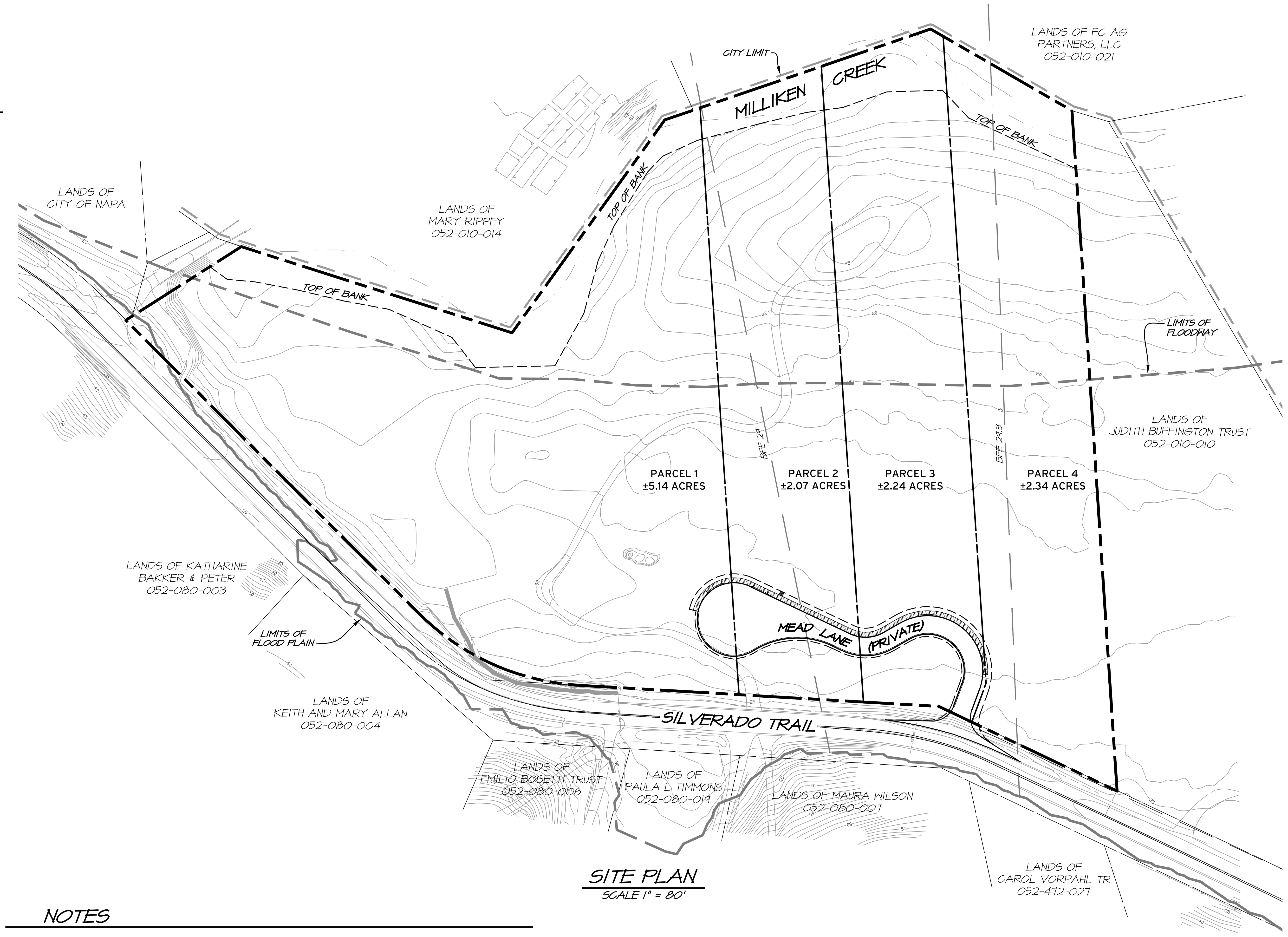
IMPROVEMENT PLANS FOR
MILLIKEN ESTATES
NAPA CALIFORNIA
CITY PROJECT # ENG 25-0024

SYMBOL LEGEND

EXISTING		PROPOSED	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
CB	CATCH BASIN	DI	DRAIN INLET
	CURB AND GUTTER		CURB & GUTTER
DI	DROP INLET		6" VERTICAL CURB
43	EXISTING CONTOUR	FH WV	FIRE HYDRANT ASSEMBLY
X X	WIRE FENCE	GB	GRADE BREAK
	WOOD FENCE	SSCO	SANITARY SEWER CLEAN OUT
	POWER POLE W/ GUY WIRE	SS	SANITARY SEWER LINE
	ROADSIDE SIGN		PROPERTY LINE
SS	SANITARY SEWER LINE		EASEMENT
SSMH	SANITARY SEWER MANHOLE		SLOPE (2:1, UNLESS OTHERWISE SHOWN)
+43.2	SPOT ELEVATION	SD	STORM DRAIN LINE
SD	STORM DRAIN LINE		STREET CENTERLINE
	STREET CENTERLINE	FW	FIRE WATER LINE
W	WATER LINE	DW	DOMESTIC WATER LINE
WM	WATER METER	WM	WATER METER
OH OH	OVERHEAD ELECTRIC		WATER TEE
SL	STREET LIGHT	WV	WATER VALVE
	OVERLAND RELEASE		
	TREE TO BE REMOVED		

ABBREVIATIONS

AB	AGGREGATE BASE	MH	MANHOLE
AC	ASPHALT CONCRETE	(N)	NEW
APN	ASSESSORS PARCEL NUMBER	N	NORTH
BFE	BASE FLOOD ELEVATION	(P)	PROPOSED
BW	BACK OF WALK	POC	POINT OF CONNECTION
CB	CATCH BASIN	PRKG	PARKING
CO	CLEANOUT	RC	RELATIVE COMPACTION
CONC	CONCRETE	ROW	RIGHT OF WAY
CV	CHECK VALVE	RPD	REDUCED PRESSURE DEVICE
DDCV	DOUBLE DETECTOR CHECK VALVE	RWL	RAIN WATER LEADER
DI	DROP INLET	RW	RETAINING WALL
DW	DOMESTIC WATER	S	SOUTH
E	EAST	SAD	SEE ARCHITECTURAL DRAWINGS
EX/(E)	EXISTING	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	S=	SLOPE EQUALS
ECP	EROSION CONTROL PLAN	SCP	STORMWATER CONTROL PLAN
FDC	FIRE DEPT CONNECTION	SDE	STORM DRAIN EASEMENT
FF	FINISH FLOOR ELEVATION	SDMH	STORM DRAIN MANHOLE
FG	FINISH GRADE	SF	SQUARE FOOT
FH	FIRE HYDRANT	SPR	SPRINKLER
FL	FLOW LINE	S/L	SEWER LATERAL
FS	FIRE SERVICE LATERAL	SS	SANITARY SEWER
GB	GRADE BREAK	SSCO	SANITARY SEWER CLEANOUT
GPR	GROUND PENETRATING RADAR	SSE	SANITARY SEWER EASEMENT
HP	HIGH POINT	SSMH	SANITARY SEWER MANHOLE
IFO	IN FAVOR OF	STD	STANDARD
INV	INVERT	TC	TOP OF CURB
IRR	IRRIGATION	TW	TOP OF WALL
JB	JUNCTION BOX	TYP	TYPICAL
JP	JOINT POLE	W	WEST
LG	LIP OF GUTTER	WM	WATER METER
MH	MANHOLE	WV	WATER VALVE



SITE PLAN
SCALE 1" = 80'

GRAPHIC SCALE
80 0 80 160
(IN FEET)
1 inch = 80 FT

NOTES

1. TOPOGRAPHIC INFORMATION SHOWN REPRESENTS SURFACE CONDITIONS OF THE PROJECT AREA COMPILED FROM AN AERIAL SURVEY ON APRIL 6, 2007, AND SUPPLEMENTED WITH FIELD SURVEY IN MAY 2016 BY MOUNTAIN PACIFIC SURVEY.
2. THE SITE IS LOCATED IN A SPECIAL FLOOD HAZARD AREA "ZONE AE" AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP (FIRM) 06055C0509F DATED SEPTEMBER 29, 2010 AND REVISED PER LOMR 16-09-1316P DATED JANUARY 22, 2019.
3. THE BASE FLOOD ELEVATION (BFE) FOR THIS PROPERTY IS 29.3 FT, NAVD 1988.
4. THIS MAP SHOWS ALL CONTIGUOUS PROPERTY OF THE OWNER.
5. THERE ARE NO EXISTING STRUCTURES ON THE SUBJECT PROPERTY.
6. EXISTING AND PROPOSED EASEMENTS ON THE SUBJECT PROPERTY ARE SHOWN.
7. UTILITIES AS SHOWN WERE DRAWN FROM RECORD SOURCES ONLY. PORTIONS OF THE EXISTING WATER MAINS WERE LOCATED BY GROUND PENETRATING RADAR (GPR) SEE SHEETS C3.0 AND C4.0.
8. EXISTING UTILITY POLES AND OVERHEAD LINES ARE SHOWN.
9. CONTOUR LINES AS SHOWN ARE AT 1 FOOT INTERVALS.
10. PRIOR TO STARTING WORK, DEVELOPER AND CONTRACTOR SHALL INSPECT THE SITE TO VERIFY EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO: TREES, GRADE, TOP OF BANK, RIPARIAN BOUNDARY, POTENTIAL WATERS AND POTENTIAL WETLANDS.

BENCHMARK

VERTICAL DATUM IS NAVD 88 IS BASED ON CITY OF NAPA CONTROL MONUMENT NUMBER 42, A BRASS DISK IN THE SOUTHERLY SIDEWALK OF THE LINCOLN STREET BRIDGE OVER THE NAPA RIVER.

ELEVATION TAKEN AS 31.53 FEET (NAVD 88) PER THE CITY OF NAPA CONTROL NETWORK REPORT DATED MAY 6, 2012.

BASIS OF BEARINGS

THE BEARINGS OF NORTH 69°29'25" EAST, BETWEEN THE FOUND MONUMENTS ALONG THE NORTHERN LINE OF PARCEL 1 AS SHOWN ON BOOK 10 OF PARCEL MAPS AT PAGE 52, N.C.R. MEASURED AS NORTH 69°59'51" EAST.

VICINITY MAP
SCALE: 1" = 2000'

SHEET INDEX

PROPERTY INFORMATION:	OWNER/DEVELOPER:
APN: 052-010-011 (11.6 ACRES) NAPA, CALIFORNIA 94559	SILVERADO TRAIL PROJECT, LLC. ATTN: PARRY MEAD MURRAY 1055 HEDGESIDE AVENUE NAPA, CALIFORNIA 94558, (505) 977-0609
GEOTECHNICAL ENGINEER:	**CIVIL ENGINEER & SURVEYOR:**
RGH CONSULTANTS 1041 JEFFERSON STREET, SUITE 4 NAPA, CALIFORNIA 94559 (707)-252-8105	RSA+ 1515 FOURTH STREET NAPA, CALIFORNIA 94559 (707) 252-3301

OWNER/DEVELOPER:

I, THE UNDERSIGNED, CERTIFY THAT ALL LAND CLEARING, CONSTRUCTION AND DEVELOPMENT SHALL BE DONE PURSUANT TO THE APPROVED PLAN.

BY: ______________________ DATE

SOILS ENGINEER:

THIS GRADING PLAN HAS BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AS OUTLINED IN THE PROJECT'S SOILS REPORT DATED NOVEMBER 2, 2016. THE SOILS REPORT SHALL BE CONSIDERED AS PART OF THIS PLAN AND ALL GRADING WORK SHALL BE IN ACCORDANCE WITH SAID SOILS REPORT.

FIRM: RGH CONSULTANTS

BY: ______________________ DATE

PREPARED UNDER DIRECTION OF:

DEREK DITTMAN DATE
RCE 90885

REGISTERED PROFESSIONAL ENGINEER — DEREK MASON DITTMAN — No. 90885 — Exp. 03.31.2028 — CIVIL ENGINEER — STATE OF CALIFORNIA

RSA+
ENGINEER OF RECORD

APPROVED:

JULIE B. LUCIDO DATE
CITY ENGINEER RCE 66200, EXPIRES 06/30/26

DEPUTY PUBLIC WORKS DIRECTOR DATE

SENIOR CIVIL ENGINEER, DEVELOPMENT ENGINEERING DIVISION DATE

UTILITIES DEPARTMENT DATE

FIRE MARSHAL DATE

APPROVED FOR THE CONSTRUCTION OF SANITARY SEWER:

MATTHEW LEMMON, P.E. DATE
DISTRICT ENGINEER, NAPA SANITATION DISTRICT

NO.	DATE	REVISIONS	BY	APPD

RSA+ | CONSULTING CIVIL ENGINEERS + SURVEYORS + est. 1980
1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE|707|252.3301
+ www.RSAcivil.com +

MILLIKEN ESTATES COVER SHEET
NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — DEREK MASON DITTMAN — No. 90885 — Exp. 03.31.2028 — CIVIL ENGINEER — STATE OF CALIFORNIA

DATE	MARCH 31, 2026
DRAWN	FV
DESIGNED	MMRAY
CHECKED	DMD
JOB NO.	4116027.1
SHEET NO.	C1.0

PRELIMINARY - NOT FOR CONSTRUCTION

CITY OF NAPA GENERAL CONSTRUCTION NOTES

08/2025

1. ALL WORKMANSHIP AND MATERIALS FOR BOTH ON-SITE AND OFF-SITE IMPROVEMENTS SHALL CONFORM TO THE MOST RECENT EDITION OF THE CITY OF NAPA PUBLIC WORKS DEPARTMENT (PUBLIC WORKS) STANDARD SPECIFICATIONS AND ADDENDUMS, AND/OR THE 2015 EDITION (OR MOST RECENT) OF THE STATE OF CALIFORNIA (CALTRANS) STANDARD SPECIFICATIONS, STANDARD PLANS, AND THE GEOTECHNICAL REPORT AND ALL THE NOTES SHOWN. THE CONTRACTOR SHALL HAVE A COPY OF ALL DOCUMENTS AVAILABLE AT THE JOB SITE AT ALL TIMES. ALL ON SITE IMPROVEMENTS SHALL BE INSPECTED AND CERTIFIED BY THE ENGINEER OF RECORD. IMPROVEMENTS IN THE PUBLIC RIGHT OF WAY SHALL BE INSPECTED BY PUBLIC WORKS.
2. THE DEVELOPER/CONTRACTOR SHALL CONTACT THE CONSTRUCTION DIVISION AT 707-257-9520 TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO THE COMMENCEMENT OF ANY AND ALL WORK. DURING THE DURATION OF THE PROJECT, ROLLING 3-WEEK LOOKAHEAD SCHEDULES WILL BE REQUIRED TO BE SUBMITTED WEEKLY.
3. THE CONTRACTOR AND ALL SUBCONTRACTORS MUST CALL UNDERGROUND SERVICE ALERT (USA NORTH 811 OR 1-800-227-2600) PRIOR TO THE START OF ANY WORK ON THE PROJECT SITE. EACH CONTRACTOR SHALL SUBMIT A COPY OF THEIR USA TAG TO THE CITY FOR VERIFICATION. THE CONTRACTOR SHALL ALSO CALL ANY COMPANY OR AGENCY FOR SERVICE LOCATIONS WHO ARE NOT A MEMBER OF UNDERGROUND SERVICE ALERT. CONTRACTOR SHALL BE RESPONSIBLE FOR THE VERIFICATION OF ALL EXISTING UTILITIES IN THE FIELD. LOCATIONS OF UTILITIES AND UNDERGROUND FACILITIES SHOWN ARE APPROXIMATE AND FOR GENERAL INFORMATION ONLY. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING USA MARKINGS AFTER THE COMPLETION OF CONSTRUCTION FROM THE PUBLIC RIGHT OF WAY.
4. THE DEVELOPER/CONTRACTOR SHALL COORDINATE ALL NECESSARY UTILITY INSPECTIONS, SCHEDULING AND RELOCATIONS WITH THE APPROPRIATE UTILITY COMPANIES.
5. ALL WORK SHALL BE IN ACCORDANCE WITH THE PREVAILING GOVERNING AGENCY. FOR DISCREPANCIES BETWEEN THESE PLANS AND THOSE AGENCIES' REGULATIONS AND STANDARD PLANS, AGENCY REQUIREMENTS SHALL PREVAIL.
6. THE DEVELOPER/CONTRACTOR SHALL PROVIDE A MINIMUM OF TWO - 24 HOUR A DAY EMERGENCY TELEPHONE NUMBERS OF THE PERSON(S) WHO CAN RESPOND TO THE PROJECT.
7. ALL MATERIALS SHALL BE FURNISHED AND INSTALLED BY THE DEVELOPER/CONTRACTOR UNLESS OTHERWISE NOTED ON THE PLANS.
8. DEVELOPER/CONTRACTOR SHALL CONFORM TO EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS, GUTTERS, SIDEWALKS, GRADING, ETC., AND TO AVOID ANY ABRUPT OR APPARENT CHANGES IN GRADES OR CROSS SLOPES, LOW SPOTS OR HAZARDOUS CONDITIONS.
9. FOR ALL CONSTRUCTION ACTIVITIES INCLUDING BUT NOT LIMITED TO: GRADING, FENCING, RETAINING WALLS, TREE TRIMMING, STORM DRAINAGE, OR ANY OTHER TYPE OF WORK, THAT OCCUR ON ADJACENT PROPERTY, THE DEVELOPER/CONTRACTOR SHALL PROVIDE THE CITY A RIGHT-OF-ENTRY/TEMPORARY CONSTRUCTION EASEMENT SIGNED BY THE OWNER OF RECORD OF THE AFFECTED/ADJACENT PROPERTY PRIOR TO START OF CONSTRUCTION.
10. THE CONTRACTOR SHALL NOTIFY ALL CUSTOMERS OF SERVICE INTERRUPTIONS 48 HOURS IN ADVANCE WITH DOOR HUNG NOTICES. INTERRUPTION SCHEDULING SHALL BE AUTHORIZED IN WRITING BY WATER DIVISION ENGINEER.
11. CONSTRUCTION ACTIVITIES THROUGHOUT THE ENTIRE DURATION OF THE PROJECT SHALL BE LIMITED TO THE HOURS OF 7:00 A.M. TO 7:00 P.M., MONDAY THROUGH FRIDAY. THERE SHALL BE NO STARTUP OF MACHINES NOR EQUIPMENT PRIOR TO 8:00 A.M., MONDAY THROUGH FRIDAY; NO DELIVERY OF MATERIALS NOR EQUIPMENT PRIOR TO 7:30A.M. NOR PAST 5:00P.M., MONDAY THROUGH FRIDAY; NO CLEANING OF MACHINES NOR EQUIPMENT PAST 6:00 P.M., MONDAY THROUGH FRIDAY; NO SERVICING OF EQUIPMENT PAST 6:45 P.M., MONDAY THROUGH FRIDAY; AND CONSTRUCTION ON WEEKENDS OR LEGAL HOLIDAYS SHALL BE LIMITED TO THE HOURS OF 8:00 A.M. TO 4:00 P.M., UNLESS THE CONTRACTOR SUBMITS A WRITTEN REQUEST AND THAT REQUEST IS APPROVED BY THE CITY MANAGER, OR THEIR DESIGNEE, PURSUANT TO SECTION 8.08.025 & 8.08.050 OF THE CITY MUNICIPAL CODE. IF THE REQUEST TO WORK OUTSIDE OF THE DESIGNATED HOURS IS APPROVED, THE CONTRACTOR MAY BE REQUIRED TO PAY THE COST OF PROVIDING INSPECTION SERVICES FOR THE WORK BEING PERFORMED. IF INSPECTION SERVICES ARE NOT AVAILABLE FOR THE REQUESTED CHANGE, THE CITY ENGINEER MAY DENY THE REQUEST. THE CITY MANAGER, OR DESIGNEE, SHALL GRANT SUCH PERMIT:
   - A. FOR EMERGENCY WORK;
   - B. OTHER WORK, IF WORK AND EQUIPMENT WILL NOT CREATE NOISE THAT MAY BE UNREASONABLY OFFENSIVE TO NEIGHBORS AS TO CONSTITUTE A NUISANCE; OR
   - C. IF NECESSARY TO PROTECT THE PUBLIC HEALTH, SAFETY, AND WELFARE.

   ALL MUFFLER SYSTEMS ON CONSTRUCTION EQUIPMENT SHALL BE PROPERLY MAINTAINED. ALL CONSTRUCTION EQUIPMENT SHALL NOT BE PLACED ADJACENT TO DEVELOPED AREAS UNLESS SAID EQUIPMENT IS PROVIDED WITH ACOUSTICAL SHIELDING. ALL CONSTRUCTION AND GRADING EQUIPMENT SHALL BE SHUT DOWN WHEN NOT ACTIVELY IN USE. IF AN INSPECTOR IS REQUIRED TO BE ONSITE FOR WORK OUTSIDE OF THE MONDAY THROUGH FRIDAY WORK HOURS, THE CONTRACTOR SHALL REQUEST FROM THE CITY, IN WRITING, 72 HOURS PRIOR TO THE WORK, FOR APPROVAL. IF PRIOR WRITTEN NOTICE IS NOT PROVIDED, THE REQUEST WILL BE DENIED, AND CONSTRUCTION WORK MAY NOT BE PERFORMED. ADDITIONAL FEES MAY BE CHARGED FOR WORK OUTSIDE OF THE MONDAY THROUGH FRIDAY WORK HOURS. THE CITY RESERVES THE RIGHT TO DENY ALL WORK OUTSIDE OF THE MONDAY THROUGH FRIDAY WORK HOURS.

   DEVELOPER/CONTRACTORS WILL BE GIVEN ONE (1) WARNING FOR WORK STARTING PRIOR TO OR AFTER THE WORK HOURS STATED ABOVE. AFTER THE FIRST WARNING IS GIVEN, ANY VIOLATIONS OF TIME WILL RESULT IN AN AUTOMATIC FIVE (5) WORKING DAY SHUTDOWN OF THE ENTIRE PROJECT.

   NO STAGING OR DELIVERIES IN THE PUBLIC RIGHT OF WAY UNLESS APPROVED PER WRITTEN REQUEST.

   THE CITY ENGINEER, PLANNING COMMISSION OR CITY COUNCIL MAY IMPOSE ADDITIONAL LIMITATIONS ON WORKING HOURS AND NOISE BASED ON THE SPECIAL CIRCUMSTANCES THAT MAY BE ASSOCIATED WITH A PARTICULAR PROJECT. IN WHICH CASE, THE MORE STRINGENT LIMITATIONS SHALL APPLY.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND CONTROL POINTS. ALL MONUMENTS DESTROYED DURING CONSTRUCTION SHALL BE RESURVEYED AND REPLACED BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE AS OUTLINED IN THE BUSINESS AND PROFESSIONS CODE, SECTION 8771.
13. THE CONTRACTOR SHALL PROVIDE THE CITY SUBMITTAL(S) FOR ALL MATERIAL TO BE INSTALLED WITHIN THE PUBLIC RIGHT OF WAY ON THE PROJECT. CONSTRUCTION SHALL NOT START PRIOR TO SUBMITTALS BEING APPROVED. PRIOR TO BEING SUBMITTED TO THE CITY, THE DESIGNER OF RECORD SHALL REVIEW AND APPROVE SUCH RIGHT OF WAY SUBMITTAL.
14. SITE SECURITY, PERIMETER CONTROLS, AND SITE SAFETY ARE THE RESPONSIBILITY OF THE DEVELOPER/CONTRACTOR AND SHALL BE INSTALLED AND MAINTAINED DURING ALL PHASES OF CONSTRUCTION. TEMPORARY 6FT CHAIN LINK FENCING WITH OPAQUE SCREENING SHALL BE USED FOR SITE SECURITY UNLESS ANOTHER METHOD IS SUBMITTED AND APPROVED FOR USE BY THE CITY.

PROJECT ACCEPTANCE NOTES

08/2025

1. PRIOR TO PROJECT ACCEPTANCE, THE ENGINEER OF RECORD, THE SURVEYOR OF RECORD, AND THE GEOTECHNICAL ENGINEER OF RECORD SHALL SUBMIT AN ENGINEER'S STAMPED CERTIFICATION LETTER TO THE CITY.
2. PRIOR TO PROJECT ACCEPTANCE ALL ITEMS ON THE DEFICIENCY LIST SHALL BE CORRECTED AND SIGNED OFF BY ALL DIVISIONS.
3. GEOTECHNICAL ENGINEER OF RECORD SHALL SUBMIT A FINAL REPORT OF ALL TESTING AND DESIGN CHANGES PRIOR TO ACCEPTANCE.
4. PRIOR TO PROJECT ACCEPTANCE, MYLARS AND CAD FILES OF ACCURATE "RECORD DRAWINGS" SHALL BE SUBMITTED TO THE CITY, STAMPED AND SIGNED WITH THE FOLLOWING:

RECORD DRAWINGS

DATE OF COMPLETION:	
CONTRACTOR:	
ENGINEER:	
SURVEYOR:	
GEOTECHNICAL:	
ENGINEER OF RECORD STAMPED AND SIGNED BY:	

GENERAL TRAFFIC NOTES

08/2025

1. ALL TRAFFIC CONTROL REQUIRED FOR CONSTRUCTION ACTIVITIES SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST EDITION OF CALTRANS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD). FOR FULL STREET CLOSURES, A WRITTEN EXPLANATION DETAILING THE NEED FOR FULL CLOSURE SHALL BE ACCOMPANIED WITH A TRAFFIC CONTROL PLAN AND SUBMITTED TO THE CITY ENGINEER FOR REVIEW AND APPROVAL AT LEAST TEN WORKING DAYS BEFORE THE SCHEDULED CLOSURE. CONSTRUCTION WILL NOT BE ALLOWED TO START PRIOR TO THE APPROVAL OF THE TRAFFIC CONTROL PLAN.
2. ALL TRAFFIC CONTROL PLANS SHALL BE A CAD DRAWING FORMAT PLAN WITH COMPLETE DETAILS AND TABLES. AERIAL PHOTOS, HAND DRAWN PLANS AND NOTES ARE NOT ACCEPTABLE.
3. TRAFFIC CONTROL SHALL BE PER CA MUTCD, SECTION 6 (SECTION 5 IS NOT ALLOWED).

GENERAL TRAFFIC NOTES CONT'D

08/2025

4. "NO PARKING" SIGNS SHALL BE PLACED 48 HOURS PRIOR TO THE WORK TO BE COMPLETED WITHIN AN AREA OF DESIGNATED PUBLIC PARKING. NO PARKING SIGNS SHALL BE FILLED IN WITH ALL PERTINENT INFORMATION OF THE EXACT TIME THE WORK IS TO TAKE PLACE. SIGNS SHALL BE CLEAR AS TO WHEN THE PUBLIC MAY PARK IN THE AREA OUTSIDE OF THE CONSTRUCTION TIME. IF WORK IS STAGED OR DELAYED, THEN ALL "NO PARKING" SIGNS SHALL BE REMOVED AND NEW NO PARKING SIGNS SHALL BE PLACED 48 HOURS PRIOR TO WHEN WORK IS READY TO RESUME. SIGNS SHALL BE PLACED APPROXIMATELY EVERY 50 FEET APART.
5. PEDESTRIAN AND BIKE ACCESS THROUGH AND/OR ADJACENT TO THE PROJECT SITE SHALL REMAIN UNOBSTRUCTED DURING THE PROJECT CONSTRUCTION OR AN ESCORT SHALL BE ESTABLISHED AS APPROVED BY THE CITY.
6. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TRAFFIC CONTROL EQUIPMENT IN-PLACE DURING WORK ACTIVITIES AND SHALL REMOVE ALL TRAFFIC CONTROL THAT IS NOT NEEDED AND RETURN ACCESSIBLE TRAVEL FOR THE PUBLIC DURING NON-WORK HOURS OR DAYS.
7. THE CITY RESERVES THE RIGHT TO STOP ALL WORK BEING PERFORMED FOR LACK OF TRAFFIC CONTROL OR TRAFFIC CONTROL THAT IS NOT PER THE APPROVED TRAFFIC CONTROL PLAN.
8. THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL TEMPORARY PAVEMENT DELINEATION UNTIL THE PERMANENT PAVEMENT DELINEATION IS PLACED. ALL PERMANENT TRAFFIC STRIPING SHALL BE LAID OUT AND CAT-TRACKED. THE CITY SHALL HAVE A MINIMUM OF TEN WORKING DAYS TO APPROVE THE STRIPING LAYOUT AND CAT-TRACKING.
9. TRAFFIC STRIPING SHALL BE THERMOPLASTIC WITH REFLECTOR UNLESS OTHERWISE SPECIFIED.
10. CONTRAST STRIPING SHALL BE PLACED ON ALL CONCRETE ROADWAY SURFACES.
11. PRIOR TO THE STREET OPENING AFTER HMA IS PLACED, THERE SHALL BE TEMPORARY PAINT, TAPE, OR REFLECTIVE MARKERS PLACED PER CITY ENGINEER'S APPROVAL. CONTRACTOR TO WAIT A MINIMUM OF 5 DAYS AND A MAXIMUM OF 10 DAYS AFTER HMA IS PLACED BEFORE PERMANENT STRIPING IS PLACED.
12. BIKE LANE LEGENDS SHALL BE HELMETED CYCLIST WITH ARROW.
13. GREEN-BACKED DASHED BIKE LANES SHALL BE PLACED AT CONFLICT ZONES.
14. ALL MEDIAN NOSES SHALL BE PAINTED TO MATCH THE ROAD STRIPING LEADING TO THE NOSE.
15. TYPE Q MARKERS SHALL BE PLACED ONE FOOT (1') BACK FROM ALL MEDIAN CHAIN.
16. MEDIAN NOSES SHALL BE SIGNED AT INTERSECTIONS AND AT THE START OF A MEDIAN CHAIN.
17. ALL TRAFFIC SIGNS (EXCLUDING TEMPORARY CONSTRUCTION SIGNS) SHALL HAVE 3M DIAMOND CUBED RETRO-REFLECTIVE OR EQUIVALENT BASE AND 3M 1160 PROTECTIVE OVERLAY FILM OR EQUIVALENT.

SOLID WASTE AND RECYCLING NOTES

08/2025

1. ALL PLANS FOR NON-RESIDENTIAL DEVELOPMENT AND/OR MULTI-FAMILY DEVELOPMENT WITH COMMON PRESCRIBED COLLECTION AREAS SHALL COMPLY WITH THE SOLID WASTE AND RECYCLING ENCLOSURE STANDARDS PRESCRIBED BY CITY COUNCIL RESOLUTION R2008-185 OR AS IT MAY BE UPDATED BY SUBSEQUENT COUNCIL ACTION. CURRENT ENCLOSURE STANDARDS CAN BE FOUND AT WWW.CITYOFNAPA.ORG/832/ENCLOSURE-STANDARDS-UPDATE
2. DURING THE CONSTRUCTION & DEMOLITION PERIOD OF THE PROJECT, THE CONTRACTOR SHALL COMPLY WITH ALL PROVISIONS OF THE CITY OF NAPA'S CONSTRUCTION & DEMOLITION DEBRIS (C&DD) RECYCLING ORDINANCE CONTAINED IN CHAPTER 15.32 OF NAPA MUNICIPAL CODE. THE C&DD RECYCLING ORDINANCE REQUIRES SITE SEPARATION AND RECYCLING (OR COMPOSTING) FOR DESIGNATED RECYCLABLE MATERIALS SUCH AS CLEAN WOOD, CONCRETE, METAL, YARD WASTE AND OTHER SALVAGEABLE MATERIALS, AND REQUIRES THAT ALL PROJECTS EXCEEDING 5,000 SQUARE FEET OR $100,000 IN PROJECT VALUATION ACHIEVE A MINIMUM LEVEL OF 50% DIVERSION FROM LANDFILL DISPOSAL. ALL QUALIFYING PROJECT APPLICANTS MUST SUBMIT A WASTE REDUCTION AND RECYCLING PLAN (WRRP) AND HAVE THE WRRP APPROVED BY THE CITY BEFORE A CITY BUILDING OR DEMOLITION PERMIT IS ISSUED. ALSO, THE CITY WILL DETERMINE COMPLIANCE OR NON-COMPLIANCE WITH APPROVED WRRP AND CITY'S C&DD ORDINANCE BEFORE A CERTIFICATE OF OCCUPANCY OR TEMPORARY CERTIFICATE OF OCCUPANCY IS ISSUED BY THE CITY. A CITY DETERMINATION OF NON-COMPLIANCE FOR A GIVEN PROJECT MAY RESULT IN A FINE AS PRESCRIBED IN THE CITY'S C&DD ORDINANCE. DETAILS ON THE CITY'S C&DD ORDINANCE, INCLUDING A FREQUENTLY ASKED QUESTIONS (FAQ) SUMMARY, CAN BE FOUND AT WWW.CITYOFNAPA.ORG/109/CONSTRUCTION-AND-DEMOLITION-DEBRIS-RECYC

ELECTRICAL CONSTRUCTION NOTES

08/2025

1. ALL CITY ELECTRICAL & COMMUNICATIONS CONDUITS INSTALLED, TO INCLUDE TRENCHING, AND CONDUIT PLACEMENT SHALL BE INSPECTED BY THE CITY OF NAPA ELECTRICAL DIVISION PRIOR TO BACKFILL, CONDUITS SHALL BE MINIMUM 24-INCHES DEEP IN THE CLEAR FROM FINISHED GRADE.
2. 12MM WIDE, POLYESTER FIBER DETECTABLE PULLING TAPE, WITH PRINTED MARKINGS SEQUENTIALLY EVERY FOOT, ALONG WITH ONE, 22 AWG DETECTABLE SOLID COPPER WIRE ATTACHED SHALL BE REQUIRED IN ALL EMPTY CONDUITS.
3. EXACT LOCATIONS OF ALL STREETLIGHT AND TRAFFIC SIGNAL STANDARDS, PEDESTALS AND CABINETS SHALL BE DETERMINED BY CITY OF NAPA PUBLIC WORKS/ELECTRICAL DIVISION PRIOR TO INSTALLATION. SIGNAL AND LIGHTING STANDARDS SHALL BE AT LEAST 3 FEET FROM FACE OF CURB UNLESS OTHERWISE SPECIFIED.
4. PULL BOXES SHALL BE PLACED IN SIDEWALK AREAS OR OTHER LOCATIONS TO BE DETERMINED BY CITY OF NAPA ELECTRICAL DIVISION. PULL BOXES SHALL NOT BE PLACED IN DRIVEWAY APPROACHES, VEHICLE TRAFFIC LANES, OR IN SIDEWALK HANDICAPPED RAMP AREAS.
5. ALL TRAFFIC SIGNAL HEADS SHALL BE 12-INCHES AND HAVE A LOUVERED BACKPLATE AND TUNNEL VISORS.
6. ALL COBRA HEAD LUMINARIES SHALL BE SUPPLIED WITH A TWIST LOCK PHOTOCELL RECEPTACLE UNLESS OTHERWISE SPECIFIED.
7. STREETLIGHT AND TRAFFIC SIGNAL RELATED EQUIPMENT AND COMPONENTS SHALL BE PER 2015 CALTRANS STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE IMPROVEMENT PLANS WHICH WILL ALSO LIST EQUIPMENT AND COMPONENTS SPECIFIC TO CITY OF NAPA STANDARDS.
8. ALL LIGHTING, TO INCLUDE TRAFFIC SIGNAL AND STREETLIGHTS SHALL BE L.E.D. AS APPROVED BY THE CITY.
9. ALL MATERIALS REQUIRED TO BE REMOVED & SALVAGED, SHALL BE DELIVERED TO CITY OF NAPA CORPORATION YARD AT 770 JACKSON STREET WITHOUT DAMAGE.
10. CONTACT CITY OF NAPA ELECTRICAL DIVISION AT (707) 257-9588, 48 HRS IN ADVANCE FOR ALL INSPECTIONS AND/OR DELIVERY OF EQUIPMENT.

STREET SECTION AND SIDEWALK CONSTRUCTION NOTES

08/2025

1. AREAS TO BE DEVELOPED SHALL BE CLEARED OF VEGETATION, TREES, TREE ROOTS, DEBRIS AND ANY REMNANTS OF FOUNDATIONS OR ABANDONED UTILITIES. THE AREA SHALL BE STRIPPED OF THE UPPER SOILS CONTAINING ORGANIC MATTER. ALL CONTAMINATED MATERIAL SHALL BE DISPOSED OF ACCORDING TO THE GUIDELINES OF THE ENVIRONMENTAL PROTECTION AGENCY (EPA).
2. ALL CLASS II AGGREGATE BASE SHALL BE SAMPLED AND TESTED FOR SIEVE ANALYSIS, R-VALUE, SAND EQUIVALENT AND MAXIMUM DENSITY WITHIN 10 DAYS OF SUBMITTING THE SUBMITTAL TO THE CITY ENGINEER FOR APPROVAL. THE CITY SHALL RECEIVE THE SUBMITTAL A MINIMUM OF FIVE WORKING DAYS PRIOR TO SCHEDULED USE.
3. JOB MIX FORMULA (JMF) FOR ALL HOT MIX ASPHALT (HMA) TO BE USED (EXCEPT FOR MISCELLANEOUS AREAS AND DIKES) SHALL BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL. THE JMF DOCUMENTS THE TESTING DATA DEVELOPED BY THE MIX DESIGN LABORATORY AND SHALL BE SUBMITTED ON CALTRANS FORM CEM-3152 AND DATED WITHIN 12 MONTHS OF PLANNED PAVEMENT WORK. HOT MIX ASPHALT SHALL BE SAMPLED AND TESTED IN ACCORDANCE WITH CALTRANS CONSTRUCTION MANUAL, CHAPTER 4 'CONSTRUCTION DETAILS' 4-3930D (5) 'SAMPLING AND TESTING HOT MIX ASPHALT'. OBTAIN SPLIT SAMPLES OF HMA FROM THE MAT BEHIND THE PAVER OR OTHER LOCATION APPROVED BY THE INSPECTOR.
4. ALL TRENCH BACKFILL SHALL BE TESTED PER ASTM D1557 BY THE GEOTECHNICAL ENGINEER FOR COMPACTION. IF THE TRENCH BACKFILL IS MORE THAN 12-INCHES DEEP, COMPACTION TESTING SHALL BE COMPLETED AS EACH LIFT OF FILL IS PLACED AND COMPACTED. EACH LIFT OF MATERIAL SHALL NOT EXCEED 12-INCHES IN DEPTH. PRIOR TO PAVING, ALL TRENCHES SHALL BE TESTED, AND ALL TEST RESULTS SHALL BE SUBMITTED TO THE CITY. ALL TEST RESULTS, BOTH PASSING AND FAILING SHALL BE SHOWN AND PROVIDED TO THE CITY. THE CITY RESERVES THE RIGHT TO REQUEST ADDITIONAL FIELD TESTING TO BE PERFORMED.
5. THE SUBGRADE SHALL BE SCARIFIED, PROCESSED AND COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION PER ASTM D1557/ASTM D6938, AND SHALL BE FIRM AND UNYIELDING. PROOF-ROLLING OF THE FINISHED SUBGRADE SHALL BE PERFORMED BY THE CONTRACTOR USING A FULLY LOADED 3-AXLE WATER TRUCK AND REVIEWED AND APPROVED BY THE CITY PRIOR TO PLACEMENT OF ADDITIONAL MATERIALS. PROOF-ROLLING SHALL BE OBSERVED BY THE GEOTECHNICAL ENGINEER AND THE CITY INSPECTOR. THE DEVELOPER'S/CONTRACTOR'S LICENSED GEOTECHNICAL ENGINEER SHALL PROVIDE IN WRITING AN APPROPRIATE METHOD TO STABILIZE THE AREAS OF DEFLECTION. ATTENTION IS DIRECTED TO CITY STANDARD SPECIFICATION SECTION 1.10.10, "EARTHWORK" FOR "YIELDING SUBGRADE" APPROVAL. ALL COMPACTIONS SHALL BE TESTED WITH A NUCLEAR GAGE.
6. THE CLASS II AGGREGATE BASE STRUCTURAL SECTION SHALL BE MOISTURE CONDITIONED AND COMPACTED TO A MINIMUM OF 95% RELATIVE COMPACTION PER ASTM D1557/ASTM D6938, FIRM AND UNYIELDING. PROOF-ROLLING OF THE FINISHED AGGREGATE SECTION SHALL BE PERFORMED BY THE CONTRACTOR USING A FULLY LOADED 3-AXLE WATER TRUCK AND REVIEWED AND APPROVED BY THE CITY OF NAPA CONSTRUCTION INSPECTOR PRIOR TO PLACEMENT OF ASPHALT CONCRETE. THE DEVELOPER'S/ CONTRACTOR'S LICENSED GEOTECHNICAL ENGINEER SHALL PROVIDE AN APPROPRIATE METHOD TO STABILIZE THE AREAS OF DEFLECTION. ALL PAVEMENT COMPACTION SHALL BE TESTED WITH A NUCLEAR GAGE.

STREET SECTION AND SIDEWALK CONSTRUCTION NOTES CONT'D

08/2025

7. HMA SHALL BE TESTED FOR COMPACTION PER CALTRANS CAL 375 TEST, MINIMUM 95% COMPACTION REQUIRED.
8. THE PROJECT SHALL COMPLY WITH THE GEOTECHNICAL REPORT RECOMMENDATIONS AND THE APPROVED PLANS. THE GEOTECHNICAL REPORT SHALL BE ONSITE AND AVAILABLE TO REFERENCE.
9. THE IMPROVEMENT PLANS SHALL SHOW AN APPROPRIATE 'PAVEMENT DESIGN CHART' WITH COLUMNS FOR STREET NAMES; STATIONING LIMITS FOR DIFFERENT PAVEMENT SECTIONS, IF USED; TRAFFIC INDEX; 'R'-VALUE; AC THICKNESS; AB THICKNESS; AND AS THICKNESS (IF USED); ETC. THE STREET NAMES AND STATION LIMITS SHALL BE SHOWN WITH THE TRAFFIC INDEX, WHICH SHALL BE SUBJECT TO THE CITY'S APPROVAL. THE 'R'- VALUE AND SECTION THICKNESS SHALL BE LEFT BLANK. A NOTE SHALL STATE THAT THE THICKNESSES WILL BE ENTERED AFTER 'R'-VALUE TESTING. THE STREET STRUCTURAL SECTION SHALL BE DETERMINED BY THE REGISTERED GEOTECHNICAL ENGINEER OF RECORD AND SHALL BE SHOWN IN THE "PAVEMENT DESIGN CHART" ON THE APPROVED IMPROVEMENT PLANS. THE IMPROVEMENT PLANS SHEET ON WHICH THE COMPETED PAVEMENT DESIGN CHART APPEARS SHALL BE SUBMITTED TO THE CITY AS AN OFFICIAL, DATED, CLOUDED REVISION, AND THE WORK SHALL NOT BE PERFORMED UNTIL THE CITY HAS APPROVED THE REVISION.
10. STREET RESTORATION LIMITS ON EXISTING STREET PAVEMENT WHENEVER A STREET IS CUT (EITHER BY A LONGITUDINAL OR TRANSVERSE CUT) FOR UTILITY OR OTHER IMPROVEMENT INSTALLATIONS, REGARDLESS OF LIMITS OF OVERLAY SHOWN ON THE IMPROVEMENT PLANS, SHALL BE PER THE CITY'S PAVEMENT RESTORATION LIMITS TABLE. THE RESURFACING SHALL EXTEND A SUFFICIENT DISTANCE BEYOND ANY CUT TO ENSURE A SMOOTH TRANSITION AND SHALL CONSIST OF A FULL 2-INCH-DEEPGRIND FOR THE ENTIRE AREA AND A 2-INCH ASPHALT CONCRETE OVERLAY. STREET RESURFACING WILL BE REQUIRED FOR ALL CUTS RESULTING FROM IMPROVEMENTS THAT INCLUDE BUT ARE NOT LIMITED TO PAVEMENT WIDENING, CURB AND GUTTER, STORM DRAIN, WATER, SEWER, SIGNAL, LIGHTING, AND OTHER UTILITIES FOR THE PROJECT. THE LIMITS OF THE OVERLAY MAY BE EXTENDED BEYOND THE PROJECT FRONTAGE OF THE PARCEL AND/OR 10 FEET ON EITHER SIDE OF THE TRENCH TO COVER ALL THE UTILITY TRENCH CUTS AT THE DISCRETION OF THE CITY AFTER ALL UNDERGROUND INFRASTRUCTURE HAS BEEN INSTALLED.
11. ALL MANHOLE AND BOXES SHALL BE LOWERED PRIOR TO PERFORMING ANY STREET GRINDING AND OVERLAY.
12. ALL MANHOLES AND BOXES SHALL BE RAISED TO GRADE AFTER ALL PAVING IS COMPETED. THE ASPHALT CONCRETE SHALL BE CIRCLE CUT TO FULL DEPTH OF THE ASPHALT CONCRETE FOR ALL MANHOLES AND BOXES. JACK HAMMERING ASPHALT TO RAISE IRON WILL NOT BE ALLOWED. USE OF SACK MIX SHALL NOT BE ALLOWED.
13. ALL NEW CONCRETE SHALL BE DOWELED TO EXISTING CONCRETE; MINIMUM 18-INCHES SPACING ON SIDEWALK AND 24-INCHES SPACING ON CURB AND GUTTER; WITH #4 REBAR EMBEDDED 6-INCHES DEEP. IF CONCRETE IS PLACED IN SECTIONS OR PHASES, THE NEW CONCRETE SHALL BE DOWELED TOGETHER.
14. ANY PCC CURB PLACED ON TOP OF EXISTING OR NEW ASPHALT CONCRETE SHALL BE EPOXY DOWELLED ON 4 FEET CENTERS AND GLUED DOWN TO THE SURFACE.
15. ANY CONCRETE PLACED THAT BECOMES TAGGED, DEFACED, CRACKED OR DAMAGED SHALL BE REPLACED PRIOR TO PROJECT ACCEPTANCE. SPOT PATCHING REPAIRS OF CONCRETE IS NOT ALLOWED. ANY PERMANENT REFERENCE POINT MARKS MADE INTO CONCRETE IS NOT ALLOWED. IF DONE, ENTIRE SECTION OF CONCRETE FROM JOINT TO JOINT SHALL BE REMOVED AND REPLACED.
16. ALL SURVEY MONUMENT(S) SHALL BE INSTALLED PRIOR TO FINAL SIGN-OFF OF THE PROJECT AS SHOWN ON THE IMPROVEMENT PLANS OR FINAL MAP.

LANDSCAPE, IRRIGATION AND TREE NOTES

08/2025

1. ALL TREES WITHIN THE PUBLIC RIGHT-OF-WAY MUST BE PROTECTED FROM CONSTRUCTION DAMAGE. A TREE PROTECTION PLAN FOR SAID PROTECTION MUST BE SUBMITTED AND APPROVED BY THE CITY VIA AUTHORIZED SIGNATURE, BEFORE WORK BEGINS. PLANS SHALL INCORPORATE ANSI A300 (PART 5) - 2012 BEST PRACTICES AS WELL AS COMPANION PUBLICATION: MANAGING TREES DURING CONSTRUCTION, SECOND EDITION. IT IS RECOMMENDED A PROFESSIONAL ARBORIST BE RETAINED FOR THIS PURPOSE. MONITORING OF PLANS PRE CONSTRUCTION, DURING CONSTRUCTION AND POST CONSTRUCTION PHASES IS NECESSARY.
2. PRIOR TO ANY OTHER SITE WORK, PROTECTIVE FENCING SHALL BE INSTALLED A MINIMUM OF ONE FOOT BEYOND THE CANOPY DRIP LINE OF ANY TREE TO BE SAVED. THE FENCE SHOULD BE STURDY, HIGHLY VISIBLE AND SOLIDLY ANCHORED TO THE GROUND. THE FENCING SHALL REMAIN IN PLACE CONTINUOUSLY DURING ALL PHASES OF CONSTRUCTION. THIS TREE PROTECTION ZONE (TPZ) SHALL BE POSTED WITH WARNING SIGNS IN ENGLISH AND SPANISH TO ALERT EQUIPMENT OPERATORS AND CONTRACTORS ABOUT THE PROTECTED STATUS OF THE TPZ. SIGNS SHOULD CONTAIN CONTACT INFORMATION FOR THE CONTRACTOR.
3. ACTIVITIES WITHIN THE TPZ THAT COMPACT THE SOIL OR PHYSICALLY DAMAGE THE TREE SHALL BE AVOIDED OR MITIGATED.
4. REMOVAL OR PRUNING OF ANY PROTECTED NATIVE TREE, SIGNIFICANT TREE OR TREE WITHIN THE PUBLIC RIGHT-OF-WAY REQUIRES A PERMIT FROM THE CITY OF NAPA PARKS AND RECREATION SERVICES DEPARTMENT UNLESS IT IS APPROVED VIA AUTHORIZED SIGNATURE ON THE DEVELOPMENT PLANS. TREES REMOVED SHALL COMPLETELY REMOVED AND CUT TO GRADE. TREES TO BE REMOVED SHALL BE POSTED 3 DAYS PRIOR INDICATING THAT IT WILL BE REMOVED AND THE REMOVAL HAS BEEN APPROVED AS PART OF AN APPROVED DEVELOPMENT PROJECT.
5. STREET TREES SHALL BE PLANTED WITHIN THE STREET RIGHT-OF-WAY PER CITY STANDARD PLAN T-1, T-2 AND T-5 AT DEVELOPER'S EXPENSE. ANY STREET TREE SPACING SHOWN ON THE PLAN IS APPROXIMATE. CONTRACTOR SHALL CONTACT THE CITY'S PARKS AND RECREATION SERVICES DEPARTMENT (707) 257-9529, AFTER ALL DRIVEWAYS AND UTILITIES ARE INSTALLED. CITY TREE DIVISION STAFF SHALL MARK LOCATIONS OF TREES REQUIRED. TREES SHALL BE PLANTED NO CLOSER THAN 10 FEET FROM SEWER MAINS AND SEWER LATERALS. A LIST OF TREE VARIETIES APPROVED FOR PLANTING IS AVAILABLE AT THE PARKS AND RECREATION SERVICES DEPARTMENT OFFICE OR ON THE CITY WEBSITE.

STORMWATER NOTES

08/2025

1. CONTRACTOR SHALL MEET THE REQUIREMENTS OF DISCHARGING TO A PUBLIC STORM DRAINAGE SYSTEM AS REQUIRED TO ENSURE COMPLIANCE BY THE CITY WITH ALL STATE AND FEDERAL LAWS AND REGULATIONS RELATED TO STORM WATER AS STIPULATED IN THE CLEAN WATER ACT. CONTRACTOR SHALL MEET THE REQUIREMENTS OF THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT IN EFFECT PRIOR TO COMPLETION OF PROJECT CONSTRUCTION FOR STORM WATER DISCHARGES FROM THE MUNICIPAL STORM WATER SYSTEM OPERATED BY THE CITY OF NAPA. CONTRACTOR SHALL COMPLY WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) (PROJECT > 1 ACRE) AND/OR EROSION AND SEDIMENT CONTROL PLAN (ESCP) (PROJECTS < 1 ACRE) AND THE STORMWATER CONTROL PLAN (SCP) SUBMITTED BY DEVELOPER AS PART OF ITS APPLICATION AS (MODIFIED AND) APPROVED BY THE DIRECTOR OF PUBLIC WORKS OR CITY ENGINEER.

STORM DRAINAGE NOTES

08/2025

1. ALL STORM DRAIN WITHIN THE CITY RIGHT-OF-WAY SHALL BE DESIGNED USING RUBBER GASKET REINFORCED CONCRETE PIPE (RCP). ALL RCP SHALL BE CLASS III, UNLESS THE DEPTH OF THE PIPE REQUIRES A STRONGER PIPE.
2. ALL CONNECTIONS MADE TO INTERSECTING STORM DRAIN LINES SHALL BE MADE AT A MANHOLE OR DRAIN INLET. DIRECT CONNECTIONS TO STORM DRAIN LINES ARE NOT ALLOWED.
3. IF, BY SPECIAL DESIGN, PLASTIC PIPE IS APPROVED FOR INSTALLATION OF STORM DRAINAGE SYSTEMS, WATER STOPS SHALL BE INSTALLED.
4. STORM DRAIN LINES SHALL NOT BE INSTALLED EXCEEDING THE MAXIMUM DEFLECTION OF EACH JOINT. IN NO CASE, SHALL THE RUBBER GASKETS BE EXPOSED. IF THE DEFLECTION EXCEEDS THE ALLOWABLE LIMIT PER THE PIPE MANUFACTURE, A MANHOLE OR JUNCTION BOX MUST BE INSTALLED.
5. A 60-INCH MANHOLE SHALL BE USED FOR ALL STORM DRAIN LINES LARGER THAN 24-INCHES OR WHERE MORE THAN TWO STORM DRAIN PIPES ENTER THE MANHOLE.
6. ALL STORM DRAIN SYSTEMS SHALL BE VIDEOTAPED AT THE COMPLETION OF SUBGRADE OR PRIOR TO PLACEMENT OF HMA.
7. PROVIDE STORMWATER CONVEYANCE SYSTEM STENCILING AND SIGNAGE FOR BOTH PRIVATE DEVELOPMENT AND PUBLIC RIGHT-OF-WAY.
   - A. PROVIDE CONCRETE STAMPING, OR EQUIVALENT, OF ALL STORMWATER CONVEYANCE SYSTEM INLETS AND CATCH BASINS WITHIN THE PROJECT AREA WITH PROHIBITIVE LANGUAGE (E.G. "NO DUMPING DRAINS TO NAPA RIVER").
   - B. POST SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITH THE PROJECT AREA, TRAILHEADS, PARKS, BUILDING ENTRANCES, AND BIORETENTION FACILITIES.

FIRE DEPARTMENT NOTES

08/2025

1. THE CITY OF NAPA FIRE DEPARTMENT REQUIRES THAT A FIRE HYDRANT BE IN SERVICE WITHIN 250 FEET OF THE FURTHEST POINT OF CONSTRUCTION PRIOR TO THE STOCKPILING OF COMBUSTIBLE MATERIALS OR THE BEGINNING OF CONSTRUCTION.
2. IF THE STREETS OR ACCESS ROADS IN A DEVELOPMENT ARE NOT PAVED FROM OCTOBER 15TH THROUGH APRIL 15TH, THE CITY REQUIRES THAT A TEMPORARY ALL ACCESS WEATHER ACCESS ROAD BE PROVIDED.
3. IN ACCORDANCE WITH THE CITY OF NAPA STANDARD SPECIFICATIONS AND STANDARD PLANS, SECTION 3.04.02 "FIRE ACCESS REQUIREMENTS (FOR BUILDING CONSTRUCTION)" TEMPORARY ALL WEATHER CONSTRUCTION PHASE FIRE DEPARTMENT ACCESS ROUTE STRUCTURAL SECTIONS SHALL CONSIST OF A MINIMUM OF 12-INCHES OF BASE ROCK MATERIAL OVER EITHER: (1) A LIME TREATED SUBGRADE, OR (2) A SUBGRADE COVERED WITH FABRIC IN ACCORDANCE WITH THE FOLLOWING DESIGN CRITERIA:
   - A. SUBGRADE IS DEFINED AS THE NATIVE SOIL AT THE BOTTOM OF THE ACCESS ROUTE STRUCTURAL SECTION, EXCAVATED TO THE LINES AND GRADES SHOWN ON THE PROJECT GRADING PLAN, AND PROVIDED WITH A DISCHARGE FOR THE COLLECTED STORM WATER RUNOFF, AS APPROVED BY THE CITY ENGINEER.
   - B. BASE ROCK SHALL BE CLASS II AGGREGATE BASE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.
   - C. BASE ROCK SHALL BE PLACED ONLY ON A FIRM AND UNYIELDING (COMPACTED TO AT LEAST 95% RELATIVE COMPACTION) EXCAVATED AND DRAINED SUBGRADE.
   - D. LIME TREATED SUBGRADES SHALL BE DESIGNED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A GEOTECHNICAL ENGINEER AND COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.
   - E. FABRIC SHALL BE A GROUND STABILIZATION FABRIC SUCH AS MIRAFI 600X OR EQUIVALENT.
   - F. FIRE DEPARTMENT ACCESS SHALL BE A MINIMUM 20 FEET IN WIDTH AND PROVIDED SO THAT A 150 FOOT LENGTH OF HOSE CAN BE EXTENDED FROM THE PARKED FIRE VEHICLE TO ALL POINTS ALONG THE EXTERIOR PERIMETER OF ALL STRUCTURES.
   - G. ALTERNATE ALL WEATHER ACCESS ROAD SECTIONS MAY BE PROPOSED BY A GEOTECHNICAL ENGINEER AND SUBMITTED TO THE PUBLIC WORKS DIRECTOR FOR APPROVAL. APPROVAL OF THE PUBLIC WORKS DIRECTOR AND FIRE MARSHAL IS REQUIRED FOR ALTERNATE ALL WEATHER ACCESS ROADS.

SEWER NOTES

08/2025

1. ALL SANITARY SEWER IMPROVEMENTS SHALL BE CONSTRUCTED PER THE CURRENT EDITION OF NAPA SANITATION DISTRICT STANDARDS. http://www.napasan.com/162/Standards-Specifications
2. CALL NAPA SANITATION DISTRICT FOR SANITARY SEWER INSPECTION 24 HOURS IN ADVANCE.
3. CONTRACTOR SHALL PROVIDE RECORD DRAWINGS AT COMPLETION OF PROJECT.
4. CLEANOUTS IN TRAFFIC AREAS SHALL HAVE A G05 TRAFFIC RATED BOX AND LID.
5. ONCE CONSTRUCTION IS COMPLETE, CONTRACTOR SHALL CONDUCT A POST-CCTV INSPECTION OF THE TRUNK SEWER ON THE PARCEL AND SUBMIT TO NAPASAN FOR REVIEW.
6. STOCKPILLING, VIBRATORY COMPACTION OR OVER-EXCAVATION SHALL NOT BE ALLOWED AT OR NEAR EXISTING SEWER FACILITIES.

WATER NOTES

08/2025

1. CONSTRUCTION DETAILS: REFER TO CITY OF NAPA STANDARD SPECIFICATIONS AND PLANS.
2. WATER-SEWER SEPARATION: WATER-SEWER (OR WATER-RECYCLED WATER) SEPARATION SHALL COMPLY WITH ALL STATE WATER RESOURCES CONTROL BOARD REQUIREMENTS. PARALLEL CONSTRUCTION: 10 FEET OF HORIZONTAL SEPARATION. PERPENDICULAR CONSTRUCTION: WATER MAINS AT LEAST 1 FOOT ABOVE SEWER AND RECYCLED WATER LINES.
3. EXISTING WATER FACILITIES: CONTRACTOR SHALL LOCATE BY EXCAVATION ALL EXISTING WATER FACILITIES PRIOR TO ANY CONSTRUCTION ACTIVITIES. IF CONFLICTS ARISE, AN ALTERNATE DESIGN MUST BE SUBMITTED TO THE CITY FOR APPROVAL.
4. OBSTRUCTIONS: TREES, FOUNDATIONS, OR OTHER PERMANENT STRUCTURES SHALL NOT BE INSTALLED WITHIN 10 FEET OF ANY WATER FACILITY. NO OBSTRUCTIONS (SIGNPOST, MAILBOX, WALL, FENCE, ETC.) SHALL BE INSTALLED WITHIN 3 FEET OF ANY WATER FACILITY. SEE STANDARD PLAN W-18 FOR ADDITIONAL REQUIREMENTS.
5. CONSTRUCTION WATER: WATER SUPPLIED FROM THE CITY OF NAPA WATER SYSTEM SHALL BE TAKEN THROUGH A METERED SERVICE OR FIRE HYDRANT METER. FIRE HYDRANT METERS SHALL BE OBTAINED BY APPLYING AT THE REVENUE/COLLECTIONS DIVISION IN CITY HALL AT 955 SCHOOL STREET, NAPA (707-257-9508). A FORM IS AVAILABLE ONLINE AT: WWW.CITYOFNAPA.COM/NEWDEVELOPMENT UNDER THE SECTION, CONSTRUCTION WATER/HYDRANT METERS.
6. INSPECTION: PUBLIC WATER FACILITIES UP TO AND INCLUDING THE WATER METER SHALL BE INSPECTED BY THE WATER DIVISION INSPECTOR (CONTACT 707-257-9521 TO SCHEDULE INSPECTION). ALL WATER FACILITIES BETWEEN THE WATER METER UP TO AND INCLUDING THE BACKFLOW DEVICE SHALL BE INSPECTED BY THE WATER DIVISION BACKFLOW PREVENTION SPECIALIST (CONTACT 707-257-9544 TO SCHEDULE INSPECTION). ALL NEW WATER FACILITIES SHALL BE TESTED AND INSPECTED PRIOR TO ACTIVATION.
7. WATER SERVICE INTERRUPTION: CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AFFECTED WATER CUSTOMERS A MINIMUM OF 48 HOURS (2 BUSINESS DAYS) IN ADVANCE. ALL VALVES SHALL BE OPERATED BY CITY PERSONNEL. CONTRACTOR SHALL SCHEDULE ALL WATER SERVICE INTERRUPTIONS BY CALLING 707-257-9544.
8. JOINT DEFLECTION: MAXIMUM DEFLECTION AT PIPE JOINTS SHALL NOT EXCEED 3° WITH A MAXIMUM OFFSET OF 10-INCHES PER 18-FOOT LENGTH (MINIMUM RADIUS = 345 FEET) OR AS SET FORTH BY MANUFACTURER SPECIFICATIONS OR INSTALLATION PROCEDURES.
9. CORROSION PROTECTION: DUCTILE IRON PIPE SHALL BE CATHODICALLY PROTECTED IN ACCORDANCE WITH THE CITY OF NAPA STANDARD SPECIFICATIONS, PLANS AND THE CITY OF NAPA'S WATER DISTRIBUTION SPECIAL PROVISIONS. ALL BOLTS, STUDS WASHERS, NUTS, ETC. SHALL BE STAINLESS STEEL MINIMUM GRADE 304SS WITH TEFLON COATED NUTS OR CITY APPROVED EQUAL.
10. VALVES: VALVES SHALL BE INSTALLED AS SHOWN IN THE APPROVED PLANS AND COMPLY WITH CITY OF NAPA STANDARD PLAN W-9. ALL WATER SERVICE VALVES SHALL BE PLACED IMMEDIATELY AFTER THE TEE OR HOT TAP.
11. FIRE HYDRANTS: FIRE HYDRANT INSTALLATIONS SHALL COMPLY WITH CITY OF NAPA STANDARD PLAN W-8. FIRE HYDRANT(S) NOT IN SERVICE SHALL BE COMPLETELY COVERED.
12. SERVICES: WATER SERVICE INSTALLATIONS SHALL COMPLY WITH APPLICABLE CITY OF NAPA STANDARD PLANS. FIRE SERVICE METERS SHALL BE INSTALLED ON ALL FIRE SERVICES WITH PRIVATE FIRE HYDRANTS. ALL HOT-TAPS TO EXISTING MAINS SHALL BE CONDUCTED BY THE CITY AT THE CONTRACTOR'S EXPENSE. A WATER SYSTEM SHUTDOWN SHALL BE REQUIRED IN ALL CASES WHERE THE PROPOSED WATER SERVICE IS THE SAME SIZE AS THE EXISTING PIPELINE SUPPLYING THE PROPOSED WATER SERVICE(S).
13. BACKFLOW DEVICES: BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED ON ALL NEW SERVICES AND COMPLY WITH CITY OF NAPA STANDARD PLANS W-5 (A, B, C & D) AND W-7 (A, B, C & D). APPROVED BACKFLOW PREVENTION DEVICES SHALL BE INSTALLED AND TESTED, AND WATER METER (IF APPLICABLE) SHALL BE SET, PRIOR TO ANY USE OF WATER SERVICE. WATER METERS (IF APPLICABLE) SHALL BE INSTALLED IN THE LOCKED POSITION UNTIL PASSING TEST RESULTS ARE RECEIVED BY THE CITY OF NAPA. USE OF JUMPERS, HOSE BIBS, OR OTHER DEVICES SHALL NOT BE PERMITTED.
14. BACKFILL: WATER MAIN TRENCH BACKFILL SHALL COMPLY WITH CITY OF NAPA STANDARD PLAN W-13A.
15. TIE-INS: NEW TIE-INS TO EXISTING CITY WATER MAINS SHALL BE CONDUCTED UNDER CITY INSPECTION ONLY AFTER PRESSURE TESTING, CHLORINATION, AND BACTERIOLOGICAL TESTING IS COMPLETE. ALL HOT-TAPS TO EXISTING MAINS SHALL BE CONDUCTED BY THE CITY AT THE CONTRACTOR'S EXPENSE. WATER SYSTEM CUT-IN CONNECTIONS SHALL BE PERFORMED BY THE CONTRACTOR UNDER WATER DIVISION SUPERVISION. VALVES ARE TO BE OPERATED BY CITY STAFF ONLY. A WATER SYSTEM SHUTDOWN SHALL BE REQUIRED IN ALL CASES WHERE NEW PIPELINE TIE-INS ARE THE SAME OR GREATER (I.E. SIZE-ON-SIZE).
16. METER INSTALLATION(S) AND WATER SERVICE ACTIVATION: METER INSTALLATION(S) SHALL OCCUR UPON RECEIPT OF THE PARCEL ADDRESS(ES) AND RESPONSIBLE BILLING PARTY. ALL PRESSURIZED SERVICES SHALL BE CONSIDERED ACTIVE AND BILLABLE.
17. PRESSURE: CONTRACTOR SHALL INSTALL PRESSURE REGULATORS ON ALL WATER SERVICE CONNECTIONS (PROPERTY OWNER'S SIDE) WHERE PRESSURES EXCEED 80 POUNDS PER SQUARE INCH (PSI).
18. DOCUMENTATION AND RECORD DRAWINGS: ALL NEW WATER SYSTEM INSTALLATIONS SHALL BE GPS SURVEYED WITHIN 5 BUSINESS DAYS OF INSTALLATION AND BEFORE BACKFILL. CONTRACTOR SHALL SCHEDULE ALL SURVEYS BY CALLING (707) 257-9521. RECORD DRAWINGS SHALL BE SUBMITTED WITHIN 20 BUSINESS DAYS AFTER WATER SYSTEM ACTIVATION.

NO.	DATE	REVISIONS	BY	APPD

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MILLIKEN ESTATES
CITY OF NAPA GENERAL NOTES

NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 90885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	MARCH 31, 2026	
DRAWN	FV	
DESIGNED	MM/RAY	
CHECKED	DMD	
JOB NO.	4116027.1	

SHEET NO. C1.1

PRELIMINARY - NOT FOR CONSTRUCTION

JOINT TRENCH CONSTRUCTION NOTES

03/2025

1. ALL TRENCHING, BACKFILLING AND INSTALLATION BY CONTRACTOR MUST COMPLY WITH PG&E UO STANDARD S5453 (EFFECTIVE DATE 7-5-2006).
2. ALL WORK MUST COMPLY WITH PG&E, TELEPHONE, CATV, STANDARDS AND PRACTICES. ALL WORK MUST BE INSPECTED AND APPROVED BY RESPECTIVE INSPECTORS. FIELD CONDITIONS MAY REQUIRE CHANGES TO APPROVED PLANS, AT THE DISCRETION OF PG&E INSPECTOR OR OTHERS.
3. VERIFY SPLICE BOX EXCAVATION SIZES WITH SUPPLIER(S).
4. THE TRENCHING CONTRACTOR SHALL COORDINATE THE UTILITY COMPANIES' INSTALLATION. THE TRENCHING CONTRACTOR TO PLACE CONNECTING CONDUIT WITHIN 5' OF BUILDING EXTERIOR WALL.
5. CONTRACTOR SHALL MAKE THEMSELF FAMILIAR WITH THE PROJECT IMPROVEMENT PLANS AND CONDUCT THEIR WORK ACCORDINGLY.
6. IT IS THE TRENCHING CONTRACTOR'S RESPONSIBILITY TO PROTECT IN PLACE ALL EXISTING FACILITIES. NO EXTRA PAYMENT WILL BE CONSIDERED FOR CROSSING OTHER SYSTEMS.
7. RSA ASSUMES NO RESPONSIBILITY FOR THE PROJECT CONDITIONS. THESE DRAWINGS WERE PREPARED USING DATA SUPPLIED BY PG&E, TELEPHONE, C.A.T.V., IMPROVEMENT PLANS AND THE CITY'S VARIOUS "AS BUILT" INFORMATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PHYSICALLY REVIEW THE PROJECT PRIOR TO SUBMITTING HIS BID.
8. THE CONTRACTOR SHALL PROTECT CONSTRUCTION STAKING. THEY SHALL COORDINATE STAKING WITH THE PROJECT'S CIVIL ENGINEER.
9. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) TWO WORKING DAYS PRIOR TO START OF WORK.
10. CONTRACTOR SHALL NOTIFY INSPECTORS OF ANY POTENTIAL CONFLICTS PRIOR TO START OF WORK.
11. THIS PLAN IS TO BE USED FOR SOLE PURPOSE OF DIGGING THE JOINT TRENCH. SEE PG&E, AT&T, AND COMCAST PLANS FOR EXACT SIZE AND NUMBER OF CONDUITS INSTALLED IN THE JOINT TRENCH. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE CORRECT NUMBER, SIZE AND TYPES OF CONDUITS ARE INSTALLED PER THE ENGINEERED PLANS BY EACH UTILITY COMPANY.
12. NOTE PLANS ISSUED AT THE PRE-CONSTRUCTION MEETING MAY BE SUBJECT TO REVISIONS, IF FINAL PLANS FROM EACH UTILITY COMPANY WERE NOT AVAILABLE AT THE START OF CONSTRUCTION.
13. WATER, SEWER, DRAINS, BIORETENTION FACILITIES, DETENTION, SANITARY WASTE, FUELS (INCLUDING DIESEL AND GASOLINE), OIL, PROPANE AND OTHER VOLATILE HEAVIER THAN AIR GASES, SPRINKLER, IRRIGATION, STEAM AND OTHER "WET" FACILITIES SHALL MAINTAIN A MINIMUM OF THREE FEET FROM THE NEAREST OUTER SURFACE OF PG&E FACILITIES WITH NO LESS THAN ONE FOOT OF EARTH (SOIL BARRIER) BETWEEN THE ADJACENT SIDES OF THE INDIVIDUAL TRENCHES.
14. ALL METER PANELS: INDIVIDUAL, RESIDENTIAL, OR NONRESIDENTIAL APPLICANTS WITH A METER PANEL RATING OF ANY SIZE, INSTALLED INSIDE A METER ROOM OR OTHER STRUCTURE, MUST FOLLOW ALL OF THE REQUIREMENTS DESCRIBED BELOW.
   A. INSTALL, OWN, AND MAINTAIN A SEPARATE, NOMINAL, 2-INCH DIAMETER CONDUIT WITH PULL TAPE INSIDE. THE CONDUIT AND PULL TAPE MUST EXTEND FROM THE OUTSIDE SURFACE OF THE BUILDING AND TERMINATE OUTSIDE THE METER PANEL OR SWITCHBOARD AT THE TOP OF THE METER SECTION.
   B. ENSURE THE 2-INCH DIAMETER CONDUIT AND PULL TAPE EXIT THE OUTSIDE OF THE BUILDING A MINIMUM OF 8 FEET AND A MAXIMUM OF 10 FEET ABOVE GROUND. THE OPEN END OF THE CONDUIT THAT IS EXPOSED TO THE OUTSIDE MUST HAVE A REMOVABLE, TEMPORARY CAP OR PLUG.
   C. DO NOT USE THE CONDUIT. THE CONDUIT IS FOR PG&E'S METERING EQUIPMENT ONLY.
15. THIS JOINT TRENCH PLAN WAS PREPARED BASED ON TOPOGRAPHICAL SURVEY AS PROVIDED BY A LAND SURVEYOR. THE CONTRACTOR IS CAUTIONED THAT EXPLORATORY WORK IS NECESSARY TO DETERMINE THE ACTUAL LOCATION OF ANY EXISTING UTILITY. RSA+ STRONGLY RECOMMENDS THAT ALL UTILITIES BE PHYSICALLY LOCATED ON THE SITE BEFORE THE ONSET OF SITE WORK. SUBSTRUCTURE LOCATIONS MAY REQUIRE FIELD ADJUSTMENT TO COMPENSATE FOR ACTUAL EXISTING UTILITY LOCATIONS.
16. EXCAVATION DIMENSIONS FOR TIE-IN TO EXISTING ELECTRIC CONDUITS ARE AT THE DISCRETION OF THE PG&E FIELD INSPECTOR. CONTRACTOR TO COORDINATE WITH INSPECTOR AND EXPOSE UP TO 20' OR MORE OF EXISTING CONDUITS WHEN NEEDED.

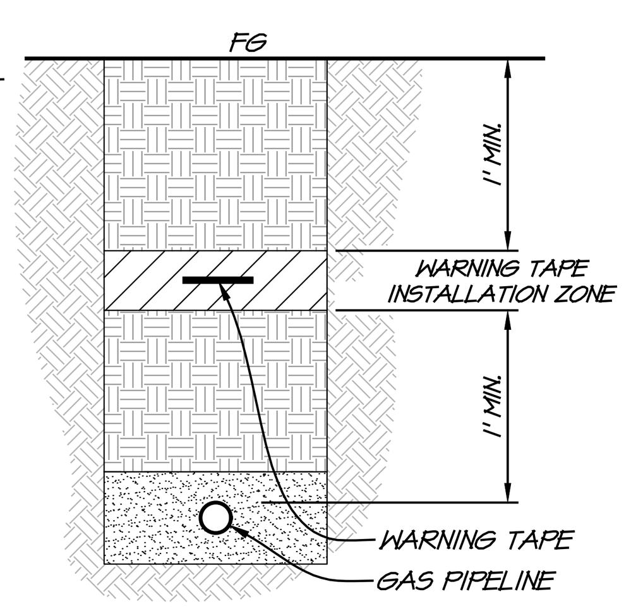
ELECRIC VERTICAL CLEARANCE REQUIREMENTS NOTES

03/2025

1. ABOVE ANY THREE-PHASE PAD-MOUNTED TRANSFORMER/EQUIPMENT LOCATION (EXCEPT MINI THREE PHASE), MAINTAIN 30' MINIMUM UNOBSTRUCTED OVERHEAD CLEARANCE OVER PAD.
2. ABOVE ANY OTHER TRANSFORMER/EQUIPMENT LOCATION, MAINTAIN 20' MINIMUM UNOBSTRUCTED OVERHEAD CLEARANCE OVER VAULT/PAD.

GAS PIPELINE UNDERGROUND WARNING TAPE NOTES

1. A WARNING TAPE IS TO BE INSTALLED IN OPEN TRENCH INSTALLATION OVER GAS PIPELINES IN BOTH TRANSMISSION AND DISTRIBUTION FACILITIES. THIS INCLUDES TRENCHES, BELL HOLES, EXCAVATIONS FOR REPAIR PURPOSES AND RISER REPLACEMENTS. THE WARNING TAPE IS INTENDED FOR EXCAVATOR DIGGING IN THE "TOLERANCE ZONE" TO STRIKE THE WARNING TAPE PRIOR THAN THE PIPELINE. WHEN THE WARNING TAPE IS EXPOSED AND GRABBED WITH EXCAVATING EQUIPMENT, IT STRETCHES WITHOUT BREAKING, THUS ALERTING THE EXCAVATOR OF THE GAS FACILITY BELOW.
2. INSTALL 6" WIDE WARNING TAPE ABOVE THE GAS PIPELINE AT LEAST 12" BELOW GRADE, AND NO CLOSER THAN 12" FROM THE PIPE. INSTALLATION SHOULD PROVIDE THE GREATEST DISTANCE BETWEEN THE PIPELINE AND THE TAPE AS POSSIBLE. INSTALL THE TAPE ALONG THE LENGTH OF THE EXCAVATION. ENSURE THAT THE TAPE OVERLAPS WHEN TWO OR MORE PIECES OF TAPE ARE USED. EXCEPTION: WHEN A JOINT TRENCH DESIGN DOES NOT ALLOW FOR INSTALLMENT OF WARNING TAPE WITHIN THE "WARNING TAPE INSTALLATION ZONE", INSTALL THE WARNING TAPE A MINIMUM OF 6" ABOVE THE GAS PIPELINE, AND BELOW THE FACILITY ABOVE THE PIPE.
3. WARNING TAPE SHALL BE BRIGHTLY COLORED YELLOW AND MARKED "CAUTION: GAS LINE BURIED BELOW" OR MARKED WITH A SIMILAR NOTIFICATION.



TYPICAL DETAIL

GAS PIPELINE UNDERGROUND WARNING TAPE INSTALLATION

ELECTRICAL CONDUIT MINIMUM BEND RADIUS

CONDUIT DIAMETER	VERTICAL RADIUS	HORIZONTAL RADIUS
2"	24"	36"
3"	24"	36"
4"	36"	36"
5"	36"	60"

03/2025

NOTE:
315' MAX. BEND IN ANY SECONDARY CONDUIT RUN 200' OR LESS.
300' MAX. BENDS IN ANY PRIMARY CONDUIT RUN.

TYPICAL GAS METER REQUIREMENTS*

METER TYPE	LOAD (SCFH)	DELIVERY PRESSURE** (PSIG)	PAD SIZE (INCHES)	MIN. WIDTH REQUIRED FOR METER "X" (INCHES)	DISTANCE FROM RISER TO FINISHED WALL (INCHES)	MN. HOUSE LINE STUB OUT (INCHES)
TOTAL RESIDENTIAL	0 - 350	0.25	N/A UNLESS USING FLEX-HOSE METER	24	6 TO 9	4
	0 - 600	2.0				
400 TO 1,000 CLASS	351 - 1.400	0.25	N/A UNLESS USING FLEX-HOSE METER	30	6 TO 9	6
	601 - 2,400	2.0				
1.5M OR 3M ROTERY	1,401 - 3,000	APPROVED BY PG&E	40 x 36 x 4	52	20	VARIES
5M OR 7M ROTORY	3,001 - 7,000	APPROVED BY PG&E	78 x 36 x 4	90	20	VARIES
11M OR 15M ROTORY	7,001 - 16,000	APPROVED BY PG&E	94 x 36 x 4	106	20	VARIES

* ACTUAL METER-SET CONFIGURATIONS MAY DIFFER DEPENDING ON FIELD CONDITIONS AND RESTRICTIONS. FOR GAS METER DETAILS, SEE SECTION 2 OF CURRENT ELECTRIC & GAS SERVICE REQUIREMENTS GREENBOOK BY PG&E. PG&E STANDARD METER SPACING REQUIREMENTS DO NOT INCLUDE CLEARANCE FOR EARTHQUAKE VALVES OR OTHER ADDITIONAL SAFETY EQUIPMENT. SEE NOTE 17 UNDER GENERAL NOTES ON SHEET JT-1.
** DELIVERY PRESSURE TO BE CONFIRMED VIA BUILDING PLUMBING AND MECHANICAL PLANS. PG&E MAINTAINS SOLE AUTHORITY TO DETERMINE IF THE ELEVATED DELIVERY-PRESSURE SERVICE IS AVAILABLE AT A SPECIFIC LOCATION.

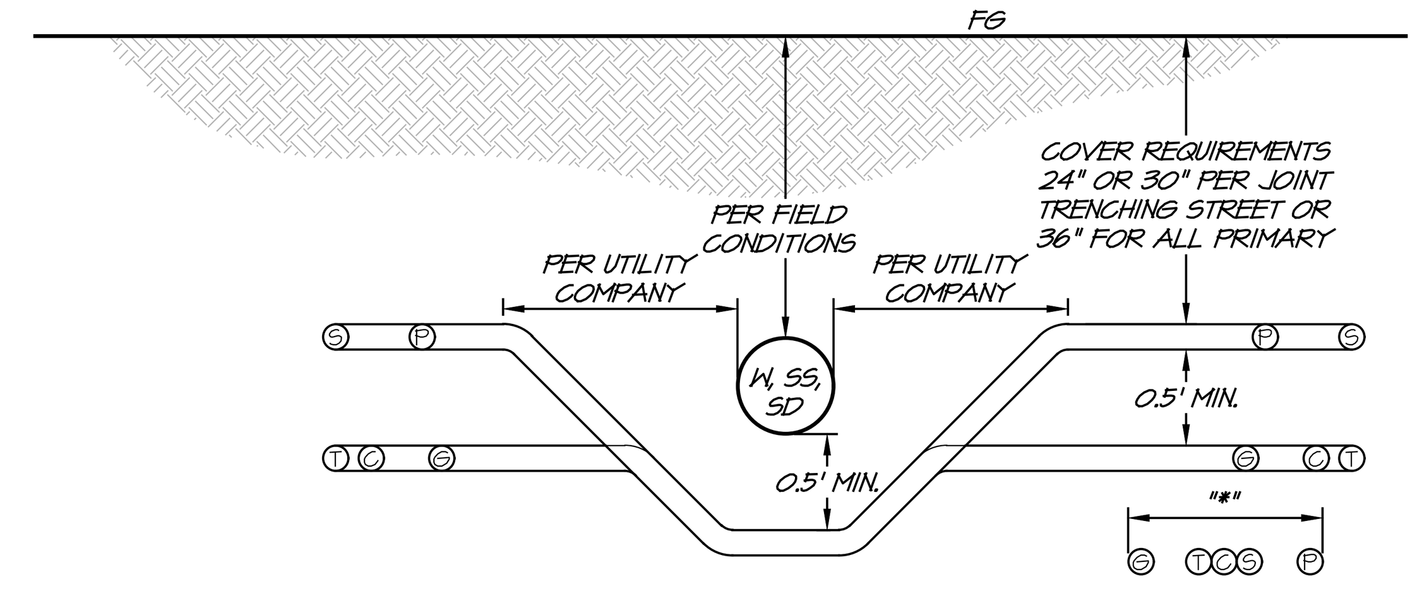
(X) GM

JOINT TRENCH GENERAL NOTES

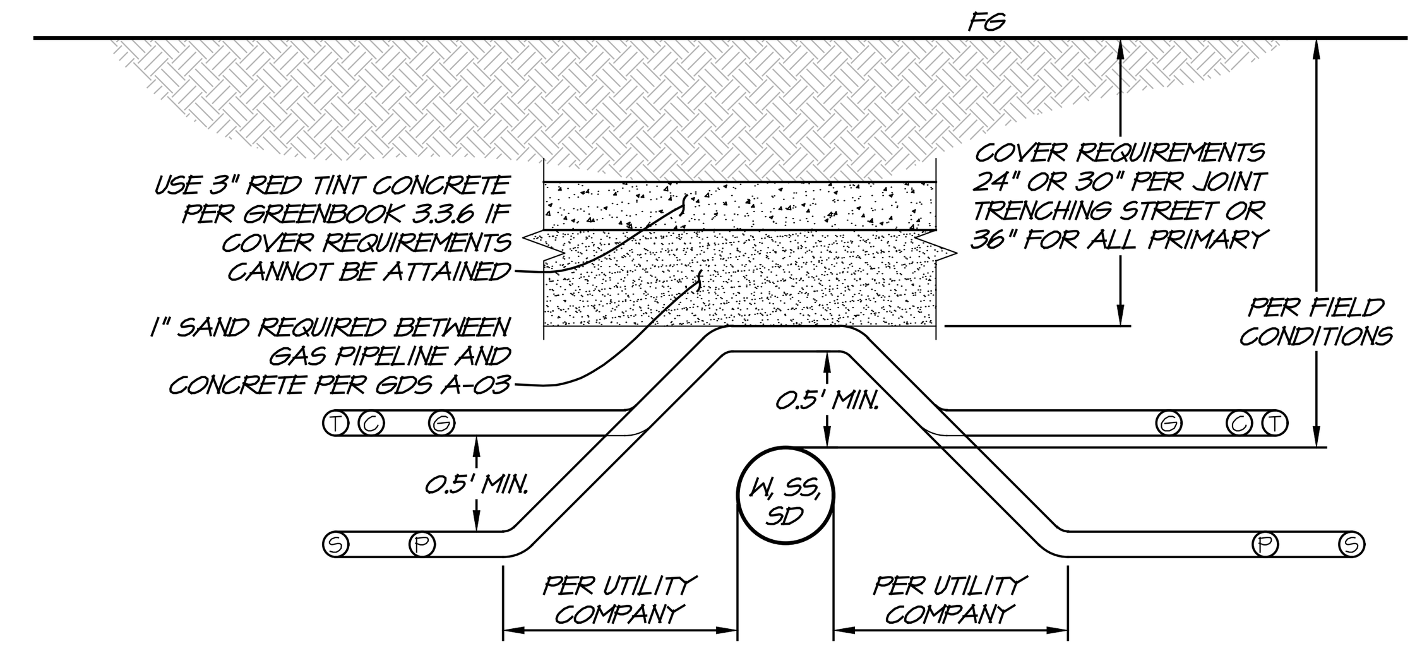
03/2025

1. JOINT TRENCH MUST BE INSTALLED ENTIRELY WITHIN AN EASEMENT. EASEMENTS FOR JOINT TRENCH SERVICE LATERALS WITHIN PROJECT ON PRIVATE PROPERTY ARE AT THE DISCRETION OF THE UTILITY COMPANIES.
2. ALL DEPTHS AND RESULTING COVER REQUIREMENTS ARE MEASURED FROM FINAL GRADE.
3. TRENCH DIMENSIONS SHOWN ARE TYPICAL. TRENCH SIZES AND CONFIGURATIONS MAY VARY DEPENDING UPON OCCUPANCY AND/OR FIELD CONDITIONS. TRENCH SIZE AND CONFIGURATION MUST AT ALL TIMES BE CONSTRUCTED IN A MANNER THAT ENSURES PROPER CLEARANCES AND COVER REQUIREMENTS ARE MET. ANY "CHANGE" TO THE TRENCH WIDTH AND CONFIGURATIONS AS SHOWN IN THIS EXHIBIT MUST BE DESIGNED TO ENSURE THIS REQUIREMENT.
4. NON-UTILITY FACILITIES ARE NOT ALLOWED IN ANY JOINT UTILITY TRENCH, E.G., IRRIGATION CONTROL LINES, BUILDING FIRE ALARM SYSTEMS, PRIVATE TELEPHONE SYSTEMS, OUTDOOR ELECTRICAL CABLE, ETC.
5. WHEN COMMUNICATION DUCTS ARE INSTALLED, A MINIMUM OF 12" RADIAL SEPARATION SHALL BE MAINTAINED FROM GAS FACILITIES. EXCEPTION: WITH MUTUAL AGREEMENT, WHEN 4-INCH DIAMETER OR SMALLER GAS PIPE IS INSTALLED, THE SEPARATION MAY BE REDUCED TO NOT LESS THAN 6 INCHES.
6. PROVIDE SEPARATION FROM TRENCH WALL AND OTHER FACILITIES SUFFICIENT TO ENSURE PROPER COMPACTION.
7. MAINTAIN PROPER SEPARATION BETWEEN PG&E FACILITIES AND "WET" UTILITY LINES AS DESCRIBED IN UO STANDARD S5453. THE MINIMUM ALLOWABLE HORIZONTAL SEPARATION BETWEEN COMPANY FACILITIES AND "WET" FACILITIES IS 3' WITH A MINIMUM 1' OF UNDISTURBED EARTH OR THE INSTALLATION OF A SUITABLE BARRIER BETWEEN THE FACILITIES. IF A 3' HORIZONTAL SEPARATION CANNOT BE ATTAINED BETWEEN "WET" UTILITIES AND COMPANY DRY FACILITIES, A VARIANCE MAY BE APPROVED BY THE LOCAL INSPECTION SUPERVISOR AND SUBMITTED TO THE SERVICE PLANNING SUPPORT PROGRAM MANAGER FOR APPROVAL. SEPARATIONS OF 1' OR LESS ARE NOT PERMISSIBLE AND WILL NOT BE ALLOWED. THE COMPANY MAY AGREE TO WAIVE THE MINIMUM 3' SEPARATION REQUIREMENT AT THE REQUEST OF AN APPLICANT IF WARRANTED AND THE NEED IS JUSTIFIED. THE REQUEST FOR A WAIVER MUST:
   - BE MADE IN WRITING AND SUBMITTED TO THE COMPANY ADE DURING THE PLANNING AND DESIGN PHASE OF THE PROJECT,
   - CLEARLY DESCRIBE THE CONDITIONS NECESSITATING THE WAIVER,
   - INCLUDE A PROPOSED DESIGN, AND INCLUDE A DESIGN FOR A BARRIER BETWEEN THE "WET" UTILITIES AND COMPANY DRY FACILITIES IN THE EVENT 1' OF UNDISTURBED EARTH CANNOT BE MAINTAINED. NOTE: DRAIN LINES CONNECTED TO DOWNSPOUTS ON BUILDINGS ARE CONSIDERED A "WET" UTILITY FOR THE PURPOSES OF THIS STANDARD.
8. SEPARATIONS SHALL BE MAINTAINED AT ABOVE GROUND TERMINATION POINTS.
9. PROCEDURES FOR APPROVING NATIVE BACKFILL FOR SHADING OF PG&E GAS FACILITIES:
   - RANDOM SOIL SAMPLES SHALL BE TAKEN FROM A MINIMUM OF 3 LOCATIONS PER 1,000' OF TRENCH. 100% OF THE SAMPLE MUST PASS THROUGH A 1/2" SIEVE AND 75% MUST PASS THROUGH A #4 SCREEN. ADDITIONAL SAMPLES MUST BE TAKEN IF EXISTING SOIL CONDITIONS CHANGE AND ARE TO BE TAKEN AT THE DISCRETION OF THE PG&E REPRESENTATIVE ON SITE.
   - THE SOILS MUST NOT CONTAIN ANY ROCKS THAT HAVE SHARP EDGES OR THAT MAY OTHERWISE BE ABRASIVE.
   - THE SOILS MUST NOT CONTAIN CLODS LARGER THAN 1/2" IF TO BE USED AS SHADING, BEDDING, OR LEVELING MATERIALS.
   - COMPACTION REQUIREMENTS MUST MEET ANY APPLICABLE PG&E, FEDERAL, STATE, COUNTY, OR LOCAL REQUIREMENTS.
   - AT NO TIME SHALL THE OVER SATURATION OF NATIVE SOILS BE USED TO ACHIEVE THESE REQUIREMENTS.
   - THE SIEVES AND SCREENS SHALL BE:
   - 1/2" SIEVE: 8" DIAMETER BY 2" DEEP, STAINLESS STEEL MESH SCREEN.
   - #4 SCREEN: 8" DIAMETER BY 2" DEEP, STAINLESS STEEL MESH SCREEN.
10. COMPETENT NATIVE SOILS ARE PREFERRED TO BE USED FOR SHADING, BEDDING, AND BACKFILLING THROUGHOUT THE TRENCH.
    - WHERE NATIVE SOILS EXCEED 1/2" MINUS AND/OR WHERE GAS IS TO BE PLACED AT THE BOTTOM OF A TRENCH IN AREAS THAT EXCEED 1/2" MINUS SOIL CONDITIONS, OR WHERE THE BOTTOM OF A TRENCH IS CONSIDERED TO CONSIST OF HARD PAN, PG&E APPROVED 1/2" MINUS IMPORT MATERIAL SHALL BE USED FOR SHADING AND/OR BEDDING OF GAS FACILITIES.
    - PG&E APPROVED IMPORT MATERIAL IS PER CGT ENGINEERING GUIDELINE 4123.
    - IF A LEVELING COURSE IS REQUIRED FOR GAS FACILITIES, THE USE OF NATIVE SOILS IS PREFERRED, BUT IF 1/2" MINUS CONDITIONS ARE NOT ATTAINABLE WITH THE NATIVE SOILS, THEN THE USE OF PG&E APPROVED IMPORT MATERIALS IS REQUIRED. BEDDING UNDER GAS FACILITIES WILL BE A MINIMUM OF 2" OF COMPACTED 1/2" MINUS NATIVE SOILS OR PG&E APPROVED IMPORT MATERIAL.
    - FOR ELECTRIC FACILITIES, REFER TO NOTE 11. THIS APPLIES TO LEVELING COURSES AS WELL AS SHADING.
    - THE MINIMUM PG&E APPROVED BEDDING MATERIAL MAY BE INCREASED AT THE DISCRETION OF PG&E WHEN WARRANTED BY EXISTING FIELD CONDITIONS (E.G., ROCKY SOILS, HARD PAN, ETC.).
    - THE USE OF ANY IMPORTED MATERIAL FOR BACKFILLING PURPOSES SHALL BE LIMITED TO THOSE SITUATIONS WHEN NATIVE SOILS DO NOT ALLOW FOR REQUIRED COMPACTION.
11. THE APPLICANT IS RESPONSIBLE FOR THE REMOVAL OF EXCESS SPOIL AND ASSOCIATED COSTS.
12. SEPARATION BETWEEN GAS FACILITIES AND ELECTRIC FACILITIES MAY BE REDUCED TO 6" WHEN CROSSING.
13. SERVICE SADDLES ARE THE PREFERRED SERVICE FITTINGS FOR USE THROUGHOUT THE JOINT TRENCH PROJECT. ALL PROJECTS WILL BE DESIGNED AND ESTIMATED USING SERVICE SADDLES. HOWEVER, SERVICE TEES MAY BE USED IF ALL CLEARANCES, SEPARATION, AND COVERAGE REQUIREMENTS ARE MAINTAINED.
14. CONTRACTOR TO INCREASE METER SPACING AS NECESSARY WHEN EARTHQUAKE VALVES OR OTHER ADDITIONAL SAFETY EQUIPMENT ARE REQUIRED. EARTHQUAKE VALVES ARE REQUIRED IN SOME AREAS AND ARE NOT PART OF PG&E/RSA+ SCOPE. THIS INFORMATION CAN BE FOUND ON BUILDING MECHANICAL ENGINEER'S PLANS. PG&E STANDARD METER SPACING REQUIREMENTS DO NOT INCLUDE CLEARANCE FOR EARTHQUAKE VALVES.
15. ELECTRIC GENERATION EQUIPMENT IS NOT PART OF RSA+ SCOPE. ALL RELATED DESIGNS, APPLICATIONS, AND COORDINATION WITH PG&E'S INTERCONNECTION/NET METERING DEPARTMENT SHALL BE HANDLED BY THE EQUIPMENT VENDOR OR OTHERS.

CALL 811 BEFORE YOU DIG — SAFE DIGGING PARTNER



JOINT TRENCH CROSING UNDER WATER, SS, & SD



JOINT TRENCH CROSING OVER WATER, SS, & SD

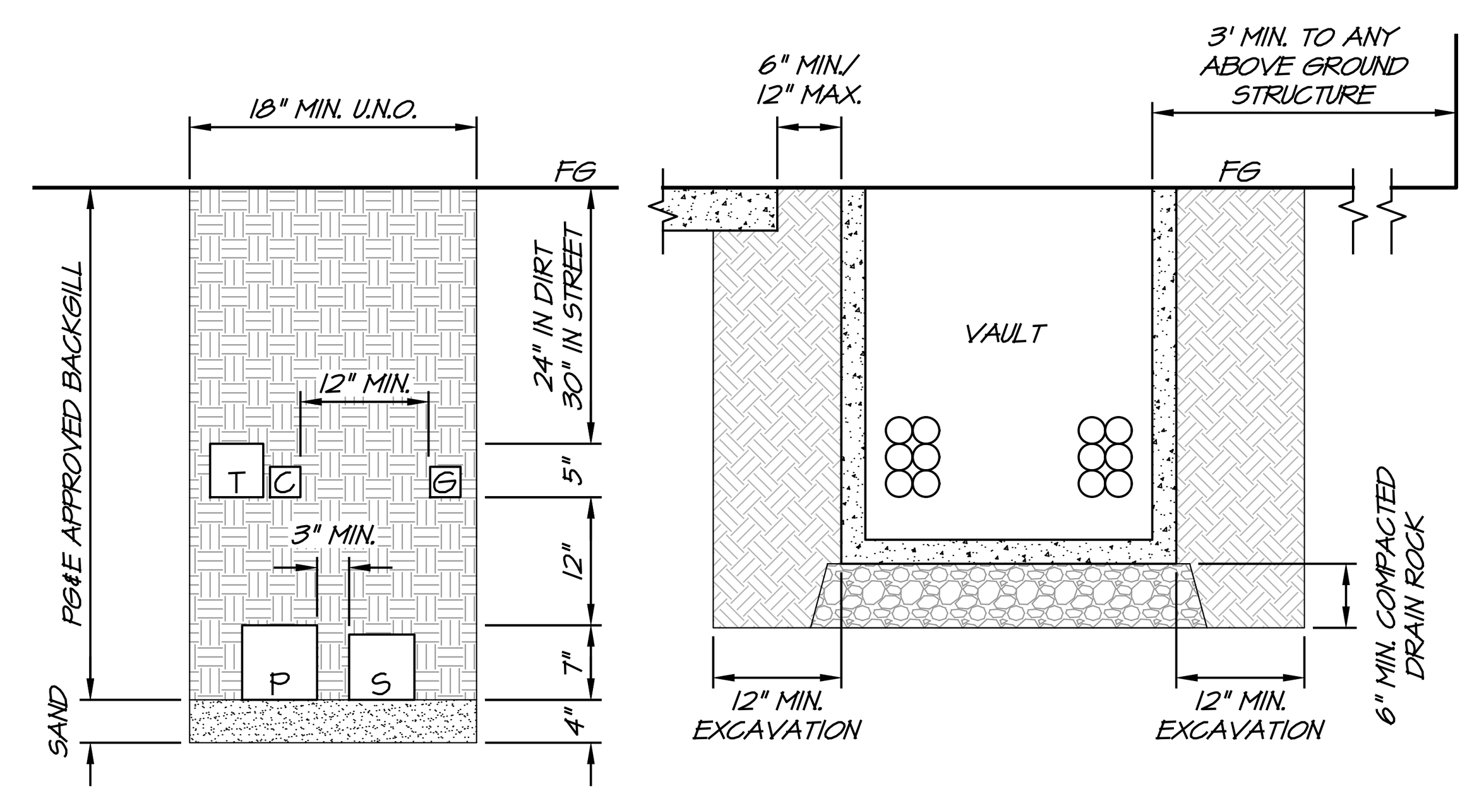
* WIDTH PER SIZE & NUMBER OF EACH UTILITY. PG&E / SVP AND CITY INSPECTOR TO DETERMINE METHOD OF CROSSING.

NOTES:

1. TRENCH DEPTH NOT TO EXCEED 5' UNLESS APPROVED BY PG&E INSPECTOR. NO CASE SHOULD PLASTIC GAS PIPE BE INSTALLED AT A DEPTH GREATER THAN 10' UNLESS APPROVED BY PG&E SENIOR GAS ENGINEER.
2. TRENCHING CONTRACTOR SHALL NOT ASSUME THAT EITHER OF THE ABOVE DETAILS WILL BE ACCEPTABLE TO PG&E AND SVP. YOU ARE REQUIRED TO CONTACT THE LOCAL PG&E AND SVP ENGINEERING OFFICE WITH ANY ISSUE RELATING TO COVERS LESS THAN MINIMUM, OR COVERS REQUIRED SHORING. CONCRETE CAPPING IS ONLY ACCEPTABLE WHERE NO OTHER SOLUTION IS POSSIBLE AND ONLY WHEN CERTAIN CRITERIA AREA MET AND ONLY WITH PG&E AND SVP APPROVAL.
3. JOINT TRENCH CLEARANCES BETWEEN PUBLIC WATER FACILITIES SHALL MEET CITY STANDARD W-22A AND W-22B.

1 JOINT TRENCH CROSSING

NOT TO SCALE

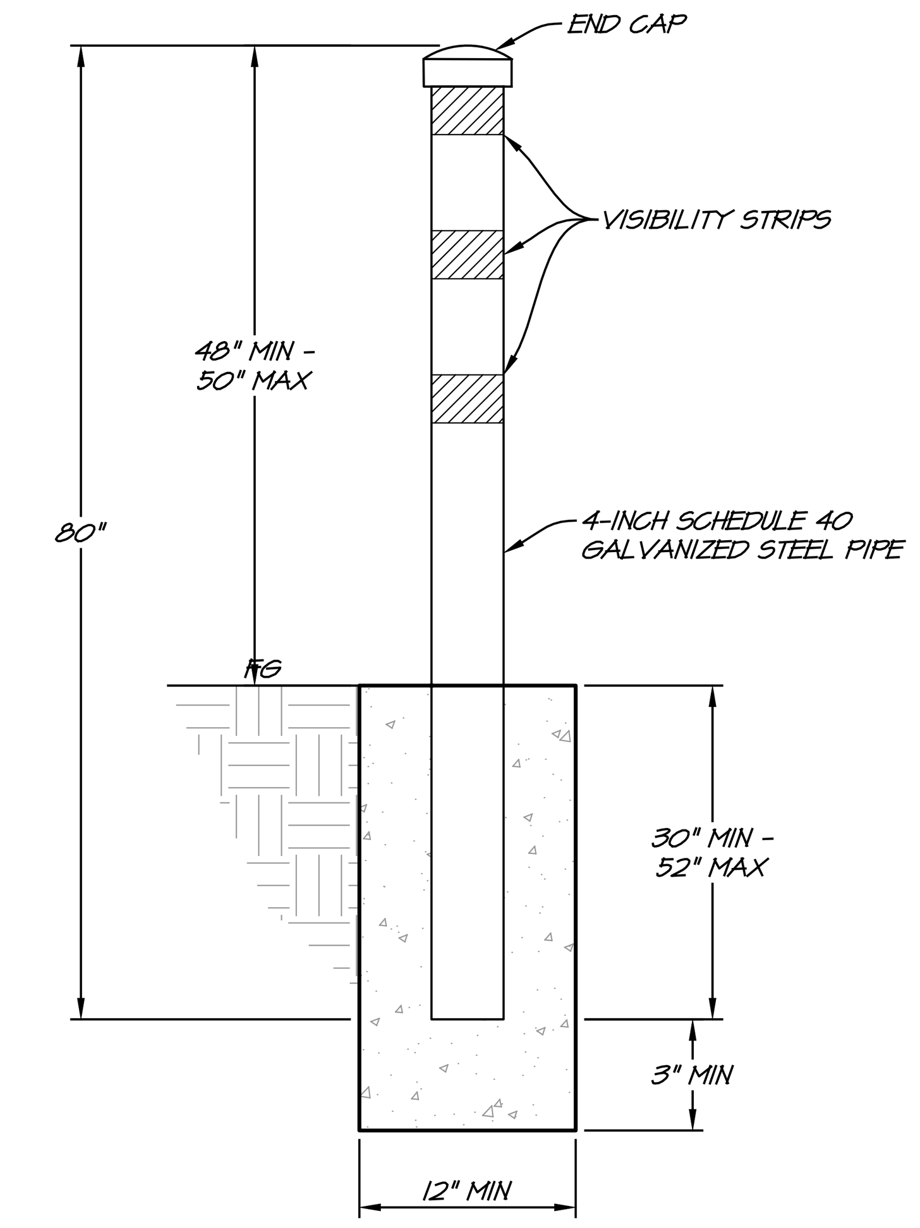


TYPICAL JOINT TRENCH
PER PG&E STANDARD S5453, EXHIBIT B

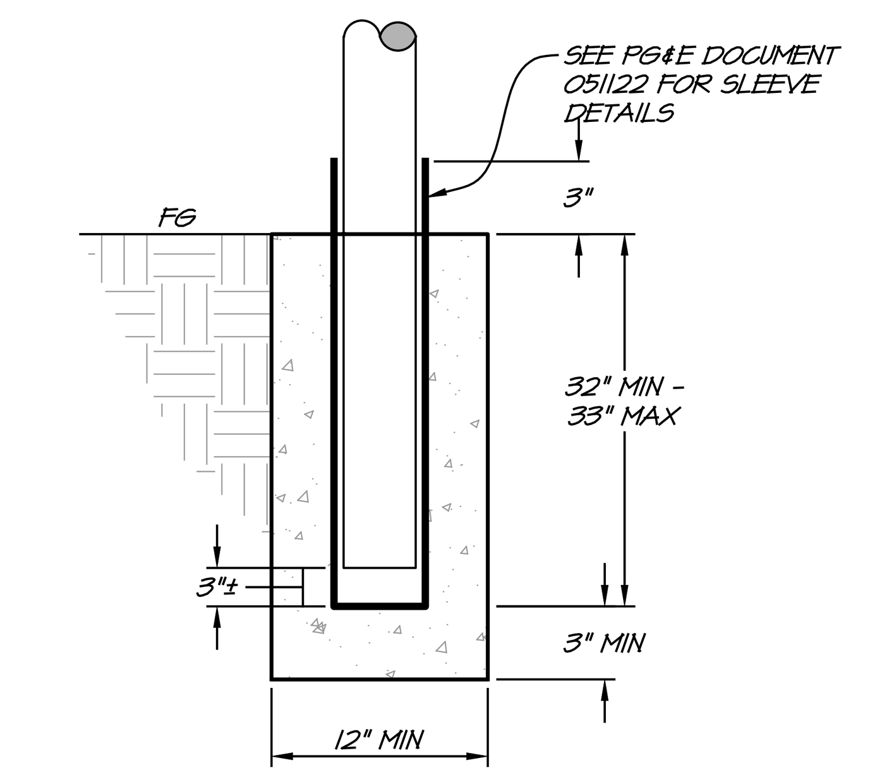
TYPICAL EXCAVATION
PER PG&E PRIMARY VAULTS, TRANSFORMERS, U.N.O.

2 EXCAVATION AND BACKFILL

NOT TO SCALE



PG&E FIXED STEEL BARRIER POST



FOOTING FOR REMOVABLE STEEL POST

3 STEEL BARRIER POST WITH FOOTING DETAIL

NOT TO SCALE

PG&E PM#'s:
ELECTRIC:________________
GAS:________________

NO.	DATE	REVISIONS	BY	APPD

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OFFICE (707) 252.3301
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MILLIKEN ESTATES
JOINT TRENCH NOTES

NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — DEREK MASON DITTMAN — No. 90885 — Exp. 03.31.2028 — CIVIL ENGINEER — STATE OF CALIFORNIA

DATE	MARCH 31, 2026
DRAWN	FV
DESIGNED	MM/RAY
CHECKED	DMD
JOB NO.	4116027.1

SHEET NO.
C1.2

PRELIMINARY - NOT FOR CONSTRUCTION

NOTES

1. BMP'S SHALL BE INSTALLED PRIOR TO ANY DEMO OR GROUND DISTURBING ACTIVITIES, SEE SHEETS C3.0 AND C3.1.
2. ALL DISTURBED AREAS SHALL BE STABILIZED IF SITE REMAINS INACTIVE FOR MORE THAN 14 DAYS.
3. NO STAGING OF MATERIALS SHOULD OCCUR WITHIN THE FLOODPLAIN LIMITS DURING THE RAINY SEASON.
4. EXISTING UTILITIES WERE DRAWN FROM RECORD SOURCES. CONTRACTOR SHALL FIELD VERIFY PRIOR TO STARTING WORK.
5. NO GRADING SHALL BE PERFORMED WITHIN FLOODWAY, RIPARIAN AREA, WATERS/ WETLANDS, AND APPLICABLE SETBACKS.
6. THERE SHALL BE NO CONSTRUCTION WORK OR STAGING WITHIN THE FLOODWAY.

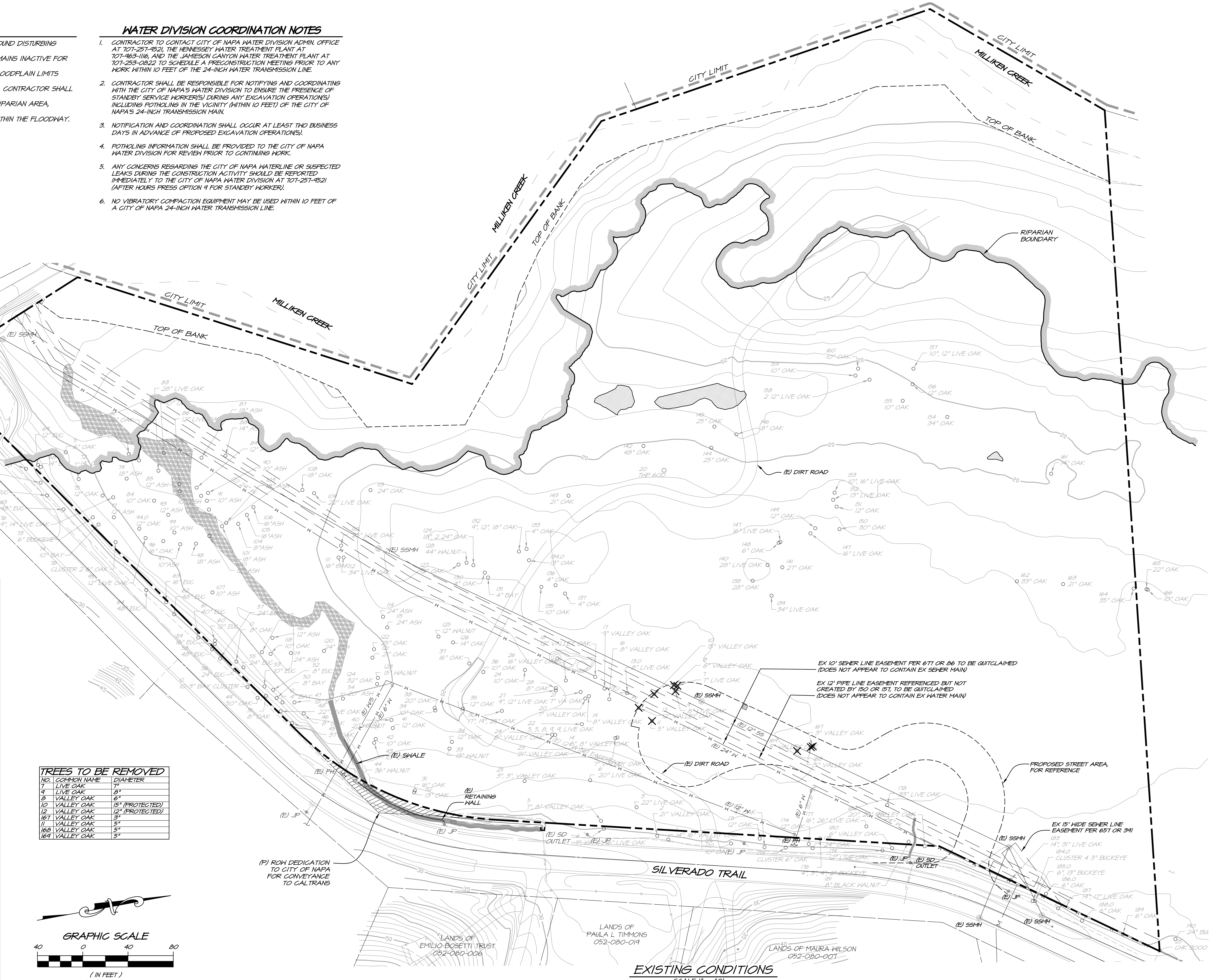
WATER DIVISION COORDINATION NOTES

1. CONTRACTOR TO CONTACT CITY OF NAPA WATER DIVISION ADMIN. OFFICE AT 707-257-9521, THE HENNESSEY WATER TREATMENT PLANT AT 707-963-1116, AND THE JAMIESON CANYON WATER TREATMENT PLANT AT 707-253-0822 TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO ANY WORK WITHIN 10 FEET OF THE 24-INCH WATER TRANSMISSION LINE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND COORDINATING WITH THE CITY OF NAPA'S WATER DIVISION TO ENSURE THE PRESENCE OF STANDBY SERVICE WORKER(S) DURING ANY EXCAVATION OPERATION(S) INCLUDING POTHOLING IN THE VICINITY (WITHIN 10 FEET) OF THE CITY OF NAPA'S 24-INCH TRANSMISSION MAIN.
3. NOTIFICATION AND COORDINATION SHALL OCCUR AT LEAST TWO BUSINESS DAYS IN ADVANCE OF PROPOSED EXCAVATION OPERATION(S).
4. POTHOLING INFORMATION SHALL BE PROVIDED TO THE CITY OF NAPA WATER DIVISION FOR REVIEW PRIOR TO CONTINUING WORK.
5. ANY CONCERNS REGARDING THE CITY OF NAPA WATERLINE OR SUSPECTED LEAKS DURING THE CONSTRUCTION ACTIVITY SHOULD BE REPORTED IMMEDIATELY TO THE CITY OF NAPA WATER DIVISION AT 707-257-9521 (AFTER HOURS PRESS OPTION 9 FOR STANDBY WORKER).
6. NO VIBRATORY COMPACTION EQUIPMENT MAY BE USED WITHIN 10 FEET OF A CITY OF NAPA 24-INCH WATER TRANSMISSION LINE.

BIOLOGICAL SURVEY LEGEND

RIPARIAN BOUNDARY
POTENTIAL WATERS
POTENTIAL WATERS
POTENTIAL WETLANDS

POTENTIAL WATERS AND POTENTIAL WETLANDS PER BIOLOGICAL SURVEY PREPARED BY MONK AND ASSOCIATES.



EXISTING CONDITIONS

SCALE 1" = 40'

LEGEND

95 12" LIVE OAK — INDICATES TREE KEYED TO ARBORISTS REPORT BY: PRAMUK, TREES AND ASSOCIATES, LLC, P.O. BOX 25, NAPA, CA 94559, DATED: JANUARY 15, 2018

11 X 5" VALLEY OAK — TREES MARKED WITH "X" TO BE REMOVED

PROTECTED NATIVE TREES

NUMBER	COMMON NAME	BOTANICAL NAME	DIAMETER
1	VALLEY OAK	QUERCUS LOBATA	14", 16"
2	VALLEY OAK	QUERCUS LOBATA	21"
3	COAST LIVE OAK	QUERCUS AGRIFOLIA	22"
4	COAST LIVE OAK	QUERCUS AGRIFOLIA	11", 7", 16", 10"
6	COAST LIVE OAK	QUERCUS AGRIFOLIA	20"
10	VALLEY OAK	QUERCUS LOBATA	15"
12	VALLEY OAK	QUERCUS LOBATA	12"
18	VALLEY OAK	QUERCUS LOBATA	12"
23	VALLEY OAK	QUERCUS LOBATA	21"
26	VALLEY OAK	QUERCUS LOBATA	16"
27	COAST LIVE OAK	QUERCUS AGRIFOLIA	9", 12"
30	COAST LIVE OAK	QUERCUS AGRIFOLIA	17", 19", 25"
32	VALLEY OAK	QUERCUS LOBATA	13"
33	BLACK WALNUT	JUGLANS HINDSI	13"
37	VALLEY OAK	QUERCUS LOBATA	16"
38	VALLEY OAK	QUERCUS LOBATA	20"
40	BLACK WALNUT	JUGLANS HINDSI	21"
44	BLACK WALNUT	JUGLANS HINDSI	36"
45	VALLEY OAK	QUERCUS LOBATA	37"
48	COAST LIVE OAK	QUERCUS AGRIFOLIA	22"
49	VALLEY OAK	QUERCUS LOBATA	50"
76	COAST LIVE OAK	QUERCUS AGRIFOLIA	9", 14"
81	VALLEY OAK	QUERCUS LOBATA	18"
83	COAST LIVE OAK	QUERCUS AGRIFOLIA	28"
86	COAST LIVE OAK	QUERCUS AGRIFOLIA	12"
95	COAST LIVE OAK	QUERCUS AGRIFOLIA	12"
109	COAST LIVE OAK	QUERCUS AGRIFOLIA	22"
110	COAST LIVE OAK	QUERCUS AGRIFOLIA	25"
112	COAST LIVE OAK	QUERCUS AGRIFOLIA	34"
113	VALLEY OAK	QUERCUS LOBATA	31"
121	COAST LIVE OAK	QUERCUS AGRIFOLIA	21"
122	COAST LIVE OAK	QUERCUS AGRIFOLIA	25"
123	BLACK WALNUT	JUGLANS HINDSI	15"
124	COAST LIVE OAK	QUERCUS AGRIFOLIA	32"
125	BLACK WALNUT	JUGLANS HINDSI	12"
128	BLACK WALNUT	JUGLANS HINDSI	44"
129	COAST LIVE OAK	QUERCUS AGRIFOLIA	18", 24", 24"
132	COAST LIVE OAK	QUERCUS AGRIFOLIA	12", 18", 9"
134	COAST LIVE OAK	QUERCUS AGRIFOLIA	13"
138	VALLEY OAK	QUERCUS LOBATA	28"
139	COAST LIVE OAK	QUERCUS AGRIFOLIA	34"
140	COAST LIVE OAK	QUERCUS AGRIFOLIA	28"
141	VALLEY OAK	QUERCUS LOBATA	27"
142	COAST LIVE OAK	QUERCUS AGRIFOLIA	48"
143	COAST LIVE OAK	QUERCUS AGRIFOLIA	21"
144	COAST LIVE OAK	QUERCUS AGRIFOLIA	25"
145	VALLEY OAK	QUERCUS LOBATA	25"
147	COAST LIVE OAK	QUERCUS AGRIFOLIA	16"
150	VALLEY OAK	QUERCUS LOBATA	30"
152	COAST LIVE OAK	QUERCUS AGRIFOLIA	13"
153	COAST LIVE OAK	QUERCUS AGRIFOLIA	10", 16"
154	VALLEY OAK	QUERCUS LOBATA	34"
157	COAST LIVE OAK	QUERCUS AGRIFOLIA	10", 12"
158	COAST LIVE OAK	QUERCUS AGRIFOLIA	12", 12"
161	VALLEY OAK	QUERCUS LOBATA	14"
162	COAST LIVE OAK	QUERCUS AGRIFOLIA	33"
163	VALLEY OAK	QUERCUS LOBATA	21"
164	VALLEY OAK	QUERCUS LOBATA	35"
165	VALLEY OAK	QUERCUS LOBATA	22"
177	COAST LIVE OAK	QUERCUS AGRIFOLIA	26", 16"
178	COAST LIVE OAK	QUERCUS AGRIFOLIA	33"
179	COAST LIVE OAK	QUERCUS AGRIFOLIA	12"
182	VALLEY OAK	QUERCUS LOBATA	20, 26"
183	COAST LIVE OAK	QUERCUS AGRIFOLIA	14", 31"
187	COAST LIVE OAK	QUERCUS AGRIFOLIA	14", 17"

TREES TO BE REMOVED

NO.	COMMON NAME	DIAMETER
7	LIVE OAK	7"
9	LIVE OAK	8"
8	VALLEY OAK	6"
10	VALLEY OAK	15" (PROTECTED)
12	VALLEY OAK	12" (PROTECTED)
167	VALLEY OAK	3"
11	VALLEY OAK	5"
168	VALLEY OAK	5"
169	VALLEY OAK	5"

NO.	DATE	REVISIONS	BY	APPD

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+ www.RSAcivil.com +

MILLIKEN ESTATES
EXISTING CONDITIONS

NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 90885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

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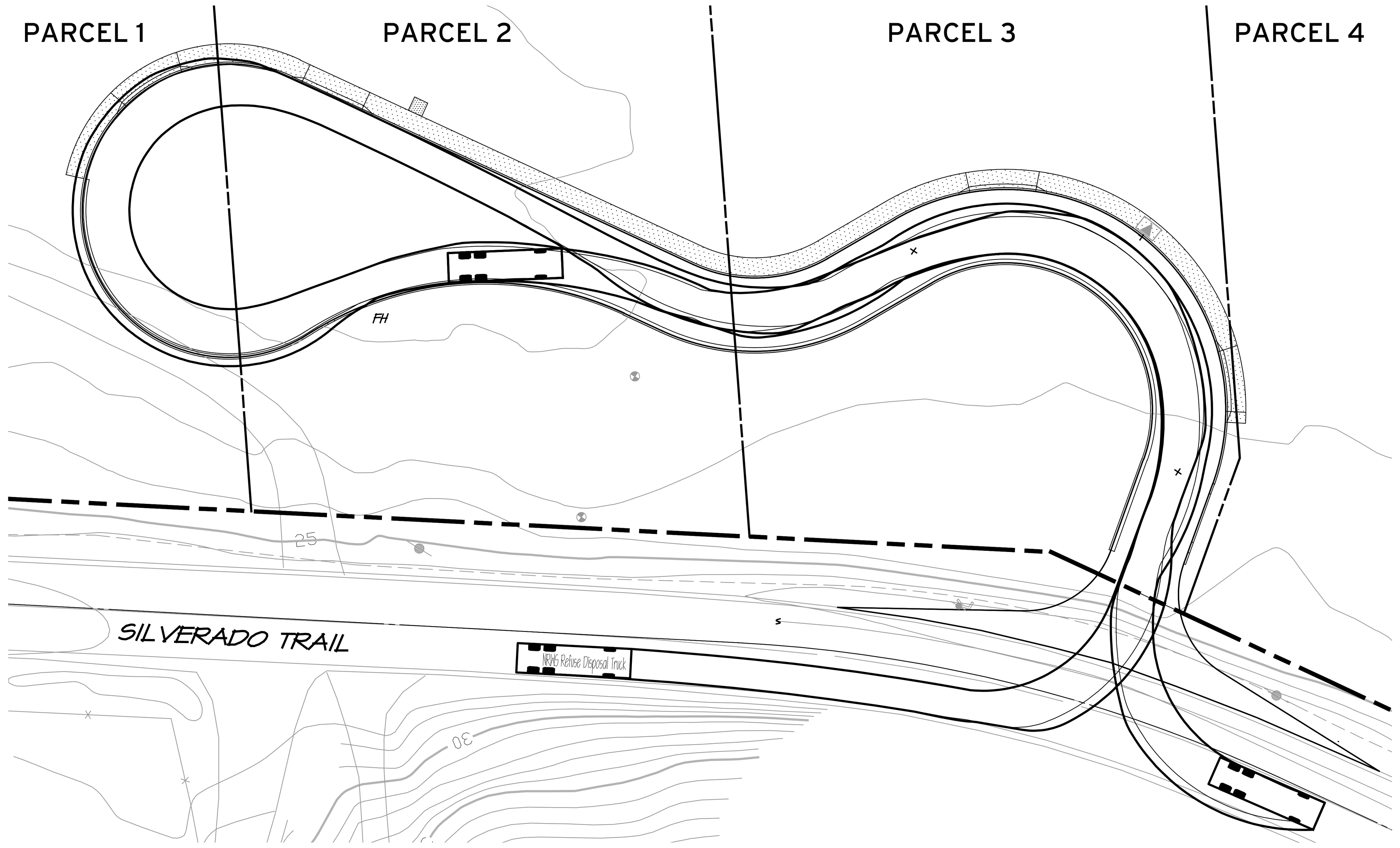
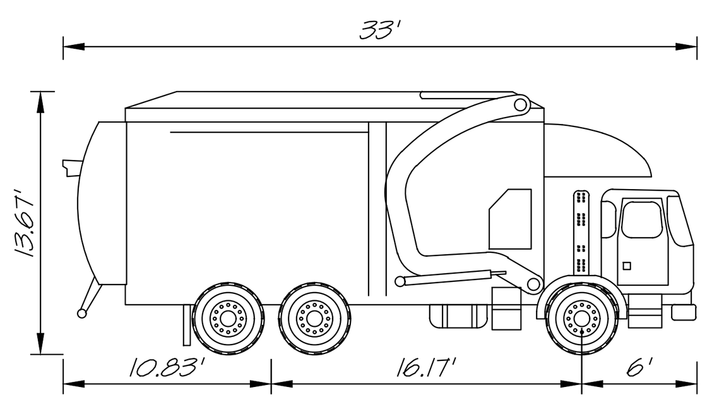
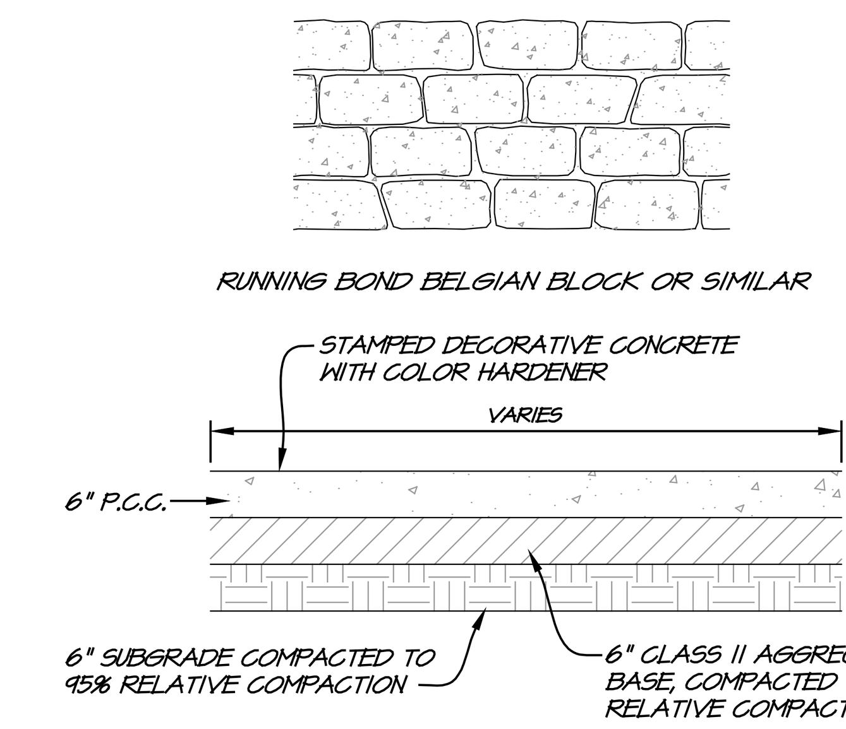


NRWS COLLECTION TRUCK TURNING TEMPLATE
SCALE 1" = 30'



NAPA CITY COLLECTION TRUCK	
OVERALL LENGTH	33.000 FT
OVERALL WIDTH (INCLUDES MIRRORS)	11.000 FT
OVERALL BODY HEIGHT	13.666 FT
BUMPER TO FRONT AXLE	6.000 FT
STEERING LOCK ANGLE	25.2 DEGREES
CURB TO CURB TURNING RADIUS	36.000 FT

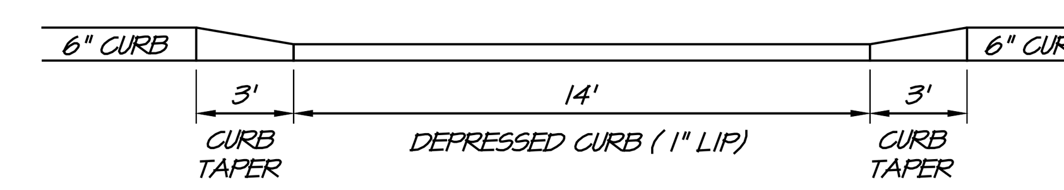
NAPA RECYCLING AND WASTE SERVICES TRUCK
SCALE 1" = 10'



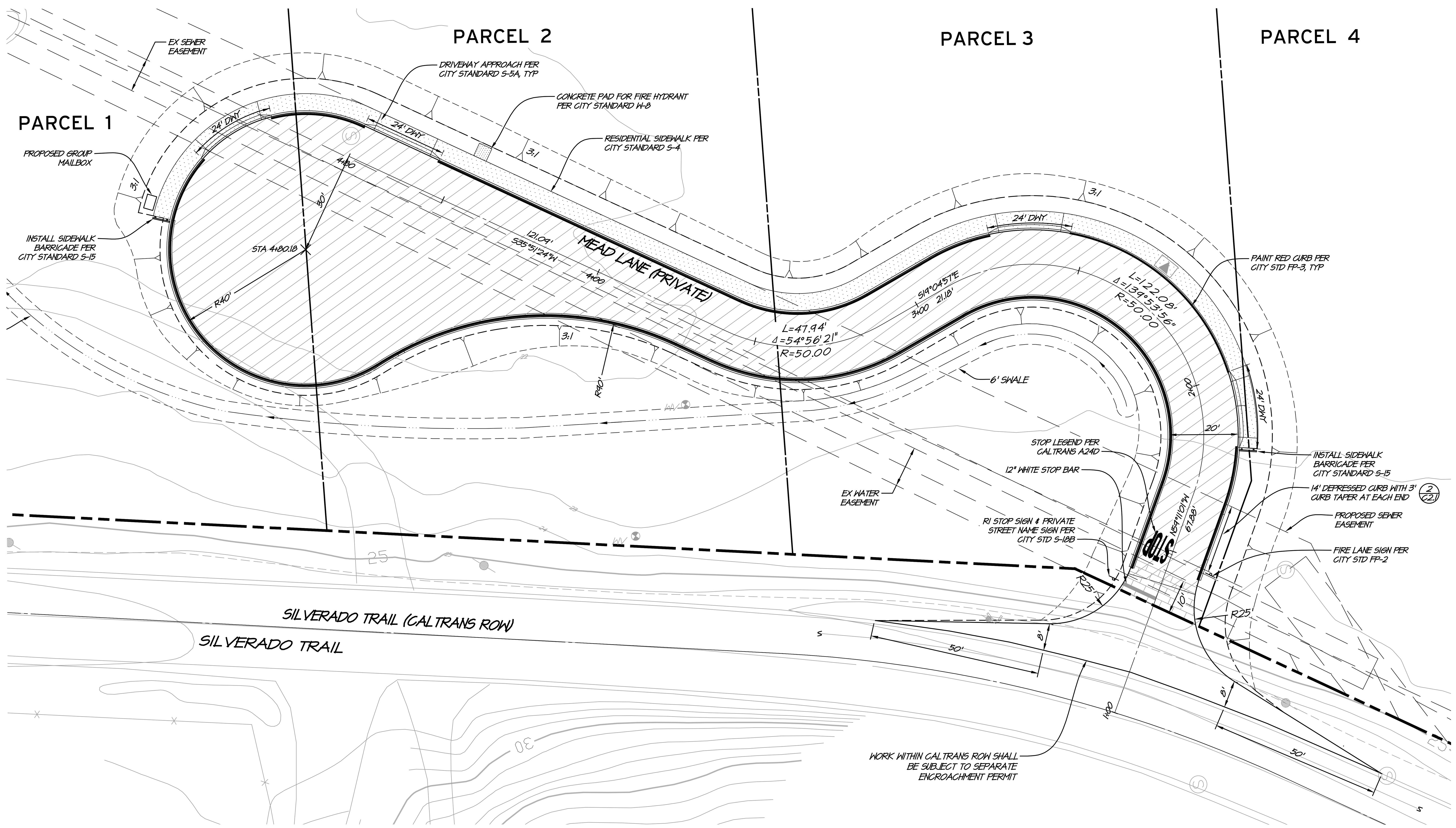
1/C2.1 STAMPED DECORATIVE CONCRETE
NOT TO SCALE

NOTES

1. PORTLAND CEMENT CONCRETE SHALL BE CLASS "A" CONCRETE CONFORMING TO THE PROVISIONS OF SECTION 90, "PORTLAND CEMENT CONCRETE," OF THE CITY STANDARD SPECIFICATIONS.
2. THE PATTERN TO BE IMPRINTED SHALL MATCH "BOMANITE'S" BOMACRON RUNNING BOND BELGIAN BLOCK PATTERN OR SIMILAR.
3. THE COLOR HARDENER SHALL BE "BOMANITE'S" SIERRA ROSE OR SIMILAR.
4. BOMANITE, MADERA, CA (209) 673-2411 OR QC CONSTRUCTION PRODUCTS, MADERA, CA (800) 453-8213 OR SIMILAR.
5. THE COLOR HARDENER SHALL BE APPLIED EVENLY TO THE SURFACE OF FRESH CONCRETE BY DRY-SHAKE METHOD USING A MINIMUM 60 POUNDS PER 100 SQ FEET. IT SHALL BE APPLIED IN TWO OR MORE SHAKES, FLOATED AFTER EACH SHAKE AND TROWLED ONLY AFTER THE FINAL FLOATING.
6. WHILE CONCRETE IS STILL IN ITS PLASTIC STAGE OF SET, THE IMPRINTING TOOLS SHALL BE APPLIED TO THE SURFACE. THE SURFACE OF THE STAMPED CONCRETE SHALL THEN BE CURED AND SEALED PER MANUFACTURER'S (I.E. BOMANITE OR SIMILAR) RECOMMENDATIONS IMMEDIATELY AFTER COMPLETING THE IMPRINTING PROCESS.



2/C2.1 DEPRESSED CURB DETAIL
NOT TO SCALE



DRIVEWAY LAYOUT PLAN
SCALE 1" = 20'

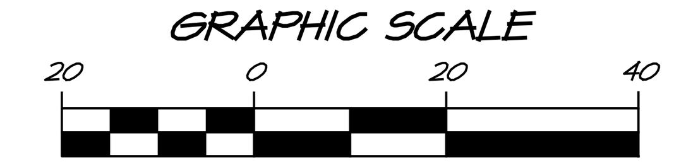
PAVING LEGEND

- 10' WIDE STAMPED DECORATIVE CONCRETE (SEE DETAIL 1/C2.1)
- NEW AC PAVEMENT (PRIVATE LOCAL STREET WITH NO PARKING, TI=5, R=8) 3" AC OVER 11" CLASS II AB COMPACTED TO 95% RC. UPPER 6" OF SUBGRADE SHALL BE SCARIFIED, MOISTURE CONDITIONED, AND COMPACTED TO 95% RC PER SOILS REPORT.
- NEW CONCRETE FLATWORK (SEE NOTES AT BELOW)

CONCRETE FLATWORK NOTES:

REFER TO THE FOLLOWING DETAILS:
CURB & 12" GUTTER - CITY OF NAPA STANDARD S-1A
VERTICAL CURB - CITY OF NAPA STANDARD S-2 (A1-6 CURB)
SIDEWALK - 4" PCC OVER 4" CLASS II AB PER CITY STANDARD S-4
DRIVEWAY APPROACH - 6" PCC OVER 12" CLASS II AB PER CITY STANDARD S-5A

GRAPHIC SCALE



(IN FEET)
1 inch = 20 FT

NO.	DATE	REVISIONS	BY	APPD

RSA+ CONSULTING CIVIL ENGINEERS + SURVEYORS +
1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE (707) 252.3301
+ www.RSAcivil.com +
EST. 1980

MILLIKEN ESTATES
DRIVEWAY LAYOUT & PAVING PLAN
NAPA CALIFORNIA

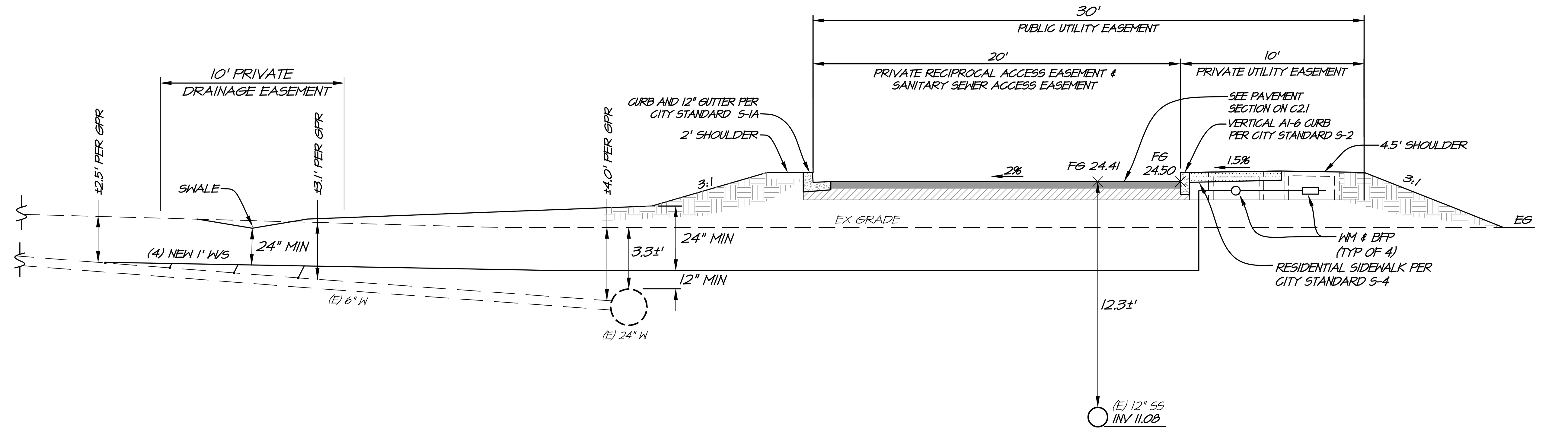
REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 90885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	MARCH 31, 2026
DRAWN	FV
DESIGNED	MM/RAY
CHECKED	DMD
JOB NO.	4116027.1

SHEET NO.
C2.1
5 OF 10 SHEETS

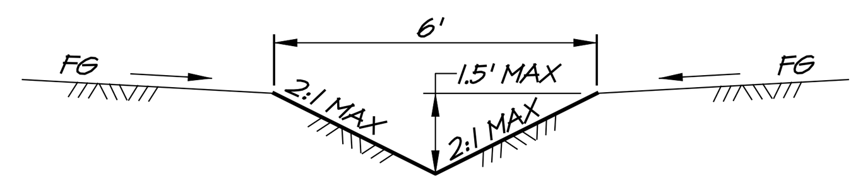
R:\2016\4116027.1_Silverado_Trail_LLC_Silverado_Trail_Parcel_Map\DESIGN\PLANS - CONST\C2.1 Driveway Layout & Paving Plan.dwg 03/31/2026 3:28:01 PM Mlanca COPYRIGHT Riechers Spence & Assoc.

PRELIMINARY - NOT FOR CONSTRUCTION



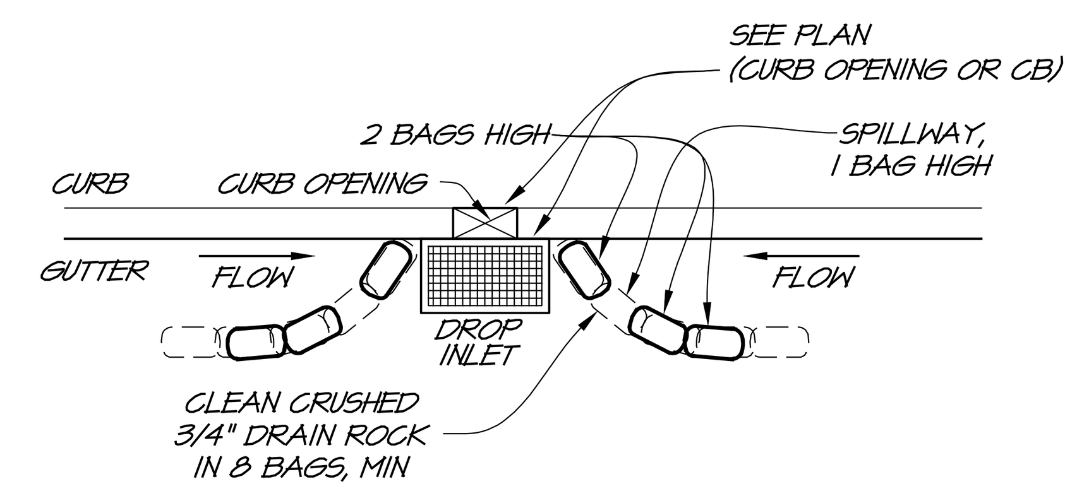
SECTION 1 - 1

SCALE 1" = 5'



1 / C3.0 GRASS-LINED SWALE DETAIL

NOT TO SCALE

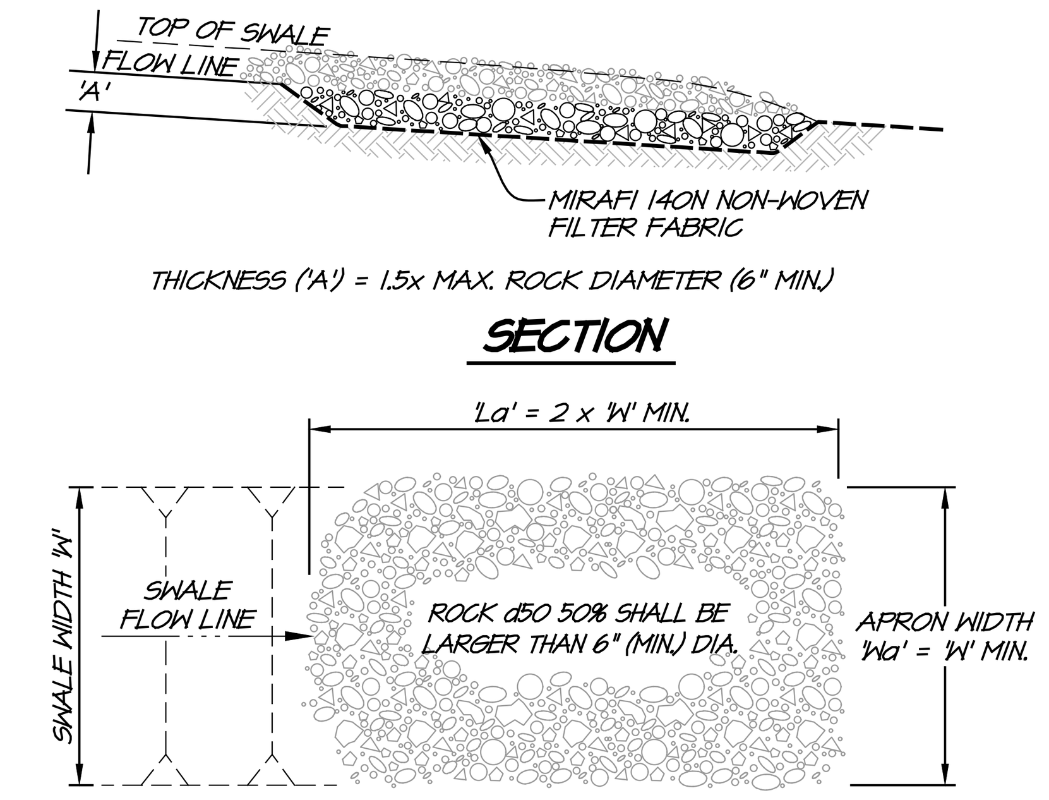


NOTE: GRAVEL BAG MATERIAL PER SE-6 OF CASQA.

2 / C3.0 DRAIN INLET SEDIMENT BARRIER

(PER CASQA BMP SE-10, TYPE 3)

NOT TO SCALE

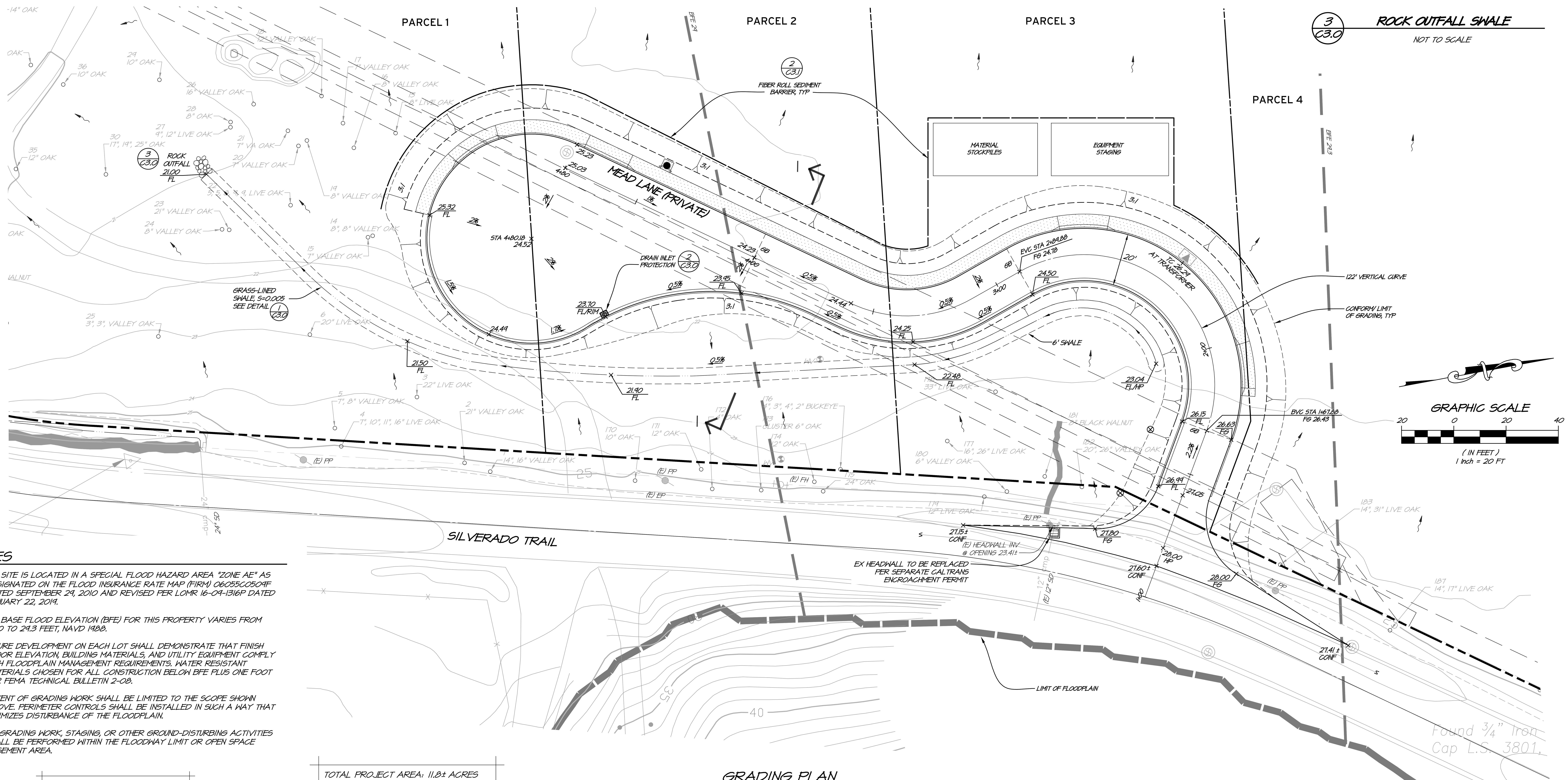


NOTES

1. 'La' = LENGTH OF APRON. DISTANCE 'La' SHALL BE OF SUFFICIENT LENGTH TO DISSIPATE ENERGY.
2. APRON SHALL BE SET AT A ZERO GRADE AND ALIGNED STRAIGHT.
3. FILTER MATERIAL SHALL BE FILTER FABRIC OR 6" THICK (MIN.) GRADED GRAVEL LAYER.

3 / C3.0 ROCK OUTFALL SWALE

NOT TO SCALE



NOTES

1. THE SITE IS LOCATED IN A SPECIAL FLOOD HAZARD AREA "ZONE AE" AS DESIGNATED ON THE FLOOD INSURANCE RATE MAP (FIRM) 06055C0504F DATED SEPTEMBER 29, 2010 AND REVISED PER LOMR 16-09-1316P DATED JANUARY 22, 2019.
2. THE BASE FLOOD ELEVATION (BFE) FOR THIS PROPERTY VARIES FROM 24.0 TO 24.3 FEET, NAVD 1988.
3. FUTURE DEVELOPMENT ON EACH LOT SHALL DEMONSTRATE THAT FINISH FLOOR ELEVATION, BUILDING MATERIALS, AND UTILITY EQUIPMENT COMPLY WITH FLOODPLAIN MANAGEMENT REQUIREMENTS. WATER RESISTANT MATERIALS CHOSEN FOR ALL CONSTRUCTION BELOW BFE PLUS ONE FOOT PER FEMA TECHNICAL BULLETIN 2-08.
4. EXTENT OF GRADING WORK SHALL BE LIMITED TO THE SCOPE SHOWN ABOVE. PERIMETER CONTROLS SHALL BE INSTALLED IN SUCH A WAY THAT MINIMIZES DISTURBANCE OF THE FLOODPLAIN.
5. NO GRADING WORK, STAGING, OR OTHER GROUND-DISTURBING ACTIVITIES SHALL BE PERFORMED WITHIN THE FLOODWAY LIMIT OR OPEN SPACE EASEMENT AREA.

NOTE: SEED PER SPECIFICATIONS ON SHEET C3.1

TOTAL PROJECT AREA: 11.8± ACRES

TOTAL DISTURBED AREA: 0.65± ACRES

GRADING PLAN

SCALE 1" = 20'

NO.	DATE	REVISIONS	BY	APPD

RSA+ CONSULTING CIVIL ENGINEERS + SURVEYORS + 1980

1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE (707) 252.3301
www.RSAcivil.com

MILLIKEN ESTATES
GRADING AND EROSION CONTROL PLAN

NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 90885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

DATE: MARCH 31, 2026
DRAWN: FV
DESIGNED: MM/RAY
CHECKED: DMD
JOB NO. 4116027.1

SHEET NO. C3.0

6 OF 10 SHEETS

PRELIMINARY - NOT FOR CONSTRUCTION

GRADING NOTES

1. EXCAVATION AND GRADING SHALL COMPLY WITH APPENDIX J, "GRADING" FROM THE CALIFORNIA BUILDING CODE, LATEST EDITION AND THE PROJECT GEOTECHNICAL REPORT.
2. THE GEOTECHNICAL REPORT PREPARED FOR THIS PROJECT BY RGH CONSULTANTS DATED NOVEMBER 2, 2016 SHALL BECOME PART OF THESE PLANS. SITE PREPARATION, EXCAVATION, GRADING, FILL PLACEMENT AND COMPACTION SHALL CONFORM WITH THE PROJECT GEOTECHNICAL REPORT AND WITH THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER. FIELD OBSERVATION AND TESTING DURING THE GRADING OPERATIONS SHALL BE PROVIDED BY REPRESENTATIVES OF THE GEOTECHNICAL ENGINEER TO ENABLE THEM TO FORM AN OPINION REGARDING THE ADEQUACY OF THE SITE PREPARATION, THE ACCEPTABILITY OF FILL MATERIALS AND THE EXTENT TO WHICH THE EARTH CONSTRUCTION AND THE DEGREE OF COMPACTION COMPLY WITH THE SPECIFICATION REQUIREMENTS. NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST TWO WORKING DAYS PRIOR TO BEGINNING OF WORK.
3. THE SITE SHOULD BE CLEARED OF ALL SURFACE AND SUBSURFACE DELETERIOUS MATERIALS INCLUDING EXISTING BUILDINGS AND ASSOCIATED FOUNDATIONS, SLABS, BURIED UTILITIES AND IRRIGATION LINES, PAVEMENTS, DEBRIS, DESIGNATED TREES, SHRUBS, AND ASSOCIATED ROOT SYSTEMS. SUCH MATERIALS SHOULD BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ESTABLISHED GUIDELINES AND REQUIREMENTS OF THE NAPA COUNTY HEALTH DEPARTMENT.
4. PITS, CISTERNS, SEPTIC TANKS, LEACH LINES, UNDERGROUND FUEL TANKS AND ASSOCIATED APPURTENANCES FOUND DURING GRADING SHOULD BE CAPPED AND SEALED AND/OR EXCAVATED AND REMOVED FROM THE SITE, RESPECTIVELY, IN ACCORDANCE WITH ESTABLISHED GUIDELINES AND REQUIREMENTS OF THE NAPA COUNTY HEALTH DEPARTMENT.
5. AREAS TO BE GRADED SHOULD BE STRIPPED OF THE UPPER FEW INCHES OF SOIL CONTAINING ORGANIC MATTER. SOIL CONTAINING MORE THAN TWO PERCENT BY WEIGHT OF ORGANIC MATTER SHOULD BE CONSIDERED ORGANIC. ACTUAL STRIPPING DEPTH SHOULD BE DETERMINED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER IN THE FIELD AT THE TIME OF STRIPPING. THE STRIPPINGS SHOULD BE REMOVED FROM THE SITE, OR IF SUITABLE, STOCKPILED FOR RE-USE AS TOPSOIL IN LANDSCAPING.
6. WATER SEEPAGE OR THE SPREAD OF EXTENSIVE ROOT SYSTEMS INTO THE SOIL SUBGRADE OF FOOTINGS, SLABS OR PAVEMENTS COULD CAUSE DIFFERENTIAL MOVEMENTS AND CONSEQUENT DISTRESS IN THESE STRUCTURAL ELEMENTS. LANDSCAPING SHOULD BE PLANNED WITH CONSIDERATION FOR THESE POTENTIAL PROBLEMS.
7. SITE SHALL BE VISUALLY INSPECTED BY THE CONTRACTOR TO DETERMINE THE EXTENT OF CLEARING, GRUBBING AND GRADING WORK TO BE DONE.

CONDITION OF APPROVAL #16 NOTES

A. NO GRADING AND/OR EXCAVATION SHALL BE PERFORMED EXCEPT IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN AND SCHEDULE. THE CONTRACTOR SHALL HAVE ALL EROSION CONTROL MEASURES ON SITE DURING THE COURSE OF THE WORK AND INSTALLED IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN SCHEDULE.

B. DURING THE COURSE OF THE PROJECT CONSTRUCTION (INCLUDING NON-WORKING HOURS), THE CONTRACTOR IS TO PROVIDE APPROPRIATE SIGNAGE, FLASHERS, AND BARRICADES FOR OPEN TRENCHES THAT ARE APPROVED BY THE PUBLIC WORKS DEPARTMENT CONSTRUCTION DIVISION INSPECTOR TO WARN ONCOMING MOTORISTS, BICYCLISTS, AND PEDESTRIANS OF POTENTIAL SAFETY HAZARDS.

C. ANY EXISTING PEDESTRIAN ACCESS THROUGH AND/OR ADJACENT TO THE SITE SHALL REMAIN UNOBSTRUCTED DURING THE PROJECT CONSTRUCTION OR AN ALTERNATE ROUTE SHALL BE ESTABLISHED AS APPROVED BY THE POLICE CHIEF AND CITY ENGINEER.

D. DURING THE COURSE OF THE PROJECT CONSTRUCTION, ALL PROJECT-RELATED GRADING, TRENCHING, BACKFILLING, AND COMPACTION OPERATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH THE CITY OF NAPA PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS.

E. ALL CONSTRUCTION ACTIVITIES SHALL MEET THE UNIFORM BUILDING CODE REGULATIONS FOR SEISMIC SAFETY (I.E., REINFORCING PERIMETER AND/OR LOAD BEARING WALLS, BRACING PARAPETS, ETC.).

F. GRADING AND CONSTRUCTION EQUIPMENT SHALL BE SHUT DOWN WHEN NOT IN USE.

G. FOR ALL CONSTRUCTION ACTIVITY, THE CONTRACTOR SHALL CONTROL DUST IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF NAPA PUBLIC WORKS DEPARTMENT STANDARD SPECIFICATIONS AND STANDARD PLANS (PART II – GENERAL PROVISIONS – DUST CONTROL), THE NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM REQUIREMENTS, AND THE CALIFORNIA DEPARTMENT OF TRANSPORTATION CONSTRUCTION MANUAL (CHAPTER 4 – CONSTRUCTION DETAILS – SECTION 10 DUST CONTROL). USE OF ANY CITY OF NAPA WATER FOR THIS PURPOSE SHALL BE FROM A METERED SOURCE THAT IS APPROVED BY THE CITY OF NAPA WATER DIVISION AND SHALL BE REQUESTED IN WRITING BY THE CONTRACTOR.

H. DURING THE CONSTRUCTION/DEMOLITION/RENOVATION PERIOD OF THE PROJECT, THE CONTRACTOR SHALL USE THE FRANCHISED GARBAGE HAULER FOR THE SERVICE AREA IN WHICH THE PROJECT IS LOCATED TO REMOVE ALL WASTES GENERATED DURING PROJECT DEVELOPMENT, UNLESS CONTRACTOR TRANSPORTS PROJECT WASTE. IF THE CONTRACTOR TRANSPORTS THE PROJECT'S WASTE, THE CONTRACTOR MUST USE THE APPROPRIATE LANDFILL FOR THE SERVICE AREA IN WHICH THE PROJECT IS LOCATED.

I. THE CONTRACTOR SHALL PROVIDE FOR THE SOURCE SEPARATION OF WOOD WASTE FOR RECYCLING. THE CONTRACTOR SHALL USE THE FRANCHISED GARBAGE HAULER FOR THE SERVICE AREA IN WHICH LOCATED FOR COLLECTION OF SUCH WOOD WASTE, UNLESS THE CONTRACTOR TRANSPORTS SUCH WOOD WASTE TO A LOCATION WHERE WOOD WASTE IS RECYCLED.

EARTHWORK NOTES

1. ALL QUANTITIES SHOWN ON THIS PLAN ARE APPROXIMATE. CALCULATED EXCESS AND SHORTAGE ARE TO FINISHED ROUGH GRADE AND EXISTING GROUND. THE ACTUAL AMOUNT OF EARTH MOVED WILL VARY, DEPENDENT ON COMPACTION, CONSOLIDATION, STRIPPING REQUIREMENTS, AND THE CONTRACTOR'S METHOD OF OPERATION.
2. DUE TO THE INEXACT NATURE OF EARTHWORK ESTIMATING, THERE IS NO GUARANTEE OF THESE QUANTITIES. CONTRACTOR SHALL MAKE HIS OWN ESTIMATE FOR BID AND CONTRACT PURPOSES.
3. THE PAVEMENT SECTIONS AS SHOWN ON THIS PLAN SHOULD BE VERIFIED BASED ON USE OF SELECT FILL OR LIME TREATMENT AND USING IN-SITU R VALUES ONCE THE SITE HAS BEEN ROUGH GRADED. ANY CHANGES MADE TO THE PAVEMENT SECTIONS SHOWN WILL AFFECT THE SUMMARY.
4. 10% SHRINKAGE ASSUMED. ACTUAL AMOUNT OF SHRINKAGE MAY VARY BETWEEN 5% & 20% DURING GRADING.
5. CONSOLIDATION ASSUMED TO BE 0.15 FEET OVER WORK SITE.
6. TRENCH SPOILS INCLUDE WATER, SEWER & STORM DRAIN.

EARTHWORK SUMMARY

LOCATION / ITEM	CUT (CY)	FILL (CY)
SITE TOTAL	40	1,882
COMPACTION (SEE NOTE 4)	-	190
CONSOLIDATION (SEE NOTE 5)	-	145
TRENCH SPOILS (SEE NOTE 7)	166	-
SUBTOTAL	206	2,217
NET IMPORT FILL	-	2,011

EROSION & SEDIMENT CONTROL NOTES

1. IN CASE OF EMERGENCY, CALL RSA+ AT (707)-252-3301.
2. A STAND-BY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES. NECESSARY MATERIALS SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF EMERGENCY DEVICES WHEN RAIN IS IMMINENT.
3. EROSION CONTROL DEVICES SHOWN ON THIS PLAN MAY BE REMOVED WHEN APPROVED BY THE CITY OFFICIAL IF THE GRADING OPERATION HAS PROGRESSED TO THE POINT WHERE THEY ARE NO LONGER REQUIRED.
4. GRADED AREAS ADJACENT TO FILL SLOPES LOCATED AT THE SITE PERIMETER MUST DRAIN AWAY FROM THE TOP OF SLOPE AT THE CONCLUSION OF EACH WORKING DAY. ALL LOOSE SOILS AND DEBRIS THAT MAY CREATE A POTENTIAL HAZARD TO OFF-SITE PROPERTY SHALL BE STABILIZED OR REMOVED FROM THE SITE ON A DAILY BASIS.
5. ALL SILT AND DEBRIS SHALL BE REMOVED FROM ALL DEVICES WITHIN 24 HOURS AFTER EACH RAINSTORM AND BE DISPOSED OF PROPERLY.
6. A GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN ANY DEVICES EXCEEDS TWO FEET. THE DEVICE SHALL BE DRAINED OR PUMPED WITHIN 24 HOURS AFTER EACH RAINSTORM. PUMPING AND DRAINING OF ALL BASINS AND DRAINAGE DEVICES MUST COMPLY WITH THE APPROPRIATE BMP FOR DEWATERING OPERATIONS.
7. THE PLACEMENT OF ADDITIONAL DEVICES TO REDUCE EROSION DAMAGE AND CONTAIN POLLUTANTS WITHIN THE SITE IS LEFT TO THE DISCRETION OF THE FIELD ENGINEER. ADDITIONAL DEVICES AS NEEDED SHALL BE INSTALLED TO RETAIN SEDIMENTS AND OTHER POLLUTANTS ON SITE.
8. DESILTING BASINS MAY NOT BE REMOVED OR MADE INOPERABLE BETWEEN NOVEMBER 1 AND APRIL 15 OF THE FOLLOWING YEAR WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL.
9. STORMWATER POLLUTION AND EROSION CONTROL DEVICES ARE TO BE MODIFIED, AS NEEDED, AS THE PROJECT PROGRESSES. THE DESIGN AND PLACEMENT OF THESE DEVICES IS THE RESPONSIBILITY OF THE FIELD ENGINEER. PLANS REPRESENTING CHANGES MUST BE SUBMITTED FOR APPROVAL IF REQUESTED BY THE BUILDING OFFICIAL.
10. EVERY EFFORT SHOULD BE MADE TO ELIMINATE THE DISCHARGE OF NON-STORMWATER FROM THE PROJECT SITE AT ALL TIMES.
11. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEET-FLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES, OR WIND.
12. STOCKPILES OF EARTH AND OTHER CONSTRUCTION-RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
13. CONTRACTOR TO FOLLOW CITY OF NAPA STANDARDS AND SPECIFICATIONS 1.10.02 WATER POLLUTION CONTROL.
14. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND ARE NOT TO CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
15. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC RIGHT-OF-WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
16. DEVELOPERS/CONTRACTORS, ARE RESPONSIBLE TO INSPECT ALL EROSION CONTROL DEVICES AND BMPS ARE INSTALLED AND FUNCTIONING PROPERLY. IF THERE IS A 50% CHANCE OF 0.25 INCHES OR GREATER OF PREDICTED PRECIPITATION, AND AFTER ACTUAL PRECIPITATION. A CONSTRUCTION SITE INSPECTION CHECKLIST AND INSPECTION LOG SHALL BE MAINTAINED AT THE PROJECT SITE AT ALL TIMES AND AVAILABLE FOR REVIEW BY THE CITY OFFICIAL. INCIDENTS OF NON-COMPLIANCE MUST BE REPORTED TO THE FIELD ENGINEER.
17. TRASH AND CONSTRUCTION-RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
18. SEDIMENTS AND OTHER MATERIAL MAY NOT BE TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC RIGHT-OF-WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
19. ANY SLOPES WITH DISTURBED SOILS OR DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
20. PROVIDE STORMWATER CONVEYANCE SYSTEM STENCILING AND SIGNAGE FOR BOTH PRIVATE DEVELOPMENT AND PUBLIC RIGHT OF WAY.
    - 20.1. PROVIDE CONCRETE STAMPING, OR EQUIVALENT OF ALL STORMWATER CONVEYANCE SYSTEM INLETS AND CATCH BASINS WITHIN THE PROJECT AREA WITH PROHIBITIVE LANGUAGE (E.G. "NO DUMPING DRAINS TO NAPA RIVER").
    - 20.2. POST SIGNS AND PROHIBITIVE LANGUAGE AND/OR GRAPHICAL ICONS, WHICH PROHIBIT ILLEGAL DUMPING AT PUBLIC ACCESS POINTS ALONG CHANNELS AND CREEKS WITHIN THE PROJECT AREA, TRAILHEADS, PARKS, BUILDING ENTRANCES AND BIORETENTION FACILITIES.

GENERAL UTILITY NOTES

1. CONTRACTOR SHALL PROVIDE METHODS REQUIRED TO CONTROL GROUND WATER IN TRENCHES AS APPROVED BY THE CITY INSPECTOR.
2. TRENCHING AND BACKFILL SHALL COMPLY WITH CITY OF NAPA TRENCH BACKFILL DETAILS. CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE SAFETY STANDARDS FOR TRENCH SAFETY. ALL PIPES HAVING LESS THAN 3' OF COVER SHALL BE BACKFILLED WITH CLASS II AGGREGATE BASE.
3. BEGIN EXCAVATING AT LOWEST POINT IF GROUNDWATER IS ENCOUNTERED AND PROCEED UPHILL.
4. OVER-EXCAVATE 6"-12" BELOW REQUIRED CITY AND NAPASAN BEDDING AND PLACE OPEN-GRADED 1.5" CRUSHED AGGREGATE
5. A SUMP AREA SHOULD BE EXCAVATED AT THE LOWEST POINT OF THE OPEN TRENCH TO FACILITATE PUMPING OF COLLECTED WATER.
6. UTILITY EXCAVATIONS EXTENDING UNDERNEATH ALL TRAFFIC AREAS MUST BE BACKFILLED WITH NATIVE OR APPROVED IMPORT MATERIAL AND COMPACTED TO 90% RC TO WITHIN 12" OF THE SUBGRADE. THE UPPER 12" SHOULD BE COMPACTED TO 95% RC.
7. SEE SHEET G1.1 FOR CITY OF NAPA GENERAL NOTES FOR ALL UTILITIES.
8. PROVIDE 12" MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPES.

STORM DRAIN NOTES

1. PRIOR TO THE CONNECTION OF ANY STORM DRAIN TO AN EXISTING LINE, THE CONTRACTOR SHALL EXPOSE PIPE FOR ENGINEER TO VERIFY EXISTING ELEVATION AND LOCATION. THE CITY/COUNTY SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF EXCAVATION AND LOCATION.
2. A MINIMUM VERTICAL CLEARANCE OF 6 INCHES SHALL BE MAINTAINED AT STORM DRAIN AND SANITARY SEWER CROSSINGS.
3. ALL PRIVATE ON-SITE STORM DRAIN PIPES AND FITTINGS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 UP TO 12" DIAMETER, OR HIGH DENSITY POLYETHYLENE (HDPE) UP TO 15" DIAMETER, UNLESS OTHERWISE NOTED ON PLANS.
4. ALL PUBLIC STORM DRAIN PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS V WITH O-RING GASKET JOINTS IN CONFORMANCE WITH CALTRANS STANDARD SPECIFICATIONS, UNLESS OTHERWISE NOTED ON PLANS.
5. ASBESTOS CEMENT PIPE (ACP) SHALL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES.
6. ALL STORM DRAINS WITHIN PAVED AREAS TO BE MARKED WITH POLLUTION PREVENTION MESSAGE "NO DUMPING, DRAINS TO RIVER" WITH THERMOPLASTIC MARKERS (SEE DETAIL 1/C5.01). SPECIFIC PLACEMENT OF MARKERS WILL BE AS DIRECTED BY CITY INSPECTOR.

SANITARY SEWER NOTES

1. SSCO'S IN TRAFFIC AREAS AND WALKWAYS SHALL HAVE A TRAFFIC RATED BOX & LID. PROVIDE PUBLIC CLEANOUT AT BACK OF CURB PER NAPASAN DETAIL SS-1.
2. PRIOR TO THE CONNECTION OF ANY SANITARY SEWER TO AN EXISTING LINE, THE CONTRACTOR SHALL EXPOSE PIPE FOR ENGINEER TO VERIFY EXISTING ELEVATION AND LOCATION. NSD SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF EXCAVATION, AND INSPECTION SCHEDULED A MINIMUM OF 24 HOURS IN ADVANCE OF EXCAVATION.
3. PUBLIC & ON-SITE SEWER SHALL BE PVC SDR 26, UNLESS OTHERWISE NOTED.
4. ALL SEWER SYSTEM WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT STANDARD SPECIFICATIONS OF THE NAPA SANITATION DISTRICT. EACH LATERAL SHALL HAVE A CLEANOUT BEHIND PROPERTY LINE AS WELL AS WITHIN TWO FEET OF THE BUILDING. CLEANOUTS SHALL BE BROUGHT TO FINISHED GRADE WITH AN APPROPRIATE COVER PER STANDARD SPECIFICATIONS.
5. SEWER LATERALS SHALL BE SLOPED AT 2%, UNLESS OTHERWISE NOTED.
6. ALL SEWER FACILITIES UP TO AND INCLUDING BUILDING CLEANOUTS SHALL BE INSPECTED BY THE NAPA SANITATION DISTRICT.
7. PRIOR TO THE START OF CONSTRUCTION AND AFTER COMPLETION, CONTRACTOR SHALL SUBMIT CCTV FOOTAGE OF THE PORTIONS OF THE EXISTING 12" SEWER MAIN EXTENDING THROUGH THE WORK AREA TO NAPASAN. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED TO THE EXISTING SANITARY SEWER FACILITIES AS A RESULT OF CONSTRUCTION ACTIVITIES.

WATER NOTES

1. INSTALL 1" WATER SERVICES PER CITY STANDARD W-1. WATER DIVISION TO SUPPLY WATER METERS AT CONTRACTOR/OWNER EXPENSE.
2. PROVIDE BACKFLOW DEVICES PER CITY STANDARD W-5A.
3. SEE SHEET G1.1 FOR CITY OF NAPA WATER NOTES.
4. WATER FITTING COATINGS: ALL DUCTILE IRON FITTINGS FOR DIRECT BURIAL SHALL BE EPOXY COATED.
5. HOT TAPS SHALL BE PERFORMED BY WATER DIVISION AT CONTRACTOR/ OWNER EXPENSE PER CITY STD W-16A.

Erosion and Sediment Control BMP Measures	PHASE OF CONSTRUCTION						
	Pre-Grading (Clearing)	Grading	Utilities	Streets (i.e. paving)	Vertical Construction	Landscaping	Site Stabilization
Soil Cover		X	X	X	N/A	N/A	X
Revegetation					N/A	N/A	X
Stabililized Site Entrance	X	X	X	X	N/A	N/A	X
Fiber Rolls	X	X	X	X	N/A	N/A	X
Drain Inlet Protection	X	X	X	X	N/A	N/A	X
Concrete Washout			X	X	N/A	N/A	
Stockpile Management	X	X	X	X	N/A	N/A	X
Haz Mat & Refuse Management	X	X	X	X	N/A	N/A	X
Sanitary Waste Management	X	X	X	X	N/A	N/A	X
Street Sweeping	X	X	X	X	N/A	N/A	X

BMP IMPLEMENTATION SCHEDULE

SEEDING SPECIFICATIONS FOR ALL DISTURBED AREAS (3:1 SLOPE OR GREATER ALSO TO BE SEEDED)

1. ALL GRADED OR DISTURBED AREAS SHALL BE SEEDED IMMEDIATELY AFTER GRADING IS COMPLETE.
2. THE SEED, FERTILIZER AND MULCH MIXTURE SHALL BE APPLIED BY HAND OR HYDRAULICALLY AT THE RATED SPECIFIED BELOW: 40 LBS/ACRE IN THE FOLLOWING PERCENTAGES:

40%	BLANDO BROME, (BROMUS HORDEACEUS)
20%	ZORRO ANNUAL FESCUE, (VULPIA MYUROS, VAR. HIRSUTA)
15%	CALIFORNIA BROME, (BROMUS CARINATUS)
10%	CRIMSON CLOVER, (TRIFOLIUM INCARNATUM)
15%	ROSE CLOVER, (TRIFOLIUM HIRTUM)

   EROSION MIX FOR WINTERIZATION OF HIGH USE AREAS (NON-SURFACED ROADS, INCLUDING FARM FIELD ACCESS ROADS):

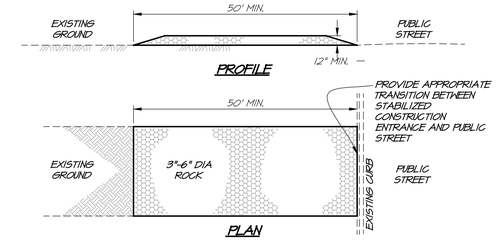
   BARLEY, (HORDEUM VULGARE) : 40 LBS/ACRE
   RED OATS, (AVENA SATIVA) : 60 LBS/ACRE

   AN EQUIVALENT SEED MIX MAY BE SUBSTITUTED BY THE OWNER DEPENDING ON THE SUCCESS OF PRIOR SEED MIXES AND NUTRIENT LEVELS IN THE SOIL.
3. FERTILIZER USED SHALL BE ONE OF THE FOLLOWING SPECIFICATIONS:

   16-20-0 APPLIED AT A RATE OF 200 TO 250 LBS. PER ACRE, (4.6 TO 5.7 LBS PER 1000 SF)
   15-15-15 APPLIED AT A RATE OF 300 LBS. PER ACRE, (7.0 LBS. PER 1000 SF)
4. THE TYPE OF MULCH USED SHALL BE ONE OF THE FOLLOWING:

STRAW MULCH	3000 LBS/ACRE
WOOD FIBER MULCH	2000 LBS/ACRE (IF HYDROSEEDED)

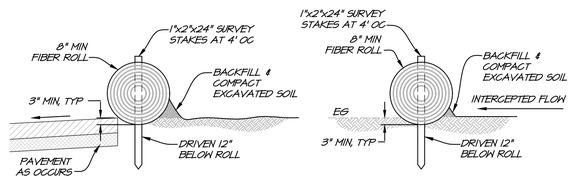
5. AREA TO BE SEEDED SHALL BE SCARIFIED TO DEPTH OF 4" TO 8" AND DRESSED TO PROVIDE A REASONABLE SMOOTH FIRM SURFACE.
6. IF HYDROSEEDING METHOD IS USED, A TACKIFIER SUCH AS M-BINDER OR SENTINEL (OR EQUAL) SHALL BE APPLIED AT A RATE OF 75 TO 100 LBS/ACRE.
7. IF HYDROSEEDING METHOD IS USED, SEED SHALL NOT REMAIN IN THE SLURRY LONGER THAN 30 MINUTES. FERTILIZERS SHALL NOT REMAIN IN THE SLURRY LONGER THAN 2 HOURS. THE SLURRY SHALL BE APPLIED IN A UNIFORM MANNER AT A RATE THAT IS NON-EROSIVE AND MINIMIZES RUNOFF.



DESIGN AND CONSTRUCTION SPECIFICATIONS

1. THE MATERIAL FOR CONSTRUCTION OF THE PAD SHALL BE 3 TO 6 INCH STONE. THE THICKNESS OF THE PAD SHALL NOT BE LESS THAN 12 INCHES.
2. THE WIDTH OF THE PAD SHALL NOT BE LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
3. THE LENGTH OF THE PAD SHALL BE AS REQUIRED, BUT NOT LESS THAN 50 FEET.
4. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
5. WHEN NECESSARY, WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE THROUGH USE OF SAND BAGS, GRAVEL, BOARDS OR OTHER APPROVED METHODS.

1 / C3.1 **STABILIZED CONSTRUCTION ENTRANCE**
RSA EC0000-06 PER CASQA BMP TC-1 NOT TO SCALE



PAVED AREAS UNPAVED AREAS

GENERAL NOTES

1. PLACE FIBER ROLLS INTO THE KEY TRENCH AND STAKE ON BOTH SIDES OF THE ROLL WITHIN 2 FEET OF EACH END AND THEN 4 FEET WITH 1" x 2" STAKES OR AS SUGGESTED BY MANUFACTURER.
2. LOCATE FIBER ROLLS ON LEVEL CONTOURS SPACED AS FOLLOWS:
   A. SLOPE INCLINATION OF 4:1 (H:V) OR LESS: FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 20'.
   B. SLOPE INCLINATION BETWEEN 4:1 AND 2:1 (H:V): FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 15 FT.
   C. SLOPE INCLINATION 2:1 (H:V) OR GREATER: FIBER ROLLS SHOULD BE PLACED AT A MAXIMUM INTERVAL OF 10 FT.
3. TURN THE ENDS OF THE FIBER ROLL UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.
4. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHALL BE OVER LAPPED, NOT ABUTTED.
5. FIBER ROLLS SHALL HAVE ONLY NON-PLASTIC NETTING
6. FIBER ROLLS SHALL BE REMOVED AFTER COMPLETION OF PROJECT.

PAVED INSTALLATION NOTES

1. INSTALL FIBER ROLL AT BACK OF SIDEWALK OR BACK OF CURB ONCE PADS ARE CONSTRUCTED.
2. MAINTAIN FIBER ROLL AT BACK OF CURB FOR SEPARATED SIDEWALK.

2 / C3.1 **FIBER ROLL SEDIMENT BARRIER**
RSA EC0000-04 PER CASQA BMP SE-5 NOT TO SCALE

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MILLIKEN ESTATES
NOTES & DETAILS
NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 92885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	MARCH 31, 2026
DRAWN	FV
DESIGNED	MMRAY
CHECKED	DMD
JOB NO.	4116027.1
SHEET NO.	C3.1
	7 OF 10 SHEETS

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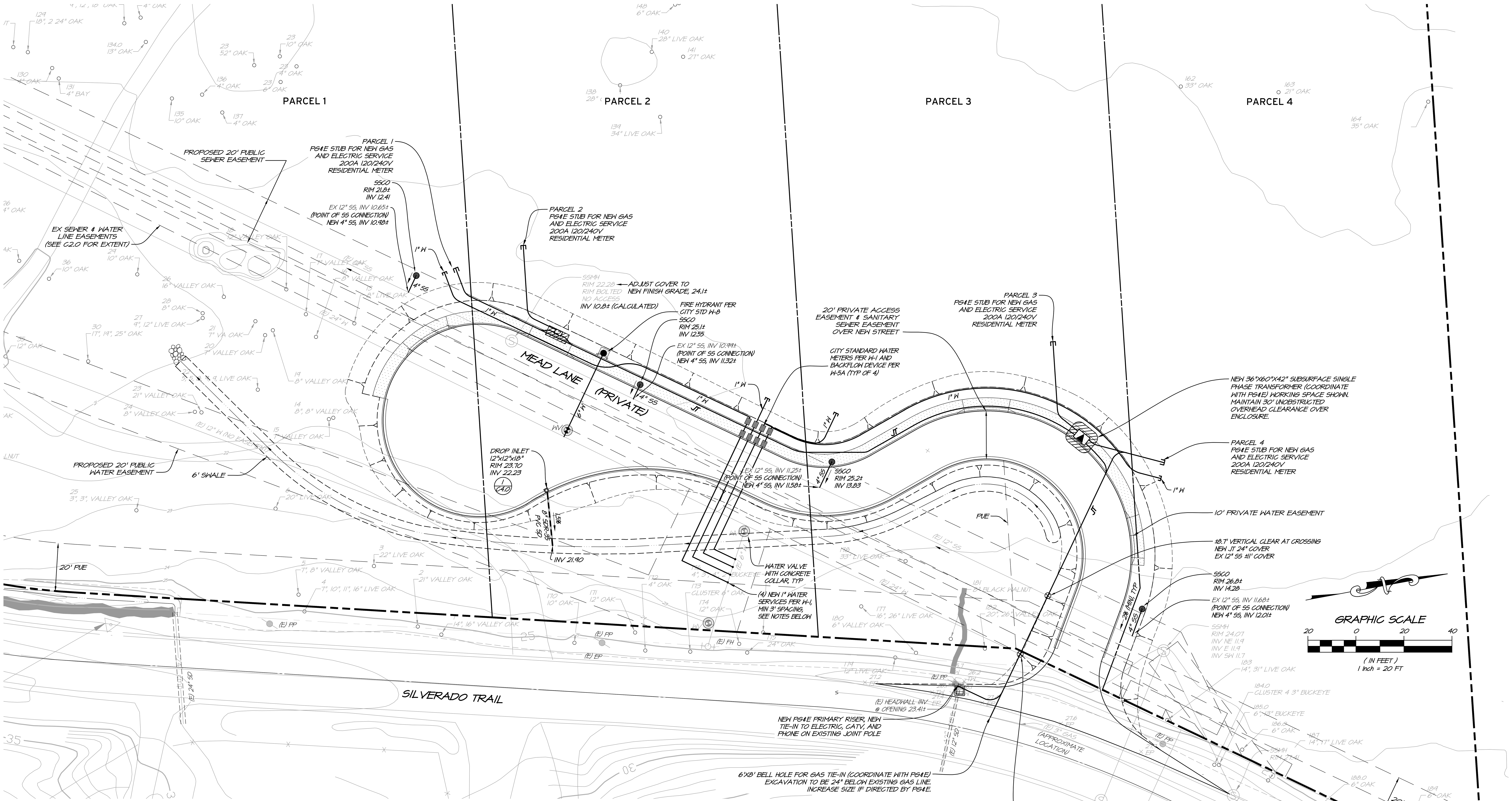
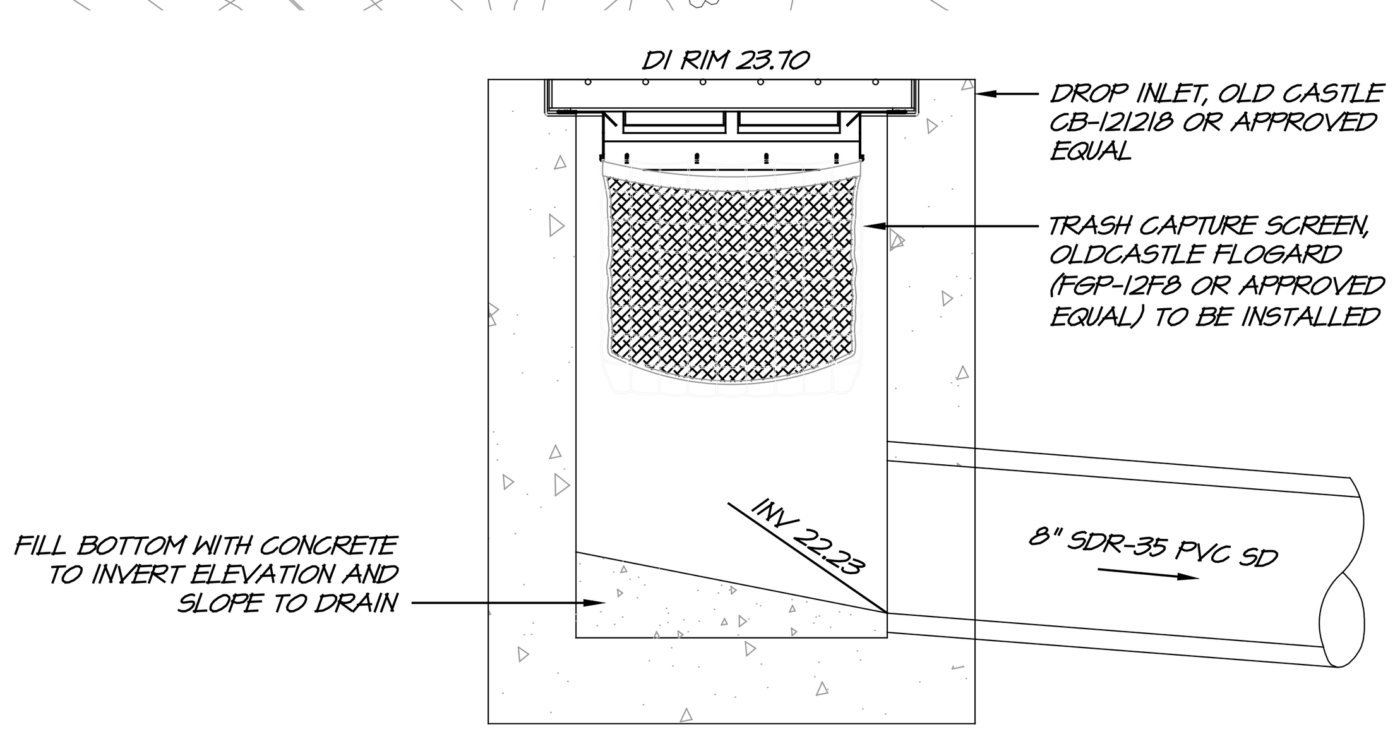


UTILITY PLAN

SCALE 1" = 20'



1 / C4.0 DROP INLET DETAIL

NOT TO SCALE

NOTES:

1. EXISTING UTILITIES WERE DRAWN FROM RECORD SOURCES. EXISTING WATER MAINS WERE IDENTIFIED USING GROUND-PENETRATING RADAR. CONTRACTOR SHALL POTHOLE ALL UTILITY CONNECTION POINTS AND CROSSINGS TO VERIFY HORIZONTAL LOCATION AND VERTICAL DEPTH PRIOR TO CONSTRUCTION.
2. AT SEWER LATERALS, PROVIDE SADDLE WITH TEE CONNECTION AT THE MAIN & GASKETED PVC CAP AT THE CLEANOUT FOR FUTURE CONNECTION.
3. NEW WATER SERVICES SHALL NOT BE TAPPED WITHIN 36-INCHES OF A FITTING, BELL, TAP, WATER SERVICE ETC. PER CITY STANDARD W-1. IF A CONFLICT IS ENCOUNTERED IN THE FIELD, COORDINATE WITH ENGINEER TO ADJUST LOCATION OF TAP. IF NEW HOT TAPS CANNOT BE MADE WITH REQUIRED MINIMUM CLEARANCES OF 36-INCHES FROM A FITTING, BELL, TAP, WATER SERVICE, ETC. THE WATER DIVISION WILL REQUIRE REPLACEMENT OF THE PORTION OF THE WATER MAIN WHERE THE WATER SERVICES ARE PROPOSED TO BE CONNECTED.
4. AT NEW HYDRANT LATERAL, CONTRACTOR SHALL HAVE A CERTIFIED PIPE WELDER WELD A HAT-FLANGE ONTO THE TRANSMISSION MAIN IN ORDER FOR CITY CREWS TO PERFORM THE HOT-TAP.
5. PROVIDE CONCRETE COLLARS AT ALL NEW AND EXISTING G5 BOXES FOR WATER VALVES PER CITY STANDARD W-9.
6. SEE CITY OF NAPA GENERAL NOTES ON SHEET C1.1 AND ADDITIONAL UTILITY NOTES ON SHEET C3.1.

WATER DIVISION COORDINATION NOTES

1. CONTRACTOR TO CONTACT CITY OF NAPA WATER DIVISION ADMIN. OFFICE AT 707-257-9521, THE HENNESSEY WATER TREATMENT PLANT AT 707-963-1116, AND THE JAMIESON CANYON WATER TREATMENT PLANT AT 707-253-0822 TO SCHEDULE A PRECONSTRUCTION MEETING PRIOR TO ANY WORK WITHIN 10 FEET OF THE 24-INCH WATER TRANSMISSION LINE.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING AND COORDINATING WITH THE CITY OF NAPA'S WATER DIVISION TO ENSURE THE PRESENCE OF STANDBY SERVICE WORKER(S) DURING ANY EXCAVATION OPERATION(S) INCLUDING POTHOLING IN THE VICINITY (WITHIN 10 FEET) OF THE CITY OF NAPA'S 24-INCH TRANSMISSION MAIN.
3. NOTIFICATION AND COORDINATION SHALL OCCUR AT LEAST TWO BUSINESS DAYS IN ADVANCE OF PROPOSED EXCAVATION OPERATION(S).
4. POTHOLING INFORMATION SHALL BE PROVIDED TO THE CITY OF NAPA WATER DIVISION FOR REVIEW PRIOR TO CONTINUING WORK.
5. ANY CONCERNS REGARDING THE CITY OF NAPA WATERLINE OR SUSPECTED LEAKS DURING THE CONSTRUCTION ACTIVITY SHOULD BE REPORTED IMMEDIATELY TO THE CITY OF NAPA WATER DIVISION AT 707-257-9521 (AFTER HOURS PRESS OPTION 9 FOR STANDBY WORKER).
6. NO VIBRATORY COMPACTION EQUIPMENT MAY BE USED WITHIN 10 FEET OF A CITY OF NAPA 24-INCH WATER TRANSMISSION LINE.

APPROVED FOR THE CONSTRUCTION OF SANITARY SEWER:

MATTHEW LEMMON, P.E. DATE
DISTRICT ENGINEER, NAPA SANITATION DISTRICT

NO.	DATE	REVISIONS	BY	APPD

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MILLIKEN ESTATES UTILITY PLAN

NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 90885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	MARCH 31, 2026
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DESIGNED	MM/RAY
CHECKED	DMD
JOB NO.	4116027.1

SHEET NO.
C4.0

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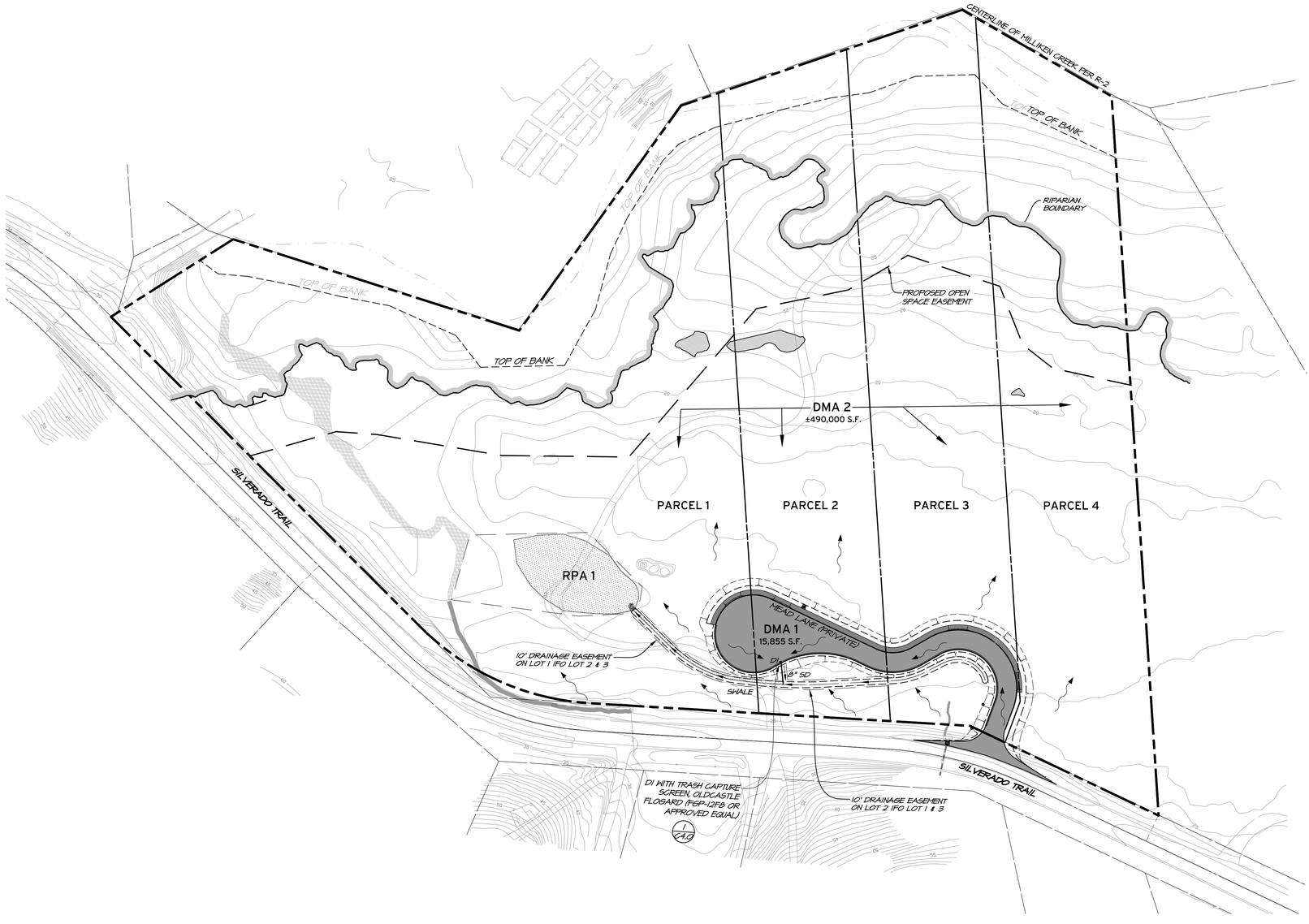

GRAPHIC SCALE

60 0 60 120

(IN FEET)
1 inch = 60 FT

STORMWATER CONTROL PLAN

SCALE 1" = 60'

PROPOSED STORMWATER CONTROL PLAN AREA CALCULATIONS					
DMA #	Total Impervious Area (SF)	Runoff Factor (Paving)	Total Pervious Area Required (SF)	Total Pervious Area (SF)	Ratio IMP:Perv [2:1 Max]
1	15,855	1	15,855	7,975 (RPA)	1.99:1
2	0	1	N/A (SELF-TREATING)	±498,000	N/A

PROPOSED POST CONSTRUCTION BMP'S	
BMP (BEST MANAGEMENT PRACTICES)	TREATMENT AREA
1. 'NO DUMPING, DRAINS TO RIVER' STAMPING ON ALL INLETS (SEE DETAIL 1 THIS SHEET)	ENTIRE PROJECT
2. HOMEOWNER EDUCATION: COPY OF SCP AND MAINTENANCE AGREEMENT TO BE PROVIDED TO OWNER	ENTIRE PROJECT
3. TRASH CAPTURE SCREEN	ENTIRE PROJECT

NO DUMPING DRAINS TO RIVER

1 / C5.0 CATCH BASIN MARKER
RSA SD0000-52 NOT TO SCALE

BIOLOGICAL SURVEY LEGEND

- RIPARIAN BOUNDARY
- POTENTIAL WATERS
- POTENTIAL WATERS
- POTENTIAL WETLANDS

POTENTIAL WATERS AND POTENTIAL WETLANDS PER BIOLOGICAL SURVEY PREPARED BY MONK AND ASSOCIATES.

SCP LEGEND

- IMPERVIOUS AREA
- RECEIVING PERVIOUS AREA (RPA)
- FLOW DIRECTION

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MILLIKEN ESTATES
STORMWATER CONTROL PLAN
NAPA CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
DEREK MASON DITMAN
No. 90885
Exp. 03.31.2028
CIVIL ENGINEER
STATE OF CALIFORNIA

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SHEET NO.
C5.0
9 OF 10 SHEETS

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NAPA CITY FIRE DEPARTMENT NOTES

NOTES FOR UNDERGROUND PIPING FOR PRIVATE HYDRANTS AND SPRINKLERS

INSPECTION REQUIREMENTS:

1. THE FOLLOWING INSPECTIONS ARE REQUIRED FOR UNDERGROUND PIPING SERVING FIRE SPRINKLER SYSTEMS AND/OR PRIVATE HYDRANTS: 1) PRE-POUR INSPECTION; 2) HYDROSTATIC TESTING; 3) FLUSH INSPECTION. PLEASE SCHEDULE ALL INSPECTIONS AT LEAST 24 HOURS IN ADVANCE. HAVE A COPY OF THE APPROVED UNDERGROUND PLAN ON SITE FOR THE INSPECTOR. FAILURE TO CANCEL A SCHEDULED INSPECTION FEE CHARGED BEFORE THE INSPECTION CAN OCCUR. TO SCHEDULE AN INSPECTION CALL THE FIRE PREVENTION DIVISION AT (707)257-9590, MONDAY-FRIDAY, 8:00AM-5:00PM.
2. PRE-POUR INSPECTION: THRUST BLOCK EXCAVATION SHALL BE COMPLETED; BUT THRUST BLOCKS SHALL NOT BE POURED. ALL PIPE SHALL BE IN PLACE AND EXPOSED FOR VISUAL INSPECTION. PIPE SHALL BE LAID ON A MINIMUM SIX-INCH BED OF CLEAN SAND, PEA GRAVEL OR QUARRY FINES. TRENCH SHALL BE OF A SUFFICIENT DEPTH TO ALLOW THE REQUIRED COVER ABOVE THE PIPE. FERROUS PIPE AND FITTINGS SHALL BE WRAPPED AND TIGHTLY TAPED TO INHIBIT WATER INFILTRATION. BOLTS AND FERROUS JOINTS, PIPE, AND FITTINGS SHALL BE COATED WITH ASPHALTIC SEALANT OR OTHER CORROSION RETARDING MATERIAL.
3. HYDRO TESTING: THRUST BLOCK SHALL BE IN PLACE AND CURED. PIPE SHALL BE CENTER-LOADED WITH CLEAN SAND TO PREVENT UPLIFT, BUT ALL JOINTS SHALL REMAIN EXPOSED. THE SYSTEM SHALL BE HYDROSTATICALLY TESTED AT 200 PSI (OR 50 PSI OVER MAXIMUM STATIC PRESSURE, WHICHEVER IS GREATER) FOR A DURATION OF AT LEAST TWO HOURS PRIOR TO THE ARRIVAL OF THE INSPECTOR.
4. FLUSH INSPECTION: ALL PORTIONS OF THE UNDERGROUND SYSTEM SHALL BE FLUSHED TO REMOVE DEBRIS PRIOR TO CONNECTION TO OVERHEAD PIPING. FLOW SHALL BE THROUGH A MINIMUM OF TWO 2 ½ -INCH HOSES, ONE 4-INCH HOSE OR A 4-INCH PIPE, UNLESS OTHERWISE APPROVED BY THE INSPECTOR PRIOR TO SCHEDULING THE FLUSH. HOSE OR PIPES SHALL BE RESTRAINED TO PREVENT INJURY OR DAMAGE. THE PUBLIC WORKS DEPARTMENT OR OTHER APPLICABLE AGENCY SHALL BE NOTIFIED OF THE SCHEDULED FLUSH AS REQUIRED. DE-CHLORINATION, WATER CONTAINMENT AND/OR DISCHARGE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. NOTE: THE FLUSH AND HYDRO INSPECTIONS MAY BE SCHEDULED CONCURRENTLY.
5. UPON FLUSH INSPECTION OR PRIOR TO FIRE FINAL, ALL DETECTOR CHECK ASSEMBLIES, CONTROL VALVES, AND FIRE DEPARTMENT CONNECTIONS (FDC) SHALL BE CLEARLY LABELED WITH THE ADDRESS(ES) SERVED BY THE DEVICE. ADDRESS SIGNS SHALL BE SECURELY ATTACHED TO THE DEVICE AND BE OF A DURABLE, FADE-RESISTANCE MATERIAL WHICH IS CLEARLY VISIBLE AND LEGIBLE. FDC AND 4 ½ -INCH HYDRANT OUTLETS SHALL BE UNOBSTRUCTED AND ORIENTED TOWARD THE FIRE ACCESS. VALVES SHALL BE LOCKED IN THE OPEN POSITION WITH BREAKAWAY LOCKS. ALL VALVES, BACKFLOW ASSEMBLIES, AND PRIVATE HYDRANTS SHALL BE PAINTED. HYDRANT AND FDC CAPS SHALL BE IN PLACE AND SECURED. A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE SIGNED BY THE INSTALLING CONTRACTOR AND OWNERS' REPRESENTATIVE. A COPY OF THIS FORM SHALL BE PROVIDED TO THE FIRE DEPARTMENT PRIOR TO FINAL ACCEPTANCE OF THE UNDERGROUND WORK.

GENERAL REQUIREMENTS:

6. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO NFPA 24, 2019 EDITION. NAPA CITY FIRE DEPARTMENT JURISDICTION STARTS AT THE DOWNSTREAM SIDE OF THE LAST VALVE ON THE DETECTOR CHECK ASSEMBLY. VERIFY DESIGN AND INSTALLATION REQUIREMENTS FOR THE PORTION OF THE SYSTEM PRECEDING THIS POINT WITH THE PUBLIC WORKS DEPARTMENT, WATER DIVISION.
7. VEGETATION SHALL BE SELECTED AND MAINTAINED IN SUCH A MANNER AS TO ALLOW IMMEDIATE LOCATION OF AND UNOBSTRUCTED ACCESS TO; ALL HYDRANTS, CONTROL VALVES, FIRE DEPARTMENT CONNECTIONS, AND OTHER DEVICES OR AREAS USED FOR FIREFIGHTING PURPOSES.
8. A MINIMUM THREE-FOOT CLEARANCE SHALL BE PROVIDED AROUND ALL HYDRANTS. A MINIMUM THREE-FOOT CLEARANCE SHALL BE PROVIDED ON AT LEAST ONE SIDE OF A DETECTOR CHECK ASSEMBLY TO ALLOW PROPER OPERATION OF THE DEVICE. THE FRONT OF THE FDC SHALL BE FREE OF ANY OBSTRUCTIONS.
9. ANY FUTURE MODIFICATION TO THE APPROVED PRIVATE UNDERGROUND PIPING SYSTEM IS SUBJECT TO REVIEW, INSPECTION AND APPROVAL BY THE NAPA CITY FIRE DEPARTMENT.
10. APPROVAL OF THIS PLAN SHALL NOT BE INTERPRETED AS APPROVAL OF ANY INFORMATION OR PROJECT CONDITIONS OTHER THAN THOSE ITEMS ON THIS PLAN AND APPLICABLE SECTIONS OF 2019 NFPA 13 AND 2019 NFPA 24. THIS PROJECT MAY BE SUBJECT TO ADDITIONAL REQUIREMENTS NOT STATED HEREIN UPON EXAMINATION OF THE ACTUAL SITE AND PROJECT CONDITIONS OR DISCLOSURE OF ADDITIONAL INFORMATION.

PIPE AND TRENCH REQUIREMENTS:

11. A SIX-INCH BED OF CLEAN FILL SAND, PEA GRAVEL OR QUARRY FINES SHALL BE PROVIDED BELOW THE PIPE AND 12-INCHES SHALL BE PROVIDED ABOVE THE PIPE. (A TOTAL OF 18-INCHES PLUS OUTER DIAMETER OF THE PIPE).
12. PIPE SHALL BE BURIED AT LEAST 36" WHERE SUBJECT TO LOADING (E.G., DRIVEWAYS, PARKING LOTS) AND AT LEAST 30" ELSEWHERE.
13. ALL PIPE SHALL BE APPROVED FOR USE IN FIRE SERVICE SYSTEMS. CLASS 150 WILL BE USED AT A MINIMUM, AND CLASS 200 PIPE SHALL BE USED WHERE WATER PRESSURE EXCEEDS 150 PSI. THE USE OF GALVANIZED PIPE IS PROHIBITED WHEN A PORTION OF THE PIPE IS BURIED.
14. ALL FERROUS PIPE AND FITTINGS SHALL BE PROTECTED BY WRAPPING IN POLYETHYLENE SHEETING.
15. ALL BOLTS AND FERROUS FITTINGS USED FOR UNDERGROUND CONNECTIONS SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER ASSEMBLY AND PRIOR TO WRAPPING.
16. THRUST BLOCKS, OR ANOTHER APPROVED METHOD OF THRUST RESTRAINT, SHALL BE PROVIDED WHEREVER PIPE CHANGES DIRECTION.
17. A MINIMUM TWO-INCH CLEARANCE SHALL BE PROVIDED WHERE THE PIPE PASSES THROUGH SLABS OR WALLS. UNDERGROUND SYSTEM SHALL TERMINATE AT THE RISER FLANGE AND PLACED A MINIMUM OF 18-INCHES AND A MAXIMUM OF 24-INCHES FROM AN EXTERIOR WALL AND 6-INCHES ABOVE THE SLAB.
18. PIPE RUNNING UNDER A BUILDING OR BUILDING FOUNDATION SHALL BE STAINLESS STEEL AND SHALL NOT CONTAIN MECHANICAL JOINTS.
19. THE FDC SHALL CONTAIN A MINIMUM OF TWO- 2½ INCH INLETS. WHEN THE SYSTEM DESIGN DEMAND INCLUDING INTERIOR HOSE STREAM DEMAND OR A STANDPIPE IS A MINIMUM OF 500 GPM, FOUR- 2½ INCH OUTLETS SHALL BE PROVIDED.

HYDRANT REQUIREMENTS:

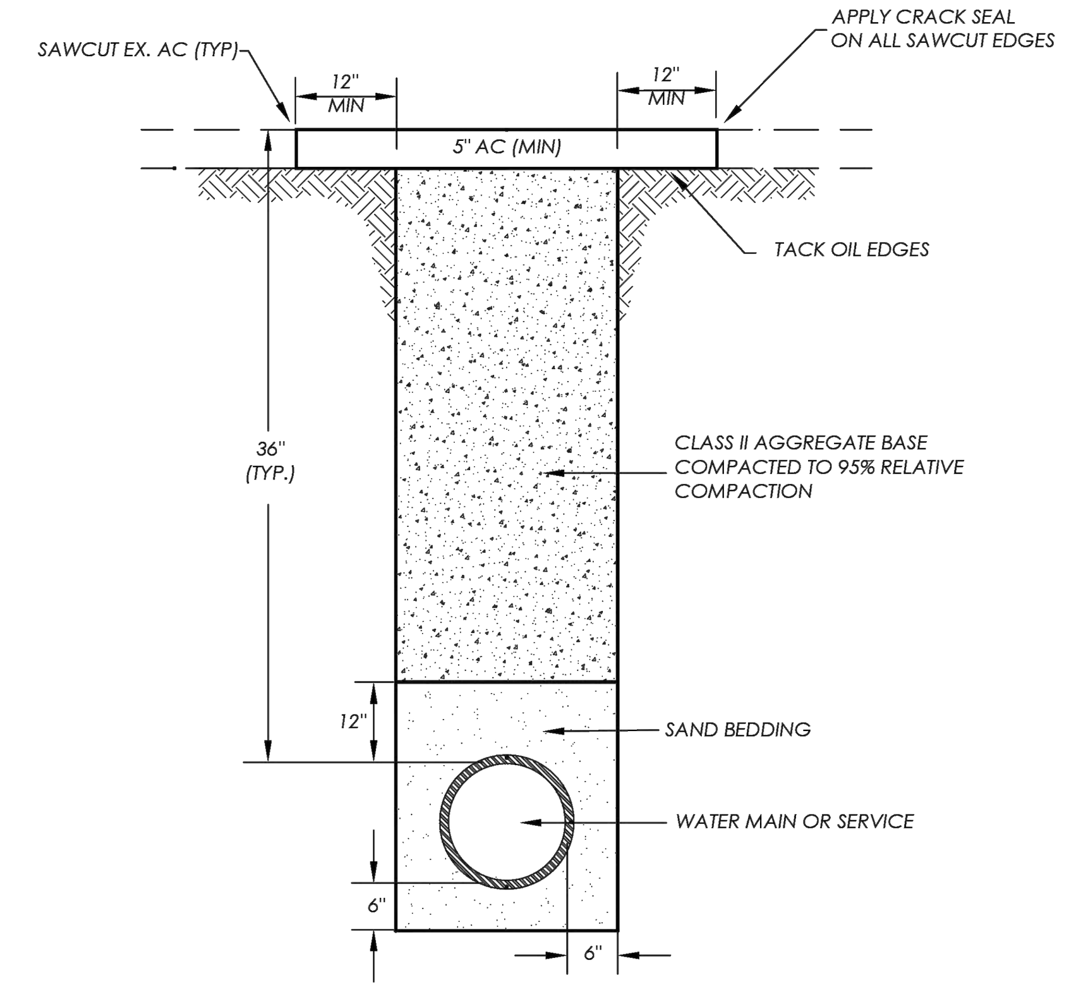
20. PRIVATE FIRE HYDRANTS SHALL BE LISTED WITH TWO- 2 ½ INCH OUTLETS AND ON 4½ - INCH OUTLET. THE 4½ - INCH OUTLET SHALL FACE THE FIRE DEPARTMENT ACCESS ROAD. ALL OUTLETS SHALL BE PROVIDED WITH NATIONAL STANDARDS THREADS (NST). PRIVATE HYDRANTS SHALL BE PAINTED OSHA SAFETY YELLOW.
21. FIRE HYDRANT SUPPLY PIPING SHALL BE A MINIMUM OF SIX INCHES IN DIAMETER. THE LOWEST OUTLET CAP NUT SHALL BE A MINIMUM HEIGHT OF 18-INCHES ABOVE FINISHED GRADE.
22. A KEYED GATE VALVE SHALL BE PROVIDED FOR EACH HYDRANT IN AN ACCESSIBLE AND CLEARLY VISIBLE LOCATION. VALVES SHALL NOT BE LOCATED IN PARKING STALLS.
23. ALL FIRE HYDRANTS SHALL HAVE A BLUE REFLECTIVE PAVEMENT MARKER INDICATING THEIR LOCATION. REFER TO CITY OF NAPA PUBLIC WORKS STANDARD W-21 FOR INSTALLATION REQUIREMENTS. PRIVATE HYDRANTS AND MARKERS ARE TO BE MAINTAINED IN GOOD CONDITION BY THE PROPERTY OWNER.

FIRE PLAN NOTES

1. RESIDENTIAL DOMESTIC WATER SERVICES SHALL ALSO BE USED FOR AUTOMATIC FIRE SPRINKLERS. BUILDING PLANS TO BE PROVIDED WHEN PARCELS ARE DEVELOPED.
2. THE FOLLOWING FIRE UTILITIES/APPURTENANCES ARE NOT APPLICABLE TO THIS PROJECT: OS&Y, DEDICATED FIRE WATER MAINS OR SERVICES, SWEEPS, FIRE RISERS AND RISER ROOMS, FIRE PUMPS AND PUMP ROOMS, FIRE DEPARTMENT CONNECTIONS, AND PRIVATE FIRE HYDRANTS.
3. SEE CITY OF NAPA GENERAL NOTES SHEET C1.1 FOR ADDITIONAL WATER NOTES AND FIRE DEPARTMENT NOTES.
4. FIRE FLOW REQUIREMENTS PER CALIFORNIA FIRE CODE FOR SINGLE FAMILY DWELLING WITH AUTOMATIC SPRINKLER SYSTEM:

TABLE B105.1(1) - BUILDING SIZE = LESS THAN 3,600 SF (ASSUMED)
CONSTRUCTION TYPE = TYPE V-B (ASSUMED)
MINIMUM FIRE FLOW = 500 GPM AT 20 PSI FOR
FLOW DURATION OF ½ HOUR
EXISTING WATER SYSTEM FLOW = 1050 GPM AT 91 PSI

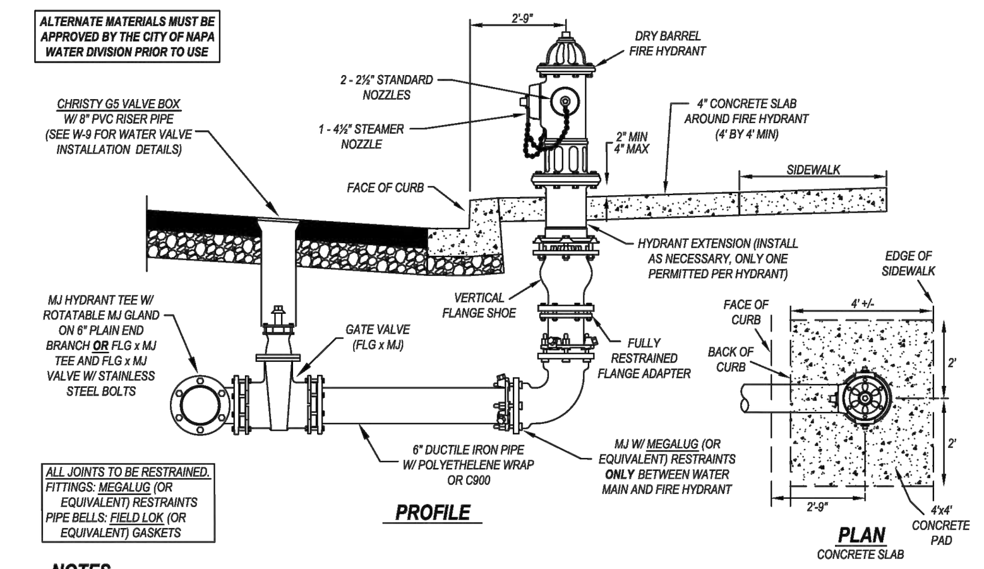
TABLE C102.1 - MINIMUM NUMBER OF HYDRANTS FOR FIRE FLOW = 1
NUMBER OF HYDRANTS PROVIDED = 1
AVERAGE SPACING FOR FIRE FLOW = 500 FT
100' REDUCTION FOR DEAD-END STREET PER FOOTNOTE A = 400 FT
25% ALLOWABLE INCREASE FOR AUTOMATIC FIRE SPRINKLERS PER FOOTNOTE G = 500 FT
AVERAGE SPACING PROVIDED = 480± FT



NOTES

1. TRENCHES MADE WITHIN 5' PARALLEL TO AN EXISTING GUTTER OR EDGE OF ROAD WILL REQUIRE REMOVAL AND REPLACEMENT OF EXISTING AC PAVING TO EDGE.
2. IF UTILITY CONFLICTS REQUIRE OFFSET OF NEW OR EXISTING WATER MAINS OR WATER SERVICES, WATER FACILITIES SHALL NOT BE INSTALLED WITH LESS THAN 2-FEET COVER.
3. POTHOLES SHALL BE BACKFILLED WITH CONTROLLED DENSITY FILL INSTEAD OF CLASS II AGGREGATE BASE. SAND BEDDING SHALL STILL BE REPLACED BACK OVER WATER MAIN AS SHOWN.

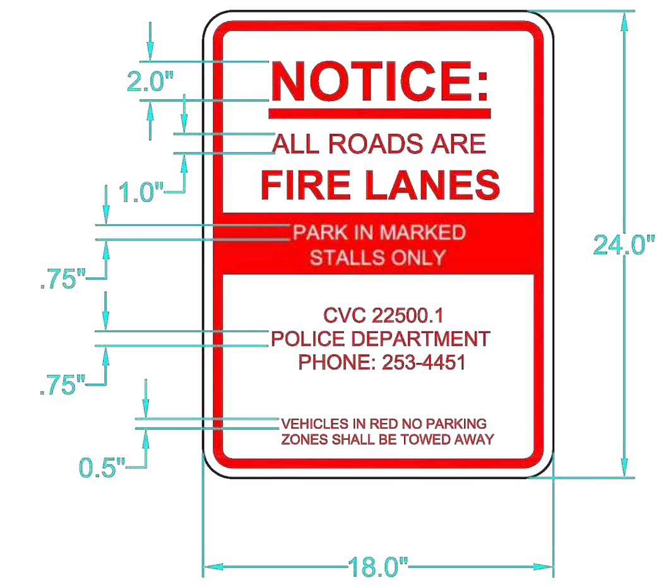
1 / C6.0 WATER TRENCH DETAIL
CITY OF NAPA WATER STD W-13A NOT TO SCALE



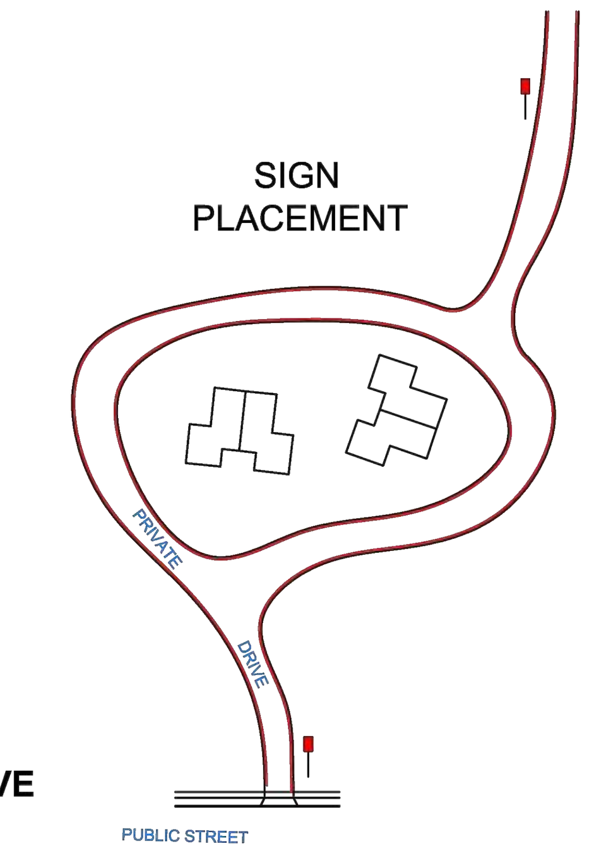
NOTES

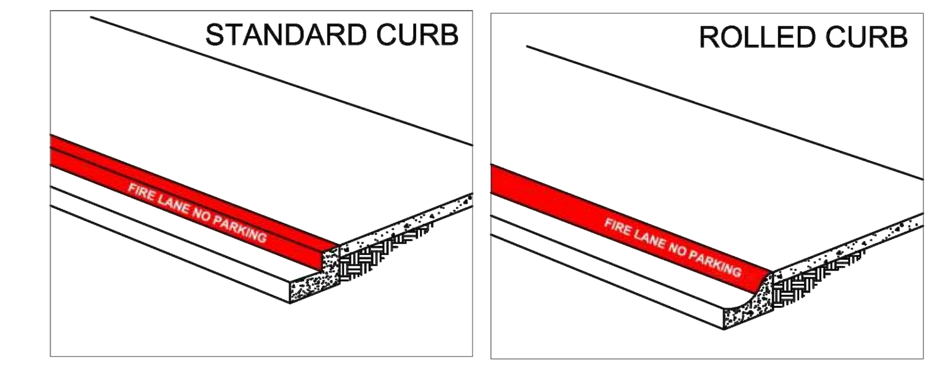
1. APPROVED HYDRANTS: MUELLER "SUPER CENTURION", AND AMERICAN-DARLING "B-62-B". **NO SUBSTITUTES WILL BE ACCEPTED.**
2. HYDRANTS SHALL CONFORM TO AWWA STANDARD C 502-85. HYDRANTS SHALL HAVE ONE 4-1/2" OUTLET AND TWO 2-1/2" OUTLETS WITH CHAINED CAPS. MAIN VALVE SIZE SHALL BE 5-1/4". HYDRANTS INSTALLED ON 12" DIAMETER OR LARGER WATER MAINS SHALL BE 8-IN IN DIAMETER.
3. OPERATION: AWWA STANDARD PENTAGON NUT, OPEN LEFT WITH A MAXIMUM 60 FT-LB OPERATING TORQUE.
4. BURY DEPTH: 36" TYPICAL.
5. PUBLIC FIRE HYDRANTS SHALL BE POWDER COATED SILVER COLOR FINISH. FIRE HYDRANTS ON A PRIVATE FIRE SYSTEM SHALL BE PAINTED WITH A PRIME COAT PLUS "OSHA YELLOW" COLOR FINISH.
6. WHERE SIDEWALK IS ADJACENT TO CURB, EXTEND SIDEWALK AND RIGHT-OF-WAY TO PROVIDE A MINIMUM 4 FEET CLEARANCE BEHIND FIRE HYDRANT PER ADA REQUIREMENTS.
7. A 6" VERTICAL CURB IS REQUIRED FOR A MINIMUM OF 10' ON EACH SIDE OF HYDRANT.
8. INSTALL 8 MIL POLYETHYLENE WRAP ON LATERAL, JOINTS, AND VERTICAL RISE.
9. VERTICAL OFFSETS BETWEEN MAIN AND HYDRANT SHALL BE ACHIEVED WITH 45° BENDS W/ RESTRAINED JOINTS.
10. INSTALL PAVEMENT MARKER(S) IN PUBLIC STREET FOR ALL NEW AND RELOCATED FIRE HYDRANTS (SEE W-21).
11. FIRE HYDRANTS THAT ARE NOT IN SERVICE SHALL BE COMPLETELY COVERED.
12. PUBLIC FIRE HYDRANTS THAT ARE IN SERVICE SHALL BE OPERATED BY WATER DIVISION OR FIRE DEPARTMENT STAFF ONLY.
13. WATER USE THROUGH ANY FIRE HYDRANT SHALL BE LIMITED TO WATER SYSTEM MAINTENANCE AND FIRE PREVENTION USES ONLY. FIRE HYDRANTS MAY BE USED FOR CONSTRUCTION WATER PURPOSES WITH THE USE OF A HYDRANT METER OBTAINED FROM THE CITY **AND** IF THE LOCATION IS APPROVED BY THE CITY OF NAPA WATER DIVISION.
14. NO TREES SHALL BE PLANTED WITHIN 10', OR LARGE SHRUBS WITHIN 5', OF FIRE HYDRANTS.

2 / C6.0 FIRE HYDRANT ASSMEBLY
CITY OF NAPA WATER STD W-8 NOT TO SCALE



FIRE LANE SIGN - "B"
RED ON WHITE
COMMERCIAL GRADE REFLECTIVE
.080 GAUGE

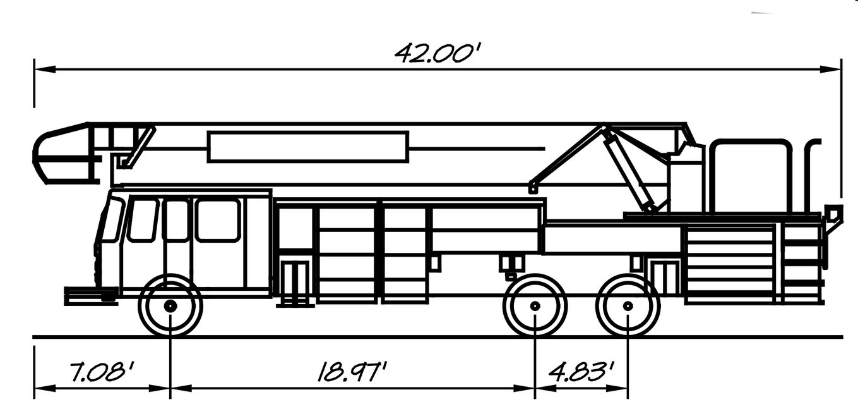




NOTES:

1. Signs shall be visible and readable along access roadway
2. Signs are to face oncoming traffic at all points of entry to the property.
3. Signs and curbs are to be maintained by the property owner
4. Signs are to be posted so the bottom of the sign is 90" above ground level
5. All curbs along fire lanes are required to be painted red and stenciled "FIRE LANE NO PARKING".
6. Lettering on curbs is to be a minimum of 3" in height and white in color.
7. There shall be a maximum distance of 20' between "FIRE LANE NO PARKING" lettering.
8. If no curbs are present, continuous red striping of 6" width shall be used, lettering is same as curbs.

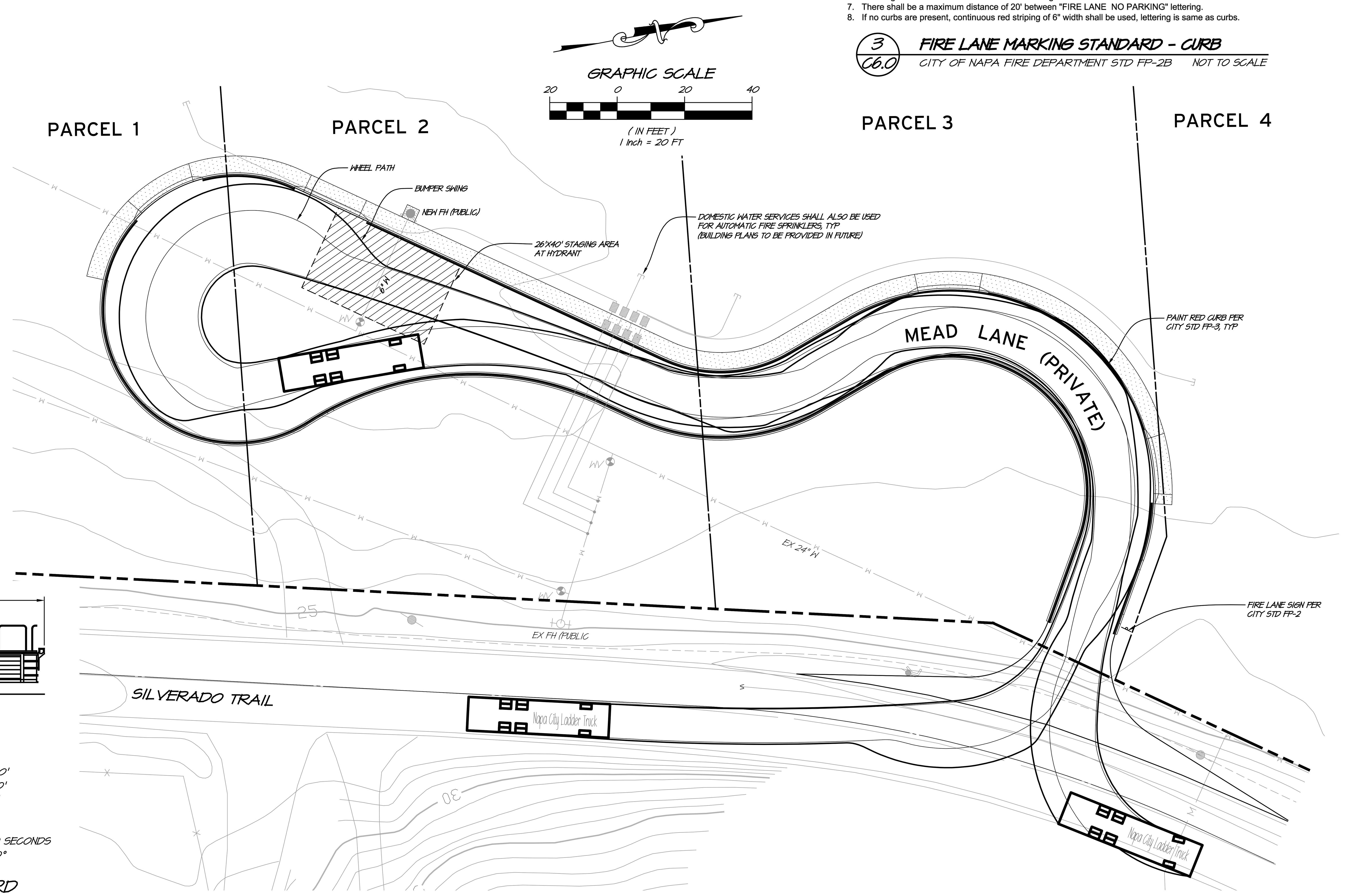
3 / C6.0 FIRE LANE MARKING STANDARD - CURB
CITY OF NAPA FIRE DEPARTMENT STD FP-2B NOT TO SCALE



NAPA CITY LADDER TRUCK

OVERALL LENGTH	42.00'
OVERALL WIDTH	10.00'
OVERALL BODY HEIGHT	11.07'
MIN BODY GROUND CLEARANCE	1.62'
MAX TRACK WIDTH	9.81'
LOCK-TO-LOCK TIME	6.00 SECONDS
MAX WHEEL ANGLE	41.20°

CITY OF NAPA STANDARD LADDER FIRE TRUCK
SCALE 1" = 10'



FIRE TRUCK TURNING TEMPLATE
SCALE 1" = 20'

MILLIKEN ESTATES
FIRE ACCESS & CIRCULATION PLAN
NAPA CALIFORNIA

RSA+ | CONSULTING CIVIL ENGINEERS + SURVEYORS + est. 1980
1515 FOURTH STREET
NAPA, CALIF. 94559
OFFICE|707|252.3301
+ www.RSAcivil.com +

REGISTERED PROFESSIONAL ENGINEER DEREK MASON DITTMAN No. 90885 Exp. 03.31.2028 CIVIL ENGINEER STATE OF CALIFORNIA

DATE	MARCH 31, 2026
DRAWN	FV
DESIGNED	MM/RAY
CHECKED	DMD
JOB NO.	4116027.1

SHEET NO.
C6.0
10 OF 10 SHEETS

NO.	DATE	REVISIONS	BY	APP'D

PRELIMINARY - NOT FOR CONSTRUCTION