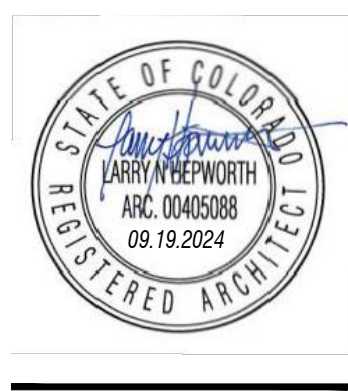


MARK:	DESCRIPTION:
DATE:	

PROJECT #: 323218
 DRAWN BY: J. CLEMENTS
 CHECKED BY: L. HEPWORTH
 ISSUED: 09.19.2024



CONSTRUCTION DOCUMENTS

C. REMOVE ALL LABELS THAT ARE NOT PERMANENT. DO NOT PAINT OR OTHERWISE COVER FIRE TEST LABELS OR NAMEPLATES ON MECHANICAL AND ELECTRICAL EQUIPMENT.
 D. CLEAN EQUIPMENT AND FIXTURES TO A SANITARY CONDITION WITH CLEANING MATERIALS APPROPRIATE TO THE SURFACE AND MATERIAL BEING CLEANED.

3.05 CLOSEOUT PROCEDURES
 A. MAKE SUBMITTALS THAT ARE REQUIRED BY GOVERNING OR OTHER AUTHORITIES.
 B. NOTIFY ARCHITECT WHEN WORK IS CONSIDERED READY FOR SUBSTANTIAL COMPLETION.
 C. SUBMIT WRITTEN CERTIFICATION CONTAINING CONTRACTOR'S CORRECTION PUNCH LIST, THAT CONTRACT DOCUMENTS HAVE BEEN REVIEWED, WORK HAS BEEN INSPECTED, AND THAT WORK IS COMPLETE IN ACCORDANCE WITH CONTRACT DOCUMENTS AND READY FOR ARCHITECT'S SUBSTANTIAL COMPLETION INSPECTION.
 D. NOTIFY ARCHITECT WHEN WORK IS CONSIDERED FINALLY COMPLETE AND READY FOR ARCHITECT'S SUBSTANTIAL COMPLETION FINAL INSPECTION.
 E. COMPLETE ITEMS OF WORK DETERMINED BY ARCHITECT LISTED IN EXECUTED CERTIFICATE OF SUBSTANTIAL COMPLETION.

END OF SECTION
SECTION 01 7800
CLOSEOUT SUBMITTALS

PART 1 GENERAL
1.01 SUBMITTALS
 A. PROJECT RECORD DOCUMENTS: SUBMIT DOCUMENTS TO ARCHITECT FOR FINAL IMPLEMENTATION OF CHANGES DURING THE CONSTRUCTION PROCESS TO CREATE "RECORD" OR "AS-BUILT" DOCUMENTS AS THEY ARE COMMONLY KNOWN.
 B. OPERATION AND MAINTENANCE DATA:
 C. WARRANTIES AND BONDS:
 1. FOR EQUIPMENT OR COMPONENT PARTS OF EQUIPMENT PUT INTO SERVICE DURING CONSTRUCTION WITH OWNER'S PERMISSION, SUBMIT DOCUMENTS WITHIN 10 DAYS AFTER ACCEPTANCE.

PART 2 PRODUCTS (NOT APPLICABLE)
PART 3 EXECUTION
3.01 PROJECT RECORD DOCUMENTS
 A. MAINTAIN ON SITE ONE SET OF THE FOLLOWING RECORD DOCUMENTS; RECORD ACTUAL REVISIONS TO THE WORK:
 1. DRAWINGS.
 2. ADDENDA.
 3. CHANGE ORDERS AND OTHER MODIFICATIONS TO THE CONTRACT.
3.02 OPERATION AND MAINTENANCE DATA
 A. SOURCE DATA: FOR EACH PRODUCT OR SYSTEM, LIST NAMES, ADDRESSES AND TELEPHONE NUMBERS OF SUBCONTRACTORS AND SUPPLIERS, INCLUDING LOCAL SOURCE OF SUPPLIES AND REPLACEMENT PARTS.
 B. PRODUCT DATA: MARK EACH SHEET TO CLEARLY IDENTIFY SPECIFIC PRODUCTS AND COMPONENT PARTS, AND DATA APPLICABLE TO INSTALLATION. DELETE INAPPLICABLE INFORMATION.
 C. DRAWINGS: SUPPLEMENT PRODUCT DATA TO ILLUSTRATE RELATIONS OF COMPONENT PARTS OF EQUIPMENT AND SYSTEMS, TO SHOW CONTROL AND FLOW DIAGRAMS. DO NOT USE PROJECT RECORD DOCUMENTS AS MAINTENANCE DRAWINGS.
3.03 WARRANTIES AND BONDS
 A. OBTAIN WARRANTIES AND BONDS, EXECUTED IN DUPLICATE BY RESPONSIBLE SUBCONTRACTORS, SUPPLIERS, AND MANUFACTURERS, WITHIN 10 DAYS AFTER COMPLETION OF THE APPLICABLE ITEM OF WORK. EXCEPT FOR ITEMS PUT INTO USE WITH OWNER'S PERMISSION, LEAVE DATE OF BEGINNING OF TIME OF WARRANTY UNTIL THE DATE OF SUBSTANTIAL COMPLETION IS DETERMINED.

END OF SECTION

1. COVER EXPOSED ROOTS WITH BURLAP AND WATER REGULARLY TO PREVENT ROOTS FROM DRYING OUT. BACKFILL WITH SOIL AS SOON AS POSSIBLE.
 2. TEMPORARILY SUPPORT AND PROTECT ROOTS FROM DAMAGE UNTIL THEY ARE PERMANENTLY RELOCATED AND COVERED WITH SOIL.
 3. COAT CUT FACES OF ROOTS MORE THAN 1-1/2 INCHES IN DIAMETER WITH AN EMULSIFIED ASPHALT OR OTHER APPROVED COATING FORMULATED FOR USE ON DAMAGED PLANT TISSUES.

3.05 DAMAGE TO EXISTING VEGETATION
 A. ANY TREES DAMAGED DURING CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED BY A CERTIFIED ARBORIST ACCEPTABLE TO THE LANDSCAPE ARCHITECT AT THE CONTRACTOR'S EXPENSE.
 B. ANY TREE JUDGED BY THE ACCEPTED CERTIFIED ARBORIST TO BE DAMAGED BEYOND REPAIR SHALL BE REMOVED AT CONTRACTOR'S EXPENSE.
 C. FOR EACH TREE ERRONEOUSLY REMOVED OR DAMAGED BEYOND REPAIR, AN ASSESSMENT WILL BE IMMEDIATELY WITHHELD FROM CONTRACTOR'S PROGRESS PAYMENTS.
 1. THIS ASSESSMENT WILL BE EQUAL TO THE VALUE OF THE TREE PRIOR TO DAMAGE.
 2. THIS ASSESSMENT WILL BE DETERMINED BY A TREE APPRAISER, SELECTED BY LANDSCAPE ARCHITECT AND PAID FOR BY CONTRACTOR.
 3. THE COST FOR HIRING A TREE APPRAISER SHALL ALSO BE WITHHELD FROM CONTRACTOR'S PROGRESS PAYMENTS.
 D. CONTRACTOR SHALL REPLACE EACH DAMAGED TREE WITH NURSERY-GROWN MATERIAL OF SIMILAR SIZE AND OF THE SAME OR APPROVED SPECIES
 1. REPLACEMENT TREES SHALL BE THE GREATER OF A TWO (2)-INCH CALIPER OR SIZE EQUIVALENT TO THE SIZE OF THE DAMAGED TREE, BALLED AND BURLAPPED, AND PLANTED IN ACCORDANCE WITH THE PROVISIONS OUTLINED IN THESE SPECIFICATIONS.
 E. DAMAGED VEGETATION SHALL BE REPLACED BY CONTRACTOR WITH AN EQUAL VALUE PER SQUARE FOOT OF DAMAGE.

END OF SECTION

SECTION 01 6000
PRODUCT REQUIREMENTS

PART 1 GENERAL
1.01 SUBMITTALS
 A. PRODUCT DATA SUBMITTALS: SUBMIT MANUFACTURER'S STANDARD PUBLISHED DATA, MARK EACH COPY TO IDENTIFY APPLICABLE PRODUCTS, MODELS, OPTIONS, AND OTHER DATA. SUPPLEMENT MANUFACTURER'S STANDARD DATA TO PROVIDE INFORMATION SPECIFIC TO THIS PROJECT.
 B. SHOP DRAWING SUBMITTALS: PREPARED SPECIFICALLY FOR THIS PROJECT; INDICATE UTILITY AND ELECTRICAL CHARACTERISTICS, UTILITY CONNECTION REQUIREMENTS, AND LOCATION OF UTILITY OUTLETS FOR SERVICE FOR FUNCTIONAL EQUIPMENT AND APPLIANCES.
 C. SAMPLE SUBMITTALS: ILLUSTRATE FUNCTIONAL AND AESTHETIC CHARACTERISTICS OF THE PRODUCT, WITH INTEGRAL PARTS AND ATTACHMENT DEVICES. COORDINATE SAMPLE SUBMITTALS FOR INTERFACING WORK.

PART 2 PRODUCTS
2.01 NEW PRODUCTS
 A. PROVIDE NEW PRODUCTS UNLESS SPECIFICALLY REQUIRED OR PERMITTED BY THE CONTRACT DOCUMENTS.
2.02 PRODUCT OPTIONS
 A. PRODUCTS SPECIFIED BY REFERENCE STANDARDS OR BY DESCRIPTION ONLY: USE ANY PRODUCT MEETING THOSE STANDARDS OR DESCRIPTION.
 B. PRODUCTS SPECIFIED BY NAMING ONE OR MORE MANUFACTURERS: USE A PRODUCT OF ONE OF THE MANUFACTURERS NAMED AND MEETING SPECIFICATIONS, NO OPTIONS OR SUBSTITUTIONS ALLOWED.
 C. PRODUCTS SPECIFIED BY NAMING ONE OR MORE MANUFACTURERS WITH A PROVISION FOR SUBSTITUTIONS: SUBMIT A REQUEST FOR SUBSTITUTION FOR ANY MANUFACTURER NOT NAMED.

PART 3 EXECUTION
3.01 SUBSTITUTION PROCEDURES
 A. SUBSTITUTION REQUESTS MUST BE SUBMITTED DURING THE BID PERIOD. BID QUESTIONS AND SUBSTITUTION REQUESTS WILL BE ADDRESSED BY THE ARCHITECT AND APPROVED BY CMU UNTIL 72 HOURS PRIOR TO THE BID DATE PUBLISHED BY THE CONSTRUCTION MANAGER.
 B. DOCUMENT EACH REQUEST WITH COMPLETE DATA SUBSTANTIATING COMPLIANCE OF PROPOSED SUBSTITUTION WITH CONTRACT DOCUMENTS.
 C. A REQUEST FOR SUBSTITUTION CONSTITUTES A REPRESENTATION THAT THE SUBMITTER:
 1. HAS INVESTIGATED PROPOSED PRODUCT AND DETERMINED THAT IT MEETS OR EXCEEDS THE QUALITY LEVEL OF THE SPECIFIED PRODUCT.
 2. WILL PROVIDE THE SAME WARRANTY FOR THE SUBSTITUTION AS FOR THE SPECIFIED PRODUCT.
 3. WILL COORDINATE INSTALLATION AND MAKE CHANGES TO OTHER WORK THAT MAY BE REQUIRED FOR THE WORK TO BE COMPLETE WITH NO ADDITIONAL COST TO OWNER.
 4. WAIVES CLAIMS FOR ADDITIONAL COSTS OR TIME EXTENSION THAT MAY SUBSEQUENTLY BECOME APPARENT.
 D. SUBSTITUTION SUBMITTAL PROCEDURE:
 1. SUBMIT THREE COPIES OF REQUEST FOR SUBSTITUTION FOR CONSIDERATION. LIMIT EACH REQUEST TO ONE PROPOSED SUBSTITUTION.
 2. SUBMIT SHOP DRAWINGS, PRODUCT DATA, AND CERTIFIED TEST RESULTS ATTESTING TO THE PROPOSED PRODUCT EQUIVALENCE. BURDEN OF PROOF IS ON PROPOSER.
 3. THE ARCHITECT WILL NOTIFY CONTRACTOR BY ADDENDUM OF DECISION TO ACCEPT.

END OF SECTION

SECTION 01 7000
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL
1.01 PROJECT CONDITIONS
 A. GRADE SITE TO DRAIN. MAINTAIN EXCAVATIONS FREE OF WATER. PROVIDE, OPERATE, AND MAINTAIN PUMPING EQUIPMENT.
 B. VENTILATE ENCLOSED AREAS TO ASSIST CURE OF MATERIALS, TO DISSIPATE HUMIDITY, AND TO PREVENT ACCUMULATION OF DUST, FUMES, VAPORS, OR GASES.
 C. DUST CONTROL: EXECUTE WORK BY METHODS TO MINIMIZE RAISING DUST FROM CONSTRUCTION OPERATIONS. PROVIDE POSITIVE MEANS TO PREVENT AIR-BORNE DUST FROM DISPERSING INTO ATMOSPHERE AND OVER ADJACENT PROPERTY.
 D. EROSION AND SEDIMENT CONTROL: PLAN AND EXECUTE WORK BY METHODS TO CONTROL SURFACE DRAINAGE FROM CUTS AND FILLS, FROM BORROW AND WASTE DISPOSAL AREAS. PREVENT EROSION AND SEDIMENTATION.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION
3.01 GENERAL INSTALLATION REQUIREMENTS
 A. INSTALL PRODUCTS AS SPECIFIED IN INDIVIDUAL SECTIONS, IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS, AND SO AS TO AVOID WASTE DUE TO NECESSITY FOR REPLACEMENT.
 B. MAKE VERTICAL ELEMENTS PLUMB AND HORIZONTAL ELEMENTS LEVEL, UNLESS OTHERWISE INDICATED.
 C. INSTALL EQUIPMENT AND FITTINGS PLUMB AND LEVEL, NEATLY ALIGNED WITH ADJACENT VERTICAL AND HORIZONTAL LINES, UNLESS OTHERWISE INDICATED.
 D. MAKE CONSISTENT TEXTURE ON SURFACES, WITH SEAMLESS TRANSITIONS, UNLESS OTHERWISE INDICATED.
 E. MAKE NEAT TRANSITIONS BETWEEN DIFFERENT SURFACES, MAINTAINING TEXTURE AND APPEARANCE.
3.02 PROGRESS CLEANING
 A. MAINTAIN AREAS FREE OF WASTE MATERIALS, DEBRIS, AND RUBBISH. MAINTAIN SITE IN A CLEAN AND ORDERLY CONDITION.
3.03 PROTECTION OF INSTALLED WORK
 A. PROTECT INSTALLED WORK FROM DAMAGE BY CONSTRUCTION OPERATIONS.
 B. PROVIDE SPECIAL PROTECTION WHERE SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS.
 C. REMOVE PROTECTIVE COVERINGS WHEN NO LONGER NEEDED; REUSE OR RECYCLE PLASTIC COVERINGS IF POSSIBLE.
3.04 FINAL CLEANING
 A. USE CLEANING MATERIALS THAT ARE NON-HAZARDOUS.
 B. CLEAN INTERIOR AND EXTERIOR GLASS, SURFACES EXPOSED TO VIEW; REMOVE TEMPORARY LABELS, STAINS AND FOREIGN SUBSTANCES, POLISH TRANSPARENT AND GLOSSY SURFACES, VACUUM CARPETED AND SOFT SURFACES

3.06 NUMBER OF COPIES OF SUBMITTALS
 A. DOCUMENTS FOR REVIEW:
 1. SMALL SIZE SHEETS, NOT LARGER THAN 8-1/2 X 11 INCHES: SUBMIT THE NUMBER OF COPIES THAT CONTRACTOR REQUIRES, PLUS TWO COPIES THAT WILL BE RETAINED BY ARCHITECT. ELECTRONIC COPIES ARE ACCEPTABLE AND ENCOURAGED.
 B. DOCUMENTS FOR INFORMATION: SUBMIT TWO COPIES. ELECTRONIC COPIES ARE ACCEPTABLE AND ENCOURAGED.
 C. SAMPLES: SUBMIT THE NUMBER SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS; ONE OF WHICH WILL BE RETAINED BY ARCHITECT.
 1. AFTER REVIEW, PRODUCE DUPLICATES.
 2. RETAINED SAMPLES WILL NOT BE RETURNED TO CONTRACTOR UNLESS SPECIFICALLY SO STATED.

3.07 SUBMITTAL PROCEDURES
 A. SHOP DRAWING PROCEDURES:
 1. PREPARE ACCURATE, DRAWN-TO-SCALE, ORIGINAL SHOP DRAWING DOCUMENTATION BY INTERPRETING THE CONTRACT DOCUMENTS AND COORDINATING RELATED WORK.
 2. GENERIC, NON-PROJECT SPECIFIC INFORMATION SUBMITTED AS SHOP DRAWINGS DO NOT MEET THE REQUIREMENTS FOR SHOP DRAWINGS.
 B. SEQUENTIALLY NUMBER THE TRANSMITTAL FORM. REVISE SUBMITTALS WITH ORIGINAL NUMBER AND A SEQUENTIAL ALPHABETIC SUFFIX.
 C. IDENTIFY PROJECT, CONTRACTOR, SUBCONTRACTOR OR SUPPLIER; PERTINENT DRAWING AND DETAIL NUMBER, AND SPECIFICATION SECTION NUMBER, AS APPROPRIATE ON EACH COPY.
 D. APPLY CONTRACTOR'S STAMP, SIGNED OR INITIALED CERTIFYING THAT REVIEW, APPROVAL, VERIFICATION OF PRODUCTS REQUIRED, FIELD DIMENSIONS, ADJACENT CONSTRUCTION WORK, AND COORDINATION OF INFORMATION IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE WORK AND CONTRACT DOCUMENTS.
 E. FOR EACH SUBMITTAL FOR REVIEW, ALLOW 15 DAYS EXCLUDING DELIVERY TIME TO AND FROM THE CONTRACTOR.
 F. IDENTIFY VARIATIONS FROM CONTRACT DOCUMENTS AND PRODUCT OR SYSTEM LIMITATIONS THAT MAY BE DETRIMENTAL TO SUCCESSFUL PERFORMANCE OF THE COMPLETED WORK.
 G. PROVIDE SPACE FOR CONTRACTOR AND ARCHITECT REVIEW STAMPS.
 H. WHEN REVISED FOR RESUBMISSION, IDENTIFY ALL CHANGES MADE SINCE PREVIOUS SUBMISSION.
 I. DISTRIBUTE REVIEWED SUBMITTALS AS APPROPRIATE. INSTRUCT PARTIES TO PROMPTLY REPORT ANY INABILITY TO COMPLY WITH REQUIREMENTS.
 J. SUBMITTALS NOT REQUESTED WILL NOT BE RECOGNIZED OR PROCESSED.

END OF SECTION

SECTION 01 4000
QUALITY REQUIREMENTS

PART 1 GENERAL
1.01 SUBMITTALS
 A. TESTING AGENCY QUALIFICATIONS:
 1. TEST TO START OF WORK. SUBMIT AGENCY NAME, ADDRESS, AND TELEPHONE NUMBER, AND NAMES OF FULL TIME REGISTERED ENGINEER AND RESPONSIBLE OFFICER.
 B. TEST REPORTS: AFTER EACH TEST/INSPECTION, PROMPTLY SUBMIT TWO COPIES OF REPORT TO ARCHITECT AND TO CONTRACTOR.
 C. CERTIFICATES: WHEN SPECIFIED IN INDIVIDUAL SPECIFICATION SECTIONS, SUBMIT CERTIFICATION BY THE MANUFACTURER AND CONTRACTOR OR INSTALLATION APPLICATION SUBCONTRACTOR TO ARCHITECT, IN QUANTITIES SPECIFIED FOR PRODUCT DATA.
 1. INDICATE MATERIAL OR PRODUCT CONFORMS TO OR EXCEEDS SPECIFIED REQUIREMENTS. SUBMIT SUPPORTING REFERENCE DATA, AFFIDAVITS, AND CERTIFICATIONS AS APPROPRIATE.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION
3.01 CONTROL OF INSTALLATION
 A. MONITOR QUALITY CONTROL OVER SUPPLIERS, MANUFACTURERS, PRODUCTS, SERVICES, SITE CONDITIONS, AND WORKMANSHIP. TO PRODUCE WORK OF SPECIFIED QUALITY.
 B. COMPLY WITH MANUFACTURER'S INSTRUCTIONS, INCLUDING EACH STEP IN SEQUENCE.
 C. SHOULD MANUFACTURER'S INSTRUCTIONS CONFLICT WITH CONTRACT DOCUMENTS, REQUEST CLARIFICATION FROM ARCHITECT BEFORE PROCEEDING.
 D. COMPLY WITH SPECIFIED STANDARDS AS MINIMUM QUALITY FOR THE WORK EXCEPT WHERE MORE STRINGENT TOLERANCES, CODES, OR SPECIFIED REQUIREMENTS INDICATE HIGHER STANDARDS OR MORE PRECISE WORKMANSHIP.
 E. HAVE WORK PERFORMED BY PERSONS QUALIFIED TO PRODUCE REQUIRED AND SPECIFIED QUALITY.
 F. VERIFY THAT FIELD MEASUREMENTS ARE AS INDICATED ON SHOP DRAWINGS OR AS INSTRUCTED BY THE MANUFACTURER.
 G. SECURE PRODUCTS IN PLACE WITH POSITIVE ANCHORAGE DEVICES DESIGNED AND SIZED TO WITHSTAND STRESSES, VIBRATION, PHYSICAL DISTORTION, AND DISFIGUREMENT.

3.02 DEFECT ASSESSMENT
 A. REPLACE WORK OR PORTIONS OF THE WORK NOT CONFORMING TO SPECIFIED REQUIREMENTS.
 B. IF, IN THE OPINION OF THE ARCHITECT, IT IS NOT PRACTICAL TO REMOVE AND REPLACE THE WORK, ARCHITECT WILL DIRECT AN APPROPRIATE REMEDY OR ADJUST PAYMENT.

END OF SECTION

SECTION 01 5630
TEMPORARY TREE AND PLANT PROTECTION

PART 1 GENERAL
1.01 SECTION INCLUDES
 A. CONTRACTOR SHALL PROTECT AND AVOID DAMAGING EXISTING TREES, SHRUBS, LANDSCAPE, AND ADJACENT VEGETATION.

PART 2 PRODUCTS - NOT USED
PART 3 EXECUTION
3.01 GENERAL
 A. VEHICULAR AND PEDESTRIAN TRAFFIC SHALL BE LIMITED TO AREAS MARKED, THRU-TRAFFIC AND STOCKPILING OF EQUIPMENT AND MATERIALS ARE NOT PERMITTED WITHIN MARKED AREAS.
 B. NO CONSTRUCTION ROADS ARE TO BE CREATED WITHIN THE DRIP LINES OF ANY TREES OR OTHER VEGETATION DESIGNATED TO BE SAVED WITHOUT APPROVAL OF LANDSCAPE ARCHITECT.
3.02 PROTECTED AREAS
 A. PROTECTED AREAS WILL BE DESIGNATED ON THE PLANS BY LANDSCAPE ARCHITECT. CONTRACTOR SHALL ADEQUATELY MARK AREAS.
 1. NO ACCESS OF CONSTRUCTION VEHICLES OR WORKERS ON FOOT IS PERMITTED THROUGH PROTECTED AREAS.
 2. NO MATERIAL SHALL BE STOCKPILED AND NO EQUIPMENT SHALL BE PARKED OR REPAIRED WITHIN THESE AREAS.
3.03 TREES AND PLANTINGS
 A. TREES DESIGNATED TO BE PRESERVED WITHIN THE LIMITS OF CONSTRUCTION, SHALL BE PROTECTED FROM DAMAGE ASSOCIATED WITH CONSTRUCTION.
 1. A STURDY, PHYSICAL BARRIER (FLORESCENT ORANGE IN COLOR) SHALL BE FIXED IN PLACE AROUND EACH TREE FOR THE DURATION OF CONSTRUCTION.
 a. BARRIER SHALL BE PLACED AT THE TREE'S CANOPY DRIP LINE OR A RADIUS OF TWELVE TIMES THE DIAMETER OF THE TRUNK AT 4.5-FOOT DBH (DIAMETER AT BREAST HEIGHT), WHICHEVER IS LARGER.
 b. BARRIER SHALL BE FIXED SO IT CANNOT BE MOVED EASILY, BUT THE MATERIAL CAN BE FLEXIBLE, SUCH AS ORANGE SNOW FENCE ATTACHED TO T-POSTS DRIVEN INTO THE GROUND, AND SHALL ACT AS AN EFFECTIVE DETERRENT TO DELIBERATE OR ACCIDENTAL DAMAGE OF EACH TREE.
 c. THE MOVEMENT OR STORAGE OF EQUIPMENT, MATERIAL, DEBRIS, OR FILL WITHIN THESE REQUIRED PROTECTIVE BARRIERS IS PROHIBITED.
 d. FENCE SHALL REMAIN IN PLACE DURING CONSTRUCTION TO PREVENT UNINTENDED

3.04 EXCAVATED AREAS
 A. WHERE EXCAVATION FOR NEW CONSTRUCTION IS REQUIRED WITHIN DRIP LINE OF TREES, HAND CLEAR AND EXCAVATE TO MINIMIZE DAMAGE TO ROOT SYSTEMS. USE NARROW-TINE SPADING FORKS, COMB SOIL TO EXPOSE ROOTS, AND CLEANLY CUT ROOTS AS CLOSE TO EXCAVATION AS POSSIBLE.

SECTION 00 0102
PROJECT INFORMATION

PART 1 GENERAL
1.01 PROJECT IDENTIFICATION
 PROJECT NAME: WUBBEN SCIENCE ART WALK
 THE OWNER, HEREINAFTER REFERRED TO AS OWNER: COLORADO MESA UNIVERSITY

1.02 NOTICE TO PROSPECTIVE BIDDERS
 A. THESE DOCUMENTS CONSTITUTE AN INVITATION TO BID AND REQUEST FOR QUALIFICATIONS FROM GENERAL CONTRACTORS FOR THE CONSTRUCTION OF THE PROJECT DESCRIBED BELOW.

1.03 PROJECT DESCRIPTION
 A. PROJECT CONSISTS OF LANDSCAPING SOUTH OF THE WUBBEN SCIENCE CENTER WITH THE FOLLOWING AMENITIES: DEMOLITION, SITE, GRADING, LANDSCAPE AND IRRIGATION.

1.04 PROCUREMENT TIMETABLE
 A. THE OWNER RESERVES THE RIGHT TO CHANGE THE SCHEDULE OR TERMINATE THE ENTIRE PROCUREMENT PROCESS AT ANY TIME.

1.05 PROCUREMENT DOCUMENTS
 A. AVAILABILITY OF DOCUMENTS: COMPLETE SETS OF PROCUREMENT DOCUMENTS MAY BE OBTAINED AT THE FOLLOWING ADDRESS:
 DESIGN WEST ARCHITECTS
 255 SOUTH 300 WEST
 LOGAN, UTAH 84321
 KENI ALTHOUSE, PLA
 kenia@designwestarchitects.com

END OF SECTION

SECTION 01 3000
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL
1.01 CONSTRUCTION SCHEDULE
 A. THE CONTRACTOR SHALL PREPARE AND SUBMIT TO THE ARCHITECT AND OWNER, A BAR-CHART TYPE PROGRESS SCHEDULE FOR THE ENTIRE PROJECT, WITHIN SEVEN (7) DAYS AFTER AWARD OF CONTRACT. PROVIDE A SEPARATE BAR FOR EACH WORK ITEM LISTED IN THE SCHEDULE OF VALUES. INCLUDE APPROPRIATE TIME FOR PROJECT MOBILIZATION, PROCUREMENT OF PRODUCTS, REVIEW AND RETURN OF SHOP DRAWINGS, INSTALLATION, TESTING, FINAL CLEANUP AND INSTALLATION TIME FOR WORK UNDER SEPARATE CONTRACTS. IDENTIFY EACH CALENDAR DAY THROUGHOUT THE SCHEDULE. HIGHLIGHT CRITICAL PATH ELEMENTS OF THE SCHEDULE THAT ARE IMPORTANT TO COMPLETE THE WORK ON TIME. CORRELATE THE ORGANIZATION OF THE SCHEDULE WITH THE DATE OF SUBSTANTIAL COMPLETION INDICATED IN THE OWNER-CONTRACTOR AGREEMENT.

1.02 PROJECT COORDINATION & ADMINISTRATION
 A. COORDINATE THE WORK OF THE COMPLETE PROJECT TO ASSURE AN EFFICIENT AND ORDERLY SEQUENCE OF INSTALLATION OF CONSTRUCTION ELEMENTS, AND FOR INSTALLATION OF ITEMS FURNISHED AND INSTALLED BY OTHERS, WITH PROVISIONS FOR ACCOMMODATING OTHER ITEMS TO BE INSTALLED LATER. UTILIZE SPACE EFFICIENTLY TO MAXIMIZE ACCESSIBILITY FOR OTHER INSTALLATIONS, AND FOR MAINTENANCE.

1.03 PRE-CONSTRUCTION MEETING
 A. MEET WITH THE OWNER'S DESIGNATED CONSTRUCTION REPRESENTATIVE BEFORE STARTING CONSTRUCTION. DISCUSS PROCEDURES AND REQUIREMENTS FOR SITE ACCESS, WORK HOURS, PARKING, DELIVERIES AND RECEIVING, DEBRIS AND WASTE RECEIPTS, TEMPORARY BARRICADES, AND CONSTRUCTION OPERATIONS THAT MAY BE OFFENSIVE.

1.04 MAINTENANCE OF CONSTRUCTION DOCUMENTS
 A. THE CONTRACTOR SHALL MAINTAIN AT THE PROJECT SITE, A "RECORD SET OF CONSTRUCTION DOCUMENTS" AND THE FOLLOWING RELATED DRAWINGS OR DOCUMENTS PREPARED BY OTHERS: SHOP DRAWINGS AND DATA SHEETS PREPARED BY THE MANUFACTURERS, FABRICATORS, AND SUPPLIERS.
 B. DO NOT CONSTRUCT ANY PORTION OF THE WORK RELATED TO THESE DRAWINGS AT ANY TIME WITHOUT SUCH DRAWINGS BEING AVAILABLE AT THE PROJECT SITE.
 C. "AS BUILT" DRAWINGS SHALL BE PROVIDED BY THE CONTRACTOR. DRAWINGS SHALL INDICATE THE SIZE AND DIMENSIONS OF ALL CONCEALED AND UNDERGROUND WORK, AND SHALL INDICATE DEPTH OF MAJOR CONDUIT AND PIPING.

1.05 PERMITS AND LOCAL CODES
 A. THE LAWS IN FORCE AT THE BUILDING LOCATION SHALL GOVERN. THESE INCLUDE THE LATEST EDITIONS OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL PLUMBING CODE, NATIONAL ELECTRIC CODE, LIFE SAFETY CODE, ANSI 117.1 AND LOCAL ORDINANCES. THE CONTRACTOR SHALL PROCURE AND PAY FOR ALL NECESSARY BUILDING PERMITS AND FOR INSPECTION SERVICES OF LOCAL AUTHORITIES AND HIS OWN BUSINESS LICENSES. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS SHALL COMPLY WITH ALL APPLICABLE PROVISIONS OF OCCUPATIONAL SAFETY AND HEALTH STANDARDS, FEDERAL, STATE, COUNTY AND MUNICIPAL LAWS.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION
3.01 PROGRESS MEETINGS
 A. SCHEDULE AND ADMINISTER MEETINGS THROUGHOUT PROGRESS OF THE WORK AT MAXIMUM MONTHLY INTERVALS.
 B. ATTENDANCE REQUIRED: JOB SUPERINTENDENT, MAJOR SUBCONTRACTORS AND SUPPLIERS, OWNER, ARCHITECT, AS APPROPRIATE TO AGENDA TOPICS FOR EACH MEETING.
 C. RECORD MINUTES AND DISTRIBUTE COPIES WITHIN TWO DAYS AFTER MEETING TO PARTICIPANTS, WITH TWO COPIES TO ARCHITECT, OWNER, PARTICIPANTS, AND THOSE AFFECTED BY DECISIONS MADE.

3.02 CONSTRUCTION PROGRESS SCHEDULE
 A. IF PRELIMINARY SCHEDULE REQUIRES REVISION AFTER REVIEW, SUBMIT REVISED SCHEDULE WITHIN 10 DAYS.
 B. WITHIN 20 DAYS AFTER REVIEW OF PRELIMINARY SCHEDULE, SUBMIT DRAFT OF PROPOSED COMPLETE SCHEDULE FOR REVIEW.
 1. INCLUDE WRITTEN CERTIFICATION THAT MAJOR SUBCONTRACTORS HAVE REVIEWED AND ACCEPTED PROPOSED SCHEDULE.
 C. WITHIN 10 DAYS AFTER JOINT REVIEW, SUBMIT COMPLETE SCHEDULE.
 D. SUBMIT UPDATED SCHEDULE WITH EACH APPLICATION FOR PAYMENT.

3.03 SUBMITTALS FOR REVIEW
 A. WHEN THE FOLLOWING ARE SPECIFIED IN INDIVIDUAL SECTIONS, SUBMIT THEM FOR REVIEW:
 1. PRODUCT DATA.
 2. SHOP DRAWINGS.
 3. SAMPLES FOR SELECTION.
 4. SAMPLES FOR VERIFICATION.
 B. SUBMIT TO ARCHITECT FOR REVIEW FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS.
 C. SAMPLES WILL BE REVIEWED ONLY FOR AESTHETIC, COLOR, OR FINISH SELECTION.
 D. AFTER REVIEW, PROVIDE COPIES AND DISTRIBUTE IN ACCORDANCE WITH SUBMITTAL PROCEDURES ARTICLE BELOW AND FOR RECORD DOCUMENTS PURPOSES DESCRIBED IN SECTION 01 7800 - CLOSEOUT SUBMITTALS.

3.04 SUBMITTALS FOR INFORMATION
 A. WHEN THE FOLLOWING ARE SPECIFIED IN INDIVIDUAL SECTIONS, SUBMIT THEM FOR INFORMATION:
 1. DESIGN DATA.
 2. CERTIFICATES.
 3. TEST REPORTS.
 4. INSPECTION REPORTS.
 5. MANUFACTURER'S INSTRUCTIONS.
 6. MANUFACTURER'S FIELD REPORTS.
 7. OTHER TYPES INDICATED.
 B. SUBMIT FOR ARCHITECT'S KNOWLEDGE AND CONTRACT ADMINISTRATOR OR FOR OWNER. NO ACTION WILL BE TAKEN.

3.05 SUBMITTALS FOR PROJECT CLOSEOUT
 A. SUBMIT CORRECTION PUNCH LIST FOR SUBSTANTIAL COMPLETION.
 B. SUBMIT FINAL CORRECTION PUNCH LIST FOR SUBSTANTIAL COMPLETION.
 C. WHEN THE FOLLOWING ARE SPECIFIED IN INDIVIDUAL SECTIONS, SUBMIT THEM AT PROJECT CLOSEOUT:
 1. PROJECT RECORD DOCUMENTS.
 2. OPERATION AND MAINTENANCE DATA.
 3. WARRANTIES.
 4. BONDS.
 5. OTHER TYPES AS INDICATED.
 D. SUBMIT FOR OWNER'S BENEFIT DURING AND AFTER PROJECT COMPLETION.

D

C

B

A

SECTION 02 4119
SELECTIVE SITE DEMOLITION

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND OTHER DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.02 SECTION INCLUDES

- A. DEMOLITION AND REMOVAL OF SELECTED SITE ELEMENTS.
B. SALVAGE OF EXISTING ITEMS TO BE REUSED OR RECYCLED.

1.03 RELATED SECTIONS

- A. DIVISION 31 2300 "EARTHWORK" FOR SITE CLEARING AND REMOVAL OF ABOVE- AND BELOW-GRADE IMPROVEMENTS.

1.04 DEFINITIONS

- A. REMOVE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE, UNLESS INDICATED TO BE REMOVED AND SALVAGED OR REMOVED AND REINSTALLED.
B. REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND DELIVER THEM TO OWNER READY FOR REUSE.
C. REMOVE AND REINSTALL: DETACH ITEMS FROM EXISTING CONSTRUCTION, PREPARE THEM FOR REUSE, AND REINSTALL THEM WHERE INDICATED.
D. EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED AND THAT ARE NOT OTHERWISE INDICATED TO BE REMOVED, REMOVED AND SALVAGED, OR REMOVED AND REINSTALLED.

1.05 SUBMITTALS

- A. QUALIFICATION DATA: FOR DEMOLITION FIRM.
B. SCHEDULE OF SELECTIVE DEMOLITION ACTIVITIES: INDICATE THE FOLLOWING:
1. DETAILED SEQUENCE OF SELECTIVE DEMOLITION AND REMOVAL WORK, WITH STARTING AND ENDING DATES FOR EACH ACTIVITY. ENSURE OWNER'S OTHER TENANTS' ON-SITE OPERATIONS ARE UNINTERRUPTED.
2. INTERRUPTION OF UTILITY SERVICES. INDICATE HOW LONG UTILITY SERVICES WILL BE INTERRUPTED.
3. COORDINATION FOR SHUTOFF, CAPPING, AND CONTINUATION OF UTILITY SERVICES.
4. LOCATIONS OF PROPOSED DUST AND NOISE CONTROL, TEMPORARY PARTITIONS AND MEANS OF EGRESS, INCLUDING FOR OTHER TENANTS AFFECTED BY SELECTIVE DEMOLITION OPERATIONS.
5. COORDINATION OF OWNER'S CONTINUING OCCUPANCY OF PORTIONS OF EXISTING SITE AND OF OWNER'S PARTIAL OCCUPANCY OF COMPLETED WORK.
6. MEANS OF PROTECTION FOR ITEMS TO REMAIN AND ITEMS IN PATH OF WASTE REMOVAL FROM SITE.
C. INVENTORY: AFTER SELECTIVE DEMOLITION IS COMPLETE, SUBMIT A LIST OF ITEMS THAT HAVE BEEN REMOVED AND SALVAGED.
D. PREDEMOLITION PHOTOGRAPHS OR VIDEOTAPES: SHOW EXISTING CONDITIONS OF ADJOINING CONSTRUCTION AND SITE IMPROVEMENTS, INCLUDING FINISH SURFACES, THAT MIGHT BE MISCONSTRUED AS DAMAGE CAUSED BY SELECTIVE DEMOLITION OPERATIONS.
E. LANDFILL RECORDS: INDICATE RECEIPT AND ACCEPTANCE OF HAZARDOUS WASTES BY A LANDFILL FACILITY LICENSED TO ACCEPT HAZARDOUS WASTES.

1.06 QUALITY ASSURANCE

- A. DEMOLITION FIRM QUALIFICATIONS: AN EXPERIENCED FIRM THAT HAS SPECIALIZED IN DEMOLITION WORK SIMILAR IN MATERIAL AND EXTENT TO THAT INDICATED FOR THIS PROJECT.
B. REGULATORY REQUIREMENTS: COMPLY WITH GOVERNING EPA NOTIFICATION REGULATIONS BEFORE BEGINNING SELECTIVE DEMOLITION. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
C. STANDARDS: COMPLY WITH ANSI A10.6 AND NFPA 241
D. PREDEMOLITION CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE. REVIEW METHODS AND PROCEDURES RELATED TO SELECTIVE DEMOLITION INCLUDING, BUT NOT LIMITED TO, THE FOLLOWING:
1. INSPECT AND DISCUSS CONDITION OF CONSTRUCTION TO BE SELECTIVELY DEMOLISHED.
2. REVIEW AND FINALIZE SELECTIVE DEMOLITION AND VERIFY AVAILABILITY OF MATERIALS, DEMOLITION PERSONNEL, EQUIPMENT, AND FACILITIES NEEDED TO MAKE PROGRESS AND AVOID DELAYS.
3. REVIEW REQUIREMENTS OF WORK PERFORMED BY OTHER TRADES THAT RELY ON SUBSTRATES EXPOSED BY SELECTIVE DEMOLITION OPERATIONS.
4. REVIEW AREAS WHERE EXISTING CONSTRUCTION IS TO REMAIN AND REQUIRES PROTECTION.

1.07 PROJECT CONDITIONS

- A. CONDITIONS EXISTING AT TIME OF INSPECTION FOR BIDDING PURPOSE WILL BE MAINTAINED BY OWNER AS FAR AS PRACTICAL.
1. BEFORE SELECTIVE DEMOLITION, OWNER WILL REMOVE THE ITEMS TO BE SALVAGED BY THE OWNER. COORDINATE OTHER ITEMS WITH THE ARCHITECT.
B. NOTIFY ARCHITECT OF DISCREPANCIES BETWEEN EXISTING CONDITIONS AND DRAWINGS BEFORE PROCEEDING WITH SELECTIVE DEMOLITION.
C. HAZARDOUS MATERIALS: IT IS NOT EXPECTED THAT HAZARDOUS MATERIALS WILL BE ENCOUNTERED IN THE WORK.
1. HAZARDOUS MATERIALS WILL BE REMOVED BY OWNER BEFORE START OF THE WORK OR HAVE BEEN REMOVED BY OWNER UNDER A SEPARATE CONTRACT.
2. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; IMMEDIATELY NOTIFY ARCHITECT AND OWNER. OWNER WILL REMOVE HAZARDOUS MATERIALS UNDER A SEPARATE CONTRACT.
D. STORAGE OR SALE OF REMOVED ITEMS OR MATERIALS ON-SITE IS NOT PERMITTED.
E. UTILITY SERVICE: MAINTAIN EXISTING UTILITIES INDICATED TO REMAIN IN SERVICE AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.

1.08 WARRANTY

- A. EXISTING WARRANTIES: REMOVE, REPLACE, PATCH, AND REPAIR MATERIALS AND SURFACES CUT OR DAMAGED DURING SELECTIVE DEMOLITION, BY METHODS AND WITH MATERIALS SO AS NOT TO VOID EXISTING WARRANTIES.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.01 EXAMINATION

- A. VERIFY THAT UTILITIES HAVE BEEN SHUT OFF AND READY TO BE CAPPED.
B. SURVEY EXISTING CONDITIONS AND CORRELATE WITH REQUIREMENTS INDICATED TO DETERMINE EXTENT OF SELECTIVE DEMOLITION REQUIRED.
C. INVENTORY AND RECORD THE CONDITION OF ITEMS TO BE REMOVED AND REINSTALLED AND ITEMS TO BE REMOVED AND SALVAGED.
D. SURVEY OF EXISTING CONDITIONS: RECORD EXISTING CONDITIONS BY USE OF MEASURED DRAWINGS, PRECONSTRUCTION PHOTOGRAPHS, PRECONSTRUCTION VIDEOTAPES, AND TEMPLATES.
E. PERFORM SURVEYS AS THE WORK PROGRESSES TO DETECT HAZARDS RESULTING FROM SELECTIVE DEMOLITION ACTIVITIES.

3.02 UTILITY SERVICES

- A. EXISTING SERVICES/SYSTEMS: MAINTAIN SERVICES/SYSTEMS INDICATED TO REMAIN AND PROTECT THEM AGAINST DAMAGE DURING SELECTIVE DEMOLITION OPERATIONS.
A. SERVICE/SYSTEM REQUIREMENTS: LOCATE, IDENTIFY, DISCONNECT, AND SEAL OR CAP OFF INDICATED UTILITY SERVICES AND OTHER SYSTEMS SERVING AREAS TO BE SELECTIVELY DEMOLISHED.
1. OWNER WILL ARRANGE TO SHUT OFF INDICATED SERVICES/SYSTEMS WHEN REQUESTED BY CONTRACTOR.
2. ARRANGE TO SHUT OFF INDICATED UTILITIES WITH THE OWNER.
3. IF SERVICES/SYSTEMS ARE REQUIRED TO BE REMOVED, RELOCATED, OR ABANDONED, BEFORE PROCEEDING WITH SELECTIVE DEMOLITION PROVIDE TEMPORARY SERVICES/SYSTEMS THAT BYPASS AREA OF SELECTIVE DEMOLITION AND THAT MAINTAIN CONTINUITY OF SERVICES/SYSTEMS.

3.03 PREPARATION

- A. SITE ACCESS AND TEMPORARY CONTROLS: CONDUCT SELECTIVE DEMOLITION AND DEBRIS-REMOVAL OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, WALKS, WALKWAYS, AND OTHER ADJACENT OCCUPIED AND USED FACILITIES.
B. TEMPORARY FACILITIES: PROVIDE TEMPORARY BARRICADES AND OTHER PROTECTION REQUIRED TO PREVENT INJURY TO PEOPLE AND DAMAGE TO ADJACENT BUILDINGS AND FACILITIES TO REMAIN.
1. PROVIDE PROTECTION TO ENSURE SAFE PASSAGE OF PEOPLE AROUND SELECTIVE DEMOLITION AREA AND TO AND FROM OCCUPIED PORTIONS OF THE SITE.
2. PROVIDE TEMPORARY WEATHER PROTECTION, DURING INTERVAL BETWEEN SELECTIVE DEMOLITION OF EXISTING CONSTRUCTION ON EXTERIOR SURFACES, TO PREVENT WATER DAMAGE TO CRITICAL AREAS.
C. TEMPORARY SHORING: PROVIDE AND MAINTAIN SHORING, BRACING, AND STRUCTURAL SUPPORTS AS REQUIRED TO PRESERVE STABILITY AND PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF CONSTRUCTION AND ITEMS TO REMAIN, AND TO PREVENT UNEXPECTED OR UNCONTROLLED MOVEMENT OR COLLAPSE OF CONSTRUCTION BEING DEMOLISHED.
1. STRENGTHEN OR ADD NEW SUPPORTS WHEN REQUIRED DURING PROGRESS OF SELECTIVE DEMOLITION.
D. NO CLEARING, DEMOLITION, OR REMOVAL OF ANY KIND SHALL PROCEED UNTIL ALL EXISTING TREES, IMPROVEMENTS, ETC. TO BE REMOVED HAVE BEEN ESTABLISHED AND ARE INSPECTED AND DOCUMENTED BY THE OWNER.
E. ESTABLISH NECESSARY CLEARING LIMITS WITHIN THE CONSTRUCTION LIMITS. MARK ALL TREES, SHRUBS, STRUCTURES, FENCES, CONCRETE, AND OTHER IMPROVEMENTS TO BE REMOVED.
F. WITHIN 10 FEET OF CLEARING LIMITS, INSPECT, PHOTOGRAPH WITH VIDEO TAPE, AND RECORD CONDITION OF CONCRETE SLABS, STRUCTURES, LANDSCAPING AND OTHER FEATURES TO REMAIN WHICH MIGHT BE AFFECTED BY WORK. ALLOW OWNER TO VIEW TAPE AND APPROVE PRIOR TO PROCEEDING WITH THE WORK.
G. TREES, SHRUBS AND LAWN, AREAS TO RECEIVE PLANTING, FENCES, SPRINKLERS AND OTHER IMPROVEMENTS THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED FROM DAMAGE OR INJURY. IF DAMAGED OR REMOVED, THEY SHALL BE RESTORED OR REPLACED IN AS NEARLY THE ORIGINAL CONDITION AND LOCATION AS IS REASONABLY POSSIBLE. TREES, SHRUBS, AND IMPROVEMENTS NOT TO BE REMOVED SHALL BE MARKED IN FIELD BY OWNER AND/OR SHOWN ON THE DRAWINGS.
H. GIVE REASONABLE NOTICE TO OWNER TO PERMIT HIM TO SALVAGE PLANTS, TREES, FENCES, SPRINKLERS AND OTHER IMPROVEMENTS WITHIN THE CONSTRUCTION LIMITS THAT MAY BE DESTROYED BECAUSE OF THE WORK.
I. NOTIFY INTERESTED UTILITY COMPANIES TO BE PRESENT IF DISTURBING GROUND IN THE VICINITY OF UTILITIES.
J. PROTECT ACTIVE UTILITY SYSTEMS ADJACENT TO OR UNCOVERED BY ANY EXCAVATION DURING SITE PREPARATION.
K. MAINTAIN BENCHMARKS, MONUMENTS AND OTHER REFERENCE POINTS AND CONSTRUCTION STAKES.
L. PROTECT ALL IMPROVEMENTS TO REMAIN OR OUTSIDE OF CONSTRUCTION FROM TREE REMOVAL AND/OR PRUNING WORK.

3.04 CLEARING AND GRUBBING

- A. PRIOR TO ANY CONSTRUCTION, REMOVE UNSUITABLE SOILS AND VEGETATION FROM BELOW FOUNDATIONS, FLOOR SLABS, EXTERIOR CONCRETE FLATWORK, AND ASPHALT CONCRETE PAVEMENTS AND ROADS.

3.05 SELECTIVE DEMOLITION, GENERAL

- A. GENERAL: DEMOLISH AND REMOVE EXISTING CONSTRUCTION ONLY TO THE EXTENT REQUIRED BY NEW CONSTRUCTION AND AS INDICATED. USE METHODS REQUIRED TO COMPLETE THE WORK WITHIN LIMITATIONS OF GOVERNING REGULATIONS AND AS FOLLOWS:
1. PROCEED WITH SELECTIVE DEMOLITION SYSTEMATICALLY.
2. NEATLY CUT OPENINGS AND HOLES PLUMB, SQUARE, AND TRUE TO DIMENSIONS REQUIRED. USE CUTTING METHODS LEAST LIKELY TO DAMAGE CONSTRUCTION TO REMAIN OR ADJOINING CONSTRUCTION. USE HAND TOOLS OR SMALL POWER TOOLS DESIGNED FOR SAWING OR GRINDING, NOT HAMMERING AND CHOPPING, TO MINIMIZE DISTURBANCE OF ADJACENT SURFACES. TEMPORARILY COVER OPENINGS TO REMAIN.
3. CUT OR DRILL FROM THE EXPOSED OR FINISHED SIDE INTO CONCEALED SURFACES TO AVOID MARRING EXISTING FINISHED SURFACES.
4. DO NOT USE CUTTING TORCHES UNTIL WORK AREA IS CLEARED OF FLAMMABLE MATERIALS. MAINTAIN FIRE WATCH AND PORTABLE FIRE-SUPPRESSION DEVICES DURING FLAME-CUTTING OPERATIONS.
5. REMOVE STRUCTURAL FRAMING MEMBERS AND LOWER TO GROUND BY METHOD SUITABLE TO AVOID FREE FALL AND TO PREVENT GROUND IMPACT OR DUST GENERATION.
6. DISPOSE OF DEMOLISHED ITEMS AND MATERIALS PROMPTLY.
B. REMOVED AND SALVAGED ITEMS:
1. CLEAN SALVAGED ITEMS.
2. PACK OR CRATE ITEMS AFTER CLEANING. IDENTIFY CONTENTS OF CONTAINERS.
3. STORE ITEMS IN A SECURE AREA UNTIL DELIVERY TO OWNER.
4. TRANSPORT ITEMS TO OWNER'S STORAGE AREA ON-SITE.

5. PROTECT ITEMS FROM DAMAGE DURING TRANSPORT AND STORAGE.
C. EXISTING ITEMS TO REMAIN: PROTECT CONSTRUCTION INDICATED TO REMAIN AGAINST DAMAGE AND SOILING DURING SELECTIVE DEMOLITION. WHEN PERMITTED BY ARCHITECT, ITEMS MAY BE REMOVED TO A SUITABLE, PROTECTED STORAGE LOCATION DURING SELECTIVE DEMOLITION AND CLEANED AND REINSTALLED IN THEIR ORIGINAL LOCATIONS AFTER SELECTIVE DEMOLITION OPERATIONS ARE COMPLETE.

3.06 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

- A. TOPSOIL:
1. BEFORE ANY CONSTRUCTION ACTIVITY BEGINS, REMOVE TOPSOIL AND STOCKPILE FOR RE-USE.
2. TOPSOIL SHALL BE PROTECTED FROM CONTAMINATION BY WEEDS, DEBRIS, ETC. AND SHALL BE REPLACED, GRADED AND LIGHTLY COMPACTED BY CONTRACTOR AT COMPLETION OF PROJECT.
B. CONCRETE:
1. DEMOLISH IN SECTIONS. CUT CONCRETE FULL DEPTH AT JUNCTURES WITH CONSTRUCTION TO REMAIN AND AT REGULAR INTERVALS, USING POWER-DRIVEN SAW, THEN REMOVE CONCRETE BETWEEN SAW CUTS.
2. CONCRETE SLABS-ON-GRADE: SAW-CUT PERIMETER OF AREA TO BE DEMOLISHED, THEN BREAK UP AND REMOVE.
3. CONCRETE SHALL BE REMOVED TO NEATLY SAWED EDGES WITH SAW CUTS MADE TO A MINIMUM DEPTH OF 4 INCHES.
4. CONCRETE SIDEWALK OR DRIVEWAY TO BE REMOVED SHALL BE NEATLY SAWED IN STRAIGHT LINES EITHER PARALLEL TO THE CURB OR AT RIGHT ANGLES TO THE ALIGNMENT OF THE SIDEWALK. NO SECTION TO BE REPLACED SHALL BE SMALLER THAN 30 INCHES IN EITHER LENGTH OR WIDTH.
5. UNLESS OTHERWISE SHOWN ON THE DRAWINGS, IF THE SAWCUT WOULD FALL WITHIN 30 INCHES OF A CONSTRUCTION JOINT, EXPANSION JOINT, OR EDGE, THE CONCRETE SHALL BE REMOVED TO THE JOINT OR EDGE, EXCEPT THAT WHERE THE SAW CUT WOULD FALL WITHIN 12 INCHES OF A SCORE MARK, THE SAW CUT SHALL BE MADE IN AND ALONG THE SCORE MARK.
6. CURB AND GUTTER TO BE REMOVED SHALL BE SAWED TO A DEPTH OF 1-1/2 INCHES ON A NEAT LINE AT RIGHT ANGLES TO THE CURB FACE.
C. ASPHALTIC CONCRETE PAVEMENT:
1. SAWING SHALL BE USED TO ENSURE THE BREAKAGE OF PAVEMENT ALONG STRAIGHT LINES.
2. DISPOSE OF ASPHALT PAVEMENT TO BE REMOVED AT A SUITABLE OFFSITE LOCATION IN ACCORDANCE WITH APPLICABLE LAWS AND ORDINANCES.
D. FENCES AND MISCELLANEOUS OBSTRUCTIONS
1. NO DEMOLITION OR REMOVAL OF FENCES OR MISCELLANEOUS OBSTRUCTIONS SHALL PROCEED UNTIL CLEARANCE IS OBTAINED FROM THE OWNER.
3.07 DISPOSAL OF DEMOLISHED MATERIALS
A. GENERAL: EXCEPT FOR ITEMS OR MATERIALS INDICATED TO BE RECYCLED, REUSED, SALVAGED, REINSTALLED, OR OTHERWISE INDICATED TO REMAIN OWNER'S PROPERTY, REMOVE DEMOLISHED MATERIALS FROM PROJECT SITE AND LEGALLY DISPOSE OF THEM IN AN EPA-APPROVED LANDFILL.
1. DO NOT ALLOW DEMOLISHED MATERIALS TO ACCUMULATE ON-SITE.
2. REMOVE AND TRANSPORT DEBRIS IN A MANNER THAT WILL PREVENT SPILLAGE ON ADJACENT SURFACES AND AREAS.
B. BURNING: DO NOT BURN DEMOLISHED MATERIALS.
C. DISPOSAL: TRANSPORT DEMOLISHED MATERIALS OFF OWNER'S PROPERTY AND LEGALLY DISPOSE OF THEM.
3.08 CLEANING
A. CLEAN ADJACENT STRUCTURES AND IMPROVEMENTS OF DUST, DIRT, AND DEBRIS CAUSED BY SELECTIVE DEMOLITION OPERATIONS. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE SELECTIVE DEMOLITION OPERATIONS BEGAN.

END OF SECTION

DESIGN
WEST

LOGAN, UTAH
(435) 752-7031
SALT LAKE CITY, UTAH
(801) 539-8221

CMU - WUBBEN SCIENCE CENTER ART WALK

1316 COLLEGE PL., GRAND JUNCTION, CO 81501

COLORADO MESA UNIVERSITY

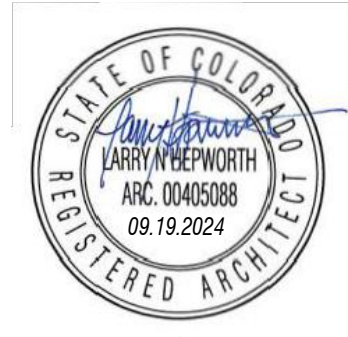
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DATE: _____
DESCRIPTION: _____

PROJECT #: 323218

DRAWN BY: J. CLEMENTS

CHECKED BY: L. HEPWORTH

ISSUED: 09.19.2024



GENERAL
SPECIFICATIONS

G-003

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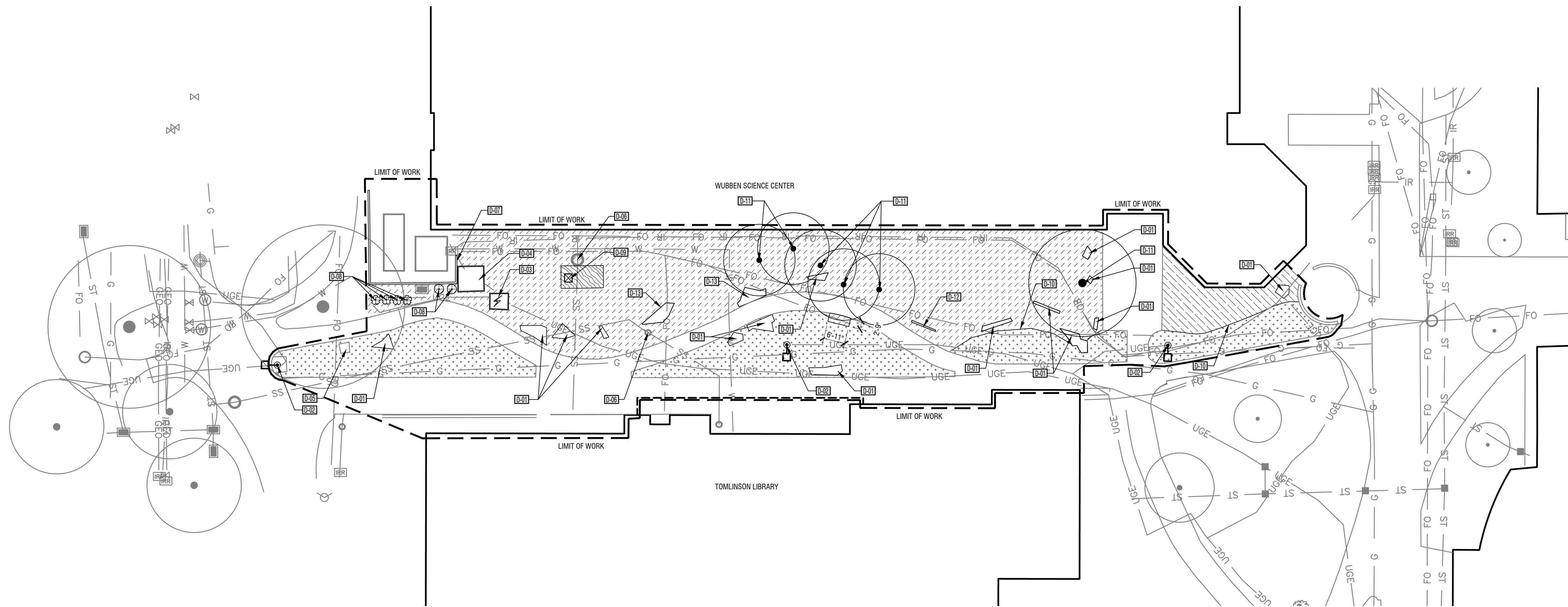
CONSTRUCTION DOCUMENTS

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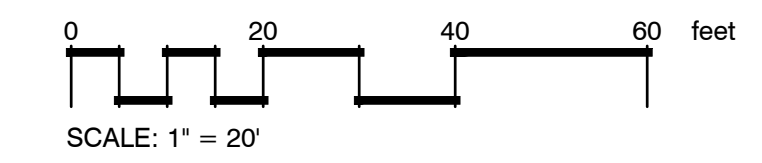


DEMOLITION NOTES

1. FIELD VERIFY LOCATION OF UTILITIES THROUGHOUT THE AREA. ALL DEMOLITION SHALL BE DONE BY HAND AS TO NOT DAMAGE EXISTING UTILITIES.
2. REMOVE OBSTRUCTIONS, TREES, SHRUBS, GRASS, AND OTHER VEGETATION TO PERMIT INSTALLATION OF NEW CONSTRUCTION AND UNDERLYING WEED FABRIC.
3. CUT MINOR ROOTS AND BRANCHES OF TREES INDICATED TO REMAIN IN A CLEAN AND CAREFUL MANNER WHERE SUCH ROOTS AND BRANCHES OBSTRUCT INSTALLATION OF NEW CONSTRUCTION.
4. GRIND STUMPS AND REMOVE ROOTS, OBSTRUCTIONS, AND DEBRIS EXTENDING TO A DEPTH OF 18 INCHES BELOW EXPOSED SUBGRADE.
5. FILL DEPRESSIONS CAUSED BY CLEARING AND GRUBBING OPERATIONS WITH SATISFACTORY SOIL MATERIALS IN HORIZONTAL LAYERS NOT EXCEEDING 8-INCH LOOSE DEPTH, AND COMPACT EACH LAYER TO A DENSITY EQUAL TO ADJACENT GROUND.
6. STOCKPILE SURPLUS TOPSOIL MATERIALS AWAY FROM EDGE OF EXCAVATIONS WITHOUT INTERMIXING WITH SUBSOIL. GRADE AND SHAPE STOCKPILES TO DRAIN SURFACE WATER. COVER TO PREVENT WINDBLOWN DUST. COORDINATE LOCATION WITH OWNER'S REPRESENTATIVE OR AT LOCATION SHOWN ON PLANS.
7. REMOVE EXISTING ABOVE- AND BELOW-GRADE STRUCTURES AS INDICATED AND AS NECESSARY TO FACILITATE NEW CONSTRUCTION.
8. AT ALL LOCATIONS WHERE EXISTING PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING PAVEMENT SHALL BE SAW CUT TO A CLEAN SMOOTH EDGE.
9. PROTECT EXISTING BUILDINGS, WALKS, DRIVES, CURBS, EXISTING VEGETATION, ETC., THAT ARE TO REMAIN. REPAIR ANY DAMAGES THAT MAY OCCUR TO EXISTING ITEMS TO BE PROTECTED.
10. ALL ITEMS TO BE REMOVED FROM THE PROJECT AND EXCESS MATERIALS SHALL BE LEGALLY DISPOSED OF OFFSITE BY THE CONTRACTOR.
11. CONTINUOUSLY CLEAN-UP AND REMOVE WASTE MATERIALS FROM SITE. DO NOT ALLOW MATERIALS TO ACCUMULATE ON SITE.
12. DO NOT BURN OR BURY MATERIALS ON SITE. LEAVE SITE IN CLEAN CONDITION.

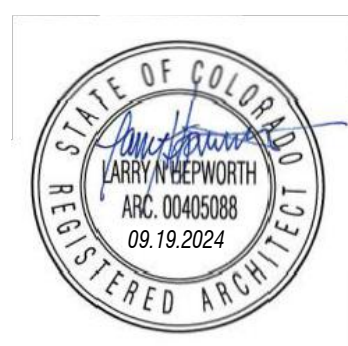
LEGEND

SYMBOL	DESCRIPTION	QTY
DEMOLITION		
D-01	SANDSTONE ROCK MAY BE RELOCATED - coordinate with University, Geology Department, and Architect before relocating	
D-02	EXISTING LIGHT POST - preserve and protect	
D-03	EXISTING TRANSFORMER - preserve and protect	
D-04	EXISTING UTILITY BOX - preserve and protect	
D-05	EXISTING STATUE - preserve and protect	
D-06	EXISTING SEWER MANHOLE - preserve and protect	
D-07	EXISTING FENCE - preserve and protect	
D-08	EXISTING PLANT - preserve and protect	
D-09	REMOVE COMMUNICATION BOX - clear and grub	
D-10	REMOVE CONCRETE MOWSTRIP - clear and grub	
D-11	REMOVE TREE - clear and grub	
D-12	EXISTING SANDSTONE ROCK TO REMAIN IN PLACE - preserve and protect	
D-13	SANDSTONE ROCK TO BE RELOCATED - coordinate with University, Geology Department, and Architect to determine new location	
[Hatched Pattern]	REMOVE DECOMPOSED GRANITE AND VEGETATION - clear and grub	6,763 sf
[Dotted Pattern]	EXISTING GRASS - preserve and protect	3,297 sf
[Diagonal Line Pattern]	REMOVE DECOMPOSED GRANITE AND VEGETATION - clear and grub, inform Doug MacDonald (CMU Landscape Manager) and allow time for CMU landscape maintenance team to relocate existing plants to other areas of campus	605 sf
[Solid Grey Pattern]	REMOVE CONCRETE PAD - clear and grub	91 sf



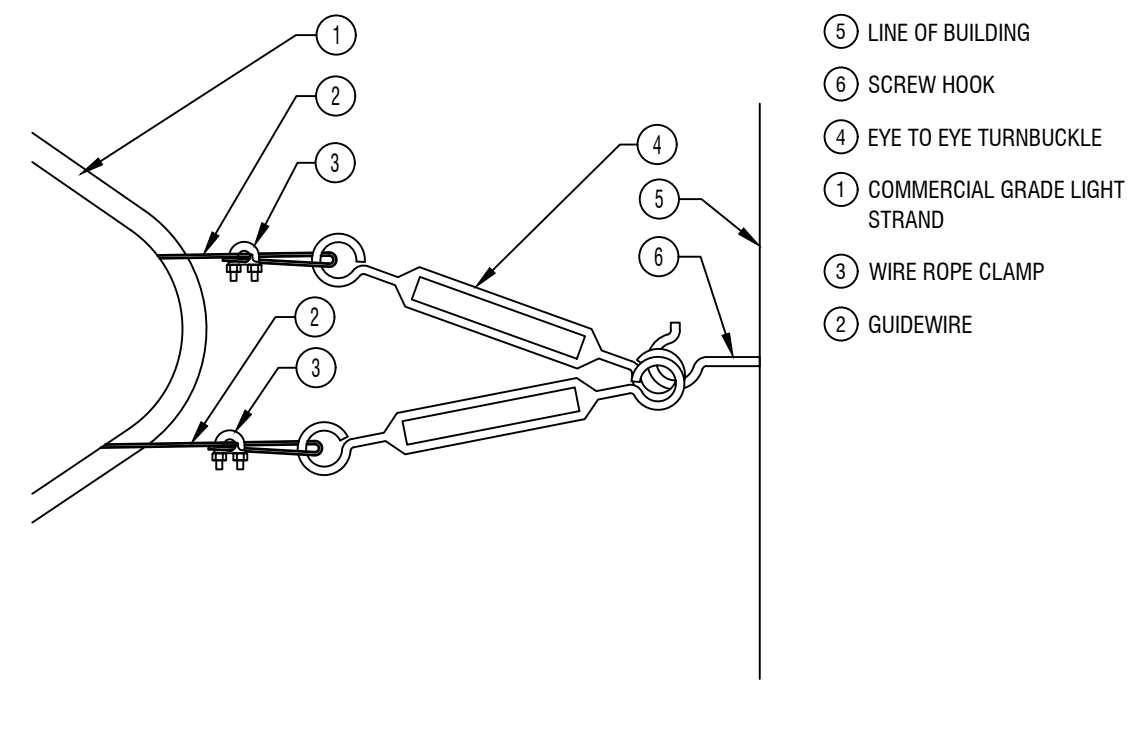
CONSTRUCTION DOCUMENTS

MARK:	DESCRIPTION:
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ISSUED:	09.19.2024

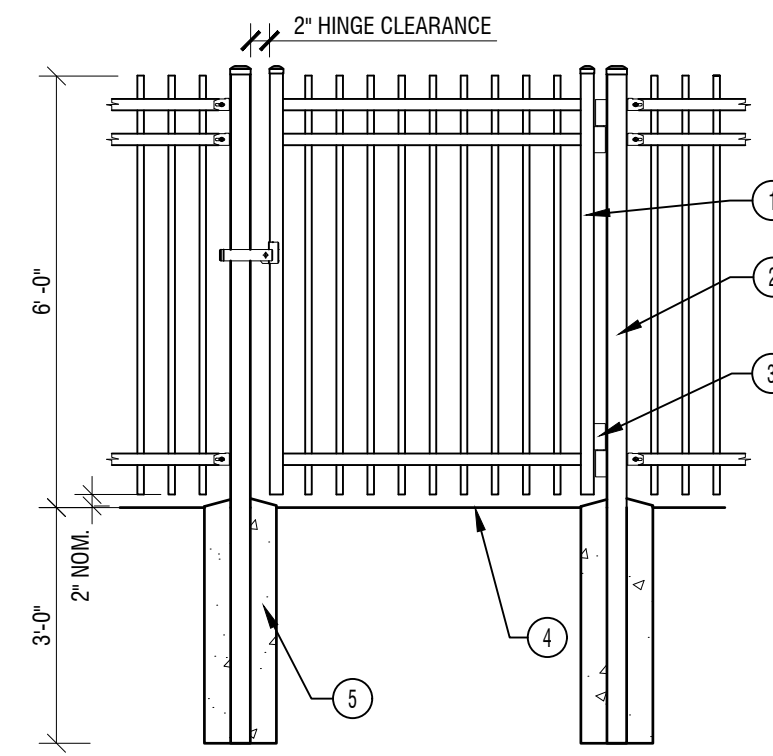


DEMOLITION PLAN

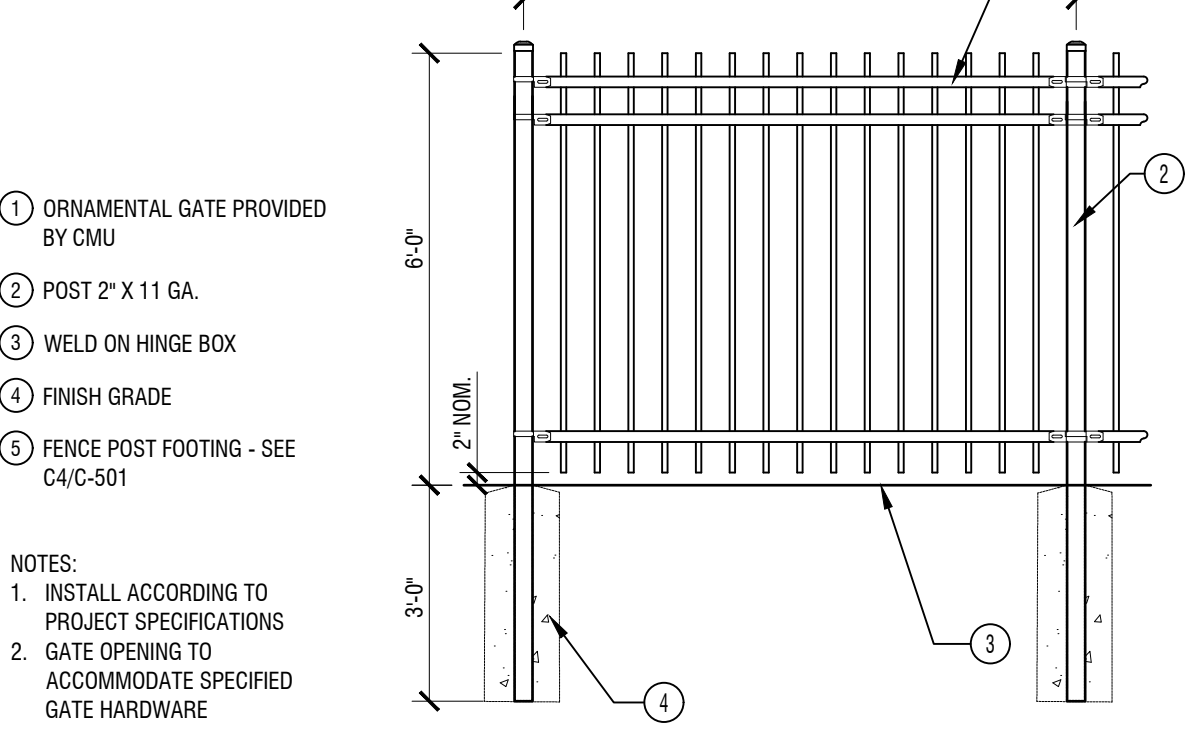
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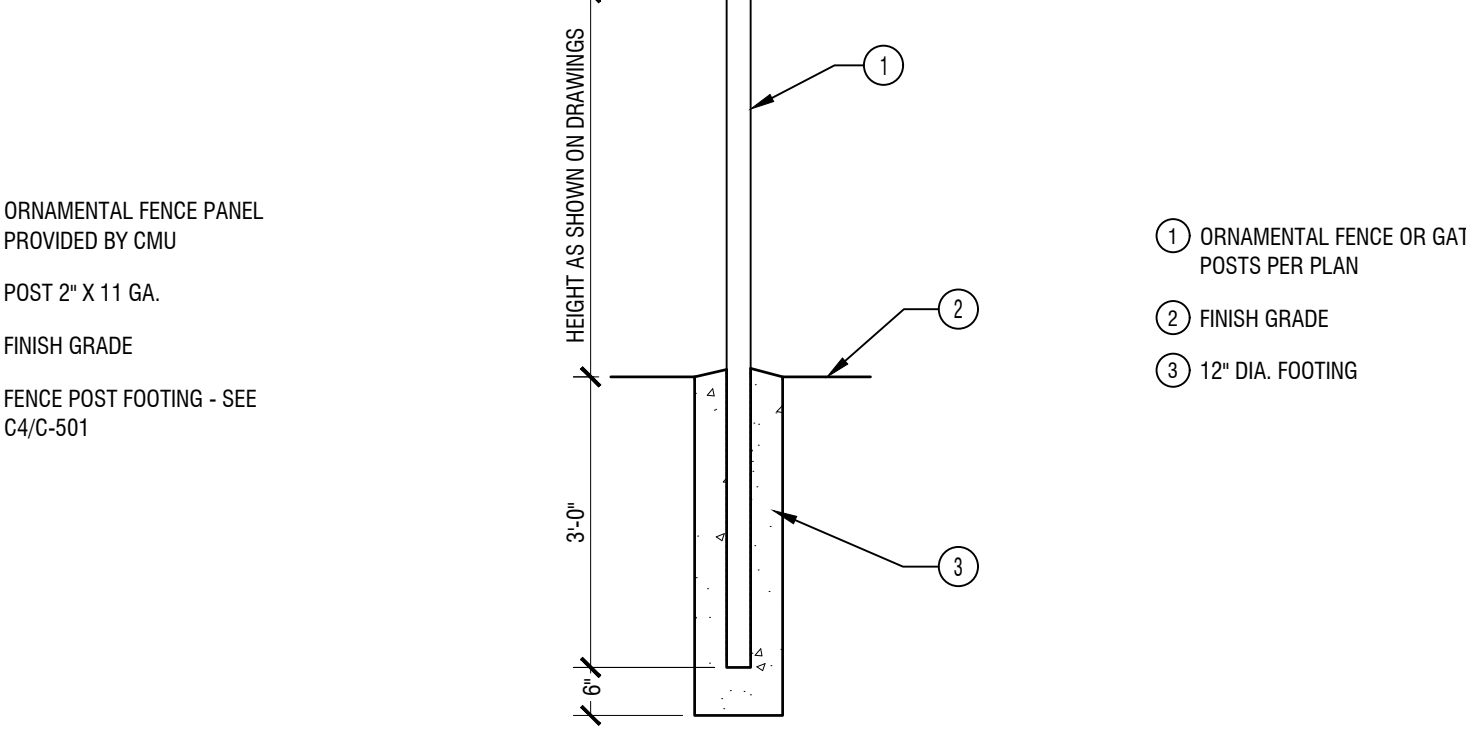
C1 STRING LIGHT CONNECTION TO BUILDING
1 1/2" = 1'-0"
P-3-CMU-WUBB-79



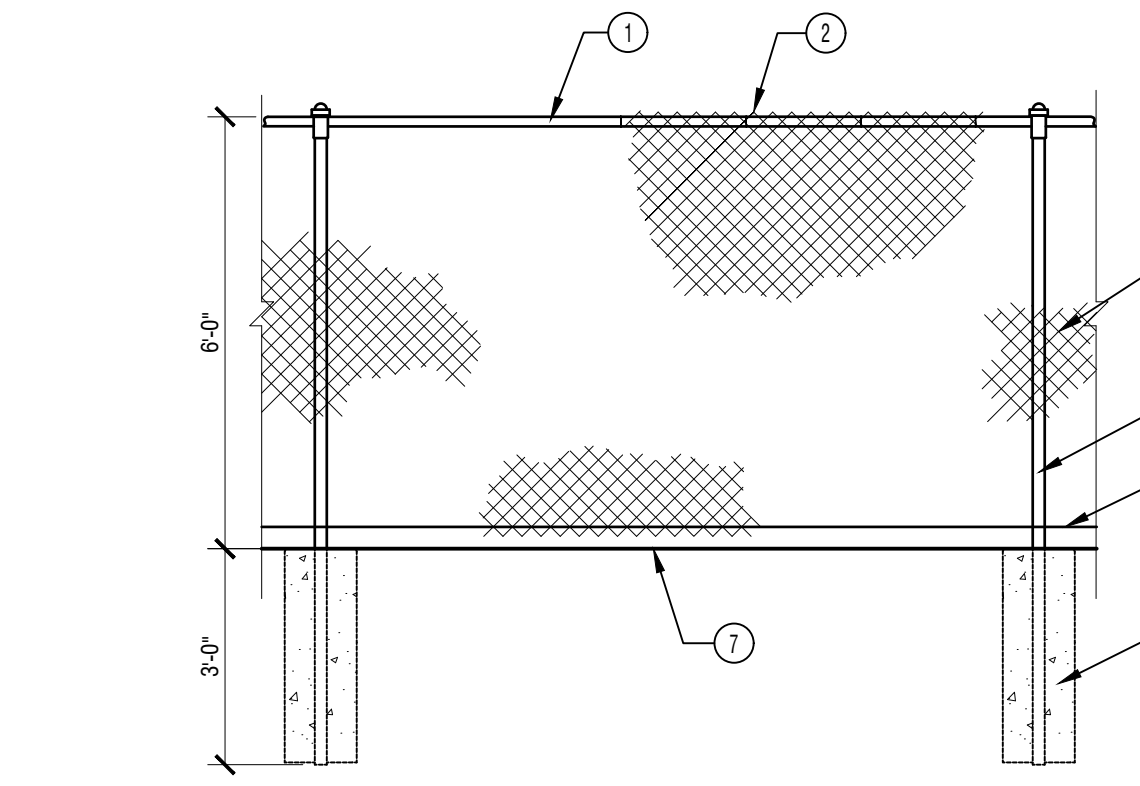
C2 ORNAMENTAL SINGLE GATE - 6'
3/8" = 1'-0"
P-3-CMU-WUBB-73



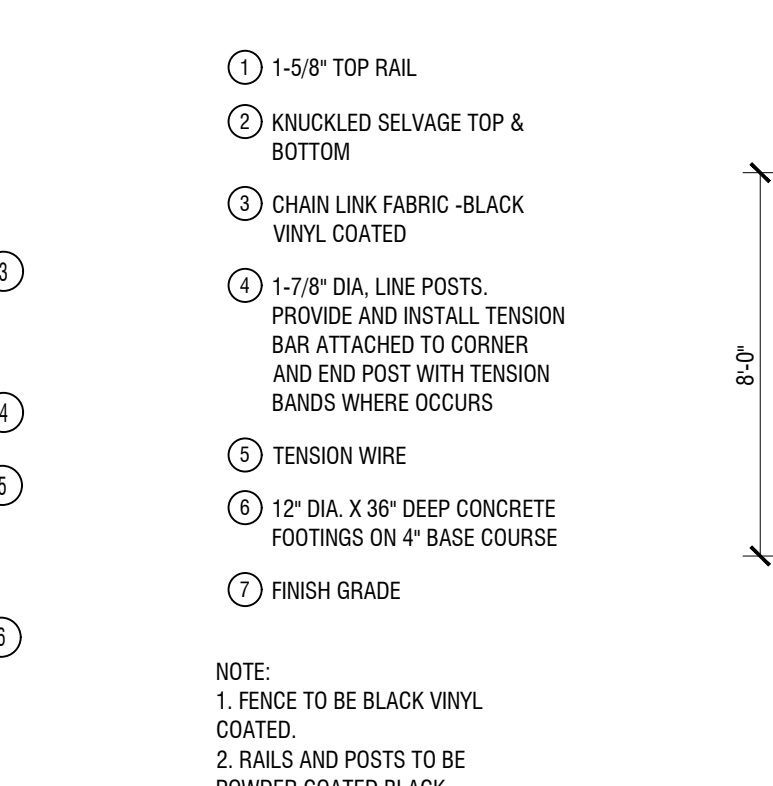
C3 ORNAMENTAL FENCE - 6'
3/8" = 1'-0"
P-3-CMU-WUBB-74



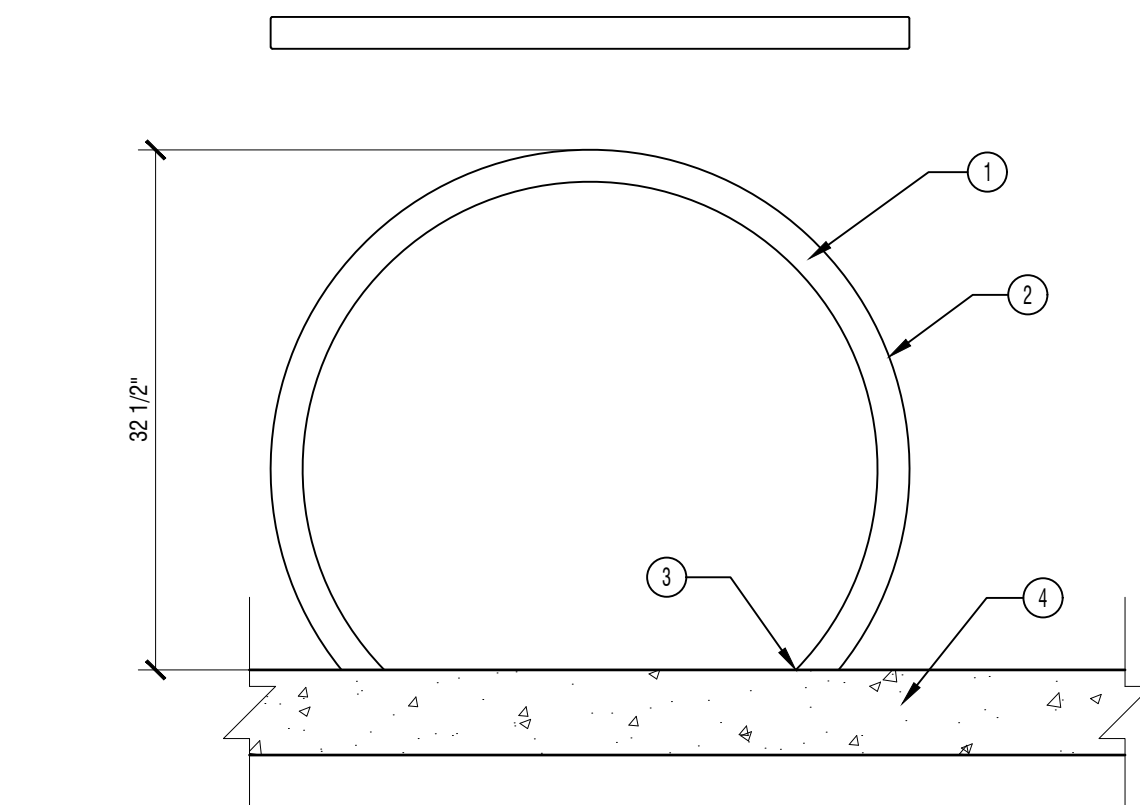
C4 ORNAMENTAL FENCE POST SECTION
1/2" = 1'-0"
P-3-CMU-WUBB-77



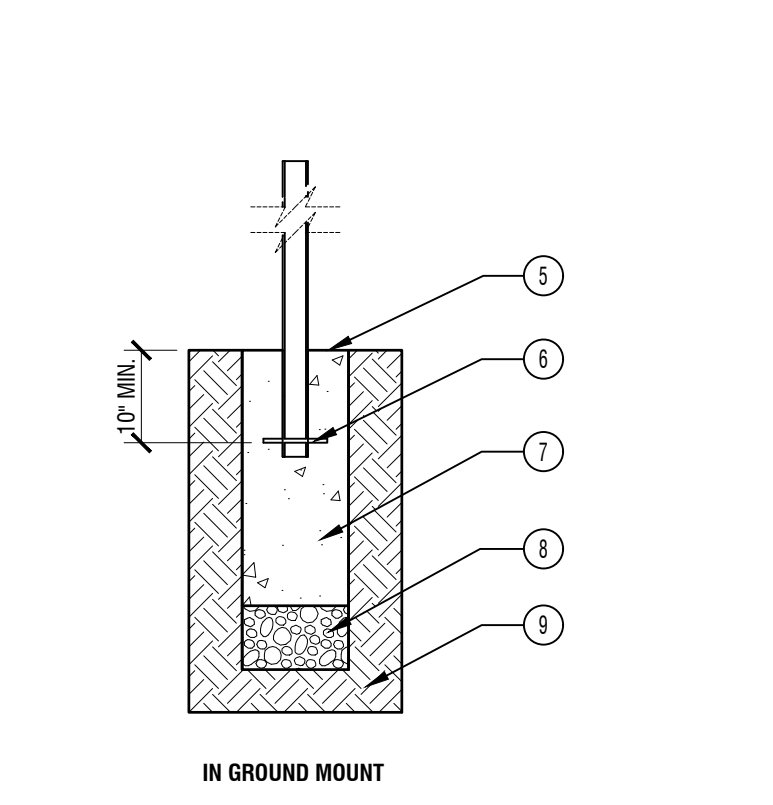
B1 CHAIN LINK FENCE - 6'
3/8" = 1'-0"
P-3-CMU-WUBB-62



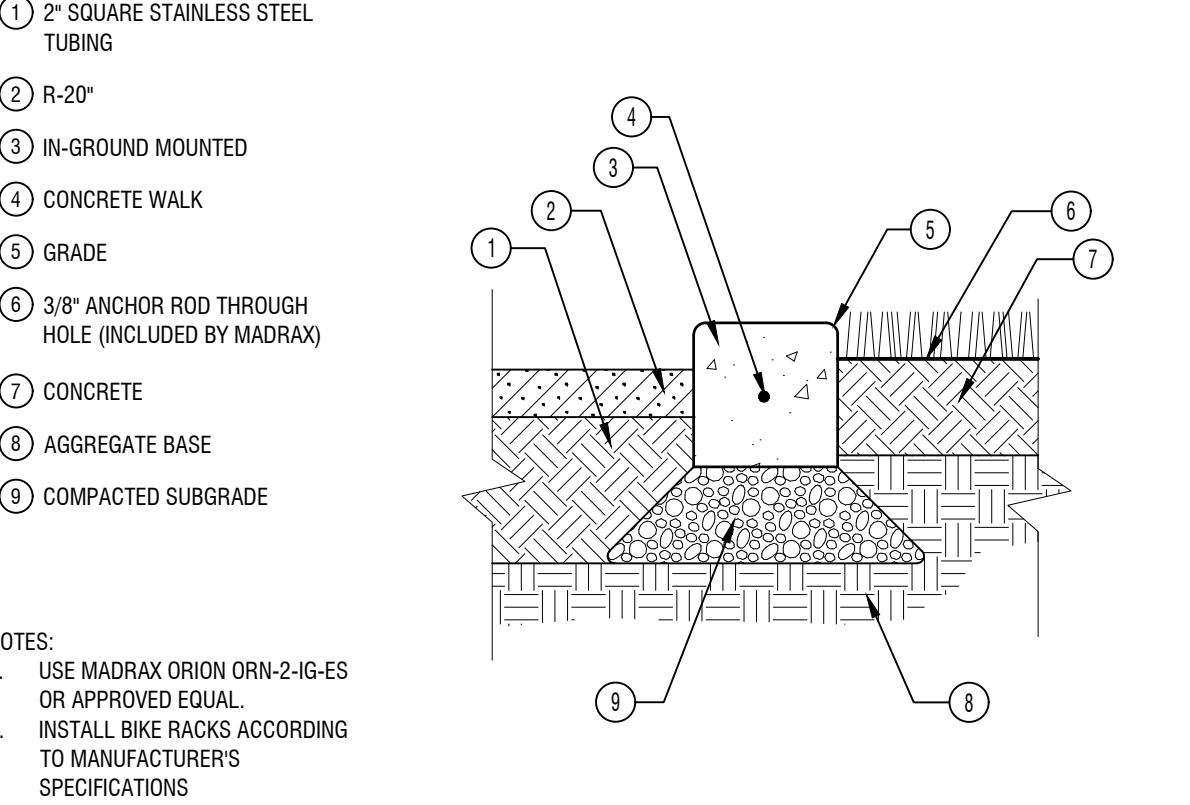
B2 CHAIN LINK DOUBLE GATE WITH TRUSS ROD
1/4" = 1'-0"
P-3-CMU-WUBB-63



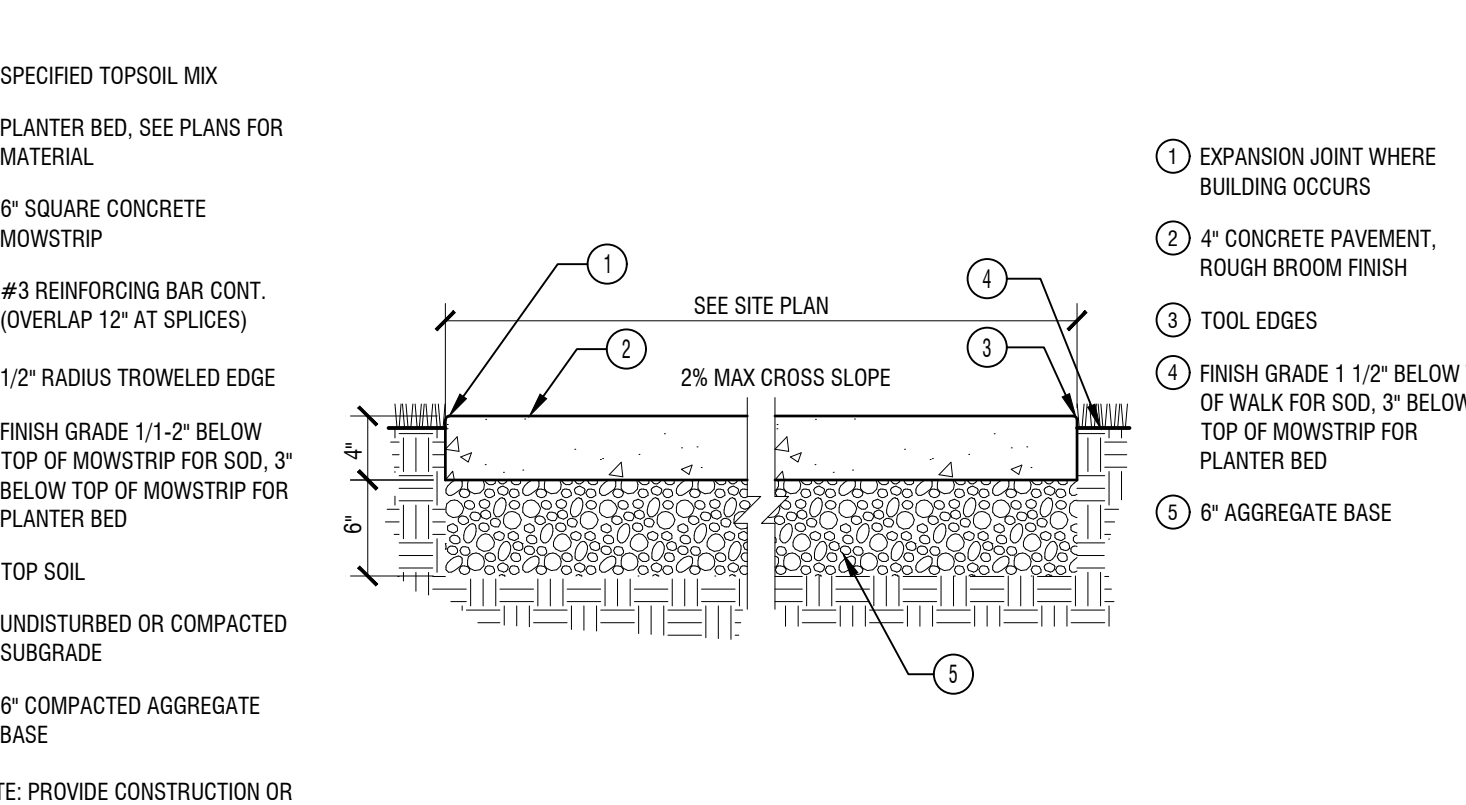
A1 MADRAX ORION BIKE RACK
1" = 1'-0"
P-3-CMU-WUBB-02



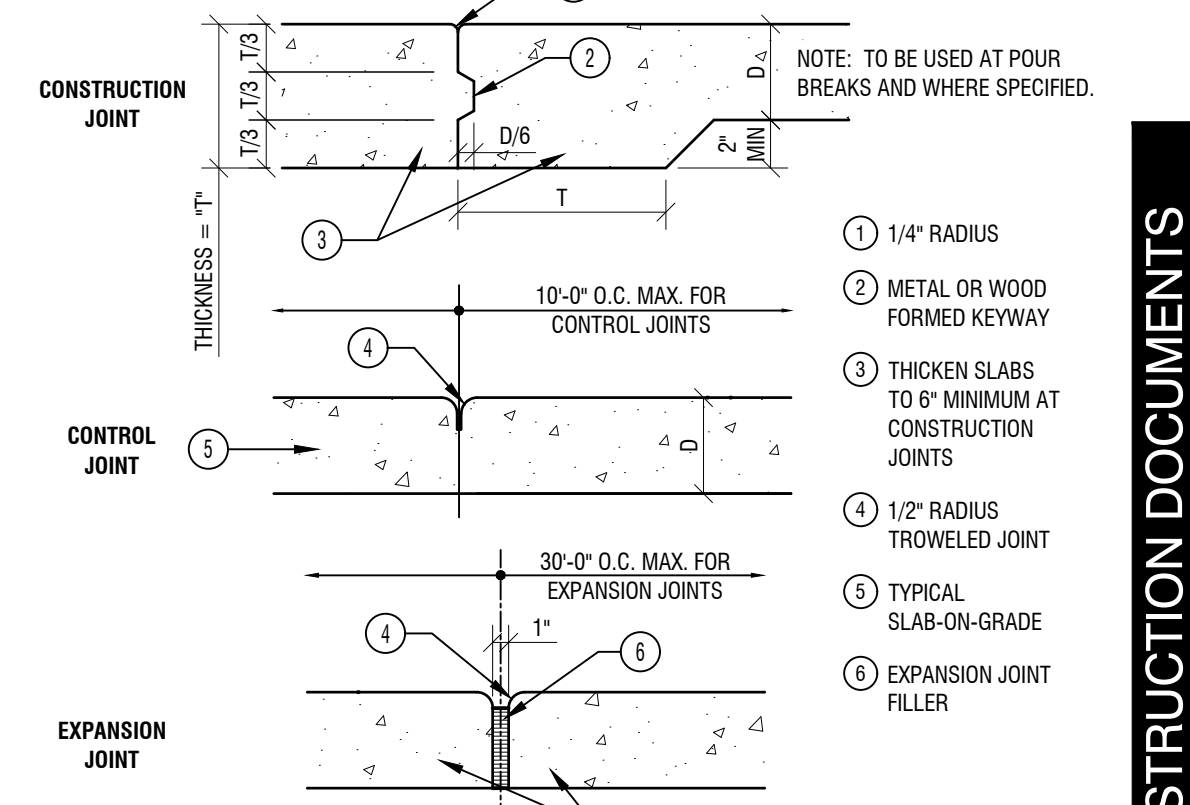
A2 CONCRETE MOWSTRIP - 6'
1 1/2" = 1'-0"
P-3-CMU-WUBB-68



A3 CONCRETE SURFACE
1" = 1'-0"
P-3-CMU-WUBB-70



A4 JOINT SECTIONS
1 1/2" = 1'-0"
P-3-CMU-WUBB-70



A5 JOINT SECTIONS
1 1/2" = 1'-0"
P-3-CMU-WUBB-70

SECTION 32 8423 CONT.

3.07 BACKFILLING

- A. COVER BOTH TOP AND SIDES OF PIPE WITH 3 INCH (75 MM) OF BACKFILL MATERIAL AS SPECIFIED UNDER PART 2 - PRODUCTS.
B. BACKFILL TRENCH AND COMPACT TO WITHIN 5 INCHES (127 MM) OF FINISH GRADE AS SPECIFIED IN RELATED SECTIONS.
C. DO NOT COVER PRESSURE MAIN, SPRINKLER PIPE, OR FITTINGS UNTIL PRESSURE TEST HAS BEEN COMPLETED AND ARCHITECT HAS INSPECTED AND APPROVED THE SYSTEM
D. AFTER BACKFILLING, PERFORM AN OPERATING TEST OF THE ENTIRE SYSTEM.
E. ALL TRENCHES SHALL BE BACKFILLED AND THEN SATURATED WITH WATER SUFFICIENTLY TO ENSURE NO SETTLING OF THE SURFACE AFTER LAWN IS PLANTED.
F. ANY PORTION OF THE SYSTEM WHICH SHOWS DEFECTS OR LEAKAGE SHALL BE REPAIRED TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT AND OWNER OR BE REPLACED.

3.08 SYSTEM STARTUP

- A. PREPARE AND START SYSTEM IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. ADJUST CONTROL SYSTEM TO ACHIEVE TIME CYCLES REQUIRED TO PROVIDE PROPER AMOUNTS OF WATER TO ALL PLANTS.
C. ADJUST HEADS TO PROPER GRADE WHEN TURF IS SUFFICIENTLY ESTABLISHED TO ALLOW WALKING ON IT WITHOUT APPRECIABLE HARM.
D. ADJUST SPRINKLER HEADS FOR PROPER DISTRIBUTION AND SO SPRAY DOES NOT FALL ON BUILDING.

3.09 CLOSEOUT ACTIVITIES

- A. AT THE POINT OF SUBSTANTIAL COMPLETION OF WORK OUTLINED IN THESE PLANS, THE LANDSCAPE CONTRACTOR SHALL CONTACT THE OWNER'S REPRESENTATIVE AND ARRANGE FOR A WALK THROUGH TO VERIFY THE INSTALLATION OF THE SYSTEM.
B. AT THE TIME OF FINAL INSPECTION, THE ENTIRE SYSTEM MUST BE TESTED IN THE PRESENCE OF OWNER'S REPRESENTATIVE.
C. BEFORE THE INSPECTION IS COMPLETE, THE CONTRACTOR MUST FURNISH THE "AS BUILT" DRAWINGS.
D. IF AT THE TIME OF THE FINAL INSPECTION THERE IS ANY ADDITIONAL WORK TO SATISFY CONTRACT REQUIREMENTS, IT WILL BE NOTED ON A "PUNCH LIST".
E. INSTRUCT OWNER'S PERSONNEL IN OPERATION AND MAINTENANCE OF THE SYSTEM, INCLUDING ADJUSTING OF SPRINKLER HEADS.

3.10 CLEAN-UP AND MAINTENANCE

- A. REMOVE FROM SITE ALL DEBRIS RESULTING FROM WORK OF THIS SECTION.
B. SEE SECTION 01 7000 - EXECUTION AND CLOSEOUT REQUIREMENTS, FOR ADDITIONAL REQUIREMENTS RELATING TO MAINTENANCE SERVICE.
C. PROVIDE ONE COMPLETE SPRING START-UP AND A FALL SHUTDOWN BY INSTALLER, AT NO EXTRA COST TO OWNER.

3.11 WARRANTY

- A. ALL WORK SHALL BE WARRANTED FOR COMPLIANCE WITH THE CONTRACT REQUIREMENTS, INCLUDING REPLACEMENT, FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.
B. DURING ONE-YEAR WARRANTY PERIOD, CONTRACTOR WILL COMPLY WITH THE FOLLOWING:
1. FILL AND REPAIR LOW AREAS AND REPLACE PLANTINGS DUE TO SETTLEMENT OF EXCAVATED AREAS.
2. AT THE END OF THE FIRST WATERING SEASON, CONTRACTOR SHALL SHUT OFF AND WINTERIZE THE SYSTEM.
3. AT THE BEGINNING OF THE NEXT SEASON, CONTRACTOR SHALL RESTART SYSTEM AND MAKE ANY REPAIRS OR ADJUSTMENTS NEEDED TO MAKE SYSTEM FULLY OPERATIONAL.

END OF SECTION

SECTION 32 9113 SOIL PREPARATION

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. PERFORM SOIL PREPARATION WORK.
B. FURNISH AND APPLY SOIL AMENDMENTS.
C. PERFORM FINE GRADING WORK REQUIRED TO PREPARE SITE FOR PAVING FINISH GRADING AND FOR LANDSCAPE FINISH GRADING.

1.02 REFERENCES

- A. ASTM D1557 - STANDARD TEST METHODS FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING MODIFIED EFFORT.

1.03 SUBMITTALS

- A. PRODUCT DATA: PRODUCT LITERATURE AND CHEMICAL/NUTRIENT ANALYSIS OF SOIL AMENDMENTS AND FERTILIZERS.
B. INFORMATIONAL SUBMITTALS:
1. FIELD QUALITY CONTROL SUBMITTALS:
a. SUBMIT TESTS ON IMPORTED AND SITE TOPSOIL BY LICENSED LABORATORY BEFORE USE.
2) BEFORE USE, TOPSOIL SHALL MEET MINIMUM SPECIFIED REQUIREMENTS AND BE APPROVED BY ARCHITECT.
2) IF NECESSARY, SUBMIT PROPOSED AMENDMENTS AND APPLICATION RATES NECESSARY TO BRING TOPSOIL UP TO MINIMUM SPECIFIED REQUIREMENTS.
b. SUBMIT REPORT STATING LOCATION OF SOURCE OF IMPORTED TOPSOIL AND ACCOUNT OF RECENT USE.

PART 2 PRODUCTS

2.01 MATERIALS

- A. TOPSOIL:
1. TOPSOIL USED IN LANDSCAPED AREAS, WHETHER IMPORTED, STOCKPILED, OR IN PLACE, SHALL BE FERTILE, LOOSE, FRIABLE SOIL MEETING THE FOLLOWING CRITERIA:
a. CHEMICAL CHARACTERISTICS:
1) ACIDITY / ALKALINITY RANGE: PH 5.5 TO 7.0.
2) SOLUBLE SALTS: LESS THAN 3.0 MMHOS/CM.
3) SODIUM ABSORPTION RATIO (SAR): LESS THAN 6.0.
4) ORGANIC MATTER: FIVE PERCENT OR GREATER
b. PHYSICAL CHARACTERISTICS:
1) GRADATION AS DEFINED BY USDA TRIANGLE OF PHYSICAL CHARACTERISTICS AS MEASURED BY HYDROMETER.
(a) SAND: 15 TO 60 PERCENT
(b) SILT: 10 TO 60 PERCENT
(c) CLAY: 5 TO 30 PERCENT
2) CLEAN AND FREE FROM TOXIC MINERALS AND CHEMICALS, NOXIOUS WEEDS, ROCKS LARGER THAN 1-1/2 INCH IN ANY DIMENSION, AND OTHER OBJECTIONABLE MATERIALS.
3) SOIL SHALL NOT CONTAIN MORE THAN 2 PERCENT BY VOLUME OF ROCKS MEASURING OVER 3/32 INCH IN LARGEST SIZE.
c. FERTILITY REQUIREMENTS:
1) NITRATE-NITROGEN PPM > 20
2) PHOSPHOROUS PPM > 15
3) POTASSIUM PPM > 150
4) IRON PPM > 10
2. TOPSOIL DEPTHS FOR THE PLANTING AREAS ARE AS FOLLOWS:
a. SOD AREAS: 4 INCHES
b. PLANTER BEDS: 12 INCHES
B. SOIL AMENDMENTS:
1. AMEND TOPSOIL, EITHER IMPORTED OR STOCKPILED, TO BRING IT IN COMPLIANCE WITH SOILS TEST.
a. ACCEPTABLE FERTILIZERS AND APPLICATION RATES:
1) LAWN: PHOSPHORUS 1-2 LBS PER 1000 SQ. FT., POTASSIUM 2 LBS. PER 1000 SQ.FT., AND NITROGEN 2-4 LBS. PER 1000 SQ. FT.
2) SHRUBS: PHOSPHORUS 1-2 LBS PER 1000 SQ. FT., POTASSIUM 2 LBS. PER 1000 SQ.FT., AND NITROGEN 1-2 LBS. PER 1000 SQ. FT.
3) EQUAL AS APPROVED BY ARCHITECT BEFORE INSTALLATION.
b. ACCEPTABLE SOIL CONDITIONERS AND APPLICATION RATES:
1) TYPE ONE ACCEPTABLE PRODUCTS.
(a) SOIL CONDITIONER THAT MEETS THE REQUIRED FERTILIZER AND SOIL AMENDMENTS STATED ABOVE CAN BE USED AT THE DISCRETION OF THE CONTRACTOR.

PART 3 EXECUTION

3.01 PERFORMANCE

- A. PROTECTION OF IN-PLACE CONDITIONS: PROTECT UTILITIES AND SITE ELEMENTS FROM DAMAGE.
B. SOIL AMENDMENTS:
1. ADD SPECIFIED SOIL AMENDMENTS AT SPECIFIED RATES TO LAWN AREAS.
2. ROTO-TILL OR OTHERWISE MIX AMENDMENTS EVENLY INTO TOP 4 INCHES OF TOPSOIL.
3. INCORPORATE AND LEACH SOIL AMENDMENTS WHICH REQUIRE LEACHING, SUCH AS GYPSUM, WITHIN SUCH TIME LIMITS THAT SOIL IS SUFFICIENTLY DRY TO ALLOW PROPER APPLICATION OF FERTILIZER AND SOIL CONDITIONERS.

C. SURFACE PREPARATION:

- 1. LANDSCAPING AND PLANTING AREAS:
a. BEFORE GRADING, DIG OUT WEEDS FROM PLANTING AREAS BY THEIR ROOTS AND REMOVE FROM SITE.
b. BEFORE BEGINNING MAINTENANCE PERIOD, PLANTS SHALL BE IN AT LEAST AS SOUND, HEALTHY, VIGOROUS, AND IN APPROVED CONDITION AS WHEN DELIVERED TO SITE.
c. REMOVE IMPORTED PAVING BASE MATERIAL PRESENT IN PLANTING AREAS DOWN TO NATURAL SUBGRADE OR OTHER MATERIAL ACCEPTABLE TO ARCHITECT.
D. PERFORMANCE:
1. DO NOT EXPOSE OR DAMAGE EXISTING SHRUB OR TREE ROOTS.
2. TOLERANCES:
a. LANDSCAPING AND PLANTING TOLERANCES:
1) MAXIMUM VARIATION FROM REQUIRED GRADES SHALL BE 1/10 OF ONE FOOT.
2) TO ALLOW FOR FINAL FINISH GRADES OF PLANTING AREAS, FINE GRADE ELEVATIONS BEFORE PLACING TOPSOIL AND MULCH ARE:
(a) SOD AREAS: 5.5 INCHES BELOW TOP OF WALK OR CURB.
(b) PLANTER BED AREAS: 16 INCHES BELOW TOP OF WALK OR CURB.
3. DO NOT EXPOSE OR DAMAGE EXISTING SHRUB OR TREE ROOTS.
4. SLOPE GRADE AWAY FROM BUILDING AS SPECIFIED.
END OF SECTION

SECTION 32 9223 SODDING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. PLACING TOPSOIL.
B. FERTILIZING.
C. SOD INSTALLATION.
D. MAINTENANCE.

1.02 RELATED REQUIREMENTS

- A. SECTION 31 2200 - GRADING: PREPARATION OF SUBSOIL AND PLACEMENT OF TOPSOIL IN PREPARATION FOR THE WORK OF THIS SECTION.

1.03 DEFINITIONS

- A. WEEDS: INCLUDES DANDELION, JIMSONWEED, QUACKGRASS, HORSETAIL, MORNING GLORY, RUSH GRASS, MUSTARD, LAMBSQUARTER, CHICKWEED, CRESS, CRABGRASS, CANADIAN THISTLE, NUTGRASS, POISON OAK, BLACKBERRY, TANSY RAGWORT, BERMUDA GRASS, JOHNSON GRASS, POISON IVY, NUT SEDGE, NIMBLE WILL, BINDWEED, BENT GRASS, WILD GARLIC, PERENNIAL SORELE, AND BROME GRASS.

1.04 REFERENCE STANDARDS

- A. 21 CFR 11 - PART 11, ELECTRONIC RECORDS; ELECTRONIC SIGNATURES -- SCOPE AND APPLICATION; CURRENT EDITION.
B. TPI (SPEC) - GUIDELINE SPECIFICATIONS TO TURFGRASS SODDING; 2006.

1.05 QUALITY ASSURANCE

- A. SOD PRODUCER: COMPANY SPECIALIZING IN SOD PRODUCTION AND HARVESTING WITH MINIMUM FIVE YEARS EXPERIENCE, AND CERTIFIED BY THE STATE OF COLORADO.
B. INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED LANDSCAPING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT AND WITH A RECORD OF SUCCESSFUL LANDSCAPE ESTABLISHMENT.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. DELIVER SOD IN ROLLS. PROTECT EXPOSED ROOTS FROM DEHYDRATION.
B. DO NOT DELIVER MORE SOD THAN CAN BE LAID WITHIN 24 HOURS.
C. HARVEST, DELIVER, STORE, AND HANDLE SOD ACCORDING TO THE REQUIREMENTS OF THE AMERICAN SOD PRODUCERS ASSOCIATION (ASPA) "SPECIFICATIONS FOR TURFGRASS SOD MATERIALS AND TRANSPLANTING/INSTALLING".

1.07 PROJECT CONDITIONS

- A. UTILITIES: DETERMINE LOCATION OF ABOVE GRADE AND UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNERS WHICH WILL AVOID DAMAGE.
B. EXCAVATION: WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY LANDSCAPE ARCHITECT BEFORE PLANTING.

1.08 COORDINATION AND SCHEDULING

- A. COORDINATE INSTALLATION OF PLANTING MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF PLANT MATERIAL REQUIRED.

1.09 WARRANTY

- A. GENERAL WARRANTY: THE SPECIAL WARRANTY SPECIFIED IN THIS ARTICLE SHALL NOT DEPRIVE THE OWNER OF OTHER RIGHTS THE OWNER MAY HAVE UNDER OTHER PROVISIONS OF THE CONTRACT DOCUMENTS AND SHALL BE IN ADDITION TO AND RUN CONCURRENT WITH OTHER WARRANTIES MADE BY THE CONTRACTOR UNDER REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- B. SPECIAL WARRANTY: WARRANT ALL LAWN AREAS FOR A PERIOD OF ONE YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLIGENCE, OR ABUSE BY OWNER, ABNORMAL WEATHER CONDITIONS UNUSUAL FOR WARRANTY PERIOD, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
C. REMOVE AND REPLACE DEAD MATERIALS IMMEDIATELY UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
D. A LIMIT OF ONE REPLACEMENT OF EACH PLANT MATERIAL WILL BE REQUIRED, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.

PART 2 PRODUCTS

2.01 MATERIALS

- A. SOD: TPI (SPEC), CERTIFIED TURFGRASS SOD QUALITY; CULTIVATED GRASS SOD; TYPE INDICATED IN PLANT SCHEDULE ON DRAWINGS; WITH STRONG FIBROUS ROOT SYSTEM, FREE OF STONES, BURNED OR BARE SPOTS; CONTAINING NO MORE THAN 5 WEEDS PER 1000 SQ FT (100 SQ M).
1. KENTUCKY BLUE GRASS TYPE: 3 CULTIVAR MINIMUM.
2. THICKNESS: MINIMUM 1 INCH (25 MM) AND MAXIMUM 1-3/8 INCH (35 MM) TOPSOIL BASE.
3. CUT SOD IN AREA NOT EXCEEDING 1 SQ YD (1 SQ M).
4. MACHINE CUT SOD AND LOAD ON PALLETS IN ACCORDANCE WITH TPI (SPEC) GUIDELINES.
B. TOPSOIL: FERTILE, AGRICULTURAL SOIL, TYPICAL FOR LOCALITY, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, TAKEN FROM DRAINED SITE; FREE OF SUBSOIL, CLAY, OR IMPURITIES, PLANTS, WEEDS AND ROOTS; PH VALUE OF MINIMUM 5.5 AND MAXIMUM 7.0.
C. COMMERCIAL FERTILIZER: COMPLETE FERTILIZER OF NEUTRAL CHARACTER; RECOMMENDED FOR GRASS, WITH FIFTY PERCENT OF THE ELEMENTS DERIVED FROM ORGANIC SOURCES; OF PROPORTION NECESSARY TO ELIMINATE ANY DEFICIENCIES OF TOPSOIL, TO THE FOLLOWING PROPORTIONS:
1. NITROGEN: > 16% (OF WHICH 50% WILL BE ORGANIC), PROVIDE NITROGEN IN A FORM THAT WILL BE AVAILABLE TO LAWN DURING INITIAL PERIOD OF GROWTH.
2. PHOSPHORIC ACID: 16%
3. SOLUBLE POTASH: 8%

PART 3 EXECUTION

3.01 EXAMINATION

- A. VERIFY THAT PREPARED SOIL BASE IS READY TO RECEIVE THE WORK OF THIS SECTION.
B. PERFORMANCE OF WORK IF THIS SECTION.
C. CORRECTED.

3.02 PREPARATION

- A. PLACE TOPSOIL IN ACCORDANCE WITH SECTION 31 2200.
B. LOOSEN SUB-GRADE TO A MINIMUM DEPTH OF 4 INCHES.
C. SPREAD PLANTING SOIL MIXTURE TO DEPTH REQUIRED TO MEET THICKNESS, GRADES, AND ELEVATIONS SHOWN, AFTER LIGHT ROLLING AND NATURAL SETTLEMENT.
1. PLACE APPROXIMATELY 1/2 THE THICKNESS OF PLANTING SOIL MIXTURE REQUIRED.
2. ALLOW FOR SOD THICKNESS IN AREAS TO BE SODDED.

- D. PREPARATION OF UNCHANGED GRADES: WHERE LAWNS ARE TO BE PLANTED IN AREAS UNALTERED OR UNDISTURBED BY EXCAVATING, GRADING, OR SURFACE SOIL STRIPPING OPERATIONS, PREPARE SOIL AS FOLLOWS:
1. TILL SURFACE SOIL TO A DEPTH OF AT LEAST 6 INCHES.
2. CLEAN SURFACE SOIL OF ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEEOUS MATERIALS HARMFUL TO PLANT GROWTH.

- E. GRADE LAWN AND GRASS AREAS TO A SMOOTH, EVEN SURFACE WITH LOOSE, UNIFORMLY FINE TEXTURE.
F. MOISTEN PREPARED LAWN AREAS BEFORE PLANTING WHEN SOIL IS DRY.
G. RESTORE PREPARED AREAS IF ERODED OR OTHERWISE DISTURBED AFTER FINE GRADING AND BEFORE PLANTING.

- H. TOPSOIL DEPTH SHALL BE A MINIMUM OF 4 INCHES.
A. APPLY FERTILIZER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. APPLY AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO INSTALLATION OF SOD.
C. APPLY FERTILIZER NO MORE THAN 48 HOURS BEFORE LAYING SOD.

3.03 FERTILIZING

- A. APPLY FERTILIZER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
B. APPLY AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO INSTALLATION OF SOD.
C. APPLY FERTILIZER NO MORE THAN 48 HOURS BEFORE LAYING SOD.

- D. MIX THOROUGHLY INTO UPPER 2 INCHES (50 MM) OF TOPSOIL.
E. LIGHTLY WATER TO AID THE DISSIPATION OF FERTILIZER.

3.04 LAYING SOD

- A. MOISTEN PREPARED SURFACE IMMEDIATELY PRIOR TO LAYING SOD.
B. LAY SOD WITHIN 24 HOURS AFTER HARVESTING TO PREVENT DETERIORATION.
C. LAY SOD SMOOTH AND TIGHT WITH NO OPEN JOINTS VISIBLE.
D. WHERE NEW SOD ADJOINS EXISTING GRASS AREAS, ALIGN TOP SURFACES.
E. WHERE SOD IS PLACED ADJACENT TO HARD SURFACES, SUCH AS CURBS, PAVEMENTS, ETC., PLACE TOP ELEVATION OF SOD 1/2 INCH (13 MM) BELOW TOP OF HARD SURFACE.
F. WATER SODDED AREAS IMMEDIATELY AFTER INSTALLATION.
G. AFTER SOD AND SOIL HAVE DRIED, ROLL SODDED AREAS TO ENSURE GOOD BOND BETWEEN SOD AND SOIL.

3.05 CLEAN-UP AND PROTECTION

- A. DURING LANDSCAPING, KEEP PAVEMENT CLEAN AND WORK AREA IN AN ORDERLY CONDITION.
B. PROTECT LANDSCAPING FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND TRESPASSERS.

3.06 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF THE OWNER'S PROPERTY.

3.07 MAINTENANCE

- A. PROVIDE MAINTENANCE AT NO EXTRA COST TO OWNER; OWNER WILL PAY FOR WATER.
B. MOW GRASS AT REGULAR INTERVALS TO MAINTAIN AT A MAXIMUM HEIGHT OF 2-1/2 INCHES (65 MM).
C. APPLY FERTILIZER TO LAWN AFTER FIRST MOWING AND WHEN GRASS IS DRY.
D. NEATLY TRIM EDGES AND HAND CLIP WHERE NECESSARY.
E. IMMEDIATELY REMOVE CLIPPINGS AFTER MOWING AND TRIMMING.
F. WATER TO PREVENT GRASS AND SOIL FROM DRYING OUT TO A UNIFORM DEPTH OF 4 INCHES.
G. ROLL SURFACE TO REMOVE IRREGULARITIES.
H. CONTROL GROWTH OF WEEDS.
I. IMMEDIATELY REPLACE SOD TO AREAS THAT SHOW DETERIORATION OR BARE SPOTS.
J. PROTECT SODDED AREAS WITH WARNING SIGNS DURING MAINTENANCE PERIOD.

END OF SECTION

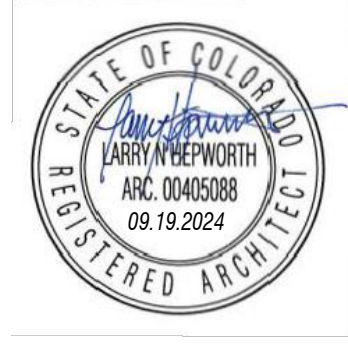


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Table with columns: MARK, DATE, DESCRIPTION. Includes project information like PROJECT #, DRAWN BY, CHECKED BY, ISSUED.

PROJECT #: 323218 DRAWN BY: J. CLEMENTS CHECKED BY: L. HEPWORTH ISSUED: 09.19.2024



LANDSCAPE SPECIFICATIONS

L-002

CONSTRUCTION DOCUMENTS

D

C

B

A

SECTION 32 9300
PLANTS: EXTERIOR PLANTS

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. PREPARATION OF SUBSOIL.
- B. TOPSOIL BEDDING.
- C. NEW TREES AND PLANTS.
- D. FERTILIZER.
- E. MAINTENANCE.
- F. TREE AND SHRUB PRUNING.

1.02 DEFINITIONS

- A. WEEDS: ANY PLANT LIFE NOT SPECIFIED OR SCHEDULED.
- B. PLANTS: LIVING TREES, PLANTS, AND GROUND COVER SPECIFIED IN THIS SECTION, AND DESCRIBED IN ANSI Z60.1.

1.03 REFERENCE STANDARDS

- A. ANSI A300 PART 1 - AMERICAN NATIONAL STANDARD FOR TREE CARE OPERATIONS -- TREE, SHRUB AND OTHER WOODY PLANT MAINTENANCE -- STANDARD PRACTICES, 2017.
- B. ANSIAHIA Z60.1 - AMERICAN NATIONAL STANDARD FOR NURSERY STOCK; 2014.

1.04 QUALITY ASSURANCE

- A. NURSERY QUALIFICATIONS: COMPANY SPECIALIZING IN GROWING AND CULTIVATING THE PLANTS WITH THREE YEARS DOCUMENTED EXPERIENCE.
- B. INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED LANDSCAPING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT WITH AT LEAST 3 YEARS EXPERIENCE AND A RECORD OF SUCCESSFUL LANDSCAPE ESTABLISHMENT.
- C. PROVIDE QUALITY, SIZE, GENUS, SPECIES, AND VARIETY OF TREES, SHRUBS, AND PLANTS INDICATED COMPLYING WITH THE APPLICABLE REQUIREMENTS OF ANSIAHIA Z60.1.
- D. MEASURE TREES AND SHRUBS ACCORDING TO ANSIAHIA Z60.1 WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. DO NOT PRUNE TO OBTAIN REQUIRED SIZES. TAKE CALIPER MEASUREMENTS 6 INCHES ABOVE GROUND FOR TREES UP TO 4 INCH CALIPER SIZE AND 12 INCHES ABOVE GROUND FOR LARGER SIZES. MEASURE MAIN BODY OF TREE OR SHRUB FOR HEIGHT AND SPREAD; DO NOT MEASURE BRANCHES OR ROOTS TIP-TO-TIP.
- E. TREE PRUNING: COMPLY WITH ANSI A300 PART 1.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. TREES AND SHRUBS: DELIVER FRESHLY DUG TREES AND SHRUBS. DO NOT PRUNE BEFORE DELIVERY, EXCEPT AS APPROVED BY LANDSCAPE ARCHITECT. PROTECT BARK, BRANCHES, AND ROOT SYSTEMS FROM SUN SCALD, DRYING, SWEATING, WHIPPING, AND OTHER HANDLING AND TYING DAMAGE. DO NOT BEND OR BIND THE TREES OR SHRUBS IN SUCH A MANNER AS TO DESTROY NATURAL SHAPE. PROVIDE PROTECTIVE COVERING DURING DELIVERY. DO NOT DROP TREES AND SHRUBS DURING DELIVERY.
- B. HANDLE BALLED AND BURLAPPED STOCK BY THE ROOT BALL.
- C. DELIVER FERTILIZER IN WATERPROOF BAGS SHOWING WEIGHT, CHEMICAL ANALYSIS, AND NAME OF MANUFACTURER.
- D. DELIVER TREES, SHRUBS, AND PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN 6 HOURS AFTER DELIVERY, SET PLANTING MATERIALS IN SHADE, PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
 - 1. SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
 - 2. DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
 - 3. WATER ROOT SYSTEMS OF TREES AND SHRUBS STORED ON SITE WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST CONDITION.
- E. PROTECT AND MAINTAIN PLANT LIFE UNTIL PLANTED.
- F. DELIVER PLANT LIFE MATERIALS IMMEDIATELY PRIOR TO PLACEMENT. KEEP PLANTS MOIST.

1.06 FIELD CONDITIONS

- A. DO NOT INSTALL PLANT LIFE WHEN AMBIENT TEMPERATURES MAY DROP BELOW 35 DEGREES F (2 DEGREES C) OR RISE ABOVE 90 DEGREES F (32 DEGREES C).
- B. DO NOT INSTALL PLANT LIFE WHEN WIND VELOCITY EXCEEDS 30 MPH (48 K/HR).
- C. UTILITIES: DETERMINE LOCATION OF ABOVE GRADE AND UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID DAMAGE. HAND EXCAVATE AS REQUIRED. MAINTAIN GRADE STAKES UNTIL REMOVAL IS MUTUALLY AGREED UPON BY PARTIES CONCERNED.
- D. EXCAVATION: WHEN CONDITIONS DETRIMENTAL TO PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY LANDSCAPE ARCHITECT BEFORE PLANTING.

1.07 COORDINATION AND SCHEDULING

- A. COORDINATE INSTALLATION OF PLANTING MATERIALS DURING NORMAL PLANTING SEASONS FOR EACH TYPE OF PLANT MATERIAL REQUIRED.

1.08 WARRANTY

- A. GENERAL WARRANTY: THE SPECIAL WARRANTY SPECIFIED IN THIS ARTICLE SHALL NOT DEPRIVE THE OWNER OF OTHER RIGHTS THE OWNER MAY HAVE UNDER OTHER PROVISIONS OF THE CONTRACT DOCUMENTS AND SHALL BE IN ADDITION TO AND RUN CONCURRENT WITH OTHER WARRANTIES MADE BY THE CONTRACTOR UNDER REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- B. SPECIAL WARRANTY: WARRANT TREES, SHRUBS, AND PLANTS FOR A PERIOD OF ONE YEAR AFTER DATE OF SUBSTANTIAL COMPLETION AGAINST DEFECTS INCLUDING DEATH AND UNSATISFACTORY GROWTH, EXCEPT FOR DEFECTS RESULTING FROM LACK OF ADEQUATE MAINTENANCE, NEGLECT, OR ABUSE BY OWNER, ABNORMAL WEATHER CONDITIONS UNUSUAL FOR WARRANTY PERIOD, OR INCIDENTS THAT ARE BEYOND CONTRACTOR'S CONTROL.
- C. REPLACEMENTS: PLANTS OF SAME SIZE AND SPECIES AS SPECIFIED, PLANTED IN THE NEXT GROWING SEASON, WITH A NEW WARRANTY COMMENCING ON DATE OF REPLACEMENT.
 - 1. REMOVE AND REPLACE DEAD PLANTING MATERIALS IMMEDIATELY UNLESS REQUIRED TO PLANT IN THE SUCCEEDING PLANTING SEASON.
 - 2. REPLACE PLANTING MATERIALS THAT ARE MORE THAN 25% DEAD OR IN AN UNHEALTHY CONDITION AT END OF WARRANTY PERIOD.
 - 3. A LIMIT OF ONE REPLACEMENT OF EACH PLANT MATERIAL WILL BE REQUIRED, EXCEPT FOR LOSSES OR REPLACEMENTS DUE TO FAILURE TO COMPLY WITH REQUIREMENTS.

PART 2 PRODUCTS

2.01 TREE AND SHRUB MATERIAL

- A. PLANTS: SPECIES AND SIZE IDENTIFIED IN PLANT SCHEDULE, GROWN IN CLIMATIC CONDITIONS SIMILAR TO THOSE IN LOCALITY OF THE WORK.
- B. GENERAL: FURNISH NURSERY-GROWN TREES AND SHRUBS CONFORMING TO ANSIAHIA Z60.1, WITH HEALTHY ROOT SYSTEMS, DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL SHAPED, FULLY-BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
- C. GRADE: PROVIDE TREES AND SHRUBS OF SIZES AND GRADES CONFORMING TO ANSIAHIA Z60.1 FOR TYPE OF TREES AND SHRUBS REQUIRED. TREES AND SHRUBS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO LANDSCAPE ARCHITECT WITH PROPORTIONATE INCREASE IN SIZE OF ROOTS AND BALL.
- D. LABEL AT LEAST 1 TREE AND 1 SHRUB OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME.
- A. SMALL TREES: SMALL UPRIGHT OR SPREADING TYPE, BRANCHED OR PRUNED NATURALLY ACCORDING TO SPECIES AND TYPE, AND WITH RELATIONSHIP OF CALIPER, HEIGHT, AND BRANCHING RECOMMENDED BY ANSIAHIA Z60.1.
- B. PROVIDE BALLED AND BURLAPPED TREES WHEN SPECIFIED ON APPROVED PLANS.

2.03 CONIFEROUS EVERGREENS

- A. FORM & SIZE: NOMAL QUALITY, WELL-BALANCED, CONIFEROUS EVERGREENS, OF TYPE, HEIGHT, SPREAD, AND SHAPE REQUIRED, COMPLYING WITH ANSIAHIA Z60.1

2.04 SHRUBS AND PERENNIALS

- A. FORM AND SIZE: SHRUBS WITH NOT LESS THAN THE MINIMUM NUMBER OF CANES REQUIRED BY AND MEASURED ACCORDING TO ANSIAHIA Z60.1 FOR TYPE, SHAPE, AND HEIGHT OF SHRUB.
- B. PROVIDE BALLED AND BURLAPPED OR CONTAINER SHRUBS AND PERENNIALS.

2.05 SOIL MATERIALS

- A. PROVIDE APPROVED IMPORTED TOPSOIL REQUIRED TO BRING SURFACE TO SPECIFIED ELEVATION RELATIVE TO WALK OR CURB.
- B. TOPSOIL: FERTILE, AGRICULTURAL SOIL, TYPICAL FOR LOCALITY, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH, TAKEN FROM DRAINED SITE. FREE OF SUBSOIL, CLAY OR IMPURITIES, PLANTS, WEEDS AND ROOTS; SEE SECTION 32 9113: SOIL PREPARATION FOR REQUIRED CHEMICAL AND PHYSICAL CHARACTERISTICS.

2.06 SOIL AMENDMENT MATERIALS

- A. FERTILIZER FOR TREES AND SHRUBS: CONTAINING FIFTY PERCENT OF THE ELEMENTS DERIVED FROM ORGANIC SOURCES; OF PROPORTION NECESSARY TO ELIMINATE ANY DEFICIENCIES OF TOPSOIL, TO THE FOLLOWING PROPORTIONS:
 - 1. NITROGEN: >20% (OF WHICH 50% WILL BE ORGANIC).
 - 2. PHOSPHORIC ACID: 10%.
 - 3. SOLUBLE POTASH: 5%.
- B. WATER: CLEAN, FRESH, AND FREE OF SUBSTANCES OR MATTER THAT COULD INHIBIT VIGOROUS GROWTH OF PLANTS.

2.07 ACCESSORIES

- A. STAKES: SOFTWOOD LUMBER, POINTED END.

PART 3 EXECUTION

3.01 EXAMINATION

- A. EXAMINE AREAS TO RECEIVE LANDSCAPING FOR COMPLIANCE WITH REQUIREMENTS AND FOR CONDITIONS AFFECTING PERFORMANCE OF WORK OF THIS SECTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- B. VERIFY THAT PREPARED SUBSOIL AND PLANTERS ARE READY TO RECEIVE WORK.
- C. SATURATE SOIL WITH WATER TO TEST DRAINAGE.

3.02 PREPARATION OF SUBSOIL

- A. PREPARE SUBSOIL TO ELIMINATE UNEVEN AREAS. MAINTAIN PROFILES AND CONTOURS. MAKE CHANGES IN GRADE GRADUAL. BLEND SLOPES INTO LEVEL AREAS.
- B. REMOVE STONES LARGER THAN 1 INCH IN ANY DIMENSION, FOREIGN MATERIALS, STICKS, RUBBISH, WEEDS AND UNDESIRABLE PLANTS AND THEIR ROOTS. REMOVE CONTAMINATED SUBSOIL.
- C. SCARIFY SUBSOIL TO A DEPTH OF 6 INCHES (150 MM) WHERE PLANTS ARE TO BE PLACED. REPEAT CULTIVATION IN AREAS WHERE EQUIPMENT, USED FOR HAULING AND SPREADING TOPSOIL, HAS COMPACTED SUBSOIL.

3.03 PLACING TOPSOIL

- A. TOPSOIL DEPTH SHALL BE A MINIMUM OF 12 INCHES.
- B. SPREAD TOPSOIL TO A MINIMUM DEPTH OF 6 INCHES (150 MM) OVER AREA TO BE PLANTED. WORK INTO TOP OF LOOSENED SUB GRADE TO CREATE A TRANSITION LAYER AND HTEN PLACE REMAINDER OF PLANTING SOIL MIXTURE.
- C. TILL SOIL IN BEDS TO A MINIMUM DEPTH OF 6 INCHES AND MIX WITH SPECIFIED SOIL AMENDMENTS AND FERTILIZERS.
- D. PLACE TOPSOIL DURING DRY WEATHER AND ON DRY UNFROZEN SUBGRADE.
- E. REMOVE VEGETABLE MATTER AND FOREIGN NON-ORGANIC MATERIAL FROM TOPSOIL WHILE SPREADING.
- F. GRADE TOPSOIL TO ELIMINATE ROUGH, LOW OR SOFT AREAS, AND TO ENSURE POSITIVE DRAINAGE.

3.04 FERTILIZING

- A. APPLY FERTILIZER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- B. APPLY AFTER INITIAL RAKING OF TOPSOIL AND TILL IN TO BEDS.
- C. MIX THOROUGHLY INTO UPPER 8 INCHES (203 MM) OF TOPSOIL.
- D. LIGHTLY WATER TO AID THE DISSIPATION OF FERTILIZER.

3.05 EXCAVATION FOR TREES AND SHRUBS

- A. PITS AND TRENCHES: EXCAVATE WITH BOTTOM OF EXCAVATION SLIGHTLY RAISED AT CENTER TO ASSIST DRAINAGE. LOOSEN HARD SUBSOIL IN BOTTOM OF EXCAVATION.
 - 1. BALLED AND BURLAPPED TREES AND SHRUBS: EXCAVATE APPROXIMATELY 3 TIMES AS WIDE AS BALL DIAMETER AND EQUAL TO BALL DEPTH.
 - 2. CONTAINER-GROWN TREES AND SHRUBS: EXCAVATE APPROXIMATELY 3 TIMES AS WIDE AS CONTAINER DIAMETER AND EQUAL TO ROOT MASS DEPTH.
- B. DISPOSE OF SUBSOIL REMOVED FROM LANDSCAPE EXCAVATIONS. DO NOT MIX WITH PLANTING SOIL OR USE AS BACKFILL.
- C. OBSTRUCTIONS: NOTIFY LANDSCAPE ARCHITECT IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.
- D. DRAINAGE: NOTIFY LANDSCAPE ARCHITECT IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PITS.
- E. FILL EXCAVATION WITH WATER AND ALLOW TO PERCOLATE OUT BEFORE PLACING SETTING LAYER AND POSITIONING TREES AND SHRUBS.

3.06 PLANTING

- A. LAYOUT INDIVIDUAL TREE AND SHRUB LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS. STAKE LOCATIONS, OUTLINE AREAS, AND SECURE LANDSCAPE ARCHITECTS ACCEPTANCE BEFORE THE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS NEEDED.
- B. SET BALLED AND BURLAPPED STOCK PLUMB AND IN CENTER OF PIT OR TRENCH WITH TOP OF BALL RAISED ABOVE ADJACENT FINISH GRADES AS INDICATED.
 - 1. PLACE STOCK ON UNDISTURBED OR COMPACTED TOPSOIL.
 - 2. REMOVE BURLAP AND WIRE BASKETS FROM TOPS AND AT LEAST UPPER HALF OF ROOT BALL (MORE IF THE ROOT BALL IS STABLE), BUT DO NOT REMOVE FROM UNDER ROOT BALL. REMOVE PALLETS, IF ANY, BEFORE SETTING. DO NOT USE PLANTING STOCK IF BALL IS CRACKED OR BROKEN BEFORE OR DURING PLANTING OPERATION.
 - 3. PLACE BACKFILL AROUND BALL IN LAYERS, TAMPING TO SETTLE BACKFILL AND ELIMINATE VOIDS AND AIR POCKETS.
 - 4. BACKFILL TO CONSIST OF ONE (1) PART TOPSOIL AND ONE (1) PART NATIVE SOIL CLEAN AND FREE FROM TOXIC MINERAL AND CHEMICALS, NOXIOUS WEEDS, ROCKS LARGER THAN 1-1/2 INCH IN ANY DIMENSION, AND OTHER OBJECTIONABLE MATERIALS.
 - 5. WHEN PIT IS APPROXIMATELY 1/2 BACKFILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE IS ABSORBED. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF BACKFILL.
- C. SET CONTAINER-GROWN STOCK PLUMB IN CENTER OF PIT OR TRENCH WITH TOP OF BALL RAISED ABOVE ADJACENT FINISH GRADES AS INDICATED.
 - 1. CAREFULLY REMOVE CONTAINERS SO AS NOT TO DAMAGE ROOT BALLS.
 - 2. PLACE STOCK ON UNDISTURBED OR COMPACTED TOPSOIL.
 - 3. PLACE BACKFILL AROUND BALL IN LAYERS, TAMPING TO SETTLE BACKFILL AND ELIMINATE VOIDS AND AIR POCKETS.
 - 4. BACKFILL TO CONSIST OF ONE (1) PART TOPSOIL AND ONE (1) PART NATIVE SOIL CLEAN AND FREE FROM TOXIC MINERAL AND CHEMICALS, NOXIOUS WEEDS, ROCKS LARGER THAN 1-1/2 INCH IN ANY DIMENSION, AND OTHER OBJECTIONABLE MATERIALS.
 - 5. WHEN PIT IS APPROXIMATELY 1/2 BACKFILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE IS ABSORBED. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF BACKFILL.
- D. DISH AND TAMP TOP OF BACKFILL TO FORM A 3 INCH HIGH MOUND AROUND THE RIM OF THE PIT. DO NOT COVER TOP OF ROOT BALL WITH BACKFILL.
- E. PLACE PLANTS AS INDICATED ON PLANS.

3.07 PLANT SUPPORT

- A. BRACE PLANTS VERTICALLY WITH PLANT PROTECTOR WRAPPED GUY WIRES AND STAKES TO THE FOLLOWING:
 - 1. TREE CALIPER: 1 TO 2 INCHES (25 TO 50 MM); TREE SUPPORT METHOD: 2 STAKES WITH TWO TIES

3.08 TREE PRUNING

- A. PRUNE TREES AS RECOMMENDED IN ANSI A300 PART 1.
- B. UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT, DO NOT CUT TREE LEADERS, REMOVE ONLY DEAD, BROKEN, AND SPLIT BRANCHES.
- C. PRUNE SHRUBS TO RETAIN NATURAL CHARACTER. SHRUB SIZES INDICATED ARE SIZE AFTER PRUNING.

3.09 FIELD QUALITY CONTROL

- A. PLANTS WILL BE REJECTED IF A BALL OF EARTH SURROUNDING ROOTS HAS BEEN DISTURBED OR DAMAGED PRIOR TO OR DURING PLANTING.

3.10 CLEAN-UP AND PROTECTION

- A. DURING LANDSCAPING, KEEP PAVEMENT CLEAN AND WORK AREA IN ORDERLY CONDITION.
- B. PROTECT LANDSCAPING FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED.

3.11 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF THE OWNER'S PROPERTY.

3.12 MAINTENANCE

- A. PROVIDE MAINTENANCE AT NO EXTRA COST TO OWNER; OWNER WILL PAY FOR WATER.
- B. IRRIGATE SUFFICIENTLY TO SATURATE ROOT SYSTEM AND PREVENT SOIL FROM DRYING OUT.
- C. REMOVE DEAD OR BROKEN BRANCHES AND TREAT PRUNED AREAS OR OTHER WOUNDS.
- D. NEATLY TRIM PLANTS WHERE NECESSARY.
- E. IMMEDIATELY REMOVE CLIPPINGS AFTER TRIMMING.
- F. CONTROL GROWTH OF WEEDS. APPLY HERBICIDES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- G. CONTROL INSECT DAMAGE AND DISEASE. APPLY PESTICIDES IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS.
- H. REMEDY DAMAGE FROM USE OF HERBICIDES AND PESTICIDES.
- I. MAINTAIN WRAPPINGS, GUYS, AND STAKES. REPAIR OR REPLACE ACCESSORIES WHEN REQUIRED.

END OF SECTION

SECTION 32 9419
LANDSCAPE SURFACING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. MULCH.
- B. MAINTENANCE.

1.02 SUBMITTALS

- A. SEE SECTION 01 3000 - ADMINISTRATIVE REQUIREMENTS, FOR SUBMITTAL PROCEDURES.

1.03 QUALITY ASSURANCE

- A. INSTALLER QUALIFICATIONS: ENGAGE AN EXPERIENCED INSTALLER WHO HAS COMPLETED LANDSCAPING WORK SIMILAR IN MATERIAL, DESIGN, AND EXTENT TO THAT INDICATED FOR THIS PROJECT WITH AT LEAST 3 YEARS EXPERIENCE AND A RECORD OF SUCCESSFUL LANDSCAPE ESTABLISHMENT.

1.04 FIELD CONDITIONS

- A. DO NOT INSTALL MULCH WHEN WIND VELOCITY EXCEEDS 30 MPH (48 K/HR).

1.05 WARRANTY

- A. GENERAL WARRANTY: THE SPECIAL WARRANTY SPECIFIED IN THIS ARTICLE SHALL NOT DEPRIVE THE OWNER OF OTHER RIGHTS THE OWNER MAY HAVE UNDER OTHER PROVISIONS OF THE CONTRACT DOCUMENTS AND SHALL BE IN ADDITION TO AND RUN CONCURRENT WITH OTHER WARRANTIES MADE BY THE CONTRACTOR UNDER REQUIREMENTS OF THE CONTRACT DOCUMENTS.

PART 2 PRODUCTS

2.01 MULCH MATERIALS

- A. TAN DECOMPOSED GRANITE: 3/8" MINUS, AND GRAY DECOMPOSED GRANITE: 3/8" MINUS

2.02 ACCESSORIES

- A. ANTIDISECCANT: WATER-INSOLUBLE EMULSION, PERMEABLE MOISTURE RETARDER, FILM FORMING, FOR TREES AND SHRUBS. DELIVER IN ORIGINAL, SEALED, AND FULLY LABELED CONTAINERS AND MIX ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

PART 3 EXECUTION

3.01 EXAMINATION

- A. EXAMINE AREAS TO RECEIVE LANDSCAPING FOR COMPLIANCE WITH REQUIREMENTS AND FOR CONDITIONS AFFECTING PERFORMANCE OF WORK OF THIS SECTION. DO NOT PROCEED WITH INSTALLATION UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- B. VERIFY THAT PREPARED SUBSOIL AND PLANTERS ARE READY TO RECEIVE WORK.

3.02 MULCHING

- A. MULCH BACKFILLED SURFACES OF PITS, TRENCHES, PLANTED AREAS, AND OTHER AREAS INDICATED.
- B. DECOMPOSED GRANITE: PLACE 3 INCH DEPTH MULCH IN AREAS AS SHOWN ON PLANS

3.03 ACCESSORIES

- A. APPLY ANTIDISECCANT USING POWER SPRAY TO PROVIDE AN ADEQUATE FILM OR TRUNKS, BRANCHES, STEMS, TWIGS, AND FOLIAGE. WHEN DECIDUOUS TREES OR SHRUBS ARE MOVED IN FULL-LEAF, SPRAY WITH ANTIDISECCANT AT NURSERY BEFORE MOVING AND AGAIN 2 WEEKS AFTER PLANTING.

3.04 CLEAN-UP AND PROTECTION

- A. DURING LANDSCAPING, KEEP PAVEMENT CLEAN AND WORK AREA IN ORDERLY CONDITION.
- B. PROTECT LANDSCAPING FROM DAMAGE DUE TO LANDSCAPE OPERATIONS, OPERATIONS BY OTHER CONTRACTORS AND TRADES, AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR, OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED.

3.05 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. REMOVE SURPLUS SOIL AND WASTE MATERIAL, INCLUDING EXCESS SUBSOIL, UNSUITABLE SOIL, TRASH, AND DEBRIS, AND LEGALLY DISPOSE OF IT OFF THE OWNER'S PROPERTY.

3.06 MAINTENANCE

- A. REPLACE MULCH WHEN DETERIORATED.

END OF SECTION

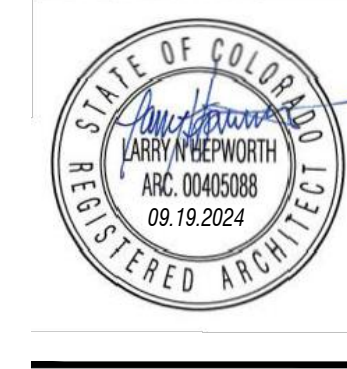


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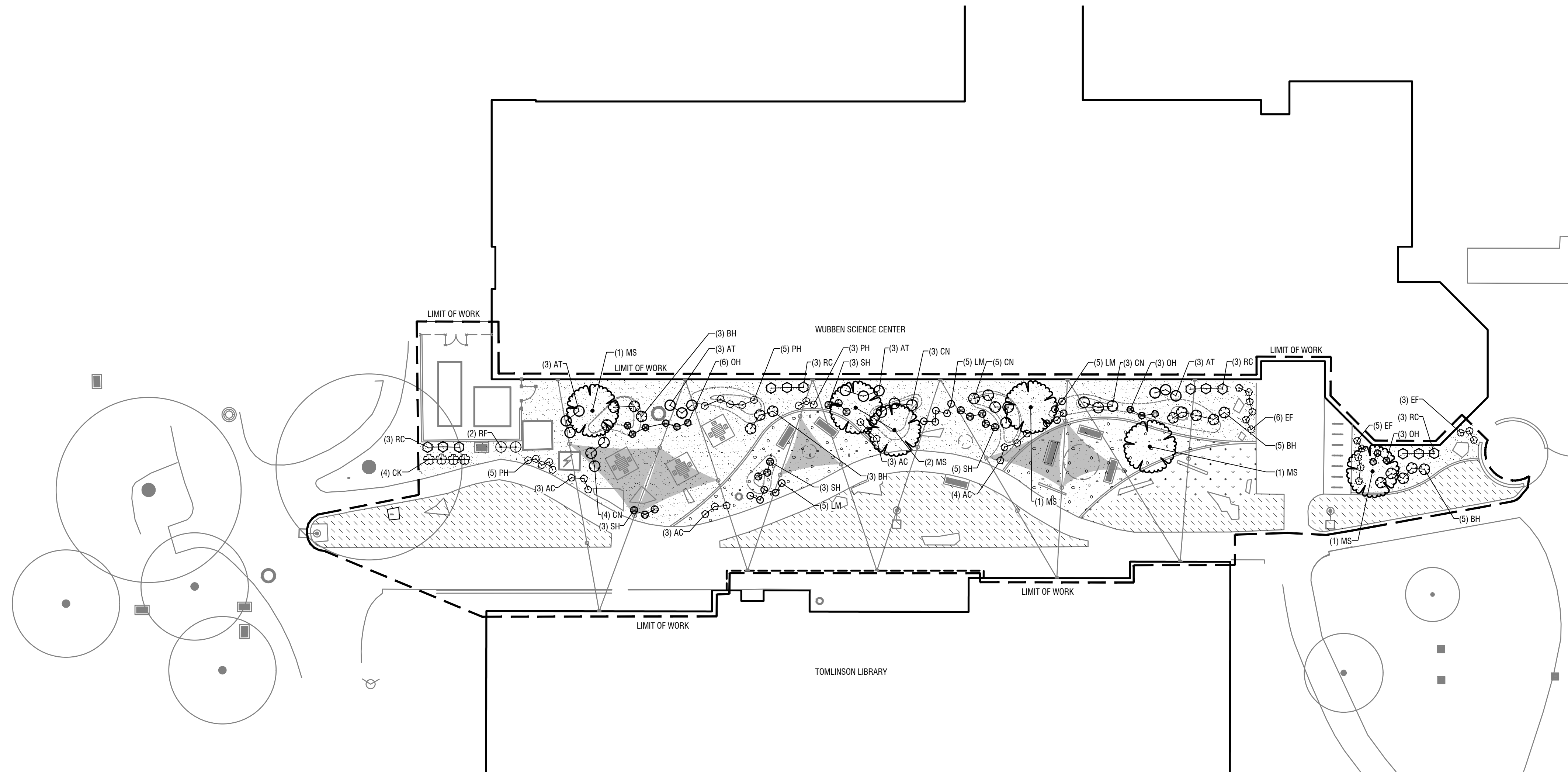
MARK:	DESCRIPTION:
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PROJECT #: 323218
DRAWN BY: J. CLEMENTS
CHECKED BY: L. HEPWORTH
ISSUED: 09.19.2024



LANDSCAPE SPECIFICATIONS
L-003

CONSTRUCTION DOCUMENTS



LEGEND

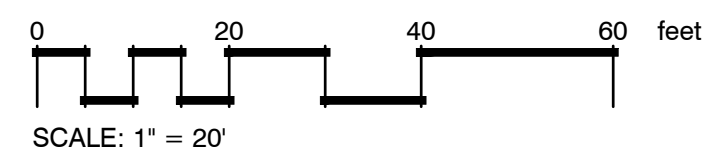
SYMBOL	DESCRIPTION	QTY	DETAIL
LANDSCAPE LEGEND			
	3/8" MINUS GRAY DECOMPOSED GRANITE - 3" depth	1,480 sf	
	3/8" MINUS TAN DECOMPOSED GRANITE - 3" depth	4,697 sf	
	TURF GRASS - minimum 3 cultivar kentucky bluegrass blend, match species of existing turf	439 sf	D4/L-501
	EXISTING GRASS - preserve and protect	3,313 sf	

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	CAL
TREES					
	MS	6	Malus x 'Spring Snow' / Spring Snow Crabapple	8 & B	2"
SHRUBS					
	AT	12	Atriplex confertifolia / Shadscale	5 gal	
	BH	16	Buddleja x 'Podaras #8' / Flutterby Petite® Blue Heaven Butterfly Bush	5 gal	
	CN	15	Chrysothamnus nauseosus / Dwarf Blue Rabbitbrush	5 gal	
	RC	12	Rhamnus frangula 'Columnaris' / Upright Alder Buckthorn	5 gal	
EXISTING					
	CK	4	Calamagrostis x acutiflora 'Karl Foerster' / Karl Foerster Feather Reed Grass	Existing	
	RF	2	Rhamnus frangula 'Columnaris' / Upright Alder Buckthorn	Existing	
GRASSES					
	OH	12	Oryzopsis hymenoides / Indian Ricegrass	1 gal	
	SH	14	Sporobolus heterolepis / Prairie Dropseed	1 gal	
PERENNIALS					
	AC	13	Agastache cana 'Sinning' / Sonoran Sunset® Hummingbird Mint	1 gal	
	EF	14	Eriogonum umbellatum 'Kannah Creek' / Sulturnflower Buckwheat	1 gal	
	LM	15	Lavandula angustifolia 'Munstead' / Munstead English Lavender	1 gal	
	PH	13	Penstemon digitalis 'Husker Red' / Husker Red Beardtongue	1 gal	

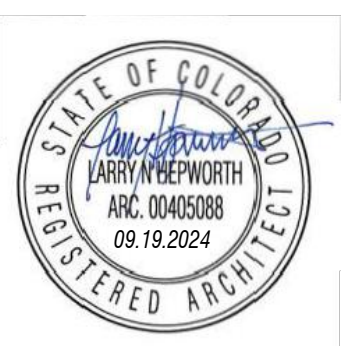
PLANTING NOTES

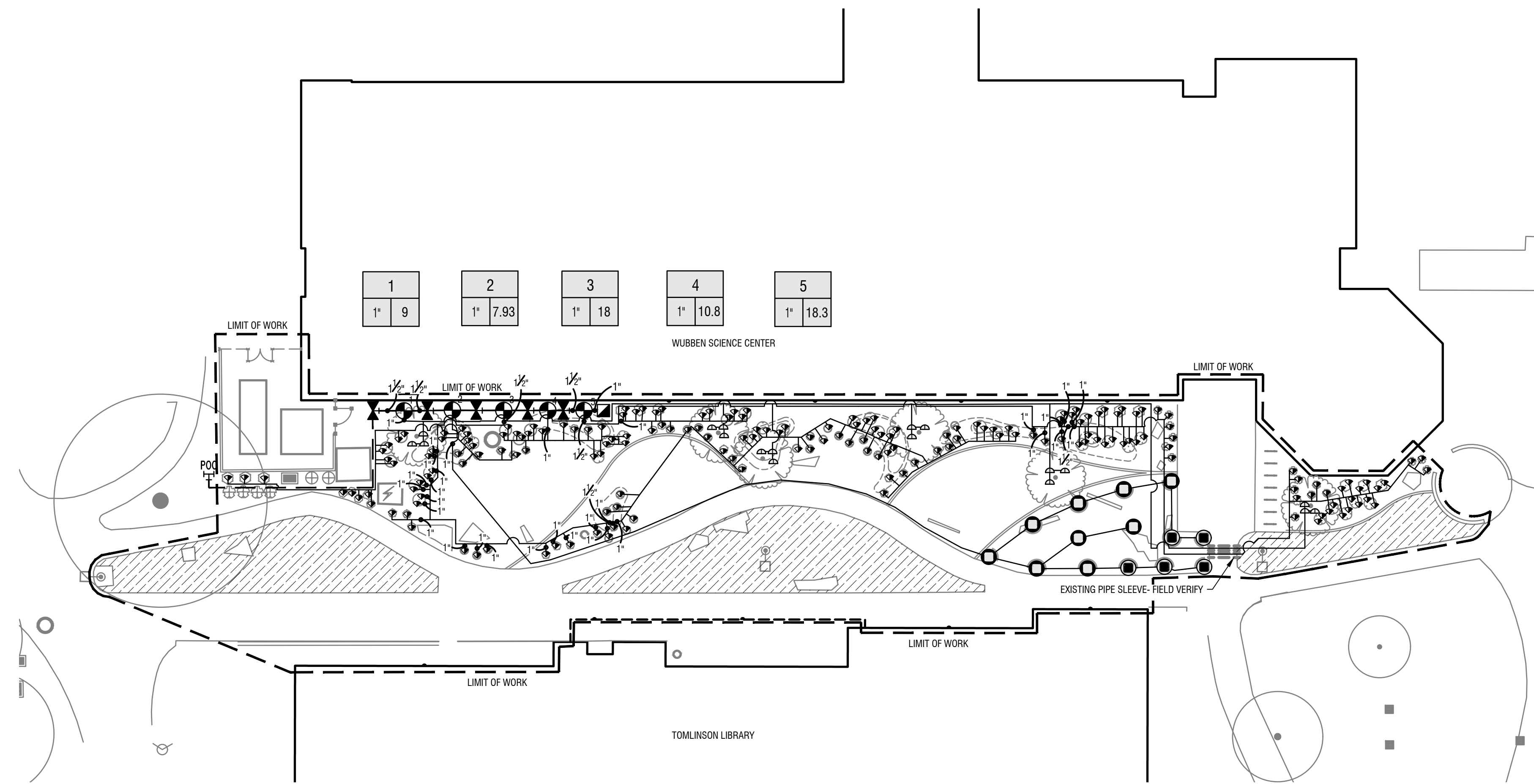
- CONTRACTOR TO VERIFY ALL CONDITIONS PERTAINING TO THIS PLAN AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
- THE CONTRACTOR SHALL LOCATE AND VERIFY ALL UTILITIES LINES PRIOR TO PLANTING AND SHALL REPORT ANY CONFLICTS TO THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL REPAIR ALL DAMAGES CAUSED BY OPERATIONS (WHICH OCCUR ON OR OFF SITE) TO THE ARCHITECTS AND OWNER'S SATISFACTION.
- ALL QUANTITIES SHOWN ARE APPROXIMATE AND ARE FURNISHED SOLELY FOR THE CONTRACTOR'S CONVENIENCE. THEY DO NOT NECESSARILY CORRESPOND TO BID SCHEDULE ITEMS. IN THE CASE OF ANY DISCREPANCIES, PLANS SHALL OVERRIDE THE LANDSCAPE AND BID SCHEDULE QUANTITIES. CONTRACTOR SHALL VERIFY QUANTITIES SHOWN ON THE PLANS AND BASE THEIR BID ACCORDINGLY.
- DO NOT MAKE UNAPPROVED SUBSTITUTIONS. IF SPECIFIED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY FROM AT LEAST FIVE SOURCES TO LANDSCAPE ARCHITECT, TOGETHER WITH PROPOSAL FOR USE OF EQUIVALENT MATERIAL FOR FINAL APPROVAL.
- LAYOUT INDIVIDUAL TREE AND PLANT LOCATIONS AND AREAS FOR MULTIPLE PLANTINGS, STAKE LOCATIONS, AND OUTLINE AREAS AND SECURE ARCHITECT'S ACCEPTANCE BEFORE START OF PLANTING WORK. MAKE MINOR ADJUSTMENTS AS MAY BE DIRECTED.
- REPAIR ALL LANDSCAPING WHERE NEW CONSTRUCTION MEETS EXISTING.
- PERFORM PERCOLATION TEST ON ALL TREE PLANTING HOLES AND PLANTING BEDS PRIOR TO PLANTING. INFORM LANDSCAPE ARCHITECT OF CONDITIONS OF POOR DRAINAGE.
- LANDSCAPE CONTRACTOR SHALL COORDINATE AND ADJUST PLANT PLACEMENT WITH SPRINKLERS. PLANTS SHALL NOT BE PLACED WITHIN 12 INCHES OF A SPRINKLER HEAD.
- CONTRACTOR SHALL BE RESPONSIBLE TO MAINTAIN ALL PLANT MATERIALS INCLUDING SOD AREAS IN A HEALTHY STATE DURING CONSTRUCTION. ANY DAMAGE TO PLANT MATERIAL DUE TO NEGLIGENCE BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
- SEE SHEET L-501 AND FOR LANDSCAPE DETAILS.



MARK:	DESCRIPTION:
DATE:	

PROJECT #: 323218
 DRAWN BY: J. CLEMENTS
 CHECKED BY: L. HEPWORTH
 ISSUED: 09.19.2024





IRRIGATION NOTES

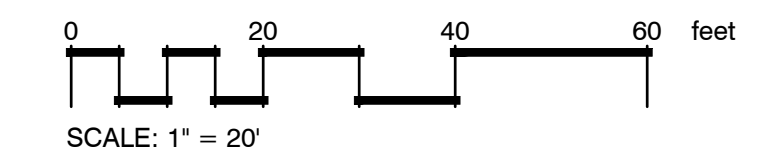
- CONTRACTOR TO FIELD VERIFY ALL CONDITIONS PERTAINING TO THIS PLAN AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE LANDSCAPE ARCHITECT.
- CONTRACTOR SHALL OBTAIN ALL PERMITS AND PAY REQUIRED FEES TO ANY GOVERNMENTAL AGENCY HAVING JURISDICTION OVER THE WORK. INSPECTIONS REQUIRED BY LOCAL ORDINANCES DURING CONSTRUCTION SHALL BE ARRANGED AND CONDUCTED BY THE CONTRACTOR.
- BEFORE ANY TRENCHING, EXCAVATION OR DIGGING BELOW THE SURFACE FOR ANY REASON IS BEGUN, THE CONTRACTOR SHALL DETERMINE AS CLOSE AS POSSIBLE THE LOCATIONS OF ALL UNDERGROUND UTILITIES. SHOULD UTILITIES NOT SHOWN ON THE PLANS BE FOUND DURING EXCAVATIONS THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT. ALL TRENCHING IS TO BE DONE BY HAND.
- THE DESIGN PRESSURE FOR THE IRRIGATION SYSTEM IS 30 PSI AT THE FARTHEST ROTOR HEAD. REPORTED AVAILABLE STATIC PRESSURE IS 65 PSI. CONTRACTOR SHALL VERIFY THE AVAILABLE STATIC PRESSURE AND REPORT ANY DISCREPANCIES TO THE OWNER'S REPRESENTATIVE AND LANDSCAPE ARCHITECT.
- IRRIGATION DESIGN IS DIAGRAMMATIC. PIPING, IRRIGATION VALVES AND OTHER IRRIGATION EQUIPMENT ARE OFTEN SHOWN FOR CLARITY IN AREAS ADJACENT TO LOCATIONS WHERE THEY WILL BE INSTALLED. IRRIGATION LINES AND EQUIPMENT MAY BE SHOWN ON PAVEMENT, INSIDE BUILDINGS OR ACROSS PROPERTY LINES. THE CONTRACTOR SHALL PLACE ALL IRRIGATION LINES, VALVES, ETC. IN PLANTING AREAS AND ON THE PROPERTY WHEN POSSIBLE.
- THE CONTRACTOR SHALL CONDUCT WORK IN SUCH A MANNER TO PROTECT ALL SITE CONDITIONS AND UTILITIES TO REMAIN FROM DAMAGE. WHEN OCCURS, THE CONTRACTOR SHALL REPAIR THE DAMAGE AT THE CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUED WATERING OF ALL AREAS AFFECTED BY CONSTRUCTION. THIS CAN BE COMPLETED BY HAND WATERING, THE USE OF TEMPORARY IRRIGATION SYSTEMS, OR THE CONTINUED OPERATION OF EXISTING SYSTEMS NOT DISTURBED BY CONSTRUCTION.
- ALL LINE SIZES SHOWN ARE FOR IRRIGATION PIPE. SEE SPECIFICATIONS AND DETAILS FOR SLEEVE SIZES.
- SLEEVE CONTROL WIRES IN A 2 INCH CONDUIT NEXT TO, OR UNDER, IRRIGATION MAINLINE AS SHOWN IN DETAILS. CONTROL WIRES NOT SLEEVED SHALL FOLLOW MAINLINE AND BE BUNDLED EVERY 10 FEET.
- ADJUST ALL RADII ON SPRINKLERS TO NOT SPRAY ONTO BUILDINGS, WALLS, WALKS, SIGNS, OR FENCES.
- LANDSCAPE CONTRACTOR TO COORDINATE PLANT PLACEMENT WITH SPRINKLERS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING PROPER COVERAGE OF ALL IRRIGATED AREAS.
- TIE INTO EXISTING CONTROLLER.
- REBUILD, RECONFIGURE AND ADJUST THE IRRIGATION SYSTEM TO PROVIDE 100% COVERAGE IN TURF AREAS. THE INSTALLED SYSTEM SHALL NOT SPRAY ONTO BUILDINGS, WALLS, WALKS, SIGNS, OR FENCES.
- INSTALL NEW IRRIGATION MATERIAL SIMILAR TO THE EXISTING IRRIGATION MATERIALS USED ON SITE. MATCH HEADS, REMOTE VALVES, QUICK COUPLERS, ETC. AS NECESSARY TO MAKE SYSTEM OPERATIONAL.
- THE IRRIGATION PIPING SHALL BE SIZED TO HAVE WATER SPEEDS UNDER FIVE FEET PER SECOND. NEW PIPING SHALL NOT CAUSE WATER SPEEDS IN THE EXISTING PIPE SYSTEM TO EXCEED FIVE FEET PER SECOND. PIPING SHALL BE PLACED SO THAT THERE IS 12 INCHES OF COVER ON LATERAL LINES AND 18 INCHES OF COVER ON MAINLINES AND ROTOR CIRCUIT LATERAL LINES.
- IRRIGATION SLEEVES SHALL BE PLACED UNDER PAVEMENT. SLEEVE SIZE SHALL BE TWO TIMES THE SIZE OF THE PIPE TO BE SLEEVED. IRRIGATION WIRES SHALL BE IN SEPARATE SLEEVE FROM WATER LINES. WIRE SLEEVES SHALL BE TWO TIMES THE SIZE OF THE WIRE BUNDLE WITH A MINIMUM SIZE OF TWO INCH. CONTROL WIRES NOT SLEEVED SHALL FOLLOW THE MAINLINE AND BE BUNDLED EVERY 10 FEET AS SHOWN IN DETAILS.
- FIELD VERIFY HEAD SPACING IN AREAS WHERE NEW AND OLD IRRIGATION SYSTEMS JOIN. ADJUST IRRIGATION SYSTEM HEAD SPACING TO PROVIDE COVERAGE AS REQUIRED IN SPECIFICATIONS.
- RECONNECT THE IRRIGATION CONTROL WIRES AS REQUIRED TO CREATE AN OPERATIONAL SYSTEM. PUT ALL WIRE SPLICES IN SPLICE BOXES OR IN REMOTE CONTROL BOXES.
- SEE SHEET L-501 FOR IRRIGATION DETAILS.

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI	DETAIL
	Hunter MP1000 PROS-04-PRS40-CV Turf Rotor, 4in. pop-up with check valve, pressure regulated to 40 psi, MP Rotor nozzle. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc on PRS40 body.	5	30	
	Hunter MP2000 PROS-04-PRS40-CV Turf Rotor, 4in. pop-up with factory installed check valve, pressure regulated to 40 psi, MP Rotor nozzle. M=Maroon adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc on PRS40 body.	9	30	
	GPH Irrigation GPC8-M Pressure compensating full-circle bubbler in Mulch Camo Color. 0.25 GPM	188	30	
	Hunter RZWS-10 10in. long RZWS with installed .25 gpm, internal plumbing, and 1/2in. swing joint for connection to 1/2in. pipe	18	30	
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL	
	Hunter ICV-G-FS 1in., 1-1/2in., 2in., and 3in. Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use. With Filter Sentry.	5		
	Hunter HD-SRC Quick coupler valve, yellow rubber cover, red brass and stainless steel, with 1in. NPT inlet, 1-piece body.	1		
	Small Isolation Valve 2" Brass Threaded Gate Valve	5		
	Point of Connection 3"	1		
	Irrigation Lateral Line: PVC Schedule 40	1,802 L.F.		
	Irrigation Mainline: PVC Schedule 40	119.6 L.F.		
	Pipe Sleeve: PVC Schedule 40	15.2 L.F.		
SYMBOL	DESCRIPTION	QTY		
	Valve Callout			
	Valve Number			
	Valve Flow			
	Valve Size			
	EXISTING IRRIGATION SYSTEM TO REMAIN - preserve and protect heads and lateral lines, reconnect and ensure system is fully operational in this area. Ensure grass in this area is watered and kept healthy during construction.	2,786 sf		

VALVE SCHEDULE

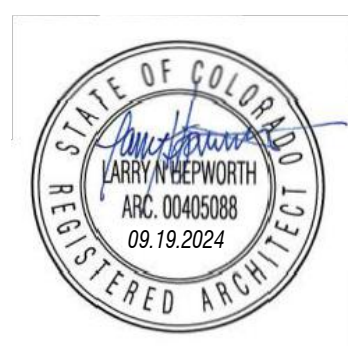
NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PSI @ POC	PRECIP.
1	Hunter ICV-G-FS	1"	Bubbler	9	34.9	35.1	2.93 in/h
2	Hunter ICV-G-FS	1"	Shrub Rotary	7.93	36.0	36.2	0.56 in/h
3	Hunter ICV-G-FS	1"	Bubbler	18	36.5	37.4	1.57 in/h
4	Hunter ICV-G-FS	1"	Bubbler	10.75	33.7	34.1	1.67 in/h
5	Hunter ICV-G-FS	1"	Bubbler	18.25	35.8	37.0	1.78 in/h



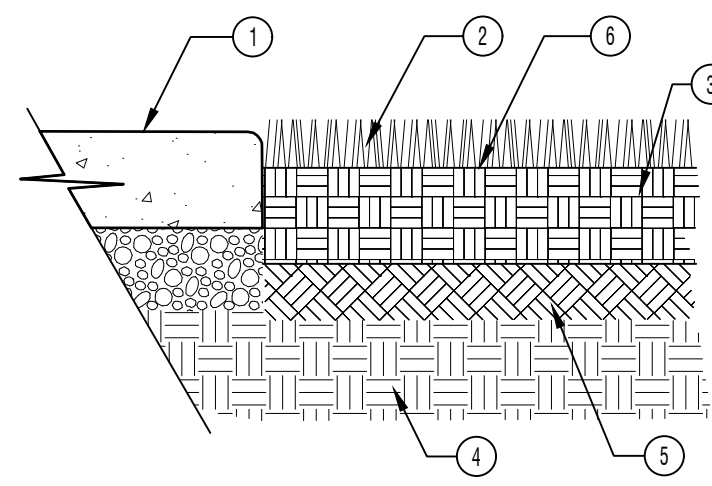
CONSTRUCTION DOCUMENTS

MARK: _____
DATE: _____
DESCRIPTION: _____

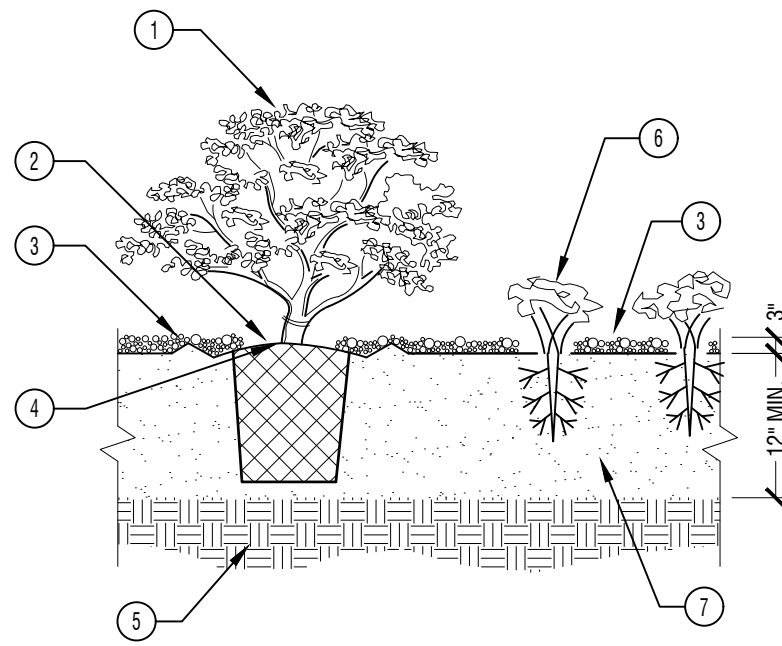
PROJECT #: 323218
DRAWN BY: J. CLEMENTS
CHECKED BY: L. HEPWORTH
ISSUED: 09.19.2024



- ADJACENT HARDSCAPE. SEE PLAN FOR MATERIAL
- SOD
- TOP SOIL (4" MINIMUM)
- UNDISTURBED OR COMPACTED SUBGRADE
- TRANSITION LAYER TOPSOIL AND NATIVE SOIL MIX
- FINISH GRADE: 1 1/2" BELOW ADJACENT HARDSCAPE FOR SOD

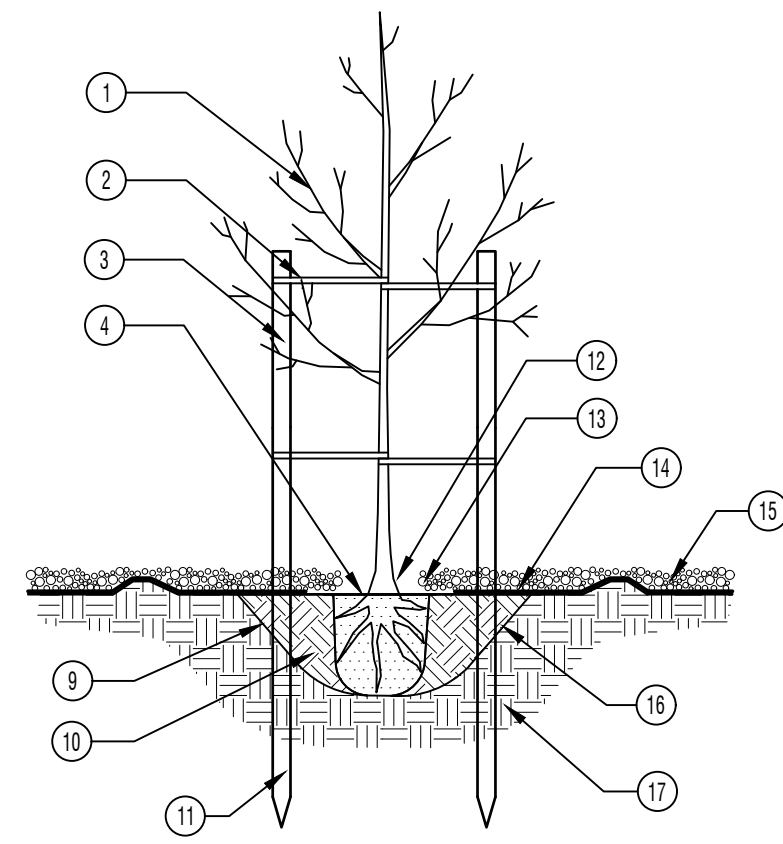


- SHRUB (SEE PLANT SCHEDULE)
- KEEP MULCH 3" AWAY FROM SHRUB AND PERENNIAL STEMS
- MULCH PER PLAN
- SOIL BACKFILL SHALL NOT BE ABOVE ROOT COLLAR
- EXISTING SUBGRADE
- PERENNIAL (SEE PLANT SCHEDULE)
- BACKFILL WITH SPECIFIED TOPSOIL



NOTES:
1. INSTALLATION INCLUDES STAKE REMOVAL ONE YEAR AFTER INSTALLATION.

- TREE (SEE PLANT SCHEDULE)
- "CHAINLOCK" OR EQUAL TREE TIE MATERIAL (1" WIDTH). NAIL OR STAPLE TREE TIE MATERIAL TO STAKE TO HOLD VERTICALLY. LOOSELY LOOP EACH TIE AROUND HALF OF TREE TO PROVIDE 1" SLACK FOR TRUNK GROWTH
- SUPPORT TREE WITH (2) 2" DIA. TREATED LODGEPOLE PINE DOWELED TREE STAKES (8'-0" LENGTH) OR METAL T POSTS
- AFTER PLACING TREE IN HOLE, REMOVE WIRE AND BURLAP FROM THE UPPER HALF OF THE ROOT BALL (MORE IF THE ROOT BALL IS STABLE)
- PLANT PIT SHALL BE THREE TIMES LARGER THAN ROOTBALL. SLOPE EDGES AT 45° AND SCARIFY SIDE BEFORE PLANTING
- BACKFILL PLANTING PIT WITH NATIVE SOIL OR 1/2 NATIVE SOIL AND 1/2 SPECIFIED BACKFILL MIX
- DRIVE STAKES 6" TO 1'-0" INTO UNDISTURBED SOIL BEFORE BACKFILLING
- KEEP MULCH 3" AWAY FROM TREE TRUNK
- PLACE 1-2" DEPTH OF MULCH OVER ROOT BALL
- PLACE LANDSCAPE FABRIC UNDER MULCH WITH 12" CLEAR CIRCLE AROUND TREE TRUNK
- DECOMPOSED GRANITE. SEE PLANS
- EXCAVATE PLANTING PIT SO THAT THE ROOT FLARE SHALL BE 1-2" ABOVE FINAL GRADE OR 10% OF ROOT BALL
- UNDISTURBED SUBGRADE



D1 TREE PLANTING

3/8" = 1'-0"

D3 SHRUB AND PERENNIAL PLANTING

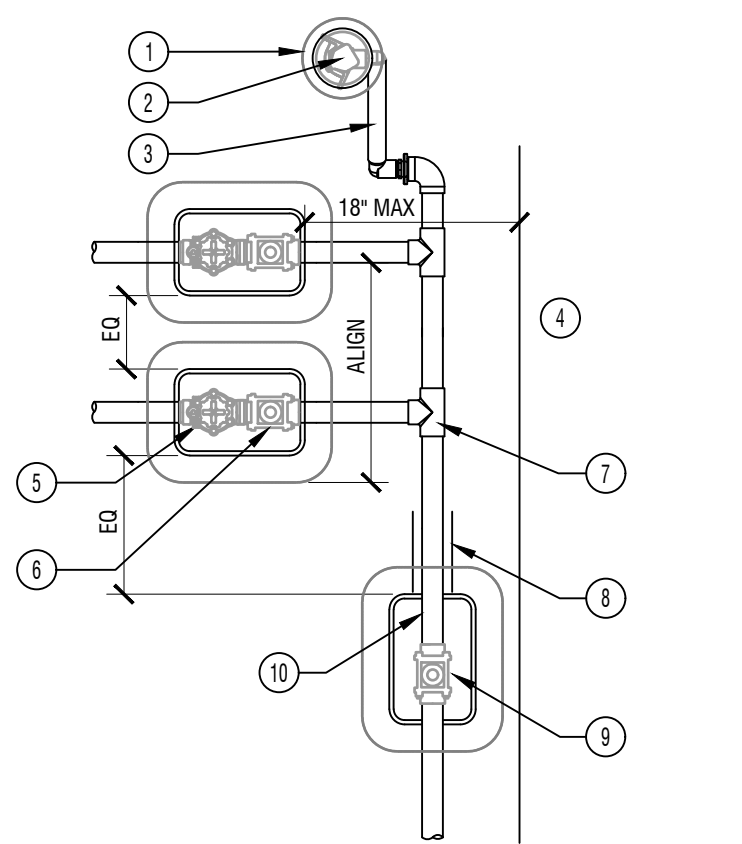
3/4" = 1'-0"

P-3-CMU-WUBB-33

D4 SOD PLANTING

1 1/2" = 1'-0"

P-3-CMU-WUBB-34

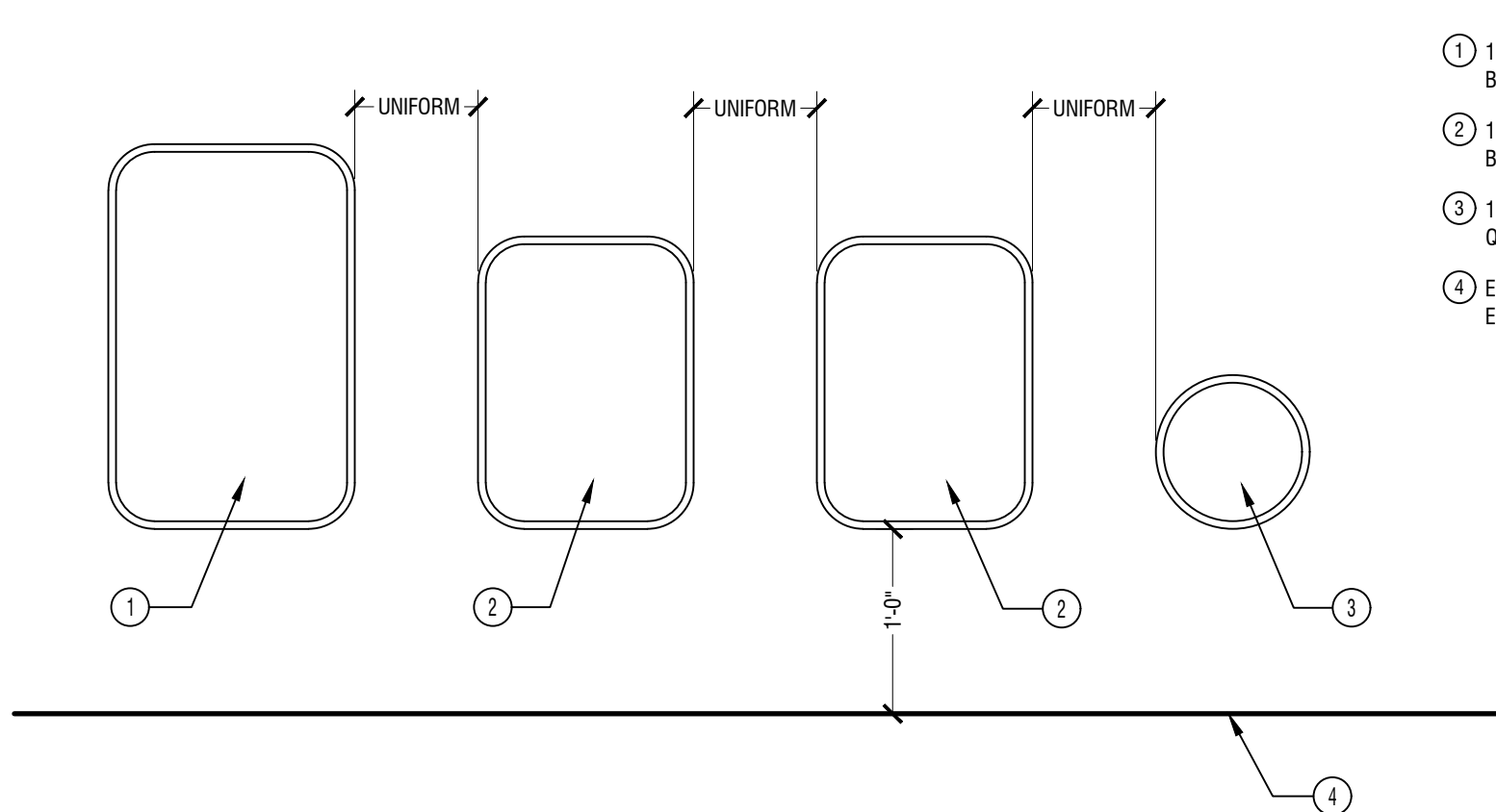


- 10" ROUND VALVE BOX
 - QUICK COUPLER
 - SWING JOINT AND STABILIZER ELBOW
 - PAVED SURFACE CURBING OR FENCE LINE
 - AUTOMATIC CONTROL VALVE (TYP.)
 - SMALL ISOLATION VALVE (TYP.)
 - PVC SCH. 80 TEE OR ELBOW
 - MAINLINE CONTINUES BELOW MANIFOLD LINE
 - ZONE VALVE
 - MANIFOLD CONNECTION
- NOTES:
• NOT ALL MANIFOLD & VALVE ASSEMBLIES REQUIRE A QUICK COUPLER CONNECT. REFER TO IRRIGATION PLAN FOR QUICK COUPLER LOCATIONS.
• SINGLE DRIP VALVES DO NOT REQUIRE A MANIFOLD ASSEMBLY

C1 MANIFOLD VALVE & ASSEMBLY

1/2" = 1'-0"

P-3-CMU-WUBB-29



- 16"X25" RECTANGULAR JUMBO BOX
- 14"X19" RECTANGULAR VALVE BOX
- 10" DIA. ROUND VALVE BOX FOR QVC AND SPLICE BOX
- EDGE OF FENCE, LAWN, WALK, ETC.

- NOTES:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREAS
3. INSTALL BOXES IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE. INSTALL IN TURF ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS

C2 VALVE BOX INSTALLATION

1" = 1'-0"

P-3-CMU-WUBB-30

C4 TRENCH SECTION

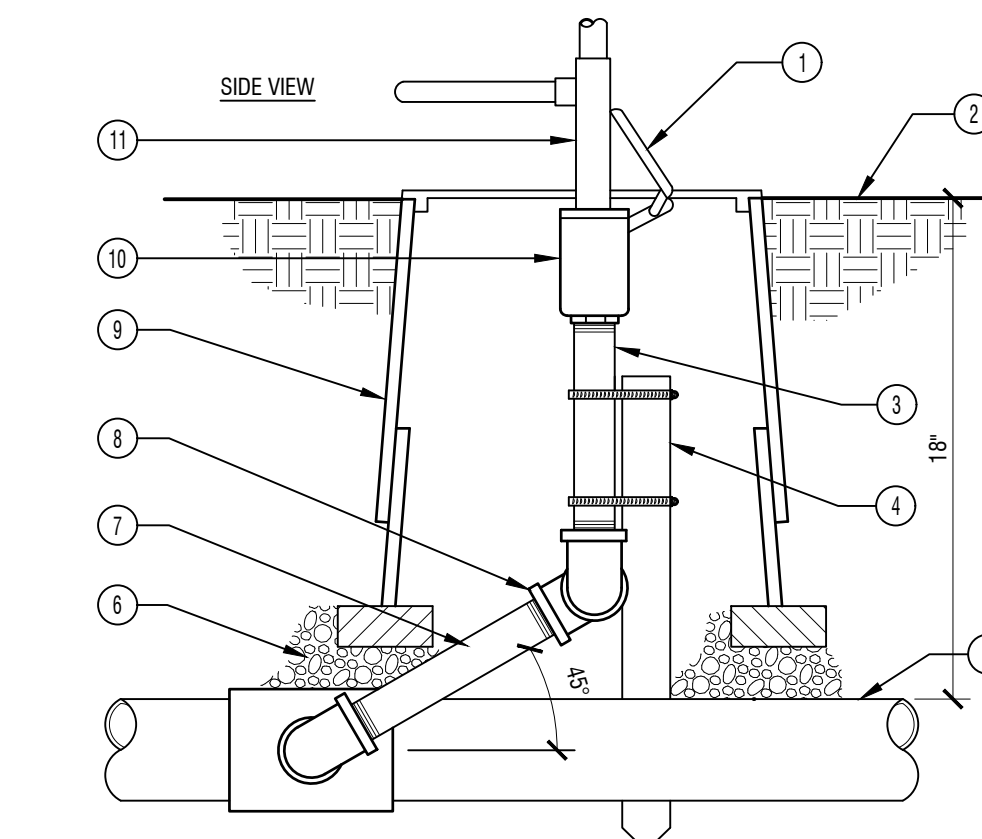
1 1/2" = 1'-0"

P-3-CMU-WUBB-25

C5 PAVEMENT SLEEVE SECTION

1 1/2" = 1'-0"

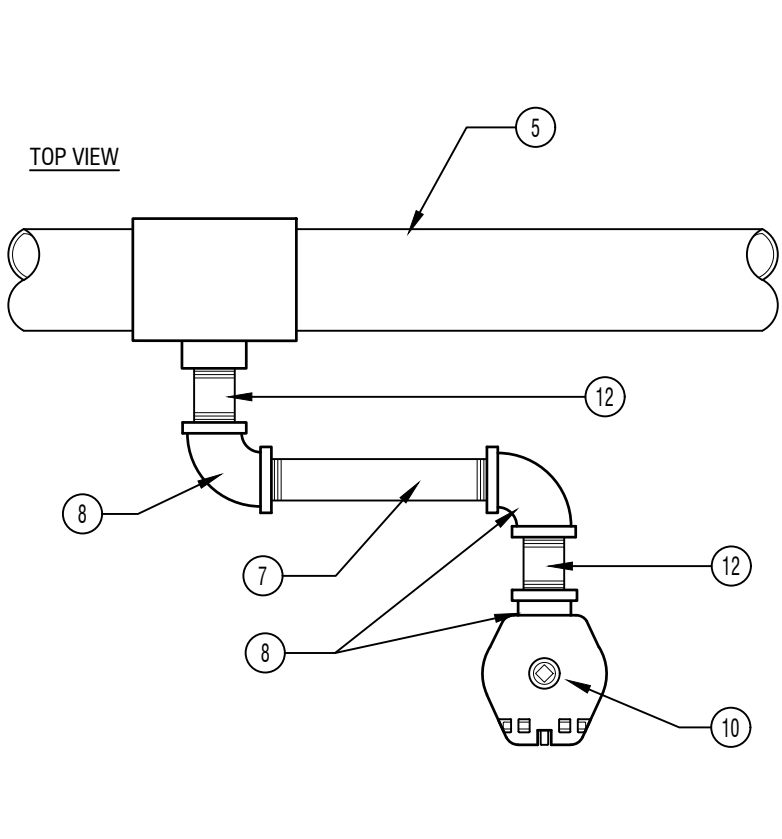
P-3-CMU-WUBB-26



B1 QUICK COUPLING VALVE WITH WOOD STAKE

1 1/2" = 1'-0"

P-3-CMU-WUBB-50



C2 VALVE BOX INSTALLATION

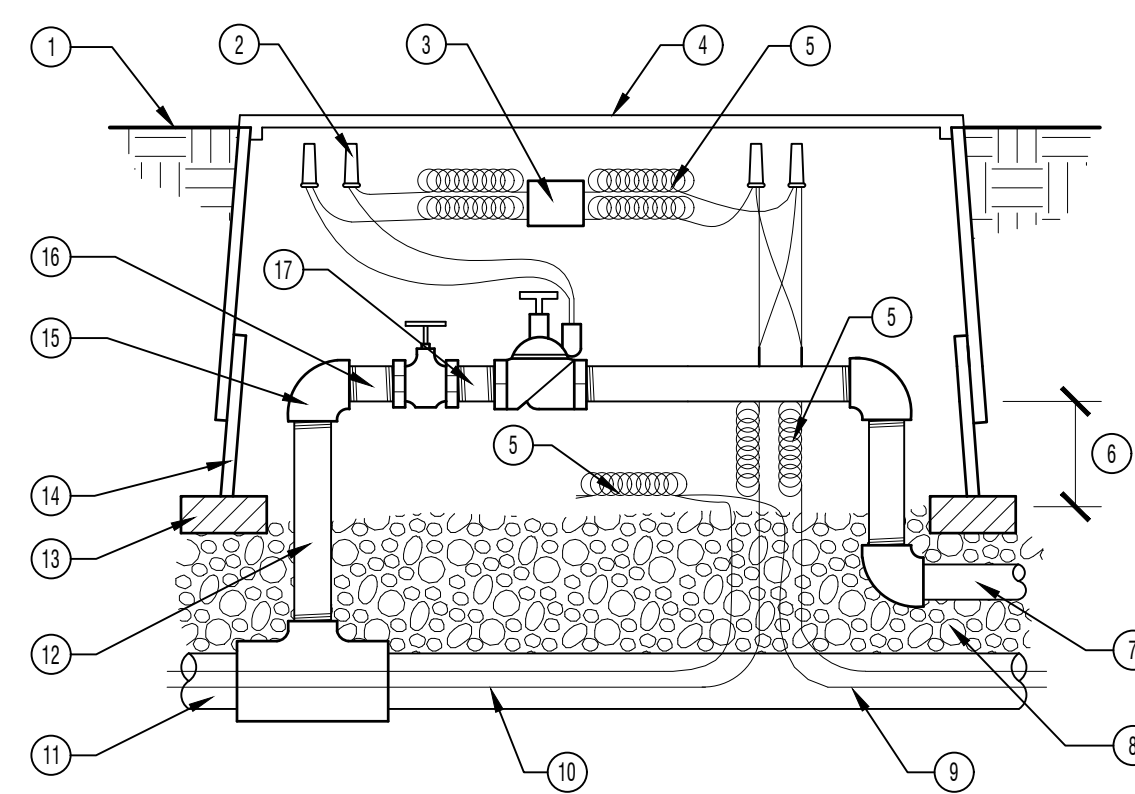
1" = 1'-0"

- VALVE COVER
- FINISH GRADE
- 1" SCH. 80 PVC NIPPLE (LENGTH AS REQUIRED)
- 2" X 2" X 24" METAL STAKE WITH CLAMPS
- SCH. 40 MAINLINE PVC PLASTIC PIPE
- 3/4" GRAVEL
- 1" SCH. 80 PVC NIPPLE (LENGTH AS REQUIRED)
- 1" SCH. 40 PVC ELL
- ROUND VALVE BOX WITH EXTENSIONS
- ONE PIECE BODY QUICK COUPLING VALVE - HUNTER HD-SRC
- VALVE COUPLING KEY
- 1" SCH. 80 PVC NIPPLE (2" LONG)

B3 REMOTE CONTROL VALVE - TWO-WIRE

1 1/2" = 1'-0"

P-3-CMU-WUBB-52



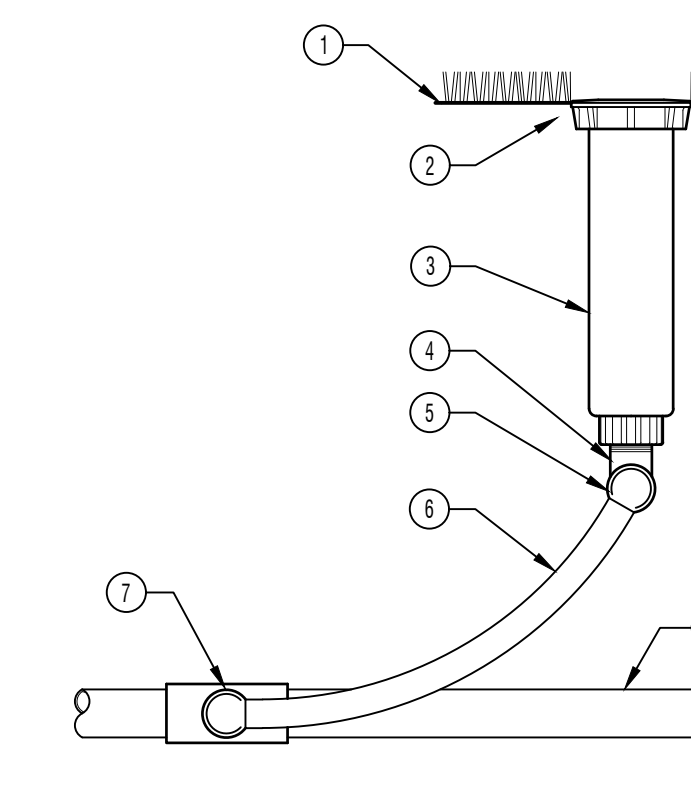
- FINISH GRADE
- WATERTIGHT 3M DBRY WIRE SPLICE (TYP.)
- VALVE DECODER
- RECTANGULAR HEAVY DUTY PLASTIC VALVE BOX
- 36" COILED SPARE WIRE (TYP.)
- 4" CLEARANCE BETWEEN GRAVEL AND VALVE
- SCH. 40 PVC LATERAL (12" DEEP MIN.)
- 6" DEEP GRAVEL SUMP
- TWO-WIRE CONTROL CABLE
- TAPE WIRE TO SIDE OF MAINLINE AT 10'-0" O.C.
- SCH. 40 PVC MAINLINE (18" DEEP MIN.)

- SCH. 80 PVC SS T.O.E. NIPPLE (TYP.)
- PAVING BRICK (TYP.)
- VALVE BOX EXTENSION AS REQUIRED
- SCH. 80 TT90 (TYP.)
- BRASS GATE VALVE
- SCH. 80 PVC THREADED NIPPLE

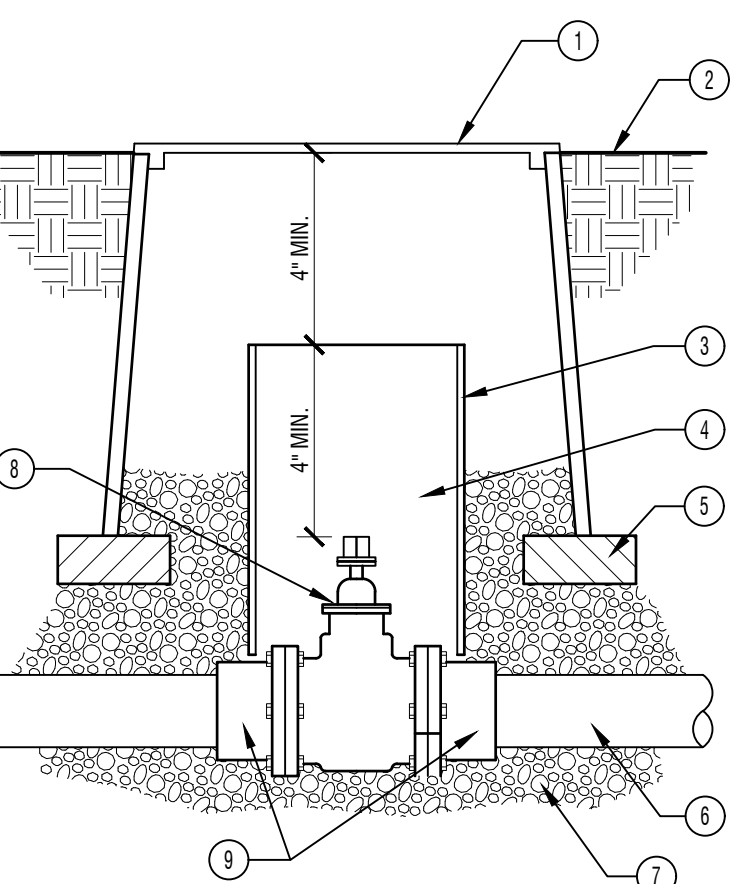
B5 4-6 IN. POP-UP SPRAY HEAD

3" = 1'-0"

P-3-CMU-WUBB-69



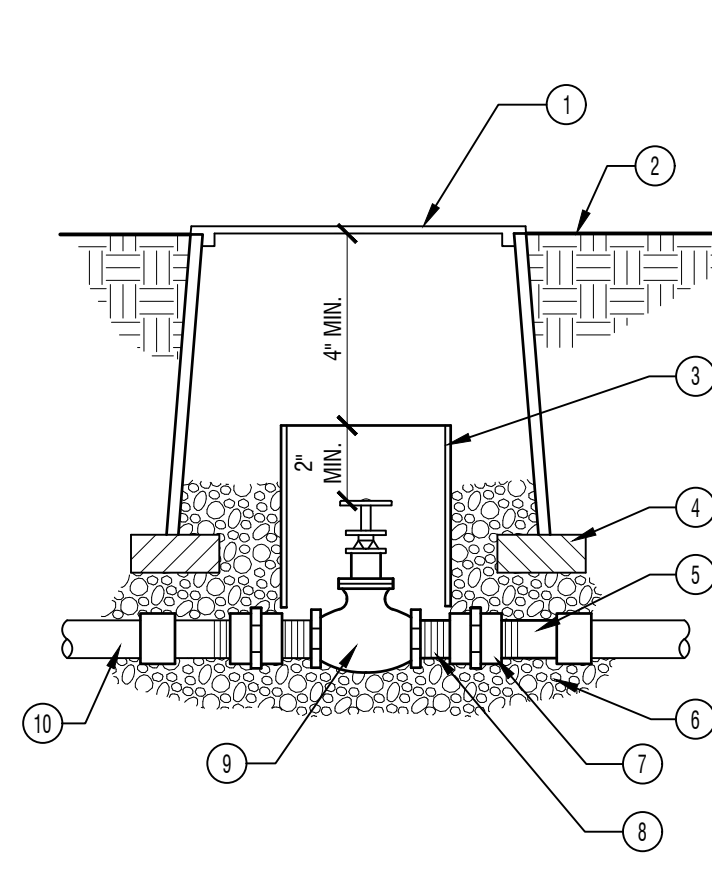
- FINISH GRADE
- FIRM SOIL IMMEDIATELY AROUND HEAD
- POP-UP SPRAY HEAD
- 90° MARLEX STREET ELL
- 90° MARLEX ELL BARBED INSERT FITTING
- LINEAR LOW DENSITY POLYETHYLENE PIPE (14" LONG MINIMUM, 24" LONG MAXIMUM)
- 90° MARLEX ELL BARBED INSERT FITTING
- PVC LATERAL LINE



A1 ISOLATION VALVE FOR 2" AND LARGER MAINLINE

3" = 1'-0"

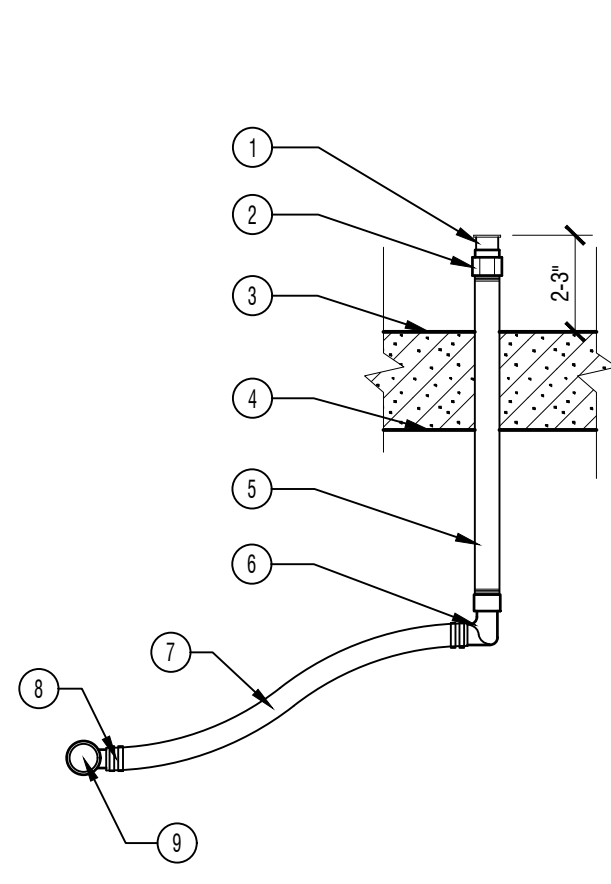
P-3-CMU-WUBB-51



A2 ISOLATION VALVE FOR 1"-1 1/2" MAINLINE

3" = 1'-0"

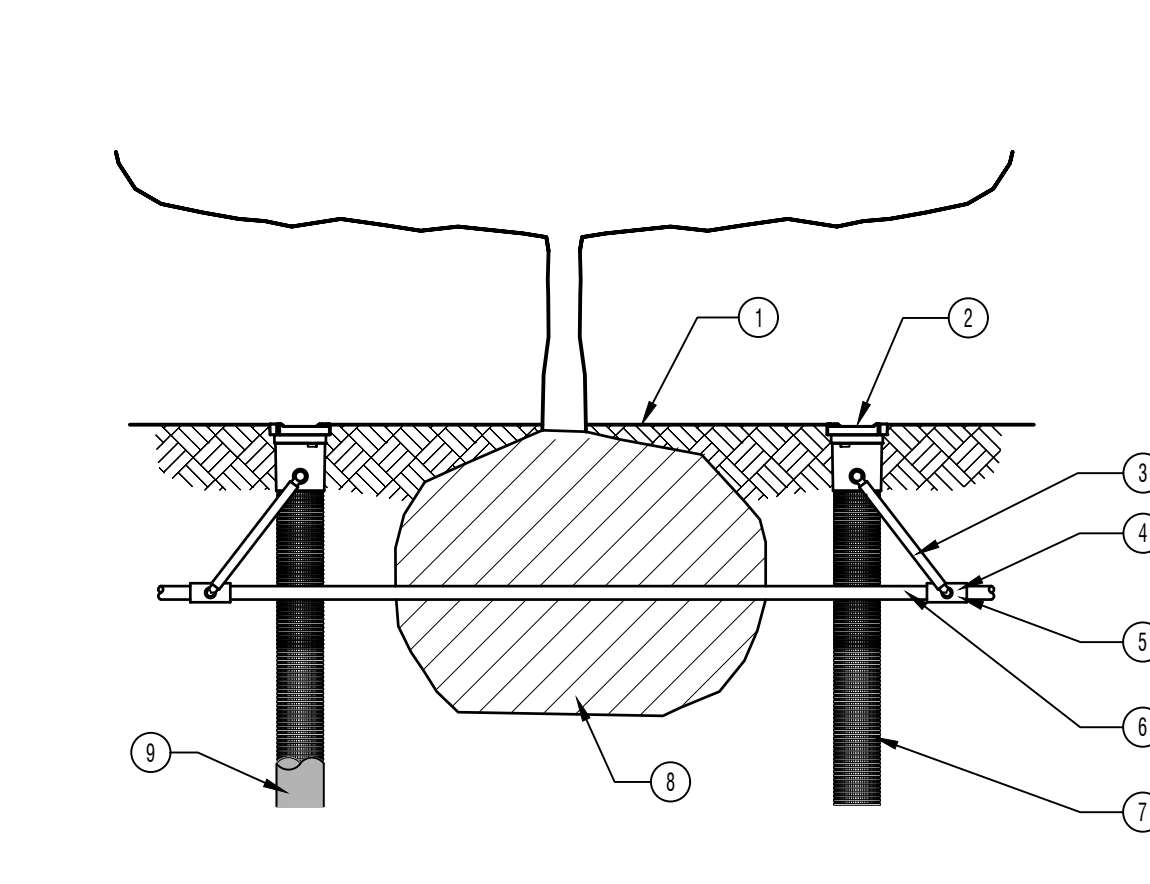
P-3-CMU-WUBB-53



A3 SHRUB BUBBLER

3" = 1'-0"

P-3-CMU-WUBB-46



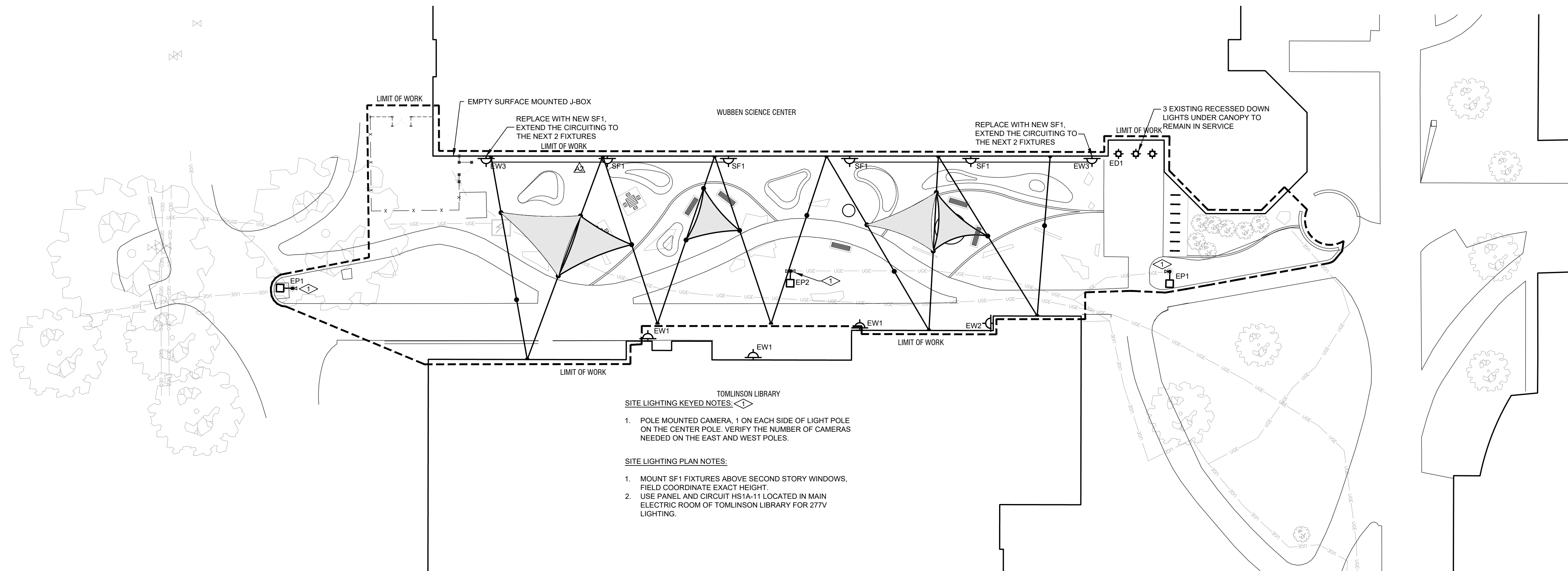
A4 ROOT WATERING

1 1/2" = 1'-0"

P-3-CMU-WUBB

- NOTES:
1. POSITION 2-3 UNITS (OR MORE) EVENLY SPACED AROUND PLANT. FOR NEW TREES PLACE NEAR ROOT BALL. FOR EXISTING TREES PLACE HALF THE DISTANCE BETWEEN CANOPY EDGE AND TREE TRUNK.
2. INSTALL PRODUCT WITH TOP EVEN WITH GROUND SURFACE.
3. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" (1.9 CM) GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
4. ONCE RWS HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.
5. OPTIONAL RWS-SOCK FOR USE IN SANDY SOILS.
- FINISH GRADE/TOP OF MULCH
 - ROOT WATERING SYSTEM: RAIN BIRD
 - SWING ASSEMBLY (INCLUDED)
 - 1/2" MAIL NPT INLET (INCLUDED)
 - PVC SCH. 40 TEE OR ELL
 - PVC OR POLYETHYLENE LATERAL PIPE (PER DRAWINGS)
 - 4" WIDE X 36" LONG RIGID BASKET WEAVE CANISTER (INCLUDED)
 - PLANT ROOT BALL
 - OPTIONAL SOCK (RWS-SOCK) FOR SANDY SOILS

- SHRUB BUBBLER, HUNTER OR GPH
 - PLASTIC SHRUB ADAPTER
 - TOP OF MULCH
 - FINISH GRADE
 - GPH IRRIGATION BUBBLER RISER, BROWN, MODEL IH, LENGTH TO BE AS SHORT AS FUNCTIONALLY POSSIBLE
 - 1/2" FEMAL BARB ELL WITH CLAMPS
 - POLYETHYLENE PIPE, MAX LENGTH 5'
 - PVC OR POLYETHYLENE LATERAL LINE CLAMP POLYETHYLENE FITTINGS
 - PVC SCHEDULE 40 LATERAL PIPE
- NOTE:
• PLACE BUBBLERS ON UPHILL SIDE OF PLANT
• FOR TREES EQUALLY SPACE BUBBLER AROUND TREE WITH TWO BUBBLERS ON THE UPHILL SIDE.



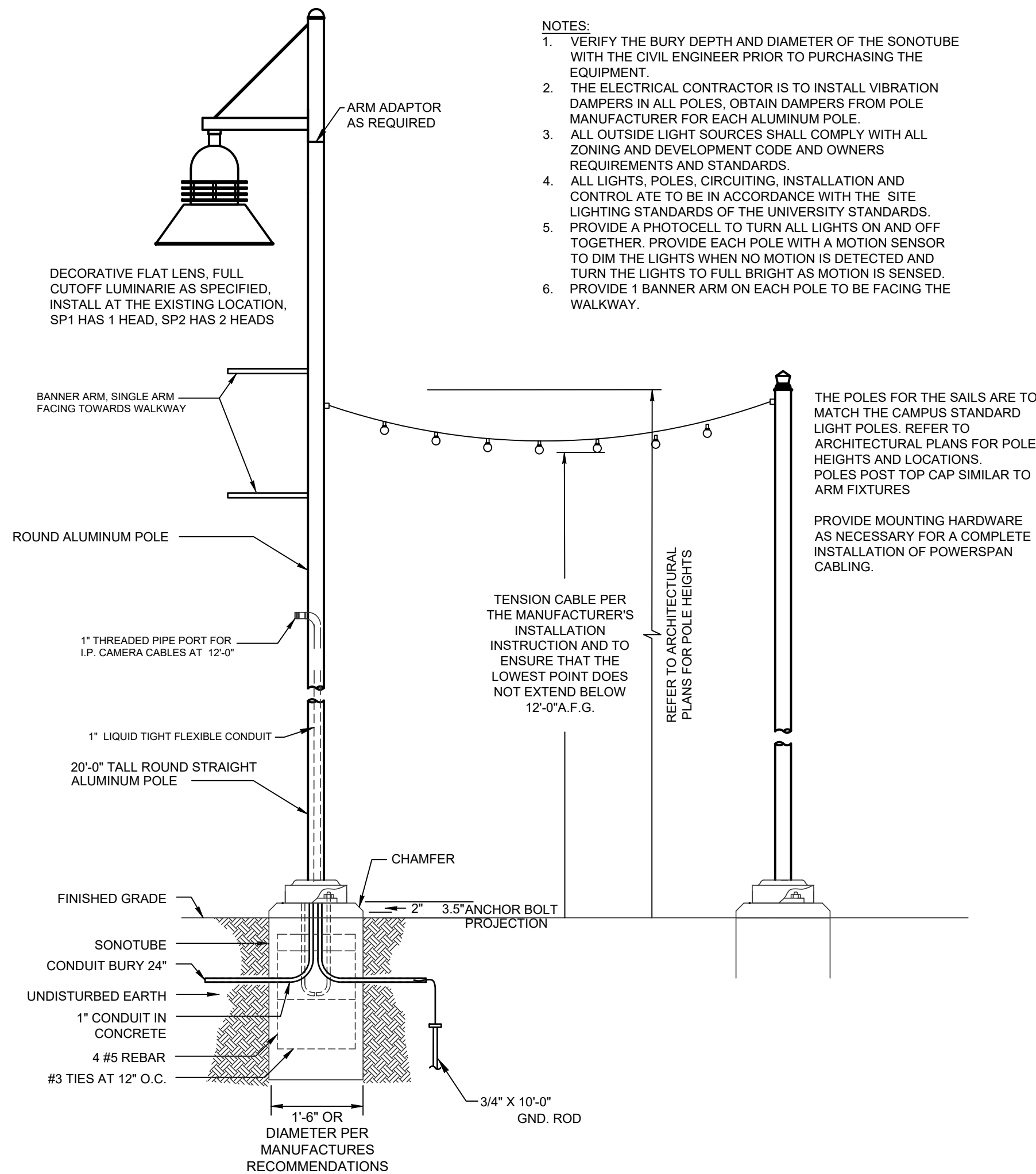
LIGHTING - SITE PLAN

SCALE: 1"=20'-0"
NORTH

- SITE LIGHTING KEYED NOTES:**
- POLE MOUNTED CAMERA 1 ON EACH SIDE OF LIGHT POLE ON THE CENTER POLE. VERIFY THE NUMBER OF CAMERAS NEEDED ON THE EAST AND WEST POLES.
- SITE LIGHTING PLAN NOTES:**
- MOUNT SF1 FIXTURES ABOVE SECOND STORY WINDOWS. FIELD COORDINATE EXACT HEIGHT.
 - USE PANEL AND CIRCUIT HS1A-11 LOCATED IN MAIN ELECTRIC ROOM OF TOMLINSON LIBRARY FOR 277V LIGHTING.

- NOTES:**
- VERIFY THE BURY DEPTH AND DIAMETER OF THE SONOTUBE WITH THE CIVIL ENGINEER PRIOR TO PURCHASING THE EQUIPMENT.
 - THE ELECTRICAL CONTRACTOR IS TO INSTALL VIBRATION DAMPERS IN ALL POLES. OBTAIN DAMPERS FROM POLE MANUFACTURER FOR EACH ALUMINUM POLE.
 - ALL OUTSIDE LIGHT SOURCES SHALL COMPLY WITH ALL ZONING AND DEVELOPMENT CODE AND OWNERS REQUIREMENTS AND STANDARDS.
 - ALL LIGHTS, POLES, CIRCUITING, INSTALLATION AND CONTROL ARE TO BE IN ACCORDANCE WITH THE SITE LIGHTING STANDARDS OF THE UNIVERSITY STANDARDS.
 - PROVIDE A PHOTOCELL TO TURN ALL LIGHTS ON AND OFF TOGETHER. PROVIDE EACH POLE WITH A MOTION SENSOR TO DIM THE LIGHTS WHEN NO MOTION IS DETECTED AND TURN THE LIGHTS TO FULL BRIGHT AS MOTION IS SENSED.
 - PROVIDE 1 BANNER ARM ON EACH POLE TO BE FACING THE WALKWAY.

- LIGHT FIXTURE NOTES:**
ALL EXISTING LIGHTS THAT ARE TO REMAIN ARE TO BE CLEANED AND SERVICED AS NEEDED TO ENSURE THEY ARE PROPERLY WORKING.
- LIGHT FIXTURE EW1 IS AN EXISTING LED WALL PACK TO REMAIN IN SERVICE.
 - LIGHT FIXTURE EW2 IS AN EXISTING LED WALL CYLINDER TO REMAIN IN SERVICE.
 - LIGHT FIXTURE EW3 IS AN EXISTING WALL PACK. REMOVE THIS FIXTURE. REPLACE THE FIXTURE WITH A NEW WALL MOUNTED FLOOD LIGHT. ADD 4 NEW FLOOD LIGHTS EVENLY SPACED BETWEEN THE 2 EXISTING LIGHTS. THE MOUNTING HEIGHTS WILL BE DETERMINED IN THE FINAL PHASE OF DESIGN.
 - LIGHT FIXTURE ED1 IS AN EXISTING RECESSED DOWN LIGHT. CLEAN, REPAIR OR REPLACE AS REQUIRED TO ENSURE THE FIXTURES ARE PROPERLY WORKING.
 - LIGHT FIXTURE EP1 IS AN EXISTING POLE MOUNTED LIGHT. REPLACE THE HEAD WITH A NEW HEAD. REFER TO LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.
 - REPLACE THE POLES FOR FIXTURE EP1 AND EP2 WITH NEW POLES TO PROVIDE WI-FI AND CAMERA MOUNTING FOR SECURITY CAMERAS AND FLAG ARMS PER CAMPUS STANDARDS.
 - LIGHT FIXTURE EP2 IS AN EXISTING POLE MOUNTED LIGHT. REPLACE THE EXISTING HEAD WITH 2 NEW HEADS AT 180 DEG FROM EACH OTHER. REFER TO SP2 IN LIGHT FIXTURE SCHEDULE FOR SPECIFICATIONS.
 - INSTALL SECURITY CAMERAS ON THE LIGHT POLES PER THE CAMPUS STANDARDS AND DIRECTIONS.
 - THE ELECTRICAL CONTRACTOR IS TO FIELD VERIFY THE ORIGIN OF THE POWER SOURCE CURRENTLY FEEDING THE CENTER LIGHT POLE IN THE CORRIDOR. THE INTENT IS TO BE ABLE TO FEED THE NEW LED POLE LIGHTS AND THE STRING LIGHTS FROM THE SAME SOURCE AS THE EXTERIOR POLE LIGHTS. IF POSSIBLE PULL NEW CONDUCTORS FROM A LOCAL POWER PANEL.
 - THE STRING LIGHTS WILL BE CONTROLLED WITH A LOCAL PHOTOCELL TO TURN THE LIGHTS ON AT DUSK AND OFF AT DAWN. THE PHOTOCELL WILL WORK INDEPENDENTLY FROM THE POLE CONTROLS.



LIGHT POLE BASE DETAIL & ELEVATION

NO SCALE

LIGHTING FIXTURE SCHEDULE				
TYPE MARK	MANUFACTURER	MODEL	LAMP	DESCRIPTION
SC1	TEGAN LIGHTING	DSW-48-120-G16-SF-27/325-DSC7-STK-LENGTH TEGAN POWER SUPPLY & DRIVER	LED REMOTE DIMMING POWER SUPPLY, 6W, 109LM, 3500K, 90CRI	SUSPENDED DECORATIVE STRING LIGHT SYSTEM, CABLE MOUNT, 6 GLASS ENVELOPE FROSTED GLASS BULB, BLACK FINISH, DIMMABLE, 110" MAX CABLE LENGTH, MOUNT LAMPS 4'-0" APART. REFER TO THE ARCHITECTURAL PLANS FOR OVER ALL RUN LENGTH BETWEEN POLES PRIOR TO PLACING THE ORDER.
SF1	INVUE LIGHTING	VFS-K-B40-5-LED-D1-WZ-BT-PC-WMT-XX-VFS-BD	LED DIMMING DRIVER, 5774LM, 4000K, 70CRI, 67W	VISION SMALL LED FLOOD LIGHT, WALL MOUNT TENON MOUNT WITH SLIPFITTER, ELECTRONIC DIMMING, WIDE SYMMETRICAL RECTANGULAR DISTRIBUTION, BRONZE FINISH, BARNDOORS.
(EP1) SP1	ARCHITECTURAL AREA LIGHTING	UCM2-LUM-ANG-36L-615-4K7-SQ-VBL-SLA20-CL-SCL-SCP-20F-UNV(277V)	615mA LED DIMMING DRIVER, 7533LM, 3000K, 71W LED 277V	UNIVERSE COLLECTION MEDIUM LED POLE MOUNTED FIXTURE, FLAT GLASS LENS, UNIVERSE MEDIUM WITH LUMINOUS RINGS HOUSING, ANGLED HOOD, INTEGRAL MOTION SENSOR, VBL UNIVERSITY STANDARD COLOR, WITH CONTEMPORARY ARM, 16"x4" DIA ALUMINUM POLE, ONE HEAD PER POLE
(EP2) SP2	ARCHITECTURAL AREA LIGHTING	UCM2-LUM-ANG-36L-615-4K7-SQ-VBL-SLA20-CL-SCL-SCP-20F-UNV(277V)	615mA LED DIMMING DRIVER, 7533LM, 3000K, 71W LED 277V	UNIVERSE COLLECTION MEDIUM LED POLE MOUNTED FIXTURE, FLAT GLASS LENS, UNIVERSE MEDIUM WITH LUMINOUS RINGS HOUSING, ANGLED HOOD, INTEGRAL MOTION SENSOR, VBL UNIVERSITY STANDARD COLOR, WITH CONTEMPORARY ARM, 16"x4" DIA ALUMINUM POLE, TWO HEAD PER POLE FACING EAST AND WEST

MARK	DATE	DESCRIPTION

PROJECT #: 323218
DRAWN BY: WG
CHECKED BY: D. BROWN
ISSUED: 09.19.2024

CONSTRUCTION DOCUMENT

SITE LIGHTING
PLANS AND
DETAILS

ES1-1

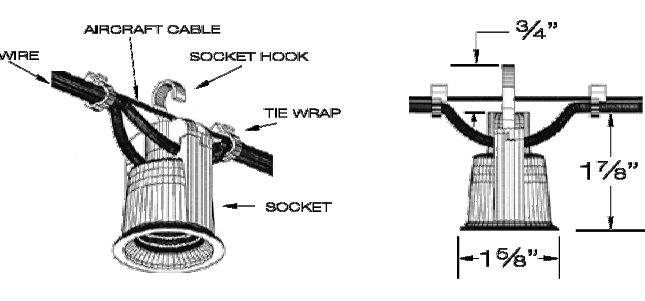


LED - DECOSTRING SERIES

SUSPENDED DECORATIVE STRINGLIGHT SYSTEMS



PROJECT:
TYPE:



SOCKET, WIRE & CABLE DETAILS

Decostrings are a perfect accent lighting solution to add a personal ambience to patios, courtyards, atriums, restaurants, amusement parks and any open area. The "reaction" lighting system is typically strung between two anchorage points with optional intermediary support and electrically fed from one end.

SPECIFICATIONS

Table with columns: LAMPHOLDER, POWER CORD, SUPPORT CABLE, TERMINATION KITS, LAMPS, DIMMING, VOLTAGE, ACCESSORIES, PHOTOMETRY, CERTIFICATION. Rows describe various components and their specifications.

PART NUMBER

Table with columns: DSW, 48, 120V, G16.5F, DSC7, STK. Rows list various part numbers and their specifications.

3570 LEXINGTON AVE, EL MONTE, CA 91731 • PH. 626.442.4600 • primuslighting.com

Table showing product details for DSC7, DSC10, and DSC12, including dimensions, cone shade sizes, and finish options.

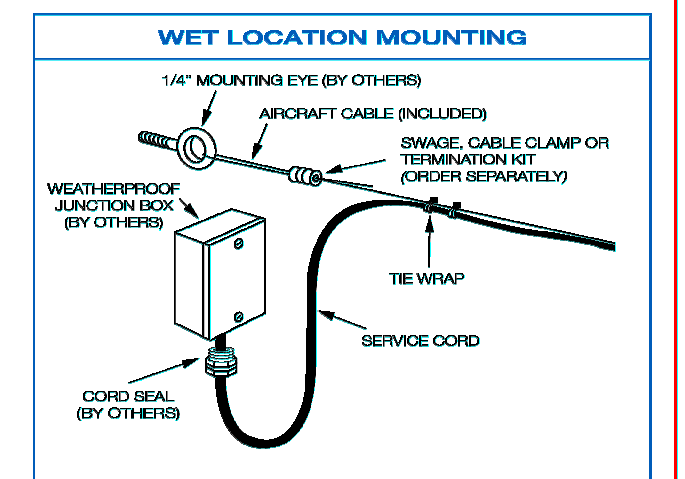
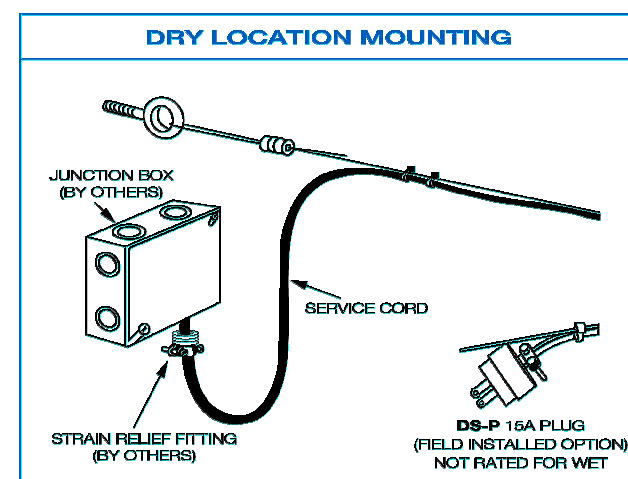
TERMINATION KITS

Commercial grade heavy duty stainless steel cable termination kits. System working load 175# using standard Decostring 3/32" suspension cable to attach to typically a 1/4" eye or mounting tab (by others). Complete hardware for both cable ends.



POWER CONNECTIONS

Decostrings are designed to be permanently installed and hard wired to a junction box. Customary wet location make-up includes a drip loop and mechanical termination to a weatherproof junction box using an appropriate nylon cord grip



G16.5F-24/325 - 24K, 3.9W, 325L, CLEAR
G16.5F-27/325 - 27K, 3.9W, 325L, CLEAR
G16.5F-24/200 - 24K, 2W, 200L, CLEAR
G16.5F-27/200 - 27K, 2W, 200L, CLEAR
WHITE OR FROSTED - CONSULT FACTORY

DESCRIPTION

The cylindrical form of the Vision Flood Small LED luminaire blends effortlessly to architectural and landscape environments. The Vision Flood Small LED luminaire offers optical, energy and maintenance solutions for the full breadth of floodlighting applications.

Table with columns: Catalog #, Type, Project, Comments, Prepared by. Value: SF1

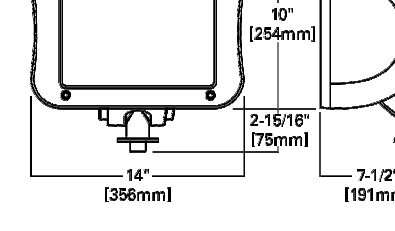
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SPECIFICATION FEATURES

Construction: One-piece, die-cast aluminum housing maintains a nominal .125" thickness to endure the toughest environments while maintaining precise tolerance control. DOORS: Die-cast aluminum door maintains a nominal .125" thickness and features concealed hinging to the housing. Door is secured with four tamper-resistant recessed stainless steel allen head fasteners. Door frame features an integral accessory channel for the mounting of optional light control accessories. Doorframe seals to housing with a continuous extruded silicone gasket. Lens is impact-resistant, 1/8" thick tempered clear flat glass, sealed to the door with a one-piece silicone gasket. IP65 rated.

Optics: DISTRIBUTION: State-of-the-art optical designs offer the choice of high efficiency floodlighting optical distributions including symmetric round, symmetric rectangular, asymmetric rectangular and tight spot beam patterns. Optic module is injection molded thermo plastic with highly reflective, metallized specular finish. LEDs: High output LEDs, 60,000+ hours life at >=30% lumen maintenance per IESNA TM-21 Standards, offered standard

Mounting: KNUCKLE: Heavy-duty die-cast aluminum knuckle utilizes a taper-lock adjustment mechanism for both solid engagement and infinite aiming adjustment. Knuckle adjustment is made via one captive stainless steel allen head fastener consistent with doorframe fasteners. Tested to sustain 2G of vibration without losing aiming position. VFS knuckle features a 3/4" NPT nipple on bottom surface for rigid attachment to available



CERTIFICATION DATA
40°C Ambient Temperature Rating UL and UL Listed I80-0013 IPEX Luminaire LAMP / LMBD Compliant 20 vibration hours



mounting accessories. Optional slipfitter mount available for VFS. Finish: Housing is finished in five-stage, super premium TGIC polyester powder coat paint, 2.3 mil nominal thickness for superior protection against fade and wear. Standard colors include black, bronze, grey, white, dark platinum and graphite metallic. RAL and custom color matches available. Consult Outdoor Architectural Colors brochure for a complete selection. Options to meet Buy American Act requirements

Warranty: Five-year warranty.

ENERGY DATA
EPA Effective Projected Area (Sq. Ft.): 1.18

SHIPPING DATA
Approximate Net Weight: 18 lbs. (8 kg.)



December 20, 2021 11:25 AM



FEATURES
• Reliable, uniform, glare free illumination
• Types 1, 2, 3, 4W, 5G, and 5W distributions
• 3000K, 4000K, 5000K CCT
• 0-10V dimming ready
• Integral Surge protection: 10k in parallel, 20k in series
• Upgrade Kits



SPECIFICATIONS

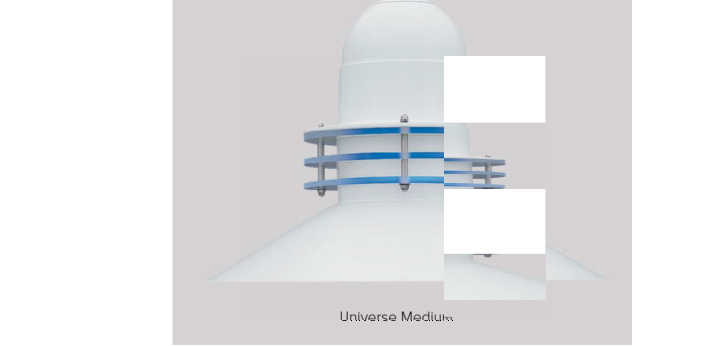
CONSTRUCTION
• All housing components aluminum 360 alloy, sealed with continuous silicone rubber gaskets
• Standard configurations do not require a fat lens, optional lenses is tempered glass
• All internal and external hardware is stainless steel
• Finish: fade and abrasion resistant, electrostatically applied, thermally cured, triglycid isocyanurate (TGIC) polyester powdercoat
• Optical bezel finish is match the luminaire housing

LEDOPTICS
• Optical cartridge system consisting of a die cast heat sink, LED engine, TIR optics, gasket and bezel inside
• Optics are held in place without the use of adhesives
• Molded silicone gasket ensures a weather-proof seal around each individual LED.
• Features individual LED optical control based on high performance TIR optical designs.

INSTALLATION
• Features must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

UNIVERSE®



RELATED PRODUCTS
• UJCL2
• UJCL2LK
• UJCS
• UJCB

ELECTRICAL
• Luminaire has integral surge protection, UL recognized and have a surge current rating of 10,000 Amps using the industry standard 8/20µSec wave and surge rating of 372J

CONTROLS (CONTINUED)
• Photocell adapter shall include an internal twist lock receptacle. Photocell by others.
• Egress adapter shall require an auxiliary 120 volt supply for operation of an integral MR16 lamp in the event of emergency. The lamp may be aimed and locked into position with an adjustment range of 15°-45°. Adapter shall have a socket that accepts miniature 3-pin MR16 lamps up to 50 watts, lamp by others

CERTIFICATIONS
• ETL listed under UL 1598 and CSA C22.2 No. 250.0-08 for wet locations

WARRANTY
• See UL Standard Warranty for additional information

KEY DATA
LUMEN RA™: 1821-9,336
WATTAGE RJ: 3152-716
EFFICACY RAN™: 54.5-138.5
INPUT CURRENT Iavg (UL994): 260/420/615 mA
WEIGHT: 18 lbs. 41 kg to 27 lbs. 12.25 kg
EPA: .53 to 1.05

DRIVER AND SURGE SUPPRESSOR are mounted to a prewired tray with quick disconnects that may be removed from the gear compartment

EGRESS ADAPTER(S) shall slip over a 4" x 100mm DIA. pole with the luminaire or arm stopping over the adapter to add a total of 4.5" / 114mm to the overall height. Adapter(s) shall be prewired, independently rotatable 359°, and have a cast access cover with an integral lens and lanyard.

Page #19 Rev. 12/16/20 UCM2

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ORDERING GUIDE

CATALOG #

HOUSING

Table listing housing options: UCM2, WND, SR, VSL, LUM, BLU, RD, GRN, Hood Style, ANG, BEH, FLR, SKB, STR, Hood Finish, STE, COP.

OPTICS

Table listing optic options: Pole Mount (SLA2-SLA7), Wall Mount (SLA8-SLA17).

OPTIONS

Table listing various options like House Side Shield, Soft Lens Cover, Single Fuse, Double Fuse, Sensor Control, etc.

TERMINATION KITS

Table listing termination kit options: WWR, WRSR, SCP-8F, SCP-20F, PCA-C, EPA-C.

DIMENSIONS

See page 6 for dimensions

DATE: LOCATION:
TYPE: PROJECT:
CATALOG #:

ORDERING GUIDE

Example: UCM2-WND-BLU-FLR-3BL-420-4-K7-CL-BL-WRSC-SLA2-D-LNV

HOUSING

Table listing housing options: UCM2, WND, SR, VSL, LUM, BLU, RD, GRN, Hood Style, ANG, BEH, FLR, SKB, STR, Hood Finish, STE, COP.

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See page 6 for dimensions

DESIGN WEST

LOGAN, UTAH (435) 732-7031
SALT LAKE CITY, UTAH (801) 539-8221

Bighorn Consulting Engineers, Inc. Mechanical & Electrical Engineers

386 Indian Road Grand Junction, CO 81501 Phone (970) 241-8709

CMU - WUBBEN SCIENCE CENTER ART WALK
1316 COLLEGE PL., GRAND JUNCTION, CO 81501
COLORADO MESA UNIVERSITY

Table for project description and tracking: PROJECT #, DRAWN BY, CHECKED BY, ISSUED, MARK, DATE.

PROJECT #: 323218
DRAWN BY: WG
CHECKED BY: D. BROWN
ISSUED: 09.19.2024

SITE LIGHTING FIXTURES

ES1-2