

CONSTRUCTION PLANS
FOR
TRUCKING FREIGHT FACILITY
10335 E. PECOS ROAD
CITY OF MESA, MARICOPA COUNTY, AZ

INDEX OF SHEETS

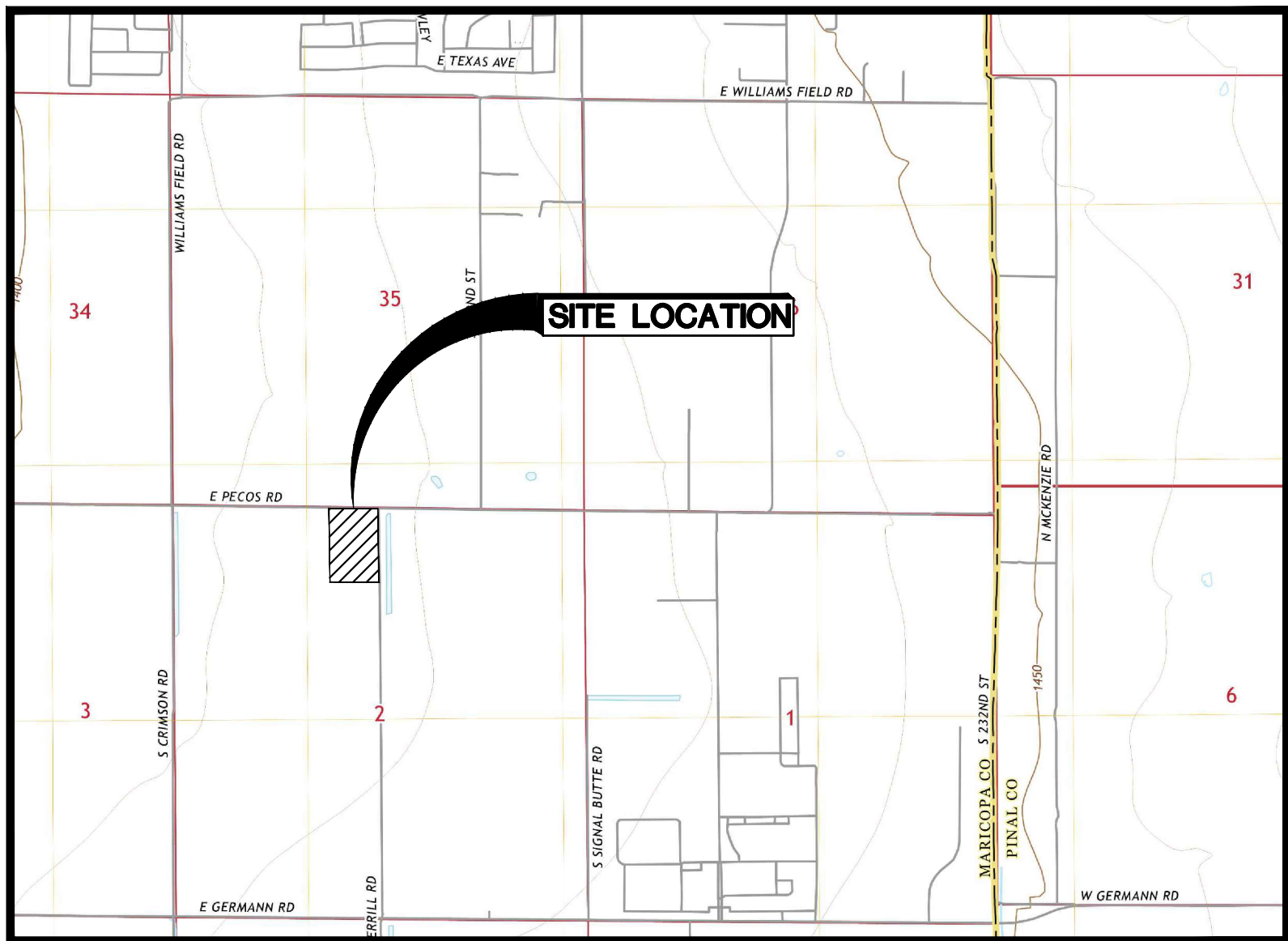
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PREPARED FOR:
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PREPARED BY:
H.F. LENZ
ENGINEERING



LOCATION MAP
NOT TO SCALE

Consultants:

Seal:

Seal:

Project Identification:

**SAIA MOTOR
FREIGHT LINE, LLC**

**PROPOSED
TRUCKING FREIGHT
FACILITY**

**E PECOS ROAD,
CITY OF MESA,
MARICOPA COUNTY,
ARIZONA**

No.:	Date:	Description:
Δ	09/17/24	REVISED PER CITY OF MESA COMMENTS

Sheet Title:
COVER SHEET

Project No.:	2023-0302.01
Cadd File:	C0.00.dwg
Drawn By:	JJS
Checked By:	BJC
Date:	05/17/2024
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Drawing Number

C0.00

Sheet 0 of 00

GENERAL NOTES:

- DO NOT SCALE DRAWINGS.
- NO SLAG SHALL BE PERMITTED.
- PROPOSED CONSTRUCTION SHALL CONFORM TO ALL APPLICABLE STATE AND LOCAL STANDARDS, SPECIFICATIONS AND REQUIREMENTS.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE SITE.
- THE CONTRACTOR SHALL EXERCISE CAUTION AND EMPLOY CAREFUL EXCAVATION METHODS DURING INSTALLATION OF THE FACILITIES TO AVOID DAMAGE TO OR CONFLICT WITH EXISTING UTILITIES. THE CONTRACTOR SHALL PERFORM EXPLORATORY EXCAVATIONS AS DIRECTED AND/OR REQUIRED BY THE ENGINEER TO ASCERTAIN THE HORIZONTAL AND VERTICAL ALIGNMENT OF EXISTING UTILITIES PRIOR TO CONSTRUCTION IN AFFECTED AREAS AND MAKE THE APPROPRIATE ADJUSTMENTS IN THE FIELD IF CONFLICTS OCCUR, NO SEPARATE PAYMENT SHALL BE MADE FOR THE HEREIN DESCRIBED PROVISIONS AND SHALL BE INCLUDED IN THE COST OF THOSE ITEMS FOR WHICH PAYMENT SHALL BE MADE IN THE BID SCHEDULE.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL UTILITIES WITHIN THE IMMEDIATE WORK AREA DURING CONSTRUCTION WHEN WORK IS IN PROGRESS AT ALL TIMES.
- CONTRACTOR IS RESPONSIBLE TO STABILIZE AND MAINTAIN ALL UTILITY POLES WITHIN THE IMMEDIATE WORK AREA THAT MAY BE AFFECTED BY THE CONSTRUCTION OPERATIONS.
- PROVIDE, ERECT AND MAINTAIN BARRICADES, LIGHTING AND GUIDE RAILS AS REQUIRED BY APPLICABLE REGULATORY AGENCIES TO PROTECT THE PUBLIC AND WORKMAN.
- ALL DISTURBED AREAS EXCEEDING THE LIMITS OR WORK SHALL BE RESTORED TO EXISTING CONDITIONS AT THE FULL EXPENSE OF THE CONTRACTOR UNLESS OTHERWISE DIRECTED BY THE OWNER.
- ALL CONCRETE WORK SHALL COMPLY WITH THE SPECIFICATIONS AND THE AMERICAN CONCRETE INSTITUTE'S "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318-14 OR THE LATEST REVISION THERETO.
- ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT THE END OF 28 DAYS.
- ALL REINFORCEMENT STEEL TO BE GRADE 60 DEFORMED BARS.
- MINIMUM SPLICE FOR REINFORCEMENT STEEL IS 30 BAR DIAMETERS UNLESS OTHERWISE NOTED.
- WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A-185 SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK NECESSARY TO ESTABLISH LINES, LOCATIONS, GRADES, DIMENSIONS AND ELEVATIONS OF THE WORK FROM EXISTING FACILITIES.
- THE CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES AS SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED TO THE DEPTHS INDICATED. ALL EXCAVATED MATERIAL NOT REQUIRED OR UNSUITABLE FOR FILL SHALL BE REMOVED AND WASTED OFF SITE.
- UNLESS OTHERWISE INDICATED ON THESE DRAWINGS, REMOVE TREES, SHRUBS, GRASS AND OTHER VEGETATION INTERFERING WITH INSTALLATION OF NEW CONSTRUCTION. REMOVAL INCLUDES DIGGING OUT STUMPS AND ROOTS.
- DURING EXCAVATION EXTREME CARE SHOULD BE TAKEN BY THE CONTRACTOR TO AVOID UNNECESSARY CUTTING OF ROOTS. WHEN ROOTS ARE CUT THEY SHOULD BE PROPERLY DRESSED SO AS NOT TO KILL THE TREE.
- ALL TRENCH EXCAVATION SIDE WALL GREATER THAN 4 FEET IN DEPTH SHALL BE SLOPED, SHORED, SHEETED, BRACED, OR OTHERWISE SUPPORTED BY MEANS OF THE SUFFICIENT STRENGTH TO PROTECT THE WORKMAN WITHIN THEM IN ACCORDANCE WITH APPLICABLE RULES AND REGULATIONS ESTABLISHED FOR CONSTRUCTION BY THE DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA), AND BY LOCAL ORDINANCES. LATERAL TRAVEL DISTANCES TO AN EXIT LADDER OR STEPS SHALL NOT BE GREATER THAN 25 FEET IN TRENCHES 4 FEET OR DEEPER.

CONSTRUCTION NOTES:

- COMPLY WITH ALL PROVISIONS AND REQUIREMENTS OF MESA BUILDING CODE (MBC) CHAPTER 33 – SAFEGUARDS DURING CONSTRUCTION, MESA FIRE CODE (MFC) CHAPTER 33 – FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION, AND NFPA 241 FOR ITEMS NOT SPECIFICALLY ADDRESSED BY MFC CHAPTER 33.
- FIRE APPARATUS ACCESS ROADS ARE ESSENTIAL DURING CONSTRUCTION TO ALLOW EMERGENCY RESPONSE TO THE SITE FOR BOTH FIRE AND MEDICAL EMERGENCIES. ACCESS ROADS SHALL BE IN PLACE PRIOR TO THE START OF VERTICAL CONSTRUCTION. IT IS IMPORTANT TO DEVELOP ACCESS ROADS AT AN EARLY STAGE OF CONSTRUCTION TO ALLOW FOR FIRE DEPARTMENT ACCESS TO THE SITE IN THE CASE OF FIRE OR INJURY.
- REQUIRED FIRE APPARATUS ACCESS ROAD DURING CONSTRUCTION OR DEMOLITION SHALL COMPLY WITH MESA FIRE AND MEDICAL DEPARTMENT STANDARD DETAIL FPD 3310.1. THE ACCESS ROAD SHALL BE A MINIMUM OF 20 FEET WIDE OF ALL-WEATHER DRIVING SURFACE, GRADED TO DRAIN STANDING WATER AND ENGINEERED TO BEAR THE IMPOSED LOADS OF FIRE APPARATUS (78,000 lbs. / 24,000 lbs. FRONT AXLE, 54,000 lbs. REAR AXLE) WHEN ROADS ARE WET.
- THE ACCESS ROAD SHALL EXTEND TO WITHIN 200 FEET OF ANY COMBUSTIBLE MATERIALS AND/OR ANY LOCATION ON THE JOBSITE WHERE ANY PERSON(S) SHALL BE WORKING FOR A MINIMUM OF FOUR (4) CONTINUOUS HOURS IN ANY DAY. A CLEARLY VISIBLE SIGN MARKED FIRE DEPARTMENT ACCESS, IN RED LETTERS, SHALL BE PROVIDED AT THE ENTRY TO THE ACCESS ROAD.
- ALL OPEN TRENCHES SHALL HAVE STEEL PLATES CAPABLE OF MAINTAINING THE ACCESS ROAD DESIGN WHEN THESE TRENCHES CROSS AN ACCESS ROAD.
- THESE ACCESS ROADS MAY BE TEMPORARILY OR PERMANENT. THIS POLICY APPLIES ONLY DURING CONSTRUCTION AND/OR DEMOLITION. PERMANENT ACCESS PER THE MFC SHALL BE IN PLACE PRIOR TO ANY FINAL INSPECTION OR CERTIFICATE OF OCCUPANCY.
- WATER SUPPLY FOR FIRE PROTECTION. AN APPROVED WATER SUPPLY FOR CONSTRUCTION SITE SHALL MEET THE REQUIREMENTS OF MFC APPENDIX CHAPTERS B AND C. THE MINIMUM FIRE FLOW REQUIREMENT WHEN CONTRACTOR OR DEVELOPER BRINGS COMBUSTIBLE MATERIALS ON SITE IS 1,500 GPM AT 20 PSI. AT LEAST ONE FIRE HYDRANT SHALL BE WITHIN 500 FEET OF ANY COMBUSTIBLE MATERIAL AND CAPABLE OF DELIVERING THE MINIMUM FIRE FLOW REQUIREMENT. THIS HYDRANT OR HYDRANTS MAY BE EITHER TEMPORARY OR PERMANENT AS THE PROJECT SCHEDULE PERMITS.
- IN ADDITION, THERE ARE TIMES WHEN HYDRANTS AND VALVES MUST BE CLOSED TEMPORARILY FOR REPAIR WORK OR CONSTRUCTION OF THE WATER SYSTEM. THE DEVELOPER/CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE WATER SUPPLY IS ALWAYS AVAILABLE, WHEN THE WORK IS COMPLETE, DEVELOPER/CONTRACTOR SHALL MAKE SURE THAT THE FIRE HYDRANTS ARE ACTIVE, AND THE VALVES ARE OPEN.

WATER, WASTEWATER AND STORM DRAIN GENERAL NOTES:

- MATERIALS AND INSTALLATION OF WATER AND SEWER MAINS, WATER METERS AND SERVICE LINE CONNECTIONS SHALL CONFORM TO CURRENT CITY DETAILS, MESA AMENDMENTS TO MAG SPECIFICATIONS, AND THE APPROVED PRODUCTS LIST. SEE BELOW FOR APPROVED PRODUCT LISTS FOR WATER AND WASTEWATER.

HTTPS://WWW.MESA.AZ.GOV/BUSINESS/ENGINEERING/MESA-STANDARD-DETAILS-SPECIFICATIONS
- IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE (A.A.C.) R18-4-213, ALL MATERIALS WHICH MAY COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NATIONAL SANITATION FOUNDATION (NSF) STANDARDS 60, 61, AND 372 AND SHALL BE LEAD-FREE AS DEFINED IN A.A.C. R18-5-504 AND R18-4-101.
- THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL NECESSARY FITTINGS AND ADAPTERS REQUIRED TO CONNECT DIFFERENT TYPES OF WATER MAIN MATERIALS.
- PER MESA AMENDMENTS 610.4.2 ALL MINOR VERTICAL OR HORIZONTAL DEFLECTIONS SHALL BE BY PIPE JOINT DEFLECTION UNLESS OTHERWISE NOTED. PIPE JOINT DEFLECTION SHALL NOT EXCEED 3 DEGREES OR ¾ OF PIPE MANUFACTURER'S RECOMMENDATIONS WHICHEVER IS LESS.
- PER MAG AND MESA AMENDMENTS 610.11 ALL WATER LINE TESTS SHALL BE COMPLETED SO THAT NO EXISTING LINES, EXISTING VALVES, OR NEWLY INSTALLED VALVES WHICH ARE CONNECTED TO THE OPERATING WATER SYSTEM ARE INCLUDED IN THE TESTS. ALLOWABLE TIMEFRAMES SHOULD FOLLOW MESA AMENDMENTS TO MAG AND MUST BE COORDINATED WITH THE CITY INSPECTOR. FOR A DAYTIME TIE-IN, THE CONTRACTOR SHALL COMPLETE ALL WORK NECESSARY TO RESTORE UTILITY SERVICE AND FULLY OPEN THE TIE-IN AREA TO THE TRAFFIC WITHIN THE TIME ALLOWED.
- WATER LINE FLUSHING, PRESSURE TESTING, AND DISINFECTION SHALL BE COMPLETED PER MAG SPECIFICATION SECTION 611, MESA AMENDMENTS TO MAG SPECIFICATION SECTION 611, AND AWWA C651 (CURRENT VERSION).
- SOURCE WATER UTILIZED FOR FILLING, FLUSHING AND TESTING SHALL BE OBTAINED FROM A HYDRANT METER ORDERED THROUGH PERMIT SERVICES AND SET BY CITY OF MESA WATER RESOURCES STAFF. IT IS PROHIBITED TO OPEN A VALVE TO THE EXISTING WATER SYSTEM TO FILL A NEWLY CONSTRUCTED OR REPAIRED PIPELINE AS OUTLINED IN THE MESA AMENDMENTS TO MAG SECTION 610.11 AND 611.
- WATER METERS, METER BOXES, LIDS, ETC. IN CONFLICT WITH NEW CONSTRUCTION SHALL BE RELOCATED PER CITY OF MESA STANDARD DETAIL M-49 BY THE CONTRACTOR. THE RELOCATION SHALL INCLUDE ALL MATERIALS NECESSARY TO RECONNECT THE METER TO THE CITY DISTRIBUTION SYSTEM. SERVICE LINE EXTENSIONS, IF APPROVED IN WRITING BY MESA WATER RESOURCES DEPARTMENT, SHALL CONFORM TO MESA STANDARD DETAIL M-49. WHEN SERVICE LINE EXTENSIONS ARE APPROVED PER MESA STANDARD DETAIL M-49, SERVICE LINE COUPLINGS SHALL NOT BE PLACED UNDER ROADWAY SURFACES, CONCRETE GUTTERS, CURB AND GUTTER, OR CONCRETE DRIVEWAYS.
- VALVES SHALL BE INSTALLED WITH VALVE BOX AND COVER PER MAG STD DETAILS 391-1, TYPE C WITH A DEEP-SKIRTED LID (4-INCHES MINIMUM) AS NOTED IN THE APPROVED PRODUCTS LIST.
- ALL WATER LINE ABANDONMENT CUT AND PLUGS FOR ACTIVE LINES SHALL CONFORM TO THE FOLLOWING:
10.1. 12" AND SMALLER DIAMETER PER MESA STANDARD DETAIL M-50
10.2. 16" DIAMETER PER M.A.G. STANDARD DETAIL 390, TYPE B
10.3. GREATER THAN 16" DIAMETER, AS DESIGNED PER PLAN
- LIME-TREATED AGGREGATE BASE COURSE (ABC) MATERIAL, RECLAIMED CONCRETE MATERIAL (RCM), AND RECLAIMED ASPHALT PAVEMENT (RAP) MATERIALS ARE PROHIBITED FOR USE IN THE PIPE EMBEDMENT ZONE (BEDDING, HAUNCHING, INITIAL BACKFILL) FOR WATERLINE CONSTRUCTION PER MESA AMENDMENTS 601-4.2.
- PER MESA AMENDMENTS 610.11, APPLICATIONS TO THE CITY OF MESA ENGINEERING INSPECTOR AND REVIEWED AND APPROVED BY THE WATER RESOURCES DEPARTMENT FOR WATER SYSTEM SHUTDOWN FOR THE PURPOSES OF CONSTRUCTION-RELATED ACTIVITIES SHALL BE MADE A MINIMUM OF FIVE (5) BUSINESS DAYS PRIOR TO THE SCHEDULED SHUTDOWN DATE. THE REQUEST SHALL INCLUDE PRIMARY AND SECONDARY VALVE NUMBERS, WHETHER A TEST SHUTDOWN IS REQUESTED, AND THE DATE AND DURATION OF THE REQUESTED SHUTDOWN. PER MAG 610.11, THE CITY OF MESA DOES NOT GUARANTEE A COMPLETE SHUTDOWN.
- REQUIRED BACKFLOW PREVENTION ASSEMBLIES SHALL INCLUDE MANUFACTURERS AND MODELS DESIGNATED IN THE CURRENT "LIST OF APPROVED BACKFLOW PREVENTION ASSEMBLIES" AS PUBLISHED BY THE FOUNDATION FOR CROSS-CONNECTION CONTROL AND HYDRAULIC RESEARCH, UNIVERSITY OF SOUTHERN CALIFORNIA.
- BACKFLOW PREVENTION ASSEMBLIES SHALL BE TESTED AND APPROVED BY A CERTIFIED TECHNICIAN DESIGNATED IN THE CURRENT CITY OF MESA "LIST OF APPROVED INSPECTORS" PRIOR TO THE REQUEST FOR FINAL INSPECTION.
- ALL WATER METERS ARE TO BE SUPPLIED BY THE CITY OF MESA. CHARGES FOR INSTALLING NEW SERVICES AND METERS WILL BE IN ACCORDANCE WITH THE CURRENT UTILITY SERVICE FEE SCHEDULE. METERS TWO INCHES OR LESS WILL BE DELIVERED AND INSTALLED BY CITY FORCES. METERS LARGER THAN TWO INCHES WILL BE DELIVERED BY THE CITY AND INSTALLED BY THE CONTRACTOR AND REQUIRE SCHEDULING AND INSPECTIONS WITH CITY FORCES. CONTACT THE DEVELOPMENT SERVICES DEPARTMENT AT 480-644-4273 FOR THE SPECIFIC PROCEDURE. SEE M-27.01 FOR MORE INFORMATION.
- FOR PROJECTS INVOLVING PUBLIC WATER MAINS WITH DIAMETERS 20" AND LARGER, THE FOLLOWING SHALL APPLY:
16.1. PROCUREMENT OF PIPES AND APPURTENANCES SHALL NOT COMMENCE UNTIL SHOP DRAWINGS AND PRODUCT DATA SUBMITTALS HAVE BEEN REVIEWED AND ACCEPTED IN WRITING BY THE CITY OF MESA WATER RESOURCES DEPARTMENT.
16.2. SUBMITTALS AND SHOP DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
16.2.1. PIPE AND FITTINGS
16.2.2. PIPE APPURTENANCES (ISOLATION VALVES, AIR RELEASE VALVES, HYDRANTS, ETC)
16.2.3. CORROSION MONITORING AND PROTECTION SYSTEMS (WHERE APPLICABLE)
16.2.4. FABRICATION/LAY DRAWINGS (FOR C200 STEEL OR C303 CONCRETE CYLINDER PIPE)
16.2.5. VALID WELDER'S CERTIFICATIONS (FOR C200 OR C303 CONCRETE CYLINDER PIPE)
16.3. ALL FIELD WELDS SHALL BE MADE AVAILABLE FOR INSPECTION BY THE CITY OR THE CITY'S REPRESENTATIVE PRIOR TO GROUTING.
16.4. ADDITIONAL REQUIREMENTS FOR C200 STEEL AND C303 CONCRETE CYLINDER PIPE WITH DIAMETERS 30" AND LARGER ARE AS FOLLOWS:
16.4.1. EACH PIPE SECTION SHALL BE MADE AVAILABLE FOR VISUAL AND SOUNDING INSPECTIONS BY CITY STAFF OR THE CITY'S REPRESENTATIVE PRIOR TO INSTALLATION. PIPES FAILING INSPECTIONS SHALL BE REPAIRED OR REPLACED AS DETERMINED BY THE CITY.
16.4.2. INSTALLED PIPE SHALL BE MADE AVAILABLE FOR INTERNAL VISUAL AND SOUNDING INSPECTIONS BY CITY STAFF OR THE CITY'S REPRESENTATIVE PRIOR TO FILLING. PIPES FAILING INSPECTIONS SHALL BE REPAIRED OR REPLACED AS DETERMINED BY THE CITY.
- WHEN GROUTING OR CASTING CONCRETE AROUND PVC SEWER PIPE, SUCH AS AT MANHOLE OR VAULT PENETRATIONS, THE CONTRACTOR SHALL INSTALL WATER STOPS PER MESA AMENDMENTS TO MAG SPECIFICATION 625 AND MANUFACTURERS RECOMMENDATIONS.
- SEWER BUILDING CONNECTION LATERALS SHALL BE INSTALLED PER MAG STANDARD DETAIL 440. LATERAL WYES SHALL BE INSTALLED AT NO GREATER THAN A 45 ANGLE FROM HORIZONTAL. SEWER LATERAL SLOPES SHALL BE AS INDICATED ON MAG STANDARD DETAIL 440 AND IN NO CIRCUMSTANCE SHALL SEWER LATERAL SLOPES EXCEED ¾" PER FOOT FOR 6" LATERALS AND 1-1/2" PER FOOT FOR 4" LATERALS. FITTINGS SHALL BE INSTALLED WITH NO ANGULAR JOINT DEFLECTION AND ALL CONNECTIONS SHALL BE GASKETED OR SEALED PER MAG SPECIFICATIONS.
- SEWER MANHOLE BASES, BENCHES, SHELVES, AND CHANNELS SHALL BE CONSTRUCTED PER MAG STANDARD DETAIL 420. EACH INLET PIPE SHALL HAVE A DESIGNATED, FORMED CHANNEL AND BENCHING. THE DIMENSIONS OF CHANNELS, SHELF SLOPE, AND MINIMUM INLET PIPE ANGLES SHALL BE CONSTRUCTED PER MAG STANDARD DETAIL 420-3.
- PER MESA DESIGN STANDARDS, SEWER MANHOLES SHALL BE CONSTRUCTED PER MAG STANDARD DETAILS 420-1, TYPE "A" TOP; AND 423-2 EXCEPT THAT:
20.1. MANHOLE SHAFT DIAMETERS SHALL BE 5 FEET
20.2. MANHOLE RINGS AND COVERS SHALL HAVE 30-INCH DIAMETERS
20.3. STEPS SHALL NOT BE INCLUDED

CONCRETE PAVEMENT NOTES:

GENERAL CONTRACTOR TO SUBMIT PLAN OF CONCRETE PAVEMENT CRACK CONTROL JOINT LOCATIONS TO ENGINEER FOR APPROVAL. LOCATIONS OF JOINTS TO BE IN ACCORDANCE WITH THE FOLLOWING GUIDELINES:

- CONCRETE PAVEMENT CRACK CONTROL JOINT SPACING GUIDELINES:
- AREA BOUND BY CRACK CONTROL JOINTS NOT TO EXCEED 625 SQUARE FEET.
 - DISTANCE BETWEEN JOINTS NOT TO EXCEED 25 FEET.
 - LENGTH TO WIDTH RATIO NOT TO EXCEED 1:1.25 (I.E. 25X20)
 - CONSTRUCTION JOINTS ARE CONSIDERED CONTRACTION JOINTS.
 - AT LOCATIONS WHERE JOINT IS DISCONTINUOUS INTO ADJOINING PANEL, PLACE TWO (2) NO. 4 BARS AT MID-DEPTH OF OPPOSING PANEL, PARALLEL TO THE EDGE OF THE DISCONTINUOUS JOINT.

FOR INTERSECTIONS AND AREAS CONSTRUCTED ON A RADIUS, REFER TO DETAILS.

SYMBOL AND ABBREVIATION SCHEDULE

AC	ACRE	EXP	EXPANSION	REINF	REINFORCEMENT
AC	AIR CONDITIONER	EX	EXISTING	RCP	REINFORCED CONCRETE PIPE
ADOT	ARIZONA DEPARTMENT OF TRANSPORTATION	FFE	FINISH FLOOR ELEVATION	R/W	RIGHT-OF-WAY
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAYS AND TRANSPORTATION OFFICIALS	FH	FIRE HYDRANT	SCH	SCHEDULE
ACI	AMERICAN CONCRETE TRANSPORTATION OFFICIALS	GM	GAS METER	SEC	SECTION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	GV	GAS VALVE	SEG	SEGMENT
⊙	AT	HP	HIGH POINT	SLCPP	SMOOTH LINED CORRUGATED PLASTIC PIPE
ℓ	BASELINE	HORIZ	HORIZONTAL	STA	STATION
BC	BOTTOM OF CURB	INC	INCORPORATED	SR	STATE ROUTE
BW	BOTTOM OF WALL	INV	INVERT	ST	STREET
BY/4"	BROKEN YELLOW PAVEMENT LINE/WIDTH	LP	LIGHT POLE	SRL	SKID RESISTANCE LEVEL
BLDG	BUILDING	MH	MANHOLE	S	SOUTH
ℓ	CENTERLINE	MAX	MAXIMUM	SF	SQUARE FEET
CC C/C	CENTER TO CENTER	MIN	MINIMUM	SY	SQUARE YARD
CLR	CLEAR	MPH	MILES PER HOUR	TC	TOP OF CURB
CONC	CONCRETE	N	NORTH	TW	TOP OF WALL
CONSTR	CONSTRUCTION	NPDES	NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM	XF	TRANSFORMER
CMP	CORRUGATED METAL PIPE	No/#	NUMBER	TYP	TYPICAL
CPP	CORRUGATED POLYETHYLENE PIPE	PM	PARKING METER	WM	WATER METER
DIA	DIAMETER	OC	ON CENTER	WV	WATER VALVE
DI	DUCTILE IRON	PERF	PERFORATED	WWF	WELDED WIRE FABRIC
EOB	EDGE OF BERM	PE	POLYETHYLENE	W/4"	WHITE PAVEMENT LINE/WIDTH
EOP	EDGE OF PAVEMENT	PUB	PUBLICATION		
ELEC	ELECTRIC	PSI	POUNDS PER SQUARE INCH		
EMH	ELECTRIC MANHOLE	PP	POWER POLE		
EM	ELECTRIC METER	PVC	POLYVINYL CHLORIDE		
EL/ELEV	ELEVATION	ℓ	PROPERTY LINE		
EQ	EQUAL	R	RADIUS		

LEGEND

EXISTING	PROPOSED
WATERLINE	WATERLINE
GAS LINE	GAS LINE
SANITARY SEWER	SANITARY SEWER
STORM SEWER	STORM SEWER
STEAM LINE	STEAM LINE
UNDERGROUND ELEC TELE CABLE	UNDERGROUND ELEC TELE CABLE
UNDERGROUND TELEPHONE	UNDERGROUND TELEPHONE
UNDERGROUND CABLE	UNDERGROUND CABLE
OVERHEAD ELECTRIC	FIBER OPTICS/COMMUNICATIONS
OVERHEAD TELEPHONE	OVERHEAD ELECTRIC
OVERHEAD CABLE	OVERHEAD TELEPHONE
OVERHEAD WIRES	OVERHEAD CABLE
CONDUIT	CONDUIT
FIBER OPTICS / COMMUNICATIONS	FIRE HYDRANT
FIRE HYDRANT	POWER POLE
POWER POLE	STREET LIGHT
SIGN (EXISTING)	SIGN
	FENCE
	NUMBER OF PARKING SPACES
	EROSION & SEDIMENTATION CONTROL
	COMPOST FILTER SOCK
	LIMIT OF DISTURBANCE/NPDES PERMIT BOUNDARY
	SOIL DESIGNATION
	SOIL BOUNDARY
	ROCK CONSTRUCTION ENTRANCE
	INLET PROTECTION

CALL BEFORE YOU DIG!



CAUTION
THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF SAID EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.
ARIZONA UTILITIES PROTECTION SERVICES
CALL: 8-1-1 OR TOLL FREE: 1-800-782-5348

AZ #: 13460-0

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**SAIA MOTOR
FREIGHT LINE, LLC**

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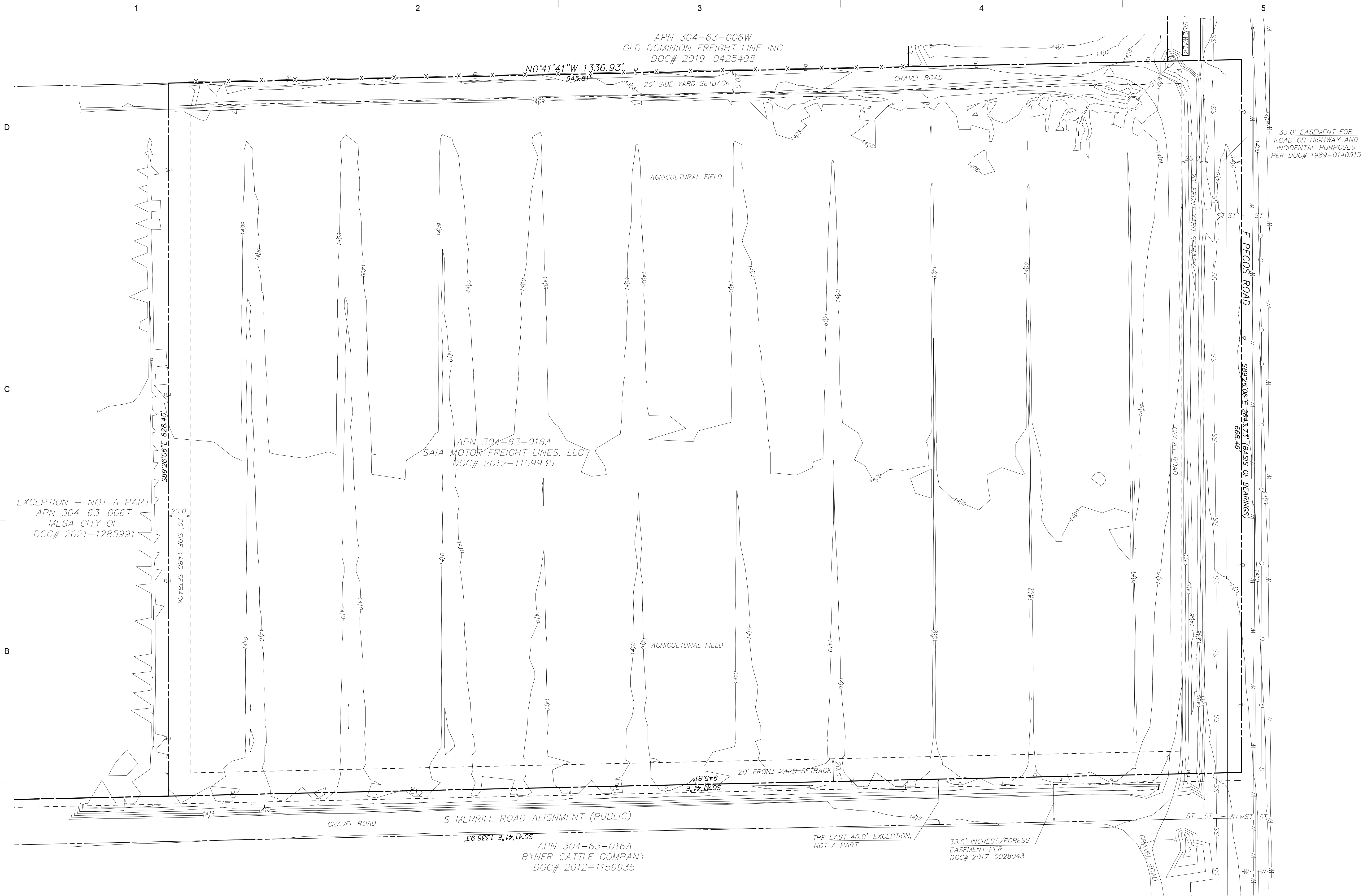
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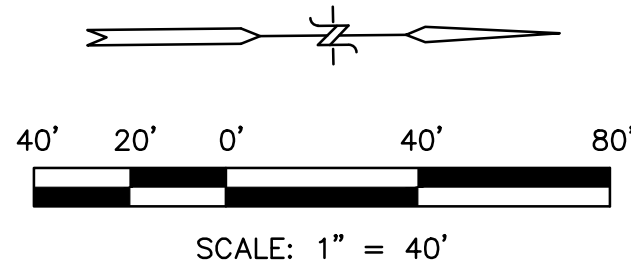
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NOTES:

- REFER TO SHEET C1.00 FOR GENERAL NOTES, LEGEND, AND SYMBOL AND ABBREVIATION SCHEDULE.
- BOUNDARY, TOPOGRAPHIC AND SITE UTILITY SURVEY INFORMATION DEPICTED HERE IS BASED UPON SURVEY PREPARED BY ABEL & ASSOCIATES, LLC DATED 06/05/2023.



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EXISTING CONDITIONS
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Project No.: 2023-0302.01

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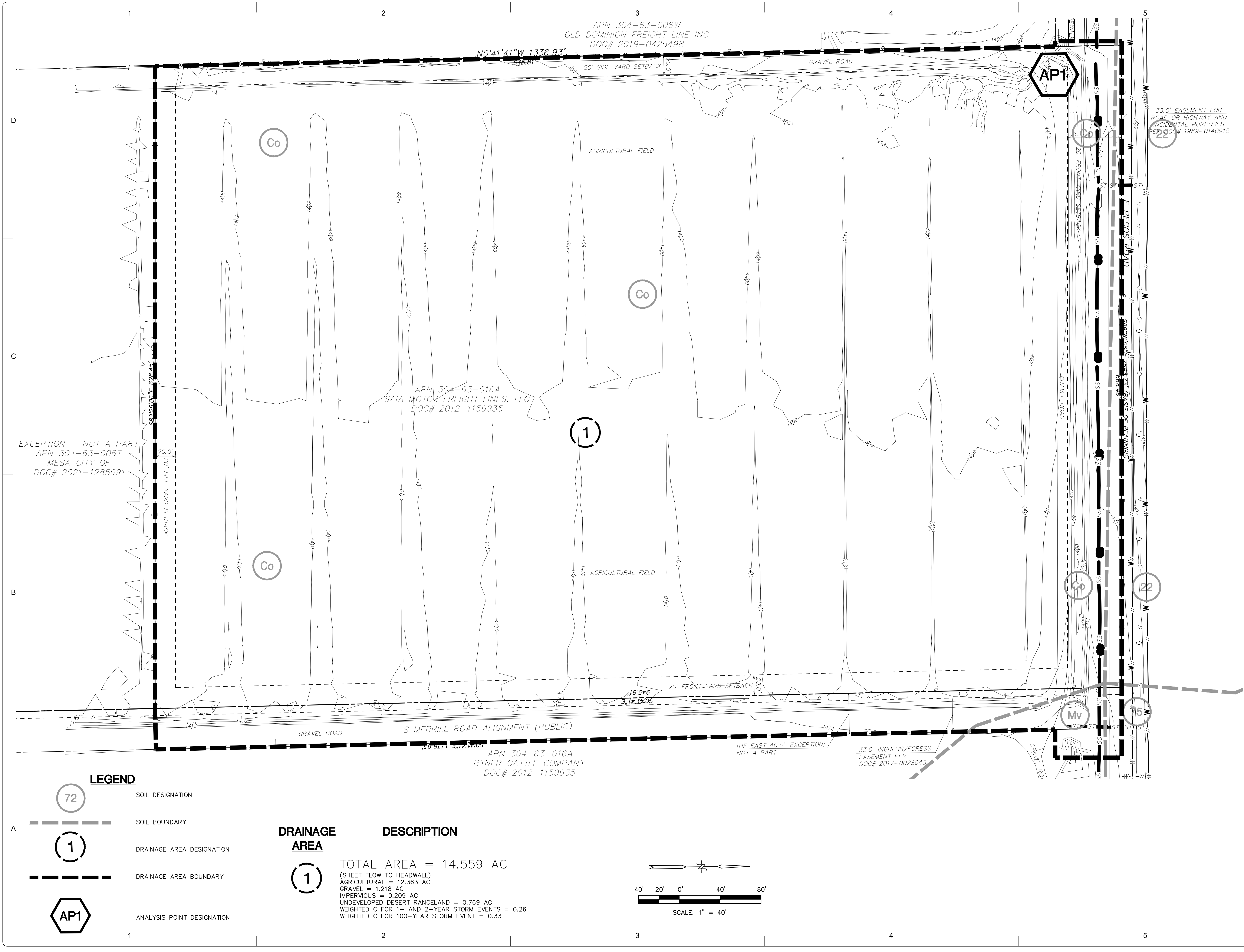
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AZ #: 13460-0

Headquarters:
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Johnstown, PA 15904
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Consultants:

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Seal:

Project Identification:

SAIA MOTOR FREIGHT LINE, LLC

PROPOSED TRUCKING FREIGHT FACILITY

E PECOS ROAD, CITY OF MESA, MARICOPA COUNTY, ARIZONA

No.:	Date:	Description:

Sheet Title:

PREDEVELOPMENT DRAINAGE PLAN

Project No.:

2023-0302.01

Cadd File:

DP1.dwg

Drawn By:

JJS

Checked By:

BJC

Date:

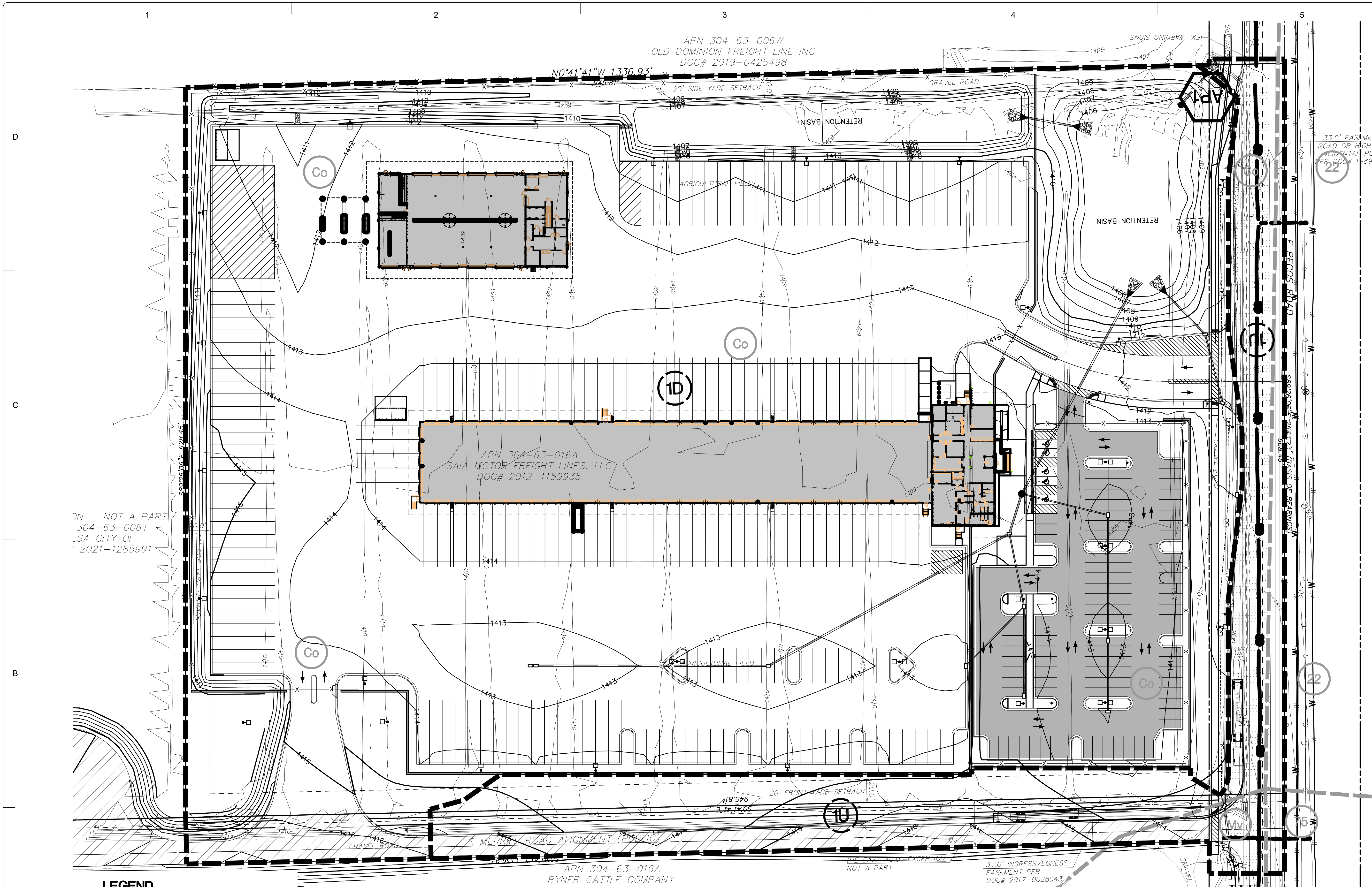
05/17/2024

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Drawing Number

DP1

Sheet 0 of 00



LEGEND

72 SOIL DESIGNATION

1 SOIL BOUNDARY

1 DRAINAGE AREA DESIGNATION

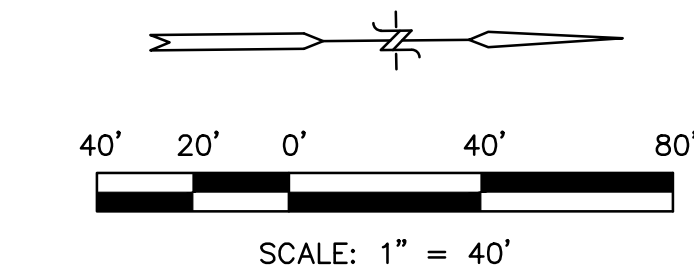
1 DRAINAGE AREA BOUNDARY

AP1 ANALYSIS POINT DESIGNATION

DRAINAGE AREA

1D TOTAL AREA = 12.790 AC
(DETAINED FLOW TO RETENTION BASIN)
IMPERVIOUS = 9.795 AC
LANDSCAPED AREAS = 2.995 AC
WEIGHTED C FOR 1- AND 2-YEAR STORM EVENTS = 0.82
WEIGHTED C FOR 100-YEAR STORM EVENTS = 0.84

1U TOTAL AREA = 1.769 AC
(UNDETAINED FLOW TO HEADWALL)
IMPERVIOUS = 1.218 AC
LANDSCAPED AREAS = 0.551 AC
WEIGHTED C FOR 1- AND 2-YEAR STORM EVENTS = 0.78
WEIGHTED C FOR 100-YEAR STORM EVENTS = 0.81



H.F. LENZ
ENGINEERING
AZ #: 13460-0

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SAIA MOTOR FREIGHT LINE, LLC

PROPOSED TRUCKING FREIGHT FACILITY

E PECOS ROAD, CITY OF MESA, MARICOPA COUNTY, ARIZONA

No.:	Date:	Description:

Sheet Title:

POSTDEVELOPMENT DRAINAGE PLAN

Project No.: 2023-0302.01

Cadd File: DP2.dwg

Drawn By: JJS

Checked By: BJC

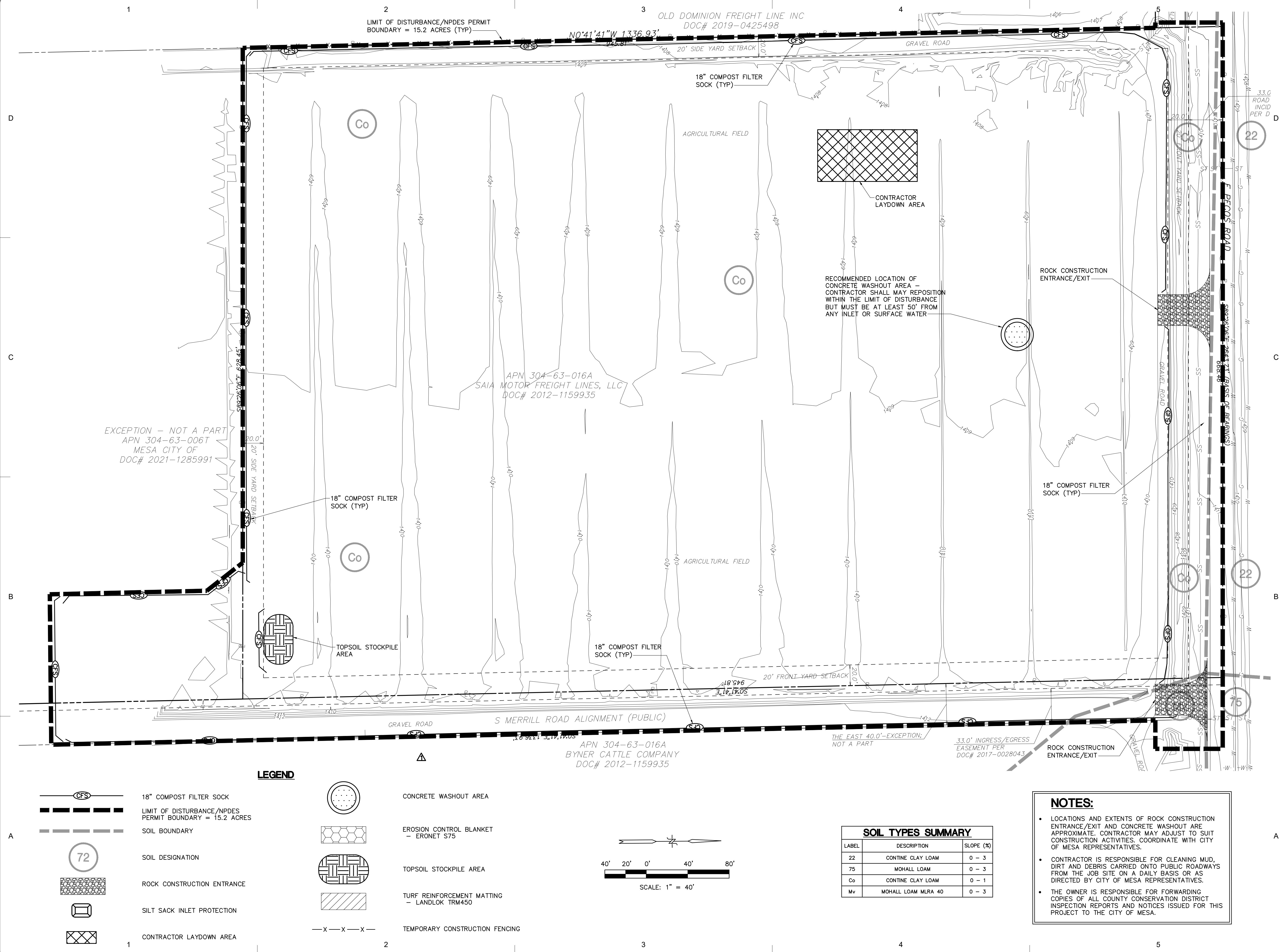
Date: 05/17/2024

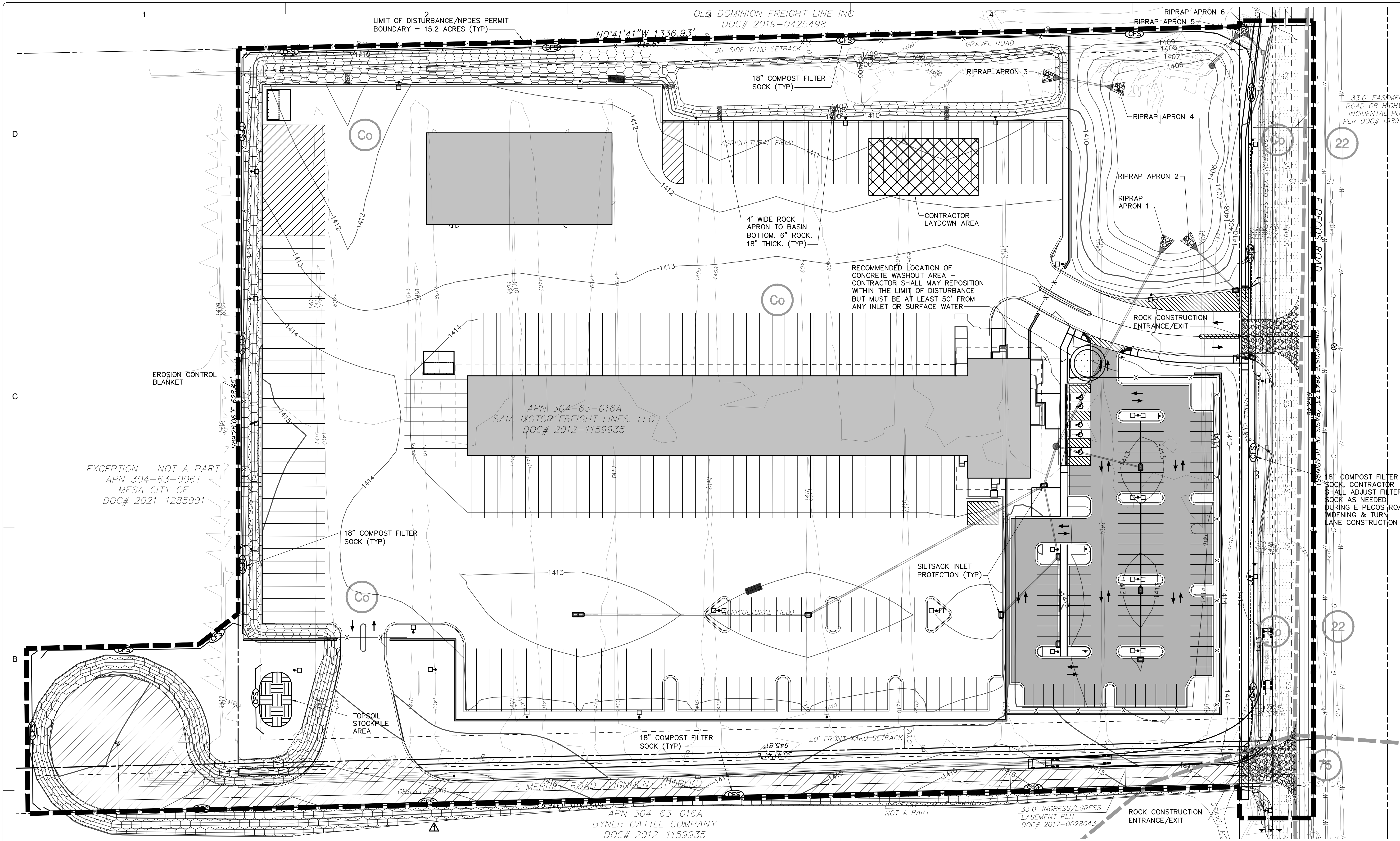
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Drawing Number

DP2

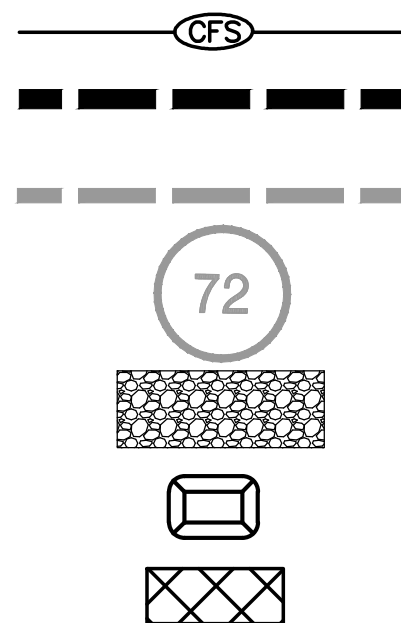
Sheet 0 of 00



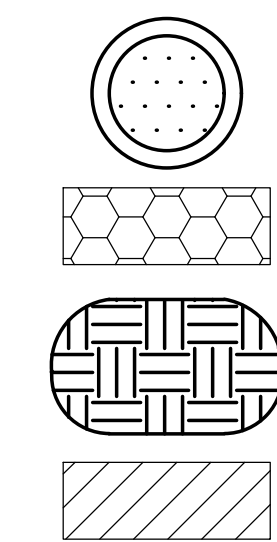


SOIL TYPES SUMMARY		
LABEL	DESCRIPTION	SLOPE (%)
22	CONTINE CLAY LOAM	0 - 3
75	MOHALL LOAM	0 - 3
Co	CONTINE CLAY LOAM	0 - 1
Mv	MOHALL LOAM MLRA 40	0 - 3

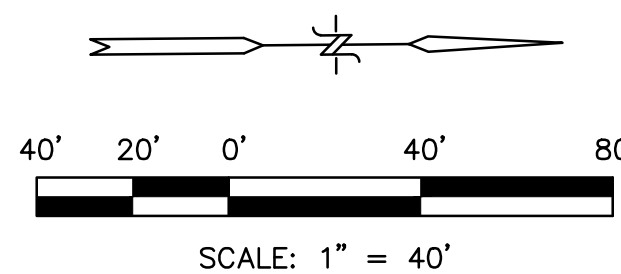
- NOTES:**
- LOCATIONS AND EXTENTS OF ROCK CONSTRUCTION ENTRANCE/EXIT AND CONCRETE WASHOUT ARE APPROXIMATE. CONTRACTOR MAY ADJUST TO SUIT CONSTRUCTION ACTIVITIES. COORDINATE WITH CITY OF MESA REPRESENTATIVES.
 - CONTRACTOR IS RESPONSIBLE FOR CLEANING MUD, DIRT AND DEBRIS CARRIED ONTO PUBLIC ROADWAYS FROM THE JOB SITE ON A DAILY BASIS OR AS DIRECTED BY CITY OF MESA REPRESENTATIVES.
 - THE OWNER IS RESPONSIBLE FOR FORWARDING COPIES OF ALL COUNTY CONSERVATION DISTRICT INSPECTION REPORTS AND NOTICES ISSUED FOR THIS PROJECT TO THE CITY OF MESA.



- LEGEND**
- 18" COMPOST FILTER SOCK
 - LIMIT OF DISTURBANCE/NPDES PERMIT BOUNDARY = 15.2 ACRES
 - SOIL BOUNDARY
 - SOIL DESIGNATION
 - ROCK CONSTRUCTION ENTRANCE
 - SILT SACK INLET PROTECTION
 - CONTRACTOR LAYDOWN AREA



- CONCRETE WASHOUT AREA
- EROSION CONTROL BLANKET - ERONET S75
- TOPSOIL STOCKPILE AREA
- TURF REINFORCEMENT MATTING - LANDLOK TRM450
- TEMPORARY CONSTRUCTION FENCING



ENGINEERING

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**SAIA MOTOR
FREIGHT LINE, LLC**

**PROPOSED
TRUCKING FREIGHT
FACILITY**

**E PECOS ROAD,
CITY OF MESA,
MARICOPA COUNTY,
ARIZONA**

No.:	Date:	Description:
Δ	09/17/24	REVISED PER CITY OF MESA COMMENTS

Sheet Title:

**POSTDEVELOPMENT
EROSION AND
SEDIMENTATION CONTROL
PLAN**

Project No.: 2023-0302.01

Cadd File: ES2.00.dwg

Drawn By: JJS

Checked By: BJC

Date: 05/17/2024

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Drawing Number

ES2.00

Sheet 0 of 00

GENERAL REQUIREMENTS FOR SOIL EROSION AND SEDIMENTATION CONTROL

- SOIL EROSION AND SEDIMENTATION CONTROL SHALL BE IMPLEMENTED PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES. COMPOST FILTER SOCK SHALL BE INSTALLED TO A MINIMUM AS SHOWN ON THESE DRAWINGS.
- EARTH MOVING OPERATIONS SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE ACCELERATED SOIL EROSION, IN ACCORDANCE WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY, AND AS SHOWN ON THESE DRAWINGS.
- COMPOST FILTER SOCK SHALL BE INSTALLED DOWNSTREAM OF CONSTRUCTION AND STOCKPILE AREAS TO CONFINE SEDIMENT THAT MAY BE WASHED FROM NEW FILL OR CUT SLOPES.
- COMPOST FILTER SOCK MUST BE INSTALLED AT LEVEL GRADE. BOTH ENDS OF EACH FENCE SECTION MUST EXTEND AT LEAST 10 FEET UPSLOPE AT 45° TO THE MAIN FENCE ALIGNMENT.
- COMPOST FILTER SOCK SHALL BE INSPECTED ONCE A WEEK AND AFTER EACH RUNOFF EVENT. DAMAGE SHALL BE REPAIRED IMMEDIATELY. SEDIMENT ACCUMULATIONS SHALL BE REMOVED AND PLACED IN THE TOPSOIL STOCKPILE.
- COMPOST FILTER SOCK SHALL BE MAINTAINED UNTIL FINAL PROTECTIVE VEGETATION HAS BEEN ESTABLISHED, OR OTHER GROUND COVER MATERIALS HAVE BEEN PLACED.
- THE CONTRACTOR SHALL PLACE SEEDING, SOIL SUPPLEMENTS, AND MULCHING IN ALL DISTURBED AREAS IN ACCORDANCE WITH ADOPT SPECIFICATIONS.
- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION CONTROL AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING, AND RENETTING, MUST BE PERFORMED IMMEDIATELY.

INTERIM STABILIZATION

INTERIM STABILIZATION IN THE EVENT OF PLANNED OR UNPLANNED PROJECT SUSPENSION WILL CONSIST OF MULCHING OF DISTURBED AREAS DURING WINTER OR NON-GROWING SEASONS. INTERIM STABILIZATION MUST BE IMPLEMENTED IMMEDIATELY TO ANY DISTURBED AREA ON WHICH EARTH MOVING ACTIVITIES HAVE CEASED. GROWING SEASON STABILIZATION WILL CONSIST OF TEMPORARY SEEDING ACCORDING TO PROVIDED SPECIFICATIONS AND MULCHING OF THE DISTURBED AREAS. FALL CUTOFF FOR SEEDING WILL BE APPROXIMATELY THE END OF OCTOBER DEPENDING UPON LOCAL WEATHER CONDITIONS. DISTURBED AREAS, WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE (1) YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATIONS. DISTURBED AREAS, WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE RE-DISTURBED WITHIN ONE (1) YEAR, MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT SEEDING SPECIFICATIONS.

PERMANENT SEEDING SPECIFICATIONS

SEEDING (CLASS I) SHALL CONSIST OF FURNISHING AND PLANTING LAWN SEED.

- IMMEDIATELY BEFORE SEEDING, THE SURFACE AREA SHALL BE RAKED OR OTHERWISE LOOSENED TO OBTAIN A SMOOTH FRIABLE SURFACE FREE OF EARTH CLODS, HUMPS AND DEPRESSIONS. LOOSE STONES HAVING A DIMENSION GREATER THAN 1 INCH AND DEBRIS BROUGHT TO THE SURFACE DURING CULTIVATION SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

WHERE INDICATED ON THE PROJECT PLANS OR SPECIFIED IN THE SPECIAL PROVISIONS, TOPSOIL SHALL BE PLACED AND ALLOWED TO SETTLE FOR AT LEAST ONE WEEK PRIOR TO SEEDING. THE TOPSOIL SHALL BE THOROUGHLY WATERED AT LEAST TWICE DURING THE SETTLEMENT PERIOD.

SEED SHALL BE UNIFORMLY APPLIED IN TWO DIRECTIONS AT RIGHT ANGLES TO EACH OTHER WITH ONE-HALF THE SPECIFIED APPLICATION RATE APPLIED IN EACH DIRECTION.

IMMEDIATELY AFTER SEEDING, THE AREA SHALL BE UNIFORMLY COVERED WITH SCREENED MANURE AT THE RATE OF 1 CUBIC YARD PER 1,000 SQUARE FEET AND THEN WATERED UNTIL THE GROUND IS WET TO A MINIMUM DEPTH OF 2 INCHES.

HYDROSEEDING (HYDRAULIC SEEDING), USING 1,500 POUNDS OF WOOD CELLULOSE FIBER PER ACRE, WILL BE AN ACCEPTABLE ALTERNATE FOR PLANTING AND MULCHING SEEDING (CLASS I).

MACHINES USED FOR HYDROSEEDING SHALL BE APPROVED TYPES CAPABLE OF CONTINUOUS AGITATION OF THE SLURRY MIXTURE DURING THE SEEDING OPERATION. PUMP PRESSURE SHALL BE SUCH AS TO MAINTAIN A CONTINUOUS NONFLUCTUATING SPRAY CAPABLE OF REACHING THE EXTREMITIES OF THE SEEDING AREA WITH THE PUMP UNIT LOCATED ON THE ROADBED. THE SPRAYER SHALL BE EQUIPPED TO USE THE PROPER TYPE OF NOZZLES TO OBTAIN A UNIFORM APPLICATION ON THE VARIOUS SLOPES AT THE DISTANCE TO BE COVERED.

THE SEED, FERTILIZER, MULCH, TACKING AGENT (WHEN REQUIRED) AND WATER SHALL BE COMBINED IN THE PROPORTIONS OF THE VARIOUS MATERIALS AS PROVIDED IN THE SPECIAL PROVISIONS AND ALLOWED TO MIX A MINIMUM OF FIVE MINUTES PRIOR TO STARTING THE APPLICATION OF THE SLURRY. SEED SHALL BE APPLIED WITHIN 30 MINUTES AFTER MIXING WITH WATER.

- HYDROSEEDING WHICH IS DEPOSITED ON ADJACENT TREES AND SHRUBS, ROADWAYS, IN DRAIN DITCHES, ON STRUCTURES AND UPON ANY AREAS WHERE SEEDING IS NOT SPECIFIED OR WHICH IS PLACED IN EXCESSIVE DEPTHS ON SEEDING AREAS SHALL BE REMOVED.

SEEDING AREAS FLOODED OR ERODED AS A RESULT OF IRRIGATION SHALL BE REPAIRED, RESEEDED AND REFERTILIZED BY THE CONTRACTOR, AT NO EXPENSE TO THE OWNER.

CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE

THE NPDES PERMIT FOR THIS PROJECT, OF WHICH THIS EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN IS A PART, COVERS THE "MOVING, DEPOSITING, STOCKPILING, OR STORING OF SOIL ROCK OR EARTH MATERIALS". IF THIS PROJECT WILL NEED FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE CONTRACTOR. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING, BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OF PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SUSPENSIBLE, NON-DECOMPOSABLE, INERT, AND NON-FLAMMABLE. THE TERM INCLUDES SOIL, RICK, CRACK, AND ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF ARIZONA UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.) FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY'S REGULATIONS. AS ALL CUT AND FILL MATERIALS FOR THIS PROJECT WILL BE USED ON SITE, A CLEAN FILL DETERMINATION IS NOT REQUIRED BY THE CONTRACTOR UNLESS THERE IS A BELIEF THAT A SPILL OR RELEASE OF A REGULATED SUBSTANCE HAS OCCURRED.

RECYCLING/DISPOSING OF CONSTRUCTION WASTES AND DISPOSAL OF SEDIMENT REMOVED FROM BMP'S

1. ANY SEDIMENT REMOVED FROM BMP'S DURING CONSTRUCTION WILL BE RETURNED TO UPLAND AREAS ON SITE AND INCORPORATED INTO THE SITE GRADING.
2. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY'S SOLID WASTE MANAGEMENT REGULATIONS. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED OR DISCHARGED AT THE SITE.
3. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE REMOVAL OF ANY EXCESS MATERIAL AND MAKE SURE THE SITE RECEIVING THE EXCESS MATERIALS HAS AN APPROVED EROSION AND SEDIMENTATION CONTROL PLAN THAT MEETS THE CONDITIONS OF THE STATE AND FEDERAL REGULATIONS.

SPECIFIC BMP MAINTENANCE INSTRUCTIONS

TEMPORARY VEGETATIVE COVER

- A. SOW ANNUAL RYE GRASS AT THE RATE OF 43 POUNDS PER ACRE, ONE POUND PER 1000 SQFT. BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION; PLUS A STRAW MULCH ANCHORED TO PREVENT LOSS.
- B. COVER GRASS SEED WITH 1/4" (6MM) OF SOIL USING SUITABLE EQUIPMENT FOR THAT PURPOSE. ADD LIME A FERTILIZER (LIME=1 TON/AC, FERTILIZER = 5:5:5 MIX).
- C. MULCHING, WITHOUT SEEDING, IS TO BE USED AS AN INTERIM STABILIZATION CONTROL DURING NON-GROWING SEASONS OF THE YEAR.

ROCK CONSTRUCTION ENTRANCE

- A. ROCK CONSTRUCTION ENTRANCE WILL BE PLACED AT THE LOCATION SHOWN ON THE PLAN AND CONSTRUCTED TO THE MINIMUM DIMENSIONS AS SHOWN ON THE DETAIL.
- B. THE ROCK CONSTRUCTION ENTRANCE THICKNESS WILL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSION BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL WILL BE MAINTAINED ON SITE FOR THIS PURPOSE.
- C. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC AND PRIVATE ROADWAYS WILL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAYS IS NOT PERMITTED.

COMPOST FILTER SOCKS

- A. COMPOST FILTER SOCKS WILL BE PLACED AS SHOWN ON THE PLAN TO INTERCEPT THE STORM WATER, AND FILTER THE RUNOFF BEFORE IT LEAVES THE CONSTRUCTION SITE.
- B. COMPOST FILTER SOCKS ARE NOT PERMITTED IN ANY AREA OF CONCENTRATED FLOW SUCH AS DITCHES, SWALES, OR CHANNELS.
- C. ADD SECTION OF COMPOST FILTER SOCK FROM POST TO POST WHEN UNDERCUTTING OF COMPOST FILTER SOCK OCCURS.
- D. INSTALL COMPOST FILTER SOCKS IN ACCORDANCE WITH DETAILS AS SHOWN ON THE DRAWINGS.
- E. INSPECT COMPOST FILTER SOCKS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS IMMEDIATELY.
- F. ACCUMULATED SEDIMENT WILL BE REMOVED AS REQUIRED TO KEEP THE COMPOST FILTER SOCKS FUNCTIONAL. IN ALL CASES REMOVE DEPOSITS WHERE ACCUMULATIONS REACH 1/2 THE ABOVE GROUND HEIGHT OF THE COMPOST FILTER SOCK.
- G. THE REMOVED SEDIMENT IS TO BE USED FOR ON SITE GRADING, SEEDED, AND MULCHED.
- H. ANY COMPOST FILTER SOCK SECTION WHICH HAS BEEN UNDERMINED OR TOPPED MUST BE IMMEDIATELY REPLACED WITH A NEW COMPOST FILTER SOCK.

- J. AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PERMANENTLY STABILIZED, REMOVE ALL COMPOST FILTER SOCKS AND UNSTABLE SEDIMENT DEPOSITS. BRING THE DISTURBED AREA TO GRADE AND STABILIZE.

INLET PROTECTION

- A. INLET PROTECTION WILL BE PLACED IN EXISTING AND NEW INLETS AS DEPICTED ON THE PLANS.
- B. INSTALL INLET PROTECTION IN ACCORDANCE WITH THE DETAIL ON THE DRAWING.
- C. INSPECT INLET PROTECTION AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS OR REPLACE IMMEDIATELY.
- D. IN ALL CASES, REMOVE DEPOSITS AFTER EACH RAINFALL EVENT.
- E. THE REMOVED SEDIMENT IS TO BE USED FOR ON SITE GRADING, SEEDED, AND MULCH.
- F. ADHERE TO MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION OF INLET PROTECTION.

G. AFTER THE CONTRIBUTION

- PUMPED WATER FILTER BAG**
- A. PUMPED WATER FILTER BAGS SHALL BE PLACED IN WELL VEGETATED AREA AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS NEAR EXCAVATIONS.
 - B. A REPLACEMENT FILTER BAG SHALL BE AVAILABLE AT ALL TIMES.
 - C. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. DISPOSED OF SEDIMENT IN A LAWFUL MANNER.
 - D. REFER TO MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION AND USE.
- CONCRETE WASHOUT**
- A. CONCRETE WASHOUT FACILITIES SHALL BE INSPECTED DAILY.
 - B. DAMAGED OR LEAKING CONCRETE WASHOUTS SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
 - C. REMOVE MATERIALS, AND DISPOSE OF IN A LAWFUL MANNER, FROM THE CONCRETE WASHOUT WHEN 75% CAPACITY IS REACHED.
 - D. REPLACE THE PLASTIC LINER DURING EACH CLEANING OF THE CONCRETE WASHOUT.

RIPRAP APRON

- A. RIRRAP APRONS MAY BE USED TO PREVENT SCOUR AT PIPE OR CHANNEL OUTFALLS WHERE ANTICIPATED DISCHARGE VELOCITIES DO NOT EXCEED 17.0 FPS, THERE IS SUFFICIENT ROOM TO CONSTRUCT THE APRON, AND WHERE APRONS CAN BE INSTALLED ON LEVEL GRADE.
- B. IN CASES WHERE DISCHARGE VELOCITIES EXCEED 17.0 FPS, A SUITABLE MEANS OF VELOCITY REDUCTION SHOULD BE USED PRIOR TO DISCHARGING SIGNIFICANT FLOWS ONTO A RIRRAP APRON.
- C. INSPECT RIRRAP APRONS AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL EVENT. MAKE ANY REQUIRED REPAIRS OR REPLACE DISPLACED ROCK IMMEDIATELY.

DOCUMENTATION OF BMP INSPECTION, REPAIR & REPLACEMENT

THE CONTRACTOR SHALL KEEP WRITTEN RECORDS DOCUMENTING THE INSPECTION, REPAIR AND REPLACEMENT OF ALL BMP'S.

RECYCLING AND/OR DISPOSAL OF PROJECT WASTE

PROJECT CONSTRUCTION WASTES SHALL CONSIST OF UNSUITABLE MATERIAL FOR USE AS A FILL OR BACKFILL MATERIAL. SUCH MATERIAL SHALL CONSIST OF CLAY, ROCK, EXCESS MATERIAL, TRASH AND DEBRIS. ALL WASTE MATERIAL SHALL BE STOCKPILED AND PROPERLY STABILIZED UNTIL THE WASTE CAN BE PROPERLY RECYCLED OR DISPOSED OF OFF SITE AT A WASTE DISPOSAL SITE THAT HAS BEEN APPROVED BY THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY. OTHER WASTE ITEMS SUCH AS GLASS, PLASTIC, OR METALS MUST BE DISPOSED OF IN ACCORDANCE WITH ANY LOCAL RECYCLING PROGRAM. A CONCRETE WASHOUT FACILITY SHALL BE PROVIDED FOR THE CLEANING OF CHUTES, MIXERS AND HOPPERS OF DELIVERY TRUCKS.

OTHER CONTROLS

1. NON-SEDIMENT POLLUTANT CONTROLS, IN ACCORDANCE WITH PART I.I.E, NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF. THE PERMITTEE MUST IMPLEMENT ALL NECESSARY BMPs TO PREVENT THE DISCHARGE OF NON-SEDIMENT POLLUTANTS TO THE DRAINAGE SYSTEM OF THE SITE OR SURFACE WATERS OF THE STATE OR AN MS4. UNDER NO CIRCUMSTANCE SHALL WASTEWATER FROM THE WASHOUT OF CONCRETE, TRUCKS, TRUCKS, PAINT, FORM RELEASE OILS, CURING COMPOUNDS, AND OTHER CONSTRUCTION MATERIALS BE DISCHARGED DIRECTLY INTO A DRAINAGE CHANNEL, STORM SEWER OR SURFACE WATERS OF THE STATE. ALSO, NO POLLUTANTS FROM VEHICLE FUEL, OILS, OR OTHER VEHICLE FLUIDS CAN BE DISCHARGED TO SURFACE WATERS OF THE STATE. NO EXPOSURE OF STORM WATER TO WASTE MATERIALS IS RECOMMENDED. THE SWPPP MUST INCLUDE METHODS TO MINIMIZE THE EXPOSURE OF BUILDING MATERIALS, BUILDING PRODUCTS, CONSTRUCTION WASTES, TRASH, LANDSCAPE MATERIALS, FERTILIZERS, PESTICIDES, HERBICIDES, DETERGENTS, AND SANITARY WASTE TO PRECIPITATION, STORM WATER RUNOFF, AND SNOW MELT. THE SWPPP SHALL INCLUDE MEASURES TO PREVENT AND RESPOND TO CHEMICAL SPILLS AND LEAKS. YOU MAY ALSO REFERENCE THE EXISTENCE OF OTHER PLANS (I.E., SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLANS, SPILL CONTROL PROGRAMS, SAFETY RESPONSE PLANS, ETC.) PROVIDED THAT SUCH PLAN ADDRESSES CONDITIONS OF THIS PERMIT CONDITION AND A COPY OF SUCH PLAN IS MAINTAINED ON SITE.
2. OFF-SITE TRAFFIC, OFF-SITE VEHICLE TRACKING OF SEDIMENTS AND DUST GENERATION SHALL BE MINIMIZED. THE SWPPP SHALL INCLUDE METHODS TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASHING, AND OTHER WASHWATERS. NO DETERGENTS MAY BE USED TO WASH VEHICLES. WASHWATERS SHALL BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT TREATMENT PRIOR TO DISCHARGE.
3. COMPLIANCE WITH OTHER REQUIREMENTS, THE SWPPP SHALL BE CONSISTENT WITH APPLICABLE STATE AND/OR LOCAL WASTE DISPOSAL, SANITARY SEWER OR SEPTIC SYSTEM REGULATIONS, INCLUDING PROVISIONS PROHIBITING WASTE DISPOSAL BY OPEN BURNING AND SHALL PROVIDE FOR THE PROPER DISPOSAL OF CONTAMINATED SOILS TO THE EXTENT THESE ARE LOCATED WITHIN THE PERMITTED AREA.
4. TRENCH AND GROUNDWATER CONTROL, THERE SHALL BE NO TURBID DISCHARGES TO SURFACE WATERS OF THE STATE RESULTING FROM DEWATERING ACTIVITIES. IF TRENCH OR GROUND WATER CONTAINS SEDIMENT, IT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR OTHER EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE, PRIOR TO BEING DISCHARGED FROM THE CONSTRUCTION SITE. ALTERNATIVELY, SEDIMENT MAY BE REMOVED BY SCREENING OR BY SETTLING INTO A SUMP, PIT, FILTER BAG OR COMPARABLE PRACTICE. GROUND WATER WHICH DOES NOT CONTAIN SEDIMENT OR OTHER POLLUTANTS IS NOT REQUIRED TO BE TREATED PRIOR TO DISCHARGE. HOWEVER, CARE MUST BE TAKEN WHEN DISCHARGING GROUND WATER TO ENSURE THAT IT DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
5. CONTAMINATED SEDIMENT, WHERE CONSTRUCTION ACTIVITIES ARE TO OCCUR ON SITES WITH CONTAMINATION FROM PREVIOUS ACTIVITIES, OPERATORS SHALL BE AWARE THAT CONCENTRATIONS OF MATERIALS THAT MEET OTHER CRITERIA (IS NOT CONSIDERED A HAZARDOUS WASTE, MEETING VAP STANDARDS, ETC.) MAY STILL RESULT IN STORM WATER DISCHARGES IN EXCESS OF ARIZONA WATER QUALITY STANDARDS. SUCH DISCHARGES ARE NOT AUTHORIZED BY THIS PERMIT. APPROPRIATE BMPs INCLUDE, BUT ARE NOT LIMITED TO:
 - THE USE OF BERMS, TRENCHES, AND PITS TO COLLECT CONTAMINATED RUNOFF AND PREVENT DISCHARGES;
 - PUMPING RUNOFF INTO A SANITARY SEWER (WITH PRIOR APPROVAL OF THE SANITARY SEWER OPERATOR) OR INTO A CONTAINER FOR TRANSPORT TO A APPROPRIATE TREATMENT/DISPOSAL FACILITY; AND
 - COVERING AREAS OF CONTAMINATION WITH TARPS OR OTHER METHODS THAT PREVENT STORM WATER FROM COMING INTO CONTACT WITH THE MATERIAL.

OPERATORS SHOULD CONSULT WITH ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY PRIOR TO SEEKING PERMIT COVERAGE.

CONTRACTOR'S RESPONSIBILITIES

1. CONTRACTOR SHALL IMPLEMENT THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN IN ACCORDANCE WITH THE DRAWINGS.
2. ALL FACILITIES WILL BE INSPECTED AND REPAIRED, IF NECESSARY, AFTER EACH STORM EVENT OR AT A PERIOD NOT TO EXCEED ONE WEEK. SEDIMENT COLLECTED FROM THE EROSION CONTROL STRUCTURES WILL BE PLACED UPSTREAM OF THOSE CONTROLS AND STABILIZED WITH GRAVEL OR RESEEDING.
3. AT NO TIME WILL SEDIMENT BE ALLOWED TO LEAVE THE SITE AND ENTER SURFACE WATERS.
4. ANY PERMANENTLY SEEDED AREAS THAT BECOME ERODED WILL HAVE THE TOPSOIL REPLACED, THE EROSION CONTROL MATTING REPLACED (IF APPLICABLE), THE GRASS RESOWN, AND MULCH REAPPLIED.
5. A COPY OF THIS PLAN MUST BE KEPT AVAILABLE FOR INSPECTION ON THE CONSTRUCTION SITE AT ALL TIMES THROUGHOUT THE TERM OF THE PROJECT.
6. THE INTENT OF THIS PLAN/NARRATIVE IS TO INDICATE GENERAL MEANS OF COMPLIANCE WITH THE REQUIREMENTS OF THE RULES AND REGULATIONS OF THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT THESE METHODS, PLUS ADDITIONAL PROCEDURES IN ORDER TO ASSURE COMPLIANCE WITH APPLICABLE LAW. IT WILL FURTHER BE THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN ALL EROSION AND SEDIMENT CONTROL FACILITIES SO THAT THEY PERFORM AS REQUIRED BY APPLICABLE LAW.
7. FINES AND RELATED COSTS RESULTING FROM THE CONTRACTOR'S FAILURE TO PROVIDE ADEQUATE PROTECTION AGAINST SOIL EROSION AND FOR ANY VIOLATIONS OF THE CLEAN STREAMS LAW AND THE RULES AND REGULATIONS PROMULGATED THEREUNDER SHALL BE BORNE BY THE CONTRACTOR.

MAINTENANCE/OWNER'S RESPONSIBILITIES

1. MAINTENANCE OF ALL PERMANENT STORM WATER AND E&SC FACILITIES BECOMES THE RESPONSIBILITY OF THE OWNER IN PERPETUITY UPON COMPLETION OF CONSTRUCTION AND ACCEPTANCE BY OWNER, SUBJECT TO THE TERMS OF THE WARRANTY PERIOD SPECIFIED IN THE CONTRACT DOCUMENTS.

REMOVAL OF TEMPORARY BMP'S

1. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROPERLY DISPOSE OF ALL MATERIALS ENCOUNTERED DURING CONSTRUCTION THAT ARE NOT TO BE RECYCLED OR REUSED ON THE PROJECT. THESE MATERIALS INCLUDE, BUT ARE NOT LIMITED TO, EXCESS SOIL MATERIALS, TEMPORARY BMP'S, BUILDING MATERIALS, CONCRETE WASH WATER, SANITARY WASTES, AND ANY OTHER MATERIALS THAT COULD ADVERSELY IMPACT WATER QUALITY. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR IMPLEMENTING A PROCEDURE FOR LITTER CONTROL DURING THE PROJECT. WHEREVER POSSIBLE, RECYCLING OF MATERIALS SUCH AS PAPER, PLASTIC, GLASS, AND ALUMINUM SHALL BE IN ACCORDANCE WITH THE LOCAL MUNICIPAL RECYCLING PROGRAM.
2. THE BMP'S MAY NOT BE REMOVED UNTIL A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER IS WELL ESTABLISHED ACROSS THE ENTIRE UPSLOPE ACROSS THE ENTIRE UPSLOPE PROJECT DRAINAGE AREA. ALL PARKING LOTS DRIVEWAYS, AND STREETS MUST BE PAVED OR HAVE A COMPACTED STONE BASE IN PLACE.
3. PERMANENT STABILIZATION IS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.



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RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE
SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION
ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHERE OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAY SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTENDED LENGTH OF ROCK CONSTRUCTION ENTRANCE BY THE SIDE OF THE ROADWAY IN A POOR CONDITION IS ALLOWED OR INSTALLED. WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

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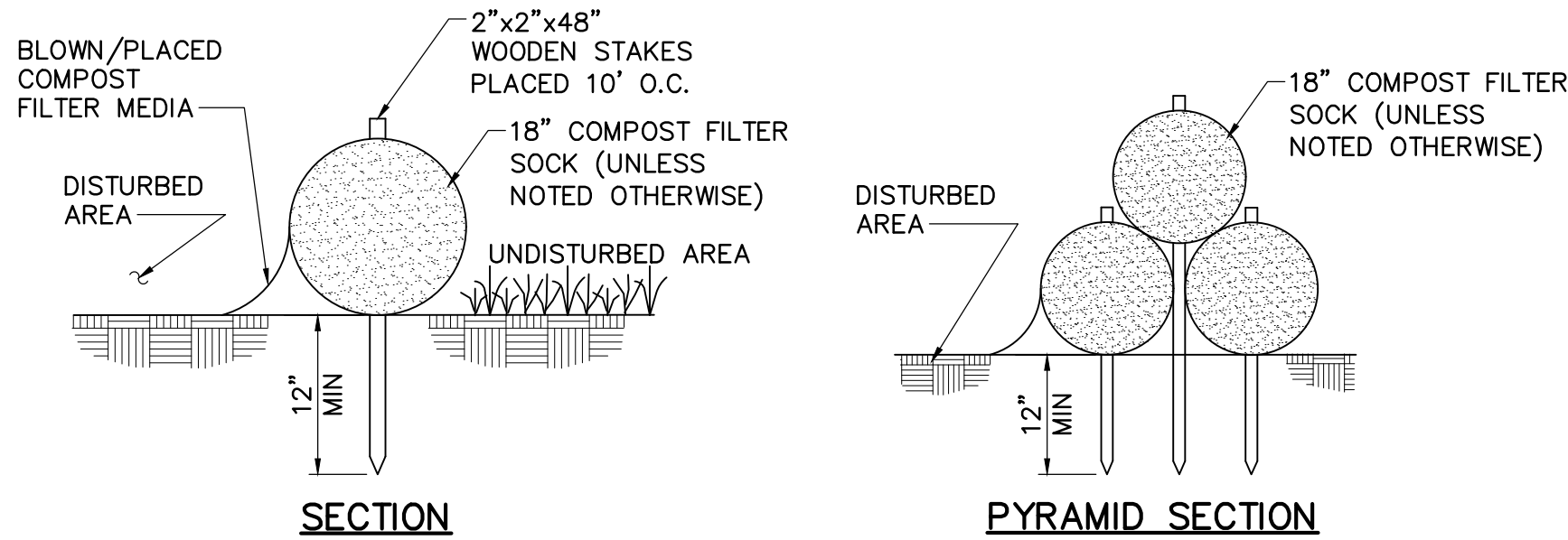
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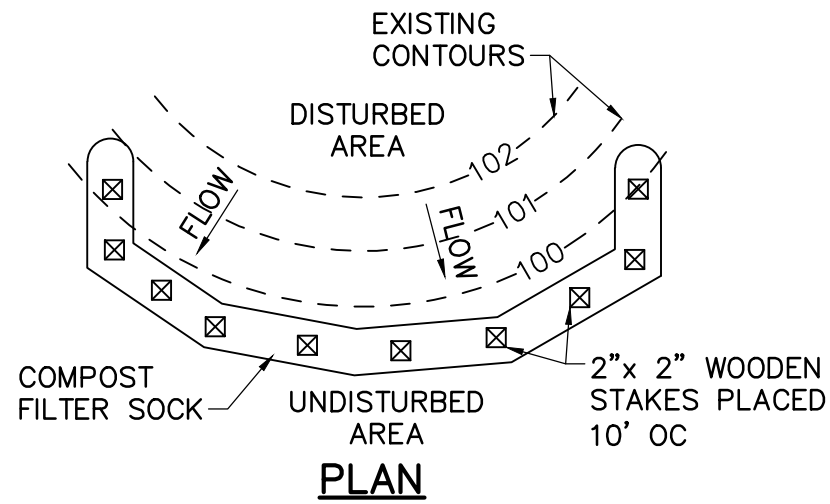
TABLE 4.1 COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS					
MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	18" 24" 32"	18" 24" 32"	18" 24" 32"	18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 psi	26 psi	44 psi	202 psi
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS
TWO-PLY SYSTEMS					
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET				
	CONTINUOUSLY WOUND				
	FUSION-WELDED JUNCTURES				
	3/4" X 3/4" MAX. APERTURE SIZE				
OUTER FILTRATION MESH	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER AND NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)				
	3/16" MAX. APERTURE SIZE				
	SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS.				

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TABLE 4.2 COMPOST STANDARDS	
ORGANIC MATTER CONTENT	80% – 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 – 8.0
MOISTURE CONTENT	35% – 55%
PARTICLE SIZE	98% PASS THROUGH 1" SCREEN
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



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NOTES:

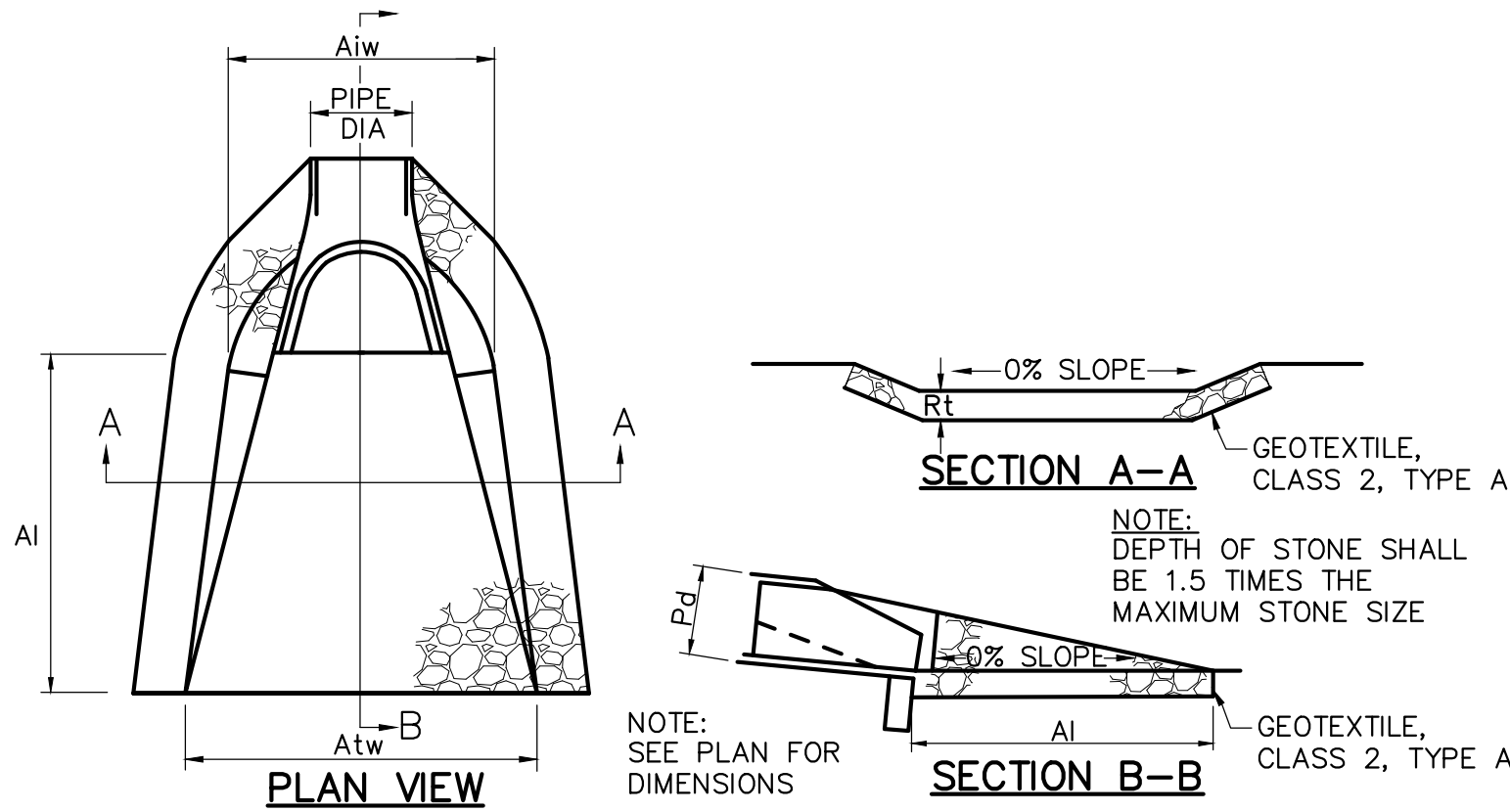
- SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2.
- COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF FILTER SOCK SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN SOCK ALIGNMENT. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
- TRAFFIC SHALL NOT BE PERMITTED TO CROSS FILTER SOCKS.
- ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN
- SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
- BIODEGRADABLE FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.
- STAKES SPACED AT 10' MAXIMUM. USE 2"x 2" WOOD OR EQUIVALENT STEEL STAKES.

COMPOST FILTER SOCK

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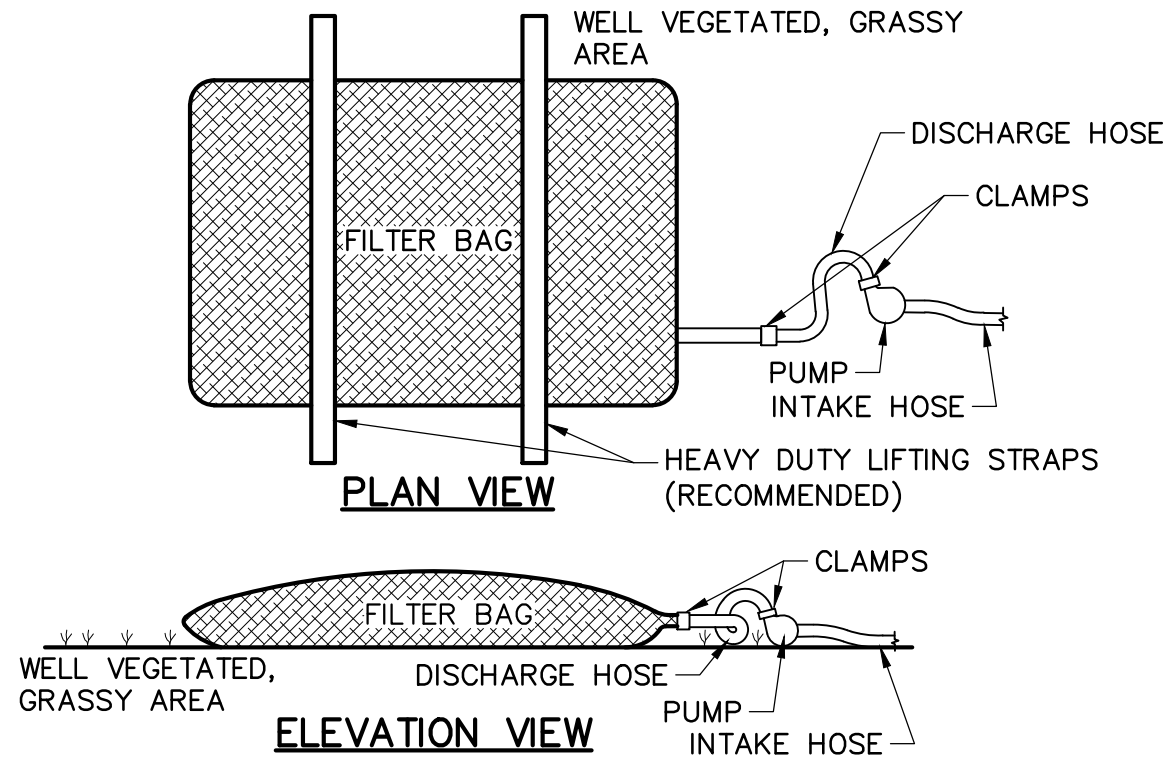


OUTLET No.	PIPE DIA Pd (IN)	RIPRAP		APRON		
		SIZE (R-)	THICK Rt (IN)	LENGTH AI (FT)	INITIAL WIDTH AIw (FT)	TERMINAL WIDTH Atw (FT)
1	18	R-3	9	8	4.5	7.7
2	12	R-3	9	4	3	4.6
3	18	R-3	9	8	4.5	7.7
4	18	R-3	9	8	4.5	7.7
5	18	R-3	9	8	4.5	7.7
6	18	R-3	9	8	4.5	7.7

- ALL APRONS SHALL BE CONSTRUCTED TO THE DIMENSIONS SHOWN. TERMINAL WIDTHS SHALL BE ADJUSTED AS NECESSARY TO MATCH RECEIVING CHANNELS.
- ALL APRONS SHALL BE INSPECTED AT LEAST WEEKLY AND AFTER EACH RUNOFF EVENT. DISPLACED RIPRAP WITHIN THE APRON SHALL BE REPLACED IMMEDIATELY.

ROCK APRON DETAIL

NOT TO SCALE



LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL UNLESS BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5% FOR SLOPES EXCEEDING 5% CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HQ OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

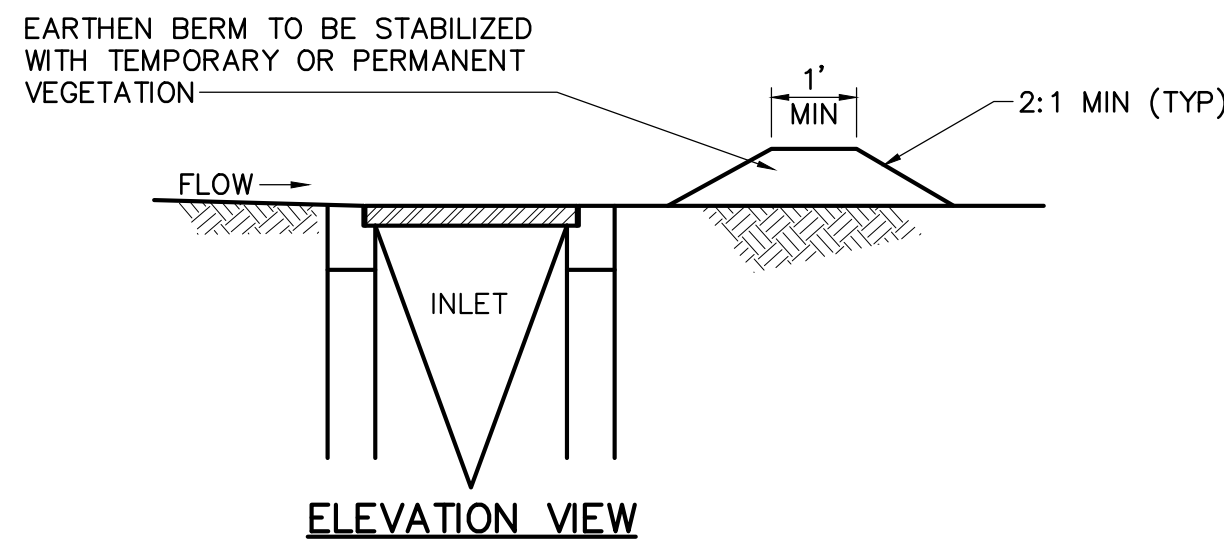
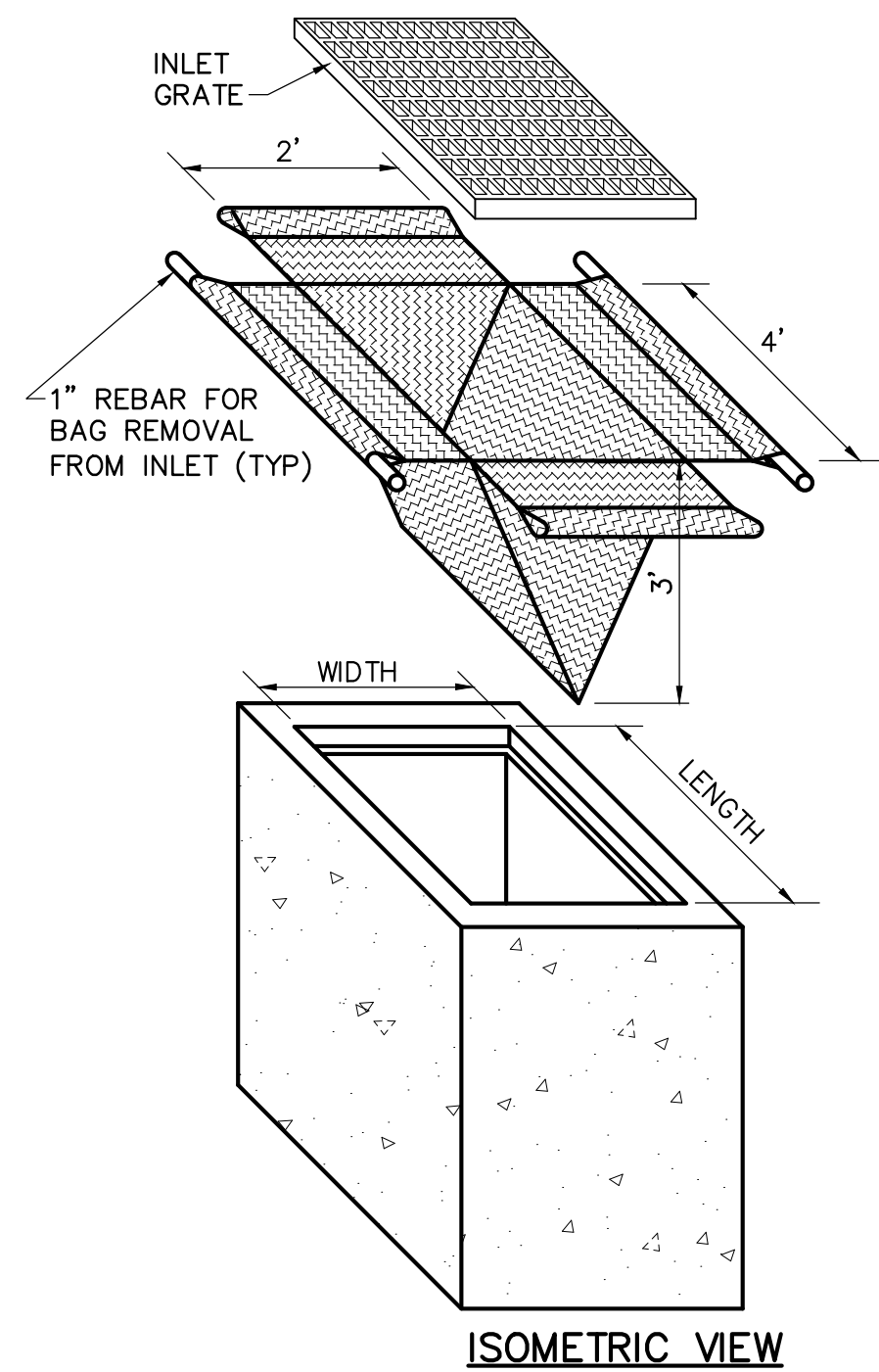
FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

PUMPED WATER FILTER BAG

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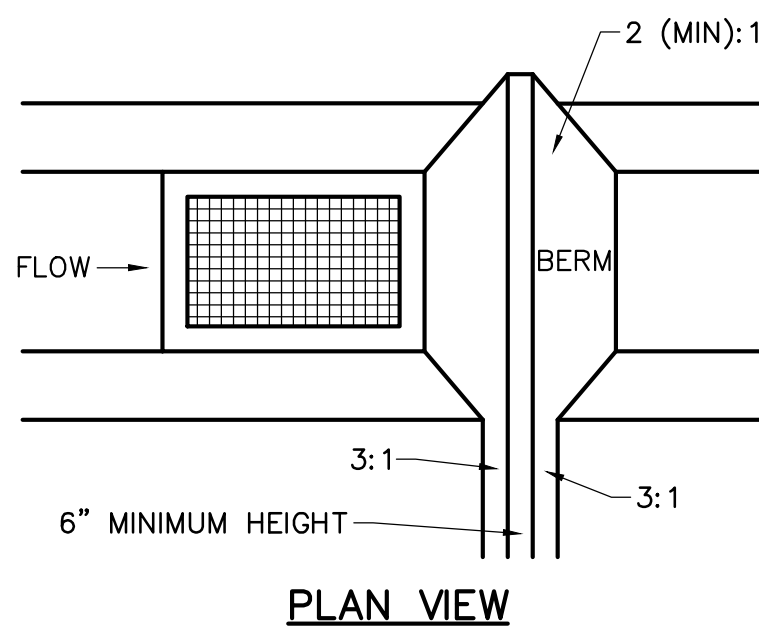
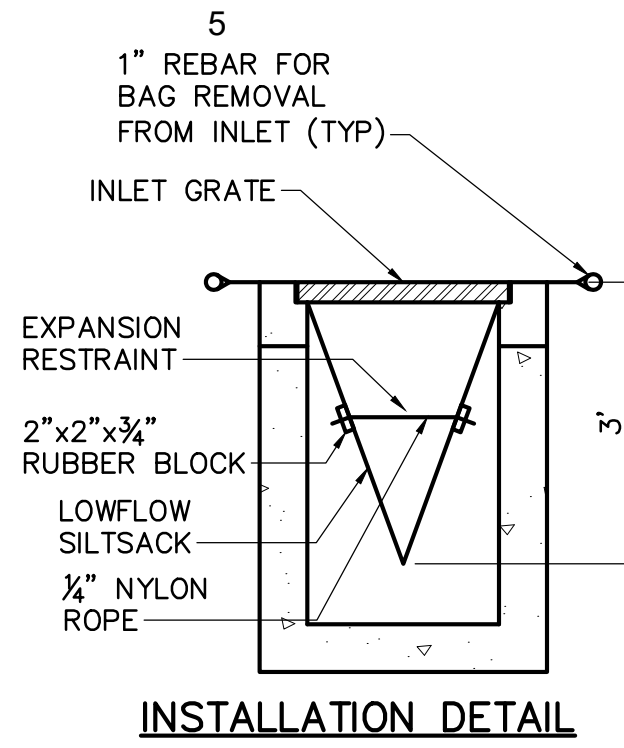
NOTES:

- MAXIMUM DRAINAGE AREA = 1/2 ACRE.
- INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
- ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM ON ROADWAY SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. EARTHEN BERM IN CHANNEL SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED OR REMAIN PERMANENTLY.
- AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A No. 40 SIEVE.
- INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
- DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

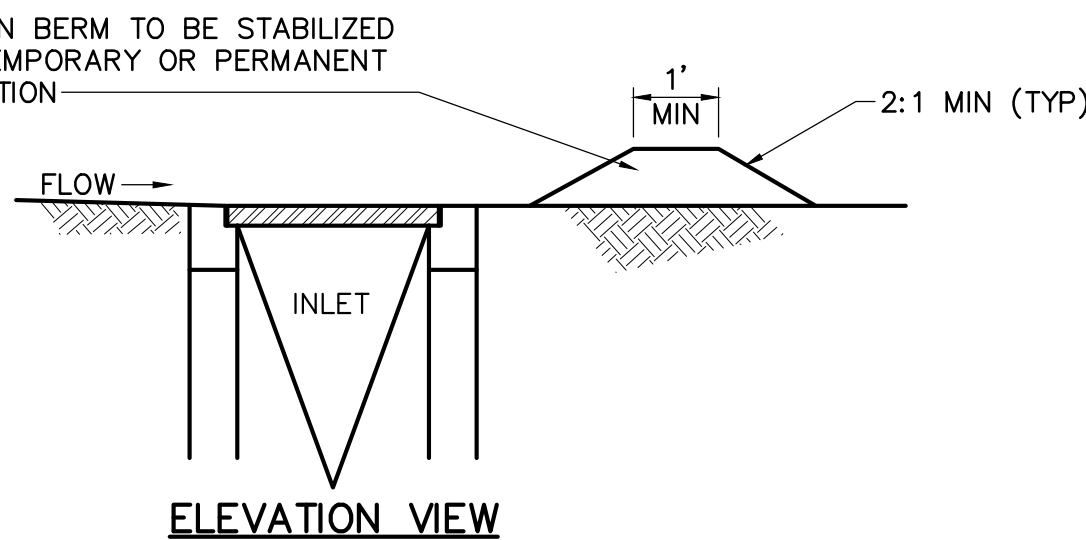
FILTER BAG INLET PROTECTION DETAIL

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**PROPOSED
TRUCKING FREIGHT
FACILITY**

**E PECOS ROAD,
CITY OF MESA,
MARICOPA COUNTY,
ARIZONA**

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**EROSION AND
SEDIMENTATION CONTROL
PLAN DETAILS**

Project No.: 2023-0302.01

Cadd File: ES3.00.dwg

Drawn By: JJS

Checked By: BJC

Date: 05/17/2024

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Sheet 0 of 00