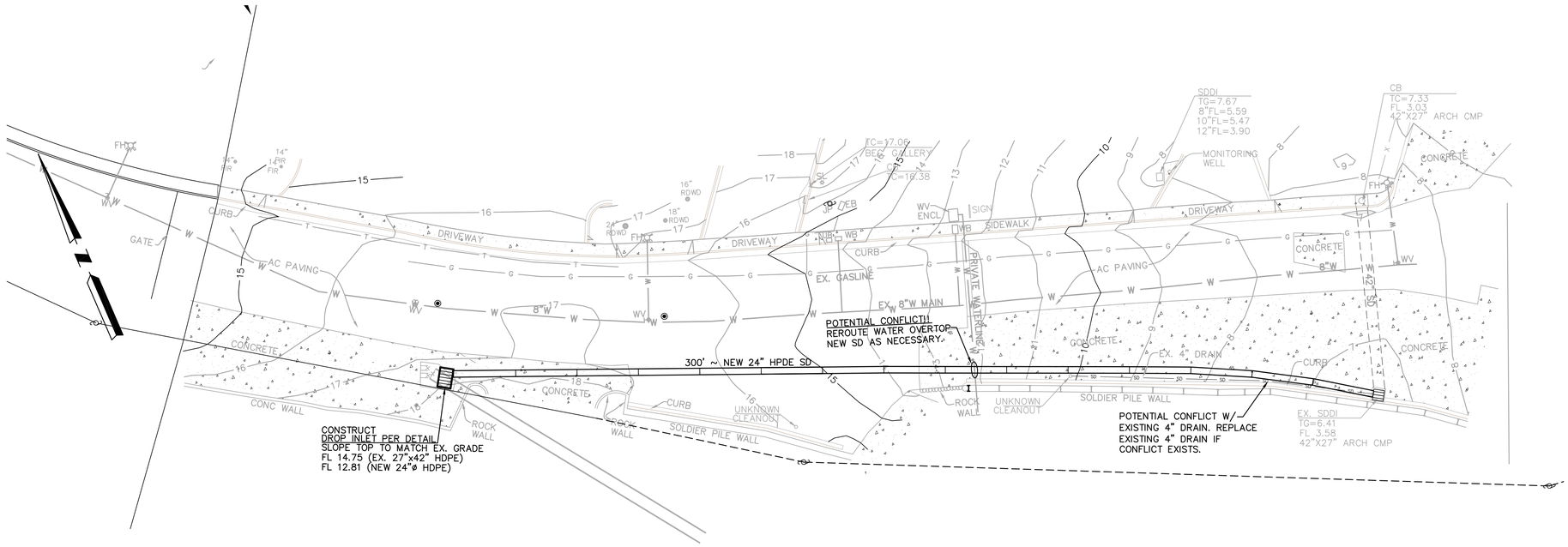
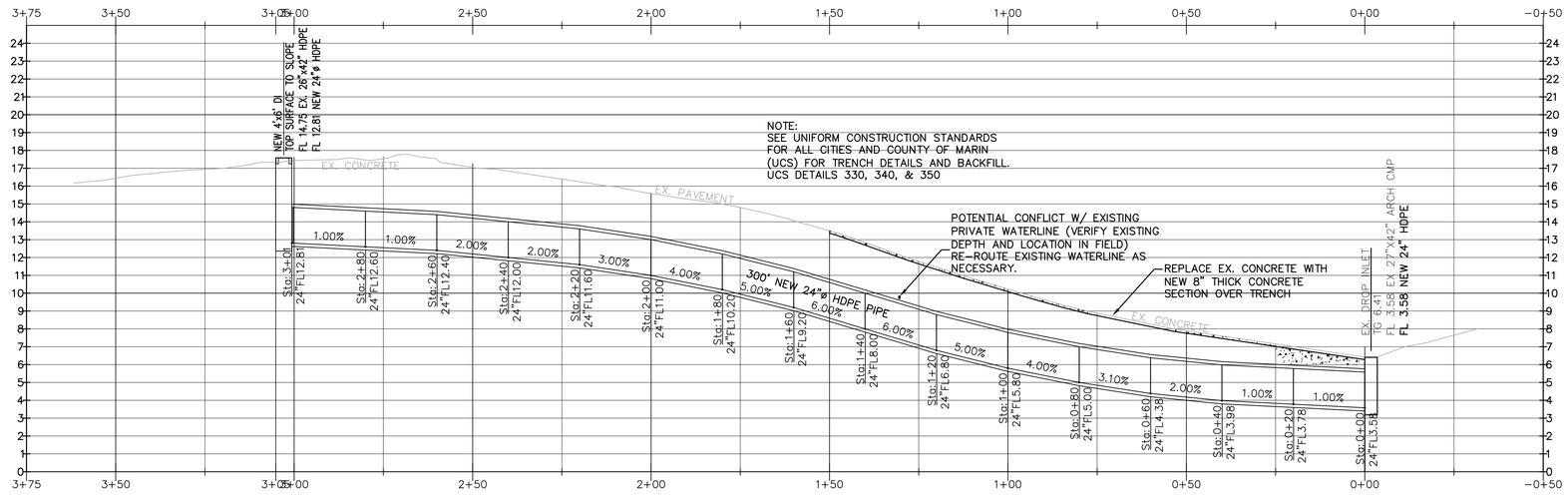


PLAN VIEW
SCALE: 1"=20'

20' 0 20' 40'
SCALE: 1"= 20'



STORM DRAIN PROFILE VIEW
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=4'

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
10 PAUL DRIVE, SAN RAFAEL, CA 94903
PHONE (415) 479-8662 FAX (415) 479-1807
SAN RAFAEL, CALIFORNIA – SANTA ROSA, CALIFORNIA

NO.	DATE	REVISION	APP.
1			
2			
3			
4			

CALIFORNIA

JACOBY STREET
MARIN SANITARY SERVICE
DRAINAGE IMPROVEMENT PLAN
MARIN COUNTY

SAN RAFAEL

Scale:	1"=20'
Drawn by:	PAB
Designed by:	LEO
Checked by:	LEO
Date:	OCTOBER 2010

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
Exp. 3/31/11
CIVIL
STATE OF CALIFORNIA

SHEET
C3.1
OF 8

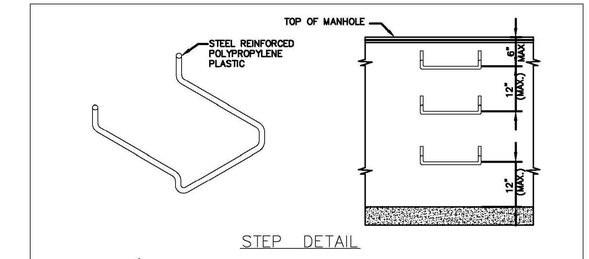
10-121

CATCH BASIN, TURNING STRUCTURE, MANHOLE AND DROP INLET NOTES

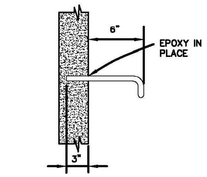
1. CONCRETE SHALL BE CLASS "A" (6 SACK MIX) UNLESS OTHERWISE NOTED. STRUCTURE TOPS CAST WITH ADJACENT CURB/SIDEWALK MAY BE CLASS "B" CONCRETE.
2. BASE SHALL BE PLACED AGAINST UNDISTURBED EARTH, SIDES MAY BE FORMED OR PLACED AGAINST UNDISTURBED EARTH.
3. WHERE CONDUITS ARE ENCOUNTERED THAT ARE LARGER IN DIAMETER THAN THE WIDTH OF THE WALL THROUGH WHICH THEY PASS, THE INSIDE DIMENSION OF THE WALLS PERPENDICULAR TO THE DIRECTION OF THE PIPE SHALL BE INCREASED TO 12" WIDER THAN THE OUTSIDE DIAMETER OF THE PIPE.
4. EXPANSION JOINTS SHALL BE PLACED THROUGH CURB AND SIDEWALK AT BOTH SIDES OF CATCH BASINS AND SHALL BE LIMIT OF PAYMENT FOR CURB AND GUTTER. UNIT PRICES FOR DRAINAGE STRUCTURES SHALL INCLUDE CURB, GUTTER AND SIDEWALK POURED WITH DRAINAGE STRUCTURE.
5. NO CONCRETE SHALL BE PLACED PRIOR TO FORM AND STEEL APPROVAL BY THE AGENCY ENGINEER.
6. SEE DRAWING NO. 215 FOR STEP (AS REQUIRED BY AGENCY ENGINEER) AND MANHOLE CASTING DETAIL.
7. SEE DRAWING NO. 220 FOR CATCH BASIN GRATE DETAIL.
8. WALL THICKNESS, REINFORCING, AND STEP (AS REQUIRED BY AGENCY ENGINEER) REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE TABLE BELOW, UNLESS OTHERWISE INDICATED BY THE PROJECT PLANS OR DIRECTED BY THE AGENCY ENGINEER.
9. PLACE 2" WEEPHOLES AS REQUIRED BY THE AGENCY ENGINEER.
10. EQUIVALENT PRECAST STRUCTURES MAY BE SUBSTITUTED AS APPROVED BY THE AGENCY ENGINEER.
11. WALL THICKNESS SHALL NOT EXCEED 10" ON ANY STRUCTURE.
12. PRECAST INLETS AND MANHOLES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS AND BE DESIGNED TO WITHSTAND H-20 LOADING.

DEPTH	WALL THICKNESS (SEE NOTE #11)	WALL REINFORCEMENT	STEPS REQUIRED
LESS THAN 3'	6"	NO. 4 AT 12" BOTH WAYS	NO
LESS THAN 3'	8"	NONE OUTSIDE ROADWAY. NO. 4 AT 12" BOTH WAYS WITHIN OR ADJACENT TO ROAD.	NO
3' TO 8'	6"	NO. 4 AT 12" BOTH WAYS	AS REQUIRED BY THE AGENCY ENGINEER
OVER 8'	8"	NO. 4 AT 12" BOTH WAYS	AS REQUIRED BY THE AGENCY ENGINEER

UNIFORM STANDARDS ALL CITIES AND COUNTY OF MARIN	NOTES FOR CATCH BASIN, MANHOLE, DROP INLET & TURNING STRUCTURE	REV.	DATE	BY	MAY 2008 DWG. NO. 200

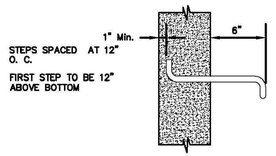


STEP DETAIL



PRECAST WALL

STEPS SHALL BE CAST INTO WALL AT FACTORY



CAST IN PLACE WALL

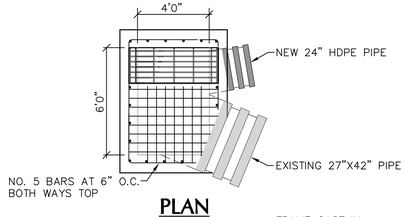
MANHOLE FRAME AND COVER

INSTALLED IN SIDEWALK	NON-SIDEWALK INSTALLATIONS
PHOENIX P-1067	PHOENIX P-1067; P-1090; P-1005
SOUTH BAY FOUNDRY SBF-1967	SOUTH BAY FOUNDRY SBF-1900-REG; SBF-1905
OR APPROVED EQUAL	OR APPROVED EQUAL

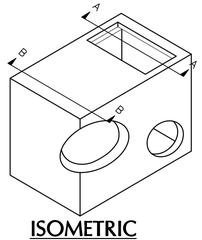
NOTE:
INSTALLATION OF STEPS SHALL BE AS REQUIRED BY AGENCY ENGINEER.
WHERE INSTALLED, STEPS SHALL BE STEEL REINFORCED POLYPROPYLENE PLASTIC, CENTRAL PRECAST CONCRETE CO. DWG. No. PS2-PF OR EQUIVALENT. STEPS TO BE CAST IN PLACE OR PRESS FITTED INTO PROVIDED HOLES AS PER MANUFACTURER. INSTALL STEPS WITH LOWEST RUNG 1'-0" ABOVE THE FLOOR AND HIGHEST RUNG NOT MORE THAN 6" BELOW TOP OF MANHOLE. THE SPACING BETWEEN STEPS SHALL NOT EXCEED 1'-0" AND SHALL BE UNIFORM THROUGHOUT THE LENGTH OF THE WALL. PLACE STEPS IN THE WALL WITHOUT A PIPE OPENING. NO STEPS REQUIRED WHERE HEIGHT FROM BOTTOM TO TOP OF MANHOLE IS LESS THAN 30".

UNIFORM STANDARDS ALL CITIES AND COUNTY OF MARIN	STEP & MANHOLE CASTING DETAIL (WHERE REQUIRED BY AGENCY ENGINEER)	REV.	DATE	BY	MAY 2008 DWG. NO. 215

Marin County Standards (USCS) 2008 Updated County Standards



PLAN



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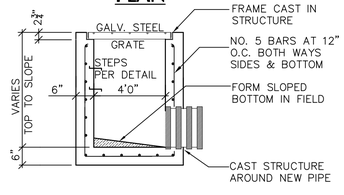
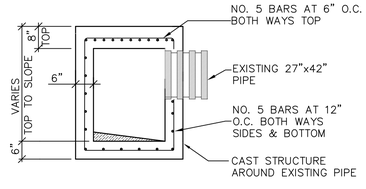


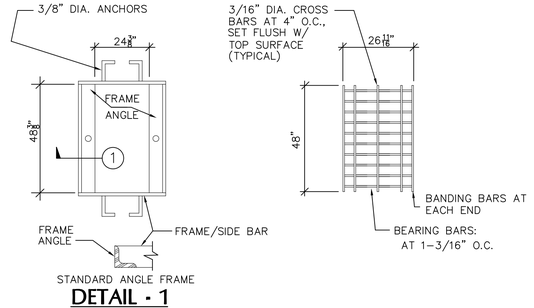
SECTION A-A



SECTION B-B

CAST-IN-PLACE DROP INLET DETAIL

NOT TO SCALE



DETAIL - 1

FRAME					GRATE				
WIDTH IN	LENGTH IN	FRAME ANGLE IN	SIDE BAR IN	WEIGHT LBS.	WIDTH IN	LENGTH IN	BEARING BARS IN	BANDING BARS IN	WEIGHT LBS.
24⅜	48⅜	2½x1½x⅜	2x¼	58	26 11/16	48	2½x⅜	2x⅜	144

NOTES :
1. FRAME AND GRATES ARE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM SPEC. A-123.
2. FRAME AND GRATE SPECIFIED FOR A H20 TRAFFIC RATING.
3. ALL STEEL SHALL BE STRUCTURAL GRADE.
4. TOP AND BOTTOM SURFACES OF GRATE SHALL BE GROUND FLUSH AFTER WELDING.

DROP INLET FRAME & GRATE DETAIL

NOT TO SCALE

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
Exp. 3/31/11
CIVIL
STATE OF CALIFORNIA

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1			
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OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
10 PAUL DRIVE, SAN RAFAEL, CA 94903
PHONE (415) 479-8662 FAX (415) 479-1807
SAN RAFAEL, CALIFORNIA – SANTA ROSA, CALIFORNIA

JACOBY STREET
MARIN SANITARY SERVICE
DETAIL SHEET
MARIN COUNTY
CALIFORNIA
SAN RAFAEL

Scale: 1"=20'
Drawn by: PAB
Designed by: LEO
Checked by: LEO
Date: OCTOBER 2010

SHEET
C3.2
OF 8
10-121

ANDERSEN DRIVE

(PG&E) ELECTRICAL EASEMENT (2910 O.R. 588)

5' P.U.E. (2888 O.R. 121)

25' POLE LINE EASEMENT (PG&E) (2888 O.R. 121)

10' DRAINAGE EASEMENT (14 PARCEL MAP 93)

D&M INVESTMENT PROPERTIES LLC
A.P. 18-143-05

NOBMANN PROPERTIES
A.P. 18-180-59

PARCEL A
A.P. 18-180-72

WESTERLY PROPERTY LINE FORMERLY A.P. 18-143-06 NOW A.P. 18-180-72

SAN RAFAEL DEVELOPMENT AGENCY

PROPERTY LINE ℄ PER 16 DEEDS 25

PACIFIC GAS & ELECTRIC CO.

JACOBY STREET

℄ POLE LINE EASEMENT (PG&E) (DOC. NO. 2003-0104807)

30'

NORTHERLY 30' OF OLD 60' R/W WAS VACATED 84-016229

SOUTHERLY 30' WIDE RIGHT-OF-WAY 16 DEEDS 25 313 O.R. 222

PARCEL C
A.P. 18-180-74

PARCEL D
A.P. 18-180-75

25' MMWD ACCESS & PIPELINE EASEMENT DOC. NO. 95-055233

PARCEL B
A.P. 18-180-73

SONOMA-MARIN AREA RAIL TRANSIT DISTRICT

25' MMWD PIPE LINE EASEMENT DOC. NO. 95-055233

25' MMWD ACCESS EASEMENT DOC. NO. 95-055233

PARCEL E
A.P. 18-180-76

℄ 25' WIDE OVERHEAD TRANSMISSION LINE EASEMENT 173 DEEDS 359 (PG&E)

MMWD
(TANK LOT)
DOC. NO. 95-055233

SAN RAFAEL CITY LIMITS

SAN RAFAEL CITY LIMITS

LEGEND

VACATION REQUESTED FOR REMAINING PORTION OF OLD 60' R/W. AND PORTION OF JACOBY STREET

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA

100' 0 100' 200'
SCALE 1"= 100'

NO.	DATE	REVISION	APP.
1			
2			
3			
4			

OBERKAMPER & ASSOCIATES
CIVIL ENGINEERS INC.
10 PAUL DRIVE, SAN RAFAEL, CA 94903
PHONE (415) 479-8662 FAX (415) 479-1807
NOVATO, CALIFORNIA

JACOBY STREET
MARIN SANITARY SERVICE
PROPERTY BEFORE MERGER
MARIN COUNTY
CALIFORNIA
SAN RAFAEL

Scale:	AS NOTED
Drawn by:	PAB
Designed by:	LEO
Checked by:	LEO
Date:	OCTOBER 2013

SHEET
C4.1
OF 8

10-121

ANDERSEN DRIVE

(PG&E) ELECTRICAL EASEMENT (2910 O.R. 588)

5' P.U.E. (2888 O.R. 121)

25' POLE LINE EASEMENT (PG&E) (2888 O.R. 121)

NOBMANN PROPERTIES A.P. 18-180-59

SAN RAFAEL DEVELOPMENT AGENCY

D & M INVESTMENT PROPERTIES LLC A.P. 18-143-05

D&M INVESTMENT PROPERTIES LLC

WESTERLY PROPERTY LINE FORMERLY A.P. 18-143-06 NOW A.P. 18-180-72

PACIFIC GAS & ELECTRIC CO.

PROPOSED 40' WIDE WATERLINE EASEMENT (MMWD)

PROPERTY LINE ℄ PER 16 DEEDS 25

JACOBY STREET

EXISTING ℄ POLE LINE EASEMENT (PG&E) (DOC. NO. 2003-0104807)

PROPOSED ℄ POLE LINE EASEMENT (PG&E)

MERGER PARCEL

PARCELS A, B, C, D, E, (97 O.R. 056783) AND JACOBY STREET VACATION AREA

SONOMA-MARIN AREA RAIL TRANSIT DISTRICT

25' MMWD PIPE LINE EASEMENT DOC. NO. 95-055233

℄ 25' WIDE OVERHEAD TRANSMISSION LINE EASEMENT 173 DEEDS 359 (PG&E)

25' MMWD ACCESS EASEMENT DOC. NO. 95-055233

MMWD (TANK LOT) DOC. NO. 95-055233

SAN RAFAEL

LARKSPUR

CITY LIMITS

CITY LIMITS

100' 0 100' 200'

SCALE 1"= 100'

REGISTERED PROFESSIONAL ENGINEER
LEON E. OBERKAMPER
No. 12094
CIVIL
STATE OF CALIFORNIA

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CIVIL ENGINEERS INC.
10 PAUL DRIVE, SAN RAFAEL, CA 94903
PHONE (415) 479-8662 FAX (415) 479-1807
NOVATO, CALIFORNIA

JACOBY STREET
MARIN SANITARY SERVICE
PROPERTY AFTER MERGER
MARIN COUNTY
CALIFORNIA
SAN RAFAEL

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SHEET
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10-121