LANDSCAPE RENOVATION

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VICINITY MAP

PROJECT LOCATION

NORTH

DIRECTORY

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ELECTRICAL ENGINEERS
NATRON RESOURCES
1480 MORAGA ROAD, SUITE C229
MORAGA, CA 94556
CONTACT: JEFFREY ANSLEY (510) 847-8041

SITE PLAN

NORTH

SCALE: 1" = 40'-0"

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SUMMARY OF WORK

Renovation of main campus entry and landscape.

1. Selective demolition of paving and landscaping.
2. Trenching to accommodate re-routing of existing utilities and installation of new utilities for new lighting and storm drainage.
3. New walks and paved seating spaces.
4. New landscaping and irrigation.
5. Replacement of existing site work that will be disturbed by the work described above.

KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
Signature
09/08/22
Date
8/31/2023
Renewal Date
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

COVER SHEET

SHEET NO.

G-001

PROJECT NO.
22202

SCALE
AS SHOWN

DRAWN BY
SH

GENERAL PROJECT NOTES

1. THE CONTRACTOR AND THEIR SUBCONTRACTORS SHALL MAKE A GOOD FAITH EFFORT TO MINIMIZE PROJECT-RELATED DISRUPTIONS TO ADJACENT PROPERTIES, AND TO USES ON THE SITE. THIS SHALL BE COMMUNICATED TO ALL PROJECT-RELATED CONTRACTORS.

2. THE CONTRACTOR AND SUBCONTRACTORS SHALL FIT ALL INTERNAL COMBUSTION ENGINES WITH MUFFLERS WHICH ARE IN GOOD CONDITION AND SHALL LOCATE STATIONARY NOISE-GENERATING EQUIPMENT SUCH AS AIR COMPRESSORS AS FAR AWAY FROM EXISTING BUILDINGS AS POSSIBLE.

3. THE SITE SHALL BE MAINTAINED IN AN ORDERLY FASHION. FOLLOWING THE CESSATION OF CONSTRUCTION ACTIVITY, ALL CONSTRUCTION DEBRIS SHALL BE REMOVED FROM THE SITE.

4. REFER TO THE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

5. PERFORM WORK IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND APPLICABLE REQUIREMENTS OF ALL OTHER REGULATORY AGENCIES.

6. UNLESS OTHERWISE SPECIFIED, SPECIFIC REFERENCES TO CODES, REGULATIONS, STANDARDS, MANUFACTURERS' INSTRUCTIONS OR REQUIREMENTS OF REGULATORY AGENCIES, WHEN USED TO SPECIFY REQUIREMENTS FOR MATERIALS OF DESIGN ELEMENTS SHALL MEAN THE LATEST EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BIDS, OR THE DATE OF THE CHANGE ORDER OR FIELD ORDERS, AS APPLICABLE.

7. SHOULD ANY CONDITIONS DEVELOP WHICH ARE NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH APPLICABLE CODE AND REGULATORY AGENCIES, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DISTRICT AND ARCHITECT BEFORE PROCEEDING WITH THE WORK.

8. COORDINATE ALL WORK WITH EXISTING CONDITIONS, INCLUDING, BUT NOT LIMITED TO, IRRIGATION PIPES, ELECTRICAL CONDUIT, WATER LINES, DRAINAGE LINES, GAS LINES, ETC.

9. PROTECT ALL SITE CONDITIONS TO REMAIN INCLUDING TREES, PLANTING, PAVING, LIGHT STANDARDS, ETC.

10. DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.

11. INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS.

12. WHERE 'VERIFY' OR 'VERIFY IN FIELD' IS USED IN CONJUNCTION WITH A DIMENSION, THE CONTRACTOR SHALL VERIFY THE MEASUREMENT PRIOR TO COMMENCING THE WORK. IMMEDIATELY BRING DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT.

13. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY WITH THE DISTRICT AND ARCHITECT ANY AND ALL ITEMS TO BE SAVED FOR REUSE, AND SHALL REMOVE AND STORE THEM IN A PROTECTED AREA ON THE JOBSITE, OR AS DIRECTED BY THE DISTRICT AND ARCHITECT.

14. EXTENT OF FINE GRADING IS INTENDED TO INCLUDE ALL AREAS IMPACTED THROUGH THE SHORING, DEMOLITION AND CONSTRUCTION PROCESS.

15. DRAWINGS AND SPECIFICATIONS REPRESENT FINISHED CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE MEANS AND METHODS OF CONSTRUCTION INCLUDING BUT NOT LIMITED TO SHORING AND TEMPORARY BRACING.

16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.

17. FIGURE DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS.

18. VERIFY ALL ROUGH-IN DIMENSIONS FOR EQUIPMENT PROVIDED IN THIS CONTRACT OR EQUIPMENT BY OTHERS.

19. ALL EXISTING WORK WHICH IS DAMAGED, CUT OR REMOVED DURING AND AS A RESULT OF WORK UNDER THIS CONTRACT, AND WHICH IS TO REMAIN IN THE COMPLETED WORK SHALL BE RESTORED. PRINCIPAL ITEMS INCLUDE THE PATCHING OF WORK CUT AS A RESULT OF THE INSTALLATION OF OR REPAIR TO MECHANICAL, PLUMBING AND ELECTRICAL SYSTEMS; AND DEMOLITION ASSOCIATED WITH REMODELING.

20. CUTTING SHALL BE KEPT TO A MINIMUM. WHEREVER POSSIBLE UNDERLYING SUPPORT SYSTEMS SHALL BE LEFT INTACT. UNLESS NOTED OTHERWISE, NO CUTTING OF THE STRUCTURAL SYSTEM WILL BE ALLOWED.

21. THE EXACT EXTENT OF CUTTING AND PATCHING REQUIRED TO PERFORM WORK UNDER THIS CONTRACT SHALL BE DETERMINED BY THE CONTRACTOR. WHENEVER IT IS POSSIBLE TO VISUALLY DISTINGUISH THE PATCHWORK FROM SURROUNDING MATERIALS THE PATCH SHALL BE RECTANGULAR IN SHAPE OR MATCH A MODULAR UNIT IN MODULAR MATERIALS. PATCH ATTACHMENT HOLES FROM REMOVED ITEMS TO MATCH SURROUNDING SURFACE. PATCH SURFACES WHICH BECOME EXPOSED WHEN MOUNTED ITEMS ARE REMOVED. SEE SPECIFICATION SECTION 01 73 29.

22. DEMOLITION AND REMOVAL WORK INCLUDES REQUIRED CAPPING AND DISCONNECTION OF ABANDONED SERVICES.

23. UNLESS OTHERWISE NOTED, PLAN DIMENSIONS ARE TO EITHER FACE OF (E) FINISH, FACE OF (N) STUDS, FACE OF CONCRETE AND CMU, OR CENTER LINE.

24. ALL NOTED ITEMS ARE TO BE PROVIDED NEW UNLESS NOTED AS EXISTING (E) OR OTHERWISE NOTED. REPLACE MEANS TO REMOVE EXISTING (E), IF NOT MISSING, AND PROVIDE NEW (N). U.O.N. SALVAGE MEANS TO REMOVE INTACT, DELIVER OR STORE AND PROTECT FOR RE-USE AS INDICATED. DELIVER TO DISTRICT MEANS DELIVER TO A LOCATION ON THIS CAMPUS WHERE DIRECTED BY THE SCHOOL.

25. ANY EXISTING EQUIPMENT INCLUDING BUT NOT LIMITED TO LOW VOLTAGE WIRING OR SYSTEM THAT IS DAMAGED OR LEADS TO ANY COMPONENT MALFUNCTION SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR TO THE SATISFACTION OF THE DISTRICT. ALL EXISTING EQUIPMENT OR SYSTEMS ARE ASSUMED IN PROPER FUNCTIONING ORDER U.O.N. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE DISTRICT OF ANY MALFUNCTIONING EQUIPMENT OR SYSTEMS PRIOR TO WORK IN THE AREA OF SCOPE OF WORK.

26. HAZARDOUS MATERIAL TESTING, IF APPLICABLE WILL BE PROVIDED BY THE DISTRICT.

27. SUBSTITUTE MATERIALS AND SYSTEMS - CONTRACTORS SHALL PROVIDE COST & LEAD TIME OF ANY SUBSTITUTE MATERIAL OR SYSTEM PROPOSED IN ADDITION TO ANY REQUIREMENT SPECIFIED IN THE SPECIFICATIONS. SEE SECTION 016200 PRODUCT OPTIONS & SUBSTITUTIONS.

28. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NONCOMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONSTRUCTION DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED AND APPROVED BY THE DISTRICT BEFORE PROCEEDING WITH THE WORK.

29. ALL REQUIRED WORK SHALL BE COMPLETED TO ENTIRETY.

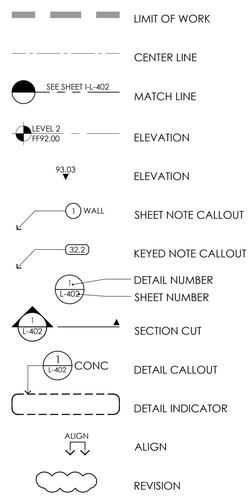
30. ALL EXISTING FINISHES DISTURBED AS A RESULT OF CONSTRUCTION SHALL BE RESTORED, PATCHED, RECONSTRUCTED AND/OR PAINTED TO MATCH EXISTING ADJACENT SURFACE. MATCH PAINTING SHALL BE EXTENDED TO NATURAL BREAKS IN MATERIAL.

31. COMPLIANCE WITH CFC CHAPTER 33, FIRE SAFETY, SHALL BE ENFORCED DURING DEMOLITION AND CONSTRUCTION. CBC CHAPTER 33 SAFETY SHALL BE ENFORCED DURING CONSTRUCTION.

ABBREVIATIONS

AB	ANCHOR BOLT
AC	ASPHALT CONCRETE
AD	AREA DRAIN
AGG	AGGREGATE
ALUM	ALUMINUM
ASS'Y	ASSEMBLY
AYC	ALASKAN YELLOW CEDAR
BM	BEAM
BTM	BOTTOM
CANT	CANTILEVER
CB	CATCH BASIN
CJ	CONSTRUCTION / COLD JOINT
CONC	CONCRETE
CL	CENER LINE
CLR	CLEAR
C/O	CLEAN OUT
CONT	CONTINUOUS
CP	CENTER POINT
CSK	COUNTERSUNK
DIA	DIAMETER
DF	DOUGLAS FIR
(E)	EXISTING
EJ	EXPANSION JOINT
EQ	EQUAL
FDN	FOUNDATION
FG	FINISH GRADE
FOB	FACE OF BUILDING
F.S.C.	FOREST STEWARDSHIP COUNCIL
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BREAK
HC	HANDICAP
HDG	HOT DIPPED GALVANIZED
HDR	HEADER
HT	HEIGHT
INT	INTERMEDIATE
IRR	IRRIGATION
JT	JOINT
LT	LIGHT
MAX	MAXIMUM
MED	MEDIUM
MH	MAN HOLE
MIN	MINIMUM
MTL	METAL
(N)	NEW
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
OC	ON CENTER
OCEW	ON CENTER EACH WAY
OD	OUTSIDE DIAMETER
LBS/SQ FT	POUNDS PER SQUARE FOOT
PA	PLANTING AREA
POB	POINT OF BEGINNING
POT	PATH OF TRAVEL
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PVC	POLY VINYL CHLORIDE
R	RADIUS
RE	RIM ELEVATION
RWD	REDWOOD
S.A.D.	SEE ARCHITECTURAL DRAWINGS
S.C.D.	SEE CIVIL DRAWINGS
S.E.D.	SEE ELECTRICAL DRAWINGS
SF	SQUARE FOOT/FEET
SIM	SIMILAR
SL	SPRINKLER LINE
SM	SCORE MARK
SPD	SPREAD
SQ	SQUARE
SS	STAINLESS STEEL
S.S.D.	SEE STRUCTURAL
TBD	TO BE DETERMINED
TS	TUBULAR STEEL
TW	TREE WELL / TOP OF WALL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
VIF	VERIFY IN FIELD
WM	WATER METER
W/	WITH
W/O	WITHOUT
WRC	WESTERN RED CEDAR
WV	WATER VALVE
WW	WELDED WIRE / WOVEN WIRE

SYMBOLS



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KEY PLAN

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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

PROJECT NOTES, SYMBOLS, & ABBREVIATIONS

SHEET NO.

G-002

PROJECT NO.
22202

SCALE
NOT TO SCALE

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SH

NO PART OF THIS DOCUMENT MAY BE REPRODUCED IN ANY FORM INCLUDING PHOTOCOPY, RECORDING OR ANY INFORMATION RETRIEVABLE AND STORAGE SYSTEM, WITHOUT PERMISSION IN WRITING FROM SANDIS.

LEGEND

ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.

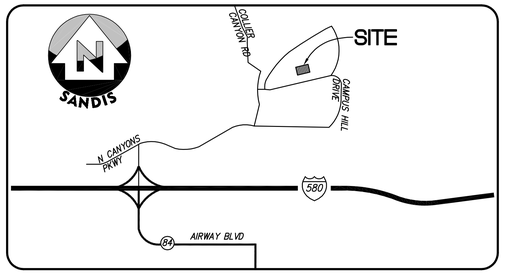
- BUILDING FACE
- BUILDING OVERHANG
- EDGE OF PAVEMENT
- CURB & GUTTER LINE
- RETAINING / SCREENING WALL, HEIGHT AS INDICATED
- 95 / 94 — CONTOURS
- TOP OF SLOPE LINE
- SD — STORM DRAIN LINE
- SS — SANITARY SEWER LINE
- DW — DOMESTIC WATER LINE
- DW — DOMESTIC WATER LINE (DRAWN FORM AS-BUILTS)
- FW — FIRE WATER LINE
- FW — FIRE WATER LINE (DRAWN FORM AS-BUILTS)
- G — NATURAL GAS LINE
- E — UNDERGROUND ELECTRIC LINE
- CMN — COMMUNICATION LINE
- JT — JOINT TRENCH LINE
- JT — JOINT TRENCH LINE (DRAWN FORM AS-BUILTS)
- RI — IRRIGATION LINE
- RI — IRRIGATION LINE (DRAWN FORM AS-BUILTS)
- STORM DRAIN MANHOLE
- STORM DRAIN CLEANOUT
- DRAIN INLET
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- V — WATER METER / BOX
- WATER VALVE
- FIRE HYDRANT
- FIRE DEPARTMENT CONNECTION
- IRRIGATION CONTROL / VALVE BOX
- GAS METER
- GV — GAS VALVE
- C — COMMUNICATIONS VAULT / PULLBOX
- E — ELECTRIC VAULT / PULLBOX
- HARDSCAPE ELECTRIC LIGHT
- ELECTROLIER ON TOP OF POLE
- ELECTROLIER WITH MAST ARM
- STREET LIGHT PULLBOX
- MISCELLANEOUS PULLBOX
- SIGN
- BOLLARD
- AREA DRAIN
- ANODE
- 97.38 TOWER; 198.70 CONC; 198.78 BW; 195.17 TW/INT. — SPOT ELEVATION
- 4" DIA. — TREE WITH DRIPLINE, SIZE AS INDICATED
- IRO-00 — WATER VALVE NUMBER

SURVEY CONTROL TABLE

Point #	Elevation	Northing	Easting	Description
100	512.49	12244.29	12494.57	CUT X
101	504.49	12119.84	12326.11	CUT X
106	485.23	12036.37	11876.04	CUT X

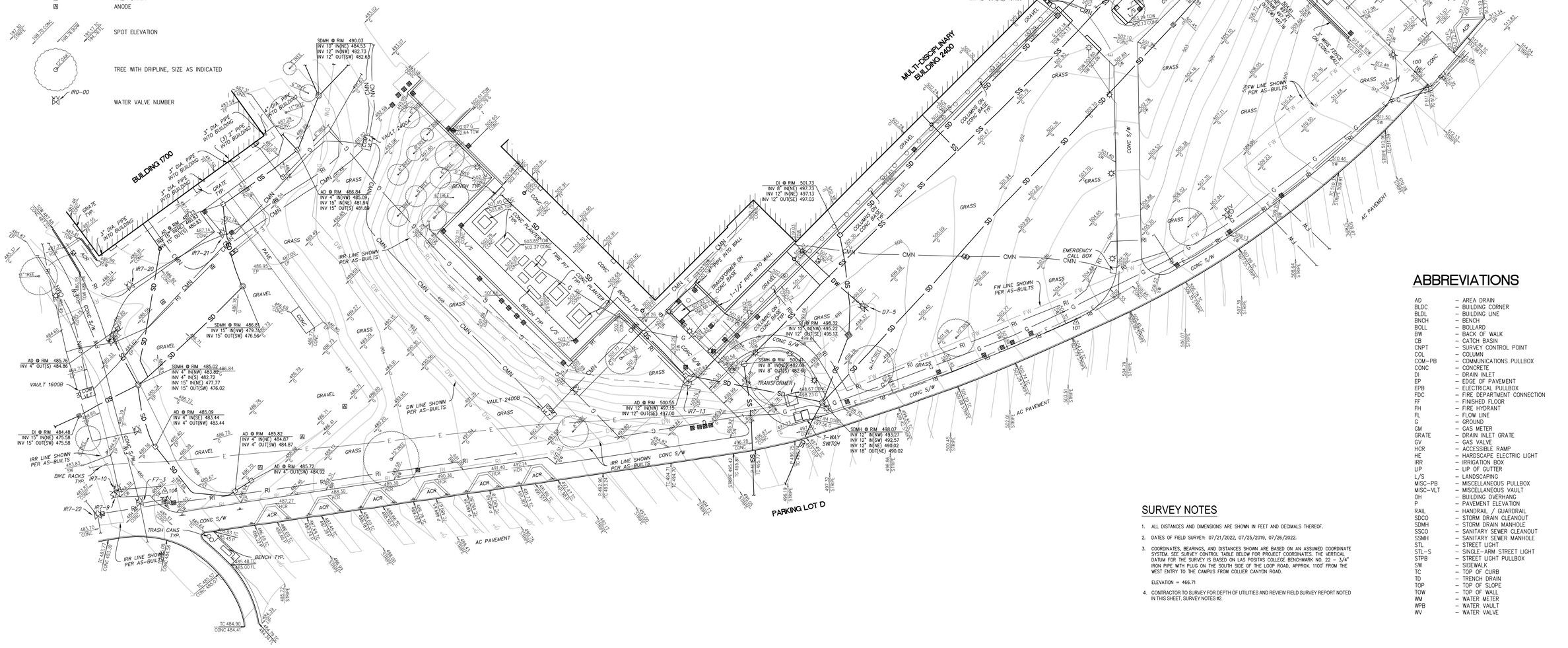
UNDERGROUND UTILITY NOTE

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. AS-BUILT UTILITIES LINES SHOWN AS LIGHTER COLOR IN THIS TOPOGRAPHIC SURVEY.



VICINITY MAP

NOT TO SCALE



ABBREVIATIONS

AD	– AREA DRAIN
BLDC	– BUILDING CORNER
BLDL	– BUILDING LINE
BNCH	– BENCH
BOLL	– BOLLARD
BW	– BACK OF WALK
CB	– CATCH BASIN
CNPT	– SURVEY CONTROL POINT
COL	– COLUMN
COM–PB	– COMMUNICATIONS PULLBOX
CONC	– CONCRETE
DI	– DRAIN INLET
EP	– EDGE OF PAVEMENT
EPB	– ELECTRICAL PULLBOX
FDC	– FIRE DEPARTMENT CONNECTION
FF	– FINISHED FLOOR
FH	– FIRE HYDRANT
FL	– FLOW LINE
G	– GROUND
GM	– GAS METER
GRATE	– DRAIN INLET GRATE
GV	– GAS VALVE
HCR	– ACCESSIBLE RAMP
HE	– HARDSCAPE ELECTRIC LIGHT
IRR	– IRRIGATION BOX
LIP	– LIP OF GUTTER
L/S	– LANDSCAPING
MISC–PB	– MISCELLANEOUS PULLBOX
MISC–VLT	– MISCELLANEOUS VAULT
OH	– BUILDING OVERHANG
P	– PAVEMENT ELEVATION
RAIL	– HANDRAIL / GUARDRAIL
SDCO	– STORM DRAIN CLEANOUT
SDMH	– STORM DRAIN MANHOLE
SSCO	– SANITARY SEWER CLEANOUT
SSMH	– SANITARY SEWER MANHOLE
STL	– STREET LIGHT
STL–S	– SINGLE–ARM STREET LIGHT
STPB	– STREET LIGHT PULLBOX
SW	– SIDEWALK
TC	– TOP OF CURB
TD	– TRENCH DRAIN
TOP	– TOP OF SLOPE
TOW	– TOP OF WALL
WM	– WATER METER
WPB	– WATER VAULT
WV	– WATER VALVE

SURVEY NOTES

1. ALL DISTANCES AND DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. DATES OF FIELD SURVEY: 07/21/2022, 07/25/2019, 07/26/2022.
3. COORDINATES, BEARINGS, AND DISTANCES SHOWN ARE BASED ON AN ASSUMED COORDINATE SYSTEM. SEE SURVEY CONTROL TABLE BELOW FOR PROJECT COORDINATES. THE VERTICAL DATUM FOR THE SURVEY IS BASED ON LAS POSITAS COLLEGE BENCHMARK NO. 22 – 3/4" IRON PIPE WITH PLUG ON THE SOUTH SIDE OF THE LOOP ROAD, APPROX. 1100' FROM THE WEST ENTRY TO THE CAMPUS FROM COLLIER CANYON ROAD.

   ELEVATION = 466.71
4. CONTRACTOR TO SURVEY FOR DEPTH OF UTILITIES AND REVIEW FIELD SURVEY REPORT NOTED IN THIS SHEET, SURVEY NOTES #2.

SANDIS

BUILD ON.
SANDIS.NET

DATE:	08/05/2022
SCALE:	1" = 20'
DRAWN BY:	EV
APPROVED BY:	CC
DRAWING NO.	618184

No.	REVISION/ISSUE	DATE	BY

TOPOGRAPHIC SURVEY

LAS POSITAS COLLEGE - BUILDING 2400/PARKING LOT D

LIVERMORE CALIFORNIA

SHEET 1 OF 1 SHEETS

File: X:\P\618184\(3) SURVEY\(1) MAPPING\Deliverables\2022-07-20 Bldg 100 & Parking Lot D\2022-08-11 SENT\618184 – Los Positas.dwg Date:Aug 11, 2022 – 2:03pm, jeshelman

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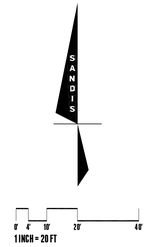

LEGEND

- FIBER ROLL (1 / C-2)
- SILT FENCE (2 / C-2)
- GRAVEL BAG BERM
- INLET PROTECTION (3 / C-2)
- STABILIZED EXIT (4 / C-2)
- SK — SPILL KIT

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.

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PRELIMINARY NOT FOR CONSTRUCTION

PRELIMINARY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

WATER POLLUTION CONTROL DRAWING

SHEET NO.

C-101

PROJECT NO. 22202

SCALE 1"=20'

DRAWN BY SH

LEGEND

- FIBER ROLL (1 / C-2)
- SILT FENCE (2 / C-2)
- GRAVEL BAG BERM
- INLET PROTECTION (3 / C-2)
- STABILIZED EXIT (4 / C-2)
- SK — SPILL KIT

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.

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PRELIMINARY NOT FOR CONSTRUCTION

PRELIMINARY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

WATER POLLUTION CONTROL DRAWING

SHEET NO.

C-102

PROJECT NO.
22202

SCALE
1"=20'

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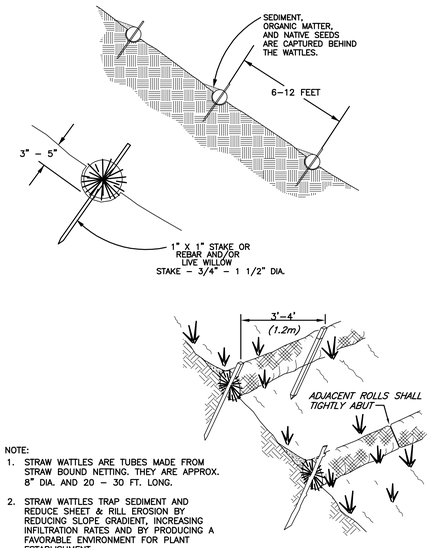
SH



NOTE:
1. STRAW WATTLES ARE TUBES MADE FROM STRAW BOUND NETTING. THEY ARE APPROX. 8" DIA. AND 20 – 30 FT. LONG.
2. STRAW WATTLES TRAP SEDIMENT AND REDUCE SHEET & RILL EROSION BY REDUCING SLOPE GRADIENT, INCREASING INFILTRATION RATES AND BY PRODUCING A FAVORABLE ENVIRONMENT FOR PLANT ESTABLISHMENT.
3. STRAW WATTLE INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE WATTLE IN A TRENCH, 3" – 5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND WATTLE.

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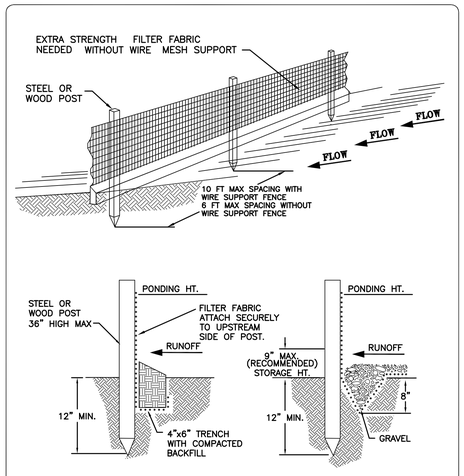
DETAIL 1

STRAW WATTLES



STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

NOTE:
1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

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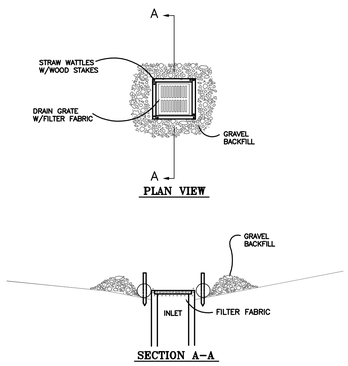
DETAIL 2

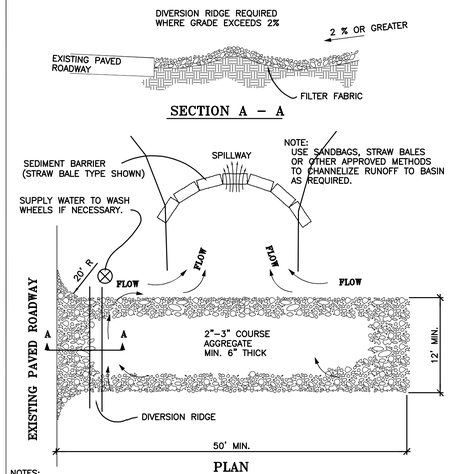
SILT FENCE



NOTE:
1. SE DETAIL X FOR STRAW WATTLE INFORMATION.
2. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT FROM THE TRAVELED WAY IMMEDIATELY.

DETAIL 3

INLET PROTECTION



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

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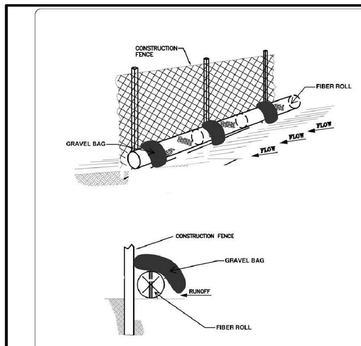
DETAIL 4

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT



STANDARD DETAIL

NOTE:
1. PLACE GRAVEL BAGS NO MORE THAN 7 FT APART TO ENSURE FIBER ROLLS SEATED CONTINUOUSLY ON PAVEMENT.
2. REMOVE ACCUMULATED SEDIMENT REGULARLY TO ENSURE NO OFFSITE TRANSPORT.

DETAIL 5

FIBER ROLLS WITH GRAVEL BAG ANCHORS

SANDIS | CIVIL ENGINEERS PLANNERS SURVEYORS
6111 Knott Avenue, Buena Park, CA 90620 (714) 562-3500 www.sandis.net

DATE
SCALE
DESIGNED BY
APPROVED BY
DRAWING NO.

E-018
FIBER ROLLS WITH GRAVEL BAG ANCHORS

SHEET 1 OF 1 SHEETS

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PRELIMINARY NOT FOR CONSTRUCTION

PRELIMINARY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

WATER POLLUTION CONTROL DETAILS

SHEET NO.

C-103

PROJECT NO.
22202

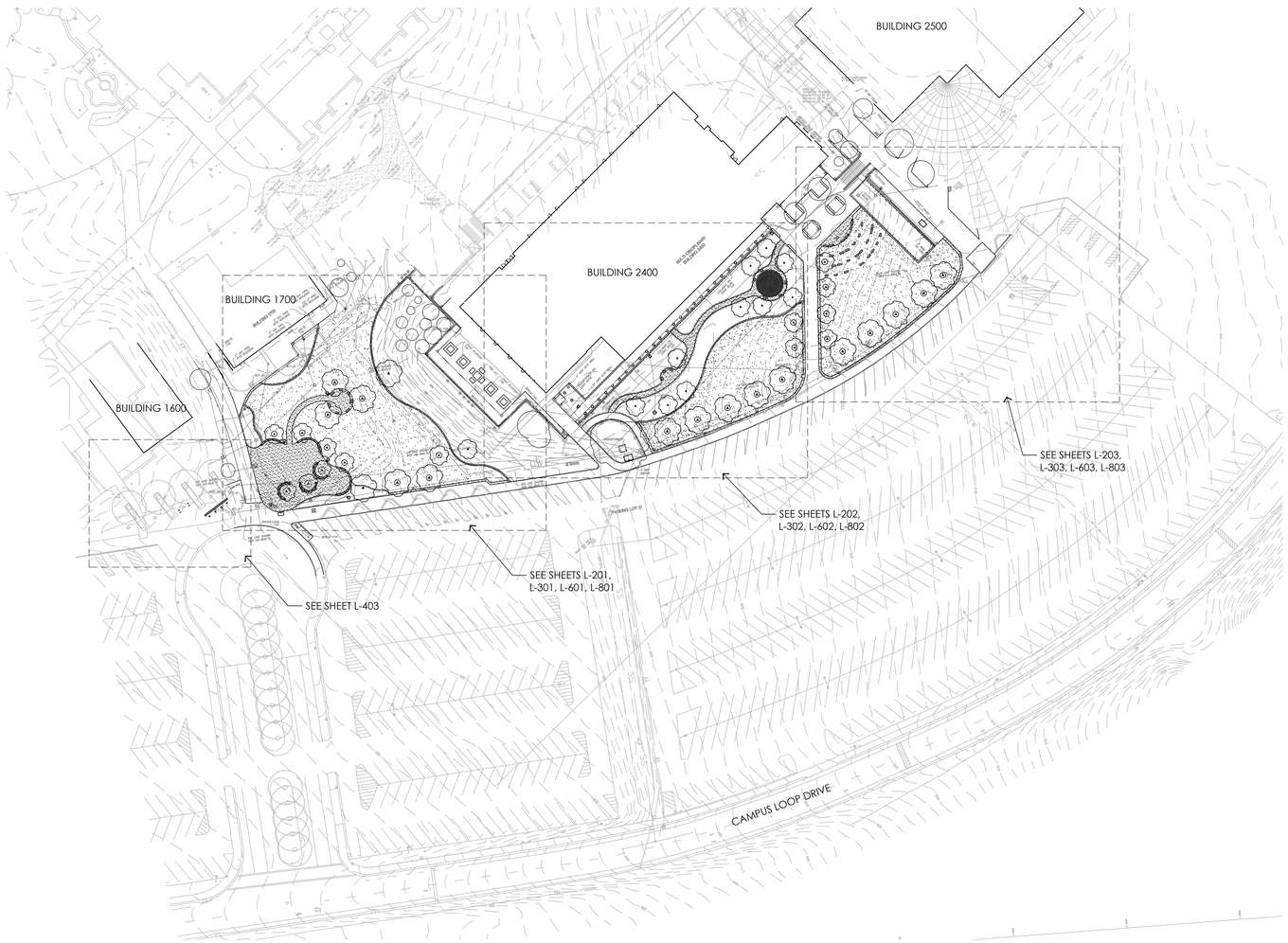
SCALE
1"=20'

DRAWN BY
SH

MATERIALS SCHEDULE

ITEM	DESCRIPTION	FINISH	COLOR	MANUFACTURER	CATALOG NO. / DIMENSIONS	NOTES
PAVING						
	GRANITECRETE PAVING	-	NATURAL GOLD (ADMIXTURE COLOR)	AMERICAN SOIL & STONE 510.292.3000, GRANITECRETE 800.670.0849	GOLD PATH FINES (3/8" MINUS), GRANITECRETE ADMIXTURE	-
	METAL HEADER AT GRANITECRETE PAVING	ANODIZED	BLACK	PERMALOC 800.356.9660	3/16" X 4" CLEANLINE ALUMINUM EDGING	-
	MOW BAND	LIGHT BROOM	NATURAL GREY	-	12" WIDE X 6" DEPTH CONCRETE	-
	BID ALTERNATE #2: METAL PAVER EDGE RESTRAINT AT LABYRINTH	ANODIZED	BLACK	PERMALOC 800.356.9660	4" X 3" ASPHALTEDGE ALUMINUM EDGING	-
	BID ALTERNATE #2: LABYRINTH	-	CHARCOAL FIELD WITH BUFF LINES	LABYRINTH COMPANY 203.832.3815	Abingdon à la Chartres 6 CIRCUIT LABYRINTH KIT, 23'-7.25" O.D., 2-3/8" THICK CONCRETE PAVERS OVER COMPACTED AGGREGATE BASE	-
FURNISHING						
	BOULDER SEATING	TOP: THERMAL SIDES: SPLIT	SIERRA WHITE GRANITE	COLDSPRING GRANITE 800.328.5040	MONOLITHIC CUT GRANITE: SMALL: 24" HT. X 18" W. X 24" L. MEDIUM: 24" HT. X 18" W. X 36" L. LARGE: 24" HT. X 18" W. X 48" L.	SURFACE MOUNT
	BID ALTERNATE #1: STONE AMPHITHEATER SEATING	TOP: THERMAL SIDES: SPLIT	SIERRA WHITE GRANITE	COLDSPRING GRANITE 800.328.5040	MONOLITHIC CUT GRANITE: SMALL: 24" HT. X 18" W. X 24" L. MEDIUM: 24" HT. X 18" W. X 36" L. LARGE: 24" HT. X 18" W. X 48" L.	EMBEDDED IN SLOPE
	ENTRY SIGN	PAINTED	T.B.D.	THOMAS SWAN SIGN CO., INC. CONTACT: BRUCE THOMAS 415.760.2031	SIGN: LETTER HEIGHTS VARY DEPENDING ON THE LETTER, 2'-6" MIN. TO 3'-4" MAX. TALL PAINTED ALUMINUM LETTER FORMS MOUNTED TO PRECAST WALL	-
	PRECAST WALL AT ENTRY SIGN	LIGHT SANDBLAST / CRAFTSMAN ETCH	FRENCH GRAY	QCP CORP. CONTACT: NEIL ELENZWEIG 415.971.9669	PRECAST CONCRETE STEEL-REINFORCED WALL WITH INTEGRAL COLOR. INSTALL OVER POURED-IN-PLACE CONCRETE FOOTING.	-
	30' FLAGPOLE	SATIN	ALUMINUM/WHITE	BOLANDER & SONS 800.434.5611	LTJ30', 30' HT. EXPOSED, INTERNAL HALYARD	
	25' FLAGPOLE	SATIN	ALUMINUM/WHITE	BOLANDER & SONS 800.434.5611	LTJ25', 25' HT. EXPOSED, INTERNAL HALYARD	
F1	KEPLERO MINI LED WALL WASH LIGHT	-	-	TARGETTI 714.513.1991	14 WATT LED LIGHT PRODUCES 957 LUMENS FIXTURES ARE EQUIPPED WITH 4/1 DRIVER (NON-DIMMABLE / 0-10V) IT COMES IN 120V - 277V COLOR TEMPERATURES - 3000K FIXTURE: LIGHTING SUPPLY #KPLM-41-WW-L1-40	MOUNTING: FLUSH AND SEMI FLUSH MOUNT WITH OPTIONAL L BRACKET VOLT: UNV LAMPS: 14W LED 3000K Ra84 CRI
F2	KEPLERO MINI LED ZOOM SPOT LIGHT	-	-	TARGETTI 714.513.1991	14 WATT LED LIGHT PRODUCES 1156 LUMENS FIXTURES ARE EQUIPPED WITH 4/1 DRIVER (NON-DIMMABLE / 0-10V) IT COMES IN 120V - 277V COLOR TEMPERATURES - 3000K FIXTURE: LIGHTING SUPPLY #KPLM-41-ZM-L2-40	MOUNTING: AND SEMI FLUSH MOUNT WITH OPTIONAL L BRACKET VOLT: UNV LAMPS: 14W LED 3000K Ra84 CRI
F3	CAMPUS STANDARD POLE LIGHT. SEE NOTE #1 KIPP POST	-	-	LOUIS POULSEN 954.349.2525	82 WATT LED LIGHT PRODUCES 7472 LUMENS FIXTURES ARE EQUIPPED WITH DRIVER IT COMES IN 120V - 277V COLOR TEMPERATURES - 3000K FIXTURE: LIGHTING SUPPLY VARIANT NUMBER: 5747920671	MOUNTING: RSA-4.5" POLES VOLT: UNV LAMPS: 82W 3000K

OVERALL SITE PLAN



GENERAL NOTES

1. PERFORM WORK IN ACCORDANCE WITH APPLICABLE CODE REQUIREMENTS AND APPLICABLE REQUIREMENTS OF ALL OTHER REGULATORY AGENCIES.
2. UNLESS OTHERWISE SPECIFIED, SPECIFIC REFERENCES TO CODES, REGULATIONS, STANDARDS, MANUFACTURERS' INSTRUCTIONS OR REQUIREMENTS OF REGULATORY AGENCIES, WHEN USED TO SPECIFY REQUIREMENTS FOR MATERIALS OF DESIGN ELEMENTS SHALL MEAN THE LATEST EDITION OF EACH IN EFFECT AT THE DATE OF SUBMISSION OF BIDS, OR THE DATE OF THE CHANGE ORDER OR FIELD ORDERS, AS APPLICABLE.
3. COORDINATE ALL WORK WITH EXISTING CONDITIONS, INCLUDING, BUT NOT LIMITED TO, IRRIGATION PIPES, ELECTRICAL CONDUIT, WATER LINES, DRAINAGE LINES, GAS LINES, ETC.
4. PROTECT ALL SITE CONDITIONS TO REMAIN INCLUDING TREES, PLANTING, PAVING, LIGHT STANDARDS, ETC.
5. DETAILS SHOWN ARE TYPICAL. SIMILAR DETAILS APPLY IN SIMILAR CONDITIONS.
6. INSTALL ALL EQUIPMENT AND MATERIALS PER MANUFACTURER'S RECOMMENDATIONS.
7. WHERE 'VERIFY' OR 'VERIFY IN FIELD' IS USED IN CONJUNCTION WITH A DIMENSION, THE CONTRACTOR SHALL VERIFY THE MEASUREMENT PRIOR TO COMMENCING THE WORK. IMMEDIATELY BRING DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT.
8. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL VERIFY WITH THE DISTRICT AND ARCHITECT ANY AND ALL ITEMS TO BE SAVED FOR REUSE, AND SHALL REMOVE AND STORE THEM IN A PROTECTED AREA ON THE JOBSITE, OR AS DIRECTED BY THE SCHOOL DISTRICT AND ARCHITECT.

LAYOUT NOTES

1. ALL DIMENSIONS, UNLESS OTHERWISE INDICATED, ARE TO FACE OF WALL OR STRUCTURE, OR BACK OF CURB.
2. WRITTEN DIMENSIONS ALWAYS TAKE PRECEDENCE OVER SCALED DIMENSIONS. IF THERE IS A CONFLICT, NOTIFY THE DISTRICT AND LANDSCAPE ARCHITECT FOR CLARIFICATION.
3. SAW CUT EXISTING CONCRETE PAVING OR CURBS AS REQUIRED TO ACCOMMODATE NEW CONSTRUCTION. ARCHITECT TO APPROVE LOCATIONS OF SAW CUTS PRIOR TO CUTTING.
4. INSTALL NEW EXPANSION JOINTS WITHOUT DOWELS AT ALL LOCATIONS WHERE CONCRETE PAVING ABUTS WALLS OR OTHER VERTICAL SURFACES.
5. INSTALL EXPANSION JOINTS WITH DOWELS EVERYWHERE ELSE.
6. THIS PLAN DOES NOT REPRESENT A PROPERTY LINE SURVEY. PROPERTY LINES SHOWN HEREON MAY NOT REPRESENT THE TRUE POSITION OF THE LINE.
7. EXISTING FEATURES AND TOPOGRAPHIC INFORMATION HAVE BEEN TAKEN FROM A SURVEY PROVIDED BY SANDIS DATED AUGUST 5TH, 2022. KELLER MITCHELL & CO. LANDSCAPE ARCHITECTURE ASSUMES NO LIABILITY REGARDING THE ACCURACY OF THE EXISTING FEATURES OR TOPOGRAPHIC INFORMATION SHOWN.

GRADING NOTES

1. CALL UNDERGROUND SERVICE ALERT (USA) @ (800) 642-2444 TO LOCATE EXISTING UTILITIES PRIOR TO ANY EXCAVATIONS AND/OR REMOVALS.
2. (E) GRADES ARE TAKEN FROM A TOPOGRAPHICAL SURVEY DATED 08/05/2023.
3. SLOPE UNIFORMLY BETWEEN GIVEN ELEVATIONS UNLESS OTHERWISE INDICATED. MAKE TRANSITIONS BETWEEN CHANGES IN VERTICAL GRADIENT SMOOTH AND FLOWING, WITH NO ABRUPT CHANGES IN PLANE.
4. ALL LANDSCAPE PAVING AND HARDSCAPE ELEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LANDSCAPE GRADING PLANS.

PLANTING NOTES

1. PLANTING PLAN PROVIDES A GUIDE FOR GENERAL PLANTING LAYOUT ONLY. FINAL LAYOUT SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION. FIELD ADJUSTMENTS MAY BE MADE AT THIS TIME.
2. CONTRACTOR SHALL COORDINATE AND VERIFY THE LOCATION OF UNDERGROUND UTILITIES WITHIN WORK AREAS PRIOR TO INSTALLING NEW UTILITIES OR EXCAVATION OF LARGER PLANTING HOLES AND SHALL BE RESPONSIBLE FOR THEIR PROTECTION.
3. LOCATIONS OF ALL PLANT MATERIAL SHALL BE APPROVED BY ARCHITECT PRIOR TO EXCAVATING PLANTING HOLES.
4. PLANT SPACING SHALL TAKE PRECEDENCE OVER IRRIGATION VALVE BOX, PIPE AND OTHER EQUIPMENT LOCATIONS.
5. ALL VALVE BOX LOCATIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO INSTALLATION.

NORTH

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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

LANDSCAPE GENERAL NOTES

SHEET NO.

L-001

PROJECT NO. 22202

SCALE N.T.S.

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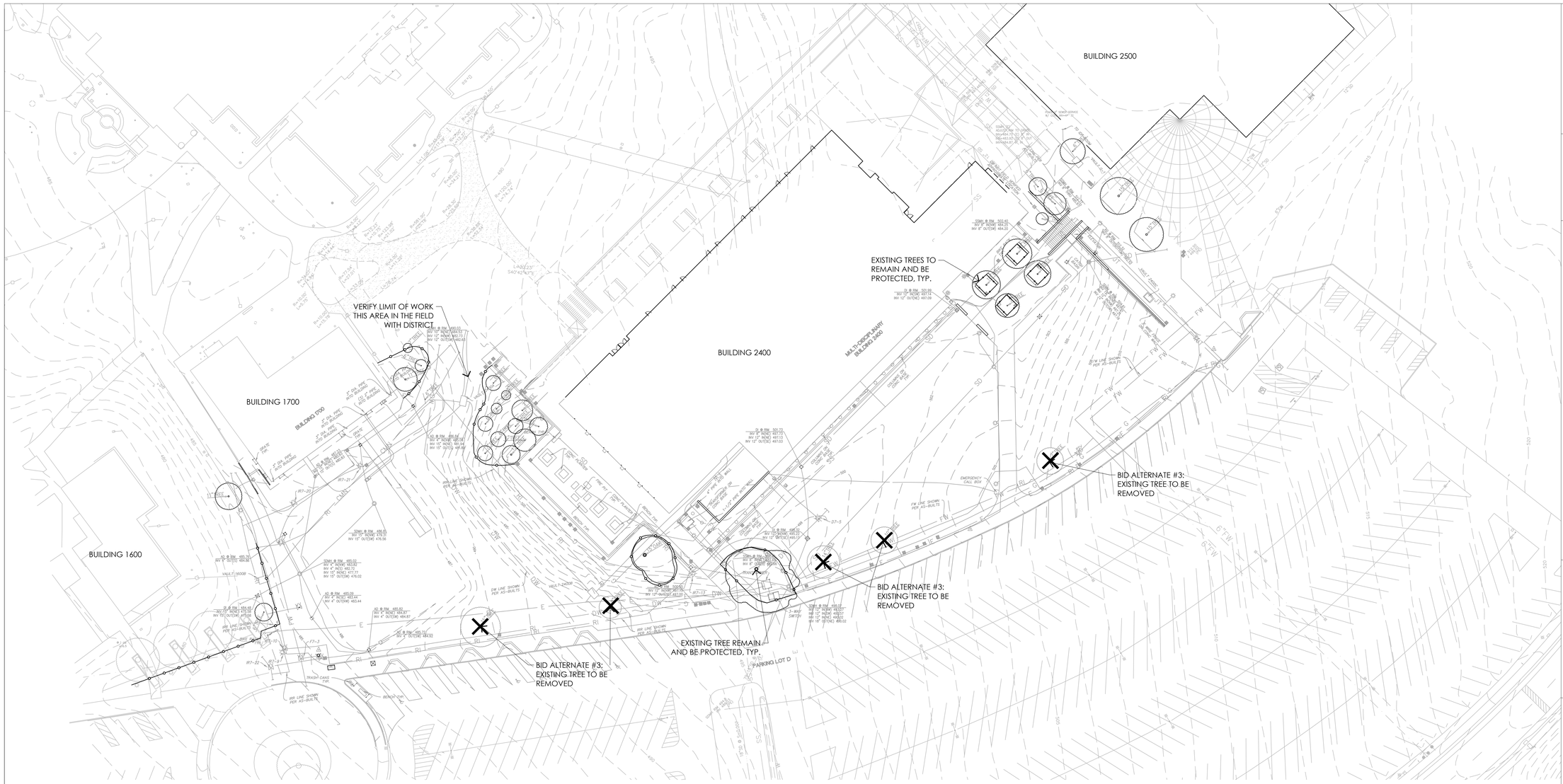

TREE PRESERVATION NOTES

THE GOAL OF TREE PRESERVATION IS NOT MERELY TREE SURVIVAL DURING DEVELOPMENT BUT MAINTENANCE OF TREE HEALTH AND BEAUTY FOR MANY YEARS. TREES RETAINED ON SITES THAT ARE EITHER SUBJECT TO EXTENSIVE INJURY DURING CONSTRUCTION OR ARE INADEQUATELY MAINTAINED BECOME A LIABILITY RATHER THAN AN ASSET. THE RESPONSE OF INDIVIDUAL TREES WILL DEPEND ON THE AMOUNT OF EXCAVATION AND GRADING, THE CARE WITH WHICH DEMOLITION IS UNDERTAKEN, AND THE CONSTRUCTION METHODS.

THE FOLLOWING RECOMMENDATIONS WILL HELP REDUCE IMPACTS TO TREES FROM DEVELOPMENT AND MAINTAIN AND IMPROVE THEIR HEALTH AND VITALITY THROUGH THE CLEARING, GRADING AND CONSTRUCTION PHASES.

1. REFER TO TREE PROTECTION SPECIFICATIONS FOR MITIGATION REQUIREMENTS. ALL GUIDELINES AND REQUIREMENTS SHALL BE FOLLOWED BY THE GENERAL CONTRACTOR AND SUBCONTRACTORS DURING CONSTRUCTION PERIOD.

2. REFER TO TREE AND PLANT PROTECTION SPECIFICATION SECTION 015639 FOR CALCULATING THE VALUE OF EACH TREE.

3. SEE DETAILS AND SPECIFICATIONS FOR EXISTING TREE PROTECTION.

4. IMPROVE TREE HEALTH PRIOR TO CONSTRUCTION: AERATE COMPACTED SOILS, INSTALL AN DMAINTAIN AT LEAST TWO INCHES OF WOOD CHIP MULCH ON ALL SOIL SURFACES WHERE BARE, AND CONSIDER INSTALLING TEMPORARY DRIP IRRIGATION SYSTEM TO PROVIDE SUPPLEMENTAL IRRIGATION TO VALLEY O AK AND REDBUD TREES.

5. A TREE PROTECTION ZONE MUST BE ESTABLISHED FOR TREES TO BE PRESERVED, IN WHICH NO DISTURBANCE IS PERMITTED. FOR DESIGN PURPOSES, THE TREE PROTECTION ZONE SHALL BE THE DRIPLINE IN ALL DIRECTION. NO GRADING, EXCAVATION, CONSTRUCTION OR STORAGE OF MATERIALS SHALL OCCUR WITHIN THAT ZONE.

6. NO UNDERGROUND SERVICES INCLUDING UTILITIES, SUB-DRAINS, WATER OR SEWER SHALL BE PLACED IN THE TREE PROTECTION ZONE. TO MINIMIZE IMPACTS TO TREES, LOCATE UNDERGROUND SERVICES TO PROVIDE AS MUCH ROOM AS POSSIBLE FROM TREES IDENTIFIED FOR PRESERVATION.

7. ANY HERBICIDES PLACED UNDER PAVING MATERIALS MUST BE SAFE FOR USE AROUND TREES AND LABELED FOR THAT USE.

8. DO NOT APPLY LIME TO SOIL FOR STABILIZATION WITHIN 25' OF TREES TO BE PRESERVED. LIME IS TOXIC TO TREE ROOTS.

9. FENCE ALL TREES TO BE RETAINED TO COMPLETELY ENCLOSE THE TREE PROTECTION ZONE PRIOR TO DEMOLITION, GRUBBING OR GRADING.

10. WHERE POSSIBLE, CAP AND ABANDON ALL EXISTING UNDERGROUND UTILITIES WITHIN THE TPZ IN PLACE. REMOVAL OF UTILITY BOXES BY HAND IS ACCEPTABLE.

11. PRIOR TO TRENCHING OR OTHER BELOW GROUND ACTIVITIES WITHIN FENCED ZONES, IF SOIL IS MOIST THEN AIR SPADING IS PREFERRED, OTHERWISE HAND TRENCHING FOLLOWED BY PROFESSIONAL ROOT PRUNING OF ALL ROOTS USING SHARP BLADED POWER OR HAND TOOLS. IF SOIL IS NOT IMMEDIATELY BACKFILLED THEN EXPOSED ROOTS SHOULD BE COVERED WITH WET BURLAP, AND KEPT WET TILL TRENCH OR AREA DISTURBED IS BACKFILLED.

12. TREE(S) TO BE REMOVED THAT HAVE BRANCHES EXTENDING INTO THE CANOPY OF TREE(S) TO REMAIN MUST BE REMOVED BY A QUALIFIED ARBORIST AND NOT BY DEMOLITION OR CONSTRUCTION CONTRACTORS. THE QUALIFIED ARBORIST SHALL REMOVE THE TREE IN A MANNER THAT CAUSES NO DAMAGE TO THE TREE(S) AND UNDERSTORY TO REMAIN. STUMPS SHALL BE GROUND BELOW GRADE.

13. ANY BRUSH CLEARING REQUIRED WITHIN THE TREE PROTECTION ZONE SHALL BE ACCOMPLISHED WITH HAND-OPERATED EQUIPMENT.

14. TRUNKS WITHIN 5 FEET OF THE CONSTRUCTION ACTIVITY SHALL HAVE TRUNKS WRAPPED WITH STRAW OR OTHER FIBER WATTLES COVERED WITH ORANGE PLASTIC FENCING OR 2"X12" WOODEN BANDS COMPLETELY SURROUNDING TRUNKS, COVERED WITH ORANGE PLASTIC FENCE MATERIAL.

15. DUST AND HEAT MITIGATION DURING CONSTRUCTION: WASH FOLIAGE OFF DAILY OR WEEKLY AT THE END OF THE WEEK AS NEEDED. PROVIDE SUPPLEMENTAL IRRIGATION AS DETERMINED BY CONSULTING ARBORIST BASED ON WEATHER, SOIL MOISTURE, AND TREE CONDITION.

16. PRUNE TREES TO BE PRESERVED TO PROVIDE ADEQUATE CLEARANCE AND CORRECT ANY EXISTING DEFECTS IN STRUCTURE. ALL PRUNING SHALL BE COMPLETED BY A CERTIFIED ARBORIST OR TREE WORKER AND ADHERE TO THE LATEST EDITION OF THE ANSI Z133 AND A300 STANDARDS AS WELL AS THE *BEST MANAGEMENT PRACTICES -- TREE PRUNING* PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE.

17. IF INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, IT SHOULD BE EVALUATED AS SOON AS POSSIBLE BY THE CONSULTING ARBORIST SO THAT APPROPRIATE TREATMENTS CAN BE APPLIED.

18. CONSTRUCTION TRAILERS, TRAFFIC, AND STORAGE AREAS MUST REMAIN OUTSIDE FENCED AREAS AT ALL TIMES.

19. PRIOR TO GRADING, PAD PREPARATION, EXCAVATION FOR FOUNDATIONS/FOOTINGS/WALLS, TRENCHING, TREES MAY REQUIRE ROOT PRUNING OUTSIDE THE TREE PROTECTION ZONE BY CUTTING ALL ROOTS CLEANLY TO THE DEPTH OF THE EXCAVATION. ROOTS SHALL BE CUT BY MANUALLY DIGGING A TRENCH AND CUTTING EXPOSED ROOTS WITH A SAW, WITH A VIBRATING KNIFE, ROCK SAW, NARROW TRENCHER WITH SHARP BLADES, OR OTHER APPROVED ROOT PRUNING EQUIPMENT. THE CONSULTING ARBORIST WILL IDENTIFY WHERE ROOT PRUNING IS REQUIRED AND MONITOR ALL ROOT PRUNING ACTIVITIES.

20. ANY ROOTS DAMAGED DURING GRADING OR CONSTRUCTION SHALL BE EXPOSED TO SOUND TISSUE AND CUT CLEANLY WITH A SAW.

21. NO MATERIALS, EQUIPMENT, SPOIL, WASTE OR WASH-OUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE TREE PROTECTION ZONE.

22. ANY ADDITIONAL TREE PRUNING NEEDED FOR CLEARANCE DURING CONSTRUCTION MUST BE PERFORMED BY A QUALIFIED ARBORIST AND NOT BY CONSTRUCTION PERSONNEL.

23. IF TEMPORARY HAUL OR ACCESS ROADS MUST PASS OVER THE ROOT AREA OF TREES TO BE RETAINED, A ROAD BED OF 6" OF MULCH OR GRAVEL SHALL BE CREATED TO PROTECT THE SOIL. THE ROAD BED MATERIAL SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 6" DEPTH.

24. SEE SHEET C2.00 FOR DEMOLITION PLAN.

LEGEND:

- EXISTING TREE TO REMAIN AND BE PROTECTED
- BID ALTERNATE #2: EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCE

0 30 60 90

1" = 30'-0"

NORTH

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KEY PLAN

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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

TREE PROTECTION AND REMOVAL PLAN

SHEET NO.

L-101

PROJECT NO.
22202

SCALE
1" = 30'-0"

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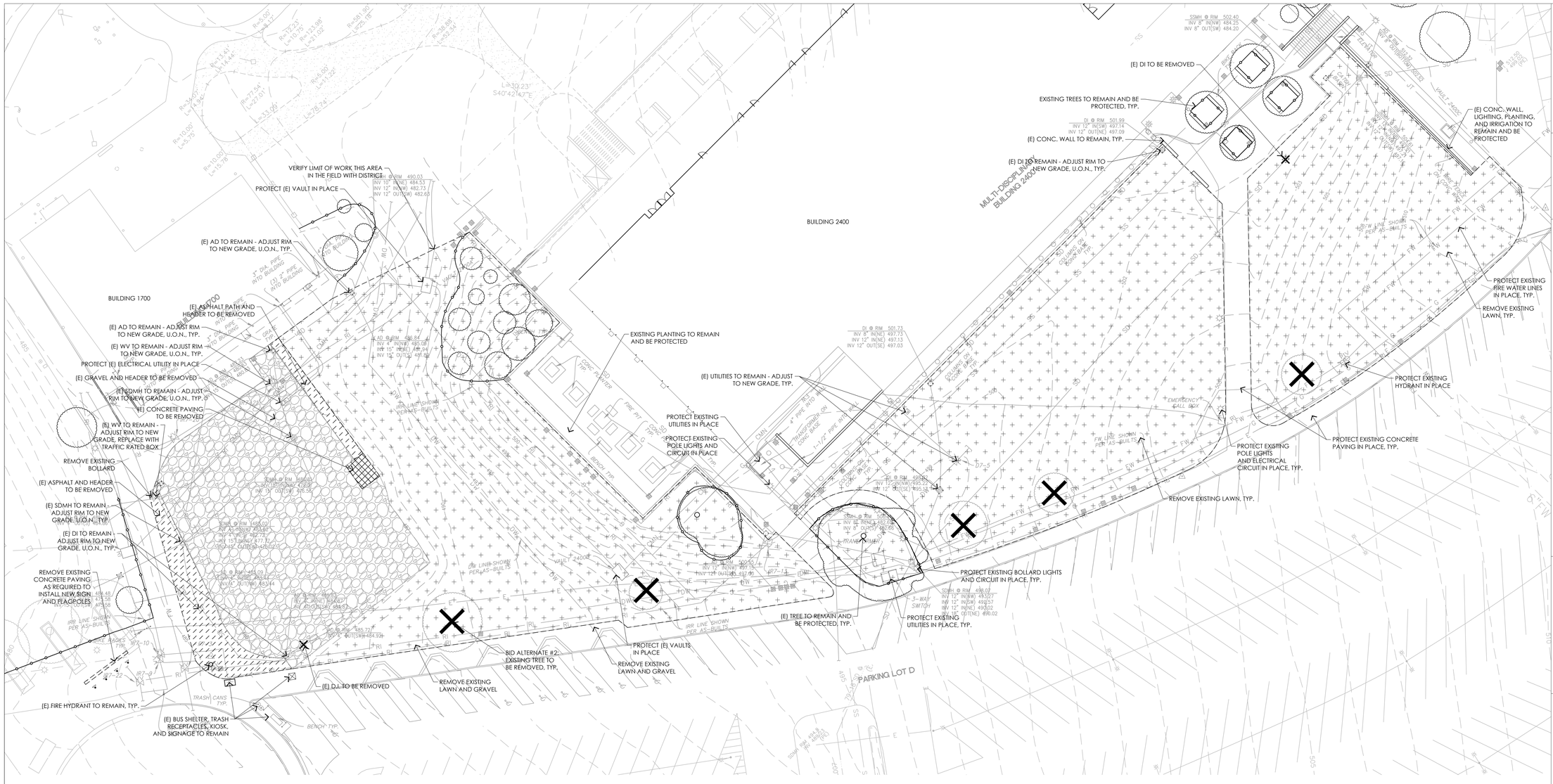

DEMOLITION NOTES:

1. THIS PLAN DOES NOT REPRESENT A PROPERTY LINE SURVEY. PROPERTY LINES SHOWN HEREON MAY NOT REPRESENT THE TRUE POSITION OF THE LINE.
2. EXISTING FEATURES AND TOPOGRAPHIC INFORMATION HAVE BEEN TAKEN FROM A BASE PLAN PROVIDED BY CLPCCD AND PREPARED BY SANDIS, DATED 8/5/2022. KELLER MITCHELL & CO. LANDSCAPE ARCHITECTURE ASSUMES NO LIABILITY REGARDING THE ACCURACY OF THE EXISTING FEATURES OR TOPOGRAPHIC INFORMATION SHOWN.
3. TAKE PRECAUTIONARY MEASURES NECESSARY TO PROTECT FROM DAMAGE ALL EXISTING IMPROVEMENTS AND UTILITIES WHICH ARE TO REMAIN IN PLACE. THE LANDSCAPE ARCHITECT AND OWNER SHALL BE NOTIFIED IMMEDIATELY IF ANY DAMAGE OCCURS OR IS DISCLOSED DURING DEMOLITION. EXPEDITIOUSLY REPAIR IN KIND IMPROVEMENTS AND UTILITIES REMOVED OR DAMAGED BY THE CONTRACTOR'S OPERATIONS.
4. GENERAL CONTRACTOR AND/OR SUBCONTRACTORS SHALL REVIEW THE EXISTING FACILITY TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED TO INSTALL THE NEW WORK. A WRITTEN OUTLINE OF ALL REQUIRED DEMOLITION SHALL BE SUBMITTED TO THE OWNER DESCRIBING (BUT NOT LIMITED TO) ANY UNNOTED EXISTING CONDITION WHICH CONFLICTS WITH THE PROJECT REQUIREMENTS AND MAY REQUIRE MODIFICATION, RELOCATION OR REMOVAL TO COMPLETE THE PROJECT SUCH THAT THE NECESSARY DRAWING REVISIONS MY BE INCORPORATED INTO THE PROJECT REQUIREMENTS.
5. REMOVE ALL ITEMS AS INDICATED ON PLANS.
6. CONTRACTOR TO MARK LAYOUT OF DEMOLITION FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO BEGINNING DEMOLITION.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE SITE ALL RUBBLE AND DEBRIS CAUSED BY DEMOLITION, AND DISPOSING OF IT IN A PROPER MANNER UNLESS NOTED.
8. PROTECT ALL EXISTING DROP INLETS, MANHOLES, UTILITY VAULTS, METER AND VALVE BOXES, CATCH BASINS, AND THE LIKE, FROM DEBRIS AND DUST DURING DEMOLITION AND CONSTRUCTION.
9. PROTECT ALL EXISTING PAVING / ASPHALT TO REMAIN AND REPAIR IF DAMAGED DURING CONSTRUCTION.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ON SITE UTILITIES ABOVE GROUND AND BELOW GRADE IMPROVEMENTS PRIOR TO BEGINNING EXCAVATION.
11. PROTECT ALL EXISTING TREES. IF INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, IT SHOULD BE EVALUATED AS SOON AS POSSIBLE BY THE CONSULTING ARBORIST SO THAT APPROPRIATE TREATMENTS CAN BE APPLIED. REPAIR AND REPLACEMENT OF EXISTING TREES DAMAGED BY CONSTRUCTION OPERATIONS SHALL BE AT THE CONTRACTOR'S EXPENSE. NO MATERIALS, EQUIPMENT, SPOIL, WASTE OR WASH-OUT WATER MAY BE DEPOSITED, STORED, OR PARKED WITHIN THE DRIPLINE OF THE TREES.

LEGEND:

- EXISTING TREE TO REMAIN AND BE PROTECTED
- BID ALTERNATE #2: EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCE
- CLEAR AND GRUB EXISTING PLANTING
- EXISTING ASPHALT PAVING TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED
- EXISTING CONCRETE PAVING TO BE REMOVED

0 20 40 60

1" = 20'-0"

NORTH

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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
Signature
09/08/22
Expiration Date
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

DEMOLITION PLAN

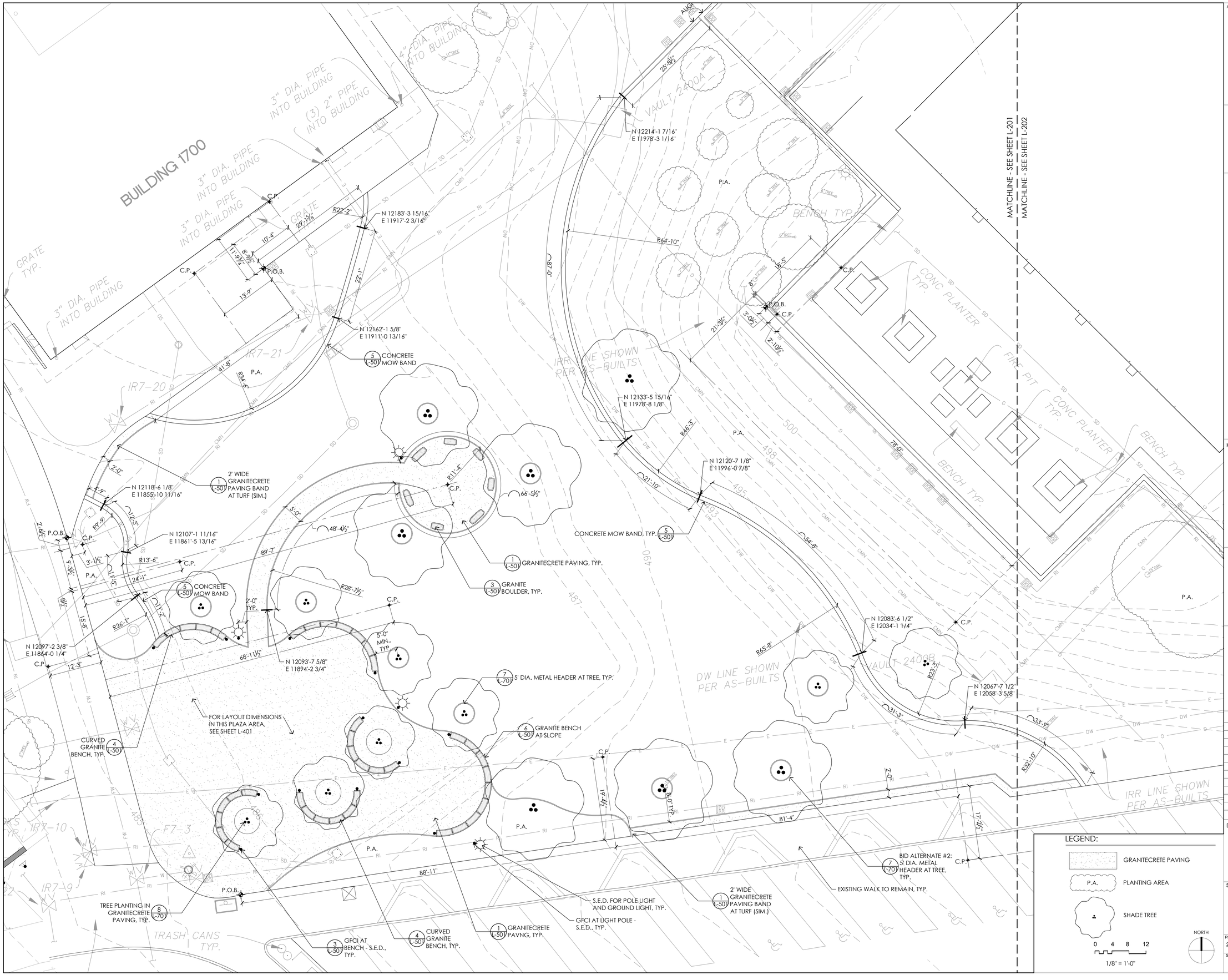
SHEET NO.

L-102

PROJECT NO. 22202

SCALE 1" = 20'-0"

DRAWN BY SH



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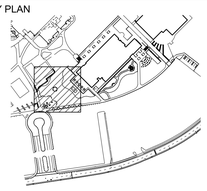

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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

LAYOUT PLAN

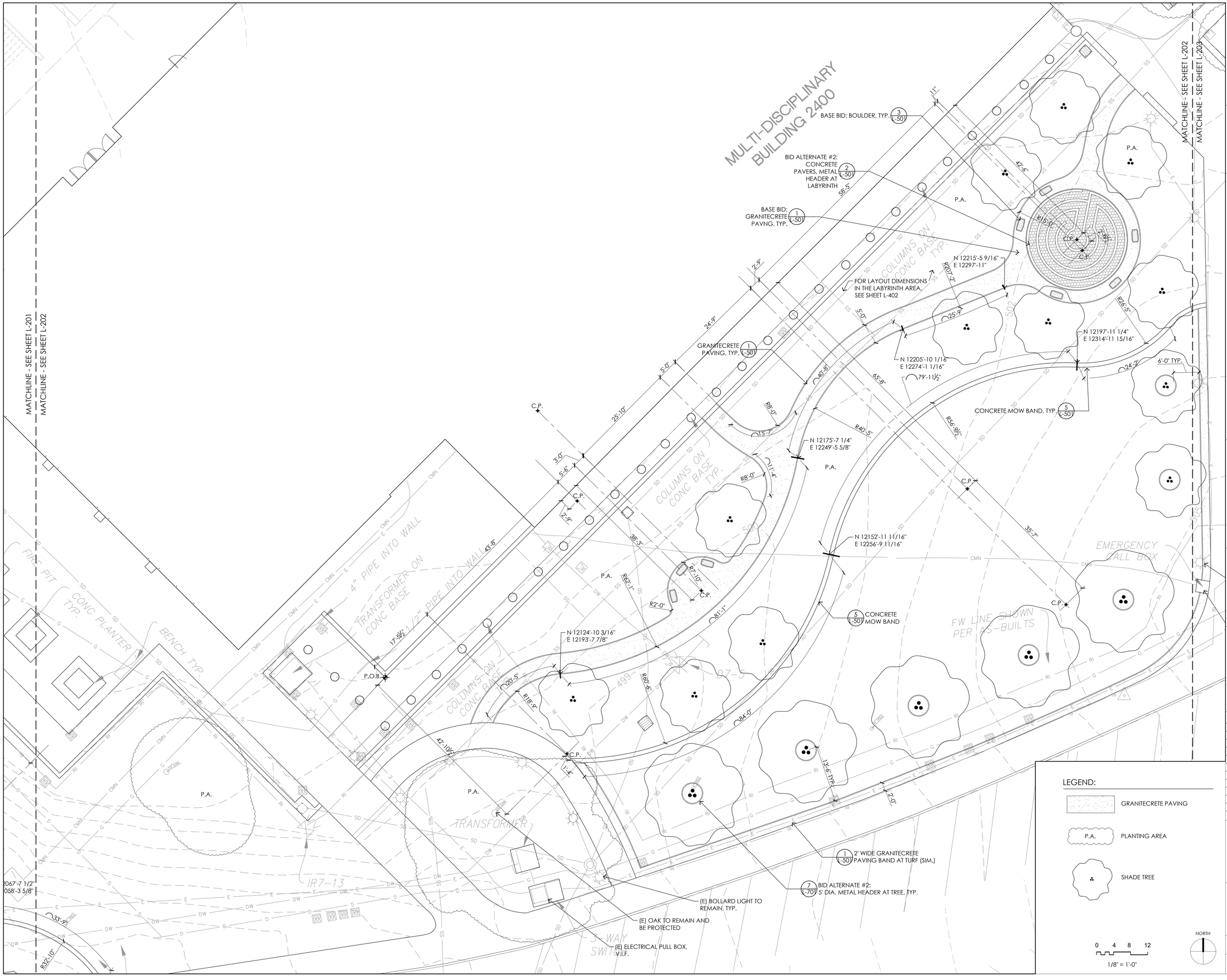
SHEET NO.

L-201

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH



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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
STATE OF CALIFORNIA
09/08/22
Renewal Date
8/31/2023
Renewal Date

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

LAYOUT PLAN

SHEET NO.

L-202

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH

LEGEND:

- GRANITECRETE PAVING
- P.A. PLANTING AREA
- SHADE TREE

0 4 8 12

1/8" = 1'-0"

NORTH

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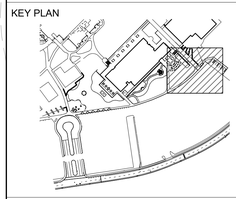

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LANDSCAPE RENOVATION
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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
Signature
09/08/22
Date
8/31/2023
Renewal Date
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

LAYOUT PLAN

SHEET NO.

L-203

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH

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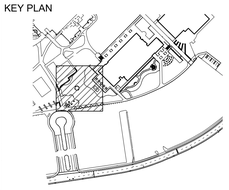

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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
Renewal Date
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

GRADING PLAN

SHEET NO.

L-301

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

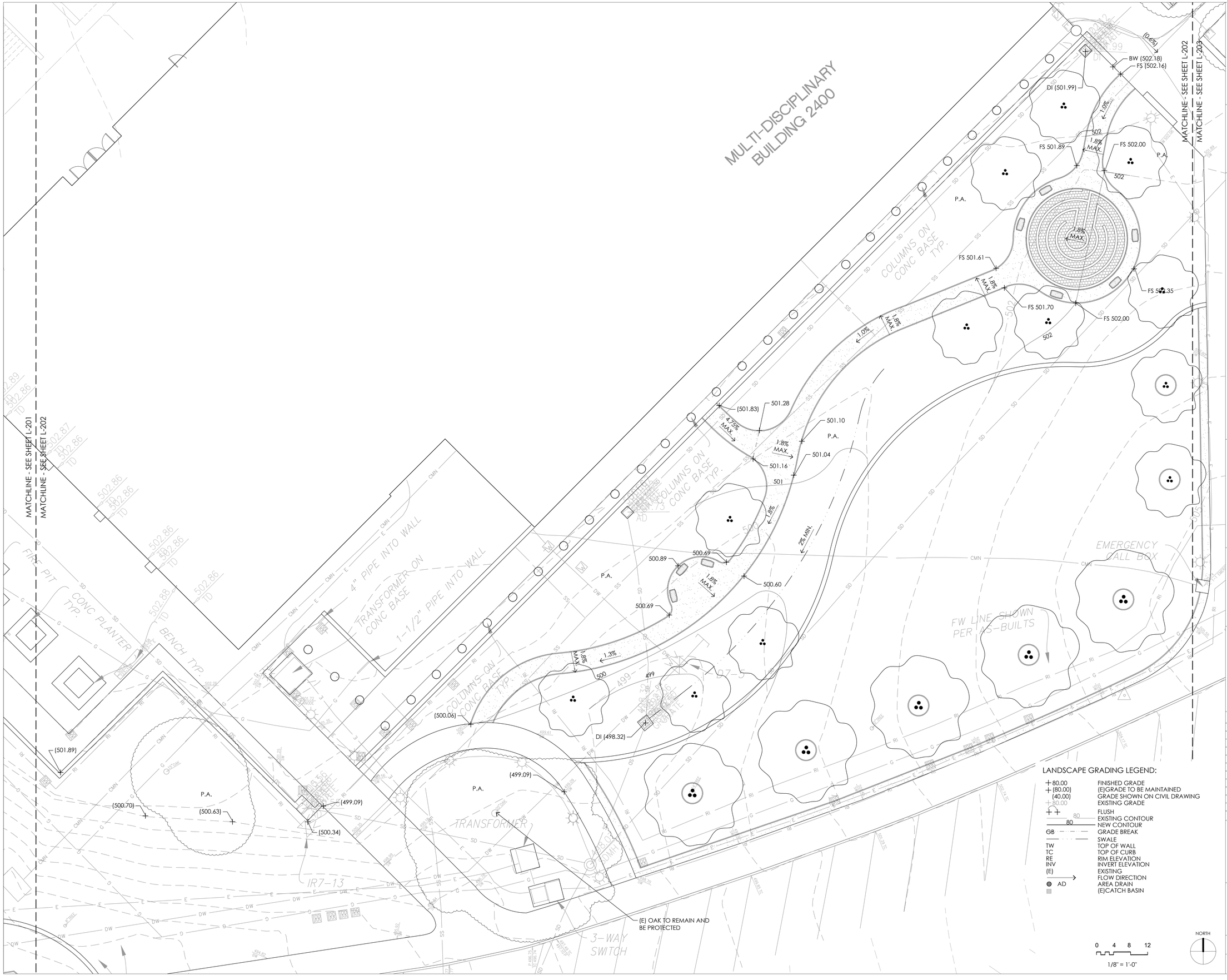
DRAWN BY
SH

LANDSCAPE GRADING LEGEND:

80.00	FINISHED GRADE
(80.00)	(E)GRADE TO BE MAINTAINED
80.00	EXISTING GRADE
	FLUSH
80	EXISTING CONTOUR
80	NEW CONTOUR
GB	GRADE BREAK
	SWALE
TW	TOP OF WALL
TC	TOP OF CURB
RE	RIM ELEVATION
INV	INVERT ELEVATION
(E)	EXISTING
	FLOW DIRECTION
AD	AREA DRAIN
	(E)CATCH BASIN

0 4 8 12
1/8" = 1'-0"

NORTH



LANDSCAPE GRADING LEGEND:

+ 80.00	FINISHED GRADE
+ (80.00)	(E)GRADE TO BE MAINTAINED
(40.00)	GRADE SHOWN ON CIVIL DRAWING
+ 80.00	EXISTING GRADE
+ +	FLUSH
80	EXISTING CONTOUR
80	NEW CONTOUR
GB	GRADE BREAK
	SWALE
TW	TOP OF WALL
TC	TOP OF CURB
RE	RIM ELEVATION
INV	INVERT ELEVATION
(E)	EXISTING
→	FLOW DIRECTION
AD	AREA DRAIN
	(E)CATCH BASIN

0 4 8 12

1/8" = 1'-0"

NORTH

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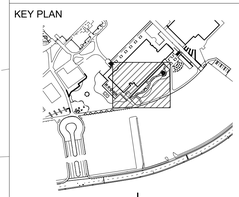
KEY PLAN



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LICENSED LANDSCAPE ARCHITECT
AMY COUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

GRADING PLAN

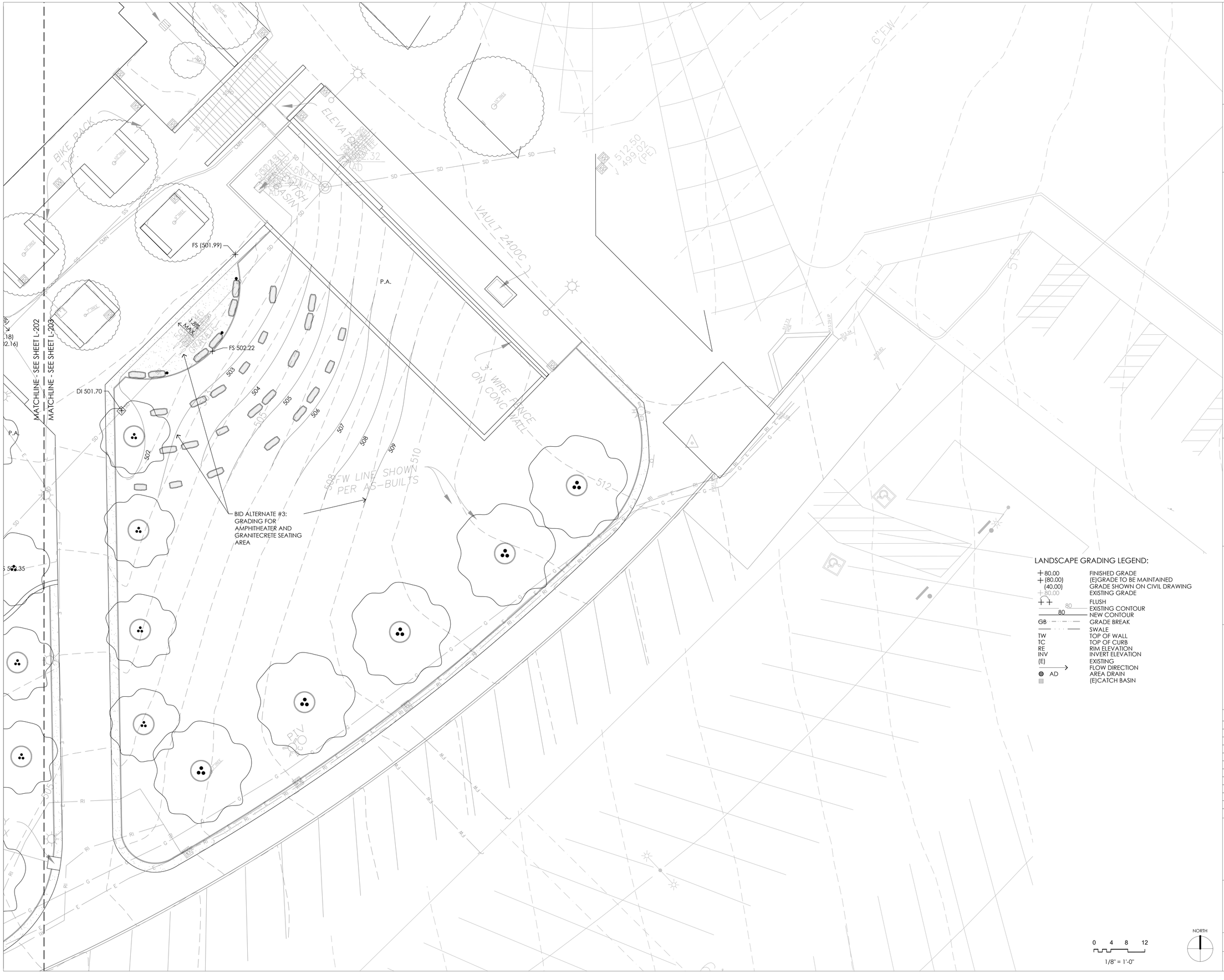
SHEET NO.

L-302

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH



LANDSCAPE GRADING LEGEND:

80.00	FINISHED GRADE
(80.00)	(E)GRADE TO BE MAINTAINED
(40.00)	GRADE SHOWN ON CIVIL DRAWING
50.00	EXISTING GRADE
	FLUSH
80	EXISTING CONTOUR
80	NEW CONTOUR
GB	GRADE BREAK
	SWALE
TW	TOP OF WALL
TC	TOP OF CURB
RE	RIM ELEVATION
INV	INVERT ELEVATION
(E)	EXISTING
	FLOW DIRECTION
AD	AREA DRAIN
	(E)CATCH BASIN

0 4 8 12

1/8" = 1'-0"

NORTH

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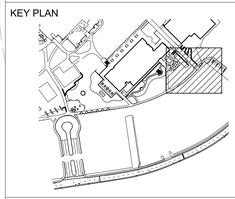

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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

GRADING PLAN

SHEET NO.

L-303

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH

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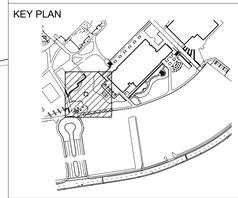

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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

DETAIL LAYOUT PLAN

SHEET NO.

L-401

PROJECT NO.
22202

SCALE
1/4" = 1'-0"

DRAWN BY
SH

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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

DETAIL
LAYOUT
PLAN

SHEET NO.

L-402

PROJECT NO.
22202

SCALE
1/4" = 1'-0"

DRAWN BY
SH

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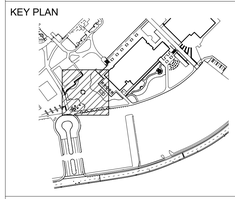
KEY PLAN



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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

DETAIL LAYOUT PLAN

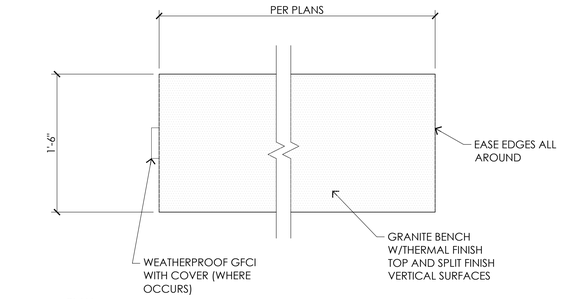
SHEET NO.

L-403

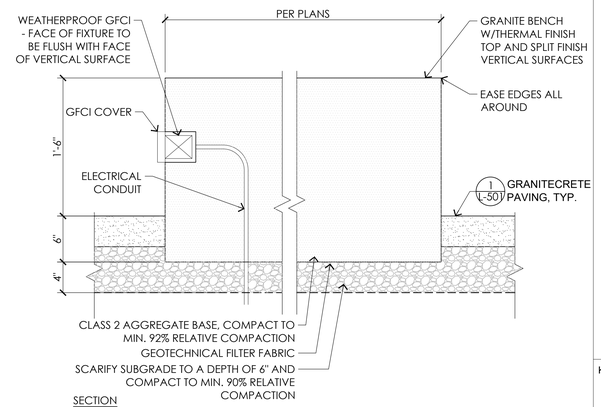
PROJECT NO. 22202

SCALE 1/4" = 1'-0"

DRAWN BY SH



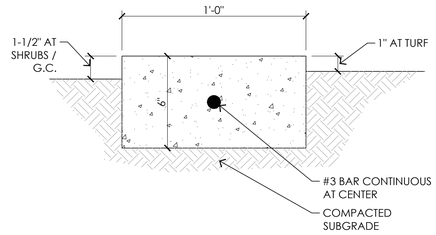
PLAN



SECTION

3 MONOLITHIC GRANITE BENCH

SCALE: 1" = 1-0"

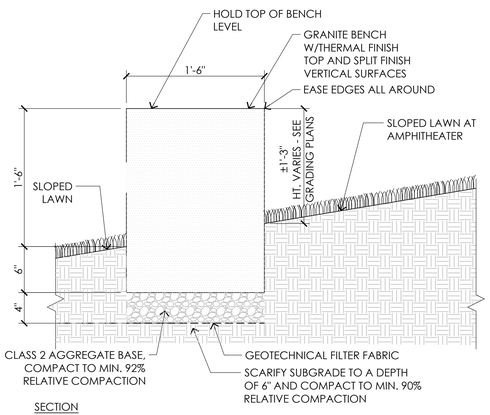


NOTES:

1. JOIN ALL CURBS AND SIDEWALK FLUSH.
2. EXPANSION JOINTS SHALL BE IN MITER PATTERN AT ALL SQUARE CORNERS.
3. CONC. SHALL ACHIEVE 2500 P.S.I. @28 DAYS.
4. ALIGN CONTROL JOINTS IN MOW CURB WITH CONTROL JOINTS IN ADJACENT PAVING AS REQUIRED.
5. PROVIDE 3/16" SAWCUT JOINTS @10' O.C. MAX. EVENLY SPACED.

5 CONCRETE MOW BAND

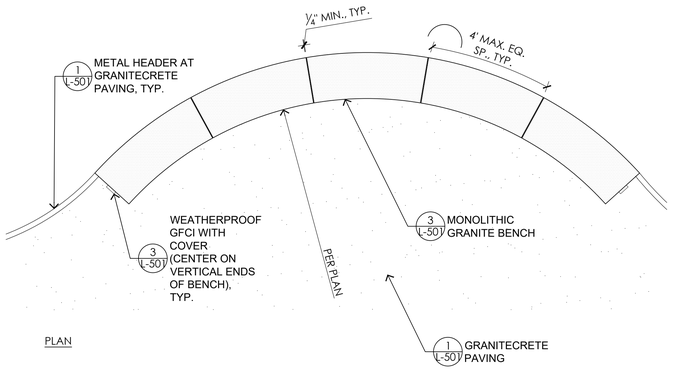
SCALE: 3" = 1-0"



SECTION

7 BID ALT. #3: GRANITE BENCH AT AMPHITHEATER SLOPED LAWN

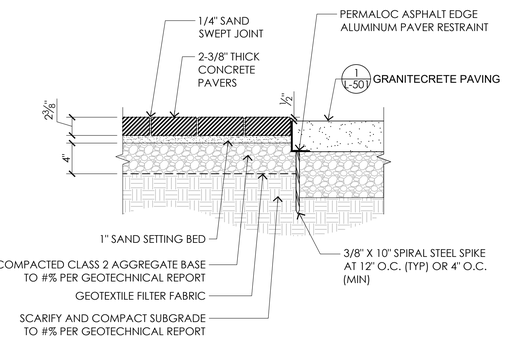
SCALE: 1 1/2"= 1'-0"



PLAN

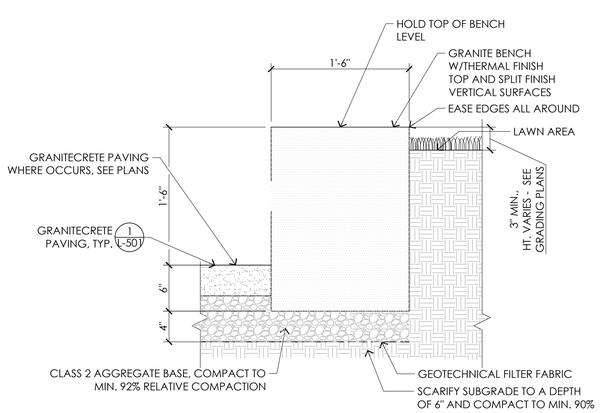
4 CURVED GRANITE BENCH

SCALE: 1/2" = 1-0"



2 BID ALT. #1: CONCRETE PAVERS AT LABYRINTH

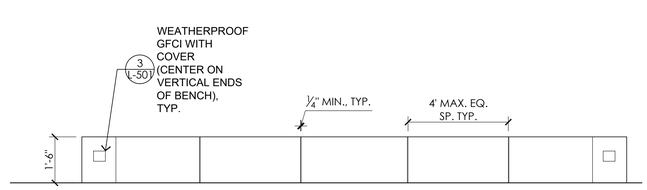
SCALE: 1 1/2" = 1-0"



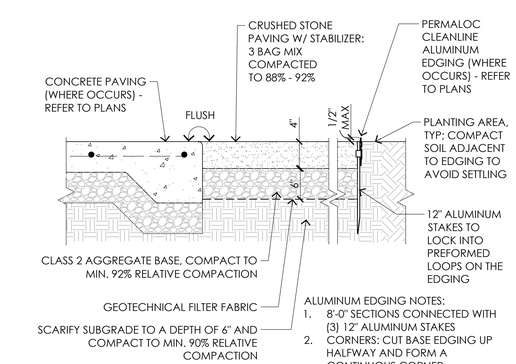
SECTION

6 GRANITE BENCH AT SLOPE

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



ELEVATION



ALUMINUM EDGING NOTES:

1. 8'-0" SECTIONS CONNECTED WITH (3) 12" ALUMINUM STAKES
2. CORNERS: CUT BASE EDGING UP HALFWAY AND FORM A CONTINUOUS CORNER

1 CRUSHED STONE PAVING

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

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KEY PLAN

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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
9/31/2023
Renewal Date
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

CONSTRUCTION DETAILS

SHEET NO.

L-501

PROJECT NO.
22202

SCALE
AS NOTED

DRAWN BY
SH

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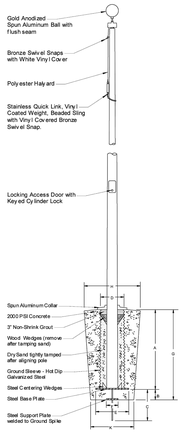
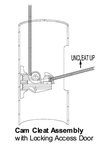
Quality Flagpoles Since 1885

STANDARD GROUND SET CONE TAPERED ALUMINUM FLAGPOLES CAM CLEAT CONCEALED HALYARD

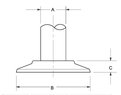


STATIONARY NON-FOULING TRICK DETAIL
Aluminum Body, cast Delrin Sheave on Stainless Steel Pin.

SELF ALIGNING INTERNAL SLEEVE
This pre-fitted, shop machined sleeve is designed to allow for the field assembly, without welding, of large shafts which must be shipped in sections. Proper matching of the numbered parts will result in a fine hair line joint.



Cam Cleat Assembly with Locking Access Door



Spun Aluminum Standard Flash Collar

A	B	C
5"-8"	15"	2.75"
10"	22"	3.5"

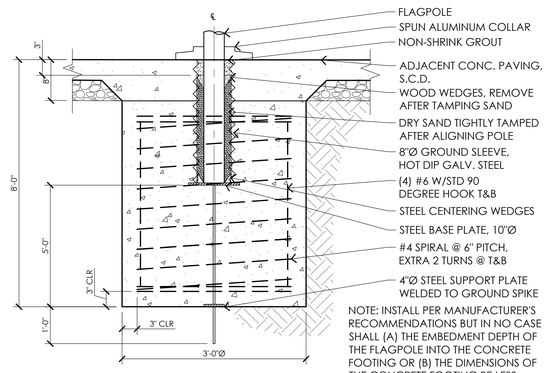
FOUNDATION DIMENSIONS

Exposed Height	A	B	C	D	E	F	G	H	K
20'	2'6"	6"	18"	8"	10"	4"	3'	24"	22"
25'	3'	6"	18"	8"	10"	4"	3'6"	28"	22"
30'	3'	6"	18"	8"	10"	4"	3'6"	28"	24"
35'	3'6"	6"	18"	10"	10"	4"	4'	30"	26"
40'	4'	6"	18"	10"	10"	4"	4'6"	36"	32"
50'	5'	6"	24"	12"	14"	8"	5'6"	48"	42"
60'	6'	6"	24"	15"	16"	8"	6'6"	48"	42"
70'	7'	6"	24"	15"	16"	8"	7'6"	60"	48"

These recommended foundations are only minimums. Dimensions may vary according to soil and wind conditions at location of installation.

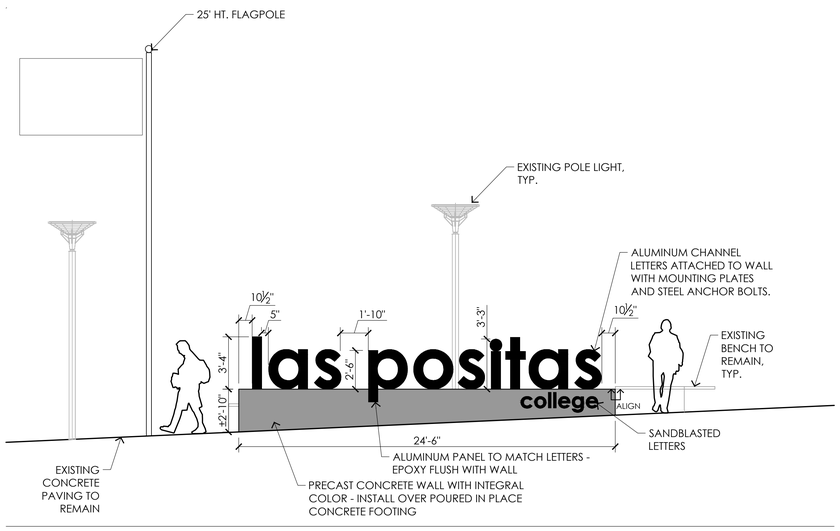
Exposed Height	Overall Height	Diameter Butt	Diameter Top	Wall Thickness	Length Tapered	Length Straight	Ball Dia.	Halyard Dia.	Ship Sections	Ground Sleeve	Flag Size	Shipping Weight
LTJ20'	22'6"	5"	3"	.125"	11'8"	10'10"	5"	5/16"	1	8"	3'x5'	134#
LTJ25'	28'	5"	3"	.125"	11'	17'	5"	5/16"	1	8"	4'x6'	142#
LTJS25'	28'	5"	3"	.156"	19'	13'	5"	5/16"	1	8"	4'x6'	152#
LTJ30'	33'	5"	3"	.125"	17'3"	15'9"	6"	5/16"	1 or 2	8"	5'x8'	152#
LTJS30'	33'	5"	3"	.156"	17'3"	15'9"	6"	5/16"	1 or 2	8"	5'x8'	158#
ETJS35'	38'6"	5"	3"	.156"	20'	18'6"	6"	5/16"	1 or 2	8"	5'x8'	200#
LTJ35'	38'6"	6"	3.5"	.156"	20'	18'6"	6"	5/16"	1 or 2	10"	5'x8'	227#
LTJ40'	44'	7"	3.5"	.156"	22'9"	21'3"	8"	5/16"	2	10"	6'x10'	287#

5 FLAG POLE CUT SHEET
SCALE: N.T.S.

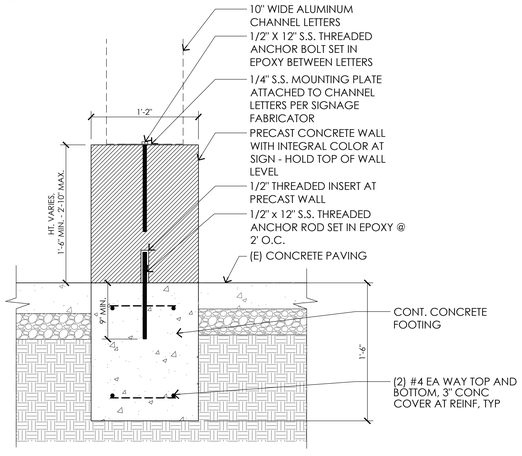


NOTE: INSTALL PER MANUFACTURER'S RECOMMENDATIONS BUT IN NO CASE SHALL (A) THE EMBEDMENT DEPTH OF THE FLAGPOLE INTO THE CONCRETE FOOTING OR (B) THE DIMENSIONS OF THE CONCRETE FOOTING BE LESS THAN WHAT IS INDICATED IN THIS DETAIL.

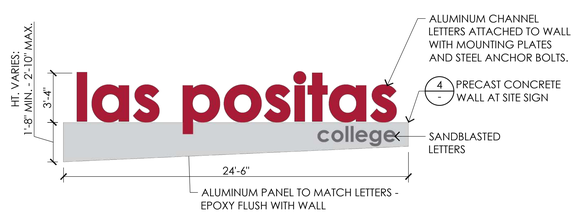
4 FLAG POLE FOOTING
SCALE: N.T.S.



2 SITE SIGN ELEVATION
SCALE: 1/4" = 1'-0"



3 PRECAST CONCRETE WALL AT SITE SIGN
SCALE: 1 1/2" = 1'-0"



FRONT ELEVATION

ISOMETRIC VIEW

NOTE: PROVIDE ENGINEERED STAMPED SHOP DRAWINGS FOR REVIEW.

1 SITE SIGN
SCALE: N.T.S.

AUTHORITY APPROVAL

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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
Signature
09/08/22
Date
8/31/2023
Renewal Date
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

CONSTRUCTION DETAILS

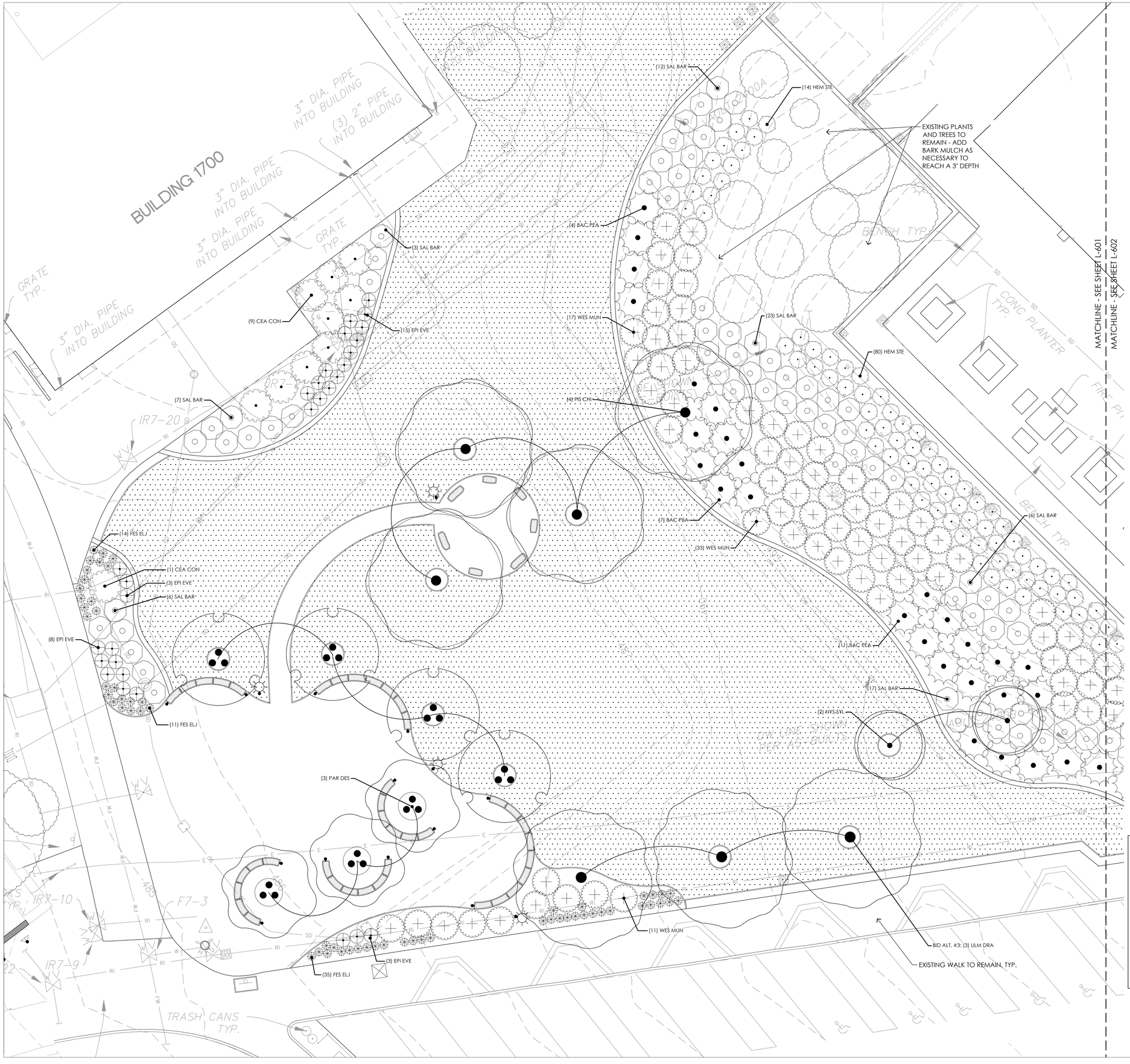
SHEET NO.

L-502

PROJECT NO.
22202

SCALE: AS NOTED

DRAWN BY: SH



PLANTING NOTES:

1. REMOVE COMPACTED SOIL AROUND BUILDING IN AREAS TO BE PLANTED.
2. SUBMIT SOIL AND SOIL AMENDMENT TEST REPORT FOR ARCHITECT'S REVIEW PRIOR TO PURCHASE OF PLANTS.
3. REMOVE ALL LIME TREATED SOIL IN ALL PLANT AREAS TO A DEPTH OF THREE FEET AND DISPOSE OF OFF SITE.
4. ALL PLANTING AREAS TO BE SHEET MULCHED.
5. FURNISH ALL NEW PLANTING AREAS WITH WOOD CHIP MULCH 3" DEEP OVER WEED BARRIER FABRIC.
6. INSTALL ROOT BARRIER AROUND PAVING EDGE OF ALL NEW TREES PLANTED WITHIN 5' OF PAVING. DO NOT WRAP ROOT BARRIER AROUND ROOTBALL.
7. ALL NEW PLANTING AREAS SHALL RECEIVE AUTOMATIC IRRIGATION. SEE IRRIGATION SHEETS.
8. DO NOT PLANT NEW TREES DIRECTLY ABOVE UNDERGROUND SITE UTILITY LINES AND PIPING.

NORTH

1/8" = 1'-0"

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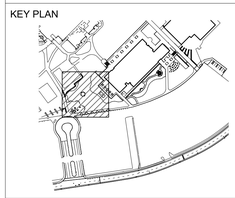
KEY PLAN



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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

PLANTING PLAN

SHEET NO.

L-601

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH

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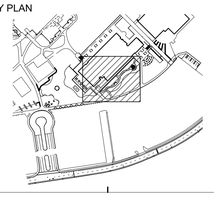
KEY PLAN



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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

PLANTING PLAN

SHEET NO.

L-602

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH

AUTHORITY APPROVAL

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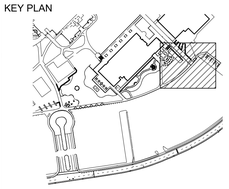
KEY PLAN



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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

PLANTING PLAN

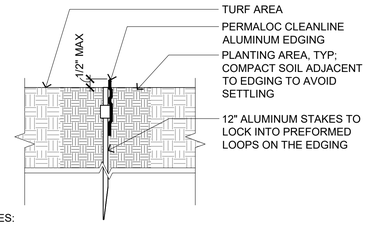
SHEET NO.

L-603

PROJECT NO.
22202

SCALE
1/8" = 1'-0"

DRAWN BY
SH

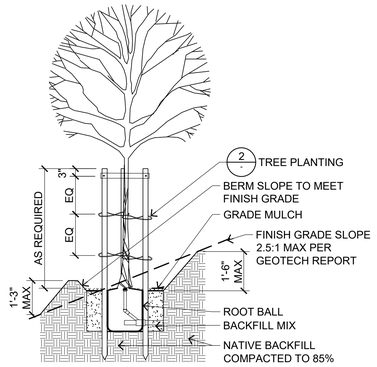


NOTES:

1. 8'-0" SECTIONS CONNECTED WITH (3) 12" ALUMINUM STAKES
2. CORNERS: CUT BASE EDGING UP HALFWAY AND FORM A CONTINUOUS CORNER

7 METAL HEADER AT PLANTING

SCALE: N.T.S.

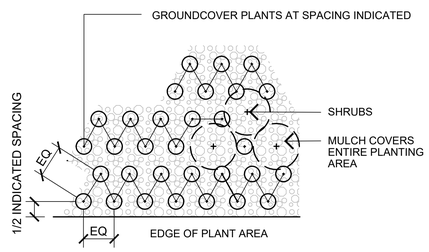


NOTES:

1. SET ROOTBALL CROWN 2" ABOVE FINISH GRADE.
2. SCARIFY ROOTBALL AND PIT SIDES.
3. WHERE CONSTRUCTION COMPACTION HAS OCCURRED, RIP OR SCARIFY TOP 18" OF SUBGRADE IN A 10' DIAMETER CIRCLE MINIMUM AT EACH TREE LOCATION.

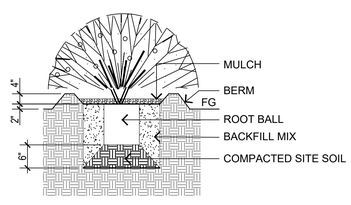
9 TREE PLANTING IN SLOPE

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



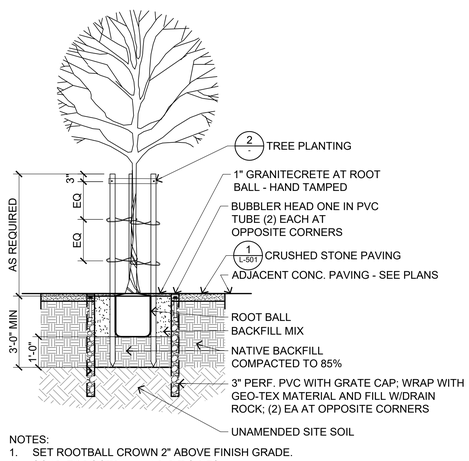
5 GROUNDCOVER SPACING

SCALE: N.T.S.



4 SHRUB PLANTING

SCALE: N.T.S.

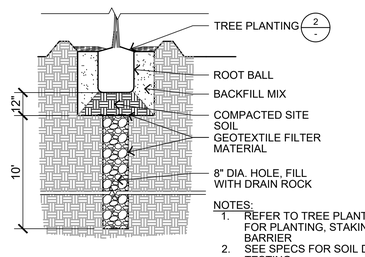


NOTES:

1. SET ROOTBALL CROWN 2" ABOVE FINISH GRADE.
2. SCARIFY ROOTBALL AND PIT SIDES.
3. WHERE CONSTRUCTION COMPACTION HAS OCCURRED, RIP OR SCARIFY TOP 18" OF SUBGRADE IN A 10' DIAMETER CIRCLE MINIMUM AT EACH TREE LOCATION.

8 TREE PLANTING IN GRANITECRETE

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

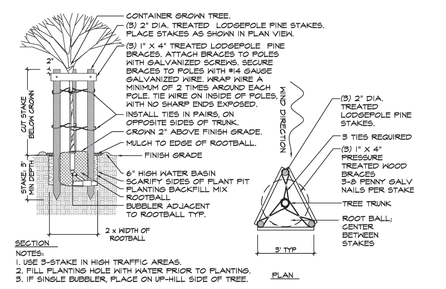


NOTES:

1. REFER TO TREE PLANTING DETAILS FOR PLANTING, STAKING AND ROOT BARRIER
2. SEE SPECS FOR SOIL DRAINAGE TESTING

3 TREE DRAINAGE

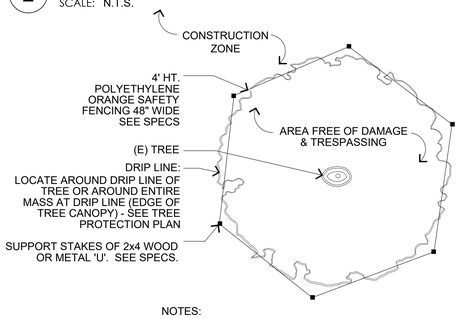
SCALE: N.T.S.



NOTES:
1. USE 3-STAKE IN HIGH TRAFFIC AREAS.
2. FILL PLANTING HOLE WITH WATER PRIOR TO PLANTING.
3. IF SINGLE BUBBLER, PLACE ON UP-HILL SIDE OF TREE.

2 TREE PLANTING

SCALE: N.T.S.



NOTES:
1. ERECT BEFORE COMMENCING ANY CONSTRUCTION WORK
2. EXISTING GRADE LEVEL AROUND THE TREE SHALL BE MAINTAINED.
3. PRUNING, IF NECESSARY, SHALL BE REVIEWED AND APPROVED BY THE CITY ARBORIST.

1 TREE PROTECTION

SCALE: N.T.S.

PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	CA NATIVE	INVASIVE		QTY
	JAC MIM	JACARANDA MIMOSIFOLIA	JACARANDA	24" BOX		M	N			4
	NYS SYL	NYSSA SYLVATICA	TUPELO	24" BOX		M	N			13
	PAR DES	PARKINSONIA X 'DESERT MUSEUM'	DESERT MUSEUM PALO VERDE	24" BOX			Y			8
	PIS CHI	PISTACIA CHINENSIS	CHINESE PISTACHE	15 GAL.	PER PLAN	L	N	Y		4
	ULM DRA	ULMUS PARVIFOLIA `DRAKE`	DRAKE CHINESE ELM	24"		L	N			13
SHRUBS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	NATIVE	INVASIVE	SPACING	QTY
	ARC MIS	ARCTOSTAPHYLOS X 'PACIFIC MIST'	PACIFIC MIST MANZANITA	5 GAL	6` O.C.	L	Y	N	72" o.c.	38
	BAC PEA	BACCHARIS PILULARIS 'TWIN PEAKS'	TWIN PEAKS COYOTE BRUSH	5 GAL	8` O.C.	L	Y	N	96" o.c.	105
	CEA CON	CEANOTHUS X `CONCHA`	CONCHA WILD LILAC	5 GAL	7` O.C.	L	Y	N	84" o.c.	25
	WES MUN	WESTRINGIA FRUTICOSA 'WES05'	MUNDI™ COAST ROSEMARY	5 GAL	6` O.C.	L	N	N	72" o.c.	200
GRASSES	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	NATIVE	INVASIVE	SPACING	QTY
	FES ELJ	FESTUCA GLAUCA 'ELIJAH BLUE'	ELIJAH BLUE FESCUE	1 GAL	2` O.C.	L	N	N	24" o.c.	171
PERENNIALS	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	NATIVE	INVASIVE	SPACING	QTY
	EPI EVE	EPILOBIUM CANUM LATIFOLIUM 'EVERETT'S CHOICE'	EVERETT'S CALIFORNIA FUCHSIA	5 GAL	3` O.C.	L	Y	N	36" o.c.	29
	HEM STE	HEMEROCALLIS X `STELLA DE ORO`	STELLA DE ORO DAYLILY	5 GAL	4` O.C.	M	N	N	48" o.c.	176
	PEN BLU	PENSTEMON HETEROPHYLLUS 'BLUE SPRINGS'	BLUE SPRINGS PENSTEMON	5 GAL	2` O.C.	M	Y	N	24" o.c.	46
	PEN PAR	PENSTEMON PARRYI	PARRY'S BEARDTONGUE	5 GAL	3` O.C.	M	N	N	36" o.c.	38
	SAL BAR	SALVIA LEUCANTHA 'SANTA BARBARA'	SANTA BARBARA MEXICAN BUSH SAGE	5 GAL	5` O.C.	L	N	N	60" o.c.	101
	VER LIL	VERBENA LILACINA 'DE LA MINA'	DE LA MINA LILAC VERBENA	5 GAL	3` O.C.	L	Y	N	36" o.c.	16
SOD/SEED	CODE	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	NATIVE	INVASIVE	SPACING	QTY
	TUR BLU	TURF SOD BLUEGRASS	DELTA BLUEGRASS 90/10 TALL FESCUE	SOD						36,188 SF

MOST PROPOSED PLANT SPECIES ARE CLASSIFIED AS HAVING LOW WATER NEEDS IN THIS REGION, AND WILL REQUIRE LITTLE IRRIGATION ONCE ESTABLISHED. FOUR PLANT SPECIES, ALL IN SMALL QUANTITIES, HAVE A MODERATE NEED FOR WATERING. PLANTS HAVE BEEN SELECTED BASED ON THEIR CLIMACTIC ORIGIN. MOST ARE NATIVE TO MEDITERRANEAN CLIMATE REGIONS, AND ALL ARE WELL ADAPTED TO LOCAL CLIMATE CONDITIONS.

WATER REQUIREMENTS ARE BASED ON WUCOLS IV (WATER USE CLASSIFICATIONS OF LANDSCAPE SPECIES), JANUARY 2014
H = HIGH
VL = VERY LOW
L = LOW
M = MEDIUM

SCHEDULE OF PLANTING HOLE SIZES

CONTAINER SIZE	HOLE WIDTH	HOLE DEPTH
48" BOX	TREE WELL WIDTH	12" BELOW ROOT BALL
36" BOX	6'-0"	12" BELOW ROOT BALL
24" BOX	5'-0"	12" BELOW ROOT BALL
15 GAL	3'-0"	12" BELOW ROOT BALL
5 GAL	2'-0"	6" BELOW ROOT BALL
1 GAL	1'-4"	6" BELOW ROOT BALL

AUTHORITY APPROVAL

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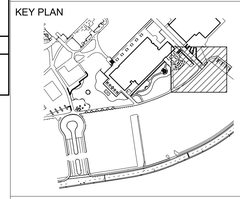
KEY PLAN



CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
Renewal Date
8/31/2023
STATE OF CALIFORNIA

	Date	Issue
	01/19/2023	BID SET

DRAWING TITLE

PLANTING DETAILS & PLANT LIST

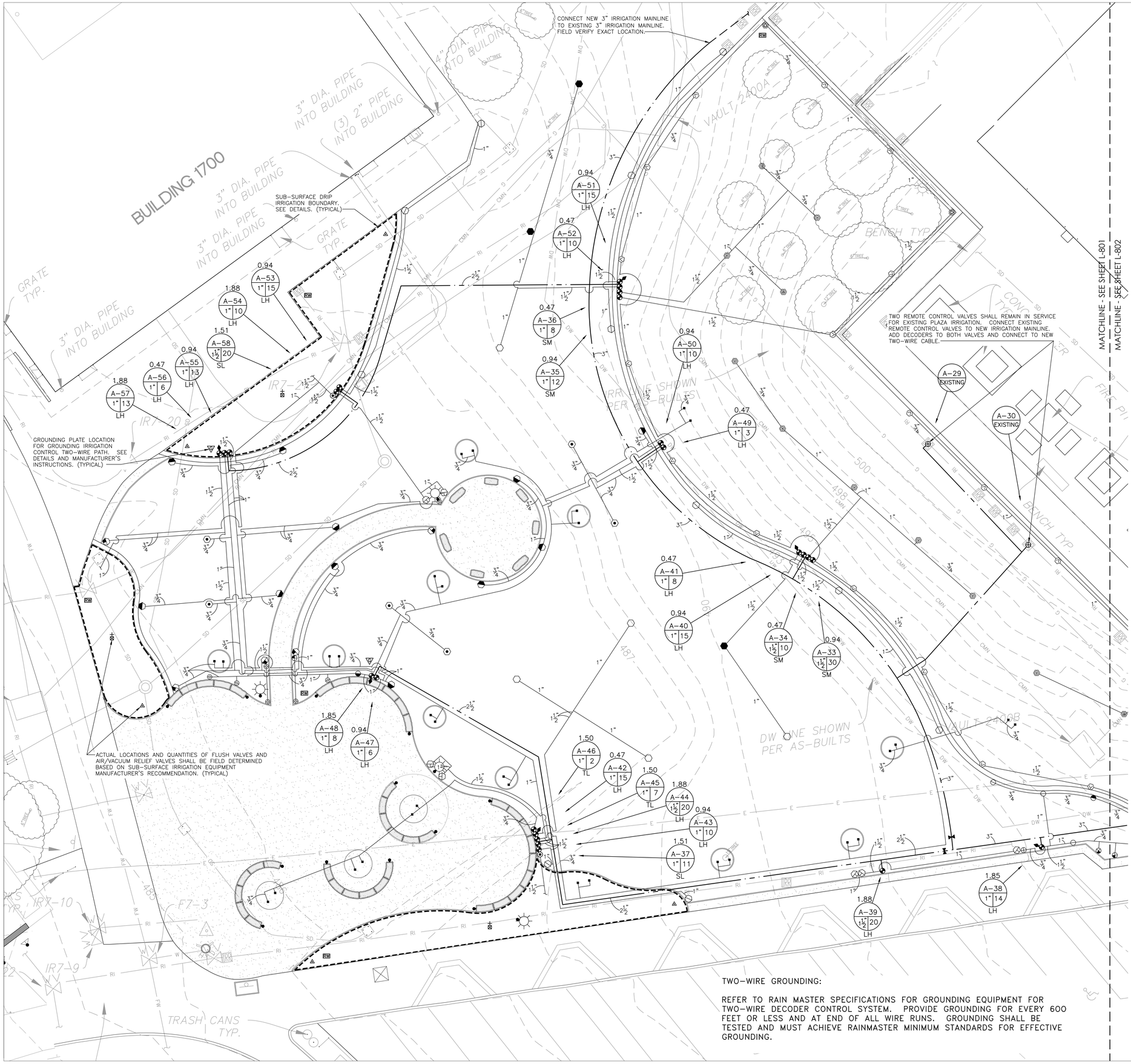
SHEET NO.

L-701

PROJECT NO.
22202

SCALE
AS NOTED

DRAWN BY
SH



COMMISSIONING AND MANAGEMENT OF SUB-SURFACE DRIP IRRIGATION SYSTEMS

1. PRIOR TO PLANTING, CONTRACTOR SHALL PREPARE SOIL FOR PLANTING BY HAND WATERING TO BRING SOIL MOISTURE CONTENT UP TO AN IDEAL GROWING CONDITION THROUGHOUT THE INTENDED ROOT ZONE. OPERATE SUB-SURFACE DRIP SYSTEM AS NECESSARY TO MAINTAIN MOISTURE LEVEL IN SOIL. DO NOT LET SOIL DRY OUT. MOISTURE DEPLETION SHOULD NOT EXCEED 20% DEPLETION (80% OF DESIRED MOISTURE CONTENT REMAINS). CONTRACTOR SHALL MONITOR MOISTURE CONTENT TO ENSURE DESIRED MOISTURE CONTENT IS MAINTAINED WITHOUT OVER-SATURATION. USE CARE TO NOT DAMAGE SUB-SURFACE DRIP TUBING WHEN PROBING SOIL FOR MOISTURE CONTENT TESTING.

2. INSTALL TUBING ACCORDING TO SPACING SPECIFIED IN THE DRAWINGS AND DETAILS. DRIP TUBING MUST REMAIN AS CLOSE AS POSSIBLE TO THE SPACING IDENTIFIED IN THE DRAWINGS. THE GRID OF EMITTERS ARE INTENDED TO IRRIGATE THE ENTIRE PLANTED AREA (NOT INDIVIDUAL PLANTS). LIKEWISE, DO NOT MOVE PLANTS FROM THEIR DESIGNED SPACING TO BE CLOSER TO AN EMITTER. WHEN PROPERLY MANAGED, THE DRIP SYSTEM WILL PROVIDE WATER TO THE ENTIRE PLANTED AREA, CREATING AN INVITING CONDITION FOR THE ROOTS TO GROW AND THE PLANTS TO THRIVE.

TWO-WIRE GROUNDING:

REFER TO RAIN MASTER SPECIFICATIONS FOR GROUNDING EQUIPMENT FOR TWO-WIRE DECODER CONTROL SYSTEM. PROVIDE GROUNDING FOR EVERY 600 FEET OR LESS AND AT END OF ALL WIRE RUNS. GROUNDING SHALL BE TESTED AND MUST ACHIEVE RAINMASTER MINIMUM STANDARDS FOR EFFECTIVE GROUNDING.

1/8" = 1'-0"

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LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

IRRIGATION PLAN

SHEET NO.

L-801

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

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UNDERGROUND SERVICE ALERT CALL 811 CALL BEFORE YOU DIG

NORTH

PROJECT NO. 22202

SCALE 1/8" = 1'-0"

DRAWN BY SH

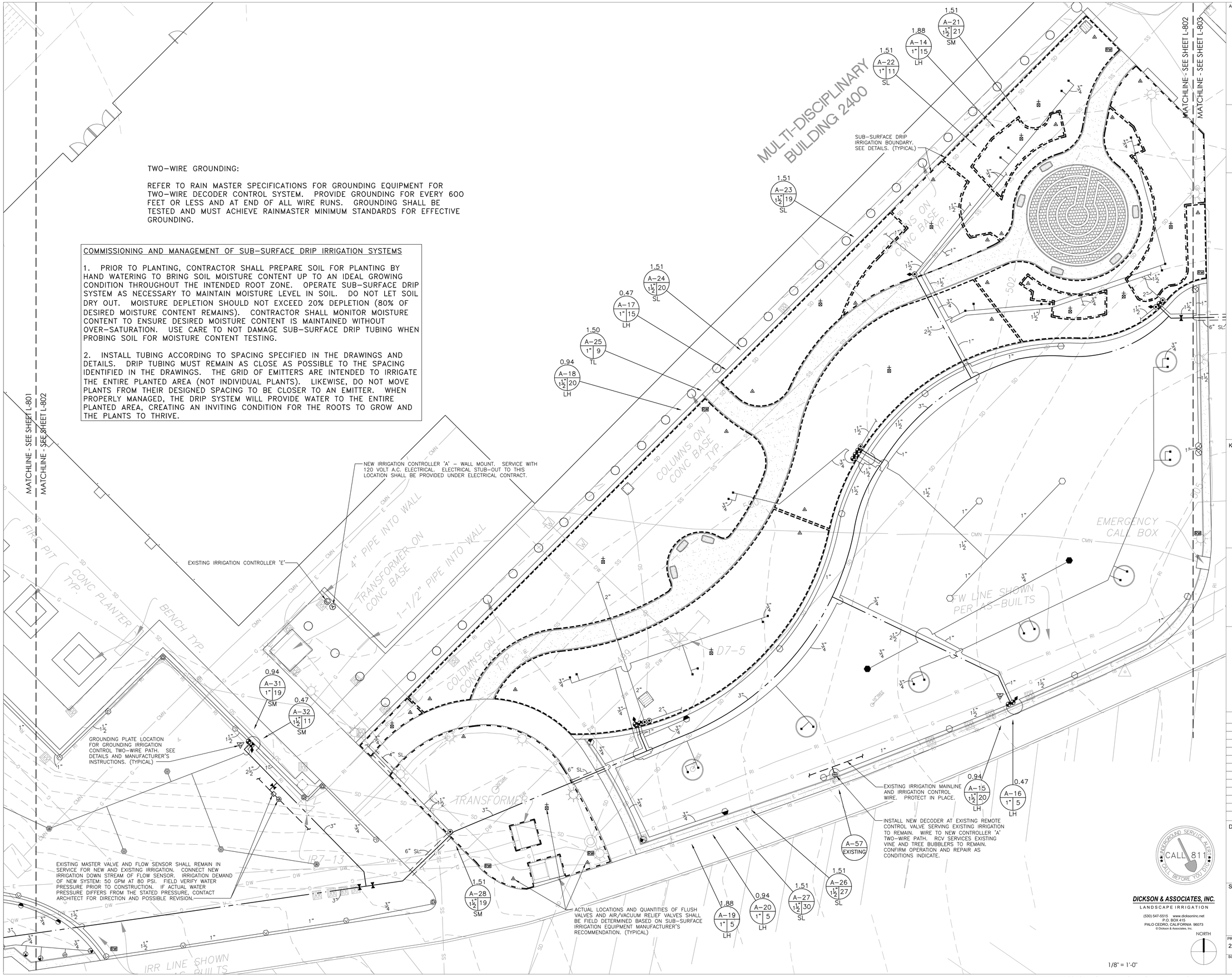
TWO–WIRE GROUNDING:

REFER TO RAIN MASTER SPECIFICATIONS FOR GROUNDING EQUIPMENT FOR TWO–WIRE DECODER CONTROL SYSTEM. PROVIDE GROUNDING FOR EVERY 600 FEET OR LESS AND AT END OF ALL WIRE RUNS. GROUNDING SHALL BE TESTED AND MUST ACHIEVE RAINMASTER MINIMUM STANDARDS FOR EFFECTIVE GROUNDING.

COMMISSIONING AND MANAGEMENT OF SUB–SURFACE DRIP IRRIGATION SYSTEMS

1. PRIOR TO PLANTING, CONTRACTOR SHALL PREPARE SOIL FOR PLANTING BY HAND WATERING TO BRING SOIL MOISTURE CONTENT UP TO AN IDEAL GROWING CONDITION THROUGHOUT THE INTENDED ROOT ZONE. OPERATE SUB–SURFACE DRIP SYSTEM AS NECESSARY TO MAINTAIN MOISTURE LEVEL IN SOIL. DO NOT LET SOIL DRY OUT. MOISTURE DEPLETION SHOULD NOT EXCEED 20% DEPLETION (80% OF DESIRED MOISTURE CONTENT REMAINS). CONTRACTOR SHALL MONITOR MOISTURE CONTENT TO ENSURE DESIRED MOISTURE CONTENT IS MAINTAINED WITHOUT OVER–SATURATION. USE CARE TO NOT DAMAGE SUB–SURFACE DRIP TUBING WHEN PROBING SOIL FOR MOISTURE CONTENT TESTING.

2. INSTALL TUBING ACCORDING TO SPACING SPECIFIED IN THE DRAWINGS AND DETAILS. DRIP TUBING MUST REMAIN AS CLOSE AS POSSIBLE TO THE SPACING IDENTIFIED IN THE DRAWINGS. THE GRID OF EMITTERS ARE INTENDED TO IRRIGATE THE ENTIRE PLANTED AREA (NOT INDIVIDUAL PLANTS). LIKEWISE, DO NOT MOVE PLANTS FROM THEIR DESIGNED SPACING TO BE CLOSER TO AN EMITTER. WHEN PROPERLY MANAGED, THE DRIP SYSTEM WILL PROVIDE WATER TO THE ENTIRE PLANTED AREA, CREATING AN INVITING CONDITION FOR THE ROOTS TO GROW AND THE PLANTS TO THRIVE.



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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
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IRRIGATION PLAN

SHEET NO.

L-802

PROJECT NO.
22202

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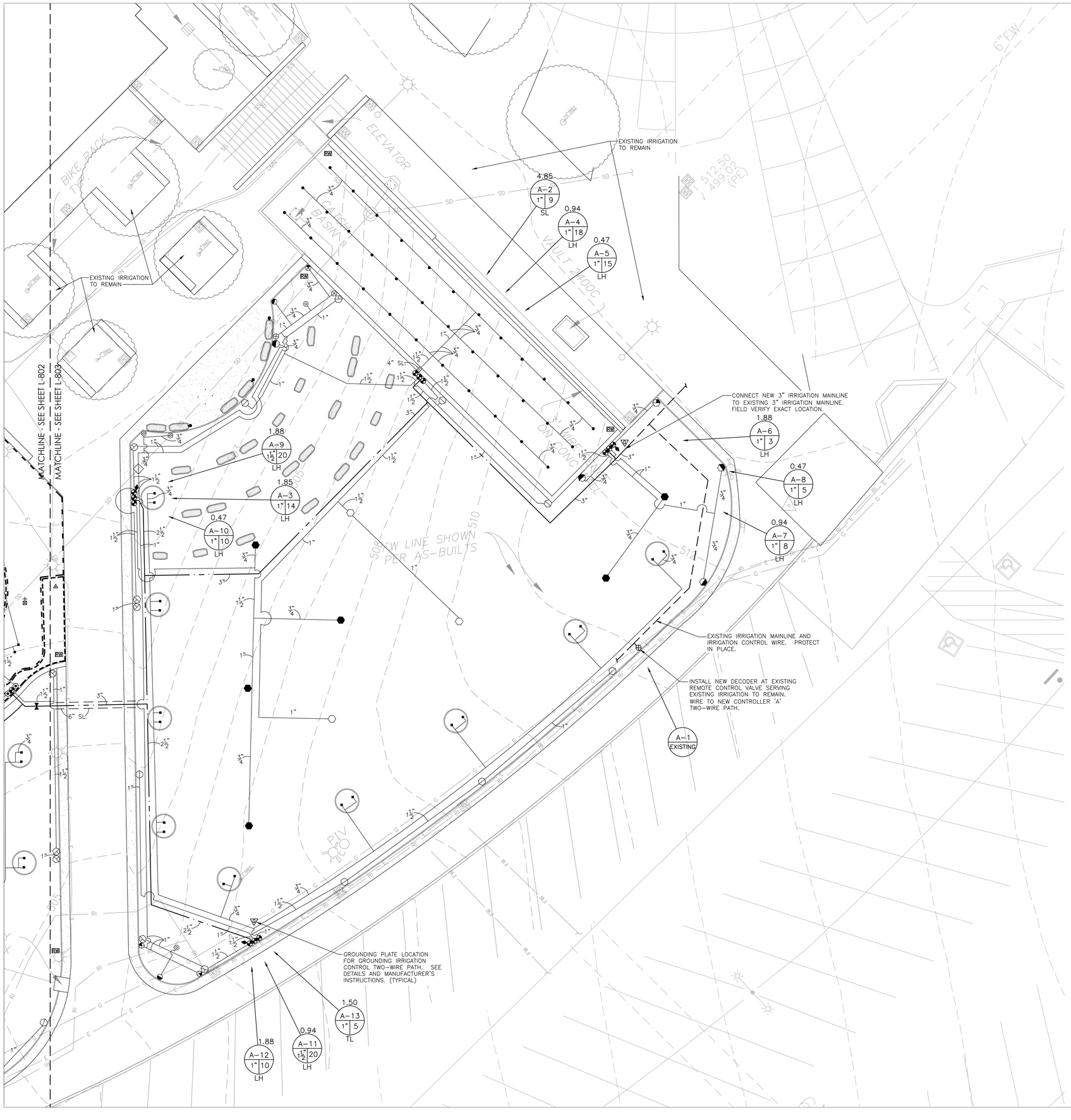

WATER EFFICIENT LANDSCAPE WORKSHEET–WELO

WATER EFFICIENT LANDSCAPE WORKSHEET

This worksheet is filled out by the project applicant and it is a required element of the Landscape Documentation Package.

Reference Evapotranspiration (ETo) 47.2

Hydrozone # /Planting Description[a]	Plant Factor (PF)	Irrigation Method[b]	Irrigation Efficiency (IE)[c]	ETAF (PF/IE)	Landscape Area (sq. ft.)	ETAF x Area	Estimated Total Water Use (ETWU)[e]
Regular Landscape Areas							
					(A)	(B)	
				Totals	0	0	0
Special Landscape Areas							
Recycled Water				1	59,003	59,003	1,726,664
				1			
					(C)	(D)	
				Totals	59,003	59,003	1,726,664
						ETWU Total	1,726,664
			Maximum Allowed Water Allowance (MAWA)[e]				1,726,664

[a] Hydrozone #/Planting Description
E.g
1.) front lawn
2.) low water use plantings
3.) medium water use planting

[b] Irrigation Method
overhead spray or drip

[c] Irrigation Efficiency
0.75 for spray head
0.81 for drip

[e] ETWU (Annual Gallons Required) = Eto x 0.62 x ETAF x Area
where 0.62 is a conversion factor that converts acre- inches per acre per year to gallons per square foot per year.

[e] MAWA (Annual Gallons Allowed) = *{Eto} (0.62) [(ETAF x LA) + ((1-ETAF) x SLA)]*
where 0.62 is a conversion factor that converts acre-inches per acre per year to gallons per square foot per year, LA is the total landscape area in square feet, SLA is the total special landscape area in square feet, and ETAF is .55 for residential areas and 0.45 for non-residential areas.

ETAF Calculations

Regular Landscape Areas

Total ETAF x Area (B)	0
Total Area (A)	0
Average ETAF	**0.00**

All Landscape Areas

Total ETAF x Area	(B+D)	59,003
Total Area	(A+C)	59,003
Sitewide ETAF	**(B+D) ÷ (A+C)**	**1.00**

Average ETAF for Regular Landscape Areas must be 0.55 or below for residential areas, 0.45 or below for non-residential areas, and 0.65 or below for public schools.

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RECYCLED WATER IRRIGATION NOTES

1. THIS IRRIGATION SYSTEM SHALL BE CONNECTED TO A NON-POTABLE RECYCLED WATER SOURCE. REGULATIONS PERTAINING TO RECYCLED WATER USE IN THE LANDSCAPE IRRIGATION OF THIS PROJECT SITE SHALL BE STRICTLY FOLLOWED BY THE INSTALLING CONTRACTOR. REGULATING AGENCIES INCLUDE BUT ARE NOT LIMITED TO THE CITY OF LIVERMORE, LIVERMORE MUNICIPAL WATER, COUNTY OF ALAMEDA, TITLE 22, AND THE STATE OF CALIFORNIA.

2. IRRIGATION CONTRACTOR SHALL FAMILIARIZE HIMSELF/HERSELF WITH ALL STATE AND LOCAL LAWS, CODES, ORDINANCES, AND RESTRICTIONS PERTAINING TO THE USE OF RECYCLED WATER AND IMPLEMENT AS APPLICABLE TO THE INSTALLATION OF THIS PROJECT.

3. IRRIGATION VALVE BOX LIDS SHALL BE PURPLE IN COLOR AND MARKED "RECYCLED WATER".

4. ALL IRRIGATION PIPING SHALL BE PURPLE PVC MANUFACTURED AND PERMANENTLY LABELED FOR RECYCLED WATER USE.

5. ALL QUICK COUPLING VALVES SHALL BE SIGNATURE CONTROL SYSTEMS 7645 SERIES WITH ACME THREADS.

6. CONTRACTOR SHALL CONTACT RECYCLED WATER PROVIDER A MINIMUM OF FORTY-EIGHT (48) HOURS PRIOR TO COMMENCEMENT OF WORK TO FACILITATE INSPECTIONS.

7. CONTRACTOR SHALL TAG ALL REMOTE CONTROL VALVES, GATE VALVES, QUICK COUPLING VALVES, CONTROLLERS, ETC. WITH 'RECYCLED WATER' WARNING TAG BY T. CHRISTY ENT., MODEL NO. ID-MAX-P2-RC006.

8. RECYCLED WATER WARNING SIGNAGE SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH CITY OF LIVERMORE RECYLED WATER GUIDELINES.

9. ANY AND ALL DIRECT PIPE CONNECTIONS BETWEEN POTABLE AND RECYCLED WATER SOURCES OR SYSTEMS ARE PROHIBITED.

10. PRIOR TO ALLOWING RECYCLED WATER TO ENTER THE IRRIGATION SYSTEM A CROSS-CONNECTION TEST SHALL BE PERFORMED BY A CERTIFIED TESTING SPECIALIST. UPON ACHIEVING PROOF THAT RECYCLED WATER SYSTEMS AND POTABLE WATER SYSTEMS ARE PROPERLY ISOLATED FROM ONE ANOTHER AND RECEIVING CONFIRMATION FROM THE WATER PROVIDERS, RECYCLED WATER MAY ENTER THE PROJECT.

IRRIGATION NOTES

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

2. THE CONTRACTOR SHALL EXERCISE CARE IN LOCATING PIPING AS TO NOT CONFLICT WITH OTHER UTILITIES. DO NOT INSTALL IRRIGATION PIPING PARALLEL TO AND DIRECTLY OVER OTHER UTILITIES.

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

4. IT IS THE RESPONSIBILITY OF THE LANDSCAPE MAINTENANCE CONTRACTOR AND/OR OWNER TO PROGRAM THE IRRIGATION CONTROLLER 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 AND SLOPES, SUN, SHADE, AND WIND EXPOSURES.

5. AT THE END OF THE REQUIRED MAINTENANCE PERIOD OF THE CONTRACTOR, THE OWNER SHALL PROVIDE REGULAR MAINTENANCE OF THE IRRIGATION SYSTEM TO ENSURE THE EFFICIENT USE OF WATER. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO CHECKING, ADJUSTING, AND REPAIRING IRRIGATION EQUIPMENT AND CONTROL SYSTEM.

6. THIS IRRIGATION SYSTEM INTERFACES WITH AN EXISTING IRRIGATION SYSTEM WHICH IS TO REMAIN IN SERVICE. THE EXISTING UNDERGROUND IRRIGATION EQUIPMENT AND OTHER UTILITIES HAVE NOT BEEN FIELD VERIFIED UNDER THE CONSTRUCTION DOCUMENT PHASE OF WORK. THE CONTRACTOR IS TO FIELD VERIFY THE LOCATION OF EXISTING IRRIGATION MAINLINE PIPING, LATERAL LINE PIPING, LOW VOLTAGE AND HIGH VOLTAGE WIRE, COMMUNICATION CABLE, AND VALVES BEFORE CONSTRUCTION IS STARTED. DAMAGE TO THE EXISTING IRRIGATION SYSTEM AND OTHER VARIOUS UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE CURRENT OPERATION OF THE EXISTING IRRIGATION SYSTEM WHICH SERVICES AREAS OUTSIDE OF THE CONTRACT WORK AREA. DO NOT SHUT DOWN GATE VALVES, SEVER MAIN OR LATERAL PIPING, AND/OR SEVER WIRE WHICH ORIGINATES IN OR TRAVELS THROUGH THIS CONTRACT WORK AREA UNLESS SPECIFICALLY DIRECTED TO DO SO BY THE CONTRACT DOCUMENTS OR BY WRITTEN APPROVAL FROM THE ARCHITECT. LANDSCAPE STRESS OUTSIDE OF THIS CONTRACT AREA WILL REQUIRE FULL REPLACEMENT OF THE LANDSCAPE DAMAGED UNDER THIS CONTRACT WORK AT NO ADDITIONAL EXPENSE TO THE OWNER. IF THE CONTRACTOR IS NOT AGREEABLE TO THIS CONDITION THEN THE CONTRACTOR MUST STATE THIS IN THE BID PROPOSAL DOCUMENTS.

7. 120 VOLT A.C. (2.5 AMP DEMAND) ELECTRICAL SERVICE TO IRRIGATION CONTROLLER LOCATION TO BE PROVIDED UNDER ELECTRICAL CONTRACT WORK. IRRIGATION CONTRACTOR TO MAKE FINAL CONNECTION FROM ELECTRICAL STUB-OUT TO CONTROLLER AND PROVIDE PROPER GROUNDING PER CONTROLLER MANUFACTURER'S INSTRUCTIONS.

8. CONTROLLER PROGRAMMING:
   A. CONTRACTOR SHALL PROGRAM THE IRRIGATION CONTROLLER TO PROVIDE IRRIGATION TO ALL PLANTING WITHIN THE ALLOWED WATERING WINDOW OF TIME AS REQUIRED. THE CONTRACTOR SHALL CREATE CONTROLLER PROGRAMING THAT WILL NOT EXCEED THE MAXIMUM GALLONS PER MINUTE FLOW RATE STATED ON THE DRAWINGS, AND NOT EXCEED THE CAPACITY OF ANY MAINLINE PIPING.
   B. CONTRACTOR SHALL PROGRAM CONTROLLER TO MONITOR FLOW CONDITIONS AND RESPOND WITH CONTROL OF MASTER VALVE AND/OR RECORDING ALARM CONDITIONS FOR USE BY MAINTENANCE PERSONNEL.

9. IRRIGATION CONTROL WIRES SHALL BE RAINMASTER TWO-WIRE DECODER CABLES WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE #14-1. SPLICE SHALL BE MADE WITH RAINMASTER TW-SPLICE OR 3M-DBR/Y-6 SEAL PACKS.

10. SPLICING OF DECODER CABLES IS NOT PERMITTED EXCEPT IN VALVE BOXES. SEAL WIRE SPLICES WITH 3M-DBR/Y-6 SPLICE SEALING DEVICES OF SIZE COMPATIBLE WITH WIRE SIZE. LEAVE A 36" LONG COIL OF EXCESS CABLE AT EACH SPLICE AND A 36" LONG EXPANSION LOOP EVERY 100 FEET ALONG WIRE RUN. TAPE DECODER CABLES TOGETHER EVERY TEN FEET. TAPING IS NOT REQUIRED INSIDE SLEEVES.

11. PLASTIC VALVE BOX LIDS FOR RECYCLED WATER SYSTEM ARE TO BE PURPLE IN COLOR, BOLT DOWN, NON-HINGED, AND MARKED "RECYCLED WATER". BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER SHALL BE RAIN BIRD. BOX LIDS SHALL BE HEAT STAMPED WITH CONTROLLER STATION NUMBER AT REMOTE CONTROL VALVES, "WM" AT IRRIGATION WATER METER, "GV" AT GATE VALVES, "QCV" AT QUICK COUPLER VALVES, "AV" AT AIR/VACUUM RELIEF VALVES, AND "FV" AT FLUSH VALVES.

12. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, LAWN, HEADER BOARD, BUILDING, OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, LAWN, ETC. AND EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.

13. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE (NOT IN LAWN AREA).

14. THE REMOTE CONTROL VALVE SPECIFIED ON THE DRAWINGS IS A PRESSURE REDUCING TYPE. SET THE DISCHARGE PRESSURE AS FOLLOWS:
   1. POP-UP ROTARY SPRINKLERS: 60 PSI
   2. POP-UP MP ROTATORS: 45 PSI
   3. POP-UP SPRAY SPRINKLERS: 35 PSI
   4. TREE BUBBLERS: 35 PSI

15. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, ROADWAYS, AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM.

16. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE NOTED ON THE DRAWINGS.

17. ALL IRRIGATION PIPING THAT IS NOT A DIRECT LINE TO TREES SHALL BE A MINIMUM FIVE (5) FEET FROM CENTER OF TREE.

18. LOCATE BUBBLERS ON UP-HILL SIDE OF TREE.

19. INSTALL A NDS FLOW MANAGEMENT INLINE SPRING LOADED CHECK VALVE (CV-0500-FM) BELOW THOSE BUBBLERS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND/OR EXCESS WATER.

20. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, THE CONTRACTOR SHALL USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES AND TREE ROOTS. EXCAVATION IN AREAS WHERE TWO (2) INCH AND LARGER ROOTS OCCUR SHALL BE DONE BY HAND. TRENCHES ADJACENT TO TREE SHOULD BE CLOSED WITHIN TWENTY-FOUR (24) HOURS; AND WHERE THIS IS NOT POSSIBLE, THE SIDE OF THE TRENCH ADJACENT TO THE TREE SHALL BE KEPT SHADED WITH BURLAP OR CANVAS.

21. IRRIGATION CONTRACTOR TO NOTIFY ALL LOCAL JURISDICTIONS FOR INSPECTION AND TESTING OF INSTALLED BACKFLOW PREVENTION DEVICE.

22. PRESSURE TEST PROCEDURE. THE CONTRACTOR SHALL:
   A. NOTIFY ARCHITECT AT LEAST THREE (3) DAY IN ADVANCE OF TESTING.
   B. PERFORM TESTING AT HIS OWN EXPENSE.
   C. CENTER LOAD PIPING WITH SMALL AMOUNT OF BACKFILL TO PREVENT ARCHING OR SLIPPING UNDER PRESSURE. NO FITTING SHALL BE COVERED.
   D. APPLY THE FOLLOWING TESTS AFTER WELD PLASTIC PIPE JOINTS HAVE CURED AT LEAST 24 HOURS.
      1. TEST LIVE (CONSTANT PRESSURE) AND QUICK COUPLER LINE HYDROSTATICALLY AT 125 PSI MINIMUM. LINES WILL BE APPROVED IF TEST PRESSURE IS MAINTAINED FOR SIX (6) HOURS. THE LINE WILL BE APPROVED OR NOT APPROVED AS SUCH RESULTS MAY INDICATE. THE CONTRACTOR SHALL MAKE TESTS AND REPAIRS AS NECESSARY UNTIL TEST CONDITIONS ARE MET.
      2. TEST RCV CONTROLLED LATERAL LINES WITH WATER AT LINE PRESSURE AND VISUALLY INSPECT FOR LEAKS. RETEST AFTER CORRECTING DEFECTS.

23. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. THE IRRIGATION CONTRACTOR SHALL 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 OF NEW SYSTEM: 50 GPM AT 80 PSI STATIC PRESSURE AT IRRIGATION POINT OF CONNECTION. FIELD VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. IF ACTUAL WATER PRESSURE DIFFERS FROM THE STATED PRESSURE CONTACT ARCHITECT FOR DIRECTION AND POSSIBLE REVISION.

25. PIPE THREAD SEALANT COMPOUND SHALL BE RECTOR SEAL T+2, CHRISTY'S ULTRA SEAL, OR APPROVED EQUAL.

26. SUB-SURFACE DRIP IRRIGATION AREAS MUST BE HAND WATERED TO INCREASE SOIL MOISTURE PRIOR TO PLANTING. AFTER PLANTING, THE SUB-SURFACE DRIP SYSTEMS MUST BE OPERATED ON A FREQUENT BASIS TO MAINTAIN SOIL MOISTURE CONTENT. DO NOT ALLOW SOIL TO DRY OUT. MAINTENANCE ROUTINE SHALL INCLUDE PROBING SOIL TO MONITOR MOISTURE CONTENT. USE CAUTION WHEN PROBING SOIL. DO NOT DAMAGE SUB-SURFACE DRIP TUBING.

27. RECORD DRAWINGS:
   A. THE CONTRACTOR SHALL MAINTAIN IN GOOD ORDER IN THE FIELD OFFICE ONE COMPLETE SET OF BLACK LINE PRINTS OF ALL IRRIGATION DRAWINGS WHICH FORM A PART OF THE CONTRACT, SHOWING ALL WATER LINES, HEADS, VALVES, CONTROLLERS AND STUB-OUTS. IN THE EVENT ANY WORK IS NOT INSTALLED AS INDICATED ON THE DRAWINGS, SUCH WORK SHALL BE CORRECTED AND DIMENSIONED ACCURATELY FROM THE BUILDING WALLS.
   B. CONTRACTOR SHALL RECORD EACH DECODER NUMBER AND ASSOCIATED CONTROLLER STATION NUMBER. PROVIDE LIST WITH RECORD AS-BUILT DRAWINGS.
   C. ALL UNDERGROUND STUB-OUTS FOR FUTURE CONNECTIONS AND VALVES SHALL BE LOCATED AND DIMENSIONED ACCURATELY FROM BUILDING WALLS ON ALL RECORD DRAWINGS.
   D. UPON COMPLETION OF THE WORK, OBTAIN REPRODUCIBLE PRINTS FROM ARCHITECT AND NEATLY CORRECT THE PRINTS TO SHOW THE AS-BUILT CONDITIONS.

28. FINE TUNE IRRIGATION SYSTEM TO PROVIDE COMPLETE AND UNIFORM COVERAGE OF THE LANDSCAPE WHILE AVOIDING RUNOFF OF WATER ONTO NON-IRRIGATED AREAS, PAVED AND OTHERWISE. THIS INCLUDES PROGRAMMING THE CONTROLLER RUN TIMES FOR OPTIMIZING SOIL INFILTRATION WITH OUT PUDDLING OR RUNOFF.

29. WARRANTY:
   A. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FILL AND REPAIR ALL NECESSARY PLANTING DUE TO THE SETTLEMENT OF IRRIGATION TRENCHES FOR ONE YEAR FOLLOWING COMPLETION AND ACCEPTANCE OF THE JOB.
   B. THE CONTRACTOR SHALL ALSO WARRANTY ALL MATERIALS, EQUIPMENT AND WORKMANSHIP FURNISHED BY HIM TO BE FREE OF ALL DEFECTS OF WORKMANSHIP AND MATERIALS, AND SHALL AGREE TO REPLACE AT HIS EXPENSE, AT ANY TIME WITHIN ONE YEAR AFTER INSTALLATION IS ACCEPTED, ANY AND ALL DEFECTIVE PARTS THAT MAY BE FOUND.

30. AN IRRIGATION AUDIT REPORT BY A DISINTERESTED 3RD PARTY SHALL BE COMPLETED AT THE TIME OF FINAL INSPECTION. LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR HIRING THE INDEPENDENT AUDITOR.

IRRIGATION LEGEND

SYMBOL	MODEL NUMBER	DESCRIPTION
	5006-+-FC-SAM-R-NP-SS-5.0 (FULL CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5006-+-PC-SAM-R-NP-SS-5.0 (PART CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5006-+-PC-SAM-R-NP-SS-5.0 (PART CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5006-+-FC-SAM-R-NP-SS-2.5 (FULL CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5006-+-PC-SAM-R-NP-SS-2.5 (PART CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5006-+-PC-SAM-R-NP-SS-2.5 (PART CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5006-+-FC-SAM-R-NP-SS-1.5 (FULL CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	5012-+-FC-SAM-R-NP-SS-2.0 (FULL CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (SHRUB)
	5012-+-PC-SAM-R-NP-SS-2.0 (PART CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (SHRUB)
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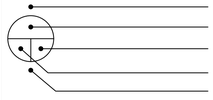
	5012-+-PC-SAM-R-NP-SS-1.5 (FULL CIRCLE)	RAIN BIRD POP-UP ROTARY SPRINKLER WITH NON-POTABLE PURPLE COVER (SHRUB)
	RD-06-S-P-30-F-NP-15-Q	RAIN BIRD POP-UP SPRAY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	RD-06-S-P-30-F-NP-12-H,Q	RAIN BIRD POP-UP SPRAY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	RD-06-S-P-30-F-NP-10-F,H,Q	RAIN BIRD POP-UP SPRAY SPRINKLER WITH NON-POTABLE PURPLE COVER (TURF)
	1401	RAIN BIRD BUBBLER (SHRUBS)
	1401	RAIN BIRD BUBBLER (TREE)
	PESB-R-PRS-D SERIES / LT-T	RAIN BIRD REMOTE CONTROL VALVE WITH PRS DIAL AND PURPLE CAP / KBI SCHEDULE 80 PVC FULL PORT BALL VALVE
	XCZ-100-FLOW-R (1 GPM TO 15 GPM)	RAIN BIRD CONTROL ZONE KIT – PVC BALL VALVE, 1" PESB VALVE, AND 1" PRESSURE REGULATING (40 PSI) QUICK CHECK BASKET FILTER (200 MESH) WITH FLOW INDICATION
	XCZ-150-LCDR / LT-T (16 GPM TO 40 GPM)	RAIN BIRD CONTROL ZONE KIT – 1½" PESB VALVE AND 1½" PRESSURE REGULATING (40 PSI) DISC FILTER (120 MESH) – RECYCLED WATER / KBI SCHEDULE 80 PVC FULL PORT BALL VALVE
	7645	SIGNATURE CONTROL SYSTEMS QUICK COUPLING VALVE (ACME THREAD) – RECYCLED WATER
	T-113-LF	NIBCO GATE VALVE – LEAD FREE (LINE SIZE)
	LT-S	FLUSH VALVE (SEE DETAIL) – KBI SCHEDULE 80 PVC FULL PORT BALL VALVE (SLIP X SLIP) (LINE SIZE)
	ARV050	RAIN BIRD AIR RELEASE & VACUUM RELIEF VALVE
	OPERIND – (SEE SUB-SURFACE DRIP LAYOUT DETAILS)	RAIN BIRD DRIP SYSTEM OPERATION INDICATOR
RW	SEE DETAIL	RECYCLED WATER WARNING SIGN – CONTACT LIVERMORE MUNICIPAL WATER FOR SIGN SPECIFICATIONS AND LOCATION REQUIREMENTS. MINIMUM 8"X8" WITH WHITE LETTERING AND PURPLE BACKGROUND.
	182199IC	GROUNDING PLATE FOR GROUNDING IRRIGATION CONTROL TWO-WIRE PATH. SEE DETAILS AND MANUFACTURER'S (PAIGE ELECTRIC COMPANY) INSTRUCTIONS
A	SA16-RM6-TW / RMD1 / RMLA / CAB14 / PMR / GR-K / LPP/ FAN	SiteOne GREEN TECH CONTROLLER ASSEMBLY WITH RAINMASTER DXI TWO-WIRE CONTROLLER IN A WALL MOUNT, STAINLESS STEEL STRONG BOX ENCLOSURE WITH RAINMASTER SINGLE-STATION TWO-WIRE DECODERS (RMD1), RAINMASTER LIGHTNING ARRESTORS (RMLA), TWO-WIRE CABLE, RAINMASTER PRO MAX HAND HELD REMOTE ASSEMBLY (PMR), CONTROLLER GROUND ROD (GR-K), LINE PRIMARY PROTECTION, AND ENCLOSURE FAN. CONTACT NICK MANFRE, SiteOne GREEN TECH REPRESENTATIVE, FOR ORDER, PURCHASE, WARRANTY, AND PRE-CONSTRUCTION MEETING. (925.558.5965)



PRECIPITATION RATE

CONTROLLER & STATION NUMBER

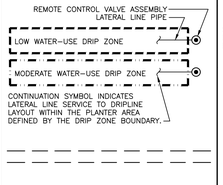
APPROXIMATE FLOW (GPM)

REMOTE CONTROL VALVE SIZE

HYDROZONE – PLANT TYPE / WATER REQUIREMENT
LH – LAWN / HIGH WATER-USE
SM – SHRUB & GROUNDCOVER / MODERATE WATER-USE
SL – SHRUB & GROUNDCOVER / LOW WATER-USE
TL – TREE / LOW WATER-USE

MAINLINE: 3": 1120-CL 315 PVC PLASTIC PURPLE PIPE, PERMANENTLY MARKED FOR RECYCLED WATER, WITH SCHEDULE 40 PVC SOLVENT-WELD FITTINGS.
2½" & SMALLER: 1120-SCHEDULE 40 PVC PLASTIC PURPLE PIPE, PERMANENTLY MARKED FOR RECYCLED WATER, WITH SCHEDULE 40 PVC SOLVENT-WELD FITTINGS.
18" COVER. 24" COVER UNDER VEHICULAR PAVING.

LATERAL LINE: 1120-SCHEDULE 40 PVC PLASTIC PURPLE PIPE, PERMANENTLY MARKED FOR RECYCLED WATER, WITH SCHEDULE 40 PVC SOLVENT-WELD FITTINGS. 12" COVER. 24" COVER UNDER VEHICULAR PAVING.



SUB-SURFACE DRIP BOUNDARY: RAIN BIRD XFS-CV SUB-SURFACE PURPLE DRIPLINE (XFS-CVP-09-12) WITH COPPER SHIELD TECHNOLOGY AND HEAVY DUTY CHECK VALVE. INSTALL AS DETAILED 12" O.C. SEE DRIP IRRIGATION DETAILS FOR TUBING LAYOUT AND INSTALLATION METHODS. BOUNDARIES DEFINE AREAS FOR DRIPLINE TO BE CONNECTED TO ASSOCIATED REMOTE CONTROL VALVES AS DEPICTED IN THE DRAWING. 4" COVER.

SLEEVING: 1120-SCHEDULE 40 PVC PLASTIC PIPE. 18" COVER. 24" COVER UNDER VEHICULAR PAVING.

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
(530) 547-5515 www.dicksoninc.net
P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

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AUTHORITY APPROVAL

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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
Signature
09/08/22
Date
8/31/2023
Renewal Date
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

IRRIGATION LEGEND & NOTES

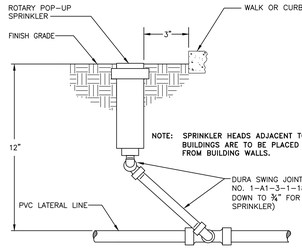
SHEET NO.

L-804

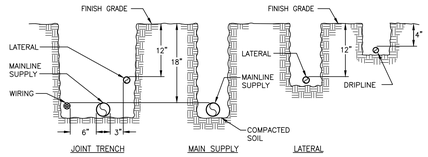
PROJECT NO. 22202

SCALE NTS

DRAWN BY SH

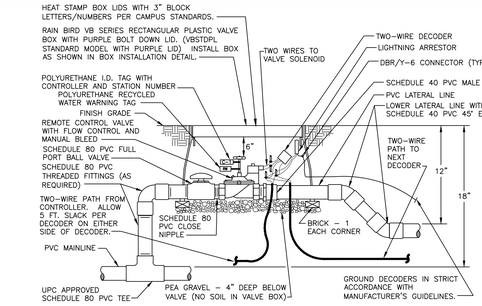


16 ROTARY SPRINKLER RISER (LAWN)
NOT TO SCALE

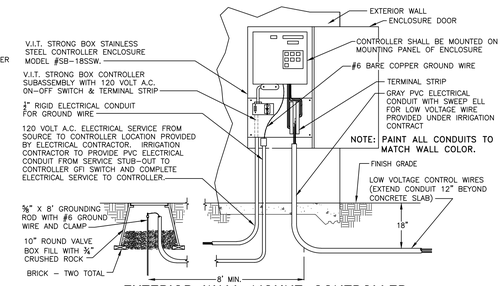


NOTES:
1. ALL PLASTIC PIPING SHALL BE INSTALLED IN THE TRENCH IN A SERPENTINE MANNER AS PER THE MANUFACTURER'S SPECIFICATIONS.
2. ALL SUPPLY LINES TO BE INSTALLED AS PER MANUFACTURER'S SPECIFICATIONS.
3. TAPE AND BUNDLE TUBING OR WIRING AT 10 FEET INTERVALS.
4. ALL 120 VOLT WIRING IN CONDUIT TO BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE CODES.
5. BACKFILL MATERIAL SHALL BE THE EARTH EXCAVATED FROM THE TRENCHES, FREE FROM ROCKS, CONCRETE CHUNKS, AND OTHER FOREIGN OR COARSE MATERIALS. CAREFULLY SELECT BACKFILL THAT IS TO BE PLACED NEXT TO PLASTIC PIPE TO AVOID ANY SHARP OBJECTS WHICH MAY DAMAGE THE PIPE.

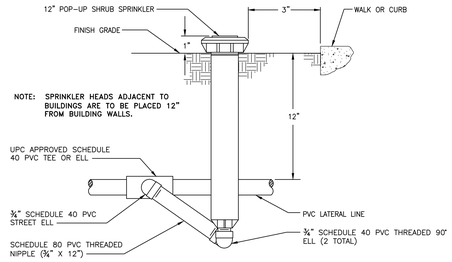
11 TRENCHING DETAIL
NOT TO SCALE



6 REMOTE CONTROL VALVE
NOT TO SCALE

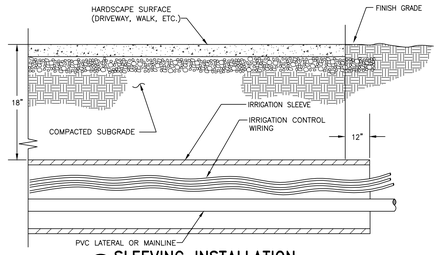


1 EXTERIOR WALL MOUNT CONTROLLER
NOT TO SCALE

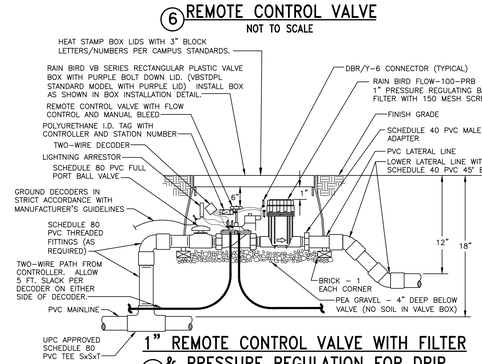


17 ROTARY SPRINKLER RISER (SHRUB)
NOT TO SCALE

NOTES:
1. SLEEVE UNDER VEHICULAR PAVING SHALL BE BURIED TO A DEPTH OF 24" COVER.
2. SLEEVE IS TO EXTEND 12" BEYOND EDGE OF PAVING.

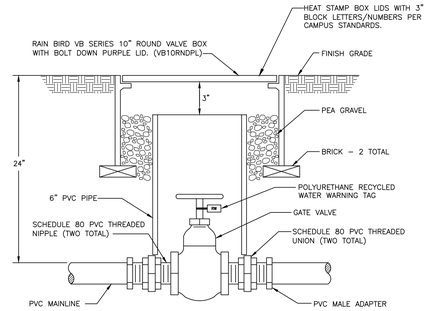


12 SLEEVING INSTALLATION
NOT TO SCALE

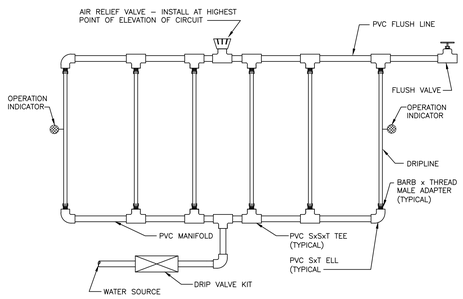


7 1" REMOTE CONTROL VALVE WITH FILTER & PRESSURE REGULATION FOR DRIP
NOT TO SCALE

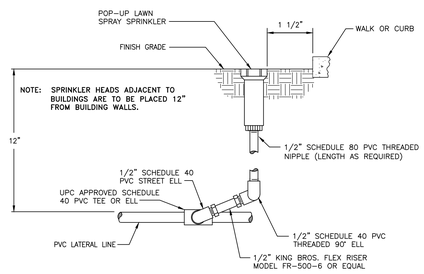
2



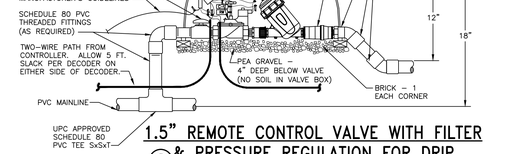
3 GATE VALVE – RECYCLED WATER
NOT TO SCALE



18 SUB-SURFACE INSTALLATION LAYOUT
NOT TO SCALE

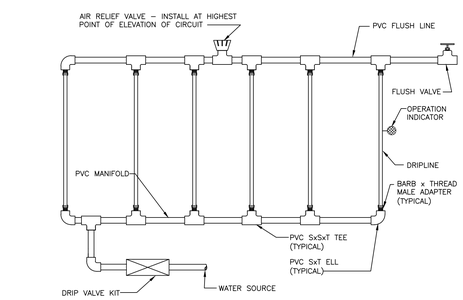


13 POP-UP TURF SPRAY SPRINKLER RISER
NOT TO SCALE

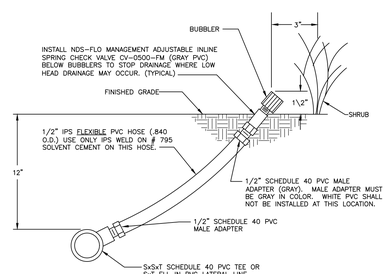


8 1.5" REMOTE CONTROL VALVE WITH FILTER & PRESSURE REGULATION FOR DRIP
NOT TO SCALE

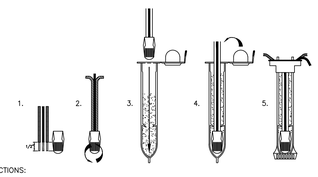
4 QUICK COUPLING VALVE – RECYCLED WATER
NOT TO SCALE



19 SUB-SURFACE INSTALLATION LAYOUT-END FEED
NOT TO SCALE

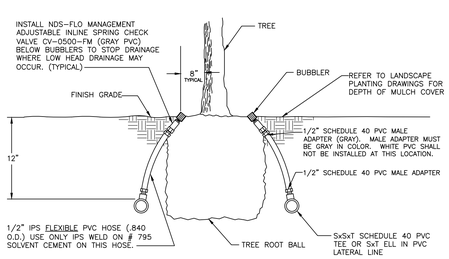


14 SHRUB BUBBLER WITH FLEXIBLE RISER
NOT TO SCALE

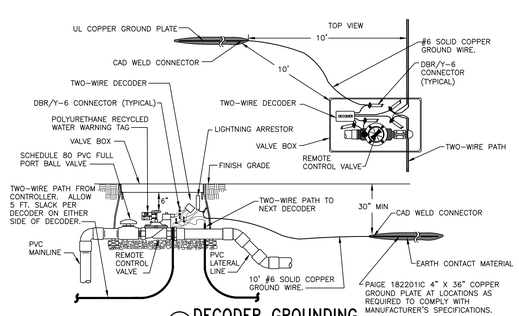


INSTRUCTIONS:
1. USE 3M-DBR/Y-6 WEATHER PROOF SPLICE.
2. STRIP WIRES APPROXIMATELY 1/2" (12.7 MM) TO EXPOSE WIRE.
3. TWIST CONNECTOR AROUND WIRES CLOCKWISE UNTIL HAND TIGHT, DO NOT OVERTIGHTEN.
4. INSERT WIRE ASSEMBLY INTO PLASTIC TUBE UNTIL WIRE CONNECTOR SNAPS PAST LIP IN BOTTOM OF TUBE.
5. PLACE WIRES WHICH EXIT TUBE IN WIRE EXIT HOLES AND CLOSE CAP UNTIL IT SNAPS.
6. INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

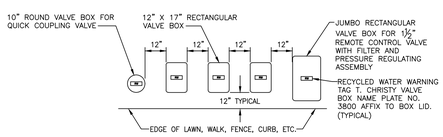
9 WEATHERPROOF SPLICE ASSEMBLY
NOT TO SCALE



15 TREE BUBBLERS
NOT TO SCALE



10 DECODER GROUNDING
NOT TO SCALE



1. CENTER VALVE BOX OVER REMOTE CONTROL VALVE TO FACILITATE SERVICING VALVE.
2. SET BOXES 1" ABOVE FINISH GRADE OR MULCH COVER IN GROUNDCOVER/SHRUB AREA AND FINISH GRADE IN TURF AREA.
3. SET RCV AND VALVE BOX ASSEMBLY IN GROUNDCOVER/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.
7. INSTALL T. CHRISTY RECYCLED WATER VALVE BOX NAME PLATE – MODEL NUMBER 3800.

5 VALVE BOX INSTALLATION
NOT TO SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
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P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073

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KEY PLAN

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LANDSCAPE RENOVATION
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LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
Signature
09/08/22
Date
8/31/2023
Renewal Date
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

IRRIGATION DETAILS

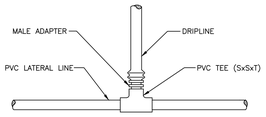
SHEET NO.

L-901

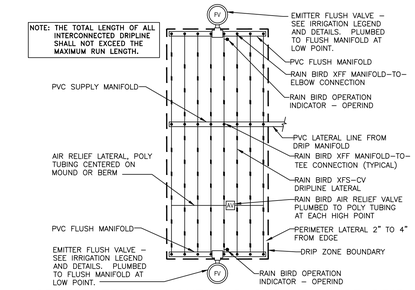
PROJECT NO.
22202

SCALE: NTS
DRAWN BY: SH

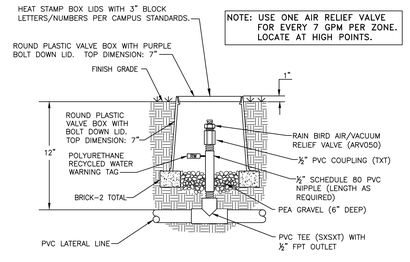
Las Positas Turf/A/JOB/22-810/ L-IRR L-801 IRRIGSYMBOL SIZE: NTS /12-02-2022 ABD/LMD



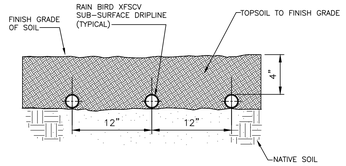
11 DRIPLINE TO PVC CONNECTION
NOT TO SCALE



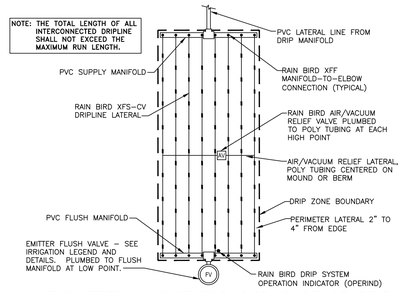
6 CENTER FEED LAYOUT FOR SUB-SURFACE DRIP
NOT TO SCALE



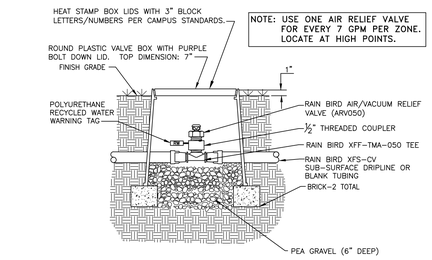
1 AIR/VACUUM RELIEF VALVE AT PVC LATERAL
NOT TO SCALE



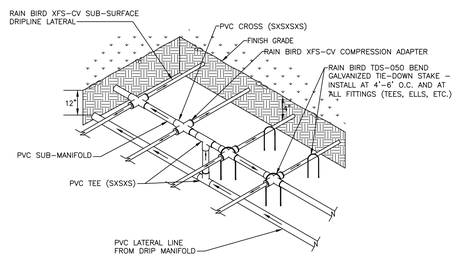
12 DRIPLINE SUB-SURFACE INSTALLATION 12" O.C.
NOT TO SCALE



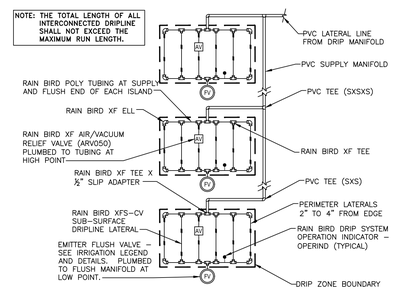
7 END FEED LAYOUT FOR SUB-SURFACE DRIP
NOT TO SCALE



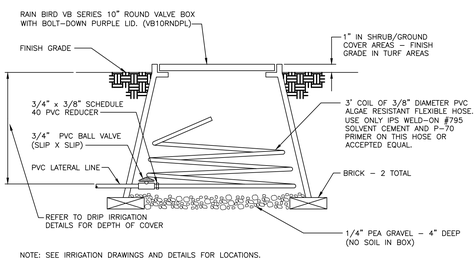
2 AIR/VACUUM RELIEF VALVE AT DRIPLINE PIPE
NOT TO SCALE



13 SUB-MANIFOLD CENTER FEED
NOT TO SCALE

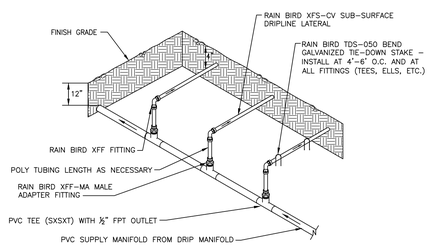


8 ISLAND LAYOUT FOR SUB-SURFACE DRIP
NOT TO SCALE

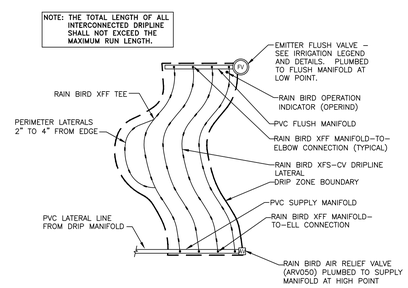


NOTE: SEE IRRIGATION DRAWINGS AND DETAILS FOR LOCATIONS.

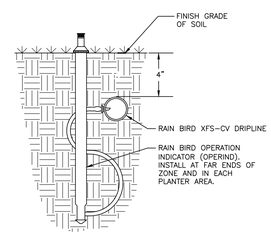
3 DRIPLINE FLUSH VALVE
NOT TO SCALE



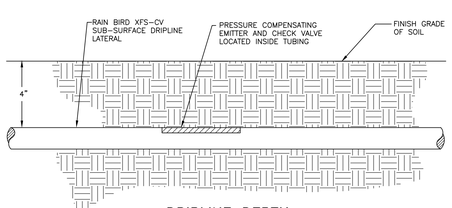
14 MANIFOLD END FEED
NOT TO SCALE



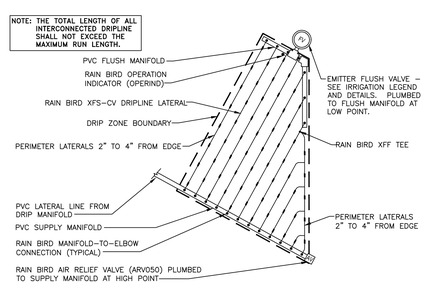
9 ODD CURVES LAYOUT FOR SUB-SURFACE DRIP
NOT TO SCALE



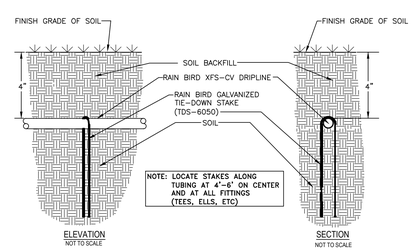
4 POP-UP OPERATION INDICATOR
NOT TO SCALE



15 DRIPLINE DEPTH
NOT TO SCALE



10 TRIANGULAR LAYOUT FOR SUB-SURFACE DRIP
NOT TO SCALE



5 GALVANIZED TIE-DOWN STAKE
NOT TO SCALE

DICKSON & ASSOCIATES, INC.
LANDSCAPE IRRIGATION
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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

IRRIGATION DETAILS

SHEET NO.

L-902

PROJECT NO. 22202

SCALE NTS

DRAWN BY SH

IRRIGATION WATERING SCHEDULES

POP-UP FULL CIRCLE (360°) ROTARY SPRINKLER IRRIGATION FOR HIGH WATER-USE TURF			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	0.47	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.75	HEAD FLOW:	VARIES
PLANT FACTOR:	0.80		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.296	0.370	0.714	1.084	1.453	1.626	1.823	1.577	1.306	0.788	0.370	0.222	
MINUTES OF WATER PER WEEK:	YEAR 1	38	47	91	138	186	208	233	201	167	101	47	28	
	YEAR 2	34	42	82	125	167	187	209	181	150	91	42	25	
DAYS PER WEEK:	YEAR 1	1	1	2	2	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	2	2	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	38	47	46	69	93	104	116	101	83	101	47	28	
	YEAR 2	34	42	41	62	83	93	105	91	75	91	42	25	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	38	47	46	69	93	104	116	101	83	101	47	28	
	YEAR 2	34	42	41	62	83	93	105	91	75	91	42	25	

POP-UP SPRAY IRRIGATION FOR HIGH WATER-USE TURF			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.85	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.75	HEAD FLOW:	VARIES
PLANT FACTOR:	0.80		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.296	0.370	0.714	1.084	1.453	1.626	1.823	1.577	1.306	0.788	0.370	0.222	
MINUTES OF WATER PER WEEK:	YEAR 1	10	12	23	35	47	53	59	51	42	26	12	7	
	YEAR 2	9	11	21	32	42	47	53	46	38	23	11	6	
DAYS PER WEEK:	YEAR 1	1	1	2	2	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	2	2	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	10	12	12	18	24	26	30	26	21	26	12	7	
	YEAR 2	9	11	10	16	21	24	27	23	19	23	11	6	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	10	12	12	18	24	26	30	26	21	26	12	7	
	YEAR 2	9	11	10	16	21	24	27	23	19	23	11	6	

POP-UP PART CIRCLE (180°) ROTARY SPRINKLER IRRIGATION FOR HIGH WATER-USE TURF			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	0.94	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.75	HEAD FLOW:	VARIES
PLANT FACTOR:	0.80		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.296	0.370	0.714	1.084	1.453	1.626	1.823	1.577	1.306	0.788	0.370	0.222	
MINUTES OF WATER PER WEEK:	YEAR 1	19	24	46	69	93	104	116	101	83	50	24	14	
	YEAR 2	17	21	41	62	83	93	105	91	75	45	21	13	
DAYS PER WEEK:	YEAR 1	1	1	2	2	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	2	2	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	19	24	23	35	46	52	58	50	42	50	24	14	
	YEAR 2	17	21	21	31	42	47	52	45	38	45	21	13	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	19	24	23	35	46	52	58	50	42	50	24	14	
	YEAR 2	17	21	21	31	42	47	52	45	38	45	21	13	

POP-UP FULL CIRCLE (360°) ROTARY SPRINKLER IRRIGATION FOR LOW WATER-USE SHRUBS			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	0.47	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.75	HEAD FLOW:	VARIES
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.111	0.139	0.268	0.406	0.545	0.610	0.684	0.591	0.490	0.296	0.139	0.083	
MINUTES OF WATER PER WEEK:	YEAR 1	14	18	34	52	70	78	87	75	63	38	18	11	
	YEAR 2	13	16	31	47	63	70	79	68	56	34	16	10	
DAYS PER WEEK:	YEAR 1	1	1	2	2	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	2	2	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	14	18	17	26	35	39	44	38	31	38	18	11	
	YEAR 2	13	16	15	23	31	35	39	34	28	34	16	10	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	14	18	17	26	35	39	44	38	31	38	18	11	
	YEAR 2	13	16	15	23	31	35	39	34	28	34	16	10	

POP-UP PART CIRCLE (90°) ROTARY SPRINKLER IRRIGATION FOR HIGH WATER-USE TURF			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.88	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.75	HEAD FLOW:	VARIES
PLANT FACTOR:	0.80		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.296	0.370	0.714	1.084	1.453	1.626	1.823	1.577	1.306	0.788	0.370	0.222	
MINUTES OF WATER PER WEEK:	YEAR 1	9	12	23	35	46	52	58	50	42	25	12	7	
	YEAR 2	8	11	21	31	42	47	52	45	38	23	11	6	
DAYS PER WEEK:	YEAR 1	1	1	2	2	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	2	2	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	9	12	11	17	23	26	29	25	21	25	12	7	
	YEAR 2	8	11	10	16	21	23	26	23	19	23	11	6	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	9	12	11	17	23	26	29	25	21	25	12	7	
	YEAR 2	8	11	10	16	21	23	26	23	19	23	11	6	

POP-UP PART CIRCLE (90°-180°) ROTARY SPRINKLER IRRIGATION FOR LOW WATER-USE SHRUBS			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	0.94	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.75	HEAD FLOW:	VARIES
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.111	0.139	0.268	0.406	0.545	0.610	0.684	0.591	0.490	0.296	0.139	0.083	
MINUTES OF WATER PER WEEK:	YEAR 1	7	9	17	26	35	39	44	38	31	19	9	5	
	YEAR 2	6	8	15	23	31	35	39	34	28	17	8	5	
DAYS PER WEEK:	YEAR 1	1	1	2	2	2	2	2	2	2	1	1	1	
	YEAR 2	1	1	2	2	2	2	2	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	7	9	9	13	17	19	22	19	16	19	9	5	
	YEAR 2	6	8	8	12	16	18	20	17	14	17	8	5	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	7	9	9	13	17	19	22	19	16	19	9	5	
	YEAR 2	6	8	8	12	16	18	20	17	14	17	8	5	

SUB-SURFACE DRIP IRRIGATION FOR LOW WATER-USE SHRUBS/GROUNDCOVER			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.51	EMITTER SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	EMITTER FLOW:	0.9 GPH
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.103	0.128	0.248	0.376	0.505	0.565	0.633	0.547	0.453	0.274	0.128	0.077	
MINUTES OF WATER PER WEEK:	YEAR 1	4	5	10	15	20	22	25	22	18	11	5	3	
	YEAR 2	4	5	9	13	18	20	23	20	16	10	5	3	
DAYS PER WEEK:	YEAR 1	1	1	2	2	3	3	3	3	3	2	1	1	
	YEAR 2	1	1	2	2	3	3	3	3	3	2	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	4	5	5	7	7	7	8	7	6	5	5	3	
	YEAR 2	4	5	4	7	6	7	8	7	5	5	5	3	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	4	5	5	7	7	7	8	7	6	5	5	3	
	YEAR 2	4	5	4	7	6	7	8	7	5	5	5	3	

SHRUB BUBBLER IRRIGATION FOR LOW WATER-USE SHRUBS			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	4.85	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	HEAD FLOW:	0.25 GPM
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.103	0.128	0.248	0.376	0.505	0.565	0.633	0.547	0.453	0.274	0.128	0.077	
MINUTES OF WATER PER WEEK:	YEAR 1	1	2	3	5	6	7	8	7	6	3	2	1	
	YEAR 2	1	1	3	4	6	6	7	6	5	3	1	1	
DAYS PER WEEK:	YEAR 1	1	1	1	2	2	2	3	2	2	1	1	1	
	YEAR 2	1	1	1	2	2	2	3	2	2	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	1	2	3	2	3	3	3	3	3	3	2	1	
	YEAR 2	1	1	3	2	3	3	2	3	3	3	1	1	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	1	2	3	2	3	3	3	3	3	3	2	1	
	YEAR 2	1	1	3	2	3	3	2	3	3	3	1	1	

SUB-SURFACE DRIP IRRIGATION FOR MODERATE WATER-USE SHRUBS/GROUND COVER			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.51	EMITTER SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	EMITTER FLOW:	0.9 GPH
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.103	0.128	0.248	0.376	0.505	0.565	0.633	0.547	0.453	0.274	0.128	0.077	
MINUTES OF WATER PER WEEK:	YEAR 1	4	5	10	15	20	22	25	22	18	11	5	3	
	YEAR 2	4	5	9	13	18	20	23	20	16	10	5	3	
DAYS PER WEEK:	YEAR 1	1	1	2	2	3	3	3	3	3	2	1	1	
	YEAR 2	1	1	2	2	3	3	3	3	3	2	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	4	5	5	7	7	7	8	7	6	5	5	3	
	YEAR 2	4	5	4	7	6	7	8	7	5	5	5	3	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	4	5	5	7	7	7	8	7	6	5	5	3	
	YEAR 2	4	5	4	7	6	7	8	7	5	5	5	3	

TREE BUBBLER IRRIGATION FOR LOW WATER-USE TREES			
SPRINKLER MANUFACTURER	RAIN BIRD	LOCATION:	LIVERMORE, CALIFORNIA
PRECIPITATION RATE (INCHES/HOUR):	1.50	HEAD SPACING:	VARIES
IRRIGATION SYSTEM EFFICIENCY	0.81	HEAD FLOW:	0.25 GPM X 2
PLANT FACTOR:	0.30		
YEAR 2 REDUCTION AMOUNT:	-10% OF YEAR 1 (ESTABLISHMENT) RUN TIME MINUTES		

MONTH:		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
ETO PER MONTH (INCHES):		1.20	1.50	2.90	4.40	5.90	6.60	7.40	6.40	5.30	3.20	1.50	0.90	47.20
ETO PER WEEK (INCHES):		0.277	0.346	0.670	1.016	1.363	1.524	1.709	1.478	1.224	0.739	0.346	0.208	
APPLIED ETO PER WEEK (INCHES):		0.103	0.128	0.248	0.376	0.505	0.565	0.633	0.547	0.453	0.274	0.128	0.077	
MINUTES OF WATER PER WEEK:	YEAR 1	4	5	10	15	20	23	25	22	18	11	5	3	
	YEAR 2	4	5	9	14	18	20	23	20	16	10	5	3	
DAYS PER WEEK:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES OF WATER PER DAY:	YEAR 1	4	5	10	15	20	23	25	22	18	11	5	3	
	YEAR 2	4	5	9	14	18	20	23	20	16	10	5	3	
CYCLES PER DAY:	YEAR 1	1	1	1	1	1	1	1	1	1	1	1	1	
	YEAR 2	1	1	1	1	1	1	1	1	1	1	1	1	
MINUTES PER CYCLE:	YEAR 1	4	5	10	15	20	23	25	22	18	11	5	3	
	YEAR 2	4	5	9	14	18	20	23	20	16	10	5	3	

NOTE:
THE CHARTS ARE INTENDED TO BE USED AS A GUIDELINE ONLY AND INDICATE APPROXIMATE RUN TIMES (IN MINUTES) FOR EACH ZONE BASED ON ESTIMATED WEEKLY WATER REQUIREMENTS FOR ESTABLISHED PLANT MATERIAL. THE FIGURES SHOWN IN THIS SCHEDULE ARE APPROXIMATE AND HAVE BEEN DEVELOPED FROM LOCAL CURRENT AVERAGES FOR EVAPOTRANSPIRATION, AND REFLECT MAXIMUM IRRIGATION REQUIREMENTS OF THE PLANT MATERIAL BASED ON PLANT TYPE AND SPACING. 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, ETC.

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LANDSCAPE IRRIGATION
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P.O. BOX 415
PALO CEDRO, CALIFORNIA 96073
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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

LICENSED LANDSCAPE ARCHITECT
AMY C CUPPLES
4488
09/08/22
8/31/2023
STATE OF CALIFORNIA

Date	Issue
01/19/2023	BID SET

DRAWING TITLE

IRRIGATION WATERING SCHEDULE

SHEET NO.

L-903

PROJECT NO. 22202

SCALE NTS

DRAWN BY SH

LEGEND

CIRCUITING

A-1 #12 — HOMERUN CONDUIT AND CONDUCTORS TO PANEL 'A' CIRCUIT 1; SLASH MARKS INDICATE NUMBER OF CONDUCTORS, 2 #12 AWG + 1 #12 GND, UON

CONDUIT CONCEALED IN WALL OR CEILING

CONDUIT RUN UNDERGROUND

CONDUIT UP

CONDUIT DOWN

CONDUIT STUB AND CAP

CONDUIT CONTINUATION

ELECTRICAL APPARATUS AND EQUIPMENT

CIRCUIT BREAKER

GROUND TO EARTH

SWITCH

UNDERGROUND TERMINATION POINT

PB — ELECTRIC BOX / PULLBOX

J — JUNCTION BOX

LP-01 — LIGHT POLE, POLE NUMBER LP-01

DUPLEX RECEPTACLE

1 / E1 — DETAIL SHEET: 1 IS THE DETAIL NUMBER E1 IS THE SHEET NUMBER

1 — KEY NOTE: NOTE NUMBER 1

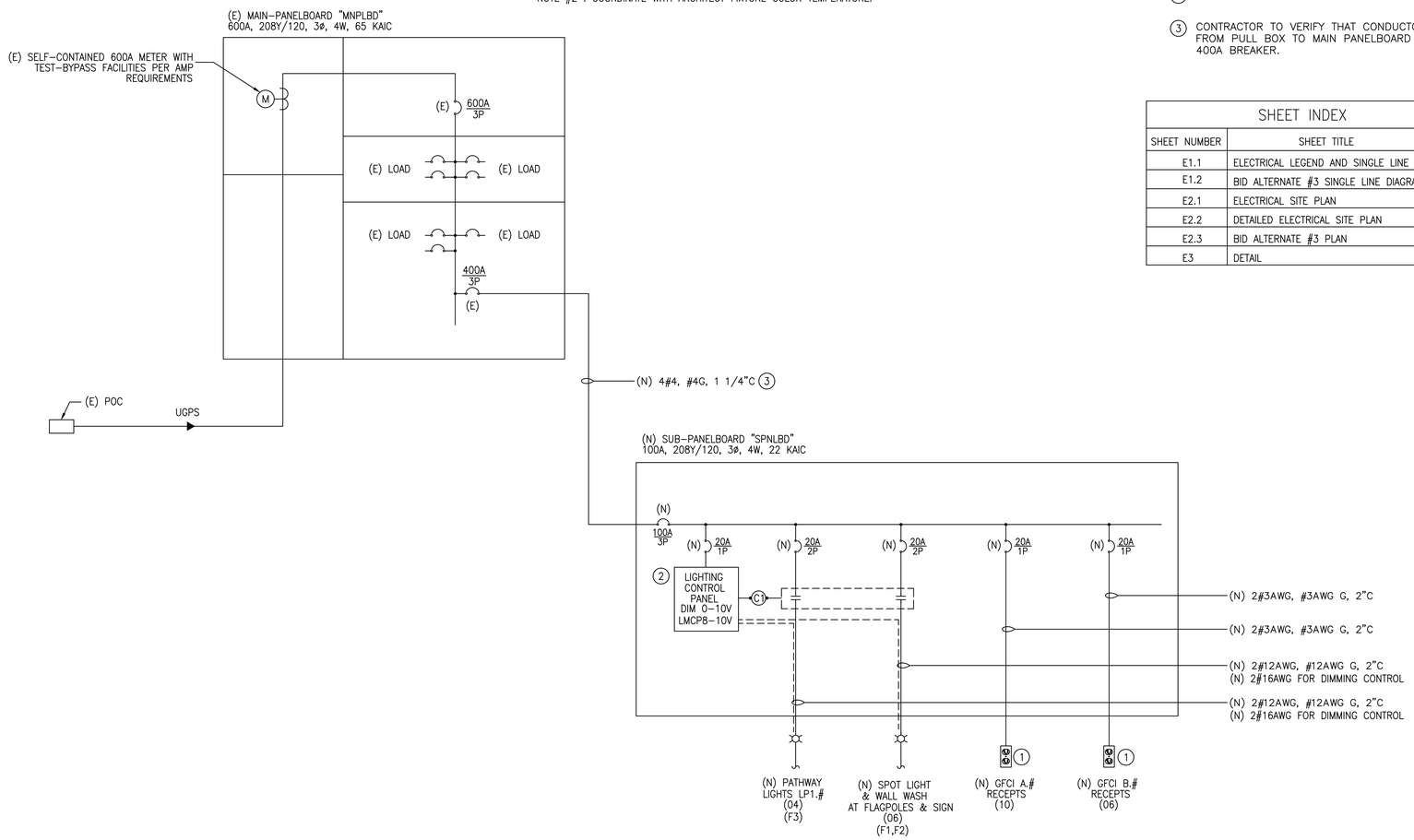
ABBREVIATIONS

A	AMPERE
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CL	CENTERLINE
CO	CONDUIT ONLY
(E)	EXISTING TO REMAIN
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HDPE	HIGH DENSITY POLYETHYLENE
JB	JUNCTION BOX
LED	LIGHT EMITTING DIODE
LT	LIGHT
LTG	LIGHTING
(N)	NEW
PB	PULLBOX
PE	PHOTOELECTRIC
PCC	PORTLAND CEMENT CONCRETE
POC	POINT OF CONNECTION
PS	POWER SUPPLY
RMC	RIGID METAL CONDUIT
(R)	EXISTING TO BE REMOVED
(RL)	RELOCATED EXISTING
SAD	SEE ARCHITECTURAL DRAWINGS
SWBD	SWITCHBOARD
TS	TIME SWITCH
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLT
VD	VOLTAGE DROP
W	WATT
WP	WEATHERPROOF

LIGHT FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	MANUFACTURER'S CATALOG NO.	MOUNTING	VOLT.	LAMPS
	F1	KEPLERO MINI LED WALL WASH LIGHT. 14 WATT LED LIGHT PRODUCES 957 LUMENS FIXTURES ARE EQUIPPED WITH 4/1 DRIVER (NON-DIMMABLE /0-10V) IT COMES IN 120V-277V COLOR TEMPERATURES – 3000K	FIXTURE: LIGHTING SUPPLY # KPLM-41-WW-L1-40	FLUSH AND SEMI FLUSH MOUNT WITH OPTIONAL L BRACKET	UNV	14W LED 3000K Ra84 CRI
	F2	KEPLERO MINI LED ZOOM SPOT LIGHT. 14 WATT LED LIGHT PRODUCES 1156 LUMENS FIXTURES ARE EQUIPPED WITH 4/1 DRIVER (NON-DIMMABLE /0-10V) IT COMES IN 120V-277V COLOR TEMPERATURES – 3000K	FIXTURE: LIGHTING SUPPLY # KPLM-41-ZM-L2-40	AND SEMI FLUSH MOUNT WITH OPTIONAL L BRACKET	UNV	14W LED 3000K Ra84 CRI
	F3	CAMPUS STANDARD POLE LIGHT. SEE NOTE #1 KIPP POST 82 WATT LED LIGHT PRODUCES 7472 LUMENS FIXTURES ARE EQUIPPED WITH DRIVER (DIMMABLE /0-10VhI) IT COMES IN 120V-277V COLOR TEMPERATURES – 3000K	FIXTURE: LIGHTING SUPPLY VARIANT NUMBER: 5747920671	RSA-4.5" POLES	UNV	82W 3000K

NOTE #1 : ARCHITECTURE TO VERIFY THAT LUMENS OUTPUT MATCHES WITH EXISTING FIXTURE ON SITE.
NOTE #2 : COORDINATE WITH ARCHITECT FIXTURE COLOR TEMPERATURE.



1 SINGLE LINE DIAGRAM

SHEET NOTES:

1. SHORT CIRCUIT RATING TO BE VERIFIED WITH AMP BY CONTRACTOR PRIOR TO ORDER
2. REFER TO WIRE SCHEDULE FOR CONDUIT AND WIRE SIZE
3. POUR CONCRETE BETWEEN FRONT OF PEDESTAL AND EDGE OF CONCRETE SIDEWALK

KEY NOTES:

1. SPLICE THE CONDUCTOR DOWN TO #10 AT EACH RECEPTACLE BOX.
2. PROVIDE WATTSTOPPER RELAY PANEL: LMCP8-10V OR EQUIVALENT.
3. CONTRACTOR TO VERIFY THAT CONDUCTORS EXIST FROM PULL BOX TO MAIN PANELBOARD CONNECTED TO 400A BREAKER.

SHEET INDEX

SHEET NUMBER	SHEET TITLE
E1.1	ELECTRICAL LEGEND AND SINGLE LINE DIAGRAM
E1.2	BID ALTERNATE #3 SINGLE LINE DIAGRAM
E2.1	ELECTRICAL SITE PLAN
E2.2	DETAILED ELECTRICAL SITE PLAN
E2.3	BID ALTERNATE #3 PLAN
E3	DETAIL

WIRE SCHEDULE

CONDUIT TAGS	INITIAL CONDUCTOR LOCATION	FINAL CONDUCTOR LOCATION	RACEWAY SIZE OR DIRECT BURIAL	# OF PARALLEL CIRCUITS	% OF MAX CONDUIT FILL	OPERATING LINE CURRENT	OCPD	CONDUCTOR CORRECTED AMPACITY	ONE WAY LENGTH (FT)	VOLTAGE DROP %	CURRENT CARRYING CONDUCTOR TYPE AND SIZE	NEUTRAL WIRE TYPE AND SIZE	GROUNDING CONDUCTOR SIZE (AWG)
1	GFCI A.X	SPNLBD	2" PVC SCH 40	1	22%	15	20	88	300	1.84%	1 - #3 AWG	1 - #3 AWG	1 - #3 AWG
2	GFCI B.X	SPNLBD	2" PVC SCH 40	1	22%	9	20	88	320	1.18%	1 - #3 AWG	1 - #3 AWG	1 - #3 AWG
3	F1 & F2	SPNLBD	2" PVC SCH 40	1	3%	0.404	20	22	420	0.32%	2 - #12 AWG	0 - #NO NEUTRAL	1 - #12 AWG
4	PB1 (LP1.X)	SPNLBD	2" PVC SCH 40	1	3%	3	20	22	120	0.77%	2 - #12 AWG	0 - #NO NEUTRAL	1 - #12 AWG
5	PB2 (LP2.X)	PB1 (LP1.X)	2" PVC SCH 40	1	3%	3	N/A	22	80	0.38%	2 - #12 AWG	0 - #NO NEUTRAL	1 - #12 AWG
6	PB3 (LP3.X)	PB2 (LP1.X)	2" PVC SCH 40	1	3%	2	N/A	22	50	0.16%	2 - #12 AWG	0 - #NO NEUTRAL	1 - #12 AWG
7	PB4 (LP1.X)	PB3 (LP1.X)	2" PVC SCH 40	1	3%	1	N/A	22	50	0.08%	2 - #12 AWG	0 - #NO NEUTRAL	1 - #12 AWG
8	GFCI C.X	PANEL-HB	2" PVC SCH 40	1	5%	5	20	31	200	1.86%	1 - #10 AWG	1 - #10 AWG	1 - #10 AWG
9	SPNLBD	MAIN	2" PVC SCH 40	1	31%	28	35	75	250	1.78%	3 - #4 AWG	1 - #4 AWG	1 - #4 AWG

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KEY PLAN

CLPCCD - LAS POSITAS COLLEGE
LANDSCAPE RENOVATION
3000 CAMPUS HILL DRIVE, LIVERMORE, CA 94551

	Date	Issue
1	01/19/2023	BID SET

DRAWING TITLE

ELECTRICAL LEGEND & SINGLE LINE DIAGRAM

SHEET NO.

E1.1

PROJECT NO. 22202

SCALE

DRAWN BY SH

LEGEND

CIRCUITING

A-1 — HOMERUN CONDUIT AND CONDUCTORS TO PANEL 'A' CIRCUIT 1; SLASH MARKS INDICATE NUMBER OF CONDUCTORS, 2 #12 AWG + 1 #12 GND, UON

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CONDUIT RUN UNDERGROUND

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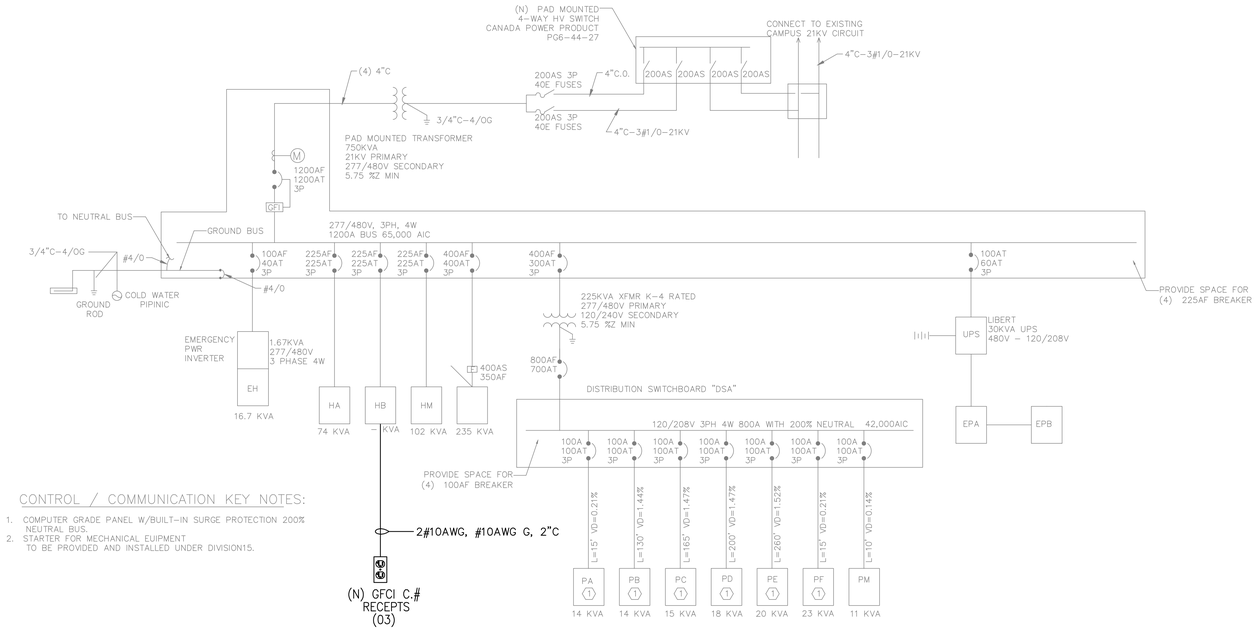

CONTROL / COMMUNICATION KEY NOTES:

1. COMPUTER GRADE PANEL W/BUILT-IN SURGE PROTECTION 200% NEUTRAL BUS.
2. STARTER FOR MECHANICAL EUIPMENT TO BE PROVIDED AND INSTALLED UNDER DIVISION15.

SHEET NOTES:

1. SHORT CIRCUIT RATING TO BE VERIFIED WITH AMP BY CONTRACTOR PRIOR TO ORDER
2. REFER TO FEEDER SCHEDULE FOR CONDUIT AND WIRE SIZE
3. POUR CONCRETE BETWEEN FRONT OF PEDESTAL AND EDGE OF CONCRETE SIDEWALK

ABBREVIATIONS

A	AMPERE
AFG	ABOVE FINISHED GRADE
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
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UON	UNLESS OTHERWISE NOTED
V	VOLT
VD	VOLTAGE DROP
W	WATT
WP	WEATHERPROOF

1 BID ALTERNATE #3 SINGLE LINE DIAGRAM

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	Date	Issue
1	01/19/2023	BID SET

DRAWING TITLE

BID ALTERNATE #3 SINGLE LINE DIAGRAM

SHEET NO.

E1.2

PROJECT NO. 22202

SCALE

DRAWN BY SH

(E) MAIN PANELBOARD

BUILDING 1700

(E) PULLBOX ON WALL

(N) SUB PANELBOARD

(N) PULL BOX (TYP.)

(N) GFCI RECEPTACLE (TYP.)

(N) LIGHT POLE WITH GFCI RECEPTACLE

(N) WALL WASH LIGHT AT SIGN (TYP.)

(N) SPOT LIGHT AT FLAGPOLES (TYP.)

MULTI-DISCIPLINARY BUILDING 2400

TO (E) SUB– PANELBOARD IN BUILDING 2400

(E) LIGHT POLE (TYP.)

(E) LIGHT POLE (TYP.)

(E) BOLLARDS (TYP.)

PARKING LOT D

1 ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

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

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KEY PLAN

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REGISTERED PROFESSIONAL ENGINEER
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Lic. No. 19450
Exp. 06/30/2023
ELECTRICAL
STATE OF CALIFORNIA

	Date	Issue
1	01/19/2023	BID SET

DRAWING TITLE

ELECTRICAL SITE PLAN

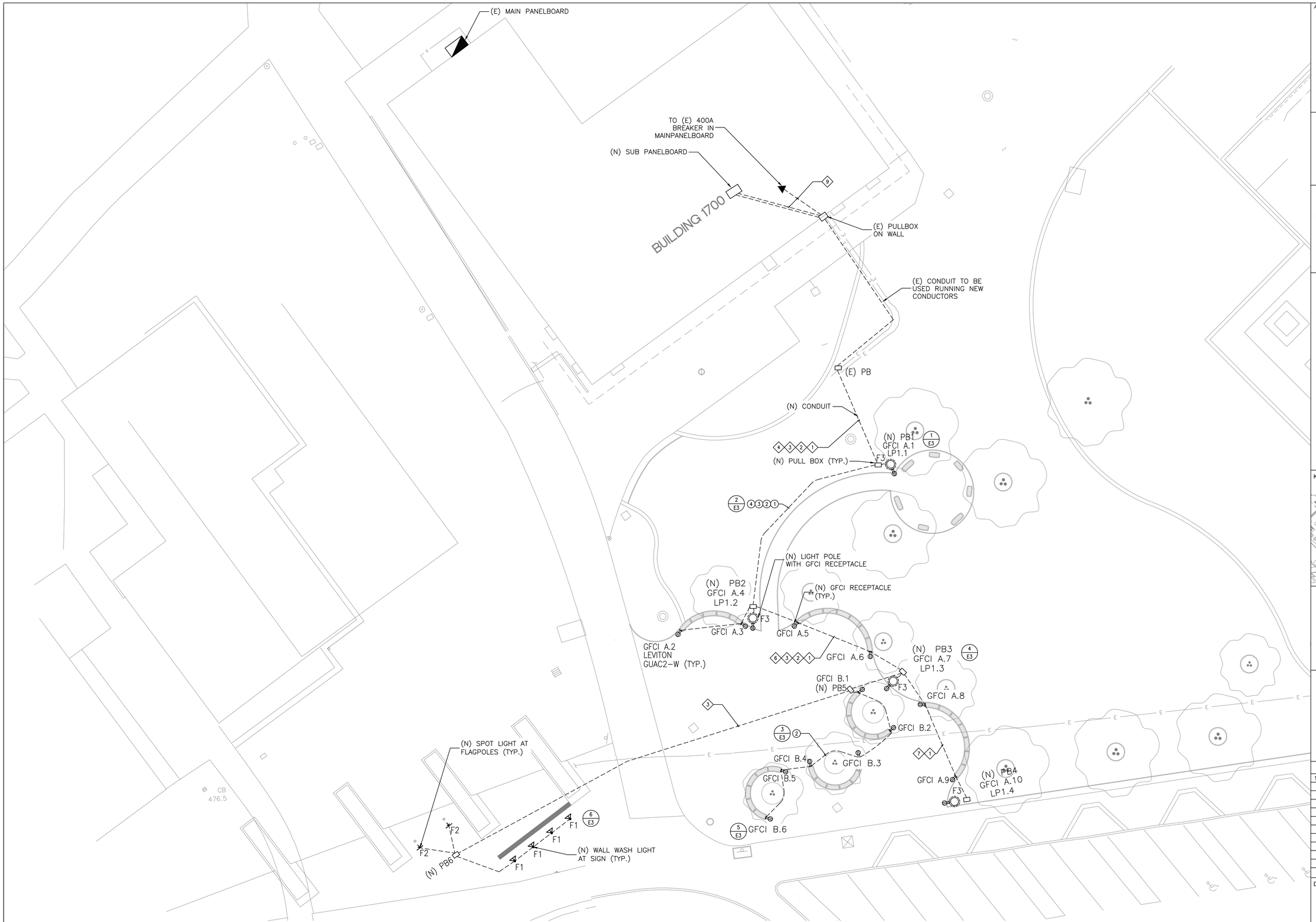
SHEET NO.

E2.1

PROJECT NO.
22202

SCALE

DRAWN BY
SH



1 ELECTRICAL SITE PLAN
SCALE: 1"=20'-0"

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

WIRE SCHEDULE

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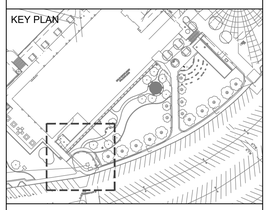
KEY PLAN



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REGISTERED PROFESSIONAL ENGINEER
JEFFREY D. ONSLEY
Lic. No. 19458
Exp: 06/30/2023

	Date	Issue
1	01/19/2023	BID SET

DRAWING TITLE

DETAILED ELECTRICAL SITE PLAN

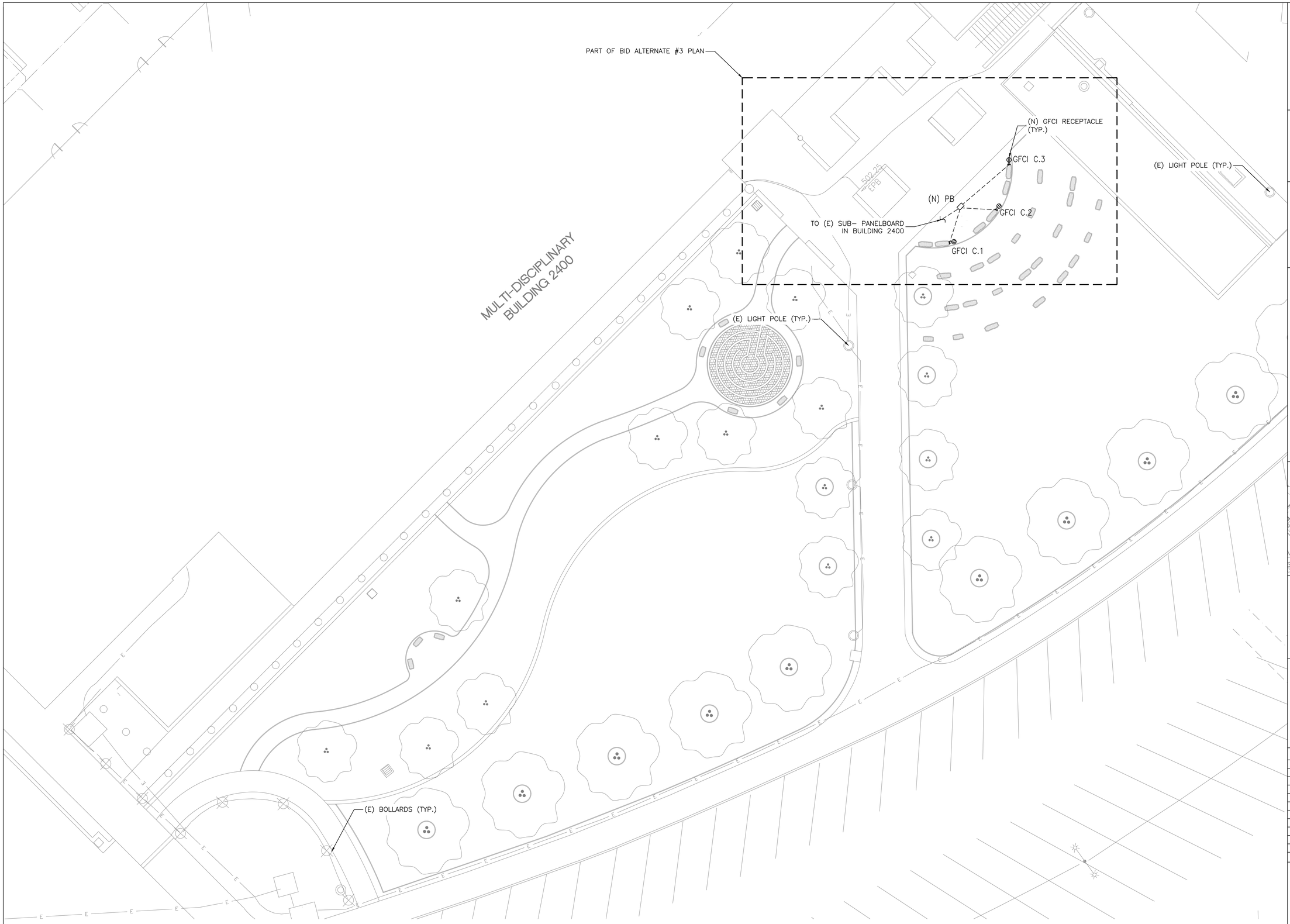
SHEET NO.

E2.2

PROJECT NO.
22202

SCALE

DRAWN BY
SH



1 BID ALTERNATE #3 PLAN
SCALE: 1"=20'-0"

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

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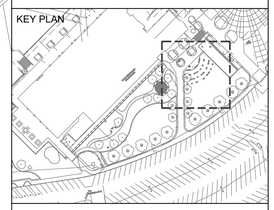
KEY PLAN



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	Date	Issue
1	01/19/2023	BID SET

DRAWING TITLE

BID ALTERNATE #3 PLAN

SHEET NO.

E2.3

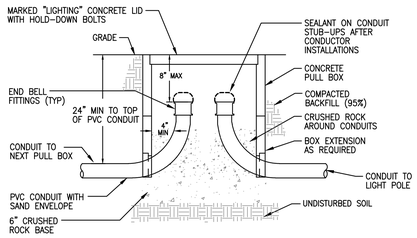
PROJECT NO.
22202

SCALE

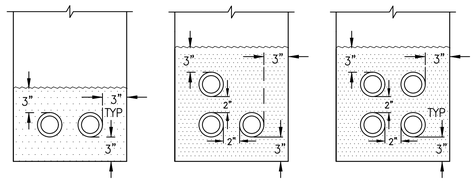
DRAWN BY
SH

GENERAL NOTE:

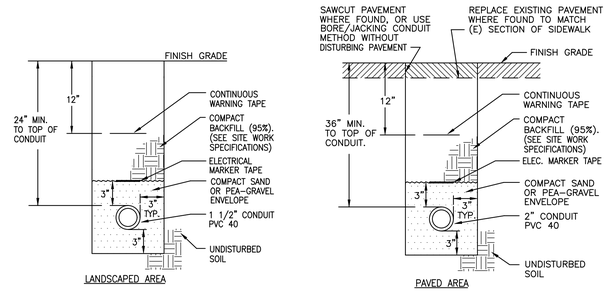
REFER TO LANDSCAPE DRAWINGS FOR LOCATIONS AND CIVIL DRAWINGS FOR EXACT GRADE ELEVATIONS.



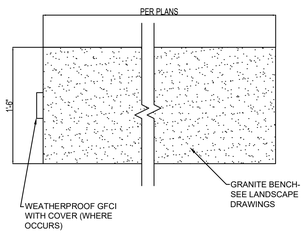
1 PULLBOX DETAIL
SCALE: NONE



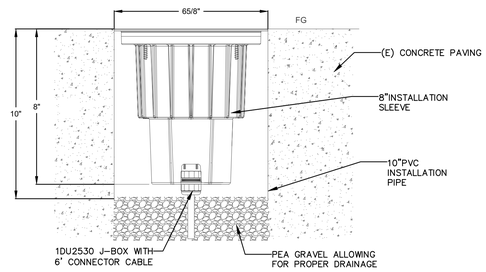
2 TRENCH DETAILS FOR 2 AND MORE CONDUITS
SCALE: NONE



3 TRENCH DETAILS
SCALE: NONE

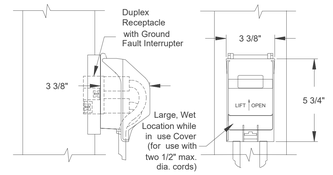


5 GFCI AT GRANITE BENCH
SCALE: NONE



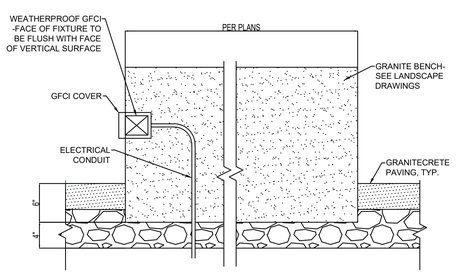
6 IN-GROUND LIGHT
SCALE: NONE

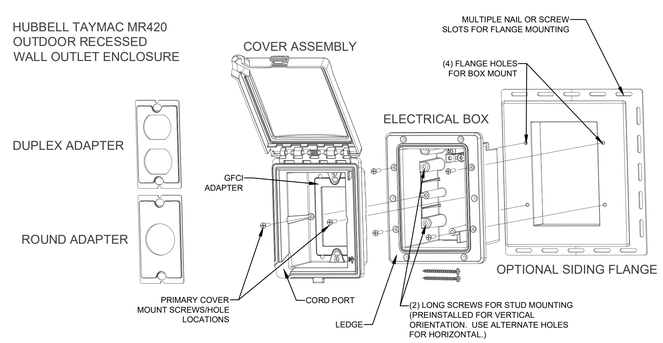
HOLOPHANE WEATHER PROOF RECEPTACLE
INTERNAL POST SHAFT LOCATION
MODEL NO. FGIUL BK



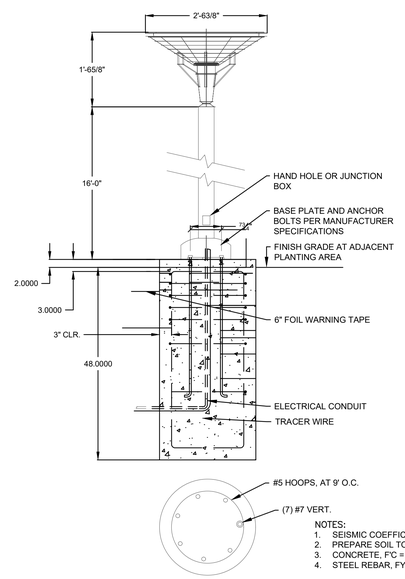
RECEPTACLE WITH LARGE, IN-USE WET LOCATION COVER
A 20 AMP, 125 VOLT, GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE SHALL BE MOUNTED TO THE POST. THE RECEPTACLE SHALL BE UL LISTED ACCORDING TO E-8380 AND UL 943 CLASS A AND UL 498. THE RECEPTACLE SHALL HAVE A CAST ALUMINUM, LOCKABLE, UL LISTED COVER THAT IS SUITABLE FOR WET LOCATIONS WHILE IN USE AND COMPLIES WITH NEC ARTICLE 410-57(B). THE COVER SHALL ACCEPT MOST COMMON CORD SETS UP TO 1/2" DIAMETER (12/3). THE RECEPTACLE AND COVER SHALL MOUNT TO AN OUTLET OPENING, ON THE POST SHAFT, WITH A GASKET AND STAINLESS STEEL SCREWS.

7 POLE LIGHT RECEPTACLE
SCALE: NONE





8 MONOLITHIC GRANITE BENCH RECEPTACLE DETAIL
SCALE: NONE



NOTES:
1. SEISMIC COEFFICIENT CO = 0.40
2. PREPARE SOIL TO HAVE PASSIVE
3. CONCRETE, F'C = 2,500 PSI
4. STEEL REBAR, FY = 60,000 PSI

4 POLE LIGHT
SCALE: NONE

AUTHORITY APPROVAL

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KEY PLAN

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	Date	Issue
1	01/19/2023	BID SET

DRAWING TITLE

DETAIL

SHEET NO.

E3

PROJECT NO.
22202

SCALE

DRAWN BY
SH