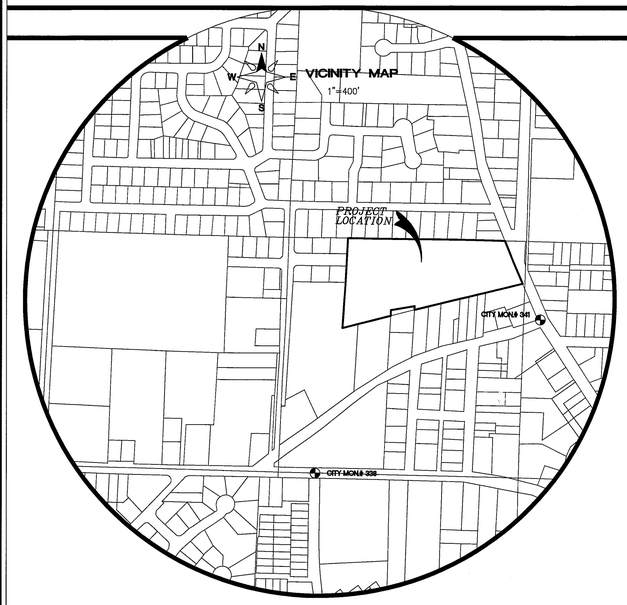
A PORTION OF THE SOUTHEAST QUARTER, SECTION 19, T39N, R2E, W.M.

VISTA MEADOWS LONG PLAT

AS-BUILT PHASE 1 - 3



1. COVER SHEET
2. EXISTING CONDITIONS
3. SUBDIVISION PHASE I, II, III

---- PHASE I ----

4. STREET & STORM DRAINAGE PLAN & PROFILE: SIDDLE DRIVE
5. STORM DRAINAGE PLAN & PROFILE: OVERFLOW THIRSTY DUCK AND ROAD CROSS SECTIONS
6. ROOF AND YARD DRAIN
7. STORM WATER DETENTION
8. SANITARY SEWER PLAN & PROFILE: SIDDLE DRIVE
9. SANITARY SEWER PLAN & PROFILE: LOWER LOTS
10. WATER PLAN & PROFILE: SIDDLE DRVIE
11. COMPOSITE UTILITY PLAN

---- PHASE II ----

12. STREET & STORM DRAINAGE PLAN & PROFILE: SIDDLE DRIVE
13. STREET & STORM DRAINAGE PLAN & PROFILE: PRIVATE DRIVE
14. ROOF AND YARD DRAIN
15. SANITARY SEWER PLAN & PROFILE: SIDDLE DRIVE
16. WATER PLAN & PROFILE: SIDDLE DRVIE
17. WATER PLAN & PROFILE: PRIVATE DRVIE
18. COMPOSITE UTILITY PLAN

---- PHASE III ----

19. STREET & STORM DRAINAGE PLAN & PROFILE: SIDDLE DRIVE
20. STREET & STORM DRAINAGE PLAN & PROFILE: PRIVATE DRIVE
21. ROOF AND YARD DRAIN
22. STORM WATER DETENTION
23. SANITARY SEWER PLAN & PROFILE: PRIVATE DRIVE
24. WATER PLAN & PROFILE: SIDDLE DRIVE
25. WATER PLAN & PROFILE: PRIVATE DRIVE
26. COMPOSITE UTILITY PLAN

---- DETAILS ----

27. STREET & STORM DRAINAGE CONSTRUCTION DETAILS
28. STREET & STORM DRAINAGE CONSTRUCTION DETAILS
29. SANITARY SEWER CONSTRUCTION DETAILS
30. WATER CONSTRUCTION DETAILS
31. COMMON UTILITY, LANDSCAPING, AND STREET SIGNAGE PLAN
32. CITY OF FERNDALE CONSTRUCTION NOTES

ENGINEER'S CERTIFICATION

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN VISTA MEADOWS HAVE BEEN INSPECTED BY LDES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.

1/2/16

RAMON LLANOS, P.E.

RAMON LLANOS — STATE OF WASHINGTON — 22581 — REGISTERED PROFESSIONAL ENGINEER

SURVEYOR'S CERTIFICATION

I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND AS-BUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING FIELD CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS DATE.

KYLE HAGGITH, P.L.S.

KYLE T. HAGGITH — STATE OF WASHINGTON — 36078 — REGISTERED PROFESSIONAL LAND SURVEYOR — 1-6-2016

LEGEND

◯	= EXIST SANITARY SEWER MANHOLE	■	= STORM DRAIN CATCH BASIN
	= EXIST FIRE HYDRANT	◉	= STORM DRAIN CONTROL STRUCTURE
⊞	= EXIST WA METER BOX	SD	= STORM DRAIN LINE
⋈	= EXIST WATER VALVE	W	= WATER LINE
□	= EXIST SD CATCH BASIN		= WATER SERVICE
PP	= EXIST POWER POLE		= WATER HYDRANT
	= EXIST STREET SIGN		= GATE VALVE
	= EXIST ASPHALT	SS	= SAN. SEWER LINE
			= SANITARY SEWER SERVICE
	= EXIST GRAVEL DRIVEWAY		= SEWER CLEANOUT
			= SEWER MANHOLE
S	= EXIST SANITARY SEWER LINE	48	= 1' CONTOUR
D	= EXIST STORM DRAIN LINE	50	= 5' CONTOUR
	= EXIST CONTOUR (INDEX)		= BUILDING ENVELOPE
	= EXIST CONTOUR (NORMAL)		= ASPHALT ROAD
	= EXIST CULVERT		= CONC. SIDEWALK
	= EXIST DITCHLINE		= LANDSCAPE BUFFER
	= EXIST ROAD EDGE OF PAVEMENT	DRIVEWAY	= DRIVEWAY
	= EXIST SURVEY BOUNDARY LINE		= EASEMENT LINE
	= EXIST EASEMENT LINE		= POWER LINE
P	= EXIST POWER LINE		= STREET LIGHT
G	= EXIST GAS MAIN		= RETAINING WALL
W	= EXIST WATER LINE		= SILT FENCE
MB	= EXIST MAIL BOX	MB(2)	= MAIL BOXES
	= EXIST STREET SIGN		
	= EXIST LANDSCAPE		
GM	= GAS MARKER		
P	= POWER VAULT		
	= PHONE PEDISTAL		
	= POWER JUNCTION BOX		

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	VISTA MEADOWS LONG PLAT COVER SHEET AS-BUILT PHASE 1 - 3	SHEET 1 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE				

REVISIONS - INITIALS/DATE/COMMENTS

NB	4/16/2015	SUBMITAL #1

00593.001 2/19/16 SH

A PORTION OF THE SOUTHEAST QUARTER, SECTION 19, T39N, R2E, W.M.

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N
W E
S

390219 464140 MARY ALVARADO | 390219 471140 JOSEPH A. & MELISSA D. WELCH | 390219 479140 THERESA A. GRAVES | 390219 487140 SHAWN & FLORENCE MASON | 390219 494140 CRAIG A. CONLEY | 390219 502140 WILLIAM E. & JUDITH STEG | 390219 511140 GEORGE D. & BILLIE L. DOOLEY | 390219 518140 SHANE & JENIFFER WILLIS | 390219 526140 ERNEST & HELGA BEILNER | 390219 534139 LEANORD J. & DAVID J. BALICKI

SIDDLE ADDITION TO FERNDALE VOL. 7 PG. 38

N88°54'38"W 903.46'

390219 545139 RICHARD A. HAWKINS

CL VISTA DRIVE
60' R-O-W

EAST QUARTER CORNER
19 20

390219 440128 TIM & KARYN LADE | 390219 450128 KYLE B. STARR SHANNON L. UNSELL | 390219 459128 HAROLD LAHTONEN

SIDDLE'S FIRST ADDITION

SIDDLE DRIVE

FND PIPE IN CONC

N88°45'59"W 287.32' (287.00' PLAT)

18" CMP CULVERT IE=80.19

N01°23'04"E 240.03' (240.0' PLAT)

VOL. 9 PG. 98

390219 440113 CAROLYN J. HANSEN | 390219 450113 SAMUEL R. & TASHA J. SWANEY | 390219 459113 KERRON L. & DONALOA GIESBRECHT

LEGOE LANE

FENCE RUNS ALONG NORTH BOUNDARY LINE

61.86'
EX. SDCB RIM=52.21
IE=46.69 (24ø CONC.)

50'

1325.36'

2651.39'

N01°14'58"E

VISTA DR

CONC. PAD | EX. BUILDING

END DITCH EL=44.92

EX. SDCB RIM=45.62
IE=40.40 (24ø" CONC.)

EX. SSMH RIM=45.24
IE=35.86 (8"ø CONC.)

EX. BUILDING | CONC. PAD

BEGIN DITCH EL=53.02

168.37' | 51.48' | 51.48' | 51.48' | 50.00'

390219 550100 WILFRED E. GUNDERSON

390219 538090 GARY W. & THERESA E. BALL

390219 525090 TRAVES D. SHORTEN

390219 533090 GARY W. & THERESA E. BALL

45.00'

N78°23'22"E 132.01'
N00°16'41"E 23.91'
N00°24'59"E 18.02'
77.33'

N00°23'03"E 229.95'
N78°09'04"E 81.88'
N00°20'35"E 26.46'
N75°55'09"E 191.75'

390219 495085 SHERRY E. THIBAULT

390219 504081 MICHAEL J. & SHERRY E. THIBAULT

390219 512085 WILFRED E. GUNDERSON

390219 520087 DIANE BERKEY

EX. GARAGE

EX. DECK | EX. BUILDING

390219 464081 J & G DEVELOPMENT LLC

WHATCOM HOUSING AUTHORITY

JENSEN SHORT PLAT VOL. 21, PG. 46

RECORD OF SURVEY A.F. No. 9108240076

RECORD OF SURVEY A.F. No. 9108150037

RECORD OF SURVEY A.F. No. 1999018

251.57'

EX. SDCB RIM=42.46
IE=36.76 (24ø" CONC.)

N79°29'26"E 117.90'

3.19'

839.93'

FOUND BRASS DISC IN ROAD
COF MON #341

WASHINGTON ST

N75°16'53"E 286.88'

N73°30'46"E 330.03'

CENTERLINE WASHINGTON STREET

19 20
30 29
SOUTHEAST SECTION CORNER

LEGEND

- = EXIST SANITARY SEWER MANHOLE
- = EXIST FIRE HYDRANT
- = EXIST WA METER BOX
- = EXIST WATER VALVE
- = EXIST SD CATCH BASIN
- = EXIST POWER POLE
- = EXIST STREET SIGN
- = EXIST ASPHALT
- = EXIST GRAVEL DRIVEWAY
- = EXIST SANITARY SEWER LINE
- = EXIST STORM DRAIN LINE
- = EXIST CONTOUR (INDEX)
- = EXIST CONTOUR (NORMAL)
- = EXIST CULVERT
- = EXIST DITCHLINE
- = EXIST ROAD EDGE OF PAVEMENT
- = EXIST SURVEY BOUNDARY LINE
- = EXIST EASEMENT LINE
- = EXIST POWER LINE
- = EXIST GAS MAIN
- = EXIST WATER LINE
- = EXIST MAIL BOX
- = EXIST STREET SIGN
- = EXIST LANDSCAPE

SURVEY NOTE:

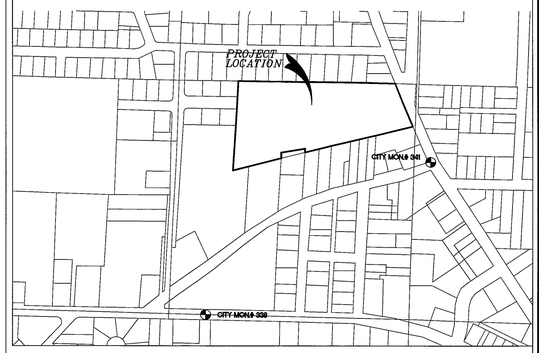
1. DATA FOR THIS SURVEY WAS GATHERED BY FIELD TRAVERSE UTILIZING ELECTRONIC DATA COLLECTOR
2. EQUIPMENT USED: LEICA TCRA1103+: 00"01.5" ± 2 PPM, ± 2 MM
3. HORIZONTAL DATUM: WASHINGTON STATE NORTH ZONE NAD 83/91
4. VERTICAL DATUM: CITY OF FERNDALE MONUMENTATION COF#341 EL= 42.50
5. BASIS OF BEARING: CITY OF FERNDALE EXISTING MONUMENT LOCATION SURVEY WASHINGTON STATE NORTH ZONE NAD 83/91 MONUMENT NUMBERS 338, 341, BEARING= N56°10'27"E
6. TOPOGRAPHIC INFORMATION IS A COMBINATION OF NORTHWEST SURVEYING AND LAND DEVELOPMENT ENGINEERING AND SURVEYING.
7. ENGINEER OF RECORD: RAMON LLANOS SURVEYOR OF RECORD: KYLE HAGGITH

00593.002 2/19/16 SH

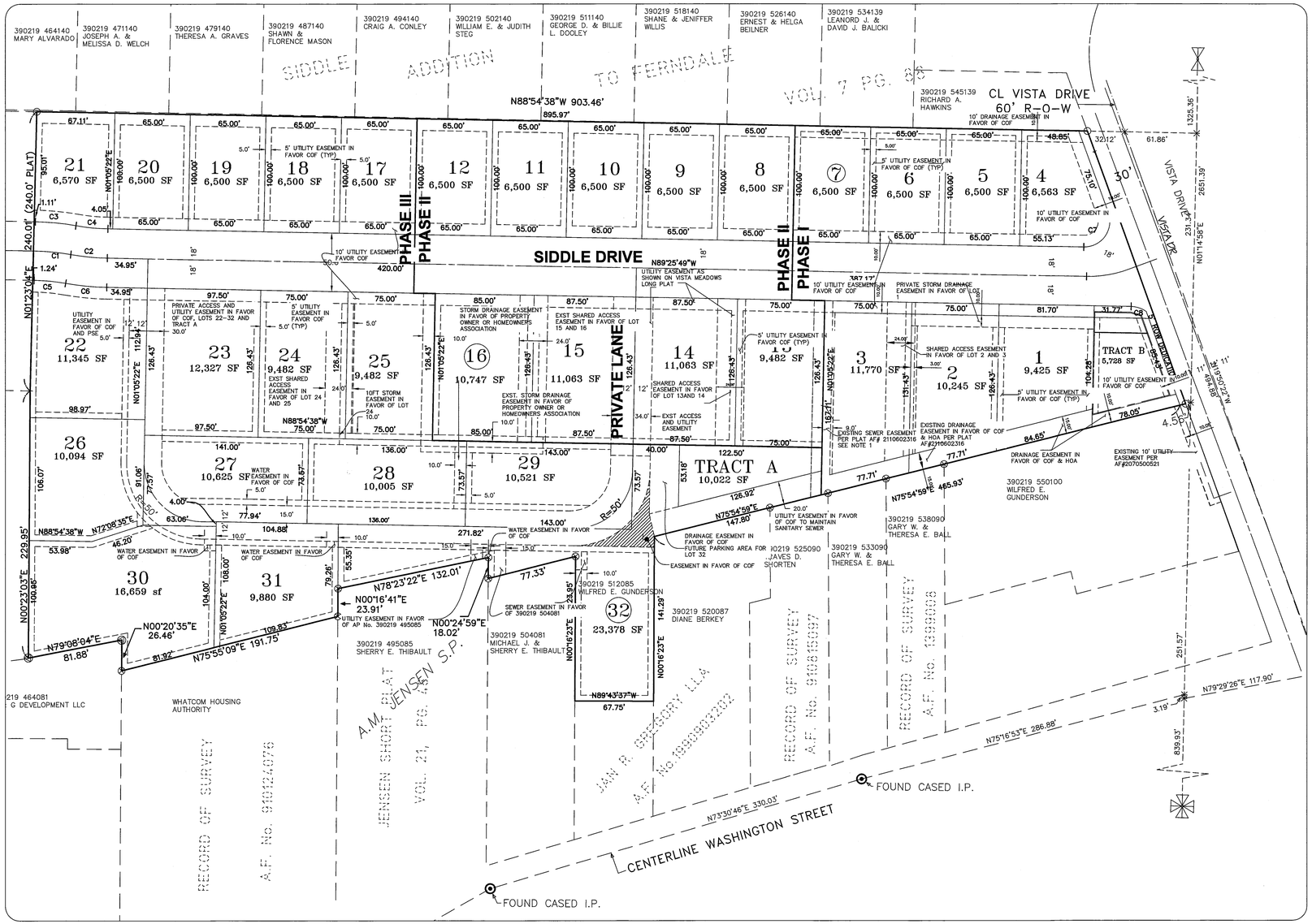
JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	KYLE T. HAGGITH STATE OF WASHINGTON 20108 REGISTERED PROFESSIONAL LAND SURVEYOR 1/22/16		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	VISTA MEADOWS LONG PLAT EXISTING CONDITIONS AS-BUILT PHASE 1 - 3	SHEET 2 OF 32

JOB NO. 04603

VICINITY MAP



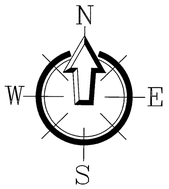
0593.003 2/19/16 SH



GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.



CURVE TABLE			
CURVE	LENGTH	RADIUS	DELTA
C1	31.13'	200.00'	8°55'08"
C2	31.64'	200.00'	9°03'47"
C3	35.02'	225.00'	8°55'08"
C4	27.68'	175.00'	9°03'47"
C5	27.24'	175.00'	8°55'08"
C6	35.59'	225.00'	9°03'47"
C7	42.59'	22.00'	
C8	13.87'	23.0'	

NOTE 1:
THE CITY SHALL NOT BE RESPONSIBLE FOR COSTS ASSOCIATED WITH RESTORATION OF ANY STRUCTURE OR LANDSCAPING LOCATED WITHIN THE SANITARY SEWER EASEMENT LOCAED OUTSIDE THE CITY RIGHT OF WAY OTHER THAN BACKFILLING AND EXCAVATION REQUIRED TO MAKE REPAIRS AND/OR MAINTAIN THE SEWER MAIN.

VISTA MEADOWS LONG PLAT

JOB # 04603 | **FOR: DAVID BRAITHWAITE**

APPROVED
JAN 28 2016
BY _____
CITY OF FERNDALE

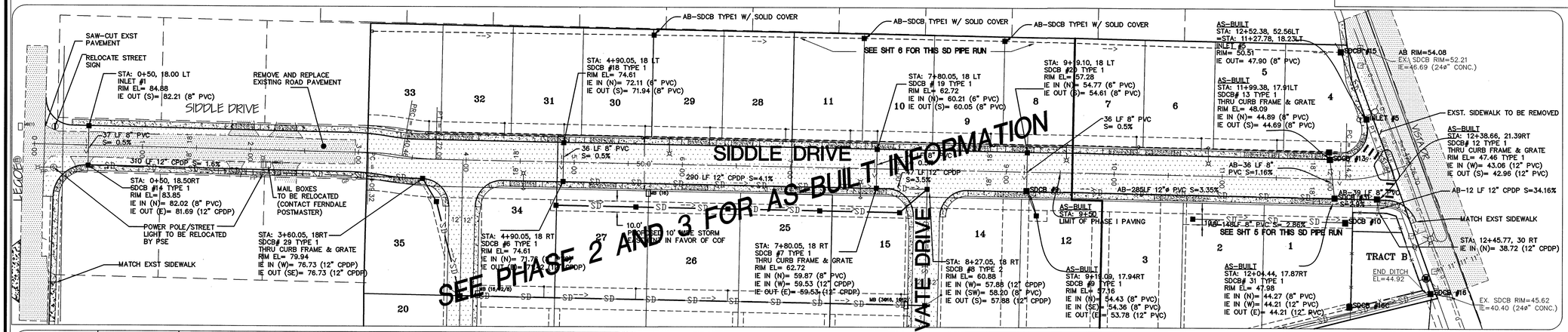
KYLE T. HAGGITH — STATE of WASHINGTON — 36078 REGISTERED PROFESSIONAL LAND SURVEYOR — 1/28/16

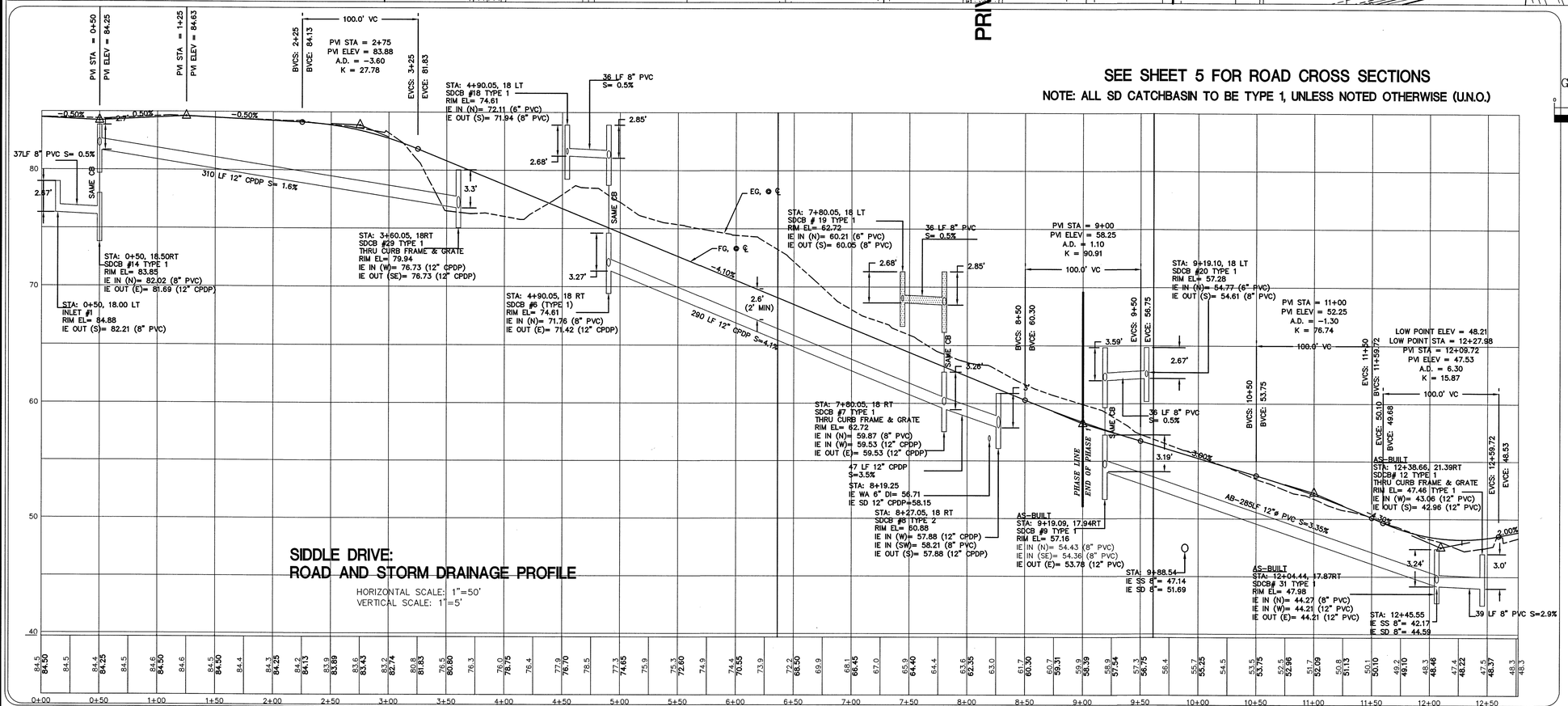
LDES, INC.
5160 INDUSTRIAL PL #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

VISTA MEADOWS LONG PLAT

SUBDIVISION PLAN
AS-BUILT PHASE 1 - 3

SHEET 3 OF 32





GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

CITY OF FERNDALE ROUNDABOUT PROJECT BENCHMARK:
R&E: 119.81 (STK 104)
LDES= 46.18

LEGEND

- = EXISTING CATCH BASIN
- = CATCH BASIN
- = EXIST STORM DRAIN LINE
- = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRN PIPE
- = ROOF/YARD STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = DRIVEWAY
- = PARKING AREA (PAVED)

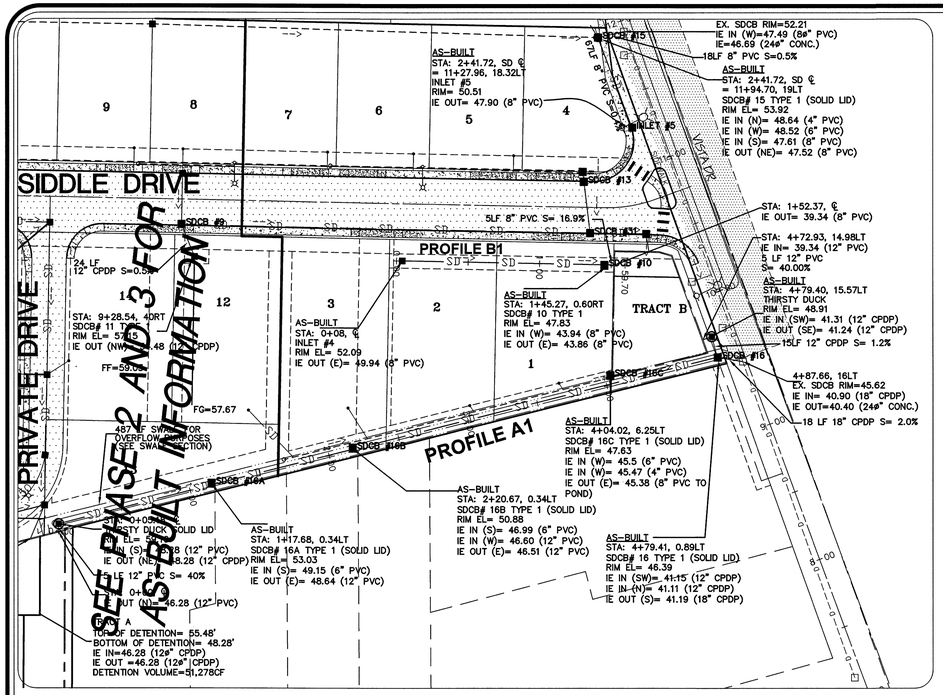
00593.004 2/19/16 SH

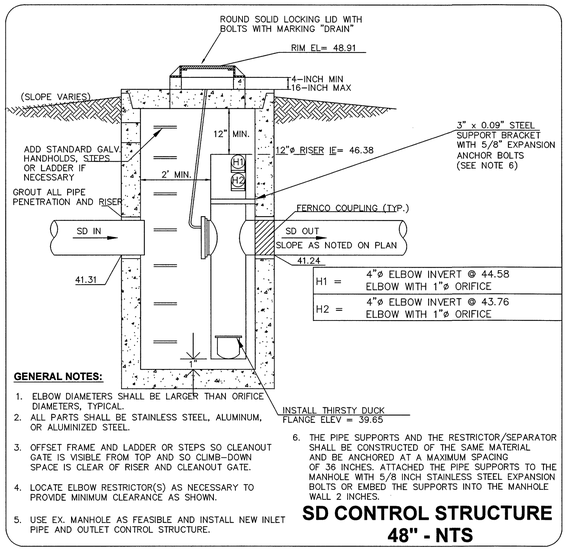
JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	RAMON LLANAS EXPIRES: MARCH 29, 2016 REGISTERED PROFESSIONAL ENGINEER 7-24-15	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* SIDDLE DRIVE STREET & STORMDRAIN PLAN & PROFILE AS-BUILT PHASE 1	SHEET 4 OF 32

STORMDRAIN PLAN & PROFILE | JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.

00593.005 2/19/16 SH

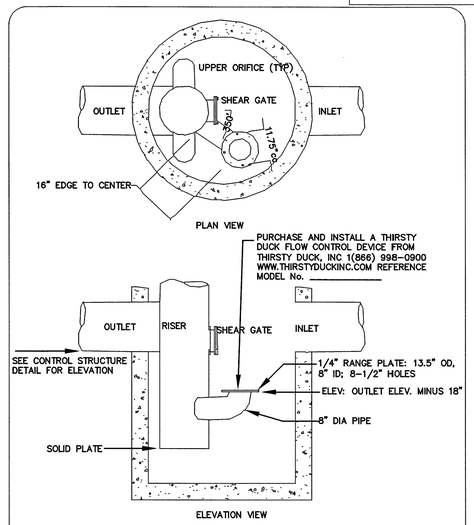




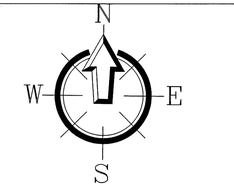
GENERAL NOTES:

1. ELBOW DIAMETERS SHALL BE LARGER THAN ORIFICE DIAMETERS, TYPICAL.
2. ALL PARTS SHALL BE STAINLESS STEEL, ALUMINUM, OR ALUMINIZED STEEL.
3. OFFSET FRAME AND LADDER OR STEPS SO CLEANOUT GATE IS VISIBLE FROM TOP AND SO CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
5. USE EX. MANHOLE AS FEASIBLE AND INSTALL NEW INLET PIPE AND OUTLET CONTROL STRUCTURE.
6. THE PIPE SUPPORTS AND THE RESTRICTOR/SEPARATOR SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND BE ANCHORED AT A MAXIMUM SPACING OF 36 INCHES. ATTACHED THE PIPE SUPPORTS TO THE MANHOLE WITH 5/8 INCH STAINLESS STEEL EXPANSION BOLTS OR EMBED THE SUPPORTS INTO THE MANHOLE WALL 2 INCHES.

SD CONTROL STRUCTURE 48" - NTS



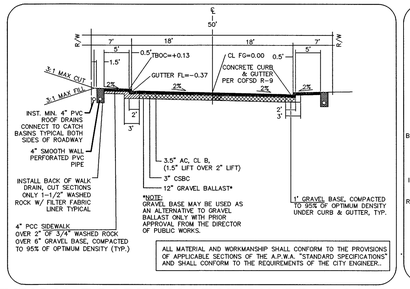
THIRSTY DUCK CONNECTION DETAIL NTS



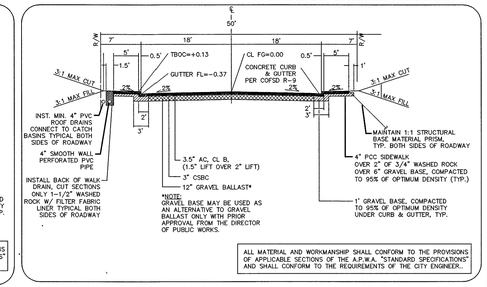
LEGEND

- □ = EXISTING CATCH BASIN
- Ⓜ = CONTROL STRUCTURE
- ■ = CATCH BASIN
- ——D—— = EXIST STORM DRAIN LINE
- ——SD—— = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRAIN PIPE
- = ROOF/YARD STUB
- = PROPOSED BUILDING ENVELOPE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = PARKING AREA (PAVED)
- = DRIVEWAY

PRIVATE DRIVE SECTION NTS



TYPICAL ROADWAY SECTION (PROPOSED) SIDDLE DRIVE (STA 0+00 TO 3+00) NTS

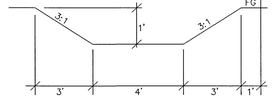


TYPICAL ROADWAY SECTION (PROPOSED) SIDDLE DRIVE (STA 3+00 TO END) NTS

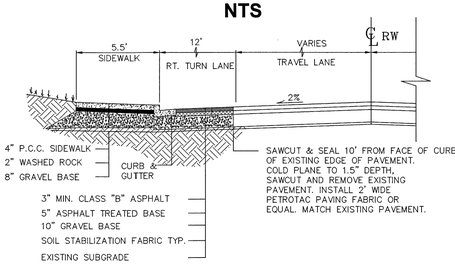
PROFILE A1
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

PROFILE B1
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.



SWALE SECTION NTS



TYPICAL ROADWAY SECTION: VISTA DR NTS

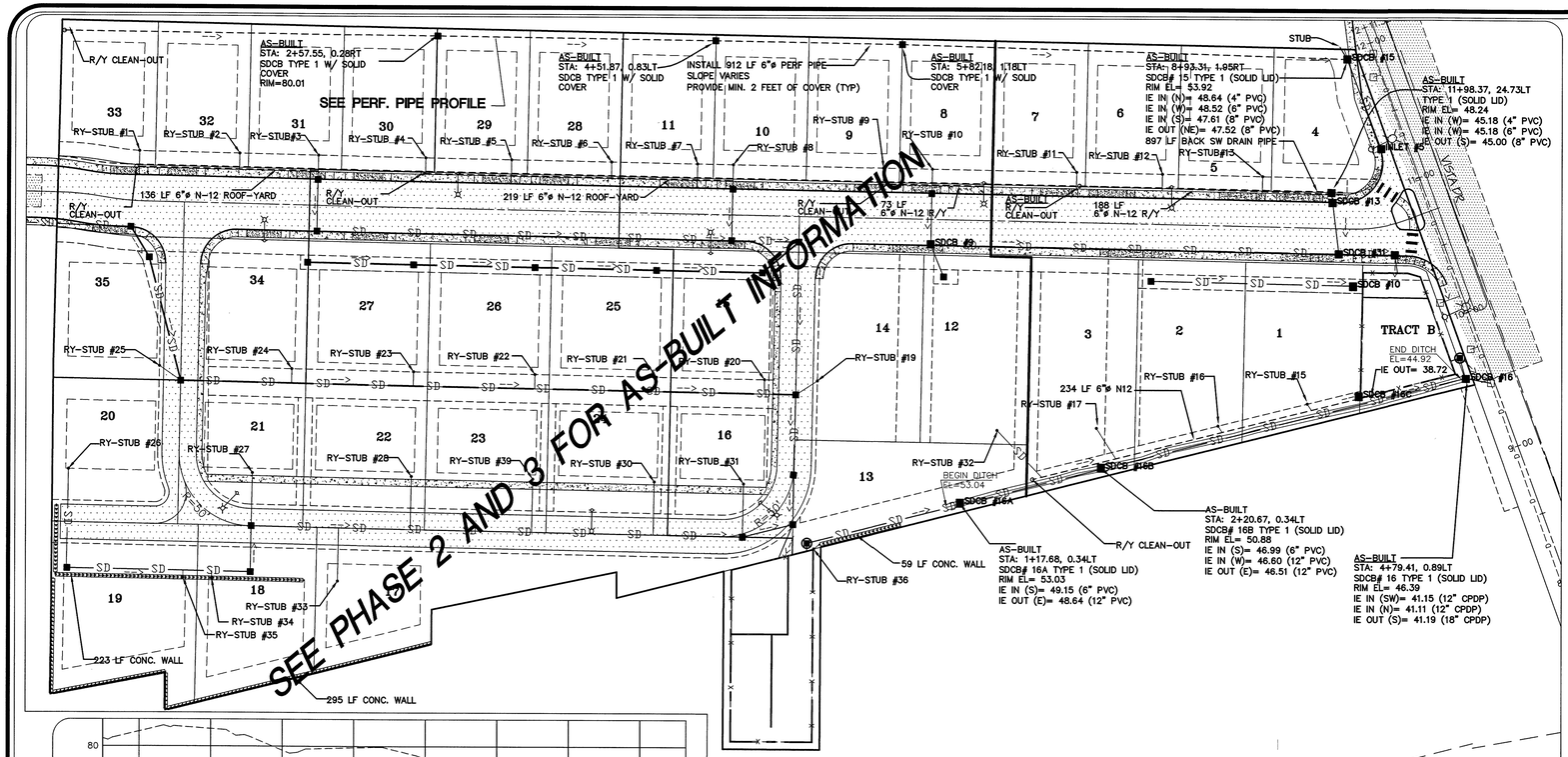
JOB # 04603	FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	7-24-15	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* OVERFLOW - STORMDRAIN PLAN & PROFILE AND ROAD CROSS SECTIONS AS-BUILT PHASE 1	SHEET 5 OF 32

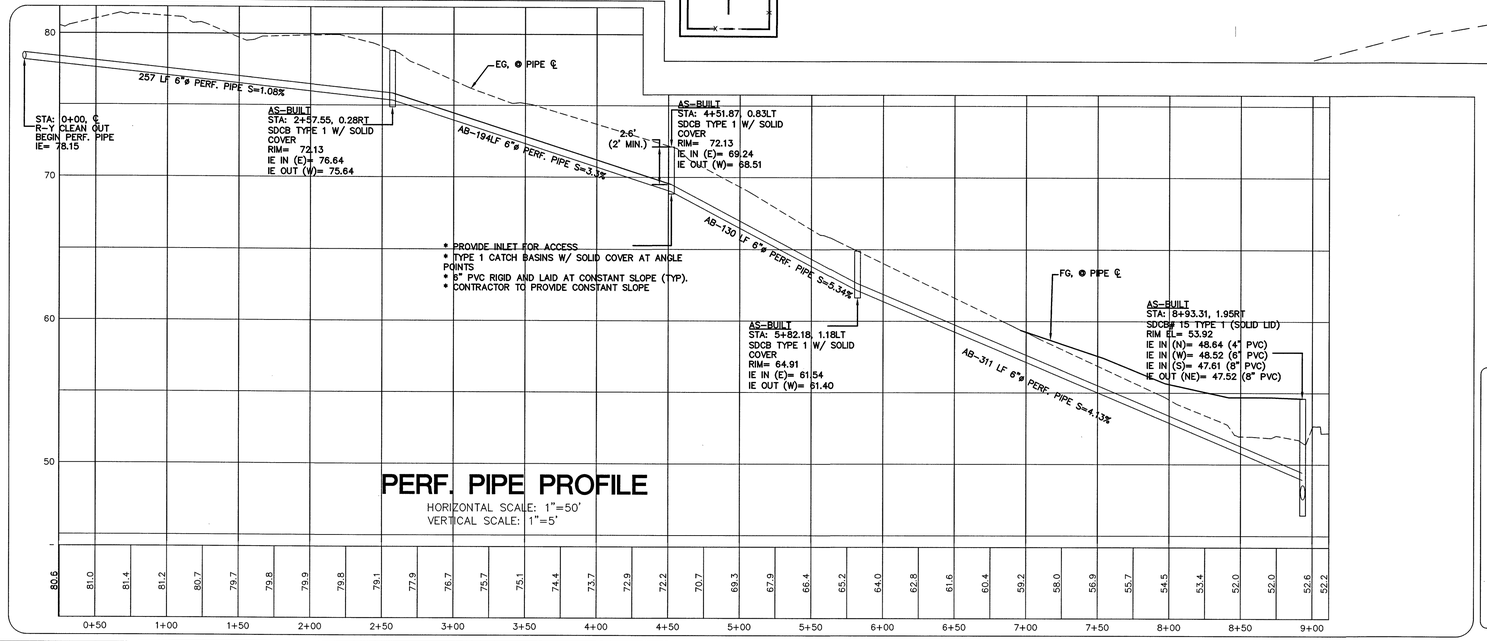
VISTA MEADOWS LONG PLAT

ROOF AND YARD DRAIN PLAN

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.





PERF. PIPE PROFILE

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

LEGEND

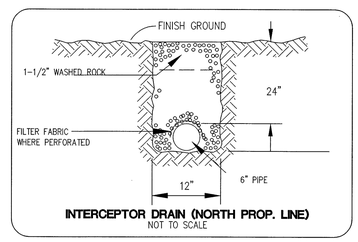
- = EXISTING CATCH BASIN
- = CATCH BASIN
- = EXIST STORM DRAIN LINE
- = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRAIN PIPE (UNO)
- = ROOF/YARD STUB
- = BUILDING ENVELOPE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = RETAINING WALL
- = PARKING AREA (PAVED)

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

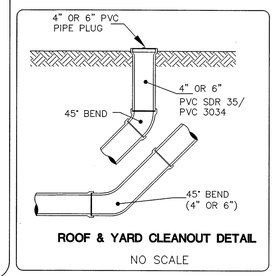
N W E S

ROOF AND YARD DRAIN DESCRIPTION

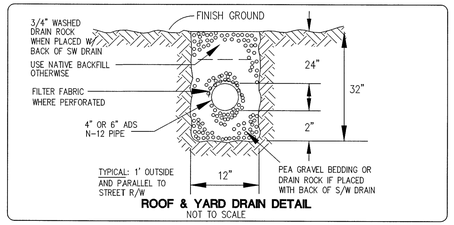
RY-#1 TO #13 11 LF 4" PVC PIPE	RY-#15 15 LF 4" PVC PIPE	RY-#16 15 LF 4" PVC PIPE	RY-#17 15 LF 4" PVC PIPE
RY-#18 10 LF 4" PVC PIPE	RY-#19 18 LF 4" PVC PIPE	RY-#20 TO #24 10 LF 4" PVC PIPE	RY-#25 18 LF 4" PVC PIPE
RY-#26 69 LF 4" PVC PIPE	RY-#27 TO #31 37 LF 4" PVC PIPE	RY-#32 22 LF 4" PVC PIPE	RY-#33 37 LF 4" PVC PIPE
RY-#34 & 35 5 LF 4" PVC PIPE	RY-#36 3 LF 4" PVC PIPE		



INTERCEPTOR DRAIN (NORTH PROP. LINE)
NOT TO SCALE



ROOF & YARD CLEANOUT DETAIL
NO SCALE



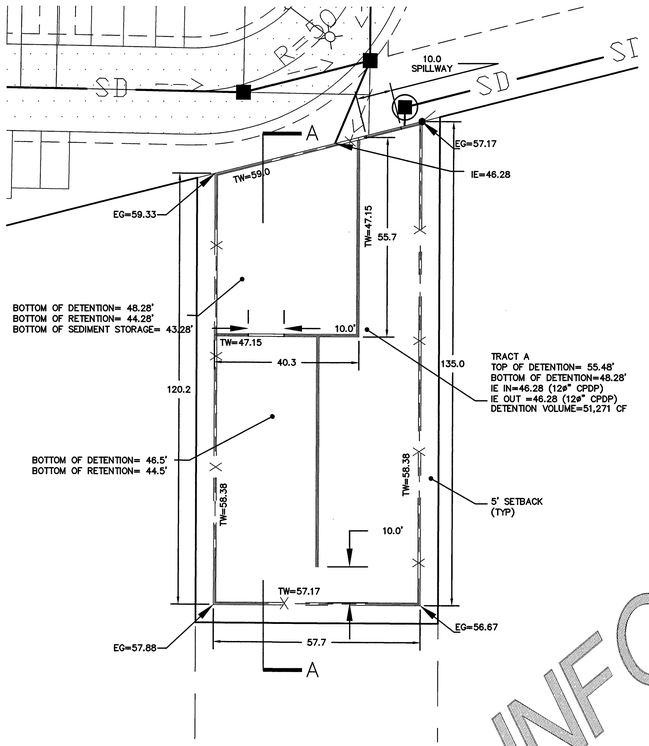
ROOF & YARD DRAIN DETAIL
NOT TO SCALE

00593.006 2/19/16 SH

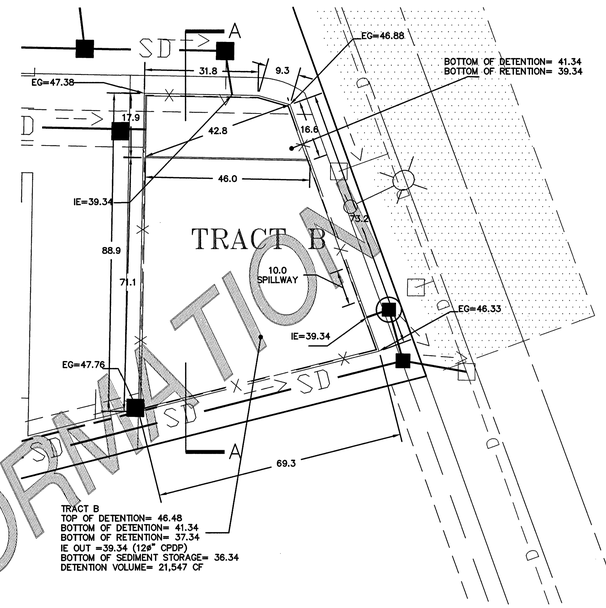
JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* ROOF AND YARD DRAIN AS-BUILT PHASE 1	SHEET 6 OF 32

DETENTION POND PLAN & PROFILE	JOB # 4603
A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.	

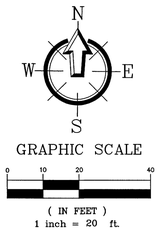
00593.007 2/19/16 SH



TRACT A



TRACT B

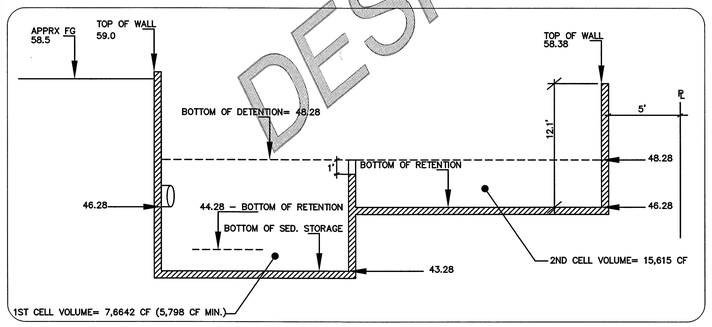


— X — — — = 6' TALL CHAINLINK FENCE

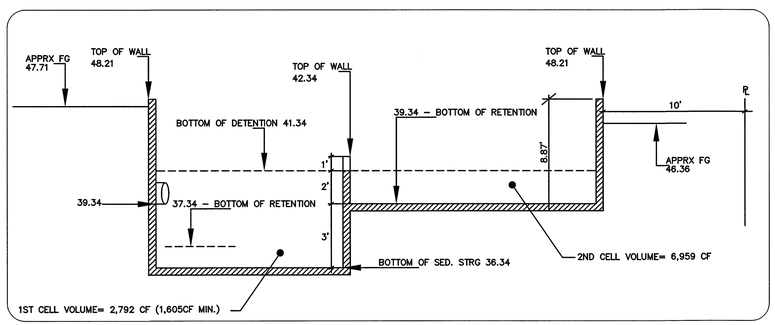
RIP RAP GRADATION IS AS FOLLOWS:

100% PASSING 8-INCH SQUARE SIEVE.
40-80% PASSING 6-INCH SQUARE SIEVE.
0-10% PASSING 2-INCH SQUARE SIEVE.

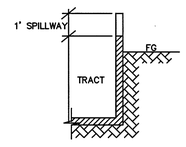
SEEDING REQUIREMENTS		
WETPOND A	WETPOND B	2005 SWMM VOL. 5 TABLE 10.1
43.28	35.72	1 TO 3 FT INUNDATION
46.28	38.72	3 TO 6 FT INUNDATION



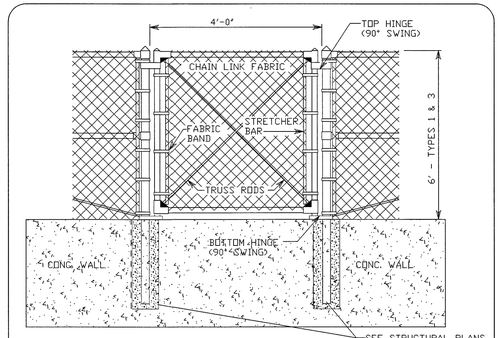
TRACT A
SECTION AA
NTS



TRACT B
SECTION AA
NTS



EMERGENCY SPILLWAY
N.T.S.



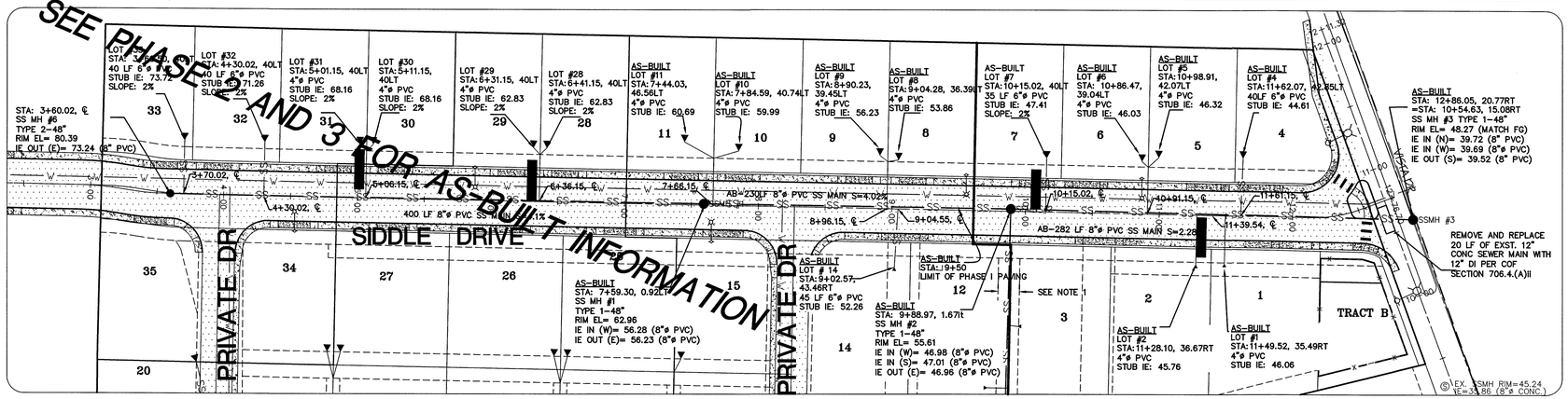
FENCE/GATE DETAIL
N.T.S.

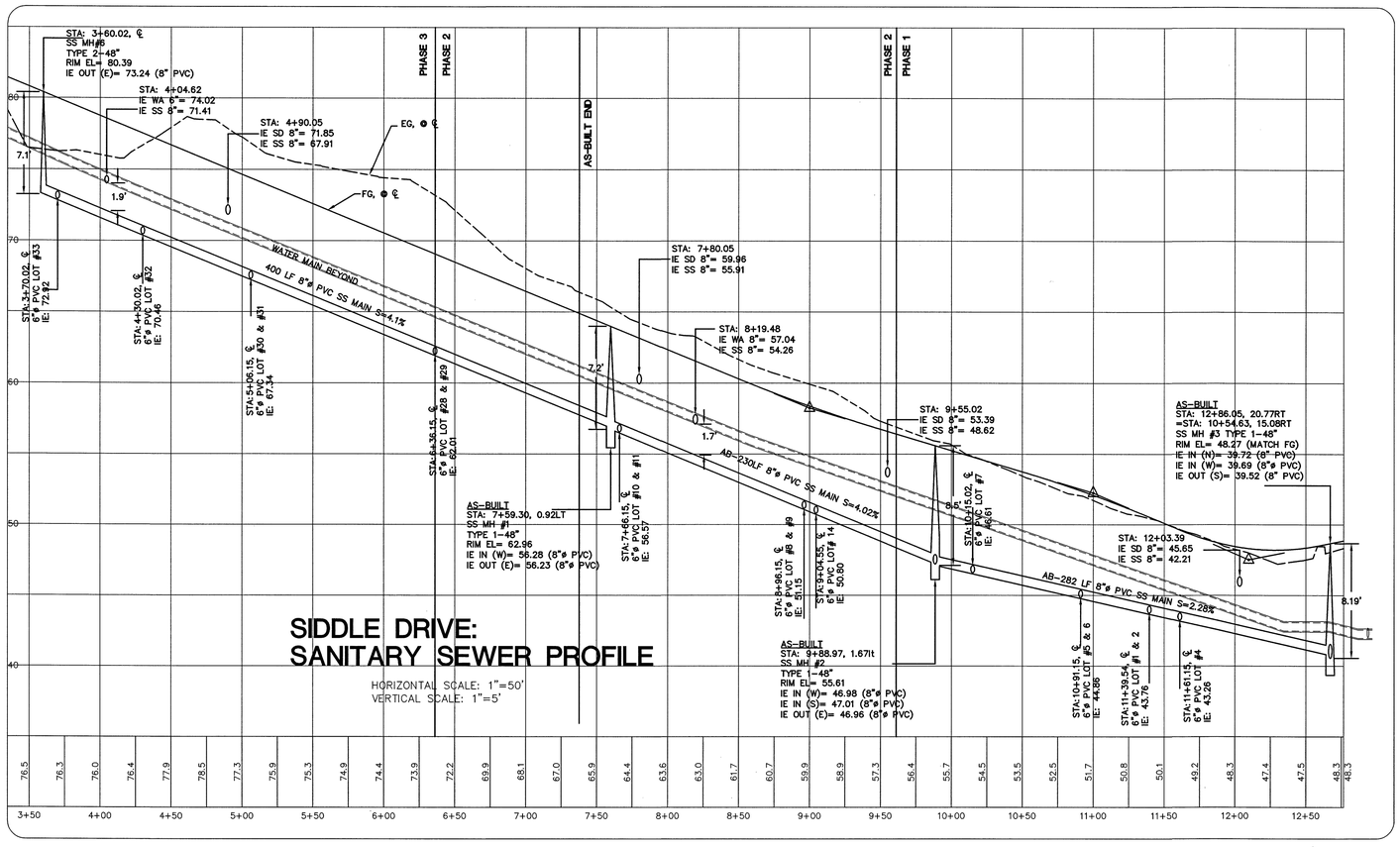
	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	VISTA MEADOWS LONG PLAT DETENTION POND AS-BUILT PHASE 1		SHEET 7 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE						

SANITARY SEWER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.





GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

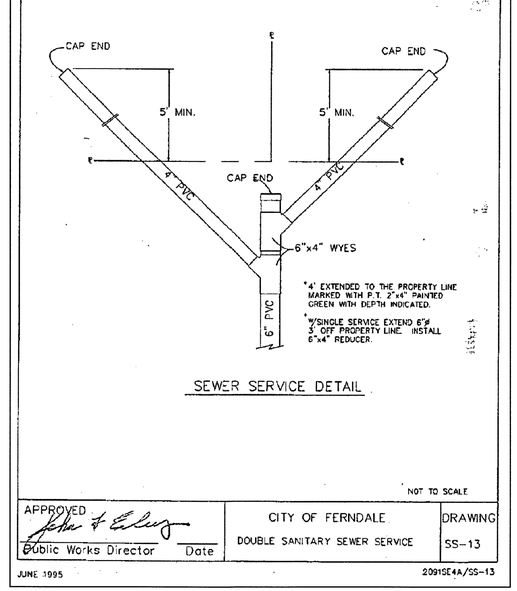
N W E S

LEGEND

- = EXISTING SANITARY SEWER MAIN
- = EXISTING SS MANHOLE
- = SS CLEAN-OUT
- = SS MANHOLE
- = SANITARY SEWER MAIN
- = SANITARY SEWER STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE

NOTE 1:
THE CITY SHALL NOT BE RESPONSIBLE FOR COSTS ASSOCIATED WITH RESTORATION OF ANY STRUCTURE OR LANDSCAPING LOCATED WITHIN THE EASEMENT OTHER THAN BACKFILLING AN EXCAVATION REQUIRED TO MAKE REPAIRS AND/OR MAINTAIN THE SEWER MAIN.

NOTE:
ALL DOUBLE SANITARY SERVICE CONNECTIONS ARE TO BE PER CITY OF FERNDALE STANDARD DETAIL SS-13.



SEWER SERVICE DETAIL

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	DOUBLE SANITARY SEWER SERVICE	SS-13
JUNE 1995	2091SE4A/SS-13	

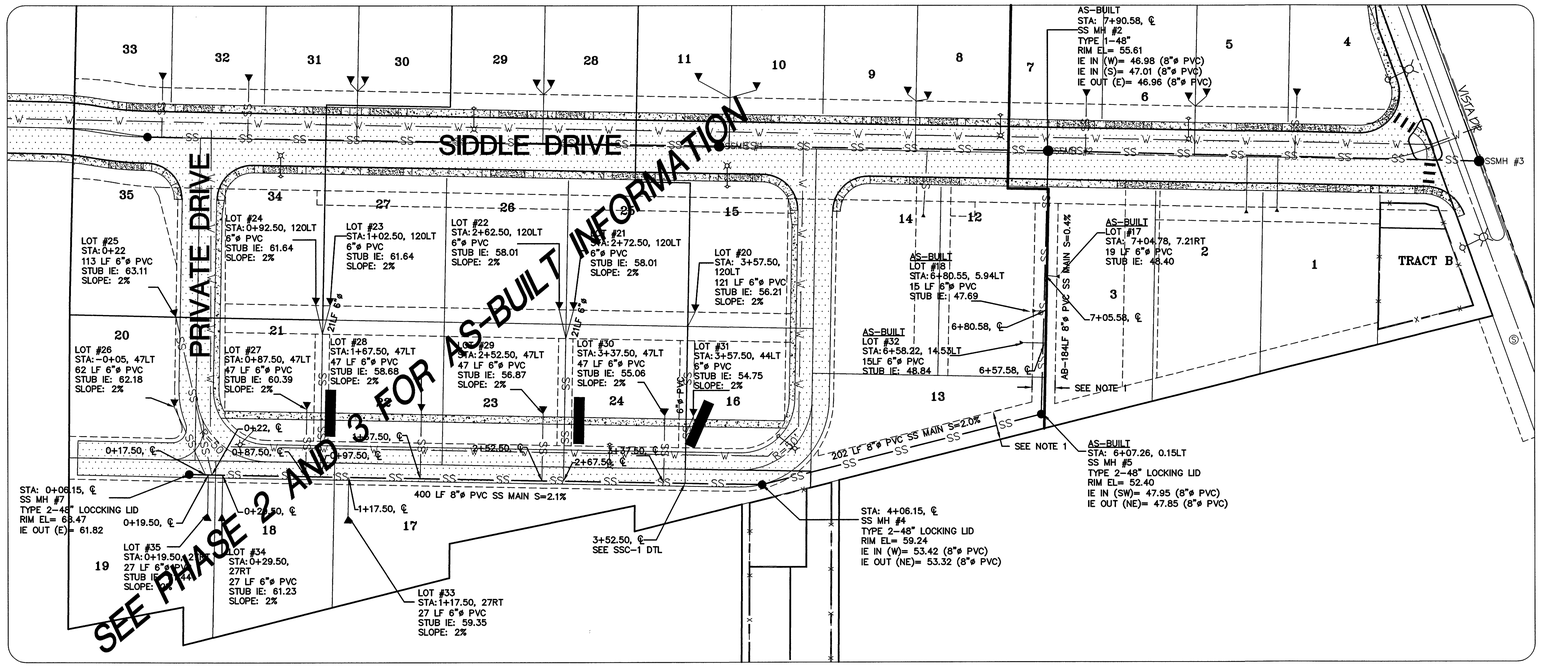
00593.008 2/19/16 SH

JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS PROFESSIONAL ENGINEER 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* SIDDLE DRIVE SANITARY SEWER PLAN AND PROFILE AS-BUILT PHASE 1	SHEET 8 OF 32

SANITARY SEWER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.



GRAPHIC SCALE

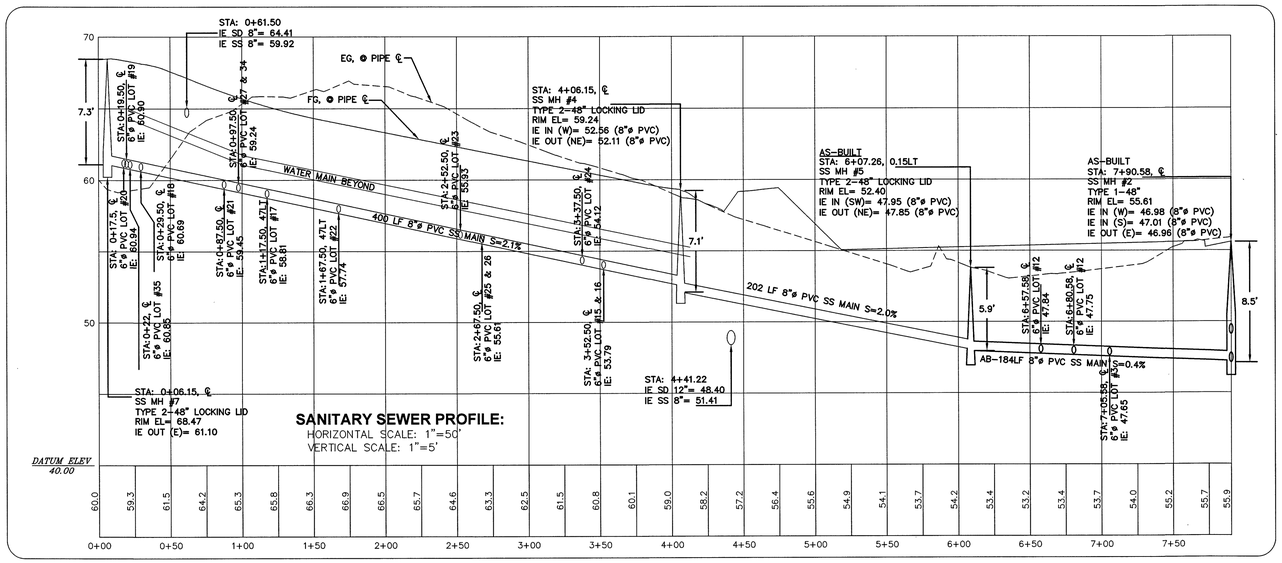
0 25 50 100

(IN FEET)
1 inch = 50 ft.

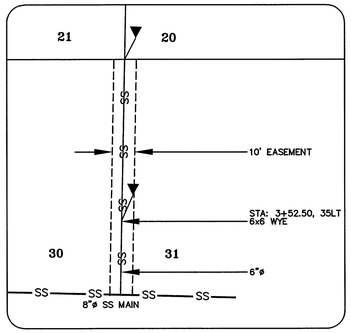
N W E S

LEGEND

- = EXISTING SANITARY SEWER MAIN
- = EXISTING SS MANHOLE
- = SS CLEAN-OUT
- = SS MANHOLE
- = SANITARY SEWER MAIN
- = SANITARY SEWER STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE



NOTE 1:
THE CITY SHALL NOT BE RESPONSIBLE FOR COSTS ASSOCIATED WITH RESTORATION OF ANY STRUCTURE OR LANDSCAPING LOCATED WITHIN THE SANITARY SEWER EASEMENT LOCATED OUTSIDE THE CITY RIGHT OF WAY OTHER THAN BACKFILLING AND EXCAVATION REQUIRED TO MAKE REPAIRS AND/OR MAINTAIN THE SEWER MAIN.



SSC-1 SERVICE CONNECTION
NTS

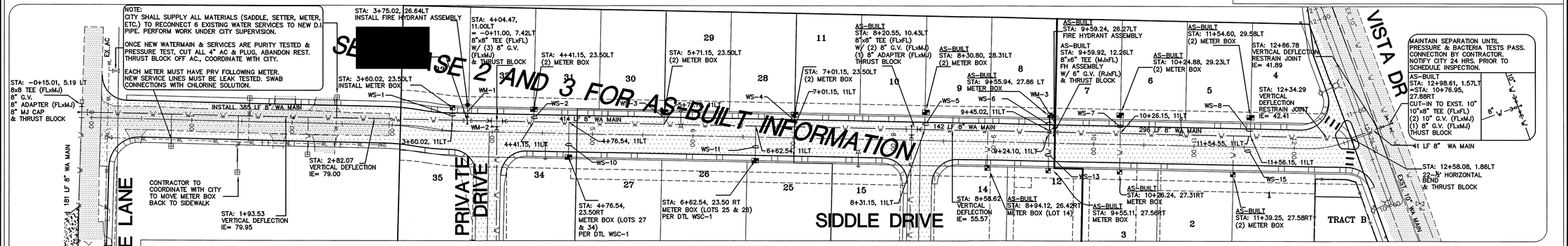
00593.009 2/19/16 SH

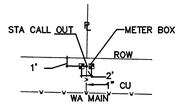
JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	RAMON LANGE REGISTERED PROFESSIONAL ENGINEER 7-24-13		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* LOWER LOTS SANITARY SEWER PLAN AND PROFILE AS-BUILT PHASE 1	SHEET 9 OF 32

WATER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.





TYP. WA SERVICE LOCATION (FOR SINGLE FAMILY)

LEGEND

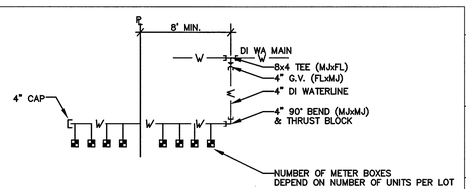
- WL = EXISTING WATER MAIN
- = EXISTING GATE VALVE
- = EXISTING METER BOX
- = METER BOX
- = FIRE HYDRANT
- = GATE VALVE
- W = WATER MAIN
- W = WA SERVICE LINE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE

WATER MAIN DISTRIBUTION

WM-1 16 LF 6" WATER MAIN	WM-2 44 LF 8" WATER MAIN	WM-3 16 LF 6" WATER MAIN

WATER SERVICE DISTRIBUTION

WS-1 13 LF 1" COPPER WATER LINE SERVICE	WS-2 TO WS-5 13 LF 1" COPPER WATER LINE SERVICE	WS-6 13 LF 1" COPPER WATER LINE SERVICE
WS-7 13 LF 1" COPPER WATER LINE SERVICE	WS-8 15 LF 1" COPPER WATER LINE SERVICE	WS-10 TO WS-15 35 LF 4" DI WATERLINE (PER DTL WSC-1)



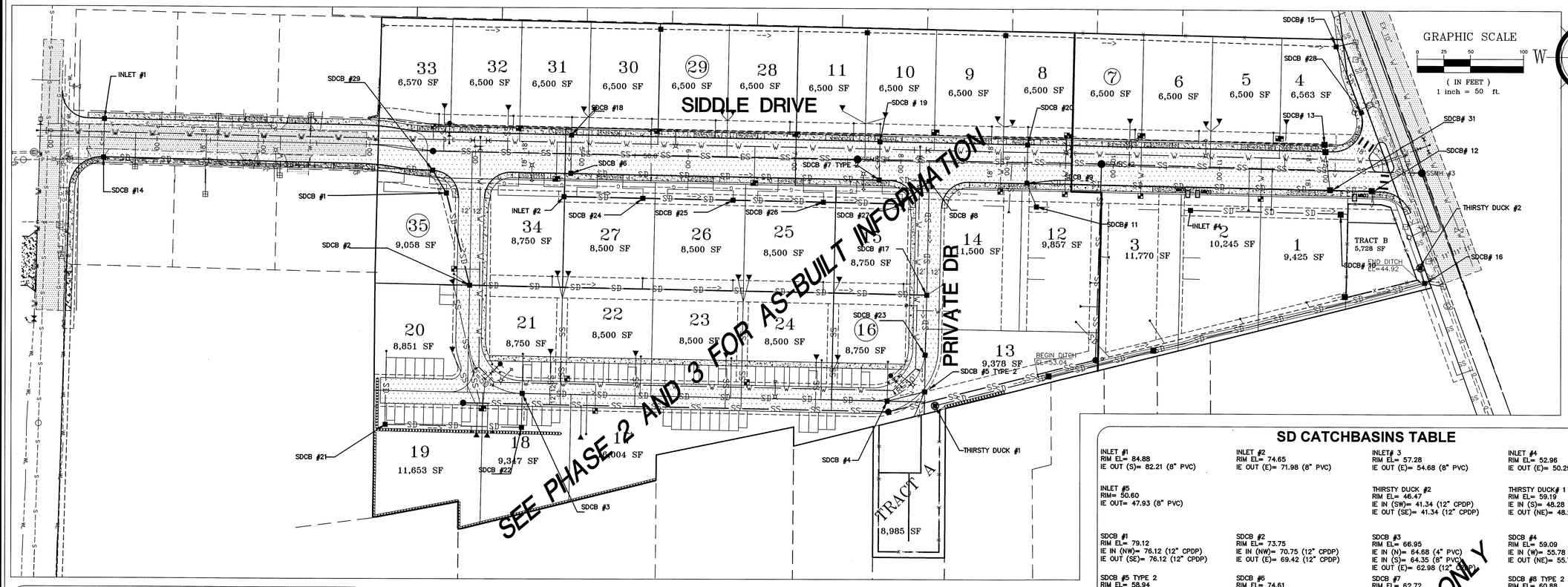
WSC-1 TYP. WA SERVICE CONNECTION (FOR MULTI-FAMILY)

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* WATER PLAN AND PROFILE: SIDDLE DRIVE AS-BUILT PHASE 1	SHEET 10 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE		7-24-15			

00593.010 2/19/16 SH

COMPOSITE UTILITY PLAN

JOB # 4603



SD CATCHBASINS TABLE

INLET #1
RIM EL= 84.88
IE OUT (S)= 82.21 (8" PVC)

INLET #2
RIM EL= 74.65
IE OUT (E)= 71.98 (8" PVC)

INLET# 3
RIM EL= 57.28
IE OUT (E)= 54.68 (8" PVC)

INLET #4
RIM EL= 52.96
IE OUT (E)= 50.29 (8" PVC)

INLET #5
RIM= 50.60
IE OUT= 47.93 (8" PVC)

THIRSTY DUCK #2
RIM EL= 46.47
IE IN (SW)= 41.34 (12" CPDP)
IE OUT (SE)= 41.34 (12" CPDP)

THIRSTY DUCK# 1
RIM EL= 59.19
IE IN (S)= 48.28 (12" PVC)
IE OUT (NE)= 48.28 (12" CPDP)

SDCB #1
RIM EL= 79.12
IE IN (NW)= 76.12 (12" CPDP)
IE OUT (SE)= 76.12 (12" CPDP)

SDCB #2
RIM EL= 73.75
IE IN (NW)= 70.75 (12" CPDP)
IE OUT (E)= 69.42 (12" CPDP)

SDCB #3
RIM EL= 66.95
IE IN (N)= 64.68 (4" PVC)
IE IN (S)= 64.35 (8" PVC)
IE OUT (E)= 62.98 (12" CPDP)

SDCB #4
RIM EL= 59.09
IE IN (W)= 55.78 (12" CPDP)
IE OUT (NE)= 55.78 (12" CPDP)

SDCB #5 TYPE 2
RIM EL= 58.94
IE IN (N)= 51.13 (15" CPDP)
IE IN (SW)= 55.59 (12" CPDP)
IE OUT (S)= 51.13 (15" CPDP)

SDCB #6
RIM EL= 74.61
IE IN (N)= 71.76 (8" PVC)
IE OUT (E)= 71.42 (12" CPDP)

SDCB #7
RIM EL= 62.72
IE IN (N)= 59.87 (8" PVC)
IE IN (W)= 59.54 (12" CPDP)
IE OUT (E)= 59.54 (12" CPDP)

SDCB #8 TYPE 2
RIM EL= 60.88
IE IN (W)= 57.88 (12' CPDP)
IE IN (SW)= 58.20 (8" PVC)
IE IN (E)= 52.12 (15" CPDP)
IE OUT (S)= 52.12 (15' CPDP)

SDCB #9
RIM EL= 57.28
IE IN (N)= 54.43 (8" PVC)
IE OUT (E)= 54.09 (12" CPCP)

SDCB# 10
RIM EL= 47.63
IE IN (W)= 44.94 (8" PVC)
IE OUT (E)= 44.94 (8" PVC)

SDCB# 11
RIM EL= 54.28
IE IN (W)= 54.39 (8" PVC)
IE OUT (N)= 54.39 (8" PVC)

SDCB# 12
THRU CURB FRAME AND GRATE
RIM EL= 47.71
IE IN (W)= 43.98 (12" CPDP)
IE OUT (S)= 43.98 (12" CPDP)

SDCB# 13
THRU CURB FRAME AND GRATE
RIM EL= 48.32
IE IN (N)= 44.85 (6" PVC)
IE OUT (S)= 44.69 (8" PVC)

SDCB #14
RIM EL= 83.85
IE IN (N)= 82.02 (8" PVC)
IE OUT (E)= 81.69 (12" CPDP)

SDCB# 15 TYPE 1
RIM EL= 54.62
IE IN (W)= 48.95 (6" PERF)
IE OUT (SE)= 48.45 (12" CPDP)

SDCB# 16 TYPE 2
RIM EL= 46.14 (MATCH FG)
IE IN (SW)= 41.14 (12" CPDP)
IE IN (NW)= 41.25 (12" CPDP)
IE IN (N)= 42.63 (12" CPDP)
IE OUT (S)= 41.12 (18" CPDP)

SDCB #17 TYPE 2
RIM EL= 59.01
IE IN (W)= 55.66 (12" CPDP)
IE IN (W)= 51.58 (15" CPDP)
IE OUT (S)= 51.58 (15" CPDP)

SDCB #18
RIM EL= 74.65
IE IN (N)= 71.84 (8" PVC)
IE OUT (E)= 71.84 (8" PVC)

SDCB # 19
RIM EL= 62.72
IE IN (N)= 60.21 (6" PVC)
IE OUT (S)= 60.05 (8" PVC)

SDCB #20
RIM EL= 57.28
IE IN (N)= 54.77 (6" PVC)
IE OUT (S)= 54.61 (8" PVC)

SDCB #21
RIM EL= 67.84
IE IN (N)= 65.50 (4" PVC)
IE OUT (E)= 65.17 (8" PVC)

SDCB #22
RIM EL= 67.59
IE IN (W)= 64.52 (8" PVC)
IE OUT (N)= 64.52 (8" PVC)

SDCB #23 TYPE 2
RIM EL= 58.53
IE IN (N)= 51.30 (15" CPDP)
IE OUT (S)= 51.30 (15" CPDP)

SDCB #24
RIM EL= 71.63
IE IN (W)= 68.96 (6" PVC)
IE OUT (E)= 68.96 (8" PVC)

SDCB #25
RIM EL= 68.32
IE IN (W)= 65.56 (8" PVC)
IE OUT (E)= 65.56 (8" PVC)

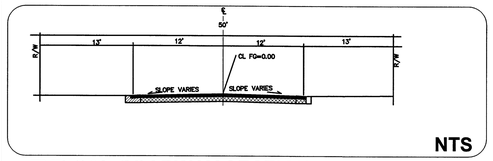
SDCB #26
RIM EL= 65.01
IE IN (W)= 62.16 (8" PVC)
IE OUT (E)= 62.16 (8" PVC)

SDCB #27
RIM EL= 61.58
IE IN (W)= 58.90 (8" PVC)
IE OUT (E)= 58.90 (8" PVC)

SDCB# 28 TYPE 1
RIM EL= 50.60
IE IN (NW)= 47.60 (12" CPDP)
IE OUT (SE)= 46.58 (12" CPDP)

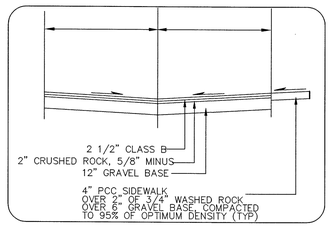
SDCB #29
THRU CURB FRAME AND GRATE
RIM EL= 79.94
IE IN (W)= 76.73 (12" CPDP)
IE OUT (SE)= 76.73 (12" CPDP)

SDCB# 31
RIM EL= 47.94
IE IN (N)= 44.51 (8" PVC)
IE IN (W)= 44.18 (12" CPDP)
IE OUT (E)= 44.18 (12" CPDP)

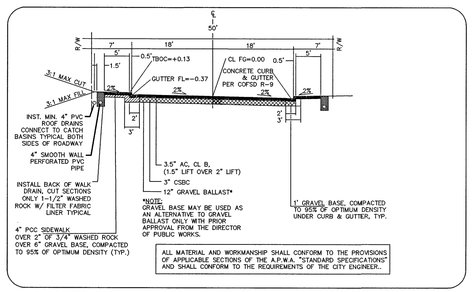


NTS

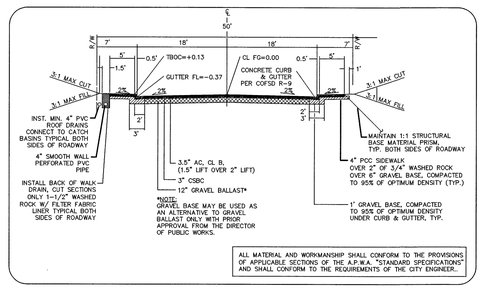
TYPICAL ROADWAY SECTION (EXISTING COND)
SIDDLE DRIVE



TYPICAL DRIVEWAY SECTION
NTS



TYPICAL ROADWAY SECTION (PROPOSED)
SIDDLE DRIVE (STA 0+00 TO 3+00)
NTS



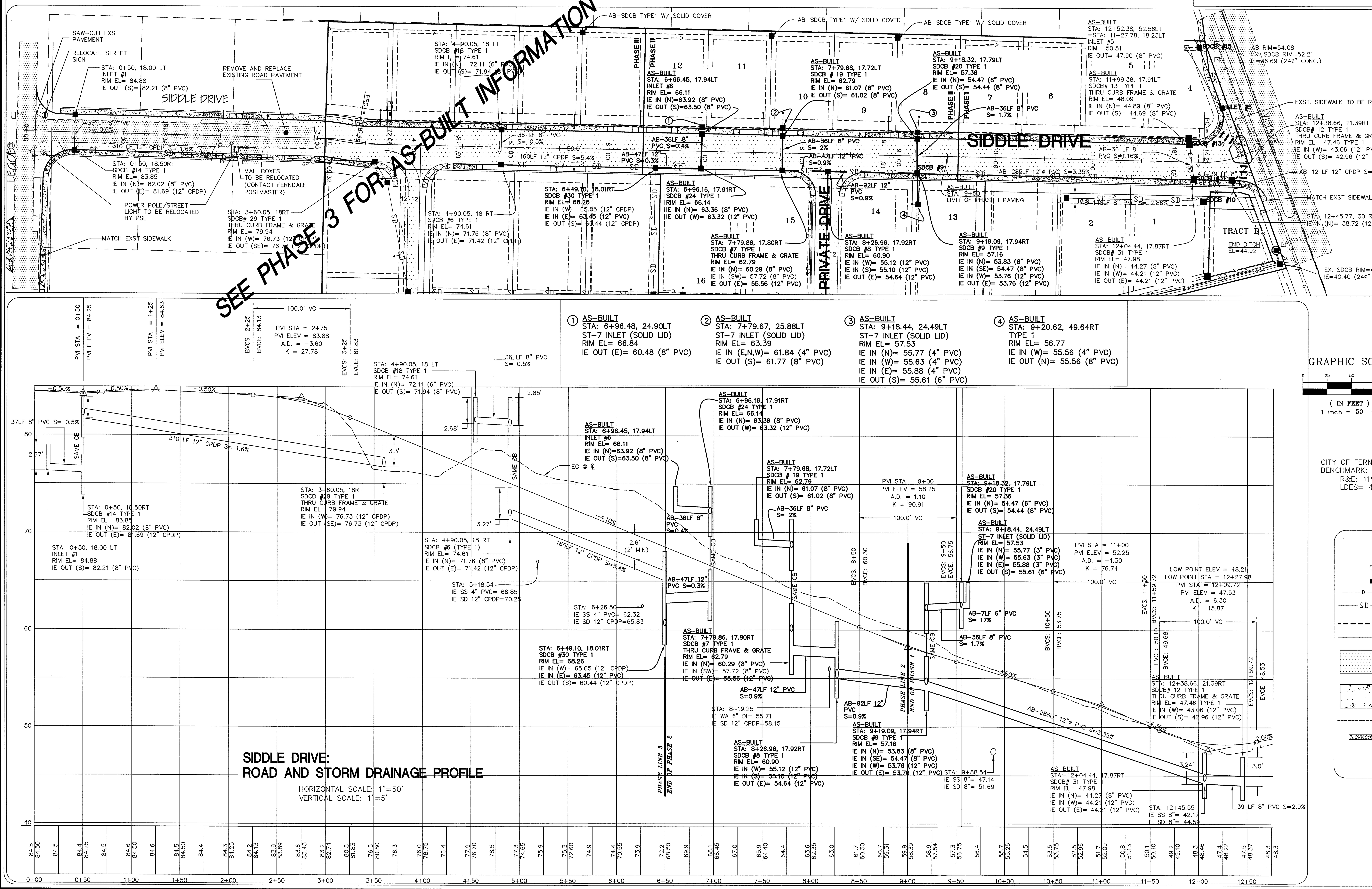
TYPICAL ROADWAY SECTION (PROPOSED)
SIDDLE DRIVE (STA 3+00 TO END)
NTS

DESIGN INFORMATION ONLY

00593.011 2/19/16 SH

JOB # 04603	**VISTA MEADOWS LONG PLAT** FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	RAMON LLANOS EXPIRES: MARCH 31, 2016 PROFESSIONAL ENGINEER 7-24-13		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* COMPOSITE UTILITY PLAN AS-BUILT PHASE 1	SHEET 11 OF 32

STREET PLAN & PROFILE | JOB # 4603



GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

CITY OF FERNDALE ROUNDABOUT PROJECT
BENCHMARK:
R&E: 119.81 (STK 104)
LDES= 46.18

LEGEND

- □ = EXISTING CATCH BASIN
- ■ = CATCH BASIN
- —D— = EXIST STORM DRAIN LINE
- —SD— = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- - - - = ADS-N12 DRN PIPE
- —• = ROOF/YARD STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = DRIVEWAY

00593.012 2/19/16 SH

VISTA MEADOWS LONG PLAT

JOB # 04603

FOR: DAVID BRAITHWAITE

APPROVED
JAN 28 2016
BY ____
CITY OF FERNDALE

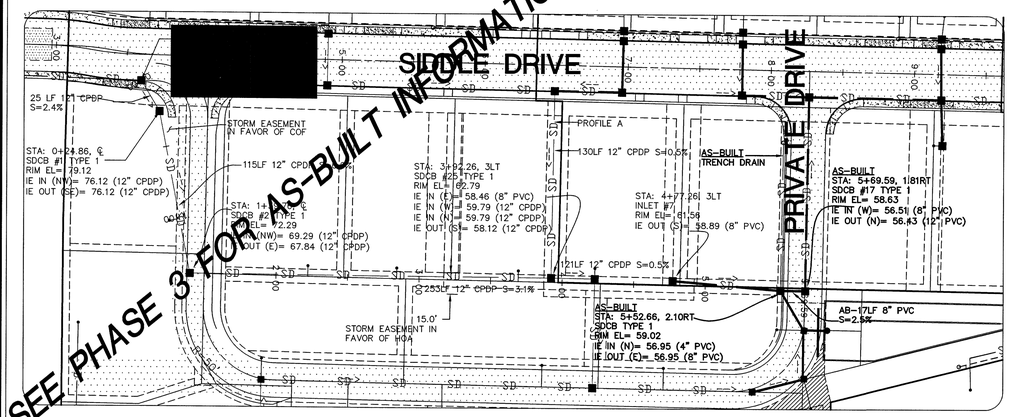
RAMON LLANOS, STATE OF WASHINGTON, REGISTERED PROFESSIONAL ENGINEER 33213
7-24-13

LDES, INC.
5160 INDUSTRIAL PL #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

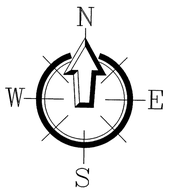
VISTA MEADOWS LONG PLAT
SIDDLE DRIVE
STREET & STORMDRAIN PLAN & PROFILE
PHASE 2 AS BUILT

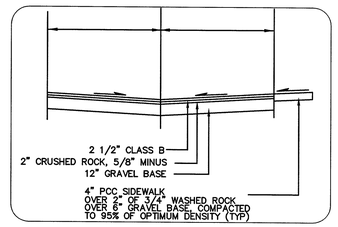
STORMDRAIN PLAN & PROFILE	JOB # 4603
A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.	

SEE PHASE 3 FOR AS-BUILT INFORMATION



GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

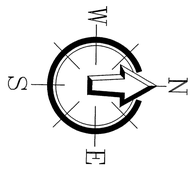




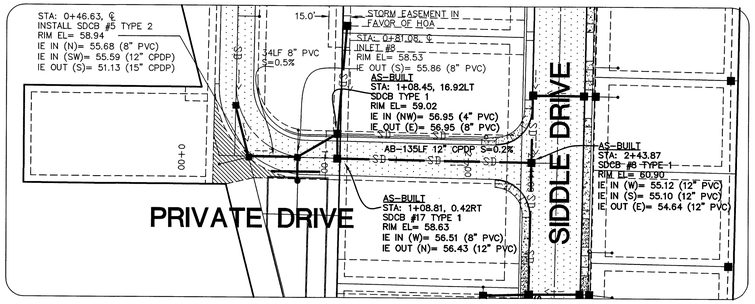
PRIVATE DRIVE/PARKING
CROSS SECTION
N.T.S.

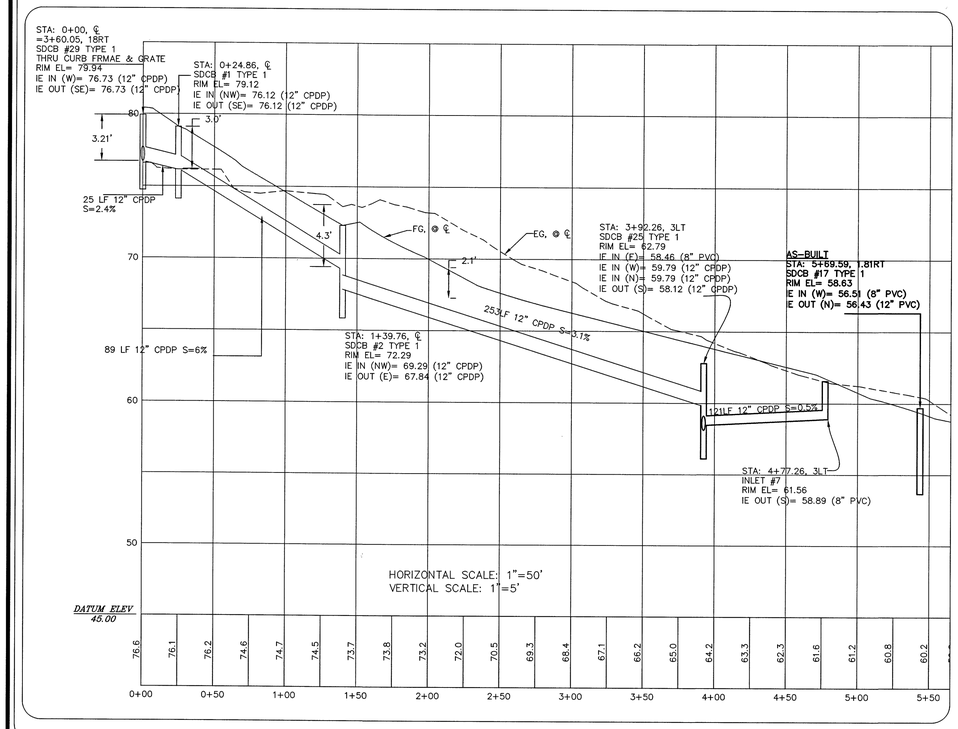
LEGEND

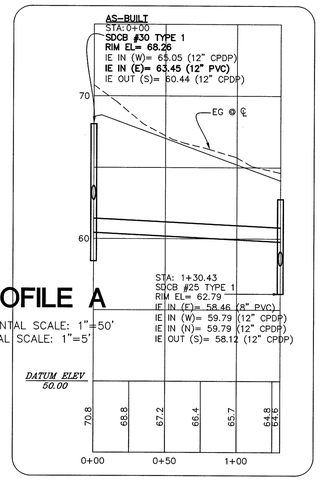
- = EXISTING CATCH BASIN
- = CATCH BASIN
- = EXIST STORM DRAIN LINE
- = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRAIN PIPE
- = ROOF/YARD STUB
- = OUTFALL RIPRAP
- = BUILDING ENVELOPE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = DRIVEWAY



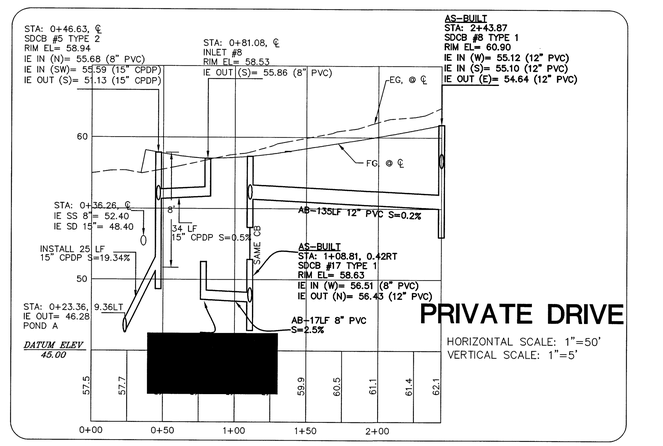
GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.







PROFILE A
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



PRIVATE DRIVE
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

00593.013 2/19/16 SH

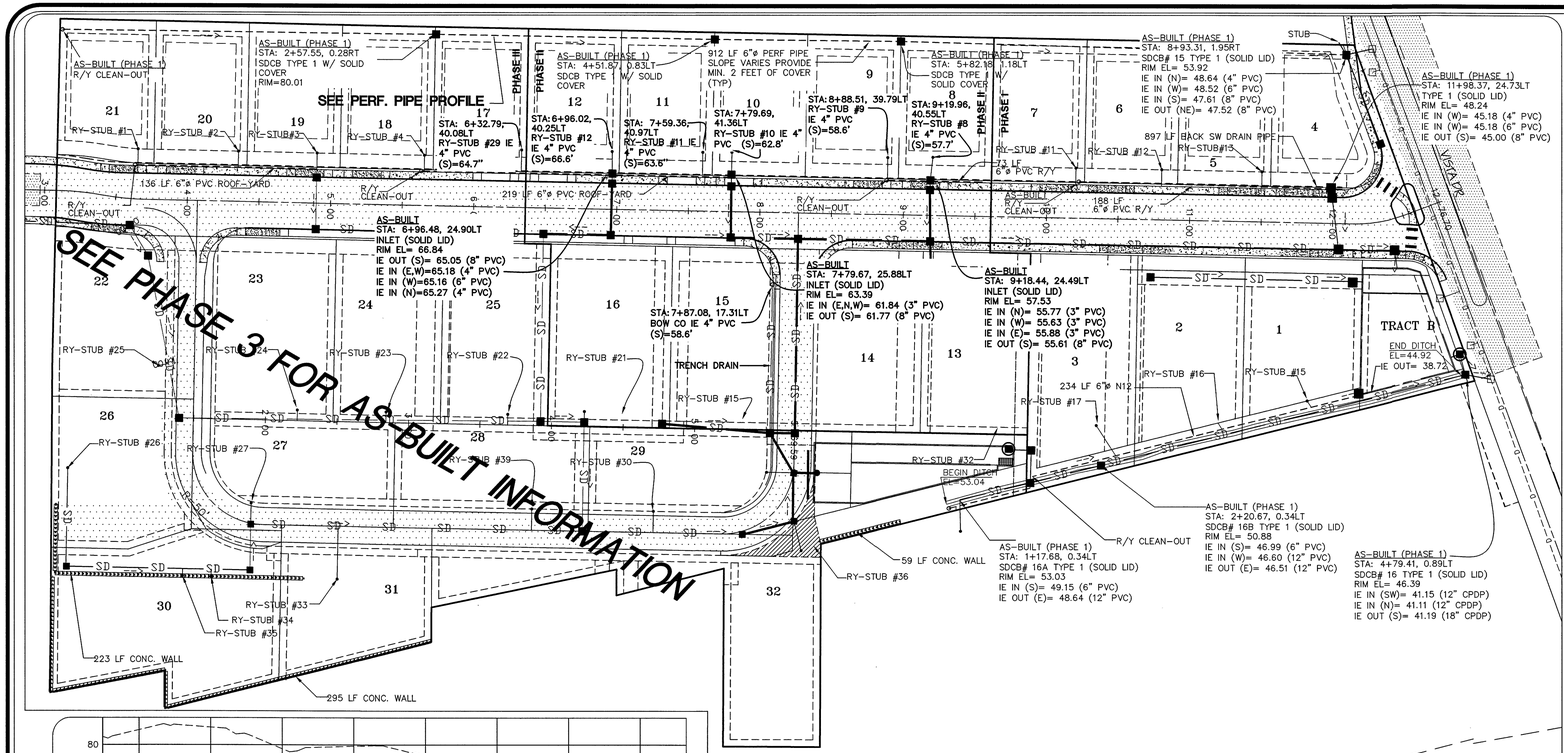
JOB # 04603	FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY ____ CITY OF FERNDALE	7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* PRIVATE DRIVE STORMDRAIN PLAN & PROFILE AS-BUILT PHASE 2	SHEET 13 OF 32

VISTA MEADOWS LONG PLAT

ROOF AND YARD DRAIN PLAN

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.



LEGEND

- = EXISTING CATCH BASIN
- = CATCH BASIN
- = EXIST STORM DRAIN LINE
- = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRAIN PIPE (UNO)
- = ROOF/YARD STUB
- = BUILDING ENVELOPE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = RETAINING WALL
- = PARKING AREA (PAVED)

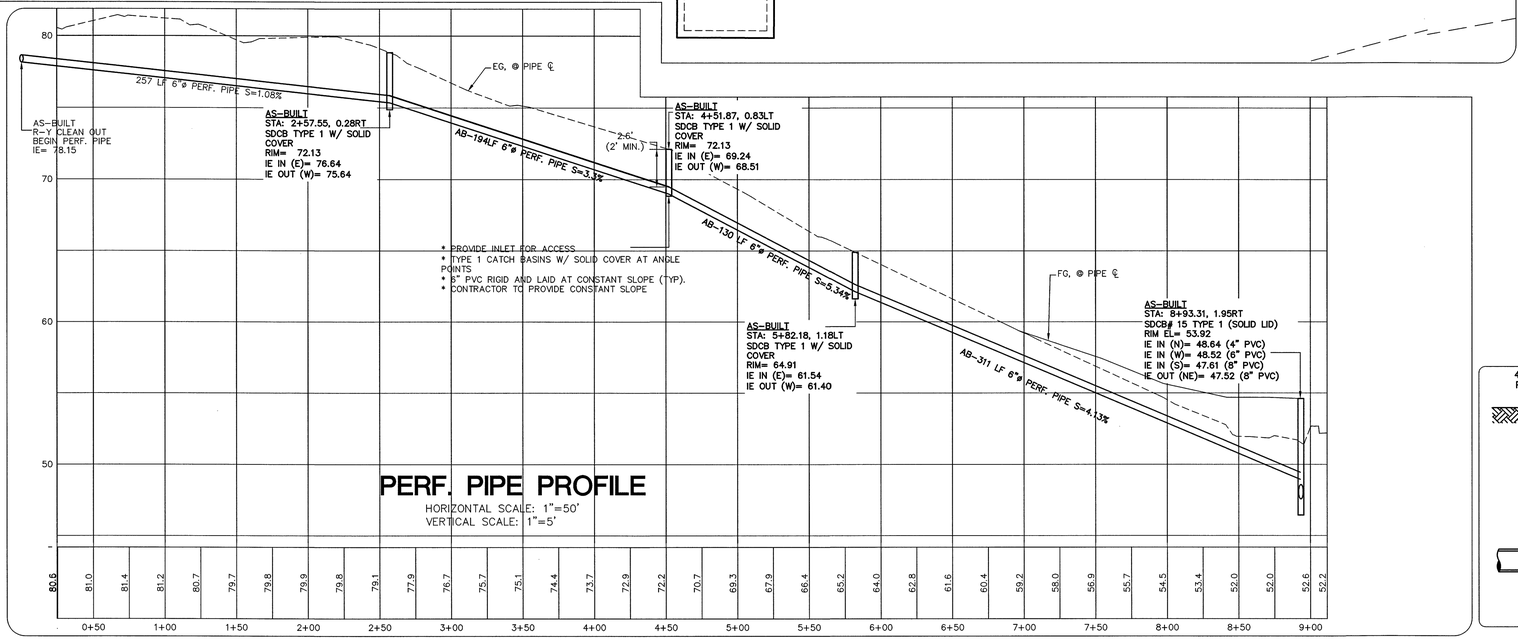
GRAPHIC SCALE

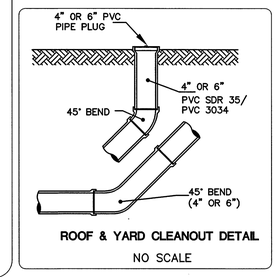
0 25 50 100

(IN FEET)

1 inch = 50 ft.

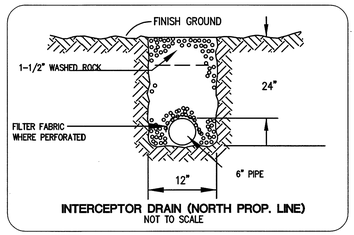
N W E S





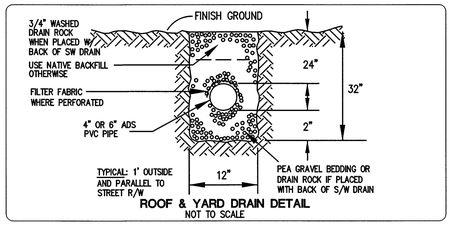
ROOF & YARD CLEANOUT DETAIL

NO SCALE



INTERCEPTOR DRAIN (NORTH PROP. LINE)

NOT TO SCALE



ROOF & YARD DRAIN DETAIL

NOT TO SCALE

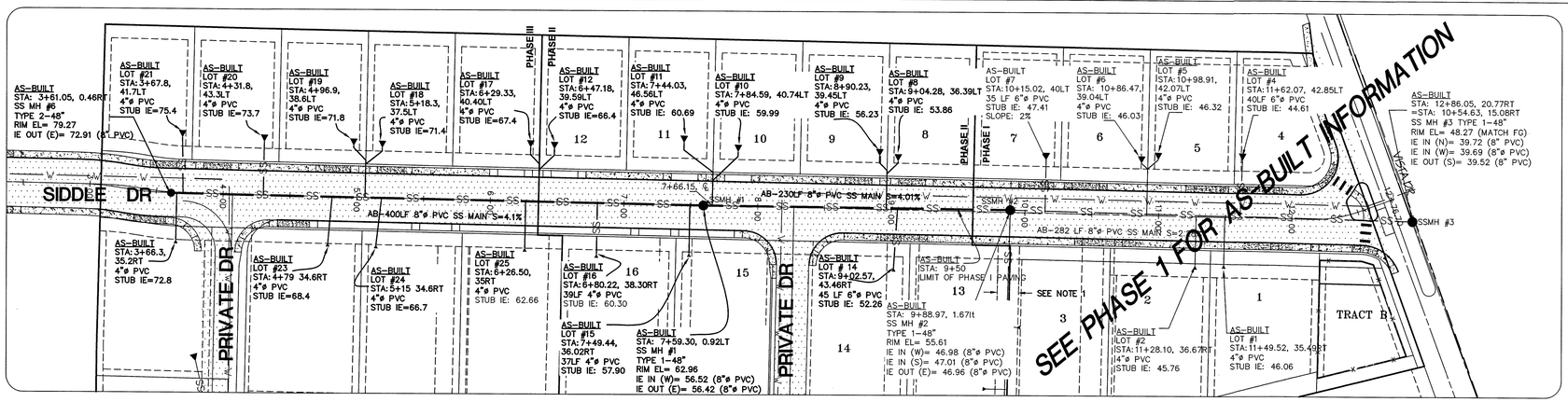
00593.014 2/19/16 SH

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANAS 20808 REGISTERED PROFESSIONAL ENGINEER 7-24-15		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* ROOF AND YARD DRAIN AS-BUILT PHASE 2	SHEET 14 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE						

SANITARY SEWER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.



GRAPHIC SCALE

0 25 50 100

(IN FEET)

1 inch = 50 ft.

N W E S

LEGEND

- = EXISTING SANITARY SEWER MAIN
- = EXISTING SS MANHOLE
- = SS CLEAN-OUT
- = SS MANHOLE
- = SANITARY SEWER MAIN
- = SANITARY SEWER STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE

NOTE 1:
THE CITY SHALL NOT BE RESPONSIBLE FOR COSTS ASSOCIATED WITH RESTORATION OF ANY STRUCTURE OR LANDSCAPING LOCATED WITHIN THE EASEMENT OTHER THAN BACKFILLING AN EXCAVATION REQUIRED TO MAKE REPAIRS AND/OR MAINTAIN THE SEWER MAIN.

NOTE:

ALL DOUBLE SANITARY SERVICE CONNECTIONS ARE TO BE PER CITY OF FERNDALE STANDARD DETAIL SS-13, SEE SHEET 9.

SIDDLE DRIVE: SANITARY SEWER PROFILE

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

JOB # 04603	**VISTA MEADOWS LONG PLAT** FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RANDY LLANOS PROFESSIONAL ENGINEER 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* SIDDLE DRIVE SANITARY SEWER PLAN AND PROFILE AS-BUILT PHASE 2		SHEET 15 OF 32

00593.015 2/19/16 SH

WATER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.

NOTE:
CITY SHALL SUPPLY ALL MATERIALS (SADDLE, SETTER, METER, ETC.) TO RECONNECT 6 EXISTING WATER SERVICES TO NEW D.I. PIPE. PERFORM WORK UNDER CITY SUPERVISION.

ONCE NEW WATERMAIN & SERVICES ARE PURITY TESTED & PRESSURE TEST, CUT ALL 4" AC & PLUG, ABANDON REST. THRUST BLOCK OFF AC., COORDINATE WITH CITY.

EACH METER MUST HAVE PRV FOLLOWING METER. NEW SERVICE LINES MUST BE LEAK TESTED. SWAB CONNECTIONS WITH CHLORINE SOLUTION.

STA: 3+75.02, 26.64LT
INSTALL FIRE HYDRANT ASSEMBLY

STA: 3+04.47, 11.00LT
= -0+11.00, 7.42LT
8"x8" TEE (FLxFL)
W/ (3) 8" G.V. (FLxMJ)
& THRUST BLOCK

STA: 3+60.02, 23.50LT
INSTALL METER BOX

STA: -0+15.01, 5.19 LT
8x8 TEE (FLxMJ)
8" G.V.
8" ADAPTER (FLxMJ)
8" MJ CAP
& THRUST BLOCK

INSTALL 385 LF 8" WA MAIN

181 LF 8" WA MAIN

LEGOE LANE

CONTRACTOR TO COORDINATE WITH CITY TO MOVE METER BOX BACK TO SIDEWALK

STA: 2+82.07
VERTICAL DEFLECTION
IE= 79.95

SEE PHASE 3 FOR AS-BUILT INFORMATION

PRIVATE DRIVE

STA: 4+41.15, 23.50LT
(2) METER BOX

STA: 5+71.15, 23.50LT
(2) METER BOX

AS-BUILT
STA: 6+31.15
2" BLOW OFF ASSEMBLY, SEE SHEET 12

AS-BUILT
STA: 7+02.11, 27.16LT
(2) METER BOX LOTS 11 & 12

AS-BUILT
STA: 8+20.55, 10.43LT
8"x8" TEE (FLxFL)
W/ (2) 8" G.V. (FLxMJ)
(1) 8" ADAPTER (FLxMJ)
THRUST BLOCK

AS-BUILT
STA: 8+30.80, 28.31LT
(2) METER BOX, LOTS 9 AND 10

AS-BUILT
STA: 9+55.94, 27.86 LT
METER BOX, LOT 8

AS-BUILT (PHASE 1)
STA: 9+59.24, 26.27LT
FIRE HYDRANT ASSEMBLY

AS-BUILT (PHASE 1)
STA: 9+59.92, 12.26LT
8"x6" TEE (MJxFL)
FH ASSEMBLY
W/ 6" G.V. (RJxFL)
& THRUST BLOCK

AS-BUILT (PHASE 1)
STA: 10+24.88, 29.23LT
(2) METER BOX

AS-BUILT (PHASE 1)
STA: 11+54.60, 29.58LT
(2) METER BOX

STA: 12+86.78
VERTICAL DEFLECTION
RESTRAIN JOINT
IE= 41.89

STA: 12+34.29
VERTICAL DEFLECTION
RESTRAIN JOINT
IE= 42.41

AB-189LF 8" WA MAIN

AB-140 LF 8" WA MAIN

296 LF 8" WA MAIN

SIDDLE DRIVE

PHASE III
PHASE II
PHASE I

VISTA DRIVE

SEE PHASE 1 FOR AS-BUILT INFORMATION

MAINTAIN SEPARATION UNTIL PRESSURE & BACTERIA TESTS PASS. NOTIFY CITY 24 HRS. PRIOR TO SCHEDULE INSPECTION.

AS-BUILT
STA: 12+98.61, 1.57LT
=STA: 10+76.95, 27.88RT
CUT-IN TO EXST. 10"
10"x8" TEE (FLxFL)
(2) 10" G.V. (FLxMJ)
(1) 8" G.V. (FLxMJ)
THUST BLOCK

41 LF 8" WA MAIN

STA: 12+58.08, 1.86LT
22-½° HORIZONTAL BEND
& THRUST BLOCK

EXST. 10" WA MAIN

TRACT B

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

STA: 5+08.54, 23.50RT
METER BOX (LOT 27)

STA: 4+76.54, 23.50RT
METER BOX (LOT 34)

STA: 6+00.54, 23.50 RT
METER BOX (LOTS 26)

AS-BUILT
STA: 6+61.05, 26.33RT
METER BOX

AS-BUILT
STA: 8+94.12, 26.42RT
METER BOX (LOT 14)

STA: 8+58.62
VERTICAL DEFLECTION
IE= 55.57

AS-BUILT (PHASE 1)
STA: 10+99.25, 27.58RT
(2) METER BOX

AS-BUILT (PHASE 1)
STA: 11+39.25, 27.58RT
(2) METER BOX

STA CALL OUT
METER BOX
ROW
1'
2'
1" CU
WA MAIN

TYP. WA SERVICE LOCATION (FOR SINGLE FAMILY)

LEGEND

- = EXISTING WATER MAIN
- = EXISTING GATE VALVE
- = EXISTING METER BOX
- = METER BOX
- = FIRE HYDRANT
- = GATE VALVE
- = WATER MAIN
- = WA SERVICE LINE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE

WATER MAIN DISTRIBUTION

WM-1	WM-2	WM-3
16 LF 6" WATER MAIN	44 LF 8" WATER MAIN	16 LF 6" WATER MAIN

WATER SERVICE DISTRIBUTION (AS-BUILT)

LOT 8
13 LF 3/4" WS

LOT9-12
16LF 1" COPPER WS

LOTS 13, 14, 16
36LF 1" COPPER WS

LOT 15 (RELOCATED)
16LF 3/4" WS

NOTE:
LOTS 9-16 DOUBLE SERVICE PER DETAIL W-5
LOT 8 SINGLE SERVICE PER DETAIL W-5

NOTE:
MEGALUG RJ @ 10"x8" TEE (STA 12+96.08) (INSTALLED BY OTHERS)
22-1/2° BEND (STA 12+58.08) W/ THRUST BLOCK

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

T.O.P.= TOP OF PIPE
IE= PIPE INVERT ELEVATION
0.67
0.75

WATER PROFILE: SIDDLE DRIVE

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

STA: 2+82.07
VERTICAL DEFLECTION
IE= 79.00

3.8'
(3.5' MIN)

3.5' COVER LINE

8" DI WA MAIN S=0%

8" DI WA MAIN S=1.06%

STA: -0+15.01, 5.19 LT
8x8 TEE (FLxMJ)
8" G.V.
8" ADAPTER (FLxMJ)
8" MJ CAP
& THRUST BLOCK

STA: 1+93.53
VERTICAL DEFLECTION
IE= 79.95

385 LF 8"ø
DI WA MAIN

FILL, COMPACT, EXCAVATE

STA: 4+04.47, 11.00LT
= -0+11.00, 7.42LT
8"x8" TEE (FLxFL)
W/ (3) 8" G.V. (FLxMJ)
& THRUST BLOCK
IE= 74.15

3+60.02, 11LT
1" CU SERVICE LOT 33

4+41.15, 11LT
1" SERVICE

4+76.54, 11LT
1" CU SERVICE

STA: 4+90.05
IE SD 8"= 71.90
IE WA 8"= 70.20

STA: 3+70.02
IE SS 6" PVC= 73.12
IE WA 8" DI= 75.43

STA: 3+75.02, 1.00LT
8"x6" TEE (MJxFL)
FH ASSEMBLY
W/ 6" G.V. (RJxFL)
& THRUST BLOCK

STA: 4+30.02
IE SS 6" PVC= 70.66
IE WA 8" DI=72.99

29 LF 8"ø
DI WA MAIN

8" DI WA MAIN S=4.07%

5+08.54
1" CU SERVICE

STA: 5+06.15
IE SS 6" PVC= 67.54
IE WA 8" DI= 69.54

AS-BUILT
STA: 6+31.15
2" BLOW OFF ASSEMBLY, SEE SHEET 12

STA: 6+36.15
IE SS 6" PVC= 62.21
IE WA 8" DI= 64.21

AS-BUILT
STA: 6+61.05, 26.33RT
METER BOX

AS-BUILT
STA: 7+02.11, 27.16LT
(2) METER BOX LOTS 11 & 12

AS-BUILT
STA: 8+20.55, 10.43LT
8"x8" TEE (FLxFL)
W/ (2) 8" G.V. (FLxMJ)
(1) 8" ADAPTER (FLxMJ)
THRUST BLOCK

IE SD 8"= 60.01
IE WA 8"= 58.76

AS-BUILT
STA: 8+30.80, 28.31LT
(2) METER BOX, LOTS 9 AND 10

AS-BUILT
STA: 9+55.94, 27.86 LT
METER BOX, LOT 8

STA: 7+66.15
IE SS 6" PVC= 56.79
IE WA 8" DI= 58.88

STA: 8+96.15
IE SS 6" PVC= 51.37
IE WA 8" DI= 54.18

AS-BUILT
STA: 9+59.92, 12.26LT
8"x6" TEE (MJxFL)
FH ASSEMBLY
W/ 6" G.V. (RJxFL)
& THRUST BLOCK

STA: 8+58.62
VERTICAL DEFLECTION
IE= 55.57

STA: 10+15.02
IE SS 6" PVC= 46.83
IE WA 8" DI= 49.92

STA: 10+91.15
IE SS 6" PVC= 45.08
IE WA 8" DI= 47.61

STA: 11+61.15
IE SS 6" PVC= 43.48
IE WA 8" DI= 45.49

10+26.15, 11LT
1" CU SERVICE LOTS 6 & 7

10+42.04, 11LT
4" DI LOT 3

10+85.04, 11LT
4" DI LOT 2

11+54.55, 11LT
4" DI LOT 1
DTL WSC-1

11+56.15, 11LT
1" CU SERVICE LOT 4 & 5

IE SD 8"= 53.44
IE WA 8"= 51.79

IE SD 8"= 44.64
IE WA 8"= 44.14

IE SD 24"= 43.62
IE WA 8"= 42.36

STA: 12+58.08, 1.86LT
22-½° HORIZONTAL BEND
& THRUST BLOCK

STA: 12+34.29
VERTICAL DEFLECTION
RESTRAIN JOINT
IE= 42.41

STA: 12+86.78
VERTICAL DEFLECTION
RESTRAIN JOINT
IE= 41.89

STA: 12+66.07, 11LT
IE SS 8"= 40.91
IE WA 8"= 42.41

8" DI WA MAIN S=3.45%

S=2.85%

AB-189LF 8"ø DI WA MAIN

AB-140LF 8"ø DI WA MAIN

337 LF 8"ø DI WA MAIN

41LF 8"ø DI WA MAIN

0+00 0+50 1+00 1+50 2+00 2+50 3+00 3+50 4+00 4+50 5+00 5+50 6+00 6+50 7+00 7+50 8+00 8+50 9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50

84.5 84.5 84.4 84.5 84.6 84.6 84.5 84.4 84.3 84.2 83.9 83.6 83.2 80.8 76.5 76.3 76.0 76.4 77.9 78.5 77.3 75.9 75.3 74.9 74.4 73.9 72.2 69.9 68.1 67.0 65.9 64.4 63.6 63.0 61.7 60.7 59.9 58.9 57.3 56.4 55.7 54.5 53.5 52.5 51.7 50.8 50.1 49.2 48.3 47.4 47.3 48.3

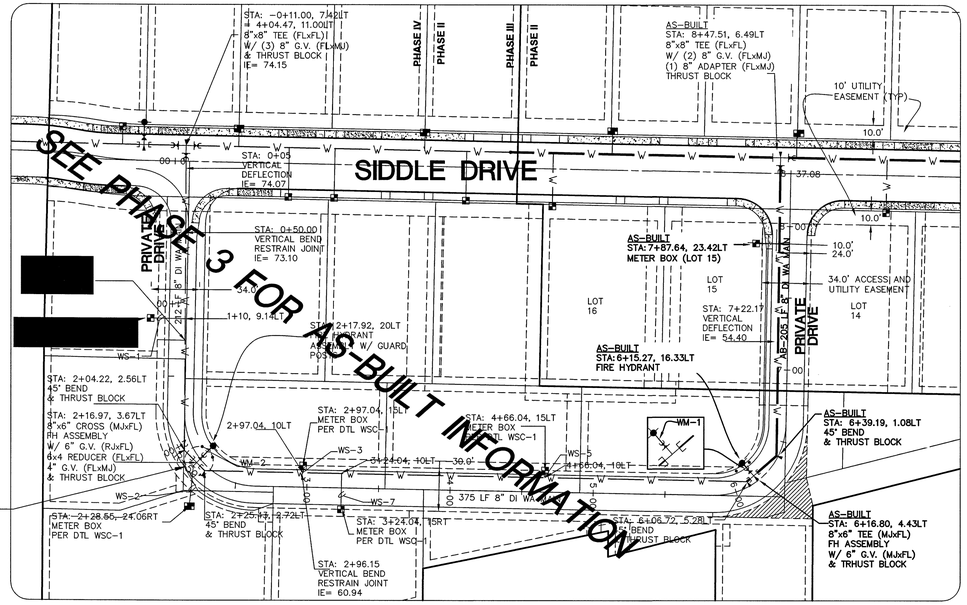
00593.016 2/19/16 SH

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS 22331 STATE OF WASHINGTON PROFESSIONAL ENGINEER 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* WATER PLAN AND PROFILE: SIDDLE DRIVE PHASE 2 AS-BUILT	SHEET 16 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE					

WATER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.



LEGEND

- = EXISTING WATER MAIN
- = EXISTING GATE VALVE
- = EXISTING METER BOX
- = PROPOSED METER BOX
- = PROPOSED FIRE HYDRANT
- = PROPOSED GATE VALVE
- = PROPOSED WATER MAIN
- = PROPOSED WA SERVICE LINE
- = PROPOSED ASPHALT ROAD
- = PROPOSED CONC. SIDEWALK
- = PROPOSED EASEMENT LINE

GRAPHIC SCALE

0 25 50 100

(IN FEET)
1 inch = 50 ft.

N W E S

T.O.P.= TOP OF PIPE
8"ø DI WA MAIN
IE= PIPE INVERT ELEVATION
0.67
0.75

WATER SERVICE DISTRIBUTION (AS-BUILT)

LOT 8
13 LF 3/4" WS

LOT9–12
16LF 1" COPPER WS

LOTS 13, 14, 16
36LF 1" COPPER WS

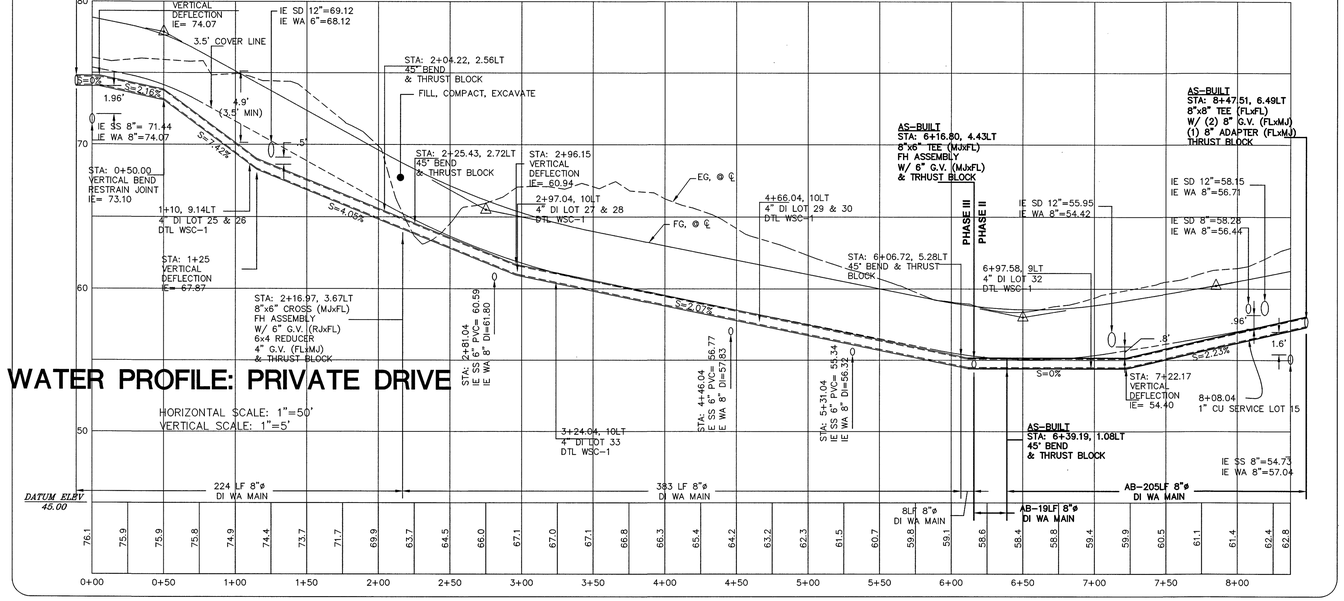
LOT 15 (RELOCATED)
16LF 3/4" WS

NOTE:
LOTS 9–16 DOUBLE SERVICE PER DETAIL W-5
LOT 8 SINGLE SERVICE PER DETAIL W-5

WATER MAIN DISTRIBUTION

AS-BUILT
WM-1
12LF 6"ø DI
WA MAIN

WM-2
16 LF 6"ø DI
WA MAIN



WATER PROFILE: PRIVATE DRIVE

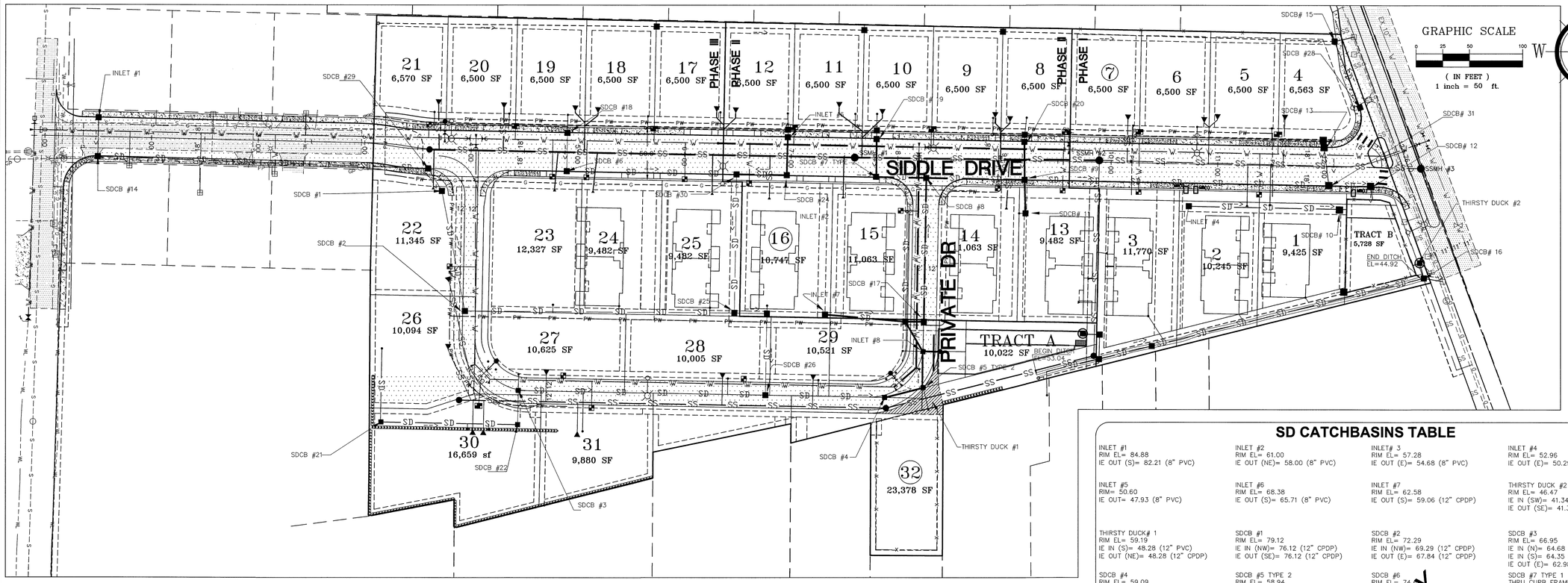
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

00593.017 2/19/16 SH

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RANDAL LANDS REGISTERED PROFESSIONAL ENGINEER STATE OF WASHINGTON 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* WATER PLAN AND PROFILE: PRIVATE DRIVE PHASE 2 AS-BUILT	SHEET 17 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE					

COMPOSITE UTILITY PLAN

JOB # 4603



SD CATCHBASINS TABLE

INLET #1
RIM EL= 84.88
IE OUT (S)= 82.21 (8" PVC)

INLET #2
RIM EL= 61.00
IE OUT (NE)= 58.00 (8" PVC)

INLET# 3
RIM EL= 57.28
IE OUT (E)= 54.68 (8" PVC)

INLET #4
RIM EL= 52.96
IE OUT (E)= 50.29 (8" PVC)

INLET #5
RIM= 50.60
IE OUT= 47.93 (8" PVC)

INLET #6
RIM EL= 68.38
IE OUT (S)= 65.71 (8" PVC)

INLET #7
RIM EL= 62.58
IE OUT (S)= 59.06 (12" CPDP)

THIRSTY DUCK #2
RIM EL= 46.47
IE IN (SW)= 41.34 (12" CPDP)
IE OUT (SE)= 41.34 (12" CPDP)

THIRSTY DUCK# 1
RIM EL= 59.19
IE IN (S)= 48.28 (12" PVC)
IE OUT (NE)= 48.28 (12" CPDP)

SDCB #1
RIM EL= 79.12
IE IN (NW)= 76.12 (12" CPDP)
IE OUT (SE)= 76.12 (12" CPDP)

SDCB #2
RIM EL= 72.29
IE IN (NW)= 69.29 (12" CPDP)
IE OUT (E)= 67.84 (12" CPDP)

SDCB #3
RIM EL= 66.95
IE IN (N)= 64.68 (4" PVC)
IE IN (S)= 64.35 (8" PVC)
IE OUT (E)= 62.98 (12" CPDP)

SDCB #4
RIM EL= 59.09
IE IN (W)= 55.78 (12" CPDP)
IE OUT (NE)= 55.78 (12" CPDP)

SDCB #5 TYPE 2
RIM EL= 58.94
IE IN (N)= 55.68 (8" PVC)
IE IN (SW)= 55.59 (12" CPDP)
IE OUT (S)= 51.13 (15" CPDP)

SDCB #6
RIM EL= 74.00
IE IN (N)= 71.76 (8" PVC)
IE OUT (S)= 71.42 (12" CPDP)

SDCB #7 TYPE 1
THRU CURB FRAME & GRATE
RIM EL= 62.72
IE IN (N)= 59.87 (8" PVC)
IE IN (SW)= 57.72 (8" PVC)
IE OUT (E)= 57.39 (12" CPDP)

SDCB #8 TYPE 1
RIM EL= 60.88
IE IN (W)= 57.16 (12" CPDP)
IE IN (S)= 55.00 (12" CPDP)
IE OUT (E)= 55.00 (12" CPDP)

SDCB #9
RIM EL= 57.28
IE IN (N)= 54.43 (8" PVC)
IE OUT (E)= 54.09 (12" CPCP)

SDCB #10
RIM EL= 47.63
IE IN (W)= 44.94 (8" PVC)
IE OUT (E)= 44.94 (8" PVC)

SDCB# 11
RIM EL= 57.28
IE IN (W)= 54.39 (8" PVC)
IE OUT (N)= 54.39 (8" PVC)

SDCB# 12
THRU CURB FRAME AND GRATE
RIM EL= 47.71
IE IN (W)= 43.98 (12" CPDP)
IE OUT (S)= 43.98 (12" CPDP)

SDCB# 13
THRU CURB FRAME AND GRATE
RIM EL= 48.32
IE IN (N)= 44.85
IE OUT (S)= 44.85 (12" CPCP)

SDCB #14
RIM EL= 83.85
IE IN (N)= 82.02 (8" PVC)
IE OUT (E)= 81.69 (12" CPDP)

SDCB# 15 TYPE 1
RIM EL= 54.62
IE IN (W)= 48.95 (6" PERF)
IE OUT (SE)= 48.45 (12" CPDP)

SDCB# 16 TYPE 2
RIM EL= 46.14 (MATCH FG)
IE IN (SW)= 41.14 (12" CPDP)
IE IN (NW)= 41.25 (12" CPDP)
IE IN (N)= 42.63 (12" CPDP)
IE OUT (S)= 41.12 (18" CPDP)

SDCB #17
RIM EL= 66.66 (12" CPDP)
IE IN (N)= 51.58 (15" CPDP)
IE OUT (S)= 51.58 (15" CPDP)

SDCB #18
RIM EL= 74.61
IE IN (N)= 72.11 (6" PVC)
IE OUT (S)= 71.94 (8" PVC)

SDCB # 19
RIM EL= 62.72
IE IN (N)= 60.21 (6" PVC)
IE OUT (S)= 60.05 (8" PVC)

SDCB #20
RIM EL= 57.28
IE IN (N)= 54.77 (6" PVC)
IE OUT (S)= 54.61 (8" PVC)

SDCB #21
RIM EL= 67.84
IE IN (N)= 65.50 (4" PVC)
IE OUT (E)= 65.17 (8" PVC)

SDCB #22
RIM EL= 67.59
IE IN (W)= 64.52 (8" PVC)
IE OUT (N)= 64.52 (8" PVC)

INLET #8
RIM EL= 58.53
IE OUT (S)= 55.86 (8" PVC)

SDCB #24
RIM EL= 68.28
IE IN (N)= 65.52 (8" PVC)
IE IN (W)= 65.19 (12" CPDP)
IE OUT (SE)= 65.19 (12" CPDP)

SDCB #25
RIM EL= 63.72
IE IN (W)= 60.49 (12" CPDP)
IE IN (N)= 60.49 (12" CPDP)
IE OUT (S)= 60.49 (12" CPDP)

SDCB #26
RIM EL= 61.26
IE IN (NW)=58.14 (12" CPDP)
IE IN (W)= 58.14 (12" CPDP)
IE OUT (E)= 58.14 (12" CPDP)

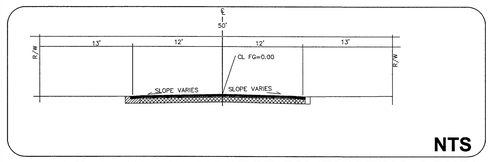
SDCB #27
RIM EL= 61.58
IE IN (W)= 58.90 (8" PVC)
IE OUT (E)= 58.90 (8" PVC)

SDCB# 28 TYPE 1
RIM EL= 50.60
IE IN (NW)= 47.60 (12" CPDP)
IE OUT (SE)= 46.58 (12" CPDP)

SDCB #29
THRU CURB FRAME AND GRATE
RIM EL= 79.94
IE IN (W)= 76.73 (12" CPDP)
IE OUT (SE)= 76.73 (12" CPDP)

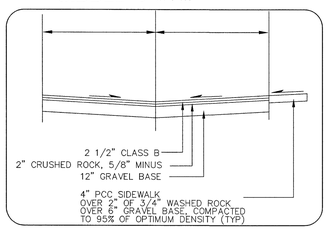
SDCB #30 TYPE 1
RIM EL= 68.05
IE IN (W)= 65.05 (12" CPDP)
IE IN (E)= 62.74 (12" CPDP)
IE OUT (S)= 60.44 (12" CPDP)

SDCB# 31
RIM EL= 47.94
IE IN (N)= 44.51 (8" PVC)
IE IN (W)= 44.18 (12" CPDP)
IE OUT (E)= 44.18 (12" CPDP)

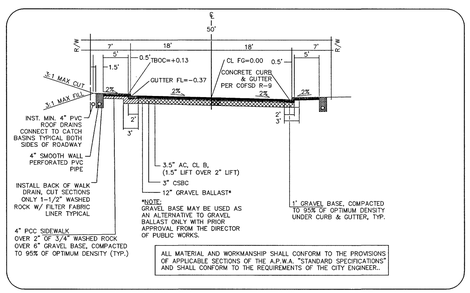


NTS

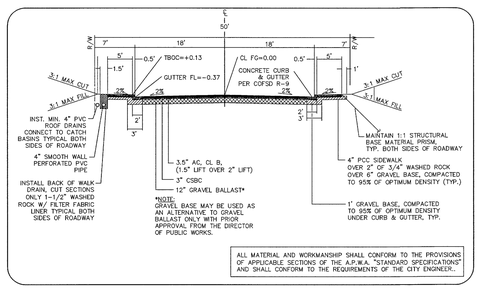
TYPICAL ROADWAY SECTION (EXISTING COND)
SIDDLE DRIVE



TYPICAL DRIVEWAY SECTION
NTS



TYPICAL ROADWAY SECTION (PROPOSED)
SIDDLE DRIVE (STA 0+00 TO 3+00)
NTS



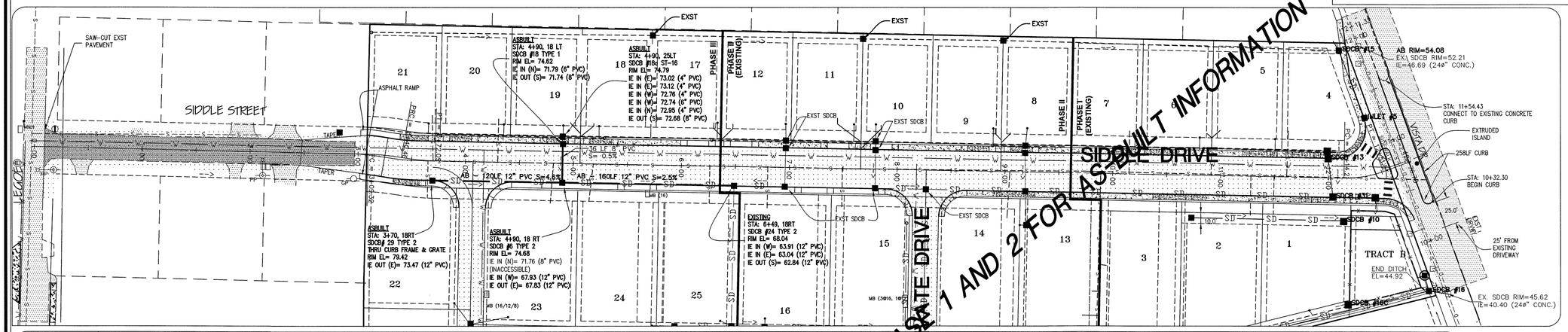
TYPICAL ROADWAY SECTION (PROPOSED)
SIDDLE DRIVE (STA 3+00 TO END)
NTS

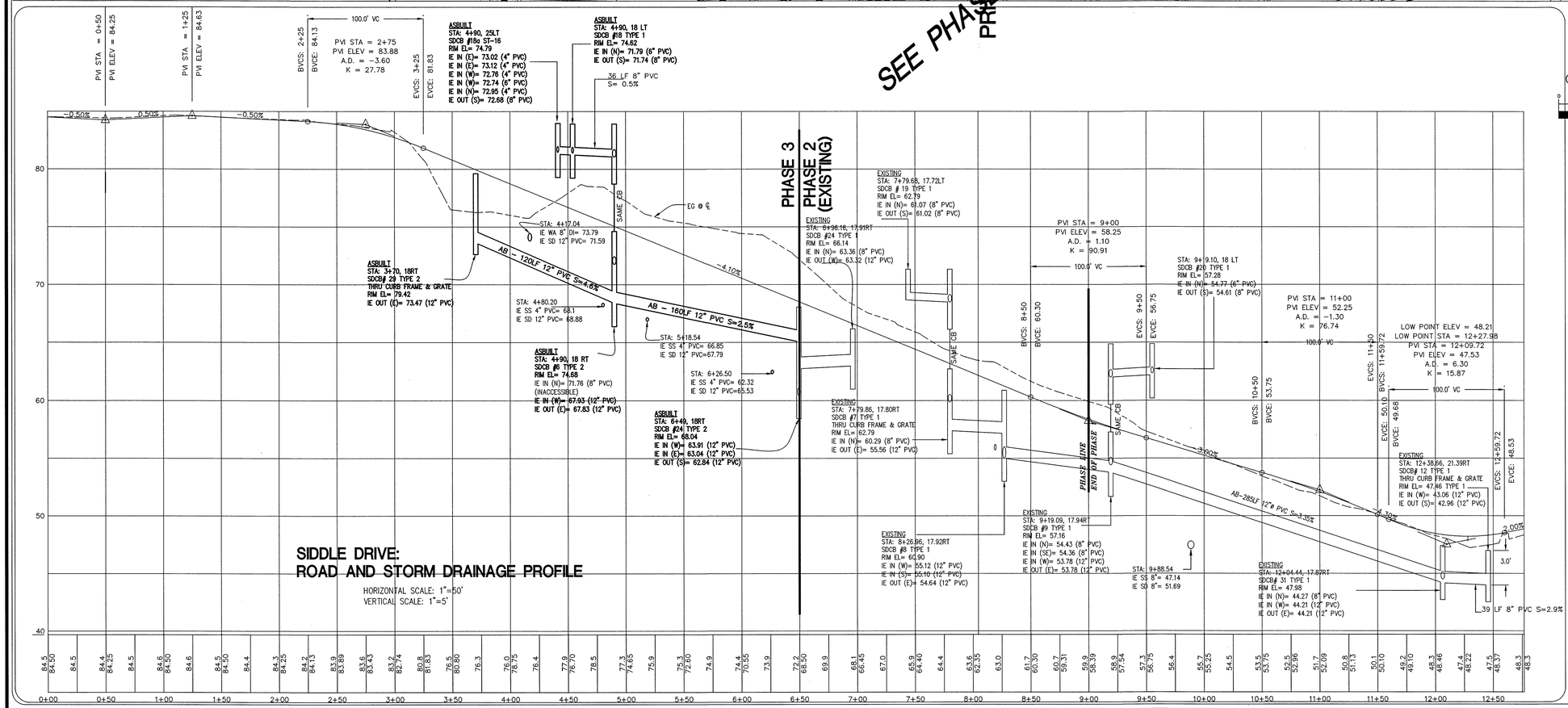
00593.018 2/19/16 SH

	VISTA MEADOWS LONG PLAT			LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* COMPOSITE UTILITY PLAN AS-BUILT PHASE 2		SHEET 18 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE						

STREET PLAN & PROFILE

JOB # 4603





GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

CITY OF FERNDALE ROUNDABOUT PROJECT
BENCHMARK:
R&E: 119.81 (STK 104)
LDES= 46.18

LEGEND

- = EXISTING CATCH BASIN
- = CATCH BASIN
- = EXIST STORM DRAIN LINE
- = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRN PIPE
- = ROOF/YARD STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = DRIVEWAY

00593.019 2/19/16 SH

VISTA MEADOWS LONG PLAT

JOB # 04603

FOR: DAVID BRAITHWAITE

APPROVED
JAN 28 2016
BY _____ CITY OF FERNDALE

RAMON LLANOS — EXPIRES 10/10/2016 — PROFESSIONAL ENGINEER
7-24-13

LDES, INC.
5160 INDUSTRIAL PL #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

VISTA MEADOWS LONG PLAT

STREET & STORMDRAIN PLAN & PROFILE
SIDDLE DRIVE
AS-BUILT PHASE 3

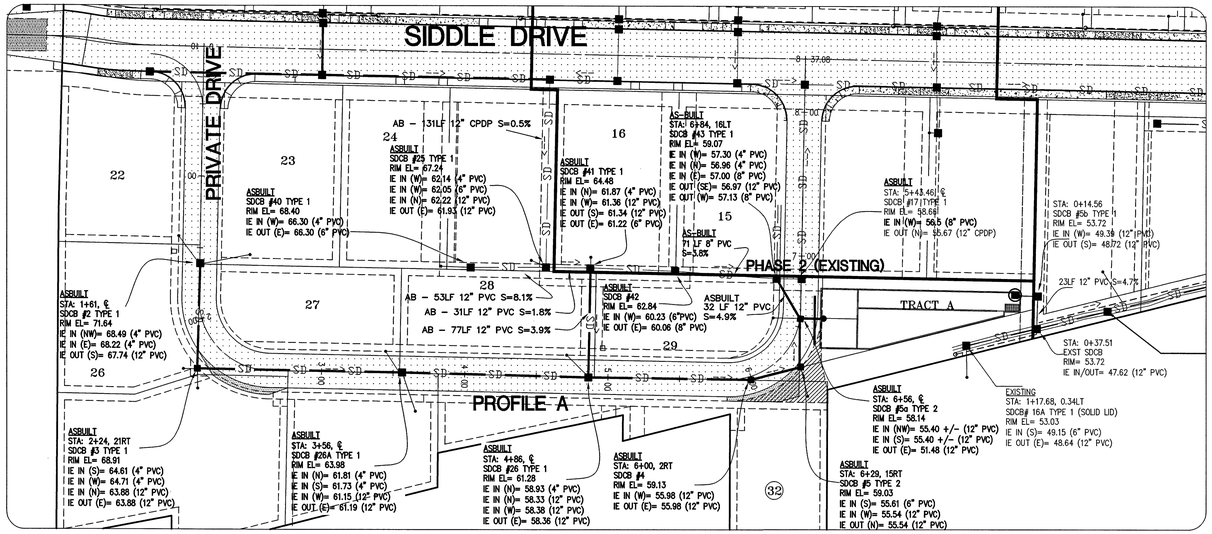
REVISIONS - COMMENTS

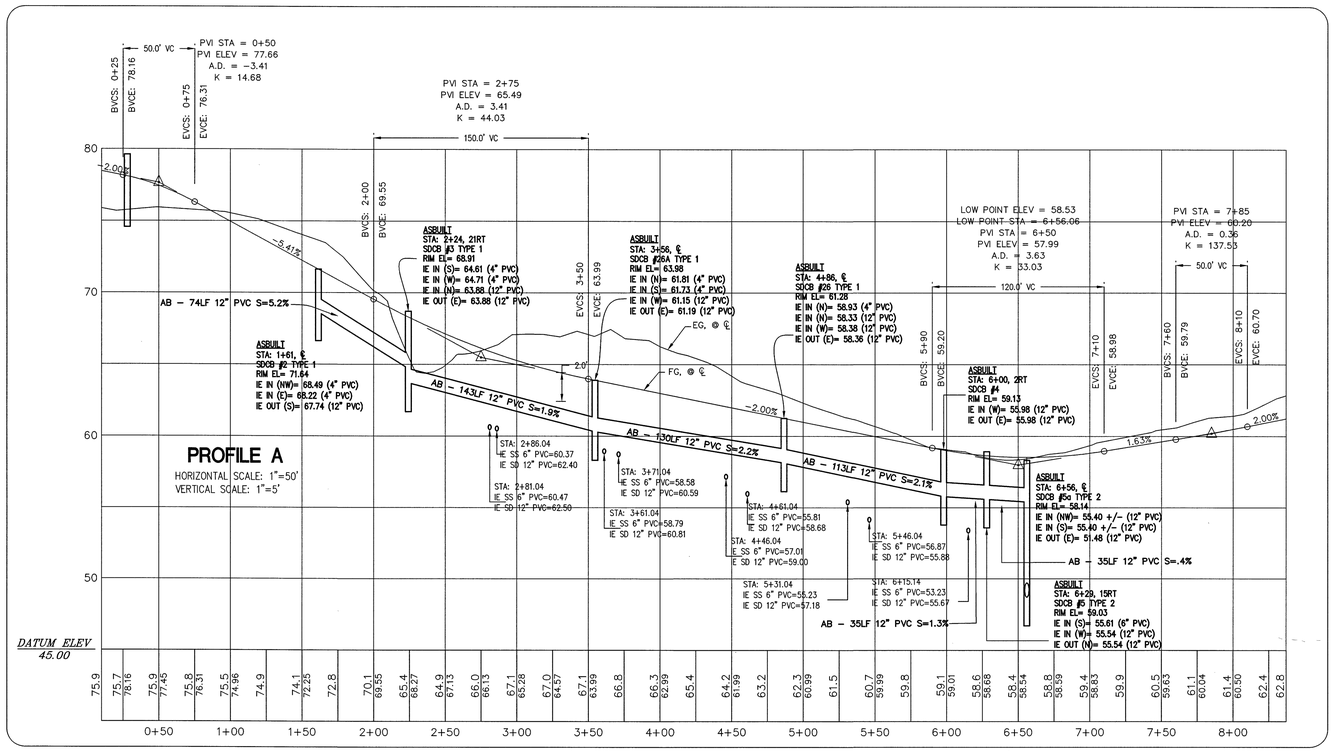
SHEET 19 OF 32

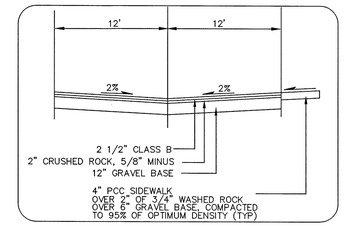
STREET PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.







PRIVATE DRIVE/PARKING CROSS SECTION N.T.S.

NOTE: ALL SD CATCHBASIN TO BE TYPE 1, U.N.O.

LEGEND

- □ = EXISTING CATCH BASIN
- ■ = CATCH BASIN
- —D— = EXIST STORM DRAIN LINE
- —SD— = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS–N12 DRAIN PIPE
- = ROOF/YARD STUB
- = OUTFALL RIPRAP
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- DRIVEWAY = DRIVEWAY

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

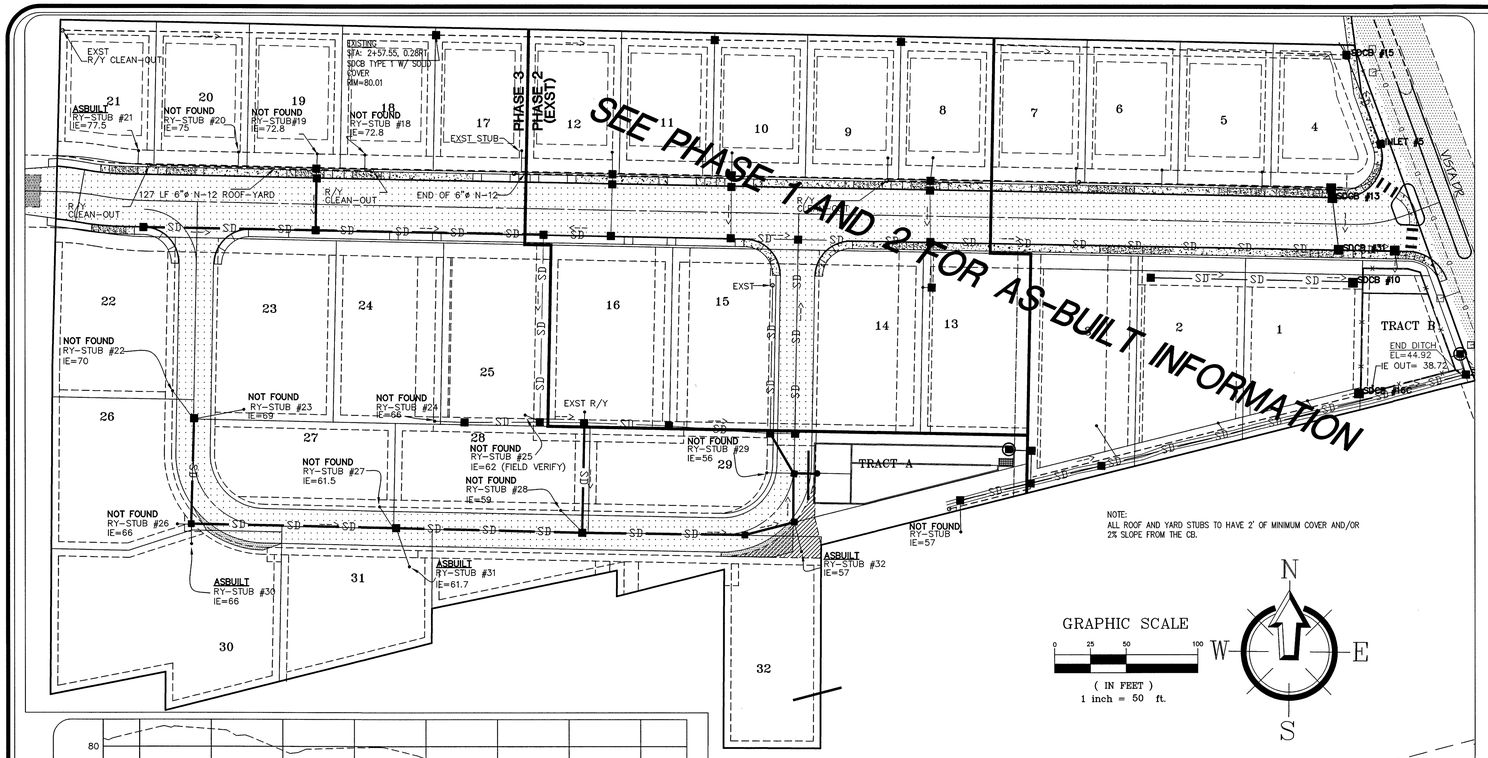
00593.020 2/19/16 SH

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* STREET & STORMDRAIN PLAN & PROFILE PRIVATE DRIVEWAY AS-BUILT PHASE 3	REVISIONS - COMMENTS
JOB # 04603	FOR: DAVID BRAITHWAITE	RAMON LANOS EXPIRES 7-24-13			SHEET 20 OF 32

ROOF AND YARD DRAIN PLAN

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.



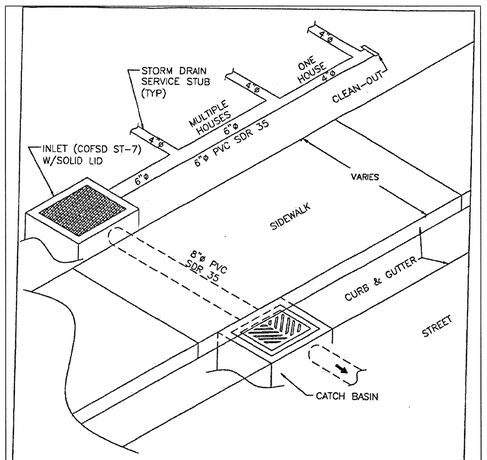
NOTE:
ALL ROOF AND YARD STUBS TO HAVE 2' OF MINIMUM COVER AND/OR 2% SLOPE FROM THE CB.

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

LEGEND

- = EXISTING CATCH BASIN
- = CATCH BASIN
- —D— = EXIST STORM DRAIN LINE
- —SD— = CORRUGATED PLASTIC DRAIN PIPE (CPDP)
- = ADS-N12 DRAIN PIPE (UNO)
- = ROOF/YARD STUB
- = BUILDING ENVELOPE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE
- = RETAINING WALL

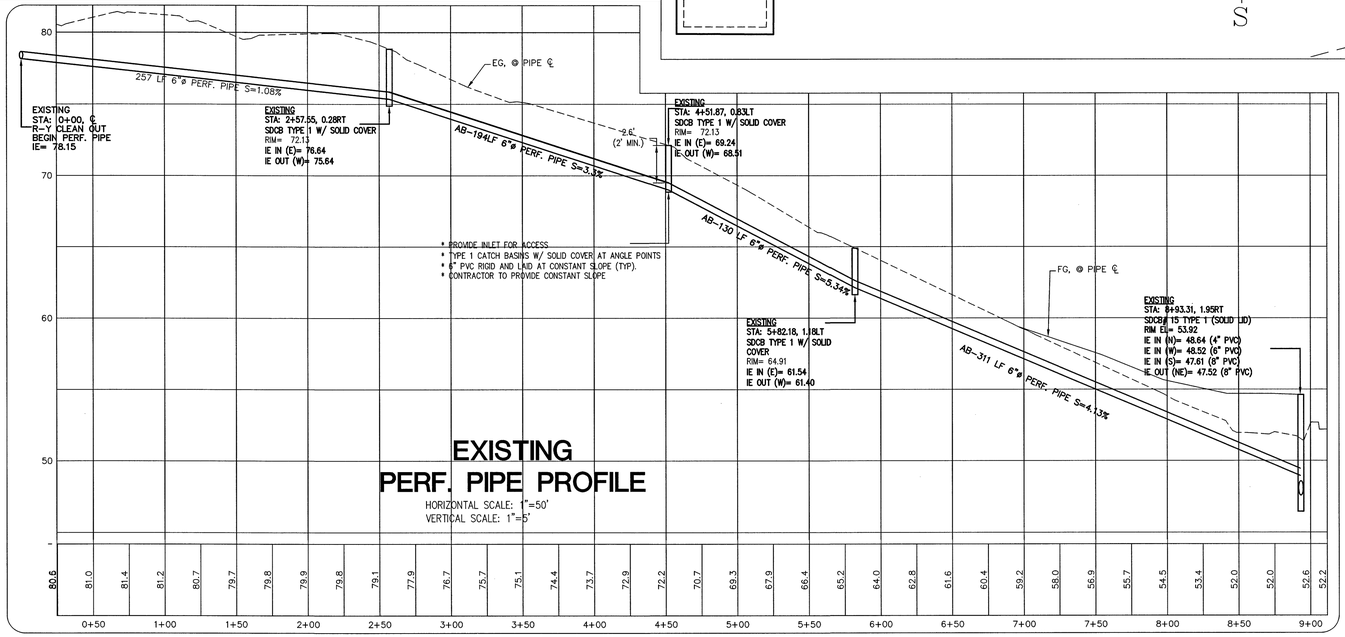


NOTES:
1. ENGINEER SHALL DESIGN ALL STORM DRAIN SERVICE STUB INVERT ELEVATIONS TO FACILITATE 2% SLOPE FROM 2' BELOW THE LOWEST POINT OF THE BUILDING ENVELOPE.
2. STORM DRAIN SERVICE STUB SHALL BE 4" WHITE PVC PIPE ASTM D 3034 SDR 35.
3. TRUNK LINE FOR MULTIPLE RESIDENTIAL STORM DRAIN SERVICE STUBS SHALL BE 6" WHITE PVC PIPE CONNECTED TO COFSD ST-7 INLET.
4. EACH COFSD ST-7 INLET SHALL BE CONNECTED TO A NEARBY TYPE 1, TYPE 1L OR TYPE 2 CATCH BASIN WITH 8" WHITE PVC PIPE.
5. EACH STORM DRAIN SERVICE STUB SHALL BE CAPPED WITH WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. WHITE PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" STENCILED WITH THE WORD "DRAIN" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

April 11, 2012

APPROVED
Public Works Director — Date

POSITIVE LOT DRAIN
STANDARD DETAIL ST-16
NOT TO SCALE



EXISTING PERF. PIPE PROFILE

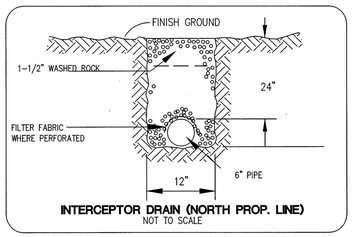
HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

ROOF AND YARD DRAIN DESCRIPTION

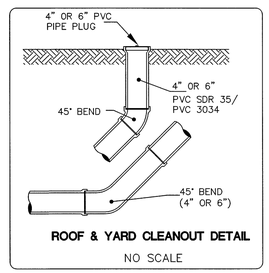
RY-#1 TO #13 — 11 LF 4" PVC PIPE
RY-#15 — 15 LF 4" PVC PIPE
RY-#16 — 15 LF 4" PVC PIPE
RY-#17 — 15 LF 4" PVC PIPE

PHASE 3

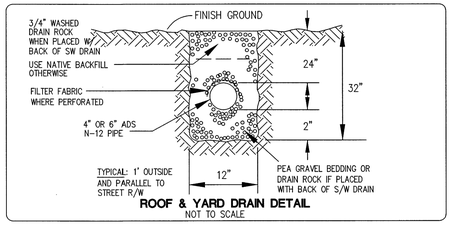
RY-#18-20 — 11 LF 4" PVC PIPE
RY-#22 — 25LF 4" PVC PIPE
RY-#23 — 36LF 4" PVC PIPE
RY-#24 — 5LF 4" PVC PIPE
RY-#25 — 12LF 4" PVC PIPE
RY-#26 — 10LF 4" PVC PIPE
RY-#27 — 18LF 4" PVC PIPE
RY-#28 — 22LF 4" PVC PIPE
RY-#29 — 19LF 4" PVC PIPE
ASBUILT RY-#30 — 14LF 4" PVC PIPE
ASBUILT RY-#31 — 29LF 4" PVC PIPE
ASBUILT RY-#32 — 21LF 4" PVC PIPE
RY-NEIGHBORS — 29LF 4" PVC PIPE
ASBUILT RY-#21 — 9LF 4" PVC PIPE



INTERCEPTOR DRAIN (NORTH PROP. LINE)
NOT TO SCALE



ROOF & YARD CLEANOUT DETAIL
NO SCALE



ROOF & YARD DRAIN DETAIL
NOT TO SCALE

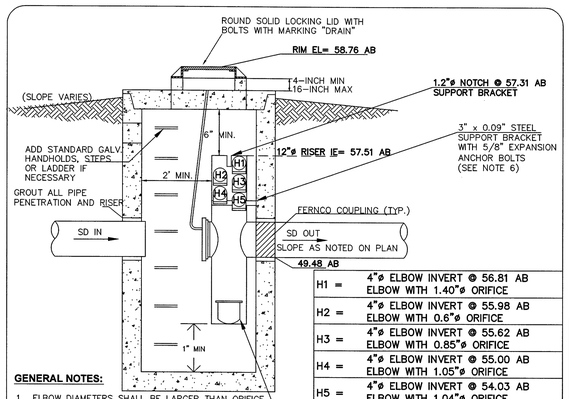
00593.021 2/19/16 SH

JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	RAMON LLANOS PROFESSIONAL ENGINEER 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* ROOF AND YARD DRAIN AS-BUILT PHASE 3

REVISIONS - COMMENTS

SHEET 21 OF 32

WEST BASIN CONTROL STRUCTURE

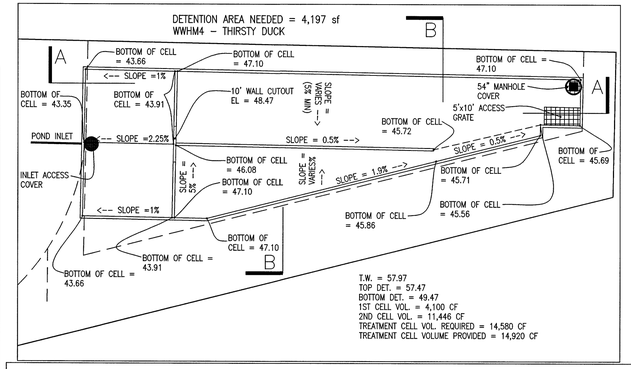


H1 =	4"ø ELBOW INVERT @ 56.81 AB ELBOW WITH 1.40"ø ORIFICE
H2 =	4"ø ELBOW INVERT @ 55.98 AB ELBOW WITH 0.6"ø ORIFICE
H3 =	4"ø ELBOW INVERT @ 55.62 AB ELBOW WITH 0.85"ø ORIFICE
H4 =	4"ø ELBOW INVERT @ 55.00 AB ELBOW WITH 1.05"ø ORIFICE
H5 =	4"ø ELBOW INVERT @ 54.03 AB ELBOW WITH 1.04"ø ORIFICE

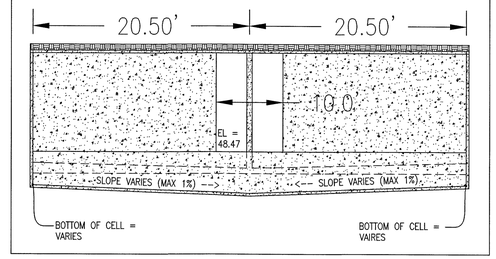
GENERAL NOTES:

1. ELBOW DIAMETERS SHALL BE LARGER THAN ORIFICE DIAMETERS, TYPICAL.
2. ALL PARTS SHALL BE STAINLESS STEEL, ALUMINUM, OR ALUMINIZED STEEL.
3. OFFSET FRAME AND LADDER OR STEPS SO CLEANOUT GATE IS VISIBLE FROM TOP AND SO CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
5. USE EX. MANHOLE AS FEASIBLE AND INSTALL NEW INLET PIPE AND OUTLET CONTROL STRUCTURE.
6. THE PIPE SUPPORTS AND THE RESTRICTOR/SEPARATOR SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND BE ANCHORED AT A MAXIMUM SPACING OF 36 INCHES. ATTACHED THE PIPE SUPPORTS TO THE MANHOLE WITH 5/8 INCH STAINLESS STEEL EXPANSION BOLTS OR EMBED THE SUPPORTS INTO THE MANHOLE WALL 2 INCHES.

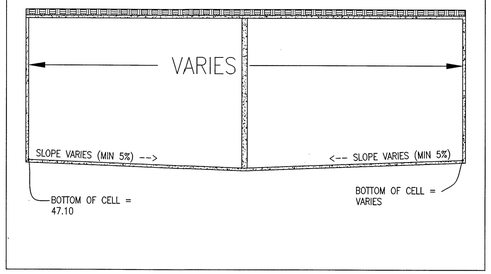
SD CONTROL STRUCTURE 54" - NTS



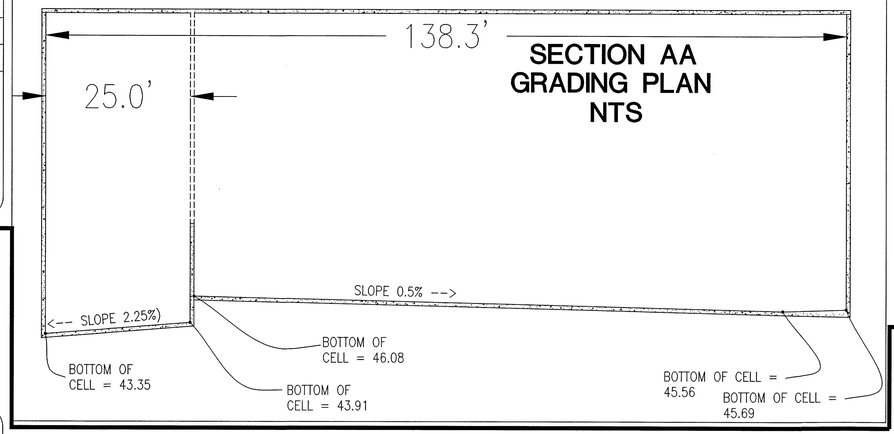
SECTION BB - WEST CELL GRADING PLAN NTS



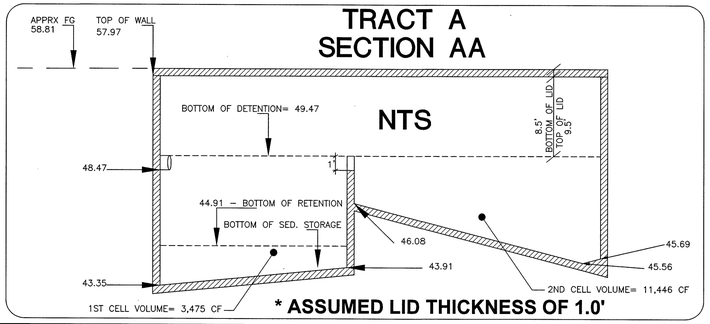
SECTION BB - EAST CELL GRADING PLAN NTS



SECTION AA GRADING PLAN NTS



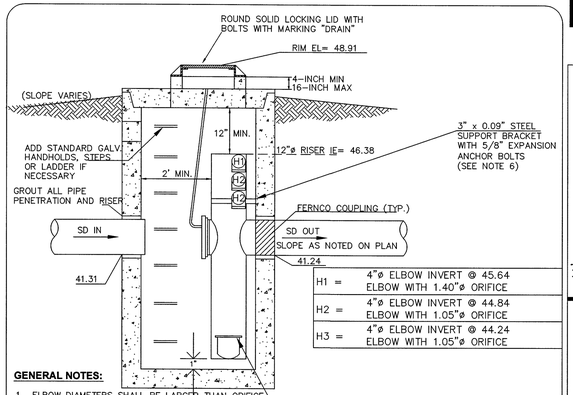
TRACT A SECTION AA NTS



*** ASSUMED LID THICKNESS OF 1.0'**

*** EAST BASIN CONTROL STRUCTURE RISER WILL NEED TO BE MODIFIED TO MATCH THE NEW DESIGN. SEE DETAIL TO THE RIGHT FOR THE CURRENT CONFIGURATION**

EAST BASIN CONTROL STRUCTURE NEW CONFIGURATION



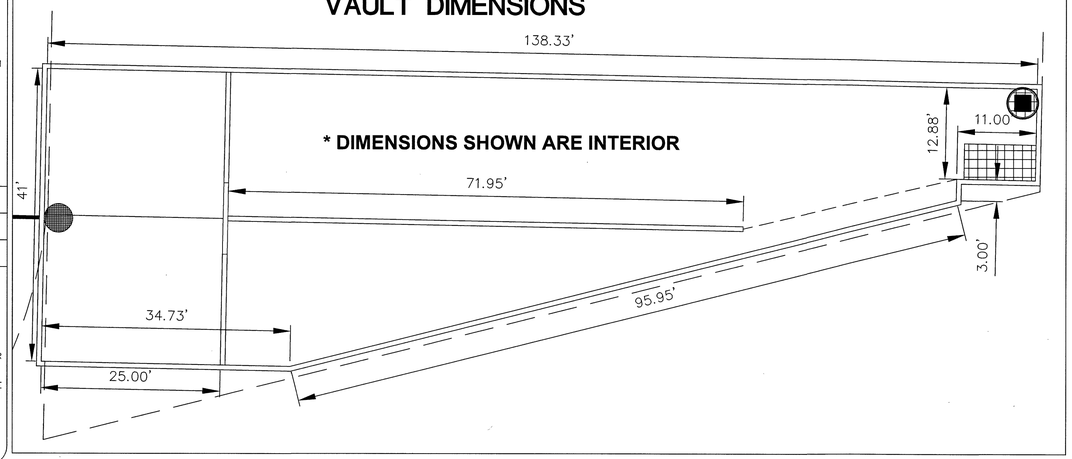
H1 =	4"ø ELBOW INVERT @ 45.64 ELBOW WITH 1.40"ø ORIFICE
H2 =	4"ø ELBOW INVERT @ 44.84 ELBOW WITH 1.05"ø ORIFICE
H3 =	4"ø ELBOW INVERT @ 44.24 ELBOW WITH 1.05"ø ORIFICE

GENERAL NOTES:

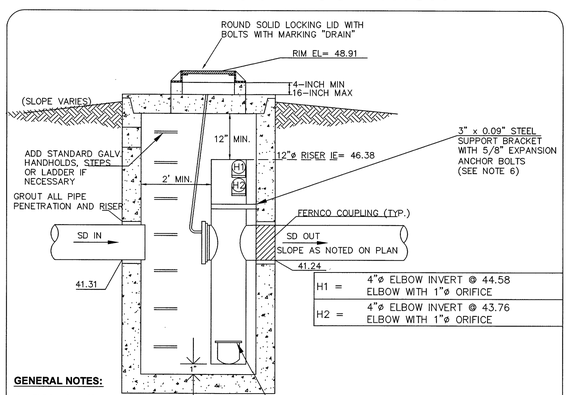
1. ELBOW DIAMETERS SHALL BE LARGER THAN ORIFICE DIAMETERS, TYPICAL.
2. ALL PARTS SHALL BE STAINLESS STEEL, ALUMINUM, OR ALUMINIZED STEEL.
3. OFFSET FRAME AND LADDER OR STEPS SO CLEANOUT GATE IS VISIBLE FROM TOP AND SO CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
5. USE EX. MANHOLE AS FEASIBLE AND INSTALL NEW INLET PIPE AND OUTLET CONTROL STRUCTURE.
6. THE PIPE SUPPORTS AND THE RESTRICTOR/SEPARATOR SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND BE ANCHORED AT A MAXIMUM SPACING OF 36 INCHES. ATTACHED THE PIPE SUPPORTS TO THE MANHOLE WITH 5/8 INCH STAINLESS STEEL EXPANSION BOLTS OR EMBED THE SUPPORTS INTO THE MANHOLE WALL 2 INCHES.

SD CONTROL STRUCTURE 48" - NTS

VAULT DIMENSIONS



EAST BASIN CONTROL STRUCTURE CURRENT CONFIGURATION



H1 =	4"ø ELBOW INVERT @ 44.58 ELBOW WITH 1"ø ORIFICE
H2 =	4"ø ELBOW INVERT @ 43.76 ELBOW WITH 1"ø ORIFICE

GENERAL NOTES:

1. ELBOW DIAMETERS SHALL BE LARGER THAN ORIFICE DIAMETERS, TYPICAL.
2. ALL PARTS SHALL BE STAINLESS STEEL, ALUMINUM, OR ALUMINIZED STEEL.
3. OFFSET FRAME AND LADDER OR STEPS SO CLEANOUT GATE IS VISIBLE FROM TOP AND SO CLIMB-DOWN SPACE IS CLEAR OF RISER AND CLEANOUT GATE.
4. LOCATE ELBOW RESTRICTOR(S) AS NECESSARY TO PROVIDE MINIMUM CLEARANCE AS SHOWN.
5. USE EX. MANHOLE AS FEASIBLE AND INSTALL NEW INLET PIPE AND OUTLET CONTROL STRUCTURE.
6. THE PIPE SUPPORTS AND THE RESTRICTOR/SEPARATOR SHALL BE CONSTRUCTED OF THE SAME MATERIAL AND BE ANCHORED AT A MAXIMUM SPACING OF 36 INCHES. ATTACHED THE PIPE SUPPORTS TO THE MANHOLE WITH 5/8 INCH STAINLESS STEEL EXPANSION BOLTS OR EMBED THE SUPPORTS INTO THE MANHOLE WALL 2 INCHES.

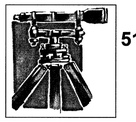
SD CONTROL STRUCTURE 48" - NTS

VISTA MEADOWS LONG PLAT

JOB # 04603 | **FOR:** DAVID BRAITHWAITE

APPROVED
JAN 28 2016
BY
CITY OF FERNDALE

RAMON LLANOS — STATE OF WASHINGTON — 22000 — REGISTERED PROFESSIONAL ENGINEER
7-14-15



LDES, INC.
5160 INDUSTRIAL PL #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

VISTA MEADOWS LONG PLAT
CONTROL STRUCTURE
AS-BUILT PHASE 3

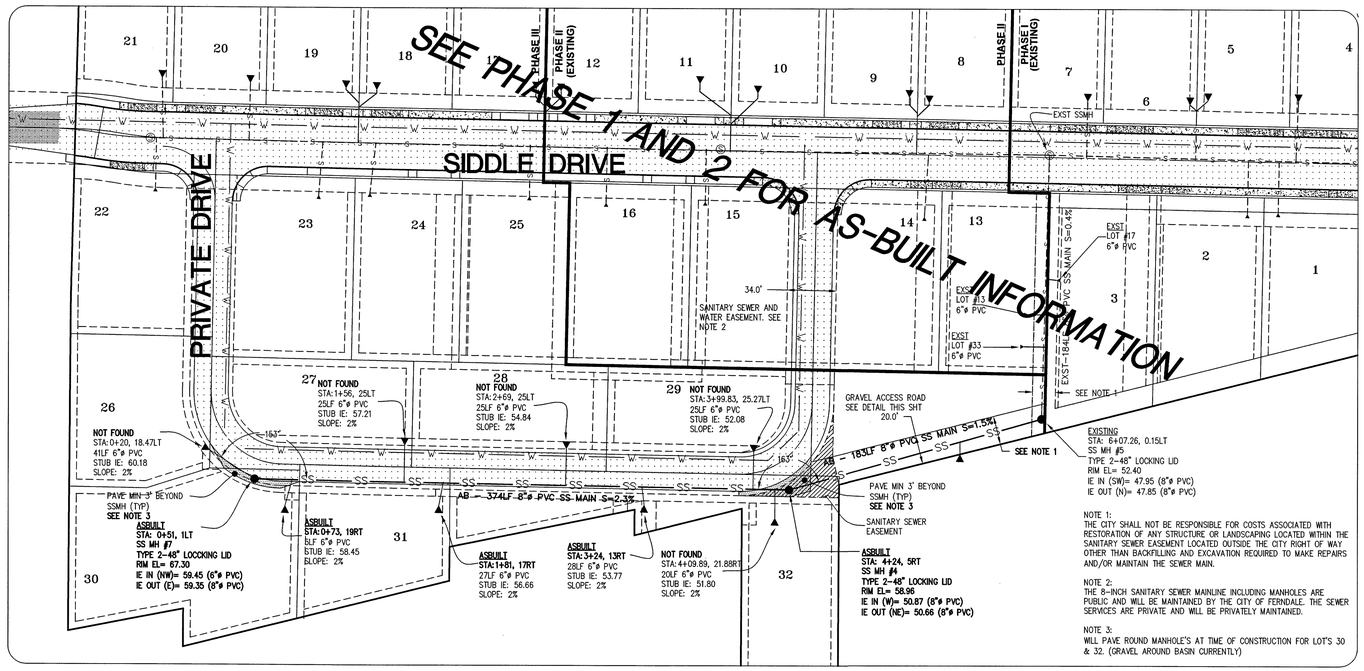
REVISIONS - COMMENTS

SHEET 22 OF 32

00593.022 2/19/16 SH

SANITARY SEWER PLAN & PROFILE | JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.

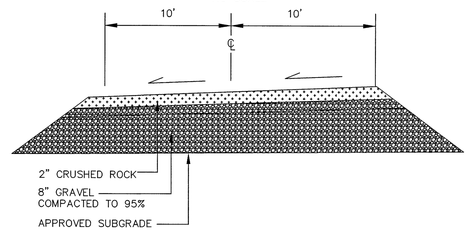


GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

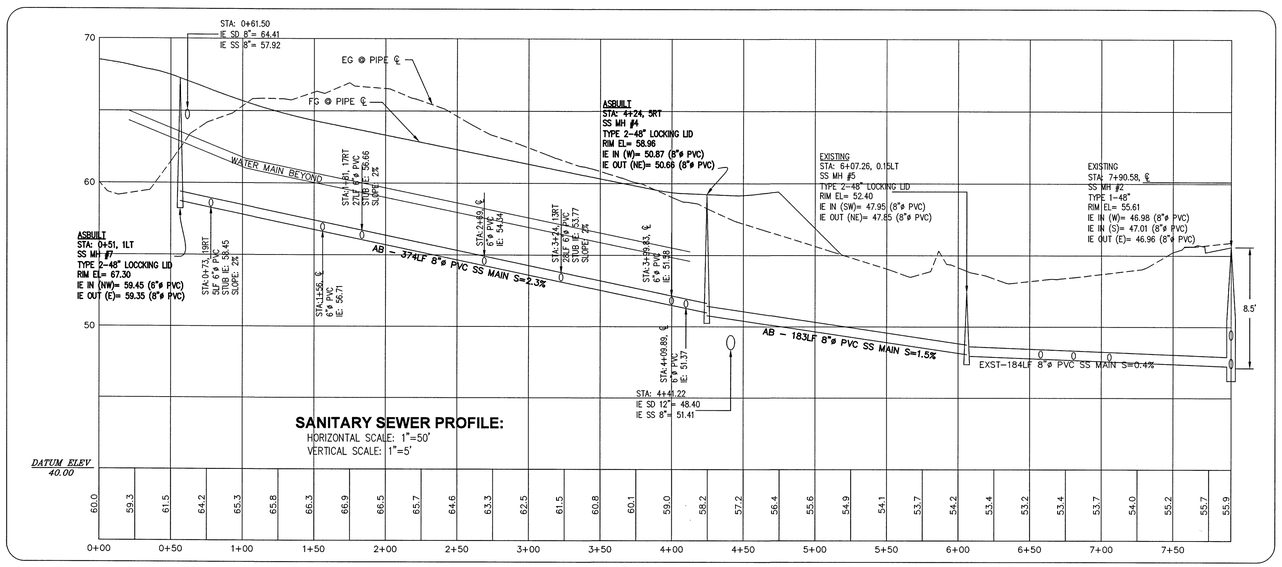
00593.023 2/19/16 SH

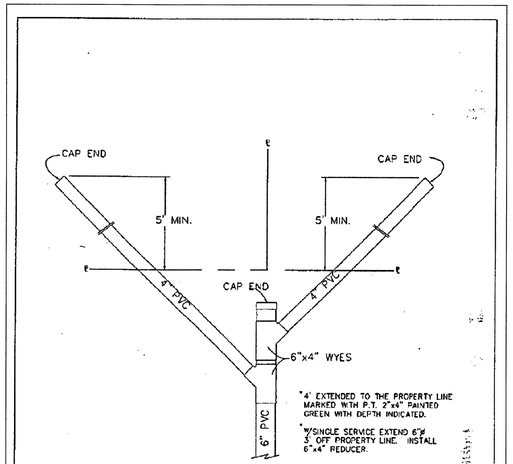
GRAVEL ACCESS ROAD
NO SCALE



LEGEND

- = EXISTING SANITARY SEWER MAIN
- = EXISTING SS MANHOLE
- = SS CLEAN–OUT
- = SS MANHOLE
- = SANITARY SEWER MAIN
- = SANITARY SEWER STUB
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE





SEWER SERVICE DETAIL

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	DOUBLE SANITARY SEWER SERVICE	SS–13

JUNE 1995 2091SE4A/SS–13

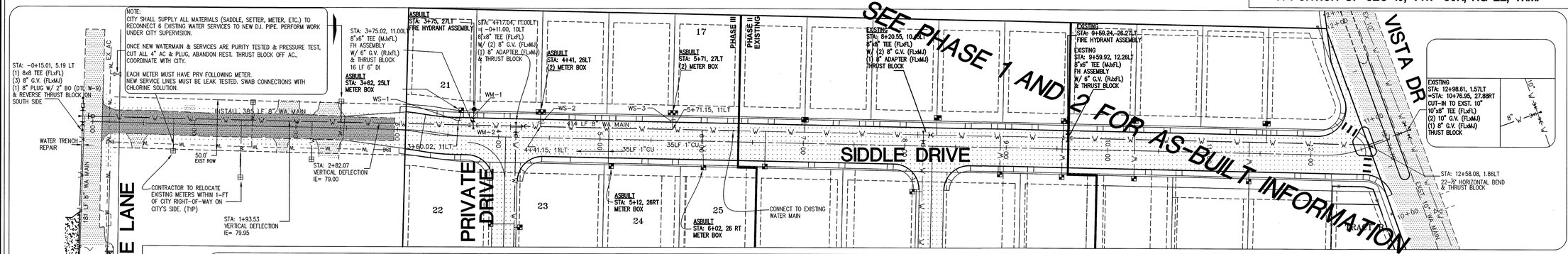
JOB # 04603	**VISTA MEADOWS LONG PLAT** FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON L. ANOS EXPIRES 7-24-13 PROFESSIONAL ENGINEER	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* SANITARY SEWER PLAN AND PROFILE PRIVATE DRIVE AS-BUILT PHASE 3	REVISIONS - COMMENTS

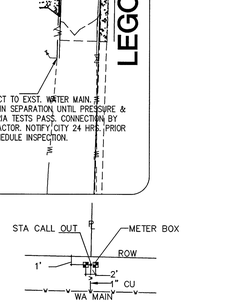
SHEET 23 OF 32

WATER PLAN & PROFILE

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.





TYP. WA SERVICE LOCATION (FOR SINGLE FAMILY)

LEGEND

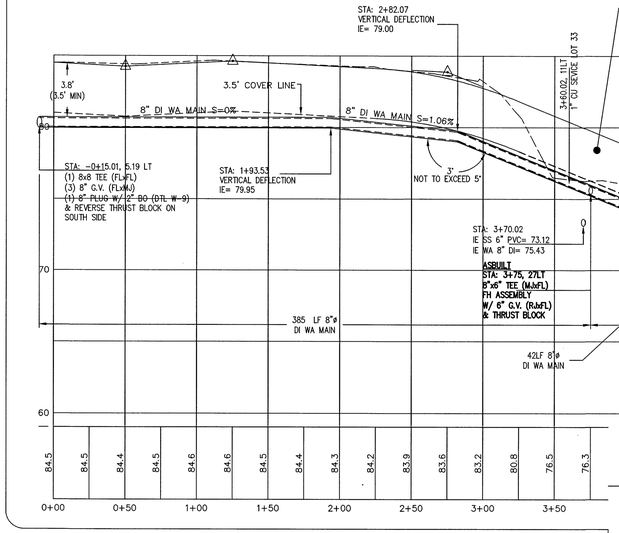
- WL = EXISTING WATER MAIN
- = EXISTING GATE VALVE
- = EXISTING METER BOX
- = METER BOX
- = FIRE HYDRANT
- = GATE VALVE
- W = WATER MAIN
- W = WA SERVICE LINE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE

WATER MAIN DISTRIBUTION

WM-1	WM-2	WM-3
16 LF 6" WATER MAIN	42LF 8" WATER MAIN	16 LF 6" WATER MAIN

WATER SERVICE DISTRIBUTION

WS-1	WS-2 TO WS-5
13 LF 1" COPPER WATER LINE SERVICE	13 LF 1" COPPER WATER LINE SERVICE



NOTE:
INSTALL MEGALUG RJ @ 10"x8" TEE (STA 12+96.08) & @ 22-1/2" BEND (STA 12+58.08)

USE FIELD LOK GASKETS BETWEEN STA 12+58.08 TO 12+98.08

WATER PROFILE: SIDDLE DRIVE

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N W E S

T.O.P.= TOP OF PIPE
IE= PIPE INVERT ELEVATION

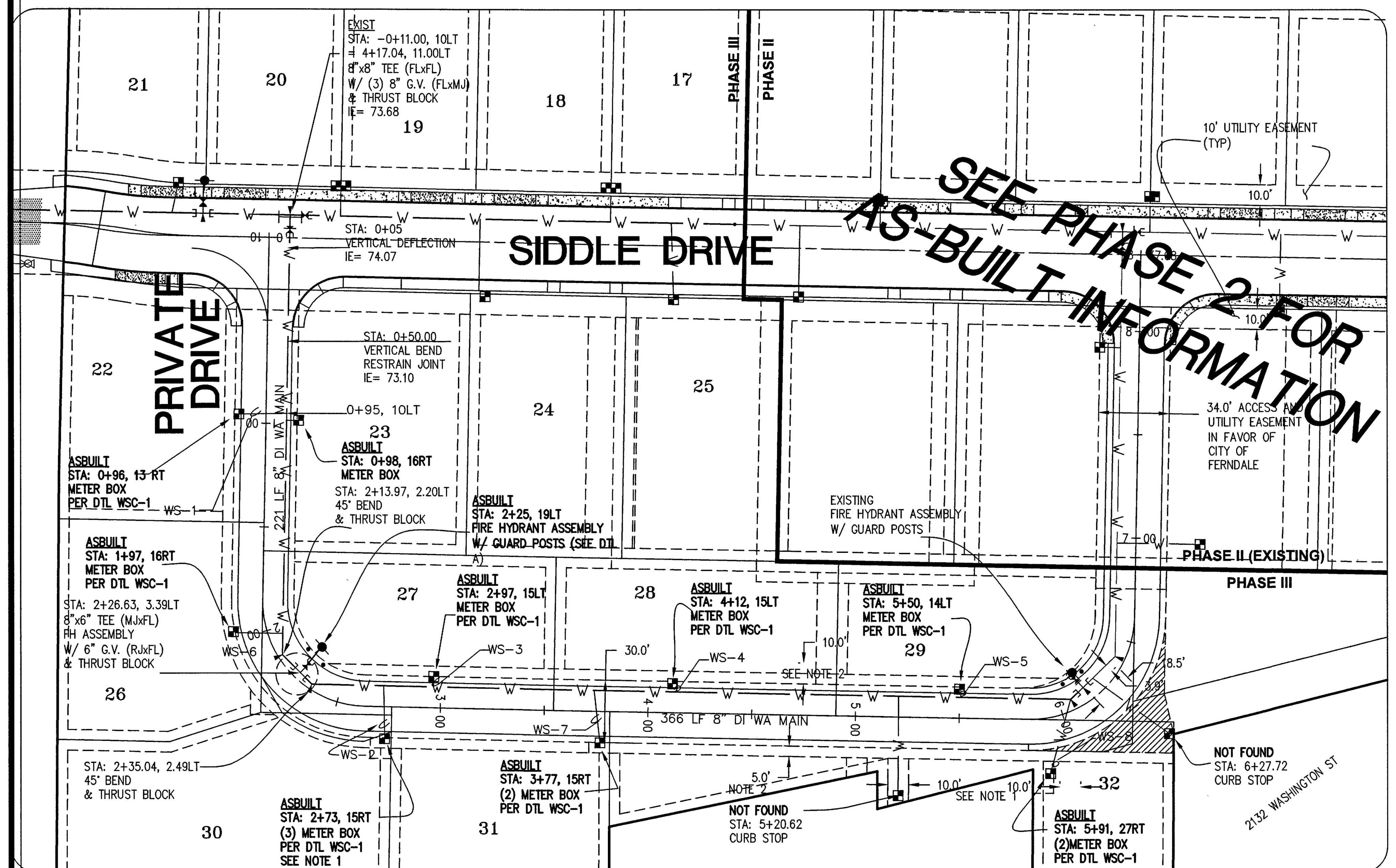
00593.024 2/19/16 SH

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS EXPIRES 10/10/2015 PROFESSIONAL ENGINEER 7-24-15	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* WATER PLAN AND PROFILE: SIDDLE DRIVE AS-BUILT PHASE 3	REVISIONS - COMMENTS
JOB # 04603	FOR: DAVID BRAITHWAITE					SHEET 24 OF 32

WATER PLAN & PROFILE

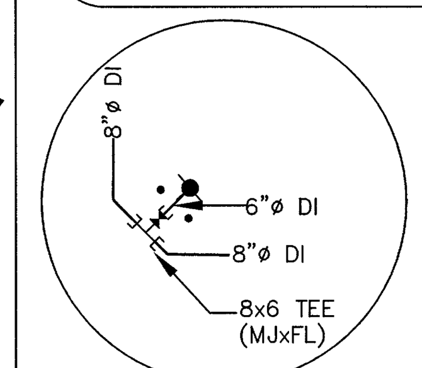
JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.

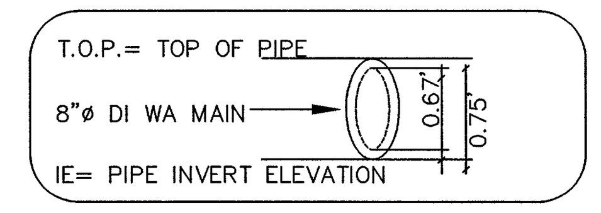


LEGEND

- = EXISTING WATER MAIN
- = EXISTING GATE VALVE
- = EXISTING METER BOX
- = METER BOX
- = FIRE HYDRANT
- = GATE VALVE
- = WATER MAIN
- = WA SERVICE LINE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = EASEMENT LINE

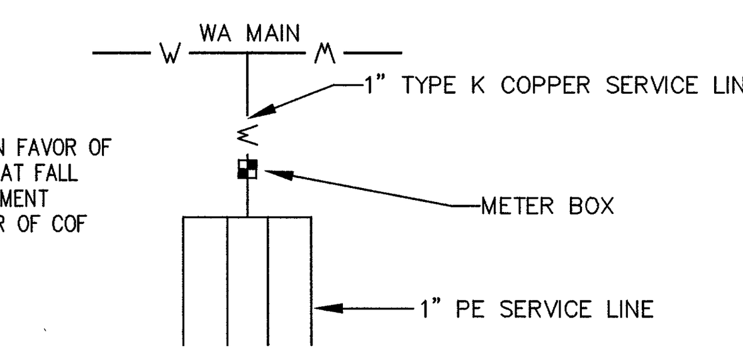


DETAIL A
NTS



PIPE CROSS SECTION
NTS

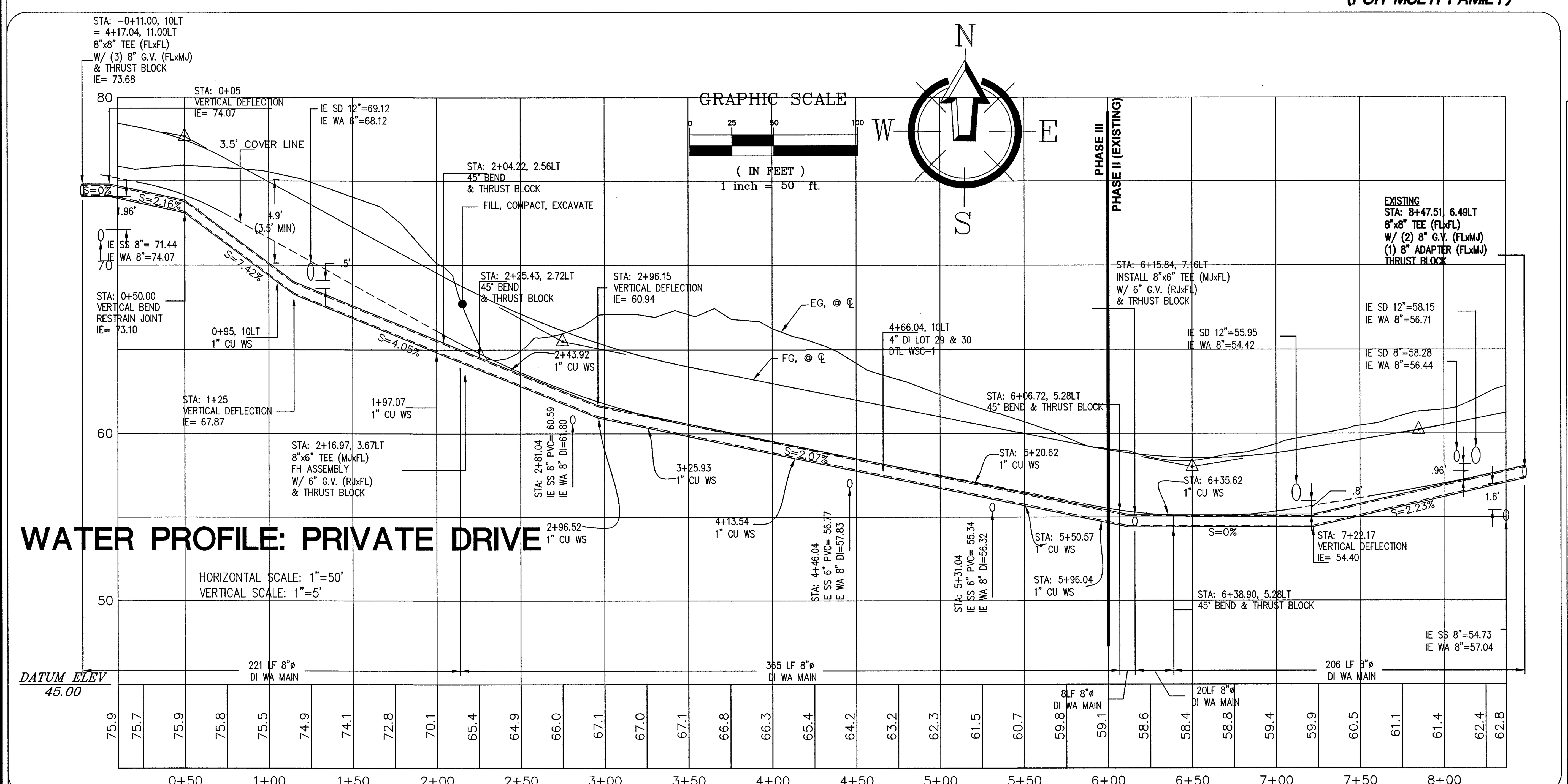
NOTE:
1. PROVIDE 5-FT EASEMENT IN FAVOR OF COF AROUND WATER SERVICES THAT FALL OUTSIDE THE 34-FT UTILITY EASEMENT
2. UTILITY EASEMENT IN FAVOR OF COF



WSC-1 TYP. WA SERVICE CONNECTION (FOR MULTI-FAMILY)

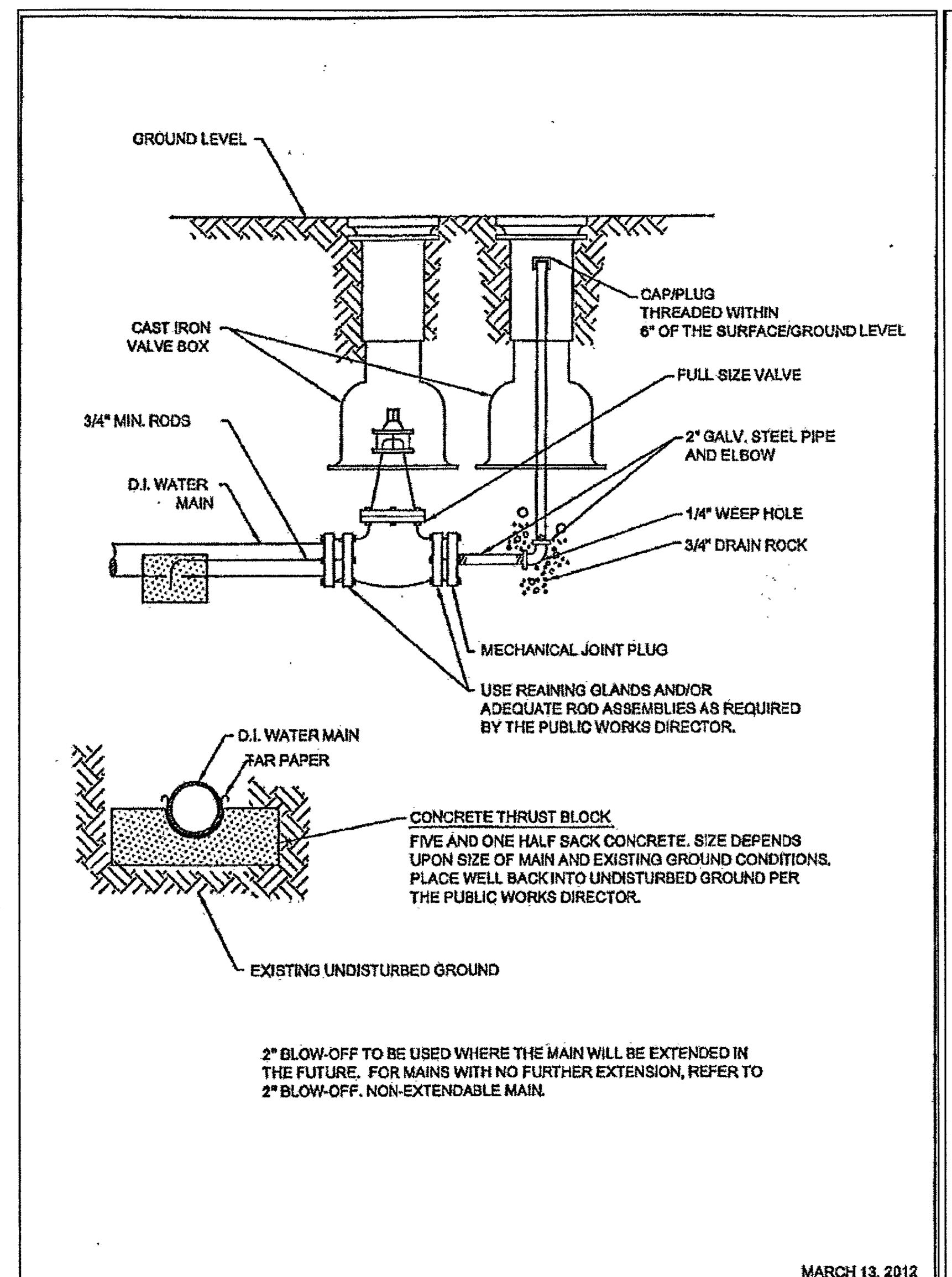
WATER SERVICE DISTRIBUTION

WS-1 25 LF 1" CU WS	WS-2 21LF 1"CU WS	WS-3 5 LF 1"CU WS	WS-4 & 5 INSTALL 5 LF 1"CU WS
WS-6 25 LF 1" CU WS	WS-7 25 LF 1" CU WS	WS-8 40 LF 1" CU WS	



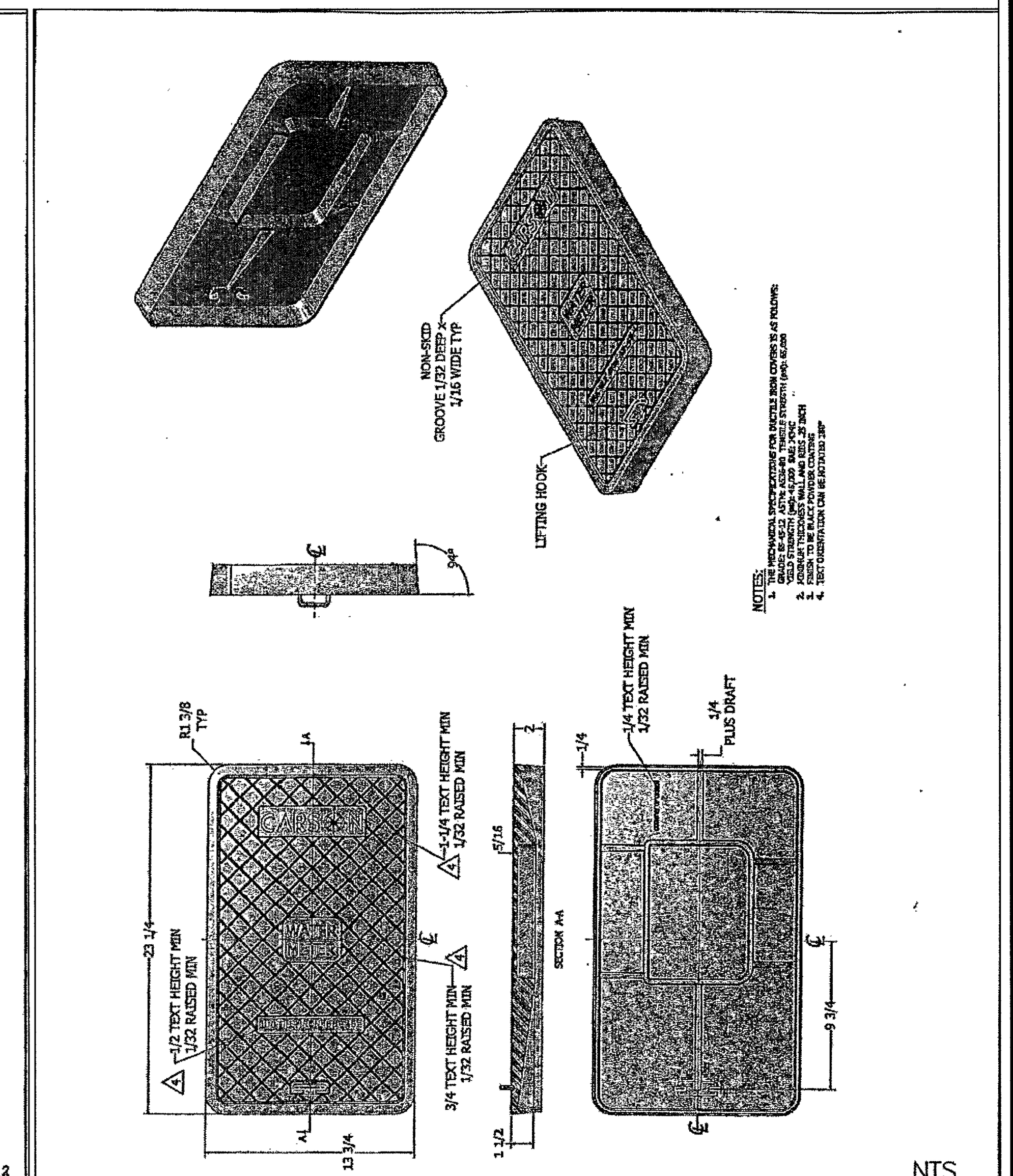
WATER PROFILE: PRIVATE DRIVE

HORIZONTAL SCALE: 1"=50'
VERTICAL SCALE: 1"=5'



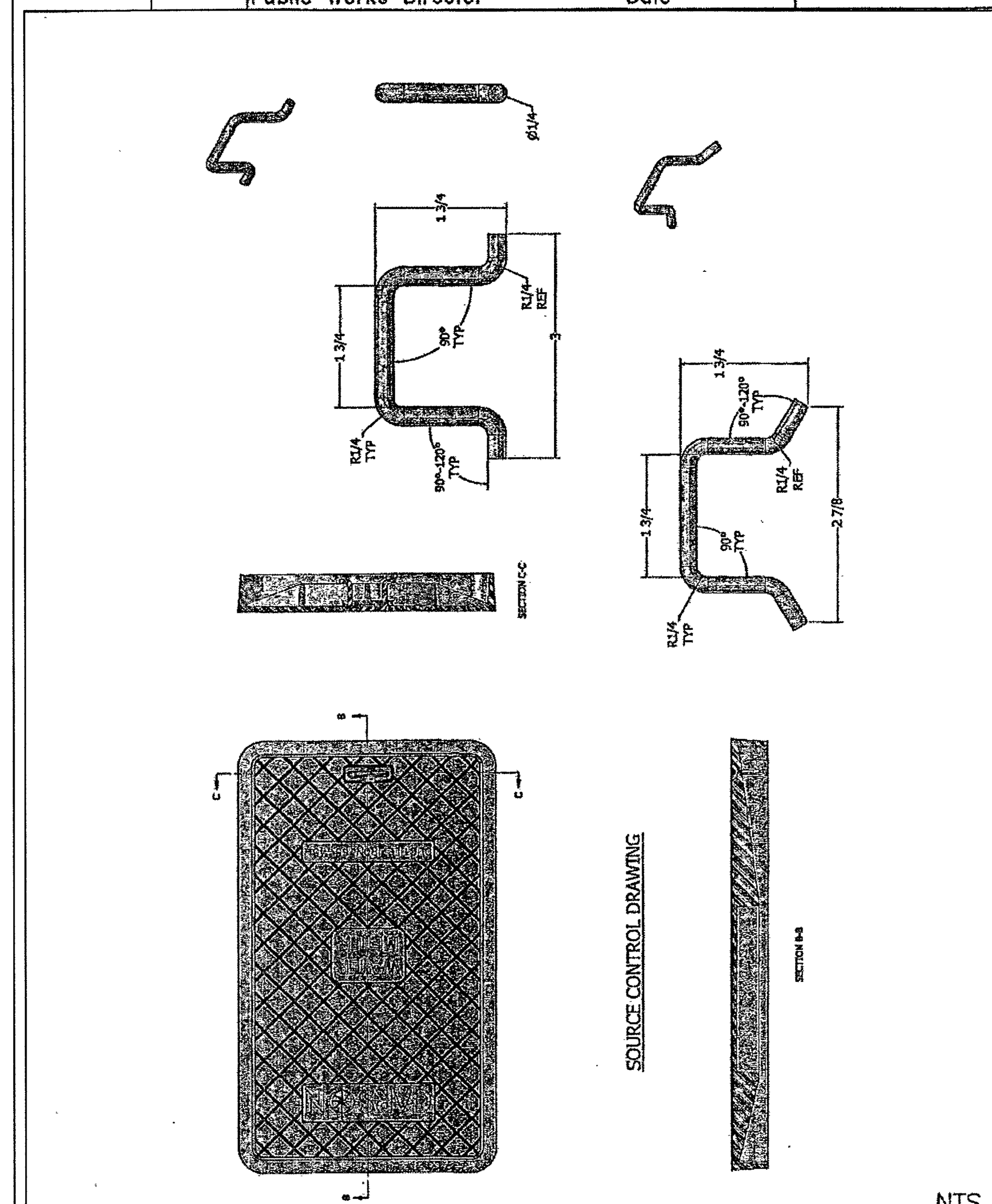
MARCH 13, 2012

APPROVED		2" BLOW-OFF WATER MAIN EXTENSION STANDARD DETAIL W-9
Public Works Director	Date	



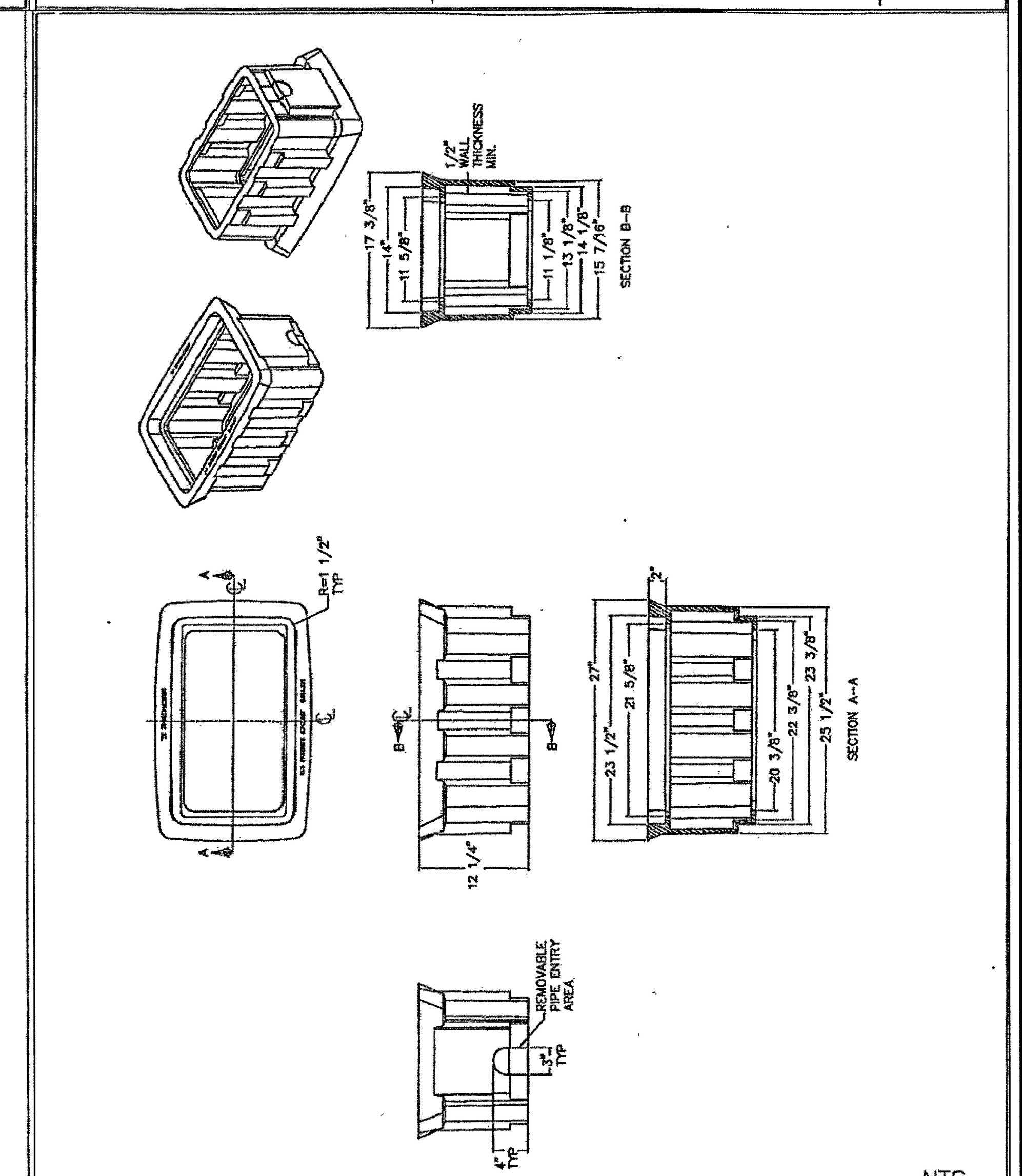
NTS

APPROVED		CITY OF FERNDALE 1" WATER METER	DRAWING W-6.2.1
Public Works Director	Date		



NTS

APPROVED		CITY OF FERNDALE 1" WATER METER	DRAWING W-6.2.2
Public Works Director	Date		



NTS

APPROVED		CITY OF FERNDALE 1" WATER METER	DRAWING W-6.2.3
Public Works Director	Date		

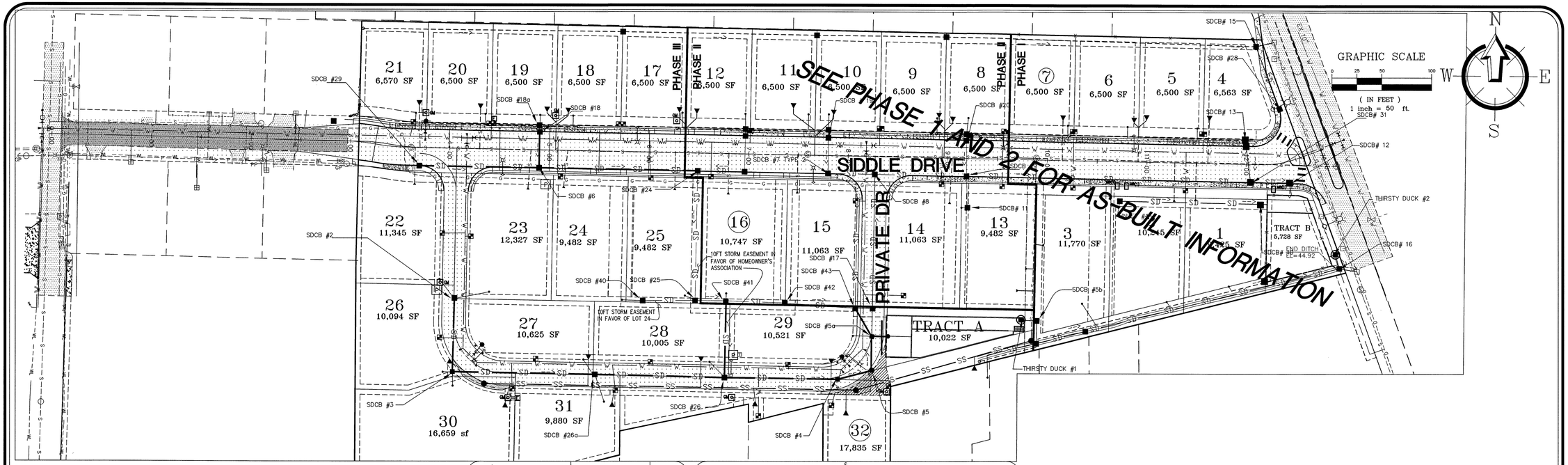
	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE
JOB # 04603	**FOR: DAVID BRAITHWAITE**	

RAMON LLANOS — STATE OF WASHINGTON — 33213 — REGISTERED PROFESSIONAL ENGINEER — 7-24-13

LDES, INC.
5160 INDUSTRIAL PL #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

VISTA MEADOWS LONG PLAT
WATER PLAN AND PROFILE:
PRIVATE DRIVE
AS-BUILT PHASE 3

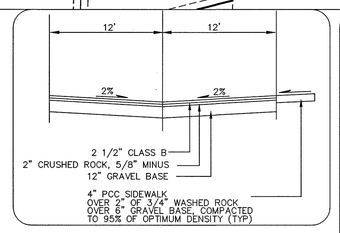
REVISIONS - COMMENTS



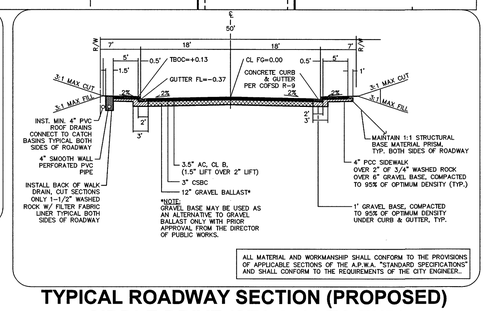
LEGEND

- = EXIST SANITARY SEWER MANHOLE
- = EXIST FIRE HYDRANT
- = EXIST WA METER BOX
- = EXIST WATER VALVE
- = EXIST SD CATCH BASIN
- = EXIST POWER POLE
- = EXIST STREET SIGN
- = EXIST ASPHALT
- = EXIST GRAVEL DRIVEWAY
- = EXIST SANITARY SEWER LINE
- = EXIST STORM DRAIN LINE
- = EXIST CONTOUR (INDEX)
- = EXIST CONTOUR (NORMAL)
- = EXIST CULVERT
- = EXIST DITCHLINE
- = EXIST ROAD EDGE OF PAVEMENT
- = EXIST SURVEY BOUNDARY LINE
- = EXIST EASEMENT LINE
- = EXIST POWER LINE
- = EXIST GAS MAIN
- = EXIST WATER LINE
- = EXIST MAIL BOX
- = EXIST STREET SIGN
- = EXIST LANDSCAPE
- = GAS MARKER
- = POWER VAULT
- = PHONE PEDISTAL
- = POWER JUNCTION BOX

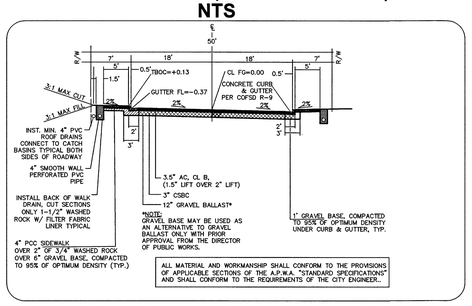
- = STORM DRAIN CATCH BASIN
- = STORM DRAIN CONTROL STRUCTURE
- = STORM DRAIN LINE
- = WATER LINE
- = WATER SERVICE
- = WATER HYDRANT
- = GATE VALVE
- = SAN. SEWER LINE
- = SANITARY SEWER SERVICE
- = SEWER CLEANOUT
- = SEWER MANHOLE
- = 1' CONTOUR
- = 5' CONTOUR
- = BUILDING ENVELOPE
- = ASPHALT ROAD
- = CONC. SIDEWALK
- = LANDSCAPE BUFFER
- = DRIVEWAY
- = EASEMENT LINE
- = POWER LINE
- = STREET LIGHT
- = RETAINING WALL
- = SILT FENCE
- = MAIL BOXES



TYPICAL DRIVEWAY SECTION
NTS



TYPICAL ROADWAY SECTION (PROPOSED)
SIDDLE DRIVE (STA 3+00 TO END)
NTS



TYPICAL ROADWAY SECTION (PROPOSED)
SIDDLE DRIVE (STA 0+00 TO 3+00)
NTS

00593.026 2/19/16 SH

VISTA MEADOWS LONG PLAT

JOB # 04603

FOR: DAVID BRAITHWAITE

APPROVED
JAN 28 2016
BY _____
CITY OF FERNDALE

RAMON LLANOS — STATE OF WASHINGTON — 20020 — REGISTERED PROFESSIONAL ENGINEER
7-24-13

LDES, INC.
5160 INDUSTRIAL PL #108
FERNDALE, WA 98248
PHONE 360-383-0620
FAX 360-383-0639

VISTA MEADOWS LONG PLAT

COMPOSITE UTILITY PLAN

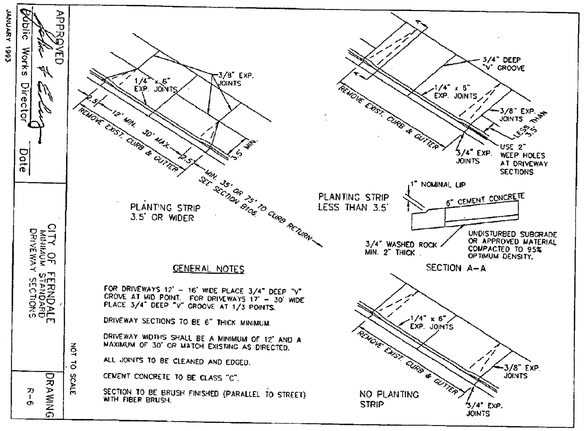
AS-BUILT PHASE 3

REVISIONS - COMMENTS

SHEET 26
OF 32

STREET & STORMDRAIN DETAILS | JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.



GENERAL NOTES

FOR DRIVEWAYS 12' - 16' WIDE PLACE 3/4" DEEP "V" GROVE AT MID POINT. FOR DRIVEWAYS 17' - 30' WIDE PLACE 3/4" DEEP "V" GROOVE AT 1/3 POINTS.

DRIVEWAY SECTIONS TO BE 6" THICK MINIMUM.

DRIVEWAY WIDTHS SHALL BE A MINIMUM OF 12' AND A MAXIMUM OF 30' OR MATCH EXISTING AS DIRECTED.

ALL JOINTS TO BE CLEANED AND EDGED.

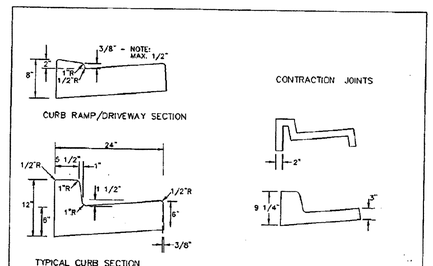
CEMENT CONCRETE TO BE CLASS "C".

SECTION TO BE BRUSH FINISHED (PARALLEL TO STREET) WITH FIBER BRUSH.

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director / Date	CITY STANDARD DRIVEWAY SECTIONS	R-6

JANUARY 1995



GENERAL NOTES:

CONTRACTION JOINTS OF ONE OF THE TYPES SHOWN ABOVE TO BE PLACED 10' C/C. JOINTS MUST COMPLETELY SEVER THE STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MINIMUM 3/16" BITUMINOUS FILLER DUMMY JOINTS. JOINTS SHALL BE CLEANED AND EDGED.

2" WEEP HOLES TO BE PLACED ON EACH SIDE OF DRIVEWAY SECTION AND A MAXIMUM 60' C/C IN CUT SECTIONS WHERE SIDEWALK DRAIN NOT REQUIRED BY CITY PUBLIC WORKS DIRECTOR.

3/4" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS AND COLD JOINTS OR A MAXIMUM OF 80' C/C. EXPANSION JOINTS SHALL PROTRUDE 1" BELOW THE BOTTOM OF GUTTER.

CONCRETE SHALL BE CEMENT CONCRETE CLASS 3000.

FINISHED WORK SHALL NOT VARY MORE THAN 1/8" IN GRADE AND 1/4" IN ALIGNMENT WHEN CHECKED WITH 10' STRAIGHT EDGE.

EXPOSED SURFACES SHALL BE BRUSHED WITH A FIBER BRUSH.

WHITE PIGMENTED OR TRANSPARENT CURING COMPOUND SHALL BE APPLIED AS OUTLINED IN THE STANDARD SPECIFICATIONS.

FURTHER REQUIREMENTS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

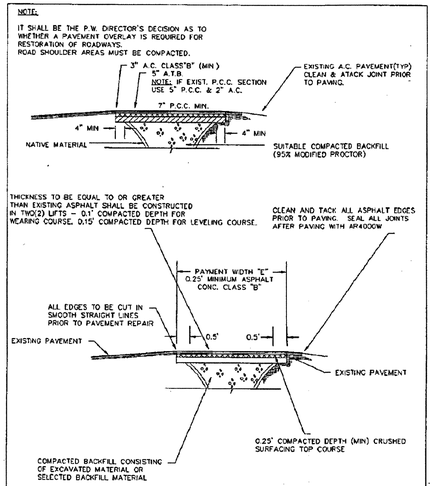
NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director / Date	CURB AND GUTTER	R-9

JUNE 1995 — 2091RD2A/R-9

NOTE:

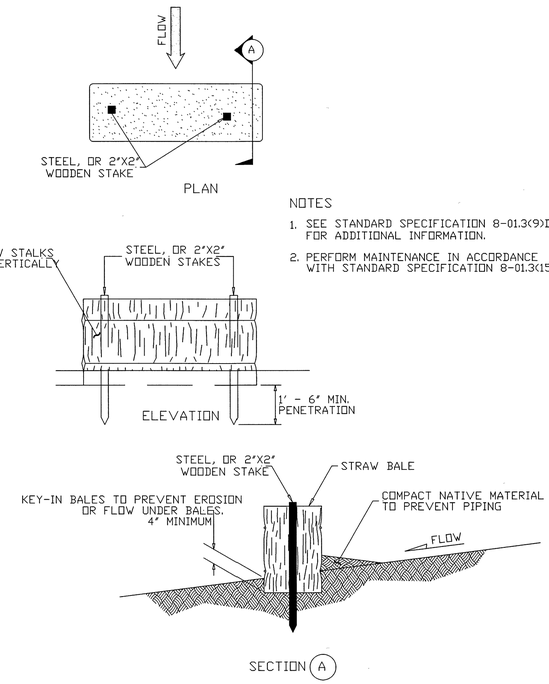
IT SHALL BE THE P.W. DIRECTOR'S DECISION AS TO WHETHER A PAVEMENT OVERLAY IS REQUIRED FOR RESTORATION OF ROADWAYS. ROAD SHOULDER AREAS MUST BE COMPACTED.



NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director / Date	EXISTING ROADWAY RESTORATION REPAIR	R-11

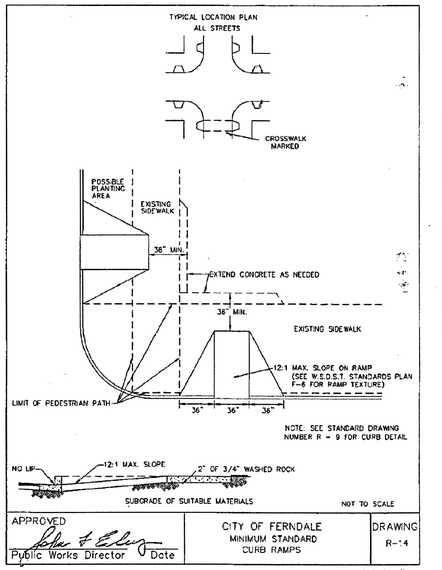
JUNE 1995 — 2091ST4A/R-12



NOTES

1. SEE STANDARD SPECIFICATION 8-01.3(9)D, FOR ADDITIONAL INFORMATION.
2. PERFORM MAINTENANCE IN ACCORDANCE WITH STANDARD SPECIFICATION 8-01.3(15).

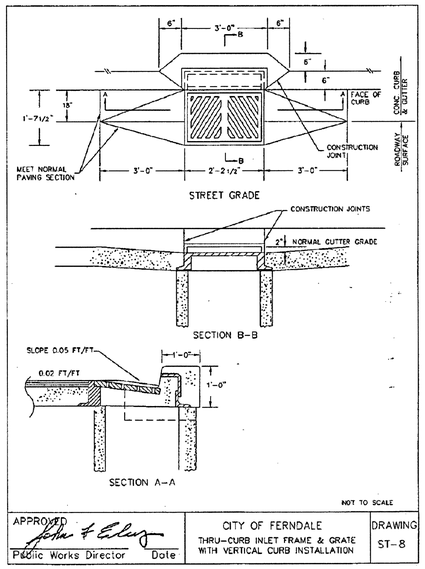
STRAWBALE CHECK DAM



NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director / Date	MINIMUM STANDARD CURB RAMPS	R-14

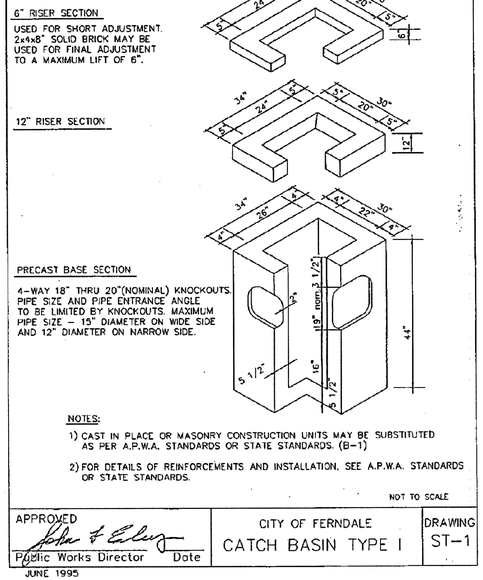
JUNE 1995 — 2091RD2A/R-14



NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director / Date	THRU-CURB INLET FRAME & GRATE WITH VERTICAL CURB INSTALLATION	ST-8

JUNE 1995



NOTES:

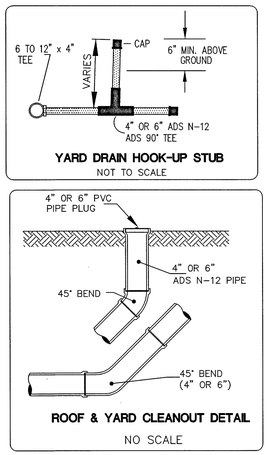
1) CAST IN PLACE OR MASONRY CONSTRUCTION UNITS MAY BE SUBSTITUTED AS PER A.P.W.A. STANDARDS OR STATE STANDARDS. (B-1)

2) FOR DETAILS OF REINFORCEMENTS AND INSTALLATION, SEE A.P.W.A. STANDARDS OR STATE STANDARDS.

NOT TO SCALE

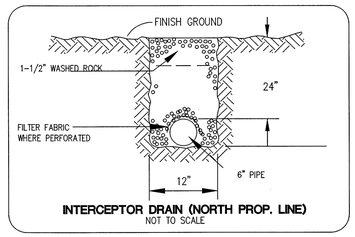
APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director / Date	CATCH BASIN TYPE I	ST-1

JUNE 1995

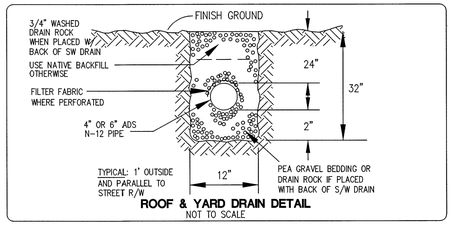


YARD DRAIN HOOK-UP STUB
NOT TO SCALE

ROOF & YARD CLEANOUT DETAIL
NO SCALE



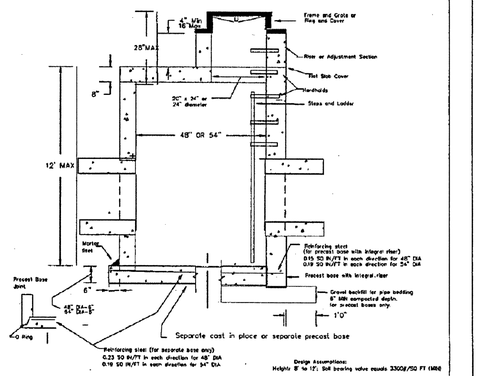
INTERCEPTOR DRAIN (NORTH PROP. LINE)
NOT TO SCALE



ROOF & YARD DRAIN DETAIL
NOT TO SCALE

00593.027 2/19/16 SH

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS 22331 REGISTERED PROFESSIONAL ENGINEER 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	VISTA MEADOWS LONG PLAT STREET AND STORMDRAIN DETAIL AS-BUILT	SHEET 27 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE					



Notes

Catch basins to be constructed in accordance with ASTM C 478 (AASHTO M 199) C 890 unless otherwise shown on plans or noted in the standard specifications

Handholds in riser or adjustment section shall have 3" minimum clearance. Steps in catch basin shall have 6" minimum clearance. No steps are required when height is 4' or less.

All reinforced cast in place concrete shall be Class A. Non-reinforced concrete in channel and shelf shall be Class C.
All precast concrete shall obtain 4000 PSI @ 28 days.

Precast bases shall be furnished with cutout or knockouts. Knockouts shall have a wall thickness of 2" minimum. Knockout or cutout hole size is equal to pipe outer diameter plus catch basin wall thickness. Maximum hole size is 24" for 48" catch basin, 42" for 54" catch basin. Minimum distance between holes is 8".

Frame and grate or ring and cover shall be in accordance with standard specifications and meet the strength requirements of Federal Specification RR-F-621D. Mating surfaces shall be finished to assure a non-rocking fit.

All base reinforcing steel shall have a minimum yield strength of 60,000 PSI and be placed in the upper half of the base with 1" minimum clearance.

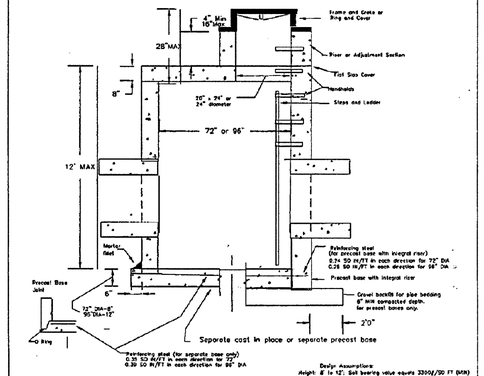
The bottom of the precast Catch Basin may be rounded.

Frame and grate may be installed with flange down or cast into riser.

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	TYPE 2 CATCH BASIN 48" & 54"	ST-2

JUNE 1995



Notes

Catch basins to be constructed in accordance with ASTM C 478 (AASHTO M 199) C 890 unless otherwise shown on plans or noted in the standard specifications.

Handholds in riser or adjustment section shall have 3" minimum clearance. Steps in catch basin shall have 6" minimum clearance. No steps are required when height is 4' or less.

All reinforced cast in place concrete shall be Class A. Non-reinforced concrete in channel and shelf shall be Class C.
All precast concrete shall obtain 4000 PSI @ 28 days.

Precast bases shall be furnished with cutout or knockouts. Knockouts shall have a wall thickness of 2" minimum. Knockout or cutout hole size is equal to pipe outer diameter plus catch basin wall thickness. Maximum hole size is 60" for 72" catch basin, 84" for 96" catch basin. Minimum distance between holes is 12".

Frame and grate or ring and cover shall be in accordance with standard specifications and meet the strength requirements of Federal Specification RR-F-621D. Mating surfaces shall be finished to assure a non-rocking fit.

All base reinforcing steel shall have a minimum yield strength of 60,000 PSI and be placed in the upper half of the base with 1" minimum Clearance.

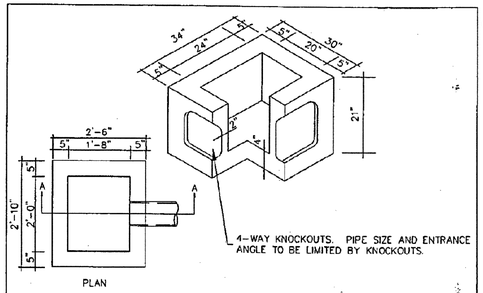
The bottom of the precast Catch Basin may be rounded.

Frame and grate may be installed with flange down or cast into riser.

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	TYPE 2 CATCH BASIN 72" & 96"	ST-3

JUNE 1995

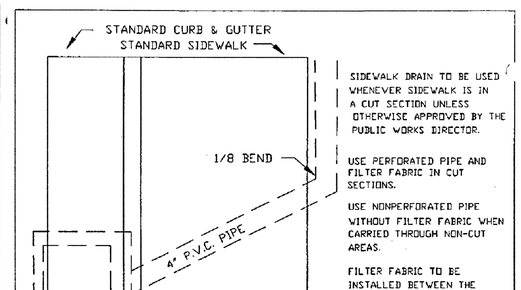


NOTES:
1) UNIT IS DESIGNED TO PICK UP SURFACE DRAINAGE A SHORT DISTANCE FROM CATCH BASIN.
2) CAST IN PLACE OR MASONRY CONSTRUCTION UNITS MAY BE SUBSTITUTED AS PER APWA STANDARDS OR STATE STANDARDS.
3) FOR DETAILS OF REINFORCEMENT OR INSTALLATION SEE APWA STANDARDS OR STATE STANDARDS.

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	INLET DETAIL	ST-7

JUNE 1995



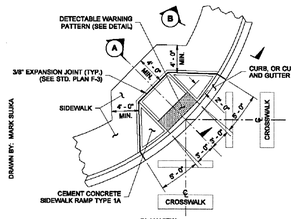
APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	SIDEWALK DRAIN	ST-15

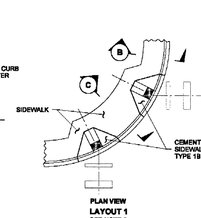
JUNE 1995

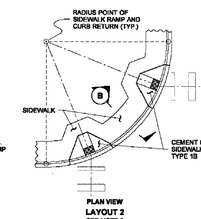
STREET & STORMDRAIN DETAILS | JOB # 4603

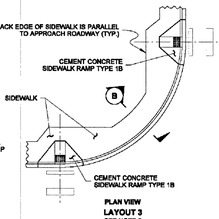
A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.

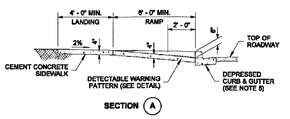
DRAWN BY: MARK BUJOK

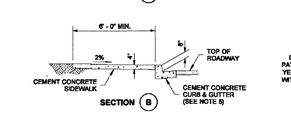


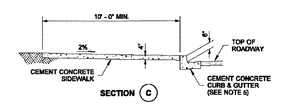


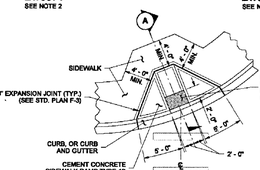


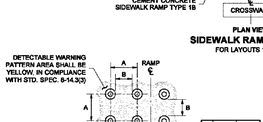




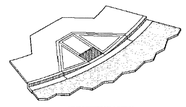








	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7 1/8"	3/4"
D	7/8"	1 7/16"



NOTES

1. The Type 1A Ramp is used to provide access to two crosswalks only when it is infeasible to provide a separate ramp for each crosswalk.
2. Layouts 1, 2, & 3 require two (2) of this bid item: "Cement Conc. Sidewalk Ramp Type 1B". The bid item does not include the adjacent Curb (or Curb & Gutter), or Sidewalk.
3. Ramp slopes shall not be steeper than 12H:1V.
4. Avoid placing drainage structures, junction boxes or other obstructions in front of ramp access areas.
5. Curb & Gutter is shown, see the Contract Plans for the curb design specified. See Standard Plan F-1 for curb details.
6. See Standard Plan F-3 for sidewalk joint placement and details.
7. Detectable warning patterns may be created by any method that will achieve the truncated dome dimensions and spacing shown.

HAROLD J. PETERFESO — STATE OF WASHINGTON — 12345 — REGISTERED PROFESSIONAL ENGINEER

EXPIRES: MAY 16, 2005

SIDEWALK RAMPS TYPES 1A & 1B WITH LAYOUTS STANDARD PLAN F-3a

SHEET 1 OF 1 SHEET

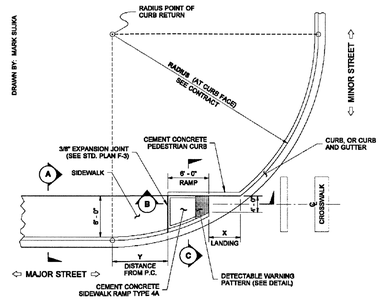
APPROVED FOR PUBLICATION

Harold J. Peterfeso 02-09-05

STATE DESIGN ENGINEER — DATE

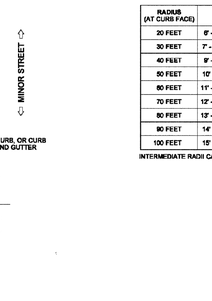
Washington State Department of Transportation

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE OF THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION. A COPY CAN BE FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST



RADIUS (AT CURB FACE)	X	Y
20 FEET	6" - 1 3/4"	2' - 7 1/4"
30 FEET	7' - 11 3/4"	4' - 8 1/4"
40 FEET	9' - 5 1/4"	6' - 8"
50 FEET	10' - 8 3/4"	7' - 11 1/4"
60 FEET	11' - 10 1/4"	9' - 3 1/2"
70 FEET	12' - 10 3/4"	10' - 6 3/4"
80 FEET	13' - 10 1/2"	11' - 9 3/4"
90 FEET	14' - 9 1/4"	12' - 9 3/4"
100 FEET	15' - 7 1/2"	13' - 10 1/4"

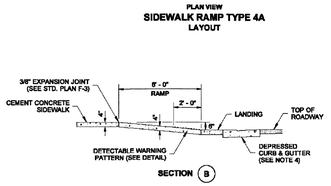
INTERMEDIATE RADII CAN BE INTERPOLATED

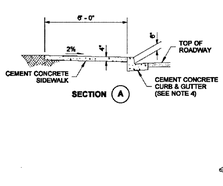


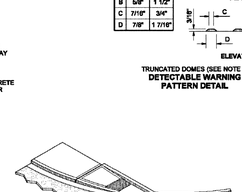
	MIN.	MAX.
A	1 5/8"	2 3/8"
B	5/8"	1 1/2"
C	7 1/8"	3/4"
D	7/8"	1 7/16"

NOTES

1. This layout is used to provide access to a single crosswalk parallel to the major street. The bid item "Cement Conc. Sidewalk Ramp Type 4A" does not include the adjacent Curb (or Curb & Gutter), the Sidewalk, or the Cement Conc. Pedestrian Curb.
2. Ramp slopes shall not be steeper than 12H:1V.
3. Avoid placing drainage structures, junction boxes or other obstructions in front of ramp access areas.
4. Curb & Gutter is shown, see the Contract Plans for the curb design specified. See Standard Plan F-1 for curb details.
5. See Std. Plan F-3 for sidewalk joint placement and details.
6. Detectable warning patterns may be created by any method that will achieve the truncated dome dimensions and spacing shown.







HAROLD J. PETERFESO — STATE OF WASHINGTON — 12345 — REGISTERED PROFESSIONAL ENGINEER

EXPIRES: MAY 16, 2005

SIDEWALK RAMP TYPE 4A WITH LAYOUT STANDARD PLAN F-3d

SHEET 1 OF 1 SHEET

APPROVED FOR PUBLICATION

Harold J. Peterfeso 02-09-05

STATE DESIGN ENGINEER — DATE

Washington State Department of Transportation

NOTE: THIS PLAN IS NOT A LEGAL ENGINEERING DOCUMENT BUT AN ELECTRONIC DUPLICATE OF THE ORIGINAL, SIGNED BY THE ENGINEER AND APPROVED FOR PUBLICATION. A COPY CAN BE FILE AT THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION. A COPY MAY BE OBTAINED UPON REQUEST

00593.028 2/19/16 SH

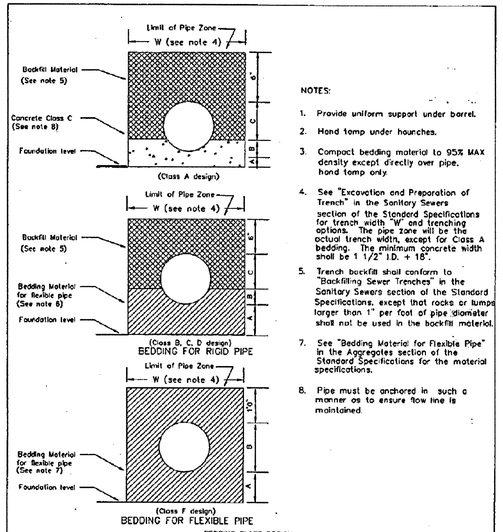
JOB # 04603	**VISTA MEADOWS LONG PLAT** FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LANDS REGISTERED PROFESSIONAL ENGINEER 7-24-13		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* STREET AND STORMDRAIN DETAIL AS-BUILT	SHEET 28 OF 32

SANITARY SEWER DETAILS

JOB # 4603

A PORTION OF SEC 19, TWP 39N, RG 2E, W.M.

00593.029 2/19/16 SH



NOTES:

1. Provide uniform support under barrel.
2. Hand tamp under haunches.
3. Compact bedding material to 95% MAX density except directly over pipe, hand tamp only.
4. See "Excavation and Preparation of Trench" in the Sanitary Sewers section of the Standard Specifications for trench width "W" and trenching options. The pipe zone will be the actual trench width, except for Class A bedding. The minimum concrete width shall be 1 1/2" I.D. + 18".
5. Trench backfill shall conform to "Backfilling Sewer Trenches" in the Sanitary Sewers section of the Standard Specifications, except that rocks or lumps larger than 1" per foot of pipe diameter shall not be used in the backfill material.
7. See "Bedding Material for Flexible Pipe" in the Aggregates section of the Standard Specifications for the material specifications.
8. Pipe must be anchored in such a manner as to ensure flow line is maintained.

BEDDING CLASS DESIGN

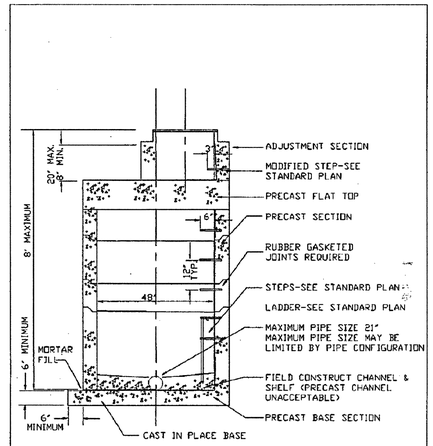
DIMENSION	CLASS A	CLASS B	CLASS C	CLASS D	CLASS F
A	4" min. * 1/4" I.D. 12" MAX.	*	*	*	*
B	1/4 O.D.	1/2 O.D.	1/8 O.D.	Zero	O.D.
C	3/4 O.D.	1/2 O.D.	7/8 O.D.	O.D.	-

*A = 4" MIN. 27" I.D. and under; 6" MIN. over 27" I.D.

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	PIPE BEDDING FOR SANITARY SEWERS	SS-1

JUNE 1995



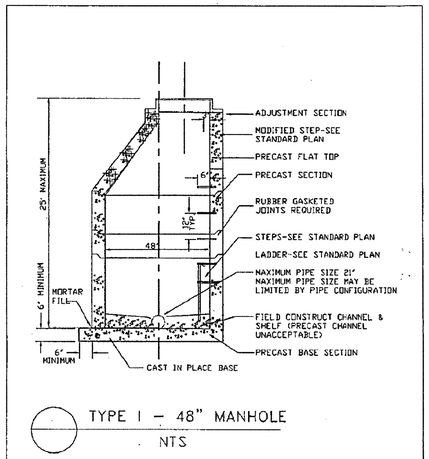
TYPE II – 48" MANHOLE

MANHOLE

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	TYPE II 48" MANHOLE	SS-3

JANUARY 1993



TYPE 1 – 48" MANHOLE

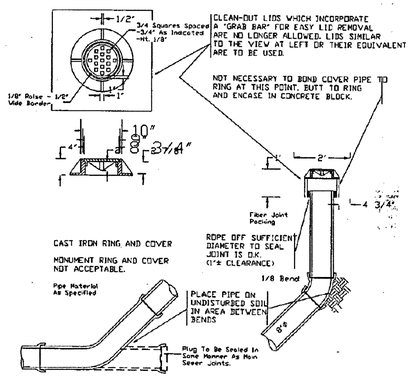
NTS

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	TYPE 1 48" MANHOLE	SS-2

JANUARY 1993

2" SQUARE CONCRETE BLOCK TO ENCASE CLEAN-OUT. IN AREAS WHERE CLEAN-OUT OCCURS IN ASPHALT, THIS BLOCK IS TO BE LEFT APPROX. 1 1/2" LOW TO ALLOW FOR AN ASPHALT TOPPING OF LIKE MIXTURE AS THE SURROUNDING AREA. IF CLEAN-OUT OCCURS IN CONCRETE OR IN SOME TYPE OF SOIL, THE BLOCK IS TO BE MADE THE FULL 1' DEPTH AND FLUSH WITH THE SURROUNDING SURFACE.



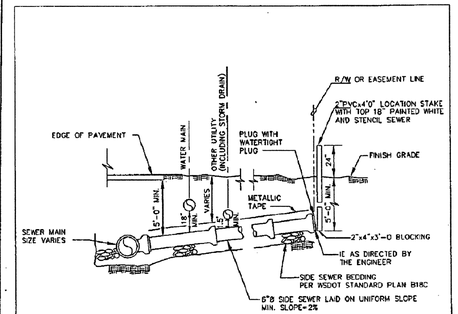
DO NOT SCALE

SSCO 04/30/92 16:17

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	8" CLEAN OUT	SS-5

JANUARY 1993



NORMAL INSTALLATION SIDE SEWER

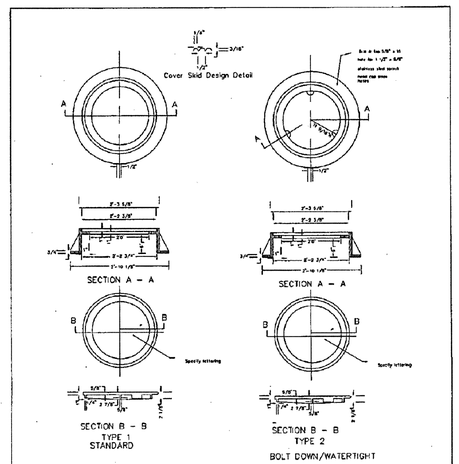
15" AND SMALLER

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	NORMAL INSTALLATION 15" AND SMALLER SEWER MAINS	SS-6

JUNE 1995

2091SE3A/SS-6



Notes

Cover and groove may be in the seat or underside of cover.

For bolt down manhole ring and covers that are not watertight, the neoprene gasket, grate and washer are not required.

Washer shall be bent or angled.

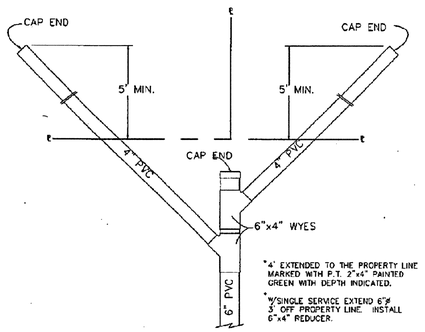
Unit shall conform to Section 7.05.4 Manhole, or equalled in the Special provisions, Type 1, Standard Manhole Rings and Covers shall be used on WSDOT contracts.

In lieu of bind pin notch for storm sewer manhole covers, drill three 1 inch diameter holes at 120 degree spacing.

NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	MANHOLE RING & COVER	SS-9

JUNE 1995



"4" EXTENDED TO THE PROPERTY LINE MARKED WITH P.T. 2"x4" PAINTED GREEN WITH DEPTH INDICATED.

"W/SINGLE SERVICE EXTEND 6" 3' OFF PROPERTY LINE. INSTALL 6"x4" REDUCER.

SEWER SERVICE DETAIL

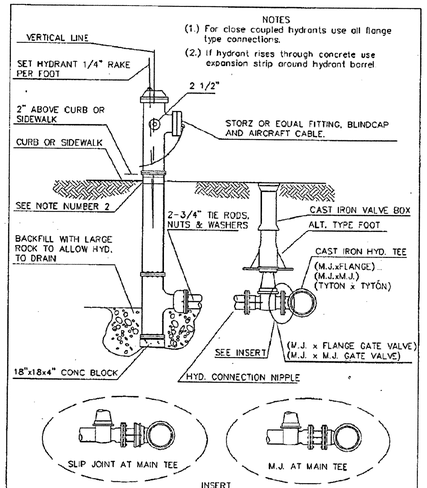
NOT TO SCALE

APPROVED	CITY OF FERNDALE	DRAWING
Public Works Director Date	DOUBLE SANITARY SEWER SERVICE	SS-13

JUNE 1995

2091SE4A/SS-13

	VISTA MEADOWS LONG PLAT	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS REGISTERED PROFESSIONAL ENGINEER 7-24-13	LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* SANITARY SEWER DETAILS AS-BUILT	SHEET 29 OF 32
JOB # 04603	FOR: DAVID BRAITHWAITE					

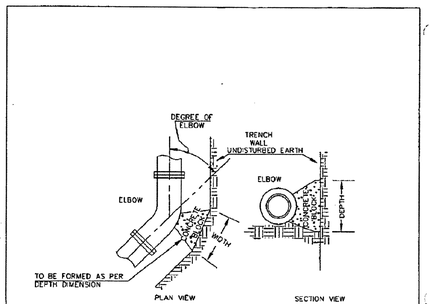


APPROVED John F Ellis
Public Works Director Date

CITY OF FERNDALE
FIRE HYDRANT ASSEMBLY

DRAWING W-1

JUNE 1995



100 P.S.I. OPERATING PRESSURE

SIZE	11 1/4° W	11 1/4° D	22 1/2° W	22 1/2° D	45° W	45° D	90° W	90° D
6"	1'-0"	1'-0"	1'-0"	1'-0"	1'-6"	1'-6"	2'-3"	1'-6"
8"	1'-3"	1'-3"	1'-3"	1'-3"	1'-9"	1'-9"	3'-0"	2'-0"
10"	1'-9"	1'-6"	1'-9"	1'-6"	2'-3"	2'-3"	3'-6"	2'-6"
12"	2'-0"	1'-9"	2'-0"	1'-9"	2'-6"	2'-6"	4'-0"	3'-0"
16"	2'-6"	2'-3"	2'-9"	2'-3"	4'-0"	3'-6"	6'-3"	3'-6"
20"	3'-6"	2'-6"	3'-6"	2'-9"	4'-6"	4'-0"	8'-6"	4'-0"
24"	4'-6"	3'-0"	4'-6"	3'-0"	5'-6"	5'-0"	9'-0"	5'-0"

NOTE:
ALL ABOVE DIMENSIONS APPLY TO STABLE TRENCH WALLS, UNDER VARIABLE CONDITIONS SIZE OF THRUST BLOCK SHALL BE DETERMINED BY ENGINEER.

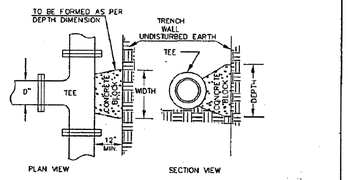
NOT TO SCALE

APPROVED John F Ellis
Public Works Director Date

CITY OF FERNDALE
THRUST BLOCKING
ELBOWS

DRAWING W-2

JUNE 1995 2091WA2A/W-2



100 P.S.I. OPERATING PRESSURE

SIZE	WIDTH	DEPTH
6"	1'-6"	1'-6"
8"	2'-0"	2'-0"
10"	2'-6"	2'-6"
12"	3'-0"	3'-0"
16"	4'-6"	3'-6"
20"	6'-0"	4'-0"
24"	7'-0"	5'-0"

NOTE:
ALL ABOVE DIMENSIONS APPLY TO STABLE TRENCH WALLS, UNDER VARIABLE CONDITIONS SIZE OF THRUST BLOCK SHALL BE DETERMINED BY ENGINEER.

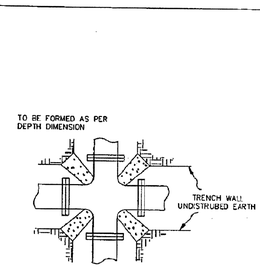
NOT TO SCALE

APPROVED John F Ellis
Public Works Director Date

CITY OF FERNDALE
THRUST BLOCKING
TEES

DRAWING W-3

JUNE 1995 2091WA2A/W-3



100 P.S.I. OPERATING PRESSURE

SIZE	WIDTH	DEPTH
6"	1'-0"	1'-0"
8"	1'-3"	1'-3"
10"	1'-6"	1'-6"
12"	1'-9"	1'-9"
16"	2'-3"	2'-3"
20"	2'-6"	3'-6"
24"	3'-0"	4'-0"

NOTE:
ALL ABOVE DIMENSIONS APPLY TO STABLE TRENCH WALLS, UNDER VARIABLE CONDITIONS SIZE OF THRUST BLOCK SHALL BE DETERMINED BY ENGINEER.

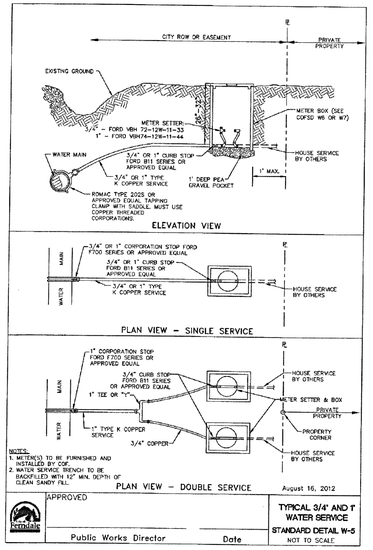
NOT TO SCALE

APPROVED John F Ellis
Public Works Director Date

CITY OF FERNDALE
THRUST BLOCKING
4-WAY INTERSECTION

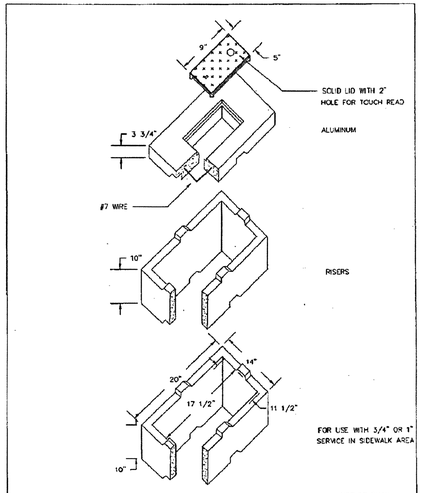
DRAWING W-4

JUNE 1995 2091WA2A/W-4



APPROVED
Public Works Director Date

TYPICAL 3/4" AND 1" WATER SERVICE
STANDARD DETAIL W-5
NOT TO SCALE



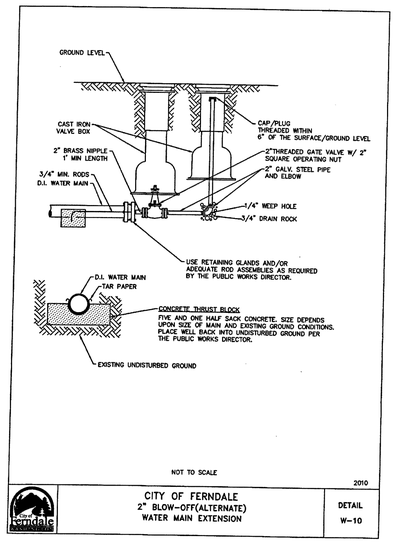
NOT TO SCALE

APPROVED John F Ellis
Public Works Director Date

CITY OF FERNDALE
NO. 1 METER BOX
FOG TITE

DRAWING W-6

JUNE 1995

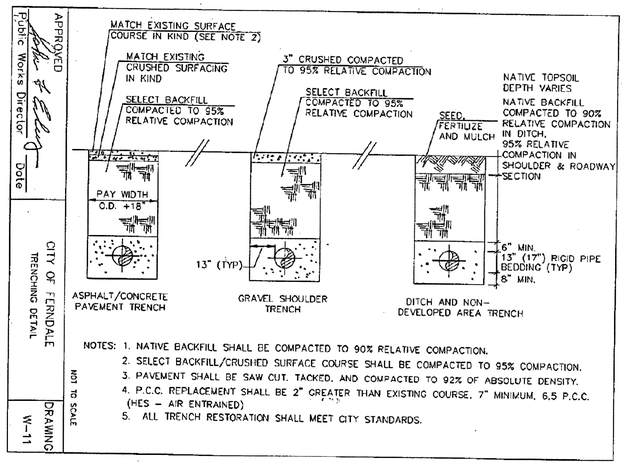


NOT TO SCALE

2010

CITY OF FERNDALE
2" BLOW-OFF(ALTERNATE)
WATER MAIN EXTENSION

DETAIL W-10



NOTES: 1. NATIVE BACKFILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION.
2. SELECT BACKFILL/CRUSHED SURFACE COURSE SHALL BE COMPACTED TO 95% COMPACTION.
3. PAVEMENT SHALL BE SAW CUT, TACKED, AND COMPACTED TO 92% OF ABSOLUTE DENSITY.
4. P.C.C. REPLACEMENT SHALL BE 2" GREATER THAN EXISTING COURSE, 7" MINIMUM, 6.5 P.C.C. (HES - AIR ENTRAINED)
5. ALL TRENCH RESTORATION SHALL MEET CITY STANDARDS.

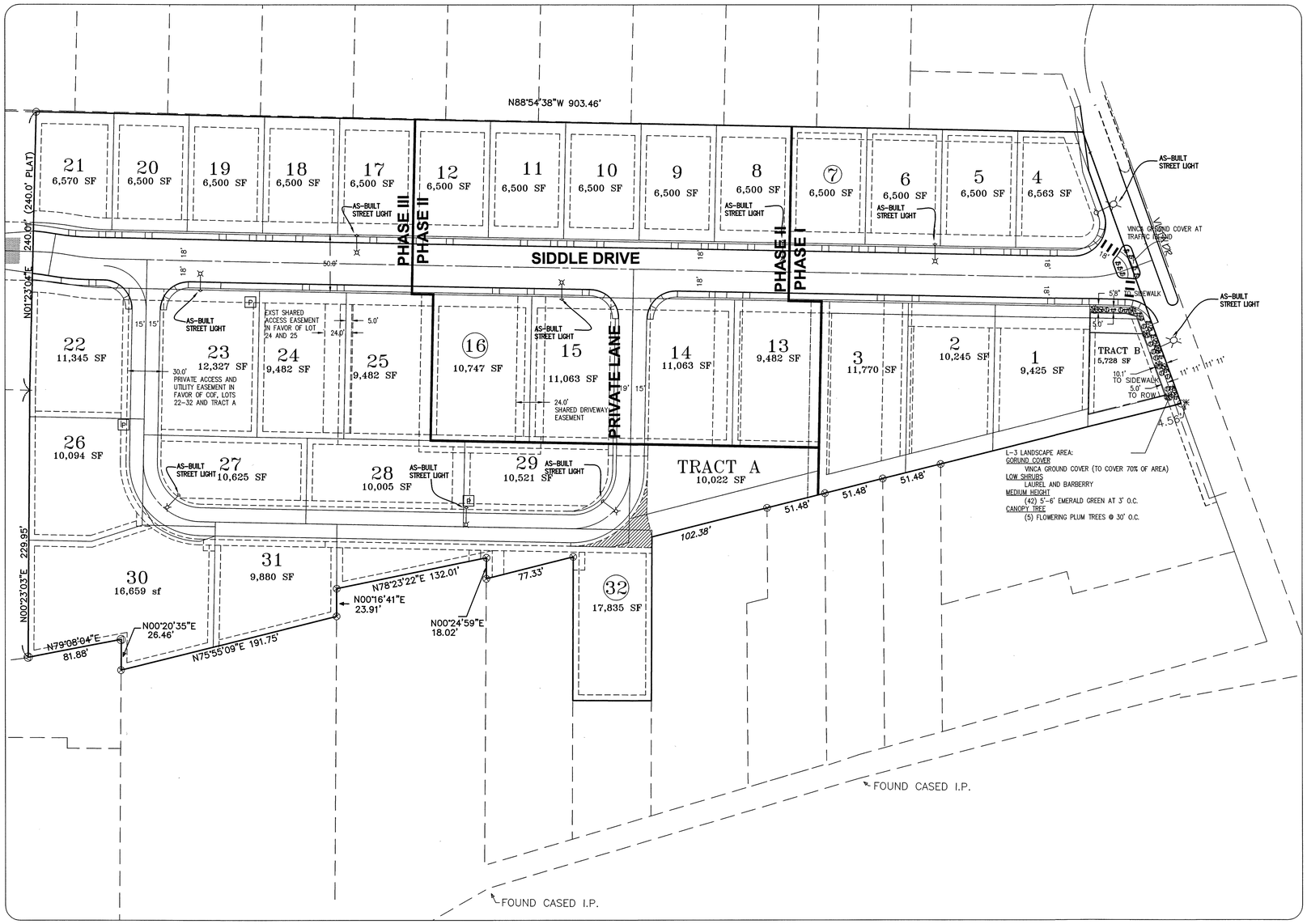
JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY CITY OF FERNDALE	RAMON LLANOS 20009 REGISTERED PROFESSIONAL ENGINEER 7-24-13		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	*VISTA MEADOWS LONG PLAT* WATER DISTRIBUTION DETAILS AS-BUILT	SHEET 30 OF 32

JOB NO. 04603

GRAPHIC SCALE
0 25 50 100
(IN FEET)
1 inch = 50 ft.

N
W E
S

00593.031 2/19/16 SH



JOB # 04603	VISTA MEADOWS LONG PLAT FOR: DAVID BRAITHWAITE	APPROVED JAN 28 2016 BY _____ CITY OF FERNDALE	KYLE T. HAGOOD STATE OF WASHINGTON 19388 REGISTERED PROFESSIONAL LAND SURVEYOR 1/02/16		LDES, INC. 5160 INDUSTRIAL PL #108 FERNDALE, WA 98248 PHONE 360-383-0620 FAX 360-383-0639	VISTA MEADOWS LONG PLAT COMMON UTILITY, LANDSCAPING & STREET SIGNAGE PLAN AS-BUILT	REVISIONS - COMMENTS	SHEET 31 OF 32

COF GENERAL NOTES

JOB # 4603

00593.032 2/19/16 SH

GENERAL REQUIREMENTS

1. ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE MOST CURRENT EDITION OF THE STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. WORK AND MATERIALS SHALL ALSO CONFORM TO THE CITY OF FERNDALE DEVELOPMENT STANDARDS. IN CASE OF A CONFLICT BETWEEN PLANS, REGULATORY STANDARDS OR SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT WILL PREVAIL.

2. PRIOR TO THE START OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER CONSTRUCTION DOCUMENTS APPROVED BY ALL OF THE PERMITTING AUTHORITIES.

3. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND WHATCOM COUNTY PRIOR TO COMMENCING WORK WITHIN PUBLIC RIGHTS-OF-WAY.

4. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH REPRESENTATIVES OF THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT AND THE PROJECT ENGINEER A MINIMUM OF THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

5. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE. REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOWS:
   A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.
   B. PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS-OF-WAY OR IN WATERLINE EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE.
   C. PLACEMENT AND BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS-OF-WAY OR IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE.
   D. GRADING OF PUBLIC ROADWAY AT:
      1) COMPLETION OF EXCAVATION TO SUBGRADE.
      2) COMPLETION OF BALLAST COURSE PLACEMENT.
      3) COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT.
   E. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.
   F. ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY.
   G. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.
   H. END OF MAINTENANCE PERIOD.

6. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING SUB-SURFACE CONDITIONS AND SOILS TYPES.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACTOR. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23-TRAFFIC CONTROL, SHALL APPLY.

8. A COPY OF THESE APPROVED PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.

9. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATIONS FROM THE APPROVED PLANS PRIOR TO CONSTRUCTION OF THE REVISED IMPROVEMENTS. THE CONTRACTOR SHALL KEEP RECORDS OF ALL DEVIATIONS AND SHALL FORWARD THEM TO THE ENGINEER AND TO THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT.

10. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE BASED UPON A COMBINATION OF FIELD RECONNAISSANCE, FIELD SURVEY AND UTILITY COMPANY RECORDS AND ARE SHOWN ON THESE PLANS IN AN APPROXIMATE WAY ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES PRIOR TO STARTING CONSTRUCTION. NO EXTRA COMPENSATION WILL BE PAID TO THE CONTRACTOR FOR COSTS INCURRED BECAUSE OF DAMAGE DONE TO EXISTING FACILITIES BY THE CONTRACTOR'S WORK FORCE, INCLUDING COSTS FOR REPAIRS, WHICH WILL BE CONTRACTOR'S SOLE RESPONSIBILITY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES AND TO NOTIFY THE ENGINEER PROMPTLY OF ANY CONFLICT BETWEEN THE APPROVED PLANS AND THE LOCATION OF ANY EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT UTILITY LOCATION SERVICE AT LEAST 48 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555.

11. THE CONTRACTOR SHALL PROTECT ALL PRIVATE AND PUBLIC UTILITIES FROM DAMAGE RESULTING FROM THE WORK. CONTRACTOR SHALL RESTORE ALL PRIVATE AND PUBLIC PROPERTY DISRUPTED BY THE PROJECT IMMEDIATELY AFTER CONSTRUCTION.

12. ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER IF ANY DISCREPANCIES EXIST BETWEEN ACTUAL FIELD CONDITIONS AND THE ASSUMED CONDITIONS SHOWN ON THE APPROVED PLANS PRIOR TO PROCEEDING WITH CONSTRUCTION, SO THAT NECESSARY PLAN OR DESIGN CHANGES CAN BE MADE. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR EXTRA WORK, INCLUDING REMOVAL AND RECONSTRUCTION OF NEWLY BUILT IMPROVEMENTS, MADE NECESSARY BY ERRORS OF DIMENSION OR GRADE ON THE APPROVED PLANS, UNLESS SUCH NOTIFICATION WAS GIVEN.

13. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.

14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL MEASURES THROUGHOUT THE DURATION OF THE PROJECT. EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING OR GRADING.

15. ALL MATERIALS TESTING REQUIREMENTS FOR THE IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE PERFORMED IN ACCORDANCE WITH THE INSTRUCTIONS OF THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR. CONTRACTOR SHOULD DETERMINE THESE REQUIREMENTS PRIOR TO THE START OF CONSTRUCTION.

16. ALL PORTLAND CEMENT CONCRETE SHALL BE APWA CLASS 3000, PER APWA STANDARD SPECIFICATIONS, SECTION 6-02.3(2)B.

17. UNDERGROUND UTILITIES CONSTRUCTION
   A. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE ENGINEER TO ASSURE ACCURATE AND TIMELY COLLECTION OF ALL REQUIRED AS-BUILT DATA. THIS DATA MUST ACCURATELY REFLECT THE LOCATIONS OF ALL UNDERGROUND UTILITIES, BOTTOM OF PIPE ELEVATIONS, INVERT ELEVATIONS, MANHOLE LOCATIONS, BLOW-OFF LOCATIONS AND INVERTS OF SERVICE CONNECTIONS (BOTH AT PIPE AND AT PROPERTY LINE), VERTICAL AND HORIZONTAL BENDS, SERVICE BOXES AND METERS, VALVES AND HYDRANTS. CALL AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY. THE ENGINEER WILL PROVIDE CERTIFIED AS-BUILT MYLARS TO PUBLIC WORKS UPON PROVISIONAL ACCEPTANCE OF ROAD AND UTILITY IMPROVEMENTS.
   B. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:
      i. NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.
      ii. WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF DITCHES.
      iii. TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO SEDIMENT TRAPS OR SEDIMENT PONDS.
      iv. WHERE PRACTICAL, INSTALL GRAVITY PIPE UTILITIES PRIOR TO INSTALLATION OF OTHER UTILITIES.
   C. UTILITY CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS.
   D. TESTING OF NEW WATER LINES, SANITARY SEWER LINES, AND STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.

ROAD

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF THE STANDARD STREET SECTION:

TYPICAL STREET SECTION	TYPICAL SECTION ON SHEET 9 OF THESE PLANS
PCC CURB AND GUTTER	CITY OF FERNDALE STANDARD DETAIL (COFSD) R-9
PCC SIDEWALKS	COFSD R-12
PCC CURB RAMPS, ADA APPROACHES	WSDOT STD. DETAIL F-3
SIDEWALK DRAINS	COFSD ST-15
MONUMENTS	COFSD S-2

2. ALTERNATE PAVEMENT SECTIONS, WHEN DESIGNED BY A LICENSED GEOTECHNICAL ENGINEER, MAY BE SUBMITTED TO THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR FOR CONSIDERATION AND, IF APPROVED, USED IN PLACE OF THE PAVEMENT SECTION SHOWN ON THESE PLANS.

3. EARTHWORK
   A. THE CONTRACTOR SHALL CLEAR, GRUB AND CLEAN UP THOSE AREAS SHOWN ON THE PLANS.
   B. THE CONTRACTOR SHALL RAZE, REMOVE AND DISPOSE OF ALL BUILDING AND FOUNDATIONS, STRUCTURES, FENCES AND OTHER OBSTRUCTIONS THAT LIE WHOLLY OR PARTIALLY WITHIN THE PROJECT LIMITS.
   C. THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UNCOMPACTED OR POORLY COMPACTED FILL SOILS WITHIN THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER.
   D. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
   E. MAXIMUM DENSITY AND OPTIMUM MOISTURE FOR GRANULAR MATERIALS WILL BE DETERMINED USING ASTM D-1557 TEST METHOD.
   F. UNSUITABLE MATERIAL NOT FIT FOR USE AS A SUB-GRADE SHALL BE EXCAVATED TO THE BOUNDARIES SET BY THE ENGINEER AND REPLACED WITH A SUITABLE BACKFILL MATERIAL.
   F. THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.
4. BASE COURSES
   A. GRAVEL BASES AND BALLAST SHALL NOT HAVE THE PERCENT PASSING THE U.S. NO. 200 SIEVE EXCEED 5%
   B. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
   C. OWNER SHALL BE RESPONSIBLE FOR ALL COMPACTION TESTING. ALL TESTING SHALL BE THROUGH ENG. REV. ACCOUNT AND PAID FOR BY OWNER.
5. PAVEMENTS
   A. SOIL RESIDUAL HERBICIDE SHALL BE PLACED WITHIN 24 HOURS OF PAVING.
   B. A TACK COAT OF ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF ASPHALT.
   C. ALL PAVEMENT REPAIR SHALL BE SAW-CUT BEFORE REMOVAL. AR-4000W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT.
   D. WHERE NEWLY CONSTRUCTED PAVING MEETS EXISTING PAVING, THE APPLICANT SHALL OVERLAY AND FEATHER NEW PAVEMENT TO PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING. APPLICATION OF A THIN PAINT COAT OF EMULSIFIED ASPHALT SHALL BE APPLIED TO INSURE PROPER BONDING.
   E. ALL PAVEMENT MARKINGS SHALL CONFORM TO THE REQUIREMENTS OF THE MUTCD.
6. STREET LIGHTING
   A. CONTRACTOR SHALL PROVIDE STREET ILLUMINATION IN ACCORDANCE WITH THE PROVISIONS OF SECTION 707 OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS. 100-WATT HIGH PRESSURE SODIUM LAMPS SHALL BE INSTALLED ON STANDARD CONCRETE OCTAGONAL OR ROUND POLES NO LESS THAN 25 FEET HIGH AND SPACED NO MORE THAN 250' APART, MEASURED ALONG THE PAVEMENT CENTERLINE. POLE LOCATIONS ARE SHOWN ON THESE PLANS.
   B. FINAL LOCATIONS OF STREET LIGHTS IS TO BE COORDINATED WITH PUGET SOUND ENERGY.
   C. CONTRACTOR IS TO COMPLY WITH THE SPECIFICATIONS SHOWN ON WSDOT STANDARD DETAIL J-11A, STANDARD JUNCTION BOX, UNLESS OTHERWISE DIRECTED BY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR.
   D. CONTRACTOR MUST INFORM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR (4) WORKING DAYS IN ADVANCE.
7. MAILBOXES

   MAILBOXES SHALL BE TYPE I, II, AND/OR III - CBU (CENTRAL BOX UNIT), USPS APPROVED. FINAL LOCATION AS DETERMINED BY USPS.

STORM DRAINAGE

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:

"MAIN LINE" CATCH BASINS	TYPE 1, 1L OR 2, WSDOT STD. DETAILS B-1, B-1A OR B-1E
"RESIDENTIAL SERVICE LINE" CATCH BASINS	CITY OF FERNDALE STANDARD DETAIL (COFSD) ST-7
THRU-CURB INLET FRAME AND GRATE	CITY OF FERNDALE STANDARD DETAIL (COFSD) ST-8
SIDEWALK DRAINS	COFSD ST-15

2. ALL PIPE AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS SECTION 7-08.3(1). THIS SHALL INCLUDE LEVELING AND COMPACTING THE TRENCH BOTTOM, THE TOP OF THE FOUNDATION MATERIAL AND ANY REQUIRED PIPE BEDDING TO A UNIFORM GRADE SO THAT THE ENTIRE PIPE IS SUPPORTED BY A UNIFORMLY DENSE UNYIELDING BASE. DRAINAGE MATERIALS SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS SECTION 9-05.
3. STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 8" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPEP) AND SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS, SECTION 9-05.20. STORM SEWER PIPE HAVING DIAMETERS 8" AND SMALLER SHALL BE POLYVINYL CHLORIDE (PVC) PIPE AND SHALL CONFORM TO WSDOT STANDARD SPECIFICATIONS, SECTION 9-05.12.
4. ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM, DUMP NO POLLUTANTS".
5. UNLESS OTHERWISE SPECIFIED, CAST IRON PRODUCTS SHALL CONFORM TO ASTM DESIGNATION "A 48 CLASS 30" AND DUCTILE IRON PRODUCTS TO ASTM DESIGNATION "A 536 GRADE 80-55-06".
6. ALL DRAINAGE STRUCTURES, SUCH AS CATCH BASINS AND MANHOLES, NOT LOCATED WITHIN A TRAVELED ROADWAY OR SIDEWALK, SHALL HAVE SOLID LOCKING LIDS. ALL DRAINAGE STRUCTURES ASSOCIATED WITH A PERMANENT RETENTION/DETENTION FACILITY SHALL HAVE SOLID LOCKING LIDS.
7. ALL DRAINAGE SERVICE STUBS SHALL BE MARKED FOR LOCATION WITH A PRESSURE TREATED 2" X 4" TIMBER, PAINTED WHITE OR A WHITE 2" DIA. PVC PIPE. BOTH TYPES OF LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.
8. MULTIPLE RESIDENTIAL STORM DRAIN SERVICES SHALL BE 6" PVC PIPE, DRAINING TO A COFSD ST-7 INLET. 8" PVC PIPE SHALL BE USED TO CONNECT EACH ST-7 INLET TO A NEARBY TYPE 1 OR TYPE 1L CATCH BASIN.
9. ALL STORM STUB INVERT ELEVATIONS SHALL BE CONSTRUCTED TO FACILITATE POSITIVE FLOW TO CATCH BASIN.

SANITARY SEWER

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING SANITARY SEWER IMPROVEMENTS:

PIPE BEDDING	CITY OF FERNDALE STANDARD DETAIL (COFSD) SS-1
TRENCH BACKFILL	COFSD SS-15 & SS-1 & WSDOT STD. SPEC. SEC. 9-03.12
SS MANHOLE, TYPE 1-48"	COFSD SS-2
SSMH RING & COVER, TYPE 2	COFSD SS-9 (BOLT DOWN/WATERTIGHT)
SS CLEANOUTS	COFSD SS-5
SIDE SEWERS	COFSD SS-6, SS-8 & SS-13

2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH A.P.W.A. STANDARD SPECIFICATIONS, 1996 EDITION, AND SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE.
3. ALL WORK MUST BE INSPECTED TO THE SATISFACTION OF THE CITY OF FERNDALE. 24 HOUR NOTICE MUST BE GIVEN PRIOR TO STARTING WORK. TESTING OF THE SEWER SYSTEM AND ALL CONNECTIONS TO EXISTING MAINS SHALL BE DONE IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE.
4. SANITARY SEWER MAINS SHALL BE A MINIMUM 8 INCH DIAMETER PVC PIPE (SDR-35) CONFORMING TO THE PROVISIONS OF ASTM D 3034 AND INSTALLED TO CITY SPECIFICATIONS.
5. SANITARY SEWER PIPE BEDDING SHALL BE PEA GRAVEL PER COFSD SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL OR SUITABLE NATURAL MATERIAL AS DIRECTED BY THE ENGINEER, AND COMPACTED TO 95% MODIFIED PROCTOR DENSITY.
6. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE SS-2, SS-3 OR SS-4, AND SHALL BE PRE-CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.
7. ALL SIDE SEWERS SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS SS-6, SS-8 OR SS-13, EXCEPT THAT SINGLE SIDE SEWERS SHALL HAVE A MINIMUM DIAMETER OF 4".
8. CONTRACTOR SHALL EXTEND SEWER STUBS BEYOND THE STREET RIGHT-OF-WAY LINE.
9. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION PER COFSD SS-14, WITH A 2" DIA. PVC PIPE WITH THE TOP 18" PAINTED WHITE AND STENCILED WITH THE WORD "SEWER". THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

WATER

1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:

TRENCH BACKFILL	COFSD W-11 & WSDOT STD. SPEC. SEC. 9-03.12
AIR/VACUUM RELEASE VALVE	WSDOT STD. DETAIL B21-a
BLOW-OFF ASSEMBLY	COFSD W-9 & W-10
FIRE HYDRANT ASSEMBLY	COFSD W-1
THRUST BLOCKING	COFSD W-2, W-3 & W-4
WATER SERVICE	COFSD W-5

2. ALL WATERMAIN PIPE SHALL BE DUCTILE IRON, MINIMUM CLASS 50, PER AWWA STANDARDS H3-71 AND C151-71, WITH CEMENT LINING PER AWWA STANDARD C104-71. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705.
3. MATERIAL FOR FITTINGS SUCH AS CROSSES, TEES, BENDS, REDUCERS AND SLEEVES SHALL BE DUCTILE IRON. JOINTS SHALL BE M.J., FLANGED OR PUSH-ON JOINTS AND SHALL CONFORM TO AWWA SPECIFICATIONS C-110-71 AND C-104-71.
4. CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDALE STANDARD DETAILS W-2, W-3 AND W-4, OR AS DIRECTED BY THE PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-09.3(21) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRE-CAST BLOCKS ARE ALLOWED.
5. CONNECTIONS TO EXISTING WATER MAINS - PER WSDOT STD SPEC. 7-09.3(19), THE CONTRACTOR MUST NOTIFY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE. ALL CONNECTIONS SHALL BE DONE BY THE CONTRACTOR. CONNECTION TO EXISTING CITY WATER SYSTEM SHALL BE PAID IN ADVANCE BY A DEPOSIT.
6. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTIONS 7-09.3(23) AND 7-09.3(24) AND OF THE WSDOT STD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TEST PRESSURE.
   FOR WATER MAIN ACCEPTANCE SHALL BE 225 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. ALL DISINFECTION AND BACTERIOLOGICAL TESTS SHALL BE CONDUCTED BY THE CITY OF FERNDALE LABORATORY. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART.
7. BACKFILL SHALL BE GRAVEL BASE, CLASS B, IN ALL STREET RIGHTS-OF-WAY, COMPACTED TO MINIMUM 95% OPTIMUM DENSITY. IN UNIMPROVED AREAS, MINIMUM COMPACTION SHALL BE 90% OF OPTIMUM DENSITY.
8. ALL PIPE SHALL HAVE A MINIMUM COVER OF 42".
9. ALL VALVES SHALL BE GATE TYPE VALVES AND SHALL BE INSTALLED WITH SLIP TYPE CAST IRON VALVE BOXES.

   GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 8 INCHES IN DIAMETER. SHORT-BODY VALVES SUITABLE FOR A NONSHOCK SHUT-OFF PRESSURE OF 130 PSI AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED. GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED.

   ALL VALVES SHALL HAVE NONRISING STEMS AND SHALL OPEN COUNTERCLOCKWISE AND SHALL BE EQUIPPED WITH A 2 INCH SQUARE OPERATING NUT. VALVES WILL BE FLANGE OR M.J. JOINTS.

   VALVE MARKERS SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTIONS.
10. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS. ALL WATER SERVICES SHALL BE MARKED FOR LOCATION WITH A METER BOX PER COFSD W-5.
11. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COF STANDARD DETAIL W-1 (WSDOT B-19) AND THE FOLLOWING STANDARDS:
   A. FIRE HYDRANTS SHALL HAVE TWO INDIVIDUALLY-VALVED 2-1/2" PORTS AND ONE 5-1/4" MAIN VALVE OPENING. A 4-1/2" NST PUMPER NOZZLE AND A 5" STORZ PORT WITH CAP AND CABLE SHALL BE SUPPLIED. HYDRANTS SHALL EITHER BE IOWA OR M.H. 929T HYDRANTS.
   B. FIRE HYDRANTS SHALL HAVE THE STORZ PORT FACING THE REQUIRED ACCESS AND THE BASE FLANGE OF THE HYDRANT MUST NOT VARY MORE THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS. THE LOWEST STEM SHALL BE A MINIMUM OF 14" ABOVE THE GROUND. HYDRANTS PAINTED FACTORY YELLOW MAY NOT REQUIRE ADDITION PAINTING.
   C. IF THE PUBLIC WORKS DIRECTOR DETERMINES THAT FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE CRASH POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3-FOOT WORKING AREA OF EACH REQUIRED ACCESS. CRASH POSTS SHALL BE 4" CEMENT-FILLED PIPE A MIN. OF 3' IN HEIGHT WITH A MIN. OF 2' OF PIPE BELOW GRADE. HYDRANT SHUTOFF VALVES SHALL BE LOCATED BETWEEN 5' AND 20' FROM THE HYDRANT.
   D. UNDERGROUND SUPPLIES TO FIRE HYDRANTS MUST BE INSPECTED. SUCH INSPECTION SHALL INCLUDE VISUAL INSPECTION OF PIPING AND HYDROSTATIC PRESSURE TESTING TO A MIN. OF 225 PSI OR 50 PSI IN EXCESS OF STREET MAIN PRESSURE, WHICHEVER IS GREATER. A FLOW TEST WILL BE REQUIRED WHEN INSTALLATION IS COMPLETE.
   E. FIRE HYDRANTS MUST BE MAINTAINED IN AN OPERABLE CONDITION AT ALL TIMES AND MUST BE REPAIRED OR REPLACED WHEN DEFECTIVE. HYDRANTS SHALL BE FULLY OPERABLE BEFORE CONSTRUCTION COMMENCES ABOVE GRADE LEVEL.

VISTA MEADOWS LONG PLAT

JOB # 04603

FOR: DAVID BRAITHWAITE

APPROVED
JAN 28 2016
BY _____ CITY OF FERNDALE

RAMON LLANOS — EXPIRES 6/30/13 — PROFESSIONAL ENGINEER
7-24-13

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VISTA MEADOWS LONG PLAT
CITY OF FERNDALE
GENERAL NOTES
AS-BUILT

SHEET 32 OF 32