LEGEND

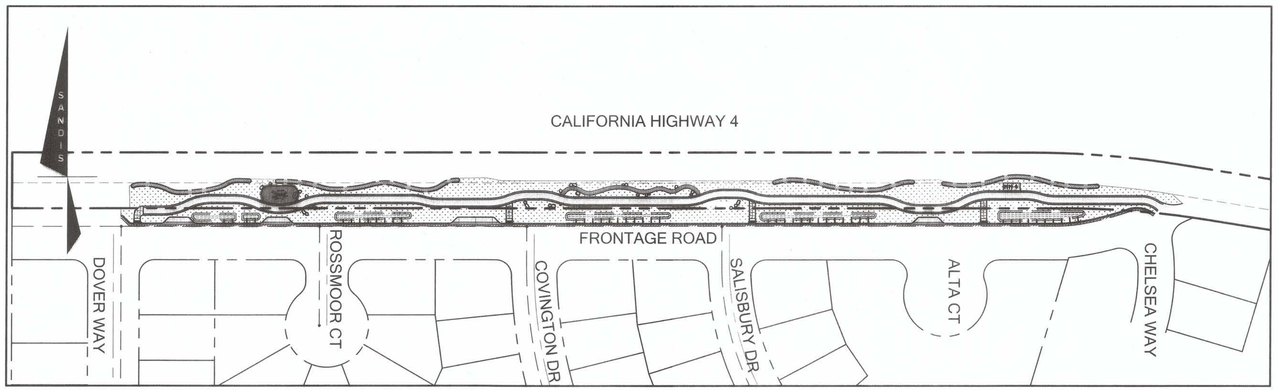
	EXISTING	PROPOSED
SAWCUT AND CONFORM LINE		
RETAINING WALL		
A.C. PAVEMENT		
CONC. VALLEY GUTTER		
CONC. SIDEWALK OR PAD		
6" CURB & GUTTER		
EDGE OF A.C. PAVEMENT	EP	
6" VERTICAL CURB		
CENTER LINE		
SANITARY SEWER MAIN	8" SS	8" SS
STORM DRAIN MAIN	12" SD	15" SD
PERFORATED PIPE		6" SD
WATER MAIN	8" W	6" W
FIRE WATER MAIN	6" FW	4" FW
DOMESTIC WATER MAIN	6" DW	4" DW
CHILLED WATER MAIN	6" CHW	4" CHW
IRRIGATION LINE	2" IRR	4" IRR
HOT WATER SUPPLY & RETURN	HWS-HWR	HWS HWR
STEAM LINE	ST	ST
TRENCH DRAIN		
CONDENSATE RETURN	CR	CR
FLOW LINE		
CHAIN LINK FENCE	x x	x x
GAS MAIN	G	2" G
ELECTRIC AND SIGNAL DUCT BANK	E	E
OVERHEAD ELECTRIC LINE	OHE	OHE
UNDERGROUND ELECTRIC LINE	UGE	UGE
STREET LIGHT CONDUIT	SL	SL
CONTOUR ELEVATION LINE	85	90 89
SPOT ELEVATION	x 95.94	FG 95.94
DIRECTION OF SLOPE		2:1 1%
GAS METER	GM	GM
GAS VALVE	GV	GV
WATER METER	WM	WM
WATER VALVE	WV	WV
FIRE HYDRANT		
BACK FLOW PREVENTOR		
POST INDICATOR VALVE	PIV	PIV
FIRE DEPARTMENT CONNECTION		
WATER LINE TEE		
CAP AND PLUG END		
AIR RELEASE VALVE	ARV	ARV
SIGN		
ACCESSIBLE RAMP		
CONCRETE THRUST BLOCK		
REDUCER		
SANITARY SEWER MANHOLE		
SANITARY SEWER CLEANOUT	SSCO	SSCO
STORM DRAIN MANHOLE		
STORM DRAIN AREA DRAIN		
STORM DRAIN CATCH BASIN	CB	
STORM DRAIN CURB INLET		
STORM DRAIN CLEANOUT	SDCO	SDCO
ELECTROLIER		
JOINT POLE		JP
OVERLAND RELEASE		
CONSTRUCTION DETAIL REFERENCE		15 / C5.2 DETAIL REFERENCE / SHEET REFERENCE

ABBREVIATIONS

AB	–	AGGREGATE BASE
AC	–	ASPHALT CONCRETE
AD	–	AREA DRAIN
ADA	–	AMERICANS WITH DISABILITIES ACT
ASB	–	AGGREGATE SUBBASE
BC	–	BEGINNING OF CURVE
BFP	–	BACK FLOW PREVENTOR
BLDC	–	BUILDING CORNER
BLDG	–	BUILDING
BOD	–	BOTTOM OF DOCK
BOL	–	BOLLARD
BOS	–	BOTTOM OF STEP
BOW	–	FG @ BOTTOM OF WALL
BVC	–	BEGIN VERTICAL CURVE
BW	–	BACK OF WALK
C	–	CONCRETE OR CIVIL
C&G	–	CURB AND GUTTER
CB	–	CATCH BASIN
CI	–	COMBINATION INLET
CIP	–	CAST IRON PIPE
CL	–	CENTER LINE OR CLASS
CMP	–	CORRUGATED METAL PIPE
CO	–	CLEANOUT
COI	–	CURB OPENING INLET
CONC	–	CONCRETE
CONST	–	CONSTRUCTION OR CONSTRUCT
CY	–	CUBIC YARD
DCDA	–	DOUBLE CHECK DETECTOR ASSEMBLY
DI	–	DROP INLET
DIP	–	DUCTILE IRON PIPE
DOM	–	DOMESTIC
DW	–	DOMESTIC WATER
DWG	–	DRAWING
E	–	EAST
EC	–	END OF CURVE
EP	–	EDGE OF PAVEMENT
ER	–	END OF RETURN
EVC	–	END VERTICAL CURVE
ELEV	–	ELEVATION
EX., EXIST.	–	EXISTING
FC	–	FACE OF CURB
FDC	–	FIRE DEPARTMENT CONNECTION
FF	–	FINISHED FLOOR
FG	–	FINISHED GRADE
FH	–	FIRE HYDRANT
FL	–	FLOW LINE
FOUND	–	FOUNDATION
FS	–	FINISHED SURFACE
FT	–	FOOT
FW	–	FIRE WATER
G	–	GROUND ELEVATION
GB	–	GRADE BREAK
GV	–	GATE VALVE
HCR	–	ACCESSIBLE RAMP
HP	–	HIGH POINT
INV	–	INVERT ELEVATION
JP	–	JOINT POLE
JT	–	JOINT TRENCH
LIP	–	LIP OF GUTTER
LP	–	LOW POINT
LSA	–	LANDSCAPE ARCHITECT
MAX	–	MAXIMUM
MEP	–	MECHANICAL/ELECTRICAL/PLUMBING
MH	–	MANHOLE
MIN	–	MINIMUM
MPVC	–	MIDPOINT OF VERTICAL CURVE
MON	–	MONUMENT
N	–	NORTH
N.I.C.	–	NOT IN CONTRACT
NO	–	NUMBER
NTS	–	NOT TO SCALE
P	–	PAVEMENT ELEVATION
PCC	–	PORTLAND CEMENT CONCRETE / POINT OF CONTINUOUS CURVATURE
PIV	–	POST INDICATOR VALVE
PL	–	PROPERTY LINE
PMH	–	POWER MANHOLE
POC	–	POINT ON CURVE
PP	–	POWER POLE
PRC	–	POINT OF REVERSE CURVATURE
PVC	–	POLYVINYL CHLORIDE PIPE
R	–	RADIUS
RC	–	RELATIVE COMPACTION
RCP	–	REINFORCED CONCRETE PIPE
RPPA	–	REDUCED PRESSURE PRINCIPLE ASSEMBLY
R/W	–	RIGHT OF WAY
S	–	SLOPE OR SOUTH
S.A.D.	–	SEE ARCHITECTURAL DRAWINGS
SB	–	SEDIMENT BASIN
SD	–	STORM DRAIN
S.E.D.	–	SEE ELECTRICAL DRAWINGS
SF	–	SILT FENCE
SG	–	SUBGRADE
S.L.D.	–	SEE LANDSCAPE DRAWINGS
S.M.D.	–	SEE MECHANICAL DRAWINGS
SMH	–	SIGNAL MANHOLE
S.P.D.	–	SEE PLUMBING DRAWINGS
SS	–	SANITARY SEWER
STA	–	STATION
STD	–	STANDARD
S/W	–	SIDEWALK
TC	–	TOP OF CURB
TD	–	TRENCH DRAIN
TOD	–	TOP OF DOCK
TOE	–	TOE OF SLOPE
TOS	–	TOP OF STAIR
TOW	–	FG @ TOP OF WALL
TS	–	TOP OF SLAB
TYP	–	TYPICAL
UON	–	UNLESS OTHERWISE NOTED
U/G	–	UNDERGROUND
VC	–	VERTICAL CURVE
WM	–	WATER METER
WV	–	WATER VALVE
W	–	WEST
WWF	–	WELDED WIRE FABRIC
W/	–	WITH

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN

100% DESIGN
PITTSBURG, CA



PROJECT DESCRIPTION

THIS PROJECT PROPOSES TO CONSTRUCT A MULTI-USE PATH AND STORMWATER TREATMENT.

KEY MAP

1"=100'

OWNER INFO

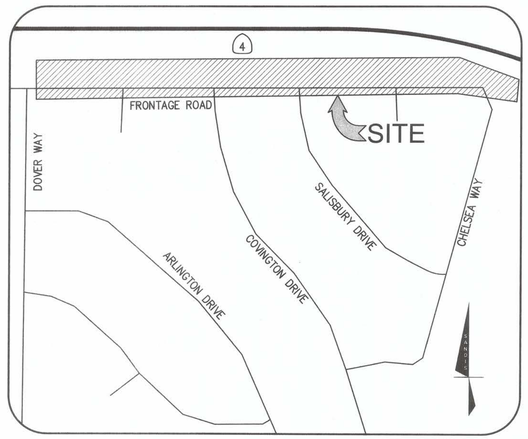
CITY OF PITTSBURG
CONTACT PERSON: JOLAN LONGWAY
65 CIVIC AVENUE
PITTSBURG, CA 94565
PH: (925) 252-4803
EMAIL: JLONGWAY@PITTSBURGCA.GOV

EARTHWORK QUANTITIES

CUT 2,400 CY
FILL 200 CY
BALANCE 2,200 CY EXPORT

THE EARTHWORK QUANTITIES SHOWN ARE PROVIDED FOR THE PURPOSE OF GRADING PERMIT APPROVAL ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CARRY OUT THE CUT/FILL, IMPORT/EXPORT AS NECESSARY TO MEET THE DESIGN GRADES AS SHOWN ON THE PLANS REGARDLESS OF THE ESTIMATED EARTHWORK QUANTITIES AS INDICATED. SIGNIFICANT REVISIONS TO THE QUANTITIES NEED REVIEW BY THE CITY OF PITTSBURG. FILL SHORTAGE IS ANTICIPATED TO COME FROM ON-SITE SPOILS ACQUIRED FROM UTILITY TRENCHES AND FOOTING SPOILS.

SHEET INDEX



VICINITY MAP

N.T.S.

UNAUTHORIZED CHANGES AND USES

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THE PLANS.

Know what's below. Call before you dig.

PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING
RCE 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
COVER SHEET
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO. 1 OF 59

DWG. NO. C-1.0

CONSTRUCTION NOTES

1. ALL OFF-SITE CONSTRUCTION MATERIAL AND METHODS SHALL COMPLY WITH THE LATEST EDITION OF THE CITY OF PITTSBURG, COUNTY OF CONTRA COSTA AND THE LATEST CALTRANS STANDARD PLANS & SPECIFICATIONS.
2. CONTRACTOR SHALL LEAVE AN EMERGENCY PHONE NUMBER WITH THE CITY OF PITTSBURG POLICE AND FIRE DEPARTMENTS.
3. CONTRACTOR SHALL POST ON THE SITE, EMERGENCY TELEPHONE NUMBERS FOR PUBLIC WORKS, AMBULANCE, POLICE, AND FIRE DEPARTMENTS.
4. CONTRACTOR SHALL NOTIFY ALL PUBLIC OR PRIVATE UTILITY OWNERS 48 HOURS PRIOR TO COMMENCEMENT OF WORK ADJACENT TO THE UTILITY UNLESS AN EXCAVATION PERMIT SPECIFIES OTHERWISE.
5. THE CONTRACTOR SHALL HIRE A STREET CLEANING CONTRACTOR TO CLEAN UP DIRT AND DEBRIS FROM CITY STREETS THAT ARE ATTRIBUTABLE TO THE DEVELOPMENT'S CONSTRUCTION ACTIVITIES.
6. ALL GRADING SHALL BE PERFORMED IN SUCH A MANNER AS TO COMPLY WITH THE STANDARDS ESTABLISHED BY THE AIR QUALITY MAINTENANCE DISTRICT FOR AIRBORNE PARTICULATES (DUST).
7. ALL GRADING SHALL CONFORM TO APPROVED SPECIFICATIONS PRESENTED HEREON OR ATTACHED HERETO. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE SOILS ENGINEER. THE GEOTECHNICAL ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE BEGINNING ANY GRADING. UNOBSERVED AND UNAPPROVED GRADING WORK SHALL BE REMOVED AND REDONE AT THE CONTRACTORS EXPENSE.
8. ALL MATERIALS, REQUIRED FOR THE COMPLETE EXECUTION OF THE PROJECT, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
9. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR PUBLIC SAFETY DURING THE CONSTRUCTION PERIOD.
10. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING IMPROVEMENTS OF UNDERGROUND FACILITIES DAMAGED DURING THE CONSTRUCTION PERIOD.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL ENCROACHMENT, EXCAVATION, CONCRETE, ELECTRICAL, PLUMBING, ETC. PERMITS NECESSARY PRIOR TO BEGINNING CONSTRUCTION FOR ANY WORK.
12. THE CONTRACTOR SHALL HAVE A SUPERINTENDENT OR REPRESENTATIVE ON SITE AT ALL TIMES DURING CONSTRUCTION.
13. STORAGE OF CONSTRUCTION MATERIAL AND EQUIPMENT ON CITY STREETS WILL NOT BE PERMITTED.
14. CONSTRUCTION EQUIPMENT SHALL BE PROPERLY MUFFLED. UNNECESSARY IDLING OF GRADING CONSTRUCTION EQUIPMENT IS PROHIBITED.
15. CONSTRUCTION EQUIPMENT, TOOLS, ETC. SHALL NOT BE CLEANED OR RINSED INTO A STREET, GUTTER OR STORM DRAIN.
16. A CONTAINED AND COVERED AREA ON-SITE SHALL BE USED FOR STORAGE OF CEMENT BAGS, PAINTS, FLAMMABLE, OILS, FERTILIZERS, PESTICIDES, OR ANY OTHER MATERIALS THAT HAVE POTENTIAL FOR BEING DISCHARGED TO THE STORM DRAIN SYSTEM BY WIND OR IN THE EVENT OF A MATERIAL SPILL.
17. ALL CONSTRUCTION DEBRIS SHALL BE GATHERED ON A REGULAR BASIS AND PLACED IN A DUMPSTER WHICH IS EMPTIED OR REMOVED WEEKLY. WHEN FEASIBLE, TARPS SHALL BE USED ON THE GROUND TO COLLECT FALLEN DEBRIS OR SPLATTERS THAT COULD CONTRIBUTE TO STORMWATER POLLUTION.
18. ANY TEMPORARY ON-SITE CONSTRUCTION PILES SHALL BE SECURELY COVERED WITH A TARP OR OTHER DEVICE TO CONTAIN DEBRIS.
19. CONCRETE TRUCKS AND CONCRETE FINISHING OPERATIONS SHALL NOT DISCHARGE WASH WATER INTO THE STREET GUTTERS OR DRAINS.

DISCREPANCIES

IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWINGS AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER FITTING OF ALL WORK AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED UPON THIS CONTRACT.

UTILITY/POTHOLE NOTE

THE TYPES, LOCATIONS, SIZES AND /OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND FACILITIES AND UTILITIES BY POTHOLING PRIOR TO COMMENCING CONSTRUCTION.

DIMENSIONS

ALL DIMENSIONS ON THE PLANS ARE IN FEET OR DECIMALS THEREOF UNLESS SPECIFICALLY CALLED OUT AS FEET AND INCHES.

ENCROACHMENT NOTE:

A SEPARATE ENCROACHMENT PERMIT IS REQUIRED FOR ALL WORK WITHIN THE PUBLIC RIGHT-OF-WAY. IT IS THE CONTRACTORS RESPONSIBILITY TO OBTAIN THIS ENCROACHMENT PERMIT AND FOLLOW ALL CONSTRUCTION RELATED REQUIREMENTS OF SUCH PERMIT.

FLOODZONE

THIS PROJECT IS IN FLOOD ZONE X: AREAS OUTSIDE OF 0.2% ANNUAL CHANCE FLOOD.

INFORMATION OBTAINED FROM THE FLOOD INSURANCE RATE MAP (FIRM) NO. 06013C0119G DATED SEPTEMBER 30, 2015 PRODUCED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA).

UNDERGROUND WORK CAUTION

CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. FOR NORTHERN CALIFORNIA DIAL 811 OR (800) 227-2600. FOR OTHER AREAS CALL (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE.

DEMOLITION NOTES

1. CONTRACTOR IS TO COMPLY WITH ALL GENERAL AND STATE REQUIREMENTS INVOLVING THE REMOVAL AND DISPOSAL OF HAZARDOUS MATERIAL(S).
2. CONTRACTOR'S BID IS TO INCLUDE ALL VISIBLE SURFACE AND ALL SUBSURFACE FEATURES IDENTIFIED TO BE REMOVED OR ABANDONED IN THESE DOCUMENTS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A SITE INSPECTION TO FULLY ACKNOWLEDGE THE EXTENT OF THE DEMOLITION WORK.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL PERMITS NECESSARY FOR ENCROACHMENT, GRADING, DEMOLITION, AND DISPOSAL OF SAID MATERIALS AS REQUIRED BY PRIVATE, LOCAL AND STATE JURISDICTIONS. THE CONTRACTOR SHALL PAY ALL FEES ASSOCIATED WITH THE DEMOLITION WORK.
5. BACKFILL ALL DEPRESSIONS AND TRENCHES FROM DEMOLITION TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
6. REMOVAL OF LANDSCAPING SHALL INCLUDE ROOTS AND ORGANIC MATERIALS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
7. PRIOR TO BEGINNING DEMOLITION WORK ACTIVITIES, CONTRACTOR SHALL INSTALL EROSION CONTROL MEASURES OUTLINED IN THE EROSION CONTROL PLAN & DETAILS AND THE PROJECT SWPPP IF APPLICABLE.
8. THE CONTRACTOR SHALL MAINTAIN ALL SAFETY DEVICES, AND SHALL BE RESPONSIBLE FOR CONFORMANCE TO ALL LOCAL, STATE AND FEDERAL SAFETY AND HEALTH STANDARDS LAWS AND REGULATIONS.
9. THE CONTRACTOR SHALL PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS FACILITIES AND STRUCTURES WHICH ARE TO REMAIN. ANY ITEMS DAMAGED BY THE CONTRACTOR OR THEIR AGENTS OR ANY ITEMS REMOVED FOR HIS USE SHALL BE REPLACED IN EQUAL OR BETTER CONDITION AS APPROVED BY THE ARCHITECT OR OWNER'S REPRESENTATIVE.
10. COORDINATE WITH ELECTRICAL, MECHANICAL, LANDSCAPING AND ARCHITECTURAL DRAWINGS FOR UTILITY SHUT-DOWN/DISCONNECT LOCATIONS. CONTRACTOR IS TO SHUT OFF ALL UTILITIES AS NECESSARY PRIOR TO DEMOLITION. CONTRACTOR IS TO COORDINATE SERVICE INTERRUPTIONS WITH THE UTILITY OWNER AND ANY AFFECTED PROPERTIES OR BUILDINGS. SEE ARCHITECTURAL PLANS FOR ADDITIONAL DEMOLITION SCOPE OF WORK.
11. THIS PLAN IS NOT INTENDED TO BE A COMPLETE CATALOGUE OF ALL EXISTING STRUCTURES AND UTILITIES. THIS PLAN INTENDS TO DISCLOSE GENERAL INFORMATION KNOWN BY THE ENGINEER AND TO SHOW THE LIMITS OF THE AREA WHERE WORK WILL BE PERFORMED. THIS PLAN SHOWS THE EXISTING FEATURES TAKEN FROM A FIELD SURVEY, FIELD INVESTIGATIONS AND AVAILABLE INFORMATION. THIS PLAN MAY OR MAY NOT ACCURATELY REFLECT THE TYPE OR EXTENT OF THE ITEMS TO BE ENCOUNTERED AS THEY ACTUALLY EXIST. WHERE EXISTING FEATURES ARE NOT SHOWN, IT IS NOT IMPLIED THAT THEY ARE NOT TO BE DEMOLISHED OR RELOCATED. THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD INVESTIGATION AND REVIEW OF THE SITE WITHIN THE LIMIT OF WORK SHOWN IN THIS PLAN SET TO DETERMINE THE TYPE, QUANTITY AND EXTENT OF ANY AND ALL ITEMS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR DETERMINING THE EXTENT OF EXISTING STRUCTURES AND UTILITIES AND QUANTITY OF WORK INVOLVED IN REMOVING THESE ITEMS FROM THE SITE.
12. CONTRACTOR TO DEMOLISH AND REMOVE ALL IRRIGATION IN LANDSCAPE AREAS WITHIN THE LIMIT OF WORK. IF ANY IRRIGATION LINES OR MAINS ARE IN THE LIMIT OF WORK OR ARE DAMAGED THAT SERVE LANDSCAPE TO REMAIN, CONTRACTOR TO RECONNECT OR RELOCATE AT NO ADDITIONAL COST TO OWNER.
13. PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS OTHERWISE NOTED. REPLACE ANY DAMAGED UTILITY TO REMAIN TO KEEP OPERABLE DURING CONSTRUCTION.
14. ALL UTILITY SHUT DOWNS ARE TO BE AVOIDED. IF SHUT DOWNS ARE NECESSARY, CONTRACTOR TO COORDINATE SHUT DOWN WITH UTILITY OWNER WITH 48 HOUR MINIMUM NOTICE.
15. ALL EXISTING STORM DRAIN, SANITARY SEWER, AND WATER MAINS THAT SERVE EXISTING BUILDINGS MUST REMAIN OPERABLE DURING CONSTRUCTION. CONTRACTOR TO SET UP TEMPORARY SERVICE OR PUMP AS NECESSARY TO ENSURE UNINTERRUPTED SERVICE.

RECORD DRAWING NOTE

THE CONTRACTOR SHALL KEEP UP-TO-DATE AND ACCURATE A COMPLETE RECORD SET OF PRINTS OF THE CONTRACT DRAWINGS SHOWING EVERY CHANGE FROM THE ORIGINAL DRAWINGS MADE DURING THE COURSE OF CONSTRUCTION INCLUDING EXACT FINAL LOCATION, ELEVATION, SIZES, MATERIALS, AND DESCRIPTION OF ALL WORK. RECORDS SHALL BE "REDLINED" ON A SET OF CONSTRUCTION PLAN DRAWINGS. A COMPLETE SET OF CORRECTED AND COMPLETED RECORD DRAWING PRINTS SHALL BE SUBMITTED TO THE CITY ENGINEER AND DEVELOPER'S CIVIL ENGINEER PRIOR TO FINAL ACCEPTANCE FOR REVIEW AND APPROVAL BY THE CITY ENGINEER.

APPLICABLE FIRE CODE NOTES

APPLICABLE CODES AS OF JANUARY 1, 2023:

2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 24, CCR)

2022 CALIFORNIA BUILDING CODE, VOLUMES 1 AND 2 (PART 2, TITLE 24, CCR)
(2021 EDITION INTERNATIONAL BUILDING CODE)

2022 CALIFORNIA ELECTRICAL CODE (PART 3, TITLE 24, CCR)
(2021 EDITION NATIONAL ELECTRICAL CODE)

2022 CALIFORNIA MECHANICAL CODE (PART 4, TITLE 24, CCR)
(2021 EDITION UNIFORM MECHANICAL CODE)

2022 CALIFORNIA PLUMBING CODE (PART 5, TITLE 24, CCR)
(2021 EDITION UNIFORM PLUMBING CODE)

2022 CALIFORNIA ENERGY CODE (PART 6, TITLE 24, CCR)

2022 CALIFORNIA ELEVATOR SAFETY ORDERS (CHAPTER 4, TITLE 8, CCR)

2022 CALIFORNIA FIRE CODE (PART 9, TITLE 24, CCR)

2022 CALIFORNIA REFERENCED STANDARDS CODE (PART 12, TITLE 24, CCR)

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

HAZARDOUS MATERIALS NOTE

THERE MAY BE ASBESTOS CONTAINING PIPE AND PIPE INSTALLATION OR OTHER HAZARDOUS MATERIALS WITHIN THE PROJECT AREA. THE CONTRACTOR WILL PROTECT ALL HAZARDOUS CONTAINING ITEMS DURING THE EXECUTION OF THIS CONTRACT. ADDITIONALLY THE CONTRACTOR WILL COMPLY WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS REGARDING CONSTRUCTION ACTIVITIES NEAR HAZARDOUS MATERIALS.

CONSTRUCTION FENCE

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS.
2. CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK WITH GREEN WINDSCREEN FABRIC ON THE OUTSIDE OF THE FENCE.
3. CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS ONLY FOR VISUAL CONFORMANCE OF THIS CONSTRUCTION SITE TO THE CITY OF PITTSBURG STANDARDS. CONTRACTOR MAY BE REQUIRED TO PROVIDE ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES TO KEEP THE SITE SECURE AND SAFE.

GENERAL UTILITY NOTES

1. ALL TRENCHES SHALL BE BACK FILLED PER THE GEOTECHNICAL REPORT OR UTILITY OWNERS STANDARD DETAILS AND SPECIFICATIONS.
2. CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (TRANSFORMER, GAS METER, ETC.) . PLANNING DEPARTMENT MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH ANY REVISIONS TO APPROVED LOCATIONS.
3. CATHODIC PROTECTION SHALL BE REQUIRED ON ALL METALLIC FITTINGS AND ASSEMBLIES THAT ARE IN CONTACT WITH THE SOIL, UNLESS SPECIFICALLY DEEMED UNNECESSARY BY THE GEOTECHNICAL REPORT. CONTRACTOR IS RESPONSIBLE TO FULLY ENGINEER AND INSTALL THIS SYSTEM AND COORDINATE ANODE AND TEST STATION LOCATIONS WITH THE UTILITY OWNER.
4. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES AND WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.
5. UNDERGROUND UTILITIES OR STRUCTURES ARE SHOWN IN THEIR APPROXIMATE LOCATIONS AND EXTENT BASED UPON RECORD INFORMATION. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CLIENT, BY ACCEPTING THESE PLANS OR PROCEEDING WITH IMPROVEMENTS PURSUANT THERETO, AGREES TO ASSUME LIABILITY AND TO HOLD UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED; NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THOSE REPORTED OR SHOWN ON RECORDS EXAMINED.
6. CONTRACTOR SHALL VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER CONSTRUCTION PRIOR TO COMMENCEMENT OF ANY WORK. ALL WORK FOR STORM AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORK UP-STREAM, AND SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY.
7. EXISTING UTILITY CROSSINGS OF NEW PIPELINE ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. GAS, WATER AND SEWER SERVICE LATERALS ARE SHOWN ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE TYPE, SIZE, LOCATION AND DEPTH OF ALL THE UTILITY CROSSING (BOTH MAINS AND LATERALS) ARE CORRECT AS SHOWN. NO GUARANTEE IS MADE THAT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) ARE SHOWN. THE CONTRACTOR SHALL EXERCISE CAUTION WHEN EXCAVATING AND SHALL PROTECT ALL EXISTING UTILITIES (BOTH MAINS AND LATERALS) FROM DAMAGE DUE TO HIS OPERATION.
8. VERTICAL SEPARATION REQUIREMENTS (UNLESS SPECIFICALLY SHOWN OTHERWISE ON PLANS):

   A MINIMUM OF SIX (6) INCHES VERTICAL CLEARANCE, MEASURED FROM OUTSIDE EDGE OF PIPE, SHALL BE PROVIDED BETWEEN CROSSING UTILITY PIPES, EXCEPT THAT THE MINIMUM VERTICAL CLEARANCE BETWEEN WATER AND SANITARY SEWER PIPELINES SHALL BE 12 INCHES AND ALL NEW WATER PIPES SHALL BE TYPICALLY INSTALLED TO CROSS ABOVE/OVER EXISTING SANITARY SEWER PIPELINES.

   WHERE NEW WATER PIPELINES ARE REQUIRED TO CROSS UNDER EXISTING AND/OR NEW SANITARY SEWER PIPELINES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12 INCHES. WATER LINE PIPE ENDS SHALL BE INSTALLED NO CLOSER THAN 10' MINIMUM HORIZONTAL DISTANCE FROM CENTERLINE OF UTILITY CROSSINGS, WHERE FEASIBLE.
9. HORIZONTAL SEPARATION REQUIREMENTS (UNLESS SPECIFICALLY SHOWN OTHERWISE ON PLANS):

   A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND ANY EXISTING UTILITIES SHALL BE 5' FEET, EXCEPT THAT THE MINIMUM HORIZONTAL SEPARATION FOR WATER AND SANITARY SEWER MAIN PIPELINES SHALL BE 10' MINIMUM.

   A MINIMUM HORIZONTAL SEPARATION BETWEEN NEW PIPELINES AND JOINT TRENCH SHALL BE 5 FEET.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING APPROPRIATE UTILITIES AND REQUESTING VERIFICATION OF SERVICE POINTS, FIELD VERIFICATION OF LOCATION, SIZE, DEPTH, ETC. FOR ALL THEIR FACILITIES AND TO COORDINATE WORK SCHEDULES.
11. ANY EXISTING UNDERGROUND UTILITY LINES TO BE ABANDONED, SHALL BE REMOVED FROM WITHIN THE PROPOSED BUILDING ENVELOPE AND THEIR ENDS CAPPED OUTSIDE OF THE BUILDING ENVELOPE.
12. ANY PIPING TO BE ABANDONED IN PLACE SHALL BE FILLED WITH GROUT AND CAPPED.

PAVEMENT SECTIONS

1. SEE GEOTECHNICAL REPORT FOR CITY OF PITTSBURG FRONTAGE ROAD LIVING GREEN TRAIL DATED DECEMBER 20, 2022 FROM NINYO & MOORE FOR ALL FLATWORK AND PEDESTRIAN PAVEMENT SECTIONS AND BASE REQUIREMENTS.
2. THE FINAL OR SURFACE LAYER OF ASPHALT CONCRETE SHALL NOT BE PLACED UNTIL ALL ON-SITE IMPROVEMENTS HAVE BEEN COMPLETED, INCLUDING ALL GRADING, AND ALL UNACCEPTABLE CONCRETE WORK HAS BEEN REMOVED AND REPLACED, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER AND/OR DEVELOPER'S CIVIL ENGINEER.
3. ALL PAVING SHALL BE IN CONFORMANCE WITH SECTION 26 "AGGREGATE BASE" AND SECTION 39 "ASPHALT CONCRETE" PER LATEST EDITION OF CALTRANS STANDARD SPECIFICATIONS.

DUST CONTROL NOTES

1. WATER TRUCKS SHALL BE PRESENT AND IN USE AT THE CONSTRUCTION SITE. ALL PORTIONS OF THE SITE SUBJECT TO BLOWING DUST SHALL BE WATERED AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR IN ORDER TO INSURE PROPER CONTROL OF BLOWING DUST FOR THE DURATION OF THE PROJECT.
2. ALL PUBLIC STREETS AND MEDIANS SOILED OR LITTERED DUE TO THIS CONSTRUCTION ACTIVITY SHALL BE CLEANED AND SWEPT ON A DAILY BASIS DURING THE WORK WEEK, OR AS OFTEN AS DEEMED NECESSARY BY THE CLIENT/INSPECTOR, OR TO THE SATISFACTION OF THE CITY'S DEPARTMENT OF PUBLIC WORKS.
3. ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS.
4. WHEEL WASHERS SHALL BE INSTALLED AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING THE CONSTRUCTION SITE. IF WHEEL WASHERS CANNOT BE INSTALLED, TIRES OR TRACKS OF ALL TRUCKS AND EQUIPMENT SHALL BE WASHED OFF BEFORE LEAVING THE CONSTRUCTION SITE.
5. THE CONTRACTOR SHALL DEMONSTRATE DUST SUPPRESSION MEASURES, SUCH AS REGULAR WATERING, WHICH SHALL BE IMPLEMENTED TO REDUCE EMISSIONS DURING CONSTRUCTION AND GRADING IN A MANNER MEETING THE APPROVAL OF THE CONSTRUCTION MANAGER. THIS SHALL ASSIST IN REDUCING SHORT-TERM IMPACTS FROM PARTICLES WHICH COULD RESULT IN NUISANCES THAT ARE PROHIBITED BY RULE 403 (FUGITIVE DUST).
6. GRADING OR ANY OTHER OPERATIONS THAT CREATES DUST SHALL BE STOPPED IMMEDIATELY IF DUST AFFECTS ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE SUFFICIENT DUST CONTROL FOR THE ENTIRE PROJECT SITE IN ACCORDANCE WITH THE PROJECT SWPPP (IF ONE EXISTS) OR AS APPLICABLE PER LOCAL REGULATIONS AT ALL TIMES. THE SITE SHALL BE SPRINKLERED AS NECESSARY TO PREVENT DUST NUISANCE. IN THE EVENT THAT THE CONTRACTOR NEGLECTS TO USE ADEQUATE MEASURES TO CONTROL DUST, THE CLIENT RESERVES THE RIGHT TO TAKE WHATEVER MEASURES ARE NECESSARY TO CONTROL DUST AND CHARGE THE COST TO THE CONTRACTOR.
7. THE CONTRACTOR IS RESPONSIBLE FOR DUST CONTROL MEASURES AND FOR OBTAINING ALL REQUIRED PERMITS AND APPROVALS. ALL GRADING OPERATIONS SHALL BE SUSPENDED DURING SECOND (OR WORSE) STAGE SMOG ALERTS.

GENERAL SITE NOTES

1. CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING ON THIS WORK AND CONSIDER THE EXISTING CONDITIONS AND SITE CONSTRAINTS IN THE BID. CONTRACTOR SHALL BE IN THE POSSESSION OF AND FAMILIAR WITH ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS AND SPECIFICATIONS PRIOR TO SUBMITTING OF A BID.
2. ALL WORK ON-SITE AND IN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO ALL APPLICABLE GOVERNING AGENCIES STANDARD DETAILS & SPECIFICATIONS.
3. PRIOR TO BEGINNING WORK, AND AFTER INITIAL HORIZONTAL CONTROL STAKING, CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO THE ENGINEER.
4. DAMAGE TO ANY EXISTING SITE IMPROVEMENTS, UTILITIES AND/OR SERVICES TO REMAIN SHALL BE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL REPAIR AND/OR REPLACE IN KIND.
5. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT INCLUDING SAFETY OF ALL PERSONS AND PROPERTY THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS AND THAT THE CONTRACTOR SHALL DEFEND INDEMNIFY AND HOLD THE CLIENT, THE CONSULTING ENGINEER AND THE CITY HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE CLIENT OR THE CONSULTING ENGINEER.

TREE PROTECTION

1. PRIOR TO BEGINNING CONSTRUCTION ON SITE, CONTRACTOR SHALL IDENTIFY AND PROTECT EXISTING TREES AND PLANTS DESIGNATED AS TO REMAIN.
2. PROTECT EXISTING TREES TO REMAIN FROM SPILLED CHEMICALS, FUEL OIL, MOTOR OIL, GASOLINE AND ALL OTHER CHEMICALLY INJURIOUS MATERIAL; AS WELL AS FROM PUDDLING OR CONTINUOUSLY RUNNING WATER. SHOULD A SPILL OCCUR, STOP WORK IN THAT AREA AND CONTACT THE CITY'S ENGINEER/INSPECTOR IMMEDIATELY. CONTRACTOR SHALL BE RESPONSIBLE TO MITIGATE DAMAGE FROM SPILLED MATERIAL AS WELL AS MATERIAL CLEAN UP.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR ONGOING MAINTENANCE OF ALL TREES DESIGNATED TO REMAIN AND FOR MAINTENANCE OF RELOCATED TREES STOCKPILED DURING CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REPLACE TREES THAT DIE DUE TO LACK OF MAINTENANCE.
4. REFER TO LANDSCAPE PLANS, SPECIFICATIONS OR ARBORIST REPORT FOR TREE PROTECTION REQUIREMENTS AND MEASURES.

PROJECT SITE MAINTENANCE

1. REMOVE ALL DIRT, GRAVEL, RUBBISH, REFUSE, AND GREEN WASTE FROM STREET PAVEMENT AND STORM DRAINS ADJOINING THE SITE. LIMIT CONSTRUCTION ACCESS ROUTES ONTO THE SITE AND PLACE GRAVEL PADS AT THESE LOCATIONS. DO NOT DRIVE VEHICLES AND EQUIPMENT OFF THE PAVED OR GRAVELED AREAS DURING WET WEATHER.
2. SWEEP OR VACUUM THE STREET PAVEMENT AND SIDEWALKS ADJOINING THE PROJECT SITE AND THE ON-SITE PAVED AREAS ON A DAILY BASIS. SCRAPE CAKED-ON MUD AND DIRT FROM THESE AREAS BEFORE SWEEPING. CORNERS AND HARD TO REACH AREAS SHALL BE SWEPT MANUALLY.
3. CREATE A CONTAINED AND COVERED AREA ON THE SITE FOR THE STORAGE OF BAGS, CEMENT, PAINTS, OILS, FERTILIZERS, PESTICIDES, OR OTHER MATERIALS USED ON THE SITE THAT HAVE THE POTENTIAL OF BEING DISCHARGED INTO THE STORM DRAIN SYSTEM THROUGH EITHER BEING WIND-BLOWN OR IN THE EVENT OF A MATERIAL SPILL.
4. NEVER CLEAN MACHINERY, EQUIPMENT OR TOOLS INTO A STREET, GUTTER OR STORM DRAIN.
5. ENSURE THAT CEMENT TRUCKS, PAINTERS, OR STUCCO/PLASTER FINISHING CONTRACTORS DO NOT DISCHARGE WASH WATER FROM EQUIPMENT, TOOLS OR RINSE CONTAINERS INTO GUTTERS OR DRAINS.

REGISTERED PROFESSIONAL ENGINEER — CHAD J. BROWNING — No. C68315 — Exp. 9/30/25 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: CHAD J. BROWNING, R.C.E. NO. 68315, EXPIRES 9-30-25 — DATE: 9/20/23

ACCEPTED FOR USE: JOHN SAMUELSON, City Engineer — Date: 9/26/23

City of Pittsburg

DESIGN

FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
CONSTRUCTION NOTES

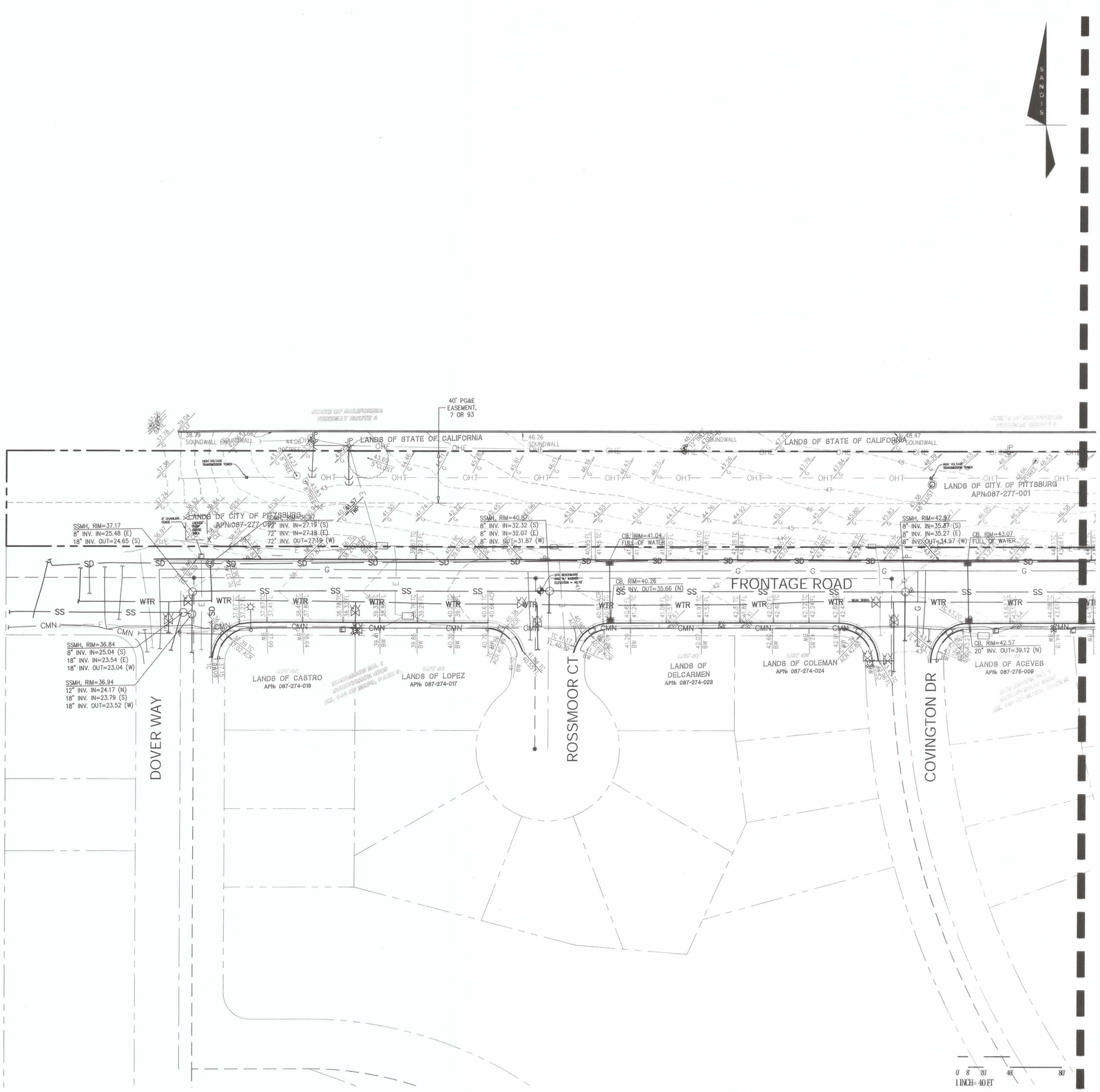
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN: CW | CHECKED: SC | REVIEWED: CB | DATE: 09/05/23 | SCALE: AS NOTED

SHEET NO. 2 OF 59

DWG. NO. C-1.1



SURVEY NOTES

1. EXISTING TOPOGRAPHIC SURVEY INFORMATION SHOWN HEREON IS BASED UPON TOPOGRAPHIC SURVEYS COMPLETED BY SANDIS ON 10/29/2022 AND 11/04/2022, UNDER THE DIRECTION OF LAURA CABRAL, PLS 7756.
2. UTILITIES SHOWN ON THIS SURVEY ARE BASED ON SURFACE OBSERVATIONS. NO WARRANTIES ARE EXPRESSED OR IMPLIED CONCERNING THE EXISTENCE, SIZE, DEPTH, CONDITION, CAPACITY, OR LOCATION OR ANY UTILITY EXISTING ON THE SITE, WHETHER PRIVATE, MUNICIPAL, OR PUBLIC OWNED.
3. CONTRACTOR SHALL VERIFY ALL UTILITIES PRIOR TO CONSTRUCTION AND REPORT BACK TO CIVIL ENGINEER ANY DISCREPANCIES WITH PLAN PRIOR TO COMMENCEMENT OF WORK.
4. TREE LOCATIONS SHOWN HEREON ARE SHOWN SYMBOLICALLY WITH SYMBOL SIZES BASED UPON TRUNK DIAMETER AT CHEST HEIGHT, AT THE LOCATION WHERE THE TREE ENTERS THE GROUND SURFACE. LOCATIONS AND SIZES OF TREE TRUNKS CAN ONLY BE CONSIDERED APPROXIMATE UNLESS OTHERWISE STATED ON THE MAP. TREES OF TRUNK DIAMETER SIZES OF 6 INCHES OR GREATER WERE LOCATED BY THE FIELD CREW.
5. HORIZONTAL CONTROL WAS BASED ON A GPS SURVEY USING GNSS RTK METHODS CONNECTED TO THE LEICA SMARTNET REAL TIME NETWORK TIED INTO CALIFORNIA STATE PLANE COORDINATES NAD83, EPOCH 2020.50 VERTICAL CONTROL WAS BASED ON CONTRA COSTA COUNTY BENCHMARK 171.

BENCHMARK

THE ELEVATION REFERENCE FOR THIS SURVEY IS A CONTRA COSTA COUNTY BENCHMARK, BM ID 171, SET ON AN EBMUD BOX ON THE EAST SIDE OF RAILROAD AVENUE AT THE INTERSECTION OF RAILROAD AVENUE AND ALVARDO STREET.

ELEVATION= 105.39 FEET NAVD 88

SITE BENCHMARK

MAG NAIL WITH WASHER SET IN ASPHALT AT THE INTERSECTION OF ROSSMOOR COURT AND FRONTAGE ROAD

ELEVATION=43.51 FEET NAVD 88

UNDERGROUND UTILITY NOTE

THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS TOPOGRAPHIC SURVEY ARE APPROXIMATE AND WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES WHICH MAY BE ENCOUNTERED, BUT WHICH ARE NOT SHOWN ON THIS SURVEY.

OVERHEAD UTILITY NOTE

OVERHEAD UTILITY LINES SHOWN HEREON ARE FOR REFERENCE ONLY, DEPICTING THAT OVERHEAD LINES EXIST. ACTUAL ATTACHMENT, LOCATION, HEIGHT AND TYPE OF UTILITY SERVICE LINES SHALL BE VERIFIED BY THE USER.

BOUNDARY NOTE

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REGISTERED PROFESSIONAL ENGINEER
CHAD J. BROWNING
No. C68315
Exp. 9/30/25
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25
DATE: 9/20/23

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

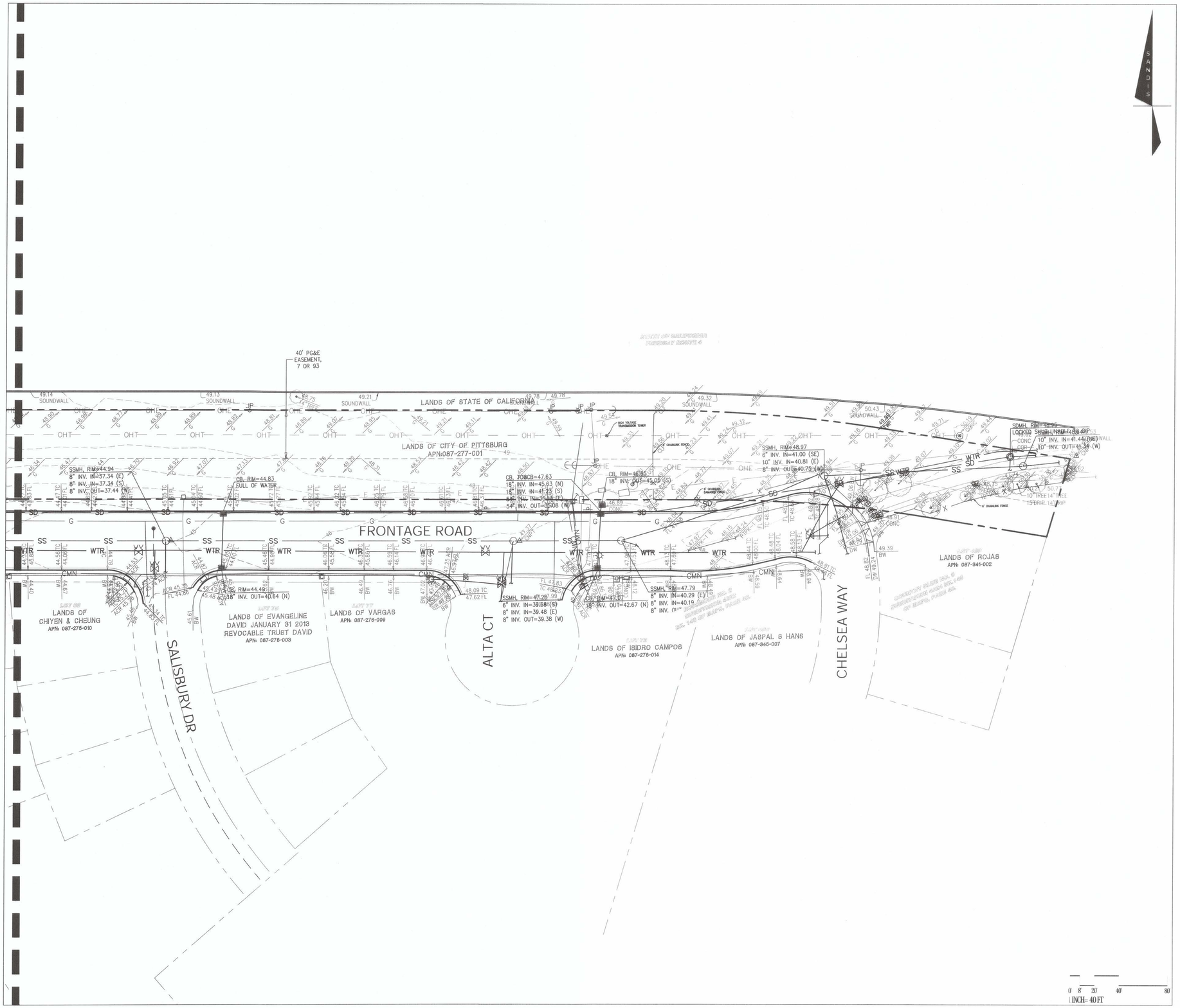
FRONTAGE ROAD
LIVING GREEN TRAIL DETAIL DESIGN
TOPOGRAPHIC SURVEY
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
3 OF 59

DWG. NO.
C-2.0



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PREPARED UNDER THE DIRECTION OF: DATE: 9/20/23

CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:

JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
TOPOGRAPHIC SURVEY

CONTRACT NAME:
CONTRACT NUMBER:

DRAWN: CW	CHECKED: SC	REVIEWED: CB	DATE: 09/05/23	SCALE: AS NOTED

DATE	REV	DESCRIPTION	BY

SHEET NO.
4 OF 59

DWG. NO.
C-2.1

0' 12' 30' 60' 120'
1 INCH = 60 FT

SANDIS

PROFESSIONAL ENGINEER
CHAD J. BROWNING
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City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN

OVERALL SITE PLAN

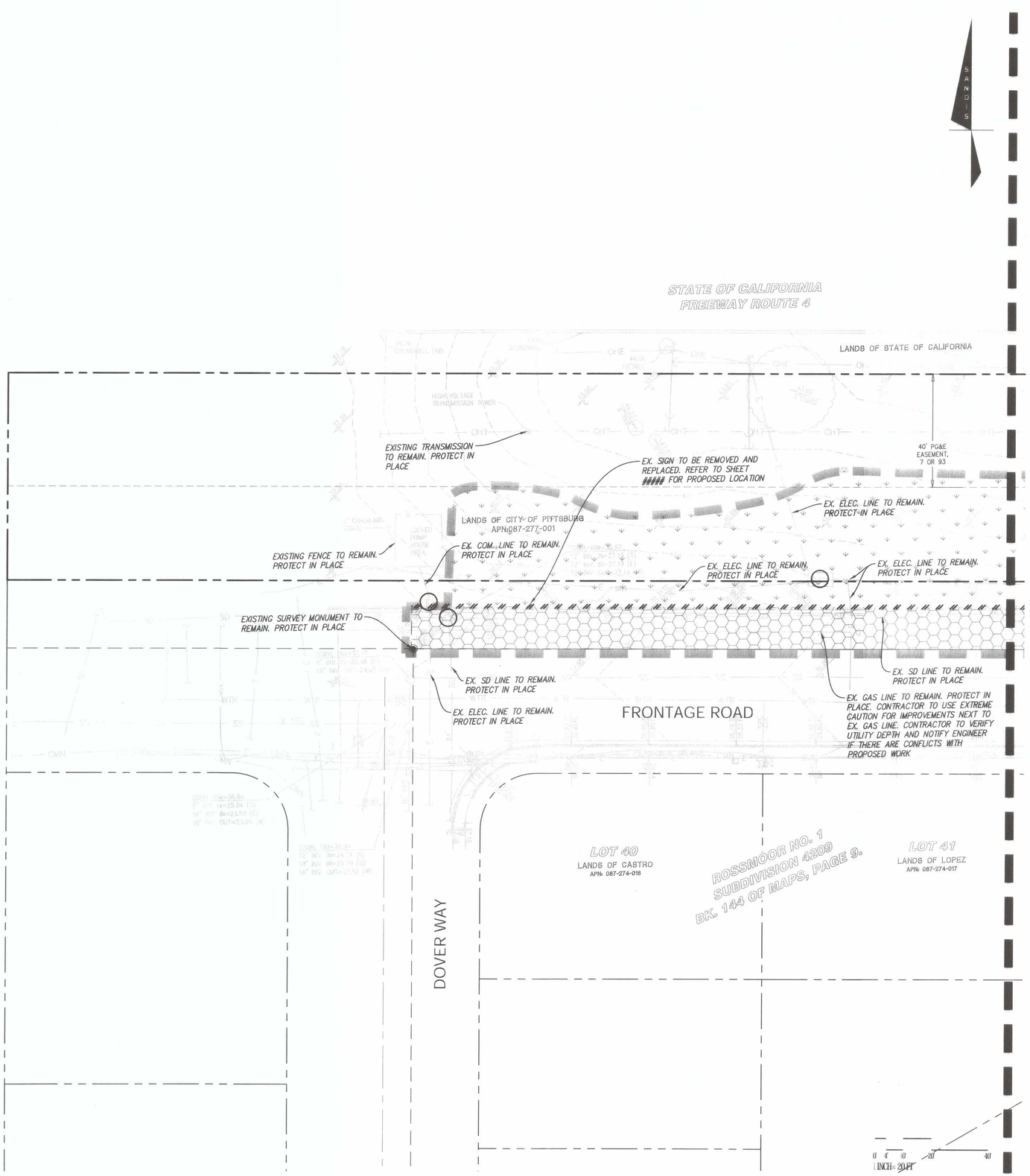
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
5 OF 59

DWG. NO.
C-3.0



LEGEND

- SAWCUT LINE. CONTRACTOR SHALL SAWCUT WITH A NEAT, CLEAN EDGE. SAWCUT CONCRETE AT NEAREST JOINT TO SAWCUT LINE SHOWN ON PLAN.
- DEMOLISH AND REMOVE AC PAVING AND ANY ASSOCIATED BASE ROCK. STABILIZE THE EXISTING SUBGRADE. DEMOLISHED MATERIAL MAY BE USED AS BASE ROCK IF APPROVED BY GEOTECHNICAL ENGINEER.
- DEMOLISH AND REMOVE CONCRETE INCLUDING ANY ASSOCIATED BASE ROCK AND REBAR. STABILIZE THE EXISTING SUBGRADE. DEMOLISHED MATERIAL MAY BE USED AS BASE ROCK IF APPROVED BY THE GEOTECHNICAL ENGINEER.
- CLEAR AND GRUB EXISTING LANDSCAPE AREA SO NO ORGANICS ARE STILL PRESENT.
- DEMOLISH AND REMOVE EXISTING BUILDING, SEE ARCHITECTURAL PLANS FOR EXTENT OF BUILDING DEMOLITION. STABILIZE THE EXISTING SUBGRADE.
- DEMOLISH AND REMOVE EXISTING CURB AND GUTTER, INCLUDING ANY ASSOCIATED REBAR OR BASE ROCK. SAWCUT WITH NEAT, CLEAN EDGE.
- REMOVE EXISTING WALL OR FENCE INCLUDING ASSOCIATED FOOTINGS. RETURN FENCE TO OWNER.
- DEMOLISH AND REMOVE EX. UTILITY LINE. BACKFILL EMPTY TRENCH WITH APPROVED FILL PER GEOTECHNICAL REPORT.
- DEMOLISH AND REMOVE EX. UTILITY STRUCTURE
- CAP EXISTING UTILITY WHERE SHOWN PER UTILITY OWNERS SPECIFICATIONS AND REQUIREMENTS. IF PRESSURIZED UTILITY CONTRACTOR SHALL HAVE COMPETENT PROFESSIONAL DESIGN PIPE RESTRAINTS.
- DEMOLISH AND REMOVE EX. STREET LIGHT AND FOUNDATION
- PROTECT EXISTING UTILITY TO REMAIN
- REMOVE EXISTING TREE AND ROOT BALL. COORDINATE WITH LANDSCAPE ARCHITECT AND PROJECT ARBORIST PRIOR TO REMOVING ANY TREES.
- PROTECT EXISTING TREE TO REMAIN. SEE LANDSCAPE PLANS AND ARBORIST'S REPORT FOR TREE PROTECTION DETAILS.

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JOHN SAMUELSON
City Engineer
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City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
DEMOLITION PLAN

CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
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SHEET NO.
6 OF 59

DWG. NO.
C-4.0

MATCHLINE - SEE SHEET C-4.0

MATCHLINE - SEE SHEET C-4.2

LANDS OF STATE OF CALIFORNIA

STATE OF CALIFORNIA
FREEWAY ROUTE 4

EXISTING TRANSMISSION TO REMAIN. PROTECT IN PLACE

40' PG&E EASEMENT, 7 OR 93

LANDS OF CITY OF PITTSBURG
APN: 087-277-001

EX. SIGN TO BE REMOVED AND REPLACED. REFER TO SHEET ##### FOR PROPOSED LOCATION

EX. SIGN TO BE REMOVED AND REPLACED. REFER TO SHEET ##### FOR PROPOSED LOCATION

NEW SD OVERFLOW TOP TO BE INSTALLED ON EXISTING CURB INLET STRUCTURE. REFER TO SHEET C-6.1

NEW SD OVERFLOW TOP TO BE INSTALLED ON EXISTING CURB INLET STRUCTURE. REFER TO SHEET C-6.1

EX. SD LINE TO REMAIN. PROTECT IN PLACE

EX. SURVEY MONUMENT TO REMAIN. PROTECT IN PLACE

EX. ELEC. LINE TO REMAIN. PROTECT IN PLACE

EX. GAS LINE TO REMAIN. PROTECT IN PLACE. CONTRACTOR TO USE EXTREME CAUTION FOR IMPROVEMENTS NEXT TO EX. GAS LINE. CONTRACTOR TO VERIFY UTILITY DEPTH AND NOTIFY ENGINEER IF THERE ARE CONFLICTS WITH PROPOSED WORK

EX. SURVEY MONUMENT TO REMAIN. PROTECT IN PLACE

EX. SD LINE TO REMAIN. PROTECT IN PLACE

FRONTAGE ROAD

ROSSMOOR CT

COVINGTON DR

LOT 47
LANDS OF DELCARMEN
APN: 087-274-023

LOT 48
LANDS OF COLEMAN
APN: 087-274-024

LOT 67
LANDS OF ACEVES
APN: 087-276-009

ROSSMOOR NO. 1
SUBDIVISION 4209
BK. 144 OF MAPS, PAGE 9.

0 10 20 40
1 INCH= 20 FT

LEGEND

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- DEMOLISH AND REMOVE EX. UTILITY STRUCTURE
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PROFESSIONAL ENGINEER
CHAD J. BROWNING
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STATE OF CALIFORNIA

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ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
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City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
DEMOLITION PLAN

CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
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DATE: 09/05/23
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SHEET NO.
7 OF 59

DWG. NO.
C-4.1

MATCHLINE - SEE SHEET C-4.1

MATCHLINE - SEE SHEET C-4.3

LANDS OF STATE OF CALIFORNIA

40' PG&E EASEMENT, 7 OR 93

LANDS OF CITY OF PITTSBURG APN:087-277-001

EX. ELEC. LINE TO REMAIN. PROTECT IN PLACE

NEW SD OVERFLOW TOP TO BE INSTALLED ON EXISTING CURB INLET STRUCTURE. REFER TO SHEET C-6.2

EX. SD LINE TO REMAIN. PROTECT IN PLACE

EX. GUY WIRES TO REMAIN. PROTECT IN PLACE

EX. ELEC. LINE TO REMAIN. PROTECT IN PLACE

EX. ELEC. LINE TO REMAIN. PROTECT IN PLACE

EX. COM. LINE TO REMAIN. PROTECT IN PLACE

EX. SIGN AND ASSOCIATED FOUNDATION TO BE REMOVED

EX. VAULT TO BE ADJUSTED TO GRADE. REFER TO SHEET ##### PLANS FOR PROPOSED RIM

EX. COM. LINE TO REMAIN. PROTECT IN PLACE

EX. SURVEY MONUMENT TO REMAIN. PROTECT IN PLACE

EX. SD LINE TO REMAIN. PROTECT IN PLACE

EX. GAS LINE TO REMAIN. PROTECT IN PLACE. CONTRACTOR TO USE EXTREME CAUTION FOR IMPROVEMENTS NEXT TO EX. GAS LINE. CONTRACTOR TO VERIFY UTILITY DEPTH AND NOTIFY ENGINEER IF THERE ARE CONFLICTS WITH PROPOSED WORK

FRONTAGE ROAD

EX. SIGN TO BE REMOVED AND REPLACED. REFER TO SHEET ##### FOR PROPOSED LOCATION

EX. SURVEY MONUMENT TO REMAIN. PROTECT IN PLACE

EX. ELEC. LINE TO REMAIN. PROTECT IN PLACE

SALISBURY DR

ALTA CT

LOT 68
LANDS OF
CHIYEN & CHEUNG
APN: 087-276-010

LOT 75
LANDS OF EVANGELINE
DAVID JANUARY 31 2018
REVOCABLE TRUST DAVID
APN: 087-276-008

LOT 77
LANDS OF VARGAS
APN: 087-278-009

0 4 10 20 40
1 INCH= 20 FT

LEGEND

- SAWCUT LINE. CONTRACTOR SHALL SAWCUT WITH A NEAT, CLEAN EDGE. SAWCUT CONCRETE AT NEAREST JOINT TO SAWCUT LINE SHOWN ON PLAN.
- DEMOLISH AND REMOVE AC PAVING AND ANY ASSOCIATED BASE ROCK. STABILIZE THE EXISTING SUBGRADE. DEMOLISHED MATERIAL MAY BE USED AS BASE ROCK IF APPROVED BY GEOTECHNICAL ENGINEER.
- DEMOLISH AND REMOVE CONCRETE INCLUDING ANY ASSOCIATED BASE ROCK AND REBAR. STABILIZE THE EXISTING SUBGRADE, DEMOLISHED MATERIAL MAY BE USED AS BASE ROCK IF APPROVED BY THE GEOTECHNICAL ENGINEER.
- CLEAR AND GRUB EXISTING LANDSCAPE AREA SO NO ORGANICS ARE STILL PRESENT.
- DEMOLISH AND REMOVE EXISTING BUILDING, SEE ARCHITECTURAL PLANS FOR EXTENT OF BUILDING DEMOLITION. STABILIZE THE EXISTING SUBGRADE.
- DEMOLISH AND REMOVE EXISTING CURB AND GUTTER, INCLUDING ANY ASSOCIATED REBAR OR BASE ROCK. SAWCUT WITH NEAT, CLEAN EDGE.
- REMOVE EXISTING WALL OR FENCE INCLUDING ASSOCIATED FOOTINGS. RETURN FENCE TO OWNER.
- DEMOLISH AND REMOVE EX. UTILITY LINE. BACKFILL EMPTY TRENCH WITH APPROVED FILL PER GEOTECHNICAL REPORT.
- DEMOLISH AND REMOVE EX. UTILITY STRUCTURE
- CAP EXISTING UTILITY WHERE SHOWN PER UTILITY OWNERS SPECIFICATIONS AND REQUIREMENTS. IF PRESSURIZED UTILITY CONTRACTOR SHALL HAVE COMPETENT PROFESSIONAL DESIGN PIPE RESTRAINTS.
- DEMOLISH AND REMOVE EX. STREET LIGHT AND FOUNDATION
- PROTECT EXISTING UTILITY TO REMAIN
- REMOVE EXISTING TREE AND ROOT BALL. COORDINATE WITH LANDSCAPE ARCHITECT AND PROJECT ARBORIST PRIOR TO REMOVING ANY TREES.
- PROTECT EXISTING TREE TO REMAIN. SEE LANDSCAPE PLANS AND ARBORIST'S REPORT FOR TREE PROTECTION DETAILS.

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23
DATE:
CHAD J. BROWNING
R.C.E. NO.: 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
DEMOLITION PLAN

CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
8 OF 59

DWG. NO.
C-4.2

STATE OF CALIFORNIA
FREEWAY ROUTE 4

EXISTING TRANSMISSION TO REMAIN. PROTECT IN PLACE

EX. CLF TO BE REMOVED AND REPLACED. REFER TO SHEET ##### FOR NEW LOCATION

EX. OHE LINE TO REMAIN. PROTECT IN PLACE. USE EXTREME CAUTION WHEN WORKING BELOW

40' PG&E EASEMENT, 7 OR 93

EXISTING TRANSMISSION TOWER TO REMAIN. PROTECT IN PLACE

EX. WATER LINE TO REMAIN. PROTECT IN PLACE

EX. GUY WIRE TO REMAIN. PROTECT IN PLACE.

EX. SIGN TO BE REMOVED AND REPLACED. REFER TO SHEET C-4.0 FOR PROPOSED LOCATION

USE CAUTION WHILE REMOVING TREE THAT ROOTS. DO NOT PULL UP ELECTRICAL

EX. ELEC. LINE TO REMAIN. PROTECT IN PLACE

EX. SD LINE TO REMAIN. PROTECT IN PLACE

EX. SDCB AND ASSOCIATED SD LINE TO BE REMOVED

REMOVE (2) BOLLARDS AND ASSOCIATED FOOTINGS

NEW SD OVERFLOW TOP TO BE INSTALLED ON EXISTING CURB INLET STRUCTURE. REFER TO SHEET C-6.3

EX. SD LINE TO REMAIN. PROTECT IN PLACE

EX. SS TO REMAIN. PROTECT IN PLACE

EX. GAS LINE TO REMAIN. PROTECT IN PLACE. CONTRACTOR TO USE EXTREME CAUTION FOR IMPROVEMENTS NEXT TO EX. GAS LINE. CONTRACTOR TO VERIFY UTILITY DEPTH AND NOTIFY ENGINEER IF THERE ARE CONFLICTS WITH PROPOSED WORK

FRONTAGE ROAD

CHELSEA WAY

LOT 72
LANDS OF ISIDRO CAMPOS
APN: 087-278-014

LOT 490
LANDS OF JASPAL & HANS
APN: 087-346-007

ROSSMOOR NO. 2
SUBDIVISION 4322
BK. 148 OF MAPS, PAGE 40.

LOT 489
LANDS OF ROJAS
APN: 087-341-002

COUNTRY CLUB NO. 6
SUBDIVISION 4324 BK. 148
OF MAPS, PAGE 40.

MATCHLINE - SEE SHEET C-4.2

SANDIS

LEGEND

- SAWCUT LINE. CONTRACTOR SHALL SAWCUT WITH A NEAT, CLEAN EDGE. SAWCUT CONCRETE AT NEAREST JOINT TO SAWCUT LINE SHOWN ON PLAN.
- DEMOLISH AND REMOVE AC PAVING AND ANY ASSOCIATED BASE ROCK. STABILIZE THE EXISTING SUBGRADE. DEMOLISHED MATERIAL MAY BE USED AS BASE ROCK IF APPROVED BY GEOTECHNICAL ENGINEER.
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- REMOVE EXISTING WALL OR FENCE INCLUDING ASSOCIATED FOOTINGS. RETURN FENCE TO OWNER.
- DEMOLISH AND REMOVE EX. UTILITY LINE. BACKFILL EMPTY TRENCH WITH APPROVED FILL PER GEOTECHNICAL REPORT.
- DEMOLISH AND REMOVE EX. UTILITY STRUCTURE
- CAP EXISTING UTILITY WHERE SHOWN PER UTILITY OWNERS SPECIFICATIONS AND REQUIREMENTS. IF PRESSURIZED UTILITY CONTRACTOR SHALL HAVE COMPETENT PROFESSIONAL DESIGN PIPE RESTRAINTS.
- DEMOLISH AND REMOVE EX. STREET LIGHT AND FOUNDATION
- PROTECT EXISTING UTILITY TO REMAIN
- REMOVE EXISTING TREE AND ROOT BALL. COORDINATE WITH LANDSCAPE ARCHITECT AND PROJECT ARBORIST PRIOR TO REMOVING ANY TREES.
- PROTECT EXISTING TREE TO REMAIN. SEE LANDSCAPE PLANS AND ARBORIST'S REPORT FOR TREE PROTECTION DETAILS.

0 4' 10' 20' 40'
1 INCH= 20 FT

REGISTERED PROFESSIONAL ENGINEER
CHAD J. BROWNING
No. C68315
Exp. 9/30/25
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF:
DATE: 9/20/23
CHAD J. BROWNING
R.C.E. NO.: 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

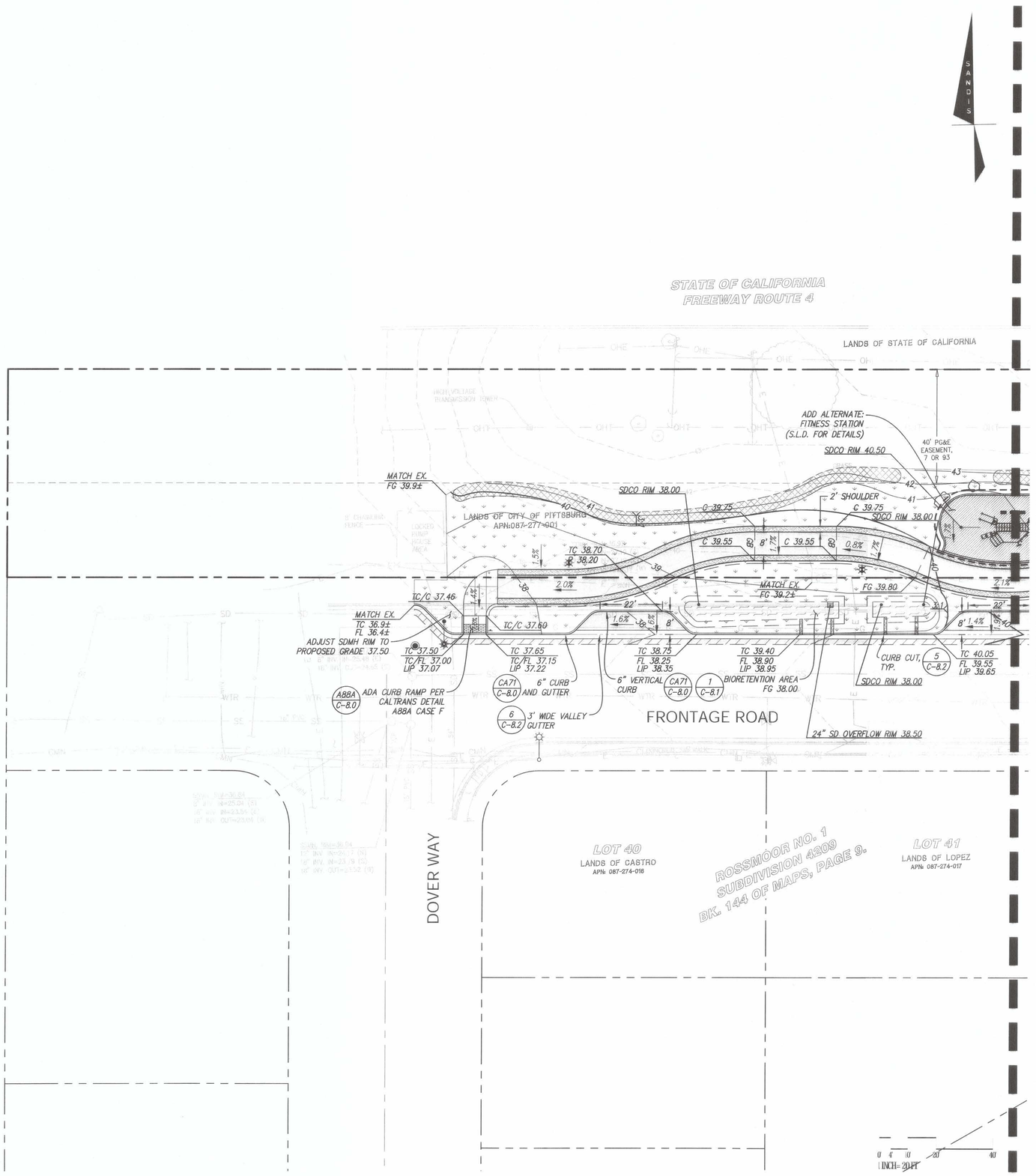
City of Pittsburg

BY	DESCRIPTION	REV	DATE
DRAWN: CW			
CHECKED: SC			
REVIEWED: CB			
DATE: 09/05/23			
SCALE: AS NOTED			

FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
DEMOLITION PLAN
CONTRACT NAME:
CONTRACT NUMBER:

SHEET NO.
9 OF 59

DWG. NO.
C-4.3



LEGEND

- PROPERTY LINE
- SAWCUT LINE
- DIRECTION OF STEEP SLOPE
- FLOW LINE
- GRADE BREAK
- 194 / 195 CONTOURS
- AC PAVEMENT (1,2 / C-8.2)
- DEEP LIFT (4 / C-8.2)
- CONCRETE SIDEWALK (3 / C-8.2)
- PLANTING, S.L.D. FOR DETAILS
- BIO-TREATMENT AREA (1 / C-8.1)
- DECOMPOSED GRANITE, S.L.D. FOR DETAILS
- RIP-RAP, S.L.D. FOR DETAILS
- MULCH, S.L.D. FOR DETAILS

GRADING AND DRAINAGE NOTES:

1. ADJUST ALL UTILITY STRUCTURE RIMS/LIDS TO PROPOSED GRADE AND REPLACE ANY RIMS/LIDS THAT ARE IN A WALKWAY OR SIDEWALK WITH AN ACCESSIBLE RIM/LID.
2. CROSSWALK STRIPING TO BE INSTALLED BY CITY AFTER PROJECT COMPLETION.

PROFESSIONAL ENGINEER J. CHAD BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING R.C.E. NO. 68315 EXPIRES 9-30-25

ACCEPTED FOR USE: JOHN SAMUELSON City Engineer Date: 9/21/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
GRADING AND DRAINAGE PLAN

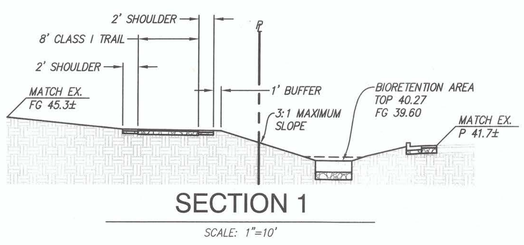
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

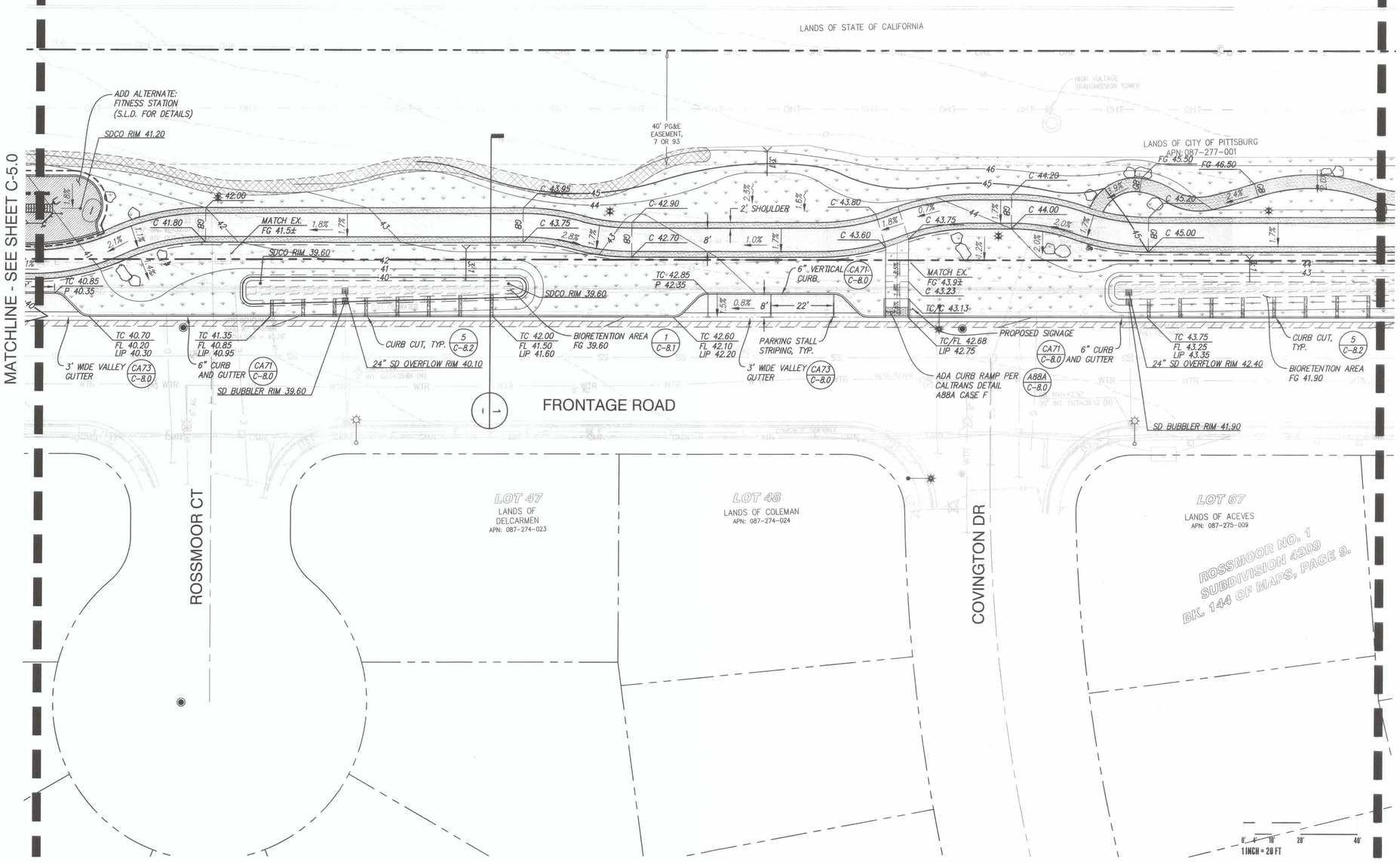
SHEET NO. 10 OF 59

DWG. NO. C-5.0



SECTION 1

SCALE: 1"=10'



LEGEND

- PROPERTY LINE
- SAWCUT LINE
- DIRECTION OF STEEP SLOPE
- FLOW LINE
- GRADE BREAK
- 194 / 195 — CONTOURS
- AC PAVEMENT (1,2 / C-8.2)
- DEEP LIFT (4 / C-8.2)
- CONCRETE SIDEWALK (3 / C-8.2)
- PLANTING, S.L.D. FOR DETAILS
- BIO-TREATMENT AREA (1 / C-8.1)
- DECOMPOSED GRANITE, S.L.D. FOR DETAILS
- RIP-RAP, S.L.D. FOR DETAILS
- MULCH, S.L.D. FOR DETAILS

GRADING AND DRAINAGE NOTES:

1. ADJUST ALL UTILITY STRUCTURE RIMS/LIDS TO PROPOSED GRADE AND REPLACE ANY RIMS/LIDS THAT ARE IN A WALKWAY OR SIDEWALK WITH AN ACCESSIBLE RIM/LID.
2. CROSSWALK STRIPING TO BE INSTALLED BY CITY AFTER PROJECT COMPLETION.

PROFESSIONAL ENGINEER — CHAD J. BROWNING — No. C68315 — Exp. 9/30/25 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: DATE: 9/20/23

CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:

JOHN SAMUELSON
City Engineer
Date: 9/27/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
GRADING AND DRAINAGE PLAN

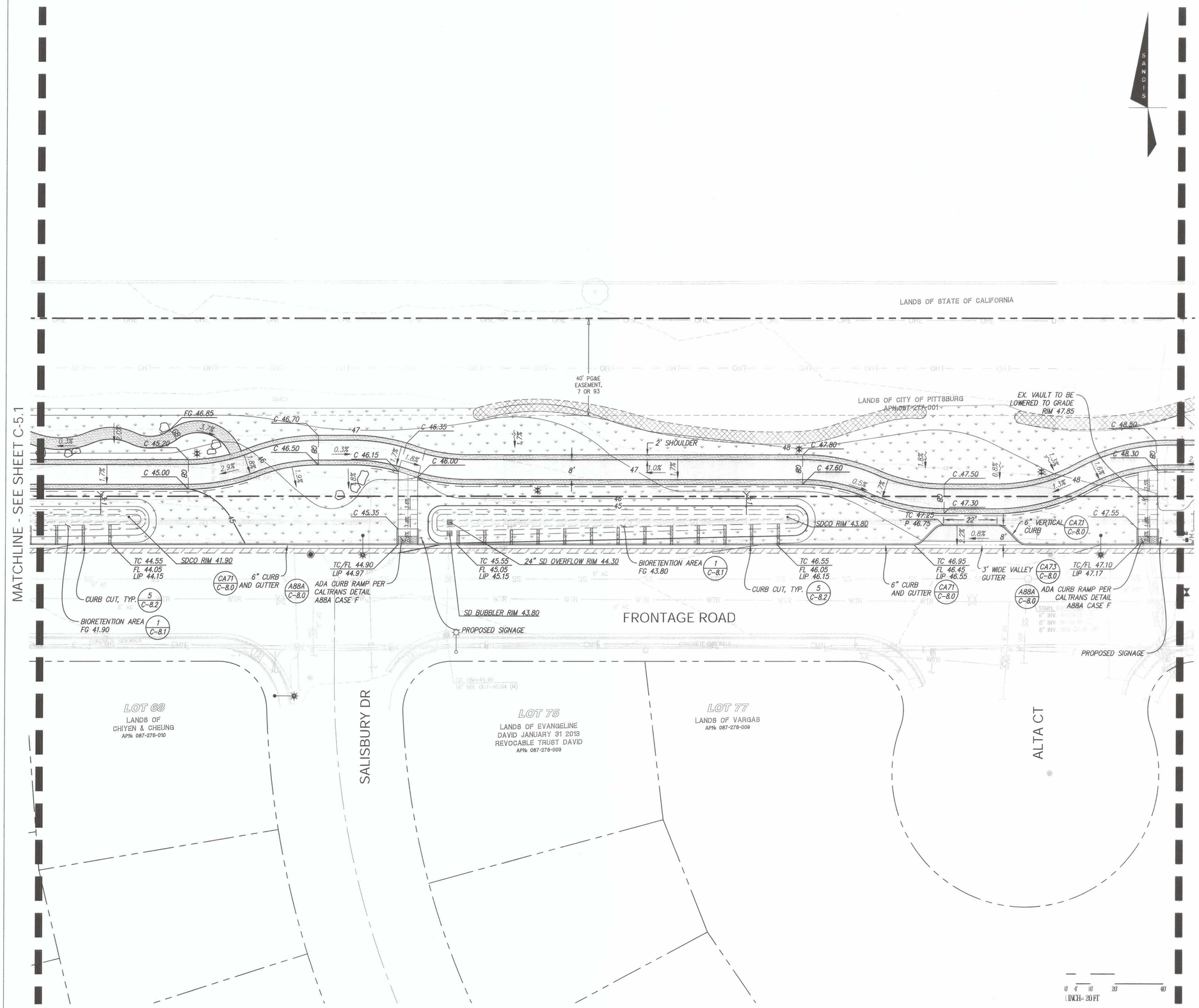
CONTRACT NAME:
CONTRACT NUMBER:

DRAWN: CW	CHECKED: SC	REVIEWED: CB	DATE: 09/05/23	SCALE: AS NOTED

DATE	REV	DESCRIPTION	BY

SHEET NO.
11 OF 59

DWG. NO.
C-5.1



LEGEND

- PROPERTY LINE
- SAWCUT LINE
- DIRECTION OF STEEP SLOPE
- FLOW LINE
- GRADE BREAK
- 194 / 195 CONTOURS
- AC PAVEMENT (1,2 / C-8.2)
- DEEP LIFT (4 / C-8.2)
- CONCRETE SIDEWALK (3 / C-8.2)
- PLANTING, S.L.D. FOR DETAILS
- BIO-TREATMENT AREA (1 / C-8.1)
- DECOMPOSED GRANITE, S.L.D. FOR DETAILS
- RIP-RAP, S.L.D. FOR DETAILS
- MULCH, S.L.D. FOR DETAILS

GRADING AND DRAINAGE NOTES:

1. ADJUST ALL UTILITY STRUCTURE RIMS/LIDS TO PROPOSED GRADE AND REPLACE ANY RIMS/LIDS THAT ARE IN A WALKWAY OR SIDEWALK WITH AN ACCESSIBLE RIM/LID.
2. CROSSWALK STRIPING TO BE INSTALLED BY CITY AFTER PROJECT COMPLETION.

PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING R.C.E. NO. 68315 EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
GRADING AND DRAINAGE PLAN

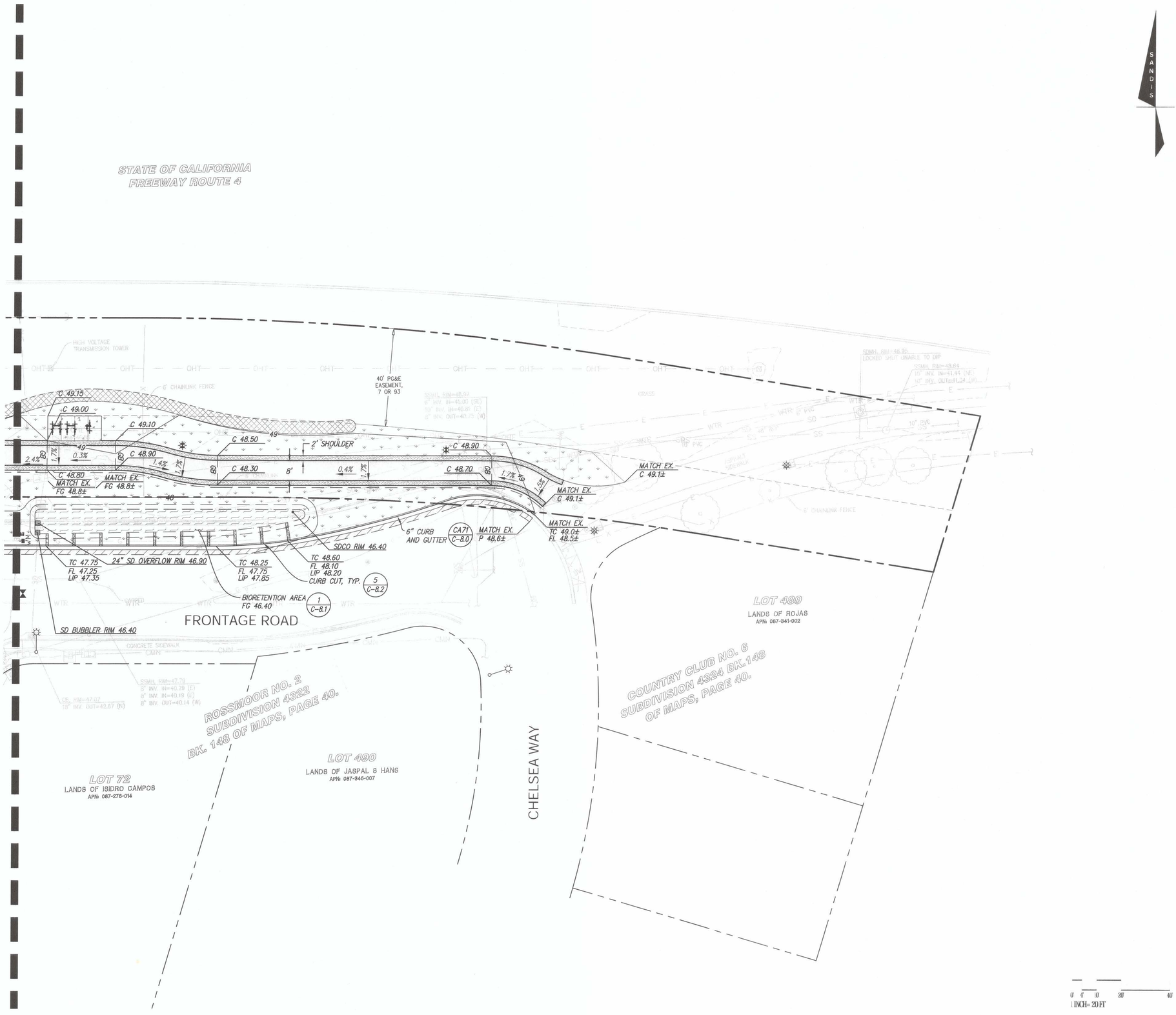
CONTRACT NAME:
CONTRACT NUMBER:

DRAWN: CW	CHECKED: SC	REVIEWED: CB	DATE: 09/05/23	SCALE: AS NOTED

DATE	REV	DESCRIPTION	BY

SHEET NO. 12 OF 59

DWG. NO. C-5.2



LEGEND

- PROPERTY LINE
- SAWCUT LINE
- DIRECTION OF STEEP SLOPE
- FLOW LINE
- GRADE BREAK
- 194 / 195 — CONTOURS
- AC PAVEMENT (1,2 / C-8.2)
- DEEP LIFT (4 / C-8.2)
- CONCRETE SIDEWALK (3 / C-8.2)
- PLANTING, S.L.D. FOR DETAILS
- BIO-TREATMENT AREA (1 / C-8.1)
- DECOMPOSED GRANITE, S.L.D. FOR DETAILS
- RIP-RAP, S.L.D. FOR DETAILS
- MULCH, S.L.D. FOR DETAILS

GRADING AND DRAINAGE NOTES:

1. ADJUST ALL UTILITY STRUCTURE RIMS/LIDS TO PROPOSED GRADE AND REPLACE ANY RIMS/LIDS THAT ARE IN A WALKWAY OR SIDEWALK WITH AN ACCESSIBLE RIM/LID.
2. CROSSWALK STRIPING TO BE INSTALLED BY CITY AFTER PROJECT COMPLETION.

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: DATE: 9/20/23

CHAD J. BROWNING
R.C.E. NO: 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:

JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN

GRADING AND DRAINAGE PLAN

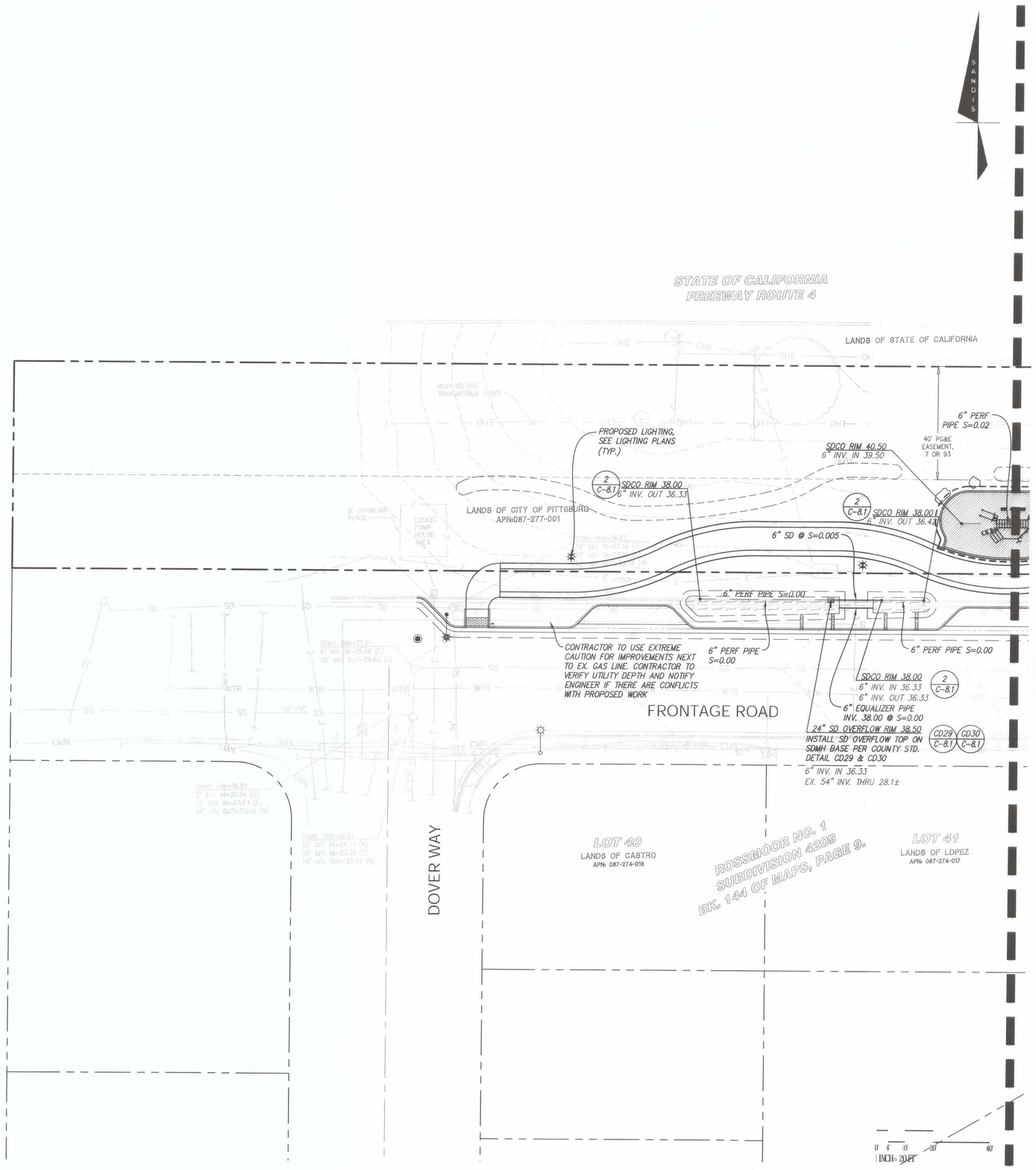
CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	DRAWN: CW	CHECKED: SC	REVIEWED: CB	DATE: 09/05/23	SCALE: AS NOTED

DATE	REV

SHEET NO.
13 OF 59

DWG. NO.
C-5.3



LEGEND

PROPERTY LINE

BIO-TREATMENT AREA (1 / C-8.1)

STORM DRAIN NOTES

1. FOR GRAVITY FLOW SYSTEMS CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF ANY GRAVITY FLOW SYSTEM.
2. DRAINS SHOWN ON CIVIL PLANS ARE NOT INTENDED TO BE THE FINAL NUMBER AND LOCATION OF ALL DRAINS. PLACEMENT AND NUMBER OF LANDSCAPING DRAINS ARE HIGHLY DEPENDENT ON GROUND COVER TYPE AND PLANT MATERIAL. CONTRACTOR SHALL ADD ADDITIONAL AREA DRAINS AS NEEDED AND AS DIRECTED BY THE LANDSCAPE ARCHITECT.

SANITARY SEWER NOTES

1. ALL SEWER WORK SHALL BE IN CONFORMANCE WITH THE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT STANDARDS.
2. PRIVATE SANITARY SEWER MAIN AND SERVICE LINE 4-INCH THROUGH 8-INCH SHALL BE POLYVINYL CHLORIDE (PVC) SDR 26 GREEN SEWER PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 3034-73 WITH BELL AND SPIGOT CONNECTIONS. ALL DIRECTION CHANGES SHALL BE MADE WITH WYE CONNECTIONS, 22.5° ELBOWS OR 45°. ELBOWS, 90° ELBOWS AND TEE'S ARE PROHIBITED.
3. ALL LATERALS SHALL HAVE A TWO WAY CLEANOUT AS SHOWN ON PLANS.
4. REFER TO CITY SANITARY SEWER DETAILS/NOTES S-1 AND S-2 ON SHEET C-8.3.

WATER SYSTEM NOTES

1. MAINTAIN WATER MAIN LINES 10' AWAY FROM SANITARY SEWER MAIN LINES. LATERALS SHALL BE SEPARATED PER PLAN DIMENSIONS.
2. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND WATER LINES SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER LINES.
3. ALL WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE WATER DISTRICT STANDARDS.
4. ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM COVER.
5. THRUST RESTRAINTS SHALL BE DESIGNED AND INSTALLED AT ALL TEES, CROSSES, BENDS (HORIZONTAL AND VERTICAL), AT SIZE CHANGES AND AT FIRE HYDRANTS.

UTILITY NOTES

1. ADJUST ALL UTILITY STRUCTURE RIMS/LIDS TO PROPOSED GRADE AND REPLACE ANY RIMS/LIDS THAT ARE IN A WALKWAY OR SIDEWALK WITH AN ACCESSIBLE RIM/LID.

PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23
CHAD J. BROWNING DATE:
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DETAIL DESIGN
UTILITY PLAN

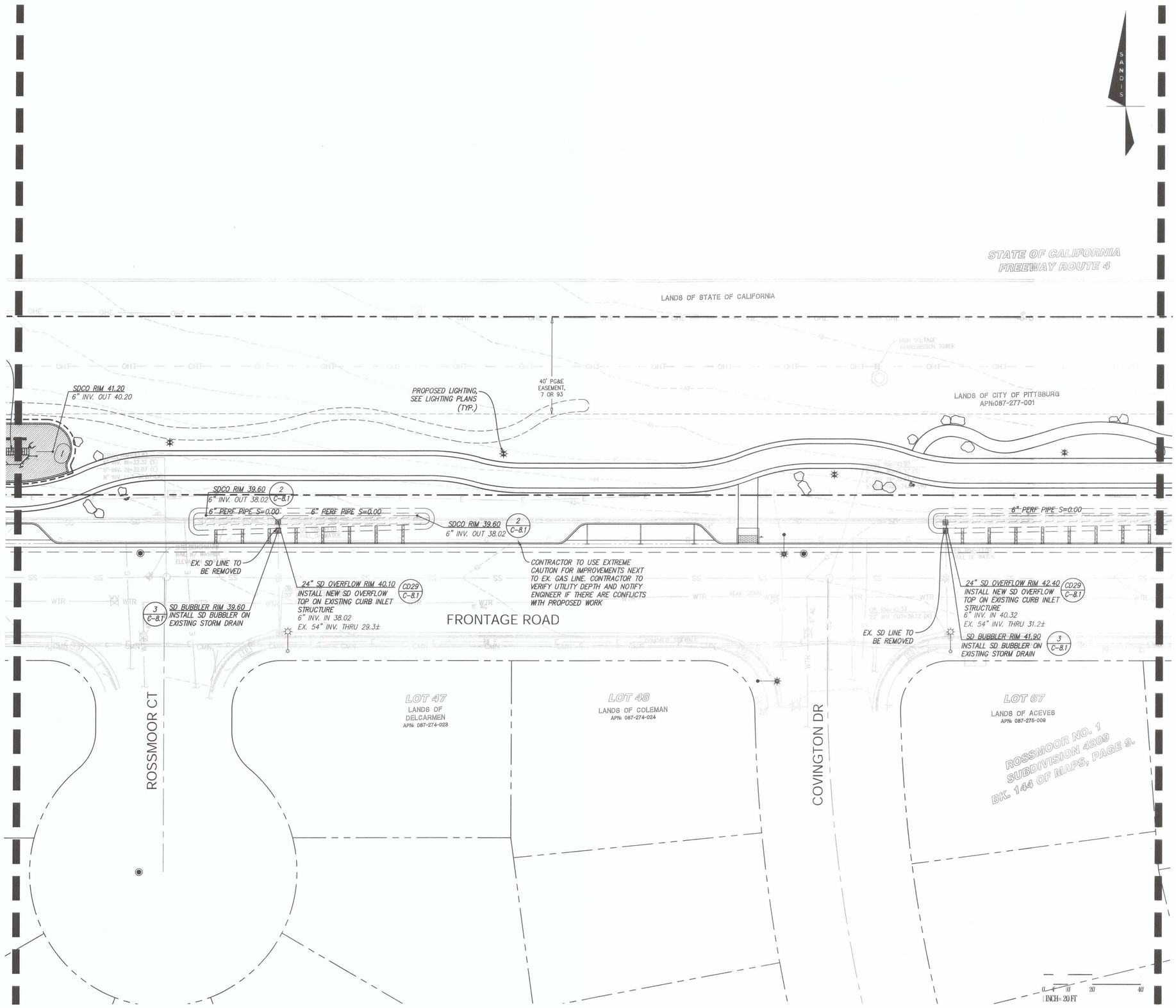
CONTRACT NAME:
CONTRACT NUMBER:

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

BY	DESCRIPTION	REV	DATE

SHEET NO.
14 OF 59

DWG. NO.
C-6.0



LEGEND

PROPERTY LINE

BIO-TREATMENT AREA (1 / C-8.1)

STORM DRAIN NOTES

1. FOR GRAVITY FLOW SYSTEMS CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF ANY GRAVITY FLOW SYSTEM.
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WATER SYSTEM NOTES

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2. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND WATER LINES SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER LINES.
3. ALL WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE WATER DISTRICT STANDARDS.
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UTILITY NOTES

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REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23
CHAD J. BROWNING DATE:
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/25/23

City of Pittsburg

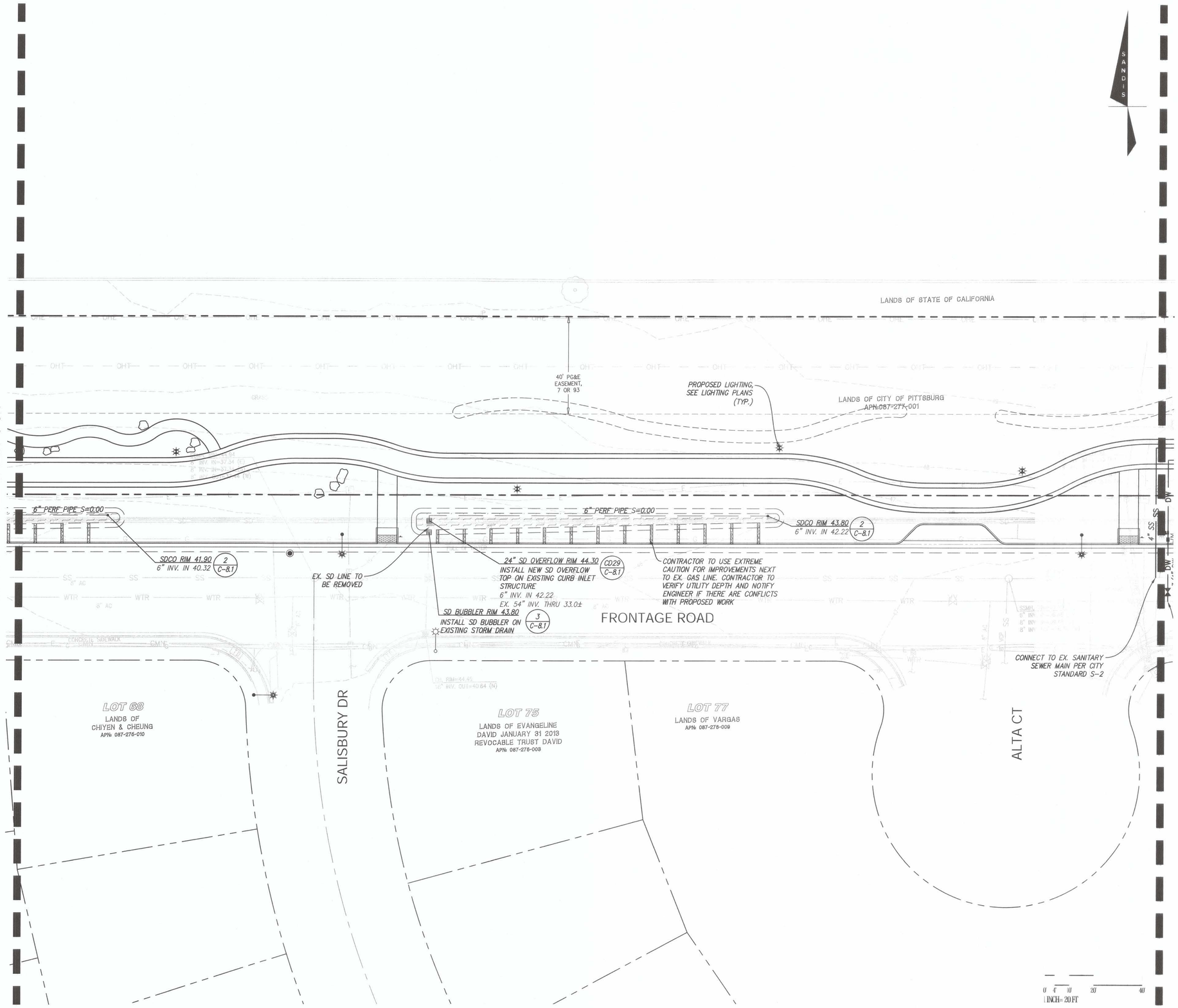
FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
UTILITY PLAN
CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
15 OF 59

DWG. NO.
C-6.1



LEGEND

PROPERTY LINE

BIO-TREATMENT AREA (1 C-8.1)

STORM DRAIN NOTES

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SANITARY SEWER NOTES

1. ALL SEWER WORK SHALL BE IN CONFORMANCE WITH THE COUNTY ENVIRONMENTAL HEALTH DEPARTMENT STANDARDS.
2. PRIVATE SANITARY SEWER MAIN AND SERVICE LINE 4-INCH THROUGH 8-INCH SHALL BE POLYVINYL CHLORIDE (PVC) SDR 26 GREEN SEWER PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM DESIGNATION D 3034-73 WITH BELL AND SPIGOT CONNECTIONS. ALL DIRECTION CHANGES SHALL BE MADE WITH WYE CONNECTIONS, 22.5° ELBOWS OR 45° ELBOWS, 90° ELBOWS AND TEE'S ARE PROHIBITED.
3. ALL LATERALS SHALL HAVE A TWO WAY CLEANOUT AS SHOWN ON PLANS.
4. REFER TO CITY SANITARY SEWER DETAILS/NOTES S-1 AND S-2 ON SHEET C-8.3.

WATER SYSTEM NOTES

1. MAINTAIN WATER MAIN LINES 10' AWAY FROM SANITARY SEWER MAIN LINES. LATERALS SHALL BE SEPARATED PER PLAN DIMENSIONS.
2. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND WATER LINES SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER LINES.
3. ALL WATER SERVICE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE WATER DISTRICT STANDARDS.
4. ALL WATER LINES SHALL BE INSTALLED WITH 36" MINIMUM COVER.
5. THRUST RESTRAINTS SHALL BE DESIGNED AND INSTALLED AT ALL TEES, CROSSES, BENDS (HORIZONTAL AND VERTICAL), AT SIZE CHANGES AND AT FIRE HYDRANTS.

UTILITY NOTES

1. ADJUST ALL UTILITY STRUCTURE RIMS/LIDS TO PROPOSED GRADE AND REPLACE ANY RIMS/LIDS THAT ARE IN A WALKWAY OR SIDEWALK WITH AN ACCESSIBLE RIM/LID.

REGISTERED PROFESSIONAL ENGINEER J. CHAD BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING
R.C.E. NO.: 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/20/23

City of Pittsburg

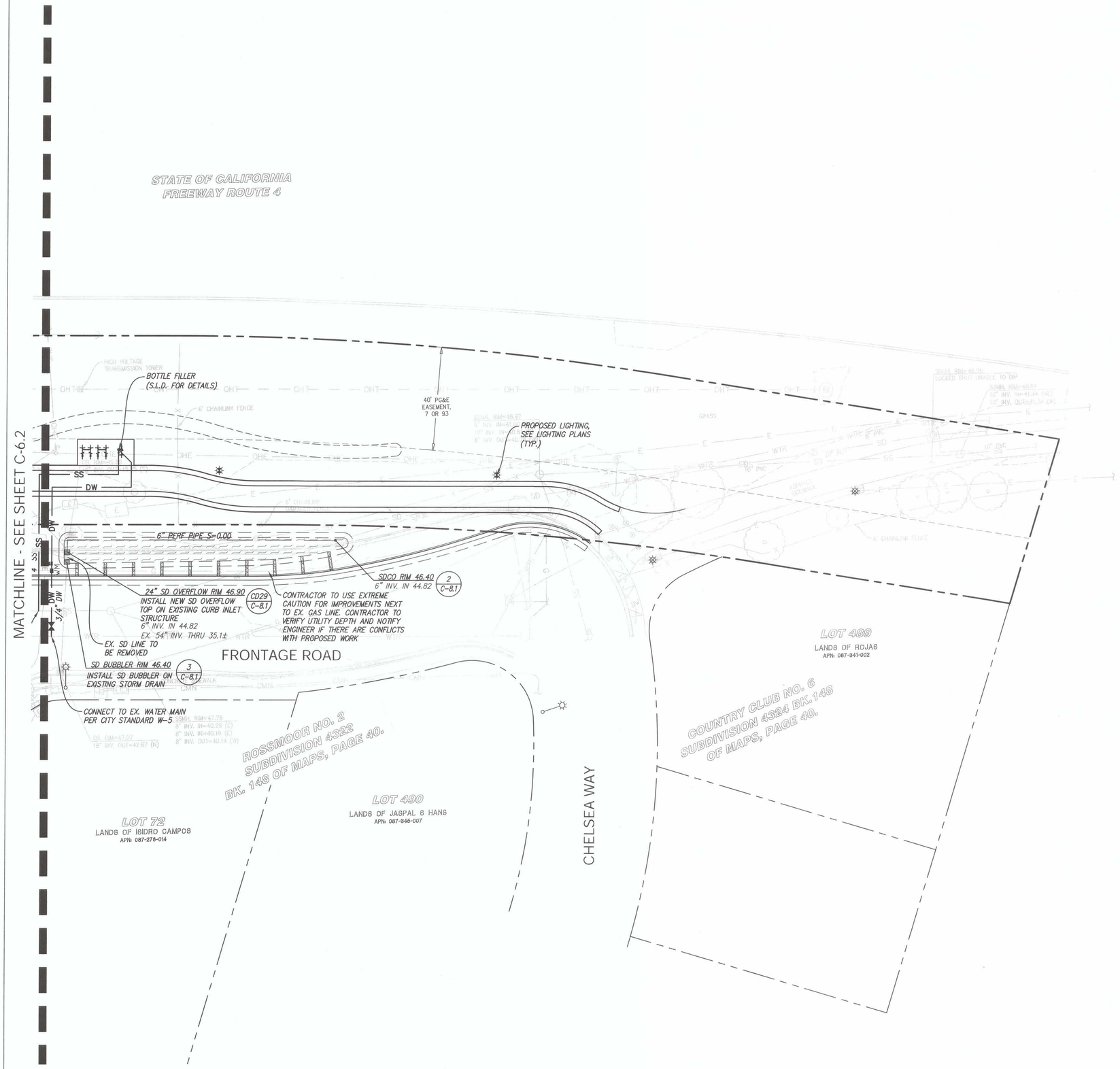
FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
UTILITY PLAN
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN:CW
CHECKED:SC
REVIEWED:CB
DATE:09/05/23
SCALE:AS NOTED

SHEET NO.
16 OF 59

DWG. NO.
C-6.2



SANDIS

LEGEND

PROPERTY LINE

BIO-TREATMENT AREA (1 / C-8.1)

STORM DRAIN NOTES

1. FOR GRAVITY FLOW SYSTEMS CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF ANY GRAVITY FLOW SYSTEM.
2. DRAINS SHOWN ON CIVIL PLANS ARE NOT INTENDED TO BE THE FINAL NUMBER AND LOCATION OF ALL DRAINS. PLACEMENT AND NUMBER OF LANDSCAPING DRAINS ARE HIGHLY DEPENDENT ON GROUND COVER TYPE AND PLANT MATERIAL. CONTRACTOR SHALL ADD ADDITIONAL AREA DRAINS AS NEEDED AND AS DIRECTED BY THE LANDSCAPE ARCHITECT.

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JOHN SAMUELSON
City Engineer
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City of Pittsburg

FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
UTILITY PLAN

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CONTRACT NUMBER:

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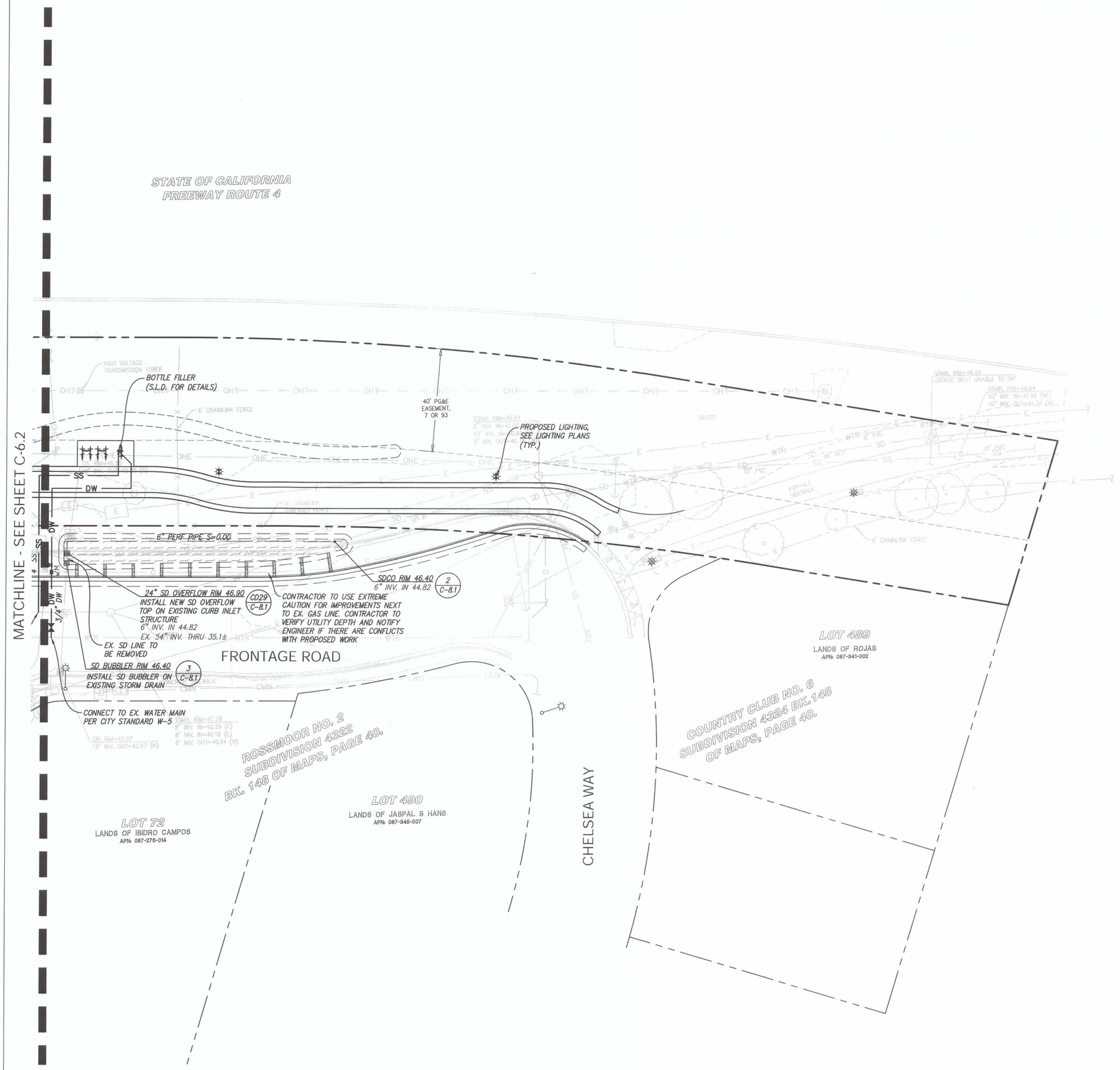
SHEET NO.
17 OF 59

DWG. NO.
C-6.3



LEGEND

PROPERTY LINE

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PREPARED UNDER THE DIRECTION OF: DATE: 9/20/23
CHAD J. BROWNING R.C.E. No. 68315 EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
UTILITY PLAN

CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO. 17 OF 59

DWG. NO. C-6.3

STORMWATER MANAGEMENT PLAN LEGEND

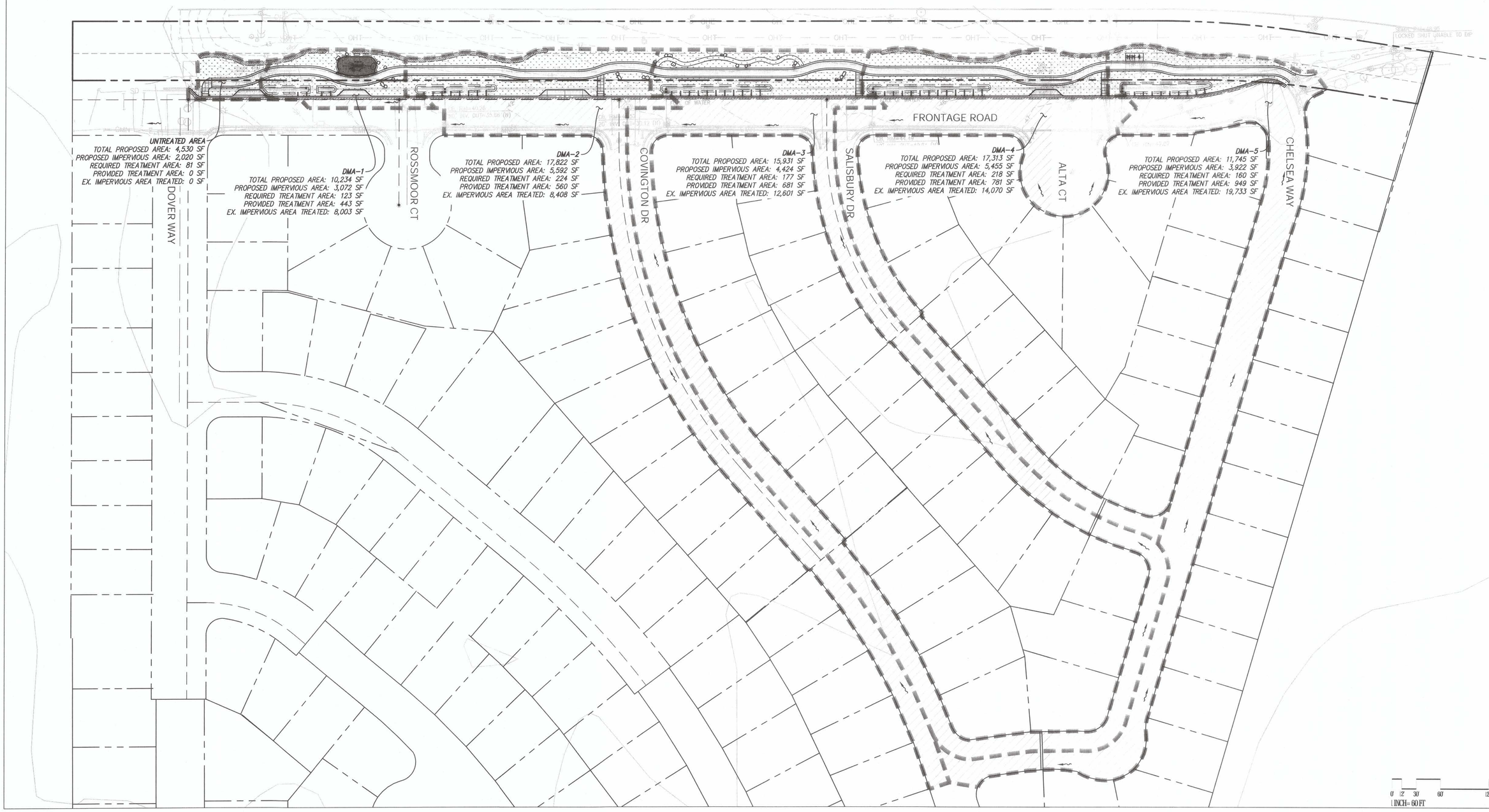
- PROPOSED PERVIOUS AREA
- PROPOSED IMPERVIOUS AREA
- EXISTING IMPERVIOUS AREA DIRECTED TO STORMWATER TREATMENT
- BIO-RETENTION AREA
- DRAINAGE AREA BOUNDARY
- FLOW LINE
- FLOW DIRECTION

STORMWATER MANAGEMENT NOTES:

1. THIS PLAN PRESENTS METHODS AND CALCULATIONS FOR COMPLYING WITH THE REQUIREMENTS OF PROVISION C.3 OF THE MUNICIPAL REGIONAL STORMWATER PERMIT IN ACCORDANCE WITH THE CONTRA COSTA COUNTY PROGRAM AND THE C.3 REQUIREMENTS.
2. THE FOLLOWING TREATMENT MEASURES ARE PROPOSED TO REGULATE THE QUALITY OF STORM WATER LEAVING THE SITE
   - 2.1. SELF-TREATING AREA – RUNOFF IN THIS AREA ORIGINATES IN AND FLOWS THROUGH PLANTING PRIOR TO EXITING THE PROJECT SITE, NO TREATMENT IS REQUIRED
   - 2.2. BIO-RETENTION AREA – RUNOFF IN THIS AREA IS DIRECTED TO A BIO-RETENTION PLANTER/AREA FOR FILTRATION, INFILTRATION AND EVAPOTRANSPIRATION PRIOR TO EXISTING THE SITE. PLANTING AND SOIL REQUIREMENTS APPLY, SEE DETAIL

Table A: Flow-Based Treatment Measure Sizing

Drainage Area	TOTAL AREA		IMPERVIOUS AREA		EX. IMPERVIOUS AREA		PERVIOUS AREA		Percent Impervious	Runoff Coefficient, c	Intensity, i (Uniform Intensity)	Q (cfs)	Treatment Area Required	Treatment Area provided
	sq. ft.	Ac.	sq. ft.	Ac.	sq. ft.	Ac.	sq. ft.	Ac.						
1	10,234	0.23	3,072	0.07	8,003	0.18	7,162	0.16	30.0%	0.480	0.2	0.02	123	443
2	17,822	0.41	5,592	0.13	8,408	0.19	12,230	0.28	31.4%	0.488	0.2	0.04	224	560
3	15,931	0.37	4,424	0.10	12,601	0.29	11,507	0.26	27.8%	0.467	0.2	0.03	177	681
4	17,313	0.40	5,455	0.13	14,070	0.32	11,858	0.27	31.5%	0.489	0.2	0.04	218	781
5	11,745	0.27	3,992	0.09	19,733	0.45	7,753	0.18	34.0%	0.504	0.2	0.03	160	949



SANDIS

PROFESSIONAL ENGINEER — CHAD J. BROWNING — No. C68315 Exp. 9/30/25 — CIVIL — STATE OF CALIFORNIA

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CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:

JOHN SAMUELSON
City Engineer
Date: 9/25/23

City of Pittsburg

FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
STORMWATER MANAGEMENT PLAN

CONTRACT NAME:
CONTRACT NUMBER:

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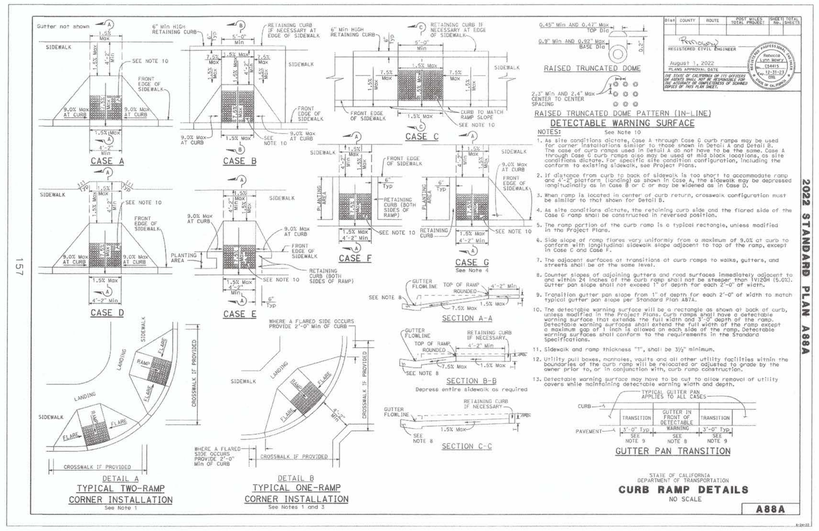
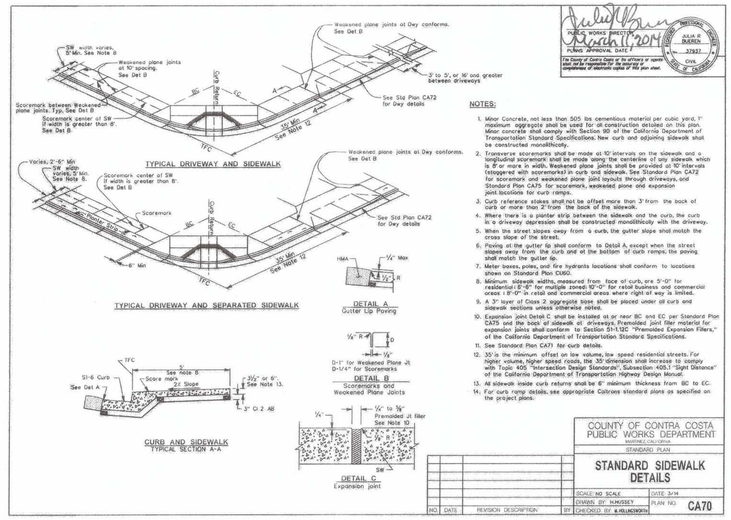
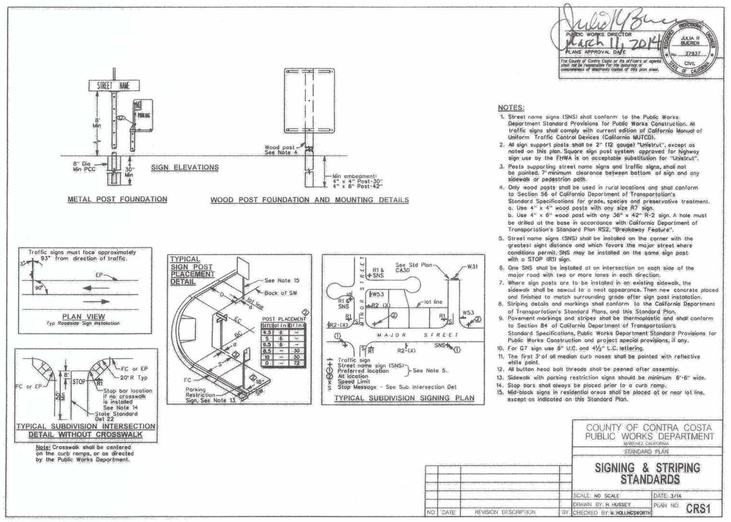
BY	DESCRIPTION	REV	DATE

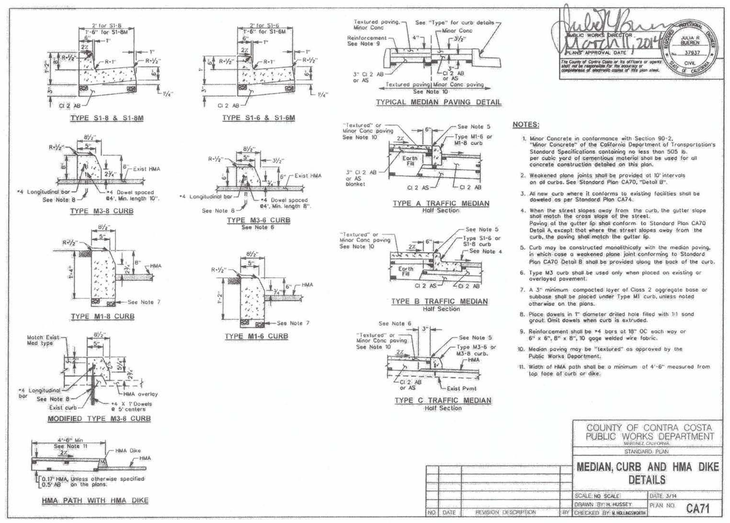
SHEET NO.
18 OF 59

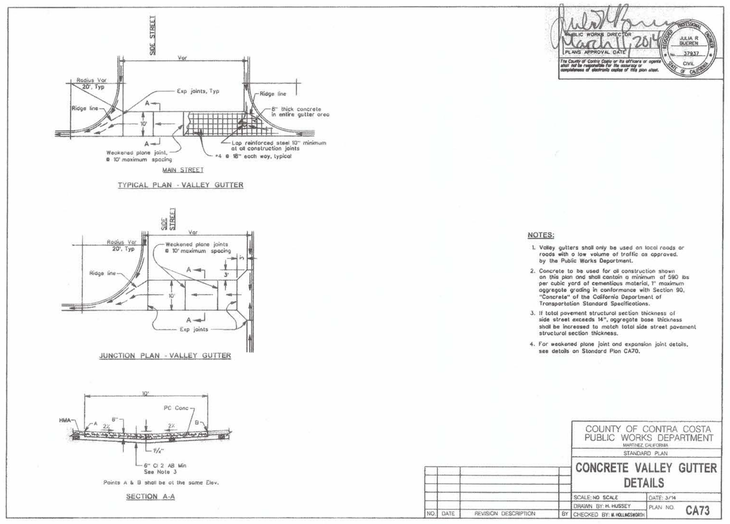
DWG. NO.
C-7.0











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City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
CONSTRUCTION DETAILS

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19 OF 59

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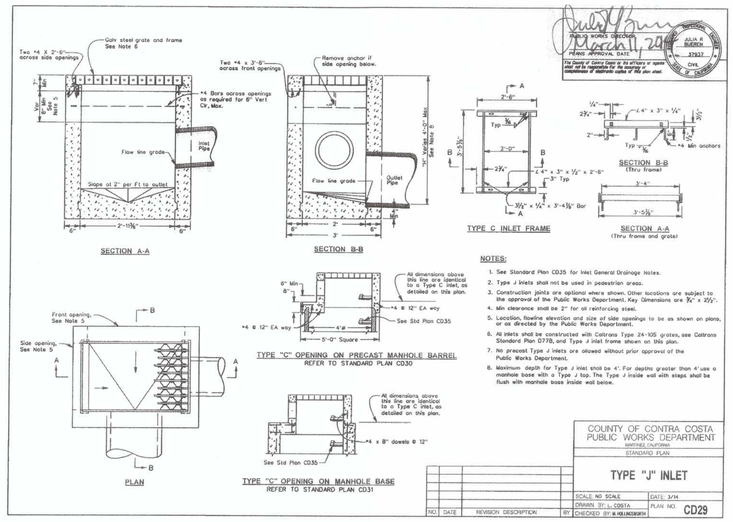
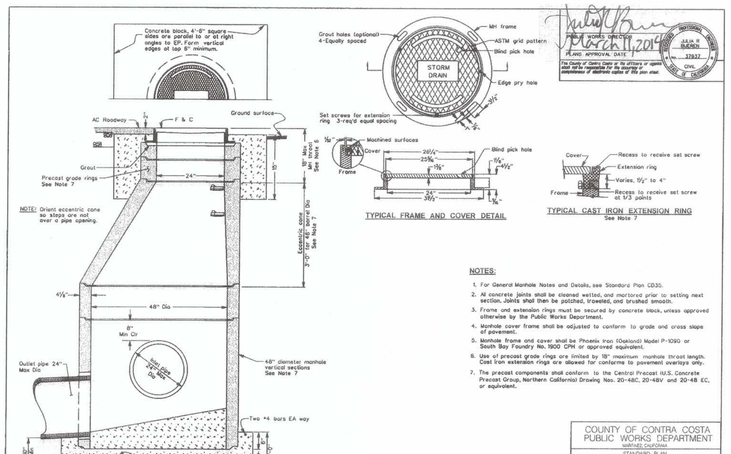
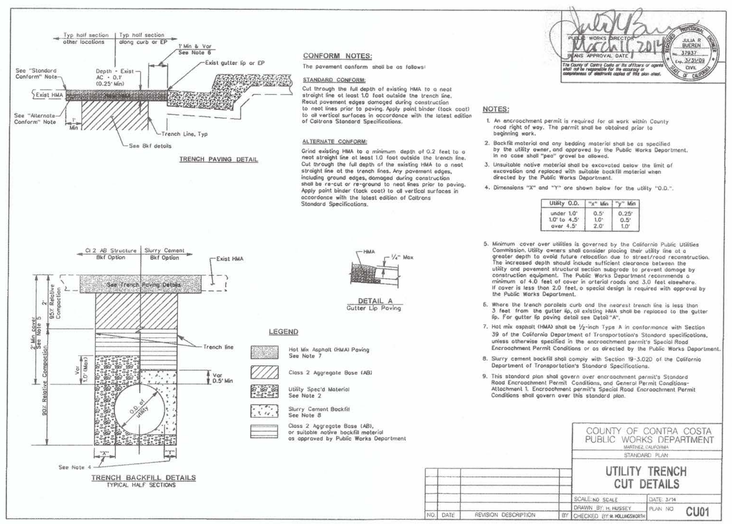
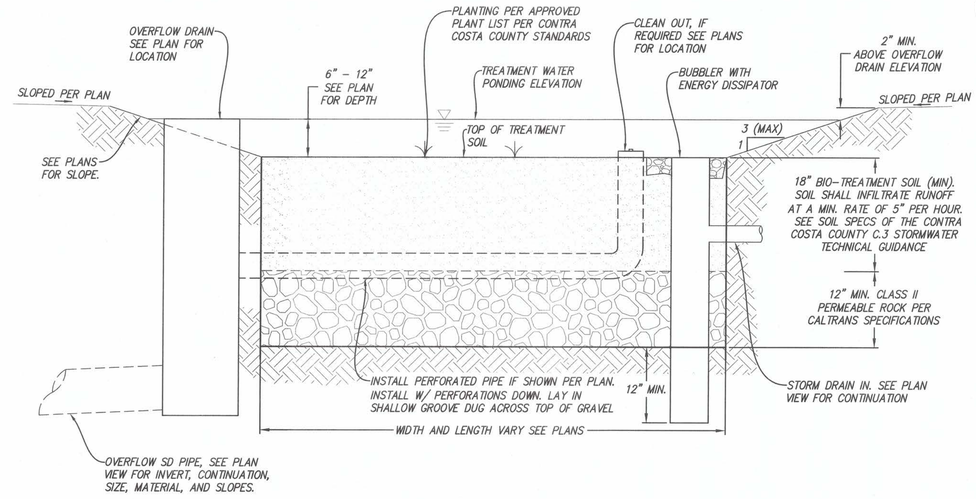
C-8.0



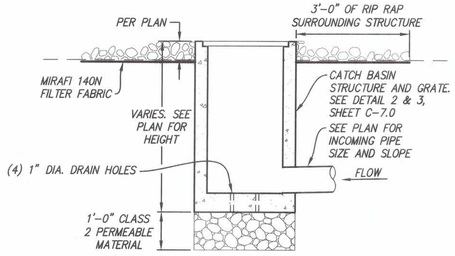




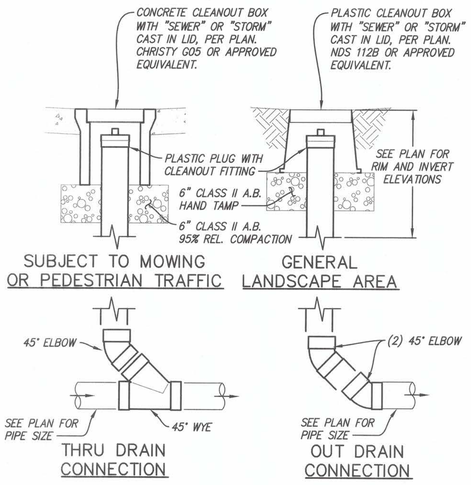


NOTES:
1. BIO-RETENTION AREA SHALL BE THE MINIMUM SIZE SHOWN ON PLANS.
2. INSTALL AND MAINTAIN MULCH LAYER ABOVE THE TREATMENT SOIL PER CONTRA COSTA COUNTY REQUIREMENTS.

BIORETENTION AREA 1
1"=1'



BUBBLE UP BOX 3
1"=2'



NOTES:
1. RISER DIAMETER SHALL MATCH THRU/OUT PIPE SIZE.

GRAVITY CLEANOUT 2
1"=1'

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FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
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SHEET NO. 20 OF 59

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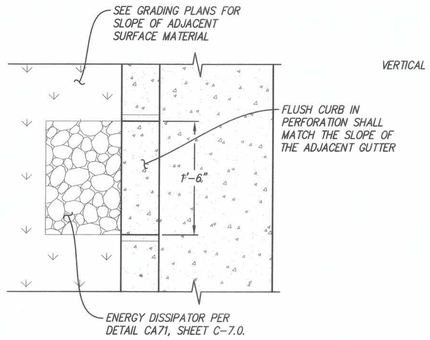
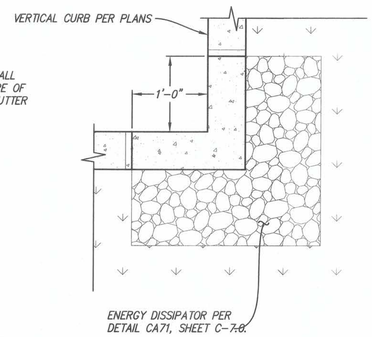
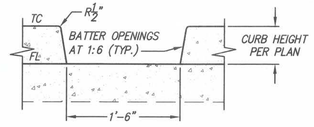


CURB PERFORATION
AT CURB & GUTTER



CURB PERFORATION AT CORNER

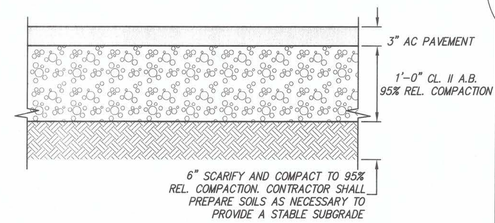


ELEVATION VIEW

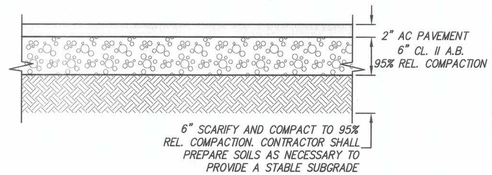
NOTES:

1. ALL EXPOSED CONCRETE EDGES (HORIZONTAL AND VERTICAL) SHALL BE 1/2" RADIUS.
2. CURB OPENING FREQUENCY AND LOCATION SHALL BE PER PLAN.

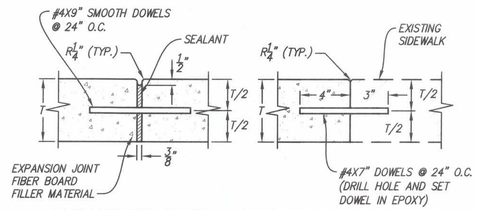
CURB PERFORATION
1"=1' — 5



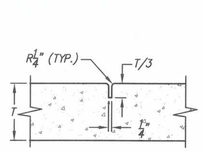
VEHICULAR ASPHALT PAVEMENT
1"=1' — 1



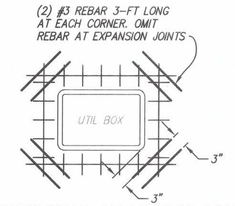
PEDESTRIAN ASPHALT PAVEMENT
1"=1' — 2



EXPANSION JOINT — SIDEWALK CONTACT JOINT



CONTROL JOINT

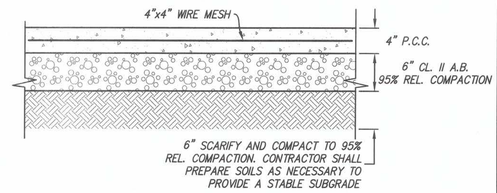


REINFORCING AT UTILITY BOX
1"=20"

NOTES:

1. REFER TO LANDSCAPE PLANS AND/OR PROJECT SPECIFICATIONS FOR JOINT SPACING.
2. REFER TO LANDSCAPE PLANS FOR SCORE PATTERN.

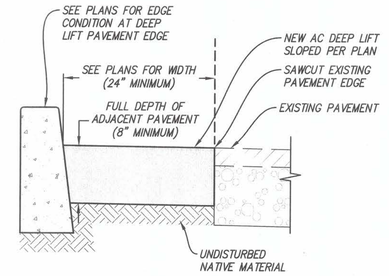
CONCRETE JOINTS
1"=0.5' — 6



NOTES:

1. SEE LANDSCAPE PLANS FOR SCORING PATTERN & COLOR. SEE DETAIL 6, SHEET C-7.2 FOR JOINT DETAIL.

PEDESTRIAN CONCRETE
1"=1' — 3



ASPHALT DEEP LIFT
1"=1' — 4

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SHEET NO.
21 OF 59

DWG. NO.
C-8.2

SANITARY SEWER NOTES

1. See City Ordinance and Central Contra Costa Sanitary District (CCCSD) Sections 1 – 15 for design criteria and details.
2. Use S–2 for sanitary sewer lateral details. When S–2 conflicts with CCCSD details or specifications, the S–2 detail shall prevail.
3. All other improvements shall be constructed per CCCSD details numbered DWG 1 through DWG 52, which is available online at http://centralsan.org/index.cfm?navid=920

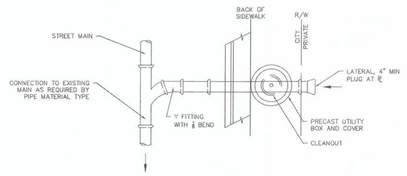
   or may be purchased at the following location:

   CCCSD Offices
   5019 Imhoff Place
   Martinez, CA 94553
   (925) 229–3890
4. For trench width, use City Standard Detail R–5.
5. Wherever "the Engineer" or "County Engineer" is used, this refers to the City Engineer.
6. No steps in any structures (MH, vaults, etc.).
7. Sanitary sewer mains, sewer manholes, and sewer lateral services (side sewers) shall be constructed in accordance with the CCCSD Standard Specifications, Sections 18 through 23 and selected Standard Details, as modified by these City Standards. City of Pittsburg Standard Specifications shall not apply except where the CCCSD Standard Specifications are silent.
8. Where the CCCSD Standard Specifications and Standard Drawings make reference to "District", that term shall mean the City of Pittsburg. Except where modified by these City Standards, the Contractor shall furnish all materials and perform all construction operations and installations, television inspection, and testing of new facilities, regardless of contradictory language in the CCCSD standards stating that the work will be performed by the "District".
9. Grade rings are to be 12" maximum.
10. For motor court homes, manholes are to be located at least 30' from doors to avoid odor.
11. Sewer – check concrete apron around it.

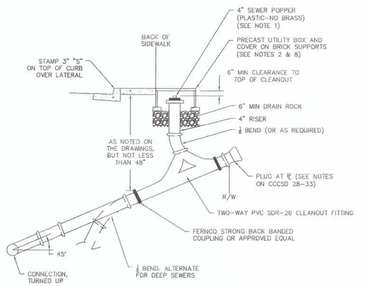
APPROVED _____ DATE _____

DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY:	STANDARD DETAIL	SHEET 1 OF 1
	1	2019–01–11	NOTES 9–11	CHECKED BY: MK	SANITARY SEWER NOTES	S–1
				DATE: 2019–01–11		
				SCALE: NONE		



TYPICAL PLAN VIEW
SCALE: NTS



TYPICAL SECTION VIEW
SCALE: NTS

APPROVED _____ DATE _____

DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: JL	STANDARD DETAIL	SHEET 1 OF 2
				CHECKED BY: MK	SANITARY SEWER LATERAL CLEANOUT	S–2
				DATE: 2019–01–11		
				SCALE: NTS		

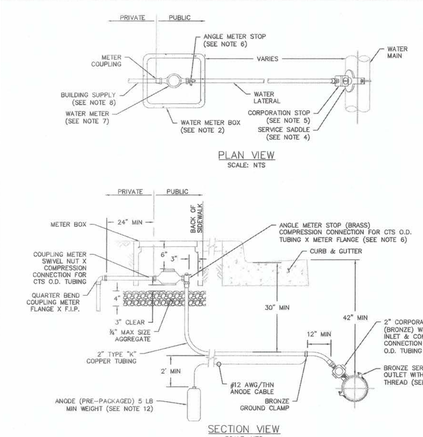
SANITARY SEWER LATERAL CLEANOUT NOTES

1. Jones Stephens Corp., sewer pop–up cleanout and relief valve, (part no. S62–304) 3" x 4". No hub, or approved equal, where required. (No brass).
2. Christy F8 utility box and F8D reinforced concrete lid, or approved equal, labeled "SEWER".
3. On laterals 6" and larger, use two–way PVC SDR–26 cleanout.
4. Riser to be max. 6" diameter riser material to be the same as lateral.
5. The minimum lateral slope shall be ¼" per foot, for 4" diameter pipe, and 1/8" per foot for 6" diameter pipe.
6. All lateral piping and fittings shall be the same diameter.
7. Install sanitary sewer backwater overflow device when the pad elevation is less than 12" above nearest upstream sewer manhole rim or the finished floor (if known) is less than 12" above the nearest upstream sewer manhole rim.
8. Where utility box is to be located in an area subject to vehicular traffic loading, the permittee shall furnish a traffic box for H/20 loading. Traffic box shall be Christy G5T box with lid labeled "SEWER" or approved equal.
9. Sanitary sewer cleanouts are to be at least 3' clear of driveway flares and a minimum horizontal clearance of 5' from water lateral.
10. For laterals servicing two units or more, laterals shall be 6" PVC SDR–26.

APPROVED _____ DATE _____

DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY:	STANDARD DETAIL	SHEET 2 OF 2
	1	2019–01–11	NOTES 8&10	CHECKED BY: MK	SANITARY SEWER LATERAL CLEANOUT – NOTES	S–2
				DATE: 2019–01–11		
				SCALE: NONE		

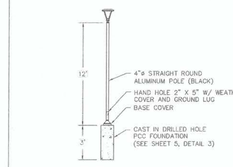


NOTES

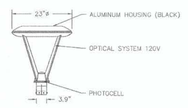
1. AFTER PAYMENT OF FEES, WATER METER SHALL BE FURNISHED AND INSTALLED BY THE CITY FOR NEW SERVICES.
2. METER BOX SHALL BE CHRISTY B36 (17¾" x 30") WITH FL36E LID (OR APPROVED EQUAL).
3. WHERE METER BOX IS TO BE LOCATED IN AN AREA SUBJECT TO VEHICULAR TRAFFIC LOADING, THE PERMITTEE SHALL FURNISH A TRAFFIC BOX FOR H/20 LOADING. TRAFFIC BOX SHALL BE CHRISTY B10" X17" WITH B36–61G LID (OR APPROVED EQUAL).
4. FOR PIPES UP TO 12" IN DIAMETER, THE SERVICE SADDLE SHALL BE MUELLER H–13000 SERIES CC TAPERED THREAD (OR APPROVED EQUAL). FOR PIPES LARGER THAN 12" IN DIAMETER, THE SERVICE SADDLE SHALL BE MUELLER BR2B OR BR2S SERIES (OR APPROVED EQUAL). SADDLES FOR PVC PIPE SHALL BE DOUBLE OR WIDE STRAP DESIGN
5. CORPORATION STOP SHALL BE 2" MUELLER B–25008N (OR APPROVED EQUAL).
6. ANGLE METER STOP SHALL BE 2" MUELLER B–24278N (OR APPROVED EQUAL).
7. WATER METER SHALL BE LOCATED IN THE CENTER OF WATER METER BOX.
8. MINIMUM COVER OVER BUILDING SUPPLY (YARD PIPING) SHALL NOT BE LESS THAN THAT SPECIFIED IN THE UNIFORM PLUMBING CODE.
9. WATER SERVICES TO BE SIZED PER THE REQUIREMENTS OF THE LATEST VERSION OF CALIFORNIA PLUMBING CODE.
10. ALL WATER SERVICE FITTINGS SHALL BE LEAD–FREE.
11. THE METER BOX FOR A 1–½–IN TURBINE METER SHALL BE A CHRISTY B–30 BOX WITH B–30E LID (OR B–30–61G LID FOR TRAFFIC AREAS), OR APPROVED EQUALS. THE METER BOX FOR A 2–IN TURBINE METER SHALL BE A CHRISTY B–36 BOX WITH B–36E LID (OR B–36–61G LID FOR TRAFFIC AREAS), OR APPROVED EQUALS.
12. 5 LB MINIMUM ANODE REQUIRED ON ALL COPPER SERVICE LINES 2" AND LESS UNLESS GEOTECHNICAL REPORT STIPULATES IT IS NOT NECESSARY. ADDITIONAL WEIGHT MAY BE REQUIRED BY GEOTECHNICAL REPORT. INSULATING COUPLING REQUIRED BETWEEN COPPER WATER LATERAL AND WATER MAIN IF MAIN IS METALLIC.

APPROVED _____ DATE _____

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: BJR	STANDARD DETAIL	SHEET 2 OF 5
	1	2019–01–11	ADDED ANODE	CHECKED BY: MK	2" COPPER WATER SERVICE FOR 1–1/2" & 2" WATER METERS	W–5
				DATE: 2019–01–11		
				SCALE: NTS		



PARK/PATHWAY LIGHTING
SINGLE FIXTURE



PARK/PATHWAY LIGHT FIXTURE
("CREE" EDGE SERIES LED SHOWN)

NOTES

1. ALL POLE HARDWARE NUTS/BOLTS/SCREWS SHALL BE STAINLESS STEEL. FOUNDATION MOUNTING BOLTS/NUTS/WASHERS SHALL BE GALVANIZED.
2. A No. 5 PULLBOX SHALL BE INSTALLED AT EACH LIGHT POLE. PULLBOX LID SHALL HAVE "LIGHTING" STAMPED IN LID.
3. A PHOTOCELL SHALL BE INSTALLED IN EACH FIXTURE FOR UN–METERED ELECTRICAL SERVICE INSTALLATIONS.
4. A PHOTOCELL SHALL BE INSTALLED IN SERVICE ASSEMBLY FOR METERED ELECTRICAL SERVICE INSTALLATIONS.
5. EACH LIGHT FIXTURE SHALL BE FUSED.
6. CITY–APPROVED PARK/PATHWAY LIGHTING PARTS (OR APPROVED EQUALS) TO BE USED. SEE TABLE 2 FOR LIST OF CITY–APPROVED LIGHTING PARTS. SEE SHEET 6 FOR LIGHTING PARTS SPECIFICATIONS.

TABLE 2: CITY–APPROVED PARK/PATHWAY LIGHTING PARTS	
LIGHT FIXTURE	"CREE" (EDGE SERIES) ARE–EDR–SM–R3–06–E–UL–BK–40K–525–P
POLE	"CYCLONE LIGHTING" PA40–12–1N32–BK–TX–R30
BASE COVER	"CYCLONE LIGHTING" BD11–BK–TX

APPROVED 3/8/23 DATE

DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: TJM	STANDARD DETAIL	SHEET 2 OF 6
	1	2019–01–11	PARTS LIST	CHECKED BY: MK	PARK/PATHWAY LIGHTING	T–5
				DATE: 2019–01–11		
				SCALE: NTS		

STANDARD COBRA HEAD STREET LIGHT FIXTURE
("CREE" RSW SERIES LED SHOWN)

NOTES

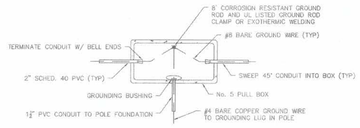
1. ALL POLE HARDWARE NUTS/BOLTS/SCREWS SHALL BE STAINLESS STEEL. MOUNTING BOLTS/NUTS SHALL BE GALVANIZED.
2. A PULLBOX SHALL BE INSTALLED AT EACH LIGHT POLE.
3. A PHOTOCELL SHALL BE INSTALLED ON EACH FIXTURE.
4. EACH LIGHT FIXTURE SHALL BE FUSED.
5. CONDUIT SHALL HAVE A MINIMUM COVER OF 24 INCHES.
6. USE 8' LUMINAIRE ARM FOR ROADWAYS LESS THAN 40' IN WIDTH AND 15' LUMINAIRE ARM FOR ROADWAYS 40' OR MORE IN WIDTH.
7. A PHOTOCELL SHALL BE INSTALLED IN EACH FIXTURE FOR UN–METERED ELECTRICAL SERVICE INSTALLATIONS.
8. A PHOTOCELL SHALL BE INSTALLED IN SERVICE ASSEMBLY FOR METERED ELECTRICAL SERVICE INSTALLATIONS.
9. CITY–APPROVED STANDARD STREET LIGHTING PARTS (OR APPROVED EQUALS) TO BE USED. SEE TABLE 3 FOR LIST OF CITY–APPROVED LIGHTING PARTS. SEE SHEET 6 FOR LIGHTING PARTS SPECIFICATIONS.

TABLE 3: CITY–APPROVED STANDARD STREET LIGHTING PARTS	
LIGHT FIXTURE	"CREE" (RSW SERIES, MEDIUM) RSW1–A–NT–3ME–14L–40K7–UL–GY–N–Q
POLE	"HAPCO" ALUMINUM POLE AND LUMINAIRE ARM (SEE SHEET 4)

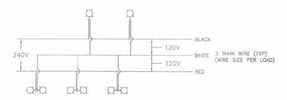
APPROVED 3/8/23 DATE

DRAFT

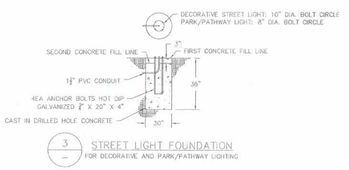
CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: AW	STANDARD DETAIL	SHEET 3 OF 6
	1	2019–01–11	PARTS LIST	CHECKED BY: MK	STANDARD STREET LIGHTING	T–5
				DATE: 2019–01–11		
				SCALE: NTS		



1 — PULLBOX INSTALLATION
FOR ALL STREET LIGHTING



2 — WIRING DIAGRAM
FOR CIRCUITS W/ STANDARD STREET LIGHTING
120/240 VOLT ELECTRIC SERVICE



3 — STREET LIGHT FOUNDATION
FOR DECORATIVE AND PARK/PATHWAY LIGHTING

APPROVED 3/8/23 DATE

DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: TJM	STANDARD DETAIL	SHEET 5 OF 6
	1	2019–01–11	PARTS LIST	CHECKED BY: MK	LIGHTING DETAILS	T–5
				DATE: 2019–01–11		
				SCALE: NTS		

PROFESSIONAL ENGINEER — CHAD J. BROWNING — No. C68315 Exp. 9/30/25 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: _____ DATE: 9/20/23
CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE: _____
JOHN SAMUELSON
City Engineer
Date: 9/21/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
CONSTRUCTION DETAILS

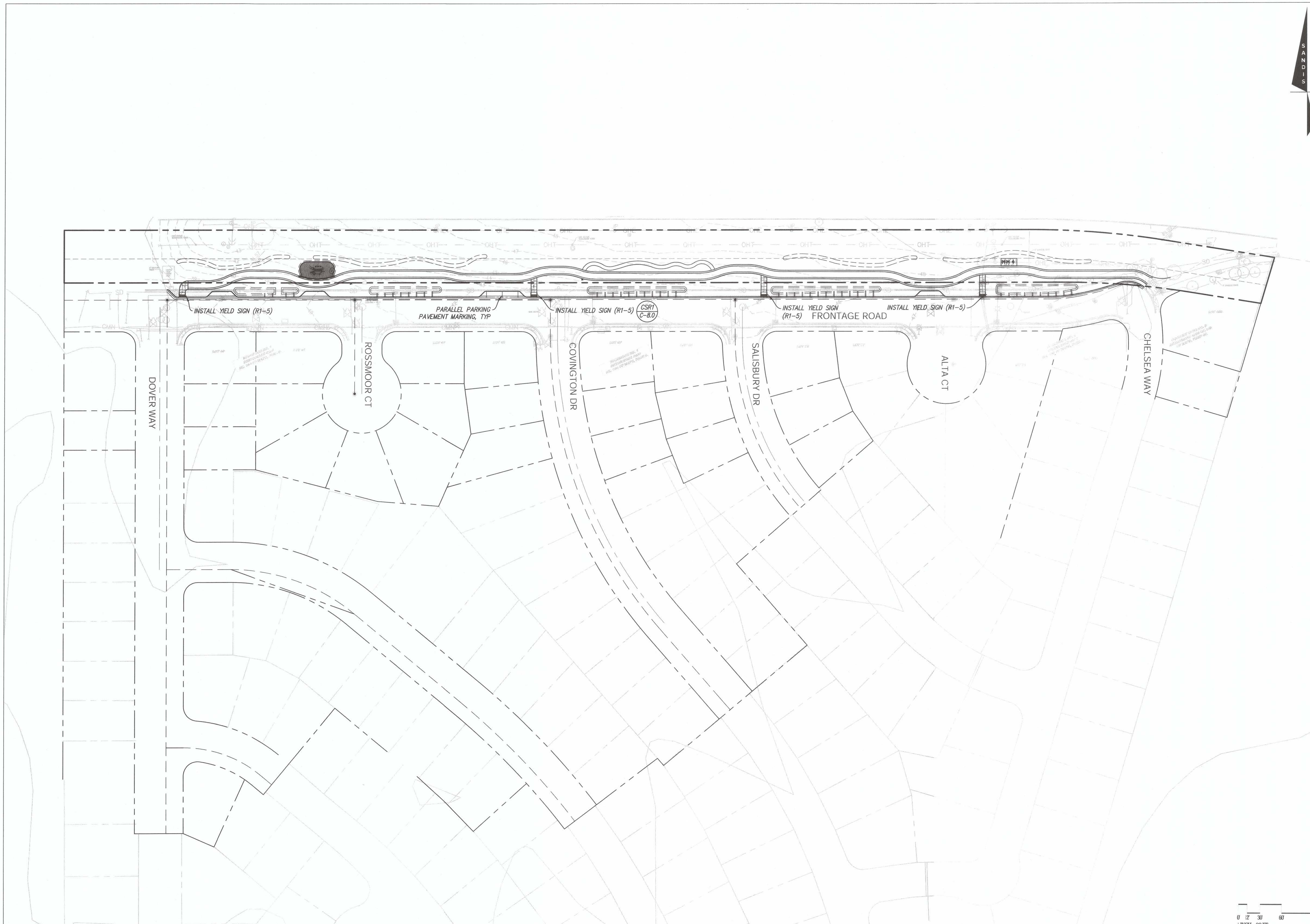
CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
22 OF 59

DWG. NO.
C-8.3



FRONTAGE ROAD LIVING GREEN TRAIL DESIGN

SIGNAGE AND STRIPING PLAN

CONTRACT NAME:
CONTRACT NUMBER:

PREPARED UNDER THE DIRECTION OF:
CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25
DATE: 9/20/23

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

DATE	REV	DESCRIPTION	BY

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
23 OF 59

DWG. NO.
C-9.0

LEGEND

- STABILIZED EXIT (TC-1 C-10.1)
- CONCRETE WASHOUT
- SK — SPILL KIT
- PORTABLE RESTROOM
- CONSTRUCTION TRAILER — CONSTRUCTION TRAILER
- PATH OF SURFACE DRAINAGE
- FIBER ROLL (SE-5 C-10.1)
- SILT FENCE (SE-1 C-10.1)
- INLET PROTECTION (SE-10 C-10.1)
- APPROXIMATE AREA OF CONSTRUCTION DISTURBANCE – AREA TO COMPLY WITH REQUIREMENTS IN PROJECT SWPPP

WATER POLLUTION CONTROL NOTES:

A. TEMPORARY CONSTRUCTION ENTRANCE/EXIT LOCATION SHOWN IS APPROXIMATE. CONTRACTOR TO PROVIDE LOCATION WHERE APPROPRIATE.

B. THIS PLAN REPRESENTS POSSIBLE WATER POLLUTION CONTROL MEASURES INCLUDING EROSION CONTROL AND SEDIMENT CONTROL.

C. EXISTING SURFACES SHALL BE UNDISTURBED TO THE EXTENT PRACTICAL.

D. GROUND WATER SHALL NOT BE DISCHARGED WITH STORM WATER. GROUND WATER DEWATERING OPERATIONS SHALL BE COORDINATED AS NEEDED WITH OWNER.

E. CONTRACTOR SHALL PROVIDE EFFECTIVE SOIL COVER FOR AREAS OF CONSTRUCTION ACTIVITY THAT HAVE BEEN DISTURBED AND ARE NOT SCHEDULED TO BE ACTIVE FOR AT LEAST 14 DAYS.

F. ALL EROSION CONTROL AND SEDIMENT CONTROLS TO BE OBTAINED INSTALLED AND MAINTAINED AS REQUIRED IN PROJECT SWPPP.

G. CONTRACTOR TO INSTALL RUN-ON AND RUN-OFF CONTROL MEASURES ACCORDING TO PLANS OR AS NECESSARY TO ENSURE SEDIMENT IS NOT TRANSPORTED FROM SITE.

H. CONTRACTOR TO PROVIDE BACK-UP EROSION PREVENTION MEASURES (SOIL STABILIZATION) WITH SEDIMENT CONTROL MEASURES SUCH AS STRAW WATTLES, SILT FENCE, GRAVEL INLET FILTERS, AND/OR SEDIMENT TRAPS OR BASINS. ENSURE CONTROL MEASURES ARE ADEQUATE, IN PLACE, AND IN OPERABLE CONDITIONS. SEDIMENT CONTROLS, INCLUDING INLET PROTECTION, ARE NECESSARY BUT SHOULD BE A SECONDARY DEFENSE BEHIND GOOD EROSION CONTROL MEASURES.

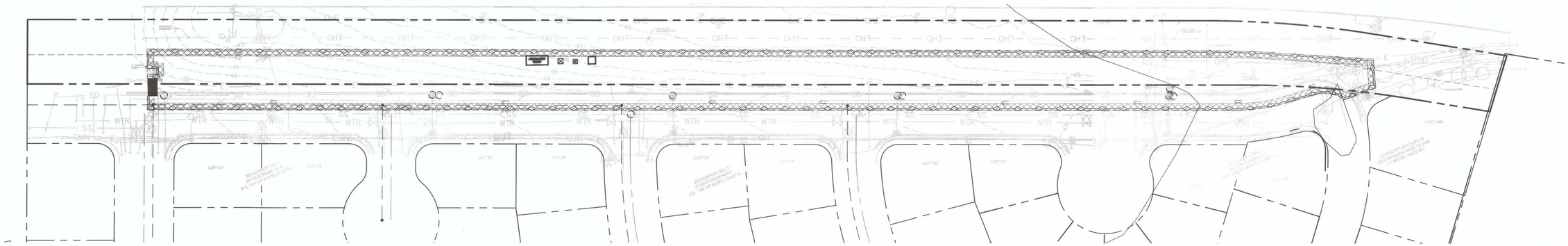
I. STOCKPILE LOCATION(S) TO BE DETERMINED BY THE CONTRACTOR. COORDINATE WITH SITE QSP.

J. ALL CONCRETE TRUCKS TO USE CHUTE WASH BUCKETS FOR CONCRETE RINSE, ALL CONCRETE PUMPS TO CAPTURE CONCRETE RINSE IN SECONDARY CONTAINMENT AND PROPERLY DISPOSE.

K. STREET SWEEPING SHALL BE CHECKED DAILY TO ENSURE DEPOSITED SEDIMENT AND DEBRIS DOES NOT ENTER THE STORM DRAIN SYSTEM. USE REGENERATIVE VACUUM STREET CLEANER TO MITIGATE AIR AND WATER POLLUTION.

L. RUNOFF THAT HAS CONTACTED AMENDED SOIL AREAS SHALL NOT BE ALLOWED TO LEAVE THE SITE OR ENTER THE STORM DRAIN SYSTEM.

M. THE SURFACE OF CUT AND FILL SLOPES WITH GREATER THAN 5' IN VERTICAL HEIGHT SHOULD BE COVERED BY A TURF REINFORCING MAT TO HELP PROVIDE TEMPORARY EROSION PROTECTION UNTIL VEGETATION IS RE-ESTABLISHED OVER THE AREA TO PROVIDE LONG-TERM EROSION PROTECTION OF THE SLOPE SURFACE. A TYPE A REINFORCING MAT MEETING THE REQUIREMENTS OF SECTION 21-2.020(5) OF THE 2018 CALTRANS STANDARD SPECIFICATIONS, SUCH AS MIRAFI TM13C OR EQUIVALENT, SHALL BE USED. THE TURF REINFORCING MAT SHOULD BE OVERLAPPED A MINIMUM OF 1' AT THE SEAMS AND FIXED TO THE SURFACE OF THE SLOPE PER THE MANUFACTURER'S REQUIREMENTS. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, CUT AND FILL SLOPES SHOULD BE HYDROSEEDED TO HELP ENCOURAGE GROWTH OF VEGETATION ON THE SURFACE TO SERVE AS AN ADDITIONAL LONG-TERM EROSION CONTROL MEASURE.



0' 12' 30' 60' 120'
1 INCH = 60 FT

SANDIS

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN

EROSION CONTROL PLAN

CONTRACT NAME:
CONTRACT NUMBER:

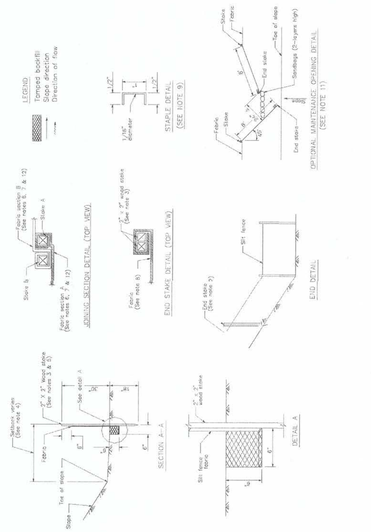
DRAWN: CW	CHECKED: SC	REVIEWED: CB	DATE: 09/05/23	SCALE: AS NOTED

DATE	REV	DESCRIPTION	BY

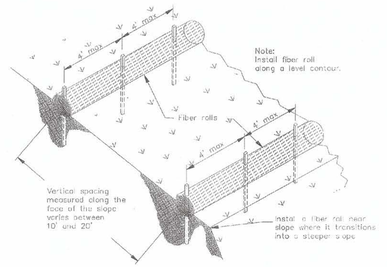
SHEET NO.
24 OF 59

DWG. NO.
C-10.0

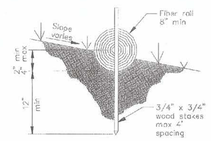
SE-1 Silt Fence



Fiber Rolls SE-5

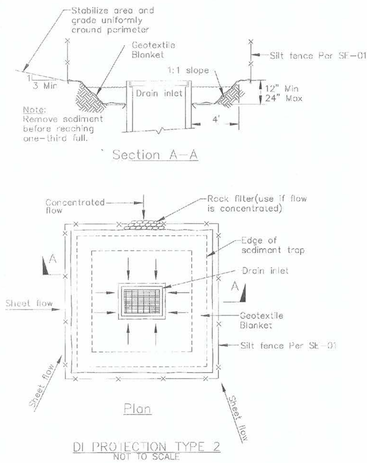


TYPICAL FIBER ROLL INSTALLATION
N.T.S.



ENTRENCHMENT DETAIL
N.T.S.

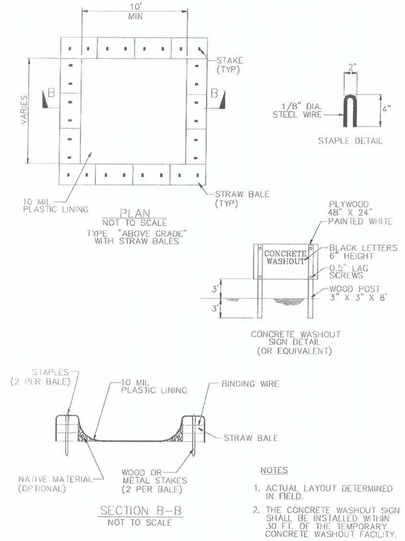
Storm Drain Inlet Protection SE-10



DI PROTECTION TYPE 2
NOT TO SCALE

Notes
1. For use in cleared and grubbed and in graded areas.
2. Shape basin so that longest inflow area faces longest length of trap.
3. For concentrated flows, shape basin in 2:1 ratio with length oriented towards direction of flow.

Concrete Waste Management WM-8



NOTES
1. ACTUAL LAYOUT DETERMINED IN FIELD.
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT. OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23
CHAD J. BROWNING DATE:
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
EROSION CONTROL DETAILS

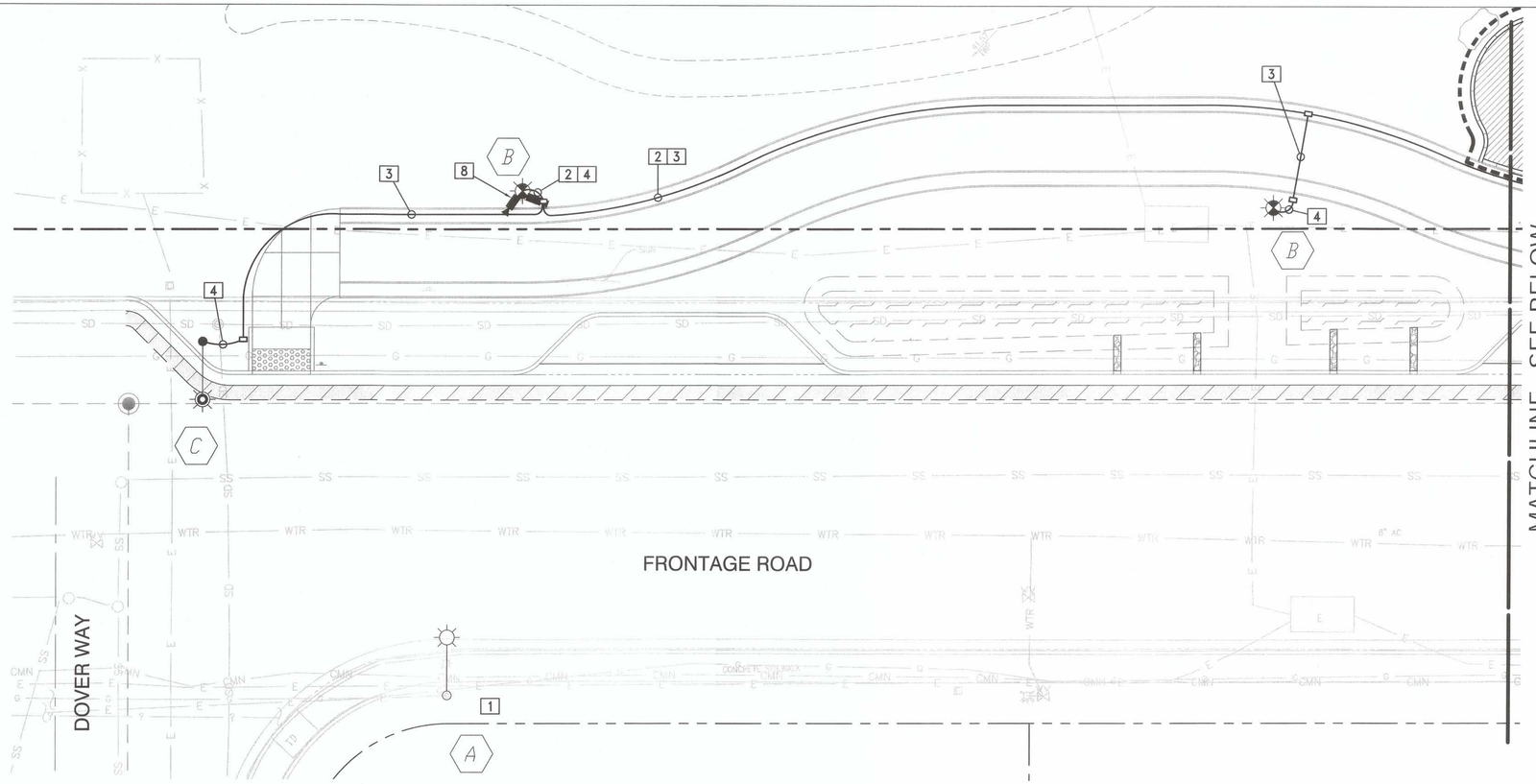
CONTRACT NAME:
CONTRACT NUMBER:

DATE	REV	DESCRIPTION	BY

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
25 OF 59

DWG. NO.
C-10.1



PROPOSED LIGHTING FIXTURE SCHEDULE

TYPE	SYMBOL	DESCRIPTION	POLE HEIGHT	LAMP	WATTAGE	VOLTAGE	QUANTITY	NOTES
A		EXISTING CREE RSWL SERIES ON EXISTING POLE	32'	LED	29W	120-277	2	-
B		CITY FURNISHED CREE ARE SERIES TYPE 3 ON CITY FURNISHED POLE	20'	LED	67W	120-277	3	CONTRACTOR TO INSTALL CITY FURNISHED LUMINAIRES AND POLES. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS AS NEEDED TO PROVIDE A FUNCTIONAL LIGHTING SYSTEM.
C		CITY FURNISHED CREE RSWL SERIES TYPE 3 ON CITY FURNISHED POLE	32'	LED	47W	120-277	1	CONTRACTOR TO INSTALL CITY FURNISHED LUMINAIRES AND POLES. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS AS NEEDED TO PROVIDE A FUNCTIONAL LIGHTING SYSTEM.

LEGEND

- STREET LIGHT CONDUIT
- PROPOSED ELECTRICAL PULL BOX
- CITY FURNISHED AND INSTALLED CCTV CAMERA

LIGHTING NOTES

1. EXISTING LUMINAIRE AND POLE TO REMAIN.
2. INSTALL TWO(2) 3/4" CONDUITS FOR CCTV CAMERA COMMUNICATION LINES AND 120 VAC POWER, AS REQUIRED BY THE CITY FOR "CCTV MAKE-READY." ONE(1) POWER CIRCUIT IN THE SERVICE ENCLOSURE SHALL BE DEDICATED TO CAMERA AND COMMUNICATIONS.
3. INSTALL 2" CONDUIT WITH 2-#8 AWG CONDUCTOR (SL) AND 1-#8 BARE GROUND WIRE.
4. INSTALL 1 ½" CONDUIT WITH 2-#8 AWG CONDUCTOR (SL) AND 1#4 BARE COPPER GROUND WIRE .
8. CITY TO FURNISH AND INSTALL 2.4MM CCTV CAMERAS ON LIGHT POLE.

ELECTRICAL LIGHTING NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST EDITION OF THE CITY OF PITTSBURG STANDARD DETAILS.
2. CONTRACTOR TO CONFIRM EXISTING STREET LIGHT CIRCUITS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES FROM DAMAGE UNLESS SPECIFIED OTHERWISE.
4. ALL PULLBOXES SHALL BE SIZE #5 UNLESS SPECIFIED OTHERWISE.

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/28/21

City of Pittsburg

FRONTAGE ROAD
LIVING GREEN TRAIL DESIGN
LIGHTING PLAN
CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
26 OF 59

DWG. NO.
C-11.0

MATCHLINE - SEE SHEET C-10.0

FRONTAGE ROAD

COVINGTON DR

MATCHLINE - SEE BELOW

MATCHLINE - SEE ABOVE

SALISBURY DR

MATCHLINE - SEE SHEET C-10.2

SANDIS

0 2 5 10 20
1 INCH = 10 FT

PROPOSED LIGHTING FIXTURE SCHEDULE

TYPE	SYMBOL	DESCRIPTION	POLE HEIGHT	LAMP	WATTAGE	VOLTAGE	QUANTITY	NOTES
A		EXISTING CREE RSWL SERIES ON EXISTING POLE	32'	LED	29W	120-277	1	-
B		CITY FURNISHED CREE ARE SERIES TYPE 3 ON CITY FURNISHED POLE	20'	LED	67W	120-277	4	CONTRACTOR TO INSTALL CITY FURNISHED LUMINAIRES AND POLES. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS AS NEEDED TO PROVIDE A FUNCTIONAL LIGHTING SYSTEM.
C		CITY FURNISHED CREE RSWL SERIES TYPE 3 ON CITY FURNISHED POLE	32'	LED	47W	120-277	4	CONTRACTOR TO INSTALL CITY FURNISHED LUMINAIRES AND POLES. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS AS NEEDED TO PROVIDE A FUNCTIONAL LIGHTING SYSTEM.

LEGEND

- STREET LIGHT CONDUIT
- PROPOSED ELECTRICAL PULL BOX
- CITY FURNISHED AND INSTALLED CCTV CAMERA

LIGHTING NOTES

1. EXISTING LUMINAIRE AND POLE TO REMAIN.
2. INSTALL TWO(2) 3/4" CONDUITS FOR CCTV CAMERA COMMUNICATION LINES AND 120 VAC POWER, AS REQUIRED BY THE CITY FOR "CCTV MAKE-READY." ONE(1) POWER CIRCUIT IN THE SERVICE ENCLOSURE SHALL BE DEDICATED TO CAMERA AND COMMUNICATIONS.
3. INSTALL 2" CONDUIT WITH 2-#8 AWG CONDUCTOR (SL) AND 1-#8 BARE GROUND WIRE.
4. INSTALL 1 ½" CONDUIT WITH 2-#8 AWG CONDUCTOR (SL) AND 1#4 BARE COPPER GROUND WIRE .
8. CITY TO FURNISH AND INSTALL 2.4MM CCTV CAMERAS ON LIGHT POLE.

ELECTRICAL LIGHTING NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST EDITION OF THE CITY OF PITTSBURG STANDARD DETAILS.
2. CONTRACTOR TO CONFIRM EXISTING STREET LIGHT CIRCUITS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES FROM DAMAGE UNLESS SPECIFIED OTHERWISE.
4. ALL PULLBOXES SHALL BE SIZE #5 UNLESS SPECIFIED OTHERWISE.

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
CHAD J. BROWNING
R.C.E. NO. 68315
EXPIRES 9-30-25

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/21/23

City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
LIGHTING PLAN

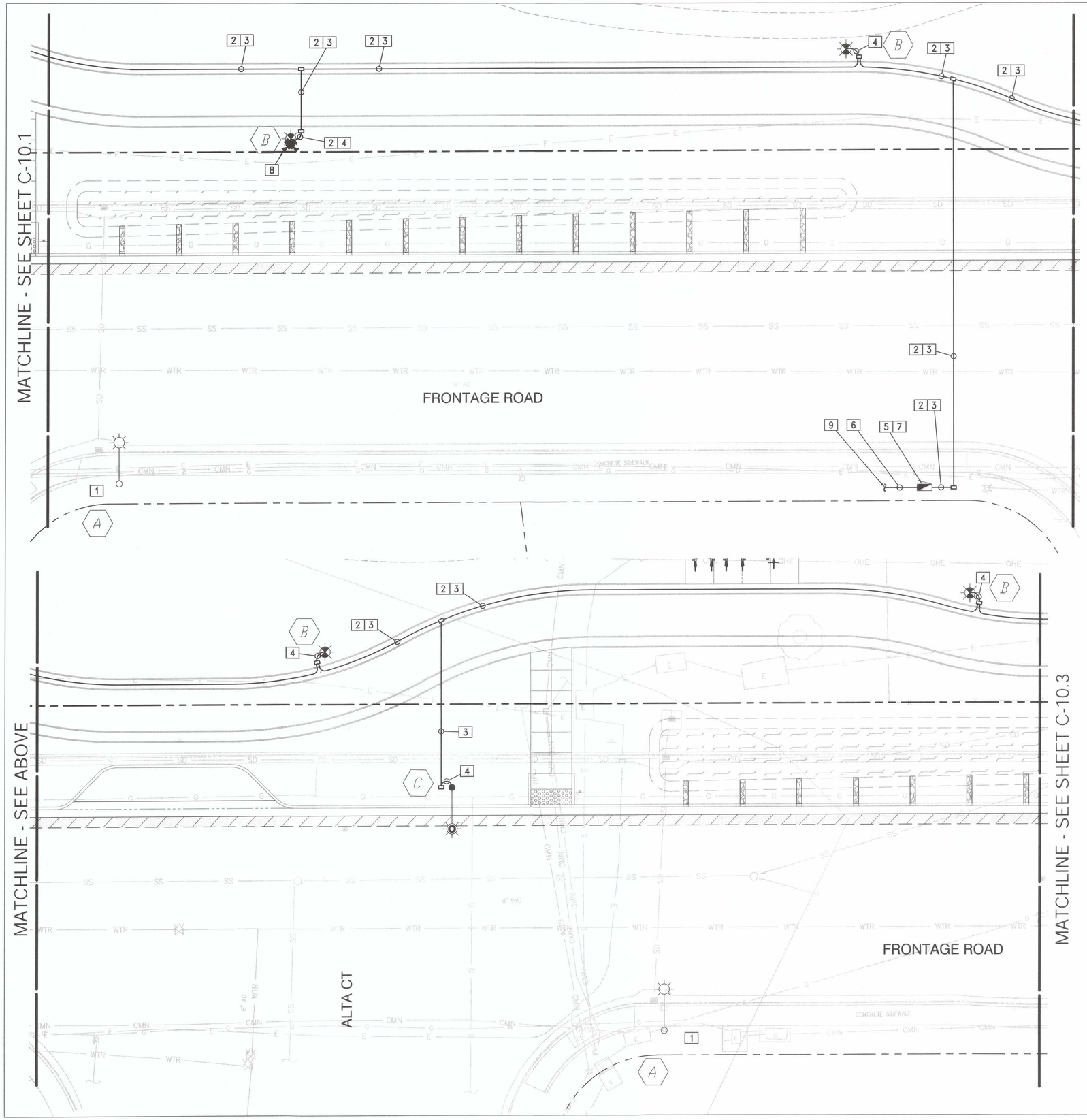
CONTRACT NAME:
CONTRACT NUMBER:

BY	DESCRIPTION	REV	DATE

DRAWN: CW
CHECKED: SC
REVIEWED: CB
DATE: 09/05/23
SCALE: AS NOTED

SHEET NO.
27 OF 59

DWG. NO.
C-11.1



PROPOSED LIGHTING FIXTURE SCHEDULE

TYPE	SYMBOL	DESCRIPTION	POLE HEIGHT	LAMP	WATTAGE	VOLTAGE	QUANTITY	NOTES
A		EXISTING CREE RSWL SERIES ON EXISTING POLE	32'	LED	29W	120-277	2	-
B		CITY FURNISHED CREE ARE SERIES TYPE 3 ON CITY FURNISHED POLE	20'	LED	67W	120-277	4	CONTRACTOR TO INSTALL CITY FURNISHED LUMINAIRES AND POLES. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS AS NEEDED TO PROVIDE A FUNCTIONAL LIGHTING SYSTEM.
C		CITY FURNISHED CREE RSWL SERIES TYPE 3 ON CITY FURNISHED POLE	32'	LED	47W	120-277	1	CONTRACTOR TO INSTALL CITY FURNISHED LUMINAIRES AND POLES. CONTRACTOR TO PROVIDE NECESSARY COMPONENTS AS NEEDED TO PROVIDE A FUNCTIONAL LIGHTING SYSTEM.

LEGEND

- STREET LIGHT CONDUIT
- PROPOSED ELECTRICAL PULL BOX
- CITY FURNISHED AND INSTALLED CCTV CAMERA
- TYPE III-AF SERVICE CABINET

LIGHTING NOTES

1. EXISTING LUMINAIRE AND POLE TO REMAIN.
2. INSTALL TWO(2) 3/4" CONDUITS FOR CCTV CAMERA COMMUNICATION LINES AND 120 VAC POWER, AS REQUIRED BY THE CITY FOR "CCTV MAKE-READY". ONE(1) POWER CIRCUIT IN THE SERVICE ENCLOSURE SHALL BE DEDICATED TO CAMERA AND COMMUNICATIONS.
3. INSTALL 2" CONDUIT WITH 2-#8 AWG CONDUCTOR (SL) AND 1-#8 BARE GROUND WIRE.
4. INSTALL 1 ½" CONDUIT WITH 2-#8 AWG CONDUCTOR (SL) AND 1#4 BARE COPPER GROUND WIRE.
5. INSTALL TYPE III-AF SERVICE EQUIPMENT ENCLOSURE PER CALTRANS SHEET ES-2D WITH LIGHTING CIRCUIT, IRRIGATION CIRCUIT, AND CCTV AND COMMUNICATIONS CIRCUIT. SEE WIRING DIAGRAM ON SHEET E-4 FOR REFERENCE.
6. INSTALL 3" CONDUIT FOR PG&E SECONDARY LINE. CONNECT SECONDARY LINE TO PG&E POINT OF CONNECTION PER PG&E INSTRUCTION.
7. CITY TO FURNISH AND INSTALL WIRELESS RADIO LINK TO CONNECT CCTV CAMERAS BACK TO CITY HALL.
8. CITY TO FURNISH AND INSTALL 2.4MM CCTV CAMERAS ON LIGHT POLE.
9. COORDINATE WITH PG&E FOR POC AND SERVICE LOCATION BASED ON THE CITY PROVIDED PG&E APPLICATION.

ELECTRICAL LIGHTING NOTES

1. ALL WORK SHALL BE DONE IN CONFORMANCE WITH THE LATEST EDITION OF THE CITY OF PITTSBURG STANDARD DETAILS.
2. CONTRACTOR TO CONFIRM EXISTING STREET LIGHT CIRCUITS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL LOCATE AND PROTECT EXISTING UTILITIES FROM DAMAGE UNLESS SPECIFIED OTHERWISE.
4. ALL PULLBOXES SHALL BE SIZE #5 UNLESS SPECIFIED OTHERWISE.

REGISTERED PROFESSIONAL ENGINEER CHAD J. BROWNING No. C68315 Exp. 9/30/25 CIVIL STATE OF CALIFORNIA

PREPARED UNDER THE DIRECTION OF: 9/20/23 DATE:
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City of Pittsburg

FRONTAGE ROAD LIVING GREEN TRAIL DESIGN
LIGHTING PLAN

CONTRACT NAME:
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BY	DESCRIPTION	DATE	REV

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SHEET NO.
28 OF 59

DWG. NO.
C-11.2

LAYOUT NOTES

1. CONTRACTOR SHALL VERIFY ALL UTILITIES, GRADES, EXISTING CONDITIONS AND DIMENSIONS IN THE FIELD PRIOR TO COMMENCING WORK. ALL DISCREPANCIES OR QUESTIONS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR RESOLUTION.
2. ALL WRITTEN DIMENSIONS SUPERCEDE ALL SCALED DISTANCES AND DIMENSIONS. DIMENSIONS SHOWN ARE FROM THE FACE OF THE BUILDING, WALL, BACK OF CURB, EDGE OF WALK, PROPERTY LINE, OR CENTERLINE OF COLUMN UNLESS OTHERWISE NOTED ON THE DRAWINGS.
3. ALL DIMENSIONS AT ROADWAY ARE TO FACE OF CURB.
4. ALL ANGLES ARE 45 DEGREE, 90 DEGREE, OR 135 DEGREE UNLESS OTHERWISE NOTED.
5. ALL CURVES AND ALL TRANSITIONS BETWEEN CURVES AND STRAIGHT EDGES SHALL BE SMOOTH.
6. ALL RETURN RADII AND CURB DATA ARE TO FACE OF CURB.
7. SCORE LINES IN SIDEWALKS SHALL BE SPACED TO EQUAL THE WIDTH OF THE WALKWAY, UNLESS OTHERWISE SHOWN. EXPANSION JOINTS IN SIDEWALKS SHALL BE 20' ON CENTER MAXIMUM.
8. SIDEWALK, CURB AND GUTTER, GRADING AND DRAINAGE IS BASED ON DRAWINGS PREPARED BY THE CIVIL ENGINEER.
9. STATIONING HEREON IS ALONG CONSTRUCTION CENTERLINE UNLESS OTHERWISE SHOWN OR INDICATED.
10. ANY EXTRA CONSTRUCTION STAKING NECESSITATED SOLELY BY THE CONTRACTOR'S NEGLIGENCE WILL BE CHARGED TO THE CONTRACTOR ON A TIME AND EXPENSES BASIS AND PAID FOR BY THE CONTRACTOR.
11. SEE IRRIGATION DRAWINGS FOR GENERAL SYSTEM REQUIREMENTS AND FOR LOCATION OF IRRIGATION MAINLINE PIPING. SLEEVES TO ACCOMMODATE IRRIGATION PIPING, SIZED AS NEEDED, SHALL BE IN PLACE UNDER AND THROUGH SLABS AND WALLS, PRIOR TO POURING.
12. PROVIDE CONTINUOUS HEADERS AT THE EDGES OF ALL AC PAVING, SHRUB AREAS, LAWN AREAS, DECOMPOSED GRANITE WHERE IT IS NOT CONSTRAINED BY A CONCRETE PAVING OR MOW BAND.
13. ALL CONCRETE PAVEMENTS SHALL BE DOWELED INTO CURBS, SIDEWALKS, AND BUILDING FOUNDATIONS.
14. REFER TO GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION, SECTIONS, REINFORCEMENT, AND PREPARATION. IN CASE OF DISCREPANCY THE GEOTECHNICAL REPORT SHALL GOVERN.
15. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE.
16. ANY AND ALL WORK WITHIN PITTSBURG RIGHT OF WAY SHALL CONFORM TO ALL PITTSBURG STANDARD DETAILS AND SPECIFICATIONS.
17. CONCRETE FOOTINGS INSTALLED FOR ALL SITE FURNISHINGS, SPORTS EQUIPMENT, ETC. IN DECORATIVE PAVEMENT, ASPHALT PAVING, DECOMPOSED GRANITE, CONCRETE PAVING, AND PLANTERS SHALL BE HELD BELOW GRADE.
18. ALL EXISTING ITEMS TO REMAIN SHALL BE PROTECTED AS REQUIRED. ANY DAMAGED ITEMS SHALL BE FULLY REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE TO THE FULL SATISFACTION OF THE OWNER.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY COORDINATION WITH SUBCONTRACTORS AS REQUIRED TO ACCOMPLISH OPERATIONS.
20. ALL QUANTITIES AND PAY ITEMS ARE AND WILL BE BASED ON HORIZONTAL MEASUREMENTS.
21. ALL PATTERNS, LINE TYPES, AND SYMBOLS SHOWN WITHIN THE PLAN SET REFERENCE THE LAYOUT LEGEND AND ARE PART OF THE SCOPE OF WORK. CALLOUTS ARE SHOWN FOR CLARIFICATION OF WORK, BUT DO NOT INDICATE EVERY AND ALL INSTANCES OF SUCH WORK. THE CONTRACTOR SHALL REQUEST CLARIFICATION TO ANY ITEMS (INCLUDING BUT NOT LIMITED TO PAVING, WALLS, FINISHES, COLORS, FENCING, FOUNTAINS, POTS, AND SITE FURNITURE) NOT CLEARLY IDENTIFIED TO BE PART OF THE SCOPE OF WORK PRIOR TO BID.
22. THE CONTRACT DRAWINGS MUST BE ACCOMPANIED BY CONTRACT SPECIFICATIONS. THE CONTRACTOR MUST CONTACT THE LANDSCAPE ARCHITECT AT 925-736-8176 FOR SPECIFICATIONS IF NOT RECEIVED.
23. THE CONTRACTOR IS RESPONSIBLE FOR ALL WORK AND MATERIALS OF THE CONTRACT DOCUMENTS INCLUDING ALL WORK AND MATERIALS PROVIDED BY SUBCONTRACTORS. ALL QUALIFICATIONS OF THE CONTRACT DOCUMENTS INCLUDING ALL SPECIFIC EXCLUSIONS OF ANY WORK, DETAILS, MATERIALS, AND INCIDENTALS SHALL BE CONFIRMED AND ACCEPTED IN WRITING BY THE CONTRACTOR AND OWNER UPON FINALIZATION OF BIDS AND CONTRACT. THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED OF ALL QUALIFICATIONS AND NOTIFICATIONS.

SUBMITTAL AND MOCK UP NOTES

PAVING

1. CONTRACTOR SHALL SUBMIT DECOMPOSED GRANITE MOCK UP PER SPECS FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.

LAYOUT LEGEND

PAVING SCHEDULE

SYMBOL	NAME	DETAIL	DESCRIPTION/ MANUFACTURER	MODEL AND SIZE	COLOR AND FINISH
	PEDESTRIAN CONCRETE PAVING	1/L5.03	CIP CONCRETE	–	STANDARD GRAY, MEDIUM BROOM
	DECOMPOSED GRANITE PAVING	3/L5.03	TECHNISOIL	G3 COMMERCIAL SURFACE	CALIFORNIA GOLD
	REDWOOD HEADER	3/L5.02	–	SEE DETAIL	–

SITE FURNISHING SCHEDULE

SYMBOL	NAME	DETAIL	DESCRIPTION/ MANUFACTURER	MODEL	COLOR AND FINISH
	BIKE RACK	1,2/L5.04	CITY STANDARD	MADRAX, UX-200-LB-IG-G CUSTOM LEAN BAR W/ CITY LOGO	FOREST GREEN
	BIKE REPAIR STATION	3/L5.04	MDF	195 SM W/ PLATE TEMPLATE, STANDARD PEDESTAL	FINISH: POWDER COAT COLOR: GREEN
C	BOULDER PLACEMENT	2/L5.02	PARSONS WALLS OR APPROVED EQUAL	–	PER DETAIL
DW	DOG WASTE DISPENSER	4/L5.04	PET PICKUPS	MODERN DOG KIT	GREEN

LAYOUT LEGEND – ADD ALT

PAVING SCHEDULE

SYMBOL	NAME	DETAIL	DESCRIPTION/ MANUFACTURER	MODEL	COLOR AND FINISH
	SYNTHETIC RUBBER SURFACING	4/L5.03	SURFACE AMERICA	EXTREME-10	BEIGE
	CONCRETE MOWBAND	2/L5.03	CIP CONCRETE	–	STANDARD GRAY, MEDIUM BROOM

SYMBOLS LEGEND

SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
PA	PLANTING AREA	LOW	LIMIT OF WORK		PROPOSED STREET LIGHT, S.E.D.		PROPOSED POST TOP LIGHT, S.E.D.
	STORMWATER TREATMENT AREA		POINT OF BEGINNING				EXISTING POST TOP LIGHT TO REMAIN, S.E.D.
	SCORE LINE	℄	CENTER LINE				EXISTING STREET LIGHT TO REMAIN, S.E.D.
EJ	EXPANSION JOINT		FLUSH/ ALIGN				RIP RAP, S.C.D.
							SIGN, S.C.D.

ABBREVIATIONS

AB	AGGREGATE BASE	CP	CONTROL POINT	ES	EQUAL SPACING	INV	INVERT ELEVATION	N	NORTH	PR	PROPOSED
AC	ASPHALT CONCRETE	CTRL	CONTROL	EW	EACH WAY	IC	IRRIGATION CONTROL	NE	NORTH EAST	PVC	POLYVINYL CHLORIDE PIPE
AD	AREA DRAIN	CY	CUBIC YARD	EX., EXIST.	EXISTING	IRR	IRRIGATION	NW	NORTH WEST	(R)	RELOCATED
ADA	AMERICANS WITH DISABILITIES ACT	C.3	PROVISION OF THE MUNICIPAL REGIONAL STORMWATER NPDES PERMIT (MRP) THAT REQUIRES EACH DISCHARGER TO CONTROL THE FLOW OF STROMWATER POLLUTANTS FROM NEW DEVELOPMENT AND REDEVELOPMENT SITES OVER WHICH IT HAS JURISDICTION	(F), FUT.	FUTURE	JB	JUNCTION BOX	(N)	NEW	R	RADIUS
ADD ALT	ADD ALTERNATE			FC	FACE OF CURB	JT	JOINT TRENCH	N.I.C.	NOT IN CONTRACT	RC	RELATIVE COMPACTION
AFF	ABOVE FINISHED GRADE			FF	FINISHED FLOOR	L	LENGTH	NO	NUMBER	RR	RAILROAD
AGG	AGGREGATE SUBBASE			FG	FINISHED GRADE	L.O.W.	LIMIT OF WORK	NTS	NOT TO SCALE	R/W	RIGHT OF WAY
BFP	BACK FLOW PREVENTOR			FL	FLOW LINE	LIP	LIP OF GUTTER	OC	ON CENTER	S	SLOPE OR SOUTH
BLDG	BUILDING			FOB	FACE OF BUILDING	LP	LOW POINT	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED	S.A.A.	SEE ARCHITECTURAL DRAWINGS
BLVD	BOULEVARD			FS	FINISHED SURFACE	LSA	LANDSCAPE ARCHITECT			SB	SAND BLAST
BOS	BOTTOM OF STEP			FT	FOOT	LSB	LIGHT SAND BLAST	OFOI	OWNER FURNISHED OWNER INSTALLED	S.C.D	SEE CIVIL DRAWINGS
BOW	FG @ BOTTOM OF WALL	DOM	DOMESTIC	(A)	GROUND ELEVATION	MAX	MAXIMUM			SD	STORM DRAIN
B/W	BETWEEN	D/W	DRIVEWAY	GV	GATE VALVE	MDL	MODEL	OG	ORIGINAL GRADE	SE	SOUTH EAST
BW	BACK OF WALK	DWG	DRAWING	HC	HANDICAP FACILITY	MED	MEDIUM	PA	PLANTING AREA	S.E.D.	SEE ELECTRICAL DRAWINGS
BW	BOTH WAYS	E	EAST OR ELECTRICAL	HCR	ACCESSIBLE RAMP	MEP	MECHANICAL/ELECTRICAL/PLUMBING	PCC	PORTLAND CEMENT CONCRETE / POINT OF CONTINUOUS CURVATURE	SF	SILT FENCE
C	CONCRETE	(E)	EXISTING	HDPE	HIGH DENSITY POLYEHTYLENE	MFR	MANUFACTURER			SG	SUBGRADE
CIP	CAST IN PLACE	EA	EACH	HP	HIGH POINT	MH	MANHOLE	PERF	PERFORATED	SIM	SIMILAR
CL	CENTER LINE OR CLASS	EJ	EXPANSION JOINT	HSB	HEAVY SAND BLAST	MIN	MINIMUM	PIV	POST INDICATOR VALVE	S.L.D.	SEE LANDSCAPE DRAWINGS
CMU	CONCRETE MASONRY UNIT	ELEV	ELEVATION	HT	HEIGHT	MSB	MEDIUM SAND BLAST	PL	PROPERTY LINE	S.M.D.	SEE MECHANICAL DRAWINGS
CONC	CONCRETE	EQ	EQUAL								

SMH	SIGNAL MANHOLE	THRU	THROUGH
SP	SPACING	TOD	TOP OF DOCK
S.P.D.	SEE PLUMBING DRAWINGS	TOE	TOE OF SLOPE
SS	SANITARY SEWER	TOS	TOP OF STAIR
SSCO	SANITARY SEWER CLEANOUT	TOW	FG @ TOP OF WALL
SSMH	SANITARY SEWER MANHOLE	TS	TOP OF SLAB
SST	STAINLESS STEEL	TYP	TYPICAL
S.S.D.	SEE STRUCTURAL DRAWINGS	UON	UNLESS OTHERWISE NOTED
ST.	STREET	U/G	UNDERGROUND
STA	STATION	W	WATER OR WEST
STD	STANDARD	WM	WATER METER
SQ	SQUARE	WP	WATERPROOF
SW	SOUTH WEST OR SIDEWALK	WPM	WATERPROOF MEMBRANE
S/W	SIDEWALK	WTR	WATER
T	TREAD	WV	WATER VALVE
TBD	TO BE DETERMINED	WWF	WELDED WIRE FABRIC
TC	TOP OF CURB	W/	WITH
TD	TRENCH DRAIN	W/OUT	WITHOUT
TEL, T	TELEPHONE		

SHEET LIST TABLE

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1655 N. MAIN ST. STE 361, WALNUT CREEK, CA 94596
T. 925.736.8176 www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

NOTES AND LEGEND

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO. 30 OF 59

DWG. NO. L1.01

PLANTING NOTES

GENERAL

1. ALL WORK SHALL BE PERFORMED BY PERSONS FAMILIAR WITH PLANTING WORK AND UNDER THE SUPERVISION OF A QUALIFIED PLANTING FOREMAN.
2. ALL QUANTITIES AND PLANT COUNTS ARE FOR THE CONVENIENCE OF THE CONTRACTOR. IN CASE OF DISCREPANCIES, THE PLAN SHALL GOVERN.
3. THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS, AND DELETIONS IN THE PLANTING SCHEME AS THEY FEEL NECESSARY WHILE WORK IS IN PROGRESS, UPON APPROVAL BY THE OWNER. SUCH CHANGES ARE TO BE ACCOMPANIED BY EQUITABLE ADJUSTMENTS IN THE CONTRACT PRICE, WHEN NECESSARY.
4. PLANT MATERIAL LOCATIONS SHOWN ARE DIAGRAMMATIC AND MAY BE SUBJECT TO CHANGE IN THE FIELD BY THE LANDSCAPE ARCHITECT. PLANT LOCATIONS ARE TO BE ADJUSTED IN THE FIELD AS NECESSARY TO SCREEN UTILITIES, BUT SHALL NOT BLOCK WINDOWS, BLOCK SIGNS NOR IMPEDE ACCESS.
5. THE DESIGN INTENT OF THE PLANTING PLAN IS TO ESTABLISH AN ATTRACTIVE MATURE LANDSCAPE APPEARANCE. FUTURE PLANT GROWTH WILL NECESSITATE TRIMMING, SHAPING, AND IN SOME CASE REMOVAL OF TREES AND SHRUBS AS AN ON-GOING MAINTENANCE PROCEDURE.
6. ALL PLANTING AREA MUST BE IRRIGATED WITH AUTOMATIC IRRIGATION SYSTEM. IRRIGATION SYSTEM SHALL BE FULLY AUTOMATED AND OPERATIONAL WITH FULL COVERAGE PRIOR TO PLANTING.
7. CONTRACTOR TO REVIEW ALL EXISTING, PROPOSED, & AS BUILT UTILITY PLANS PRIOR TO CONSTRUCTION. CONTRACTOR TO TAKE PRECAUTIONS IN EXCAVATION OF ALL TREE PLANTING PITS. CONTRACTOR TO NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS FOUND DURING CONSTRUCTION.
8. CONTRACTOR MUST REVIEW ALL PLANS PRIOR TO THE BEGINNING OF CONSTRUCTION AND MAINTAIN THE FOLLOWING CLEARANCES FOR ALL TREE PLANTINGS. CONTRACTOR TO TAKE PRECAUTION IN ALL EXCAVATION ACTIVITY. NOTIFY LANDSCAPE ARCHITECT OF ANY CONFLICTS PRIOR TO INSTALLATION.
   - FIRE HYDRANTS AND PIVS: 5' MINIMUM
   - LIGHT POLES: 10' MINIMUM
   - UTILITIES: 5' MINIMUM
   - BUILDING ROOF EDGE: 5' MINIMUM
9. CONTRACTOR TO PROVIDE AND ARRANGE FOR PLANT MATERIAL THRU CONTRACT GROW, PLANT BROKERS, OR DIRECT PURCHASE AS REQUIRED FOR THE FULL IMPLEMENTATION OF THE PROJECTS PLANTING PLAN. CONTRACTOR MUST SUBMIT WITHIN 30 DAYS AFTER AWARD OF A BID A DETAILED NURSERY LIST OF SECURED PLANT MATERIAL, CONTRACT GROW PLANT MATERIAL, AND ANY SUBSTITUTION REQUESTS. CONTRACTOR SHALL ARRANGE AND SECURE ALL PLANT MATERIAL WITHIN 30 DAYS OF BID. UPON DELIVERY, PLANT MATERIAL THAT DOES NOT MEET NURSERY STANDARDS, IS ROOT BOUND, OF POOR QUALITY & HEALTH, SUBSTANDARD SIZE, AND/OR IS NOT APPROVED BY THE LANDSCAPE ARCHITECT SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. MATERIAL WHICH IS NOT SECURED AND IS UNAVAILABLE IN THE SIZE SPECIFIED SHALL BE UP-SIZED, IF AVAILABLE. ALL REPLACEMENT MATERIAL, SUBSTITUTIONS OR UP-SIZED PLANT MATERIAL MUST BE PROVIDED AS REQUIRED FOR THE FULL IMPLEMENTATION OF THE PLANTING PLAN AT NO ADDITIONAL COST TO THE CONTRACT AND OWNER.
10. PROCUREMENT OF PLANT MATERIAL SHALL NOT BE LIMITED TO NORTHERN CALIFORNIA. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRUCKING, INSPECTIONS, AND INCIDENTALS FOR PROVIDING PLANT MATERIAL FROM SOURCES OUT OF STATE AS REQUIRED BY THE PROJECT PLANTING PLAN.

EXISTING PLANT MATERIAL

1. ALL EXISTING PLANT MATERIAL, TREES, OR LAWN TO REMAIN MUST BE PROTECTED AND MAINTAINED IN PLACE BY THE CONTRACTOR.
2. ANY DAMAGED MATERIAL MUST BE FULLY REPLACED TO MATCH EXISTING BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CONTRACT AND OWNER.
3. CONTRACTOR MUST MAINTAIN ANY EXISTING IRRIGATION SYSTEMS OR PROVIDE TEMPORARY IRRIGATION SYSTEMS AS REQUIRED TO ALL EXISTING PLANTING AREAS TO REMAIN.

SOILS

1. THE CONTRACTOR MAY PROTECT AND STOCKPILE EXISTING SITE SOILS WHICH MAY BE REUSED FOR PLANTING PURPOSES. EXISTING SOILS SHALL BE TESTED PRIOR TO STOCKPILE FOR SOILS SUITABILITY PER THE REQUIREMENTS BELOW.
3. ALL ORGANIC COMPOST SHALL HAVE AN AGRICULTURAL SUITABILITIES TEST FOR COMPATIBILITY TO EXISTING SITE SOILS. TEST RESULTS SHALL BE DATED WITHIN THE LAST 3 MONTHS OF THE SUBMITTAL.
4. ALL EXISTING SITE SOILS SHALL HAVE AN AGRICULTURAL SUITABILITIES TEST BY AN APPROVED SOILS TESTING LAB (WAYPOINT ANALYTICAL OR APPROVED EQUAL) AND ANALYSIS FOR RECOMMENDATIONS ON ORGANIC COMPOST, AMENDMENTS, GRO POWER FERTILIZER AND ANY INCIDENTALS. RECOMMENDATIONS CONTAINED IN THE SOILS ANALYSIS RESULTS ARE TO BE IMPLEMENTED BEFORE PLANTING OCCURS. CONTRACTOR SHALL PROVIDE UP TO 4 COMBINED TESTS AT LOCATIONS SELECTED BY THE LANDSCAPE ARCHITECT. SOIL SAMPLES TO BE TAKEN AND COMBINED FROM A DEPTH OF 6" AND 24". PROVIDE ADDITIONAL TESTING (ONE 6" AND ONE 24" DEPTH TEST PER 25,000 SF FOR AREAS WHICH WERE LIME TREATED). THE ORGANIC COMPOST TEST RESULTS LISTED ABOVE SHALL BE SUBMITTED TO THE SOILS LAB FOR ACCURATE RECOMMENDATIONS OF THE SOIL AMENDMENT REQUIREMENTS. TEST RESULTS SHALL BE TAKEN AFTER ALL GRADING OPERATIONS ARE COMPLETE.
5. ALL LIME TREATED SOILS IN AREAS TO RECEIVE PLANTING SHALL BE FULLY REMOVED AND REPLACED WITH CLEAN APPROVED IMPORT TOP SOIL AT NO COST TO THE OWNER. AN ADDITIONAL 8 SOILS TESTS MAY BE REQUESTED BY THE LANDSCAPE ARCHITECT. ALL TESTING SHALL BE PAID FOR BY THE CONTRACTOR.
6. ALL SOILS IMPORTED ONTO THE SITE FOR ANY PURPOSE SUCH AS GRADING, NON EXPANSIVE FILL, FILL, OR FOR ANY GENERAL PURPOSE MUST BE TESTED FOR PLANT SUITABILITY PRIOR TO PLACEMENT. ALL IMPORT SOILS SHALL BE NON-DETRIMENTAL TO PLANT MATERIAL AND SOILS ANALYSIS SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW AND APPROVAL. PROVIDE 1 TEST PER 500 CY OF MATERIAL.
7. ALL IMPORT SOILS SHALL BE FREE OF DELETERIOUS MATERIALS, AGGREGATES, AND ROCK. IMPORT SOIL SHALL BE LOAM/ CLAY LOAM WITH A PH BETWEEN 6 AND 7.5. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS
8. FOR BID PURPOSES AMEND ALL SOIL WITH 6 YARDS OMRI COMPOST, 50LBS GYPSUM, 20LBS SOIL SULFUR AND 160LBS OF GRO-POWER PLUS 5-3-1 W/ M PER 1000SF. CONTRACTOR TO SUBMIT ALL DELIVERY TICKETS FOR COMPOST AND FERTILIZERS FOR VERIFICATION.
9. SOIL IS TO BE AMENDED, AT THE RATE INDICATED BY THE SOIL ANALYSIS, TO BRING THE SOIL ORGANIC MATTER CONTENT TO A MINIMUM OF 3.5% BY DRY WEIGHT, AND A MINIMUM OF 2" OF QUALITY RECYCLED COMPOST, ON ALL PLANTING AREAS.
10. ALL PLANTERS IN AREAS WHICH HAVE BEEN COMPACTED, SUCH AS CONSTRUCTION STAGING AREAS AND IN PARKING LOTS, SHALL BE CROSS RIPPED TO THE FOLLOWING DEPTHS: PLANTERS LESS THAN THREE (3) FEET WIDE SHALL HAVE COMPACTION RELIEVED TO A MINIMUM DEPTH OF TWENTY-FOUR (24) INCHES BELOW SUBGRADE. PLANTERS THREE TO TEN (3-10) FEET WIDE MUST HAVE COMPACTION RELIEVED TO A MINIMUM DEPTH OF 18" BELOW SUBGRADE, PLANTERS MORE THAN 10' WIDE SHALL HAVE COMPACTION RELIEVED TO A MINIMUM DEPTH OF 12" BELOW SUBGRADE. AREAS SHALL BE PROTECTED AFTER DECOMPACTION.
11. CONTRACTOR SHALL PERFORM A PERCOLATION TEST AT THE BEGINNING OF CONSTRUCTION AT 1 LOCATION PER ACRE (MAX OF 4) TO DETERMINE THE DRAINAGE CAPACITY OF THE EXISTING SITE SOIL FOR TREE HEALTH. NOTIFY THE LANDSCAPE ARCHITECT IF DRAINAGE IS LESS THAN 2" PER HOUR.

TREES

1. ALL TREES SHALL BE STANDARDS UNLESS SPECIFICALLY NOTED.
2. ALL TREES ARE TO BE STAKED AS SHOWN ON THE TREE STAKING/GUYING DIAGRAMS. BRANCHING HEIGHT OF TREES SHALL BE A 6'-0" MINIMUM ABOVE FINISH GRADE. ALL TREES IN A FORMAL GROUP PLANTING MUST BE MATCHING IN SIZE AND SHAPE. ALL STREET TREES TO BE INSTALLED IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE OWNER. LANDSCAPE ARCHITECT SHALL BE CONSULTED REGARDING ORIENTATION OF TREES PRIOR TO PLANTING AND/OR BACKFILLING.
3. PLANT TREES 3'-0" MINIMUM FROM FACE OF CURB AT PARKING, AND FROM EDGES OF PAVING. ALL TREES WITHIN 5' OF PAVING AREAS AND BUILDINGS MUST HAVE ROOT BARRIERS INSTALLED. SEE ROOT BARRIER DETAIL. 24" AND 36" ROOT BARRIER SHALL BE HIGH DENSITY AND HIGH IMPACT PLASTIC AS AVAILABLE FROM "DEEP ROOT", VESPRO, INC. OR EQUIVALENT AS APPROVED BY LANDSCAPE DIVISION OF PUBLIC WORKS DEPARTMENT. INSTALL PER MANUFACTURER'S SPECIFICATIONS. WHERE WATER BARRIERS AND ROOT BARRIERS ARE REQUIRED, USE CENTURY PRODUCTS DUAL PURPOSE WATER/ ROOT BARRIER CR-PE24-20, (714)632-7083, S.C.D. FOR LOCATIONS OF WATER BARRIER.
4. PROVIDE 4" BERM AROUND TREE FOR WATER BASIN. SEE TREE STAKING DETAIL. BERM TO BE REMOVED IN LAWN AREA AFTER INITIAL MAINTENANCE PERIOD. MULCH TREE WELL WITH 3" LAYER OF RECYCLED CHIPPED MULCH. KEEP MULCH AWAY FROM TREE TRUNK. HOLD LAWN AND HYDROSEED 2' CLEAR FROM TRUNKS, TYP.
5. TREES MUST HAVE AN UNCUT LEADER THAT HAS A UNIFORM TAPER FROM BASE TO TIP. TREES MUST MEET AT LEAST NORMAL CALIPER AND HEIGHT FOR CONTAINER SIZE. OVERGROWN OR ROOT BOUND TREES ARE NOT ACCEPTABLE.
6. FOR ALL TREES IN STORMWATER INFILTRATION ZONES HOLD FG OF ROOTBALL 4" ABOVE FG OF FLOWLINE. ADJUST ADJACENT GRADE OF SOIL TO BLEND UNIFORMLY AROUND ROOTBALL AND ALLOW UNIMPEDED FLOW OF WATER.

SHRUBS, GROUNDCOVERS

1. GROUNDCOVER MUST BE PLANTED AS SHOWN ON THE PLAN, INCLUDING UNDER SHRUBS AND IN TREE WATERING BASINS.
2. SHRUBS AND PERENNIALS MUST HAVE ADEQUATE SETBACK FROM THE ADJACENT SIDEWALK AND EDGES OF PARKING LOT CURBS. NOTIFY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION IF PLANT MATERIAL MAY PROTRUDE INTO THE PATH OF TRAVEL.

ACCESSORIES

1. ALL ASPHALT AND DECOMPOSED GRANITE AREAS TO BE COMPLETELY SURROUNDED BY HEADERS OR ADJACENT CONCRETE WORK.
2. ALL PLANTING AREAS MUST BE TOP-DRESSED WITH 3" LAYER OF RECYCLED CHIPPED MULCH. COLOR: BROWN. SUBMIT SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO ORDERING.
3. ALL MULCH WITHIN STORMWATER PLANTING AREAS MUST BE 3" OF WASHED PEA GRAVEL. SUBMIT SAMPLE FOR REVIEW AND APPROVAL.
4. ALL STORMWATER CURB CUTS MUST BE REINFORCED WITH A MINIMUM 12" WIDE X18" LONG X 6" DEEP BAND OF COBBLE. COBBLE SHALL BE 40% 4"-6" AND 60% 2"-3" NOIYO COBBLE. PROVIDE 24" WIDE BY 6" DEPTH OF COBBLE AROUND ALL CATCH BASINS LOCATED IN DRAINAGE AREAS. SUBMIT SAMPLE FOR REVIEW AND APPROVAL
5. ALL SLOPES GREATER THAN 2.5:1 MUST BE COVERED WITH EROSION CONTROL NETTING PER THE MANUFACTURER'S SPECIFICATIONS. OVERLAP ALL EDGES A MINIMUM OF 12" AND SECURE AS REQUIRED WITH METAL STAPLES. EROSION CONTROL NETTING TO BE WESTERN EXCELSIOR, EXCEL CS-3 OR APPROVED EQUAL.AVAILABLE FROM REED & GRAHAM 888-381-0800.
6. SEE SPECIFICATIONS FOR ALL FERTILIZER REQUIREMENTS

SUBMITTALS

1. CONTRACTOR MUST SUBMIT ALL TESTS, PRODUCTS, ACCESSORIES, INCIDENTALS, CUT SHEETS OF ALL ITEMS SPECIFIED FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. ALL PLANT MATERIAL MUST BE REVIEWED AND APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO DELIVERY. CONTRACTOR SHALL SUBMIT PHOTOS OF ALL SHRUBS, GROUND COVERS, AND TREES FOR PRELIMINARY REVIEW AND APPROVAL.
3. ALL SUBMITTALS AND PLANT MATERIAL NOT REVIEWED AND APPROVED IN WRITING BY THE LANDSCAPE ARCHITECT MAY BE SUBJECT TO FULL REMOVAL AND REPLACEMENT WITH APPROVED SOILS, FERTILIZERS, AND PLANT MATERIAL AT NO ADDITIONAL COST TO THE CONTRACT OR OWNER.
4. SUBMITTALS AND SITE MOCKUPS OF ALL WORK SHALL BE REQUIRED PRIOR TO FINAL PLACEMENT INCLUDING BUT NOT LIMITED TO ALL WALLS, PAVEMENTS, COLORS, FINISHES, METAL WORK, FENCING, AND PAINTING FOR REVIEW AND APPROVAL BY THE LANDSCAPE ARCHITECT. SEE SPECIFICATIONS.

PLANTING SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
ACB	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	L	AS SHOWN	10
CER	CERCIS OCCIDENTALIS	WESTERN REDBUD	24"BOX	VL	AS SHOWN	23
OES	OLEA EUROPAEA 'SWAN HILL'	SWAN HILL FRUITLESS OLIVE	24"BOX	VL	AS SHOWN	4
PIC	PISTACIA CHINENSIS	CHINESE PISTACHE	24"BOX	L	AS SHOWN	5
QUL	QUERCUS LOBATA	VALLEY OAK	24"BOX	VL	AS SHOWN	7
ULM	ULMUS CARPINIFOLIA X PARVIFOLIA 'FRONTIER'	FRONTIER ELM	24"BOX	L	AS SHOWN	16
SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
AE	ARCTOSTAPHYLOS X 'EMERALD CARPET'	EMERALD CARPET MANZANITA	1 GAL	L	72" o.c.	21
BP	BACCHARIS PILULARIS 'TWIN PEAKS'	DWARF COYOTE BRUSH	1 GAL	L	72" o.c.	93
CS	CALANDRINIA SPECTABILIS 'SHINING PINK'	SHINING PINK CALANDRINIA	1 GAL	L	36" o.c.	34
CT	CHONDROPETALUM TECTORUM 'EL CAMPO'	SMALL CAPE RUSH	5 GAL	L	54" o.c.	299
CC	CORREA X 'CARMINE BELLS'	CARMINE BELLS AUSTRALIAN FUCHSIA	1 GAL	L	72" o.c.	46
FM	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	L	36" o.c.	61
GL	GREVILLEA LANIGERA 'COASTAL GEM'	COASTAL GEM GREVILLEA	1 GAL	L	48" o.c.	27
HA	HELENIUM AUTUMNALE	SNEEZEWEED	1 GAL	M	36" o.c.	27
HP	HESPERALOE PARVIFLORA 'PERPA'	BRAKELIGHTS® RED YUCCA	5 GAL	L	36" o.c.	10
LR	LANTANA CAMARA 'LANZ0001'	BANDANA® ROSE IMPROVED LANTANA	1 GAL	L	48" o.c.	149
LS	LEUCADENDRON SALIGNUM 'WINTER RED'	WINTER RED CONEBUSH	5 GAL	L	48" o.c.	25
MA	MIMULUS AURANTIACUS	BUSH MONKEYFLOWER	1 GAL	L	48" o.c.	69
MD	MUHLENBERGIA DUBIA	PINE MUHLY	1 GAL	L	48" o.c.	59
NW	NEPETA X 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL	L	36" o.c.	31
RC	RHAMNUS CALIFORNICA 'MOUND SAN BRUNO'	MOUND SAN BRUNO COFFEEBERRY	1 GAL	L	48" o.c.	39
SL	SALVIA LEUCANTHA 'SANTA BARBARA'	MEXICAN BUSH SAGE	5 GAL	L	48" o.c.	66
SH	SALVIA MICROPHYLLA 'HOT LIPS'	HOT LIPS GRAHAM SAGE	5 GAL	L	60" o.c.	15
TC	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL	L	36" o.c.	65
WM	WESTRINGIA FRUTICOSA 'MORNING LIGHT'	MORNING LIGHT COAST ROSEMARY	1 GAL	L	60" o.c.	11

WATER USE RATING LEGEND:
WUCOLS IV CATEGORIES OF WATER NEEDS FROM: UNIVERSITY OF CALIF COOPERATIVE EXTENSION, CALIF DEPARTMENT OF WATER RESOURCES, U.S. BUREAU OF RECLAMATION
- H = HIGH
- M = MODERATE
- L = LOW
- VL = VERY LOW

"I HAVE COMPLIED WITH THE CRITERIA OF THE ORDINANCE AND APPLIED THEM FOR THE EFFICIENT USE OF WATER IN THE LANDSCAPE DESIGN PLAN."

SIGNATURE — AUGUST 30, 2023 DATE

PLANTING LEGEND

XXX / ## — TREE NAME / QUANTITY — SEE PLANT LIST FOR ADDT'L. INFO. — 3 / L5.01

XX / ## — SHRUB NAME / QUANTITY — SEE PLANT LIST FOR ADDT'L INFO. — 1-2 / L5.01

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1657 H. MARKET STREET, WALNUT CREEK, CA 94596
T 925.726.8776 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT — STATE OF CALIFORNIA — 8/25/2024 — 6/25/25 — L.A.

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

PLANTING NOTES AND LEGEND

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO. 31 OF 59

DWG. NO. L1.02

40' PG&E EASEMENT

RIP RAP, TYP., S.C.D.

POST TOP LIGHT, TYP., S.E.D.

REDWOOD HEADER, TYP. (3 / L5.02)

DECOMPOSED GRANITE PAVING, TYP. (3 / L5.03)

AC TRAIL, TYP., S.C.D.

BOULDER PLACEMENT, TYP. (2 / L5.02)

L.O.W.

PA

8', 2 ES

4'

12', 2 ES

2'

8'

2'

EJ

PEDESTRIAN CONCRETE PAVING, TYP. (1 / L5.03)

SIGN, TYP., S.C.D.

CURB CUT RAMP, TYP., S.C.D.

ON-STREET PARKING, TYP., S.C.D.

STORMWATER TREATMENT AREA, TYP., S.C.D.

BOULDER PLACEMENT, TYP. (2 / L5.02)

STREET LIGHT, TYP., S.E.D.

FRONTAGE ROAD

DOVER WAY

ROSSMOOR CT

MATCHLINE - SEE SHEET L2.02

SCALE: 1"=10'-0"

KEY MAP

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1601 N. MARKET BLVD. WALNUT CREEK, CA 94596
T 925.775.8176 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT CHRISTOPHER A. GATES 8/22/2024 No. 2978 L.A. STATE OF CALIFORNIA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/24/25

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

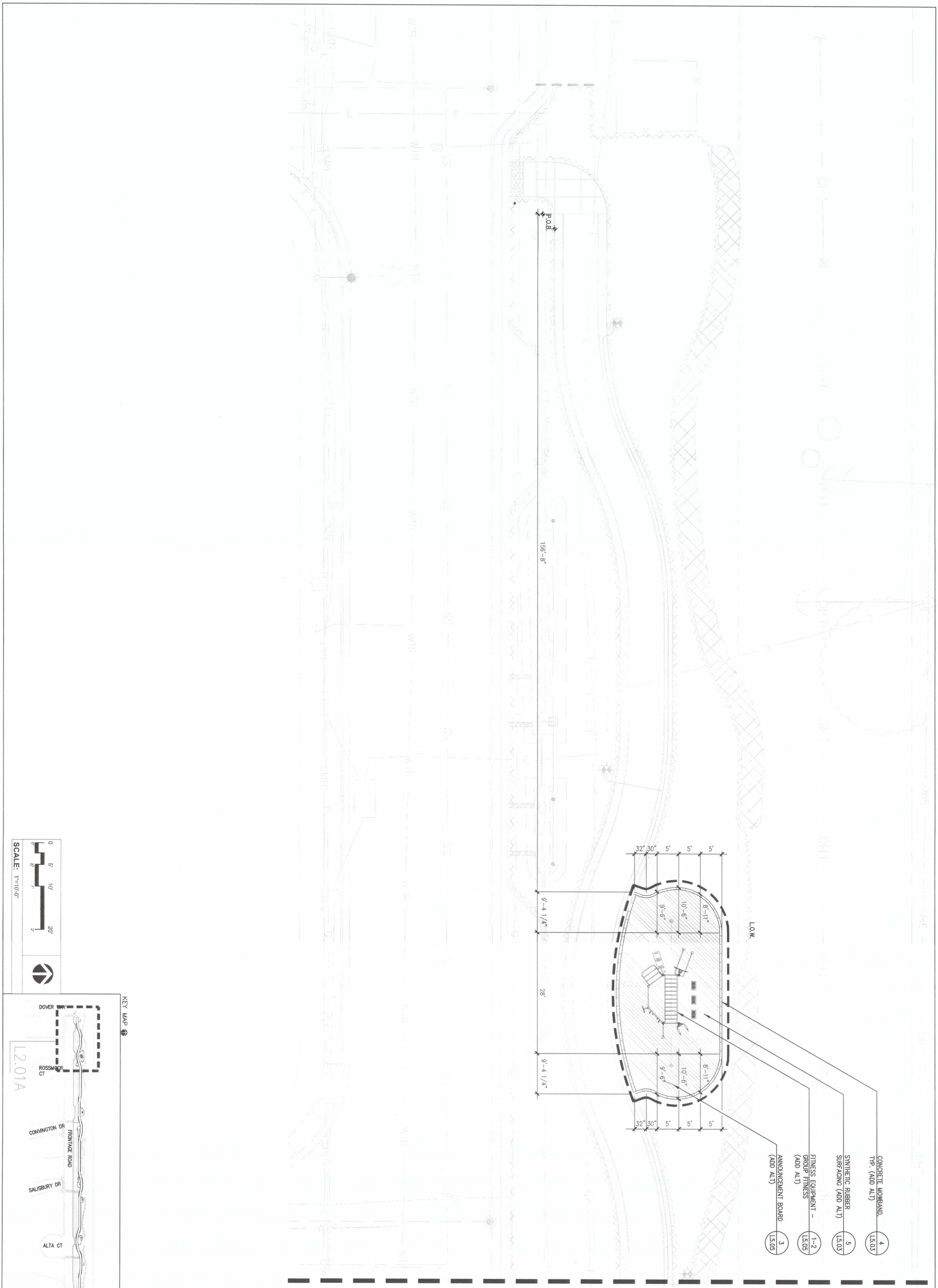
LAYOUT PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
32 OF 59

DWG. NO.
L2.01



SCALE: 1"=10'-0"

0 5' 10' 20'

KEY MAP

DATE	REV	DESCRIPTION	BY

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

DWG. NO. L2.01A

SHEET NO. 33 OF 59

FRONTAGE ROAD LIVING TRAIL

LAYOUT PLAN - ADD ALT

City of Pittsburg

ACCEPTED FOR USE:

JOHN SAMUELSON
City Engineer

Date: 9/26/23

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1655 N. MAIN ST. STE 365, WALNUT CREEK, CA 94596
T 925.736.8176 www.dgates.com

REGISTERED LANDSCAPE ARCHITECT
CHRIS ONEI
No. 6204
6/30/2024
6/7/23
LA
STATE OF CALIFORNIA

40' PG&E EASEMENT

REDWOOD HEADER, TYP. (3 / L5.02)

DECOMPOSED GRANITE PAVING, TYP. (3 / L5.03)

AC TRAIL, TYP., S.C.D.

RIP RAP, TYP., S.C.D.

POST TOP LIGHT, TYP., S.E.D.

L.O.W.

L.O.W.

PA

PA

PA

2'

8'

2'

8', 2 ES

4'

4'

4'

4'

EJ

EJ

MATCHLINE – SEE SHEET L2.01

MATCHLINE – SEE SHEET L2.03

STORMWATER TREATMENT AREA, TYP., S.C.D.

ON-STREET PARKING, , TYP., S.C.D.

(1 / L5.03) PEDESTRIAN CONCRETE PAVING, TYP.

CURB CUT RAMP, TYP., S.C.D.

SIGN, TYP., S.C.D.

FRONTAGE ROAD

EXISTING STREET LIGHT TO REMAIN, TYP. S.E.D.

0 5' 10' 20'

0" ½" 1" 2"

SCALE: 1"=10'-0"

KEY MAP

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1655 N. MAIN ST. STE 365, WALNUT CREEK, CA 94596
T 925.934.8776 www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

LAYOUT PLAN

DRAWN: TZ	CHECKED: KC	REVIEWED: KC, TZ	DATE: 09/05/23	SCALE: AS SHOWN

BY	DESCRIPTION	REV	DATE

SHEET NO.
34 OF 59

DWG. NO.
L2.02

MATCHLINE – SEE SHEET L2.02

MATCHLINE – SEE SHEET L2.04

40' PG&E EASEMENT

POST TOP LIGHT, S.E.D.

BOULDER PLACEMENT, TYP. (2 / L5.02)

DECOMPOSED GRANITE PAVING, TYP. (3 / L5.03)

REDWOOD HEADER, TYP. (3 / L5.02)

LOW

PA

2'

8'

2'

5'-8" 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10' 10'

PA 8'-6" PA 7'-9" 9'-11" PA 10'-3" 8'-10" 5'-9" 4'-4" 5'-10" 5' TYP. 5'-7" 6'-4" 5'-2" 9'-9" PA 10'-5"

3'-10" 2'-6" 4'-8"

E F G H I J K L M N O P Q R

DOG WASTE DISPENSER (4 / L5.04)

BOULDER PLACEMENT, TYP. (2 / L5.02)

STREET LIGHT, TYP., S.E.D.

CONVINGTON DR

FRONTAGE ROAD

STORMWATER TREATMENT AREA, TYP., S.C.D.

AC TRAIL, TYP., S.C.D.

DECOMPOSED GRANITE PAVING, TYP. (3 / L5.03)

REDWOOD HEADER, TYP. (3 / L5.02)

STREET LIGHT, TYP., S.E.D.

0 5' 10' 20'

SCALE: 1"=10'-0"

KEY MAP

REGISTERED LANDSCAPE ARCHITECT STATE OF CALIFORNIA

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1814 N. MARKET STREET, WALNUT CREEK, CA 94596
T 925.935.8778 www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

LAYOUT PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
35 OF 59

DWG. NO.
L2.03

MATCHLINE – SEE SHEET L2.03

MATCHLINE – SEE SHEET L2.05

L.O.W.

REDWOOD HEADER, TYP. (3 / L5.02)

DECOMPOSED GRANITE PAVING, TYP. (3 / L5.03)

AC TRAIL, TYP., S.C.D.

RIP RAP, TYP., S.C.D.

40' PG&E EASEMENT

69'-4"

8', 2 ES

10'

5'

P.O.B.

PA

EU

W

V

U

T

S

2' / 8' / 2'

4' x 6

(2 / L5.02) BOULDER PLACEMENT, TYP.

STREET LIGHT, TYP., S.E.D.

CURB CUT RAMP, TYP., S.C.D.

(1 / L5.03) PEDESTRIAN CONCRETE PAVING, TYP.

SIGN, TYP., S.C.D.

POST TOP LIGHT, TYP., S.E.D.

STORMWATER TREATMENT AREA, TYP., S.C.D.

FRONTAGE ROAD

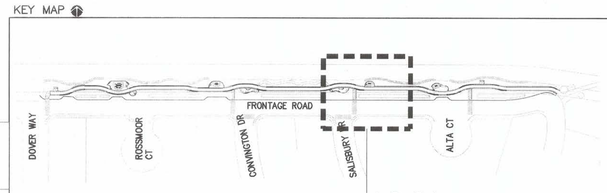
SALISBURY DR

STREET LIGHT, TYP., S.E.D.

0 5' 10' 20'

SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1814 FRANKLIN STREET, SUITE 720, OAKLAND, CA 94612
T: 510.836.4424 · www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

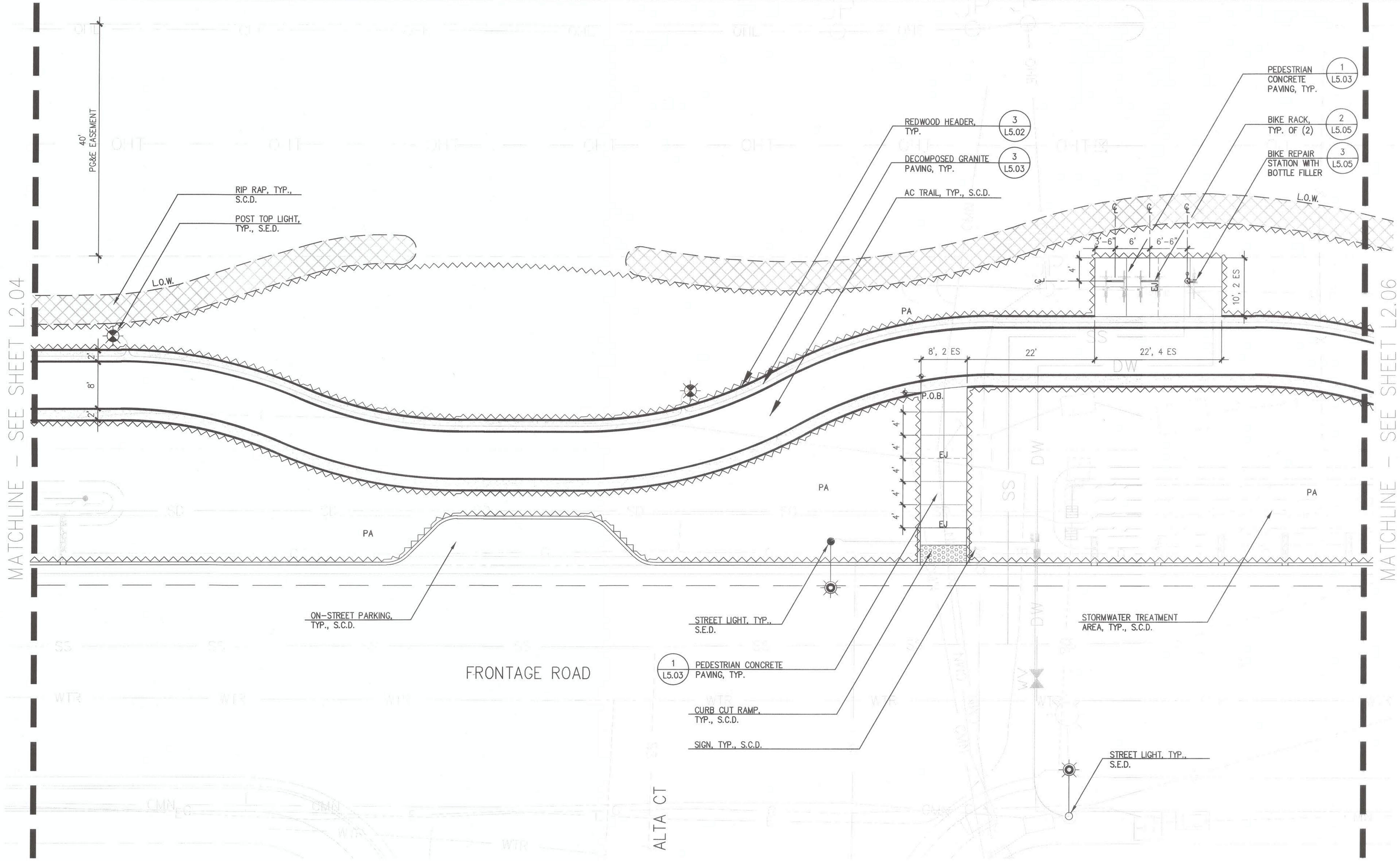
LAYOUT PLAN

DESCRIPTION	BY	DATE	REV

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
36 OF 59

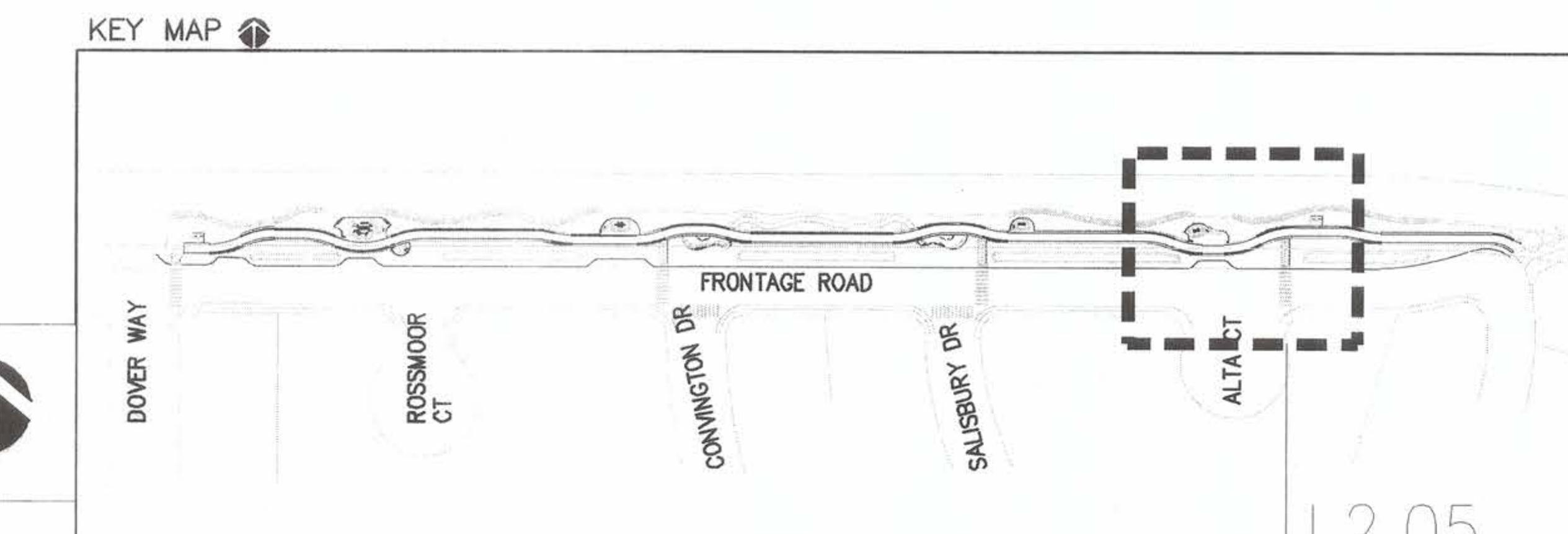
DWG. NO.
L2.04



0 5' 10' 20'

SCALE: 1"=10'-0"

KEY MAP



LANDSCAPE ARCHITECT CASEY OSE No. 6032 6/30/2024 9/1/23 L.A. STATE OF CALIFORNIA REGISTERED

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1655 N. MAIN ST. STE 365, WALNUT CREEK, CA 94596
T 925.736.8176 www.dgates.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

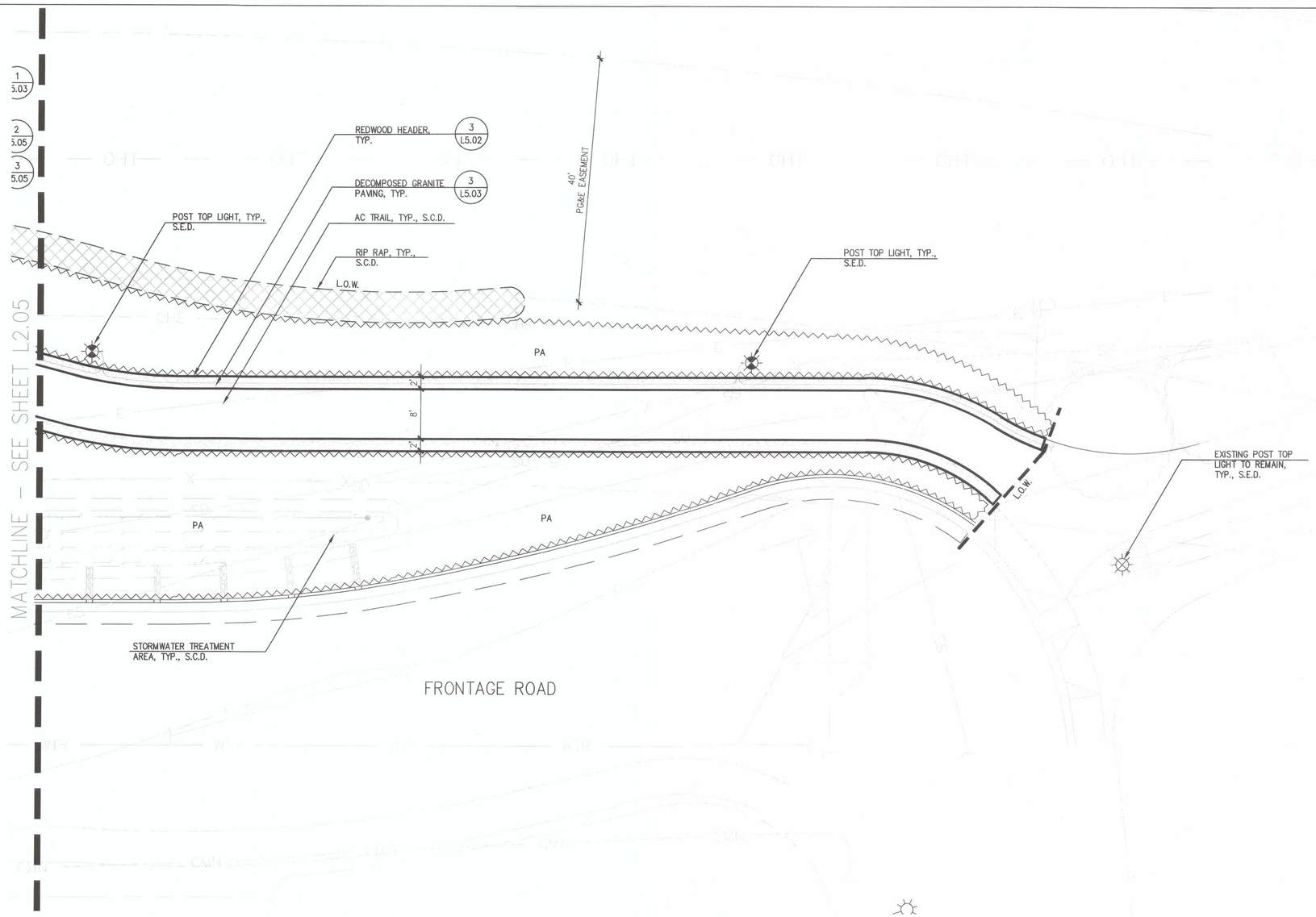
LAYOUT PLAN

DATE	REV	DESCRIPTION	BY

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

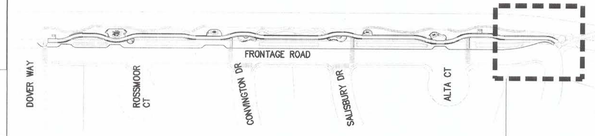
SHEET NO. 37 OF 59

DWG. NO. L2.05



SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1603 N. MAIN ST. STE 302, WALNUT CREEK, CA 94596
T. 925.935.3515 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT — STATE OF CALIFORNIA — CHRISTOPHER A. GATES — 6/30/2024 — 6723 — L.A.

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

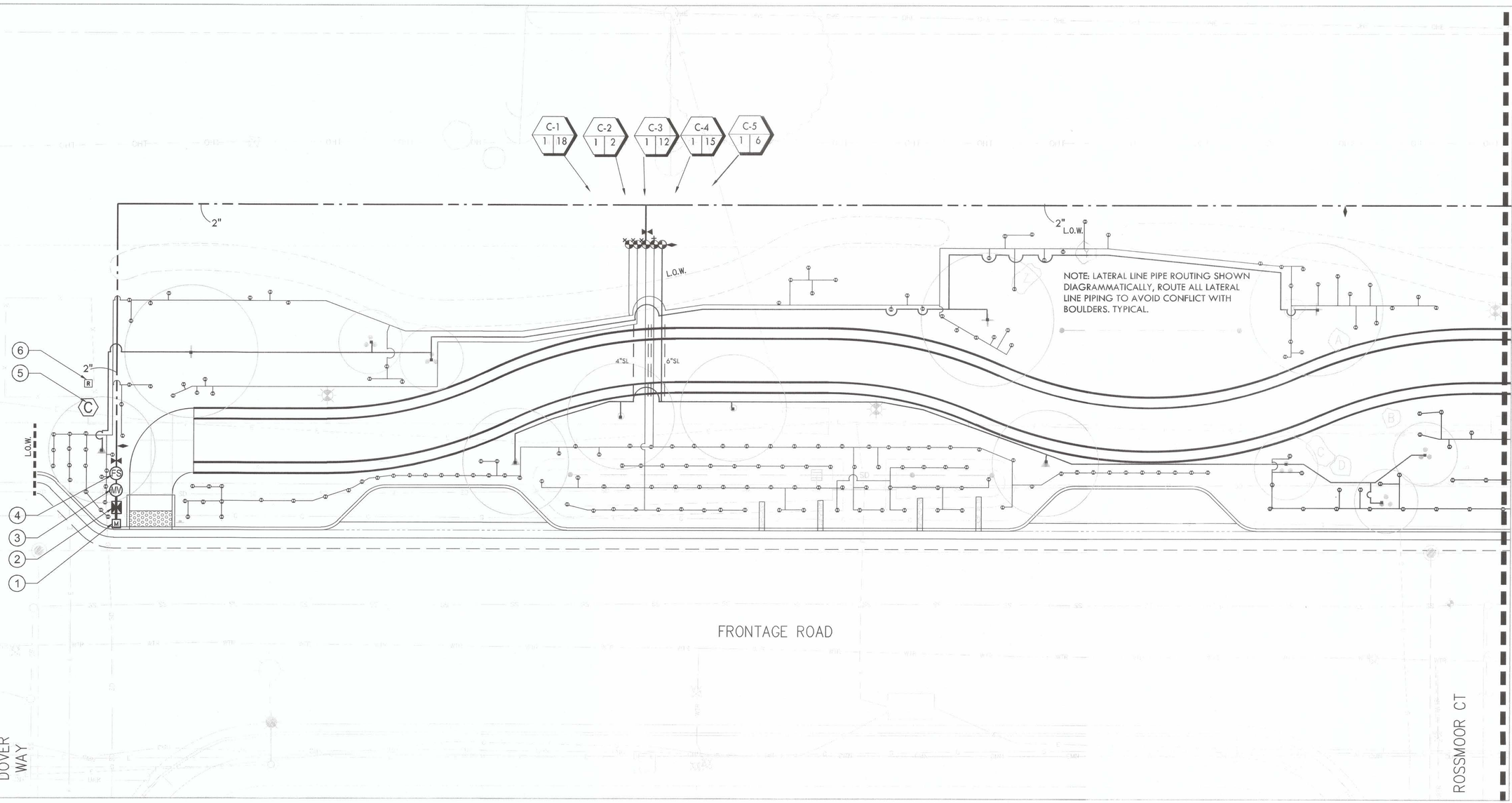
LAYOUT PLAN

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

BY	DESCRIPTION	REV	DATE

SHEET NO.
38 OF 59

DWG. NO.
L2.06



PLAN NOTES LEGEND

1. 1" WATER METER WITH 1" SERVICE LINE FOR IRRIGATION. REFER TO CIVIL PLANS. MAXIMUM IRRIGATION DEMAND: 30 GPM AT APPROXIMATELY 60 PSI STATIC PRESSURE AT WATER METER LOCATION.
2. BACKFLOW PREVENTOR FOR IRRIGATION INSTALLED INSIDE ENCLOSURE PER CITY STANDARDS.
3. MASTER VALVE.
4. FLOW SENSOR. INSTALL PAIGE #18 GAUGE SENSOR CABLE WITHIN 1" PVC CONDUIT BETWEEN FLOW SENSOR AND CONTROLLER.
5. IRRIGATION CONTROLLER "C" MOUNT ON PEDESTAL AT THIS LOCATION AS DETAILED AND AS DIRECTED BY ARCHITECT. CONNECT TO 120 VOLT A.C. ELECTRICAL SERVICE INSTALLED AT THIS LOCATION UNDER ELECTRICAL CONTRACT. IRRIGATION CONTRACTOR SHALL COORDINATE LOCATION OF ELECTRICAL SERVICE PRIOR TO CONSTRUCTION.
6. WIRELESS RAIN SENSOR MOUNTED TO BUILDING ROOF EDGE.

NOTES:

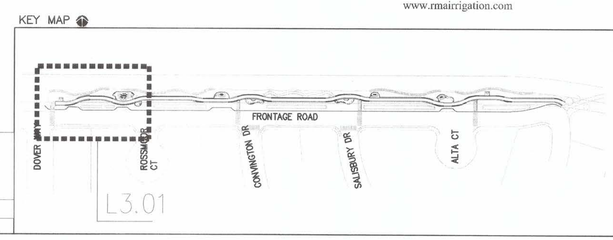
1. ONE BUBBLER SYMBOL IS SHOWN AT TREES FOR GRAPHIC CLARITY ONLY. INSTALL MINIMUM TWO BUBBLERS AT EACH TREE. INSTALL REQUIRED NUMBER OF BUBBLERS AS DETAILED.
2. IRRIGATION EQUIPMENT MAY BE SHOWN WITHIN HARDSCAPE FOR GRAPHIC CLARITY ONLY. INSTALL ALL IRRIGATION EQUIPMENT WITHIN PLANTED AREAS. IRRIGATION PIPE AND WIRE CROSSING BENEATH HARDSCAPE SURFACES SHALL BE CONTAINED WITHIN SLEEVING OR SCHEDULE 40 PVC CONDUIT. SLEEVING SIZE SHALL BE A MINIMUM OF TWO TIMES THE AGGREGATE DIAMETER OF ALL PIPES CONTAINED WITH SLEEVE. PROVIDE VERTICAL SWEEP FOR ALL ELECTRICAL CONDUIT ON EACH SIDE OF HARDSCAPE AND TERMINATE ENDS AT 12" MINIMUM DEPTH AND 12" FROM HARDSCAPE SURFACE.
3. UNSIZED LATERAL LINE PIPING LOCATED DOWN STREAM OF 1" PIPING SHALL BE 3/4" IN SIZE (TYPICAL).
4. SIZING OF LATERAL PIPE SHALL BE AS FOLLOWS:

0.75"	0-6 GPM
1"	7-12 GPM
1.25"	13-20 GPM
1.5"	21-32 GPM

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
www.rmairrigation.com

0 5' 10' 20'
0" 1/2" 1" 2"
SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1603 N. MARKET ST. STE 365, WALNUT CREEK, CA 94596
T 925.256.8176 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT STATE OF CALIFORNIA
JOHN SAMUELSON
No. 4924
RENEWAL 8/31/25
LA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

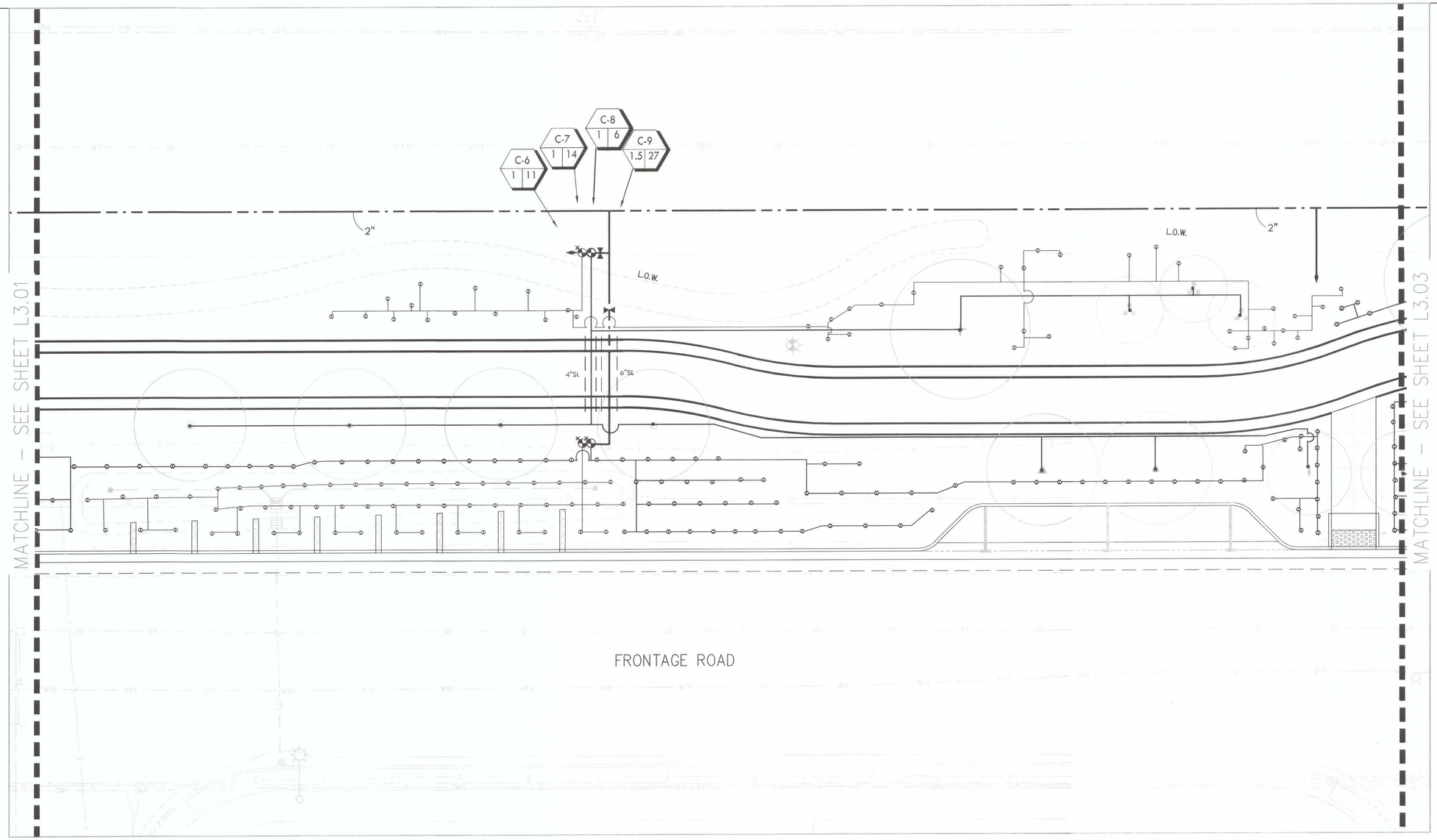
IRRIGATION PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
39 OF 59

DWG. NO.
L3.01



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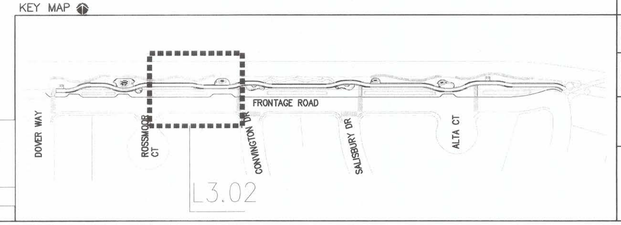
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
www.rmairrigation.com

KEY MAP



0 5' 10' 20'
0" ½" 1" 2"
SCALE: 1"=10'-0"

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T 925.274.0178 www.gatesla.com

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JOHN SAMUELSON
City Engineer
Date: 9/22/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

IRRIGATION PLAN

BY	DESCRIPTION	REV	DATE

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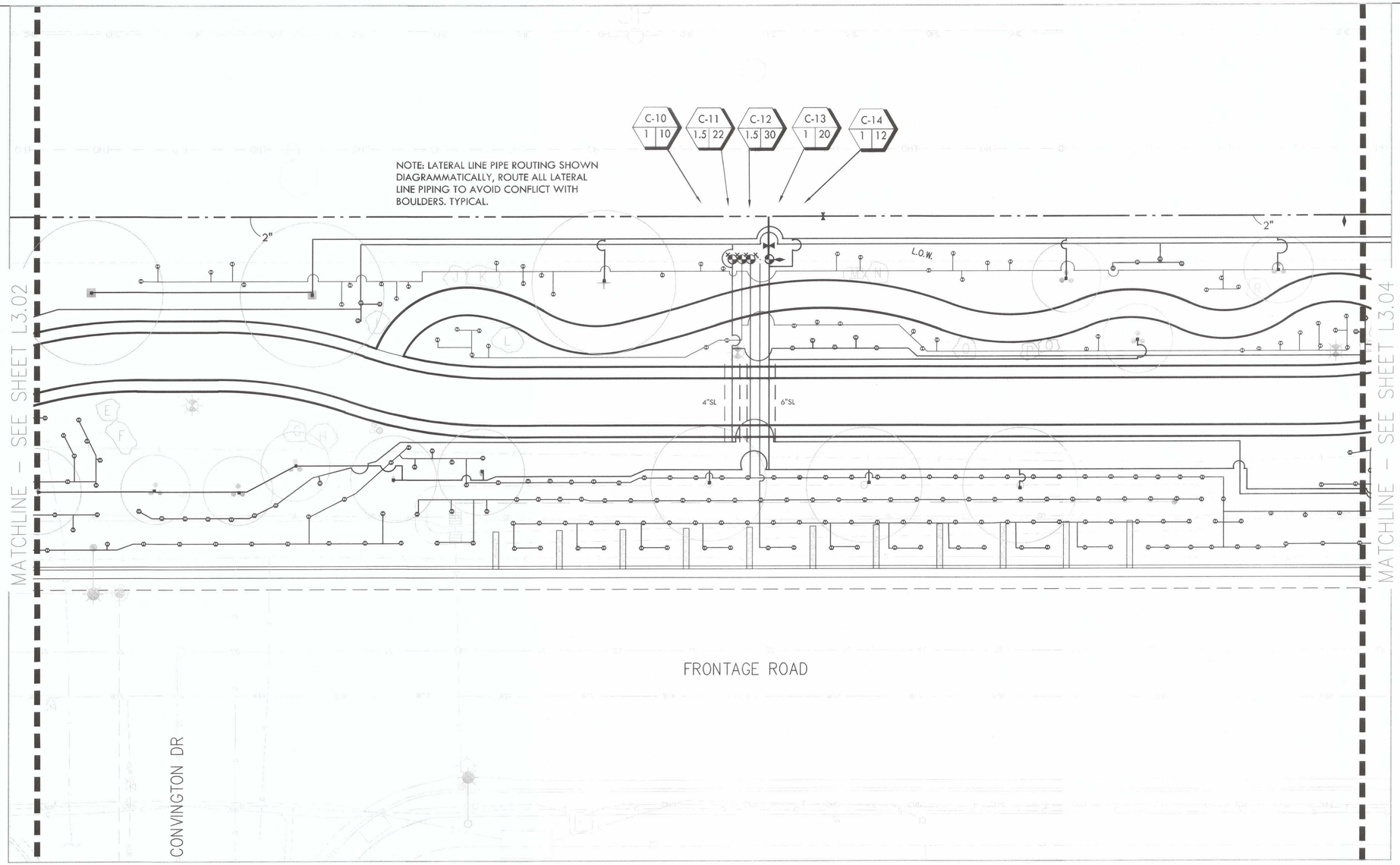
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
40 OF 59

DWG. NO.
L3.02



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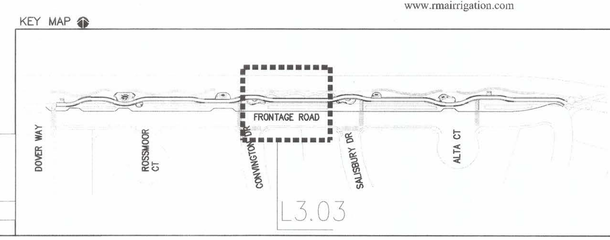

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
www.rmairrigation.com

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1625 POWELL STREET, SUITE 300, SAN FRANCISCO, CA 94133
T 415.788.3535 · www.gatesla.com

ACCEPTED FOR USE:
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City Engineer
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City of Pittsburg

FRONTAGE ROAD
LIVING TRAIL

IRRIGATION PLAN

BY	DESCRIPTION	REV	DATE

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DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
41 OF 59

DWG. NO.
L3.03

NOTE: LATERAL LINE PIPE ROUTING SHOWN DIAGRAMMATICALLY, ROUTE ALL LATERAL LINE PIPING TO AVOID CONFLICT WITH BOULDERS. TYPICAL.

C-15 | 1.5 | 30

C-16 | 1.5 | 22

C-17 | 1 | 4

2"

L.O.W.

2"

L.O.W.

6"SL

MATCHLINE – SEE SHEET L3.03

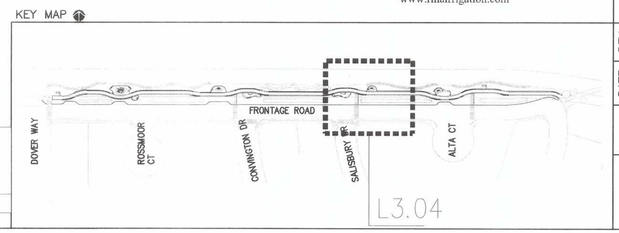
MATCHLINE – SEE SHEET L3.05

FRONTAGE ROAD

SALISBURY DR

SCALE: 1"=10'-0"

KEY MAP



L3.04

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
www.rmairrigation.com

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1804 N. MARKET STREET, WALNUT CREEK, CA 94596
T 925.735.8176 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT & URBAN DESIGNER STATE OF CALIFORNIA
CHRISTOPHER GATES
No. 3024
RENEWAL 8/31/25
LA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

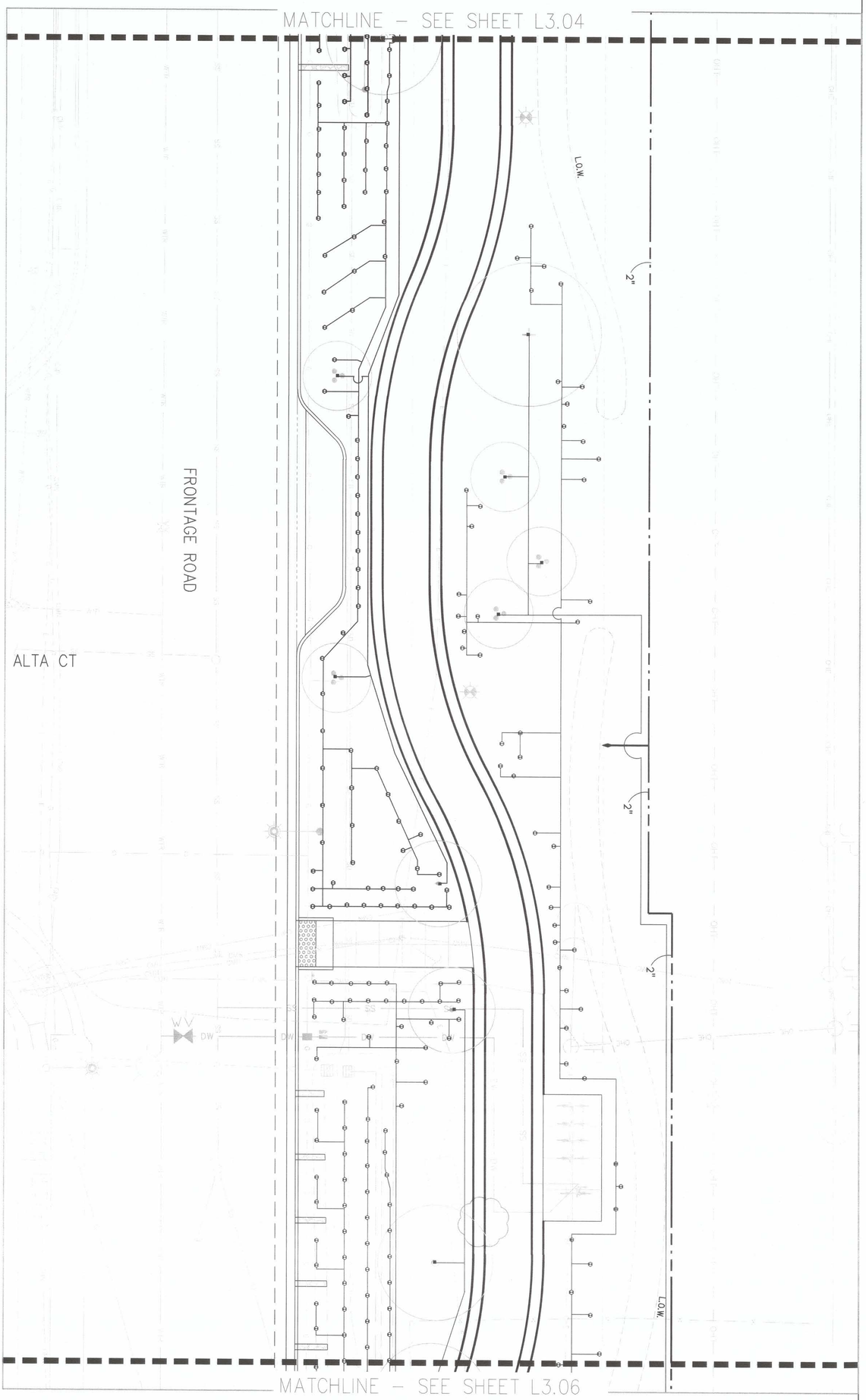
IRRIGATION PLAN

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

BY	DESCRIPTION	DATE	REV

SHEET NO.
42 OF 59

DWG. NO.
L3.04



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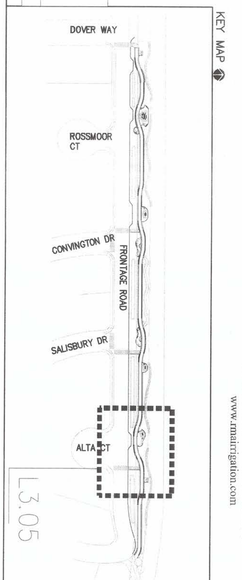

KEY MAP

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
www.rmairrigation.com

DATE	REV	DESCRIPTION	BY

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CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

FRONTAGE ROAD LIVING TRAIL

IRRIGATION PLAN

City of Pittsburg

ACCEPTED FOR USE:

JOHN SAMUELSON
City Engineer
Date: 9/26/23

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LANDSCAPE ARCHITECTURE
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1655 N. MAIN ST. STE 365, WALNUT CREEK, CA 94596
T 925.736.8176 www.dgates.com

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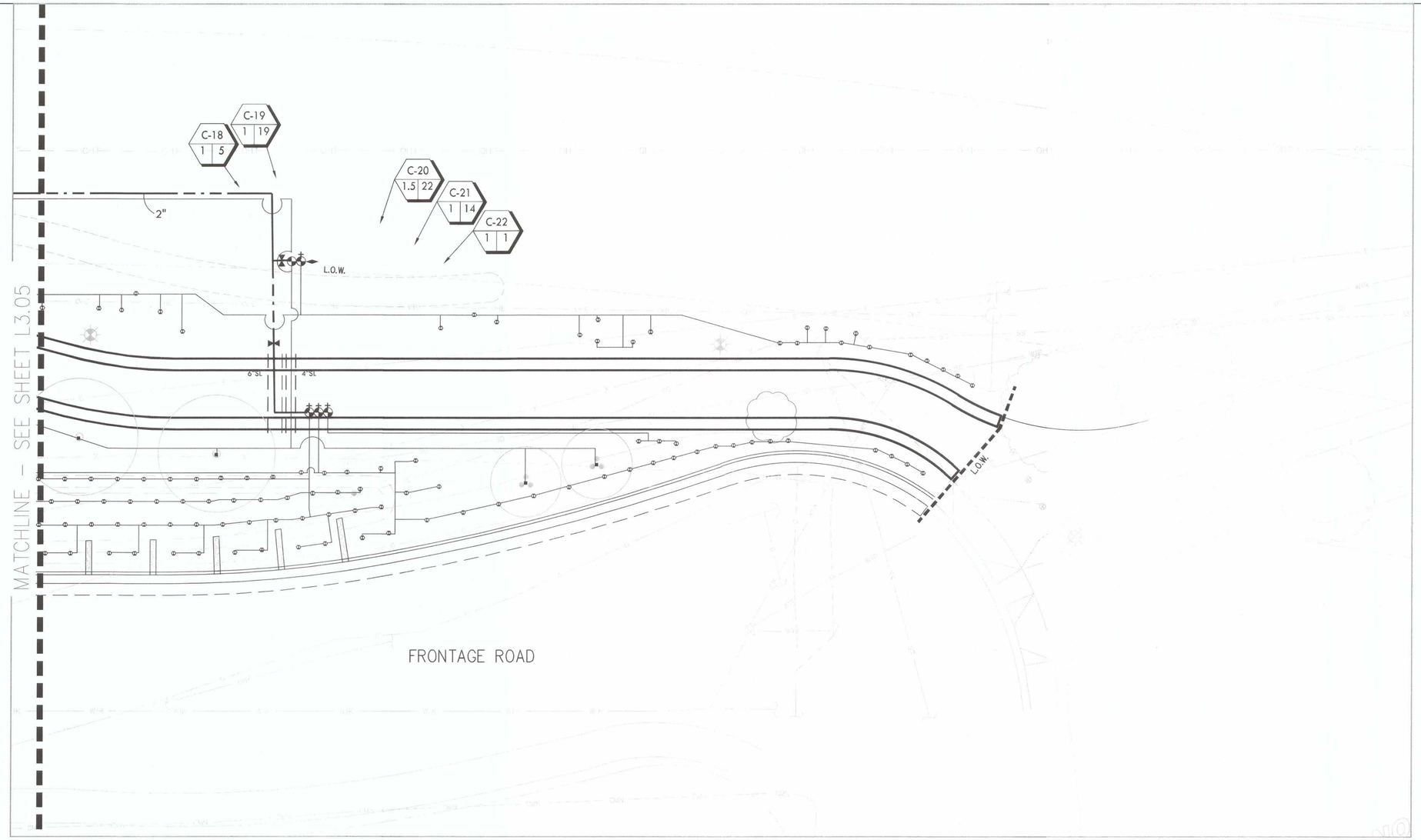
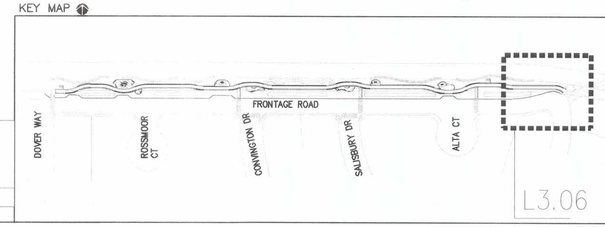
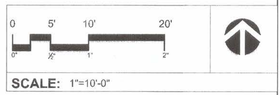
SHEET NO. 43 OF 59
DWG. NO. L3-05



Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
www.rmairrigation.com

KEY MAP





SCALE: 1"=10'-0"

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LANDSCAPE ARCHITECTURE
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1814 N. MARKET STREET, WALNUT CREEK, CA 94596
T 925.935.8776 www.gates.com

REGISTERED LANDSCAPE ARCHITECT STATE OF CALIFORNIA
8/25/24
8/25/25
L.A.

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/21/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

IRRIGATION PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
44 OF 59

DWG. NO.
L3.06

IRRIGATION NOTES

1. THESE IRRIGATION DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. ALL PIPING, VALVES, AND OTHER IRRIGATION COMPONENTS MAY BE SHOWN WITHIN PAVED AREAS FOR GRAPHIC CLARITY ONLY AND ARE TO BE INSTALLED WITHIN PLANTING AREAS. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, CONDUIT, AND OTHER ITEMS WHICH MAY BE REQUIRED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITION AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS, GRADE DIFFERENCES OR AREA DIMENSIONAL DIFFERENCES. IN THE EVENT OF FIELD DISCREPANCY WITH CONTRACT DOCUMENTS, PLAN THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF THE OWNER'S AUTHORIZED REPRESENTATIVE AND ACCORDING TO THE CONTRACT SPECIFICATIONS. NOTIFY AND COORDINATE IRRIGATION CONTRACT WORK WITH APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING AND STRUCTURES BEFORE CONSTRUCTION. IN THE EVENT THESE NOTIFICATIONS ARE NOT PERFORMED, THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR REQUIRED REVISIONS.

2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, STANDARDS, AND REGULATIONS. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE LATEST RULES AND REGULATIONS OF THE NATIONAL ELECTRIC CODE; THE UNIFORM PLUMBING CODE, PUBLISHED BY THE WESTERN PLUMBING OFFICIALS ASSOCIATION; AND OTHER STATE OR LOCAL LAWS OR REGULATIONS. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR REGULATIONS. THE CONTRACTOR SHALL FURNISH WITHOUT ANY EXTRA CHARGE, ANY ADDITIONAL MATERIAL AND LABOR WHEN REQUIRED BY THE COMPLIANCE WITH THESE CODES AND REGULATIONS.

3. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LAYOUT AND INSTALLATION OF THE PLANT MATERIALS TO INSURE THAT THERE WILL BE COMPLETE AND UNIFORM IRRIGATION COVERAGE OF PLANTING IN ACCORDANCE WITH THESE DRAWINGS, AND CONTRACT DOCUMENTS. THE IRRIGATION LAYOUT SHALL BE CHECKED BY THE CONTRACTOR AND OWNER'S AUTHORIZED REPRESENTATIVE PRIOR TO CONSTRUCTION TO DETERMINE IF ANY CHANGES, DELETIONS, OR ADDITIONS ARE REQUIRED. IRRIGATION SYSTEM SHALL BE INSTALLED AND TESTED PRIOR TO INSTALLATION OF PLANT MATERIAL.

4. THE INTENT OF THIS IRRIGATION SYSTEM IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

5. IT IS THE RESPONSIBILITY OF THE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER(S) TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. THIS INCLUDES MAKING ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS, SLOPES, SUN, SHADE AND WIND EXPOSURE.

6. IT IS THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR TO PROVIDE 120 VOLT A.C. (2.5 AMP DEMAND PER CONTROLLER) ELECTRICAL SERVICE TO THE CONTROLLER LOCATION(S). IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO COORDINATE THE ELECTRICAL SERVICE STUB-OUT TO THE CONTROLLER(S). PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS AND IN ACCORDANCE WITH LOCAL CODES.

7. PROVIDE EACH CONTROLLER WITH ITS OWN GROUND ROD. SEPARATE THE GROUND RODS BY A MINIMUM OF EIGHT FEET. THE GROUND ROD SHALL BE AN EIGHT FOOT LONG BY 5/8" DIAMETER U.L. APPROVED COPPER CLAD ROD. INSTALL NO MORE THAN 6" OF THE GROUND ROD ABOVE FINISH GRADE. CONNECT #6 GAUGE WIRE WITH A U.L. APPROVED GROUND ROD CLAMP TO ROD AND BACK TO GROUND SCREW AT BASE OF CONTROLLER WITH APPROPRIATE CONNECTOR. MAKE THIS WIRE AS SHORT AS POSSIBLE, AVOIDING KINKS OR BENDING.

8. SCHEDULE A MEETING WHICH INCLUDES REPRESENTATIVES OF THE IRRIGATION CONTROLLER MANUFACTURER, THE MAINTENANCE CONTRACTOR, THE OWNER AND THE IRRIGATION CONTRACTOR AT THE SITE FOR INSTRUCTION ON THE PROPER PROGRAMMING AND OPERATION OF THE IRRIGATION CONTROLLER.

9. INSTALL 3" DETECTABLE TAPE ABOVE ALL PRESSURIZED MAIN LINES AS DETAILED. USE CHRISTY #TA-DT-3-BIRR FOR POTABLE IRRIGATION SYSTEMS.

10. PROVIDE EACH IRRIGATION CONTROLLER WITH ITS OWN INDEPENDENT LOW VOLTAGE COMMON GROUND WIRE.

11. IRRIGATION CONTROL WIRES: SOLID COPPER WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND. COMMON GROUND WIRE: SIZE #12-1 WIRE WITH A WHITE INSULATING JACKET. CONTROL WIRE SERVICING REMOTE CONTROL VALVES: SIZE #14-1 WIRE WITH INSULATING JACKET OF COLOR OTHER THAN WHITE. SPLICES SHALL BE MADE WITH 3M-DBY SEAL PACKS OR APPROVED EQUAL.

12. INSTALL TWO SPARE CONTROL WIRES OF A DIFFERENT COLOR ALONG THE ENTIRE MAIN LINE. LOOP 36" EXCESS WIRE INTO EACH SINGLE VALVE BOX AND INTO ONE VALVE BOX IN EACH GROUP OF VALVES.

13. SPLICING OF LOW VOLTAGE WIRES IS PERMITTED IN VALVE BOXES ONLY. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. TAPE WIRES TOGETHER EVERY TEN FEET. DO NOT TAPE WIRES TOGETHER WHERE CONTAINED WITHIN SLEE

14. INSTALL GREEN PLASTIC VALVE BOXES WITH BOLT DOWN, NON HINGED COVER MARKED "IRRIGATION CONTROL VALVE". BOX BODY SHALL HAVE KNOCK OUTS. ACCEPTABLE VALVE BOX MANUFACTURER'S INCLUDE NDS, CARSON OR APPROVED EQUAL.

15. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, INSTALL EACH BOX AN EQUAL DISTANCE FROM THE WALK, CURB, BUILDING OR LANDSCAPE FEATURE AND PROVIDE 12" BETWEEN BOX TOPS. ALIGN THE SHORT SIDE OF RECTANGULAR VALVE BOXES PARALLEL TO WALK, CURB, BUILDING OR LANDSCAPE FEATURE.

16. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS (AVOID LAWN AREAS WHERE POSSIBLE).

17. THE CONTRACTOR SHALL LABEL CONTROL LINE WIRE AT EACH REMOTE CONTROL VALVE WITH A 2 1/4" X 2 3/4" POLYURETHANE I.D. TAG, INDICATING IDENTIFICATION NUMBER OF VALVE (CONTROLLER AND STATION NUMBER). ATTACH LABEL TO CONTROL WIRE. THE CONTRACTOR SHALL PERMANENTLY STAMP ALL VALVE BOX LIDS WITH APPROPRIATE IDENTIFICATION AS NOTED IN CONSTRUCTION DETAILS.

18. FLUSH AND ADJUST IRRIGATION OUTLETS AND NOZZLES FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF THE ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH CONTROL ZONE.

19. LOCATE BUBBLERS ON UPHILL SIDE OF PLANT OR TREE.

20. INSTALL A HUNTER HCV SERIES, KBI CV SERIES, OR APPROVED EQUAL SPRING LOADED CHECK VALVE IN SPRINKLER RISER ASSEMBLIES WHERE LOW OUTLET DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

21. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, USE CAUTION TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATE BY HAND IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR. BACK FILL TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR (24) HOURS. WHERE THIS IS NOT POSSIBLE, SHADE THE SIDE OF THE TRENCH ADJACENT TO THE TREE WITH WET BURLAP OR CANVAS.

22. NOTIFY LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

23. THE IRRIGATION SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.

24. IRRIGATION DEMAND: REFER TO PLANS.

25. THE EXISTING MAIN LINE SHOWN ON THE DRAWINGS IS DIAGRAMMATIC. VERIFY AND LOCATE EXISTING MAIN LINE IN FIELD. REPORT TO ARCHITECT IN WRITING ANY DEVIATION OF EXISTING MAIN LINE LOCATION FROM THAT SHOWN ON THE DRAWINGS.

28. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION THE SIZE MAY NEED TO BE ADJUSTED ACCORDINGLY.

29. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL #5.

30. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR MINOR CHANGES IN THE IRRIGATION LAYOUT DUE TO OBSTRUCTIONS NOT SHOWN ON THE IRRIGATION DRAWINGS SUCH AS LIGHTS, FIRE HYDRANTS, SIGNS, ELECTRICAL ENCLOSURES, ETC.

31. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR CHANGES IN THE IRRIGATION LAYOUT AND VALVE ZONING DUE TO VARIATIONS IN THE EXISTING SITE CONDITIONS SUCH AS EXPOSURE FROM BUILDINGS, TRELLISES, TREES, ETC., AS WELL AS SLOPE AND SOIL CONDITIONS. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT OF THE PROPOSED CHANGES PRIOR TO INSTALLATION FOR APPROVAL.

32. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING THE IRRIGATION SYSTEM DESIGN IF THE PLANTING DESIGN CHANGES FROM THE ORIGINAL PLAN AND NEEDS TO ADAPT TO THE NEW PLANTING DESIGN. THE LANDSCAPE CONTRACTOR NEEDS TO NOTIFY THE LANDSCAPE ARCHITECT AND IRRIGATION CONSULTANT OF PROPOSED CHANGES PRIOR TO INSTALLATION FOR APPROVAL.

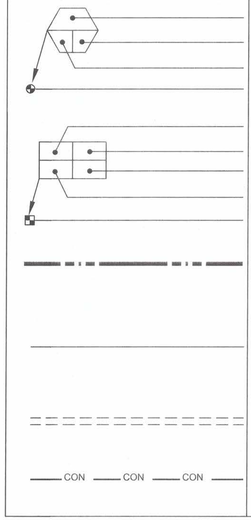
33. WHEN WORK OF THIS SECTION HAS BEEN COMPLETED AND SUCH OTHER TIMES AS MAY BE DIRECTED, REMOVE ALL TRASH, DEBRIS, SURPLUS MATERIALS AND EQUIPMENT FROM SITE.

34. CONTRACTOR SHALL BE RESPONSIBLE FOR SUPPLEMENTAL HAND WATERING OF ALL PLANT MATERIAL WITHIN DRIPLINE AREAS UNTIL THE PLANTS ARE SUFFICIENTLY ESTABLISHED.

35. VERIFY LOCATIONS OF ALL IRRIGATION COMPONENTS INSTALLED WITHIN A VALVE BOX WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. DO NOT INSTALL UNTIL LANDSCAPE ARCHITECT PROVIDES ACCEPTABLE LOCATIONS.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION	NOZZLE GPM	OPERATING PSI	OPERATING RADIUS (FEET)
◍	1401	RAINBIRD BUBBLER, 1 PER SHRUB	0.25	30	TRICKLE
■	1401	RAINBIRD BUBBLER FOR TREES IN SHRUB AREAS - 2 PER TREE	0.25	30	TRICKLE
●+	WLT-0500-T	NDS SCH 40 BALL VALVE OR APPROVED EQUAL			
◙	OPERIND	RAIN BIRD DRIP ZONE INDICATOR			
◄►	33-DRC	RAIN BIRD 3/4" TWO-PIECE QUICK COUPLING VALVE (YELLOW LOCKING RUBBER COVER)			
⋈	T113-K SERIES	NIBCO BRASS GATE VALVE (LINE SIZE)-2.5" AND SMALLER			
(FS)	FSI-T15-001	CST 1.5" TEE MOUNTED FLOW SENSOR (2-100 GPM)			
(MV)	PESB-2"	RAINBIRD MASTER VALVE - 2" (NORMALLY CLOSED)			
◔	PESB-R SERIES	RAIN BIRD REMOTE CONTROL VALVE WITH SCRUBBER MECHANISM			
(C)	SA6-RM6-24 DXICA WRS GR-K	RAINMASTER DXI 24 STATION PEDESTAL MOUNT CONTROLLER ASSEMBLY BY SITE ONE GREEN TECH IN STAINLESS STEEL ENCLOSURE; INCLUDES CELLULAR COMMUNICATION, RAIN SENSOR AND GROUNDING KIT			
[R]	RS-1000	IRRITROL WIRELESS RAIN SENSOR			
⋈	975XL2SEU-1.5"/ BPDI/PBB-20	WILKINS REDUCED PRESSURE BACKFLOW ASSEMBLY WITH GAURDSHACK PAINTED STAINLESS STEEL ENCLOSURE AND FREEZE BLANKET.			



CONTROLLER AND STATION NUMBER
FLOW (GPM)
REMOTE CONTROL VALVE SIZE (IN INCHES)
ASSOCIATED REMOTE CONTROL VALVE

CONTROLLER AND STATION NUMBER
AREA (SQ. FT.)
FLOW (GPM)
REMOTE CONTROL VALVE SIZE (IN INCHES)
ASSOCIATED REMOTE CONTROL VALVE

MAIN LINE: 2.5" AND 3": CLASS 315 PVC PLASTIC PIPE WITH SCHEDULE 80 PVC SOLVENT WELD FITTINGS. 2" AND SMALLER: SCHEDULE 40 PVC WITH SCHEDULE 80 PVC SOLVENT WELD FITTINGS. 18" COVER.

LATERAL LINE: 3/4" AND LARGER: 1120-SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC SOLVENT WELD FITTINGS. 12" COVER.

SLEEVING: SCHEDULE 40 PVC PLASTIC PIPE. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.

CONDUIT: SCHEDULE 40 PVC PLASTIC CONDUIT. COVER TO BE AS INDICATED IN SPECIFICATIONS OR AS INDICATED ABOVE FOR PIPE DEPTH OF COVER.

Irrigation Consultant:
Russell D. Mitchell Associates, Inc.
2760 Camino Diablo
Walnut Creek, CA 94597
tel 925.939.3985 ♦ fax 925.932.5671
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LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1804 FRANKLIN STREET, WALNUT CREEK, CA 94596
T 925.256.8175 www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD
LIVING TRAIL

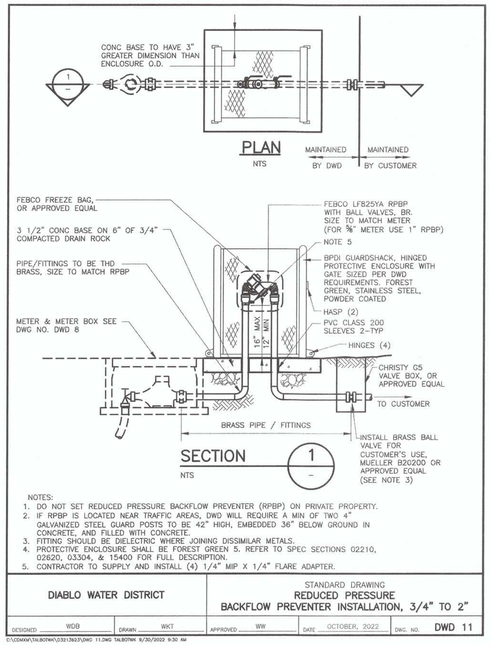
IRRIGATION NOTES AND LEGEND

DRAWN: TZ	CHECKED: KC	REVIEWED: KC, TZ	DATE: 09/05/23	SCALE: AS SHOWN

BY	DESCRIPTION	REV	DATE

SHEET NO.
45 OF 59

DWG. NO.
L3.07



NOTES:
1. DO NOT SET REDUCED PRESSURE BACKFLOW PREVENTER (RPBP) ON PRIVATE PROPERTY.
2. IF RPBP IS LOCATED NEAR TRAFFIC AREAS, DWD WILL REQUIRE A MIN OF TWO 4" GALVANIZED STEEL GUARD POSTS TO BE 42" HIGH, EMBEDDED 36" BELOW GROUND IN CONCRETE, AND FILLED WITH CONCRETE.
3. FITTING SHOULD BE DIELECTRIC WHERE JOINING DISSIMILAR METALS.
4. PROTECTIVE ENCLOSURE SHALL BE FOREST GREEN 5. REFER TO SPEC SECTIONS 02210, 02620, 03304, & 15400 FOR FULL DESCRIPTION.
5. CONTRACTOR TO SUPPLY AND INSTALL (4) 1/4" MIP X 1/4" FLARE ADAPTER.

DIABLO WATER DISTRICT		STANDARD DRAWING REDUCED PRESSURE BACKFLOW PREVENTER INSTALLATION, 3/4" TO 2"			
DESIGNED: WDB	DRAWN: WKT	APPROVED: WW	DATE: OCTOBER, 2022	DWG. NO.	DWD 11

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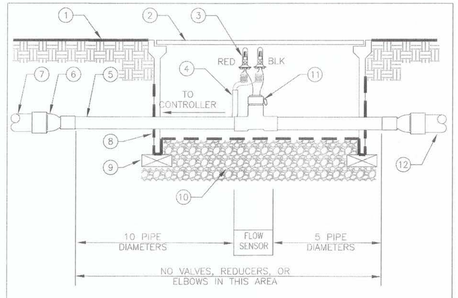
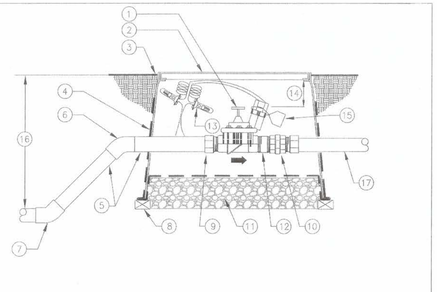


1. FINISH GRADE
2. 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
3. 18 GAUGE AWG DIRECT BURIAL WIRE. FLOW SENSOR WIRE MUST BE RUN IN 1" PVC CONDUIT FROM FLOW SENSOR TO CONTROLLER ENCLOSURE. PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS WIRE IN A 1" DIAMETER COIL
4. 1" SCH 40 PVC CONDUIT
5. SCH. 80 PVC PIPE
6. SCH. 80 PVC REDUCER IF REQUIRED
7. PVC MAIN LINE TO MASTER CONTROL VALVE
8. 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
9. BRICK-ONE ON EACH CORNER
10. PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
11. FLOW SENSOR MUST BE INSTALLED WITH INSERT (TOP) POSITIONED VERTICALLY AND BODY (TEE) POSITIONED HORIZONTALLY
12. PVC MAIN LINE TO IRRIGATION SYSTEM

APPROVED 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	FLOW SENSOR	I-7
				DATE: 2019-01-11		
				SCALE: NTS		

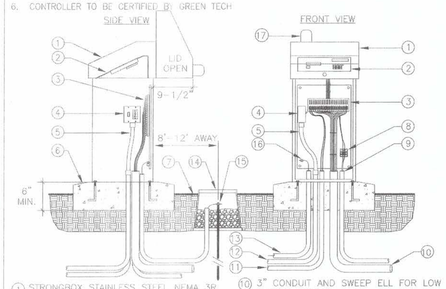


1. MASTER CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS), CENTER WITHIN BOX
2. 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
3. FINISH GRADE
4. 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
5. SCH. 80 PVC PIPE. LENGTH AS REQUIRED
6. TYP. PVC SCH. 80 45° ELBOW (SxS)-4 TOTAL
7. PVC MAIN LINE FROM BACKFLOW OR PUMP
8. BRICK-ONE ON EACH CORNER
9. SCH. 80 PVC MALE ADAPTER- 2 TOTAL
10. SCH. 80 PVC THREADED UNION-2 TOTAL
11. PEA GRAVEL OR 3/4" DRAIN ROCK- 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
12. 3" LONG SCH. 80 PVC NIPPLE-2 TOTAL. MATCH VALVE SIZE
13. VALVE CONTROL WIRE- PROVIDE 3M-DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS OF WIRE IN A 1" DIAMETER COIL
14. 3" MIN 6" MAX
15. VALVE I.D. TAG (CONTROLLER AND STATION NUMBER)
16. REFER TO IRRIGATION LEGEND
17. PVC MAIN LINE TO FLOW SENSOR

APPROVED 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	MASTER CONTROL VALVE	I-6
				DATE: 2019-01-11		
				SCALE: NTS		

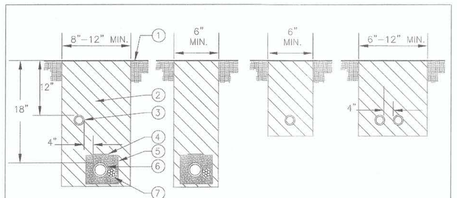
NOTES:
1. PROVIDE (CONTRACTOR) #10 BARE COPPER GROUND WIRE AND 5/8" DIA. (8' LONG) COPPER CLAD GROUNDING ROD(S) AS DIRECTED BY MANUFACTURER
2. UNIT IS TO BE ASSEMBLED, WIRED, AND TESTED BY A MANUFACTURER TRAINED VENDOR.
3. INSTALL (CONTRACTOR) ENCLOSURE TO CONCRETE PAD AS DIRECTED BY ENCLOSURE MANUFACTURER
4. INSTALL SLAB LEVEL AND 1" ABOVE FINISH GRADE. PROVIDE SLOPE TO TOP OF SLAB SURFACE FOR DRAINAGE
5. CONTRACTOR IS RESPONSIBLE TO COORDINATE 120V POWER FOR CONTROLLER WITH CITY PRIOR TO INSTALLATION
6. CONTROLLER TO BE CERTIFIED BY GREEN TECH



1. STRONGBOX STAINLESS STEEL NEMA 3R RAINPROOF ENCLOSURE (UL LISTED)
2. SATELLITE ASSEMBLY, ASSEMBLED IN ENCLOSURE BY JOHN DEERE GREEN TECH
3. TERMINAL STRIP FOR VALVE WIRES
4. POWER SWITCH / GFCI RECEPTACLE
5. ELECTRICAL FLEX CONDUIT FOR POWER
6. 6" MIN THICK, CONCRETE PAD WITH ANCHOR BOLTS PER MANUFACTURER RECOMMENDATIONS
7. FINISH GRADE
8. FLOW SENSOR TERMINAL BOARD
9. 1" CONDUIT AND SWEEP ELL WITH FLOW SENSOR CABLE
10. 3" CONDUIT AND SWEEP ELL FOR LOW VOLTAGE WIRES
11. 1" CONDUIT AND SWEEP ELL FOR MASTER VALVE WIRES
12. 1" CONDUIT AND SWEEP ELL FOR 110 VAC POWER LINE
13. 1" CONDUIT AND SWEEP ELL FOR GROUND WIRE
14. 10" ROUND VALVE BOX AROUND GROUND ROD. FILL WITH 3/4" CRUSHED ROCK
15. 5/8" X 8' GROUND ROD WITH #6 GROUND WIRE AND CLAMP. LOCATE 8'-12' FROM ENCLOSURE
16. #6 GROUND WIRE SECURED TO BACKBOARD GROUNDING TERMINAL
17. REMOTE RADIO ANTENNA

APPROVED 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	CONTROLLER IN PEDESTAL ENCLOSURE	I-4
				DATE: 2019-01-11		
				SCALE: NTS		

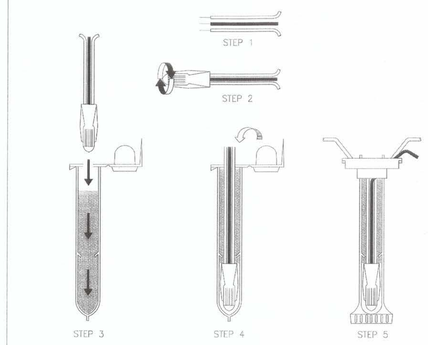


NOTES:
1. ALL MAIN SUPPLY LINES AND LATERAL LINES SHALL BE PLACED IN SLEEVES UNDER PAVED SURFACES. INSTALL LOW VOLTAGE WIRES WITHIN A SEPARATE CONDUIT UNDER PAVED SURFACES. DO NOT TAPE WIRES WITHIN CONDUIT.
2. REUSE SALVAGED EXCAVATED FILL AND COMPACT TO ORIGINAL DENSITY IN LANDSCAPE AREAS. ALL OTHER AREAS SHALL BE AT 85% COMPACTION. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS (ANYTHING LARGER THAN 2"), CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS
3. FOR ANY PIPING UNDER PAVEMENT, SEE CITY DETAIL R-5.
4. WHEN 12" POP-UP SPRINKLER HEADS ARE USED, INCREASE THE DEPTH OF LATERAL TO 18" AT THE SPRINKLER LOCATION ONLY

1. FINISH GRADE
2. CLEAN BACKFILL MATERIAL
3. LATERAL LINE
4. 3" DETECTABLE WARNING TAPE OVER MAIN LINE. INSTALL ON TOP OF SAND ENCASEMENT. USE CHRISTY MODEL #TA-DT-3-BRR FOR POTABLE IRRIGATION SYSTEMS OR #TA-DT-3-PRW FOR RECYCLED IRRIGATION WATER SYSTEMS
5. ENCASE MAIN LINE AND WIRES IN SAND. PROVIDE 4" OF SAND ABOVE MAIN AND WIRES AND A MINIMUM OF 2" OF SAND ON THE REMAINING SIDES
6. MAIN LINE
7. LOW VOLTAGE CONTROL WIRES OR TWO-WIRE CABLE. TAPE AND BUNDLE CONTROL WIRES AT 10 FT. INTERVALS. WIRING SHALL BE LAID OUT LOOSELY IN THE TRENCH

APPROVED 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	IRRIGATION SYSTEM TRENCHING	I-2
				DATE: 2019-01-11		
				SCALE: NTS		

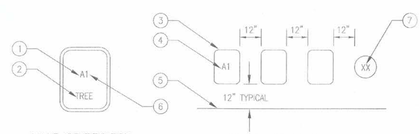


NOTE:
MAXIMUM # OF WIRES PER CONNECTOR:
- 3-#14 GAUGE
- 2-#12 GAUGE

INSTRUCTIONS:
1. STRIP WIRES APPROXIMATELY 1/2" FROM ENDS TO EXPOSE WIRE
2. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN
3. INSERT WIRE ASSEMBLY TO BOTTOM OF GEL-FILLED TUBE. CHECK TO MAKE SURE CONNECTOR HAS BEEN PUSHED PAST LOCKING FINGERS AND IS SEATED AT THE BOTTOM OF THE TUBE
4. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS
5. INSPECT FINAL SPLICE ASSEMBLY THAT IT IS SECURED

APPROVED 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	WEATHERPROOF WIRE SPLICE ASSEMBLY	I-9
				DATE: 2019-01-11		
				SCALE: NTS		



VALVE IDENTIFICATION

TOP VIEW OF BOXES

1. CONTROLLER ID
2. ALL TREE VALVES TO HAVE TREE BRANDED INTO LID
3. RECTANGULAR VALVE BOX
4. HEAT BRAND VALVE TYPE PER TABLE OR CONTROLLER ID AND STATION NUMBER INTO LID
5. EDGE OF LAWN, WALK, FENCE, CURB, ETC
6. STATION NUMBER
7. ROUND VALVE BOX FOR GCV AND GATE VALVE. HEAT BRAND VALVE TYPE INTO INTO LID PER TABLE

ITEMS TO BRAND:	BRAND CODE
GATE VALVE	GV
PRESSURE REDUCER	PRV
MASTER VALVE	MV
FLOW SENSOR	FS
HYDROMETER	HM
MAIN LINE AIR RELIEF	ARV
REMOTE CONTROL VALVE	A1 → A48
QUICK COUPLER	QC
SPLICE BOX	SB
PULL BOX	PB
LIGHTNING ARRESTOR	LA
GROUND ROD	GR

INSTRUCTIONS:
1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND FLUSH WITH FINISH GRADE IN TURF AREA
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN
4. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC
5. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES
6. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS

APPROVED 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	IRRIGATION VALVE BOX INSTALLATION	I-8
				DATE: 2019-01-11		
				SCALE: NTS		

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LANDSCAPE ARCHITECTURE
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1024 IRWIN ST, STE 104, SAN RAFAEL, CA 94901
T 415.331.4114 www.gatesassociates.com

REGISTERED LANDSCAPE ARCHITECT · CHRISTOPHER GATES · No. 2240 · 3/7/23 · STATE OF CALIFORNIA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

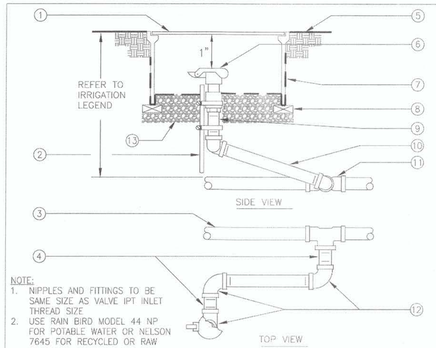
IRRIGATION DETAILS

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
46 OF 59

DWG. NO.
L3.08

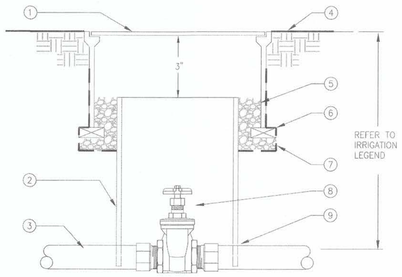


NOTE:
1. NIPPLES AND FITTINGS TO BE SAME SIZE AS VALVE IPT INLET THREAD SIZE
2. USE RAIN BIRD MODEL 44 NP FOR POTABLE WATER OR NELSON 7645 FOR RECYCLED OR RAW WATER

(1) 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID
(2) 1 1/4" x 1 1/4" x 3/16" ANGLE IRON 30" LONG W/2 STAINLESS STEEL STRAPS (ONE AROUND QCV)
(3) PVC MAIN LINE
(4) 3" LONG SCHEDULE 80 PVC THREADED NIPPLE
(5) FINISH GRADE
(6) QUICK COUPLING VALVE
(7) 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
(8) BRICK – 2 TOTAL
(9) SCHEDULE 80 PVC THREADED NIPPLE
(10) 10" LONG SCHEDULE 80 PVC THREADED NIPPLE
(11) UPC APPROVED SCHEDULE 40 PVC TEE OR ELBOW
(12) SCHEDULE 80 PVC THREADED 90° ELL
(13) PEA GRAVEL OR 3/4" DRAIN ROCK– 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)

APPROVED 3/8/23 DATE
DRAFT

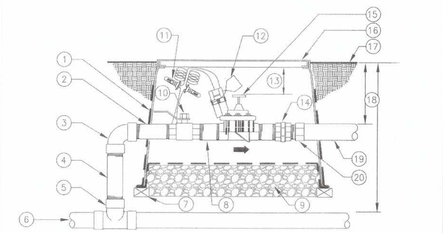
CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
				CHECKED BY: MK		
				DATE: 2019-01-11	QUICK COUPLING VALVE	I-12
				SCALE: NTS		



(1) 10" ROUND PLASTIC VALVE BOX WITH BOLT DOWN LID
(2) 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE)
(3) PVC MAIN LINE
(4) FINISH GRADE
(5) PEA GRAVEL OR 3/4" DRAIN ROCK – 4" DEEP (NO SOIL IN VALVE BOX)
(6) BRICK–2 TOTAL
(7) 19 GAUGE 1/2" SQUARE WIRE MESH
(8) GATE VALVE WITH X–TOP HANDLE
(9) MALE ADAPTER. REFER TO LEGEND FOR FITTING TYPE

APPROVED 3/8/23 DATE
DRAFT

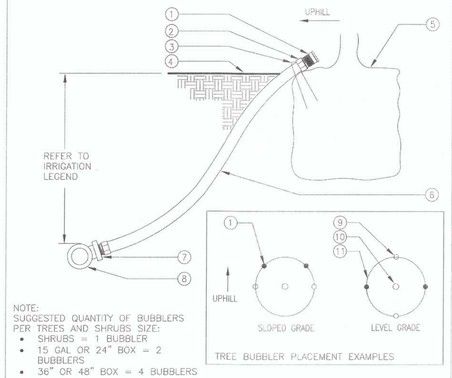
CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 2 OF 2
				CHECKED BY: MK		
				DATE: 2019-01-11	GATE VALVE – 3" & SMALLER	I-18
				SCALE: NTS		



(1) 19 GAUGE 1/2" SQUARE WIRE MESH. WRAP UP SIDES OF BOX
(2) SCH. 80 PVC NIPPLE (8"–12" IN LENGTH). LENGTH AS REQUIRED TO PROVIDE CLEARANCE FOR BALL VALVE HANDLE. MATCH VALVE SIZE
(3) SCH. 80 PVC 90° ELBOW (TxT)
(4) SCH. 80 PVC NIPPLE. LENGTH AS REQUIRED
(5) SCH. 40 OR 80 PVC TEE. REFER TO LEGEND FOR TYPE
(6) PVC MAIN LINE
(7) BRICK–ONE ON EACH CORNER
(8) 3" LONG SCH. 80 PVC NIPPLE. MATCH VALVE SIZE (2 TOTAL)
(9) PEA GRAVEL OR 3/4" DRAIN ROCK. 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX)
(10) BRASS BALL VALVE–1 PER VALVE. PROVIDE ENOUGH CLEARANCE FROM EDGE OF BOX FOR VALVE TO OPERATE
(11) VALVE CONTROL WIRE. PROVIDE 3M–DBY SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UP WIRE IN A 1" DIA. COIL
(12) VALVE I.D. TAG (CONTROLLER AND STATION NUMBER)
(13) 3" MIN 6" MAX
(14) SCH. 80 PVC THREADED UNION
(15) REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED (PRESSURE REGULATOR WHERE SHOWN ON PLANS)
(16) 14" X 19" RECTANGULAR PLASTIC VALVE BOX WITH BOLT DOWN LID. ONE VALVE PER BOX– NO EXCEPTIONS. INSTALL BOX AS SHOWN IN BOX INSTALLATION DETAIL
(17) FINISH GRADE
(18) REFER TO IRRIGATION LEGEND
(19) PVC LATERAL LINE
(20) SCH. 80 PVC MALE ADAPTER

APPROVED 3/8/23 DATE
DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 3
				CHECKED BY: MK		
				DATE: 2019-01-11	REMOTE CONTROL VALVE	I-11
				SCALE: NTS		

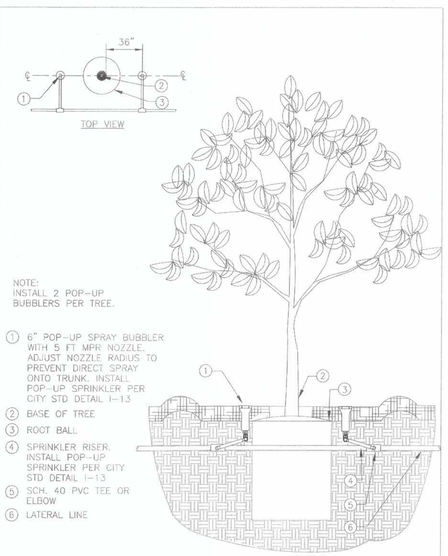


NOTE:
SUGGESTED QUANTITY OF BUBBLERS PER TREES AND SHRUBS SIZE:
- SHRUBS = 1 BUBBLER
- 15 GAL OR 24" BOX = 2 BUBBLERS
- 36" OR 48" BOX = 4 BUBBLERS

(1) BUBBLER (TO BE INSTALLED ON TOP OF ROOTBALL)
(2) 1/2" SCH. 40 MALE ADAPTER
(3) 6" STAPLE
(4) FINISH GRADE
(5) TREE OR SHRUB ROOTBALL
(6) 1/2" IPS FLEXIBLE PVC
(7) PVC TEE (SST), ELBOW (ST) OR FEMALE ADAPTER
(8) PVC LATERAL LINE
(9) TREE STAKES
(10) TREE OR SHRUB
(11) EDGE OF ROOTBALL (TYPICAL)

APPROVED 3/8/23 DATE
DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 2
				CHECKED BY: MK		
				DATE: 2019-01-11	TREE & SHRUB BUBBLER – NON–TURF AREAS	I-14
				SCALE: NTS		

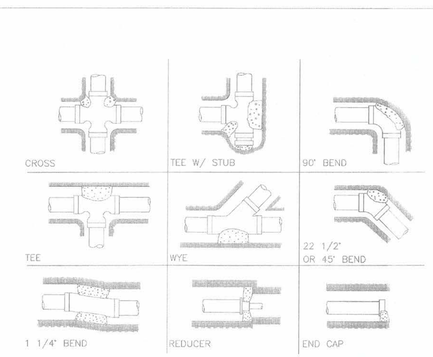


NOTE:
INSTALL 2 POP–UP BUBBLERS PER TREE.

(1) 6" POP–UP SPRAY BUBBLER WITH 5 FT MPR NOZZLE. ADJUST NOZZLE RADIUS TO PREVENT DIRECT SPRAY ONTO TRUNK. INSTALL POP–UP SPRINKLER PER CITY STD DETAIL I–13
(2) BASE OF TREE
(3) ROOT BALL
(4) SPRINKLER RISER. INSTALL POP–UP SPRINKLER PER CITY STD DETAIL I–13
(5) SCH. 40 PVC TEE OR ELBOW
(6) LATERAL LINE

APPROVED 3/8/23 DATE
DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 2 OF 2
				CHECKED BY: MK		
				DATE: 2019-01-11	POP–UP TREE BUBBLER – TURF AREAS	I-14
				SCALE: NTS		



1. CONCRETE THRUST BLOCK SHALL HAVE CONTACT WITH FITTING ONLY AND REMAIN CLEAR OF PIPE AND JOINTS
2. THRUST BLOCK TO BE CONSTRUCTED OF 3000 PSI CONCRETE
3. BLOCK TO BE POURED AGAINST UNDISTURBED SOIL
4. REFER TO CITY STANDARD DETAIL W–10 FOR THRUST BLOCK SIZING CHART

APPROVED 3/8/23 DATE
DRAFT

CITY OF PITTSBURG	NO.	DATE	REVISION	DRAWN BY: CM	STANDARD DETAIL	SHEET 1 OF 1
				CHECKED BY: MK		
				DATE: 2019-01-11	IRRIGATION SYSTEM THRUST BLOCKING	I–3
				SCALE: NTS		

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LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1601N. MARKET, STE.350, WALNUT CREEK, CA 94596
T 925.736.8176 www.dgates.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/21/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

IRRIGATION DETAILS

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
47 OF 59

DWG. NO.
L3.09

WATER CALCULATION:

WATER USE ESTIMATION & IRRIGATION SCHEDULE - CONTROLLER C

WATER TYPE	POTABLE
CITY	Pittsburg
ETO	45.4
DATE	8/17/2023

Nearest City to project with published ET data

REGULAR LANDSCAPE AREAS

STATION/HYDROZONE	GPM	AREA (sq.ft) (HA)	WATER USE TYPE (LW=LOW, MW=MOD, HW=HIGH)	PLANT TYPE	IRRIGATION TYPE	PLANT FACTOR (PF)	IRRIGATION EFFICIENCY (IE)	PRECIP. RATE/ APPLICATION RATE (IN/HR)	ETAF (PF/IE)	CYCLES PER DAY	DAYS PER WEEK	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEP	OCT	NOV	DEC	ETWU (GALLONS PER YEAR)	PERCENTAGE OF LANDSCAPE
												MONTHLY ETO													
												1.0	1.5	2.8	4.1	5.6	6.4	7.4	6.4	5.0	3.2	1.3	0.7		
												TOTAL RUN TIME IN MINUTES PER DAY													
C-1	18	864	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	9,007	4%
C-2	2	60	MW	SHRUB GC LW	BUBBLER (SHRUB)	0.5	0.81	1.91	0.6	2	2	0.0	0.0	7.0	9.0	13.0	15.0	17.0	15.0	11.0	8.0	3.0	0.0	1,043	0%
C-3	12	564	LW	BIOSWALE LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	3	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	1.0	5,880	3%
C-4	15	744	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	7,756	4%
C-5	7	1300	LW	TREE LW	BUBBLER (TREE) 0.5 GPM	0.3	0.81	0.85	0.4	2	2	0.0	0.0	9.0	13.0	17.0	19.0	22.0	19.0	15.0	10.0	4.0	0.0	13,553	6%
C-6	11	504	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	5,254	2%
C-7	14	660	LW	BIOSWALE LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	6,881	3%
C-8	6	1200	LW	TREE LW	BUBBLER (TREE) 0.25 GPM	0.3	0.81	0.43	0.4	2	2	0.0	0.0	17.0	24.0	33.0	38.0	44.0	38.0	30.0	19.0	8.0	0.0	12,510	6%
C-9	27	1272	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	13,261	6%
C-10	10	456	MW	SHRUB GC MW	BUBBLER (SHRUB)	0.5	0.81	1.91	0.6	2	3	0.0	0.0	5.0	6.0	9.0	10.0	11.0	10.0	8.0	5.0	2.0	0.0	7,923	2%
C-11	22	1032	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	10,759	5%
C-12	35	1692	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	3	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	17,639	8%
C-13	20	960	LW	BIOSWALE LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	10,008	5%
C-14	12	2400	LW	TREE LW	BUBBLER (TREE) 0.25 GPM	0.3	0.81	0.43	0.4	2	2	0.0	0.0	17.0	24.0	33.0	38.0	44.0	38.0	30.0	19.0	8.0	0.0	25,020	12%
C-15	30	1440	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	15,012	7%
C-16	22	1044	LW	BIOSWALE LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	10,884	5%
C-17	4	800	LW	TREE LW	BUBBLER (TREE) 0.25 GPM	0.3	0.81	0.43	0.4	2	2	0.0	0.0	17.0	24.0	33.0	38.0	44.0	38.0	30.0	19.0	8.0	0.0	8,340	4%
C-18	5	1000	LW	TREE LW	BUBBLER (TREE) 0.25 GPM	0.3	0.81	0.43	0.4	2	2	0.0	0.0	17.0	24.0	33.0	38.0	44.0	38.0	30.0	19.0	8.0	0.0	10,425	5%
C-19	19	888	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	9,258	4%
C-20	22	1032	LW	BIOSWALE LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	2	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	10,759	5%
C-21	14	672	LW	SHRUB GC LW	BUBBLER (SHRUB)	0.3	0.81	1.91	0.4	3	2	0.0	0.0	4.0	6.0	8.0	9.0	10.0	9.0	7.0	5.0	2.0	0.0	7,006	3%
C-22	1	32	MW	SHRUB GC MW	BUBBLER (SHRUB)	0.5	0.81	1.91	0.6	2	3	0.0	0.0	5.0	6.0	9.0	10.0	11.0	10.0	8.0	5.0	2.0	0.0	556	0%
	TOTAL	20,616																					TOTAL	218,734	35%

SPECIAL LANDSCAPE AREAS

HYDROZONE #	HYDROZONE NAME	AREA (sq.ft) (HA)	Percentage of Landscape
			0%

THE IRRIGATION VALVE SCHEDULE SHOWN ABOVE IS INTENDED TO BE USED AS A GUIDELINE ONLY AND INDICATES THE APPROXIMATE RUN TIMES IN MINUTES FOR EACH VALVE BASED ON ESTIMATED WEEKLY WATER REQUIREMENTS FOR ESTABLISHED PLANT MATERIAL. THE TIMES SHOWN ARE APPROXIMATE AND HAVE BEEN DEVELOPED FROM LOCAL AND CURRENT AVERAGES FOR EVAPOTRANSPIRATION, AND REFLECTTHE WATER REQUIREMENTS OF THE PLANT MATERIAL BASED ON PLANT TYPE AND THE APPROXIMATE PRECIPITATION OR APPLICATION RATES OF THE IRRIGATION SYSTEM TYPE. ACTUAL RUN TIMES MAY BE DIFFERENT DEPENDING ON A VARIETY OF FACTORS INCLUDING TOPOGRAPHY, SOIL STRUCTURE, SUN AND WIND EXPOSURE, WEATHER, ACTUAL PLANT WATER REQUIREMENTS, OVERALL PRECIPITATION RATE OF ZONE, ETC.

MAWA	GALLONS/YR	261,135
	ACRE FEET/YR	0.80
	HCF/YR	349.11

ETWU	GALLONS/YR	218,734
	ACRE FEET/YR	0.67
	HCF/YR	292.43

SITE IRRIGATION EFFICIENCY	SITE PLANT FACTOR	MAWA COMPLIANT
28.2%	0.10	YES

ETAF Calculations	
REGULAR LANDSCAPE AREAS	
TOTAL ETAF x AREA	2,670
TOTAL AREA	20,616
AVG. ETAF	12.95%

MAWA FORMULA

MAXIMUM APPLIED WATER ALLOWANCE (MAWA) GALLONS PER YEAR

MAWA = (ETo)(0.62)[(LA x 0.45) + (0.55 x SLA)]

ETo = REFERENCE EVAPOTRANSPIRATION

0.45= ET ADJUSTMENT FACTOR

LA=LANDSCAPED AREA (SQUARE FEET)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)

ETWU FORMULA

ESTIMATED TOTAL WATER USE (ETWU) GALLONS PER YEAR

ETWU= ((ETO)(.62)(ETAF x LA))

ETo = REFERENCE EVAPOTRANSPIRATION

PF = PLANT FACTOR FOR HYDROZONES

HA = HYDROZONE AREA (SQ.FT)
0.62 = CONVERSION FACTOR (GALLONS/SQ.FT/YR)

IE = IRRIGATION EFFICIENCY (0.81)-BUBBLER/DRIP

IE = IRRIGATION EFFICIENCY (0.75)-ROTORS/SPRAY

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1625 N. MARKET, STE 206, SAN JOSE, CA 95112
T 925.735.8176 www.gates.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/22/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

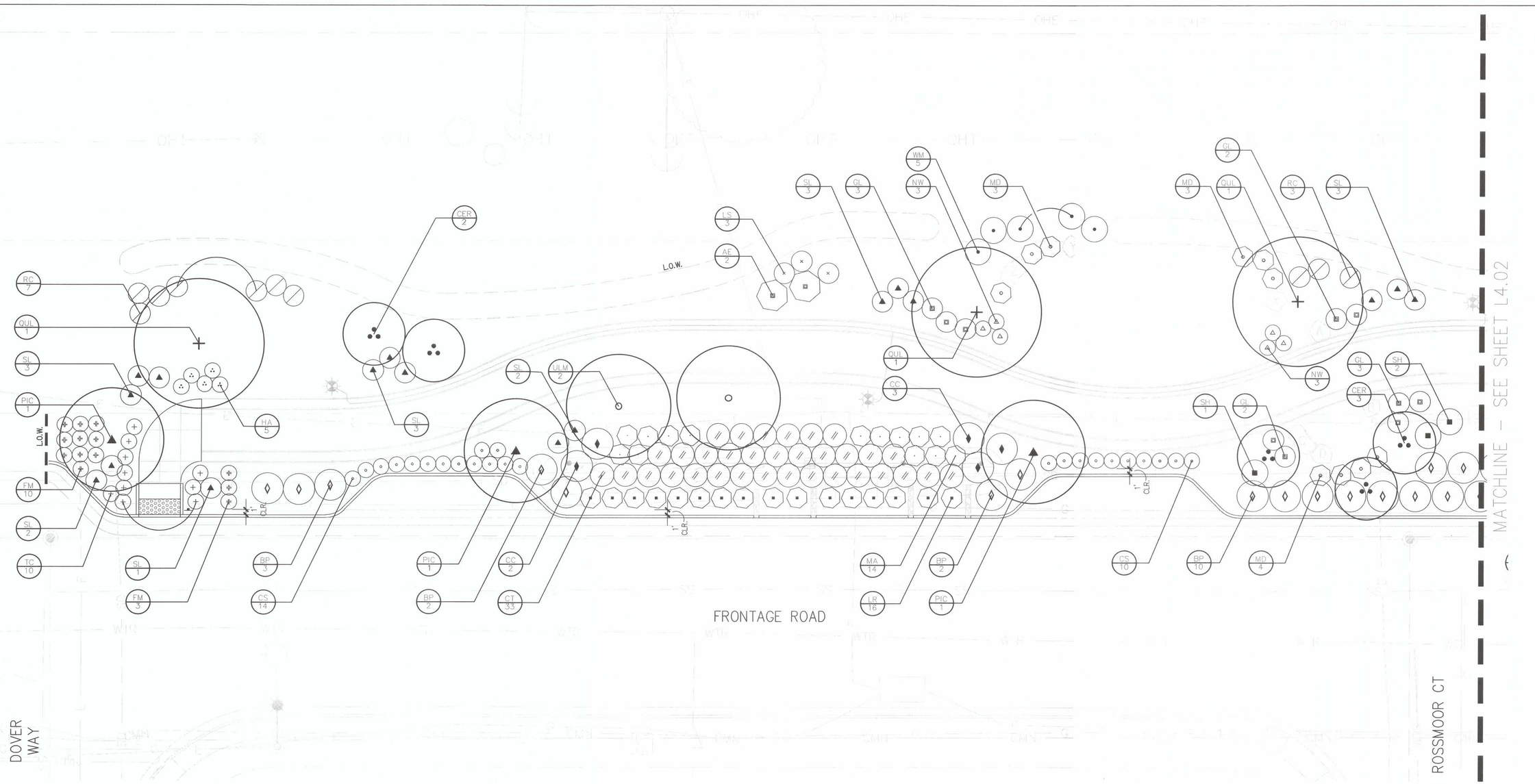
IRRIGATION WATER CALCULATIONS

DRAWN: TZ | CHECKED: KC | REVIEWED: KC, TZ | DATE: 09/05/23 | SCALE: AS SHOWN

BY	DESCRIPTION	REV	DATE

SHEET NO.
48 OF 59

DWG. NO.
L3.10



PLANTING SCHEDULE

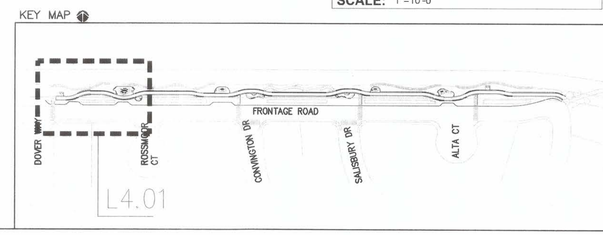
TREES	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
ACB	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	L	AS SHOWN	10
CER	CERCIS OCCIDENTALIS	WESTERN REDBUD	24"BOX	VL	AS SHOWN	23
OES	OLEA EUROPAEA 'SWAN HILL'	SWAN HILL FRUITLESS OLIVE	24"BOX	VL	AS SHOWN	4
PIC	PISTACIA CHINENSIS	CHINESE PISTACHE	24"BOX	L	AS SHOWN	5
QUL	QUERCUS LOBATA	VALLEY OAK	24"BOX	VL	AS SHOWN	7
ULM	ULMUS CARPINIFOLIA X PARVIFOLIA 'FRONTIER'	FRONTIER ELM	24"BOX	L	AS SHOWN	16

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
AE	ARCTOSTAPHYLOS X 'EMERALD CARPET'	EMERALD CARPET MANZANITA	1 GAL	L	72" o.c.	21
BP	BACCHARIS PILULARIS 'TWIN PEAKS'	DWARF COYOTE BRUSH	1 GAL	L	72" o.c.	93
CS	CALANDRINIA SPECTABILIS 'SHINING PINK'	SHINING PINK CALANDRINIA	1 GAL	L	36" o.c.	34
CT	CHONDROPETALUM TECTORUM 'EL CAMPO'	SMALL CAPE RUSH	5 GAL	L	54" o.c.	299
CC	CORREA X 'CARMINE BELLS'	CARMINE BELLS AUSTRALIAN FUCHSIA	1 GAL	L	72" o.c.	46
FM	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	L	36" o.c.	61
GL	GREVILLEA LANIGERA 'COASTAL GEM'	COASTAL GEM GREVILLEA	1 GAL	L	48" o.c.	27
HA	HELENIUM AUTUMNALE	SNEEZEWEED	1 GAL	M	36" o.c.	27
HP	HESPERALOE PARVIFLORA 'PERPA'	BRAKELIGHTS®RED YUCCA	5 GAL	L	36" o.c.	10
LR	LANTANA CAMARA 'LANZ0001'	BANDANA®ROSE IMPROVED LANTANA	1 GAL	L	48" o.c.	149
LS	LEUCADENDRON SALIGNUM 'WINTER RED'	WINTER RED CONEBUSH	5 GAL	L	48" o.c.	25
MA	MIMULUS AURANTIACUS	BUSH MONKEYFLOWER	1 GAL	L	48" o.c.	69
MD	MUHLENBERGIA DUBIA	PINE MUHLY	1 GAL	L	48" o.c.	59
NW	NEPETA X 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL	L	36" o.c.	31
RC	RHAMNUS CALIFORNICA 'MOUND SAN BRUNO'	MOUND SAN BRUNO COFFEEBERRY	1 GAL	L	48" o.c.	39
SL	SALVIA LEUCANTHA 'SANTA BARBARA'	MEXICAN BUSH SAGE	5 GAL	L	48" o.c.	66
SH	SALVIA MICROPHYLLA 'HOT LIPS'	HOT LIPS GRAHAM SAGE	5 GAL	L	60" o.c.	15
TC	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL	L	36" o.c.	65
WM	WESTRINGIA FRUTICOSA 'MORNING LIGHT'	MORNING LIGHT COAST ROSEMARY	1 GAL	L	60" o.c.	11

0 5' 10' 20'

SCALE: 1"=10'-0"

KEY MAP



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LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1814 N. MARKET ST. STE 2A, WALNUT CREEK, CA 94596
T 925.738.8176 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT STATE OF CALIFORNIA DIANE M. GATES 4/30/2024 #1725 LA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

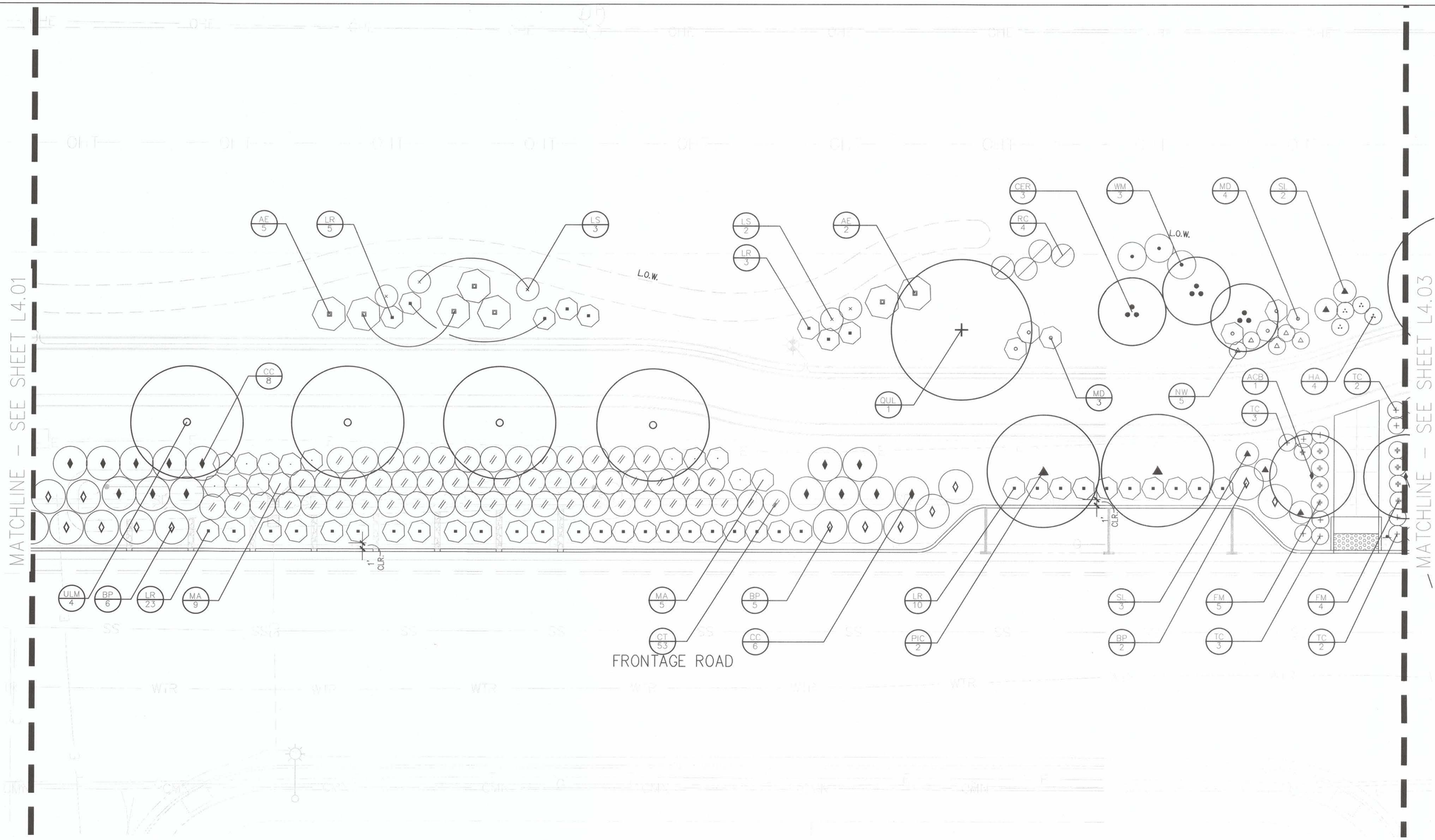
PLANTING PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
49 OF 59

DWG. NO.
L4.01



PLANTING SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
ACB	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	L	AS SHOWN	10
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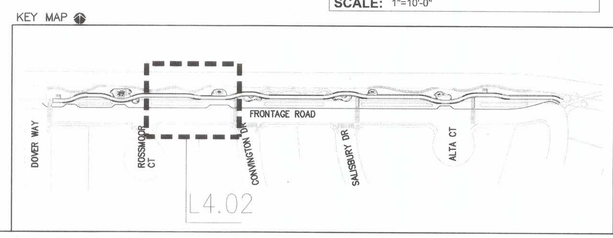
OES	OLEA EUROPAEA 'SWAN HILL'	SWAN HILL FRUITLESS OLIVE	24"BOX	VL	AS SHOWN	4
PIC	PISTACIA CHINENSIS	CHINESE PISTACHE	24"BOX	L	AS SHOWN	5
QUL	QUERCUS LOBATA	VALLEY OAK	24"BOX	VL	AS SHOWN	7
ULM	ULMUS CARPINIFOLIA X PARVIFOLIA 'FRONTIER'	FRONTIER ELM	24"BOX	L	AS SHOWN	16

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
AE	ARCTOSTAPHYLOS X 'EMERALD CARPET'	EMERALD CARPET MANZANITA	1 GAL	L	72" o.c.	21
BP	BACCHARIS PILULARIS 'TWIN PEAKS'	DWARF COYOTE BRUSH	1 GAL	L	72" o.c.	93
CS	CALANDRINIA SPECTABILIS 'SHINING PINK'	SHINING PINK CALANDRINIA	1 GAL	L	36" o.c.	34
CT	CHONDROPETALUM TECTORUM 'EL CAMPO'	SMALL CAPE RUSH	5 GAL	L	54" o.c.	299
CC	CORREA X 'CARMINE BELLS'	CARMINE BELLS AUSTRALIAN FUCHSIA	1 GAL	L	72" o.c.	46
FM	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	L	36" o.c.	61
GL	GREVILLEA LANIGERA 'COASTAL GEM'	COASTAL GEM GREVILLEA	1 GAL	L	48" o.c.	27
HA	HELENIUM AUTUMNALE	SNEEZEWEED	1 GAL	M	36" o.c.	27
HP	HESPERALOE PARVIFLORA 'PERPA'	BRAKELIGHTS®RED YUCCA	5 GAL	L	36" o.c.	10
LR	LANTANA CAMARA 'LANZ0001'	BANDANA®ROSE IMPROVED LANTANA	1 GAL	L	48" o.c.	149
LS	LEUCADENDRON SALIGNUM 'WINTER RED'	WINTER RED CONEBUSH	5 GAL	L	48" o.c.	25
MA	MIMULUS AURANTIACUS	BUSH MONKEYFLOWER	1 GAL	L	48" o.c.	69
MD	MUHLENBERGIA DUBIA	PINE MUHLY	1 GAL	L	48" o.c.	59
NW	NEPETA X 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL	L	36" o.c.	31
RC	RHAMNUS CALIFORNICA 'MOUND SAN BRUNO'	MOUND SAN BRUNO COFFEEBERRY	1 GAL	L	48" o.c.	39
SL	SALVIA LEUCANTHA 'SANTA BARBARA'	MEXICAN BUSH SAGE	5 GAL	L	48" o.c.	66
SH	SALVIA MICROPHYLLA 'HOT LIPS'	HOT LIPS GRAHAM SAGE	5 GAL	L	60" o.c.	15
TC	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL	L	36" o.c.	65
WM	WESTRINGIA FRUTICOSA 'MORNING LIGHT'	MORNING LIGHT COAST ROSEMARY	1 GAL	L	60" o.c.	11

0 5' 10' 20'

SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1657A Monroe Street, Santa Clara, CA 95050
T: 831.713.1113 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT Kevin Clark Gates 4/30/2024 No. 6123 CA. STATE OF CALIFORNIA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 4/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

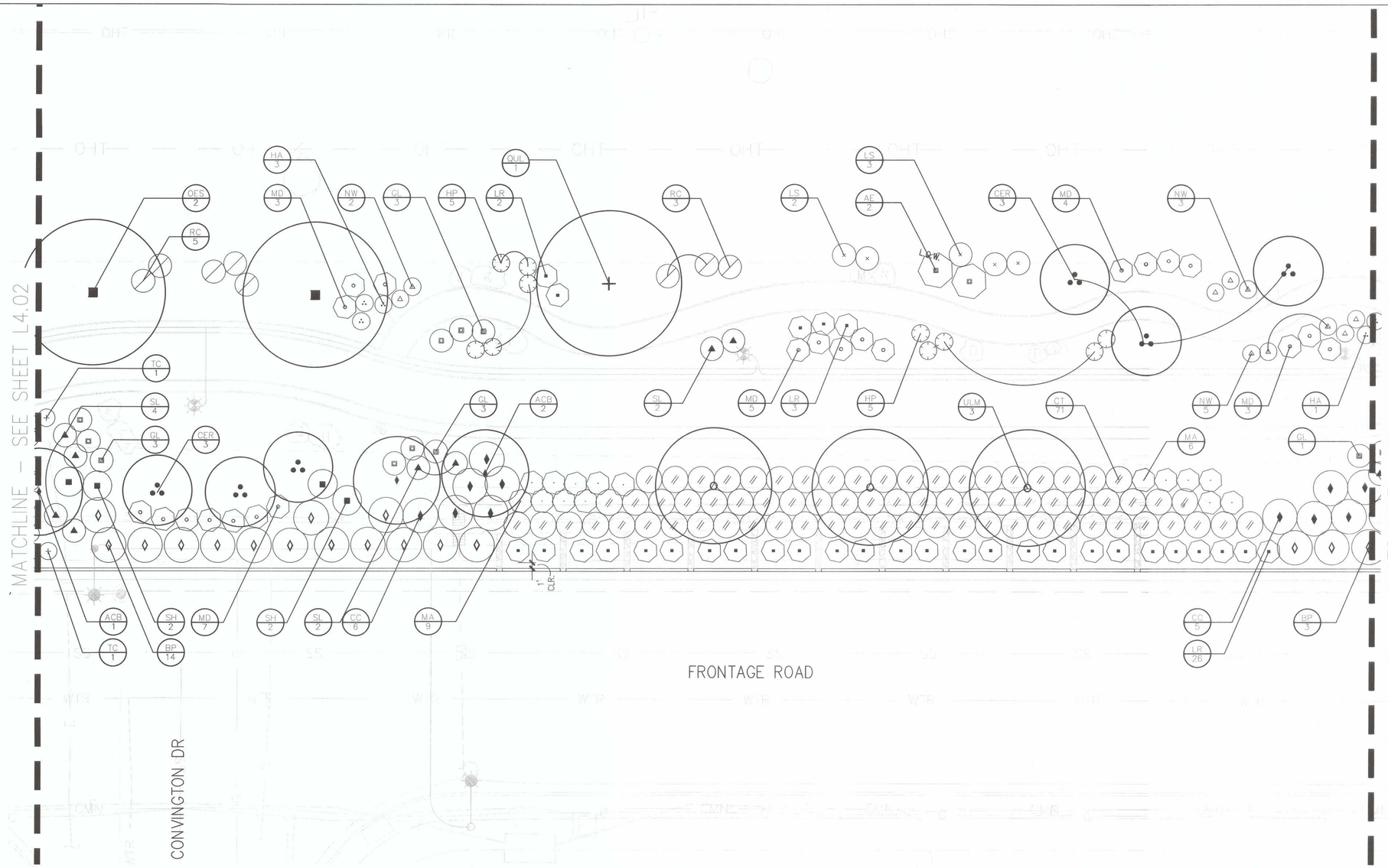
PLANTING PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
50 OF 59

DWG. NO.
L4.02



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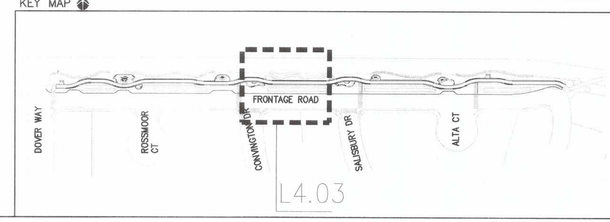
0 5' 10' 20'
0" ½" 1" 2"
SCALE: 1"=10'-0"

KEY MAP



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ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 12/12/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

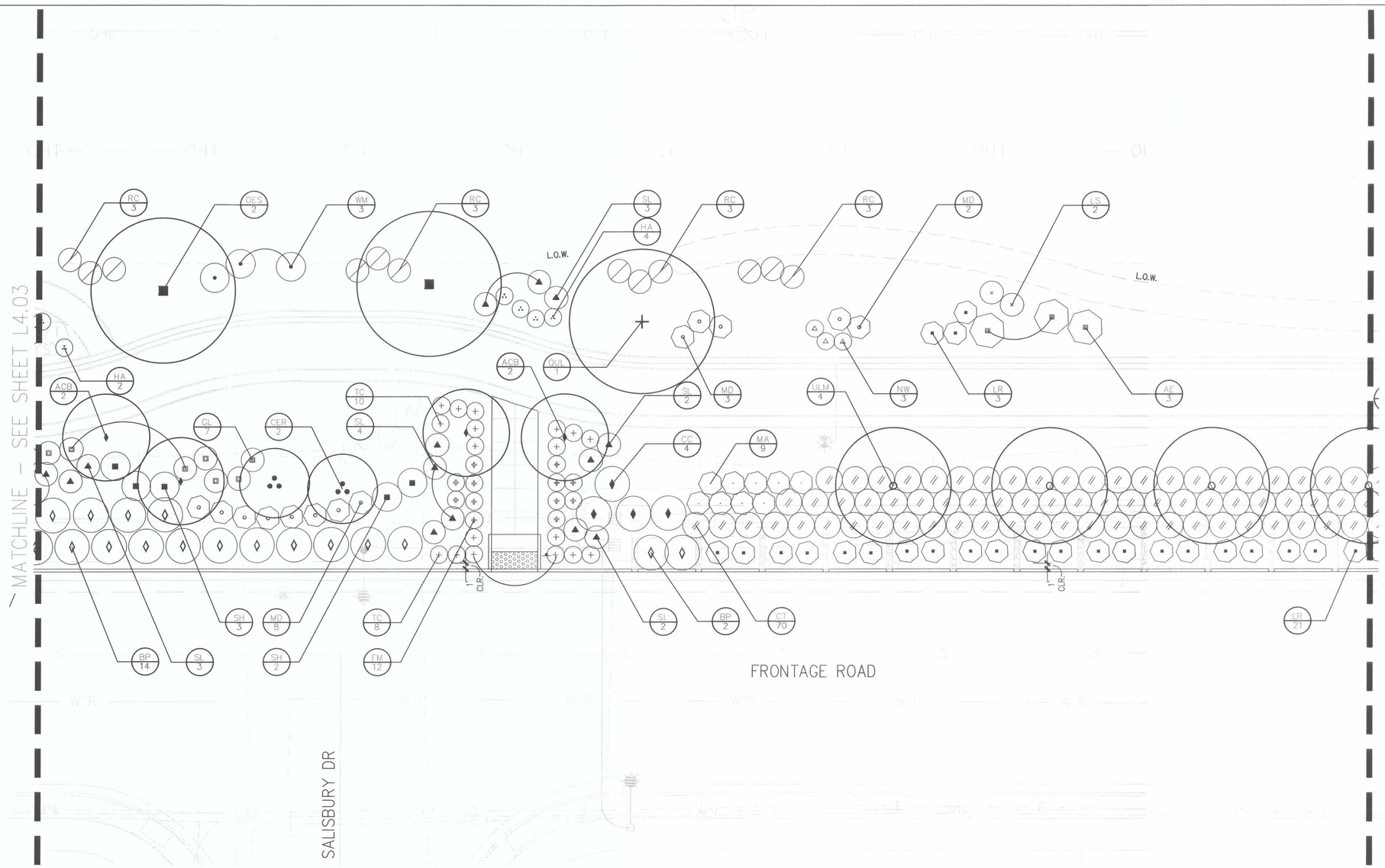
PLANTING PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
51 OF 59

DWG. NO.
L4.03



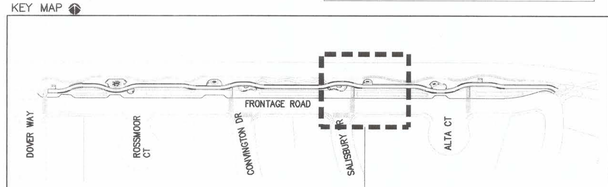
PLANTING SCHEDULE

TREES	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
ACB	ACER BUERGERIANUM	TRIDENT MAPLE	24"BOX	L	AS SHOWN	10
CER	CERCIS OCCIDENTALIS	WESTERN REDBUD	24"BOX	VL	AS SHOWN	23
OES	OLEA EUROPAEA 'SWAN HILL'	SWAN HILL FRUITLESS OLIVE	24"BOX	VL	AS SHOWN	4
PIC	PISTACIA CHINENSIS	CHINESE PISTACHE	24"BOX	L	AS SHOWN	5
QUL	QUERCUS LOBATA	VALLEY OAK	24"BOX	VL	AS SHOWN	7
ULM	ULMUS CARPINIFOLIA X PARVIFOLIA 'FRONTIER'	FRONTIER ELM	24"BOX	L	AS SHOWN	16

SHRUBS	BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	SPACING	QTY
AE	ARCTOSTAPHYLOS X 'EMERALD CARPET'	EMERALD CARPET MANZANITA	1 GAL	L	72" o.c.	21
BP	BACCHARIS PILULARIS 'TWIN PEAKS'	DWARF COYOTE BRUSH	1 GAL	L	72" o.c.	93
CS	CALANDRINIA SPECTABILIS 'SHINING PINK'	SHINING PINK CALANDRINIA	1 GAL	L	36" o.c.	34
CT	CHONDROPETALUM TECTORUM 'EL CAMPO'	SMALL CAPE RUSH	5 GAL	L	54" o.c.	299
CC	CORREA X 'CARMINE BELLS'	CARMINE BELLS AUSTRALIAN FUCHSIA	1 GAL	L	72" o.c.	46
FM	FESTUCA MAIREI	ATLAS FESCUE	1 GAL	L	36" o.c.	61
GL	GREVILLEA LANIGERA 'COASTAL GEM'	COASTAL GEM GREVILLEA	1 GAL	L	48" o.c.	27
HA	HELENIUM AUTUMNALE	SNEEZEWEED	1 GAL	M	36" o.c.	27
HP	HESPERALOE PARVIFLORA 'PERPA'	BRAKELIGHTS®RED YUCCA	5 GAL	L	36" o.c.	10
LR	LANTANA CAMARA 'LANZ0001'	BANDANA®ROSE IMPROVED LANTANA	1 GAL	L	48" o.c.	149
LS	LEUCADENDRON SALIGNUM 'WINTER RED'	WINTER RED CONEBUSH	5 GAL	L	48" o.c.	25
MA	MIMULUS AURANTIACUS	BUSH MONKEYFLOWER	1 GAL	L	48" o.c.	69
MD	MUHLENBERGIA DUBIA	PINE MUHLY	1 GAL	L	48" o.c.	59
NW	NEPETA X 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL	L	36" o.c.	31
RC	RHAMNUS CALIFORNICA 'MOUND SAN BRUNO'	MOUND SAN BRUNO COFFEEBERRY	1 GAL	L	48" o.c.	39
SL	SALVIA LEUCANTHA 'SANTA BARBARA'	MEXICAN BUSH SAGE	5 GAL	L	48" o.c.	66
SH	SALVIA MICROPHYLLA 'HOT LIPS'	HOT LIPS GRAHAM SAGE	5 GAL	L	60" o.c.	15
TC	TEUCRIUM CHAMAEDRYS	GERMANDER	1 GAL	L	36" o.c.	65
WM	WESTRINGIA FRUTICOSA 'MORNING LIGHT'	MORNING LIGHT COAST ROSEMARY	1 GAL	L	60" o.c.	11

0 5' 10' 20'
0" 30" 1" 2"
SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING URBAN DESIGN
1600 SPRUCE ST. BERKELEY, CA 94709
T 925.736.8774 www.gateslA.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

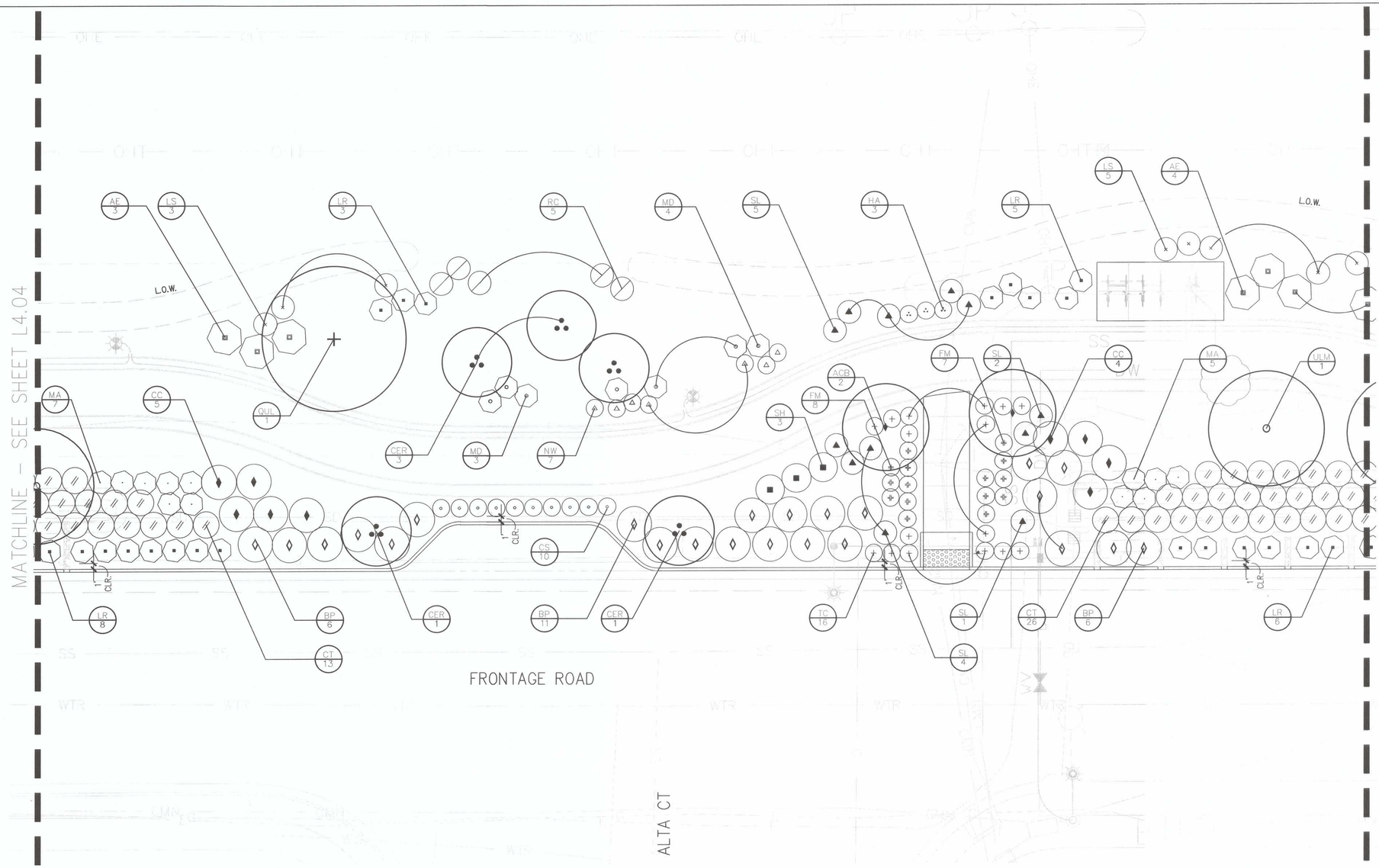
PLANTING PLAN

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
52 OF 59

DWG. NO.
L4.04



PLANTING SCHEDULE

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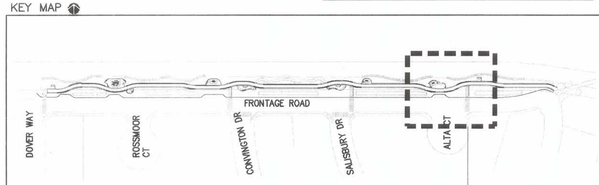
0 5' 10' 20'
0" ½" 1" 2"
SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1625 N. MARKET STE 245, WALNUT CREEK, CA 94596
T 925.735.8778 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT STATE OF CALIFORNIA
CHRISTOPHER KEITH GATES
No. 3725
LA

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

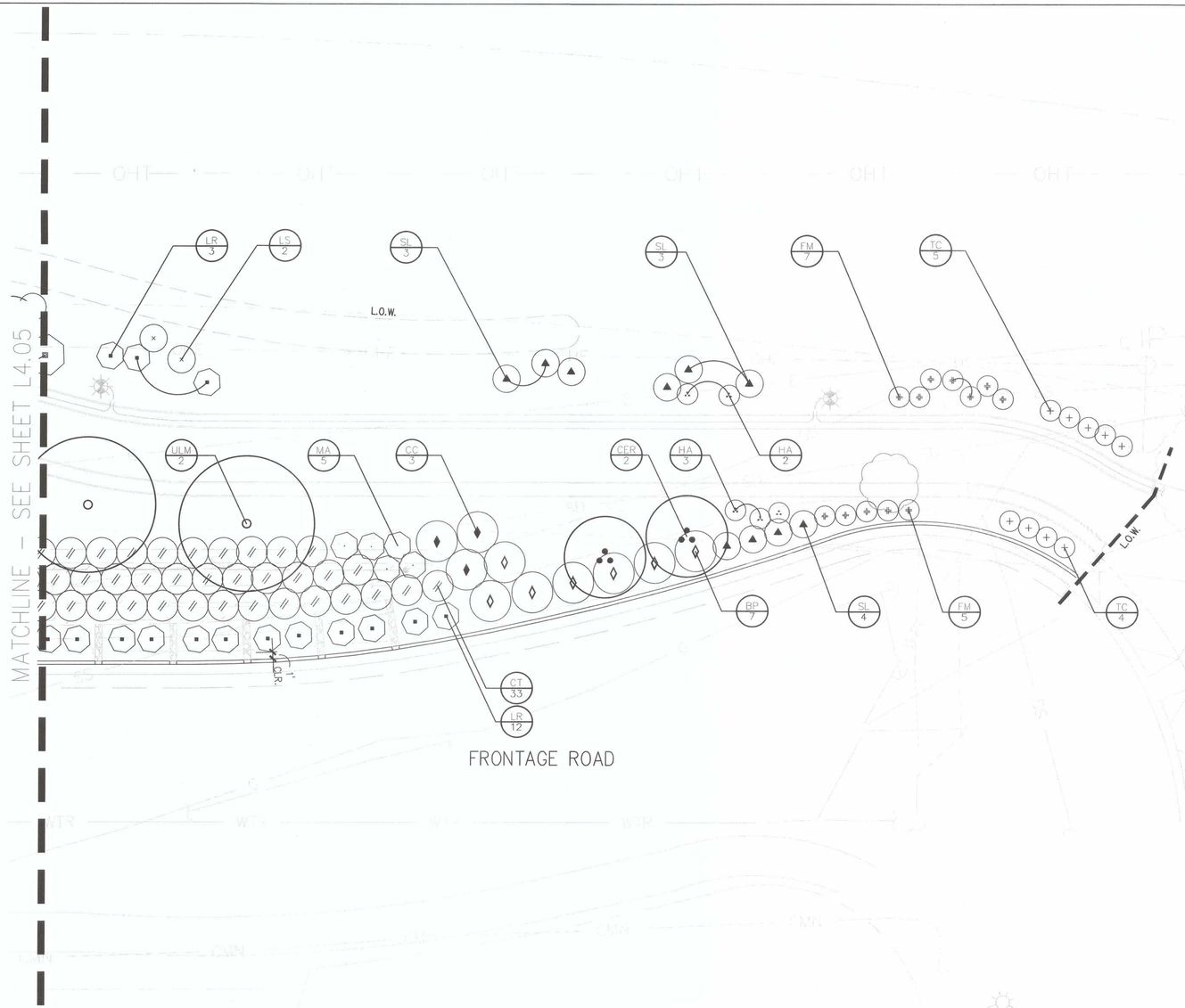
PLANTING PLAN

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

BY	DESCRIPTION	REV	DATE

SHEET NO.
53 OF 59

DWG. NO.
L4.05



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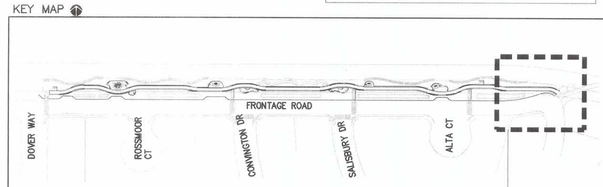
0 5' 10' 20'

SCALE: 1"=10'-0"

KEY MAP



GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
160 N. MARKET STREET, WALNUT CREEK, CA 94596
T 925.935.8176 www.gatesla.com

REGISTERED LANDSCAPE ARCHITECT'S SEAL — STATE OF CALIFORNIA — 6/05/2024 — 6724 — L.A.

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

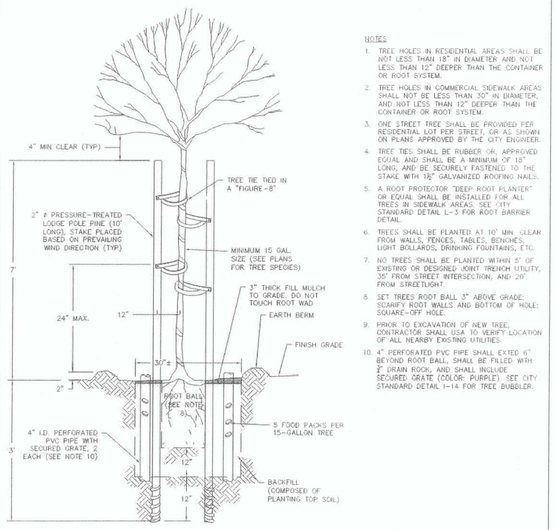
PLANTING PLAN

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

BY	DESCRIPTION	REV	DATE

SHEET NO.
54 OF 59

DWG. NO.
L4.06



NOTES

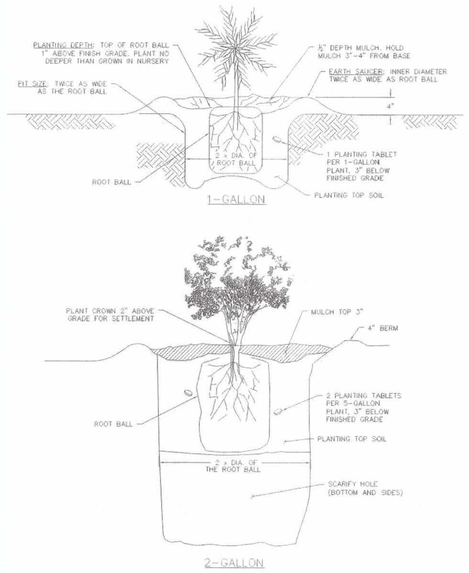
1. TREE HOLES IN RESIDENTIAL AREAS SHALL BE NOT LESS THAN 18" IN DIAMETER AND NOT LESS THAN 12" DEEPER THAN THE CONTAINER OR ROOT SYSTEM.
2. TREE HOLES IN COMMERCIAL SIDEWALK AREAS SHALL NOT BE LESS THAN 20" IN DIAMETER, AND NOT LESS THAN 12" DEEPER THAN THE CONTAINER OR ROOT SYSTEM.
3. ONE STREET TREE SHALL BE PROVIDED PER RESIDENTIAL LOT PER STREET, OR AS SHOWN ON PLANS APPROVED BY THE CITY ENGINEER.
4. TREE TIES SHALL BE RUBBER OR, APPROVED EQUAL AND SHALL BE A MINIMUM OF 18" LONG AND BE SECURELY FASTENED TO THE STAKE WITH ½" GALVANIZED ROOFING NAILS.
5. A ROOT PROTECTOR "DEEP ROOT PLANTER" OR EQUAL SHALL BE INSTALLED FOR ALL TREES IN SIDEWALK AREAS. SEE CITY STANDARD DETAIL L-3 FOR ROOT BARRIER DETAIL.
6. TREES SHALL BE PLANTED AT 10' MIN. CLEAR FROM WALLS, FENCES, TABLES, BENCHES, LIGHT BOLLARDS, DRINKING FOUNTAINS, ETC.
7. NO TREES SHALL BE PLANTED WITHIN 5' OF EXISTING OR DESIGNED JOINT TRENCH UTILITY, 35' FROM STREET INTERSECTION, AND 20' FROM STREETLIGHT.
8. SET TREES ROOT BALL 3" ABOVE GRADE; SCARIFY ROOT WALLS AND BOTTOM OF HOLE; SQUARE-OFF HOLE.
9. PRIOR TO EXCAVATION OF NEW TREE, CONTRACTOR SHALL USA 10 VERIFY LOCATION OF ALL NEARBY EXISTING UTILITIES.
10. 4" PERFORATED PVC PIPE SHALL EXTEND 6" BEYOND ROOT BALL, SHALL BE FILLED WITH 2" DRAIN ROCK, AND SHALL INCLUDE SECURED GRATE (COLOR: PURPLE). SEE CITY STANDARD DETAIL I-14 FOR TREE BUBBLER.

NOTE:
PROVIDE PLANT PIT TWO TIMES OF ROOTBALL SIZE FOR 24" BOX TREE

APPROVED _____ 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: ALA	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG	1	2019-01-11	NOTES 9&10 ADDED MULCH	CHECKED BY: MK	TREE PLANTING	L-1
				DATE: 2019-01-11		
				SCALE: NTS		

3 TREE PLANTING
SCALE: N.T.S.



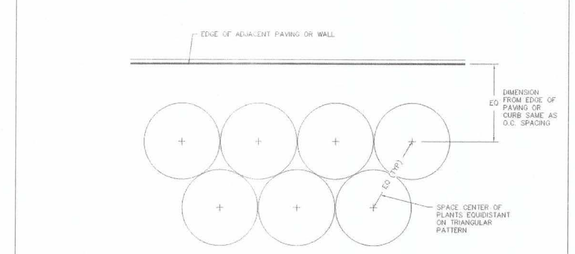
NOTES

1. BACKFILL WITH PLANTING TOP SOIL.
2. PLANTER AREA SHALL HAVE PRE-EMERGENT HERBICIDE APPLIED BEFORE PLANTING TO PREVENT GERMINATION OF WEED SEEDS.

APPROVED _____ 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: ALA	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG				CHECKED BY: MK	SHRUB PLANTING	L-5
				DATE: 2019-01-11		
				SCALE: NTS		

2 SHRUB PLANTING
SCALE: N.T.S.



PLAN VIEW
SCALE: NTS

NOTES

1. FOR MEDIANS, THE MATURE HEIGHT OF SHRUBS SHALL NOT EXCEED 4' RELATIVE TO THE GRADE OF PAVEMENT IN THE TRAVEL LANE.
2. MAINTAIN MINIMUM SIGN DISTANCE FOR CURB RETURNS AND MEDIANS.
3. SHRUBS SHALL BE LOCATED 3' MINIMUM AWAY FROM ROADSIDE SIGNS.

APPROVED _____ 3/8/23 DATE

DRAFT	NO.	DATE	REVISION	DRAWN BY: ALA	STANDARD DETAIL	SHEET 1 OF 1
CITY OF PITTSBURG	1	2019-01-11	NOTES 2&3	CHECKED BY: MK	GROUNDCOVER & SHRUB SPACING	L-2
				DATE: 2019-01-11		
				SCALE: NTS		

1 PLANT SPACING
SCALE: N.T.S.

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LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1655 N. MAIN ST. STE 365, WALNUT CREEK, CA 94596
T 925.726.8826 www.gateas.com

LANDSCAPE ARCHITECT · REGISTERED · STATE OF CALIFORNIA · ANNE L. BOSS · No. 4666 · RENEWAL 08/31/24 · L.A.

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/14/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

PLANTING DETAILS

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
55 OF 59

DWG. NO.
L5.01

PATH: P:\PITTSBURG\FRONTAGE ROAD LIVING TRAIL (P16108)\ACAD\SHEETS_DG-D-FRONTAGE ROAD LIVING TRAIL.DWG
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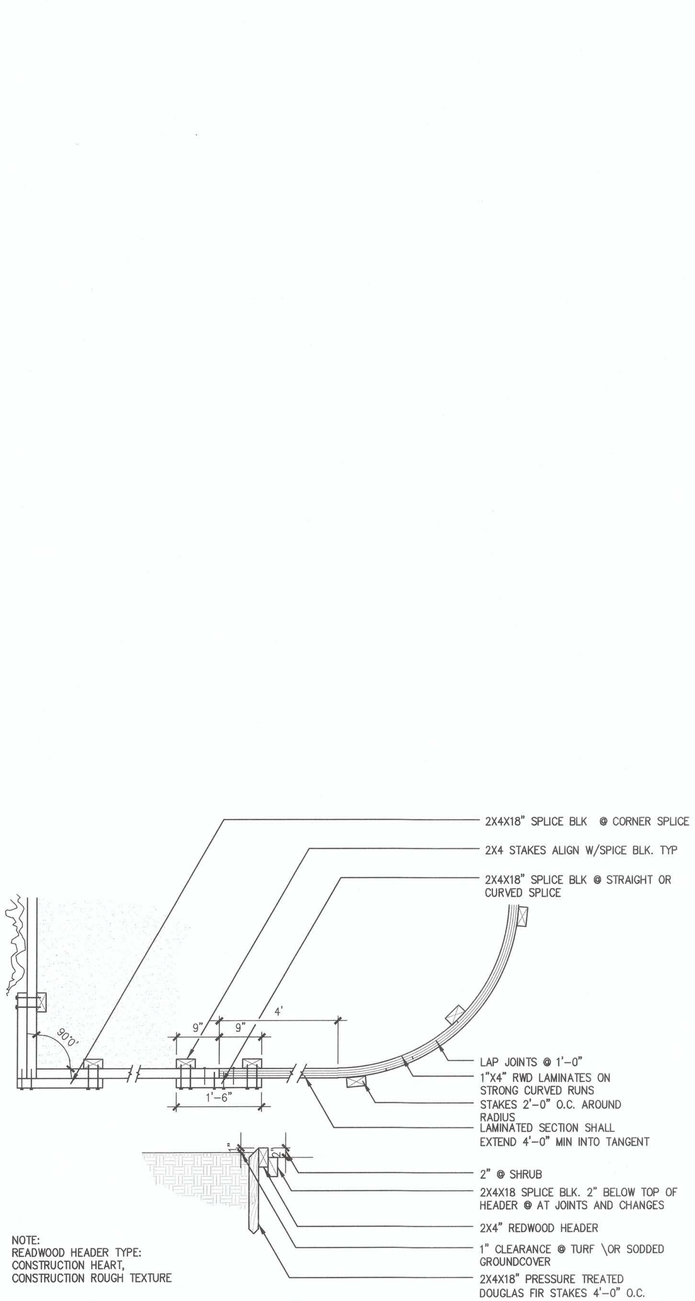


NOTE:
READWOOD HEADER TYPE:
CONSTRUCTION HEART,
CONSTRUCTION ROUGH TEXTURE

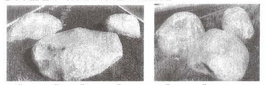
3 REDWOOD HEADER

SCALE: 3/4" = 1'-0"

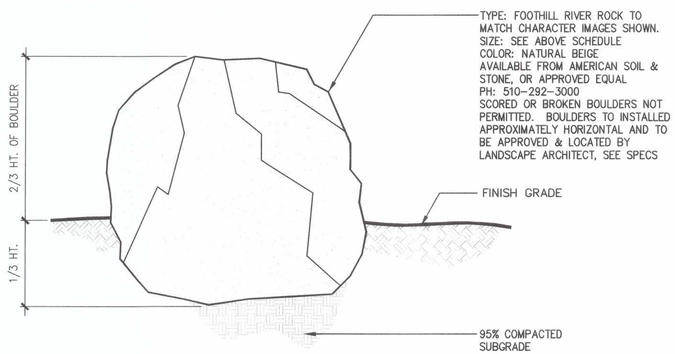
BOULDER SCHEDULE

BOULDER	BOULDER SIZE
M, P, Q, S	30" – 36" DIA.
A, B, D, E, G, H, I, J, L, N, O, R, T, U, V, X, Y	48" – 60" DIA.
C, F, K, W, Z	72" – 84" DIA.

BOULDER CHARACTER IMAGE



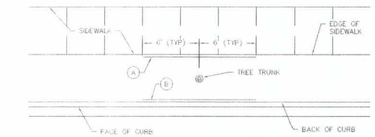
48" – 60", 72" – 84" DIA. 30" – 36" DIA.



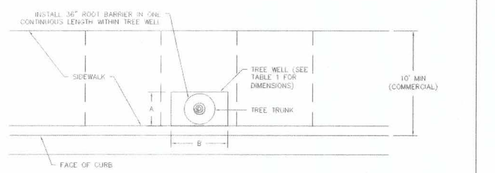
2 BOULDER PLACEMENT

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

LEGEND:
(A) INSTALL 24" DEEP ROOT BARRIER AT EDGE OF SIDEWALK
(B) INSTALL 36" DEEP ROOT BARRIER AT BACK OF CURB



DETACHED SIDEWALK
PLAN VIEW



MONOLITHIC CURB AND SIDEWALK
PLAN VIEW

TABLE 1: TREE WELL DIMENSIONS

	A	B
SMALL TREE	3'	3'
MEDIUM TREE	4'	4'
LARGE TREE	4'	6'

NOTES:
1. ROOT BARRIERS SHALL BE REQUIRED FOR ALL TREES PLANTED WITHIN 5' OF HARDSCAPE.
2. 24" AND 36" ROOT BARRIER SHALL BE HIGH DENSITY AND HIGH IMPACT PLASTIC AS AVAILABLE FROM "DEEP ROOT," VESPRO, INC. OR EQUIVALENT AS APPROVED BY LANDSCAPE DIVISION OF PUBLIC WORKS DEPARTMENT.
3. TOP OF ROOT BARRIER SHALL BE SET ½" ± ABOVE FINISHED GRADE OF SOIL. HOWEVER, UNDER NO CIRCUMSTANCES SHALL THE TOP OF ROOT BARRIER EXTEND ABOVE ADJACENT CURB, SIDEWALK OR OTHER HARD SURFACING, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. NO ADDITIONAL PLANTINGS IN TREE WELL.

APPROVED _____ 3/8/23
DATE

DRAFT

NO.	DATE	REVISION
1	2019-01-11	TABLE 1

DRAWN BY: ALA
CHECKED BY: MK
DATE: 2019-01-11
SCALE: NTS

CITY OF PITTSBURG

STANDARD DETAIL: ROOT BARRIER

SHEET 1 OF 1
L-3

1 ROOT BARRIER

SCALE: N.T.S.

GATES +ASSOCIATES
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1661 FIRST STREET, WALNUT CREEK, CA 94596
T 925.935.1976 www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL
CONSTRUCTION DETAILS

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
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REVIEWED: KC, TZ
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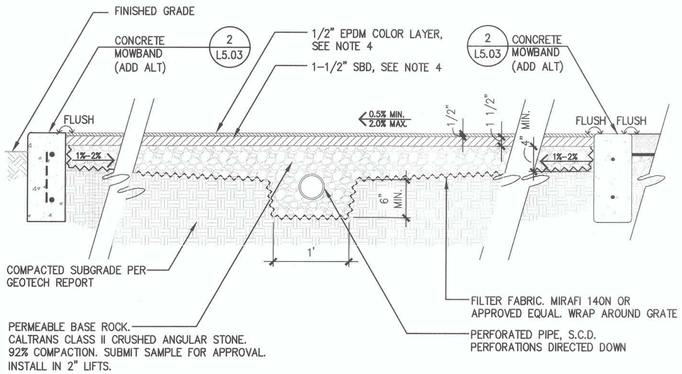
SHEET NO.
56 OF 59

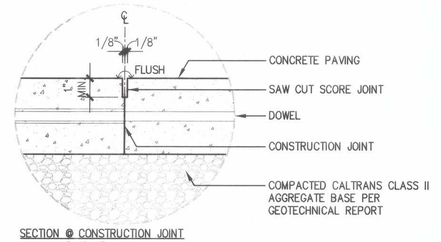
DWG. NO.
L5.02

PATH: P:\PITTSBURG\FRONTAGE ROAD LIVING TRAIL (P16108)\ACAD\SHEETS_DG-D-FRONTAGE ROAD LIVING TRAIL.DWG
PLOT DATE: 8/31/2022 2:46 PM

NOTES:
1. CONTRACTOR TO PROVIDE CPSI INSPECTION UPON COMPLETION.
2. CONTRACTOR SHALL PERFORM A COMPACTION TEST OF AGGREGATE BASE TO CONFIRM CONDITIONS MEET MFR'S SPECIFICATIONS PRIOR TO INSTALLATION OF POURED IN PLACE.
3. SURFACING SHALL MEET ALL REQUIREMENTS OF ASTM 1951F AND ASTM F1292
4. SYNTHETIC PLAY SURFACING, SEE LEGEND L1.01
5. SEE DETAIL 4/L5.05 FOR FITNESS EQUIPMENT SUBGRADE INFO

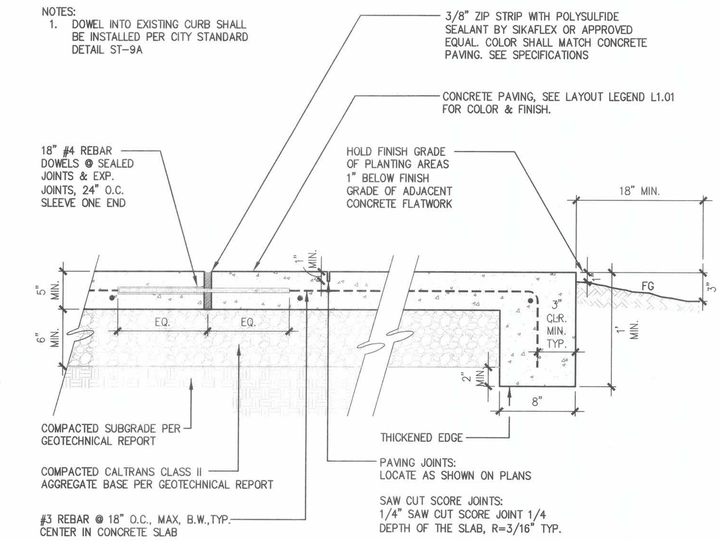


4 SYNTHETIC RUBBER SURFACING (ADD ALT)
SCALE: 1" = 1'-0"



SECTION @ CONSTRUCTION JOINT
SCALE: 3"=1'-0"

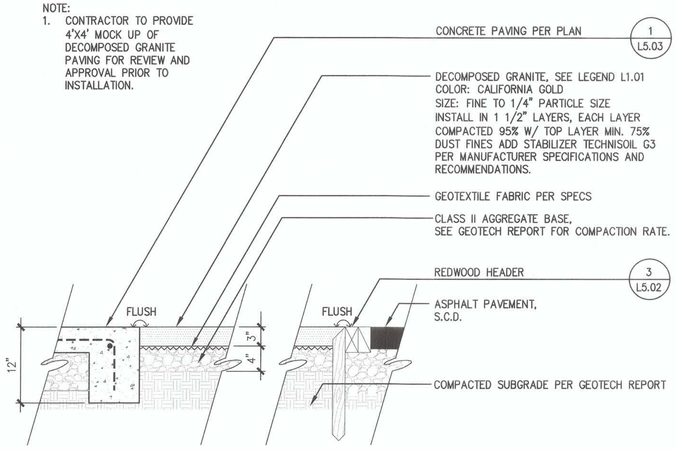
NOTES:
1. DOWEL INTO EXISTING CURB SHALL BE INSTALLED PER CITY STANDARD DETAIL ST-9A



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

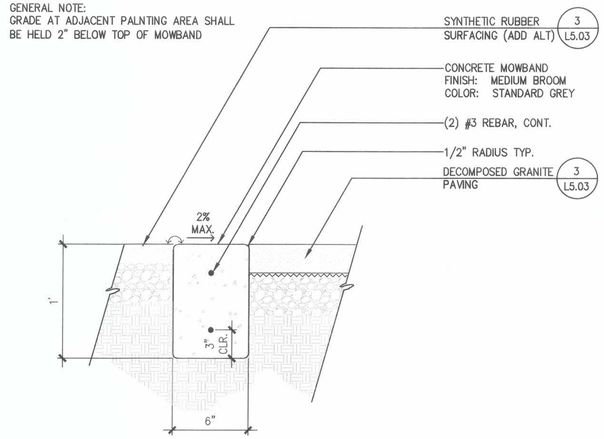
1 PEDESTRIAN CONCRETE PAVING
SCALE: 1-1/2" = 1'-0"

NOTE:
1. CONTRACTOR TO PROVIDE 4'X4' MOCK UP OF DECOMPOSED GRANITE PAVING FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.



3 DECOMPOSED GRANITE PAVING
SCALE: 1" = 1'-0"

GENERAL NOTE:
GRADE AT ADJACENT PALNTING AREA SHALL BE HELD 2" BELOW TOP OF MOWBAND



2 CONCRETE MOWBAND (ADD ALT)
SCALE: 1-1/2" = 1'-0"

PATH: P:\PITTSBURG\FRONTAGE ROAD LIVING TRAIL (P6108)\CAD\SHEETS_06-D-FRONTAGE ROAD LIVING TRAIL.DWG
PLOT DATE: 6/5/2023 4:48 PM

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING - URBAN DESIGN
1655 N. MAIN ST. STE 310, WALNUT CREEK, CA 94596
T 925.736.6176 www.gateslA.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

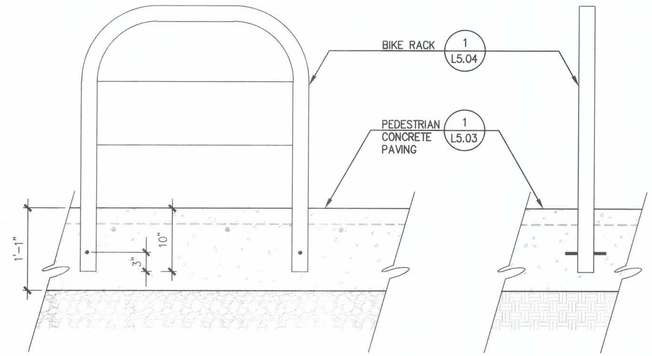
FRONTAGE ROAD LIVING TRAIL
CONSTRUCTION DETAILS

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO.
57 OF 59

DWG. NO.
L5.03



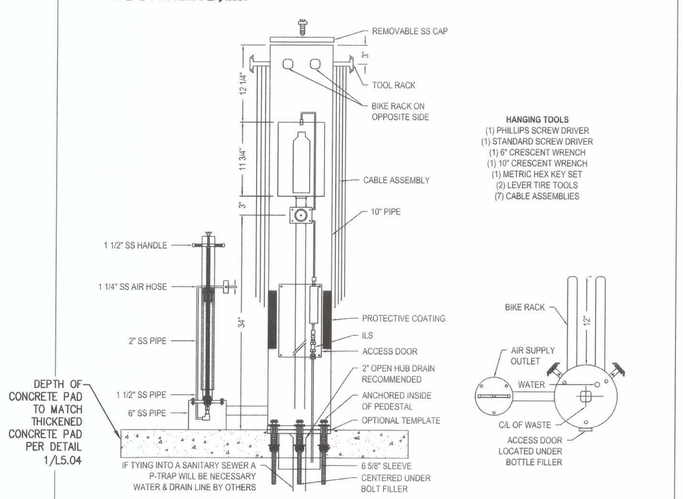
2 BIKE RACK ELEVATION SECTION

SCALE: 1" = 1'-0"

4 DOG WASTE DISPENSER

SCALE: 3/4" = 1'-0"

MOST DEPENDABLE FOUNTAINS, INC.
5705 COMMANDER DR. P.O. BOX 587
ARLINGTON, TN 38002-0587
PHONE: (901) 867-0039
www.mostdependable.com



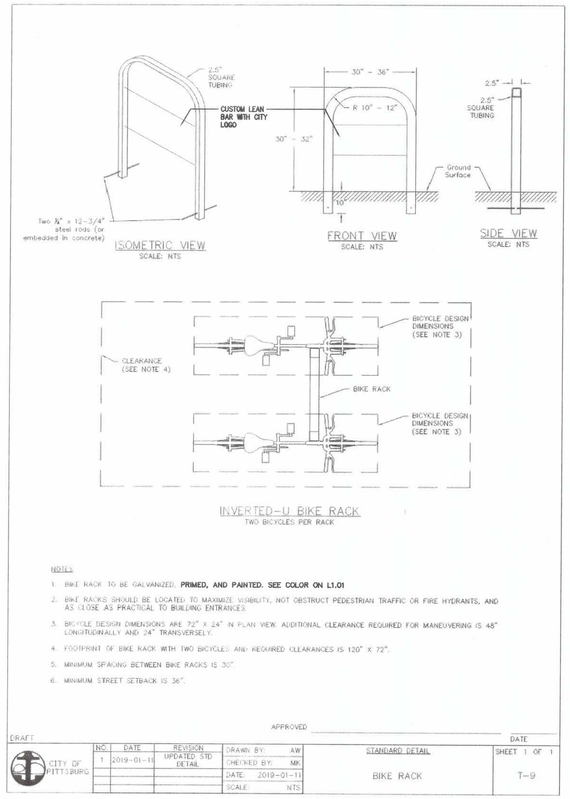
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. NOTE TO ARCHITECT. SCALE DRAWING IN AUTOCAD MODEL SPACE.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 3354-25.6

195 SM

BOTTLE FILLER AND REPAIR STATION WITH OPTIONAL TEMPLATE

3 BIKE REPAIR STATION AND BOTTLE FILLER

SCALE: 1" = 1"



NOTES:
1. BIKE RACK TO BE GALVANIZED, **PRIMED, AND PAINTED. SEE COLOR ON L1.01**
2. BIKE RACKS SHOULD BE LOCATED TO MAXIMIZE VISIBILITY, NOT OBSTRUCT PEDESTRIAN TRAFFIC OR FIRE HYDRANTS, AND AS CLOSE AS PRACTICAL TO BUILDING ENTRANCES.
3. BICYCLE DESIGN DIMENSIONS ARE 72" X 24" IN PLAN VIEW. ADDITIONAL CLEARANCE REQUIRED FOR MANEUVERING IS 48" LONGITUDINALLY AND 24" TRANSVERSELY.
4. FOOTPRINT OF BIKE RACK WITH TWO BICYCLES AND REQUIRED CLEARANCES IS 120" X 72".
5. MINIMUM SPACING BETWEEN BIKE RACKS IS 30".
6. MINIMUM STREET SETBACK IS 36".

DRAFT

APPROVED _____ DATE _____

NO.	DATE	REVISION	DRAWN BY: AW
1	2019-01-11	UPDATED STD DETAIL	CHECKED BY: MK
			DATE: 2019-01-11
			SCALE: NTS

CITY OF PITTSBURG

STANDARD DETAIL: BIKE RACK

SHEET 1 OF 1 T-9

1 BIKE RACK

SCALE: N.T.S.

LANDSCAPE ARCHITECT ☆ WINCHESTER ☆ STATE OF CALIFORNIA ☆ REGISTERED
No. 5004 Date 12/31/20
GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1603 N. MAIN ST. STE 365, WALNUT CREEK, CA 94596
T 925.736.8176 www.gatesa.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

CONSTRUCTION DETAILS

BY	DESCRIPTION	REV	DATE

DRAWN: TZ
CHECKED: KC
REVIEWED: KC, TZ
DATE: 09/05/23
SCALE: AS SHOWN

SHEET NO. 58 OF 59

DWG. NO. L5.04

PATH: P:\PITTSBURG\FRONTAGE ROAD LIVING TRAIL (P9108)\ACAD\SHEETS_DG-D-FRONTAGE ROAD LIVING TRAIL.DWG
PLOT DATE: 8/31/2023 2:46 PM

PROJECT NAME

FITNESS ZONE

The fitness equipment is designed for your enjoyment.
For your safety, we ask you to comply with the following:

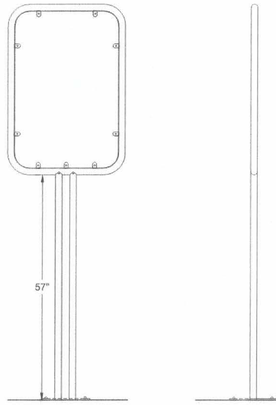
1. You assume all risk and responsibility for use of the exercise equipment at this facility.
2. You must be at least 14 years old to use this equipment.
3. Parents/Guardians: To avoid injuries, do not let your underage children use the equipment.
4. Consult your physician prior to starting any physical fitness training program.
5. The city does not provide any supervision for the use of the equipment.
6. Any potential users with known adverse health conditions should not use this equipment.
7. Before using the equipment, check for loose parts, breaks, cracks or other conditions needing attention. If any abnormalities are noticed, do not use the equipment. Please call ###-###-####.
8. Only use equipment for the intended exercise. Perform exercises according to instructions on each piece of equipment.
9. Breathe normally during physical activity.
10. Perform resistance exercises according to instructions in a slow, controlled manner over the full range of motion. Performing the movements too quickly may result in an injury.
11. During exercise, pay attention to how your body feels. If pain or discomfort occurs, STOP THE EXERCISE IMMEDIATELY.
12. Rest and recovery are important between sets and exercises. Please allow 2 minutes of rest between exercises.
13. Keep a safe distance from exercise equipment when in use by others. Keep clear of moving part and be aware of the presence of others when using equipment.
14. Remove helmets, drawstrings, or accessories around the neck.
15. Be aware of the possibility of hot surfaces and/or surfacing, when applicable.
16. Do not climb or allow climbing on the equipment or structures unless the intended use involves climbing on the equipment.
17. Do not attach straps, bands or similar items to the equipment unless the intended use specifically allows it.
18. Equipment is designed to support users up to 300 lbs.

NOTE:
1. ANNOUNCMENT BOARD DESCRIPTION SHALL BE REVIEWED AND APPROVED BY THE CITY OF PITTSBURG PRIOR TO FABRICATION.

Installation Instructions:

SGR2005-1-105
Announcement Board
This unit ships in 1 separately wrapped component

Greenfields Outdoor Fitness
Promoting Wellness & Fighting Obesity One Community at a Time.
Questions? Please call 888-315-9037 x105



FRONT ELEVATION

PLAN VIEW

NOTE:
1. ANNOUNCMENT BOARD DESCRIPTION SHALL BE REVIEWED AND APPROVED BY THE CITY OF PITTSBURG PRIOR TO FABRICATION.

During installation, please be sure to also refer to the general installation instructions for surface mount.

3 ANNOUNCEMENT BOARD (ADD ALT)

SCALE: N.T.S.

Installation Instructions:

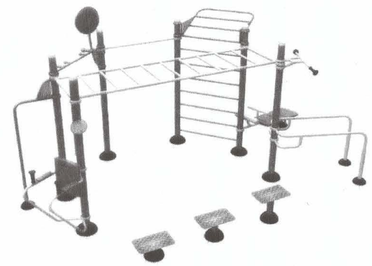
SHP520
12-Person Challenge Fitness Rig
This unit ships in 18 separately wrapped components.

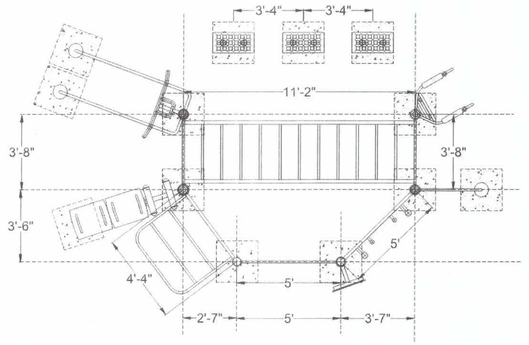
Greenfields Outdoor Fitness
Questions? Please call 888-315-9037 x105

Parts List:

13x Extensions for In Ground

22x Pegs

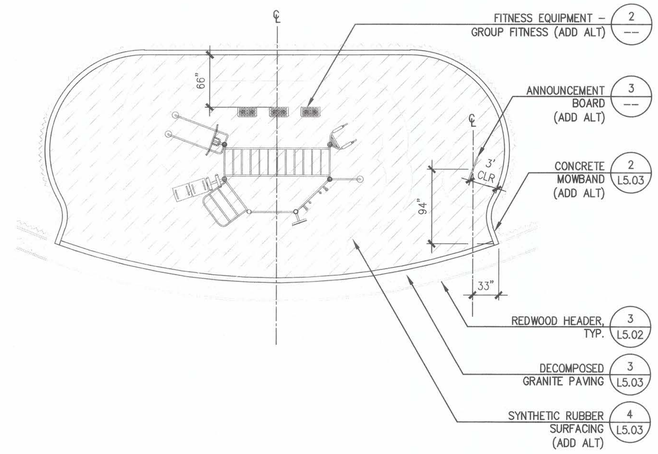




During installation, please be sure to also refer to the general installation instructions.

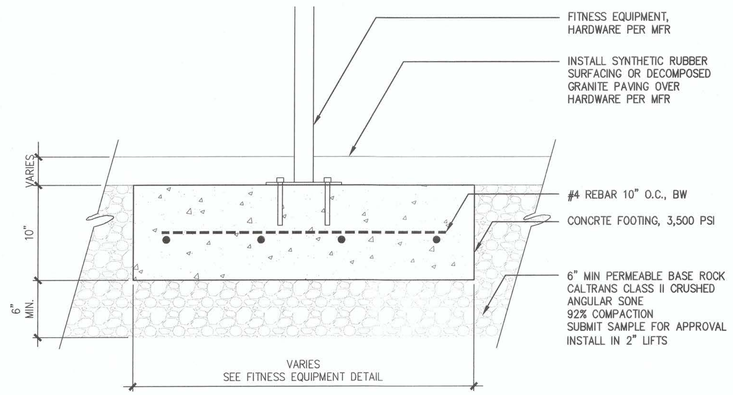
2 FITNESS EQUIPMENT – GROUP FITNESS (ADD ALT)

SCALE: N.T.S.



1 FITNESS EQUIPMENT LAYOUT (ADD ALT)

SCALE: 1/8" = 1'-0"



4 FITNESS EQUIPMENT FOOTING AND ATTACHMENT (ADD ALT)

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

PATH: P:\PITTSBURG\FRONTAGE ROAD LIVING TRAIL (P6108)\CAD\SHEETS_DG-D-FRONTAGE ROAD LIVING TRAILDWG
PLOT DATE: 8/31/2023 2:46 PM

GATES +ASSOCIATES
LANDSCAPE ARCHITECTURE
LAND PLANNING · URBAN DESIGN
1024 IRON POINT, STE 110, #429 · FOLSOM, CA 95630
T 916.294.4474 · www.gatesla.com

ACCEPTED FOR USE:
JOHN SAMUELSON
City Engineer
Date: 9/26/23

City of Pittsburg

FRONTAGE ROAD LIVING TRAIL

CONSTRUCTION DETAILS

DRAWN: TZ	CHECKED: KC	REVIEWED: KC, TZ	DATE: 09/05/23	SCALE: AS SHOWN

DATE	REV	DESCRIPTION	BY

SHEET NO.
59 OF 59

DWG. NO.
L5.05