ALAMO COLLEGES DISTRICT

PALO ALTO COLLEGE CAMPUS

HYDRONIC DISTRIBUTION PIPING REPLACEMENT

MAY 3, 2024

ALAMO COLLEGES DISTRICT

PALO ALTO COLLEGE

1400 WEST VILLARET

SAN ANTONIO, TEXAS 78224

(210) 486-3888

OWNER

ALAMO COLLEGE DISTRICT
2222 NORTH ALAMO STREET
SAN ANTONIO, TX 78215
210-485-0702 P

ARCHITECTURE

PBK ARCHITECTS
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SAN ANTONIO, TX 78216
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210-490-5120 F

CIVIL/SURVEYOR

BAIN MEDINA BAIN
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SAN ANTONIO, TX 78216
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MECHANICAL

LEAF ENGINEERS
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210-638-7200 P
210-829-0578 F

ABBREVIATIONS

A.D.	AREA DRAIN
A.D.A.	AMERICANS WITH DISABILITIES ACT
A.D.A.	2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
A.D.A.A.G.	AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES
A.F.F.	ABOVE FINISH FLOOR
A.F.G.	ABOVE FINISH GRADE
A.H.J.	ATHORITY HAVING JURISDICTION
A/C	AIR CONDITIONING
ACC.	ACCESSIBLE, ACCESSIBILITY
ACP.	ACOUSTICAL PANEL
ACT.	ACOUSTICAL TILE
ADJ.	ABADJUSTABLE
ALT.	ALTERNATE
ALUM.	ALUMINUM
ASPH.	ASPHALT
∠	ANGLE
B.O.D.	BOTTOM OF DECK
B.U.R.	BUILT-UP ROOF
BD.	BOARD
BLDG.	BUILDING
BLK.	BLOCK
BM.	BEAM
C	CHANNEL
C.J.	CONTROL JOINT
C.M.U.	CONCRETE MASONRY UNIT
C.W.	COLD WATER
CAB, CABT	CABINET
CFMF	COLD-FORMED METAL FRAMING
CFSF	COLD-FORMED STEEL FRAMING
CL	CENTERLINE
CLG.	CEILING
CLR	CLEAR
COL.	COLUMN
COMP.	COMPRESSIBLE
CONC.	CONCRETE
COND.	CONDITION
CONT.	CONTINUOUS
CORR.	CORRIDOR
CPT.	CARPET (ED)
CT.	CERAMIC TILE
CTSK.	COUNTER SINK
D	DRYER
D.F.	DRINKING FOUNTAIN
D.P.	DAMPPROOFING
D.S.	DOWN SPOUT
DIA.	DIAMETER
DIM.	DIMENSION
DTL.	DETAIL
DWG.	DRAWING
E.J.	EXPANSION JOINT
E.Q.	EQUAL
EA.	EACH
EDF	ELECTRIC DRINKING FOUNTAIN
EL.	ELEVATION (HEIGHT)
ELEC.	ELECTRICAL
ELECT.	ELECTRICAL
ELEV.	ELEVATION (DRAWING)
EQUIP	EQUIPMENT
EXIST	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CABINET
F.H.C.	FIRE HOSE CABINET
FB.	FACE BRICK
FD.	FLOOR DRAIN
FIN.	FINISH (ED)
FIXT.	FIXTURE
FLR.	FLOOR (ING)
FLSHG.	FLASHING
FLUOR	FLUORESCENT
FRP	FIBER REINFORCED PLASTIC
G.B.	GRAB BAR
G.I.	GALVANIZED IRON
GA.	GAUGE
GALV.	GALVANIZED
GCMU	GLAZED CONCRETE MASONRY UNIT
GEN.	GENERAL
GEN.	GENERAL
GL.	GLASS / GLAZING
GL.	GLASS
GR.	GRADE
GTP.	GLAZED TILE PAVER
GWB	GYPSUM WALL BOARD
GYP.	GYPSUM
H.W.	HOT WATER
HM	HOLLOW METAL FRAME
HORIZ.	HORIZONTAL
HT.	HEIGHT
I.D.	INSIDE DIAMETER
I.P.S.	IRON PIPE SIZE
INSUL	INSULATE (ED), (ION)
INT.	INTERIOR
JT.	JOINT
L.P.	LIGHT POLE
LAM.	LAMINATE (D)
LAV.	LAVATORY
LT.	LIGHT
LT. WT.	LIGHTWEIGHT
M.O.	MASONRY OPENING
MAS.	MASONRY
MATL.	MATERIAL (S)
MAX.	MAXIMUM
MB.	MARKER BOARD
MECH.	MECHANICAL
MEM	MEMBRANE
MEM. WP.	MEMBRANE WATERPROOFING
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MEPT	MECHANICAL, ELECTRICAL, PLUMBING, TECHNOLOGY
MEZZ.	MEZZANINE
MFR. / MANUF.	MANUFACTURE (R)
MH.	MANHOLE
MIN.	MINIMUM
MISC.	MISCELLANEOUS
MOD	MODULAR
MTL	METAL
MTP.	METAL TOILET PARTITION
N.D.	NAPKIN DISPOSAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
N.V.	NAPKIN VENDOR
NO.	NUMBER
NOM.	NOMINAL
O.C.	ON CENTER (S)
O.C.E.W.	ON CENTER EACH WAY
O.D.	OUTSIDE DIAMETER
O.F.C.I.	OWNER FURNISHED, CONTRACTOR INSTALLED
O.H.	OPPOSITE HAND
OPNG.	OPENING
OPP.	OPPOSITE
P. LAM. / PLAM	PLASTIC LAMINATE
P.C.	PRECAST
P.H.	PAPER HOLDER
P.L.	PROPERTY LINE
P.P.	POWER POLE
P.W.B.	PREFINISHED WALL BOARD
PL.	PLATE
PLUMB.	PLUMBING
PLYWD.	PLYWOOD
POL.	POLISHED
PR.	PAIR
PREFIN.	PRE-FINISHED
PT	PRESSURE-TREATED
PT.	POINT
PTD.	PAINTED
Q.T.	QUARRY TILE
R / RAD	RADIUS
R.O.	ROUGH OPENING
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RE. , REF.	REFER TO / REFERENCE / SEE
RECP.	RECEPTACLE
REINF.	REINFORCE (D), (ING)
REQ'D.	REQUIRED
RES.	RESILIENT
REV.	REVISION (S), REVISED
RF	RECREATIONAL RESILIENT FLOORING
RPG.	RELOCATABLE PAINTED GYPSUM BOARD
RSS.	ROD STOCK AND SEALANT
S.C.	SEALED CONCRETE
S.D.	SOAP DISPENSER
S.N.D.	SANITARY NAPKIN DISPOSAL
SCHED	SCHEDULE
SCPL	SOLID CORE PLASTIC LAMINATE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPC	SPECIAL COATING SYSTEM
SPEC	SPECIFICATION (S)
SQ.	SQUARE
SS / SS. STL	STAINLESS STEEL
STL	STEEL
STRUC / STRUCT	STRUCTURAL
SUSP	SUSPENDED
SVDF	SHEET VINYL DANCE FLOORING
SVF	SHEET VINYL FLOORING
T.A.S.	TEXAS ACCESSIBILITY STANDARDS (2012)
T.B.	TACK BOARD
T.D.R.	TOWEL DISPENSER AND RECEPTACL
T.O.	TOP OF
T.O.B.	TOP OF (WOOD) BLOCKING
T.O.M.	TOP OF MASONRY
T.O.P.	TOP OF PARAPET
T.O.S.	TOP OF STEEL
T.T.D.	TOILET TISSUE DISPENSER
TEL	TELEPHONE
TERR	TERRAZZO
THK	THICK (NESS)
TYP	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
U.G.	UNDER GROUND
UR.	URINAL
V	VENT
V.C.T.	VINYL COMPOSITION TILE
V.I.F.	VERIFY IN FIELD
VENT.	VENTILATING, VENTILATED
VER.	VERIFY
VERT.	VERTICAL
VGB	(PREFINISHED) VINYL CLAD GYPSUM BOARD
VWC	VINYL WALL COVERING
W	WASHING MACHINE
W.P.	WATER PROOFING
W.S.	WEATHERSTRIP
W.W.	WATER WELL
W.W.F.	WELDED WIRE FABRIC
W.W.M.	WOVEN WIRE MESH
W/	WITH
WC	WATER CLOSET
WD	WOOD
WDW	WINDOW
WT	WEIGHT

DRAWING INDEX

GENERAL

G0.00	COVER SHEET
G0.01	GENERAL PROJECT INFORMATION SHEET, INDEX

CIVIL

C1.0	OVERALL EXISTING SITE AND DEMOLITION PLAN
C1.1	EXISTING SITE AND DEMOLITION PLAN SHEET 1
C1.2	EXISTING SITE AND DEMOLITION PLAN SHEET 2
C1.3	EXISTING SITE AND DEMOLITION PLAN SHEET 3
C1.4	EXISTING SITE AND DEMOLITION PLAN SHEET 4
C2.0	OVERALL PROPOSED SITE PLAN
C2.1	PROPOSED SITE PLAN SHEET 1
C2.2	PROPOSED SITE PLAN SHEET 2
C2.3	PROPOSED SITE PLAN SHEET 3
C2.4	PROPOSED SITE PLAN SHEET 4
C3.0	STORM WATER POLLUTION PREVENTION PLAN 1
C3.1	STORM WATER POLLUTION PREVENTION PLAN 2
C3.2	STORM WATER POLLUTION PREVENTION PLAN DETAIL 1
C3.3	STORM WATER POLLUTION PREVENTION PLAN DETAIL 2
C4.0	CIVIL DETAILS

LANDSCAPING

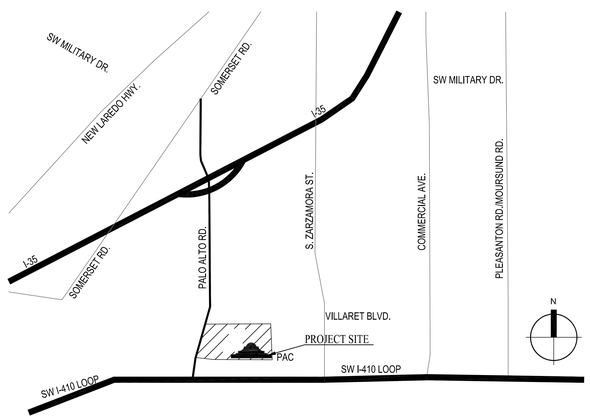
L0.00	KEY MAP AND INDEX
L0.01	TREE PROTECTION DETAILS AND NOTES
L0.02	TREE BORING AND TRENCHING
L1.01	TREE PROTECTION AND REMOVAL PLAN - WESTSIDE
L1.02	TREE PROTECTION AND REMOVAL PLAN - EASTSIDE
L1.03	TREE INDEX TABLE
L1.04	TREE INDEX TABLE
L2.00	PLANTING NOTES AND SCHEDULE
L2.01	PLANTING PLAN - WESTSIDE
L2.02	PLANTING PLAN - EASTSIDE
L2.03	PLANTING DETAILS

MECHANICAL

M0.01	GENERAL NOTES AND LEGEND - MECHANICAL
MD1.01	HYDRONIC PIPING DEMOLITION PLAN - MECHANICAL
M1.01	HYDRONIC PIPING SITE UTILITIES - MECHANICAL
M2.01	HYDRONIC PIPING PROPOSED PLAN - MECHANICAL
M2.10	HYDRONIC PIPING ENLARGED PLAN - MECHANICAL
M2.11	HYDRONIC PIPING ENLARGED PLAN - MECHANICAL
M2.12	HYDRONIC PIPING ENLARGED PLAN - MECHANICAL
M2.13	HYDRONIC PIPING ENLARGED PLAN - MECHANICAL
M2.20	HYDRONIC PIPING PROPOSED PHASING PLAN - MECHANICAL
M3.01	DETAILS AND SCHEDULES - MECHANICAL

PALO ALTO COLLEGE CAMPUS

SITE LOCATION MAP



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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS
JAMES R. PERRON
145042
LICENSED
PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024
DRAWN BY: JP
CHECKED BY: DR

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

GENERAL PROJECT INFORMATION SHEET INDEX

G0.01

Z:\Projects\SAN\23\230030 - ACD Palo Alto College Hydronic Replacement\Div8-Dwgs\8a BIM CAD\12 Mech\ACD PAC Mechanical.dwg
5/2/2024 8:39:52 AM

CONTROL POINTS				
POINT NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
CP #3	13667106.78'	2114751.17'	656.49'	MONUMENT
CP #22	13666719.17'	2114061.05'	645.44'	1/2" IRON ROD WITH RED BMB CONTROL CAP
CP #70	13668305.92'	2113106.45'	628.42'	1/2" IRON ROD WITH RED BMB CONTROL CAP

LEGEND

- EXISTING POWER POLE
- EXISTING GUY WIRE
- EXISTING WATER METER
- EXISTING GAS METER
- EXISTING POST
- EXISTING SANITARY SEWER MANHOLE
- EXISTING ELECTRIC PULLBOX (PBX)
- EXISTING ELECTRIC JUNCTION BOX (E)
- EXISTING FAUCET
- EXISTING SPRINKLER
- EXISTING MAILBOX
- EXISTING TREE
- EXISTING OVERHEAD ELECTRIC LINE — OHE —
- EXISTING WATER LINE — W —
- EXISTING 12" WATER LINE — 12" W —
- EXISTING STORM DRAIN — SD —
- EXISTING CHILLED WATER — CW —
- EXISTING UNDERGROUND TELEPHONE — UT —
- EXISTING FIRE DEPARTMENT LINE — FD —
- EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —
- EXISTING SANITARY SEWER LINE — WWL —
- EXISTING GAS LINE — G —
- EXISTING UNDERGROUND ELECTRIC LINE — UE —
- EXISTING CONTOURS — 960 —
- EXISTING WOOD FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING HIGH VOLTAGE TOWER
- EXISTING BUILDING
- EXISTING FLATWORK TO BE REMOVED

N

40 0 20 40 80

SCALE: 1" = 80'

CP #70
CP #3
CP #22

BLDG #46
BLDG #45
BLDG #48
BLDG #49
BLDG #50
BLDG #51
BLDG #44
BLDG #47
BLDG #26
BLDG #27
BLDG #28
BLDG #29
BLDG #30
BLDG #31
BLDG #36
BLDG #35
BLDG #34
BLDG #33
BLDG #32
BLDG #16
BLDG #24
#25
#43

BLDG. #1 SAN MARCOS HALL
BLDG. #2 GUADALUPE HALL
BLDG. #3 PALOMINO CENTER
BLDG. #4 FRIO HALL
BLDG. #5 NUECES HALL
PALAMINO ANNEX
BLDG. #8 CONCHO HALL
BLDG. #9 PEDERNALES HALL
BLDG. #13 GUTIERREZ LEARNING LABS
BLDG. #14 MEDINA HALL
BLDG. #15 SAN JACINTO HALL
BLDG. #19 VETERINARY TECH
BLDG. #20 PERFORMING ART CENTER
BLDG. #22 BRAZOS HALL
BLDG. #23 FACILITIES
BLDG. #41 MULTIPURPOSE
BLDG. #6 STUDENT CENTER
BLDG. #7 ADMINISTRATION OFFICES
BLDG. #10 GYM & NATATORIUM
BLDG. #11 MAINTENANCE
BLDG. #12 OZUNA
BLDG. #17 ELLISON CHILD CARE CENTER
BLDG. #18 SABINE HALL
BLDG. #21 CENTRAL PLANT

STUDENT PARKING LOT 1
STUDENT PARKING LOT 2
STUDENT PARKING LOT 3
STUDENT PARKING LOT 4
STUDENT PARKING LOT 8
STUDENT PARKING LOT 9
STUDENT PARKING LOT 10
STUDENT PARKING LOT 11
STAFF PARKING LOT 6

ALAMO STREET
SABINE
SAN JOSE
SAN AUGUSTINE
CAMINO REAL
CONCEPCION
PRESIDIO
FRESCOS

PREPARED BY:
BAIN MEDINA BAIN, INC.
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TBPE Registration No. F-1712
TBPLS Registration No. 10020900

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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

SHEET C-1.1 | SHEET C-1.2 | SHEET C-1.3 | SHEET C-1.4

KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

OVERALL EXISTING SITE AND DEMOLITION PLAN

C-1.0

Date: Mar 03, 2024, 1:28pm User ID: MLichon
File: N:\Work\C-1613 PALO Polytech, Pl Working Leaf Engineers\Design\Civil\Construction Documents\VERSION 2\Construction Documents\EXIST SITE AND DEMO PLAN (REV 2).dwg

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE	EXISTING FIRE DEPARTMENT LINE — FD	EXISTING WOOD FENCE	
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX	EXISTING WATER LINE — W	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV	EXISTING CHAIN LINK FENCE	
EXISTING WATER METER	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W	EXISTING SANITARY SEWER LINE — WWL	EXISTING HIGH VOLTAGE TOWER	
EXISTING GAS METER	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD	EXISTING GAS LINE — G	EXISTING BUILDING	
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW	EXISTING UNDERGROUND ELECTRIC LINE — UE	EXISTING FLATWORK TO BE REMOVED	
EXISTING SANITARY SEWER MANHOLE	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT	EXISTING CONTOURS — 960 —		

SCALE: 1" = 40'

PREPARED BY:
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7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900

BLDG #46
BLDG #45
BLDG #48
BLDG #49
BLDG #50
BLDG #51
BLDG #44
BLDG #47
STUDENT PARKING LOT 11
BLDG. #19 VETERINARY TECH
EXIST. CONCRETE SIDEWALK TO BE REMOVED
SABINE
EXIST. CONCRETE SIDEWALK TO BE REMOVED
BLDG #26
BLDG #27
BLDG #28
BLDG #29
BLDG #30
EXIST. CONCRETE SIDEWALK TO BE REMOVED
FRANK L. MADIA EARLY COLLEGE HIGH SCHOOL
BLDG #34
BLDG #35
BLDG #36
BLDG #33
BLDG. #12 OZUNA

MATCH LINE - SHEET C-1.2

MATCH LINE - SHEET C-1.3

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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

SHEET C-1.1
SHEET C-1.2
SHEET C-1.3
SHEET C-1.4

KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

EXISTING SITE AND DEMOLITION PLAN SHEET 1

C-1.1

Date: May 03, 2024 - 1:29pm User ID: kalvin
File: R:\Work\C-1613 / PALO\Hydronic Plumbing - Leaf Engineers\Design\Civil\Construction Documents\MEP\SIGN 2\Construction Documents\EXIST SITE AND DEMO PLAN (REV 2).dwg

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE —	EXISTING FIRE DEPARTMENT LINE — FD —	EXISTING WOOD FENCE — // —	
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX	EXISTING WATER LINE — W —	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —	EXISTING CHAIN LINK FENCE — <> —	
EXISTING WATER METER	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W —	EXISTING SANITARY SEWER LINE — WWL —	EXISTING HIGH VOLTAGE TOWER	
EXISTING GAS METER	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD —	EXISTING GAS LINE — G —	EXISTING BUILDING	
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW —	EXISTING UNDERGROUND ELECTRIC LINE — UE —	EXISTING FLATWORK TO BE REMOVED	
EXISTING SANITARY SEWER MANHOLE	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT —	EXISTING CONTOURS — 960 —		

N

20 0 10 20 40

SCALE: 1" = 40'

PREPARED BY:
BAIN MEDINA BAIN, INC.
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210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900

MATCH LINE - SHEET C-1.1

STUDENT PARKING LOT 1

STUDENT PARKING LOT 2

ALAMO STREET

SAN JOSE

BLDG. #1 SAN MARCOS HALL

BLDG. #2 GUADALUPE HALL

BLDG. #3 PALOMINO CENTER

PALAMINO ANNEX

BLDG. #4 FRIO HALL

BLDG. #5 NUECES HALL

BLDG. #22 BRAZOS HALL

BLDG #16

BLDG. #18 SABINE HALL

BLDG #11 MAINTENANCE

BLDG. #21 CENTRAL PLANT

BLDG. #6 STUDENT CENTER

BLDG. #13 GUTIERREZ LEARNING LABS

BLDG. #15 SAN JACINTO HALL

BLDG. #14 MEDINA HALL

STUDENT PARKING LOT 3

EXIST. CONCRETE SIDEWALK TO BE REMOVED

EXIST. CONCRETE SLAB TO BE REMOVED

MATCH LINE - SHEET C-1.4

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ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
210-829-0012 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
210-494-7223 P 210-490-5120 F

LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
713-465-0888 P 713-861-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

SHEET C-1.1 | SHEET C-1.2 | SHEET C-1.3 | SHEET C-1.4

KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

EXISTING SITE AND DEMOLITION PLAN SHEET 2

C-1.2

Date: Mar 02, 2024 - 09:04a User: Eli McClain
File: N:\Work\C-1613 / ACC Hydronic Plumbing - Leaf Engineers\Design\Civil\Construction Documents\REVISION 2\Construction Documents\EXIST SITE AND DEMO PLAN (REV 2).dwg

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE —	EXISTING FIRE DEPARTMENT LINE — FD —	EXISTING WOOD FENCE — // —
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX	EXISTING WATER LINE — W —	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —	EXISTING CHAIN LINK FENCE — <> —
EXISTING WATER METER	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W —	EXISTING SANITARY SEWER LINE — WW —	EXISTING HIGH VOLTAGE TOWER
EXISTING GAS METER	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD —	EXISTING GAS LINE — G —	EXISTING BUILDING
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW —	EXISTING UNDERGROUND ELECTRIC LINE — UE —	EXISTING FLATWORK TO BE REMOVED
EXISTING SANITARY SEWER MANHOLE	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT —	EXISTING CONTOURS — 960 —	

20 0 10 20 40

SCALE: 1" = 40'

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900

MATCH LINE - SHEET C-1.1

MATCH LINE - SHEET C-1.4

BLDG #10
GYM & NATATORIUM

BLDG #31

BLDG #32

BLDG. #12
OZUNA

BLDG. #20
PERFORMING ART CENTER

BLDG. #41
MULTIPURPOSE

EXIST. DRIVEWAY TO BE REMOVED

EXIST. CONCRETE SIDEWALK TO BE REMOVED

STUDENT PARKING LOT 10

STUDENT PARKING LOT 9

STUDENT PARKING LOT 8

CONCEPCION

CAMINO REAL

LEAF ENGINEERS

MEPT — **LEAF Engineers**
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-030-0000 P 210-030-000 F
ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0122 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 F 210-490-5120 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-465-0888 P 713-861-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

SHEET C-1.1 | SHEET C-1.2 | SHEET C-1.3 | SHEET C-1.4

KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED
PROFESSIONAL ENGINEER
05/10/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE:	05/11/2023
DRAWN BY:	M.L.
CHECKED BY:	L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

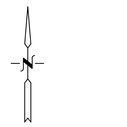
EXISTING SITE AND DEMOLITION PLAN
SHEET 3

C-1.3

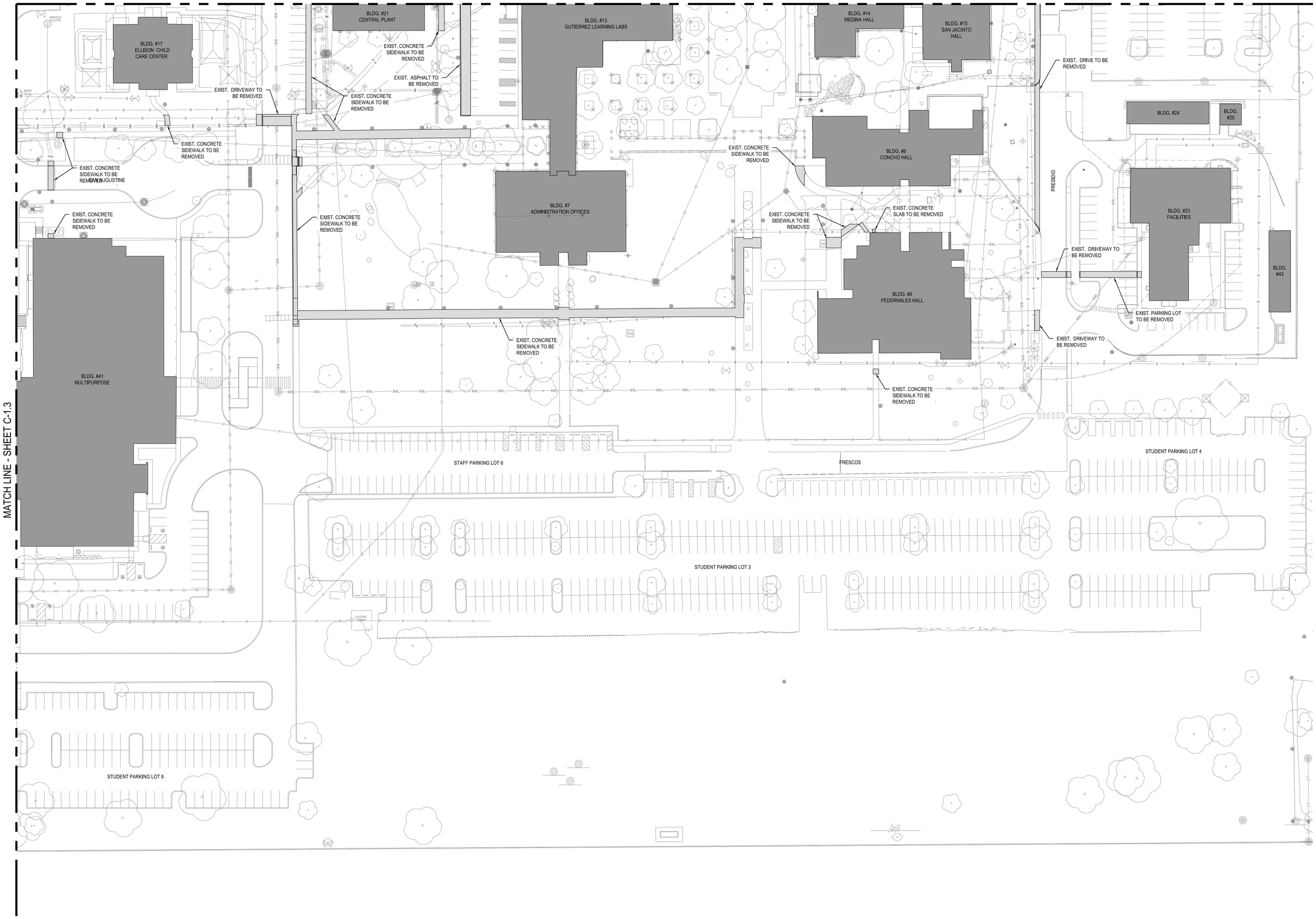
Date: Nov 13, 2024 - 1:39pm - User: Leaf Engineers
File: R:\Work\C-1613 PAC Hydronic Pumping\Design\Civil\Construction Documents\VERSION 2\Construction Documents\C3D\3 SITE AND DEMO PLAN (REV 2).dwg

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE —	EXISTING FIRE DEPARTMENT LINE — FD —	EXISTING WOOD FENCE — // —
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX	EXISTING WATER LINE — W —	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —	EXISTING CHAIN LINK FENCE — <> —
EXISTING WATER METER	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W —	EXISTING SANITARY SEWER LINE — WWL —	EXISTING HIGH VOLTAGE TOWER
EXISTING GAS METER	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD —	EXISTING GAS LINE — G —	EXISTING BUILDING
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW —	EXISTING UNDERGROUND ELECTRIC LINE — UE —	EXISTING FLATWORK TO BE REMOVED
EXISTING SANITARY SEWER MANHOLE	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT —	EXISTING CONTOURS — 960 —	



PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



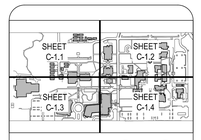
ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

LEAF ENGINEERS

MEPT	LEAF Engineers
	San Antonio 601 NW LOOP 410, Suite 460, San Antonio, TX 78216 210-638-7200 P 210-829-0578 F TX Firm: F-18672 leafengineers.com
OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-020-0000 P 210-000-000 F
ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0012 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 P 210-490-5120 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-465-0988 P 713-961-4871 F



KEY PLAN PLAN NORTH TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

EXISTING SITE AND DEMOLITION PLAN SHEET 4

C-1.4

Date: May 03, 2024 - 2:29pm - User ID: MMoon
File: R:\Revit\C-1613 PAC Hydronic Plumbing - Leaf Engineers\Design\Civil\Construction Documents\REVISION 2\Construction Documents\EXIST SITE AND DEMO PLAN (REV 2).dwg

NOTE:
DURING CONSTRUCTION CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN AND ADA ACCESS AT ALL TIMES.

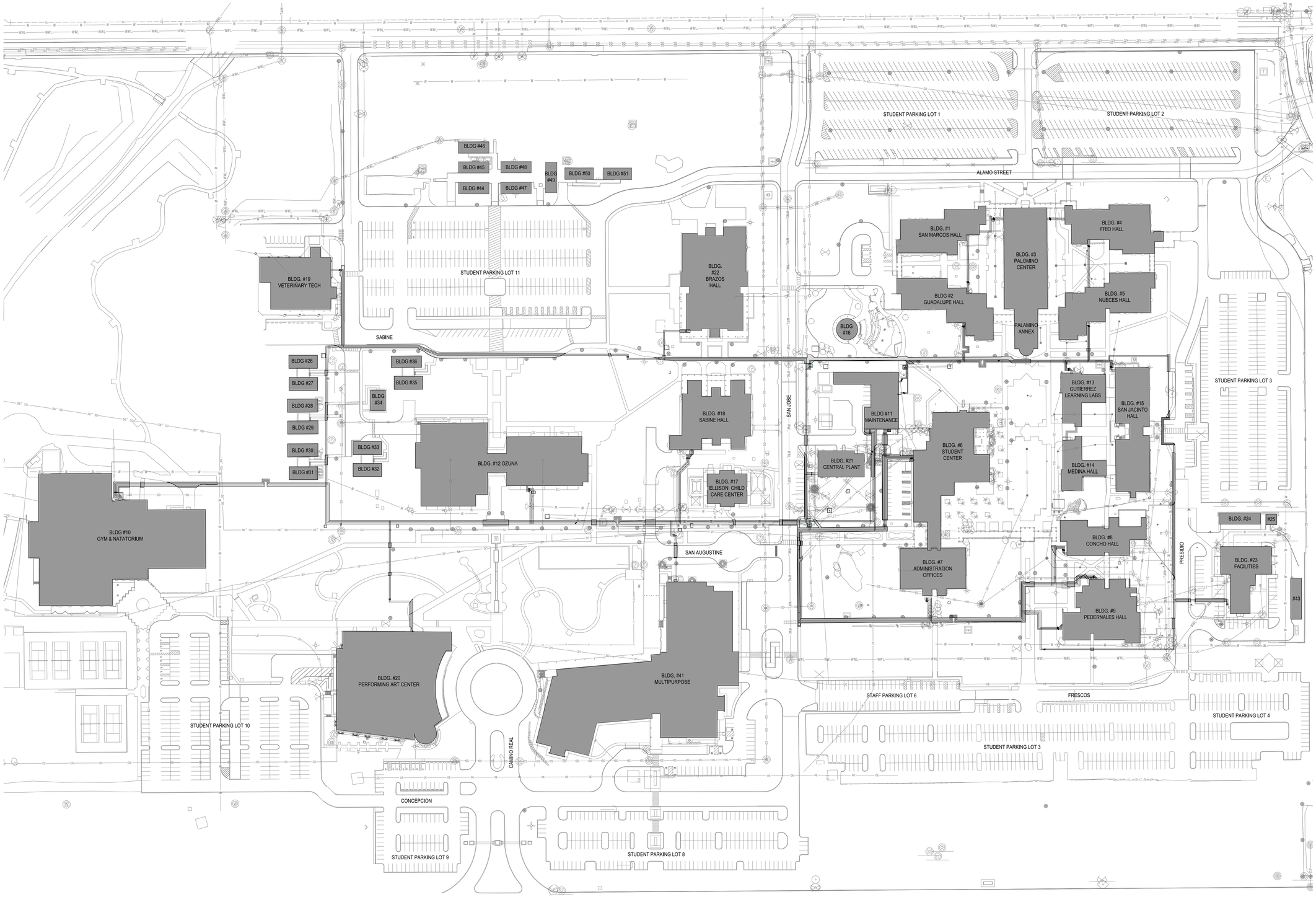
LEGEND

- EXISTING POWER POLE
- EXISTING GUY WIRE
- EXISTING WATER METER
- EXISTING GAS METER
- EXISTING POST
- EXISTING SANITARY SEWER MANHOLE
- EXISTING ELECTRIC PULLBOX
- EXISTING ELECTRIC JUNCTION BOX
- EXISTING FAUCET
- EXISTING SPRINKLER
- EXISTING MAILBOX
- EXISTING TREE
- EXISTING OVERHEAD ELECTRIC LINE — OHE
- EXISTING WATER LINE — W
- EXISTING 12" WATER LINE — 12" W
- EXISTING STORM DRAIN — SD
- EXISTING CHILLED WATER — CW
- EXISTING UNDERGROUND TELEPHONE — UT
- EXISTING FIRE DEPARTMENT LINE — FD
- EXISTING OVERHEAD HIGH VOLTAGE LINE — HV
- EXISTING SANITARY SEWER LINE — WWL
- EXISTING GAS LINE — G
- EXISTING UNDERGROUND ELECTRIC LINE — UE
- EXISTING CONTOURS — 960
- EXISTING WOOD FENCE
- EXISTING CHAIN LINK FENCE
- EXISTING HIGH VOLTAGE TOWER
- EXISTING BUILDING
- EXISTING FLATWORK TO BE REMOVED

N

40 0 20 40 80
SCALE: 1" = 80'

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



Date: Mar 05, 2024 - 2:56pm User ID: kdixon
File: R:\Work\C-1613 - ACC Hydronic Piping - Leaf Engineers\Design\Civil\Construction Documents\ARCHIVE\ 21Construction Documents\PROPOSED SITE PLAN (REV 2).dwg

LEAF ENGINEERS

MEPT — **LEAF Engineers**
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

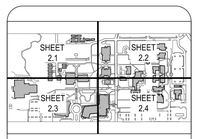
OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-000-0000 P 210-000-000 F
ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0122 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 F 210-490-5120 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-460-0988 P 713-861-4871 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

OVERALL PROPOSED SITE PLAN

C-2.0

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE —	EXISTING FIRE DEPARTMENT LINE — FD —	EXISTING WOOD FENCE — // —	
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX (E)	EXISTING WATER LINE — W —	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —	EXISTING CHAIN LINK FENCE — <> —	
EXISTING WATER METER (W)	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W —	EXISTING SANITARY SEWER LINE — WWL —	EXISTING HIGH VOLTAGE TOWER	
EXISTING GAS METER (G)	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD —	EXISTING GAS LINE — G —	EXISTING BUILDING	
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW —	EXISTING UNDERGROUND ELECTRIC LINE — UE —	EXISTING FLATWORK TO BE REMOVED	
EXISTING SANITARY SEWER MANHOLE (M)	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT —	EXISTING CONTOURS — 960 —		

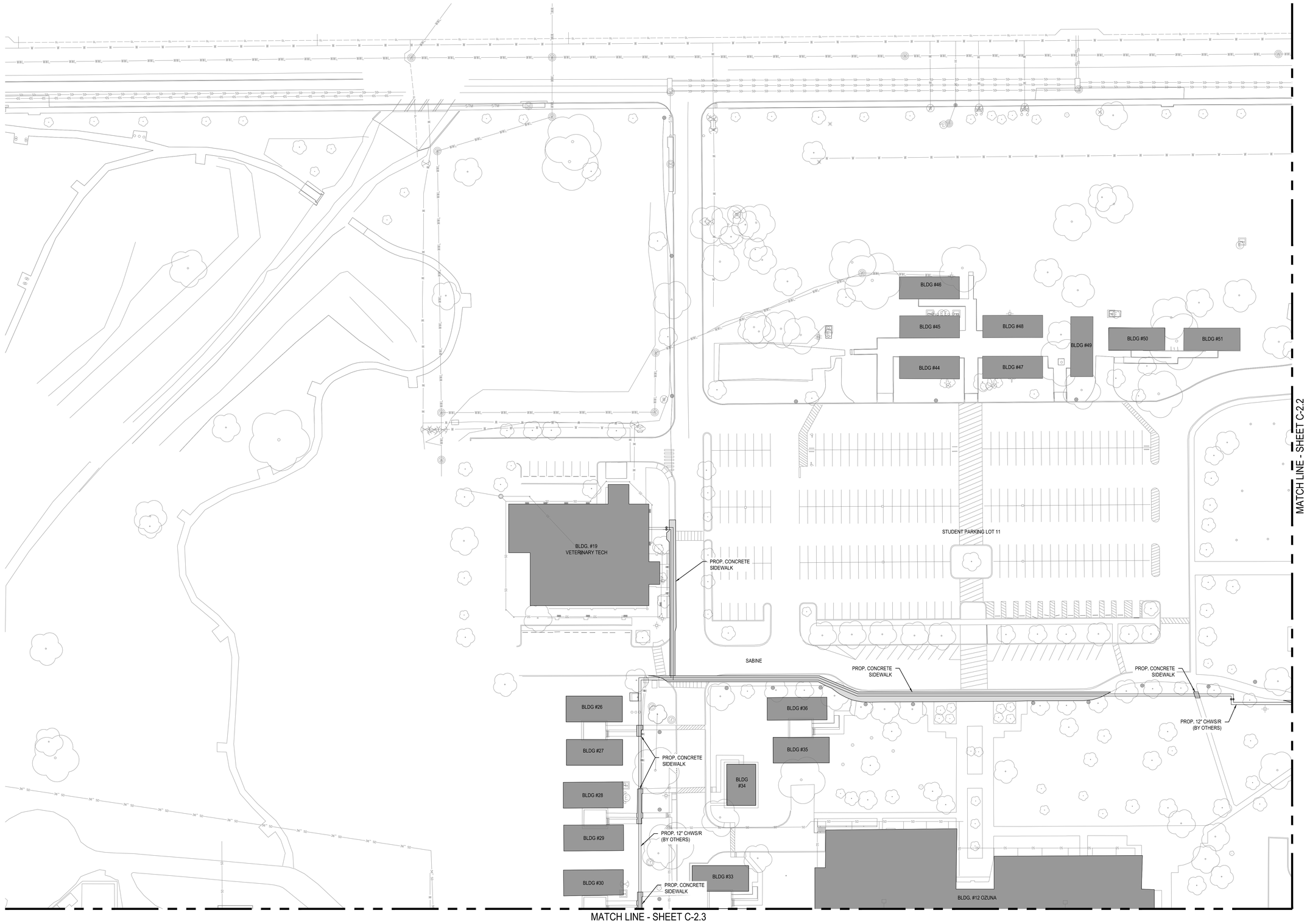
NOTE:
DURING CONSTRUCTION CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN AND ADA ACCESS AT ALL TIMES.

N

20 0 10 20 40

SCALE: 1" = 40'

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



Date: May 03, 2024 - 4:04pm User ID: lcarter
File: R:\Revit\C-1613 / ACD - Hydronic Piping - Leaf Engineers\Design\Civil\Construction Documents\ARCHIVE\ 21\Construction Documents\PROPOSED SITE PLAN (REV 23).dwg

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER — ALAMO COLLEGE DISTRICT
2222 NORTH ALAMO STREET
SAN ANTONIO , TEXAS 78215
210-000-0000 P 210-000-000 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
210-829-0122 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
210-494-7223 F 210-490-5120 F

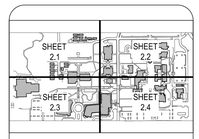
LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
713-460-0988 P 713-861-4871 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

PROPOSED SITE PLAN

SHEET 1

C-2.1

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE —	EXISTING FIRE DEPARTMENT LINE — FD —	EXISTING WOOD FENCE — // —
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX	EXISTING WATER LINE — W —	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —	EXISTING CHAIN LINK FENCE — O —
EXISTING WATER METER	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W —	EXISTING SANITARY SEWER LINE — WWL —	EXISTING HIGH VOLTAGE TOWER
EXISTING GAS METER	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD —	EXISTING GAS LINE — G —	EXISTING BUILDING
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW —	EXISTING UNDERGROUND ELECTRIC LINE — UE —	EXISTING FLATWORK TO BE REMOVED
EXISTING SANITARY SEWER MANHOLE	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT —	EXISTING CONTOURS — 960 —	

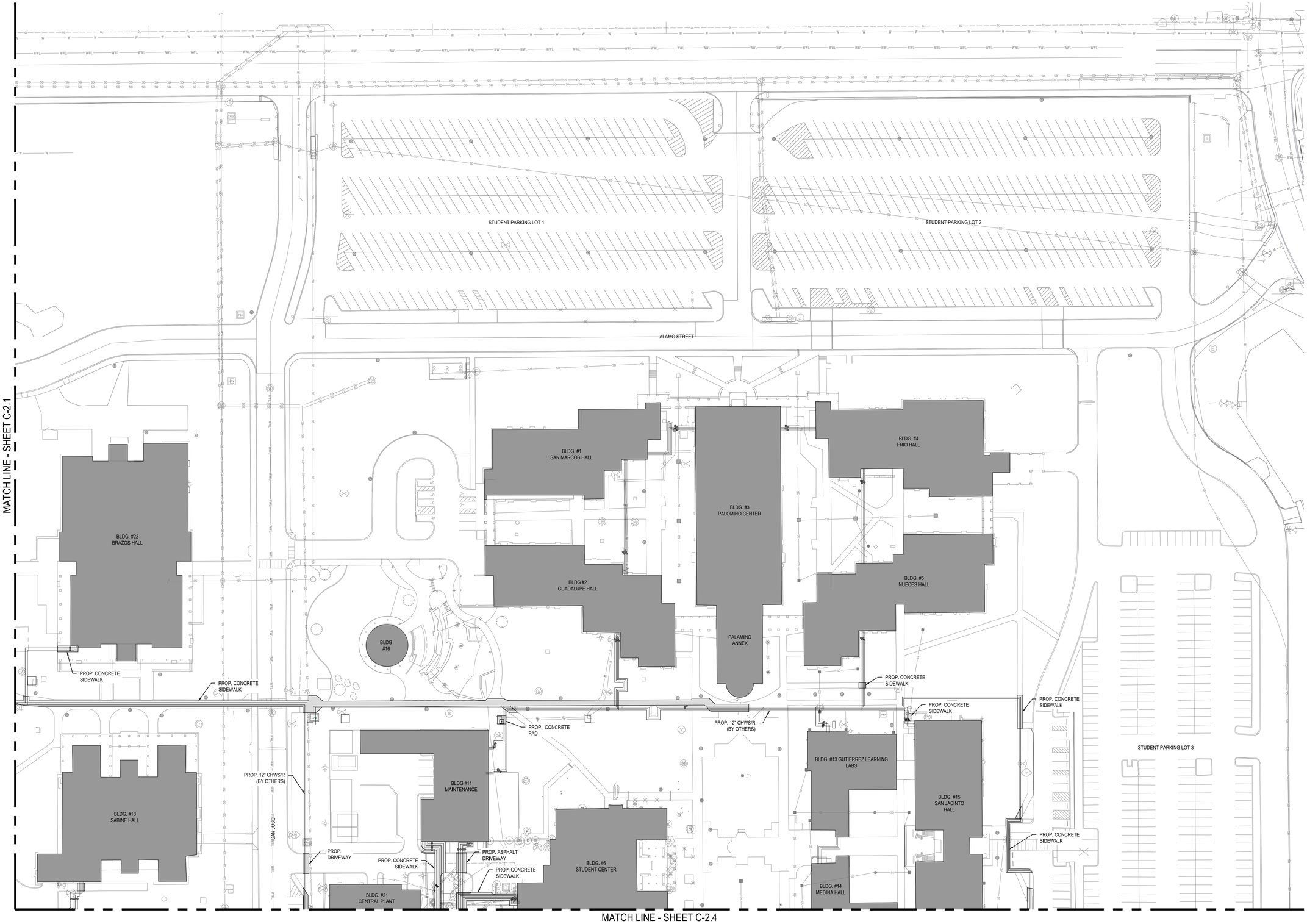
NOTE:
DURING CONSTRUCTION CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN AND ADA ACCESS AT ALL TIMES.

N

20 0 10 20 40

SCALE: 1" = 40'

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER — ALAMO COLLEGE DISTRICT
2222 NORTH ALAMO STREET
SAN ANTONIO , TEXAS 78215
210-000-0000 P 210-000-000 F

ARCHITECT — PBK ARCHITECTS
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CIVIL/SURVEYOR — BAIN MEDINA BAIN
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SAN ANTONIO , TEXAS 78216
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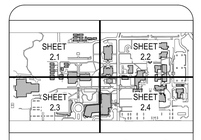
ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

PROPOSED SITE PLAN

SHEET 2

C-2.2

Date: Mar 02, 2024 - 1:47pm User ID: M.Dillon
File: N:\Work\C-1613 PAC Hydronic Piping - Leaf Engineers\Design\Civil\Construction Documents\REVISION #1\Construction Documents\PROPOSED SITE PLAN (REV 2).dwg

LEGEND

EXISTING POWER POLE	EXISTING ELECTRIC PULLBOX	EXISTING OVERHEAD ELECTRIC LINE — OHE —	EXISTING FIRE DEPARTMENT LINE — FD —	EXISTING WOOD FENCE — // —
EXISTING GUY WIRE	EXISTING ELECTRIC JUNCTION BOX	EXISTING WATER LINE — W —	EXISTING OVERHEAD HIGH VOLTAGE LINE — HV —	EXISTING CHAIN LINK FENCE — <> —
EXISTING WATER METER	EXISTING FAUCET	EXISTING 12" WATER LINE — 12" W —	EXISTING SANITARY SEWER LINE — WWL —	EXISTING HIGH VOLTAGE TOWER
EXISTING GAS METER	EXISTING SPRINKLER	EXISTING STORM DRAIN — SD —	EXISTING GAS LINE — G —	EXISTING BUILDING
EXISTING POST	EXISTING MAILBOX	EXISTING CHILLED WATER — CW —	EXISTING UNDERGROUND ELECTRIC LINE — UE —	EXISTING FLATWORK TO BE REMOVED
EXISTING SANITARY SEWER MANHOLE	EXISTING TREE	EXISTING UNDERGROUND TELEPHONE — UT —	EXISTING CONTOURS — 960 —	

NOTE:
DURING CONSTRUCTION CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN AND ADA ACCESS AT ALL TIMES.

N

20 0 10 20 40
SCALE: 1" = 40'

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900

MATCH LINE - SHEET C-2.1

BLDG #10
GYM & NATATORIUM

BLDG #31

BLDG #32

BLDG. #12
OZUNA

PROP. CONCRETE SIDEWALK

PROP. DRIVEWAY

PROP. CONCRETE SIDEWALK

PROP. CONCRETE SIDEWALK

PROP. 12" CHWS/R (BY OTHERS)

PROP. CONCRETE SIDEWALK

PROP. ASPHALT DRIVEWAY

PROP. CONCRETE SIDEWALK

PROP. CONCRETE SIDEWALK

BLDG. #20
PERFORMING ART CENTER

BLDG. #41
MULTIPURPOSE

STUDENT PARKING LOT 10

CAMINO REAL

CONCEPCION

STUDENT PARKING LOT 9

STUDENT PARKING LOT 8

MATCH LINE - SHEET C-2.4

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER — ALAMO COLLEGE DISTRICT
2222 NORTH ALAMO STREET
SAN ANTONIO , TEXAS 78215
210-030-0000 P 210-000-000 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
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210-829-0122 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
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LANDSCAPE — EDGELAND GROUP
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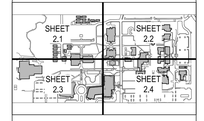
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE:	05/11/2023
DRAWN BY:	M.L.
CHECKED BY:	L.C.

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

PROPOSED SITE PLAN

SHEET 3

C-2.3

Date: Mar 12, 2024 - 1:45pm - User ID: ... - Version
File: ...\Work\C-1613 PACC Hydronic Pumping - Leaf Engineers\Design\Civil\Construction Documents\VERSION 2\Construction Documents\ARCHIVED\02 SITE PLAN (KEY 2).dwg

LEGEND

EXISTING POWER POLE		EXISTING ELECTRIC PULLBOX	PBX	EXISTING OVERHEAD ELECTRIC LINE	OHE	EXISTING FIRE DEPARTMENT LINE	FD
EXISTING GUY WIRE		EXISTING ELECTRIC JUNCTION BOX	E	EXISTING WATER LINE	W	EXISTING OVERHEAD HIGH VOLTAGE LINE	HV
EXISTING WATER METER	W	EXISTING FAUCET		EXISTING 12" WATER LINE	12" W	EXISTING SANITARY SEWER LINE	WWL
EXISTING GAS METER	G	EXISTING SPRINKLER		EXISTING STORM DRAIN	SD	EXISTING GAS LINE	G
EXISTING POST		EXISTING MAILBOX		EXISTING CHILLED WATER	CW	EXISTING UNDERGROUND ELECTRIC LINE	UE
EXISTING SANITARY SEWER MANHOLE	S	EXISTING TREE		EXISTING UNDERGROUND TELEPHONE	UT	EXISTING CONTOURS	960

EXISTING WOOD FENCE	//
EXISTING CHAIN LINK FENCE	<>
EXISTING HIGH VOLTAGE TOWER	
EXISTING BUILDING	
EXISTING FLATWORK TO BE REMOVED	

NOTE:
DURING CONSTRUCTION CONTRACTOR SHALL PROVIDE TEMPORARY PEDESTRIAN AND ADA ACCESS AT ALL TIMES.

20 0 10 20 40
SCALE: 1" = 40'

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900

MATCH LINE - SHEET C-2.2

MATCH LINE - SHEET C-2.3

BLDG. #17 ELLISON CHILD CARE CENTER
BLDG. #21 CENTRAL PLANT
BLDG. #13 GUTIERREZ LEARNING LABS
BLDG. #14 MEDINA HALL
BLDG. #15 SAN JACINTO HALL
BLDG. #7 ADMINISTRATION OFFICES
BLDG. #8 CONCHO HALL
BLDG. #9 PEDERNALES HALL
BLDG. #41 MULTIPURPOSE
BLDG. #24
BLDG. #25
BLDG. #23 FACILITIES
BLDG. #43

PROP. CONCRETE SIDEWALK
PROP. DRIVEWAY
PROP. 12" CHWS/R (BY OTHERS)
PROP. DRIVE
PROP. CONCRETE PAD
PROP. PARKING LOT
PRESIDIO

STAFF PARKING LOT 6
FRESCOS
STUDENT PARKING LOT 4
STUDENT PARKING LOT 3
STUDENT PARKING LOT 8

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OWNER — ALAMO COLLEGE DISTRICT
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ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

SHEET 2.1 | SHEET 2.2 | SHEET 2.3 | SHEET 2.4

KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER	C-1613
DATE:	05/11/2023
DRAWN BY:	M.L.
CHECKED BY:	L.C.

REVISIONS

No.	Description	Date

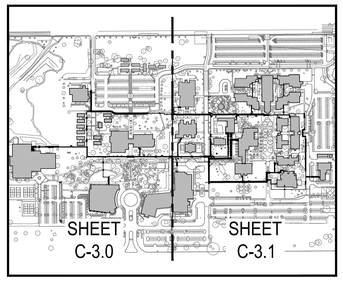
ISSUE FOR CONSTRUCTION

PROPOSED SITE PLAN

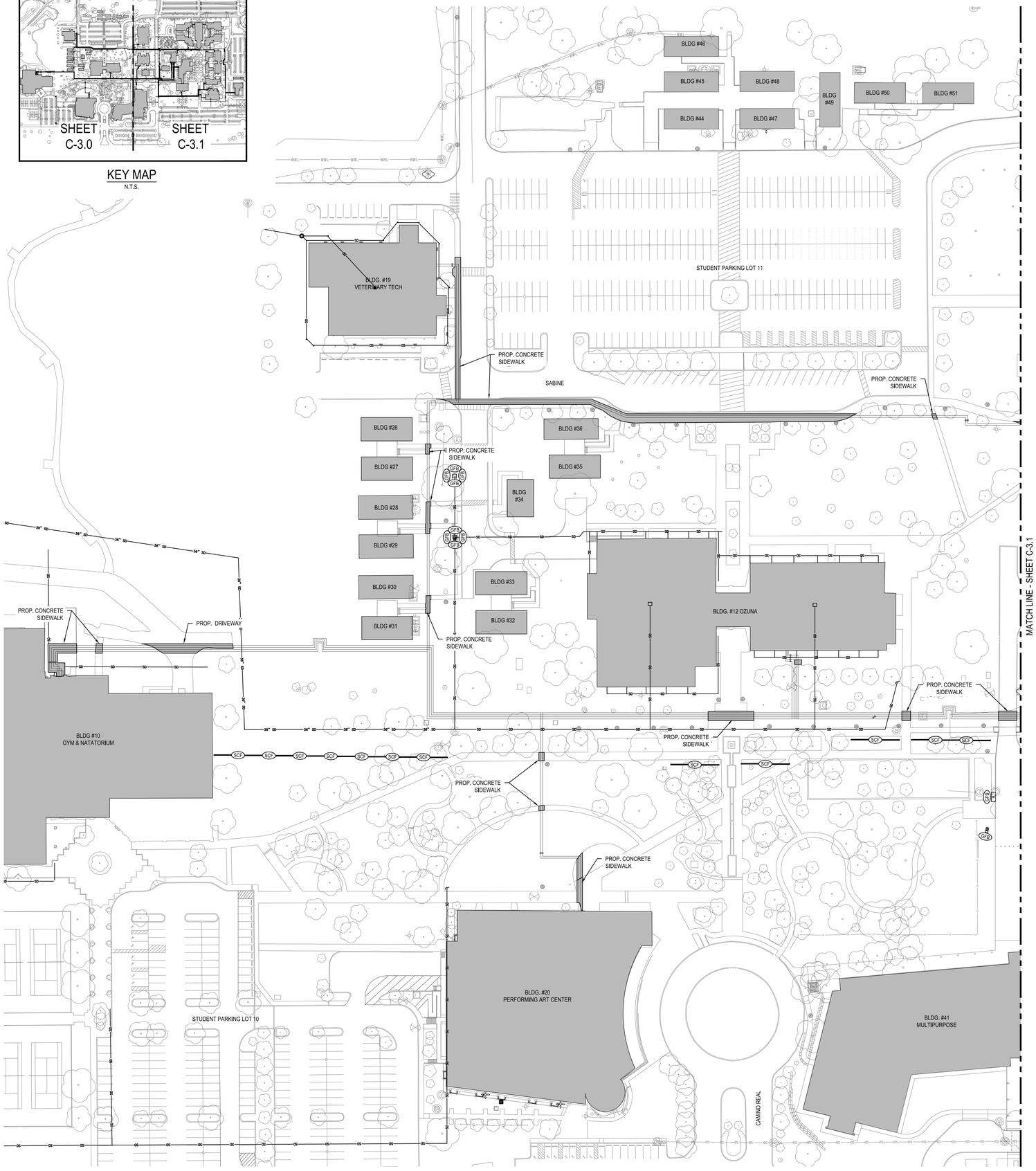
SHEET 4

C-2.4

Date: May 03, 2024 - 4:29pm User ID: MMoon
File: R:\Work\C-1613 - PAC Hydronic Plumbing - Leaf Engineers\Design\Civil\Construction Documents\ARCHIVE\ 21Construction Documents\PROPOSED SITE PLAN (REV 2).dwg



KEY MAP
N.T.S.



LEGEND

- EXISTING POWER POLE
- EXISTING GUY WIRE
- EXISTING WATER METER (W)
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXISTING SANITARY SEWER MANHOLE (S)
- EXISTING TELEPHONE PEDESTAL (T)
- EXISTING ELECTRIC PULLBOX (PB)
- EXISTING ELECTRIC JUNCTION BOX (E)
- EXISTING TREE
- EXISTING OVERHEAD ELECTRIC LINE — OHE —
- EXISTING WATER LINE — W —
- EXISTING SANITARY SEWER LINE — SS —
- EXISTING GAS LINE — GL —
- EXISTING UNDERGROUND ELECTRIC LINE — UE —
- EXISTING CONTOURS — 960 —
- EXISTING WOOD FENCE — // —
- SILT CONTROL FENCE (SCF)
- GRAVEL FILTER BAG (GFB)
- CONSTRUCTION ENTRANCE
- ROCK FILTER DAM (RFD)

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900

SCALE: 1" = 50'

Notes:

1. All temporary erosion and sedimentation controls shall be removed by the contractor and areas disturbed by their removal shall be stabilized before final acceptance of the project.

2. Contractor is required to clean up daily and maintain sidewalks around work areas free of mud, dirt, and debris.

3. Contractor shall prepare a storm water pollution prevention plan and shall submit a notice of intent for storm water discharges associated with construction activity under the TPDES general permit to the EPA.

EROSION AND SEDIMENT CONTROLS

SITE DESCRIPTION

PROJECT LIMITS: Palo Alto Hydronic Pumping Project

PROJECT DESCRIPTION: Demolition of existing sidewalk and asphalt, removal of underground hot and chill water lines, construction of new hot and chill water lines. Construction of new sidewalk and asphalt where utilities were installed.

MAJOR SOIL DISTURBING ACTIVITIES: Soil disturbing activities will include preparing site clearing, and grubbing, grading and excavation.

TOTAL PROJECT AREA: 0.73 Acres

TOTAL AREA TO BE DISTURBED: 0.73 Acres

WEIGHTED RUNOFF COEFFICIENT (AFTER CONSTRUCTION): 0.65

EXISTING CONDITION OF SOIL & VEGETATIVE COVER AND % OF EXISTING VEGETATIVE COVER: Average Grass Surface (65% Cover)

NAME OF RECEIVING WATERS: Leon Creek

SOIL STABILIZATION PRACTICES:

- ___ TEMPORARY SEEDING
- _Y_ PERMANENT PLANTING, SODDING, OR SEEDING
- ___ MULCHING
- ___ SOIL RETENTION BLANKET
- _Y_ BUFFER ZONES
- _Y_ PRESERVATION OF NATURAL RESOURCES

OTHER: Disturbed areas on which construction activity has ceased (temporarily or permanently) shall be stabilized within 14 days unless activities are scheduled to resume and do within 21 days.

STRUCTURAL PRACTICES:

- _Y_ SILT FENCES
- ___ HAY BALES
- _Y_ ROCK BERMS
- ___ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ___ DIVERSION DIKE AND SWALE COMBINATIONS
- ___ PIPE SLOPE DRAINS
- ___ PAVED FLUMES
- _Y_ ROCK BEDDING AT CONSTRUCTION EXIT
- ___ TIMBER MATTING AT CONSTRUCTION EXIT
- ___ CHANNEL LINERS
- ___ SEDIMENT TRAPS
- ___ SEDIMENT BASINS
- ___ STORM INLET SEDIMENT TRAP
- ___ STONE OUTLET STRUCTURES
- _Y_ CURBS AND GUTTERS
- ___ STORM SEWERS
- ___ VELOCITY CONTROL DEVICES

NARRATIVE - SEQUENCE OF CONSTRUCTION (STORM WATER MANAGEMENT) ACTIVITIES:
The order of activities will be as follows:
1. Install controls.
2. Clear, grub and excavate.
3. Haul in fill.
4. When all construction activity is complete and the site is stabilized and approved by the project engineer, remove all temporary structural controls and reseed any area disturbed by their removal.

pollution prevention plan.

STORM WATER MANAGEMENT: Storm water drainage will be conveyed by overland flow.

NON-STORM WATER DISCHARGE: None.

OTHER EROSION AND SEDIMENT CONTROLS:

MAINTENANCE: All erosion and sediment controls will be maintained in good working order. If a repair is necessary, it will be done at the earliest date possible, but no later than 7 calendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. The areas adjacent to creeks and drainage ways shall have priority followed by devices protecting storm sewer inlets.

INSPECTION: An inspection will be performed by a CITY inspector every week as well as after every half inch or more of rain (as recorded on a non-freezing rain gauge to be located at the Project Site). An inspection and Maintenance Report will be made per each Inspection. Based on the inspection results, the controls shall be revised per the inspection report.

WASTE MATERIALS: All waste materials will be collected and stored in a securely lidded metal dumpster. The dumpster will meet all state and local city solid waste management regulations. All trash and construction debris from the site will be deposited in the dumpster. The dumpster will be emptied as necessary or as required by local regulations and the trash will be hauled to a local dump. No construction waste material will be buried on site.

HAZARDOUS WASTE (INCLUDING SPILL REPORTING): At a minimum, any products in the following categories are considered to be hazardous: paints, acids for cleaning, masonry surfaces, cleaning solvents, asphalt products, chemical additives for soil stabilization or concrete curing compounds and additives. In the event of a hazardous material spill, the spill coordinator shall be contacted immediately.

SANITARY WASTE: All sanitary waste will be collected from portable units as necessary, or as required by local regulations by a Licensed Sanitary Waste Management Contractor.

OFFSITE VEHICLE TRACKING:

- ___ HAUL ROADS DAMPENED FOR DUST CONTROL
- ___ LOADED HAUL TRUCKS TO BE COVERED WITH TARPAULIN
- _Y_ EXCESS DIRT ON ROAD REMOVED DAILY
- _Y_ STABILIZED CONSTRUCTION ENTRANCE

PERMITS:

REMARKS: Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving waters. Disposal areas shall not be located in any wetland, waterbody or streambed. Construction staging areas and vehicle maintenance areas shall be constructed by the Contractor in a manner to minimize the runoff of pollutants.

CONTRACTOR'S CERTIFICATION

I certify under penalty of law that I understand the terms and conditions of the general Texas Pollutant Discharge Elimination System (TPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification plan.

SIGNATURE (CONTRACTOR) DATE

OWNERS CERTIFICATION

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

SIGNATURE DATE

LEAF ENGINEERS

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601 NW LOOP 410, Suite 460, San Antonio, TX 78216
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OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-485-0000 P 210-000-000 F
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ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
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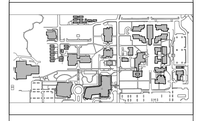
ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.

REVISIONS

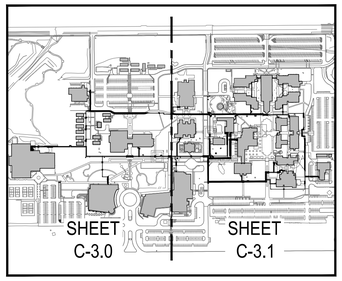
No.	Description	Date

ISSUE FOR CONSTRUCTION

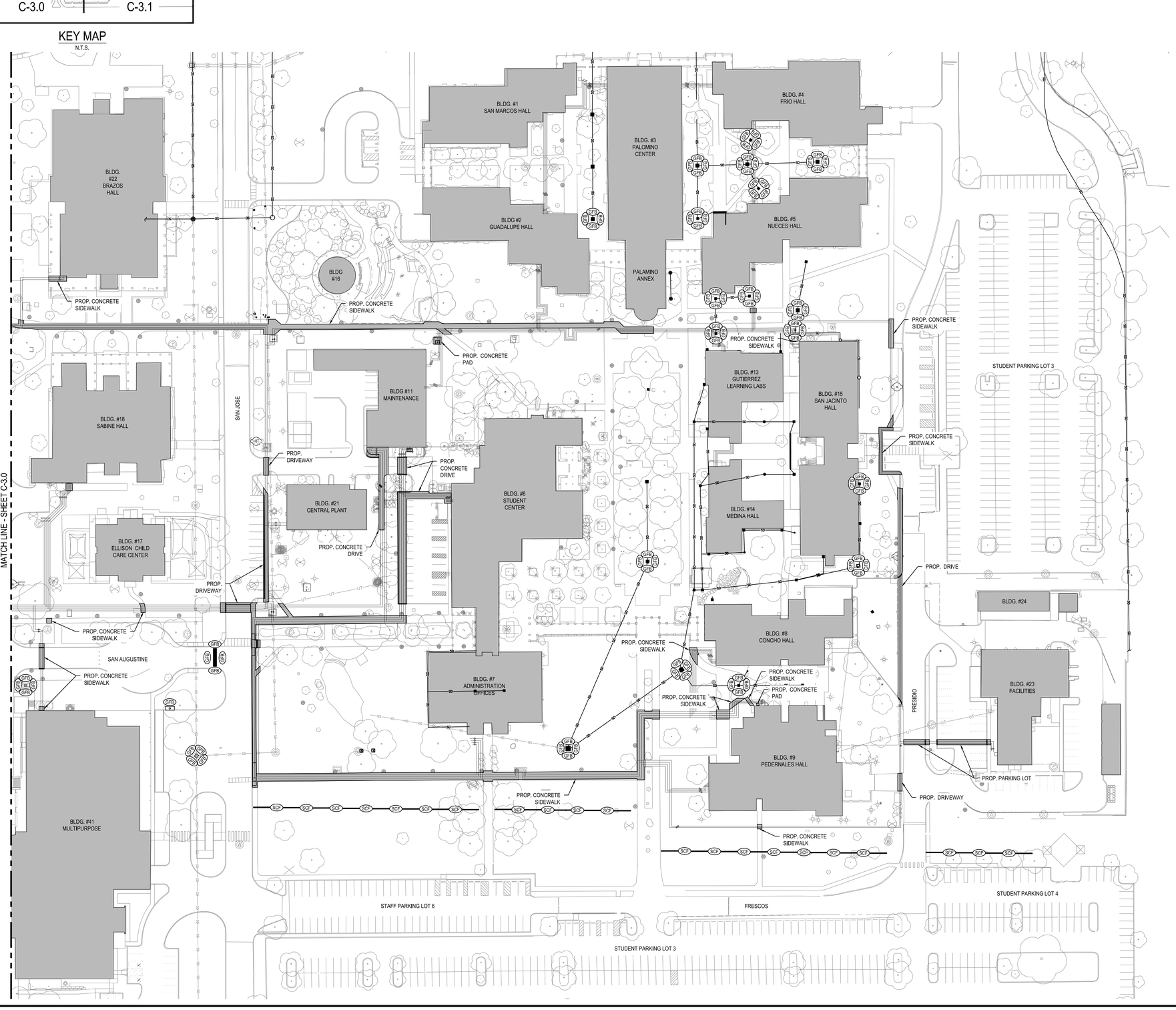
STORM WATER POLLUTION PREVENTION PLAN 1

C-3.0

Date: May 03, 2024 - 4:46pm - User ID: Mike Allen
File: R:\Work\C-1613 Palo Alto Hydronic Pumping - Leaf Engineers\Design\Civil\Construction Documents\VERSION 2\Construction Documents\SWPP PLAN (KEY 2).dwg



KEY MAP
N.T.S.



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TBPE Registration No. F-1712
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50 0 25 50 100
SCALE: 1" = 50'

LEGEND

EXISTING POWER POLE	
EXISTING GUY WIRE	
EXISTING WATER METER	
EXISTING WATER VALVE	
EXISTING FIRE HYDRANT	
EXISTING SANITARY SEWER MANHOLE	
EXISTING TELEPHONE PEDESTAL	
EXISTING ELECTRIC PULLBOX	
EXISTING TREE	
EXISTING OVERHEAD ELECTRIC LINE	OHE
EXISTING WATER LINE	W
EXISTING SANITARY SEWER LINE	SS
EXISTING GAS LINE	GL
EXISTING UNDERGROUND ELECTRIC LINE	UE
EXISTING CONTOURS	960
EXISTING WOOD FENCE	//
SILT CONTROL FENCE	SCF
GRAVEL FILTER BAG	GFB
CONSTRUCTION ENTRANCE	
ROCK FILTER DAM	RFD

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OWNER	2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-000-000 P 210-000-000 F	ALAMO COLLEGE DISTRICT
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CIVIL/SURVEYOR	7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 P 210-490-5120 F	BAIN MEDINA BAIN
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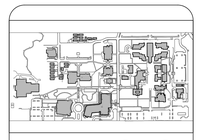
ACD Palo Alto College Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED
PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

STORM WATER POLLUTION PREVENTION PLAN 2

C-3.1

PREPARED BY:
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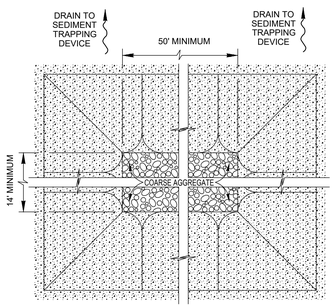
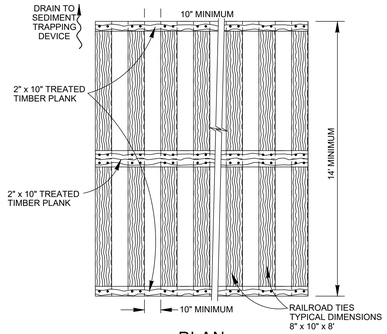
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



PLAN
SCALE : 1" = 6'



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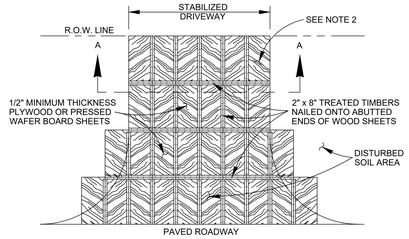

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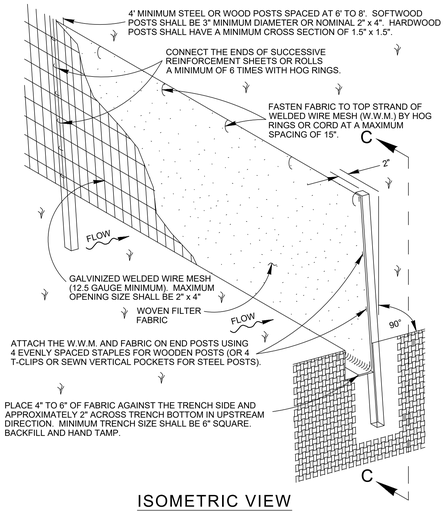
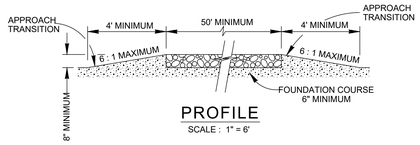
SCALE : 1" = 20'



ISOMETRIC VIEW
SCALE : 1" = 2'

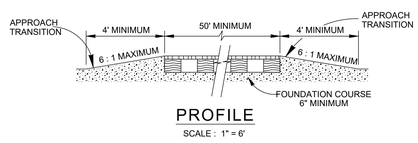


PROFILE
SCALE : 1" = 6'

GENERAL NOTES

1. THE LENGTH OF THE TYPE 1 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE COARSE AGGREGATE SHOULD BE OPEN GRADED WITH A SIZE OF 4" TO 8".
3. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
4. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT SHALL BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT - TYPE 1

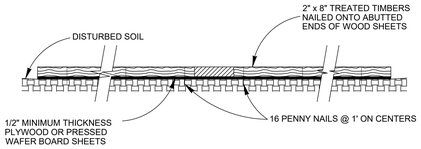


PROFILE
SCALE : 1" = 6'

GENERAL NOTES

1. THE LENGTH OF THE TYPE 2 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, BUT NOT LESS THAN 50'.
2. THE TREATED TIMBER PLANKS SHALL BE ATTACHED TO THE RAILROAD TIES WITH 1 / 2" x 6" MIN. LAG BOLTS. OTHER FASTENERS MAY BE USED AS APPROVED BY THE ENGINEER.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE APPROACH TRANSITIONS SHOULD BE NO STEEPER THAN 6 : 1 AND CONSTRUCTED AS DIRECTED BY THE ENGINEER.
5. THE CONSTRUCTION EXIT FOUNDATION COURSE SHALL BE FLEXIBLE BASE, BITUMINOUS CONCRETE, PORTLAND CEMENT CONCRETE OR OTHER MATERIAL AS APPROVED BY THE ENGINEER.
6. THE CONSTRUCTION EXIT SHOULD BE GRADED TO ALLOW DRAINAGE TO A SEDIMENT TRAPPING DEVICE.
7. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT - TYPE 2

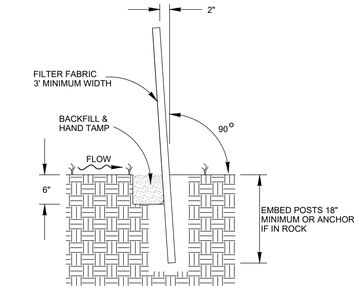


SECTION A-A
SCALE : 1" = 2'

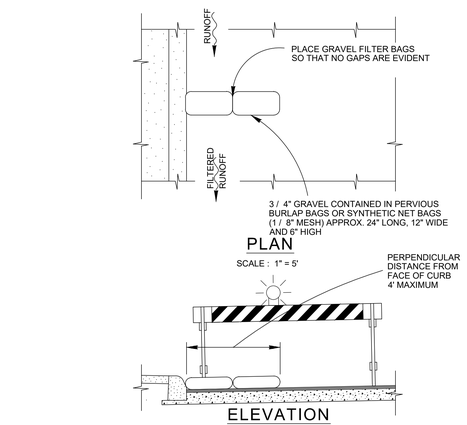
GENERAL NOTES

1. THE LENGTH OF THE TYPE 3 CONSTRUCTION EXIT SHALL BE AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
2. THE TYPE 3 CONSTRUCTION EXIT MAY BE CONSTRUCTED FROM OPEN GRADED CRUSHED STONE WITH A SIZE OF 2 TO 4 INCHES SPREAD A MINIMUM OF 4 INCHES THICK TO THE LIMITS SHOWN ON THE PLANS.
3. THE TREATED TIMBER PLANKS SHALL BE #2 GRADE MIN., AND SHOULD BE FREE FROM LARGE AND LOOSE KNOTS.
4. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

CONSTRUCTION EXIT - TYPE 3

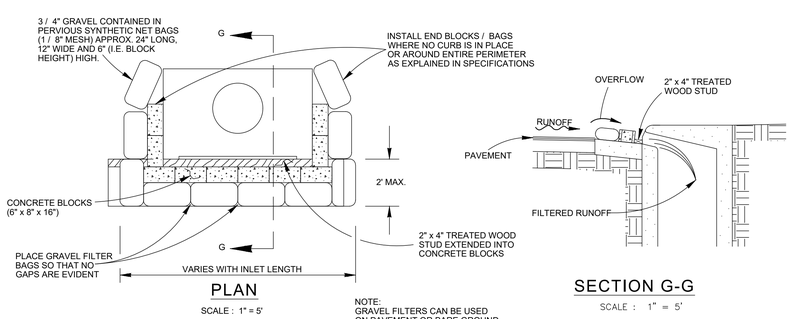


SECTION C-C
SCALE : 1" = 2'



NOTE:
STRADDLE GRAVEL FILTER BAGS WITH TYPE 1 BARRICADES MOUNTED WITH TYPE "A" FLASHING WARNING LIGHT. SEE BARRICADE CONSTRUCTION SIGN DETAILS. PLACE FLASHING LIGHTS AWAY FROM GUTTER, FLUSH WITH OUTSIDE EDGE OF BAG CONFIGURATION.

GRAVEL FILTER BAGS



NOTE:
GRAVEL FILTERS CAN BE USED ON PAVEMENT OR BARE GROUND.

CURB INLET GRAVEL FILTER

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A SEDIMENT CONTROL FENCE MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUN-OFF. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED.

SEDIMENT CONTROL FENCE SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 100 GPM / FT SQUARED. SEDIMENT CONTROL FENCE IS NOT RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA LARGER THAN 2 ACRES.

GENERAL NOTES

1. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

TEMPORARY SEDIMENT CONTROL FENCE

JANUARY 2005

CITY OF SAN ANTONIO
CAPITAL IMPROVEMENTS MANAGEMENT SERVICES DEPARTMENT

TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 1

% SUBMITTAL	PROJECT NO.:		DATE:
DRWN. BY:	DSGN. BY:	CHKD. BY:	SHEET NO.: OF

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

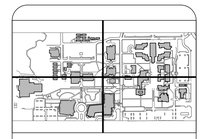
OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-030-0000 P 210-030-000 F
ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0012 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 P 210-490-5120 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-465-0888 P 713-861-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN — PLAN NORTH — TRUE NORTH

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.
REVISIONS

No.	Description	Date

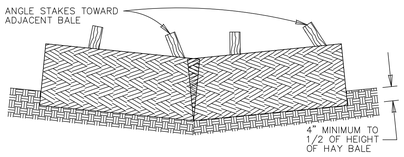
ISSUE FOR CONSTRUCTION

STORM WATER POLLUTION PREVENTION PLAN DETAILS 1

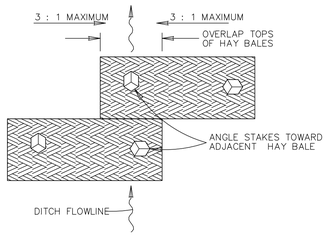
C-3.2

Date: Mar 01, 2024 - 4:06pm User ID: adrian
File: R:\Work\C-1613 / ACD Hydronic Piping - Leaf Engineers\Design\Civil\Construction Documents\MEP\SWPPP 2\Construction Documents\SWPP DETAILS 1REV 2).dwg

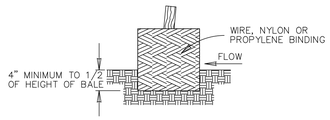
PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



PROFILE VIEW
SCALE : 1" = 1'



PLAN VIEW
SCALE : 1" = 1'



SECTION B–B
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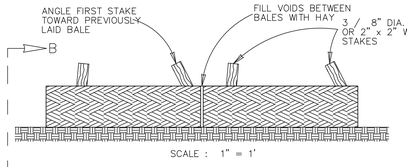


SCALE : 1" = 1'

BALED HAY USAGE GUIDELINES

A BAILED HAY INSTALLATION MAY BE CONSTRUCTED NEAR THE DOWNSTREAM PERIMETER OF A DISTURBED AREA ALONG A CONTOUR TO INTERCEPT SEDIMENT FROM OVERLAND RUNOFF. A TWO YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE TO BE FILTERED. THE INSTALLATION SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 5 GPM / FT SQUARED OF CROSS SECTIONAL AREA. BALED HAY MAY BE USED AT THE FOLLOWING LOCATIONS:

1. WHERE THE RUNOFF APPROACHING THE BALED HAY FLOWS OVER DISTURBED SOIL FOR LESS THAN 100'. IF THE SLOPE OF THE DISTURBED SOIL EXCEEDS 10 %, THE LENGTH OF SLOPE UPSTREAM OF THE BAILED HAY SHOULD BE LESS THAN 50'.
2. WHERE THE INSTALLATION WILL BE REQUIRED FOR LESS THAN 3 MONTHS.
3. WHERE THE CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 / 2 ACRE.

FOR BALED HAY INSTALLATIONS IN SMALL DITCHES, THE FOLLOWING ADDITIONAL CONDITIONAL CONSIDERATIONS APPLY:

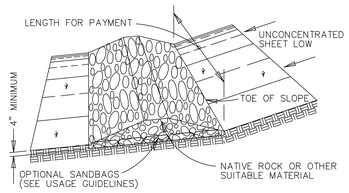
1. THE DITCH SIDESLOPES SHOULD BE GRADED AS FLAT AS POSSIBLE TO MAXIMIZE THE DRAINAGE FLOW RATE THRU THE HAY.
2. THE DITCH SHOULD BE GRADED LARGE ENOUGH TO CONTAIN THE OVERLAPPING DRAINAGE WHEN SEDIMENT HAS FILLED TO THE TOP OF THE BAILED HAY.

BALES SHOULD BE REPLACED USUALLY EVERY 2 MONTHS OR MORE OFTEN DURING WET WEATHER WHEN LOSS OF STRUCTURAL INTERGRITY IS ACCELERATED.

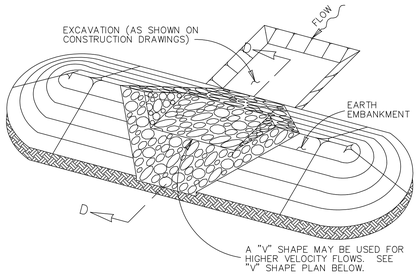
GENERAL NOTES

1. HAY BALES SHALL BE A MINIMUM OF 30" IN LENGTH AND WEIGH A MINIMUM OF 50 LBS.
2. HAY BALES SHALL BE BOUND BY EITHER WIRE OR NYLON OR POLYPROPYLENE STRING. THE BALES SHALL BE COMPOSED ENTIRELY OF VEGETABLE MATTER.
3. HAY BALES SHALL BE EMBEDDED IN THE SOIL A MININMUM OF 4" AND, WHERE POSSIBLE, ONE–HALF THE HEIGHT OF THE BALE.
4. HAY BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES. THE BALES SHALL BE PLACED WITH BINDINGS PARALLEL TO THE GROUND.
5. HAY BALES SHALL BE SECURELY ANCHORED IN PLACE WITH 3 / 8" DIA. REBAR OR 2" x 2" WOOD STAKES DRIVEN THROUGH THE BALES. THE FIRST STAKE SHALL BE ANGLED TOWARDS THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER.
6. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.

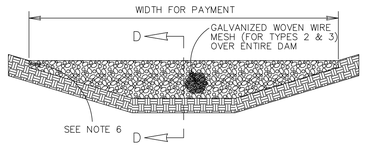
BALED HAY FOR EROSION CONTROL



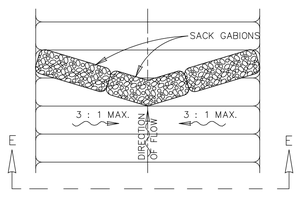
TYPE 1 FILTER DAM AT TOE OF SLOPE
SCALE : 1" = 5'



TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 5'

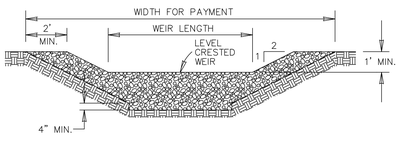


TYPE 1, 2 & 3 FILTER DAM AT CHANNEL SECTIONS
SCALE : 1" = 3'

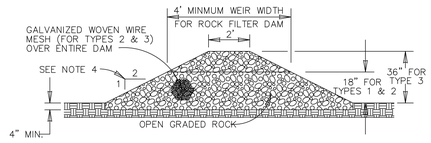


PLAN VIEW
SCALE : 1" = 5'

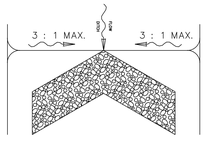
TYPE 4 FILTER DAM AT DITCHES & SMALLER CHANNELS PLAN VIEW



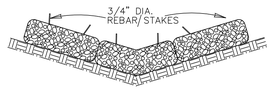
PROFILE OF TYPE 1 & 2 FILTER DAM AT SEDIMENT TRAP
SCALE : 1" = 3'



SECTION D–D
SCALE : 1" = 3'



"V" SHAPE PLAN VIEW
NOT TO SCALE



SECTION E–E
SCALE : 1" = 5'

ROCK FILTER DAMS

ROCK FILTER DAM USAGE GUIDELINES

ROCK FILTER DAMS SHOULD BE CONSTRUCTED DOWNSTREAM FROM DISTURBED AREAS TO INTERCEPT SEDIMENT FROM OVERLOAD RUNOFF AND / OR CONCENTRATED FLOW. THE DAMS SHOULD BE SIZED TO FILTER A MAXIMUM FLOW THRU RATE OF 60 GPM / FT SQUARED OF CROSS SECTIONAL AREA.. A 2 YEAR STORM FREQUENCY MAY BE USED TO CALCULATE THE FLOW RATE.

TYPE 1 (18" HIGH WITH NO WIRE MESH) :

TYPE 1 MAY BE USED AT THE TOE OF SLOPES, AROUND INLETS, IN SMALL DITCHES AND AT DIKE OR SWALE OUTLETS. THIS TYPE OF DAM IS RECOMMENDED TO CONTROL EROSION FROM A DRAINAGE AREA OF 5 ACRES OR LESS. TYPE 1 MAY NOT BE USED IN CONCENTRATED HIGH VELOCITY FLOWS (APPROXIMATELY 8 FT. / SEC. OR MORE) IN WHICH AGGREGATE WASH OUT MAY OCCUR. SANDBAGS MAY BE USED AT THE EMBEDDED FOUNDATION (4" DEEP MIN.) FOR BETTER FILTERING EFFICIENCY OF LOW FLOWS IF CALLED FOR ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

TYPE 2 (18" HIGH WITH WIRE MESH) :

TYPE 2 MAY BE USED IN DITCHES AND AT DIKE OR SWALE OUTLETS.

TYPE 3 (36" HIGH WITH WIRE MESH) :

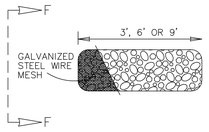
TYPE 3 MAY BE USED IN STREAM FLOW AND SHOULD BE SECURED TO THE STREAM BED.

TYPE 4 (SACK GABIONS) :

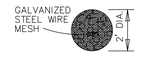
TYPE 4 MAY BE USED IN DITCHES AND SMALLER CHANNELS TO FORM AN EROSION CONTROL DAM.

GENERAL NOTES

1. IF SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER, FILTER DAMS SHOULD BE PLACED NEAR THE TOE OF SLOPES WHERE EROSION IS ANTICIPATED, UPSTREAM AND / OR DOWNSTREAM AT DRAINAGE STRUCTURES, AND IN ROADWAY DITCHES AND CHANNELS TO COLLECT SEDIMENT.
2. MATERIALS (AGGREGATE, WIRE MESH, SANDBAGS, ETC.) SHALL BE AS INDICATED BY THE SPECIFICATION FOR ROCK FILTER DAMS FOR EROSION AND SEDIMENTATION CONTROL.
3. THE ROCK FILTER DAM DIMENSIONS SHALL BE AS INDICATED ON THE STORM WATER POLLUTION PREVENTION PLANS.
4. SIDE SLOPES SHOULD BE 2 : 1 OR FLATTER. DAMS WITHIN THE SAFETY ZONE SHALL HAVE SIDE SLOPES OF 6 : 1 OR FLATTER.
5. MAINTAIN A MINIMUM OF 1' BETWEEN TOP OF ROCK FILTER DAM WEIR AND TOP OF EMBANKMENT FOR FILTER DAMS AT SEDIMENT TRAPS.
6. FILTER DAMS SHOULD BE EMBEDDED A MINIMUM OF 4" INTO THE EXISTING GROUND.
7. THE SEDIMENT TRAP FOR PONDING OF SEDIMENT LADEN RUNOFF SHALL BE OF THE DIMENSIONS SHOWN ON THE PLANS.
8. ROCK FILTER DAM TYPES 2 & 3 SHALL BE SECURED WITH 20 GAUGE GALVANIZED WOVEN WIRE MESH WITH 1" DIAMETER HEXAGONAL OPENINGS. THE AGGREGATE SHALL BE PLACED ON THE MESH TO THE HEIGHT AND SLOPES SPECIFIED. THE MESH SHALL BE FOLDED AT THE UPSTREAM SIDE OVER THE AGGREGATE AND TIGHTLY SECURED TO ITSELF ON THE DOWNSTREAM SIDE USING WIRE TIES OR HOG RINGS. IN STREAM USE, THE MESH SHOULD BE SECURED OR STAKED TO THE STREAM BED PRIOR TO AGGREGATE PLACEMENT.
9. SACK GABIONS SHOULD BE STAKED DOWN WITH 3 / 4" DIA. REBAR STAKES.
10. FLOW OUTLET SHOULD BE ONTO A STABILIZED AREA (VEGETATION, ROCK, ETC.).
11. THE GUIDELINES SHOWN HEREON ARE SUGGESTIONS ONLY AND MAY BE MODIFIED BY THE ENGINEER.



TYPE 4 SACK GABION DETAIL
SCALE : 1" = 3'



SECTION F–F
SCALE : 1" = 3'

JANUARY 2005

STANDARD PLANS
CITY OF SAN ANTONIO, TEXAS
DEPARTMENT OF PUBLIC WORKS

TEMPORARY EROSION, SEDIMENT & WATER POLLUTION CONTROL MEASURES STANDARDS 2

DRAWN BY: V. VASQUEZ	DATE	REVISIONS	SCALE:
CHECKED BY: NAT HARDY, P.E.			DATE: SEE ABOVE
			SHEET: OF

LEAF ENGINEERS
MEPT
LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

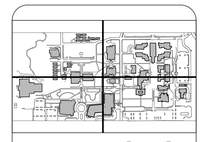
OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-030-0000 P 210-030-000 F
ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0012 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 P 210-490-5120 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-465-0888 P 713-861-4571 F

ACD Palo Alto College Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT



KEY PLAN | PLAN NORTH | TRUE NORTH

STATE OF TEXAS
LORENA CARTER
116832
LICENSED PROFESSIONAL ENGINEER
05/03/24

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
C-1613

DATE:	05/11/2023
DRAWN BY:	M.L.
CHECKED BY:	L.C.

REVISIONS

No.	Description	Date

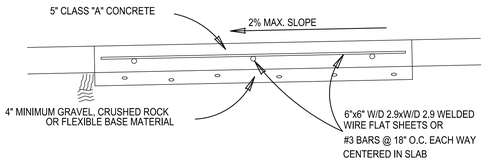
ISSUE FOR CONSTRUCTION

STORM WATER POLLUTION PREVENTION PLAN DETAILS 2

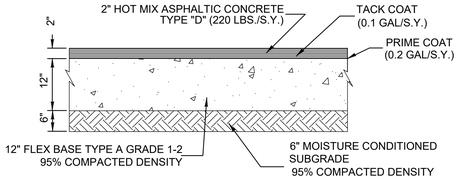
C-3.3

Date: May 03, 2024 - 4:06pm User ID: nhardy
File: N:\Work\C-1613 - ACD Hydronic Plumbing - Leaf Engineers\Design\Civil\Construction Documents\MEP\SHEETS\Construction Documents\STORM WATER DETAILS 2.dwg

PREPARED BY:
BAIN MEDINA BAIN, INC.
ENGINEERS & SURVEYORS
7073 San Pedro Avenue
San Antonio, Texas 78216
210/494-7223
TBPE Registration No. F-1712
TBPLS Registration No. 10020900



1 CONCRETE SIDEWALK SECTION
N.T.S.



2 HEAVY-DUTY ASPHALT PAVEMENT SECTION DETAIL
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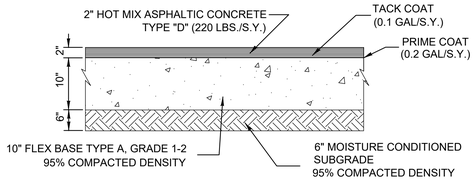

3 LIGHT-DUTY ASPHALT PAVEMENT (PARKING LOT) SECTION DETAIL
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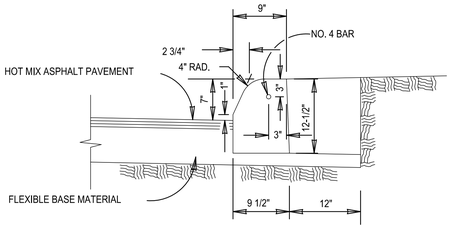
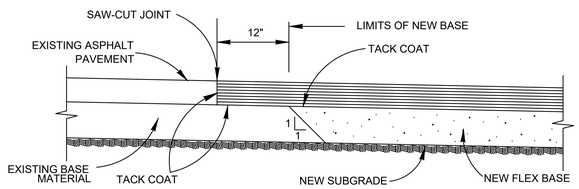
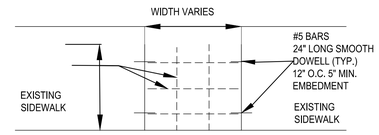


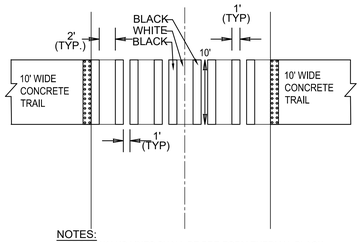
4 CONCRETE CURB
N.T.S.



5 PAVEMENT JUNCTION DETAILS
N.T.S.

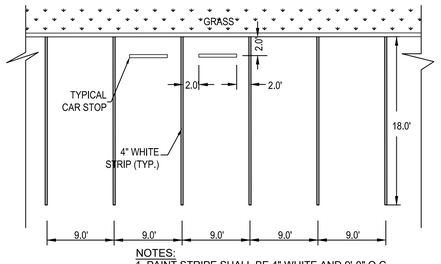


6 CONCRETE SIDEWALK PATCH DETAIL
N.T.S.



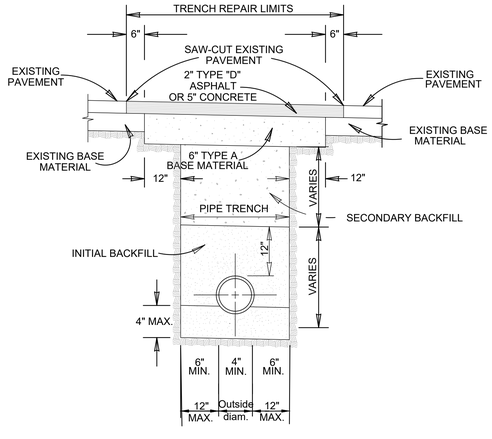
NOTES:
1. CROSSWALKS LINES SHALL BE PRE-FORM THERMAL BLACK AND WHITE BARS. EXTRUDED THERMAL NOT ACCEPTABLE.
2. CROSSWALK STRIPING TO BE CENTERED BETWEEN CURBS OR AREA.

7 CROSS WALK STRIPING
N.T.S.

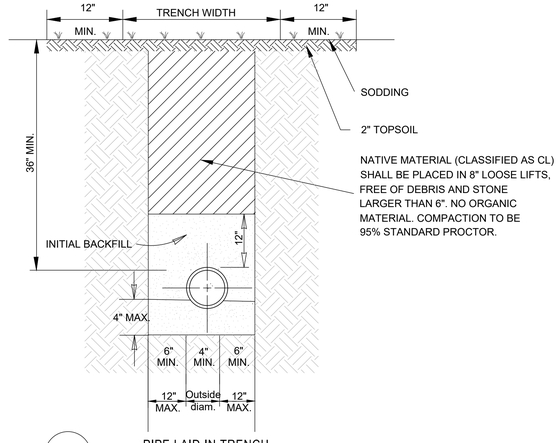


NOTES:
1. PAINT STRIPE SHALL BE 4" WHITE AND 9'-0" O.C. AS SHOWN ON THE PLANS.

8 TYPICAL PARKING STRIPE DETAIL
N.T.S.



9 PIPE LAID IN TRENCH/ASPHALT TRENCH REPAIR DETAIL
N.T.S.



10 PIPE LAID IN TRENCH (NON-PAVED)
N.T.S.

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
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LANDSCAPE — EDGELAND GROUP
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1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

CLIENT
ACD PALO ALTO COLLEGE
PROJECT NUMBER
C-1613
DATE: 05/11/2023
DRAWN BY: M.L.
CHECKED BY: L.C.
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

CIVIL DETAILS

C-4.0

Date: May 03, 2024 - 1:40pm User ID: MLucio
File: M:\Work\C-1613 PACE Properties - Leaf Engineers\Design\Civil\Construction Documents\VERSION 2\Construction Documents\CIVIL DETAILS (KEY 2).dwg

GENERAL NOTES:

1. VERIFY SITE INFORMATION, INCLUDING PROPERTY LINES, EASEMENTS, BUILDINGS, ROADWAY CURB AND GUTTERS, UTILITIES AND OTHER INFORMATION AFFECTING THE SCOPE OF WORK INCLUDED ON THESE DRAWINGS. MORE SPECIFIC UTILITY INFORMATION IS INDICATED ON THE CIVIL DRAWINGS.
2. CONTRACTOR SHALL CONTACT THE OWNER AND THE LANDSCAPE ARCHITECT FOR DIRECTION ON HOW TO PROCEED IF ACTUAL SITE CONDITIONS VARY FROM WHAT IS SHOWN ON THE DRAWINGS.
3. EXCAVATION IN THE VICINITY OF UTILITIES SHALL BE UNDERTAKEN WITH CARE. THE CONTRACTOR BEARS FULL RESPONSIBILITY FOR THIS WORK. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL SITE UTILITIES PRIOR TO BEGINNING EXCAVATION. ANY DAMAGE TO UTILITIES THAT ARE TO REMAIN CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOL RELATED TO THE EXECUTION OF THE CONTRACT SHALL BE REPAIRED IMMEDIATELY AT NO EXPENSE TO THE OWNER.
4. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING EXISTING IRRIGATION AND LANDSCAPE ON SITE FROM ANY DAMAGE. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT IMMEDIATELY OF ANY CONFLICTS
5. BASE INFORMATION INCLUDING THE LOCATION OF PROPERTY LINES, EASEMENTS, BUILDINGS, ROADS AND CURBS HAVE BEEN TAKEN FROM THE CIVIL ENGINEER'S DRAWINGS. FOR ADDITIONAL INFORMATION REFER TO ARCHITECT'S & CIVIL ENGINEERING DRAWINGS.
6. THE CONTRACTOR SHALL NOTIFY LOCAL AUTHORITIES AND THE GENERAL CONTRACTOR FOR LOCATION OF EXISTING UNDERGROUND UTILITIES. POT HOLE AS NECESSARY TO CONFIRM LOCATIONS PRIOR TO EXCAVATION.

DEMOLITION NOTES:

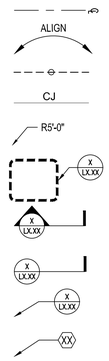
1. CONTRACTOR SHALL DEMOLISH ALL ITEMS NECESSARY TO INSTALL NEW WORK PER PLANS AND SPECIFICATIONS. DEMOLITION WORK SHALL INCLUDE BUT NOT BE LIMITED TO ITEMS INDICATED BY REFERENCED NOTES AND SYMBOLS ON THE DEMOLITION PLANS.
2. CONTRACTOR SHALL VERIFY IN FIELD ALL DIMENSIONS AND ITEMS TO BE REMOVED. PROMPTLY NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF ANY DISCREPANCIES.
3. REFER TO SPECIFICATIONS SECTION 024119 FOR GENERAL DEMOLITION REQUIREMENTS.
4. INSTALL TEMPORARY BARRIERS TO SEPARATE CONSTRUCTION FROM OCCUPIED AREAS OR AREAS ACCESSIBLE TO PUBLIC OR OWNER EMPLOYEES. BARRIER SHALL BE DUST-TIGHT. COORDINATE DEMOLITION SCHEDULE WITH OWNER. MINIMIZE DISRUPTIONS FROM SOUND OR CONSTRUCTION EQUIPMENT AND PERSONNEL TO OCCUPIED AREAS.
5. FOR ALL EXISTING PLUMBING - IRRIGATION AND DRAINAGE ITEMS REMOVED, DEMOLISH LINES BACK TO GRADE OR WALLS TO REMAIN, ABOVE OR BELOW FLOOR. CAP ALL LINES.
6. **CONTRACTOR SHALL PROVIDE UNIT PRICES BASED ON QUANTITIES/CALCULATIONS SHOWN ON DOCUMENTS. FIELD CONDITIONS MAY REVISE ACTUAL LOCATION, INCREASING OR DECREASING THE EXTENT OF WORK BID. CHANGES TO THE EXTENT OF WORK RESULTING IN AN INCREASE WILL BE BASED ON UNIT PRICES AND PERFORMED SUBJECT TO APPROVAL OF THE LANDSCAPE ARCHITECT AND THE OWNER IN THE FORM OF A CHANGE ORDER**

SITE/LANDSCAPE SLEEVING NOTES:

1. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL OTHER CONSULTANTS AND SUB-CONTRACTOR SLEEVING REQUIREMENTS AND PLACE SUCH SLEEVES PRIOR TO HARDSCAPE/FLATWORK INSTALLATION.

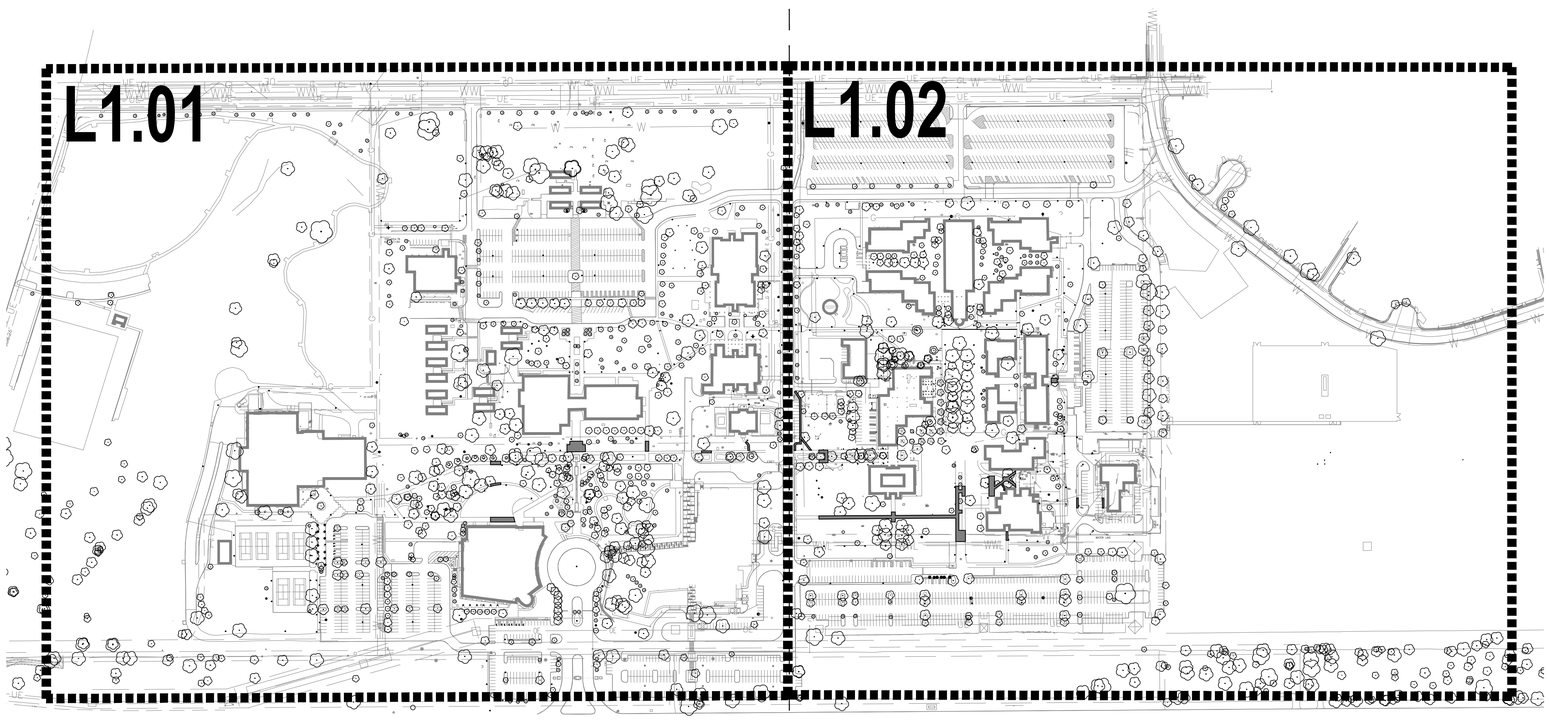
LAYOUT/DIMENSIONAL CONTROL NOTES:

1. CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING UTILITIES.
2. THE CONTRACTOR SHALL LAYOUT AND VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT FOR DIRECTION AND RESOLUTION OF DISCREPANCIES PRIOR TO PROCEEDING.
3. FOR DIMENSIONS OF BUILDING, PARKING STRUCTURE AND OTHER RELATED NON-LANDSCAPE WORK, REFER TO THE ARCHITECTURAL OR CIVIL DRAWINGS.
4. VERIFY LOCATIONS OF ALL SITE IMPROVEMENTS INSTALLED UNDER OTHER SECTIONS. IF ANY PART OF THIS PLAN CANNOT BE FOLLOWED DUE TO SITE CONDITIONS, CONTACT THE LANDSCAPE ARCHITECT FOR INSTRUCTION PRIOR TO COMMENCING WORK.
5. ALL DIMENSIONS ARE TAKEN PERPENDICULAR TO WALL, CURB, P.O.B., OR CENTERLINE UNLESS OTHERWISE NOTED. DIMENSIONS AT CURB ARE FROM BACK OF CURB.
6. COORDINATE POINTS HAVE BEEN COORDINATED WITH CIVIL ENGINEER.
7. EDGES OF IRREGULAR PAVING ARE LOCATED BY COORDINATES AND ARE GENERAL LOCATIONS. CONTRACTOR SHALL STAKE POINTS IN FIELD. STAKED EDGES SHALL BE REVIEWED BY LANDSCAPE ARCHITECT FOR FINAL LAYOUT APPROVAL AND SETTING AND MAY REQUIRE ADJUSTMENTS IN FIELD FOR FINAL PLACEMENT. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
8. CENTERLINES OF PAVING ARE LOCATED BY COORDINATES AND ARE GENERAL LOCATIONS. CONTRACTOR SHALL STAKE POINTS AND ESTABLISH ONE SIDE OF TRAIL WITH TEMPORARILY STAKED STEEL EDGING AT NOTED OFFSET. TEMPORARY STEEL EDGE STAKING SHALL BE REVIEWED BY LANDSCAPE ARCHITECT FOR FINAL LAYOUT APPROVAL AND SETTING AND MAY REQUIRE ADJUSTMENTS IN FIELD FOR FINAL PLACEMENT. WRITTEN DIMENSIONS TAKE PRECEDENCE OVER SCALED DIMENSIONS.
9. THIS DRAWING INCLUDES THE LOCATION OF VARIOUS DRAIN DEVICES AND SYSTEMS. COORDINATE CONSTRUCTION, DETAILS AND UTILITY CONNECTIONS WITH RELATED ARCHITECTURAL AND ENGINEERING DRAWINGS. CONFIRM LOCATIONS WITH THE LANDSCAPE ARCHITECT PRIOR TO ROUGH IN.
10. FOR HANDICAPPED STANDARDS, VERIFY COMPLIANCE WITH LATEST EDITION OF ADA AND LOCAL AND STATE HANDICAP STANDARDS PRIOR TO CONSTRUCTION. WHERE FIELD MODIFICATIONS ARE REQUIRED FOR COMPLIANCE, CONSTRUCTION CHANGES MAY BE APPLIED INCLUDING DIFFERENT GRADES AND LAYOUT THAN THOSE NOTED HEREIN.
11. SURFACES SHALL BE ADA COMPLIANT ALONG ACCESS AND EGRESS.
12. WHERE DIMENSIONS ARE CALLED AS "EQUAL", ALL REFERENCED ITEMS SHALL BE SPACED EQUALLY, MEASURED TO THEIR CENTER LINES OR OTHER NOTED REFERENCES.
13. INSTALL ALL INTERSECTING ELEMENTS AT 90 DEGREES TO EACH OTHER UNLESS OTHERWISE NOTED.



ABBREVIATIONS

APPROX	APPROXIMATE
ADJ	ADJACENT
BC	BOTTOM OF CURB
BLDG	BUILDING
BR	BOTTOM OF RAMP
BS	BOTTOM OF STEP
BL	BUILDING LINE
BOC	BACK OF CURB
BW	BOTTOM OF WALL
CJ	CONTROL JOINT
CMU	CONCRETE MASONRY UNIT
COH	CITY OF HOUSTON
CONC	CONCRETE
CONT	CONTINUOUS
CL	CENTERLINE
CLR	CLEAR / CLEARANCE
CRS	COURSE
CRPZ	CRITICAL ROOT PROTECTION ZONE
DIA	DIAMETER
DWG	DRAWINGS
GALV	GALVANIZED
EJ	EXPANSION JOINT
ELEV	ELEVATION
EP	EDGE OF PAVEMENT
EQ	EQUAL
ESMT	EASEMENT
EXIST	EXISTING
FF	FINISHED FLOOR
FL	FLOWLINE
FTG	FOOTING
FG	FINISHED GRADE
FOC	FACE OF CURB
FIN	FINISH
G	GUTTER
HT	HEIGHT
HP	HIGH POINT
INT	INTERIOR
LF	LINEAR FEET
LP	LOW POINT
LOW	LIMIT OF WORK
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
OC	ON CENTER
OPP	OPPOSITE
PA	PLANTING AREA
PERP	PERPENDICULAR
PL	PROPERTY LINE
POB	POINT OF BEGINNING
PROP	PROPOSED
PVMT	PAVEMENT
PT	POINT
R	RADIUS
RE	REFER TO
REF	REFERENCE
REINF	REINFORCED
REQ	REQUIRED
ROW	RIGHT OF WAY
SCH	SCHEDULE
SSEJ	SUB-SURFACE EXPANSION JOINT
SEC	SECTION
SF	SQUARE FEET
SHT	SHEET
SIM	SIMILAR
SQ	SQUARE
SQFT	SQUARE FEET
STL	STEEL
SS	STAINLESS STEEL
SWE	STATIC WATER ELEVATION
TAN	TANGENT
TC	TOP OF CURB
THK	THICK / THICKNESS
TOB	TOP OF BANK
TOS	TOE OF SLOPE
TP	TOP OF PAVEMENT
TR	TOP OF RAMP
TS	TOP OF STEP
TW	TOP OF WALL
TY	TYPE
TYP	TYPICAL
UTL	UTILITY
WL	WATER LEVEL



KEY MAP

Sheet List Table	
Sheet Number	Sheet Title
L0.00	KEY MAP AND INDEX
L0.01	TREE PROTECTION DETAILS AND NOTES
L0.02	TREE BORING AND TRENCHING
L1.01	TREE PROTECTION AND REMOVAL PLAN - WESTSIDE
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L1.04	TREE INDEX TABLE
L2.00	PLANTING NOTES AND SCHEDULE
L2.01	PLANTING PLAN - WESTSIDE
L2.02	PLANTING PLAN - EASTSIDE
L2.03	PLANTING DETAILS

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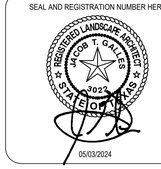
ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE



05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024
DRAWN BY:
CHECKED BY:

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

KEY MAP AND INDEX

L0.00

GENERAL TREE PROTECTION NOTES:

1. ALL TREES INDICATED ON THE TREE PRESERVATION PLANS TO BE PROTECTED SHALL BE PROTECTED WITH TEMPORARY FENCING THROUGHOUT CONSTRUCTION.
2. TREE PROTECTION FENCES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION AND/OR SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING).
3. FENCES SHALL COMPLETELY SURROUND THE TREE OR CLUSTERS OF TREES; FENCES SHALL BE LOCATED AT THE OUTERMOST LIMITS OF THE TREE BRANCHES (DRIP LINE); AND SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROJECT. FENCES MAY BE MOVED OR REMOVED TO ENABLE THE PROGRESS OF CONSTRUCTION ONLY AS APPROVED BY THE LANDSCAPE ARCHITECT.
4. WHERE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8' (OR TO THE LIMITS OF THE LOWER BRANCHING) AS INDICATED ON TREE PRESERVATION PLANS.
5. COVER THE ROOT ZONE AREA WITH 4" OF HARDWOOD MULCH, UNDER DIRECTION OF THE LANDSCAPE ARCHITECT, WHERE ROOT ZONES WITHIN DRIP LINES ARE UNPROTECTED BY FENCING.
6. ALL GRADING AND EXCAVATION WITHIN TREE ROOT ZONE AREAS SHALL BE DONE BY HAND TO MINIMIZE ROOT DAMAGE AND SOIL COMPACTION. PRIOR TO GRADING, RELOCATE PROTECTIVE FENCING TO 2' BEHIND THE GRADE CHANGE AREA. GRADE SHALL REMAIN UNCHANGED WHERE POSSIBLE.
7. NO LANDSCAPE TOPSOIL DRESSING GREATER THAN A 3" LAYER SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL OR MULCH IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
8. EQUIPMENT MUST NOT TOUCH UNDERSIDE OF TREE CROWNS.
9. ANY TRENCHING REQUIRED FOR THE INSTALLATION OF UTILITIES, LIGHTING, CONDUIT, OR LANDSCAPE IRRIGATION SHALL BE PLACED OUTSIDE ROOT ZONE AREAS. ROOTS SHALL NOT BE SEVERED AS A RESULT OF THE EXCAVATION. ROOTS SHALL REMAIN IN PLACE, BRIDGING TRENCHES. CONDUIT PIPES, ETC., SHALL BE PLACED BETWEEN ROOTS, WHILE EXPOSED ROOTS SHALL BE WRAPPED WITH BURLAP AND BE KEPT MOIST. AFTER BACKFILLING WITH SPECIFIED BEDDING, FILL REMAINING EXCAVATION WITH SOIL EXCAVATED FROM THE TRENCH. ANY EXCESS SOIL MAY BE DISPOSED OF ON SITE AS APPROVED BY THE LANDSCAPE ARCHITECT IN THE PROCESS OF EXCAVATION, AVOID STOCKPILING MATERIAL WITHIN THE DRIP LINE OF EXISTING TREES. IF UNAVOIDABLE, STOCKPILED MATERIAL SHALL BE PLACED ON PLYWOOD BOARD BASE SET ON TOP OF EXISTING GRADE. PLYWOOD BOARD BASE SHALL NOT REMAIN IN PLACE LONGER THAN (7) SEVEN DAYS.
10. ANY ROOT SEVERED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH SPECIFIED TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH SPECIFIED ORGANIC MATERIAL.
11. PRIOR TO EXCAVATION OR GRADE CUTTING WITHIN TREE DRIP-LINES, ROOT PRUNE BY MAKING A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW. IRRIGATION TRENCHER OR SIMILAR EQUIPMENT TO MINIMIZE DAMAGE TO REMAINING ROOTS.
12. TREES HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES SHALL BE WATERED THOROUGHLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER AS DIRECTED BY THE LANDSCAPE ARCHITECT. TREE CROWNS SHALL BE SPRAYED WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
13. HEAVY CONSTRUCTION EQUIPMENT SHALL NOT OPERATE WITHIN 3' OF ANY STRUCTURES OR 5' OF ANY TREES TO REMAIN
14. PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC, AND EQUIPMENT SHALL TAKE PLACE BEFORE CONSTRUCTION BEGINS BY A RECOGNIZED ARBORIST.
15. ALL FINISHED PRUNING MUST BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES).
16. COVER SEVERED ROOTS AND TREE SIDE OF TRENCH WITH 8 MIL BLACK VISQUENE TO FULL DEPTH OF TRENCH AND 6" OVER TOP. STAPLE VISQUENE IN PLACE, BACKFILL AND COMPACT TRENCH WITH EXCAVATED SOIL, TO PROTECT ROOT ENDS FROM CONCRETE AND LIME.
17. CORE AERATE AND DEEP ROOT FERTILIZE TREES BY PROBE AND WATER INJECTION OF DAVEY ARBOR GREEN FERTILIZER. REFER TO MANUFACTURER'S MAXIMUM RECOMMENDED RATES PER TREE CALIPER INCHES. INJECT 18"-24" DEEP 5'-0" O.C. THROUGHOUT DRIP-LINE OF TREE.
18. CONTRACTOR SHALL MODIFY EXHAUST PIPES ON CONSTRUCTION EQUIPMENT AS NEEDED TO INSURE THAT TREE CROWNS ARE NOT DAMAGED FROM EXHAUST HEAT FROM VERTICAL EXHAUST PIPES ON TOP OF CONSTRUCTION EQUIPMENT.
19. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL TREE WORK/REPAIR TO ANY DAMAGE TO EXISTING TREES DURING THE CONTRACT PERIOD. DAMAGE TO ANY EXISTING TREES SHALL BE REPORTED IMMEDIATELY TO THE OWNER'S REPRESENTATIVE. CONTRACTOR SHALL SUBMIT TO OWNER'S REPRESENTATIVE A WRITTEN PROGRAM OF CORRECTIVE PRUNING AND TREE CARE TO REPAIR DAMAGE WITH THE NAME OF A QUALIFIED URBAN FORESTER OR ARBORIST FOR OWNER'S APPROVAL.
20. PLANS ARE DIAGRAMMATIC. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF REQUIRED TREE FENCING LIMITS.
21. ALL EXISTING TREES, IN DESIGNATED PROTECTED AREAS, MUST BE PRUNED TO AVOID DAMAGE BY EQUIPMENT DURING CONSTRUCTION OPERATIONS (REF. SPECIFICATIONS)
22. ALL EXISTING UTILITY MANHOLE COVERS AND GRATES TO BE ADJUSTED TO MATCH PROPOSED FINISHED GRADE ELEVATIONS; REF. CIVIL DRAWINGS.
23. THESE NOTES ARE SUPPLEMENTARY TO SPECIFICATION SECTION 015639.

TREE REMOVAL NOTES:

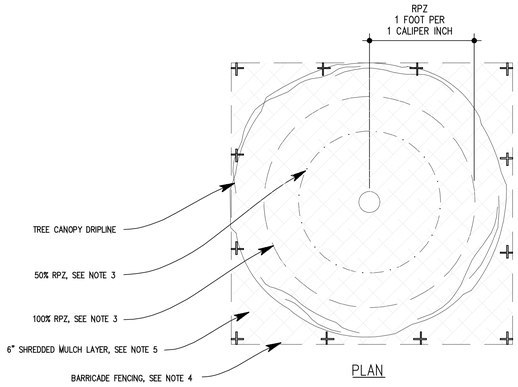
1. ALL TREES TO BE REMOVED SHALL BE MARKED PER TECHNICAL SPECIFICATIONS AND REMOVED UPON REVIEW AND APPROVAL BY OWNER AND LANDSCAPE ARCHITECT.
2. ALL TREES 6" CALIPER AND UNDER IN AREAS NOT MARKED FOR REMOVAL SHALL REMAIN UNLESS OTHERWISE NOTED. ALL TREES 6" CALIPER AND LESS IN NOTED CLEARING AREAS SHALL BE REMOVED UNDER DIRECTION OF OWNER AND LANDSCAPE ARCHITECT.
3. ALL TREES REMOVED SHALL BE MULCHED ON SITE INCLUDING ALL LIMB/BRACH DEBRIS, TRUNK AND ROOT BALL SYSTEMS. MULCH GRIND SHALL BE STORED ON SITE UNLESS OTHERWISE NOTED. REFER TO SPECIFICATIONS FOR REMOVAL AND STORAGE INFORMATION.

EXISTING TREE MAINTENANCE NOTES:

1. TREE MAINTENANCE SHALL OCCUR AS NOTED FOR ALL EXISTING TREES AS REQUIRED PER TECHNICAL SPECIFICATIONS ISSUED. SUCH OPERATIONS MAY INCLUDE TRIMMING, PRUNING, FERTILIZING, WATERING, ROOT PRUNING AND/OR FOLIAGE WASHING AS REQUIRED BY SITE ARBORIST OR LANDSCAPE ARCHITECT.
2. TREE MAINTENANCE OPERATIONS SHALL BE DEEMED HIGH PRIORITY AND SHALL OCCUR WHEN SUCH NOTED OPERATIONS ARE NOTED TO OCCUR AND SHALL OCCUR AS NOTED BY ARBORIST.

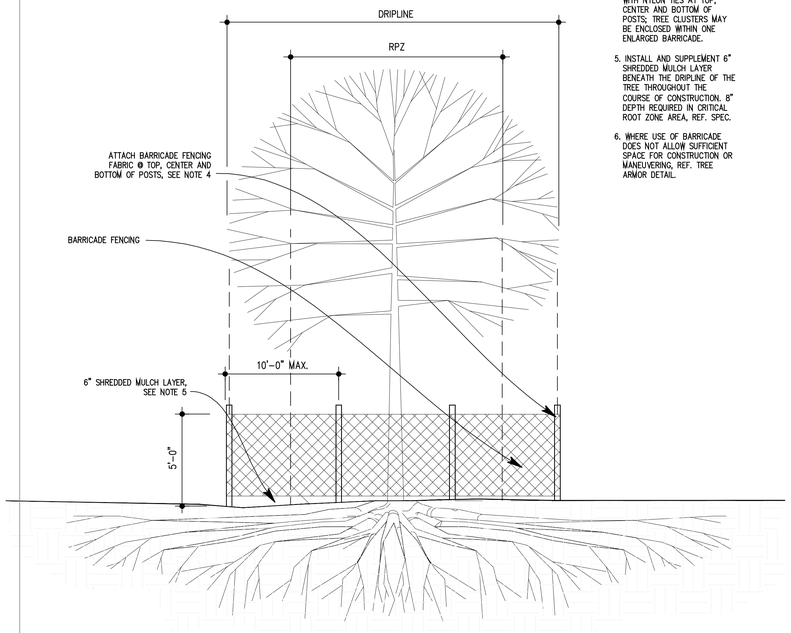
TREE PRUNING:

1. PRUNE EXISTING TREES AS NECESSARY TO ALLOW ADEQUATE CLEARANCE FOR CONSTRUCTION ACTIVITIES TO PREVENT DAMAGE TO LIMNS.
2. ALL WORK TO BE CONDUCTED BY A CERTIFIED ARBORIST.
3. OAK TREES SHALL NOT BE PRUNED BETWEEN FEB. 1ST & JUNE 1ST.
4. PAINT ALL CUTS WITH PRUNING SEALER WITHIN 20 MINUTES.
5. PRUNE & SHAPE TREES TO ESTABLISH MIN. CLEAR DISTANCE OF 3'-0" FROM ANY PART OF NEW BUILDING. PRUNE UNIFORMLY AROUND TREE TO MAINTAIN A BALANCED SHAPE.
6. PROVIDE 7FT. CLEAR HEIGHT ABOVE LANDSCAPE AREAS AND 10FT. CLEAR HEIGHT ABOVE DRIVES
7. TREE PRUNING IS THE RESPONSIBILITY OF THE CONTRACTOR

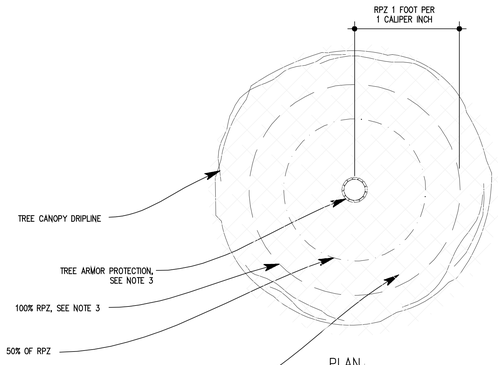


PLAN

NOTES:
1. MAINTAIN RPZ IN NATURAL STATE: NO EQUIPMENT, LIQUIDS, CONSTRUCTION DEBRIS, OR VEHICULAR OR MECHANICAL TRAFFIC.
2. REPAIR DAMAGE TO TREE CROWNS AND ROOT SYSTEMS IMMEDIATELY. CLEANLY CUT ROOTS EXPOSED DURING CONSTRUCTION OPERATIONS. WOUNDS TO OAK SPECIES SHALL BE PAINTED WITH PRUNING PAINT NO MORE THAN 30 MINUTES AFTER DAMAGE.
3. A MINIMUM OF 50% OF THE RPZ SHALL BE PRESERVED AT NATURAL GRADE IN NATURAL STATE.
4. ERECT BARRICADE FENCING AT DRIPLINE: FENCING SHALL BE SQUARE LINK, ORANGE, HIGH DENSITY POLYETHYLENE, WITH A 5 TO 7 YEAR LIFE AND 4'-0" HIGH; "T" POSTS SHALL BE SPACED NO MORE THAN 10'-0" FROM EACH OTHER; ATTACH FENCING TO POSTS WITH NYLON TIES AT TOP, CENTER AND BOTTOM OF POSTS; TREE CLUSTERS MAY BE ENCLOSED WITHIN ONE ENLARGED BARRICADE.
5. INSTALL AND SUPPLEMENT 6" SHREDDED MULCH LAYER BENEATH THE DRIPLINE OF THE TREE THROUGHOUT THE COURSE OF CONSTRUCTION. 6" DEPTH REQUIRED IN CRITICAL ROOT ZONE AREA, REF. SPEC.
6. WHERE USE OF BARRICADE DOES NOT ALLOW SUFFICIENT SPACE FOR CONSTRUCTION OR MANEUVERING, REF. TREE ARMOR DETAIL.



04 RPZ PROTECTIVE BARRICADE
NOT TO SCALE



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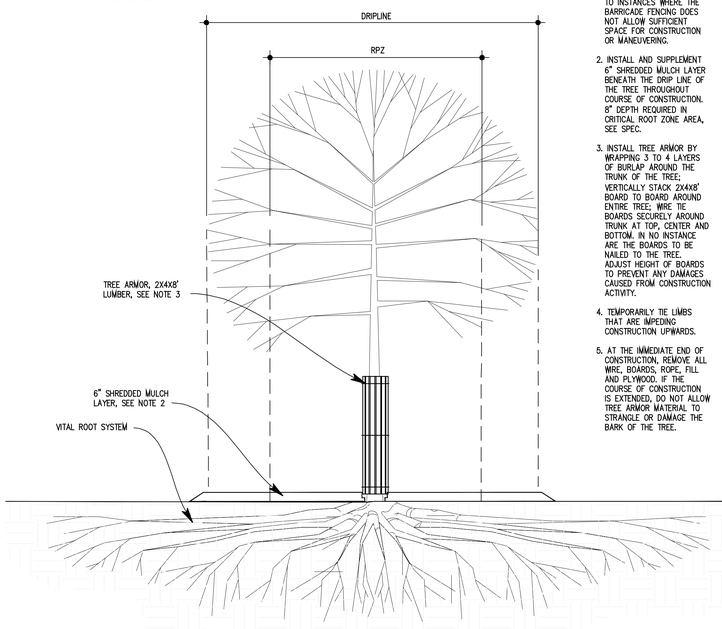
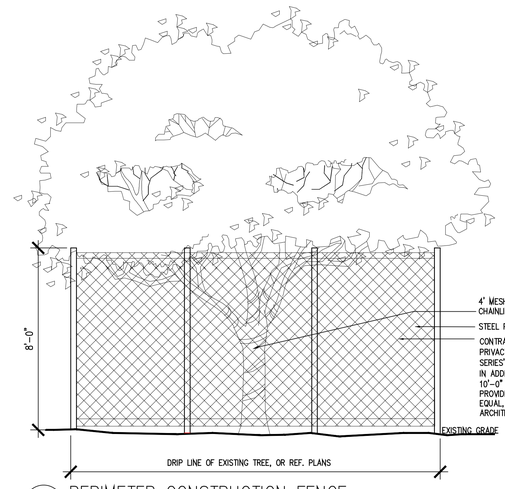
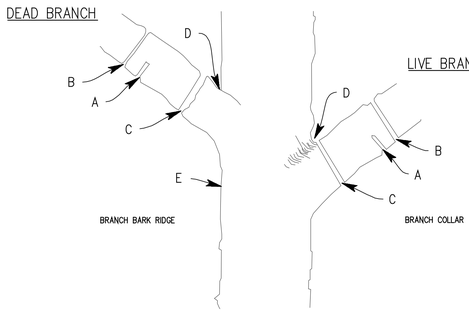


NOTES:
1. THIS DETAIL ONLY APPLIES TO INSTANCES WHERE THE BARRICADE FENCING DOES NOT ALLOW SUFFICIENT SPACE FOR CONSTRUCTION OR MANEUVERING.
2. INSTALL AND SUPPLEMENT 6" SHREDDED MULCH LAYER BENEATH THE DRIP LINE OF THE TREE THROUGHOUT COURSE OF CONSTRUCTION. 8" DEPTH REQUIRED IN CRITICAL ROOT ZONE AREA, SEE SPEC.
3. INSTALL TREE ARMOR BY WRAPPING 3 TO 4 LAYERS OF BURLAP AROUND THE TRUNK OF THE TREE; VERTICALLY STACK 2X4X8' BOARD TO BOARD AROUND ENTIRE TREE; WIRE TIE BOARDS SECURELY AROUND TRUNK AT TOP, CENTER AND BOTTOM. IN NO INSTANCE ARE THE BOARDS TO BE NAILED TO THE TREE. ADJUST HEIGHT OF BOARDS TO PREVENT ANY DAMAGES CAUSED FROM CONSTRUCTION ACTIVITY.
4. TEMPORARILY TIE LIMBS THAT ARE IMPEDING CONSTRUCTION UPWARDS.
5. AT THE IMMEDIATE END OF CONSTRUCTION, REMOVE ALL WIRE, BOARDS, ROPE, FILL AND PLYWOOD. IF THE COURSE OF CONSTRUCTION IS EXTENDED, DO NOT ALLOW TREE ARMOR MATERIAL TO STRANGLE OR DAMAGE THE BARK OF THE TREE.

03 TREE ARMOR
1"=1'-0"



02 PERIMETER CONSTRUCTION FENCE
1"=1'-0"



A. FIRST CUT – TO PREVENT THE BARK FROM BEING PEELED WHEN THE BRANCH FALLS.
B. SECOND CUT – TO REDUCE THE WEIGHT OF BRANCH.
C. FINAL CUT – TO ALLOW FOR HEALING COLLAR BUT NO STUBS.
D. BRANCH RIDGES – PROPERLY INDENT BRANCH RIDGES WHICH ARE SITE FOR DECAY.
E. MAIN TRUNK OF TREE

NOTES:

1. PROPER PRUNING FOR BRANCHES 1-1/2" OR GREATER IN DIAMETER
2. DO NOT CUT FROM D TO E.
3. FOR OAKS ONLY, PAINT ALL WOUNDS AND CUTS IMMEDIATELY TO PREVENT THE SPREAD OF OAK WILT.
4. REFER TO SPECIFICATIONS, SECTION 015639 AND 311330 FOR MORE DETAILED REQUIREMENTS.
5. INSPECTION: CONTRACTOR, ARBORIST, OWNER, AND LANDSCAPE ARCHITECT SHALL REVIEW PRUNING WORK TO BE COMPLETED PRIOR TO INITIATING WORK.
6. EMPLOY QUALIFIED CERTIFIED ARBORIST; REFER TO SPECIFICATIONS.

01 BRANCH PRUNING DETAIL
1"=1'-0"

LEAF ENGINEERS

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601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER — ALAMO COLLEGE DISTRICT
2222 NORTH ALAMO STREET
SAN ANTONIO , TEXAS 78215
210-000-000 P , 210-000-000 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
210-829-0072 P , 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
210-494-7233 P , 210-490-5130 F

LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
713-465-088 P , 713-461-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

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San Antonio, Texas, 78224

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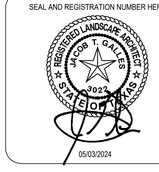
ALAMO COLLEGES DISTRICT

KEY PLAN

PLAN NORTH

TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE



05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024

DRAWN BY:

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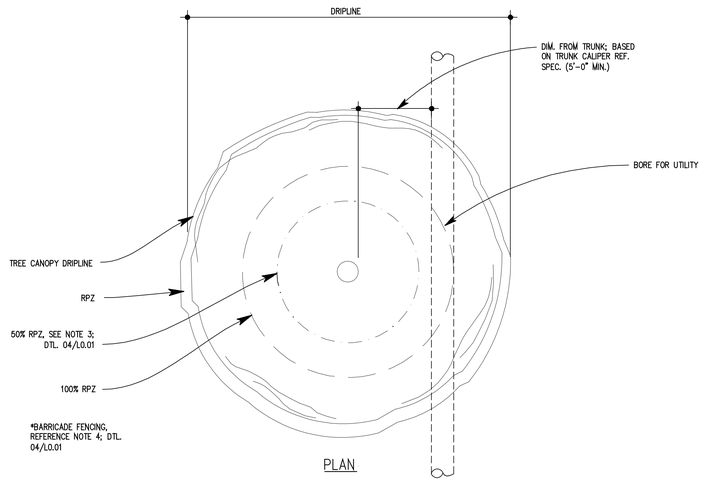
REVISIONS

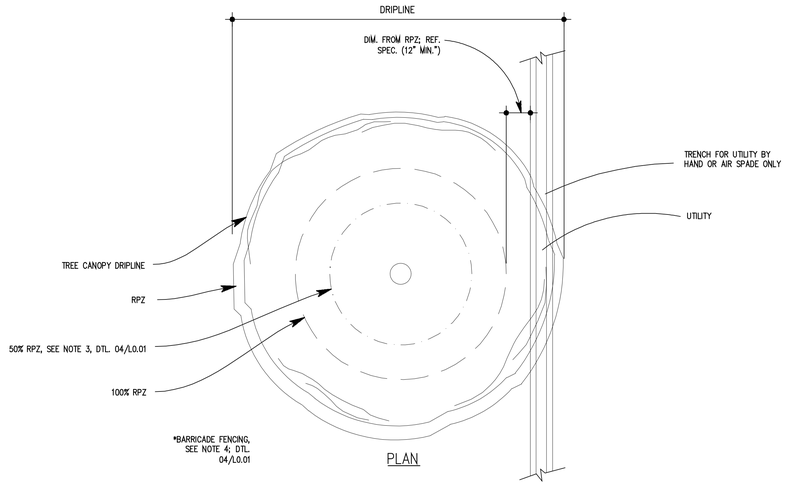
No.	Description	Date

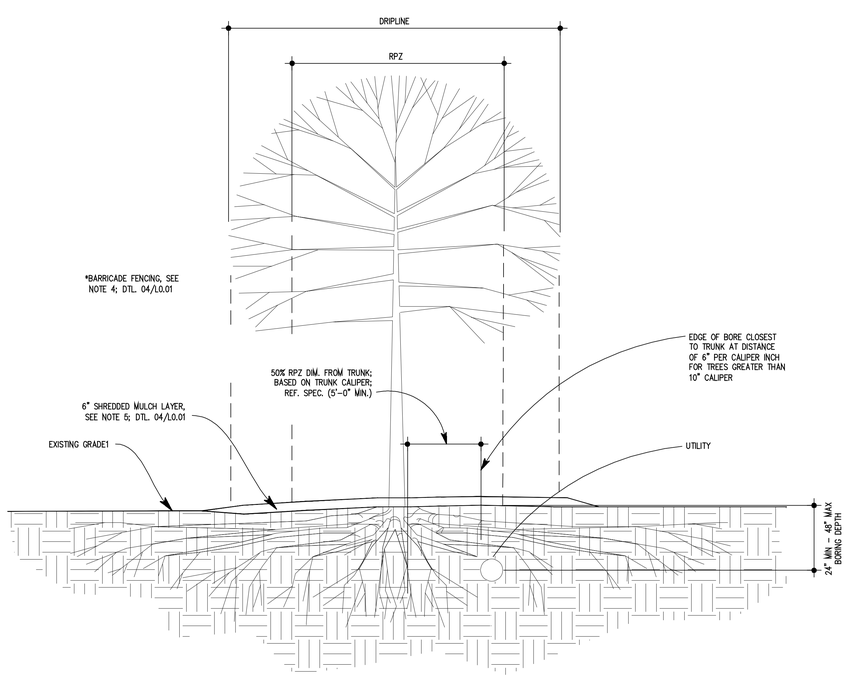
ISSUE FOR CONSTRUCTION

TREE PROTECTION DETAILS AND NOTES

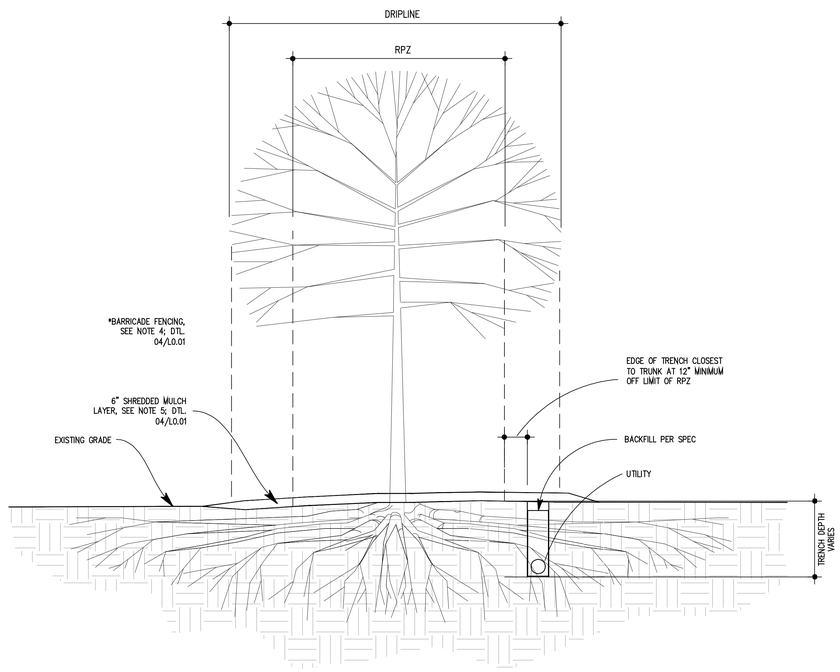
L0.01







02 BORING WITHIN RPZ
NOT TO SCALE



01 TRENCHING ADJACENT RPZ
NOT TO SCALE

LEAF ENGINEERS

MEPT — LEAF Engineers
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601 NW LOOP 410, Suite 460, San Antonio, TX 78216
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2222 NORTH ALAMO STREET SAN ANTONIO , TEXAS 78215 210-000-000 P 210-000-000 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0072 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-464-7233 P 210-490-5120 F

LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-465-0888 P 713-961-4571 F

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ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

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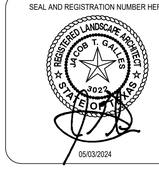

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CLIENT
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PROJECT NUMBER
230030

DATE: 05/03/2024
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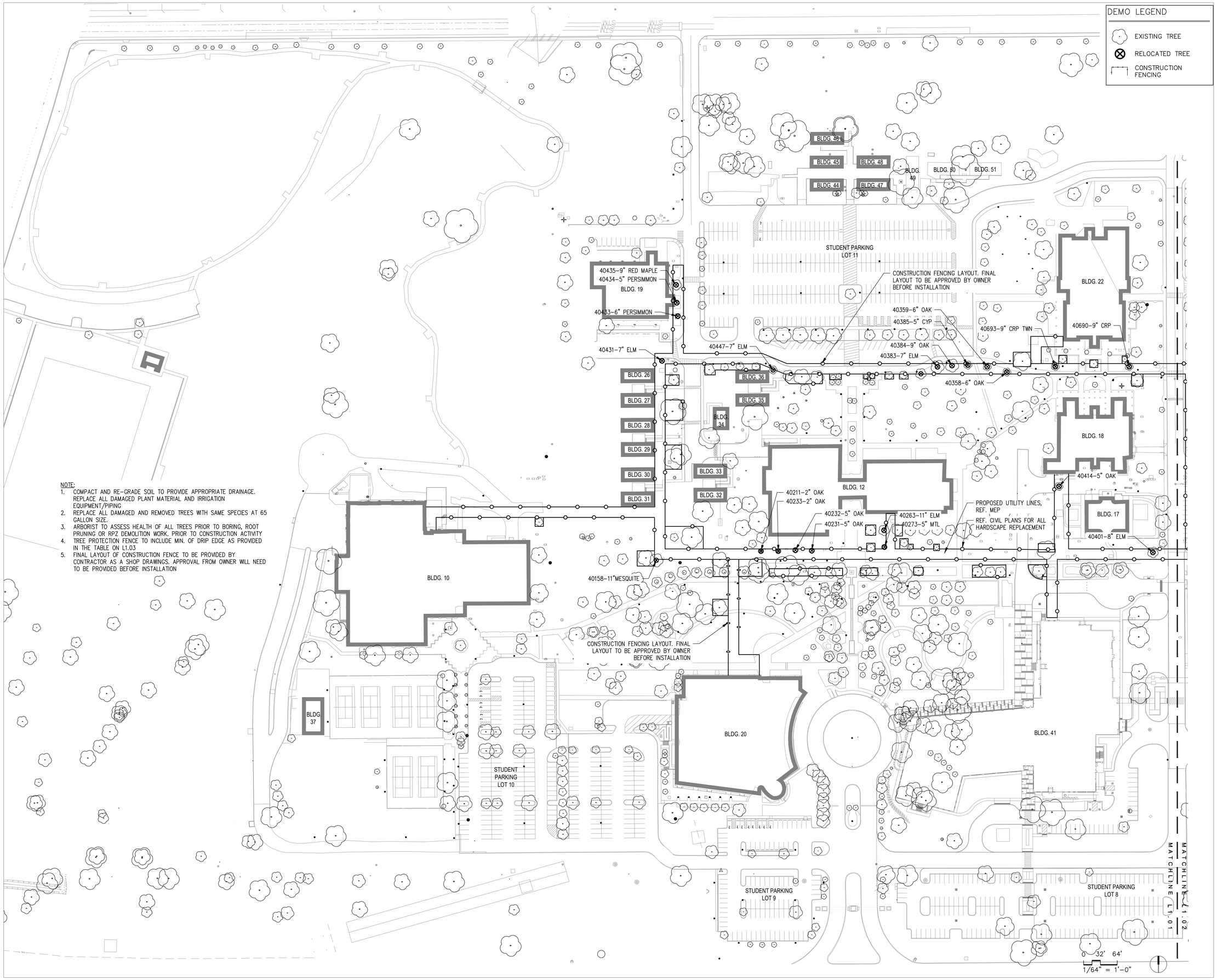
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

TREE BORING AND TRENCHING

L0.02



NOTE:
1. COMPACT AND RE-GRADE SOIL TO PROVIDE APPROPRIATE DRAINAGE. REPLACE ALL DAMAGED PLANT MATERIAL AND IRRIGATION EQUIPMENT/PIPING
2. REPLACE ALL DAMAGED AND REMOVED TREES WITH SAME SPECIES AT 65 GALLON SIZE.
3. ARBORIST TO ASSESS HEALTH OF ALL TREES PRIOR TO BORING, ROOT PRUNING OR RPZ DEMOLITION WORK. PRIOR TO CONSTRUCTION ACTIVITY
4. TREE PROTECTION FENCE TO INCLUDE MIN. OF DRIP EDGE AS PROVIDED IN THE TABLE ON L1.03
5. FINAL LAYOUT OF CONSTRUCTION FENCE TO BE PROVIDED BY CONTRACTOR AS A SHOP DRAWINGS. APPROVAL FROM OWNER WILL NEED TO BE PROVIDED BEFORE INSTALLATION

LEAF ENGINEERS

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OWNER — ALAMO COLLEGE DISTRICT
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210-000-000 P 210-000-000 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
210-829-00123 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
210-494-7223 P 210-490-5120 F

LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
713-4800-0988 P 713-981-4571 F

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ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

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PROJECT NUMBER
230030

DATE: 05/03/2024
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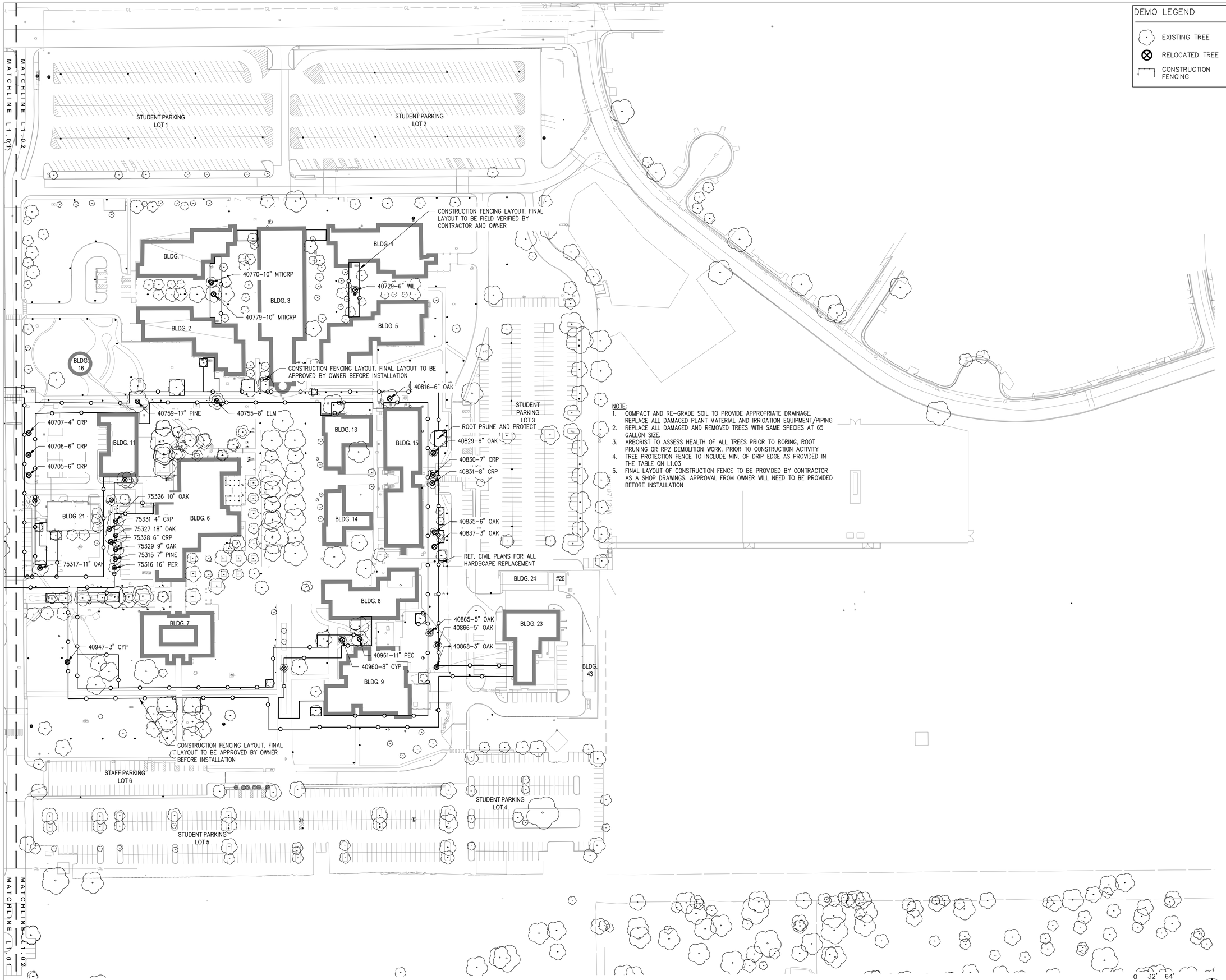
CHECKED BY:
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

TREE PROTECTION AND REMOVAL PLAN - WESTSIDE

L1.01



DEMO LEGEND

- EXISTING TREE
- RELOCATED TREE
- CONSTRUCTION FENCING

NOTE:

1. COMPACT AND RE-GRADE SOIL TO PROVIDE APPROPRIATE DRAINAGE. REPLACE ALL DAMAGED PLANT MATERIAL AND IRRIGATION EQUIPMENT/PIPING
2. REPLACE ALL DAMAGED AND REMOVED TREES WITH SAME SPECIES AT 65 GALLON SIZE.
3. ARBORIST TO ASSESS HEALTH OF ALL TREES PRIOR TO BORING, ROOT PRUNING OR RPZ DEMOLITION WORK. PRIOR TO CONSTRUCTION ACTIVITY
4. TREE PROTECTION FENCE TO INCLUDE MIN. OF DRIP EDGE AS PROVIDED IN THE TABLE ON L1.03
5. FINAL LAYOUT OF CONSTRUCTION FENCE TO BE PROVIDED BY CONTRACTOR AS A SHOP DRAWINGS. APPROVAL FROM OWNER WILL NEED TO BE PROVIDED BEFORE INSTALLATION

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OWNER — ALAMO COLLEGE DISTRICT
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SAN ANTONIO , TEXAS 78215
210-485-0000 P 210-485-0005 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
210-829-0072 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
210-494-7203 P 210-490-5120 F

LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
713-600-0388 P 713-961-4311 F

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ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

REGISTERED LANDSCAPE ARCHITECT — JACOB T. GALLES — 2923 — STATE OF TEXAS

05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024
DRAWN BY:
CHECKED BY:

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

TREE PROTECTION AND REMOVAL PLAN - EASTSIDE

L1.02

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
2249	"	'	
2250	"	'	
2251	"	'	
2252	"	'	
2253	"	'	
2254	"	'	
2445	"	'	
2446	"	'	
2447	"	'	
2448	"	'	
2449	"	'	
2830	"	'	
5370	"	'	
5371	"	'	
5372	"	'	
5373	"	'	
5378	"	'	
7831	3492	27" MES	30'
7834	3495	20" MES	60'
7840	3493	19" PEC	50'
9430	2501	6" CRP	10'
9431	2502	5" CRP	5'
9432	2503	5" CRP	10'
9433	2504	10" UNK	20'
9434	2505	6" CRP	10'
9435	2507	4" CRP	5'
9436	2507	5" CRP	10'
9437	2508	6" OAK	10'
9438	2510	21" MES	50'
9439	2509	16" MES	40'
9440	2511	14" MES	20'
9441	2512	6" OAK	15'
9442	2513	19" MES	50'
9443	2514	19" MES	20'
11457	1800	6" CRP	10'
11458	T799	15" OAK	40'
11459	T798	12" OAK	40'
11460	T797	10" OAK	30'
11461	T796	12" OAK	40'
11765	T795	10" CRP	20'
11768	T794	27" OAK	40'
11773	T793	17" OAK	50'
11774	T792	30" OAK	50'
11790	T790	6" CRP	5'
11797	T788	9" OAK	15'
11799	T787	4" OAK	5'
11800	T786	5" OAK	10'
11801	T785	7" OAK	10'
11802	T784	7" OAK	20'
11803	T783	9" OAK	10'
11804	T782	8" OAK	20'
11805	T781	7" OAK	15'
11806	T780	7" OAK	15'
11807	T779	4" OAK	5'
11820	T773	6" OAK	10'
11821	T772	5" OAK	10'
11822	T771	6" OAK	10'
11823	T770	7" OAK	15'
11824	T769	7" OAK	10'
22148	--	24" MES	45'
22409	--	21" MES	45'
36438	2726	4" OAK	10'
36439	2727	5" OAK	15'
36440	2728	4" OAK	10'
36441	2729	8" OAK	15'
36442	2730	10" OAK	15'
36443	2731	4" OAK	10'
36444	2732	8" OAK	10'
36445	2733	3" OAK	10'
36446	2734	6" OAK	15'
36447	2735	7" OAK	15'
36448	2736	10" OAK	25'
36449	2737	4" OAK	10'
36450	2738	7" MTLMTI	10'
36451	2739	7" MTLMTI	10'
36452	2740	9" OAK	25'
36453	2741	10" OAK	25'
36454	2742	10" OAK	25'
36455	2743	10" OAK	25'
36456	2744	8" OAK	20'
36457	2745	11" OAK	25'
36458	2746	10" OAK	25'
36459	2747	10" OAK	25'
36460	2748	6" OAK	15'
36461	2749	8" OAK	20'
36462	2750	7" OAK	15'
36463	2751	9" OAK	25'
36464	2752	23" MES	40'
36465	2753	17" ELM	40'
36466	2754	6" CRPMTI	15'
36467	2755	6" CRPMTI	15'
36468	2756	6" CRPMTI	15'
36469	2757	6" CRPMTI	15'
36470	2758	6" CRPMTI	15'
36471	2759	10" CYP	25'
36656	2760	12" ELM	25'
36657	2761	9" ELM	20'
36658	2762	11" ELM	25'
36659	2763	11" ELM	20'
36660	2764	12" ELM	25'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
36661	2765	8" ELM	15'
36662	2766	8" ELM	15'
36663	2767	8" ELM	15'
36664	2768	12" ELM	20'
36665	2769	9" ELM	20'
36666	2770	8" ELM	20'
36667	2771	5" ELM	10'
36668	2772	9" ELM	15'
36669	2773	8" ELM	15'
36670	2774	8" ELM	15'
36671	2775	8" ELM	15'
36672	2776	6" ELM	15'
36673	2777	4" OAK	10'
36674	2778	4" OAK	10'
36675	2779	6" OAK	15'
36676	2780	8" MTLMTI	15'
36677	2781	6" MTLTWN	10'
36678	2782	6" MTLMTI	10'
36679	2783	6" UNKMTI	15'
36680	2784	8" MTLMTI	15'
36681	2785	8" MTLMTI	15'
36682	2786	7" MTLMTI	15'
36683	2787	6" UNKMTI	10'
36684	2788	6" OAK	10'
36685	2789	12" MES	25'
36686	2790	10" MES	20'
36687	2791	12" MES	25'
36688	2792	10" MES	20'
36689	2793	9" OAK	25'
36798	2794	9" MTLMTI	15'
36799	2795	9" MTLMTI	15'
36800	2796	5" UNK	10'
36801	2797	4" UNK	10'
40000	1001	22" MES	40'
40001	1002	13" RET	20'
40002	1003	17" MES	40'
40003	1004	17" MES	30'
40004	1005	16" MES	30'
40005	1006	12" MES	25'
40006	1007	10" HAK	20'
40007	1008	22" MES	20'
40008	1009	16" HAK	30'
40009	1010	10" MES	20'
40010	1011	10" HAK	25'
40011	1012	6" HAK	20'
40012	1013	27" HUI	40'
40013	1014	26" MES	40'
40014	1015	2" MAG	5'
40015	1016	5" UNK	10'
40016	1017	14" RED	15'
40017	1018	9" ELM	20'
40018	1019	9" ELM	20'
40019	1020	8" ELM	20'
40020	1021	9" ELM	20'
40023	1022	15" HAK	40'
40024	1023	17" HAK	30'
40025	1024	12" HAK	25'
40026	1025	15" MES	20'
40027	1026	12" HAK	30'
40028	1027	17" PER	20'
40029	1028	16" MES	40'
40030	1029	9" HAK	20'
40031	1030	15" HAK	30'
40032	1031	18" MES	40'
40033	1032	20" HAK	40'
40034	1033	13" HAK	30'
40035	1034	15" HAK	30'
40036	1035	17" HAK	40'
40037	1036	26" MES	40'
40038	1037	6" TAL	15'
40039	1038	9" TWNHAK	20'
40040	1039	22" ASH	40'
40041	1040	17" HAK	40'
40042	1041	11" ASH	30'
40043	1042	13" HAK	20'
40044	1043	28" HUI	35'
40045	1044	21" WIL	40'
40046	1045	11" HAK	20'
40048	1046	12" ELM	30'
40049	1047	14" ELM	40'
40050	1048	12" ELM	30'
40051	1049	8" ELM	20'
40052	1050	8" ELM	20'
40053	1051	8" ELM	30'
40054	1052	12" ELM	30'
40055	1053	8" ELM	25'
40056	1054	8" ELM	25'
40057	1055	8" ELM	25'
40058	1056	9" ELM	30'
40059	1057	7" ELM	20'
40060	1058	9" ELM	30'
40061	1059	3" CRP	10'
40062	1060	4" CRP	15'
40063	1061	9" CRP	20'
40064	-----	2" CRP	5'
40065	-----	2" CRP	5'
40066	-----	2" CRP	5'
40067	-----	2" CRP	5'
40068	-----	2" CRP	5'
40069	-----	2" CRP	5'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
40070	-----	2" CRP	5'
40071	-----	2" CRP	5'
40072	-----	2" CRP	5'
40073	-----	2" CRP	5'
40074	-----	2" CRP	5'
40075	1062	14" ELM	40'
40076	1063	12" ELM	35'
40077	1064	14" ELM	40'
40078	1065	6" ELM	20'
40080	1066	9" HAK	25'
40081	1067	34" ASH	30'
40082	1068	24" ASH	40'
40083	1069	21" TWNASH	40'
40084	1070	21" ASH	30'
40085	1071	16" ASH	30'
40086	1072	14" ASH	35'
40087	1073	15" ASH	30'
40088	1074	11" ASH	30'
40089	1075	13" ASH	30'
40090	1076	21" ASH	40'
40091	1077	6" TAL	15'
40092	1078	9" TAL	30'
40093	1079	15" RED	30'
40094	1080	6" HUI	15'
40095	1081	11" MES	25'
40096	1082	11" HAK	25'
40097	1083	10" HAK	25'
40098	1084	14" HAK	30'
40099	1085	15" HAK	40'
40100	1086	25" HAK	40'
40101	1087	19" MES	30'
40102	1088	10" MES	25'
40103	1089	18" MES	35'
40104	1090	12" MES	30'
40105	1091	15" MES	35'
40106	1092	14" MES	35'
40107	1093	28" MES	45'
40108	1094	18" MES	40'
40109	1095	18" MES	40'
40110	1096	23" MES	50'
40111	1097	23" MES	50'
40112	1098	19" MES	40'
40113	1099	13" MES	15'
40114	1100	14" ASH	25'
40115	1101	15" HAK	30'
40116	1102	9" RET	20'
40117	1103	16" MES	30'
40118	1104	9" RED	25'
40119	1105	16" RED	30'
40120	1106	10" WIL	20'
40121	1107	10" WIL	20'
40122	1108	18" WILTRI	30'
40123	1109	10" WIL	15'
40124	1110	15" WIL	30'
40125	1111	24" CHIMTI	30'
40126	1112	19" ASH	30'
40127	1113	18" WIL	30'
40128	1114	9" HUI	20'
40129	1115	22" WIL	40'
40130	1116	23" WILTWN	40'
40131	1117	24" WILTRI	40'
40132	1118	14" HAK	30'
40133	1119	15" HAK	20'
40134	1120	27" MESTRI	20'
40135	1121	11" HAK	20'
40136	1122	149" HAK	25'
40137	1123	11" HAK	20'
40138	1124	18" LIGCLU	30'
40139	1125	19" OAK	50'
40140	1126	21" OAK	50'
40141	1127	10" ELM	30'
40142	1128	11" ELM	35'
40143	1129	18" OAK	40'
40144	1130	6" ELM	15'
40145	1131	14" ELM	40'
40146	1132	7" ELM	15'
40147	1133	12" ASH	30'
40148	1134	12" ELM	30'
40149	1135	11" ELM	35'
40150	1136	14" ELM	30'
40151	1137	10" OAK	15'
40152	1138	5" HAK	10'
40153	1139	2" PER	5'
40154	1140	4" CON	10'
40155	1141	6" CED	10'
40156	1142	3" PER	10'
40157	1143	3" CON	5'
40158	1144	11" MES	25'
40159	1145	16" MES	30'
40160	1146	11" MES	20'
40161	1147	16" MES	20'
40162	1148	12" MES	20'
40163	1149	6" PER	10'
40164	1150	21" MESTWN	40'
40165	1151	15" MESTWN	25'
40166	1152	15" MES	25'
40167	1153	16" MES	30'
40168	1154	16" MES	30'
40169	1155	11" OAK	20'
40170	1156	11" OAK	20'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
40171	1157	16" MES	30'
40172	1158	4" UNK	15'
40173	1159	9" MES	20'
40174	1160	13" MES	25'
40175	1161	13" MES	25'
40176	1162	2" UNK	10'
40177	1163	17" MES	25'
40178	1164	15" MES	40'
40179	1165	14" MES	40'
40180	1166	5" OAK	10'
40181	1167	11" MES	25'
40182	1168	12" MES	25'
40183	1169	9" CYP	20'
40184	1170	12" MES	5'
40185	1171	12" MES	20'
40186	1172	12" MESTWN	25'
40187	1173	12" MES	25'
40188	1174	14" MES	30'
40189	1175	24" PAL	15'
40190	1176	24" PAL	20'
40191	1177	13" MES	25'
40192	1178	11" MES	20'
40193	1179	13" MES	20'
40194	1180	19" MES	30'
40195	1181	19" MESTWN	30'
40196	1182	8" OAK	15'
40197	1183	8" OAK	15'
40198	1184	6" UNK	20'
40199	1185	6" UNK	20'
40200	1186	13" ELM	25'
40201	1187	6" UNK	20'
40202	1188	6" OAK	15'
40203	1189	15" MES	40'
40204	1190	11" ELM	40'
40205	1191	11" ELM	30'
40206	1192	9" ELM	30'
40207	1193	10" ELM	30'
40208	1194	13" ELM	40'
40209	1195	10" UNK	20'
40210	1196	7" UNK	15'
40211	1197	2" OAK	5'
40212	1198	16" MESTWN	40'
40213	1199	17" MES	40'
40214	1200	11" OAK	25'
40215	1201	9" OAK	20'
40216	1202	10" OAK	20'
40217	1203	6" OAK	20'
40218	1204	8" OAK	25'
40219	1205	6" UNK	10'
40220	1206	6" UNK	10'
40221	1207	25" MESMTI	50'
40222	1208	17" MESTWN	40'
40223	1209	17" MES	40'
40224	1210	15" MES	30'
40225	1211	9" PER	20'
40226	1212	16" MES	40'
40227	1213	19" MES	40'
40228	1214	6" OAK	10'
40229	1215	21" MES	50'
40230	1216	18" MES	40'
40231	1217	5" OAK	10'
40232	1218	5" OAK	10'
40233	1219	2" OAK	5'
40234	1220	13" OAK	30'
40235	1231	13" CYP	25'
40236	1221	9" JER	20'
40237	1222	15" OAK	30'
40238	1223	20" PAL	15'
40239	1224	20" PAL	15'
40240	1225	16" PAL	20'
40241	1226	20" PAL	15'
40242	1227	20" PAL	20'
40243	1228	20" PAL	20'
40244	1229	20" PAL	20'
40245	1230	3" RED	15'
40246	1232	7" OAK	15'
40247	1233	9" SYC	20'
40248	1234	11" OAK	25'
40249	1235	7" OAK	20'
40250	1236	4" OAK	10'
40251	1237	16" MESTWN	35'
40252	1238	18" PAL	15'
40253	1239	5" RED	15'
40254	1240	20" PAL	20'
40255	1241	10" MES	15'
40256	1242	11" MES	20'
40257	1243	6" CYP	10'
40258	1244	6" CYP	10'
40259	1245	4" OAK	10'
40260	1246	11" CYP	25'
40261	1247	7" OAK	20'
40262	1248	10" ELM	20'
40263	1249	11" ELM	20'
40264	1250	11" ELM	20'
40265	1251	12" ELM	20'
40266	1252	11" ELM	20'
40267	1253	11" ELM	20'
40268	1254	11" ELM	20'
40269	1255	3" UNK	5'
40270	1256	4" UNK	10'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
40271	1257	8" UNK	15'
40272	1258	9" MTL	15'
40273	1259	5" MTL	10'
40274	1260	5" MTL	10'
40275	1261	9" MTL	10'
40276	1262	11" CYP	20'
40277	1263	25" MESTWN	40'
40278	1264	10" MES	25'
40279	1265	8" JER	25'
40280	1266	8" JER	20'
40281	1267	5" JER	15'
40282	1268	16" PAL	5'
40283	1269	18" PAL	10'
40284	1270	16" PAL	10'
40285	1271	16" PAL	10'
40286	1272	16" PAL	10'
40287	1273	16" PAL	10'
40288	1274	20" PAL	20'
40289	1275	6" OAK	15'
40290	1276	6" SYC	15'
40291	1277	20" PAL	20'
40292	1278	7" OAK	15'
40293	1279	15" MES	30'
40294	1280	7" WIL	20'
40295	1281	9" WIL	25'
40296	1282	7" WIL	20'
40297	1283	2" OAK	10'
40298	1284	8" OAK	20'
40299	1285	9" OAK	20'
40300	1286	5" OAK	15'
40301	1287	7" OAK	20'
40302	1288	6" OAK	15'
40303	1289	13" MES	30'
40304	1290	8" CYP	15'
40305	1291	8" CYP	15'
40306	1292	5" ESP	10'
40307	1293	8" OAK	15'
40308	1294	21" MESTWN	40'
40309	1295	16" MES	35'
40310	1296	9" WIL	25'
40311	1297	9" OAK	25'
40312	1298	6" OAK	15'
40313	1299	17" MES	45'
40314	1300	7" WIL	15'
40315	1301	5" CED	10'
40316	1302	15" MESTWN	25'
40317	1303	13" MES	25'
40318	1304	16" MES	35'
40319	1305	12" MES	30'
40320	1306	27" MESTRI	50'
40321	1307	5" OAK	10'
40322	1308	15" MES	35'
40323	1309	9" OAK	15'
40324	1310	20" PAL	20'
40325	1311	9" OAK	20'
40326	1312	7" OAK	20'
40327	1313	4" RED	10'
40328	1314	15" MES	25'
40329	1315	6" DOG	10'
40330	1316	7" OAK	10'
40331	1317	16" PAL	15'
40332	1318	8" OAK	15'
40333	1319	7" DOG	15'
40334	4" FIG	10'	
40335	1320	3" MAG	5'
40336	1321	15" PAL	15'
40337	1322	15" OAK	30'
40338	1323	13" OAK	30'
40339	1324	4" CYP	10'
40340	1325	5" DEAD	15'
40341	1326	9" WIL	20'
40342	1327	6" RED	20'
40343	1328	8" OAK	20'
40344	1329	9" SYC	15'
40345	1330	14" MES	30'
40346	1331	14" ELM	30'
40347	1332	11" ELM	25'
40348	1333	18" OAK	40'
40349	1334	14" DOG	20'
40350	1335	11" ELM	25'
40351	1336	2" OAK	5'
40352	1337	11" ELM	30'
40353	1338	13" ELM	30'
40354	1339	10" OAK	20'
40355	1340	8" OAK	20'
40356	1341	7" DOG	15'
40357	1342	12" OAK	30'
40358	1343	6" OAK	15'
40359	1344	6" OAK	15'
40360	1345	8" OAK	15'
40361	1346	9" ELM	40'
40362	1347	5" OAK	15'
40363	1348	10" OAK	15'
40364	1349	11" OAK	20'
40365	1350	11" ELM	30'
40366	1351	12" ELM	20'
40367	1352	7" OAK	15'
40368	1353	6" OAK	10'
40369	1354	6" OAK	10'
40370	1355	8" ELM	10'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
40371	1356	7" OAK	10'
40372	1357	13" RED	25'
40373	1358	7" CRP	10'
40374	1359	7" CRP	10'
40375	1360	6" CRP	10'
40376	1361	6" CRP	10'
40377	1362	6" OAK	15'
40378	1363	8" OAK	15'
40379	1364	6" OAK	10'
40380	1365	8" OAK	15'
40381	1366	6" ELM	15'
40382	1367	8" CYP	20'
40383	1368	8" OAK	25'
40384	1369	9" OAK	25'
40385	1370	5" CYP	15'
40386	1371	7" OAK	20'
40387	1372	7" ELM	20'
40388	1373	3" OAK	10'
40389	1374	20" PAL	20'
40390	1375	20" PAL	20'
40391	1376	20" PAL	20'
40392	1377	13" PAL	10'
40393	1378	18" OAK	35'
40394	1379	11" OAK	25'
40395	1380	12" OAKTWN	20'
40396	1381	15" OAKTWN	30'
40397	1382	9" ELM	25'
40398	1383	7" OAK	15'
40399	1384	15" TRIOAK	30'
40400	1385	25" TRIOAK	40'
40401	1386	8" ELM	20'
40402	1387	7" OAK	15'
40403	1388	15" ELMTWN	25'
40404	1389	14" ELMTWN	25'
40405	1390	11" ELM	25'
40406	1391	9" OAKTWN	20'
40407	1392	5" OAK	15'
40408	1393	25" OAKTRI	25'
40409	1394	19" OAKMTI	30'
40410	1395	20" OAK	20'
40411	1396	23" OAKMTI	40'
40412	1397	18" OAKMTI	20'
40413	1398	24" OAKMTI	30'
40414	1399	5" OAK	15'
40423	"	'	
40424	1401	15" ELM	30'
40425	1402	14" ELM	40'
40426	1403	04" PER	05'
40427	1404	17" MES	40'
40428	1405	19" OAK	40'
40429	1406	23" HAK	50'
40430	1407	08" HAK	20'
40431	1408	07" ELM	10'
40432	1409	07" OAK	10'
40433	1410	06" PER	10'
40434	1411	05" PER	10'
40435	1412	09" REDMTI	20'
40436	1413	08" OAK	20'
40437	1414	07" OAK	15'
40438	1415	05" CYP	10'
40439	1416	07" OAK	15'
40440	1417	07" OAK	15'
40441	1418	04" CYP	10'
40442	1419	08" OAK	15'
40443	1420	07" OAK	15'
40444	1421	09" OAK	20'
40445	1422	09" CYP	15'
40446	1423	07" OAK	15'
40447	1424	09" OAK	15'
40448	1425	06" OAK	10'
40449	1426	09" ELM	30'
40450	1427	11" ELM	30'
40451	1428	11" ELM	30'
40452	1429	12" ELM	30'
40453	1430	13" ELM	30'
40454	1431	08" CYP	20'
40455	1432	10" OAK	30'
40456	1433	6" CRP	10'
40457	1434	6" CRP	10'
40458	1435	8" CRP	10'
40459	1436	8" CRP	10'
40460	1437	6" CRP	10'
40461	1438	6" CRP	10'
40462	1439	6" CRP	10'
40463	1440	6" CRP	10'
40464	1441	6" CRP	10'
40465	1442	9" OAK	20'
40466	1443	9" OAK	20'
40467	1444	2" RED	5'
40468	1445	6" ELM	15'
40469	1446	8" ELM	20'
40470	1447	6" OAK	15'
40471	1448	5" OAK	10'
40472	1449	21" OAK	50'
40473	-----	2" RED	3'
40474	-----	2" RED	3'
40475	-----	2" RED	3'
40476	-----	2" RED	3'
40477	1450	9" OAK	20'
40478	1451	8" OAK	20'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
40479	1452	10" OAK	25'
40480	1453	9" ELM	20'
40481	1454	12" ELM	20'
40482	1455	12" ELM	20'
40483	1456	11" ELM	20'
40484	1457	11" ELM	25'
40485	1458	12" ELM	20'
40486	1459	7" OAK	20'
40487	1460	12" TWNCYP	15'
40488	1461	16" HUI	35'
40489	1462	11" CRP	10'
40490	1463	5" CYP	10'
40491	1464	9" OAK	20'
40492	1465	7" OAK	15'
40493	1466	7" CYP	15'
40494	1467	5" OAK	15'
40495	1468	10" OAK	20'
40496	1469	10" WIL	20'
40497	1470	9" OAK	20'
40498	1471	14" CHI	25'
40499	1472	15" MES	35'
40500	1473	8" MES	15'
40501	1474	13" MES	20'
40502	1475	14" HAK	25'
40503	1476	7" OAK	20'
40504	1477	8" CYP	15'
40505	1478	7" OAK	15'
40506	1479	8" OAK	15'
40507	1480	7" CYP	15'
40508	-----	1" PEC	2'
40509	-----	1" PEC	2'
40510	-----	1" PEC	2'
40511	-----	1" PEC	2'
40512	-----	1" PEC	2'
40513	-----	1" PEC	2'
40514	-----	1" PEC	2'
40515	-----	1" PEC	2'
40516	1481	6" RED	15'
40517	2515-E	10" ELM	25'
40518	2518-E	3" OAK	10'
40519	2517-E	10" ELM	15'
40520	2519-E	10" ELM	15'
40521	2522-E	4" CRP	5'
40522	2523-E	3" CRP	10'
40523	2521-E	6" CYP	10'
40524	2520-E	7" WIL	15'
40525	1482	42" OAK	50'
40526	1483	17" HAK	30'
40527	1484	23" HAKTWN	35'
40528	1485	15" OAK	25'
40529	1486	23" OAK	35'
40530	832-E	22" HAKTWN	30'
40531	831-E	31" OAK	65'
40533	1487	5" OAK	10'
40534	1488	6" OAK	15'
40535	1489	6" OAK	15'
40536	1490	7" OAK	15'
40537	1491	5" OAK	10'
40538	1492	5" OAK	10'
40539	1493	5" OAK	10'
40540	-----	2" CRP	7'
40541	-----	2" CRP	7'
40542	-----	2" CRP	7'
40543	-----	2" CRP	7'
40544	-----	2" CRP	7'
40545	1494	5" ELM	10'
40546	1495	6" ELM	10'
40547	1496	6" ELM	10'
40548	1497	5" OAK	10'
40549	1498	4" OAK	10'
40550	1499	4" OAK	10'
40551	1500	4" OAK	10'
40552	1501	4" OAK	10'
40553	1502	5" CYP	15'
40554	1503	5" CYP	10'
40555	1504	5" CYP	10'
40556	3464-E	18" HAK	40'
40557	830-E	15" HAK	30'
40558	1505	5" CYP	10'
40559	1506	6" CYP	10'
40560	829-E	16" HAK	30'
40561	1507	5" ELM	10'
40562	1508	5" ELM	10'
40563	827-E	28" PEC	60'
40564	826-E	25" PEC	60'
40565	1509	8" HUI	20'
40566	1510	5" OAK	10'
40567	823-E	11" PEC	20'
40568	822-E	16" JER	40'
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TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
41017	775	15" MES	40'
41018	776	16" MES	40'
41019	777	11" MES	30'
41020	789	16" MES	30'
41021	790	6" PER	5'
41022	791	24" MES	30'
41023	778	24" MES	40'
41025	181	24" HUI	35'
41026	182	7" MES	20'
41027	2725	9" OAK	10'
41028	2724	10" OAK	20'
41029	2723	5" OAK	10'
41030	2722	17" MES	35'
41031	2721	28" MES	40'
45155	----	24" MES	40'
45156	----	26" MES	40'
45157	----	18" MES	40'
45158	----	18" HUI	30'
45159	----	18" MES	40'
45206	1707	9" HAK	25'
45218	1708	9" HUI	30'
45226	1709	13" MES	25'
45231	1710	6" HAK	20'
45232	1711	8" CON	15'
45233	1712	6" HAK	20'
45234	1713	8" HAK	20'
45235	1714	6" HAK	25'
45236	1715	11" HUI	30'
45237	1716	7" HAK	30'
45238	1717	13" TRHAK	30'
45245	1719	13" MTIMES	30'
45246	1718	8" HUI	20'
45247	1720	15" MTHUI	30'
45254	1723	6" ASH	20'
45255	1722	16" TRHAK	35'
45256	1721	7" HAK	20'
45257	1724	11" HAK	30'
45258	1725	8" HAK	30'
45259	1726	16" HUI	40'
45260	1727	8" HAK	20'
45261	1728	6" HAK	30'
45262	1729	6" HUI	25'
45263	1730	12" HAK	30'
45264	1731	6" HAK	20'
45265	1732	6" ELM	30'
45272	1733	6" ELM	25'
45277	1734	8" HAK	20'
45278	1735	8" HAK	20'
45279	1736	8" HAK	30'
45280	1737	11" HUI	30'
45285	1739	6" HAK	20'
45286	1740	6" HAK	20'
45287	1741	6" HAK	20'
45288	1742	15" MTIMES	35'
45289	1743	6" HAK	20'
45290	1744	8" MTIMES	20'
45291	1738	8" MTHUI	30'
45299	1753	8" ELM	30'
45300	1752	10" HAK	30'
45301	1751	20" MTHUI	40'
45302	1750	10" HAK	30'
45303	1749	12" MTIMES	30'
45304	1748	11" TWNHUI	25'
45305	1747	9" CHI	30'
45306	1746	10" HUI	20'
45307	1745	12" MTHAK	30'
45315	1754	10" TWNHAK	40'
45316	1755	8" HAK	30'
45317	1756	10" TWNHAK	30'
45318	1757	11" HAK	40'
45319	1758	6" HAK	20'
45320	1760	6" HAK	15'
45321	1761	10" HAK	30'
45322	1762	8" HAK	30'
45323	1763	10" HAK	30'
45324	1764	12" MTIMES	30'
45325	1765	18" MTIMES	30'
45326	1766	12" MES	30'
45327	1759	11" HUI	30'
45346	1767	14" MTHUI	30'
45347	1768	16" MTHUI	30'
45348	1769	16" MTHUI	35'
45355	1770	7" HAK	20'
45356	1771	12" MTHAK	30'
45357	1772	6" TWNHAK	20'
45358	1773	12" TWNELM	30'
45359	1774	8" ELM	20'
45360	1775	11" HUI	30'
45361	1776	16" TRELM	35'
45362	1777	6" ELM	15'
45363	1778	18" MTELM	35'
45364	1779	11" MES	30'
45365	1780	12" HAK	30'
45366	1781	7" HAK	20'
45367	1782	11" CHI	30'
45368	1783	10" HAK	30'
45434	1784	17" HAK	40'
45435	1785	10" HAK	30'
45443	1786	9" MES	35'
45444	1787	7" MES	30'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
45451	1788	11" HUI	20'
45452	1789	11" MES	30'
45453	1790	7" MES	25'
45454	1791	11" HUI	35'
45455	1792	10" MES	30'
45456	1793	13" HUI	40'
45457	1794	7" MES	20'
45458	1795	7" HUI	20'
45459	1796	7" HUI	30'
45460	1797	7" HAK	20'
45467	1798	8" HAK	20'
45468	1799	9" HAK	25'
45469	1800	7" HAK	20'
45470	1801	7" HAK	25'
45471	1802	8" HUI	30'
45472	1803	10" MTIHAK	30'
45473	1804	10" MTIHUI	30'
45478	1805	7" HAK	25'
45486	1806	7" HAK	20'
45487	1807	7" HAK	20'
45488	1808	9" HAK	25'
45489	1809	10" HAK	40'
45490	1810	8" HAK	30'
45491	1811	11" HAK	40'
45492	1812	7" HAK	30'
45493	1813	10" HAK	20'
45494	1814	7" HAK	20'
45495	1815	10" HAK	40'
45496	1816	7" HAK	25'
45497	1817	21" MES	45'
45498	1818	6" HAK	20'
45499	1819	6" HAK	20'
45500	1820	9" HAK	25'
45506	1821	12" HAKMTI	25'
45507	1822	11" HAK	20'
45508	1823	8" HAKTWN	25'
45509	1824	9" HAK	25'
45510	1825	11" HAK	20'
45511	1826	8" HAK	20'
45512	1827	9" HAK	25'
45513	1828	15" HAKTWN	30'
45514	1829	17" HUMTI	40'
45515	1830	8" HUI	25'
45526	1831	15" HUI	40'
45527	1832	8" HAK	20'
45528	1833	7" CHI	25'
45529	1834	8" HAK	25'
45530	1835	17" HUMTI	40'
45531	1836	18" HUMTI	40'
45532	1837	15" HUMTI	40'
45533	1838	12" MES	15'
45540	1839	6" HAK	20'
45541	1840	26" HUMTI	50'
45542	1841	17" MES	30'
45549	1842	7" HUI	20'
45550	1843	10" HAK	25'
45551	1844	6" HAK	20'
45552	1845	20" HUI	40'
45559	1846	14" HAKMTI	30'
45560	1847	9" HUI	20'
45561	1848	10" HAK	30'
45562	1849	11" MESMTI	20'
45563	1850	18" HUMTI	30'
45564	1851	22" HUMTI	40'
45572	1852	15" HUI	30'
45573	1853	15" HUMTI	30'
45574	1854	7" HUI	20'
45575	1855	16" HUMTI	40'
45576	1856	8" CONMTI	30'
45583	1857	7" HUI	25'
45584	1858	10" HUITWN	25'
45585	1859	26" MES	50'
45586	1860	9" MES	25'
45587	1861	8" HUI	20'
45594	1862	10" MESMTI	25'
45595	1863	13" MES	25'
45596	1864	6" HAK	20'
45597	1865	6" HAK	20'
45614	1866	9" HUI	25'
45616	1867	12" HAK	20'
45617	1868	13" HAK	30'
45618	1869	13" HUI	30'
45619	1870	9" HAK	25'
45620	1871	8" CHI	30'
45621	1872	14" MES	35'
45622	1873	6" HAK	15'
45640	1876	16" MES	35'
45641	1877	20" MES	35'
45642	1878	9" MES	20'
45643	1879	9" MES	30'
45644	"	'	
45645	1881	21" MES	40'
45701	1882	19" HAK	30'
45702	1883	13" HAK	35'
45703	1884	10" HAK	25'
45704	1885	10" HAK	25'
45705	1886	8" HAK	20'
45706	1887	8" HAK	20'
45707	1888	8" HAK	25'
45708	1889	20" HAK	30'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
45712	1890	6" HAK	10'
45719	1891	13" HUI	30'
45720	1892	11" MES	25'
45721	1893	8" HUI	20'
45722	1894	8" HUI	20'
45723	1895	11" HUI	30'
45724	1896	8" HUI	20'
45731	1899	15" HUI	30'
45732	1898	6" MES	20'
45733	1897	11" CON	30'
45749	1901	10" MES	30'
45750	1902	7" MES	20'
45751	1903	15" HUI	30'
45761	1904	8" MES	20'
45762	1905	10" HUI	40'
45763	1906	7" MES	20'
45764	1907	7" MES	20'
45765	1908	9" HUI	30'
45766	1909	6" HAK	15'
45767	1910	9" CON	25'
45768	1911	8" HAK	30'
45769	1912	13" CON	30'
45776	1913	7" HAK	15'
45777	1914	10" MES	20'
45778	1915	13" HUI	30'
45779	1916	8" HUI	20'
45780	1917	7" CON	20'
45781	1918	8" HAK	25'
45788	1919	9" HUI	25'
45789	1920	16" HUI	30'
45790	1921	10" HUI	30'
45791	1922	11" HAK	35'
45792	1923	7" HUI	20'
45799	1924	8" MES	25'
45800	1925	7" MES	20'
45801	1926	10" MES	30'
45811	1927	10" HAK	40'
45817	1928	16" HAK	40'
45818	1929	7" PLM	20'
45819	1930	13" PEC	40'
45820	1932	17" ASH	45'
45821	1932	27" COT	50'
45822	1933	17" ASH	40'
45823	1934	10" HUI	30'
45944	192-B	11" TAL	30'
45945	191-B	8" TAL	20'
45946	193-B	10" TAL	25'
45947	188-B	18" TAL	40'
45948	1935-S	15" ASH	30'
45949	186-B	16" UNK	20'
45950	185-B	27" ASH	50'
45951	180-B	20" MES	40'
45952	179-B	29" MES	50'
45953	1936-S	9" HAK	20'
45954	184-B	25" MES	30'
45955	1937-S	6" MTL	15'
45956	1938-S	10" TAL	25'
45957	181-B	35" MES	45'
45958	177-B	24" MES	40'
45959	175-B	21" MES	20'
45960	1939-B	8" MES	20'
46016	1940-S	13" MES	20'
46017	171-B	37" MES	40'
46018	172-B	19" MES	25'
46019	1941-S	21" MES	40'
46020	176-B	22" MES	40'
46021	165-B	38" MES	40'
46022	167-B	28" MES	40'
46023	1942-S	7" MES	15'
46024	1943-S	47" MES	40'
46025	1944-S	28" HAK	40'
46026	197-B	19" HAK	30'
46027	1945-S	7" RET	15'
46028	1946-S	8" RET	20'
46029	1947-S	14" CHI	30'
46030	1948-S	20" MES	40'
46031	199-B	17" MES	35'
46081	175-B	32" MES	40'
46082	174-B	15" HUI	40'
46083	173-B	34" HUI	50'
46084	172-B	19" HUI	40'
46085	170-B	27" HUI	35'
46086	171-B	27" HUI	30'
46087	169-B	9" TAL	15'
46089	176-B	13" MES	20'
46090	1949-S	8" RET	25'
46172	178-B	43" HUI	40'
46174	179-B	22" MES	40'
46175	180-B	38" HUI	50'
46178	181-B	24" HUI	35'
46179	182-B	7" MES	15'
46180	1950-S	23" HAK	50'
46182	1951-S	24" MES	40'
46183	1958-S	9" CON	15'
46189	1956-S	10" HAK	20'
46190	1955-S	11" HAK	25'
46192	1957-S	17" MES	35'
46193	1954-S	18" HAK	40'
46194	1953-S	12" HAK	30'
46195	1952-S	11" MES	20'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
46196	1959-S	21" MES	50'
46238	1960-S	22" MES	30'
46366	1961-S	21" MES	DEAD'
46367	1962-S	26" MES	40'
46368	1963-S	12" MES	30'
46369	1964-S	13" HAK	15'
46563	1964-S	8" HAK	25'
46564	1965-S	16" HAK	35'
46565	1966-S	14" HAK	30'
46566	1967-S	9" HAK	15'
46577	1968-S	11" HAK	25'
50260	--	26" ASH	30'
50429	--	3" CRP	5'
53093	--	26" ASH	45'
53105	--	17" ASH	35'
53106	--	19" ASH	20'
53174	--	14" PEC	35'
53175	--	20" COT	50'
53193	--	32" ASH	40'
53253	--	22" ASH	45'
53272	--	20" PAL	20'
53273	--	20" PAL	20'
53460	--	18" PAL	20'
53461	--	22" PAL	20'
53524	--	20" OAK	40'
56242	--	12" CED	25'
56255	--	12" CED	25'
61648	1931	6" OAK	24'
61649	1930	7" OAK	24'
61650	1933	9" PEC	24'
61651	1935	14" PEC	24'
61652	1937	8" OAK	20'
61653	1938	15" OAK	30'
61654	1936	5" OAK	15'
61655	1941	10" PEC	30'
61656	1940	14" PEC	40'
61657	1939	18" PEC	50'
61801	1932	5" ELM	20'
61802	1934	4" MIS	20'
61921	1913	10" CRE	20'
61922	1921	10" CRE	20'
61923	1922	10" CRE	20'
61924	1923	10" CRE	20'
61926	1925	10" CRE	20'
61927	1924	10" CRE	20'
62036	1926	16" OAK	30'
62037	1927	16" OAK	30'
62038	1928	16" OAK	30'
62039	1929	16" OAK	30'
62254	1917	10" CRE	20'
62255	1908	12" CRE	30'
62256	1906	10" MTL	30'
62257	1907	10" PIN	30'
62258	1909	6" PEC	15'
62259	1910	6" PEC	20'
62260	1911	6" PEC	20'
62261	1912	6" CRE	20'
62262	1914	8" PEC	30'
62263	1915	7" PEC	30'
62264	1918	8" MIS	20'
62265	1919	6" MTL	15'
62266	1920	7" MTL	30'
62267	1916	5" CRE	10'
62441	N/A	13" PEC	40'
62442	1942	15" PEC	40'
62591	1943	8" CRP	30'
62592	1944	6" CRP	30'
62740	1901	22" OAK	40'
62866	1904	07" MTL	20'
62867	1905	06" MTL	20'
62868	1903	20" OAK	40'
62869	1902	12" OAK	40'
75288	" 6.5X9X7	'	
75315	4169	7" PINE	20'
75316	4170	16" PER	20'
75317	4171	11" OAK	30'
75318	4172	11" MISC	20'
75319	4173	11" MISC	20'
75320	4174	11" MISC	20'
75321	4175	11" MISC	20'
75322	4176	11" MISC	20'
75323	4177	11" MISC	20'
75324	4178	11" CRP	20'
75325	4179	9" CRP	20'
75326	4180	10" OAK	30'
75327	4181	18" OAK	40'
75328	4182	6" CRP	10'
75329	4184	9" OAK	30'
75330	4167	6" CRP	10'
75331	4168	4" CRP	10'
75505	2697	4" CRP	10'
75703	1940	14" PEC	30'
75704	1939	18" PEC	50'
75705	1938	17" PEC	30'
75706	2681	10" PEC	20'
75707	2680	8" PEC	20'
75708	1941	10" PEC	20'
75709	2679	6" OAK	20'
75710	1934	5" MISC	10'
75711	1935	14" PEC	50'

TREE LIST

POINT NO.	TAG NO.	SIZE & TYPE	DRIP DIA.
75712	2678	9" PEC	20'
75713	4166	13" PEC	20'
75714	1933	11" PEC	30'
75715	1932	7" MISC	20'
75716	2677	3" OAK	20'
75717	1931	6" OAK	15'

01 TREE INDEX TABLE
NOT TO SCALE

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ACD Palo Alto College
Hydronic Piping Replacement

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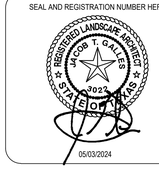
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE



05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024
DRAWN BY:
CHECKED BY:

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

TREE INDEX TABLE

L1.04

PLANTING NOTES:

1. PLANTING SOIL MIXTURE: REF. SPECIFICATIONS.
2. ALL ON SITE TOPSOIL FROM DESIGNATED STOCKPILE AREA OR BORROW SITE WILL BE TESTED TO COMPLY WITH CONFORMITY SHOWN IN SOIL PREPARATION SPECIFICATION
3. BIDDING CONTRACTORS BE ADVISED THAT ALL NEW TREE MATERIAL IS TO BE CONTAINER-GROWN CORRESPONDING TO STATED ROOT BALL SIZES AS RECOGNIZED BY INDUSTRY STANDARDS. THIS SHALL EXCLUDE ALL B&B, MACHINE MOVED, OR TRANSPLANTED TREES FROM THE BIDDING PROCESS UNLESS OTHERWISE INDICATED. THE INSTALLATION CONTRACTOR SHALL BE PREPARED TO PROVIDE PHOTOGRAPHS OF INTENDED PLANT MATERIAL ALONG WITH SIGNED CLARIFICATION THAT PLANT MATERIAL MEETS THESE REQUIREMENTS AND THAT NO VARIATIONS OR SUBSTITUTIONS HAVE BEEN MADE.
4. THE LANDSCAPE CONTRACTOR DOING THE INSTALLATION OF THIS WORK SHALL SUBMIT INFORMATION TO THE LA REGARDING THE SOURCING OF PLANT MATERIAL. ALL PLANT MATERIAL MUST BE APPROVED BY THE LA.
5. IF THE PLANTING PLAN DOES NOT AGREE WITH THE PLANT LIST, THE QUANTITIES INDICATED GRAPHICALLY ON THE PLANTING PLAN SHALL GOVERN.
6. IF IRRIGATION IS NOT PROVIDED TO PROPOSED TREES, AND DECLINED BY THE OWNER THE CONTRACTOR IS TO INSTALL: **TREE GATORS** REFERENCE SPECIFICATIONS.
7. CONTRACTOR TO PROVIDE ONSITE INVESTIGATION FOR ALL TREE PITS. SOIL CONDITIONS VARY FROM HEAVY CLAY TO SOLID BEDROCK. RESPONSIBILITY FOR ADDRESSING THESE CONDITIONS FALLS ON THE CONTRACTOR.
8. CONTRACTOR TO HYDROSEED (BERMUDA "TIFF TUFF") ALL DISTURBED AREAS DUE TO WORK CONDUCTED ON SITE.

IRRIGATION NOTES:

1. REFERENCE IRRIGATION PLANS AND DETAILS. IF IRRIGATION PLANS ARE NOT PROVIDED THE CONTRACTOR IS TO PRODUCE SEALED IRRIGATION DRAWINGS USING THE BELOW GUIDELINES. IRRIGATION DRAWINGS TO BE APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION
2. IRRIGATION DESIGNS ARE TO BE DESIGNED BY A LICENSED IRRIGATOR IN THE STATE IN WHICH THE PROJECT IS BEING CONSTRUCTED
3. VERIFY STATIC PRESSURE OF WATER SOURCE AT POINT OF CONNECTION PRIOR TO DESIGN
4. HEAD TO HEAD COVERAGE OR BETTER; DO NOT EXCEED MANUFACTURER'S PUBLISHED RADIUS OF THROW.
5. MAINLINE AND SECTION PIPE TO BE SCHEDULE 40
6. ALL PIPE UNDER PAVEMENT SHALL BE IN SLEEVES
7. PREFERRED EQUIPMENT:
   - 7.1. SPRAY HEAD:RAINBIRD, 180X SERIES; POP-UP HEIGHT APPROPRIATE FOR PLANT MATERIAL AT TIME OF PLANTING
   - 7.2. NOZZLES: RAINBIRD MPR
   - 7.3. ROTOR HEADS: RAINBIRD 500 SERIES
   - 7.4. INCLUDE SWING JOINTS ON ALL SPRAY POP UPS AND ROTORS
   - 7.5. REMOTE CONTROL VALVE: PEB SERIES BRASS.
   - 7.6. BALL VALVE: LASCO UNION TYPE BALL VALVE SAME SIZE AS CONTROL VALVE
   - 7.7. TREE BUBBLERS: GPH AND EMITTER SPACING APPROPRIATE FOR SOIL CONDITIONS, PROVIDE DETAIL
   - 7.8. QUCK COUPLERS: RAINBIRD 33DRC- $\frac{3}{4}$" DIAMETER OUTLET
   - 7.9. VALVE BOXES: RAIN BIRD VB SERIES 12x18 MIN. FOR 1-$\frac{1}{2}$" VALVE OR SMALLER, JUMBO 17x30 FOR 2" VALVE AND LARGER; ALLOW 24" BETWEEN VALVE BOXES. ALIGN SQUARE TO ADJACENT PAVING
   - 7.10. CONTROLLER: RAINBIRD ESP-LXME2/PRO WITH LXMSS CABINET AND PEDESTAL; VERIFY ON PLAN WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION

SITE/LANDSCAPE SLEEVING NOTES:

1. CONTRACTOR IS RESPONSIBLE TO VERIFY ALL OTHER CONSULTANTS AND SUB-CONTRACTOR SLEEVING REQUIREMENTS AND PLACE SUCH SLEEVES PRIOR TO HARDSCAPE INSTALLATION.

PLANT SIZING CHART

SHADE AND ORNAMENTAL SINGLE TRUNK TREES			
CONT. SIZE	CALIPER (DBH)	HEIGHT	SPREAD
10 GALLON	$\frac{3}{4}$"	6'MIN	3'–4'
15 GALLON	1"	8'–10'	4'–5'
30 GALLON	1–$\frac{1}{4}$" TO 2"	12'–14'	4'–5'
45 GALLON	2" TO 3"	14'–16'	5'–7'
65 GALLON	3" TO 3–$\frac{1}{2}$"	16'–18'	6'–8'
100 GALLON	3–$\frac{1}{2}$" TO 4"	18'–20'	8'–12'
PALMS			
CONT. SIZE	HEIGHT	BARE TRUNK	
10 GALLON	3'–4'		
15 GALLON	4'	1'	
30 GALLON	5' TO 6'	3'	
45 GALLON	6'–8'	4'	
65 GALLON	8'–10'	6'	
MULTI–TRUNK TREES			
CONT. SIZE	HEIGHT	SPREAD	
5 GALLON	4'	24"–36"	
7 GALLON	5'–6'	36"–48"	
10 GALLON	6'–7'	42"–60"	
15 GALLON	7'–8'	60"MIN	
45 GALLON	10'–12'	60"MIN	
65 GALLON	12'–16'	72"MIN	
100 GALLON	14'–18'	80"MIN	

DECIDUOUS SHRUBS			
CONT. SIZE	MIN. NUMBER OF CANES	HEIGHT	SPREAD
1 GALLON	3	6"MIN	6"MIN
3 GALLON	4	14"MIN	10"
5 GALLON	4	30"MIN	24"
7 GALLON	5	40"MIN	30"
10 GALLON	5	48"MIN	36"
15 GALLON	6	60"–72"	48"MIN
30 GALLON	8	96"MIN	48"–60"
BROADLEAF EVERGREEN SHRUBS			
CONT. SIZE	HEIGHT	SPREAD	
1 GALLON	6"–9"	6"MIN	
3 GALLON	14"MIN	10"	
5 GALLON	30"MIN	24"	
7 GALLON	40"MIN	24–30"	
10 GALLON	48"–60"	40"MIN	
15 GALLON	60"–72"	48"MIN	
30 GALLON	72"–84"	48"–60"	

PLANTING SCHEDULE

TREES

	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	REMARKS/COMMENTS
	CC	CERCIS CANADENSIS 'TEXAS REDBUD'	TEXAS REDBUD	30 GALLON	8'(FT)	FULL, WELL BRANCHED, SINGLE TRUNK
	CCF	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	30 GALLON	8'(FT)	FULL, WELL BRANCHED, SINGLE TRUNK
	IA	ILEX X ATTENUATA 'EAGLESTON'	EAGLESTON HOLLY	45 GALLON	10'(FT)	FULL, WELL BRANCHED. NATURAL FORM
	JS	PRUNUS MEXICANA	MEXICAN PLUM	30 GALLON	8'(FT)	FULL, WELL BRANCHED, SINGLE TRUNK
	LI	LAGERSTROEMIA INDICA X FAURIEI 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	65 GALLON	14'–16'(FT)	3 STEM MULTI–TRUNK, 5' CLEAR
	OE	CORDIA BOISSIERI	MEXICAN OLIVE	45 GALLON	10'(FT)	FULL, WELL BRANCHED. BACKFILL TREE PIT WITH WELL DRAINED SOIL
	PM	PLATANUS MEXICANA	MEXICAN SYCAMORE	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	PT	PARKINSONIA TEXANA	PALOVERDE	45 GALLON	10'(FT)	FULL, WELL BRANCHED, MULTI–TRUNK (THREE LEADER); MATCHED SPECIMEN
	TD	TAXODIUM DISTICHUM	BALD CYPRESS	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	QV	QUERCUS VIRGINIANA	LIVE OAK	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	QS	QUERCUS MUELENBERGII	CHINKAPIN OAK	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	QP	QUERCUS POLYMORPHIA	MONTERREY OAK	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	QT	QUERCUS TEXANA	TEXAS RED OAK	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	UC	ULMUS CRASSIFOLIA	CEDAR ELM	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	UP	ULMUS PARVIFOLIA	LACEBARK ELM	65 GALLON	14'–16'(FT)	FULL, WELL BRANCHED
	VA	VITEX AGNUS–CASTUS 'SHOAL CREEK'	SHOAL CREEK CHASTE TREE	45 GALLON	10'(FT)	FULL, WELL BRANCHED, MULTI–TRUNK (THREE LEADER); MATCHED SPECIMEN

SHRUBS

	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS/COMMENTS
	LFB	LEUCOPHYLLUM FRUTESCENS 'BERTSTAR DWARF'	DWARF TEXAS SAGE	7 GALLON	42" O.C.	FULL PLANTS, ROOTED TO CONTAINER

PERENNIALS

	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS/COMMENTS
	SL	SALVIA LEUCANTHA	MEXICAN BUSH SAGE	3 GALLON	18" O.C.	FULL PLANTS, ROOTED TO CONTAINER

GROUNDCOVERS

	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS/COMMENTS
	CT	CAREX TEXENSIS	TEXAS SEDGE	1 GALLON	16" O.C.	FULL PLANTS, ROOTED TO CONTAINER
	WT	WEDELIA TEXANA	NATIVE WEDELIA	1 GALLON	16" O.C.	FULL PLANTS, ROOTED TO CONTAINER

GRASSES

	ABBREVIATION	BOTANICAL NAME	COMMON NAME	SIZE	SPACING	REMARKS/COMMENTS
	MN	MELINIS NERVIGLUMIS 'PINK CRYSTALS'	RUBY GRASS	3 GALLON	24" O.C.	FULL PLANTS, ROOTED TO CONTAINER
	NT	NASELLA TENUISSIMA	MEXICAN FEATHER GRASS	3 GALLON	24" O.C.	FULL PLANTS, ROOTED TO CONTAINER

TURF

SYMBOL	ABBREVIATION	BOTANICAL NAME	COMMON NAME		DENSITY	REMARKS/COMMENTS
	SOD	CYNODON DACTYLON 'TIFF TUFF'	BERMUDA 'TIFF TUFF' TURF			SOLID SOD, STAGGERED

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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

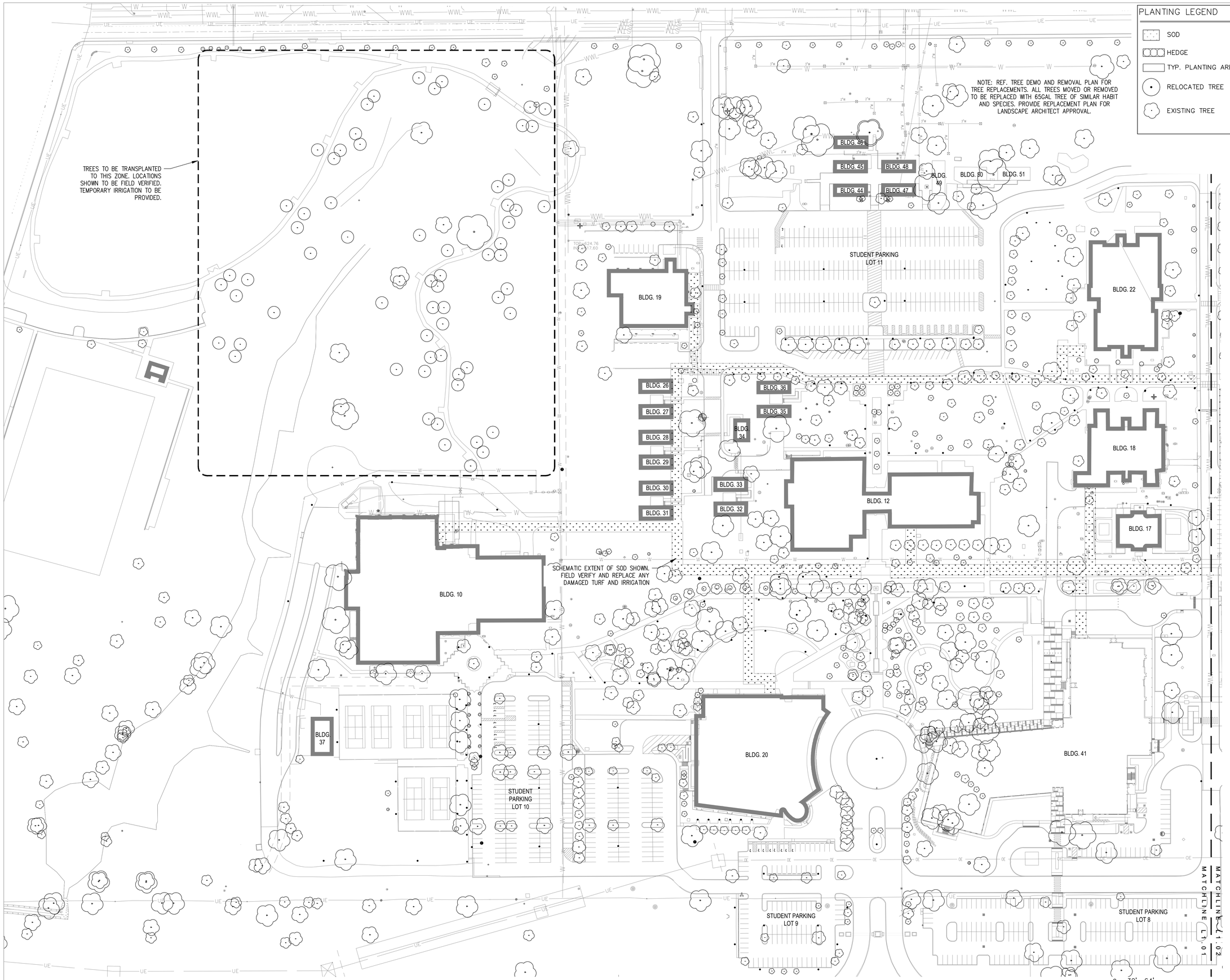
DATE: 05/03/2024
DRAWN BY:
CHECKED BY:
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

PLANTING NOTES AND SCHEDULE

L2.00



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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

JACOB C. SALLES — REGISTERED LANDSCAPE ARCHITECT — 2023 — STATE OF TEXAS

05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024

DRAWN BY:

CHECKED BY:

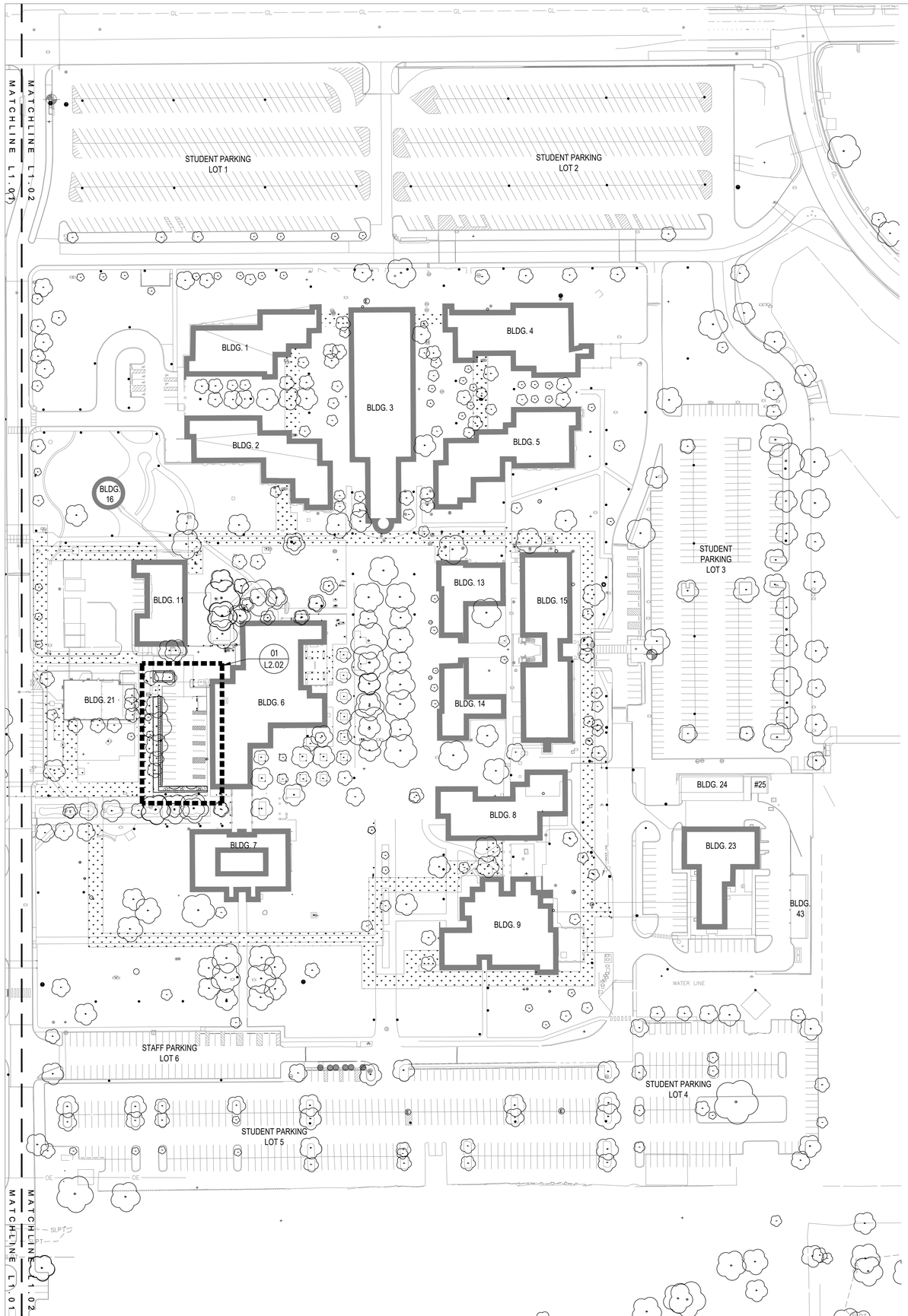
REVISIONS

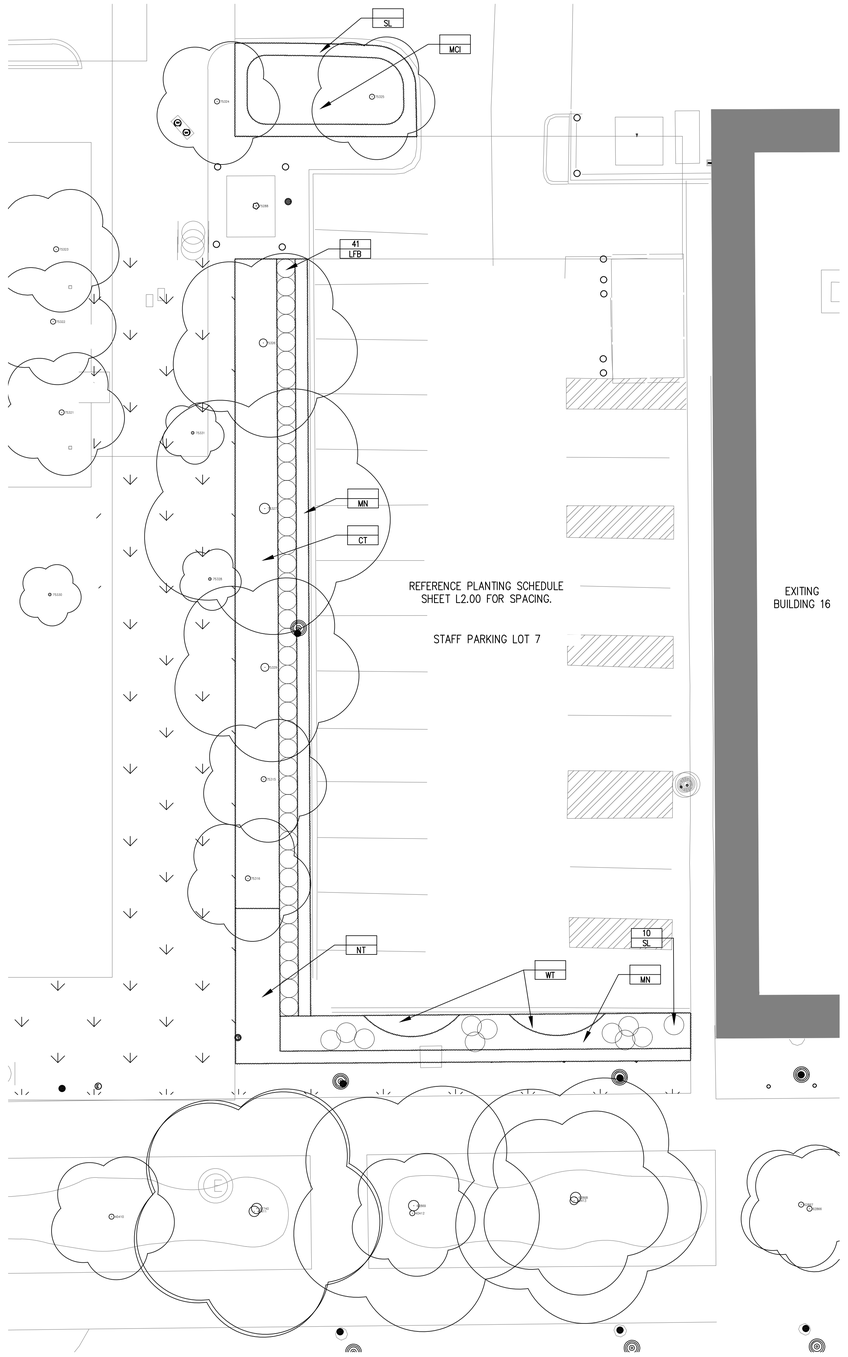
No.	Description	Date

ISSUE FOR CONSTRUCTION

PLANTING PLAN - WESTSIDE

L2.01





01 PLAN–PLANTING ENLARGEMENT
1" = 10'

PLANTING LEGEND

- SOD
- HEDGE
- TYP. PLANTING AREA
- RELOCATED TREE
- EXISTING TREE

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KEY PLAN — PLAN NORTH — TRUE NORTH

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REGISTERED LANDSCAPE ARCHITECT — JACOB T. GALLES — 3022 — STATE OF TEXAS

05/03/2024

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
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DATE: 05/03/2024
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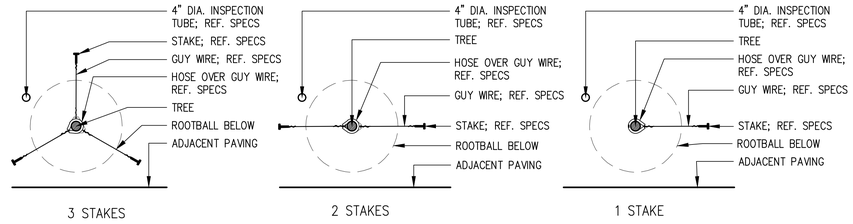
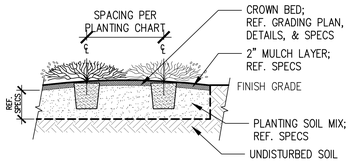
PLANTING PLAN - EASTSIDE

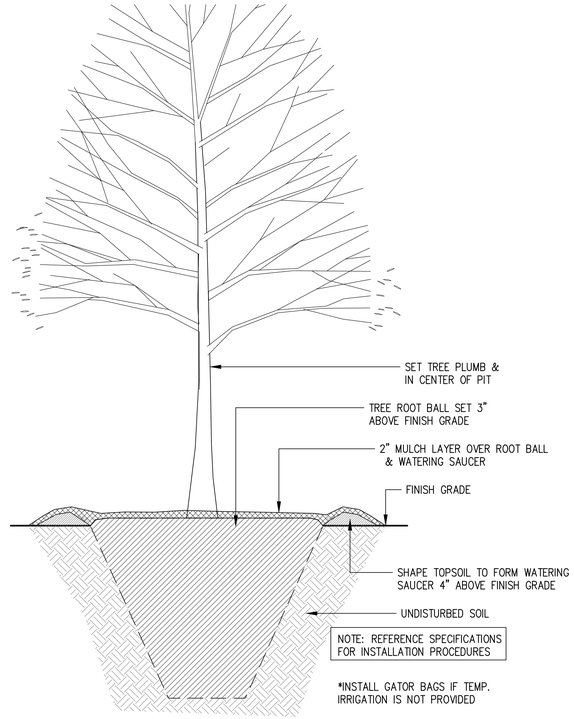
L2.02



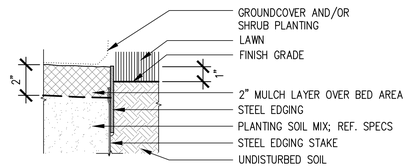
04 PLAN–TYP. TREE STAKING
3/4"=1'-0"



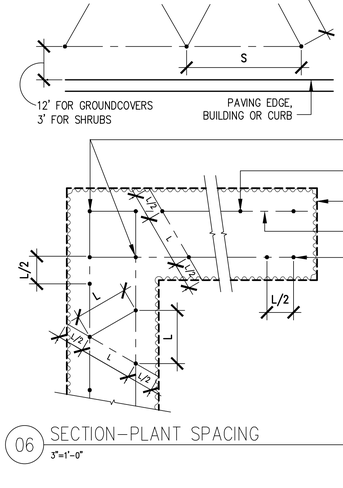
07 SECTION–TYP. BED PLANTING
1/2"=1'-0"



03 SECTION–TYP. MACHINE MOVED TREE
1/2"=1'-0"

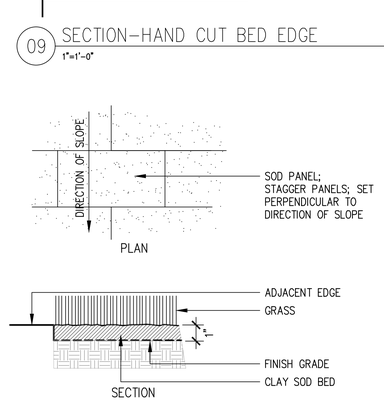


10 SECTION–METAL BED EDGE
3"=1'-0"

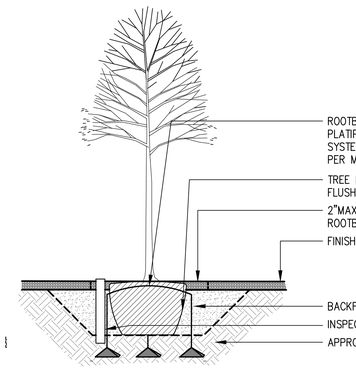


06 SECTION–PLANT SPACING
3"=1'-0"

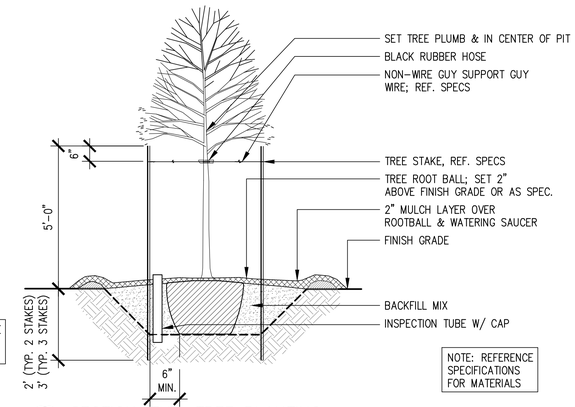
02 SECTION–TYP. MULTI–TRUNK TREE PLANTING
1/2"=1'-0"



08 SECTION–TYP. SOD PLANTING
1/2"=1'-0"



05 SECTION–TYP. TREE PLANTING IN GRAVEL
1/2"=1'-0"



01 SECTION–TYP. TREE PLANTING
1/2"=1'-0"

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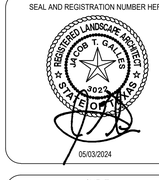

05/03/2024

CLIENT
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No.	Description	Date

ISSUE FOR CONSTRUCTION

PLANTING DETAILS

L2.03

MECHANICAL ALTERNATE

ALTERNATE M1:
INSTALL NEW U.G 12" CHS/R AND 6" HWS/R PIPING TO BUILDING AND OMIT THE BASED BID VALVE VAULT.

ALTERNATE M2:
INSTALL NEW VAULT WITH SHUT-OFF VALVES AND CAP 12" CHWS/R MAIN FOR FUTURE CONNECTION.

ALTERNATE M3:
INSTALL HIGH-DENSITY POLYETHYLENE (HDPE) PIPE FOR THE UNDERGROUND CHS/R AND HWS/R SYSTEM MAIN PIPING. IN LIEU OF THE BASE BID BLACK STEEL SCHEDULE 40 PIPING. THE HDPE PIPING SHALL TRANSITION TO BLACK STEEL SCHEDULE 40 PIPING AFTER DIRECT BURY VALVE FOR FINAL CONNECTION TO BUILDING CHWS/R AND HWS/R PIPING SYSTEM.

ALTERNATE M4:
REPLACED ALL UNDERGROUND CHWS/R AND HWS/R PIPING WITH NEW HYDRONIC PIPING BETWEEN SAN MARCO HALL #1, GUADALUPE HALL #2, PALOMINO CENTER #3, FRIO HALL #4 AND NUECES HALL #5 BUILDINGS.

MECHANICAL PIPING SYMBOLS LEGEND

DRAWINGS	DETAILS	DESCRIPTION
		DEMOLISH/REMOVE PIPE
		DIRECTION OF FLOW
		DROP IN PIPE
		RISE IN PIPE
		GATE VALVE
		BALL VALVE
		CHECK VALVE
		SUPERVISED VALVE WITH FLOW SWITCH
		PLUG VALVE / GAS COCK
		BUTTERFLY VALVE
		HOT WATER BALANCING VALVE
		DIRECT BURY ISOLATION VALVE
		PIPE UNION
		PRESSURE CONTROL VALVE
		3-WAY VALVE
		SOLENOID VALVE
		FLOW SWITCH
		PRESSURE GAUGE WITH GAUGE COCK
		THERMOMETER
		T & P RELIEF VALVE
		STRAINER
		CAP
		FLEXIBLE CONNECTION
		NEW CONNECTION TO EXISTING PIPING

NOTES:
1. ALL SYMBOLS MAY BE USED ON THESE DRAWINGS.

MECHANICAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION		ABBV.
	ABOVE FINISHED FLOOR		AFF
	NOT IN CONTRACT		NIC
	FURNISHED BY OTHERS		FBO
	UNDER GROUND		U.G.
	CONNECT TO EXISTING		
1 / M.401	PLAN SECTION SECTION NUMBER SHEET NUMBER		
A 22"x22" 500 (TYP #)	DIFFUSER SCHEDULE DIFFUSER NECK SIZE CFM	NOTE: DUCT RUNOUT TO NECK SAME SIZE UNLESS OTHERWISE NOTED	
RE:01/M-401	DRAWING REFERENCE DETAIL NUMBER SHEET NUMBER		

NOTES:
1. ALL SYMBOLS MAY BE USED ON THESE DRAWINGS.

MECHANICAL PIPING LEGEND

DESCRIPTION	ABBV.
PUMPED CONDENSATE RETURN	PCR
HOT WATER SUPPLY	HWS
HOT WATER RETURN	HWR
CONDENSER WATER SUPPLY	CHS
CONDENSER WATER RETURN	CHR
CHILLED WATER SUPPLY	CHWS
CHILLED WATER RETURN	CHWR
CONDENSATE DRAIN (INSULATED)	CD
REFRIGERANT LINE (LIQUID)	RL
REFRIGERANT LINE (SUCTION)	RS
REFRIGERANT LINE (HOT GAS)	RHG

CONTRACTOR GENERAL NOTES

1. THE GENERAL CONTRACTOR PROJECT SUPERINTENDENT SHALL AND WILL BE ON SITE DURING ANY HYDRONIC SYSTEM PIPING EXCAVATION OPERATION AND INSTALLATION IS BEING PERFORMED. THIS INDIVIDUAL SHALL BE THE POINT OF CONTACT FOR CAMPUS UTILITIES INTERRUPTIONS.
2. A RESPONSE PLAN IS REQUIRED TO BE PROVIDED FOR REPAIRING ANY ACCIDENTALLY DAMAGE TO EXISTING UNDERGROUND UTILITIES TO INCLUDE BUT NOT LIMITED TO ELECTRICAL, SANITARY, STORM, IRRIGATION, TELECOMMUNICATION, WATER AND FIRE MAINS.
3. THE NEW HYDRONIC CHILLED WATER AND HOT WATER SYSTEM PIPING BUILDING FINAL TIE-IN CONNECTIONS SHALL BE SCHEDULED AND PERFORMED OVER WEEKENDS OR AFTER-HOURS ONLY. NO EXCEPTIONS.

MECHANICAL GENERAL NOTES

1. ALL WORK SHALL BE PERFORMED AS PER THE LOCAL MECHANICAL CODE, THE LOCAL BUILDING CODES AND LOCAL ENERGY CONSERVATION CODE.
2. PROVIDE ALL MATERIALS, LABOR, EQUIPMENT AND ANY OTHER INCIDENTALS ESSENTIAL FOR A COMPLETE AND OPERATIONAL INSTALLATION OF THE HYDRONIC PIPING WORK SHOWN ON THE PLANS.
3. DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL INFO FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE PROJECT, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER UTILITY SERVICES, OR FOR PROPER EXECUTION OF THE WORK.
4. CONTRACTOR TO PROVIDE DOCUMENTATION WITH DATE AND TIME OF ALL THE PIPE TESTING PERFORMED .
5. REFER TO CHILLED WATER AND HEATING WATER PIPING LABEL AND KEY NOTES FOR PIPE SIZES.
6. NEW PIPING TO BE INSTALLED AS TO NOT BLOCK ANY PEDESTRIAN OR VEHICLE TRAFFIC DURING CAMPUS HOURS.
7. PRIOR TO INSTALLATION OF HYDRONIC SYSTEM PIPING FITTINGS,VALVES ETC., VERIFY MANUFACTURER'S RECOMMENDED AND REQUIRED SPACING AND CLEARANCES.
8. COORDINATE ALL EXCAVATION WORK TO AVOID TREES.
9. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH DAMAGE TO ELECTRICAL AND PLUMBING SITE UTILITIES SERVICE, LANDSCAPE AND SYSTEMS.
10. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE EXISTING UTILITIES LOCATIONS SHALL BE WITHOUT ANY ADDITIONAL COST TO THE PROJECT.
11. PROVIDE WEATHERPROOF ENCLOSURE FOR THE CONTROL VALVE ACTUATORS LOCATED EXTERIOR IN VALVE VAULT.
12. ALL EXPOSED CHILLED WATER AND HOT WATER PIPING SHALL BE PROVIDED WITH ALUMINUM JACKET AND HEAT TRACE TO PROTECT FROM FREEZING.
13. THE CONTRACTOR SHALL FENCE THE AREA OF CONSTRUCTION AND CONTRACTOR STAGING/PARKING WITH TEMPORARY CHAINLINK CONSTRUCTION FENCING. DO NOT USE PERMANENT PERIMETER FENCING FOR CONSTRUCTION FENCING.
14. THE CONTRACTOR STAGING AREA SHALL BE FENCED DURING THE ENTIRE CONTRACT PERIOD. THE CONTRACTOR'S FIELD OFFICE, TOILET FACILITIES, MATERIAL, EQUIPMENT, AND WORKER PARKING SHALL BE WITHIN THE STAGING AREA. THE STAGING AREA SHALL HAVE VEHICULAR ACCESS GATES AS REQUIRED BY THE CONTRACTOR AND COORDINATED WITH THE OWNER.
15. THE CONTRACTOR SHALL KEEP VEHICULAR AND PEDESTRIAN ACCESS WAYS CLEAR AND CLEAN AT ALL TIMES.
16. THE AREA OF CONSTRUCTION SHALL BE FENCED OR BARRICADED WHILE CONSTRUCTION IS TAKING PLACE. FENCES AND BARRICADES SHALL BE MAINTAINED STRAIGHT AND ERECT DURING THE CONSTRUCTION.
17. REMOVE ALL BARRICADES AND OTHER TEMPORARY CONSTRUCTION AT THE COMPLETION OF THE WORK.
18. THE CONTRACTOR SHALL REPAIR, RESTORE OR REPLACE ANY EXISTING INSTALLATIONS DAMAGED BY WORK OF THIS CONTRACT INCLUDING AND NOT LIMITED TO ASPHALT ROADS, SODDED AREAS AND OTHER LANDSCAPING.
19. ALL FLATWORK SHALL MEET TEXAS ACCESSIBILITY STANDARDS.
20. NOT ALL SYMBOLS OR ABBREVIATIONS MAY BE USED ON THESE DRAWINGS.

MECHANICAL RENOVATIONS NOTES

1. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BID DATE.
2. THE EXISTING HYDRONIC SYSTEM PIPING AND COMPONENTS IS TO BE REMOVED. OWNER RETAINS SALVAGE RIGHTS, PROVIDE A MINIMUM OF 72 HOURS NOTICE PRIOR TO FINAL REMOVAL AND DISPOSAL OF MATERIAL FROM THE SITE.
3. MAINTAIN ALL REQUIRED SERVICE CLEARANCES FOR NEW AND EXISTING PIPING SYSTEMS.
4. PROVIDE METAL JACKET, INSULATION AND HEAT TRACE CHILLED WATER AND HOT WATER PIPING ABOVE GRADE.
5. CONTRACTOR SHALL FIELD VERIFY ALL ASPECTS OF PROJECT.
6. CONTRACTOR TO AVOID AND PROTECT EXISTING UTILITIES DURING CONSTRUCTION.
7. CONTRACTOR SHALL COORDINATE WITH OWNER TO DETERMINE BEST WORK SCHEDULE.
8. MECHANICAL CONTRACTOR MAY HAVE TO DRAIN EXISTING CWS/CWR SYSTEM. DRAIN, REFILL, VENT AND COORDINATE OWNERS CHEMICAL TREATMENT (IF ANY) AS REQUIRED.
9. PATCH AND SEAL ALL SLAB AND WALL OPENINGS WITH LIKE MATERIAL WHERE MECHANICAL EQUIPMENT PIPING ONCE PENETRATED.
10. UPON COMPLETION BRING ALL EXISTING PIPES, WALLS, PAVEMENTS, GRASS, SOIL, ETC, THAT WERE REWORKED, DISTURBED, OR DAMAGED, DURING CONSTRUCTION TO ORIGINAL CONDITION OR BETTER, RESEED/PATCH AS REQUIRED. MATCH FINISH TO EXISTING. FIRE SEAL EXISTING/NEW WALL PENETRATIONS.
11. FLUSH AND CLEAN NEW AND EXISTING CHILLED WATER AND HOT WATER SYSTEMS AND PROVIDE NEW CHEMICAL TREATMENT.
12. PROVIDE ALL NEW PIPE SUPPORTS, ANCHORS AND THRUST BLOCKS WHERE PIPING IS BEING REPLACED.
13. UNDERGROUND PIPING SHALL BE FACTORY FABRICATED PRE-INSULATED HIGH DENSITY POLYETHYLENE (HDPE) AND JACKETED BLACK STEEL PIPING GRADE B PLAIN ENDS. REF: SPECIFICATIONS.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING EXISTING BUILDINGS OPERATIONAL AND FUNCTIONAL DURING CONSTRUCTION. ALL REQUIRED MECHANICAL EQUIPMENT, PIPING AND ASSOCIATED POWER, WIRING TO KEEP EXISTING BUILDINGS OPERATIONAL AND FUNCTIONAL SHALL BE PROVIDED BY THE CONTRACTOR.

MECHANICAL DEMOLITION NOTES

1. ALL UNDER GROUND EXISTING CHILLED WATER AND HOT WATER SUPPLY/RETURN MAINS AND ASSOCIATED VALVE BOX, DIRECT BURY VALVES, THRUST BLOCKS ETC., TO BE DEMOLISHED AND PIPING REPLACED NEW UNLESS NOTED OTHERWISE.
2. CONTRACTOR TO FIELD VERIFY EXISTING CONDITION PRIOR TO DEMOLITION.
3. VERIFY THE LOCATION OF ANY UTILITY LINES PRIOR TO COMMENCING DIGGING ON THE SITE.
4. COORDINATE ALL REQUIRED SHUTDOWN WORK TWO (2) WEEKS IN ADVANCE WITH OWNER. (OWNER SHALL VERIFIY IF SHUTDOWN WILL AFFECT INFORMATION TECHNOLOGY (IT) SERVER).
5. COORDINATE ALL SPOT ELEVATIONS AND DIMENSIONS WITH CIVIL, LANDSCAPE AND MECHANICAL DRAWINGS.

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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS
JAMES R. PERRON
145042
LICENSED PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024
DRAWN BY: JP
CHECKED BY: JD

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

GENERAL NOTES AND LEGEND MECHANICAL

M0.01

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5/2/2024 8:39:52 AM

GENERAL NOTES

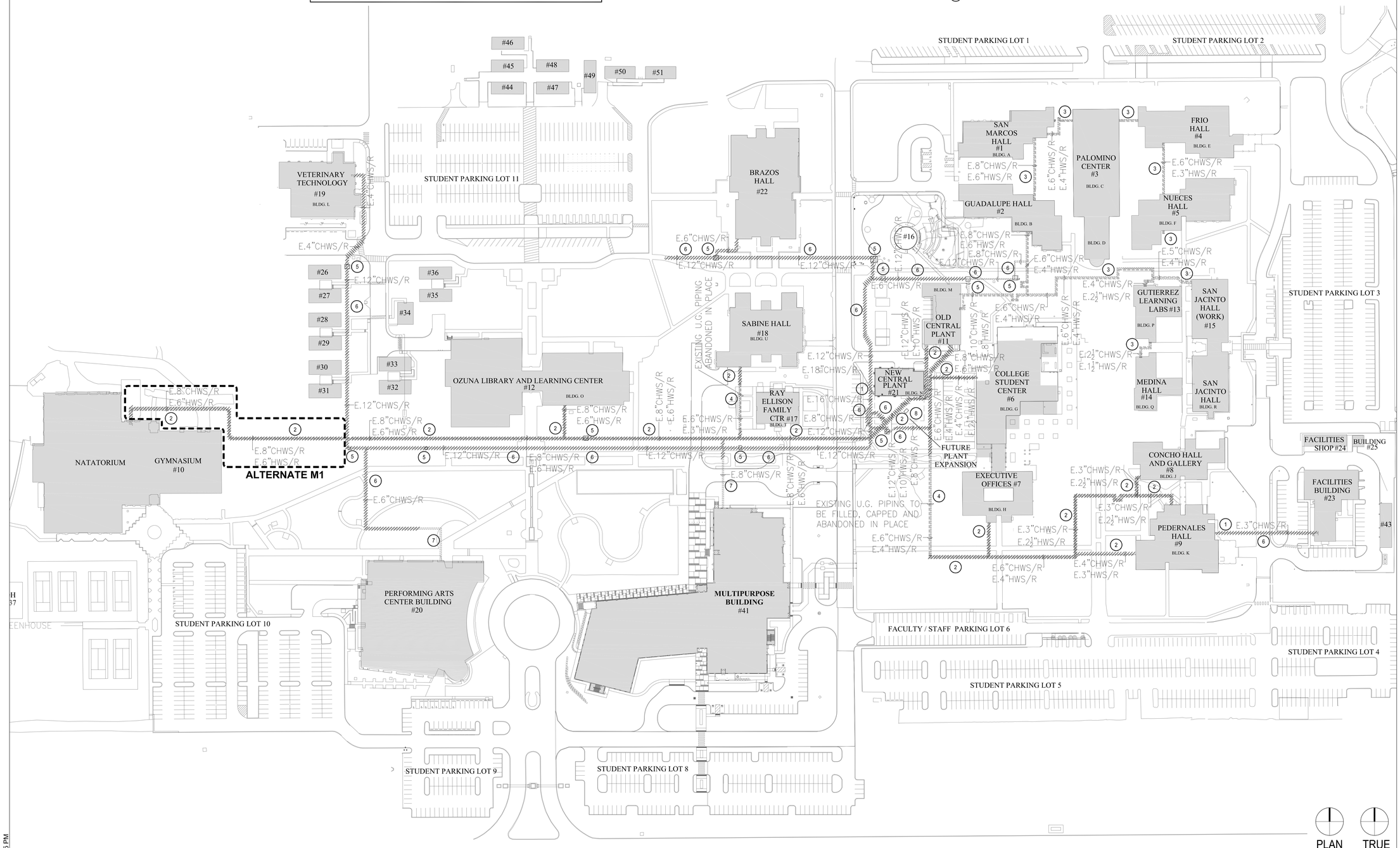
1. REFER TO SHEET M0.01 FOR ALL GENERAL MECHANICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. ALL EXISTING HYDRONIC SYSTEM PIPING, SIZES AND LOCATIONS SHOWN ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS, UTILITIES SURVEYS AND SITE OBSERVATIONS. NOT ALL EXISTING PIPING SYSTEMS MAY BE SHOWN.
4. CONTRACTOR SHALL CAREFULLY EXCAVATE IN AREAS OF WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT NO COST TO THE OWNER.

KEYED NOTES :

1. DEMOLISH AND REMOVE EXISTING U.G. CHILLED WATER SUPPLY AND RETURN MAIN TO BE REPLACED WITH NEW NEAR THE BUILDING LOCATION.
2. DEMOLISH AND REMOVE EXISTING U.G. CHILLED WATER, HOT WATER SUPPLY AND RETURN MAIN TO BE REPLACED WITH NEW.
3. EXISTING U.G. CHWS & R AND HWS & R PIPING TO REMAIN.
4. EXISTING U.G. CHWS & R AND HWS & R PIPING TO BE ABANDONED IN PLACE. PIPING ENDS TO BE CAPPED.
5. DEMOLISH EXISTING VALVE BOX, ISOLATION VALVES, U.G. CHWS/R AND U.G. HWS/R PIPING.
6. EXISTING U.G. CHWS & R TO BE REMOVED AND DEMOLISHED TO BE REPLACED WITH NEW. REFER TO 1/M2.01
7. EXISTING U.G. CHWS & R TO REMAIN.
8. DEMOLISH EXISTING EMPTY UNUSED VALVE BOX.

MECHANICAL ALTERNATE M1

BASE BID: EXISTING U.G. 8"CHWS/R AND 6" HWS/R TO BE REMOVED AND INSTALL VAULT WITH SHUT-OFF VALVES AND CAP 12" CHWS/R AND 6" HWS/R MAIN FOR FUTURE CONNNECTION.
ALTERNATE M1: INSTALL NEW U.G 12" CHS/R AND 6" HWS/R PIPING TO BUILDING AND OMIT THE VALVE VAULT.



1 **HYDRONIC PIPING CHWS/R AND HWS/R DEMOLISH PLAN**
SCALE: 1" = 80-0"

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KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS
JAMES R. PERRON
145042
LICENSED PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE
PROJECT NUMBER
230030
DATE: 05/03/2024
DRAWN BY: JP
CHECKED BY: DR
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

HYDRONIC PIPING DEMOLITION PLAN - MECHANICAL

MD1.01

Z:\Projects\SAN\23\230030 - ACD Palo Alto College Hydronic Replacement\Dlv8-Dwgs\8a BIM CAD\12 Mech\ACD PAC Mechanical.dwg
5/3/2024 12:25:45 PM

GENERAL NOTES

1. REFER TO SHEET M0.01 FOR ALL GENERAL MECHANICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. ALL EXISTING HYDRONIC SYSTEM PIPING, SIZES AND LOCATIONS SHOWN ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS, UTILITIES SURVEYS AND SITE OBSERVATIONS. NOT ALL EXISTING PIPING SYSTEMS MAY BE SHOWN.
4. CONTRACTOR SHALL CAREFULLY EXCAVATE IN AREAS OF WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT NO COST TO THE OWNER.

MECHANICAL ALTERNATE M1

BASE BID: EXISTING U.G. 8"CHWS/R AND 6" HWS/R TO BE REMOVED AND INSTALL VAULT WITH SHUT-OFF VALVES AND CAP 12" CHWS/R AND 6" HWS/R MAIN FOR FUTURE CONNECTION.
ALTERNATE M1: INSTALL NEW U.G 12" CHS/R AND 6" HWS/R PIPING TO BUILDING AND OMIT THE VALVE VAULT.

KEYED NOTES :

1. CONNECT NEW U.G. PIPING 18" CHILLED WATER SUPPLY AND RETURN MAIN WITH DIRECT BURY VALVES AT BUILDING EXISTING U.G. CHILLED WATER SUPPLY AND RETURN MAIN. OFFSET U.G. PIPING AS REQUIRED. DEPTH OF EXISTING U.G. CHILLED WATER PIPING MAIN IS UNKNOWN, FIELD VERIFY. CONFIRM PIPE ARRANGEMENT AS TO CHILLED WATER SUPPLY AND CHILLED WATER RETURN AS REQUIRED.
2. CONNECT NEW U.G. 12" CHWS & R AND 10" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
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4. CONNECT NEW U.G. 4" CHWS & R AND 2 1/2" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
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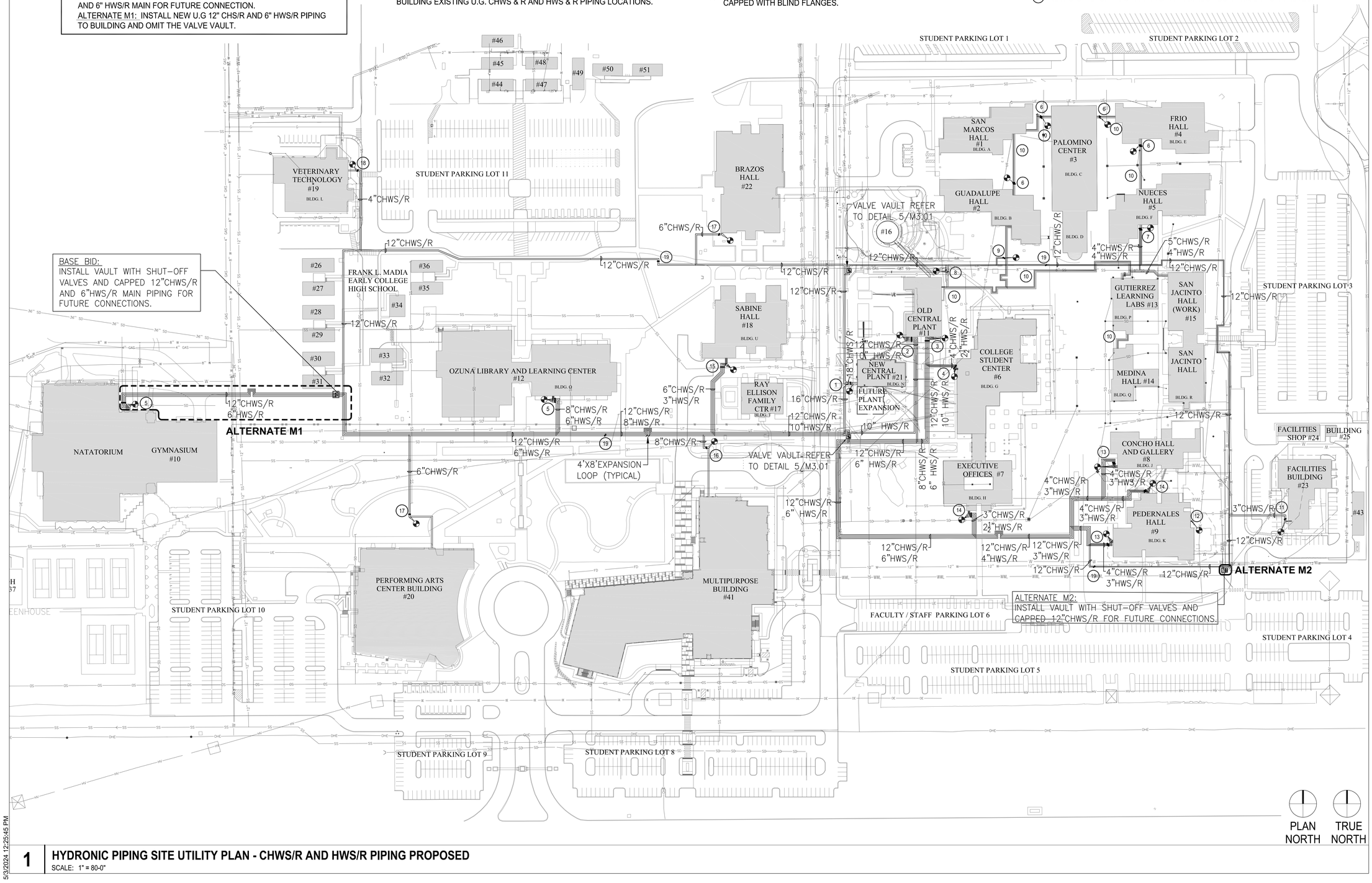

1 **HYDRONIC PIPING SITE UTILITY PLAN - CHWS/R AND HWS/R PIPING PROPOSED**
SCALE: 1" = 80-0"

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-438-7200 P
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2222 NORTH ALAMO STREET, SAN ANTONIO , TEXAS 78215
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ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400, SAN ANTONIO , TEXAS 78216
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CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO, SAN ANTONIO , TEXAS 78216
210-496-7223 P 210-496-5105 F

LANDSCAPE — EDGELAND GROUP
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713-400-0068 P 713-851-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS — JAMES R. PERRON — 145042 — LICENSED PROFESSIONAL ENGINEER
05/03/2024
LEAF ENGINEERS
F-18672

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PROJECT NUMBER: 230030
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ISSUE FOR CONSTRUCTION

HYDRONIC PIPING SITE UTILITIES - MECHANICAL

M1.01

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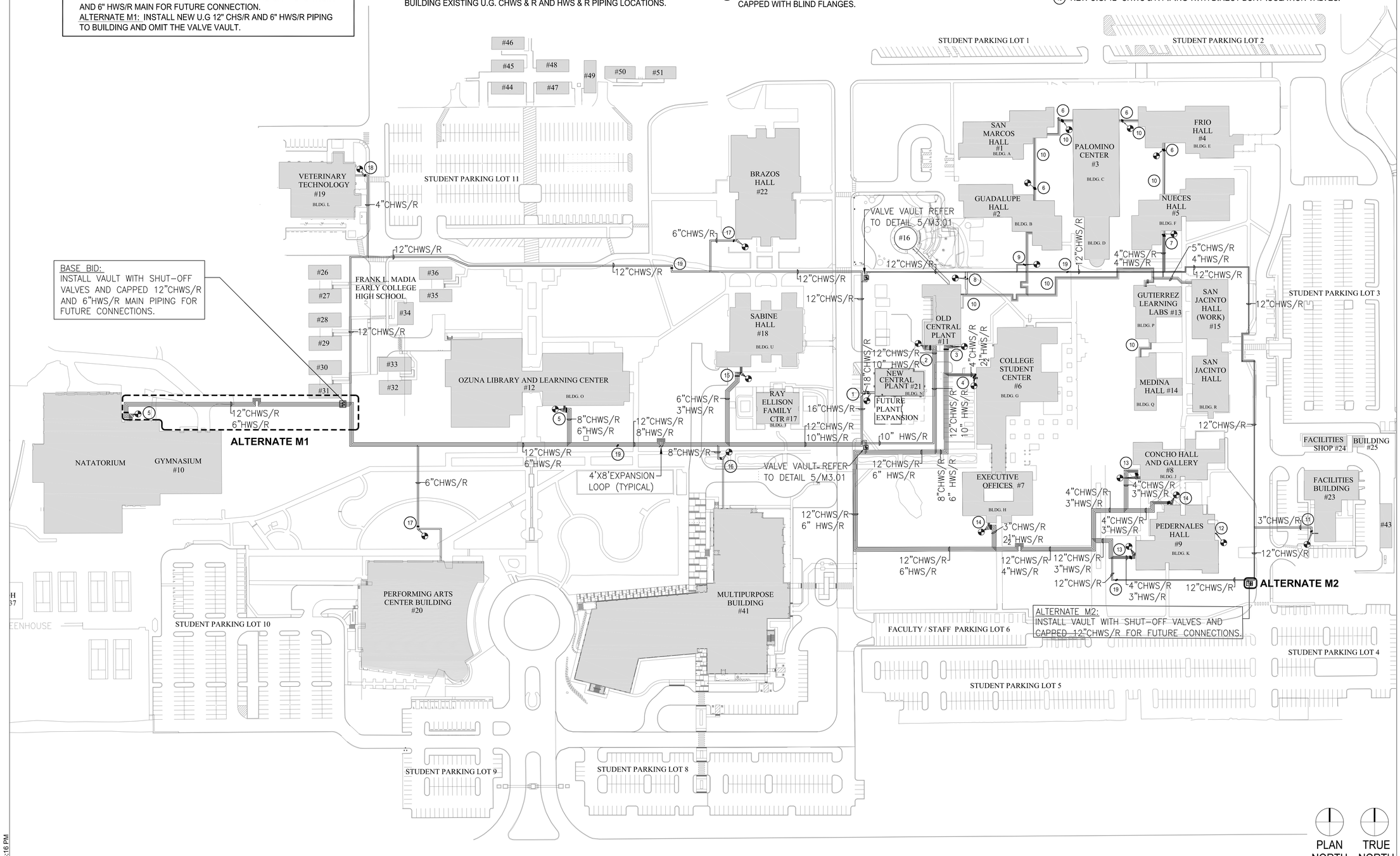

1 **HYDRONIC PIPING CHS/R AND HWS/R - PROPOSED PLAN**
SCALE: 1" = 80"

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
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210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER	ALAMO COLLEGE DISTRICT 2222 NORTH ALAMO STREET SAN ANTONIO, TEXAS 78215 210-485-0000 P 210-485-0555 F
ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 450 SAN ANTONIO, TEXAS 78216 210-829-0723 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7073 SAN PEDRO SAN ANTONIO, TEXAS 78216 210-494-7201 P 210-690-5120 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO, TEXAS 78216 713-4600-0088 P 713-961-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS — JAMES R. PERRON — 145045 — LICENSED PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT: ACD PALO ALTO COLLEGE
PROJECT NUMBER: 230030
DATE: 05/03/2024
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HYDRONIC PIPING PROPOSED PLAN - MECHANICAL

M2.01

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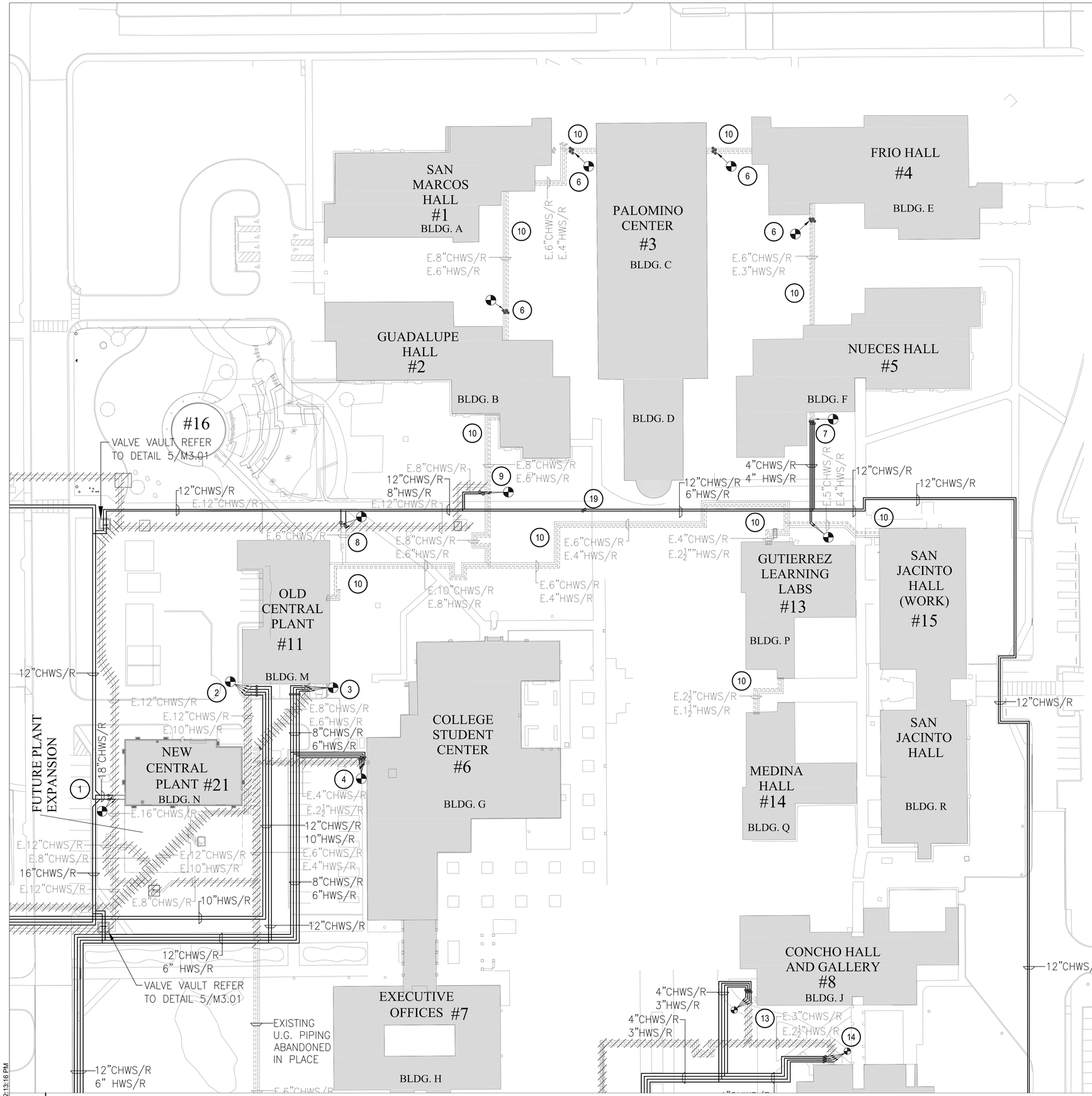

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1 HYDRONIC PIPING CHS/R AND HWS/R - ENLARGED PLAN
SCALE: 1/32" = 1-0"

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LEAF ENGINEERS

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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS
JAMES R. PERRON
145042
LICENSED
PROFESSIONAL ENGINEER
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230030

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REVISIONS

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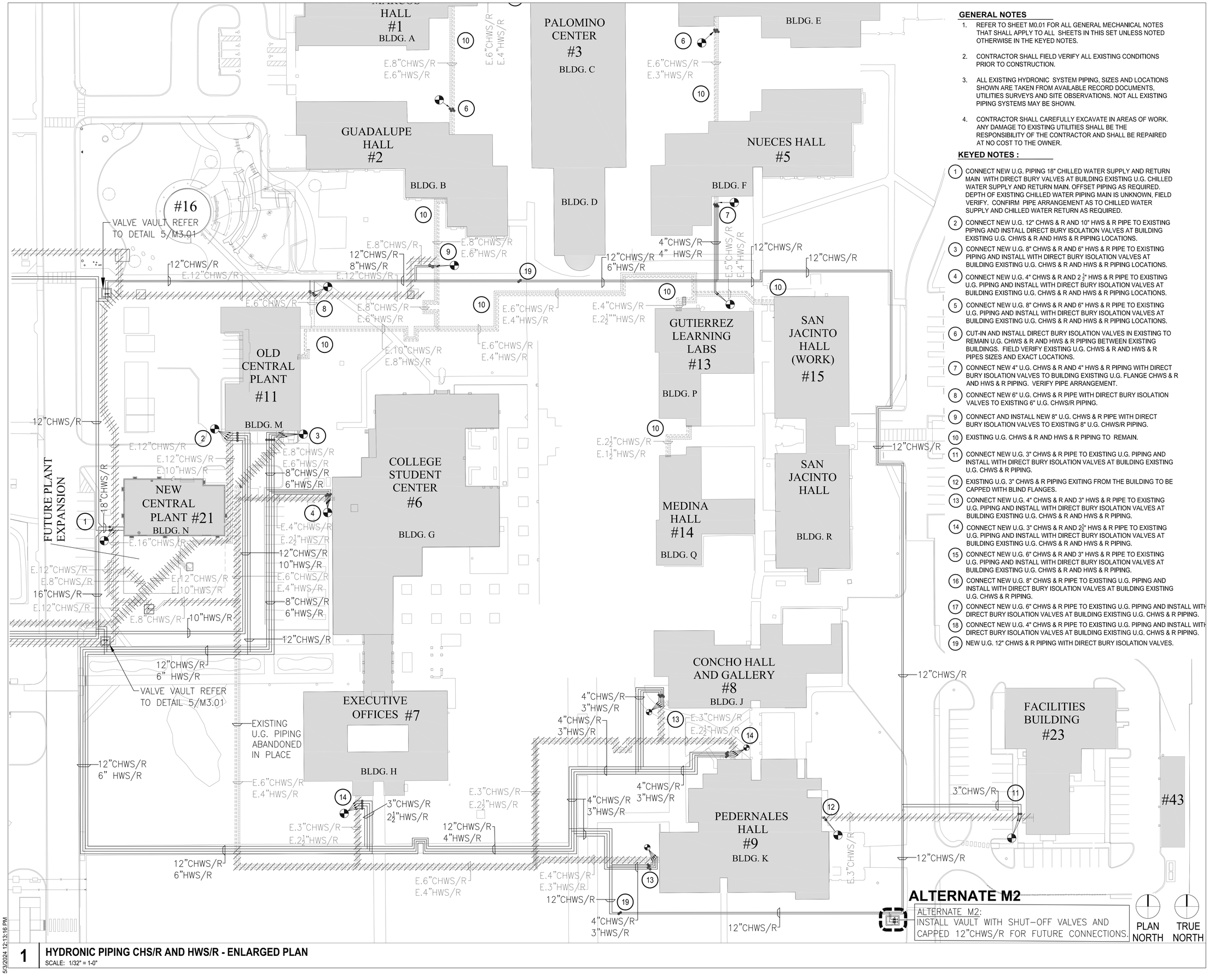
ISSUE FOR CONSTRUCTION

HYDRONIC PIPING ENLARGED PLAN - MECHANICAL

M2.10



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11. CONNECT NEW U.G. 3" CHWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R PIPING.
12. EXISTING U.G. 3" CHWS & R PIPING EXITING FROM THE BUILDING TO BE CAPPED WITH BLIND FLANGES.
13. CONNECT NEW U.G. 4" CHWS & R AND 3" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING.
14. CONNECT NEW U.G. 3" CHWS & R AND 2½" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING.
15. CONNECT NEW U.G. 6" CHWS & R AND 3" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING.
16. CONNECT NEW U.G. 8" CHWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R PIPING.
17. CONNECT NEW U.G. 6" CHWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R PIPING.
18. CONNECT NEW U.G. 4" CHWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R PIPING.
19. NEW U.G. 12" CHWS & R PIPING WITH DIRECT BURY ISOLATION VALVES.

1 HYDRONIC PIPING CHS/R AND HWS/R - ENLARGED PLAN
SCALE: 1/32" = 1-0"

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ARCHITECT	PBK ARCHITECTS 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 210-829-0012 P 210-829-0578 F
CIVIL/SURVEYOR	BAIN MEDINA BAIN 7171 SAN PEDRO SAN ANTONIO , TEXAS 78216 210-494-7223 P 210-490-0126 F
LANDSCAPE	EDGELAND GROUP 601 NW LOOP 410, SUITE 400 SAN ANTONIO , TEXAS 78216 713-4600-0888 P 713-961-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS · JAMES R. PERRON · 140342 · LICENSED PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE
PROJECT NUMBER
230030
DATE: 05/03/2024
DRAWN BY:
CHECKED BY:
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

HYDRONIC PIPING ENLARGED PLAN - MECHANICAL

M2.11

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GENERAL NOTES

1. REFER TO SHEET M0.01 FOR ALL GENERAL MECHANICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
2. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
3. ALL EXISTING HYDRONIC SYSTEM PIPING, SIZES AND LOCATIONS SHOWN ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS, UTILITIES SURVEYS AND SITE OBSERVATIONS. NOT ALL EXISTING PIPING SYSTEMS MAY BE SHOWN.
4. CONTRACTOR SHALL CAREFULLY EXCAVATE IN AREAS OF WORK. ANY DAMAGE TO EXISTING UTILITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED AT NO COST TO THE OWNER.

KEYED NOTES :

1. CONNECT NEW U.G. PIPING 18" CHILLED WATER SUPPLY AND RETURN MAIN WITH DIRECT BURY VALVES AT BUILDING EXISTING U.G. CHILLED WATER SUPPLY AND RETURN MAIN OFFSET PIPING AS REQUIRED. DEPTH OF EXISTING U.G. CHILLED WATER PIPING MAIN IS UNKNOWN, FIELD VERIFY. CONFIRM PIPE ARRANGEMENT AS TO CHILLED WATER SUPPLY AND CHILLED WATER RETURN AS REQUIRED.
2. CONNECT NEW U.G. 12" CHWS & R AND 10" HWS & R PIPE TO EXISTING PIPING AND INSTALL DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
3. CONNECT NEW U.G. 8" CHWS & R AND 6" HWS & R PIPE TO EXISTING PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
4. CONNECT NEW U.G. 4" CHWS & R AND 2½" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
5. CONNECT NEW U.G. 8" CHWS & R AND 6" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT
6. CUT-IN AND INSTALL DIRECT BURY ISOLATION VALVES IN EXISTING TO REMIAN U.G. CHWS & R AND HWS & R PIPING BETWEEN EXISTING BUILDINGS. FIELD VERIFY EXISTING U.G. CHWS & R AND HWS & R PIPES SIZES AND EXACT LOCATIONS.
7. CONNECT NEW 4" U.G. CHWS & R AND 4" HWS & R PIPING WITH DIRECT BURY ISOLATION VALVES TO BUILDING EXISTING U.G. FLANGE CHWS & R AND HWS & R PIPING. VERIFY PIPE ARRANGEMENT.
8. CONNECT NEW 6" U.G. CHWS & R PIPE WITH DIRECT BURY ISOLATION VALVES TO EXISTING 6" U.G. CHWS/R PIPING.
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10. EXISTING U.G. CHWS & R AND HWS & R PIPING TO REMAIN.
11. CONNECT NEW U.G. 3" CHWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R PIPING.
12. EXISTING U.G. 3" CHWS & R PIPING EXITING FROM THE BUILDING TO BE CAPPED WITH BLIND FLANGES.
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15. CONNECT NEW U.G. 6" CHWS & R AND 3" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING.
16. CONNECT NEW U.G. 8" CHWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R PIPING.
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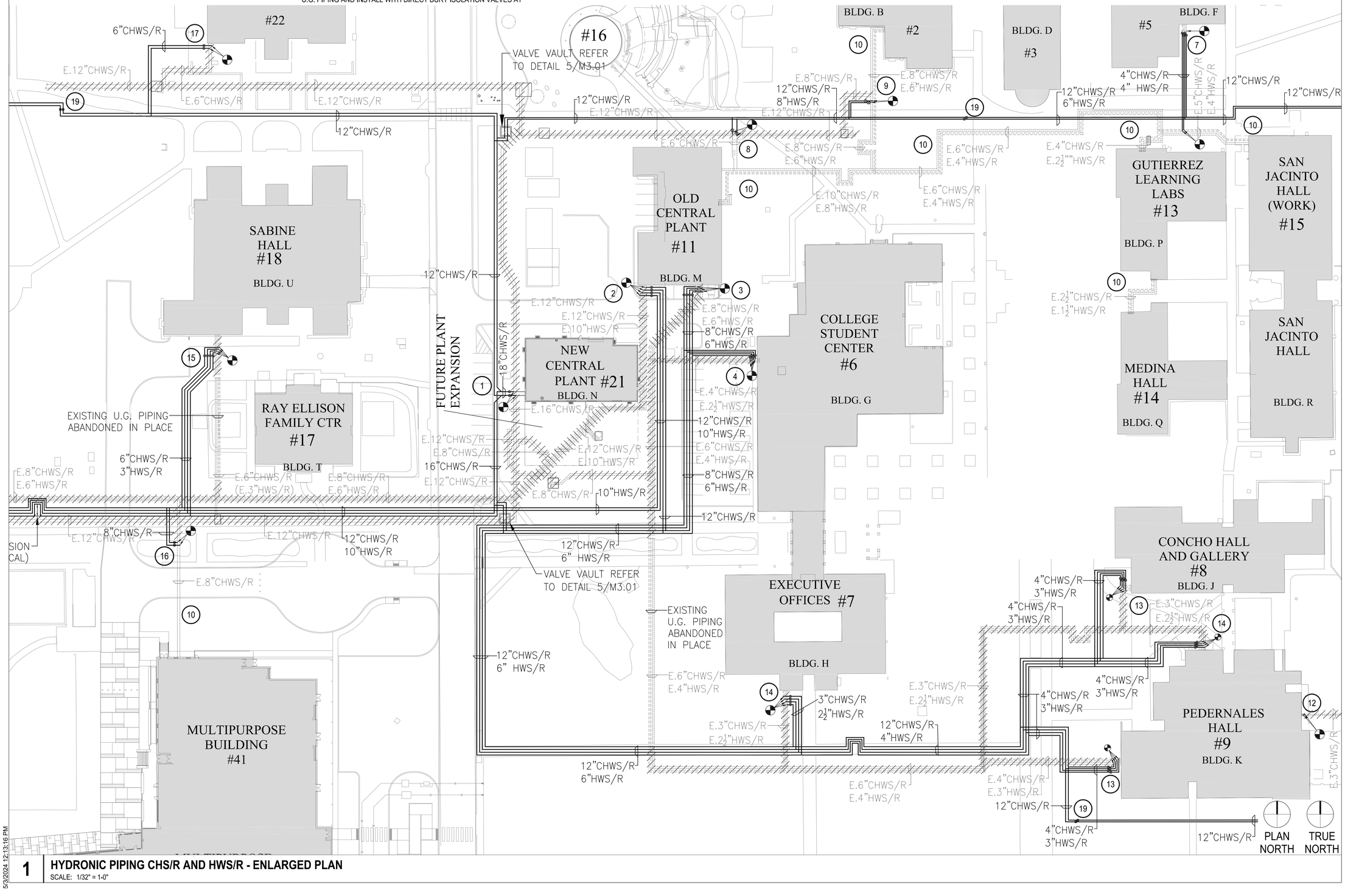
19. NEW U.G. 12" CHWS & R PIPING WITH DIRECT BURY ISOLATION VALVES.



1 **HYDRONIC PIPING CHS/R AND HWS/R - ENLARGED PLAN**
SCALE: 1/32" = 1-0"

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ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS — JAMES R. PERRON — 145042 — LICENSED PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE
PROJECT NUMBER
230030
DATE: 05/03/2024
DRAWN BY:
CHECKED BY:
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

HYDRONIC PIPING ENLARGED PLAN - MECHANICAL

M2.12

KEYED NOTES :

1. CONNECT NEW U.G. PIPING 18" CHILLED WATER SUPPLY AND RETURN MAIN WITH DIRECT BURY VALVES AT BUILDING EXISTING U.G. CHILLED WATER SUPPLY AND RETURN MAIN. OFFSET PIPING AS REQUIRED. DEPTH OF EXISTING CHILLED WATER PIPING MAIN IS UNKNOWN, FIELD VERIFY. CONFIRM PIPE ARRANGEMENT AS TO CHILLED WATER SUPPLY AND CHILLED WATER RETURN AS REQUIRED.
2. CONNECT NEW U.G. 12" CHWS & R AND 10" HWS & R PIPE TO EXISTING PIPING AND INSTALL DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
3. CONNECT NEW U.G. 8" CHWS & R AND 6" HWS & R PIPE TO EXISTING PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
4. CONNECT NEW U.G. 4" CHWS & R AND 2½" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
5. CONNECT NEW U.G. 8" CHWS & R AND 6" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
6. CUT-IN AND INSTALL DIRECT BURY ISOLATION VALVES IN EXISTING TO REMAIN U.G. CHWS & R AND HWS & R PIPING BETWEEN EXISTING BUILDINGS. FIELD VERIFY EXISTING U.G. CHWS & R AND HWS & R PIPES SIZES AND EXACT LOCATIONS.
7. CONNECT NEW 4" U.G. CHWS & R AND 4" HWS & R PIPING WITH DIRECT BURY ISOLATION VALVES TO BUILDING EXISTING U.G. FLANGE CHWS & R AND HWS & R PIPING. VERIFY PIPE ARRANGEMENT.
8. CONNECT NEW 6" U.G. CHWS & R PIPE WITH DIRECT BURY ISOLATION VALVES TO EXISTING 6" U.G. CHWS/R PIPING.
9. CONNECT AND INSTALL NEW 8" U.G. CHWS & R PIPE WITH DIRECT BURY ISOLATION VALVES TO EXISTING 8" U.G. CHWS/R PIPING.
10. EXISTING U.G. CHWS & R AND HWS & R PIPING TO REMAIN.
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13. CONNECT NEW U.G. 4" CHWS & R AND 3" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING.
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15. CONNECT NEW U.G. 6" CHWS & R AND 3" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING.
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19. NEW U.G. 12" CHWS & R PIPING WITH DIRECT BURY ISOLATION VALVES.

GENERAL NOTES

1. REFER TO SHEET M0.01 FOR ALL GENERAL MECHANICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
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3. ALL EXISTING HYDRONIC SYSTEM PIPING, SIZES AND LOCATIONS SHOWN ARE TAKEN FROM AVAILABLE RECORD DOCUMENTS, UTILITIES SURVEYS AND SITE OBSERVATIONS. NOT ALL EXISTING PIPING SYSTEMS MAY BE SHOWN.
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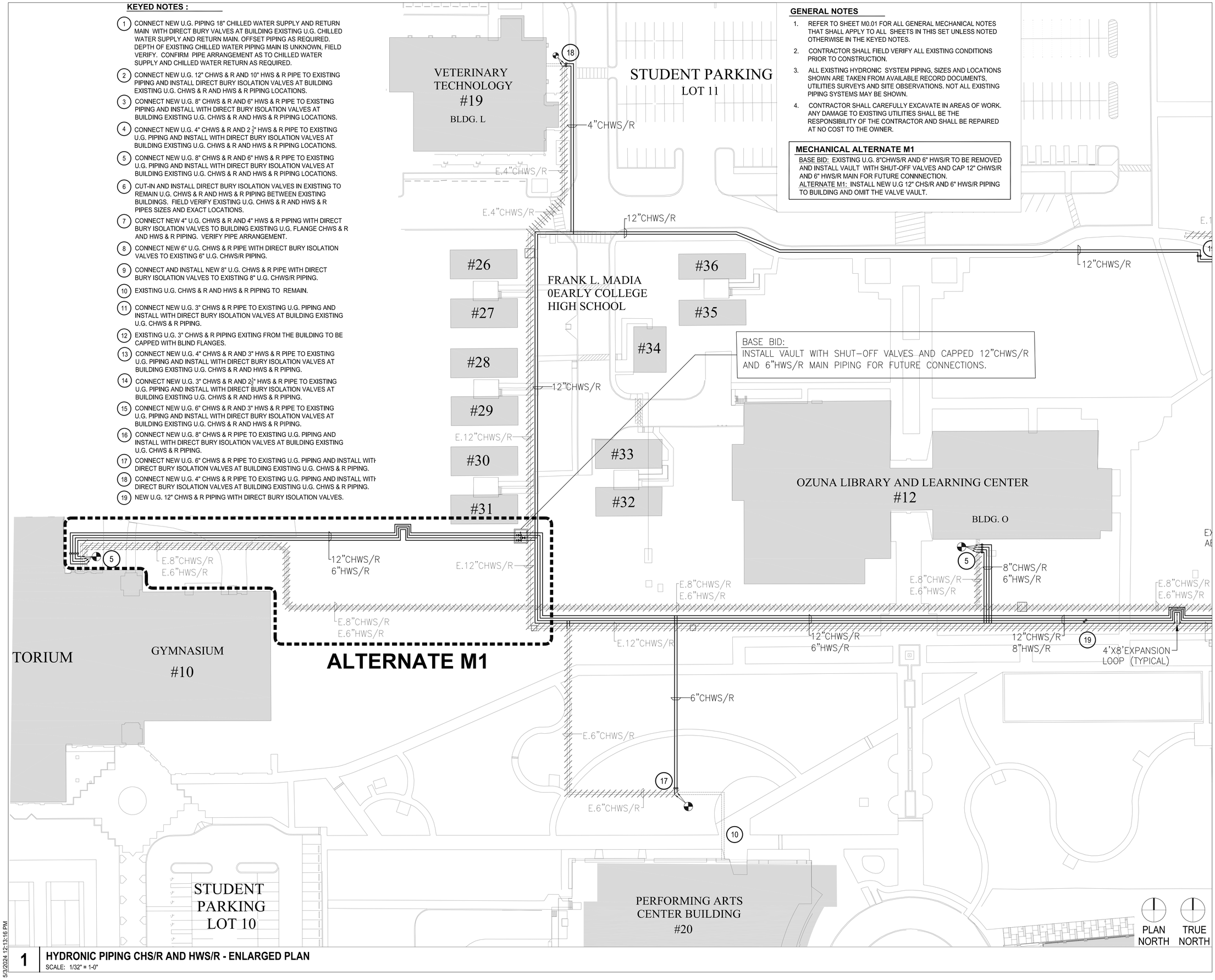
MECHANICAL ALTERNATE M1

BASE BID: EXISTING U.G. 8"CHWS/R AND 6" HWS/R TO BE REMOVED AND INSTALL VAULT WITH SHUT-OFF VALVES AND CAP 12" CHWS/R AND 6" HWS/R MAIN FOR FUTURE CONNNECTION.
ALTERNATE M1: INSTALL NEW U.G 12" CHS/R AND 6" HWS/R PIPING TO BUILDING AND OMIT THE VALVE VAULT.



1 HYDRONIC PIPING CHS/R AND HWS/R - ENLARGED PLAN
SCALE: 1/32" = 1-0"

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San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS
JAMES R. PERRON
145042
LICENSED PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER 230030
DATE: 05/03/2024
DRAWN BY: JP
CHECKED BY: DR
REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

HYDRONIC PIPING ENLARGED PLAN - MECHANICAL

M2.13

GENERAL NOTES

1. REFER TO SHEET M0.01 FOR ALL GENERAL MECHANICAL NOTES THAT SHALL APPLY TO ALL SHEETS IN THIS SET UNLESS NOTED OTHERWISE IN THE KEYED NOTES.
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MECHANICAL ALTERNATE M1

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ALTERNATE M1: INSTALL NEW U.G 12" CHS/R AND 6" HWS/R PIPING TO BUILDING AND OMIT THE VALVE VAULT.

KEYED NOTES :

1. CONNECT NEW U.G. PIPING 18" CHILLED WATER SUPPLY AND RETURN MAIN WITH DIRECT BURY VALVES AT BUILDING EXISTING U.G. CHILLED WATER SUPPLY AND RETURN MAIN. OFFSET U.G. PIPING AS REQUIRED. DEPTH OF EXISTING U.G. CHILLED WATER PIPING MAIN IS UNKNOWN, FIELD VERIFY. CONFIRM PIPE ARRANGEMENT AS TO CHILLED WATER SUPPLY AND CHILLED WATER RETURN AS REQUIRED.
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4. CONNECT NEW U.G. 4" CHWS & R AND 2 ½" HWS & R PIPE TO EXISTING U.G. PIPING AND INSTALL WITH DIRECT BURY ISOLATION VALVES AT BUILDING EXISTING U.G. CHWS & R AND HWS & R PIPING LOCATIONS.
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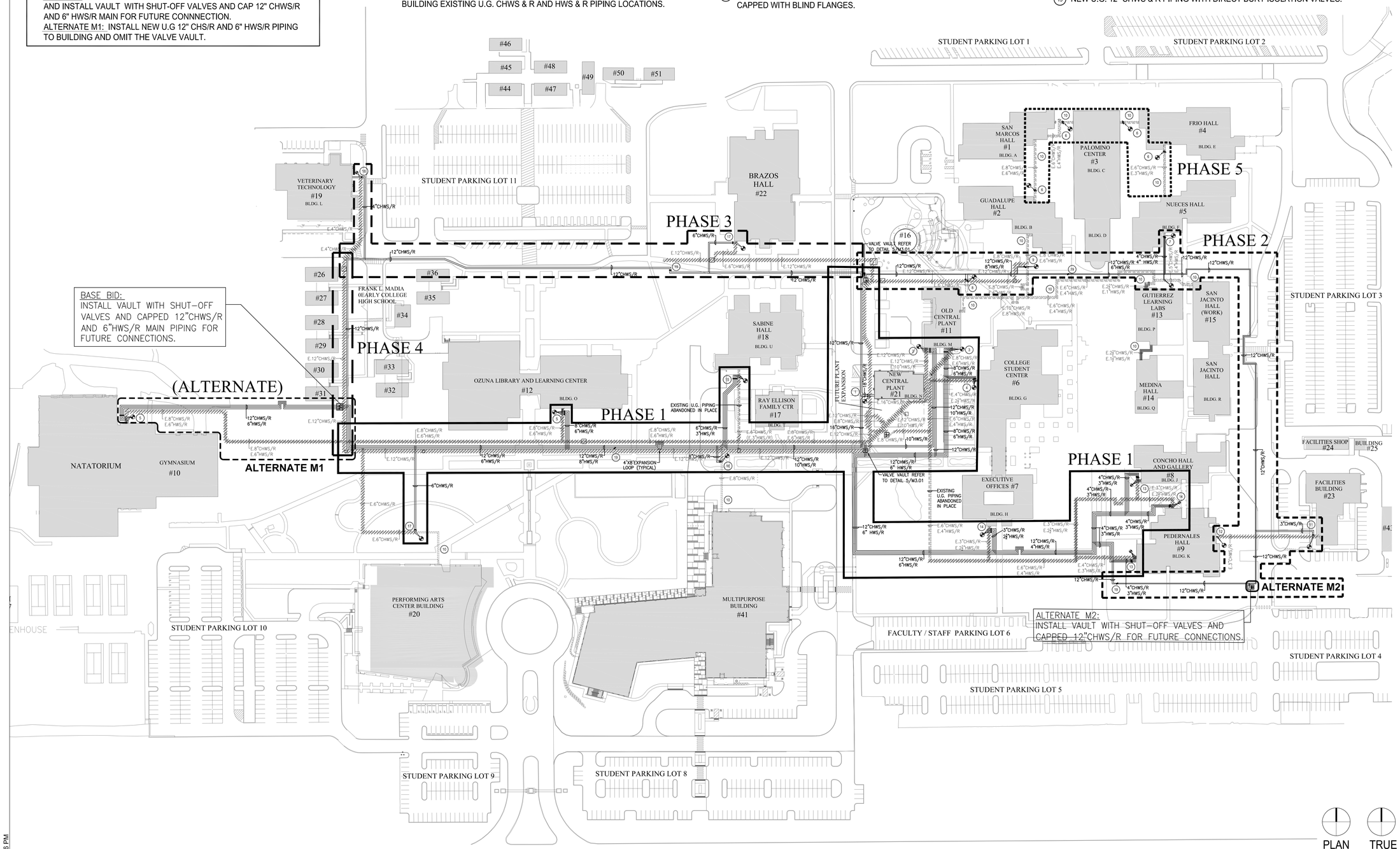

1 HYDRONIC PIPING CHS/R AND HWS/R - PROPOSED PHASING PLAN
SCALE: 1" = 80"

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LICENSED PROFESSIONAL ENGINEER
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ISSUE FOR CONSTRUCTION

HYDRONIC PIPING PROPOSED PHASING PLAN - MECHANICAL

M2.20

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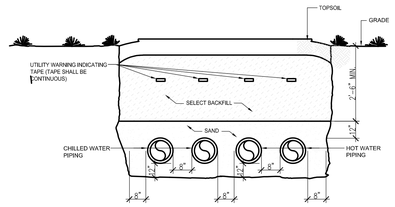


NOTE. WHERE PIPING CONFLICTS WITH EXISTING UTILITIES THE PIPING SHALL BE OFFSET AS REQUIRED TO ROUTE ABOVE OR BELOW THE UTILITY. MAINTAIN A MINIMUM DEPTH OF COVER AS INDICATED.

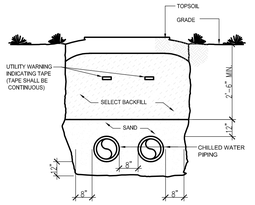
DEPTH OF EXISTING UTILITIES IS UNKNOWN. HAND EXCAVATE AT EXISTING UTILITIES TO DETERMINE LOCATION. DAMAGE TO EXISTING UTILITIES DUE TO EXCAVATION AND INSTALLATION OF NEW PIPING SHALL BE REPAIRED AT NO COST TO THE OWNER.

HAND EXCAVATE IN AREAS AROUND EXISTING UTILITIES. DEPTH OF EXISTING UTILITIES IS UNKNOWN, FIELD VERIFY.

BURIED PIPING SHALL BE A PRE-INSULATED PIPING SYSTEM AS SPECIFIED

1 CHILLED AND HOT WATER (FOUR-PIPES) UNDERGROUND PIPING DETAIL

SCALE: NONE



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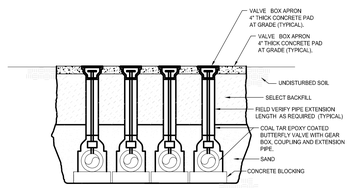
BURIED PIPING SHALL BE A PRE-INSULATED PIPING SYSTEM AS SPECIFIED

2 CHILLED WATER (TWO PIPES) UNDERGROUND PIPING DETAIL

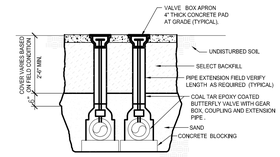
SCALE: NONE



NOTE:
CORROSION PROTECT ALL EXPOSED STEEL AT THE VALVE/PIPE FLANGES. THE ANTI-CORROSION PROTECTION SHALL BE INNOVATIVE MANUFACTURING INC.'S PETROWRAP ANTI-CORROSION SYSTEM, CONSISTING OF AN APPLICATION OF PRIMER, MASTIC, TAPE AND OVERLAP WRAP AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. PRODUCT IS AVAILABLE THRU VANSTEEN'S MARINE SUPPLY, ARTHUR FLIPSE, PHONE: (713) 674-3300.

3 DIRECT BURY VALVE DETAIL

SCALE: NONE



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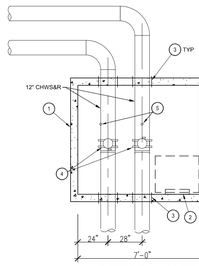
4 DIRECT BURY VALVE DETAIL

SCALE: NONE



CONTROLS NOTES:

PROVIDE MOTORIZED ISOLATION CONTROL VALVES IN THE 12" CHWS&R PIPING AS INDICATED IN THE VALVE VAULT. PROVIDE ACTUATOR WITH 120V/1PH POWER (TYPICAL). THE POSITION OF THE VALVE SHALL BE PROVIDED ON THE CONTROL GRAPHIC.

CONTROLS/POWER CONDUIT: ROUTE A PAIR OF 1" CONDUIT BELOW GRADE BETWEEN THE CENTRAL PLANT AND THE VALVE VAULT. DO NOT ROUTE THE BELOW GRADE CONDUIT IN AREA IDENTIFIED ON THE DRAWINGS AS FUTURE CENTRAL PLANT.

CONTROL/POWER WIRING TO BE ROUTED IN CONDUIT AS SPECIFIED.

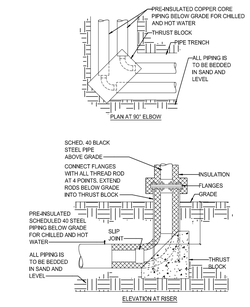
CONTROLS TO MATCH EXISTING. EXPAND THE EXISTING DDC CONTROL SYSTEM AS REQUIRED. PROVIDE OPENING/CLOSING OF ISOLATION VALVE VIA A MANUAL COMMAND FROM THE EXISTING CONTROL OPERATOR'S WORKSTATION AND SYSTEM PROGRAM.

DETAIL NOTES :

1. PROVIDE A 7 FT. DEEP PREFABRICATED CONCRETE VALVE VAULT WITH FLOOR. DIMENSIONS AS INDICATED. WALLS, FLOOR, AND TOP SHALL BE 6" THICK. SET TOP OF VAULT 6" ABOVE ADJACENT GRADE.
2. 30"x30" GALV. STEEL ACCESS DOOR AND LADDER.
3. PROVIDE STEEL PIPE SLEEVE AND MECHANICAL LINK SLEEVE SEAL AT ALL PIPE PENETRATIONS THROUGH VAULT WALL.
4. PROVIDE MOTORIZED ISOLATION CONTROL VALVES.
5. MANUAL AIR VENT. 1" TAP WITH 1" BALL VALVE.

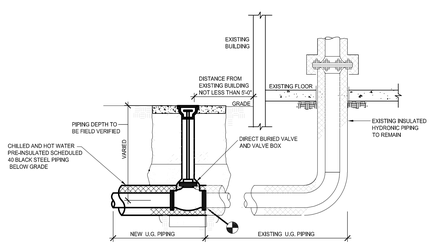
5 VALVE VAULT DETAIL

SCALE: NONE



6 BELOW GRADE PIPING DETAIL

SCALE: NONE



7 DIRECT BURIED VALVES AND U.G. PIPING CONNECTIONS TO EXISTING BUILDING PIPING

SCALE: NONE

LEAF ENGINEERS

MEPT — LEAF Engineers
San Antonio
601 NW LOOP 410, Suite 460, San Antonio, TX 78216
210-638-7200 P
210-829-0578 F
TX Firm: F-18672
leafengineers.com

OWNER — ALAMO COLLEGE DISTRICT
2222 NORTH ALAMO STREET
SAN ANTONIO , TEXAS 78215
210-485-0000 P 210-485-0005 F

ARCHITECT — PBK ARCHITECTS
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
210-829-2012 P 210-829-0578 F

CIVIL/SURVEYOR — BAIN MEDINA BAIN
7073 SAN PEDRO
SAN ANTONIO , TEXAS 78216
210-494-7223 P 210-495-0105 F

LANDSCAPE — EDGELAND GROUP
601 NW LOOP 410, SUITE 400
SAN ANTONIO , TEXAS 78216
713-400-0068 P 713-861-4571 F

ACD Palo Alto College
Hydronic Piping Replacement

1400 West Villaret
San Antonio, Texas, 78224

ISSUE FOR CONSTRUCTION

ALAMO COLLEGES DISTRICT

KEY PLAN — PLAN NORTH — TRUE NORTH

SEAL AND REGISTRATION NUMBER HERE

STATE OF TEXAS
JAMES R. PERRON
145042
LICENSED
PROFESSIONAL ENGINEER

05/03/2024
LEAF ENGINEERS
F-18672

CLIENT
ACD PALO ALTO COLLEGE

PROJECT NUMBER
230030

DATE: 05/03/2024
DRAWN BY: JP
CHECKED BY: DR

REVISIONS

No.	Description	Date

ISSUE FOR CONSTRUCTION

DETAILS AND SCHEDULES - MECHANICAL

M3.01

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