# SITE PLAN SP2025-00009 & SRU2025-00001

1000 TELLEEN AVE

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# **TOWN OF ERIE** PARKS & RECREATION DEPARTMENT

INDEX OF SHEETS (CONT.)

All work shall be constructed in conformance with current Town of Erie Standards and Specifications, as amended. This drawing set has been reviewed and found to be in general compliance with the Standards and Specifications and other Town requirements. This acceptance shall not be construed to relieve any requirement to the Standards and Specifications not specifically addressed in these plans. IN ADDITION, THE DESIGN REMAINS THE RESPONSIBILITY OF THE PROFESSIONAL LANDSCAPE ARCHITECT WHOSE STAMP AND SIGNATURE

LUKE BOLINGER, DIRECTOR OF PARKS & RECREATION

# PROJECT OWNER AND CONSULTANTS

SWS NO.1 PLAN & PROFILE

SWS NO.2 PLAN & PROFILE

**UTILITY DETAILS** 

**UTILITY DETAILS** 

UTILITY DETAILS

**UTILITY DETAILS** 

STORM DETAILS

STORM DETAILS

POND DETAILS

TOWN OF ERIE 645 HOLBROOK ST ERIE, CO 80516 303.926.2700

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PROFESSIONAL ENGINEERING CONSULTANTS 351 LINDEN STREET, SUITE 100 FORT COLLINS, CO 80524 KENT BRUXVOORT, PE 970.232.9558 kent.bruxvoort@pec1.com

UDC SECTION 10-6-4.F.4 ALLOWS FENCE HEIGHT EXCEPTIONS VIA SPECIAL REVIEW USE APPROVAL IN THE CMU ZONE DISTRICT. REQUEST IS FOR A 6' SOLID FENCE UP TO 8' FENCE TO SCREEN THE TRASH ENCLOSURE.

ALONG THE TRAIL CORRIDOR, AND

LOT 2, BLOCK 9, CREEKSIDE SUBDIVISION, CONTAINED WITHIN THE SE 1/4 OF SECTION 13, T1N, R69W, 6TH P.M., TOWN OF ERIE, COUNTY OF BOULDER, STATE OF COLORADO, CONTAINING 242,266 SQUARE FEET OR 5.562 ACRES, MORE OR LESS.



# OCTOBER 2025

Fence Heights Approved Via SRU - UDC Section 10-6-4.F.4 UDC Section 10-6-4.F.4 allows fence height exceptions via Special Review Use approval in the CMU Zone District. This project proposes a 6' solid fence along the trail corridor, and up to 8' fence to screen the trash enclosure. This request is hereby approved with the approval of this SRU.

ZONE DISTRICT: COMMUNITY MIXED USE (CMU) SQUARE FOOTAGE | % OF GROSS SITE **GROSS SITE AREA** 242,266 HARDSCAPE AREA BUILDING FOOTPRINT PARKING/ROADS 32.8% TRAILS AND SIDEWALKS 123,364

SITE DATA SUMMARY CHART

TOTAL LANDSCAPE AREA PROPOSED PLANTED AREA 42,797 17.7% 24.4% **EXISTING VEGETATION** 102,000 TOTAL 42.1% DESCRIPTION

BUILDING 2 STORIES 17,971 SF +17,229 SF PROPOSED USE: PUBLIC SAFETY STATION

35.200 SF **TOTAL** PARKING

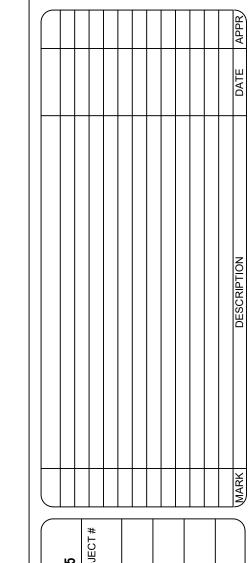
6 SPACES 6 SPACES 3 SPACES TOTAL EVSE (2%) TOTAL EV READY (8%) 12 SPACES 15 SPACES **TOTAL EV CAPABLE (10%)** 15 SPACES TOTAL EV CAPABLE LIGHT SPACE (10%) STANDARD PROVIDED 159 SPACES

ACCESSIBLE PROVIDED 6 SPACES **BICYCLE PARKING PROVIDED** 8 SPACES 15 SPACES **EVSE PROVIDED** 15 SPACES EV READY PROVIDED EV CAPABLE PROVIDED 15 SPACES 15 SPACES EV CAPABLE LIGHT SPACE PROVIDED

SITE PLAN APPROVAL CERTIFICATE THIS SRU SITE PLAN HAS BEEN REVIEWED AND FOUND TO BE COMPLETE AND IN ACCORDANCE WITH APPLICABLE TOWN OF ERIE REGULATIONS. Public Hearing Date The undersigned as the owner or owner's representative of the lands described herein, hereby agrees on behalf of himself/herself, their heirs, successors, and assigns to develop and maintain the property described hereon in accordance with this approved Site Plan and in compliance with the Town of Erie Unified Development Code and Municipal Code (owner printed) Witness my hand and official seal Notary Public

My commission expires:





**DESIGN** 

**DEVELOPMENT** 

NOT FOR CONSTRUCTION

**IDENTIFICATION** C-001



D

- A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH THE TOWN OF ERIE ENGINEERING STAFF PRIOR TO THE START OF CONSTRUCTION. ATTENDANCE SHALL BE IN ALIGNMENT WITH SECTION 100 OF THE STANDARDS AND SPECIFICATIONS. PLANS SIGNED AND ACCEPTED BY THE TOWN OF ERIE WILL BE DISTRIBUTED AT THE PRE-CONSTRUCTION MEETING. CONTRACTOR SHALL HAVE (1) COPY OF THE SIGNED PLANS ON SITE AT ALL TIMES.
- 3. THE TOWN OF ERIE, THROUGH ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT. THE OWNER AND DESIGN ENGINEER UNDERSTAND THAT THE RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE STAMP AND SIGNATURE ARE AFFIXED TO THIS DOCUMENT. REPORT ALL DISCREPANCIES TO THE DESIGN ENGINEER IMMEDIATELY.
- 4. PRIOR TO BEGINNING THE WORK, THE CONTRACTOR SHALL OBTAIN ANY/ALL WRITTEN AGREEMENTS FOR INGRESS AND EGRESS TO THE WORK SITE FROM ADJACENT PRIVATE PROPERTY OWNERS. A COPY OF ALL AGREEMENTS SHALL BE PROVIDED TO THE TOWN. ACCESS TO ANY ADJACENT PRIVATE PROPERTY SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD.
- 5. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF ERIE ENGINEERING STAFF. THE TOWN RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO TOWN STANDARDS AND SPECIFICATIONS. INSPECTIONS AND ONSITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE BY THE TOWN ENGINEERING STAFF OF THE CONTRACTORS" CONTRACTUAL COMMITMENT. REQUESTS FOR INSPECTION BY THE TOWN OF ERIE SHALL BE MADE BY THE CONTRACTOR A MINIMUM OF TWENTY-FOUR (24) HOURS IN ADVANCE.
- 6. CONSTRUCTION WATER IS AVAILABLE TO THE CONTRACTOR AS ESTABLISHED IN THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT THE TOWN OF ERIE REGARDING CURRENT REGULATIONS, FEES AND REQUIRED AGREEMENTS RELATED TO THE PROVISION OF CONSTRUCTION WATER.
- 7. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH THE AFFECTED UTILITY COMPANIES AND SHALL NOTIFY THE UTILITY NOTIFICATION CENTER, PHONE NUMBER 811, THREE (3) BUSINESS DAYS PRIOR TO THE START OF CONSTRUCTION.
- 8. UTILITIES IN THE AREA OF CONSTRUCTION ARE APPROXIMATE ONLY. THEY HAVE BEEN LOCATED FROM FIELD INVESTIGATION AND THE BEST AVAILABLE UTILITY RECORDS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION AND REPAIR OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION WHETHER SHOWN ON THESE PLANS OR NOT. THE CONTRACTOR SHALL CONTACT ALL RESPECTIVE UTILITIES AND HAVE ALL UTILITIES FIELD-LOCATED PRIOR TO CONSTRUCTION. IF ANY UNKNOWN SUBSURFACE STRUCTURES ARE ENCOUNTERED DURING CONSTRUCTION, IT SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE TOWN OF ERIE ENGINEERING STAFF AND DESIGN ENGINEER PRIOR TO PROCEEDING.
- 9. THE CONTRACTOR SHALL NOTIFY TOWN OF ERIE ENGINEERING STAFF OF ANY PROBLEM IMPACTING WATER AND WASTE WATER FACILITIES THAT WOULD POTENTIALLY REQUIRE A VARIANCE FROM THE APPROVED PLANS AND SPECIFICATIONS. ANY VARIANCE FROM THE APPROVED DOCUMENTS SHALL BE AT THE SOLE DISCRETION OF THE TOWN OF ERIE ENGINEERING STAFF.
- 10. CONTRACTOR SHALL OBTAIN, AT HIS OWN EXPENSE, ALL APPLICABLE SPECIFICATIONS AND PERMITS NECESSARY TO PERFORM THE PROPOSED WORK.
- 11. AS-BUILT DRAWINGS AS REQUIRED IN THE SPECIFICATIONS, ARE TO BE SUBMITTED BY THE OWNER/DEVELOPER PRIOR TO INITIAL ACCEPTANCE OF THE CONSTRUCTION.
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING ANY EXISTING SIGNS, STRUCTURES, FENCES, ETC., ENCOUNTERED ON THE JOB AND RESTORING THEM TO THEIR ORIGINAL CONDITION.
- 13. THE CONTRACTOR IS RESPONSIBLE FOR:

- 13.1. NOTIFYING THE TOWN OF ERIE UTILITY CUSTOMERS OF POTENTIAL SERVICE OUTAGES, AND COORDINATE WITH THE TOWN OF ERIE FOR DETERMINATION OF MINIMUM TIME REQUIREMENT.
- 13.2. NOTIFYING THE TOWN OF ERIE ENGINEERING STAFF IF WORK IS SUSPENDED FOR ANY PERIOD OF TIME AFTER INITIAL START-UP. THE CONTRACTOR SHALL NOTIFY THE TOWN OF ERIE FORTY-EIGHT (48) HOURS PRIOR TO RESTART.
- 13.3. IN THE EVENT OF AN AFTER HOURS EMERGENCY, CALL 303-441-4444.
- 13.4. NOTIFYING THE MOUNTAIN VIEW FIRE PROTECTION DISTRICT OF ALL STREET CLOSURES AND EXISTING FIRE HYDRANTS TAKEN OUT OF SERVICE A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO THE START OF CONSTRUCTION.
- 14. PRIOR TO INSTALLATION OF UTILITY MAINS, ROAD CONSTRUCTION MUST HAVE COMPLETED THE OVER LOT GRADING STAGE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MANAGING ANY GROUNDWATER ENCOUNTERED DURING THE CONSTRUCTION OF ANY PORTION OF THIS PROJECT. GROUNDWATER MUST BE MANAGED PER THE REQUIREMENTS IDENTIFIED BY THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE). GROUNDWATER SHALL BE PUMPED, PIPED, REMOVED AND DISPOSED OF IN A MANNER WHICH DOES NOT CAUSE FLOODING OF EXISTING STREETS OR EROSION OF ABUTTING PROPERTIES IN ORDER TO CONSTRUCT THE IMPROVEMENTS SHOWN ON THESE PLANS. THE USE OF ANY SANITARY SEWER TO DISPOSE OF TRENCH WATER WILL NOT BE PERMITTED. NO CONCRETE SHALL BE PLACED WHERE GROUNDWATER IS VISIBLE OR UNTIL THE GROUNDWATER TABLE HAS BEEN LOWERED BELOW THE PROPOSED IMPROVEMENTS. ANY UNSTABLE AREAS, AS A RESULT OF GROUNDWATER, ENCOUNTERED DURING THE CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE STABILIZED AS AGREED UPON BY THE CONTRACTOR, THE TOWN OF ERIE, AND THE DESIGN ENGINEER AT THE TIME OF THE OCCURRENCE.
- 16. IT SHALL BE THE RESPONSIBILITY OF THE DESIGN ENGINEER TO RESOLVE CONSTRUCTION PROBLEMS WITH THE TOWN OF ERIE DUE TO CHANGED CONDITIONS ENCOUNTERED BY THE CONTRACTOR DURING THE PROGRESS OF ANY PORTION OF THE PROPOSED WORK. IF, IN THE OPINION OF THE TOWN OF ERIE, PROPOSED ALTERATIONS TO THE SIGNED CONSTRUCTION PLANS INVOLVES SIGNIFICANT CHANGES TO THE CHARACTER OF THE WORK, OR TO THE FUTURE CONTIGUOUS PUBLIC OR PRIVATE IMPROVEMENTS, THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR SUBMITTING REVISED PLANS TO THE TOWN OF ERIE FOR REVIEW, PRIOR TO ANY FURTHER CONSTRUCTION RELATED TO THAT PORTION OF THE WORK.
- DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITIONS AT AND ADJACENT TO THE JOB INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN, OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND IS NOT LIMITED TO NORMAL WORKING HOURS. THE TOWN OF ERIE OR THE DESIGN ENGINEER EXERCISE NO CONTROLS OVER THE SAFETY OR ADEQUACY OF ANY EQUIPMENT, BUILDING COMPONENTS, SCAFFOLDING, FORMS OR OTHER WORK AIDS USED IN OR ABOUT THE PROJECT, OR IN THE SUPERINTENDING OF THE SAME. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD HARMLESS FROM ANY AND ALL LIABILITY, REAL AND ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER, THE DESIGN ENGINEER OR THE TOWN. THE TOWN OF ERIE ENGINEERING STAFF, OR ANY CONTRACTED ENGINEER, ARE NOT RESPONSIBLE FOR SAFETY IN, ON OR ABOUT THE PROJECT SITE, NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY OF ANY REGULATIONS RELATING
- 18. WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE PROSECUTED TO COMPLETION WITHOUT DELAY SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
- REGULAR WORK HOURS ARE SEVEN (7) A.M. UNTIL SEVEN (7) P.M. OR DUSK (WHICHEVER OCCURS FIRST) OF THE SAME DAY, MONDAY THROUGH FRIDAY. THE CONTRACTOR WILL NOT PERMIT OVERTIME WORK OUTSIDE OF REGULAR WORKING HOURS OR THE PERFORMANCE OF WORK ON SATURDAY, SUNDAY OR ANY LEGAL HOLIDAY WITHOUT RECEIVING WRITTEN CONSENT FROM THE TOWN ENGINEER. REQUESTS FOR WEEKEND WORK APPROVAL MUST BE SUBMITTED, IN WRITING TO THE TOWN OF ERIE NO LATER THAN WEDNESDAYS AT 3:30 PM FOR SUBSEQUENT WEEKEND AND REQUESTS FOR HOLIDAY WORK APPROVAL MUST BE SUBMITTED, IN WRITING TO THE TOWN OF ERIE NO LATER THAN 7:00 AM - 2 BUSINESS DAYS PRIOR TO THE HOLIDAY. WHEN APPROVED, STANDARD WORK HOURS FOR WEEKENDS AND HOLIDAYS ARE EIGHT (8) A.M. UNTIL FOUR (4) P.M. OR AS STIPULATED BY THE TOWN ENGINEER. WORK HOURS FOR WORK IN ACTIVE ROW SHALL BE SUBJECT TO APPROVAL OF

THE TOWN ENGINEER AND SHALL BE CONSIDERED ON A CASE BY CASE BASIS. ALL EXPENSES INCURRED BY THE TOWN SHALL BE REIMBURSED AT A RATE TO BE DETERMINED BY DIRECTOR OF FINANCE.

- 20. THE CONTRACTOR SHALL TAKE ALL NECESSARY AND PROPER PRECAUTIONS TO PROTECT ADJACENT PROPERTIES FROM ANY AND ALL DAMAGE THAT MAY OCCUR FROM STORM WATER RUNOFF AND/OR DEPOSITION OF DEBRIS RESULTING FROM ANY AND ALL WORK. THE OWNER/CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL APPROPRIATE PERMITS FROM BOTH THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT AND THE TOWN OF ERIE FOR ANY PROJECT DISTURBING ONE ACRE OR MORE OR ANY PROJECT LESS THAN ONE ACRE THAT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT.
- 21. EACH TYPE OF CONSTRUCTION SHALL BE COMPLETED BY A CONTRACTOR THAT HAS DEMONSTRATED ACCEPTABLE QUALIFICATIONS TO THE TOWN AND IS A LICENSED CONTRACTOR IN THE TOWN OF ERIE.
- 22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL DURING CONSTRUCTION. ALL TRAFFIC CONTROLS SHALL CONFORM TO THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD) LATEST EDITIONS. A PLAN SHALL BE SUBMITTED TO THE TOWN FOR REVIEW AND ACCEPTANCE PRIOR TO CONSTRUCTION.
- 23. ALL BACKFILL SHALL CONFORM TO THE TRENCH DETAIL LOCATED IN THE TOWN OF ERIE STANDARDS & SPECIFICATIONS.
- 24. THE OWNER/OPERATOR IS RESPONSIBLE FOR ENSURING THE IMMEDIATE REMOVAL OF ANY CONSTRUCTION DEBRIS OR MUD TRACKED ONTO EXISTING ROADWAYS.
- 25. THE CONTRACTOR SHALL REPAIR ANY EXCAVATION OR PAVEMENT FAILURES CAUSED BY HIS CONSTRUCTION.
- 26. THE CONTRACTOR SHALL RENEW OR REPLACE ANY EXISTING TRAFFIC STRIPING AND/OR PAVEMENT MARKINGS, WHICH HAVE BEEN EITHER REMOVED OR THE EFFECTIVENESS OF WHICH HAS BEEN REDUCED DURING HIS OPERATION. RENEWAL OF PAVEMENT STRIPING AND MARKING SHALL BE DONE IN CONFORMANCE WITH THE TOWN OF ERIE STANDARD SPECIFICATIONS.
- 27. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO TAKE EVERY MEASURE NECESSARY TO COMPLY WITH ANY STATE, COUNTY OR TOWN DUST CONTROL ORDINANCE.
- 28. CONSTRUCTION VEHICLES SHALL USE TRUCK ROUTES DESIGNATED BY THE TOWN.
- 29. THE OWNER/DEVELOPER WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF THE IMPROVEMENTS FOR A MINIMUM OF TWO (2) YEARS FROM THE DATE OF INITIAL ACCEPTANCE OF THE IMPROVEMENTS BY THE TOWN OF ERIE. ANY FAILURE DURING THIS PERIOD OF GUARANTEE SHALL BE REMEDIED BY THE OWNER/CONTRACTOR TO THE SATISFACTION OF THE TOWN OF ERIE AT NO EXPENSE TO THE TOWN.
- 30. THE SOILS ENGINEER SHALL PERFORM SUFFICIENT INSPECTIONS DURING GRADING AND CONSTRUCTION SO THAT AN OPINION CAN BE RENDERED AND VERIFIED IN WRITING AS TO COMPLIANCE WITH THE PLANS AND CODES WITHIN THE SOILS ENGINEER'S PURVIEW.
- 31. THE CONTRACTOR SHALL NOTIFY THE TOWN WITHIN 24 HOURS OF BECOMING AWARE OF A DISCHARGE OF ANY POLLUTANT INTO THE MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4). THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR REMEDIATION OF ANY ADVERSE IMPACTS TO THE MS4, RECEIVING WATERS, WATERWAYS, WETLANDS, OR OTHER PUBLIC OR PRIVATE PROPERTIES, RESULTING FROM WORK DONE AS PART OF THIS PROJECT.

# **GRADING NOTES**

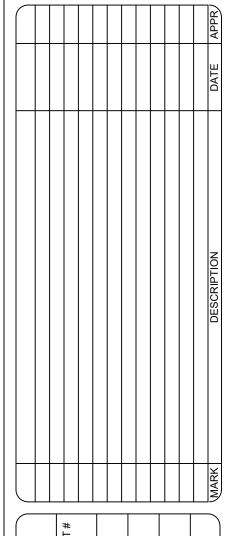
- 1. ALL CONSTRUCTION ACTIVITIES THAT DISTURBS ONE OR MORE ACRES OF LAND, AS WELL AS ACTIVITIES THAT DISTURB LESS THAN ONE ACRE OF LAND, BUT IS PART OF A LARGER COMMON PLAN OF DEVELOPMENT, MUST COMPLY WITH BOTH LOCAL AND STATE REGULATIONS REGARDING STORMWATER DRAINAGE ON CONSTRUCTION SITES. OWNERS OR CONTRACTORS MUST OBTAIN A COLORADO STORMWATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT (CDPHE) AND A GRADING AND STORMWATER QUALITY PERMIT FROM THE TOWN OF ERIE. CONTRACTOR SHALL:
- 1.1. MAINTAIN A COPY OF THE STORM WATER MANAGEMENT PLAN (SWMP) ONSITE AT ALL TIMES OR PROVIDE AN UPDATED DIGITAL COPY WITHIN TWO BUSINESS DAYS UPON REQUEST. THE SWMP MUST BE MAINTAINED AND MADE AVAILABLE TO TOWN OF ERIE INSPECTORS UPON REQUEST.
- 1.2. INSTALL AND MAINTAIN EROSION, SEDIMENT, AND MATERIALS MANAGEMENT CONTROL MEASURE AS SPECIFIED IN THE SWMP.
- 1.3. INSPECT ALL CONTROL MEASURES AT LEAST EVERY SEVEN (7) DAYS OR EVERY FOURTEEN (14) DAYS AND WITHIN TWENTY FOUR (24) HOURS AFTER ANY PRECIPITATION OR SNOWMELT EVENT THAT CAUSES SURFACE RUNOFF.
- 4. MAINTAIN INSPECTION AND MAINTENANCE RECORDS OF CONTROL MEASURES WITH THE SWMP. COPIES OF THESE REPORTS SHALL BE PROVIDED TO THE TOWN OF ERIE ENGINEERING STAFF.
- 1.5. BASED ON INSPECTIONS PERFORMED BY THE PERMIT HOLDER OR BY TOWN PERSONNEL, MODIFICATIONS TO THE SWMP WILL BE NECESSARY IF AT ANY TIME THE SPECIFIED CONTROL MEASURES DO NOT MEET THE OBJECTIVES OF THE PERMIT. ALL MODIFICATIONS SHALL BE COMPLETED AS SOON AS PRACTICABLE AFTER THE REFERENCED INSPECTION, AND SHALL BE RECORDED ON THE OWNER'S COPY OF THE SWMP.
- 1.6. THE OPERATOR SHALL AMEND THE SWMP WHENEVER THERE IS A SIGNIFICANT CHANGE IN DESIGN, CONSTRUCTION, OPERATION, OR MAINTENANCE, WHICH HAS A SIGNIFICANT EFFECT ON THE POTENTIAL FOR DISCHARGE OF POLLUTANTS TO THE RECEIVING WATERS, OR IF THE SWMP PROVES TO BE INEFFECTIVE IN ACHIEVING THE GENERAL OBJECTIVES OF CONTROLLING POLLUTANTS IN STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- 1.7. INSTALLATION AND MAINTENANCE OF CONTROL MEASURES SHALL BE SUPERVISED BY PERSONNEL CERTIFIED IN EROSION AND SEDIMENT CONTROL.
- 1.8. ALL APPROPRIATE CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF EACH CONSTRUCTION
- 1.9. APPROPRIATE STABILIZED CONSTRUCTION ENTRANCES WITH VEHICLE TRACKING CONTROLS INSTALLED SHALL BE UTILIZED AT ALL TIMES TO REDUCE THE TRACKOUT OF SEDIMENT. IF NON STRUCTURAL VEHICLE TRACKING CONTROLS ARE UTILIZED, CLEANUP OF TRACKOUT MUST OCCUR AT THE END OF EVERY BUSINESS DAY WITH CONSTRUCTION ACTIVITY OCCURRING.
- 2. ALL SITE GRADING (EXCAVATION, EMBANKMENT, AND COMPACTION) SHALL CONFORM TO THE RECOMMENDATIONS OF THE LATEST SOILS INVESTIGATION FOR THIS PROPERTY AND SHALL FURTHER BE IN CONFORMANCE WITH THE TOWN OF ERIE "STANDARDS AND SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS", LATEST EDITION.
- 3. ALL GRADING AND FILLING OPERATIONS SHALL BE OBSERVED, INSPECTED AND TESTED BY A LICENSED SOILS ENGINEER. ALL TEST RESULTS SHALL BE SUBMITTED TO THE TOWN OF ERIE ENGINEERING STAFF.
- 4. NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED WHEREVER POSSIBLE. EXPOSURE OF SOIL TO EROSION BY REMOVAL OR DISTURBANCE OF VEGETATION SHALL BE LIMITED TO THE AREA REQUIRED FOR IMMEDIATE CONSTRUCTION OPERATION AND FOR THE SHORTEST PRACTICAL PERIOD OF TIME. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO AVOID ANY DAMAGE TO EXISTING FOLIAGE THAT LIES IN THE PROJECT AREA UNLESS DESIGNATED FOR REMOVAL AND SHALL BE LIABLE FOR SUCH DAMAGE AT HIS/HER EXPENSE.
- 5. TOPSOIL SHALL BE STOCKPILED TO THE EXTENT PRACTICABLE ON THE SITE FOR USE ON AREAS TO BE RE-VEGETATED. ANY AND ALL STOCKPILES SHALL BE LOCATED AND PROTECTED FROM EROSIVE ELEMENTS. IF MATERIALS ARE STORED OFFSITE, A WRITTEN USE AGREEMENT BETWEEN THE PERMITTEE AND THE OWNER/OPERATOR OF ANY CONTROL MEASURES BEING UTILIZED OUTSIDE OF THE PERMITTED AREA MUST BE MADE AVAILABLE TO TOWN PERSONNEL UPON REQUEST.
- 6. TEMPORARY VEGETATION/STABILIZATION SHALL BE INSTALLED ON ALL DISTURBED AREAS WHERE PERMANENT SURFACE IMPROVEMENTS ARE NOT SCHEDULED FOR IMMEDIATE INSTALLATION BUT NO LATER THAN FOURTEEN (14) DAYS. SEEDING WILL BE DONE ACROSS THE SLOPE FOLLOWING THE CONTOURS. VEGETATION SHALL CONFORM TO THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS. PROJECT SCHEDULING SHOULD TAKE ADVANTAGE OF SPRING OR FALL PLANTING SEASONS FOR NATURAL GERMINATION. SEEDED AREAS SHALL BE IRRIGATED IN ACCORDANCE WITH THE TOWN OF ERIE'S STANDARDS AND SPECIFICATIONS.

- 7. AT ALL TIMES, A WATER TRUCK SHALL BE ON-SITE AND THE PROPERTY SHALL BE MAINTAINED AND/OR WATERED TO PREVENT WIND-CAUSED EROSION. EARTHWORK OPERATIONS SHALL BE DISCONTINUED WHEN FUGITIVE DUST SIGNIFICANTLY IMPACTS ADJACENT PROPERTY. IF EARTHWORK IS COMPLETE OR DISCONTINUED AND DUST FROM THE SITE CONTINUES TO CREATE PROBLEMS, THE OWNER/DEVELOPER SHALL IMMEDIATELY INSTITUTE MITIGATIVE MEASURES AND SHALL CORRECT DAMAGE TO ADJACENT PROPERTY.
- 8. FILL SLOPES SHALL BE COMPACTED BY MEANS OF SHEEPSFOOT COMPACTOR OR OTHER SUITABLE EQUIPMENT. COMPACTING SHALL CONTINUE UNTIL SLOPES ARE STABLE AND THERE IS NOT AN APPRECIABLE AMOUNT OF LOOSE SOIL ON THE SLOPES.
- 9. TEMPORARY CUT/FILL SLOPES SHALL ABIDE BY THE SOILS REPORT. PERMANENT SLOPES SHALL BE AS SHOWN ON PLANS.
- 10. DEPTH OF MOISTURE-DENSITY CONTROL SHALL BE FULL DEPTH ON ALL EMBANKMENT AND SIX (6) INCHES ON THE BASE OF CUTS AND FILLS.
- 11. OUTLET SIDES OF ALL STORM PIPES SHALL BE GRADED TO DRAIN AND SHALL HAVE SUFFICIENT EROSION PROTECTION.
- 12. THE PERMITTEE OR HIS AGENT SHALL NOTIFY THE SITE
  GEOTECHNICAL ENGINEER WHEN THE GRADING OPERATION IS
  READY FOR EACH OF THE FOLLOWING INSPECTIONS:
- 12.1. INITIAL INSPECTION WHEN THE PERMITTEE IS READY TO BEGIN WORK, BUT NOT LESS THAN TWO (2) DAYS BEFORE ANY GRADING OR GRUBBING IS STARTED.
- 12.2. AFTER THE NATURAL GROUND OR BEDROCK IS EXPOSED AND PREPARED TO RECEIVE FILL, BUT BEFORE FILL IS PLACED.
- 12.3. EXCAVATION INSPECTION AFTER THE EXCAVATION IS STARTED BUT BEFORE THE VERTICAL DEPTH OF THE EXCAVATION EXCEEDS TEN (10) FEET.
- 2.4. FILL INSPECTION AFTER THE FILL PLACEMENT IS STARTED, BUT BEFORE THE FILL EXCEEDS TEN (10) FEET.

D2C ARCHITECTS



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 DESIGN BY:
 ISSUE DATE:

 NAR
 OCTOBER 14, 2025

 D2C PROJECT NUMBER
 CONSULTANT'S PROJECT # 240667-000

 DRAWN BY:
 CKD BY:
 SOLICITATION NO.:

 SBMT BY:
 PLOT DATE:
 CONTRACT NO.:

 NAR
 2/17/2025

 PLOT SCALE:
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**DEVELOPMENT** 

NOT FOR CONSTRUCTION

ERIE PD - ADDITION & RENOVATION

RENOVATION

0 TELLEEN AVENUE, ERIE, COLORADO 8051

GENERAL NOTES

# ROADWAY NOTES SEWER NOTES

- 1. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
- 2. THE CONTRACTOR SHALL PREPARE THE SUBGRADE BY SCARIFYING THE UPPER ONE (1) FOOT OF THE SUBGRADE IN CUT AREAS OR AREAS WITH LITTLE OR NO FILL, UNLESS SPECIFIED IN THE SOILS REPORT. THE WORK SHALL CONFORM TO THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.
- 3. PAVEMENT SHALL NOT BE CONSTRUCTED UNTIL ALL
  UNDERGROUND UTILITIES HAVE BEEN INSTALLED, TESTED AND
  ACCEPTED BY THE TOWN OF ERIE ENGINEERING STAFF.
- 4. IT SHALL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO SUPERVISE AND CERTIFY THAT PROPER COMPACTION HAS BEEN OBTAINED BY SUBCONTRACTORS AND AGENCIES CONCERNING UTILITY LINE BACKFILL INCLUDING, BUT NOT LIMITED TO, SEWER, WATER, ELECTRICAL, GAS AND LANDSCAPE IRRIGATION LINES AND ACCEPTED BY THE TOWN OF ERIE ENGINEERING STAFF AND THE SOILS ENGINEER.
- 5. STREET PAVING SHALL NOT START UNTIL:
- 5.1. A SOILS REPORT AND PAVEMENT DESIGN IS ACCEPTED BY THE TOWN OF ERIE ENGINEERING STAFF.
- 5.2. ALL STREETS ARE COMPACTED IN ACCORDANCE WITH THE SOILS REPORT AND THE TOWN OF ERIE SPECIFICATIONS.
  5.3. ALL COMPACTION TEST REPORTS HAVE BEEN SUBMITTED TO
- THE TOWN ENGINEERING STAFF PRIOR TO PROOF ROLLS.

  5.4. PROOF ROLLS ARE PERFORMED USING A LOADED SINGLE
  AXLE 2000 GALLON WATER TRUCK AND MONITORED BY THE
  TOWN OF ERIE ENGINEERING STAFF.
- 6. THE OWNER/CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING ALL UTILITY MANHOLE COVERS AND ACCESS LIDS TO GRADE.
- 7. ALL CONCRETE SHALL BE A MINIMUM OF CLASS B, IN CONFORMANCE WITH CDOT STANDARDS.
- 8. ALL CONCRETE EDGES MUST BE ROUNDED TO A FOURTH (1/4) INCH RADIUS, EXCEPT WHERE SHOWN OTHERWISE ON
- ONE HALF (1/2) INCH EXPANSION JOINTS SHALL BE INSTALLED AT ALL CURB RETURNS, CURB CUTS AND EXISTING STRUCTURES. CONTROL JOINTS SHALL BE INSTALLED PER THE TOWNS STANDARDS AND SPECIFICATIONS.
- 10. THE GRADATION OF THE MINERAL AGGREGATE WILL BE GRADING SX (1/2" NOMINAL) FOR ALL TOP LIFTS AND OVERLAYS.
- 11. TACK COAT SHALL BE USED PRIOR TO OVERLAY, (CSS-1H), 50:50 DILUTION, 0.10 GAL/SY. ALL EDGES ABUTTING NEW PAVEMENT SHALL BE TACKED.
- 12. WHEN IT IS REQUIRED TO MATCH EXISTING PAVEMENT, EXISTING PAVEMENT SHALL BE SAW CUT IN A MANNER TO AFFECT A SMOOTH, VERTICAL STRAIGHT CUT EDGE. T PATCH MILLING MUST BE DONE PER STANDARD DETAILS.
- 13. ALL SAWCUT EDGES OF EXISTING PAVEMENT SHALL BE CLEAN AND COATED WITH TACK COAT PRIOR TO PLACING NEW PAVEMENT ADJACENT TO THE EXISTING PAVEMENT.
- 14. ALL ASPHALT SHALL BE ONE FOURTH (1/4) INCH ABOVE CONCRETE EDGES, MANHOLE COVERS AND ACCESS LIDS.
- 15. SIGNAGE AND STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE COLORADO DEPARTMENT OF TRANSPORTATION M&S STANDARDS, AND THE TOWN OF ERIE STANDARD DESIGN CRITERIA AND STANDARD CONSTRUCTION REQUIREMENTS.
- 16. THE PURCHASE AND INSTALLATION OF STREET NAME SIGNS SHALL BE THE RESPONSIBILITY OF THE OWNER/CONTRACTOR. THE OWNER/CONTRACTOR SHALL SECURE THE APPROVAL OF THE TOWN OF ERIE ENGINEERING STAFF FOR TYPE AND LOCATION OF THE STREET NAME SIGNS PRIOR TO INSTALLATION.
- 17. ALL NEW ROADWAY SECTIONS SHALL HAVE SUBGRADE PREPARATION AND INITIAL ASPHALT PAVEMENT PLACED WITH A 1% CROWN. FINAL OVERLAY IS TO BE PLACED WITH A 2% CROWN. SEE DETAIL ST7 IN THE "STANDARD DETAILS-STREET" FOR MORE INFORMATION.
- 18. DETERMINATION OF CROWN FOR CUL DE SAC PAVING SHALL BE EVALUATED ON A CASE BY CASE BASIS.

- THE CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING SEWERS TO BE CONNECTED TO PRIOR TO CONSTRUCTION STAKING.
- 2. CONNECTION TO EXISTING TOWN OF ERIE LINES WILL BE PERMITTED UPON INITIAL ACCEPTANCE OF THE NEW SANITARY SEWER SYSTEM. EXISTING PIPE AT THE POINT OF CONNECTION SHALL NOT BE "BROKEN OUT" UNTIL THE NEW SYSTEM IS ACCEPTED. IF CONNECTING TO AN EXISTING MANHOLE, THE NEW LINE SHALL BE PLUGGED UNTIL THE NEW SYSTEM IS ACCEPTED.
- 3. MINIMUM VERTICAL SEPARATIONS BETWEEN ALL UTILITY PIPES SHALL BE EIGHTEEN (18) INCHES. IF VERTICAL SEPARATIONS ARE LESS THAN EIGHTEEN (18) INCHES, THE UTILITY PIPES SHALL BE REINFORCED AND PROTECTED AS REQUIRED BY CURRENT TOWN STANDARD SPECIFICATIONS.
- 4. WATER AND SANITARY SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET. WHEN A TEN (10) FOOT SEPARATION IS NOT PROVIDED OR WHEN SEWER LINES CROSS WATER LINES WITH LESS THAN ONE AND ONE-HALF (1½) FEET OF VERTICAL SEPARATION, SEWER LINE JOINTS SHALL BE CONCRETE ENCASED. FOR PERPENDICULAR CROSSINGS, ENCASED JOINTS SHALL EXTEND TEN (10) FEET, PERPENDICULAR TO THE WATER LINE IN BOTH DIRECTIONS.
- 5. ALL SANITARY SEWER SERVICES AND WATER SERVICES ARE TO BE TEN (10) FEET APART.
- 6. SERVICE LATERALS SHALL EXTEND FIVE (5) FEET BEYOND RIGHTS OF WAY OR UTILITY EASEMENTS, WHICHEVER IS GREATER. THE ENDS SHALL BE MARKED BY A GREEN PAINTED WOOD POST UNTIL CURB AND GUTTER IS IN PLACE. WHEN CURB AND GUTTER IS IN PLACE THE LATERALS SHALL BE MARKED ON THE CONCRETE CURB FACE WITH AN "S" or "X".
- 7. THE LENGTH OF SANITARY SEWER LINE IS THE HORIZONTAL DISTANCE BETWEEN CENTER OF MANHOLE TO CENTER OF MANHOLE. THEREFORE, THE DISTANCES INDICATED ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND MANHOLE DIMENSIONS.
- 8. SERVICE LINE CONNECTIONS TO DEAD END MANHOLES THAT HAVE NO FURTHER POSSIBILITY OF EXTENSION SHALL BE ALLOWED AND SHALL HAVE A MINIMUM DROP OF 0.75 X MAIN DIAMETER. SERVICE LINE CONNECTIONS TO IN-LINE MANHOLES ARE NOT PERMITTED. MINIMUM SERVICE LINE SLOPE; 4 INCHES=2%; 6 INCHES= 1%; 8 INCHES=0.4%.
- 9. ALL FOUR (4) THROUGH FIFTEEN (15) INCH SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) AND SHALL BE IN ACCORDANCE WITH ASTM D-3034-SDR35, "STANDARD SPECIFICATION FOR PVC SEWER PIPE AND FITTINGS". ANY SANITARY SEWER HAVING A DEPTH IN EXCESS OF FIFTEEN (15) FEET SHALL BE COORDINATED WITH THE PUBLIC WORKS DEPARTMENT.
- BEDDING MATERIAL SHALL CONFORM TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- 11. WARNING TAPE SHALL BE INSTALLED 12" MINIMUM AND 18" MAXIMUM ABOVE SEWER PIPE.
- 12. PRECAST CONCRETE MANHOLE SECTIONS SHALL BE IN ACCORDANCE WITH ASTM C-478. MANHOLE STEPS SHALL BE POLYPROPYLENE COVERED STEEL CONFORMING TO ASTM. D-4101 AND ASTMA-615. CAST IRON RING AND COVER SHALL CONFORM TO ASTM A-48.
- 13. MANHOLES SHALL BE A MINIMUM FOUR (4) FOOT DIAMETER AND CONSTRUCTED PER THE STANDARDS AND SPECIFICATIONS.
- 14. THE CONTRACTOR SHALL TAKE CARE TO PROPERLY SHAPE ALL MANHOLE INVERTS AND BENCHES IN ACCORDANCE WITH THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS, TO PROMOTE SMOOTH FLOW THROUGH THE MANHOLE. INVERTS OF LINES INTERSECTING AT 90 DEGREES AND AT HIGHLY DIVERGENT OR FLAT SLOPES ARE ESPECIALLY CRITICAL. MANHOLE INVERTS SHALL BE CONSTRUCTED WITH A SMOOTH TROWEL FINISH, AND BENCH FINISHED WITH A LIGHT BROOMED, NON-SKID, FINISH.
- 15. SEWER TEES AND/OR WYES SHALL BE STAKED BY A SURVEY CREW. THE CONTRACTOR SHALL FURNISH TO THE ENGINEER "AS CONSTRUCTED" LOCATION OF TEES AND WYES. ALL SERVICE LINES ARE FOUR (4) INCH UNLESS OTHERWISE NOTED.
- 16. THE CONTRACTOR, AT THE OWNER'S EXPENSE, WILL MAKE ALL SEWER SERVICE TAPS.
- 17. PRIOR TO BACKFILL THE TOWN OF ERIE ENGINEERING STAFF SHALL INSPECT ALL SANITARY SEWER MAINS AND SERVICE EXTENSIONS.

- 18. MANHOLE RIMS SHALL BE SET AT AN ELEVATION RELATIVE TO THE PAVEMENT, IN ACCORDANCE WITH THE TOWN OF ERIE STANDARDS. WHETHER THE MANHOLE IS AT PAVED OR UNPAVED GRADE, A MINIMUM OF ONE (1) AND A MAXIMUM OF FOUR (4) CONCRETE RINGS SHALL BE USED TO ADJUST THE RIM ELEVATION TO FINAL GRADE. THE MAXIMUM ACCEPTABLE VERTICAL ADJUSTMENT UTILIZING CONCRETE RINGS IS EIGHTEEN (18) INCHES.
- 19. INITIAL ACCEPTANCE OF THE NEW SANITARY SEWER MAINS IS CONTINGENT UPON COMPLETION OF ITEMS LISTED IN THE TOWNS STANDARDS AND SPECIFICATIONS.

# STORM DRAIN NOTES

- 1. EXCEPT WHERE NOTED, ALL STORM SEWER PIPE SHALL BE REINFORCED CONCRETE, CLASS III AND SHALL CONFORM TO REQUIREMENTS OF ASTM C76. ALL RCP SHALL HAVE RUBBER GASKETED JOINTS AND SHALL CONFORM TO REQUIREMENTS OF ASTM C443, AND SHALL PROVIDE WATERTIGHT PERFORMANCE CHARACTERISTICS.
- 2. TONGUE AND GROOVE JOINTS SHALL NOT BE ALLOWED.
- 3. THE MINIMUM COVERAGE FOR ALL STORM DRAINAGE PIPES SHALL BE 1.5 FEET FOR CLASS III PIPE AND 1 FOOT FOR CLASS IV
- 4. BEDDING MATERIAL SHALL CONFORM TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- 5. ALL MANHOLES SHALL BE CONCRETE AND CONFORM TO CDOT STANDARD M-604-20.
- 6. THE MINIMUM MANHOLE DIAMETER SHALL BE AS SPECIFIED BELOW:
- 6.1. PIPE DIAMETER MANHOLE SIZE:
- 6.1.1. 15" TO 18" 4' DIAMETER 6.1.2. 21" TO 42" - 5' DIAMETER
- 6.1.2. 21" TO 42" 5' DIAMETER 6.1.3. 48" TO 54" - 6' DIAMETER
- 6.1.4. 60" AND LARGER BOX BASE MANHOLE
- 7. ALL STREET INLETS SHALL BE CURB OPENING TYPE R
  CONFORMING TO CDOT STANDARD M-604-12, EXCEPT WHERE
  OTHERWISE NOTED.
- 8. ALL INLET ACCESS COVERS SHALL HAVE THE WORDS "NO DUMPING DRAINS TO RIVERS" AND "STORM SEWER" CAST INTO THE COVER PER TOWN OF ERIE STANDARD DETAIL.
- 9. ALL END SECTIONS SHALL CONFORM TO CDOT STANDARD M-603-10.
- 10. WHERE RIPRAP OR GROUTED BOULDERS ARE CALLED FOR ON THE PLANS FOR EROSION CONTROL, IT SHALL CONFORM TO THE URBAN STORM DRAINAGE CRITERIA MANUAL SPECIFICATIONS (LATEST REVISION).

# **WATER NOTES**

- AT ALL POINTS OF CONNECTION OF NEW WATER MAINS TO EXISTING MAINS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING AND VERIFYING LOCATION OF THE EXISTING LINES PRIOR TO ANY CONSTRUCTION.
- 2. EXCEPT IN CASE OF AN EMERGENCY, VALVES ON THE TOWN OF ERIE WATER SYSTEM SHALL BE OPERATED BY OR UNDER THE DIRECTION OF THE APPROPRIATE TOWN OF ERIE PERSONNEL. THE CONTRACTOR SHALL GIVE THE TOWN OF ERIE ENGINEERING STAFF 48 HOURS NOTICE TO ARRANGE FOR OPERATING VALVES. BOTH THE CONTRACTOR AND THE APPROPRIATE TOWN OF ERIE PERSONNEL SHALL BE PRESENT WHEN THE VALVES ARE OPERATED.
- 3. WATER AND SANITARY SEWER LINES SHALL HAVE A MINIMUM HORIZONTAL SEPARATION OF TEN (10) FEET. WHEN A TEN (10) FOOT SEPARATION IS NOT PROVIDED OR WHEN SEWER LINES CROSS WATER LINES WITH LESS THAN ONE AND ONE-HALF (1½) FEET OF VERTICAL SEPARATION, SEWER LINE JOINTS SHALL BE CONCRETE ENCASED. FOR PERPENDICULAR CROSSINGS, ENCASED JOINTS SHALL EXTEND TEN (10) FEET, PERPENDICULAR TO THE WATER LINE IN BOTH DIRECTIONS.
- 4. ALL WATER LINES SHALL HAVE A MINIMUM OF FOUR AND ONE-HALF (4½) FEET OF COVER AND BE LOCATED A MINIMUM OF TEN (10) FEET FROM THE SANITARY SEWER AND THREE (3) FEET FROM THE EDGE OF CONCRETE CURB AND GUTTER PAN.
- 5. CHANGES IN DIRECTION OF WATERLINE PIPE GREATER THAN ONE DEGREE SHALL REQUIRE FITTINGS IN ALL INSTANCES. AXIAL DEFLECTION AT THE JOINTS SHALL NOT BE IN EXCESS OF MANUFACTURER'S RECOMMENDATION OR IN NO CASE MORE THAN ONE DEGREE.
- 6. WHEN IT IS NECESSARY TO DEPRESS WATER LINES AT UTILITY CROSSINGS, A MINIMUM CLEARANCE OF ONE AND ONE-HALF (1-1/2) FEET SHALL BE MAINTAINED BETWEEN OUTSIDES OF PIPE.
- 7. DISTANCES FOR WATER LINES ARE THE HORIZONTAL DISTANCE BETWEEN THE CENTERS OF THE FITTINGS. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND FITTING DIMENSIONS.
- 8. ALL WATER LINE VALVES SHALL BE SET ADJACENT TO THE TEE, EXCEPT FOR POINTS THAT FALL IN THE FLOW LINE OF A CONCRETE CROSS PAN. IN WHICH CASE, THE VALVE SHALL BE LOCATED SO THAT SURFACE DRAINAGE DOES NOT INFILTRATE THE VALVE BOX. VALVE BOXES SHALL BE SET AT AN ELEVATION IN ACCORDANCE WITH TOWN PAVING REQUIREMENTS.
- 9. ALL WATER MAINS SHALL BE POLYVINYL CHLORIDE (PVC)
  PRESSURE PIPE UNLESS SPECIFIED OTHERWISE. NOMINAL PVC
  PIPE SIZES 6-INCH THROUGH 12-INCH SHALL CONFORM TO ALL
  REQUIREMENTS OF AWWA STANDARD C-900, PRESSURE CLASS
  150 (DR18). NOMINAL PVC PIPE SIZES 16-INCH THROUGH 24-INCH
  SHALL CONFORM TO ALL REQUIREMENTS OF AWWA STANDARD
  C-905, PRESSURE CLASS 165 (DR25). ALL PVC PIPES SHALL HAVE
  OUTSIDE DIAMETERS EQUIVALENT TO CAST IRON PIPE.
- 10. FIRE HYDRANT ASSEMBLY INCLUDES THE FIRE HYDRANT, SIX (6) INCH VALVE, AND SIX (6) INCH PIPE. INSTALLATION SHALL BE IN ACCORDANCE WITH THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS.
- 11. ALL FITTINGS SHALL BE MADE FROM DUCTILE IRON, FURNISHED WITH MECHANICAL JOINT ENDS OR INTEGRAL RESTRAINED JOINTS, AND SHALL HAVE A PRESSURE RATING OF 350 PSI.
- 2. POLYETHYLENE WRAPPING SHALL BE INSTALLED AROUND ALL DUCTILE IRON PIPES, FITTINGS, VALVES, FIRE HYDRANT BARRELS AND ROD AND CLAMPS. THE POLYETHYLENE SHALL HAVE A MINIMUM THICKNESS OF EIGHT (8) MILS, IN ACCORDANCE WITH AWWA STANDARD C-105.
- ALL WATER LINE PIPE SHALL BE PROVIDED WITH A MINIMUM GAGE SIZE OF 12 SINGLE STRAND INSULATED COPPER WIRE. SPLICES IN TRACER WIRE SHALL BE CAPPED IN WATERPROOF GEL CAP TYPE CONNECTORS SUITED FOR DIRECT BURY APPLICATION (3M TYPE DBY-6 LOW VOLTAGE OR EQUAL). WIRE SHALL BE ATTACHED TO TOP OF WATER LINE WITH 2-INCH-WIDE PVC TAPE @ 5-FT INTERVALS ALONG PIPE. TRACER WIRE SHALL EXTEND TO THE SURFACE AND BE COILED IN A LOCATE BOX AT THE BACKSIDE OF EITHER EACH FIRE HYDRANT OR VALVE. UNDER THE SUPERVISION OF TOWN OF ERIE ENGINEERING STAFF, TEST SHALL BE MADE BY THE CONTRACTOR AT THE COMPLETION OF CONSTRUCTION TO ENSURE THAT THE TRACER WIRES CARRY A CONTINUOUS CURRENT BETWEEN ALL ACCESS POINTS.
- 14. WARNING TAPE SHALL BE INSTALLED 12" MINIMUM AND 18" MAXIMUM ABOVE WATER PIPE.
- 15. BEDDING MATERIAL SHALL CONFORM TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS.

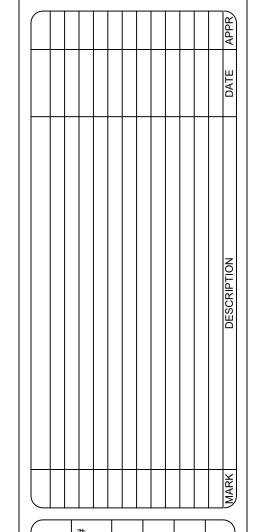
- 16. VALVES SHALL OPEN COUNTERCLOCKWISE. VALVES 12-INCH AND SMALLER SHALL BE RESILIENT SEAT GATE VALVES. LARGER VALVES SHALL BE BUTTERFLY VALVES.
- 17. VALVE BOXES SHALL BE RAISED TO ONE-FOURTH (1/4) INCH
  BELOW GRADE AFTER COMPLETION OF SURFACE PAVING OR
  FINAL GRADING. VALVE BOXES IN NON-PAVED AREAS SHALL
  HAVE A CONCRETE COLLAR AROUND THE VALVE LID IN
  ACCORDANCE WITH THE DETAIL.
- 18. ALL SERVICE LINE TAPS SHALL HAVE DOUBLE STRAP BRASS TAPPING SADDLES. (ROMAC 202B OR APPROVED EQUAL).
- 19. ALL RESIDENTIAL WATER TAPS SHALL BE A MINIMUM OF THREE QUARTER (3/4) INCH. UPSIZING OF RESIDENTIAL WATER TAPS MAY BE REQUIRED BY THE CURRENT BUILDING CODE AND DUE TO REQUIREMENTS FOR RESIDENTIAL FIRE SUPPRESSION SYSTEMS STIPULATED BY THE INTERNATIONAL FIRE CODE.
- 20. ALL WATER SERVICE LATERALS SHALL EXTEND FIVE (5) FEET BEYOND RIGHT OF WAY OR UTILITY EASEMENTS, WHICHEVER IS GREATER. THE ENDS SHALL BE MARKED BY A BLUE PAINTED WOOD POST UNTIL CURB AND GUTTER IS IN PLACE. WHEN CURB AND GUTTER IS IN PLACE THE LATERALS SHALL BE MARKED ON THE CONCRETE CURB FACE WITH A "V" or "W".
- 21. CONCRETE THRUST BLOCKS AND/OR "MEGA-LUG" MECHANICAL RESTRAINTS ARE REQUIRED AT ALL MECHANICAL FITTINGS.
  THRUST BLOCKS MAY NOT BE REQUIRED IF PIPE RESTRAINT IS PROVIDED IN ACCORDANCE WITH RESTRAINED PIPE DETAIL.
- 22. NO WORK SHALL BE BACKFILLED (INCLUDING BEDDING MATERIAL ABOVE THE SPRING LINE OF THE PIPE) UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE TOWN OF ERIE ENGINEERING STAFF.
- 23. ONLY ONE CONNECTION TO THE EXISTING WATER DISTRIBUTION SYSTEM SHALL BE MADE UNTIL ALL HYDROSTATIC TESTING, CHLORINATION AND FLUSHING HAS BEEN COMPLETED.
- 24. DISINFECTION AND HYDROSTATIC TESTING SHALL BE DONE IN THE PRESENCE OF A TOWN OF ERIE ENGINEERING STAFF.

  CONTACT THE TOWN OF ERIE DEPARTMENT OF PUBLIC WORKS, FORTY-EIGHT (48) HOURS PRIOR TO DISINFECTING AND/OR TESTING.
- 25. DISINFECTION AND FLUSHING SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE COLORADO DEPARTMENT OF HEALTH AND THE PROCEDURE SET FORTH IN AWWA C651, "STANDARD FOR DISINFECTING WATER MAINS". THE CHLORINATION OF THE WATER LINE SHALL BE PERFORMED PRIOR TO THE HYDROSTATIC TESTING. ALL VALVES, FIRE HYDRANTS AND OTHER APPURTENANCES SHALL BE OPERATED WHILE PIPELINE IS FILLED WITH THE CHLORINATING AGENT TO ENSURE THAT HIGH CHLORINE CONTACT IS MADE WITH ALL INTERNAL SURFACES.
- 26. ALL WATER LINES SHALL BE HYDROSTATIC TESTED. PRESSURE AND LEAKAGE TESTS SHALL BE CONDUCTED ACCORDING TO THE APPLICABLE SECTIONS OF AWWA C600/605 TO A MINIMUM PRESSURE OF ONE HUNDRED AND FIFTY (150) POUNDS PER SQUARE (PSI) INCH AT THE LOW POINT OF THE SECTION BEING TESTED FOR THE DURATION OF TWO (2) HOURS. THE MAXIMUM LENGTH OF LINE TO BE TESTED SHALL BE ONE THOUSAND (1,000) FEET. ALL JOINTS IN CONNECTIONS ARE TO BE WATERTIGHT WITHIN TOLERANCES ALLOWED BY THE SPECIFICATIONS IN AWWA C600/605. ANY LEAKAGE THAT IS DISCOVERED BY OBSERVATION OR TESTS SHALL BE LOCATED AND MADE WATERTIGHT BY THE CONTRACTOR. PRESSURE AND LEAKAGE TESTS SHALL NOT BE CONDUCTED UNTIL THE LINE HAS PASSED ALL REQUIRED DISINFECTION TESTS.
- 27. INITIAL ACCEPTANCE OF THE NEW WATER LINES ARE CONTINGENT UPON RECEIVING COPIES OF:
- 27.1. WATER TRENCH COMPACTION TEST RESULTS
- 27.2. HYDRO STATIC TESTING OF 100% OF THE SYSTEM
   27.3. HEALTH DEPARTMENT TESTS. (CHLORINE AND/OR CLEAR WATER AS REQUIRED)
- 28. ALL METER PITS AND CURB STOPS SHALL BE PROTECTED AT THE TIME OF INSTALLATION WITH A MINIMUM OF THREE (3) T-POSTS AND ORANGE SAFETY FENCE. THE T-POST AND SAFETY FENCE SHALL REMAIN IN PLACE AND IN GOOD CONDITION UNTIL THE LANDSCAPING IS INSTALLED.
- 29. ALL WATER VAULTS SHALL BE WATERTIGHT. CONTRACTOR SHALL SEAL VAULTS TO ENSURE SURFACE WATER DOES NOT INFILTRATE INTO THE VAULTS. VAULT LIDS SHALL BE PLACED TO ENSURE THAT SURFACE WATER DOES NOT FLOW INTO THE VAULTS.





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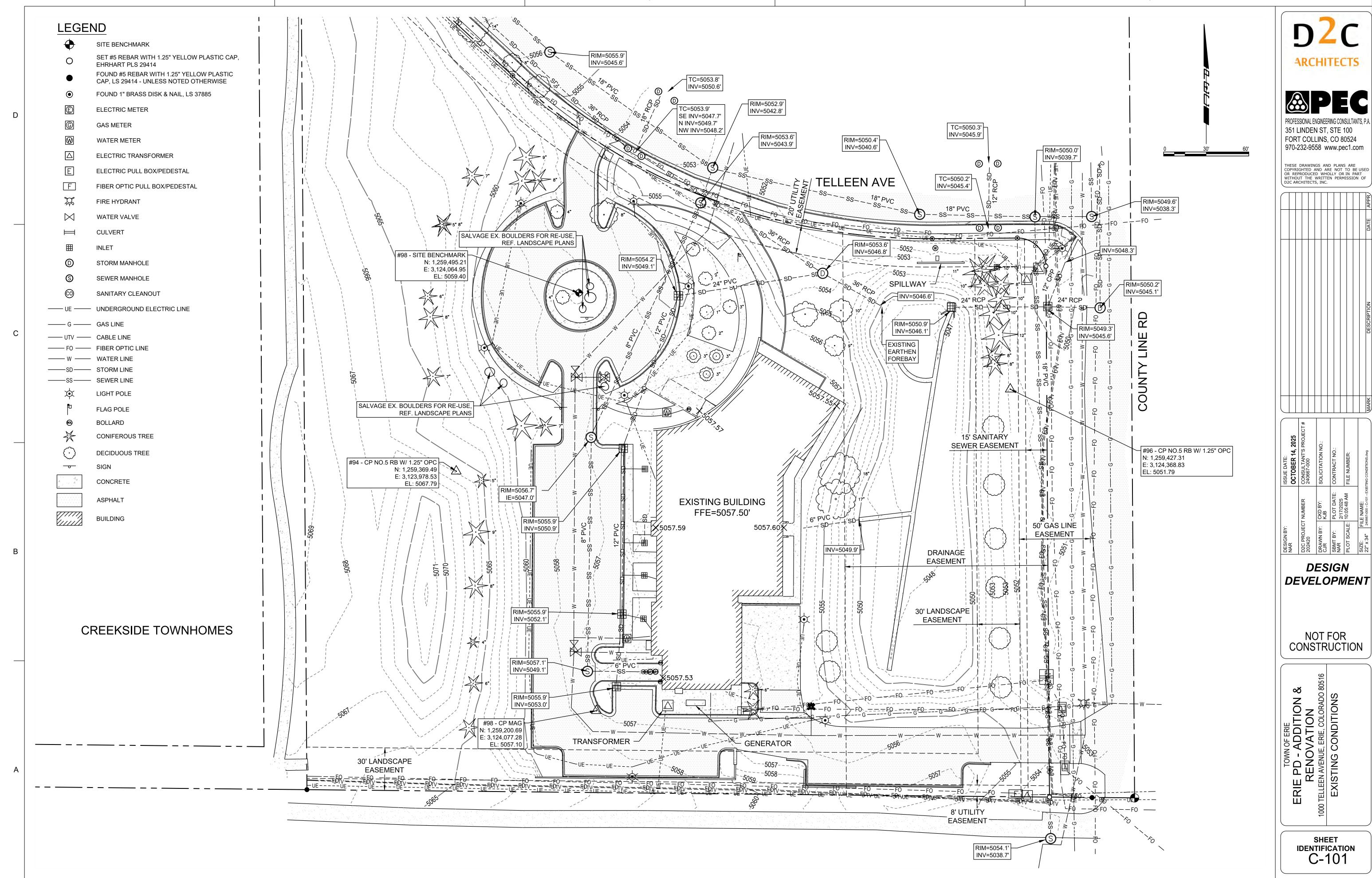
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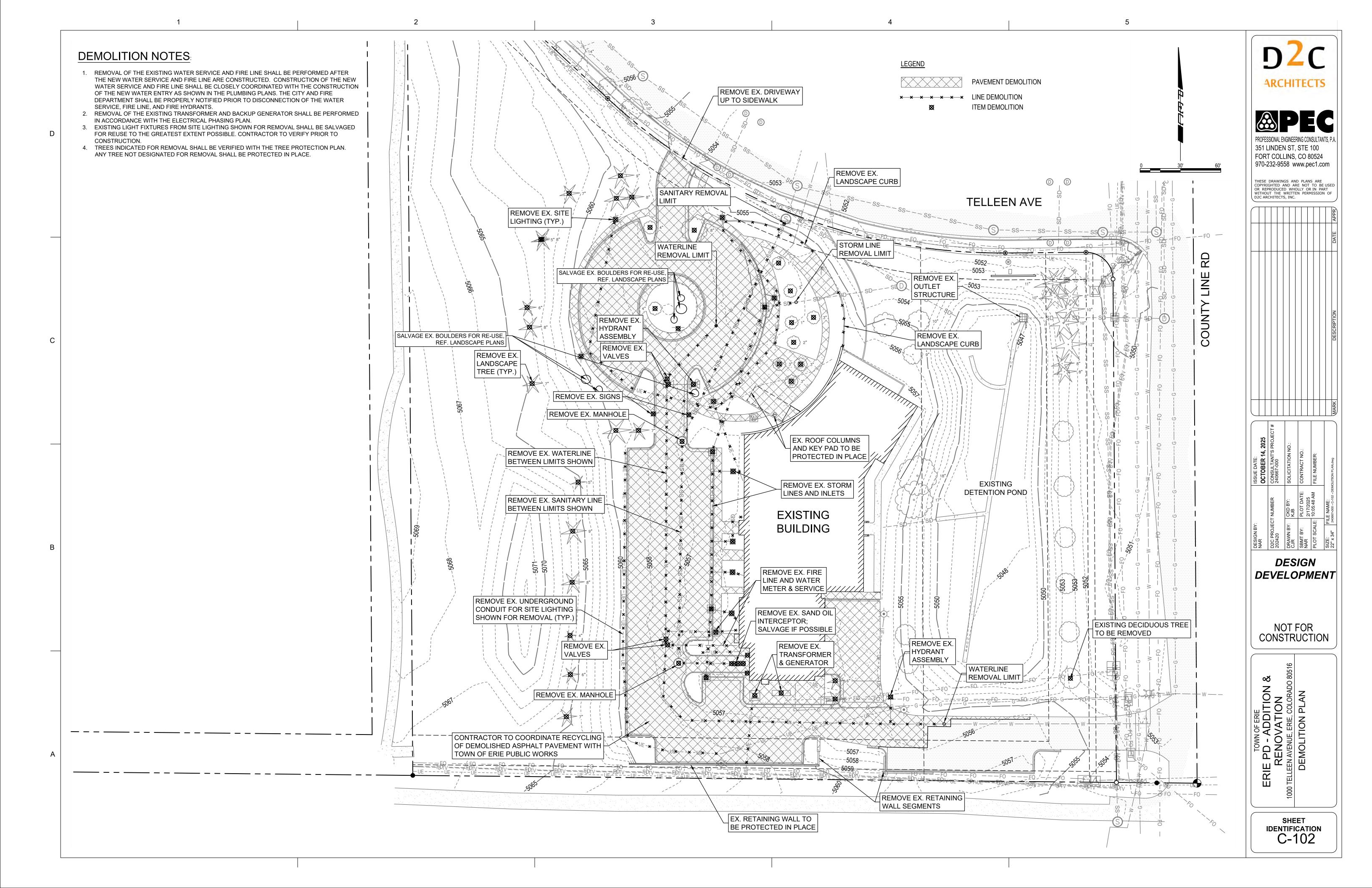
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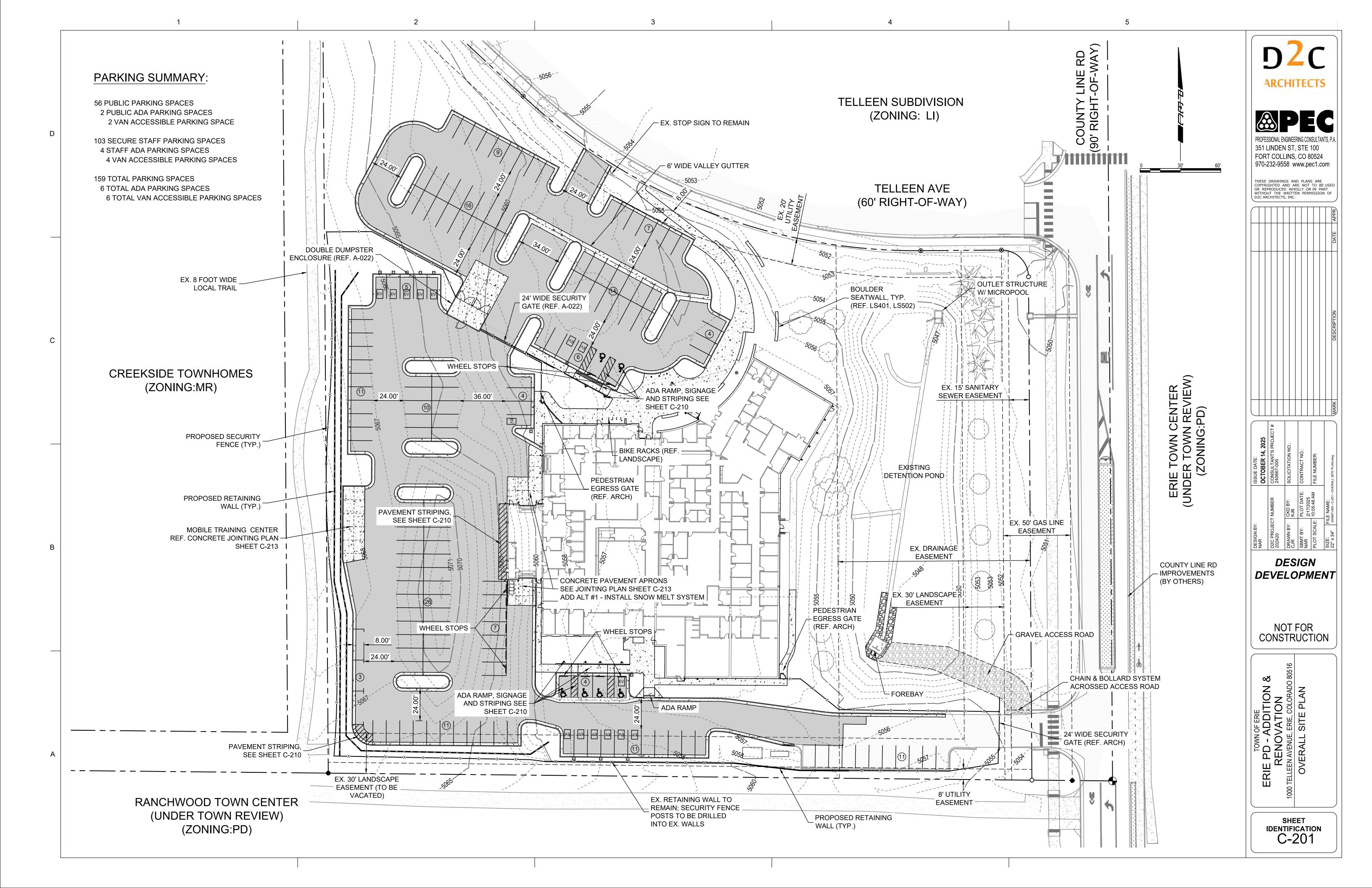
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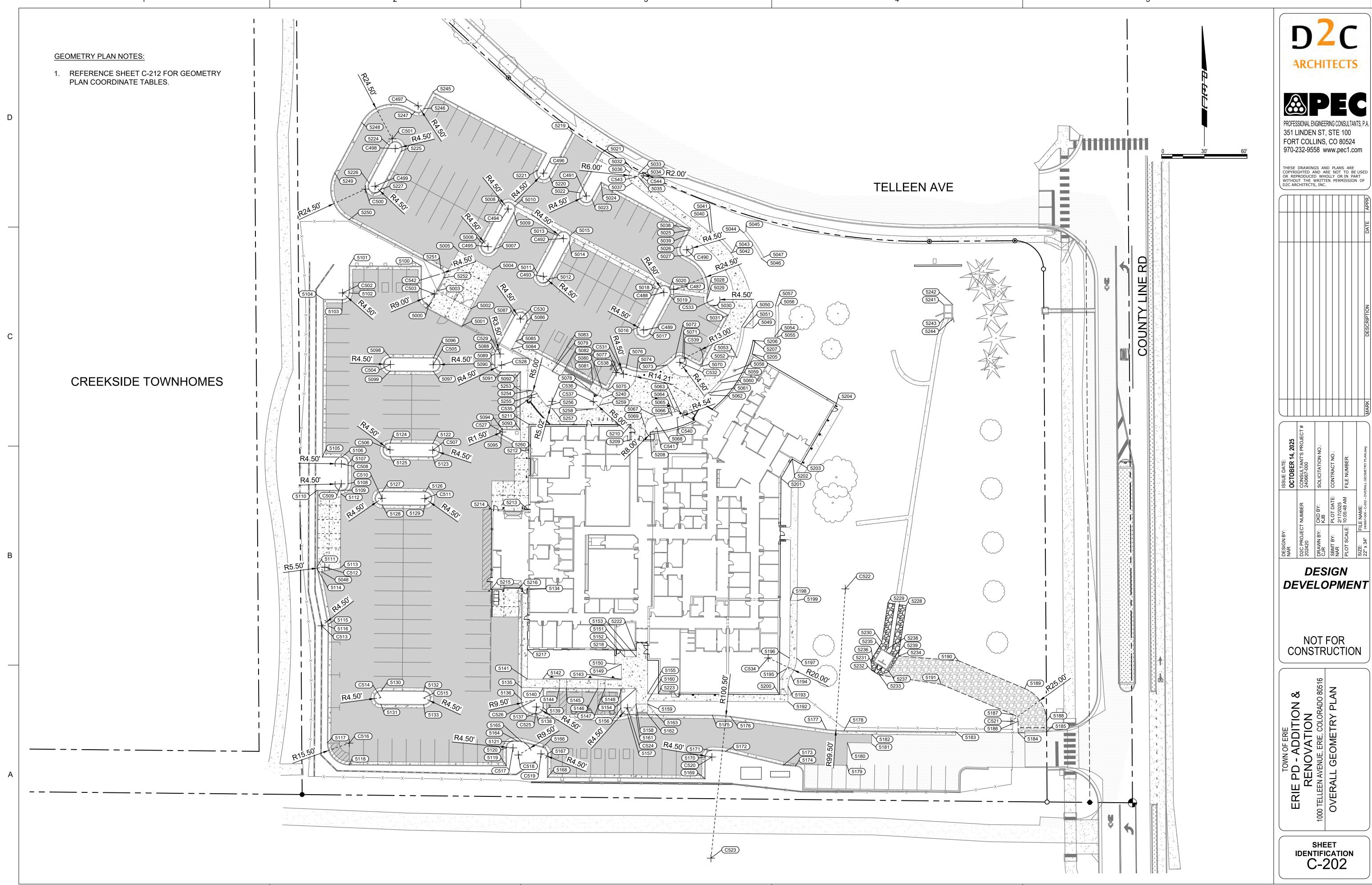
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GENERAL NOTES









SPILL CURB AND GUTTER

NOT TO SCALE

TAPERED OR BATTERED.

GUTTER EDGE MAY BE

CATCH CURB AND GUTTER

NOT TO SCALE

5. ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI. ALL CONCRETE SHALL HAVE 5±1% AIR ENTRAINED. MAXIMUM SLUMP OF 4 INCHES.

1. WHEN CONSTRUCTING ATTACHED SIDEWALK, CONTRACTION

2. EXPANSION JOINTS REQUIRED AT 400 FOOT MAXIMUM SPACING.

ADDITIONAL JOINTS MAY BE REQUIRED AT THE DISCRETION OF THE

SIDEWALK THICKNESS SHALL BE INCREASED TO EIGHT (8) INCHES.

3. AT ALLEYS AND COMMERCIAL DRIVEWAYS, THE CURB AND

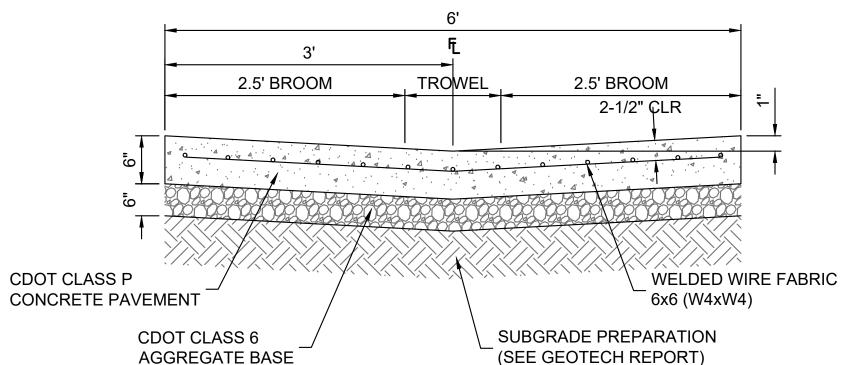
4. CONCRETE SURFACES TO RECEIVE A LIGHT BROOM FINISH.

JOINTS FOR SIDEWALKS SHALL MATCH CURB AND GUTTER,

MAXIMUM SPACING OF TEN (10) FEET.

NOTES:

6. ALL EARTHWORK PREPARATION AND SUBGRADE COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY GROUND ENGINEERING DATED 3/13/2025.



# NOTES:

- ALL CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI AND 5±1 PERCENT AIR ENTRAINED. MAXIMUM SLUMP OF 4 INCHES.
- ALL EARTHWORK PREPARATION AND SUBGRADE COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY GROUND ENGINEERING DATED 3/13/2025.

# 6' WIDE CONCRETE VALLEY GUTTER

# NOTES:

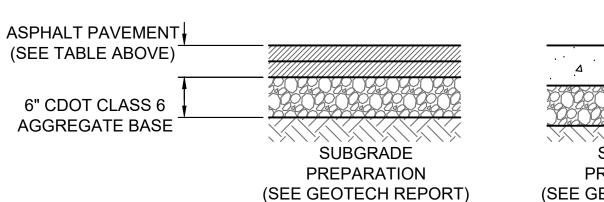
1. ALL CONCRETE SHALL MEET THE REQUIREMENTS OF CDOT CLASS P CONRETE PAVEMENT. ALL CONCRETE PAVEMENT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,500 PSI, 6±1 PERCENT AIR ENTRAINED, AND MAXIMUM SLUMP OF 4 INCHES.

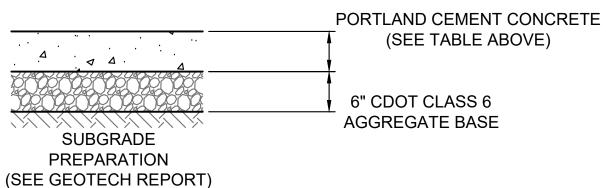
TYPICAL SECTIONS - CURB, GUTTER, & SIDEWALK

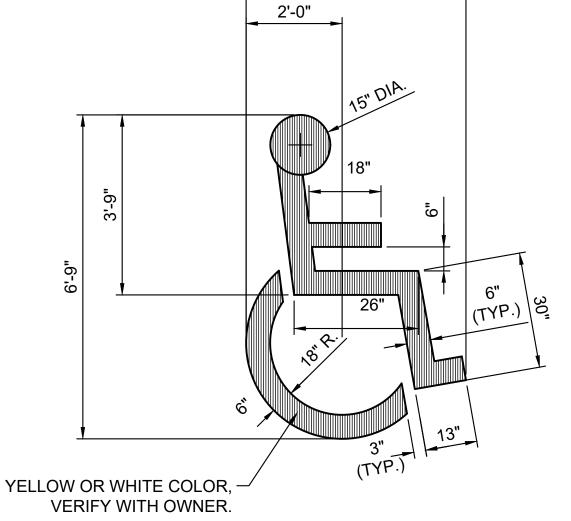
ALL PAVEMENT MATERIALS, EARTHWORK PREPARATION, AND SUBGRADE COMPACTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT PREPARED BY GROUND ENGINEERING DATED 3/13/2025.

ASPHALT PAVEMENT THICKNESS					
PAVEMENT MATERIAL	LIGHT DUTY	HEAVY DUTY			
CDOT SX MIX (SURFACE COURSE)	2.0 INCHES	2.0 INCHES			
CDOT S MIX (BASE COURSE)	2.0 INCHES	3.0 INCHES			

CONCRETE PAVEMENT THICKNESS		
LIGHT DUTY	HEAVY DUTY	
6 INCHES	7 INCHES	





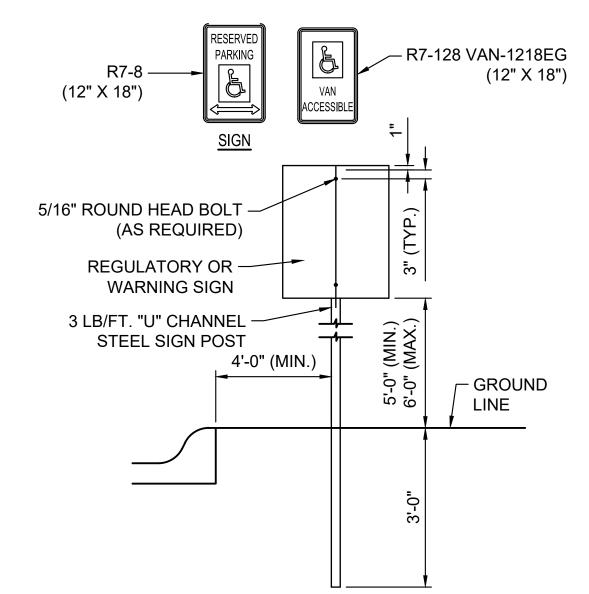


5'-2"

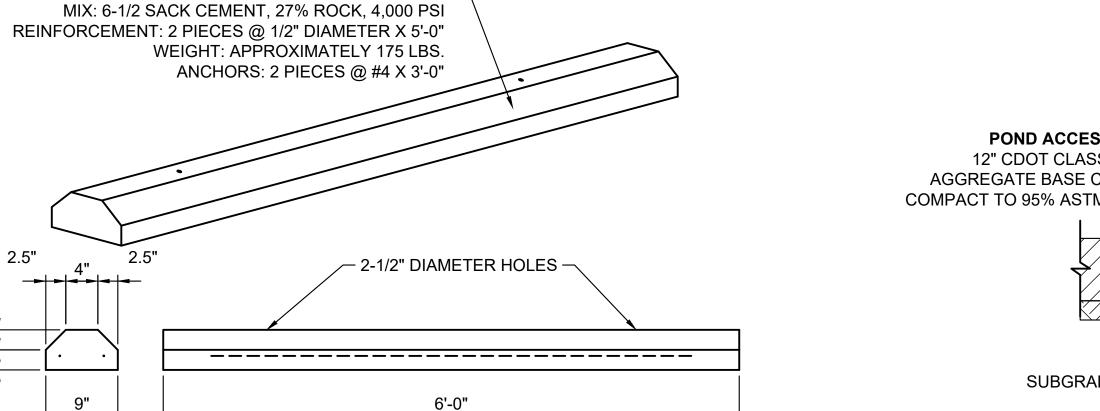
ADA PARKING SYMBOL DETAIL

CONCRETE WHEELSTOP SHALL CONSIST OF THE -

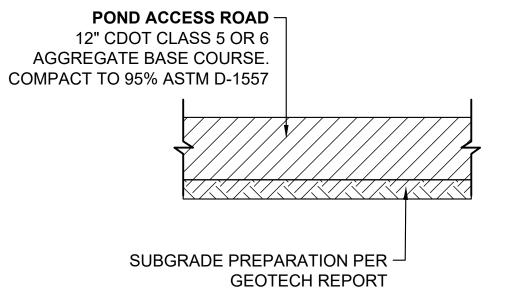
FOLLOWING MATERIAL:



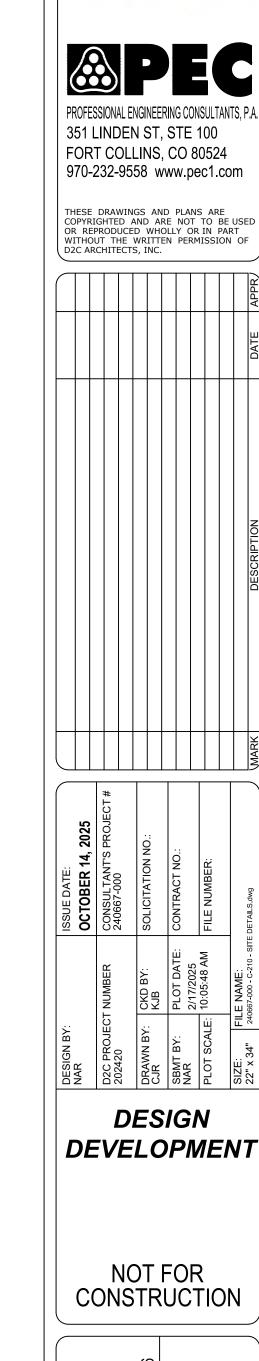










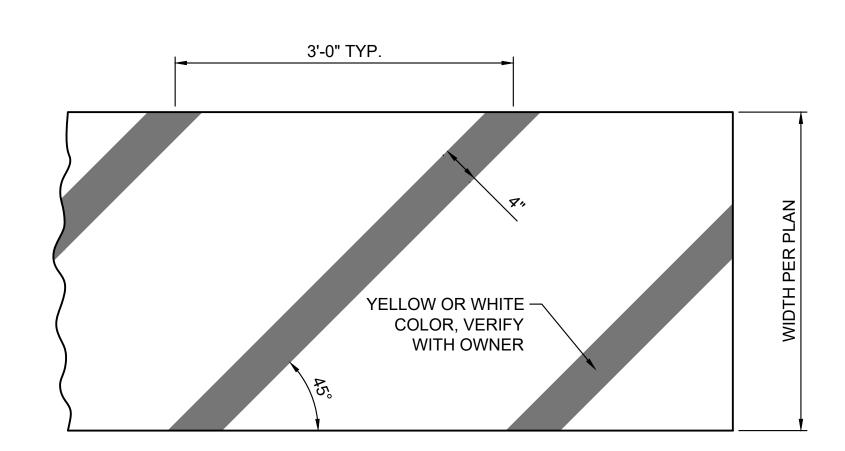


ARCHITECTS

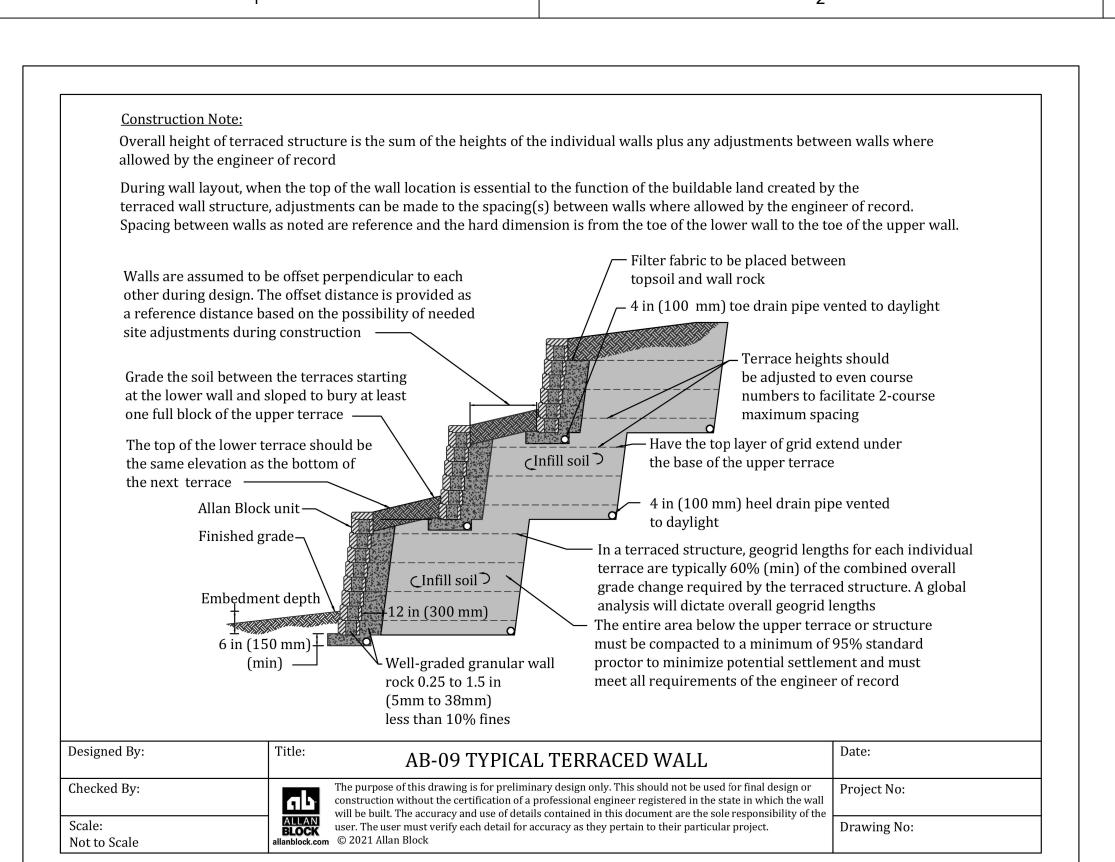
ERIE PD - ADDITION 8
RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 8
SITE DETAILS

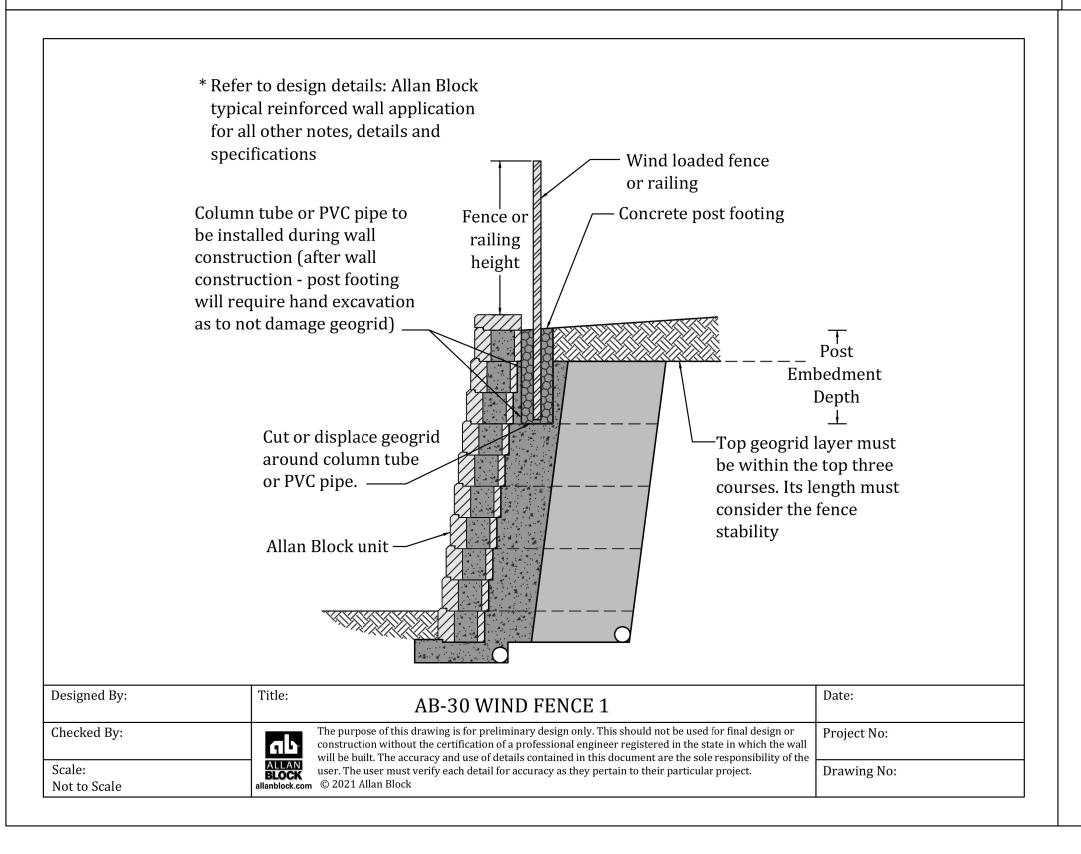
SHEET **IDENTIFICATION** C-210

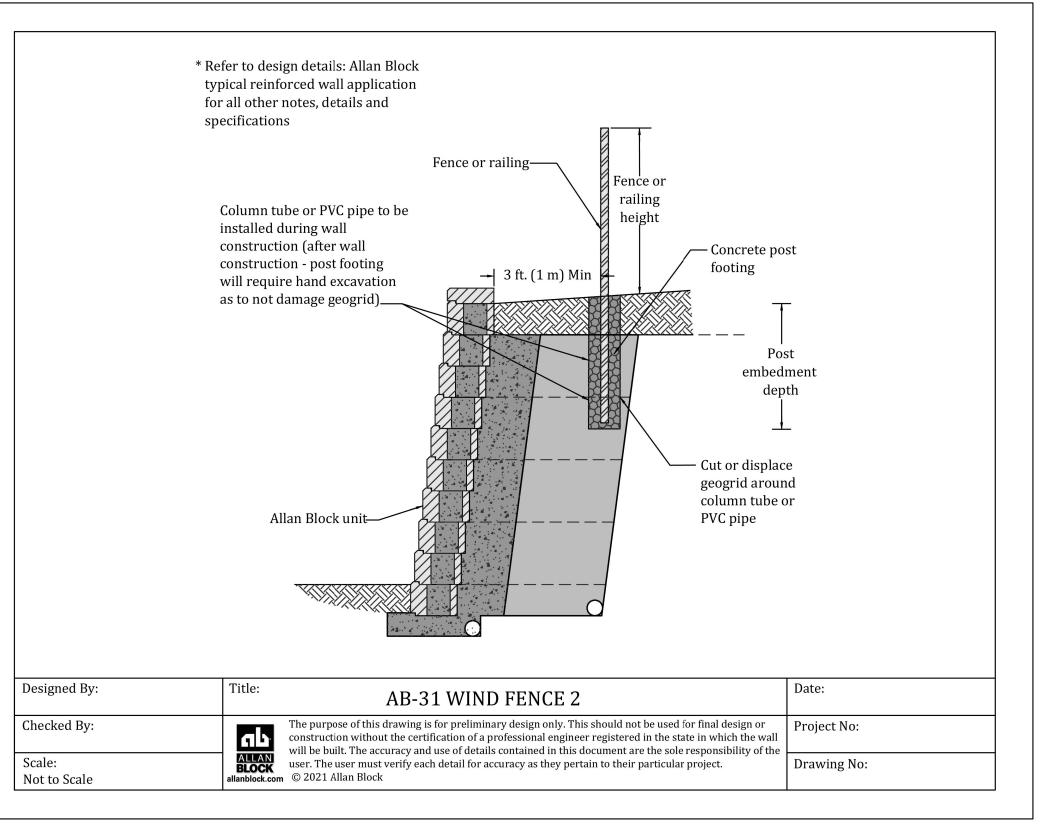
# TYPICAL SECTION - ASPHALT AND CONCRETE PAVEMENT











TYPICAL SECTION - TIERED RETAINING WALLS (ALLAN BLOCK)

NOTE:
RETAINING WALL DETAILS SHOWN ON THIS
SHEET ARE SCHEMATIC AND ARE PROVIDED
FOR TOWN PLANNING REVIEW ONLY.
CONTRACTOR SHALL COORDINATE WITH
ALLAN BLOCK MANUFACTURER AND
STRUCTURAL ENGINEER FOR SHOP DRAWING
REVIEW RETAINING WALL REQUIREMENTS.

PROFESSIONAL ENGINEERING CONSULTANTS, P.A.
351 LINDEN ST, STE 100
FORT COLLINS, CO 80524
970-232-9558 www.pec1.com

THESE DRAWINGS AND PLANS ARE
COPPRIGHTED AND ARE NOT TO BE USED OR REPRODUCED WHOLLY OR IN PART
WITHOUT THE WRITTEN PERMISSION OF D2C ARCHITECTS, INC.

14, 2025

I'S PROJECT#

N NO.:

O.:

(MARK DESCRIPTION DATE A)

DESIGN DEVELOPMENT

NOT FOR CONSTRUCTION

ERIE PD - ADDITION &
RENOVATION

TELLEEN AVENUE, ERIE, COLORADO 80516

SITE DETAILS

SHEET IDENTIFICATION C-211

	COORDINATE	LIST
POINT	NORTHING	EASTING
5000	1,259,486.4544	3,123,961.6728
5001	1,259,473.7903	3,123,985.3296
5002	1,259,486.1330	3,123,991.9370
5003	1,259,498.7971	3,123,968.2801
5004	1,259,513.6681	3,124,007.2444
5005	1,259,526.5682	3,123,983.1468
5006	1,259,531.7677	3,123,999.9196
5007	1,259,527.5201	3,124,007.8542
5008	1,259,558.2163	3,124,014.0783
5009	1,259,553.9687	3,124,022.0129
5010	1,259,558.2032	3,124,022.5783
5011	1,259,511.0016	3,124,038.7109
5012	1,259,506.7540	3,124,046.6455
5013	1,259,537.4503	3,124,052.8696
5014	1,259,533.2026	3,124,060.8042
5015	1,259,537.4371	3,124,061.3696
5016	1,259,473.2451	3,124,109.2407
5017	1,259,468.9975	3,124,117.1753
5018	1,259,499.6937	3,124,123.3994
5019	1,259,495.4461	3,124,131.3340
5020	1,259,500.4380	3,124,131.4623
5021	1,259,595.8343	3,124,084.1242
5022	1,259,567.4254	3,124,068.9161
5023	1,259,563.1778	3,124,076.8507
5024	1,259,575.0797	3,124,083.2222
5025	1,259,541.5708	3,124,145.8173
5026	1,259,529.6689	3,124,139.4459
5027	1,259,523.5778	3,124,141.2894
5028	1,259,499.0318	3,124,158.6275
5029	1,259,493.1379	3,124,157.7937
5030	1,259,488.5403	3,124,160.1255
5031	1,259,481.7666	3,124,172.7789
5032	1,259,584.4203	3,124,104.7936
5033	1,259,581.6663	3,124,110.1249
5034	1,259,580.4993	3,124,109.5002
5035	1,259,577.9688	3,124,110.0458
5036	1,259,581.8343	3,124,103.4092
5037	1,259,574.2428	3,124,105.0459
5038	1,259,542.5494	3,124,146.3412
5039	1,259,538.0254	3,124,143.9194
5040	1,259,539.5233	3,124,160.1389
5041	1,259,541.1099	3,124,161.3566
5042	1,259,525.3391	3,124,174.3068
5043	1,259,526.5550	3,124,175.8948
5044	1,259,539.4046	3,124,183.4756
5045	1,259,540.7142	3,124,184.9871
5046	1,259,521.2717	3,124,195.7575
5047	1,259,522.1890	3,124,197.5338
5048	1,259,301.5884	3,123,886.7759
5049	1,259,472.5043	3,124,189.8090

	COORDINATE	LIST	
POINT	NORTHING	EASTING	POIN
5050	1,259,473.1920	3,124,181.8385	5100
5051	1,259,473.0201	3,124,183.8306	510
5052	1,259,452.4904	3,124,176.8088	5102
5053	1,259,451.7218	3,124,178.6553	5103
5054	1,259,466.4627	3,124,205.2410	5104
5055	1,259,466.1963	3,124,207.2175	5105
5056	1,259,488.1437	3,124,207.6089	5106
5057	1,259,487.9253	3,124,205.6209	5107
5058	1,259,442.6874	3,124,176.9336	5108
5059	1,259,435.4072	3,124,166.5612	5109
5060	1,259,434.1378	3,124,168.1066	5110
5061	1,259,427.0246	3,124,158.4060	511
5062	1,259,425.5032	3,124,159.7042	5112
5063	1,259,413.4406	3,124,138.8303	5113
5064	1,259,413.8201	3,124,135.2234	5114
5065	1,259,413.0571	3,124,132.7844	5115
5066	1,259,411.2646	3,124,133.3086	5116
5067	1,259,410.7549	3,124,121.4127	5117
5068	1,259,408.7681	3,124,121.6421	5118
5069	1,259,402.8555	3,124,114.3307	5119
5070	1,259,445.6177	3,124,153.4332	5120
5071	1,259,452.4396	3,124,140.6897	512
5072	1,259,451.4699	3,124,135.2097	5122
5073	1,259,446.5963	3,124,129.6024	5123
5074	1,259,442.0181	3,124,108.3855	5124
5075	1,259,428.6609	3,124,087.6421	5125
5076	1,259,444.3395	3,124,100.8392	5126
5077	1,259,442.3779	3,124,094.9852	5127
5078	1,259,425.0541	3,124,080.6070	5128
5079	1,259,442.0446	3,124,048.8687	5129
5080	1,259,430.7847	3,124,083.6748	5130
5081	1,259,434.0884	3,124,077.5034	513
5082	1,259,444.4714	3,124,058.1077	5132
5083	1,259,447.7751	3,124,051.9364	5133
5084	1,259,457.8235	3,124,020.4528	5134
5085	1,259,463.1137	3,124,023.2837	5135
5086	1,259,476.7788	3,124,030.5990	5136
5087	1,259,481.0265	3,124,022.6644	5137
5088	1,259,455.9984	3,124,009.2662	5138
5089	1,259,454.3465	3,124,008.8519	5139
5090	1,259,446.5576	3,124,008.8519	5140
5091	1,259,442.0577	3,124,013.3250	514
5092	1,259,441.9769	3,124,026.8545	5142
5093	1,259,400.9776	3,124,026.6096	5143
5094	1,259,401.0533	3,124,013.9426	5144
5095	1,259,398.2462	3,124,013.1978	5145
5096	1,259,451.3441	3,123,965.4094	5146
5097	1,259,442.3443	3,123,965.3556	5147
5098	1,259,451.5234	3,123,935.4099	5148
5099	1,259,442.5235	3,123,935.3562	5149
	<u> </u>	l	

	COORDINATE	LIST
POINT	NORTHING	EASTING
5100	1,259,516.0152	3,123,957.2956
5101	1,259,516.3199	3,123,906.2965
5102	1,259,497.1988	3,123,906.1823
5103	1,259,492.7258	3,123,901.6555
5104	1,259,492.8064	3,123,888.1557
5105	1,259,381.8054	3,123,887.4925
5106	1,259,381.7276	3,123,900.9923
5107	1,259,377.2018	3,123,905.4663
5108	1,259,363.1886	3,123,905.3816
5109	1,259,358.7155	3,123,900.8662
5110	1,259,358.7745	3,123,884.0470
5111	1,259,304.7704	3,123,883.7243
5112	1,259,356.2166	3,123,900.5320
5113	1,259,304.1793	3,123,900.2209
5114	1,259,303.6968	3,123,883.8235
5115	1,259,264.3981	3,123,891.3967
5116	1,259,263.5197	3,123,891.4779
5117	1,259,181.2845	3,123,890.9866
5118	1,259,165.6921	3,123,906.4047
5119	1,259,165.0319	3,124,016.9028
5120	1,259,177.8817	3,124,016.9685
5121	1,259,182.3548	3,124,021.4953
5122	1,259,391.3452	3,123,965.0509
5123	1,259,382.3454	3,123,964.9971
5124	1,259,391.5244	3,123,935.0514
5125	1,259,382.5246	3,123,934.9977
5126	1,259,357.3775	3,123,959.5400
5127	1,259,357.5568	3,123,929.5405
5128	1,259,348.5570	3,123,929.4867
5129	1,259,348.3776	3,123,959.4862
5130	1,259,217.5593	3,123,928.7037
5131	1,259,208.5594	3,123,928.6499
5132	1,259,217.3800	3,123,958.7031
5133	1,259,208.3802	3,123,958.6494
5134	1,259,288.9196	3,124,031.9402
5135	1,259,220.1871	3,124,027.5296
5136	1,259,211.6559	3,124,027.4784
5137	1,259,202.0995	3,124,036.8901
5138	1,259,202.0910	3,124,037.8040
5139	1,259,206.5491	3,124,042.3456
5140	1,259,220.0485	3,124,042.4709
5141	1,259,226.1500	3,124,031.5651
5142	1,259,226.5482	3,124,042.5312
5143	1,259,226.0379	3,124,097.5272
5144	1,259,219.9418	3,124,053.9704
5145	1,259,219.8954	3,124,058.9655
5146	1,259,219.6913	3,124,080.9692
5147	1,259,219.6449	3,124,085.9690
5148	1,259,219.5382	3,124,097.4685

COORDINATE LIST					
			DONE	COORDINATE	
	NORTHING	EASTING	POINT	NORTHING	EASTING
	1,259,236.5957	3,124,092.8073	5200	1,259,215.2668	3,124,208.5032
	1,259,246.2214	3,124,099.8530	5201	1,259,367.0447	3,124,209.5767
	1,259,241.8048	3,124,099.8266	5202	1,259,380.6235	3,124,217.5101
	1,259,241.8048	3,124,107.9941	5203	1,259,377.0031	3,124,223.6952
	1,259,219.4758	3,124,107.9037	5204	1,259,419.5798	3,124,248.6170
	1,259,215.7625	3,124,115.9790	5205	1,259,454.3163	3,124,189.2737
	1,259,206.0388	3,124,097.3432	5206	1,259,463.7599	3,124,191.4531
	1,259,201.4972	3,124,101.8008	5207	1,259,464.0016	3,124,190.0044
	1,259,208.6208	3,124,107.8388	5208	1,259,399.4437	3,124,117.7856
	1,259,208.6208	3,124,115.9947	5209	1,259,394.1465	3,124,104.1118
	1,259,210.7911	3,124,115.9790	5210	1,259,404.8649	3,124,104.2175
	1,259,201.4415	3,124,107.8011	5211	1,259,404.9776	3,124,032.6335
	1,259,201.3655	3,124,115.9947	5212	1,259,386.7916	3,124,032.5249
	1,259,201.3098	3,124,121.9946	5213	1,259,344.9603	3,124,032.2750
	1,259,182.3327	3,124,025.1970	5214	1,259,345.2823	3,124,006.2764
	1,259,182.0032	3,124,027.6209	5215	1,259,288.9499	3,124,005.9399
	1,259,178.0390	3,124,042.2757	5216	1,259,289.9168	3,124,025.4460
	1,259,173.6534	3,124,045.6005	5217	1,259,246.7954	3,124,031.6885
	1,259,157.0182	3,124,045.4461	5218	1,259,246.5966	3,124,092.8551
	1,259,155.9883	3,124,156.4413	5219	1,259,609.6893	3,124,063.1844
	1,259,171.4876	3,124,156.5852	5220	1,259,579.2243	3,124,046.8756
	1,259,175.9458	3,124,161.0850	5221	1,259,583.4719	3,124,038.9410
	1,259,175.2643	3,124,170.5707	5222	1,259,246.1727	3,124,108.0194
	1,259,165.6108	3,124,211.1286	5223	1,259,215.7463	3,124,123.5046
	1,259,164.9379	3,124,219.7668	5224	1,259,600.6924	3,123,934.7323
	1,259,200.9446	3,124,161.3587	5225	1,259,596.4448	3,123,942.6669
	1,259,200.0332	3,124,173.9622	5226	1,259,574.2438	3,123,920.5736
	1,259,190.8692	3,124,241.3816	5227	1,259,569.9962	3,123,928.5082
	1,259,189.9668	3,124,253.8595	5228	1,259,277.6774	3,124,297.5371
	1,259,165.5587	3,124,255.9404	5229	1,259,279.6567	3,124,284.6887
	1,259,181.5241	3,124,256.2259	5230	1,259,251.9769	3,124,280.4245
	1,259,180.8381	3,124,273.1474	5231	1,259,239.2294	3,124,272.6392
	1,259,187.2862	3,124,273.3116	5232	1,259,232.0792	3,124,273.5453
-	1,259,189.2400	3,124,332.1746	5233	1,259,229.0323	3,124,278.7140
	1,259,188.4530	3,124,376.1340	5234	1,259,242.2920	3,124,292.0859
	1,259,189.2145	3,124,396.1294	5235	1,259,247.5746	3,124,280.0794
	1,259,196.4966	3,124,376.0799	5236	1,259,238.1870	3,124,274.3460
	1,259,201.0734	3,124,373.0149	5237	1,259,231.4112	3,124,285.4405
	1,259,196.6312	3,124,396.0795	5238	1,259,247.6598	3,124,284.8184
	1,259,219.5152	3,124,380.7545	5239	1,259,241.8413	3,124,289.4671
	1,259,239.0325	3,124,334.2487	5240	1,259,423.3753	3,124,084.8130
	1,259,222.4530	3,124,322.0716	5241	1,259,489.0782	3,124,323.8426
	1,259,210.2024	3,124,214.4748	5242	1,259,489.0782	3,124,330.1760
	1,259,221.2137	3,124,214.5369	5243	1,259,479.0781	3,124,323.8426
	1,259,228.7022	3,124,216.5887	5244	1,259,479.0781	3,124,330.1760
	1,259,233.4391	3,124,213.5669	5245	1,259,638.3219	3,123,965.0848
	1,259,240.8335	3,124,215.6179	5246	1,259,626.4200	3,123,958.7134
	1,259,240.7718	3,124,220.6175	5247	1,259,624.5765	3,123,952.6223
	1,259,281.2800	3,124,216.1000	5248	1,259,616.8995	3,123,915.0515
	4.000.004.000				

5249 | 1,259,581.6346 | 3,123,896.1733

5153

5156

5163

5166

1,259,281.2800 3,124,221.1045

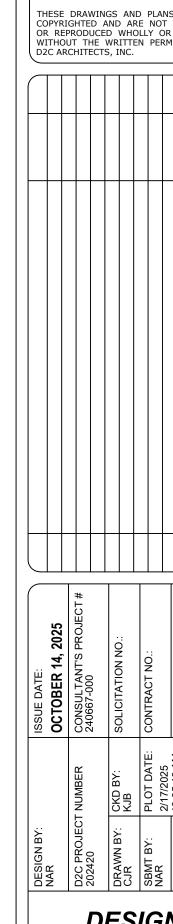
COORDINATE LIST					
POINT	NORTHING	EASTING			
5250	1,259,548.4719	3,123,906.2101			
5251	1,259,513.9404	3,123,970.7154			
5252	1,259,507.8493	3,123,972.5589			
5253	1,259,428.8438	3,124,026.7761			
5254	1,259,428.8137	3,124,034.2896			
5255	1,259,426.5875	3,124,038.4296			
5256	1,259,417.7945	3,124,045.1023			
5257	1,259,416.0547	3,124,048.8668			
5258	1,259,415.9010	3,124,077.7905			
5259	1,259,418.5411	3,124,082.2251			
5260	1,259,390.7112	3,124,026.5819			

POINT	NORTHING	EASTING
500	1,259,570.0717	3,123,917.7730
501	1,259,605.2888	3,123,936.7403
502	1,259,497.2257	3,123,901.6824
503	1,259,496.5189	3,123,966.1793
504	1,259,447.0235	3,123,935.3830
505	1,259,446.8442	3,123,965.3825
		3,123,905.3023
506	1,259,387.0245	, ,
507	1,259,386.8453	3,123,965.0240
508	1,259,377.2277	3,123,900.9664
509	1,259,363.2155	3,123,900.8817
510	1,259,353.0569	3,123,929.5136
511	1,259,352.8776	3,123,959.5131
512	1,259,304.7376	3,123,889.2242
513	1,259,263.5466	3,123,886.9780
514	1,259,213.0593	3,123,928.6768
515	1,259,212.8801	3,123,958.6762
516	1,259,181.1919	3,123,906.4863
517	1,259,177.8549	3,124,021.4684
518	1,259,172.8328	3,124,025.1402
519	1,259,173.6951	3,124,041.1007
520	1,259,171.4458	3,124,161.0850
521	1,259,196.4630	3,124,371.0800
522	1,259,289.4625	3,124,254.7829
523	1,259,100.4489	3,124,160.4262
524	1,259,205.9970	3,124,101.8430
525	1,259,206.5908	3,124,037.8458
526	1,259,211.5991	3,124,036.9783
527	1,259,399.5533	3,124,013.9336
528	1,259,446.5576	3,124,013.3519
529	1,259,454.3465	3,124,012.3519
530	1,259,478.9027	3,124,026.6317
531	1,259,440.2541	3,124,098.9525
532	1,259,448.4723	3,124,138.5659
533	1,259,492.5076	3,124,162.2493
534	1,259,241.0122	3,124,200.6190
535	1,259,423.8137	3,124,034.2696
536	1,259,421.0782	3,124,048.9043
537	1,259,420.9009	3,124,077.8170
538	1,259,441.4278	3,124,093.8832
539	1,259,451.4633	3,124,141.8169
540	1,259,409.4905	3,124,136.5913
540 541	1,259,402.8077	3,124,130.3913
542	1,259,509.9731	3,123,968.5916
543	1,259,579.0025	3,124,108.6989
544	1,259,579.5554	3,124,111.2634

D <sub>2</sub> C
ARCHITECTS
<b>MPFC</b>

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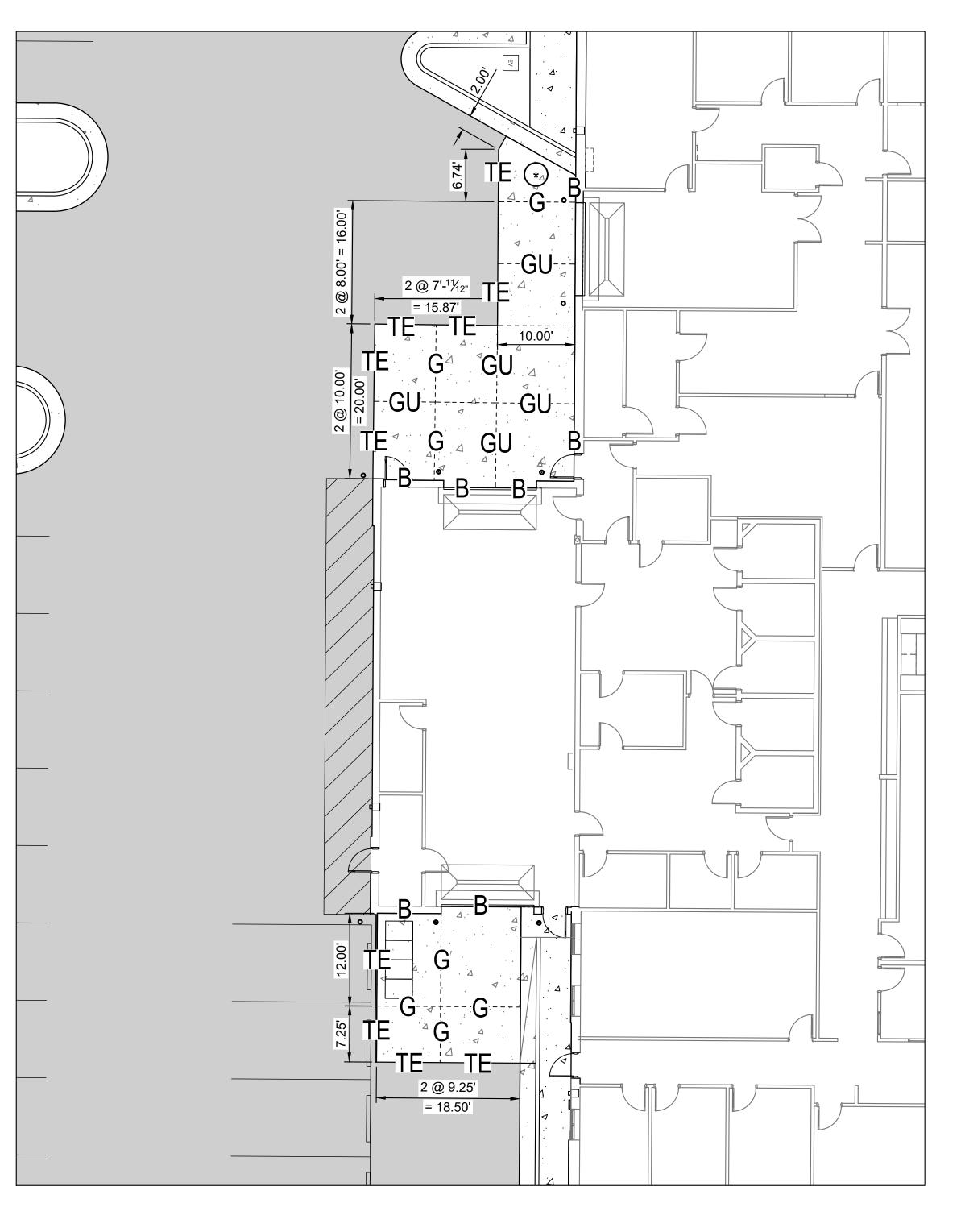


DESIGN DEVELOPMENT

NOT FOR CONSTRUCTION

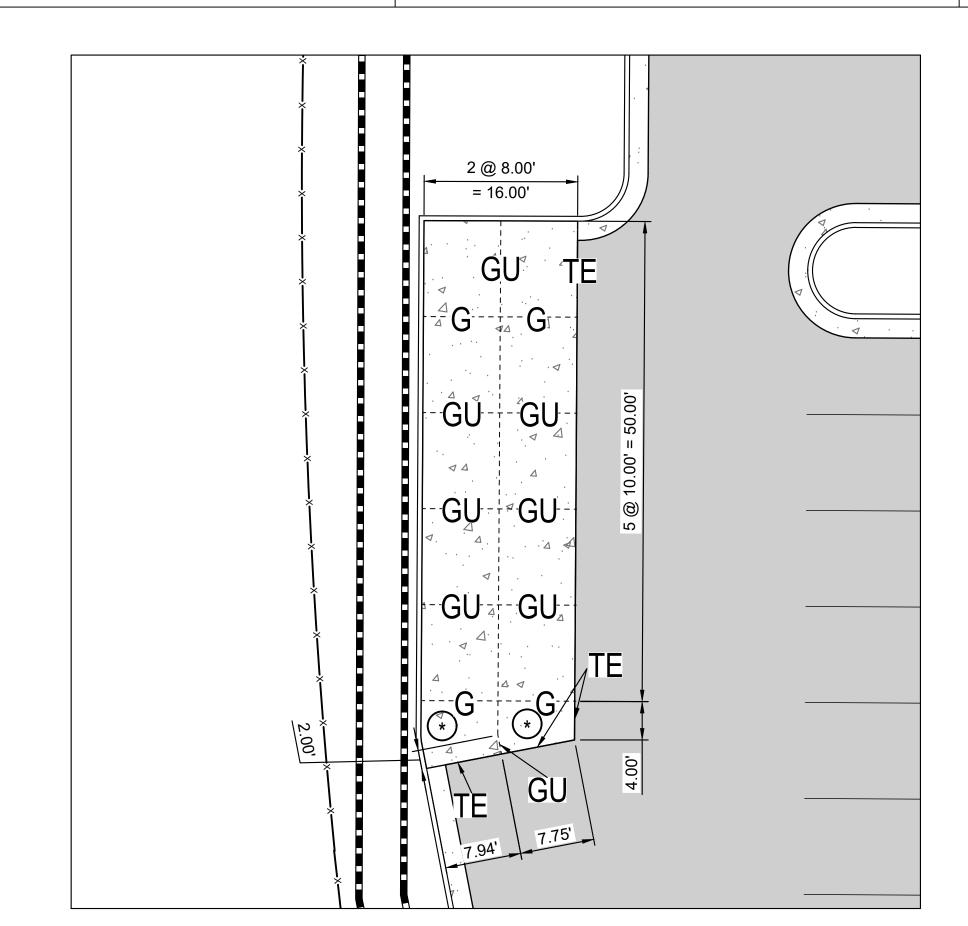
ERIE PD - ADDITION & RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 80
COORDINATE TABLES

IDENTIFICATION C-212

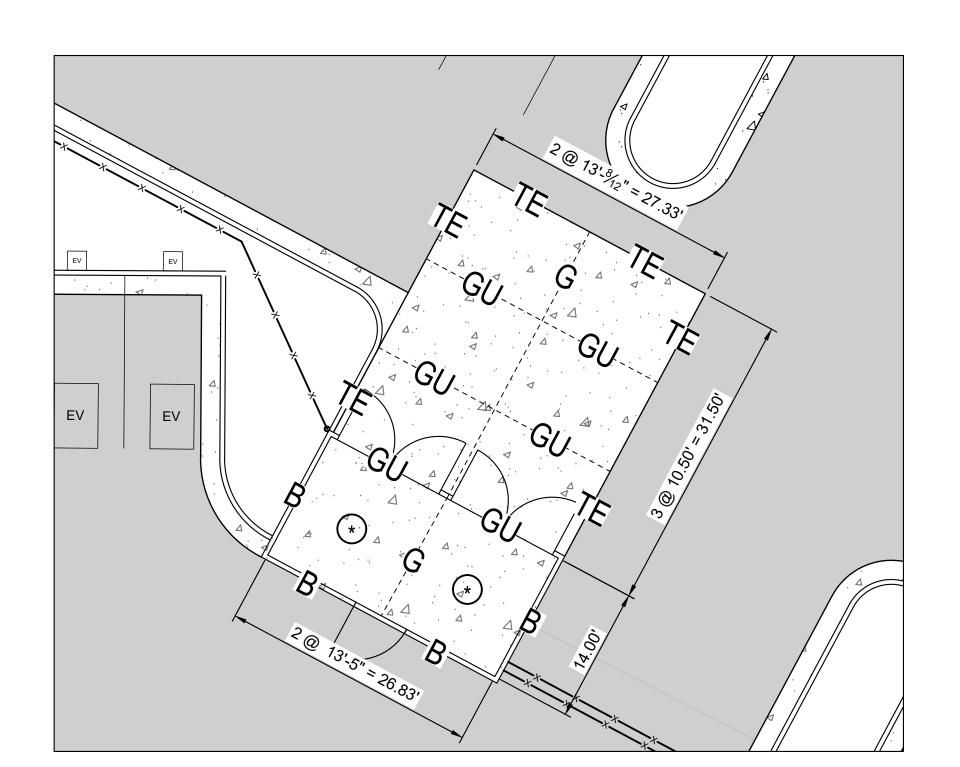


SALLY-PORT CONCRETE APRONS (ADD ALT #1 - SNOW MELT SYSTEM)

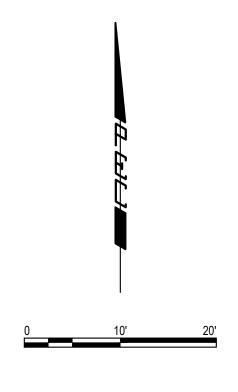
1" = 10"



MOBILE TRAINING CENTER CONCRETE PAD



TRASH ENCLOSURE CONCRETE PAD



### PAVEMENT JOINT LEGEND

TE THICKENED EDGE JOINT

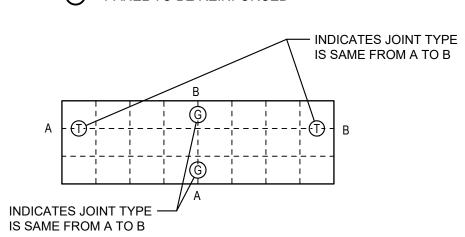
B BUTT JOINT

G (PLAN)
DETAIL D
LONGITUDINAL CONTRACTION JOINT

GU (PLAN)
DETAIL F
LONGITUDINAL CONSTRUCTION JOINT

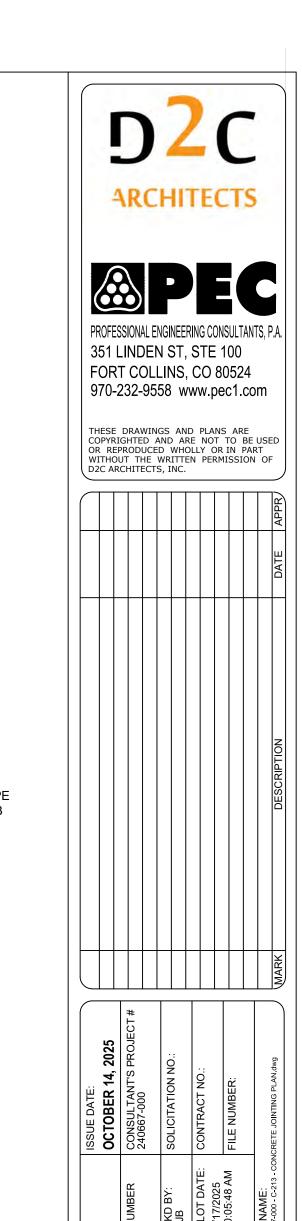
PAVEMENT JOINT

PANEL TO BE REINFORCED



JOINT CALL-OUT CONVENTIONS

NOTE: SEE SHEET CP501 FOR CONCRETE REINFORCEMENT AND JOINTING DETAILS



DESIGN DEVELOPMENT

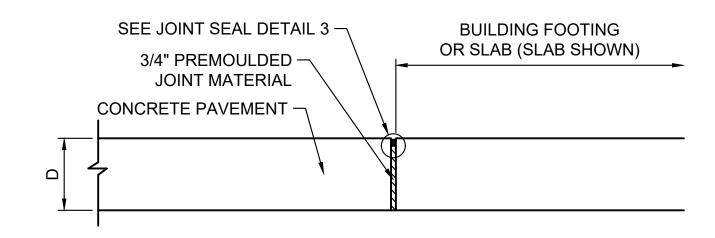
NOT FOR CONSTRUCTION

ERIE PD - ADDITION & RENOVATION

1000 TELLEEN AVENUE, ERIE, COLORADO 80516

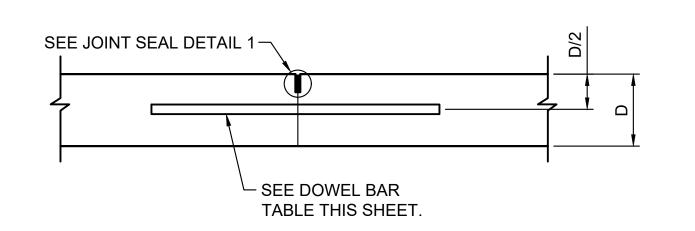
CONCRETE JOINTING PLAN

D

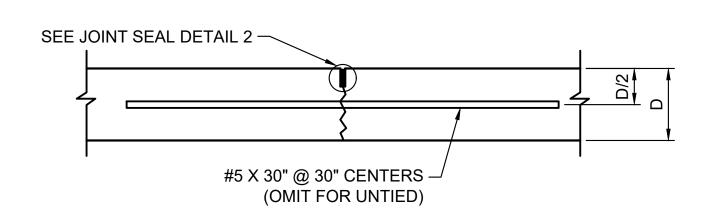


# THICKENED EDGE JOINT DETAIL (TE)

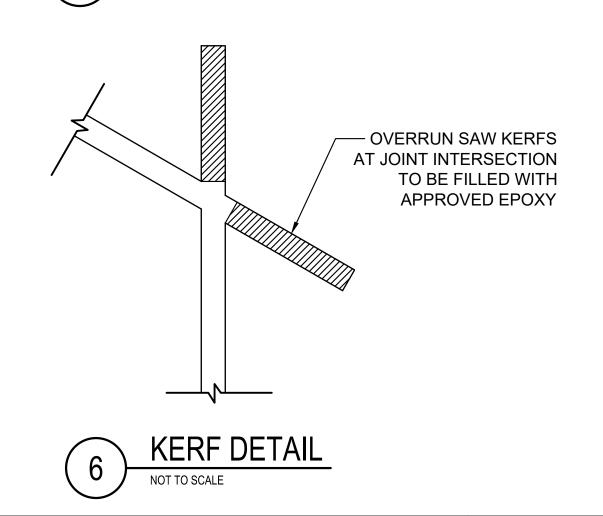




# OOWELED CONSTRUCTION JOINT DETAIL (D) NOT TO SCALE



# SAWED CONTRACTION JOINT DETAIL (G, GU)



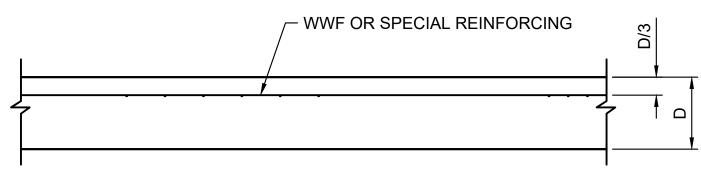
# 2 BUTT JOINT DETAIL (B) NOT TO SCALE

# WELDED WIRE FABRIC NOTES

REINFORCING FABRIC SHALL BE FURNISHED IN SHEETS. THE CONTRACTOR MAY PROVIDE A
DIFFERENT PATTERN OF FABRIC AS LONG AS MINIMUM OF 0.08 SQ. IN./FT. OF REINFORCING IS
PROVIDED IN EACH DIRECTION.

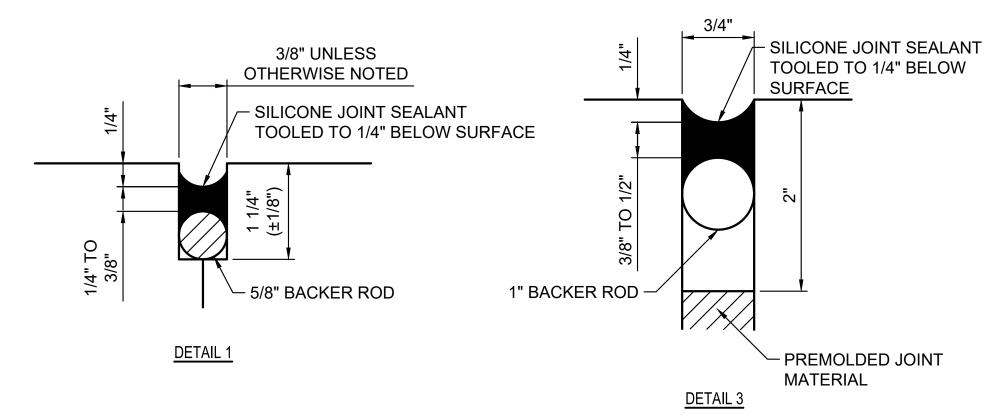
WELDED WIRE FABRIC

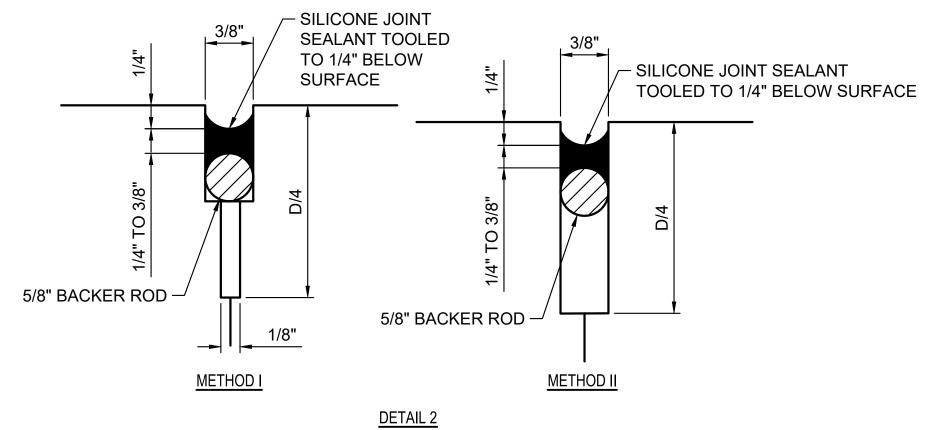
- 2. WELDED WIRE FABRIC SHALL BE CUT IN THE FIELD AS REQUIRED TO CONFORM TO THE SHAPE OF THE PANEL TO BE REINFORCED.
- 3. FABRIC SHEETS SHALL BE OVERLAP SPLICED AS APPLICABLE AND AS DETAILED BELOW.



SECTION THRU PAVEMENT

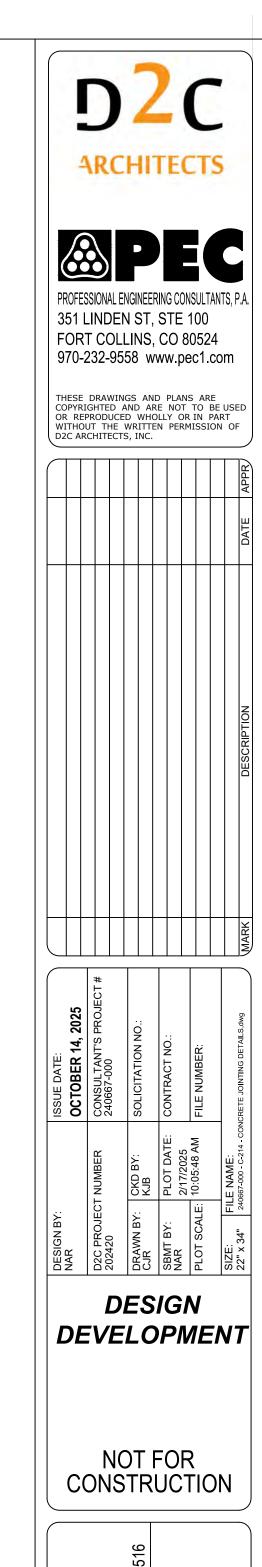






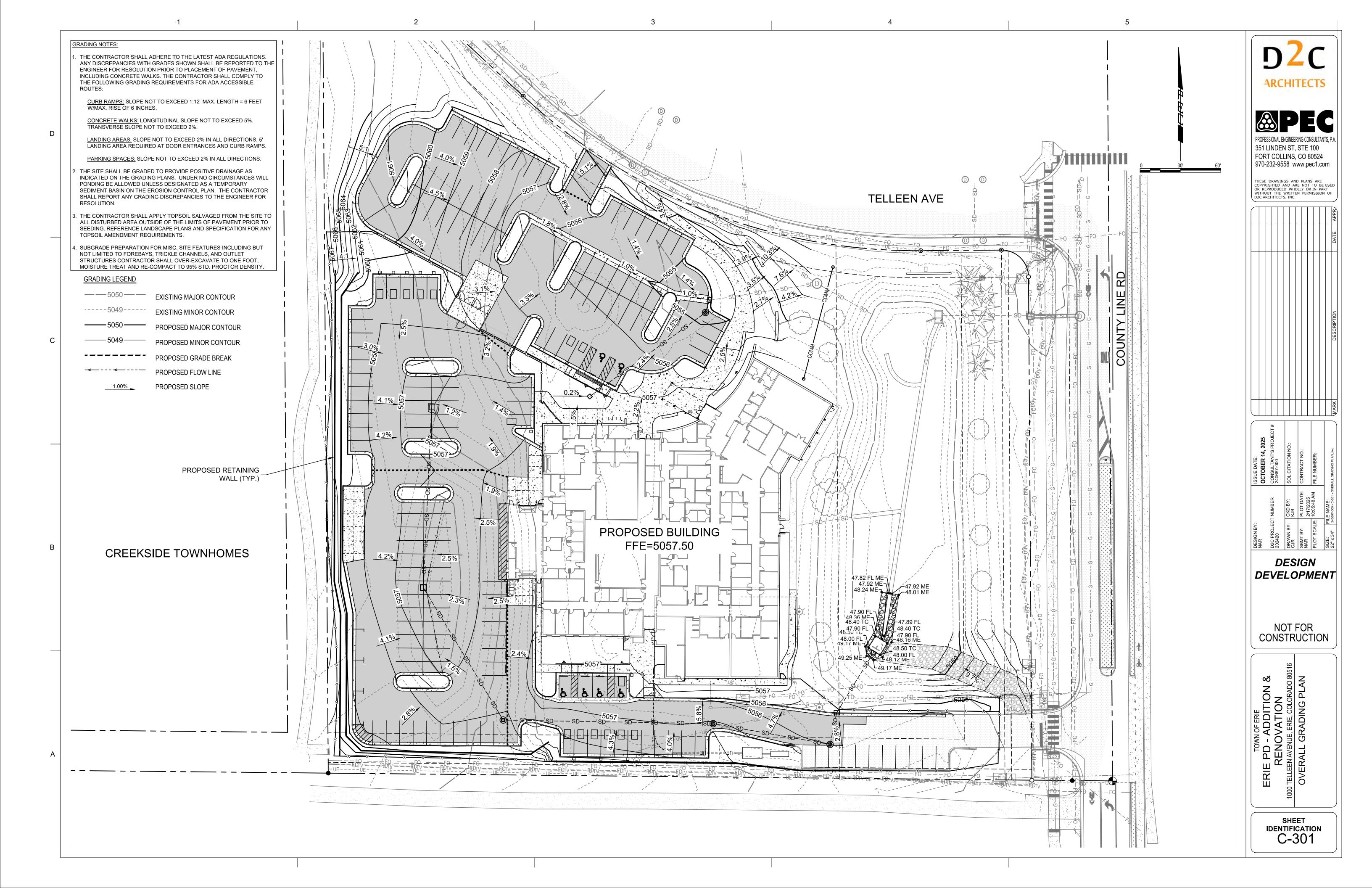
JOINT SEAL DETAILS

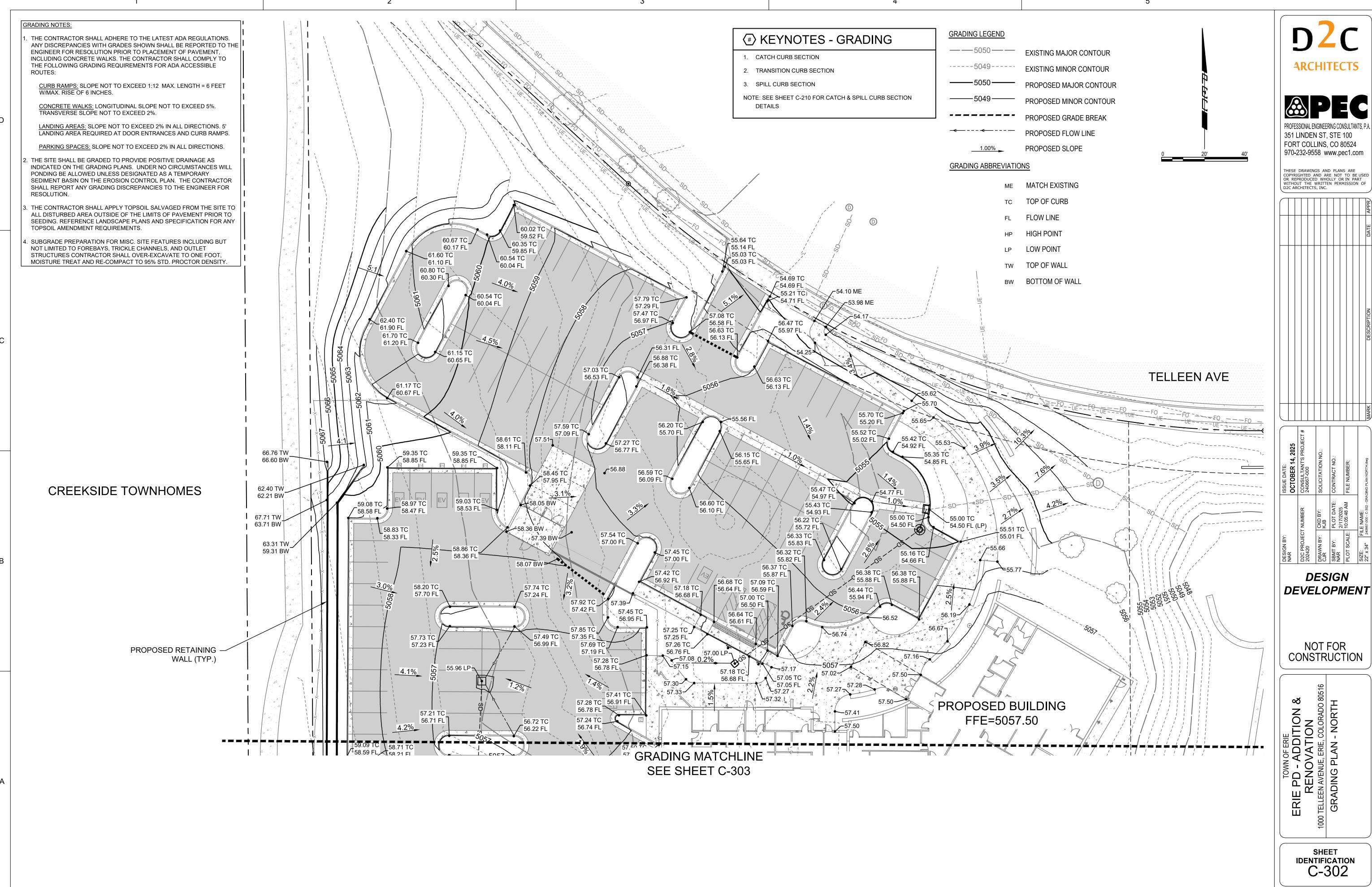
NOT TO SCALE

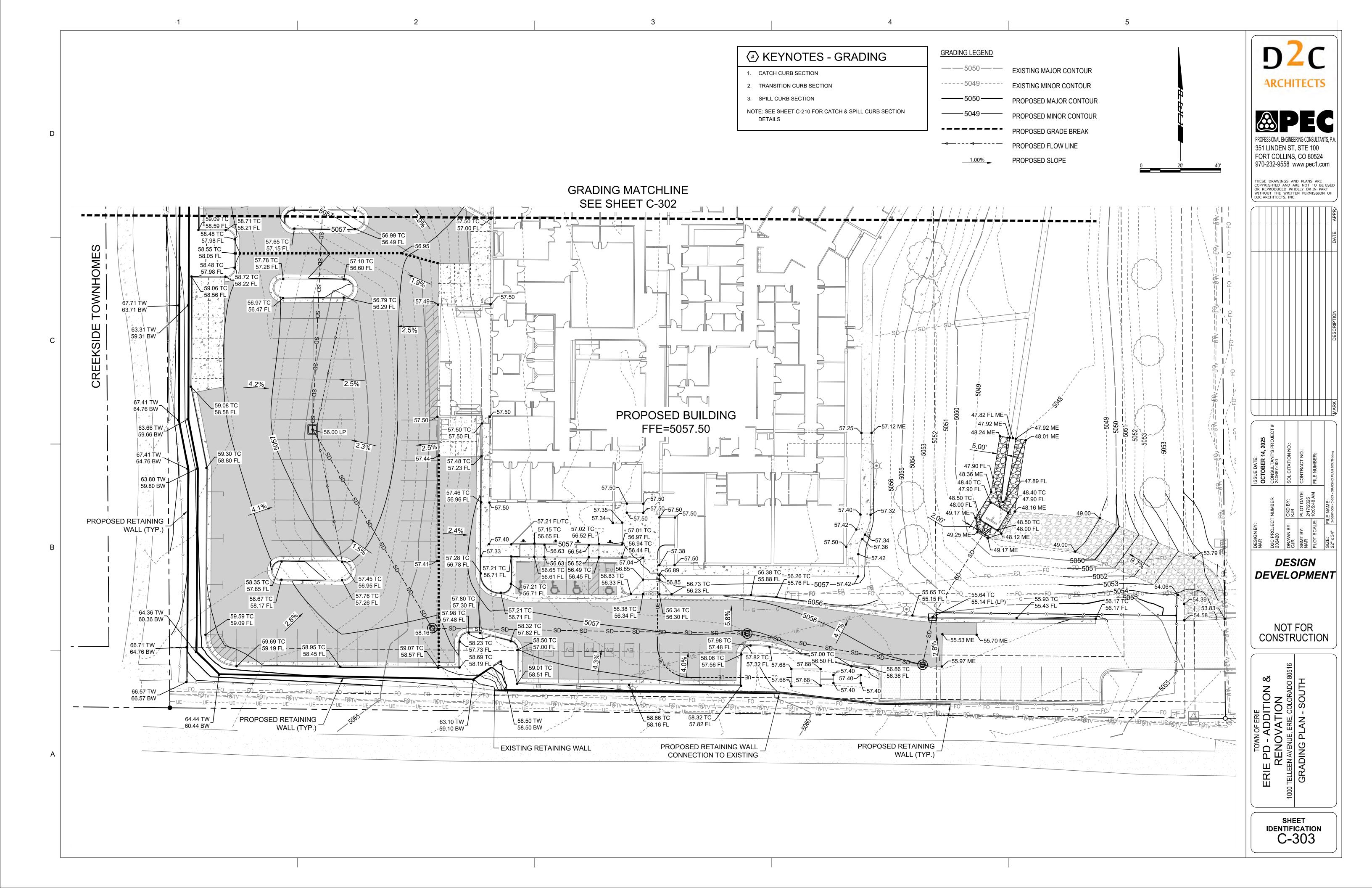


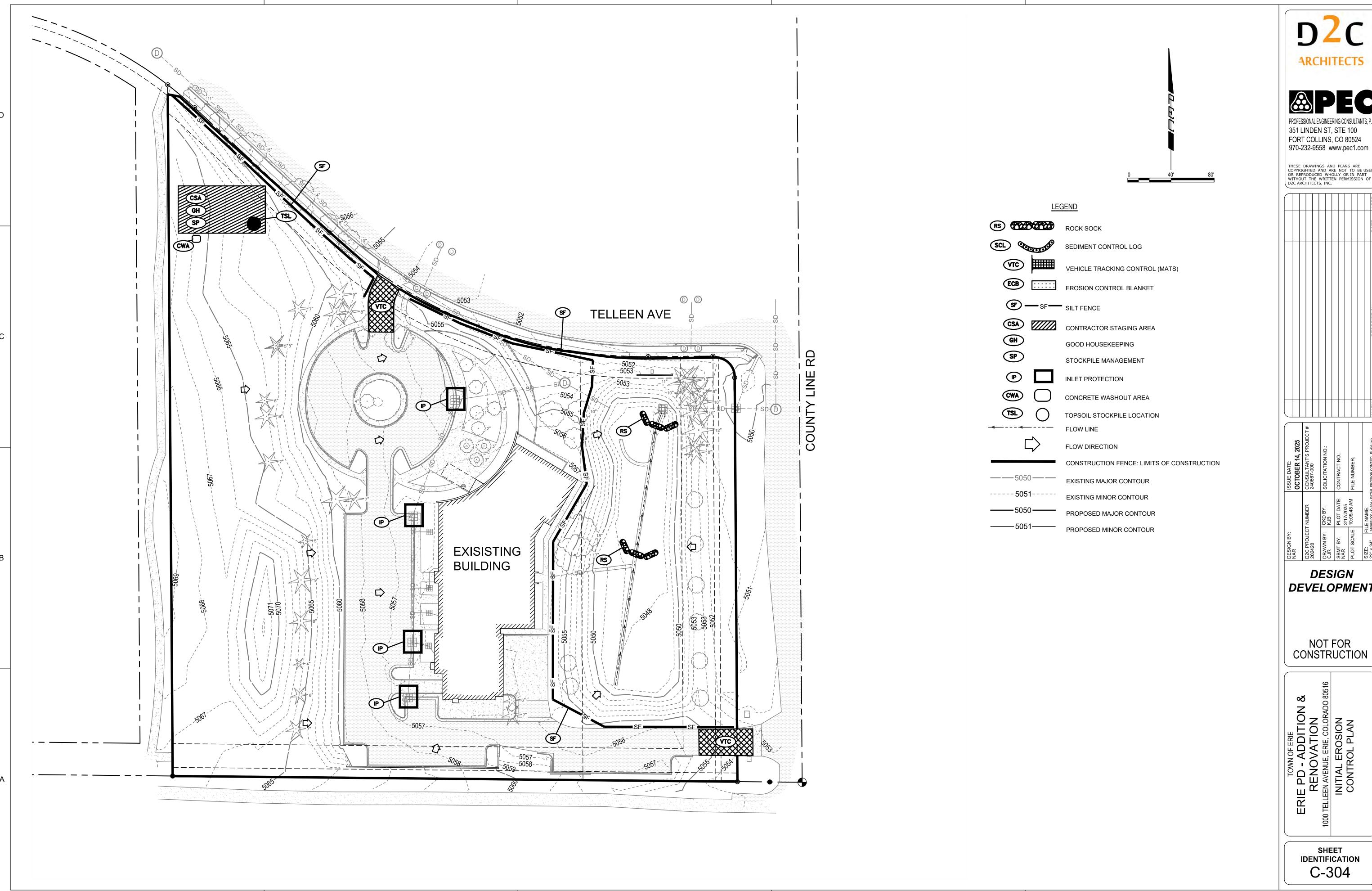
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RENOVATION
000 TELLEEN AVENUE, ERIE, COLORADO 80516
CONCRETE JOINTING
DETAILS

SHEET IDENTIFICATION C-214









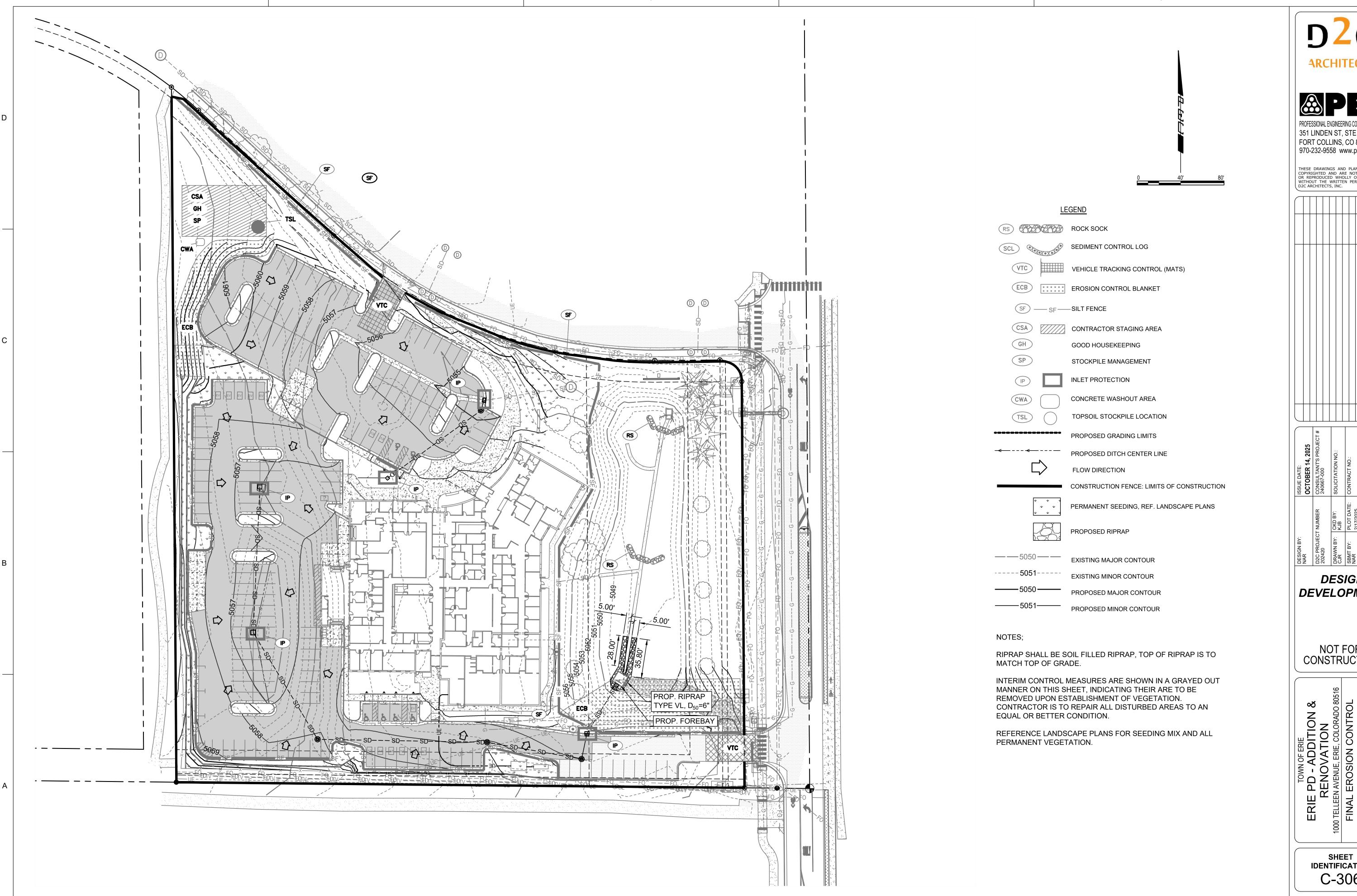
 $D^2C$ ARCHITECTS

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**DESIGN** DEVELOPMENT

SHEET IDENTIFICATION C-304



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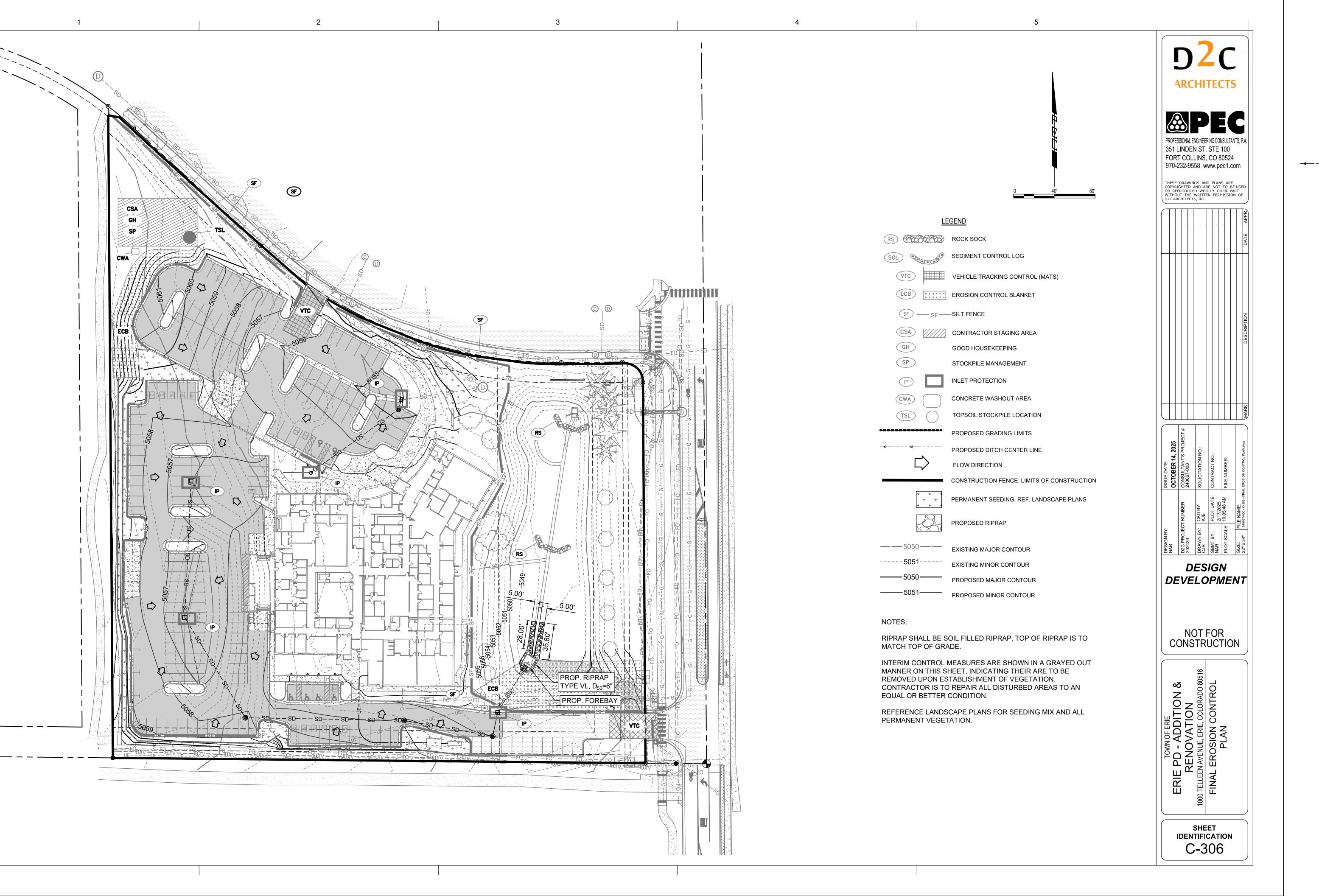
**DESIGN** DEVELOPMENT

NOT FOR CONSTRUCTION

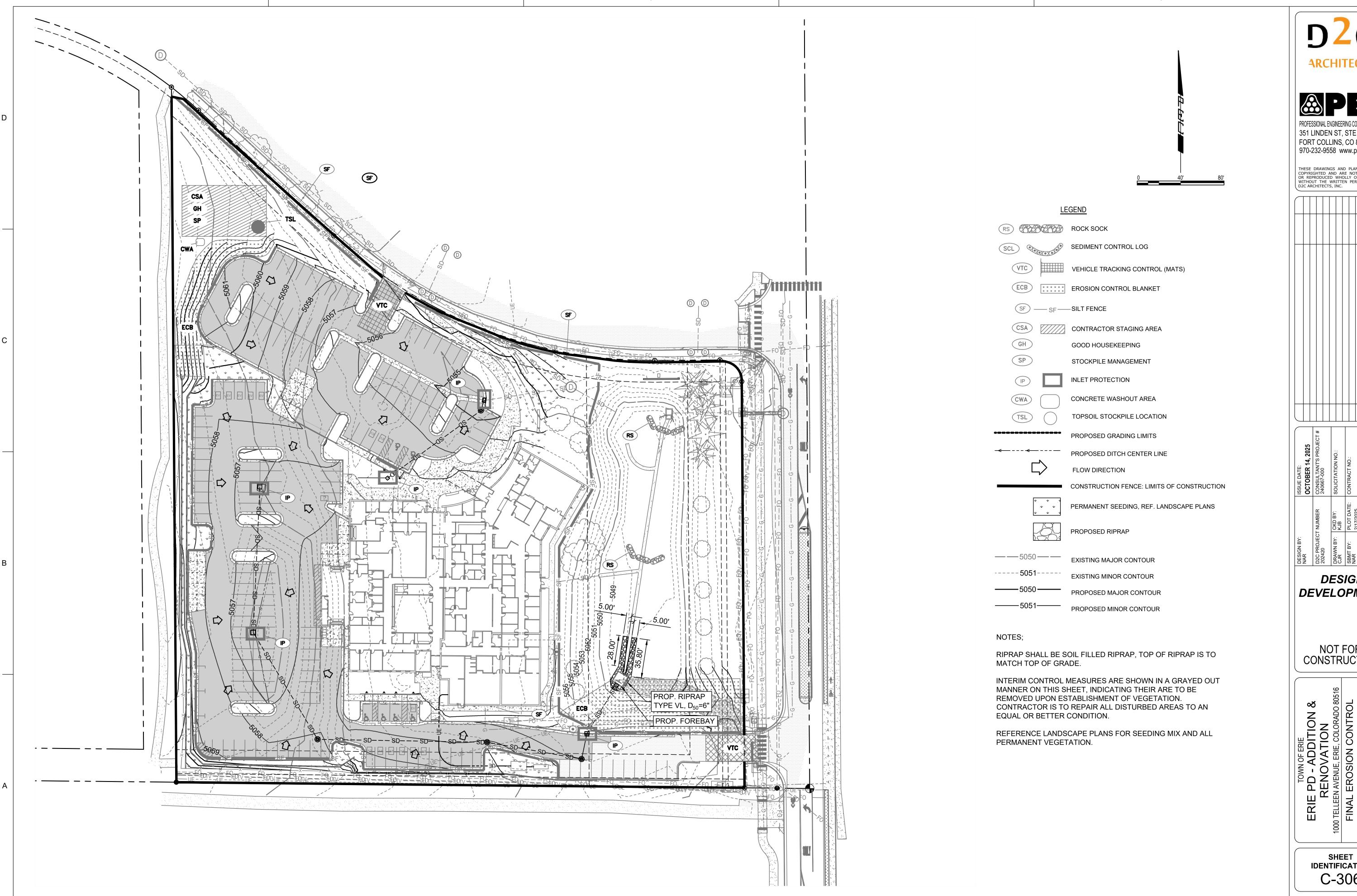
ERIE PD - ADDITION & RENOVATION

DO TELLEEN AVENUE, ERIE, COLORADO 805FINAL EROSION CONTROL
PLAN

**IDENTIFICATION** C-306



LEGEND



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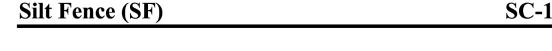
**DESIGN** DEVELOPMENT

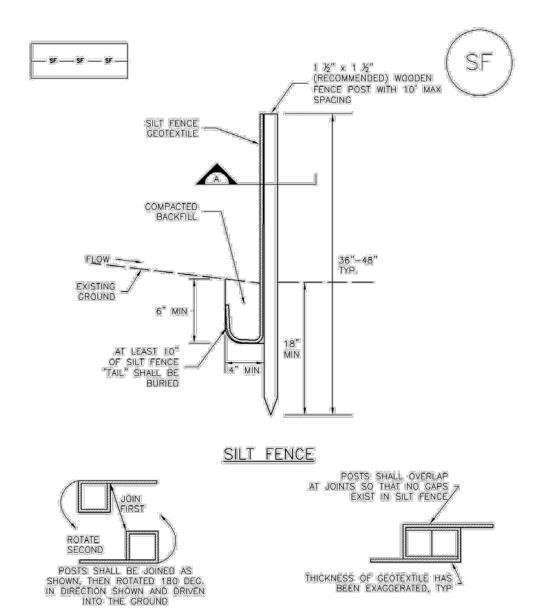
NOT FOR CONSTRUCTION

ERIE PD - ADDITION & RENOVATION

DO TELLEEN AVENUE, ERIE, COLORADO 805FINAL EROSION CONTROL
PLAN

**IDENTIFICATION** C-306





SF-1. SILT FENCE

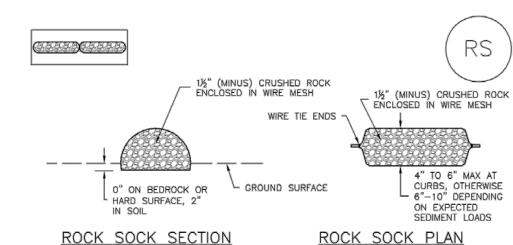
SECTION A

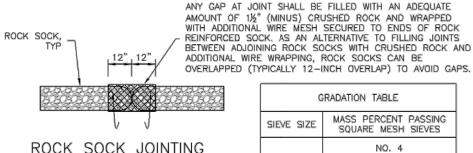
November 2010

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SF-3

**MM-1** 





ROCK SOCK INSTALLATION NOTES

-LOCATION(S) OF ROCK SOCKS.

ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.

1. SEE PLAN VIEW FOR:

**SC-5** 

NO. 4 MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES.

Rock Sock (RS)

2. CRUSHED ROCK SHALL BE 11/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1½" MINUS). 3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH, OR EQUIVALENT, WITH A MAXIMUM OPENING OF 1/2", RECOMMENDED MINIMUM ROLL WIDTH OF 48" 4. WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS

5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE. RS-1. ROCK SOCK PERIMETER CONTROL

RS-2 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3

### **SC-6 Inlet Protection (IP)**

IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE

INLET PROTECTION

2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A. SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB

3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINTED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.

SOCKS: APPROX 30 DEG. BLOCK AND ROCK SOCK INLET PROTECTION(SEE DETAIL IP-1)

3'=5' TYP.

IP-2. CURB ROCK SOCKS UPSTREAM OF

INLET\_PROTECTION

2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.

3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.

4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

\_5'\_MIN\_

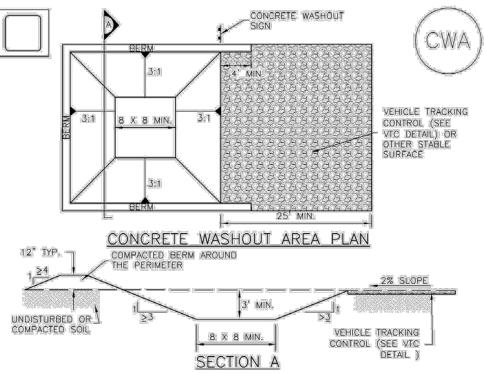
CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.

CURB SOCK =

FLOW ==

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.



CWA-1. CONCRETE WASHOUT AREA CWA INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
-CWA INSTALLATION LOCATION.

**Concrete Washout Area (CWA)** 

2. DO NOT LOCATE AN UNLINED CWA WITHIN 400" OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (16 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.

3. THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.

- 5. BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1.
- 6. VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- 7. SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- 8. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

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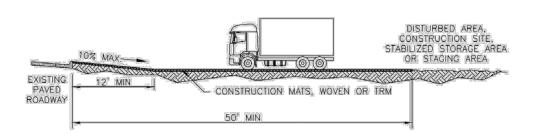
IP-4

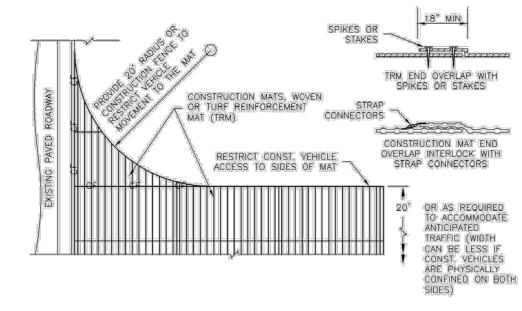
CWA-3

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 August 2013

# **Vehicle Tracking Control (VTC)**







VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

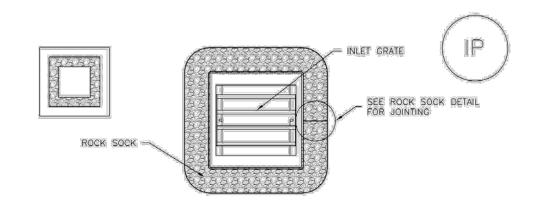
November 2010

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 VTC-5

**SC-6** 

**SM-4** 

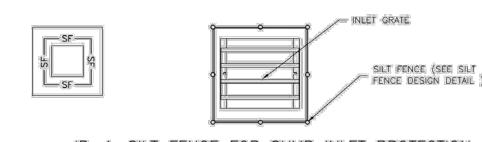
# **Inlet Protection (IP)**



# IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

# ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES 1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS

2. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



# IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

- 1. SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- 2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
- 3. STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

Urban Drainage and Flood Control District

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IP-5

# Mulching (MU)

Description

Mulching consists of evenly applying straw, hay, shredded wood mulch, rock, bark or compost to disturbed soils and securing the mulch by crimping, tackifiers, netting or other measures. Mulching helps reduce erosion by protecting bare soil from rainfall impact, increasing infiltration, and reducing runoff. Although often applied in conjunction with temporary or permanent seeding, it can also be used for temporary stabilization of areas that cannot be reseeded due to seasonal constraints

Mulch can be applied either using standard mechanical dry application methods or using hydromulching equipment that hydraulically applies a slurry of water, wood fiber mulch, and often a tackifier.



EC-4

Photograph MU-1. An area that was recently seeded, mulched,

### **Appropriate Uses**

Use mulch in conjunction with seeding to help protect the seedbed and stabilize the soil. Mulch can also be used as a temporary cover on low to mild slopes to help temporarily stabilize disturbed areas where growing season constraints prevent effective reseeding. Disturbed areas should be properly mulched and tacked, or seeded, mulched and tacked promptly after final grade is reached (typically within no longer than 14 days) on portions of the site not otherwise permanently stabilized.

Standard dry mulching is encouraged in most jurisdictions; however, hydromulching may not be allowed in certain jurisdictions or may not be allowed near waterways.

Do not apply mulch during windy conditions.

### **Design and Installation**

Prior to mulching, surface-roughen areas by rolling with a crimping or punching type roller or by track walking. Track walking should only be used where other methods are impractical because track walking with heavy equipment typically compacts the soil.

A variety of mulches can be used effectively at construction sites. Consider the following:

Mulch		
Functions		
Erosion Control	Yes	
Sediment Control	Moderate	
Site/Material Management	No	

June 2012 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

# Mulching (MU)

- Clean, weed-free and seed-free cereal grain straw should be applied evenly at a rate of 2 tons per acre and must be tacked or fastened by a method suitable for the condition of the site. Straw mulch must be anchored (and not merely placed) on the surface. This can be accomplished mechanically by crimping or with the aid of tackifiers or nets. Anchoring with a crimping implement is preferred, and is the recommended method for areas flatter than 3:1. Mechanical crimpers must be capable of tucking the long mulch fibers into the soil to a depth of 3 inches without cutting them. An agricultural disk, while not an ideal substitute, may work if the disk blades are dull or blunted and set vertically; however, the frame may have to be weighted to afford proper soil penetration.
- Grass hay may be used in place of straw; however, because hay is comprised of the entire plant including seed, mulching with hay may seed the site with non-native grass species which might in turn out-compete the native seed. Alternatively, native species of grass hay may be purchased, but can be difficult to find and are more expensive than straw. Purchasing and utilizing a certified weed-free straw is an easier and less costly mulching method. When using grass hay, follow the same guidelines as for straw (provided
- On small areas sheltered from the wind and heavy runoff, spraying a tackifier on the mulch is satisfactory for holding it in place. For steep slopes and special situations where greater control is needed, erosion control blankets anchored with stakes should be used instead of mulch.
- Hydraulic mulching consists of wood cellulose fibers mixed with water and a tackifying agent and should be applied at a rate of no less than 1,500 pounds per acre (1,425 lbs of fibers mixed with at least 75 lbs of tackifier) with a hydraulic mulcher. For steeper slopes, up to 2000 pounds per acre may be required for effective hydroseeding. Hydromulch typically requires up to 24 hours to dry; therefore, it should not be applied immediately prior to inclement weather. Application to roads, waterways and existing vegetation should be avoided.
- Erosion control mats, blankets, or nets are recommended to help stabilize steep slopes (generally 3:1 and steeper) and waterways. Depending on the product, these may be used alone or in conjunction with grass or straw mulch. Normally, use of these products will be restricted to relatively small areas. Biodegradable mats made of straw and jute, straw-coconut, coconut fiber, or excelsior can be used instead of mulch. (See the ECM/TRM BMP for more information.)
- Some tackifiers or binders may be used to anchor mulch. Check with the local jurisdiction for allowed tackifiers. Manufacturer's recommendations should be followed at all times. (See the Soil Binder BMP for more information on general types of tackifiers.)
- Rock can also be used as mulch. It provides protection of exposed soils to wind and water erosion and allows infiltration of precipitation. An aggregate base course can be spread on disturbed areas for temporary or permanent stabilization. The rock mulch layer should be thick enough to provide full coverage of exposed soil on the area it is applied.

## Maintenance and Removal

After mulching, the bare ground surface should not be more than 10 percent exposed. Reapply mulch, as needed, to cover bare areas.

MU-2

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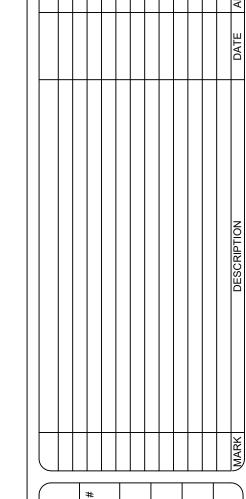
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**DESIGN** DEVELOPMENT

NOT FOR CONSTRUCTION

ERIE PD - ADDITION & RENOVATION

00 TELLEEN AVENUE, ERIE, COLORADO 80

EROSION CONTROL

DETAILS **∞**ŏ

> SHEET **IDENTIFICATION** C-310

Rolled Erosion Control Products (RECP)

-AREA, A, IN SQUARE YARDS OF EACH TYPE OF ECB.

2. ALL RECPs MUST BE 100% NATURAL AND BIODEGRADABLE MATERIALS.

-TYPE OF ECB (STRAW, STRAW-COCONUT, COCONUT/ COIR, OR EXCELSIOR).

IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING

SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL

4. FOR MATS THAT HAVE OPENINGS LARGER THAN THE SOIL, ADD STRAW UNDER (RATE OF

6. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL

(LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.

8. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH

9. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECB: ON SLOPES AND WITHIN DRAINAGEWAYS. OVERLAP SEAMS SO THAT UPSTREAM RECPS IS ON

11. ALL EXPOSED ROOTS SHALL BE TRIMMED TO BELOW THE SOIL SURFACE, ECB/TRM SHALL

. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING

13. ADDITIONAL BANK PROTECTION AND/OR TOE REINFORCEMENT MAY BE NEEDED BASED ON

ANCHOR TRENCH DETAILS FOR

**EROSION CONTROL BLANKETS** 

12. DETAILS ON DESIGN PLANS FOR MAJOR DRAINAGEWAY STABILIZATION WILL GOVERN IF DIFFERENT FROM THOSE SHOWN HERE.

TOP OF DOWNSTREAM RECPS SO THAT EXPOSED EDGE IS NOT LIFTED BY STREAM FLOWS.

10. MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1.

1000# PER ACRE) TO HOLD SOIL AND SEED FROM MIGRATING THROUGH OPENINGS.

5. INSTALL MATS AND BLANKETS PARALLEL TO THE DIRECTION OF STREAM FLOW

EROSION CONTROL BLANKET INSTALLATION NOTES

FOR COCONUT AND EXCELSIOR ECBs.

ECBS SHALL BE RESEEDED AND MULCHED.

CHANNEL GEOMETRY AND HYDRAULICS.

EROSION CONTROL -

BLANKET, (TYP.)

D

SIDEWALK OR BACK OF CURB WHEN ADJACENT

STAKING PATTERNS BY ECB TYPE

NOTE: IN ADDITION TO FLOW CONDITIONS, THE DESIGNER SHOULD CONSIDER THE PROPERTIES

OF THE UNDERLYING SOIL. LESS COHESIVE SOILS MAY WARRANT A TIGHTER STAKING PATTERN

STAKING PATTERNS BY SLOPE OR CHANNEL TYPE

NOTES

1. PLACE STAKES 18" O.C. TO 3' ABOVE WATER, THEN 24" O.C. TO UPPER LIMIT OF FABRIC OR AS RECOMMEND BY THE MANUFACTURER.

2. WHEN BLANKETING IS PLACED OVER RIPRAP, USE WOOD STAKES.

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TYPICALLY MADE FROM 2" X

4" DIMENSIONAL LUMBER

PROPOSED CHANNEL INVERT OR EDGE OF DROP STRUCTURE, CONTINUE MAT INTO EPHEMERAL STREAMS. NOTE: USE WOODEN STAKES IN AREAS WHERE MAT IS PLACED OVER RIPRAP.

# COIR MAT PLACEMENT DETAIL

TRENCH - DETAIL C)

### EROSION CONTROL BLANKET MAINTENANCE NOTES

MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. REPEATED FAILURE WARRANTS THE NEED FOR REDESIGN OF THE EROSION CONTROL PROTECTION. ECBs SHALL BE LEFT IN PLACE TO BIODEGRADE UNLESS REQUESTED TO BE REMOVED

BY THE LOCAL JURISDICTION. 5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND TOWN OF PARKER COLORADO, NOT AVAILABLE IN AUTOCAD)

Urban Drainage and Flood Control District

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December 2022

June 2012

December 2022 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 RECP-9

NOTE: TRENCH C SHALL BE USED TO JOIN

BLANKETS TOGETHER (LONGITUDINAL)

**EC-6** 

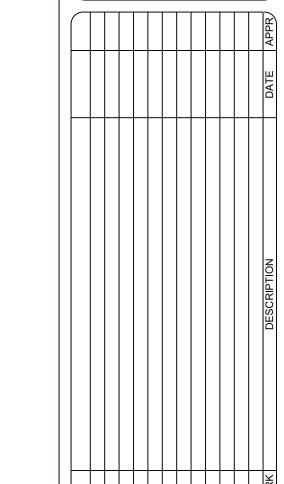


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**DESIGN** DEVELOPMENT

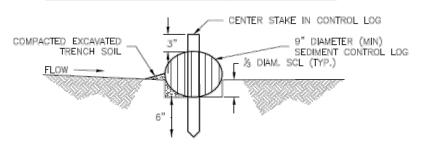
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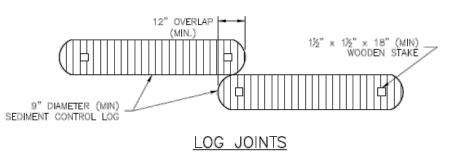
SHEET **IDENTIFICATION** C-311

---- SCL----- SCL------ SCL-----" DIAMETER (MIN) SEDIMENT CONTROL LOG 1.LARGER DIAMETER SEDIMENT CONTROL LOGS MAY NEED TO BE EMBEDDED DEEPER. 2.PLACE LOG AGAINST

TRENCHED SEDIMENT CONTROL LOG



TRENCHED SEDIMENT CONTROL



SCL-1. TRENCHED SEDIMENT CONTROL LOG

November 2015

Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

SCL-3

November 2015

**Sediment Control Log (SCL)** 

# SEDIMENT CONTROL LOG INSTALLATION NOTES

1. SEE PLAN VIEW FOR LOCATION AND LENGTH OF SEDIMENT CONTROL LOGS.

SEDIMENT CONTROL LOGS THAT ACT AS A PERIMETER CONTROL SHALL BE INSTALLED PRIOR O ANY UPGRADIENT LAND-DISTURBING ACTIVITIES.

3. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BE FREE OF ANY NOXIOUS WEED SEEDS OR DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.

4. SEDIMENT CONTROL LOGS MAY BE USED AS SMALL CHECK DAMS IN DITCHES AND SWALES. HOWEVER, THEY SHOULD NOT BE USED IN PERENNIAL STREAMS.

5. IT IS RECOMMENDED THAT SEDIMENT CONTROL LOGS BE TRENCHED INTO THE GROUND TO A DEPTH OF APPROXIMATELY 1/3 OF THE DIAMETER OF THE LOG. IF TRENCHING TO THIS DEPTH IS NOT FEASIBLE AND/OR DESIRABLE (SHORT TERM INSTALLATION WITH DESIRE NOT TO DAMAGE LANDSCAPE) A LESSER TRENCHING DEPTH MAY BE ACCEPTABLE WITH MORE ROBUST STAKING, COMPOST LOGS THAT ARE 8 LB/FT DO NOT NEED TO BE TRENCHED.

6. THE UPHILL SIDE OF THE SEDIMENT CONTROL LOG SHALL BE BACKFILLED WITH SOIL OR FILTER MATERIAL THAT IS FREE OF ROCKS AND DEBRIS. THE SOIL SHALL BE TIGHTLY COMPACTED INTO THE SHAPE OF A RIGHT TRIANGLE USING A SHOVEL OR WEIGHTED LAWN ROLLER OR BLOWN IN PLACE.

7. FOLLOW MANUFACTURERS' GUIDANCE FOR STAKING. IF MANUFACTURERS' INSTRUCTIONS DO NOT SPECIFY SPACING, STAKES SHALL BE PLACED ON 4' CENTERS AND EMBEDDED A MINIMUM OF 6" INTO THE GROUND, 3" OF THE STAKE SHALL PROTRUDE FROM THE TOP OF THE LOG. STAKES THAT ARE BROKEN PRIOR TO INSTALLATION SHALL BE REPLACED. COMPOST LOGS SHOULD BE STAKED 10' ON CENTER.

SEDIMENT CONTROL LOG MAINTENANCE NOTES

SCL-6

 INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION.
MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

4. SEDIMENT ACCUMULATED UPSTREAM OF SEDIMENT CONTROL LOG SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.

5. SEDIMENT CONTROL LOG SHALL BE REMOVED AT THE END OF CONSTRUCTION.COMPOST FROM COMPOST LOGS MAY BE LEFT IN PLACE AS LONG AS BAGS ARE REMOVED AND THE AREA SEEDED. IF DISTURBED AREAS EXIST AFTER REMOVAL, THEY SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION

(DETAILS ADAPTED FROM TOWN OF PARKER, COLORADO, JEFFERSON COUNTY, COLORADO, DOUGLAS COUNTY, COLORADO, AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

**Temporary and Permanent Seeding (TS/PS)** 

## Description

December 2022

Temporary seeding can be used to stabilize disturbed areas that will be inactive for an extended period. Permanent seeding should be used to stabilize areas at final grade that will not be otherwise stabilized. Effective seeding includes preparation of a seedbed, selection of an appropriate seed mixture, proper planting techniques, and protection of the seeded area with mulch, geotextiles, or other appropriate measures.

**WOOD** 

# **Appropriate Uses**

When the soil surface is disturbed and will remain inactive for an extended period (typically 30 days or longer),

proactive stabilization measures should be implemented. If the inactive period is short-lived (on the order of two weeks), techniques such as surface roughening may be appropriate. For longer periods of inactivity, temporary seeding and mulching can provide effective erosion control. Permanent seeding

Typically, local governments have their own seed mixes and timelines for seeding. Check jurisdictional requirements for seeding and temporary stabilization.

## **Design and Installation**

Effective seeding requires proper seedbed preparation, selection of an appropriate seed mixture, use of appropriate seeding equipment to ensure proper coverage and density, and protection with mulch or fabric until plants are established.

The USDCM Volume 2 Revegetation Chapter contains detailed seed mix, soil preparations, and seeding and mulching recommendations that may be referenced to supplement this Fact Sheet.

Drill seeding is the preferred seeding method. Hydroseeding is not recommended except in areas where steep slopes prevent use of drill seeding equipment, and even in these instances it is preferable to hand seed and mulch. Some jurisdictions do not allow hydroseeding or hydromulching.

## **Seedbed Preparation**

Prior to seeding, ensure that areas to be revegetated have

Temporary and Permane	nt Seeding
Functions	
Erosion Control	Yes
Sediment Control	No
Site/Material Management	No

Urban Drainage and Flood Control District

# Temporary and Permanent Seeding (TS/PS)

soil amendments and rototill them into the soil to a depth of 6 inches or more.

Topsoil should be salvaged during grading operations for use and spread on areas to be revegetated later. Topsoil should be viewed as an important resource to be utilized for vegetation establishment, due to its water-holding capacity, structure, texture, organic matter content, biological activity, and nutrient content. The rooting depth of most native grasses in the semi-arid Denver metropolitan area is 6 to 18 inches. At a minimum, the upper 6 inches of topsoil should be stripped, stockpiled, and ultimately respread across areas that will be revegetated.

Where topsoil is not available, subsoils should be amended to provide an appropriate plant-growth medium. Organic matter, such as well digested compost, can be added to improve soil characteristics conducive to plant growth. Other treatments can be used to adjust soil pH conditions when needed. Soil testing, which is typically inexpensive, should be completed to determine and optimize the types and amounts of amendments that are required.

If the disturbed ground surface is compacted, rip or rototill the surface prior to placing topsoil. If adding compost to the existing soil surface, rototilling is necessary. Surface roughening will assist in placement of a stable topsoil layer on steeper slopes, and allow infiltration and root penetration to greater depth.

Prior to seeding, the soil surface should be rough and the seedbed should be firm, but neither too loose nor compacted. The upper layer of soil should be in a condition suitable for seeding at the proper depth and conducive to plant growth. Seed-to-soil contact is the key to good germination.

## **Seed Mix for Temporary Vegetation**

RECP-8

landscaped or worked for an extended period (typically 30 days or more), plant an annual grass appropriate for the time of planting and mulch the planted areas. Annual grasses suitable for the Denver metropolitan area are listed in Table TS/PS-1. These are to be considered only as general recommendations when specific design guidance for a particular site is not available. Local governments

## **Seed Mix for Permanent Revegetation**

be established. Permanent seeding should be performed promptly (typically within 14 days) after reaching final grade. Each site will have different characteristics and a landscape professional or the local jurisdiction should be contacted to determine the most suitable seed mix for a specific site. In lieu of a specific recommendation, one of the perennial grass mixes appropriate for site conditions and growth season listed in Table TS/PS-2 can be used. The pure live seed (PLS) rates of application recommended in these tables are considered to be absolute minimum rates for seed applied using proper drill-seeding equipment.

nauseosus), fourwing saltbush (Atriplex canescens) and skunkbrush sumac (Rhus trilobata) could be added to the upland seedmixes at 0.25, 0.5 and 1 pound PLS/acre, respectively. In riparian zones, for perennial grasses.

Urban Drainage and Flood Control District

soil conditions capable of supporting vegetation. Overlot grading can result in loss of topsoil, resulting in poor quality subsoils at the ground surface that have low nutrient value, little organic matter content, few soil microorganisms, rooting restrictions, and conditions less conducive to infiltration of precipitation. As a result, it is typically necessary to provide stockpiled topsoil, compost, or other

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June 2012

TS/PS-1

Photograph TS/PS -1. Equipment used to drill seed. Photo courtesy of should be used on finished areas that have not been otherwise stabilized.

**BIODEGRADABLE** 

RECP-7

To provide temporary vegetative cover on disturbed areas which will not be paved, built upon, or fully typically specify seed mixes appropriate for their jurisdiction.

To provide vegetative cover on disturbed areas that have reached final grade, a perennial grass mix should

If desired for wildlife habitat or landscape diversity, shrubs such as rubber rabbitbrush (Chrysothamnus planting root stock of such species as American plum (Prunus americana), woods rose (Rosa woodsii), plains cottonwood (Populus sargentii), and willow (Populus spp.) may be considered. On non-topsoiled upland sites, a legume such as Ladak alfalfa at 1 pound PLS/acre can be included as a source of nitrogen

TS/PS-2

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D

\_\_ CF \_\_\_ CF \_\_\_ CF \_\_

MIN.

1' MIN.

4' MIN.

CF-2

STUDDED STEEL

November 2010

**SM-3** 

PLASTIC CAP, TYP

STUDDED STEEL

CF-1. PLASTIC MESH CONSTRUCTION FENCE

2. CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

3. CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR—GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.

4. STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE.

5. CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND

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- Designate paint and concrete washout areas.
- Establish proper equipment/vehicle fueling and maintenance practices.
- stormwater discharges.
- Develop a spill prevention and response plan.

Acknowledgement: This Fact Sheet is based directly on EPA guidance provided in *Developing Your Stormwater* 

Good housekeeping practices are necessary at all construction sites.

### **Design and Installation**

The following principles and actions should be addressed in SWMPs:

reduce the exposure and transport of pollutants in stormwater from solid, liquid and sanitary wastes that will be generated at the site. Practices such as trash disposal, recycling, proper material handling, and cleanup measures can reduce the potential for stormwater runoff to pick up construction site wastes and discharge them to surface waters. Implement a comprehensive set of waste-management practices for hazardous or toxic materials, such as paints, solvents, petroleum products, pesticides, wood preservatives, acids, roofing tar, and other materials. Practices should include storage, handling, inventory, and cleanup procedures, in case of spills. Specific practices that should be considered include:

### **Solid or Construction Waste**

Designate trash and bulk waste-collection areas on-

Good Housekeeping							
Functions							
Erosion Control	No						
Sediment Control	No						
Site/Material Management	Yes						

GH-1

November 2010

Urban Storm Drainage Criteria Manual Volume 3

## **Construction Fence (CF)**

CONSTRUCTION FENCE INSTALLATION NOTES

SEE PLAN VIEW FOR:

 LOCATION OF CONSTRUCTION FENCE.

MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.

CONSTRUCTION FENCE MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

4. CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

5. WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

# **Good Housekeeping Practices (GH)**

# Description

Implement construction site good housekeeping practices to including these good housekeeping practices:

- Provide for waste management.
- Establish proper building material staging areas.
- Control equipment/vehicle washing and allowable non-

Pollution Prevent Plan (EPA 2007).

### Appropriate Uses

Provide for Waste Management. Implement management procedures and practices to prevent or

Functions	
Erosion Control	No
Sediment Control	No
Site/Material Management	Yes

Photographs GH-1 and GH-2. Proper materials

storage and secondary containment for fuel tanks

are important good housekeeping practices. Photos

Urban Drainage and Flood Control District

# **Good Housekeeping Practices (GH)**

## Spill Prevention, Control, and Countermeasure (SPCC) Plan

Construction sites may be subject to 40 CFR Part 112 regulations that require the preparation and implementation of a SPCC Plan to prevent oil spills from aboveground and underground storage tanks. The facility is subject to this rule if it is a non-transportation-related facility that:

- Has a total storage capacity greater than 1,320 gallons or a completely buried storage capacity greater than 42,000 gallons.
- Could reasonably be expected to discharge oil in quantities that may be harmful to navigable waters of the United States and adjoining shorelines.

Furthermore, if the facility is subject to 40 CFR Part 112, the SWMP should reference the SPCC Plan. To find out more about SPCC Plans, see EPA's website on SPPC at <a href="www.epa.gov/oilspill/spcc.htm">www.epa.gov/oilspill/spcc.htm</a>.

# **Reporting Oil Spills**

In the event of an oil spill, contact the National Response Center toll free at 1-800-424-8802 for assistance, or for more details, visit their website: www.nrc.uscg.mil.

## **Maintenance and Removal**

Effective implementation of good housekeeping practices is dependent on clear designation of personnel responsible for supervising and implementing good housekeeping programs, such as site cleanup and disposal of trash and debris, hazardous material management and disposal, vehicle and equipment maintenance, and other practices. Emergency response "drills" may aid in emergency preparedness.

Checklists may be helpful in good housekeeping efforts.

Staging and storage areas require permanent stabilization when the areas are no longer being used for construction-related activities.

Construction-related materials, debris and waste must be removed from the construction site once construction is complete.

# **Design Details**

See the following Fact Sheets for related Design Details:

MM-1 Concrete Washout Area

MM-2 Stockpile Management

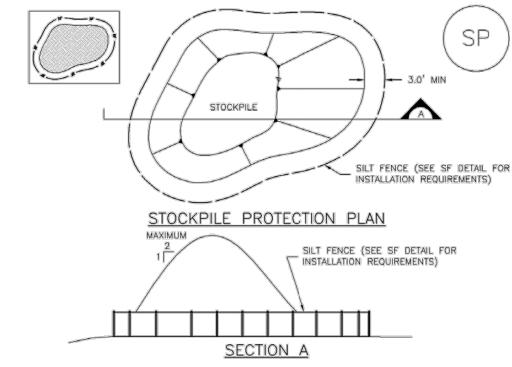
SM-4 Vehicle Tracking Control

Design details are not necessary for other good housekeeping practices; however, be sure to designate where specific practices will occur on the appropriate construction drawings.

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# **Stockpile Management (SP)**

# MM-2



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

SEE PLAN VIEW FOR:
 -LOCATION OF STOCKPILES.
 -TYPE OF STOCKPILE PROTECTION.

2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. 2. INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS.

SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS, HOWEVER, OTHER TYPES OF

PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE

SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE

TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.

3. STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).

4. FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

A POLY LINER -

POLY TARP

SP-2. MATERIALS STAGING IN ROADWAY

-CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.

2. FEATURE MUST BE INSTALLED PRIOR TO EXCAVATION, EARTHWORK OR DELIVERY OF

3. MATERIALS MUST BE STATIONED ON THE POLY LINER, ANY INCIDENTAL MATERIALS DEPOSITED ON PAVED SECTION OR ALONG CURB LINE MUST BE CLEANED UP PROMPTLY.

4. POLY LINER AND TARP COVER SHOULD BE OF SIGNIFICANT THICKNESS TO PREVENT

SPREADING OUT ON THE POLY LINER OR FOR DEMOLITION MATERIALS.

-WHEN OTHER STAGING LOCATIONS AND OPTIONS ARE LIMITED. -OTHER LIMITED APPLICATION AND SHORT DURATION STAGING.

5. SAND BAGS MAY BE SUBSTITUTED TO ANCHOR THE COVER TARP OR PROVIDE BERMING

6. FEATURE IS NOT INTENDED FOR USE WITH WET MATERIAL THAT WILL BE DRAINING AND/OR

POLY TARP

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ORANGE SAFETY

TARP ANCHOR

ROAD CL

1. SEE PLAN VIEW FOR

UNDER THE BASE LINER.

7. THIS FEATURE CAN BE USED FOR:

BERM MATERIAL

MATERIALS STAGING IN ROADWAYS INSTALLATION NOTES

-LOCATION OF MATERIAL STAGING AREA(S).

(TRIANGULAR SILT DIKE,

SEDIMENT CONTROL LOG,

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SP-3

SSA-

SOIL/LANDSCAPE MATERIAL

6" PVC PIPE

FOR DRAINAG IN FLOWLINE

TARP ANCHOR (CINDER

F POLY LINER

- BLOCK, OR 5 GALLON

BUCKET OF WATER)

CURB LINE

# **Stockpile Management (SP)**

## **MM-2**

# **Stockpile Management (SM)**

## MATERIALS STAGING IN ROADWAY MAINTENANCE NOTES

**MM-2** 

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

(DETAILS ADAPTED FROM AURORA, COLORADO)

# **Stockpile Management (SM)**

# STOCKPILE PROTECTION MAINTENANCE NOTES

MM-2

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION, INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

STOCKPILE PROTECTION MAINTENANCE NOTES

4. IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.

5. STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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4. INSPECT PVC PIPE ALONG CURB LINE FOR CLOGGING AND DEBRIS. REMOVE OBSTRUCTIONS

5. CLEAN MATERIAL FROM PAYED SURFACES BY SWEEPING OR VACUUMING.

NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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SHEET **IDENTIFICATION** C-312

**DESIGN** 

**DEVELOPMENT** 

NOT FOR

CONSTRUCTION

**∞** 

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CF-3

GH-6

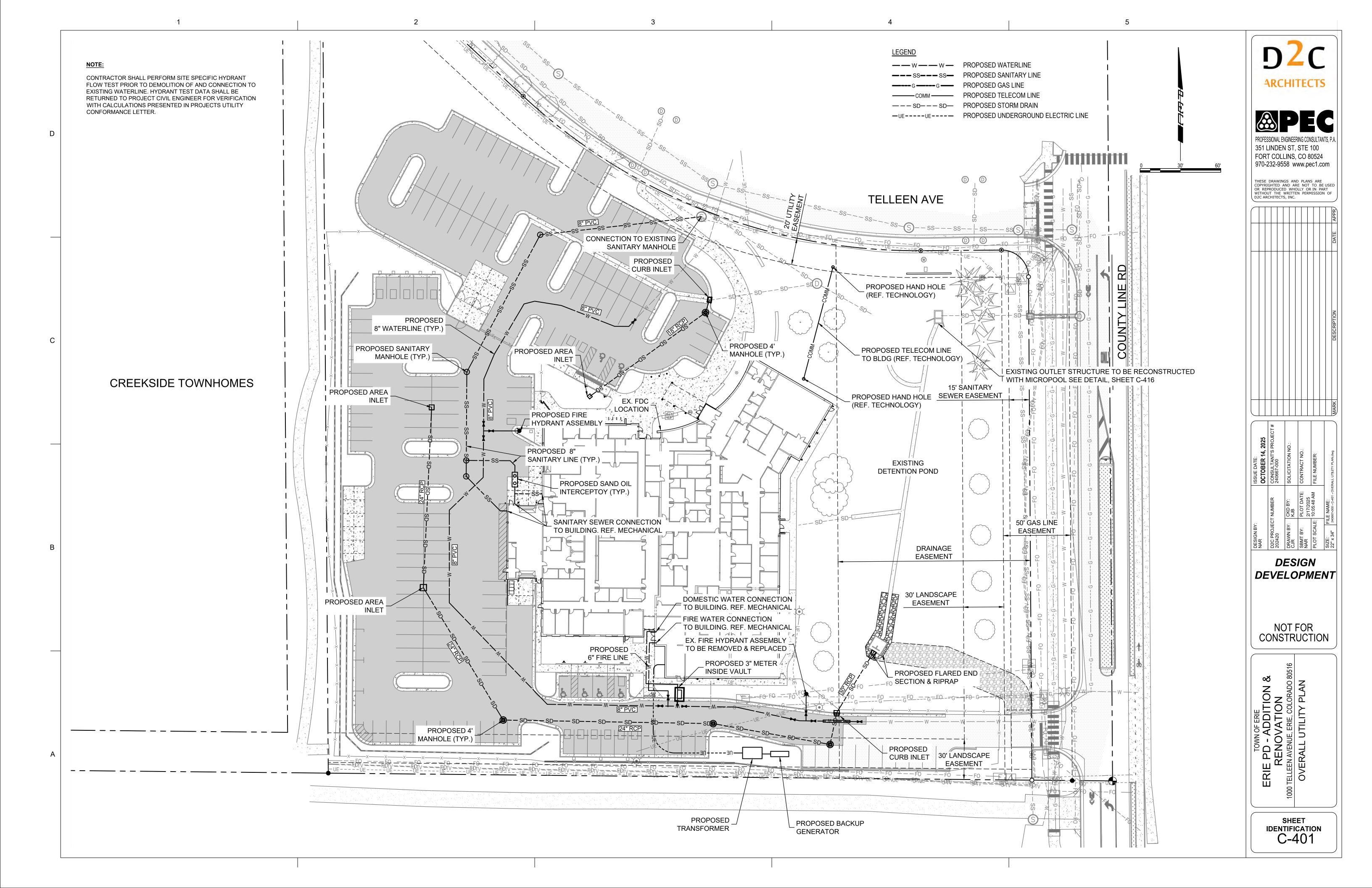
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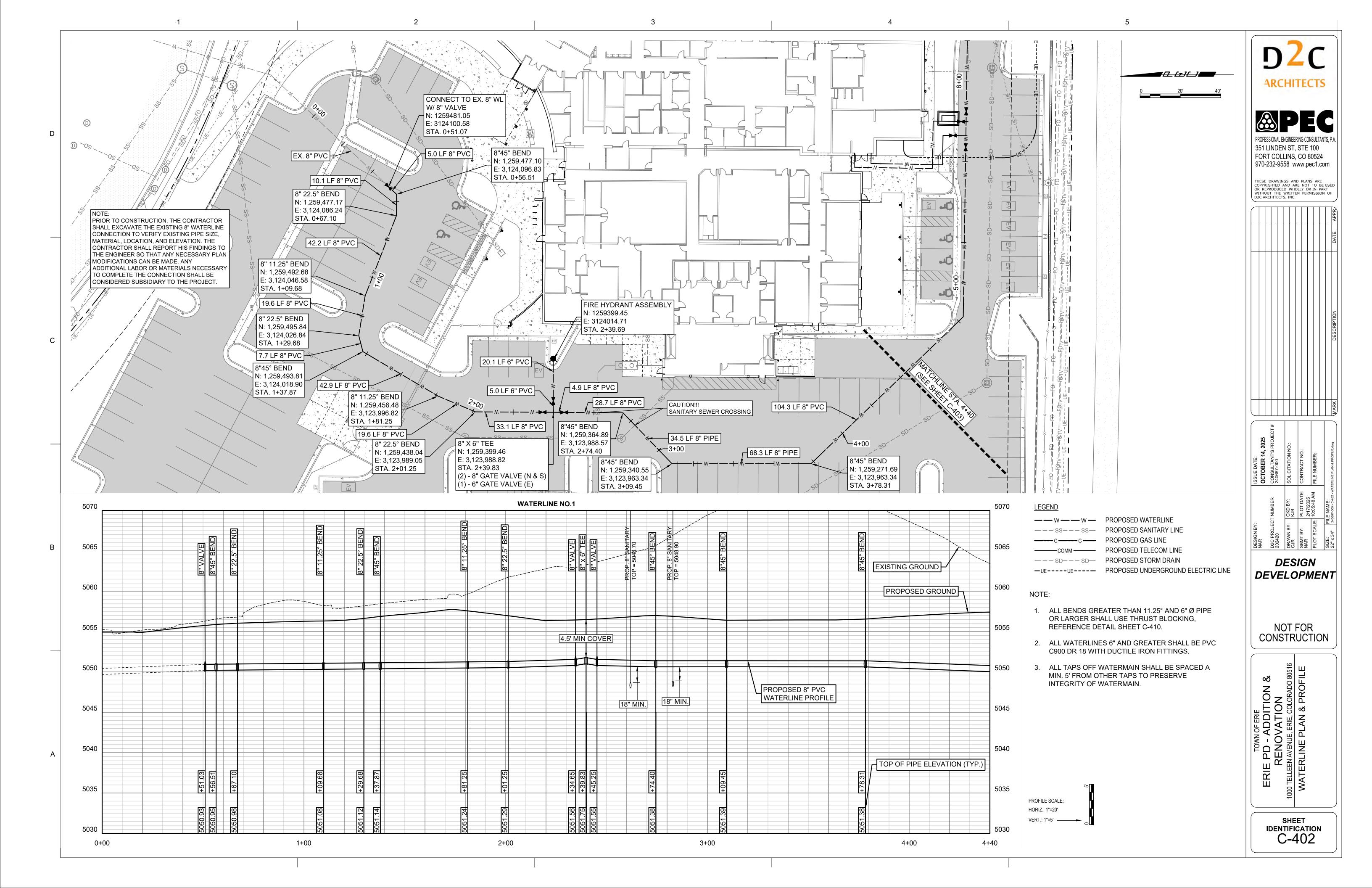
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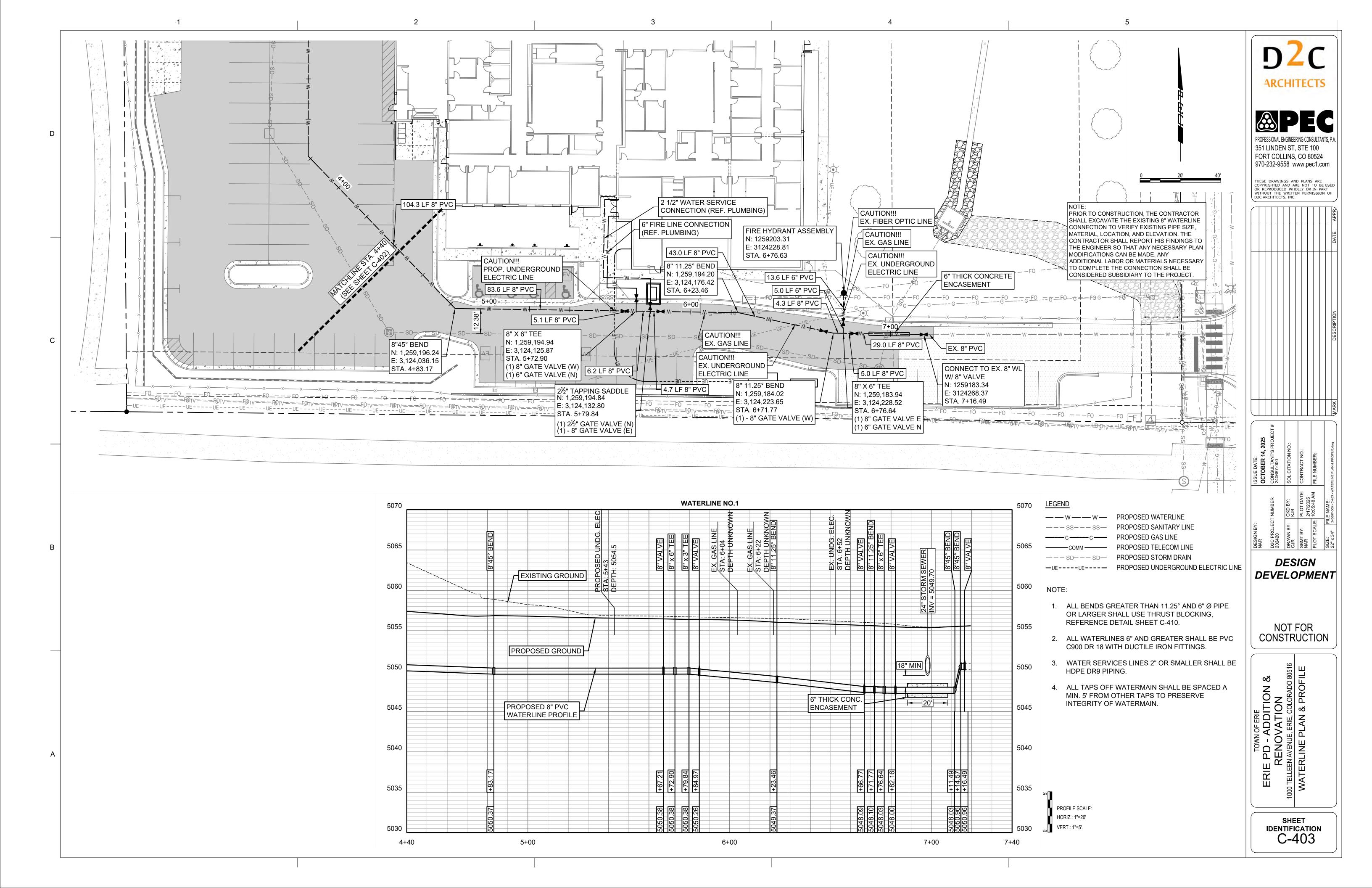
SP-5

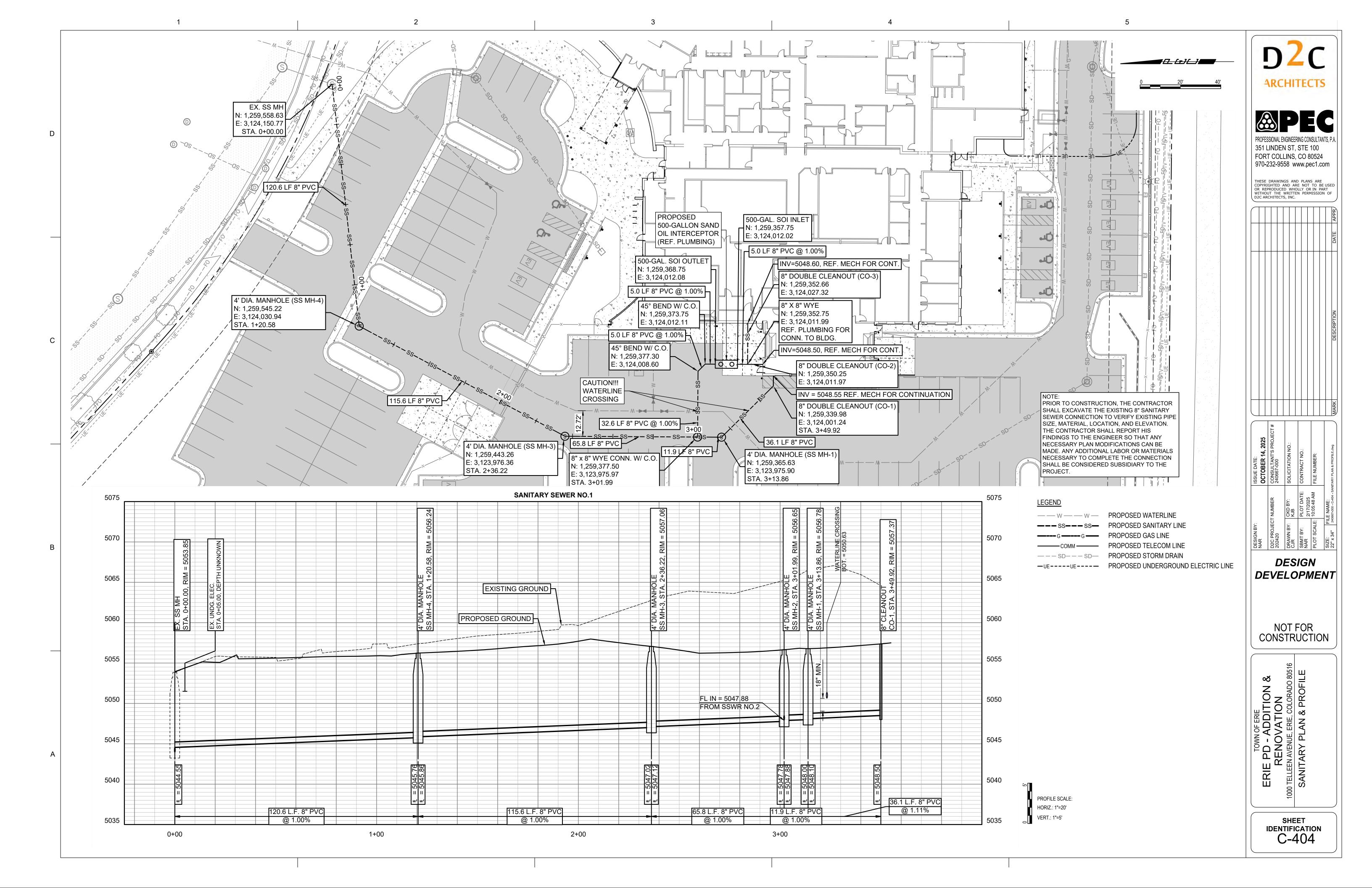
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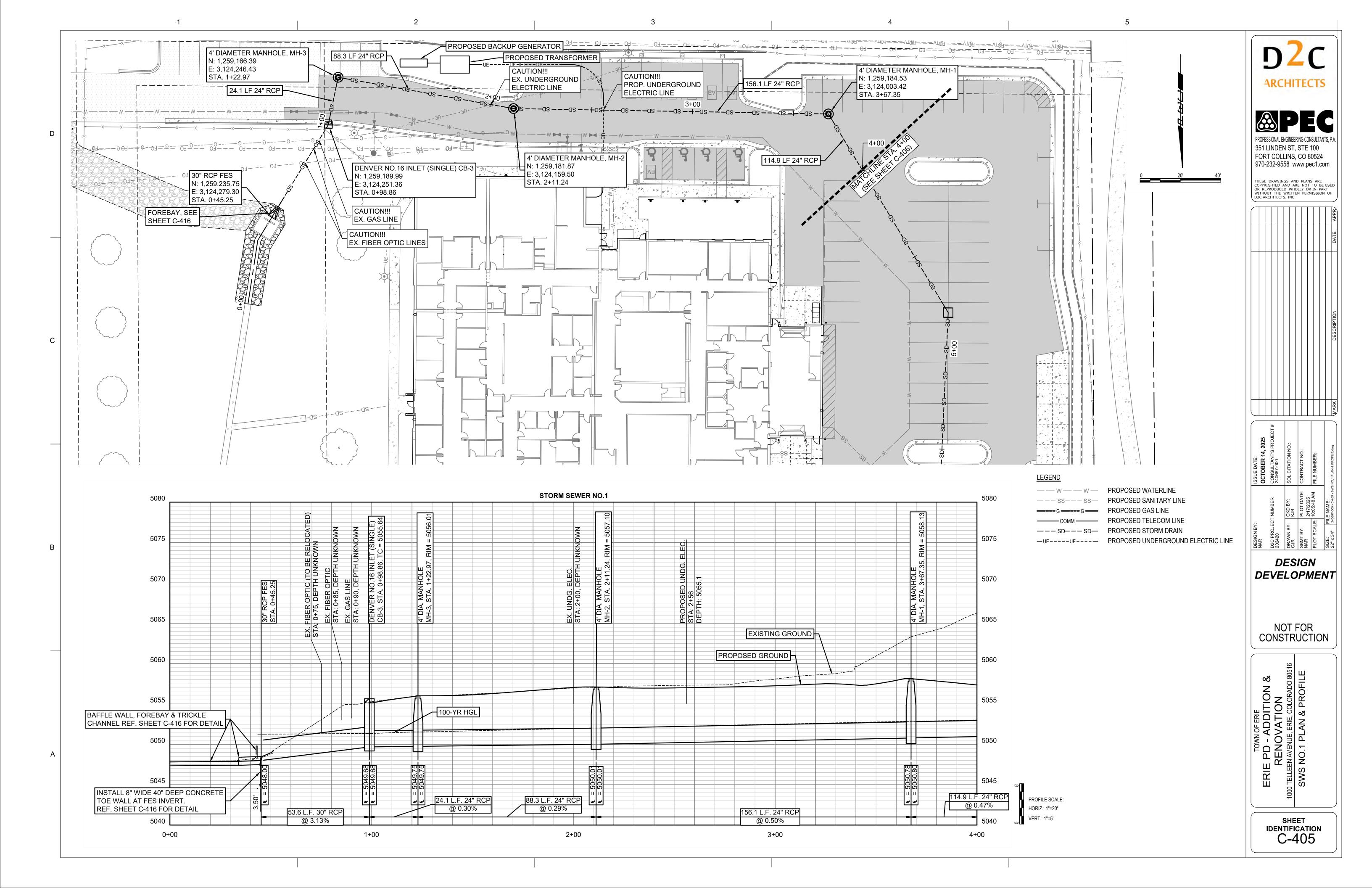
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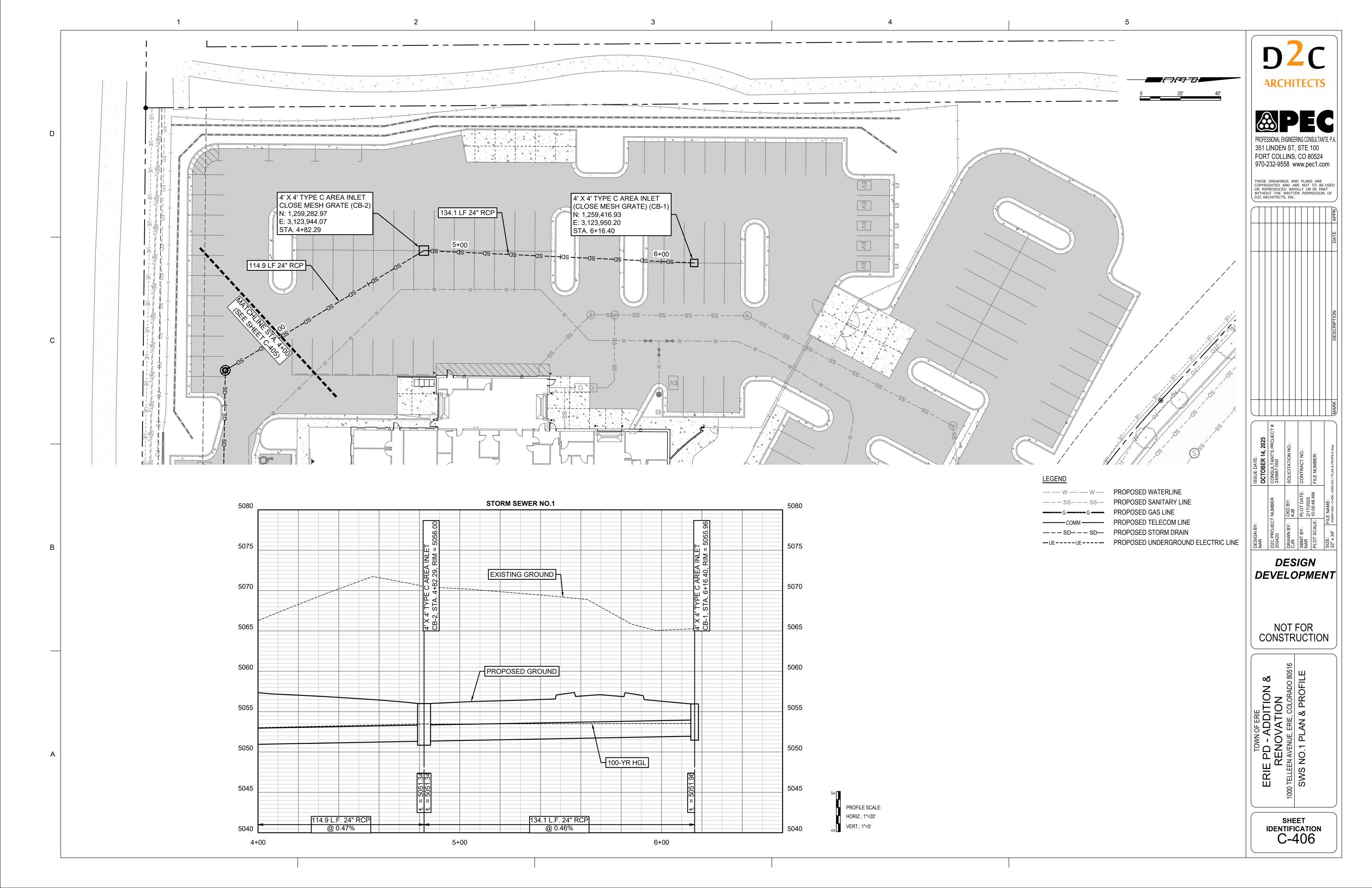


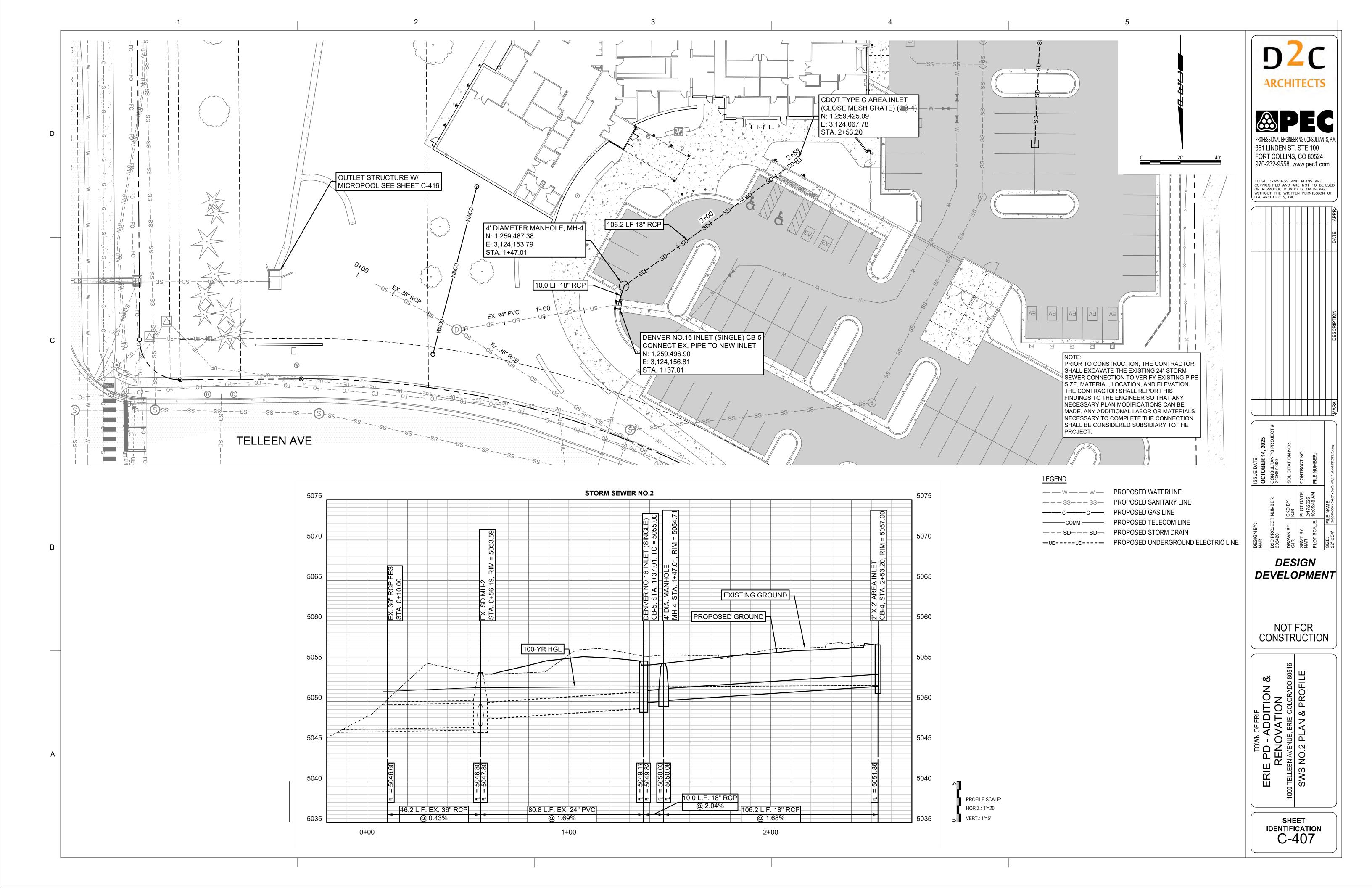


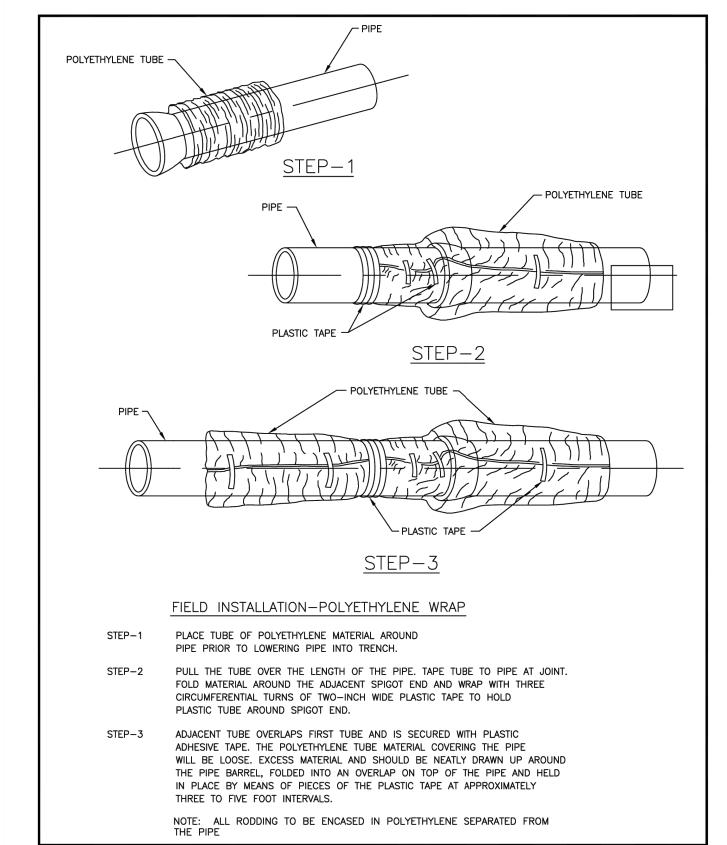












*}//*6\\/\$\\/\$\ BOND BREAKER -BEARING SURFACE -BREAKER <u>11-1/4°, 22-1/2</u>° 45° AND 90° BENDS TYPICAL CROSS SECTION UNDISTURBED SOIL TEE NOTES: 1. SEE THRUST BLOCKING CHART FOR MINIMUM BEARING SURFACE AREAS 2. BASED ON 150 PSI INTERNAL PIPE PRESSURE PLUS WATER HAMMER 4",6",8" AND 12" WATER HAMMER=110 P.S.I. 16",20' AND 24" WATER HAMMER =70 P.S.I. 3. BASED ON 3,000 pfs SOIL BEARING CAPACITY 4. THRUST BLOCKING SHALL BE CAST AGAINST UNDISTURBED EARTH. FORMS SHALL BE USED AS REQUIRED TO OBTAIN ADEQUATE BEARING AND TO CONFINE THE CONCRETE. THRUST BLOCKING SHALL BEAR ON THE FITTING OR END CAP ONLY AND SHOULD NOT BE ALLOWED TO SPILL OVER THE JOINT OR AGAINST THE PIPE



DRAWING TITLE: THRUST BLOCK

DRAWING NUMBER: W14A

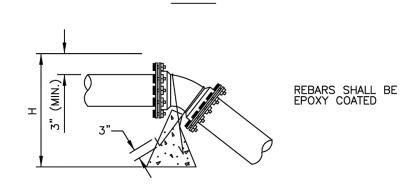
DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 01/2015

DEAD END

#5 REBARS LOOPED OVER BEND. EMBEDMENT LENGTH IN CONCRETE IS EQUAL TO (E) IN TABLE BELOW.

DRAWING TITLE: FIRE HYDRANTS, MAINS & VALVES

DRAWN BY: J. ASCUNCE APPROVED BY: D. PASIC DATE: 10/2024



SIZEOF	11 1/4 DEG.						22	1/2	D	EG.	45 DEG.					
[ ( <u>6</u> )	Ľ	W"	Н"	E"	VOL	L"	W"	Н"	E"	VOL	Ľ	W"	Н"	E"	VOL	
4"	12	24	24	12	4	12	34	34	12	8	22	37	32	22	15	
6"	18	32	27	18	9	15	52	40	15	18	28	64	32	28	33	
8"	21	40	33	21	16	22	61	40	22	31	35	64	45	35	58	
10"	24	50	36	24	25	30	59	48	30	49	42	72	52	42	90	
12"	31	56	36	31	36	36	70	48	36	70	45	80	62	45	129	

- 1. THRUST BLOCKING SHALL BE CAST AGAINST UNDISTURBED EARTH. FORMS SHALL BE USED AS REQUIRED TO OBTAIN ADEQUATE BEARING AND TO CONFINE THE CONCRETE. THRUST BLOCKING SHALL BEAR ON THE FITTING OR END CAP ONLY AND SHOULD NOT BE ALLOWED TO SPILL OVER THE JOINT OR AGAINST THE PIPE.
- VOLUME IS IN CUBIC FEET.
- 3. ALL CONCRETE TO BE 4000 P.S.I. MIN.
- 4. BLOCKS TO BE CENTERED HORIZONTALLY ON THE BEND. 5. DESIGN BASED ON A TEST PRESSURE OF 150 P.S.I. AND SAFETY FACTOR  $(S_f)$  OF 1.5
- 6.  $V_g = S_f PA SIN \Theta$
- $w_{m}$ 7.  $W_{m} = 140 \# / FT^{3}$
- 8. THE DESIGN ENGINEER IS RESPONSIBLE FOR VERIFYING THE ACTUAL SITE CONDITIONS WITH RESPECT TO THE ASSUMPTIONS LISTED ABOVE.

DRAWING TITLE: UPPER VERTICAL THRUST BLOCK

DRAWN BY: R. GROSS APPROVED BY: D. PASIC DATE: 08/2024

TABLE OF BEARING AREAS IN SQ. FT. FOR CONCRETE THRUST BLOCKING FOR 100 P.S.I. INTERNAL STATIC PRESSURE AND 1,000 LBS. PER SQUARE FOOT SOIL BEARING CAPACITY.

DRAWING NUMBER: W9

DRAWING TITLE: POLYETHYLENE WRAP

DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 06/2004

SIZE	BENDS				ZE TEES				TEES *	GATE VALVES	DEAD ENDS	CROSS W/ 1 BRANCH	CROSS W/ 2 BRANCHES
	90°	45°	22-1/2°	11-1/4		VALVES		PLUGGED	PLUGGED				
3	1.0	0.6	0.3	1.0	0.7	0.5	0.7	0.7	0.7				
4	1.8	1.0	0.5	1.0	1.3	0.5	1.3	1.3	1.3				
6	4.0	2.2	1.1	1.0	2.8	0.7	2.8	2.8	2.8				
8	7.1	3.8	2.0 1.0		5.0	2.4	5.0	5.0	5.0				
10	11.1	6.0	3.0	3.0 1.5		4.5	7.8	7.8	7.8				
12	16.0	8.6	4.4	2.2	11.3	7.3	11.3	11.3	11.3				
14	21.7	11.8	6.0	3.0	15.4	11.0	15.4	15.4	15.4				
15	25.0	13.5	7.0	3.5	17.6		17.6	17.6	17.6				
16	28.4	15.3	8.0	4.0	20.0		20.0	20.0	20.0				
18	36.0	19.4	10.0	5.0	25.4	Z.	25.4	25.4	25.4				
20	44.2	24.0	12.2	6.1	31.4	DESIGN	31.4	31.4	31.4				
21	49.0	26.5	13.5	6.8	34.6		34.6	34.6	34.6				
22	54.0	29.0	14.8	7.4	38.0	SPECIAL	38.0	38.0	38.0				
24	64.0	34.5	17.7	8.8	45.0	SP	45.0	45.0	45.0				
30	100.0	54.0	27.6	13.8	71.0		71.0	71.0	71.0				
36	144.0	78.0	40.0	20.0	102.0		102.0	102.0	102.0				

\* SIZE IS BRANCH SIZE

AREAS GIVEN IN TABLE ARE BASED UPON AN INTERNAL STATIC PRESSURE OF 100 P.S.I. AND A SOIL BEARING CAPACITY OF 1,000 LBS. PER SQUARE FOOT. BEARING AREAS FOR ANY PRESSURE AND SOIL BEARING CAPACITY MAY BE OBTAINED BY MULTIPLYING THE TABULATED VALUES BY A CORRECTION FACTOR "F".

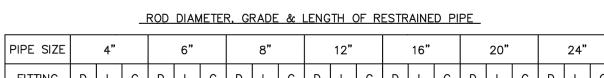
 $F = rac{ACTUAL\ SPECIFIED\ TEST\ PRESSURE\ IN\ HUNDRED\ OF\ LBS.}{ACTUAL\ SOIL\ BEARING\ CAPACITY\ IN\ THOUSANDS\ OF\ LBS.}$ 

EXAMPLE: TO FIND BEARING AREA FOR 8" - 90" BEND WITH A STATIC INTERNAL PRESSURE OF 150 P.S.I. AND WITH A SOIL BEARING CAPACTIY OF 3,000 LBS. PER SQUARE FOOT.

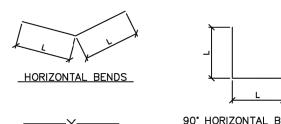
> $F = 1.5 \div 3 = 0.5$  TABULATED VALUE = 7.1 SQUARE FOOT.  $0.5 \times 7.1 = 3.56$  SAY 4 SQUARE FEET OF 2 FOOT LONG BY 2 FOOT HIGH.

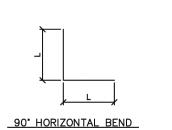


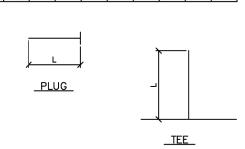
DRAWING TITLE: THRUST BLOCKING CHART DRAWING NUMBER: W14B DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 01/2015



THE SIZE		т_			U			U		12			10				20				
FITTING	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G	D	L	G
90° BEND, TEE, PLUG	3/4"	30'	MS	3/4"	45'	MS	3/4"	60'	MS	3/4"	86'	мѕ	1"	108'	HS	1 1/4"	132'	HS	-	155'	-
VALVE	-	-	-	-	-	-	-	-	-	-	-	-	1"	108'	нѕ	1 1/4"	132'	нѕ	-	155'	-
45° BEND	3/4"	9'	MS	3/4"	13'	MS	3/4"	18'	MS	3/4"	25'	MS	1"	32'	MS	3/4"	39'	нѕ	-	45'	-
22 1/2° BEND	3/4"	1'	MS	3/4"	4'	MS	3/4"	5'	MS	3/4"	7'	MS	3/4"	8'	MS	3/4"	10'	MS	-	12'	-
11 1/4° BEND	-	-	-	-	-	-	3/4"	1'	MS	3/4"	2'	MS	3/4"	2'	MS	3/4"	3'	MS	-	3'	-







- 1. LENGTH OF RESTRAINED PIPE MEASURED EACH WAY FROM VALVES AND BENDS. 2. CLAMPS AND RODS NOT ALLOWED FOR 24" & LARGER PIPES.
- 3. D=DIAMETER, L=LENGTH, G=GRADE, MS=MILD STEEL, HS=HIGH STRENGTH.
- MIN 4.5' GROUND COVER REQD. BASED ON 150 PSI INTERNAL PRESSURE.
- 6. MS = MILD STEEL ROD ASTM A 36.
- 7. HS = HIGH STRENGTH ROD ASTM A 193 GRADE B7.
- 8. NUTS SHALL BE ASTM A 307 GRADE A OR B HEXAGON HEAVY SERIES. HS NUTS SHALL CONFORM TO MS-22.
- 9. LENGTH REFERS TO THE AMOUNT OF PIPE WHICH MUST BE RESTRAINED TOGETHER. 10. LENGTH OF RESTRAINED PIPE CHART IS ALSO FOR THE LENGTH OF JOINT RESTRAINT FOR MEGALUGS.
- 11. TEES & CROSSES MUST BE RESTRAINED IN ALL APPLICABLE DIRECTIONS.
- 12" AND SMALLER IN LINE VALVES AND TEES SHALL HAVE A MECHANICAL JOINT RESTRAINT DEVICE ON EACH SIDE OF THE FITTING OR VALVE. 13. A SECOND VALVE WILL BE REQD TO BE CLOSED WHEN EXCAVATING NEXT TO A EXIST VALVE.
- 14. WHEN REDUCERS ARE USED ON VALVE INSTALLATIONS THE LENGTH OF RESTRAINT SHALL BE BASED ON THE SIZE OF THE PIPE NOT THE SIZE OF THE VALVE.
- 15. ALL REDUCERS/INCREASERS SHALL HAVE MECHANICAL RESTRAINT DEVICES ON EACH SIDE OF FITTING.
- PIPE JOINT RESTRAINT MAY BE ACCOMPLISHED USING HARNESS RODS, MECHANICAL JOINT RESTRAINT OR RESTRAINED JOINT PIPE AND FITTINGS. 17. AN ANALYSIS OF THE NECESSARY RESTRAINT LENGTH FOR PIPE LARGER THAN 24" SHALL BE SUBMITTED TO THE PUBLIC WORKS DEPT FOR REVIEW AND APPROVAL ON A CASE BY CASE BASIS.





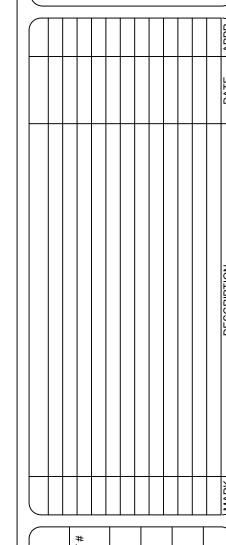
DRAWING TITLE: RESTRAINED PIPE LENGTHS DRAWING NUMBER: W16 DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 01/2015 **ARCHITECTS** 



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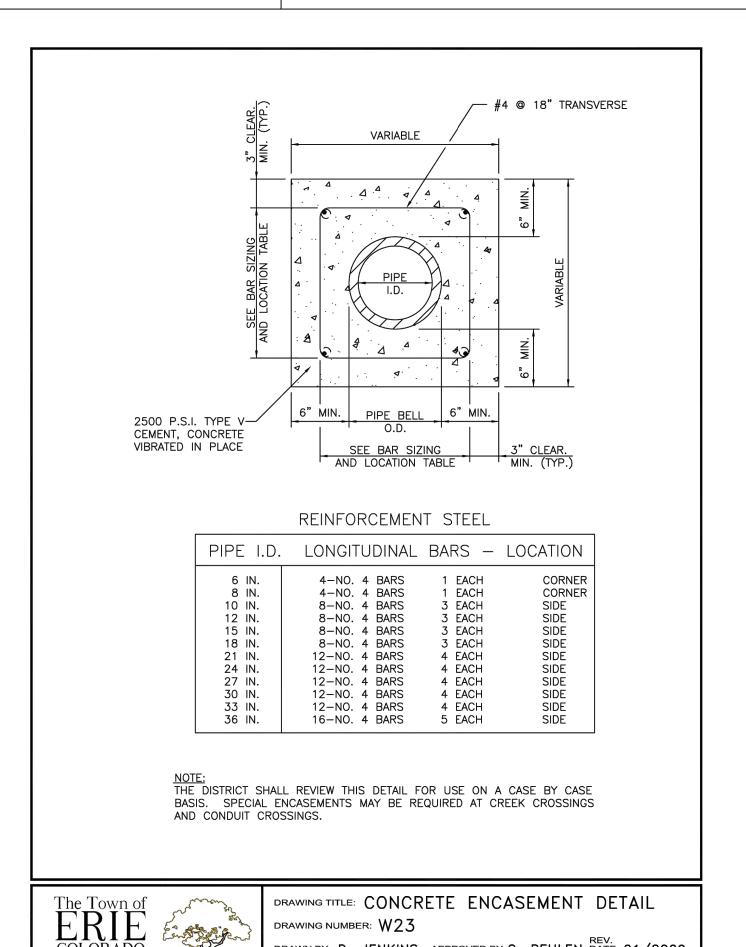


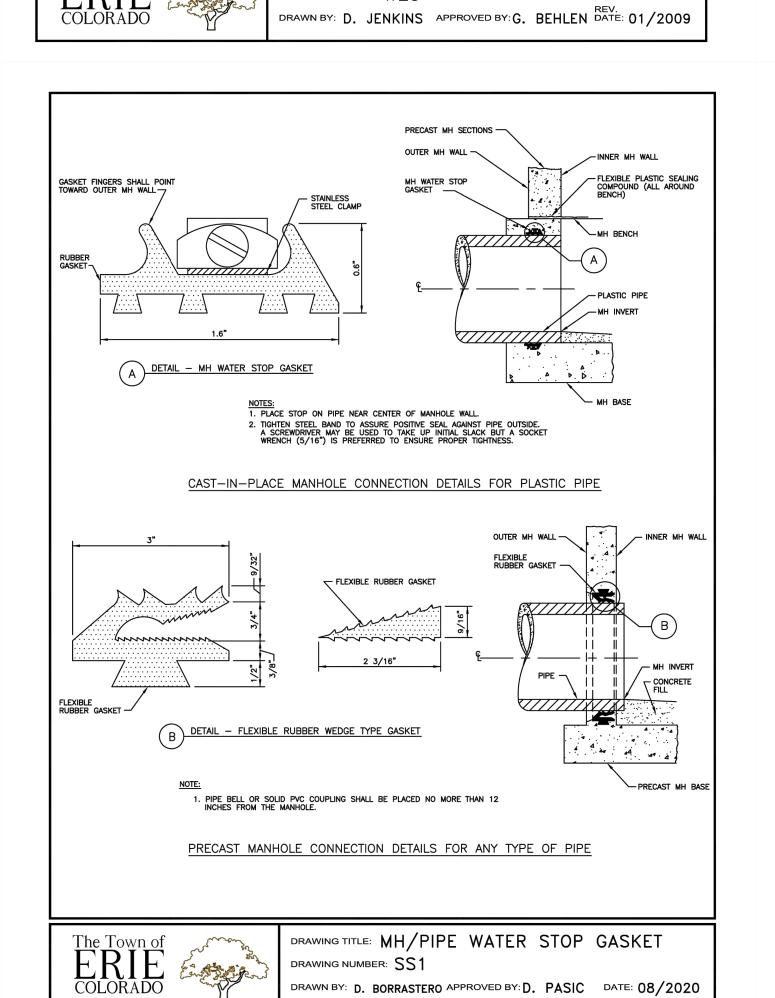
**DESIGN** DEVELOPMENT

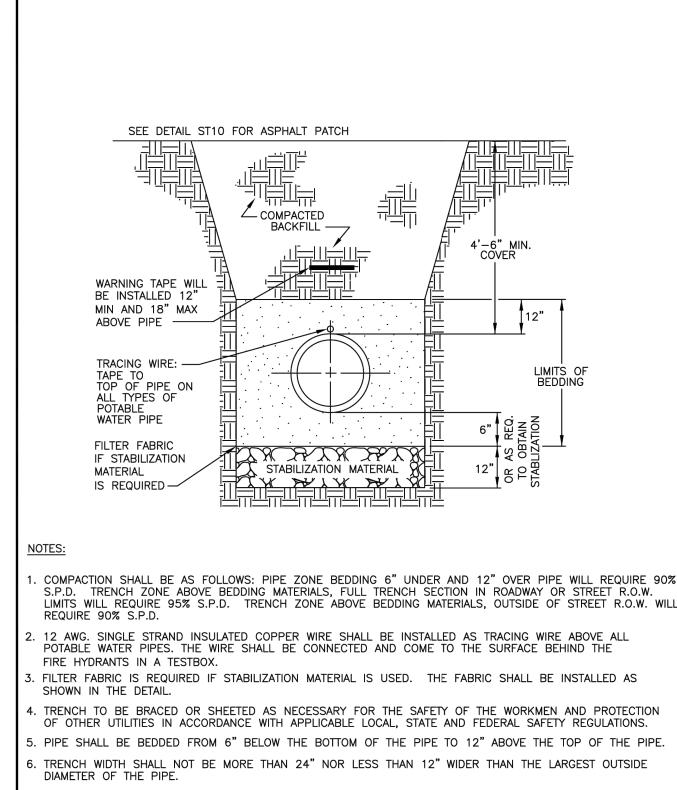
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UTILITY DETAILS

SHEET **IDENTIFICATION** C-410









BENCH MUST HAVE A BRUSHED, NON-SKID SURFACE.

8. A MINIMUM OF 0.2' AND MAXIMUM OF 18" FALL REQUIRED FROM INLET TO OUTLET

9. MANHOLES NOT IN ASPHALT OR CONCRETE SHALL BE RAISED 6" ABOVE FINAL GRADE AND A CONCRETE COLLAR INSTALLED WITH A GREEN CARSONITE POST

DRAWING TITLE: STANDARD MANHOLE

DRAWN BY: D. BORRASTERO APPROVED BY: D. PASIC DATE: 08/2021

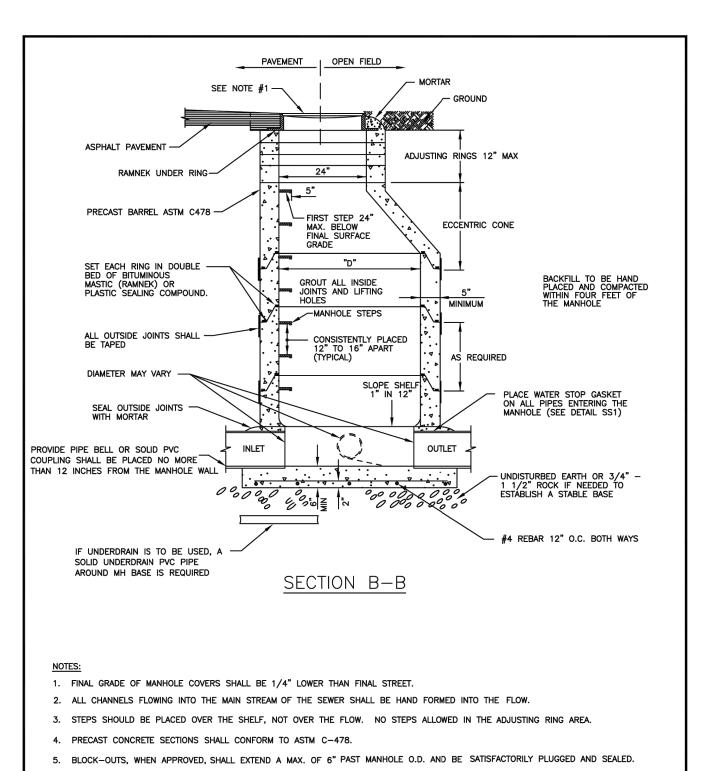
DRAWING NUMBER: SS3A (1 OF 2)

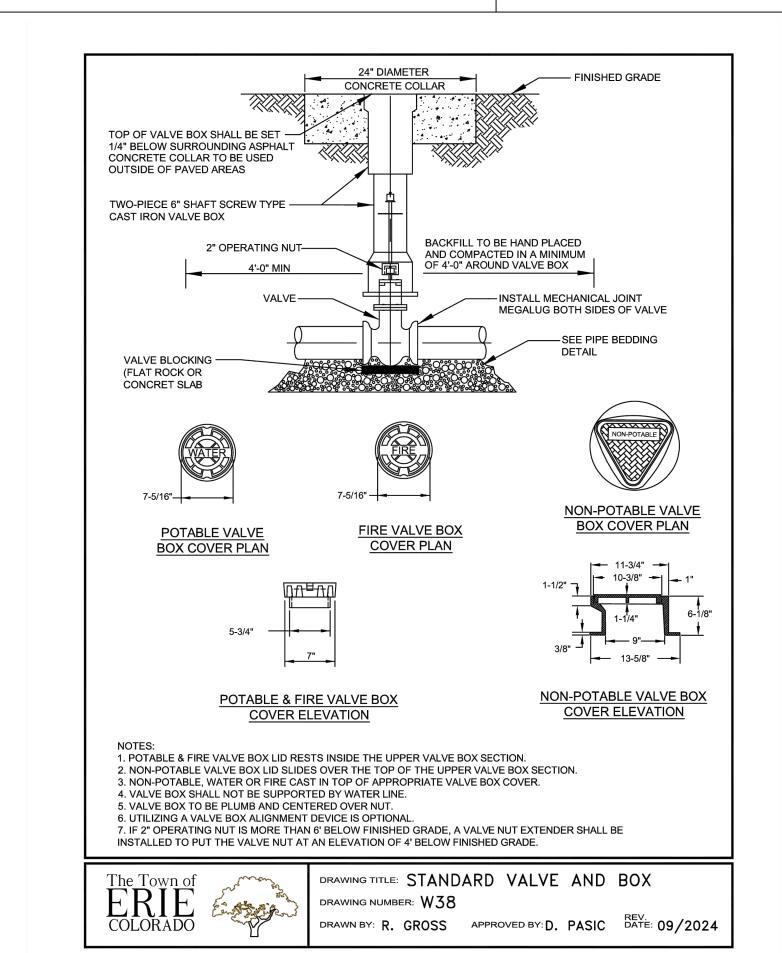
7. BENCH IS TO BE EVEN WITH TOP OF PIPES

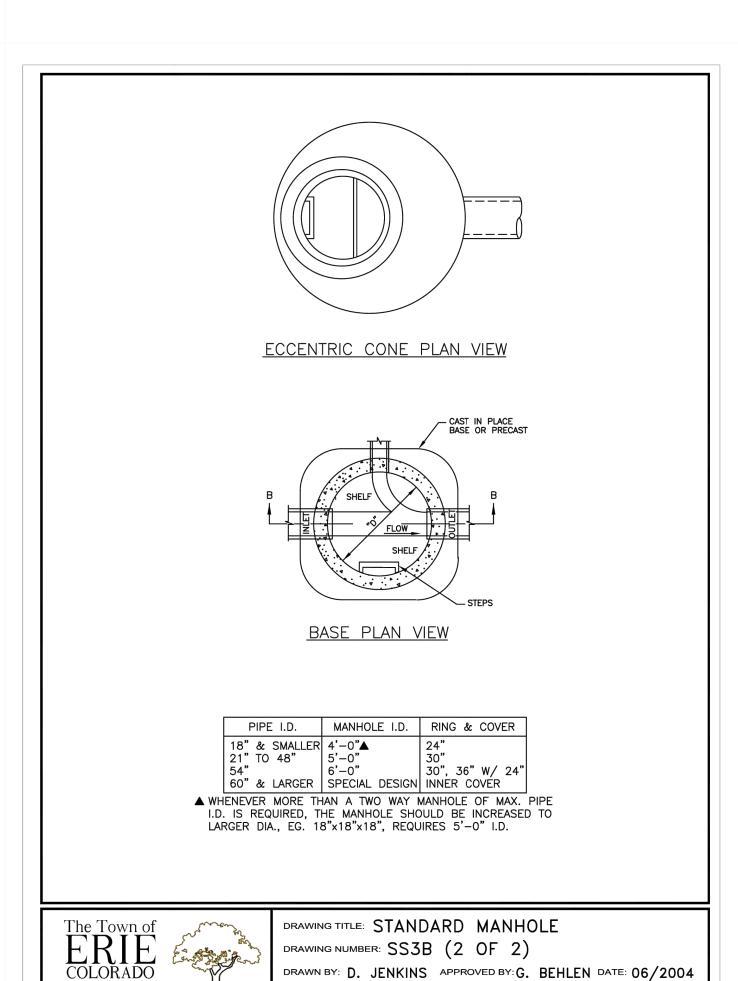
DRAWING TITLE: WATER TRENCH DETAIL

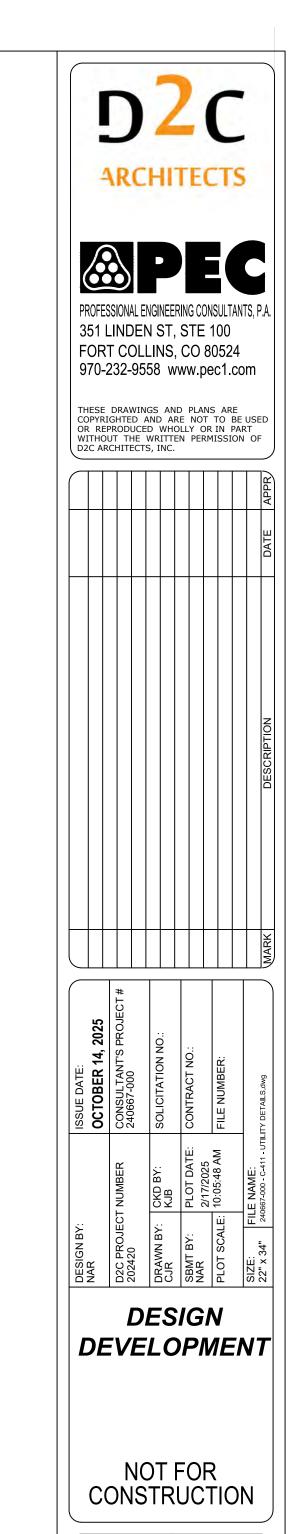
DRAWING NUMBER: W35

DRAWN BY: J. ASCUNCE APPROVED BY: R. PENNINGTON DATE: 09/2017



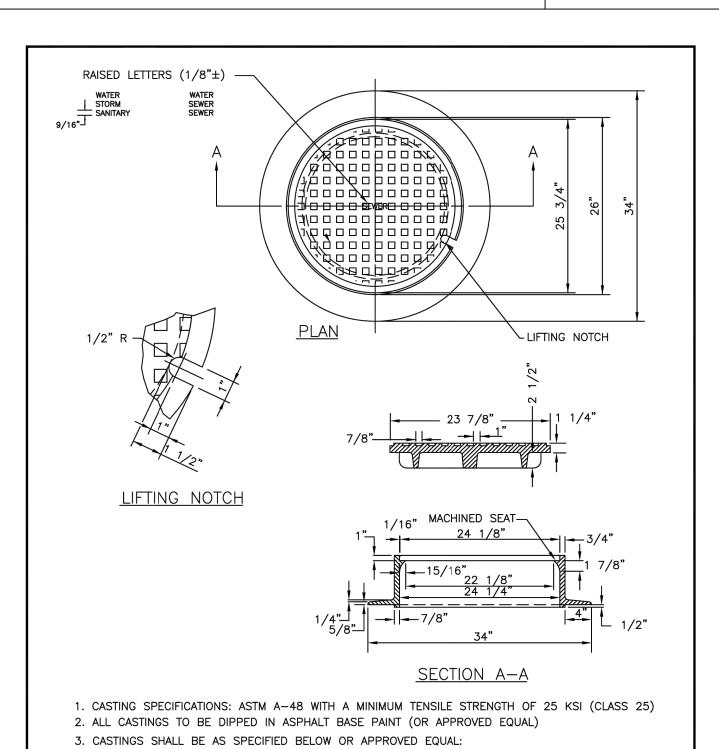






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THE FOLLOWING "CAUTION CONFINED SPACE; ENTRY PERMIT REQUIRED. DRAWING TITLE: 24" MANHOLE RING AND COVER

4. ALL NEW MANHOLES MUST INCLUDE A PLASTIC OR VINYL TAG ATTACHED TO THE TOP STEP STATING

MH-400-24 C.I.

HUTCHINSON FDRY. & STL. INC. MH-400

CASTINGS, INC.

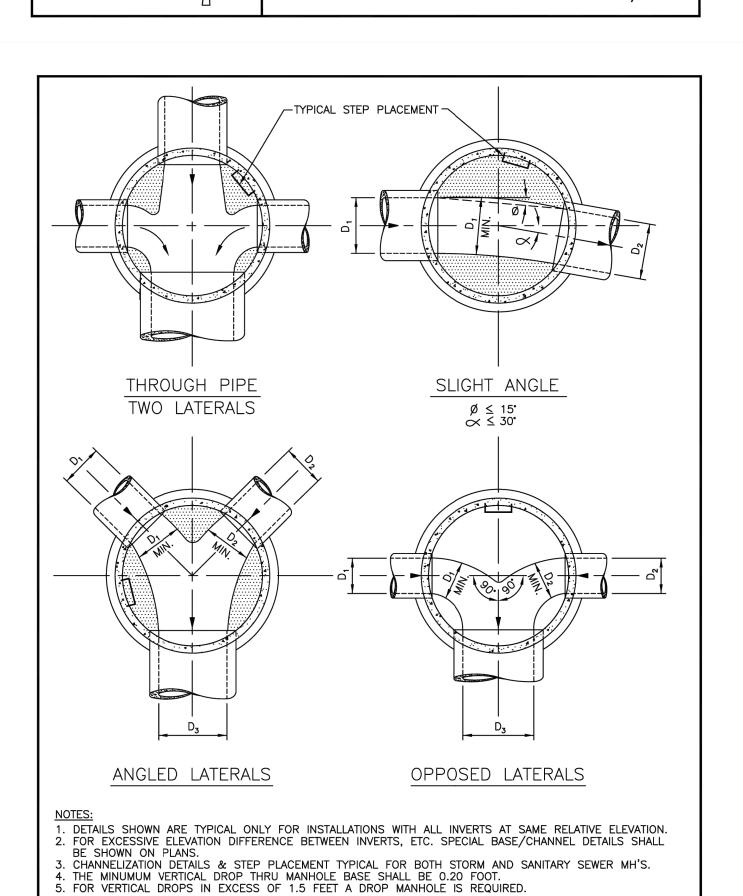
DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 1/2015

DRAWING TITLE: TYPICAL MH BASE CHANNELIZATION

DRAWN BY: D. BORRASTERO APPROVED BY: D. PASIC DATE: 08/2020

(2 OF 2)

DRAWING NUMBER: SS11B



SEE DETAIL ST10 FOR ASPHALT PATCH COMPACTED 3M UTILITY MARKER -MAX. DEPTH OF 8' FILTER FABRIC IF STABILIZATION STABILIZATION MATERIAL MATERIAL IS REQUIRED — NOTES:

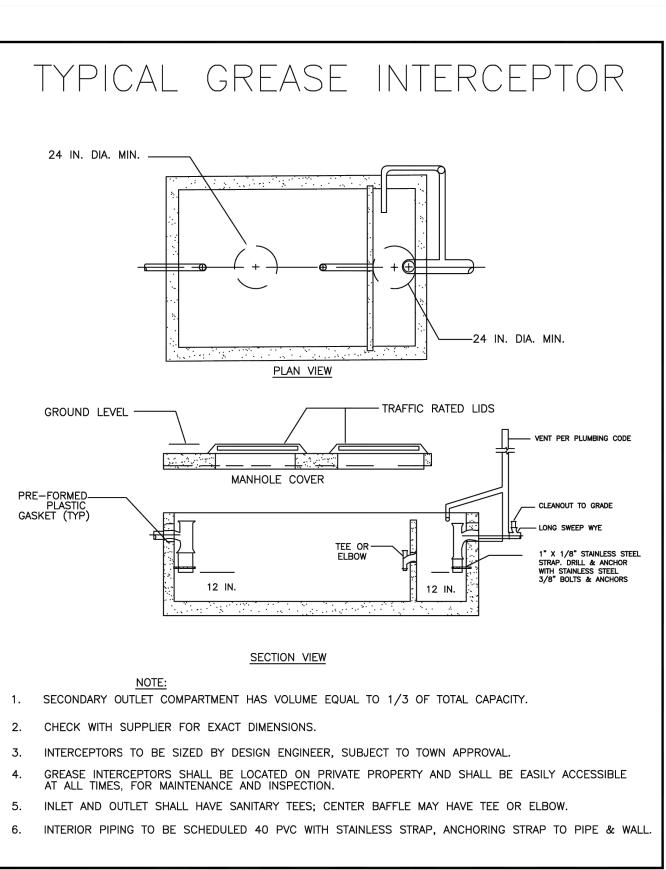
1. COMPACTION SHALL BE AS FOLLOWS: PIPE ZONE BEDDING 6" UNDER AND 12" OVER PIPE WILL REQUIRE 90% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, FULL TRENCH SECTION IN ROADWAY OR STREET R.O.W. LIMITS WILL REQUIRE 95% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, OUTSIDE OF STREET R.O.W. WILL REQUIRE 90% S.P.D.

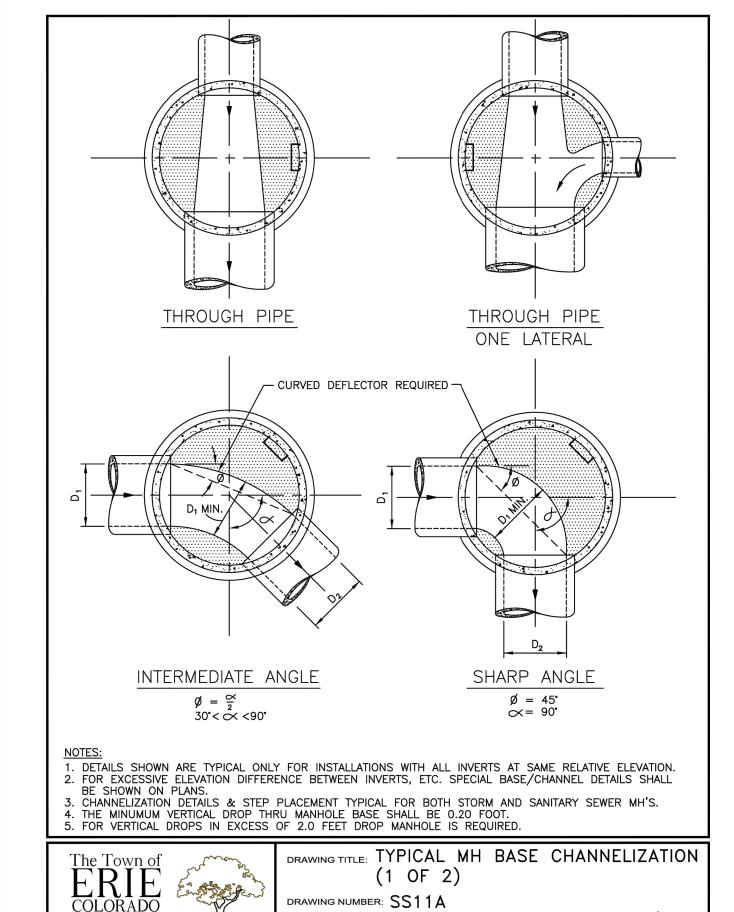
- 2. FILTER FABRIC IS REQUIRED IF STABILIZATION MATERIAL IS USED. THE FABRIC SHALL BE INSTALLED AS
- . TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.
- . PIPE SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO 12" ABOVE THE TOP OF THE PIPE.
- TRENCH WIDTH SHALL NOT BE MORE THAN 24" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE DIAMETER OF THE PIPE.
- SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED, A CONCRETE CRADLE SHALL BE PLACED WITH 2500 P.S.I. CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.

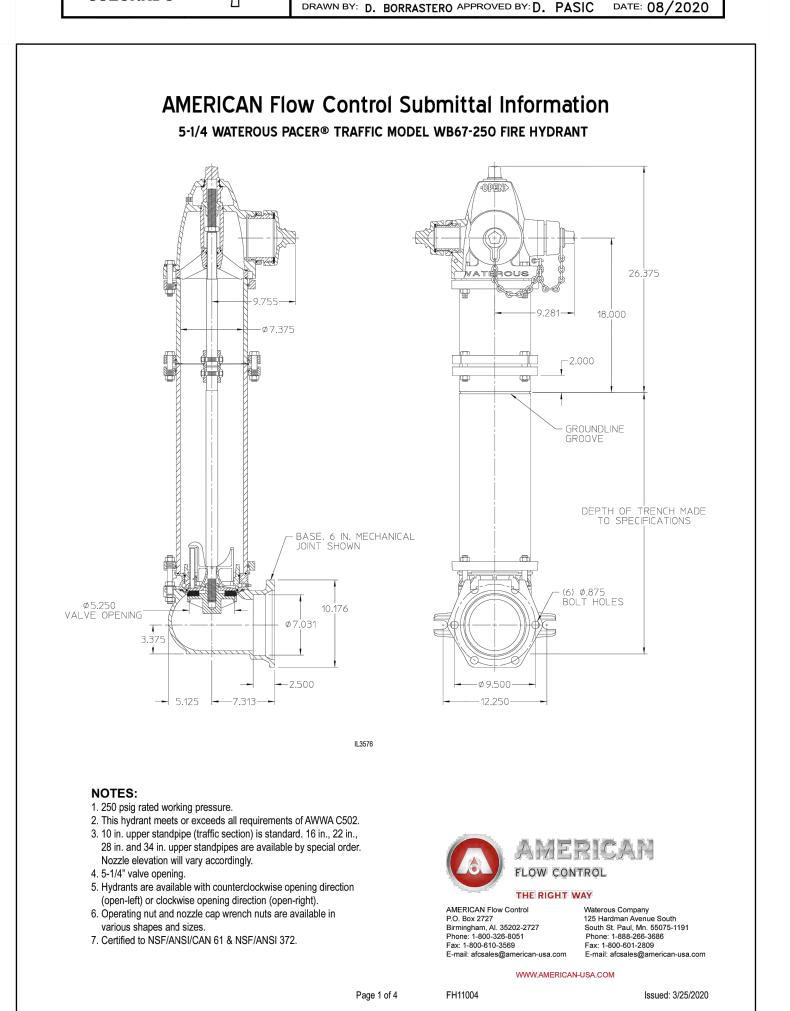


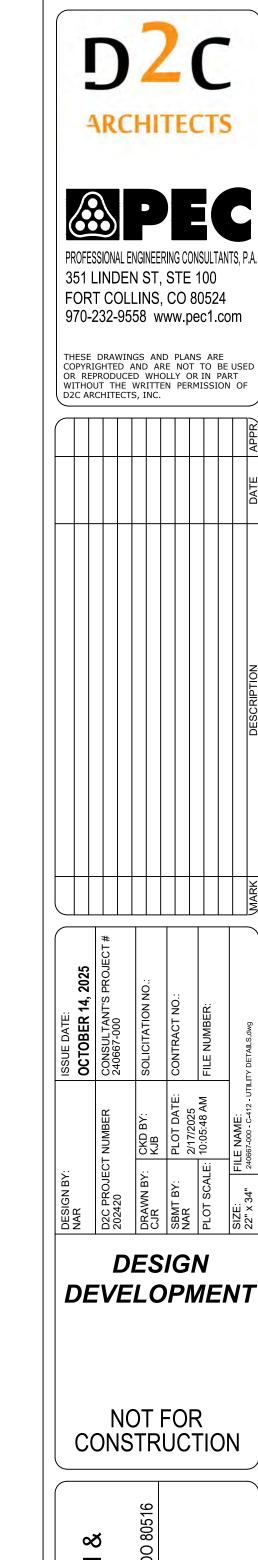
DRAWING TITLE: SANITARY SEWER TRENCH DETAIL DRAWING NUMBER: \$\$8

DRAWN BY: D. BORRASTERO APPROVED BY: D. PASIC DATE: 09/2022



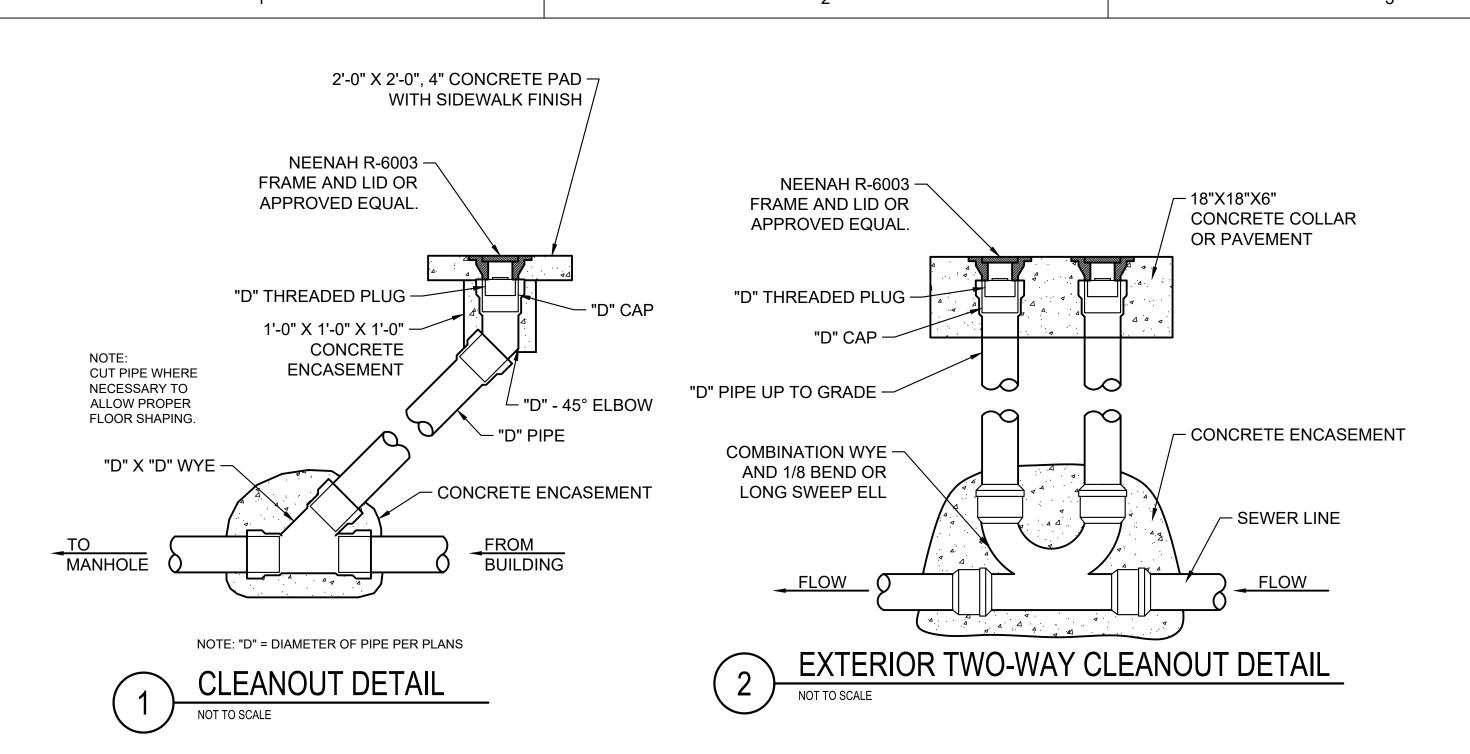


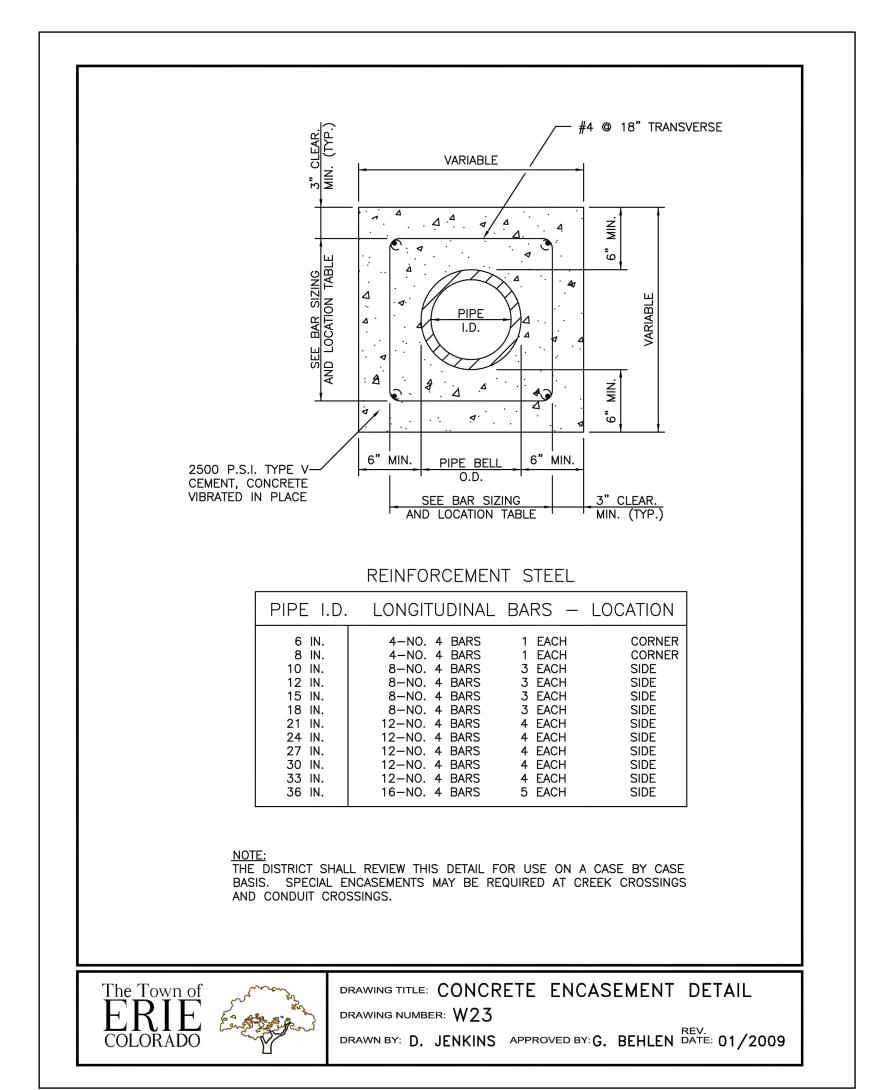




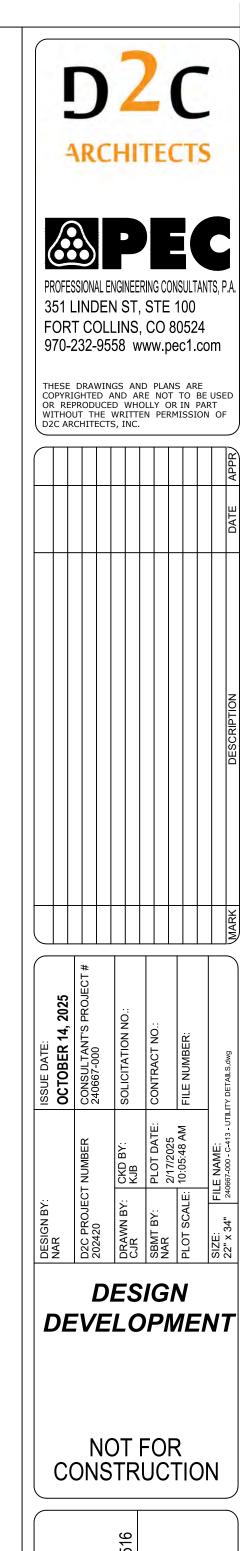
SHEET **IDENTIFICATION** C-412

DRAWING TITLE: GREASE INTERCEPTOR DRAWING NUMBER: \$\$22 DRAWN BY: D. BORRASTERO APPROVED BY: D. PASIC DATE: 08/2020





D

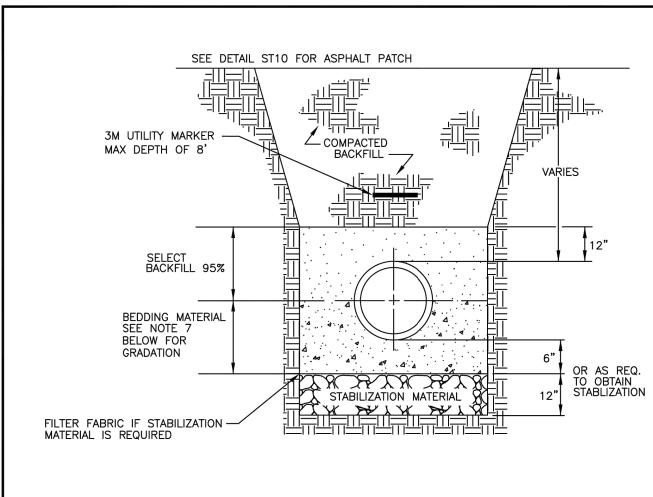


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DRAWING TITLE: STANDARD MANHOLE DRAWING NUMBER: STM1A

DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 01/2012

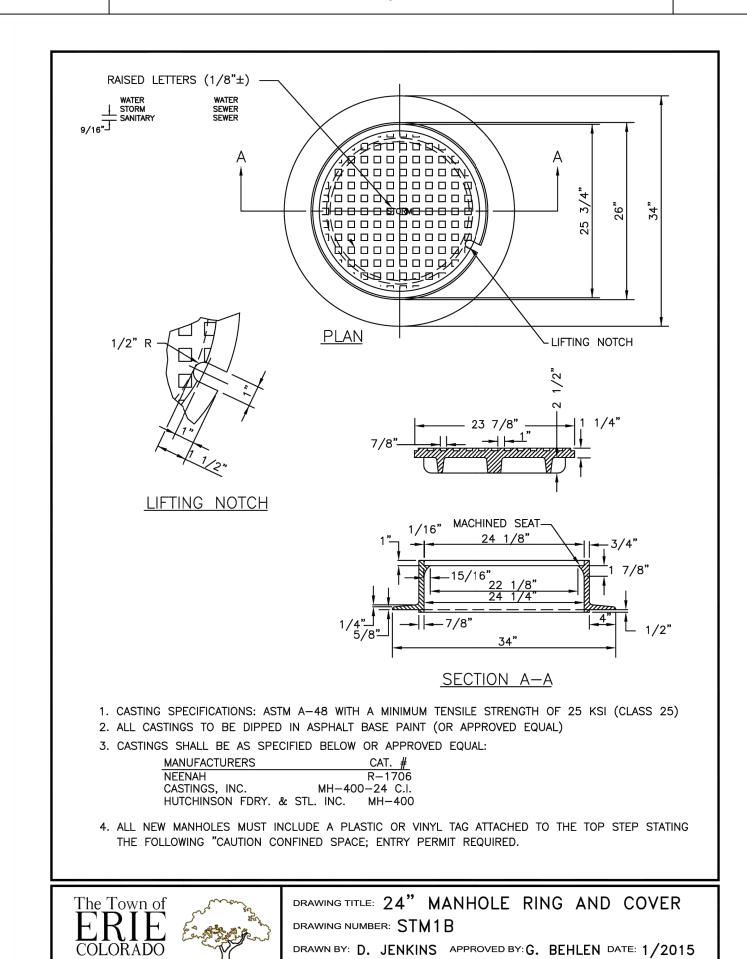


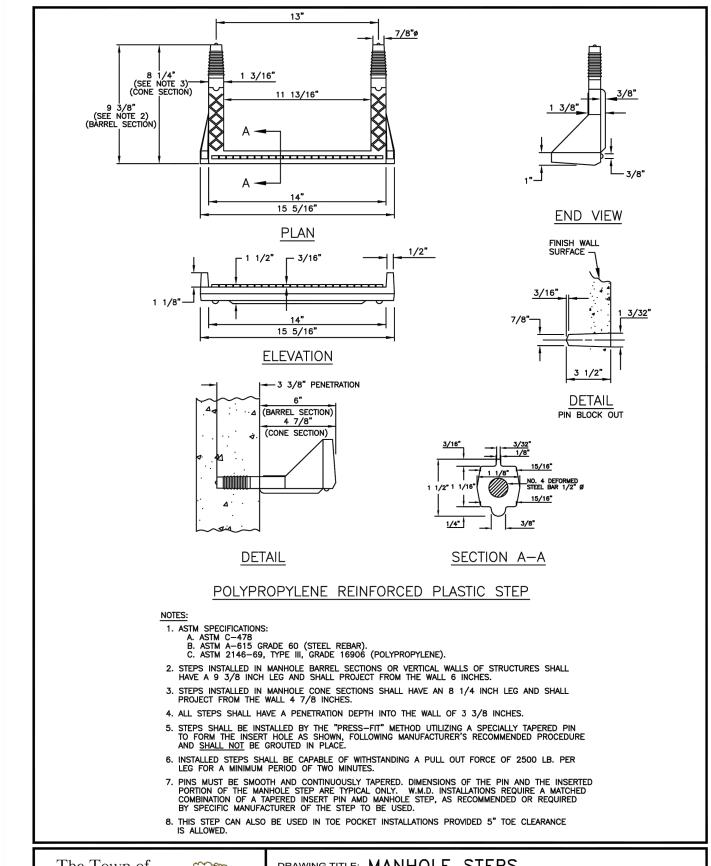
- . PIPE SHALL BE BEDDED FROM 6" BELOW THE BOTTOM OF THE PIPE TO THE HORIZONTAL CENTERLINE OF
- . TRENCH WIDTH SHALL NOT BE MORE THAN 24" NOR LESS THAN 12" WIDER THAN THE LARGEST OUTSIDE
- . SHOULD THE TRENCH BE EXCAVATED WIDER THAN ALLOWED, A CONCRETE CRADLE SHALL BE PLACED WITH 2500 P.S.I. CONCRETE FROM TRENCH BOTTOM TO PIPE SPRINGLINE.
- BEDDING MATERIAL SHALL MEET THE GRADATION OF CDOT "NO.67 COARSE AGGREGATE" AS SPECIFIED



DRAWING TITLE: STORM SEWER TRENCH DETAIL (RCP) DRAWING NUMBER: STM5

DRAWN BY: D. BORRASTERO APPROVED BY: D. PASIC DATE: 09/2022

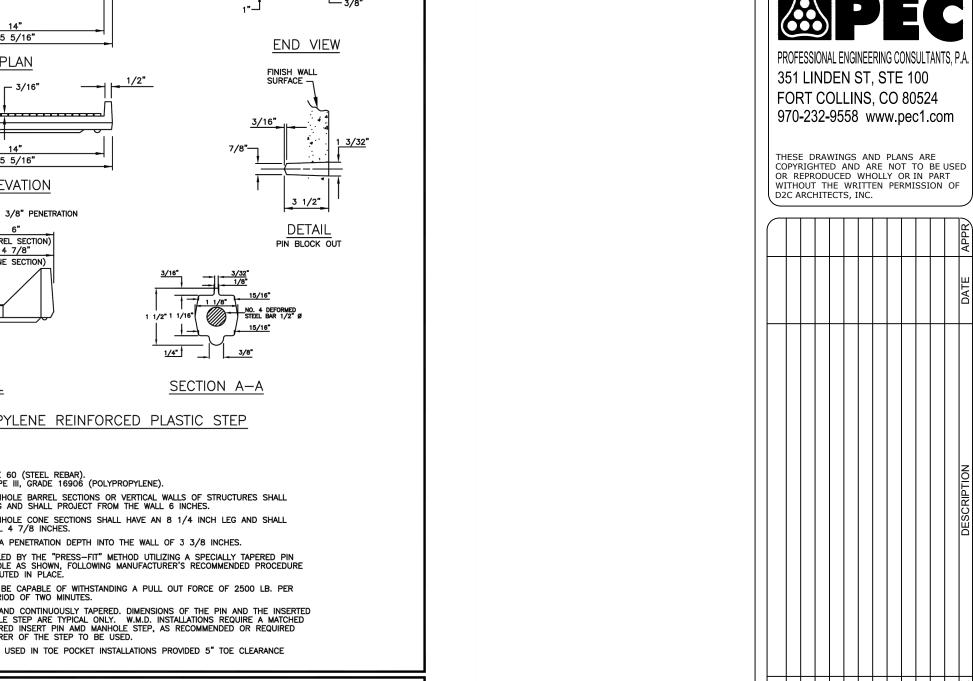


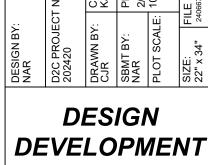




DRAWING TITLE: MANHOLE STEPS

DRAWING NUMBER: STM2 DRAWN BY: D. JENKINS APPROVED BY: G. BEHLEN DATE: 06/2004



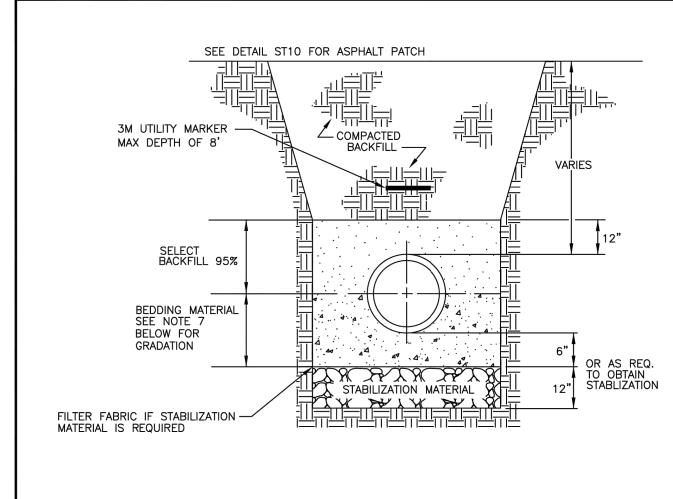


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FULL TRENCH SECTION IN ROADWAY OR STREET R.O.W. LIMITS WILL REQUIRE 95% S.P.D. TRENCH ZONE ABOVE BEDDING MATERIALS, OUTSIDE OF STREET R.O.W. WILL REQUIRE 90% S.P.D.

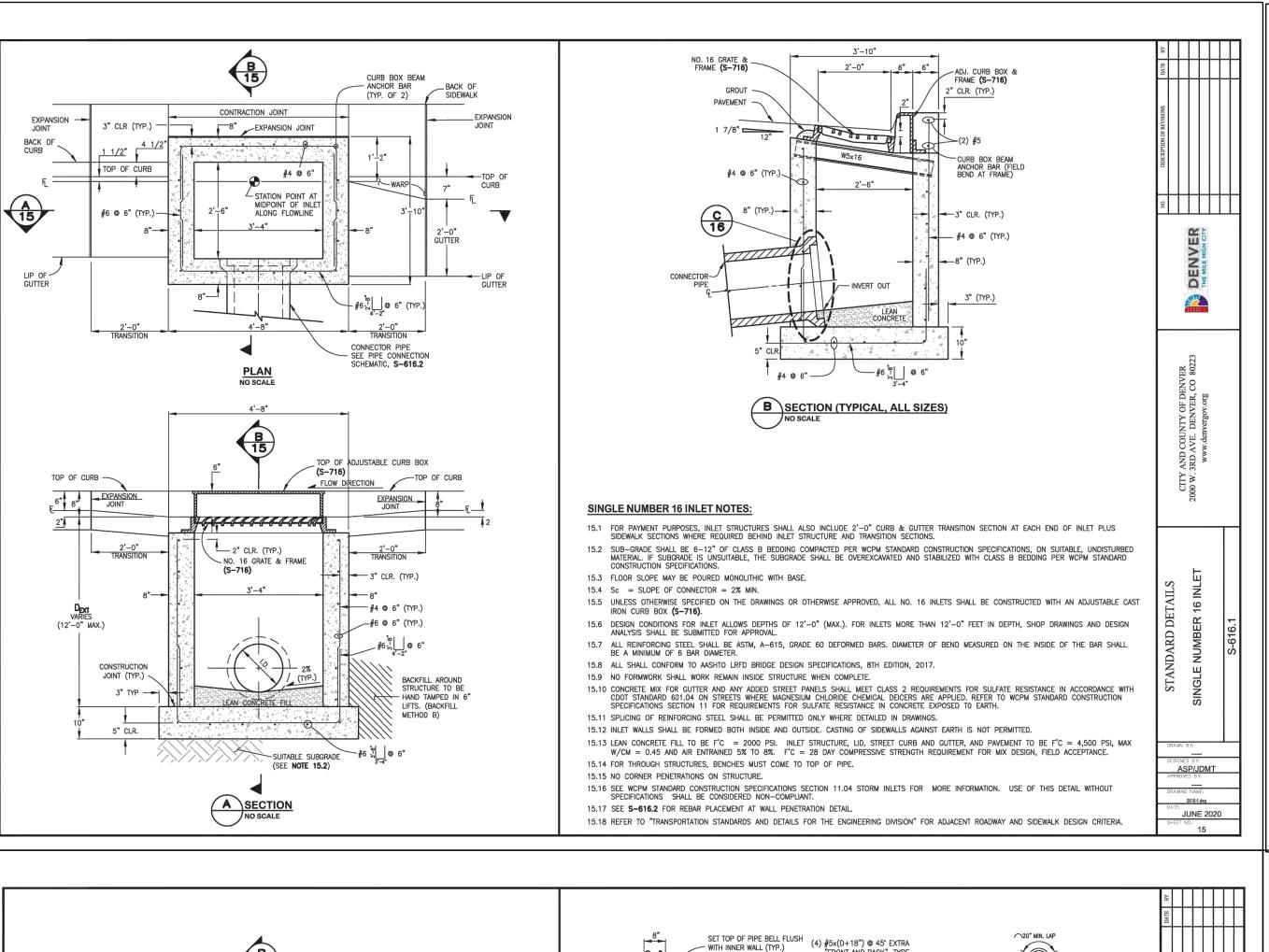
2. FILTER FABRIC IS REQUIRED IF STABILIZATION MATERIAL IS USED. THE FABRIC SHALL BE INSTALLED AS SHOWN IN THE DETAIL.

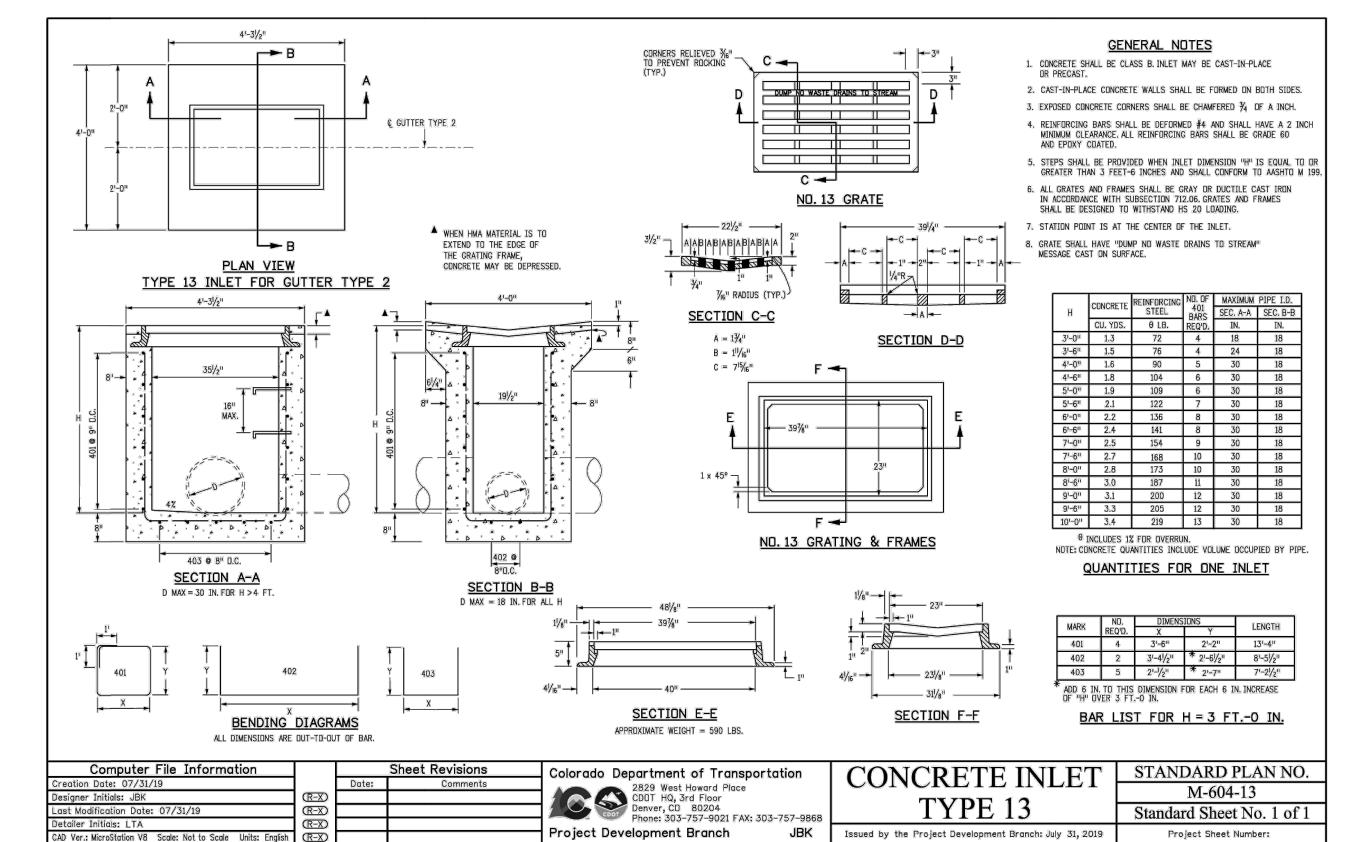
. TRENCH TO BE BRACED OR SHEETED AS NECESSARY FOR THE SAFETY OF THE WORKMEN AND PROTECTION OF OTHER UTILITIES IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL SAFETY REGULATIONS.

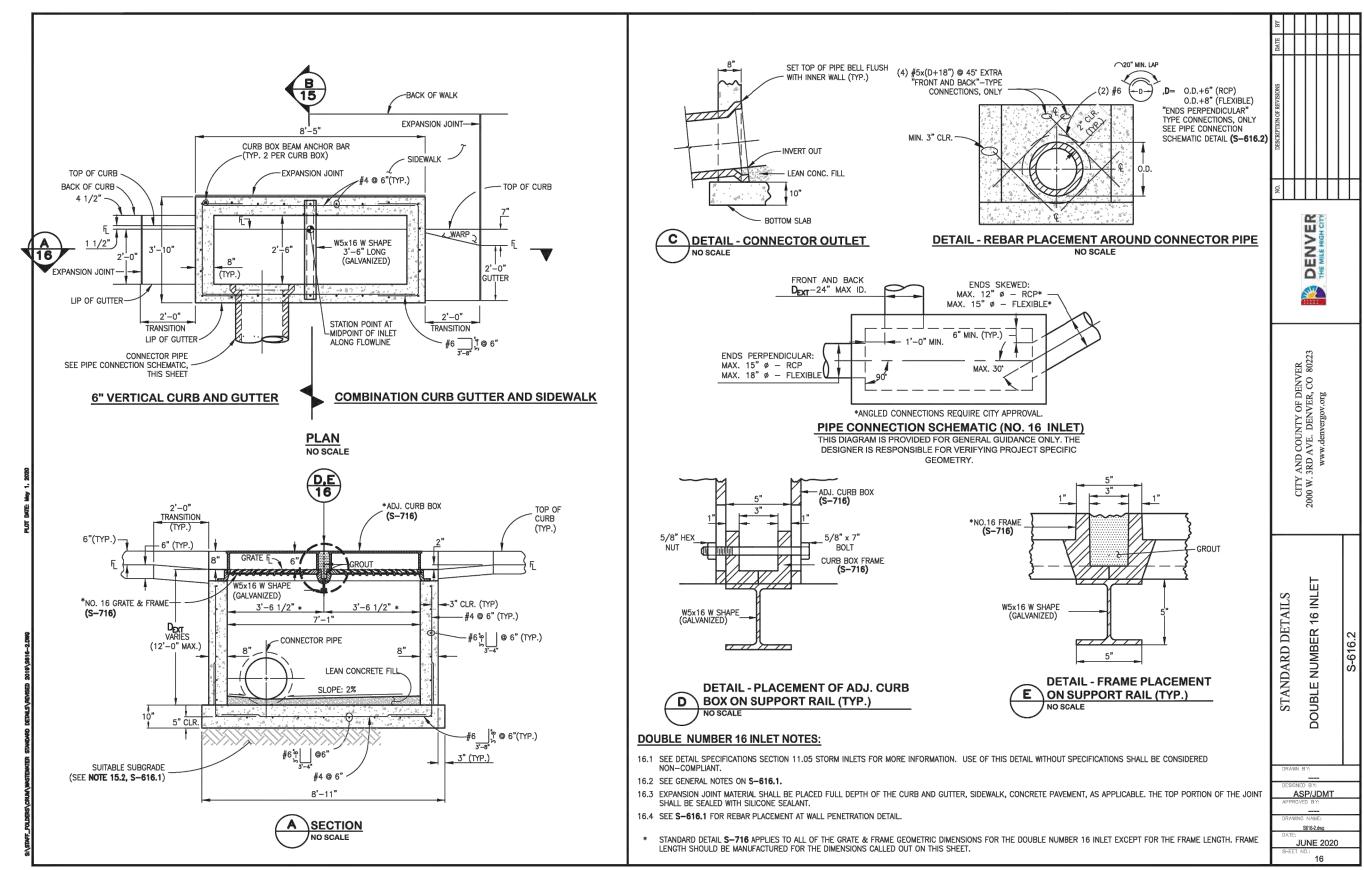
THE PIPE. SEE NOTE 7 FOR BEDDING MATERIAL GRADATION.

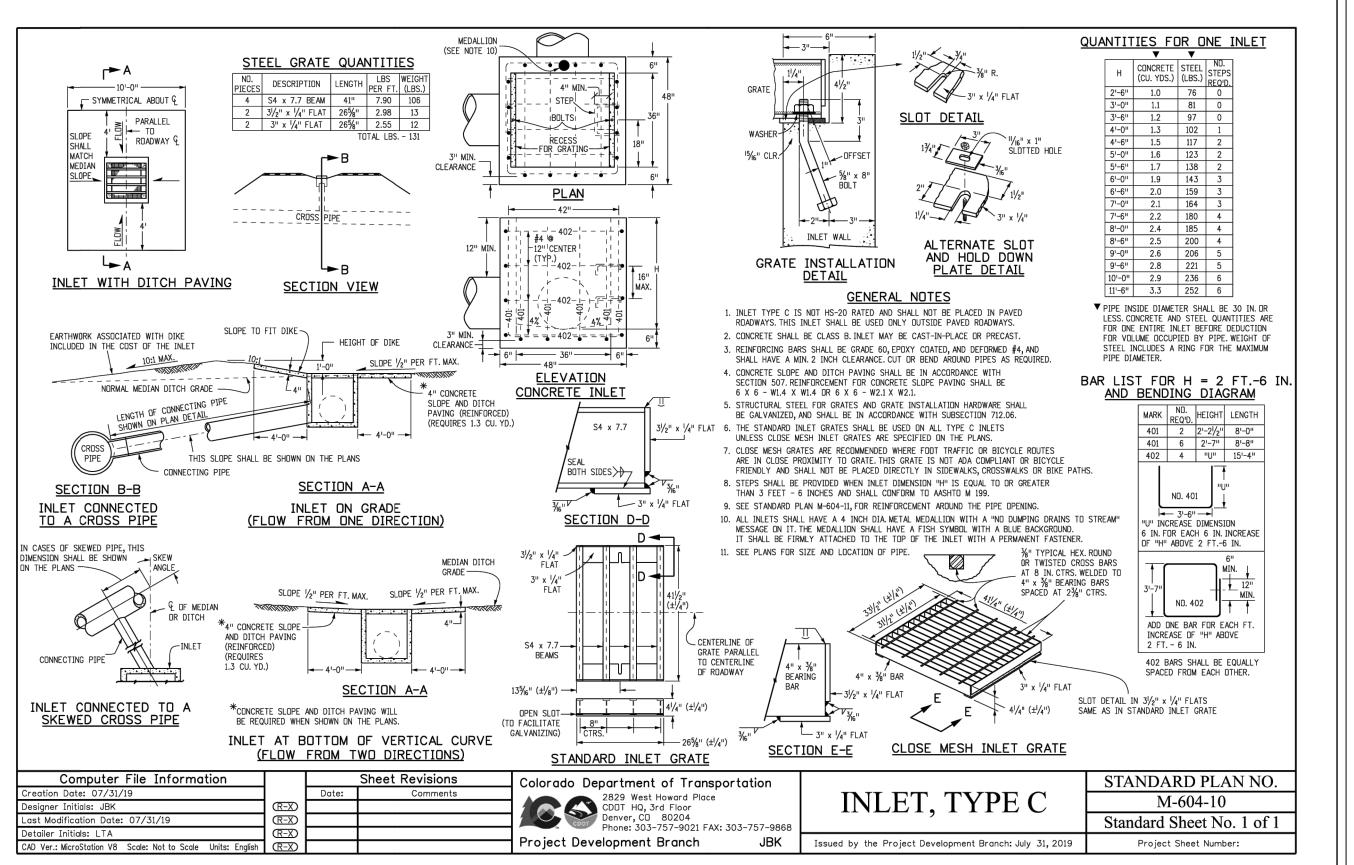
DIAMETER OF THE PIPE.

IN SECTION 703.02 IN THE LATEST EDITION OF THE CDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".







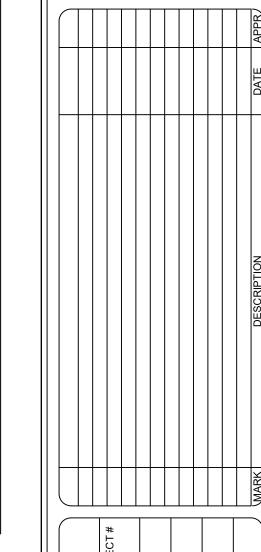






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DESIGN BY:

NAR

OCTOBER 14, 2025

D2C PROJECT NUMBER

202420

DRAWN BY:

KJB

SBMT BY:

SBMT BY:

SBMT BY:

PLOT SCALE:

10:05:48 AM

SIZE:

FILE NAME:

227 x 34"

SCHOOT STORM DETAILS.dwg

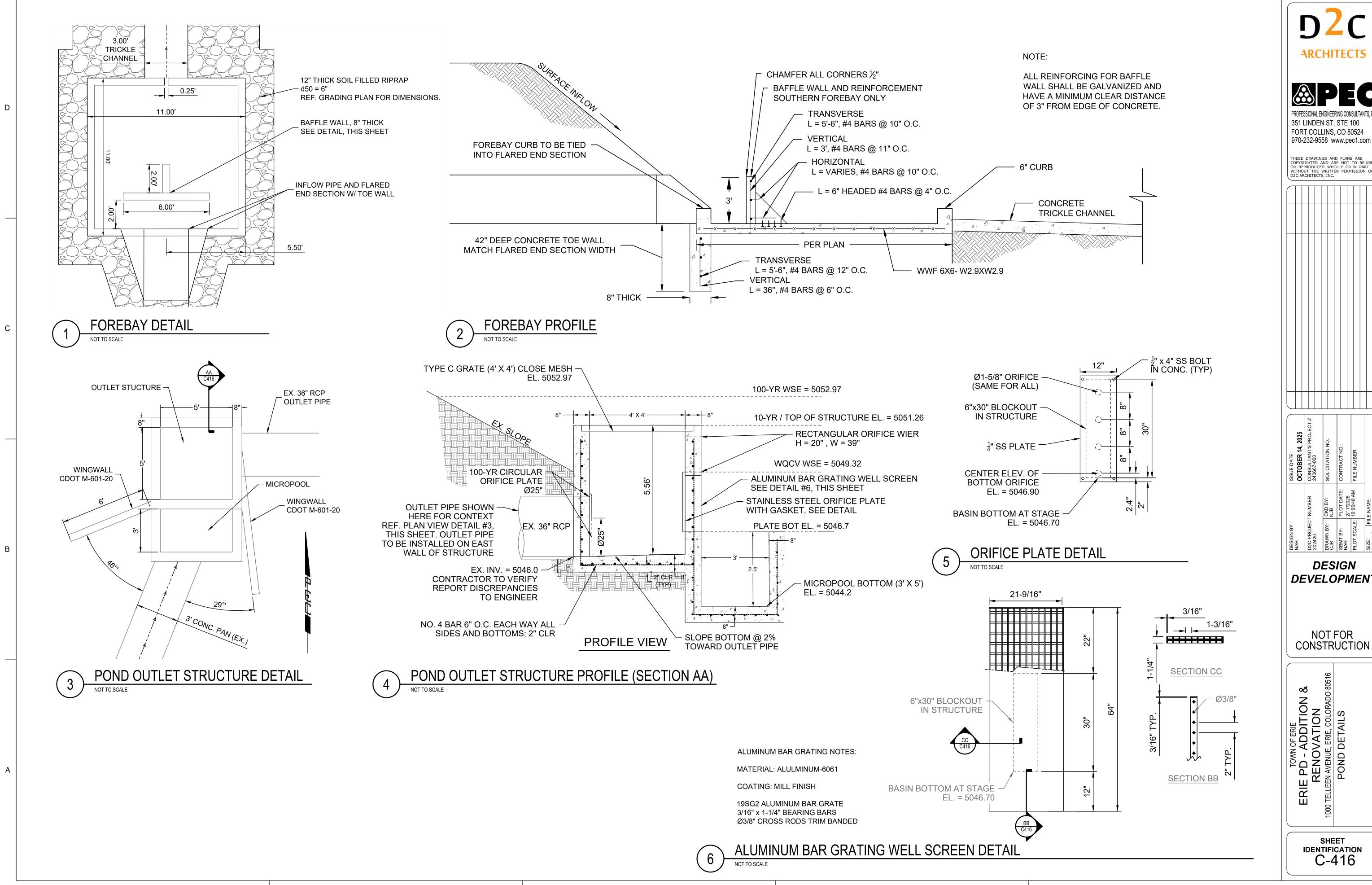
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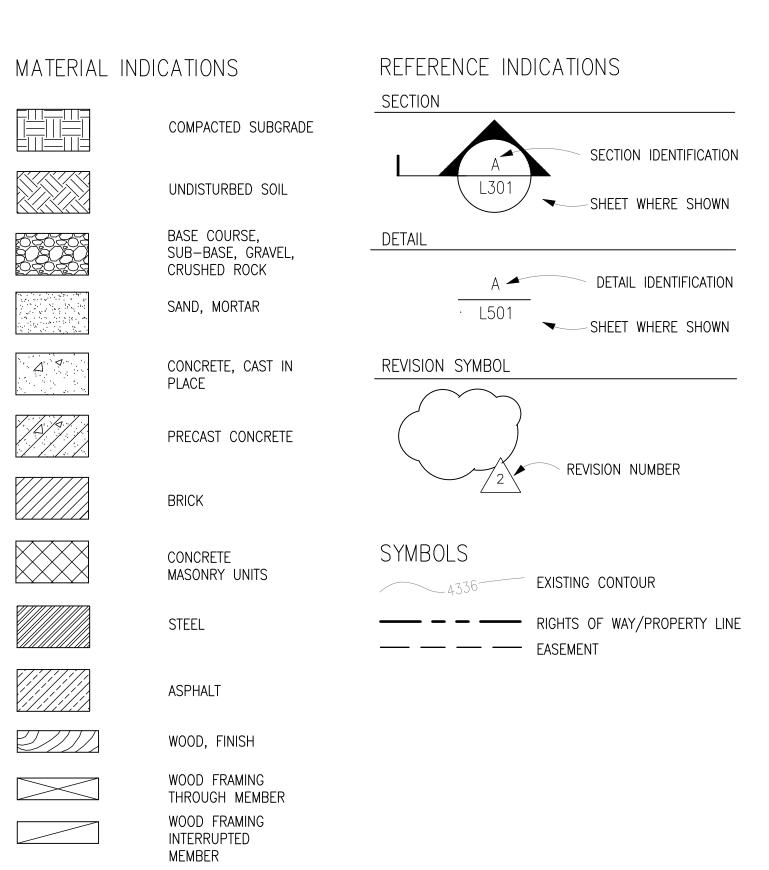
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# ABBREVIATIONS

EQUIPMENT

				Г			Р	
& ′		AND ANGLE		Γ		P.L.	·	PROPERTY LINE
 		AT	FG FIN		FINISH GRADE	PRCST.		PRECAST
<u> </u>		CENTERLINE	FL		FINISH(ED) FLOW LINE	PT.		POINT
- -		CHANNEL	FOC		FACE OF CURB	P.V.C.		POLYVINYL CHLORIDE
Þ		DIAMETER OR ROUND		$\cap$		PVMT.	$\Box$	PAVEMENT
			0.4	G	CALLOE		K	
	А		GA GALV		GAUGE GALVANIZED	RAD.		RADIUS
AD		AREA DRAIN	GC		GENERAL CONTRACT(OR)	R.B.		REINFORCING BAR(S)
ADD		ADDENDUM	GLU LAM		GLUE LAMINATED	R.D. REF.		ROOF DRAIN REFERENCE
ADJ		ADJACENT	GND		GROUND	REINF.		REINFORCES, REINFORCING
AGGR		AGGREGATE	GR		GRADE	REQ.		REQUIRED
ALT APPROX		ALTERNATE APPROXIMATE		Н		RESIL.		RESILIENT
ARCH		ARCHITECT(URAL)	H.D.		HEAVY DUTY		$\subset$	
NSPH		ASPHALT	HDR. HT.		HEADER HEIGHT		2	
	В		HT. HORIZ.		HEIGHT HORIZONTAL	SC.		SCALE
OIT	D	BITUMINOUS	HP		HIGH POINT	SCHED.		SCHEDULE
BIT BLDG		BUILDING		1		SCR. SECT.		SCREEN SECTION
30T		BOTTOM	I.B.C.	ı	INSTALLED BY CONTRACTOR	SF.		SQUARE FOOT (FEET)
BRKT		BRACKET	I.B.O.		INSTALLED BY OTHERS	SHT.		SHEET
3TWN		BETWEEN	I.D.		INSIDE DIAMETER/DIMENSION	SIM.		SIMILAR
3W		BOTTOM OF WALL	INCL.		INCLUD(ED), (ING), (SIVE)	SL.		SLOPE
	$\mathbb{C}$			J		SQ. SST., S/S		SQUARE STAINLESS STEEL
C.B.	Ū	CATCH BASIN	JST.	O	JOIST	STA.		STATION
CEM.		CEMENT	JT.		JOINT	STD.		STANDARD
CF.		CUBIC FOOT/FEET		1/		STL.		STEEL
CHAM.		CHAMFER		Υ.		STRCT.		STRUCTURAL
C.J.		CONTROL JOINT	K.J.		KEYED JOINT	SYM.		SYMMETRICAL
CLR.		CLEAR(ANCE)					Т	
C.M.U. C.O.		CONCRETE MASONRY UNIT(S) CLEAN OUT		L			ı	
COL.		COLUMN	L.P.		LOW POINT	TO		TOD OF CURD
COMB.		COMBINATION	LT.		LIGHT	TC T.& G.		TOP OF CURB TONGUE AND GROOVE
CONC.		CONCRETE	LWT.		LIGHTWEIGHT	T.O.		TOP OF
CONSTR.		CONSTRUCTION		NΛ		TW		TOP OF WALL
CONT. CONTR.		CONTINUOUS CONTRACTOR	1447/	M	MANAGERIA	TYP.		TYPICAL
CY.		CUBIC YARD(S)	MAX. MECH.		MAXIMUM MECHANICAL			
,	$\Box$	00210 171112(0)	MET.		METAL			
	D		MFR.		MANUFACTURER	UNF.	Ŭ	UNFINISHED
DEMO.		DEMOLISH, DEMOLITION	MH.		MANHOLE	U.O.N.		UNLESS OTHERWISE NOTED
DEPT.		DEPARTMENT	MIN.		MINIMUM		\ /	
DET. DIA.		DETAIL DIAMETER	MISC. MTD.		MISCELLANEOUS MOUNTED		V	
DIM.		DIMENSION	WITD.		MOONIES	VEDT		VEDTICAL
OWG.		DRAWING		Ν		VERT.		VERTICAL
	Ε						W	
- 4	L	FAOLI	N.I.C.		NOT IN CONTRACT			
EA. E.B. E.J.		EACH EXPANSION BOLT	NO., # NOM.		NUMBER NOMINAL	W/		WITH
∪. <sup>-</sup> .J.		EXPANSION BOLI	N.T.S.		NOT TO SCALE	W/O		WITHOUT
EL.		ELEVATION		$\bigcirc$		WT. W.W.M.		WEIGHT WELDED WIRE MESH
ELEC.		ELECTRICAL		$\bigcup$		VV.VV.IVI.		WELDED WIIVE MIESIA
ENCL.		ENCLOSURE	O.C.		ON CENTER			
EQ. EQPT.		EQUAL EQUIPMENT	O.D. OPP		OUTSIDE DIAMETER/DIMENSION OPPOSITE			

# TYPICAL SYMBOLS AND INDICATORS

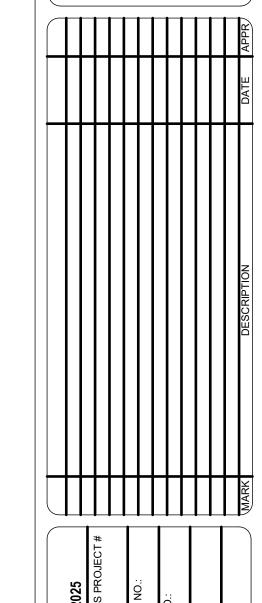


ADDITIONAL ABBREVIATIONS, SYMBOLS AND INDICATORS MAY APPEAR IN THESE DRAWINGS. REFER TO APPROPRIATE SHEETS FOR IDENTIFICATION AND CLARIFICATION. THIS SHEET APPLIES TO L-SERIES DRAWINGS ONLY.

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DESIGN BY:

MSC

D2C PROJECT NUMBER

D2420

240

240

240

MSC

SBMT BY:

SBMT BY:

MSC

10/7/25

PLOT SCALE:

AS SHOWN

SIZE:

FILE NAME:

FOR PERMIT

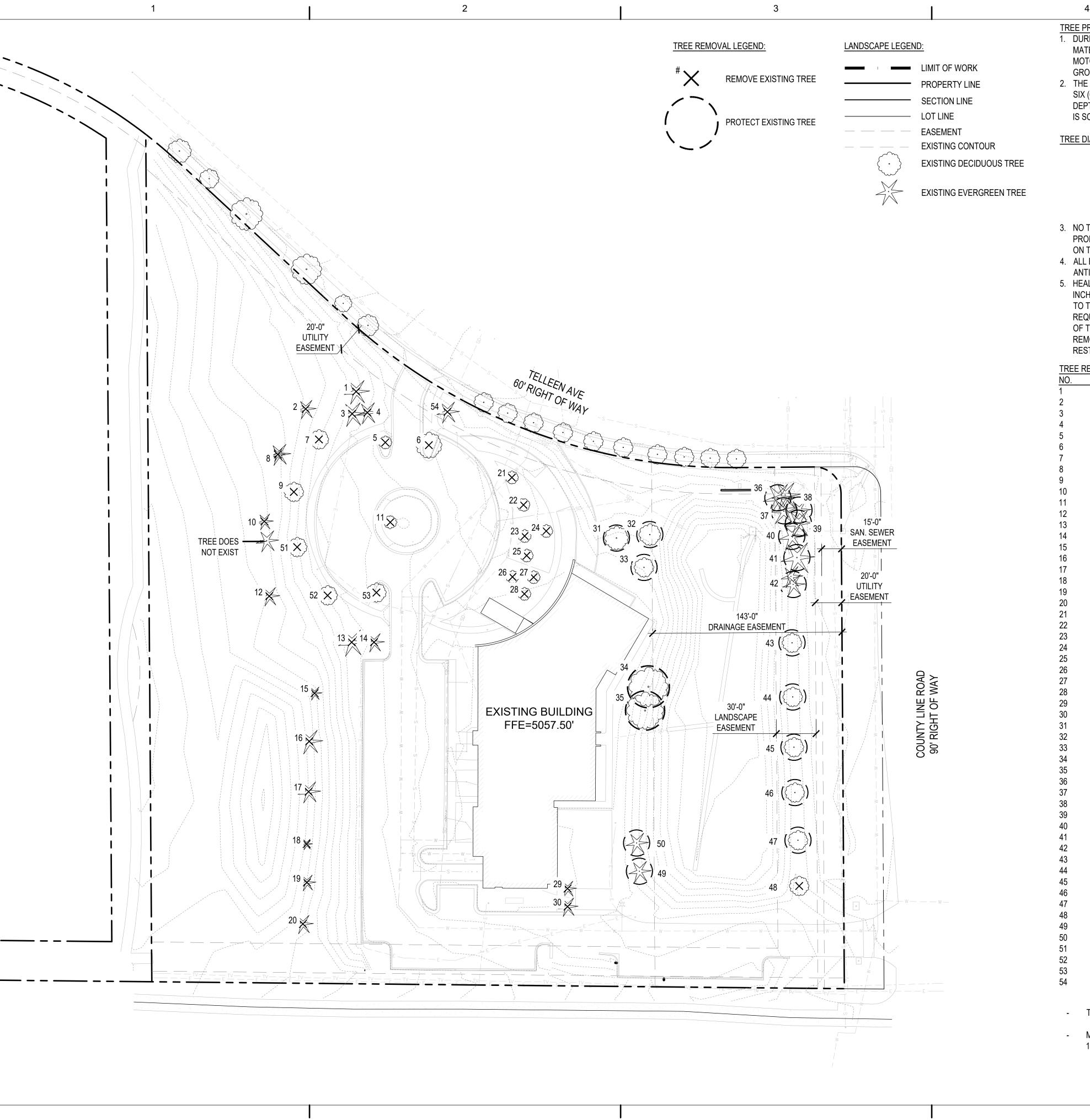
NOT FOR CONSTRUCTION

ERIE PD - ADDITION &
RENOVATION

OTELLEEN AVENUE, ERIE, COLORADO 80516

ABREVIATIONS AND
SYMBOLS

SHEET IDENTIFICATION LS001



TREE PROTECTION AND REMOVAL NOTES:

1. DURING THE CONSTRUCTION STAGE OF DEVELOPMENT, THE APPLICANT SHALL PREVENT THE CLEANING OF EQUIPMENT OR MATERIAL OR THE STORAGE AND DISPOSAL OF WASTE MATERIAL SUCH AS PAINTS, OILS, SOLVENTS, ASPHALT, CONCRETE, MOTOR OIL OR ANY OTHER MATERIAL HARMFUL TO THE LIFE OF A TREE WITHIN THE DRIP LINE OF ANY PROTECTED TREE OR GROUP OF TREES.

2. THE INSTALLATION OF UTILITIES, IRRIGATION LINES OR ANY UNDERGROUND FIXTURE REQUIRING EXCAVATION DEEPER THAN SIX (6) INCHES SHALL BE ACCOMPLISHED BY BORING UNDER THE ROOT SYSTEM OF PROTECTED EXISTING TREES AT A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES. THE AUGER DISTANCE IS ESTABLISHED FROM THE FACE OF THE TREE (OUTER BARK) AND IS SCALED FROM TREE DIAMETER AT BREAST HEIGHT AS DESCRIBED IN THE CHART BELOW:

 TREE DIAMETER AT BREAST HEIGHT (INCHES)
 AUGER DISTANCE FROM FACE OF TREE (FEET)

 0-2
 1

 3-4
 2

 5-9
 5

 10-14
 10

 15-19
 12

 Over 19
 15

- 3. NO TREES SHALL BE REMOVED DURING THE SONGBIRD NESTING SEASON (FEBRUARY 1 TO JULY 31) WITHOUT FIRST HAVING A PROFESSIONAL ECOLOGIST OR WILDLIFE BIOLOGIST COMPLETE A NESTING SURVEY TO IDENTIFY ANY ACTIVE NESTS EXISTING ON THE PROJECT SITE..
- 4. ALL EXISTING TREES WITHIN THE R.O.W. ARE TO BE PROTECTED AND RETAINED. CONSTRUCTION ACTIVITIES ARE NOT ANTICIPATED TO IMPACT THESE TREES.
- 5. HEALTHY TREES HAVING A DIAMETER AT BREAST HEIGHT ("DBH") OF FOUR INCHES OR GREATER FOR DECIDUOUS TREES, THREE INCHES OR GREATER FOR ORNAMENTAL TREES AND EIGHT FEET OR GREATER FOR EVERGREEN TREES SHALL BE PRESERVED TO THE MAXIMUM EXTENT REASONABLY PRACTICABLE. WHERE REMOVAL IS NECESSARY, HEALTHY TREES THAT MEET THE SIZE REQUIREMENT SHALL BE REPLACED BY TREES OF NO LESS THAN TWO-INCH CALIPER, WITH THE TOTAL GROSS CALIPER INCHES OF THE REPLACEMENT TREES BEING ONE AND ONE-HALF TIMES GREATER THAN THE TOTAL CALIPER INCHES OF THOSE TREES REMOVED. TREES REQUIRED TO BE ADDED PER THE LANDSCAPING REQUIREMENTS IN SECTION 10-6-4 OR BY VIRTUE OF DEED RESTRICTIONS SHALL NOT BE CONSIDERED AS REPLACEMENT TREES.

TREE REMOVAL CHART

<u>NO.</u>	ID#	SPECIES	DIAMETER	CONDITION	ACTION	MITI. F
1	22970	BLUE SPRUCE	5.5"	FAIR (60%)	REMOVE	NO
2	22967	AUSTRIAN PINE	6"	GOOD (80%)	REMOVE	YES
3	22968	BLUE SPRUCE	5.5"	FAIR (60%)	REMOVE	NO
4	22969	BLUE SPRUCE	5.5"	FAIR (60%)	REMOVE	NO
5	22990	DAVID ELM	4.5"	FAIR (60%)	REMOVE	NO
6	22991	ELM	9.5"	VERY GOOD (90%)	REMOVE	YES
7	22950	SWAMP WHITE OAK	4.5"	VERY GOOD (90%)	REMOVE	YES
8	22966	AUSTRIAN PINE	5.5"	GOOD (80%)	REMOVE	YES
9	22951	SWAMP WHITE OAK	4"	VERY GOOD (90%)	REMOVE	YES
10	22965	AUSTRIAN PINE	6"	GOOD (80%)	REMOVE	YES
11	22998	HONEYLOCUST	4"	FAIR (60%)	REMOVE	NO
12	22964	AUSTRIAN PINE	1.5"	GOOD (80%)	REMOVE	NO
13	22954	BLUE SPRUCE	6"	GOOD (80%)	REMOVE	YES
14	22955	BLUE SPRUCE	6"	FAIR (60%)	REMOVE	NO
15	22963	PINYON PINE	5"	GOOD (80%)	REMOVE	YES
16	22962	AUSTRIAN PINE	6.5"	GOOD (80%)	REMOVE	YES
17	22961	AUSTRIAN PINE	6.5"	GOOD (80%)	REMOVE	YES
18	22960	PINYON PINE	4"	FAIR (60%)	REMOVE	NO
19	22959	PINYON PINE	4"	GOOD (80%)	REMOVE	YES
20	22958	AUSTRIAN PINE	6.5"	GOOD (80%)	REMOVE	YES
21	25964	CHINESE FRINGE TREE	1.5"	GOOD (80%)	REMOVE	NO
22	23316	OSAGE ORANGE	2"	GOOD (80%)	REMOVE	NO
23	25947	AMERICAN HORNBEAM	_ 1"	GOOD (80%)	REMOVE	NO
24	22993	HONEYLOCUST	3"	FAIR (60%)	REMOVE	NO
25	22994	HARDY RUBBER TREE	1.5"	FAIR (60%)	REMOVE	NO
26	22997	HONEYLOCUST	2.5"	FAIR (60%)	REMOVE	NO
27	22995	HONEYLOCUST	2.5"	FAIR (60%)	REMOVE	NO
28	22996	HONEYLOCUST	2.5"	FAIR (60%)	REMOVE	NO
29	22982	PINE	4.5"	GOOD (80%)	REMOVE	YES
30	22981	BOSNIAN PINE	4.5"	GOOD (80%)	REMOVE	YES
31	22989	PLAINS COTTONWOOD	10"	FAIR (60%)	PROTECT	YES
32	22988	PLAINS COTTONWOOD	10.5"	FAIR (60%)	PROTECT	YES
33	22987	PLAINS COTTONWOOD	11"	FAIR (60%)	PROTECT	YES
34	22986	PLAINS COTTONWOOD	18"	GOOD (80%)	PROTECT	YES
35	22985	PLAINS COTTONWOOD	14"	FAIR (60%)	PROTECT	YES
36	22971	BLUE SPRUCE	8"	GOOD (80%)	PROTECT	YES
37	22972	BLUE SPRUCE	8"	FAIR (60%)	PROTECT	YES
38	22973	BLUE SPRUCE	7.5"	GOOD (80%)	PROTECT	YES
39	22974	BLUE SPRUCE	10"	GOOD (80%)	PROTECT	YES
40	22975	BLUE SPRUCE	9"	POOR (40%)	PROTECT	YES
41	21690	BLUE SPRUCE	8.5"	POOR (40%)	PROTECT	YES
42	21691	BLUE SPRUCE	5.5"	FAIR (60%)	PROTECT	YES
43	21692	ENGLISH OAK	6.5"	GOOD (80%)	PROTECT	YES
44	22976	ENGLISH OAK	3.5"	GOOD (80%)	PROTECT	YES
45	22977	ENGLISH OAK	3.3 4"	GOOD (80%)	PROTECT	YES
46	22978	KENTUCKY COFFEETREE	4"	VERY GOOD (90%)	PROTECT	YES
47	22979	KENTUCKY COFFEETREE	4 4"	VERY GOOD (90%)	PROTECT	YES
48	22979	KENTUCKY COFFEETREE	4 4"	VERY GOOD (90%)	PROTECT	YES
40 49	22983	AUSTRIAN PINE	4 6.5"	VERY GOOD (90%)	PROTECT	YES
50	22983 22984	AUSTRIAN PINE AUSTRIAN PINE	6.5 6"	` ,	PROTECT	YES
		SWAMP WHITE OAK	-	VERY GOOD (90%)		
51 52	22952		3.5" 4"	GOOD (80%)	REMOVE	NO VES
52 53	22953	SWAMP WHITE OAK	4" 9"	GOOD (80%)	REMOVE	YES
53 54	22956	ELM DI HE SDDHCE	-	VERY GOOD (90%)	REMOVE	YES
54	22992	BLUE SPRUCE	5.5"	FAIR (60%)	REMOVE	NO

- TOTAL NUMBER OF TREES TO BE REMOVED AND MITIGATED

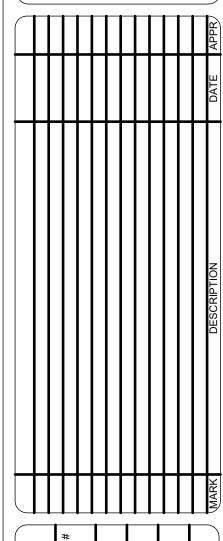
MITIGATION OF TREE REMOVAL MET THROUGH PROPOSED TREE PLANTING. 128.25" OF CALIPER REPLACEMENT REQUIRED, 148" OF CALIPER REPLACEMENT PROVIDED.



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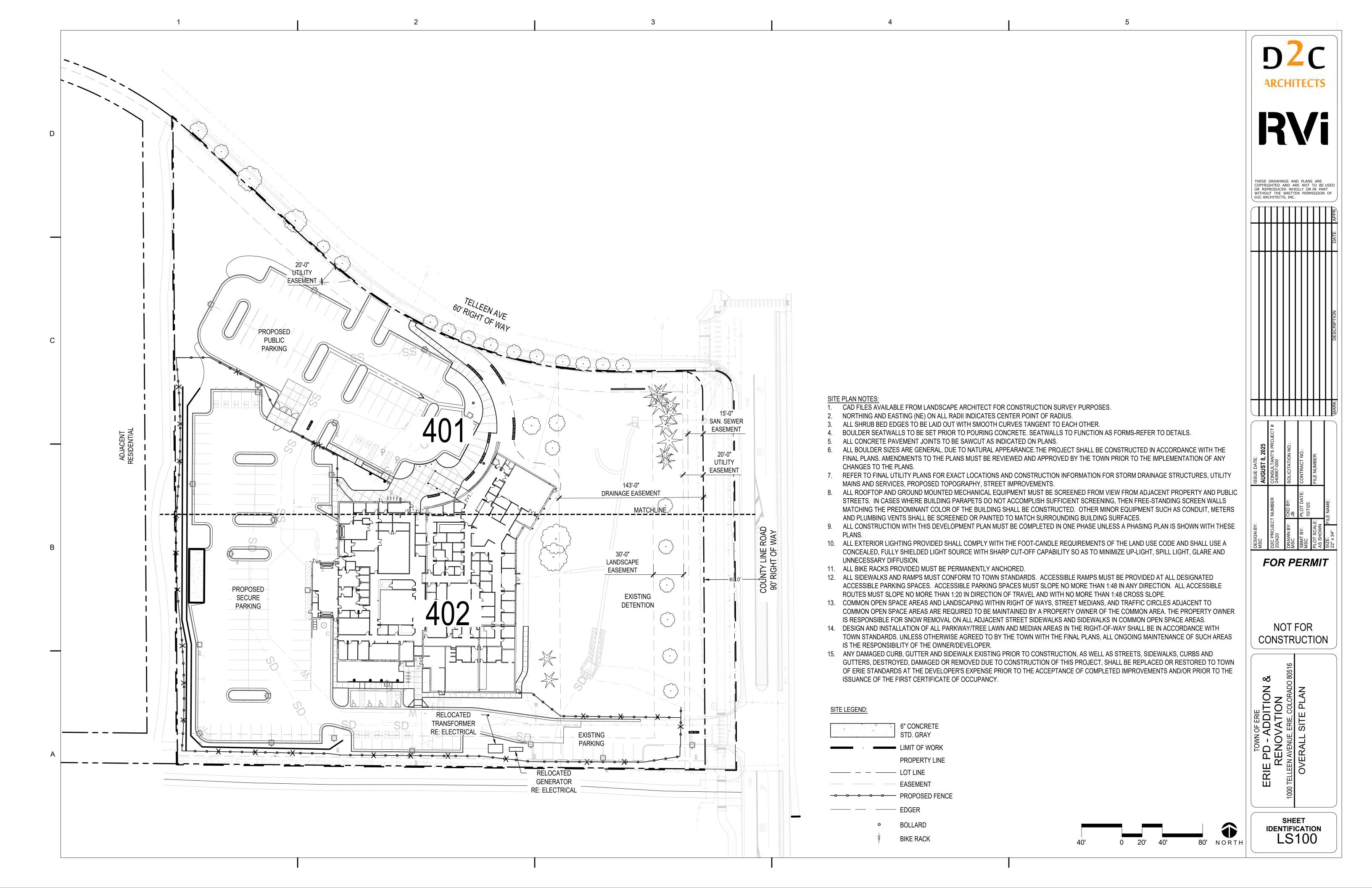


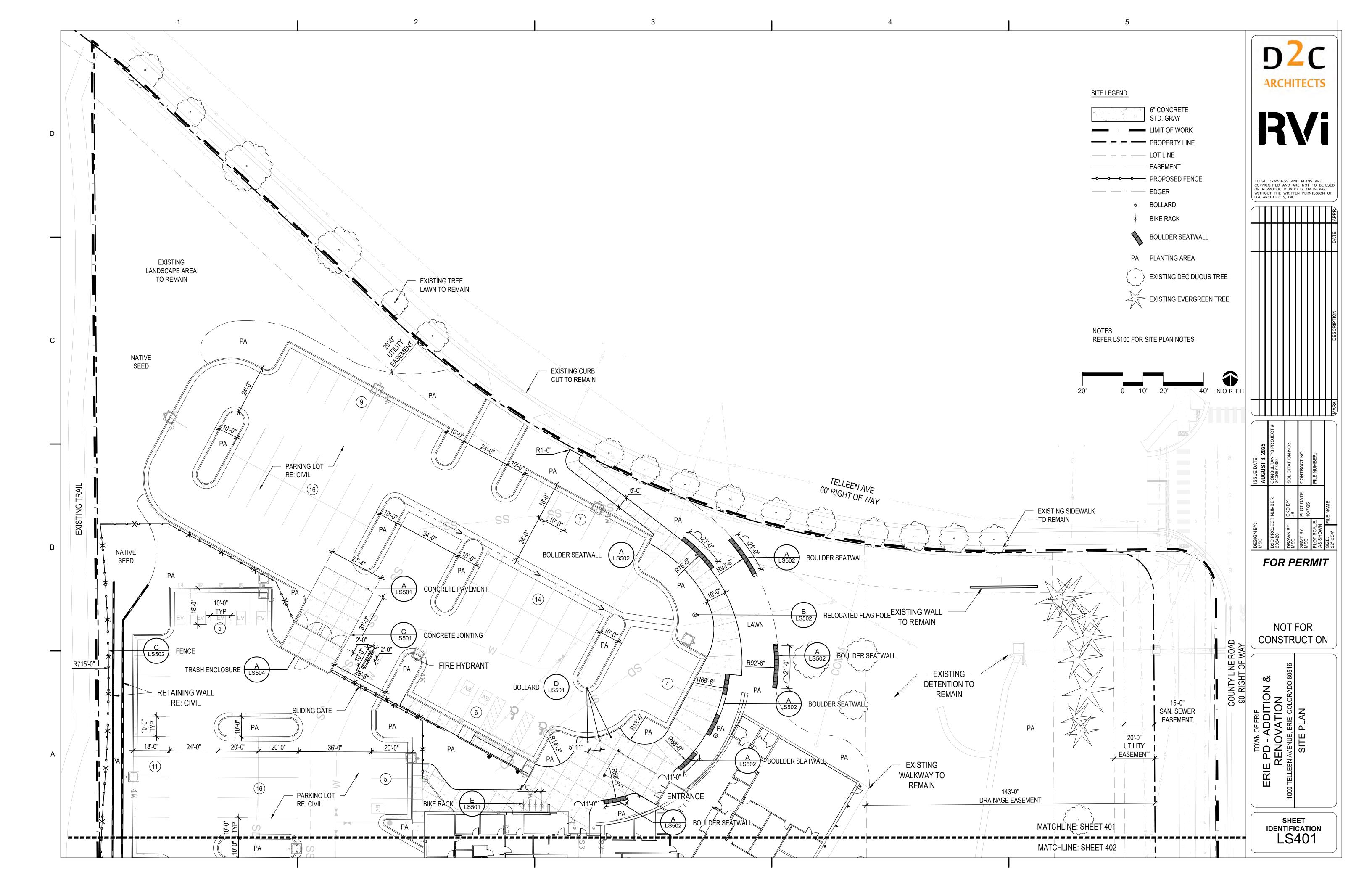
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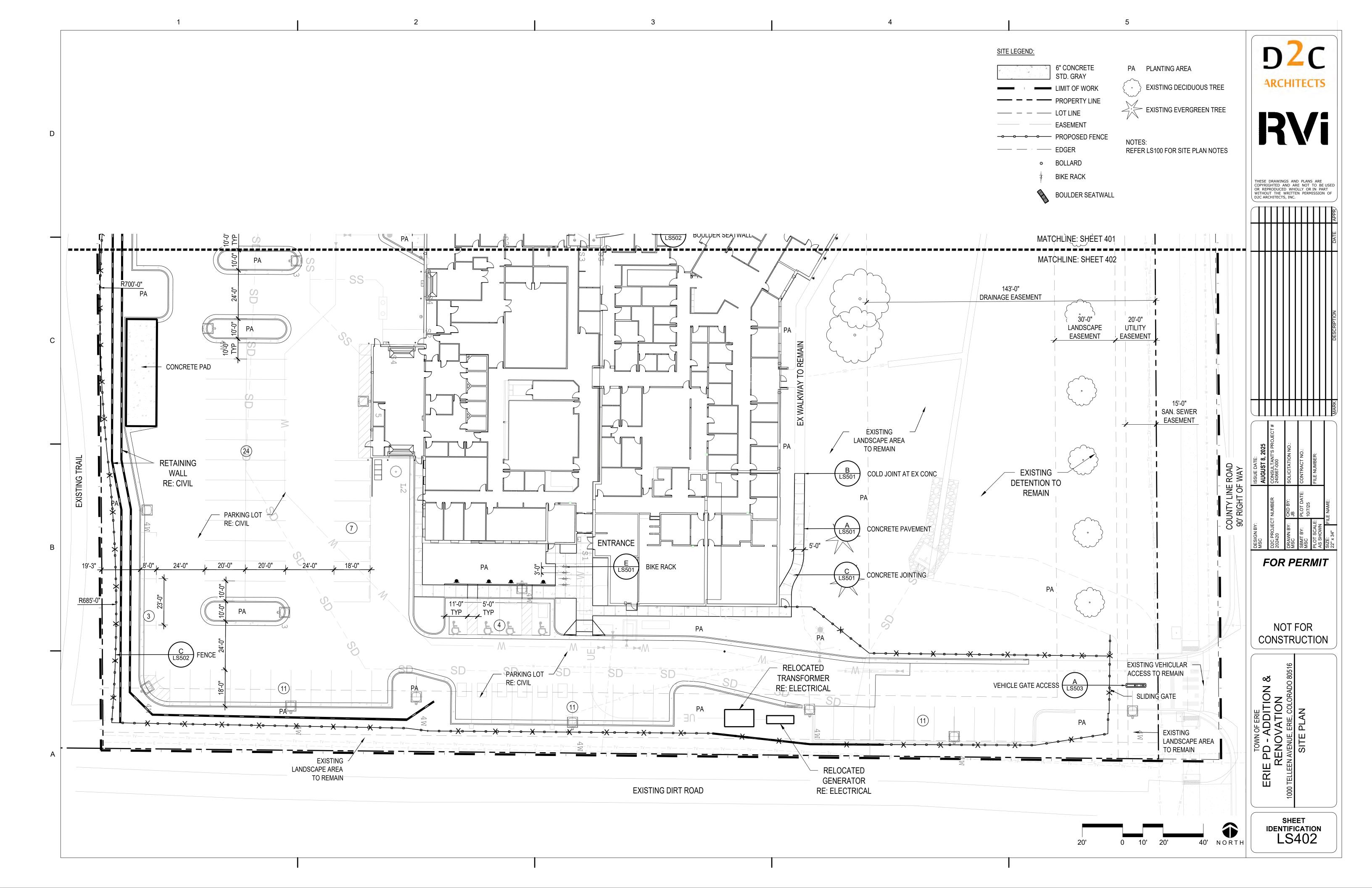
NOT FOR CONSTRUCTION

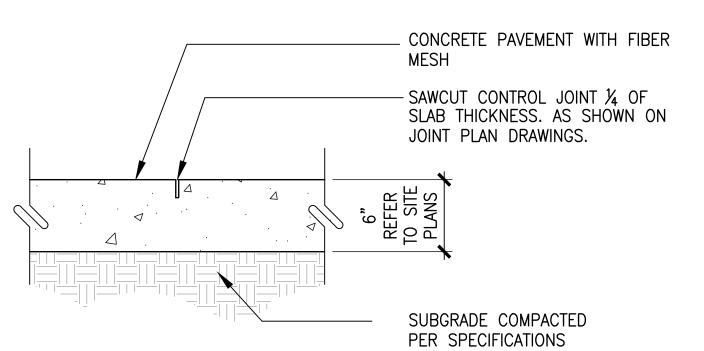
ERIE PD - ADDITION &
RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 80516
TREE PROTECTION PLAN

SHEET IDENTIFICATION TP101





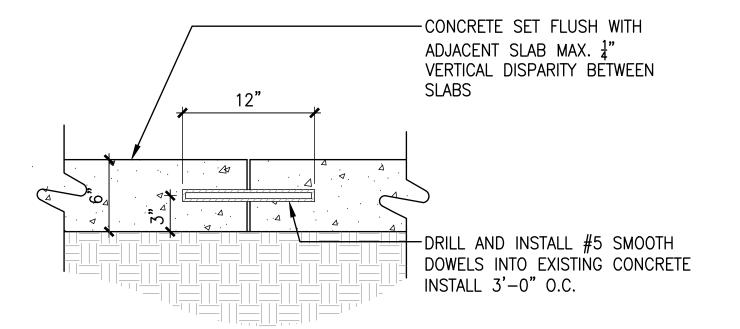




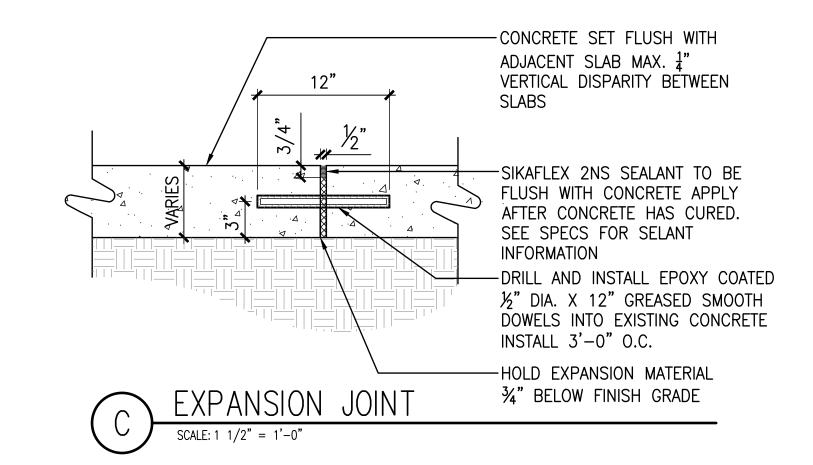
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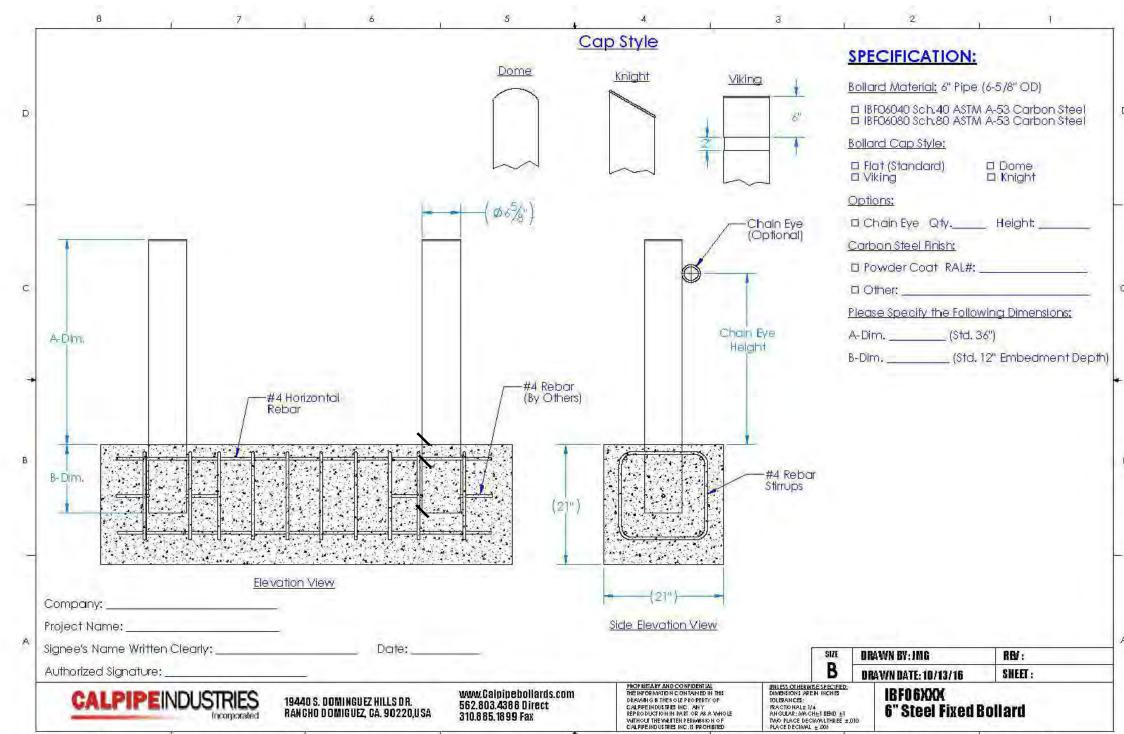
- 1. EXPANSION JOINTS PLACED PER JOINT PLAN, BUT NO LESS THAN 100' O.C.
- 2. CONTROL JOINT PLACED PER JOINT PLAN, MAXIMUM SPACING 10'. 3. CONCRETE TO HAVE FINE BROOM FINISH PERPENDICULAR TO CENTERLINE OF PAVING.
- 4. FINISHED GRADE OF LANDSCAPE AREA TO BE 1" BELOW FINISH GRADE OF CONCRETE (TYPICAL BOTH SIDES).







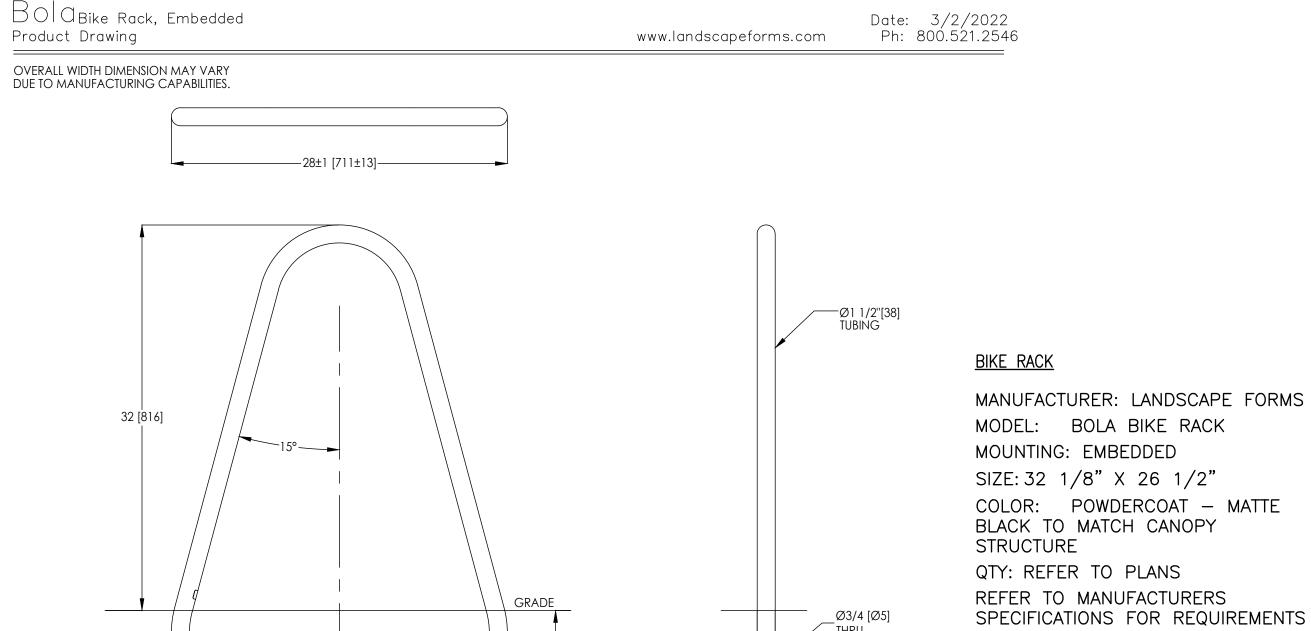




STANDARD BOLLARD MANUFACTURER: CALPIPE INDUSTRIES MODEL: IBF06080 6" STEEL FIXED BOLLARD CAP TYPE: STANDARD FLAT SIZE: 36" HT. 6" DIA. SCH 80 COLOR: POWDERCOAT — COLOR TBD - APPLY CLEAR REFLECTIVE TAPE QTY: REFER TO PLANS REFER TO MANUFACTURERS SPECIFICATIONS FOR REQUIREMENTS

BOLLARD SCALE: NTS





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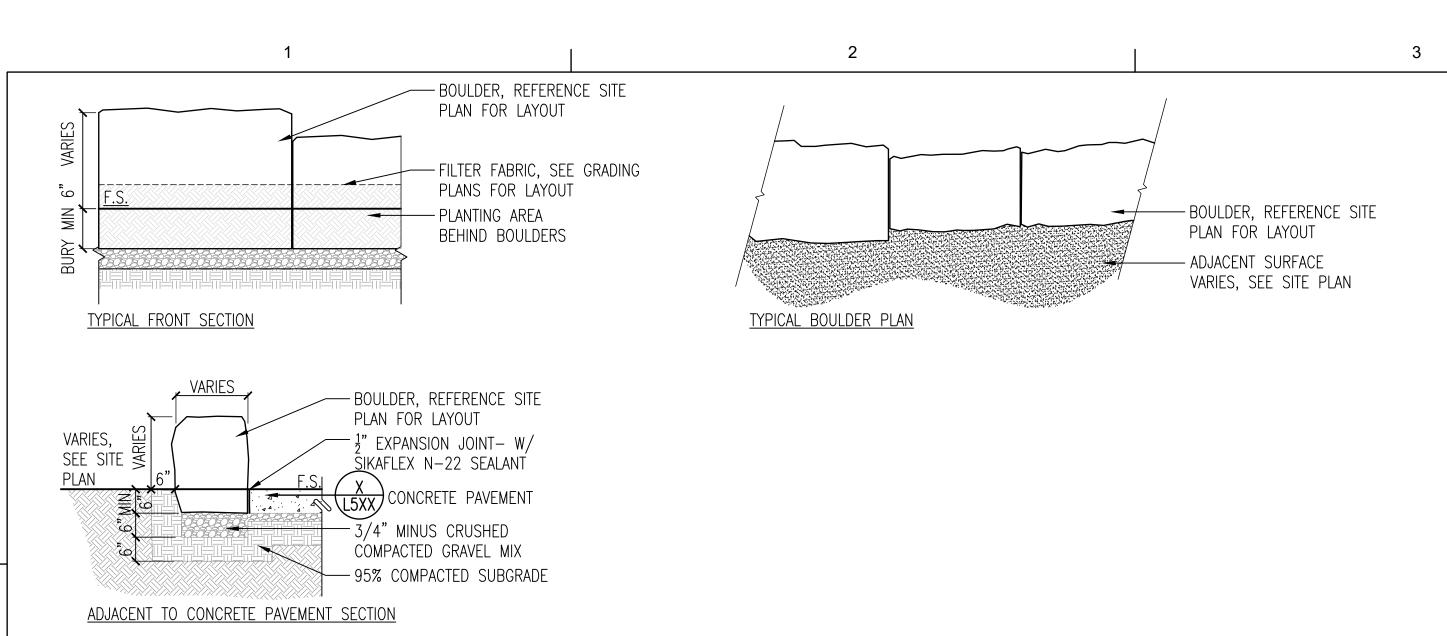
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NOT FOR CONSTRUCTION

ERIE PD - ADDITION 8
RENOVATION

00 TELLEEN AVENUE, ERIE, COLORADO 8
SITE DETAILS

SHEET **IDENTIFICATION** LS501



1. STONE BLOCK TO BE USED AS FORM FOR ADJACENT CONCRETE

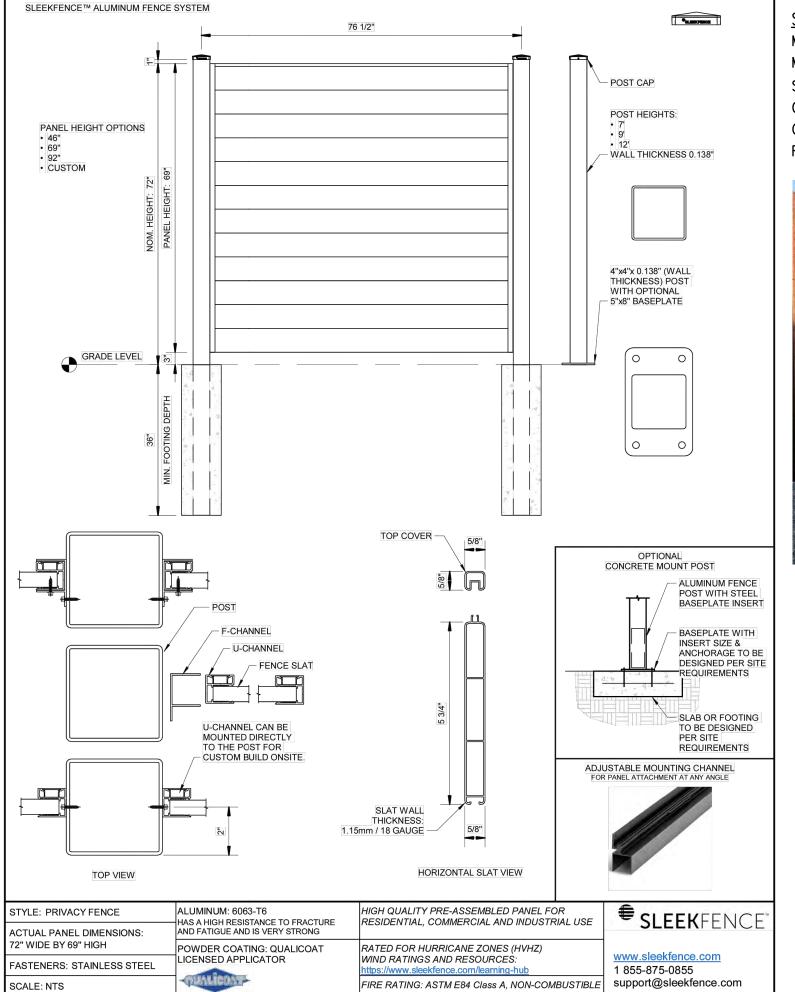
- 2. THERE SHALL BE NO MORE THAN A 3" MAX GAP BETWEEN TYPICAL 3. THERE SHALL BE NO MORE THAN A 8" MAX GAP FOR DRAINAGE
- 4. ALL BOULDER PLACEMENT SHALL BE DONE UNDER SUPERVISION OF PROJECT LANDSCAPE ARCHITECT
- 5. USE CAUTION TO AVOID UNDERGROUND UTILITIES

BOULDER SIZING NOTES — TYPICAL ALL BOULDERS:

- 1. NO BOULDER <u>LENGTH</u> SHALL EXCEED 3'-0" OR BE LESS THAN 1'-6"
- 2. NO BOULDER WIDTH SHALL EXCEED 2'-0" OR BE LESS THAN 1'-0"
- 3. NO BOULDER <u>HEIGHT ABOVE FINISH SURFACE</u> SHALL EXCEED 2'-0" OR BE LESS THAN 1'-6

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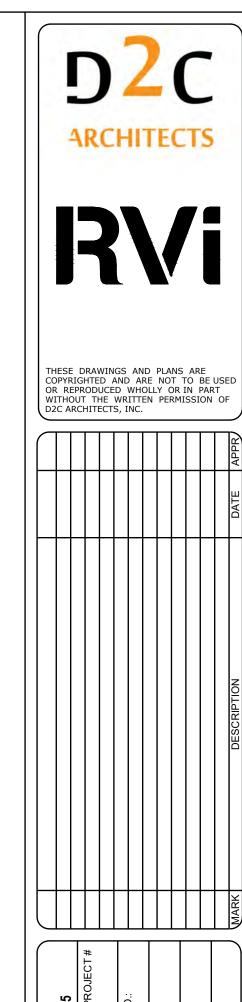
Monarch Series - ICC ICC30D61 - AE Internal Cam Cleat Rope Halyard Ground Set Installation (Options Available - See Specification Box) Cast Aluminum Revolving Truck Assembly with Aluminum Spindle, Stainless Steel Ball Bearings (Sealed Bearings on Flagpoles 50' and Over), Brass Bushing, and Removable Hood Braided Wire Center Polypropylene Rope ← Two (2) Stainless Steel Swivel Snap Hooks with Neoprene Covers Counterweight and Beaded Retainer Sling Accessory Specifications
Anodized - Black (AE), Clear Anodized Ball (90065-004), Standard Spun Collar (94508-004 **G** Wall Thickness ontinuous Piano Hinge, and Manually Operated Cam Cleat E Butt Diameter Top Diameter: 3.500" Wall Thickness: 0.188" Spun Aluminum Collar options Available - See Specification Box) Perimeter caulked by Installer. and Hardwood Wedges (By Installer) Ground Sleeve Assembly - 16 Gauge Galvanized Steel Tube - Tamped Dry Sand (By Installer) Note: Foundation design not included. Foundation 3/16" Steel Plate Welded to Sleeve 3/16" Steel Support Plate itning Spike -Ground sleeve will be delivered for G.C. to install. Customer Name: Fransen & Pittman

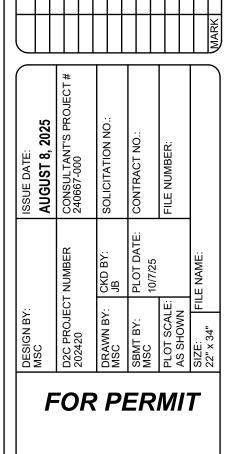
Dealer: Lamont Ecosse

Project: Erie Police Department Location: Erie, Colorado

RELOCATED FLAG POLE

FLAG POLE MANUFACTURER: AMERICAN FLAGPOLE MODEL: ICC30D61-AE SIZE: 33' HT. 3.5" TOP DIA. 6" BOTTOM DIA. COLOR: COLOR TBD QTY: REFER TO PLANS REFER TO MANUFACTURERS SPECIFICATIONS FOR REQUIREM EXISTING FLAGPOLE TO BE REASSESSED FOR REUSE



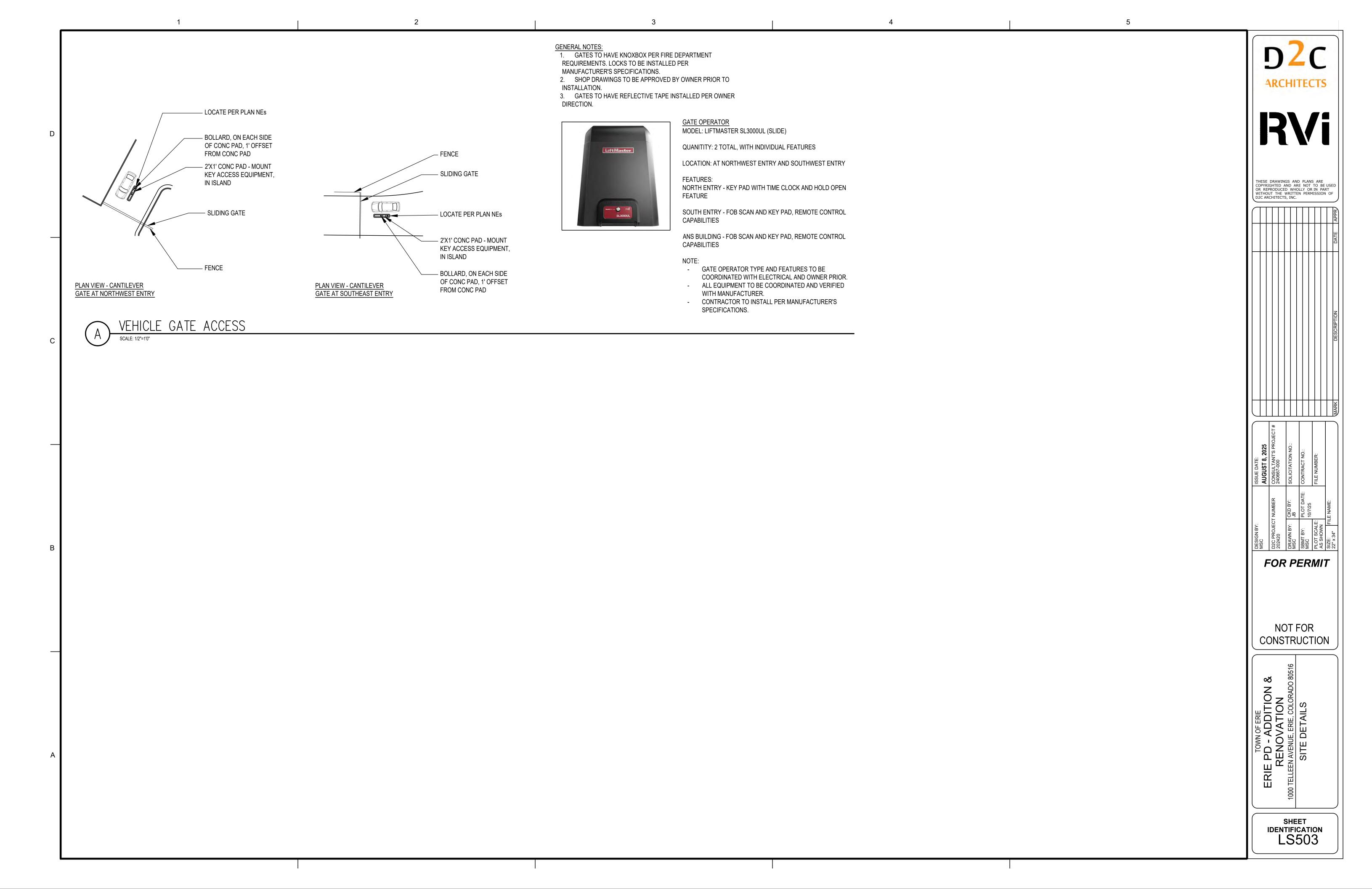


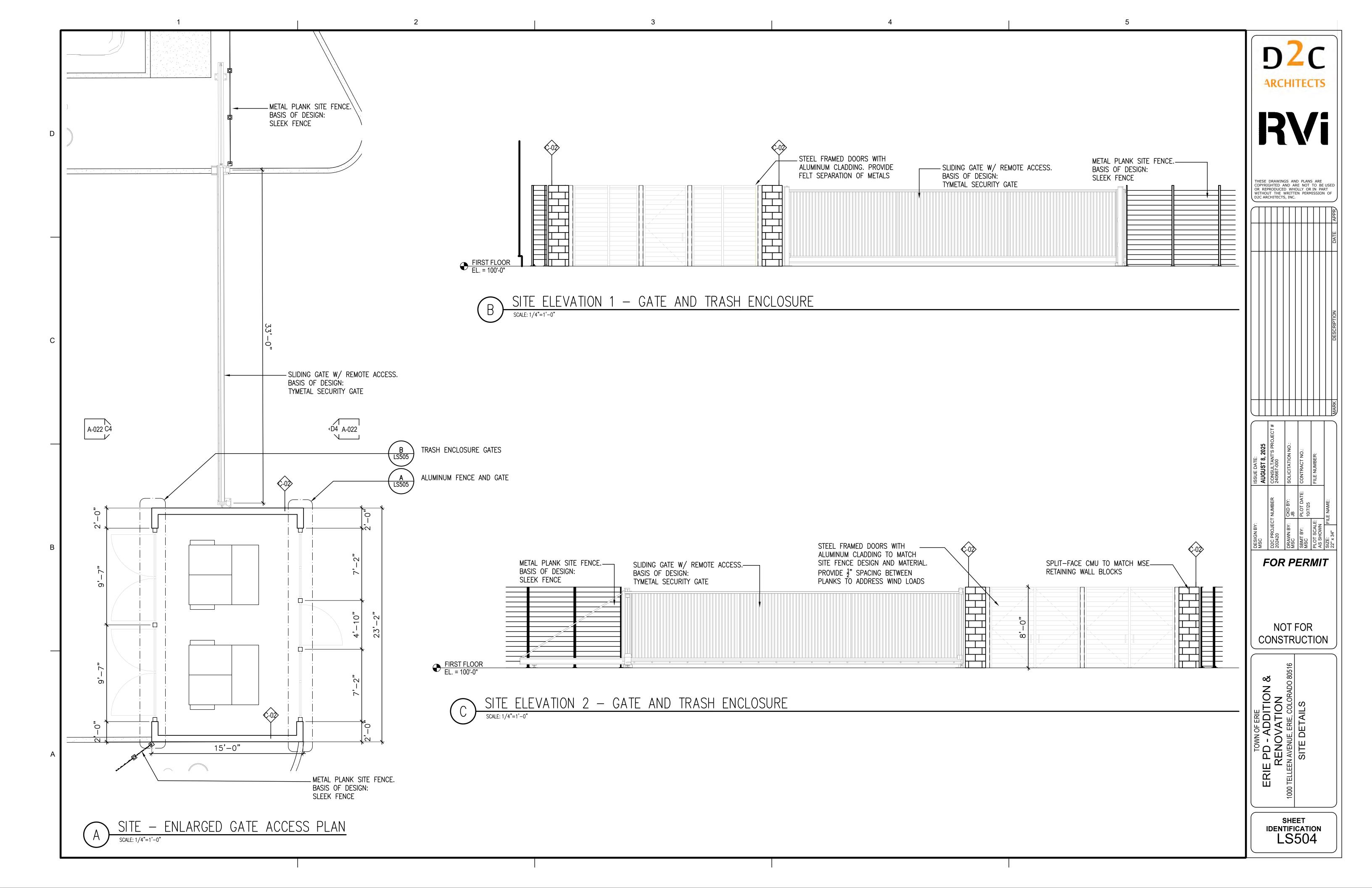
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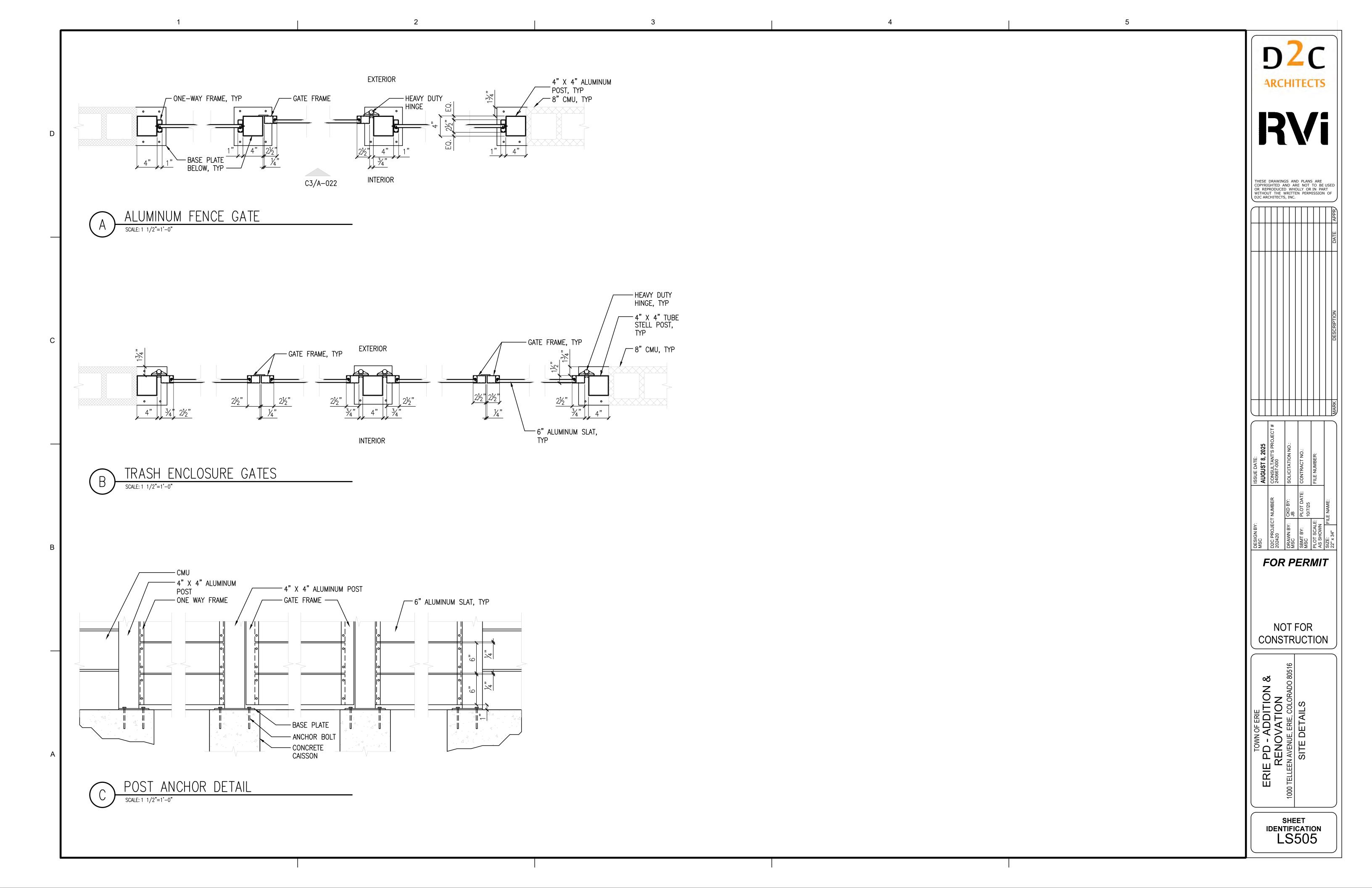
SHEET **IDENTIFICATION** LS502











				1			2				3		
	PLANT SCH	EDULE			•				- CROUND COVERS	<u> </u>	DO IT WHO IE IV WIL	O WINIO I TO WIL	<u> </u>
	SYMBOL	CODE	<u>QTY</u>	BOTANICAL NAME	COMMON NAME	CONT	CAL	SIZE	GROUND COVERS BB2	604 sf	COBBLE	COBBLE	n/a
	DECIDUOL	JS TREE	<u>s</u>						EX	81,663 sf	EXISTING TO REMAIN/PROTECT	EXISTING	n/a
		CS	4	Catalpa speciosa	Northern Catalpa	B&B	2" CAL	40-60' HT	NS	9,612 sf	NATIVE SEED	NATIVE SEED	n/a
					·				RM	16,207 sf	ROCK MULCH	ROCK MULCH	n/a
	+	CO2	2	Celtis occidentalis	Common Hackberry	B&B	2" CAL	40-60' HT	TG	1,064 sf	TURF GRASS	TURF GRASS	solid sod
_									WM	9,341 sf	WOOD MULCH	WOOD MULCH	n/a
D		Gl	4	Gleditsia triacanthos inermis	Thornless Honey Locust	B&B	2" Cal.	40-60' HT					
									LEGEND, THE PLANT		SCREPENCY BETWEEN THE PAN AL QUANTITY AS DETERMINED E		
	$\left(\begin{array}{c} + \end{array}\right)$	GD2	6	Gymnocladus dioicus 'Espresso'	Kentucky Coffeetree	B&B	2 1/2" Cal.	40-50' HT	PRECEDENCE.				· · · · · · · · · · ·
		QMU	9	Quercus muehlenbergii	Chinkapin Oak	B&B	2 1/2" Cal.	40-60' HT					
	( 4 )	UA	9	Ulmus x 'Morton'	Accolade™ Elm	B&B	2 1/2" Cal.	40-45' HT					
	EVERGRE	EN TRE	<u>ES</u>										
	- Sunta	JW	15	Juniperus scopulorum 'Woodward'	Woodward Columnar Juniper	B&B	6' HT.	15-25' HT					
	2 + 4 8 2 mm	DDL	0	Diago pungana	Colorado Caruco	DOD	CLLIT	40. COLLIT					
	Z + &	PPU	2	Picea pungens	Colorado Spruce	B&B	6' HT.	40-60' HT					
	Mary S.	PP	3	Pinus edulis	Pinyon Pine	B&B	6' HT.	15-20' HT					
	Zhung.		J	Timus Gadile	,	200	<b>0</b>	10 20 111					
С		API	6	Pinus nigra	Austrian Pine	B&B	6' HT.	40-60' HT					
	X												
	ORNAMEN	NTAL TRI	EES										
	£+3	CP2	12	Celtis occidentalis 'JFS-KSU1'	Prairie Sentinel® Hackberry	#20 CONT.	2 1/2" Cal.	40-50' HT					
	0.41001	0005	O.T.\(	DOTANIOAL NAME	001110111111	0017	0.0						
	SYMBOL	CODE		BOTANICAL NAME	COMMON NAME	CONT	<u>O.C</u>						
	DECIDUOL												
	+	CAR	3	Caragana arborescens	Siberian Peashrub	5 gal.							
		CNA	55	Chrysothamnus nauseosus	Dwarf Rubber Rabbitbrush	5 gal.							
		CF	30	Cornus stolonifera 'Farrow'	Arctic Fire® Red Twig Dogwood	5 gal.							
	+	PAT	37	Perovskia atriplicifolia	Russian Sage	5 gal.							
	$\bigoplus$	PBE	102	Prunus besseyi 'P011S'	Pawnee Buttes® Sand Cherry	5 gal.							
		RG	47	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	5 gal.							
_	-0-	RT2	16	Rhus trilobata	Three-Leaf Sumac	5 gal.							
В	()	RA2	57	Rhus trilobata 'Autumn Amber'	Autumn Amber Sumac	5 gal.							
		SK	18	Syringa pubescens patula `Miss Kim`	MISS KIM LILAC	5 gal.							
	EVERGRE	EN SHD	LIBS										
	EVERGRE	AC3	19	Arctostaphylos x coloradensis 'Chieftain'	Chieftain Mock Bearberry Manzanita	5 gal.							
	(0)	EWR	71	Eriogonum wrightii wrightii	snow mesa buckwheat	5 gal.							
	W. W	HPA	15	Hesperaloe parviflora	Red Yucca	5 gal.							
		PED	56	Pinus edulis	Dwarf Pinyon Pine	5 gal.							
	4 VA												
	\$\frac{1}{2}	PMU	23	Pinus mugo 'Mops'	Mops Mugo Pine	5 gal.							
		YAN	15	Yucca angustissima	Narrowleaf Yucca	5 gal.							
	ORNAMEN												
		BGR	171	Bouteloua gracilis 'Blonde Ambition'	Blonde Ambition Blue Grama	1 gal.							
		SNU	64	Sorghastrum nutans 'Thin Man'	Thin Man Indian Grass	1 gal.							
	PERENNIA	<u>AL</u>											
Α		RHI	127	Rudbeckia hirta	Black-eyed Susan	1 gal.							

TOWN OF ERIE NOTES:

1. IF TRANSFORMERS, GROUND MOUNTED HVAC EQUIPMENT, UTILITY PEDESTALS, ETC. ARE NOT SHOWN ON THE SITE MPROVEMENT PLAN, ADDITIONAL LANDSCAPING/SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS ISCOVERED VIA THE SITE INSPECTION BY STAFF, MADE PRIOR TO THE ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, OR FINAL INSPECTION AS APPLICABLE.

LANDSCAPING SHALL BE PLANTED AND MAINTAINED IN A NEAT, CLEAN AND HEALTHY CONDITION BY THE OWNER. THIS SHALL INCLUDE PROPER PRUNING, MOWING AND AERATION OF LAWNS, REPLACEMENT OF MULCH, WEEDING, REMOVAL OF LITTER AND THE REGULAR WATERING OF ALL PLANTINGS. IRRIGATION SHALL BE MAINTAINED TO MINIMIZE WATER CONSUMPTION. SHOULD ANY PLANT MATERIAL DIE, THE OWNER, SUCCESSOR, OR ASSIGNS SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF PLANT(S) WITHIN ONE PLANTING SEASON. REPLACEMENT OF PLANT MATERIALS SHALL OCCUR AT THE FOLLOWING RATE.

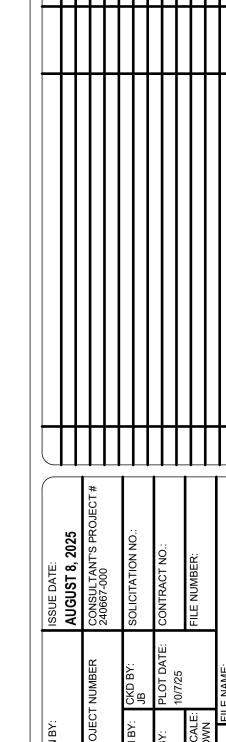
TYPE	PLANT REPLACEMENT WITHIN							
1112	1 YEAR	2+ YEARS						
TREE - DECIDUOUS	INCREASE CALIPER BY 1"	INCREASE CALIPER BY 1.5"						
TREE - CONIFEROUS	INCREASE HEIGHT BY 1.5'	INCREASE HEIGHT BY 2'						
ISHRUB		REPLACE WITH PLANTS OF AT LEAST 1/2 MATURE SIZE						

	LANDSCAPE AND TRE	E REQUIREMENTS			
CODE SEC. 10.6.4.E 1a - STREE	T FRONTAGE				
REQUIREMENT	AREA/MEASUREMENT	REQ'D	PROV'D		
1 DECIDUOUS OR ORNAMENTAL STREET TREE	607.66 L.F. of Frontage along Telleen Ave 607.66/40=15.1915	15 TREES	REQUIREMENT MET BY EXISTING TREES TO REMAIN OF PROTECT		
FOR EVERY 40 LINEAR FEET OF STREET FRONTAGE	394.16 L.F. of Frontage along E County Line Road 394.16/40=9.854	10 TREES	REQUIREMENT MET BY EXISTING TREES TO REMAIN & PROTECT		
CODE SEC. 10.6.4.E 7b - MIN. RE	EQUIRED LANDSCAPE AREA				
REQUIREMENT	AREA/MEASUREMENT	REQ'D	PROV'D		
MINIMUM 15% OF THE GROSS SITE AREA SHALL BE LANDSCAPED AREA	160,425 S.F. 15% = 24,064 S.F.	24,064 S.F.	38,709 S.F.		
CODE SEC. 10.6.4.E 7c (i) - MIN.	REQUIRED SITE TREES				
REQUIREMENT	AREA/MEASUREMENT	REQ'D	PROV'D		
1 SHRUB PER 150 S.F. OF LANDSCAPED AREA	+/- 38,709 S.F. LANDSCAPED AREA	258 SHRUBS	560 SHRUBS		
CODE SEC. 10.6.4.E 8e (i) - MIN.	REQUIRED TREES PER P.S.				
REQUIREMENT	AREA/MEASUREMENT	REQ'D	PROV'D		
1 TREE FOR EVERY 15 PARKING SPACES	151 P.S. 151/15=10.06	10 TREES	83 TREES		
CODE SEC. 10.6.4.E 8e (i) - MIN.	REQUIRED SHRUBS PER P.S.		1		
REQUIREMENT	AREA/MEASUREMENT	REQ'D	PROV'D		
1 SHRUB FOR EVERY PARKING SPACE	151 P.S.	151 SHRUBS	560 SHRUBS		





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FOR PERMIT

NOT FOR CONSTRUCTION

ERIE PD - ADDITION &
RENOVATION

ON TELLEEN AVENUE, ERIE, COLORADO 80516

LANDSCAPE NOTES &
SCHEDULE

SHEET IDENTIFICATION LP001

LANDSCAPE AND IRRIGATION - GENERAL

- 1. THE DEVELOPER/ARCHITECT SHALL ENSURE THAT LANDSCAPE AND IRRIGATION PLANS ARE COORDINATED WITH PLANS DONE BY OTHERS SO THE PROPOSED GRADING, DRAINAGE WORK, OR OTHER CONSTRUCTION DOES NOT CONFLICT OR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS ON THIS PLAN.
- 2. THE CONTRACTOR SHALL CERTIFY THAT THE GRADE IS WITHIN PLUS OR MINUS ONE-TENTH (1/10TH) OF THE FINAL GRADING PLAN PRIOR TO COMMENCEMENT OF ANY LANDSCAPE OR IRRIGATION WORK.
- 3. ANY REVISION TO THE LANDSCAPE OR IRRIGATION PLANS SHALL BE REVIEWED AND APPROVED BY THE DIRECTOR OF PARKS AND RECREATION OR DESIGNEE PRIOR TO IMPLEMENTATION.
- 4. DO NOT DISTURB PAVING, LIGHTING, LANDSCAPE OR IRRIGATION THAT EXISTS ADJACENT TO THE SITE UNLESS OTHERWISE APPROVED OR AS NOTED ON PLANS.
- 5. INSPECTIONS FOR TOWN OF ERIE MAINTAINED TRACTS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SCHEDULING AND COORDINATION OF ALL REQUIRED INSPECTIONS WITH THE TOWN OF ERIE. THE CONTRACTOR SHALL PROVIDE FORTY-EIGHT (48) HOURS NOTICE FOR ALL INSPECTIONS. REFER TO TOWN OF ERIE STANDARDS AND SPECIFICATIONS FOR ALL REQUIRED INSPECTIONS.
- 6. INSPECTIONS ALL HOA/METRO DISTRICT MAINTAINED TRACTS SHALL BE INSPECTED BY A COLORADO LANDSCAPE ARCHITECT IN GOOD STANDING AND PAID FOR BY THE DEVELOPER. ALL TOWN OF ERIE LANDSCAPE ACCEPTANCE PROCEDURES SHALL BE FOLLOWED.
- 7. WARRANTY THE CONTRACTOR SHALL WARRANTY THE WORKMANSHIP AND IRRIGATION SYSTEM FOR A PERIOD OF TWO YEARS OR AS STATED IN THE CONTRACT DOCUMENTS.
- 8. RECORD DRAWINGS APPROVED CONSTRUCTION DRAWINGS SHALL BE ON SITE AND UPDATED DAILY WITH AS-BUILT MARKUPS. CONTRACTOR SHALL MAKE AS-BUILTS AVAILABLE ON SITE TO TOWN STAFF FOR REVIEW AND INSPECTION IMMEDIATELY UPON REQUEST. RECORD ALL CHANGES WHICH ARE MADE FROM CONTRACT DRAWINGS. RECORD ALL REQUIRED INFORMATION ON AS-BUILT DRAWINGS. DO NOT USE THESE PRINTS FOR ANY OTHER PURPOSE.
- 9. RECORD DRAWINGS FOR TOWN OWNED AND MAINTAINED PROPERTIES CONTRACTOR SHALL SUBMIT AN ELECTRONIC VERSION OF AS-BUILT PLAN DRAWINGS IN THE LATEST VERSION OF PDF PRIOR TO INITIAL ACCEPTANCE OR SUBSTANTIAL COMPLETION.
- 10. RECORD DRAWINGS FOR HOA OWNED AND MAINTAINED PROPERTIES CONTRACTOR SHALL SUBMIT A FULL SET OF AS-BUILTS, WITH THE ACCURACY ATTESTED TO AND STAMPED BY A REGISTERED LANDSCAPE ARCHITECT LICENSED TO PRACTICE IN COLORADO. ALL AS-BUILT DRAWINGS SHALL CONTAIN THE FOLLOWING STATEMENT SIGNED BY THE LANDSCAPE ARCHITECT:

THIS PLAN AND THE INFORMATION CONTAINED HEREIN, ACCURATELY REPRESENTS THE AS-BUILT CONDITION, AND IS CONTRUCTED IN ACCORDANCE WITH THE ACCEPTED PLANS FOR THE IMPROVEMENTS.

DATE SIGNATURE

- 11. THE CONTRACTOR SHALL IDENTIFY, VERIFY AND PROTECT CONTROL POINT. CONTRACTOR SHALL VERIFY LOCATION OF CONTROL POINT WEEKLY AND THE ORIGINAL CONDITION OF CONTROL POINT PIN SHALL BE MAINTAINED THROUGHOUT ENTIRE PROJECT. LOCATION AND G.P.S COORDINATES OF THE CONTROL POINT SHALL BE IDENTIFIED ON ALL PLANS AND AS-BUILTS.
- 12. FOR FURTHER INFORMATION, SEE SECTION 200 ACCEPTANCE PROCEDURES OF THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS.

## LANDSCAPE

- I. GRAPHIC SYMBOLS SHALL PRESIDE OVER WRITTEN PLANT QUANTITIES.
- ALL TREE SPECIES SHALL BE FROM THE TOWN OF ERIE APPROVED TREE LIST.
- 3. NATIVE PLANTS SHALL BE USED IN NATIVE SEED AREAS. REFER TO STANDARDS AND SPECIFICATIONS FOR COMPLETE SPECIES LIST.
- 4. ALL STREET TREE SPECIES AND THEIR LOCATIONS SHALL BE APPROVED BY THE DIRECTOR OF PARKS AND RECREATION OR DESIGNEE FOR TREES PLANTED ADJACENT TO RESIDENTIAL HOMES WHETHER THEY ARE INSTALLED BY THE DEVELOPER, CONTRACTOR, BUILDER, OR HOMEOWNER.
- 5. NO ASH TREES SHALL BE PLANTED UNDER ANY CIRCUMSTANCES.

## LANDSCAPE - EXECUTION

## SOIL AMENDMENTS

1. PRIOR TO THE INSTALLATION OF PLANT MATERIAL, SOD, OR SEED, THE CONTRACTOR SHALL THOROUGHLY TILL EXISTING MATERIALS. THE CONTRACTOR SHALL THEN THOROUGHLY INCORPORATE ORGANIC AMENDMENTS AT A RATE OF FIVE (5) CU. YARDS PER THOUSAND (1000) FEET FOR ALL LANDSCAPED AREAS AND AT A RATE OF THREE (3) CU. YARDS PER THOUSAND (1000) FEET FOR ALL NATIVE AREAS.

THE FOLLOWING IS A LIST OF THE REQUIRED SOIL PREPARATION INSPECTIONS IN THEIR ORDER:

- 1. THE CONTRACTOR SHALL CERTIFY THAT THE GRADE IS WITHIN PLUS OR MINUS ONE-TENTH (1/10TH) OF THE FINAL GRADING PLAN PRIOR TO COMMENCEMENT OF ANY LANDSCAPE OR IRRIGATION WORK.
- 2. AFTER FIRST CULTIVATION
- 3. AFTER APPLICATION OF SPECIFIED ORGANIC MATERIALS
- 4. AFTER FINAL GRADE IS COMPLETED (BEFORE SEEDING, SODDING, OR PLANTING)

ANY WORKMANSHIP DEEMED BY THE TOWN TO BE FAULTY OR NOT IN ACCORDANCE WITH THE ACCEPTED PLANS AND THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS SHALL BE CORRECTED AT THIS TIME.

FOR TOWN OF ERIE TRACTS, TO BE MAINTAINED BY THE TOWN AFTER THE APPLICABLE WARRANTY PERIOD, THE TOWN SHALL APPROVE ALL ORGANIC MATERIALS AND FERTILIZER, APPROVE SEED MIXES, COLLECT SEED TAGS. ANY UNSATISFACTORY MATERIALS SHALL BE REMOVED AND REPLACED WITH MATERIALS CONFORMING TO THE STANDARDS AND SPECIFICATIONS. WEIGHT TICKETS FOR ALL MATERIALS SHALL BE SUBMITTED TO THE TOWN AND CONFIRMATION IS REQUIRED BY TOWN INSPECTORS PRIOR TO SPREADING THE MATERIALS.

## NATIVE SEEDING

SEEDING TIME FRAMES SHALL FOLLOW DATES IDENTIFIED FOR SPECIFIED SEED MIXES IN THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS. PERMISSION FOR EXCEPTIONS TO THIS SEEDING TIME MUST BE OBTAINED PRIOR TO SEEDING FROM THE DIRECTOR OF PARKS AND RECREATION OR DESIGNEE. NO SEEDING SHALL BE DONE WHEN THE SOIL IS FROZEN, SNOW COVERED OR EXCESSIVELY WET/

SEEDING, MOWING AND WEED CONTROL SHALL ALL BE CARRIED OUT AS DETAILED IN THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS.

CONTRACTOR SHALL APPLY BIOSOL OR APPROVED EQUAL AT A RATE OF EIGHT HUNDRED (800) POUNDS PER ACRE TO ALL NATIVE AREAS IMMEDIATELY FOLLOWING SEEDING, AND PRIOR TO THE APPLICATION OF HYDRO-MULCH.

HYDRO-MULCH SHALL BE WOOD CELLULOSE FIBER TYPE AND SHALL BE APPLIED AT THE MINIMUM RATE OF TWO THOUSAND FIVE HUNDRED (2500) POUNDS PER ACRE, WITH A MINIMUM RATE OF ONE HUNDRED FIFTY (150) POUNDS PER ACRE TACKIFIER, AND SHALL BE APPLIED IMMEDIATELY AFTER SEED APPLICATION. AT THIS RATE SOIL COVERAGE IS 100%.

STRAW CONSISTING OF SEVENTY-FIVE (75) PERCENT STRAWS LONGER THAN TEN (10) INCHES MAY BE USED ON NATIVE SEEDING. IT SHALL BE APPLIED EVENLY OVER THE SEEDED SURFACE AT THE MINIMUM RATE OF TWO (2) TONS PER ACRE AND PARTIALLY EMBEDDED INTO THE SOIL USING A CRIMPER OR SIMILAR IMPLEMENT.

ALL HYDRO-MULCH SHALL BE REMOVED FROM ALL PLANT MATERIALS, FENCES, CONCRETE AND OTHER AREAS EXCEPT FOR SEED BED. OVERLY DENSE APPLICATIONS OF STRAW MULCH, OR WINDROWS OF LOOSE STRAW MULCH WHICH MAY SMOTHER SEEDLING GRASSES, MUST BE COLLECTED AND REMOVED. STRAW MULCH BLOWN ONTO ADJACENT RESIDENTIAL AREAS SHALL BE REMOVED BY THE LANDSCAPER RESPONSIBLE FOR THE PROJECT.

ALL NATIVE SEED SHALL RECEIVE TEMPORARY IRRIGATION UNTIL SEED IS ESTABLISHED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING BARRIERS AND SIGNS AS REQUIRED TO PROTECT SEEDED AREAS FROM PEDESTRIAN AND VEHICULAR DAMAGE.

THE CONTRACTOR SHALL WARRANTY ALL NATIVE SEEDED AREAS FOR CONSISTENCY AND COMPLETION OF COVERAGE. THE STANDARD OF ACCEPTABLE ESTABLISHMENT SHALL BE AT LEAST SIX (6) DESIRABLE SEEDED PLANT SEEDLINGS PER SQUARE FOOT. ALL BARE AREAS OVER 10 SQUARE FEET SHALL BE RE-SEEDED AND RE-MULCHED.

ANY REMAINING PEAT, SOIL, SAND, ROCK, OR SIMILAR MATERIAL WHICH HAS BEEN BROUGHT ONTO THE SITE, BY WORK OPERATIONS OR OTHERWISE, SHALL BE REMOVED, AND ALL OTHER REMAINING DEBRIS WILL BE DISPOSED OF. ALL GROUND AREA DISTURBED SHALL BE RENOVATED TO ITS ORIGINAL CONDITION OR TO THE REQUIRED NEW CONDITIONS.

## **EDGING**

EDGING SHALL BE THREE-SIXTEENTHS BY SIX (3/16 X 6) INCH GREEN PAINTED STEEL STANDARD EDGER WITH ROLL TOP. STAKING & GUYING

ALL TREES SHALL BE STAKED AND GUYED USING THE FOLLOWING MATERIALS

STAKES: SIX (6) FOOT STEEL TEE POSTS FOR DECIDUOUS TREES.
TWO (2) FOOT STEEL TEE POSTS FOR EVERGREEN TREES

STRAPS: GREEN WOVEN POLYPROPYLENE STRAP; 900 LB BREAK STRENGTH (DEEPROOT ARBORTIE 7 OR APPROVED EQUAL).

POST CAPS: SHALL BE INSTALLED ON THE TOP OF ALL STEEL TEE STAKES REGARDLESS OF THE STAKE LENGTH

## LANDSCAPE FABRIC

ALL LANDSCAPE FABRIC SHALL BE MIRAFI 140N GEO-TEXTILE POLYPROPYLENE FABRIC OR AN APPROVED EQUIVALENT

ALL SEAMS IN THE FABRIC SHALL OVERLAP A MINIMUM OF TWELVE (12) INCHES. LANDSCAPE FABRIC PINS WILL BE USED A MINIMUM OF EVERY THREE (3) FEET ALONG THE EDGE OF THE FABRIC AS WELL AS A MINIMUM OF THREE (3) FEET ON CENTER THROUGHOUT THE FABRIC.

FABRIC USED UNDER CRUSHER FINES TRAILS SHALL BE STAKED AS FOLLOWS: LANDSCAPE FABRIC PINS WILL BE USED A MINIMUM OF EVERY TEN (10) FEET

ALONG THE EDGE OF THE FABRIC. ADDITIONAL PINS WILL BE ADDED THROUGHOUT THE FABRIC AS NECESSARY DEPENDING ON THE WIDTH OF THE TRAIL BUT NO LESS THAN (10) FEET ON CENTER.

## SOD

SOD SHALL CONSIST OF A BLEND OF AT LEAST FOUR (4) VARIETIES OF BLUEGRASS. THIS BLEND IS TO BE APPROVED BY THE DIRECTOR OF PARKS & RECREATION OR DESGINEE.

SOD SHALL BE STRONGLY ROOTED AND FREE OF NOXIOUS WEEDS, UNDESIRABLE PLANTS, ROOTS, STONES, AND OTHER FOREIGN MATERIALS THAT WILL BE DETRIMENTAL OR WILL HINDER THE PROPER DEVELOPMENT OF THE SOD. SEE SECTIONS 1023.00 AND 1043.00 WITHIN THE TOWN OF ERIE STANDARDS AND SPECIFICATIONS FOR FURTHER INFORMATION.

## SEED

REFER TO TOWN OF ERIE STANDARDS & SPECIFICATIONS FOR APPROVED SEED MIXES FOR SPECIFIC USES.

FERTILIZER FOR NATIVE SEED – BIOSOL FORTE (OR APPROVED EQUAL) 7-2-1 SLOW-RELEASE ORGANIC FERTILIZER SHALL BE APPLIED TO ALL NATIVE SEEDED AREAS AT A MINIMUM RATE OF EIGHT HUNDRED (800) PLBS PER ACRE.

FERTILIZER FOR TURF GRASS SEEDING – STARTER FERTILIZER HAVING A RATIO OF APPROX. 5-15-1 WITH A MINIMUM ACCEPTABLE NITROGEN LEVEL OF 15%, A MINIMUM ACCEPTABLE PHOSPHORUS LEVEL OF 45%.

## PLANT MATERIAL

ALL PLANT MATERIAL SHALL COMPLY WITH THE AMERICAN STANDARD FOR NURSERY STOCK ANSI Z60.1-2004.

PLANTS SHALL EXHIBIT GOOD ANNUAL GROWTH AND BUDS SHALL BE PLUMP AND WELL FITTED FOR THE SPECIES. FOLIAGE SHALL BE FULL AND DISPLAY A HEALTHY AND CONSISTENT COLOR WHEN IN LEAF. EVERGREEN FOLIAGE WILL BE GOOD INTENSE COLOR.

PLANT TAGS STATING THE CORRECT PLANT NAME AND SIZE SHALL BE SECURELY ATTACHED TO ALL PLANT MATERIALS. PLANTS SHALL BE TRUE TO THEIR NAME AS SPECIFIED. PLANT MATERIALS NOT MEETING THESE STANDARDS ARE SUBJECT TO REJECTION.

ALL DECIDUOUS AND ORNAMENTAL TREES SHALL BE ONE AND A HALF (1.5) INCH CALIPER OR LARGER. CALIPER MEASUREMENT SHALL BE TAKEN SIX (6) INCHES ABOVE THE ROOT FLARE IF FOUR (4) INCHES OR LESS AND TWELVE (12) INCHES ABOVE THE ROOT FLARE FOR LARGER TREE SIZES.

ALL EVERGREEN TREES SHALL BE A MINIMUM OF SIX (6) FEET TALL OR LARGER. HEIGHT DIMENSIONS REFER TO THE MAIN BODY OF THE TREE, FROM THE ROOT COLLAR AND ABOVE.

SHRUBS SHALL BE FIVE (5) GALLON CONTAINERS OR LARGER.

PERENNIALS AND GROUNDCOVERS SHALL BE ONE (1) GALLON CONTAINER OR LARGER.

ANY CHANGES IN SPECIES AND PLANT LOCATIONS SHALL BE SUBMITTED TO THE DIRECTOR OF PARKS & RECREATION OR DESGINEE FOR REVIEW AND APPROVAL. OVERALL QUALITY AND DESIGN CONCEPT SHALL BE CONSISTENT WITH APPROVED LANDSCAPE DESIGN.

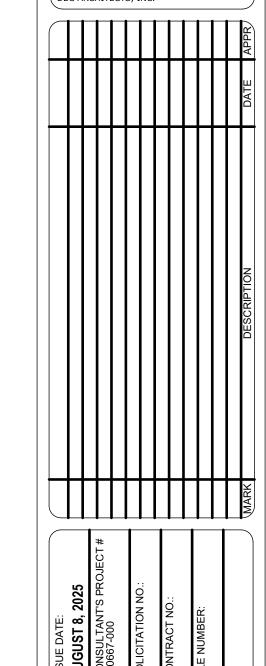
ALL NEW AND REPLACEMENT PLANT MATERIALS REQUIRE INSPECTION AND SHALL BE TAGGED BY THE DIRECTOR OF PARKS & RECREATION OR DESGINEE FOR ALL TOWN OF ERIE MAINTAINED AREAS PRIOR TO PLANTING. CONTACT APPROPRIATE TOWN OF ERIE STAFF TO ARRANGE FOR MATERIALS TO BE TAGGED.

PLANT MATERIALS SHALL BE LIVE, HEALTHY, VIGOROUS, STRUCTURALLY SOUND, AND FREE OF DISEASE AND INSECT INFESTATIONS. PLANT MATERIALS NOT MEETING THESE STANDARDS SHALL BE SUBJECT TO REJECTION AND SHALL BE REPLACED.



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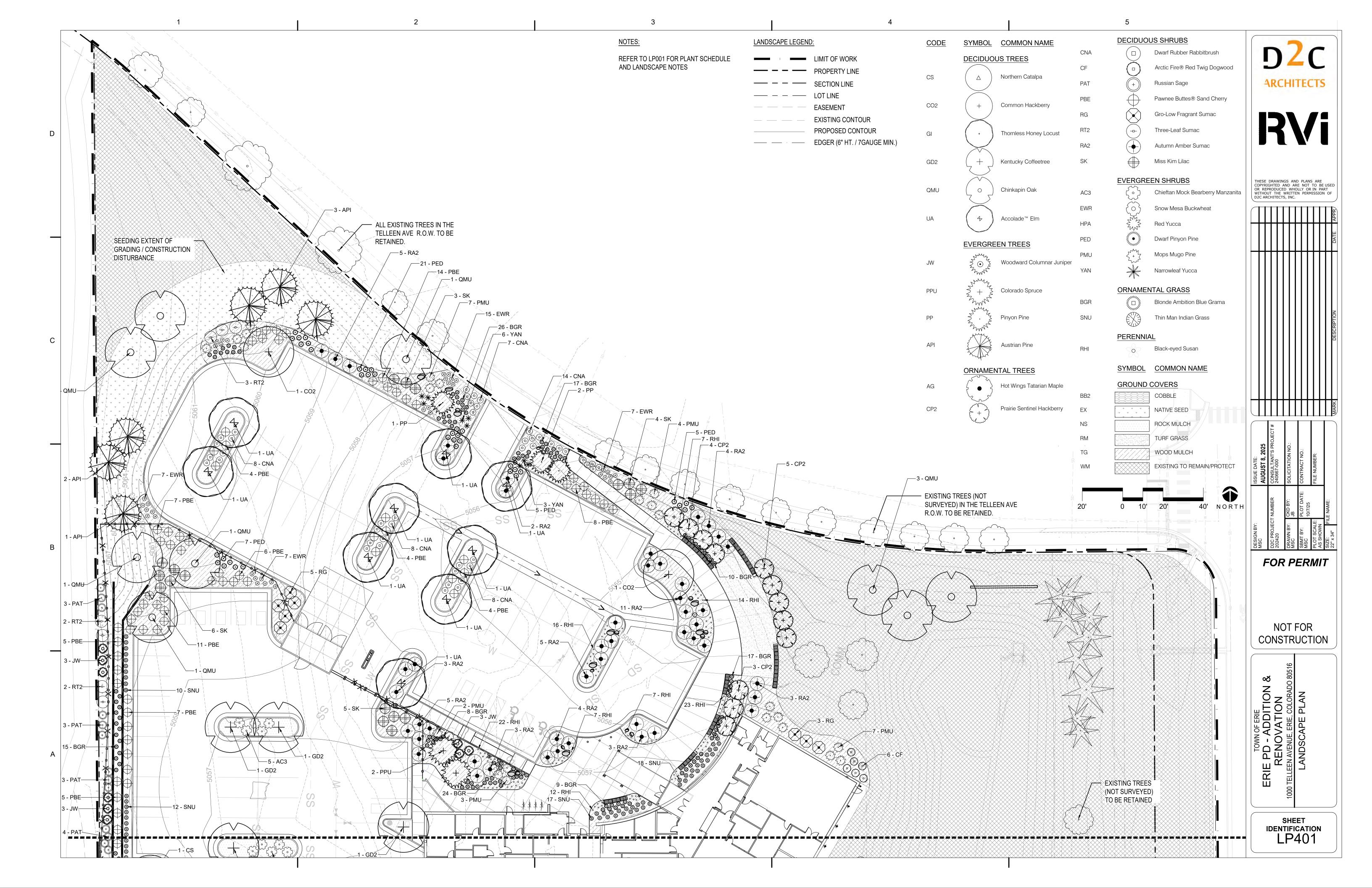
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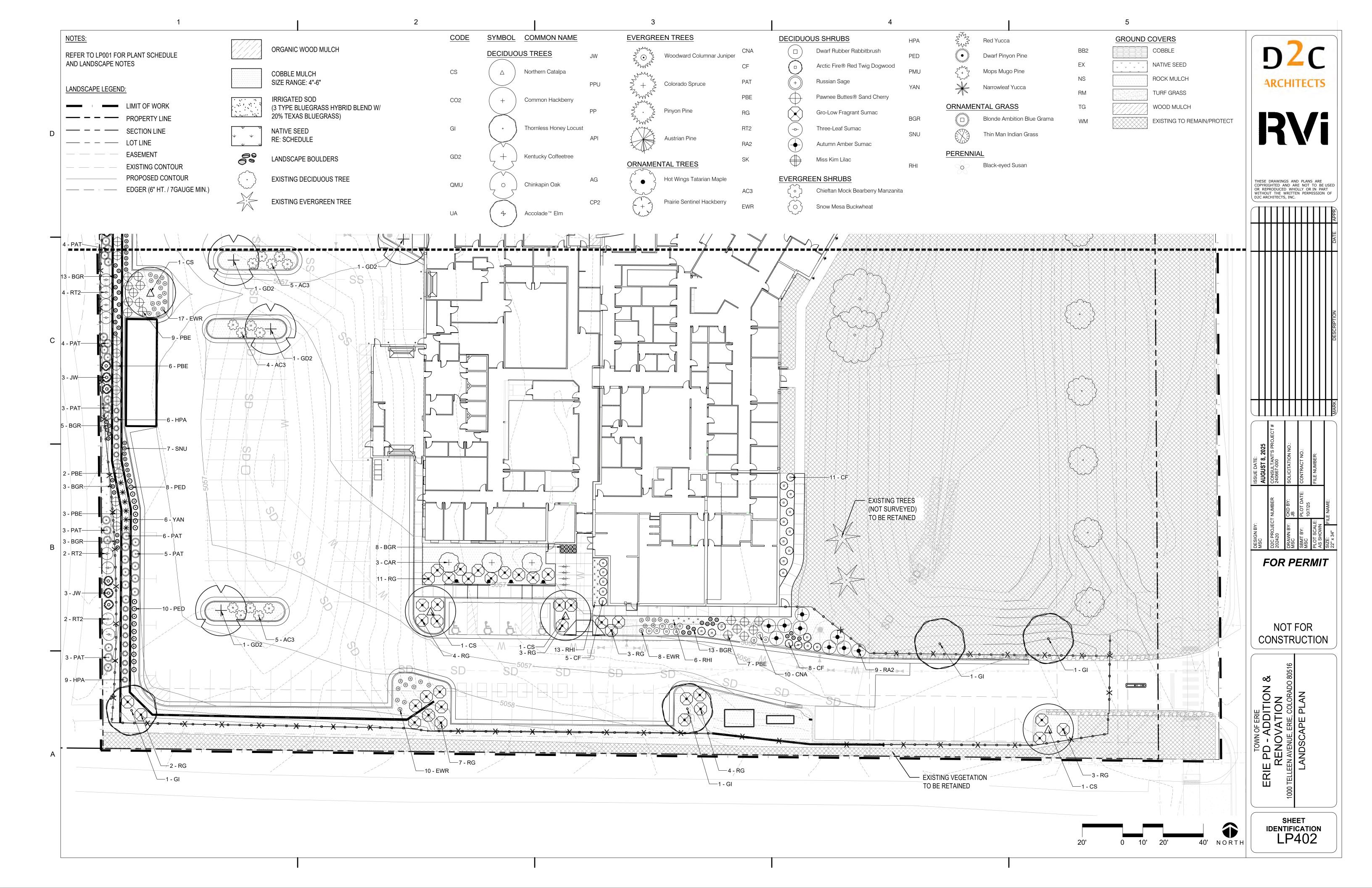
ERIE PD - ADDITION &
RENOVATION

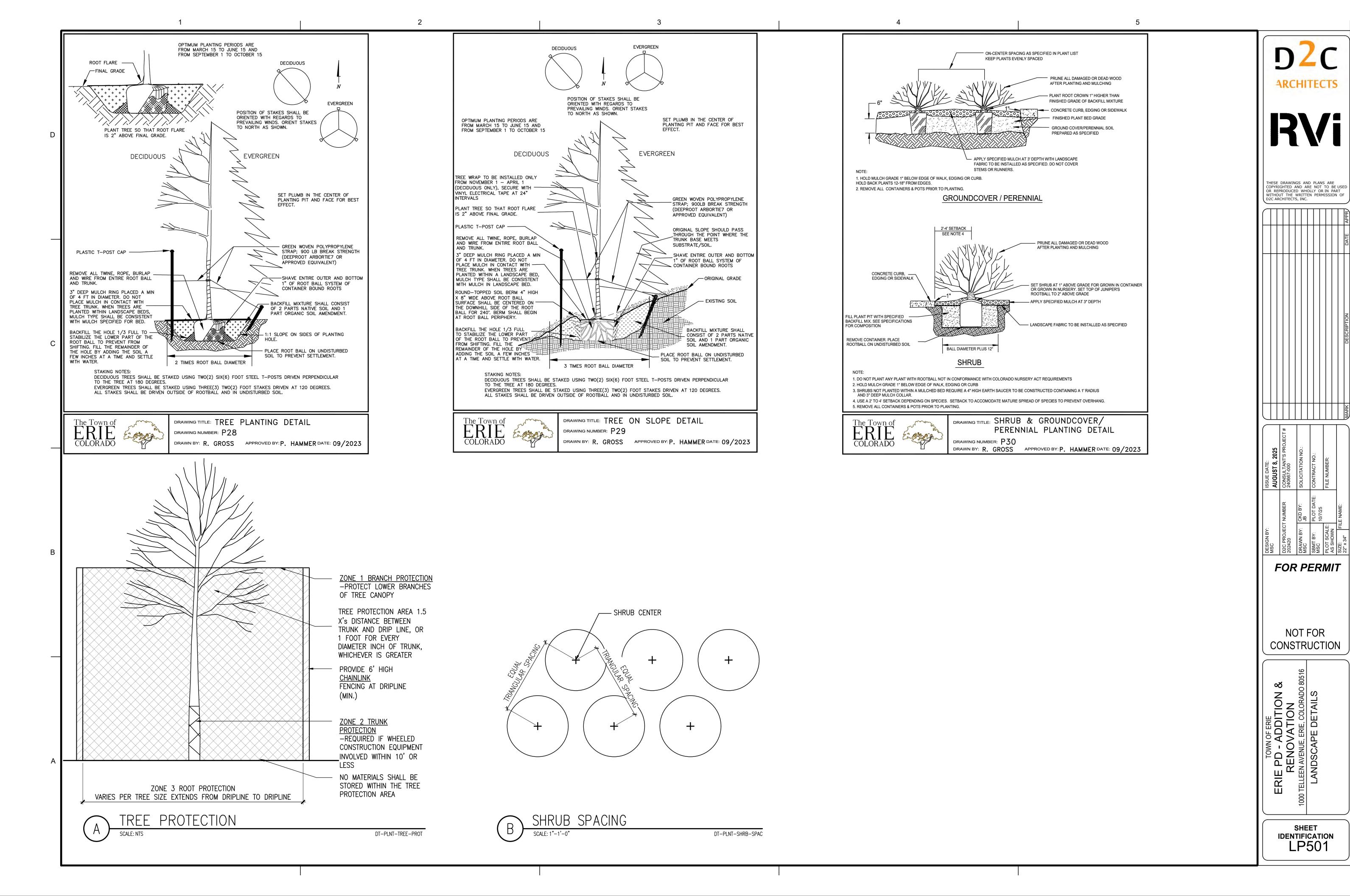
00 TELLEEN AVENUE, ERIE, COLORADO 80516

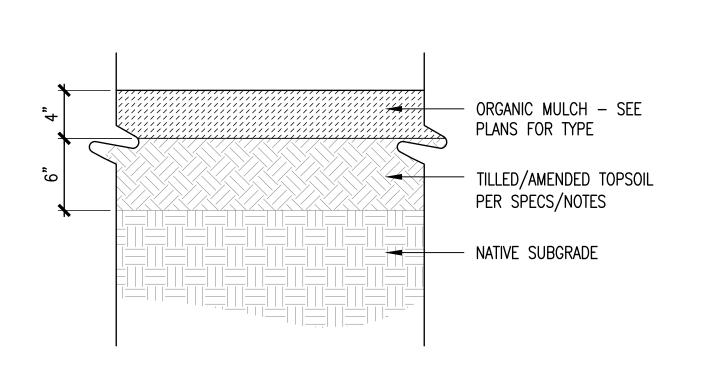
LANDSCAPE NOTES &

SHEET IDENTIFICATION LP002









D

TILLED/AMENDED TOPSOIL PER SPECS/NOTES
SUBGRADE

NOTES:

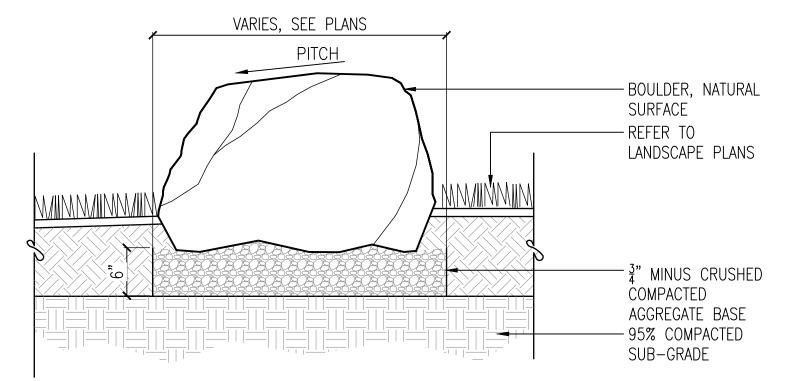
1. DO NOT INSTALL LANDSCAPE FABRIC UNDER MULCH.

ORGANIC MULCH

B COBBLE MULCH

SCALE: 1 1/2" = 1'-0"

DT-PLNT-MLCH



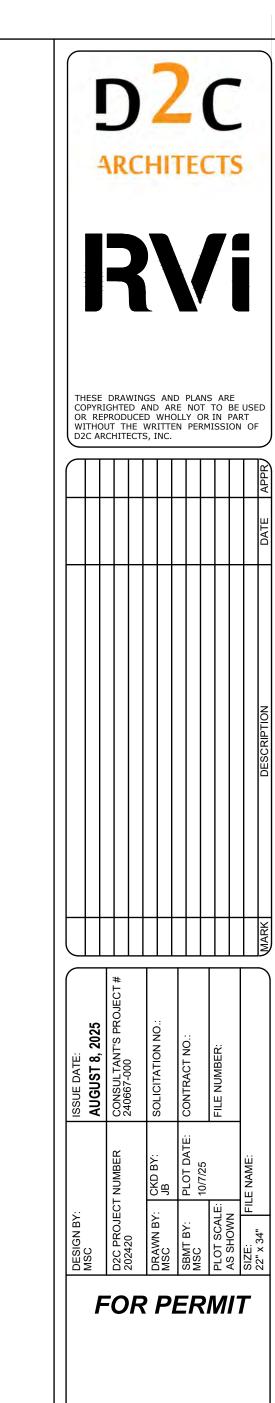
NOTES:

1. ALL BOULDERS TO BE SELECTED OR APPROVED BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE.

2. CONTRACTOR TO STAKE BOULDER LOCATIONS PER PLANS, AND FOR LANDSCAPE ARCHITECT APPROVAL, PRIOR TO FINAL INSTALLATION.

C LANDSCAPE BOULDER

Scale: 1"=1'-0"



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ERIE PD - ADDITION &
RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 80516
LANDSCAPE DETAILS

SHEET IDENTIFICATION LP502

D

- 2. WATER SOURCE: EXISTING 1.5-INCH IRRIGATION METER. SYSTEM IS DESIGNED FOR A MAX OF 50 GPM.
- 3. CONTROLLER: REPLACE EXISTING CONTROLLER WITH NEW IRRIGATION CONTROLLER. CONTROL WILL BE VIA TWO WIRE PATH AND DECODERS. GROUND CONTROL CABLE PER MANUFACTURER'S RECOMMENDATION. CONTROL CABLE NOT ADJACENT TO MAINLINE TO BE INSTALLED IN CONDUIT AND PROTECTED WITH WARNING TAPE. LOOP WIRE IN TRENCH EVERY ONE HUNDRED (100) FEET AND AT EVERY CHANGE IN DIRECTION OF PIPE.
- 4. THE ENTIRE INSTALLATION SHALL FULLY COMPLY WITH ALL LOCAL AND STATE LAWS AND ORDINANCES AND WITH ALL THE ESTABLISHED APPLICABLE CODES.
- 5. UTILITY LOCATES ("CALL BEFORE YOU DIG"): ARRANGE FOR AND COORDINATE WITH GENERAL CONTRACTOR AND LOCAL AUTHORITIES THE LOCATION OF ALL UNDERGROUND UTILITIES. CALL 1-800-849-2476.
- 6. REFER TO THE TOWN OF ERIE STANDARD AND SPECIFICATIONS FOR MATERALS AND WARRANTY IRRIGATION SYSTEM FOR ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF WORK.
- 7. DO NOT PROCEED WITH THE INSTALLATION OF IRRIGATION COMPONENTS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS OR GRADE DIFFERENCES EXIST THAT WERE NOT CONSIDERED IN THE ENGINEERING. IF DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS EXIST, BRING THEM TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- 12. COMPACT TRENCHES IN 6-INCH LIFTS TO 90% PROCTOR DENSITY. PUDDLING OF TRENCHES IS NOT ALLOWED.

13. VALVES:

- a. ALL VALVES SHALL BE WITHIN THREE (3) INCHES FROM THE BOTTOM OF VALVE BOX LID AND THREE (3) INCH MINIMUM OF DEPTH FROM THE BOTTOM OF THE VALVE TO THE GRAVEL LAYER IN THE VALVE BOX.
- b. ALL VALVE BOXES SHALL BE SET FLUSH WITH FINAL GRADEc. ALL VALVE BOXES SHALL BE BRANDED WITH ASSOCIATED
- VALVE NUMBER.
- 14. ADJUST EACH SPRINKLER TO PROVIDE COMPLETE AND OPTIMUM COVERAGE WITH MINIMUM OVERSPRAY ONTO HARDSCAPE.
- 15. PROVIDE TWO (2) OPERATING KEYS FOR EACH TYPE OF MANUALLY OPERATED VALVE.
- 16. FURNISH ACCURATE REPRODUCIBLE "AS-BUILT" DRAWINGS SHOWING FIELD CHANGES IN LAYOUT AND EQUIPMENT INSTALLATION. AS-BUILT DRAWINGS TO BE PLOTTED OUT FULL SCALE ALSO INCLUDE AN ELECTRONIC COPIES IN AUTOCAD AND ADOBE ACROBAT (PDF) FORMAT.
- 17. CLEAN UP ALL DEBRIS RELATED TO THE JOB, AND LEAVE THE SITE IN A CLEAN TIDY CONDITION.
- 18. TEST AND DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THE SATISFACTORY OPERATION OF THE SYSTEM.
- 19. THE CONTRACTOR SHALL PROVIDE A SEASONAL MAINTENANCE SCHEDULE WHICH SHALL BEGIN ON APRIL 15TH AND END ON OCTOBER 15TH TO ENSURE THE EFFICIENCY AND LONGEVITY OF THE IRRIGATION SYSTEM. THE MAINTENANCE SCHEDULE SHALL INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING LIST OF BEST MANAGEMENT PRACTICES:
  - CHECK HEADS FOR COVERAGE AND LEAKAGE.
  - CHECK CONTROLLER PROGRAMMING AND ADJUST FOR SEASONAL CHANGES AS NECESSARY.
  - VERIFY THAT THE WATER SUPPLY AND PRESSURE ARE AS STATED IN THE DESIGN.
  - CERTIFY THE BACKFLOW PREVENTION DEVICE AND SUBMIT TEST RESULTS TO THE PROPERTY MANAGER.
  - PERIODICALLY VERIFY THE THE SENSORS IN THE IRRIGATION SYSTEM ARE OPERATING CORRECTLY.
  - WINTERIZATION AND SPRING START UP PROCEDURES.

## **ERIE IRRIGATION NOTES**

THE CONTRACTOR SHALL IDENTIFY, VERIFY AND PROTECT CONTROL POINT. CONTRACTOR SHALL VERIFY LOCATION OF CONTROL POINT WEEKLY, AND THE ORIGINAL CONDITION OF CONTROL POINT PIN SHALL BE MAINTAINED THROUGHOUT ENTIRE PROJECT. LOCATION AND G.P.S. COORDINATES OF THE CONTROL POINT SHALL BE IDENTIFIED ON ALL PLANS AND AS-BUILTS.

THE IRRIGATION SYSTEM SHALL BE INSTALLED AFTER SOIL PREPARATION AND PRIOR TO PLANT MATERIALS.

### **IRRIGATION – MATERIALS**

REFER TO THE TOWN OF ERIE STANDARD AND SPECIFICATIONS FOR MATERIALS

### **IRRIGATION – INSTALLATION**

LOOP WIRE IN TRENCH EVERY ONE HUNDRED (100) FEET AND AT EVERY CHANGE IN DIRECTION OF PIPE.

ALL MAINLINE SHALL HAVE TWENTY-FOUR (24) INCH COVER, ROTOR LATERAL

LINES SHALL HAVE EIGHTEEN (18) INCH COVER, AND POP-UPS SHALL HAVE TWELVE (12) INCH COVER.

ALL MAINLINE SHALL USE FORTY-FIVE (45) DEGREE FITTINGS. NINETY DEGREE

(90) FITTINGS SHALL NOT BE USED ON MAINLINE UNLESS APPROVED BY THE

DIRECTOR OF PARKS & RECREATION OR DESGINEE.

ALL VALVES SHALL BE WITHIN THREE (3) INCHES FROM THE BOTTOM OF VALVE

BOX LID AND THREE (3) INCH MINIMUM OF DEPTH FROM THE BOTTOM OF THE

VALVE TO THE GRAVEL LAYER IN THE VALVE BOX.

ALL VALVE BOXES SHALL BE SET FLUSH WITH FINAL GRADE.

ALL VALVE BOXES SHALL BE BRANDED WITH ASSOCIATED VALVE NUMBER.

ALL LINES (PIPE AND ELECTRICAL) SHALL BE SLEEVED UNDER HARDSCAPES. SLEEVE LOCATIONS SHALL BE MARKED WITH AN "X" IN THE HARDSCAPE.

## IRRIGATION - MAINTENANCE

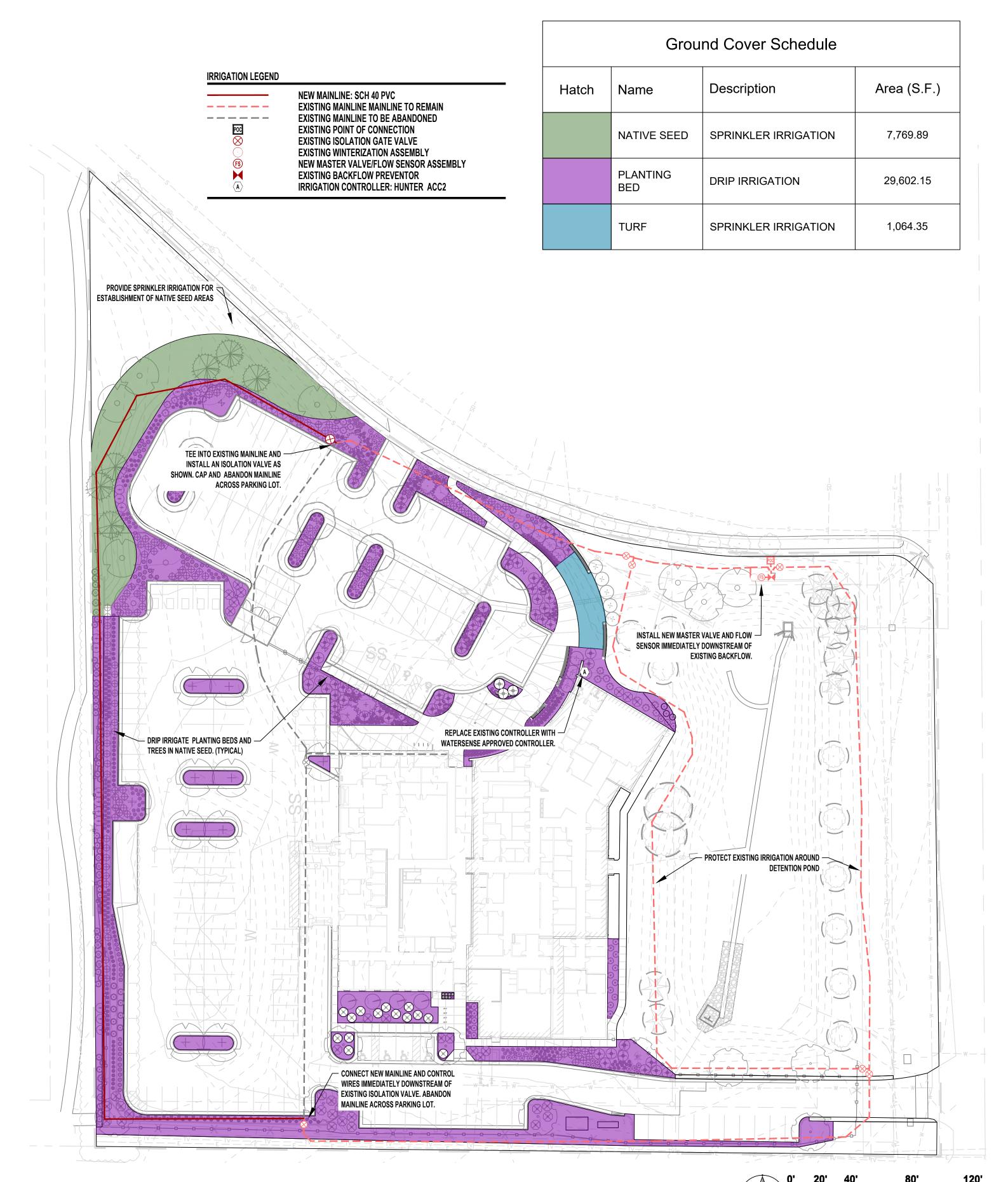
THE CONTRACTOR SHALL ENSURE THAT ALL PLANT MATERIALS, SOD, AND

SEEDED AREAS ARE WATERED AS NECESSARY UNTIL FINAL ACCEPTANCE HAS BEEN GRANTED.

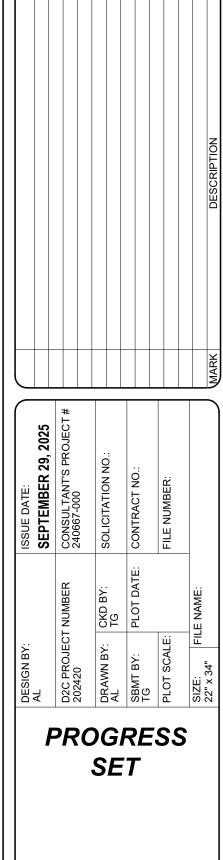
CONTRACTOR SHALL BE RESPONSIBLE FOR MONTHLY WATER APPLICATION

ADJUSTMENTS, CLEANING OF ALL FILTERS AND SCREENS, ANNUAL BACKFLOW

PREVENTION TESTING, AND SPRING TURN ON AND WINTER BLOW OUTS UNTIL SUBSTANTIAL COMPLETION OR FINAL ACCEPTANCE.







ERIE PD - ADDITION &
RENOVATION
00 TELLEEN AVENUE, ERIE, COLORADO 80516
PRELIMINARY IRRIGATION
PLAN

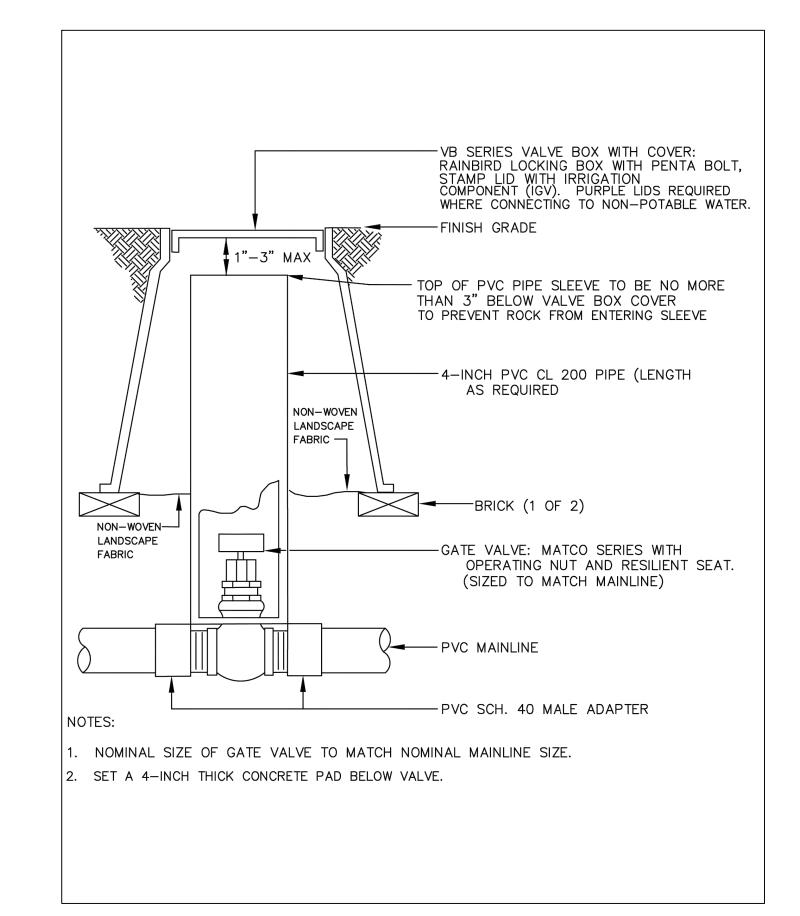
NOT FOR

CONSTRUCTION

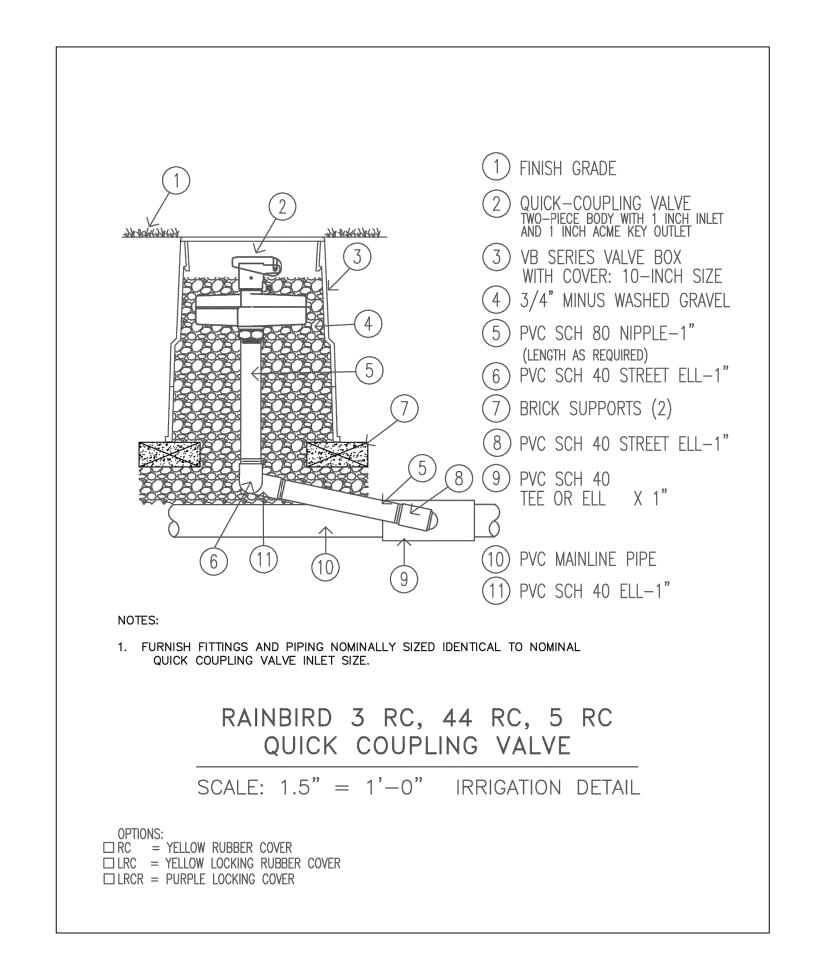
SHEET IDENTIFICATION IR-1

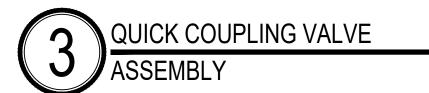
SCALE MUST MEASURE 1 INCH OR DRAWING IS NOT TO SCALE

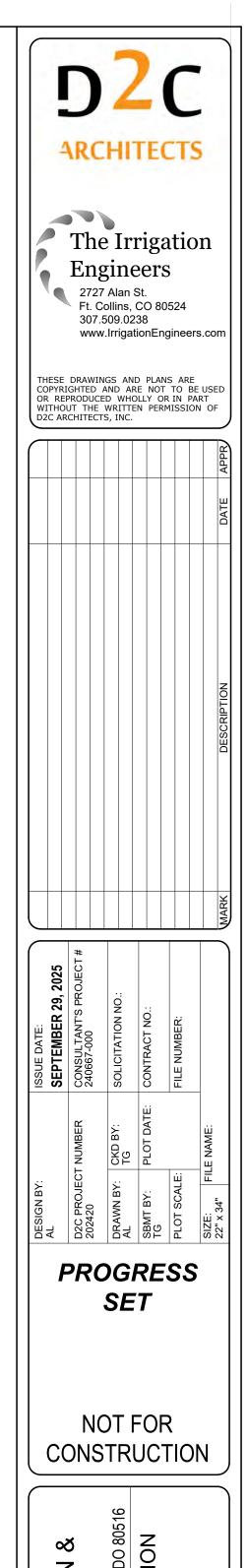






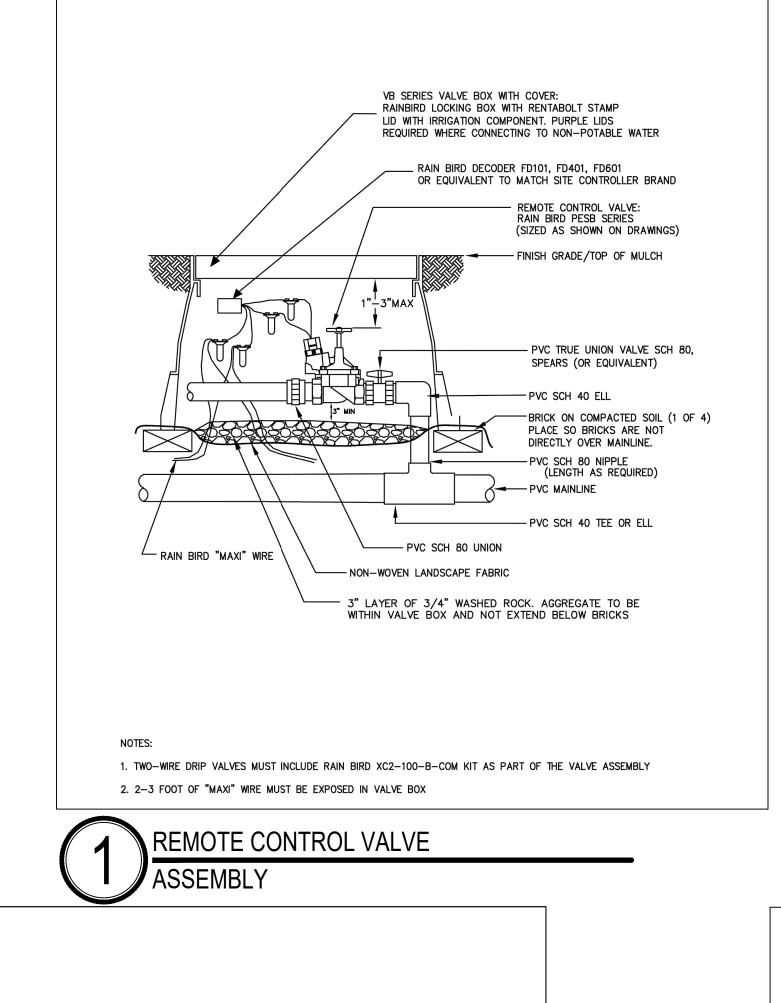


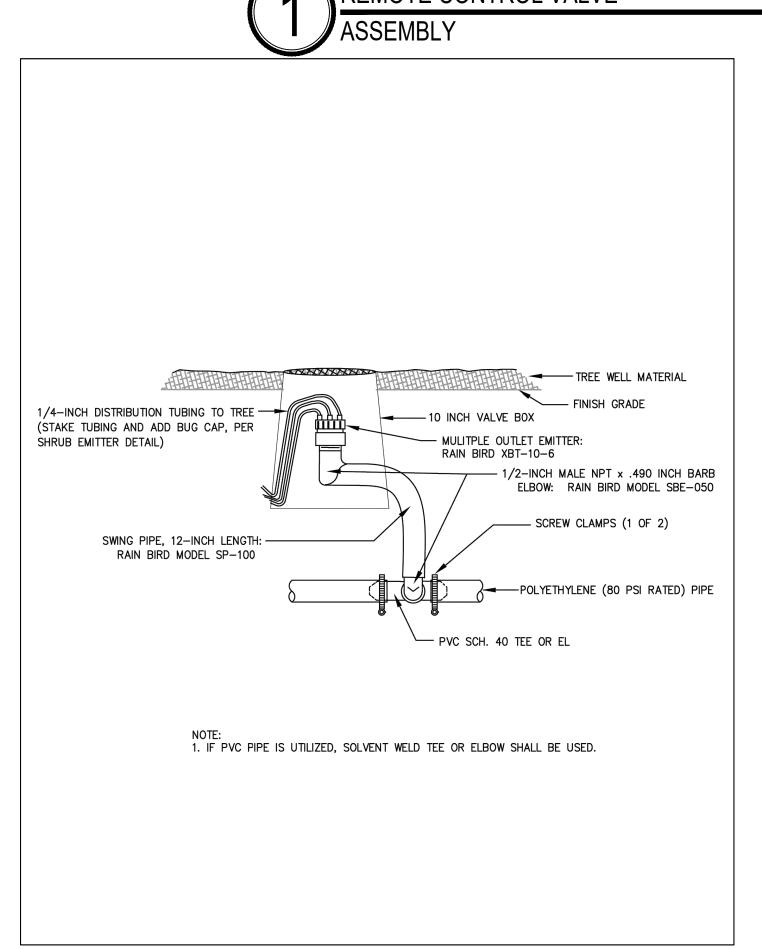




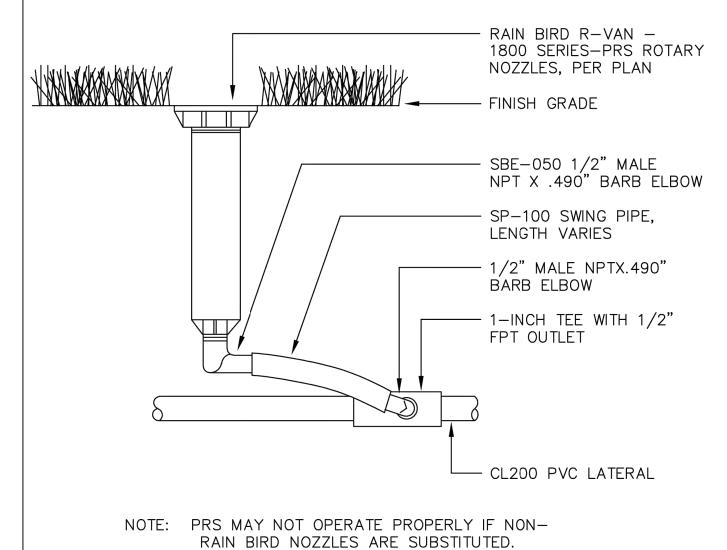
ERIE PD - ADDITION &
RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 80516
PRELIMINARY IRRIGATION

SHEET IDENTIFICATION IR-2

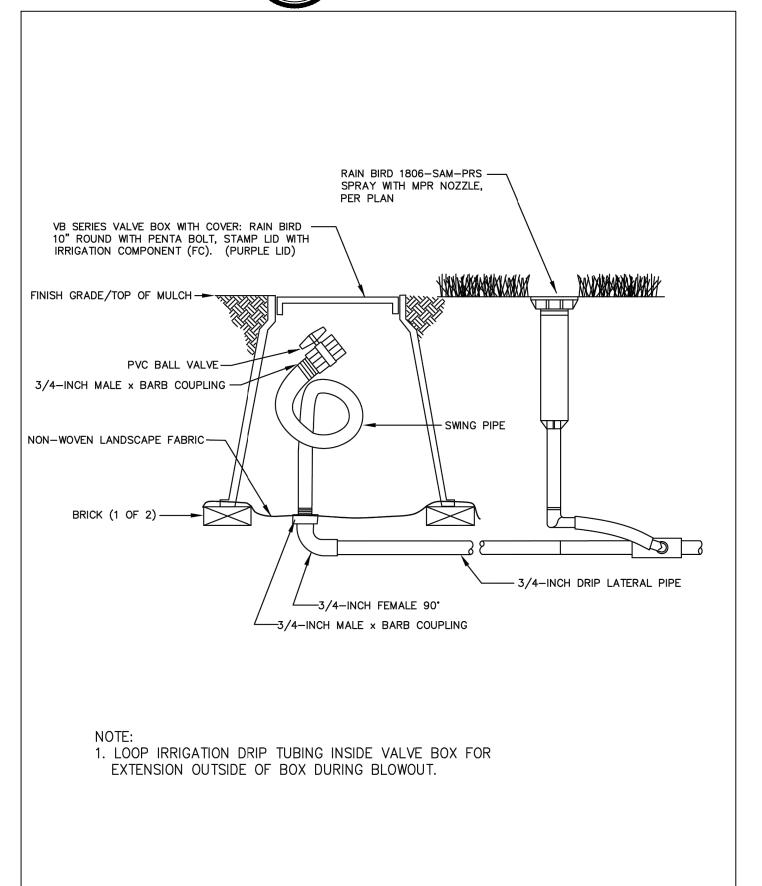


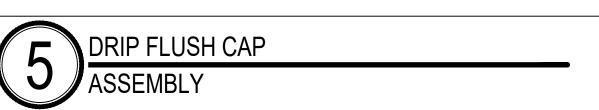


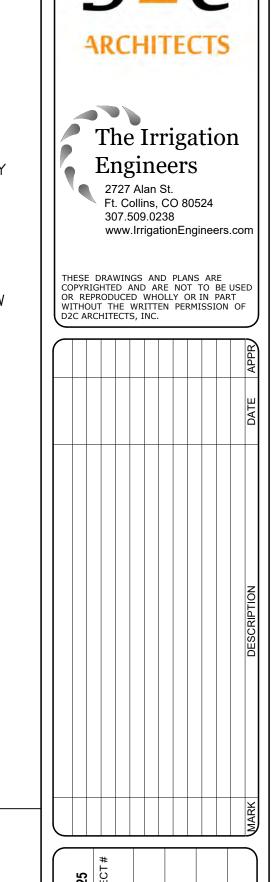
TYPICAL EMITTER PLACEMENT & SCHEDULE

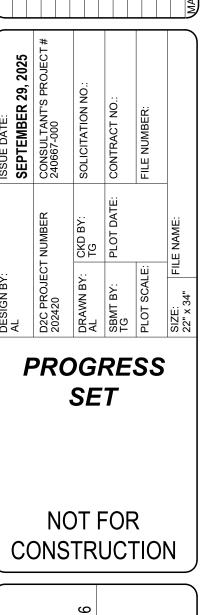


SPRINKLER









TOWN OF ERIE

ERIE PD - ADDITION &

RENOVATION

DO TELLEEN AVENUE, ERIE, COLORADO 80516

PRELIMINARY IRRIGATION

PLAN

SHEET **IDENTIFICATION** IR-3

DRIP REMOTE CONTROL

PVC SCH 40 ELL

—— PVC SCH 80 NIPPLE (TYP, LENGTH AS REQ'D)

30-INCH LINEAR LENGTH OF WIRE, COILED

WATER PROOF CONNECTION 3M-DBYR6 (1 OF 2)

/-- VB SERIES VALVE BOX WITH COVER: RAINBIRD VB-JMB — ID TAG: RAIN BIRD VID SERIES

- 3" LAYER OF 4/3" WASHED ROCK. ROCK LAYER TO

TRUE UNION BALL VALVE SCH 80

NON-WOVEN LANDSCAPE FABRIC

BE WITHIN VALVE BOX AND NOT EXTEND BELOW BRICKS

- TOP OF MULCH

- COILED SPARE WIRES

— FINISH GRADE

- PVC LATERAL

- PVC MAINLINE

- PVC SCH 40 MALE ADAPTER

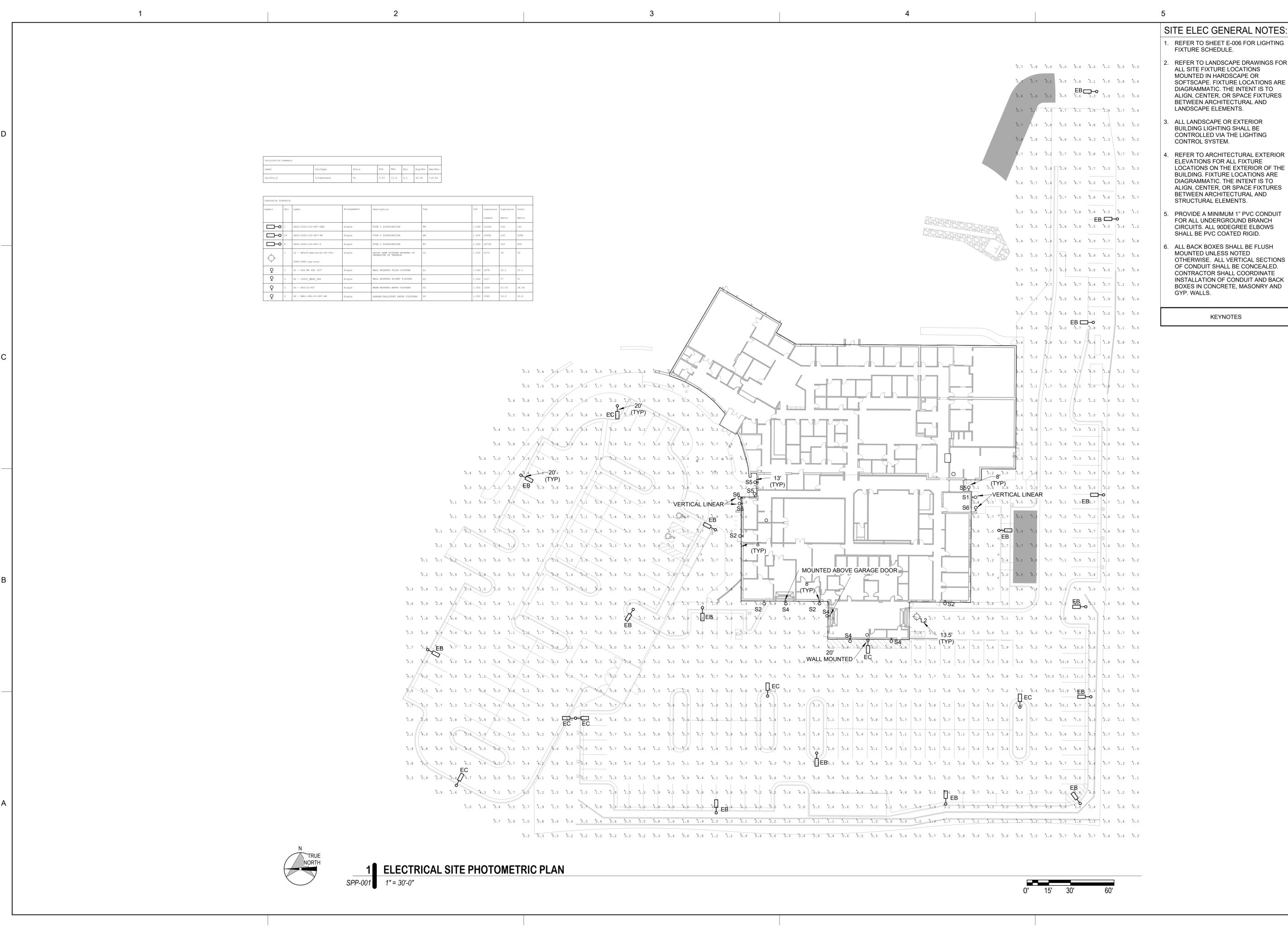
- PVC SCH 80 NIPPLE, CLOSE

- PVC SCH 80 UNION FOR SERVICING ASSEMBLY

CONTROL ZONE KIT: RAIN BIRD PEB XCZ-100-PRB-COM (INCLUDES BALL VALVE AND QKCHK200 BASKET FILTER)

BRICK (1 OF 4)

----- PVC SCH 40 TEE OR ELL



1. REFER TO SHEET E-006 FOR LIGHTING

. REFER TO LANDSCAPE DRAWINGS FOR SOFTSCAPE. FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND

ALL LANDSCAPE OR EXTERIOR CONTROLLED VIA THE LIGHTING

I. REFER TO ARCHITECTURAL EXTERIOR **ELEVATIONS FOR ALL FIXTURE** LOCATIONS ON THE EXTERIOR OF THE BUILDING. FIXTURE LOCATIONS ARE DIAGRAMMATIC. THE INTENT IS TO ALIGN, CENTER, OR SPACE FIXTURES BETWEEN ARCHITECTURAL AND

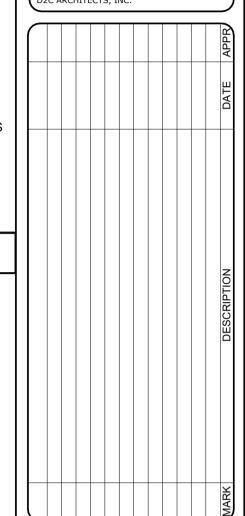
PROVIDE A MINIMUM 1" PVC CONDUIT FOR ALL UNDERGROUND BRANCH CIRCUITS. ALL 90DEGREE ELBOWS

6. ALL BACK BOXES SHALL BE FLUSH OTHERWISE. ALL VERTICAL SECTIONS OF CONDUIT SHALL BE CONCEALED. CONTRACTOR SHALL COORDINATE INSTALLATION OF CONDUIT AND BACK BOXES IN CONCRETE, MASONRY AND

**ARCHITECTS** 

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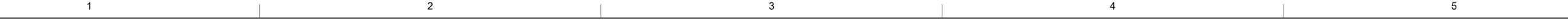
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**DESIGN** | DEVELOPMENT

NOT FOR CONSTRUCTION

SHEET **IDENTIFICATION** SPP-00°



LOCATION:

Gray Shading = Service Program QS10

Example: ASL1-80L-50-3K7-2-UNV-ASQU-BLT-7PRMD-40F

S2 drill pattern

RPA3 Adapter

RPA4 Adapter

A5 Square Arm with 5" OD RPA5

MAF Mast Arm Fitter for 2-3/8" OD

BLS Black Gloss Smooth

DBT Dark Bronze Matte Textured

DBS Dark Bronze Gloss Smooth

GTT Graphite Matte Textured

LGS Light Grey Gloss Smooth

PSS Platinum Silver Smooth

WHT White Matte Textured

WHS White Gloss Smooth

VGT Verde Green Textured

**Color Option** 

LGT Light Grey Matte Textured

Square Arm with 3.25"-3.75" OD

Square Arm with 3.875"-4.5" OD

TYPE: EA & EB PROJECT: ERIE PD

4W Type 4W 208 208V

BC Backlight Control

SP 20kA & 10kV Surge

CATALOG #:



- Die-cast housing with hidden vertical heat fins that are optimal for heat dissipation while keeping a clean smooth outer surface
- Corrosion resistant, die-cast aluminum housing with powder coat paint finish · Separate optical and electrical compartment for improved thermal management and
- optimum component operation · TGIC thermoset polyester powder paint finish applied at nominal 2.5 mil thickness

performance

- · Entire optical aperture illuminates to create a larger luminous surface area resulting in a low glare appearance without sacrificing optical
- Premium engineered individual acrylic lenses deliver IES Type 2, 3, 4F, 4W and 5QW
- Lens distributions are field rotatable (in 90° increments) or exchangeable for job site
- 3000K, 4000K or 5000K (70 CRI) CCT 80, 160 or 320 midpower LEDs
- · 3000K, 4000K or 5000K (70 CRI) CCT Zero uplight at 0 degrees of tilt
- Field rotatable optics INSTALLATION

Current @

- Tool-less entry to wiring/driver compartment optional
- Arm mounting works with S2 drill pattern Fixture ships with square mounting block for ease of installation · Mast arm fitter accessory or option available

for 2-3/8" OD brackets with vertical tilt of +3°,

## wireless available for complete on/off and

dimming control 7-pin ANSI C136.41-2013 photocontrol receptacle option available for twist lock

protection with auto recovery

device is consumed

CONTROLS

currentlighting.com/exo

- photocontrols or wireless control modules (control accessories sold separately) Dimming Drivers are standard and dimming leads are extended out of the luminaire
- unless control options require connection to the dimming leads. Must specify if wiring leads are to be greater than the 6
- · Please consult brand or sales representative when combining control and electrical options as some combinations may not operate as anticipated depending on your application

© 2024 Current Lighting Solutions, LLC. All rights reserved. Information and specifications subject to change without notice. All values are design or typical values when measured under laboratory conditions.

 Universal 120-277 VAC or 347-480 VAC input voltage, 50/60 Hz Ambient operating temperature -40° C to

provides 20KA and 10KV protection meeting

ANSI/IEEE C62.41.2 Category C High and

takes fixture off-line for protection when

Surge Location Category C3; Automatically

- DLC® (DesignLights Consortium Qualified), with some Premium Qualified configurations. · Drivers have greater than 90% power factor Not all product variations on this page are DLC Qualified. Refer to http://www.
- designlights.org/ for the most up-to-date list. · LED drivers have output power over-voltage, over-current protection and short circuit • 3G rated for ANSI C136.31 high vibration
- applications Standard 6kV surge protection with optional field replaceable surge protection device
  - IP65 optical assembly Meets IDA recommendations using 3K CCT configuration at 0 degrees of tilt
  - This product meets federal procurement law requirements under the Buy American Act (FAR 52.225-9) and Trade Agreements Act (FAR 52.225-11). See Buy America(n) Solutions (link to https://www.currentlighting.

wet locations and 40°C ambient temperatures

WARRANTY

# 5 Year warranty

Page 1 of 12

Rev 12/18/24

EXO\_EXO\_SLING MicroStrike V2\_R10

非**←XO** 

ORDERING GUIDE

ORDERING INFORMATION

ASL2 ASL Microstrike Series

7PR-SC

7PR-MD8F

Must specify Voltage

4 Available at 50W or higher only

CATALOG #

AREA/SITE/ROAD LIGHTER

**SLING Micro Strike** 

4,500 lm

160L-70 9,000 lm

160L-100 12,000 lm

160L-115 15,000 lm

160L-135 18,000 lm

320L-145 21,000 lm

320L-170 24,000 ln

320L-185 27.000 lm 320L-210 30,000 lm

320L-235 33,000 lm

320L-255 35,000 lm

imming Photocell and Bluetooth Programming 1,3,4

7 Pin Receptacle with shorting cap

7 Pin Receptacle with Photocontrol

2 Replace "\_" with "14" for up to 14' mounting height, "40F" for 15-40' mounting height

3 Replace "\_" with "12" for up to 12' mounting height

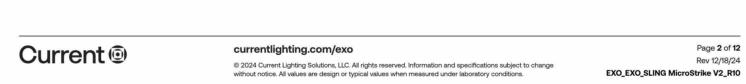
80L-50 6,000 lm 5K7 5000K, 70 CRI

NX Networked Wireless Enabled Integral NXSMP2-HMO PIR Occupancy Sensor with Automatic

7 pin receptacle with low voltage sensor at 8' mounting for external control accessory

Bluetooth Programmable, PIR Occupancy/Daylight Sensor, 360° lens, up to 12' mounting height 34

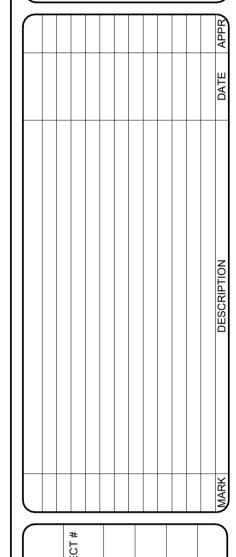
7PR-MD40F 7 pin receptacle with low voltage sensor at 40' mounting for external control accessory





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CKD B MEE PLOT I 10/8/20 D2C F 20242 20242 DRAV MEE SBMT PLOT SIZE: **DESIGN** 

NOT FOR

CONSTRUCTION

HPG14-031324

DEVELOPMENT

ERIE PD - ADDITION & RENOVATION

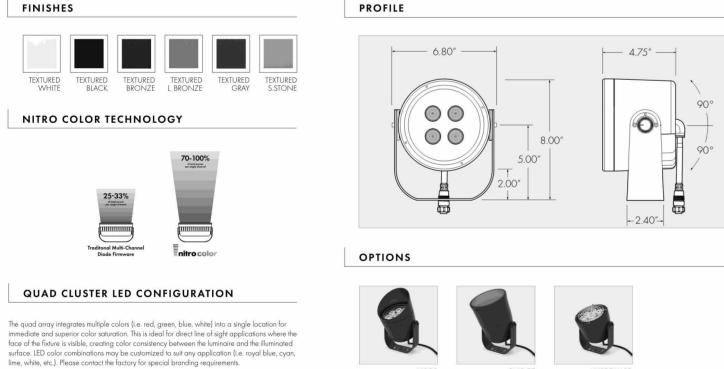
1000 TELLEEN AVENUE, ERIE, COLORADO 805ECTRICAL SITE PHOTOMET
PLAN CUTSHEETS

SHEET **IDENTIFICATION SPP-002** 

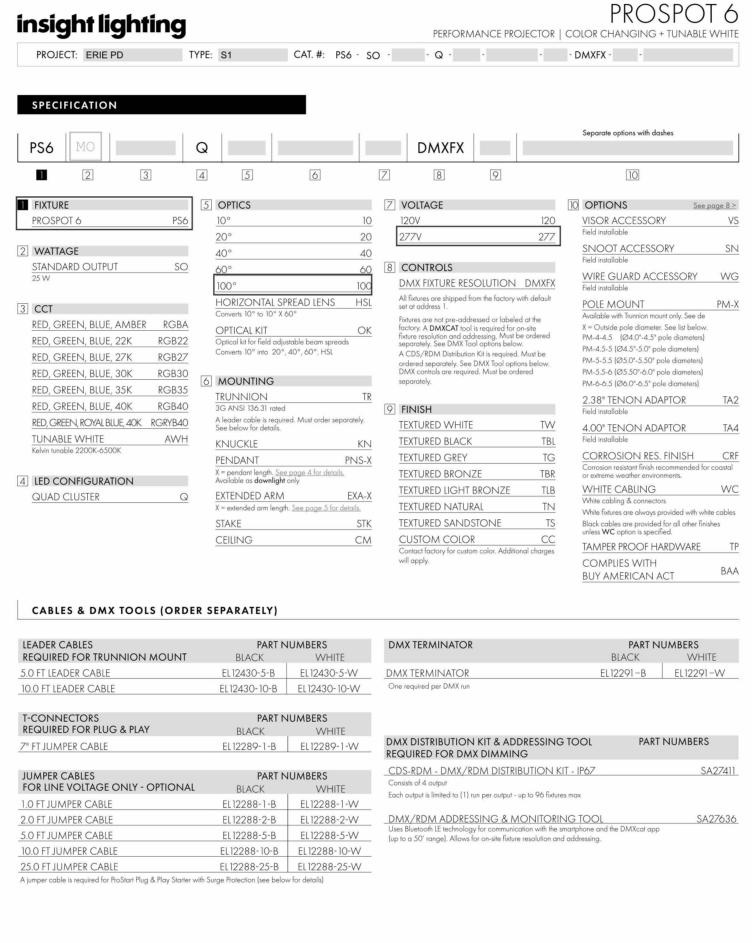
Ш

**S1** 





insight lighting Revised April 28, 2025 Specifications subject to change without notice 4341 Fulcrum Way NE, Rio Ra P.: 505.345.0888



Revised April 28, 2025

Specifications subject to change without notice



Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com © copyright BEGA 2025

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

insight lighting

4341 Fulcrum Way NE, Rio Rand

P.: 505.345.0888

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CKD B MEE PLOT 10/8/2

**DESIGN** 

DEVELOPMENT

NOT FOR

CONSTRUCTION

ERIE PD - ADDITION & RENOVATION

1000 TELLEEN AVENUE, ERIE, COLORADO 80516

ECTRICAL SITE PHOTOMETI
PLAN CUTSHEETS

SHEET **IDENTIFICATION SPP-003** 

∞ర

S3



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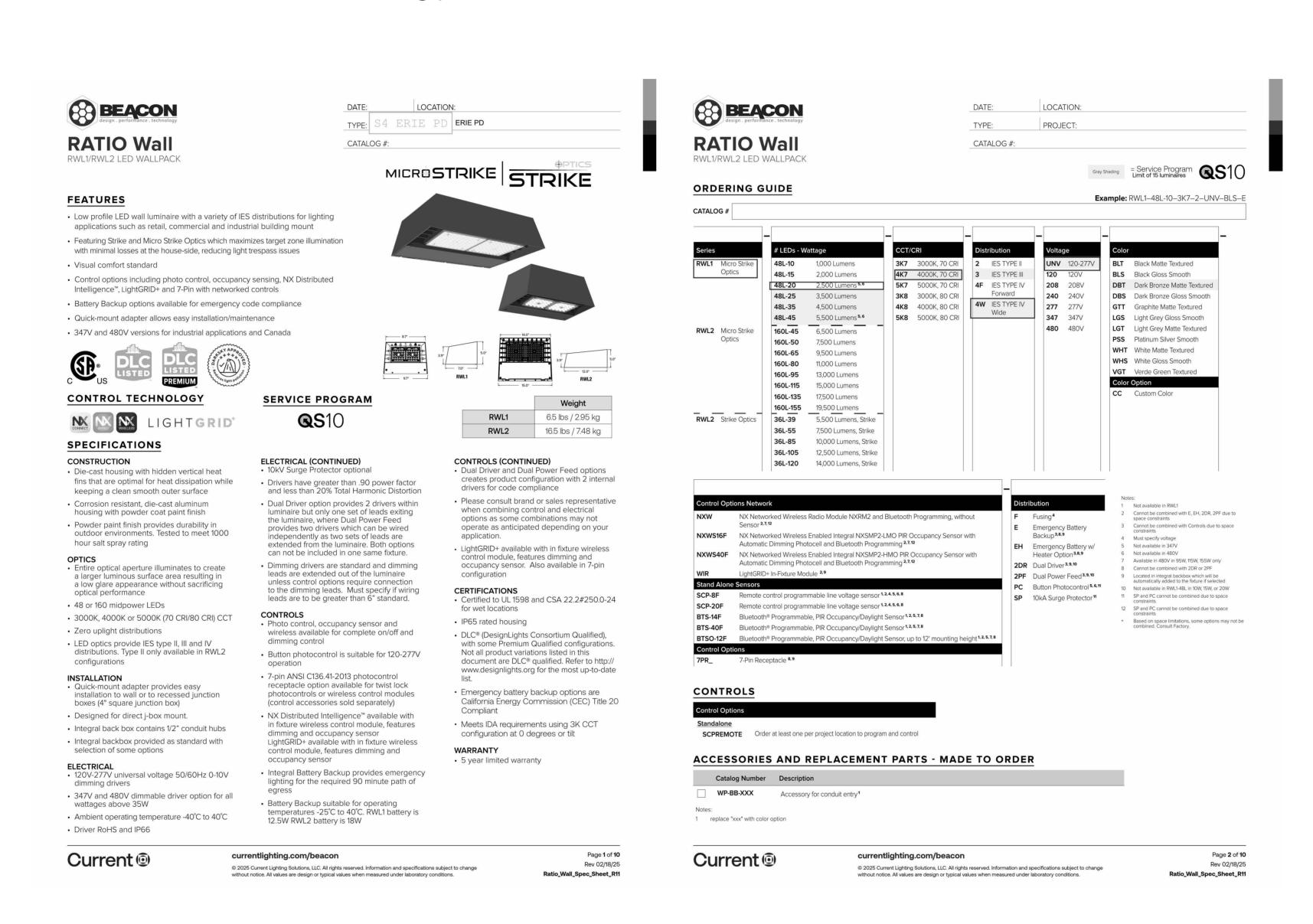
DEVELOPMENT

NOT FOR CONSTRUCTION

ERIE PD - ADDITION &
RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 80516
ELECTRICAL SITE PHOTOMETRIC
PLAN CUTSHEETS

SHEET IDENTIFICATION SPP-004

**S4** 



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MEE
PLOT DATE:
10/8/2025
10:42:51 AM

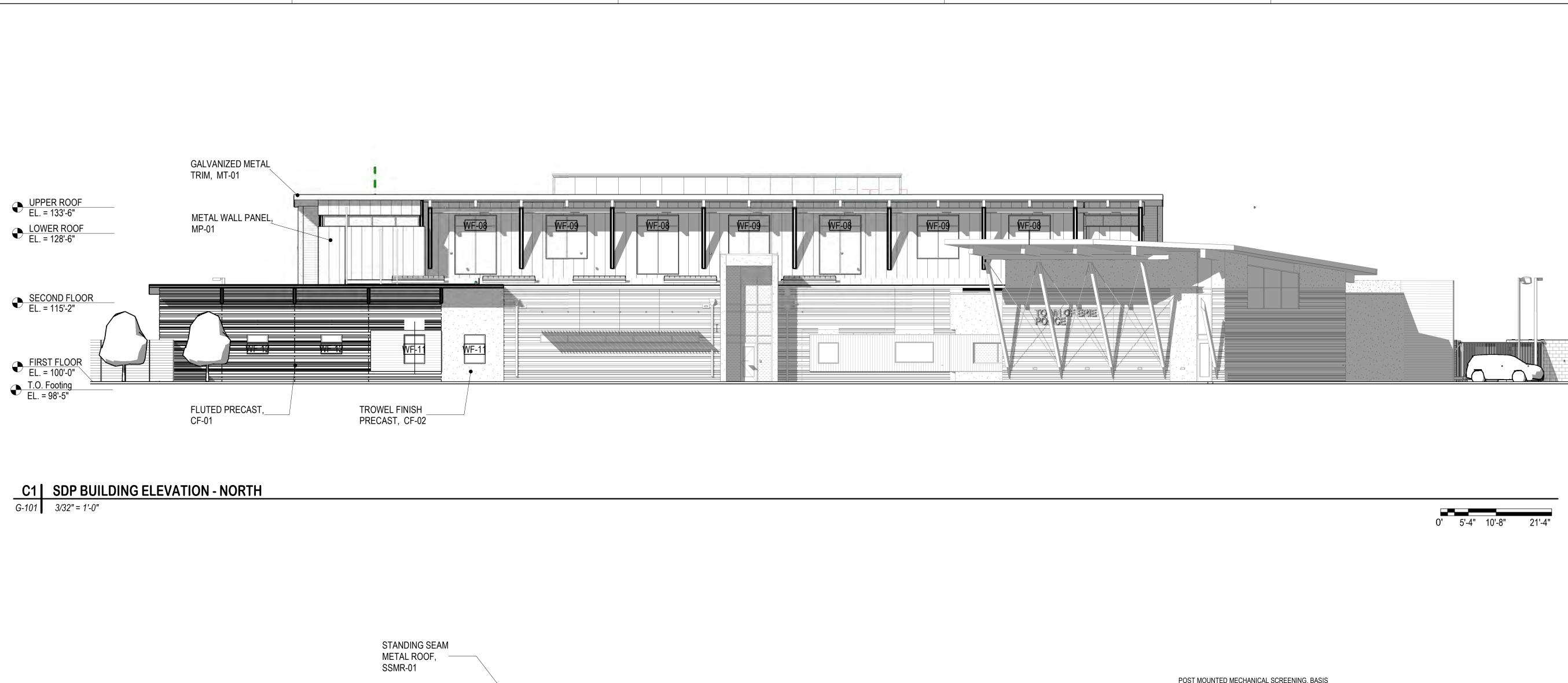
DESIGN
DEVELOPMENT

NOT FOR CONSTRUCTION

ERIE PD - ADDITION &
RENOVATION

1000 TELLEEN AVENUE, ERIE, COLORADO 80516
ECTRICAL SITE PHOTOMETRIC
PLAN CUTSHEETS

SHEET
IDENTIFICATION
SPP-005





A1 SDP BUILDING ELEVATION - SOUTH

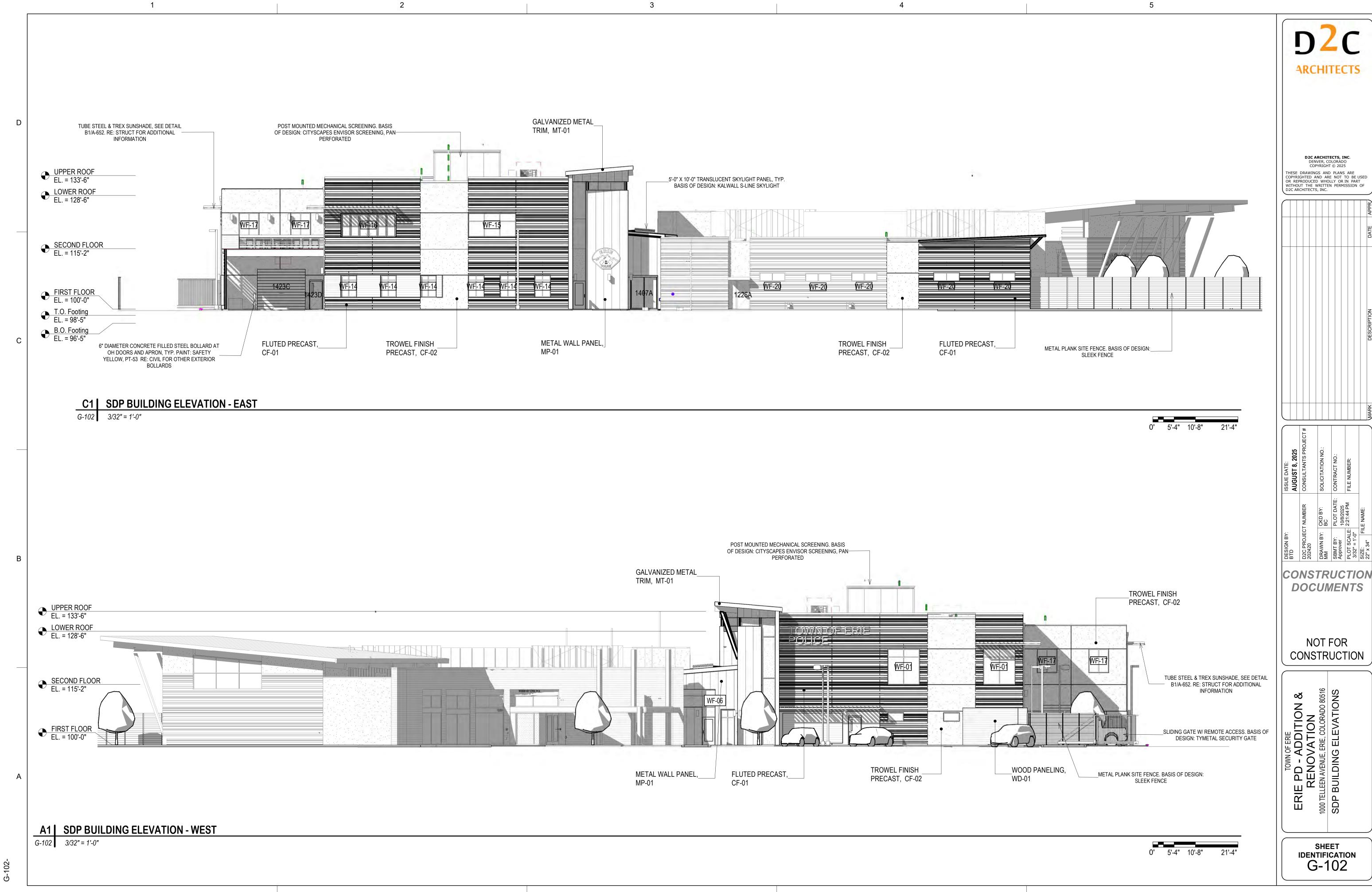
G-101 3/32" = 1'-0"

0' 5'-4" 10'-8" 21'-4"

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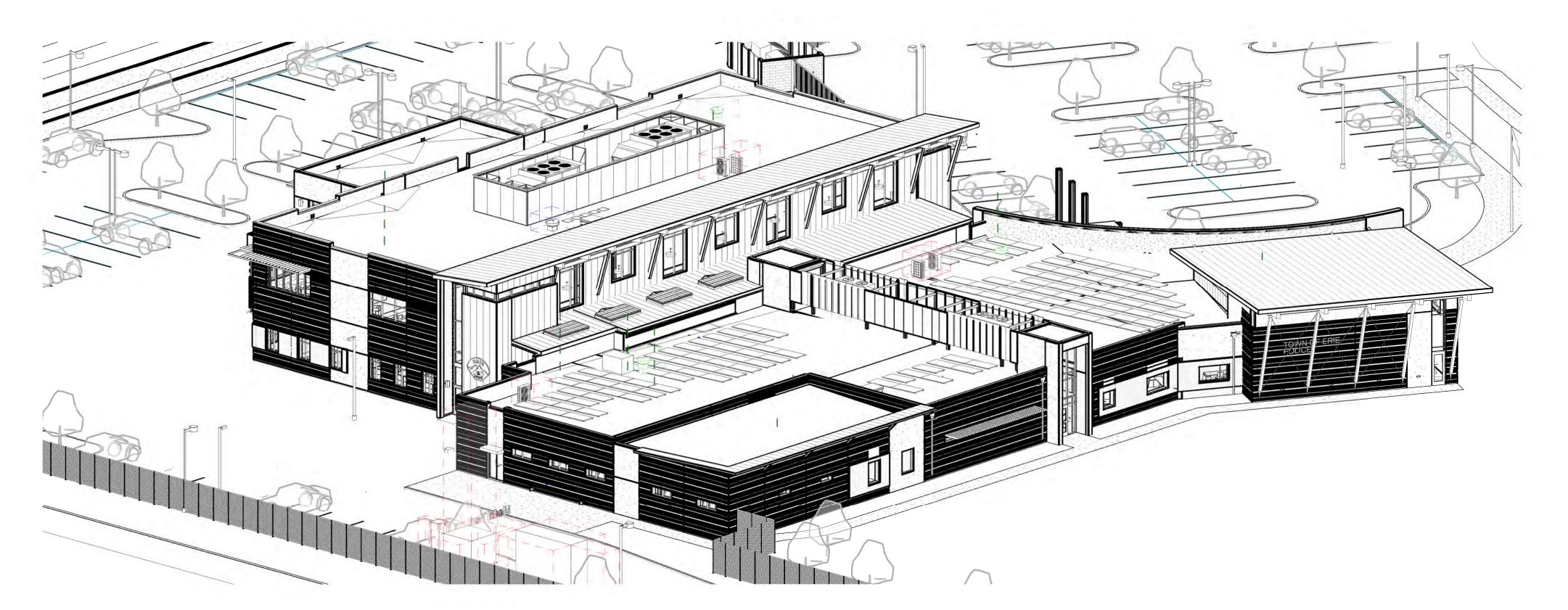
ERIE PD - ADDITION &
RENOVATION
1000 TELLEEN AVENUE, ERIE, COLORADO 80516
SDP BUILDING ELEVATIONS

sheet identification G-101



B1 3D AXONOMETRIC - NW - SDP

G-103



A1 3D AXONOMETRIC - NE - SDP

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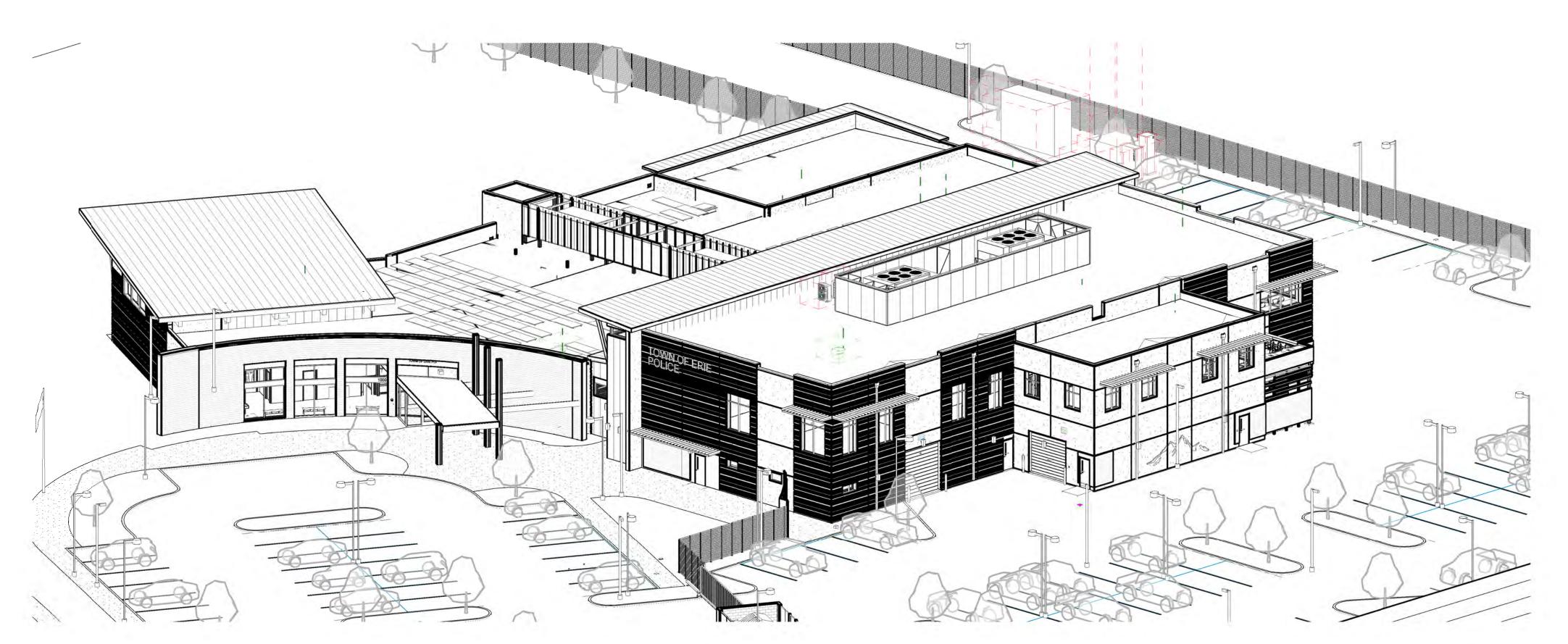
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C1 3D AXONOMETRIC - SE - SDP



A1 3D AXONOMETRIC - SW - SDP

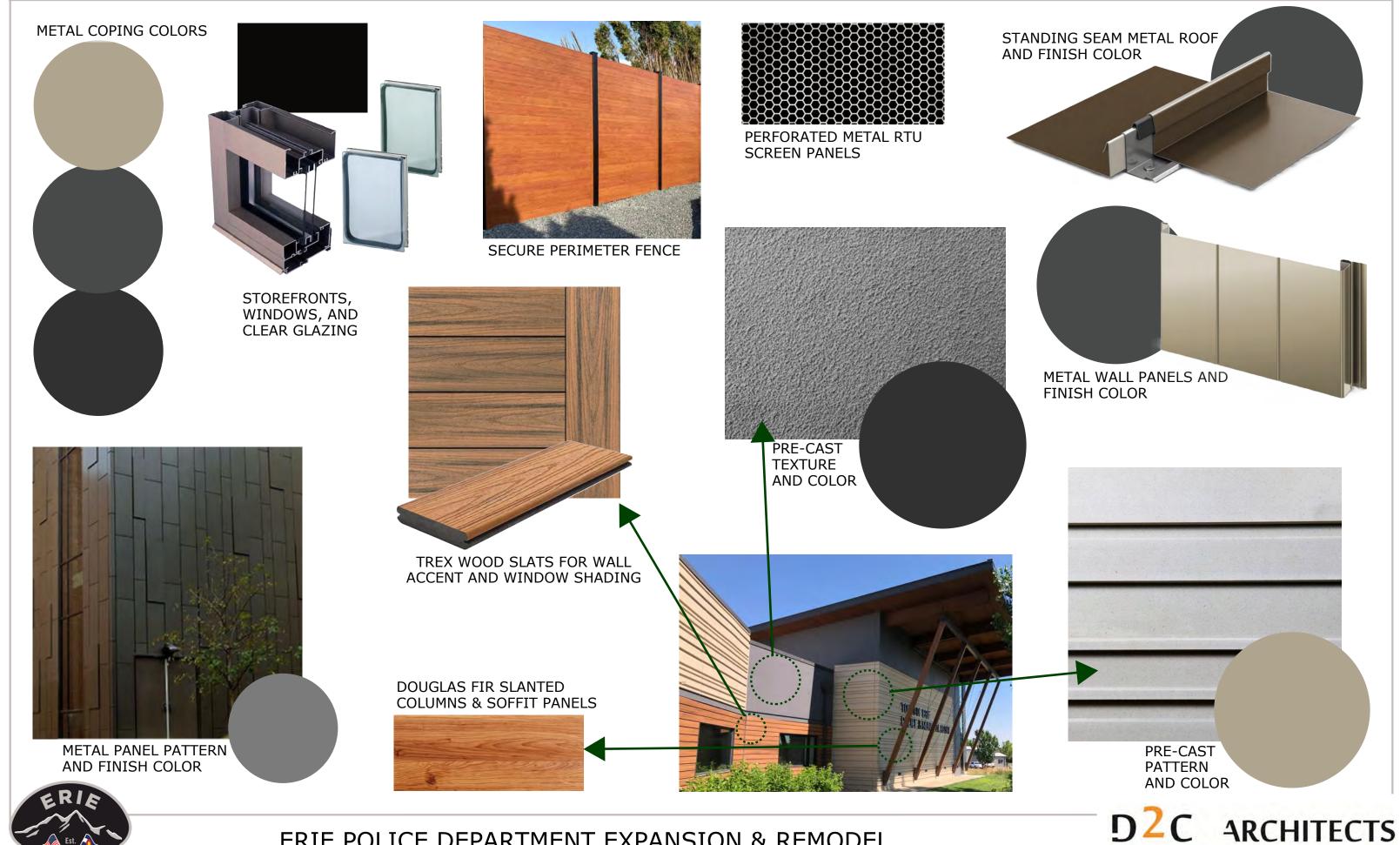
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ARCHITECTURE | INTERIORS | SUSTAINABILITY

