SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES. (562) 908-4288, EXT.2727

STA 19+26.81 RIM=92.24 STA 3+41.36 SS-3013

STA 17+18.27 RIM=93.70

STA 15+09.65 RIM=94.93

EXISTING GRADE

NOTE: EXISTING UTILITY DEPTHS ARE UNKNOWN. CONTRACTOR TO POTHOLE ALL EXISTING UTILITIES TO DETERMINE EXACT LOCATIONS AND DEPTHS PRIOR TO CONSTRUCTION.

Q=1.21 CFS
V=2.70 FT/S
d/D=39.30

EXISTING 10" VCP SEWER SS-3013

208.6' 15" VCP @ 0.34%

80.94 INV.

80.74 INV.

80.03 INV.

79.83 INV.

79.72 INV.

79.62 INV.

62.5' 15" VCP @ 0.34%

79.83 INV.

SEE SHEET 3 FOR CONTINUATION OF LINE "A"

APPROXIMATE EXISTING GAS LINE

APPROXIMATE EXISTING 4" GAS LINE

APPROXIMATE EXISTING OIL LINE

APPROXIMATE EXISTING 8" WATER LINE

STA: 14+60 MATCHLINE - SEE SHEET 3

90

80

20+00 19+00 18+00 17+00 16+00 15+00

SCALES:
1"=20' HORIZ.
1"=2' VERT.

GRAPHIC SCALE
0 20 40 80
(IN FEET)
1 inch = 20 ft.

CONSTRUCTION NOTES

- (A) REMOVE INTERFERING PORTIONS OF PIPE AND MANHOLE.
- (1) CONSTRUCT 15" EXTRA STRENGTH VCP SEWER PIPE. BEDDING PER CITY OF TORRANCE STD. T204, TRENCHING AND PAVEMENT REPAIR PER CITY OF TORRANCE STD. T116.
- (2) CONSTRUCT SEWER MANHOLE PER SPPWC STD. 200 (60" DIA.).
- (3) CONSTRUCT 10" EXTRA STRENGTH VCP SEWER PIPE. BEDDING PER CITY OF TORRANCE STD. T204, TRENCHING AND PAVEMENT REPAIR PER CITY OF TORRANCE STD. T116.
- (4) CONSTRUCT MANHOLE BASE AS PER SPPWC STD. 208, SEE DETAIL A.
- (5) PROTECT IN PLACE EXISTING IMPROVEMENT.
- (9) INSTALL TERMINAL CLEANOUT PER SPPWC 204-2.
- (13) RECONSTRUCT RAMP PER SPPWC 111-5 CASE C.

FASHION WAY

EXISTING SEWER TO REMAIN IN SERVICE

EX. SMH
(92.24 RIM/89.8± RIM PER SS-3013)
(80.94 INV W 10"ø/79.25 INV PER SS-3013)
(80.94 INV S 10"ø/79.00 INV PER SS-3013)
(80.89 INV N 8"ø)

EX. 10" VCP SEWER PER SS-3013

LINE A SEE SHEET 3

EXISTING SEWER TO REMAIN IN SERVICE
EX. 10" VCP SEWER PER SS-3013

STA:19+26.81 SS
STA:3+41.36 SS-3013

SEE DETAIL "A" HEREON

MADRONA AVENUE

EXISTING CURB AND GUTTER

EXISTING CONCRETE GUTTER

EXISTING ROW FROM PARCEL MAP

MADRONA MIDDLE SCHOOL

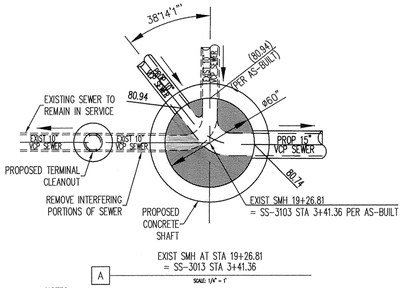
EX. 4" GAS

CENTERLINE

OPAL STREET

EXISTING CURB AND GUTTER

STA: 14+60 MATCHLINE - SEE SHEET 3



EXIST SMH AT STA 19+26.81
= SS-3013 STA 3+41.36

A
SCALE: 1/4" = 1'

NOTES:

1. WHEN ALLOWED BY THE CITY ENGINEER/INSPECTOR, THE CONTRACTOR SHALL INSTALL A FLEXIBLE SLEEVE SEWER BY-PASS THROUGH THE MANHOLE TO CONTAIN THE FLOW AND COMPLETE CHANNELIZATION OF THE MANHOLE BASE IN THE DRY.
2. AS-BUILT INVERT INFORMATION AND STATIONING REFERS TO CITY SEWER PLAN SS-3013. EXISTING INVERTS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.

BENCH MARK

QUAD. YEAR	ELEV. FOOT	DESCRIPTION	BM NUMBER	DATUM
TORRANCE (2005)	97.315	DPW BM TAG IN E CB 2M(6.5 FT) S/O BCR @ SE COR FASHION WAY & HAWTHORNE BLVD	Y 10948	NAVD 1988

NO WORK SHALL BE DONE ON THIS SITE UNTIL BELOW AGENCY IS NOTIFIED OF INTENTION TO GRADE OR EXCAVATE.

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REVISIONS

REV	DATE	BY	CHECKED	DESCRIPTION

OPAL STREET
SEWER PROJECT
(MADRONA AVENUE BETWEEN FASHION WAY AND OPAL STREET AND OPAL STREET BETWEEN MADRONA AVENUE AND MAPLE AVENUE)
19+26.00 TO 14+60.00

PREPARED UNDER THE SUPERVISION OF TAIT & ASSOCIATES, INC.

MICHAEL P. SILVEY
RCE No. 58651
11/2/15
DATE

REGISTERED PROFESSIONAL ENGINEER MICHAEL P. SILVEY No.C058651 Exp.12/31/2016 CIVIL STATE OF CALIFORNIA
SEAL

CITY OF TORRANCE
PUBLIC WORKS DEPARTMENT

DRAWN:
DESIGNED:
PROJECT ENGINEER:
ENGINEERING MANAGER:

APPROVED: 11/5/2016
DATE
CRAIG BILEZERIAN, PE
CITY ENGINEER
R.C.E. NO. 55339 (EXP. 12/31/2016)

SCALE: AS SHOWN
SHEET 2 OF 5
PLAN NO. **SS-390**

OPAL-SWR-2

Dec 18, 2015 - 11:15am by rgoldstein K:\Drawings\LA\LA960767\LDD\Plans\Plans LA\LA960767-01-SWR-OPAL.dwg