



THE CITY OF SAN DIEGO

Traffic Control Permit (TCP) Multiple Location List

(Franchise Utility Company Only - May Not Be submitted By Contractor)

To: City of San Diego, Traffic Permit Section

Date: 1/31/2018From: (Company): SDG&EPhone No.: 619-778-2405Contact Person: Rod Nelson

Fax.: _____

W.O. or Account #: Permit # _____

TCP No. _____

City Use Only

Authorized # _____

By Felipe AvilaYes X

No _____

Date Reviewed 2/1/18

TYPE OF WORK

- 1 = Lane Closure
- 2 = Street Closure
- 3 = Sidewalk Closure
- 4 = Alley Closure
- 5 = Parking Lane
- 6 = Detour
- 7 = Trenching
- 8 = Flagging

Location	From	To	Start Date *	End Date *	Work Hours **	Thomas Bros.	Type of Work
Miramar Road	Padgett Street	Kearny Mesa Road	2/4/18	2/23/18	9:00PM - 5:00AM	1209-E6, F6	1,5,7,8
Black Mountain Road	Activity Road	Miramar Road	2/4/18	2/23/18	9:00PM - 5:00AM	1209-E6	6,8
Kearny Villa Road	Maya Linda Rd	Kearny Mesa Road	2/4/18	2/23/18	9:00PM - 5:00AM	1209-E5, E6, F6	6,8
Kearny Mesa Road	Miramar Road	End of Kearny Mesa Road	2/4/18	2/23/18	9:00PM - 5:00AM	1209-F6	1,5,7,8

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

Comments: Caltrans Phases C-5 through C-11, City Phase SD-1, Sunday - Thursday night work 9pm - 5am

Must be submitted a minimum of 2 working days prior to start of work. All columns must be filled out for proper authorization

Fax or mail to: City of San Diego • Traffic Control Permit Section • 1222 First Avenue, MS 501 • San Diego, CA 92101. Fax (619) 446-5489 Office (619) 446-5150

* Work Days: Monday Through Friday ** Work Hours : 8:30 AM- 3:30PM. Unless other hours are preapproved)

No Work on Saturdays, Sundays, or Holidays Unless Approved and Noted In Comments

Minimum of 5 working days required for construction work which affects traffic signal e-mail info to: JVaca@sanidiego.gov**ATTENTION UTILITY COMPANY**

Special Inspection Fees May Be
Applied By City of San Diego For
Any Night or Weekend Work.

SIGN LEGEND

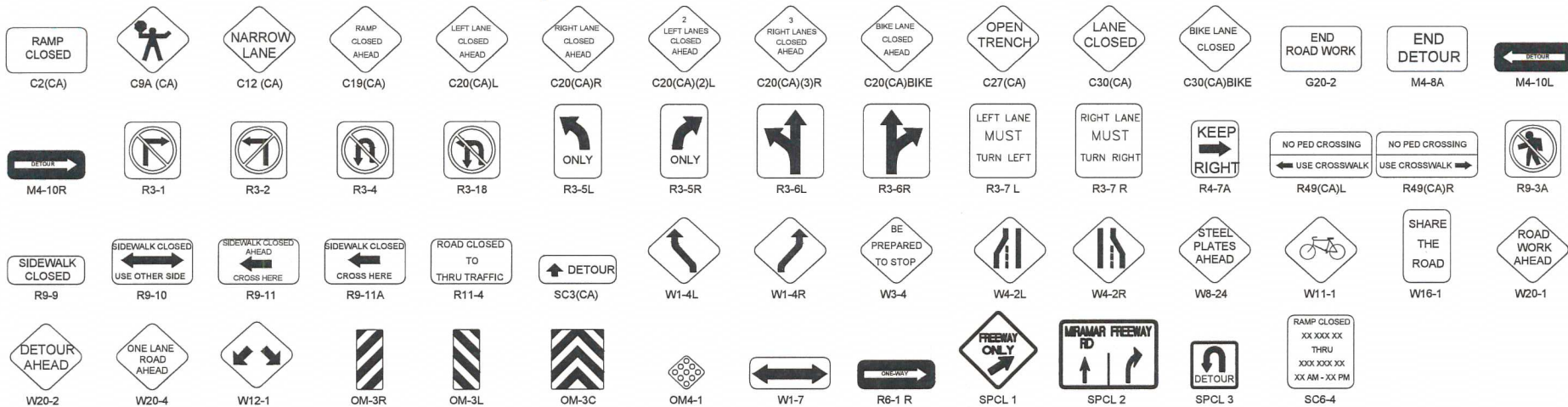


TABLE 1

TAPER LENGTH CRITERIA AND CHANNELIZING DEVICE SPACING									
SPEED (S)	MINIMUM TAPER LENGTH FOR WIDTH OF OFFSET 12 FEET (W)				MAXIMUM CHANNELIZING DEVICE SPACING				
	TANGENT L	MERGING L	SHIFTING L/2	SHOULDER L/3	TAPER	Y	Z	XX	
	ft	ft	ft	ft	ft	ft	ft	ft	
20	160	80	40	27	20	40	10	10	
30	250	125	63	42	25	50	12	12	
35	360	180	90	60	30	60	15	15	
40	480	240	123	82	35	70	17	17	
45	640	320	160	107	40	80	20	20	
50	800	400	210	136	45	90	22	22	
55	1000	500	280	170	50	100	25	25	
60	1200	600	360	200	55	110	27	27	
65	1440	720	450	240	60	120	30	30	
70	1680	840	540	280	65	130	33	33	
75	1920	960	630	320	70	140	36	36	

* - See other offsets, use the following tapering formula for L:
For speed of 40 mph or less, $L = (MS)^2 / 10$
For speed of 45 mph or more, $L = (MS)^2 / 15$
Where: L = Taper length in feet
W = Width of offset in feet
S = Posted speed limit in mph
** - Use for taper and tangent sections where there are no pavement markings or where there is a conflict between existing pavement markings and channelizers (CA).

TABLE 2

SPEED *	Min D **	DOWNGRADE Min D ***		
		-3%	-6%	-9%
20	115	116	120	126
25	155	158	165	173
30	200	205	215	227
35	250	257	271	287
40	305	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	520	553	593
60	570	598	638	686
65	645	682	728	785
70	730	771	825	891
75	820	866	927	1003

* - Speed is posted speed limit, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed in mph.
** - Longitudinal buffer space or flagger station spacing.
*** - Use on sustained downgrade steeper than -3 percent and longer than 1 mile.

TABLE 3

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
URBAN - 25 mph OR LESS	100	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	1500	2000

* - The distances are approximate, are intended for guidance purposes only, and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

LEGEND

- APPROXIMATE TRENCH LOCATION
- SIGN
- TRAFFIC CONES / DELINEATOR
- BARRICADE
- FLAGGER
- FLASHING ARROW SIGN
- WORK ZONE
- ARMORGUARD

ORIGINAL PERMIT MUST BE KEPT ON JOB SITE ALL TIMES

PROJECT NAME: TL23071 - Sycamore Canyon Substation To Penasquitos Substation - 230 KV Underground

UTILITY SURVEYORS, INC.
AIRX
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3738

Gail McMorran
President

N/V/5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

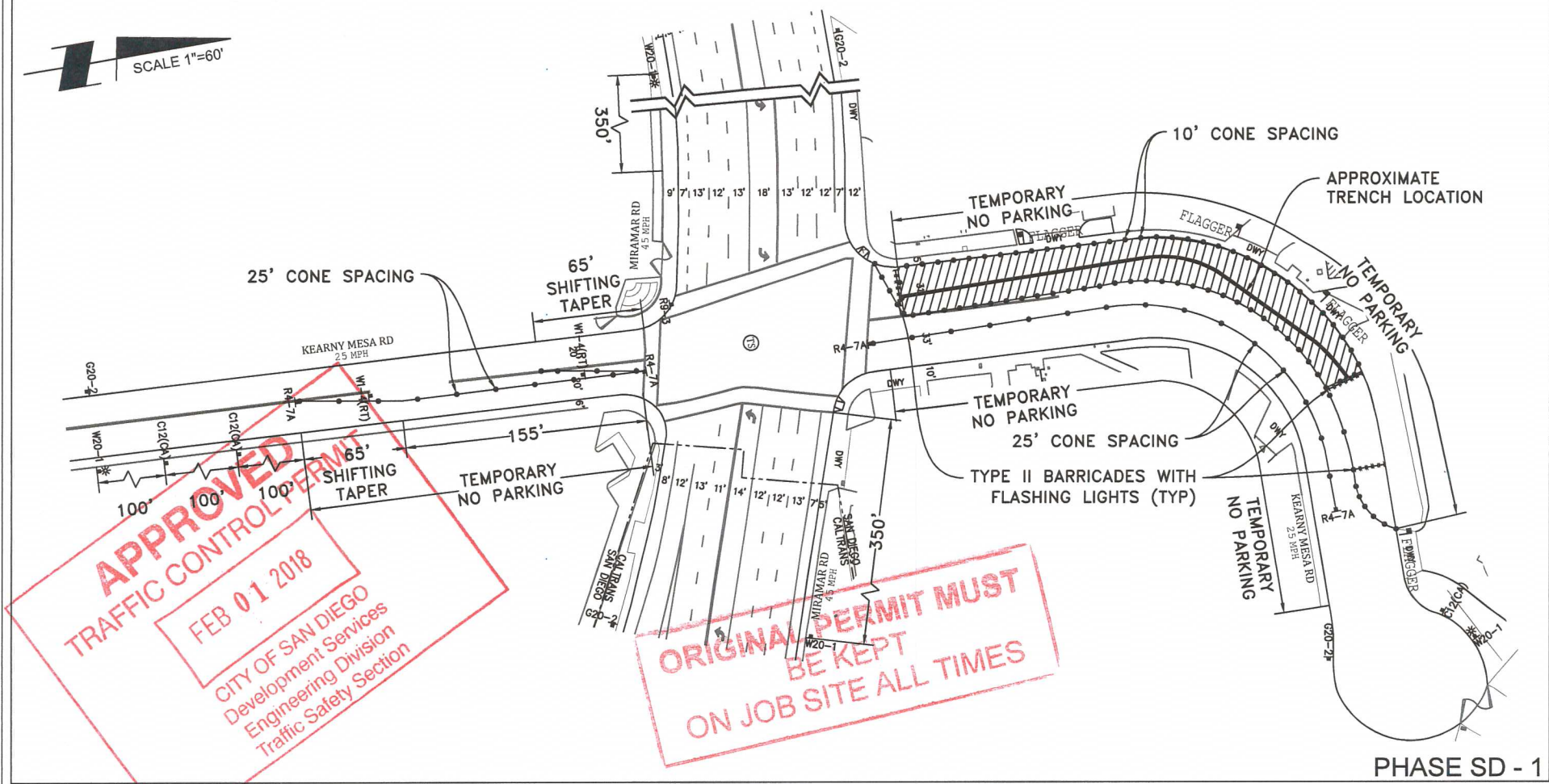
DRAWN FOR: SAN DIEGO

DATE: 1/4/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 1 OF 4



APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
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ON JOB SITE ALL TIMES**

PHASE SD - 1

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/4/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

UTILITY SURVEYORS, INC.
AIRX
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-1347
CELL: (760) 419-3738

Gail McMorran
President

N|V|S

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT

SHEET 2 OF 4

SIGN LEGEND



TABLE 1

SPEED (mph)	MINIMUM TAPER LENGTH * FOR WIDTH OF OFFSET 12 FEET (W)			MAXIMUM CHANNELIZING DEVICE SPACING		
	TANGENT 2x	MITERED L	SHOULDER L/3	TAPER	TANGENT	CONV. PT.
20	160	80	40	10	10	10
25	250	125	63	42	25	12
30	350	180	95	60	30	15
35	450	225	123	82	35	18
40	640	320	160	107	40	20
45	1080	540	270	180	45	22
50	1200	600	300	200	50	25
55	1320	660	330	220	55	25
60	1440	720	360	240	60	25
65	1560	780	390	260	65	25
70	1680	840	420	280	70	25
75	1800	900	450	300	75	25

* - For other offsets, use the following tapering formula for L:
For speed of 40 mph or less, $L = WS/50$
For speed of 45 mph or more, $L = WS$

Where: L = Taper length in feet

W = Width of offset in feet

S = Posted speed limit, off-post 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Use for taper and tangent sections where there are no pavement markings or where there are conflicting pavement markings and channelizers (CA)

TABLE 2

SPEED (mph)	DOWN-GRAD E MIN D ***			
	11	15	20	25
25	175	175	175	175
30	200	205	215	227
35	250	257	271	287
40	300	315	333	354
45	360	378	400	427
50	425	446	474	507
55	495	529	553	593
60	570	598	628	666
65	645	682	728	765
70	720	771	825	851
75	800	865	927	953

*** Based on posted speed limit, off-post 85th-percentile speed prior to work starting, or the anticipated operating speed in mph

** - Longitudinal buffer space or flagger station spacing Use on sustained grades steeper than -3 percent and longer than 1 mile

TABLE 3

ROAD TYPE	DISTANCE BETWEEN SIGNS *		
	A	B	C
URBAN - 25 mph or less	150	100	100
URBAN - MORE THAN 25 mph TO 40 mph	250	250	250
URBAN - MORE THAN 40 mph	350	350	350
RURAL	500	500	500
EXPRESSWAY / FREEWAY	1000	900	800

The distances are approximate and are intended for guidance. Local conditions and should be applied with engineering judgment. These distances should be adjusted by the Engineer for field conditions, if necessary, by increasing or decreasing the recommended distances.

LEGEND

- APPROXIMATE TRENCH LOCATION
- SIGN
- TRAFFIC CONES / DELINEATOR
- BARRICADE
- FLAGGER
- FLASHING ARROW SIGN
- WORK ZONE
- ZONEGUARD
- SIGN WITH PORTABLE FLASHING BEACON
- QUADGUARD II CRASH CUSHION
- CALTRANS CRASH ARRAY TU17

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 1 OF 48

AIRX SURVEYORS, INC.
Gail McMorran
President
2504 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3738

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15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

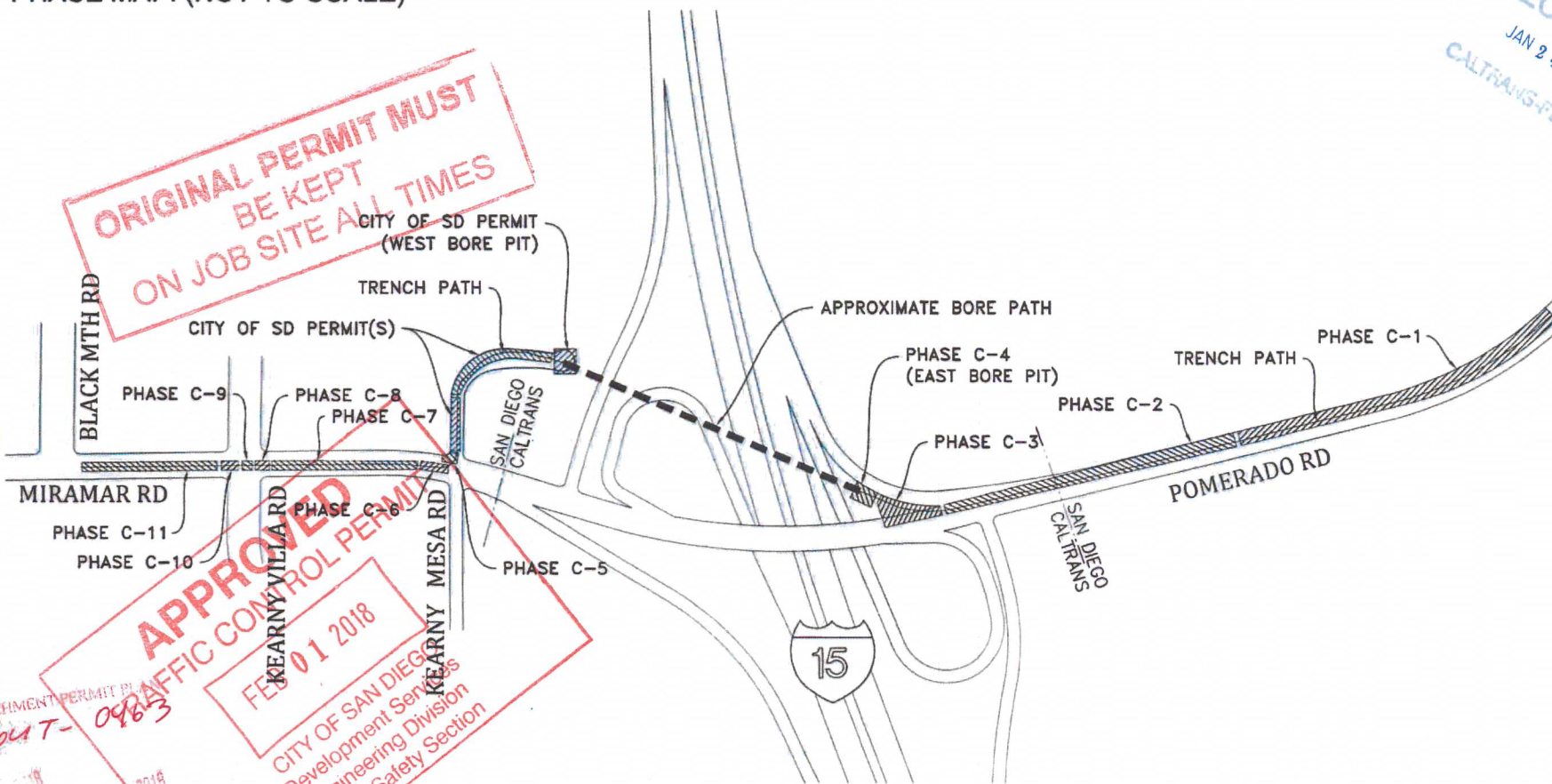
TYPE OF WORK: TRENCHING / CONDUIT



PHASE MAP: (NOT TO SCALE)

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JAN 24 2018
CALTRANS-PERMIT

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES



APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



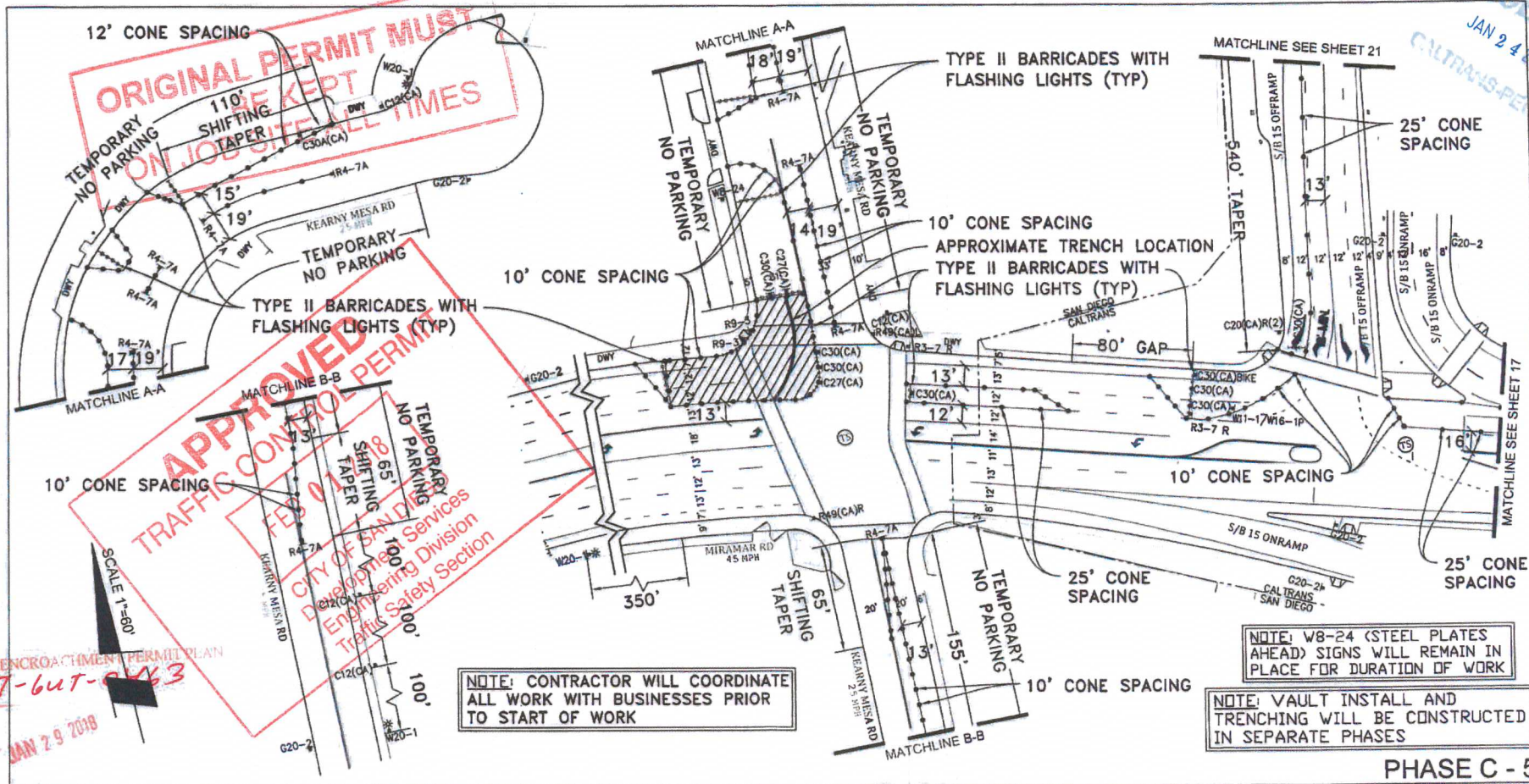
DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 2 OF 48

AIRX SURVEYORS, INC.
Gail McMorran
President
7934 EAST EL NORTE PARKWAY SUITE C
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PHONE: (760) 480-2347
CELL: (760) 419-3728

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15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218
THOMAS GRID#: 1209-F6
MISC/POTHOLE#:
DRAWN FOR: CALTRANS
TYPE OF WORK: TRENCHING / CONDUIT



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



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15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

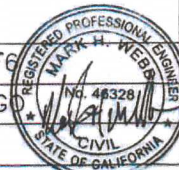
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: SAN DIEGO



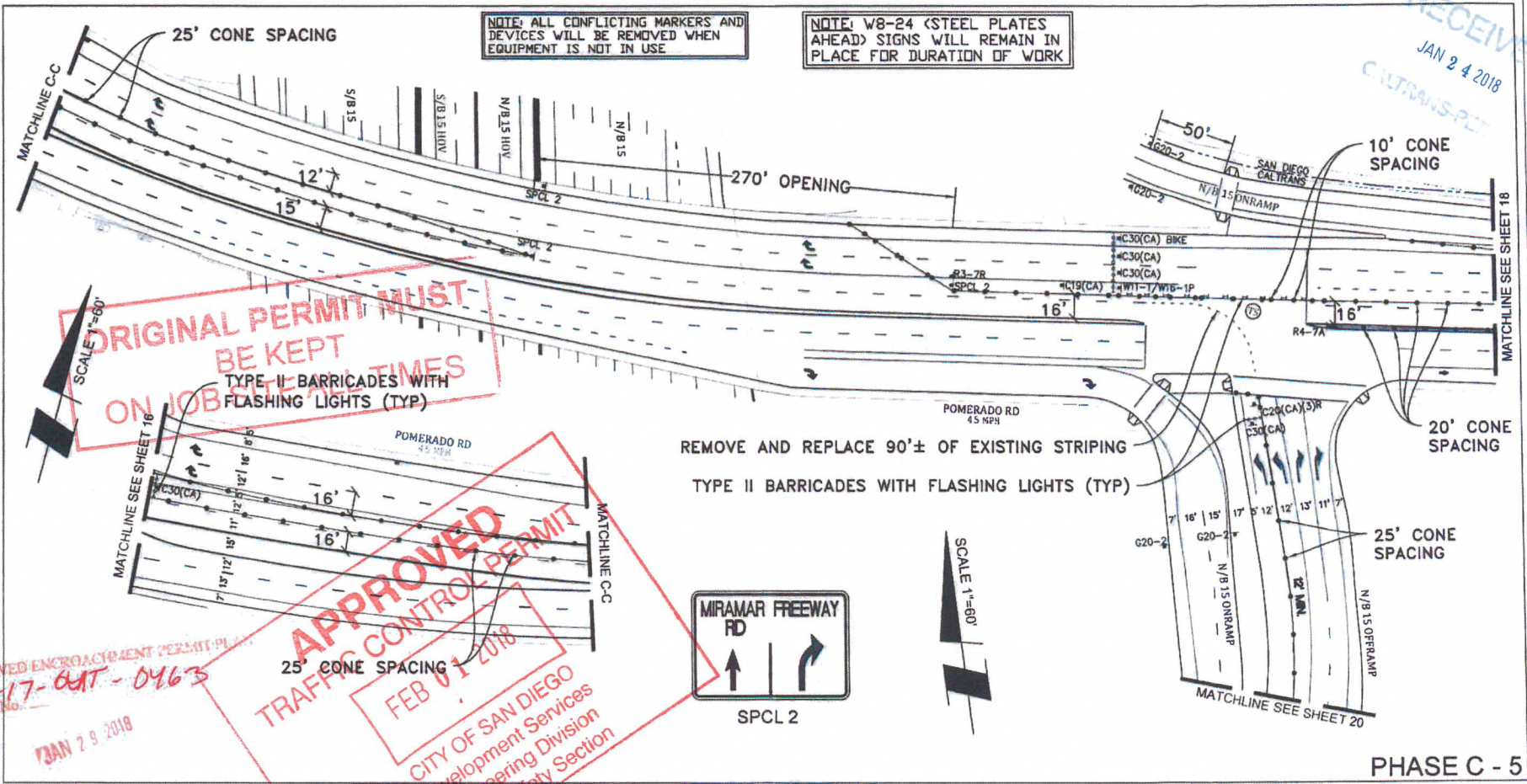
DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 16 OF 48

RECEIVED
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ORIGINAL PERMIT MUST BE KEPT ON JOB AT ALL TIMES

APPROVED ENCROACHMENT PERMIT PL

11-17-04T-0463

Permit No.

JAN 29 2018

APPROVED

TRAFFIC CONTROL PERMIT

FEB 01 2018

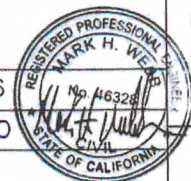
CITY OF SAN DIEGO

Development Services

Engineering Division

Safety Section

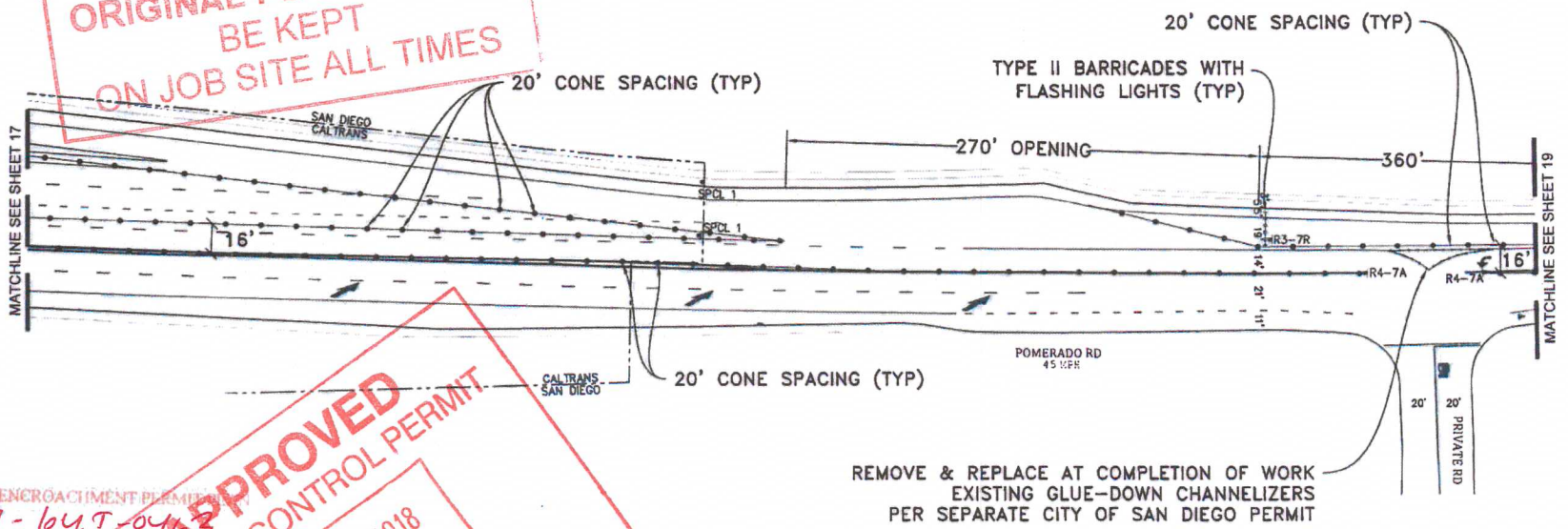
PROJECT NAME: TL23071 - Sycamore Canyon Substation To Penasquitos Substation - 230 KV Underground		DATE: 1/22/2018	
AIRX SURVEYORS, INC. Gail McMorran President 7534 EAST EL NORTE PARKWAY SUITE C ESCONDIDO, CA 92027 PHONE: (760) 490-0347 CELL: (760) 419-3738		AIRX JOB#: X160218	THOMAS GRID#: 1209-F6
NV5 15092 AVENUE OF SCIENCE, SUITE 200 SAN DIEGO, CA 92128 P: 858.385.0500 WWW.NV5.COM	MISC/POTHOLE#:	DRAWN FOR: SAN DIEGO	CHECKED BY: Mark Webb
TYPE OF WORK: TRENCHING / CONDUIT		SHEET 17 OF 48	



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**ORIGINAL PERMIT MUST
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ON JOB SITE ALL TIMES**



APPROVED ENCROACHMENT PERMIT
11-17-647-04163
Permit No.:
Date:



SPCL 1

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX
SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3738

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15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: SAN DIEGO



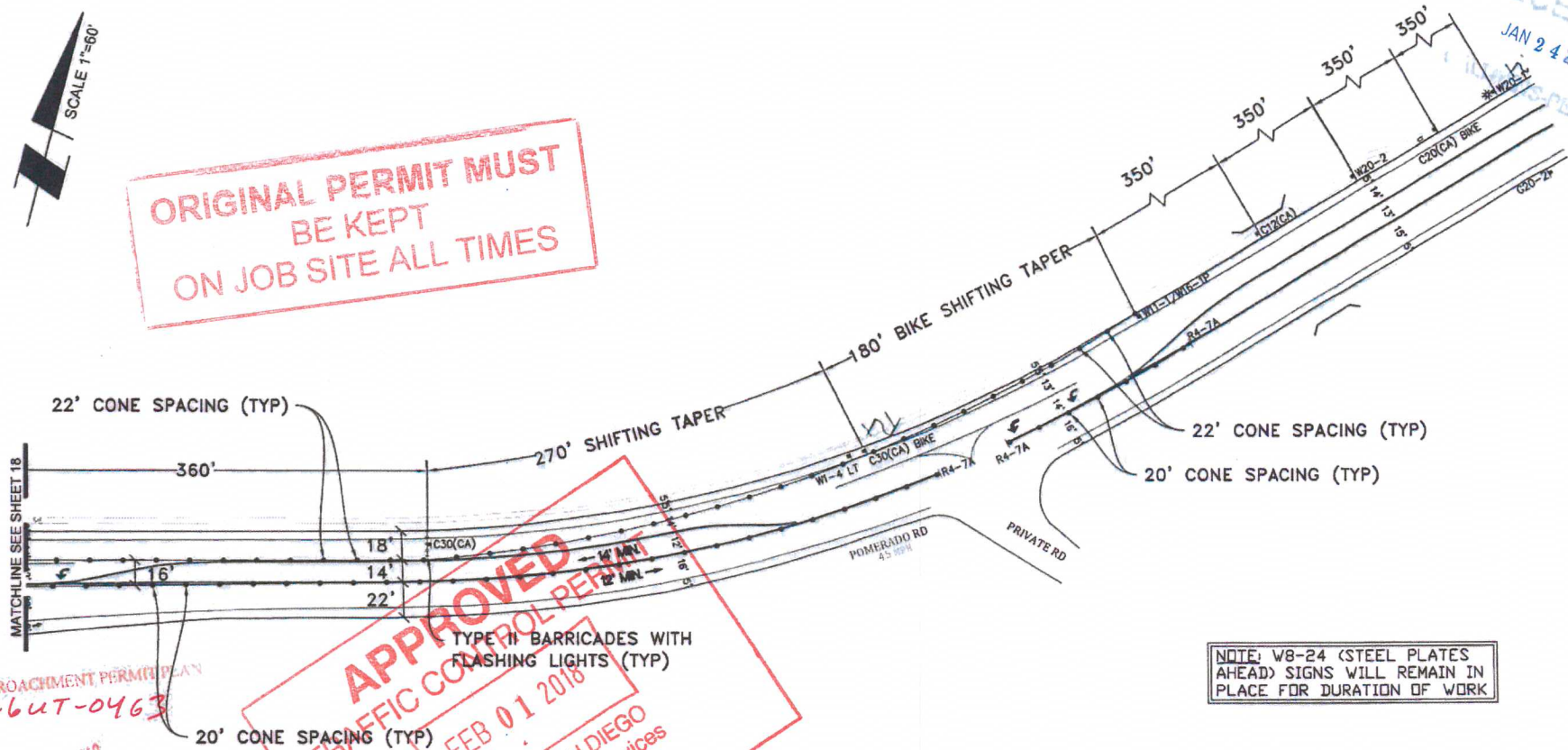
DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 18 OF 48



ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

JAN 24 2018



APPROVED ENCROACHMENT PERMIT PLAN
11-17-64T-0463
Permit No.

JAN 29 2018

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018
CITY OF SAN DIEGO
Development Services
Traffic Engineering Division
Traffic Safety Section

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2834 PASEO EL NORTE PARKWAY SUITE C
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PHONE (760) 480-2347
CELL (760) 418-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0600 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

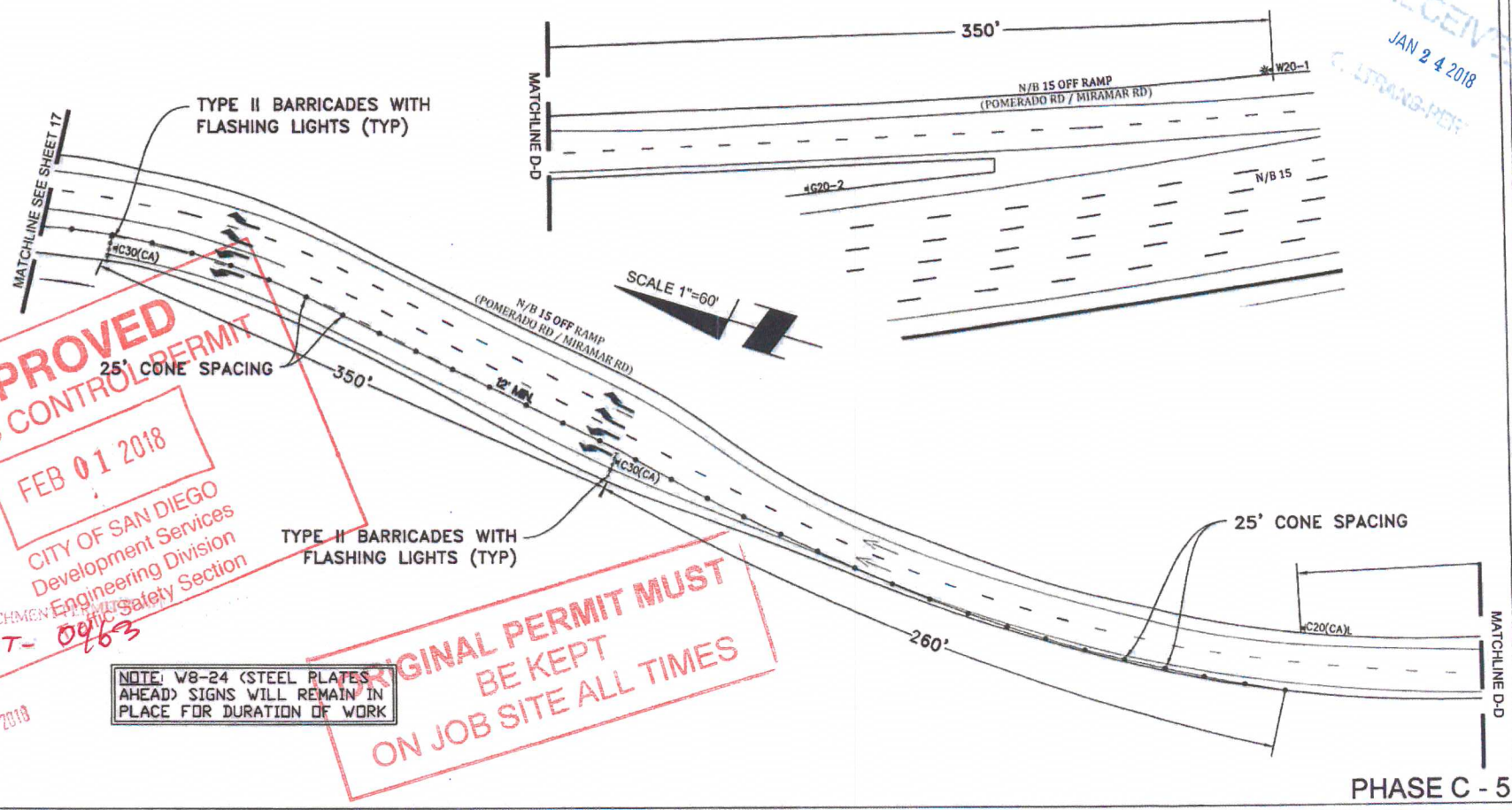
DRAWN FOR: SAN DIEGO



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 19 OF 48

RECEIVED
JAN 24 2018
CLINT JONES



APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
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ON JOB SITE ALL TIMES**

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

JAN 29 2018

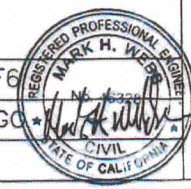
PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2504 EAST EL MONTE PARKWAY, SUITE C
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PHONE: (760) 480-3347
CELL: (760) 419-3726

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658.385.0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
THOMAS GRID#: 1209-F6
DRAWN FOR: SAN DIEGO
TYPE OF WORK: TRENCHING / CONDUIT



SHEET 20 OF 48

MATCHLINE SEE SHEET 16

540' TAPER

25' CONE SPACING

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK

SCALE 1"=60'

JAN 24 2018

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
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ON JOB SITE ALL TIMES**

APPROVED ENCROACHMENT PERMIT
11-17-64T-0463

JAN 29 2018

260'

350'

S/B 15 OFFRAMP

4C20(CA)R

4C20-1

4C20-2

S/B 15

PHASE C - 5

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL MONTE PARKWAY SUITE C
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PHONE: (760) 486-2547
CELL: (760) 419-3738

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15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

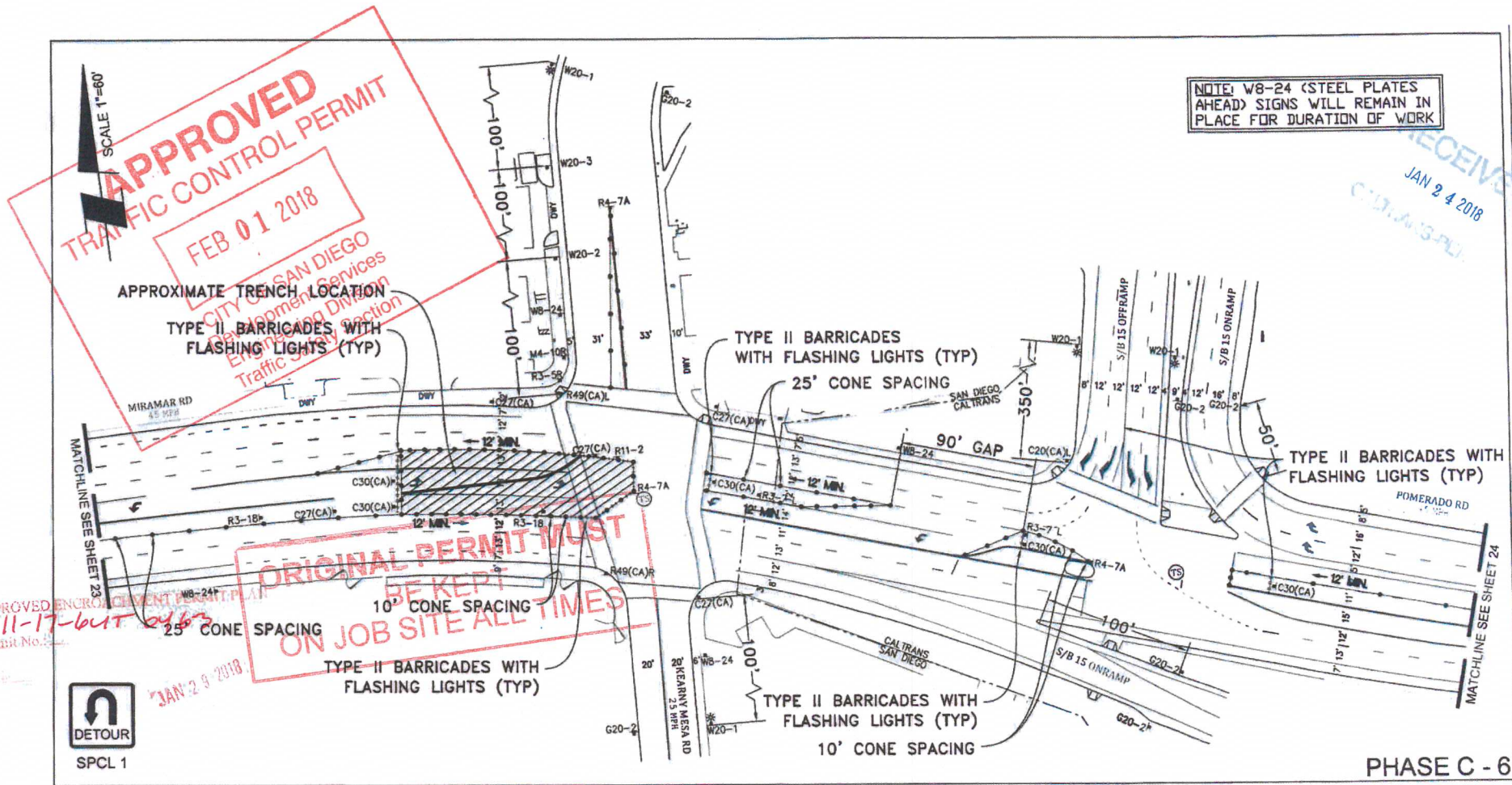
DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 21 OF 48



PHASE C - 6

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

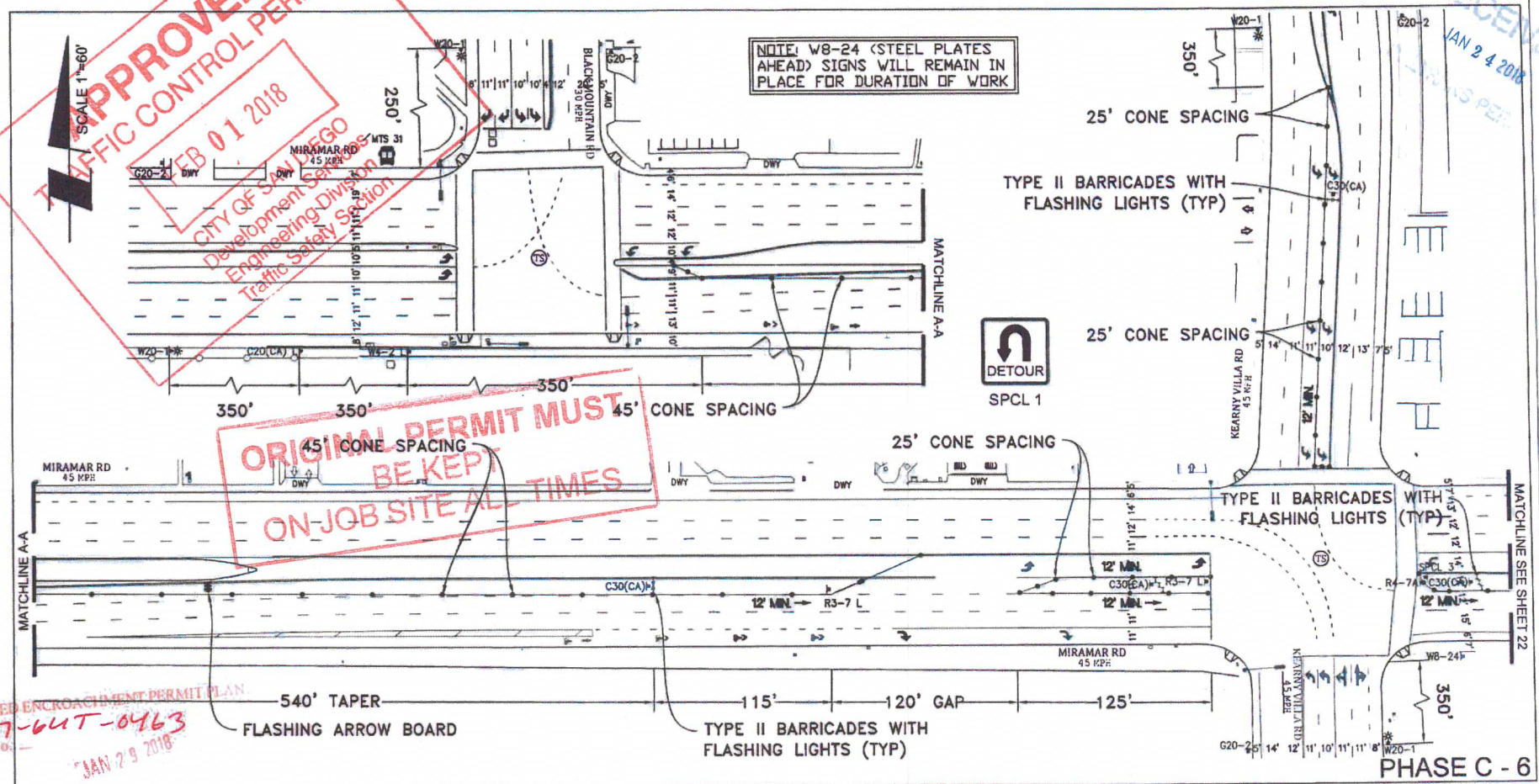


SHEET 22 OF 48

AIRX SURVEYORS, INC.
Gail McMoran
President
2204 EAST BL. NORTH PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 489-2347
CELL: (760) 419-9738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658.385.0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
THOMAS GRID#: 1209-F6
DRAWN FOR: SAN DIEGO
TYPE OF WORK: TRENCHING / CONDUIT



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



NV5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385.0500 WWW.NV5.COM

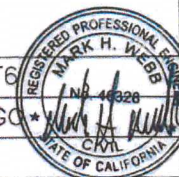
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

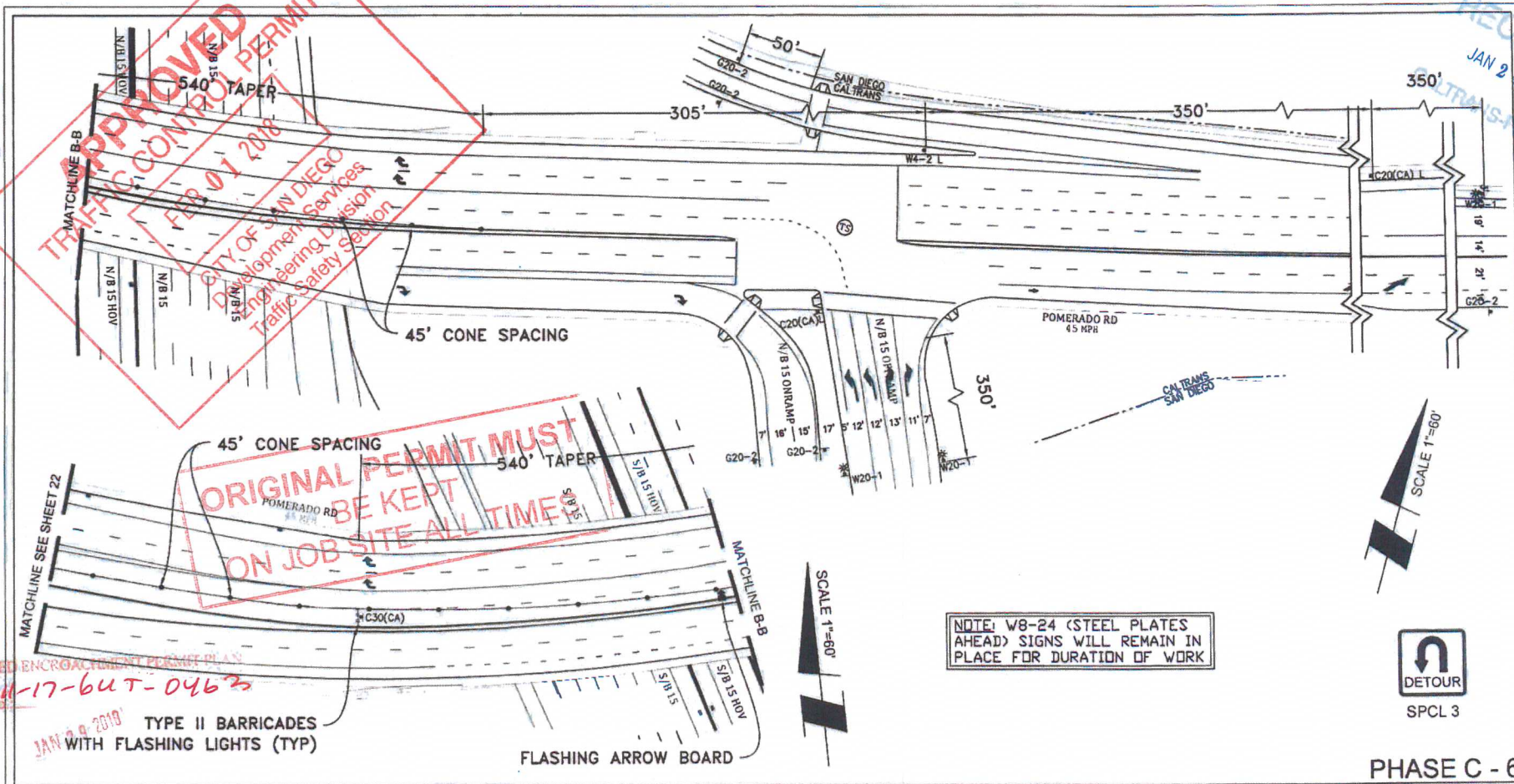
THOMAS GRID#: 1209-F6

DRAWN FOR: SAN DIEGO



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 23 OF 48



PHASE C - 6

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2934 EAST BL. NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 418-3726

N/V 5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: SAN DIEGO

TYPE OF WORK: TRENCHING / CONDUIT

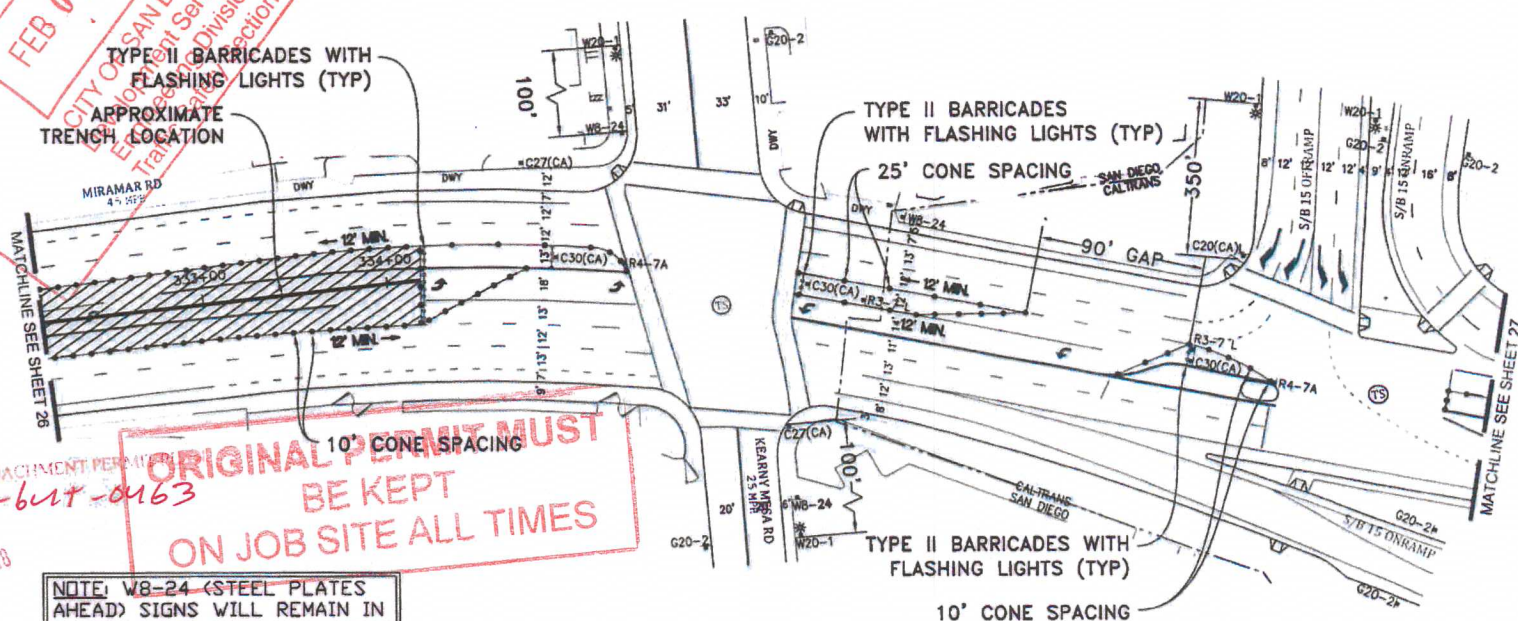


SHEET 24 OF 48

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APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

TYPE II BARRICADES WITH FLASHING LIGHTS (TYP)
APPROXIMATE TRENCH LOCATION



ORIGINAL PERMIT MUST BE KEPT ON JOB SITE ALL TIMES

PHASE C - 7

PROJECT NAME: TL23071 - Sycamore Canyon Substation To Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2334 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

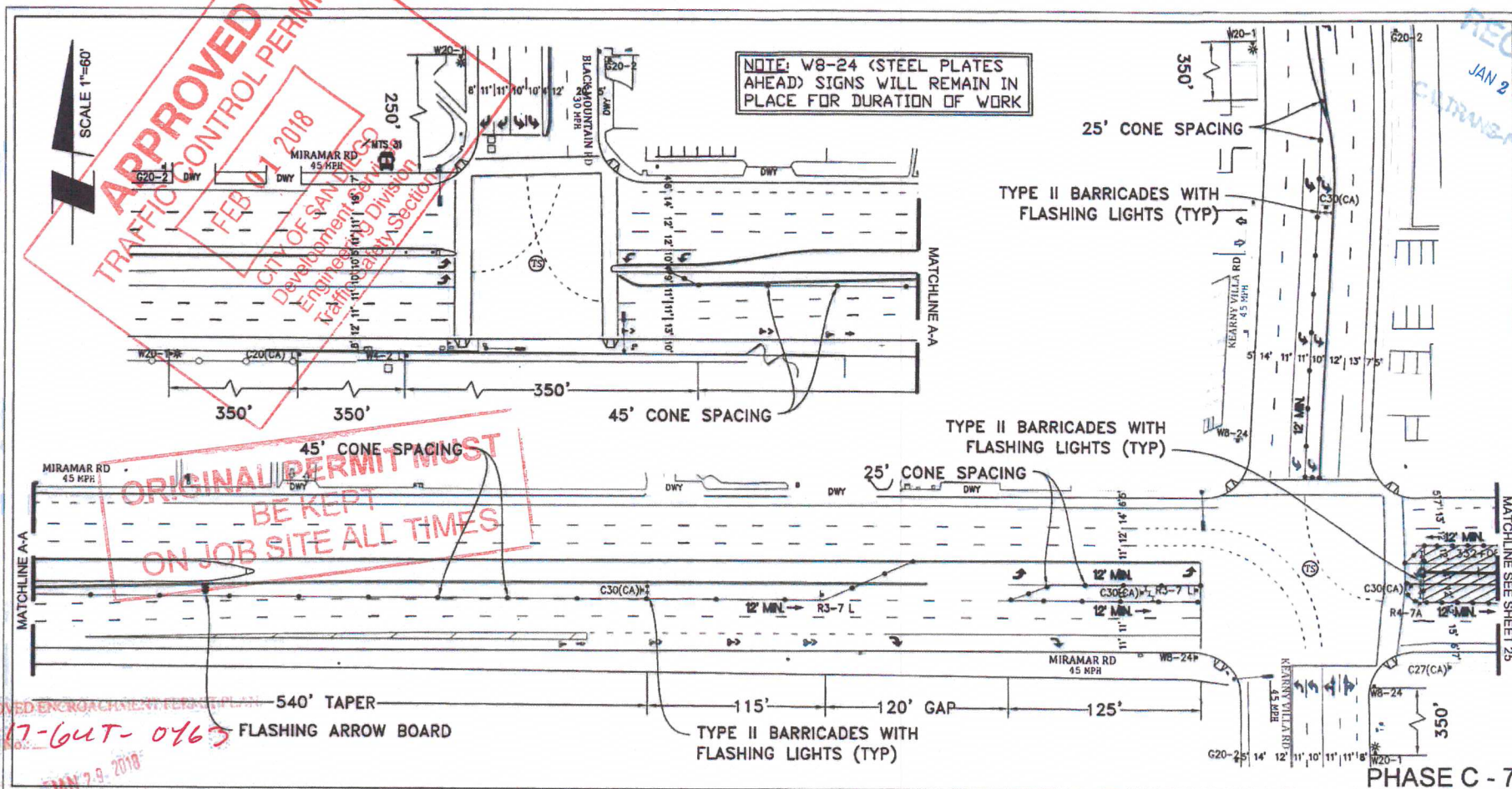
AIRX JOB#: X160218
MISC/POTHOLES#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS

REGISTERED PROFESSIONAL
MARK H. WEBB
No. 46828
CIVIL
STATE OF CALIFORNIA

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 25 OF 48



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

UTILITY SURVEYORS, INC.
AIRX
2534 EAS* EL NORTE PARKWAY, SUITE C
SAN DIEGO, CA 92107
PHONE: (760) 490-2347
CELL: (760) 419-3738

Gail McMorran
President

NVS

15082 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NVS.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F

DRAWN FOR: CALTRANS



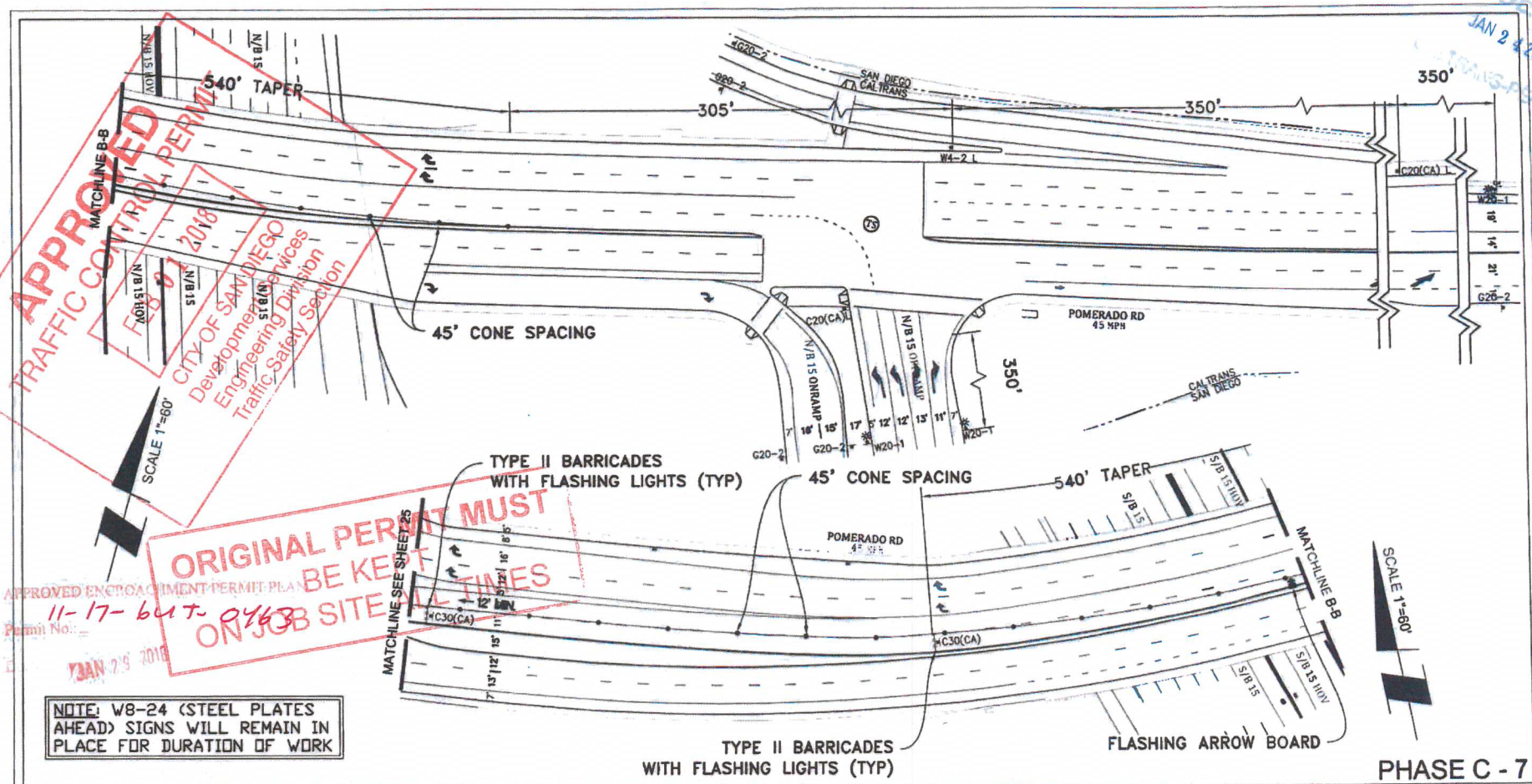
DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 26 OF 48

RECEIVED
JAN 24 2018
CALTRANS-PAR



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMoran
President
2534 EAST EL MONTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 488-5347
CELL: (760) 418-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

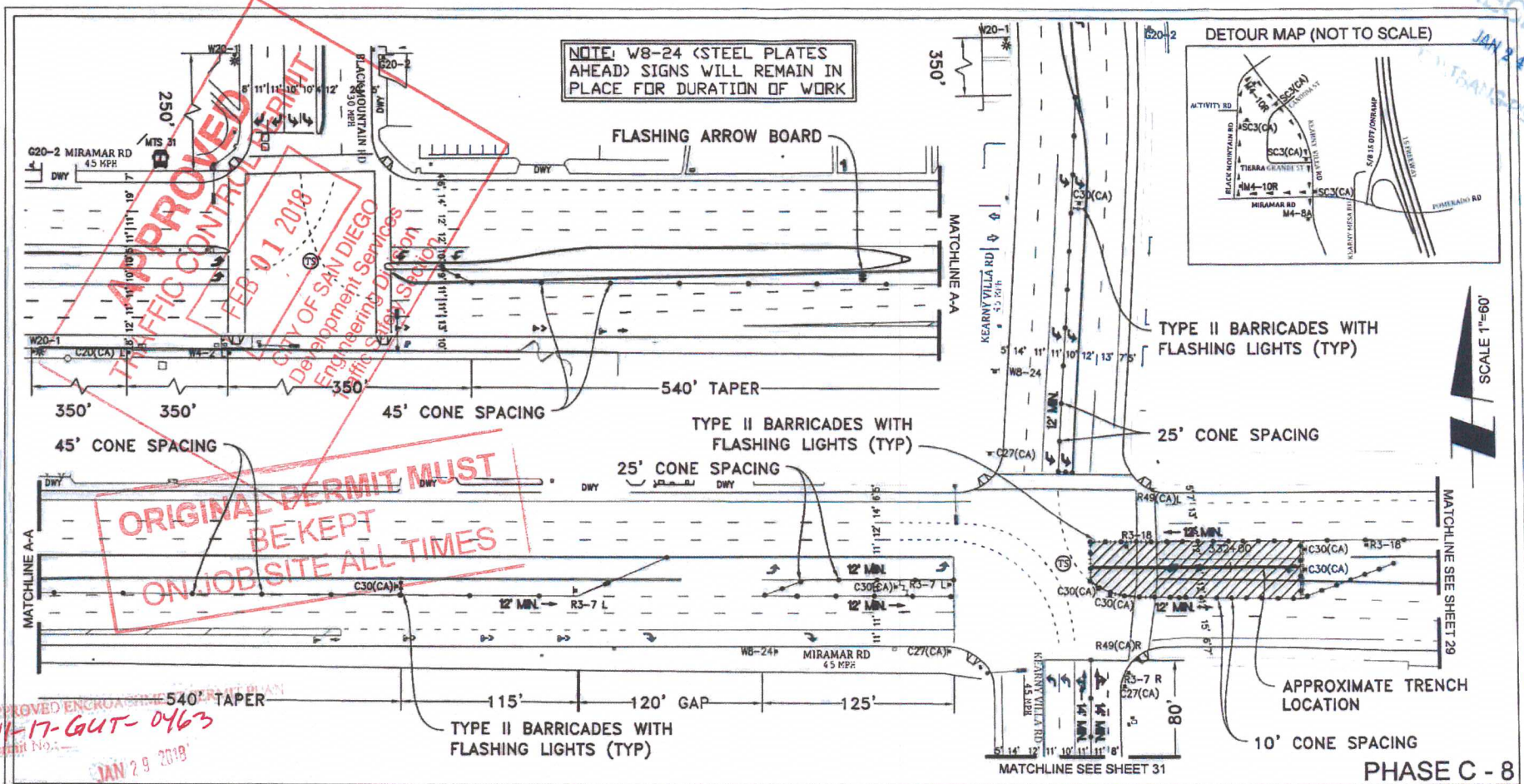
AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS

REGISTERED PROFESSIONAL ENGINEER
MARK H. WEBB
No. 46128
CIVIL
STATE OF CALIFORNIA

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 27 OF 48



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground



NVS
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NVS.COM

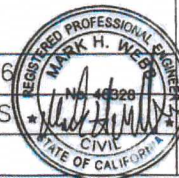
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 28 OF 48

FEB 01 2018

2018
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety

~~APPROVED ENCROACHMENT PERMIT PLAN~~

11-17-64 + - / 0163

Permit No.

JAN 29 2018

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

25' CONE SPACING

MATCHLINE SEE SHEET 28

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

NOTE: W8-24 (STEEL PLATES AHEAD) SIGNS WILL REMAIN IN PLACE FOR DURATION OF WORK

- TYPE II BARRICADES
WITH FLASHING LIGHTS (TYP)

- 25' CONE SPACING

10' CONE SPACING

PHASE C - 8

PROJECT NAME: TL23071 – Sycamore Canyon Substation To
Penasquitos Substation – 230 KV Underground



Gail McMorran
President

N|V|5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHLES#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



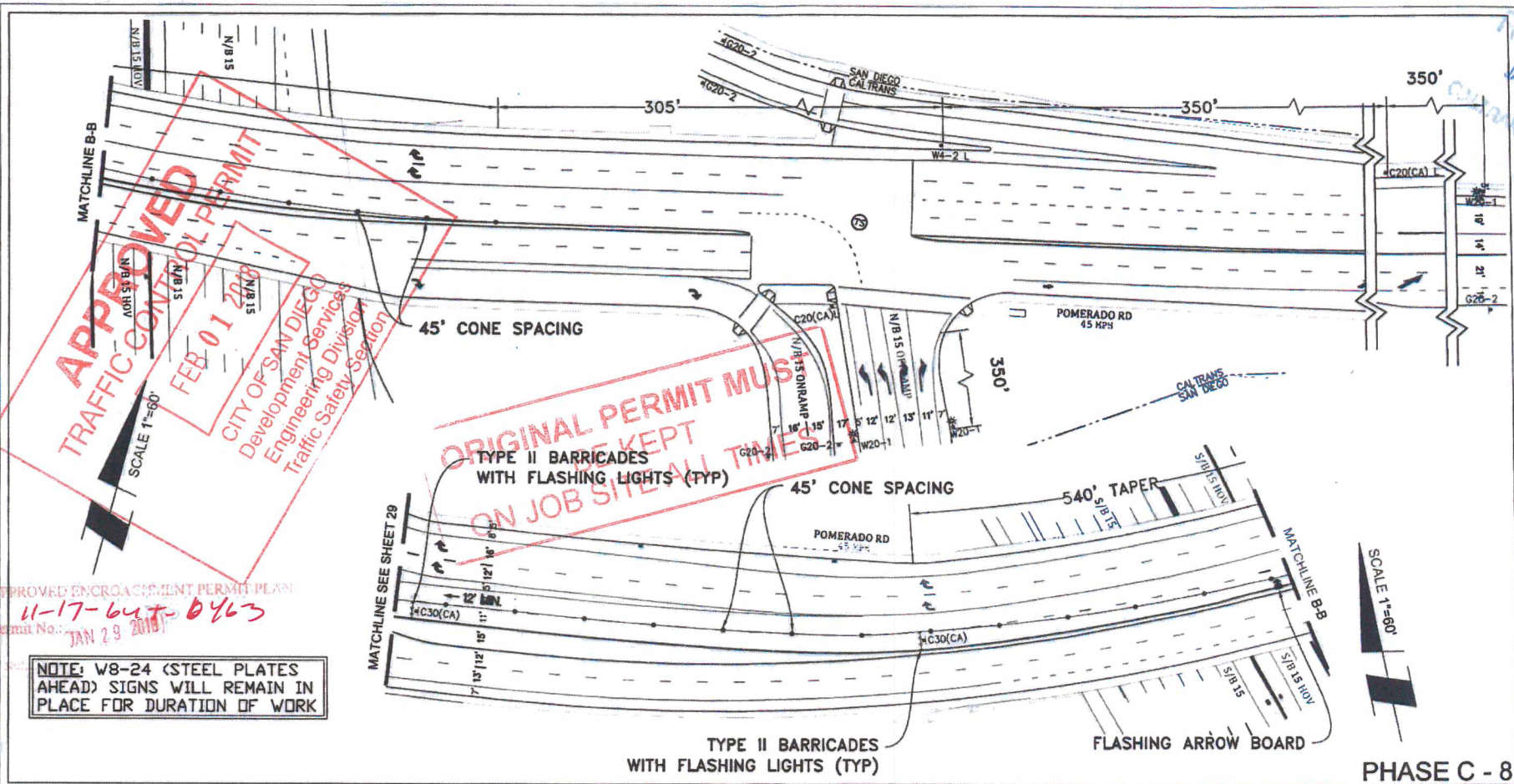
DATE: 1/22/2018

DESIGNED: Clint Jones

CHECKED BY: Mark Webb

SHEET 29 OF 48

RECEIVED
JAN 24 2018
CALTRANS-PET



APPROVED ENCROACHMENT PERMIT PLAN
11-17-647-0463
Permit No.: JAN 29 2018

NOTE: W8-24 (STEEL PLATES AHEAD) SIGNS WILL REMAIN IN PLACE FOR DURATION OF WORK

SCALE 1"=60'

PHASE C - 8

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
AIRX
Gail McMoran
President
7544 PALM BLVD. SUITE 200
SAN DIEGO, CA 92127
PHONE: (760) 480-2947
CELL: (760) 419-3728

NIVIS
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658.385.0500 WWW.NIVIS.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

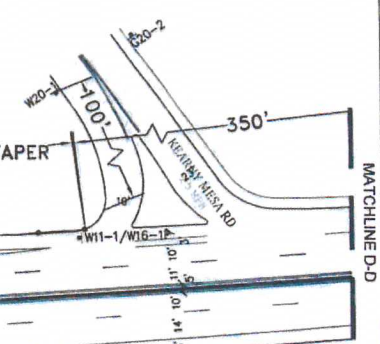
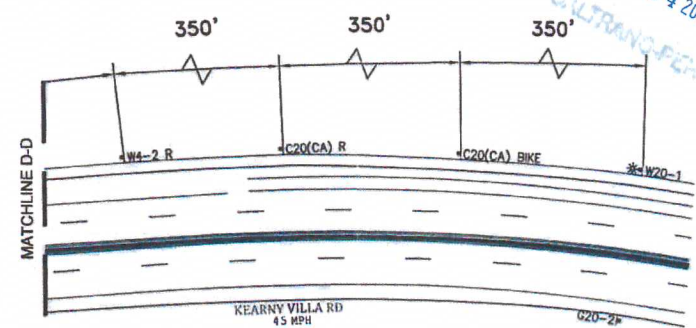
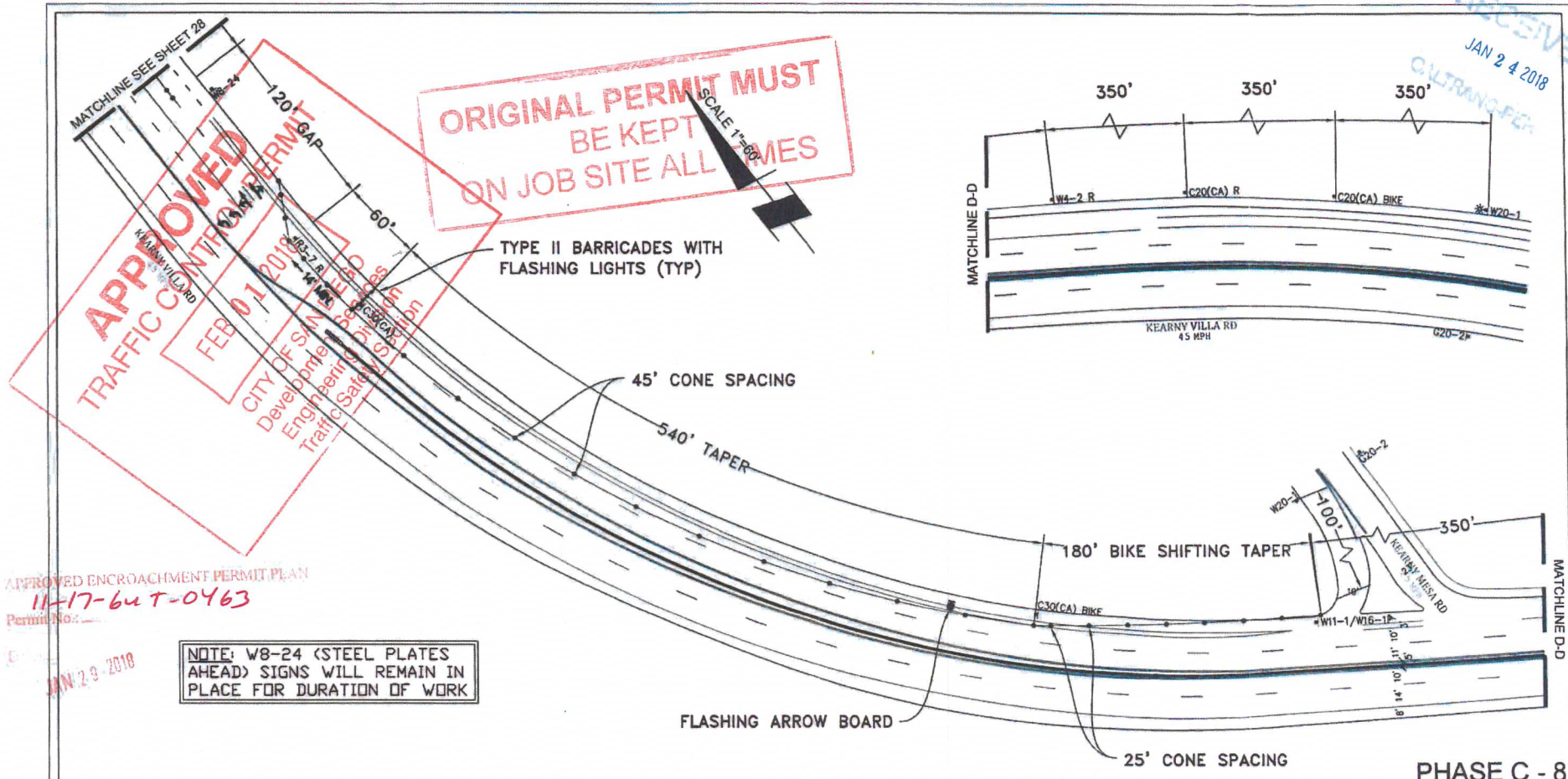
THOMAS GRID#: 1209-F
DRAWN FOR: CALTRANS



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 30 OF 48

RECEIVED
JAN 24 2018
CALTRANS



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL MONTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 486-2347
CELL: (760) 419-3728

NV5
15082 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658 385.0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS

REGISTERED PROFESSIONAL ENGINEER
MARK H. WEBB
JAN 24 2018
CIVIL
STATE OF CALIFORNIA

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 31 OF 48

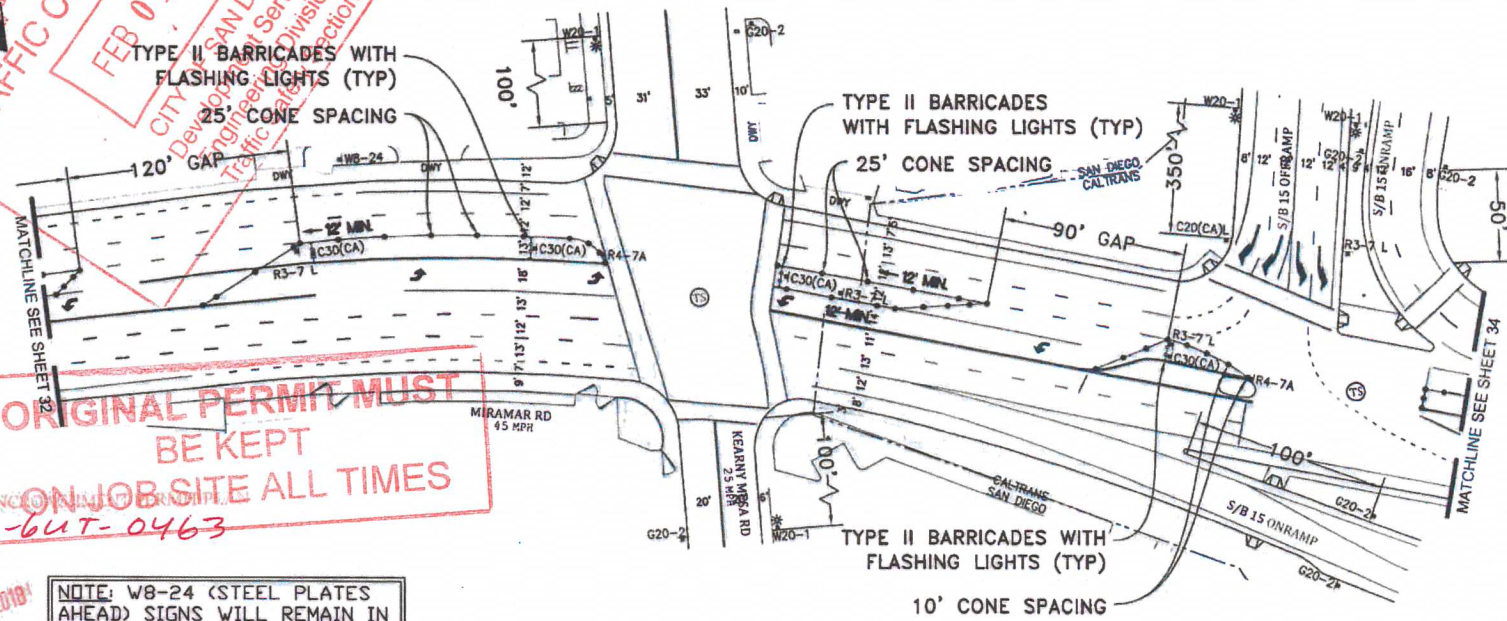
RECEIVED
JAN 24 2018
CLT-NS-PER

SCALE 1"=60'

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**
11-17-6UT-0463
Permit No.:

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK



PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMorran
President
2134 EAST EL MONTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2247
CELL: (760) 410-3728

NV5
15982 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS



SHEET 33 OF 48

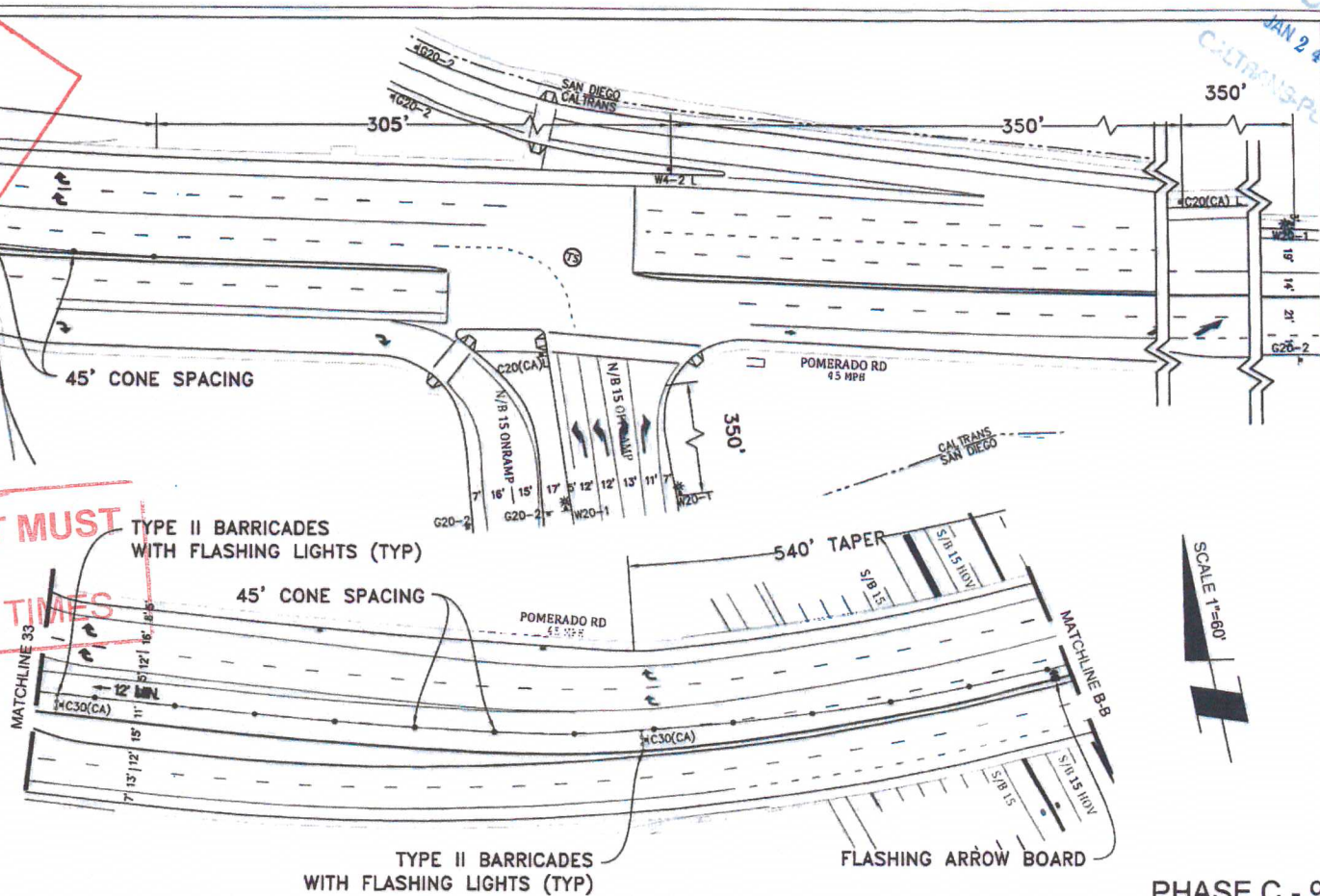
RECEIVED
JAN 24 2018
CALTRANS-PS

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018
CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

APPROVED ENCROACHMENT PERMIT PLAN
11-17-644-0463
Permit No.:
JAN 23 2018

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK



PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 410-3738

NVS
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NVS.COM

AIRX JOB#: X160218
MISC/POTHOLE#: _____
TYPE OF WORK: TRENCHING / CONDUIT

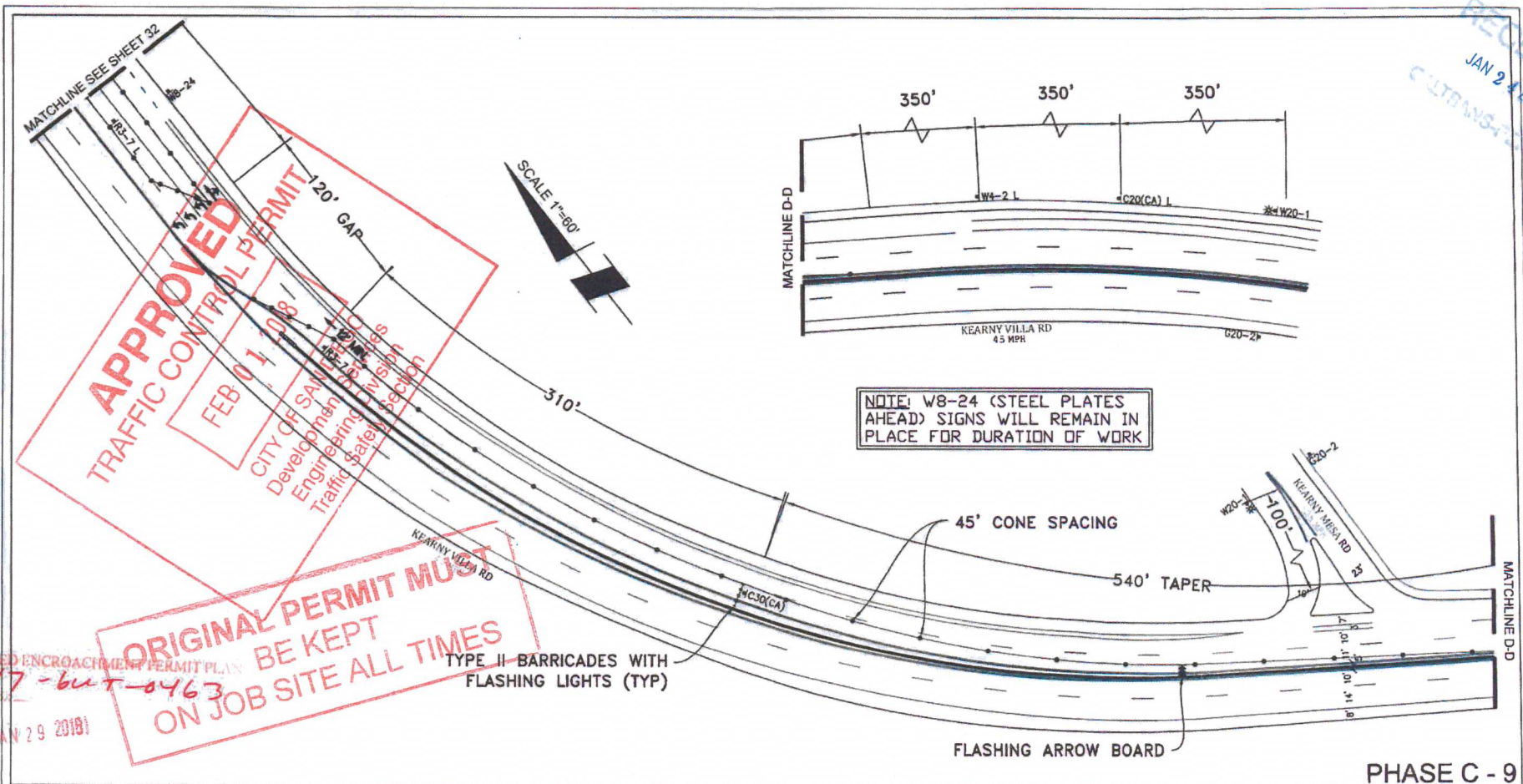
THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 34 OF 48

RECEIVED
JAN 24 2018
CUTTING



APPROVED ENCROACHMENT PERMIT PLAN
11-17-645-0463
Permit No.
JAN 29 2018

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

TYPE II BARRICADES WITH
FLASHING LIGHTS (TYP)

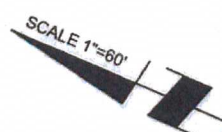
PHASE C - 9

PROJECT NAME: TL23071 - Sycamore Canyon Substation To Penasquitos Substation - 230 KV Underground		DATE: 1/22/2018 DESIGNED: Clint Jones CHECKED BY: Mark Webb	
AIRX SURVEYORS, INC. Gail McMoran President 2334 POST EL NORTE PARKWAY, SUITE C ESCONDIDO, CA 92027 PHONE: (760) 480-2347 CELL: (760) 419-3726	NV5 15092 AVENUE OF SCIENCE, SUITE 200 SAN DIEGO, CA 92128 P: 858.385.0500 WWW.NV5.COM	AIRX JOB#: X160218 MISC/POTHOLE#: TYPE OF WORK: TRENCHING / CONDUIT	THOMAS GRID#: 1209-F6 DRAWN FOR: CALTRANS



SHEET 35 OF 48

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JAN 24 2018
CALTRANS-PER



APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

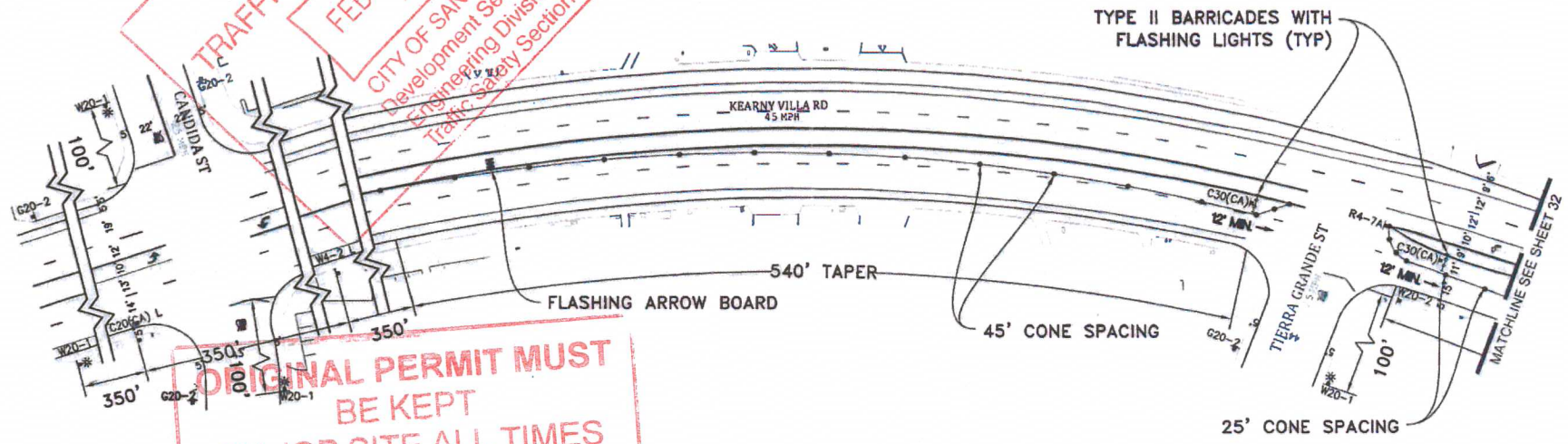
**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

APPROVED ENCROACHMENT PERMIT PLAN

11-17-64T-0463
Permit No.:

JAN 29 2018

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK



PHASE C - 9

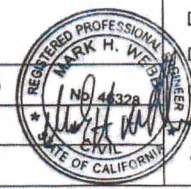
PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
AIRX
Gail McMorran
President
2344 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO CA 92027
PHONE: (760) 440-2347
CELL: (760) 419-0128

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

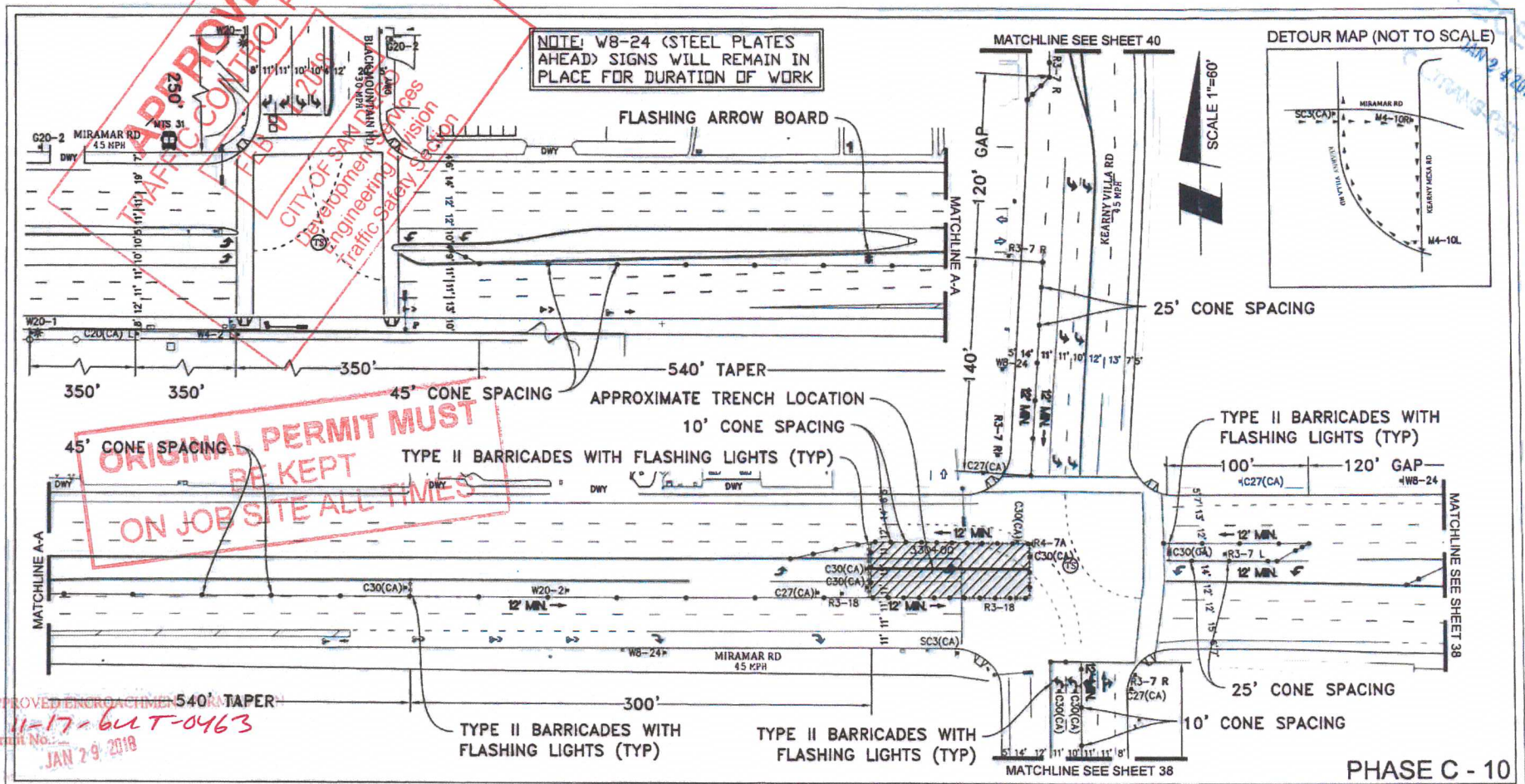
AIRX JOB#: X160218
MISC/POTHLES#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 36 OF 48



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST AL MONTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 485-2347
CELL: (760) 419-3738

NIVIS
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NIVIS.COM

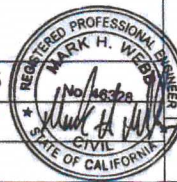
AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018

DESIGNED: Clint Jones

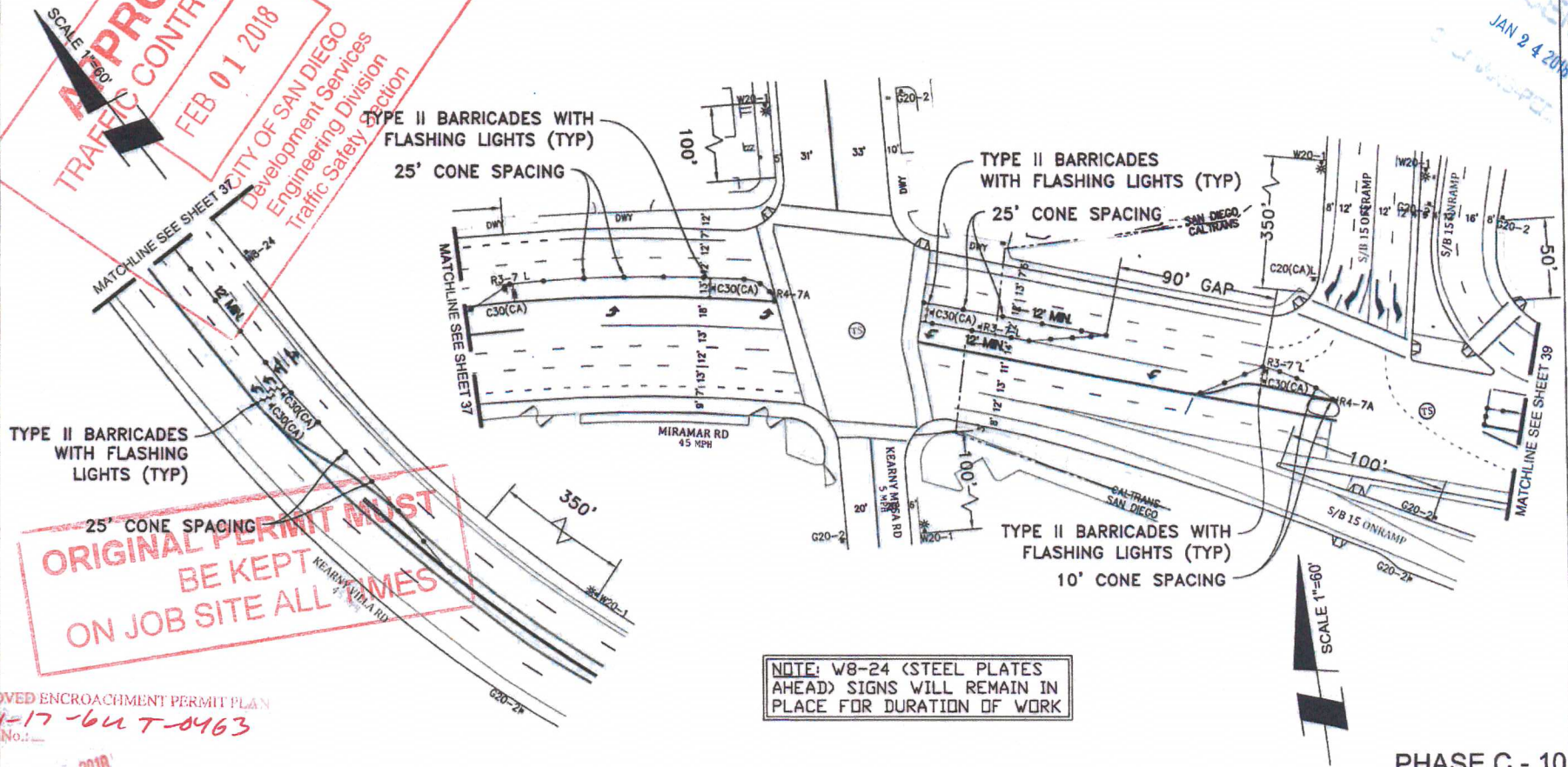
CHECKED BY: Mark Webb

SHEET 37 OF 48

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JAN 24 2018

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section



PHASE C - 10

APPROVED ENCROACHMENT PERMIT PLAN
11-17-64 T-0463
Permit No.:
JAN 29 2018

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

AIRX SURVEYORS, INC.
Gail McMoran
President
3534 EAST EL NORTE PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 490-2947
CELL: (760) 410-3728

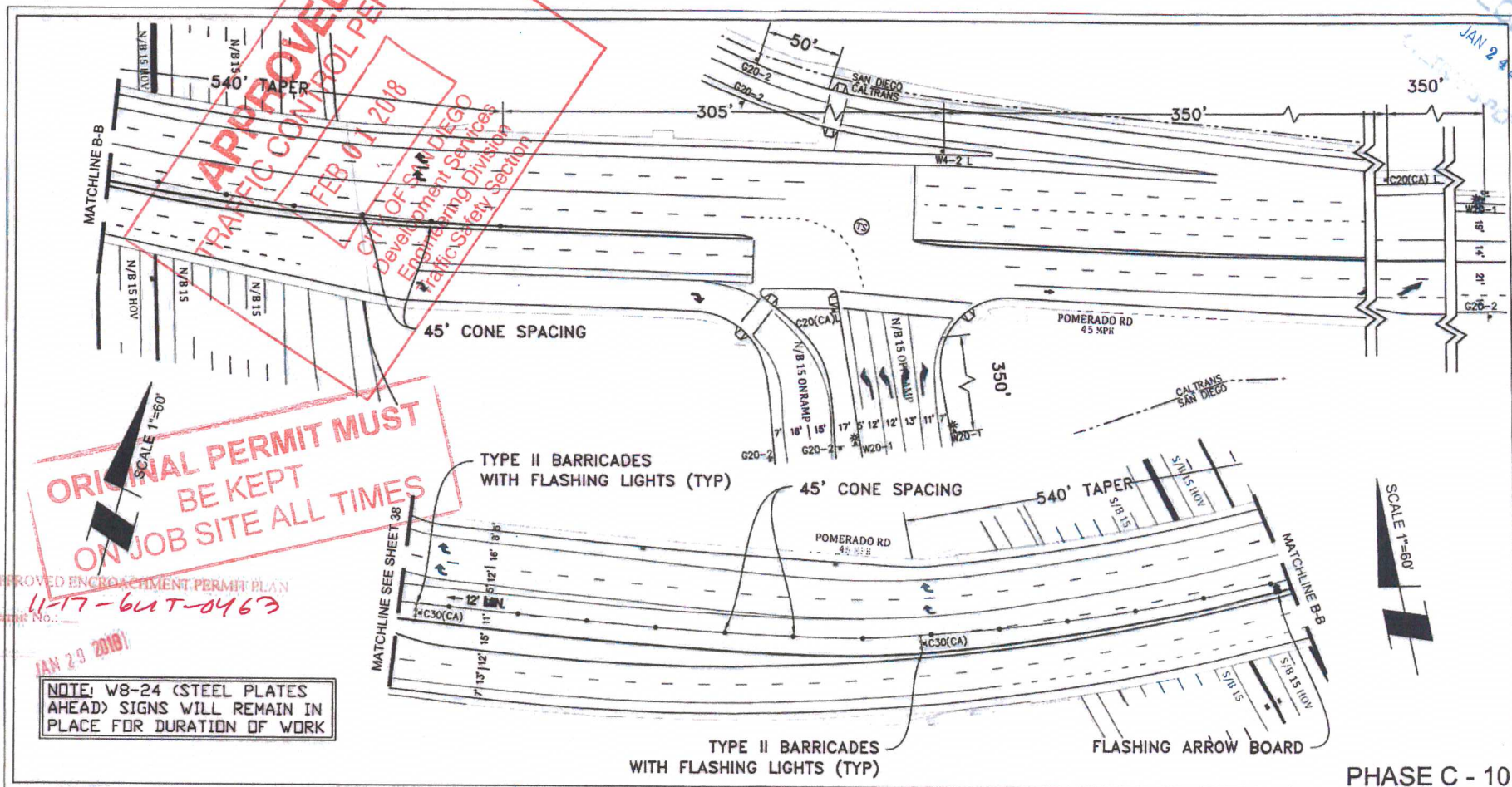
NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 658.385.0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHLES#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS



SHEET 38 OF 48



PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

SHEET 39 OF 48

AIRX
Gail McMoran
President
2350 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (761) 688-2347
CELL: (761) 415-3728

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 365-0500 WWW.NV5.COM

AIRX JOB#: X160218

THOMAS GRID#: 1209-F6

MISC/POTHOLE#:

DRAWN FOR: CALTRANS

TYPE OF WORK: TRENCHING / CONDUIT



APPROVED
TRAFFIC CONTROL PERMIT
JAN 24 2018

ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES

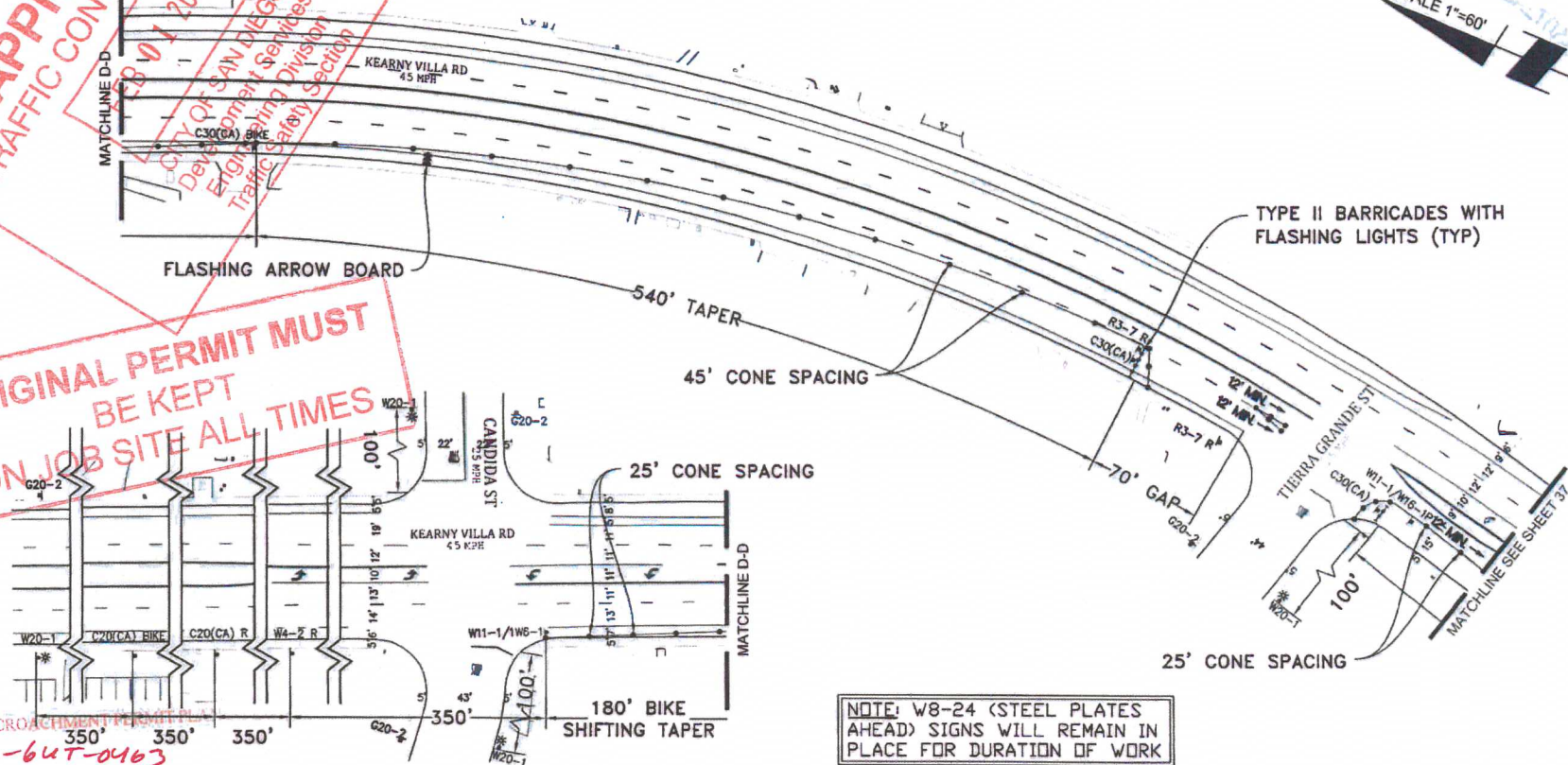
APPROVED ENCROACHMENT PERMIT
11-17-64T-0463

Permit No. 11-17-64T-0463

JAN 29 2018

SCALE 1"=60'

JAN 24 2018



PHASE C - 10

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX
75th EAST 61 NORTH PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2947
CELL: (760) 419-3726

Gail McMorran
President

NV5

15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218

MISC/POTHOLE#:

TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6

DRAWN FOR: CALTRANS



DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

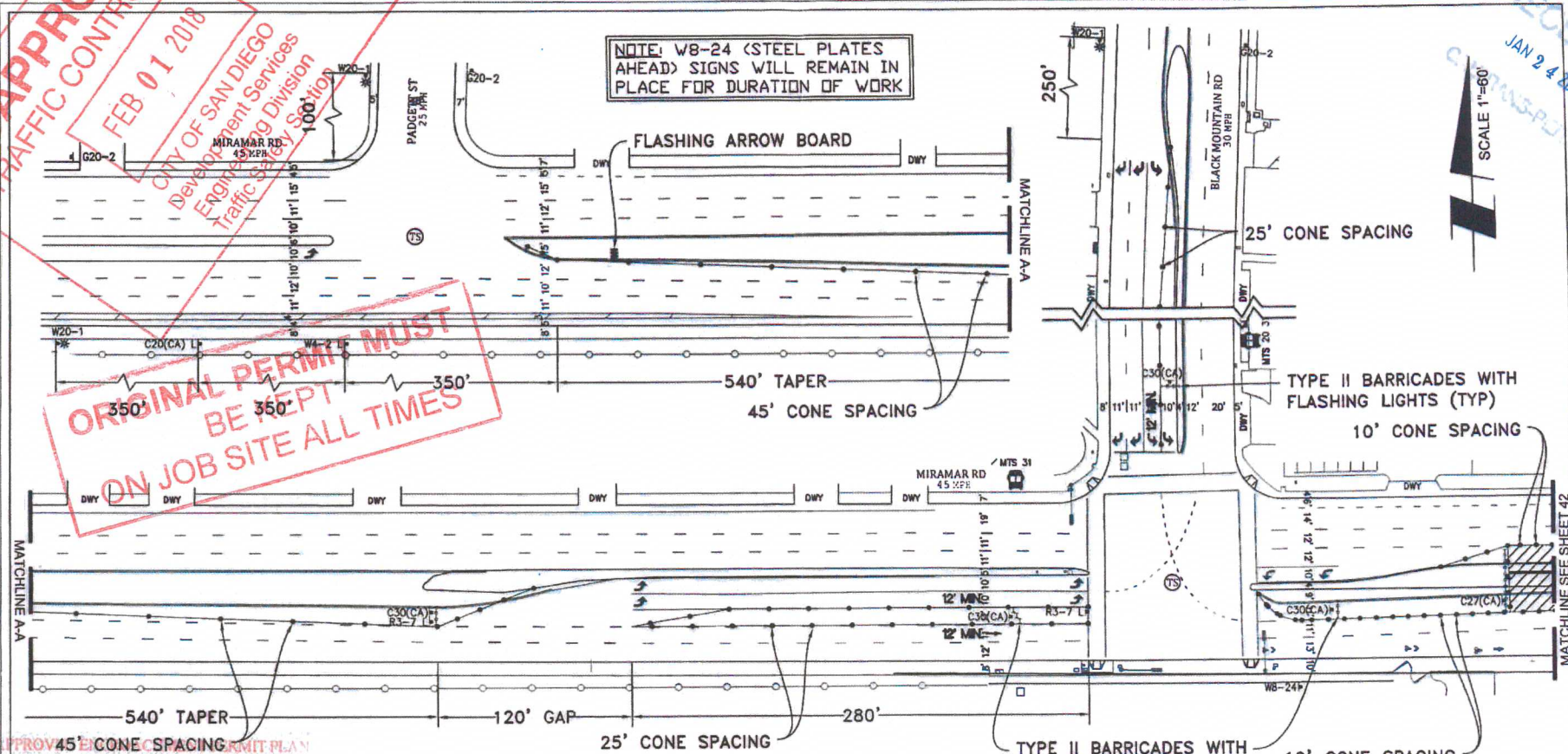
SHEET 40 OF 48

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK



RECEIVED
JAN 24 2018
CALTRANS-PD

PHASE C - 11

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC.
Gail McMorran
President
2534 EAST EL NORTE PARKWAY, SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 485-2347
CELL: (760) 410-3738

NV5
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858 385 0500 WWW.NV5.COM

AIRX JOB#: X160218
MISC/POTHOLE#:
TYPE OF WORK: TRENCHING / CONDUIT

THOMAS GRID#: 1209-F6
DRAWN FOR: CALTRANS

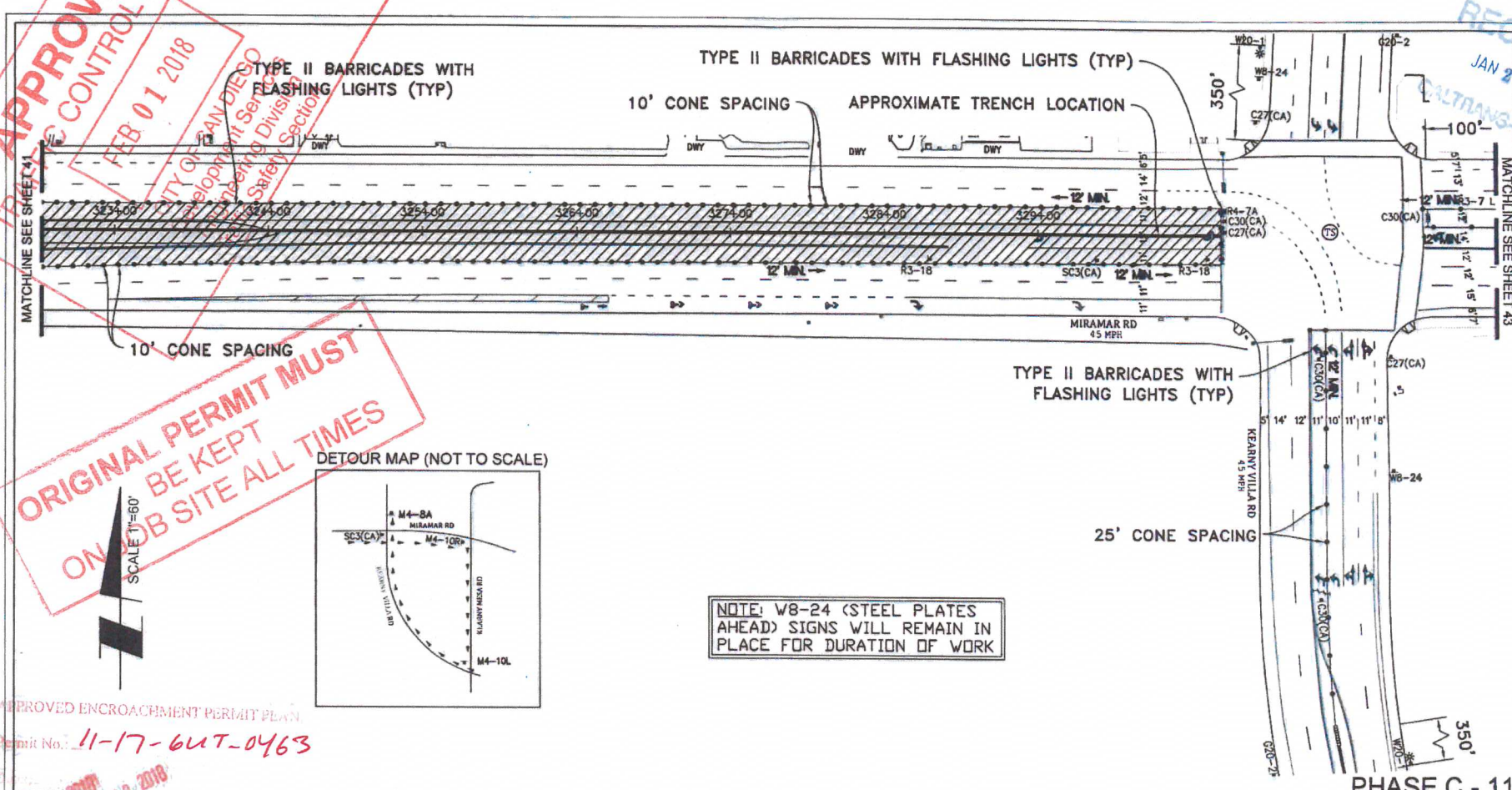
REGISTERED PROFESSIONAL ENGINEER
MARK H. WEBB
No. 43328
CIVIL
STATE OF CALIFORNIA

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb

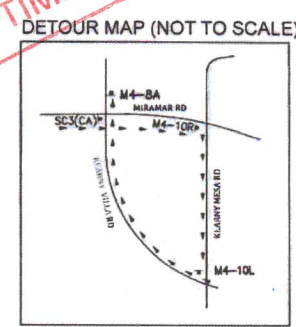
SHEET 41 OF 48

APPROVED
TRAFFIC CONTROL PERMIT
FEB 01 2018

RECEIVED
JAN 24 2018
CALTRANS PER



ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES



NOTE: W8-24 (STEEL PLATES AHEAD) SIGNS WILL REMAIN IN PLACE FOR DURATION OF WORK

PHASE C - 11

PROJECT NAME: TL23071 - Sycamore Canyon Substation To Penasquitos Substation - 230 KV Underground

AIRX SURVEYORS, INC. Gail McMorran President 2534 EAST EL MONTE PARKWAY SUITE C ESCONDIDO, CA 92027 PHONE: (760) 480-2347 CELL: (760) 410-3728	NVS 15062 AVENUE OF SCIENCE, SUITE 200 SAN DIEGO, CA 92128 P: 858 385 0500 WWW.NVS.COM	AIRX JOB#: X160218 THOMAS GRID#: 1209-F6 MISÇ/POTHLES#: DRAWN FOR: CALTRANS TYPE OF WORK: TRENCHING / CONDUIT	REGISTERED PROFESSIONAL ENGINEER MARK H. WEBB No. 46328 CIVIL STATE OF CALIFORNIA	DATE: 1/22/2018 DESIGNED: Clint Jones CHECKED BY: Mark Webb SHEET 42 OF 48
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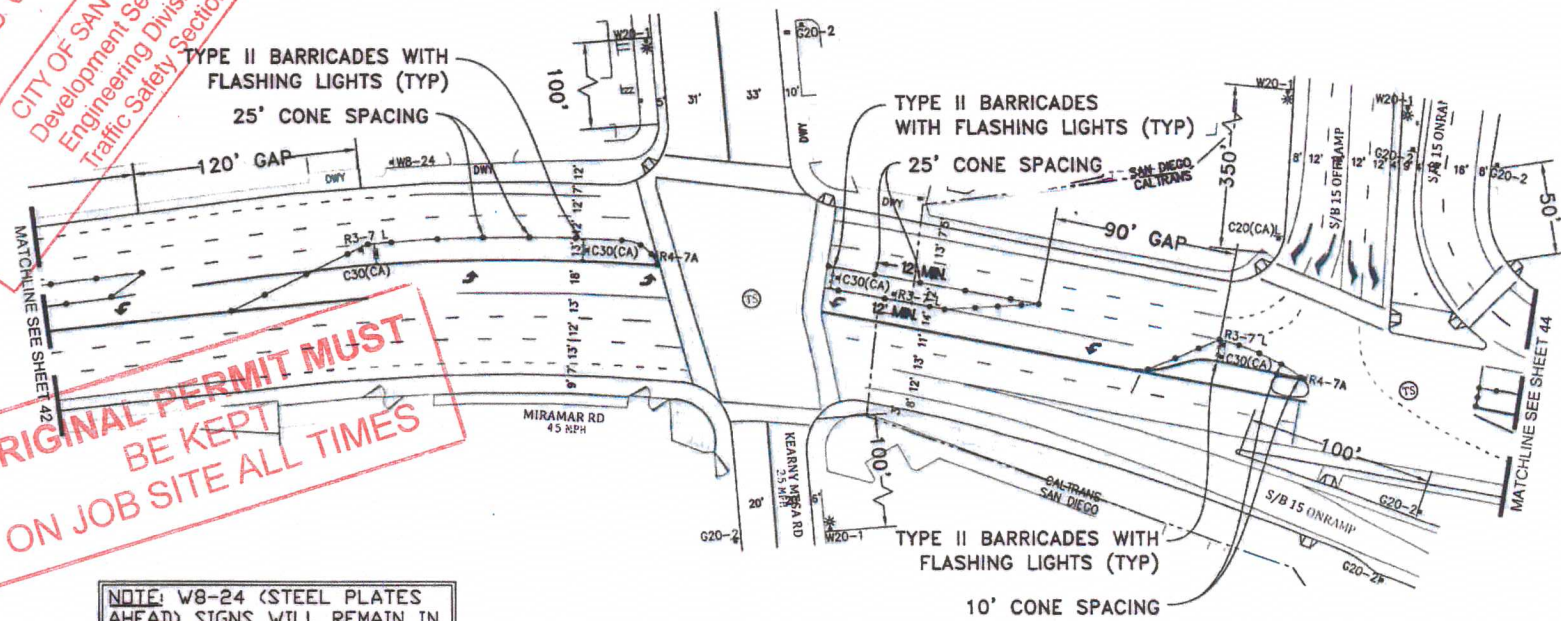
APPROVED
TRAFFIC CONTROL PERMIT
SCALE 1"=60'
FEB 01 2018

CITY OF SAN DIEGO
Development Services
Engineering Division
Traffic Safety Section

RECEIVED
JAN 24 2018
CALTRANS-PDT

**ORIGINAL PERMIT MUST
BE KEPT
ON JOB SITE ALL TIMES**

NOTE: W8-24 (STEEL PLATES
AHEAD) SIGNS WILL REMAIN IN
PLACE FOR DURATION OF WORK



APPROVED ENCROACHMENT PERMIT
11-17-6415-0463
Permit No.:

PHASE C - 11

PROJECT NAME: TL23071 - Sycamore Canyon Substation To
Penasquitos Substation - 230 KV Underground

DATE: 1/22/2018
DESIGNED: Clint Jones
CHECKED BY: Mark Webb



SHEET 43 OF 48

AIRX SURVEYORS, INC.
Gail McMorran
President
7934 EAST 61 NORTH PARKWAY SUITE C
ESCONDIDO, CA 92027
PHONE: (760) 480-2347
CELL: (760) 419-3726

NV5
15082 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128
P: 858.385.0500 WWW.NV5.COM

AIRX JOB#: X160218
THOMAS GRID#: 1209-F6
MISC/POTHOLE#:
DRAWN FOR: CALTRANS
TYPE OF WORK: TRENCHING / CONDUIT

RECEIVED
JAN 24 2018
TRANSFIRE