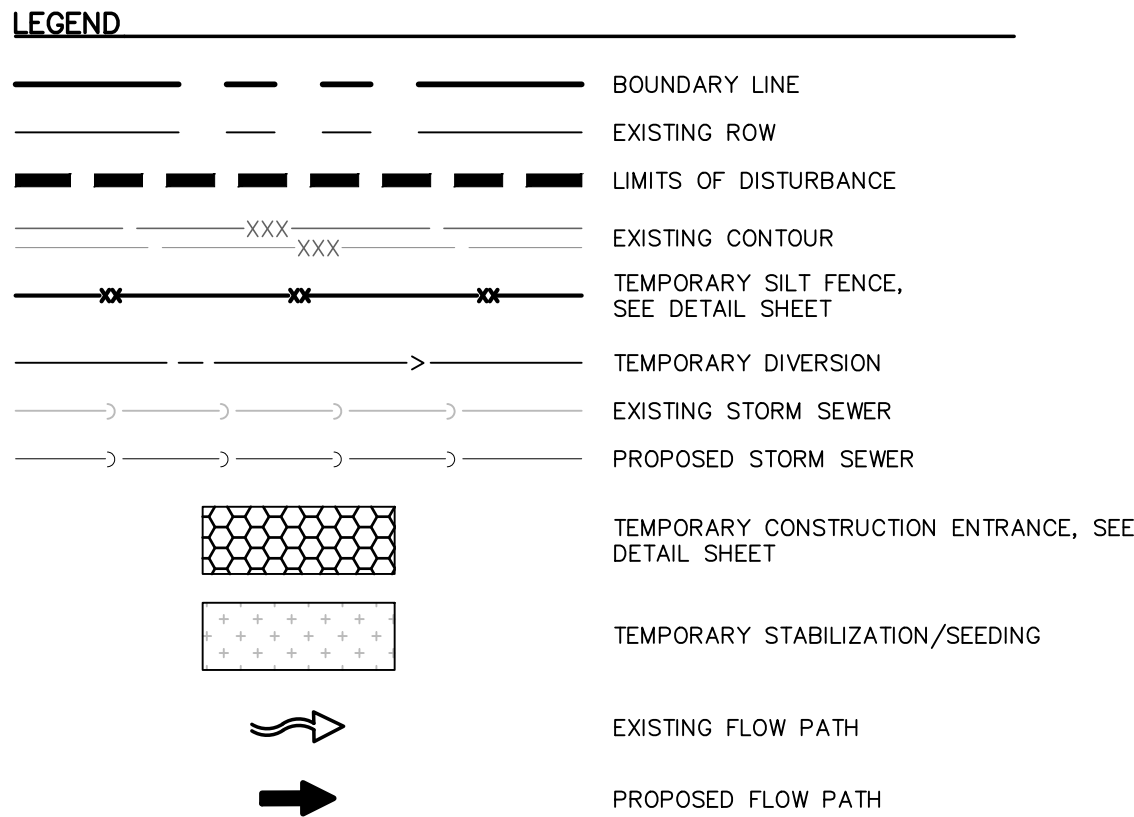




NOTES:

- SEE SHEET FOR EROSION CONTROL NOTES AND DETAILS.
- EROSION CONTROL BLANKET SHALL BE INSTALLED WHERE SHOWN IN AREAS DEFICENT ON THE LANDSCAPE PLAN AS SEED. EROSION CONTROL BLANKET IS NOT NECESSARY IN AREAS OF SOD, MULCH, OR PLUGS.
- THE LOCATIONS OF CONSTRUCTION STAGING AREA AND TOPSOIL STOCKPILE AREA ARE SUBJECT TO CHANGE PER CONTRACTOR. STAGING AREA SHALL BE ENCLOSED WITH TEMPORARY FENCE. CONSTRUCTION TRAILERS, TEMPORARY PARKING, AND ITEMS SUCH AS SOLID WASTE RECEPTACLES, SANITARY FACILITIES, CONCRETE WASTE, FUEL TANKS, CONSTRUCTION MATERIALS, SUPPLIES, AND STOCKPILES SHALL BE PLACED IN THIS AREA IF NEEDED. TOPSOIL STOCKPILE AREA SHALL BE ENCLOSED WITH SILT FENCE.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE CONSTRUCTION EXIT, OR ON ANY OTHER EXISTING STABILIZED SURFACE WITHIN THE LIMITS OF DISTURBANCE, SHALL BE CLEANED IMMEDIATELY. CONSIDERATION SHALL BE GIVEN TO A WHEEL WASH SYSTEM WHERE APPROPRIATE. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING AN EXISTING STORM DRAINAGE SYSTEM. SEE SHEET FOR CONSTRUCTION EXIT DETAIL.
- ALL SOIL DISTURBANCE SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE.

SITE DATA TABLE			
TOTAL PROJECT AREA (ACRES)	2.72		
TOTAL DISTURBED AREA (ACRES)	3.06		
EXISTING IMPERVIOUS AREA (ACRES)	0.00		
PROPOSED IMPERVIOUS AREA (ACRES)	1.69		

SOIL DATA TABLE			
SOIL TYPE	% OF SITE	K VALUE	HSG
BLUEPOINT LOAMY FINE SAND (BC)	100	0.20	A
1-9% SLOPE			

NOTE:

THIS SOIL EROSION CONTROL PLAN DOES NOT CONSTITUTE A COMPLETE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING A COMPLETE STORM WATER POLLUTION PLAN IN ACCORDANCE WITH THE GENERAL NPDES PERMIT REQUIREMENTS INCLUDING BUT NOT LIMITED TO REPORTING, INSPECTIONS, MONITORING, ETC.

CONSTRUCTION SEQUENCE SCHEDULE

- INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL SE/SC MEASURES
A.) INSTALL STABILIZED CONSTRUCTION ENTRANCE
B.) INSTALL SILT FENCE
C.) INSTALL INLET FILTER PROTECTION AT EXISTING STORM STRUCTURES
- TREE REMOVAL WHERE NECESSARY (CLEAR & GRUB).
- REMOVE EXISTING STRUCTURES.
- CONTAIN STOCKPILE LOCATIONS WITHIN SITE AND INSTALL EROSION CONTROL MEASURES AS NECESSARY.
- START CONSTRUCTION OF BUILDING PAD AND UTILITIES.
- INSTALL INLET PROTECTION AS EACH STORM STRUCTURE IS INSTALLED.
- INITIATE TEMPORARY SEEDING WITHIN ONE BUSINESS DAY OF INACTIVITY, THROUGHOUT CONSTRUCTION, DENUDE AREAS THAT WILL BE INACTIVE FOR 14 DAYS OR MORE.
- INSTALL PAVEMENT.
- PERMANENTLY STABILIZE ALL AREAS.
- REMOVE ALL TEMPORARY SE/SC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION.

* SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE MUST OCCUR EVERY WEEK AND WITHIN 24 HOURS OF THE END OF A STORM OR BY THE END OF THE FOLLOWING BUSINESS DAY AFTER EVERY 0.5 IN. OR GREATER RAINFALL EVENT.

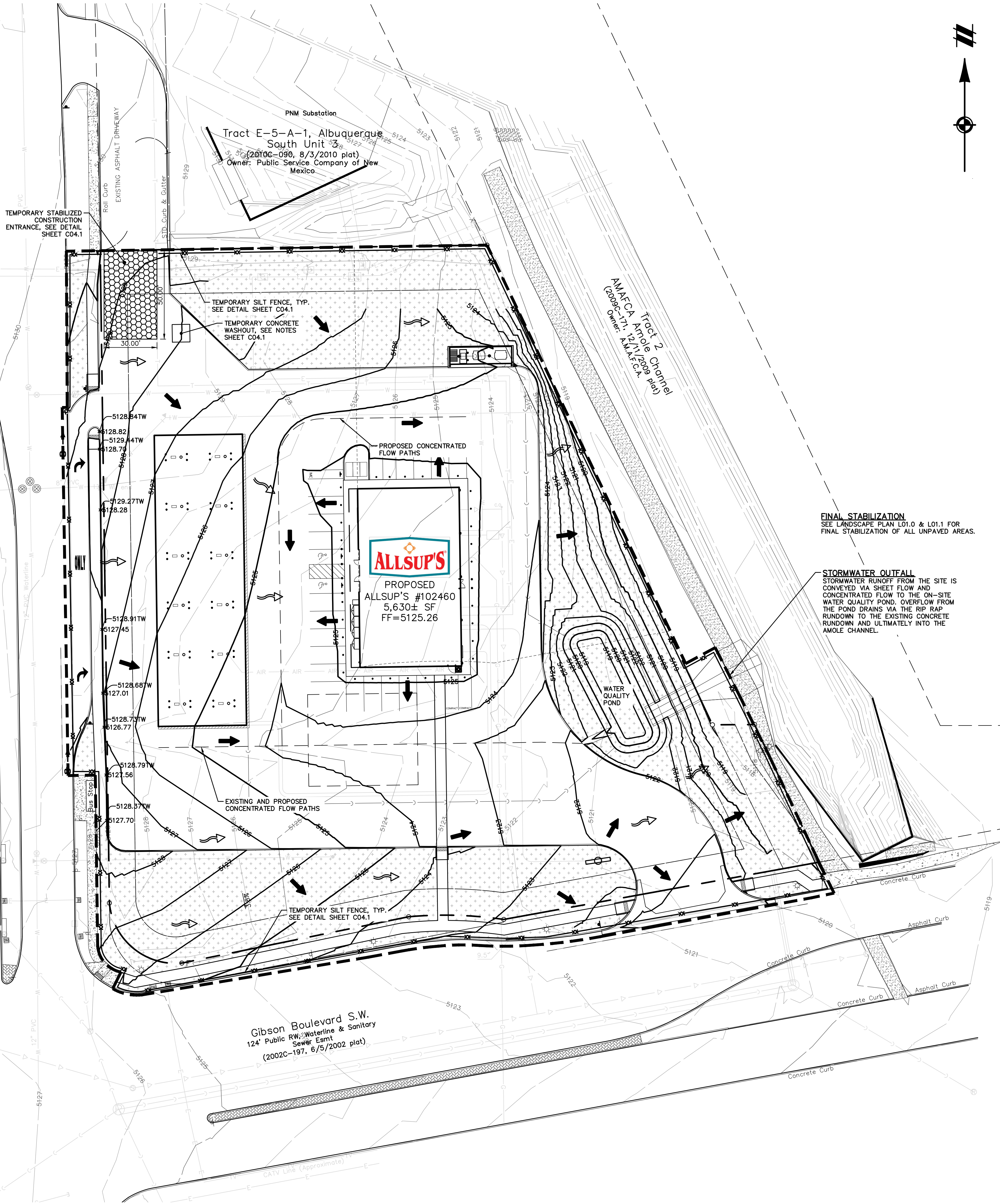
BASIS OF BEARING

THE BASIS OF BEARINGS IS BETWEEN THE SE CORNER OF TRACT E-5-A-2 AND USC&GS BRASS CAP "TRANS 1969" AS MEASURED WITH THE "TRIMBLE VRS NOW" GNSS VIRTUAL REFERENCE SYSTEM. BEARINGS ARE NEW MEXICO STATE PLANE BEARINGS, CENTRAL ZONE, NAD 83. DISTANCE ARE GROUND DISTANCES. ELEVATION DATUM IS NAVD88

CITY OF ALBUQUERQUE ESC STANDARD NOTES:

- ALL EROSION AND SEDIMENT CONTROL (ESC) WORK ON THESE PLANS, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON SHALL BE PERMITTED, CONSTRUCTED, INSPECTED, AND MAINTAINED IN ACCORDANCE WITH:
a. THE CITY ORDINANCE § 14-5-2-11, THE ESC ORDINANCE,
b. THE EPA'S 2022 CONSTRUCTION GENERAL PERMIT (CGP), AND
c. THE CITY OF ALBUQUERQUE CONSTRUCTION BMP MANUAL.
- ALL BMP'S MUST BE INSTALLED PRIOR TO BEGINNING ANY EARTH MOVING ACTIVITIES EXCEPT AS SPECIFIED HEREON IN THE PHASING PLAN. CONSTRUCTION OF EARTHEN BMP'S SUCH AS SEDIMENT TRAPS, SEDIMENT BASINS, AND DIVERSION BERMS SHALL BE COMPLETED AND INSPECTED PRIOR TO ANY OTHER CONSTRUCTION OR EARTHWORK. SELF-INSPECTION IS REQUIRED AFTER INSTALLATION OF THE BMP'S AND PRIOR TO BEGINNING CONSTRUCTION.
- SELF-INSPECTIONS -- IN ACCORDANCE WITH CITY ORDINANCE § 14-5-2-11(C)(1), "AT A MINIMUM A ROUTINE SELF-INSPECTION IS REQUIRED TO REVIEW THE PROJECT FOR COMPLIANCE WITH THE CONSTRUCTION GENERAL PERMIT ONCE EVERY 14 DAYS AND AFTER ANY PRECIPITATION EVENT OF 1/4 INCH OR GREATER UNTIL THE SITE CONSTRUCTION HAS BEEN COMPLETED AND THE SITE DETERMINED AS STABILIZED BY THE CITY. REPORTS OF THESE INSPECTIONS SHALL BE KEPT BY THE PERSON OR ENTITY AUTHORIZED TO DIRECT THE CONSTRUCTION ACTIVITIES ON THE SITE AND MADE AVAILABLE UPON REQUEST.
- CORRECTIVE ACTION REPORTS MUST BE KEPT BY THE PERSON OR ENTITY AUTHORIZED TO DIRECT THE CONSTRUCTION ACTIVITIES ON THE SITE AND MADE AVAILABLE UPON REQUEST.
- FINAL STABILIZATION AND NOTICE OF TERMINATION (NOT) -- IN ACCORDANCE WITH CITY ORDINANCE § 14-5-2-11(C)(1), SELF-INSPECTIONS MUST CONTINUE UNTIL THE SITE IS DETERMINED AS STABILIZED BY THE CITY. THE PROPERTY OWNER/OPERATOR IS RESPONSIBLE FOR DETERMINING WHEN THE CONDITIONS FOR TERMINATING CGP COVERAGE PER CGP PART 8.2 ARE SATISFIED AND THEN FOR FILING THEIR NOTICE OF TERMINATION (NOT) WITH THE EPA. EACH OPERATOR MAY TERMINATE CGP COVERAGE ONLY IF ONE OR MORE OF THE CONDITIONS IN PART 8.2.1, 8.2.2, OR 8.2.3 HAS OCCURRED. AFTER FILING THE NOT WITH THE EPA, THE PROPERTY OWNER IS RESPONSIBLE FOR REQUESTING A DETERMINATION OF STABILIZATION FROM THE CITY.
- WHEN DOING WORK IN THE CITY RIGHT-OF-WAY (E.G. SIDEWALK, DRIVE PADS, UTILITIES, ETC.) PREVENT DIRT FROM GETTING INTO THE STREET. IF DIRT IS PRESENT IN THE STREET, THE STREET SHOULD BE SWEEP DAILY OR PRIOR TO A RAIN EVENT OR CONTRACTOR INDUCED WATER EVENT (E.G. CURB CUT OR WATER TEST).
- WHEN INSTALLING UTILITIES BEHIND THE CURB, THE EXCAVATED DIRT SHOULD NOT BE PLACED IN THE STREET.
- WHEN CUTTING THE STREET FOR UTILITIES THE DIRT SHALL BE PLACED ON THE UPHILL SIDE OF THE STREET CUT AND THE AREA SWEEP AFTER THE WORK IS COMPLETE. A WATTLE OR MULCH SOCK MAY BE PLACED AT THE TOE OF THE EXCAVATED DIRT PILE IF SITE CONSTRAINTS DO NOT ALLOW PLACING THE EXCAVATED DIRT ON THE UPHILL SIDE OF THE STREET CUT.
- ESC PLANS MUST SHOW LONGITUDINAL STREET SLOPE AND STREET NAMES. ON STREETS WHERE THE LONGITUDINAL SLOPE IS STEEPER THAN 2.5%, WATTLES/MULCH SOCKS OR J-HOOD SILT FENCE SHALL BE SHOWN IN THE FRONT YARD SWALE OR ON THE SIDE OF THE STREET.

98th Street S.W.
156' Public RW, Waterline & Sanitary
Sewer Easmt
(2002C-197, 6/5/2002 plat)



FINAL STABILIZATION
SEE LANDSCAPE PLAN L01.0 & L01.1 FOR FINAL STABILIZATION OF ALL UNPAVED AREAS.

STORMWATER OUTFALL
STORMWATER RUNOFF FROM THE SITE IS CONVEYED VIA SHEET FLOW AND CONCENTRATED FLOW TO THE ON-SITE WATER QUALITY POND. OVERFLOW FROM THE POND DRAINS VIA THE RIP RAP RUNDOWN TO THE EXISTING CONCRETE RUNDOWN AND ULTIMATELY INTO THE AMOLE CHANNEL.

811
Know what's below.
Call before you dig.

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

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

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

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

SECTION 28

TOWNSHIP 10 NORTH, RANGE 3 EAST

CITY OF ALBUQUERQUE

BERNALILLO COUNTY, NEW MEXICO

CLIENT
BW GAS & CONVENIENCE RETAIL, LLC
ALLSUP'S CONVENIENCE STORE #102460
9501 GIBSON BLVD. SW
ALBUQUERQUE, NEW MEXICO 87121
FINAL ENGINEERING PLANS
SOIL EROSION & SEDIMENT CONTROL PLAN

DATE
August 7, 2023

REVISIONS

CHRISTINE SIELMAN
NEW MEXICO
Professional Engineer
08/07/23

SCALE
0 15 30
1" = 30 FEET

DR. KJK GH. CBS

P.M. D. MADRUGA

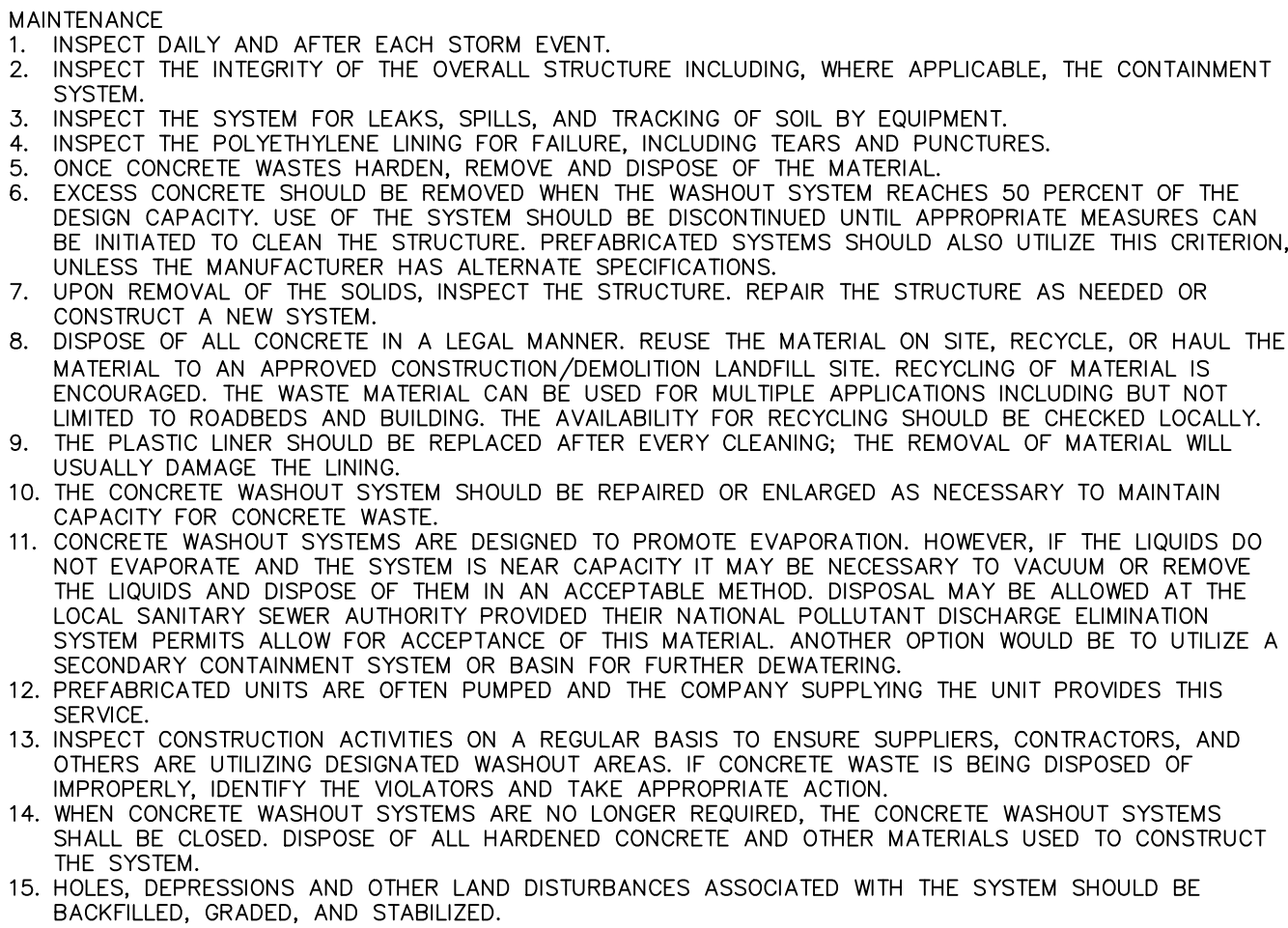
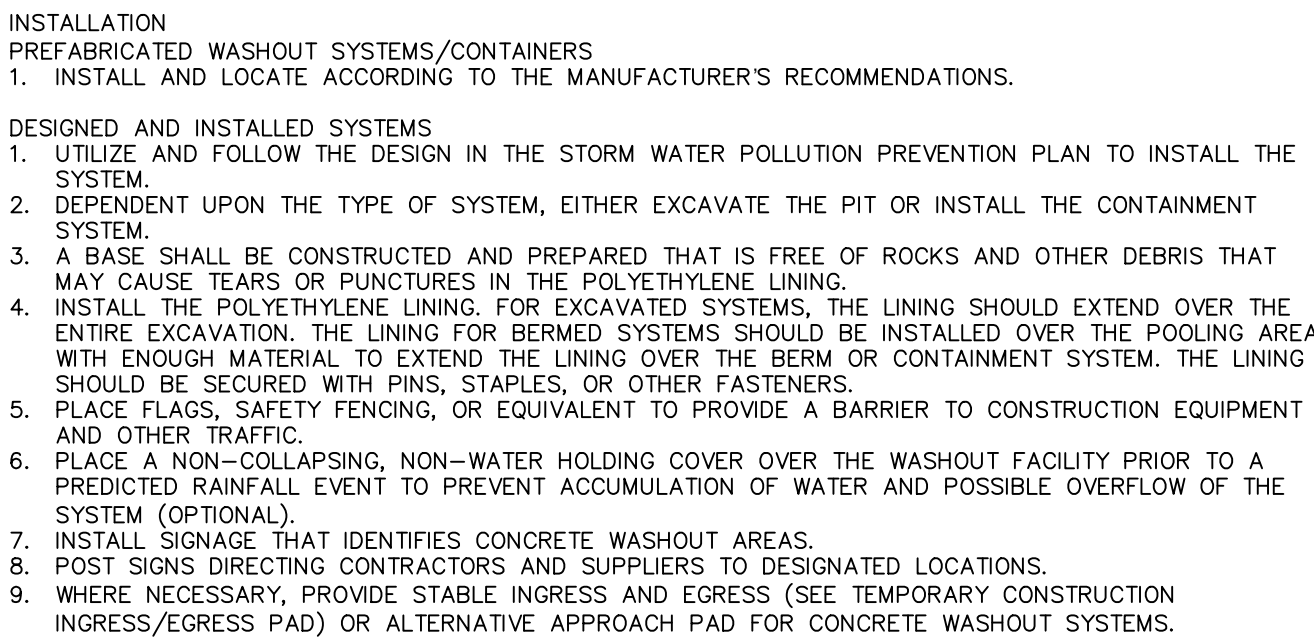
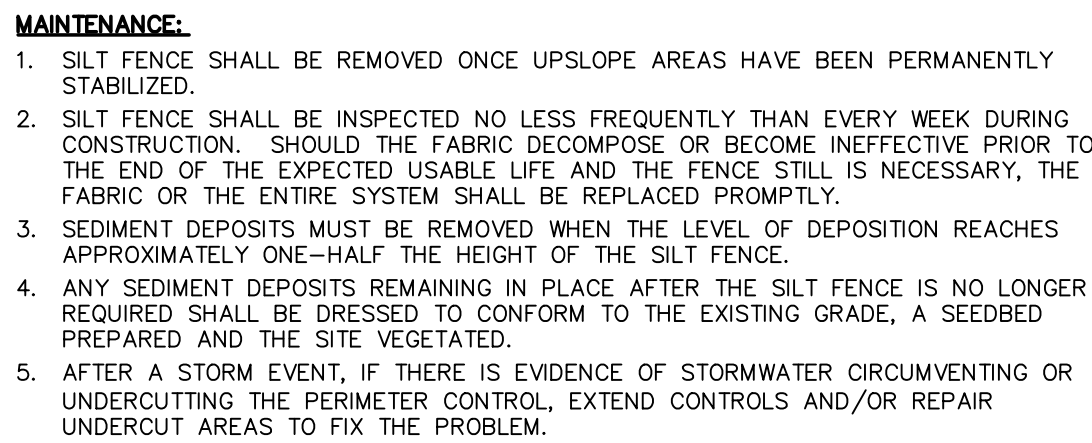
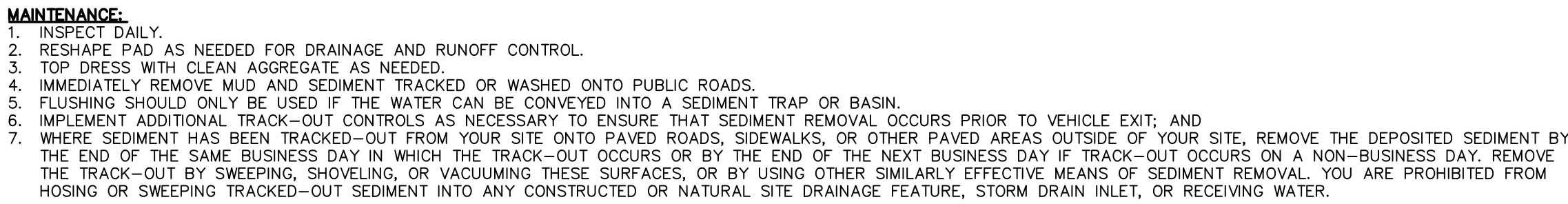
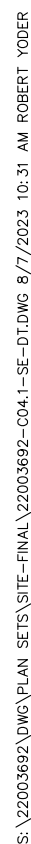
BOOK --

JOB 22003692

SHEET NO.
C04.0

CAD FILE: 22003692-C04.0-SE.DWG

1. ALL EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED IN ACCORDANCE WITH THE CONDITIONS OF APPLICABLE EPA GENERAL NPDES CONSTRUCTION PERMIT.
2. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED AND REPLACED AS NECESSARY AT NO ADDITIONAL COST TO THE OWNER.
3. THE EROSION CONTROL MEASURES INCLUDED IN THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN SHALL BE INSTALLED PRIOR TO INITIAL LAND DISTURBANCE ACTIVITIES OR AS SOON AS PRACTICAL. SEDIMENT SHALL BE PREVENTED FROM DISCHARGING FROM THE PROJECT SITE BY INSTALLING AND MAINTAINING SILT FENCE, STRAW BALES, SEDIMENT TRAPS, ETC. AS SHOWN ON THE PLAN. IF SHOWN ON THESE PLANS, ENERGY-DISSIPATION DEVICES OR EROSION CONTROL AT THE OUTFALL OF THE STORM SEWER SYSTEM SHALL BE INSTALLED AT THE TIME OF THE CONSTRUCTION OF THE OUTFALL.
4. THE CONTRACTOR SHALL CONTROL WASTES, GARBAGE, DEBRIS, WASTEWATER, AND OTHER SUBSTANCES ON THE SITE IN SUCH A WAY THAT THEY SHALL NOT BE TRANSPORTED FROM THE SITE BY THE ACTION OF WINDS, STORM WATER RUNOFF, OR OTHER FORCES. PROPER HANDLING OF MATERIALS ON THE PLAN, IF SHOWN ON THESE PLANS, IS REQUIRED. COMPLIANCE APPROPRIATE TO THE NATURE OF THE WASTE OR MATERIAL IS REQUIRED. COMPLIANCE IS REQUIRED WITH ALL STATE OR LOCAL REGULATIONS REGARDING WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC SYSTEMS.
5. PUBLIC OR PRIVATE ROADWAYS SHALL BE KEPT CLEARANCE OF ACCUMULATED SEDIMENT. IF SEDIMENT HAS BEEN TRACKED-OUT FROM THE SITE ON PAVED ROADS, SIDEWALKS, OR OTHER PUBLIC AREAS OR EXCAVATIONS, SHALL BE TREATED BY APPROPRIATE CONTROLS. THE SAME BUSINESS DAY IN WHICH THE TRACK-OUT OCCURS OR BY THE END OF THE NEXT BUSINESS DAY IF TRACK-OUT OCCURS ON A NON-BUSINESS DAY. REMOVE TRACKED-OUT MATERIAL BY ANY MEANS. THESE MEANS MAY INCLUDE HOSE WASHING, USING OTHER SIMILAR EFFECTIVE MEANS OF SEDIMENT REMOVAL. THE HOSE OR SWEEPING OF TRACKED-OUT SEDIMENT INTO ANY STORMWATER CONVEYANCE, STORM DRAIN INLET, OR WATER OF THE US IS PROHIBITED. CLEARED SEDIMENT SHALL BE RETURNED TO THE POINT OF LIKELY ORIGIN OR OTHER SUITABLE LOCATION.
6. ALL DISCHARGES FROM DEWATERING ACTIVITIES, INCLUDING DISCHARGES FROM DEWATERING OF SLURRIES AND EXCAVATIONS, SHALL BE TREATED BY APPROPRIATE CONTROLS.
 - DEWATERING DISCHARGED SHALL BE TREATED OR CONTROLLED TO MINIMIZE DISCHARGES OF POLLUTANTS.
 - THE DISCHARGE SHALL NOT INCLUDE VISIBLE FLOATING SOLIDS OR FOAM.
 - DISCHARGES OF OIL, GREASE, OR OTHER PRODUCTS SHALL BE DAMAGED TO REMOVE OIL, GREASE, OR OTHER PRODUCTS SHALL BE USED IF DEWATERING IS FOUND TO CONTAIN THESE MATERIALS.
 - TO THE EXTENT FEASIBLE, USE VEGETATED, UPLAND AREAS OF THE SITE TO INFILTRATE DEWATERING WASTES BEFORE DISCHARGES. WATERS OF THE US SHALL NOT BE USED AS PART OF THE TREATMENT AREA.
 - VELOCITY DISSIPATION REQUIREMENTS SHALL BE MET AT ALL POINTS WHERE DEWATERING DISCHARGES ENTER THE STORMWATER CONVEYANCE.
 - BACKWASH WATER MUST BE PROPERLY TREATED OR HAULED OFF-SITE FOR DISPOSAL.
 - FILTER MEDIA SHALL BE REPLACED AND CLEANED WHEN THE PRESSURE DIFFERENTIAL EQUALS OR EXCEEDS THE MANUFACTURER'S SPECIFICATIONS.
7. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR LOCATING PORTABLE FACILITIES, OFFICE TRAILERS, AND TOILET FACILITIES.
8. ALL WASH WATER (CONCRETE TRUCKS, VEHICLE CLEANING, EQUIPMENT CLEANING, ETC.) SHALL BE OBTAINED AND PROPERLY TREATED OR DISPOSED.
9. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE OR READILY AVAILABLE TO CONTAIN AND CLEAN-UP FUEL OR CHEMICAL SPILLS AND LEAKS.
10. DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.
11. ALL ON-SITE STORM DRAIN INLETS SHALL BE PROTECTED AGAINST SEDIMENTATION WITH STRAW BALES, FILTER FABRIC, OR EQUIVALENT BARRIERS AS SHOWN ON THESE PLANS.
12. EXCEPT AS PREVENTED BY INCLEMENT WEATHER CONDITIONS, STABILIZATION OF DISTURBED AREAS MUST BE INITIATED IMMEDIATELY IN ANY AREA OF EXPOSED SOIL WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 CALENDAR DAYS OR MORE. STABILIZATION MEASURES SHALL BE COMPLETED AS SOON AS PRACTICABLE AFTER THE STABILIZATION PERIOD. BUT NO LATER THAN SEVEN (7) CALENDAR DAYS FOR PROJECTS DISTURBING MORE THAN 5 ACRES OR 14 CALENDAR DAYS FOR SITES DISTURBING 5 ACRES OR LESS.
13. THIS EROSION CONTROL PLAN SHALL BE IMPLEMENTED ON ALL DISTURBED AREAS WITHIN THE CONSTRUCTION SITE. ALL MEASURES INVOLVING EROSION CONTROL PRACTICES SHALL BE INSTALLED UNDER THE GUIDANCE OF QUALIFIED PERSONNEL EXPERIENCED IN EROSION CONTROL, AND FOLLOWING THE PLANS AND SPECIFICATIONS INCLUDED HEREIN.
14. ALL DISTURBED AREAS, AREAS USED FOR STORAGE OR MATERIALS THAT ARE EXPOSED TO PRECIPITATION, AND ALL AREAS WHERE STORMWATER TYPICALLY FLOWS WITHIN THE SITE SHALL BE INSPECTED FOR EVIDENCE OF EROSION OR POTENTIAL FOR POLLUTANTS ENTERING THE DRAINAGE SYSTEM. EROSION AND SEDIMENT CONTROL MEASURES IDENTIFIED IN THE PLAN SHALL BE OBSERVED TO ENSURE THAT THEY ARE STILL STABILIZED. WHERE LOCATIONS OF LOCAL POINTS ARE ACCESSIBLE, THEY SHALL BE INSPECTED TO ASCERTAIN WHETHER EROSION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING SIGNIFICANT IMPACTS TO RECEIVING WATERS. LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE SHALL BE INSPECTED FOR EVIDENCE OF OFF SITE SEDIMENT TRACKING.
15. CONTRACTOR SHALL TAKE CORRECTIVE ACTIONS TO ADDRESS ANY STORMWATER CONTROL THAT NEEDS REPAIR OR REPLACEMENT AS SOON AS POSSIBLE AND DOCUMENT CORRECTIVE ACTIONS WITHIN SEVEN DAYS IN AN INSPECTION REPORT.
16. CONTRACTOR SHALL INSTALL EROSION CONTROL BLANKET PER MANUFACTURER'S RECOMMENDATIONS ON ALL SLOPES 4:1 OR STEEPER.
17. DURING THE PERIOD OF CONSTRUCTION ACTIVITY, ALL SEDIMENT BASINS AND OTHER EROSION CONTROL MEASURES SHALL BE MAINTAINED BY THE CONTRACTOR. AT COMPLETION OF CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE THE TRANSFER OF MAINTENANCE RESPONSIBILITIES TO THE OWNER. MAINTENANCE SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL PROTECTION AGENCY STANDARDS AND THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN.
18. ON-SITE & OFFSITE SOIL STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION THROUGH IMPLEMENTATION OF BEST MANAGEMENT PRACTICES (I.E. SILT FENCE, TEMPORARY STABILIZATION, ETC.). STOCKPILE AND BORROW AREA LOCATIONS SHALL BE SHOWN ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS.
19. EXISTING VEGETATION SHALL BE PROTECTED AS MUCH AS PRACTICAL.
20. ALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE REMOVED AND DISPOSED OF AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER THE TEMPORARY LOCATIONS ARE NO LONGER REQUIRED. EXPOSED SEDIMENT SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION.
21. CONTRACTOR SHALL REMOVE ANY ACCUMULATED SEDIMENT FROM DETENTION BASINS AND STORM SEWER SYSTEMS IN CONJUNCTION WITH THE FINAL STABILIZATION OF THE SITE.
22. THIS EROSION CONTROL PLAN MUST BE RETAINED ON-SITE AT ALL TIMES DURING THE



NO.	DATE	REV. BY	DESCRIPTION REVISIONS (OR CHANGE NOTICES)						
			NEW MEXICO						
			DEPARTMENT OF TRANSPORTATION						
			STANDARD DRAWING						
			TEMPORARY EROSION & SEDIMENT CONTROL MEASURES						
			SILT FENCE						
APPROVED _____	<i>Royce J. ...</i>								DATE <i>11/9/06</i>
			DESIGNED BY _____ DRAWN BY _____ CHECKED BY _____						
			603-01-3/7						



SECTION 28

NEW GAS & CONVENIENCE RETAIL- LLC

DATE August 7, 2023

REVISIONS

CHRISTINE SVEIN

Christina Seem
28227



08/07/23

1" = 30 FEET

DR.	KJK	CH.	CBS
P.M. D. MADRUGA			

BOOK	--
JOB	22003692

SHEET NO.
C04.1

CAD FILE: 22003692-C04.1-SF-DT.DWG

LEGEND

	BOUNDARY LINE
	EXISTING CONTOUR
	PROPOSED CONTOUR
	EXISTING ROW
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING UNDERGROUND GAS
	PROPOSED UNDERGROUND GAS
	EXISTING UNDERGROUND TELEPHONE
	PROPOSED UNDERGROUND TELEPHONE
	EXISTING UNDERGROUND ELECTRIC
	PROPOSED UNDERGROUND ELECTRIC
	EXISTING UNDERGROUND CABLE
	PROPOSED UNDERGROUND CABLE
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING LIGHT POLE
	PROPOSED LIGHT POLE/WALL PACK LIGHT
	PROPOSED SHRUBS
	PROPOSED DECIDUOUS TREES
	BLUE GRAMA GRASS SEEDED LAWN
	ROCK MULCH VALLEY GOLD (1") - 3" DEPTH WITH PERVIOUS FILTER FABRIC.
	SOLUTIONS FOREST FLOOR MULCH, 4" DEPTH.

LANDSCAPE CALCULATIONS

ROW TREES

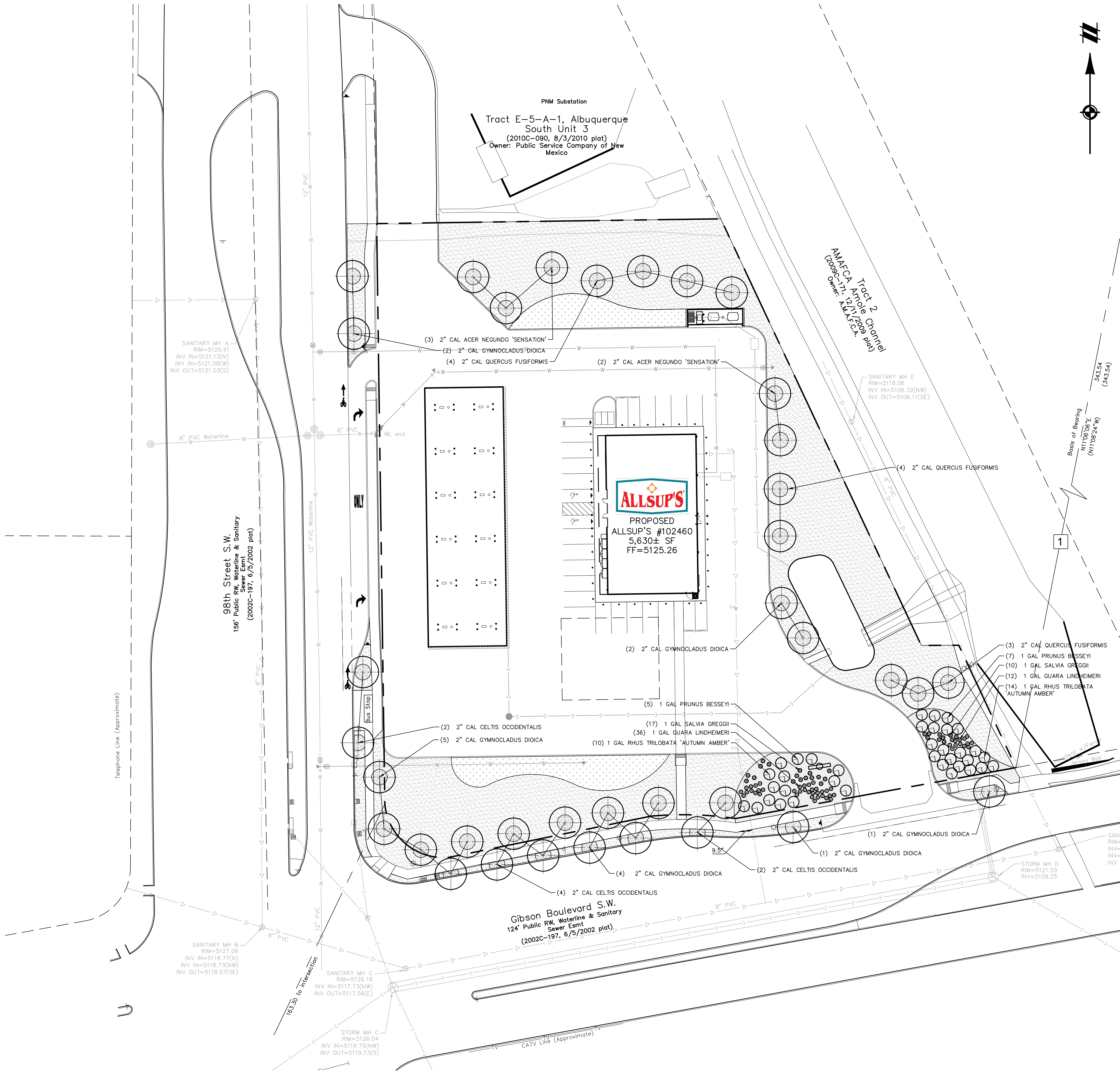
21	ROW TREES REQUIRED (522 LF/25)
21	ROW TREES PROVIDED

SITE LANDSCAPE

23,197 SF	LANDSCAPE AREA PROVIDED
16,408 SF	GRAVEL LANDSCAPE AREA PROVIDED
2,629 SF	TREE VEGETATED AREA (SITE LANDSCAPE) PROVIDED
4,160 SF	SHRUB VEGETATED AREA PROVIDED

LANDSCAPE NOTES

- ALL PLANT MATERIAL SHALL BE FREE OF DISEASE AND INSECTS AND SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI) OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION.
- ALL WEED BARRIER SHALL BE PERMEABLE AND ONLY INSTALLED IN AREAS NOT TO RECEIVE ORGANIC MULCH.
- PROVIDE A MINIMUM OF 5' RADIUS OF ORGANIC MULCH, BUT NOT DIRECTLY AGAINST THE TRUNK, FOR ALL TREES, WITH A DEPTH OF 4".
- ALL SHRUBS WITHIN ANY SITE TRIANGLES SHALL BE LESS THAN 30" MATURE HEIGHT.
- ALL TREES THAT OVERHANG PUBLIC WALKS SHALL MAINTAIN 8' CLEARANCE WITH 9' CLEARANCE MAINTAINED OVER PUBLIC ROADS.
- TREES IN PUBLIC ROW SHALL BE IRRIGATED AND COMPLY WITH MINIMUM TECHNICAL REQUIREMENTS IN ARTICLE 6-8 OF ROA 1994. A SEPERATE VALVE SHALL BE PROVIDED FOR REQUIRED IRRIGATION IN PUBLIC ROW.
- ALL ON SITE LANDSCAPE SHALL BE IRRIGATED WITH AN AUTOMATE DRIP IRRIGATION SYSTEM FOR SHRUBS AND TREES. ANY TURF AREAS SHALL BE IRRIGATED WITH SPRAY IRRIGATION AS REQUIRED. SPRAY IRRIGATION SHALL NOT OVERSPRAY ON HARD SURFACES INCLUDED WALKWAYS AND PARKING AREAS.
- TREES SHALL NOT BE PLANTED IN EASEMENTS.
- TREES SHALL MAINTAIN A MINIMUM OF 10' CLEAR FROM CENTERLINE OF SEWER OR WATER LINES, ALONG WITH OTHER REQUIREMENTS FOR UTILITIES.
- ALL LANDSCAPING WORK SHALL ADHERE TO CITY OF ALBUQUERQUE STANDARD DETAILS AND SPECIFICATIONS.



Know what's below.
Call before you dig.

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

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

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

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100



SECTION 28

TOWNSHIP 10 NORTH, RANGE 3 EAST

CITY OF ALBUQUERQUE

BERNALILLO COUNTY, NEW MEXICO

CLIENT
BW GAS & CONVENIENCE RETAIL, LLC

ALLSUP'S CONVENIENCE STORE #102460

9501 GIBSON BLVD. SW

ALBUQUERQUE, NEW MEXICO 87121

FINAL ENGINEERING PLANS

DATE

August 7, 2023

REVISIONS

REVISIONS



SCALE 0 15 30

1" = 30 FEET

DR. KJK GH. CBS

P.M. D. MADRUGA

BOOK --

JOB 22003692

SHEET NO.

L010

CAD FILE: 22003692-L010-LSDWS

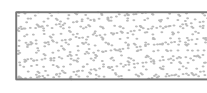
LEGEND

	BOUNDARY LINE
	EXISTING ROW
	EXISTING EASEMENT LINE
	PROPOSED EASEMENT LINE
	EXISTING SANITARY SEWER
	PROPOSED SANITARY SEWER
	EXISTING STORM SEWER
	PROPOSED STORM SEWER
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING UNDERGROUND GAS
	PROPOSED UNDERGROUND GAS
	EXISTING UNDERGROUND TELEPHONE
	PROPOSED UNDERGROUND TELEPHONE
	EXISTING UNDERGROUND ELECTRIC
	PROPOSED UNDERGROUND ELECTRIC
	EXISTING OVERHEAD ELECTRIC
	PROPOSED OVERHEAD ELECTRIC
	EXISTING UNDERGROUND CABLE
	PROPOSED UNDERGROUND CABLE
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING LIGHT POLE
	PROPOSED LIGHT POLE/WALL PACK LIGHT
	PROPOSED SHRUBS

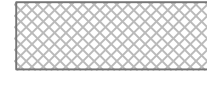
PROPOSED DECIDUOUS TREES



BLUE GRAMA GRASS SEEDED LAWN -
IRRIGATED W/ MULTI-STREAM ROTATING
HYDRANTS



DECORATIVE ROCK MULCH, VALLEY GOLD
(1") - 3" DEPTH WITH PERVIOUS FILTER
FABRIC. NON-IRRIGATED



SOLUTIONS FOREST FLOOR MULCH, 4" DEPTH.
PROVIDE (1) .5 GPM NON-ADJUSTABLE
BUBBLER PER TREE

POC



IRRIGATION CONTROLLER & RAIN SENSOR. FOUR
STATIONS PEDESTAL MOUNT CONTROLLER.
IRRIGATION CONTRACTOR TO PROVIDE SINGLE
PHASE 120V. POWER TO CONTROLLER.

IR

IRRIGATION MAIN: 1-1/4" CLASS 200 SOLVENT
WELD IRRIGATION MAIN W/ SCH 80 PVC
FITTINGS. 30"± DEPTH. PROVIDE A 5'±
HORIZONTAL SEPARATION FROM OTHER POTABLE
LINE(S).

4"SL

2"SL

IRRIGATION SLEEVES: 4" SCH 80 PVC FOR
DRIVEWAY CROSSINGS AND MULTIPLE LATERAL
LINES CROSSINGS; 2" SCH 40 PVC FOR SINGLE
LATERAL LINE AND CONTROL WIRES CROSSINGS.
SOLVENT WELD ALL JOINTS AT CROSSINGS.

C-6BH

IRRIGATION MAIN BLOW-OFF ASSEMBLY: 1-1/4"
SCH 80 PVC BALL VALVE WITHIN A JUMBO
VALVE BOX PROVIDE FILTER FABRIC AND
GRAVEL.

IR

IRRIGATION ZONE CONTROL VALVE, 1" PLASTIC
BODY; GLOVE CONFIGURATION; 24± GPM ZONE
FLOW LIMIT; THREE VALVES WITHIN A JUMBO
VALVE BOX; DBR WIRE CONNECTORS, PROVIDE
PLASTIC ID & WARNING TAGS, NON-WOVEN
FILTER FABRIC AND .5" DIAM. GRAVEL.

IR

IRRIGATION TREE BUBBLERS: .5 GPM PRESSURE
COMPENSATING W/ CHECK VALVE; NON-
ADJUSTABLE UMBRELLA PATTERN BUBBLER
NOZZLE, ONE NOZZLE PER TREE. PLACE
BUBBLER UPHILL FROM EDGE OF ROOTBALL.

IR

DRIP IRRIGATION TREE COMPONENTS:
INLINE TUBING, 0.92 GPH EMITTERS 12" O.C.,
BETWEEN TUBING SECTIONS.

IR

PVC INTER-CONNECTING FITTING

IR

TUBING TO TUBING INTER-CONNECTING FITTING

IR

AUTOMATIC LINE FLUSHING VALVE

IRRIGATION NOTES

1. PIPING AND ELEMENTS MAY BE SHOWN ON PAVED SURFACES, OUTSIDE
PROPERTY LINE OR THROUGH VEGETATION FOR GRAPHIC CLARITY ONLY.
ACTUAL LOCATION SHALL BE WITHIN THE PROJECT'S LANDSCAPE DESIGNATED
AREA(S)
2. ALL ELEMENT(S) INSTALLATION SHALL COMPLY W/ THE CITY OF
ALBUQUERQUE, NM APPLICABLE IRRIGATION RULES & REGULATIONS.

Telephone Line (Approximate)

SANITARY MH A
RIM=5129.91
INV IN=5121.13(N)
INV IN=5121.08(W)
INV OUT=5121.03(S)

98th Street S.W.
156' Public RW, Waterline & Sanitary
Sewer Easmt
(2002C-197, 6/5/2002 plat)

SANITARY MH B
RIM=5127.08
INV IN=5118.77(N)
INV IN=5118.73(NW)
INV OUT=5118.57(SE)

SANITARY MH C
RIM=5126.18
INV IN=5117.73(NW)
INV OUT=5117.56(E)

STORM MH C
RIM=5126.04
INV IN=5119.75(NW)
INV OUT=5119.73(S)

PNM Substation
Tract E-5-A-1, Albuquerque
South Unit 3
(2010C-090, 8/3/2010 plat)
Owner: Public Service Company of New
Mexico

PROPOSED
ALLSUP'S #102460
5,630± SF
FF=5125.26

1	2	3	4
1.0"	1.0"	1.0"	1.0"
20 GPM	20 GPM	17 GPM	18 GPM
PRIN. 0.000	PRIN. 0.000	PRIN. 0.000	PRIN. 0.000
PRIN. 0.000	PRIN. 0.000	PRIN. 0.000	PRIN. 0.000

1-1/4" IRRIGATION MAIN
IRRIGATION POINT OF
CONNECTION, 3/4" WATER
METER W/ 1" R.P. BACKFLOW
PREVENTER

Gibson Boulevard S.W.
124' Public RW, Waterline & Sanitary
Sewer Easmt
(2002C-197, 6/5/2002 plat)

Tract 2 Channel
2008C-017, AMLECA
Owner: AMLECA

SANITARY MH E
RIM=5118.06
INV IN=5106.32(NW)
INV OUT=5106.11(SE)

Basis of Bearing
N11°08'24"E
(N11°08'24"W)

343.54
(343.54)

Know what's below.
Call before you dig.

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

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

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

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80228
303.462.1100

SECTION 28

TOWNSHIP 10 NORTH, RANGE 3 EAST

CITY OF ALBUQUERQUE

BERNALILLO COUNTY, NEW MEXICO

CLIENT
BW GAS & CONVENIENCE RETAIL, LLC
ALLSUP'S CONVENIENCE STORE #102460
9501 GIBSON BLVD. SW
ALBUQUERQUE, NEW MEXICO 87121
FINAL ENGINEERING PLANS

DATE
August 7, 2023

REVISIONS

CHRISTINE SIEM
Professional Engineer
08/07/23

SCALE 0 15 30
1" = 30 FEET
DR. KJK GH. CBS
P.M. D. MADRUGA
BOOK --
JOB 22003692
SHEET NO.
LI010

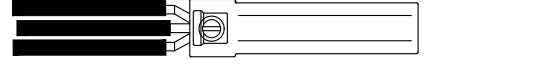
CAD FILE: 22003692-LI01-D-LI00S

STEP NO. 1.



INSERT BRASS CONNECTOR WITH SCREW SHOWING IN THE OPENING IN HANDLE.
INSERT ALL WIRES INTO BRASS CONNECTOR.

STEP NO. 2.



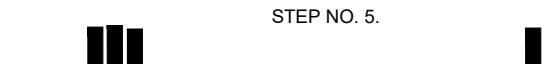
USE SCREWDRIVER TO TIGHTEN SCREW VERY FIRMLY ON WIRES WHILE
HOLDING SPLICE IN HANDLE. PULL WIRES TO CHECK FOR INTEGRITY OF CONNECTION.
REPEAT PROCESS IF ANY LOOSE WIRES.

STEP NO. 3.



REMOVE WIRES AND BRASS CONNECTOR FROM HANDLE

STEP NO. 4.



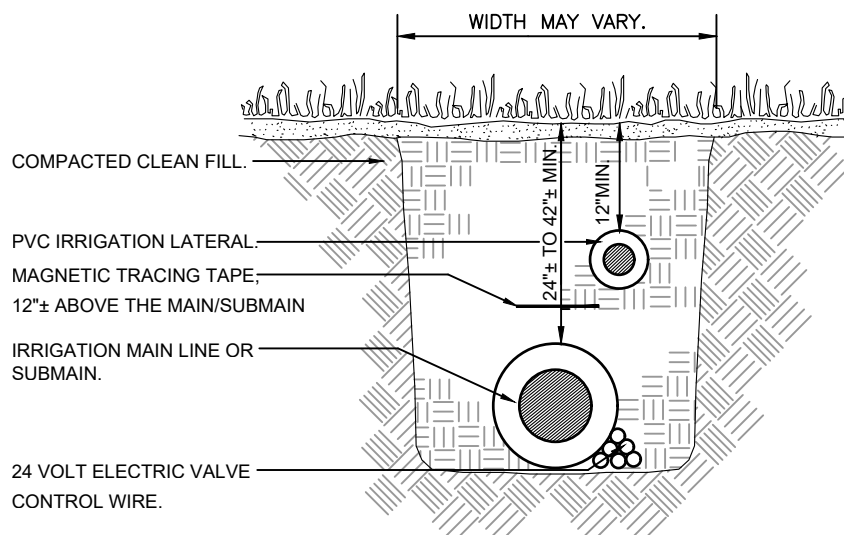
INSERT WIRES TO BOTTOM
OF TUBE.

BEND WIRES TO FIT UNDER
CAP AND SECURELY SNAP
CAP TO FULLY CLOSED
POSITION.

NOTES:

- TURN OFF POWER BEFORE INSTALLING OR REMOVING CONNECTOR.
- ALL ELECTRICAL WORK SHOULD BE DONE ACCORDING TO MANUFACTURER SPECIFICATIONS AND ALSO APPROPRIATE ELECTRICAL CODES.

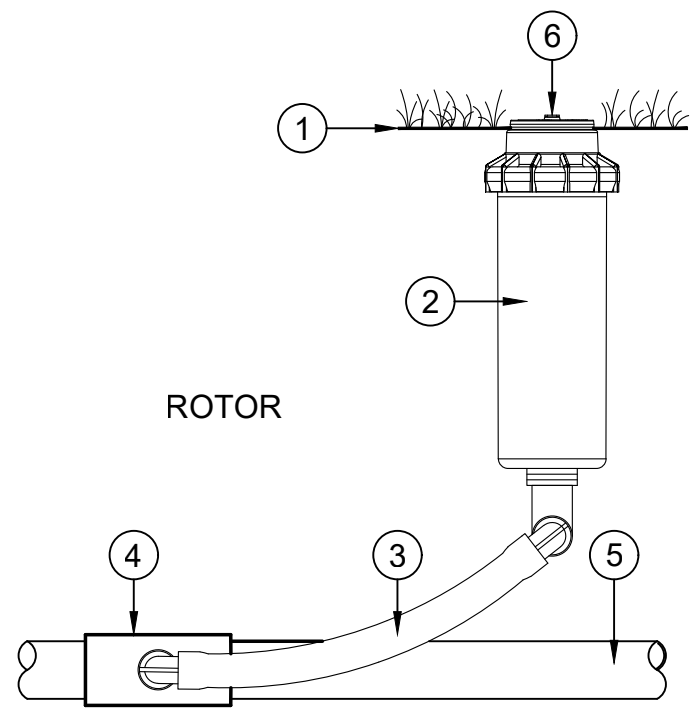
CM1 24-VOLT WIRE CONNECTION DETAIL SCALE: N.T.S.



NOTES:

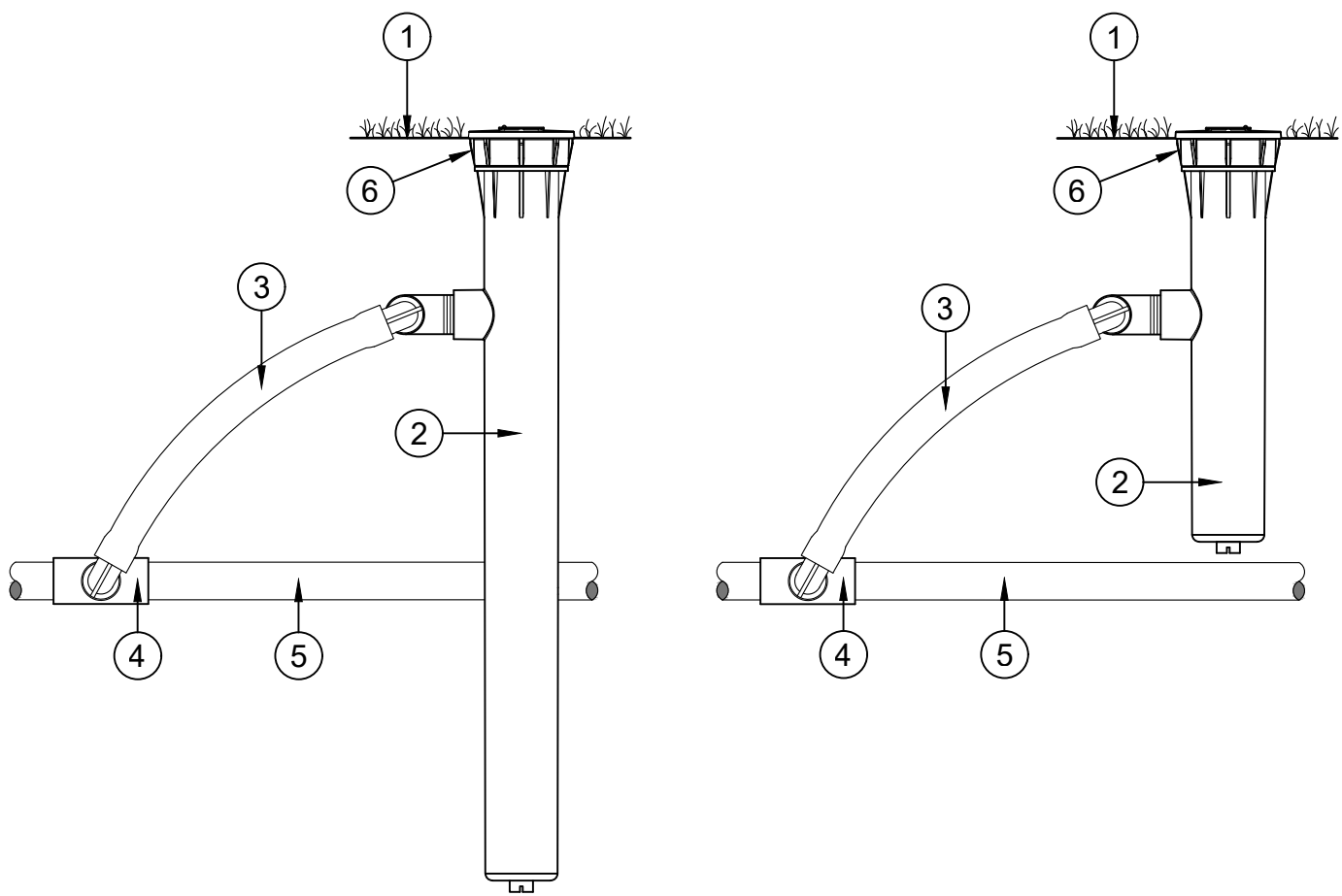
- ALL TRENCHING DEPTHS SHOWN ARE MINIMUM. IN THE EVENT THAT MINIMUM TRENCHING DEPTHS ARE NOT MET, THE TRENCHES SHALL BE RE-EXCAVATED.
- DEPTH MEASUREMENTS ARE TO BE DONE FROM FLUSH GRADE TO TOP OF PIPE.
- PROVIDE A 12" MINIMUM VERTICAL SEPARATION BETWEEN MAIN LINE(S) AND LATERAL LINE(S).
- THE CONTROL WIRES SHALL BE INSTALLED TUCKED BENEATH A SIDE OF THE IRRIGATION MAIN/SUBMAIN.
- PIPE PULLING THROUGH UN-TRENCHED SOIL IS NOT ALLOWED UNDER ANY CIRCUMSTANCE.

CM2 TYPICAL TRENCHING DETAIL SCALE: N.T.S.



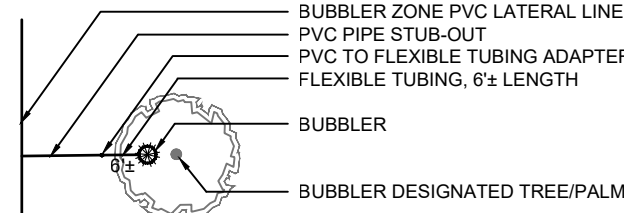
ROTOR

- FINISH GRADE
- SEE PLANS FOR MODEL NUMBER
- SWING JOINT, HUNTER 'PRO-FLEX' TUBING, HSBE-075 ELBOWS (2), & MARLEX STREET ELBOW (1)
- LATERAL TEE OR EL TEE ELBOW (1)
- LATERAL PIPE
- RECLAIMED RUBBER COVER

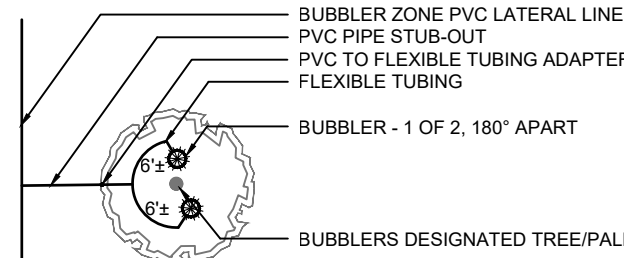


CM4 SPRAY HEAD & ROTOR HEAD SCALE: N.T.S.

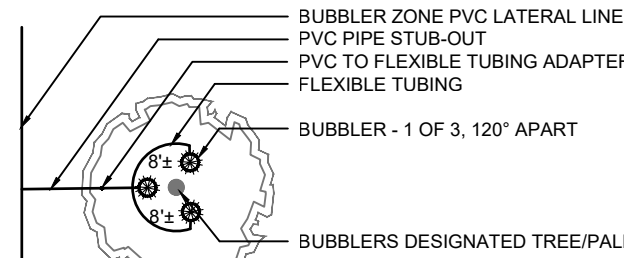
- MEDIUM TO LARGE TREE/PALM (6'-18" HT.):**
- PROVIDE ONE (1) BUBBLER PER TREE/PALM.
 - SET THE BUBBLER AT THE EDGE OF THE ROOTBALL.
 - FLEXIBLE TUBING SECTION LENGTH FROM PVC PIPING TO BUBBLER SHALL HAVE A MINIMUM LENGTH OF 6'±.



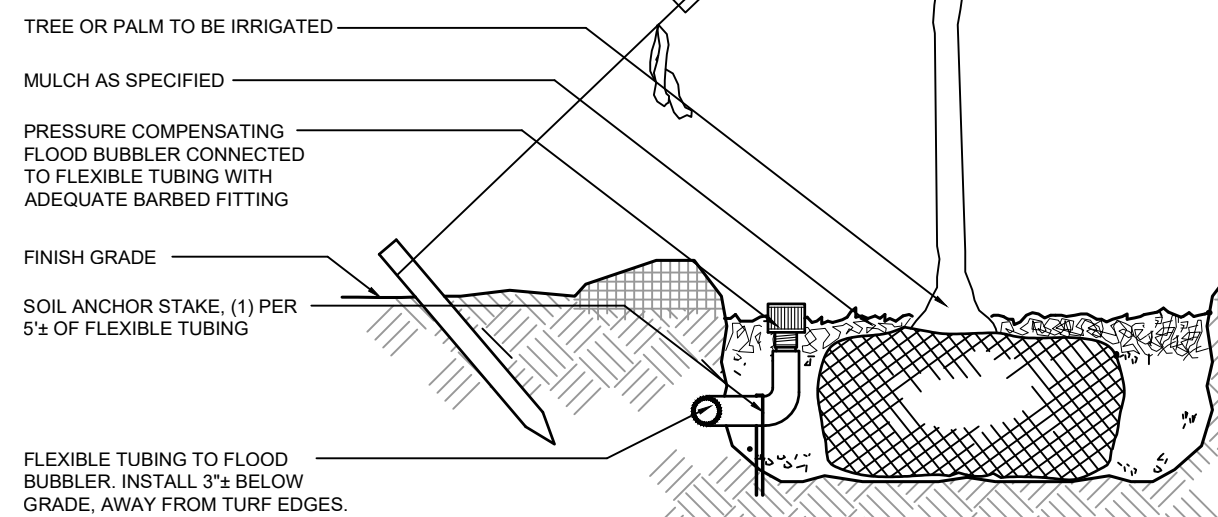
- LARGE SPECIMEN TREE/PALM (20'-25' HT.):**
- PROVIDE TWO (2) BUBBLERS PER TREE/PALM.
 - SET THE BUBBLERS 180"± APART AT THE EDGE OF THE ROOTBALL.
 - FLEXIBLE TUBING SECTION LENGTHS FROM TUBING ADAPTER TO BUBBLER SHALL HAVE A MINIMUM LENGTH OF 6'±.



- EXTRA-LARGE SPECIMEN TREE/PALM (25'+ HT.):**
- PROVIDE THREE (3) BUBBLERS PER TREE/PALM.
 - SET THE BUBBLERS 120"± APART AT THE EDGE OF THE ROOTBALL.
 - FLEXIBLE TUBING SECTION LENGTHS FROM TUBING ADAPTER TO BUBBLER SHALL HAVE A MINIMUM LENGTH OF 8'±.



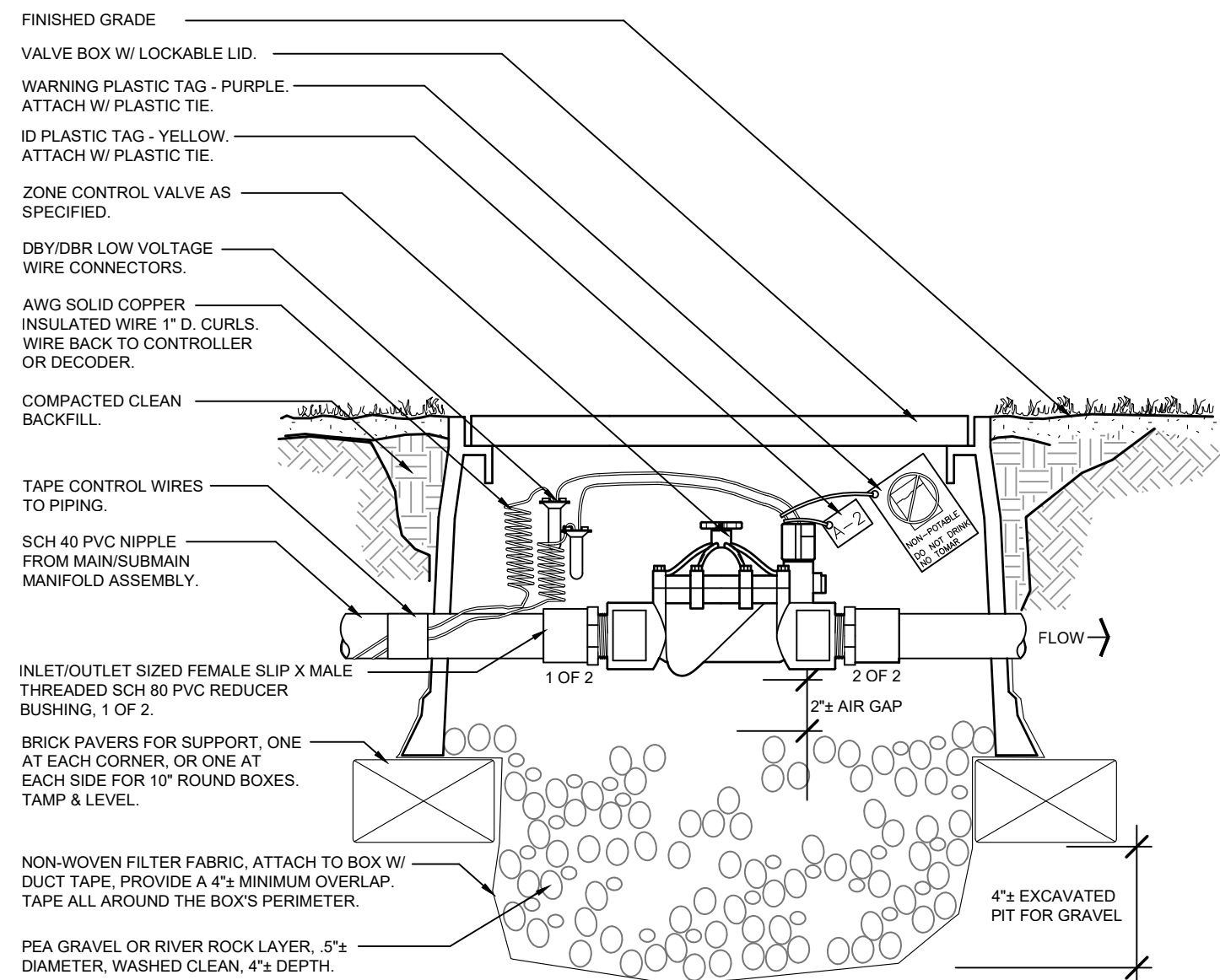
PLAN VIEW SCHEMATICS



NOTES:

- REFER TO PLAN OR BUBBLER LEGEND FOR BUBBLER QUANTITIES & NOZZLE SIZE PER TREE/PALM.
- BUBBLER(S) IS/ARE TO BE INSTALLED ADJACENT TO ROOTBALL PERIMETER. DO NOT INSTALL BUBBLER(S) ON TOP OF THE ROOTBALL OR NEXT TO TRUNK; INSTALL AT EDGE OF THE ROOTBALL.
- ON SLOPING GROUNDS, INSTALL BUBBLER(S) DIRECTLY UPHILL FROM THE TREE/PALM ROOTBALL.
- TRESS/PALMS LOCATED IN AREAS WITHOUT IRRIGATION COVERAGE SHALL BE ZONED SEPARATE FROM OTHER TREES LOCATED IN AREAS W/ IRRIGATION COVERAGE UNLESS THAT THE BUBBLER NOZZLE(S) DISCHARGE VOLUME IS ADJUSTED TO COMPENSATE FOR THE LACK OF IRRIGATION COVERAGE.

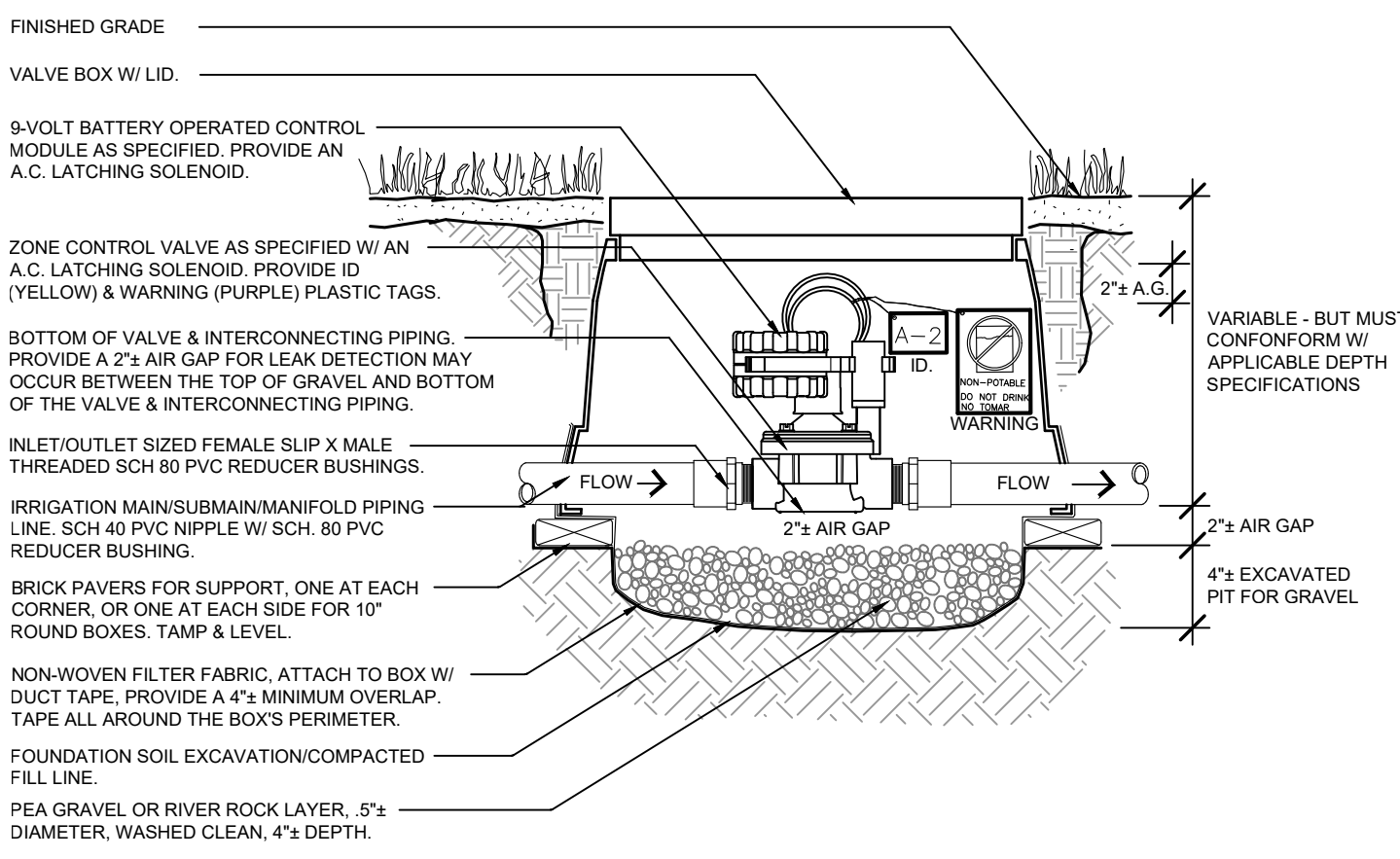
CM6 TREES/PALMS BUBBLER INSTALLATION DETAIL SCALE: N.T.S.



NOTES:

- INSTALL THE ZONE CONTROL VALVE IN ACCORDANCE TO THE LATEST MANUFACTURER SPECIFICATIONS.
- THE VALVE BOX SHALL BE INSTALLED LEVEL W/ SURROUNDING GROUND, W/ FINISH GRADE SLOPING AWAY FROM BOX TOP.
- INSTALL VALVE SO THAT TOP OF VALVE IS AT LEAST 2" BELOW THE BOTTOM OF THE BOX'S LID, AND THE VALVE ALIGNED W/ THE MIDDLE OF THE BOX.

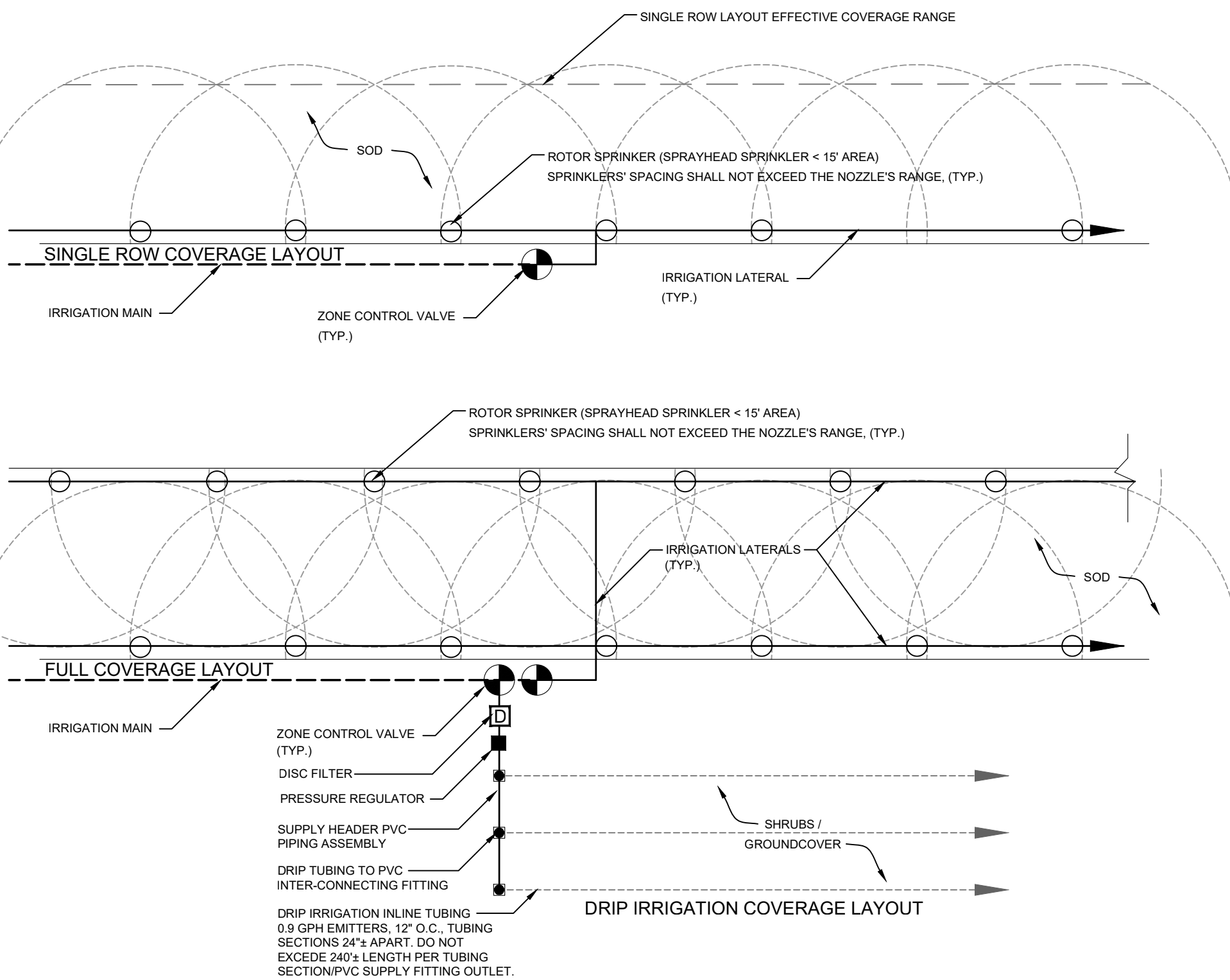
CM7 ZONE CONTROL VALVE GLOVE MOUNT INSTALLATION SCALE: N.T.S.



NOTES:

- THE BATTERY OPERATED CONTROL MODULE SHALL BE MANUFACTURED BY THE ZONE CONTROL VALVE MANUFACTURER. INSTALL BATTERY OPERATED CONTROL MODULE IN ACCORDANCE TO MANUFACTURER LATEST SPECIFICATIONS.
- EXCAVATE THE VALVE BOX PIT DEEP ENOUGH TO ACCOMMODATE THE VALVE BOX, VALVE BOX EXTENSIONS AND THE ADDITIONAL DEPTH FOR THE GRAVEL LAYER AT THE BOX'S BOTTOM.
- PROVIDE AIR GAPS AS SPECIFIED BETWEEN THE BOTTOM OF THE VALVE & INTERCONNECTING PIPING, AND BETWEEN THE TOP OF THE VALVE AND BOTTOM OF THE BOX'S LID.
- THE FORMSHAPE & SIZE OF THE CONTROL MODULE MAY VARY DEPENDING ON THE MODEL SELECTED. INSTALL THE CONTROL MODULE IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS. FIELD ADJUST AS NEEDED ACCORDING TO ACTUAL CONDITIONS.

CM3 BATTERY OPERATED CONTROL MODULE DETAIL SCALE: N.T.S.



CM5 SCHEMATIC IRRIGATION LAYOUT SCALE: N.T.S.

S:\22003692\DWG\PLAN SET\UTL-FINAL\22003692-LI01-2-11-0702.dwg 8/7/2023 10:12 AM ROBERT VOGEL

IRRIGATION SPECIFICATIONS:

GENERAL CONTENT:

- GENERAL NOTES**
- THE PLANS AND DRAWINGS ARE DIAGRAMMATIC OF THE WORK TO BE PERFORMED. THE WORK SHALL BE EXECUTED IN A MANNER TO AVOID CONFLICTS WITH UTILITIES AND OTHER ELEMENTS OF CONSTRUCTION, INCLUDING LANDSCAPE MATERIALS. ANY AND ALL DEVIATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER OR OWNERS. THE CONTRACTOR SHALL NOT PROCEED WITH ANY WORK UNLESS THE IRRIGATION SYSTEM AS SHOWN ON THE PLANS AND DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES, OR DISCREPANCIES EXIST THAT MIGHT NOT HAVE BEEN KNOWN DURING THE DESIGN OF THE IRRIGATION SYSTEM. IN THE EVENT THAT NOTIFICATION OF THE CONFLICT IS NOT GIVEN TO THE REPRESENTATIVE, THE CONTRACTOR WILL ASSUME FULL RESPONSIBILITY FOR ALL REVISIONS.
 - THE IRRIGATION SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS, IRRIGATION SYSTEM SPECIFICATIONS AND ALL CONTRACT DOCUMENTS. CONTRACTOR SHALL COMPLY WITH ALL PREVAILING LOCAL CODES, ORDINANCES AND REGULATIONS.
 - CHECK AND VERIFY ALL SITE CONDITIONS, INCLUDING SERVICE UTILITY LOCATIONS. PRIOR TO TRENCHING OR DIGGING, COORDINATE ALL IRRIGATION SYSTEM CONSTRUCTION WITH EXISTING AND/OR NEW PLANTINGS TO AVOID CONFLICT OR INTERFERENCE WITH LOCATION OF PIPING, SLEEVING, CABLES AND SERVICE UTILITIES. THE IRRIGATION CONTRACTOR IS RESPONSIBLE FOR COORDINATING INSTALLATION WITH ALL OTHER CONSTRUCTION ON SITE, ESPECIALLY LANDSCAPE INSTALLATION. IRRIGATION SYSTEM IS TO BE RELOCATED AT NO ADDITIONAL COST TO THE OWNER FOR ANY CONFLICT WITH LANDSCAPE INSTALLATION OR ANY OTHER SITE CONSTRUCTION OR EXISTING CONDITIONS. ALL COMPONENTS THAT ARE NOT CONTAINED WITHIN THE SPECIFIC AREAS SHOWN ON THE DRAWINGS WILL NOT BE ACCEPTED. ALL PIPING AND OTHER COMPONENTS ARE TO REMAIN WITHIN THE PROPERTY OF THE OWNER.
 - PIPING AND/OR OTHER ELEMENTS MAY BE SHOWN ON PAVED SURFACES OR OTHER NON-LANDSCAPE DESIGNATED AREAS OR OUTSIDE OF THE PROJECT'S BOUNDARIES FOR GRAPHIC COMMUNICATION CLARITY ONLY. ACTUAL LOCATION SHALL BE WITHIN THE PROJECT'S LANDSCAPE DESIGNATED AREAS.
 - PIPING MAY BE SHOWN GOING THROUGH EXISTING AND/OR PROPOSED VEGETATION FOR GRAPHIC COMMUNICATION FOR CLARITY ONLY. FIELD ADJUST THE ROUTING AS NEEDED IN ORDER TO CLEAR THE VEGETATION WITHOUT CONFLICT SO THAT THE PIPING CAN REACH THE INTENDED TARGETED AREA OR ELEMENT.
 - WHERE EXISTING OR NEW TREES, LIGHT STANDARDS, SIGNS, ELECTRONIC CONTROLLERS AND/OR OTHER OBJECTS ARE AN OBSTRUCTION TO AN IRRIGATION SPRINKLER'S PATTERN, THE COMPONENT AND PIPING SHALL BE RELOCATED WITHIN REASON AS NECESSARY TO OBTAIN PROPER COVERAGE WITHOUT DAMAGING THE OBSTRUCTION. LANDSCAPE ARCHITECT OR ITS REPRESENTATIVE SHALL DETERMINE WHETHER OBSTRUCTION OCCURS OR NOT.
 - COMPONENT SPACINGS ARE MAXIMUM. DO NOT EXCEED SPACINGS SHOWN OR NOTED ON THE PLANS. COMPONENT SPACINGS MAY BE ADJUSTED TO ACCOMMODATE CHANGES IN TERRAIN AND PLANTING LAYOUT AS LONG AS THE MODIFIED SPACINGS DO NOT EXCEED THE SPACINGS SHOWN IN THE PLANS, UNLESS SHOWN OTHERWISE. IRRIGATION CONTRACTOR SHALL PROVIDE 100% COVERAGE THAT MEETS THE TARGETED DISTRIBUTION UNIFORMITY LEVEL(S).
 - ALL MATERIALS AND EQUIPMENT SHOWN SHALL BE INSTALLED AS DETAILED ON THE PLANS. IF THE DRAWINGS DO NOT THOROUGHLY DESCRIBE THE TECHNIQUES TO BE USED, THE INSTALLER SHALL FOLLOW THE INSTALLATION METHODS/INSTRUCTIONS RECOMMENDED BY THEIR MANUFACTURER.
 - IRRIGATION CONTRACTOR SHALL ADJUST ALL SPRINKLERS, CONTROLLER AND OTHER DEVICES TO OBTAIN SPECIFIED OPERATING CHARACTERISTICS, INCLUDING COVERAGE, OPERATING PRESSURE, FLOW RATES AND OPERATION TIME, AS INDICATED ON THE DRAWINGS AND ON THE IRRIGATION SYSTEM SPECIFICATIONS. ADJUST ALL SPRINKLERS TO AVOID OVERTHROW OF WATER ONTO BUILDINGS, ROADWAYS, SIDEWALKS OR EXISTING NATIVE VEGETATION.
 - CONTRACTOR TO PROVIDE INSTALLATION SHOP DRAWINGS AND MANUFACTURER PRODUCT INFORMATION FOR ALL IRRIGATION COMPONENTS. ALL INSTALLATIONS SHALL BE AS RECOMMENDED BY MANUFACTURERS. THE QUANTITIES SHOWN IN THE LEGENDS AND SYMBOL SHEETS SHALL NOT BE USED FOR BIDDING PURPOSES. THE CONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING A COMPREHENSIVE TAKE-OFF OF MATERIALS TO DETERMINE THE ACTUAL QUANTITIES OF MATERIAL NECESSARY TO EXECUTE THE WORK DESCRIBED ON THE PLANS AND DRAWINGS.
 - ALL TRENCHES SHALL BE BACKFILLED WITH CLEAN, DEBRIS-FREE SUITABLE SOIL MATERIALS. CLEAN SAND SHALL BE USED FOR BEDDING MATERIAL. IF PARENT SOIL CANNOT BE ADEQUATELY RID OF ROCK AND OTHER EXTRANEOUS DEBRIS, PULLING PIPE SHALL BE PROHIBITED.
 - ALL SOLVENT WELDING SHALL BE PRECEDED BY PRIMING OF THE FITTINGS AND PIPE AS RECOMMENDED BY THE MANUFACTURER. THE USE OF FAST-SETTING SOLVENT WELD COMPOUND ON MAIN OR SUBMAIN PIPING GREATER THAN 2" IS PROHIBITED. SLOWER SETTING SOLVENT WELD COMPOUND SHALL BE USED.
- IRRIGATION WATER SOURCE**
- THE IRRIGATION WATER SOURCE SHALL BE AS SPECIFIED UNLESS THAT THE IRRIGATION WATER SOURCE IS NOT AVAILABLE OR IT IS NOT SUITABLE FOR REASON(S) UNKNOWN TO THE IRRIGATION DESIGNER OR LANDSCAPE ARCHITECT OR PROJECT MANAGER.
 - THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING AND TESTING THE IRRIGATION WATER SOURCE TO MAKE SURE THAT IT IS CAPABLE OF PROVIDING THE PROPOSED SYSTEM'S REQUIRED OPERATING PRESSURE & PEAK WATER FLOW.
- IRRIGATION MAINS/SUBMAIN PIPING**
- ALL IRRIGATION MAIN(S) & SUBMAIN(S) 3" AND/OR LARGER SHALL BE 1120-1220 CLASS 200 PVC GASKET BELL-END PIPE. ALL IRRIGATION MAIN(S) & SUBMAIN(S) 2" AND/OR SMALLER SHALL BE 1120-1220 CLASS 200 PVC SOLVENT WELD BELL-END JOINT PIPE. ALL IRRIGATION MAINS AND LATERAL LINES PIPING SHALL BE PANTONE PURPLE 522C.
 - FOR ALL IRRIGATION MAIN(S) & SUBMAIN(S) 3" AND LARGER FITTINGS SHALL BE D.I.P. W/ GASKET. MECHANICAL JOINT RESTRAINING HARDWARE SHALL BE PROVIDED AND USED BY THE IRRIGATION CONTRACTOR FOR APPLICATIONS IN WHICH HIGH OPERATING PRESSURE, WATER FLOWS AND SIGNIFICANT PRESSURE SURGE POTENTIAL OCCUR.
 - FOR ALL IRRIGATION MAIN(S) & SUBMAIN(S) 3" AND LARGER FITTINGS SHALL HAVE THRUST BLOCKS AT POINTS SUBJECT TO PRESSURE SURGE IMPACT, OR HAVE SUITABLE/ADEQUATE RESTRAINING HARDWARE WHETHER SPECIFIED OR NOT.
 - FOR ALL IRRIGATION MAIN(S) & SUBMAIN(S) 2" AND LARGER FITTINGS SHALL BE SCH 80 PVC FOR SERVICE TEES AND OTHER THREADED FITTINGS; SCH 40 PVC FOR NON-THREADED FITTINGS.
 - HYDROSTATIC PRESSURE TESTING FOR IRRIGATION MAINS/SUBMAINS SHALL BE DONE ONLY AFTER ALL MAINS/SUBMAIN VALVES (INCLUDING ZONE CONTROL VALVES) AND OTHER MAINS/SUBMAIN ELEMENTS ARE FULLY ATTACHED. HYDROSTATIC PRESSURE TESTING MUST BE WITNESSED AND DOCUMENTED.
 - THE DEPTH OF ALL LINES SHALL BE AS SPECIFIED PER PLANS AND DETAILS. MEASUREMENTS SHALL BE FROM TOP OF PIPE(S) TO FINISH GRADE. CONTRACTOR WILL BE RESPONSIBLE FOR RETRENCHING AND RELAYING ANY PIPE NOT MEETING SPECIFIED DEPTHS).
 - ALL MAINLINES WILL BE INSTALLED WITH A TRACING TAPE LABELED "NON-POTABLE IRRIGATION MAIN".
 - ELECTRONIC TRACKING/LOCATING BALLS SHALL BE INSTALLED/PROVIDED 12"± ABOVE THE PIPING AT ALL POINTS WHERE PIPING DIRECTION CHANGES AND/OR SUB-OUTS OCCUR.
 - ALL PIPING SUB-OUTS FOR FUTURE ZONE EXPANSIONS SHALL HAVE THE END CAPPED, AND BE LOCATED USING A 6" VALVE BOX OR AN ELECTRONIC TRACKING/LOCATING BALL.
- IRRIGATION LATERALS & GENERAL PVC PIPING GUIDE LINES**
- ALL IRRIGATION LATERAL LINES PIPING SHALL BE 1120-1220 CLASS 200 PVC SOLVENT WELD BELL-END JOINT PIPE.
 - ALL IRRIGATION MAIN(S)/SUBMAIN(S) & LATERAL LINES PIPING CUTS SHALL BE SQUARE, CLEAN AND WITHOUT ANY BURRS. ALL PVC PIPE TO BE SOLVENT WELD JOINED AND SHALL BE PRIMED WITH A PRIMER SUITABLE FOR THE SOLVENT WELD COMPOUND TO BE USED. THE PRIMER AND SOLVENT WELD COMPOUND SHALL BE APPLIED IN A NEAT, CLEAN FASHION, AVOIDING EXCESSIVE AMOUNTS OF PRIMER AND SOLVENT WELD COMPOUND.
 - ALL IRRIGATION LATERAL LINES PIPING 2" AND LARGER SHALL BE INSTALLED AT A MINIMUM TRENCH DEPTH OF 18"±. ALL IRRIGATION LATERAL LINES PIPING 2" AND SMALLER SHALL BE INSTALLED AT A MINIMUM TRENCH DEPTH OF 12"±.
 - THE DEPTH OF ALL LATERAL LINES SHALL BE MEASURED FROM TOP OF PIPE(S) TO FINISH GRADE. CONTRACTOR WILL BE RESPONSIBLE FOR RETRENCHING AND RELAYING ANY PIPE NOT MEETING SPECIFIED DEPTHS).
 - ALL PVC PIPING MAIN(S)/SUBMAIN(S)/LATERAL(S) AND/OR OTHER PIPING SHALL BE PANTONE PURPLE 522C FOR IRRIGATION WATER USE ID IEASE WHETHER THE WATER FROM THE SOURCE IS OR IS NOT EFFLUENT WATER.
- IRRIGATION SLEEVES - HOPE DIRECTIONAL BORES**
- ALL IRRIGATION SLEEVES UNDER PAVED SURFACES NOT SCHEDULED FOR IMPROVEMENTS OPENING OR REFURBISHMENT SHALL BE: CLASS 200 EXTRAMOLECULAR STRENGTH SDR 11 HOPE CASINGS FOR WATER PIPES; CLASS 200 EXTRAMOLECULAR STRENGTH SDR 13.5 HOPE CASINGS FOR CONTROL WIRES. THE CASINGS SHALL BE INSTALLED DIRECTIONAL BORE DRILLING TECHNOLOGY.
 - FOR WATER LINES, THE DB CASING SHALL BE TWO TIMES LARGER THAN THE PIPE WITHIN. FOR LARGER OR MULTIPLE LINES (SMALLER DIAMETER), THE BORE'S INTERIOR DIAMETER SHALL BE LARGE ENOUGH TO FIT THE JOINT BELL END(S) OF THE PIPE(S) WITHIN.
 - DIRECTIONAL BORE DRILLING INSTALLED CLASS 200 SDR 11 HOPE CASINGS MAY BE USED AS AN IRRIGATION MAIN OR SUBMAIN TO CROSS A PAVED SURFACE AS LONG AS THE DB CASING MATCHES THE IRRIGATION MAINS/SUBMAIN SIZE, AND PVC TO HDPE MECHANICAL JOINT COUPLINGS WITH TRANSITIONAL GASKETS ARE USED TO CONNECT TO THE PVC INTERCONNECTING POINTS.
 - DIRECTIONAL BORES FOR CONTROL WIRES SHALL BE CLASS 200 EXTRAMOLECULAR STRENGTH HDPE 13.5 2" CASINGS (FOR 30 OR LESS 14 GAUGE WIRES); 3" (1 TO 80± 14 GAUGE WIRES).
- IRRIGATION SLEEVES - PVC CASINGS & GENERAL SLEEVES GUIDE LINES**
- ALL IRRIGATION SLEEVES UNDER UNPAVED OR PAVED SURFACES SCHEDULED FOR IMPROVEMENTS SHALL BE: SCH 80 PVC FOR SLEEVES 6" AND LARGER; SCH 40 PVC FOR SLEEVES 4" AND SMALLER.
 - FOR CROSSINGS WITH LENGTHS LESS THAN 20' LONG USE AN ENTIRE PVC SECTION. FOR CROSSINGS WITH LENGTHS GREATER THAN 20' USE JOINED SECTIONS. WATER-PROOF SOLVENT WELD THE JOINT UNION.
 - IRRIGATION SLEEVE/CASING/BORE AND SECTIONS SHALL EXTEND 4± BEYOND THE EDGE OF THE PAVED DRIVEWAYS W/ CURBING; 7± PAVED DRIVEWAYS WITH NO CURBING; 1.5± SIDEWALKS.
 - ELECTRONIC TRACKING/LOCATING BALLS SHALL BE INSTALLED/PROVIDED 12"± ABOVE EACH END OF THE SLEEVE(S) AT DRIVEWAY & WIDE (8±) SIDEWALK CROSSINGS; EACH END OF CONTROL (OR OTHER USE) WIRES SLEEVE - ALL CROSSINGS.
 - IRRIGATION SLEEVE CROSSINGS SHALL BE DOCUMENTED STATING: SIZE(S) OF SLEEVE(S); TYPE(S) OF SLEEVE(S); USE(S) OF SLEEVE(S); LENGTH OF SLEEVE(S); DEPTH(S) OF SLEEVE(S). THE PARTY INSTALLING THE SLEEVES SHALL VERIFY THE INSTALLATION AND SIGN THE SLEEVES LOG.
 - THE IRRIGATION CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR FOR THE LOCATION OF SLEEVE CROSSINGS WHETHER SHOWN OR NOT.
 - ALL IRRIGATION CONTROL AND ELECTRICAL WIRES SHALL HAVE EXCLUSVE/DEDICATED SLEEVES. AT NO TIME WILL WIRING SHARE THE SAME SLEEVE WITH MAIN(S), SUBMAIN(S) OR OTHER PIPING.
 - THESE DRAWINGS HAVE BEEN PREPARED UTILIZING OTHER'S DATA. WHERE PROPOSED SLEEVING IS EITHER INADEQUATE OR NOT POSSIBLE, THE CONTRACTOR SHALL PROVIDE A UNIT COST FOR PROVIDING THE SLEEVING AND/OR BORING NECESSARY TO EXECUTE THE WORK. UNIT PRICES SHALL ALSO INCLUDE NECESSARY DIRECTIONAL BORES, WHERE AND AS APPLICABLE.

IRRIGATION NOTES:

GENERAL CONTENT:

- IRRIGATION ISOLATION VALVES**
- IRRIGATION ISOLATION VALVES 2" AND LARGER SHALL HAVE A PRESSURE RATING OF 200 PSI OR GREATER; HAVE A BODY CONSTRUCTED WITH CAST IRON, BE EPOXY COATED; HAVE FLANGED CONNECTIONS; HAVE A NON-RISING STEM WITH A SQUARE NUT MECHANISM.
 - IRRIGATION ISOLATION VALVES 1-1/2" AND SMALLER SHALL HAVE A PRESSURE RATING OF 200 PSI OR GREATER; HAVE A BODY CONSTRUCTED WITH BRASS; HAVE THREADED CONNECTIONS; HAVE A NON-RISING STEM AND WHEEL TURN HANDLE.
 - IRRIGATION ISOLATION VALVES LOCATED AT LOCATIONS WHERE SALT INTRUSION WITHIN THE SOILS MAY BE PRESENT SHALL BE SCH 80 PVC, SOLVENT WELD CONNECTIONS.
 - ALL ISOLATION VALVES INSTALLED ALONG THE IRRIGATION MAIN OR SUBMAIN SHALL BE INSTALLED WITHIN A VALVE BOX 12" RECTANGULAR FOR 2" AND LARGER VALVES; 10" ROUND FOR 1-1/2" AND SMALLER VALVES. IRRIGATION CONTRACTOR SHALL PROVIDE VALVE BOX EXTENSIONS WHEN NECESSARY. EXTENSIONS MAY BE COMPOSED OF VALVE BOX EXTENSIONS, OR MADE WITH BLACK PLASTIC CORRUGATED PIPE. REFER TO CORRESPONDING DETAILS(S).
- IRRIGATION QUICK COUPLING VALVES**
- IRRIGATION QUICK COUPLING VALVES SHALL BE CONSTRUCTED OF BRASS; HAVE AN ACME THREADED MECHANISM; HAVE A LOCKABLE COVER LID.
 - IRRIGATION QUICK COUPLING VALVES SHALL HAVE A MATCHING KEY WITH A SWIVEL EL. THE IRRIGATION CONTRACTOR SHALL PROVIDE ONE KEY PER FOUR QUICK COUPLING VALVES.
 - IRRIGATION QUICK COUPLING VALVES SHALL BE INSTALLED WITHIN A 10" ROUND BOX. THE VALVE SHALL BE CENTERED WITHIN THE CENTER OF THE BOX.
- IRRIGATION CONTROL SYSTEM - CONTROLLERS**
- ALL CONTROLLER(S) (EACH IF APPLICABLE) WILL BE INSTALLED AT LOCATIONS DESIGNATED BY THE IRRIGATION DESIGNER. IN THE EVENT THAT NO DESIGNATED LOCATIONS OCCUR, OR THE LOCATIONS DESIGNATED ARE IN CONFLICT, THE IRRIGATION CONTRACTOR SHALL DETERMINE AND FIELD LOCATE ALL CONTROLLER(S) AND RAIN SENSOR(S) LOCATIONS. THE LOCATIONS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL OF THE IRRIGATION DESIGNER OR LANDSCAPE ARCHITECT PRIOR TO PROCEEDING WITH THE INSTALLATION.
 - THE CONTROLLER(S) SHALL BE LOCATED AT DESIGNATED(S) ACCESSIBLE TO MAINTENANCE PERSONNEL.
 - THE CONTROLLER SHALL HAVE 120V DEDICATED ELECTRIC SERVICE PROVIDED TO THE CONTROLLER IN CONDUIT. THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING MATERIALS AND LABOR NECESSARY TO BE PROVIDED FOR THE SERVICE.
 - ALL CONTROLLER(S) (EACH IF APPLICABLE) WILL BE GROUNDED USING THREE EIGHT FOOT (8') COPPER CLAD RODS WITH #6 SOLID COPPER WIRE. COPPER CLAMPS WILL BE USED TO ATTACH THE WIRE TO THE RODS. IF ANOTHER CONTROLLER IS UTILIZED, AN EARTH GROUND OF FIVE (5) OHMS OR LESS SHALL BE OBTAINED ON THE GROUNDING EQUIPMENT. CONTROL EQUIPMENT GROUNDING SHALL BE IN ACCORDANCE TO THE MANUFACTURER'S LATEST SPECIFICATIONS.
 - CONTROL WIRE SHALL BE AWG SOLID COPPER INSULATED WIRE SUITABLE FOR DIRECT BURIAL APPLICATIONS. THE SIZE OF THE WIRE SHALL BE AS SPECIFIED OR AWG 14 GAUGE GROUND AND COMMON IF THE DISTANCE BETWEEN THE CONTROLLER AND THE FARTHEST VALVE IS LESS THAN 2,000'; OR AWG 12 GAUGE GROUND AND AWG 14 GAUGE ACTIVE IS THE DISTANCE BETWEEN THE CONTROLLER AND FARTHEST VALVE IS LESS THAN 2,600'.
 - CONTROL WIRE COLORS SHALL BE: WHITE FOR GROUND; WHITE W/ COLOR STRIPE FOR GROUND SPARE; RED FOR ACTIVE; GREEN AND/OR BLUE FOR SPARE; YELLOW AND/OR ORANGE FOR SPECIAL USES SUCH AS MASTER VALVE OR SENSORS.
 - ALL CONTROL WIRE CONNECTIONS SHALL BE DONE USING DRYBDR WIRE CONNECTORS. CONTROL WIRES WITHIN VALVE BOXES SHALL BE NEATLY CURLED (1" TURNS, OR FOLDED AND SECURED WITH PLASTIC TIES).
 - ALL CONTROLLER(S) (EACH IF APPLICABLE) WILL HAVE A RAIN SENSOR AND BY-PASS SWITCH INSTALLED TO MEET STATE AND LOCAL CODES. RAIN SENSORS AND BY-PASS SWITCHES ALSO WILL BE INSTALLED IN ACCORDANCE TO MANUFACTURER'S GUIDELINES.
 - RAIN SENSORS & MINI-WEATHER STATIONS (WIND SENSOR) SHALL BE INSTALLED IN OPEN AREAS CLEAR OF IRRIGATION COVERAGE, VEGETATION AND/OR STRUCTURAL INTERFERENCE.
- IRRIGATION CONTROL SYSTEM - DECODERS**
- THE IRRIGATION CONTROLLER SHALL BE SUITABLE FOR TWO-WIRE DECODER CONTROL TECHNOLOGY. THE DECODERS SHALL BE MANUFACTURED BY THE IRRIGATION CONTROLLER MANUFACTURER.
 - THE DECODERS TWO-WIRE CONTROL WIRE SHALL BE MANUFACTURED BY THE CONTROLLER & DECODERS MANUFACTURER, OR A MANUFACTURER APPROVED EQUAL. THE WIRE'S LENGTH TO THE FARTHEST VALVE/DECODER SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED LENGTH.
 - WHERE POSSIBLE, PRACTICAL AND FEASIBLE ZONE CONTROL VALVES SHALL BE MANOEFOLD TOGETHER NEAR THE MANAGING DECODER. VALVES LOCATED WITHIN 140± FROM A FEASIBLE ZONE CONTROL SHALL HAVE THE SOLENOID WIRED TO THE DECODER (FOR ACTIVATION) USING AWG 14 GAUGE SOLID COPPER INSULATED WIRE. THE WIRES' COLOR SHALL MATCH THE SUBJECT DECODER'S CORRESPONDING WIRES COLOR.
 - THE DECODERS SHALL BE GROUNDED IN ACCORDANCE TO THE MANUFACTURER'S LATEST GROUNDING SPECIFICATIONS.
 - THE IRRIGATION CONTRACTOR SHALL HAVE ON SITE AT ALL TIMES SUITABLE DECODER PROGRAMMING EQUIPMENT.
 - BIDDING CONTRACTORS MUST BE CERTIFIED IN DECODER CONTROL SYSTEMS INSTALLATION, SERVICE AND MANAGEMENT.
 - THE DECODERS' INSTALLATION SHALL BE IN ACCORDANCE TO THE DECODERS' MANUFACTURER LATEST SPECIFICATIONS.
 - THE SYSTEM'S ZONE CONTROL VALVES SHALL BE MANUFACTURED BY THE DECODER CONTROL SYSTEM MANUFACTURER.
- IRRIGATION ZONE CONTROL VALVES**
- THE ZONE CONTROL VALVES SHALL BE MANUFACTURED BY THE IRRIGATION CONTROLLER MANUFACTURER.
 - THE ZONE CONTROL VALVES SHALL HAVE INTERNAL AUTOMATED CLEANING MECHANISMS WITHIN, AND DIAL TYPE PRESSURE REGULATORS.
 - THE ZONE CONTROL VALVE'S PRESSURE REGULATOR SETTINGS SHALL BE: LARGE TURF AREA ROTOR HEADS, (50'-70' SPACINGS) 70± PSI; INTERMEDIATE RANGE ROTOR HEADS, 50± PSI; SHORT RANGE ROTORS HEAD, 40± PSI; SPRAY HEADS, BUBBLERS & DRIP HYDRANTS, 30± PSI.
 - THE ZONE CONTROL VALVES SHALL BE NEATLY INSTALLED (CENTERED) WITHIN A VALVE BOX. THE ZONE CONTROL VALVES VALVE BOX SIZES SHALL BE: 10" ROUND VALVE BOX FOR SINGLE 1" VALVES WITH NO ISOLATION VALVE AT INLET; 12" RECTANGULAR VALVE BOX FOR SINGLE 1.5" AND 2" VALVES; 12" RECTANGULAR VALVE BOX FOR SINGLE 1" VALVES WITH ISOLATION VALVE AT INLET; JUMBO VALVE BOX FOR SINGLE 1.5" & 2" VALVES W/ ISOLATION VALVES AT INLET. DO NOT INSTALL MULTIPLE (TWO OR MORE) 1.5" OR 2" VALVES WITHIN A VALVE BOX. MULTIPLE (THREE - MAXIMUM) 1" VALVES MAY BE INSTALLED WITHIN A JUMBO VALVE BOX.
 - PROVIDE NON-WOVEN FILTER FABRIC AND A 4" LAYER OF GRAVEL (PEA GRAVEL OR <3/4") AT EACH VALVE BOX. ATTACH THE FILTER FABRIC TO THE EXTERIOR OF THE VALVE BOX'S BOTTOM WITH DUCT TAPE. EXCAVATE THE SOIL AT THE BOTTOM OF THE BOXES AREA SO THAT A 2" AIR GAP CAN OCCUR BETWEEN THE TOP OF GRAVEL AND THE BOTTOM OF THE BOX. PROVIDE PAVED BRICKS (FOUR FOR RECTANGULAR AND JUMBO BOXES - ONE AT EACH CORNER, TWO FOR 10" ROUND BOXES - ONE PER SIDE OPPOSITE OF EACH OTHER) FOR VALVE BOX STABILITY.
 - PROVIDE ID (YELLOW) AND WARNING PLASTIC TAGS MANUFACTURED BY CHRISITY INDUSTRIES. PROVIDE MANUFACTURER PROVIDED NUMBERS, OR NEATLY WRITE THE CORRESPONDING VALVE NUMBER ON THE ID TAG.
 - WHERE POSSIBLE AND PRACTICAL LOCATE AND INSTALL THE ZONE CONTROL VALVES AND BOXES WITHIN LOW GROWING PLANTING BEDLINE AREAS IN A FASHION THAT THE OUTLINE OF THE PLANTING BEDLINE IS NOT INTERRUPTED BY THE VALVE BOX.
 - DO NOT INSTALL ZONE CONTROL VALVES/VALVE BOXES WITHIN SWALES, AND/OR THE BOTTOM OF LOW AREAS; 20' FROM THE MAIN TRUNK OF LARGE CANOPY TREES/PALMS; 12' FROM THE MAIN TRUNK OF MEDIUM SMALL TREES/PALMS; MINIMUM 7± FROM EDGE OF DRIVEWAYS; MINIMUM 5± FROM THE EDGE OF SIDEWALKS, MASONRY WALLS OR BUILDING FOUNDATIONS.
- IRRIGATION VALVE BOXES - GENERAL GUIDE LINES**
- THE VALVE BOXES SHALL BE AS SPECIFIED. IF A MANUFACTURER AND MODEL ARE NOT SPECIFIED THE IRRIGATION CONTRACTOR SHALL PROVIDE VALVE BOXES USING THE FOLLOWING CRITERIA.
 - THE VALVE BOXES SHALL BE OF SUITABLE SIZE AND MATERIAL APPROPRIATE FOR THE INTENDED USE. THE VALVE BOX LIDS SHALL HAVE A RIBBED REINFORCED BACKING, AND BE LOCKABLE. THE LID SHALL BE PANTONE PURPLE 522C.
 - BRICK PAVERS SHALL BE PROVIDED IN THE FOLLOWING FASHION: ONE PAVER PER SIDE (OPPOSITE OF EACH OTHER); ONE BRICK PER CORNER FOR RECTANGULAR, SQUARE AND JUMBO BOXES.
 - THE BOTTOM OF THE BOXES SHALL BE LINED WITH NON-WOVEN FILTER FABRIC (NWWF) TO KEEP SOILS, SILTS AND DEBRIS FROM ENOUGHING INTO THE BOX. THE NWWF SHALL BE ATTACHED TO THE BOX WITH CONTINUOUS BANDS OF DUCT TAPE WRAPPED AROUND THE ENTIRE PERIMETER OF THE BOX. THE NWWF SHALL HAVE OPENINGS ONLY FOR THE PIPING TO GO THROUGH (SNGU). THE EDGE OF THE NWWF SHALL BE SECURED TO THE PIPING WITH DUCT TAPE.
 - PROVIDE A 4" LAYER OF GRAVEL (PEA GRAVEL OR <3/4") AT THE BOTTOM OF THE INTERIOR OF EACH VALVE BOX. EXCAVATE THE SOIL AT THE BOTTOM OF THE BOX'S PIT DEEP ENOUGH FOR THE LAYER OF GRAVEL. CAN FIT WITHIN THE DEEPER EXCAVATED AREA SO THAT A 2" AIR GAP CAN OCCUR BETWEEN THE TOP OF GRAVEL AND THE BOTTOM OF THE BOX.
 - FOR DEEP EXCAVATION/INSTALLATION APPLICATIONS PROVIDE VALVE BOX EXTENSIONS AS NEEDED. THE EXTENSIONS SHALL BE AS RECOMMENDED/SPECIFIED BY THE VALVE BOX MANUFACTURER. PLASTIC CORRUGATED PIPE (NO HOLES) CAN BE CONSIDERED AN ACCEPTABLE EXTENSION FOR ROUND BOXES AS LONG AS THE MATERIAL HAS A REASONABLE LEVEL OF RIGIDNESS.
- IRRIGATION - LARGE TURF AREAS/ATHLETIC FIELD ROTOR HEADS**
- THE ROTOR HEAD MANUFACTURER AND MODEL SHALL BE AS SPECIFIED.
 - THE ROTOR HEAD NOZZLE SELECTION SHALL BE AS SHOWN PER PLAN. REFER TO THE PLAN FOR NOZZLE SELECTION AND COVERAGE PATTERN SETTINGS/ADJUSTMENTS.
 - PROVIDE AN INLET SIZED SCH 80 PVC PRE-MANUFACTURED SWING JOINT ASSEMBLY PER ROTOR HEAD TO CONNECT TO THE CORRESPONDING LATERAL LINE.
 - PROVIDE INSTALLATION, ADJUSTMENTS AND MAINTENANCE (AS NEEDED) IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS.
- IRRIGATION - INTERMEDIATE/SMALL AREAS ROTOR HEADS**
- THE ROTOR HEAD MANUFACTURER AND MODEL SHALL BE AS SPECIFIED.
 - THE ROTOR HEAD NOZZLE SELECTION SHALL BE AS SHOWN PER PLAN. REFER TO THE PLAN FOR NOZZLE SELECTION AND COVERAGE PATTERN SETTINGS/ADJUSTMENTS.
 - PROVIDE AN INLET SIZED PREMANUFACTURED RIGID PLASTIC SWING JOINT ASSEMBLY (HUNTER 712S/ - 75"X12" SWING JOINT) PER ROTOR HEAD TO CONNECT TO THE CORRESPONDING LATERAL LINE FOR HIGH FLOW NOZZLE & OPERATING PRESSURE ROTOR HEADS NOTED IN PLAN. FOR OTHER SMALLER AREA LOWER FLOW DEMAND/OPERATING PRESSURE ROTOR HEADS SHALL BE CONNECTED TO LATERAL LINE PIPING USING FUNNY PIPE AND HARD PLASTIC FITTINGS.
 - PROVIDE INSTALLATION, ADJUSTMENTS AND MAINTENANCE (AS NEEDED) IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS.

IRRIGATION NOTES:

GENERAL CONTENT:

- IRRIGATION - SPRAY HEADS**
- THE SPRAY HEAD MANUFACTURER AND MODEL SHALL BE AS SPECIFIED.
 - THE SPRAY HEAD NOZZLE SELECTION SHALL BE AS SHOWN PER PLAN. REFER TO THE PLAN FOR NOZZLE SELECTION AND COVERAGE PATTERN SETTINGS/ADJUSTMENTS.
 - PROVIDE INSTALLATION, ADJUSTMENTS AND MAINTENANCE (AS NEEDED) IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS.
- IRRIGATION - TREE/PALM SUPPLEMENTAL WATERING BUBBLERS**
- THE BUBBLER MANUFACTURER AND MODEL SHALL BE AS SPECIFIED. THE BUBBLERS SHALL BE SET VOLUME WATER DISCHARGE PRESSURE COMPENSATING FLOOD TYPE BUBBLERS. THE INSTALLATION/USE OF ADJUSTABLE BUBBLERS IS NOT ALLOWED.
 - THE BUBBLER NOZZLE SELECTION SHALL BE AS SHOWN PER PLANNOTE(S)/BUBBLER SELECTION TABLE.
 - PROVIDE INSTALLATION, ADJUSTMENTS AND MAINTENANCE (AS NEEDED) IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS.
- IRRIGATION - DRIP IRRIGATION**
- THE DRIP IRRIGATION FILTER ASSEMBLY SHALL BE AS SPECIFIED AND INSTALLED AT THE LOCATION(S) SHOWN. THE IRRIGATION CONTRACTOR SHALL CONSTRUCT A DRIP IRRIGATION FILTER DISCHARGE SUMP AS SPECIFIED.
 - DRIP IRRIGATION INLINE TUBING (DIT) SHALL BE USED AS THE PRIMARY MEANS TO PROVIDE WATER TO THE TARGETED PLANT MATERIAL. FOR GENERAL GROUND/LARGER PLANTER APPLICATIONS THE DIT SHALL BE 5" FLEXIBLE POLYETHYLENE TUBING WITH FACTORY INSTALLED 92 GPH EMITTERS INSTALLED ON 12" SPACINGS. PLANTING POTS/JURN APPLICATIONS THE DIT SHALL BE 25" FLEXIBLE POLYETHYLENE MICRO-TUBING WITH FACTORY INSTALLED 25 GPH EMITTERS INSTALLED ON 6" SPACINGS.
 - PROVIDE SOIL TUBING ANCHOR STAKES AT A RATE OF ONE STAKE PER FIVE FEET OF INLINE TUBING. NO SOIL ANCHOR STAKES FOR MICRO-TUBING.
 - ALL INLINE TUBING AND MICRO-TUBING INTERCONNECTING FITTINGS SHALL BE MANUFACTURED BY THE TUBING MANUFACTURER.
 - THE INLINE TUBING (LARGER) SHALL BE LAID-OUT IN STRAIGHT ROWS BETWEEN ROWS OF PLANTINGS, PARALLEL TO THE PLANTING AREA(S) BOUNDARIES. WAVING THE TUBING IN AND OUT, IN BETWEEN PLANTS IS PROHIBITED. THE INLINE TUBING SECTIONS SHALL BE INSTALLED ON 24± SPACINGS. THE SPACINGS MAY VARY AT SMALL ODD SHAPED AREAS. THE MICRO-TUBING SHALL BE INSTALLED FOLLOWING THE PLANTING BOWL/URN'S PERIMETER OUTLINE. WITHIN 3± FROM THE EDGE, IF A SECOND ROW/SECTION OF TUBING IS REQUIRED IT SHALL BE INSTALLED 8± APART, PARALLEL TO THE FIRST SECTION.
 - DO NOT EXCEED THE TUBING & MICRO-TUBING MANUFACTURER'S LENGTH LIMITS. INLINE TUBING, 200'; MICRO-TUBING, 10'.
 - CONNECTIONS TO PVC POINTS OF CONNECTION SHALL BE MADE AS ILLUSTRATED IN THE PVC HEADER POINT OF CONNECTION.
 - PROVIDE (1) AUTOMATIC LINE FLUSH VALVE PER 15 GPM OF ZONE'S FLOW, OR AT DEAD END SECTIONS, OR OTHER LOCATIONS SHOWN.
 - PROVIDE (1) AIR VACUUM RELIEF VALVE (AVRV) PER 6 GPM OF ZONE'S FLOW. THE AVRV LOCATIONS MAY NOT BE SHOWN IN THE PLAN BUT SHOULD BE INSTALLED THROUGHOUT THE ZONE, ESPECIALLY AT THE HIGHER ELEVATION AREAS. INSTALLATION SHALL BE IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS.
 - PROVIDE HIGH FLOW EMISSION MODULES TO PROVIDE SUPPLEMENTAL WATER FOR PLANTINGS THAT REQUIRE MORE WATER. PROVIDE: (1) 25"x25" LONG MICRO-TUBING (BLANK) SECTION; (1) 25" MICRO-TUBING SOIL STAKE; (1) 25" MICRO-TUBING DIFFUSER BUG CAP PER SUPPLEMENTAL WATER HIGH FLOW EMISSION MODULE.
 - POTS AND/OR PLANTERS SHALL BE IRRIGATED VIA SUBSURFACE DRIP IRRIGATION, OR DIRECT EMISSION DRIP IRRIGATION AS DIRECTED PER PLAN, OR IN A FASHION THAT PROVIDES A WATER APPLICATION EQUAL OR NO GREATER THAN 1.0± PER HOUR. DRIP IRRIGATION INLINE TUBING TO BE USED SHALL BE SUITABLE FOR THE SIZE OF THE POT(S)/PLANTER(S).
 - THE DRIP IRRIGATION APPLICATIONS FOR POTS AND PLANTERS SHALL BE IN DEDICATED ZONES, NOT MIXED W/ OTHER PLANTS AND/OR IRRIGATION APPLICATION METHODS AND MEDIA.
- IRRIGATION - SPECIFICATIONS & DOCUMENTS**
- THE IRRIGATION CONTRACTOR'S STAFF SHALL HAVE A COPY OF THE PLAN SET FOR REFERENCE ON SITE AT ALL TIMES.
 - ALL SYSTEM ELEMENTS SHALL BE INSTALLED, USED AND MAINTAINED IN ACCORDANCE TO THE MANUFACTURER SPECIFICATIONS.
 - THE CONTRACTOR SHALL ACKNOWLEDGE THAT CONSTRUCTION DOCUMENTS (PLANS) AND WRITTEN SPECIFICATIONS ARE PART OF THESE CONTRACT DOCUMENTS AND SHALL BE RESPONSIBLE FOR THE THOROUGH REVIEW AND ADHERENCE THERETO. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT IN A TIMELY MANNER PRIOR TO THE COMMENCEMENT OF WORK.
 - THE CONTRACT DOCUMENTS (DRAWINGS & SPECIFICATIONS) TAKE PRECEDENCE OVER ASSUMED INDUSTRY STANDARDS.
- WARRANTY**
- THE IRRIGATION CONTRACTOR SHALL FURNISH A WRITTEN WARRANTY, STATING THAT ALL WORK INCLUDED UNDER THIS CONTRACT SHALL BE WARRANTED AGAINST ALL DEFECTS AND MALFUNCTION OF WORKMANSHIP AND MATERIALS FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF COMPLETION AND FINAL ACCEPTANCE OF THIS PROJECT.
 - THE IRRIGATION CONTRACTOR FURTHER AGREES THAT HE/SHE WILL AT HIGHER OWN EXPENSE REPAIR AND/OR REPLACE ALL SUCH DEFECTIVE WORK AND MATERIALS AND ALL OTHER WORK DAMAGED THEREBY IN WHICH BECOMES DEFECTIVE DURING THE TERM OF THE GUARANTY-WARRANTY IN AN EXPEDIENT MANNER.
 - THE OWNER RESERVES THE RIGHT TO MAKE EMERGENCY REPAIRS WITHOUT RELIEVING THE IRRIGATION CONTRACTOR'S GUARANTY OBLIGATION. IN THE EVENT THAT THE IRRIGATION CONTRACTOR DOES NOT RESPOND TO THE OWNER'S REQUEST FOR REPAIRS WITHIN FORTY-EIGHT (48) HOURS, THE OWNER MAY MAKE SUCH REPAIRS AS HE/SH DEEMS NECESSARY, AT THE FULL EXPENSE OF THE IRRIGATION CONTRACTOR.
 - ANY SETTLING OF BACKFILLED TRENCHES WHICH MAY OCCUR DURING THE GUARANTY-WARRANTY PERIOD SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER, INCLUDING THE COMPLETE RESTORATION OF ALL DAMAGED PLANTINGS, SOIL, PAVING AND/OR OTHER IMPROVEMENT(S) OF ANY KIND.



Know what's below.
Call before you dig.

THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCURRED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

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

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

ATWELL
866.850.4200 www.atwell-group.com
143 UNION BOULEVARD, SUITE 700
LAKEWOOD, CO 80225
303.462.1100



SECTION 28

TOWNSHIP 10 NORTH, RANGE 3 EAST

CITY OF ALBUQUERQUE

BERNALILLO COUNTY, NEW MEXICO

CLIENT: BW GAS & CONVENIENCE RETAIL, LLC
ALLSUP'S CONVENIENCE STORE #102460
9501 GIBSON BLVD. SW
ALBUQUERQUE, NEW MEXICO 87121
FINAL ENGINEERING PLANS

DATE: August 7, 2023

--

REVISIONS

CHRISTINE SIEM
Professional Engineer
08/07/23

SCALE

N.A.

DR. KJK | CH. CBS

P.M. D. MADRUGA

BOOK: --

JOB: 22003692

SHEET NO.

LI012

CAD FILE: 22003692-LI01-2-11-0702.dwg