LINES OR WIRING LOCATED UNDER AREAS WHERE PAVING, ASPHALTIC PAVING, OR CONCRETE SHALL BE INSTALLED IN SCHEDULE 40 PVC SLEEVES OF ADEQUATE SIZE. SEE SECTION 32 8423.
 - ASSEMBLIES
 - INSTALL ALL ASSEMBLIES SPECIFIED HEREIN IN ACCORDANCE WITH RESPECTIVE DETAILS. IN ABSENCE OF DETAIL DRAWINGS OR SPECIFICATIONS, PERFORM SUCH WORK IN ACCORDANCE WITH BEST STANDARD PRACTICES OR MANUFACTURER'S RECOMMENDATIONS AS APPROVED BY THE LANDSCAPE ARCHITECT.
 - MAKE SOLVENT WELDED JOINTS USING ONLY THE SOLVENT RECOMMENDED BY THE MANUFACTURER. PIPES AND FITTINGS SHOULD BE CLEANED OF ALL DIRT AND DUST AND MOISTENED

- BEFORE APPLYING SOLVENT.**
- ON PVC TO METAL CONNECTIONS, THE CONTRACTOR SHALL WORK METAL CONNECTIONS FIRST. USE NON HARDENING PIPE DOOR OR TEFLON TAPE ON THREADED PVC ADAPTERS INTO WHICH PIPE MAY BE WELDED. LIGHT WRENCH PRESSURE IS ALL THAT IS REQUIRED, USE THREADED PVC ADAPTERS INTO WHICH THE PIPE MAY BE WELDED.
 - LINE CLEARANCE: ALL LINES SHALL HAVE A MINIMUM CLEARANCE OF SIX (6) INCHES FROM EACH OTHER AND FROM OTHER TRADES. PARALLEL LINES SHALL NOT BE DIRECTLY INSTALLED ONE OVER THE OTHER.
 - WIRING: SUPPLY WIRE FROM THE AUTOMATIC CONTROLLER TO ALL THE VALVES. A SEPARATE WIRE IS REQUIRED TO EACH ELECTRIC VALVE. A COMMON NEUTRAL WIRE IS ALSO REQUIRED FROM EACH CONTROL TO EACH OF THE VALVES. BUNDLE MULTIPLE WIRES AND TIE THEM TOGETHER AT TEN FOOT INTERVALS. EXPANSION COILS OF TEN INCHES SHALL BE INSTALLED APPROXIMATELY EVERY 100 FEET. MAKE ALL SPLICES WATERPROOF.
 - AUTOMATIC CONTROLLER: INSTALL AS PER MANUFACTURER'S SPECIFICATIONS AND INSTRUCTIONS. REMOVE CONTROL VALVES SHALL BE CONNECTED TO CONTROLLER IN NUMERICAL SEQUENCE AS SHOWN ON THE DRAWINGS. EACH REMOTE CONTROL VALVE SHALL BE WIRED TO ONE STATION OF THE CONTROLLER.
 - REMOTE CONTROL VALVES:
 - INSTALL WHERE SHOWN ON DRAWINGS AND DETAILS. VALVES SHALL BE SIZED ACCORDING TO THE DRAWINGS.
 - INSTALL IN A LEVEL POSITION IN ACCORDANCE TO MANUFACTURER'S SPECIFICATIONS.
 - WHEN GROUPED TOGETHER, ALLOW AT LEAST TWELVE (12) INCHES BETWEEN VALVES. INSTALL EACH REMOTE CONTROL VALVE IN A SEPARATE VALVE BOX. EACH VALVE NUMBER AND ITS CONTROLLER LETTER SHALL BE STENCILED INSIDE VALVE BOX TOP WITH EXTERIOR PAINT.
 - FLUSHING OF SYSTEM:
 - AFTER ALL NEW SPRINKLER PIPE LINES AND RISERS ARE IN PLACE AND CONNECTED, ALL NECESSARY WORK HAS BEEN COMPLETED, AND PRIOR TO INSTALLATION OF SPRINKLER HEADS, THE CONTROL VALVES SHALL BE OPENED AND A FULL HEAD OF WATER USED TO FLUSH OUT THE SYSTEM.
 - SPRINKLER HEADS SHALL BE INSTALLED ONLY AFTER FLUSHING OF THE SYSTEM HAS BEEN ACCOMPLISHED.
 - SPRINKLER HEADS:
 - INSTALL HEADS AS DESIGNED ON THE DRAWINGS. MAKE APPROPRIATE ADJUSTMENTS TO HEAD LAYOUT TO ACCOMMODATE FOR ACTUAL FIELD CONDITIONS.
 - SPACING OF HEADS SHALL NOT EXCEED THE MAXIMUM INDICATED ON THE DRAWINGS. IN NO CASE SHALL THE SPACING EXCEED THE MAXIMUM RECOMMENDED BY THE MANUFACTURER.
 - ALL SPRINKLERS TO ATTACH TO LATERAL LINES WITH FLEXIBLE CONNECTORS. REFERENCE DETAILS ON DRAWINGS.
- 3.4 TESTING**
- THE CONTRACTOR SHALL TEST SPRINKLER MAIN FOR TWELVE TO FOURTEEN HOURS UNDER NORMAL PRESSURE. IF LEAKS ARE PRESENT, REPLACE JOINT OR JOINS AND REPEAT TEST.
 - A COMPLETE TEST SHALL BE MADE PRIOR TO BACKFILLING. BACKFILLING MATERIALS MAY BE PLACED IN TRENCHES IN LIFTS TO ENSURE STABILITY OF THE LINE UNDER THE PRESSURE OF BACKFILL. IN EACH CASE, LEAVE FITTINGS AND COUPLINGS OPEN TO VISUALLY INSPECT FOR FULL PERIOD OF TEST.
 - WHEN SYSTEM IS COMPLETE, A COVERAGE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. IT SHALL BE DETERMINED IF THE WATER COVERAGE FOR ALL PLANTING AREAS IS COMPLETE AND ADEQUATE. FURNISH ALL MATERIALS AND PERFORM ALL WORK REQUIRED TO CORRECT ANY INADEQUACIES OF COVERAGE.
 - UPON COMPLETION OF EACH PHASE OF WORK, THE ENTIRE SYSTEM SHOULD BE TESTED AND ADJUSTED TO MEET SITE REQUIREMENTS.
- END OF SECTION



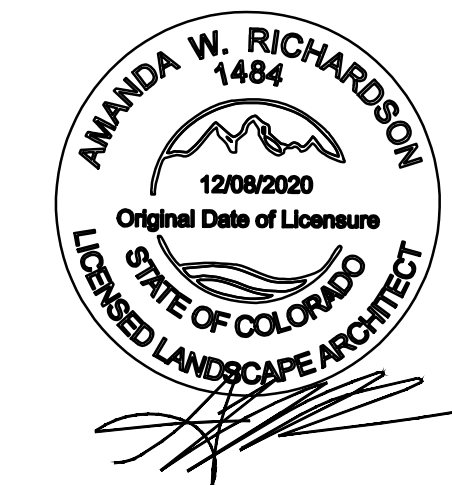
NOTE:
1. AIR RELIEF VALVE INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.
2. ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.
3. FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

NOTE:
1. AIR RELIEF VALVE INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.
2. ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.
3. FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

NOTE:
1. AIR RELIEF VALVE INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.
2. ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.
3. FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

NOTE:
1. AIR RELIEF VALVE INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.
2. ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.
3. FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.

NOTE:
1. AIR RELIEF VALVE INSTALLED IN VALVE BOX AT OPTIMAL HIGHEST POINT FROM CONTROL ZONE KIT. MULTIPLE AIR RELIEF VALVES MAY BE NEEDED TO ACCOMMODATE DIFFERENCES IN GRADE.
2. ECO-INDICATOR TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT IN CLEAR VIEW WHEN POPPED UP.
3. FLUSH POINT TO BE INSTALLED AT OPTIMAL FURTHEST POINT FROM CONTROL ZONE KIT TO ALLOW FOR MAXIMUM DEBRIS FLUSH IN SYSTEM.



CALL UTILITY NOTIFICATION CENTER OF COLORADO 1-800-922-1987
CALL 2-BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

811 Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO FULLY RESPONSIBLY OCCUPY BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY DAMAGE TO THE SAFETY OF THE WORK OR PERSONS ENGAGED IN THE WORK OF ANY MEMBER STRUCTURE, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2025 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

24 HOUR EMERGENCY CONTACT

ATWELL
866.850.4200 www.atwell-group.com
9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.956.9880

LOT 4A PARKER POINTE SUBD. FILING NO. 1. AMEND. NO. 1

BLACK ROCK COFFEE BAR

13135 DECLAN DRIVE

PARKER

DOUGLAS COUNTY, COLORADO

IRRIGATION SPECIFICATIONS AND DETAILS

DATE: 2025-8-21

REVISIONS

ELECTRICAL SYMBOLS LEGEND	
SYMBOLS	DESCRIPTION
	FLUORESCENT FIXTURE, WITH FIXTURE DESIGNATED BY LETTER.
NL	NIGHT LIGHT – NOT SWITCHED
	CEILING OR WALL MOUNTED FIXTURE
	JUNCTION BOX
	SINGLE/DOUBLE FACED EXIT SIGN – NOT SWITCHED
	DOUBLE HEAD EMERGENCY LIGHT WITH BATTERY BACK UP.
S	SINGLE POLE SWITCH, +48" A.F.F.
S ₃	THREE WAY SWITCH, +48" A.F.F.
S _o	OUTLET CONTROL INDICATOR
S _D	DIMMER SWITCH
S _{OS}	OCCUPANCY SENSOR SWITCH
S _T	THERMAL OVERLOAD SWITCH
	DUPLEX RECEPTACLE, +18" A.F.F.
	DUPLEX RECEPTACLE ABOVE COUNTER, VERIFY HEIGHT
	FOURPLEX RECEPTACLE, +18" A.F.F.
	HALF SWITCHED DUPLEX RECEPTACLE
	POWER/PHONE/DATA FLUSH FLOOR OUTLET
	250 VOLT RECEPTACLE PER UNIT REQUIREMENTS
	600 VOLT RECEPTACLE PER UNIT REQUIREMENTS
	TELEPHONE/DATA SYSTEM OUTLET, 4" SQUARE BOX AND COVERPLATE, 3/4"C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUN, +18" A.F.F.
	TELEVISION OUTLET PLASTER RING AT +18" A.F.F. (U.N.O.) HUBBELL COVERPLATE, 3/4"C. TO CEILING SPACE UNLESS SHOWN WITH HOMERUNS.
	CONDUIT BELOW FLOOR OR UNDERGROUND
	CONDUIT IN WALL OR ABOVE CEILING
LA 1,3	HOMERUN TO PANEL (SEE GROUNDING NOTE)
	MOTOR CONNECTION
	DISCONNECT SWITCH
	DUCT SMOKE DETECTOR
	LIGHTNING ARRESTER
*** ALL SYMBOLS ON LEGEND MAY NOT APPLY TO DRAWING(S). ***	

ABBREVIATIONS	
E	EXISTING LIGHT OR DEVICE TO REMAIN
ER	EXISTING LIGHT OR DEVICE TO BE REMOVED OR RELOCATED
R	RELOCATED LIGHT OR DEVICE
N	NEW LIGHT OR DEVICE
A.F.F.	ABOVE FINISHED FLOOR
C	CONDUIT
E.C.	EMPTY CONDUIT WITH PULLWIRE
E.D.F.	ELECTRICAL DRINKING FOUNTAIN.
GND	GROUND
MLO	MAIN LUGS ONLY
MCB	MAIN CIRCUIT BREAKER
S.E.S.	SERVICE ENTRANCE SECTION
WP	WEATHER PROOF
WR	WATER RESISTANT
GFI/GFCI	GROUND-FAULT CIRCUIT INTERRUPTER
U.N.O.	UNLESS NOTED OTHERWISE
	SECURITY CAMERA
	SPEAKER
S.U.S.E	SUITABLE FOR USE AS SERVICE EQUIPMENT

SCOPE OF WORK	
ELECTRICAL ENGINEERING CONSTRUCTION DOCUMENTATION FOR A 860 SF GROUND UP OF A NEW RETAIL SPACE FOR A NEW COFFEE SHOP.	
DESIGN INCLUDES:	
<ul style="list-style-type: none"> - ELECTRICAL SITE PLAN. - ELECTRICAL PHOTOMETRIC SITE PLAN. - IECC REPORT. - ONE-LINE DIAGRAM, PANEL SCHEDULES & FAULT CURRENT CALCULATIONS. 	

- * REFER TO ARCHITECTURAL E2.0 FOR INTERIOR LIGHTING PLAN.
- * REFER TO ARCHITECTURAL E3.0 FOR INTERIOR POWER FLOOR & ROOF PLAN.

DEFERRED SUBMITTAL - FIRE ALARM NOTES	
<p>FIRE ALARM SYSTEM MODIFICATIONS MAY BE INCLUDED IN THIS PROJECT & SHALL BE A DEFERRED SUBMITTAL. ANY DEVICES SHOWN ON THE ELECTRICAL PLANS ARE FOR BID PURPOSES ONLY, AND NOT FOR CONSTRUCTION. ELECTRICAL CONTRACTOR SHALL VERIFY EXACT FIRE ALARM REQUIREMENTS, INCLUDING ANY MODIFICATIONS OR UPGRADES NECESSARY TO THE EXISTING SYSTEM, WITH LANDLORD AND AUTHORITY HAVING JURISDICTION. CONTRACTOR IS TO PROVIDE COMPLETE DWGS & ALL COSTS SHALL BE INCLUDED IN THE BID. FIRE ALARM DEVICES ARE TO BE COMPATIBLE WITH LANDLORDS FIRE ALARM SYSTEM. IF ENGINEERED FIRE ALARM DRAWINGS ARE REQUIRED, THEY ARE TO BE PREPARED BY A LOCAL, LICENSED FIRE ALARM CONTRACTOR AND SUBMITTED TO THE LANDLORD AND AUTHORITY HAVING JURISDICTION FOR APPROVAL PRIOR TO ANY WORK COMMENCEMENT.</p>	

GENERAL NOTES	
<p>A. EXAMINE THE CONTRACT DRAWINGS AND ALL AVAILABLE INFORMATION CONCERNING EXISTING INSTALLATION, STRUCTURE, AND LOCAL CONDITIONS. VISIT THE SITE TO UNDERSTAND THE NATURE AND SCOPE OF ALL WORK TO BE PERFORMED AND VERIFY EXISTING CONDITIONS. THE SUBMISSION OF A BID WILL BE TAKEN AS EVIDENCE THAT SUCH AN EXAMINATION HAS BEEN MADE AND THAT ALL EXISTING CONDITIONS HAVE BEEN CONSIDERED. NO ALLOWANCES WILL BE MADE AFTER THE PROJECT HAS BEEN AWARDED FOR FAILURE TO VERIFY EXISTING CONDITIONS. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THAT OF THESE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION.</p>	
<p>B. THE CONTRACTOR SHALL BE HELD FULLY RESPONSIBLE FOR THE PROPER RESTORATION OF ALL EXISTING SURFACES REQUIRING PATCHING, PLASTERING, PAINTING AND /OR OTHER REPAIR DUE TO THE INSTALLATION OF ELECTRICAL WORK UNDER THE TERMS OF THE CONTRACT. CLOSE ALL OPENINGS, REPAIR ALL SURFACES, ETC., AS REQUIRED.</p>	
<p>C. SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, ELEVATIONS AND BUILDING DETAILS. VERIFY LOCATION OF ALL OUTLETS, SWITCHES, AND WALL MOUNTED LIGHTING FIXTURES WITH ARCHITECTURAL DRAWINGS AND ACTUAL CONDITIONS. SEE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF LIGHTING FIXTURES. VERIFY ALL CEILING TYPES WITH ARCHITECTURAL DRAWINGS BEFORE ORDERING FIXTURES.</p>	
<p>D. PRIOR TO ROUGH-IN AND FINAL CONNECTION, VERIFY ELECTRICAL CHARACTERISTICS AND EXACT LOCATION OF EQUIPMENT.</p>	
<p>E. GROUT AND SEAL ALL CONDUIT PENETRATIONS OF WALLS AND FLOOR SLABS TO PRESERVE FIRE RATING AND WATERTIGHT INTEGRITY.</p>	
<p>F. ALL WIRING TO BE INSTALLED IN RACEWAYS. TYPE OF RACEWAY SHALL BE AS REQUIRED BY CODE. MINIMUM CONDUIT SIZE SHALL BE 3/4"C. FOR POWER AND 1"C. FOR DATA. RACEWAYS RUN ACROSS ROOF SHALL BE MINIMUM 4" ABOVE ROOF.</p>	
<p>G. BRANCH CIRCUIT WIRING SHALL BE THHN/THWN INSULATION. EXTERIOR WIRING SHALL BE THWN-2. PANEL FEEDERS. SHALL BE TYPE XHHW. ALL WIRE SHALL BE COPPER. MINIMUM WIRE SIZE SHALL BE #12. PER THE LATEST NEC CODE ADOPTED BY THE CITY OF PARKER, A SEPARATE NEUTRALS ARE TO BE PROVIDED FOR EACH CIRCUIT OR PROVIDE MULTI-POLE HANDLE TIE FOR EACH MULTI-WIRE CIRCUIT</p>	
<p>H. PROVIDE CODE SIZED GROUNDING CONDUCTOR WIRE IN ALL CONDUITS.</p>	
<p>I. ALL ELECTRICAL EQUIPMENT SHALL BE NEW, U.L. APPROVED AND COMMERCIAL GRADE.</p>	
<p>J. ALL ELECTRICAL WORK SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF PARKER, LATEST ADOPTED NATIONAL ELECTRICAL CODE (NEC), AND ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES.</p>	
<p>K. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO PROVIDE ONE (1) SET OF COMPLETE CONSTRUCTION DRAWINGS.</p>	
<p>L. PROVIDE NEW PANEL DIRECTORIES INDICATING SPECIFIC CIRCUIT INFORMATION TO DISTINGUISH EACH CIRCUIT FROM ANY OTHER PER NEC.</p>	
<p>M. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION OF DEVICES, WIRE & CONDUIT. WHERE THESE ITEMS ARE NO LONGER USED ALL UNUSED WIRE SHALL BE REMOVED BACK TO THE PANEL. ANY DOWNSTREAM EQUIPMENT TO REMAIN IN USE SHALL BE RECONNECTED.</p>	

811
Know what's below. Call before you dig.
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MAY OCCUR OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

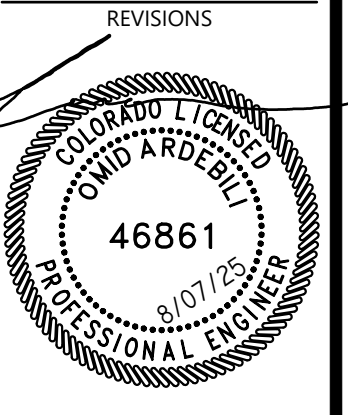
NOTICE
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE EXPECTED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
 COPYRIGHT © 2022 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
 866.850.4200 www.atwell-group.com
 9001 AIRPORT FREEWAY, SUITE 660
 NORTH RICHLAND HILLS, TX 76180
 972.266.8860

LOT 4A, PARKER POINTE SUBD. FILING NO. 1, AMEND. NO. 1
 S. PARKER RD & STROH RD
 PARKER
 DOUGLAS COUNTY, COLORADO

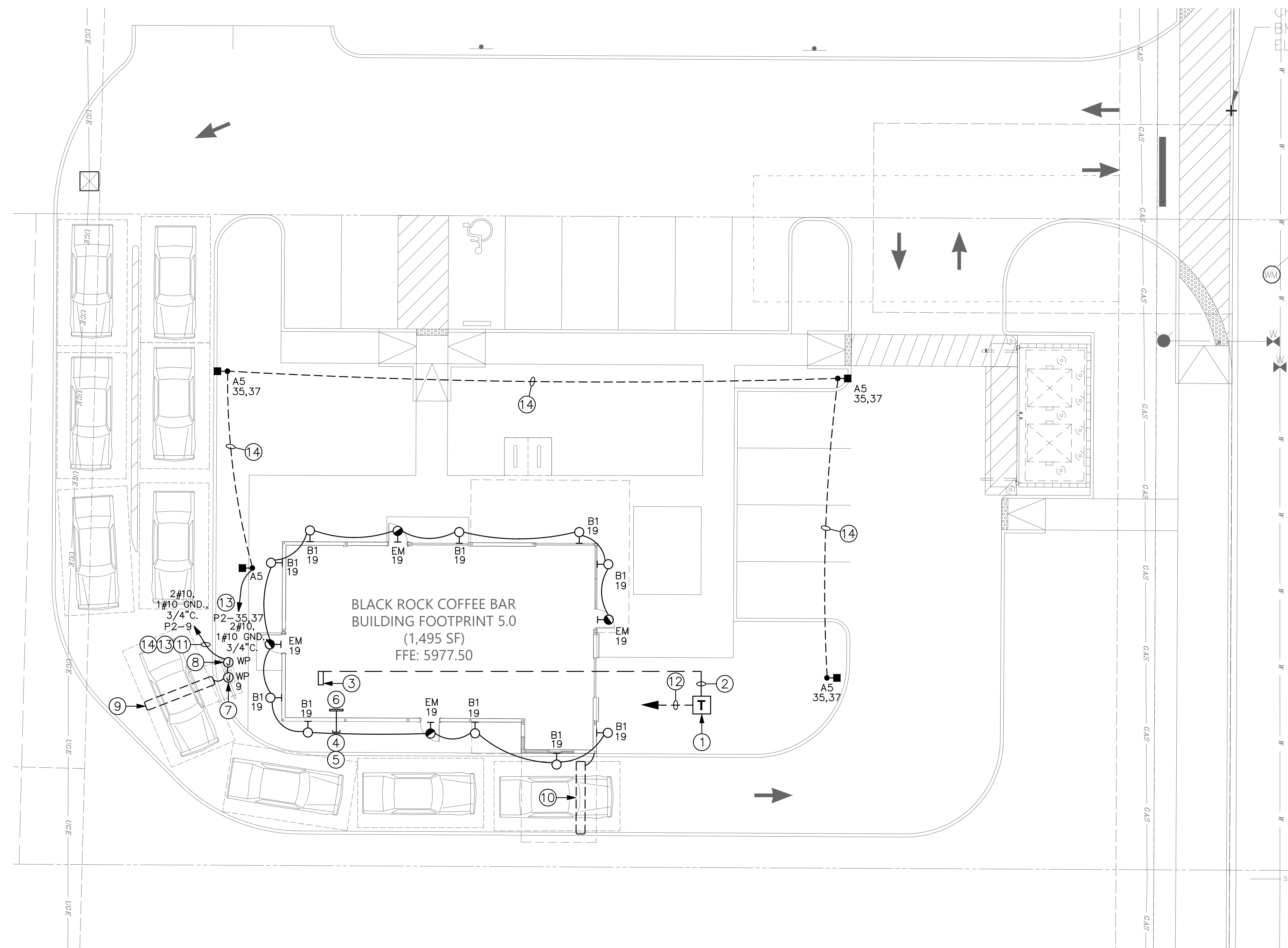
BLACK ROCK COFFEE BAR
 13135 DECLAN DRIVE
 ELECTRICAL NOTES & SYMBOLS

DATE 2025-06-04



ARDEBILI Engineering
 Project Number: 25280 | Design Engineer: AV
 7328 E Stetson Dr., Scottsdale, AZ 85251
 P: 480.626.7072 | ardebilieng.com

DRAWN BY: AD
 CHECKED BY: PC
 PROJECT MANAGER: AV
 JOB #: 24003198
 FILE CODE: ##
 SHEET NO. E0.1



1 ELECTRICAL SITE PLAN
SCALE: 3/32"=1'-0"

GENERAL NOTES

- A. ALL EXTERIOR LIGHT FIXTURES TO COMPLY WITH LOCAL NIGHT SKY ORDINANCE.
- B. ALL EXTERIOR LIGHTING AND SIGNAGE TO BE FED WITH #10 CU. U.N.O.
- C. ALL EXTERIOR ELECTRICAL EQUIPMENT TO BE NEMA-3R RATED.
- D. CONTRACTOR TO COORDINATE EXACT SITE LIGHTING FIXTURE LOCATIONS WITH LANDSCAPE DRAWINGS.
- E. ALL FIXTURES INSTALLED OUTDOORS SHALL BE RATED FOR DAMP/WET LOCATIONS AS REQUIRED. THE CONTRACTOR SHALL COORDINATE DAMP/WET LOCATION RATING PER NEC ARTICLE 410-4. ALL INSTALLATIONS SHALL CONFORM TO NEC ARTICLE 410, ALL SUB ARTICLES.
- F. FIRE ALARM EQUIPMENT SHALL BE COORDINATED FOR EXACT LOCATION AND REQUIREMENTS WITH FIRE MARSHALL.
- G. ALL PVC CONDUIT MUST HAVE A MINIMUM OF #12 CU. GROUND CONDUCTOR.
- H. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION AND SCHEDULING WITH POWER AND TELEPHONE UTILITY COMPANIES INCLUDING PROVIDING (2) COMPLETE SETS OF DRAWINGS TO EACH COMPANY. ALL WORK SHALL BE INSTALLED PER EACH UTILITY COMPANIES FINAL DESIGN DRAWINGS.
- I. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL EXTERIOR LIGHT FIXTURES WITH ARCHITECTURAL DRAWINGS.

KEYED NOTES

- 1. PROPOSED LOCATION OF NEW UTILITY TRANSFORMER. VERIFY EXACT LOCATION WITH UTILITY COMPANY.
- 2. NEW SECONDARY FEEDERS FROM TRANSFORMER PER POWER COMPANY REQUIREMENTS. ROUTING SHOWN FOR REFERENCE ONLY.
- 3. PROPOSED LOCATION OF NEW SERVICE ENTRANCE SECTION IN NEMA-1 ENCLOSURE.
- 4. 4" UNDERGROUND PVC CONDUIT WITH PULLWIRE AND BENDS PER TELEPHONE COMPANY REQUIREMENTS. TRENCH AND BACKFILL AS REQUIRED. REFER TO NEC TABLE 300.5 FOR ADDITIONAL REQUIREMENTS.
- 5. TERMINATE AND STUB CONDUIT TO PROPERTY LINE OR EXISTING CABINET PER TELEPHONE COMPANY REQUIREMENTS.
- 6. PROPOSED LOCATION OF MPOP (MAIN POINT OF PRESENCE) FOR TELEPHONE COMPANY DEMARCATION AND TERMINATION.
- 7. PROVIDE W.P. J-BOX FOR DRIVE-THRU MENU BOARD. COORDINATE EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION.
- 8. PROVIDE W.P. J-BOX FOR DRIVE-THRU SPEAKER. COORDINATE EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION.
- 9. CONNECT SPEAKER PEDESTAL TO DETECTION LOOP. COORDINATE EXACT REQUIREMENT WITH MANUFACTURER PRIOR TO ROUGH-IN.
- 10. PROVIDE STUB UP FOR DETECTION LOOP. COORDINATE EXACT REQUIREMENT WITH MANUFACTURER PRIOR TO ROUGH-IN.
- 11. PROVIDE (3) ELECTRICAL CONDUITS FOR DRIVE-THRU EQUIPMENT.
- 12. PROPOSED PRIMARY PER UTILITY COMPANY.
- 13. CIRCUIT ROUTED THRU TIME CLOCK.
- 14. PROVIDE #10 WIRE IN 3/4" NONMETALLIC CONDUIT, 24" BELOW FINISHED GRADE OR PER NEC 300.5. VERIFY EXACT ROUTING PRIOR TO INSTALLATION. TRENCH, BACKFILL, AND REPAIR LANDSCAPE/HARDSCAPE AS REQUIRED.

CONDUIT ROUTING NOTE

CONDUIT ROUTING IS SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL FIELD COORDINATE EXACT CONDUIT ROUTING WITH ARCHITECT PRIOR TO INSTALLATION. ROUTE FEEDERS CONCEALED BELOW GRADE ONSITE AND CONCEALED FROM PUBLIC VIEW WITHIN SPACE WHEN POSSIBLE.

NOTE

ALL UNDERGROUND CONDUIT FOR BRANCH CIRCUITS SHALL BE A MINIMUM OF 24" BELOW GRADE, OR PER NEC TABLE 300.5.



Know what's Below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

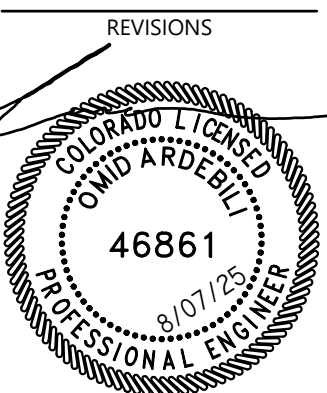
NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE DEEMED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.
COPYRIGHT © 2025 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.



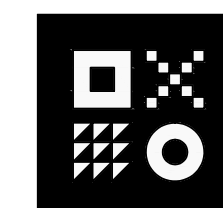
LOT 4A, PARKER POINT SUBD. FILING NO. 1, AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
ELECTRICAL SITE PLAN

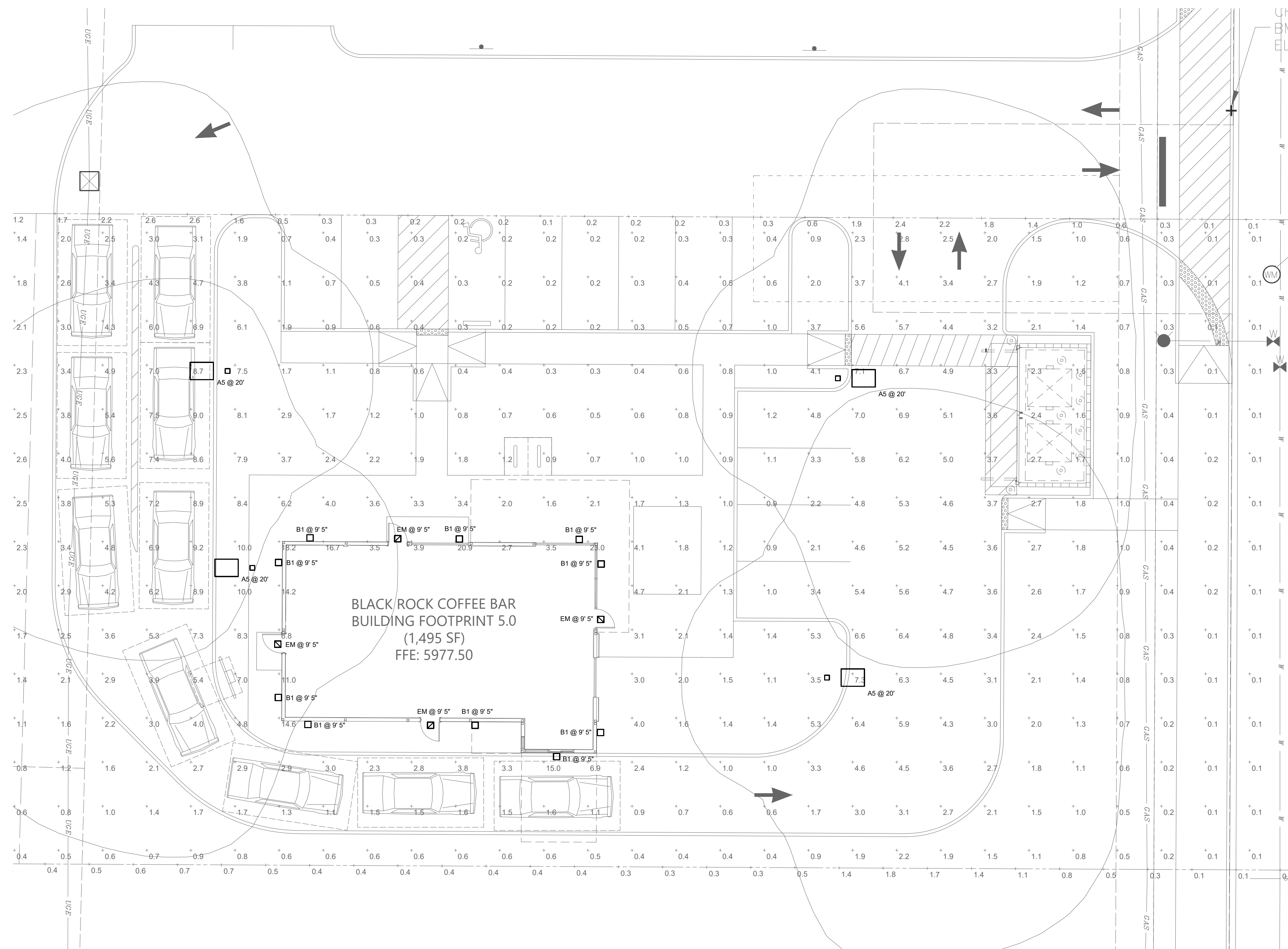
DATE 2025-06-04



DRAWN BY: AD
CHECKED BY: PC
PROJECT MANAGER: AV
JOB #: 24003198
FILE CODE: ##
SHEET NO. E1.0



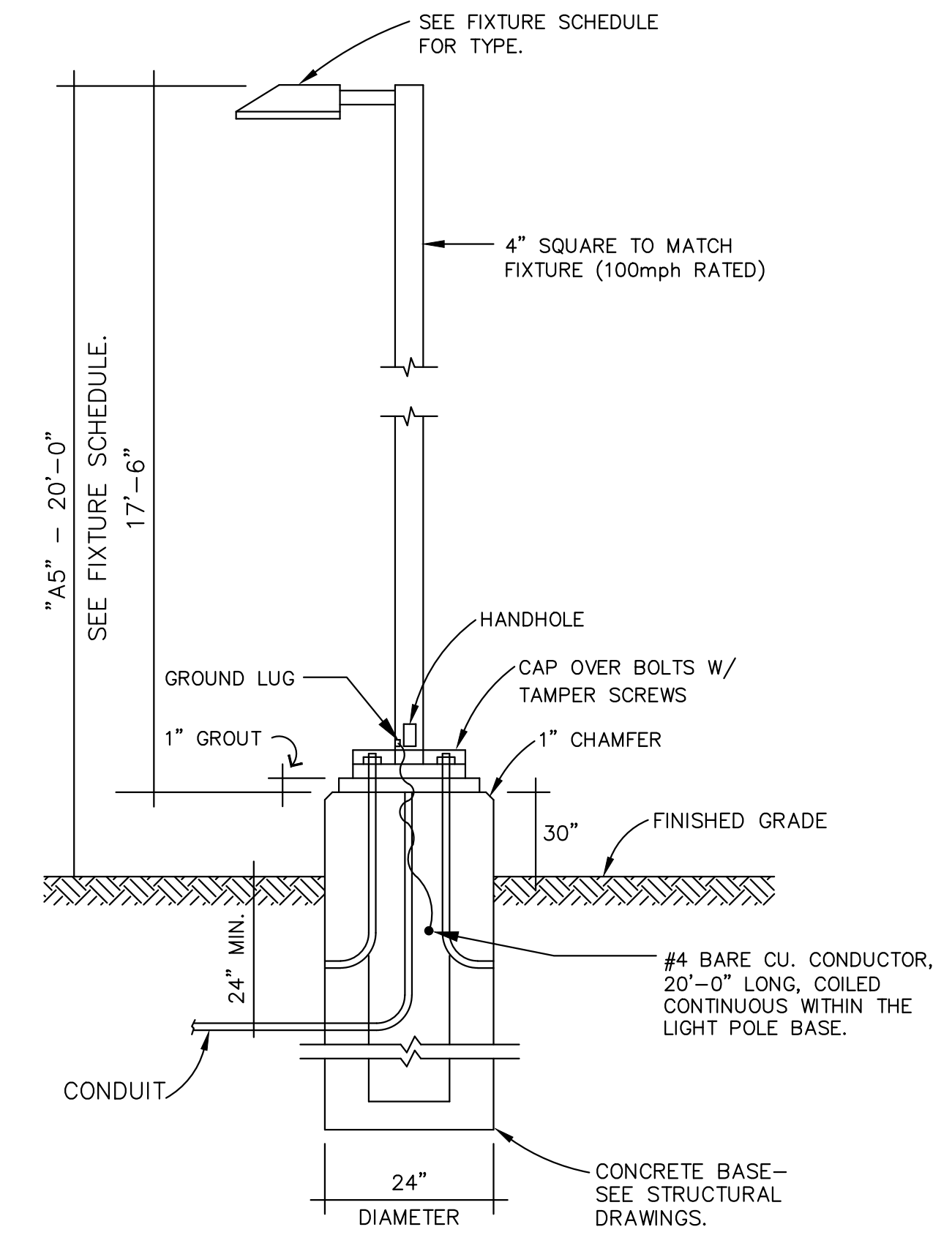
ARDEBILI Engineering
Project Number: 25280 | Design Engineer: AV
7328 E Stetson Dr., Scottsdale, AZ 85251
P: 480.626.7072 | ardebilieng.com



1 ELECTRICAL PHOTOMETRIC SITE PLAN
SCALE: 3/32"=1'-0"

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
SITE FC	+	2.4 fc	23.0 fc	0.0 fc	N/A	N/A
FC@ PROPERTY LINE	+	0.5 fc	2.6 fc	0.0 fc	N/A	N/A

Schedule										
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Lumens Per Lamp	Lumen Multiplier	Light Loss Factor	Wattage
□	B1	10	RB LIGHTING	4427-XX-13W-3K	4" LED SQUARE CYLINDER DOWNLIGHT, OUTDOOR WALL MOUNTED LED, WET RATED FIXTURE	LED CYLINDER	911	1	1	13.3
▧	EM	4	LITHONIA LIGHTING	WDGE2 LED P2 30K 80CRI T3M MVOLT SRM E20WC (FINISH) (OR EQUAL)	WALL PACK LED WITH P2 - PERFORMANCE PACKAGE, 3000K, 80CRI, TYPE 3 MEDIUM OPTIC. FIXTURE IS EQUIPPED WITH 90 MINUTS EMERGENCY BATTERY PACK.	LED	1964	1	1	189815
□	A5	4	OPTEC LED	OLA1-080-40-5	SINGLE HEAD LED POLE LIGHT, LED AREA SERIES LARGE 80W, 4000K, TYPE 5 MOUNTED AT 15 AFG	LED POLE	12719	1	0.91	80



LIGHT POLE 'A5'

NOTE: CONTRACTOR SHALL PROVIDE NEW POLE BASES WHERE INDICATED ON PLANS. LIGHTING FIXTURE POLE DETAILS AND DESCRIPTIONS ARE FOR ELECTRICAL REFERENCES ONLY. THE POLE AND BASE SHALL BE DESIGNED BY A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF COLORADO AND BE STAMPED AND SEALED ACCORDINGLY.

N.T.S.

811
Know what's below.
Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE HELD TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OR ANY NEARBY STRUCTURES, OR OF ANY OTHER PERSONS.

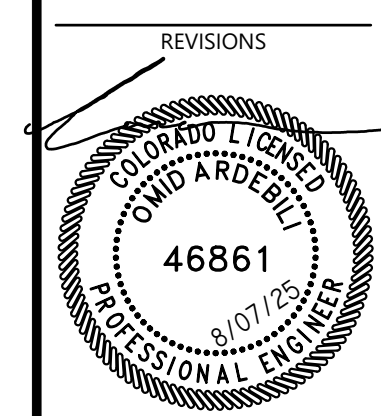
COPYRIGHT © 2025 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
www.atwell-group.com
866.850.4200
9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.636.8860

LOT 4A, PARKER POINT SUBD. FILING NO. 1, AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
PHOTOMETRIC SITEPLAN

DATE 2025-06-04



DRAWN BY: AD
CHECKED BY: PC
PROJECT MANAGER: AV
JOB #: 24003198
FILE CODE: ##
SHEET NO: E.1.1

ARDEBILI Engineering
Project Number: 25280 | Design Engineer: AV
7328 E Stetson Dr., Scottsdale, AZ 85251
P: 480.626.7072 | ardebilieng.com

Optec LED LIGHTING

Area Series (Small)

The OL1 Small Series is a stylish aerodynamic area luminaire that fits within today's accepted design form factors. Excellent optical performance is achieved with Nichia brand LEDs and engineered discrete optics. LED life is assured through efficient thermal coupling and dissipation via a durable, pressure die cast, low-copper alloy, aluminum housing. Engineered to last, all gaskets are anti-UV, anti-gassing with no harmful out-gassing. All models come standard with a universal pole-mount bracket or an optional wall surface box. Luminaires are available with a number of options including alternate CCT choices, finishes, photocells and sensors.

FEATURES

- LED Brand: Nichia
- Color Temperatures: 4000K & 5000K (Other CCT's are available upon request)
- CRI: 70
- Lumen Maintenance: L70 = 50,000 hours
- Full Cutoff (meets DA criteria)
- Operating Temperature: -40°C (-40°F) to 40°C (104°F)
- Durable All Aluminum Pressure Die Cast Housing
- Powder Coat Finish
- Salt Fog Tested to 2500 hours / per ASTM B117
- IP65 Rated (over listed / NEMA IEC 60529)
- Mounting: Universal Round or Square Pole, Wall Surface Box

ELECTRICAL SPECIFICATIONS

- Power Input: 120-277V (347-480V Optional)
- Power Factor: > 0.95
- THD: < 15%
- Surge Protection: 20 kV
- Control Options: 0-10V Dimming standard (Photocell and Occupancy Sensors Optional)

TESTS & CERTIFICATIONS

- ETL (UL 1598, UL 8750, NEMA C82.77)
- CSA (C22.2 No.250.0)
- RoHS Compliant
- Design Lights Consortium (Premium)
- 3G Vibration tested (ANSI C136.31)



WARRANTY
Up to 10-Year Warranty (parts or replacement)

PERFORMANCE SPECIFICATIONS

Distribution	Model / Wattage	2000K	5000K	E	U	G
Type 2	OLA1-080	10,801	10,960	3 *	0	1
	OLA1-120	15,840	16,200	3 *	0	2
	OLA1-150	19,800	20,250	3 *	0	2
Type 3	OLA1-080	11,600	11,760	2 *	0	2
	OLA1-120	16,561	16,820	3 *	0	2
	OLA1-150	20,542	21,000	3 *	0	2
Type 3L	OLA1-080	10,799	10,960	3 *	0	3
	OLA1-120	15,960	16,199	3 *	0	3
	OLA1-150	19,800	20,250	4 *	0	3
Type 3R	OLA1-080	10,799	10,960	3 *	0	3
	OLA1-120	15,960	16,198	3 *	0	3
	OLA1-150	19,800	20,250	4 *	0	3
Type 4	OLA1-080	10,798	10,798	2 *	0	2
	OLA1-120	15,472	15,712	2 *	0	2
	OLA1-150	19,046	19,349	3 *	0	2
Type 4L	OLA1-080	10,800	10,960	3 *	0	3
	OLA1-120	16,020	16,230	3 *	0	3
	OLA1-150	19,800	20,250	4 *	0	4
Type 4R	OLA1-080	10,800	10,960	3 *	0	3
	OLA1-120	16,080	16,320	3 *	0	3
	OLA1-150	19,781	20,250	4 *	0	4
Type 5	OLA1-080	10,032	10,185	4 *	0	3
	OLA1-120	15,049	15,278	4 *	0	3
	OLA1-150	18,811	19,097	5 *	0	4

* Backlight = 1 when BC (Backlight Control System) is applied.

Optec LED LIGHTING 1700 De Soto Place, Ontario, CA 91761 P: 888-743-5220 optecledlighting.com

Optec LED LIGHTING

Area Series (Small)

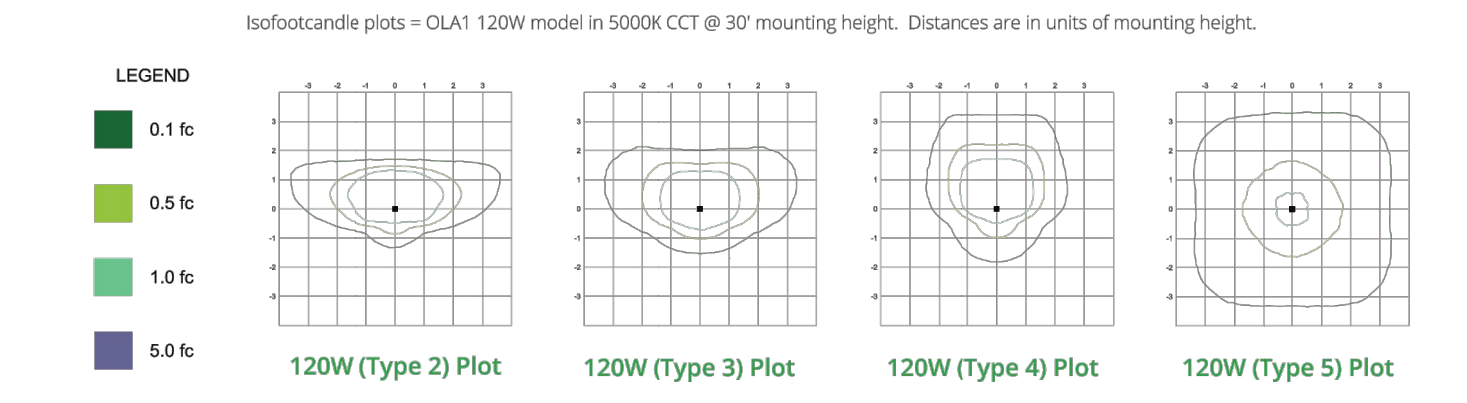
ORDERING INFORMATION

EXAMPLE: OLA1-120-UNVL-50-4-SQ-BZ-PR-TL12

SERIES	WATTAGE	VOLTAGE	COLOR TEMP	DISTRIBUTION	MOUNTING	FINISH	CONTROLS / OPTIONS
OLA1 = Optec LED Area Light	080 = 80W 120 = 120W 150 = 150W	UNVL = 120-277V UNWH = 120-277V 40 = 4000K 50 = 5000K	30 = 3000K 40 = 4000K 50 = 5000K	2 = Type 2 3 = Type 3 3L = Type 3 Left 3R = Type 3 Right 4 = Type 4 4L = Type 4 Left 4R = Type 4 Right 5 = Type 5	SQ = Square Pole RD = Round Pole WM = Wall Mount TR = Trench Adapter LK = Levelling Kit 5 = Type 5	WH = White BK = Black BA = Brushed Aluminum GM = Graphite Metallic CF = Custom Finish	DS95 = Occupancy Sensor (Wattage/Type) PR = Photocell (10V, 5' min) PS = Photocell Receptacle 5-pin RF = Photocell Receptacle 7-pin WCS = Wireless Control (Dimming) SF = Single Rate (120V, 277V, 347V) BC = Backlight Control (240V, 480V) TL12 = Twist Lock (Shoring Cap 204 = 1000000)

- For details, reference accessory data sheet.
- Wattage option requires 5 pin photocell bracket (ordering example: SQ WM TL12).
- Levelling kit adjusts up to 5 degrees or down to 5 degrees.
- DS95 - For photocell information and options contact factory.
- WCS - For wireless control information and options contact factory for details.
- Photocell (option) = 5' in "50" model (unless otherwise specified).

PHOTOMETRIC PERFORMANCE



DIMENSIONS, WEIGHTS & EPA

Wattage	80W	120W	150W
Length (inches / mm)	27.52 / 699	27.52 / 699	27.52 / 699
Width (inches / mm)	14.8 / 376	14.8 / 376	14.8 / 376
Height (inches / mm)	7.83 / 199	7.83 / 199	7.83 / 199
Weight (lbs. / kg)	19.4 / 8.8	19.4 / 8.9	20 / 9.1

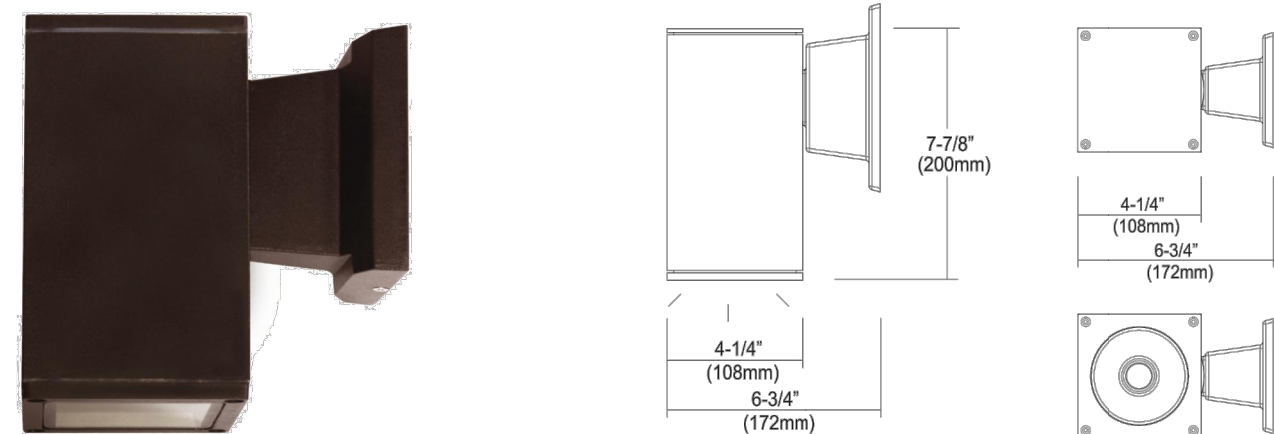
Wattage	Effective Projected Area (EPA) in ft²			
80	0.96	1.92	1.81	2.77
120	0.96	1.92	1.81	2.77
150	0.96	1.92	1.81	2.77

Optec LED LIGHTING 13040 West Lisbon Road, Unit 400, Brookfield, WI 53005 P: 888-743-5220 optecledlighting.com

Catalog #: **4427**
Project: **120V**
Prepared by:

Type: **B1**
Date:

4" LED Architectural Square Cylinder Downlight



DESCRIPTION

The Outdoor LED Cylinder Family features wet location rated wall mount style cylinders with down light and up & down light options. Choose from energy efficient 13W, 17W, or 27W AC modules, with finishes available in black, brushed nickel, or oil-rubbed bronze. Features Triac dimming down to 5%, using most standard dimmers. Utilizes AC circuit on board technology for cooler operating temperature and extended lifetime.

DESIGN FEATURES

- Construction**
 - Aluminum die-cast with powder coat finish
- Finish**
 - Black, brushed aluminum or oil-rubbed bronze
- Electrical**
 - 120V Direct AC operation with DOB
 - Triac dimming down to 5%
 - Various wattages of modules available
 - Cooler operating temperature without driver
 - Operating temperature: -31°F (-35°C) to 122°F (50°C)
 - Stable driving current prevents inrush damage to circuit switches and modules
 - Available in 80CRI, 3000K & 4000K
- Installation**
 - Easy surface mounting for simple installation using anchors and screws
 - J-box mountable
- Lens**
 - Clear acrylic lens protects LEDs while allowing for optimum lumen output
 - 37° beam angle

TEL: 800.937.6925 | Fax: 800.207.9509 | www.rplighting.com

Catalog #: **4427**
Project: **120V**

Specification & Ordering

Model #	Dimensions (H x W x D)	Watt	Lumens (delivered)	Lumens (source)	Color Temp
4427	7-7/8" x 4-1/4" x 6-3/4"	13W	845lm	1280lm	3K 3000K
		17W	1105lm	1710lm	4K 4000K
		27W	1755lm	2570lm	

Model #	Finish	Watts	CCT
4427	BK = Black	-13 = 13W	-3K = 3000 K
	BA = Brushed Aluminum	-17 = 17W	-4K = 4000 K
	OB = Oil-rubbed Bronze	-27 = 27W	

TEL: 800.937.6925 | Fax: 800.207.9509 | www.rplighting.com

WDGE2 LED

Architectural Wall Sconce Precision Refractive Optic



Specifications

- Depth (D1): 7"
- Depth (D2): 1.5"
- Height: 9"
- Width: 11.5"
- Weight: 13.5 lbs (without options)

Catalog Number: **EM**
Notes:
Type: **EM**

Introduction
The WDGE2 LED family is designed to meet specifier's every wall-mounted lighting need in a widely accepted shape that blends with any architecture. The clean, rectangular design comes in four sizes with lumen packages ranging from 1,200 to 25,000 lumens, providing a true site-specific solution. Embedded with right-AIR wireless controls, the WDGE2 family provides additional energy savings and code compliance.

WDGE2 with industry leading precision refractive optics provides great uniform distribution and optical control. When combined with multiple integrated emergency battery backup options, including an 18W cold temperature option, the WDGE2 becomes the ideal wall-mounted lighting solution for architectural scale applications in any environment.

Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. See ordering tree for details.

Luminaire	Optics	Standard Eff. @ 2°C	Cold Eff. @ -20°C	Sensor	P0	P1	P2	P3	P4	P5	P6
WDGE2 LED	Visual Comfort	4W		—	750	1,200	2,000	—	—	—	—
WDGE2 LED	Visual Comfort	10W	18W	Standalone / r/light	—	1,200	2,000	3,000	4,500	6,000	—
WDGE2 LED	Precision Refractive	10W	18W	Standalone / r/light	700	1,200	2,000	3,200	4,200	—	—
WDGE2 LED	Precision Refractive	15W	18W	Standalone / r/light	—	7,500	8,500	10,000	12,000	—	—
WDGE4 LED	Precision Refractive	—	—	Standalone / r/light	—	12,000	16,000	18,000	20,000	22,000	25,000

Ordering Information

Series	Package	Color Temperature	CRI	Distribution	Mounting	Shipped included	Shipped separately
WDGE2 LED	P0*	27K 2700K	40K 4000K	70CR*	T1S Type I Short	SRM Surface mounting bracket	AW5 3.8inch Architectural wall spacer
	P1*	30K 3000K	50K 5000K	80CR*	T2M Type II Medium	AW5 Indirect Canopy (only with weather shield)	PBBW Surface-mounted back box (top, left, right, and bottom) (see when there is no junction box available)
	P2*	35K 3500K	AMPS Amber	LW Limited Wavelength	T3M Type III Medium	AW5 Indirect Canopy (only with weather shield)	
	P3*				T4M Type IV Medium		

Options	Finish
E1WH Emergency battery backup, Certified in CA Title 20 (MERS) (10V, 5' min)	DBRZ Dark bronze
E2WH Emergency battery backup, Certified in CA Title 20 (MERS) (10V, 5' min)	DBLD Black
E3WH Emergency battery backup, Certified in CA Title 20 (MERS) (10V, 5' min)	DNAL Natural aluminum
DMG 0-10V dimming wires pulled outside fixture (for use with an external controller, ordered separately)	DWKO White
DSO 0-10V dimming wires pulled outside fixture (for use with an external controller, ordered separately)	DSDB Textured dark bronze
BCE Bottom conduit entry for back box (PBBW)	DNAT Textured natural aluminum
CCE Coastal Construction	DWGD Textured white
	DSST Textured sandstone

LITHONIA LIGHTING COMMERCIAL OUTDOOR 1 Acuity Way • Decatur, GA 30035 • Phone: 1-800-705-SERV (7378) • www.lithonia.com
© 2019-2025 Acuity Brands Lighting, Inc. All rights reserved. WDGE2 LED Rev. 07/07/25

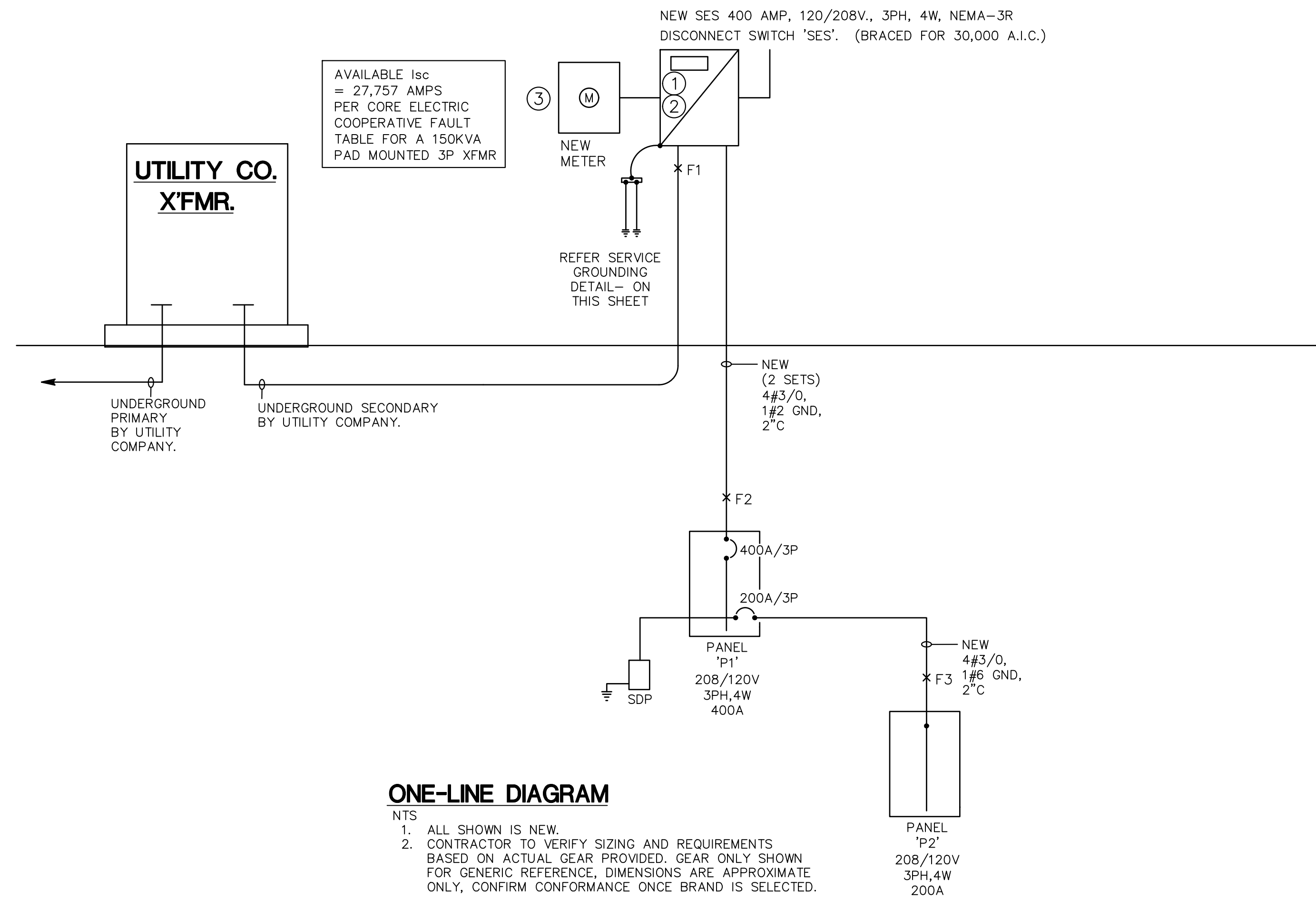
Accessories	NOTES
WDGE5 DS00U WDGE5 8inch Architectural Wall Space (Specify finish)	1 P0 option not available with sensors/controls.
WDGE2 PRR DB00U WDGE2 surface-mounted back box (Specify finish)	2 P1 P4 not available with AMB and LW.
	3 AMB and LW always go together.
	4 70CR only available with T3M and T4M.
	5 347V and 480V not available with E1WH or E2WH.
	6 Not qualified for DALI. Not available with emergency battery backup or sensors/controls.
	7 For PBBW and AWS with CCE option, require an RFA.
	8 PE not available in 480V or with sensors/controls.
	9 DMG option not available with sensors/controls.

Performance Data

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by lighting facts. Contact factory for performance data on any configuration not shown here.

Performance Package	System Watt	Dist. Type	27K (2700K, 70 CRI)	30K (3000K, 80 CRI)	35K (3500K, 70 CRI)	50K (5000K, 60 CRI)		
P0	7W	T1S	438	702	0	0	666	
		T2M	462	96	0	0	690	
		T3M	462	96	0	0	690	
		T4M	468	96	0	0	678	
		37TM	452	96	0	0	680	
		T1S	1,105	99	0	0	1,317	
	P1	11W	T2M	1,110	303	0	0	1,304
			T3M	1,110	303	0	0	1,265
			T4M	1,110	303	0	0	1,179
			37TM	1,110	303	0	0	1,179
			T1S	1,181	95	0	0	1,386
			T2M	1,245	96	0	0	1,461
P2	17W	T1S	1,881	95	0	0	1,886	
		T2M	1,881	95	0	0	1,886	
		T3M	1,881	95	0	0	1,886	
		T4M	1,881	95	0	0	1,886	
		37TM	1,881	95	0	0	1,886	
		T1S	2,481	97	0	0	2,482	
	P3	32W	T1S	2,524	97	0	0	2,524
			T2M	2,524	97	0	0	2,524
			T3M	2,524	97	0	0	2,524
			T4M	2,524	97	0	0	2,524
			37TM	2,524	97	0	0	2,524
			T1S	3,124	97	0	0	3,124
P4	47W	T1S	3,124	97	0	0	3,124	
		T2M	3,124	97	0	0	3,124	
		T3M	3,124	97	0	0	3,124	
		T4M	3,124	97	0	0	3,124	
		37TM	3,124	97	0	0	3,124	
		T1S	3,724	97	0	0	3,724	

Performance Package	System Watt	Dist. Type	27K (2700K, 70 CRI)	30K (3000K, 80 CRI)	35K (3500K, 70 CRI)	50K (5000K, 70 CRI)		
P0	7W	T1S	732	107	0	0	760	
		T2M	721	105	0	0	746	
		T3M	721	105	0	0	746	
		T4M	721	105	0	0	746	
		37TM	721	105	0	0	746	
		T1S	1,280	115	0	0	1,320	
	P1	11W	T2M	1,280	115	0	0	1,240
			T3M	1,280	115	0	0	1,240
			T4M	1,280	115	0	0	1,240
			37TM	1,280	115	0	0	1,240
			T1S	1,340	115	0	0	1,340
			T2M	1,340	115	0	0	1,340
P2	17W	T1S	2,040	115	0	0	2,040	
		T2M	2,040	115				

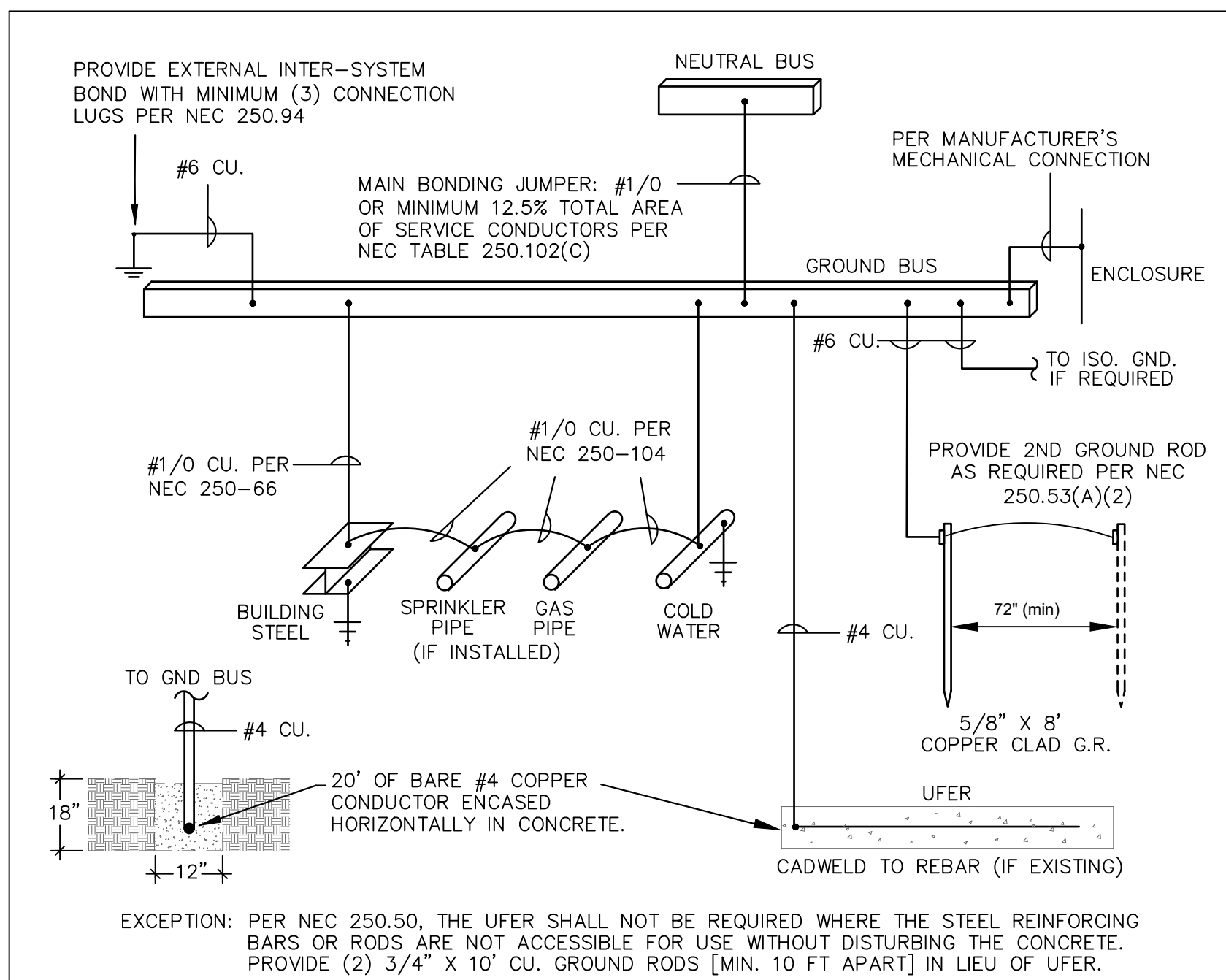


ONE-LINE DIAGRAM

- NTS
1. ALL SHOWN IS NEW.
 2. CONTRACTOR TO VERIFY SIZING AND REQUIREMENTS BASED ON ACTUAL GEAR PROVIDED. GEAR ONLY SHOWN FOR GENERIC REFERENCE. DIMENSIONS ARE APPROXIMATE ONLY. CONFIRM CONFORMANCE ONCE BRAND IS SELECTED.

ELECTRICAL SERVICE NOTE

PRIOR TO PURCHASE OF MAIN SERVICE ENTRANCE EQUIPMENT, VERIFY PROPOSED SERVICE IS ACCEPTABLE TO BOTH UTILITY COMPANY AND A.H.J.. NOTIFY THE ENGINEER OF REJECTIONS AND COMMENTS PERTINENT TO THE MAIN SERVICE ENTRANCE EQUIPMENT.



SERVICE GROUNDING DETAIL

NOT TO SCALE

GENERAL NOTES

- THESE REQUIREMENTS ARE PROVIDED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE, ARTICLE 250 PERTAINING TO 'GROUNDING ELECTRODE SYSTEMS'.
- 1) THE METALLIC PIPING BOND, BUILDING STEEL BOND, AND THE 2ND SERVICE BONDING MUST BE BONDED TOGETHER AND TO THE GROUNDING ELECTRODE SYSTEM IF PRESENT.
 - 2) ALL SPLICING SHALL BE EXOTHERMIC WELDS (CAD WELDS).
 - 3) ALL INSTALLATIONS SHALL COMPLY WITH THE LATEST ADOPTED EDITION OF NEC ARTICLE 250 AND ANY STATE AND/OR LOCAL REQUIREMENTS.
 - 4) THE GROUNDING SYSTEM SHALL PROVIDE LESS THAN 25 OHMS RESISTANCE TO GROUND AT THE SERVICE CONNECTION. INSTALL ADDITIONAL GROUND RODS IF GROUND RESISTANCE EXCEEDS 25 OHMS PER NEC 250.56

FAULT CURRENT SCHEDULE															
DEVICE	FAULT	AIC RATING	L-N VOLTS	UTILITY	FED FROM		FEEDER					TOTAL MOTOR	DIRECTLY CONNECTED MOTOR LOAD		
				FAULT	DEVICE	FAULT	SIZE	X / 1000'	R / 1000'	LENGTH	X	R	FAULT	KVA	FAULT
SES		27,757	120V	27,228			(2)#3/0	0.021	0.0385		0	0	529		
F1	DS-1	10,000	120V	9,471	SES	27,228	(2)#3/0	0.021	0.0385	1'	0	0	529		
F2	P1	9,751	120V	9,221	DS-1	9,471	(2)#3/0	0.021	0.0385	12'	0.0003	0.0005	530	23.2	257
F3	P2	9,238	120V	8,736	P1	9,221	#3/0	0.042	0.077	12'	0.0005	0.0009	502	24.6	273

ONE-LINE GENERAL NOTES

- SWITCHBOARD COMPONENTS, INCLUDING OVERCURRENT PROTECTIVE DEVICES SHALL BE FULLY RATED FOR THE AVAILABLE FAULT CURRENT SHOWN.
- PROVIDE ARC FLASH AND SHOCK HAZARD WARNING IDENTIFICATION PER NEC ARTICLE 110.16
- "NO DESIGN CHANGES MAY BE MADE TO THE SYSTEM WITHOUT THE PRIOR APPROVAL OF THE DESIGN ENGINEER AND THE ELECTRICAL INSPECTOR."
- THE FEEDER LENGTHS SHOWN IN THE INPUT DATA IS FOR CALCULATIONS ONLY. IT IS NOT THE INTENT TO USE THESE ENTERED LENGTHS FOR USAGE OF ACTUAL FIELD FEEDER LENGTH MEASUREMENTS.
- PER NEC 240.2 CURRENT LIMITING OVERCURRENT A DEVICE THAT, WHEN INTERRUPTING CURRENTS IN ITS CURRENT-LIMITING RANGE, REDUCES THE CURRENT FLOWING IN THE FAULTED CIRCUIT TO A MAGNITUDE SUBSTANTIALLY LESS THAN THAT OBTAINABLE IN THE SAME CIRCUIT IF THE DEVICE WERE REPLACED WITH A SOLID CONDUCTOR HAVING COMPARABLE IMPEDANCE.
- ALL SWITCHBOARDS, SWITCHGEAR, AND PANELBOARDS SUPPLIED BY FEEDERS SHALL BE PERMANENTLY MARKED TO INDICATE EACH DEVICE OR EQUIPMENT WHERE THE POWER ORIGINATES. THE LABEL SHALL BE PERMANENTLY AFFIXED, OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED, AND NOT HANDWRITTEN PER NEC 408.4(B)

PANEL SCHEDULES GENERAL NOTES

- A.I.C. RATING SHOWN ON PANEL SCHEDULES ARE THE MINIMUM RATING FOR NEW AND REPLACEMENT OVERCURRENT PROTECTIVE DEVICES. EACH DEVICE SHALL BE FULLY RATED AT AFC AS SHOWN ON ONE-LINE DIAGRAM.
- ALL PANEL BOARDS SHALL HAVE A TYPE WRITTEN DIRECTORY IDENTIFYING EACH NUMBERED CIRCUIT PLACED IN A DIRECTORY HOLDER INSIDE THE DOOR.
- THE CONTRACTOR SHALL PERMANENTLY MARK WITH PERMANENT MARKER THE CIRCUIT IDENTIFICATIONS ON THE COVERPLATES OF RECEPTACLES, EQUIPMENT, AND LIGHTING JUNCTION BOXES. (STICK ON LABELS NOT ACCEPTABLE)
- PER NEC 210.4(B) ALL MULTIWIRE BRANCH CIRCUITS ARE TO BE PROVIDED WITH A DEVICE THAT WILL DISCONNECT POWER TO ALL UNGROUNDED CONDUCTORS SIMULTANEOUSLY AT THE POINT OF ORIGIN.
- ALL LIFE SAFETY CIRCUITS SHALL REQUIRE A LOCK ON DEVICE. FIRE ALARM CIRCUITS SHALL HAVE RED IDENTIFICATION AND BE IDENTIFIED AS FIRE ALARM CIRCUIT.
- PER NEC 408.4(A) EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT AND SPECIFIC PURPOSE OR USE.
- PER NEC 700.12(F)2 INSTALLATION OF UNIT EQUIPMENT, EMERGENCY LIGHTS, EXIT SIGNS & OTHER UNIT EQUIPMENT SHALL BE CLEARLY IDENTIFIED WITHIN & AT THE DISTRIBUTION PANEL.

KEYED NOTES

- PROVIDE WEATHERPROOF PLACARD STATING AVAILABLE FAULT CURRENT AND DATE CALCULATED PER NEC 110.24.
- PROVIDE ARC-FLASH HAZARD WARNING LABEL: LABEL SHALL INDICATE NOMINAL VOLTAGE, AVAILABLE FAULT CURRENT, CLEARING TIME (UNDER SPECIAL INSPECTION) AND THE DATE THE LABEL IS APPLIED PER NEC 110.16(B). MAIN BREAKER SHALL BE LSIG.
- E.C. SHALL INSTALL UTILITY COMPLIANT CT/METER. COORDINATE FINAL APPROVAL WITH LOCAL ELECTRICAL UTILITY COMPANY.



Know what's below. Call before you dig.
 THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

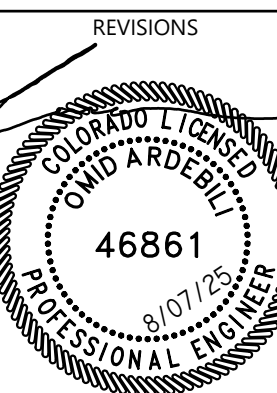
NOTICE
 CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE DEEMED TO ASSUME ANY RESPONSIBILITY FOR THE SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURE, OR OF ANY OTHER PERSONS.
 COPYRIGHT © 2025 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
 866.850.4200 www.atwell-group.com
 9001 AIRPORT FREEWAY, SUITE 660
 NORTH RICHLAND HILLS, TX 76180
 972.636.8860

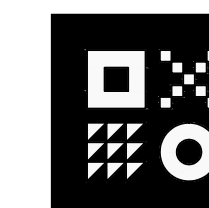
LOT 4A PARKER POINT SUBD. FILING NO. 1. AMEND. NO. 1
 S. PARKER RD & STROH RD
 PARKER
 DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
 13135 DECLAN DRIVE
 ELECTRICAL ONE-LINE DIAGRAM

DATE 2025-06-04



DRAWN BY: AD
 CHECKED BY: PC
 PROJECT MANAGER: AV
 JOB #: 24003198
 FILE CODE: ##
 SHEET NO. E4.0



ARDEBILI Engineering
 Project Number: 25280 | Design Engineer: AV
 7328 E Stetson Dr., Scottsdale, AZ 85251
 P: 480.626.7072 | ardebilieng.com

SES		NEW SERVICE					
ROOM ELEC ROOM		VOLTS 208Y/120V 3P 4W			AIC 30,000		
MOUNTING SURFACE		BUS AMPS 400			MAIN BKR 400		
FED FROM UTILITY		NEUTRAL 100%			LUGS STANDARD		
NOTE NEMA 1							
CKT #	CIRCUIT DESCRIPTION	KVA LOAD			FRAME TRIP/POLES	COND.	FEEDER RACEWAY AND CONDUCTORS
		A	B	C			
1	FUSED DISCONNECT DS-1	41.3	36.7	43.8	400/3	(2)2°C,4#3/0,#1/0G	
TOTAL CONNECTED KVA BY PHASE		41.3	36.7	43.8			
		CONN KVA	CALC KVA		CONN KVA	CALC KVA	
LIGHTING		1.17	1.46	(125%)	RECEPTACLES	9.01	9.01 (50%>10)
LARGEST MOTOR		19.6	4.9	(25%)	KITCHEN EQUIPMENT	47.8	31.1 (65%)
MOTORS		47.8	47.8	(100%)	CONTINUOUS	4.69	5.86 (125%)
					HEATING	11.4	11.4 (100%)
					TOTAL LOAD		111
					BALANCED 3-PHASE LOAD		309 A

P1		NEW PANEL									
ROOM STORAGE AREA		VOLTS 208Y/120V 3P 4W			AIC 22,000						
MOUNTING SURFACE		BUS AMPS 400			MAIN BKR 400						
FED FROM DS-1		NEUTRAL 100%			LUGS STANDARD						
NOTE NEMA 1											
CKT #	BKR	CIRCUIT DESCRIPTION	KVA LOAD			CKT #	BKR	CIRCUIT DESCRIPTION	KVA LOAD		
			A	B	C				A	B	C
1	20/1	STORAGE AREA RECEPTACLE(S)	0.72			2	20/1	IT CABINET RECEPTACLES(S)	0.72		
3	20/1	DINING AREA RECEPTACLE(S)		1.26		4	20/1	KITCHEN RECEPTACLE(S)		0.9	
5	20/2	E7(ICE MACHINE)			1.42	6	20/1	E14(BUNN GRINDER)			1.32
7			1.42			8	20/1	E9(SWFT GRINDER)	0.78		
9	20/1	#1 E19(UNDER COUNTER REFRIGERATOR)		0.24		10	30/2	#2 E17(MICROWAVE)		3.1	
11	30/2	#1 E17(MICROWAVE)			3.1	12					3.1
13			3.1			14	20/1	E10(VITAMIX BLENDER)	1.8		
15	20/1	#1 E10(VITAMIX BLENDER)		1.8		16	20/2	E26(BEVERAGE FREEZER)		1.3	
17	20/1	#2 E19(UNDER COUNTER REFRIGERATOR)			0.24	18					1.3
19	20/1	E20(NITRO BREW COFFEE DISPENSOR)	0.6			20	20/1	POS EQUIPMENT	0.5		
21	20/1	E9(SWIFT GRINDER)		0.78		22	20/1	E18(UNDER COUNTER REFRIGERATOR)		0.36	
23	30/2	E8(RANCILIO ESPRESSO MACHINE)			3	24	20/1	E27(HOT WATER DISPENSER)	0.36		1.85
25			3			26	20/1	KITCHEN RECEPTACLE(S)			
27	20/1	#2 E10(VITAMIX BLENDER)		1.8		28	20/1	RO SYSTEM RECEPTACLE(S)		0.37	
29	20/1	#3 E10(VITAMIX BLENDER)			1.8	30	20/1	E10(VITAMIX BLENDER)		1.8	
31	20/1	POS EQUIPMENT	0.5			32	70/3	RTU-1	6.53		
33	-/1	SPACE		0		34					6.53
35	-/1	SPACE			0	36					
37	200/3	PANEL P2	21.3			38	-/3	SPD	0		
39					18.3	40					0
41					18.3	42					0
TOTAL CONNECTED KVA BY PHASE			41.3	36.7	43.8						
TOTAL CONNECTED AMPS BY PHASE			347	306	368						
		CONN KVA	CALC KVA		CONN KVA	CALC KVA					
LIGHTING		1.17	1.46	(125%)	RECEPTACLES	9.01	9.01	(50%>10)			
LARGEST MOTOR		19.6	4.9	(25%)	KITCHEN EQUIPMENT	47.8	31.1	(65%)			
MOTORS		47.8	47.8	(100%)	CONTINUOUS	4.69	5.86	(125%)			
					HEATING	11.4	11.4	(100%)			
					TOTAL LOAD			111			
					BALANCED 3-PHASE LOAD			309 A			

P2		NEW PANEL									
ROOM STORAGE AREA		VOLTS 208Y/120V 3P 4W			AIC 22,000						
MOUNTING SURFACE		BUS AMPS 200			MLO						
FED FROM P1		NEUTRAL 100%			LUGS STANDARD						
NOTE NEMA 1											
CKT #	BKR	CIRCUIT DESCRIPTION	KVA LOAD			CKT #	BKR	CIRCUIT DESCRIPTION	KVA LOAD		
			A	B	C				A	B	C
1	40/2	E8(RANCILIO ESPRESSO MACHINE)	3			2	20/1	#1 E10(VITAMIX BLENDER)	1.8		
3				3		4	20/1	#2 E10(VITAMIX BLENDER)		1.8	6.53
5	35/2	E13(COFFEE BREWER)			2.65	6	70/3	RTU-2			6.53
7			2.65			8					
9	20/1	DRIVE-THRU SPEAKER, MENUBOARD		1		10					
11	20/1	KITCHEN AREA LIGHTING			0.378	12	20/1	ROOF RECEPTACLE(S)		0.36	
13	20/2	E6(MOBILE ICE BIN)	1.47			14	20/1	DINING AREA LIGHTING	0.312		
15			1.47		1.47	16	20/1	RESTROOM LIGHTING & CEF-1		0.218	
17	20/1	CP-1			0.097	18	50/2	EW-1			4
19	20/1	EXTERIOR BUILDING LIGHTING	0.219			20					4
21	20/1	EXTERIOR SIGNAGE 1		1.2		22	20/1	EXTERIOR SIGNAGE 3		1.2	
23	20/1	EXTERIOR SIGNAGE 2			1.2	24	20/1	EXTERIOR RECEPTACLE(S)			0.72
25	20/1	WALK-IN COOLER LIGHTING	0.08			26	20/1	WALK-IN COOLER FAN	0.192		
27	20/1	TIME SWITCH		0.05		28	20/1	E18(UNDER COUNTER REFRIGERATOR)		0.36	
29	20/3	E15(WALK-IN CLR CONDENSER)			0.696	30	20/1	EUH-1		1.5	
31			0.696		0.696	32	20/1	DINE-IN AREA LIGHTING	0.174		
33						34	20/1	BIG FAN		0.75	
35	20/2	EXTERIOR POLE LIGHTING		0.16		36	-/1	SPACE			0
37					0	38	-/1	SPACE			0
39	-/1	SPACE			0	40	-/1	SPACE			0
41	-/1	SPACE			0	42	-/1	SPACE			0
TOTAL CONNECTED KVA BY PHASE			21.3	18.3	18.3						
TOTAL CONNECTED AMPS BY PHASE			178	154	156						
		CONN KVA	CALC KVA		CONN KVA	CALC KVA					
LIGHTING		1.17	1.46	(125%)	RECEPTACLES	2.61	2.61	(50%>10)			
LARGEST MOTOR		19.6	4.9	(25%)	KITCHEN EQUIPMENT	15.3	11.3	(LARGEST 2)			
MOTORS		24.6	24.6	(100%)	CONTINUOUS	4.69	5.86	(125%)			
					HEATING	9.5	9.5	(100%)			
					TOTAL LOAD			60.3			
					BALANCED 3-PHASE LOAD			167 A			

PANEL SCHEDULES GENERAL NOTES

- A.I.C. RATING SHOWN ON PANEL SCHEDULES ARE THE MINIMUM RATING FOR NEW AND REPLACEMENT OVERCURRENT PROTECTIVE DEVICES. EACH DEVICE SHALL BE FULLY RATED AT AFC AS SHOWN ON ONE-LINE DIAGRAM.
- ALL PANEL BOARDS SHALL HAVE A TYPE WRITTEN DIRECTORY IDENTIFYING EACH NUMBERED CIRCUIT PLACED IN A DIRECTORY HOLDER INSIDE THE DOOR.
- THE CONTRACTOR SHALL PERMANENTLY MARK WITH PERMANENT MARKER THE CIRCUIT IDENTIFICATIONS ON THE COVERPLATES OF RECEPTACLES, EQUIPMENT, AND LIGHTING JUNCTION BOXES. (STICK ON LABELS NOT ACCEPTABLE)
- PER NEC 210.4(B) ALL MULTI-WIRE BRANCH CIRCUITS ARE TO BE PROVIDED WITH A DEVICE THAT WILL DISCONNECT POWER TO ALL UNGROUNDED CONDUCTORS SIMULTANEOUSLY AT THE POINT OF ORIGIN.
- ALL LIFE SAFETY CIRCUITS SHALL REQUIRE A LOCK ON DEVICE. FIRE ALARM CIRCUITS SHALL HAVE RED IDENTIFICATION AND BE IDENTIFIED AS FIRE ALARM CIRCUIT.
- PER NEC 408.4(A) EVERY CIRCUIT AND CIRCUIT MODIFICATION SHALL BE LEGIBLY IDENTIFIED AS TO ITS CLEAR, EVIDENT AND SPECIFIC PURPOSE OR USE.
- PER NEC 700.12(F)2) INSTALLATION OF UNIT EQUIPMENT, EMERGENCY LIGHTS, EXIT SIGNS & OTHER UNIT EQUIPMENT SHALL BE CLEARLY IDENTIFIED WITHIN & AT THE DISTRIBUTION PANEL.

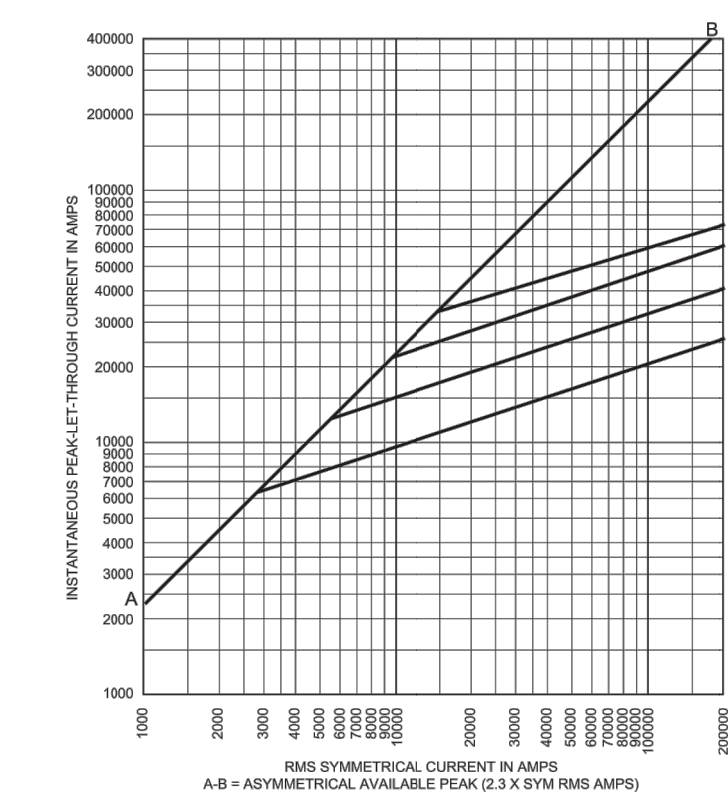
PANELBOARD SYMBOLS

- ▲ CONTROLLED BY TIME CLOCK/PHOTOCELL (VIA CONTACTOR)
- ◆ GFCI - GROUND FAULT CIRCUIT INTERRUPTER BREAKER

Technical Data 1020
Effective July 2023

FRN-R Class RK5 250Vac, 125/250Vdc
70-600A, dual element, time-delay fuses

Current-limitation curves:

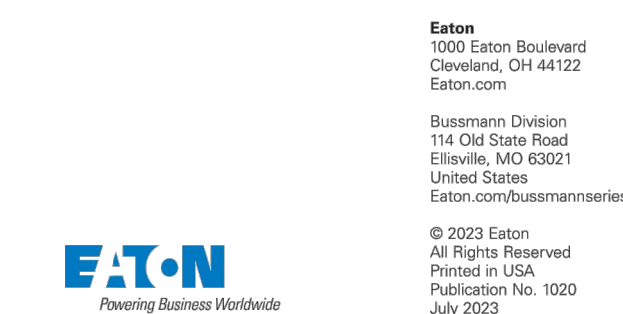


Current-limiting effects:

Prospect S.C.C.	Let-through current (apparent RMS Sym. vs. fuse rating)			
	100A	200A	400A	600A
5000	3000	5000	5000	5000
10000	4000	7000	10,000	10,000
15000	5000	8000	11,000	15,000
20000	5000	8000	12,000	16,000
25000	6000	9000	13,000	17,000
30000	6000	10,000	14,000	18,000
35000	6000	10,000	15,000	19,000
40000	7000	11,000	15,000	20,000
50000	7000	11,000	17,000	21,000
60000	8000	12,000	18,000	22,000
70000	8000	13,000	19,000	23,000
80000	8000	13,000	19,000	24,000
90000	9000	14,000	20,000	25,000
100000	9000	14,000	21,000	26,000
150000	10,000	16,000	24,000	29,000
200000	11,000	18,000	26,000	32,000

FUSE PULL OUT DISCONNECT CLASS RK5 DS-1 TIME-DELAY FUSES.

The only controlled copy of this data sheet is the electronic read-only version located on the Eaton network drive. All other copies of this document are by definition uncontrolled. This bulletin is intended to clearly present comprehensive product data and provide technical information that will help the end user with design applications. Eaton reserves the right, without notice, to change design or construction of any products and to discontinue or limit distribution of any products. Eaton also reserves the right to change or update, without notice, any technical information contained in this bulletin. Once a product has been selected, it should be tested by the user in all possible applications.



For Eaton's Bussmann series product information, call 1-855-287-7626 or visit: Eaton.com/bussmannseries

Follow us on social media to get the latest product and support information.



Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCURRED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE DEEMED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK OF PERSONS ENGAGED IN THE WORK OF ANY NEARBY STRUCTURE, OR OF ANY OTHER PERSONS.

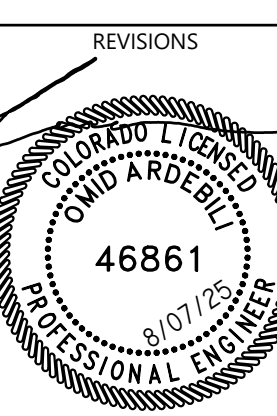
COPYRIGHT © 2023 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
866.850.4200 www.atwell-group.com
9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.956.8860

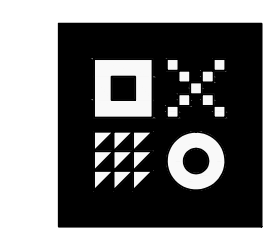
LOT 4A PARKER POINT SUBD. FILING NO. 1 - AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
ELECTRICAL PANEL SCHEDULES

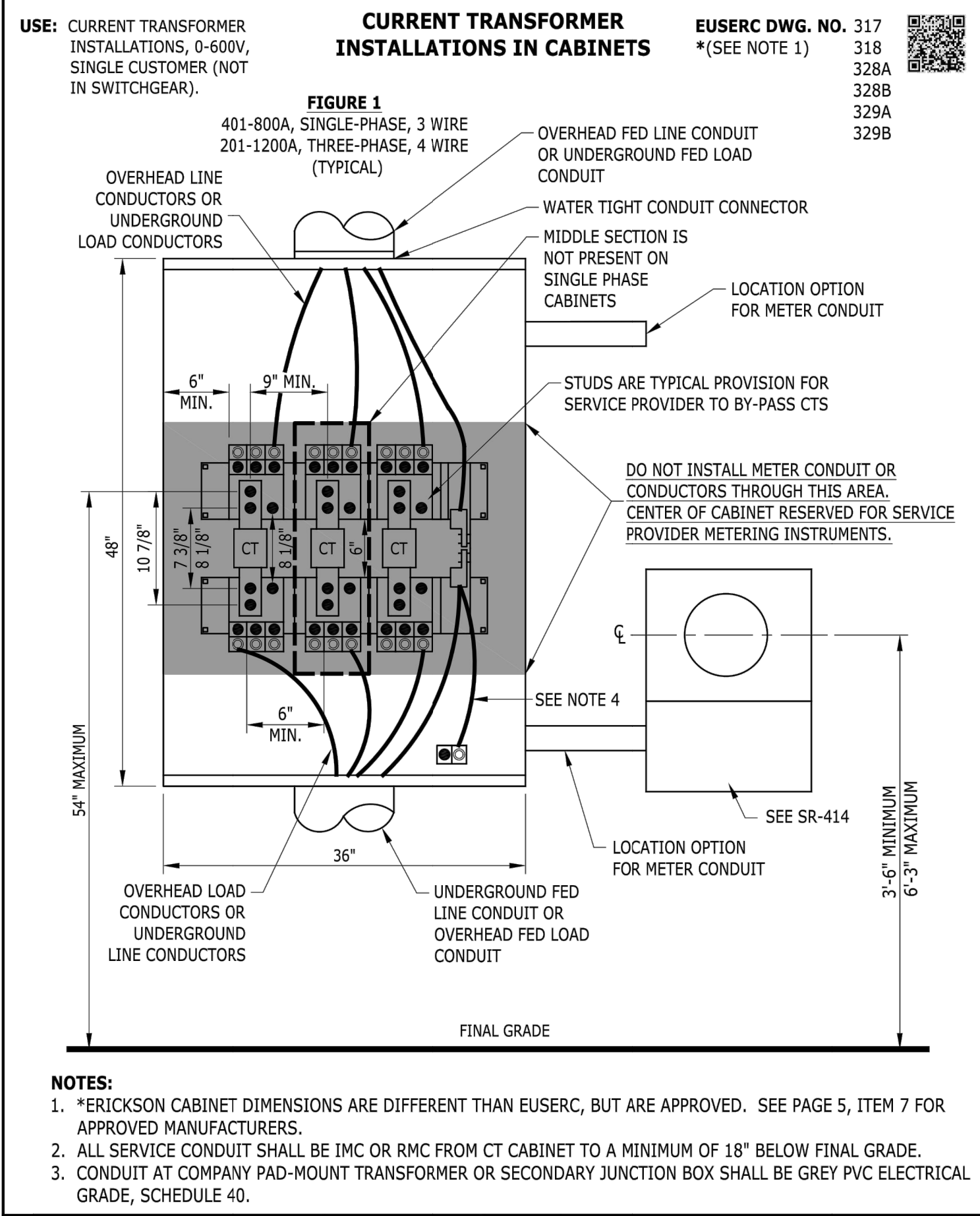
DATE 2025-06-04



DRAWN BY: AD
CHECKED BY: PC
PROJECT MANAGER: AV
JOB #: 24003198
FILE CODE: ##
SHEET NO. E4.1



ARDEBILI Engineering
Project Number: 25280 | Design Engineer: AV
7328 E Stetson Dr., Scottsdale, AZ 85251
P: 480.626.7072 | ardebileng.com



Specifications

400A FUSED DISCONNECT

Eaton DH365NRK

Eaton 400A/3P HD Fusible Safety Switch
600V w/Neut Nema 3R**

General specifications	
PRODUCT NAME	Eaton heavy duty fusible safety switch
CATALOG NUMBER	DH365NRK
UPC	782113207261
PRODUCT LENGTH/DEPTH	44.76 in
PRODUCT HEIGHT	12.39 in
PRODUCT WIDTH	24.12 in
PRODUCT WEIGHT	151 lb
WARRANTY	Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.
COMPLIANCES	NEC 230.62 (C) Compliant Barrier
CERTIFICATIONS	UL Listed

Specifications

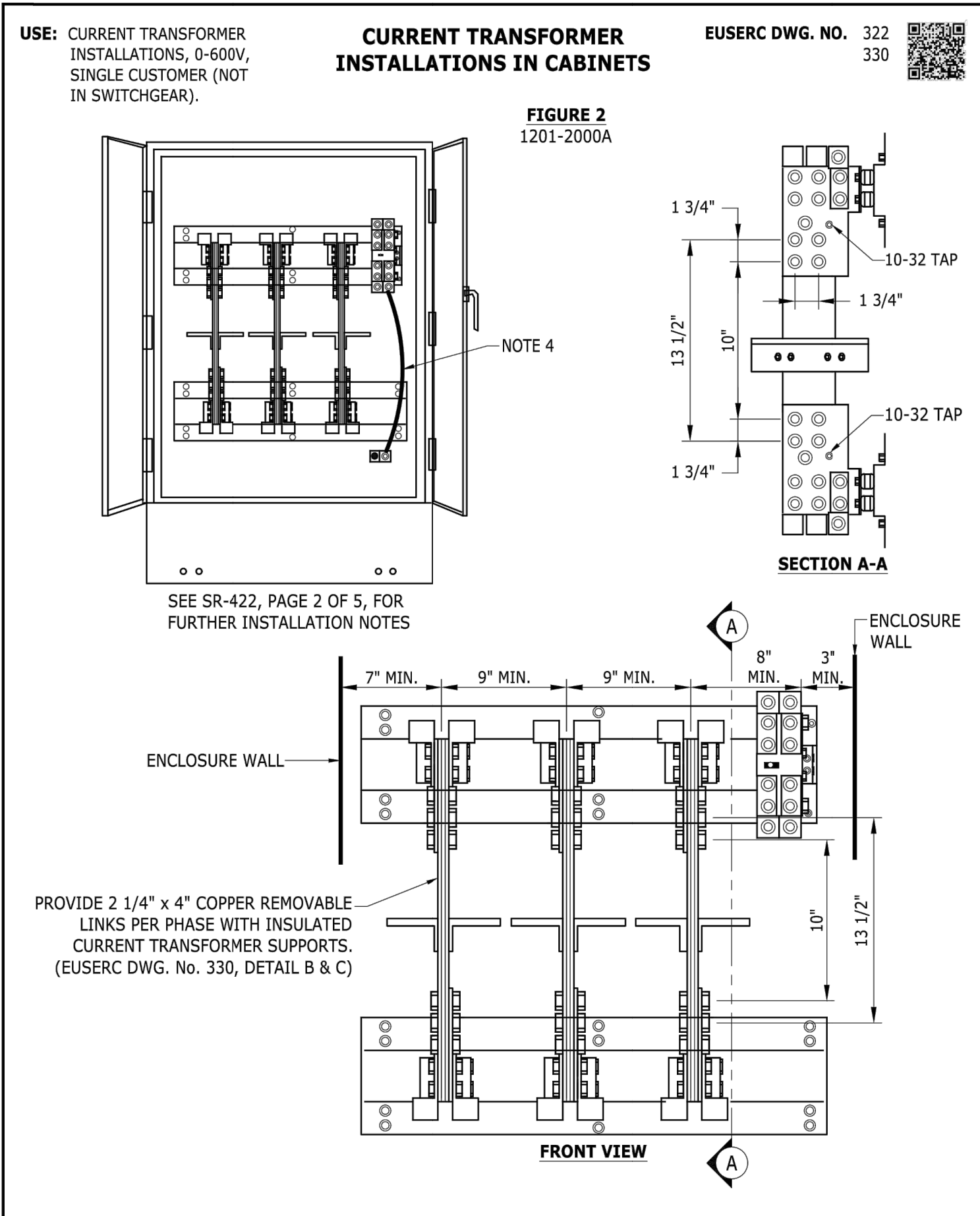
400A PULLBOX

Eaton 3MTB400R

Eaton main terminal box, 400A, Aluminum, NEMA 3R, Overhead/underground, Four-wire, Three-phase, 120/208V, (1) #6 AWG-600 kcmil, (2) #1/0 AWG-250 kcmil

General specifications	
PRODUCT NAME	Eaton main terminal box
CATALOG NUMBER	3MTB400R
UPC	786849053086
PRODUCT LENGTH/DEPTH	6.5 in
PRODUCT HEIGHT	7.5 in
PRODUCT WIDTH	13.5 in
PRODUCT WEIGHT	54 lb
WARRANTY	Eaton Selling Policy 25-000, one (1) year from the date of installation of the Product or eighteen (18) months from the date of shipment of the Product, whichever occurs first.
CERTIFICATIONS	UL Listed
CATALOG NOTES	For compression lug landing kits, order 3MTB1200CLK (includes landings for 3-phases and neutral).

*USE ONLY AS BASIS OF DESIGN



Physical Attributes	
ENCLOSURE	NEMA 3R
ENCLOSURE MATERIAL	Painted galvanized steel
FUSE CLASS PROVISION	Class H
FUSE CONFIGURATION	Fusible with neutral
NUMBER OF POLES	Three-pole
NUMBER OF WIRES	4
TYPE	Heavy duty fusible safety switch

Miscellaneous	
PRODUCT CATEGORY	Heavy Duty, Fusible with neutral

Performance Ratings	
AMPERAGE RATING	400A
HP RATING - MAX	250, 350 hp (3PH @480/600 V)
NEMA RATING	NEMA 3R
VOLTAGE RATING	600 V

Resources	
CATALOGS	Commercial Distribution, Switching Devices, Volume 2, Tab 1
SPECIFICATIONS AND DATASHEETS	Eaton Specification Sheet: DH365NRK

PROJECT NAME: _____
PROJECT NUMBER: _____
PREPARED BY: _____
DATE: _____

EATON Powering Business Worldwide
Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com
© 2025 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.



Product specifications	
AMPERAGE RATING	400A
BUS MATERIAL	Aluminum
FEED TYPE	Top/bottom
PHASE	Three-phase
VOLTAGE RATING	120/208 V
WIRE SIZE	(1) #6 AWG-600 kcmil, (2) #1/0 AWG-250 kcmil

MI : Consumers Energy
MI : DTE Energy (Detroit Edison)
HI : Hawaiian Electric
MT : NorthWestern Energy

NE : NorthWestern Energy
SD : NorthWestern Energy
WY : NorthWestern Energy

UTILITY APPROVALS

WI : WE Energies / Wisconsin Public Service (WPS)
MD : Baltimore Gas and Electric
DC : PEPCO
MD : PEPCO

ENCLOSURE	NEMA 3R
NUMBER OF WIRES	4

PROJECT NAME: _____
PROJECT NUMBER: _____
PREPARED BY: _____
DATE: _____

EATON Powering Business Worldwide
Eaton Corporation plc
Eaton House
30 Pembroke Road
Dublin 4, Ireland
Eaton.com
© 2025 Eaton. All Rights Reserved.

Follow us on social media to get the latest product and support information.

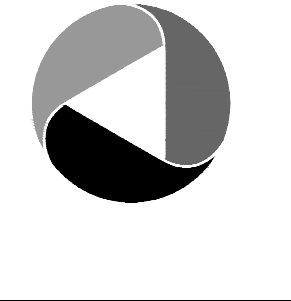


Know what's below. Call before you dig.
THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

NOTICE
CONSTRUCTION SITE SAFETY IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. NEITHER THE OWNER NOR THE ENGINEER SHALL BE DEEMED TO ASSUME ANY RESPONSIBILITY FOR SAFETY OF THE WORK, OR PERSONS ENGAGED IN THE WORK, OF ANY NUMBER OF STRUCTURES, OR OF ANY OTHER PERSONS.

COPYRIGHT © 2025 ATWELL LLC. NO REPRODUCTION SHALL BE MADE WITHOUT THE PRIOR WRITTEN CONSENT OF ATWELL LLC.

ATWELL
866.850.4200 www.atwell-group.com
9001 AIRPORT FREEWAY, SUITE 660
NORTH RICHLAND HILLS, TX 76180
972.636.8860

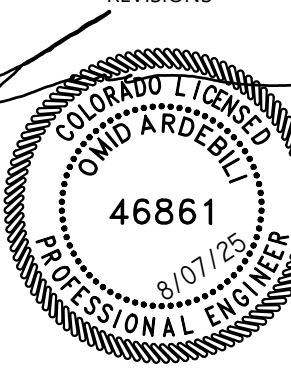


LOT 4A, PARKER POINTE SUBD. FILING NO. 1, AMEND. NO. 1
S. PARKER RD & STROH RD
PARKER
DOUGLAS COUNTY, COLORADO

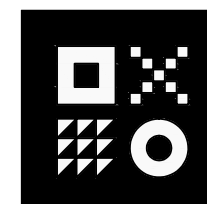
BLACK ROCK COFFEE BAR
13135 DECLAN DRIVE
ELECTRICAL GEAR DETAILS

DATE 2025-06-04

REVISIONS



DRAWN BY: AD
CHECKED BY: PC
PROJECT MANAGER: AV
JOB #: 24003198
FILE CODE: ##
SHEET NO. E4.2



ARDEBILI
Engineering

Project Number: 25280 | Design Engineer: AV
7328 E Stetson Dr., Scottsdale, AZ 85251
P: 480.626.7072 | ardebilieng.com

ELECTRICAL SPECIFICATIONS

16001 SCOPE OF WORK

THE WORK DESCRIBED UNDER THIS SECTION OF THE SPECIFICATIONS INCLUDES FURNISHING ALL MATERIAL LABOR AND EQUIPMENT, EXCEPT AS FURNISHED UNDER OTHER SECTIONS OF THE SPECIFICATIONS, TO INSTALL ALL ELECTRICAL WORK AS SHOWN IN THE DRAWINGS AND AS SPECIFIED AND REFERRED TO HEREIN.

01 EXAMINATION OF THE PREMISES

THE CONTRACTOR WILL BE HELD TO HAVE EXAMINED THE PREMISES AND SATISFIED HIMSELF AS TO EXISTING CONDITIONS UNDER WHICH HE WILL BE OBLIGATED TO OPERATE IN PERFORMING HIS PART OF THE WORK OR THAT WHICH WILL IN ANY MANNER AFFECT THE WORK UNDER HIS CONTRACT.

PRIOR TO ORDERING ANY MATERIALS OR DOING ANY WORK, VERIFY THE DIMENSIONS AT THE SITE, CORRECTNESS OF DIMENSIONS WILL BE THIS CONTRACTOR'S RESPONSIBILITY. NO EXTRA CHARGES OR COMPENSATION WILL BE ALLOWED FOR DIFFERENCES BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE DRAWINGS. IMMEDIATELY REPORT DIFFERENCES TO THE ARCHITECT AND DO NOT PROCEED WITH WORK UNTIL ARCHITECT RENDERS HIS DECISION.

02 REGULATIONS, PERMITS, AND INSPECTIONS

REGULATIONS: COMPLY WITH ALL APPLICABLE CODES, RULES, AND REGULATIONS. ALL MATERIALS, EQUIPMENT, AND WORK MUST COMPLY WITH THE LATEST ADOPTED EDITION OF THE NATIONAL ELECTRICAL CODE AND THE APPLICABLE MUNICIPAL AND LIFE SAFER CODES.

PERMITS: OBTAIN AND PAY FOR ALL PERMITS, FEES, AND LICENSES REQUIRED TO PERFORM WORK DESCRIBED HEREIN.

INSPECTIONS: ALL WORK MUST BE INSPECTED AND APPROVED BY LOCAL AUTHORITIES. PRIOR TO FINAL APPROVAL, FURNISH THE ARCHITECT WITH CERTIFICATES OF INSPECTION AND APPROVALS BY THE LOCAL AUTHORITIES.

03 WORK LISTED ELSEWHERE

FURNISHING AND INSTALLING MOTOR CONTROLS UNLESS IN MOTOR CONTROL CENTER. FURNISHING HOLE CUTTING IN PRE CAST STRUCTURAL CONCRETE.

04 EXISTING SERVICES AND REMODEL AREAS

MAINTAIN ALL SERVICES, POWER, SOUND, TELEPHONE, ETC. TO EXISTING BUILDINGS OR AREAS. INTERRUPTIONS OF SERVICES REQUIRED FOR "CUT-OVER" OR CONNECTIONS OF NEW CABLES, ETC. SHALL BE DONE AT THE CONVENIENCE OF THE TENANT AND BE APPROVED IN WRITING BY THE TENANT PRIOR TO THE INTERRUPTION.

05 TEMPORARY POWER

PROVIDE TEMPORARY POWER AS REQUIRED BY THE GENERAL CONTRACTOR. THIS SERVICE SHALL BE MAINTAINED THROUGHOUT THE ENTIRE JOB AS THE WORK PROGRESSES.

PROVIDE OUTLETS AT CONVENIENT POINTS AND IN SUFFICIENT NUMBERS SO THAT NO EXTENSION CORD IS OVER 50 FEET IN LENGTH IS REQUIRED TO REACH ANY WORK POINT. MAINTAIN GENERAL LIGHTING IN CORRIDORS, STAIRS, BASEMENT AND OTHER AREAS NOT RECEIVING DAYLIGHT REQUIRED FOR SAFETY. REMOVE TEMPORARY WORK AS RAPIDLY AS REQUIRED FOR OR ALLOWED BY INSTALLATION OF PERMANENT WORK.

16420 SERVICE ENTRANCE EQUIPMENT

SERVICE ENTRANCE EQUIPMENT TO HAVE SHORT CIRCUIT CURRENT RATING EQUAL TO OR GREATER THAN AVAILABLE FAULT CURRENT, AND MEET ALL THE REQUIREMENTS OF U.L. STANDARD NO. 891. OUTDOOR GEAR TO BE NEMA 3R. ALL SWITCHGEAR TO BE FREE STANDING, UNLESS OTHERWISE INDICATED, MOUNTED ON 4" CONCRETE PAD EXTENDING A MINIMUM OF 6 INCHES IN FRONT OF EQUIPMENT.

END SECTION SHALL BE PROVIDED WITH FULL CAPACITY THROUGH BUS FOR FUTURE EXTENSION TO FUTURE SECTIONS.

16425 SWITCHBOARDS

SWITCHBOARDS TO BE SQUARED D TYPE QMB OR EQUAL, FREE STANDING, 90" HIGH, MIN. 14" DEEP WITH TYPE QMB SWITCHES. END SECTION WITH FULL CAPACITY THRU - BUS FOR FUTURE SECTION. MOUNT ON 4" CONCRETE PAD EXTENDING A MINIMUM OF 6 INCHES IN FRONT OF SWITCHBOARDS.

16440 SAFETY SWITCHES

SAFETY SWITCHES SHALL BE HEAVY DUTY TYPE, WHERE OUTSIDE THE BUILDING, THE SWITCHES SHALL BE RAINIGHT TYPE NEMA 3R. ALL SWITCHES SHALL BE LOCKABLE.

16471 PANELS

PANEL TYPE AS INDICATED ON THE DRAWINGS. NEW FLUSH PANELS TO HAVE (3) 3/4" EMPTY CONDUITS STUBBED INTO ACCESSIBLE CEILING SPACE.

PROVIDED A GROUND BUS IN ALL PANELS INCLUDING EXISTING PANELS WHEREIN WORK IS DONE OR LOADS ADDED. CHECK ALL BREAKERS. REPLACE DEFECTIVE BREAKERS IN AFOREMENTIONED PANELS.

VERIFY THE INTERRUPTING CAPACITY OF ALL BREAKERS WITH REQUIREMENT INDICATED ON THE DRAWINGS. REPLACE EXISTING BREAKERS NOT MEETING REQUIRED A.I.C. RATING.

16461 DRY TYPE TRANSFORMERS (IF ANY)

SHALL BE CLEAR TO SQUARE D, 150 DEGREE TEMPERATURE RISE; SERIES 7410/7411. CLEARANCE ALL AROUND PER MANUFACTURERS RECOMMENDATION. PROVIDE ISOLATION PADS.

16510 LIGHTING FIXTURES

FLOURESCENT FIXTURES SHALL BE FURNISHED WITH UL LISTED HIGH POWER-FACTOR BALLASTS. CONTRACTOR SHALL VERIFY CEILING CONSTRUCTION BEFORE ORDERING RECESSED UNITS AND SHALL PROVIDE PLASTER OR DRY WALL FRAMES AS REQUIRED.

RECESSED INCANDESCENT FIXTURES AND FLOURESCENT DOWN LIGHTS SHALL BE LISTED FOR USE IN INSULATED CEILING SPACES, AND SHALL HAVE ANY REQUIRED FEED-THRU BOXES. LAMPS FOR INCANDESCENT FIXTURES SHALL BE 1000 HOUR INSIDE FROSTED 130 VOLT, NOT EXCEEDING THE WATTAGE FOR WHICH THE FIXTURE IS LABELED AND SHALL BE OF THE TYPE RECOMMENDED BY THE FIXTURE MANUFACTURE. LAMPS SHALL BE OF THE SAME MANUFACTURE AS FLOURESCENT.

ALL FIXTURES SHALL BE PROPERLY SUPPORTED FROM CEILING STRUCTURE, NOT FROM GYPBOARD OR PLASTER. SURFACE OR PENDANT MOUNT FLOURESCENT FIXTURES SHALL BE BOLTED TOGETHER FOR PROPER ALIGNMENT AND BONDING.

ALL FLOURESCENT FIXTURES RECESSED IN THE CEILING OR IN A GRID CEILING SHALL BE PROVIDED WITH EARTHQUAKE CLIPS AS REQUIRED BY CODE.

16195 NAME PLATES

PROVIDE CONTRAST PLASTIC EMBOSING TAPE, ADHESIVE BAKED NAMEPLATES FOR ALL STARTERS AND DISCONNECT SWITCHES.

PROVIDE LAMICOD NAMEPLATES FOR ALL DISTRIBUTION SWITCHES, BREAKERS, LIGHTING AND POWER PANELS INDICATING ITEMS SERVED. SIZE OF LETTERS SHALL BE MINIMUM OF 3/16" HIGH.

16120 WIRE

ALL WIRE AND CABLE SHALL BE NEW, 600 VOLT INSULATED, OF TYPES SPECIFIED BELOW. ALL WIRE AND CABLE SHALL BEAR THE UNDERWRITERS' LABEL AND SHALL BE BROUGHT TO THE JOB IN UNBROKEN PACKAGES. WIRE SHALL BE COLORED CODED PER NEC.

BRANCH CIRCUIT WIRING SHALL BE A MINIMUM #12 AWG COPPER

WIRE AND CABLE NO. 4 AWG AND SMALLER SHALL BE TYPE THW OR THHN/THWN

WIRE AND CABLE LARGER THAN NO. 4 AWG SHALL BE TYPE XHHW. ALL AIR CONDITIONING FEEDERS SHALL BE TYPE XHHW.

ALL WIRING IN PANELBOARDS, SWITCHBOARDS, AND GUTTERS SHALL BE NEATLY ARRANGED. WIRE SHALL BE HELD BUNDLED BY TY-RAPS. WIRES SHALL BE CONNECTED TO CIRCUIT BREAKERS, SWITCHES AND OTHER DEVICES PERPENDICULAR TO TERMINAL LUGS.

ALL WIRING IN MANHOLES, PULL BOXES OR JUNCTION BOXES OVER 12 INCHES IN LENGTH SHALL BE BUNDLED IN A NEAT AND ORDERLY MANNER.

AFTER COMPLETION OF UNDERGROUND SPLICES AND SPLICES IN MANHOLES, SEAL SPLICES WITH SCOTCHCOAT #82 COATING OR EQUAL TO MOISTURE PROOF CABLES.

LEAVE NO LESS THAN 6 INCHES OF WIRE AT EACH OUTLET FOR CONNECTION TO LIGHTING FIXTURES, SWITCHES, RECEPTACLES AND OTHER PIECES OF EQUIPMENT. WHERE WIRES FEED THROUGH AN OUTLET OR JUNCTION BOX, NEATLY TUCK 6 INCH LOOP IN BOTTOM OF BOX.

LIGHTING AND POWER CIRCUITS SHALL BE IDENTIFIED BY PANEL LETTER AND CIRCUIT NUMBER WITH BRADY WRAPAROUND CLOTH WIRE MARKERS AT ALL TERMINATIONS AND JUNCTIONS.

ALL BRANCH CIRCUIT AND FEEDER CONDUCTORS SHALL BE COLOR-CODED AS FOLLOWS:

FOR ALL 120 V TO GROUND CIRCUITS; PHASE CONDUCTORS - BLACK, RED, BLUE NEUTRAL CONDUCTOR - WHITE

FOR ALL 277 V TO GROUND CIRCUITS; PHASE CONDUCTORS - BROWN, ORANGE, YELLOW NEUTRAL CONDUCTORS - GRAY

LARGE FEEDER CONDUCTORS SHALL BE CODED BY COLORED TAPE WRAPPED AROUND THE CONDUCTOR AT EACH PULLBOX, TERMINATION POINT AND SPLICE.

ALL CONNECTIONS TO CIRCUIT BREAKERS AND SWITCHES AND ALL JOINTS IN WIRES SHALL BE MADE AS NOTED BELOW:

CONNECTIONS TO CIRCUIT BREAKERS AND SWITCHES: NO. 12 WIRE SHALL BE FORMED AROUND BINDING POST OR SCREW. NO. 10 AND 8 WIRE - BUCHANAN, "TERMINO" OR APPROVED EQUAL, LOCKING TONGUE LUG. NO. 6 WIRE AND LARGER - BURNDY "QUICK-LUG" TYPE ODA, OR APPROVED EQUAL, ROUND FLANGE SOLDERLESS LUG.

FIXTURE CONNECTIONS: CIRCUIT WIRING CONNECTIONS TO FIXTURE WIRE SHALL BE MADE WITH PRESSURE-TYPE, SOLDER-LESS CONNECTORS - BUCHANAN, SCOTCHLOC OR WING NUT OR APPROVED EQUAL, COMPLETE WITH INSULATOR AND SECURITY RING.

JOINTS IN WIRES: NO. 6 WIRE AND LARGER - BURNDY OR APPROVED EQUAL. NO. 8 WIRE AND SMALLER - BUCHANAN, SCOTCHLOC, WING NUT, OR EQUAL, PRESSURE-TYPE SOLDERLESS CONNECTORS COMPLETE WITH INSULATOR AND SECURITY RING.

CONTROL WIRING AND ALL OTHER STANDARD WIRING TO SCREW CONNECTIONS SHALL BE PROVIDED WITH T AND B STA-KON TERMINALS.

SOLID CONDUCTORS SHALL LOOP TIGHTLY AND COMPLETELY AROUND TERMINAL SCREWS ON ALL WIRING DEVICES.

UNINSULATED SOLDERLESS CONNECTORS TO BE INSULATED AS FOLLOWS: TAPE WITH A COVERING OF RUBBER TAPE, EQUAL IN THICKNESS TO THE INSULATION. THIS SHALL BE FOLLOWED WITH AN OUTER COVERING OF FRICTION TAPE IN TWO LAYERS. ONE COAT OF WATERPROOF PAINT SHALL BE APPLIED WHEN SUBJECT TO MOISTURE.

WIRE AND CABLE TO BE PULLED INTO CONDUITS WITHOUT STRAIN, USE POWDERED SOAPSTONE, MINERALAC, OR OTHER APPROVED LUBRICANT. WIRE SHALL NOT BE RE-PULLED IF SAME HAS BEEN PULLED OUT OF A CONDUIT RUN. NO CONDUCTOR SHALL BE PULLED INTO CONDUIT UNTIL CONDUIT SYSTEM IS COMPLETE, INCLUDING JUNCTION BOXES, PULL BOXES, ETC., WITHOUT PERMISSION OF ARCHITECT.

16110 CONDUIT

IN GENERAL, ELECTRICAL METALLIC TUBING SHALL BE USED FOR ALL WIRING EXCEPT IN OR UNDER CONCRETE, EARTH, OR FILL. ELECTRICAL METALLIC TUBING MAY BE USED IN FURRED SPACES, WOOD FRAME WALLS WHERE CONDUITS DO NOT EXCEED 2 1/2" IN SIZE. BRICK, BLOCK, TILE, AND CONCRETE WALLS ARE NOT CONSIDERED HOLLOW AND RIGID CONDUIT SHALL BE PROVIDED FOR THESE AREAS.

01 RIGID STEEL CONDUITS OR INTERMEDIATE METAL CONDUITS SHALL BE USED IN CONCRETE SLABS, IN SOLID GROUDED CELLS OR CONCRETE MASONRY WALLS, BRICK, OR TILE WALLS. FOR ALL EXPOSED CONDUIT OUTSIDE OF THE BUILDING, AND FOR CONDUITS EXCEEDING 2 1/2" IN SIZE, IN ADDITION ALL WIRING IN OR UNDER CONCRETE, EARTH, OR FILL SHALL BE RIGID GALVANIZED OR SHERARIDIZED STEEL RIGID CONDUIT UNDER CONCRETE, IN EARTH, OR FILL SHALL BE COATED WITH POLYETHYLENE TAPE. SCOTCH NO. 50 OR APPROVED EQUAL, SPIRAL WRAPPED 1/2" LAPPED TO AN OVERALL THICKNESS OF NOT LESS THAN 15 MILS.

02 USE FLEXIBLE METAL CONDUITS FOR RECESSED FIXTURES, MOTOR, TRANSFORMER AND OTHER EQUIPMENT SUBJECT TO MOVEMENT. USE LIQUID TIGHT TYPE WHERE EXTERIOR OR SUBJECT TO LIQUID SPRAY OR DRIPPING.

03 UL LISTED SCHEDULE 40 PVC CONDUIT MAY BE USED FOR UNDERGROUND RUNS. EXPANSION JOINTS AT 75 FEET ON CENTER OR AS REQUIRED BY MFR. ALL BENDS SHALL BE MANUFACTURED.

04 NON-METALLIC CONDUIT INSTALLED BELOW CONCRETE FLOORS MAY BE INSTALLED IN THE FILL, HOWEVER, A PORTION OF THE CONCRETE FILL MATERIAL MUST BE PLACED AROUND THE CONDUIT FOR RIGID SUPPORT. NON-METALLIC CONDUIT OUTSIDE THE FILL SHALL BE BURIED A MINIMUM OF 18" BELOW GRADE. NON-METALLIC CONDUIT SHALL BE PROVIDED WITH CODE SIZE COPPER BOND WIRE INSIDE THE CONDUIT FOR ELECTRICAL CONTINUITY, AND SHALL BE INSTALLED IN ACCORDANCE TO NEC ARTICLE NO. 250. WRAPPED RIGID STEEL ELBOWS SHALL BE USED FOR RISERS ON PVC CONDUIT RUNS AND SHALL BE GROUNDED.

ALL FLOURESCENT FIXTURES RECESSED IN THE CEILING OR IN A GRID CEILING SHALL BE PROVIDED WITH EARTHQUAKE CLIPS AS REQUIRED BY CODE.

CONDUIT PLACED IN A CONCRETE SLAB SHALL BE LARGER THAN 3/4" TRADE SIZE DIAMETER AND CONDUIT SMALLER THAN 3/4" SHALL BE USED FOR UNDERGROUND CIRCUITS. CONDUIT SHALL HAVE MINIMUM 1" CONCRETE COVER. NO CONDUIT SHALL BE IMBEDDED IN A SLAB THAT IS LESS THAN 3-1/2" THICK, EXCEPT FOR LOCAL OFFSETS. NO CONDUIT SHALL BE PLACED BETWEEN THE REINFORCING STEEL AND THE BOTTOM OF THE SLAB.

ALL CONDUIT UNDER CONCRETE DRIVES OR ANY LOCATION WHERE SUBJECT TO DAMAGE BY HEAVY EQUIPMENT SHALL BE INSTALLED A MINIMUM OF 24" BELOW GRADE OR 18" BELOW GRADE ENCASED IN A 3" THICK CONCRETE ENVELOPE.

TRENCHING, BACKFILLING, AND CONCRETE WORK FOR ELECTRICAL WORK SHALL BE DONE UNDER THIS SECTION AND AS REQUIRED BY LOCAL AND/OR RULING AUTHORITIES AND REGULATING AGENCIES.

THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SLEEVES AND CHASES REQUIRED WHERE CONDUITS PASS THROUGH FLOORS OR WALLS, AND SHALL SEAL ALL OPENING AND FINISH TO MATCH ADJACENT SURFACES. WHERE EXPOSED CONDUITS PASS THROUGH WALLS, FLOORS, OR CEILINGS, ESOUTICHEON PLATES SHALL BE PROVIDED.

ALL NECESSARY SERVICES AND BLOCKOUTS SHALL BE PROVIDED.

ALL EMPTY CONDUITS SHALL BE PROVIDED WITH PULL WIRE.

05 RIGID CONDUIT FITTINGS

PROVIDE DOUBLE LOCKNUTS AND BUSHINGS EXCEPT AT THREADED HUBS.

06 EMT OR FLEX FITTINGS

FOR EMT, OR MALLEABLE IRON, COMPRESSION TYPE ONLY. FOR FLEXIBLE CONDUIT, COMPRESSION OR CLAMP TYPE CONNECTORS SHALL HAVE INSULATED THREADS.

07 MC CABLE

METAL CLAD CABLE MAY BE USED IN LIEU OF EMT CONDUIT AND WIRE FOR BRANCH CIRCUIT WIRING IF ACCEPTABLE TO AUTHORITIES.

16140 WIRING DEVICES

RECEPTACLES SHALL BE FURNISHED AS INDICATED BELOW:

20 AMP 120 VOLT DUPLX HUBBELL #5362 W/#8 COVERPLATE

20 AMP 120 VOLT DUPLX, WEATHERPROOF HUBBELL #5362 W/TAYMAC #10110 COVERPLATE

20 AMP 120 VOLT DUPLX, GROUND FAULT HUBBELL # OF-5362 W/#J26 COVERPLATE

20 AMP 120 VOLT FOURPLEX HUBBELL (2) #5352 W/#82 COVERPLATE

20 AMP 120 VOLT DUPLX, ISOLATED GROUND HUBBELL # 1G-5362 W/#8 COVERPLATE

WHEN SURFACE WEATHERPROOF MOUNTING IS REQUIRED, RECEPTACLES SHALL BE MOUNTED IN AN FS CONDUIT BOX.

ELEVATION OF EACH RECEPTACLE SHALL BE AT THE FLOOR PLUS 18" TO CENTER UNLESS OTHERWISE NOTED.

ALL SWITCHES SHALL BE FURNISHED IN ACCORDANCE WITH THE FOLLOWING TABLE. SWITCHES SHALL BE OF THE SAME MANUFACTURER AS THE RECEPTACLES FURNISHED.

20 AMP 1 POLE HUBBELL #1221-1 WITH #P1 COVERPLATE

20 AMP 3 POLE HUBBELL #1223-1 WITH #P1 COVERPLATE

COVERPLATES FOR RECEPTACLES, SWITCHES AND OUTLETS SHALL GENERALLY BE PLASTIC, WITH COLOR AS SELECTED BY THE ARCHITECT.

16130 BOXES

BOXES IN EXPOSED OR WET LOCATIONS SHALL BE CAST STEEL CONDUIT BODIES. IN CONCEALED LOCATIONS, THEY SHALL BE SHEET STEEL BOXES WITH GALVANIZED OR SHERARIDIZED FINISH, NEOPRENE GASKETED, SCREWED COVERS.

SHEET STEEL BOXES SHALL BE STANDARD ONE-PIECE KNOCKOUT BOXES. WHERE OUTLETS ARE INSTALLED IN CONCRETE SLABS, BOXES SHALL BE CONCRETE CAST TYPE BOXES. BOXES SHALL NOT BE LESS THAN 4" IN DIAMETER AND 1-1/2" DEEP. OUTLET BOXES SET IN CONCRETE SHALL BE SET TO HAVE FINAL OPENING FLUSH WITH FINISH SURFACE.

CAST-METAL CONDUIT BODIES SHALL BE CROUSE-HINDS CONDUITS, APPLETON UNLETS, OR APPROVED EQUIVALENT. BOXES SHALL BE ARRANGED WITH THREADED CONNECTORS FOR RIGID CONDUIT. ALL CONDUIT BODIES SHALL HAVE SUITABLE COVERS, WHICH SHALL BE PROVIDED WITH GASKET FOR EXTERIOR AND MOST LOCATIONS.

POWER / PHONE FLOOR OUTLETS SHALL BE STEEL CITY #664 WITH # 664CST COVER (VERIFY COLOR), #664-BP PHONE PLATE, #664RP RECEPTACLE PLATE AND 20A DUPLX RECEPTACLE. PHONE COMPARTMENT TO HAVE 3/4" E.C. TO CEILING SPACE WA FLOOR / WALL.

OUTLETS SET IN FURRED CEILING AND STUD WALLS SHALL BE ANCHORED TO THE CEILING OR WALL STRUCTURE WITH SUITABLE STEEL STRAPS.

OUTLET BOXES SHALL BE USED AS PULL AND JUNCTION BOXES WHEREVER POSSIBLE AND WHERE REQUIRED. BOXES IN PLASTERED WALLS OR CONCRETE BLOCK WALLS IN FINISHED AREAS AND CEILINGS SHALL HAVE TWO GANG RAIKED PLASTER RINGS AND BLANK WALL PLATE. OTHER BOXES SHALL HAVE BLANK COVERS.

WHERE OTHER THAN OUTLET BOXES ARE REQUIRED, PULL AND JUNCTION BOXES SHALL BE CONSTRUCTED OF GALVANIZED STEEL CONFIRMING TO CODE REQUIREMENTS. EXTERIOR BOXES SHALL BE OF WEATHERPROOF CONSTRUCTION AND SHALL BE PROVIDED WITH NEOPRENE COVER GASKETS. BOXES SHALL BE RIDGELY ATTACHED TO THE STRUCTURE, INDEPENDENT OF ANY CONDUIT SUPPORT.

HANGERS / INSERTS

FURNISH AND INSTALL ALL UNISTRUT, HANGERS, SUPPORTS, ETC. REQUIRED FOR WORK UNDER THIS DIVISION. SUPPORT CONDUIT FROM BUILDING STRUCTURE, NOT FROM CEILING SUPPORTS. BRANCH CIRCUIT CONDUIT 3/4" AND SMALLER MAY BE RUN FROM CEILING SUPPORTS USING SPRING STEEL CLIPS.

CONCRETE, EXCAVATION, FILL, BACKFILL

FURNISH ALL CONCRETE, EXCAVATION, FILL, BACKFILL AND STEEL REQUIRED FOR THIS WORK UNLESS SPECIFICALLY NOTED OTHERWISE.

ALL CONCRETE, FILL, BACKFILL, STEEL, ETC., WHERE REQUIRED SHALL BE IN STRICT ACCORDANCE WITH SPECIFICATIONS SET UP IN OTHER DIVISIONS

OF THE SPECIFICATIONS.

FINAL LOCATION OF SURFACE FEATURES

SHALL BE ACCOMPLISHED IN THE FIELD, SUBJECT TO THE APPROVAL OF THE ARCHITECT. THE LOCATION OF ALL SWITCHES, FIXTURES, PANELS, ETC. AND THEIR PROXIMITY AND RELATIONSHIP TO ALL VISIBLE FEATURES OF EQUIPMENT FURNISHED BY OTHER TRADES, SHALL BE MADE KNOWN TO THE ARCHITECT. IN CASE OF CONFLICT BETWEEN TRADES, OR BETWEEN A TRADE AND THE ARCHITECT, THE DECISION OF THE ARCHITECT SHALL BE FINAL, AND HIS INSTRUCTIONS IN THESE MATTERS SHALL BE FOLLOWED BY ALL CONCERNED.

PAINTING

ALL EXPOSED ELECTRICAL EQUIPMENT, CONDUIT, FLUSH PANEL FRONT, TRANSFORMER, SWITCHES, SWITCHBOARDS, PANELS AND SIMILAR ITEMS SHALL BE PAINTED AS SPECIFIED UNDER THE PAINTING SECTION OF THESE SPECIFICATIONS.

CLEANING UP PREMISES

AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH CAUSED BY EMPLOYEES. METAL FLOOR PANS SHALL BE PROVIDED PIPE THREADING MACHINES AND BENCHES AND SHALL BE USED AT ALL TIME TO PREVENT CONCRETE FLOORS BECOMING OIL SOAKED. UPON COMPLETION OF THE JOB, REMOVE ALL DEBRIS, CLEAN ALL SWITCHPLATES, FIXTURES, PANEL TRIMS AND IN GENERAL, LEAVE THE PREMISES IN A CLEAN AND TIDY CONDITION.

ACCEPTABLE MANUFACTURERS

THE FOLLOWING IS A LIST OF MANUFACTURERS WHOSE SPECIFICATION GRADE EQUIPMENT IS ACCEPTABLE AS TO MANUFACTURER. SUBSTITUTIONS SHALL NOT CAUSE OR CONTRIBUTE TO CHANGES UNLESS THESE CHANGES ARE APPROVED BY THE ARCHITECT PRIOR TO SUBSTITUTION.

ITEMS: CAREFUL CHECKING MUST BE MADE TO VERIFY THAT THE EQUIPMENT WILL MEET ALL CAPACITIES, REQUIREMENTS, SPACE ALLOCATIONS, AND THAT THE WEIGHTS ARE NOT EXCESSIVE.

POWER DISTRIBUTION EQUIPMENT: SQUARE D, SIEMENS, CHALLENGER, SUN VALLEY ELECTRIC

WIRE AND CABLES: GENERAL CABLE, ANACONDA, CAPITOL, CIRCLE AW, GENERAL ELECTRIC, OKONITE, ROME, SIMPLEX, KAISER.

LOCAL WALL SWITCHES, RECEPTACLES, PILOT LIGHTS: PASS AND SEYMOUR, SIERRA, BRYANT, CIRCE F, GENERAL ELECTRIC, HUBBELL, RUSSELL & TOLL, ARROW-HART.

DEVICE PLATES: HUBBELL, SLATER, PASS AND SEYMOUR, SIERRA, BRYANT, ARROW-HART, LEVITON.

LAMPS: GENERAL ELECTRIC, PHILLIPS, SYLVANIA.

CONDUIT: TRIANGLE, NATIONAL ELECTRIC CO., JONES-MCLAUGHLIN REPUBLIC.

FITTINGS: THOMAS AND BETTS, APPLETON, CROUSE-HINDS.

CAST OUTLET BOXES: CROUSE-HINDS, APPLETON.

BALLASTS: ADVANCE, GENERAL ELECTRIC, JEFFERSON, WESTINGHOUSE, SYLVANIA, UNIVERSAL.

FLOOR BOXES: HUBBELL, LEW STEEL CITY.

OUTLET BOXES: RACO, STEEL CITY, SLATER.

SHOP DRAWINGS

ALL DATA SHALL BE SUBMITTED AT ONE TIME, BOUND AND INDEXED IN AN ORDERLY MANNER. PRIOR TO STARTING THE WORK, SUBMIT TO THE ARCHITECT FOR APPROVAL, SIX (6) SETS OF SHOP DRAWINGS OF SERVICE ENTRANCE SECTION, SWITCHBOARDS, PANELBOARDS, LIGHTING FIXTURES, TRANSFORMERS AND ALL EQUIPMENT TO BE FABRICATED.

FINAL INSPECTION AND TEST

FURNISH ALL METERS, CABLES, CONNECTIONS AND APPARATUS NECESSARY FOR MAKING TESTS.

TEST SYSTEM FOR SHORTS AND GROUNDS. FAULTY WRING SHALL BE REMOVED AND REPLACED. ANY DEVICE, APPARATUS OR FIXTURE INSTALLED SHOWING SUBSTANDARD PERFORMANCE SHALL BE REMOVED AND REPLACED AS DIRECTED BY THE ARCHITECT.

MEGER ALL SYSTEM NEUTRALS IN THE PRESENCE OF THE ENGINEER TO INSURE THE NEUTRAL IS NOT GROUNDED WITHIN THE SYSTEM. TEST SHALL BE MADE AFTER ALL BRANCH CIRCUIT WIRING IS INSTALLED AND CONNECTED.

TEST ALL GROUND FAULT RELAYS IN THE PRESENCE OF THE ENGINEER. SET RELAY FOR TIME AND CURRENT RATING IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.

ALL EQUIPMENT RATED AT 1,000 AMPS OR MORE, OR 480 VOLTS SHALL BE TESTED FOR INSULATION BREAKDOWN PRIOR TO ITS BEING ENERGIZED. SUCH EQUIPMENT SHALL WITHSTAND FOR A PERIOD OF ONE MINUTE WITHOUT BREAKDOWN, THE APPLICATIONS OF A 60HZ ALTERNATING POTENTIAL OF 1,000V PLUS TWICE THE RATED VOLTAGE OF THE DEVICE. TEST SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.

HIGH POTENTIAL TESTING

THE HIGH-POTENTIAL TESTS SHALL BE MADE BY AN INDEPENDENT COMPANY HIRED BY THE ELECTRICAL CONTRACTOR. COPIES OF THE REPORT CERTIFIED BY A REGISTERED ENGINEER, SHALL BE FORWARDED TO THE ARCHITECT WITHIN TWO (2) WEEKS AFTER THE TESTS ARE PERFORMED.

TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE OWNER'S REPRESENTATIVE. "HI-POT" TEST VOLTAGES AND TIMES SHALL BE COORDINATED WITH AND DETERMINED BY THE OWNER'S REPRESENTATIVE WHEN ANY OTHER CABLE OR DEVICES, OTHER THAN THAT INSTALLED NEW BY ELECTRICAL CONTRACTOR UNDER HIS CONTRACT, IS TO BE INCLUDED IN THE TEST PROCEDURES. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE, IN WRITING, HIS INTENTIONS TO PERFORM THE HI-POTTING TEST, INCLUDING TIME AND DATE AND THE TESTING AGENCY.

IN GENERAL TESTS SHALL BE CONDUCTED AS FOLLOWS:

MAXIMUM D.C. VOLTAGES 52.8 KV.

BUILD-UP TIME TO TEST VOLTAGE - ONE (1) MINUTE IN 10 KV DC STEPS WITH RECORDED MILLI-AMP READINGS AT 156, 30 AND 45 SECONDS.

HOLDING TIME AT TEST VOLTAGE - FIVE (5) MINUTES, WITH RECORDED MILLI-AMP READING AT THE END OF EACH MINUTE.

"DECAY TIME" SHALL BE RECORDED WITH SHUT-OFF AT APPROXIMATELY 1-3 KV.

THE "HI-POT" TEST SHALL NOT BE MADE UNTO ANY PORTION OF AN

ENERGIZED DEVICE. SUFFICIENT TIME LAG SHALL BE ALLOWED IN THE ORIGINAL REQUEST FOR THE OWNER TO SET UP A DEFINITE PERIOD OF TESTING IF ANY PORTION OF THE OWNER'S DISTRIBUTION SYSTEM IS INVOLVED.

GROUNDING

THE NEUTRAL CONDUCTORS AND ALL OTHER EXPOSED NON-CURRENT CARRYING METAL PARTS AS REQUIRED BY CODE SHALL BE GROUNDED. GROUNDING BUSHING SHALL BE USED AS REQUIRED AND SHALL BE 0.2 INSULATED TYPE BL OR APPROVED EQUAL. NO GROUNDING SHALL BE MADE TO GAS PIPING. WHERE EQUIPMENT OR DEVICES ARE SERVED BY NON-METALLIC DUCTS, ENCLOSURES SHALL BE GROUNDED BY MEANS OF A CODE SIZE BARE OR GREEN INSULATED EQUIPMENT GROUND WIRE INSTALLED IN THE DUCT WITH THE CURRENT CARRYING CONDUCTORS AND BE BONDED SECURELY IN EACH CABINET TERMINATING THE GROUND WIRE. COPPER JUMPERS SHALL BRIDGE FLEXIBLE CONDUIT AND BE INSTALLED IN THE CONDUIT. ALL SERVICE GROUNDS SHALL BE IN ACCORDANCE WITH THE USER GROUND.

ALL EMT, FLEXIBLE CONDUIT, MC CABLE, OR PVC CONDUIT SHALL BE PROVIDED WITH AN INSULATED GREEN GROUND WIRE.

16700 COMMUNICATIONS

16740 TELEPHONE:

PROVIDE EMPTY CONDUIT OR DUCT WITH "JET-LINE" OR EQUAL POLYPROPYLENE PULL LINE AND TERMINAL MOUNTING BOARD AS SHOWN ON DRAWINGS.

USE LARGE RADIUS RIGID GALVANIZED STEEL CONDUIT FOR BENDS AND OFFSETS IN DUCT RUNS.

ALL CONDUIT RUNS TO TELEPHONE OUTLET BOXES SHALL BE A MINIMUM OF 3/4" AND HAVE A MAXIMUM OF TWO 90 DEGREE BENDS.

TELEPHONE TERMINAL BOARDS SHALL BE 3/4" FIR PLYWOOD, GRADE CC PLUS SIZE, AS INDICATED ON DRAWINGS. TELEPHONE TERMINAL CABINETS SHALL HAVE THE DOOR FASTENED TO THE TRIM WITH CONCEALED HINGES AND BE PROVIDED WITH FLUSH TYPE COMBINATION LATCH AND LOCK, KEYS TO MATCH LIGHTING PANELS, CABINETS AND TRIM SHALL BE FACTORY PAINTED WITH TWO FINISH COATS.

PROVIDE ALL NECESSARY MATERIAL AND LABOR REQUIRED BY THE TELEPHONE COMPANY FOR DELIVERING SERVICE TO THE TELEPHONE TERMINAL BOARD. ALL CONDUIT, TRENCHING AND BACKFILL SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR IN ACCORDANCE WITH THE TELEPHONE COMPANY STANDARDS.

16800 DATA:

ALL CONDUIT RUNS TO DATA OUTLET BOXED SHALL BE A MINIMUM OF 3/4" AND HAVE A MAXIMUM OF TWO 90 DEGREE BENDS.

ALL DATA OUTLETS ARE TO HAVE WALL PLATES TO MATCH THE DEVICE PLATE.

GUARANTEE

GUARANTEE ALL MATERIAL, EQUIPMENT, AND WORKMANSHIP FOR ALL SECTIONS UNDER THIS DIVISION IN WRITING TO BE FREE FROM DEFECT OF MATERIAL AND WORKMANSHIP FOR ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE. REPLACE WITHOUT CHARGE, ANY MATERIAL OR EQUIPMENT FOUND DEFECTIVE DURING THIS PERIOD. THE GUARANTEE SHALL INCLUDE PERFORMANCE OF THE EQUIPMENT UNDER ALL CONDITIONS OF LOAD, INSTALLING ANY ADDITIONAL ITEMS OF CONTROL AND/OR PROTECTIVE DEVICES AS REQUIRED.

GENERAL ELECTRICAL NOTES (NOTES APPLY WHETHER KEYED TO PLAN OR NOT)

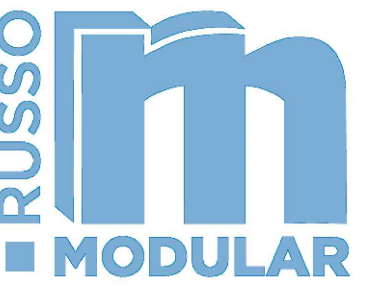
1 LIGHTING

FINISH SCHEDULE

ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY AND TOWER)				
1	CORRUGATED METAL	WESTERN STATES	WESTERN RIB 7.2 PANELS 24 GA	PREFINISHED COLOR SILVER ZINC MATTE FINISH
2	CORRUGATED METAL	WESTERN STATES	WESTERN WAVE 16.0 PANELS 24 GA	PREFINISHED MATTE CHARCOAL GRAY
3	LAP SIDING	JAMES HARDIE	WOODTONE RUSTIC SERIES 9 1/4" WIDE	PRE-FINISHED SAND CASTLE
FLASHING, COLUMNS AND CANOPY				
4	PAINTED STEEL	SHERWIN WILLIAMS	COLOR TO MATCH DEVELOPMENT METAL AWNINGS	SW4026 SLATE GRAY
5	PAINTED STEEL	WESTERN STATES	PREFINISHED PARAPET CAP	COLOR SILVER ZINC MATTE
6	PAINTED STEEL	SHERWIN WILLIAMS	PREFINISHED PARAPET CAP	COLOR MATTE CHARCOAL GRAY
7	MASONRY	ANGELUS BLOCK	SMOOTH FACE	COLOR ONXY TO MATCH APPROVED DEVELOPMENT PALETTE

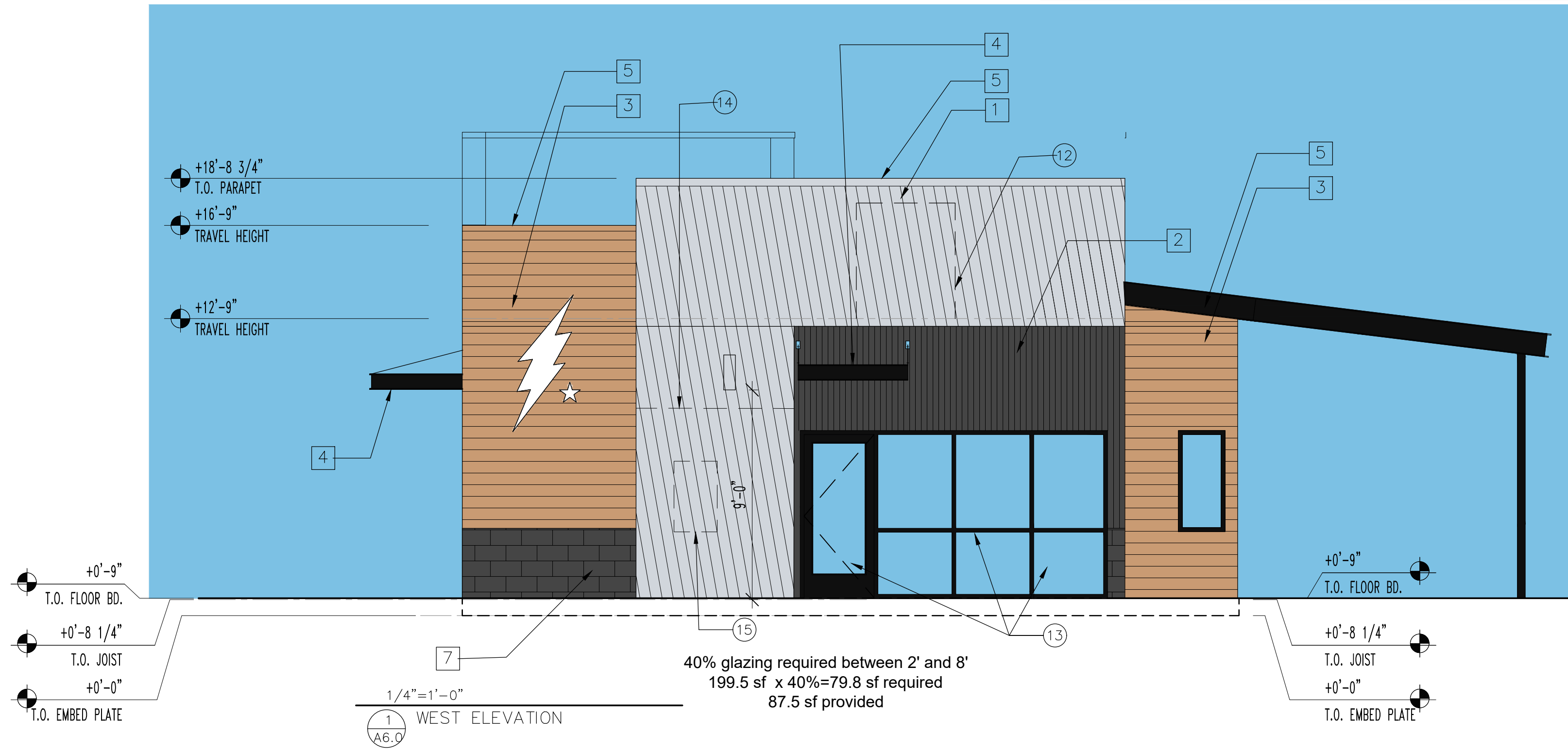
KEY NOTES

1. FINISH EXTERIOR MATERIAL. INSTALL PER MANUFACTURER'S SPECIFICATION.
2. STEEL CANOPY. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. WINDOW. REFER TO WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
4. DOOR. REFER TO DOOR SCHEDULE FOR ADDITIONAL INFORMATION.
5. SIGNAGE. UNDER SEPARATED SUBMITTAL.
6. 48" W X 12" D SERVICE COUNTER AR 34" AFF.
7. DOWNSPOUT DAYLIGHT.
8. EXTERIOR LIGHTING AT 9"-2" AFF. TYP OF (7), CAP FLASHING.
9. AWNING CORRUGATED METAL PANEL.
10. RTU - SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
11. SCREENED ROOFTOP MECHANICAL.
12. GLAZING AT DOOR AND THIS ENTIRE STOREFRONT TO BE DARK TINTED GLASS.
13. SCREEN WALL.
14. WALL MOUNTED ELECTRIC METER AND DISCONNECT TO BE PAINTED TO MATCH SURROUNDING WALL COLOR.

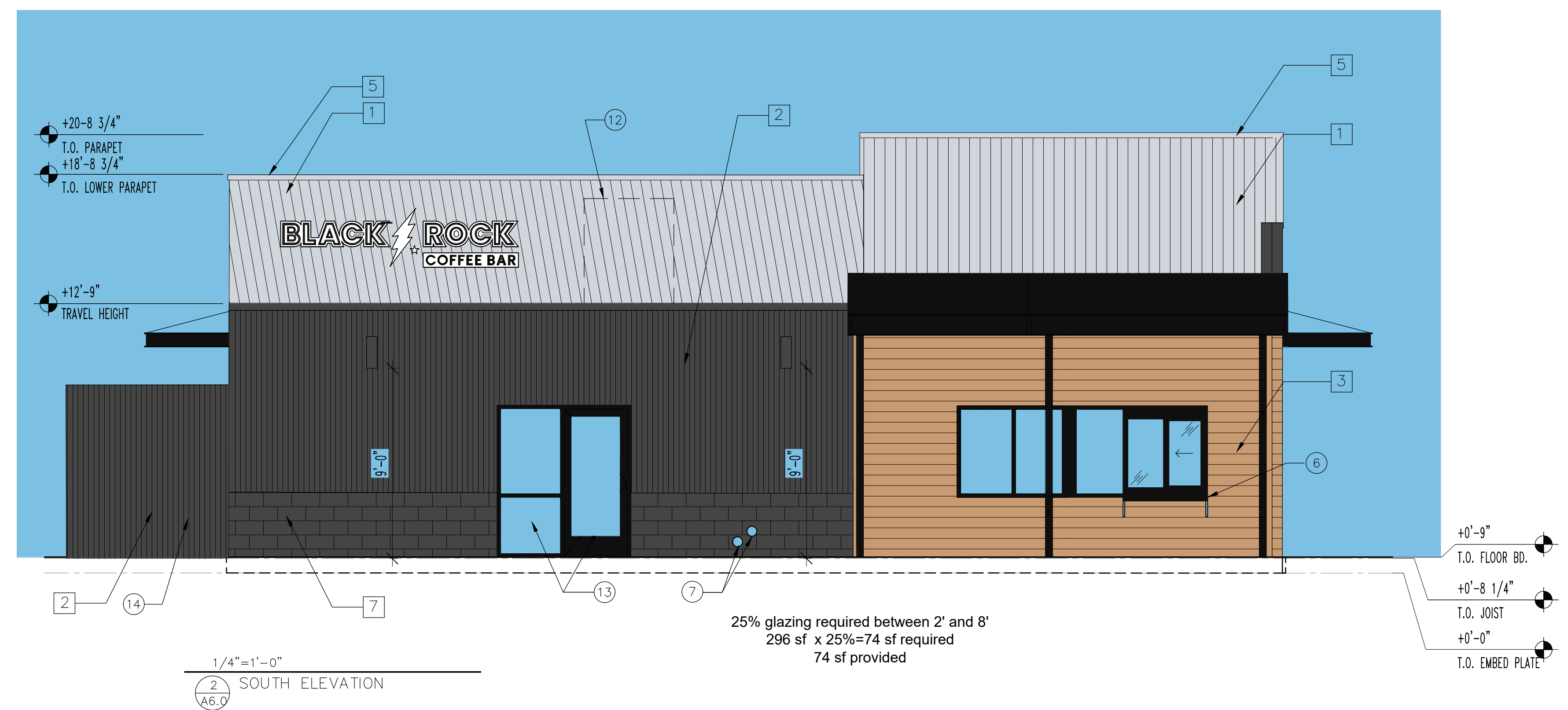


3836 W BUCKEYE RD
BUILDING C
PHOENIX, AZ 85009
623-328-5196

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH SHALL REMAIN THE PROPERTY OF RUSSO LLC. UNAUTHORIZED USE OF REPRODUCTION WITHOUT PERMISSION IS PROHIBITED.



SIGNS WILL BE REVIEWED FOR COMPLIANCE AND APPROVED THROUGH THE SIGNAGE PERMIT PROCESS



BLACK ROCK COFFEE
MODULAR BUILDING



NOT FOR CONSTRUCTION

CONTROL # 001
JOB NUMBER:
DATE: 2-4-25
CONTENTS:
EXTERIOR ELEVATIONS

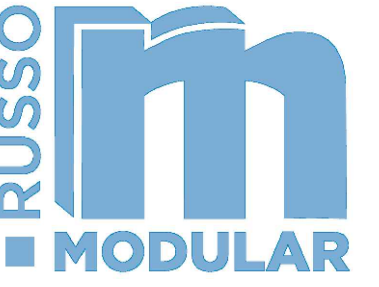
A6.0

FINISH SCHEDULE

ID TAG	MATERIAL	MANUFACTURER	MODEL	REMARKS
ZONE 1 (BODY AND TOWER)				
1	CORRUGATED METAL	WESTERN STATES	WESTERN RIB 7.2 PANELS 24 GA	PREFINISHED COLOR SILVER ZINC MATTE FINISH
2	CORRUGATED METAL	WESTERN STATES	WESTERN WAVE 16.0 PANELS 24 GA	PREFINISHED MATTE CHARCOAL GRAY
3	LAP SIDING	JAMES HARDIE	WOODTONE RUSTIC SERIES 9 1/4" WIDE	PRE-FINISHED SAND CASTLE
FLASHING, COLUMNS AND CANOPY				
4	PAINTED STEEL	SHERWIN WILLIAMS	COLOR TO MATCH DEVELOPMENT METAL AWNINGS	SW4026 SLATE GRAY
5	PAINTED STEEL	WESTERN STATES	PREFINISHED PARAPET CAP	COLOR SILVER ZINC MATTE
6	PAINTED STEEL	SHERWIN WILLIAMS	PREFINISHED PARAPET CAP	COLOR MATTE CHARCOAL GRAY
7	MASONRY	ANGELUS BLOCK	SMOOTH FACE	COLOR ONXY TO MATCH APPROVED DEVELOPMENT PALETTE

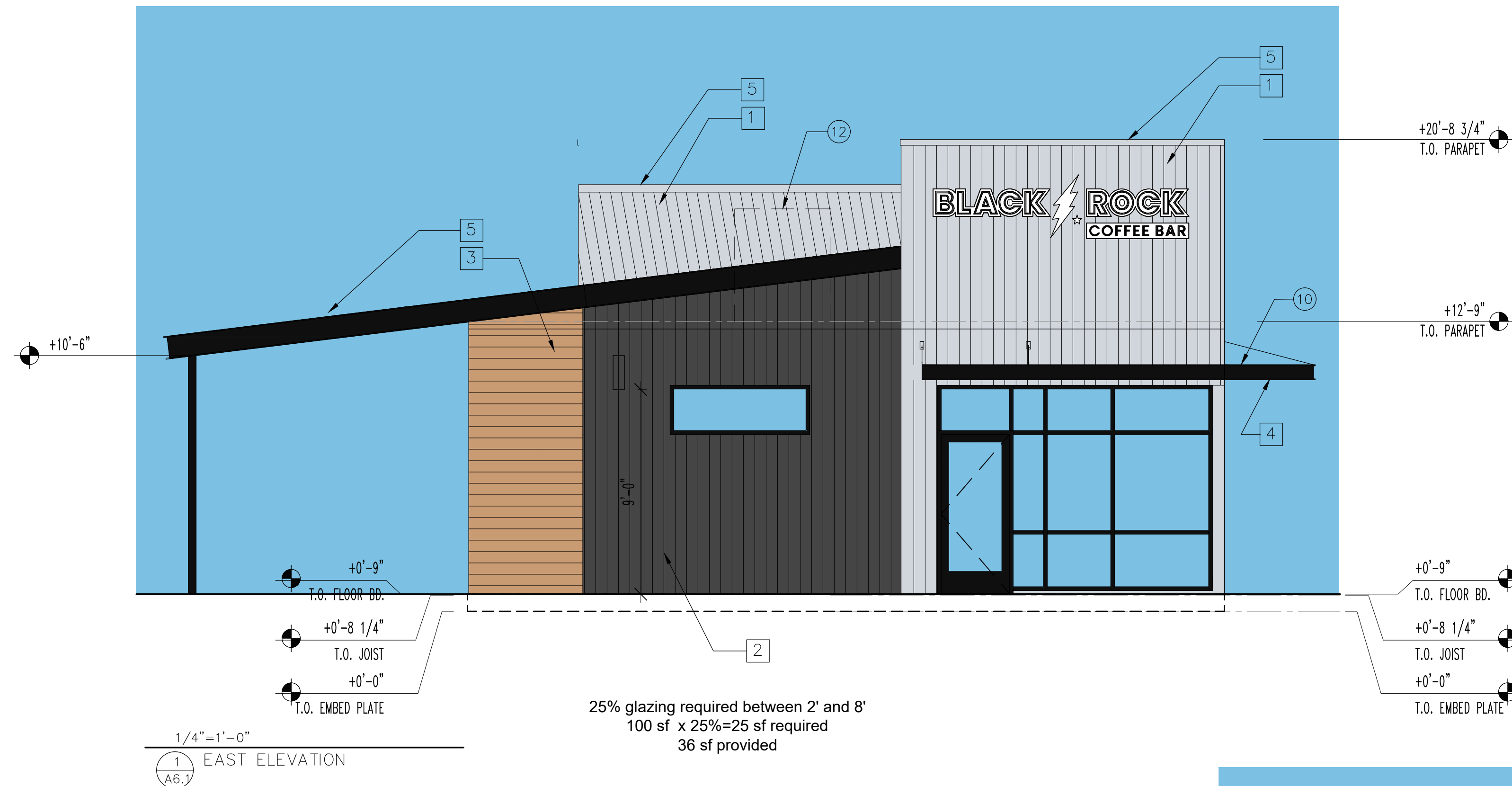
KEY NOTES

1. FINISH EXTERIOR MATERIAL. INSTALL PER MANUFACTURER'S SPECIFICATION.
2. STEEL CANOPY. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
3. WINDOW. REFER TO WINDOW SCHEDULE FOR ADDITIONAL INFORMATION.
4. DOOR. REFER TO DOOR SCHEDULE FOR ADDITIONAL INFORMATION.
5. SIGNAGE. UNDER SEPARATED SUBMITTAL.
6. 48" W X 12" D SERVICE COUNTER AR 34" AFF.
7. DOWNSPOUT DAYLIGHT.
8. EXTERIOR LIGHTING AT 9"-2" AFF. TYP OF (7), CAP FLASHING.
9. AWNING CORRUGATED METAL PANEL.
10. RTU - SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
11. SCREENED ROOFTOP MECHANICAL ELECTRICAL METER AND DISCONNECT SCREEN WALL.
12. SCREENED ROOFTOP MECHANICAL ELECTRICAL METER AND DISCONNECT SCREEN WALL.
13. ELECTRICAL METER AND DISCONNECT SCREEN WALL.
14. SCREEN WALL.



3836 W BUCKEYE RD
BUILDING C
PHOENIX, AZ 85009
623-328-5196

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND AS SUCH SHALL REMAIN THE PROPERTY OF RUSSO LLC. UNAUTHORIZED USE OF REPRODUCTION WITHOUT PERMISSION IS PROHIBITED.



SIGNS WILL BE REVIEWED FOR COMPLIANCE AND APPROVED THROUGH THE SIGNAGE PERMIT PROCESS



BLACK ROCK COFFEE
MODULAR BUILDING



NOT FOR
CONSTRUCTION

CONTROL # 001
JOB NUMBER:
DATE: 2-4-25
CONTENTS:
EXTERIOR ELEVATIONS

A6.1