GENERAL LANDSCAPE NOTES

- 1. ENTERING INTO THIS CONTRACT WITH THE CITY INDICATES THAT THE CONTRACTOR HAS VISITED THE SITE, IS FAMILIAR WITH THE EXISTING CONDITIONS AND REVIEWED SAME WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- 2. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL CONTRACT DOCUMENTS, FIELD CONDITIONS AND DIMENSIONS FOR ACCURACY, AND FOR CONFIRMING THAT THE WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE CITY REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED
- 4. THE CONTRACTOR SHALL VERIFY EXISTING FACILITIES IN THE FIELD
- SAWCUT SIDEWALK TO THE NEAREST SCORELINE UNLESS OTHERWISE INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 6. AT THE COMPLETION OF WORK, THE CONTRACTOR SHALL REMOVE ALL MARKS, STAINS AND BLEMISHES RESULTING FROM CONSTRUCTION OPERATIONS THROUGHOUT THE CONTRACT.
- 7. THE CONTRACTOR TO VERIFY THE LIMITS OF SUB-SIDEWALK BASEMENTS AND SHALL CHECK AND VERIFY THAT ALL SAWCUTTING AND EXCAVATION WORK WILL NOT IMPACT EXISTING BASEMENTS. THIS IS CONSIDERED INCIDENTAL WORK.
- THESE NOTES AND LEGEND REFER TO THE LANDSCAPE GREEN INFRASTRUCTURE
- 9. FOR ADDITIONAL NOTES AND LEGEND REFER TO ROADWAY AND LANDSCAPE DRAWINGS.
- 10. THE CONTRACTOR SHALL VERIFY EXISTING GRADES AND SITE CONDITIONS BEFORE PROCEEDING WITH ANY WORK
- 11. THE LIMIT OF WORK (L.O.W.) OCCURS AT FACE OF BUILDINGS, AT PROPERTY LINES, AT EXISTING FENCES, AND AS SHOWN ON PLANS. THIS LINE, AS DESCRIBED ABOVE, IS DIAGRAMMATIC AND IS INTENDED TO DELINEATE LANDSCAPE WORK. FOR ADDITIONAL INFORMATION REGARDING L.O.W. FOR THIS CONTRACT WORK SEE ROADWAY DOCUMENTS.
- 12. ANY REFERENCE IN THE DOCUMENT TO "AS DIRECTED" OR "DIRECTIONS" REFER TO DIRECTIONS GIVEN BY THE CITY REPRESENTATIVE.
- 13. ALL WORK TO BE PERFORMED SHALL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES OF GOVERNMENTAL AGENCIES HAVING JURISDICTION OVER THE PROJECT.
- 14. IT SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL UTILITIES, IMPROVEMENTS AND STRUCTURES WHETHER SHOWN ON THE DRAWINGS OR NOT AND RESTORE TO NEW CONDITION AS PROVIDED IN THE SPECS.
- 15. THE CONTRACTOR SHALL MAINTAIN ALL GRADES, LINES, LEVELS, AT LOCATIONS AS REQUIRED FOR THE PROPER EXECUTION OF THE WORK
- 16. THE CONTRACTOR SHALL COORDINATE ALL WORK TO PREVENT CONFLICTS BETWEEN TRADES AND SHALL REPORT CONFLICTS OR INCONGRUITIES BETWEEN NEW IMPROVEMENTS AND/OR EXISTING FACILITIES TO THE CITY REPRESENTATIVE IMMEDIATELY.
- 17. CITY OWNED TRASH RECEPTACLE CANS TO BE RELOCATED AS INCIDENTAL WORK.
- 18. CONTRACTOR SHALL OBTAIN WRITTEN CLEARANCE/EXCAVATION PERMIT(S) FROM THE CITY OF SAN FRANCISCO 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION.
- 19. THE TYPES, LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THESE IMPROVEMENT PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UTILITIES. HOWEVER, THE CITY REPRESENTATIVE ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF THE DELINEATION OF SUCH UNDERGROUND UTILITIES NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS.
- 20. THE CONTRACTOR SHALL EXPOSE AND VERIFY LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO THE CONSTRUCTION OF THE NEW IMPROVEMENTS CONNECTING TO OR IN THE VICINITY OF SAME.
- 21. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND RELOCATION (WHERE NECESSARY) OF ALL EXISTING MONUMENTS. OTHER SURVEY MARKERS. STREET SIGNS, AND ANY OTHER IMPORTANT OBJECTS ON THE JOB SITE.
- 22. CONTRACTOR TO LAYOUT ALL UTILITIES AND ASSOCIATED STRUCTURES PRIOR TO COMMENCING EXCAVATION AND NOTIFY THE CITY REPRESENTATIVE OF ANY CONFLICTS.
- 23. CONTRACTOR SHALL POTHOLE AND VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION AND REPORT ANY CONFLICTS BETWEEN EXISTING UTILITIES AND PROPOSED EXCAVATION OR IMPROVEMENTS TO THE CITY REPRESENTATIVE IN WRITING.
- 24. CONTRACTOR TO BE SOLELY RESPONSIBLE TO PROTECT EXISTING BUILDINGS, VEGETATION TO REMAIN, UTILITIES, AND SURFACE FEATURES FROM DAMAGE. ANY DAMAGE INCURRED WILL BE REPAIRED BY THE CONTRACTOR. CONTRACTOR TO SUBMIT WRITTEN REQUEST TO UNDERGROUND SERVICE ALERT (U.S.A) 21 DAYS PRIOR TO INTENDED CONSTRUCTION START DATE.
- 25. DIMENSIONS GIVEN ARE APPROXIMATE AND MAY REQUIRE ADJUSTMENT TO ACCOMMODATE ACTUAL FIELD CONDITIONS. CONTRACTOR IS RESPONSIBLE FOR PERFORMING WORK NECESSARY TO COMPLETE SHOWN IMPROVEMENTS.
- 26. EXCEPT FOR ITEMS INDICATED TO REMAIN, CONTRACTOR SHALL REMOVE FROM PROJECT SITE AND DISPOSE (IN AUTHORIZED DISPOSAL SITES) ALL DEMOLITION MATERIALS WITHIN THE LIMIT OF WORK AS SHOWN. REMOVAL ITEMS WILL INCLUDE (BUT NOT LIMITED TO) PAVING, CURBS, SOIL, PIPING, ETC.
- 27. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL SURFACE AND SUBSURFACE UTILITIES (INCLUDING ANY OTHER POSSIBLE UNFORESEEN UTILITIES THAT MAY NOT BE SHOWN ON THE DRAWINGS) AND SANITARY SEWERS WITHIN THE PROJECT AREA DURING CONSTRUCTION. NO ADDITIONAL PAYMENT SHALL BE MADE IF ANY VARIATIONS ARE FOUND. LINES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR AT THEIR SOLE EXPENSE.
- 28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING FUNCTION OF EXISTING UTILITIES AT ALL TIMES DURING ALL PHASES OF CONSTRUCTION.

BIORETENTION STRUCTURES NOTES

- GREEN INFRASTRUCTURE STORMWATER TREATMENT DEVICES IN THESE PLANS ARE REFEREED TO IN GENERAL AS "BEST MANAGEMENT PRACTICES" (BMP's).
- 2. A BIORETENTION UNIT IS A LANDSCAPED STORMWATER COLLECTION DEVICE THAT, IN THIS CASE, CAN CONTAIN AN UNDERDRAIN AND USES AN ENGINEERED SOIL MIX FOR THE PLANTING BED.
- 3. FOR BIORETENTION UNITS TO FUNCTION PROPERLY, THE PLANTING BED MUST NOT BE COMPACTED DURING CONSTRUCTION, AND SEDIMENT MUST BE PREVENTED FROM ENTERING THE BMP DURING AND AFTER CONSTRUCTION.
- CONSTRUCTION ACTIVITIES SHALL NOT COMPACT SOILS WITHIN THE FOOTPRINT OF THE BIORETENTION UNIT. HEAVY EQUIPMENT SHALL BE KEPT OUT OF THE BMP FOR ALL EXCAVATION AND GRADING ACTIVITIES.
- SEDIMENT AND EROSION CONTROLS MUST BE IN-PLACE UPHILL AND UPSTREAM OF THE BMPS AT ALL TIMES DURING CONSTRUCTION TO PREVENT SEDIMENT FROM ENTERING THE BMPS DURING CONSTRUCTION OR AFTER PLANTING. CONSTRUCTION OF FEATURES UPHILL OF THE BMPS SHALL BE COMPLETED BEFORE CONSTRUCTING THE BMP PLANTING BEDS.
- WATTLES, SILT FENCES, SILT DIKES, OR EQ, SHALL BE INSTALLED UPHILL OF BMPS WHERE SOIL IS TO BE DISTURBED AND MAY CAUSE RUNOFF TO AND SEDIMENTATION
- INLETS TO BMPS SHALL BE BLOCKED OFF WITH SAND BAGS DURING CONSTRUCTION TO KEEP STORMWATER AND SEDIMENT FROM ENTERING THE BIORETENTION CELL. SAND BAGS SHALL BE LEFT IN PLACE AFTER CONSTRUCTION AT THE DIRECTION OF THE CITY REPRESENTATIVE TO PROTECT THE BIORETENTION UNIT DURING THE INITIAL PLANT ESTABLISHMENT PERIOD.
- BIORETENTION UNITS SHALL BE EXCAVATED AND CONSTRUCTED WITH AN EXCAVATOR OPERATING OUTSIDE THE UNIT FOOTPRINT. NO EQUIPMENT MAY ENTER THE BMP TO EXCAVATE THEM WITHOUT PRIOR APPROVAL FROM THE CITY REPRESENTATIVE. IN THE RARE EVENT THAT EQUIPMENT IS ALLOWED TO ENTER BIORETENTION UNITS BY THE CITY REPRESENTATIVE, EQUIPMENT SHALL CONSIST OF LOW-IMPACT, LIGHTWEIGHT EQUIPMENT, AND THE BED OF THE BIORETENTION UNIT SHALL BE RESTORED BY RIPPING TO A MINIMUM DEPTH OF 12 INCHES.
- 9. ALL CONCRETE AND PAVEMENT WORK INCLUDING, BUT NOT LIMITED TO, CURB CUTS, INLET CONSTRUCTION, CURB REPLACEMENT, PERMEABLE PAVEMENT, OR PAVEMENT OR SIDEWALK REPAIR SHALL BE DONE BEFORE BIORETENTION UNIT GRADING AND PLANTING BED PREPARATION.
- 10. ALL ROCK, GRAVEL, CONCRETE WASTE, LUMBER, OR OTHER CONSTRUCTION DEBRIS MUST BE REMOVED FROM THE BMP PRIOR TO BIORETENTION BED GRADING AND **PREPARATION**
- 11. IF BIORETENTION SOILS ARE DISTURBED OR COMPACTED BY CONCRETE WORK, THE BED OF THE BIORETENTION UNIT SHALL BE RESTORED BY RIPPING
- 12. TYPICAL BIORETENTION UNIT STORMWATER COLLECTION DEPTH WILL BE 6 INCHES. THE ENGINEERED SOIL USED FOR THE PLANTING BED WILL BE APPROXIMATELY 18 INCHES DEEP AND THE BIORETENTION GRAVEL STORAGE LAYER WILL BE 9 INCHES OF AASHTO #7 AGGREGATE, WITH 3" CHOKING LAYER OF ASTM #9 AGGREGATE OVER THE 9 INCH LAYER.
- 13. EXCAVATE THE BIORETENTION UNIT TO BOTTOM OF THE BIORETENTION BASIN DEPTH AND PERFORM DOUBLE-RING INFILTROMETER (DRI) TEST (WHERE SHOWN) ON NATIVE
- 14. LIGHTLY SCARIFY WITH HAND TOOLS TOP 6 INCHES OF NATIVE SUBGRADE BEFORE THE PLACEMENT OF AGGREGATE.
- 15. CREATE SIDE SLOPES WITH ENGINEERED BIORETENTION SOIL MIX. LIGHTLY TAMP SOIL IN PLACE WITH FOOT TRAFFIC AND RAKE TO GRADE.
- 16. PERFORM DOUBLE-RING INFILTROMETER (DRI) TEST TO CONFIRM INFILTRATION RATE FOR BIORETENTION BEDDING UNIT. AFTER SOIL MIX INSTALLATION AND GRADING. SEE SPEC. 02923.
- 17. IF SOILS ARE COMPACTED DURING CONSTRUCTION OF BIORETENTION UNIT, SOIL MUST BE RESTORED BY RIPPING TO A MINIMUM DEPTH OF 12 INCHES.
- 18. PERFORM DOUBLE-RING INFILTROMETER TEST TO CONFIRM INFILTRATION RATE (PER ASTM D3385) IN SUBSURFACE NATIVE SOIL FOLLOWING DEMOLITION AND EXCAVATION. IF STEADY STATE INFILTRATION RATE IS LESS THAN 1 INCH PER HOUR. CONSTRUCT ALLOWANCE ITEM. REFER TO SPECIFICATIONS FOR COMPLETE GUIDELINES ON CONSTRUCTIONS OF ALLOWANCE ITEMS.

GRADING & SOIL PREPARATION NOTES

- 1. SEE ROADWAY DRAWINGS FOR ROADWAY, AND SIDEWALK GRADING INFORMATION.
- SEE SPECIFICATIONS FOR COMPLETE PLANTING PIT BACK FILL.
- STORMWATER, DEBRIS OR SEDIMENT SHALL NOT BE ALLOWED TO ENTER THE BIORETENTION UNITS DURING CONSTRUCTION AND STAGING PERIODS. ALL INLETS TO THE BIORETENTION UNITS SHALL BE BLOCKED TO ELIMINATE INFLOW OF STORMWATER, DEBRIS AND SEDIMENT UNTIL APPROVED BY CITY.

LAYOUT NOTES

- 1. ALL TRANSITIONS BETWEEN CURVES AND STRAIGHT EDGES SHALL BE SMOOTH
- 2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND SURVEY INFORMATION IN THE FIELD PRIOR TO BEGINNING CONSTRUCTION AND REPORT ANY DISCREPANCIES TO THE CITY REPRESENTATIVE BEFORE PROCEEDING WITH WORK IN THE AREA AFFECTED.
- WRITTEN DIMENSIONS SUPERSEDE SCALED DIMENSIONS. 4. ALL DIMENSIONS AT CURB ARE FROM THE FACE OF CURB, UNLESS OTHERWISE
- NOTED. ALL DIMENSIONS SHOWN ARE TO BE TAKEN HORIZONTALLY.
- 6. FOR ADDITIONAL INFORMATION REGARDING LANE STRIPING AND CROSSWALKS, SEE
- 7. THE CONTRACTOR SHALL CONFIRM LOCATION OF SUB-SURFACE UNTILITES AND INFRASTRUCTURE.
- 8. THE CONTRACTOR SHALL ALIGN ALL NEW AND EXISTING UTILITY BOXES AND VAULTS WITH CONCRETE SCORING PATTERN.

ABBREVIATIONS

TOP OF WALL

UNLESS OTHERWISE NOTED

UNDERGROUND SERVICE ALERT

ELEVATION

DATUM

CITY

NUDSCAPE

TYP.

U.O.N.

U.S.A.

LEGEND ASPHALTIC CONCRETE APPROXIMATE BOTTOM OF CURB BUILDING BEST MANAGEMENT PRACTICE BY OTHERS BACK OF CURB BOTTOM OF STEP BACK OF WALL B.O.W. CITY & COUNTY OF SAN FRANCISCO CENTER LINE CONCRETE CONDITION COND. CONTINUOUS CONT. CONTROL JOINT CP CENTER POINT DIAMETER DOUBLE RING INFILTROMETER DWG DRAWING **EXISTING** EACH EA **EXPANSION JOINT** ELEVATION ELEV. EQUAL EQ **EXPANSION** FINISH GRADE FLOW LINE F.L. FACE OF BUILDING F.0.B FACE OF CURB F.O.C. FEET F.T. GALVANIZED GALV. HIGHEST POINT H.P. INCHES JOINT KEYED CONSTRUCTION JOINT LANDSCAPE GREEN INFRASTRUCTURE LIMIT OF WORK L.O.W MAXIMUM MANUFACTURER MFR. MANUFACTURED MANUF NOT IN CONTRACT NUMBER NOT TO SCALE N.T.S ON CENTER 0.C. OUTSIDE DIAMETER PLANTING AREA RADIUS **ROADWAY** REFERENCE REQUIRED REQ'D SPLASH APRON S.A. SECTION SECT SHEET SHT. SIMILAR SCORE JOINT STORMWATER MANAGEMENT PLAN SEE ELECTRICAL DRAWINGS S.E.D. SEE ROADWAY DRAWINGS S.R.D. SEE SF WATER DEPT. DRAWINGS S.W.D. SPECIFICATIONS SPECS. STATION POINT STA. PT STREET STANDARD STAINLESS STEEL TELEPHONE PULL BOX TRASH RECEPTACLE TYPICAL TOP OF SIDEWALK

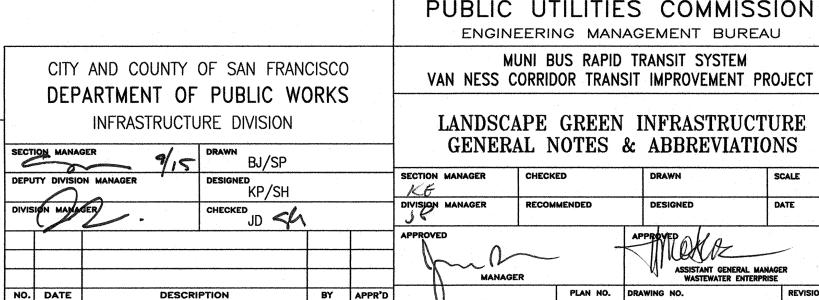
EXISTING UTILITIES

ur expressiones e equini no constitutivo, marcar	PG&E GAS		(U)	MANHOLE (NO I.D./UNKNOWN)
englassengsstammen spesjelle mind still framstrike.	PG&E ABANDONED GAS		Con the same	MONITORING WELL
	PG&E ELECTRICAL		Θ	MUNI GUYPOLE
	AUXILIARY WATER SUPPLY SYSTEM	*	$-\widetilde{\oplus}$	MUNI GUYPOLE W/ LIGHT
angangan, nggananan malambarah	WATER MAIN		₩	PARKING METER
greede aan maa gegereld of filiade in teaspeerf op de filiate filiade filiate			PGE	PG&E MANHOLE
nda m _{ast} angan ngagarinda din dipililipan milili da k	PAC BELL TELEPHONE CABLE LINE		0	PG&E PULLBOX
	RCN COMMUNICATION CABLE		0	PIPE POWER POLE
ga sang-magaamulaning alan gap, ang gamaran manina	MFS, VERIZON NETWORK CABLE		(•)	POWER POLE W/ LIGHT
earninge alleren is greates a service or a relicional deliminar di	HH MUNI DUCT BANK	, M.,	Ŏ	PULLBOX
	STREET LIGHTING/TRAFFIC		_	SEWER CLEAN-OUT
	SIGNAL CABLE STONE OR CONC. SURVEY			SEWER MANHOLE SHRUB
	MONUMENT			SIGN POLE
employed exists and the employ	EXISTING SEWER			STANDPIPE
	NEW SEWER		\wedge	SURVEY CONTROL PT.
	INDICATES STANDARD CITY		<u> </u>	(SEE MONUMENT NOTE)
. ·	MONUMENT (OR AS NOTED)		TPB	TELEPHONE PULL BOX
M	BIKE RACK			
	BOLLARD/GUARD POST		7	TRAFFIC SIGNAL PULLBOX
	SHRUB		(13)	
CABLE	CABLE MANHOLE		NO LD.	TREE
	CABLE TV PULLBOX			UNKNOWN UTILITY VALVE (NO I.D./UNKNOWN)
	CATCH BASIN		WM	WATER METER
	CONDUIT		WPB	WATER PULLBOX
	DOWNSPOUT		WV	WATER VALVE
	DRAIN			CONCRETE
		New distribution of contract of the		BRICK
E)	ELECTRIC MANHOLE ELECTRIC PULL BOX	, secretegespenderod-cos	1/10/00/00/00/00/00/00/00	STRIPE OVER HEAD WIRE
	ELECTROLIER -			CHAIN LINK FENCE
	FENCE CORNER			WOOD FENCE
FA	FIRE ALARM PULLBOX		T)	CENTERLINE
 O+	FIRE HYDRANT		CŌ	CLEANOUT
EX.	FIRE VALVE		Ø	DIAMETER
E I S	GAS ETS		DWY	DRIVEWAY
	GAS METER		ENT	ENTRANCE
$\overline{\Xi}$	GAS VALVE		STR	STAIR
	GATEPOST		RW	
	GUYPOLE		WR	WHEELCHAIR RAMP
	GUYWIRE			
(MHH)	HETCH HETCHY MANHOLE			
	JUNCTION BOX			
	MAILBOX RELAY			
[NELAT]	MAILBOX			

CONTRACT NO.

CITY AND COUNTY OF SAN FRANCISCO

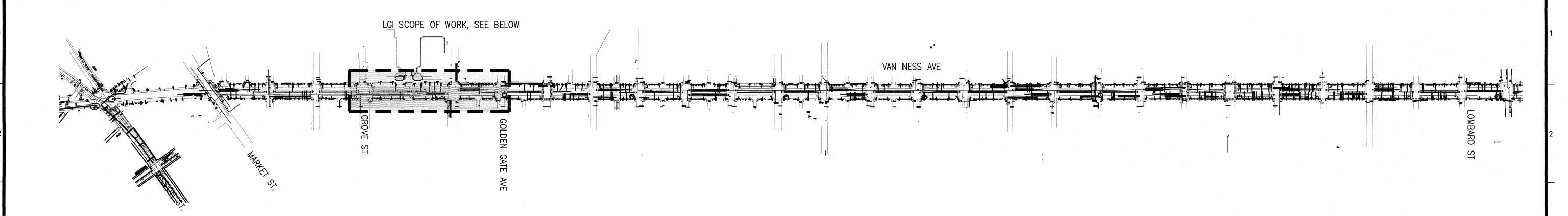
1289



SHEET

REVISIONS

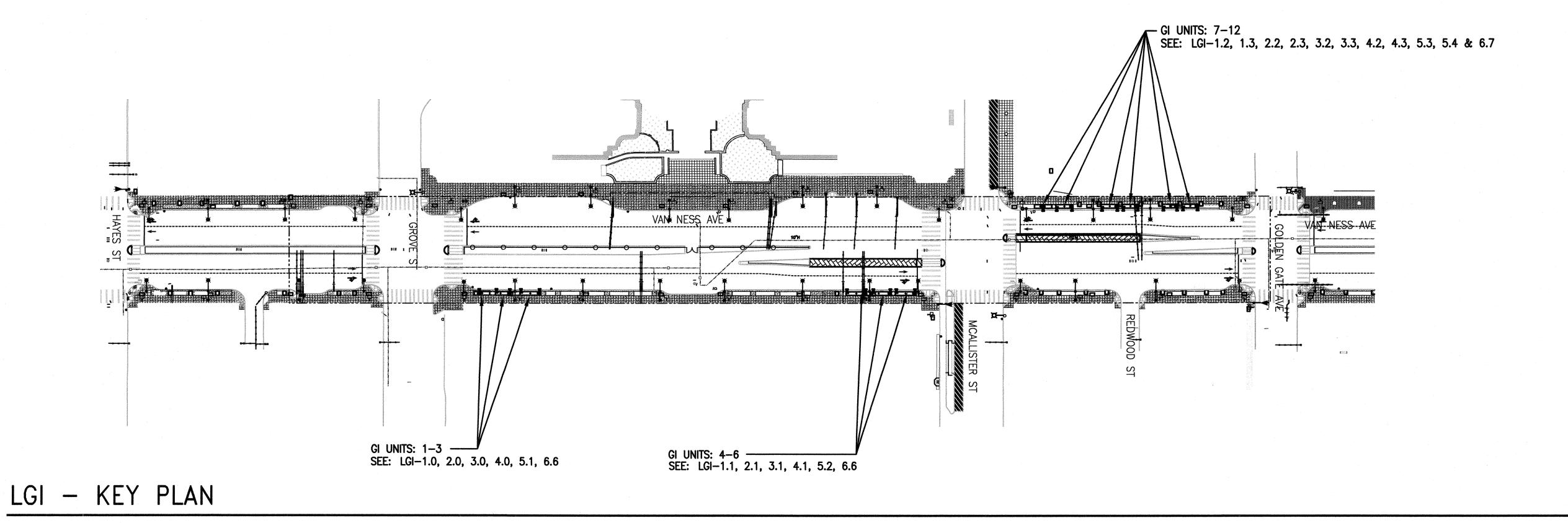
ASSISTANT GENERAL MANAGER WASTEWATER ENTERPRISE PLAN NO. 102,811 LGI-0.0



LANDSCAPE GREEN INFRASTRUCTURE (LGI) - SCOPE OF WORK



SCALE: NTS



1289

SCALE: 1" = 70' - 0"

NOTES:

1. FOR OTHER LANDSCAPE WORK IN SIDEWALK, STREET TREES, AND MEDIANS, SEE LA-, LI-, LP-, LT DRAWINGS.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE DIVISION

SECTION MANAGER
DEPUTY DIVISION MANAGER
DESIGNED
KP/SH
DIVISION MANAGER
CHECKED
DIVISION MANAGER
OF CALLEOR
NO. DATE
DESCRIPTION
REVISIONS

CITY AND COUNTY OF SAN FRANCISCO
VAN
DEPARTMENT OF PUBLIC WORKS

INFRASTRUCTURE DIVISION

SECTION MANAGER
DIVISION MANAGER
DIVISION MANAGER
APPROVED

SECTION MANAGER
CHECKED
DIVISION MANAGER
SECTION MANAGE

ELEVATION DATUM

CITY

PUBLIC UTILITIES COMMISSION
ENGINEERING MANAGEMENT BUREAU

MUNI BUS RAPID TRANSIT SYSTEM
VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT

LANDSCAPE GREEN INFRASTRUCTURE
KEY PLAN

CITY AND COUNTY OF SAN FRANCISCO

CONTRACT NO.

SECTION MANAGER CHECKED DRAWN SCALE

DIVISION MANAGER RECOMMENDED DESIGNED DATE

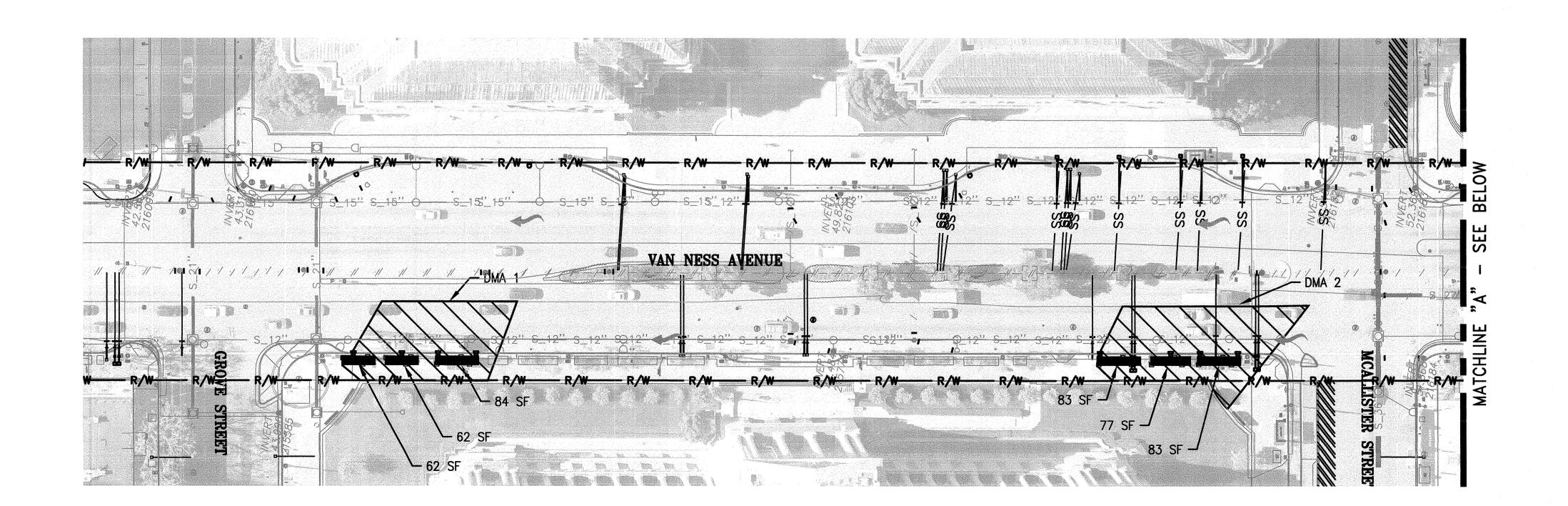
APPROVED

APPROVED

ASSISTANT GENERAL MANAGER
WASTEWATER ENTERPRISE

PLAN NO. DRAWING NO. REVISION

SHEET 102,812 LGI-0.1



PLAN

SCALE: 1"=40'

<u>LEGEND</u>



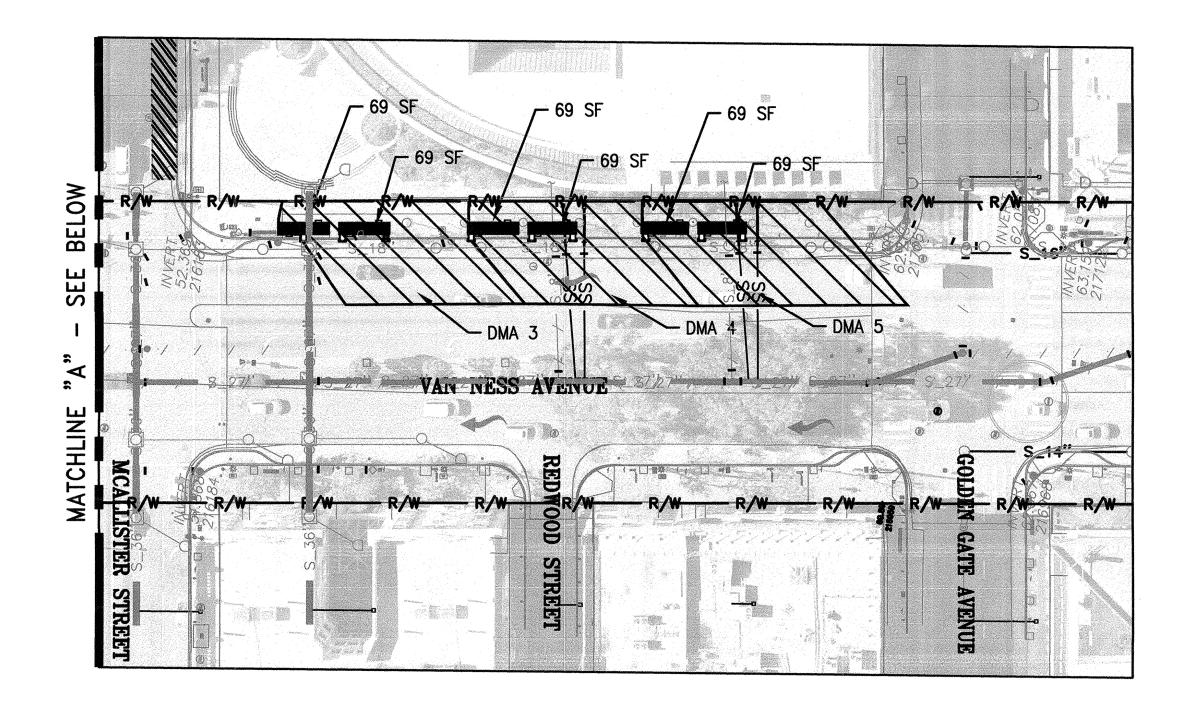
(E) FLOW DIRECTION



(N) BIORETENTION PLANTER



DMA





SCALE: 1" = 10

Prepared by: AECOM/SFDPW 6/23/2015								Low Intensity Storm Scenario					
DMA ID No.	DMA (SF) ¹	DMA (Acre)	ВМР Туре	Ponding Depth (FT) 2	Media Thickness (FT)	Aggregate Thickness (FT)	d (INCH)	BMP Area Provided (SF)	Storage Required (CF)	Storage Available (CF)	BMP Sizing Ratio		
DMA 1	3,775	0.087	Bioreteiontion	0.4	1.5	1	0.75	208	218	217	5.5%		
DMA 2	4,486	0,103	Bioreteiontion	0.4	1.5	1	0.75	243	259	253	5.4%		
DMA 3	3,200	0.073	Bioreteiontion	0.4	1.5	1	0.75	138	185	144	4.3%		
DMA 4	3,450	0.079	Bioreteiontion	0.4	1.5	1	0.75	138	199	144	4.0%		
DMA 5	3,450	0.079	Bioreteiontion	0.4	1.5	1	0.75	138	199	144	4.0%		

Notes:

1) All DMA's were assumed to be 92.5% impervious.

2) Bioretention Units Depth is an 18" layer of engineered media providing 15% void ratio, a 12" layer of aggregate (including a 3" choker layer) providing 40% void ratio and 6" ponding depth.

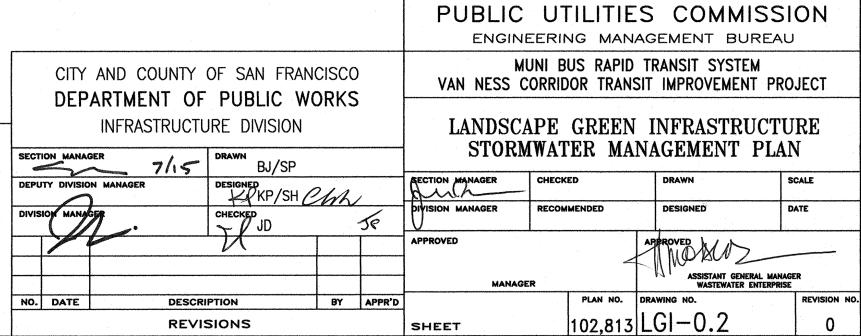
3) Overall tributory area from Grove St to Golden Gate Ave is 2.9 acres. The area managed by green infrastructure is about 14.5% of the total tributory area.

VOID RATIOS		POROSITY
Assumed Void Ratio for Engineered Media	15%	0.130
Assumed Void Ratio for Storage Gallery Aggregte	40%	0.286

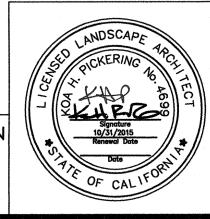
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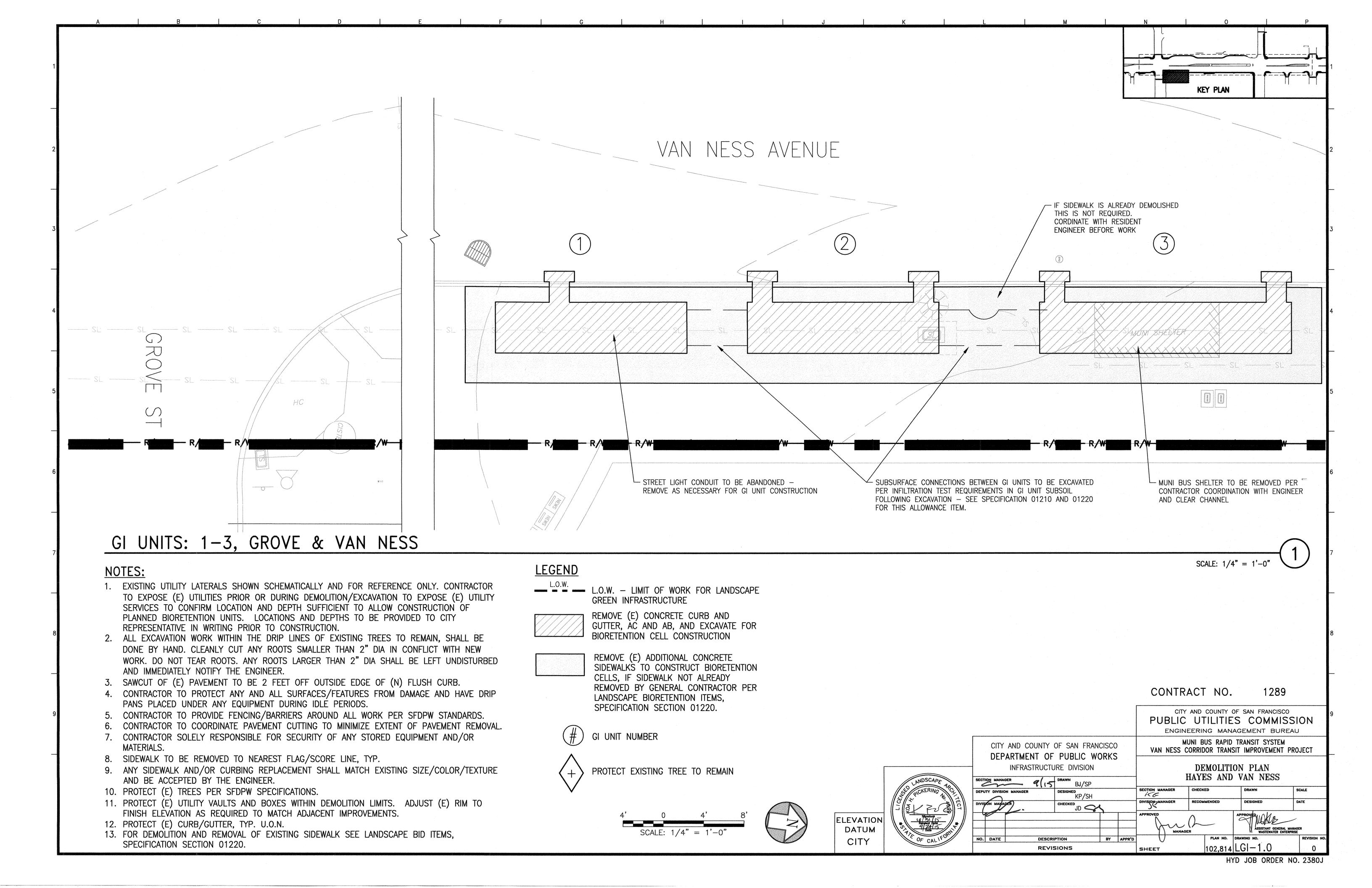
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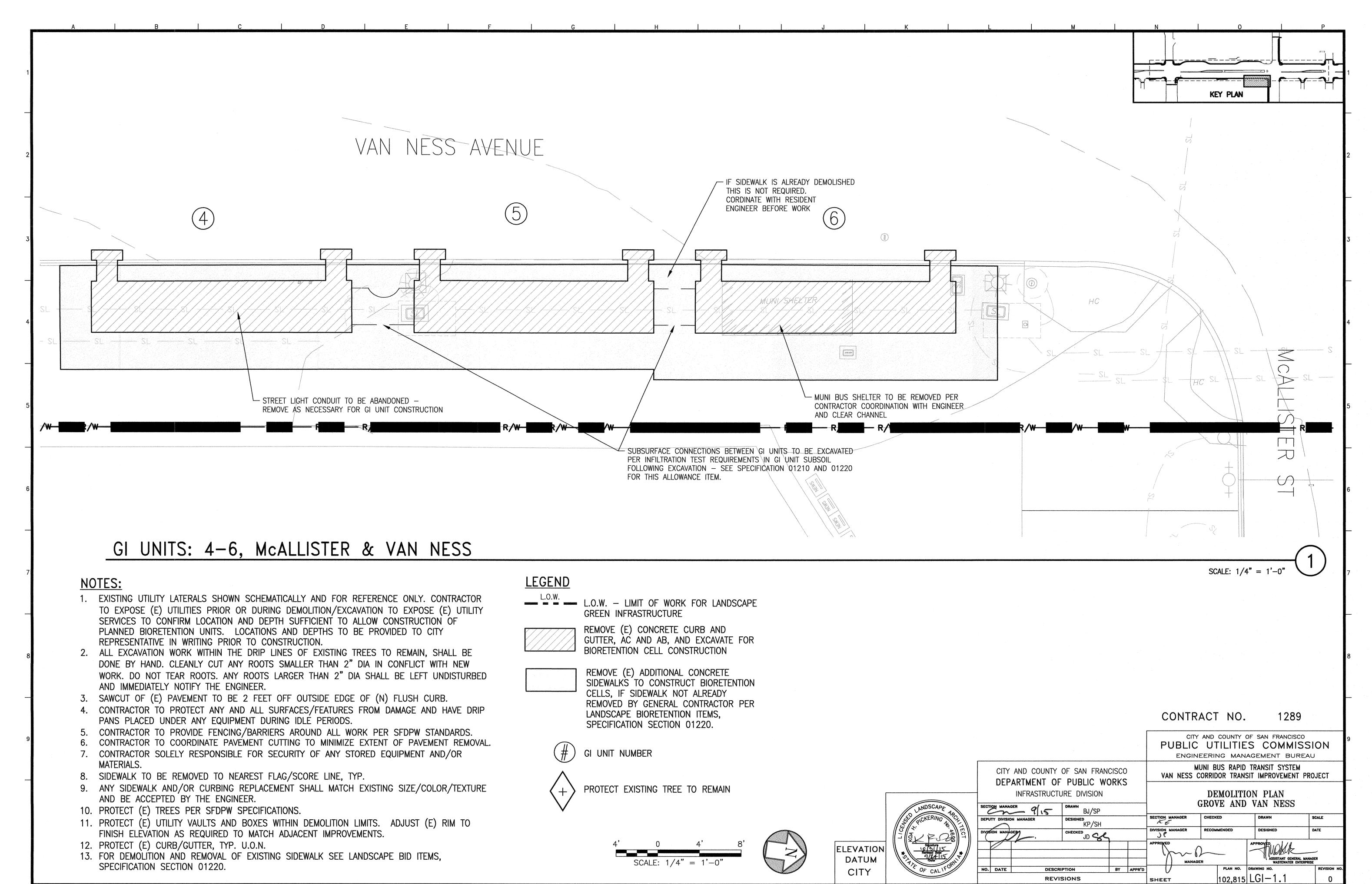
CITY AND COUNTY OF SAN FRANCISCO

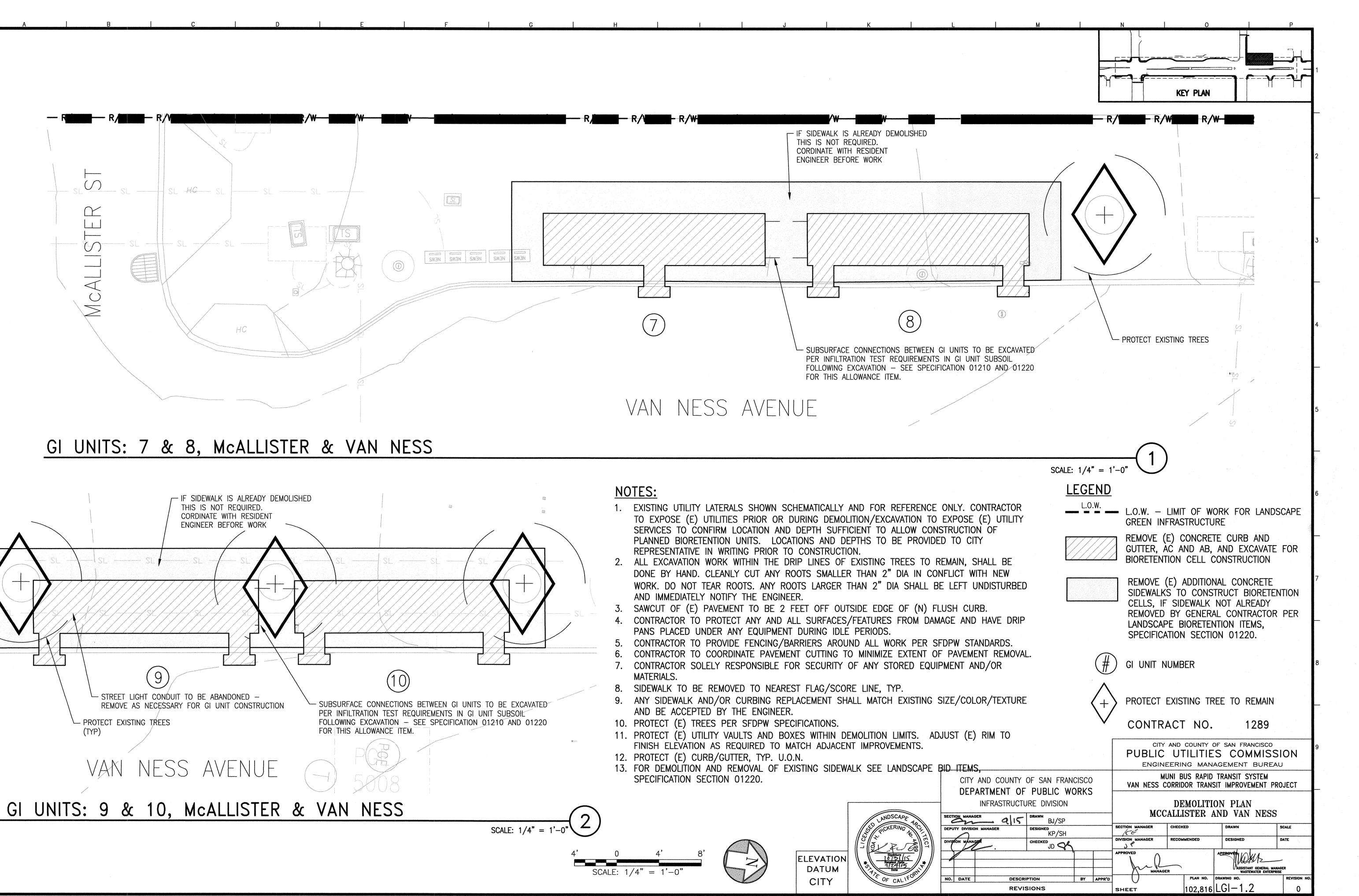


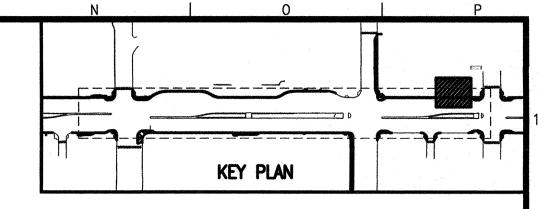
ELEVATION DATUM CITY

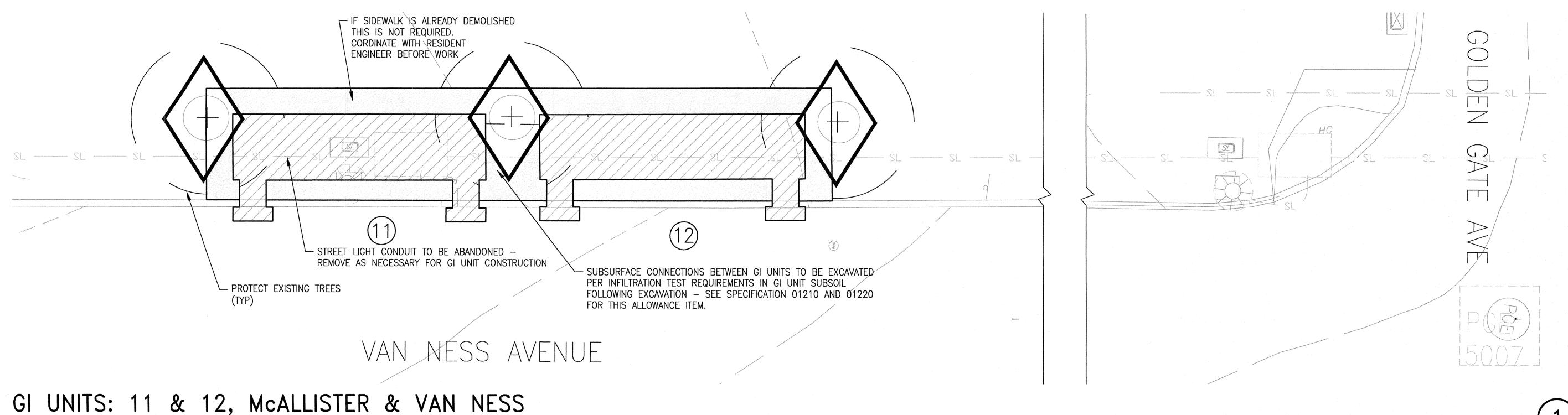










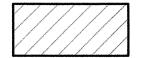


NOTES:

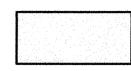
- 1. EXISTING UTILITY LATERALS SHOWN SCHEMATICALLY AND FOR REFERENCE ONLY. CONTRACTOR TO EXPOSE (E) UTILITIES PRIOR OR DURING DEMOLITION/EXCAVATION TO EXPOSE (E) UTILITY SERVICES TO CONFIRM LOCATION AND DEPTH SUFFICIENT TO ALLOW CONSTRUCTION OF PLANNED BIORETENTION UNITS. LOCATIONS AND DEPTHS TO BE PROVIDED TO CITY REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION.
- 2. ALL EXCAVATION WORK WITHIN THE DRIP LINES OF EXISTING TREES TO REMAIN, SHALL BE DONE BY HAND. CLEANLY CUT ANY ROOTS SMALLER THAN 2" DIA IN CONFLICT WITH NEW WORK. DO NOT TEAR ROOTS. ANY ROOTS LARGER THAN 2" DIA SHALL BE LEFT UNDISTURBED AND IMMEDIATELY NOTIFY THE ENGINEER.
- 3. SAWCUT OF (E) PAVEMENT TO BE 2 FEET OFF OUTSIDE EDGE OF (N) FLUSH CURB.
- 4. CONTRACTOR TO PROTECT ANY AND ALL SURFACES/FEATURES FROM DAMAGE AND HAVE DRIP PANS PLACED UNDER ANY EQUIPMENT DURING IDLE PERIODS.
- 5. CONTRACTOR TO PROVIDE FENCING/BARRIERS AROUND ALL WORK PER SFDPW STANDARDS.
- 6. CONTRACTOR TO COORDINATE PAVEMENT CUTTING TO MINIMIZE EXTENT OF PAVEMENT REMOVAL.
- 7. CONTRACTOR SOLELY RESPONSIBLE FOR SECURITY OF ANY STORED EQUIPMENT AND/OR MATERIALS.
- 8. SIDEWALK TO BE REMOVED TO NEAREST FLAG/SCORE LINE, TYP.
- 9. ANY SIDEWALK AND/OR CURBING REPLACEMENT SHALL MATCH EXISTING SIZE/COLOR/TEXTURE AND BE ACCEPTED BY THE ENGINEER.
- 10. PROTECT (E) TREES PER SFDPW SPECIFICATIONS.
- 11. PROTECT (E) UTILITY VAULTS AND BOXES WITHIN DEMOLITION LIMITS. ADJUST (E) RIM TO FINISH ELEVATION AS REQUIRED TO MATCH ADJACENT IMPROVEMENTS.
- 12. PROTECT (E) CURB/GUTTER, TYP. U.O.N.
- 13. FOR DEMOLITION AND REMOVAL OF EXISTING SIDEWALK SEE LANDSCAPE BID ITEMS, SPECIFICATION SECTION 01220.

<u>LEGEND</u>

_____L.O.W. __ L.O.W. _ LIMIT OF WORK FOR LANDSCAPE GREEN INFRASTRUCTURE



REMOVE (E) CONCRETE CURB AND GUTTER, AC AND AB, AND EXCAVATE FOR BIORETENTION CELL CONSTRUCTION



REMOVE (E) ADDITIONAL CONCRETE SIDEWALKS TO CONSTRUCT BIORETENTION CELLS, IF SIDEWALK NOT ALREADY REMOVED BY GENERAL CONTRACTOR PER LANDSCAPE BIORETENTION ITEMS, SPECIFICATION SECTION 01220.



GI UNIT NUMBER



PROTECT EXISTING TREE TO REMAIN

ELEVATION DATUM

CITY AND COUNTY OF SAN FRANCISCO PUBLIC UTILITIES COMMISSION ENGINEERING MANAGEMENT BUREAU MUNI BUS RAPID TRANSIT SYSTEM CITY AND COUNTY OF SAN FRANCISCO VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE DIVISION DEMOLITION PLAN MCCALLISTER AND VAN NESS ESIGNED KP/SH CHECKED JD ~11

SHEET

BY APPR'D

CONTRACT NO.



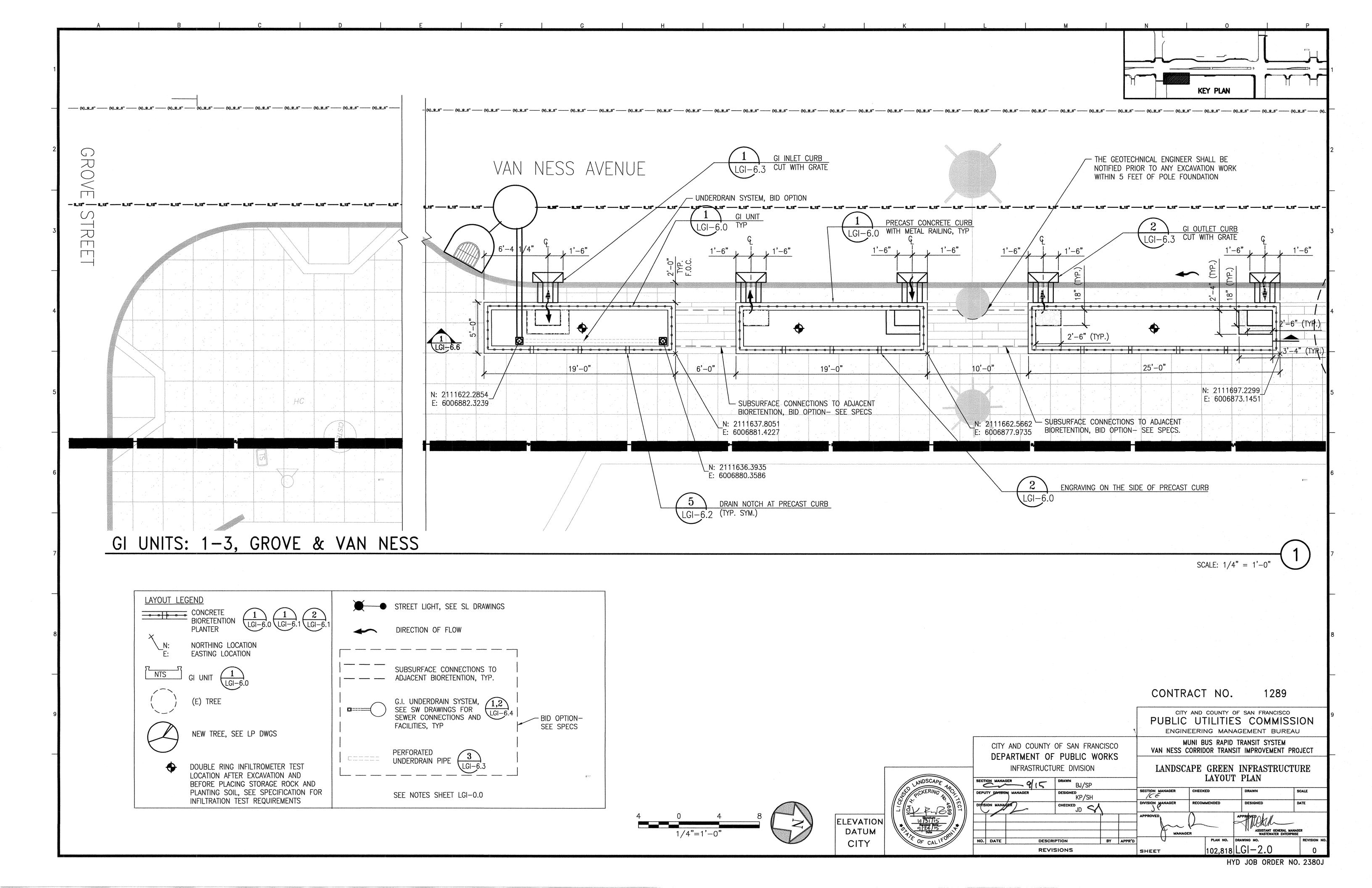
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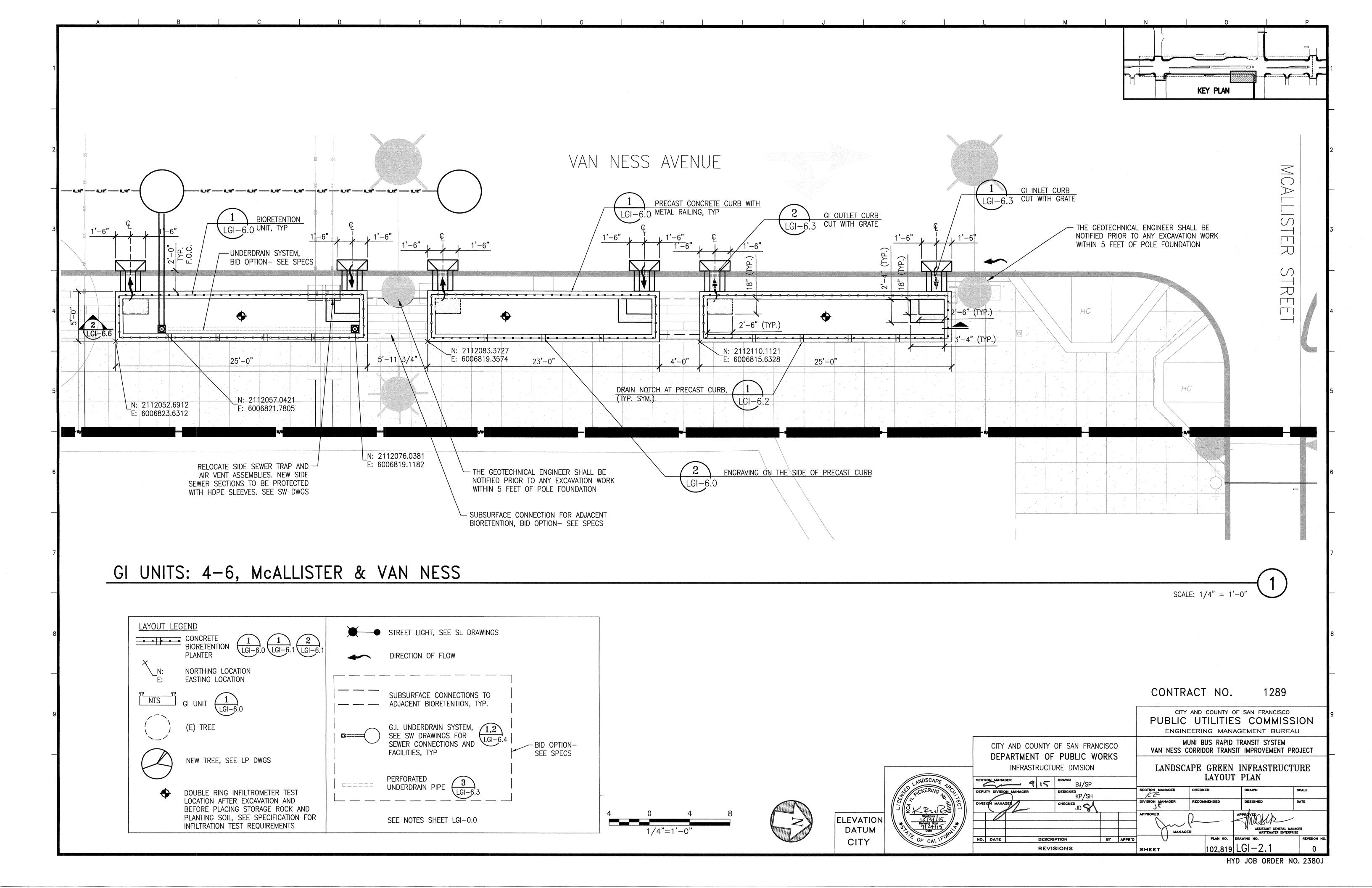
DESCRIPTION

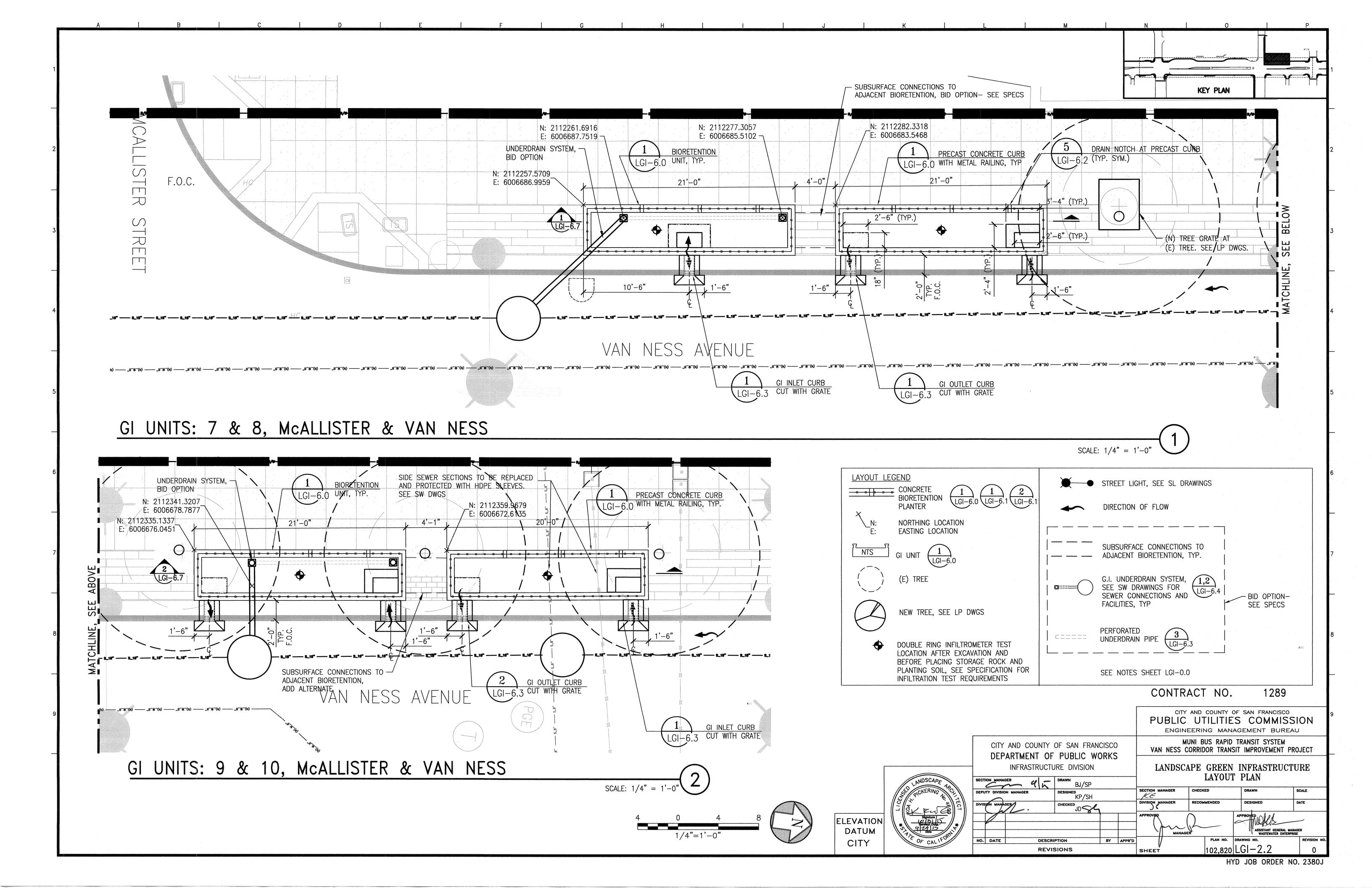
REVISIONS

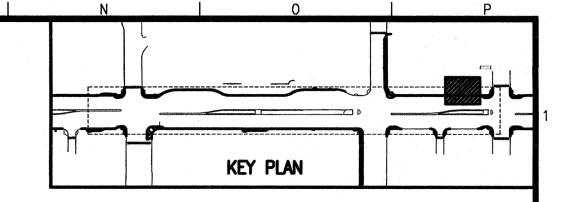
ASSISTANT GENERAL MANAGER WASTEWATER ENTERPRISE

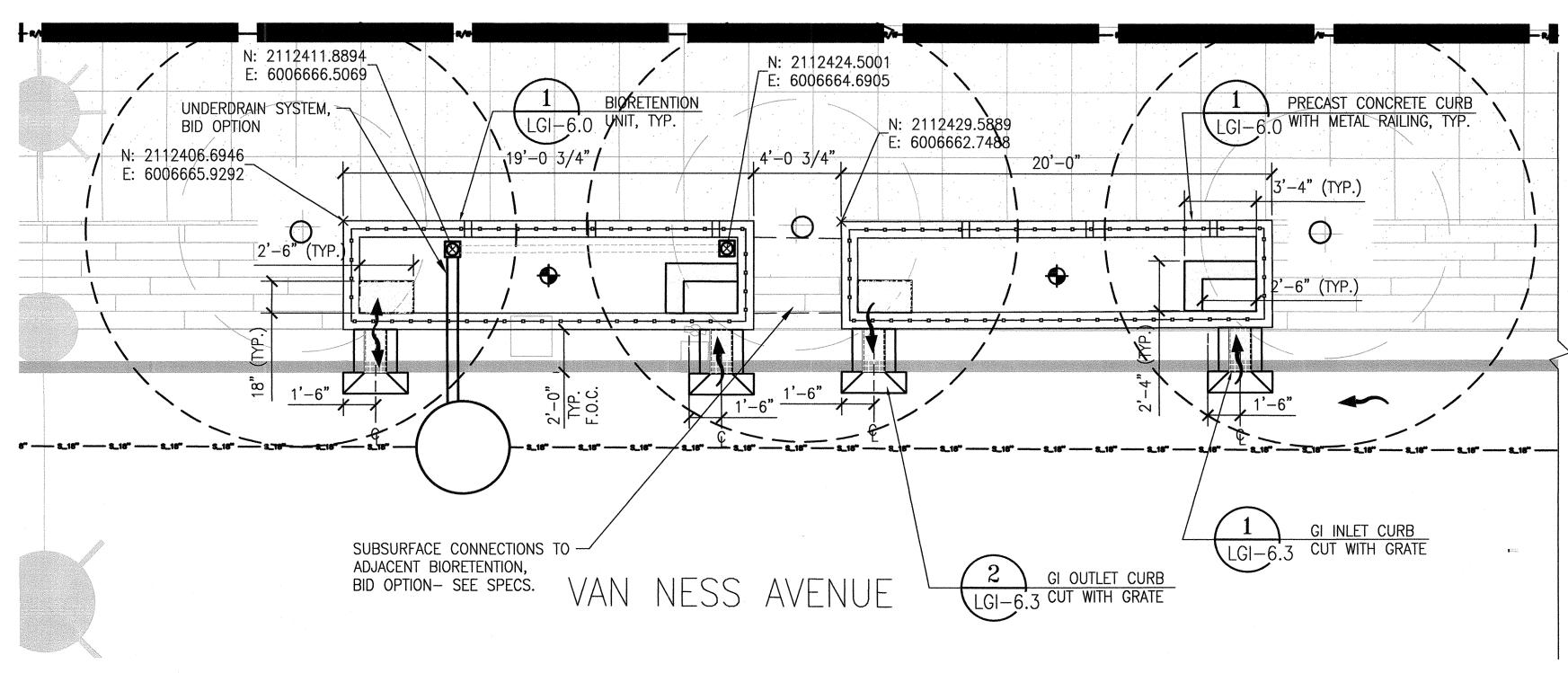
1289





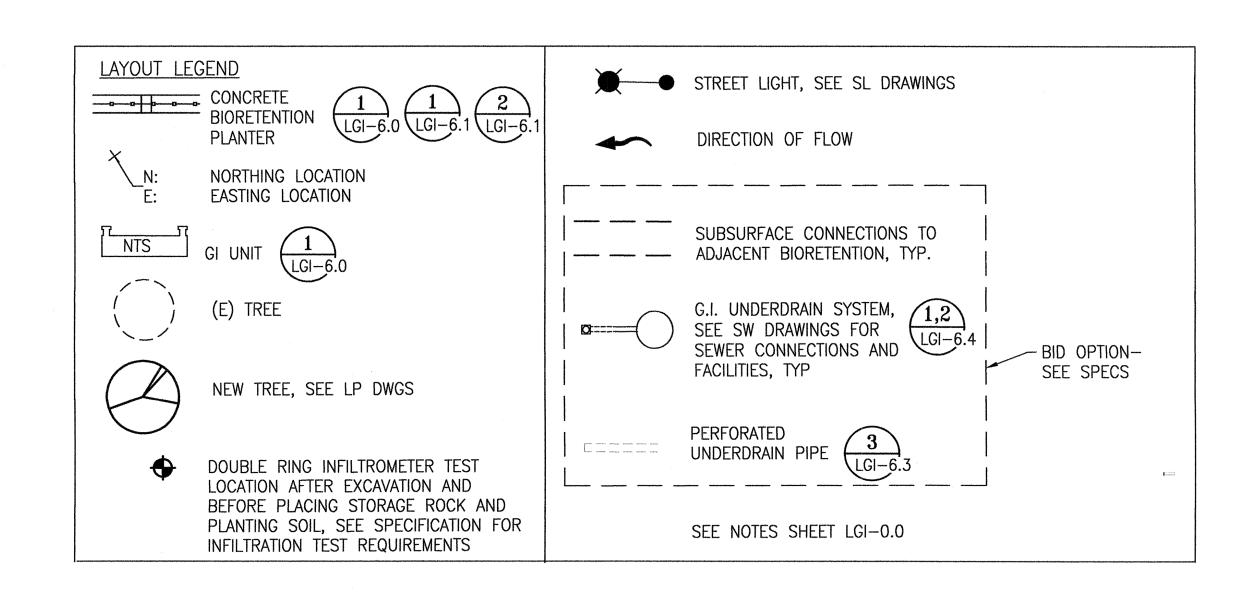






OLDEN ATE AVE

GI UNITS: 11 & 12, McALLISTER & VAN NESS



ELEVATION DATUM CITY

CITY AND COUNTY OF SAN FRANCISCO VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE DIVISION DESIGNED KP/SH

NO. DATE REVISIONS

CITY AND COUNTY OF SAN FRANCISCO PUBLIC UTILITIES COMMISSION ENGINEERING MANAGEMENT BUREAU

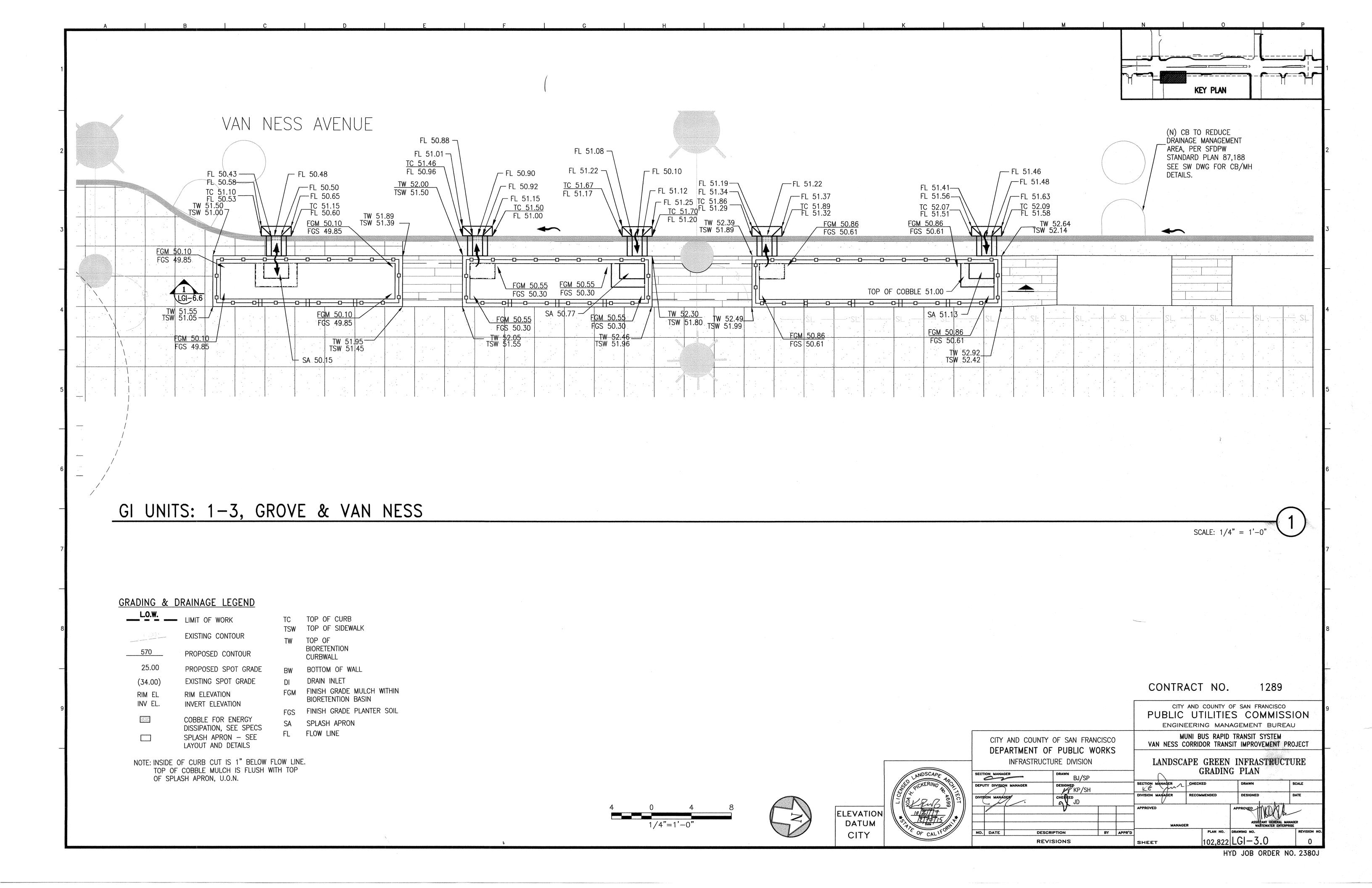
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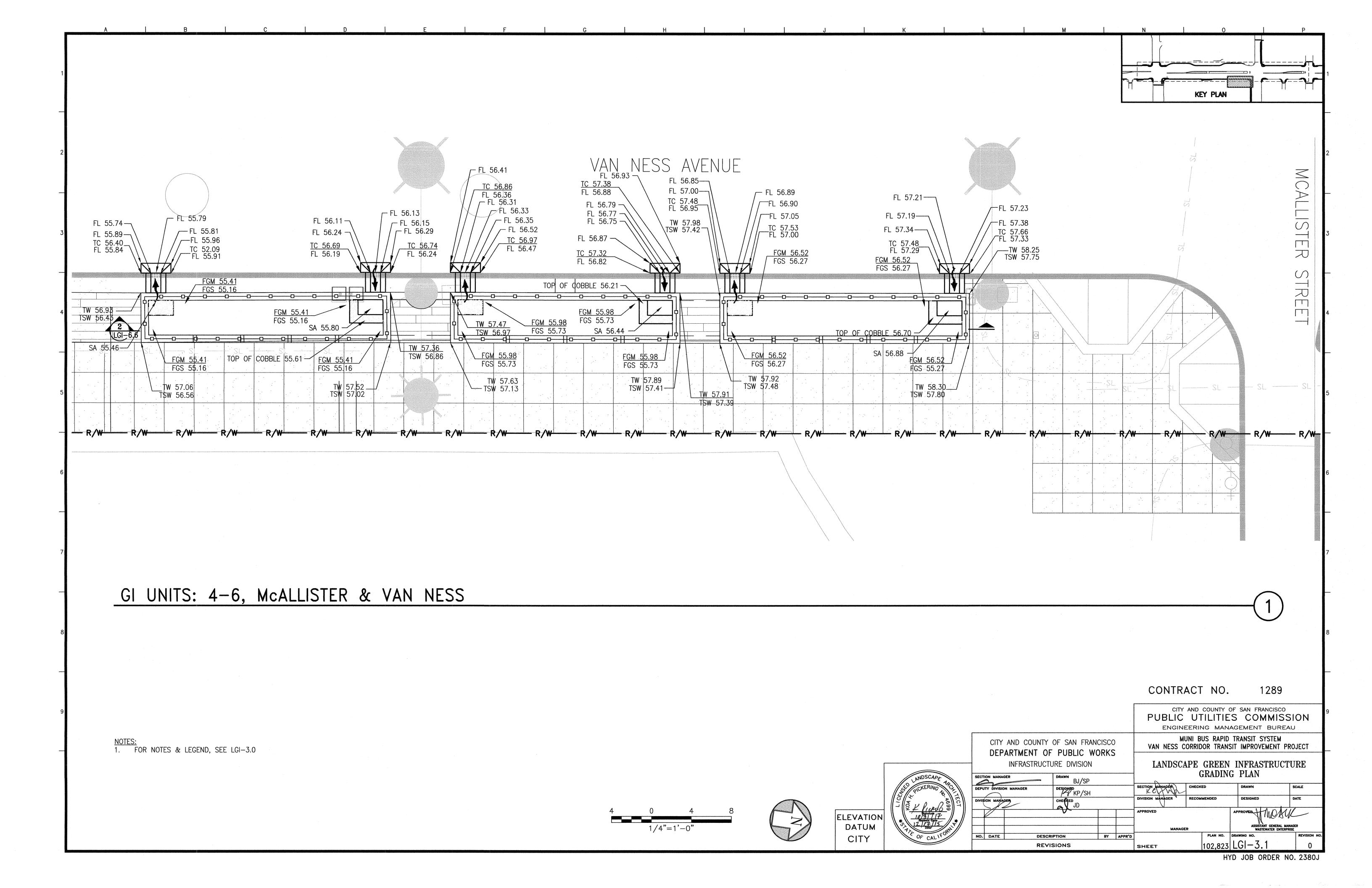
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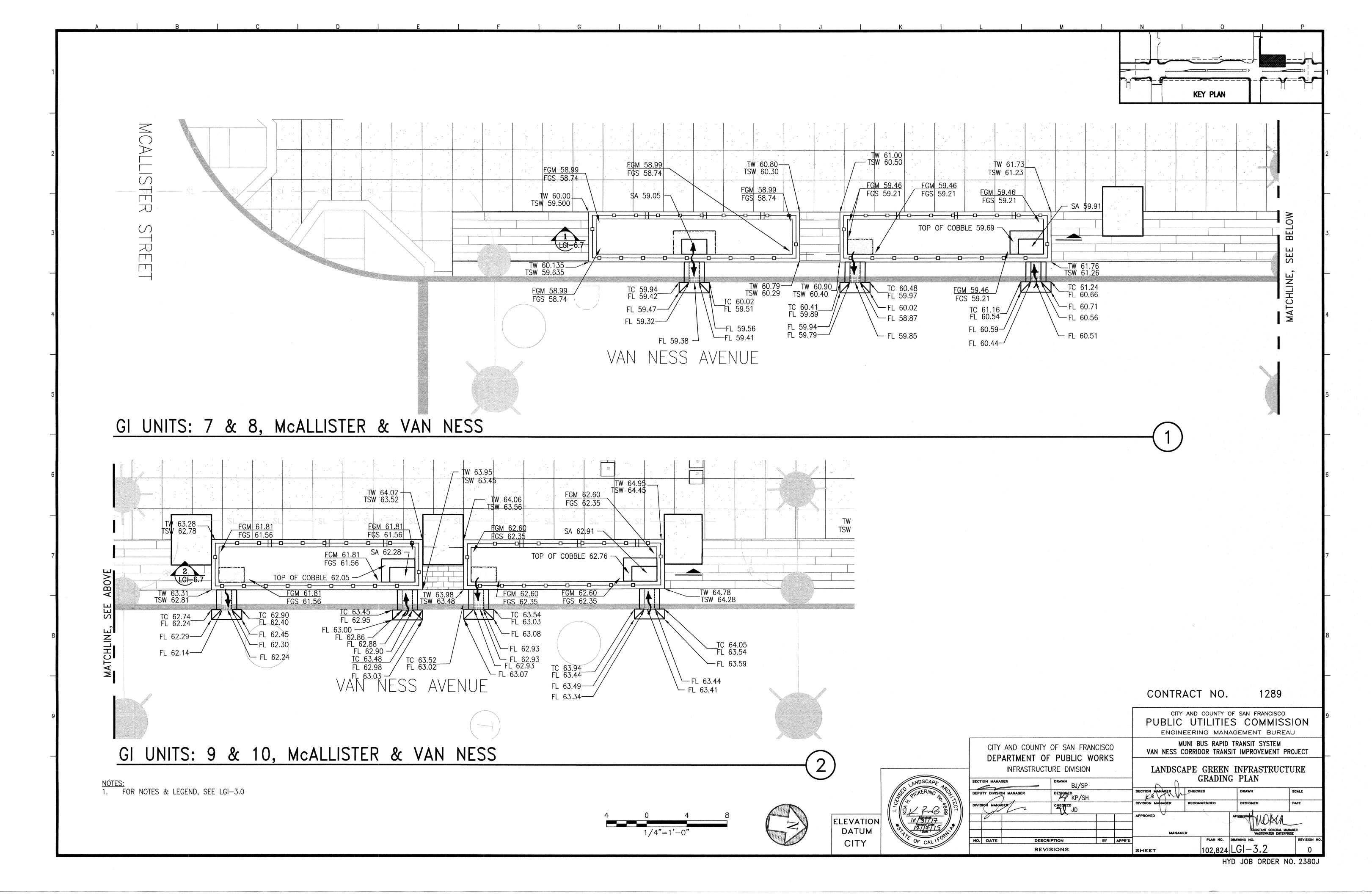
MUNI BUS RAPID TRANSIT SYSTEM

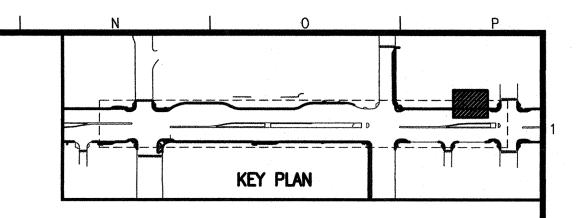
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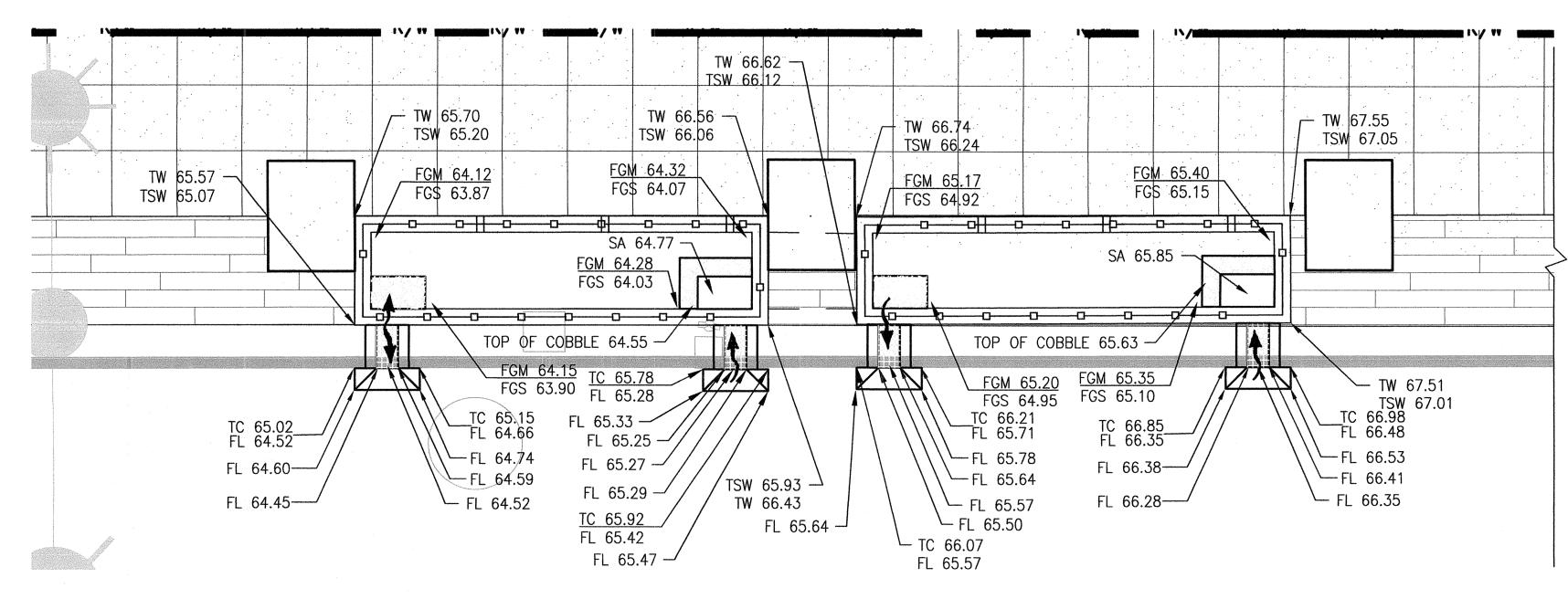
102,821 LGI-2.3 SHEET

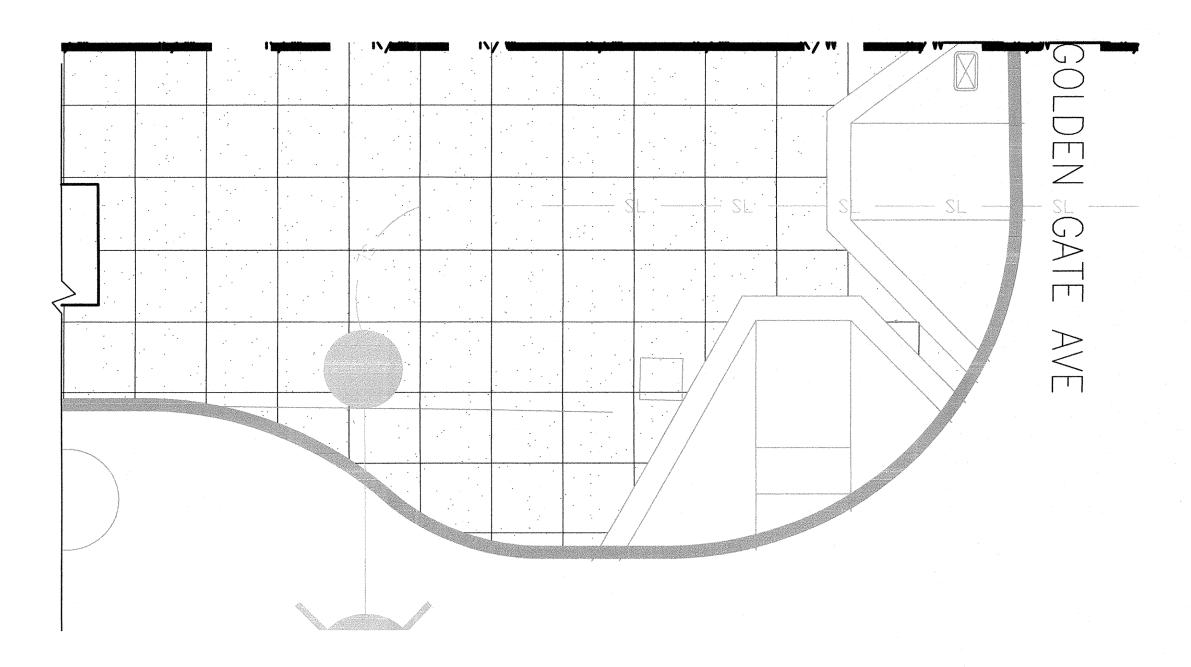








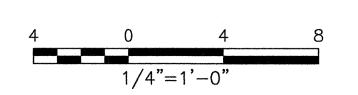


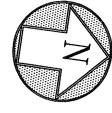


GI UNITS: 11 & 12, McALLISTER & VAN NESS

1)

NOTES: 1. FOR NOTES & LEGEND, SEE LGI-3.0



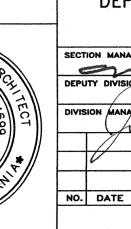


ELEVATION DATUM

CITY

CITY

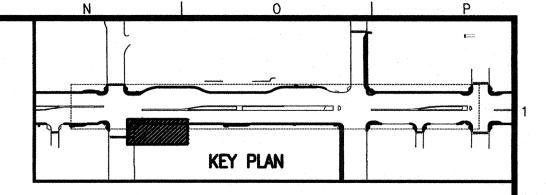
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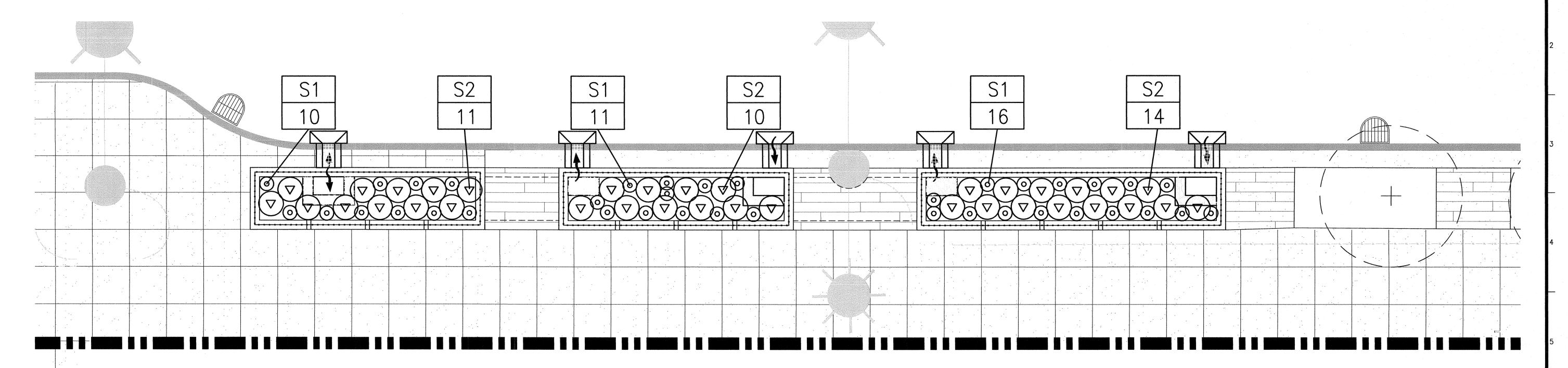


						CITY PUBLIC			S COM		ON	
					·	ENGINE	EERI	NG MAN	AGEMENT E	BUREAU		
		AND COUNTY				MU VAN NESS C			TRANSIT SYS SIT IMPROVEM		JECT	
DEPARTMENT OF PUBLIC WORKS INFRASTRUCTURE DIVISION						LANDSCAPE GREEN INFRASTRUCTURE						
SECTION MANAGER BJ/SP				,	GRADING PLAN							
DEPUTY	DIVISIO	N MANAGER	DESIGNED KP/SH			SECTION MANAGER	CHECK	ED	DRAWN	s	CALE	
DIVISION	N MANA	GER)	CHERKED JD			DIVISION MANAGER	RECOM	MENDED	DESIGNED	D	ATE	
1			, A			APPROVED		,	APPROVED MO	ks		
						MANAGE	R			GENERAL MANAGI TER ENTERPRISE	ER	
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	REVISIONS					SHEET		102,825	LGI-3.3		(

CONTRACT NO.

1289





GI UNITS: 1-3, GROVE & VAN NESS

PLANTING LEGEND

PLANTING NOTES

SYMBOL	SYMBOL	NAME .	SPACING	SIZE	QUANTITY
0	S1	IRIS LONGIPETALA LONG PETALED IRIS	AS SHOWN	1 GALLON	162
Δ	S2	LEYMUS CONDENTATUS 'CANYON PRINCE' 'CANYON PRINCE' WILD RYE	2' O.C.	5 GALLON	145

1. FINAL PLACEMENT OF PLANTS TO BE FIELD APPROVED BY CITY REPRESENTATIVE.

2. SEE SPECIFICATION 02950 FOR ADDITIONAL REQUIREMENTS.

3. PLANT LIST IS FOR THE CONVENIENCE OF THE CONTRACTOR. IN CASE OF DISCREPANCIES, THE PLAN SHALL GOVERN.

4. CONTRACTOR SHALL REVIEW PLANT LOCATIONS WITH THE CITY REPRESENTATIVE PRIOR TO

5. THE CITY REPRESENTATIVE RESERVES THE RIGHT TO MAKE SUBSTITUTIONS, ADDITIONS, OR DELETIONS IN THE PLANTING LAYOUT AS THE WORK PROGRESSES.

6. SEE SPECIFICATION, 02950: ALL PLANT MATERIAL SHALL BE INSPECTED PRIOR TO PLANTING. CONTRACTOR SHALL REVIEW ALL PLANT MATERIAL ON SITE WITH CITY REPRESENTATIVE AND INSTALL MATERIAL ONLY AFTER OBTAINING WRITTEN APPROVAL FROM THE CITY REPRESENTATIVE.

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

CONTRACT NO. 1289

CITY AND COUNTY OF SAN FRANCISCO

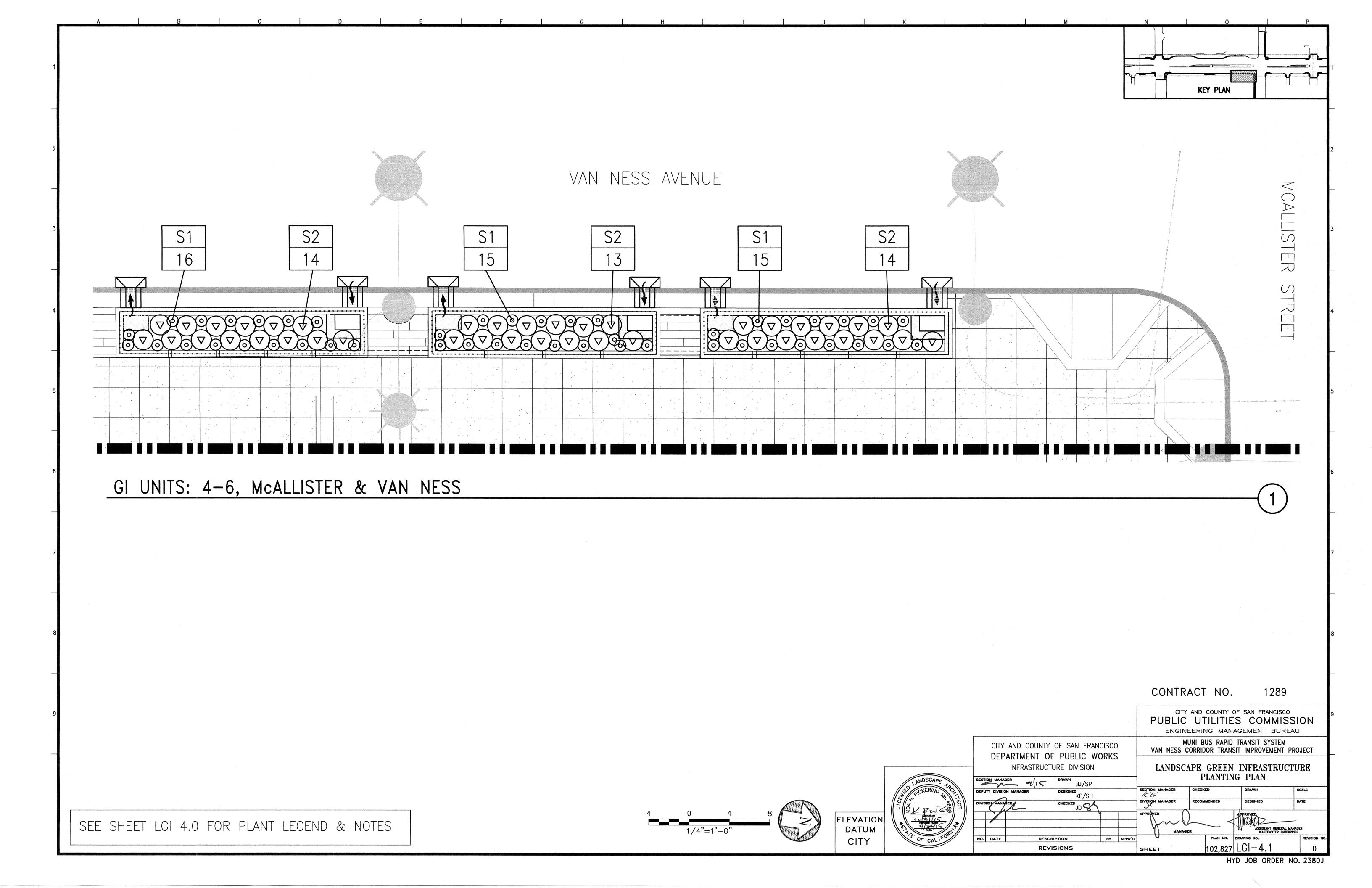
PUBLIC UTILITIES COMMISSION ENGINEERING MANAGEMENT BUREAU MUNI BUS RAPID TRANSIT SYSTEM CITY AND COUNTY OF SAN FRANCISCO VAN NESS CORRIDOR TRANSIT IMPROVEMENT PROJECT DEPARTMENT OF PUBLIC WORKS LANDSCAPE GREEN INFRASTRUCTURE INFRASTRUCTURE DIVISION PLANTING PLAN DRAWN BJ/SP DESIGNED KP/SH

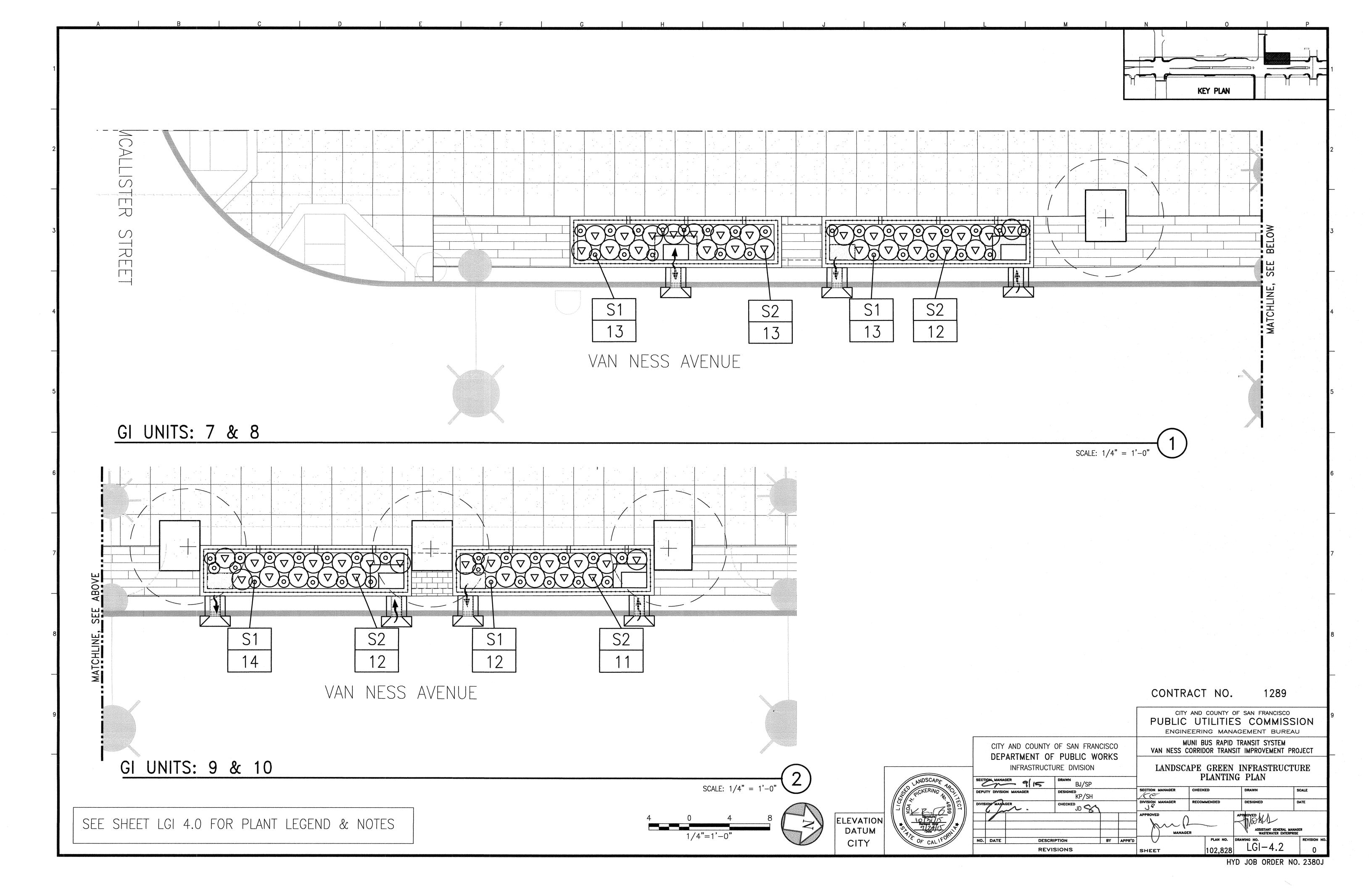
ELEVATION DATUM

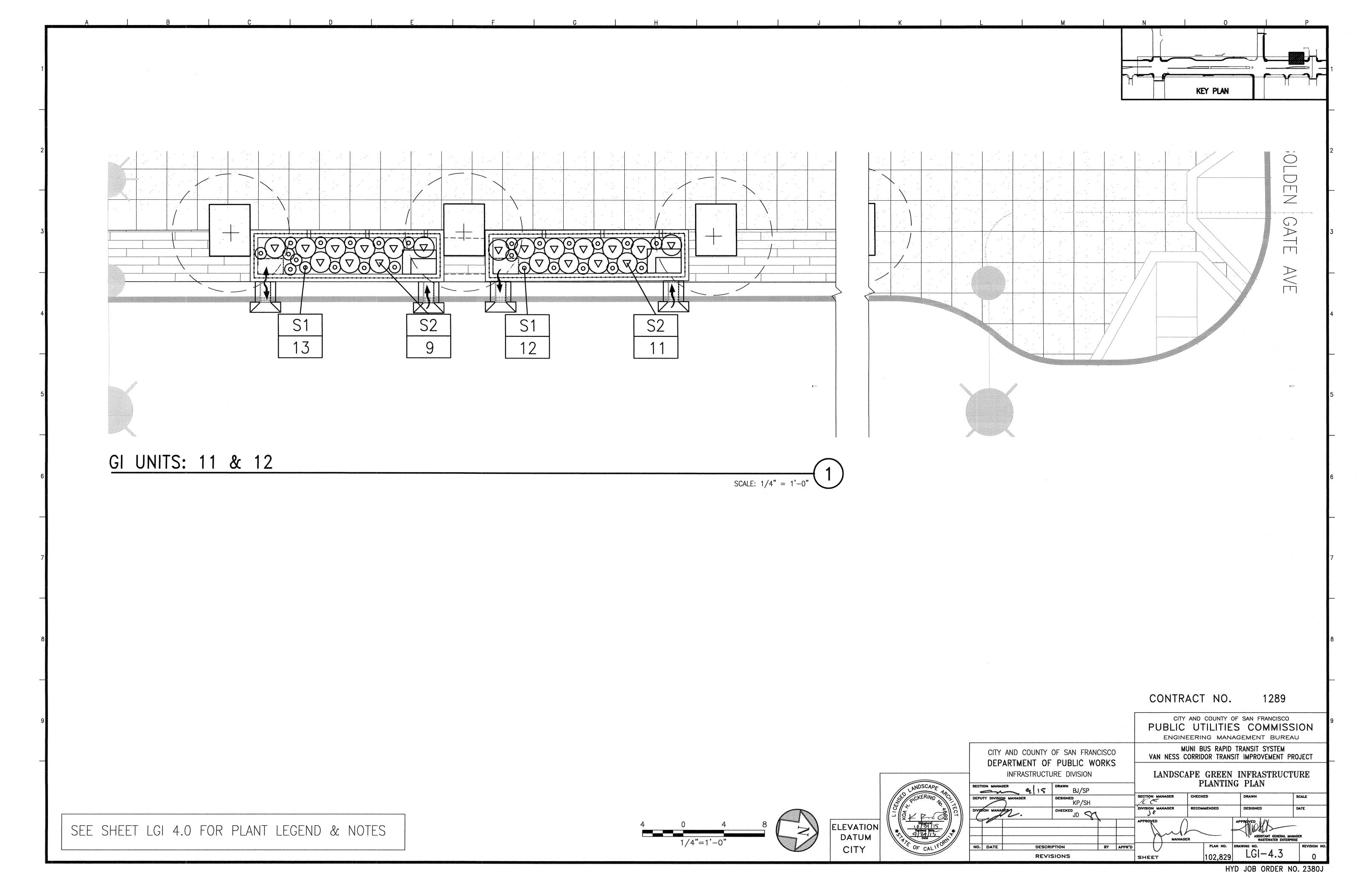
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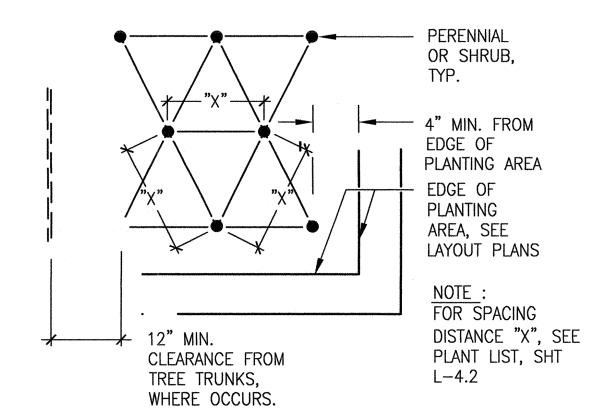
NO. DATE

DIVISION MANAGER APPROVED V DESCRIPTION 102,826 LGI-4.0 REVISIONS SHEET



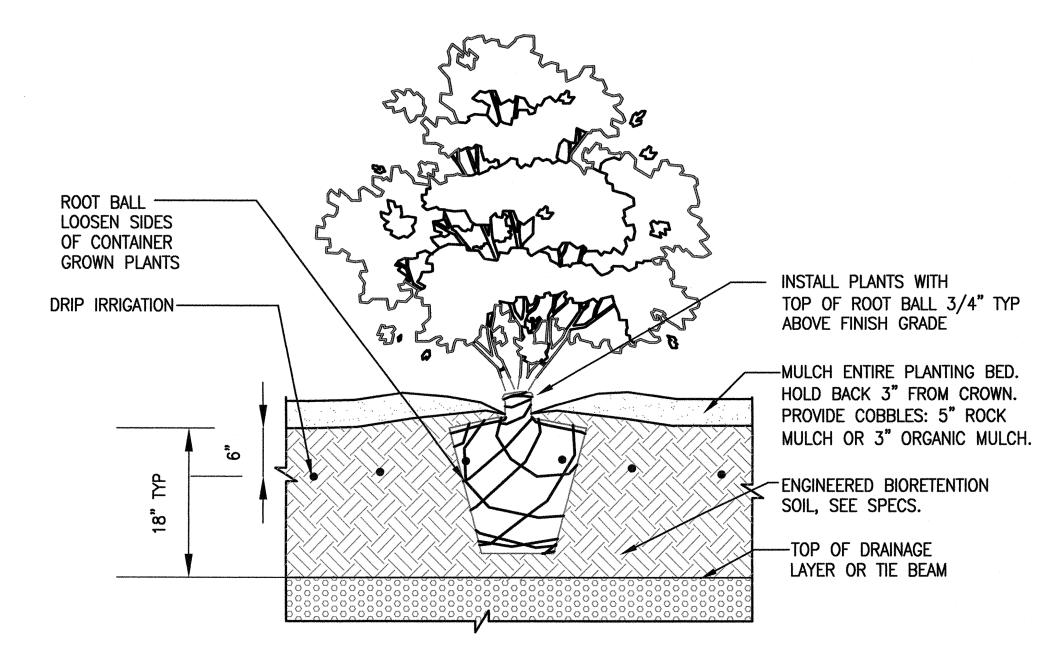






TRIANGULAR PLANTING

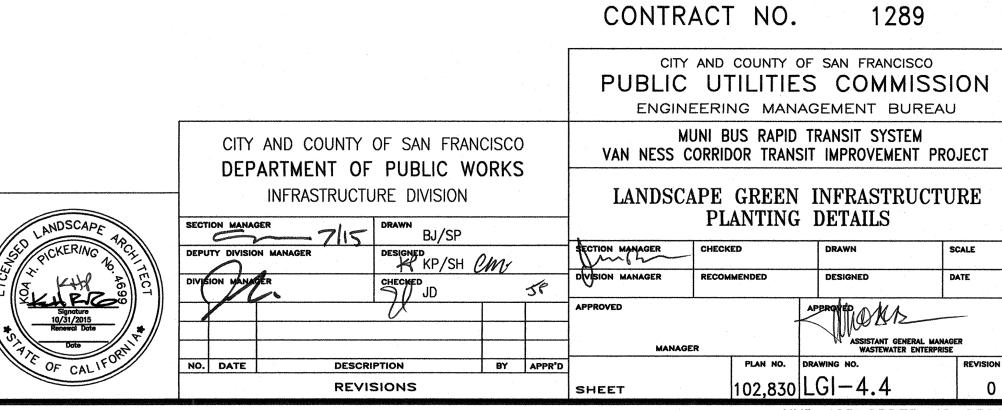
NOT TO SCALE



SHRUB PLANTING

NOT TO SCALE

2



ELEVATION DATUM