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**GENERAL SITE WORK NOTES:**

- ALL ROADWAY CONSTRUCTION SHALL CONFORM TO THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS BOOK, AND IN ACCORDANCE WITH THE LATEST EDITION OF THE SPECIFICATIONS FOR CONSTRUCTION IN EL PASO COUNTY, COLORADO, IN CASE OF CONFLICT, EL PASO COUNTY SHALL TAKE PRECEDENCE.
- ALL STORM SEWER, SANITARY SEWER, AND WATER MAIN CONSTRUCTION SHALL CONFORM TO THE SPECIFICATIONS FOR CONSTRUCTION IN EL PASO COUNTY, UNLESS OTHERWISE NOTED ON THE PLANS.
- STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS, AND RECURRING SPECIAL PROVISIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED, BUT ARE CONSIDERED A PART OF THIS CONTRACT.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS BEFORE CONSTRUCTION BEGINS.
- THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING THE NATURE AND STATUS OF ALL UTILITY RELOCATION WORK PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO ENSURE THAT CONSTRUCTION OPERATIONS DO NOT INTERFERE WITH UTILITY FACILITIES AND RELOCATION WORK. THE SCHEDULE SHOULD REFLECT CONSTRUCTION SEQUENCING THAT COORDINATES WITH ALL UTILITY RELOCATION WORK. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST THE ORDER OF ITS REVISED SCHEDULE(S) IN COMPLIANCE THEREWITH AS DIRECTED BY THE OWNER. THE OWNER AND ENGINEER SHALL BE NOTIFIED IN WRITING BY THE CONTRACTOR AT LEAST 48 HOURS PRIOR TO THE START OF ANY OPERATION REQUIRING COOPERATION WITH OTHERS. THE UTILITY COMPANIES HAVE BEEN CONTACTED IN REGARD TO UTILITIES THEY OWN AND OPERATE WITHIN THE LIMITS FOR THIS PROJECT. ALL KNOWN DATA FROM THESE AGENCIES HAS BEEN INCORPORATED INTO THE PLANS. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM OR ESTABLISH THE EXISTENCE OF ALL UTILITY FACILITIES AND THEIR EXACT LOCATIONS, WHETHER CONTAINED IN THE DATA SUBMITTED BY THESE AGENCIES OR NOT, AND TO SAFELY SCHEDULE ALL UTILITY RELOCATIONS. FOR ADDITIONAL INFORMATION, THE AGENCIES LISTED ON THE TITLE SHEET MAY BE CONTACTED. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH LOCATIONS OF THE NEW CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT MAY BE RESOLVED. THE OWNER OR ENGINEER WILL ASSUME NO LIABILITY FOR ANY DAMAGES SUSTAINED OR COST INCURRED BECAUSE OF THE OPERATIONS IN THE VICINITY OF EXISTING UTILITIES OR STRUCTURES, NOR FOR TEMPORARY BRACING AND SHORING OF SAME. IF IT IS NECESSARY TO SHORE, BRACE, SWING OR RELOCATE A UTILITY, THE UTILITY COMPANY OR DEPARTMENT AFFECTED SHALL BE CONTACTED BY THE CONTRACTOR AND THEIR PERMISSION OBTAINED REGARDING THE METHOD TO USE FOR SUCH WORK.
- NO CONSTRUCTION PLANS SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION" PRIOR TO COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITHIN THE ACTUAL CONDITIONS OF THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST NOTIFY THE SURVEYOR'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO THE SURVEYOR OR ENGINEER BEFORE DOING ANY WORK. OTHERWISE, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, SPECIFICATIONS, AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSIONS OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
- NO FIELD CHANGES OR DEVIATIONS FROM DESIGN ARE TO BE MADE WITHOUT PRIOR APPROVAL OF THE OWNER AND NOTIFICATION TO THE ENGINEER. NO CONSIDERATION WILL BE GIVEN TO CHANGE ORDERS FOR WHICH THE OWNER AND ENGINEER WERE NOT CONTACTED PRIOR TO CONSTRUCTION OF THE AFFECTED ITEM.
- ALL FRAMES AND LIDS FOR STORM AND SANITARY SEWERS, VALVE VAULT COVERS, FIRE HYDRANTS, AND B-BOXES ARE TO BE ADJUSTED TO MEET FINISHED GRADE. THIS ADJUSTMENT IS TO BE MADE BY THE SEWER AND WATER CONTRACTOR, AND THE COST IS TO BE CONSIDERED INCIDENTAL. THESE ADJUSTMENTS TO FINISHED GRADE WILL NOT ALLEVIATE THE CONTRACTOR FROM ANY ADDITIONAL ADJUSTMENTS AS REQUIRED BY THE CITY UPON FINAL INSPECTION OF THE PROJECT.
- ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR LENGTH SPECIFIED IN THE GENERAL CONDITIONS FROM THE DATE OF FINAL ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE DURING THAT PERIOD.
- THE CONTRACTOR IS SOLELY RESPONSIBLE FOR SAFETY ON THE JOB PER OSHA REGULATIONS.
- IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES, AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS, LATEST EDITION, AND IN ACCORDANCE WITH LOCAL MUNICIPAL CODES. A TRAFFIC CONTROL PERMIT IS REQUIRED FOR WORK ON CITY STREETS.
- THE CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS, AND OTHER MISCELLANEOUS ITEMS WHICH WERE NOT PRESENT PRIOR TO PROJECT COMMENCEMENT AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEANUP, AS DIRECTED BY THE ENGINEER OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.
- NO UNDERGROUND WORK SHALL BE COVERED UNTIL IT HAS BEEN INSPECTED AND APPROVED AS REQUIRED BY THE OWNER AND ENTITY THAT HAS JURISDICTION OVER THE WORK.
- ALL EXISTING UTILITIES OR IMPROVEMENTS, INCLUDING WALKS, CURBS, PAVEMENT, AND PARKWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE PROMPTLY RESTORED TO THEIR RESPECTIVE ORIGINAL CONDITION. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT UNLESS A PAY ITEM IS LISTED ON THE BID LIST.
- AT THE CLOSE OF EACH WORKING DAY AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS.
- LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED LANDSCAPE ARCHITECT AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION. ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT HIS OWN EXPENSE.
- THE TRENCHES FOR PIPE INSTALLATION SHALL BE KEPT DRY AT ALL TIMES DURING PIPE PLACEMENT. APPROPRIATE FACILITIES TO MAINTAIN THE DRY TRENCH SHALL BE PROVIDED BY THE CONTRACTOR, AND THE COST OF SUCH SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR THE ITEM. PLANS FOR THE SITE DEWATERING, IF EMPLOYED, SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO IMPLEMENTATION. NO ADDITIONAL COMPENSATION SHALL BE MADE FOR DEWATERING DURING CONSTRUCTION UNLESS APPROVED IN WRITING BY THE OWNER.
- EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH NPDES STANDARDS FOR SOIL EROSION AND SEDIMENTATION CONTROL AND SHALL BE MAINTAINED BY THE CONTRACTOR AND REMAIN IN PLACE UNTIL THE NOTICE OF TERMINATION HAS BEEN OBTAINED. THE CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS TO THE EROSION CONTROL TO STAY IN COMPLIANCE WITH THE NPDES PERMIT. THESE ADJUSTMENTS MAY BE MADE TO ACCOMMODATE PHASED CONSTRUCTION AND/OR SPECIFIC SITE CONDITIONS.
- THE CONTRACTOR SHALL PREPARE RECORD DRAWINGS AND MAKE THE NECESSARY SUBMITTALS TO THE ENGINEER. SAID PLANS SHALL INDICATE THE FINAL LOCATION AND LAYOUT OF ALL IMPROVEMENTS, INCLUDING VERIFICATION OF ALL CONCRETE PADS, INVERT, RIM, AND SPOT GRADE ELEVATIONS, AND INCORPORATE ALL FIELD DESIGN CHANGES APPROVED BY THE OWNER.
- THE CONTRACTOR SHALL VIDEOTAPE THE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.
- ALL TESTING SHALL BE THE RESPONSIBILITY AND EXPENSE OF THE CONTRACTOR. COPIES OF ALL TEST RESULTS SHALL BE PROVIDED TO THE ENGINEER FOR REVIEW AND APPROVAL.
- THE PAVEMENT SHALL BE KEPT FREE OF MUD AND DEBRIS AT ALL TIMES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OFFSITE OF ANY EXISTING PAVING AND STRUCTURES REMOVED.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION SURVEY.
- ALL EXISTING TRAFFIC AND STREET SIGNS DISTURBED SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR AND TO EL PASO COUNTY STANDARDS.
- REFER TO IRRIGATION PLANS FOR SLEEVEING REQUIREMENTS. CONTRACTOR SHALL COORDINATE WITH FRANCHISE UTILITY COMPANIES FOR SLEEVEING REQUIREMENTS PRIOR TO ANY PAVING ACTIVITIES.
- BEFORE PLACING PAVEMENT, CONTRACTOR SHALL VERIFY THAT SUITABLE HANDICAPPED ROUTES (PER A.D.A. AND T.A.S.) EXIST TO AND FROM EVERY DOOR. IN NO CASE SHALL HANDICAP RAMP SLOPES EXCEED 1 VERTICAL TO 12 HORIZONTAL. IN NO CASE SHALL SIDEWALK CROSS SLOPES EXCEED 2.0 PERCENT. IN NO CASE SHALL LONGITUDINAL SIDEWALK SLOPES EXCEED 5.0 PERCENT. CONTRACTOR SHALL CONTACT ARCHITECT AND ENGINEER PRIOR TO PAVING IF ANY EXCESSIVE SLOPES ARE ENCOUNTERED. NO CONTRACTOR CHANGE ORDERS WILL BE ACCEPTED FOR A.D.A. COMPLIANCE ISSUES.

**SANITARY SEWER NOTES:**

- SANITARY SEWER PIPE 8 INCHES AND LARGER SHALL BE PVC (POLYVINYL CHLORIDE) PLASTIC PIPE CONFORMING TO ASTM D-3034 OR ASTM F-679 STANDARDS.
- BAND-SEAL OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED WHEN CONNECTING SEWER PIPES OF DISSIMILAR MATERIALS.
- ALL SANITARY SEWERS ARE TO BE CONSTRUCTED USING A LASER INSTRUMENT TO MAINTAIN LINE AND GRADE.
- MANHOLES: SANITARY SEWER MANHOLES SHALL BE 4-FOOT, 0-INCH I.D. PRECAST CONCRETE SECTIONS CONFORMING TO ASTM D-478, WITH PREFORMED BITUMINOUS OR "O" RING JOINTS, IN ACCORDANCE WITH LOCAL REGULATIONS, AND HAVE AN ECCENTRIC CONE INSTALLED TO LINE UP WITH THE MANHOLE STEPS.
- ALL PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH RESILIENT RUBBER WATER-TIGHT SLEEVES. THE BOTTOM OF THE MANHOLE SHALL HAVE A CONCRETE BENCH POURED TO FACILITATE SMOOTH FLOWS.
- FRAMES AND LIDS: ALL SANITARY SEWER MANHOLE FRAMES AND LIDS SHALL BE PER EL PASO COUNTY SPECIFICATIONS.
- A MAXIMUM OF EIGHT (8) INCHES OF CONCRETE-ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. RINGS SHALL BE SEALED TOGETHER WITH BUTYL ROPE.
- CLEANING: ALL MANHOLES AND PIPES SHALL BE THOROUGHLY CLEANED OF DIRT AND DEBRIS, AND ALL VISIBLE LEAKAGE ELIMINATED, BEFORE FINAL INSPECTION AND ACCEPTANCE.
- TESTING: DEFLECTION AND LEAKAGE TESTING WILL BE REQUIRED.
- TESTING THE ALIGNMENT/STRAIGHTNESS SHALL BE IN ACCORDANCE WITH UTILITY PROVIDER, OR AUTHORITY HAVING JURISDICTION REQUIREMENTS.
- TELEVISION: ALL SANITARY SEWERS SHALL BE TELEVISED, AND A COPY OF THE TAPE AND A WRITTEN REPORT SHALL BE SUBMITTED AND REVIEWED BY THE UTILITY PROVIDER, OR AUTHORITY HAVING JURISDICTION BEFORE FINAL ACCEPTANCE. THE REPORT SHALL INCLUDE STUB LOCATION AS WELL AS A DESCRIPTION OF ALL DEFECTS, WATER LEVEL, LEAKS, AND LENGTHS. IDENTIFY MANHOLE TO MANHOLE BOTH VERBALLY AND ON-SCREEN USING MANHOLE NUMBERS FROM APPROVED PLANS. ORDER OF WRITTEN REPORT SHALL BE THE SAME AS THE VIDEOTAPES.
- TEST RESULTS: IF THE SANITARY SEWER INSTALLATION FAILS TO MEET THE TEST REQUIREMENTS SPECIFIED, THE CONTRACTOR SHALL DETERMINE THE CAUSE OR CAUSES OF THE DEFECT AND REPAIR, OR REPLACE ALL MATERIALS AND WORKMANSHIP, AS MAY BE NECESSARY TO COMPLY WITH THE TEST REQUIREMENTS.
- RECORD DRAWINGS: THE CONTRACTOR SHALL PROVIDE ALL INFORMATION TO PREPARE RECORD DRAWING(S), INCLUDING SERVICE STUB LOCATIONS, TO THE ENGINEER, WHO SHALL PREPARE RECORD DRAWINGS AND SUBMIT TO APPROPRIATE PUBLIC AGENCIES. IF FINAL MEASUREMENTS INDICATE DEFICIENCIES, THE CONTRACTOR, AT HIS OWN COST, WILL ADJUST MANHOLES AND/OR SEWERS TO PROPER ELEVATIONS AND OTHERWISE CORRECT THE DEFICIENCIES.
- ALL SANITARY SEWER CONSTRUCTION AND MATERIAL SHALL MEET UTILITY PROVIDER, OR AUTHORITY HAVING JURISDICTION STANDARDS AND SPECIFICATION. IF ANY DISCREPANCY IN THESE PLANS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PURCHASING ANY MATERIAL.

**WATER NOTES:**

- PIPE MATERIALS: WATERMANS SHALL BE CONSTRUCTED OF PER GOVERNING AUTHORITY INSTALLATION, MATERIAL, AND SPECIFICATION STANDARDS.
- FITTINGS: ALL FITTINGS SHALL BE OF PUSH ON BLUE BRUTE PVC FITTINGS AND MEET MUNICIPAL STANDARDS.
- VALVES: GATE VALVES SHALL BE USED ON ALL WATERMANS AND MUST MEET MUNICIPAL STANDARDS.
- THE JOINTS AND ALL FASTENERS ON THE VALVE BODY SHALL HAVE STAINLESS STEEL NUTS AND BOLTS.
- FIRE HYDRANTS: FIRE HYDRANTS SHALL CONFORM TO AMERICAN WATER WORKS ASSOCIATION (AWWA) STANDARD C-502, LATEST REVISION, AND SHALL MEET THE STANDARDS SET BY THE UTILITY OR MUNICIPALITY HAVING JURISDICTION. FIRE HYDRANTS SHALL BE INSTALLED WITH AN AUXILIARY VALVE AND CAST IRON VALVE BOX. THE PUMPER CONNECTION SHALL FACE THE ROADWAY. 6.5 STANDARD BURY DEPTH PROVIDE AND INSTALL FULL RESTRAINT FROM MAIN TO THE HYDRANT. THE SHAFT BREAK FLANGE AND ALL BELOW-GRADE FITTING SHALL HAVE STAINLESS STEEL NUTS AND BOLTS.
- SERVICE BOX: PROVIDE CURB VALVE AND CURB BOX, AS INDICATED ON THE PLANS. BOX SHALL BE EXTENSION TYPE WITH MINNEAPOLIS PATTERN.
- WATER MAIN DEFLECTIONS WILL GENERALLY NOT BE ALLOWED. HOWEVER, IF A MINOR DEFLECTION IS NECESSARY, THE MAXIMUM DEFLECTION AT PIPE JOINTS SHALL BE IN ACCORDANCE WITH PIPE MANUFACTURER'S CURRENT RECOMMENDATIONS AND AWWA SPECIFICATIONS.
- BEDDING: ALL WATERMANS SHALL BE BEDDED ON FIRM GROUND, WITH BELLHOLES EXCAVATED SO THAT THE PIPE HAS AN EVEN BEDDING FOR ITS ENTIRE LENGTH.
- SAND SHALL BE CAREFULLY PLACED TO TWELVE (12) INCHES OVER THE TOP OF THE PIPE BEFORE FINAL BACKFILLING AND COMPACTION.
- A MINIMUM DEPTH OF COVER OF 4.5-FEET UNDER PAVEMENT AND 6-FEET IN OPEN SPACES SHALL BE MAINTAINED OVER THE WATER LINES. MAXIMUM ALLOWABLE COVER IS 10-FEET.
- CONCRETE THRUST BLOCKING SHALL BE POURED ON WATERMANS AT ALL BENDS, TEES, ELBOWS, ETC. RESTRAINED JOINTS ARE REQUIRED ON ALL VALVES AND ALL FITTINGS AND ACCORDING TO RESTRAINT TABLE.
- SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLLING AND BREAKING THE WATERMAIN.
- ALL WATER CONSTRUCTION AND MATERIAL SHALL MEET LOCAL MUNICIPAL STANDARDS AND SPECIFICATION. IF ANY DISCREPANCY IN THESE PLANS OCCUR, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO PURCHASING ANY MATERIAL.
  - HORIZONTAL SEPARATION-WATER MAINS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED DRAIN, STORM SEWER, SANITARY SEWER, OR SEWER SERVICES CONNECTION.
  - VERTICAL SEPARATION
    - IF A WATERMAIN CROSSES OVER A SANITARY OR STORM SEWER MAIN, THE WATERMAIN SHALL BE LAID SO THAT THE BOTTOM OF THE WATERMAIN IS AT LEAST EIGHTEEN (18) INCHES ABOVE THE TOP OF THE SEWER MAIN.
    - IF THE WATERMAIN CROSSES UNDER A SANITARY OR STORM SEWER MAIN, THE WATERMAIN SHALL BE LAID SO THAT THE TOP OF THE WATERMAIN IS AT LEAST EIGHTEEN (18) INCHES BELOW THE BOTTOM OF THE SEWER.
    - WHENEVER WATERMANS CROSS STORM SEWERS, SANITARY SEWERS, OR SEWER SERVICE CONNECTIONS, THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN EIGHT (8) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN.
    - BOTH THE WATERMANS AND SEWER SHALL BE CONSTRUCTED WITH PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN:
      - IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION, AS DESCRIBED IN (B) ABOVE.
- ALL MATERIALS SHALL BE SUBJECT TO FULL SHOP DRAWING REVIEW AND APPROVAL BY THE CITY OF COLORADO SPRINGS WATER AND SEWER UTILITY. SEE UTILITY PLANS FOR ADDITIONAL NOTES. ALL UTILITIES MUST MEET CITY OF COLORADO SPRINGS STANDARDS.

**PAVING NOTES:**

- GENERAL
  - PAVING WORK INCLUDES FINAL SUBGRADE SHAPING, PREPARATION, AND COMPACTION; PLACEMENT OF SUBBASE OR BASE COURSE MATERIALS; BITUMINOUS BINDER AND/OR SURFACE COURSES; FORMING, FINISHING, AND CURING CONCRETE PAVEMENT, CURBS, AND WALKS; AND FINAL CLEAN-UP AND ALL RELATED WORK.
  - COMPACTION REQUIREMENTS PER GEOTECHNICAL REQUIREMENTS AND LOCAL MUNICIPALITIES HAVING JURISDICTION OVER THE WORK.
  - IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING WARNING DEVICES, AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), LATEST EDITION, AND IN ACCORDANCE WITH EL PASO COUNTY CODE.
- SUBGRADE PREPARATION
  - EARTHWORK FOR PROPOSED PAVEMENT SUBGRADE SHALL BE FINISHED TO WITHIN 0.1 FOOT, PLUS OR MINUS, OF PLAN ELEVATION. THE CONTRACTOR SHALL SATISFY THAT THE SUBGRADE HAS BEEN PROPERLY PREPARED AND THAT THE FINISH TOP SUBGRADE ELEVATION HAS BEEN GRADED WITHIN TOLERANCES ALLOWED IN THESE SPECIFICATIONS, UNLESS THE CONTRACTOR ADVISES THE ENGINEER IN WRITING PRIOR TO FINE GRADING FOR BASE COURSE CONSTRUCTION.
  - PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF-ROLLED AND INSPECTED BY THE GEOTECHNICAL ENGINEER FOR UNSUITABLE MATERIALS AND/OR EXCESSIVE MOVEMENT. IF UNSUITABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE CORRECTED. THIS MAY INCLUDE ONE OR MORE OF THE FOLLOWING METHODS:
    - SCARIFY, DISC, AND AERATE.
    - REMOVE AND REPLACE WITH STRUCTURAL CLAY FILL.
    - REMOVE AND REPLACE WITH GRANULAR MATERIAL.
    - USE OF GEOTEXTILE FABRIC.
  - PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER AND THE PLACEMENT OF THE BASE MATERIAL, THE PAVEMENT AREA SHALL BE FINE-GRADED TO WITHIN 0.04 FEET (1/2 INCH) OF FINAL SUBGRADE ELEVATION, TO A POINT TWO (2) FEET BEYOND THE BACK OF THE CURB, SO AS TO ENSURE THE PROPER THICKNESS OF PAVEMENT COURSES. NO CLAIMS FOR EXCESS QUANTITY OF BASE MATERIALS DUE TO IMPROPER SUBGRADE PREPARATION WILL BE HONORED.
  - PRIOR TO PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE APPROVED BY THE GEOTECHNICAL ENGINEER.
- CONCRETE WORK
  - ALL EXTERIOR CONCRETE SHALL MEET LOCAL MUNICIPAL STATE, OR OWNER REQUIREMENTS PER THE JURISDICTION HAVING AUTHORITY OVER THE WORK. IF NO SPECIFICATIONS ARE AVAILABLE, THE STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS SHALL PREVAIL. IF REQUIREMENTS CONFLICT WITH EACH OTHER, THE AUTHORITY HAVING JURISDICTION OVER THE WORK SHALL COMPLY, OTHERWISE FOLLOW THE MORE RESTRICTIVE.
  - CONCRETE CURB AND/OR COMBINATION CURB AND GUTTER SHALL BE OF THE TYPE SHOWN ON THE PLANS. THE CONTRACTOR IS CAUTIONED TO REFER TO THE CONSTRUCTION STANDARDS AND THE PAVEMENT CROSS SECTION TO DETERMINE THE GUTTER FLAG THICKNESS AND THE AGGREGATE BASE COURSE THICKNESS BENEATH THE CURB AND GUTTER. SAWED OR FORMED CONTRACTION JOINTS SHALL BE PROVIDED AT NO GREATER THAN TEN (10) FOOT INTERVALS BETWEEN EXPANSION JOINTS. NO HONEY-COMBING OF THE CURB AND GUTTER WILL BE ACCEPTED.
  - CURBS SHALL BE DEPRESSED AT LOCATIONS WHERE PEDESTRIAN WALKS INTERSECT CURB LINES AND OTHER LOCATIONS, AS DIRECTED, FOR THE PURPOSE OF PROVIDING ACCESSIBILITY.
  - THE CURBS SHALL BE BACKFILLED AFTER THEIR CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE.
  - CONCRETE SIDEWALK SHALL BE IN ACCORDANCE WITH THE ABOVE AND THE PLANS. PROVIDE SCORED JOINTS AT 5-FOOT INTERVALS AND 1/2-INCH PRE-MOLDED FIBER EXPANSION JOINTS AT 50-FOOT INTERVALS AND ADJACENT TO CONCRETE CURBS, DRIVEWAYS, FOUNDATIONS, ETC.
  - CONCRETE CURING AND PROTECTION SHALL BE PROVIDED BY THE CONTRACTOR.
  - THE COST OF AGGREGATE BASE OR SUBBASE UNDER CONCRETE WORK SHALL BE INCLUDED IN THE COST OF THE RESPECTIVE CONCRETE ITEM.
- FLEXIBLE PAVEMENT
  - PRIOR TO PLACEMENT OF THE SURFACE COURSE, THE BINDER COURSE SHALL BE CLEANED AND TACK-COATED IF DUSTY OR DIRTY. ALL DAMAGED AREAS IN THE BINDER, BASE, OR CURB SHALL BE REPAIRED TO THE SATISFACTION OF THE OWNER PRIOR TO LAYING THE SURFACE COURSE. THE CONTRACTOR SHALL PROVIDE WHATEVER EQUIPMENT AND STAFF NECESSARY, INCLUDING THE USE OF POWER BROOMS IF REQUIRED BY THE OWNER, TO PREPARE THE PAVEMENT FOR APPLICATION OF THE SURFACE COURSE. THE TACK COAT SHALL BE UNIFORMLY APPLIED TO THE BINDER COURSE AT A RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD. TACK COAT SHALL BE AS PER DOT AND/OR LOCAL MUNICIPAL SPECIFICATIONS.
- TESTING AND FINAL ACCEPTANCE
  - THE CONTRACTOR SHALL FOLLOW THE QUALITY CONTROL TESTING PROGRAM FOR CONCRETE AND PAVEMENT MATERIALS ESTABLISHED BY THE GEOTECHNICAL ENGINEER.
  - FINAL ACCEPTANCE OF THE TOTAL PAVEMENT INSTALLATION SHALL BE SUBJECT TO THE TESTING AND CHECKING REQUIREMENTS CITED ABOVE.

**GRADING AND EROSION CONTROL NOTES:**

- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF-SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENEED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHWOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEMAED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS) AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY [COMPANY NAME, DATE OF REPORT] AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:
 

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
WATER QUALITY CONTROL DIVISION  
WOOD - PERMITS  
4300 CHERRY CREEK DRIVE SOUTH  
DENVER, CO 80246-1530  
ATTN: PERMITS UNIT



3665 JFK PARKWAY  
BUILDING 2, SUITE 100  
FORT COLLINS, CO  
80525  
262.522.4901  
www.AyresAssociates.com



DATE									
REVISION									

**SUPERSTAR CARWASH**  
MEADOWBROOK PKWY  
COLORADO SPRING, CO 80915  
**GENERAL NOTES**

Drawn By: AJJ  
Checked By: SEM  
Date: 06/23/2023  
Project No. 24-0409  
Sheet Number

C1.1

















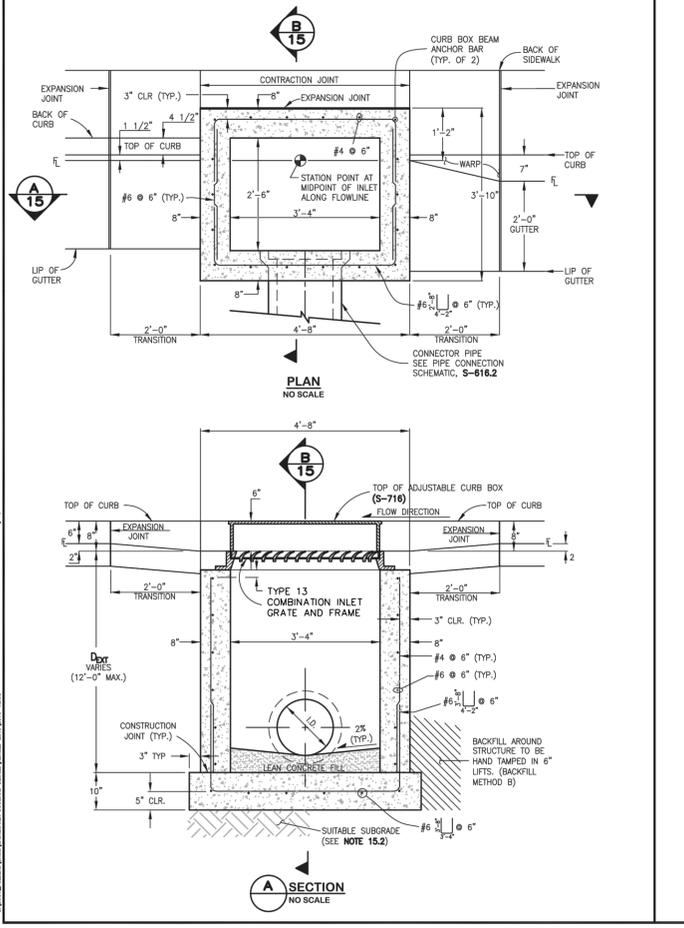
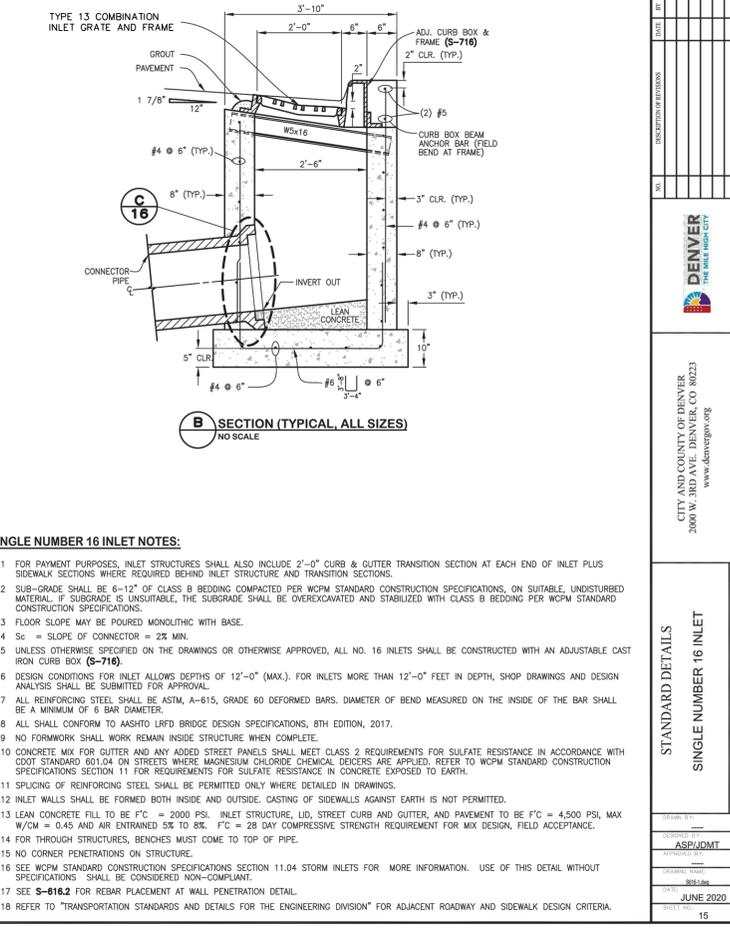
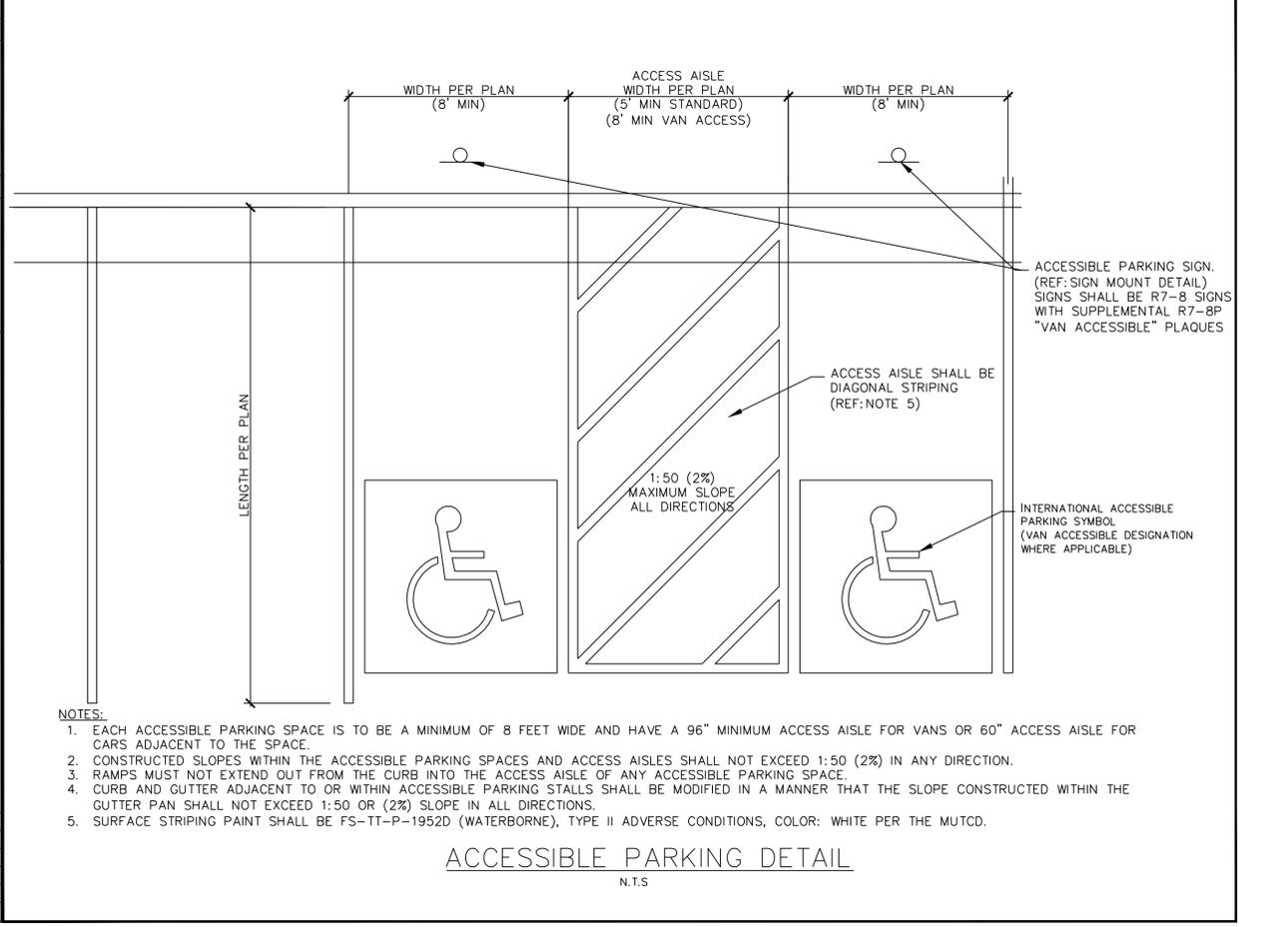
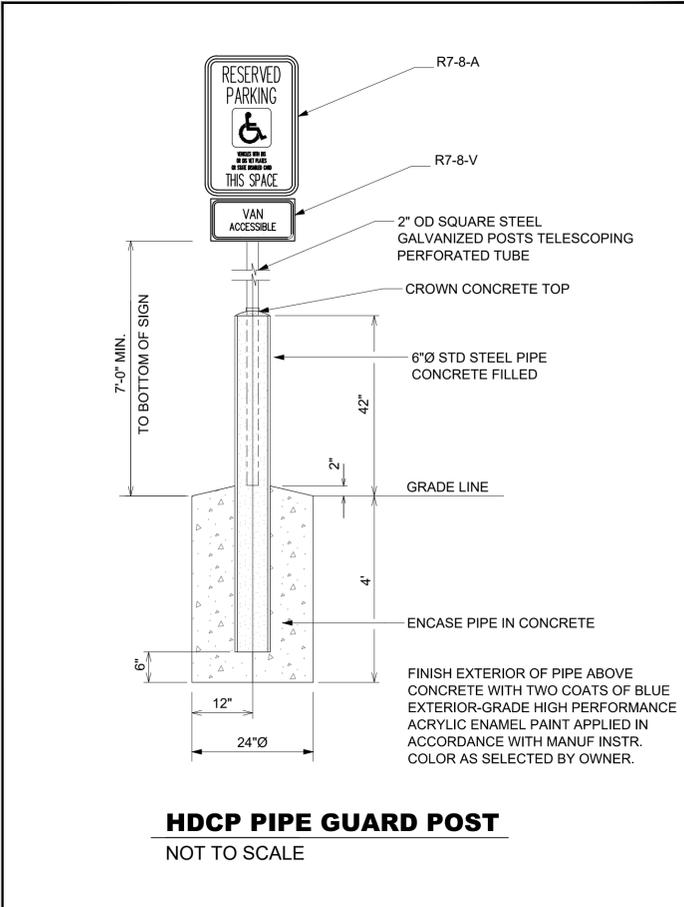
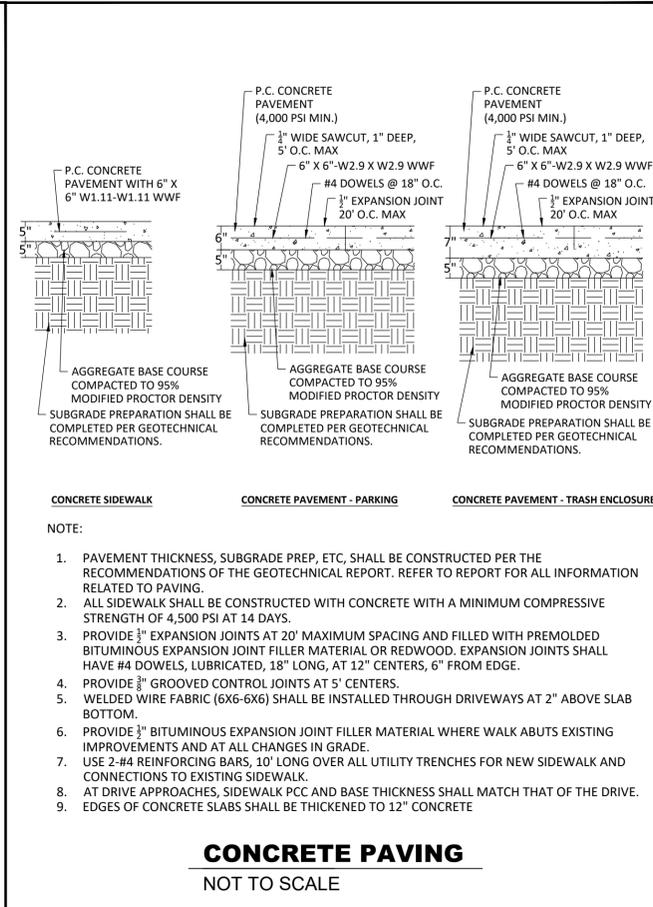
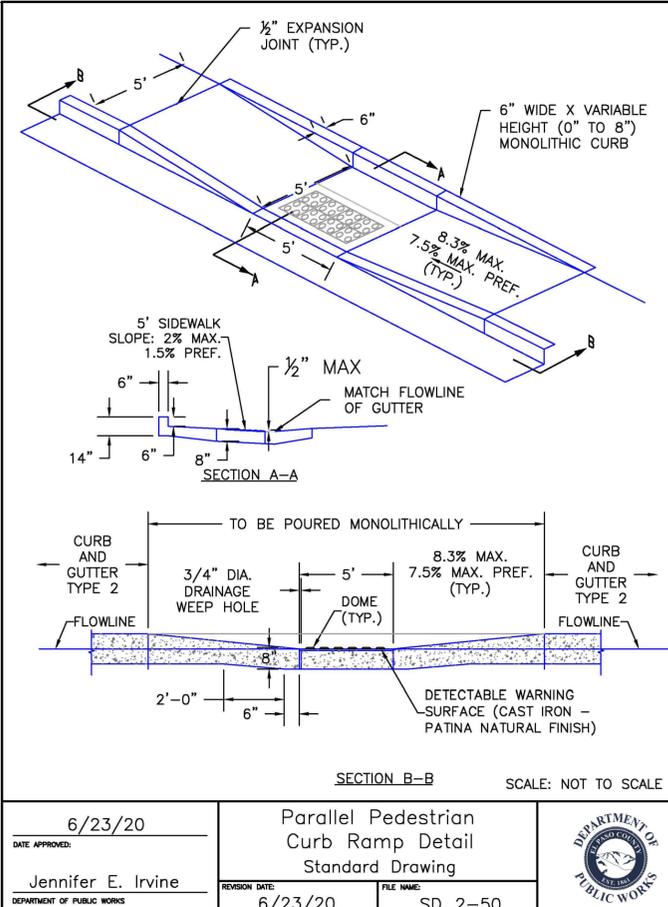
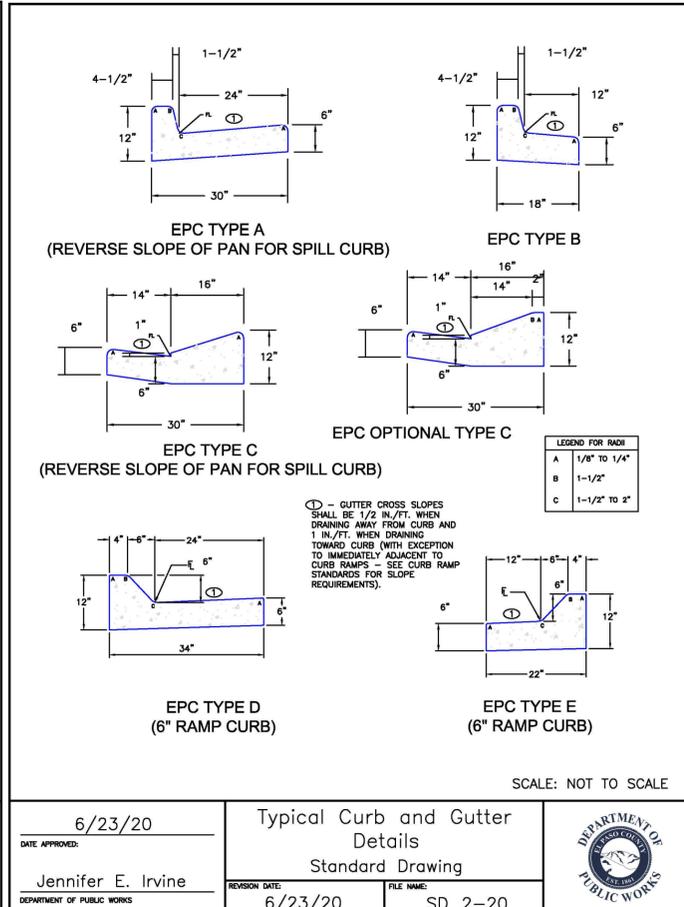




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**SUPERSTAR CARWASH**  
MEADOWBROOK PKWY  
COLORADO SPRING, CO 80915  
**CONSTRUCTION DETAILS**

Drawn By: AJJ  
Checked By: SEM  
Date: 06/23/2023  
Project No. 24-0409  
Sheet Number



DATE	
REVISION	

STANDARD DETAILS  
SINGLE NUMBER 16 INLET  
S-616.1

CITY AND COUNTY OF DENVER  
2000 W. 3RD AVE. DENVER, CO 80223  
www.denvergov.org

DATE: JUNE 2020



DATE	
REVISION	

Add EPC DPW Standard Details to plans sheets  
SD-2-40  
SD-2-41  
SD-2-42

Unresolved - dotschoenheit  
08/10/2023 3:15:04 PM

### NYLOPLAST 24" DRAIN BASIN: 2824AG \_\_X

(1, 2) INTEGRATED DUCTILE IRON FRAME & GRATE TO MATCH BASIN O.D.

(3) VARIABLE INVERT HEIGHTS AVAILABLE (ACCORDING TO PLANS/TAKE OFF)

(4) VARIOUS TYPES OF INLET & OUTLET ADAPTERS AVAILABLE:  
4" - 24" FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL, ADS/HANCOR SINGLE WALL), N-12 HP. PVC SEWER (EX: SDR 35), PVC DWV (EX: SCH 40), PVC C900/C905, CORRUGATED & RIBBED PVC

(5) ADAPTER ANGLES VARIABLE 0° - 360° ACCORDING TO PLANS

MINIMUM PIPE BURIAL DEPTH PER PIPE MANUFACTURER RECOMMENDATION (MIN. MANUFACTURING REQ. SAME AS MIN. SUMP)

TRAFFIC LOADS: CONCRETE SLAB DIMENSIONS ARE FOR GUIDELINE PURPOSES ONLY. ACTUAL CONCRETE SLAB MUST BE DESIGNED TAKING INTO CONSIDERATION LOCAL SOIL CONDITIONS, TRAFFIC LOADING, & OTHER APPLICABLE DESIGN FACTORS. SEE DRAWING NO. 7001-110-111 FOR NON TRAFFIC INSTALLATION.

(3) VARIABLE SUMP DEPTH ACCORDING TO PLANS (6" MIN. BASED ON MANUFACTURING REQ.)

THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321. BEDDING & BACKFILL FOR SURFACE DRAINAGE INLETS SHALL BE PLACED & COMPACTED UNIFORMLY IN ACCORDANCE WITH ASTM D2321.

GRATE OPTIONS	LOAD RATING	PART #	DRAWING #
PEDESTRIAN	MEETS H-10	2499CGP	7001-110-216
STANDARD	MEETS H-20	2499CGS	7001-110-217
SOLID COVER	MEETS H-20	2499CSC	7001-110-218
DOME	N/A	2499CKD	7001-110-219
DROP IN GRATE	LIGHT DUTY	2499CDD	7001-110-275

WATERTIGHT JOINT (CORRUGATED HDPE SHOWN)

5 - GRATES/SOLID COVER SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.  
6 - FRAMES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70-50-05.  
7 - DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS. RISERS ARE NEEDED FOR BASINS OVER 84" DUE TO SHIPPING RESTRICTIONS. SEE DRAWING NO. 7001-110-085.  
8 - DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR CORRUGATED HDPE (ADS N-12/HANCOR DUAL WALL), N-12 HP & PVC SEWER.  
9 - ADAPTERS CAN BE MOUNTED ON ANY ANGLE 0° TO 360°. TO DETERMINE MINIMUM ANGLE BETWEEN ADAPTERS SEE DRAWING NO. 7001-110-012.

THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONFER, TRANSFER, OR LICENSE THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR ANY INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN, EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.

DRAWN BY	EBC	MATERIAL	
DATE	04-03-06	PROJECT NO./NAME	
REVISED BY	NMH	TITLE	24 IN DRAIN BASIN QUICK SPEC INSTALLATION DETAIL
DATE	03-14-16	DWG NO.	7001-110-192
DWG SIZE	A	SCALE	1:40
		SHEET	1 OF 1
		REV	E

**PLAN**

**SECTION A**

**SECTION B**

METER SIZE & NOMINAL PIPE Ø	PRECAST VAULT DIMENSIONS				SUMP			
	A	B	C	D	E	F	G	H
3"	9'-0"	2'-0"	2'-2"	12"	2'-2"	1'-6"		
4"	9'-0"	2'-6"	2'-2"	12"	2'-2"	1'-6"		
6"	9'-0"	2'-6"	2'-2"	12"	2'-2"	1'-6"		
8"	13'-6"	2'-6"	2'-6"	18"	2'-6"	1'-9"		
10"	13'-6"	2'-6"	2'-6"	18"	2'-6"	1'-9"		

**NOTES:**

- VALVES INSIDE THE VAULT SHALL BE NON-RISING STEM, RIGHT HAND OPEN VALVES WITH HAND WHEEL OPERATORS.
- A CHECK VALVE IS REQUIRED BETWEEN COUPLING AND GATE VALVE IF BACKFLOW PREVENTION ASSEMBLY IS MORE THAN 150 FEET FROM VAULT.
- INSTALL METER VAULT AND SERVICE LINE IN ACCORDANCE WITH SPECIFICATION SECTION 33 19 13.
- SERVICE LINES SHALL NOT CROSS INSIDE THE METER VAULT.

33271  
**LARGE METER IN VAULT**

DENVER WATER

1600 West 12th Ave  
Denver, Colorado 80204-3412  
T: 303.638.8000  
F: 303.638.8001  
denverwater.org

**PLAN VIEW OF BASE**

**SECTION VIEW**

**TYPICAL CHANNEL DETAILS**

**TOE POCKETS DETAILS**

**NOTES:**

- TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.
- VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.
- EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOE POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.
- PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.
- BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., 1/2" PER FOOT, MIN.).
- FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1, 1/2" PER FT. MIN.). FLOOR SHALL BE SHAPED AND CHANNELLED; SEE DETAILS THIS SHEET.

SCALE: NOT TO SCALE

Storm Sewer Manhole Detail  
Type II  
Standard Drawing

DATE APPROVED: 11/10/04  
FILE NAME: SD\_3-2

EL PASO COUNTY  
DEPARTMENT OF TRANSPORTATION

**SECTION A-A (APPROX 175 LBS)**

**SECTION B-B (APPROX 144 LBS)**

**TYPE 'R' INLET ALTERNATIVE LABELING**

SCALE: NOT TO SCALE

Storm Sewer Manhole  
Details  
Standard Drawing

DATE APPROVED: 9/16/10  
FILE NAME: SD\_3-5

EL PASO COUNTY  
DEPARTMENT OF TRANSPORTATION

**SUPERSTAR CARWASH**  
MEADOWBROOK PKWY  
COLORADO SPRING, CO 80915  
**CONSTRUCTION DETAILS**

Drawn By: AJJ  
Checked By: SEM  
Date: 06/23/2023  
Project No: 24-0409  
Sheet Number: C8.1



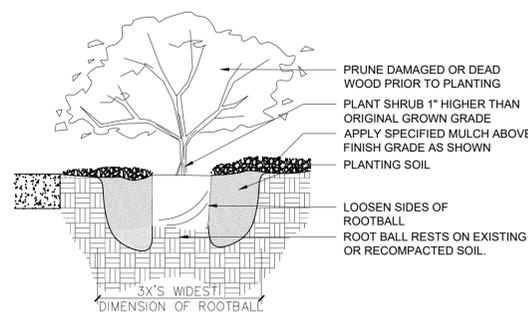


DATE	
REVISION	

**SUPERSTAR CARWASH**  
MEADOWBROOK PKWY  
COLORADO SPRING, CO 80915  
**LANDSCAPE DETAILS**

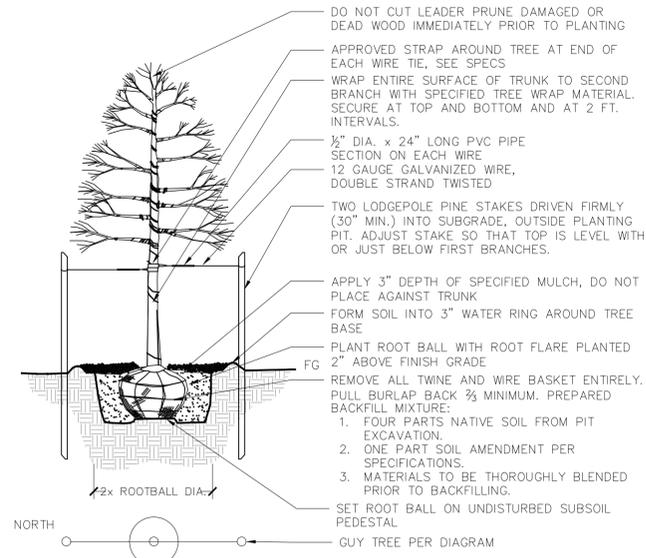
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Date: 06/23/2023  
Project No. 24-0409

Sheet Number  
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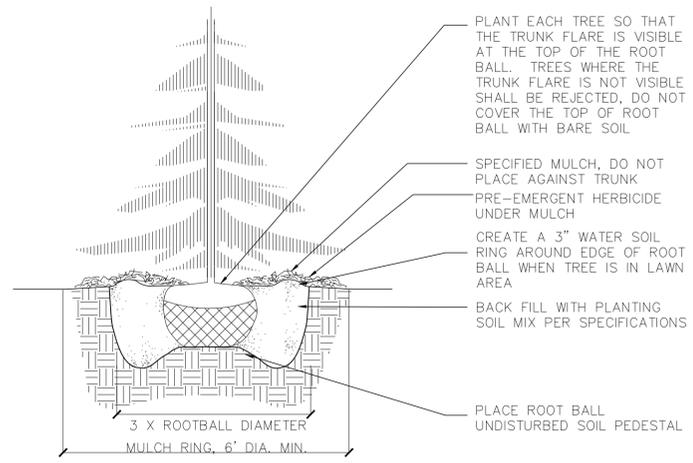


- NOTES:**
1. EVERGREEN SHRUBS SHALL BE PLANTED NO CLOSER THAN 3' TO CLOSEST PAVEMENT.
  2. ALL PLANT CONTAINERS TO BE REMOVED PRIOR TO PLANTING.
  3. BACKFILL AND WATER IN THOROUGHLY.
  4. BROKEN ROOT BALLS WILL BE REJECTED.

**1 SHRUB PLANTING**  
3/4" = 1'-0" P-2022-BEL-03

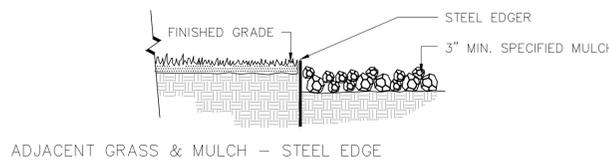
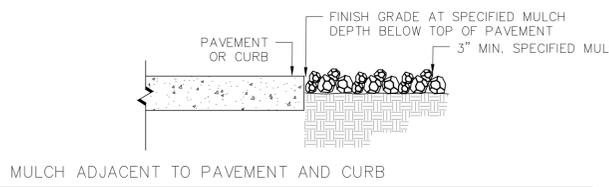
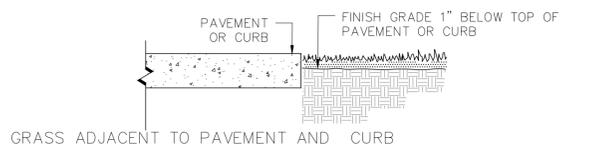


**2 DECIDUOUS TREE PLANTING AND STAKING**  
1" = 1'-0" P-2022-BEL-01



- NOTES:**
1. DO NOT HEAVILY PRUNE THE TREE AT PLANTING, PRUNE ONLY CROSSOVER LIMBS, CO-DOMINANT LEADERS, AND BROKEN OR DEAD BRANCHES. SOME INTERIOR TWIGS AND LATERAL BRANCHES MAY BE PRUNED; HOWEVER, DO NOT REMOVE THE TERMINAL BUDS OF BRANCHES THAT EXTEND TO THE EDGE OF THE CROWN
  2. STAKE TREES ONLY UPON THE APPROVAL OF THE LANDSCAPE ARCHITECT
  3. REMOVE ALL TWINE, ROPE, WIRE AND BURLAP FROM TOP 2/3 OF ROOT BALL.

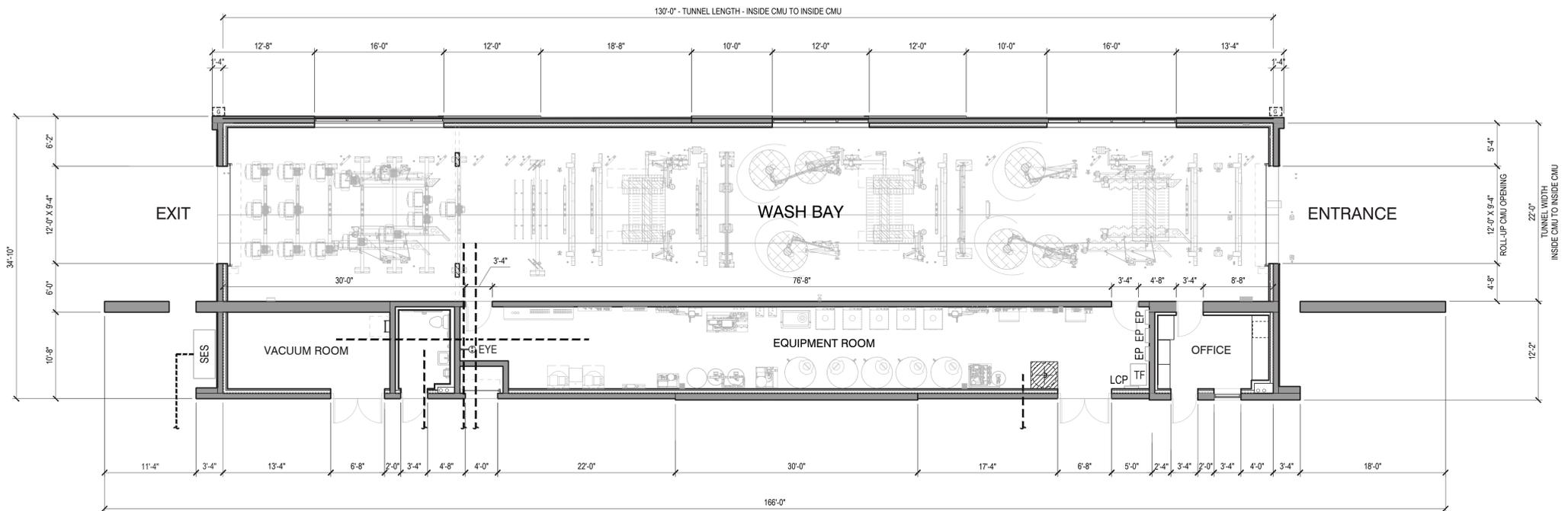
**3 CONIFEROUS TREE PLANTING**  
N.T.S. P-2022-BEL-50



**4 BED EDGING**  
N.T.S. P-2022-BEL-04

**PLANTING & LANDSCAPE NOTES:**

1. ALL LANDSCAPE AREAS SHALL BE WATERED BY A FULLY AUTOMATIC IRRIGATION SYSTEM WITH CODE COMPLIANT BACK FLOW PREVENTION MEASURES. BEDS WILL BE WATERED VIA DRIP IRRIGATION BELOW THE MULCH SURFACE. NATIVE SEED AND SOD AREAS WILL BE WATERED VIA OVERLAPPING, HEAD TO HEAD SPRAY COVERAGE. OWNER TO BE RESPONSIBLE FOR IRRIGATION MAINTENANCE.
2. THIS PLAN DESCRIBES THE LANDSCAPE PORTION OF THE PROJECT ONLY. SEE OTHER SHEETS FOR SITE IMPROVEMENT INFORMATION.
3. CONTRACTOR TO FIELD VERIFY ALL UTILITY LOCATIONS AND DIMENSIONS. MINOR ADJUSTMENTS TO AVOID UTILITY AND SITE CONFLICTS ARE ALLOWED. LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ANY NOTABLE CONFLICTS AND PROPOSED SOLUTIONS.
4. ALL PLANTING BEDS ADJACENT TO LAWN SHALL HAVE STEEL EDGING AS INDICATED ON PLANS.
5. TREE LOCATIONS ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY BEFORE PLANTING TO AVOID UTILITIES AND OTHER OBSTACLES.
6. CONTRACTOR IS RESPONSIBLE FOR FINAL PRODUCT TO MEET ALL LOCAL AND STATE REQUIREMENTS.
7. CONTRACTOR TO MINIMIZE DISTURBANCE TO ESTABLISHED LAWN AND IRRIGATION SYSTEM AND REPLACE EXISTING LAWN THAT IS UNSATISFACTORY TO OWNER OR ARCHITECT.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL CONCURRENT WORK BY OTHER TRADES. PROVIDE SLEEVES AS REQUIRED FOR DRAINAGE, IRRIGATION, AND ELECTRICAL LINES. IRRIGATION AND ELECTRICAL SLEEVES AND SUBSURFACE DRAINAGE SYSTEMS SHALL BE CONSTRUCTED PRIOR TO PAVING AND LANDSCAPE WORK.
9. EXISTING BUILDINGS, GRADING, EASEMENTS, AND UTILITIES ARE BASED ON SURVEY INFORMATION PROVIDED BY OTHERS.
10. VERIFY ALL CONDITIONS AT JOB SITE AND NOTIFY LANDSCAPE ARCHITECT OF DIMENSIONAL ERRORS, OMISSIONS, OR DISCREPANCIES BEFORE BEGINNING WORK.
11. THE LANDSCAPE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE UTILITIES OR STRUCTURES NOT SHOWN ON THE DRAWINGS. CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING OVER OR NEAR EXISTING GAS MAINS AND ELECTRICAL LINES. CONTRACTOR IS TO VERIFY HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES, ABOVE AND BELOW GRADE, PRIOR TO EXCAVATION OR TRENCHING. NOTIFY ARCHITECT OF ANY DISCREPANCIES OR CONFLICTS. DAMAGE SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
12. LAYOUT OF ALL SITE FURNISHINGS, INCLUDING BENCHES, TRASH RECEPTACLES, AND BIKE RACKS IS TO BE STAKED IN THE FIELD AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. WHERE CONCRETE FOOTINGS ARE REQUIRED FOR FURNITURE, THEY ARE TO BE STAKED AND VERIFIED IN THE FIELD PRIOR TO INSTALLING ADJACENT PAVEMENT OR FINISHES.
13. ALL LAYOUT DIMENSIONS ARE TWO DIMENSIONAL, NO VERTICAL CHANGE IS ACCOUNTED FOR IN MEASUREMENTS. ACTUAL LENGTH MAY VARY FROM PLANS.
14. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
15. THE CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT EXISTING IMPROVEMENTS FROM DAMAGE. ALL SUCH IMPROVEMENTS AND STRUCTURE DAMAGED BY THE CONTRACTORS OPERATIONS SHALL BE REPAIRED AND RECONSTRUCTED SATISFACTORY TO THE ARCHITECT AT THE OWNERS EXPENSE.
16. CONTOUR LINES ARE SHOWN ON LANDSCAPE PLANS FOR REFERENCE ONLY REFERENCE CIVIL DRAWING FOR ACTUAL INFORMATION.
17. TREES AND SHRUBS SHALL BE PLANTED PER DETAILS. STAKE AND GUY TREES PER DETAILS. TREE AND SHRUBS BED LOCATIONS SHALL BE APPROVED PRIOR TO PLANTING.
18. CONTRACTOR TO REVIEW PLANT LIST DURING BIDDING AND PROVIDE COMMENTS ON ANY PLANT MATERIAL AND PLACEMENT AND PROVIDE ALTERNATIVE.
19. QUANTITIES PROVIDED IN SCHEDULE ARE FOR CONVENIENCE ONLY. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING THE QUANTITIES SHOWN AND THE PLAN AND MEETING THE DESIGN INTENT
20. OWNER TO PERFORM ONGOING MAINTENANCE CONSISTENT WITH CITY OF ERIE STANDARDS.
21. PLANTING AREAS SHALL RECEIVE MIN. 3-INCH DEPTH DECORATIVE ROCK MULCH OVER FILTER FABRIC. ROCK MULCH TO BE 1 1/2" BUTTER ROCK, LIGHT TAN IN COLOR.
22. TREES IN SODDED AREAS AND ROCK MULCHED PLANTING AREAS SHALL RECEIVE 3-FOOT DIA. CEDAR BARK WOOD MULCH RING AT A MIN. 3-INCH DEPTH.
23. IF ANY TRANSFORMERS, GROUND-MOUNTED HVAC UNITS, UTILITY PEDESTALS, AND SIMILAR FEATURES ARE NOT SHOWN ON THE SITE PLAN, ADDITIONAL LANDSCAPING AND SCREENING MAY BE REQUIRED BASED UPON FIELD CONDITIONS DURING THE SITE INSPECTION PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY, OR FINAL INSPECTION, AS APPLICABLE.



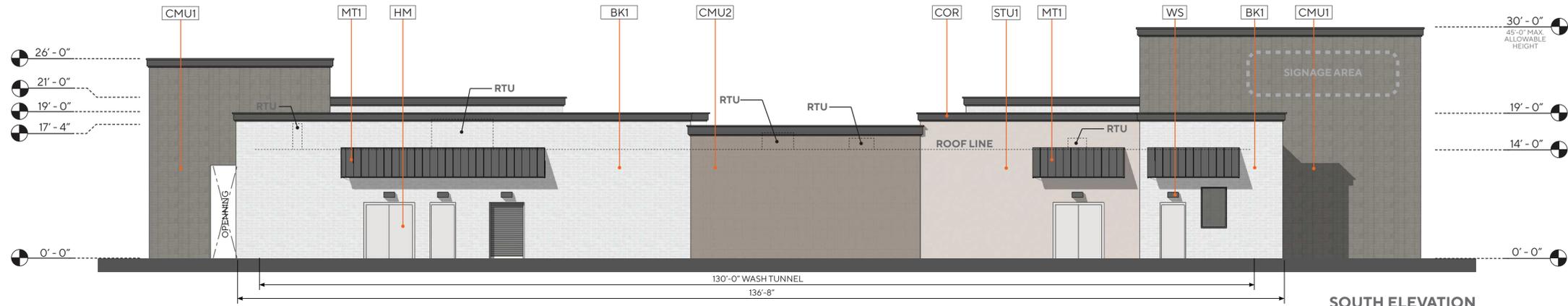
**MEADOWBROOK & MARKSHEFFEL**  
 COLORADO SPRINGS | CO 80915

**FLOOR PLAN**

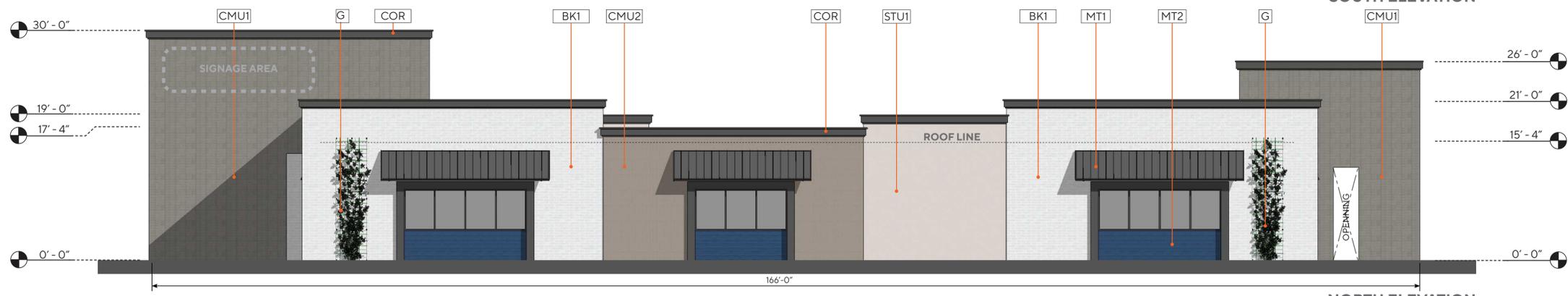


**A1.0**

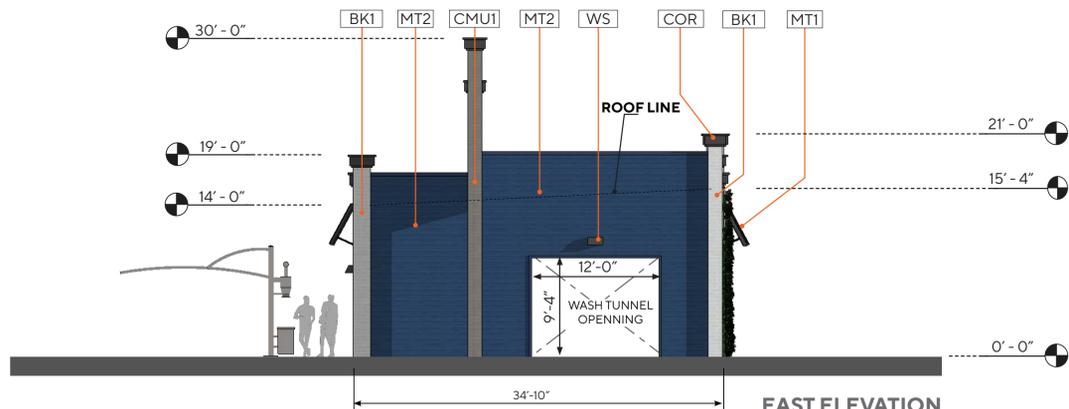
Scale  
 Job No. 2022-626  
 Date 2023-06-28



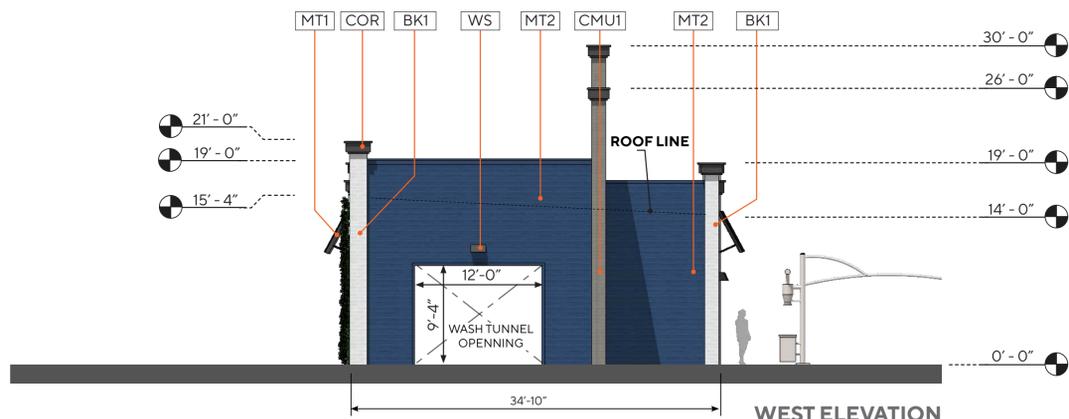
**SOUTH ELEVATION**



**NORTH ELEVATION**



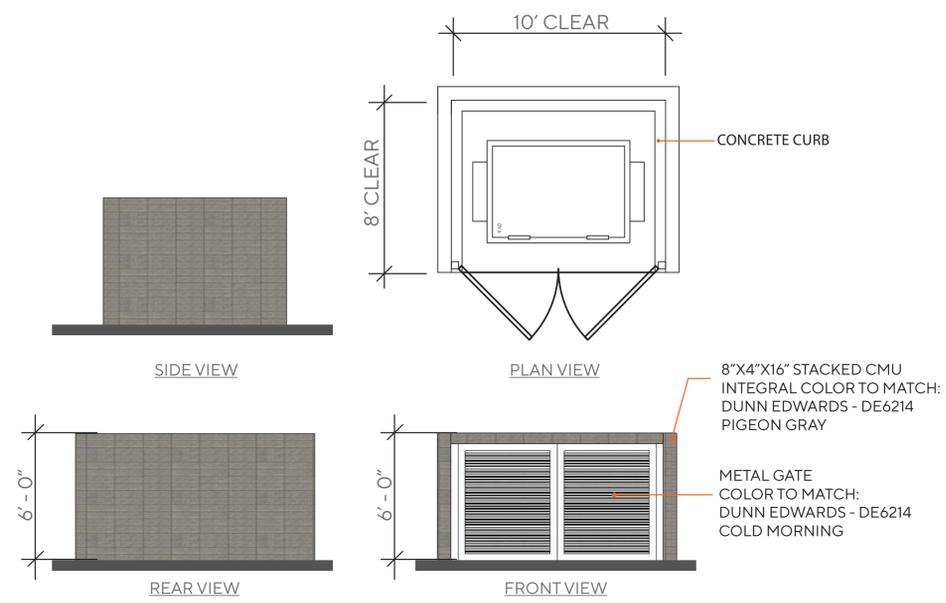
**EAST ELEVATION**



**WEST ELEVATION**

KEY	DESCRIPTION
<b>MASONRY</b>	
BK-1	8" X 4" X 16" - MANUFACTURE: SUPERLITE TYPE: STANDARD BLOCK - PATTERN: RUNNING BOND INTEGRAL COLOR TO MATCH PT-1
CMU-1	8" X 4" X 16" - MANUFACTURE: SUPERLITE TYPE: STANDARD BLOCK - PATTERN: STACK BOND INTEGRAL COLOR TO MATCH PT-2
CMU-2	10" X 8" X 16" - MANUFACTURE: SUPERLITE TYPE: VERTICAL SINGLE SCORE BLOCK - PATTERN: STACK BOND INTEGRAL COLOR TO MATCH PT-2
<b>METAL</b>	
MT-1	METAL AWNING - COLOR TO MATCH PT-4
MT-2	ALUMABOARD METAL PANEL, MANU: ROLLFAB, COLOR TO MATCH: REGAL BLUE
<b>MISC</b>	
COR	CORNICE TRIM - COLOR TO MATCH PT-4
CT	CANOPY TUBE - ARCHES AND COLUMNS COLOR TO MATCH PT-3
HM	HOLLOW METAL DOORS / FRAMES PAINTED COLOR TO MATCH PT-1
WS	ARCHITECTURAL WALL SCONCE LITHONIA LIGHTING - WST LED
<b>STUCCO</b>	
STU-1	STUCCO 30/30 FINE TEXTURE OVER STANDARD CMU BLOCK - COLOR TO MATCH PT-3
<b>PAINT</b>	
PT-1	DUNN EDWARDS - COLD MORNING - DE6365
PT-2	DUNN EDWARDS - PIGEON GRAY - DE6214
PT-3	DUNN EDWARDS - THICK FOG - DE6058
PT-4	DUNN EDWARDS - DARK ENGINE - DE6350

**NOTE:**  
ALL EXTERIOR SIGNAGE UNDER A SEPARATE PERMIT



**TRASH ENCLOSURE**  
SCALE: 1/4" = 1'-0"



**MEADOWBROOK & MARKSHEFFEL**  
COLORADO SPRINGS | CO 80915

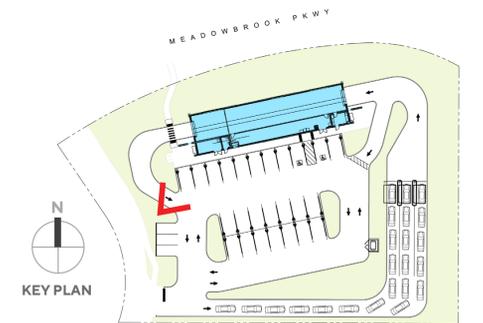
**EXTERIOR ELEVATIONS**



**A2.0**  
Scale: 1/8" = 1'-0"  
Job No. 2022-626  
Date 2023-06-28



\*NOTE: ALL EXTERIOR SIGNAGE UNDER A SEPARATE PERMIT  
 LANDSCAPING DEPICTED IS FOR ILLUSTRATIVE PURPOSES ONLY; REFER TO LANDSCAPE PLAN.



**MEADOWBROOK & MARKSHEFFEL**  
 COLORADO SPRINGS | CO 80915

PERSPECTIVE 1

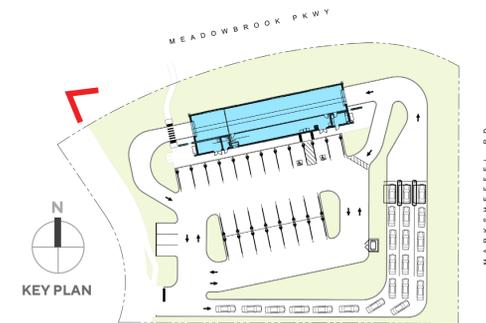


**A3.0**

Scale  
 Job No. 2022-626  
 Date 2023-06-28



\*NOTE: ALL EXTERIOR SIGNAGE UNDER A SEPARATE PERMIT  
 LANDSCAPING DEPICTED IS FOR ILLUSTRATIVE PURPOSES ONLY; REFER TO LANDSCAPE PLAN.



**MEADOWBROOK & MARKSHEFFEL**  
 COLORADO SPRINGS | CO 80915

PERSPECTIVE 2

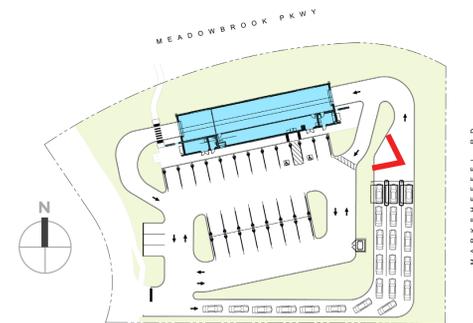


**A4.0**

Scale  
 Job No. 2022-626  
 Date 2023-06-28



\*NOTE: ALL EXTERIOR SIGNAGE UNDER A SEPARATE PERMIT  
 LANDSCAPING DEPICTED IS FOR ILLUSTRATIVE PURPOSES ONLY; REFER TO LANDSCAPE PLAN.



MEADOWBROOK & MARKSHEFFEL  
 COLORADO SPRINGS | CO 80915

PERSPECTIVE 3



A5.0

Scale  
 Job No. 2022-626  
 Date 2023-06-28



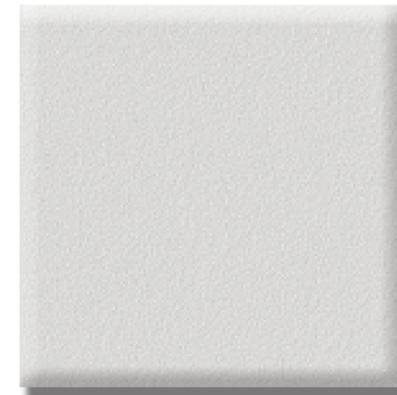
BK-1



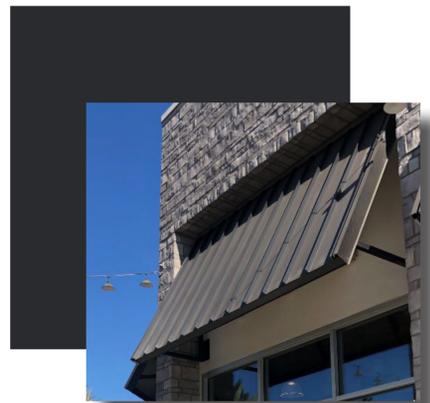
CMU-1



CMU-2



STU-1



MT1



MT2



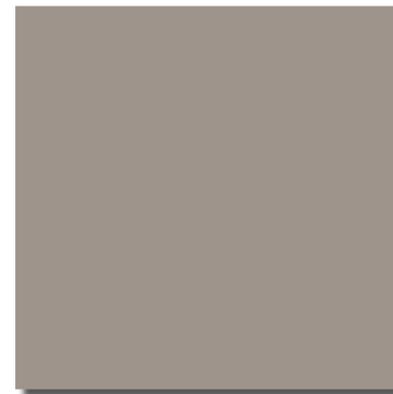
CT



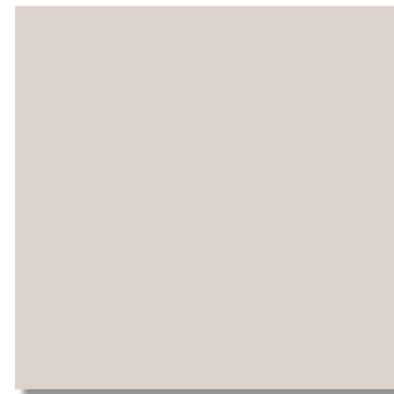
G



PT1



PT2



PT3



PT4

KEY	DESCRIPTION
<b>MASONRY</b>	
BK-1	8" X 4" X 16" - MANUFACTURE: SUPERLITE TYPE: STANDARD BLOCK - PATTERN: RUNNING BOND INTEGRAL COLOR TO MATCH PT-1
CMU-1	8" X 4" X 16" - MANUFACTURE: SUPERLITE TYPE: STANDARD BLOCK - PATTERN: STACK BOND INTEGRAL COLOR TO MATCH PT-2
CMU-2	10" X 8" X 16" - MANUFACTURE: SUPERLITE TYPE: VERTICAL SINGLE SCORE BLOCK - PATTERN: STACK BOND INTEGRAL COLOR TO MATCH PT-2
<b>METAL</b>	
MT-1	METAL AWNING - COLOR TO MATCH PT-4
MT-2	ALUMABOARD METAL PANEL, MANU: ROLLFAB, COLOR TO MATCH: REGAL BLUE
<b>MISCO</b>	
COR	CORNICE TRIM - COLOR TO MATCH PT-4
CT	CANOPY TUBE - ARCHES AND COLUMNS COLOR TO MATCH PT-3
HM	HOLLOW METAL DOORS / FRAMES PAINTED COLOR TO MATCH PT-1
WS	ARCHITECTURAL WALL SCNCE LITHONIA LIGHTING - WST LED
<b>STUCCO</b>	
STU-1	STUCCO 30/30 FINE TEXTURE OVER STANDARD CMU BLOCK - COLOR TO MATCH PT-3
<b>PAINT</b>	
PT-1	DUNN EDWARDS - COLD MORNING - DE6365
PT-2	DUNN EDWARDS - PIGEON GRAY - DE6214
PT-3	DUNN EDWARDS - THICK FOG - DE6058
PT-4	DUNN EDWARDS - DARK ENGINE - DE6350

**NOTE:**  
ALL EXTERIOR SIGNAGE UNDER A SEPARATE PERMIT



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COLORS & MATERIALS



**A6.0**

Scale  
Job No. 2022-626  
Date 2023-06-28