LEGEND

SITE BOUNDARY	PROPOSED BUILDING FOOTPRINT
PROPERTY LINES	
EXISTING EASEMENT	NUMBER OF PARKING PER AREA
PROPOSED EASEMENT	HEAVY DUTY REINFORCED CONCRETE WITH SUBGRADE STABILIZATION (SEE SHEET C4.2)
PROPOSED FIRE LANE	
EXISTING WATER LINE	MEDIUM DUTY REINFORCED CONCRETE WITH SUBGRADE STABILIZATION (SEE SHEET C4.2)
PROPOSED WATER SERVICE	
EXISTING SANITARY SEWER	LIGHT DUTY REINFORCED CONCRETE (SEE SHEET C4.2)
EXISTING STORM DRAIN	
EXISTING OVER HEAD UTILITIES	DRAINAGE FLUME REINFORCED CONCRETE (SEE SHEET C4.2)
EXISTING GAS LINE	
PROPOSED SEWER SERVICE	RECYCLED WATER SETTLEMENT PONDS REINFORCED CONCRETE (SEE SHEET C4.2)
PROPOSED STORM DRAIN	
SWALE OR FLOW LINE	
PROPOSED SCREENING WALL	
PROPOSED FENCE	

NOTES BY SYMBOL

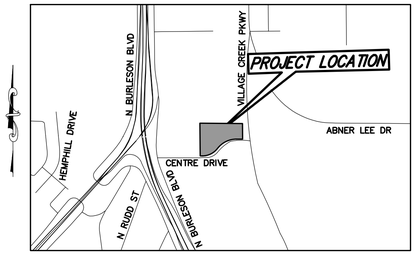
- B1 CONCRETE BATCH PLANT (BUILDING APPROXIMATE HEIGHT 85 FEET)
- B2 DRIVE OVER HOPPER
- B3 36" TRANSFER CONVEYOR
- B4 10'X10' HOPPER
- B5 10'x7' CONVEYOR TUNNEL
- B6 RADIAL STACKER (APPROXIMATE HEIGHT 42 FEET)
- B7 AGGREGATE STOCKPILE
- B8 TUNNEL EXIT
- B9 TUNNEL TRANSITION WITH SAFETY RAILING
- E1 EXISTING RECYCLED WATER SETTLEMENT PONDS
- E2 EXISTING FUELLING STATION
- E3 EXISTING PIPE AND SHEET METAL FENCE TO BE REMOVED
- E4 EXISTING GATE
- E5 EXISTING 24' FIRE LANE
- E6 EXISTING KNOX BOX
- E7 EXISTING TRASH RECEPTACLES
- E8 EXISTING STRUCTURE ENTRANCE/EXIT
- E9 BLOCK WALLS FOR AGGREGATE STOCKPILES (TYP)
- P1 PROPOSED ACCESSIBLE PARKING
- P2 PROPOSED 8' MASONRY SCREENING WALL
- P3 PROPOSED 12' BLOCK WALL
- P4 PROPOSED ROLLING GATE
- P5 INSTALL KNOX BOX
- P6 PROPOSED 8' PILOT CHANNEL
- P7 PROPOSED PIPE BOLLARDS (TYP)
- P8 PROPOSED OUTFALL STRUCTURE
- P9 SWINGING GATE
- P10 RETENTION POND RETAINING WALL W / SAFETY RAILING OR FENCING
- P11 PROPOSED 24' FIRE LANE
- P12 PROPOSED CHAIN-LINK FENCE
- P13 PROPOSED FIRE HYDRANT
- P14 PROPOSED BUILDING ENTRANCE/EXIT (2 STORIES, 24.5' HEIGHT)

SITE DATA

LOCATION AND ZONING:
LOCATED NORTHWEST OF THE INTERSECTION OF VILLAGE CREEK PARKWAY AND CENTRE DRIVE.
CURRENTLY ZONED I-INDUSTRIAL AND A-AGRICULTURAL. (ACRES)
PROPOSED REZONING OF A-AGRICULTURAL PORTION TO I-INDUSTRIAL

SITE DATA SUMMARY TABLE	
ZONING	I-INDUSTRIAL
LAND USE	CONCRETE BATCH PLANT (MANUFACTURING, PROCESSING OR REPAIRING)
LOT AREA	192.123 SF (4.411 AC)
BUILDING AREA	1,200 SF (2 STORIES, 24.5 HEIGHT)
PARKING RATIO	MANUFACTURING, PROCESSING OR REPAIRING: ONE SPACE FOR EACH TWO EMPLOYEES OR ONE SPACE FOR EACH 1,000 SQUARE FEET OF TOTAL FLOOR AREA, WHICHEVER IS GREATER
TOTAL PARKING REQUIRED	6
TOTAL PARKING PROVIDED	21
TOTAL PARKING CONCRETE MIXER PARKING STALLS	5
ACCESSIBLE PARKING REQUIRED	1
ACCESSIBLE PARKING PROVIDED	EXISTING ACCESSIBLE PARKING 1 PROPOSED ACCESSIBLE PARKING 1
TOTAL PARKING AREA	6054.98 SF

GRAPHIC SCALE
40 0 20 40
(IN FEET)
1 inch = 40 feet



VICINITY MAP
SCALE: 1"=1,000'

OWNER REPRESENTATIVE

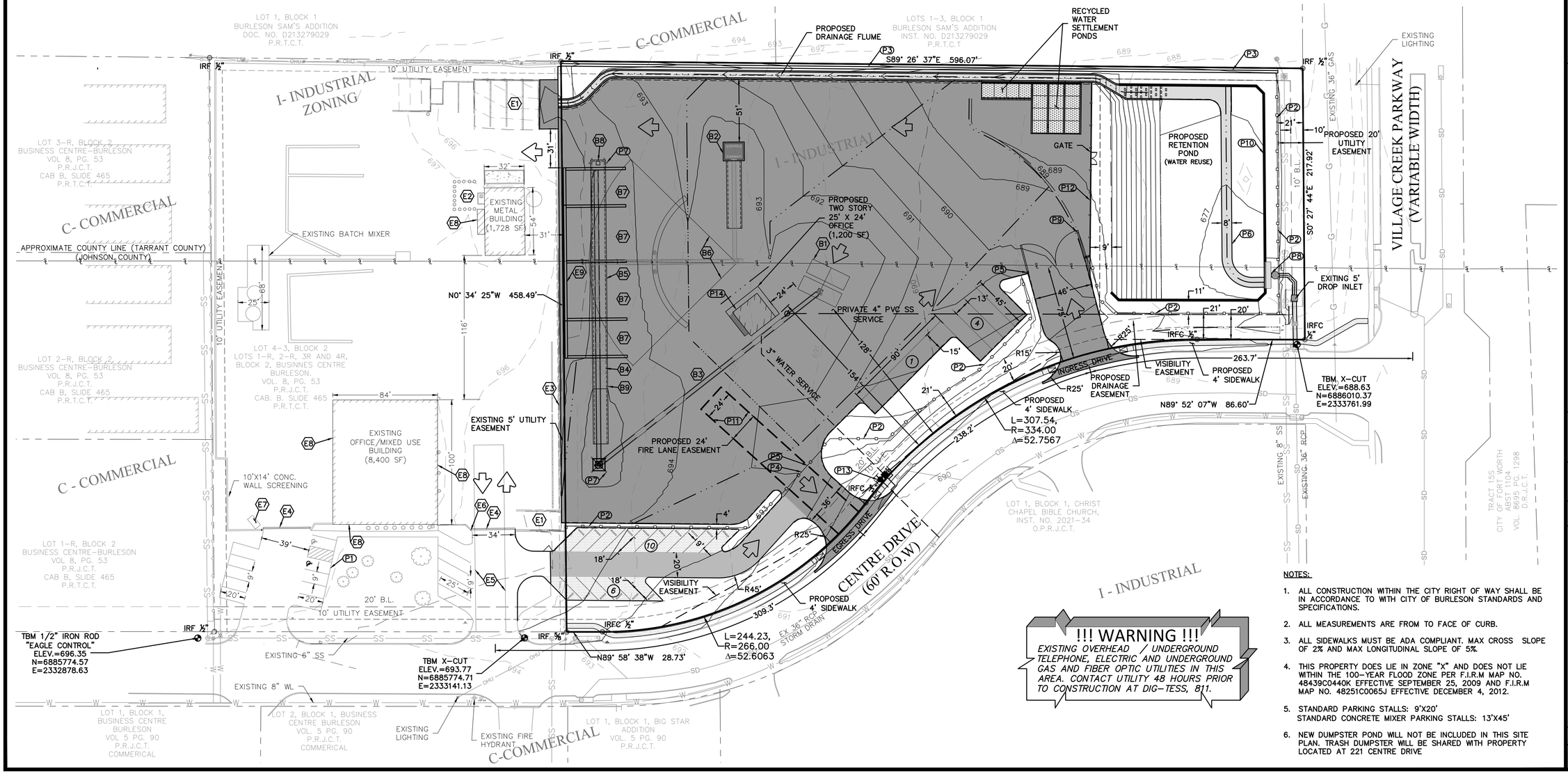
LIQUID STONE CONCRETE
JASON BURGHART
221 CENTRE DRIVE
BURLESON, TEXAS 76028
PH: (817)903-5353
CONTACT: JASON BURGHART

ENGINEER

MAS CONSULTING ENGINEERS
ANGEL SANCHEZ, P.E.
2702 SE LOOP 820
FORT WORTH, TX 76140
(817) 708-2422

SURVEYOR

EAGLE SURVEYING, LLC
DAN RICK, R.P.L.S.
210 SOUTH ELM STREET #104
DENTON, TX 76201
(940) 222-3009



!!! WARNING !!!

EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.

NOTES:

1. ALL CONSTRUCTION WITHIN THE CITY RIGHT OF WAY SHALL BE IN ACCORDANCE TO WITH CITY OF BURLESON STANDARDS AND SPECIFICATIONS.
2. ALL MEASUREMENTS ARE FROM TO FACE OF CURB.
3. ALL SIDEWALKS MUST BE ADA COMPLIANT. MAX CROSS SLOPE OF 2% AND MAX LONGITUDINAL SLOPE OF 5%.
4. THIS PROPERTY DOES LIE IN ZONE "X" AND DOES NOT LIE WITHIN THE 100-YEAR FLOOD ZONE PER F.I.R.M MAP NO. 48439C0440K EFFECTIVE SEPTEMBER 25, 2009 AND F.I.R.M MAP NO. 48251C0065J EFFECTIVE DECEMBER 4, 2012.
5. STANDARD PARKING STALLS: 9'X20'
   STANDARD CONCRETE MIXER PARKING STALLS: 13'X45'
6. NEW DUMPSTER POND WILL NOT BE INCLUDED IN THIS SITE PLAN. TRASH DUMPSTER WILL BE SHARED WITH PROPERTY LOCATED AT 221 CENTRE DRIVE

MAS CONSULTING ENGINEERS
TBPELS REGISTRATION No. F-17018
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CIVIL CONSTRUCTION PLANS

LIQUID STONE CONCRETE SITE EXPANSION

221 CENTRE DRIVE, BURLESON, TEXAS

COMMERCIAL SITE PLAN

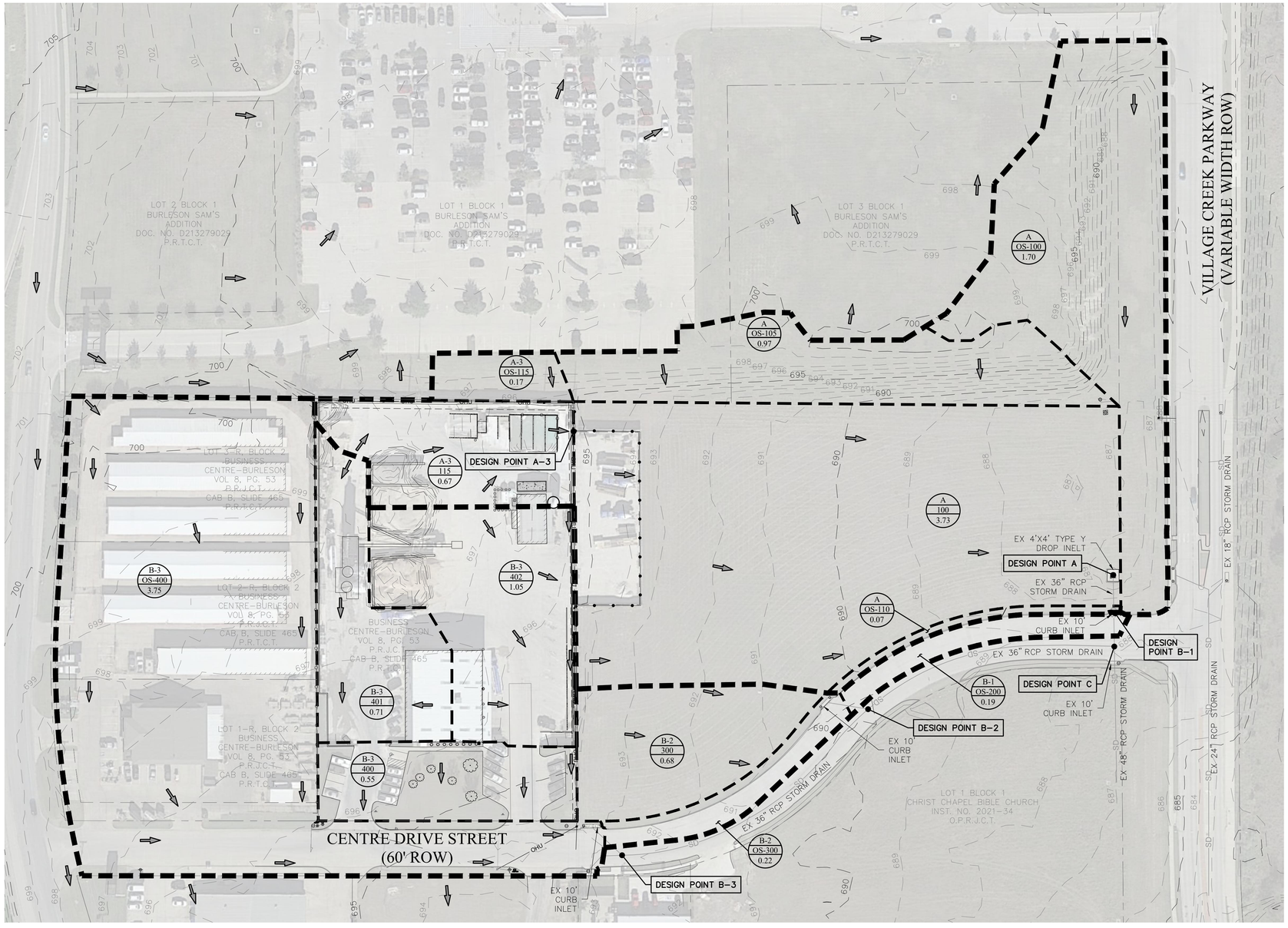
NO.	REVISION	BY	DATE

JOB 74-01-001
DATE 9/1/22
SURVEYED BY:
DESIGNED MAS
DRAWN MAP
CHECKED MAS

SHEET C1.1

LIQUID STONE CONCRETE SITE EXPANSION - BURLESON TEXAS - NOVEMBER 2022

J:\74 - Liquid Stone Concrete\01 - Batch Plant Expansion\CADD\Sheets\P-SITE-PLAN1.dwg
PLOTTED BY: EDGAR MEDINA PLOT DATE: 8/14/2023 10:54 AM



GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 feet

LEGEND

- SITE BOUNDARY
- PROPERTY LINE
- EXISTING STORM DRAIN
- MAJOR DRAINAGE BOUNDARY
- SUB DRAINAGE BOUNDARY
- EXISTING CONTOURS (500)
- FLOW DIRECTION
- DRAINAGE AREA (B / 15 / 1.00) — DESIGN POINT NO. — AREA NO. — ACRES
- BUILDING FOOTPRINT

FLOOD NOTE

1. THIS PROPERTY DOES LIE IN ZONE "X" AND DOES NOT LIE WITHIN THE 100-YEAR FLOOD ZONE PER F.I.R.M MAP No. 48439C0440K EFFECTIVE SEP 25, 2009.
2. RUNOFF COEFFICIENT "C" VALUES ARE BASED ON HYDROLOGIC SOIL TYPE GROUP D – HEAVY PLASTIC CLAYS.

RUNOFF CALCULATION BY RATIONAL METHOD - EXISTING - CITY OF BURLESON DESIGN MANUAL 2008

AREA DESIGNATION	AREA (ac)	C	Tc (min)	I5YR (in/hr)	I25YR (in/hr)	I100YR (in/hr)	Incremental Q_5 (cfs)	Incremental Q_{25} (cfs)	Incremental Q_{100} (cfs)
100	3.73	0.46	14	5.91	8.01	9.99	1.71	13.69	17.08
115	0.67	1.00	5	8.77	11.87	14.89	5.88	7.96	9.97
300	0.68	0.41	10	6.87	9.31	11.63	1.92	2.60	3.24
400	0.55	0.73	5	8.77	11.87	14.89	3.51	4.75	5.95
401	0.71	1.00	5	8.77	11.87	14.89	6.23	8.43	10.57
402	1.05	1.00	5	8.77	11.87	14.89	9.21	12.47	15.63
OS-100	1.70	0.41	12	6.35	8.60	10.74	4.42	6.00	7.49
OS-105	0.97	0.41	5	8.77	11.87	14.89	3.49	4.72	5.92
OS-110	0.07	0.41	5	8.77	11.87	14.89	0.25	0.34	0.43
OS-115	0.17	0.41	6	8.30	11.24	14.08	0.58	0.78	0.98
OS-200	0.19	1.00	5	8.77	11.87	14.89	1.67	2.26	2.83
OS-300	0.22	0.84	5	8.77	11.87	14.89	1.63	2.20	2.76
OS-400	3.75	0.94	12	6.35	8.60	10.74	22.38	30.33	37.86

COEFFICIENT CALCULATOR - EXISTING - CITY OF BURLESON DESIGN MANUAL 2008

AREA DESIGNATION	C1	A1 (ac)	C2	A2 (ac)	Ctotal
100	1.00	0.31	0.41	3.42	0.46
115	1.00	0.67			1.00
300	0.41	0.68			0.41
400	1.00	0.30	0.41	0.25	0.73
401	1.00	0.71			1.00
402	1.00	1.05			1.00
OS-100	0.41	1.70			0.41
OS-105	0.41	0.97			0.41
OS-110	0.41	0.07			0.41
OS-115	0.41	0.17			0.41
OS-200	1.00	0.19			1.00
OS-300	1.00	0.16	0.41	0.06	0.84
OS-400	1.00	3.37	0.41	0.38	0.94

TIME OF CONCENTRATION CALCULATIONS- CITY OF BURLESON DESIGN MANUAL 2008 - EXISTING

	Overland Flow					Channel Flow					Total
DA No.	n	Length (ft)	Precipitation 2-YR (in)	Slope (ft/ft)	Travel Time (min.)	Length (ft)	n	Slope (ft/ft)	Velocity (fps)	Travel Time (min.)	Travel Time (min.)
100	0.240	50	5.54	0.0320	5.16	587	0.035	0.022	1.15	8.51	14
115	0.011	50	5.54	0.0052	0.91	228	0.015	0.034	3.80	1.00	2
300	0.240	50	5.54	0.0206	6.16	182	0.035	0.013	0.80	3.79	10
400	0.011	50	5.54	0.0120	0.65	58	0.015	0.014	2.30	0.42	1
401	0.011	50	5.54	0.0156	0.58	269	0.015	0.012	2.20	2.04	3
402	0.011	50	5.54	0.0156	0.58	258	0.015	0.019	2.70	1.59	2
OS-100	0.240	50	5.54	0.0370	4.87	542	0.035	0.007	1.30	6.95	12
OS-105	0.240	50	5.54	0.0456	4.48	83	0.035	0.028	2.70	0.51	5
OS-110	0.240	11	5.54	0.0509	1.28	-	-	-	-	-	1
OS-115	0.240	50	5.54	0.0208	6.13	-	-	-	-	-	6
OS-200	0.011	22	5.54	0.0377	0.21	83	0.015	0.021	2.85	0.49	1
OS-300	0.011	27	5.54	0.0122	0.39	264	0.015	0.010	2.00	2.20	3
OS-400	0.240	32	5.54	0.0316	3.63	996	0.015	0.009	1.95	8.51	12

Design Point Table

Design Point	Existing Conditions: Area (acres)	Cumlative Q_5 (cfs)	Cumlative Q_{25} (cfs)	Cumlative Q_{100} (cfs)	Contibuting Areas	Comments / Point Location
A	7.31	16.33	33.49	41.87	100, OS-100, OS-105 OS-110, Design Point A-3	Existing 4'x4' Drop Inlet
A-1	-	-	-	-	-	Proposed Pond Outflow (Outfall Structure)
A-2	-	-	-	-	-	Proposed Pond Inflow
A-3	0.84	6.46	8.74	10.96	115, OS-115	Upstream Flume at West Property Line
B-1	0.19	1.67	2.26	2.83	OS-200	Existing 10' Curb Inlet
B-2	6.96	44.86	60.77	76.01	300,OS-300, Design Point B-3	Existing 36" RCP Wye Junction
B-3	6.06	41.32	55.98	70.01	400, 401,402, OS-400	Existing Upsteam 36" RCP Wye Junction
C	14.46	62.86	96.52	120.71	Design Point A , B-1, B-2	Existing Downstream Storm Drain Junction Box

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TEL. (817) 708-2422

CIVIL CONSTRUCTION PLANS

LIQUID STONE CONCRETE
SITE EXPANSION

221 CENTRE DRIVE, BURLESON, TEXAS

EXISTING DRAINAGE AREA MAP

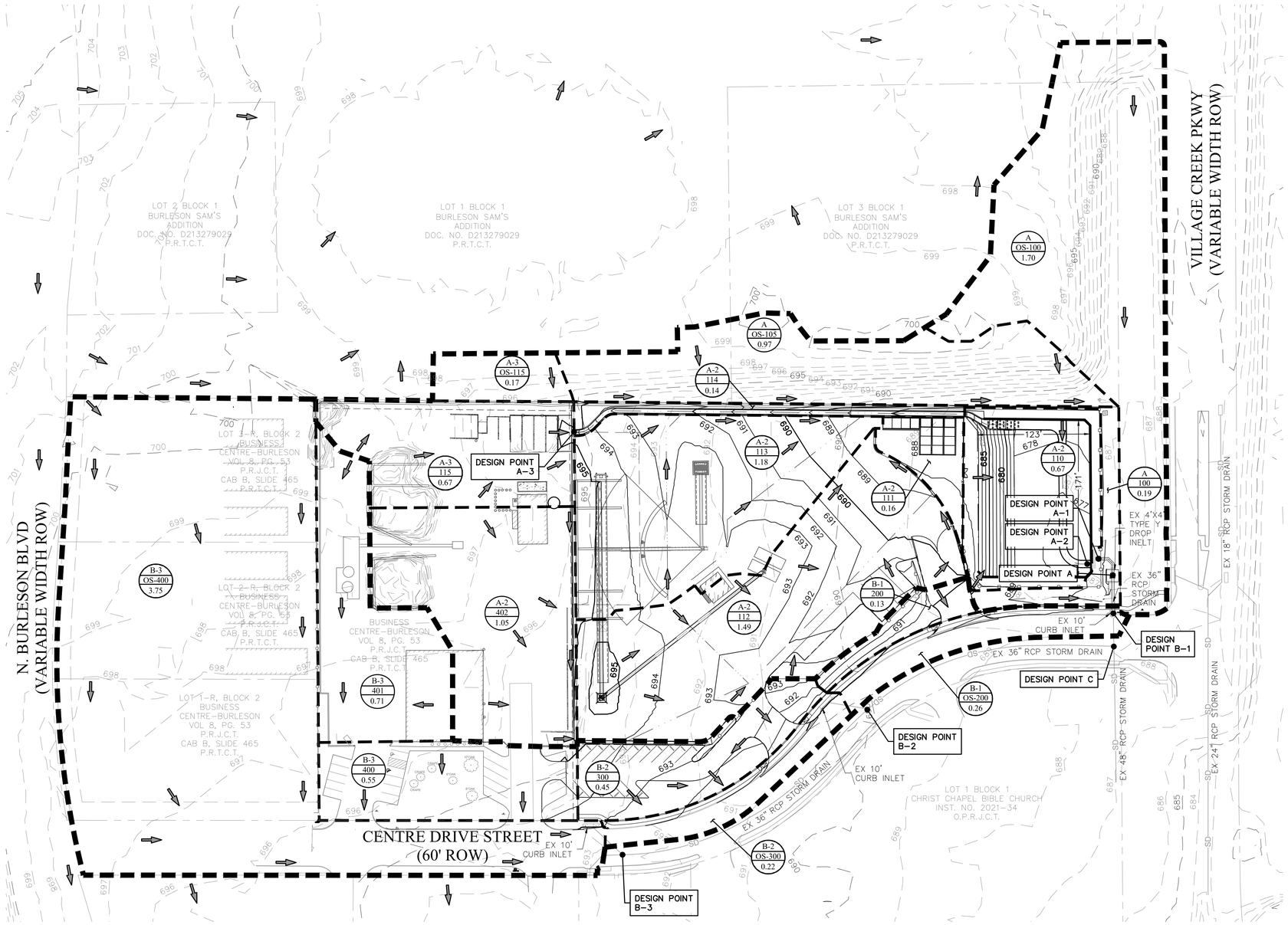
NO.	REVISION	BY	DATE

JOB 74-01-001
DATE 9/7/22
SURVEYED BY:
DESIGNED MAS
DRAWN MAP
CHECKED MAS

SHEET C7.1

LIQUID STONE CONCRETE SITE EXPANSION - BURLESON, TEXAS - NOVEMBER 2022

74 – Liquid Stone Concrete\01 – Batch Plant Expansion\CADD\Sheets\P–EXISTING DRAINAGE AREA MAP.dwg
PLOTTED BY: EDGAR MEDINA PLOT DATE: 8/14/2023 10:57 AM



GRAPHIC SCALE

60 0 30 60

(IN FEET)
1 inch = 60 feet

LEGEND

- SITE BOUNDARY
- PROPERTY LINE
- EXISTING STORM DRAIN
- MAJOR DRAINAGE BOUNDARY
- SUB DRAINAGE BOUNDARY
- EXISTING CONTOURS — 500 —
- PROPOSED CONTOURS — 500 —
- SWALE OR FLOWLINE
- TOP OF BERM
- FLOW DIRECTION
- DRAINAGE AREA — B / 15 / 1.00 — DESIGN POINT NO., AREA NO., ACRES
- BUILDING FOOTPRINT

FLOOD NOTE

1. THIS PROPERTY IS WITHIN ZONE "X" AND DOES NOT LIE WITHIN THE 100-YEAR FLOOD ZONE PER F.I.R.M MAP No. 48439C0440K EFFECTIVE SEP 25, 2009.
2. RUNOFF COEFFICIENT "C" VALUES ARE BASED ON HYDROLOGIC SOIL TYPE GROUP D – HEAVY PLASTIC CLAYS.

RUNOFF CALCULATION BY RATIONAL METHOD - PROPOSED - CITY OF BURLESON DESIGN MANUAL 2008

AREA DESIGNATION	AREA (ac)	C	Tc (min)	I5YR (in/hr)	I25YR (in/hr)	I100YR (in/hr)	Incremental Q_5 (cfs)	Incremental Q_{25} (cfs)	Incremental Q_{100} (cfs)
100	0.19	0.41	6	8.30	11.24	14.08	0.65	0.88	1.10
110	0.67	0.85	5	8.77	11.87	14.89	4.97	6.73	8.44
111	0.16	1.00	5	8.77	11.87	14.89	1.40	1.90	2.38
112	1.49	0.96	5	8.77	11.87	14.89	12.60	17.06	21.38
113	1.18	1.00	5	8.77	11.87	14.89	10.35	14.01	17.57
114	0.14	0.86	5	8.77	11.87	14.89	1.06	1.43	1.80
115	0.67	1.00	5	8.77	11.87	14.89	5.88	7.96	9.97
200	0.13	0.60	5	8.77	11.87	14.89	0.68	0.93	1.16
300	0.45	0.75	7	7.88	10.68	13.36	2.67	3.62	4.53
400	0.55	0.75	5	8.77	11.87	14.89	3.63	4.91	6.16
401	0.71	1.00	5	8.77	11.87	14.89	6.23	8.43	10.57
402	1.05	1.00	5	8.77	11.87	14.89	9.21	12.47	15.63
OS-100	1.70	0.41	12	6.35	8.60	10.74	4.42	6.00	7.49
OS-105	0.97	0.41	5	8.77	11.87	14.89	3.49	4.72	5.92
OS-115	0.17	0.41	6	8.30	11.24	14.08	0.58	0.78	0.98
OS-200	0.26	0.93	5	8.77	11.87	14.89	2.11	2.86	3.58
OS-300	0.22	0.94	5	8.77	11.87	14.89	1.81	2.45	3.07
OS-400	3.75	0.94	12	6.35	8.60	10.74	22.38	30.33	37.86

COEFFICIENT CALCULATOR - PROPOSED - CITY OF BURLESON DESIGN MANUAL 2008

AREA DESIGNATION	C1	A1 (ac)	C2	A2 (ac)	Ctotal
100	0.41	0.19			0.41
110	1.00	0.49	0.41	0.18	0.85
111	1.00	0.16			1.00
112	1.00	1.40	0.41	0.09	0.96
113	1.00	1.18			1.00
114	1.00	0.11	0.41	0.03	0.86
115	1.00	0.67			1.00
200	1.00	0.04	0.41	0.09	0.60
300	1.00	0.26	0.41	0.19	0.75
400	1.00	0.32	0.41	0.23	0.75
401	1.00	0.71			1.00
402	1.00	1.05			1.00
OS-100	0.41	2.68			0.41
OS-115	0.41	0.17			0.41
OS-200	1.00	0.23	0.41	0.03	0.93
OS-300	1.00	0.20	0.41	0.02	0.94
OS-400	1.00	3.37	0.41	0.38	0.94

TIME OF CONCENTRATION CALCULATIONS- CITY OF BURLESON DESIGN MANUAL 2008 - PROPOSED

	Overland Flow					Channel Flow					Total
DA No.	n	Length (ft)	Precipitation 2-YR (in)	Slope (ft/ft)	Travel Time (min.)	Length (ft)	n	Slope (ft/ft)	Velocity (fps)	Travel Time (min.)	Travel Time (min)
100	0.240	50	5.54	0.0296	5.33	117	0.035	0.019	2.20	0.89	6.21
110	0.240	25	5.54	0.0680	2.19	232	0.015	0.041	4.00	0.97	3
111	0.011	50	5.54	0.0166	0.57	78	0.015	0.022	2.90	0.45	1
112	0.011	50	5.54	0.0144	0.60	545	0.015	0.011	2.10	4.33	5
113	0.011	50	5.54	0.0222	0.51	471	0.015	0.013	2.60	3.02	4
114	0.240	29	5.54	0.0441	2.94	407	0.015	0.020	2.80	2.42	5
115	0.011	50	5.54	0.0052	0.91	228	0.015	0.034	3.80	1.00	2
200	0.240	20	5.54	0.1450	1.36	-	-	-	-	-	1
300	0.240	40	5.54	0.0120	6.39	94	0.015	0.026	1.90	0.82	7
400	0.011	50	5.54	0.0120	0.65	58	0.015	0.014	2.40	0.40	1
401	0.011	50	5.54	0.0156	0.58	269	0.015	0.012	2.20	2.04	3
402	0.011	50	5.54	0.0156	0.58	258	0.015	0.019	2.75	1.56	2
OS-100	0.240	50	5.54	0.0370	4.87	542	0.035	0.007	1.30	6.95	12
OS-105	0.240	50	5.54	0.0456	4.48	83	0.035	0.028	2.70	0.51	5
OS-115	0.240	50	5.54	0.0208	6.13	-	-	-	-	-	6
OS-200	0.011	22	5.54	0.0377	0.21	83	0.015	0.021	2.85	0.49	1
OS-300	0.011	27	5.54	0.0122	0.39	264	0.015	0.010	2.00	2.20	3
OS-400	0.240	32	5.54	0.0316	3.63	996	0.015	0.009	1.95	8.51	12

Design Point Table

Design Point	Proposed Conditionns: Area (acres)	Cumlative Q_5 (cfs)	Cumlative Q_{25} (cfs)	Cumlative Q_{100} (cfs)	Contibuting Area	Comments / Point Location
A	8.39	18.35	25.75	34.17	100, OS-100 , OS-105, Pond Outfall (Design Point A-1)	Existing 4'x4' Drop Inlet
A-1	5.53	9.79	14.16	19.67	110, 111, 112, 113, 114, 402 Design Point A-3	Proposed Pond Outflow (Outfall Structure)
A-2	5.53	46.95	63.56	79.69	110, 111, 112, 113, 114, 402 Design Point A-3	Proposed Pond Inflow
A-3	0.84	6.46	8.74	10.96	115, OS-115	Upstream Flume at West Property Line
B-1	0.30	1.26	1.71	2.14	200, OS-200	Existing 10' Curb Inlet
B-2	5.72	37.01	50.15	62.69	300,OS-300, Design Point B-3	Existing 36" RCP Wye Junction
B-3	5.01	32.23	43.67	54.59	400, 401, OS-400	Existing Upsteam 36" RCP Wye Junction
C	14.46	56.62	77.61	99.01	Design Point A , B-1, B-2	Existing Downstream Storm Drain Junction Box

MAS CONSULTING ENGINEERS
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FORT WORTH, TX 76140
TEL. (817) 708-2422

CIVIL CONSTRUCTION PLANS

LIQUID STONE CONCRETE
SITE EXPANSION

221 CENTRE DRIVE, BURLESON, TEXAS

PROPOSED DRAINAGE AREA MAP

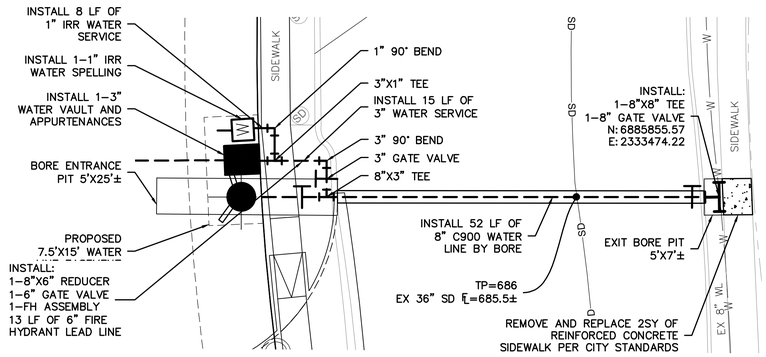
NO.	REVISION	BY	DATE

JOB 74-01-001
DATE 9/7/22
SURVEYED BY:
DESIGNED MAS
DRAWN MAP
CHECKED MAS

SHEET C7.2

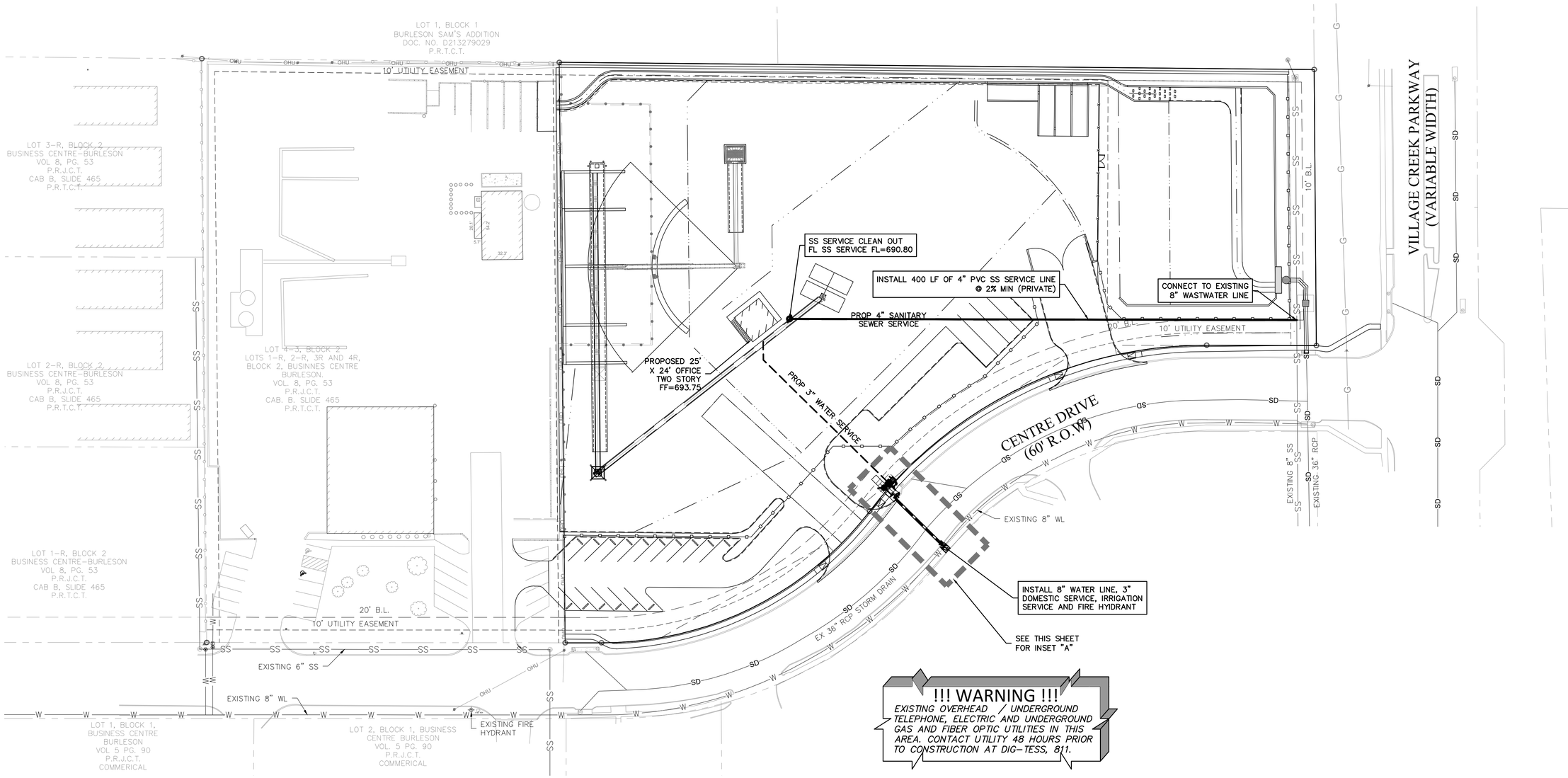
LEGEND

- SITE BOUNDARY
- PROPERTY LINES
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING WATER LINE — W
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER — SS
- PROPOSED SEWER SERVICE
- EXISTING STORM DRAIN — SD
- EXISTING OVER HEAD UTILITIES — OHU
- EXISTING GAS LINE — G
- EXISTING FIRE HYDRANT
- PROPOSED FIRE HYDRANT
- PROPOSED BUILDING FOOTPRINT



INSET "A"
N.T.S.

GRAPHIC SCALE
40 0 20 40
(IN FEET)
1 inch = 40 feet



!!! WARNING !!!
EXISTING OVERHEAD / UNDERGROUND TELEPHONE, ELECTRIC AND UNDERGROUND GAS AND FIBER OPTIC UTILITIES IN THIS AREA. CONTACT UTILITY 48 HOURS PRIOR TO CONSTRUCTION AT DIG-TESS, 811.

MAS CONSULTING ENGINEERS
TBPELS REGISTRATION No. F-17018
2702 SE LOOP 820
FORT WORTH, TX 76140
TEL. (817) 708-2422

CIVIL CONSTRUCTION PLANS
LIQUID STONE CONCRETE SITE EXPANSION
221 CENTRE DRIVE, BURLESON, TEXAS
WATER AND WASTEWATER PLAN

NO.	REVISION	BY	DATE

JOB 74-01-001
DATE 9/7/22
SURVEYED BY:
DESIGNED MAS
DRAWN MAP
CHECKED MAS

SHEET C9.1

LIQUID STONE CONCRETE SITE EXPANSION - BURLESON TEXAS - NOVEMBER 2022

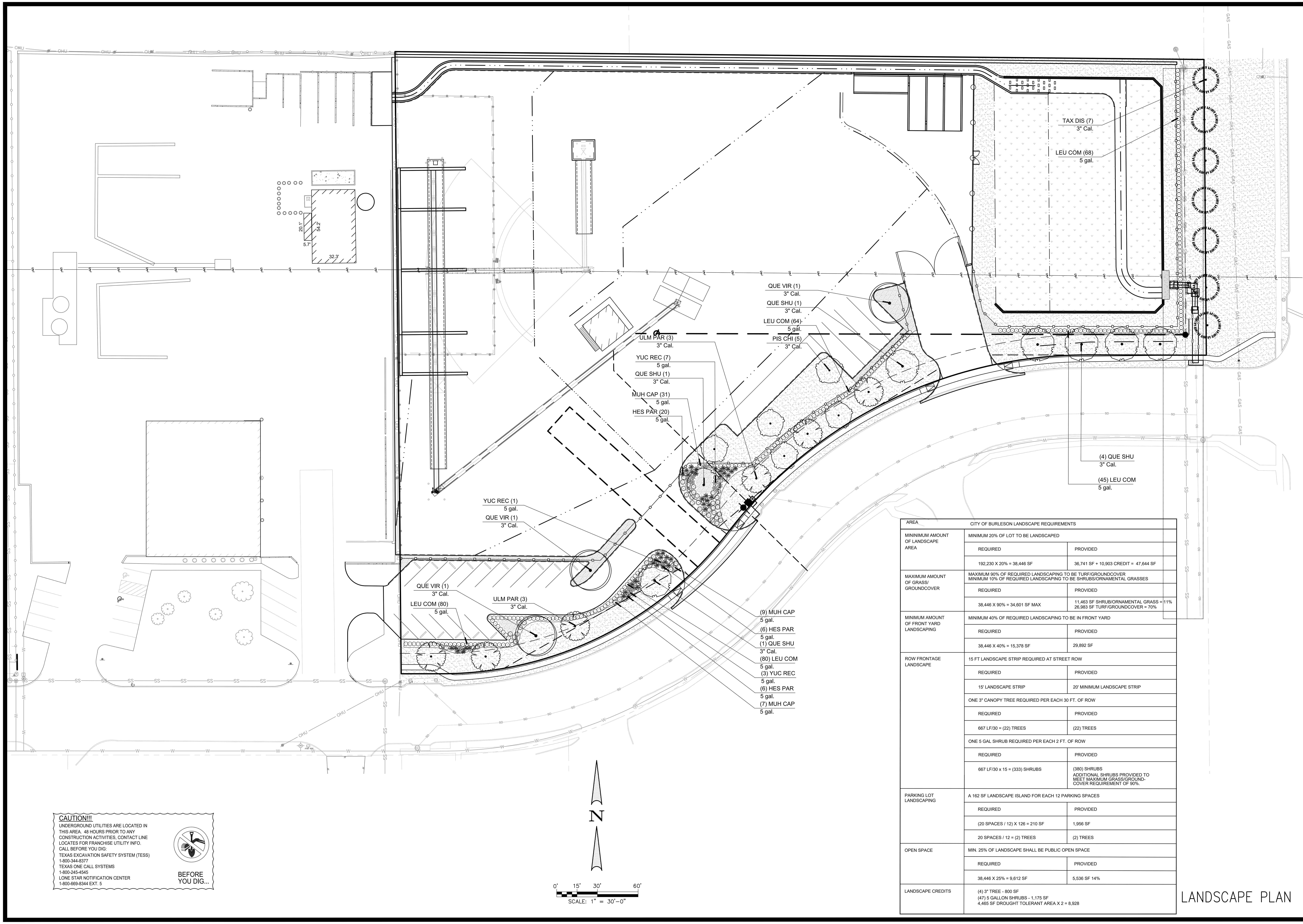
J:\74 - Liquid Stone Concrete\01 - Batch Plant Expansion\CADD\Sheets\P-UTILITY PLAN.dwg
PLOTTED BY: EDGAR MEDINA PLOT DATE: 8/14/2023 11:02 AM

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

FAIN • CUPPETT
LANDSCAPE ARCHITECTS, LLC
1921 MAPLEWOOD DRIVE
WEATHERFORD, TEXAS 76087 682-215-9151
PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

REGISTERED LANDSCAPE ARCHITECT
GREGORY A. CUPPETT
2672
STATE OF TEXAS
08/14/23

LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS



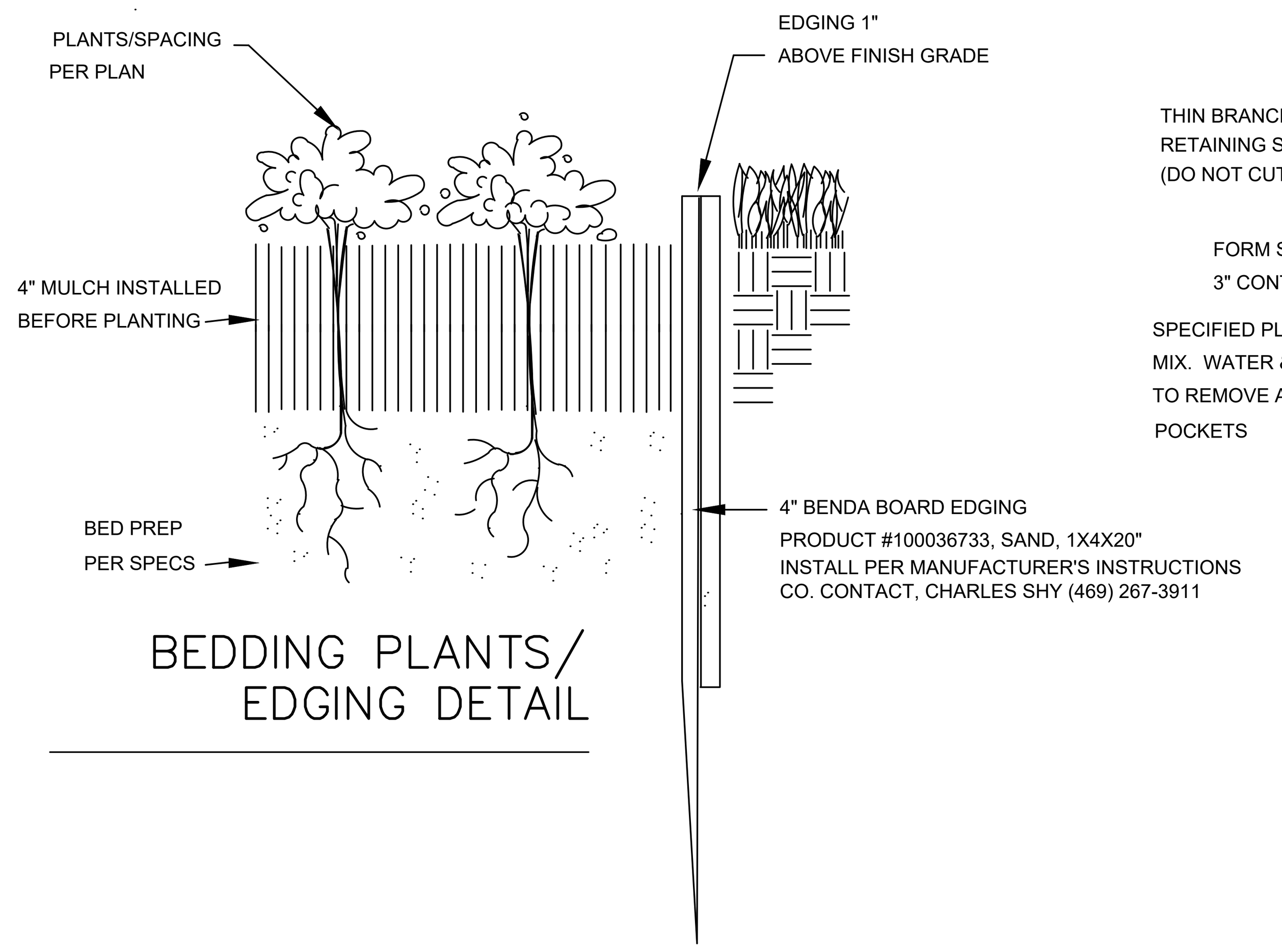
AREA	CITY OF BURLESON LANDSCAPE REQUIREMENTS	
MININIMUM AMOUNT OF LANDSCAPE AREA	MINIMUM 20% OF LOT TO BE LANDSCAPED	
	REQUIRED	PROVIDED
	192,230 X 20% = 38,446 SF	36,741 SF + 10,903 CREDIT = 47,644 SF
MAXIMUM AMOUNT OF GRASS/ GROUNDCOVER	MAXIMUM 90% OF REQUIRED LANDSCAPING TO BE TURF/GROUNDCOVER MINIMUM 10% OF REQUIRED LANDSCAPING TO BE SHRUBS/ORNAMENTAL GRASSES	
	REQUIRED	PROVIDED
	38,446 X 90% = 34,601 SF MAX	11,463 SF SHRUB/ORNAMENTAL GRASS = 11% 26,983 SF TURF/GROUNDCOVER = 70%
MINIMUM AMOUNT OF FRONT YARD LANDSCAPING	MINIMUM 40% OF REQUIRED LANDSCAPING TO BE IN FRONT YARD	
	REQUIRED	PROVIDED
	38,446 X 40% = 15,378 SF	29,892 SF
ROW FRONTAGE LANDSCAPE	15 FT LANDSCAPE STRIP REQUIRED AT STREET ROW	
	REQUIRED	PROVIDED
	15' LANDSCAPE STRIP	20' MINIMUM LANDSCAPE STRIP
	ONE 3" CANOPY TREE REQUIRED PER EACH 30 FT. OF ROW	
	REQUIRED	PROVIDED
	667 LF/30 = (22) TREES	(22) TREES
	ONE 5 GAL SHRUB REQUIRED PER EACH 2 FT. OF ROW	
	REQUIRED	PROVIDED
	667 LF/30 x 15 = (333) SHRUBS	(380) SHRUBS ADDITIONAL SHRUBS PROVIDED TO MEET MAXIMUM GRASS/GROUND-COVER REQUIREMENT OF 90%.
PARKING LOT LANDSCAPING	A 162 SF LANDSCAPE ISLAND FOR EACH 12 PARKING SPACES	
	REQUIRED	PROVIDED
	(20 SPACES / 12) X 126 = 210 SF	1,956 SF
	20 SPACES / 12 = (2) TREES	(2) TREES
OPEN SPACE	MIN. 25% OF LANDSCAPE SHALL BE PUBLIC OPEN SPACE	
	REQUIRED	PROVIDED
	38,446 X 25% = 9,612 SF	5,536 SF 14%
LANDSCAPE CREDITS	(4) 3" TREE - 800 SF (47) 5 GALLON SHRUBS - 1,175 SF 4,465 SF DROUGHT TOLERANT AREA X 2 = 8,928	

CAUTION!!!
UNDERGROUND UTILITIES ARE LOCATED IN THIS AREA. 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTACT LINE LOCATES FOR FRANCHISE UTILITY INFO.
CALL BEFORE YOU DIG:
TEXAS EXCAVATION SAFETY SYSTEM (TESS)
1-800-344-8377
TEXAS ONE CALL SYSTEMS
1-800-245-4545
LONE STAR NOTIFICATION CENTER
1-800-669-8344 EXT. 5
BEFORE YOU DIG...

LANDSCAPE PLAN

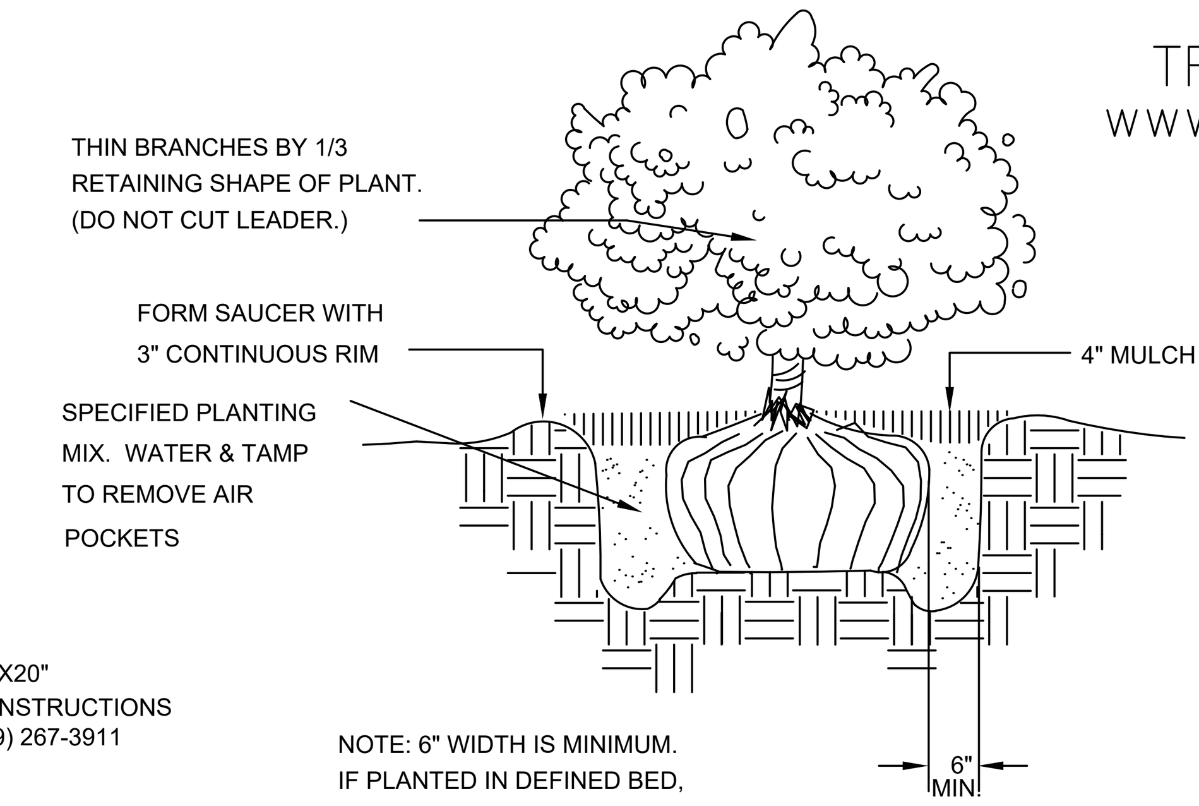
Sheet No.
L-1

BEDDING PLANTS/ EDGING DETAIL



BEDDING PLANTS/
EDGING DETAIL

SCALE: NOT TO SCALE

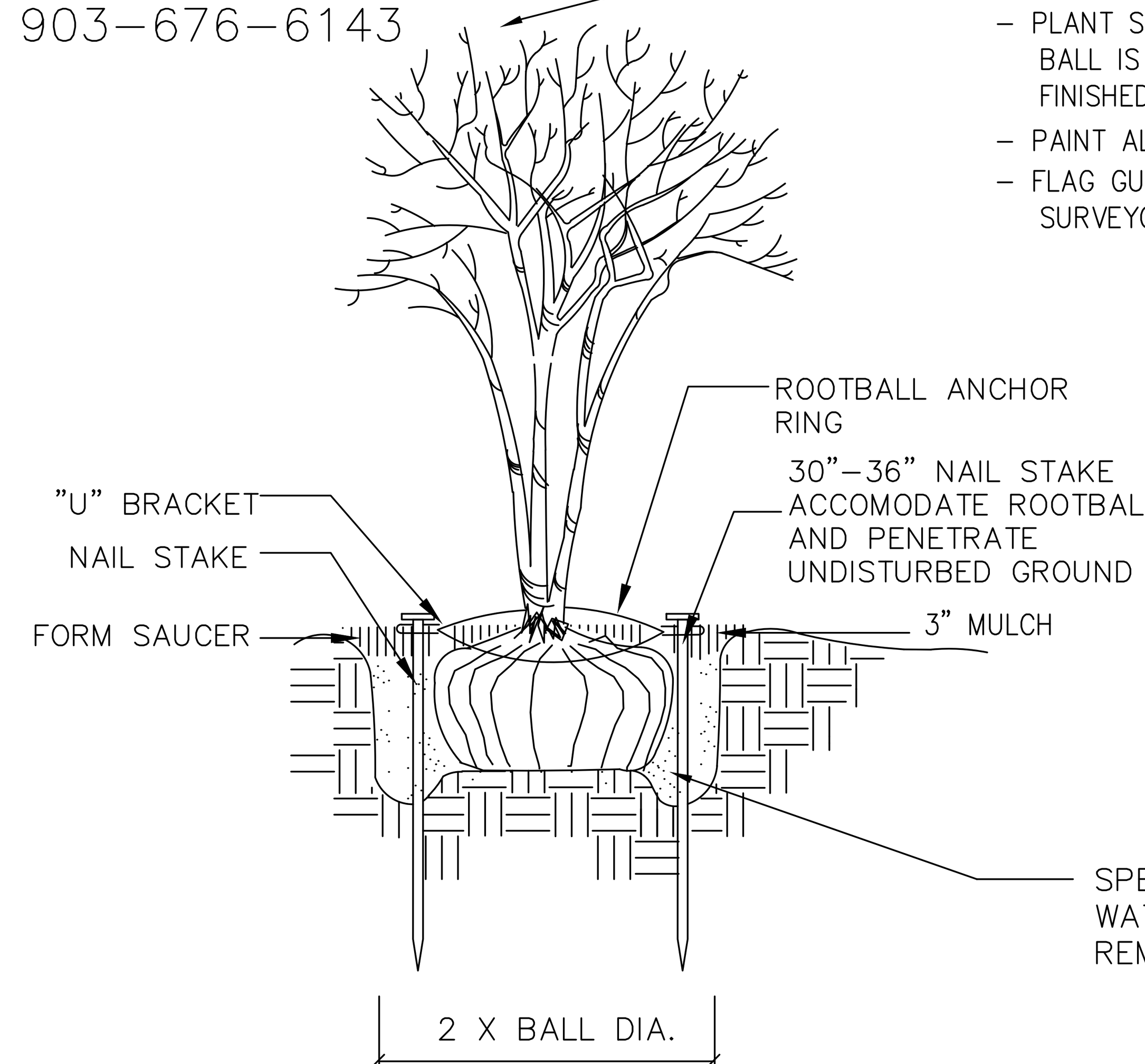


NOTE: 6" WIDTH IS MINIMUM.
IF PLANTED IN DEFINED BED,
PREP, ENTIRE BED AS SHOWN
ON DRAWINGS.

SHRUB PLANTING

SCALE: NOT TO SCALE

Contact Information:
TREE STAKE SOLUTIONS
www.treestakesolutions.com
JEFF TULEY
903-676-6143

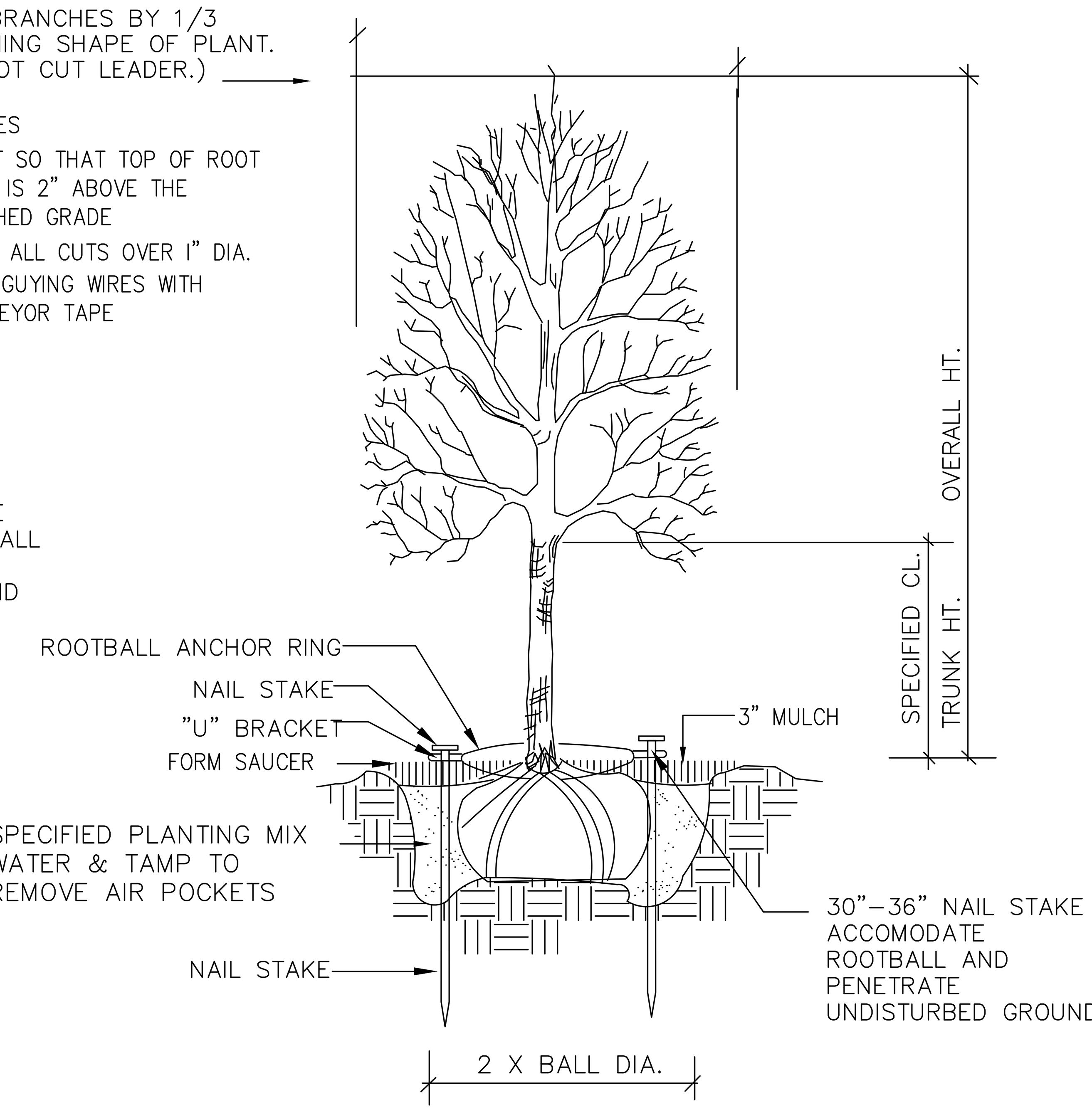


STAKING FOR MULTI–TRUNK TREES & TREES 2" CAL. & UNDER

SCALE: NOT TO SCALE

THIN BRANCHES BY 1/3
RETAINING SHAPE OF PLANT.
(DO NOT CUT LEADER.)

ALL TREES
- PLANT SO THAT TOP OF ROOT BALL IS 2" ABOVE THE FINISHED GRADE
- PAINT ALL CUTS OVER 1" DIA.
- FLAG GUYING WIRES WITH SURVEYOR TAPE



SAFETY STAKE BY TREE STAKE SOLUTIONS

SCALE: NOT TO SCALE

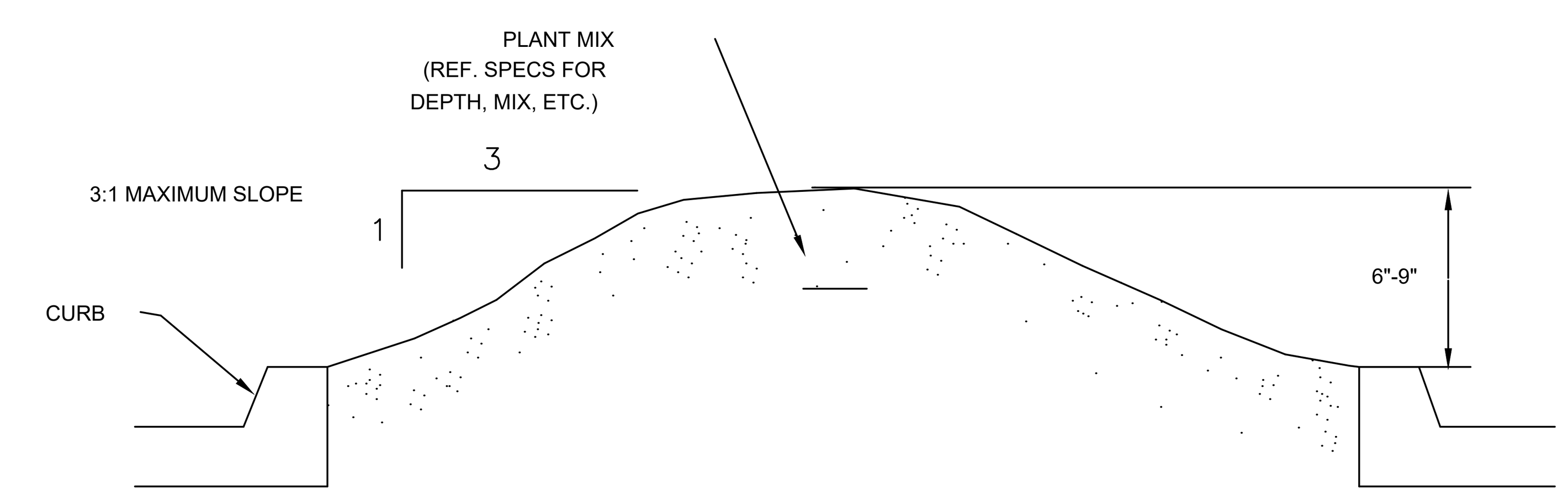
PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING		REMARKS
	PIS CHI	5	Pistacia chinensis	Chinese Pistache	3" Cal.	10` Min.	As Shown		Single Straight Trunk
	QUE SHU	7	Quercus shumardii	Shumard Oak	3" Cal.	12` Height Min	As Shown		Single Straight Trunk
	QUE VIR	3	Quercus virginiana	Southern Live Oak	3" Cal.	12` Height Min	As Shown		Single Straight Trunk
	TAX DIS	7	Taxodium distichum	Bald Cypress	3" Cal.	12` Height Min			Single Straight Trunk
	ULM PAR	6	Ulmus parvifolia	Lacebark Elm	3" Cal.	12` Height Min	As Shown		Single Straight Trunk
SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING		REMARKS
	HES PAR	46	Hesperaloe parviflora	Red Yucca	5 gal.	18"-24"	48" O.C.		
	LEU COM	255	Leucophyllum frutescens 'Compacta'	Compact Texas Sage	5 gal.	24" min.	36" O.C.		
	MUH CAP	60	Muhlenbergia capillaris	Pink Muhly Grass	5 gal.		48" O.C.		
	YUC REC	12	Yucca recurvifolia	Soft Leaf Yucca	5 gal.		48" O.C.		
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	HEIGHT	SPACING	SPACING	REMARKS
	CYN DAC	41,630 sf	Cynodon dactylon	Bermudagrass	Solid Sod				
	NAS TEN	628	Nassella tenuissima	Mexican Feather Grass	4" pots		24" O.C.	24" o.c.	
	NAT LSX	18,579 sf	Native American Seed drainfield mix	Native American Seed 'Drainfield Mix'	seed				seed at rate recommended by distributors instruction

CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING TREE AND SHRUB SIZES CONFORM TO CITY LANDSCAPE STANDARDS AND MITIGATION REQUIREMENTS.

PLANTING NOTES:

1. PLANT SIZE, TYPE, AND CONDITION SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE.
2. ALL PLANT MATERIAL TO BE NURSERY GROWN STOCK.
3. CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF ALL PLANT MATERIAL UNTIL PROJECT ACCEPTANCE.
4. ALL CONTAINER GROWN PLANTS TO HAVE FULL, VIGOROUS ROOT SYSTEM, COMPLETELY ENCOMPASSING CONTAINER.
5. ALL PLANTS WELL ROUNDED AND FULLY BRANCHED. ALL TREES WITH SPREAD 2/3 OF HEIGHT.
6. CONTRACTOR TO PROVIDE OWNER WITH PREFERRED MAINTENANCE SCHEDULE OF ALL PLANTS AND LAWNS.
7. MAINTAIN/PROTECT VISIBILITY TRIANGLE WITH PLANT MATERIAL PER CITY STANDARDS AT ALL ENTRANCES TO SITE.
8. PREP ENTIRE WIDTH OF ALL DEFINED PLANTING BEDS WITH MIX AS OUTLINED IN SPECS. WHERE SHRUBS ARE LOCATED ALONG CURB, SET SHRUBS BACK FROM CURB 3 FT.
9. SEE DETAIL SHEET FOLLOWING FOR PLANTING DETAILS.
10. CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO TELEPHONE, TELECABLE, ELECTRIC, GAS, WATER AND SEWER. ANY DAMAGE TO UTILITIES TO BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
11. EXISTING TREES ARE SHOWN TO REMAIN, CONTRACTOR SHALL PRUNE ONLY ON APPROVAL OF CITY ARBORIST. WORK TO INCLUDE REMOVAL OF ALL SUCKER GROWTH; DEAD AND DISEASED BRANCHES AND LIMBS; VINES, BRIARS AND OTHER INVASIVE GROWTH; AND ALL INTERFERING BRANCHES. MAKE ALL CUTS FLUSH TO REMAINING LIMB. RETAIN NATURAL SHAPE OF PLANT. ALL WORK SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE.
12. QUANTITIES ARE PROVIDED AS A COURTESY AND NOT INTENDED FOR BID PURPOSES. CONTRACTOR TO VERIFY PRIOR TO PRICING.
13. INSTALL EDGING BETWEEN LAWN AND PLANTING BEDS. REFER TO SPECIFICATIONS. FILE ALL CORNERS SMOOTH.
14. INSTALL CURLEX BLANKET (OR EQUAL) PER MANUFACTURES INSTRUCTIONS ON ALL GROUNDCOVER/SHRUB BEDS WITH A SLOPE OF 4:1 OR GREATER.
15. AT TIME OF PLAN PREPARATION, SEASONAL PLANT AVAILABILITY CANNOT BE DETERMINED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE AND RESERVE ALL B&B PLANTS WHEN AVAILABLE IN CASE ACTUAL INSTALLATION OCCURS DURING THE OFF–SEASON. PURCHASE AND HOLD B&B PLANTS FOR LATE SEASON INSTALLATION.
16. BERM ALL PARKING LOT ISLANDS AS SHOWN ON ENCLOSED DETAIL SHEET. (BERMS MAY NOT BE SHOWN ON GRADING PLAN.)
17. PRIOR TO PLANTING, CONTRACTOR SHALL STAKE TREE LOCATIONS FOR OWNER APPROVAL.



TYPICAL PARKING LOT ISLAND MOUNDING

SCALE: NOT TO SCALE

NOTES:
1. TEMPORARY IRRIGATION WILL BE REQUIRED TO ESTABLISH TURF IN ALL OFF SITE DISTURBED AREAS WITHOUT A PERMANENT IRRIGATION SYSTEM.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM TREE CALIPER MEASUREMENT HEIGHT ABOVE GRADE AS REQUIRED BY TOWN.
3. NO LANDSCAPE PLANTINGS WITHIN 18" OF PARKING LOT CURBS.
4. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR AND SHALL MAINTAIN THE LANDSCAPING FOR 90 DAYS PAST THE FINAL INSPECTION.
5. TURF SHALL BE ESTABLISHED IN ALL DISTURBED AREAS AS IDENTIFIED ON GRADING AND EROSION CONTROL PLAN.

REFERENCE NOTES SCHEDULE

SYMBOL	01 GENERAL DESCRIPTION	QTY	DETAIL
01-01	Composite Edging	866 lf	

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

FAIN • CUPPETT
LANDSCAPE ARCHITECTS, LLC
1921 MAPLEWOOD DRIVE
WEATHERFORD, TEXAS 76087 682-215-9151
PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

G. Cuppett
REGISTERED LANDSCAPE ARCHITECT GREGORY A. CUPPETT 2672 STATE OF TEXAS
08/14/23

LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

PLANTING DETAILS

Sheet No.
L-2

SECTION 02830

TREES, SHRUBS, AND GROUNDCOVERS

PART I GENERAL

1.01 DESCRIPTION OF WORK

A. Scope

1. Bed prep
2. Metal edging
3. Topsoil
4. Planting
5. Mulching
6. Guarantee

B. Related Work Specified Elsewhere

1. General Requirements – All locations
2. Section 02740 – Irrigation Trenching
3. Section 02750 – Irrigation
4. Section 02800 - Lawns

1.02 QUALITY ASSURANCE

A. Contractor Qualifications

Minimum of three (3) years experience on projects of similar characteristics and size.

B. Reference Standards:

1. American Joint Committee Of Horticultural Nomenclature: Standardized Plant Names, Second Edition, 1942;
2. American Association Of Nurserymen: American Standard For Nursery Stock, 1973

C. Substitutions

1. Substitutions accepted only upon written approval of Landscape Architect and Owner.
2. Submit substitutions possessing same characteristics as indicated on plans and specifications.

D. Inspection and Testing

1. The project Owner's representative reserves the right to inspect and tag plants at the place of growth with the Contractor.
2. Inspection at place of growth does not preclude the right of rejection due to improper digging or handling.
3. Owner's representative reserves the right to request soil samples and analysis of soil and plant mix. Remove or correct unacceptable soil. Cost of testing by Contractor.

1.03 SUBMITTALS

A. Certificates

1. Submit State and Federal certificates of inspection with invoice. (Only if required by Landscape Architect.)
2. File certificates with Owner's representative prior to material acceptance.

1.04 PRODUCT DELIVERY, STORAGE, & HANDLING

A. Preparation of Delivery

1. Balled & Burlaped (B&B) Plants
   a. Dig and prepare for shipment in manner that will not damage roots, branches, shape, and future development after replanting.
   b. Ball with firm, natural ball of soil, wrapped tightly with burlap covering entire ball.
   c. Ball size and ratios: conform to American Association of Nurserymen standards unless otherwise shown on plant list.
2. Pack plant material to protect against climatic & seasonal damage, as well as breakage injuries during transit.
3. Securely cover plant tops with ventilated tarpaulin or canvas to minimize wind-whipping and drying in transit.
4. Pack and ventilate to prevent sweating of plants during transit. Give special attention to insure prompt delivery and careful handling to point of delivery at job site.

B. Delivery

1. Deliver fertilizer, fertilizer tablets, peat, mulch, soil additives, and amendment materials to site in original, unopened containers, bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark, and conformance to State law.
2. Deliver plants with legible identification and size labels on example plants.
3. Protect during delivery to prevent damage to root ball or desiccation of leaves.
4. Notify Owner's representative of delivery schedule in advance so plant material may be inspected upon arrival at job site.
5. Deliver plants to job site only when areas are prepared.

C. Storage

1. Protect roots of plant material from drying or other possible injury with wetted mulch or other acceptable material.
2. Protect from weather.
3. Maintain and protect plant material not to be planted immediately upon delivery.

D. Handling

1. Do not drop plants.
2. Do not damage ball, trunk, or crown.
3. Lift and handle plants from bottom of container or ball.

1.05 JOB CONDITIONS

A. Planting Season Perform actual planting only when weather and soil conditions are suitable in accordance with locally acceptable practices.
B. Protection Before excavations are made, take precautionary measures to protect areas trucked over and where soil is temporarily stacked.

1.06 GUARANTEE

A. Guarantee new plant material for one year after acceptance of final installation (ie. Final Acceptance of project).
B. Make replacement (one per plant) during one year guarantee period at appropriate season with original plant type, size and planting mixture.
C. Repair damage to other plants, lawns, & irrigation caused during plant replacement at no cost to Owner.
D. Use only plant replacements of indicated size and species.

PART II PRODUCTS

2.01 MATERIALS

A. Plant Materials

1. Hardy under climatic conditions similar to locality of project.
2. True to botanical and common name variety.
3. Sound, healthy, vigorous, well branched, and densely foliated when in leaf; with healthy well-developed root system.
4. Free from disease, insects, and defects such as knots, sun-scald, windburn, injuries, disfigurement, or abrasions.
5. Conform to measurements after pruning with branches in normal positions.
6. Conform to American Association of Nurserymen standards unless shown differently on plant list.
7. Trees:
   a. Single, straight trunks, unless indicated otherwise
   b. Trees with weak, thin trunks not capable of support will not be accepated.
   c. All multi-stem trees are to have a minimum of three stems, similar in size and shape, with a spread of approximately 2/3 of the height. All yaupons to be female. Crape myrtle color selection by Landscape Architect.
8. Nursery grown stock only.
9. Subject to approval of Landscape Architect.
10. Seasonal color:
    a. Annuals in 4" pots or as specified
    b. Perennials in 4" pots, clumps, bulbs as specified

B. Topsoil

1. Natural, fertile, friable soils having a textural classification of loam or sandy loam possessing characteristics of soils in vicinity which produce heavy growth of crops, grass, or other vegetation.
2. Free of subsoil, brush, organic litter, objectionable weeds, clods, shale, stones ¾" diameter or larger, stumps, roots or other material harmful to grading, planting, plant growth, or maintenance operations.
3. Presence of vegetative parts of Bermuda grass (Cynodon dactylon), Johnson grass, nut grass (Cyperus rotundus), and other hard to eradicate weeds or grass will be cause for rejection of topsoil.
4. Test topsoil (cost by Contractor):
   a. Available nitrogen
   b. Available phosphorus
   c. Available potash
   d. Iron
   e. Ph: 5.5 to 7.0
   f. Decomposed organic matter: 6-10%

C. Mulch

1. Top Dressing Mulch – Shredded cypress or hard wood only
2. 12" of amended soil for all planting beds.
3. Soil prep – 3 Parts native soil to 1 Part composted landscape mix.
4. In pre-packaged bags only; bulk shredded material is unacceptable

D. Peat Moss Commercially available baled peat moss or approved equivalent.

E. Staking Material

1. Stakes for tree support:
   a. Metal, below grade
   b. Size as appropriate for specified plant
2. Stake removal
   a. Stakes removed after 1 year in ground

F. Water

1. Free of oils, acids, alkali, salt, and other substances harmful to plant growth
2. Location: Furnish temporary hoses and connections on site.

G. Sand – Washed builders sand

H. Antidesicant – "Wilt-proof" or equal.

I. Edging – 3/16" X 4" green, new and unused; with stakes.

2.02 MIXES

A. Planting Mixture

1. Existing topsoil – 50%
2. Shredded pine bark – 50%
3. Fertilizer 10:20:10 at 30 lb./1000 SF

B. Planting Mix for Annuals/Perennials

1. Prepare above mix
2. Add 2" of sand

C. Azalea mix: solid peat moss in hole 9" wider than root ball each direction. Plant in solid peat moss and provide mound at base of plant to allow for drainage.
D. Japanese maple, dogwood, camellias: Provide 50/50 peat moss to topsoil mix, raise for drainage.

PART III - EXECUTION

3.01 UTILITIES - verify location of all utilities prior to initiating construction; repair any damage caused by construction at no cost to owner.

3.02 INSPECTION

A. Inspect plants for injury and insect infestation; prune prior to installation.
B. Inspect site to verify suitable job conditions.

3.03 FIELD MEASUREMENTS

A. Location of all trees and shrubs to staked in the field and approved by Owner's representative prior to installation.
B. Location of all groundcover and seeding limits as shown on plans.

3.04 EXCAVATION FOR PLANTING

A. Pits

1. Shape - Vertical hand scarified sides and flat bottom.
2. Size for trees – 2 feet wider or twice the root ball, whichever is greater.
3. Size for shrubs – Size of planting bed as shown on drawings.
4. Rototill soil mix thoroughly, full depth.
5. NOTE: If beds are proposed beneath drip line of existing tree canopy, pocket prep plants. Do not roto-till beneath existing trees.

B. Obstructions Below Ground

1. Remove rock or underground obstructions to depth necessary to permit planting.
2. If underground obstructions cannot be removed, notify Owner's representative for instruction.

C. Excess Soil Dispense of unacceptable or excess soil away from the project site at Contractor's expense.

3.05 PLANTING

A. General

1. Set plants 2" above existing grade to allow for settling.
2. Set plants plumb and rigidly braced in position until planting mixture has been tamped solidly around ball.
3. Apply soil in accordance with standard industry practice for the region.
4. Thoroughly settle by water jetting and tamping soil in 6" lifts.
5. Prepare 3" dish outside root ball after planting.
6. Thoroughly water all beds and plants.
7. Stake trees and large shrubs as indicated on plans.
8. Apply anti-desicant according to manufacturer's instructions.
9. Apply commercially manufactured root stimulator as directed by printed instruction.
10. Plant and fertilize bedding plants per trade standards.
11. Apply 4" mulch top dressing.

B. Balled Plants

1. Place in pit of planting mixture that has been hand tamped prior to placing plant.
2. Place with burlap intact to ground line. Top of ball to be 2" above surrounding soil to allow for settling.
3. Remove binding at top of ball and lay top of burlap back 6".
4. Do not pull wrapping from under ball, but cut all binding cord.
5. Do not plant if ball is cracked or broken before or during planting process or if stem or trunk is loose.
6. Backfill with planting mixture in 6" lifts.

C. Container Grown Plants

1. Place in pit on planting mixture that has been hand tamped prior to placing plant.
2. Cut cans on two sides with an acceptable can cutter, and remove root ball from can. Do not injure root ball.
3. Carefully remove plants without injury or damage to root balls.
4. Backfill with planting mixture in 6" lifts.

D. Mulching

1. Cover planting bed evenly with 4" of mulch.
2. Water immediately after mulching.
3. Where mulch has settled, add additional mulch to regain 4" thickness.
4. Hose down planting area with fine spray to wash leaves of plants.

D. Pruning

1. Prune minimum necessary to remove injured twigs and branches, dead wood, and succors; remove approximately 1/3 of twig growth as directed by landscape architect; do not cut leaders or other major branches of plant unless directed by landscape architect.
2. Make cuts flush, leaving no stubs.
3. Paint cuts over 1" diameter with approved tree wound paint.
4. Do not prune evergreens except to remove injured branches.

3.06 EDGING

A. Stake edging alignment with string line prior to installation. Use framing square to insure right angles are true.
B. Install all edging straight and true as indicated on drawings. Where edging layout is circular in design, maintain true and constant radii as shown.
C. When required on slopes, make vertical cuts (approximately 6" on center) on bottom of edging to allow bending without crimping edging.
D. Install edging so that approximately 1" is exposed on lawn side. Edging should not be visible from bed side after application of mulch.
E. Align edging with architectural features (ie pavement joints, windows, columns, wall, etc.) when drawings indicate.
F. Bend all corners, do not cut corners.
G. Interlock all pieces with pre-fabricated connectors.
H. Install with all stakes on inside of planting bed.
I. Remove, file off all sharp corners and burrs.

3.07 CLEAN-UP

A. Sweep and wash all paved surfaces.

Remove all planting and construction debris from site, including rocks, trash and all other miscellaneous materials.

3.08 MAINTENANCE

A. Contractor responsible for routine, and regular maintenance of site until Final Acceptance is awarded by Owner. Work includes:

1. Weeding (weekly)
2. Watering (as required)
3. Pruning
4. Spraying
5. Fertilizing
6. Mulching
7. Mowing (weekly)

B. Provide Owner and Landscape Architect with preferred maintenance schedule in writing. Schedule shall include the above-listed tasks and shall address all frequencies, rates, times, levels, etc.

END OF SECTION

PLANTING SPECIFICATIONS

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

FAIN • CUPPETT
LANDSCAPE ARCHITECTS, LLC
1921 MAPLEWOOD DRIVE
WEATHERFORD, TEXAS 76087 682-215-9151
PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

REGISTERED LANDSCAPE ARCHITECT
GREGORY A. CUPPETT
2672
STATE OF TEXAS
08/14/23

LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

Sheet No.
L-3

SECTION 02800

FINISH GRADING, LAWN WORK, WILD FLOWERS

PART I - GENERAL

1.01 DESCRIPTION

A. Work includes turf establishment (sod, hydromulch, etc.) as described on drawings.

B. Make required analysis and material tests for topsoil, fertilizers, and other materials of similar character per current methods of the Association of Official Agricultural Chemists, when required.

C. Grass seed shall conform to tolerances for germination and purity per applicable standards of U.S. Department of Agriculture.

D. The turf contractor shall have a stand of grass established prior to substantial completion of the project. If this is not possible due to time of year or schedule, he shall maintain and protect the seeded areas until the grass is established.

PART II - PRODUCTS

2.01 TOPSOIL MATERIAL

A. Topsoil material (stockpiled, as specified in Specifications) has been saved for use in finish grading. After sifting out all plant growth, rubbish, and stones, use for areas designated to receive grass. If stockpiled topsoil is not sufficient quantity to complete work, furnish acceptable topsoil from another approved source to provide four inches (4") of topsoil for grass areas unless otherwise noted on drawings. Grass areas shall be defined as the graded areas disturbed during construction not to be paved or built upon.

B. Acceptable topsoil material shall be defined as natural, fertile, agricultural soil, capable of sustaining vigorous plant growth, uniform composition throughout admixture of subsoil, free of stones, lumps, plants, and their roots, sticks, or other extraneous matter; do not deliver while in a frozen or muddy condition.

2.02 FERTILIZER

A. Provide a commercial balanced fertilizer delivered to the job in bags labeled with manufacturer's guaranteed analysis. Store in weatherproof storage, place in such a manner that its effectiveness will not be impaired.

B. Fertilizer shall be a grade containing the percentages of plant food elements by weight as specified elsewhere in these specifications.

C. Availability of various elements shall be per Standards of the Association of Official Agricultural Chemists.

2.03 GRASS SEED

A. Grass seed shall be of the previous season's crop and the date of analysis shown on each bag shall be within nine (9) months of the time of delivery to the project. When requested by the Owner or Representative, the seeding contractor shall furnish a sample of seed from each bag for testing.

B. The seed shall comply with all provisions of the U.S. Department of Agriculture as to labeling, purity, and germination.

2.04 MULCHING

A. Dry straw or hay of good quality, free of seeds of competing plants and at such rate of 1 1/2 - 2 tons per acre; or,

B. Wood cellulose or cane fiber mulch at a rate of 1,000 pounds per acre when the slope is 3/4:1 and steeper; or,

C. A combination of good quality dry straw or hay free of seeds of competing plants at a rate of 2 1/2 tons per acre and wood cellulose or cane fiber mulch at a rate of 500 pounds per acre. This combination shall be used when the slope is flatter than 3/4:1; or,

D. Sericea lespedza seed bearing hay at a rate of 3 tons per acre. This mulch may be applied green or air dried, but must contain mature seed.

E. Manufactured mulch materials, such as soil retention blankets, erosion control netting, or others that may be required on special areas of high water concentration or unstable soils. When these materials are used, follow the manufacturer's recommendations for installation.

2.05 HYDRO-MULCHING

Wood cellulose fiber or cane fiber mulch will be applied with hydraulic seeding and fertilizing equipment. All slurry ingredients shall be mixed to form a homogeneous slurry and spray applied within one hour after the mixture is made.

When wood cellulose or cane fiber mulch is used at the 500 pound per acre rate, straw or hay mulch with asphalt emulsion is applied over this to complete the mulch.

Wood cellulose or cane fiber mulch at the 1,000 pound per acre rate is used alone where other mulch material will not stick.

Wood cellulose or cane fiber mulch is self anchoring.

PART III - EXECUTION

3.01 RESPONSIBILITY

The site grading contractor will be responsible to stockpile acceptable topsoil in a sufficient quantity to provide four inches (4") minimum cover for all grass areas, including but not limited to all curbed islands, and topsoil planting mounds/berms at the appropriate height and width as defined and shown on the landscaping and/or planting drawings. The topsoil and grass areas shall be further defined as any area disturbed during the grading and construction process.

The site grading contractor, shall be responsible to spread the topsoil within all perimeter graded areas and future building areas only.

The site grading contractor shall be responsible for backfilling of all curbed islands and planting mounds/berms. They shall also be responsible for removal of all stones, roots, and raking of all topsoil areas hat are to be seeded and/or planted. It will also be the site grading contractor's responsibility to provide fertilizer, grass seed, and any additional topsoil required and mulching.

3.02 GRASS SEEDING

A. Remove stones, roots, rubbish and other deleterious materials from topsoiled areas that are to be seeded.

B. Immediately prior to sowing seed, scarify ground as necessary; rake until surface is smooth and friable. Sow seed evenly, lightly wood rake into ground, then roll ground with suitable roller; water thoroughly with fine spray. During any weather, keep lawn watered with sprinklers or other approved methods. Re-seed any areas not doing well or damaged. At intervals as may be required according to seasonal conditions, mow and water grass and execute necessary weeding until acceptable and full stand of grass has been obtained.

C. Provide permanent grass seeding for lawn areas so indicated. Seed in accordance with the following schedule (unless otherwise directed by Owner or Owner's Representative::

1. Sow areas ready for seeding between March 1 and October 1 with Hulled Common Bermuda at a rate of 85 pounds per acre.

2. Sow areas ready for seeding between October 1 and March 1 with Unhulled Common Bermuda at a rate of 90 pounds per acre, and Annual Rye Grass at the rate of 50 pounds per acre.

3. Apply fertilizer at a rate of 20/25 pounds per 1,000 square feet.

3.03 WILD FLOWERS

A. Areas indicated on plans to receive wild flower coverage shall br fine graded, fertilized, and prepared in a manner similar to traditional turf establishment.

B. Area to be hydromulched with seed mix as follows:

Tickseed	10 pounds/acre
Cosmos	15 pounds/acre
Ox-Eyed Daisy	5 pounds/acre
Side Oats Grama	4 pounds/acre
Showy Primrose	0.5 pounds/acre
Plains Coreopsis	2 pounds/acre
Black Eyed Susan	2 pounds/acre
Indian Blanket	10 pounds/acre
Texas Bluebonnet	4 pounds/acre
Little Bluestem	4 pounds/acre

3.04 MULCH

A. All areas to be seeded shall be mulched.

B. Mulch materials shall be applied uniformly over the seeded area. Mulch shall be straw and shall be at the rate of 1 1/2 - 2 tons per acre

C. Mulch shall be anchored with an emulsified asphalt binder at the rate of 10 gallons per 1,000 square feet.

3.05 PROTECTION

Provide, at no additional cost to Owner, fencing, railing, wire or other types of protection for topsoiled and seeded areas against trespassing and damage. If lawns are damaged prior to Final Acceptance, treat or replace them as directed. Remove protection when so directed.

3.06 MAINTENANCE

Provide maintenance from start of work until Final Acceptance. Maintenance includes watering of lawns, weeding, mowing, edging, repairs of wash-outs and gullies, repairs to protection, and other necessary work of maintenance. Maintain slopes against erosion.

3.07 REHYDROMULCHING

The Owner's representative will designate areas to be replanted. Areas on which a stand of growing grass is not present in a reasonable length of time, (Bermuda grass seed should be germinating in 6-8 days) shall be prepared, reseeded and remulched, as specified for original planting at no additional cost to Owner. A stand shall be defined as live plants from seed occurring at a rate of not less than 1,000 growing plants per square foot. Replanting required because of faulty operations or negligence on the part of the Contractor shall be performed without cost to Owner.

3.08 FINAL CLEAN-UP

A. At time of final inspection of work, and before final acceptance, clean paved areas that are soiled or stained by operations of work of this section. Clean by sweeping or washing, and remove all defacements or stains.

B. Remove construction equipment, excess material and tools. Cart away from site any debris resulting from work of this section and dispose of as directed.

END OF SECTION

SECTION 02922
SODDING

PART I - GENERAL

1.01 DESCRIPTION

A. Work Included

1. Sod bed preparation
2. Fertilizing
3. Sodding
4. Miscellaneous management practices

B. Related Work Specified Elsewhere

1. Finish Grading, Section 02800
2. Lawns and Grasses, Section 02930

1.02 REFERENCE STANDARDS

A. Standardized Plant Names

American Joint Committee of Horticultural Nomenclature, Second Edition, 1942.

B. Texas Highway Department - Standard Specifications for Construction, Item 164, Seeding for Erosion Control.

1.03 SUBMITTALS

A. Vendors Certification That Sod Meets Texas State Sod Law

1. Include labeling requirements.
2. Include purity and type.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A Sod:

1. Previous season's crop with date of analysis on each bag.
2. Furnish and deliver each variety in separate bags or containers.
3. Sod to be cut no more than three days before delivery.

B. Fertilizer:

1. Unopened bags labeled with the analysis.
2. Conform to Texas Fertilizer Law.

1.05 JOB CONDITIONS

A. Planting Season:

1. Only during suitable weather and soil conditions.
2. As specifically authorized by the Owner's Representative.

B. Schedule - Only after all other construction is complete.

C. Protect and Maintain Sodded Areas

1. From traffic and all other use.
2. Until sodding is complete and accepted.

PART II - PRODUCTS

2.01 MATERIALS

A. Sod:

1. Sod: As specified on drawings, weed, insect, and disease free having a minimum of 1 inch of topsoil attached to the roots and cut no more than three days prior to installation.
2. The sod shall be cut in strips of at least 1/2 sq. yd. and not more than 1 sq. yd. Sod shall be cut into strips not less than 12" in width or more than 9' in length. At the time of harvest, the top growth shall not exceed 3" in length.
3. All sod shall conform to the laws of the State and shall be obtained from sources meeting the approval of the Department of Agriculture, Division of Entomology.

B. Fertilizer:

1. Uniform in composition, free flowing.
2. Suitable for application in approved equipment.
3. Analysis of 16-20-0, 16-8-8 or as directed.

C. Water:

1. Free of oil, acid, alkali, salts or other substances harmful to growth of grasses.

PART III - EXECUTION

3.01 SOD BED PREPARATION

A. Cultivate to a depth of four (4") inches by disking and tilling with a power tiller.

B. Clear surfaces of all materials:

1. Stumps, stones, and other objects larger than one inch (1").
2. Roots, brush, wire, stakes, etc.
3. Any objects that may interfere with sodding or maintenance.

C. Prepare sod bed:

1. Remove soil clods larger than one inch (1").
2. Grade areas to smooth, even surface, removing ridges and filling depressions. Final grade to be below finish grade of curbing and edging as shown on details. All grades shall meet approval of Owner's Representative before sodding.

3.02 SODDING

A. Sodding:

1. Lightly water prepared grade, lay sod with staggered joints and with edges touching. Topdress with topsoil at edges if necessary to provide smooth surface. On slopes of 2 to 1 and greater, fasten sod in place with wood pegs (two each piece) or other approved method. Sod damaged by storage or during installation shall be rejected. Following settling, topdress with screened, approved topsoil.
2. Water and fertilize at 5 lbs. per 1,000 sq. ft.
3. Sod shall not be placed during a drought, nor during periods when sod is not normally placed in the area, and shall not be placed on frozen ground. No dry or frozen sod is acceptable.
4. The contractor shall keep all keep all sodded areas moist and growing until Final Acceptance. All areas shall be maintained in an acceptable condition until acceptance by Owner.

B. Rolling:

1. After placing sod, roll with a hand roller, weighing not more than 100 lbs. per foot of width, in two directions.
2. Eliminate all air pockets; finished surface should be free of excessive undulations.

3.05 MAINTENANCE AND MANAGEMENT

A. Includes protection, replanting, maintaining grades, repair of erosion damage. Also includes weekly mowing at 1 1/2" height until final acceptance.

B. Resodding:

1. Resod damaged or unacceptable areas.
2. Ruts, ridges, and other surface irregularities shall be corrected.

END OF SECTION

TURF SPECIFICATIONS

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

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08/14/23

LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

Sheet No.
L-4

SECTION 32 15 40 DECOMPOSED GRANITE SURFACING

NOTE: These specifications were current at the time of publication but are subject to change at any time without notice. Please confirm the accuracy of these specifications with the manufacturer and/or distributor prior to installation.

PART 1 - GENERAL

A. SUMMARY

B. Section Includes:

1. Naturally occurring decomposed granite and crushed stone surfacing as shown on Drawings and specified herein. Include sub-grade, edging and related accessories.

C. Related Sections:

1. Section 31 22 00 “Grading”.

1.02 REFERENCES

A. ASTM C136 - Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates.
B. ASTM D448 - Standard Classification for Sizes of Aggregate for Road and Bridge Construction.

1.03 ACTION SUBMITTALS

A. Comply with Section 01 33 00.

B. Shop Drawings: Submit plan layout of all decomposed granite surfacing areas and detail drawings showing the various components of the surfacing system, including subbase and edging.

C. Product Data: Manufacturer's literature completely describing all components of the decomposed granite surfacing system, including:

1. Preparation instructions and recommendations.

2. Installation methods and application procedures.

D. Samples for Verification:

1. Submit samples of each of the following:

a. Three pound sample of each type and color of decomposed granite surfacing material.

b. Edging material, each type not less than 12 inches long.

E. Certification:

1. Manufacturer and Installer Qualifications.

1.04 LEED REQUIREMENTS

A. LEED Submittals: In accordance with [LEED] [and] [Section 01 35 21 LEED Requirements] [______].

1. Submit required letters, calculations, spreadsheets and templates prepared by [Engineer] [Consultant] [Architect] [______] for submitting to USGBC for Credit Interpretation Requests.

2. Submit Project Materials and Cost Data: Provide statement for total cost for building materials used for Project.

1. Materials and Resources Credit: MRc Building Product Disclosure and Optimization - Sourcing of Raw Materials: Submit product data and certification letter(s)] of proposed materials with recycled content.

1.02 QUALITY ASSURANCE

A. Comply with Section 01 40 00.

B. Manufacturer: Company specializing in manufacturing Work of this Section with minimum 25 years documented experience.

C. Single Source Responsibility: Obtain each type of decomposed granite surfacing from single manufacturer.

D. Mock Up: Provide a mock-up for evaluation of surface preparation, installation techniques and quality of application.

1. Install a 4-feet x 4-feet minimum of decomposed granite surfacing, including subbase course and edging, at location approved by Landscape Architect.

2. Do not proceed with remaining work until installation of decomposed granite surfacing is approved by Landscape Architect.

Approved mock-up may remain as part of completed Work.

1.03 DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 01 60 00.

B. Bagged Materials: Accept delivery of materials only in unopened and undamaged containers bearing the brand name and manufacturer's identification.

C. Bulk Materials: Each load of decomposed granite surfacing material arriving at the job site in bulk shall be accompanied by a delivery ticket containing the following minimum information:

4. Quarry of origin.

5. Amount, weight and type of material.

6. Brand name and manufacturer's identification.

D. Protect decomposed granite surface surfacing materials from contamination until ready for installation. Store under cover.

1.04 PROJECT CONDITIONS

A. Surfaces to receive decomposed granite surfacing shall be frost free and free of oil or any other foreign matter, which may impair the proper installation of the surfacing system.
B. Do not install decomposed granite surfacing when subbase course is muddy or saturated with standing water.
C. Perform work in dry weather when subgrade is sufficiently stable to be properly compacted.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

A. As specified or approved equal.

B. Requests for substitutions will be considered in accordance with provisions of Section 01 25 00.

2.02 DECOMPOSED GRANITE SURFACING MATERIALS

A. Recycled Content of Decomposed Granite or Crushed Stone Surfacing Materials: [**50%**][**75%**][**100%**][**__%**]

B. Decomposed Granite and Crushed Stone Aggregate: Provide high quality materials consisting of sound, angular, durable stone particles, free from clay lumps, organic materials, frozen materials, or other deleterious substances.

C. Gradation: Manufacturer's standard mix of well-graded materials in accordance with ASTM C136. Blends of coarse sand and rock dust are not acceptable.

Standard Pathway Optimal Gradation

Sieve	Sieve Size (mm)	Percent Passing
3/8"	9.51	100%
#4	4.76	80-100%
#8	2.36	65-90%
#16	1.18	40-60%
#30	0.6	25-55%
#50	0.3	15-35%
#100	0.149	10-20%
#200	0.074	7-15%

2.03 SUBBASE COURSE MATERIALS

A. Comply with MTO OPSS 1010 - “Material Specification for Aggregates - Granular A, B, M and Select Subgrade Material” specification for Granular A material.

1. Road Base Material: *A*lso known as road rock, road gravel, aggregate base, AB, asphalt base and 3/4" minus. In California the standard is set by Cal Trans and most common is 3/4" aggregate base Class 2.

2.04 ACCESSORIES

A. Water: Clean and potable, free from contaminants that would be deleterious to the decomposed granite surfacing.
B. Edging: EPIC EDGE composite edging or approved equal. 4-inch deeps.

1. Stakes: 12-inch long Epic stake or approved equal; locate at 36-inch on center maximum.

C. Herbicide: Commercial chemical for weed control, registered by the EPA, and not classified as "restricted use" for locations and conditions of application. Application of the herbicide shall pose no short or long term health threats to the installer or the general public.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Examine areas and conditions under which Work of this Section will be performed. Notify Landscape Architect of unsatisfactory preparation before proceeding.

B. Correct conditions detrimental to timely and proper completion of Work.

C. Do not proceed until unsatisfactory conditions are corrected.

D. Lay out work prior to the commencement of installation.

3.02 PREPARATION

A. Excavation: Excavate to depth required so edges of decomposed granite surfacing will match adjacent grades and have a maximum cross-slope of 2 percent. Ensure edges and bottom of excavation are in a smooth and even line.

B. Subgrade Preparation: Plow, harrow and mix the entire surface of the in-place subgrade to a depth of at least 6-inches. After the material has been thoroughly mixed, the subgrade shall be brought to line and grade and compacted to 95% of the maximum laboratory dry density as determined by the Standard Proctor test.

C. Herbicide: Apply herbicide per manufacturer's written instructions. Limit the application to the area to receive decomposed granite surfacing.

D. Subbase Course Preparation: Place the subbase coarse aggregate free from ridges, depressions or hollows. Rake and compact to 95% Standard Proctor Density.

3.03 INSTALLATION

A. Composite Edging: Install edging flush with the top of the decomposed granite surfacing. Provide sufficient stakes to secure edging in place during and after decomposed granite surfacing material installation.

B. Subgrade: Proof-roll the subgrade with heavy pneumatic-tired equipment to locate unstable areas and to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Landscape Architect, and replace with compacted backfill or fill as directed.

2. The surface of the completed subgrade shall be bladed to a smooth and uniform texture.

3. The finished subgrade shall be uniform and free from deleterious debris such as organic materials, nails, stones and loose soil.

C. Subbase: Install aggregate subbase to a compacted depth of 4 to 6-inches minimum for pedestrian traffic, and 8 to 12-inches minimum for vehicular traffic in accordance with manufacturer's recommendations. Install the subbase in multiple 3 to 4-inch lifts, and compact to a minimum 95% density.

D. Compaction: Compact each lift of the subgrade, subbase and final finish decomposed granite surfacing materials with a one to three-ton roller or compactor. In small areas that are difficult to access with compaction equipment, hand tamping may be performed with multiple passes to achieve the required density.

1. Lightly spray surface area following compaction. Do not disturb aggregate surface with spray action.

3.04 INSTALLATION OF DECOMPOSED GRANITE SURFACING

A. Spread decomposed granite surfacing material in 3 to 4-inch lifts. Spread the pathway mix evenly and smoothly before compacting. Allow for 20-25% compaction. Screed if possible.

B. Wet the mix to ensure water has penetrated the full depth of the decomposed granite surfacing material, and roll each lift to form a uniform, smooth surface with a cross slope of 2% maximum. Compact each lift to a minimum 95% density.

C. Grade and smooth to the required elevation; compact final lift with 1-3 ton drum roller or compactor.

D. Minimum Compacted Thickness:

1. Pedestrian Paths: 4-inches.

2. Vehicular Drives and Roadways: 6-inches.

E. Surface shall follow grades per plans. Remove crown, allow 1-2% cross pitch.

F. Completed surface shall be of consistent quality and shall not have depressions or humps greater than 1/4-inch in 10-feet.

3.05 INSTALLATION TOLERANCES

A. Decomposed Granite Surfacing Thickness: Allow for 20-25% compaction.

1. Subbase Course: Plus or minus 1/2-inch.

2. Surface Course: Plus 1/4-inch, no minus.

B. Decomposed Granite Surfacing Smoothness: Produce a surface smoothness within 1/4-inch tolerance when measured with a 10-foot straightedge.

1. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowed variance from template is 1/4-inch.

3.06 CLEAN-UP AND PROTECTION

A. Thoroughly clean all areas where work has occurred. Remove from site excess material, debris and rubbish.

B. Take all precautions necessary to protect completed work until Substantial Completion of project.

END OF SECTION

SPECIAL SPECIFICATION

2099

DECOMPOSED GRANITE

1. DESCRIPTION. Furnish and install decomposed granite beds and as shown on the plans or as directed.

2. MATERIALS. Provide decomposed granite, aggregate base material, necessary subgrade fill material, weed barrier fabric, binding material, and other miscellaneous items as shown on the plans.

3. CONSTRUCTION. All materials furnished will be installed as shown on the plans or as directed by the Engineer.

A. Decomposed Granite. Place over filter fabric. Remove loose material from the exposed subgrade. Place decomposed granite aggregate in maximum 2 in. deep lifts, wet thoroughly, and let set according to the supplier's instructions. Compact to not less than 90% nor more than 95% of maximum dry density (ASTM D 698) with a roller. Do not use a tamp plate.

4. MEASUREMENT. This item will be measured by Square Yard, complete in place for the project, as shown on the plans.

5. PAYMENT. The work performed and materials furnished in accordance with this item and as provided under “Measurement” will be paid for at the unit price bid of Square Yard for “Decomposed Granite”. This price is full compensation for furnishing, installing, testing, and for all other materials, labor, tools, equipment, and incidentals.

END OF SECTION

DECOMPOSED GRANITE SPECIFICATIONS

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

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PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

REGISTERED LANDSCAPE ARCHITECT
GREGORY A. CUPPETT
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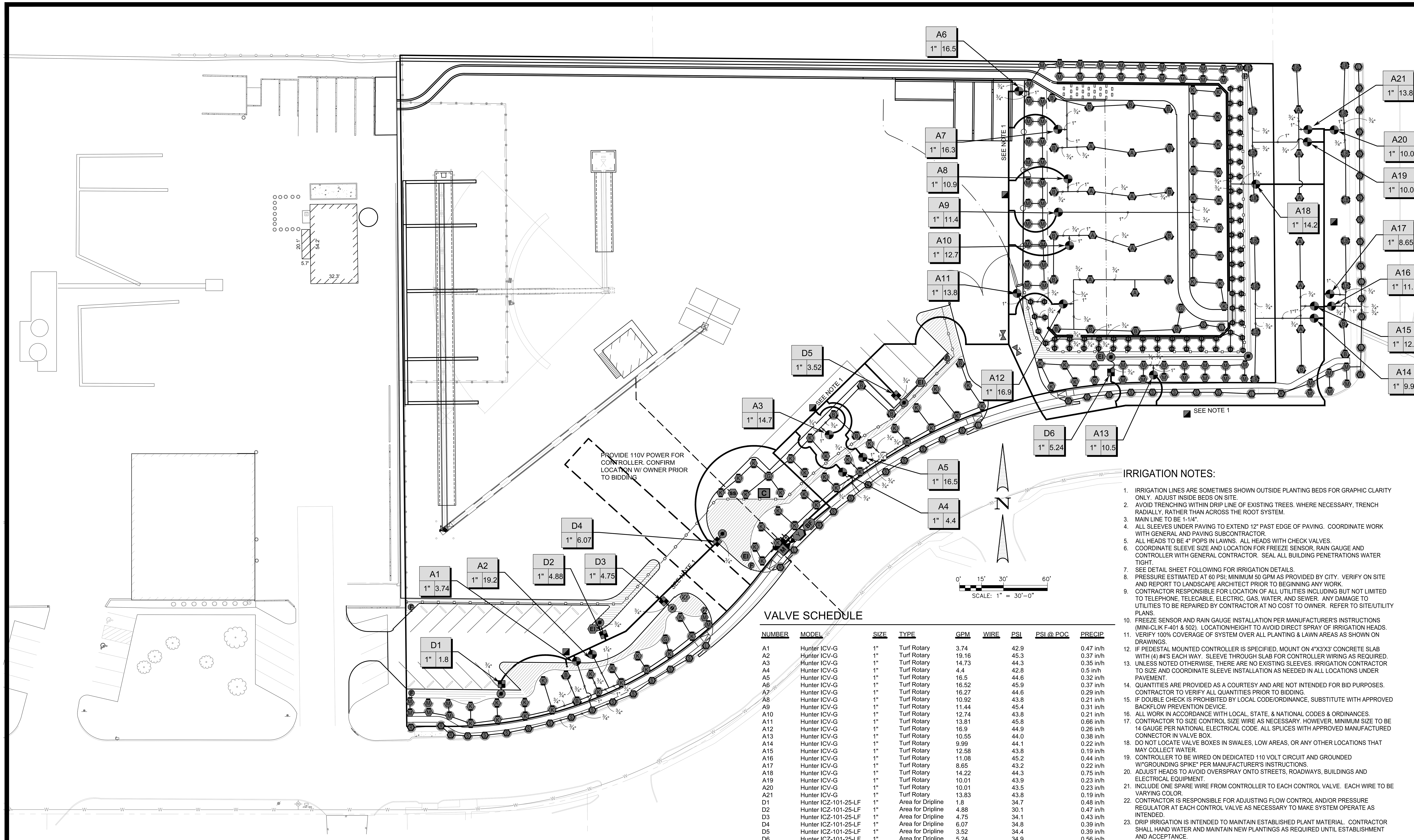
STATE OF TEXAS
08/14/23

LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

Sheet No.
L-5



VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	WIRE	PSI	PSI @ POC	PRECIP
A1	Hunter ICV-G	1"	Turf Rotary	3.74		42.9		0.47 in/h
A2	Hunter ICV-G	1"	Turf Rotary	19.16		45.3		0.37 in/h
A3	Hunter ICV-G	1"	Turf Rotary	14.73		44.3		0.35 in/h
A4	Hunter ICV-G	1"	Turf Rotary	4.4		42.8		0.5 in/h
A5	Hunter ICV-G	1"	Turf Rotary	16.5		44.6		0.32 in/h
A6	Hunter ICV-G	1"	Turf Rotary	16.52		45.9		0.37 in/h
A7	Hunter ICV-G	1"	Turf Rotary	16.27		44.6		0.29 in/h
A8	Hunter ICV-G	1"	Turf Rotary	10.92		43.8		0.21 in/h
A9	Hunter ICV-G	1"	Turf Rotary	11.44		45.4		0.31 in/h
A10	Hunter ICV-G	1"	Turf Rotary	12.74		43.8		0.21 in/h
A11	Hunter ICV-G	1"	Turf Rotary	13.81		45.8		0.66 in/h
A12	Hunter ICV-G	1"	Turf Rotary	16.9		44.9		0.26 in/h
A13	Hunter ICV-G	1"	Turf Rotary	10.55		44.0		0.38 in/h
A14	Hunter ICV-G	1"	Turf Rotary	9.99		44.1		0.22 in/h
A15	Hunter ICV-G	1"	Turf Rotary	12.58		43.8		0.19 in/h
A16	Hunter ICV-G	1"	Turf Rotary	11.08		45.2		0.44 in/h
A17	Hunter ICV-G	1"	Turf Rotary	8.65		43.2		0.22 in/h
A18	Hunter ICV-G	1"	Turf Rotary	14.22		44.3		0.75 in/h
A19	Hunter ICV-G	1"	Turf Rotary	10.01		43.9		0.23 in/h
A20	Hunter ICV-G	1"	Turf Rotary	10.01		43.5		0.23 in/h
A21	Hunter ICV-G	1"	Turf Rotary	13.83		43.8		0.19 in/h
D1	Hunter ICZ-101-25-LF	1"	Area for Dripline	1.8		34.7		0.48 in/h
D2	Hunter ICZ-101-25-LF	1"	Area for Dripline	4.88		30.1		0.47 in/h
D3	Hunter ICZ-101-25-LF	1"	Area for Dripline	4.75		34.1		0.43 in/h
D4	Hunter ICZ-101-25-LF	1"	Area for Dripline	6.07		34.8		0.39 in/h
D5	Hunter ICZ-101-25-LF	1"	Area for Dripline	3.52		34.4		0.39 in/h
D6	Hunter ICZ-101-25-LF	1"	Area for Dripline	5.24		34.9		0.56 in/h

IRRIGATION NOTES:

1. IRRIGATION LINES ARE SOMETIMES SHOWN OUTSIDE PLANTING BEDS FOR GRAPHIC CLARITY ONLY. ADJUST INSIDE BEDS ON SITE.
2. AVOID TRENCHING WITHIN DRIP LINE OF EXISTING TREES. WHERE NECESSARY, TRENCH RADIALLY, RATHER THAN ACROSS THE ROOT SYSTEM.
3. MAIN LINE TO BE 1-1/4".
4. ALL SLEEVES UNDER PAVING TO EXTEND 12" PAST EDGE OF PAVING. COORDINATE WORK WITH GENERAL AND PAVING SUBCONTRACTOR.
5. ALL HEADS TO BE 4" POPS IN LAWNS. ALL HEADS WITH CHECK VALVES.
6. COORDINATE SLEEVE SIZE AND LOCATION FOR FREEZE SENSOR, RAIN GAUGE AND CONTROLLER WITH GENERAL CONTRACTOR. SEAL ALL BUILDING PENETRATIONS WATER TIGHT.
7. SEE DETAIL SHEET FOLLOWING FOR IRRIGATION DETAILS.
8. PRESSURE ESTIMATED AT 60 PSI; MINIMUM 50 GPM AS PROVIDED BY CITY. VERIFY ON SITE AND REPORT TO LANDSCAPE ARCHITECT PRIOR TO BEGINNING ANY WORK.
9. CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL UTILITIES INCLUDING BUT NOT LIMITED TO TELEPHONE, TELECABLE, ELECTRIC, GAS, WATER, AND SEWER. ANY DAMAGE TO UTILITIES TO BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER. REFER TO SITE/UTILITY PLANS.
10. FREEZE SENSOR AND RAIN GAUGE INSTALLATION PER MANUFACTURER'S INSTRUCTIONS (MINI-CLIK F-401 & 502). LOCATION/HEIGHT TO AVOID DIRECT SPRAY OF IRRIGATION HEADS.
11. VERIFY 100% COVERAGE OF SYSTEM OVER ALL PLANTING & LAWN AREAS AS SHOWN ON DRAWINGS.
12. IF PEDESTAL MOUNTED CONTROLLER IS SPECIFIED, MOUNT ON 4"X3'X3' CONCRETE SLAB WITH (4) #4'S EACH WAY. SLEEVE THROUGH SLAB FOR CONTROLLER WIRING AS REQUIRED.
13. UNLESS NOTED OTHERWISE, THERE ARE NO EXISTING SLEEVES. IRRIGATION CONTRACTOR TO SIZE AND COORDINATE SLEEVE INSTALLATION AS NEEDED IN ALL LOCATIONS UNDER PAVEMENT.
14. QUANTITIES ARE PROVIDED AS A COURTESY AND ARE NOT INTENDED FOR BID PURPOSES. CONTRACTOR TO VERIFY ALL QUANTITIES PRIOR TO BIDDING.
15. IF DOUBLE CHECK IS PROHIBITED BY LOCAL CODE/ORDINANCE, SUBSTITUTE WITH APPROVED BACKFLOW PREVENTION DEVICE.
16. ALL WORK IN ACCORDANCE WITH LOCAL, STATE, & NATIONAL CODES & ORDINANCES.
17. CONTRACTOR TO SIZE CONTROL SIZE WIRE AS NECESSARY. HOWEVER, MINIMUM SIZE TO BE 14 GAUGE PER NATIONAL ELECTRICAL CODE. ALL SPLICES WITH APPROVED MANUFACTURED CONNECTOR IN VALVE BOX.
18. DO NOT LOCATE VALVE BOXES IN SWALES, LOW AREAS, OR ANY OTHER LOCATIONS THAT MAY COLLECT WATER.
19. CONTROLLER TO BE WIRED ON DEDICATED 110 VOLT CIRCUIT AND GROUNDED W/"GROUNDING SPIKE" PER MANUFACTURER'S INSTRUCTIONS.
20. ADJUST HEADS TO AVOID OVERSPRAY ONTO STREETS, ROADWAYS, BUILDINGS AND ELECTRICAL EQUIPMENT.
21. INCLUDE ONE SPARE WIRE FROM CONTROLLER TO EACH CONTROL VALVE. EACH WIRE TO BE VARYING COLOR.
22. CONTRACTOR IS RESPONSIBLE FOR ADJUSTING FLOW CONTROL AND/OR PRESSURE REGULATOR AT EACH CONTROL VALVE AS NECESSARY TO MAKE SYSTEM OPERATE AS INTENDED.
23. DRIP IRRIGATION IS INTENDED TO MAINTAIN ESTABLISHED PLANT MATERIAL. CONTRACTOR SHALL HAND WATER AND MAINTAIN NEW PLANTINGS AS REQUIRED UNTIL ESTABLISHMENT AND ACCEPTANCE.

CAUTION!!!
UNDERGROUND UTILITIES ARE LOCATED IN THIS AREA. 48 HOURS PRIOR TO ANY CONSTRUCTION ACTIVITIES, CONTACT LINE LOCATES FOR FRANCHISE UTILITY INFO.
CALL BEFORE YOU DIG:
TEXAS EXCAVATION SAFETY SYSTEM (TESS)
1-800-344-8377
TEXAS ONE CALL SYSTEMS
1-800-245-4545
LONE STAR NOTIFICATION CENTER
1-800-669-8344 EXT. 5
BEFORE YOU DIG...

HYDRAULIC CALCULATIONS ROTARY ZONE A6

AVAILABLE PRESSURE 60 PSI (ESTIMATED)
16.5 GALLONS PER MINUTE

- 1" METER - 1.8 PSI
- 1-1/2" DCVA - 6.1 PSI
- 1-1/2" WYE - 0.1 PSI
- 1-1/2" MAIN LINE LOSS (560') - 3.6 PSI
- IN-LINE BALL VALVE - 0.5 PSI
- ELEVATION CHANGE - 0.0 PSI
- FITTING ESTIMATE - 1.2 PSI

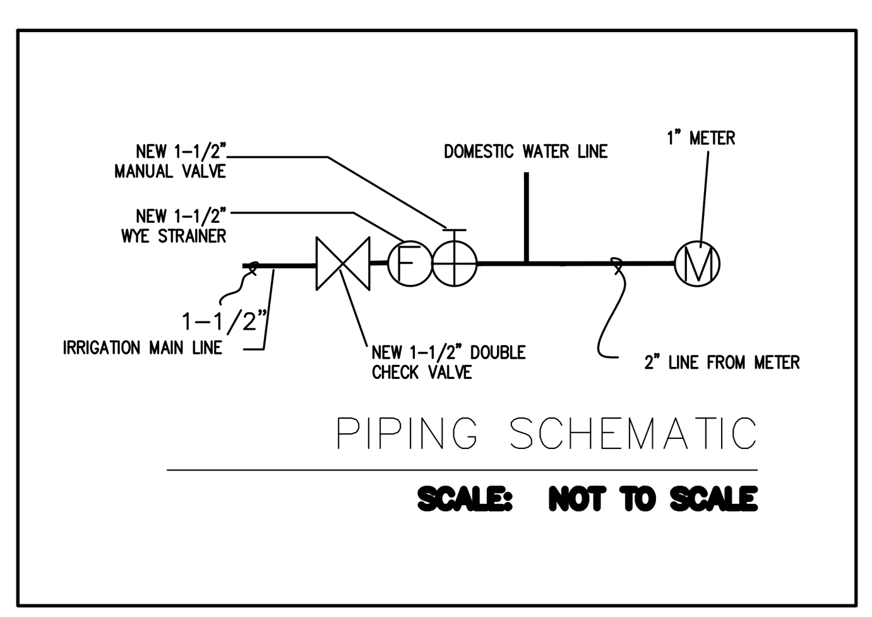
OPERATING PRESSURE - 46.7 PSI

HYDRAULIC CALCULATIONS DRIP ZONE D2

AVAILABLE PRESSURE 60 PSI (ESTIMATED)
6.1 GALLONS PER MINUTE

- 1" METER - 0.7 PSI
- 1-1/2" DCVA - 5.5 PSI
- 1-1/2" WYE - 0.1 PSI
- 1-1/2" MAIN LINE LOSS (560') - 0.6 PSI
- IN-LINE BALL VALVE - 0.5 PSI
- ELEVATION CHANGE - 0.0 PSI
- FITTING ESTIMATE - 0.7 PSI

OPERATING PRESSURE AT VALVE - 51.9 PSI



PIPING SCHEMATIC
SCALE: NOT TO SCALE

NOTE: INCLUDE (2) TORO SB-90-PC2 STREAM BUBBLERS TO EACH NEW TREE. ATTACH EACH BUBBLER TO TORO 570-6" POPUP. LOCATE BUBBLERS INSIDE TREE WELL OF EACH TREE ON OPPOSITE SIDES OF THE ROOT BALL. ALL BUBBLERS TO BE ZONED SEPARATELY FROM OTHER HEADS. CONTRACTOR RESPONSIBLE FOR PIPE SIZING, SLEEVING, ETC. AND ALL OTHER REQUIREMENTS TO MAKE CIRCUIT(S) OPERABLE. TOTAL COUNT FOR BUBBLERS AND VALVE(S) NOT SHOWN IN IRRIGATION KEY. IF TREE IS LOCATED IN DRIP ZONE, IN LIEU OF BUBBLER USE (2) RAIN BIRD XSB-180-025 XERI-BUBBLERS W/ SXB-180-SPYK SPIKE TIED INTO EMITTER TUBING.

TEMPORARY IRRIGATION WILL BE REQUIRED TO ESTABLISH TURF IN ALL DISTURBED AREAS WITHOUT A PERMANENT IRRIGATION SYSTEM. SOD TURF IN ALL DISTURBED AREAS AS IDENTIFIED ON GRADING AND EROSION CONTROL PLANS.

IRRIGATION PLAN

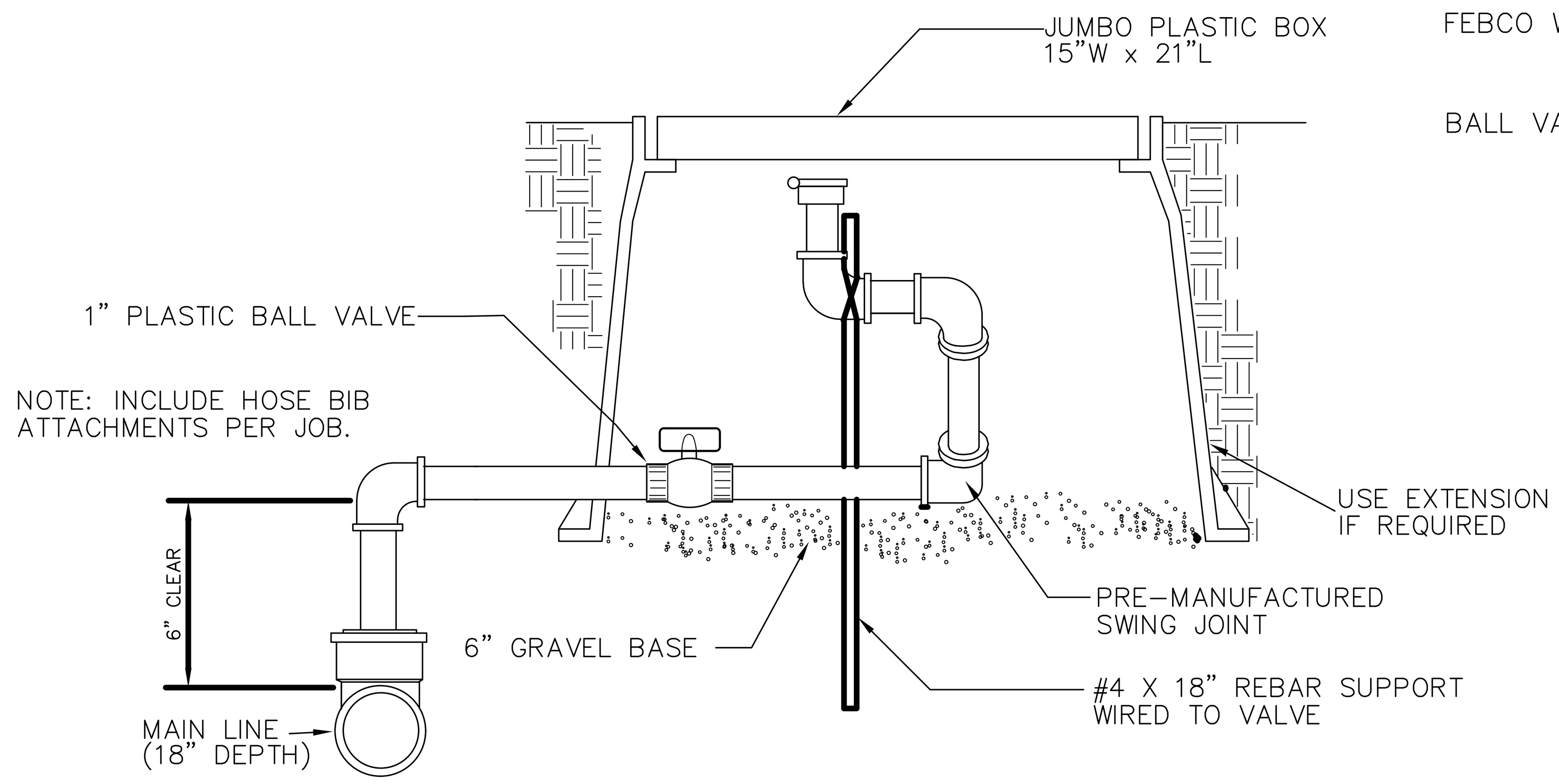
Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

FAIN • CUPPETT
LANDSCAPE ARCHITECTS, LLC
1921 MAPLEWOOD DRIVE
WEATHERFORD, TEXAS 76087 682-215-9151
PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN

STATE OF TEXAS
GREGORY CUPPETT
0023539
LICENSED IRRIGATOR
08/15/23

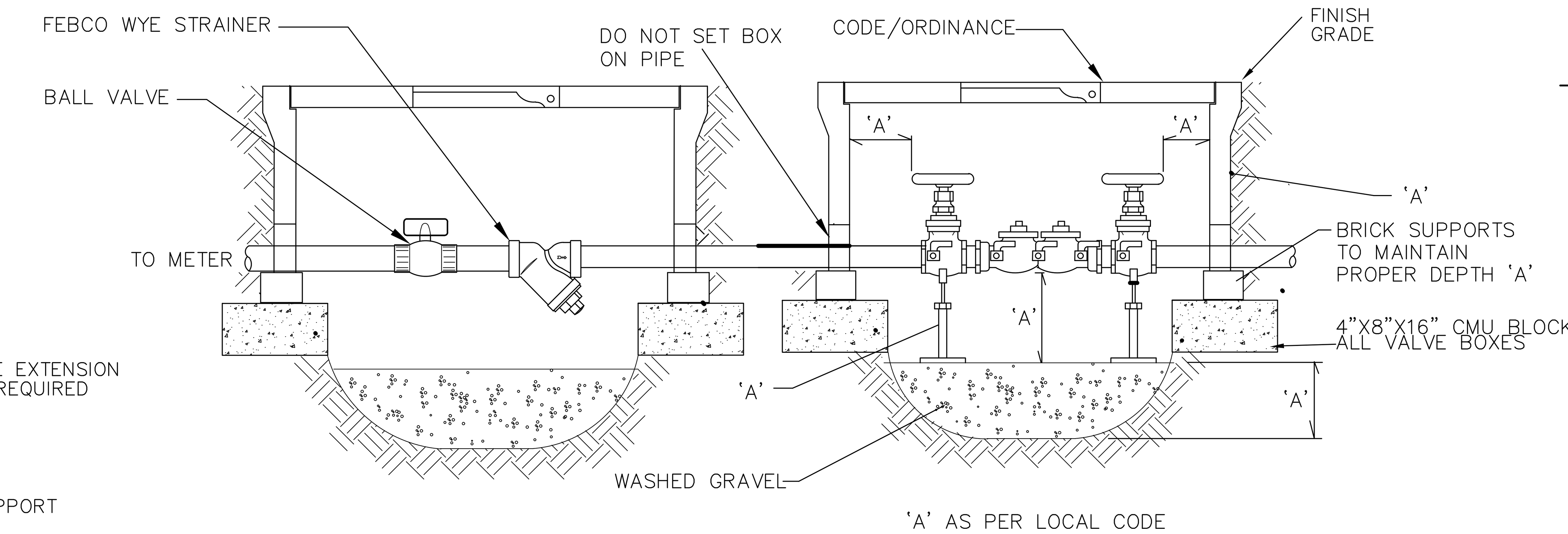
LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

Sheet No.
L-6



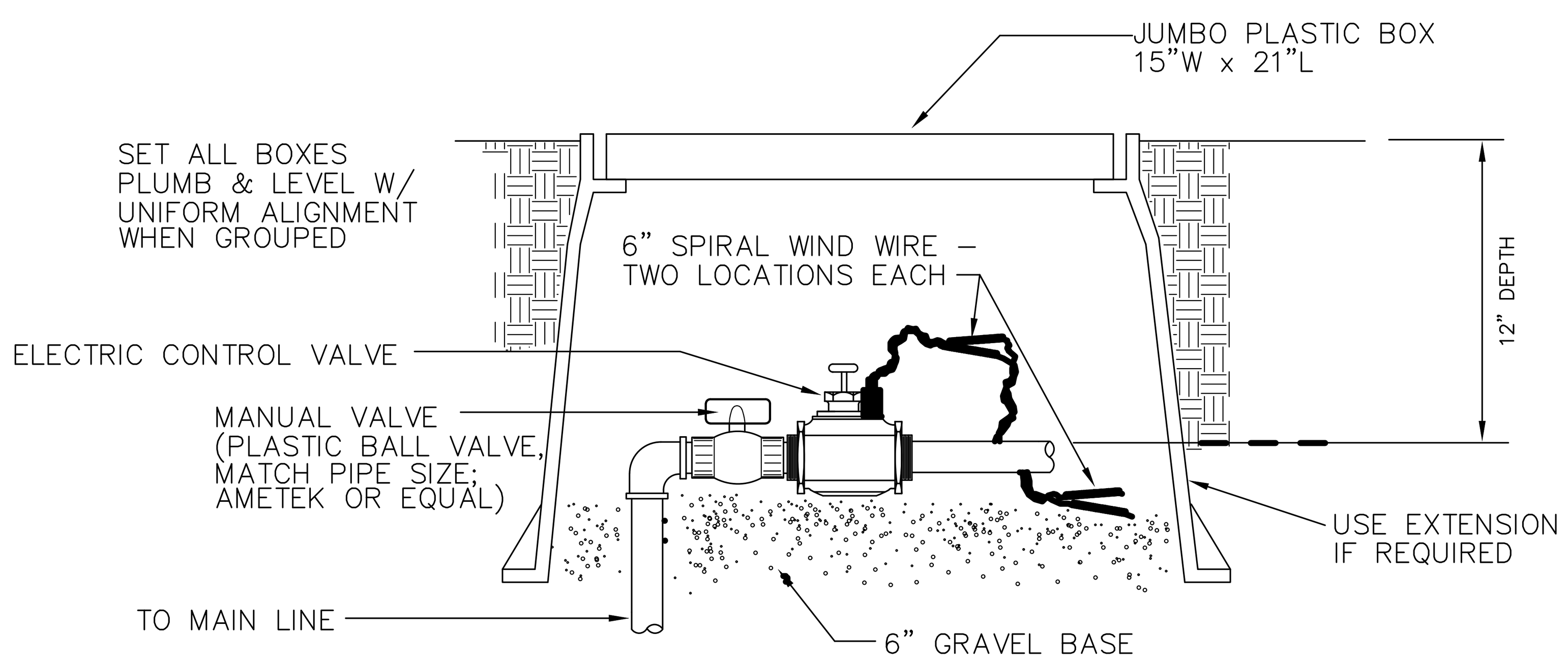
QUICK COUPLER VALVE

SCALE: NOT TO SCALE



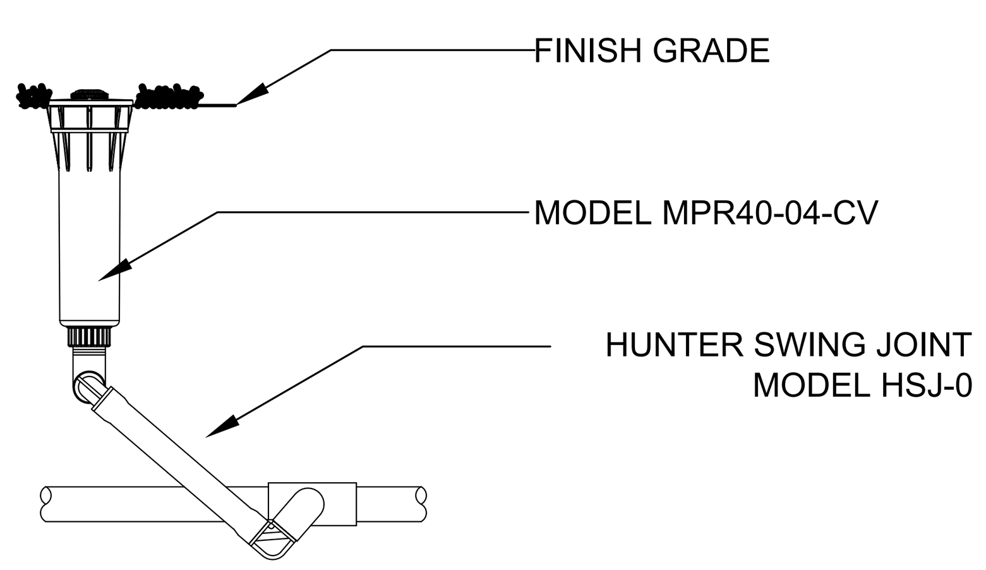
TYPICAL INSTALLATION DOUBLE CHECK VALVE/WYE STRAINER ASSEMBLY

SCALE: NOT TO SCALE



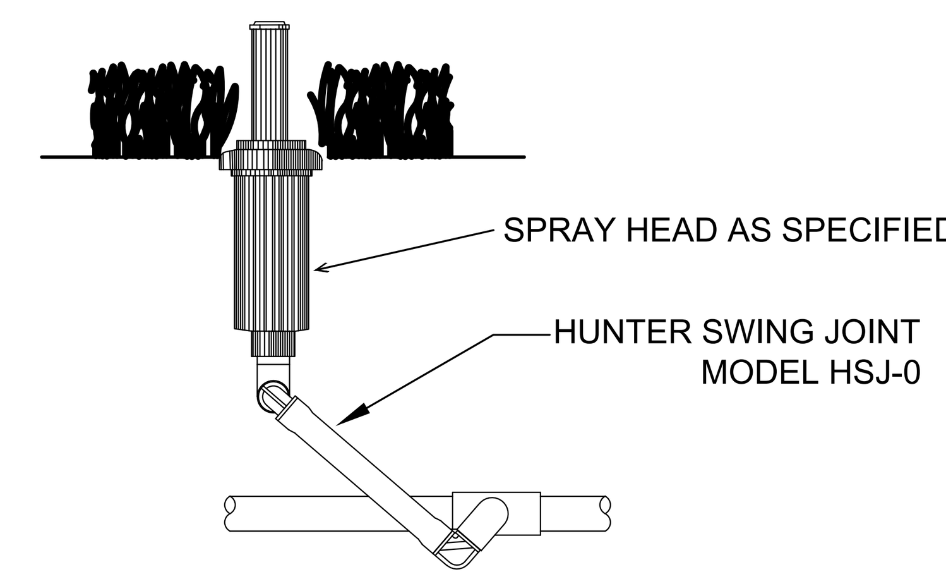
ELECTRIC CONTROL VALVE

SCALE: NOT TO SCALE



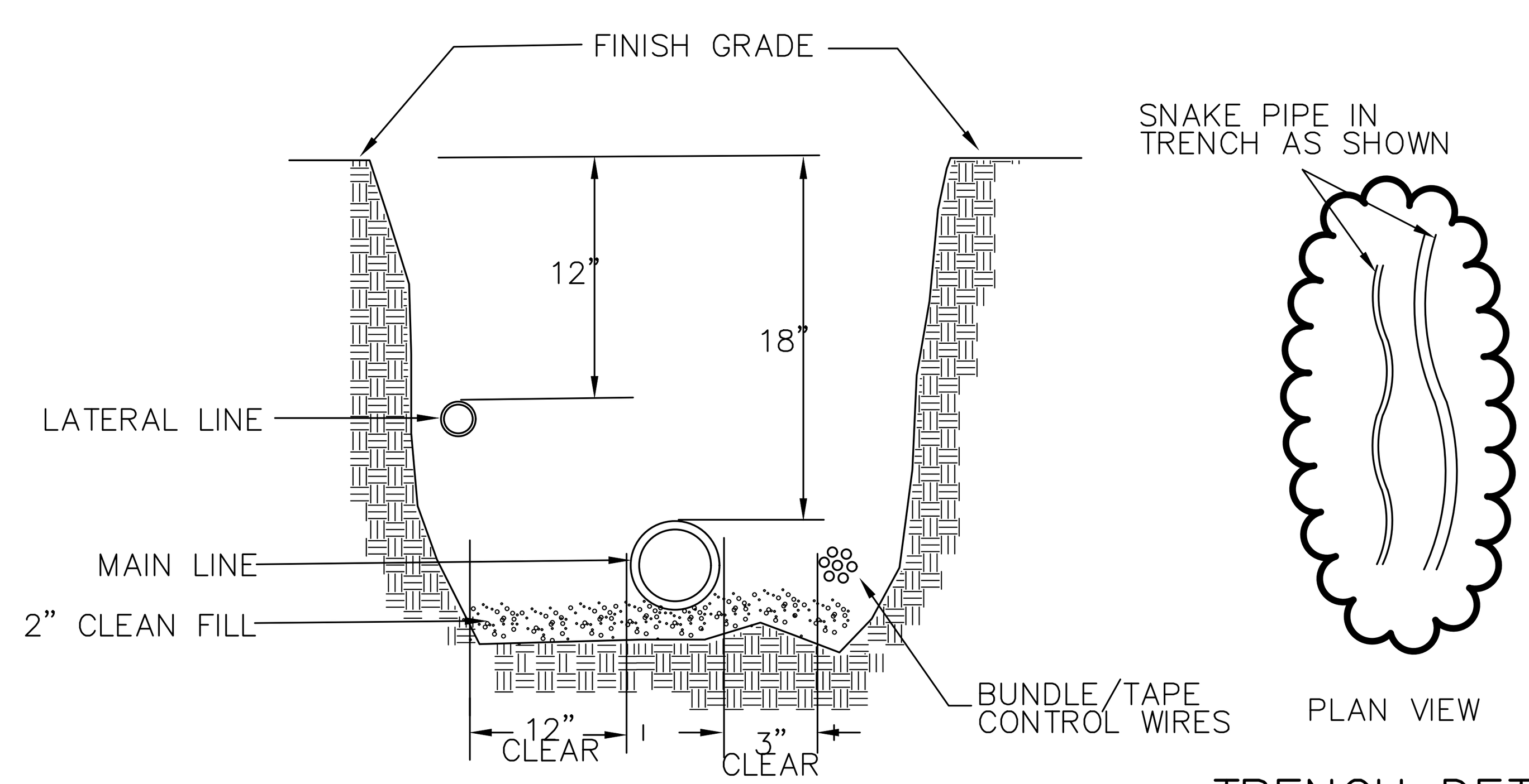
TYPICAL INSTALLATION OF MPR-40 ROTARY SPRINKLER ON SWING-JOINT RISER

SCALE: NOT TO SCALE



TYPICAL INSTALLATION OF BUBBLER HEAD

SCALE: NOT TO SCALE

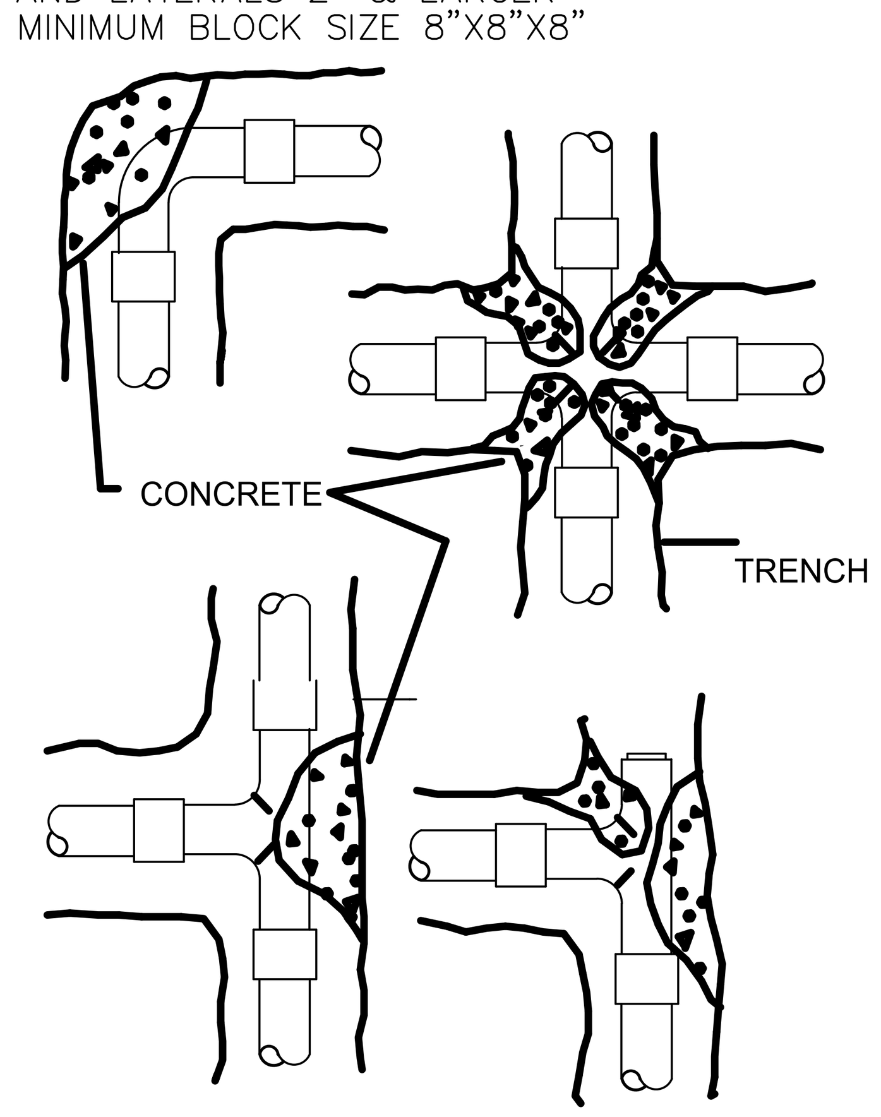


NOTE: SEPARATE TRENCH FOR MAIN LINE PREFERRED.

TRENCH DETAIL

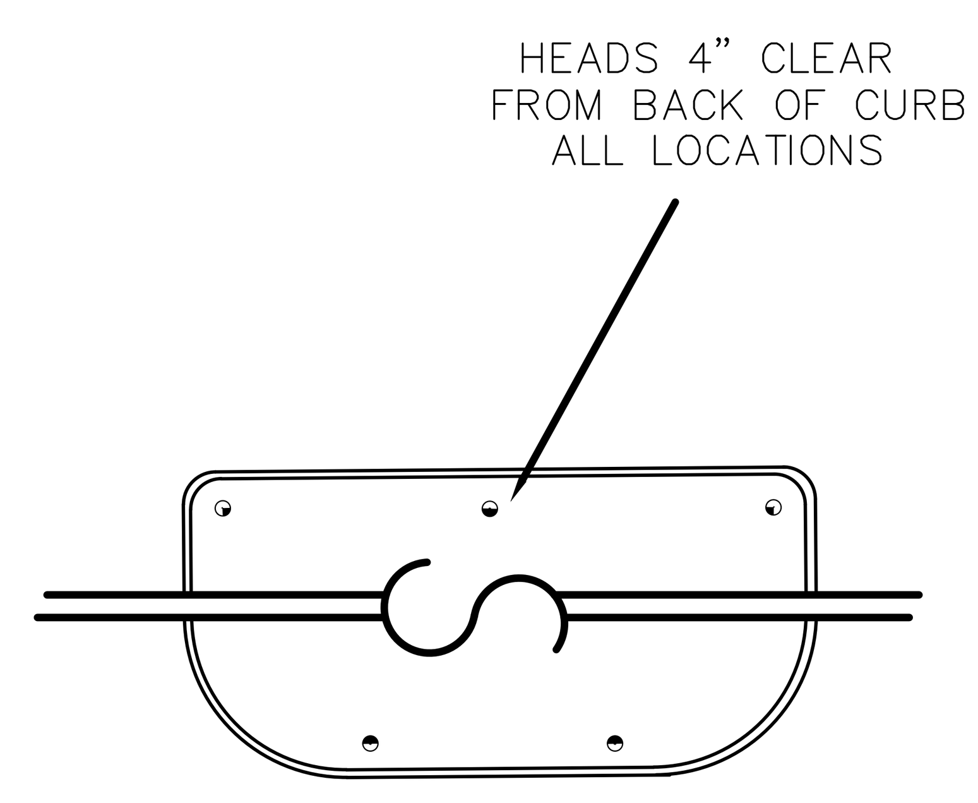
SCALE: NOT TO SCALE

NOTE: - THRUST BLOCKS ON MAIN LINE - ALL SIZES; AND LATERALS 2" & LARGER
- MINIMUM BLOCK SIZE 8"X8"X8"



THRUST BLOCKS - PLAN VIEW

SCALE: NOT TO SCALE



HEAD LAYOUT
Plan View

SCALE: NOT TO SCALE

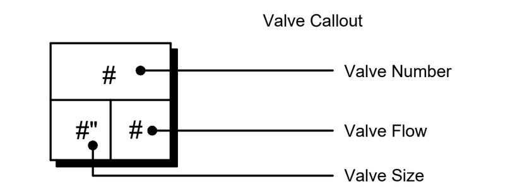
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
LST SST RST	Hunter MP Strip PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip.	55
M L O	Hunter MP1000 PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc.	69
K G R	Hunter MP2000 PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc.	74
B Y A	Hunter MP3000 PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. B=Blue adj arc 90-210, Y=Yellow adj arc 210-270, A=Gray 360 arc.	40
LB	Hunter MP3500 PROS-04-PRS40-CV-F Turf Rotator, 4in. Pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. LB=light brown adjustable arc, 90-210.	15
800 A 800 F	Hunter MP800SR PROS-04-PRS40-CV-F Turf Rotator, 4in. pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. ADJ=Orange and Gray (arc 90-210), 360=Lime Green and Gray (arc 360)	68

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Hunter ICZ-101-25-LF Drip Control Zone Kit. 1in. ICV Globe Valve with 1in. HY100 filter system. Pressure Regulation: 25 psi. Flow Range: .5 GPM - 15 GPM. 150 mesh stainless steel screen.	6
	Pipe Transition Point above grade Pipe transition point from PVC lateral to drip tubing with riser to above grade installation.	7
F	Netafim TLSOV Netafim TLSOV- 1/2in. manual flush valve, barbed insert. Install in 10in. box, with adequate blank or in.cobrain. tubing to extend valve out of valve box. 2/3 in fits Techline HCVXR, HCVXR-RW/RWP, CV, DL, RW and RWP driplines, and PE irrigation hose	6
EI	Hunter ECO-ID ECO-ID: 1/2in. FPT connection with 12 psi-70 psi operating pressure. Specify with Hunter SJ swing joint.	5
	Area to Receive Dripline Hunter HDL-04-18-CV HDL-04-18-CV: Hunter Dripline w/ 0.4 GPH emitters at 18" O.C. Check valve, dark brown tubing with tan striping. Dripline laterals spaced at 18" apart, with emitters offset for triangular pattern. Install with Hunter PLD barbed or PLD-LOC fittings.	6,234 l.f.

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	DETAIL
	Hunter ICV-G 1in., 1-1/2in., 2in., and 3in. Plastic Electric Remote Control Valves, Globe Configuration, with NPT Threaded Inlet/Outlet, for Commercial/Municipal Use.	21	
	Hunter HQ-3RC Quick coupler valve, yellow rubber cover, red brass and stainless steel, with 3/4in. NPT inlet, 1-piece body.	5	
	Landscape Products Inc. BBV 1/2in., 3/4in., 1in., 1-1/4in., 1-1/2in., 2in., 2-1/2in., 3in. Full Port Brass Ball Valve. Suitable for a full range of liquids and gases in residential and commercial applications.	1	
	Landscape Products Inc. CWV Slip Socket 1/2in., 3/4in., 1in., 1-1/4in., 1-1/2in.,2in. Slip Socket Plastic Ball Valve. Quarter-turn shutoff designed for irrigation, spas, pools and other general cold water applications. 125 psi rating. Same size as mainline.	2	
BF	Febco 850 1" Double Check Backflow prevention, 1/2in. to 2in.	1	
C	Hunter I2C-2400-M 24 Station Outdoor Modular Controller. With two ICM-800 Module. Commercial Use. Metal Cabinet.	1	
SS	Hunter WSS Wireless Solar, rain freeze sensor with outdoor interface, connects to Hunter PCC, Pro-C, and I-Core Controllers, install as noted. Includes 10 year lithium battery and rubber module cover, and gutter mount bracket.	1	
Y	Wye Wye Strainer	1	
M	Water Meter 1"	1	
	Irrigation Lateral Line: PVC Class 200 SDR 21	5,697 l.f.	

Valve Callout



Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

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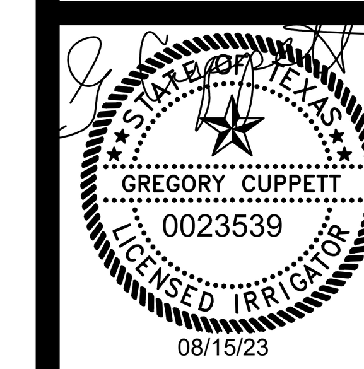
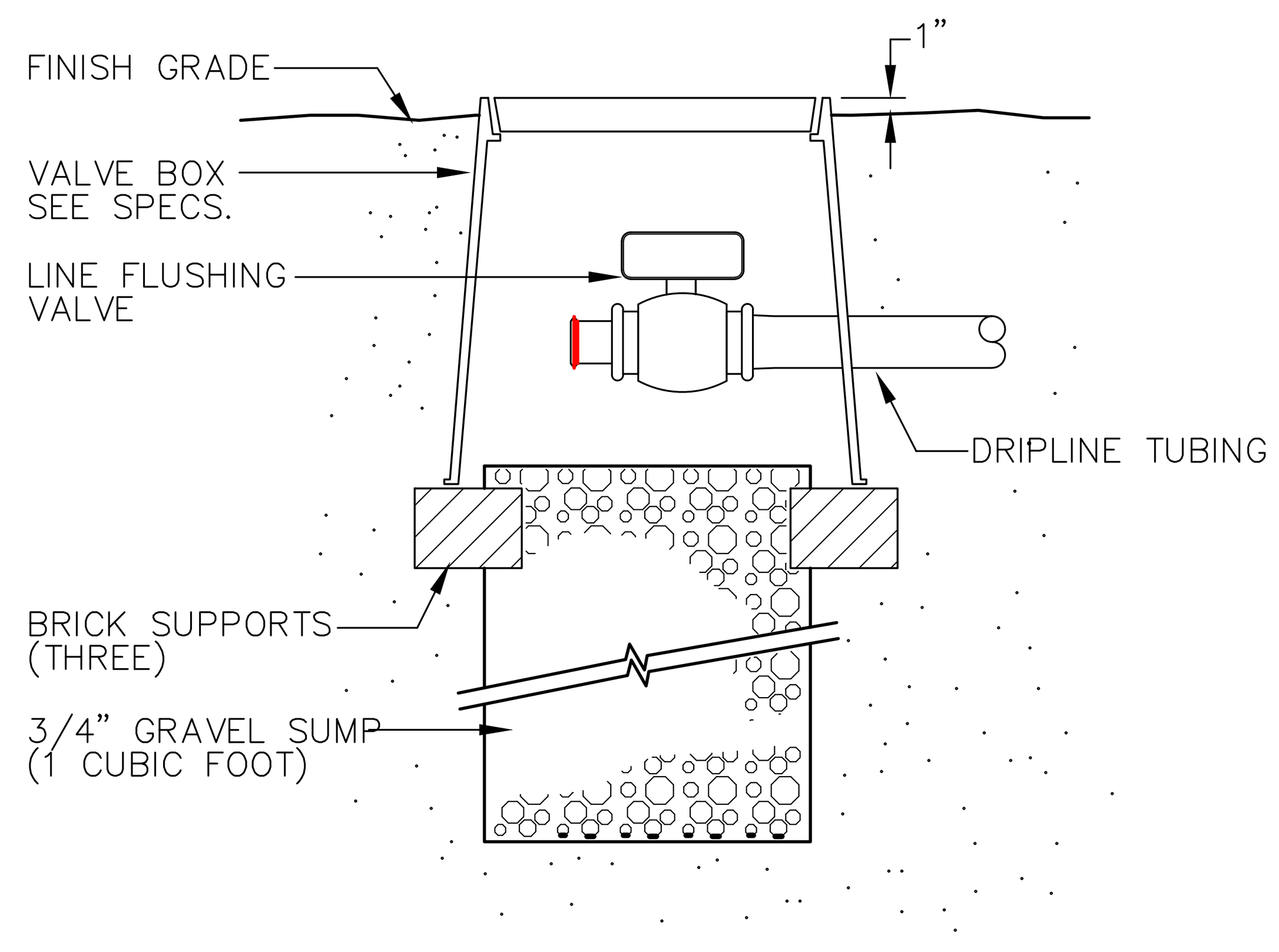
1921 MAPLEWOOD DRIVE
WEATHERFORD, TEXAS 76087 682-215-9151
PARKS AND OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE • IRRIGATION DESIGN



LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

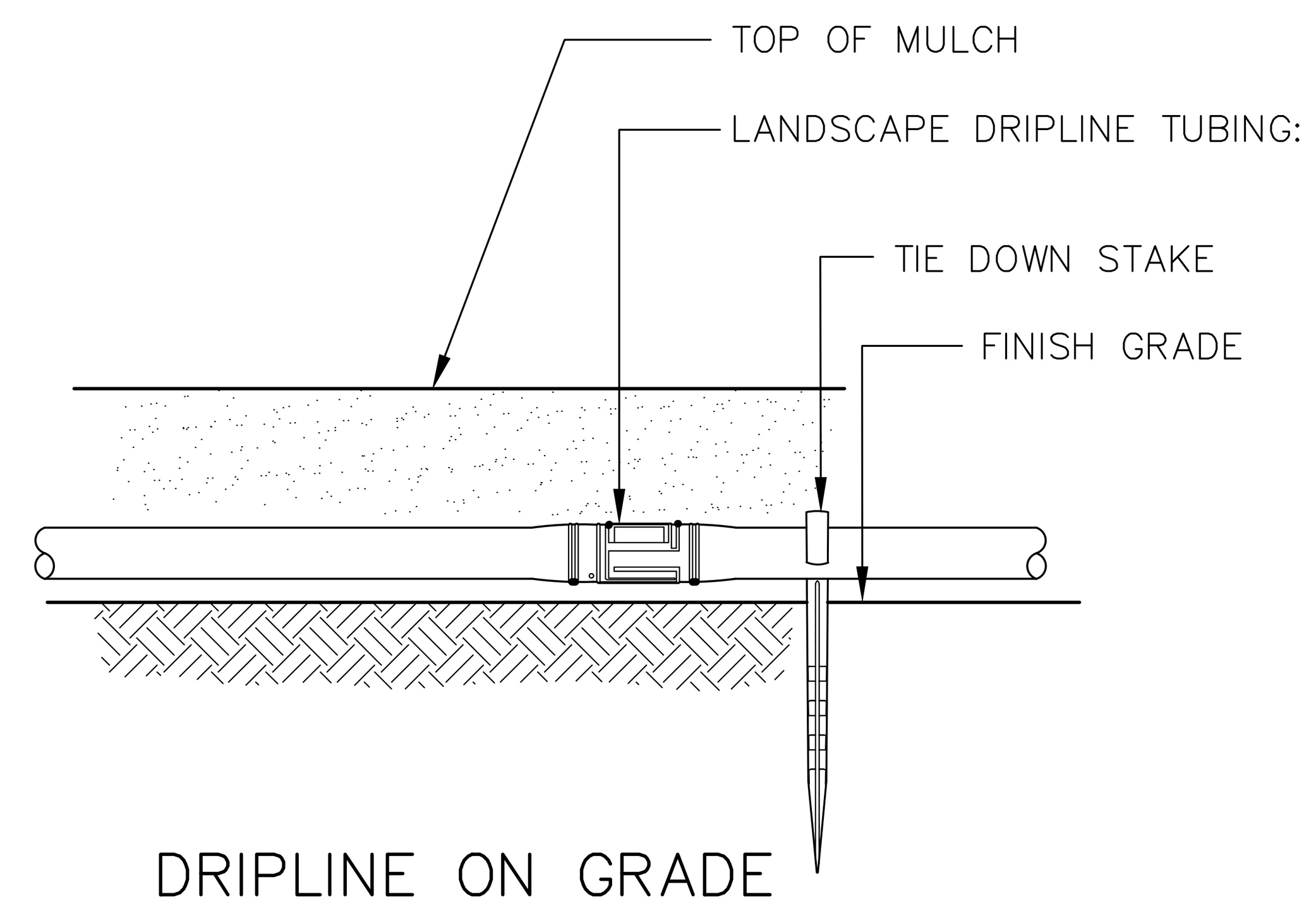
IRRIGATION DETAILS

Sheet No.
L-7



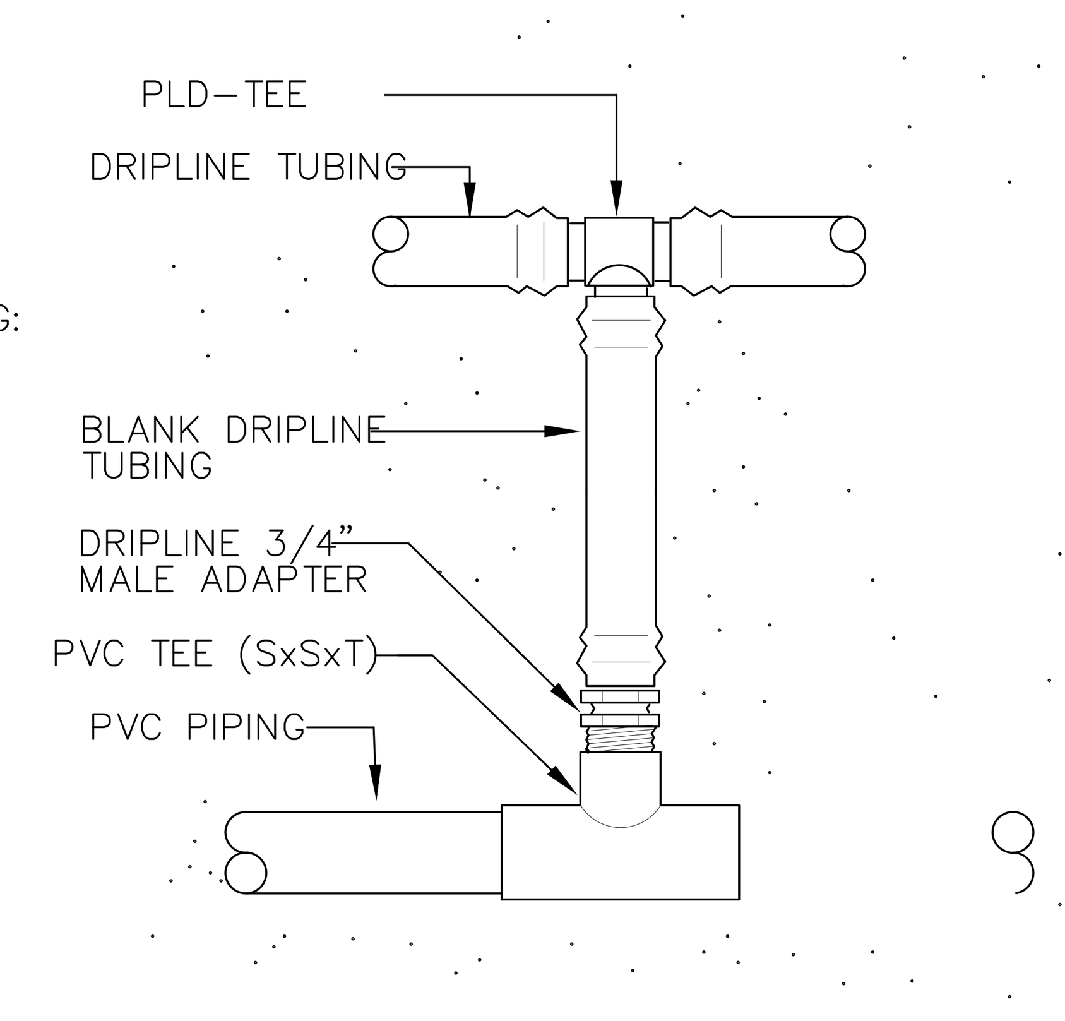
LINE FLUSHING VALVE

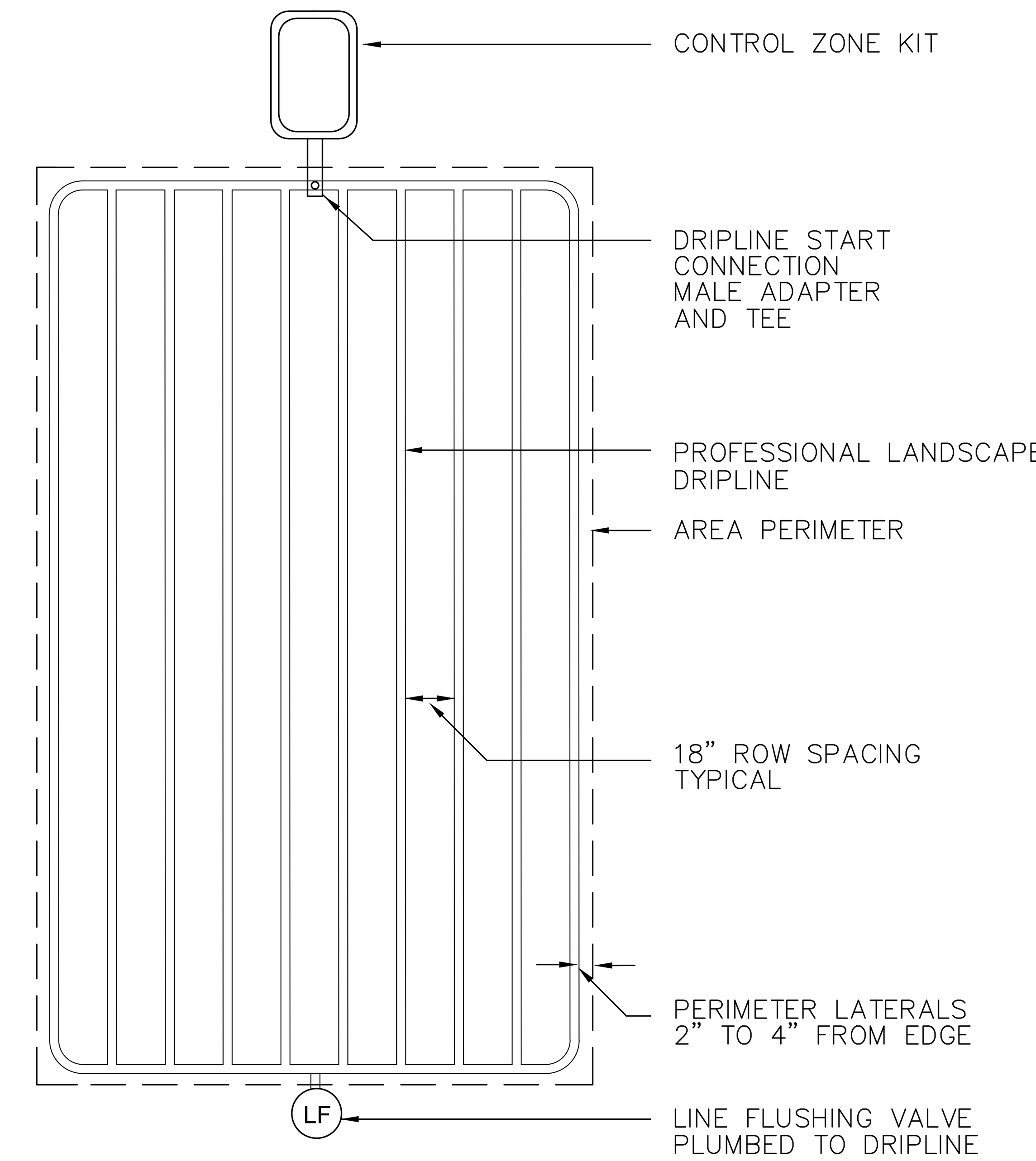
SECTION – NO SCALE



DRIPLINE ON GRADE

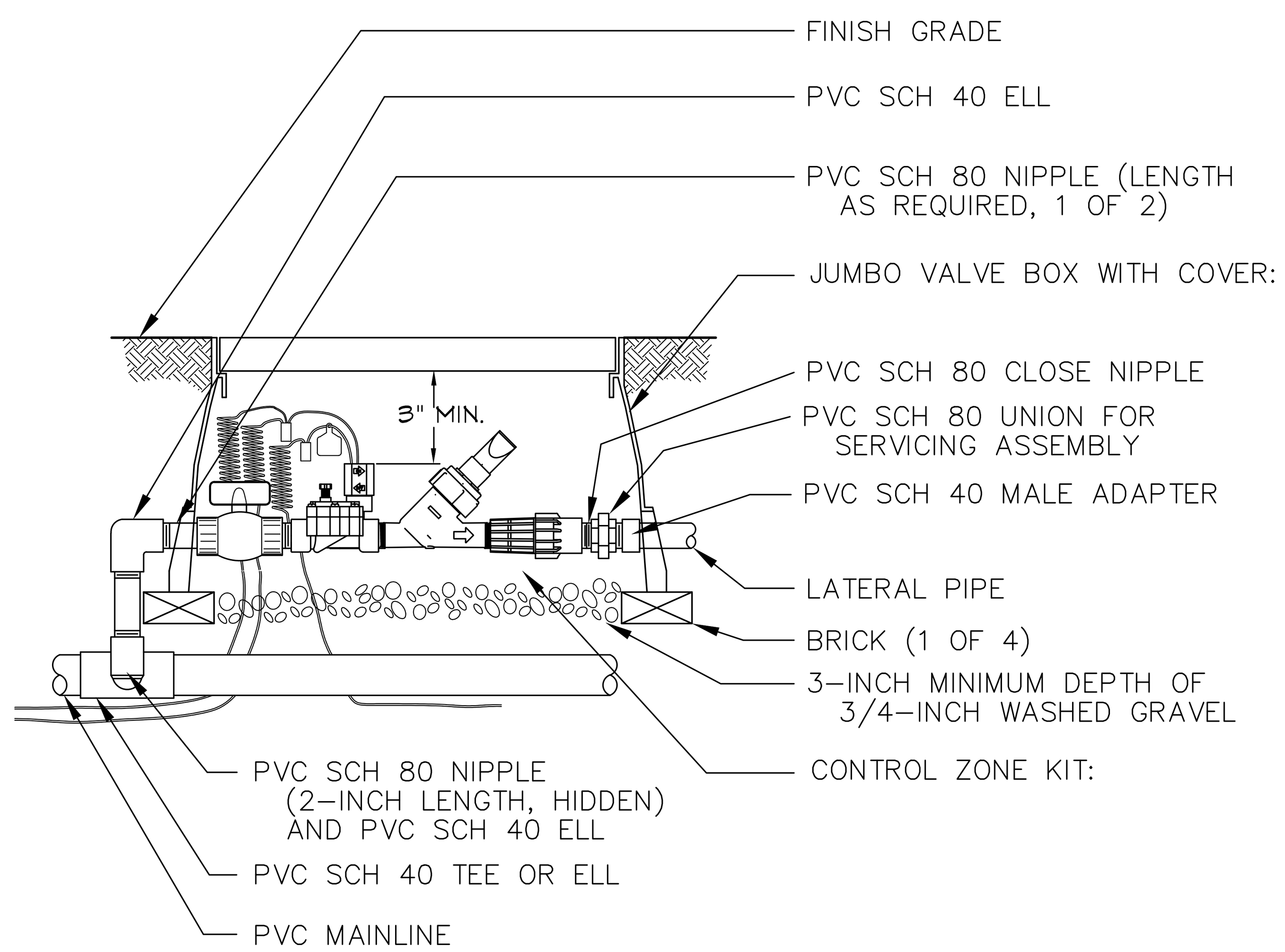
SCALE: NOT TO SCALE





TYPICAL DRIPLINE END FEED LAYOUT

DETAIL – NO SCALE



FLOW CONTROL ZONE KIT

SCALE: NOT TO SCALE

DRIP DETAILS

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

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STATE OF TEXAS
GREGORY CUPPETT
0023539
LICENSED IRRIGATOR
08/15/23

LIQUID STONE CONCRETE
221 CENTRE DRIVE
BURLESON, TEXAS

Sheet No.

L–8

SECTION 02750

IRRIGATION

PART I - GENERAL

1.01 DESCRIPTION

A. Work Included

1. Piping and fittings.
2. Connection to existing water lines.
3. Valves, bubblers, and spray heads.
4. All miscellaneous fittings and accessories required to complete and operate system.
5. Excavation and backfill.
6. Testing and adjusting.
7. Clean up.

B. Related Work Specified Elsewhere

1.02 QUALITY ASSURANCE

A. Codes and Standards:

1. All applicable local and national Plumbing Ordinances, Electrical Codes, and Building Codes.
2. National Plumbing Code.

B. Licenses:

1. All work shall be performed by or under the direct supervision of an irrigator or plumber licensed to practice under the authority of the State of Texas.

C. Reference Standards:

1. ASTM D-2241-78
2. CS 256-63

1.03 SUBMITTALS

A. Maintenance Materials: At completion of the job, furnish spare parts and all special tools and equipment required to operate and maintain system.

B. Maintenance Data: Furnish two copies of parts list and repair manuals and all special tools and equipment required to operate and maintain system.

C. Manufacturer's Literature: Submit catalogue data indicating, performance, weight, size and function of each item of equipment and material. Also provide manufacturer's operating manual.

D. Project Record Documents: Record on a clean set of plans in colored pencil and also a reproducible mylar:

1. All piping and wiring, including control wires by dimensions.
2. Locate all valves by dimension from two directions.

PART II - PRODUCTS

2.01 GENERAL

A. Equipment and Material Requirements:

1. Standard product of acceptable manufacturer.
2. In-service performance records to verify published capabilities.
3. New and unused.

2.02 MATERIALS

A. PVC Pipe and Fittings:

1. Polyvinyl chloride pipe (PVC) in accordance with ASTM D-2241-78 made to SDR-PR dimensions and approved by National Sanitation Foundation.
2. 2 inch pipe and smaller: Solvent weld PVC Type "Bell-End" pipe may be used.
3. 2 inch pipe fittings and smaller: Solvent weld type as recommended by pipe manufacturer.
4. All pipe downstream of backflow preventer to be Class 200 PVC; all swing joints and risers to be Schedule 80.

B. Joints and Fittings:

1. Nipples and risers: Schedule 80 threaded PVC pipe.
2. Fittings: Schedule 80 PVC.

C. Valves:

1. Double Check Double Gate Valve
   a. Factory assembled and tested valve train.
   b. Two spring loaded all brass check valves with soft rubber discs.
   c. Two all brass shutoff valves.
   d. Assembled with brass nipples.
   e. In accordance with AWWA and ASSE specifications.
   f. Approved Product: FEBCO.
2. Manual Control Valve
   a. Straight type globe valve.
   b. Size to match upstream pipe or as shown on drawings.
   c. Cross handle control wheel.
   d. Brass or bronze body and parts, Class 150.
   e. Full floating valve disc with replaceable seat and washers.
   f. Removable bonnet and stem assembly with packing gland and nut.
3. Electric Control Valve
   a. With flow control.
   b. Globe valve.
   c. Manual bleed.
   d. 24 VAC solenoid.
   e. Electric control, in-line.
   f. Size to match upstream pipe or as shown on drawings.
4. Quick Coupler
   a. 1" female inlet.
   b. Brass or bronze construction.
   c. 150 psi capacity.
   d. Self closing cover.
   e. One piece, single lug, single key construction.
   f. Provide owner with two quick coupler keys & hose bib attachments.
   g. Install in "jumbo" plastic valve box, rectangular, heavy duty.

D. Valve Boxes:

1. Box for Double check double gate valve:
   a. Concrete box with cast iron cover (or per code).
   b. Sufficient size to house entire assembly and permit inspection, maintenance and repair.
2. Box for Electric Valves, Manual Valves, and Double Check Valves
   a. "Jumbo", rectangular
   b. Heavy duty plastic construction.
   c. With locking lid.

E. Sprinkler Heads:

1. Bubbler, Flood Type
   a. Plastic construction.
   b. 1/2" IPS female inlet.
   c. Adjustable flow via screen.
2. Spray Heads
   a. 4" pop/12" pop
   b. Plastic construction.
   c. Stainless steel retraction spring.
   d. Serviceable filter screen and nozzle.
   e. Stationary or gear driven.
3. Rotary Heads
   a. 12" pop/4"pop
   b. Full and part circle heads as drawings indicate.
   c. Stainless steel retraction spring.
   d. Serviceable filter screen and nozzle.

F. Controllers:

1. Solid state.
2. Digital readout.
3. Dust Barrier.
4. Pump/master valve circuit switch.
5. 0-60 minute timing per station or as specified.
6. Up to three start times/day with manual override.
7. UL listed.
8. Battery backup.

G. Accessories:

1. Jointing Material: Teflon tape for threads on PVC pipe.
2. Control Wire: Direct Burial, size for voltage drop, minimum size per National Electric Code.

PART III - EXECUTION

3.01 GENERAL

Install all equipment and products in accordance with manufacturer's recommendations.

3.02 INSTALLATION

A. PVC Pipe and Fittings:

1. Handle and install PVC pipe, couplings, and fittings in accordance with manufacturer's recommendations and industry standards.
2. All PVC fittings shall be molded of the same material as the pipe and shall be suitable for solvent weld, slip joint ring tight seal, or screwed connections.
3. No fittings made of other material shall be used except copper as specified in the plans and details.
4. Space pipe length in jointing and snake to allow for expansion and contraction.
5. Thoroughly clean interior of the pipe of all foreign matter before being lowered into trench. Keep clean during laying operation by means of plugs or other approved method.
6. Do not lay pipe in water or when trench or weather conditions are unsuitable for work. Keep water out of trench until the joints are completed.
7. When work is not in progress, securely close open ends of pipe and fittings so that no trench water, earth or other substances will enter pipes or fittings.
8. Take up and relay any pipe that has the grade or joints disturbed after laying.
9. Fittings at bends in the pipe line and at ends of lines shall be firmly wedged against the vertical face of the trench.
10. Make joints in all screwed fittings by applying teflon tape on male threads.
11. Only schedule 80 pipe may be threaded.

B. Valves:

1. Install all new valves as indicated on the plans or as may be required for the proper control of the piping systems in which they are incorporated.
2. Bury valves deep enough so that valve box lid will not protrude above the ground.
3. Set valves vertically and locate 12 inches from sidewalks where possible.
4. Adjust flow control to give correct pressure at sprinkler head.

3.03 FIELD QUALITY CONTROL

A. Leak Test:

1. When the main line or sections of the main line, e.g. loops with swing joints and valves have been installed, the system (or section) will then be pressurized to the operating pressure indicated on the drawings. The pressure will then be maintained for a twenty four hour leak test period.
2. All leaks will be repaired and retested prior to backfilling lines.
3. Any leaks developed during the first under normal operating pressures due to improper installation shall be repaired by the contractor at no expense to the owner.

B. Cleaning and Flushing System:

1. After pipe, fittings, and valves have been installed and connections made to water source, flush pipe free of all rock, dirt, trash, pipe shavings, and other debris before installing heads.
2. After heads have been installed, use system several times before final inspection.
3. Immediately before final inspection, check all heads for stoppage. Clean if necessary.
4. Remove nozzles of all heads and flush pipes. Clean and replace heads before final inspection.

C. Maintenance Instructions:

1. School at least two of the Owner's employees that will be maintaining the irrigation system in operating and maintenance procedures.
2. Include operation of controllers and valves, balancing of the system, and maintenance of all equipment including removal and replacement of valve and controller components.

3.04 CLEANUP

A. Make final cleanup of all parts of work before final acceptance.

B. Remove all construction materials and equipment.

C. Prepare site in an orderly and finished appearance.

D. Remove from site any rock or extra soil that resulted from this work and restore site to its original condition.

END OF SECTION

IRRIGATION SPECS

Date AUG 15, 2023
Drawn By GAC
Checked By GAC
Revisions

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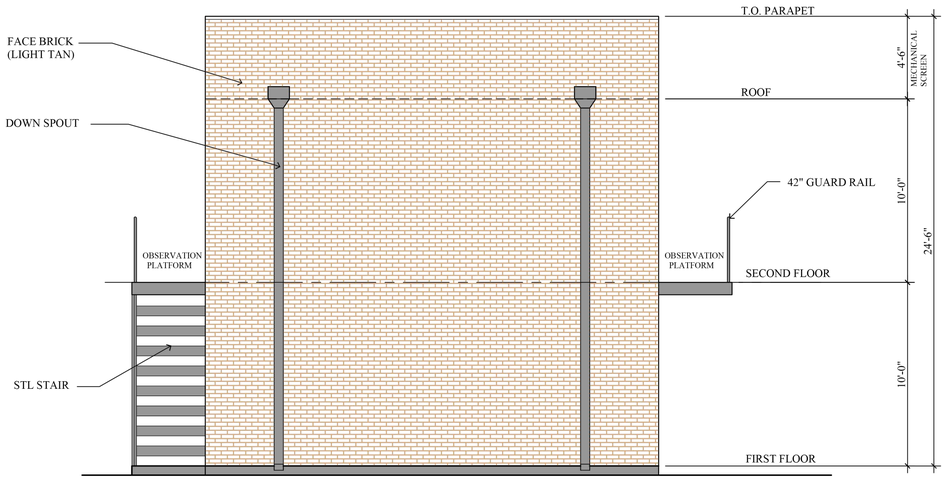
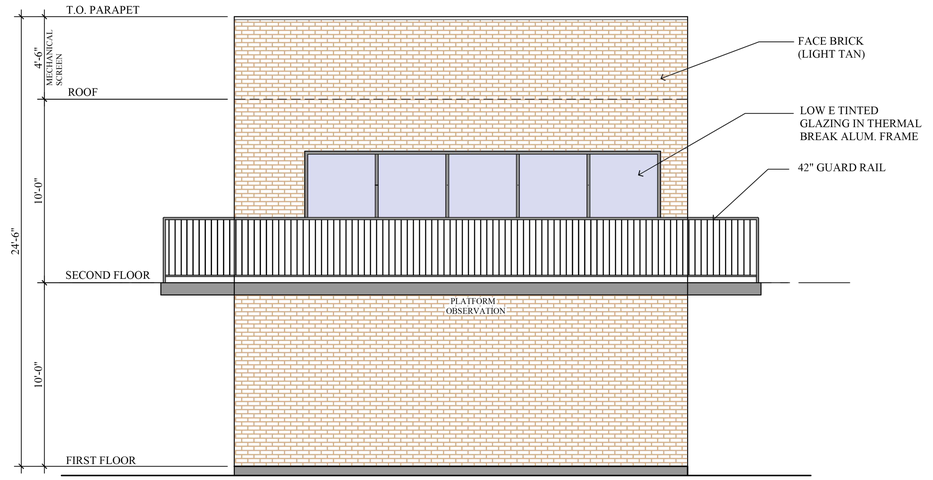


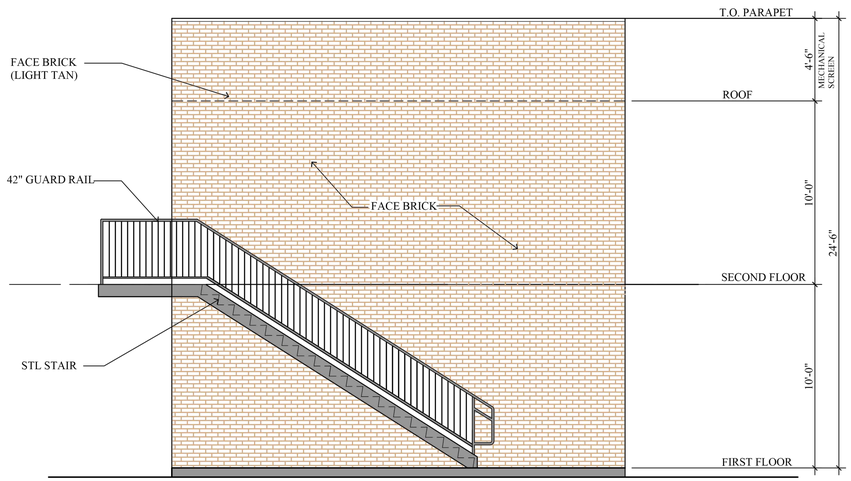
100% MASONRY
0% GLAZING

04 SOUTH ELEVATION
1/4" = 1'-0"



100% MASONRY
13% GLAZING

03 EAST ELEVATION
1/4" = 1'-0"

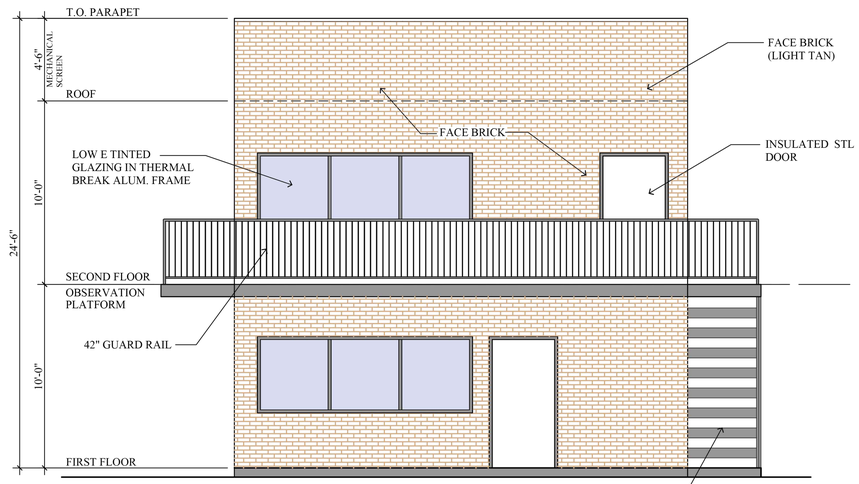


100% MASONRY
0% GLAZING

02 WEST ELEVATION
1/4" = 1'-0"

NOTE:
THIS IS A TWO STORY BUILDING.

A 4'-6" PARAPET IS PROVIDED TO CONCEAL THE ROOF TOP MOUNTED CONDENSING UNITS.
REF. A-2/03 FOR CONDENSING UNIT LOCATIONS.



100% MASONRY
15% GLAZING

01 NORTH ELEVATION
1/4" = 1'-0"

REVISIONS

LAMBDIN ARCHITECTS
1340 TWISTING WIND DR.
HASLET, TEXAS 76052
817.691.6621
wlambdin@sbcglobal.net

LIQUID STONE CONCRETE
221 CENTER STREET
BURLESON, TEXAS 76028

CASE NUMBER:
22-165

REGISTERED ARCHITECT
WILLIAM R. LAMBDIN
13667
STATE OF TEXAS

NOT FOR CONSTRUCTION

MAY 04, 2022

PROJECT #:
2022-006

A-3

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