

PROJECT SITE
T.G. 704 F5

VICINITY MAP

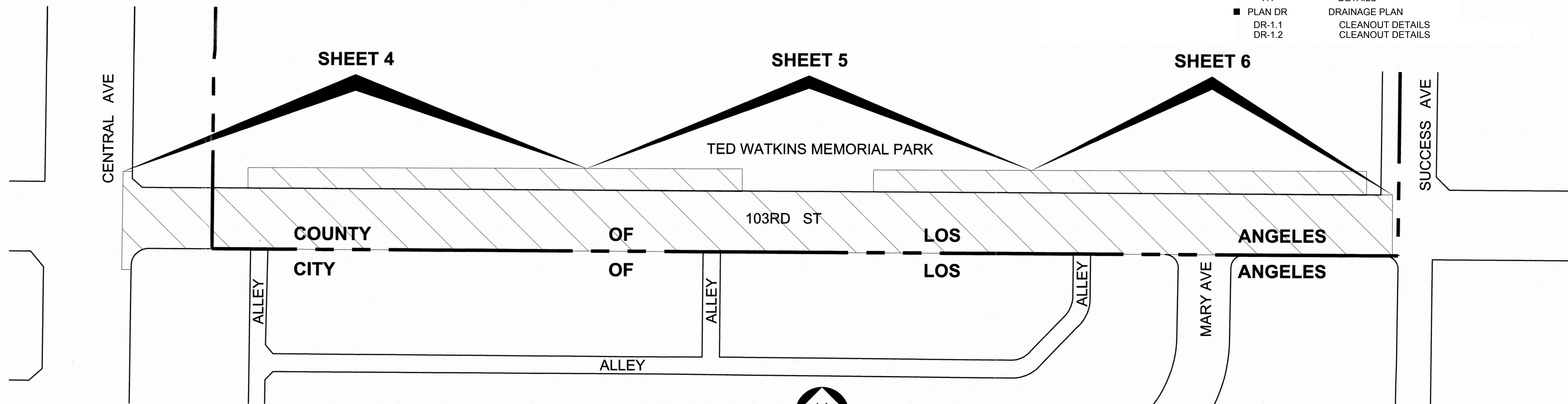
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103RD STREET GREEN IMPROVEMENT PROJECT

CENTRAL AVENUE TO SUCCESS AVENUE PROJECT ID NO. WMD0000110

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PROJECT LIMITS



PRIME CONTRACTOR LICENSE REQUIRED: CLASS A

PLAN RD

CADD PROJECT FILE NAME
 WMD0000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER
 J. DU
 DESIGNER
 P. MARCYNYSZYN



DRAWING NUMBER:	AS-BUILT RECEIVED ON:
(MARK AS-BUILT HERE)	DATE
	AS-BUILT RECEIVED FROM:
	CON / PDD / RMD / OTHER
	AS-BUILT:
	DATE

APPROVED BY: *[Signature]* 8/22/18
CITY OF LOS ANGELES

APPROVED BY: MARK PESTRELLA, DIRECTOR OF PUBLIC WORKS	5/24/18		
DEPUTY DIRECTOR: <i>[Signature]</i>	DATE		
RECOMMENDED BY: <i>[Signature]</i>	5/24/18	7/14/21	■ AS BUILT REVISIONS
ASSISTANT DEPUTY DIRECTOR	DATE	12/3/18	▲ REVISED TRAFFIC CONTROL PLAN INDEX
SUBMITTED BY: <i>[Signature]</i>	5/24/18	DATE	MK DESCRIPTION
DESIGN TEAM I	DATE		REVISIONS



PROJECT ENGINEER: *[Signature]* 5/24/18

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103RD STREET GREEN IMPROVEMENT PROJECT

TITLE SHEET
PROJECT ID NO. WMD0000110

DWG PH086375 SHEET 1 OF 8

CONSTRUCTION LEGEND PLAN RD AND PLAN DR

- ① Portland Cement Concrete Curb and Gutter (on 6" CMB), Per STD Plan 120-2
- ①A Portland Cement Concrete Curb and Gutter (on 6" CMB), Per City of LA STD Plan S-410-2
- ② Portland Cement Concrete Curb (on 6" CMB), Per STD Plan 120-2
- ⑤ Portland Cement Concrete Sidewalk, 4" Thick (on 6" CMB)
- ⑤A Portland Cement Concrete Sidewalk, 4" Thick (on 6" CMB), Per City of LA STD Plan S-444-0
- ⑦ Portland Cement Concrete Pavement on Existing Base Material, 520-A-2500
- ⑨ Asphalt Concrete Pavement (on 12" CMB)
- ⑭ Driveway, Type B unless otherwise shown (on 6" CMB), Per STD Plan 110-2
- ⑮ Alley Intersection (on 6" CMB), Per STD Plan 130-2
- ⑯ Cross Gutter, Per STD Plan 122-2
- ⑳ Curb Ramp (on 6" CMB), Per Caltrans STD Plan A88A Case B, unless otherwise shown
- ⑳A Curb Ramp (on 6" CMB), Per City of LA STD Plan S-442-5 Case B, unless otherwise shown
- ㉑ Concrete Bus Pad, Per STD Plan 131-2
- ㉒ Asphalt Rubber Hot Mix (ARHM-GG-C)
- ⑳ Pervious Concrete Gutter, 2' Wide, Per Detail A on Sheet 3
- ㉑ Pervious Concrete Longitudinal Gutter, 4' Wide, Per Detail B on Sheet 3
- ㉒ Concrete Unit Paver (Permeable), Per Detail B on Sheet 3
- ㉓ HDPE Liner, 40 MIL
- ㉔ 1/4" to 3/8" Crushed Rock
- ㉕ 3/4" Crushed Rock
- ㉖ Nonwoven Geotextile, Type 180N
- ㉗ Local Depression, Case B (on 6" CMB), Per STD Plan 313-3
- ㉘ Connection to Existing Catch Basin Per STD Plan 335-2
- ㉙ 2 1/2" to 3" Crushed Rock
- ㉚ 8" Perforated SCH 80 PVC Pipe
- ㉛ 8" SCH 80 PVC Pipe
- ㉜ Detectable Warning Surface, Per Caltrans STD Plan A88A
- ㉝ 8" PVC Cleanout Per STD Plan 204-2 Per Cleanout Detail on Plan DR Sheet 1.1 and 1.2 ■
- ㉞ Remove and Re-install Bike Rack
- ㉟ AC Pavement (Patchback) ▲

CONSTRUCTION SYMBOLS

- (NO) Indicates work per construction legend
- (Ltr) Curve data shown in table on plan
- ^{4" P2} Above Line: Indicates Standard Plan designation, thickness of surface material in inches, Standard Plan variables; curb ramp case, type, section and detail; or tree planting case
- ①^{A2-6}
L Below Line: L = length
- ⑤^{a x b} Above Line: a = length parallel to curb
b = length perpendicular to curb
- ➡
➡
➡ Section A-A
- AU Utility to be adjusted by Owner
- RU Utility to be relocated by Owner
- ⑭ ▲ Left of Line: STA of the driveway apron
Right of Line: Driveway width "W" of apron, driveway depth "Y" of apron; type of driveway apron (RES or COM)

GENERAL NOTES

1. Standard plans referenced are per the Standard Plans for Public Works Construction (SPPWC) unless otherwise noted.
2. Elevations shown are in feet based on LA City 2000 adjustment, NAVD 1988 datum.
3. Replace and vertically adjust traffic signal and street lighting pull boxes affected by curb ramp and sidewalk construction. Payment will be made at the contract unit price for No. 6 pull box incl PCC cover.
4. All pipe in open trench shall be bedded according to LACDPW Standard Plan 3080-2, Case III, except bell and spigot pipe which shall be Case II bedding, unless otherwise shown. "W" values shall be as specified on Standard Plan 3080-2 for Case III bedding, notes (a) and (b). If the "W" value at the top of the pipe is exceeded, the bedding shall be modified, and/or pipe of additional strength shall be provided. The proposed modification shall be approved by the Agency.
- ▲ 5. Within the project limits, the Contractor shall install a blue raised retroreflective pavement marker (RPM) on the finished surface at each fire hydrant location per California 2012 MUTCD Part 3 - Figure 3B-102 (CA), as described in the Special Provisions.

NOTICE TO CONTRACTORS

1. Contractor shall arrange and pay for the removal, storage, relocation, replacement, and/or re-installation of all transit shelters, public amenity kiosks (PAK's), newsstand vending kiosks (VK's), and/or automated public toilets (APT's) and their related appurtenances that may be affected by construction activities associated with these Plans whether shown and indicated on the Plans or not. There will be no cost to the Contractor for advertising based bus benches (ad bus benches) that are removed, stored, and reinstalled at the same location. Transit shelters, PAK's, VK's, APT's, and ad bus benches are the property of the City of Los Angeles and may only be removed, relocated, stored, replaced and/or reinstalled by the City's authorized vendors, Outfront/JC Decaux, LLC, (OutfrontDecaux) and Martin Outdoor Media, LLC (MOM).

A. Contractor shall contact Jovany Morales or Glenn Flutie of MOM at (310) 559-1600 a minimum of four (4) weeks prior to any required removal or relocation of any ad bus bench to arrange for its removal or relocation. Neither MOM nor the City of Los Angeles shall be responsible for any delays associated with the Contractor's failure to properly notify MOM as noted hereon.

NON-STANDARD ABBREVIATIONS

ABBREVIATION	WORD OR WORDS
ARHM	Asphalt Rubber Hot Mix
ABND	Abandoned
BM	Bench Mark
BW	Back of Walk
CALTRANS	State of California Department of Transportation
COM	Commercial
C&G	Curb and Gutter
DWG	Drawing
E	Easting
EP	Edge of Pavement
FS	Finished Surface
HDPE	High Density Polyethylene
INT	Intersection
INV	Invert
L	Length
LACDPW	Los Angeles County Department of Public Works
LT	Left
MIL	1/1000 of an Inch
MOD	Modified
N	Northing
PIP	Protect in Place
PVC	Polyvinyl Chloride
PWFB	Public Works Field Book
RES	Residential
RT	Right
SF	Square Foot
STA	Station
SW	Sidewalk
TC	Top of Curb
VAR	Variable
W	Width

STANDARD PLANS

- SPPWC, 2012 Edition
 - 110-2 Driveway Approaches
 - 112-2 Curb and Sidewalk Joints
 - 120-2 Curb and Gutter - Barrier
 - 122-2 Cross and Longitudinal Gutters
 - 130-2 Alley Intersection
 - 131-2 Concrete Bus Pad
 - 204-2 Terminal Cleanout Structure
 - 225-2 Blanket Protection for Pipes
 - 313-3 Local Depressions at Catch Basins
 - 335-2 Pipe Connections to Existing Storm Drains
- CALTRANS Standard Plans, 2015 Edition
 - RSP A88A Curb Ramp Details (July 21, 2017)
 - RSP A88B Curb Ramp and Island Passageway Details (July 21, 2017)
- LACDPW, 2000 Edition
 - 3080-2 Pipe Bedding in Trenches
- City of Los Angeles Bureau of Engineering
 - S-410-2 Types of Curb and Gutter
 - S-444-0 Sidewalks
 - S-442-5 Curb Ramps

UTILITIES

- Cable: XO Communications
- Gas: SoCal Gas
- Oil: Shell Pipeline Company LP & Torrance Pipeline Company LLC
- Power: Los Angeles Department of Water and Power & Southern California Edison
- Sewer: Sanitation District of Los Angeles County
- Street Lights: City of Los Angeles Bureau of Street Lighting & Southern California Edison
- Telephone: AT&T
- Water: Los Angeles Department of Water and Power

REFERENCES

- Final Materials Test Report Lab #37478, Dated 2/5/2018
- Survey Field Notes: PWFB 0921, Page 4590-4594

TOPOGRAPHY LEGEND

	Existing topography	Proposed improvements
Curb	---	---
Curb and Gutter	---	---
Gutter	---	---
Pavement	---	---
Concrete	---	---
Ac	---	---
Curb Ramp	---	---
Fence	---	---
Driveway	---	---
Fire Hydrant	○	○
Guy Wire	⊕	⊕
Manhole	⊙	⊙
Pipe	---	---
Connector Pipe	---	---
Main Line	---	---
Pole	○	○
R/W Line	---	---
Pull Box	⊞	⊞
Sidewalk	---	---
Signal Control Box	⊞	⊞
Signal	⊞	⊞
Traffic	⊞	⊞
Street Light	⊞	⊞
Palm Tree	✱	✱
Other Tree	○	○
Valve	○	○
Vault	⊞	⊞
Brick (Block) Wall	---	---
Curb Inlet	⊞	⊞
Cleanout	⊞	⊞

SHADED IF NOT CONTINUOUS

Existing Utilities	
Gas	---
Oil	---
Sewer	---
Storm Drain	---
Water	---

AC PAVEMENT CLASS & GRADE LEGEND

P2 - B - PG 64 - 10

CADD PROJECT FILE NAME: WMD0000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

DRAWING NUMBER:			
(MARK AS-BUILT HERE)	7/14/21	AS BUILT REVISIONS	
	5/30/19	ADDED NOTE PER CON	
	5/22/19	ADDED ITEM, MODIFIED SYMBOL	
	DATE	MK	DESCRIPTION
	REVISIONS		

PROJECT ENGINEER: *Jefferson* DATE: 5/24/18

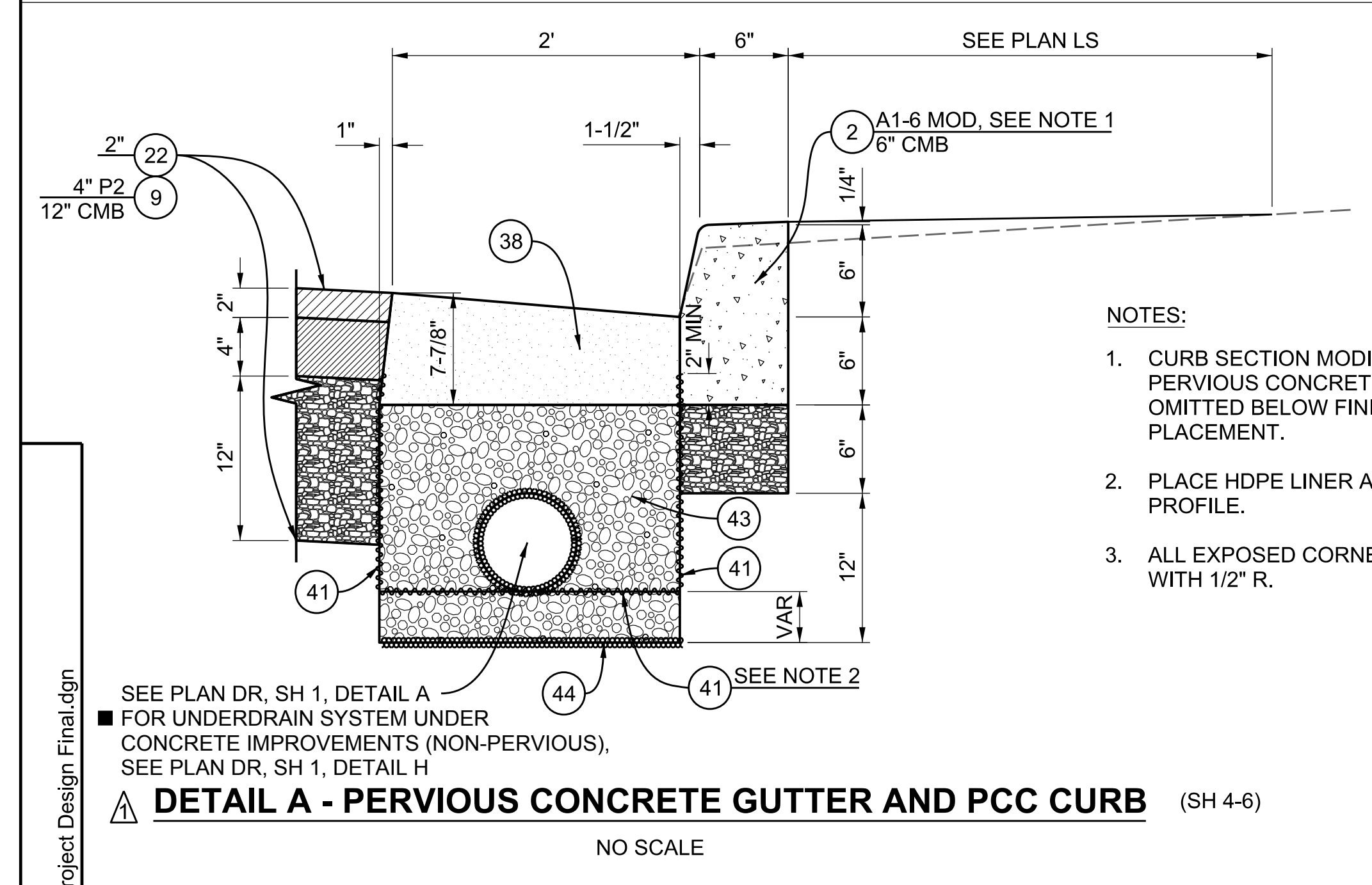
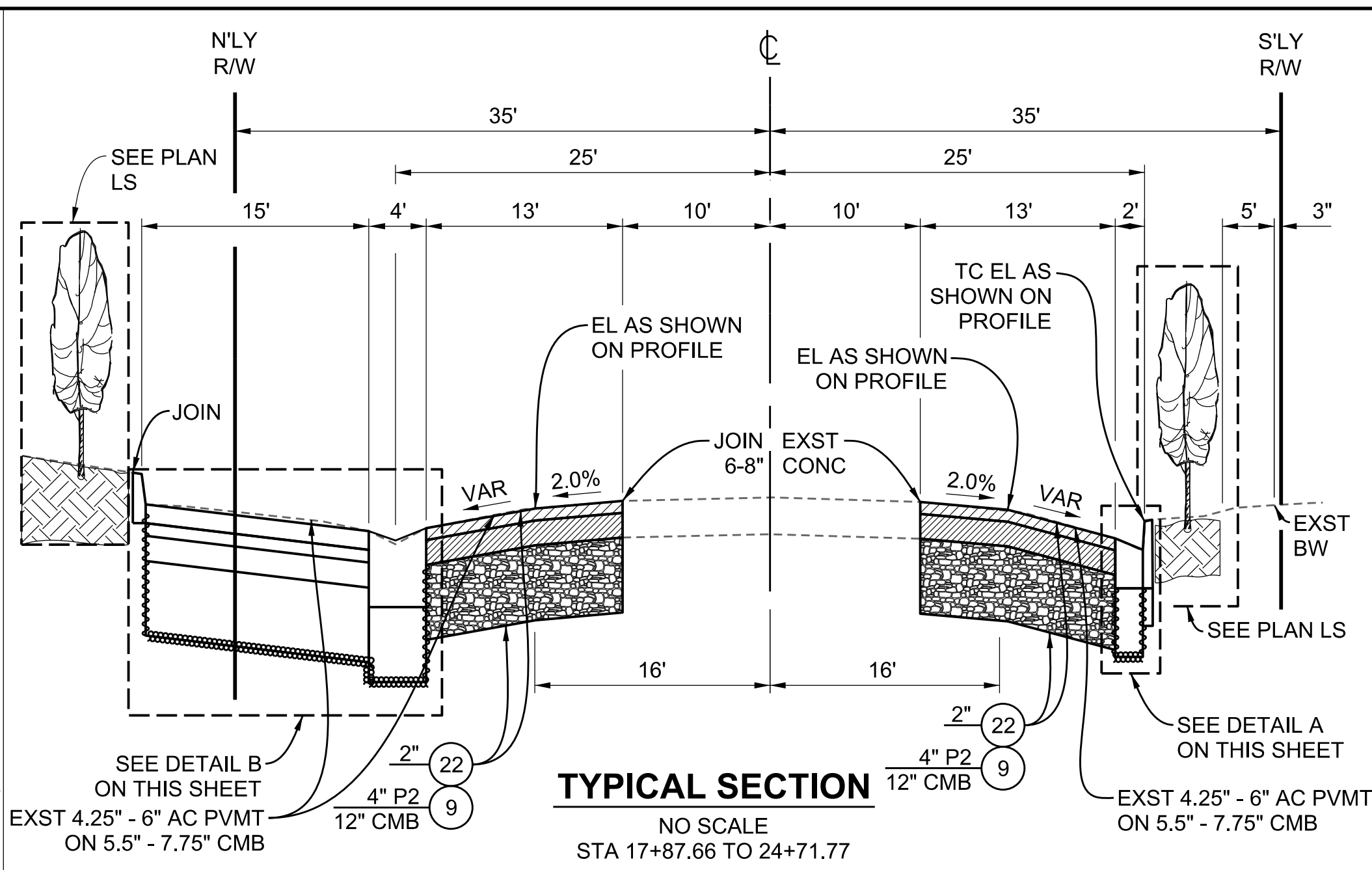
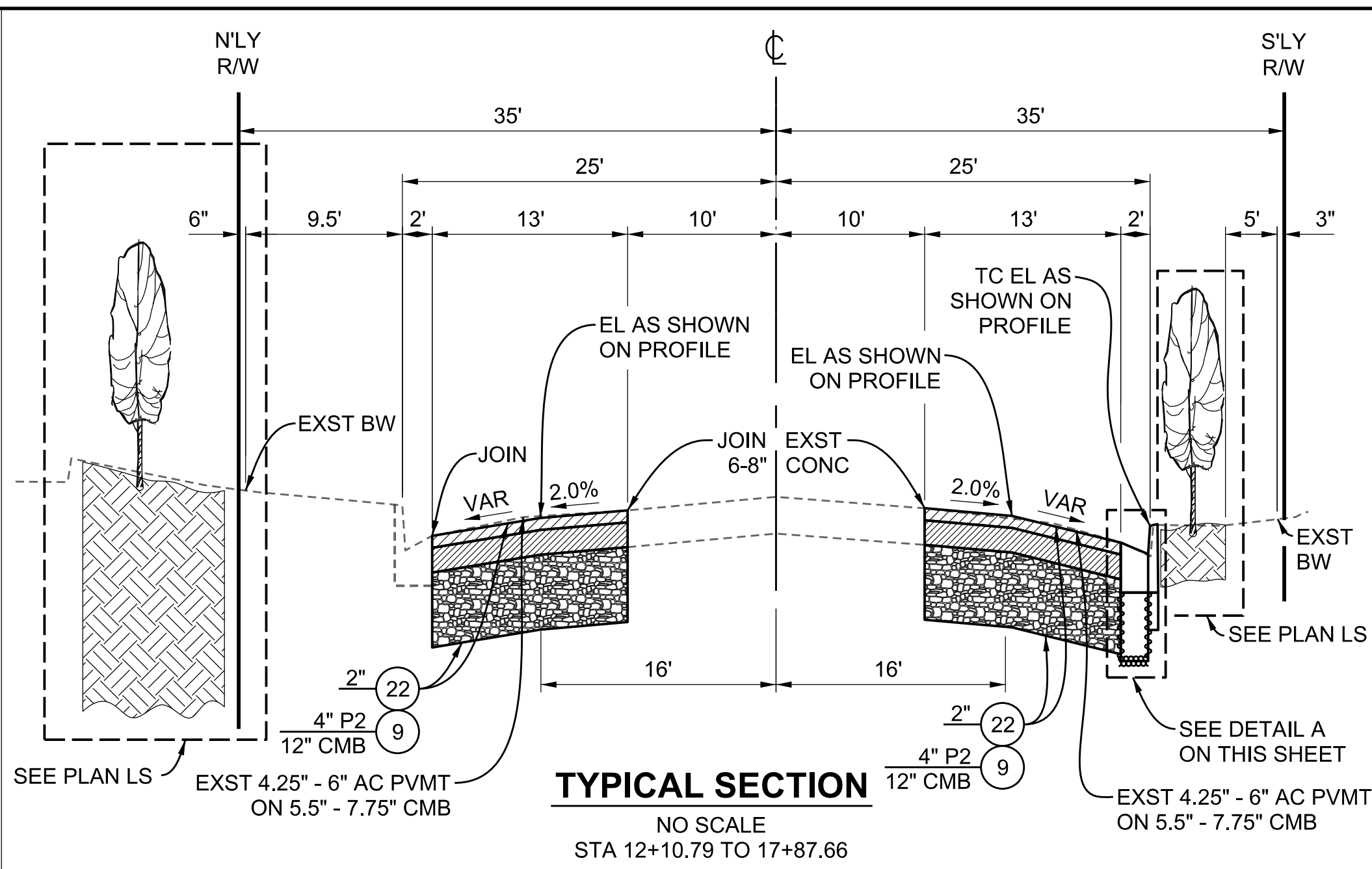
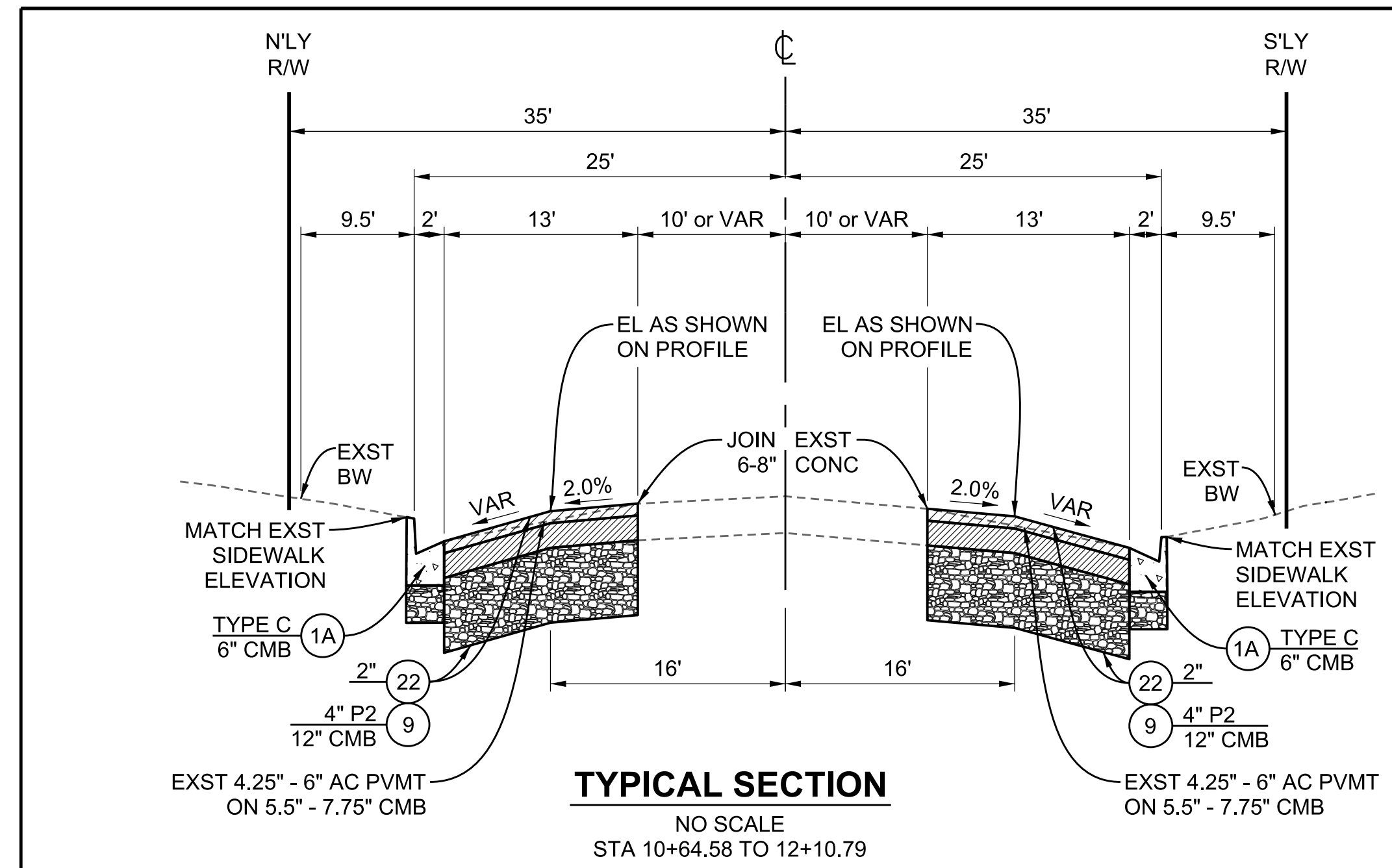
PLAN RD

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

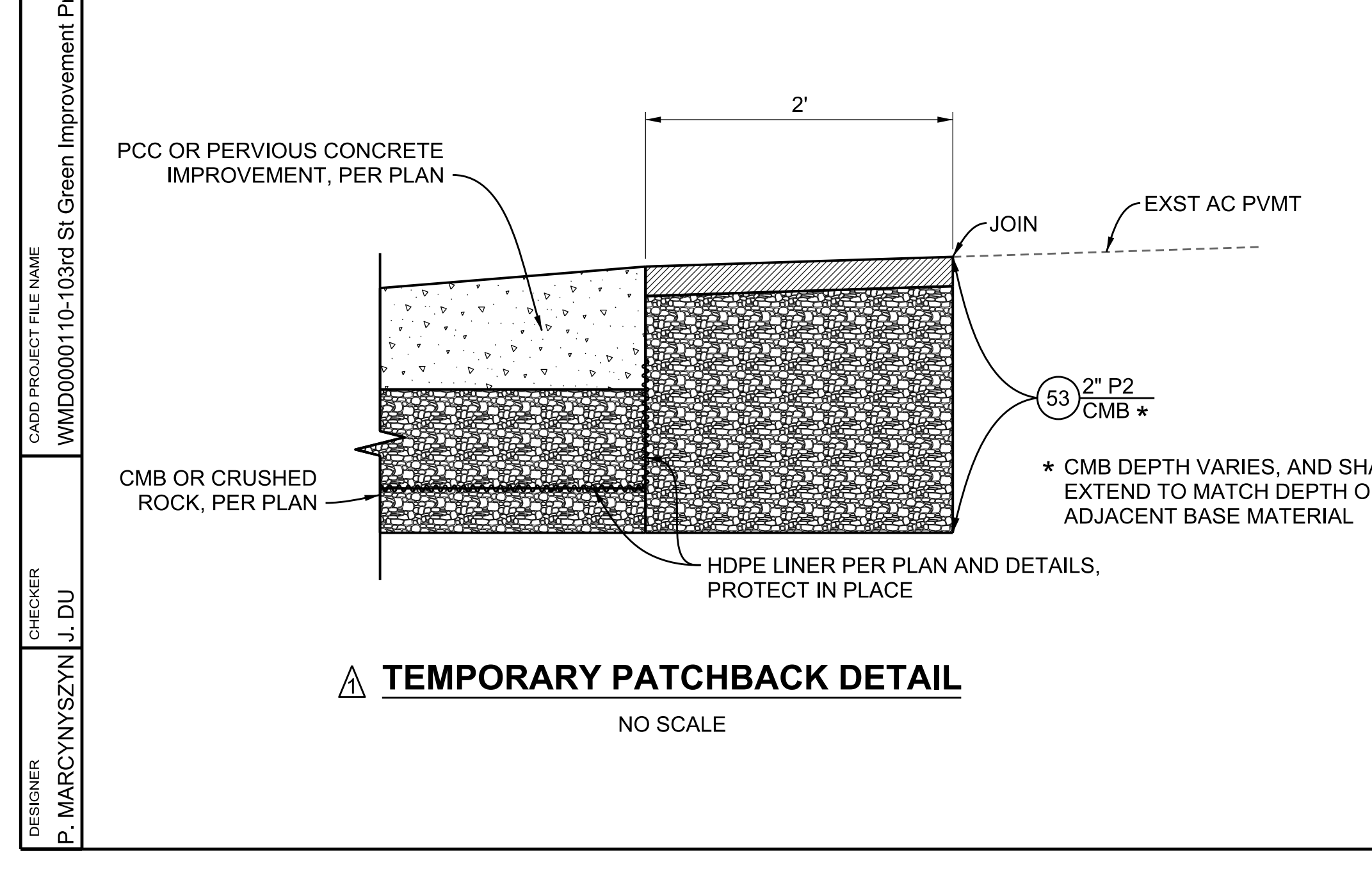
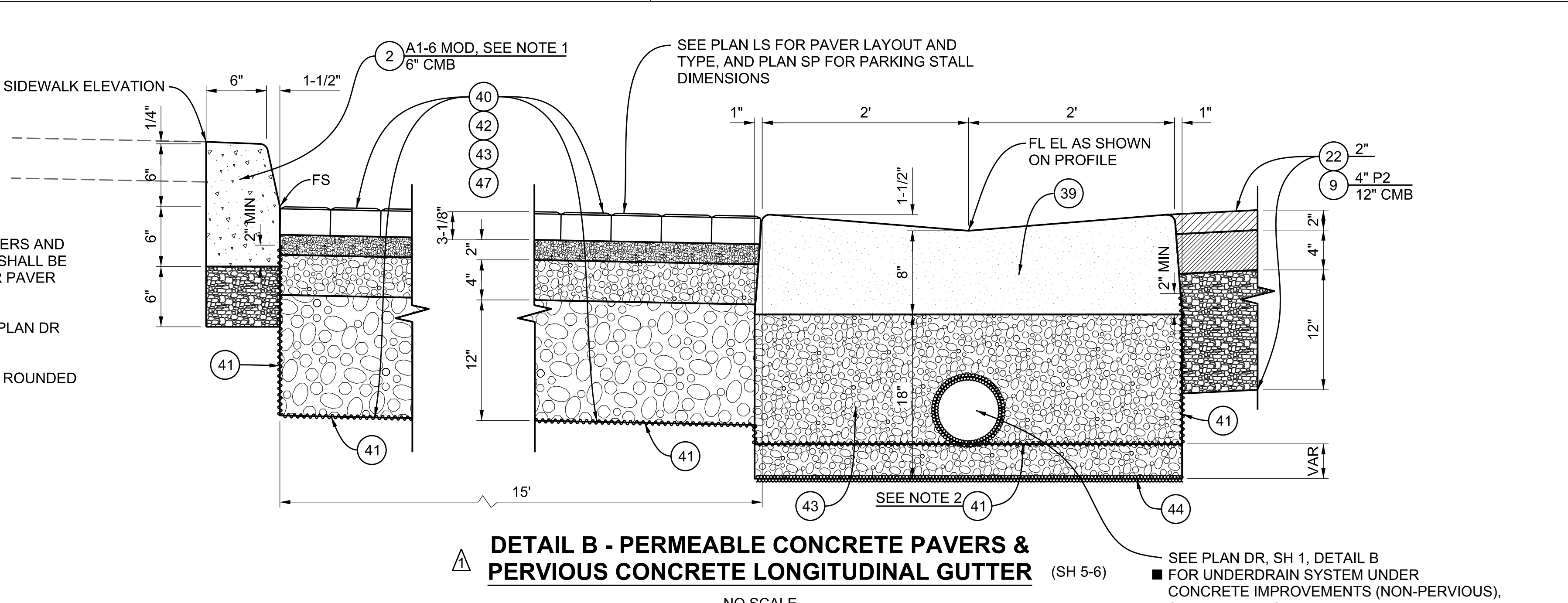
**103RD STREET
GREEN IMPROVEMENT PROJECT**

GENERAL NOTES AND INDEX TO STANDARD PLANS
PROJECT ID NO. WMD0000110

DWG: PH086375 SHEET 2 OF 8

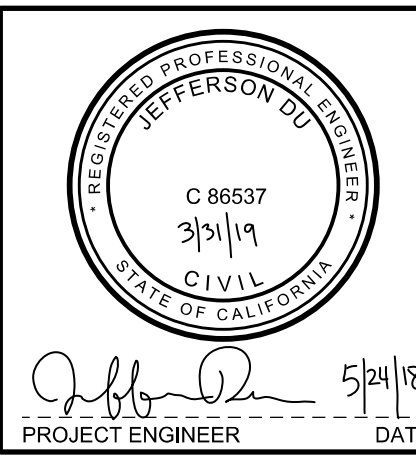


- NOTES:
1. CURB SECTION MODIFIED FOR USE WITH PERMEABLE PAVERS AND PERVIOUS CONCRETE SECTION WHERE THE 3:12 BATTER SHALL BE OMITTED BELOW FINISHED SURFACE GRADE FOR PROPER PAVER PLACEMENT.
 2. PLACE HDPE LINER AT INVERT ELEVATION AS SHOWN ON PLAN DR PROFILE.
 3. ALL EXPOSED CORNERS ON CURB AND GUTTER SHALL BE ROUNDED WITH 1/2\" R.



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 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

DRAWING NUMBER:			
(MARK AS-BUILT HERE)	7/14/21	AS BUILT REVISIONS	
	5/22/19	DETAIL MODIFICATIONS	
	DATE	MK	DESCRIPTION
			REVISIONS

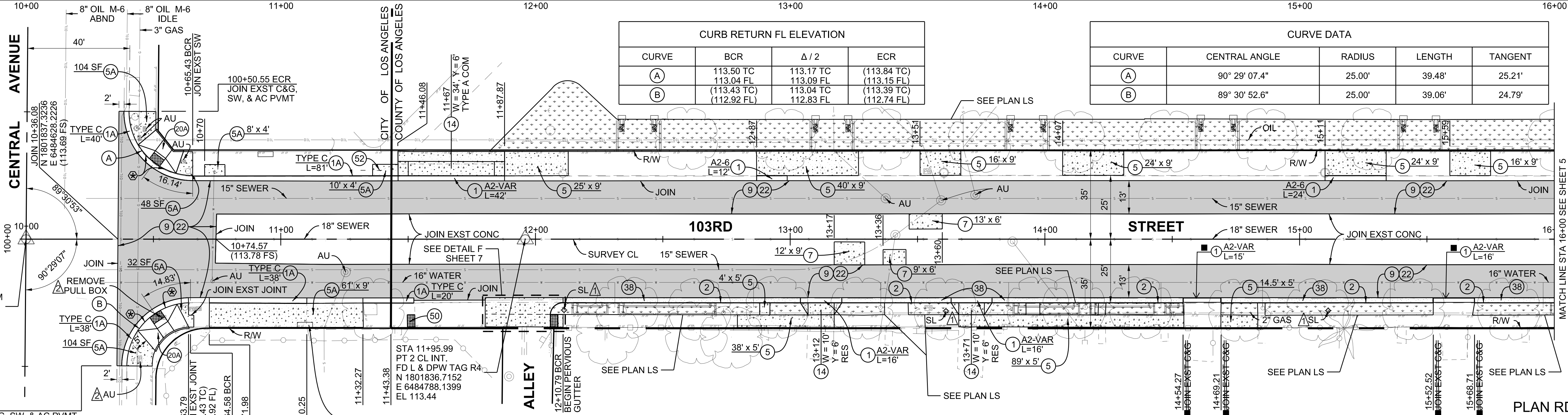
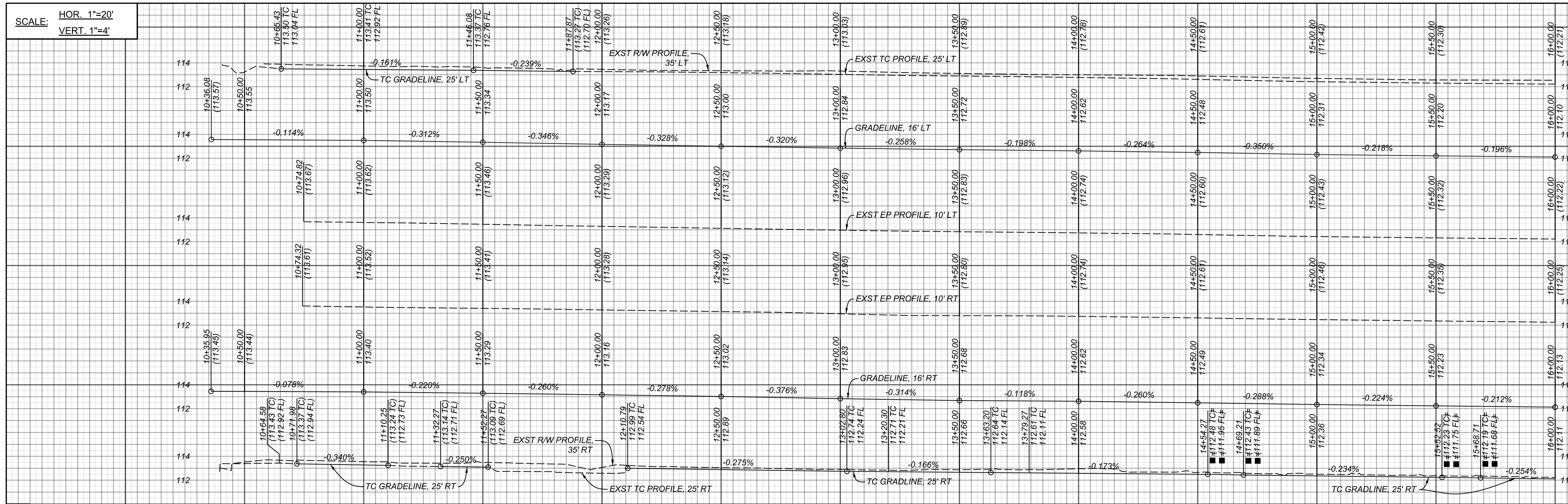


PLAN RD

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
103RD STREET GREEN IMPROVEMENT PROJECT
 TYPICAL SECTIONS AND DETAILS
 PROJECT ID NO. WMD0000110

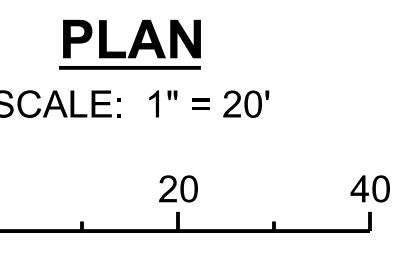
PROJECT ENGINEER: [Signature] DATE: 5/24/18
 DWG: PH086375 SHEET 3 OF 8

SCALE: HOR. 1"=20'
VERT. 1"=4'



CURVE	BCR	Δ / 2	ECR
(A)	113.50 TC 113.04 FL	113.17 TC 113.09 FL	(113.84 TC) (113.15 FL)
(B)	(113.43 TC) (112.92 FL)	113.04 TC 112.83 FL	(113.39 TC) (112.74 FL)

CURVE	CENTRAL ANGLE	RADIUS	LENGTH	TANGENT
(A)	90° 29' 07.4"	25.00'	39.48'	25.21'
(B)	89° 30' 52.6"	25.00'	39.06'	24.79'

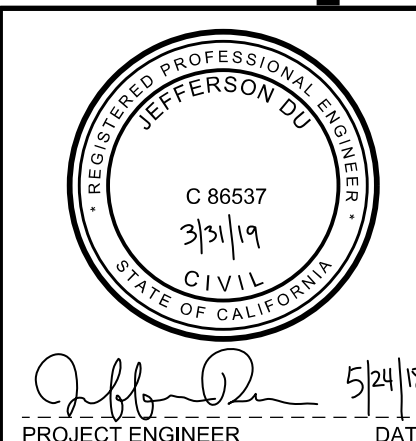


BENCH MARK
 BM 18-01511 PWFB 0921 PAGE 4592
 EL 113.833 NAVD 1988 (2000 ADJ L.A. CITY)
 WIRE SPK IN E CURB CENTRAL AVE, 5 FT N/O
 BC CURB RET N/O 103RD ST, 1 FT S/O CB.

SEE PLAN LS FOR CONCRETE CURB INLET
 STRUCTURE LOCATIONS AND DETAILS

NOTES
 ⊗ - THE LENGTH OF THE FLARE IS 7 FEET.
 ⚠ - STREET LIGHT POLE TO BE INSTALLED BY SOCIAL EDISON.

DRAWING NUMBER:		
7/14/21	AS BUILT REVISIONS	
12/26/18	PULL BOX CALLOUT REVISIONS	
12/10/18	ADDED NOTE SL.	
DATE	MK	DESCRIPTION
		REVISIONS



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

**103RD STREET
 GREEN IMPROVEMENT PROJECT**
 PLAN AND PROFILE STA 10+00 TO STA 16+00
 PROJECT ID NO. WMD0000110

PH086375 SHEET 4 OF 8

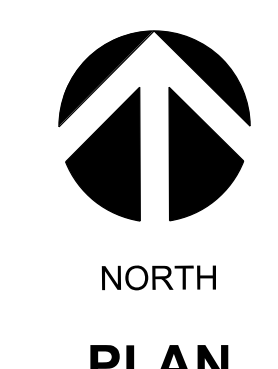
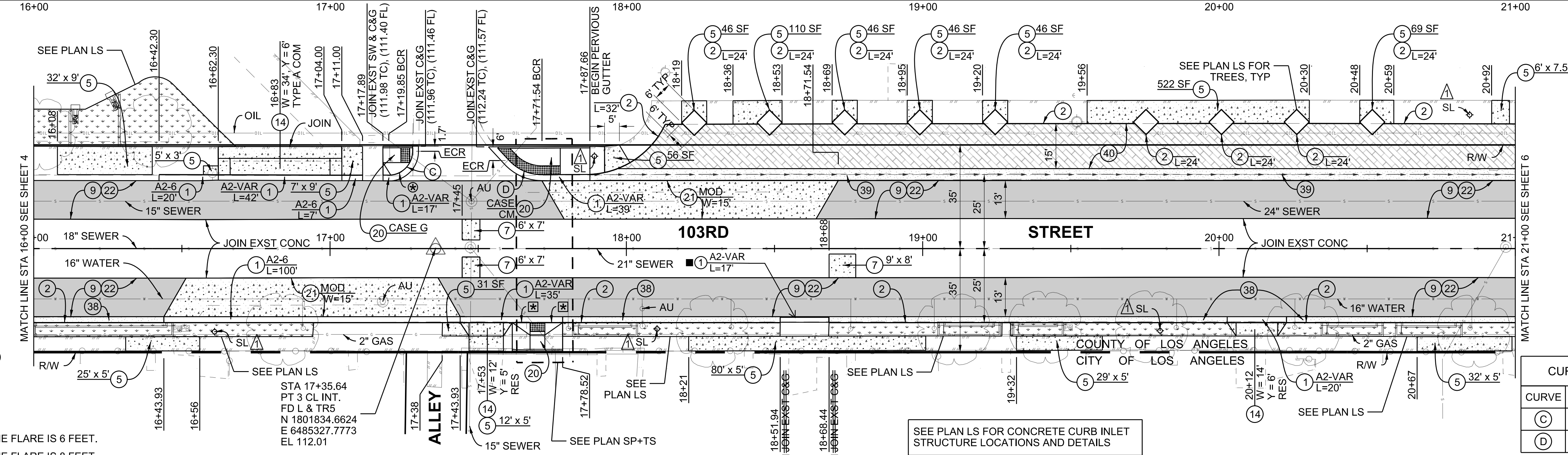
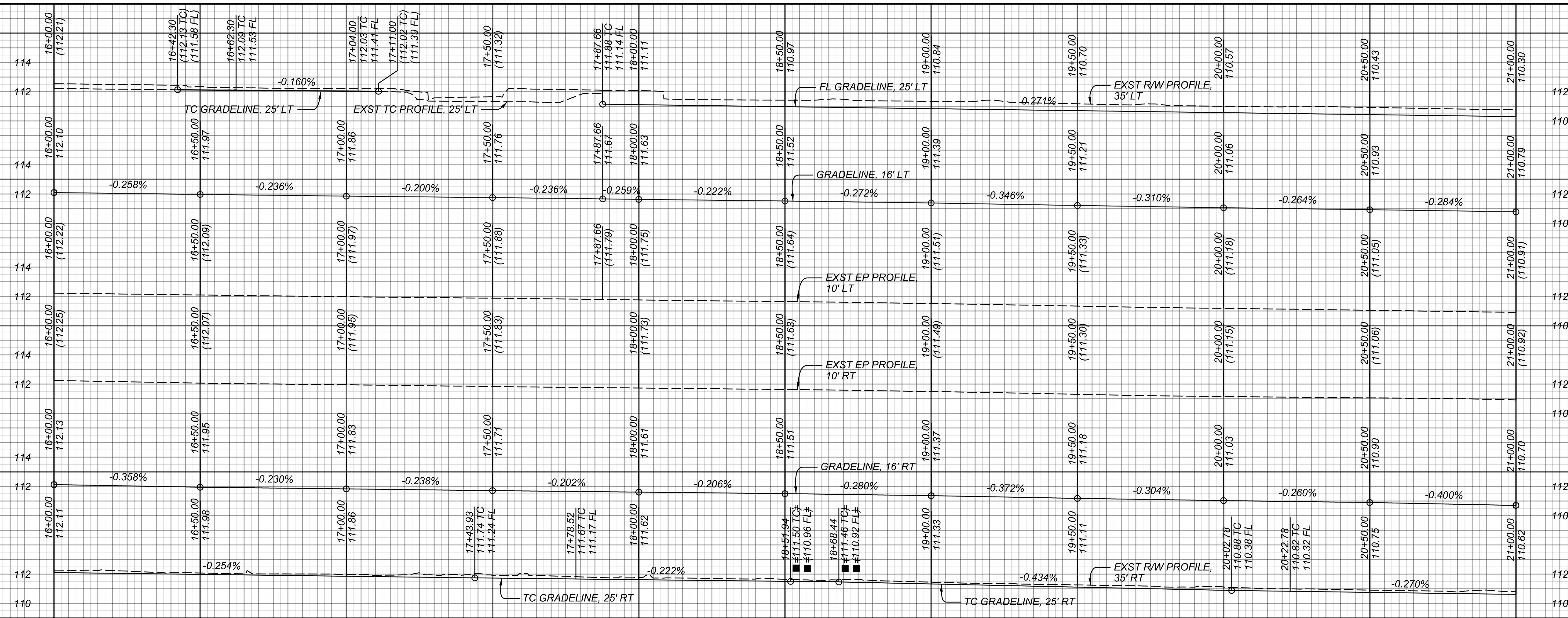
CADD PROJECT FILE NAME: WMD0000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

STA 10+00.00
 PT 1 CL INT.
 FD LA CITY SSM
 IN H.H. R2
 N 1801837.4607
 E 6484592.1472
 EL 113.04

STA 11+95.99
 PT 2 CL INT.
 FD L & DPW TAG R4
 N 1801836.7152
 E 6484788.1399
 EL 113.44

MATCH LINE STA 16+00 SEE SHEET 5

SCALE: HOR. 1"=20'
VERT. 1"=4'



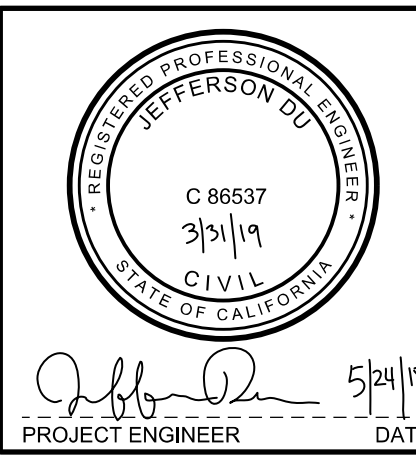
SCALE: 1" = 20'

- NOTES**
- ☒ - THE LENGTH OF THE FLARE IS 6 FEET.
 - ⊕ - THE LENGTH OF THE FLARE IS 8 FEET.
 - ▲ SL - STREET LIGHT POLE TO BE INSTALLED BY SOCIAL EDISON.

BENCH MARK
BM 18-01511 PWFB 0921 PAGE 4592
EL 113.833 NAVD 1988 (2000 ADJ L.A. CITY)
WIRE SPK IN E CURB CENTRAL AVE, 5 FT N/O
BC CURB RET N/O 103RD ST, 1 FT S/O CB.

CURVE DATA				
CURVE	CENTRAL ANGLE	RADIUS	LENGTH	TANGENT
(C)	90° 21' 23.1"	8.00'	12.62'	8.05'
(D)	47° 23' 21.8"	15.00'	12.41'	6.58'

DRAWING NUMBER:	
7/14/21	AS BUILT REVISIONS
12/10/18	ADDED NOTE SL.
DATE	DESCRIPTION
REVISIONS	



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
103RD STREET GREEN IMPROVEMENT PROJECT
PLAN AND PROFILE STA 16+00 TO STA 21+00
PROJECT ID NO. WMD0000110

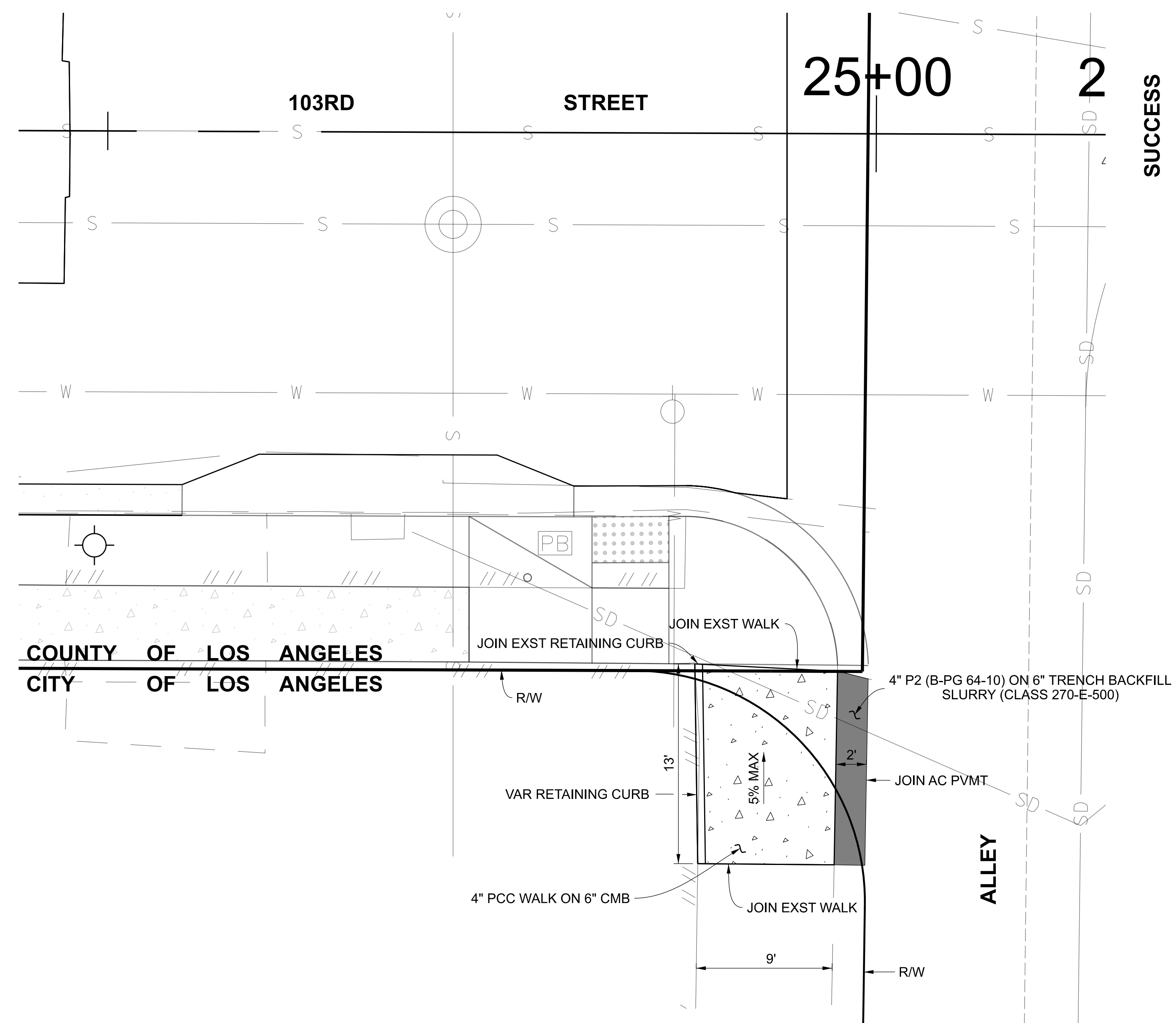
CURB RETURN FL ELEVATION			
CURVE	BCR	Δ/2	ECR
(C)	111.97 TC	111.59 TC	111.45 TC
	111.39 FL	111.42 FL	111.45 FL
(D)	111.25 TC	111.36 TC	111.47 TC
	111.25 FL	111.36 FL	111.47 FL

PLAN RD

CADD PROJECT FILE NAME: WMD0000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYJN

AVENUE

SUCCESS



COUNTY OF LOS ANGELES
CITY OF LOS ANGELES

■ RAMP TRANSITION DETAIL AT 103RD ST. / SUCCESS AVE.

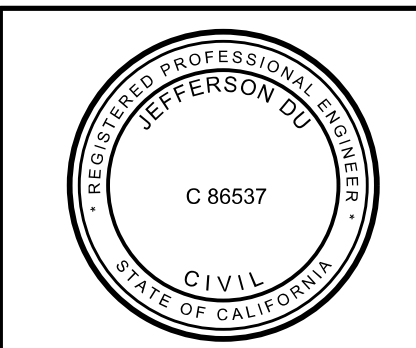
PLAN
SCALE: 1" = 5'
2.5 0 5 10



PLAN RD

DESIGNER: P. MARCYNYSZYŃ
CHECKER: J. DU
CADD PROJECT FILE NAME: WMD000110-103rd St Green Improvement Project Design Final.dgn

DRAWING NUMBER:			
(MARK AS-BUILT HERE)			
DATE	MK	DESCRIPTION	
7/14/21	■	AS BUILT REVISIONS	
REVISIONS			



PROJECT ENGINEER: *Jeffery D. ...* DATE: 7/14/21

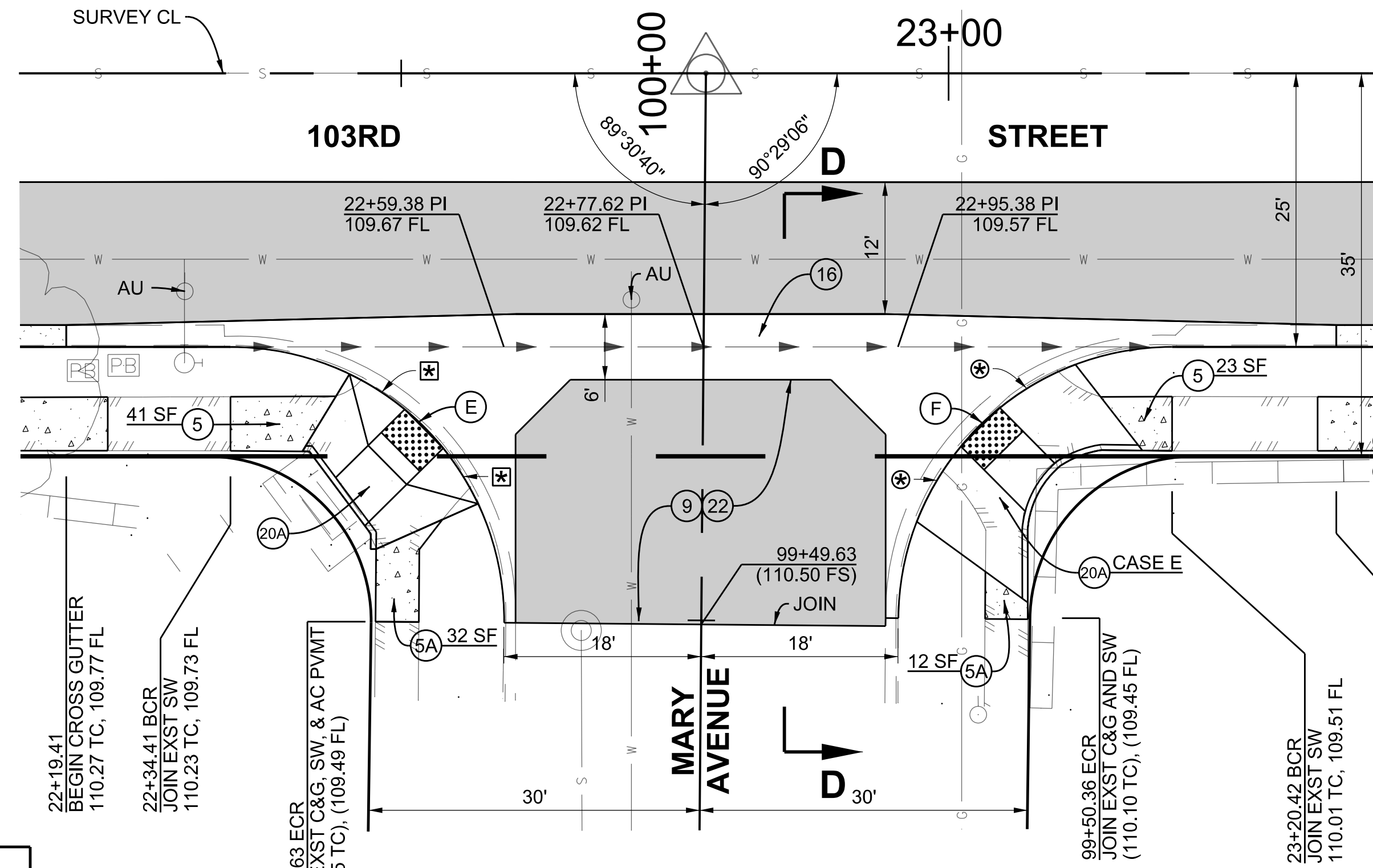
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

**103RD STREET
GREEN IMPROVEMENT PROJECT**
RAMP TRANSITION AT 103RD ST. / SUCCESS AVE.
PROJECT ID NO. WMD000110

DWG: PH086375 SHEET 6.1 OF 8

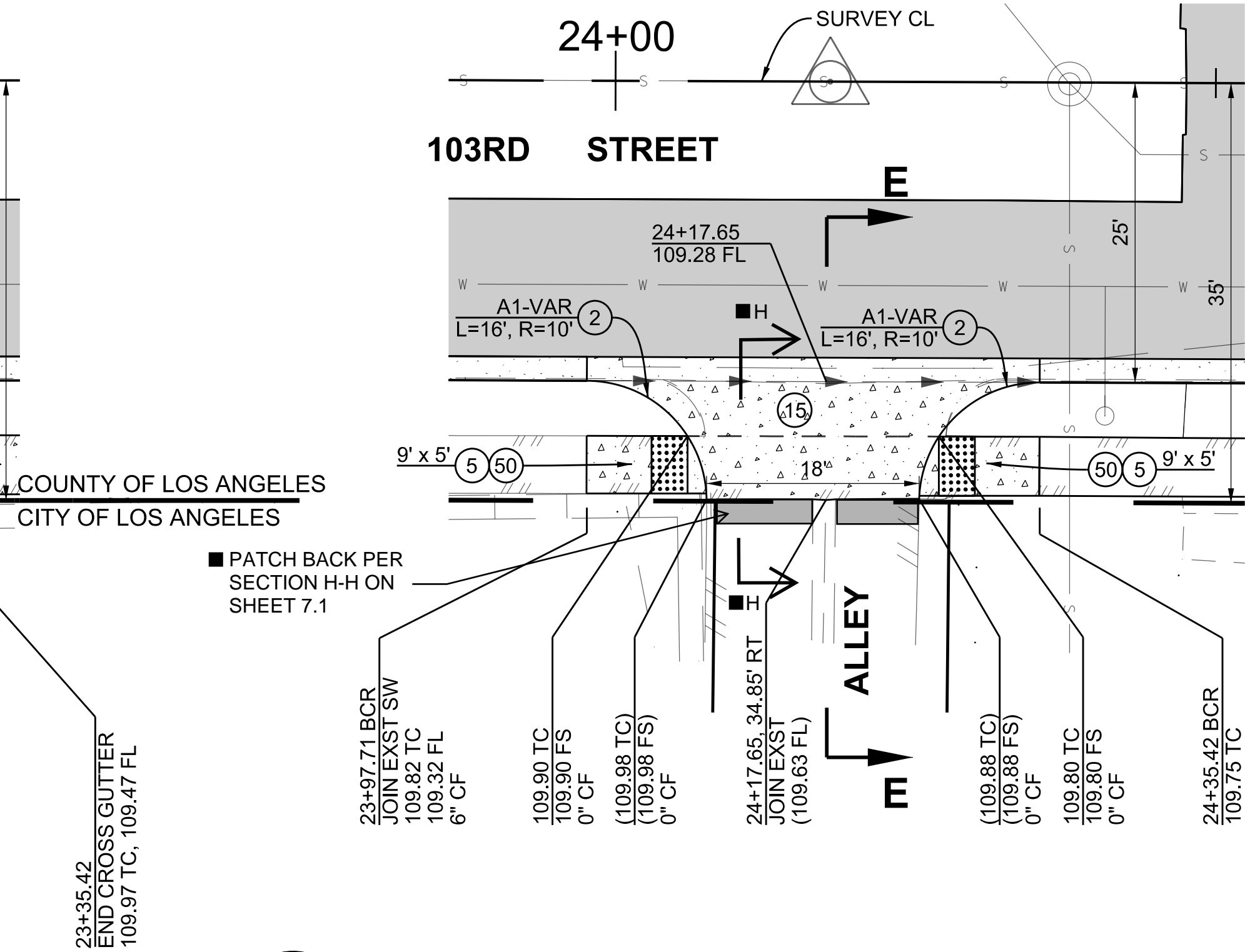
BENCH MARK
 BM 18-02487 PWFB 0921 PAGE 4594
 EL 110.023 NAVD 1988 (2000 ADJ L.A. CITY)
 WIRE SPK IN W CURB SUCCESS AVE, 5.7 FT
 N/O BCR N/O 103RD ST. S END CB.

NOTES
 ☒ - THE LENGTH OF THE FLARE IS 6 FEET.
 ⊗ - THE LENGTH OF THE FLARE IS 8 FEET.



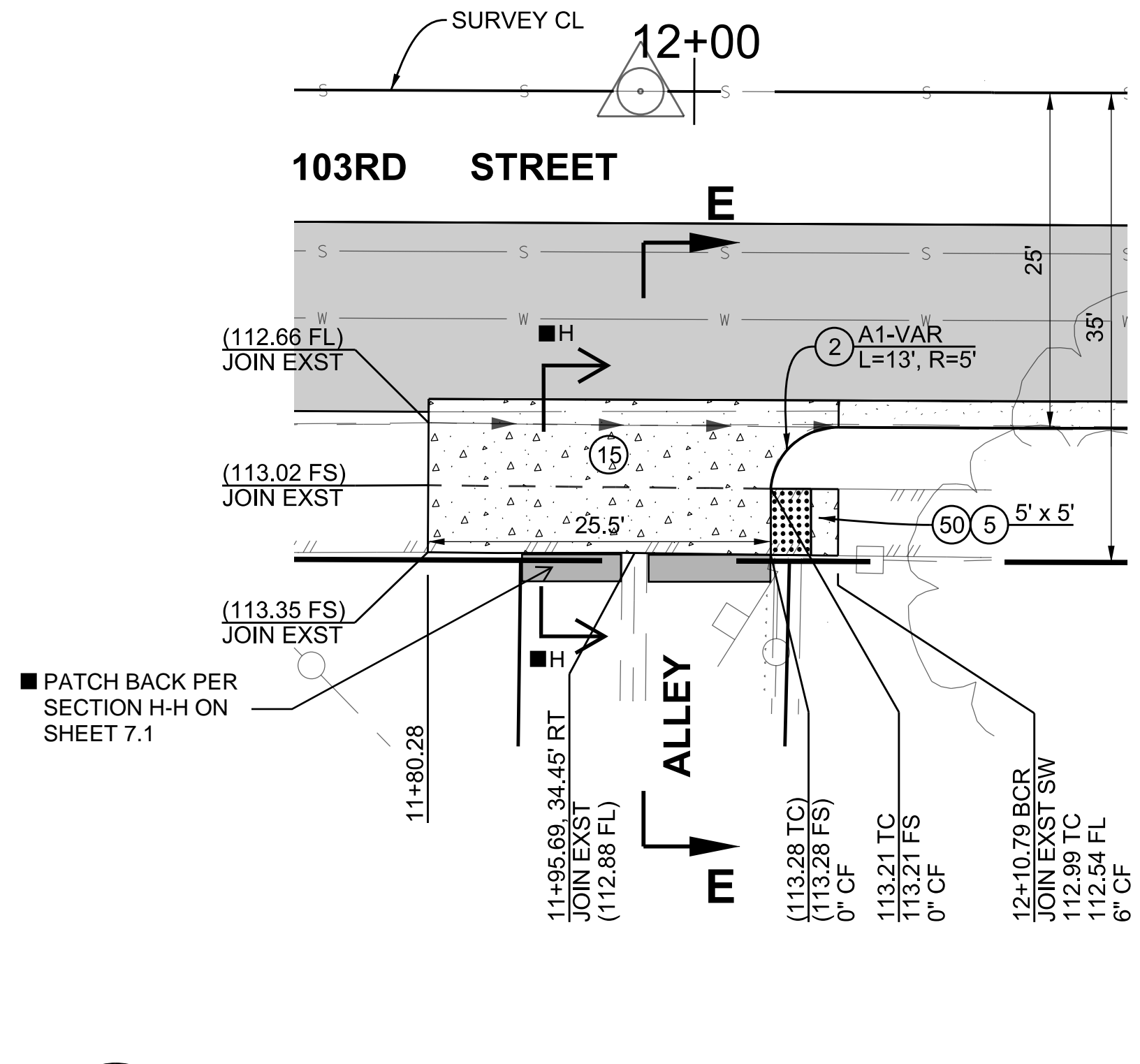
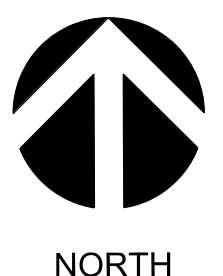
DETAIL D - CROSS GUTTER DETAIL
103RD STREET AT MARY AVENUE (SH 6)

SCALE 1" = 10'
 5 0 10 20



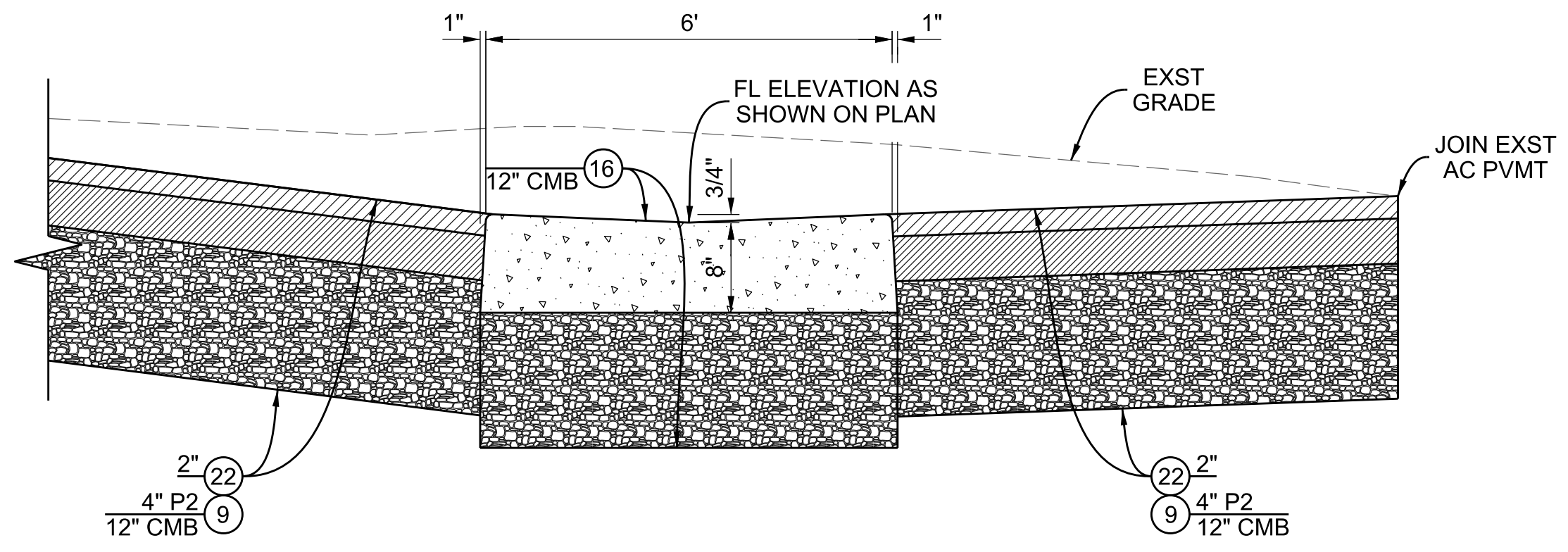
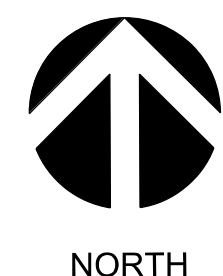
DETAIL E - ALLEY INTERSECTION DETAIL
103RD STREET AT ALLEY E/O MARY AVENUE (SH 6)

SCALE 1" = 10'
 5 0 10 20



DETAIL F - ALLEY INTERSECTION DETAIL
103RD STREET AT ALLEY E/O CENTRAL AVENUE (SH 4)

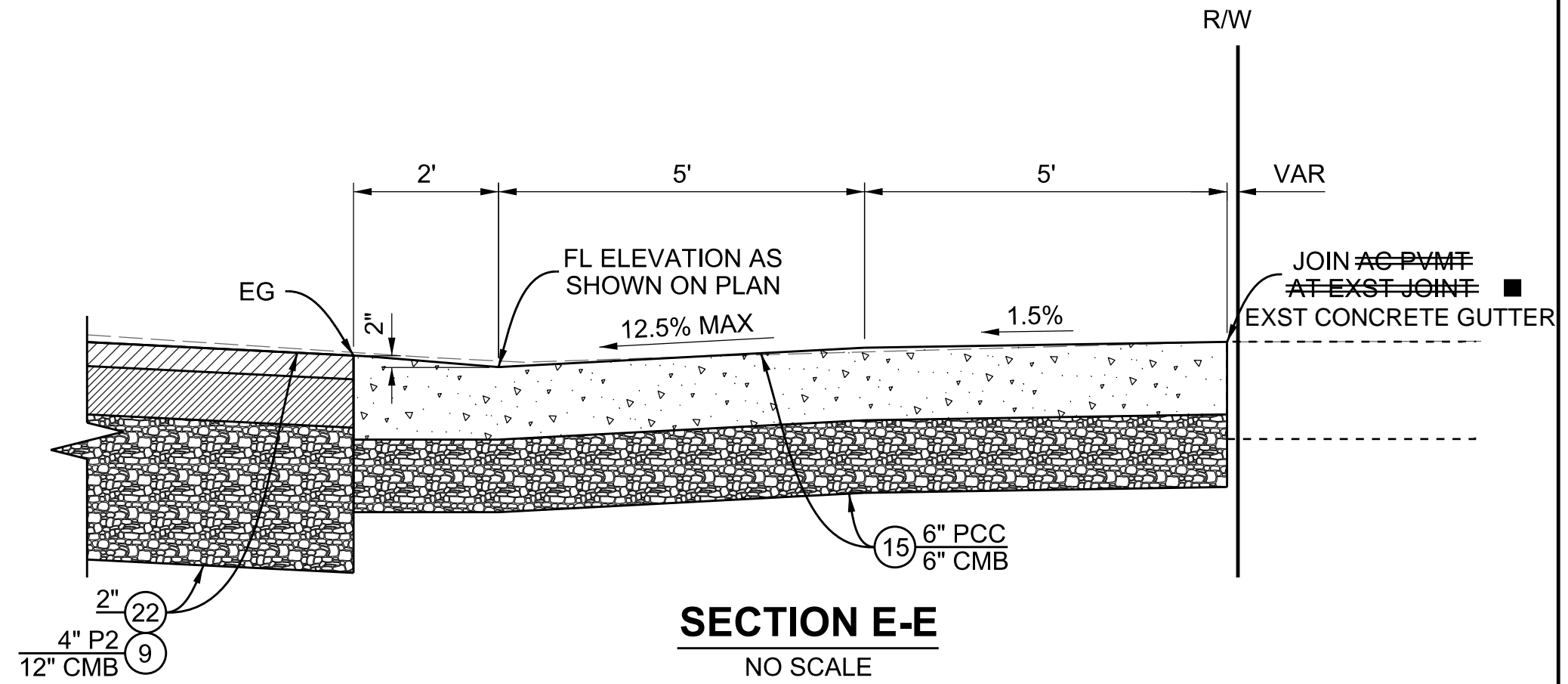
SCALE 1" = 10'
 5 0 10 20



SECTION D-D
 NO SCALE

CURVE DATA				
CURVE	CENTRAL ANGLE	RADIUS	LENGTH	TANGENT
(E)	90° 29' 20.4"	25.00'	39.48'	25.21'
(F)	89° 30' 54.3"	25.00'	39.06'	24.79'

CURB RETURN FL ELEVATION					
CURVE	BCR	Δ / 4	Δ / 2	3Δ / 4	ECR
(E)	110.23 TC 109.73 FL	110.26 TC 109.76 FL	109.78 TC 109.78 FL	110.17 TC 109.65 FL	(110.15 TC) (109.49 FL)
(F)	110.01 TC 109.51 FL	110.10 TC 109.60 FL	109.67 TC 109.67 FL	110.09 TC 109.58 FL	(110.10 TC) (109.45 FL)



SECTION E-E
 NO SCALE

PLAN RD

CADD PROJECT FILE NAME: WMD0000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: P. MARCYNYSZYN J. DU
 DESIGNER: P. MARCYNYSZYN

DRAWING NUMBER:	
(MARK AS-BUILT HERE)	
DATE	7/14/21
REVISIONS	AS BUILT REVISIONS



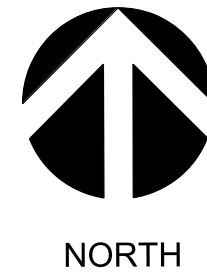
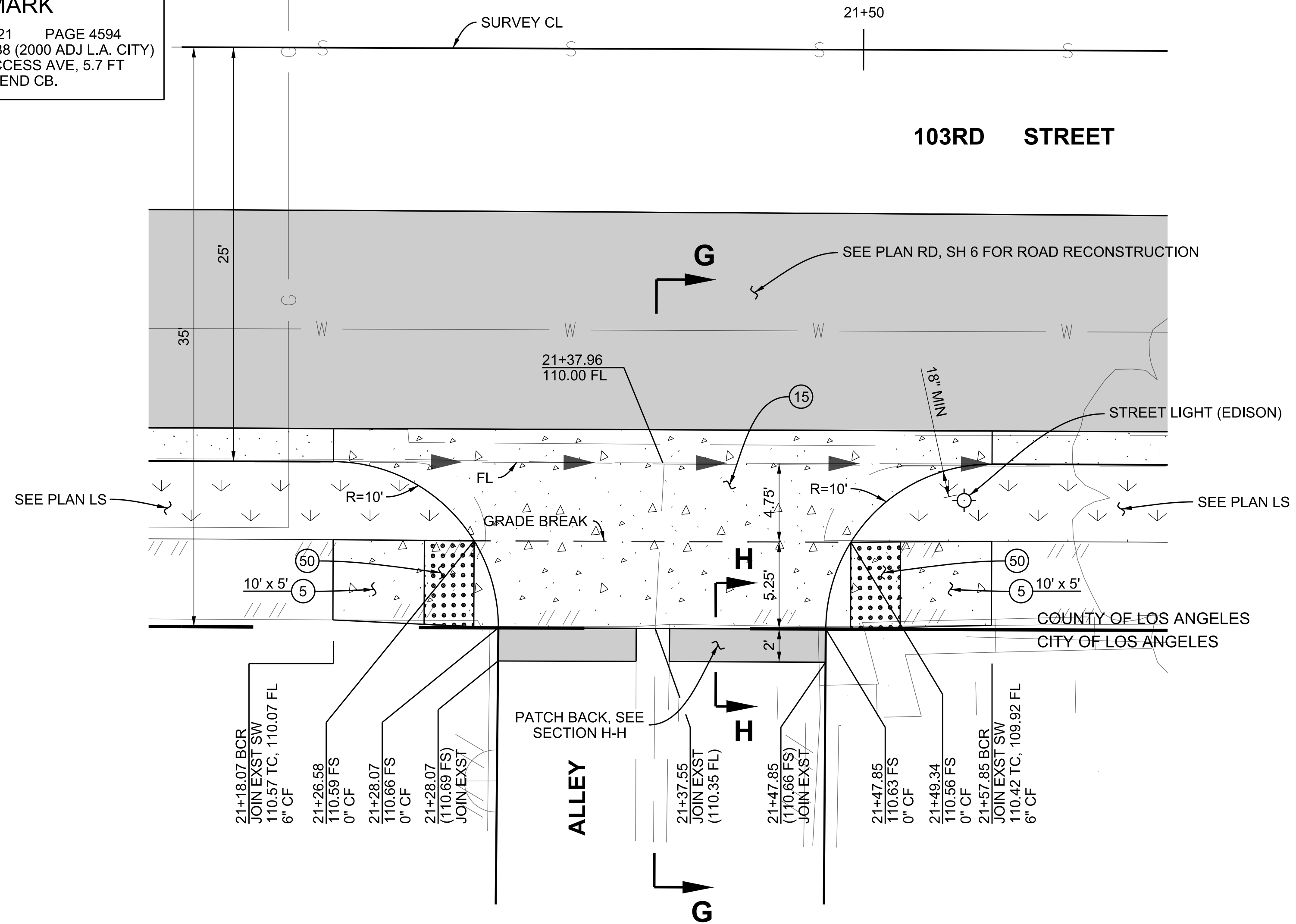
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103RD STREET GREEN IMPROVEMENT PROJECT
 ALLEY / CROSS GUTTER DETAILS
 PROJECT ID NO. WMD0000110

PH086375 SHEET 7 OF 8

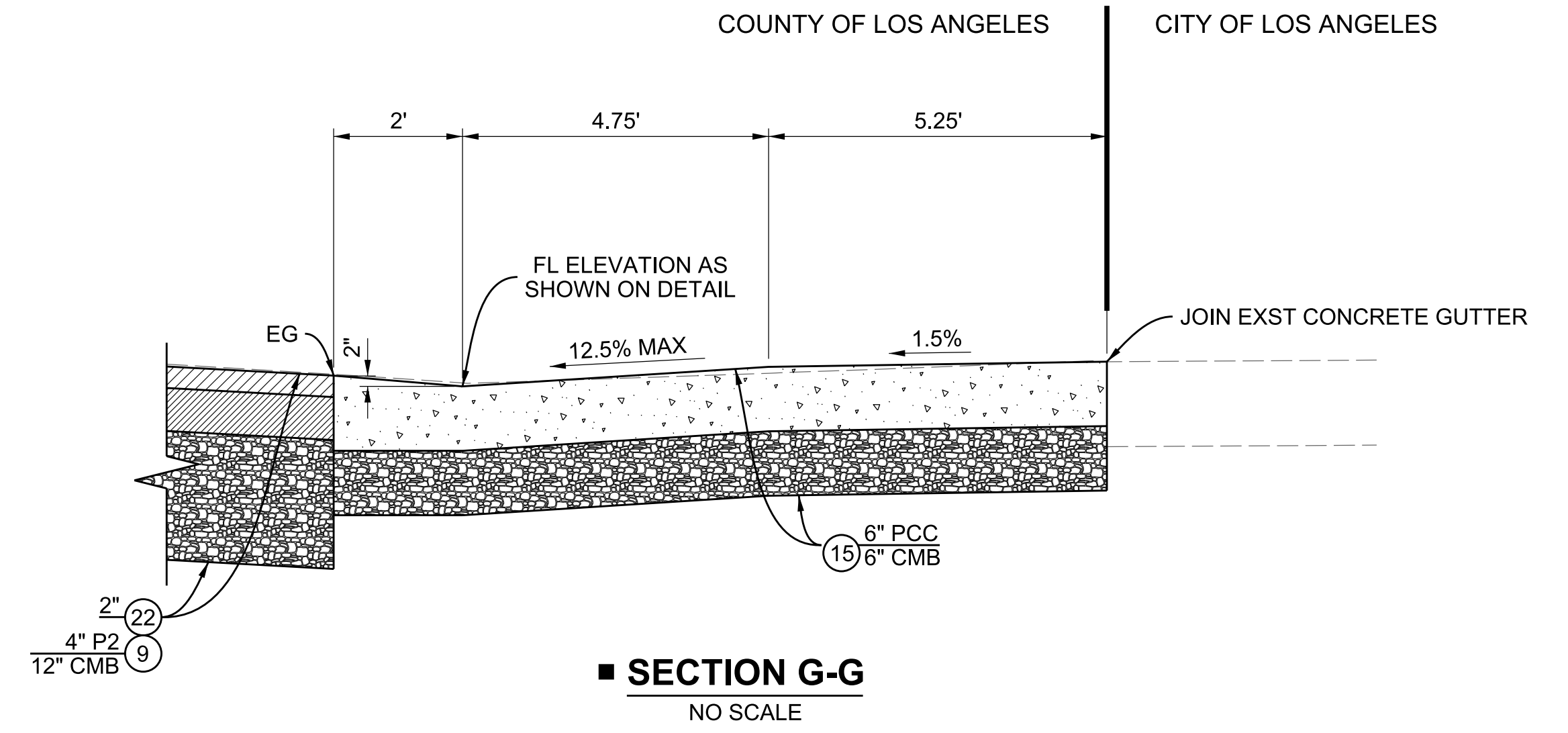
BENCH MARK

BM 18-02487 PWFB 0921 PAGE 4594
 EL 110.023 NAVD 1988 (2000 ADJ L.A. CITY)
 WIRE SPK IN W CURB SUCCESS AVE, 5.7 FT
 N/O BCR N/O 103RD ST. S END CB.

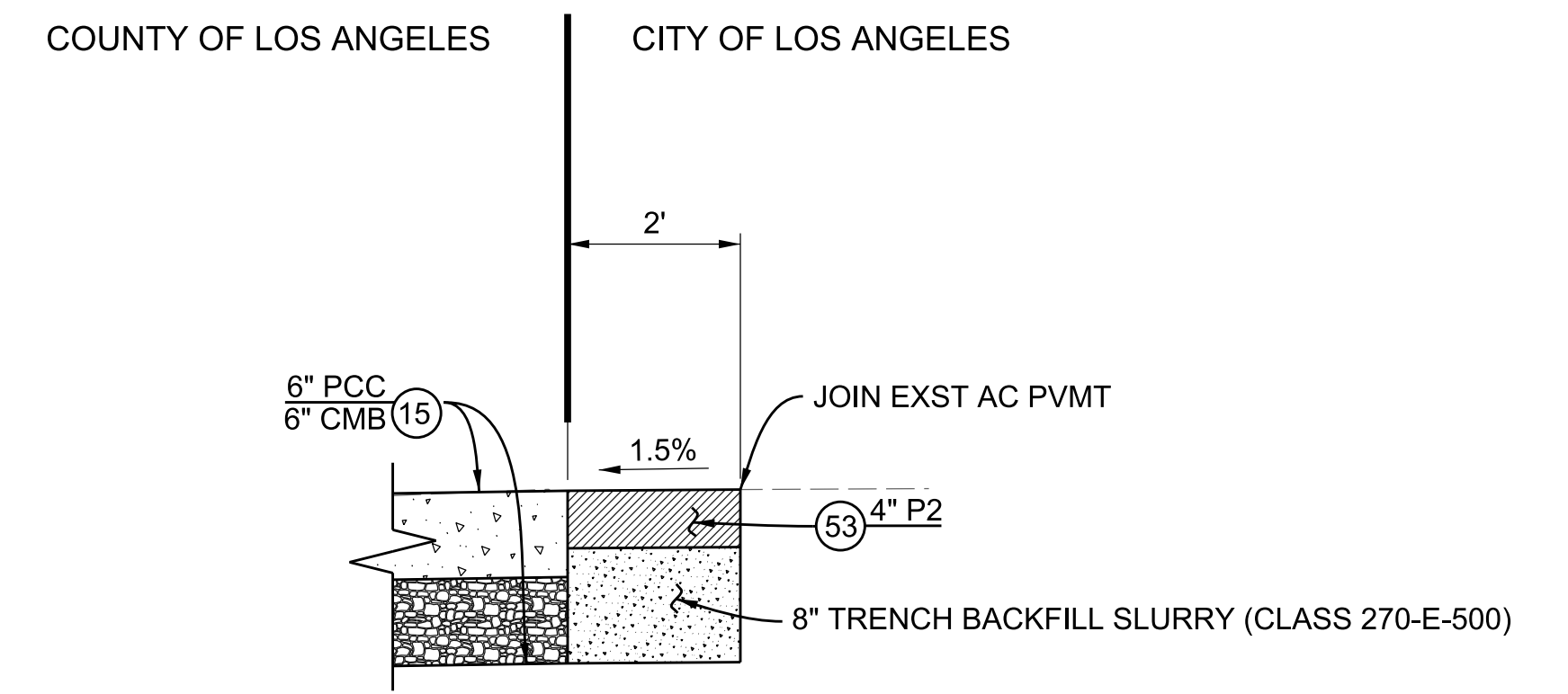


**DETAIL G - ALLEY INTERSECTION DETAIL
 103RD STREET AT ALLEY W/O MARY AVENUE (SH 6)**

SCALE 1" = 5'



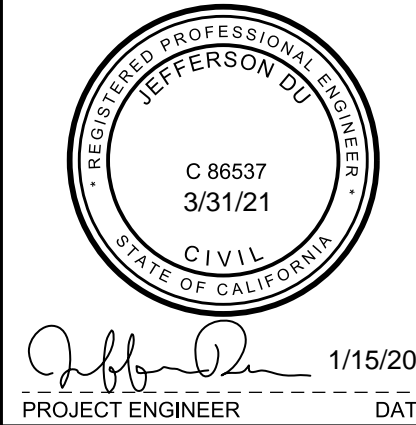
**SECTION G-G
 NO SCALE**



**SECTION H-H
 NO SCALE**

CADD PROJECT FILE NAME: WMD000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

DRAWING NUMBER:			
(MARK AS-BUILT HERE)			
DATE	MK	DESCRIPTION	
7/14/21	■	AS BUILT REVISIONS	



PLAN RD

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

**103RD STREET
 GREEN IMPROVEMENT PROJECT
 DETAILS**

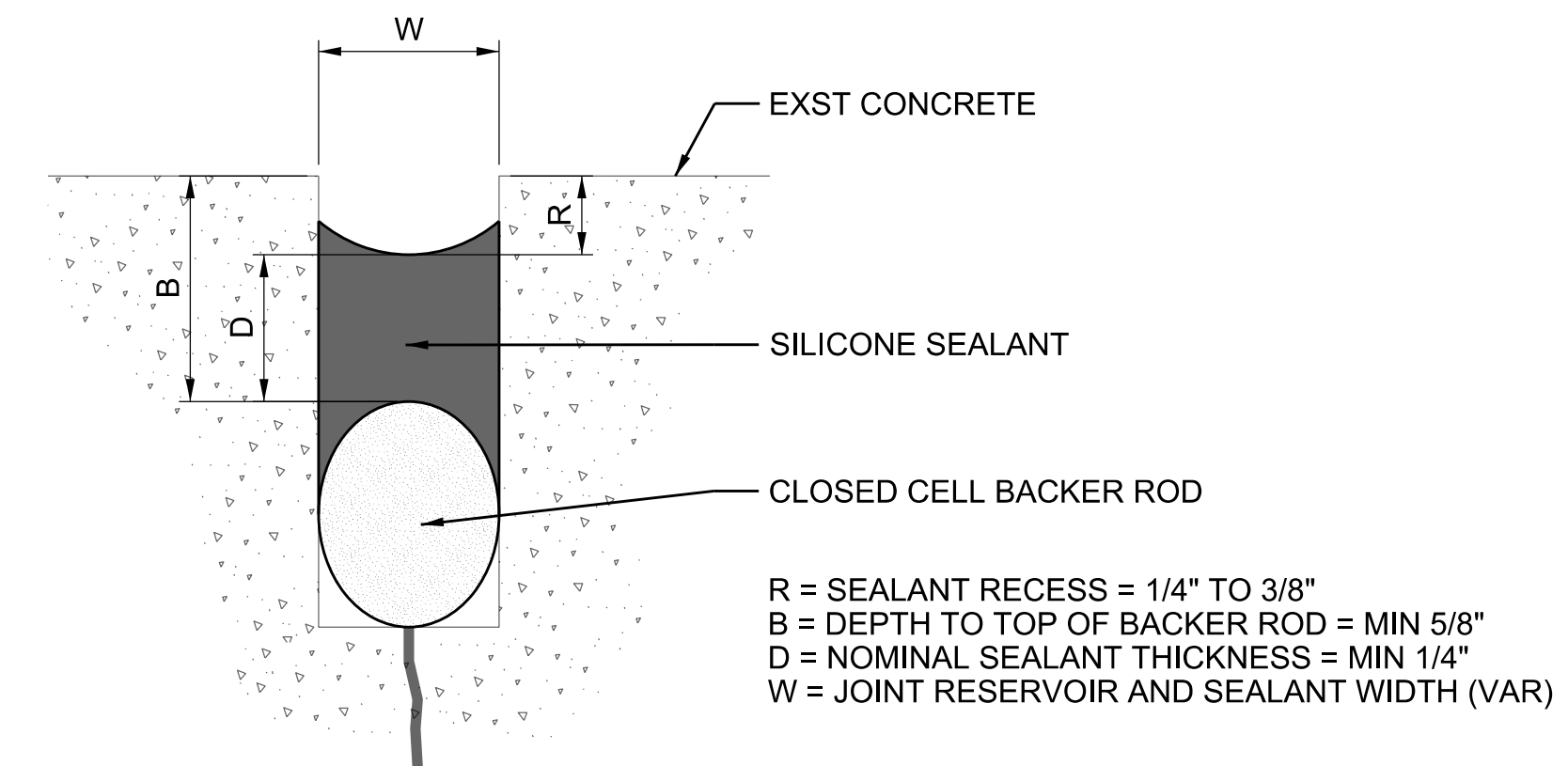
PROJECT ID NO. WMD000110

DWG PH086375 SHEET 7.1 OF 8

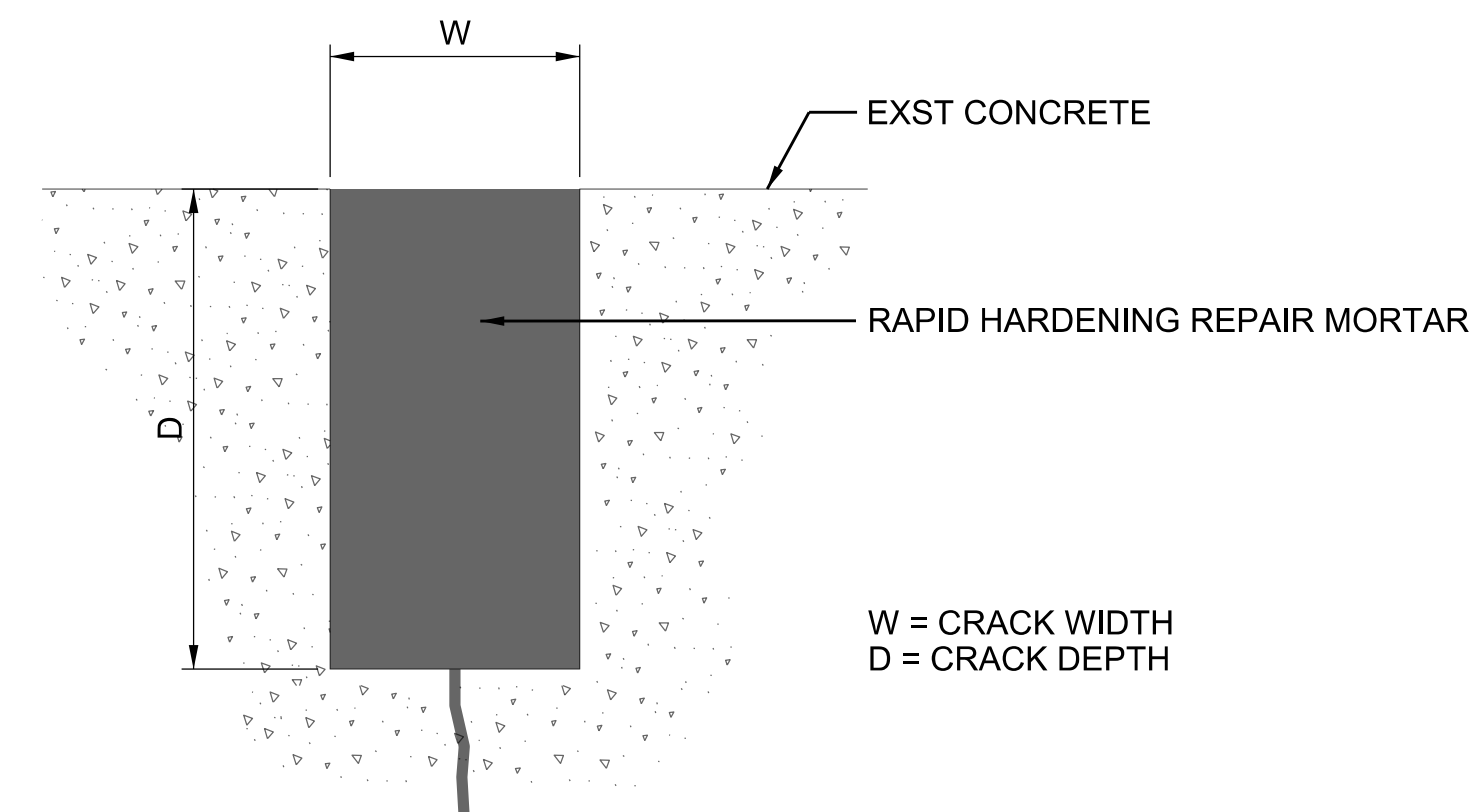
NOTES

1. THE DETAILS AND TABLE HEREON ONLY APPLY TO THE 20 FOOT WIDE CONCRETE SECTION IN THE CENTER OF 103RD STREET FROM CENTRAL AVENUE TO SUCCESS AVENUE.
2. EXACT LOCATIONS OF CRACK AND JOINT SEALING, AND CRACK FILLING WILL BE MARKED BY THE FIELD ENGINEER PRIOR TO COMMENCEMENT OF THE WORK.

CONCRETE CRACK AND JOINT SEALING TABLE			
BEGIN STA	END STA	CRACK AND JOINT SEALING (LF)	CRACK FILLING (SF)
10+74	11+43	60	15
11+43	12+11	66	17
12+11	11+00	63	16
11+00	15+10	129	33
15+10	16+60	60	15
16+60	21+27	87	22
21+27	22+60	30	8
22+60	24+48	78	20



CRACK AND JOINT SEALING DETAIL
NO SCALE

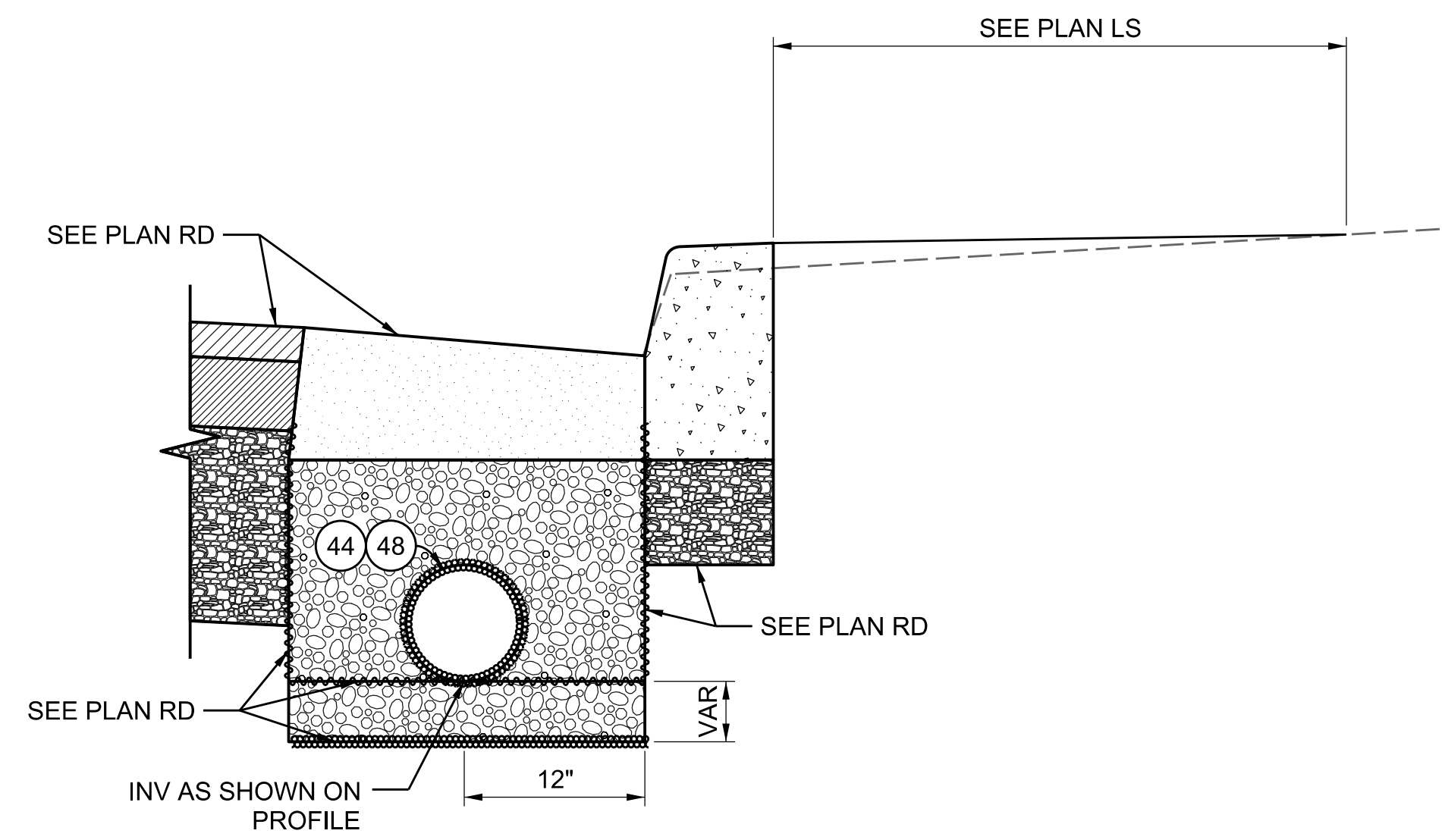


CRACK FILLING DETAIL
NO SCALE

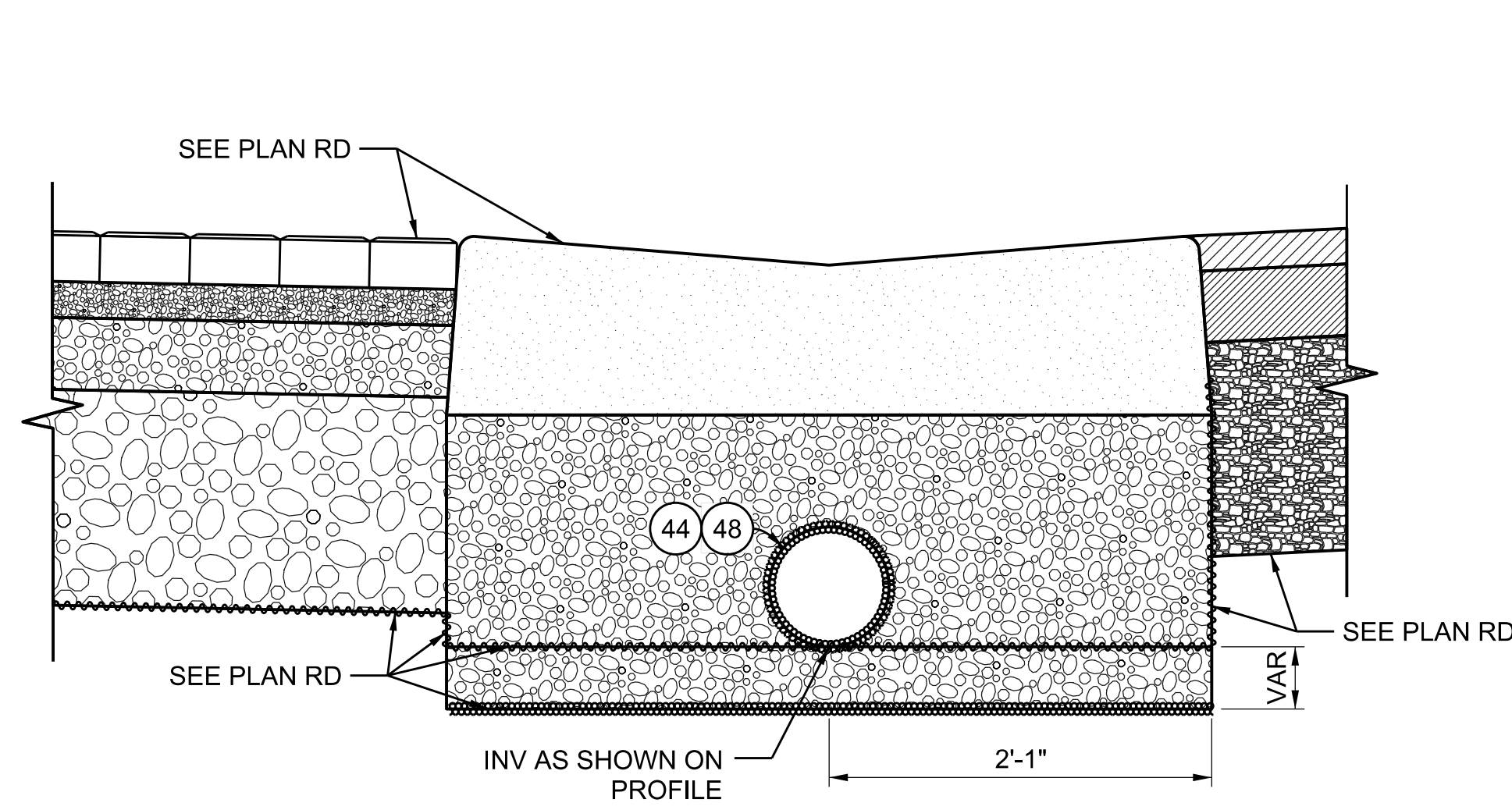
CADD PROJECT FILE NAME: WMD000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

PLAN RD

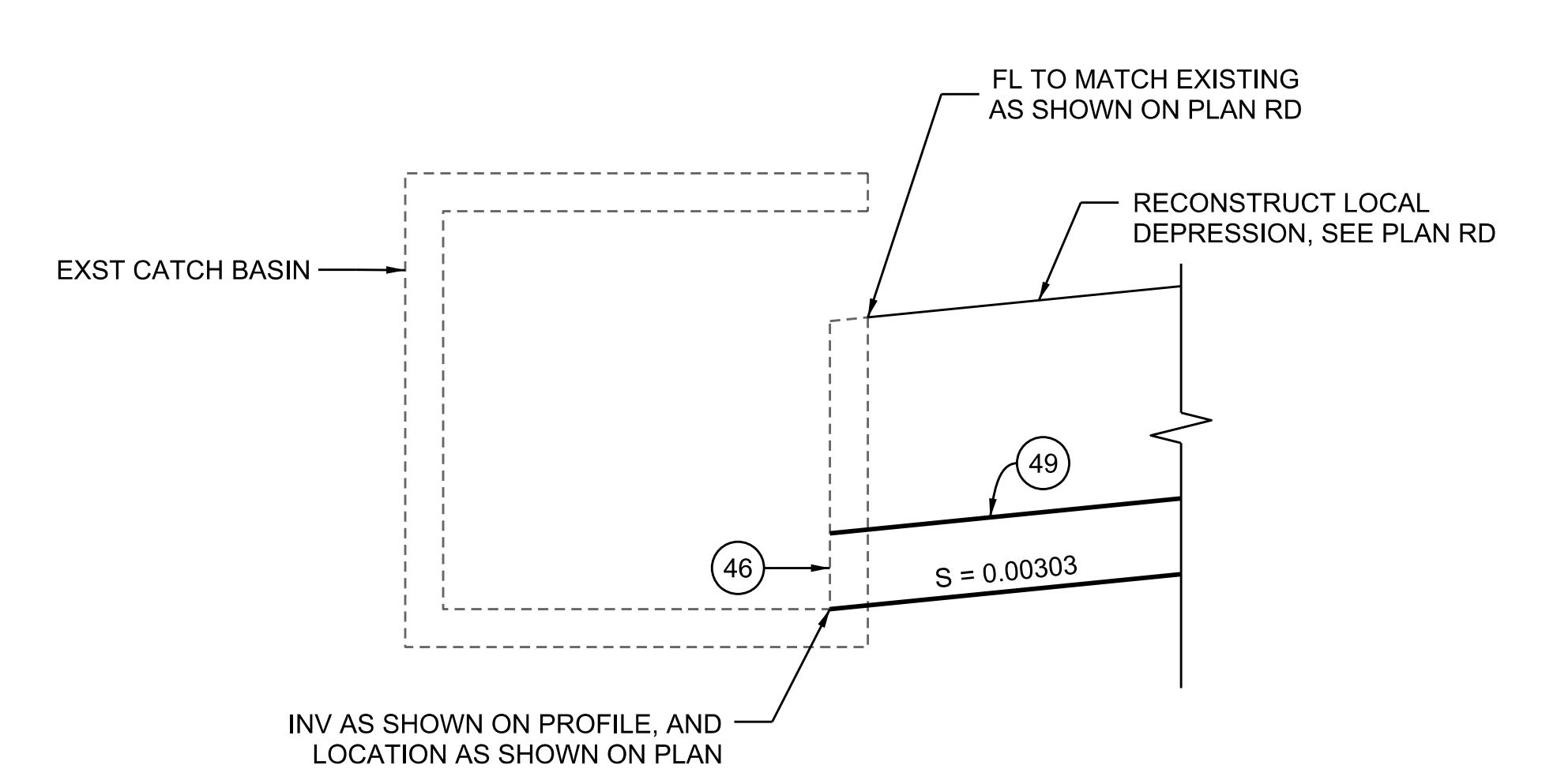
DRAWING NUMBER:					COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS	
(MARK AS-BUILT HERE)					103RD STREET GREEN IMPROVEMENT PROJECT CONCRETE CRACK AND JOINT SEALING PROJECT ID NO. WMD000110	
7/14/21	■	AS BUILT REVISIONS				
DATE	MK	DESCRIPTION			5/24/18 PROJECT ENGINEER DATE	DWG
REVISIONS				PH086375	SHEET 8 OF 8	



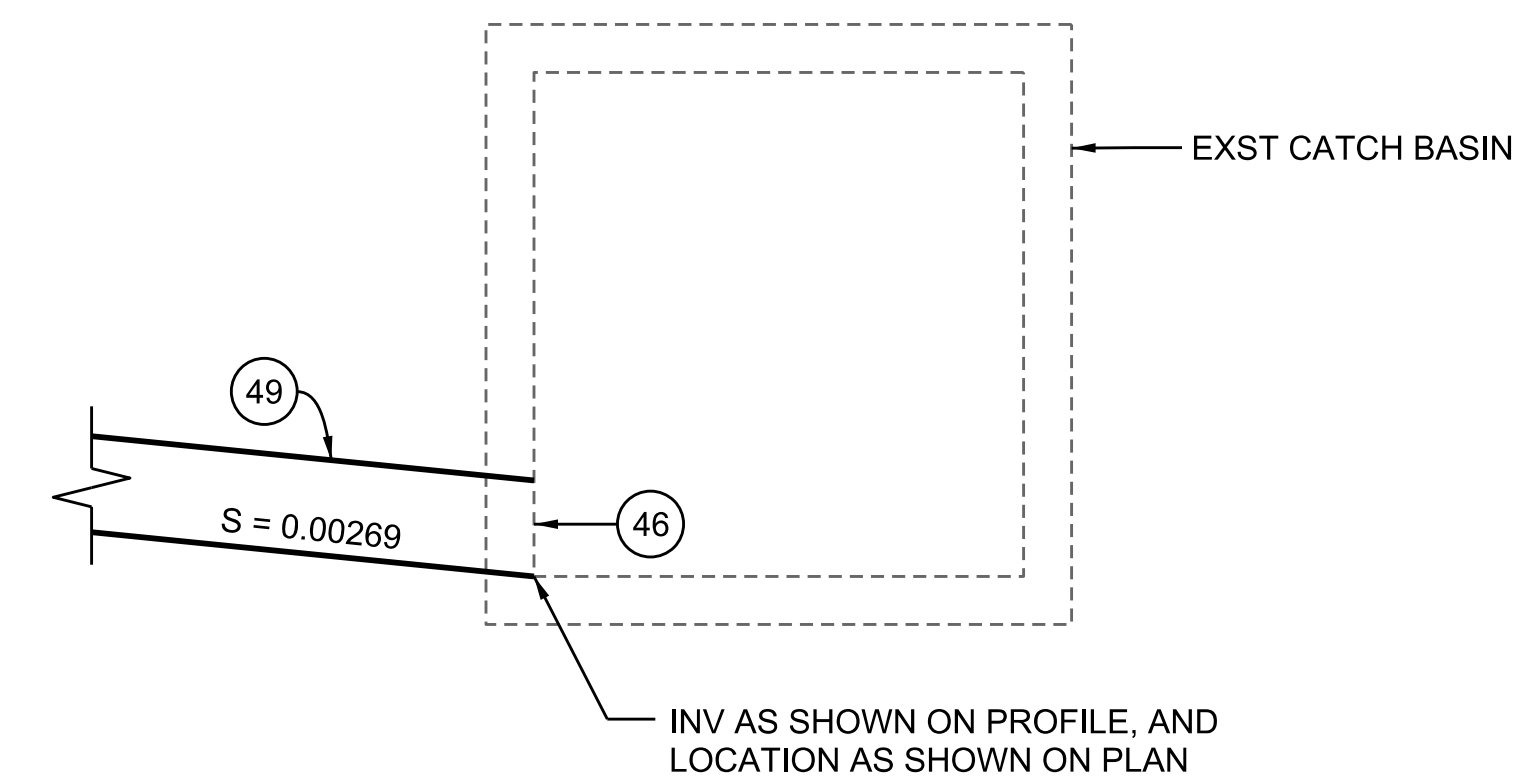
DETAIL A - SOUTH UNDERDRAIN SYSTEM FOR PERVIOUS CONCRETE GUTTER (SH 2-3)
NO SCALE



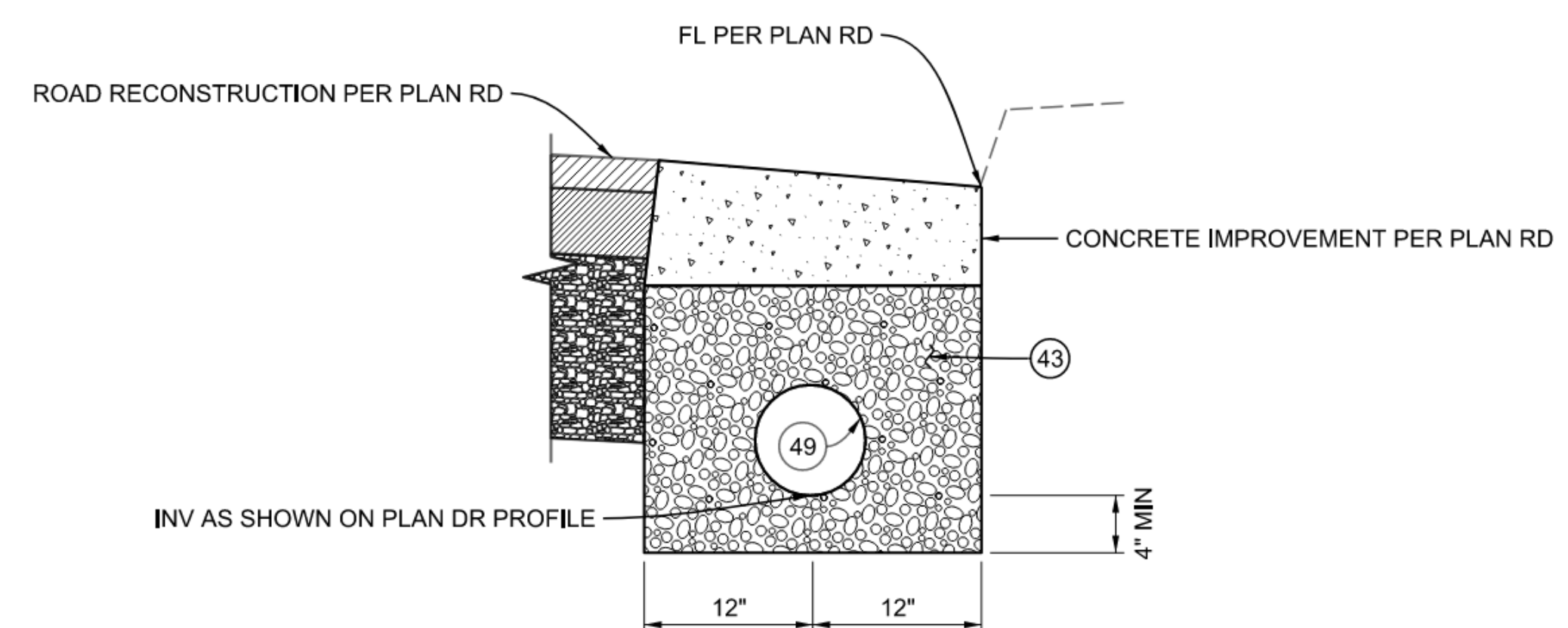
DETAIL B - NORTH UNDERDRAIN SYSTEM FOR PERVIOUS CONCRETE LONGITUDINAL GUTTER (SH 2-3)
NO SCALE



DETAIL C - CONNECTION TO EXISTING CATCH BASIN, 25' RT (SH 3)
NO SCALE



DETAIL D - CONNECTION TO EXISTING CATCH BASIN, 25' LT (SH 3)
NO SCALE



DETAIL H - UNDERDRAIN SYSTEM FOR CONCRETE IMPROVEMENT (SH 2-3)
NO SCALE

CADD PROJECT FILE NAME: WMD000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYŃ

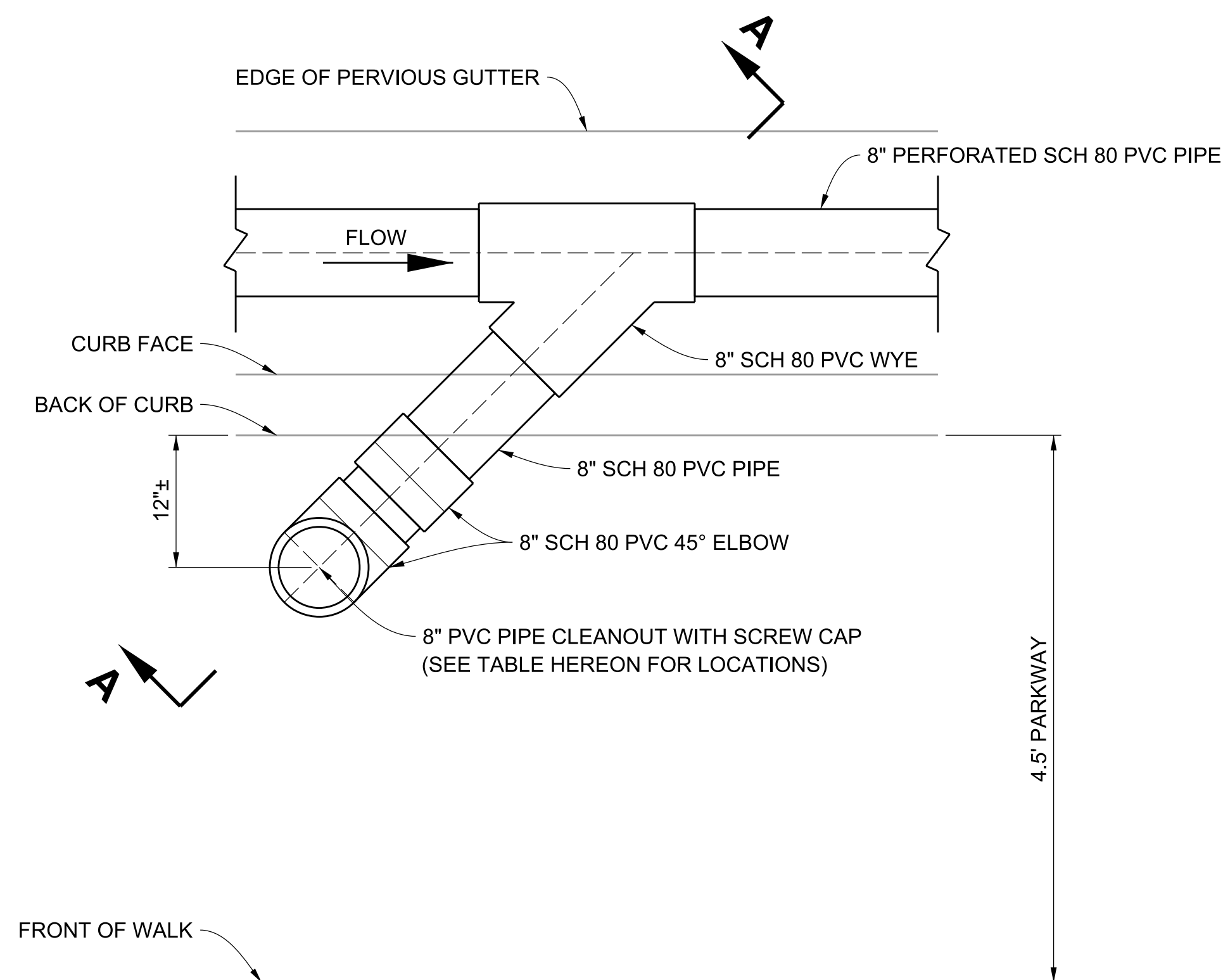
PLAN DR

DRAWING NUMBER:					COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS		
(MARK AS-BUILT HERE)		7/14/21	AS BUILT REVISIONS		103RD STREET GREEN IMPROVEMENT PROJECT DETAILS PROJECT ID NO. WMD000110		
		5/22/19	DETAIL MODIFICATIONS				
DATE	MK	DESCRIPTION					
		REVISIONS		PROJECT ENGINEER: [Signature] DATE: 5/24/18	DWG	PH086375	SHEET 1 OF 3

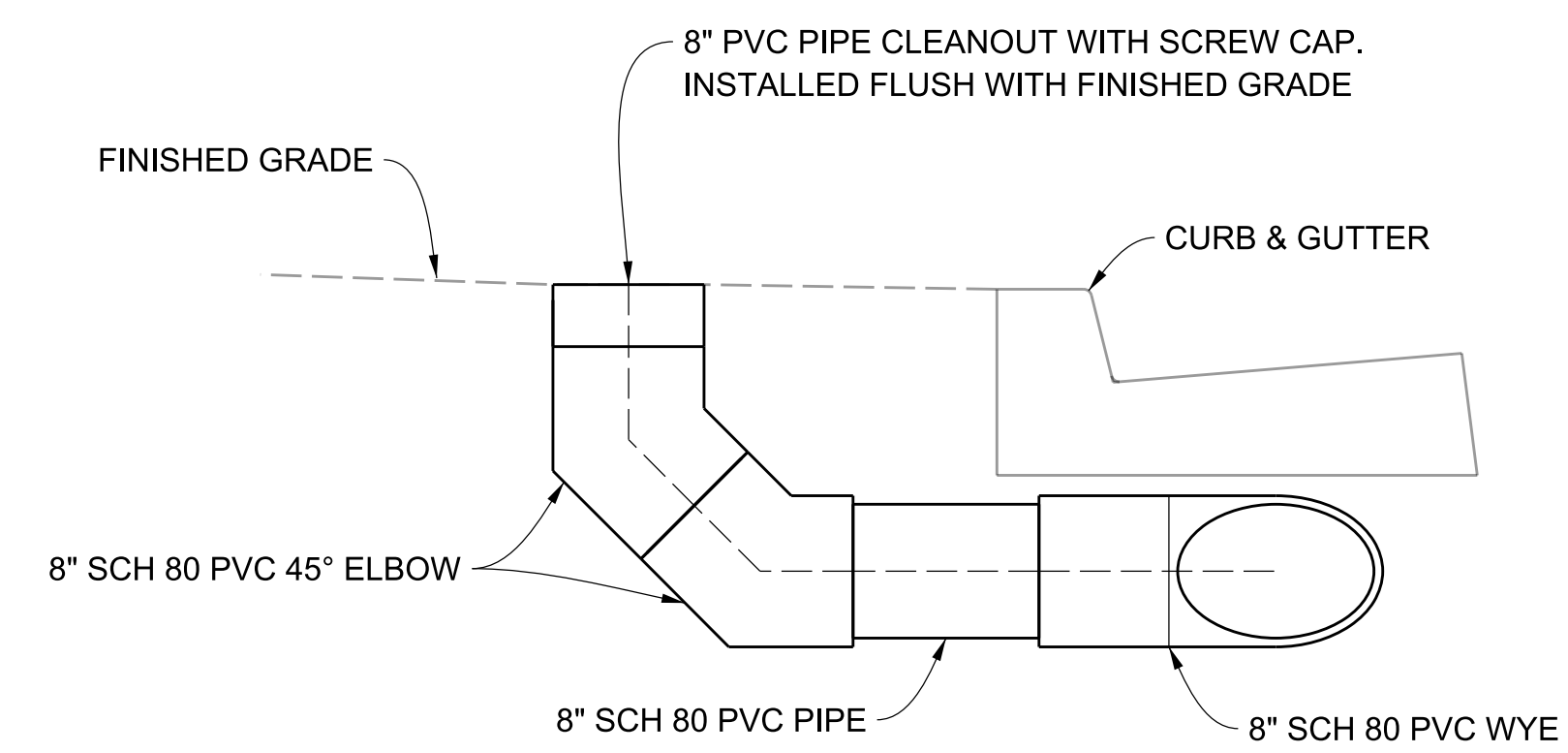
CLEANOUT LOCATION TABLE	
NO.	STA
1	199+98
2	202+80
3	206+08
4	208+88
5	212+23

NOTES

- IF THERE ARE ANY CONFLICTS WITH UTILITIES AND/OR OTHER OBSTRUCTIONS AT THESE CLEANOUT LOCATIONS, THE CONTRACTOR SHALL MOVE THE CLEANOUT UP TO 5 FEET TO AVOID THE CONFLICT. ANY PROPOSED RELOCATION GREATER THAN 5 FEET WILL NEED TO BE APPROVED BY THE ENGINEER PRIOR TO RELOCATION.



■ CLEANOUT DETAIL (SOUTHSIDE OF 103RD ST.)
NO SCALE

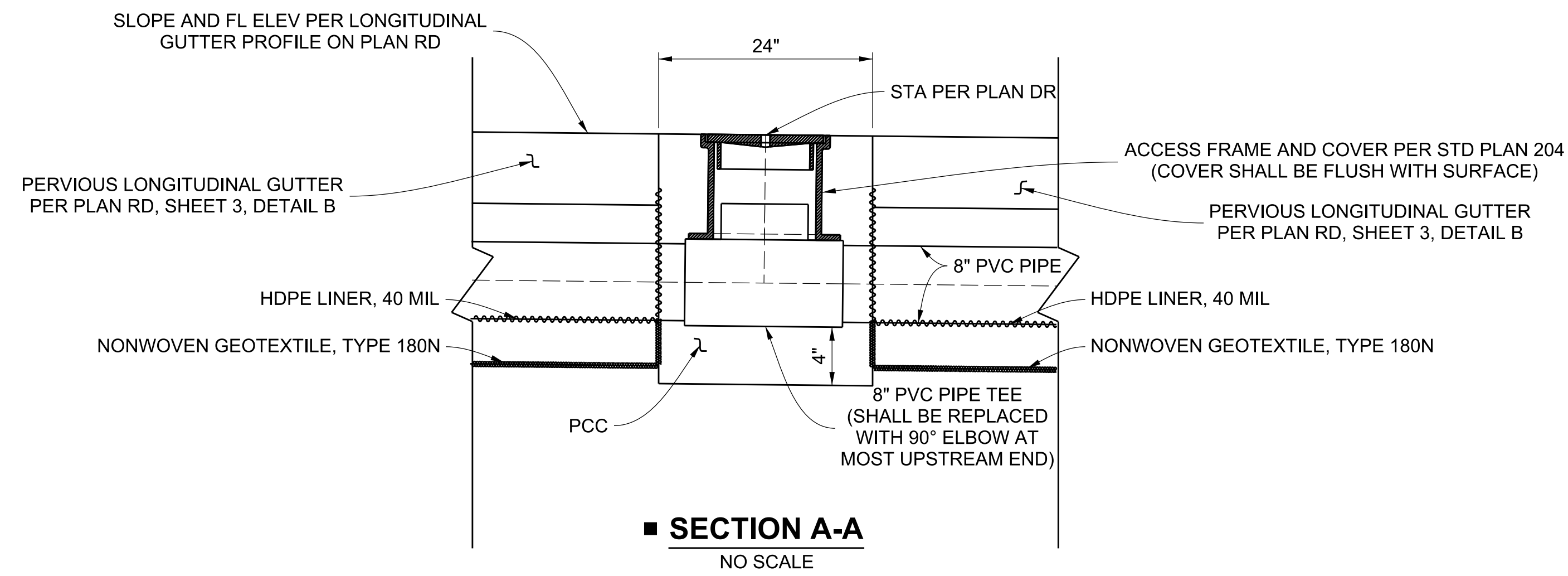


■ SECTION A-A
NO SCALE

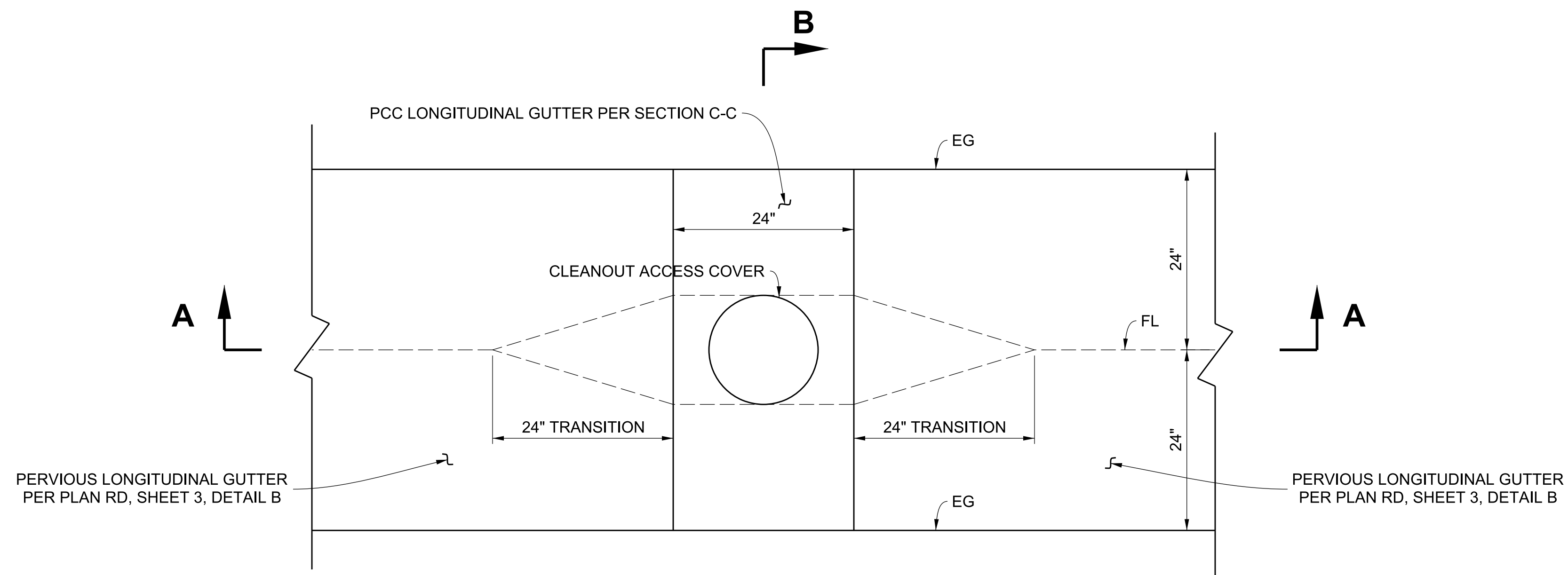
CADD PROJECT FILE NAME: WMD000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

PLAN DR

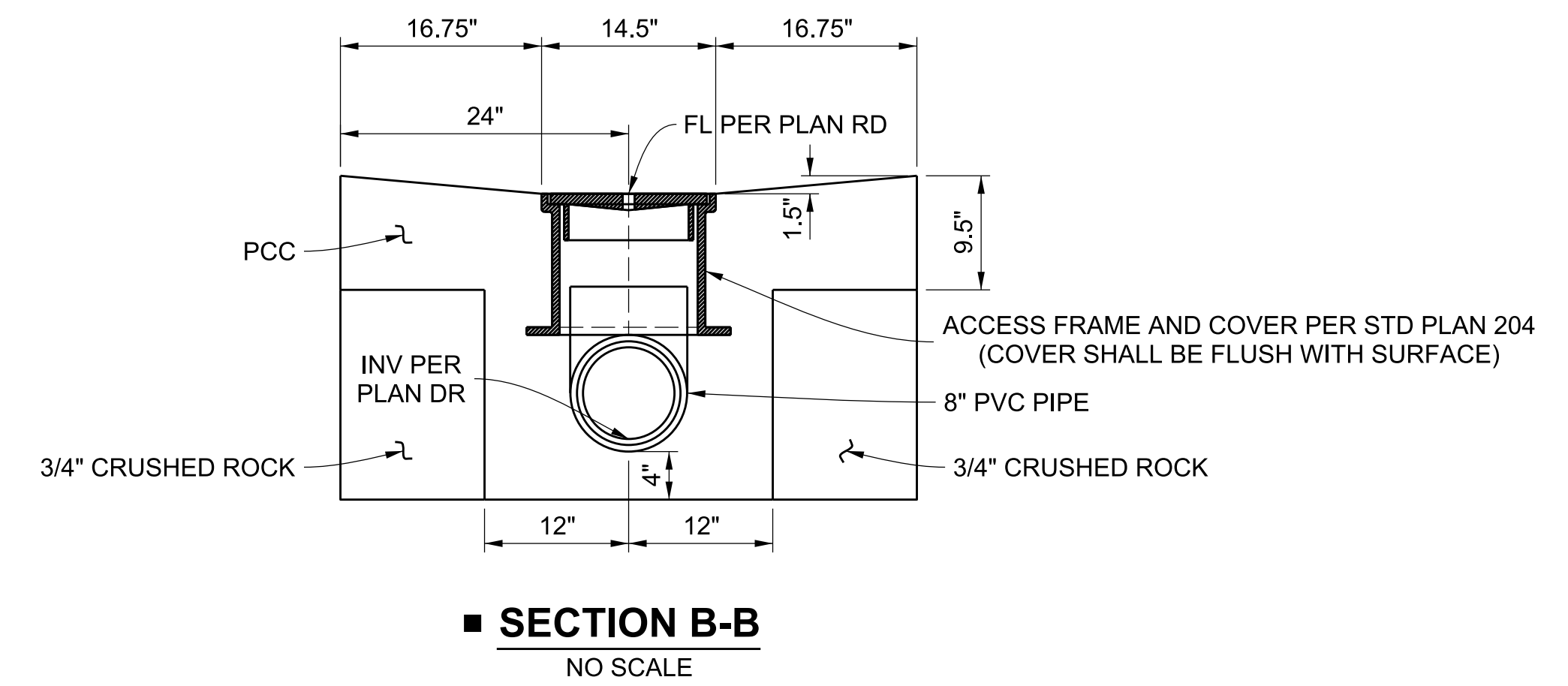
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(MARK AS-BUILT HERE)					103RD STREET GREEN IMPROVEMENT PROJECT CLEANOUT DETAILS PROJECT ID NO. WMD000110		
7/14/21	■	AS BUILT REVISIONS					
DATE	MK	DESCRIPTION					
		REVISIONS		7/14/21 PROJECT ENGINEER DATE	DWG	PH086375	SHEET 1.1 OF 3



SECTION A-A
NO SCALE





CLEANOUT DETAIL (NORTHSIDE OF 103RD ST.)
NO SCALE



SECTION B-B
NO SCALE

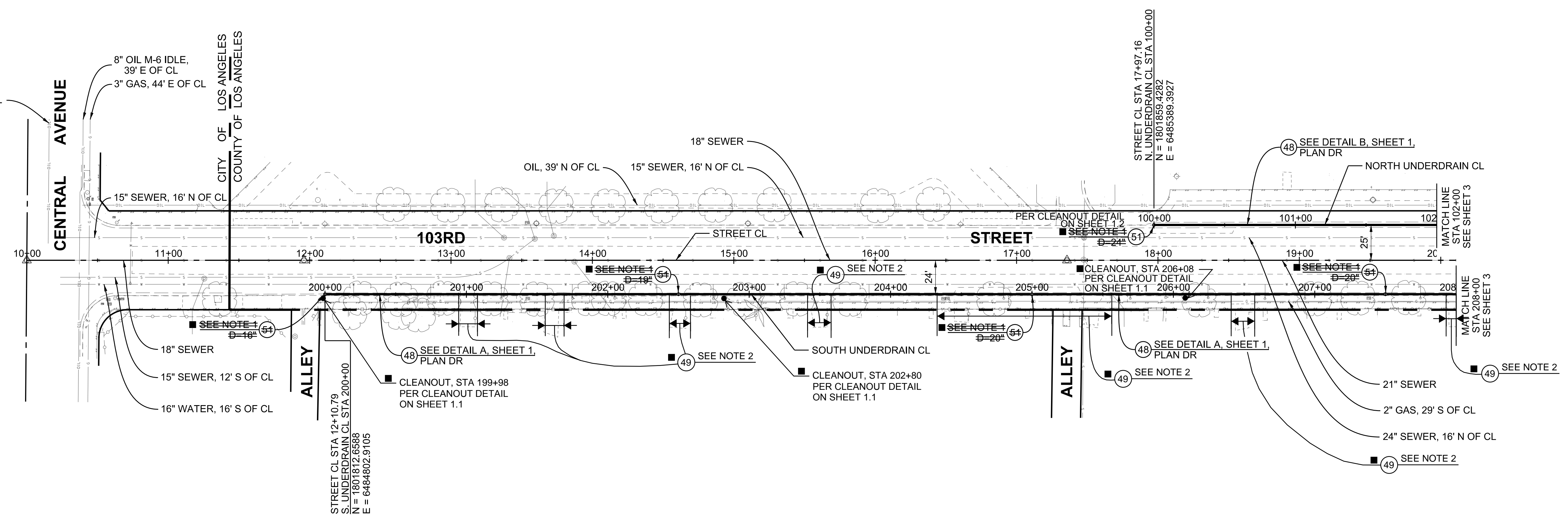
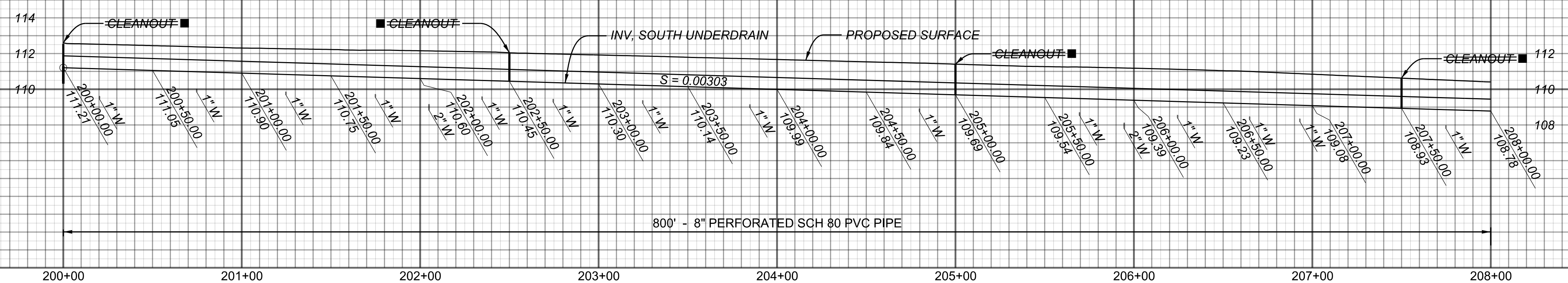
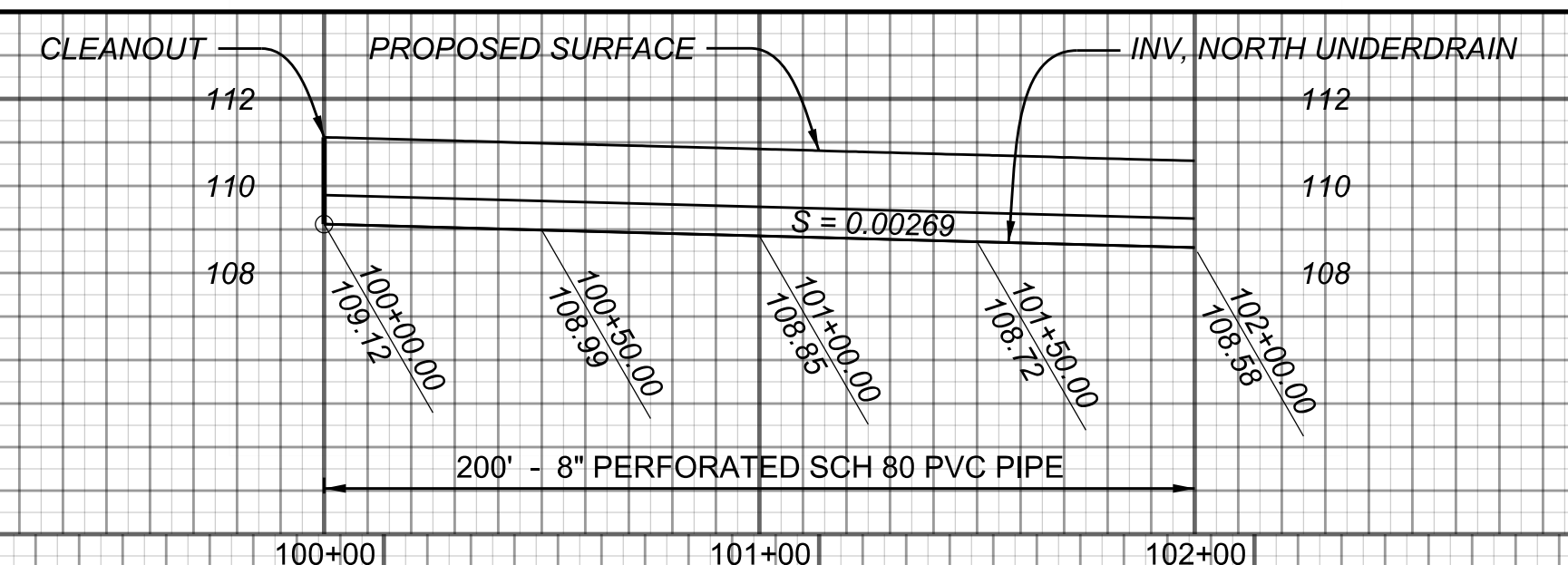
CADD PROJECT FILE NAME: WMD000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

DRAWING NUMBER:					COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS		
(MARK AS-BUILT HERE)					103RD STREET GREEN IMPROVEMENT PROJECT CLEANOUT DETAILS PROJECT ID NO. WMD000110		
DATE	MK	7/14/21	AS BUILT REVISIONS			7/14/21	
		REVISIONS			PROJECT ENGINEER	DATE	DWG

PLAN DR

SHEET 1.2 OF 3

SCALE: HOR. 1"=40'
VERT. 1"=4'

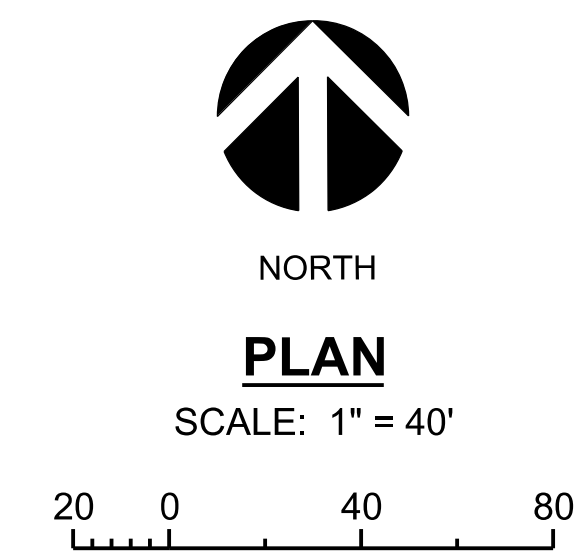


8" OIL M-6 ABND, 15' E OF CL
8" OIL M-6 IDLE, 39' E OF CL
3" GAS, 44' E OF CL
15" SEWER, 16' N OF CL
15" SEWER, 12' S OF CL
16" WATER, 16' S OF CL

SEE NOTE 1
SEE NOTE 2
SEE NOTE 1
SEE NOTE 2
SEE NOTE 1
SEE NOTE 2

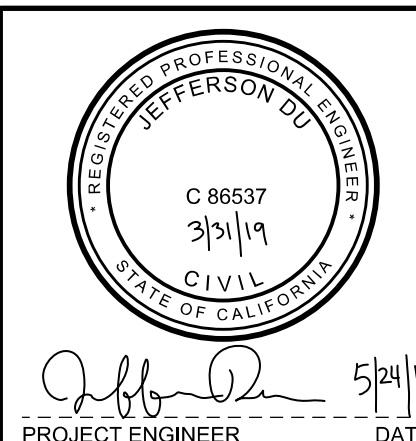
SEE DETAIL A, SHEET 1, PLAN DR
SEE DETAIL B, SHEET 1, PLAN DR
SEE NOTE 1
SEE NOTE 2
SEE NOTE 1
SEE NOTE 2
SEE NOTE 1
SEE NOTE 2

- NOTES**
- 1. RECESS TOP OF ACCESS FRAME AND COVER 1/4" BELOW FINISHED SURFACE ELEVATION.
 - 2. CONSTRUCT UNDERDRAIN SYSTEM PER DETAIL H ON PLAN DR SHEET 1 FOR THE LIMITS OF CONCRETE IMPROVEMENT PER PLAN RD



BENCH MARK
BM 18-01511 PWFB 0921 PAGE 4592
EL 113.833 NAVD 1988 (2000 ADJ L.A. CITY)
WIRE SPK IN E CURB CENTRAL AVE, 5 FT N/O
BC CURB RET N/O 103RD ST, 1 FT S/O CB.

DRAWING NUMBER:		
(MARK AS-BUILT HERE)		
DATE	MK	DESCRIPTION
7/14/21		AS BUILT REVISIONS



COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

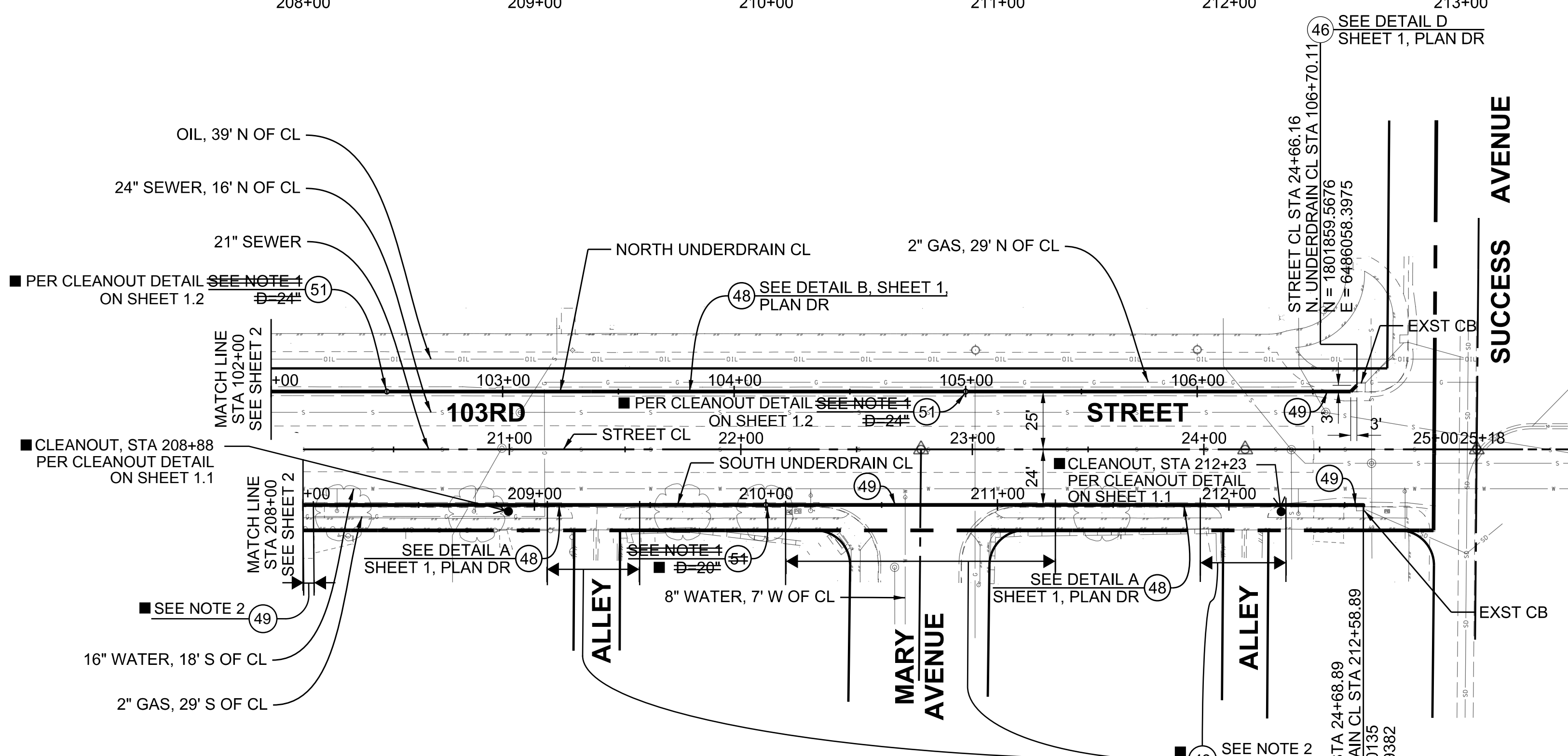
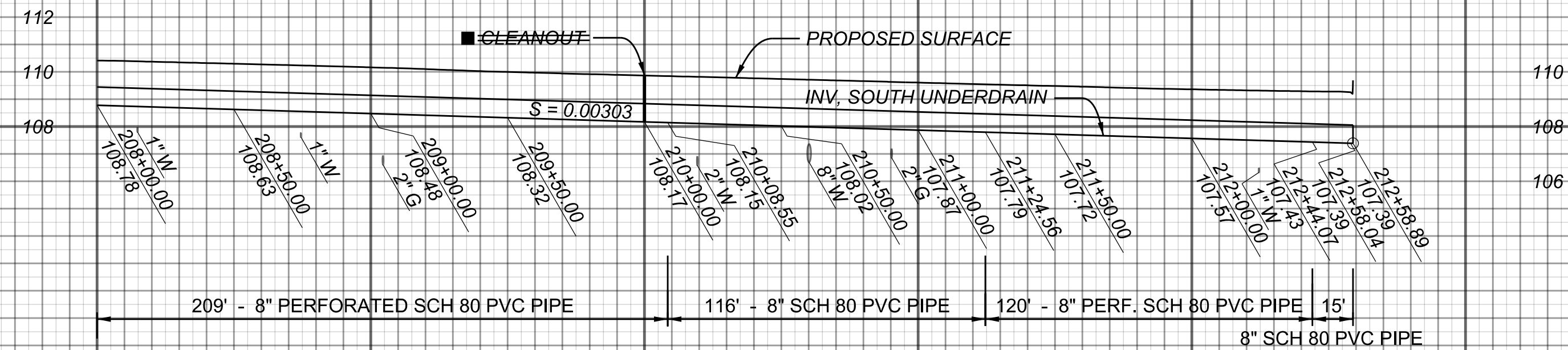
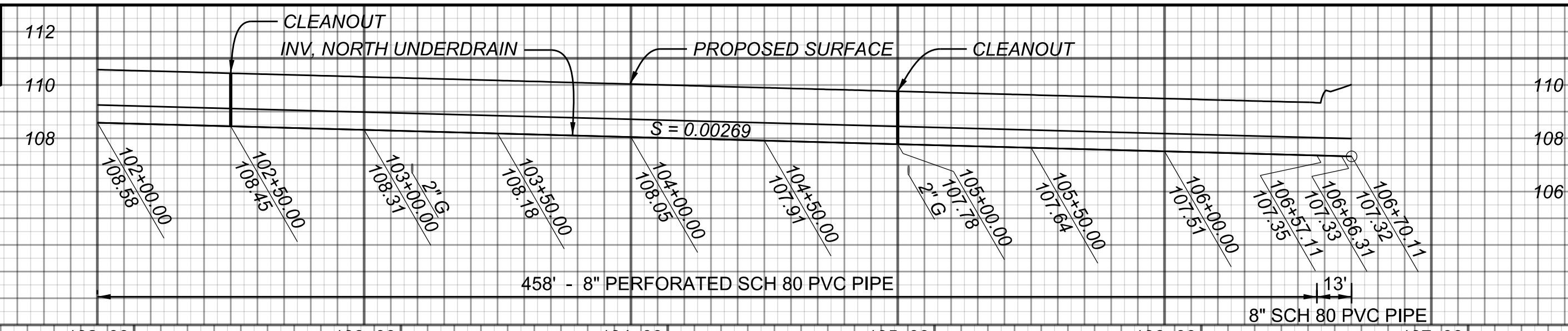
103RD STREET GREEN IMPROVEMENT PROJECT
PLAN AND PROFILE I
PROJECT ID NO. WMD0000110

PH086375 SHEET 2 OF 3

DESIGNER: P. MARCYNYSZYN
 CHECKER: J. DU
 CADD PROJECT FILE NAME: WMD0000110-103rd St Green Improvement Project Design Final.dgn

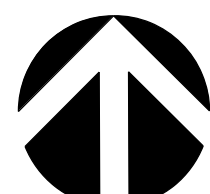
PLAN DR

SCALE: HOR. 1"=40'
VERT. 1"=4'



NOTES

- 1. RECESS TOP OF ACCESS FRAME AND COVER 1/4" BELOW FINISHED SURFACE ELEVATION.
- 2. CONSTRUCT UNDERDRAIN SYSTEM PER DETAIL H ON PLAN DR SHEET 1 FOR THE LIMITS OF CONCRETE IMPROVEMENT PER PLAN RD



NORTH
PLAN

SCALE: 1" = 40'



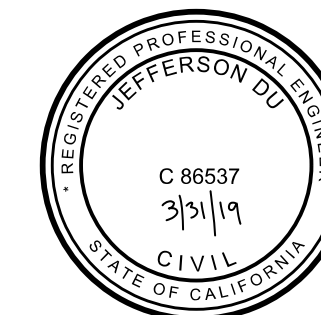
BENCH MARK

BM 18-02487 PWF8 0921 PAGE 4594
EL 110.023 NAVD 1988 (2000 ADJ L.A. CITY)
WIRE SPK IN W CURB SUCCESS AVE, 5.7 FT
N/O BCR N/O 103RD ST. S END CB.

DRAWING NUMBER:

(MARK AS-BUILT HERE)

DATE	MK	DESCRIPTION
7/14/21	AS BUILT	REVISIONS



PROJECT ENGINEER: [Signature]
DATE: 5/24/18

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

**103RD STREET
GREEN IMPROVEMENT PROJECT
PLAN AND PROFILE II**
PROJECT ID NO. WMD0000110

CADD PROJECT FILE NAME: WMD0000110-103rd St Green Improvement Project Design Final.dgn
 CHECKER: J. DU
 DESIGNER: P. MARCYNYSZYN

PLAN DR

REFERENCE NOTES SCHEDULE

CODE	DESCRIPTION	DETAIL					
1	BIKE RACK - EXISTING						
2	EXIST. TREE TO BE PROTECTED IN PLACE						

ALTERNATE-MANUFACTURERS

AMENITIES										
CODE	DESCRIPTION	DETAIL	MODEL	FINISH	COLOR	MANUFACTURER	MODEL	FINISH	COLOR	MANUFACTURER
A-01	BIKE RACK - PROPOSED	3/LS-1.05	FU-202-SM-GF	GALVANIZED	NATURAL	BRP ENTERPRISE 800-438-5311	BRWS-101 / BOLA	GALVANIZED	NATURAL	VICTOR STANLEY / LANDSCAPE FORMS
A-02	BIKE REPAIR STATION	1/LS-1.05	REPAIR-STAN	POWDER COAT	FOREST GREEN	MADRAX 1-800-448-7931	FIX IT / PUBLIC WORK STAND	POWDER COAT	FOREST GREEN	DERO / BIKE FIXATION
A-03	TIRE PUMP	4/LS-1.05	PHIL-UP	POWDER COAT	FOREST GREEN	MADRAX 1-800-448-7931	AIR KIT 2 / OUTDOOR BIKE PUMP	POWDER COAT	FOREST GREEN	DERO / BIKE FIXATION
A-04	INTERPRETIVE SIGN AND PEDESTAL	2/LS-1.05								
A-05	BIG BELLY TRASH BIN			POWDER COAT	FOREST GREEN	BIG BELLY				
A-06	TRASH RECEPTACLE 1		TF1150	PER DPR	PER DPR	WAUSAU				
A-07	TRASH RECEPTACLE 2		84-32-FTO	POWDER COAT	BLACK	DUMOR, INC				

DEMOLITION			
CODE	DESCRIPTION	DETAIL	REMARKS
D-01	REMOVE EXIST. VEGETATION AND SOIL		TOP 6" OF SOIL TO BE REMOVED
D-03	REMOVE EXIST. TREE AND GRIND STUMP		
E-01	SOLAR PANEL AND BATTERY UNIT	2/LS-2.06	SUBMIT SHOP DRAWINGS REFER TO SPECIAL PROVISIONS FOR LIST OF MANUFACTURERS

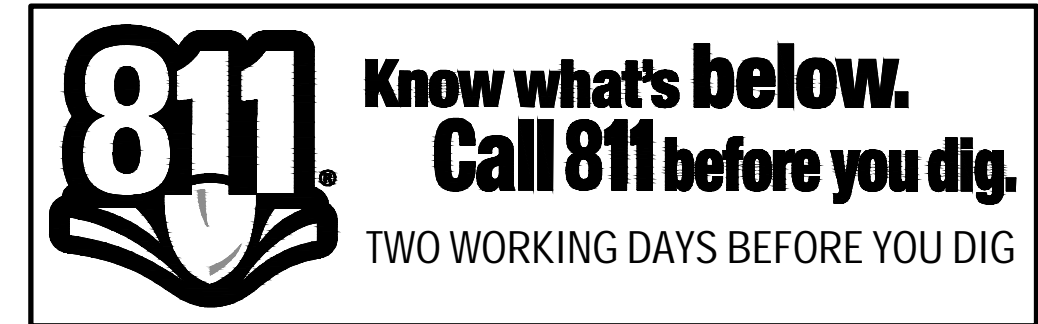
CODE	DESCRIPTION	DETAIL					MODEL	FINISH	COLOR	MANUFACTURER
M-01	SS DEBRIS MESH	2/LS-1.04	SUBMIT SHOP DRAWINGS				SIDE WALL GRATES / CURB GUARD	STAINLESS STEEL	NATURAL	J.R. HOE / BIO CLEAN ENVIRONMENTAL
M-02	TREE GRATE AND FRAME	5/LS-1.05					JAMISON ADA GRATE / QUE GRATE	GREY IRON / GREY IRON	BLACK DIP / BLACK DIP	URBAN ACCESSORIES / IRON AGE DESIGNS

EXISTING PAVING											
CODE	DESCRIPTION	DETAIL	MODEL / MATERIAL	FINISH	COLOR	MANUFACTURER	REMARKS	MODEL	MATERIAL	FINISH	MANUFACTURERS
P-01	METAL GRATE OVER CURB INLET/OUTLET STRUCTURE	4/LS-1.04	ANGLE / RECYCLED GREY IRON	RUST CONDITIONER	NATURAL	URBAN ACCESSORIES (877) 487-0488		BRIAR / REGULAR JOE	GREY IRON / DUCTILE IRON	NATURAL / RAW	IRONSMITH / IRONAGE DESIGNS
P-02	HANDICAP PAVING	1/LS-1.04	HANDICAP KIT	PER KIT	PER KIT	ORCO (951) 685-8498		HANDICAP KIT / ADA PARKING PAVER	PER KIT / PER KIT	PER KIT / PER KIT	ACKERSTONE / LOW COUNTRY PAVER
P-03	PARKING STRIPING	1/LS-1.04			TUSK WHITE ■	ORCO (951) 685-8498		STRIPING / HOLLAND		PEWTER / CHARCOAL	ACKERSTONE / ANGELUS PAVING

CO #4 Parking Striping changed from Solar Gray to Tusk White.

EXISTING PAVING											
CODE	DESCRIPTION	DETAIL	MATERIAL	FINISH	COLOR	MANUFACTURER	REMARKS				
P-03-1	ADA FIELD (BLUE)	1/LS-1.04			HANDICAP BLUE	ORCO (951) 685-8498		ADA PAVER / HOLLAND PAVER		SLATE / SLATE	ACKERSTONE / ANGELUS PAVING
P-04	CONCRETE PAVING		CONCRETE	LIGHT BROOM	NATURAL GRAY		520-C-2500 MIX				
P-05	PERMEABLE CONCRETE PAVERS		AQUA-BRIC	BEVEL EDGE	MANOR	ORCO (951) 685-8498	SEE PLAN RD	AQUA-VIA / PERMEABLE HOLLAND	BEVEL EDGE / HOLLAND	ANTIQUE GREY / GREY	ACKERSTONE / ANGELES PAVING
P-07	CURB INLET/OUTLET STRUCTURE	3/LS-1.04	CONCRETE	LIGHT BROOM	NATURAL GRAY						

EXISTING WALL										
CODE	DESCRIPTION	DETAIL	MATERIAL	FINISH	COLOR	REMARKS				
W-01	CONCRETE RETAINING WALL TYPE 7		CONCRETE	SMOOTH	NATURAL	SPPWC 616-3 REINFORCED CONCRETE RETAINING WALL TYPE 7A	2/LS-1.03			
W-02	6" WIDE REINFORCED CONCRETE PLANTER WALL	1/LS-1.03	CONCRETE	SMOOTH	NATURAL					
W-03	4" WIDE REINFORCED CONCRETE PLANTER WALL	2/LS-1.02	CONCRETE	SMOOTH	NATURAL					



DATE	MK	DESCRIPTION
11/19/21	■	AS-BUILT REVISIONS



100% PLANS

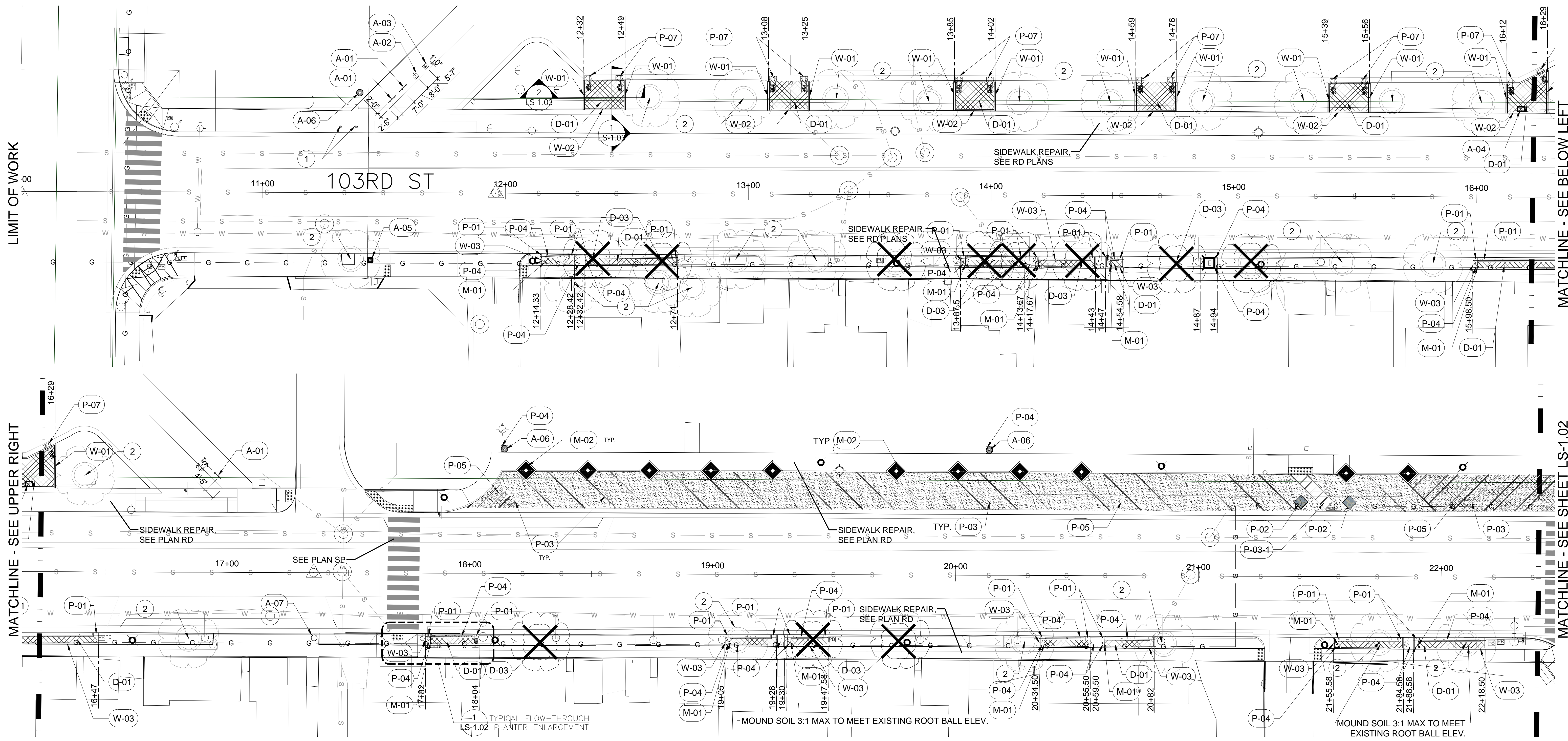
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd STREET GREEN IMPROVEMENT PROJECT
PROJECT ID: WMD0000110
CONSTRUCTION LEGEND

LS-1.00

11/20/2018	PCA J54445	WMD0000110	SHEET 2 OF 16
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100% CD PLANS



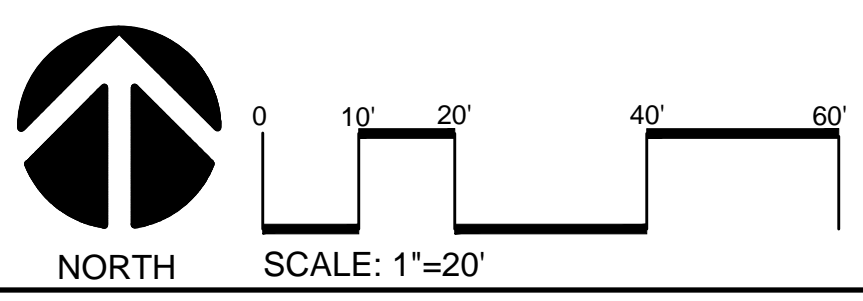
LIMIT OF WORK

MATCHLINE - SEE UPPER RIGHT

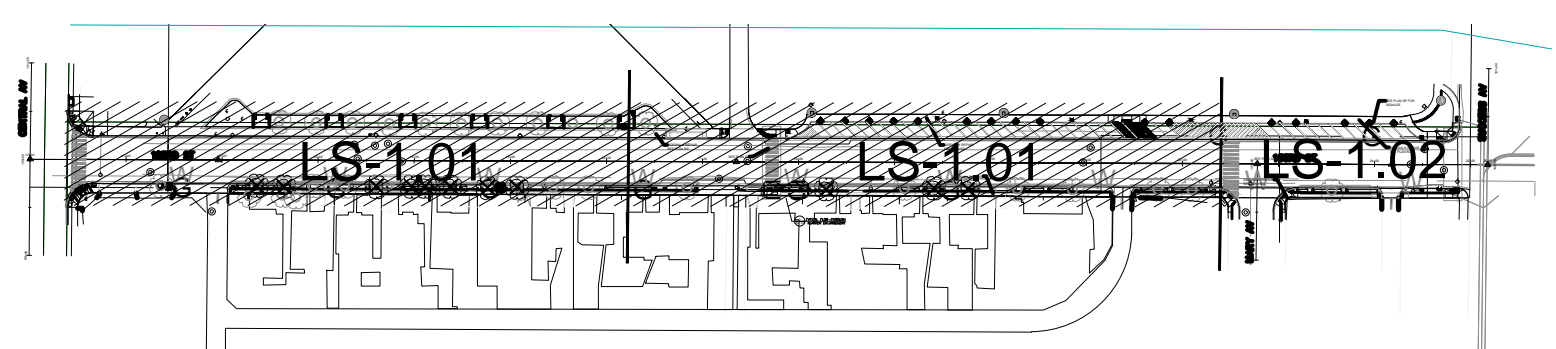
MATCHLINE - SEE BELOW LEFT

MATCHLINE - SEE SHEET LS-1.02

103RD ST



KEYMAP



STUDIO-MLA
 251 South Mission Road
 Los Angeles, California 90033
 T. 213.384.3844 studio-mla.com

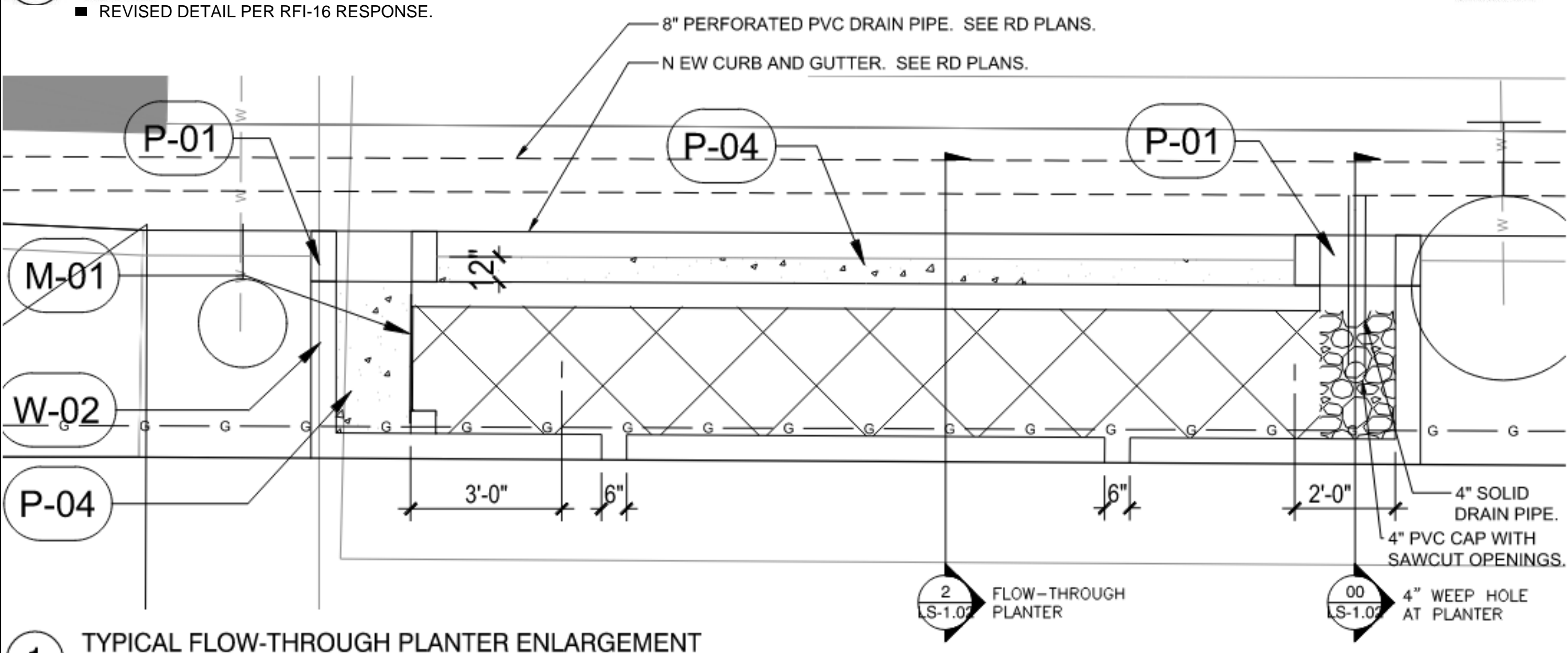
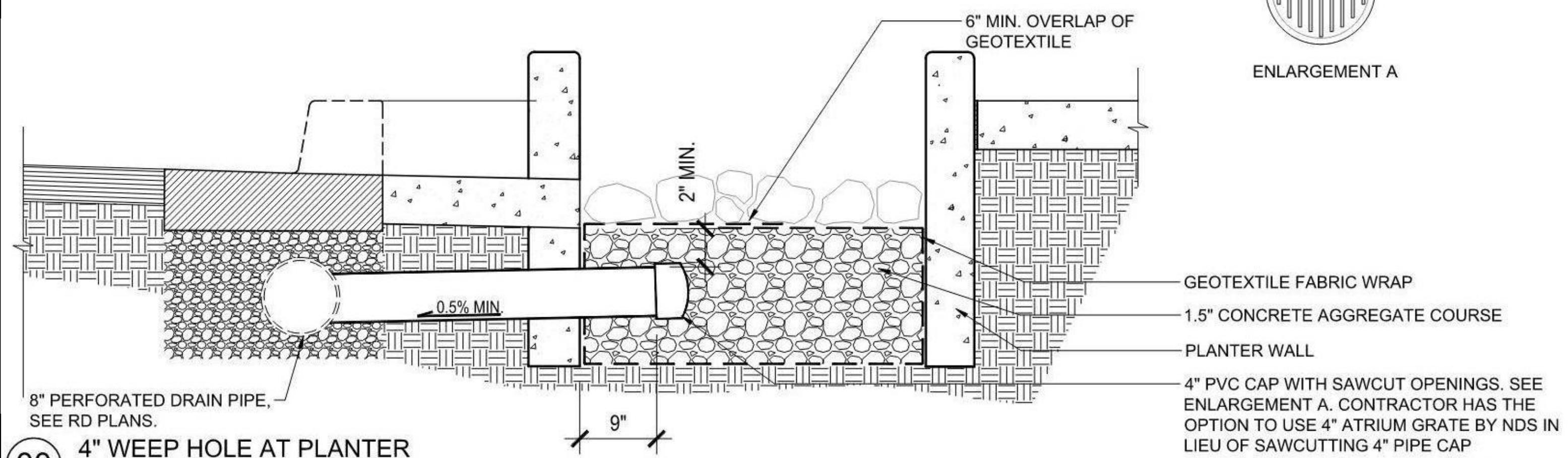
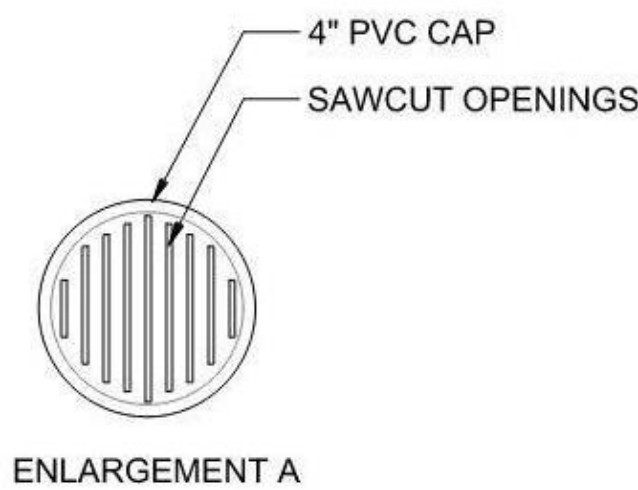
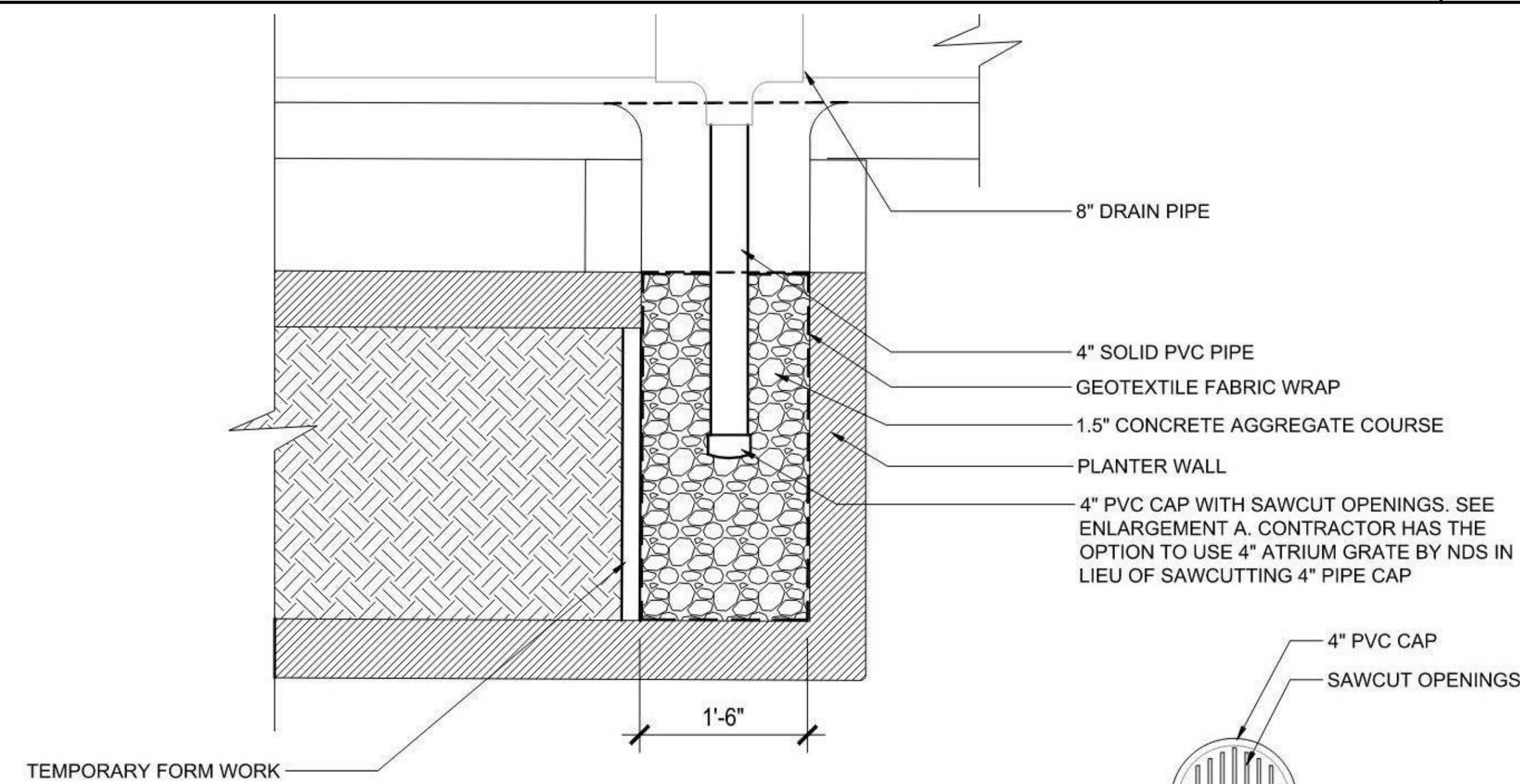
DATE	MK	DESCRIPTION
11/19/21		AS-BUILT REVISIONS
		REVISIONS



100% PLANS			
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS			
103rd STREET GREEN IMPROVEMENT PROJECT PROJECT ID: WMD0000110 CONSTRUCTION/REMOVAL PLAN			
11/20/2018	PCA J54445	WMD0000110	SHEET 3 OF 16

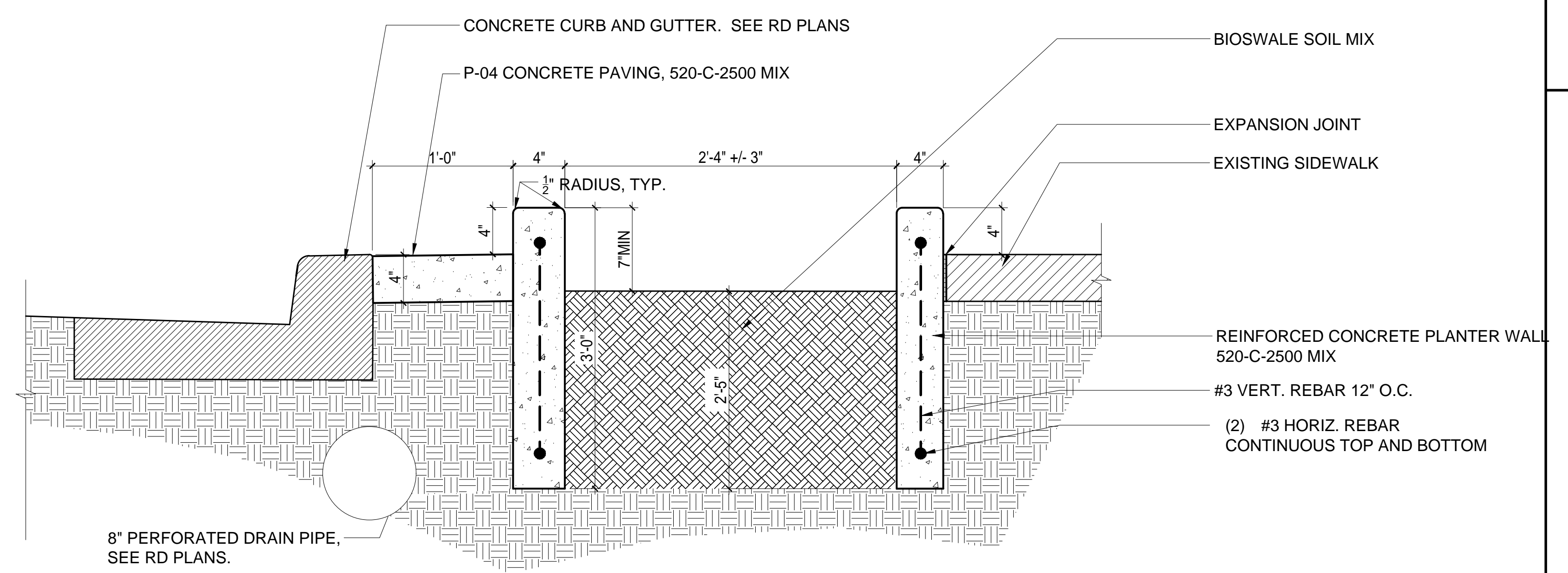
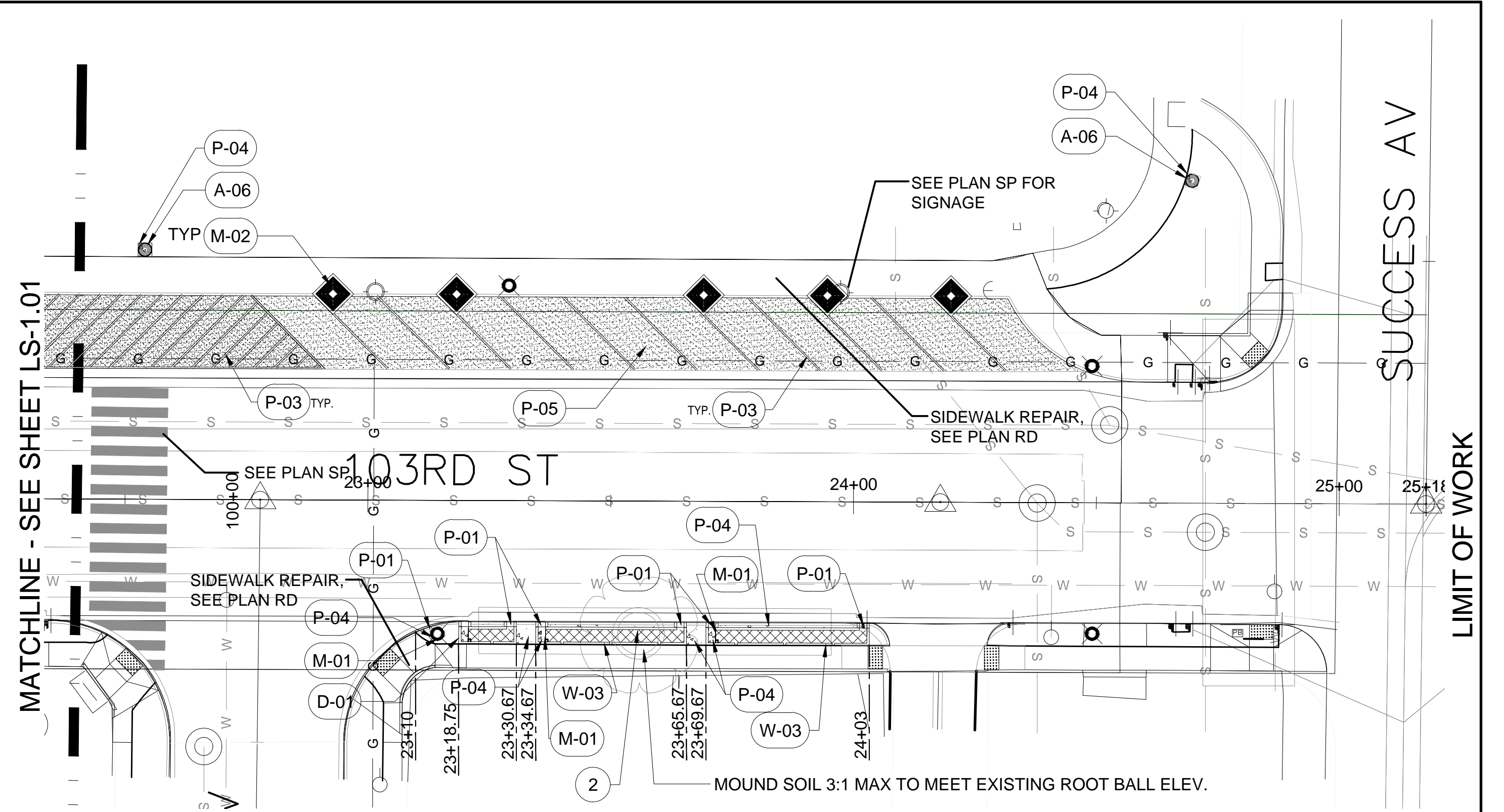
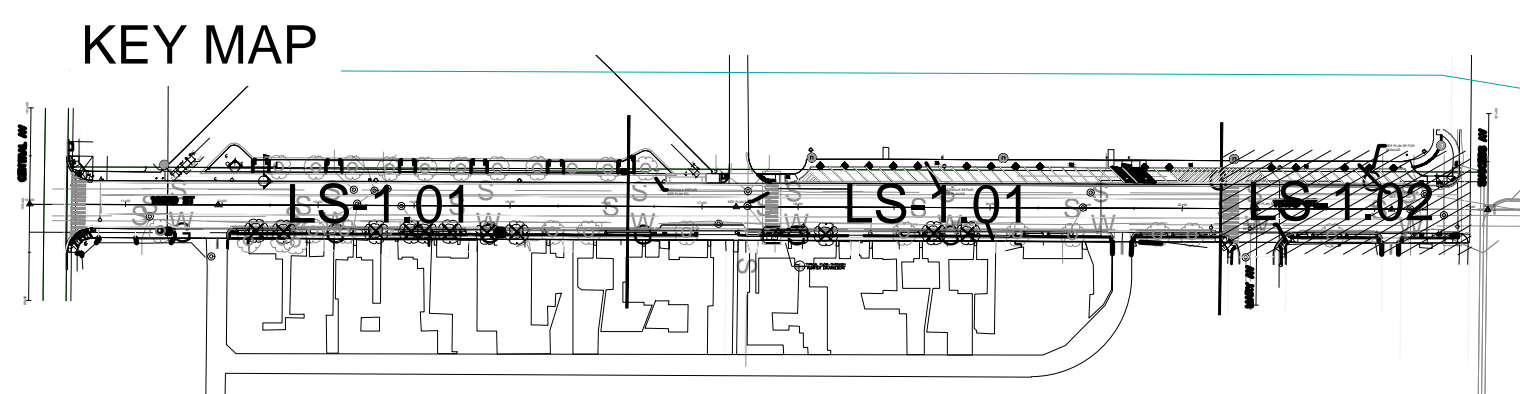
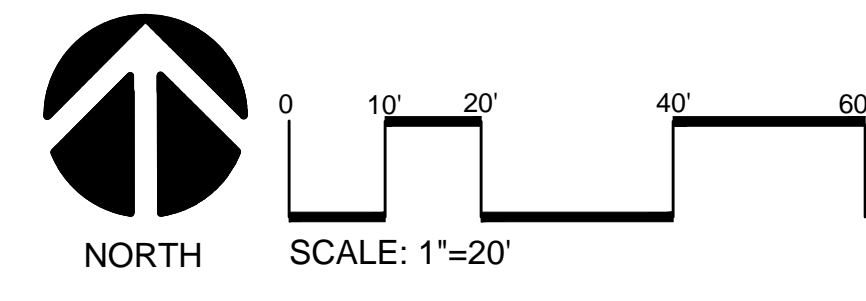
LS-1.01

100% CD PLANS



1 TYPICAL FLOW-THROUGH PLANTER ENLARGEMENT

1/4" = 1'-0"



2 FLOW-THROUGH PLANTER

1 1/2" = 1'-0"

DELETED PER RFI-16: 1.5" CONCRETE AGGREGATE COURSE & 4" PERFORATED DRAIN PIPE CONNECTED TO 8" DRAIN PIPE.

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COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd STREET GREEN IMPROVEMENT PROJECT

PROJECT ID: WMD0000110

CONSTRUCTION/REMOVAL PLAN

LS-1.02

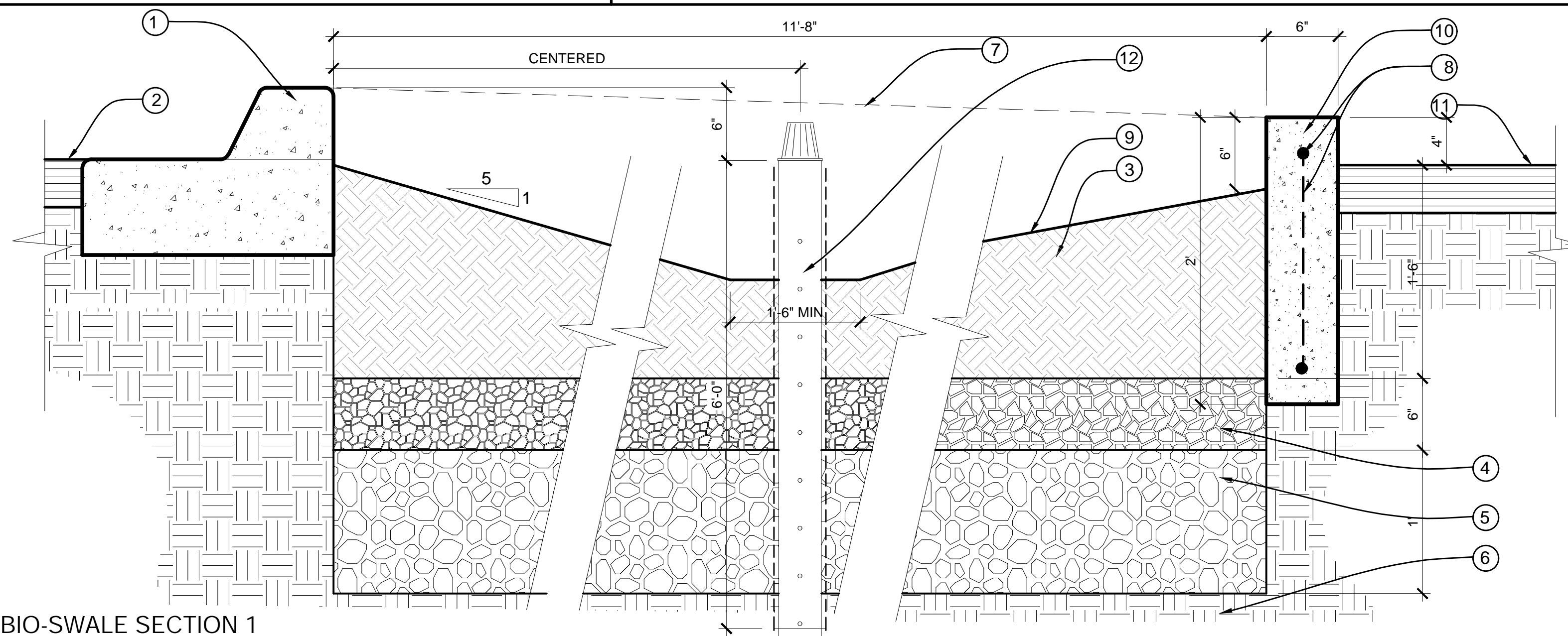
11/20/2018

PCA J54445

WMD0000110

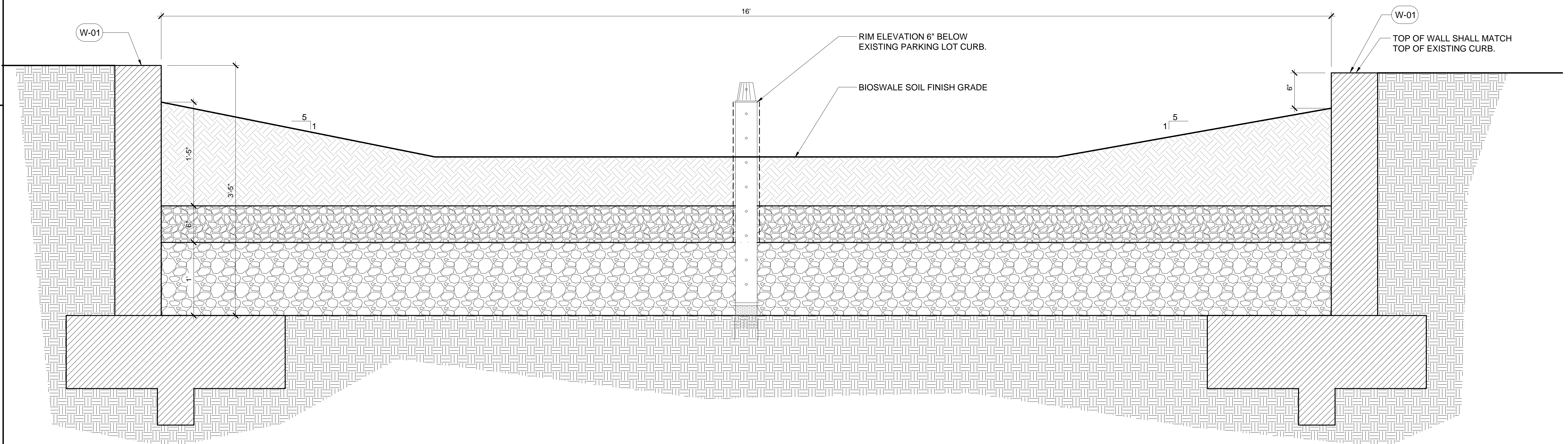
SHEET 4 OF 16

100% CD PLANS



- LEGEND:**
- ① EXIST. CURB
 - ② EXIST. PARKING LOT SURFACE
 - ③ BIOSWALE MIX. SEE SPECIAL PROVISIONS
 - ④ 3/8" CONCRETE AGGREGATE
 - ⑤ 1.5" CONCRETE AGGREGATE
 - ⑥ EXISTING SUBGRADE, DO NOT COMPACT
 - ⑦ TOP OF RETAINING WALL BEYOND.
 - ⑧ #3 BAR 12" O.C. BOTH WAYS
 - ⑨ FINISH GRADE
 - ⑩ REINFORCED CONCRETE PLANTER WALL, 520-C-2500 MIX
 - ⑪ EXISTING SIDEWALK
 - ⑫ 6" PERFORATED DRAINLINE WRAPPED IN GEOTEXTILE FABRIC.

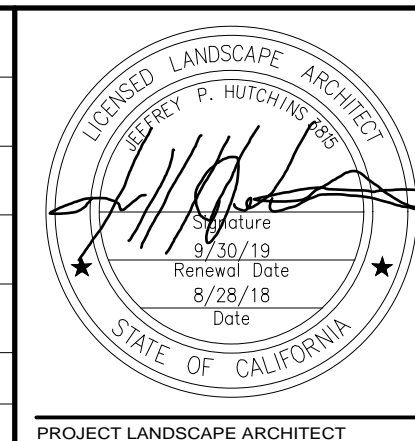
1 BIO-SWALE SECTION 1
1 1/2" = 1'-0"



2 BIO-SWALE SECTION 2
1 1/2" = 1'-0"

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REVISIONS		



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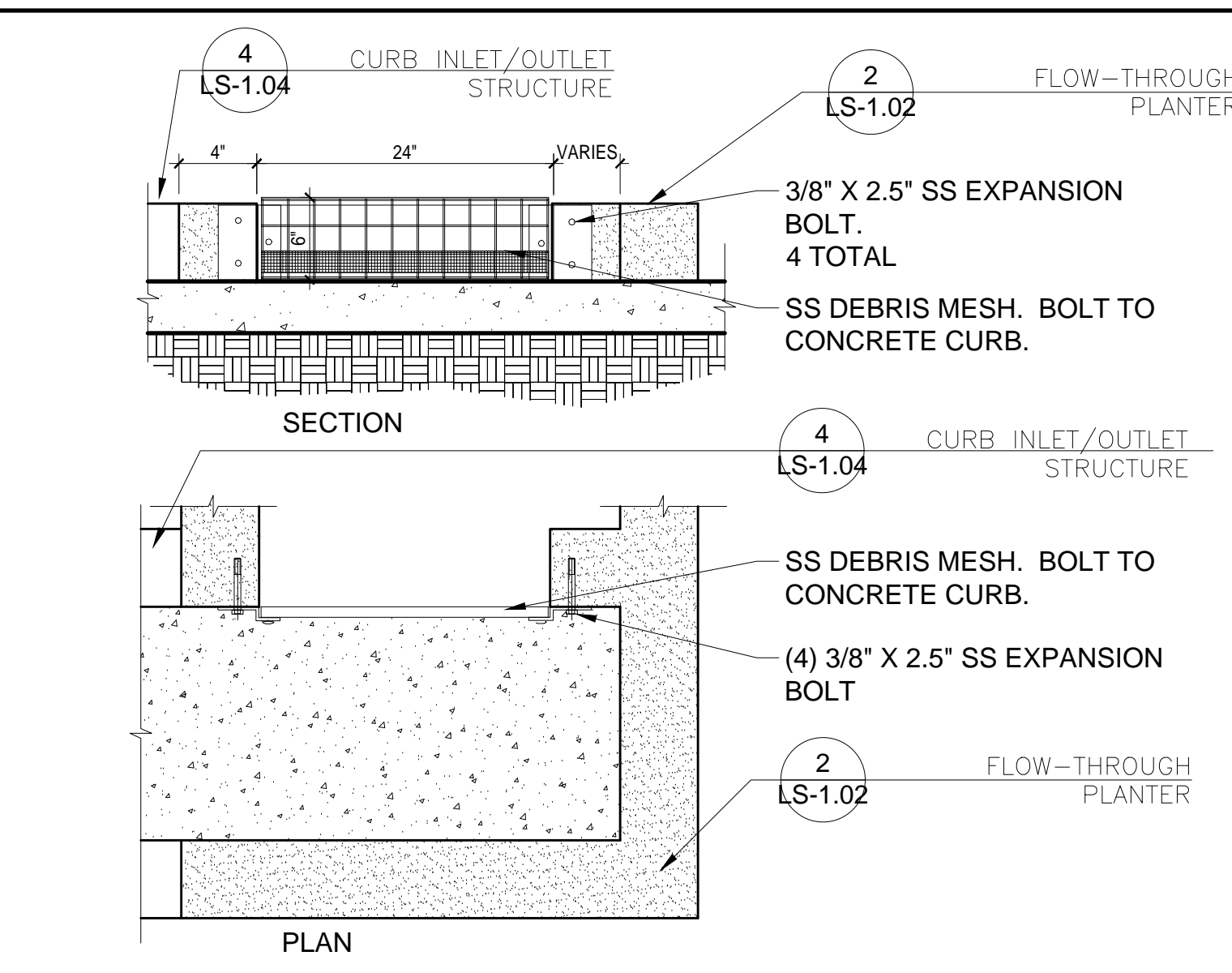
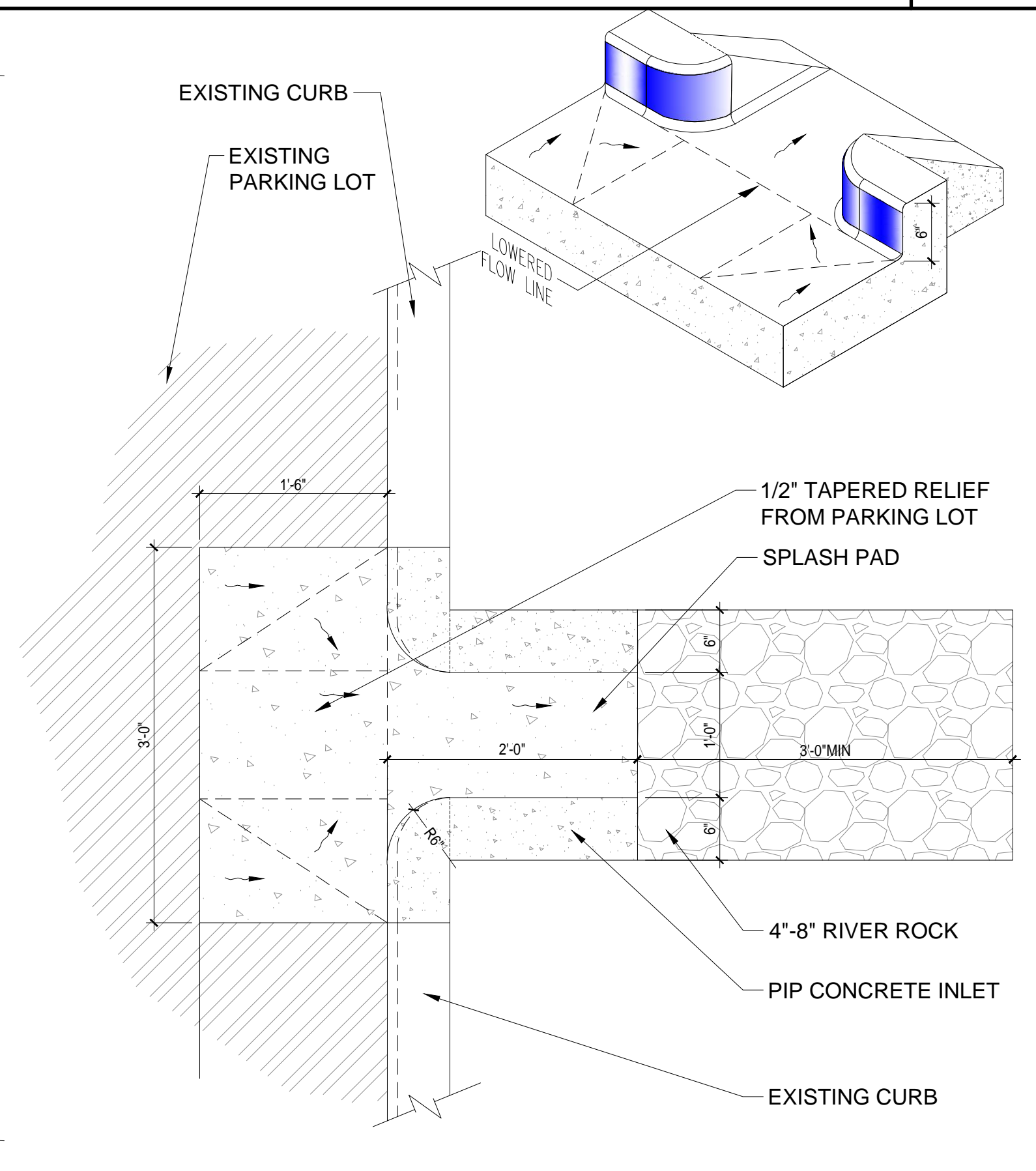
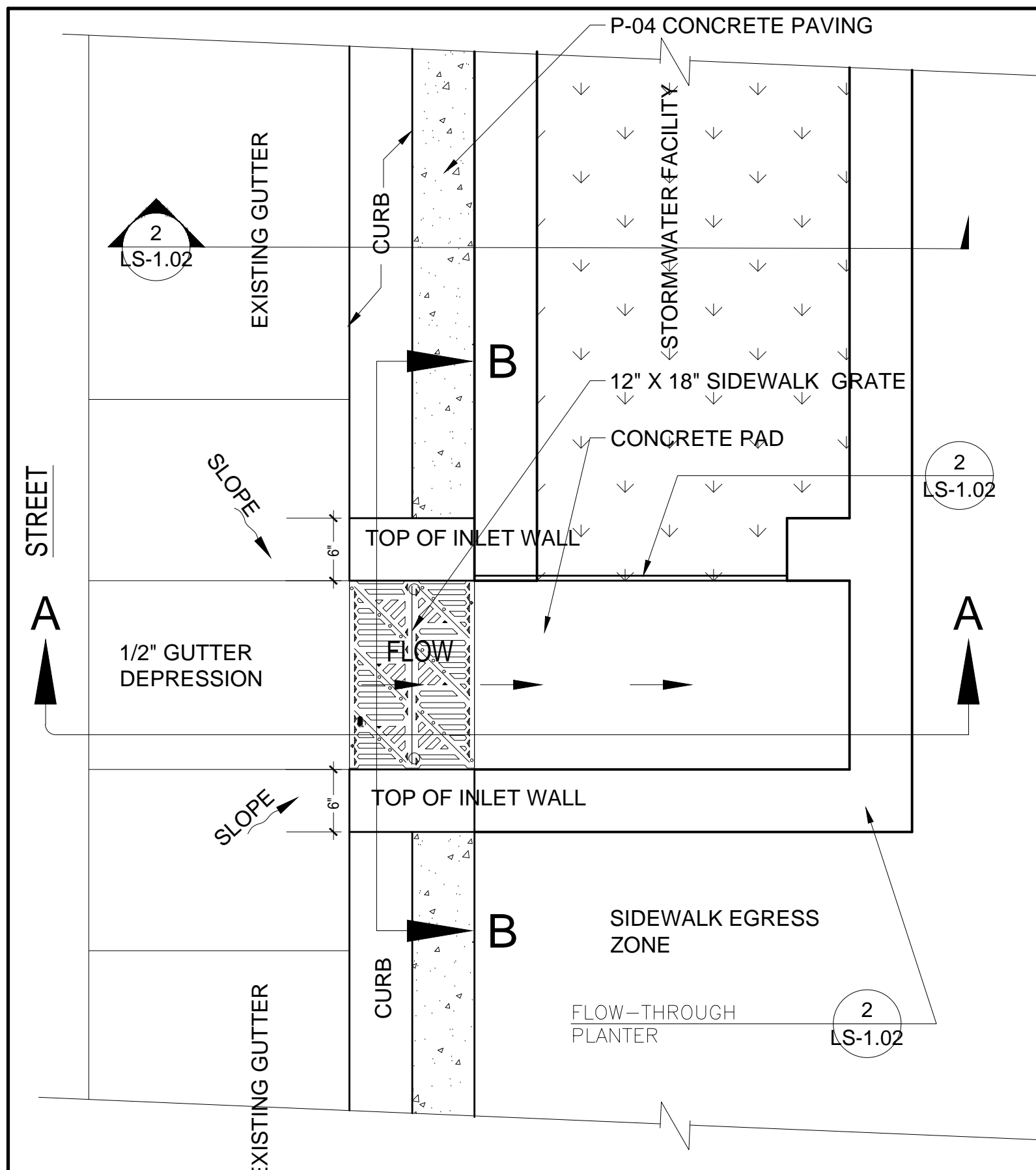
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd STREET GREEN IMPROVEMENT PROJECT
PROJECT ID: WMD0000110
CONSTRUCTION DETAILS

LS-1.03

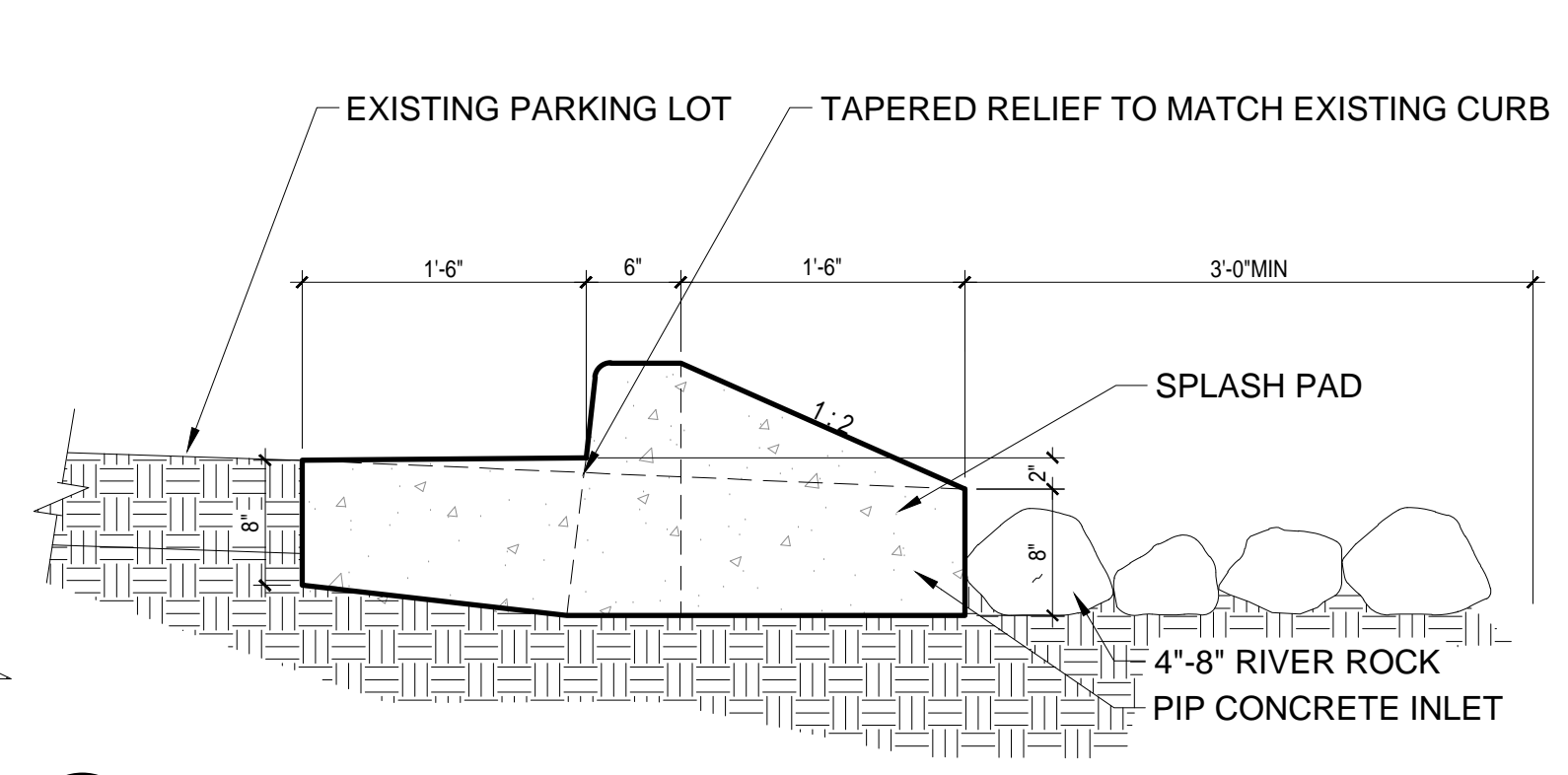
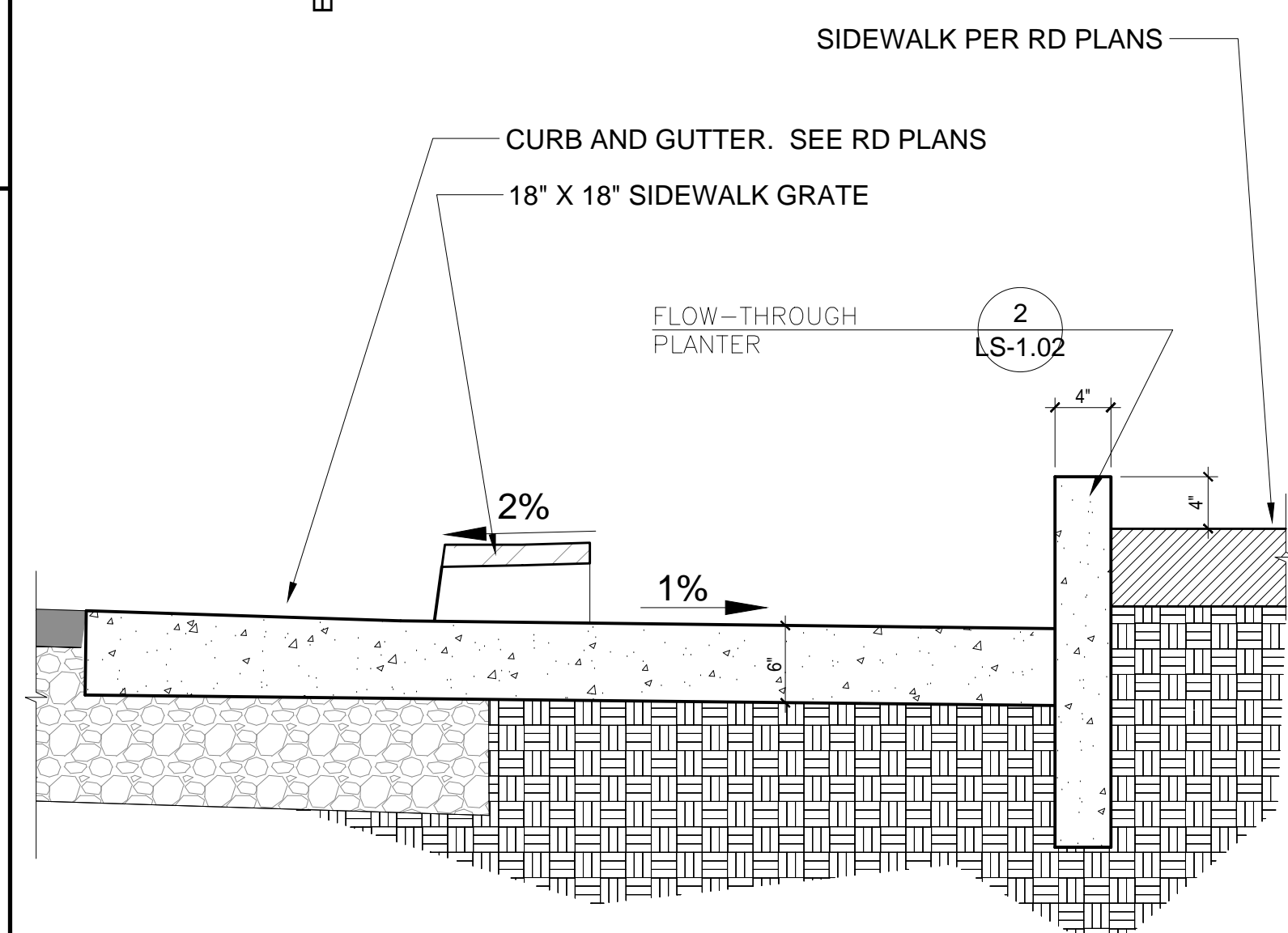
11/20/2018	PCA J54445	WMD0000110	SHEET 5 OF 16
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100% CD PLANS

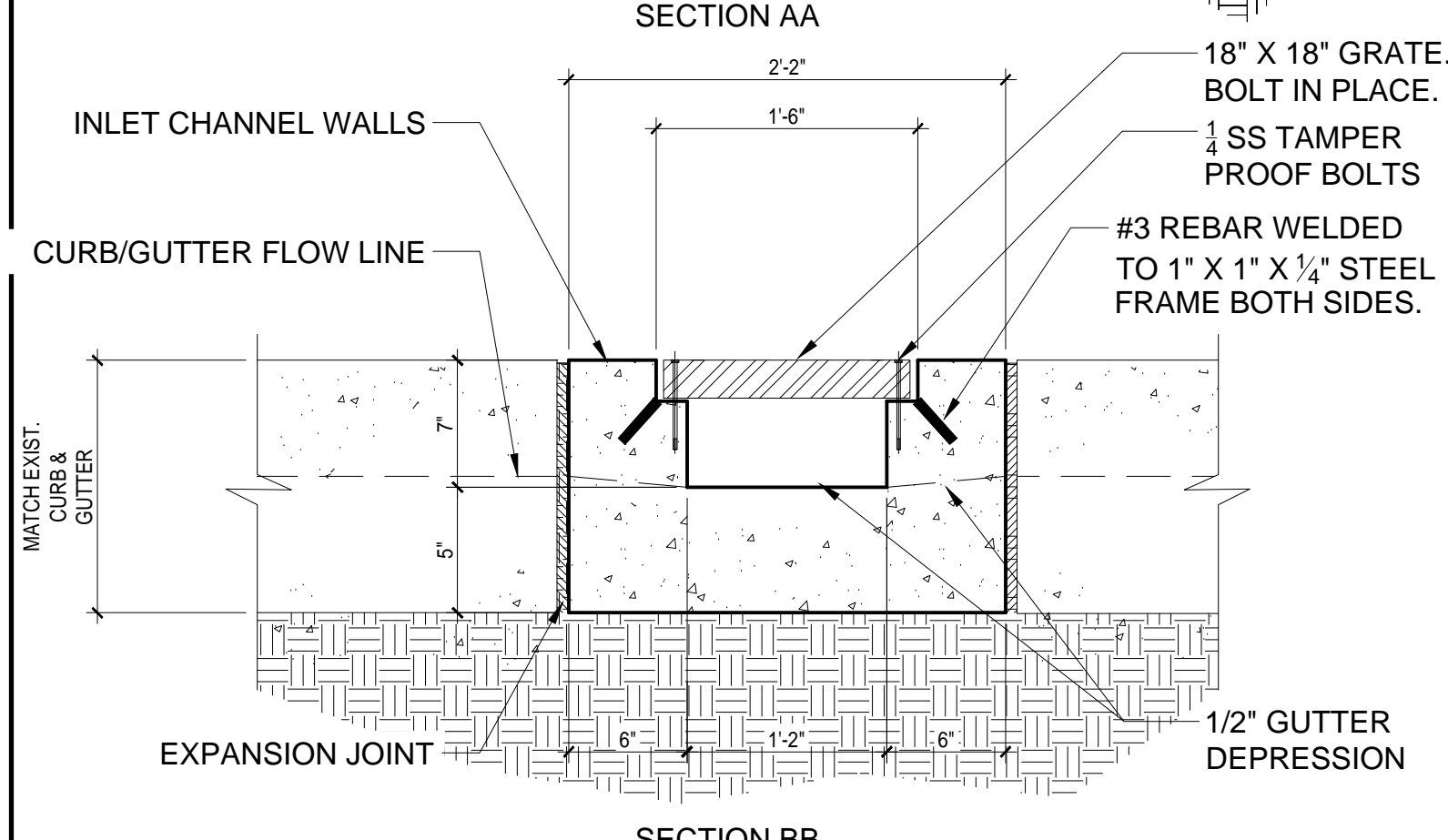


2 SS DEBRIS MESH
1" = 1'-0"

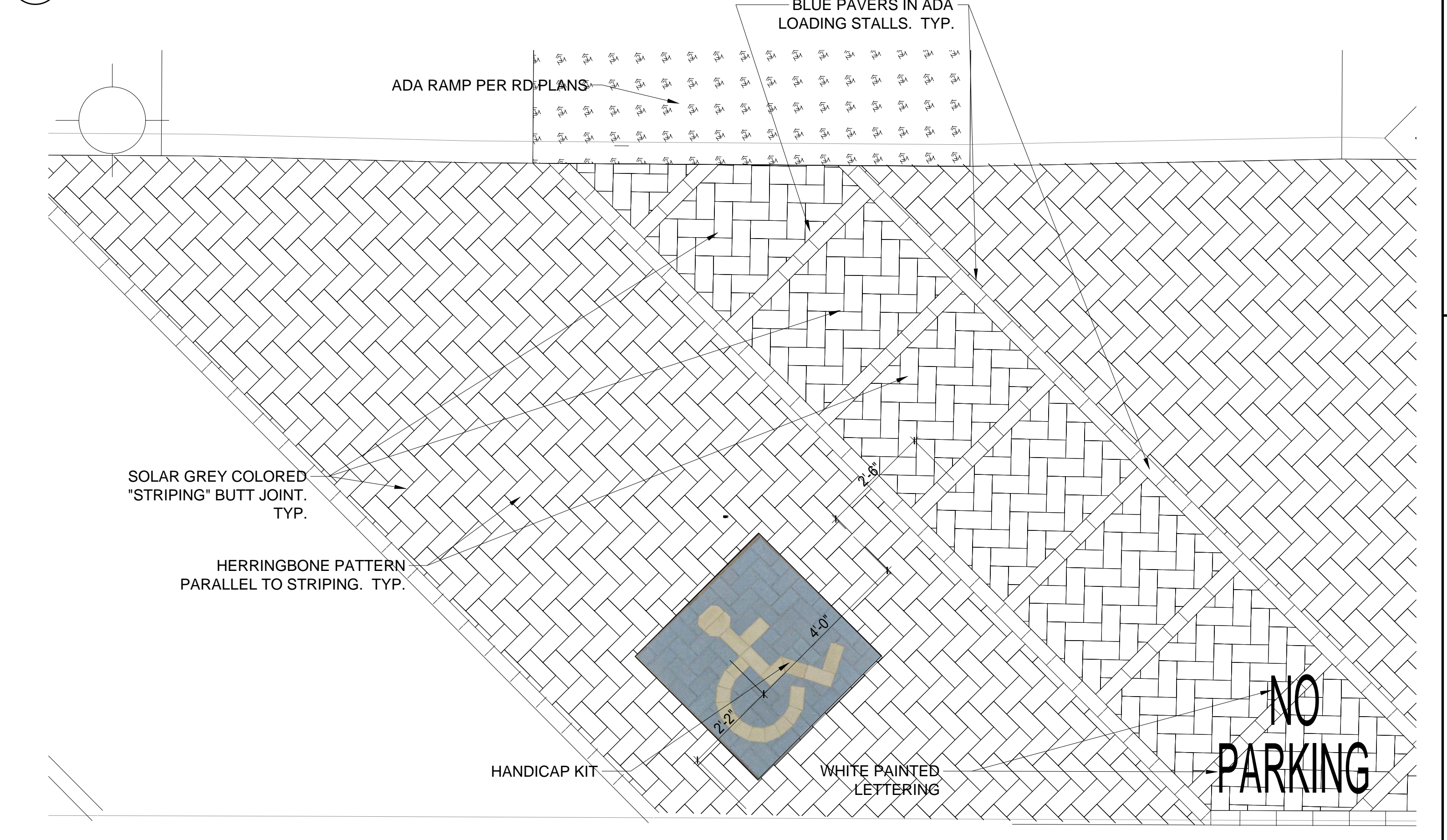
SEE SP PLANS FOR DIMENSIONS AND LAYOUTS OF DIAGONAL PARKING STALLS INCLUDING HANDICAP SPACES AND ACCESS ROUTE.
SEE RD PLANS FOR THE PROFILE OF PERMEABLE PAVERS AND TYPE.



3 CURB INLET/OUTLET
1" = 1'-0"



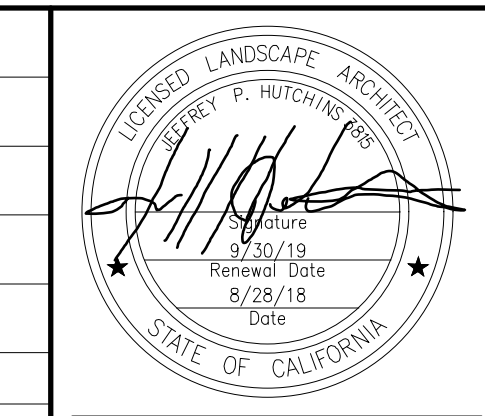
4 CURB INLET/OUTLET STRUCTURE
1" = 1'-0"



1 PERMEABLE PAVER PLAN ENLARGEMENT
1/2" = 1'-0"
PLAN VIEW SCALE 1/2" = 1'-0"

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103rd STREET GREEN IMPROVEMENT PROJECT PROJECT ID: WMD0000110 CONSTRUCTION DETAILS			
11/20/2018	PCA J54445	WMD0000110	SHEET 6 OF 16

LS-1.04

100% CD PLANS

NOTE: ALL IRRIGATION SYSTEM ON NORTH SIDE OF 103RD ST. SHALL BE CONNECTED TO EXISTING IRRIGATION SYSTEM MANAGED BY DEPARTMENT OF PARKS AND RECREATION. COORDINATE WITH DEPARTMENT OF PARKS AND RECREATION PRIOR TO INSTALLATION.

CONNECT NEW HEADS TO EXISTING LATERAL LINE ON STATION D2.
 CONTRACTOR TO RECONNECT EXISTING LATERAL TO VALVE ALONG WITH NEW IRRIGATION.
 CONNECT NEW HEADS TO EXISTING LATERAL LINE ON STATION D3.

CONNECT NEW HEADS TO EXISTING LATERAL LINE ON STATION D4.

EXISTING IRRIGATION TO REMAIN. NEW IRRIGATION TO TEE INTO EXISTING LATERAL DOWNSTREAM OF THE IRRIGATION VALVE. DO NOT DOWNSIZE EXISTING LATERAL LINE. CONTRACTOR TO CONFIRM IRRIGATION SPRAYS HAVE MATCHED PRECIPITATION RATES, AND CONFIRM LATERAL LINE IS SIZED TO MEET ZONE WATER REQUIREMENTS.

LIMIT OF WORK

MATCHLINE - SEE MIDDLE LEFT

MATCHLINE - SEE UPPER RIGHT

MATCHLINE - SEE SHEET LS-2.02

FINAL LOCATION OF THE BACKFLOW PREVENTOR SHALL BE APPROVED BY THE ENGINEER IN FIELD.

SOLAR PANEL/BATTERY SYSTEM AND IRRIGATION CONTROLLER PEDESTAL - SEE ELECTRICAL PLANS AND DETAIL 1, SHEET LS-2.06. CONFIRM FINAL LOCATION ON SITE WITH ENGINEER PRIOR TO INSTALLATION.

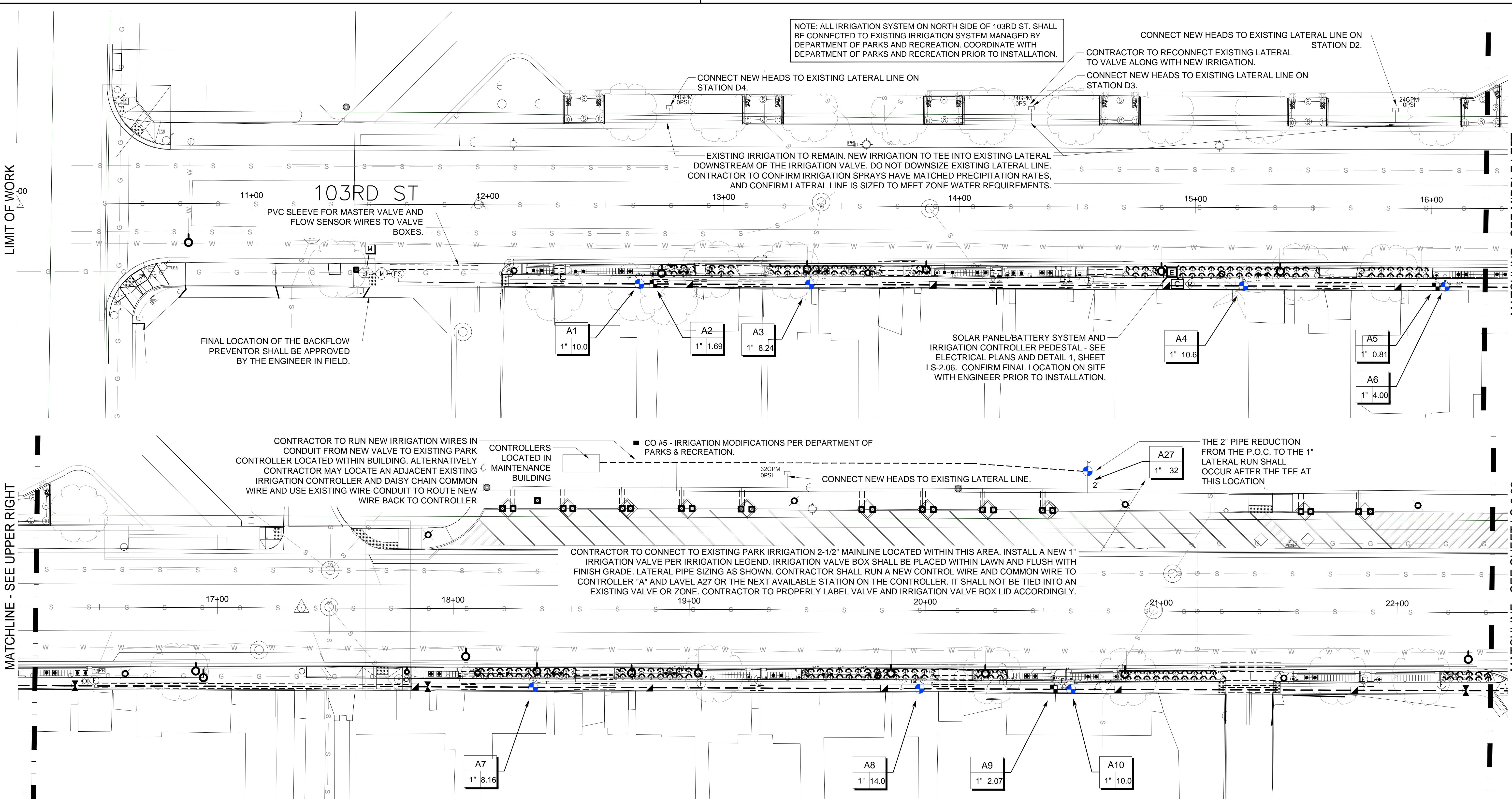
CONTRACTOR TO RUN NEW IRRIGATION WIRES IN CONDUIT FROM NEW VALVE TO EXISTING PARK CONTROLLER LOCATED WITHIN BUILDING. ALTERNATIVELY CONTRACTOR MAY LOCATE AN ADJACENT EXISTING IRRIGATION CONTROLLER AND DAISY CHAIN COMMON WIRE AND USE EXISTING WIRE CONDUIT TO ROUTE NEW WIRE BACK TO CONTROLLER

CONTROLLERS LOCATED IN MAINTENANCE BUILDING

CO #5 - IRRIGATION MODIFICATIONS PER DEPARTMENT OF PARKS & RECREATION.

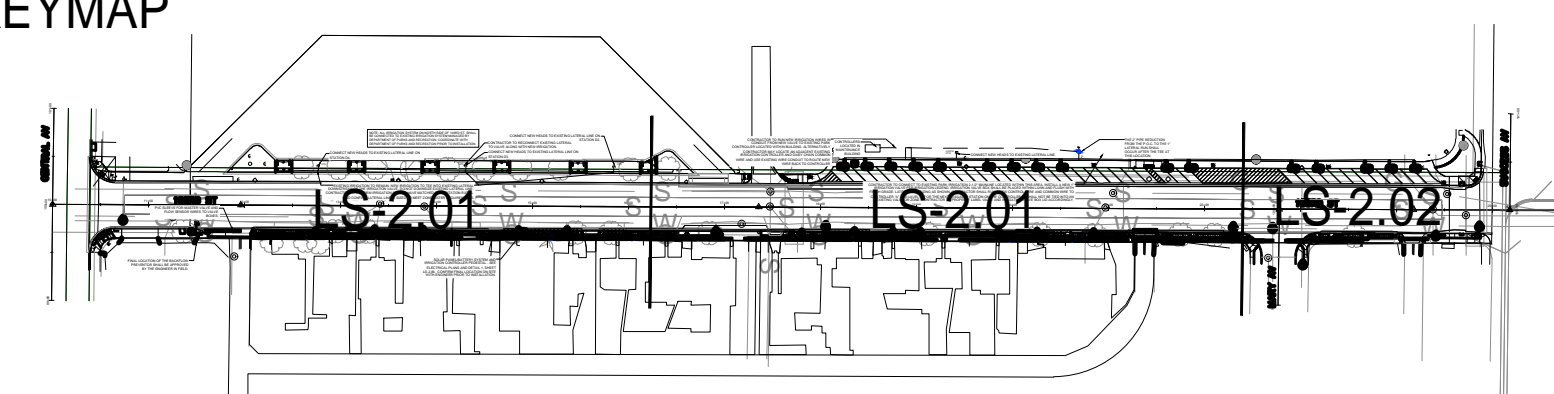
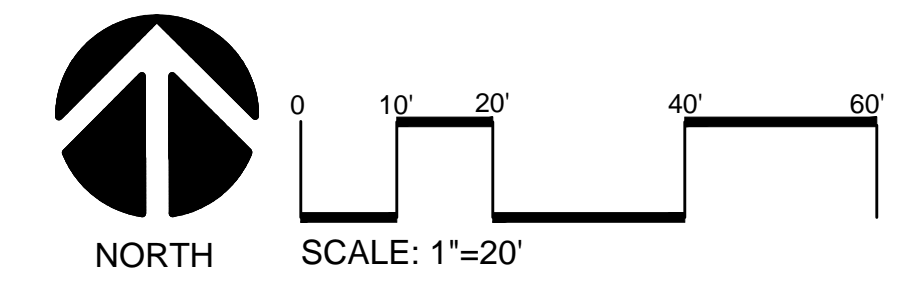
THE 2" PIPE REDUCTION FROM THE P.O.C. TO THE 1" LATERAL RUN SHALL OCCUR AFTER THE TEE AT THIS LOCATION

CONTRACTOR TO CONNECT TO EXISTING PARK IRRIGATION 2-1/2" MAINLINE LOCATED WITHIN THIS AREA. INSTALL A NEW 1" IRRIGATION VALVE PER IRRIGATION LEGEND. IRRIGATION VALVE BOX SHALL BE PLACED WITHIN LAWN AND FLUSH WITH FINISH GRADE. LATERAL PIPE SIZING AS SHOWN. CONTRACTOR SHALL RUN A NEW CONTROL WIRE AND COMMON WIRE TO CONTROLLER "A" AND LEVEL A27 OR THE NEXT AVAILABLE STATION ON THE CONTROLLER. IT SHALL NOT BE TIED INTO AN EXISTING VALVE OR ZONE. CONTRACTOR TO PROPERLY LABEL VALVE AND IRRIGATION VALVE BOX LID ACCORDINGLY.



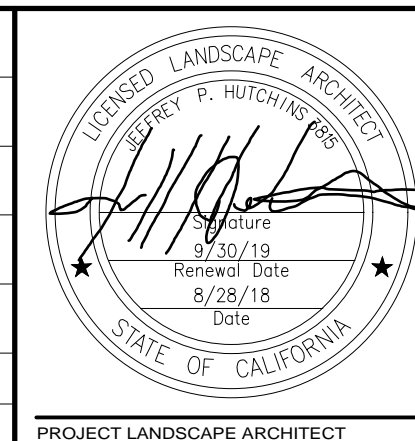
- SEE SHEET LS-2.02 FOR IRRIGATION LEGEND AND SHEET LS-2.05 FOR IRRIGATION INSTALLATION NOTES.
- SEE SHEET LS-2.03-5 FOR IRRIGATION DETAILS.
- SEE SHEET LS-0.00 FOR GENERAL CONSTRUCTION/REMOVAL NOTES.
- WORK SHOWN ON THE IRRIGATION PLANS IS DIAGRAMMATIC. LOCATE NEW IRRIGATION LINES, VALVES AND EQUIPMENT IN PLANTING AREAS. AVOID LOCATING LINES WHERE MAJOR TREES ARE PROPOSED.

KEYMAP



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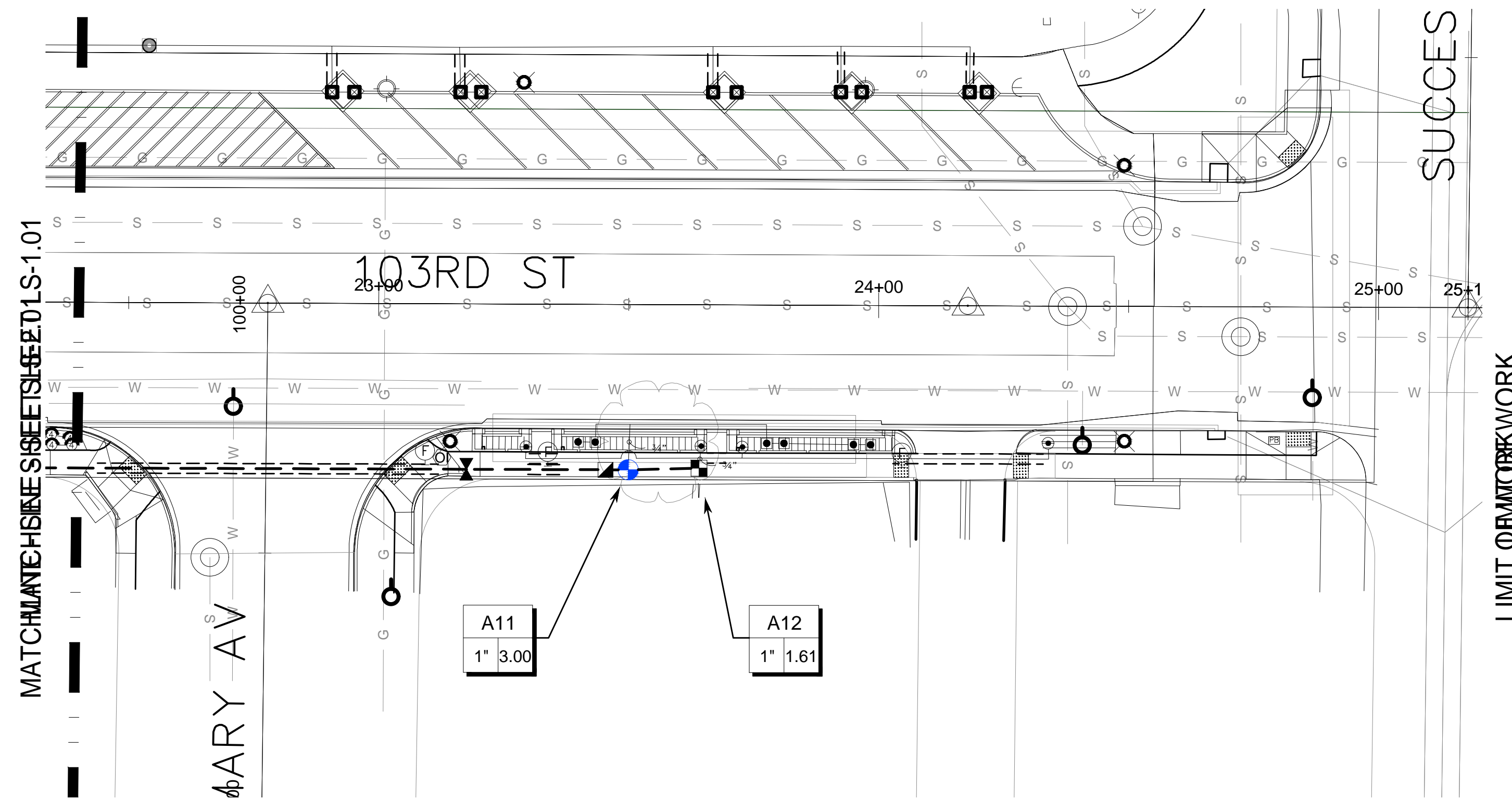
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COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS			
103rd STREET GREEN IMPROVEMENT PROJECT			
PROJECT ID: WMD0000110			
IRRIGATION PLAN			
11/20/2018	PCA J54445	WMD0000110	SHEET 8 OF 16

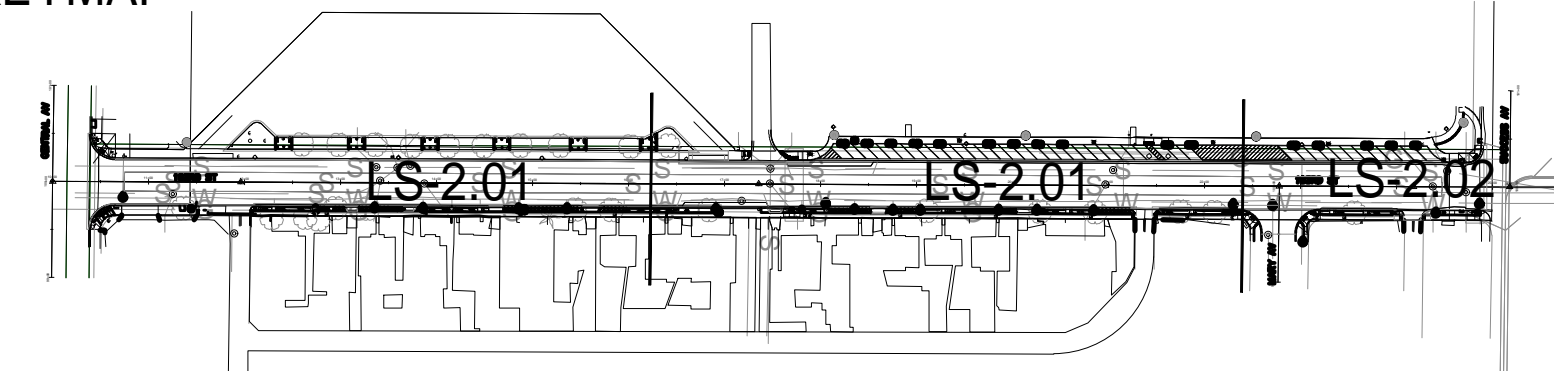
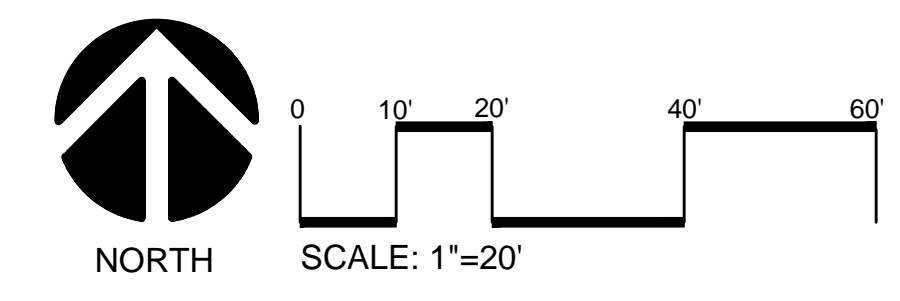
IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	ARC	PSI	GPM	RADIUS	DETAIL	ALTERNATE MANUFACTURER/MODEL
	RAIN BIRD 1812-SAM-PRS-U SQ SERIES SHRUB SPRAY, 12.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	180	30	0.20	1.2x2.4	1/LS-2.03	HUNTER PROS-12 WITH 4A NOZZLE TORO 570ZPRX-12 WITH O-T-4X15-H NOZZLE
	RAIN BIRD 1812-SAM-PRS-U SQ SERIES SHRUB SPRAY, 12.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	90	30	0.12	4'x4'	1/LS-2.03	HUNTER PROS-12 WITH 4A NOZZLE TORO 570ZPRX-12 WITH O-T-4X15-H NOZZLE
	RAIN BIRD 1812-SAM-PRS-U HE-VAN SERIES SHRUB SPRAY, 12.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	ADJ	30		8'	1/LS-2.03	HUNTER PROS-12 WITH 8A NOZZLE TORO 570ZPRX-12 WITH 8-H NOZZLE
	RAIN BIRD 1812-SAM-PRS-U HE-VAN SERIES SHRUB SPRAY, 12.0" POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. 1/2" NPT FEMALE THREADED INLET. WITH SEAL-A-MATIC CHECK VALVE, AND PRESSURE REGULATING DEVICE.	ADJ	30		10'	1/LS-2.03	HUNTER PROS-12 WITH 10A NOZZLE TORO 570ZPRX-12 WITH 10-H NOZZLE
	RAIN BIRD RWS-B-C ROOT WATERING SYSTEM WITH 4.0" DIAMETER X 36.0" LONG WITH LOCKING GRATE, SEMI-RIGID MESH TUBE, AND CHECK VALVE. RAIN BIRD BUBBLER OPTION AS INDICATED: 1401 0.25 GPM, 1402 0.5 GPM, 1404 1.0 GPM, 1408 2.0 GPM.	360	20	0.25	3'		HUNTER RZWS-36
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION					DETAIL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD XCZ-100-PRB-COM WIDE FLOW DRIP CONTROL KIT FOR COMMERCIAL APPLICATIONS. 1" BALL VALVE WITH 1" PESB VALVE AND 1" PRESSURE REGULATING 40PSI QUICK-CHECK BASKET FILTER. 0.3GPM TO 20GPM.					1/LS-2.05	HUNTER ICZ-101-LF TORO DZK-TPV-1-MF
	PIPE TRANSITION POINT BELOW GRADE PIPE TRANSITION POINT FROM PVC LATERAL TO DRIP TUBING						
	NETAFIM TL050MFV-1 AUTOMATIC FLUSH VALVE, 1/2" MALE PIPE THREAD.					4/LS-2.04	HUNTER AVF-B TORO T-FCH-H-FIPT
	RAIN BIRD OPERIND DRIP SYSTEM OPERATION INDICATOR, STEM RISES 6" FOR CLEAR VISIBILITY WHEN DRIP SYSTEM IS CHARGED TO A MINIMUM OF 20PSI. INCLUDES 16" OF 1/4" DISTRIBUTION TUBING WITH CONNECTION FITTING PRE-INSTALLED.					3/LS-2.03	HUNTER ECO-ID
	AREA TO RECEIVE DRIPLINE RAIN BIRD XFS-CV-04-12 XFS-CV ON-SURFACE LANDSCAPE DRIPLINE WITH A HEAVY-DUTY 4.3 PSI CHECK VALVE. 0.4 GPH EMITTERS AT 12" O.C. DRIPLINE LATERALS SPACED AT 12" APART, WITH EMITTERS OFFSET FOR TRIANGULAR PATTERN. GREAT FOR ELEVATION CHANGE. SPECIFY XF INSERT FITTINGS.					3/LS-2.04	HUNTER PLD-04-12-CV TORO RGP-212-01
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION					DETAIL	MANUFACTURER/MODEL/DESCRIPTION
	RAIN BIRD PESB-PRS-D 1", 1-1/2", 2" PLASTIC INDUSTRIAL VALVES. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION. WITH PRESSURE REGULATING MODULE, AND SCRUBBER TECHNOLOGY FOR RELIABLE PERFORMANCE IN DIRTY WATER IRRIGATION APPLICATIONS.					5/LS-2.03	HUNTER ICV G SERIES TORO P-220 SERIES
	RAIN BIRD 33-DLRC 3/4" BRASS QUICK-COUPLING VALVE, WITH CORROSION-RESISTANT STAINLESS STEEL SPRING, LOCKING THERMOPLASTIC RUBBER COVER, DOUBLE TRACK KEY LUG, AND 2-PIECE BODY.					6/LS-2.03	HUNTER HQ-33 DLRC TORO 075-SLVLC
	NIBCO T-113 CLASS 125 BRONZE GATE SHUT OFF VALVE WITH WHEEL HANDLE, SAME SIZE AS MAINLINE PIPE DIAMETER AT VALVE LOCATION. SIZE RANGE - 1/4" - 3"					2/LS-2.03	MATCO-NORCA 513T LASCO SLO-CLOSE TUBV-SC
	GRISWOLD 2160KE 1-1/2" 1-1/2" SOLENOID, NORMALLY OPEN MASTER VALVE. EPOXY COATING. CAST IRON AND BRONZE MATERIAL. NPT END CONNECTION.					7/LS-2.03	SUPERIOR 3100 SERIES RAIN BIRD EFB-CP
	FEBCO 825Y 2" REDUCED PRESSURE BACKFLOW PREVENTER W/ GUARD SHACK MODEL CGS-4 ENCLOSURE					4/LS-2.03	ZURN 375 WATTS LF909
	CALSENSE CONTROLLER CS3-16-S1/CS3-GR/GR-STUBBY/COMM-5YR/FM-1B CONTACT MARK HUNTZINGER (760) 580-1827					5/LS-2.04	WEATHER TRAK ET PRO3 RAIN BIRD ESP8XME-LXMM-LXMMPED



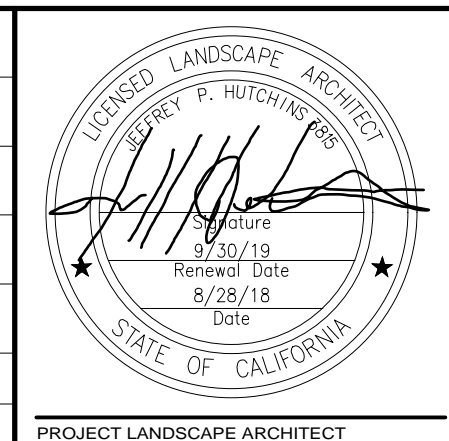
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	ARC	PSI	GPM	RADIUS	DETAIL
	RAIN BIRD RSD-BEX RAIN SENSOR, WITH METAL LATCHING BRACKET, EXTENSION WIRE.					
	CALSENSE FM-1B 1" FLOW SENSOR					7/LS-2.03
	SOLAR PANEL/BATTERY SYSTEM SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION					A/LS-2.06
	WATER METER 1" 70 PSI REQUIRED TO BE VERIFIED					
	IRRIGATION LATERAL LINE: PVC SCHEDULE 40					2/LS-2.04
	IRRIGATION MAINLINE: PVC SCHEDULE 40					2/LS-2.04
	IRRIGATION MAINLINE: TYPE K COPPER PIPE					
	PIPE SLEEVE: PVC SCHEDULE 40 TYPICAL PIPE SLEEVE FOR IRRIGATION PIPE. PIPE SLEEVE SIZE SHALL ALLOW FOR IRRIGATION PIPING, THEIR RELATED COUPLINGS, AND WIRE TO EASILY SLIDE THROUGH SLEEVING MATERIAL.					
<p>VALVE CALLOUT</p>						

KEYMAP



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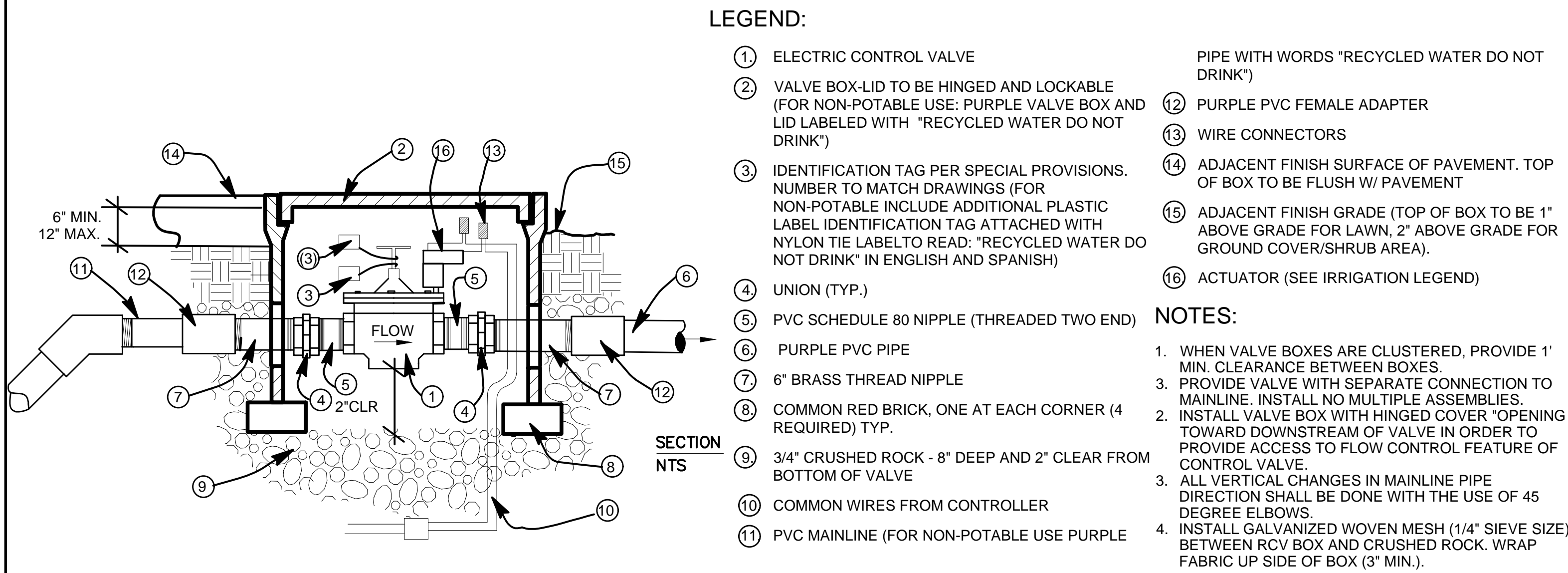
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd STREET GREEN IMPROVEMENT PROJECT
 PROJECT ID: WMD0000110
 IRRIGATION PLAN AND LEGEND

LS-2.02

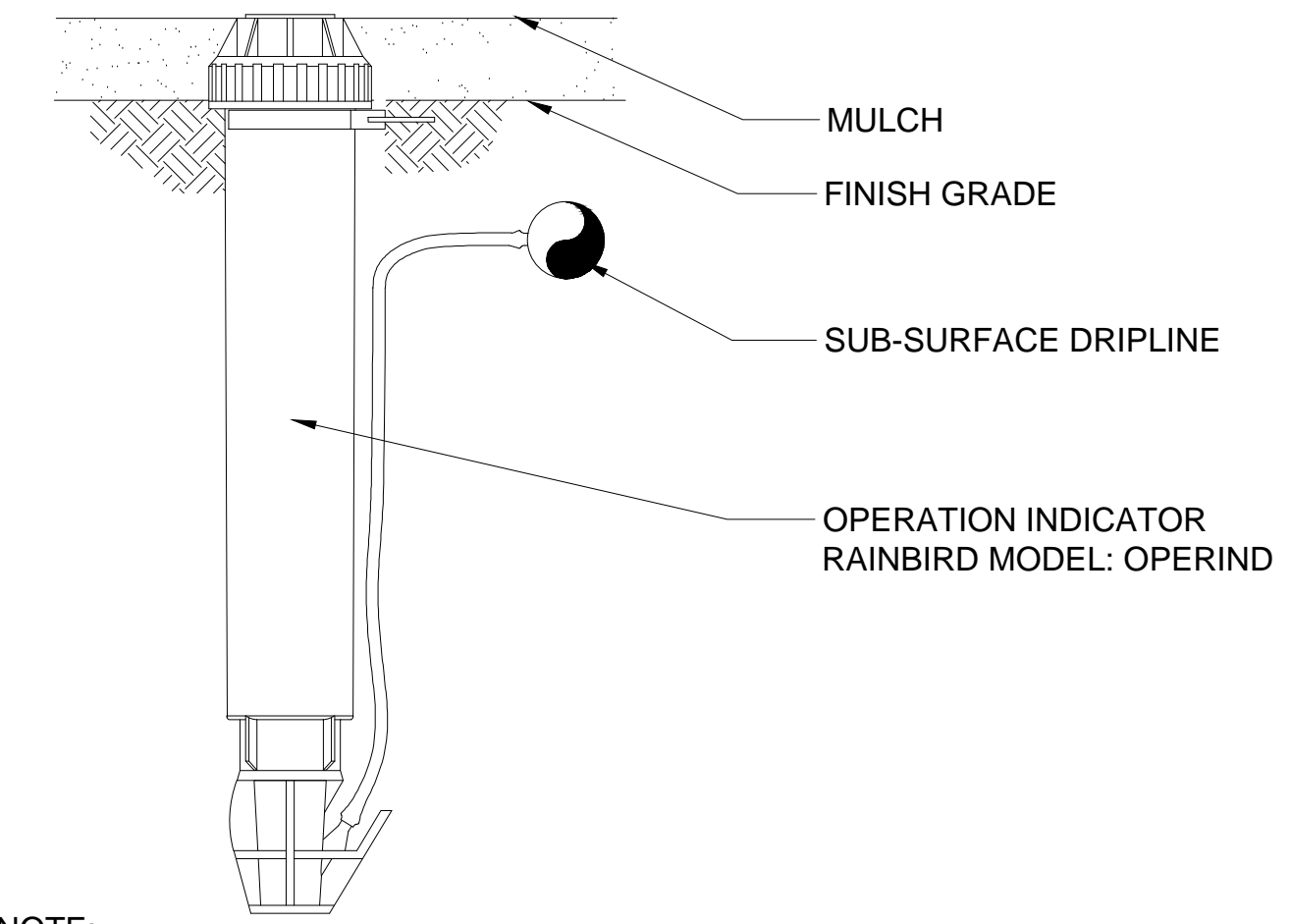
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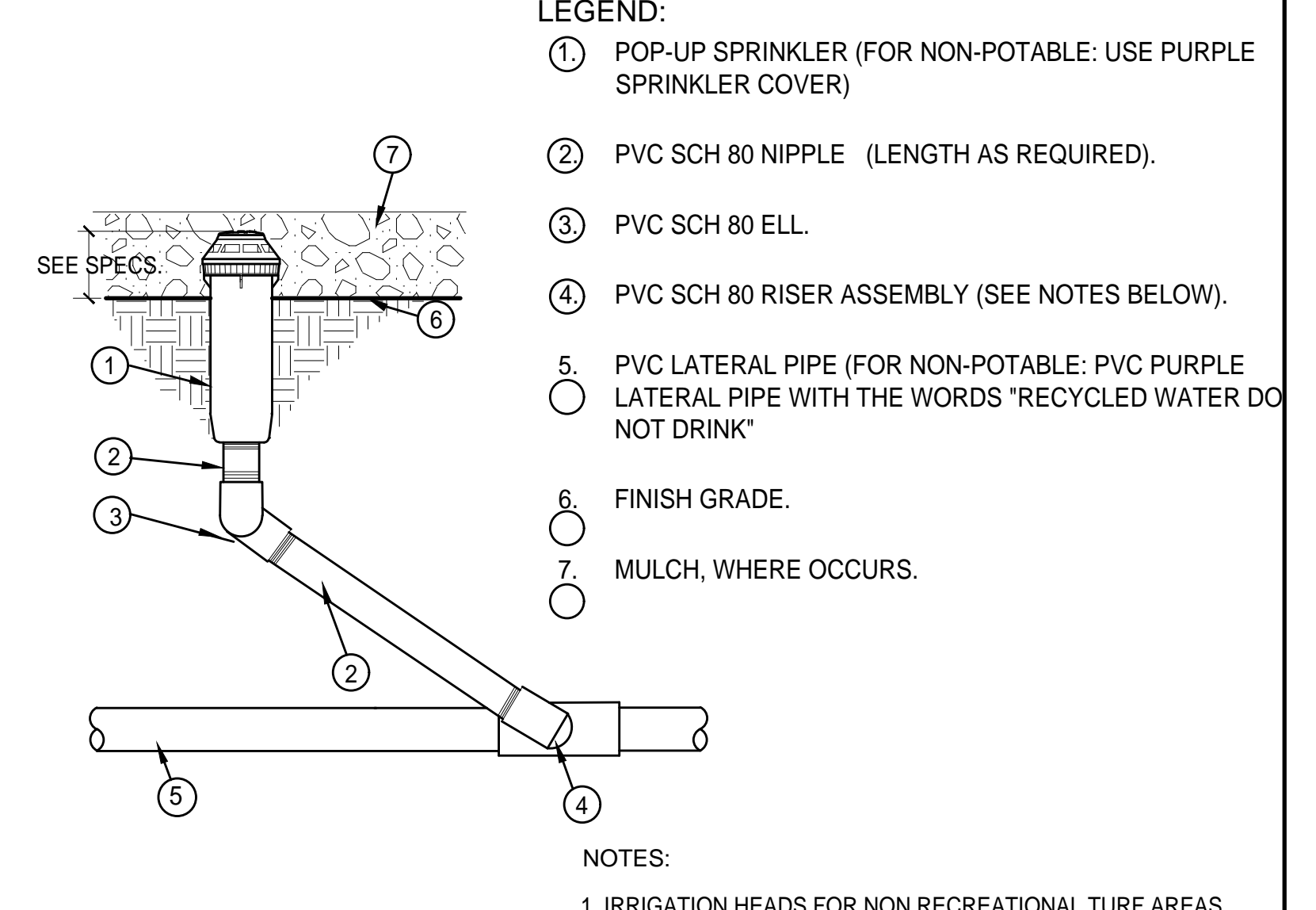
5 REMOTE CONTROL VALVE
N.T.S. P-TED-328406-10

- LEGEND:**
- 1 ELECTRIC CONTROL VALVE
 - 2 VALVE BOX-LID TO BE HINGED AND LOCKABLE (FOR NON-POTABLE USE: PURPLE VALVE BOX AND LID LABELED WITH "RECYCLED WATER DO NOT DRINK")
 - 3 IDENTIFICATION TAG PER SPECIAL PROVISIONS. NUMBER TO MATCH DRAWINGS (FOR NON-POTABLE INCLUDE ADDITIONAL PLASTIC LABEL IDENTIFICATION TAG ATTACHED WITH NYLON TIE LABEL TO READ: "RECYCLED WATER DO NOT DRINK" IN ENGLISH AND SPANISH)
 - 4 UNION (TYP.)
 - 5 PVC SCHEDULE 80 NIPPLE (THREADED TWO END)
 - 6 PURPLE PVC PIPE
 - 7 6" BRASS THREAD NIPPLE
 - 8 COMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
 - 9 3/4" CRUSHED ROCK - 8" DEEP AND 2" CLEAR FROM BOTTOM OF VALVE
 - 10 COMMON WIRES FROM CONTROLLER
 - 11 PVC MAINLINE (FOR NON-POTABLE USE PURPLE
 - 12 PURPLE PVC FEMALE ADAPTER
 - 13 WIRE CONNECTORS
 - 14 ADJACENT FINISH SURFACE OF PAVEMENT. TOP OF BOX TO BE FLUSH W/ PAVEMENT
 - 15 ADJACENT FINISH GRADE (TOP OF BOX TO BE 1" ABOVE GRADE FOR LAWN, 2" ABOVE GRADE FOR GROUND COVER/SHRUB AREA).
 - 16 ACTUATOR (SEE IRRIGATION LEGEND)
- NOTES:**
1. WHEN VALVE BOXES ARE CLUSTERED, PROVIDE 1' MIN. CLEARANCE BETWEEN BOXES.
 2. PROVIDE VALVE WITH SEPARATE CONNECTION TO MAINLINE. INSTALL NO MULTIPLE ASSEMBLIES.
 3. INSTALL VALVE BOX WITH HINGED COVER "OPENING TOWARD DOWNSTREAM OF VALVE IN ORDER TO PROVIDE ACCESS TO FLOW CONTROL FEATURE OF CONTROL VALVE.
 4. ALL VERTICAL CHANGES IN MAINLINE PIPE DIRECTION SHALL BE DONE WITH THE USE OF 45 DEGREE ELBOWS.
 5. INSTALL GALVANIZED WOVEN MESH (1/4" SIEVE SIZE) BETWEEN RCV BOX AND CRUSHED ROCK. WRAP FABRIC UP SIDE OF BOX (3" MIN.).

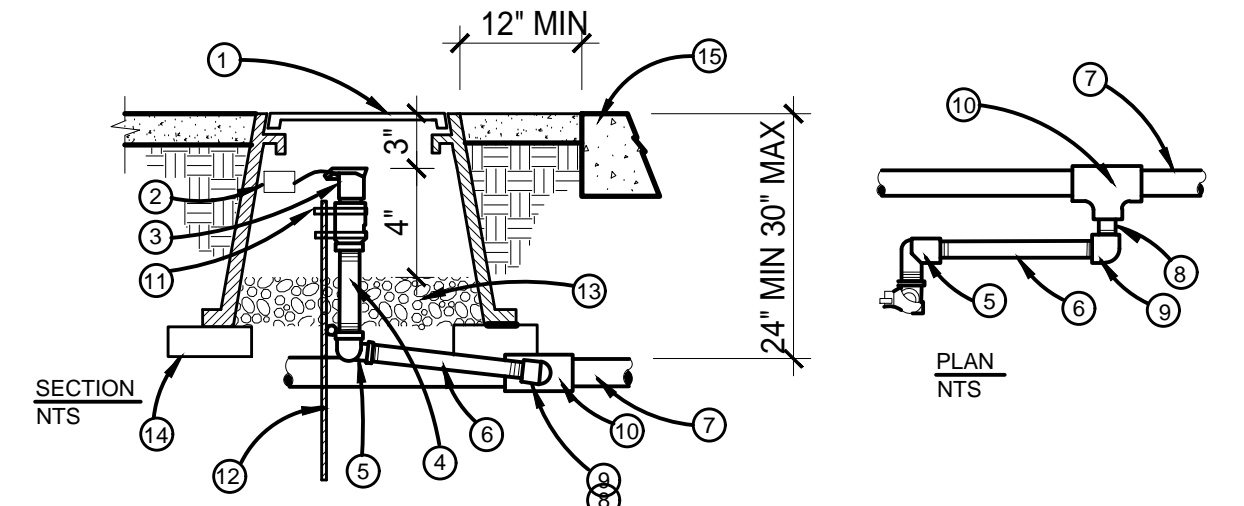


- LEGEND:**
- 1 POP-UP SPRINKLER (FOR NON-POTABLE: USE PURPLE SPRINKLER COVER)
 - 2 PVC SCH 80 NIPPLE (LENGTH AS REQUIRED).
 - 3 PVC SCH 80 ELL.
 - 4 PVC SCH 80 RISER ASSEMBLY (SEE NOTES BELOW).
 - 5 PVC LATERAL PIPE (FOR NON-POTABLE: PVC PURPLE LATERAL PIPE WITH THE WORDS "RECYCLED WATER DO NOT DRINK")
 - 6 FINISH GRADE.
 - 7 MULCH, WHERE OCCURS.
- NOTES:**
1. IRRIGATION HEADS FOR NON RECREATIONAL TURF AREAS SHALL HAVE DOUBLE SWING RISER ASSEMBLIES.

3 SUB-SURFACE DRIPLINE OPERATION INDICATOR
N.T.S. P-TED-328413-02

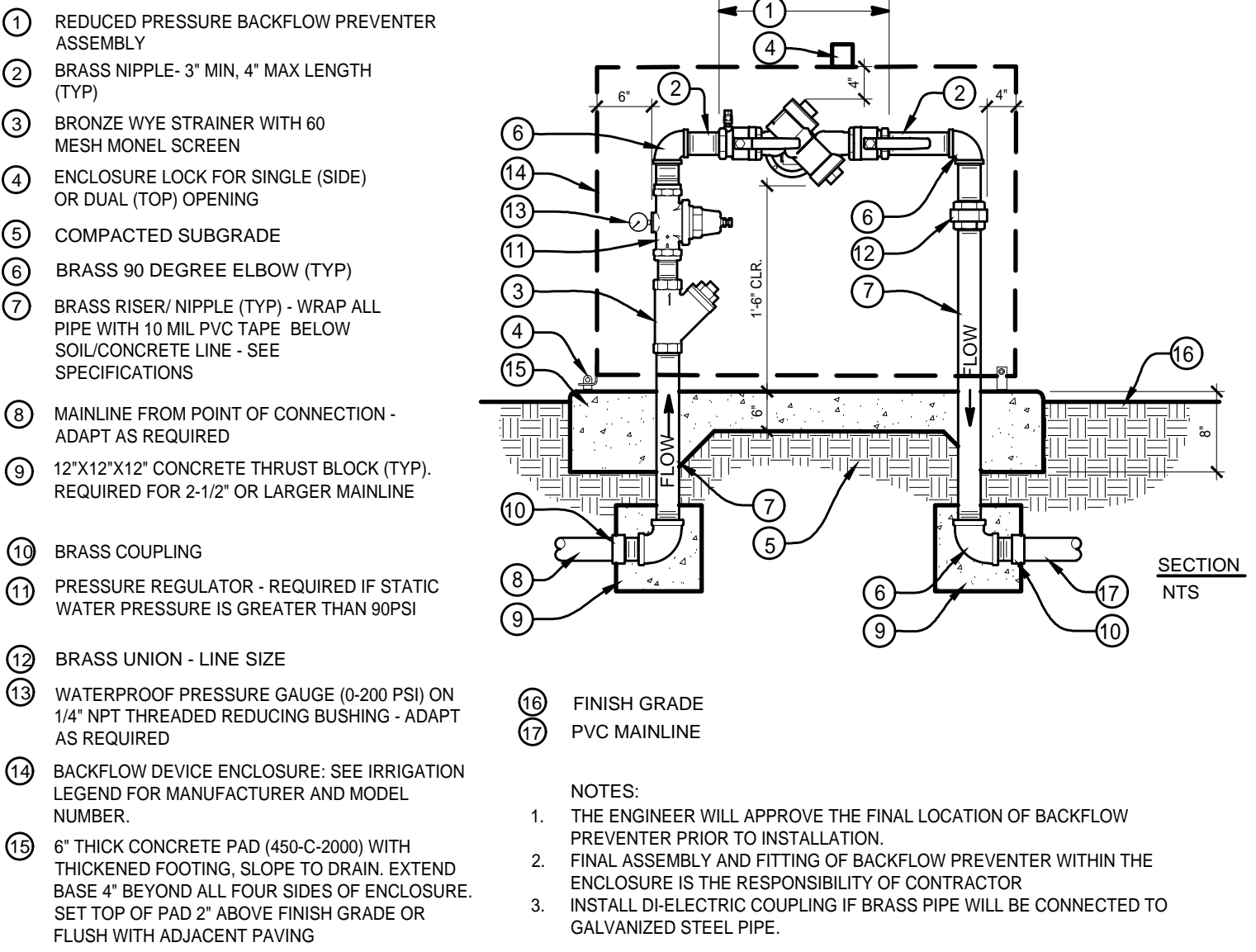


1 POP UP SPRAY
N.T.S. P-TED-328403-05

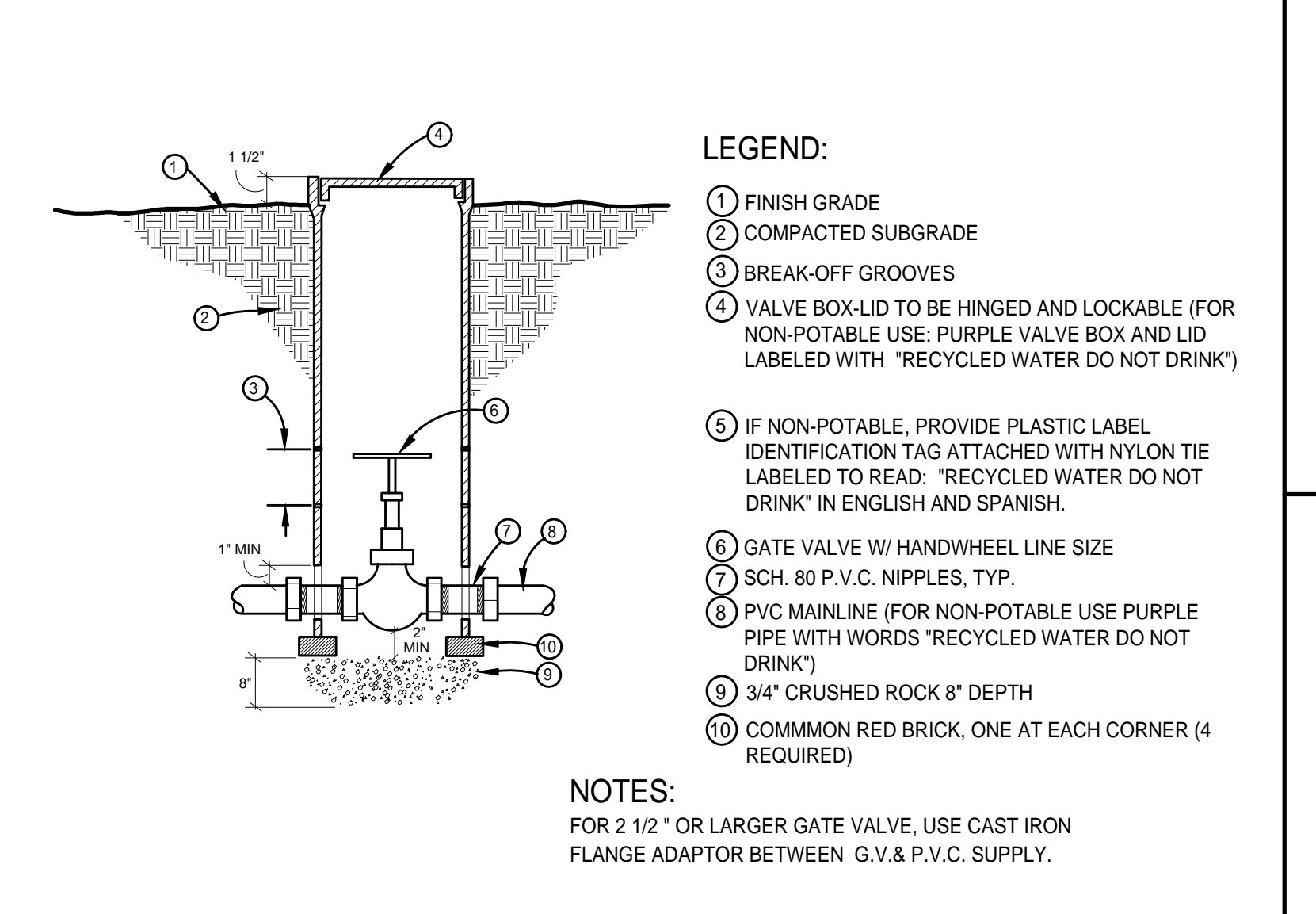


- LEGEND:**
- 1 VALVE BOX-LID TO BE HINGED AND LOCKABLE (FOR NON-POTABLE USE: PURPLE VALVE BOX AND LID LABELED WITH "RECYCLED WATER")
 - 2 FOR NON-POTABLE USE: PLASTIC LABEL IDENTIFICATION TAG ATTACHED WITH NYLON TIE LABEL TO READ: "RECYCLED WATER DO NOT DRINK" IN ENGLISH AND SPANISH
 - 3 QUICK COUPLING VALVE 33-DRC (FOR NON-POTABLE: 33DNP)
 - 4 SCHEDULE 80 PVC - LENGTH AS REQUIRED.
 - 5 SCHEDULE 40 PVC STREET ELBOW.
 - 6 SCHEDULE 80 PVC NIPPLE - 6" MINIMUM, 12" MAXIMUM LENGTH.
 - 7 PVC MAINLINE (FOR NON-POTABLE USE: PVC PURPLE MAINLINE PIPING WITH THE WORDS "RECYCLED WATER DO NOT DRINK")
 - 8 PVC SCHEDULE 80 T.O.E. (THREADED ONE END NIPPLE - 2' LENGTH)
 - 9 SCHEDULE 80 PVC THREADED ELBOW
 - 10 PVC SCHEDULE 40 SLIP TEE.
 - 11 STAINLESS STEEL COMPRESSION CLAMP (2 REQUIRED).
 - 12 24" MINIMUM LENGTH #4 REBAR STAKE. SECURE AT BODY ONLY
 - 13 3/4" CRUSHED ROCK - 8" DEEP.
 - 14 COMMON BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
 - 15 CURB, WALK OR OTHER HARDSCAPE FEATURE.
- NOTE:**
1. VALVE BOX TO BE SET SQUARE AND FLUSH NEXT TO CURB OR SIDEWALK.
 2. FOR NON-HARDSCAPE AREAS, SET TOP OF VALVE BOX 2" ABOVE FINISH GRADE.

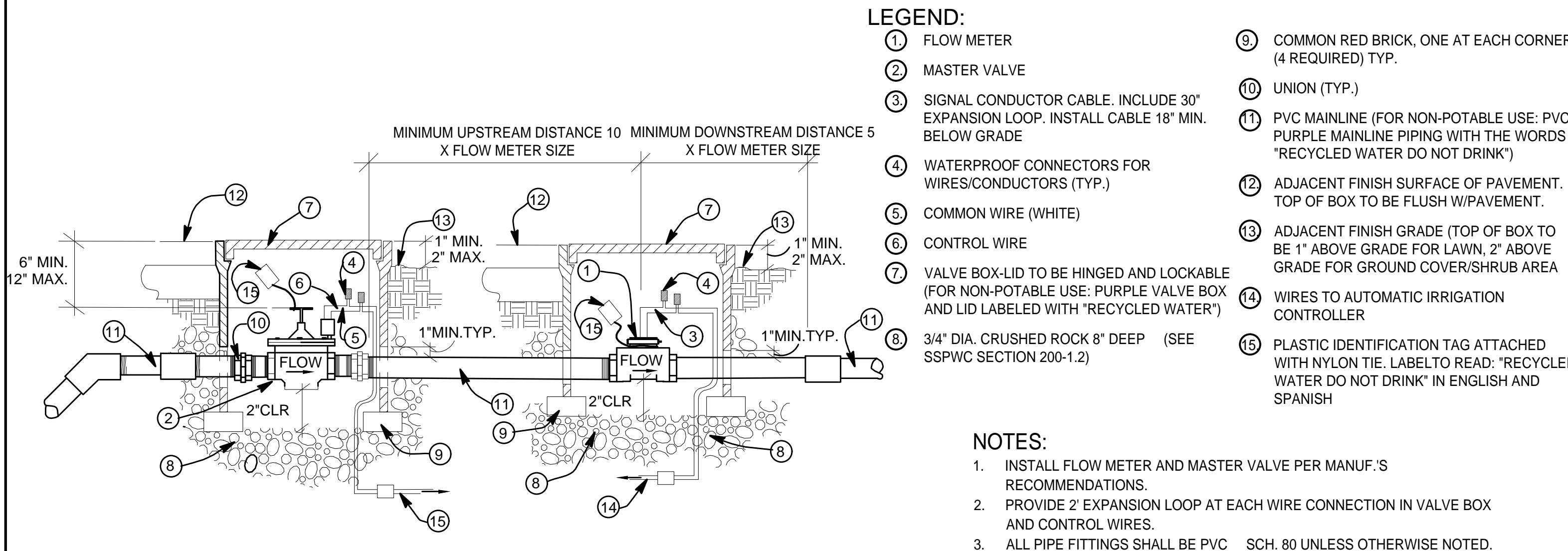
6 QUICK COUPLING VALVE
N.T.S. P-TED-328406-09



4 BACKFLOW ENCLOSED
1" = 1'-0" P-TED-328409-03



2 GATE VALVE
N.T.S. P-TED-328406-08



- LEGEND:**
- 1 FLOW METER
 - 2 MASTER VALVE
 - 3 SIGNAL CONDUCTOR CABLE. INCLUDE 30" EXPANSION LOOP. INSTALL CABLE 18" MIN. BELOW GRADE
 - 4 WATERPROOF CONNECTORS FOR WIRES/CONDUCTORS (TYP.)
 - 5 COMMON WIRE (WHITE)
 - 6 CONTROL WIRE
 - 7 VALVE BOX-LID TO BE HINGED AND LOCKABLE (FOR NON-POTABLE USE: PURPLE VALVE BOX AND LID LABELED WITH "RECYCLED WATER")
 - 8 3/4" DIA. CRUSHED ROCK 8" DEEP (SEE SSPWC SECTION 200-1.2)
 - 9 COMMON RED BRICK, ONE AT EACH CORNER (4 REQUIRED) TYP.
 - 10 UNION (TYP.)
 - 11 PVC MAINLINE (FOR NON-POTABLE USE: PVC PURPLE MAINLINE PIPING WITH THE WORDS "RECYCLED WATER DO NOT DRINK")
 - 12 ADJACENT FINISH SURFACE OF PAVEMENT. TOP OF BOX TO BE FLUSH W/PAVEMENT.
 - 13 ADJACENT FINISH GRADE (TOP OF BOX TO BE 1" ABOVE GRADE FOR LAWN, 2" ABOVE GRADE FOR GROUND COVER/SHRUB AREA)
 - 14 WIRES TO AUTOMATIC IRRIGATION CONTROLLER
 - 15 PLASTIC IDENTIFICATION TAG ATTACHED WITH NYLON TIE. LABEL TO READ: "RECYCLED WATER DO NOT DRINK" IN ENGLISH AND SPANISH
- NOTES:**
1. INSTALL FLOW METER AND MASTER VALVE PER MANUF.'S RECOMMENDATIONS.
 2. PROVIDE 2' EXPANSION LOOP AT EACH WIRE CONNECTION IN VALVE BOX AND CONTROL WIRES.
 3. ALL PIPE FITTINGS SHALL BE PVC SCH. 80 UNLESS OTHERWISE NOTED.
 4. TAPE DIRECT BURIAL WIRES IN BUNDLES EVERY 10'.
 5. WATERPROOF CONNECTORS SHALL BE PER SPECIAL PROVISIONS.
 6. CRUSHED ROCK SHALL COVER VALVE BOX PIPE OPENINGS TO PREVENT SOIL ENTRY.

7 MASTER VALVE AND FLOW METER
1" = 1" P-TED-328406-04



DATE	MK	DESCRIPTION
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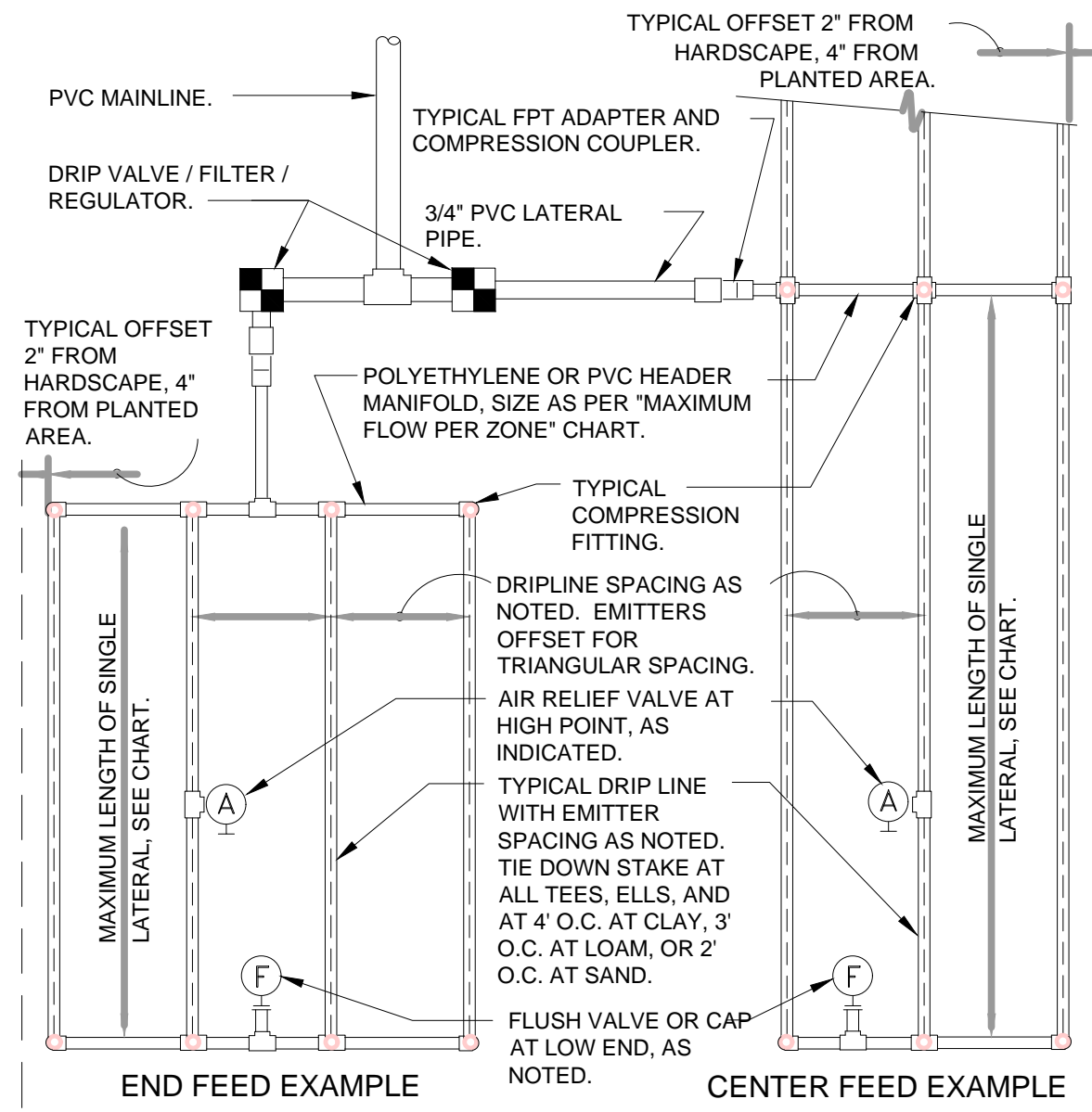
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd STREET GREEN IMPROVEMENT PROJECT
PROJECT ID: WMD0000110
IRRIGATION DETAILS

LS-2.03

11/20/2018	PCA J54445	WMD0000110	SHEET 10 OF 16
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100% CD PLANS



PSI	MAXIMUM LATERAL LENGTH (FEET)					
	12" SPACING		18" SPACING		24" SPACING	
10	125	96	175	135	218	171
20	249	191	350	171	442	340
30	307	236	434	333	550	422
40	350	268	495	380	627	171
50	125	96	175	135	218	171
60	125	96	175	135	218	171

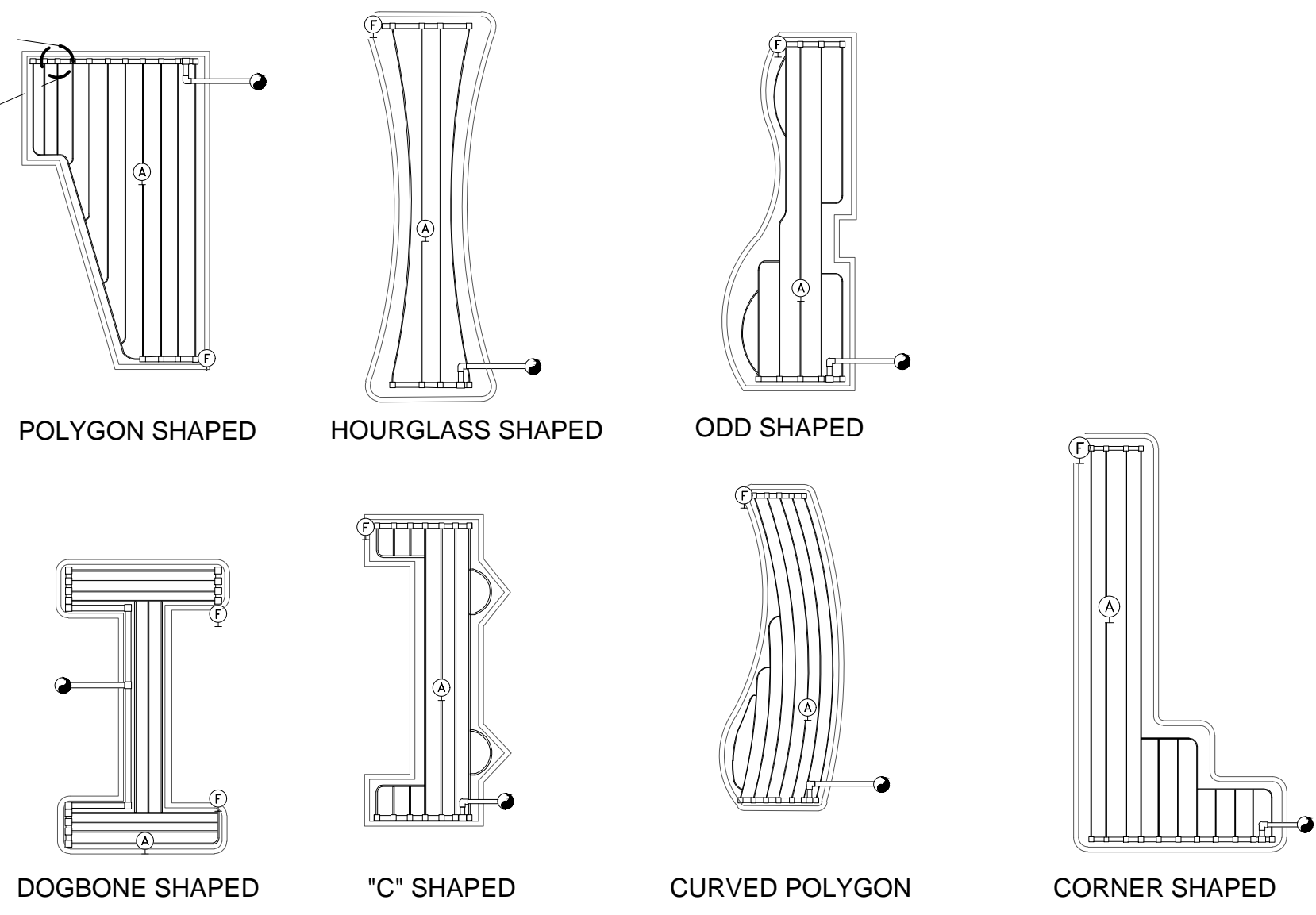
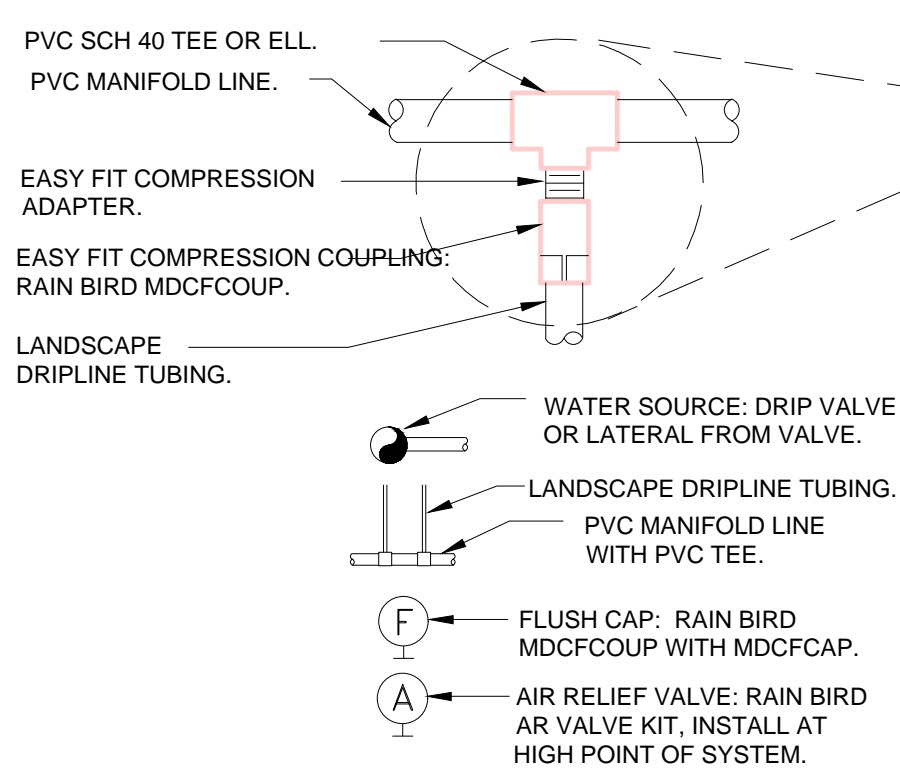
EMITTER SPACING	LATERAL SPACING	GRID PRECIPITATION RATES (IN/HR)	
		0.6	0.9
12	12	0.96	1.44
18	18	0.69	1.03
24	24	0.28	0.41

SCHEDULE 40 PVC HEADER SIZE	MAXIMUM FLOW PER ZONE	
	MAX GPM	PSI LOSS
1/2"	4.7 GPM	7.7 PSI
3/4"	8.3 GPM	5.6 PSI
1"	13.5 GPM	4.2 PSI
1-1/2"	33.9 GPM	2.9 PSI
2"	52.4 GPM	1.9 PSI

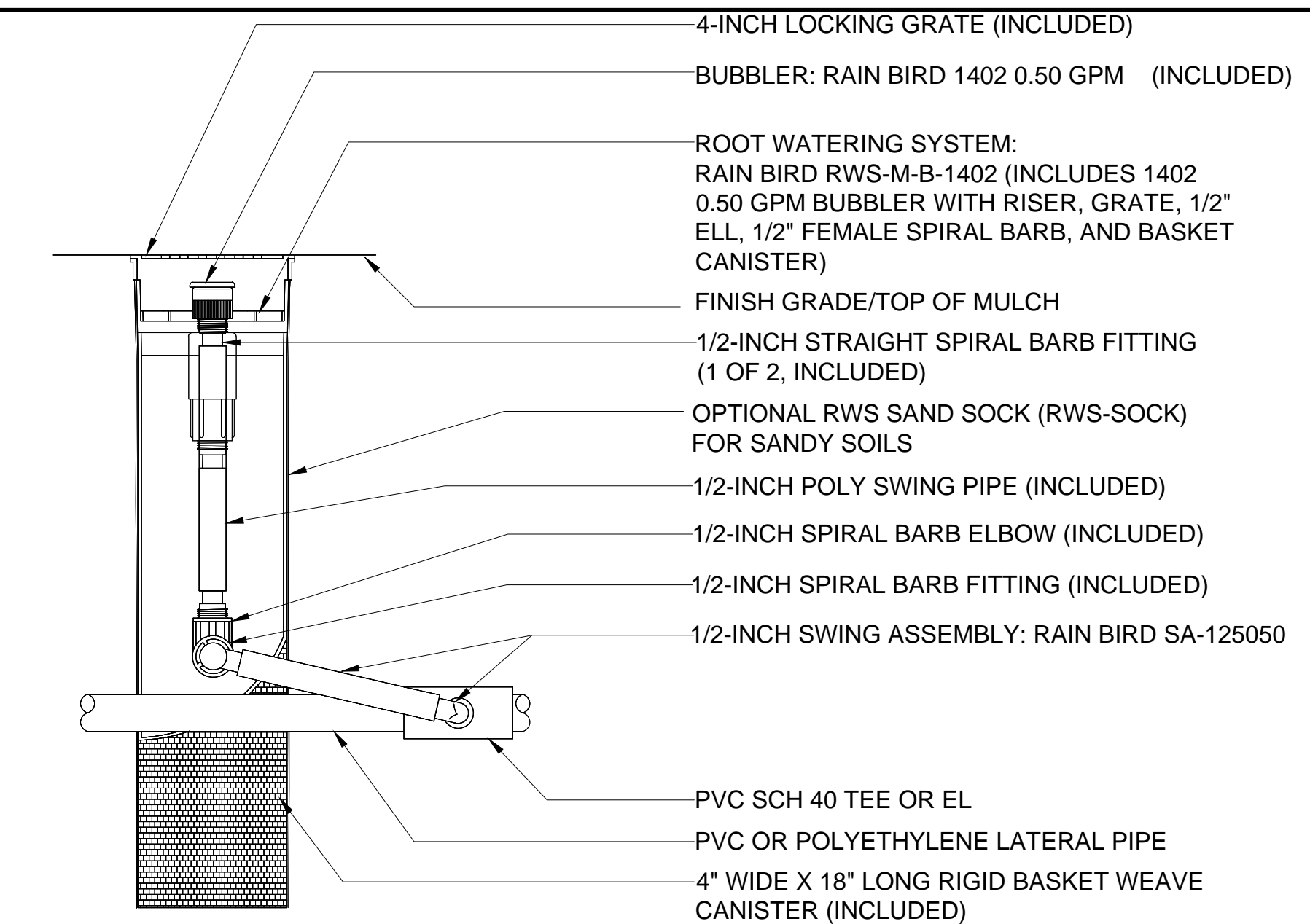
EMITTER FLOW	LATERAL FLOW PER 100 FT (GPM)			
	12" SPACING	18" SPACING	24" SPACING	24" SPACING
0.6 GPM	1.0 GPM	0.67 GPM	0.50 GPM	
0.9 GPM	1.5 GPM	1.0 GPM	0.75 GPM	

POLY PIPE HEADER SIZE	MAXIMUM FLOW PER ZONE	
	MAX GPM	PSI LOSS
1/2"	4.7 GPM	8.8 PSI
3/4"	8.3 GPM	6.3 PSI
1"	13.5 GPM	4.8 PSI
1-1/2"	31.8 GPM	2.9 PSI
2"	52.4 GPM	2.2 PSI

- SLOPED CONDITION NOTE:
1. DRIPLINE LATERALS SHOULD FOLLOW THE CONTOURS OF THE SLOPE WHENEVER POSSIBLE.
 2. INSTALL AIR RELIEF VALVE AT HIGHEST POINT.
 3. NORMAL SPACING WITHIN THE TOP 2/3 OF SLOPE.
 4. INSTALL DRIPLINE AT 25% GREATER SPACING AT THE BOTTOM 1/3 OF THE SLOPE.
 5. WHEN ELEVATION CHANGE IS 10 FT OR MORE, ZONE THE BOTTOM 1/3 ON A SEPARATE VALVE.

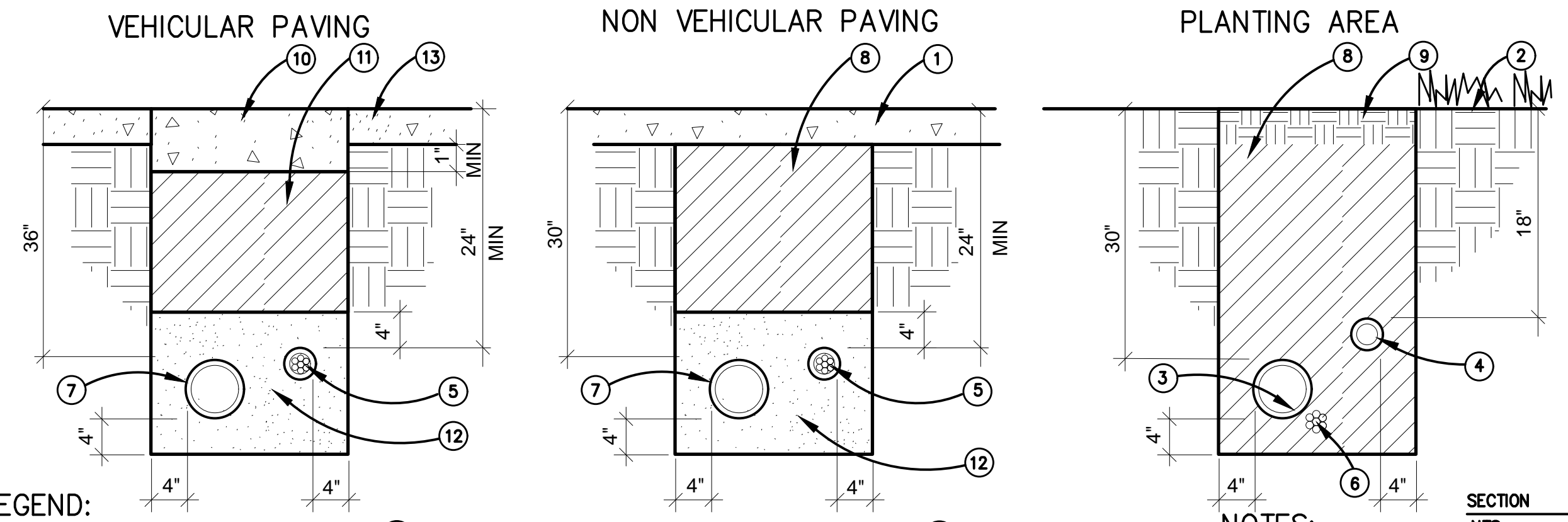


3 TYPICAL RAIN BIRD DRIPLINE REQUIREMENTS
N.T.S.



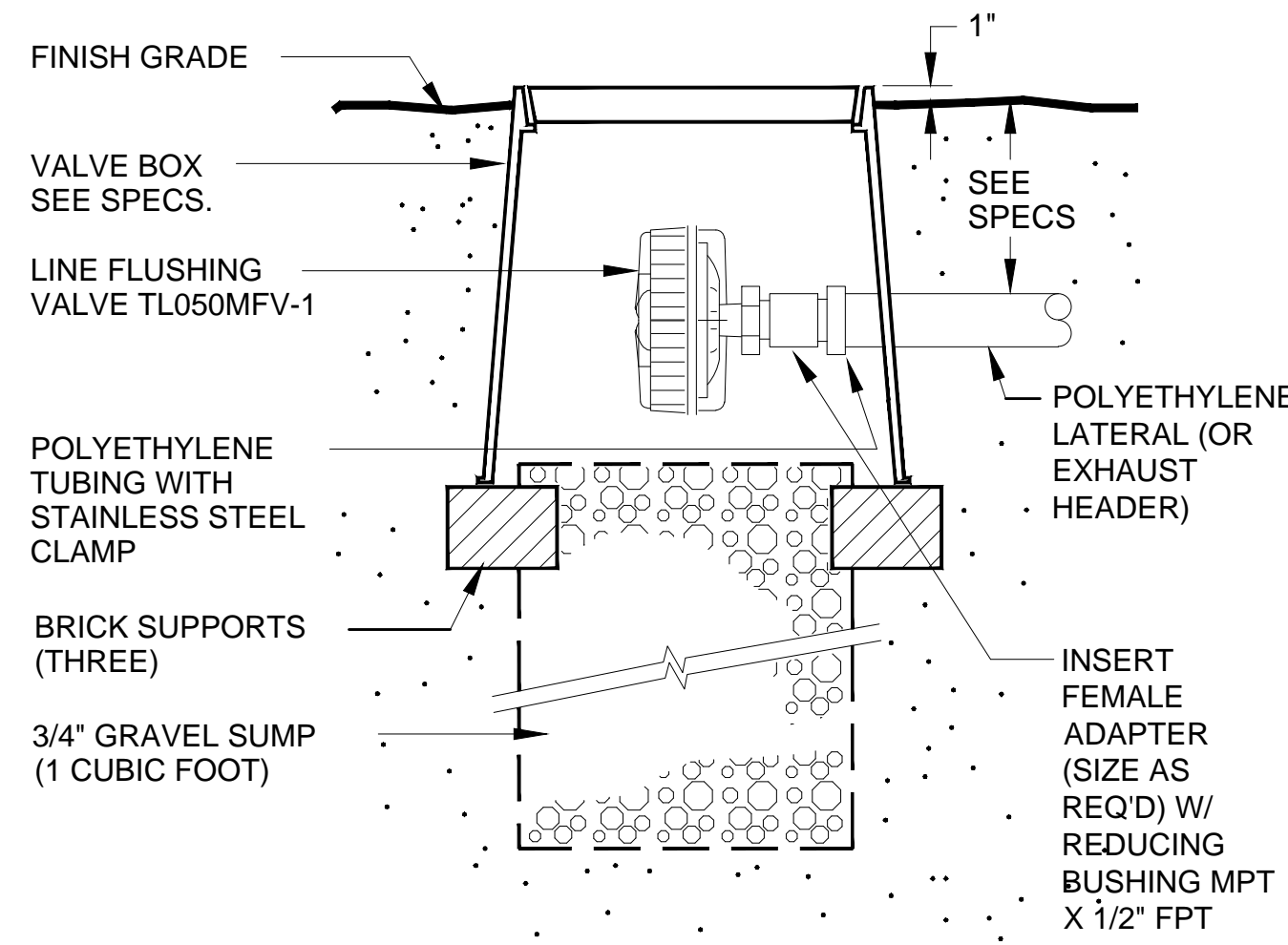
- NOTES:
1. 4" GRATE IS ALSO AVAILABLE IN PURPLE (RWS-GRATE-P).
 2. INSTALL PRODUCT SO THAT THE GRATE IS EVEN WITH FINISH GRADE OR TOP OF MULCH.
 3. SAND SOCK (RWS-SOCK) IS 34" IN LENGTH. CUT TO LENGTH NEEDED TO COVER MESH BASKET AREA.
 4. WHEN INSTALLING IN EXTREMELY HARD OR CLAY SOILS, ADD 3/4" GRAVEL UNDER AND AROUND THE UNIT TO ALLOW FASTER WATER INFILTRATION AND ROOT PENETRATION.
 5. ONCE RWS-M HAS BEEN INSTALLED FILL THE BASKET WITH PEA GRAVEL BEFORE LOCKING LID.

1 RAIN BIRD RWS BUBBLER
N.T.S.

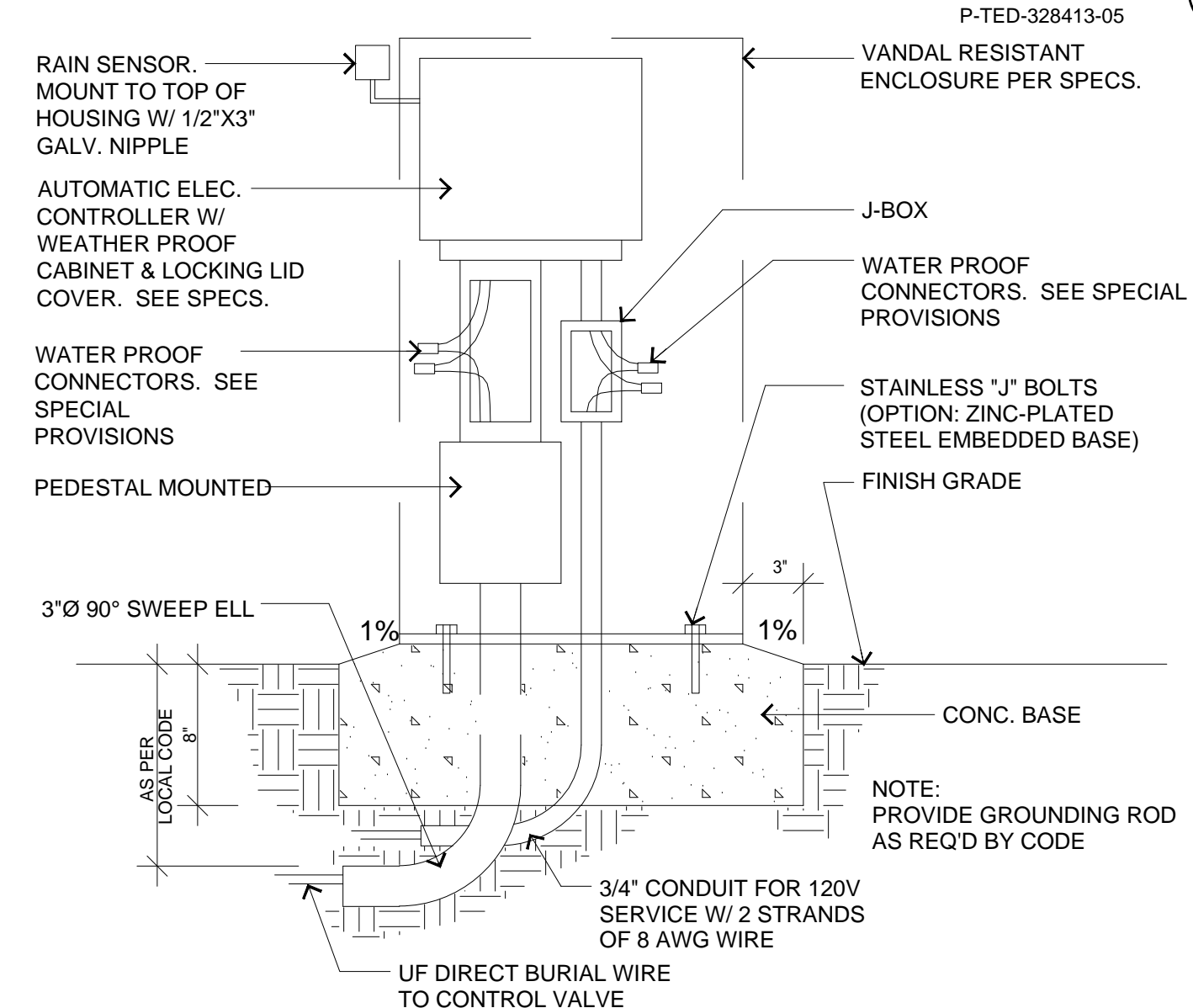


- LEGEND:
- 1 PAVING
 - 2 FINISH GRADE
 - 3 PVC MAINLINE (FOR NON-POTABLE USE PURPLE PIPE WITH WORDS "RECYCLED WATER DO NOT DRINK")
 - 4 PVC LATERAL LINE (FOR NON-POTABLE USE PURPLE PIPE WITH WORDS "RECYCLED WATER DO NOT DRINK")
 - 5 CONTROL WIRES OR COM. CABLE IN CONDUIT
 - 6 CONTROL WIRES OR COM. CABLE
 - 7 SLEEVE FOR MAINLINE AND/OR LATERAL LINE
 - 8 GRANULAR BACKFILL
 - 9 TOPSOIL
 - 10 AC PAVEMENT (C2-PG 64-10) OR PCC. (560-C-3250) THICKNESS TO MATCH EXISTING PAVEMENT PLUS 1". MINIMUM THICKNESS SHALL BE 4".
 - 11 TRENCH BACKFILL SLURRY (270-E-500)
 - 12 WASHED SAND
 - 13 EXISTING AC OR PCC PAVEMENT
- NOTES:
1. TAPE AND BUNDLE 24V. WIRES TO MAINLINE @ 10' INTERVALS.
 2. MINIMUM DEPTH OF 24V. WIRING SHALL BE 24" BELOW GRADE.
 3. TRENCH WIDTH ALLOW 4" MIN. CLEARANCE BETWEEN PARALLEL PIPES.
 4. SNAKE PIPES FROM SIDE TO SIDE WITHIN TRENCH TO ALLOW FOR MOVEMENT.
 5. TIE A 20" LOOP IN ALL WIRING AT CHANGES OF DIRECTION. UNTIE PRIOR TO BACKFILLING TRENCHES.

2 PIPE TRENCHING
N.T.S.



4 NETAFIM FLUSH VALVE
N.T.S.



5 PEDESTAL MOUNT CONTROLLER
N.T.S.

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DATE	MK	DESCRIPTION
11/19/21		AS-BUILT REVISIONS



100% PLANS

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd STREET GREEN IMPROVEMENT PROJECT
PROJECT ID: WMD0000110
IRRIGATION PLAN AND DETAILS

11/20/2018 PCA J54445 WMD0000110 SHEET 11 OF 16

**ATTACHMENT A
WATER EFFICIENT WORK SHEET**

PROJECT NAME: 103rd Street Green Improvements
PROJECT LOCATION: Los Angeles
TOTAL LANDSCAPE AREA: 4,460 sq.ft.

Maximum Applied Water Allowance (MAWA)

MAWA = (ETo) (0.62) [(0.45 x LA) + (1 x SLA)]

MAWA = Maximum Applied Water Allowance
ETo = Reference Evapo.....
0.62 = Conversion factor (to gallons per square foot)
0.7 = ET Adjustment Factor (ETAF)
LA = Landscaped Area including Special Landscape Area
SLA = Portion of Landscape Area identified as Special Landscape Area (1.0 - 0.7 = 0.3)
SLA - Portion of Landscape Area identified as Special Landscape Area - see Definitions (square feet)

Applicant to fill in boxes below.

52.3	ETo (reference Evapotranspiration from Appendix A (inches per year)
4,460	Landscape Area including Special Landscape Area (square feet)
0	Portion of Landscape Area identified as Special Landscape Area (square feet)

ETo	ETAF	AREA (s.f.)	Conversion	MAWA
52.3	x 0.45	x 4,460	x 0.62	= 65,079
MAWA for SLA*	52.3	x 1	x 0	= 0
Total MAWA				65,079 (gallons per year)

Estimated Total Water Use (ETWU)

ETWU = (ETo) (0.62) [(PF x HA) / IE + SLA]

ETWU = Estimated
ETo = Reference Evapo.....
0.62 = Conversion factor (to gallons per square foot)
PF = Plant Factor from WUCOLS (see Definitions)
HA = Hydrozone Area = planting area separated to high, moderate, low and very low water use areas (square feet)
IE = Irrigation Efficiency - see Chart ** (minimum 0.71)

SLA - Portion of Landscape Area identified as Special Landscape Area - see Definitions (square feet)

ETWU arrived from Hydrozone Table below= 37,904 gallons per year

HYDROZONE TABLE

hydrozone	plant water use type	plant factor (PF) (see table B)	hydrozone area (HA) (square ft.)	PFxHA (square ft.)	% of landscape area (LA)	irrigation efficiency IE	Hydro-zone ETWU
1	low water	0.2	3,427	685	77%	0.75	29,633
2	low water	0.2	1,033	207	23%	0.81	8,271
8	SLA	---	0	---	0%	---	0
TOTAL							37,904

Table A - PF (Plant Factor)

Cool Season Turf*	0.8
Warm Season Turf**	0.6
High Water Using Plants	0.8 (can be between 0.7 - 0.9)
Moderate Water Using Plants	0.5 (can be between 0.4 - 0.6)
Low Water Using Plants	0.2 (can be between 0.1 - 0.3)
Very Low Water Using Plants	0.1 (below 0.1)

* species include tall fescue, ryegrass, bentgrass and Kentucky bluegrass
** species include bermudagrass, zoysisgrass, st. augustinegrass

Table B - IE (Irrigation Efficiency)

Pop-up spray heads	0.75
Rotor heads	0.75
Microspray	0.75
Bubblers	0.81
Drip emitters	0.81
Subsurface irrigation	0.81

note: adjustment can be made based on exact type of equipment

CRITICAL ANALYSIS

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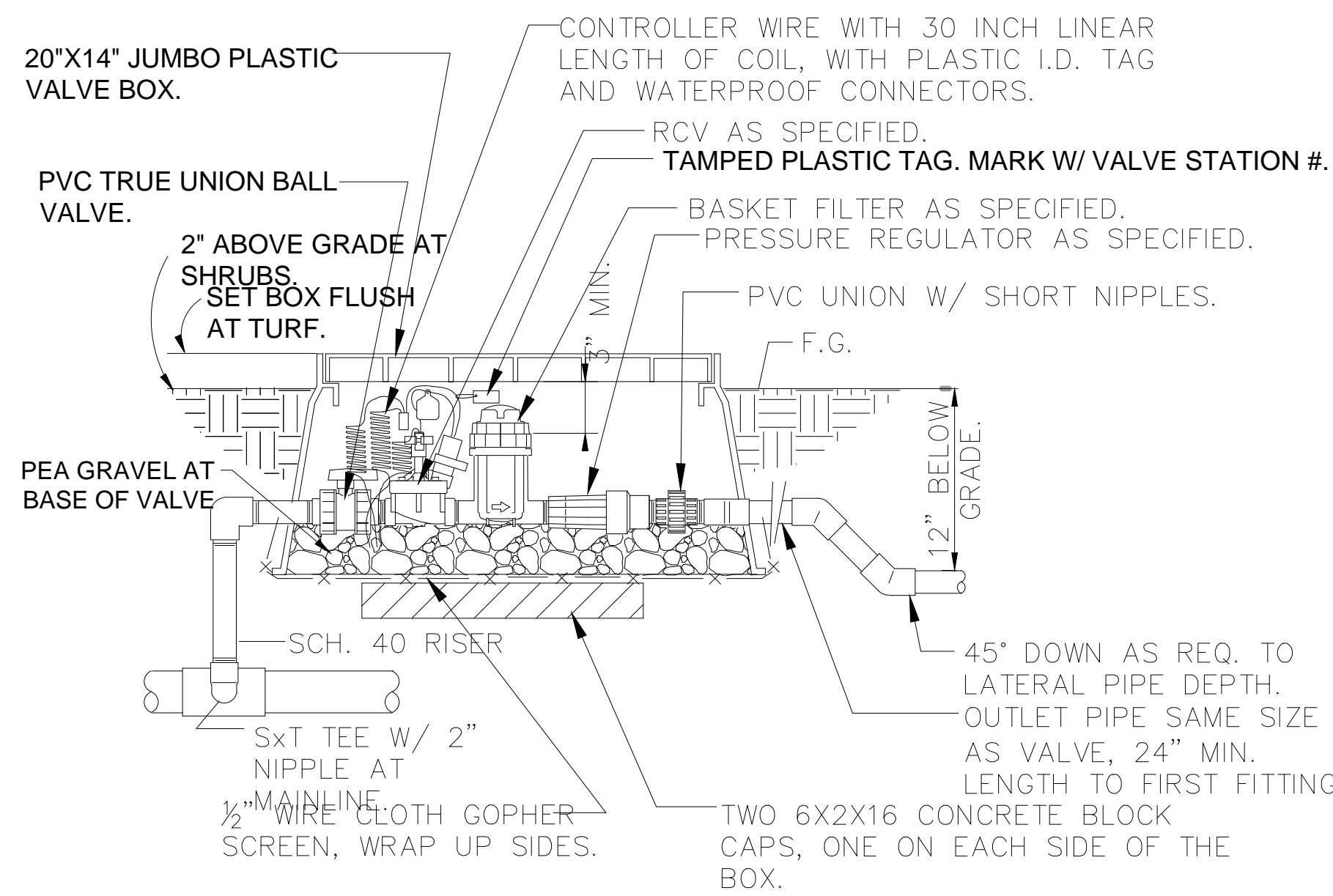
P.O.C. NUMBER: 02
Water Source Information: 70 psi required to be verified

FLOW AVAILABLE
Water Meter Size: 1"
Flow Available: 37.50 gpm

PRESSURE AVAILABLE
Static Pressure at POC: 0.00 psi
Elevation Change: 5.00 ft
Service Line Size: 1 1/2"
Length of Service Line: 20.00 ft
Pressure Available: 0.00 psi

DESIGN ANALYSIS
Maximum Station Flow: 13.96 gpm
Flow Available at POC: 37.50 gpm
Residual Flow Available: 23.54 gpm

Critical Station: A8
Design Pressure: 30.00 psi
Friction Loss: 4.57 psi
Fittings Loss: 0.46 psi
Elevation Loss: 0.00 psi
Loss through Valve: 2.24 psi
Pressure Req. at Critical Station: 37.25 psi
Loss for Fittings: 1.17 psi
Loss for Main Line: 11.69 psi
Loss for POC to Valve Elevation: 0.00 psi
Loss for Backflow: 11.30 psi
Loss for Master Valve: 1.30 psi
Loss for Water Meter: 1.10 psi
Critical Station Pressure at POC: 63.81 psi
Pressure Available: 0.00 psi
Residual Pressure Available: -63.81 psi



1" DRIP VALVE W/BASKET FILTER
1 1/2" = 1'-0"
P-TED-328413-15

IRRIGATION INSTALLATION NOTES:

- TRENCHING OPTION: CONTRACTOR HAS AN OPTION TO INSTALL LATERAL IRRIGATION LINES UTILIZING A TRENCHLESS TECHNIQUE (PULLED IN) WHERE POSSIBLE.
- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES PRIOR TO START OF CONSTRUCTION.
- CONTRACTOR TO VERIFY LOCATIONS OF ALL EXISTING TREES AND OTHER PLANTS IN THE AREAS OF WORK PRIOR TO START OF CONSTRUCTION.
- INSTALL PVC SCHEDULE 40 CONDUIT UNDER EXISTING PAVING WHEREVER NECESSARY TO "RUN" CONTROL WIRES. INSTALL CONTROL WIRES A MINIMUM 24" BELOW FINISH GRADE AND 36" UNDER VEHICULAR ROADWAY.
- ALL VERTICAL CHANGES IN MAINLINE PIPE DIRECTION SHALL BE DONE WITH THE USE OF 45 DEGREE ELBOWS.
- LATERAL SUPPLY LINES FROM THE VALVE TO THE FIRST HEAD SHALL BE ONE SIZE LARGER THAN THE VALVE, UNLESS OTHERWISE NOTED.
- THE AGENCY WILL APPLY FOR AND PAY ALL FEES FOR THE PROPOSED WATER METER(S). SEE PLANS FOR AVAILABLE WATER PRESSURE AT THE P.O.C. AND WATER PURVEYOR'S INFORMATION. NOTIFY THE ENGINEER IF THERE IS A DISCREPANCY WITH CONTRACTORS FINDING AND WHAT IS INDICATED ON THE PLANS.
- REPAIR ALL EXISTING MATERIALS DAMAGED OR EXPOSED BY NEW IRRIGATION INSTALLATION WORK OR BY ANY OTHER CONSTRUCTION WORK, MATCH EXISTING ADJACENT WORK IN TEXTURE AND COLOR.
- ALL QUICK COUPLING VALVES SHALL BE INSTALLED IN LOCK LID VALVE BOXES. MARK ALL BOXES Q.C.V. WITH EPOXY PAINT.
- IRRIGATION HEADS SHALL BE PROPERLY POSITIONED TO ALLOW STANDARD OPERATION, RETRACTION, AND SHALL BE ADJUSTED SO THERE IS NO OVER-SPRAYING ONTO ADJACENT SIDEWALKS, PAVEMENT(S), AND ROADWAYS.
- CONTRACTOR SHALL MAKE ALL NECESSARY ADJUSTMENTS TO ENSURE THAT ALL COMPONENTS OF THE IRRIGATION SYSTEM PERFORM PROPERLY DURING CONSTRUCTION AND MAINTENANCE PERIODS.
- CONTRACTOR SHALL PROVIDE AND INSTALL FLOW METER(S) AND MASTER CONTROL VALVE(S) FOR ALL PROPOSED AUTOMATIC IRRIGATION CONTROL SYSTEM(S) AS SHOWN ON PLANS. INSTALLATION SHALL BE PER DETAILS AND MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE RESPONSIBLE TO PROGRAM THE AUTOMATIC IRRIGATION CONTROLLER(S) SO THE SYSTEM SHALL BE FULLY OPERATION TO DETECT MAIN AND LATERAL LINE BREAKAGE.
- ADJUST LOCATION OF IRRIGATION HEADS AS NECESSARY TO MINIMIZE SPRAY INTERFERENCE AGAINST OBSTRUCTIONS (CONCRETE WALLS, TELEPHONE AND POWER POLES, TREES, ETC.).
- ADJUST ALL ADJUSTABLE ARC NOZZLES AS NECESSARY TO AVOID UNDER-SPRAY OF PLANTING AREAS AND OVER-SPRAY OF WALLS AND SIDEWALKS.
- FOLLOWING IRRIGATION HEAD INSTALLATION, ADJUST RADIUS THROW TO CONFORM TO SITE CONDITIONS.
- INSTALL NEW ELECTRIC IRRIGATION CONTROLLERS IN STAINLESS STEEL IRRIGATION CONTROLLER ENCLOSURE WHERE SHOWN ON PLAN(S). MAKE ELECTRICAL CONNECTIONS AS NECESSARY TO PROVIDE AN OPERATIONAL ELECTRICAL AUTOMATIC IRRIGATION SYSTEMS. (SEE ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.)
- CONTRACTOR SHALL PROVIDE AND PAY FOR BACKFLOW DEVICE INSPECTION. INSPECTION TO BE PERFORMED BY AN INSPECTOR CERTIFIED BY LOS ANGELES COUNTY DEPARTMENT OF HEALTH SERVICES (LACDHS). THE INSPECTION CERTIFICATION SHALL BE COMPLETED AND SUBMITTED TO THE WATER PURVEYOR, AND A COPY SHALL BE SUBMITTED TO THE ENGINEER AND LACDHS.
- CONTRACTOR SHALL VERIFY THE FIELD CONDITIONS AND INSTALL ADDITIONAL IN-LINE CHECK VALVES WHEREVER NECESSARY TO PREVENT LOW-HEAD DRAINAGE.
- ALL TREES ARE TO BE WATERED BY A SEPARATE BUBBLER SYSTEM. SEE IRRIGATION DETAIL FOR BUBBLER INSTALLATION.
- INSTALL X-OVER SLEEVES (CLASS 315 PVC UNLESS NOTED OTHERWISE) WHERE SHOWN ON THE PLANS, AT INTERSECTIONS, AND WHEREVER PIPE CROSSES UNDER PAVEMENTS. ALL SLEEVES SHALL EXTEND 6" INTO PLANTING AREAS AT BOTH ENDS. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF THE SLEEVES PRIOR TO PAVING/PATH/ETC. BEING INSTALLED. NOT ALL SLEEVES MAY BE INDICATED ON PLANS.
- "BORE" UNDER EXISTING PAVING WHEREVER POSSIBLE. SAWCUT EXISTING PAVING WHERE NECESSARY AS APPROVED TO INSTALL PIPING/SLEEVE. FOR TRENCH REPAIR INFORMATION (INSERT TRENCHING REPAIR DETAIL IN DETAIL SHEET), REFER TO DETAIL **/SHEET **.
- CONTRACTOR SHALL ADJUST EXACT LOCATIONS OF IRRIGATION PIPES AND TUBINGS TO AVOID CATCH BASINS AND OTHER SITE AMENITIES.
- ALL HEADS WITH CHECK VALVES AND PRESSURE REGULATION DEVICES IN POP-UP STEM SHALL BE CONNECTED THOUGH BOTTOM INLET AND NOT SIDE INLET.
- DRIP IRRIGATION SYSTEM:

- A) FLUSH VALVES TO BE INSTALLED, WHERE INDICATED ON PLANS OR AT BOTH ENDS OF A DRIP SYSTEM. INSTALL VALVES IN VALVE BOXES AND LOCATE THEM IN PLANTING AREAS.
- B) DRIPLINE AND FLEXIBLE PVC SHALL NOT BE BENT BEYOND A RADIUS OF 3 FEET. CONTRACTOR SHALL USE ANGLE FITTINGS FOR ANY CHANGES TIGHTER THAN 3 FEET.

ATTACHMENT B.1

IRRIGATION SCHEDULE (Peak Summer Schedule)

PROJECT NAME: 103rd Street Green Improvements
PROJECT LOCATION: Los Angeles
TOTAL LANDSCAPE AREA: 4,460 sq.ft.

ETo: (enter area)

jan.	feb.	mar.	april	may	june	july	aug.	sept.	oct.	nov.	dec.	annual
2.1	2.7	3.7	4.7	5.1	6.0	7.1	6.7	5.6	4.2	2.6	2.0	52.5

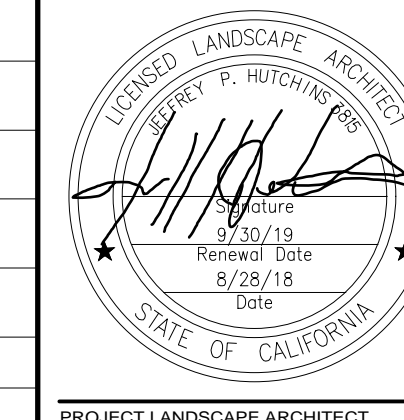
IRRIGATION SCHEDULE FOR SUMMER (JULY):

(use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip. rate (in./min.)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
A1	1"	10	0.81	bubbler	63	tree	15.32	0.5	1	1	1	12	17.2	170.8
A2	1"	1.75	0.81	subsurface	263	shrub	0.64	0.2	14	6	2	12	164.4	289.2
A3	1"	8.24	0.75	spray	424	shrub	1.87	0.2	5	1	5	12	60.7	498.1
A4	1"	10.64	0.75	spray	572	shrub	1.79	0.2	5	6	1	12	63.5	671.9
A5	1"	0.81	0.81	subsurface	122	shrub	0.64	0.2	14	6	2	12	164.4	132.5
A6	1"	4	0.81	bubbler	25	tree	15.32	0.2	7	6	1	1	6.9	27.3
A7	1"	8.16	0.75	spray	401	shrub	1.96	0.2	5	1	5	12	58.0	470.6
A8	1"	13.96	0.75	spray	693	shrub	1.94	0.2	5	6	1	12	58.6	813.4
A9	1"	2.58	0.81	subsurface	388	shrub	0.64	0.2	14	6	2	12	164.4	422.0
A10	1"	10	0.81	bubbler	63	tree	15.32	0.2	7	7	1	1	6.9	68.3
A11	1"	3	0.81	bubbler	19	tree	15.32	0.2	7	8	1	1	6.9	20.5
A12	1"	1.77	0.81	subsurface	266	tree	0.64	0.2	14	8	2	12	164.4	289.5
Total Runtime per day										1.4	Hours	Total Monthly ETWU		387.2

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11/19/21	AS-BUILT REVISIONS
DATE	DESCRIPTION
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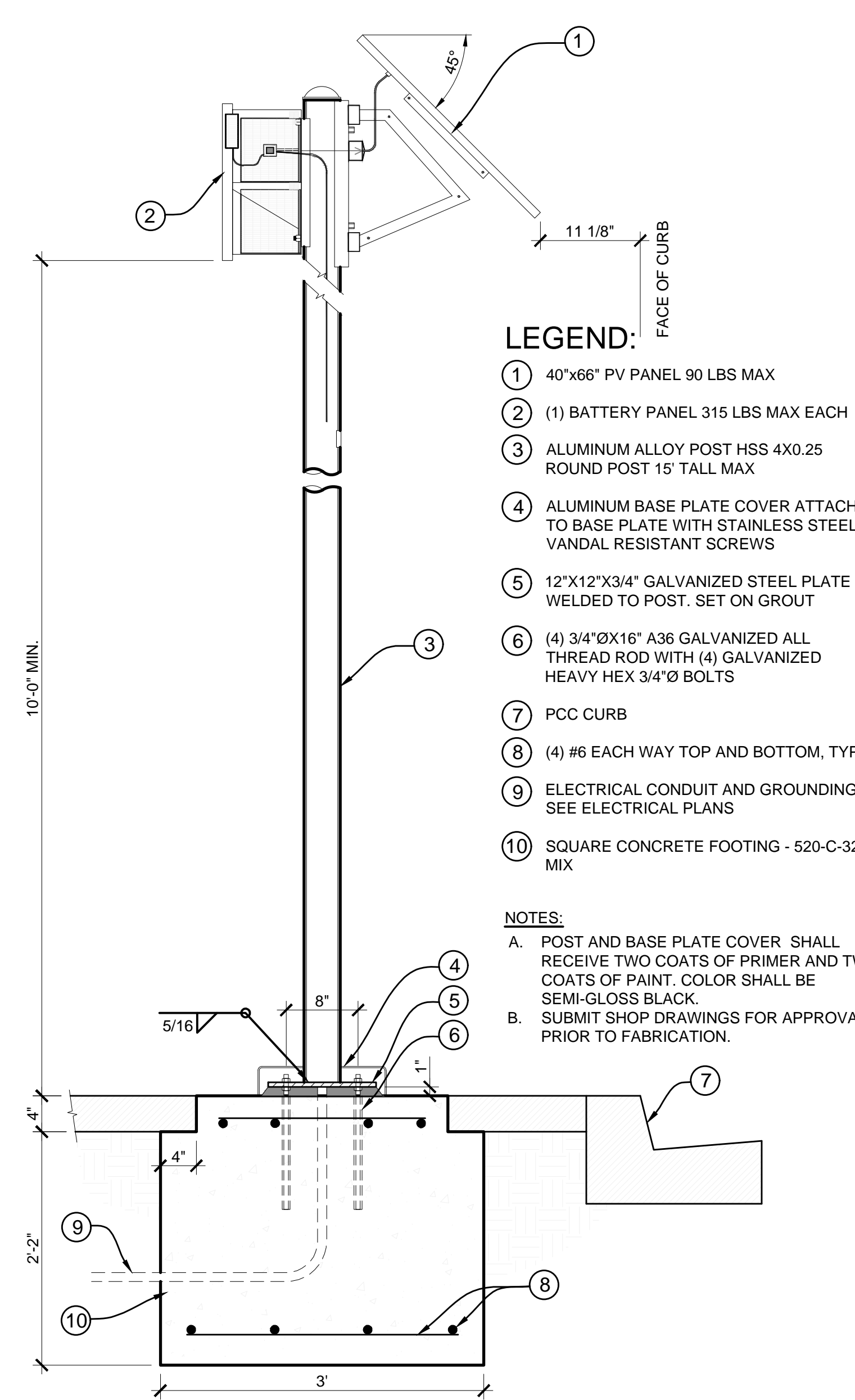
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

**103rd STREET GREEN IMPROVEMENT
PROJECT
PROJECT ID: WMD0000110
IRRIGATION DETAILS AND
NOTES**

LS-2.05

11/20/2018	PCA J54445	WMD0000110	SHEET 12 OF 16
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100% CD PLANS



1 SOLAR POWER SYSTEM - FOOTING
SCALE: 1"=1'-0"

- LEGEND:**
- 1 40"x66" PV PANEL 90 LBS MAX
 - 2 (1) BATTERY PANEL 315 LBS MAX EACH
ROUND POST 1 1/8" TALL MAX
 - 3 ALUMINUM ALLOY POST HSS 4X0.25
ROUND POST 1 1/8" TALL MAX
 - 4 ALUMINUM BASE PLATE COVER ATTACH
TO BASE PLATE WITH STAINLESS STEEL
VANDAL RESISTANT SCREWS
 - 5 12"x12"x3/4" GALVANIZED STEEL PLATE
WELDED TO POST. SET ON GROUT
 - 6 3/4"xØ16" A36 GALVANIZED ALL
THREAD ROD WITH (4) GALVANIZED
HEAVY HEX 3/4"xØ4 BOLTS
 - 7 PCC CURB
 - 8 (4) #6 EACH WAY TOP AND BOTTOM, TYP.
 - 9 ELECTRICAL CONDUIT AND GROUNDING,
SEE ELECTRICAL PLANS
 - 10 SQUARE CONCRETE FOOTING - 520-C-3250
MIX
- NOTES:**
- A. POST AND BASE PLATE COVER SHALL
RECEIVE TWO COATS OF PRIMER AND TWO
COATS OF PAINT. COLOR SHALL BE
SEMI-GLOSS BLACK.
 - B. SUBMIT SHOP DRAWINGS FOR APPROVAL
PRIOR TO FABRICATION.

ATTACHMENT B.2
IRRIGATION SCHEDULE (Monthly Schedule)

PROJECT NAME: 103rd Street Green Improvements
PROJECT LOCATION: Los Angeles
TOTAL LANDSCAPE AREA: 4,400 sq.ft.

ET: Los Angeles (available thru)

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
2.1	2.7	3.7	4.7	5.1	6.0	7.1	6.7	5.6	4.2	2.6	2.0	52.5

IRRIGATION SCHEDULE FOR JANUARY: (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
A1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	8	5.1	50.5
A2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	8	1	8	8	48.8	84.6
A3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	2	1	2	8	18.0	147.3
A4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	2	1	2	8	18.8	188.8
A5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	3	1	3	8	48.8	39.2
A6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	2	1	2	1	2.0	8.1
A7	1"	8.16	0.75	spray	400.71	shrub	1.96	0.2	3	1	3	8	22.0	178.8
A8	1"	13.96	0.75	spray	692.60	shrub	1.94	0.2	2	1	2	8	17.3	240.5
A9	1"	2.58	0.81	subsurface	388.01	shrub	0.64	0.2	6	1	6	8	48.8	124.7
A10	1"	10	0.81	bubbler	62.83	tree	15.32	0.2	2	1	2	1	2.0	20.2
A11	1"	3	0.81	bubbler	18.85	tree	15.32	0.2	2	1	2	1	2.0	6.1
A12	1"	1.77	0.81	subsurface	266.19	tree	0.64	0.2	6	1	6	8	48.8	85.5
Total Runtime per day										0.7	Hours	Total Monthly ETWU	1144.4	

IRRIGATION SCHEDULE FOR FEBRUARY: (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	8	6.5	64.9
2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	8	1	8	8	62.5	108.8
3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	3	1	3	8	23.1	189.9
4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	3	1	3	8	24.1	255.4
5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	3	1	3	8	48.8	50.4
6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	2	1	2	1	2.6	10.4
7	1"	8.16	0.75	spray	400.71	shrub	1.96	0.2	3	1	3	8	22.0	178.8
8	1"	13.96	0.75	spray	692.60	shrub	1.94	0.2	4	1	4	8	22.0	178.8
9	1"	2.58	0.81	subsurface	388.01	shrub	0.64	0.2	6	1	6	8	48.8	124.7
10	1"	10	0.81	bubbler	62.83	tree	15.32	0.2	3	1	3	1	2.6	26.0
11	1"	3	0.81	bubbler	18.85	tree	15.32	0.2	3	1	3	1	2.6	7.8
12	1"	1.77	0.81	subsurface	266.19	tree	0.64	0.2	8	1	8	8	62.5	110.0
Total Runtime per day										0.9	Hours	Total Monthly ETWU	1471.4	

IRRIGATION SCHEDULE FOR MARCH: (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	8	8.9	89.0
2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	11	1	11	8	85.6	149.1
3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	4	1	4	8	31.7	299.4
4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	4	1	4	8	33.1	350.0
5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	11	1	11	8	85.6	69.0
6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	4	1	4	1	3.6	14.4
7	1"	8.16	0.75	spray	400.71	shrub	1.96	0.2	4	1	4	8	30.2	245.1
8	1"	13.96	0.75	spray	692.60	shrub	1.94	0.2	4	1	4	8	30.5	423.7
9	1"	2.58	0.81	subsurface	388.01	shrub	0.64	0.2	11	1	11	8	85.6	219.8
10	1"	10	0.81	bubbler	62.83	tree	15.32	0.2	4	1	4	1	3.6	35.6
11	1"	3	0.81	bubbler	18.85	tree	15.32	0.2	4	1	4	1	3.6	10.7
12	1"	1.77	0.81	subsurface	266.19	tree	0.64	0.2	11	1	11	8	85.6	150.8
Total Runtime per day										1.2	Hours	Total Monthly ETWU	2016.3	

IRRIGATION SCHEDULE FOR APRIL: (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	10	11.4	113.0
2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	11	1	11	10	108.8	189.4
3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	4	1	4	10	40.2	329.6
4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	4	1	4	10	42.0	444.6
5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	11	1	11	10	108.8	67.8
6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	5	1	5	1	4.5	18.1
7	1"	8.16	0.75	spray	400.71	shrub	1.96	0.2	4	1	4	10	38.4	311.4
8	1"	13.96	0.75	spray	692.60	shrub	1.94	0.2	4	1	4	10	38.8	538.2
9	1"	2.58	0.81	subsurface	388.01	shrub	0.64	0.2	11	1	11	10	108.8	279.2
10	1"	10	0.81	bubbler	62.83	tree	15.32	0.2	5	1	5	1	4.5	45.2
11	1"	3	0.81	bubbler	18.85	tree	15.32	0.2	5	1	5	1	4.5	13.6
12	1"	1.77	0.81	subsurface	266.19	tree	0.64	0.2	11	1	11	10	108.8	191.5
Total Runtime per day										1.2	Hours	Total Monthly ETWU	2561.3	

IRRIGATION SCHEDULE FOR MAY: (use columns as applicable to the project)

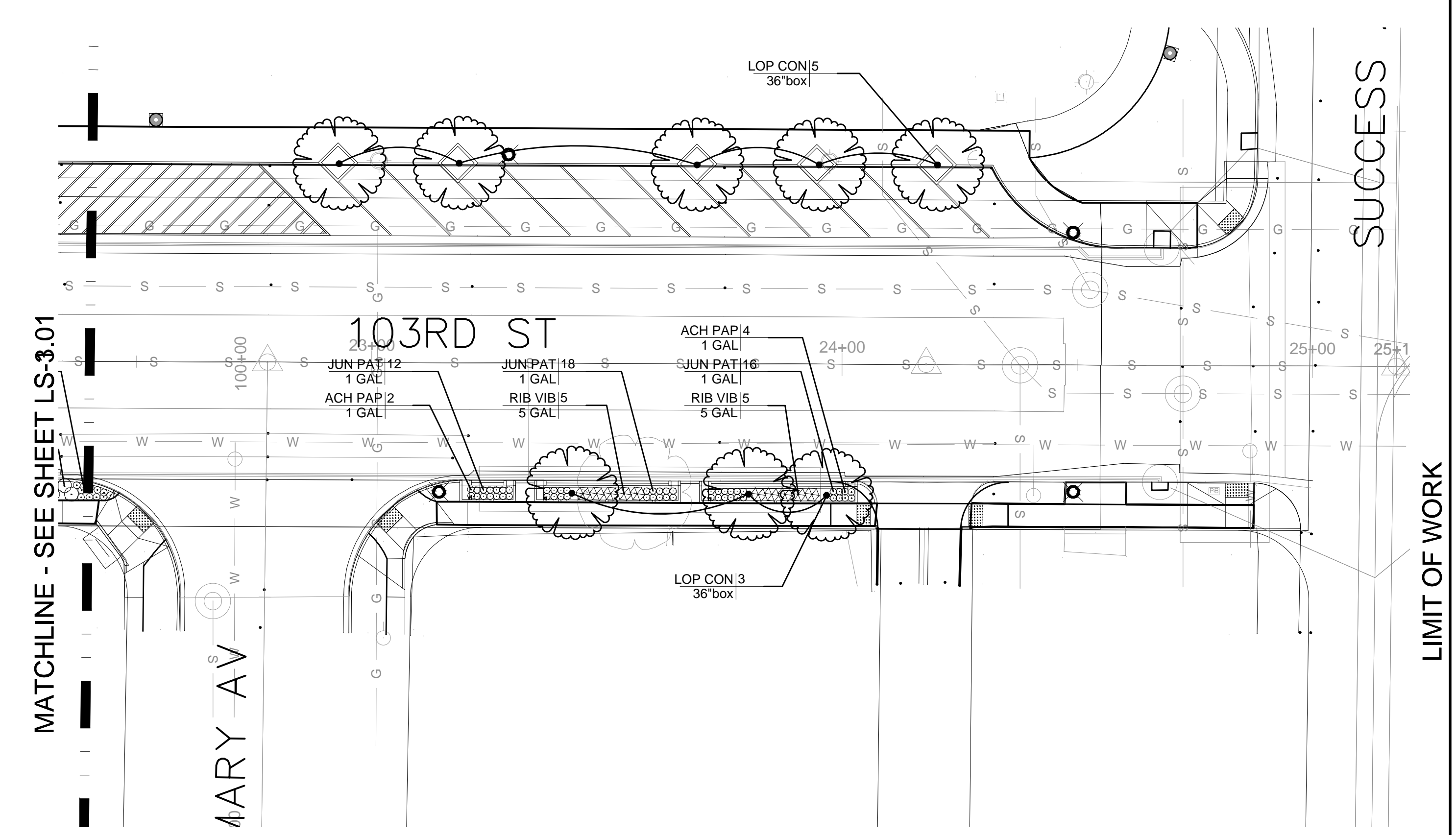
valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	10	12.3	122.6
2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	12	1	12	10	118.1	209.5
3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	4	1	4	10	43.6	357.6
4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	5	1	5	10	45.6	482.4
5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	12	1	12	10	118.1	69.1
6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	5	1	5	1	4.9	19.6
7	1"	8.16	0.75	spray	400.71	shrub	1.96	0.2	4	1	4	10	41.6	337.9
8	1"	13.96	0.75	spray	692.60	shrub	1.94	0.2	4	1	4	10	42.1	564.0
9	1"	2.58	0.81	subsurface	388.01	shrub	0.64	0.2	12	1	12	10	118.1	302.9
10	1"	10	0.81	bubbler	62.83	tree	15.32	0.2	5	1	5	1	4.9	49.1
11	1"	3	0.81	bubbler	18.85	tree	15.32	0.2	5	1	5	1	4.9	14.7
12	1"	1.77	0.81	subsurface	266.19	tree	0.64	0.2	12	1	12	10	118.1	207.8
Total Runtime per day										1.3	Hours	Total Monthly ETWU	2779.3	

IRRIGATION SCHEDULE FOR JUNE: (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	10	14.5	144.3
2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	14	1	14	10	138.9	241.7
3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	5	1	5	10	51.3	420.7
4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	5	1	5	10	53.6	567.5
5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	14	1	14	10	138.9	111.9
6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	6	1	6	1	5.8	23.1
7	1"	8.16	0.75	spray	400.71	shrub	1.96	0.2	5	1	5	10	49.0	397.5
8	1"	13.96	0.75	spray	692.60	shrub	1.94	0.2	5	1	5	10	49.5	687.1
9	1"	2.58	0.81	subsurface	388.01	shrub	0.64	0.2	14	1	14	10	138.9	358.4
10	1"	10	0.81	bubbler	62.83	tree	15.32	0.2	6	1	6	1	5.8	57.7
11	1"	3	0.81	bubbler	18.85	tree	15.32	0.2	6	1	6	1	5.8	17.3
12	1"	1.77	0.81	subsurface	266.19	tree	0.64	0.2	14	1	14	10	138.9	244.9
Total Runtime per day										1.6	Hours	Total Monthly ETWU	3269.7	

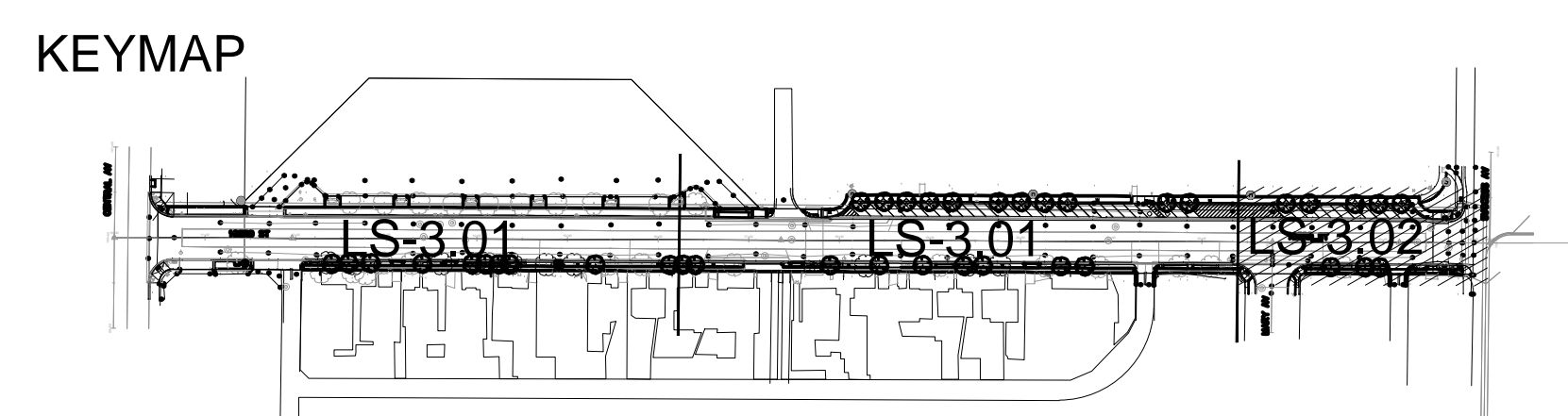
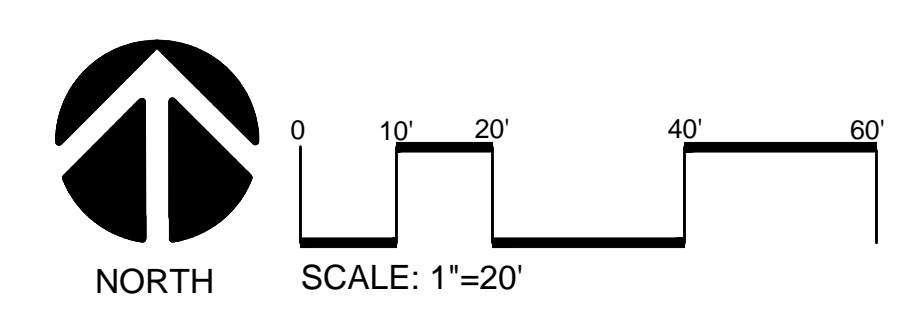
IRRIGATION SCHEDULE FOR JULY: (use columns as applicable to the project)

valve no.	valve size	flow (GPM)	irr. effcy. (IE)	irr. type	area (sq.ft.)	plant type	precip rate (in/hr)	plant factor (PF)	daily runtime (min.)	nos. of cycles per day	individ. runtimes (min.)	frequency per month	monthly runtime (min.)	total ETWU Gallons
1	1"	10	0.81	bubbler	62.83	tree	15.32	0.5	1	1	1	12	17.2	170.7
2	1"	1.75	0.81	subsurface	263.18	shrub	0.64	0.2	14	1	14	12	164.4	288.1
3	1"	8.24	0.75	spray	424.12	shrub	1.87	0.2	6	1	6	12	60.7	497.0
4	1"	10.64	0.75	spray	572.12	shrub	1.79	0.2	6	1	6	12	63.5	671.6
5	1"	0.81	0.81	subsurface	121.82	shrub	0.64	0.2	14	1	14	12	164.4	124.4
6	1"	4	0.81	bubbler	25.13	tree	15.32	0.2	7	1				



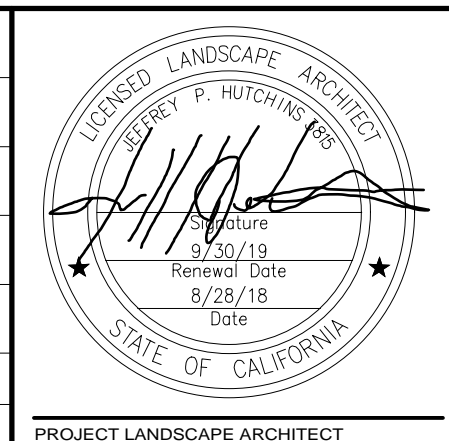
PLANT SCHEDULE

TREES	CODE	BOTANICAL NAME / COMMON NAME	SIZE	WATER USE	SET BACK	DETAIL	REMARKS
	LOP CON	LOPHOSTEMON CONFERTUS / BRISBANE BOX	36"BOX	MODERATE	3'	2/LS-3.03	
SHRUBS	CODE	BOTANICAL NAME / COMMON NAME	CONT	WATER USE	SET BACK	DETAIL	REMARKS
	ACH PAP	ACHILLEA MILLEFOLIUM 'PAPRIKA' / RED YARROW	1 GAL	LOW	1'	1/LS-3.03	
	BAC PI2	BACCHARIS PILULARIS 'PIGEON POINT' / COYOTE BRUSH	5 GAL	LOW	2'	1/LS-3.03	
	HED DIA	HEDERA HELIX / ENGLISH IVY	1 GAL	MODERATE	2'	1/LS-3.03	CONTRACTOR SHALL PROVIDE ON AS NEEDED BASIS TO REPLACE DAMAGED ENGLISH IVY DURING CONSTRUCTION.
	JUN PAT	JUNCUS PATENS / CALIFORNIA GRAY RUSH	1 GAL	LOW	1'	1/LS-3.03	
	MUH CAP	MUHLENBERGIA CAPILLARIS / PINK MUHLY	5 GAL	LOW	1.5'	1/LS-3.03	
	RIB VIB	RIBES VIBURNIFOLIUM / EVERGREEN CURRANT	5 GAL	LOW	1.5'	1/LS-3.03	
	WES MUN	WESTRINGIA FRUTICOSA 'MUNDI' TM / LOW COAST ROSEMARY	5 GAL	LOW	1.5'	1/LS-3.03	



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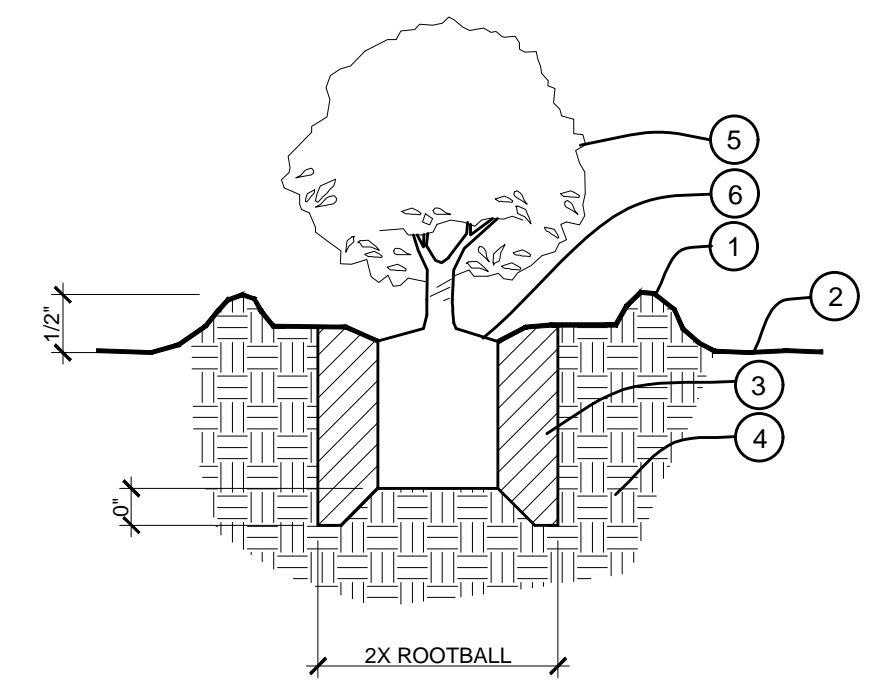
DATE	MK	DESCRIPTION
11/19/21	■	AS-BUILT REVISIONS



100% PLANS			
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS			
103rd STREET GREEN IMPROVEMENT PROJECT			
PROJECT ID: WMD0000110			
PLANTING PLAN AND NOTES			
LS-3.02			
11/20/2018	PCA J54445	WMD0000110	SHEET 15 OF 16

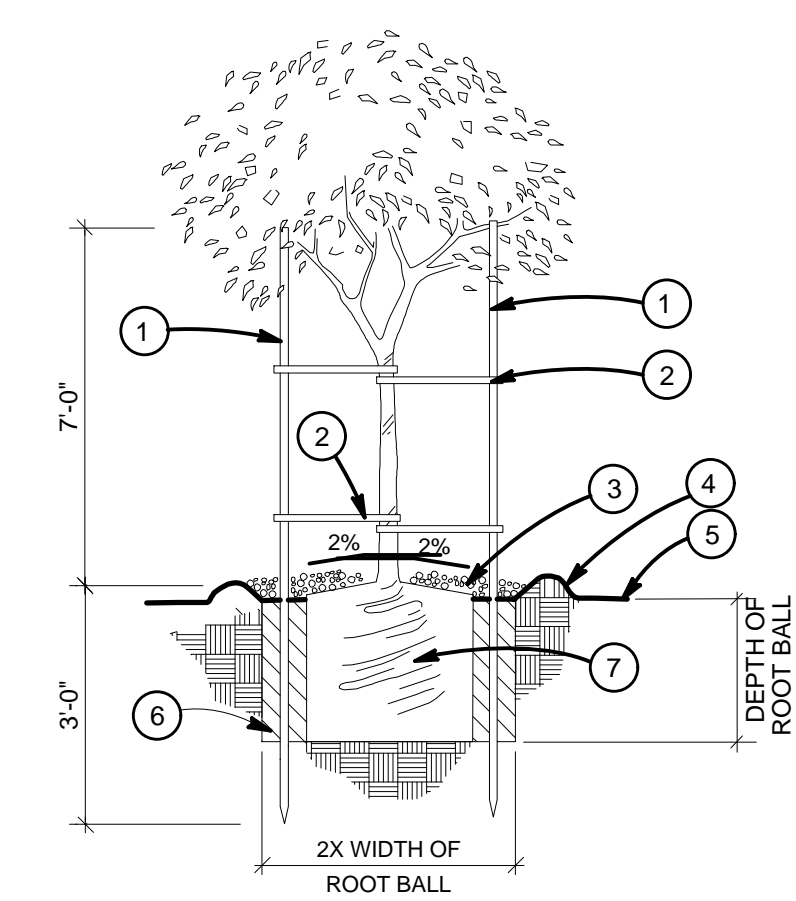
PLANTING NOTES

1. PLANT QUANTITIES IN LEGEND IS FOR CONTRACTOR'S CONVENIENCE ONLY. CONTRACTOR SHALL FURNISH ALL PLANTS SHOWN ON PLANTING PLANS.
2. ALL TREES ARE TO BE PLANTED MIN. 20' FROM EXISTING POWER POLES (WHERE APPLICABLE).
3. CONTRACTOR SHALL PROVIDE 3" DEEP LAYER OF MEDIUM TO FINE TEXTURED (3/4" TO 2") GROUND WOOD BY-PRODUCT OR SHREDDED BARK MULCH TO ALL PLANTED AREAS EXCEPT RETENTION PLANTERS. COLOR OF MULCH SHALL BE DARK.
4. CONTRACTOR SHALL INSTALL AN EDGING MATERIAL SEPARATING PLANTING AND DECOMPOSED GRANITE AREAS.
5. PLANS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE ENGINEER ANY PERCEIVED DISCREPANCY BEFORE THE START OF CONSTRUCTION.
6. CONTRACTOR SHALL PROVIDE AND INSTALL IMPORTED TOP SOIL TO FILL IN AREAS WHERE PLANTINGS ARE PROPOSED. IMPORTED TOP SOIL SHALL BE CLASS "A" TOP SOIL. AN AGRONOMICAL SOIL'S REPORT SHALL BE SUBMITTED PER SECTION L, LANDSCAPE 1.02-2 OF SPECIAL PROVISIONS, REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THE DELIVERY OF THE SOIL ON SITE.
7. CONTRACTOR SHALL CENTER ALL TREES IN THE PLANTING AREAS (BETWEEN CURB AND HARDSCAPE)
8. REFER TO SHEETS LS-1.01, L-1.02, AND LS-1.03 OF CONSTRUCTION PLAN FOR EXACT LOCATION OF EXISTING PLANT MATERIALS TO BE SAVED IN PLACE.
9. CONTRACTOR SHALL PRUNE AND REMOVE DEAD BRANCHES FROM ALL EXISTING TREES AND SHRUBS TO REMAIN. FOR ALL EXISTING TREES 12 FEET AND HIGHER, REMOVE ALL BRANCHES 7 FEET ABOVE ADJACENT GROUND (MEASURED AT UPPER SIDE OF SLOPE).
10. ALL SHRUBS ARE TO BE PLANTED AT A MINIMUM SETBACK AS SHOWN ON PLANT LEGEND.
11. ANY SOIL PREPARATION AND PLANTING WITHIN THE DRIP LINE OF THE EXISTING TREES SHALL BE DONE BY HAND.
12. DO NOT INSTALL MULCH IN BIO SWALE OR FLOW THROUGH PLANTERS.



- LEGEND:**
- 1 FORM 3" HIGH BERM AROUND BASIN
 - 2 FINISH GRADE
 - 3 BACKFILL MIX. REFER TO SPECIFICATIONS
 - 4 NATIVE SOIL
 - 5 SHRUB/GROUND COVER
 - 6 SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE

1 SHRUB PLANTING
N.T.S. P-TED-329333-05

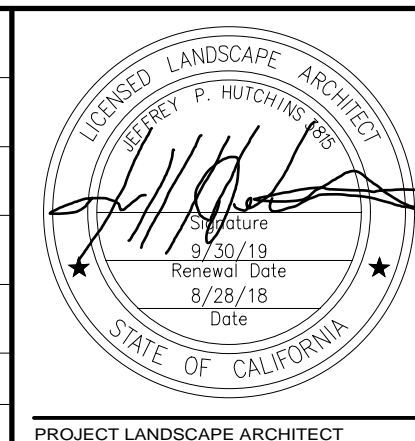


- LEGEND:**
- 1 (2) TWO 10'-0" X 2" DIA. PRESSURE TREATED LODGEPOLE TREE STAKES (REFER TO SPECIAL PROVISIONS).
 - 2 FASTEN TREE TO STAKES W/ "WONDER TREE TIES" OR APPROVED EQUAL. TWO (2) AT EACH STAKE.
 - 3 BACKFILL WATER BASIN W/ 3" OF UNCOMPACTED MULCH. KEEP MULCH AWAY FROM CROWN.
 - 4 FORM 3" HIGH BERM AROUND BASIN. (3" DIA. FOR 15 GAL TREE, 4" DIA FOR 24' BOX TREE, AND 6" FOR 36" BOX TREE) DO NOT FORM BERM IF PLANTED IN LAWN FINISH GRADE
 - 5 BACKFILL MIX. REFER TO SPECIAL PROVISIONS.
 - 6 ROOT BALL. SET TOP OF ROOT BALL 1" ABOVE FINISH GRADE
 - 7 DEPTH OF ROOT BALL
- NOTE:**
1. AFTER TREE IS PLANTED, PRUNE AND SHAPE AS DIRECTED AND APPROVED BY THE AGENCY'S LANDSCAPE ARCHITECT.

2 TREE PLANTING
N.T.S. P-TED-329343-04

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DATE	MK	DESCRIPTION
11/19/21	■	AS-BUILT REVISIONS
REVISIONS		



100% PLANS			
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS			
103rd STREET GREEN IMPROVEMENT PROJECT			
PROJECT ID: WMD0000110			
PLANTING DETAILS			
11/20/2018	PCA J54445	WMD0000110	SHEET 16 OF 16

LS-3.03

APPLICABLE CODES AND STANDARDS:

ALL CONSTRUCTION SHALL COMPLY WITH LATEST APPROVED CODES LISTED BELOW AND ALL APPLICABLE CODES, STATUTES, REGULATIONS, ORDINANCES, ETC. CURRENTLY IN FORCE AND THROUGHOUT THE DURATION OF THE PROJECT, INCLUDING, BUT NOT LIMITED TO THE FOLLOWING

2017 LOS ANGELES COUNTY ELECTRICAL CODE BASED ON THE 2016 CEC (CALIFORNIA ELECTRICAL CODE) AND 2014 NEC (NATIONAL ELECTRICAL CODE).

SPPWC STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

SHEET INDEX

SHT. No.	PLAN E	ELECTRICAL NOTES
1	E1.01	GENERAL NOTES, SYMBOLS, SHEET INDEX, SITE POWER PLAN
2	E1.02	DETAILS

GENERAL NOTES:

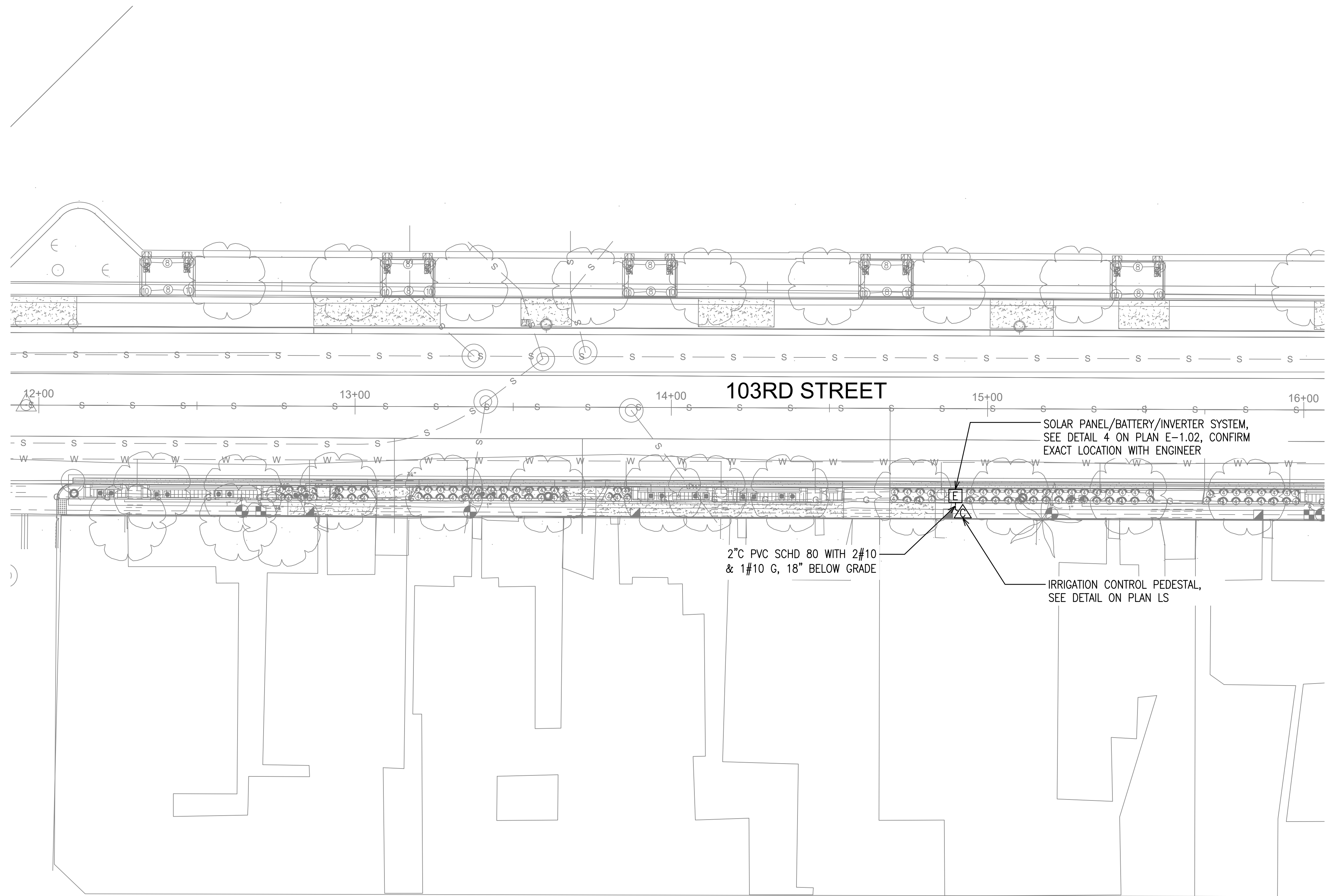
- A. WORK UNDER THIS CONTRACT SHALL INCLUDE, BUT NOT TO BE LIMITED TO, FURNISHING, INSTALLING AND CONNECTION OF ALL ELECTRICAL EQUIPMENT AND TESTING OF ALL SYSTEMS AND SUB-SYSTEMS WITHIN THE SCOPE OF WORK. BEFORE ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL DEMONSTRATE, IN THE PRESENCE OF THE ENGINEER, THAT ALL PORTIONS OF THE ELECTRICAL WORK ARE OPERATING PROPERLY PER MANUFACTURER'S SPECIFICATION.
- B. COORDINATE ALL WORK WITH PLAN LS.
- C. ALL ITEMS ARE NEW.
- D. CONDUCTORS: ALL SHALL BE COPPER, RATED 600V, INSULATION TYPE XHHW OR THWN-2, 90°.
- E. CONDUITS: EXPOSED OUTDOOR CONDUITS SHALL BE RIGID GALVANIZED STEEL (RGS), EXTERIOR UNDERGROUND CONDUITS SHALL PVC SCHD80 (STRAIGHT RUNS) AND PVC SCHD80 (SWEEPS). SEE ELECTRICAL SITE PLAN FOR CONDUIT SIZE. ALL CONDUIT RUNS SHALL HAVE A GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC.

ELECTRICAL SYMBOLS LIST:

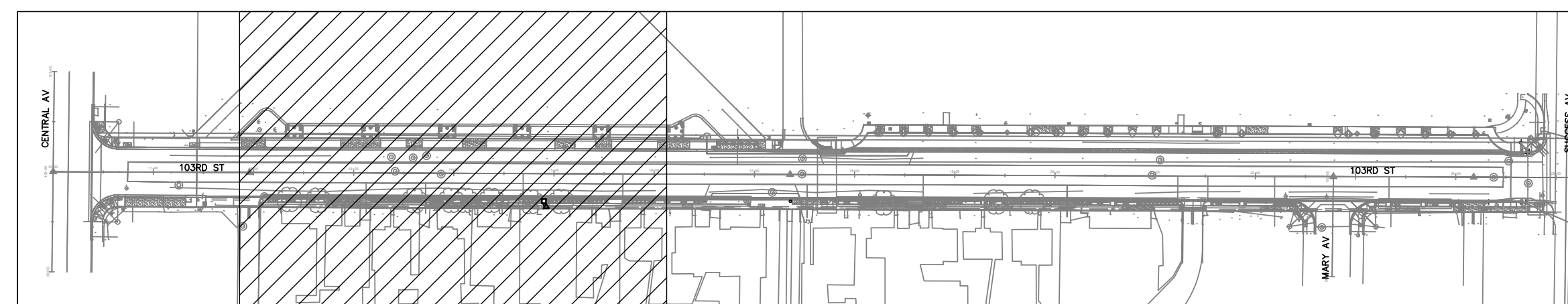
- SOLAR POWER ON STEEL POLE
- UNDERGROUND CONDUIT
- CALL OUT NOTE
- CAPPED CONDUIT
- IRRIGATION CONTROLLER PEDESTAL PER PLAN LS
- CONDUIT TURNED DOWN
- CONDUIT TURNED UP

ABBREVIATIONS LIST:

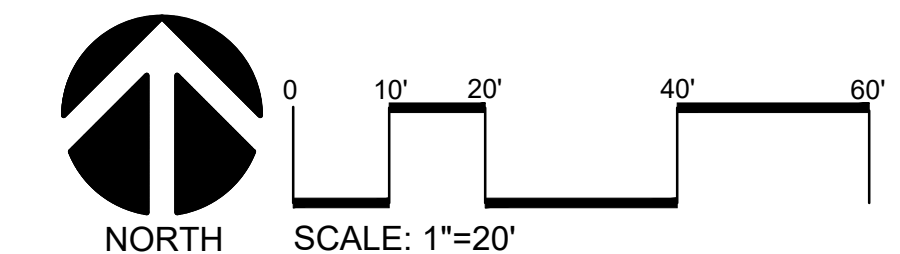
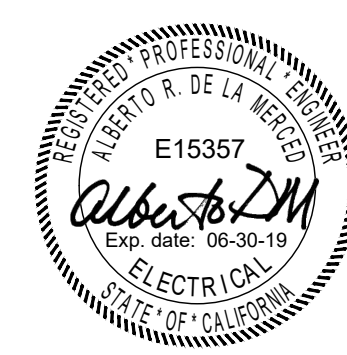
- AFF ABOVE FINISH FLOOR
- AFG ABOVE FINISH GRADE
- AWG AMERICAN WIRE GAUGE
- A AMPERE
- AIC AMPERE INTERRUPTING CAPACITY (SYMMETRICAL)
- AF AMPERE FRAME
- AT AMPERE TRIP
- BKR BREAKER
- CCTV CLOSED-CIRCUIT TELEVISION
- CKT CIRCUIT
- CB CIRCUIT BREAKER
- C CONDUIT
- CO CONDUIT ONLY
- C.W.P. COLD WATER PIPE
- DIST. BD. DISTRIBUTION BOARD
- DIA DIAMETER
- DS DUCT SMOKE DETECTOR
- E.G. EQUIPMENT GROUND
- EMT ELECTRICAL METALLIC TUBING
- (E) EXISTING
- FACP FIRE ALARM CONTROL PANEL
- FLA FULL LOAD AMPS
- G GROUND
- G.D. GARBAGE DISPOSAL
- GFI GROUND FAULT INTERRUPTER
- HH HAND HOLE
- I.G. ISOLATED GROUND
- JB JUNCTION BOX
- KVA KILO-VOLT AMPERES
- KW KILO-WATT
- KWH KILO-WATT-HOUR
- LADWP L.A. DEPT OF WATER & POWER
- LCL LONG CONTINUOUS LOAD
- LCP LIGHTING CONTROL PANEL
- L LENGTH
- LTG LIGHTING
- MCR MAIN COMPUTER ROOM
- MCB MAIN CIRCUIT BREAKER
- MLO MAIN LUGS ONLY
- MCP MOTOR CIRCUIT PROTECTOR
- MTD MOUNTED
- (N) NEW
- N.I.C. NOT IN CONTRACT
- Ø PHASE
- P POLE
- PA PUBLIC ADDRESS
- PNL PANEL
- PVC POLY-VINYL CHLORIDE
- RGS RIGID GALVANIZED STEEL
- S.C.E. SOUTHERN CALIFORNIA EDISON
- SCHD SCHEDULE
- SHT SHEET
- S/L STREET LIGHT
- SWBD SWITCHBOARD
- SWG SWITCHGEAR
- TYP TYPICAL
- U.N.O. UNLESS NOTED OTHERWISE
- V VOLTS
- VA VOLT AMPERES
- VD VOLTAGE DROP
- WP WEATHERPROOF
- W WIRE
- XFR TRANSFER
- XFMR TRANSFORMER



KEYMAP



DATE	MK	DESCRIPTION
09/15/21	■	AS BUILT REVISIONS
REVISIONS		



PLAN E

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd ST. GREEN IMPROVEMENTS

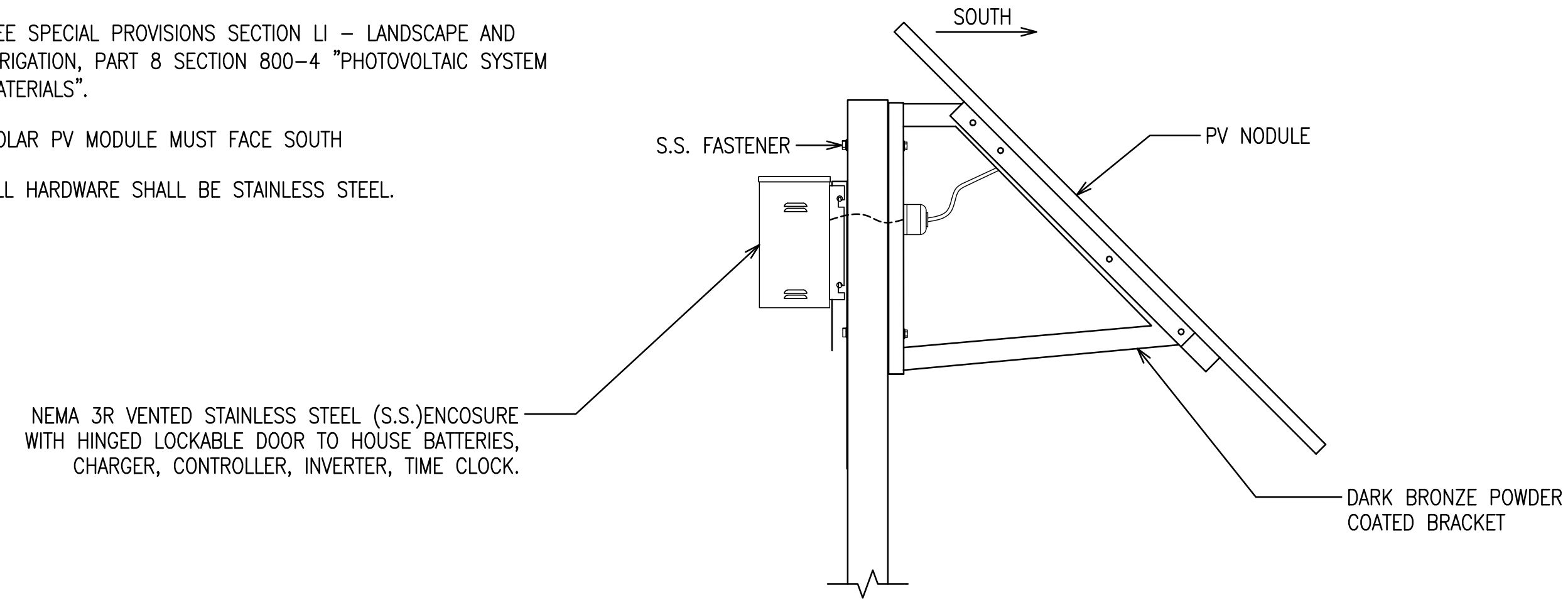
GENERAL NOTES, SYMBOLS, SHEET INDEX, DETAILS, SITE POWER PLAN

E-1.01

DATE 9/15/2021 PCA EF20315002 WMD0000110 SHEET 1 OF 2

NOTES:

1. SEE SPECIAL PROVISIONS SECTION LI - LANDSCAPE AND IRRIGATION, PART 8 SECTION 800-4 "PHOTOVOLTAIC SYSTEM MATERIALS".
2. SOLAR PV MODULE MUST FACE SOUTH
3. ALL HARDWARE SHALL BE STAINLESS STEEL.

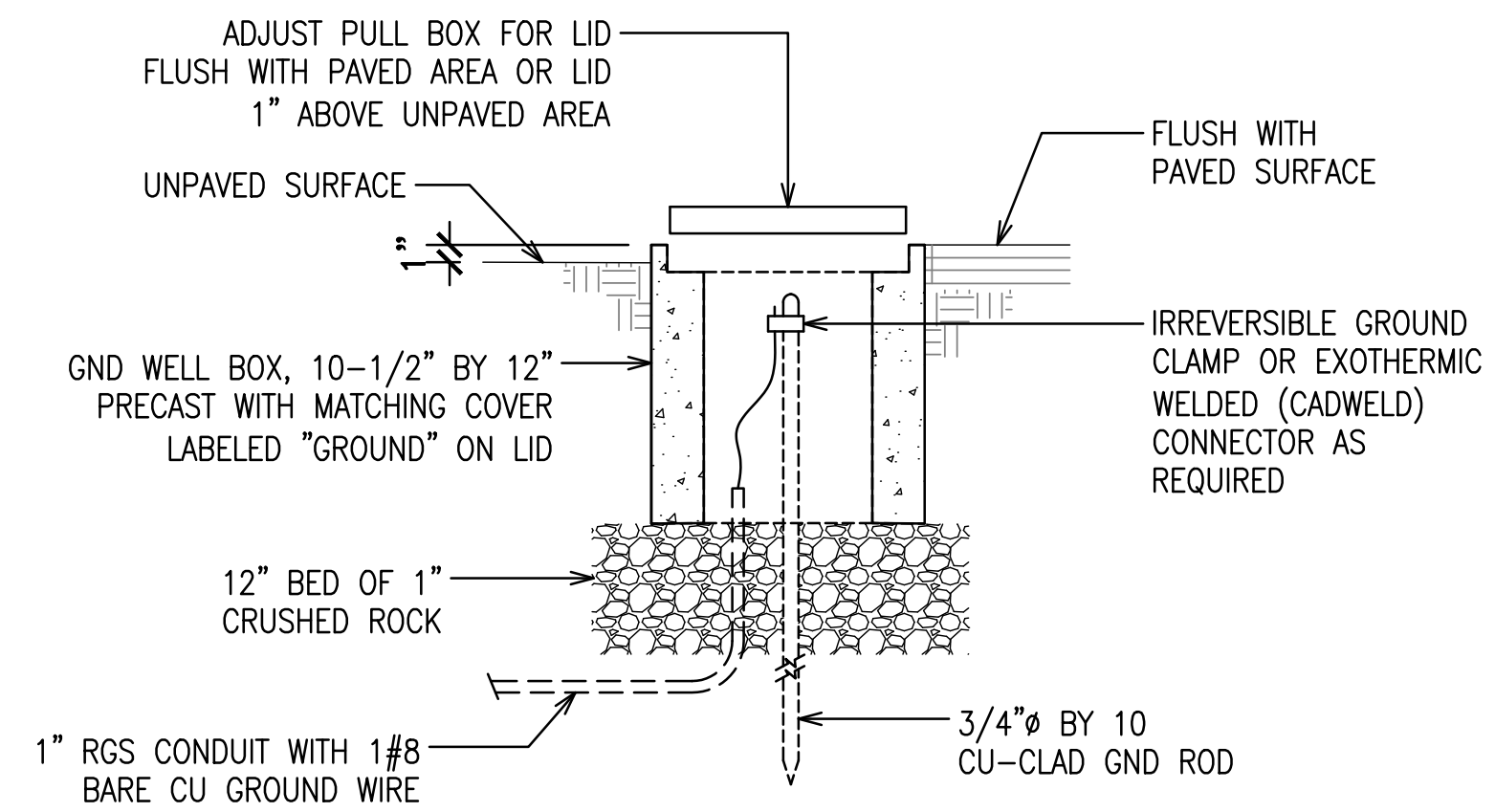


PHOTOVOLTAIC (PV) SYSTEM DETAIL

SCALE: NONE

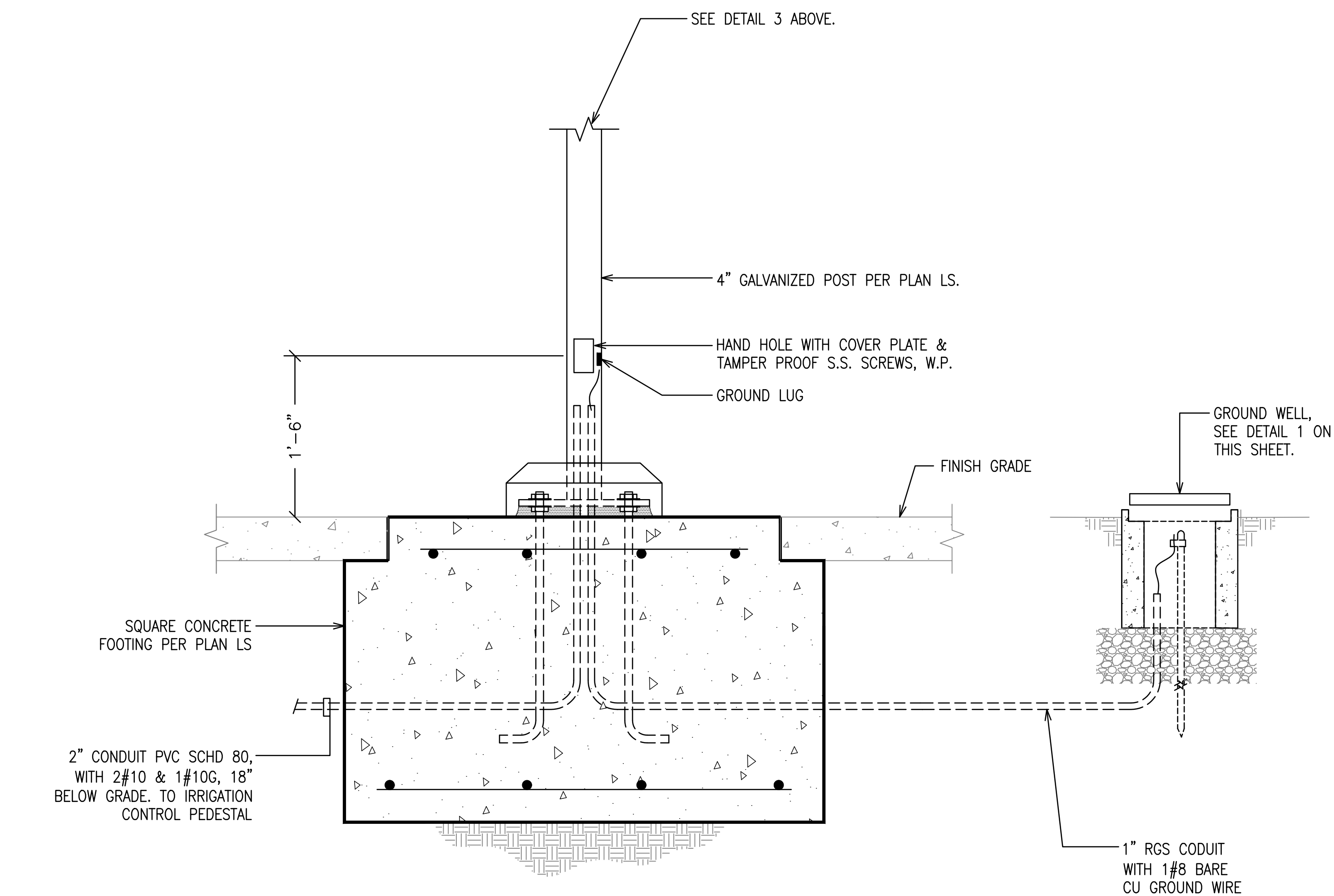
③

GROUND WELL DETAIL



NO SCALE

①

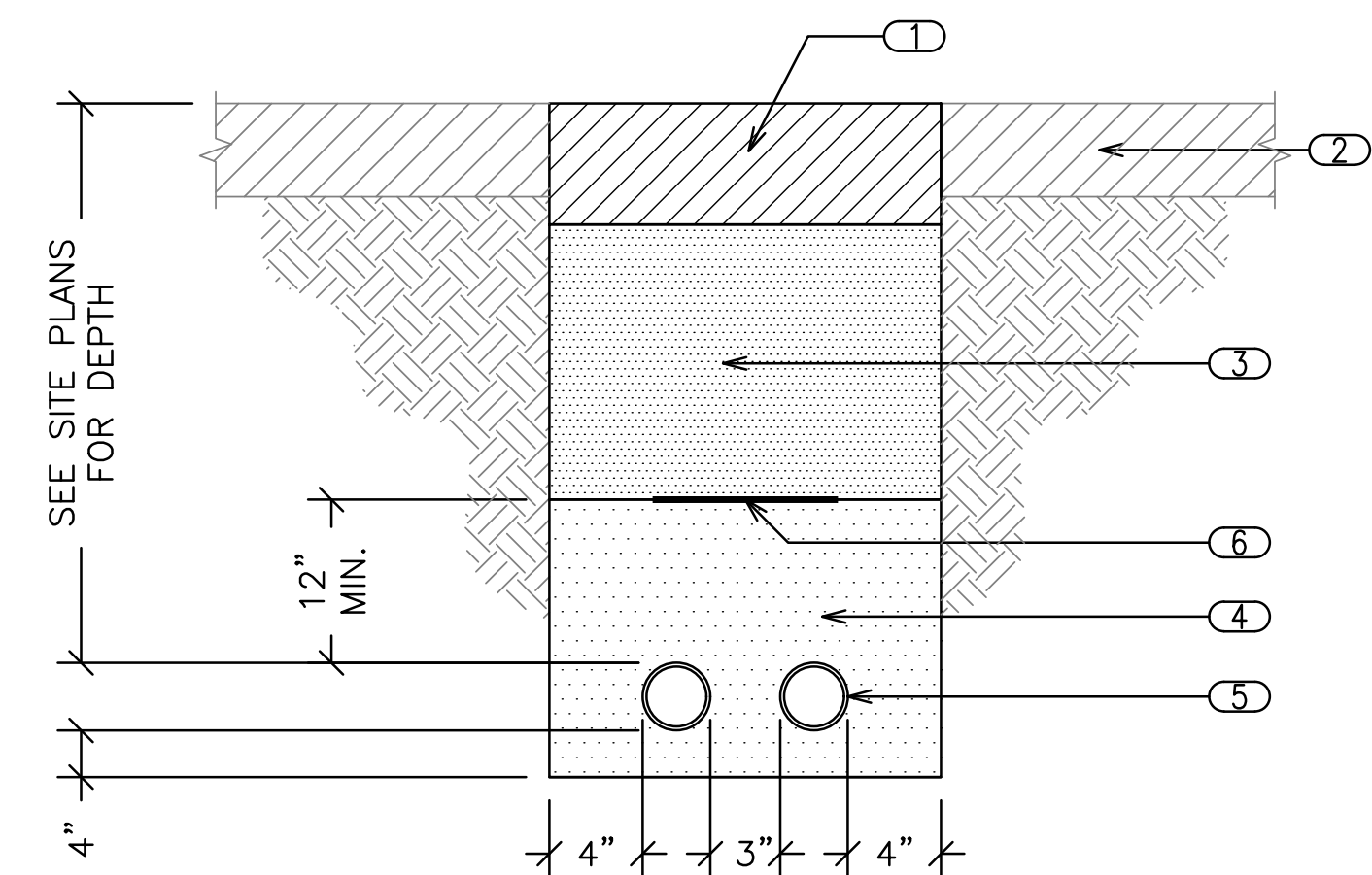


SOLAR POLE BRANCH CIRCUIT DETAIL

NO SCALE

④

BRANCH CIRCUIT TRENCH DETAIL



- ① AC PAVEMENT (C2-PG64) OR PCC (560-C-3250). THICKNESS TO MATCH EXISTING PAVEMENT PLUS 1". MINIMUM THICKNESS SHALL BE 4"
- ② EXISTING AC OR PCC PAVEMENT.
- ③ TRENCH BACKFILL SLURRY (CLASS 270-E-500)
- ④ BEDDING MATERIAL SHALL BE SAND, COMPACTED TO 90% OF RELATIVE COMPACTION
- ⑤ ELECTRICAL CONDUIT(S), SEE PLAN FOR NUMBER AND SIZE INFORMATION
- ⑥ ELECTRICAL DETECTABLE WARNING TAPE

NO SCALE

②

PLAN E

COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS

103rd ST. GREEN IMPROVEMENTS

DETAILS

E-1.02

DATE	MK	DESCRIPTION
09/15/21	■	AS BUILT REVISIONS



9/15/2021

DATE 9/15/2021 PCA EF20315002 WMD0000110 SHEET 2 OF 2