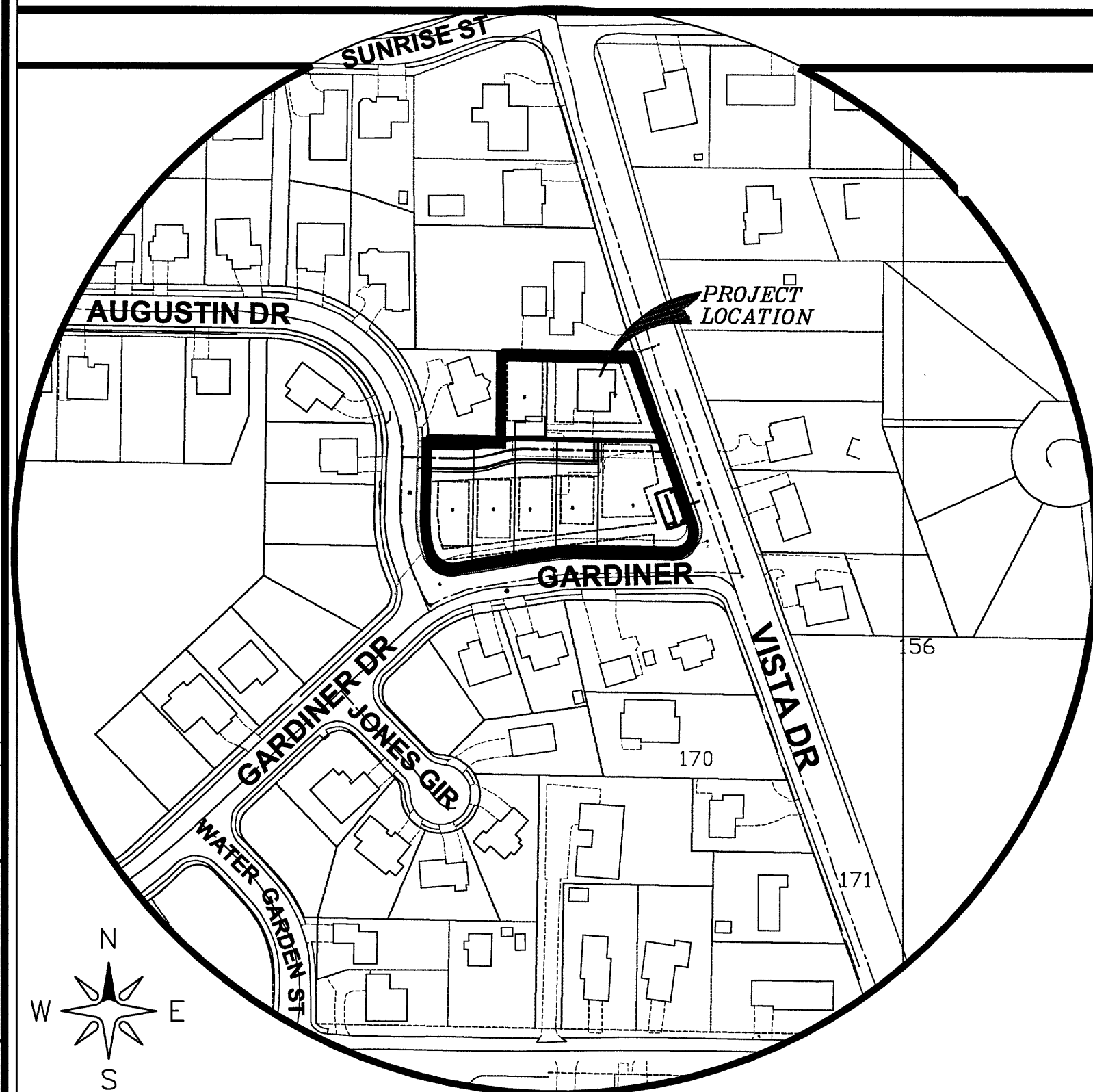


A PORTION OF THE NE 1/4 OF SECTION 19  
TOWNSHIP 39 N., RANGE 2 E. OF THE W.M.  
CITY OF FERNDALE, WHATCOM COUNTY, WASHINGTON

# MARIANAS LONG PLAT

## RECORD DRAWINGS



VICINITY MAP 1"=150'

1. COVER SHEET
2. EXISTING CONDITIONS
3. EROSION CONTROL PLAN
4. SUBDIVISION PLAN
5. STREET & STORM DRAINAGE PLAN & PROFILE
6. STREET & STORM DRAINAGE PLAN & PROFILE
7. STORM DRAINAGE PLAN, PROFILE & DETAILS
8. WALL
9. STREET & STORM DRAINAGE DETAILS
10. STREET & STORM DRAINAGE DETAILS
11. SANITARY SEWER PLAN AND PROFILE
12. SANITARY SEWER DETAILS
13. WATER DISTRIBUTION PLAN AND PROFILE
14. WATER DISTRIBUTION DETAILS
15. COMPOSITE UTILITY PLAN
16. CITY OF FERNDALE GENERAL NOTES

### LEGEND:

●	= FND BRASS MON	— OH —	= EXIST OVERHEAD UTILITIES (UNKNOWN)
●	= FND ALUMINUM CAP MON	— G —	= EXIST GAS MAIN
●	= FND REBAR AND CAP	— W —	= EXIST WATER LINE
△	= SET RED CAP WITH REBAR	— WS —	= EXIST WATER SERVICE LINE
○	= SET RAILROAD SPIKE	— S —	= EXIST SANITARY SEWER LINE
⊕	= SET BERTINSEN ROD	— SD —	= EXIST STORM DRAIN LINE
●	= SET YPC	— R —	= EXISTING ROAD CENTERLINE
□	= EXIST SD CATCH BASIN (TYPE 1)	— CL —	= EXIST CHAIN LINK FENCE
□	= EXIST SD CATCH BASIN (TYPE 2)	— WPF —	= EXIST WOOD POST FENCE
⊕	= EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)	— C —	= EXIST CONC. FENCE OR RET. WALL
⊕	= EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)	— R —	= EXIST ROCK WALL
⊕	= EXIST SD CLEANOUT	— 10 —	= EXIST CONTOUR (INDEX)
●	= PROPOSED STORM DRAIN SERVICE	— 12 —	= EXIST CONTOUR (NORMAL)
●	= PROPOSED STORM DRAIN CLEANOUT	• 155.45 (BWEL)	= SPOT ELEVATION AT BOTTOM OF RETAINING WALL
●	= PROPOSED STORM DRAIN CATCH BASIN	• 155.45 (TWEL)	= SPOT ELEVATION AT TOP OF RETAINING WALL
●	= PROPOSED STORM DRAIN MANHOLE (TYPE 2)	— SD —	= PROPOSED ALLAN BLOCK WALL
●	= EXIST SANITARY SEWER MANHOLE	— SS —	= PROPOSED STORM DRAIN LINE
●	= PROPOSED SANITARY SEWER SERVICE	— W —	= PROPOSED SAN. SEWER LINE
●	= PROPOSED SEWER CLEANOUT	— RY —	= PROPOSED WATER LINE
●	= PROPOSED SEWER MANHOLE	— RY —	= PROPOSED ROOF DRAIN
⊕	= EXISTING WATER METER BOX	—	= EXIST ASPHALT
⊕	= EXISTING WATER VALVE	—	= EXIST GRAVEL DRIVEWAY
⊕	= EXISTING FIRE HYDRANT	—	= EXIST STRUCTURE
⊕	= EXIST WATER VALVE BOX	—	= OFFSITE WETLANDS BASED ON
⊕	= EXIST LIGHT POLE	—	= EXIST CONC SIDEWALK
⊕	= EXIST TELEPHONE POLE	—	= EXIST CONC SIDEWALK
⊕	= EXIST MAIL BOX	—	= SILT FENCE (BMP C233)
⊕	= EXIST SIGN	—	= PROPOSED ASPHALT
		—	= PROPOSED COMMON UTILITIES
		—	= PROPOSED PAVEMENT SAW-CUT LINE

PAVEMENT REPAIR NOTES:  
1. MINIMUM WIDTH FOR PAVEMENT REPAIR SHALL BE 42-INCHES.  
2. PAVEMENT REPAIR THICKNESS SHALL BE PER COF DETAIL R-4 (SEE SHEET 9)  
MATCH EXISTING ASPHALT SECTION WHICHEVER PROVIDES THE THICKER SECTION.

### ABBREVIATIONS:

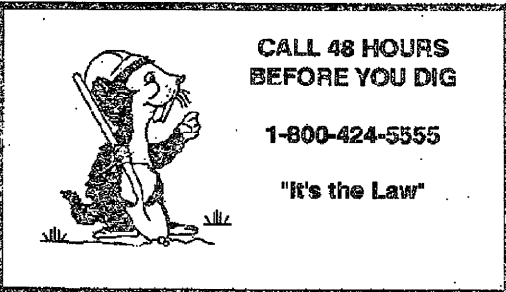
AB	= AS-BUILT	HYD	= FIRE HYDRANT	SD	= STORM DRAIN
BMP	= BEST MANAGEMENT PRACTICE	IE	= INVERT ELEVATION	SDCB	= STORM DRAIN CATCH BASIN
BNDRY	= BOUNDARY	JBOX	= JUNCTION BOX	SQ. IN.	= SQUARE INCHES
CL	= CENTERLINE	lbs.	= POUNDS	SS	= SANITARY SEWER
CMP	= CORRUGATED METAL PIPE	LF	= LINEAR FEET	SSCO	= SANITARY SEWER CLEAN OUT
CONC	= CONCRETE	LT	= LEFT	SF	= SQUARE FEET
CPDP	= CORRUGATED POLYETHYLENE DRAIN PIPE	MON	= MONUMENT	SSMH	= SANITARY SEWER MANHOLE
CSTC	= CRUSHED SURFACING TOP COURSE	O.D.	= OUTSIDE DIAMETER	STA:	= STATION
CSCC	= CRUSHED SURFACING BASE COURSE	OHWM	= ORDINARY HIGH WATER MARK	STRC	= STRUCTURE
CTRL	= CONTROL	O/S	= OFFSET	SWALK	= SIDEWALK
DI	= DUCTILE IRON	PERM	= PERMANENT	SWMF	= STORM WATER MANAGEMENT FILTER
DOE	= DEPARTMENT OF ECOLOGY	PK NAIL	= PARKER-KALON NAIL	SWMM	= STORM WATER MANAGEMENT MANUAL
DRVWY	= DRIVE WAY	PFP	= PROPOSED	SWPPP	= STORMWATER POLLUTION PREVENTION PLAN
DTL	= DETAIL	PVC	= POLYVINYL CHLORIDE PIPE	TEL	= TELEPHONE
E	= EASTING	PSE	= PUGET SOUND ENERGY	TEMP.	= TEMPORARY
EG	= EXISTING GROUND	PHR	= POWER	TESC	= TEMPORARY EROSION AND SEDIMENT CONTROL
ELEV/EL	= ELEVATION	N	= NORTHING	TW	= TOP OF WALL
EXIST/EX	= EXISTING	R	= RADIUS	TYP.	= TYPICAL
FF	= FINISH FLOOR	RET	= RETAINING WALL	WA	= WATER
FG	= FINISH GROUND	ROW	= RIGHT OF WAY	WL	= WATER LEVEL
FL	= FLOW LINE	RT	= RIGHT	WM	= WATER MAIN
FM	= FORMMAN	RY	= ROOF AND YARD	WSEL	= WATER SURFACE ELEVATION
FND	= FOUND	S	= SLOPE	X-ING	= CROSSING
G.V.	= GATE VALVE			YPC	= YELLOW PLASTIC CAP
				Ø	= DIAMETER

OWNER/APPLICANT  
RAMON LLANOS  
5160 INDUSTRIAL PL., SUITE 108  
FERNDAL, WA 98248  
CONTACT: RAMON LLANOS  
(360) 815-4663

ENGINEER  
LDES, INC.  
5160 INDUSTRIAL PL., SUITE 108  
FERNDAL, WA 98248  
CONTACT: RAMON LLANOS, P.E.  
(360) 383-0620

SURVEYOR  
LDES, INC.  
5160 INDUSTRIAL PL., SUITE 108  
FERNDAL, WA 98248  
CONTACT: KYLE HAGGITH, PLS.  
(360) 383-0620

BURIED UTILITIES NOTE:  
ALL UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE APPROXIMATE LOCATIONS ONLY AND THERE IS NO GUARANTEE THAT ALL UTILITIES ON THIS SITE ARE SHOWN. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT THE WASHINGTON STATE UTILITY LOCATED CENTER AT LEAST 48 HOURS BEFORE CONSTRUCTION.

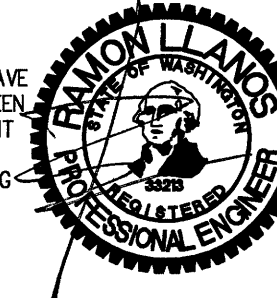


ENGINEER'S CERTIFICATION  
I HEREBY CERTIFY THAT THE IMPROVEMENTS IN "MARIANAS LONG PLAT" HAVE BEEN INSPECTED BY LDES AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.

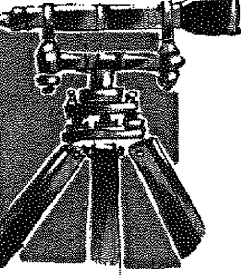
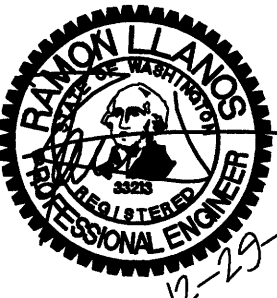
*[Signature]*  
RAMON LLANOS, P.E.

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: 1/16/2017

*[Signature]*  
KYLE HAGGITH, PLS.



NO.	REVISION	BY	DATE
1	AS-BUILT SUBMITTAL 1	RL	12/29/16
2			
3			
4			
5			
6			
7			
8			
9			
10			



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: *[Signature]* Date: 1-18-17

COVER SHEET  
MARIANAS LONG PLAT

SHEET  
1  
OF  
16

RECORD DRAWING

00612.001 1/19/17 SH



# MARIANA'S LONG PLAT

LAND DEVELOPMENT ENGINEERING AND SURVEYING  
5160 INDUSTRIAL PL. #108  
FERNDALE WA 98248  
CONTACT: RAMON LLANOS 360-815-4663

PROJECT ADDRESS:  
5945 VISTA DR  
FERNDALE, WA 98248

AREA:  
OVERALL PARCEL AREA 37,741.75 SF (0.86 AC)  
RIGHT OF WAY DEDICATION 0  
TOTAL LOT AREA 37,741.75 SF (0.86 AC)

ZONING: RSB SINGLE FAMILY DWELLING

LEGAL DESCRIPTION:  
(PARCEL No. 390219 469363 & 390219 460363)

LOT G, GARDINER TERRACE No. 2 LOT LINE ADJUSTMENT, AS RECORDED IN BOOK 21 OF SHORT PLATS, PAGE 41, RECORDS OF WHATCOM COUNTY, WASHINGTON, EXCEPT THAT PORTION DESCRIBED AS FOLLOWS:

COMMENCING AT THE SOUTHEASTERN CORNER OF THAT TRACT CONVEYED TO EARL L. WYNN BY DEED DATED OCTOBER 21, 1946, RECORDED IN VOLUME 334 OF DEED, PAGE 350, AS AUDITOR'S FILE No. 650668, RECORDS OF WHATCOM COUNTY, WASHINGTON, WHICH POINT LIES IN THE CENTER OF THE FERNDALE AND BALINE ROAD; THENCE NORTH 89°44'10" WEST, ALONG SAID SOUTH LINE 307 FEET TO THE SOUTHWEST CORNER OF SAID TRACT; THENCE NORTH 00°15'50" EAST, ALONG THE WEST LINE THEREOF, 11.97 FEET TO THE POINT OF BEGINNING OF THIS DESCRIPTION; THENCE CONTINUE ALONG SAID WEST LINE, NORTH 00°15'50" EAST, 121.55 FEET TO THE NORTHWEST CORNER OF SAID TRACT; THENCE ALONG SAID NORTH LINE OF SAID TRACT, SOUTH 89°44'10" EAST 225.35 FEET TO THE WESTERLY MARGIN OF SAID ROAD; THENCE ALONG SAID MARGIN NORTH 20°07'54" WEST, 20.92 FEET; THENCE NORTH 89°44'10" WEST, PARALLEL TO SAID NORTH LINE, 271.07 FEET TO A POINT ON CURVE TO THE RIGHT OF WHICH THE RADIUS POINT BEARS SOUTH 89°54'40" WEST; THENCE SOUTHERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 125 FEET THROUGH A CENTRAL ANGLE OF 04°05'05" AN ARC DISTANCE OF 12.83 FEET, TO A POINT ON TANGENT; THENCE SOUTH 00°59'45" WEST, 74.72 FEET TO A POINT ON CURVE TO THE LEFT OF WHICH THE RADIUS POINT BEARS SOUTH 89°00'15" EAST; THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE HAVING A RADIUS OF 125 FEET THROUGH A CENTRAL ANGLE OF 19°24'07" AN ARC DISTANCE OF 42.33 FEET, TO A POINT OF COMPOUND CURVATURE TO THE LEFT OF WHICH THE RADIUS POINT BEARS NORTH 71°33'38" EAST; THENCE SOUTHEASTERLY ALONG SAID CURVE HAVING A RADIUS OF 25 FEET THROUGH A CENTRAL ANGLE OF 87°39'19" AN ARC DISTANCE OF 38.25 FEET, TO A POINT OF REVERSE CURVATURE TO THE RIGHT OF WHICH THE RADIUS POINT BEARS SOUTH 16°03'41" EAST; THENCE NORTHEASTERLY ALONG SAID CURVE HAVING A RADIUS OF 180 FEET THROUGH A CENTRAL ANGLE OF 05°22'14", AN ARC DISTANCE OF 16.87 FEET, MORE OR LESS, TO THE POINT OF BEGINNING.

SITUATE IN WHATCOM COUNTY, WASHINGTON

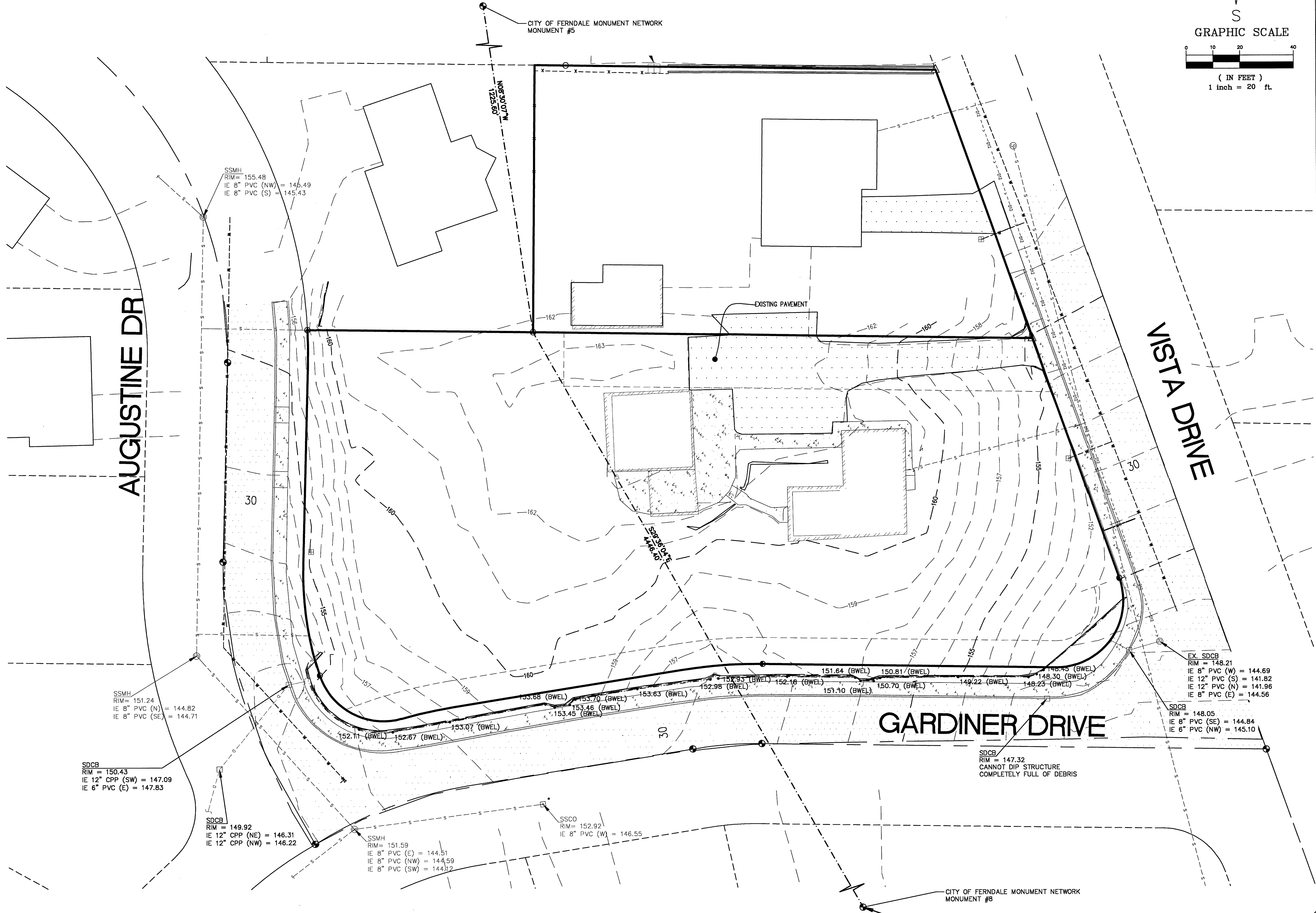
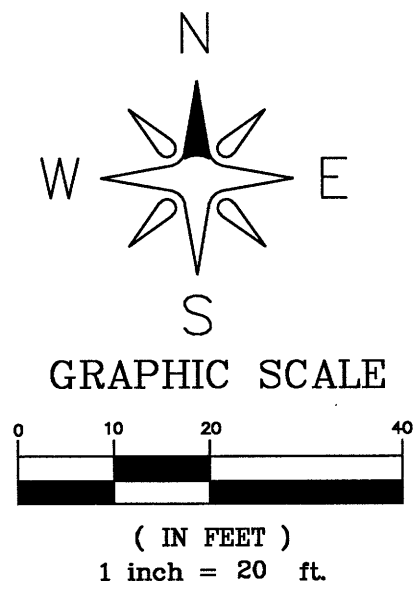
SURVEY NOTE:  
NO FIELD SURVEY HAS BEEN DONE ON THIS PARCEL AS OF OCTOBER 21, 2014.  
EXISTING INFORMATION SHOWN HEREON IS BASED ON AERIAL INFORMATION

## LEGEND:

- = FND BRASS MON
- = FND ALUMINUM CAP MON
- △ = FND REBAR AND CAP
- ▲ = SET RED CAP WITH REBAR
- ⊙ = SET RAILROAD SPIKE
- ⊕ = SET BERNTSEN ROD
- = SET YPC
- = EXIST SD CATCH BASIN (TYPE 1)
- = EXIST SD CATCH BASIN (TYPE 2)
- ⊕ = EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- ⊕ = EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- = EXIST SD CLEANOUT
- = PROPOSED STORM DRAIN SERVICE
- = PROPOSED STORM DRAIN CLEANOUT
- = PROPOSED STORM DRAIN CATCH BASIN
- ⊕ = PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- ⊕ = EXIST SANITARY SEWER MANHOLE
- ▲ = PROPOSED SANITARY SEWER SERVICE
- = PROPOSED SEWER CLEANOUT
- = PROPOSED SEWER MANHOLE
- = EXISTING WATER METER BOX
- = EXISTING WATER VALVE
- = EXISTING FIRE HYDRANT
- = EXIST WATER VALVE BOX
- = EXIST LIGHT POLE
- = EXIST TELEPHONE POLE
- = EXIST MAIL BOX
- = EXIST SIGN
- — — — — = EXIST OVERHEAD UTILITIES (UNKNOWN)
- — — — — = EXIST GAS MAIN
- — — — — = EXIST WATER LINE
- — — — — = EXIST WATER SERVICE LINE
- — — — — = EXIST SANITARY SEWER LINE
- — — — — = EXIST STORM DRAIN LINE
- — — — — = EXISTING ROAD CENTERLINE
- — — — — = EXIST CHAIN LINK FENCE
- — — — — = EXIST WOOD POST FENCE
- — — — — = EXIST CONC. FENCE OR RET. WALL
- — — — — = EXIST ROCK WALL
- — — — — = EXIST CONTOUR (INDEX)
- — — — — = EXIST CONTOUR (NORMAL)
- 155.45 (BWEL) = SPOT ELEVATION AT BOTTOM OF RETAINING WALL
- 155.45 (TWEL) = SPOT ELEVATION AT TOP OF RETAINING WALL
- — — — — = PROPOSED ALLIUM BLOCK WALL
- — — — — = EXIST ASPHALT
- — — — — = EXIST GRAVEL DRIVEWAY

# MARIANAS LONG PLAT

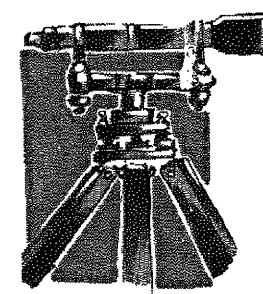
## A PORTION OF THE SE 1/4 OF SECTION 19, T.39N, R.2E.



00612.002 1/19/17 SH

RECORD DRAWING

NO.	REVISION	BY	DATE
1	ASBUILT SUBMITTAL 1	RL	12/28/16



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: Date: 1-15-17

**EXISTING CONDITIONS**  
**MARIANAS LONG PLAT**

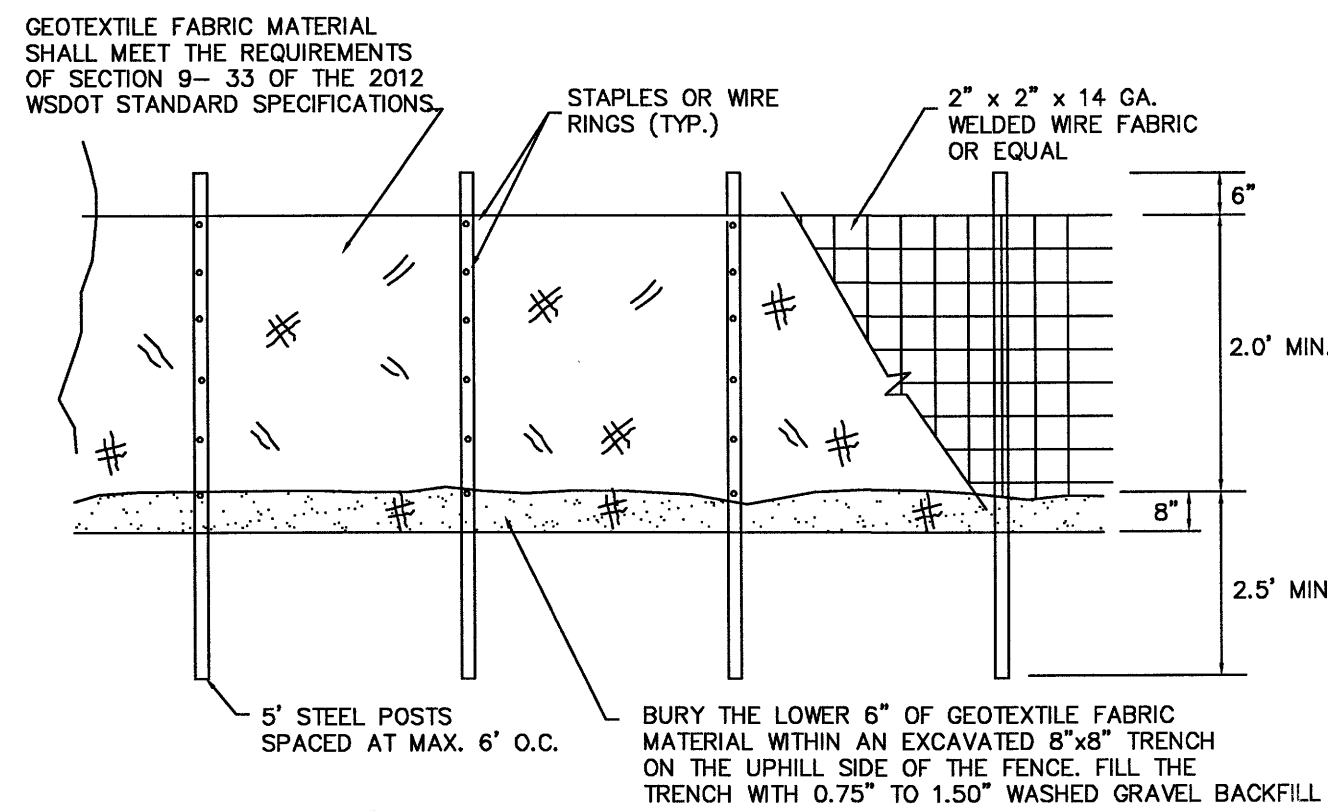
SHEET  
**2**  
OF  
**16**



CITY OF FERNDALE TESC NOTES:

1. STABILIZATION & SEDIMENT TRAPPING. ALL EXPOSED SOILS SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMP'S. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN UNEXPOSED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 7 DAYS. PRIOR TO LEAVING THE SITE, STORMWATER RUNOFF SHALL PASS THROUGH A SEDIMENT POND, TRAP OR OTHER APPROPRIATE BMP.
2. DELINEATE CLEARING & EASEMENT LIMITS. IN THE FIELD, STAKE AND FLAG CLEARING LIMITS AND/OR ANY EASEMENTS, SETBACKS, SENSITIVE/CRITICAL AREAS AND THEIR BUFFERS, TREES AND DRAINAGE COURSES.
3. PROTECTION OF ADJACENT PROPERTIES. PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION.
4. TIMING & STABILIZATION OF SEDIMENT TRAPPING MEASURES. SEDIMENT PONDS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER BMP'S INTENDED TO TRAP SEDIMENT ON-SITE SHALL BE CONSTRUCTED AS A FIRST STEP IN GRADING. THESE BMP'S SHALL BE FUNCTIONAL BEFORE LAND DISTURBING ACTIVITIES TAKE PLACE. EARTH STRUCTURES SUCH AS DAMS, DIKES AND DIVERSIONS SHALL BE SEEDED AND MULCHED ACCORDING TO THE TIMING INDICATED IN NO. 1 ABOVE.
5. CUT & FILL SLOPES. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. IN ADDITION, SLOPES SHALL BE STABILIZED IN ACCORDANCE WITH NO. 1 ABOVE.
6. CONTROLLING OFF-SITE EROSION. PROPERTIES AND WATERWAYS DOWNSTREAM FROM THE DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.
7. STABILIZATION OF TEMPORARY CONVEYANCE CHANNELS & OUTLETS. ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION FROM THE EXPECTED VELOCITY OF FLOW FROM A 2-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. STABILIZATION ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAMBANKS, SLOPES AND DOWNSTREAM REACHES SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.
8. STORM DRAIN INLET PROTECTION. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.
9. UNDERGROUND UTILITY CONSTRUCTION. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA; WHERE FEASIBLE, NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME; WHERE CONSISTENT WITH SAFETY AND SPACE CONSIDERATIONS, EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES; AND TRENCH DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
10. CONSTRUCTION ACCESS ROUTES. WHEREVER CONSTRUCTION VEHICLE ACCESS ROUTES INTERSECT PAVED ROADS, PROVISIONS MUST BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT (MUD) ONTO THE PAVED ROAD. IF SEDIMENT IS TRANSPORTED ONTO A ROAD SURFACE, THE ROADS SHALL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT SHALL BE REMOVED FROM ROADS BY SHOVELING OR SWEEPING AND BE TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA. STREET WASHING SHALL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
11. REMOVAL OF TEMPORARY BMP'S. ALL TEMPORARY EROSION AND SEDIMENT CONTROL BMP'S SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION IS ACHIEVED OR AFTER TEMPORARY BMP'S ARE NO LONGER NEEDED. TRAPPED SEDIMENT SHALL BE REMOVED OR STABILIZED ON SITE. DISTURBED SOIL AREAS RESULTING FROM REMOVAL SHALL BE PERMANENTLY STABILIZED.
12. DEWATERING CONSTRUCTION SITES. DEWATERING DEVICES SHALL DISCHARGE INTO A SEDIMENT TRAP OR SEDIMENT POND.
13. CONTROL OF POLLUTANTS OTHER THAN SEDIMENT ON CONSTRUCTION SITES. ALL POLLUTANTS OTHER THAN SEDIMENT THAT OCCUR ON-SITE DURING CONSTRUCTION SHALL BE HANDLED AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER.
14. MAINTENANCE. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL BMP'S SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
15. FINANCIAL LIABILITY. PERFORMANCE BONDING, OR OTHER APPROPRIATE FINANCIAL INSTRUMENTS, SHALL BE REQUIRED FOR ALL PROJECTS TO ENSURE COMPLIANCE WITH THE APPROVED TESC PLAN.

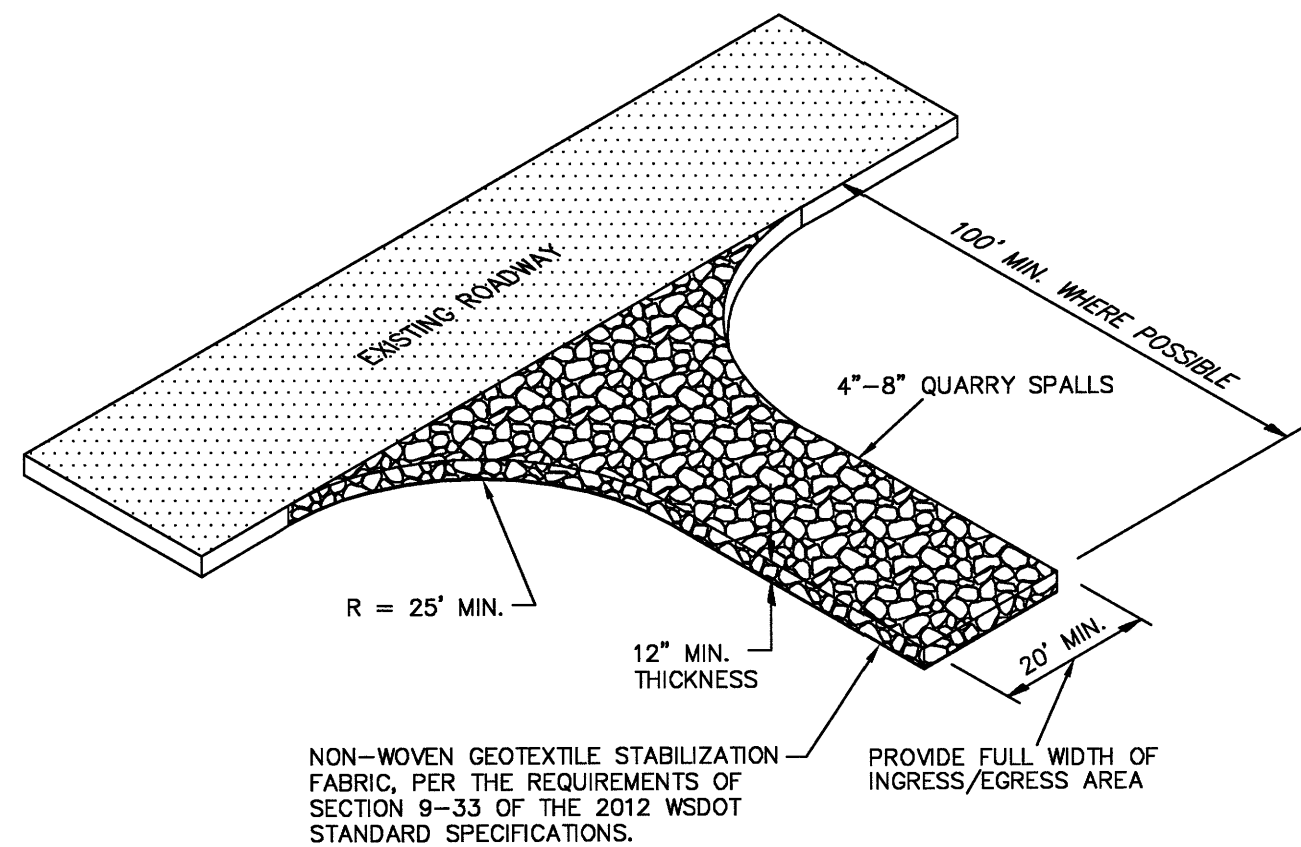
① SILT FENCE DETAIL (BASED ON FERNDAL ST-10)  
not to scale



GENERAL NOTES:

1. ANY DAMAGE TO FENCING SHALL BE REPAIRED IMMEDIATELY.
2. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEN THE WATER MUST BE INTERCEPTED AND CONVEYED TO A FULLY-FUNCTIONING SEDIMENT TRAP, POND, OR CONVEYANCE SYSTEM.
3. IT IS IMPORTANT TO PERIODICALLY CHECK THE UPHILL SIDE OF FENCING FOR SIGNS OF CLOGGING. IF CLOGGING OCCURS, THE FENCE WILL ACT AS A BARRIER TO FLOW AND WILL CAUSE CHANNELIZATION PARALLEL TO THE FENCE. TO REMEDY THIS, THE CONTRACTOR SHALL REPLACE THE FENCE AND/OR REMOVE THE TRAPPED SEDIMENT.
4. SILT FENCING SHALL BE CONSTRUCTED DIRECTLY AFTER CLEARING AND GRUBBING IS COMPLETE. THE FENCE SHALL ONLY BE REMOVED WHEN CONSTRUCTION OF UTILITIES DEMS IT ABSOLUTELY NECESSARY. IMMEDIATELY AFTER UTILITIES ARE IN-PLACE, THE SILT FENCING SHALL BE RECONSTRUCTED.

② QUARRY SPALL CONSTRUCTION ENTRANCE DETAIL  
not to scale



GENERAL NOTES:

1. IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO SURROUNDING FACILITIES, THEN ALTERNATIVE MEASURES TO KEEP THE FACILITIES FREE OF SEDIMENT SHALL TO USED. THIS MAY INCLUDE STREET SWEEPING OR UPSIZING THE DIMENSIONS OF THE ENTRANCE.
2. ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH PAVEMENT, A SMALL SUMP OR POND SHALL BE CONSTRUCTED AND THE SEDIMENT SHALL BE CONVEYED INTO THE SUMP OR POND.

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

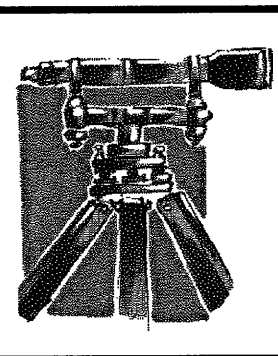
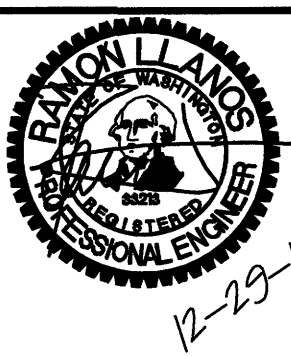
1. EROSION CONTROL METHODS AND MATERIALS SHALL MEET THE REQUIREMENTS OF SECTION 8-01 OF THE 2012 WSDOT/APWA STANDARD SPECIFICATIONS, THE REQUIREMENTS SET FORTH IN VOLUME II OF THE "STORMWATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON" BY THE WASHINGTON STATE DEPARTMENT OF ECOLOGY, CURRENT EDITION, THE CITY OF LYNDEN DEVELOPMENT STANDARDS, THE PROJECT SWPPP AND THIS PLAN, WITH THE MOST EFFECTIVE REQUIREMENTS TAKING PRECEDENCE. THE CONTRACTOR SHALL FOLLOW RECOMMENDATIONS MADE BY SUPPLIERS AND MANUFACTURERS FOR ALL MATERIALS AND EQUIPMENT USED.
2. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS TO PREVENT SILTY STORMWATER FROM EXITING THE SITE. IF SILT LADEN STORMWATER EXITS THE SITE, THE ENGINEER SHALL STOP WORK ON THE JOB. IT IS THE CONTRACTOR'S RESPONSIBILITY TO WORK WITH THE PROJECT ENGINEER OR LOCAL JURISDICTION TO COORDINATE FURTHER EROSION CONTROL MEASURES, NOT SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN, THAT MAY BE NECESSARY TO CONTROL SITE RUNOFF.
3. THE EXISTING AND PROPOSED STORM SYSTEMS SHALL BE CLEANED AND MAINTAINED THROUGHOUT CONSTRUCTION AND UNTIL ALL ON-SITE SOILS HAVE BEEN STABILIZED.
4. AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL FLUSH OUT ALL DEBRIS FROM THE STORM SYSTEM INSTALLED ON-SITE. MATERIAL FLUSHED FROM THE STORM SYSTEM SHALL BE DISPOSED OF BY THE CONTRACTOR AT AN APPROVED DISPOSAL SITE.

TESC LEGEND:

- QUARRY SPALL CONSTRUCTION ENTRANCE (BMP C105) (X QXX)
- SILT FENCE (BMP C233) (1 03) TO BE INSTALLED IF DIRECTED BY THE COP OF CESOL
- SEEDING (BMP C120) (SD)
- DUST CONTROL (BMP C140) (DC)
- STORM INLET PROTECTION (BMP C220) (IP) ADD TO CATCH BASINS AS THEY ARE INSTALLED (X QXX)

R:\Common\Land Projects\2021\2021-Gardiner Short Plat Research (9845 Vista Dr.)\Veg\2021-Long Plat. well-AS-BUILDING PLAT DATE:12/29/2016 12:31 PM

ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: [Signature] Date: 1-18-17

EROSION CONTROL PLAN  
MARIANAS LONG PLAT

SHEET  
3  
OF 16

RECORD DRAWING

00612.003 1/19/17 SH

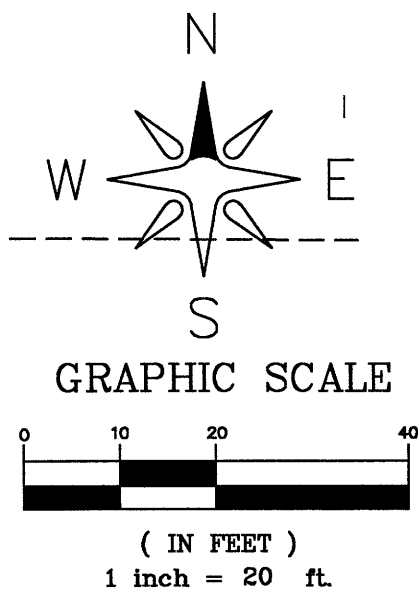


**SURVEY NOTES:**

VERTICAL DATUM: CITY OF FERDALE NGVD 29  
HORIZONTAL DATUM: WASHINGTON STATE NORTH ZONE NAD 83/91

**LEGEND:**

- = FND BRASS MON
- ⊙ = FND ALUMINUM CAP MON
- ⊕ = FND REBAR AND CAP
- △ = SET RED CAP WITH REBAR
- = SET RAILROAD SPIKE
- ⊕ = SET BERNTSEN ROD
- = SET YPC



**AUGUSTINE DR**

**VISTA DRIVE**

**GARDINER DRIVE**

**LOTS RECEIVING FILL REQUIRE:**

A structural fill certificate noting compaction records and the depth of fill from the geotechnical agency certifying the lot is approved for home construction. The building envelope shall be defined on the final plat map prior to recording.

LOTS 1 THROUGH 6 SHALL BE RESPONSIBLE FOR THE STORMWATER VAULT MAINTENANCE  
LOTS 2 THROUGH 7 SHALL BE RESPONSIBLE FOR THE PRIVATE ROAD MAINTENANCE

1. A LETTER FROM THE ENGINEER OF RECORD SHALL BE INCLUDED WITH ANY BUILDING PERMIT APPLICATION FOR LOTS 1 THROUGH 6 THAT INCLUDES A SITE PLAN AND CONFIRMS THAT ALL PROPOSED IMPERVIOUS SURFACES WILL BE CONVEYED TO THE STORMWATER POND ON LOT 1. THE LETTER SHALL CONFIRM THAT THE LOT COVERAGE DOES NOT EXCEED THE ALLOWABLE IMPERVIOUS SURFACES ALLOCATED WHEN SIZING THE POND. FURTHERMORE, THE ENGINEER OF RECORD SHALL CONFIRM THAT THE PROPOSED IMPROVEMENTS OF SAID LOTS DO NOT CONVEY STORMWATER TO OR JEOPARDIZE THE INTEGRITY OF THE EXISTING RETAINING WALL ALONG GARDINER DRIVE.
2. ONCE HOME AND SITE GRADING HAS BEEN COMPLETED FOR THE INDIVIDUAL LOTS THE ENGINEER OF RECORD SHALL PREPARE A LETTER STATING THAT THE IMPROVED LOT COMPLIES WITH THE APPROVED SITE PLAN SUBMITTAL AND STORM WATER REPORT INSURING THE INTEGRITY OF THE EXISTING RETAINING WALL ALONG GARDINER DRIVE HAS NOT BEEN COMPROMISED. THIS LETTER WILL BE REQUIRED TO RECEIVE FINAL OCCUPANCY.

LOT	IMPERVIOUS	LANDSCAPE	TOTAL
1	2,892.00	9,063.00	11,955.00
2	3,701.00	2,162.00	5,863.00
3	3,821.00	2,300.00	6,121.00
4	3,977.00	2,538.00	6,515.00
5	4,017.00	3,272.00	7,289.00
6	2,100.00	2,898.00	4,998.00
TOTAL	20,508.00	22,233.00	42,741.00

**LD&S, INC.**  
5160 INDUSTRIAL PL. #108  
FERDALE, WA 98248  
PHONE 360-383-0620  
FAX 360-383-0639

JOB NO.: 1470  
DWG. NAME:  
DESIGNED BY: RL  
DRAWN BY: YC  
CHECKED BY: RL

**APPROVED**  
City of Ferndale Public Works  
By: [Signature] Date: 1-15-17

**SUBDIVISION PLAN**  
**MARIANAS LONG PLAT**

SHEET  
**4**  
OF 16

**RECORD DRAWING**

00612.004 1/19/17 SH

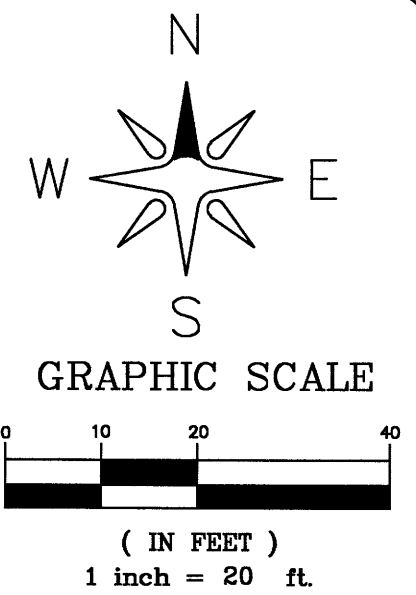
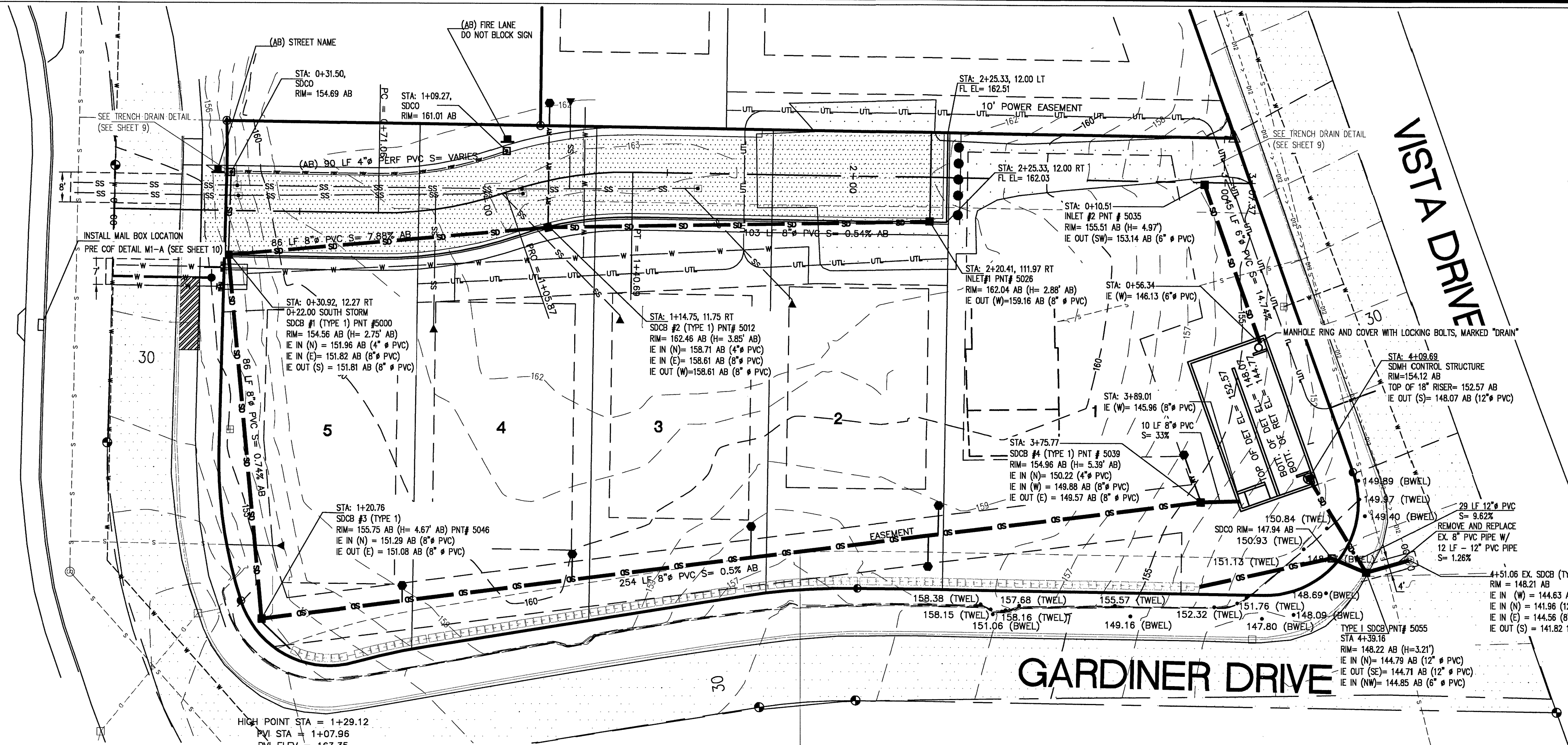


# LEGEND:

- FND BRASS MON
- FND ALUMINUM CAP MON
- FND REBAR AND CAP
- SET RED CAP WITH REBAR
- SET RAILROAD SPIKE
- SET BERTSEN ROD
- SET YPC
- EXIST SD CATCH BASIN (TYPE 1)
- EXIST SD CATCH BASIN (TYPE 2)
- EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- EXIST SD CLEANOUT
- PROPOSED STORM DRAIN SERVICE
- PROPOSED STORM DRAIN CLEANOUT
- PROPOSED STORM DRAIN CATCH BASIN
- PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- EXIST SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SEWER CLEANOUT
- PROPOSED SEWER MANHOLE
- EXISTING WATER METER BOX
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXIST WATER VALVE BOX
- EXIST LIGHT POLE
- EXIST TELEPHONE POLE
- EXIST MAIL BOX
- EXIST SIGN
- EXIST OVERHEAD UTILITIES (UNKNOWN)
- EXIST GAS MAIN
- EXIST WATER LINE
- EXIST WATER SERVICE LINE
- EXIST SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- EXISTING ROAD CENTERLINE
- EXIST CHAIN LINK FENCE
- EXIST WOOD POST FENCE
- EXIST CONC. FENCE OR RET. WALL
- EXIST ROCK WALL
- EXIST CONTOUR (INDEX)
- EXIST CONTOUR (NORMAL)
- SPOT ELEVATION AT BOTTOM OF RETAINING WALL
- SPOT ELEVATION AT TOP OF RETAINING WALL
- PROPOSED ALLAN BLOCK WALL
- PROPOSED STORM DRAIN LINE
- PROPOSED SAN. SEWER LINE
- PROPOSED WATER LINE
- PROPOSED ROOF DRAIN
- EXIST ASPHALT
- EXIST GRAVEL DRIVEWAY
- EXIST STRUCTURE
- OFFSITE WETLANDS BASED ON
- EXIST CONC SIDEWALK
- SILT FENCE (BMP C233)
- PROPOSED ASPHALT
- PROPOSED COMMON UTILITIES
- PROPOSED PAVEMENT SAW-CUT LINE

- PAVEMENT REPAIR NOTES:
- MINIMUM WIDTH FOR PAVEMENT REPAIR SHALL BE 42-INCHES.
  - PAVEMENT REPAIR THICKNESS SHALL BE PER COF DETAIL R-4 (SEE SHEET 9) OR MATCH EXISTING ASPHALT SECTION WHICHEVER PROVIDES THE THICKER SECTION.

AUGUSTINE DR

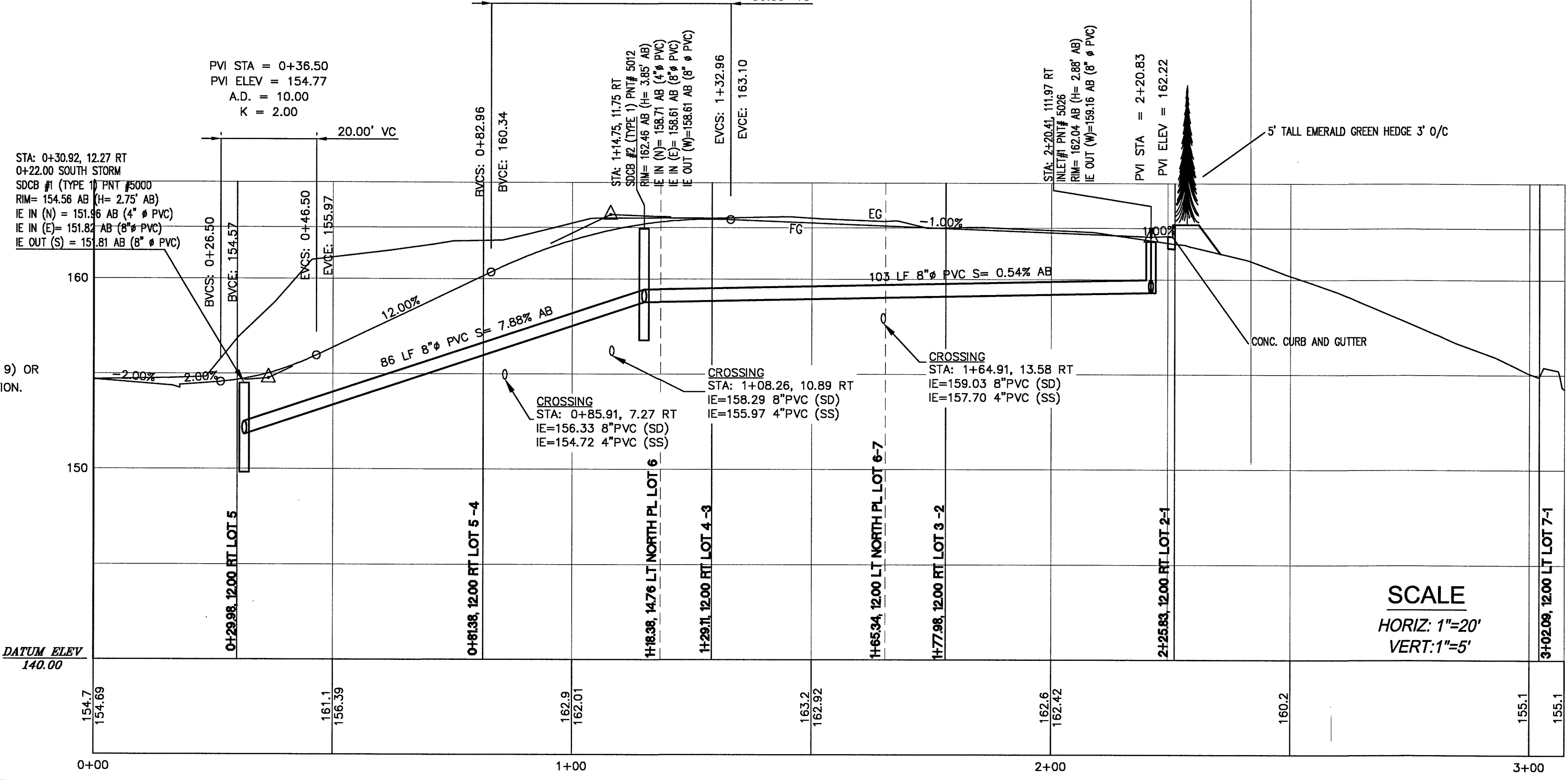


GARDINER DRIVE

VISTA DRIVE

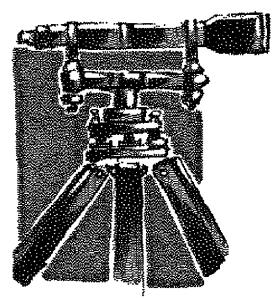
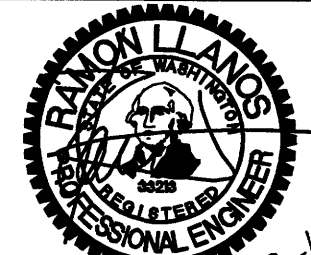
- NOTES:
- Final Plat shall provide an easement in favor of the Homeowner's Association for the private stormwater facilities located on lot 1.
  - The following note to the plan sheet and the final plat prior to recording:  
Permanent Structures or Obstructions that prevent or hinder access and/or maintenance of the private stormwater facilities within on Lot 1 are prohibited.
  - The following notes must be on the final plat prior to recording. Therefore included the following language as a note on the Civil Plan Sheet indicating these notes are required on the face of the final plat:  
A. Maintenance of stormwater management facilities shall be ensured through easements on the face of the plat, the language for which must be approved by the City of Ferndale, and recorded into the land record for plat approval.  
B. The plat language shall identify requirements and liability for preservation and maintenance of the privately owned stormwater facilities that restricts conversion of the stormwater facilities, and shall grant the City right of entry to allow inspection, and emergency maintenance and repair.  
C. Prior to final plat submit a Stormwater Maintenance Manual that includes maintenance of the facilities after final construction is completed. This Stormwater Maintenance Manual is to be passed on to the Homeowners Association. The Stormwater Maintenance Manual shall include the following:  
1.Address of site;  
2.Description of the stormwater facilities on site;  
3.As-built of the site showing all stormwater facilities;  
4.Inspection schedule to ensure proper performance of the facility between scheduled cleanouts;  
5.Maintenance schedule to ensure proper function of the stormwater facilities;  
6.Maintenance standards.
  - The applicant shall post one or more signs along the private road stating: FIRE LANE DO NOT BLOCK

SCALE  
HORIZ: 1"=20'  
VERT: 1"=5'



R:\Common\Land Projects\2012\2051-Gardiner Short Plat Research\0945\_Vista Dr\Long Plat\AS-BUILT.dwg PLOT DATE: 1/6/2017 11:34 AM

ASBUILT SUBMITTAL 1	RL	12/28/16
NO.	REVISION	BY DATE



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

JOB NO.: 1470  
DWG. NAME:  
DESIGNED BY: RL  
DRAWN BY: YC  
CHECKED BY: RL

APPROVED  
City of Ferndale Public Works  
By: Date: 1/18/17

**STREET AND STORM DRAINAGE  
PLAN AND PROFILE  
MARIANAS LONG PLAT**

SHEET  
**5**  
OF 16

RECORD DRAWING

00612.005 1/19/17 SH

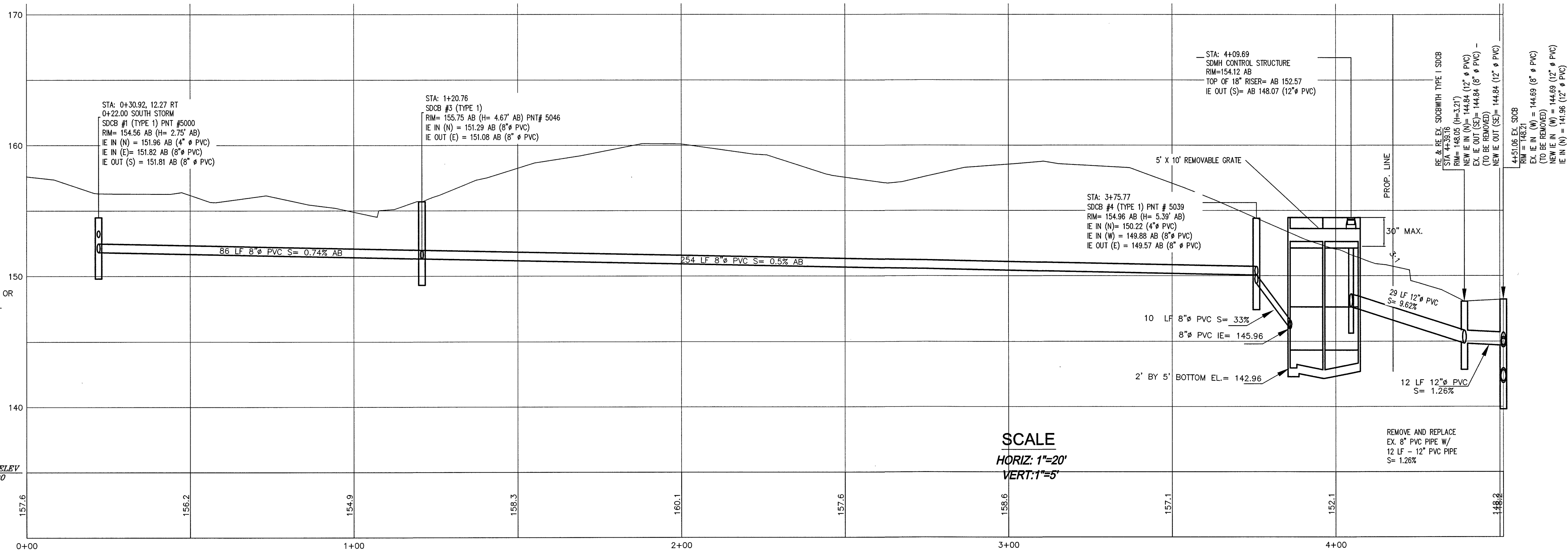
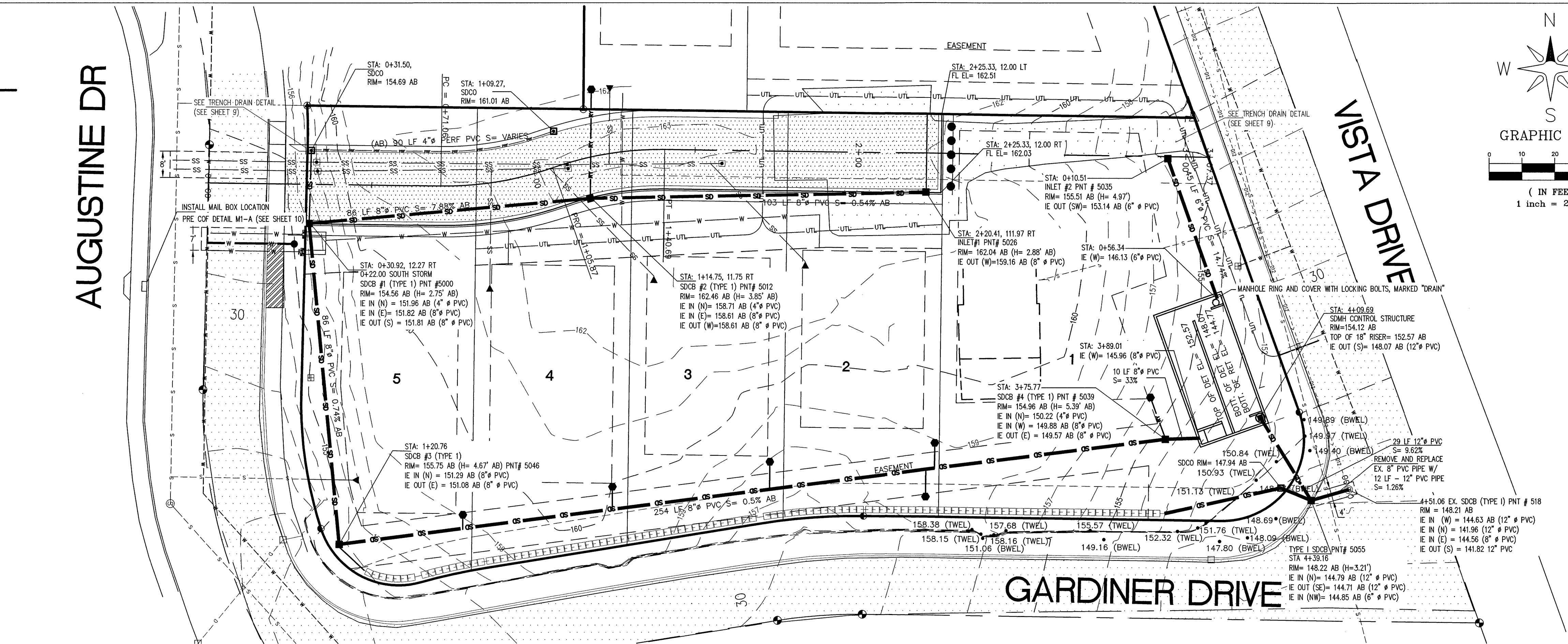


# LEGEND:

- FND BRASS MON
- FND ALUMINUM CAP MON
- FND REBAR AND CAP
- SET RED CAP WITH REBAR
- SET RAILROAD SPIKE
- SET BERTSEN ROD
- SET YPC
- EXIST SD CATCH BASIN (TYPE 1)
- EXIST SD CATCH BASIN (TYPE 2)
- EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- EXIST SD CLEANOUT
- PROPOSED STORM DRAIN SERVICE
- PROPOSED STORM DRAIN CLEANOUT
- PROPOSED STORM DRAIN CATCH BASIN
- PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- EXIST SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SEWER CLEANOUT
- PROPOSED SEWER MANHOLE
- EXISTING WATER METER BOX
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXIST WATER VALVE BOX
- EXIST LIGHT POLE
- EXIST TELEPHONE POLE
- EXIST MAIL BOX
- EXIST SIGN
- EXIST OVERHEAD UTILITIES (UNKNOWN)
- EXIST GAS MAIN
- EXIST WATER LINE
- EXIST WATER SERVICE LINE
- EXIST SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- EXISTING ROAD CENTERLINE
- EXIST CHAIN LINK FENCE
- EXIST WOOD POST FENCE
- EXIST CONC. FENCE OR RET. WALL
- EXIST ROCK WALL
- EXIST CONTOUR (INDEX)
- EXIST CONTOUR (NORMAL)
- SPOT ELEVATION AT BOTTOM OF RETAINING WALL
- SPOT ELEVATION AT TOP OF RETAINING WALL
- PROPOSED ALLAN BLOCK WALL
- PROPOSED STORM DRAIN LINE
- PROPOSED SAN. SEWER LINE
- PROPOSED WATER LINE
- PROPOSED ROOF DRAIN
- EXIST ASPHALT
- EXIST GRAVEL DRIVEWAY
- EXIST STRUCTURE
- OFFSITE WETLANDS BASED ON
- EXIST CONC SIDEWALK
- SILT FENCE (BMP C233)
- PROPOSED ASPHALT
- PROPOSED COMMON UTILITIES
- PROPOSED PAVEMENT SAW-CUT LINE

- PAVEMENT REPAIR NOTES:
1. MINIMUM WIDTH FOR PAVEMENT REPAIR SHALL BE 42-INCHES.
  2. PAVEMENT REPAIR THICKNESS SHALL BE PER COF DETAIL R-4 (SEE SHEET 9) OR MATCH EXISTING ASPHALT SECTION WHICHEVER PROVIDES THE THICKER SECTION.

AUGUSTINE DR

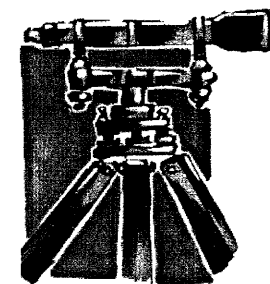
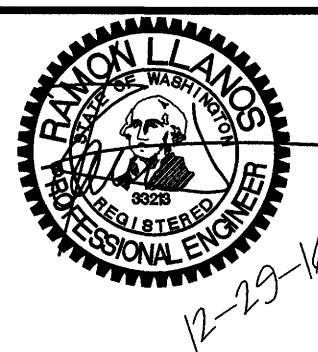


SCALE  
HORIZ: 1"=20'  
VERT: 1"=5'

RECORD DRAWING

B:\Common\Land Projects\2013\1205-Cordiner Short Plat Research (5945\_Vista Dr)\dwp\1205-Long Plat w/dt-AS-BUILD.dwg PLOT DATE: 12/20/2016 8:51 AM

ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: Date: 1-15-17

**STREET AND STORM DRAINAGE  
PLAN AND PROFILE  
MARIANAS LONG PLAT**

SHEET  
**6**  
OF 16

00612.006 1/19/17 SH



ASSUMPTIONS:  
WALL THICKNESS: 8"  
LID THICKNESS: 12"  
FLOOR THICKNESS: 8"  
HIGHWATER EL. = 152.30  
WEIGHT OF CONCRETE = 150 LB/CF  
WEIGHT OF WATER = 62.5 LB/CF  
WEIGHT OF TOPSOIL = 63 LB/CF  
AREA OF AA SECTION (ONLY CONC.) = 56.58 SF  
AREA OF BB SECTION (ONLY CONC.) = 56.58 SF  
AVG. AREA OF AA & CC SECTION = 56.78  
AREA OF END SECTION AA = 234.58 SF  
AREA OF END SECTION CC = 238.98 SF  
AREA OF END SECTION AA + CC = 473.56 SF  
VOLUME OF CONCRETE =  
56.78 SF X 4.15 FT + 473.56 SF X .67 FT = 2674 CF  
LESS 5' X 9.65' X 0.67' (GAP AT NORTH MIDBELL WALL)  
WEIGHT OF CONCRETE  
2641 CF X 150 LB/CF X 1 TON/ 2000 LB = 198 TONS

VOLUME OF RETENTION & SEDIMENT WATER=

41.5 FT X 20 FT X 4.3 FT= 3569 CF

WEIGHT OF CONCRETE

3569 CF X 62.43 LB/CF X 1 TON/ 2000 LB= 111 TONS

VOLUME OF SOIL OVER VAULT=

AREA OF END SECTION AA= 18 SF

AREA OF END SECTION BB= 54 SF

VOLUME:  $(18 + 54)/2 \times (41.5 + 67.2) = 1542$  CF

1542 CF X 63 LB/CF X 1 TON/ 2000 LB= 48 TONS

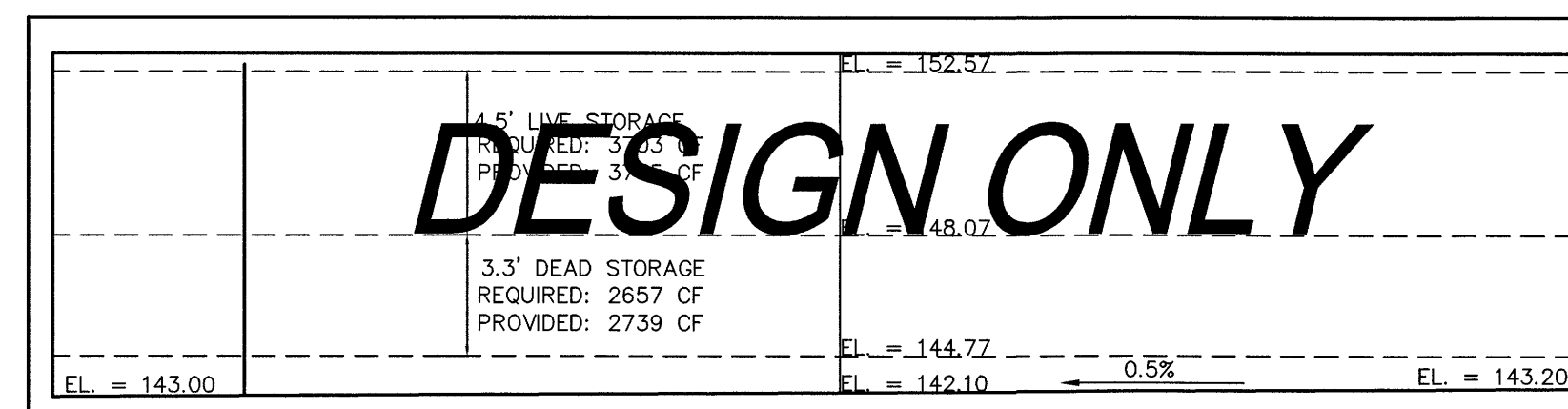
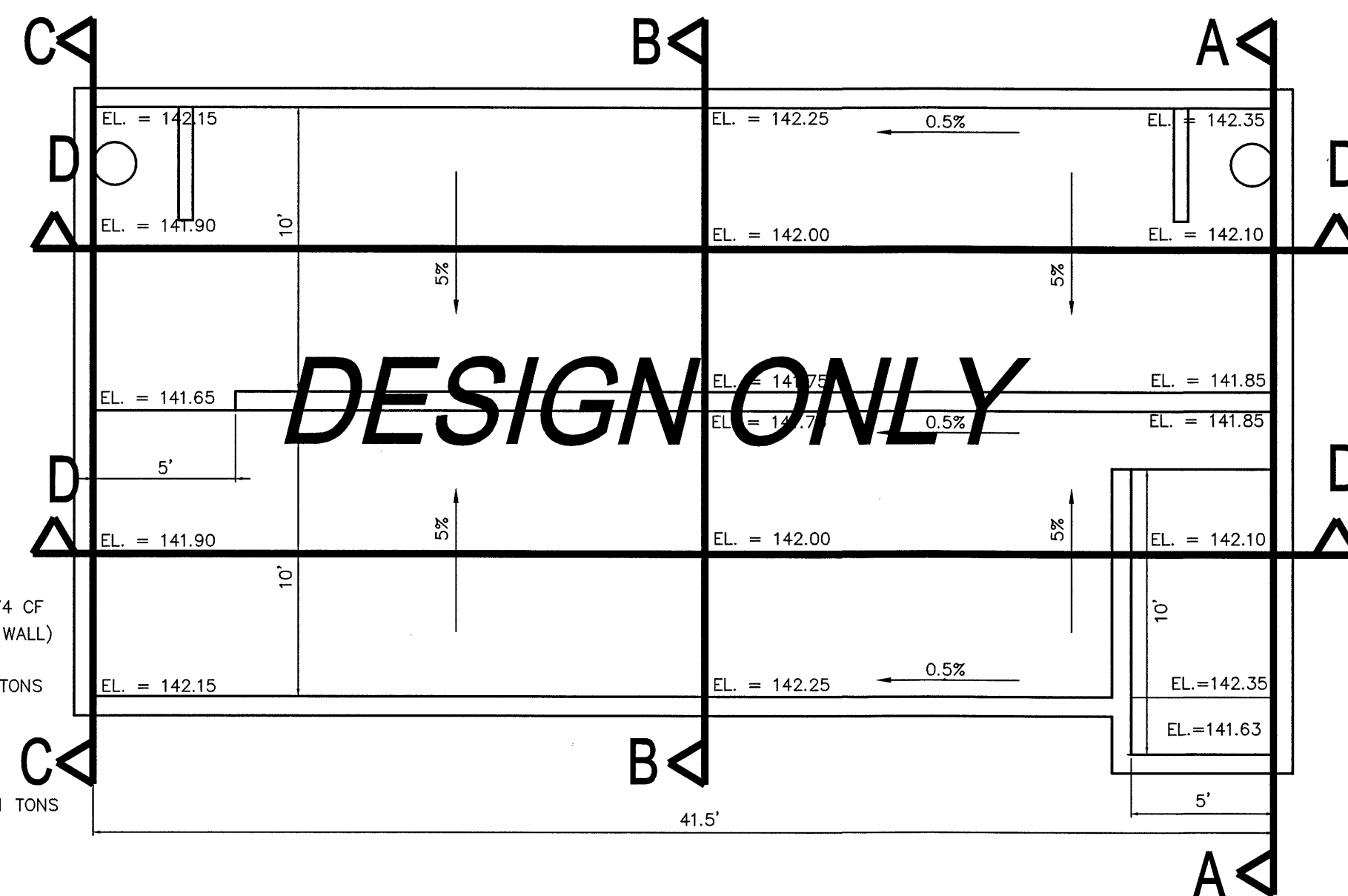
WEIGHT OF CONCRETE AND RETENTION WATER

198 TONS+ 111 TONS + 48 TONS = 357 TONS

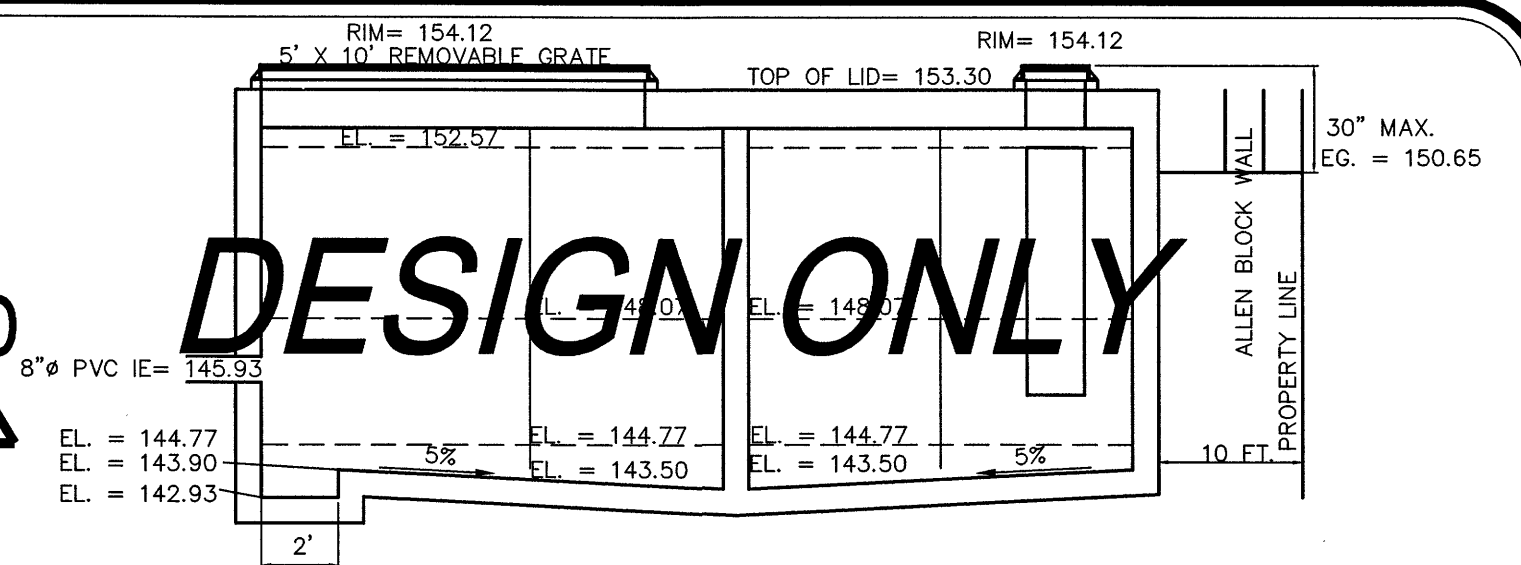
VOLUME OF DISPLACED WATER=  
AREA OF END SECTION AA + CC= 473.56 SF  
AVG. AREA OF AA & CC SECTION= 236.78  
VOLUME OF DISPLACED WATER=  
236.78 SF X 41.5 FT+ 473.56 X 0.67= 10144 CF  
WEIGHT OF DISPLACED WATER=  
10144 CF X 62.43 LB/CF X 1 TON/ 2000 LB= 317 TONS

CONCLUSION= THE VAULT WILL NOT FLOAT EVEN IF THE GROUNDWATER WAS UP TO THE TOP OF VAULT LID ELEVATION

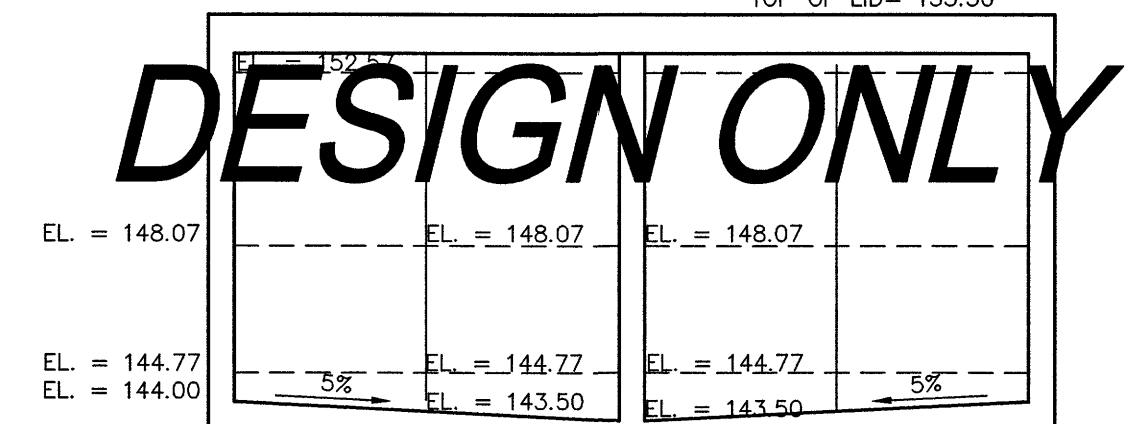
1. A BUILDING PERMIT ISSUED BY THE CITY OF FERNDALE BUILDING DEPARTMENT IS REQUIRED FOR THE VAULT CONSTRUCTION. SUBMIT CIVIL PLAN SHEETS 6, 7 & 8 WITH THE BUILDING PERMIT APPLICATION.
2. STRUCTURAL CALCULATIONS MUST DEMONSTRATE THAT VAULT INCLUDING THE LID WILL WITHSTAND A MINIMUM H-20 LOADING. THE ENGINEER OF RECORD SHALL PROVIDE A COPY OF THESE PLANS TO THE STRUCTURAL ENGINEER.
3. THE ENGINEER OF RECORD IS REQUIRED TO CERTIFY THAT THE FACILITY IS CONSTRUCTED IN CONFORMANCE WITH THE DESIGN PROVIDED BY THE STRUCTURAL ENGINEER AND APPROVED BY THE CITY OF FERNDALE BUILDING DEPARTMENT PRIOR TO PLAT APPROVAL.



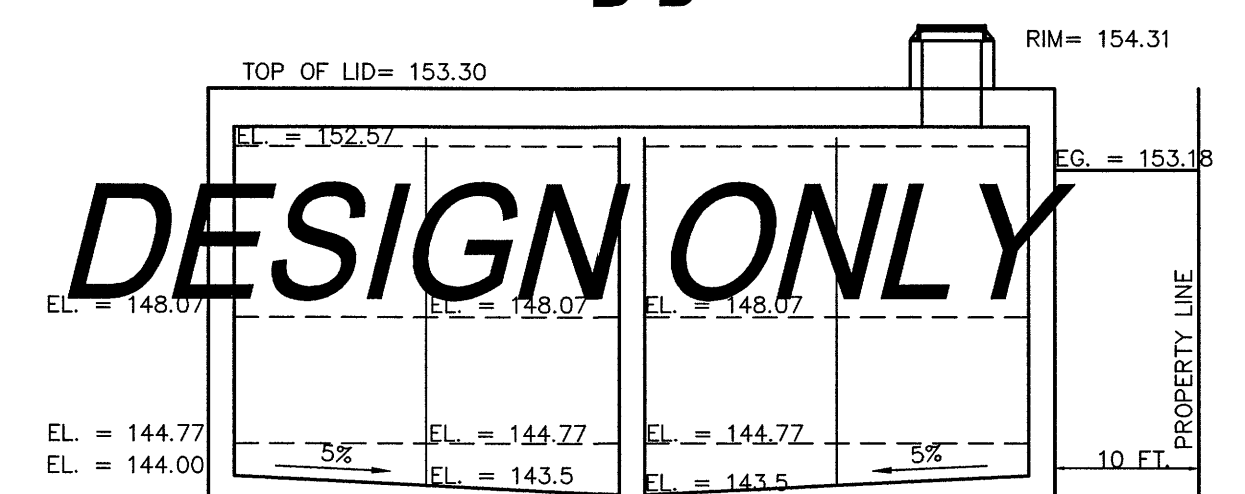
D-D



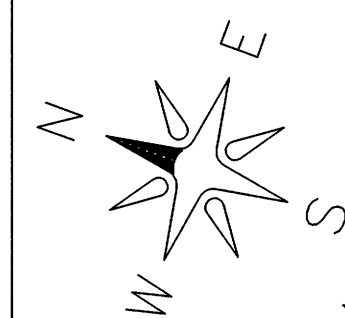
**A-A**



**B-B**

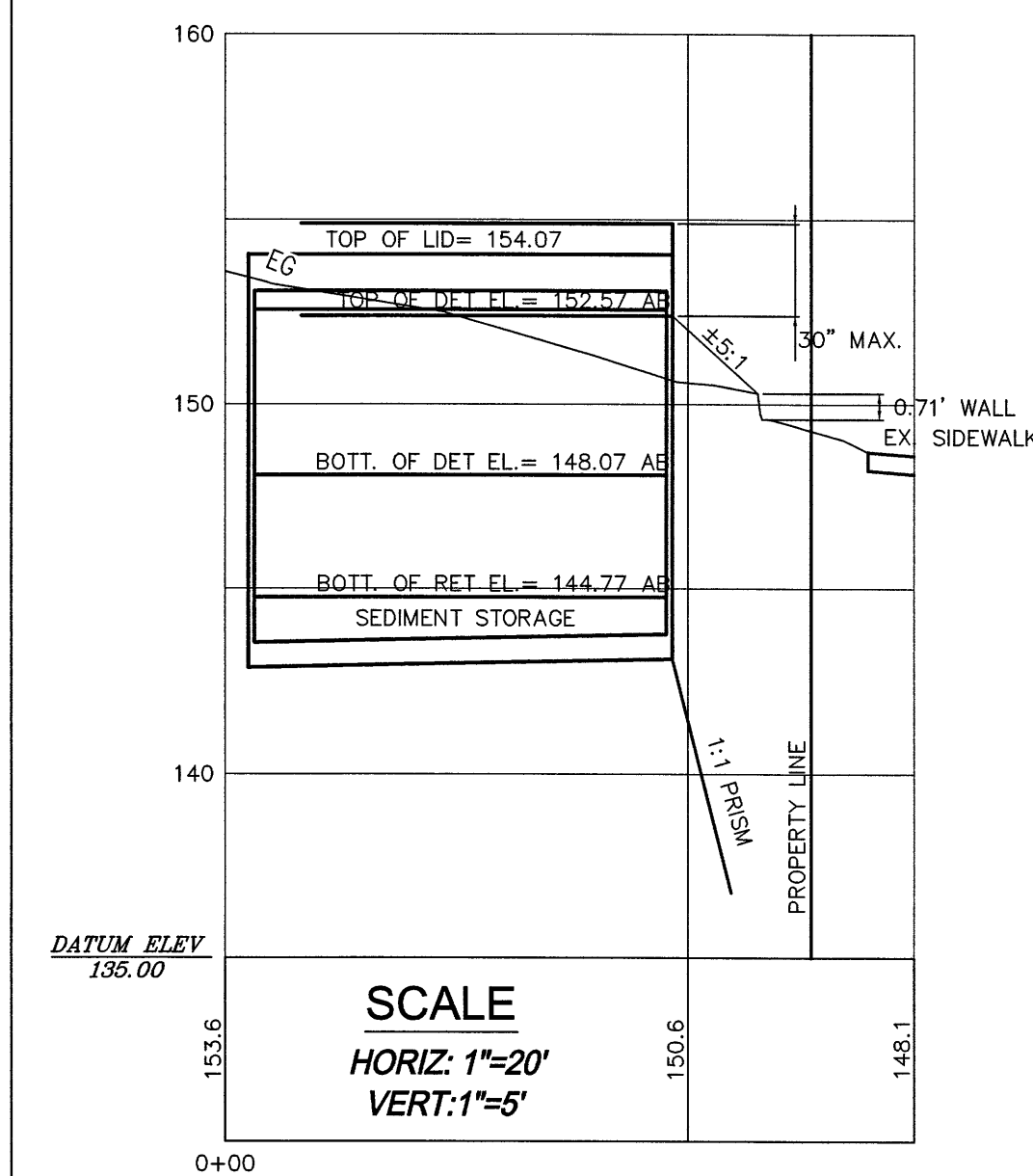


C-C

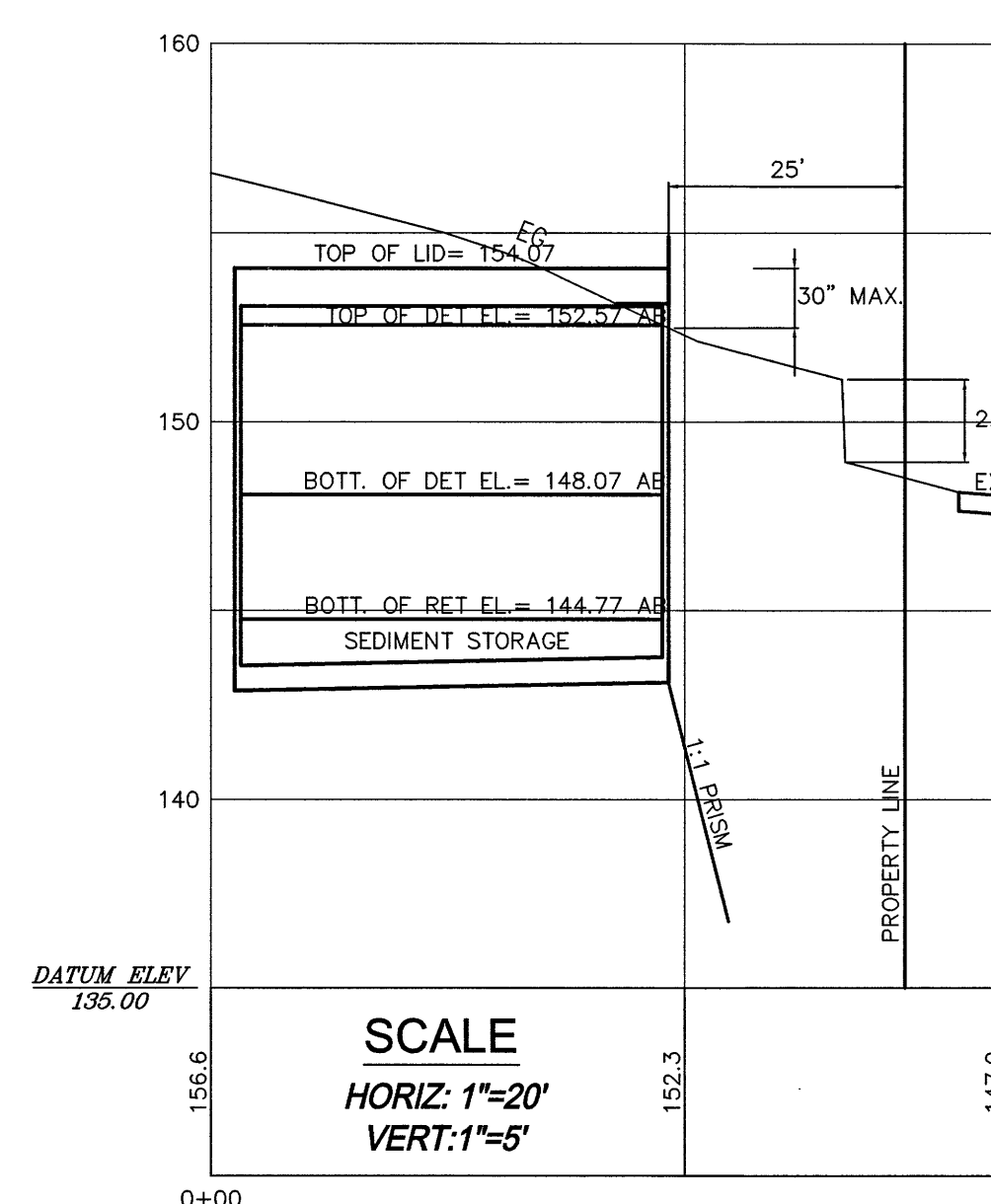


GRAPHIC SCALE

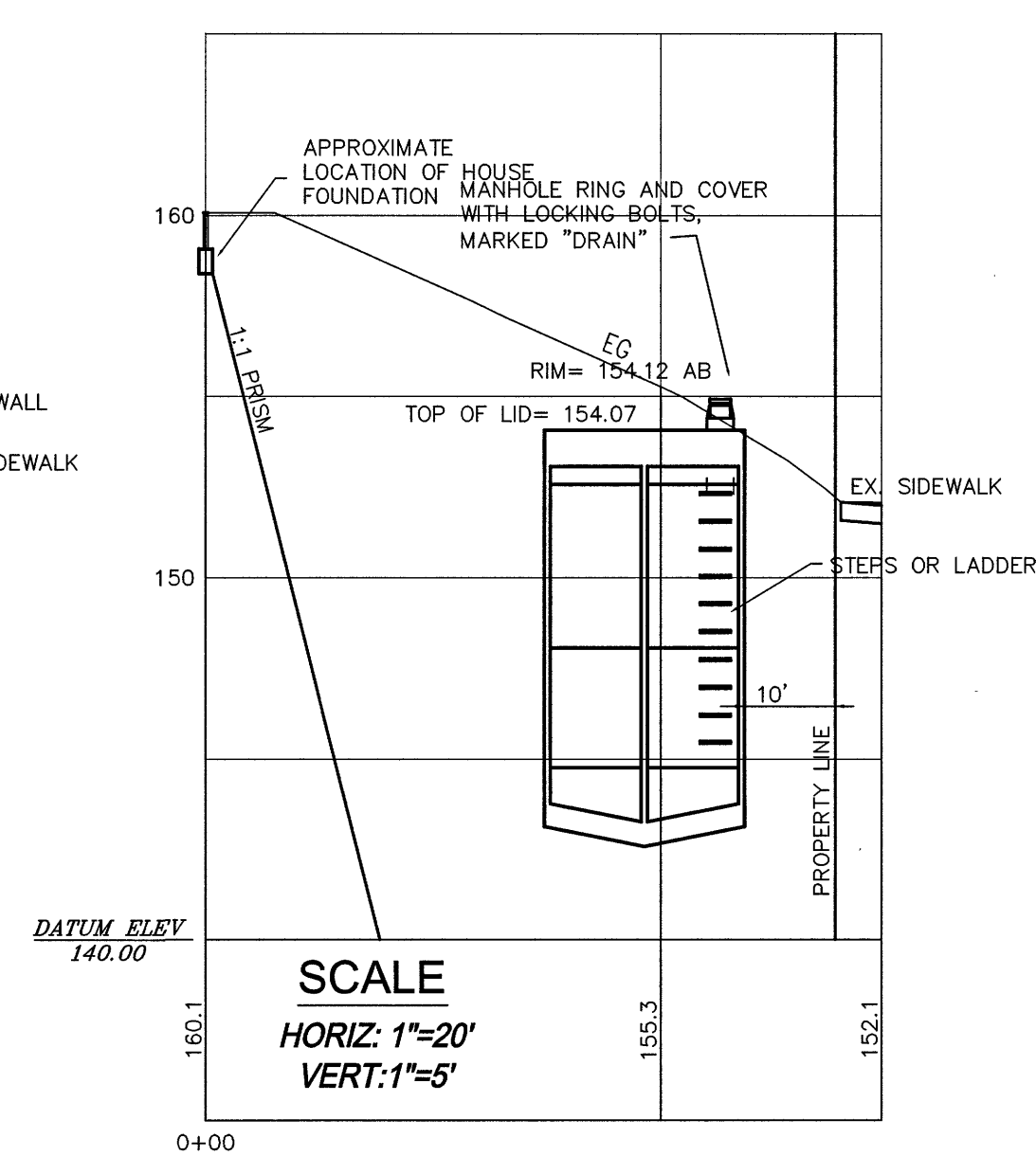
( IN FEET )



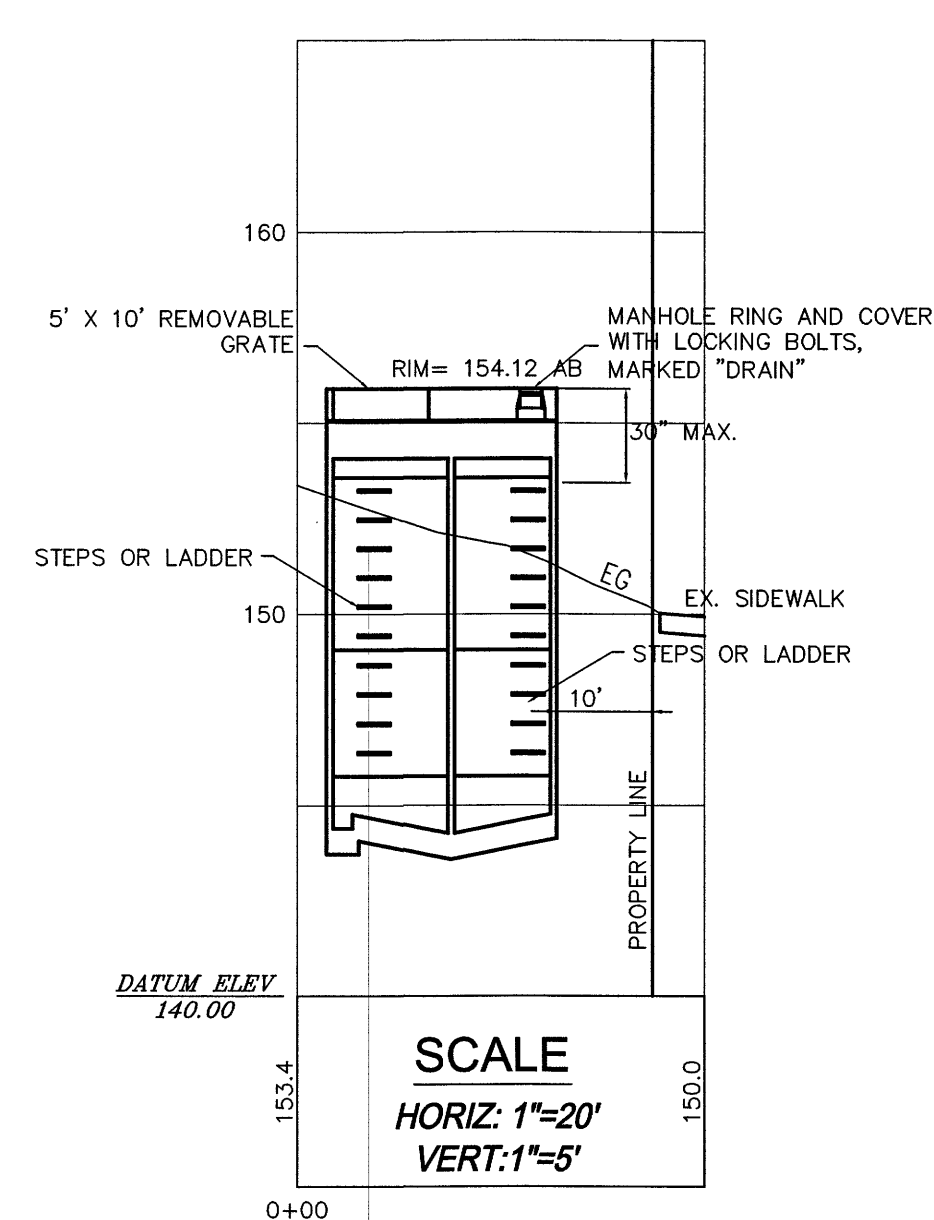
## SECTION E-E



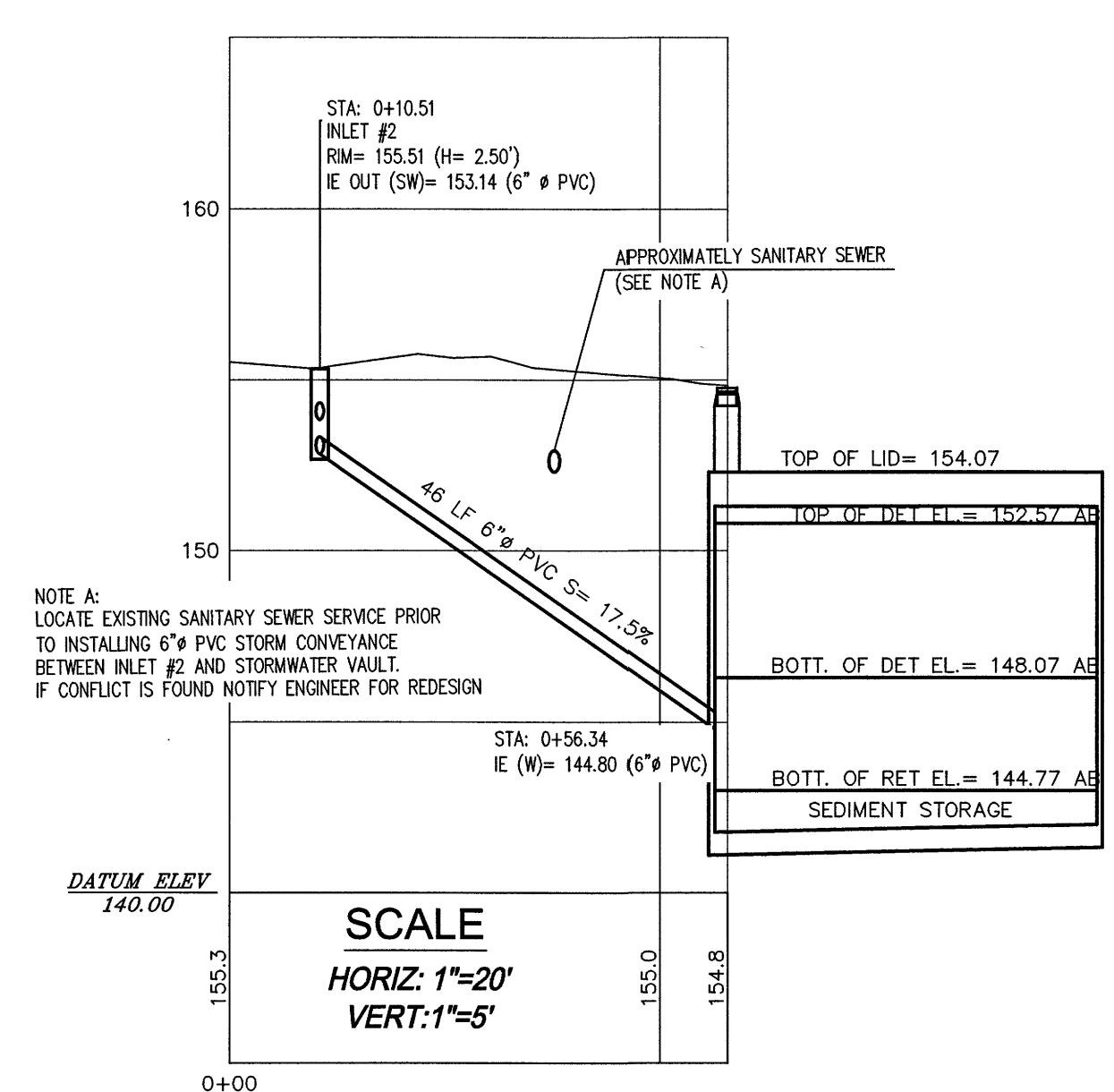
## SECTION F-F



## SECTION G-G

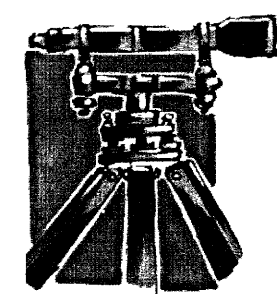


## SECTION H-H



**SCALE**  
*HORIZ: 1"=20'*  
*VERT: 1"=5'*

1	ASBUILT SUBMITTAL 1	RL	12/29/16
2			
3			
4			
5			
NO.	REVISION	BY	DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

**APPROVED**  
City of Ferndale Public Works  
By: [Signature] Date: 1-8-5

**STORM DRAINAGE PLAN  
PROFILE AND DETAILS  
MARIANAS LONG PLAT**

SHEET  
7  
OF 16

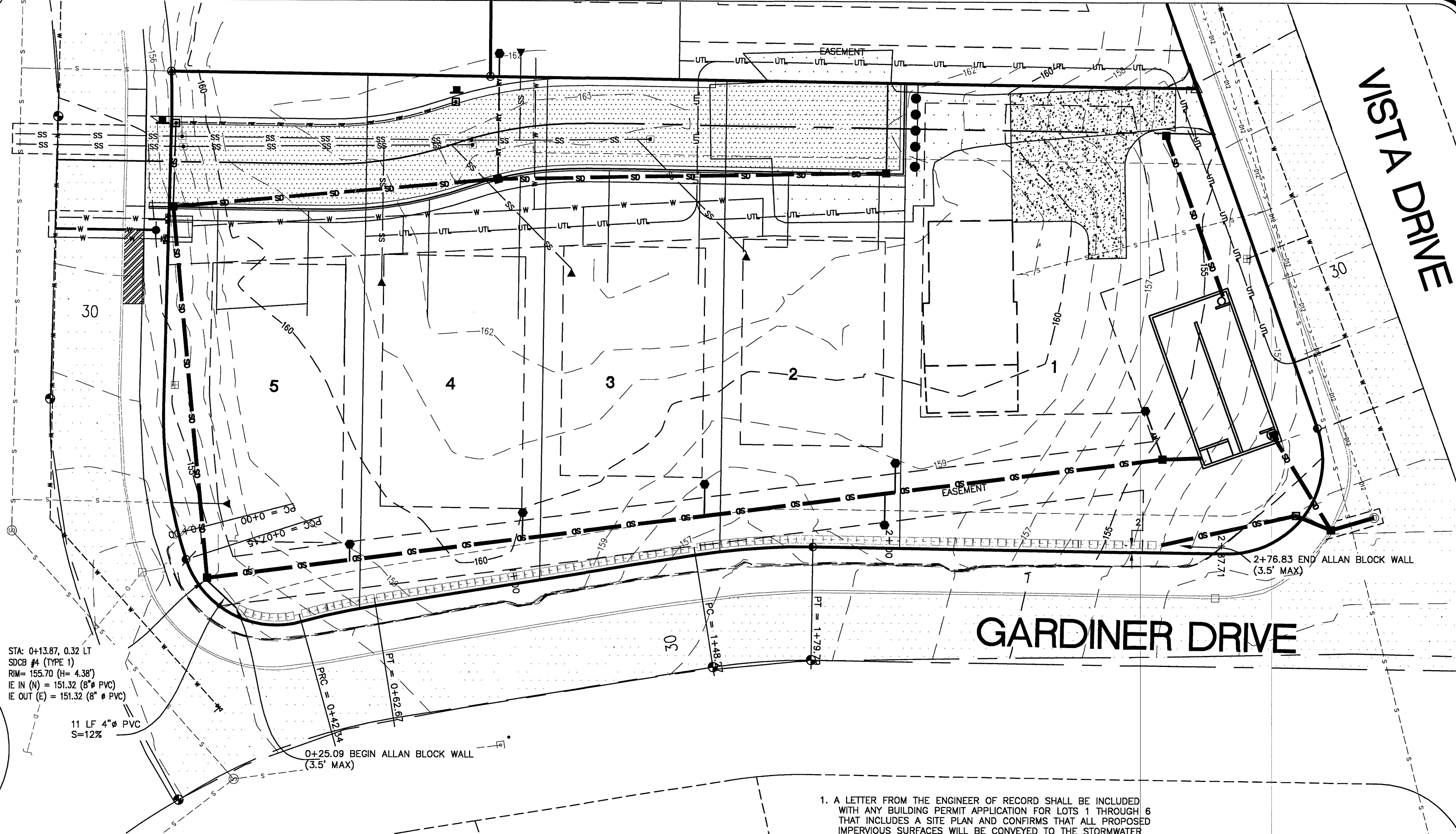
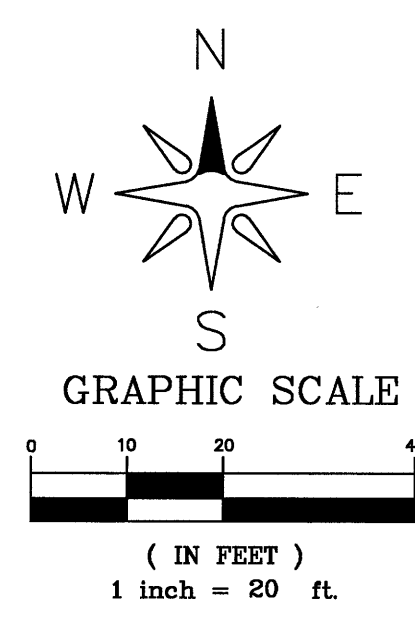
## RECORD DRAWING



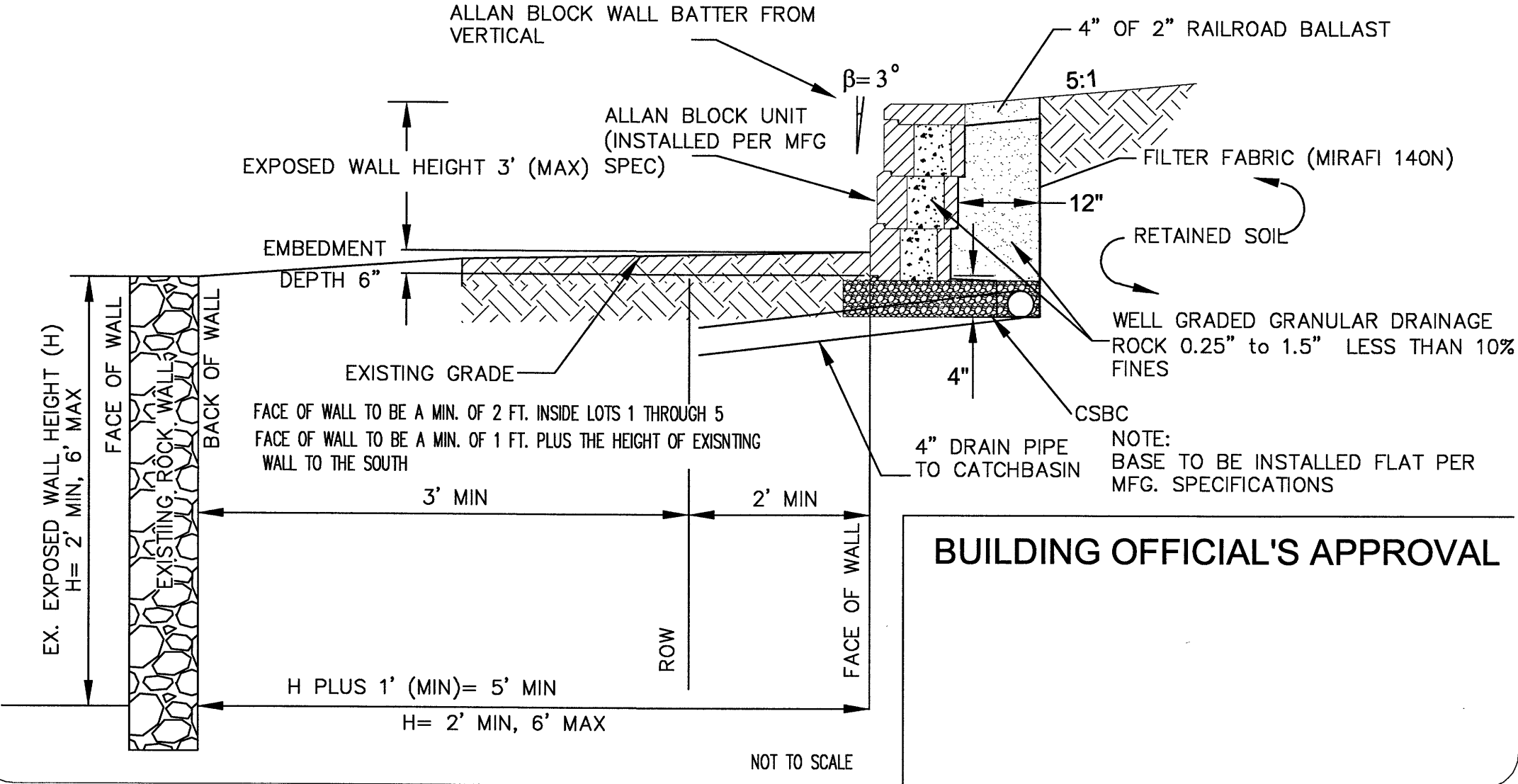
R:\Common\Land Projects 2012\2021-2025-Gardiner Short Plat Research (5945 Vista Dr)\Veg\2021-Long Plat\AS-BUILT.dwg PLOT DATE: 1/16/2017 11:36 AM

LEGEND:

- FND BRASS MON
- FND ALUMINUM CAP MON
- FND REBAR AND CAP
- SET RED CAP WITH REBAR
- SET RAILROAD SPIKE
- SET BERTINSEN ROD
- SET YPC
- EXIST SD CATCH BASIN (TYPE 1)
- EXIST SD CATCH BASIN (TYPE 2)
- EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- EXIST SD CLEANOUT
- PROPOSED STORM DRAIN SERVICE
- PROPOSED STORM DRAIN CLEANOUT
- PROPOSED STORM DRAIN CATCH BASIN
- PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- EXIST SANITARY SEWER MANHOLE
- PROPOSED SANITARY SEWER SERVICE
- PROPOSED SEWER CLEANOUT
- PROPOSED SEWER MANHOLE
- EXISTING WATER METER BOX
- EXISTING WATER VALVE
- EXISTING FIRE HYDRANT
- EXIST WATER VALVE BOXES
- EXIST LIGHT POLE
- EXIST TELEPHONE POLE
- EXIST MAIL BOX
- EXIST SIGN
- EXIST OVERHEAD UTILITIES (UNKNOWN)
- EXIST GAS MAIN
- EXIST WATER LINE
- EXIST WATER SERVICE LINE
- EXIST SANITARY SEWER LINE
- EXIST STORM DRAIN LINE
- EXISTING ROAD CENTERLINE
- EXIST CHAIN LINK FENCE
- EXIST WOOD POST FENCE
- EXIST CONC. FENCE OR RET. WALL
- EXIST ROCK WALL
- EXIST CONTOUR (INDEX)
- EXIST CONTOUR (NORMAL)
- SPOT ELEVATION AT BOTTOM OF RETAINING WALL
- SPOT ELEVATION AT TOP OF RETAINING WALL
- PROPOSED ALLAN BLOCK WALL
- PROPOSED STORM DRAIN LINE
- PROPOSED SAN. SEWER LINE
- PROPOSED WATER LINE
- PROPOSED ROOF DRAIN
- EXIST ASPHALT
- EXIST GRAVEL DRIVEWAY
- EXIST STRUCTURE
- OFFSITE WETLANDS BASED ON
- EXIST CONC SIDEWALK
- SILT FENCE (BMP C233)
- PROPOSED ASPHALT
- PROPOSED COMMON UTILITIES



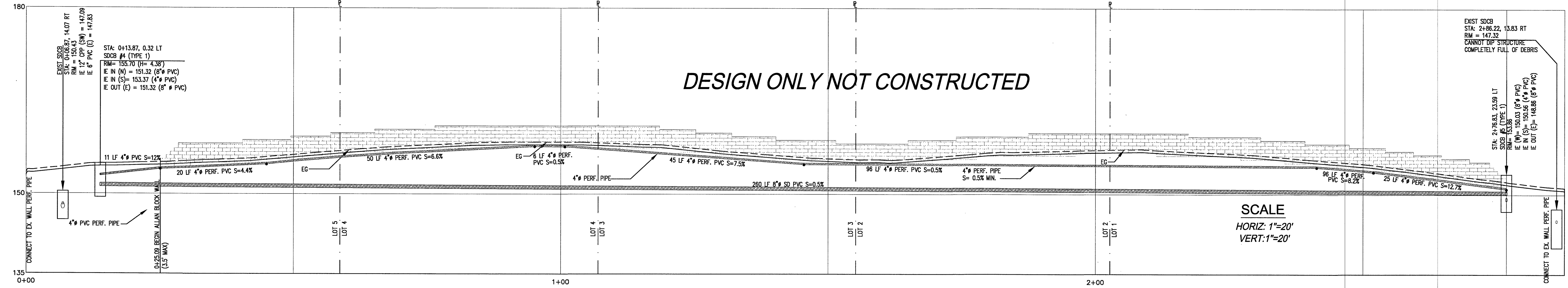
ALLEN BLOCK DETAIL



BUILDING OFFICIAL'S APPROVAL

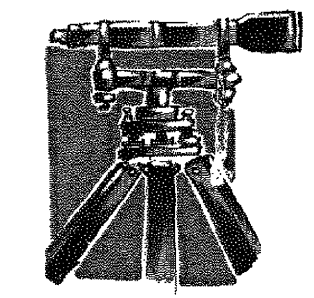
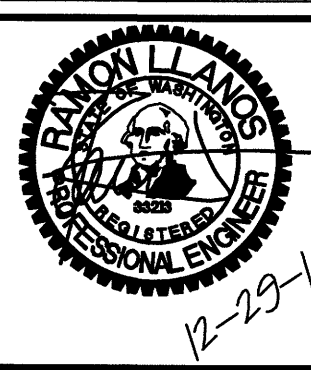
1. A LETTER FROM THE ENGINEER OF RECORD SHALL BE INCLUDED WITH ANY BUILDING PERMIT APPLICATION FOR LOTS 1 THROUGH 6 THAT INCLUDES A SITE PLAN AND CONFIRMS THAT ALL PROPOSED IMPERVIOUS SURFACES WILL BE CONVEYED TO THE STORMWATER POND ON LOT 1. THE LETTER SHALL CONFIRM THAT THE LOT COVERAGE DOES NOT EXCEED THE ALLOWABLE IMPERVIOUS SURFACES ALLOCATED WHEN SIZING THE POND. FURTHERMORE, THE ENGINEER OF RECORD SHALL CONFIRM THAT THE PROPOSED IMPROVEMENTS OF SAID LOTS DO NOT CONVEY STORMWATER TO OR JEOPARDIZE THE INTEGRITY OF THE EXISTING RETAINING WALL ALONG GARDINER DRIVE.
2. ONCE HOME AND SITE GRADING HAS BEEN COMPLETED FOR THE INDIVIDUAL LOTS THE ENGINEER OF RECORD SHALL PREPARE A LETTER STATING THAT THE IMPROVED LOT COMPLIES WITH THE APPROVED SITE PLAN SUBMITTAL AND STORM WATER REPORT INSURING THE INTEGRITY OF THE EXISTING RETAINING WALL ALONG GARDINER DRIVE HAS NOT BEEN COMPROMISED. THIS LETTER WILL BE REQUIRED TO RECEIVE FINAL OCCUPANCY.

DESIGN ONLY NOT CONSTRUCTED



SCALE  
HORIZ: 1"=20'  
VERT: 1"=20'

NO.	REVISION	BY	DATE
1	ASBUILT SUBMITTAL 1	RL	12/29/16



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: [Signature] Date: 1-18-17

**STREET AND STORM DRAINAGE  
PLAN AND PROFILE  
MARIANAS LONG PLAT**

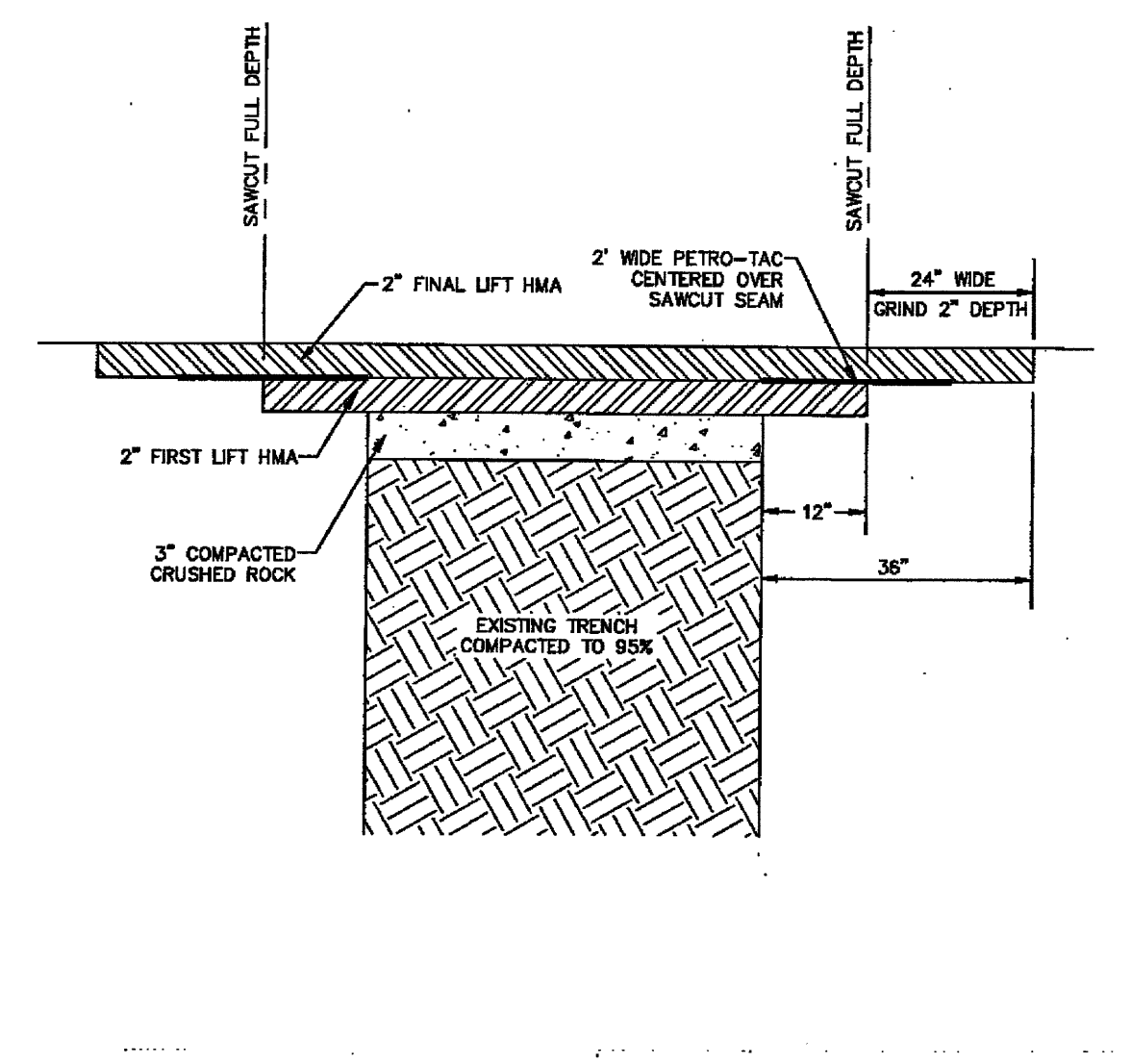
SHEET  
**8**  
OF 16

RECORD DRAWING

00612.008 1/19/17 SH

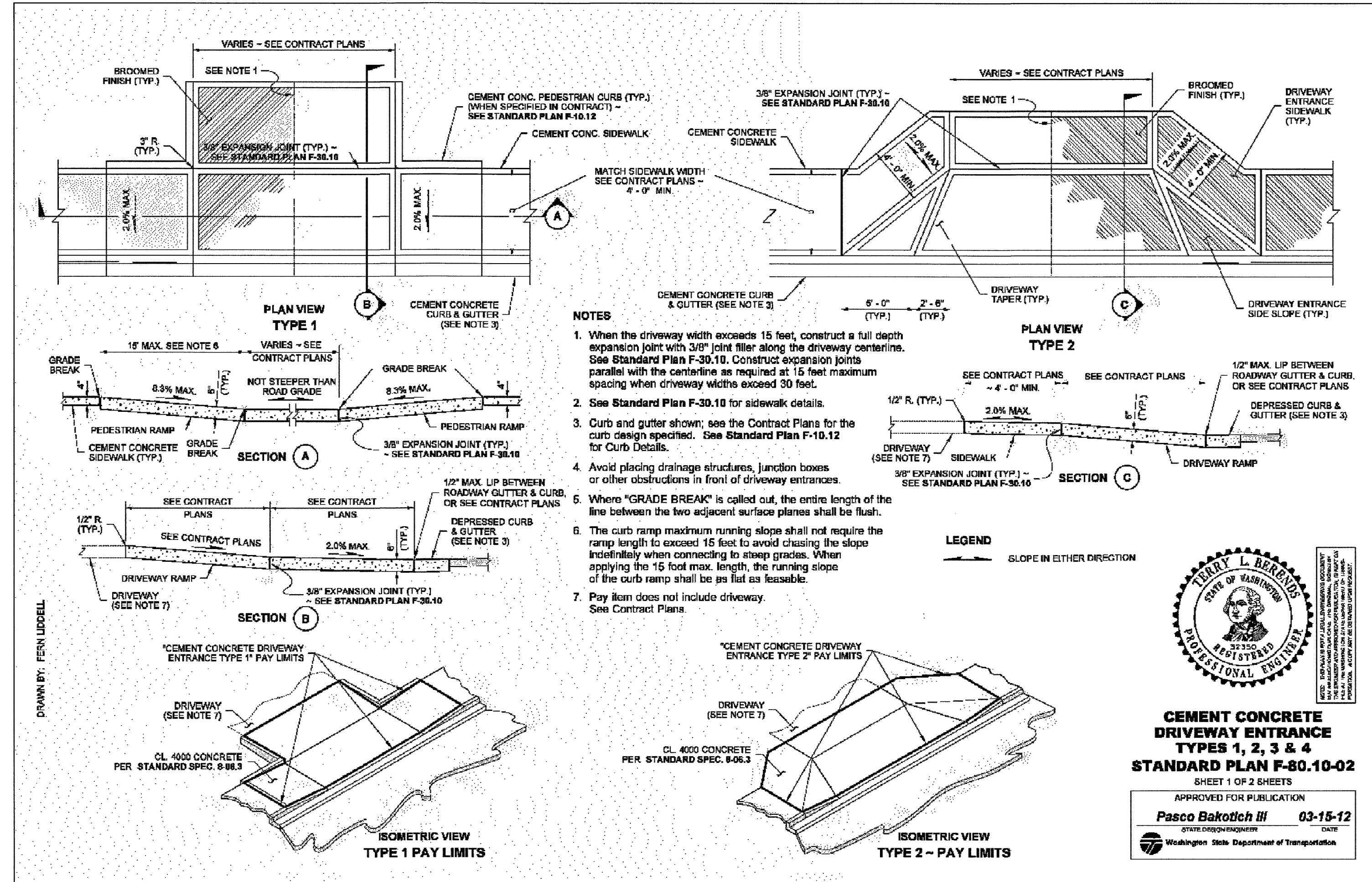
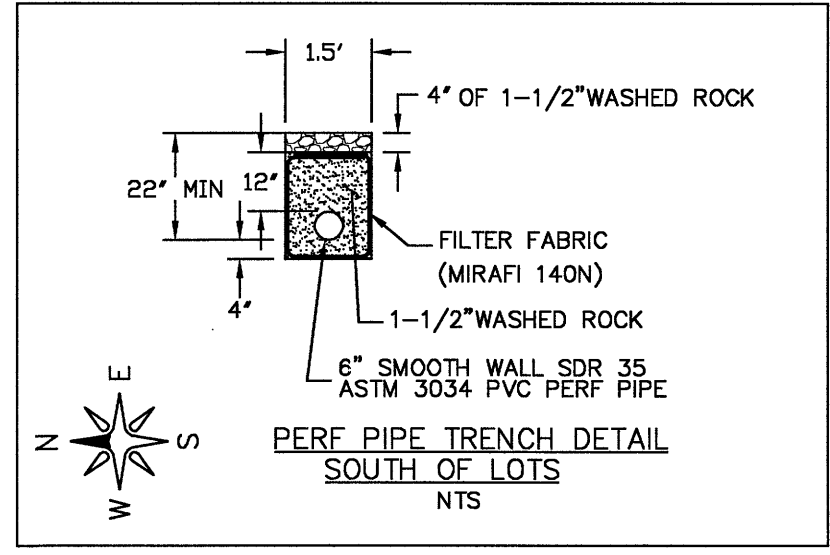
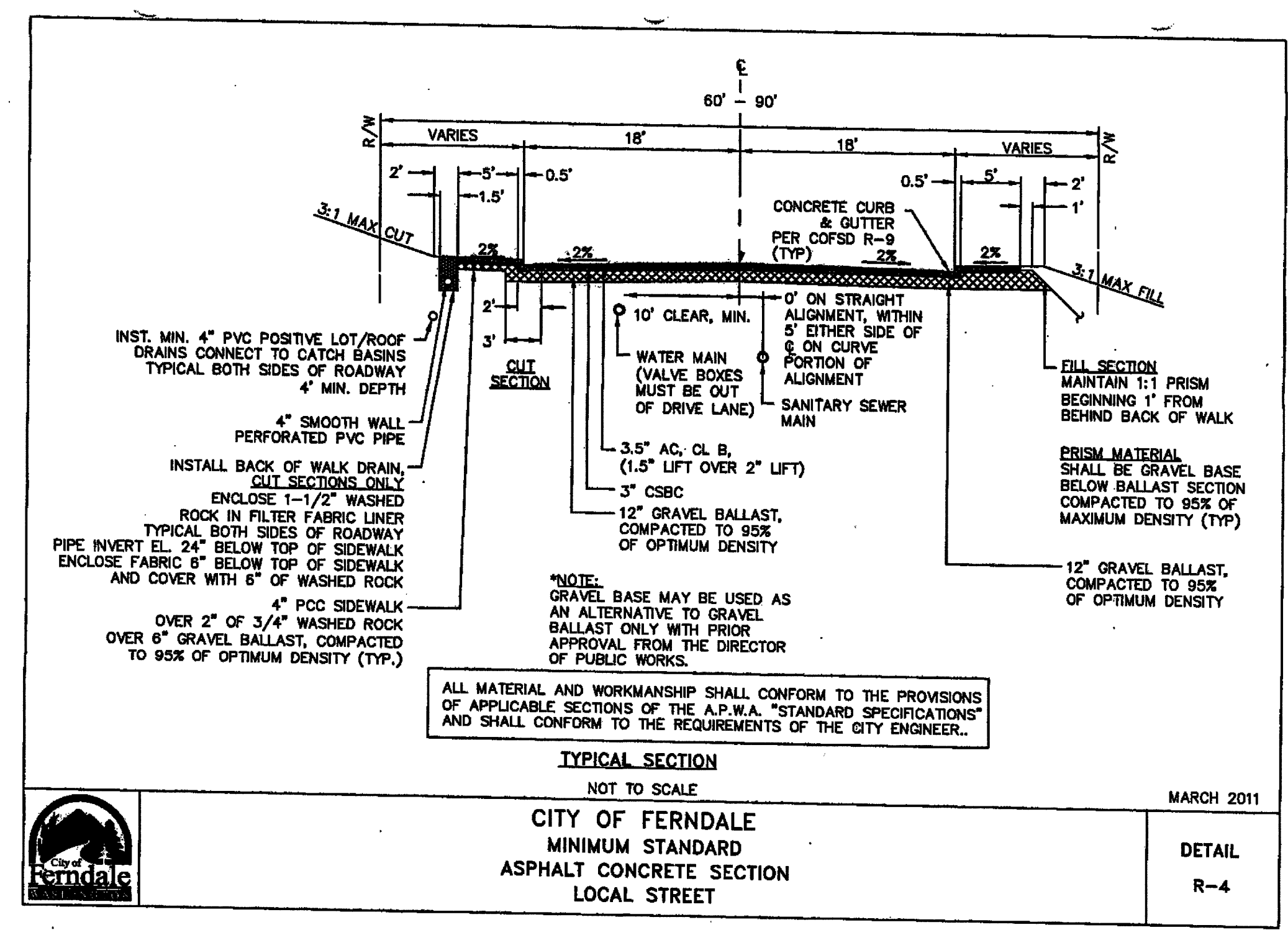


R:\Common\Land Projects\2012\1051-Corridor Short Plat Research (9445 Vista Dr)\Veg\1051-Long Plat-AS-BUILT.dwg PLOT DATE: 12/29/2016 12:31 PM

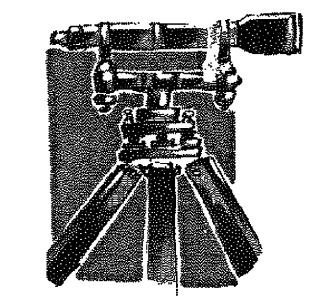
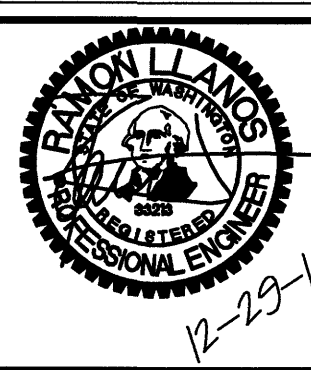


NOTE:  
1. TAC REQUIRED BETWEEN PAVED SURFACES. USE CSSI EXCEPT WHERE PETRO-TAC IS SPECIFIED.

APPROVED	January 30, 2014	PETRO-TAC PLACEMENT
	1/30/14	STANDARD DETAIL R-11a
Public Works Director	Date	NOT TO SCALE



ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: Date: 1/18/17

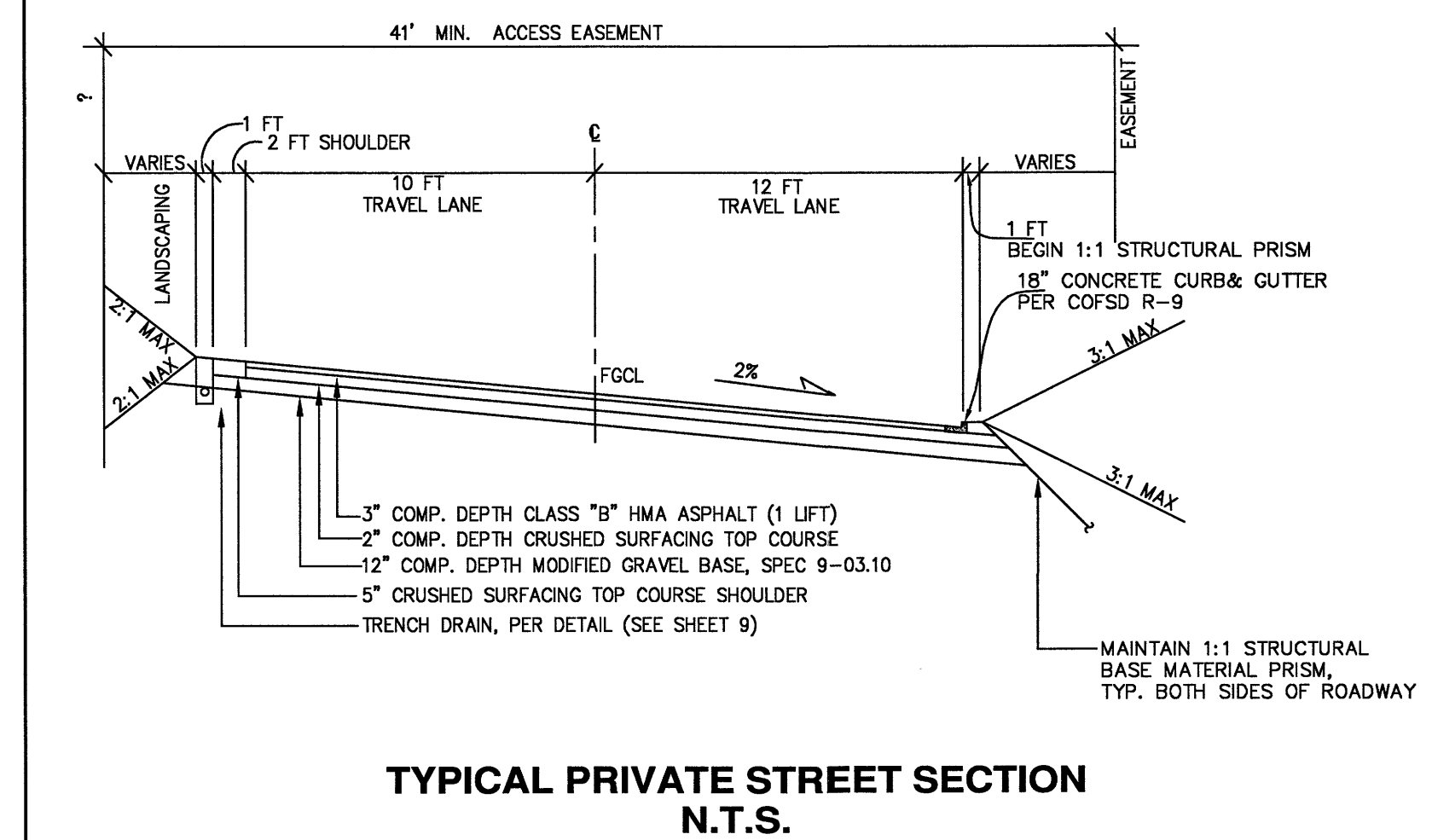
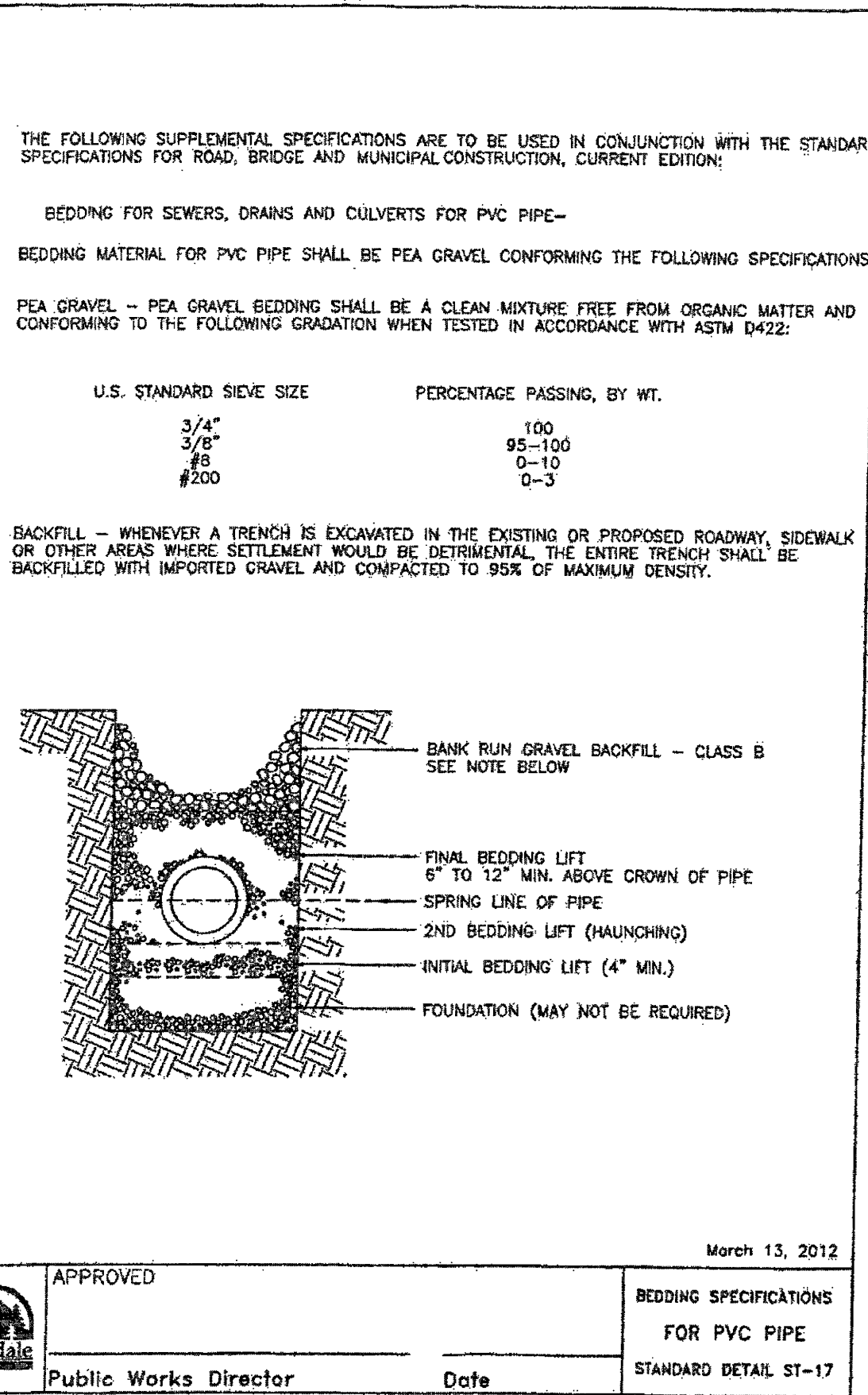
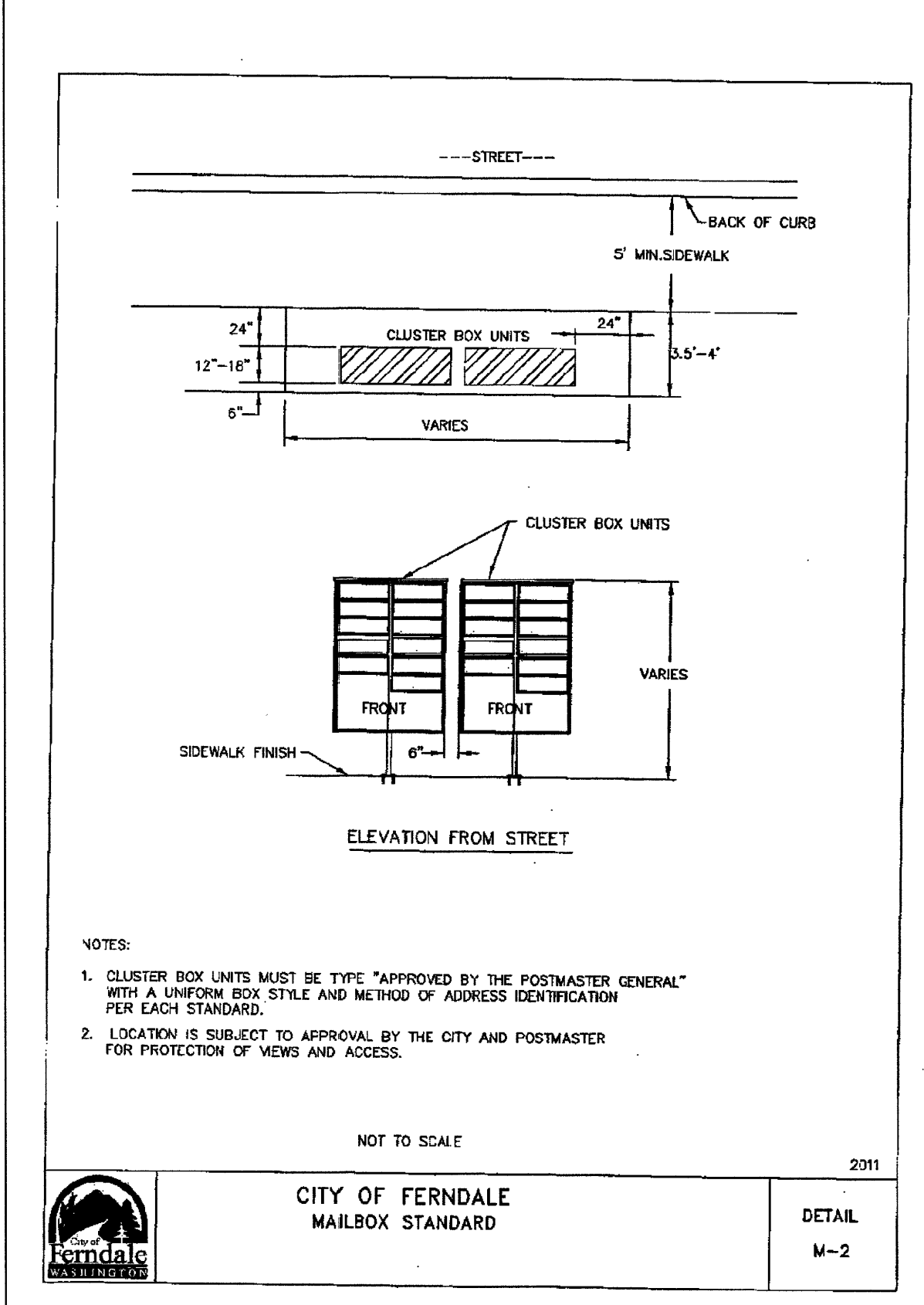
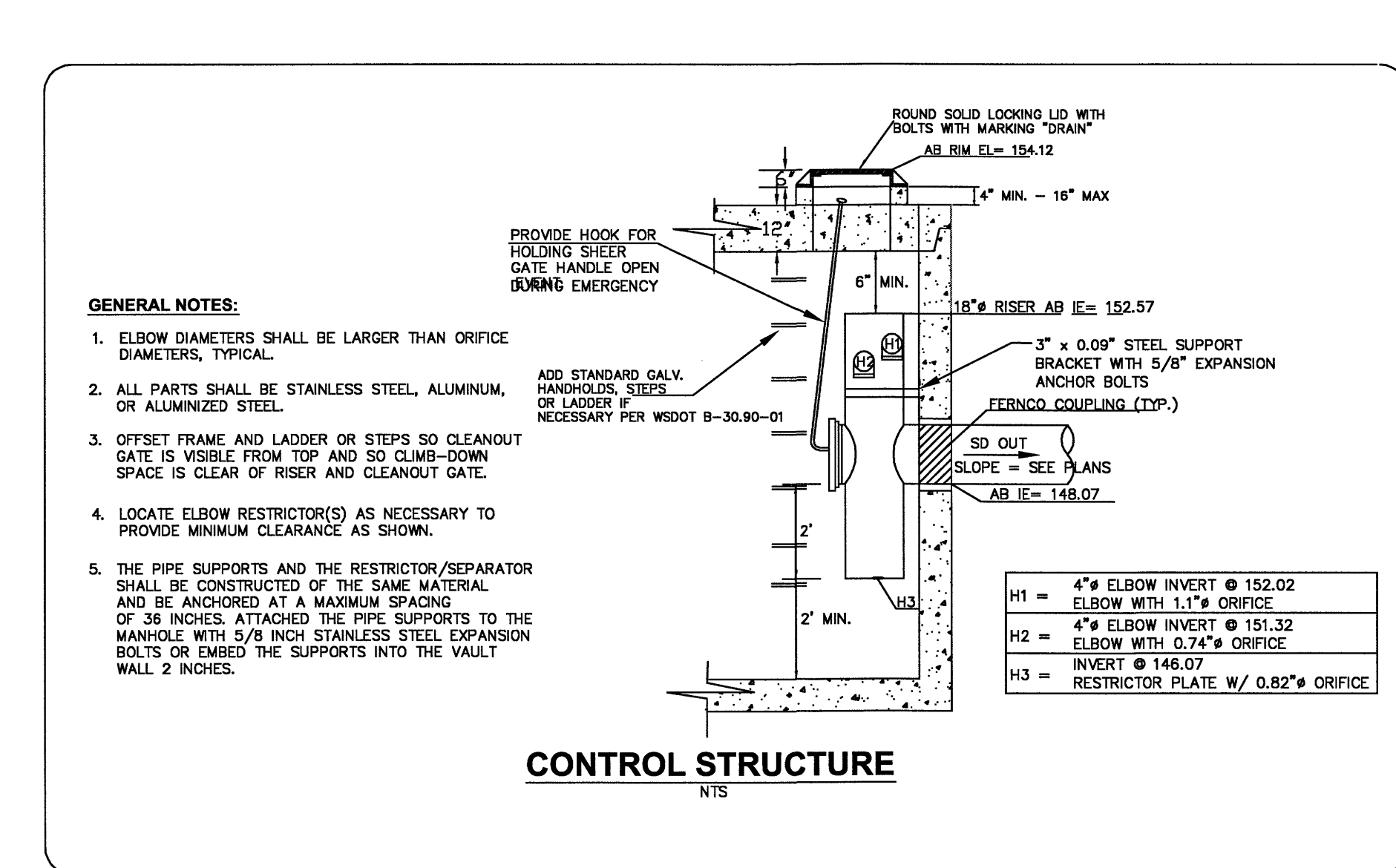
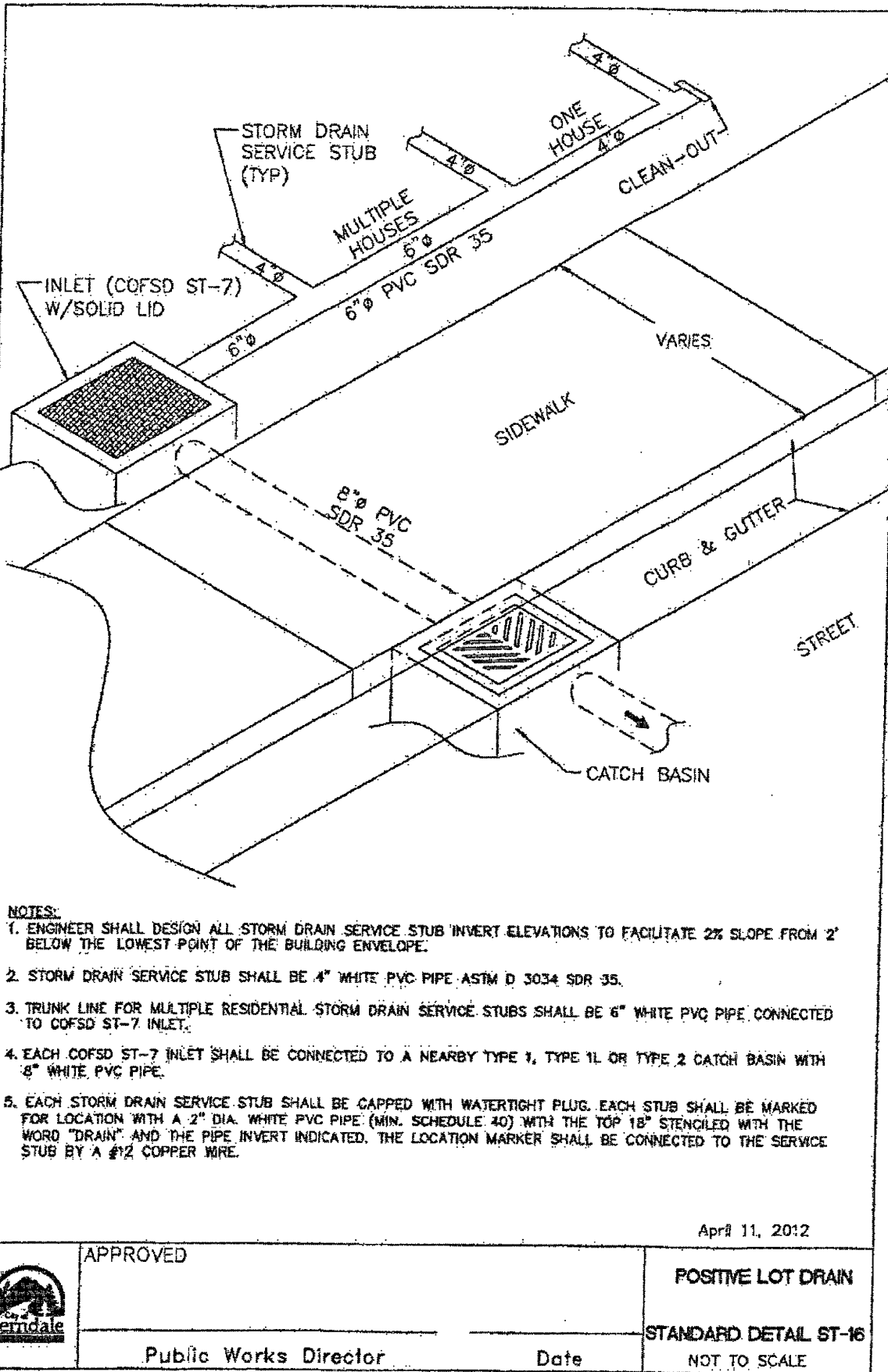
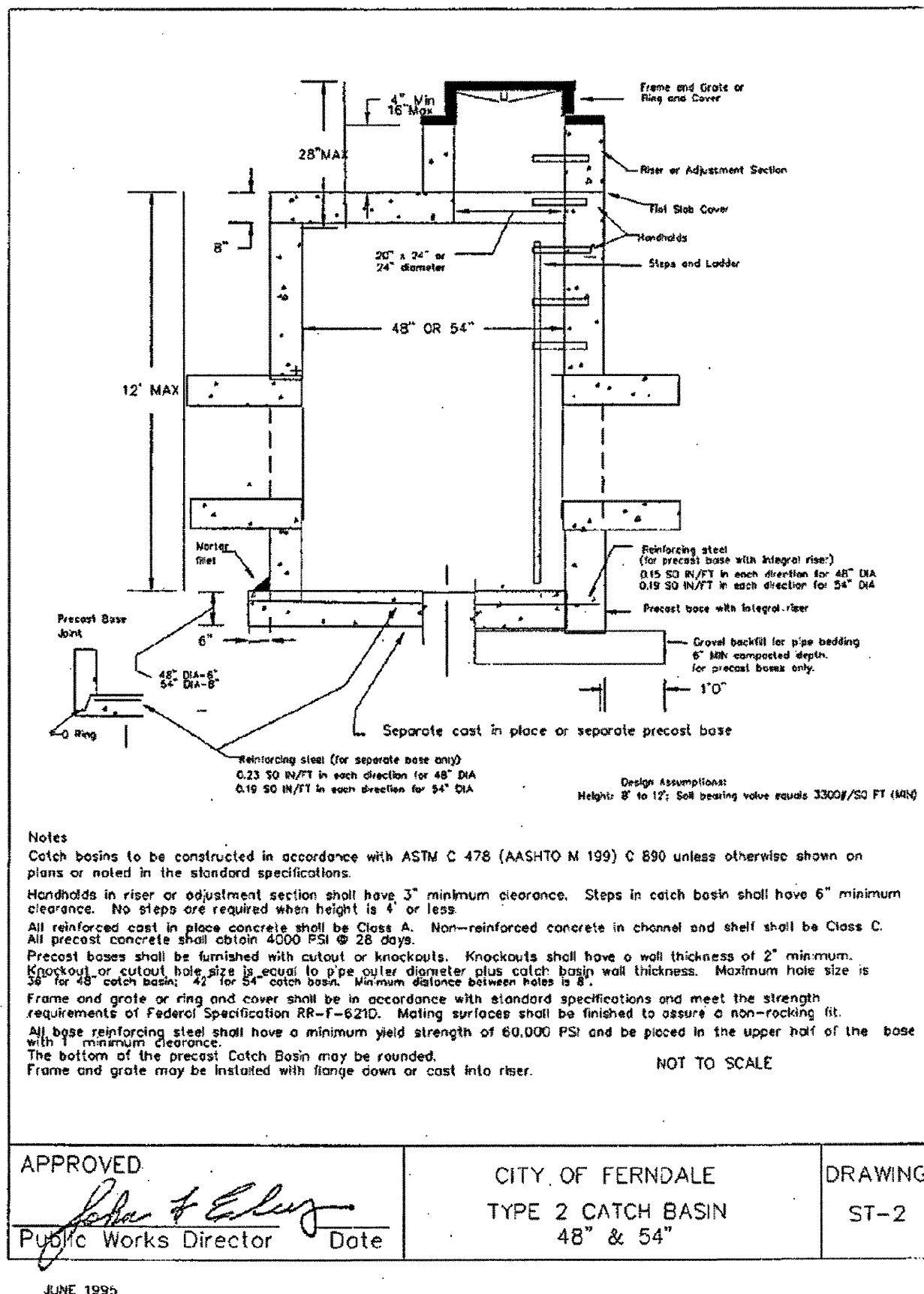
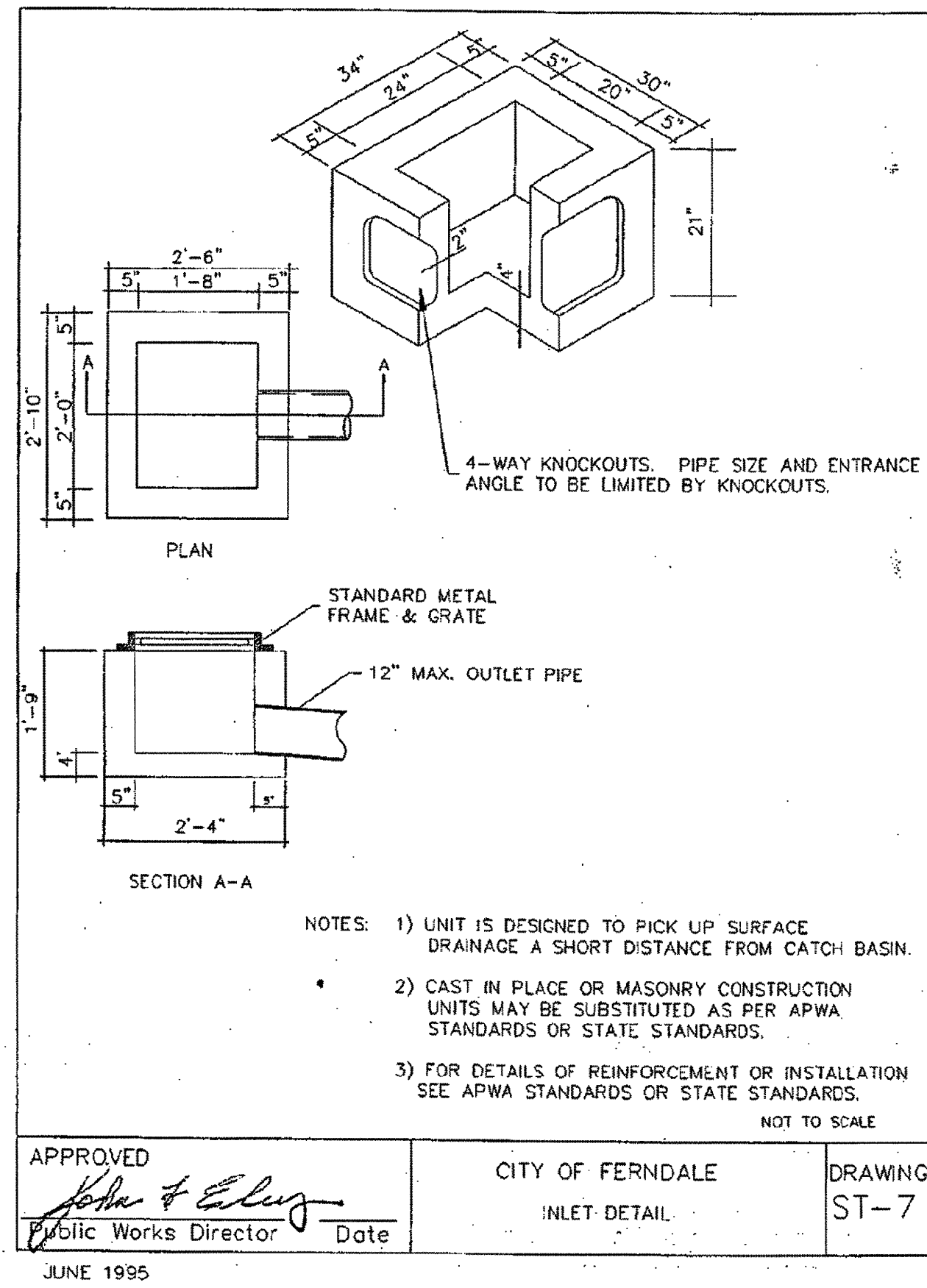
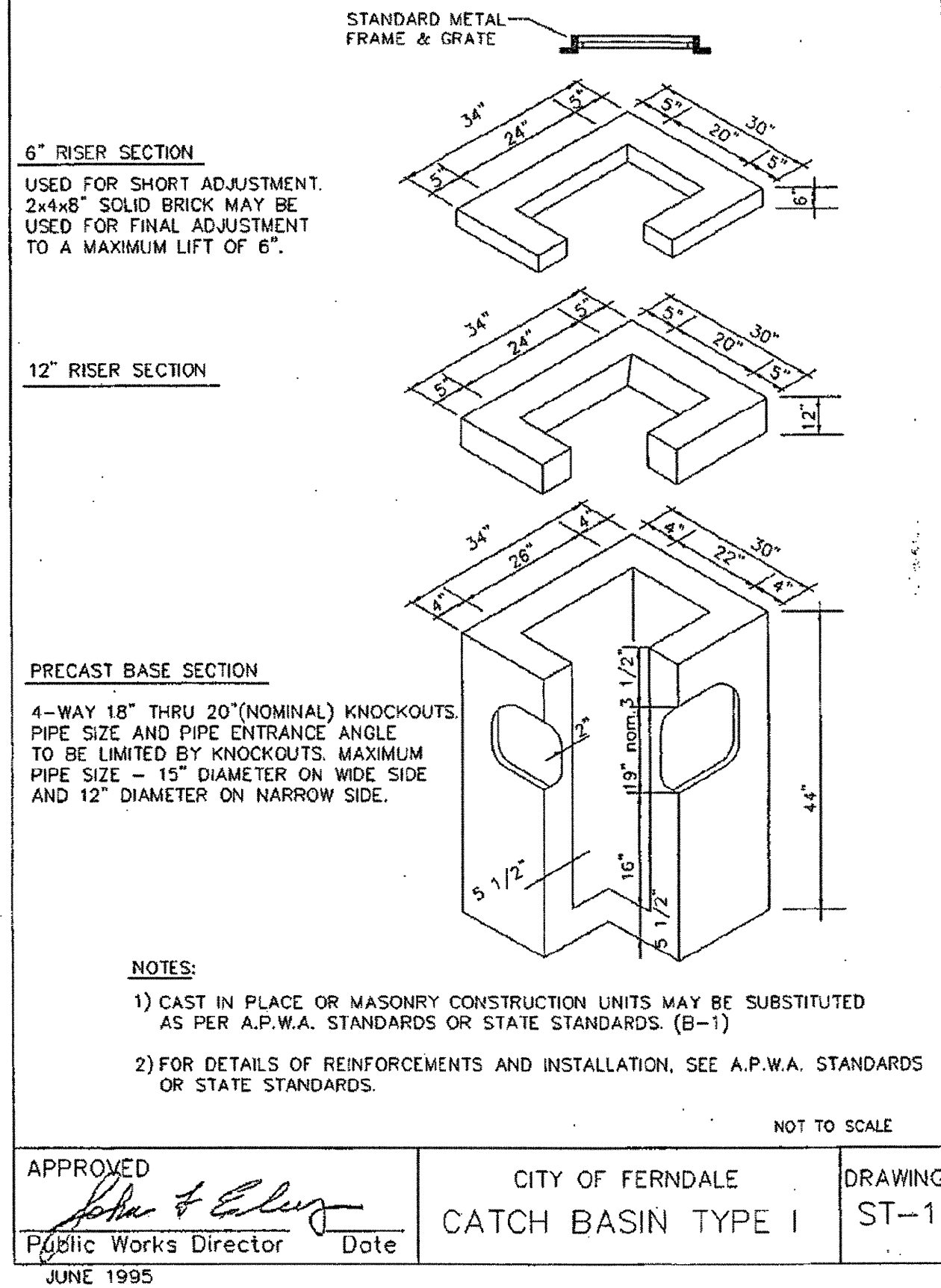
**STREET & STORM DRAINAGE**  
**DETAILS**  
**MARIANAS LONG PLAT**

RECORD DRAWING

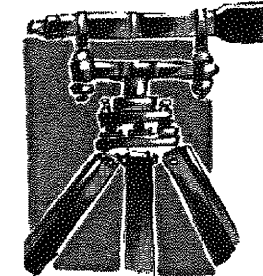
00612.009 1/19/17 SH



R:\Common\Land Projects\2012\1051-Corridor Short Plat Research (3945 Vista Dr)\Drawings\1051-Long Plat-walk-AS-BUILDING PLAT DATE 12/29/2016 12:31 PM



NO.	REVISION	BY	DATE
1	ASBUILT SUBMITTAL 1	RL	12/29/16



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: *John & Elery* Date: 12-2-17

**STREET & STORM DRAINAGE  
DETAILS  
MARIANAS LONG PLAT**

SHEET  
**10**  
OF  
**16**

00612.010 1/19/17 SH

RECORD DRAWING



# LEGEND:

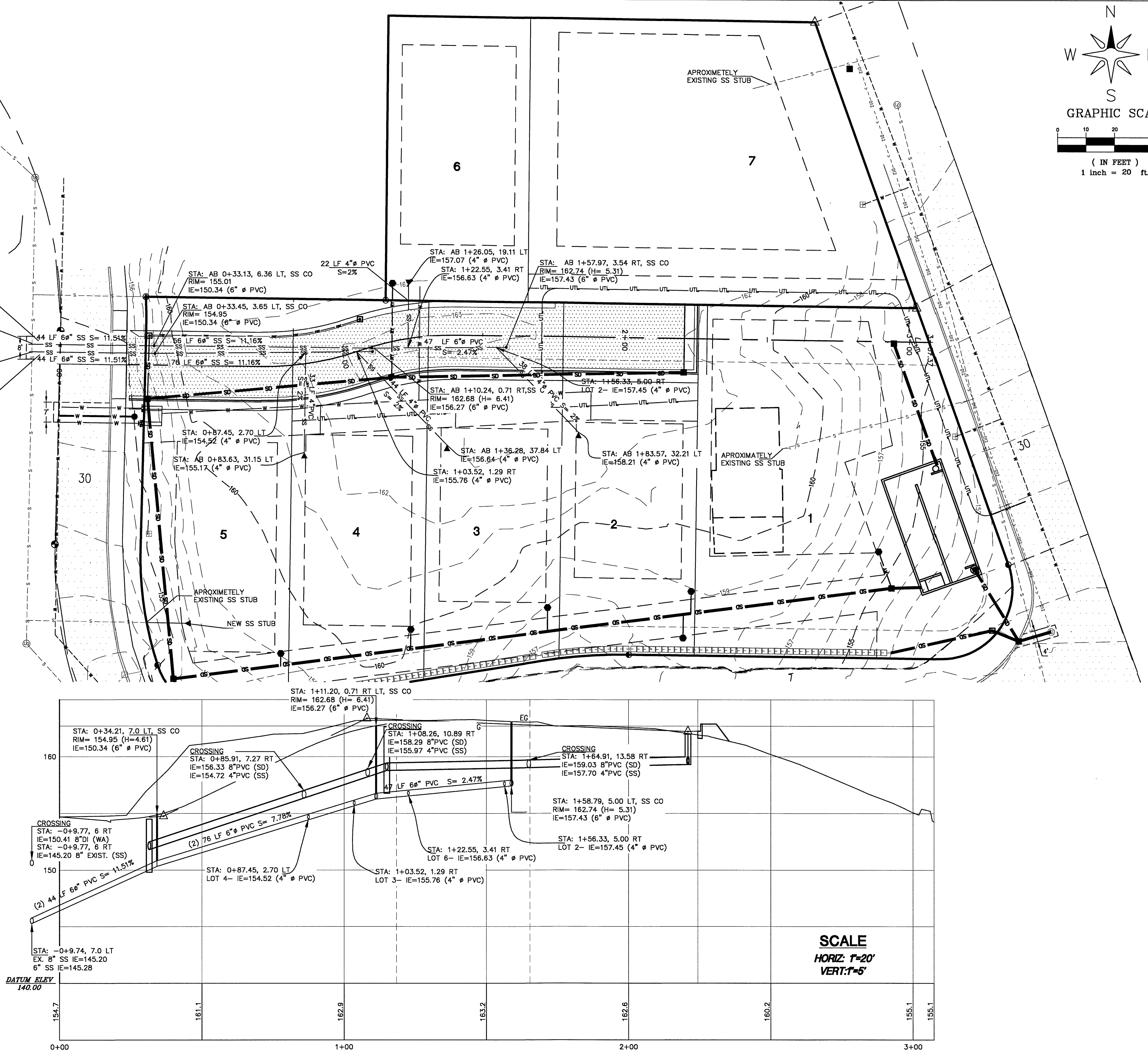
- = FND BRASS MON
- = FND ALUMINUM CAP MON
- = FND REBAR AND CAP
- △ = SET RED CAP WITH REBAR
- = SET RAILROAD SPIKE
- ⊕ = SET BERTSEN ROD
- = SET YPC
- = EXIST SD CATCH BASIN (TYPE 1)
- = EXIST SD CATCH BASIN (TYPE 2)
- = EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- = EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- = EXIST SD CLEANOUT
- = PROPOSED STORM DRAIN SERVICE
- = PROPOSED STORM DRAIN CLEANOUT
- = PROPOSED STORM DRAIN CATCH BASIN
- = PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- = EXIST SANITARY SEWER MANHOLE
- = PROPOSED SANITARY SEWER SERVICE
- = PROPOSED SEWER CLEANOUT
- = PROPOSED SEWER MANHOLE
- = EXISTING WATER METER BOX
- = EXISTING WATER VALVE
- = EXISTING FIRE HYDRANT
- = EXIST WATER VALVE BOXES
- = EXIST LIGHT POLE
- = EXIST TELEPHONE POLE
- = EXIST MAIL BOX
- = EXIST SIGN
- — — — — = EXIST OVERHEAD UTILITIES (UNKNOWN)
- — — — — = EXIST GAS MAIN
- — — — — = EXIST WATER LINE
- — — — — = EXIST WATER SERVICE LINE
- — — — — = EXIST SANITARY SEWER LINE
- — — — — = EXIST STORM DRAIN LINE
- — — — — = EXISTING ROAD CENTERLINE
- — — — — = EXIST CHAIN LINK FENCE
- — — — — = EXIST WOOD POST FENCE
- — — — — = EXIST CONC. FENCE OR RET. WALL
- — — — — = EXIST ROCK WALL
- — — — — = EXIST CONTOUR (INDEX)
- — — — — = EXIST CONTOUR (NORMAL)
- 155.45 (BWEL) = SPOT ELEVATION AT BOTTOM OF RETAINING WALL
- 155.45 (TWEL) = SPOT ELEVATION AT TOP OF RETAINING WALL
- — — — — = PROPOSED ALLAN BLOCK WALL
- — — — — = PROPOSED STORM DRAIN LINE
- — — — — = PROPOSED SAN. SEWER LINE
- — — — — = PROPOSED WATER LINE
- — — — — = PROPOSED ROOF DRAIN
- — — — — = EXIST ASPHALT
- — — — — = EXIST GRAVEL DRIVEWAY
- — — — — = EXIST STRUCTURE
- — — — — = OFFSITE WETLANDS BASED ON
- — — — — = EXIST CONC SIDEWALK
- — — — — = SILT FENCE (BMP C233)
- — — — — = PROPOSED ASPHALT
- — — — — = PROPOSED COMMON UTILITIES
- — — — — = PROPOSED PAVEMENT SAW-CUT LINE

PAVEMENT REPAIR NOTES:  
 1. MINIMUM WIDTH FOR PAVEMENT REPAIR SHALL BE 42-INCHES.  
 2. PAVEMENT REPAIR THICKNESS SHALL BE PER COF DETAIL R-4 (SEE SHEET 9) OR MATCH EXISTING ASPHALT SECTION WHICHEVER PROVIDES THE THICKER SECTION.

NOTE A:  
 PROPOSED 6-INCH CONNECTIONS TO THE EXISTING 8-INCH PVC SEWER MAIN MUST BE A CUT-IN PER THE ATTACHED MODIFIED COF PROPOSED SERVICE PVC CUT-IN TEE DETAIL SS-16. SANITARY TEES ARE REQUIRED (SEE SHEET 12)

TRENCH WIDTH:  
 EXCAVATION OF MIN. 8 FEET REQUIRES 10' PAVEMENT REMOVAL PER R-11A

TRENCH REPAIR SHALL BE PER THE ATTACHED COF PETRO-TAC PLACEMENT STANDARD DETAIL R-11A (SEE SHEET 9)

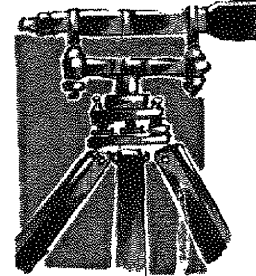


SCALE  
 HORIZ: 1"=20'  
 VERT: 1"=5'

RECORD DRAWING

R:\Common\Land Projects 2012\1051-Corridor Short Plat Research (945 Vista Dr)\Vms\1051-Long Plat west-AS-BUILT.dwg PLOT DATE: 12/29/2016 12:31 PM

ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
 City of Ferndale Public Works  
 By: Date: 1-12-17

**SANITARY SEWER PLAN  
 AND PROFILE  
 MARIANAS LONG PLAT**

SHEET  
**11**  
 OF 16

00612.011 1/19/17 SH



R:\Common\Land Projects\2012\2051-Gardiner Short Plot Research (2945 Vela Dr.)\Long\2051-Long Plot\wall-AS-BUILTS.dwg PLOT DATE: 12/29/2016 12:32 PM

THE FOLLOWING SUPPLEMENTAL SPECIFICATIONS ARE TO BE USED IN CONJUNCTION WITH THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, CURRENT EDITION:

BEDDING FOR SEWERS, DRAINS AND CULVERTS FOR PVC PIPE—

BEDDING MATERIAL FOR PVC PIPE SHALL BE PEA GRAVEL CONFORMING THE FOLLOWING SPECIFICATIONS:

PEA GRAVEL — PEA GRAVEL BEDDING SHALL BE A CLEAN MIXTURE FREE FROM ORGANIC MATTER AND CONFORMING TO THE FOLLOWING GRADATION WHEN TESTED IN ACCORDANCE WITH ASTM D422:

U.S. STANDARD SIEVE SIZE	PERCENTAGE PASSING, BY WT.
3/4"	100
3/8"	95-100
#20	C-10
#200	0-3

BACKFILL — WHENEVER A TRENCH IS EXCAVATED IN THE EXISTING OR PROPOSED ROADWAY, SIDEWALK OR OTHER AREAS WHERE SETTLEMENT WOULD BE DETRIMENTAL, THE ENTIRE TRENCH SHALL BE BACKFILLED WITH IMPORTED GRAVEL AND COMPACTED TO 95% OF MAXIMUM DENSITY.

APPROVED: *John & Elmer*  
Public Works Director Date

BEDDING SPECIFICATIONS FOR PVC PIPE  
STANDARD DETAIL SS-1

MARCH 13, 2012

NOTES

- Knockouts shall have a wall thickness of 2" minimum to 2.5" maximum.
- For pipe allowances, see Standard Plan B-10.28.

DIAM.	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	6"	42"	8"
60"	5"	6"	48"	8"

MANHOLE TYPE 1  
STANDARD PLAN B-15.20-01  
SHEET 1 OF 1 SHEET  
APPROVED FOR PUBLICATION  
*Pasco Behndich II*  
02-07-12  
Washington State Department of Transportation

APPROVED: *John & Elmer*  
Public Works Director Date

8" CLEAN OUT  
STANDARD DETAIL SS-5

MARCH 13, 2012

APPROVED: *John & Elmer*  
Public Works Director Date

CITY OF FERDALE  
NORMAL INSTALLATION  
15" AND SMALLER SEWER MAINS

DRAWING  
SS-6

JUNE 1995

2091SE3A/SS-6

6" RISER SECTION  
USED FOR SHORT ADJUSTMENT. 2x4x8" SOLID BRICK MAY BE USED FOR FINAL ADJUSTMENT TO A MAXIMUM LIFT OF 6".

12" RISER SECTION

PRECAST BASE SECTION

NOTES:

- CAST IN PLACE OR MASONRY CONSTRUCTION UNITS MAY BE SUBSTITUTED AS PER A.P.W.A. STANDARDS OR STATE STANDARDS. (B-1)
- FOR DETAILS OF REINFORCEMENTS AND INSTALLATION, SEE A.P.W.A. STANDARDS OR STATE STANDARDS.

APPROVED: *John & Elmer*  
Public Works Director Date

CITY OF FERDALE  
CATCH BASIN TYPE I

DRAWING  
ST-1

JUNE 1995

SEWER SERVICE DETAIL

NOT TO SCALE

APPROVED: *John & Elmer*  
Public Works Director Date

CITY OF FERDALE  
DOUBLE SANITARY SEWER SERVICE

DRAWING  
SS-13

JUNE 1995

2091SE4A/SS-13

NOTES:

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

APPROVED: *John & Elmer*  
Public Works Director Date

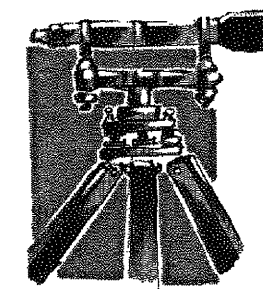
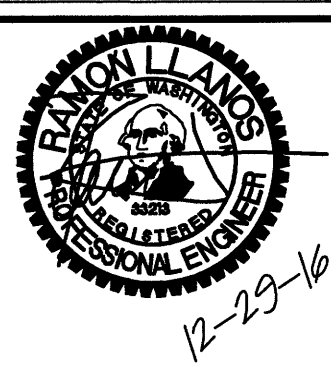
CITY OF FERDALE  
TRENCHING DETAIL

DRAWING  
SS-15

JUNE 1995

DETAIL BASED ON CITY OF FERDALE STANDARD DETAIL SS-16  
DUAL SEWER SERVICE PVC CUT-IN TEE  
NTS

ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



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

JOB NO.: 1470  
DWG. NAME:  
DESIGNED BY: RL  
DRAWN BY: YC  
CHECKED BY: RL

APPROVED  
City of Ferndale Public Works  
By: *[Signature]* Date: 1-12-17

**SANITARY SEWER  
DETAILS  
MARIANAS LONG PLAT**

SHEET  
**12**  
OF 16

RECORD DRAWING

00612.012 1/19/17 SH



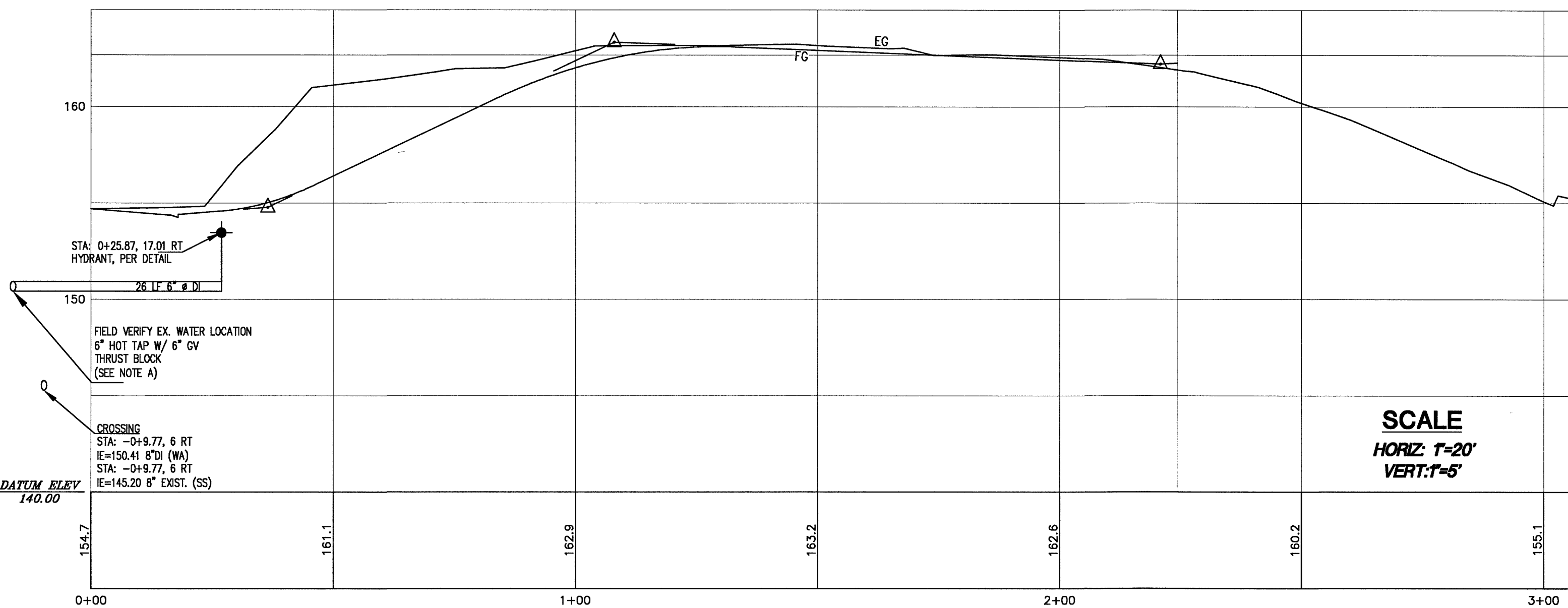
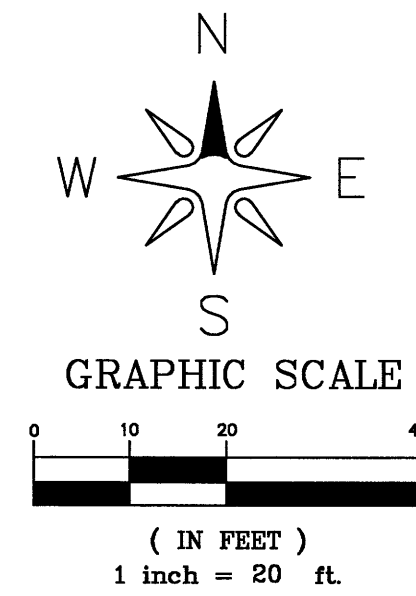
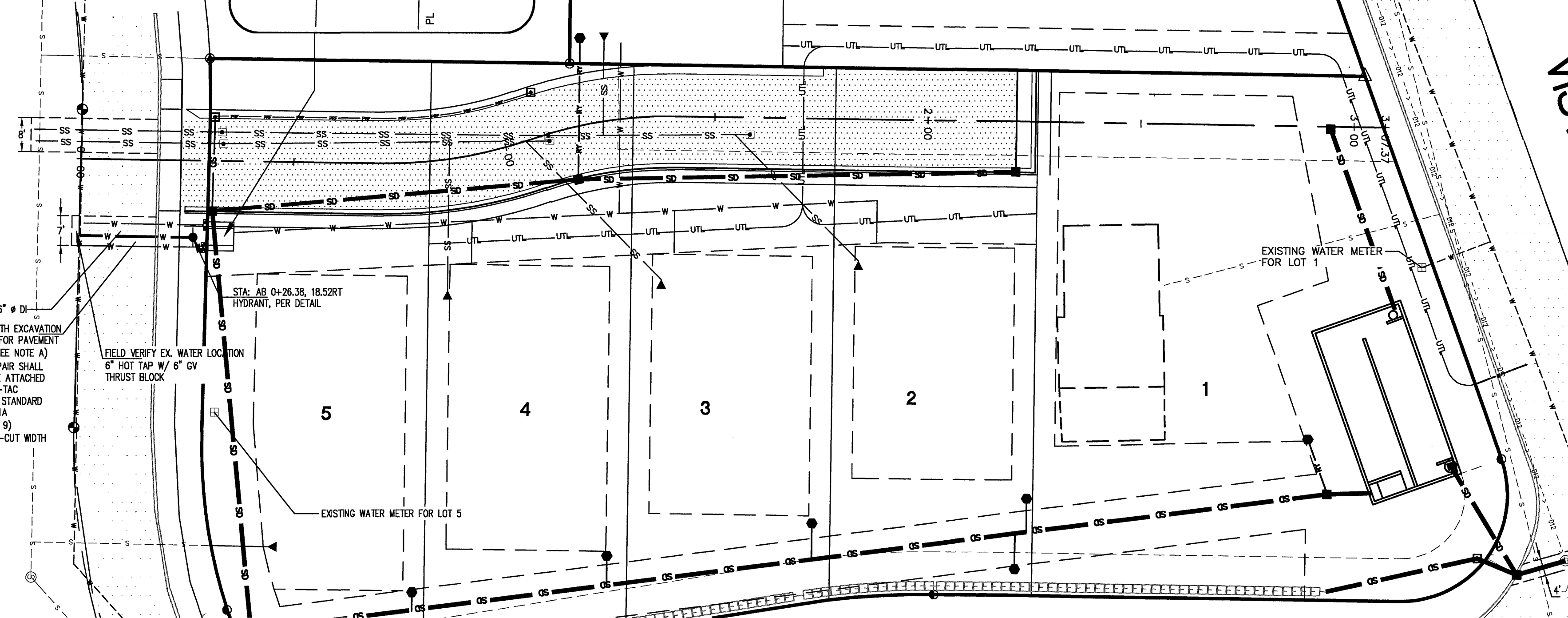
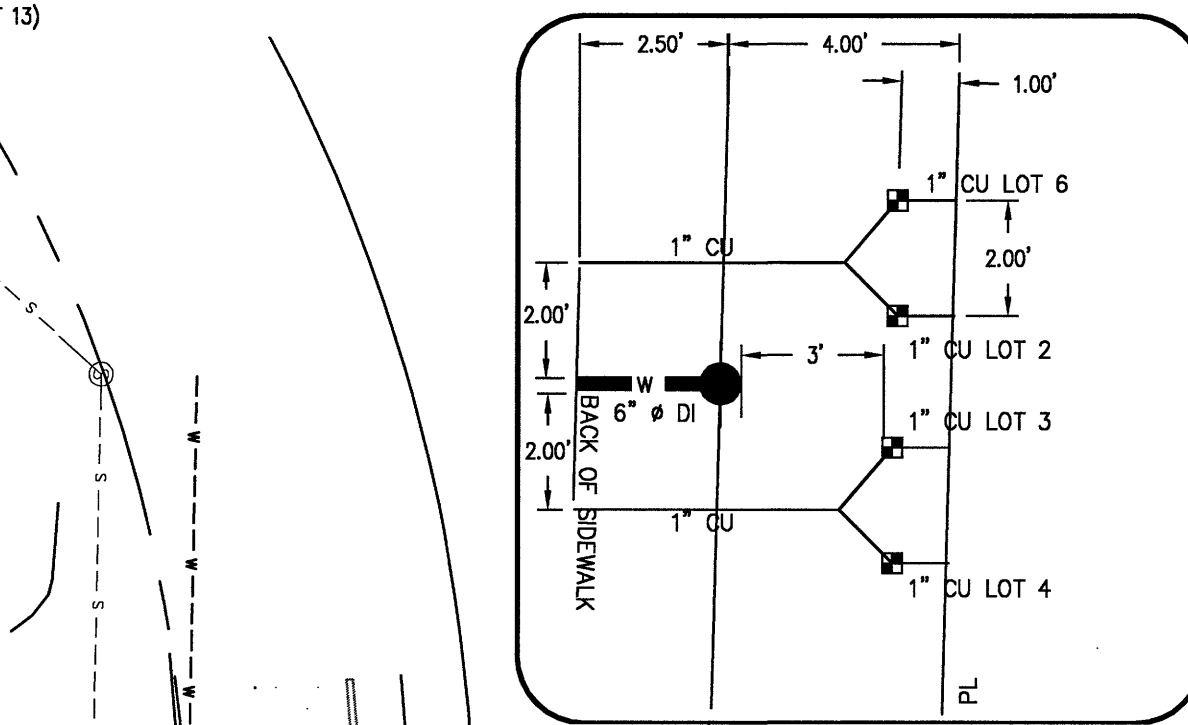
# LEGEND:

- = FND BRASS MON
- = FND ALUMINUM CAP MON
- = FND REBAR AND CAP
- △ = SET RED CAP WITH REBAR
- = SET RAILROAD SPIKE
- ⊕ = SET BERTSEN ROD
- = SET YPC
- = EXIST SD CATCH BASIN (TYPE 1)
- = EXIST SD CATCH BASIN (TYPE 2)
- ⊕ = EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- ⊕ = EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- ⊕ = EXIST SD CLEANOUT
- = PROPOSED STORM DRAIN SERVICE
- = PROPOSED STORM DRAIN CLEANOUT
- = PROPOSED STORM DRAIN CATCH BASIN
- = PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- = EXIST SANITARY SEWER MANHOLE
- = PROPOSED SANITARY SEWER SERVICE
- = PROPOSED SEWER CLEANOUT
- = PROPOSED SEWER MANHOLE
- = EXISTING WATER METER BOX
- = EXISTING WATER VALVE
- = EXISTING FIRE HYDRANT
- = EXIST WATER VALVE BOX
- = EXIST LIGHT POLE
- = EXIST TELEPHONE POLE
- = EXIST MAIL BOX
- = EXIST SIGN
- = EXIST OVERHEAD UTILITIES (UNKNOWN)
- = EXIST GAS MAIN
- = EXIST WATER SERVICE LINE
- = EXIST SANITARY SEWER LINE
- = EXIST STORM DRAIN LINE
- = EXISTING ROAD CENTERLINE
- = EXIST CHAIN LINK FENCE
- = EXIST WOOD POST FENCE
- = EXIST CONC. FENCE OR RET. WALL
- = EXIST ROCK WALL
- = EXIST CONTOUR (INDEX)
- = EXIST CONTOUR (NORMAL)
- = SPOT ELEVATION AT BOTTOM OF RETAINING WALL
- = SPOT ELEVATION AT TOP OF RETAINING WALL
- = PROPOSED ALLAN BLOCK WALL
- = PROPOSED STORM DRAIN LINE
- = PROPOSED SAN. SEWER LINE
- = PROPOSED WATER LINE
- = PROPOSED ROOF DRAIN
- = EXIST ASPHALT
- = EXIST GRAVEL DRIVEWAY
- = EXIST STRUCTURE
- = OFFSITE WETLANDS BASED ON
- = EXIST CONC SIDEWALK
- = SILT FENCE (BMP C233)
- = PROPOSED ASPHALT
- = PROPOSED COMMON UTILITIES
- = PROPOSED PAVEMENT SAW-CUT LINE

- PAVEMENT REPAIR NOTES:
1. MINIMUM WIDTH FOR PAVEMENT REPAIR SHALL BE 42-INCHES.
  2. PAVEMENT REPAIR THICKNESS SHALL BE PER COF DETAIL R-4 (SEE SHEET 9) OR MATCH EXISTING ASPHALT SECTION WHICHEVER PROVIDES THE THICKER SECTION.

NOTE A:  
PROPOSED WATER SERVICES TO THE EXISTING WATER MAIN MUST BE A TAPPED PER THE ATTACHED COF TYPICAL 3/4" AND 1" WATER SERVICE STANDARD DETAIL W-5 (SEE SHEET 13)

AUGUSTINE DR

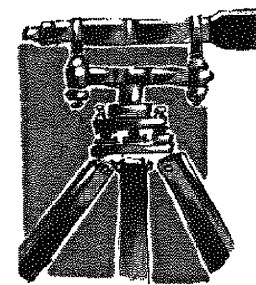


SCALE  
HORIZ: 1"=20'  
VERT: 1"=5'

RECORD DRAWING

R:\Common\Land Projects 2012\12051-Cordier Short Plat Research (5945 Vista Dr.)\Vista\12051-Long Plat\AS-BUILT\AS-BUILT.dwg PLOT DATE: 12/29/2016 12:32 PM

ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: Date: 1-10-17

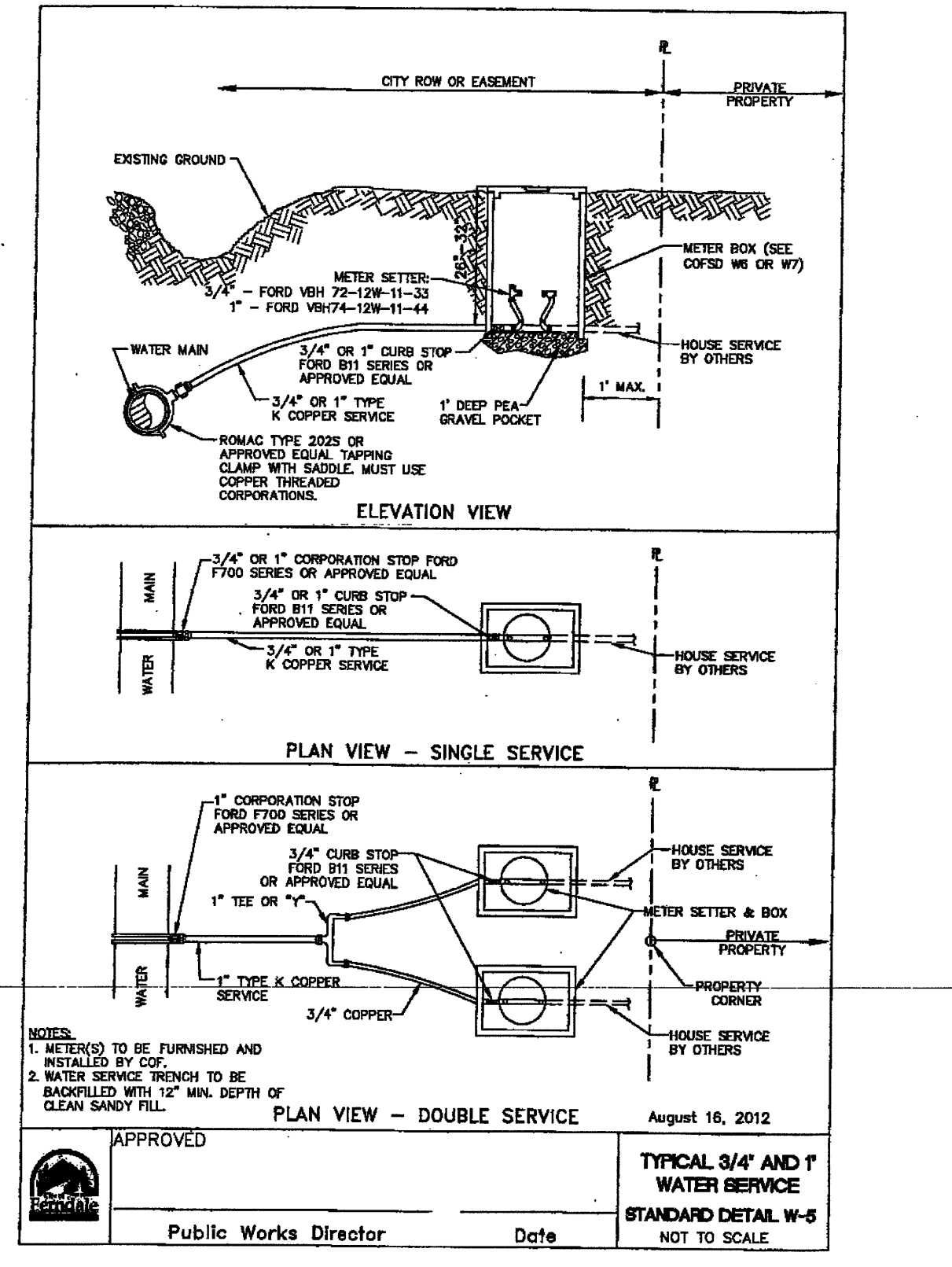
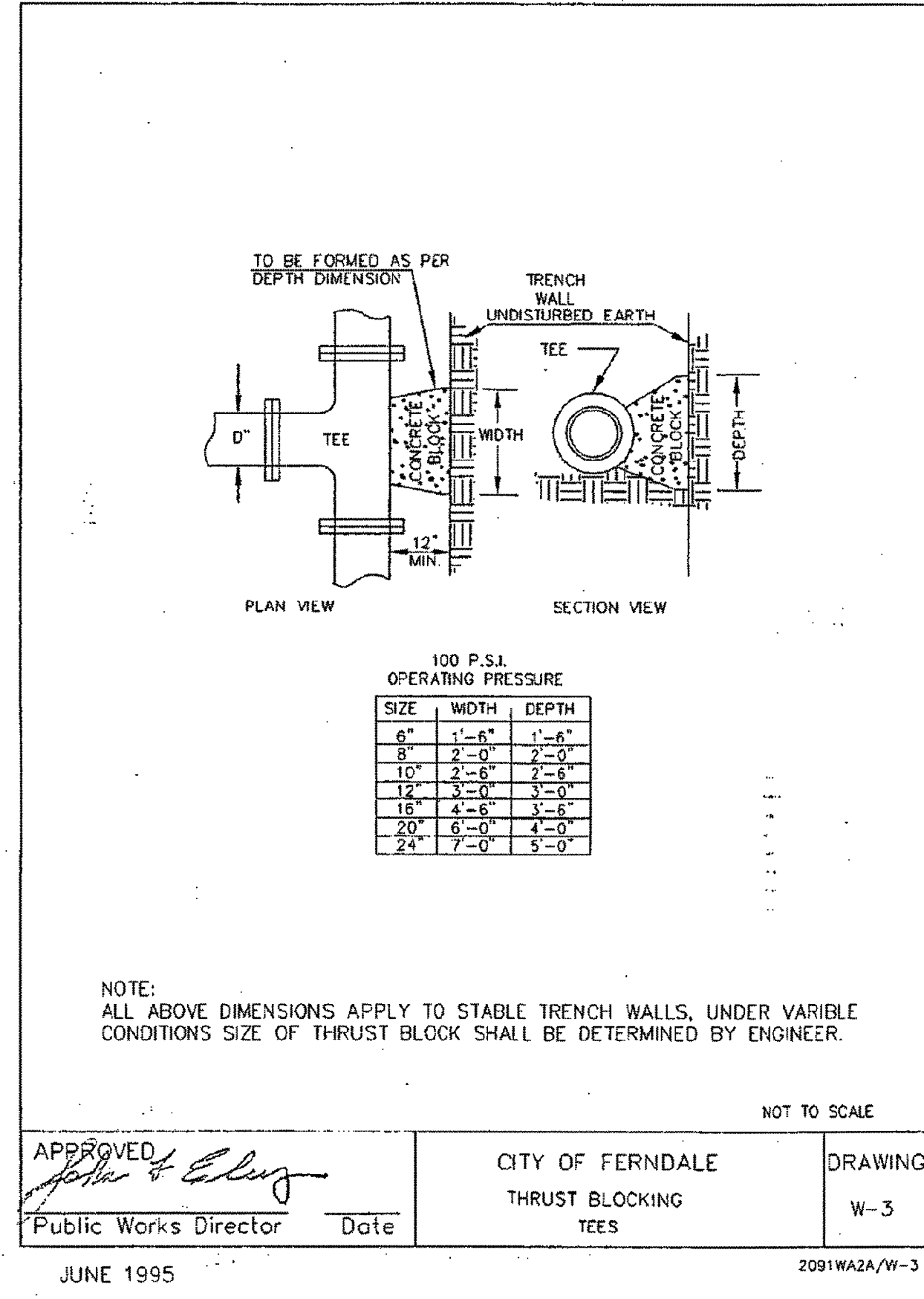
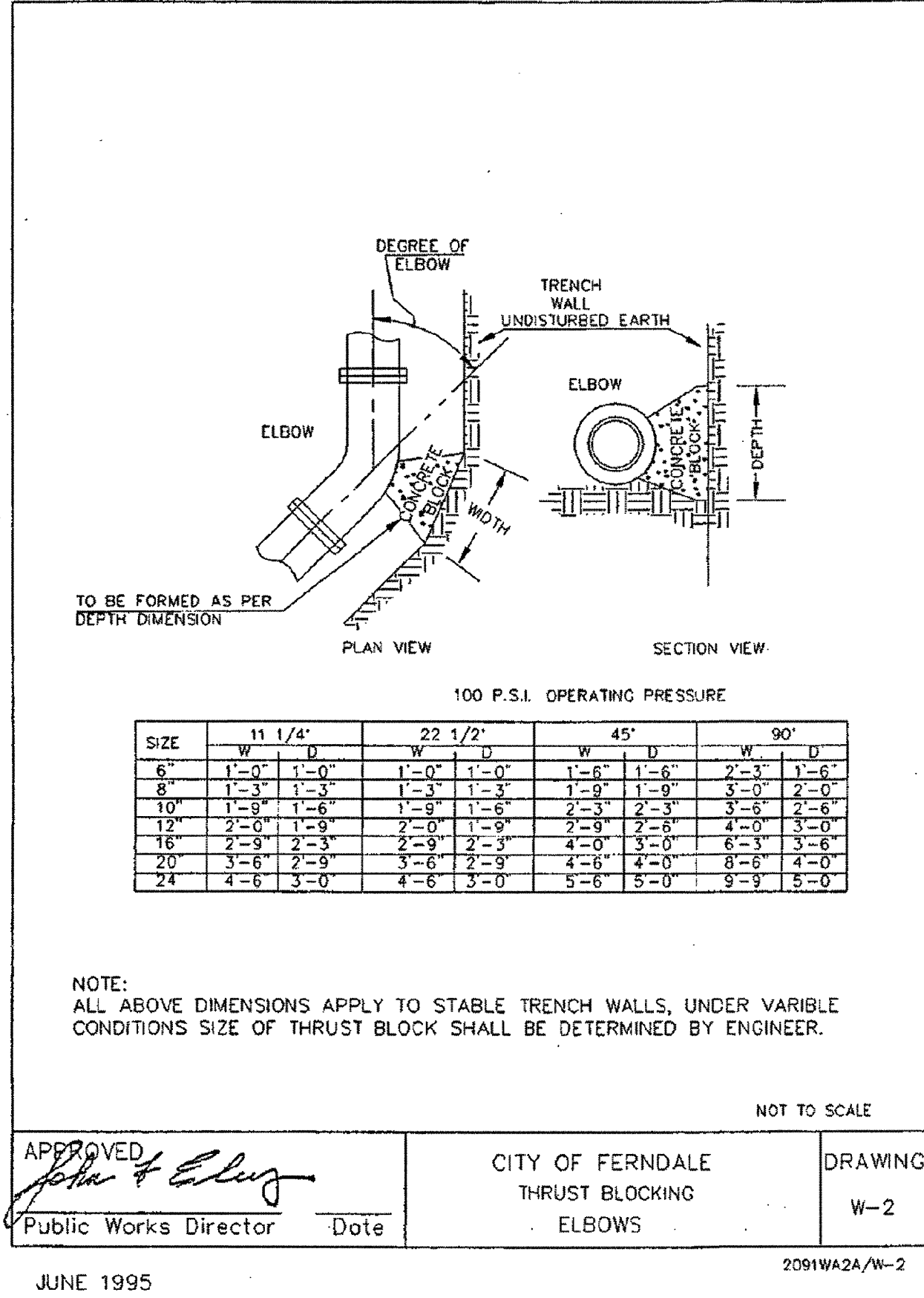
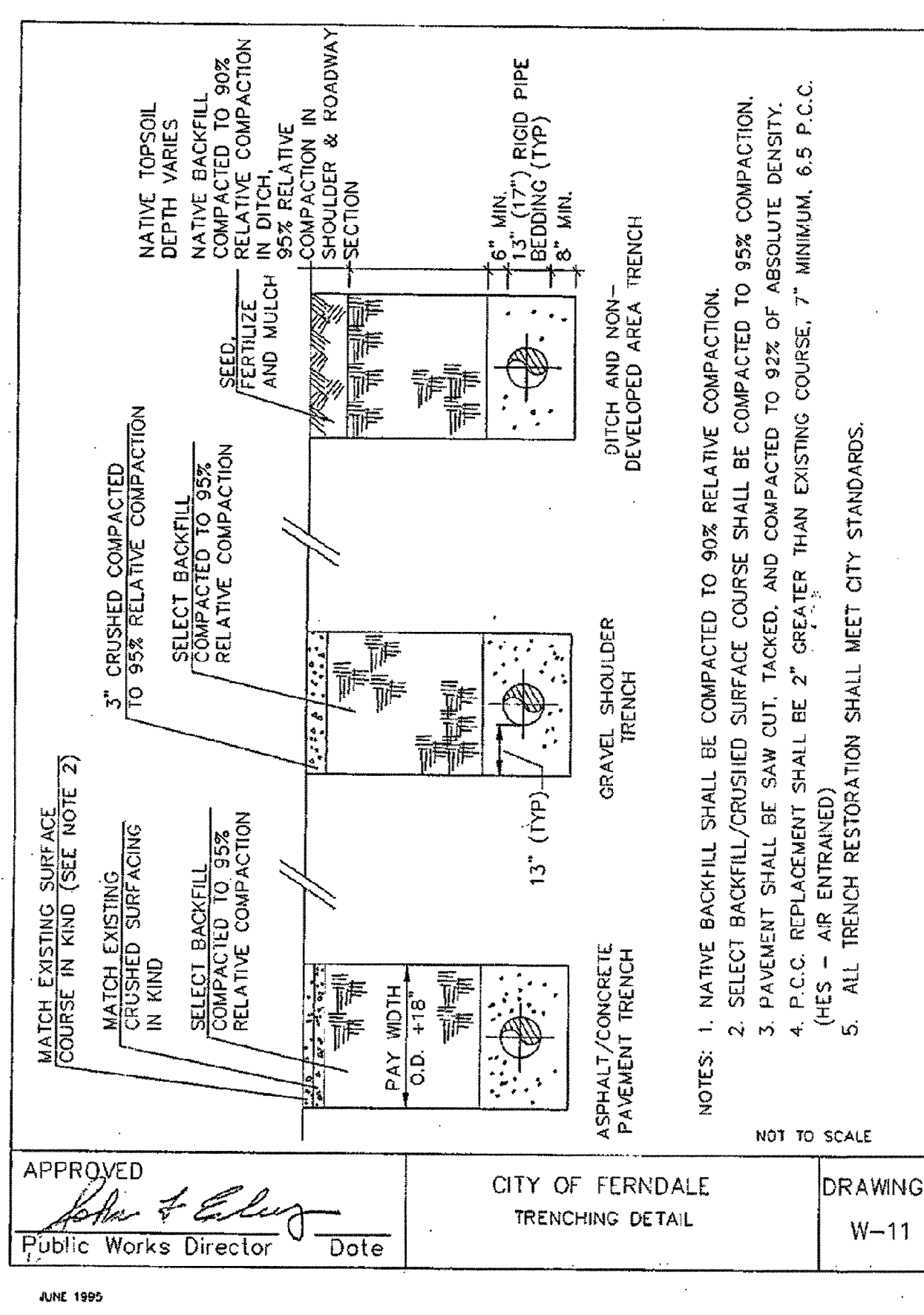
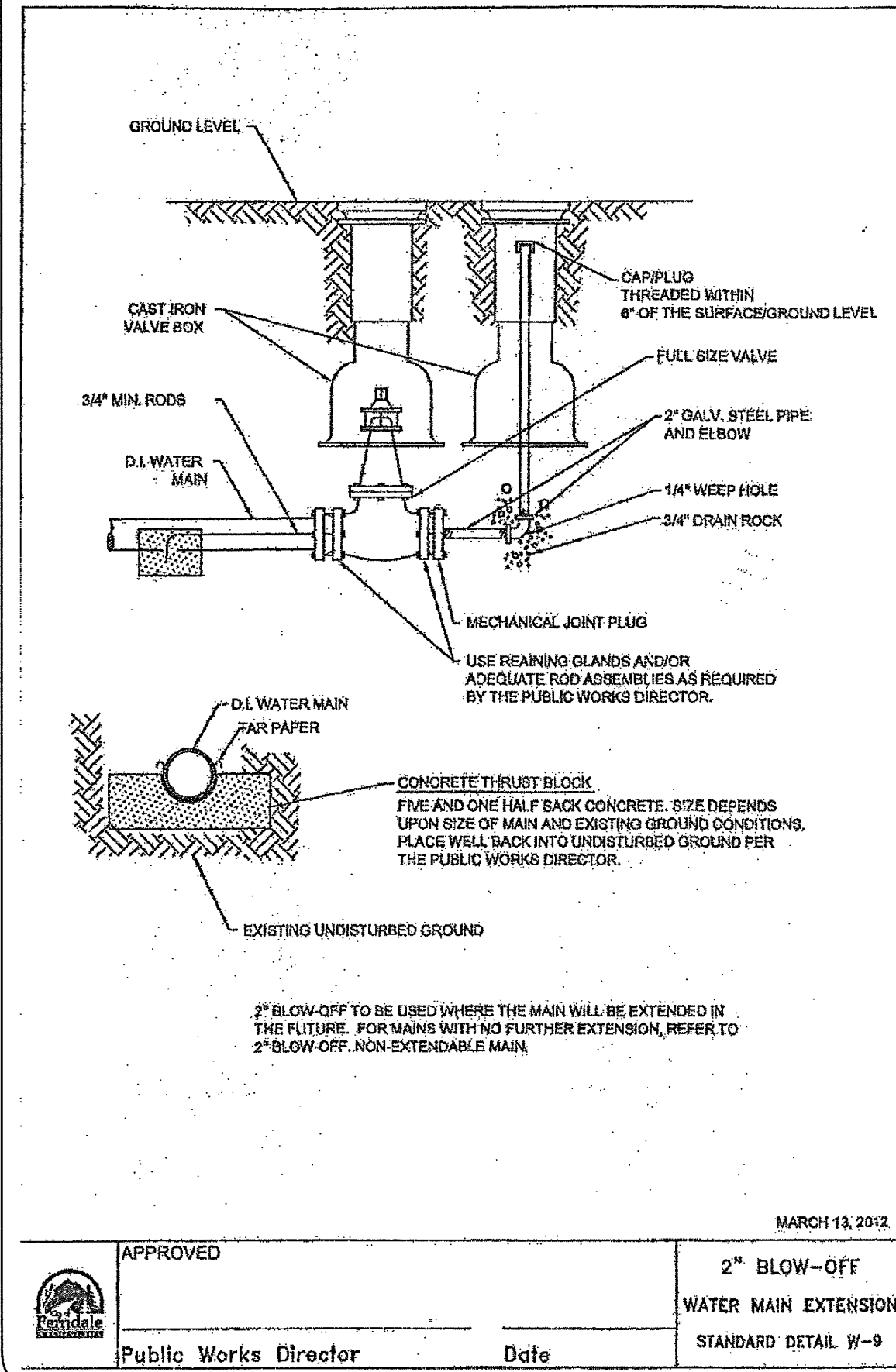
**WATER DISTRUBUTION PLAN  
AND PROFILE  
MARIANAS LONG PLAT**

SHEET  
**13**  
OF 16

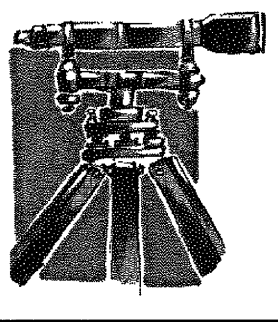
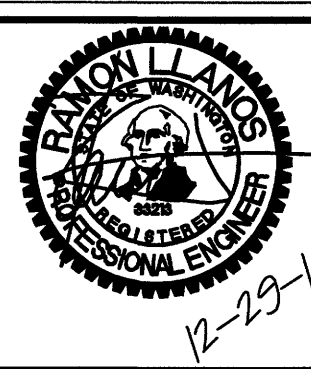
00612.013 1/19/17 SH



R:\Common\Land Projects 2012\2051-Cordier Short Plat Research (8445 Vista Dr)\View\2051-Long Plat west-AS-BUILT.dwg PLOT DATE: 12/29/2016 12:32 PM



NO.	REVISION	BY	DATE
1	ASBUILT SUBMITTAL 1	RL	12/29/16
2			
3			
4			
5			



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By: [Signature] Date: 1-12-17

WATER DISTRIBUTION  
DETAILS  
MARIANAS LONG PLAT

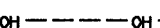

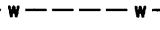
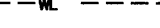



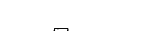
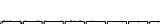
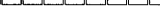


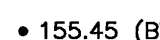
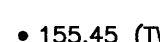

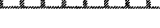



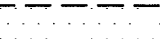
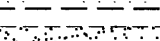
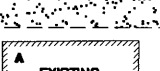
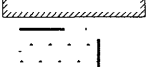
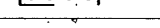
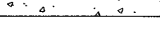

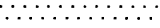

SHEET  
14  
OF 16

RECORD DRAWING

00612.014 1/19/17 SH

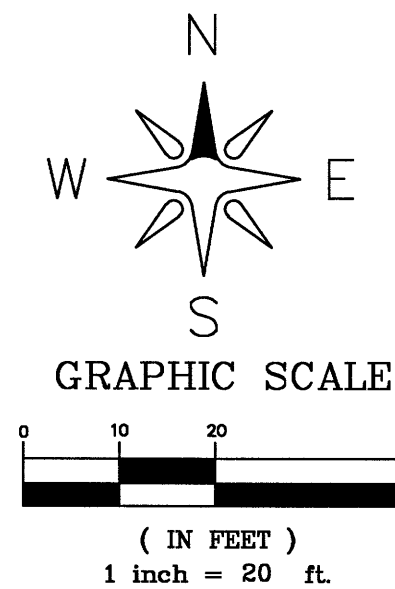
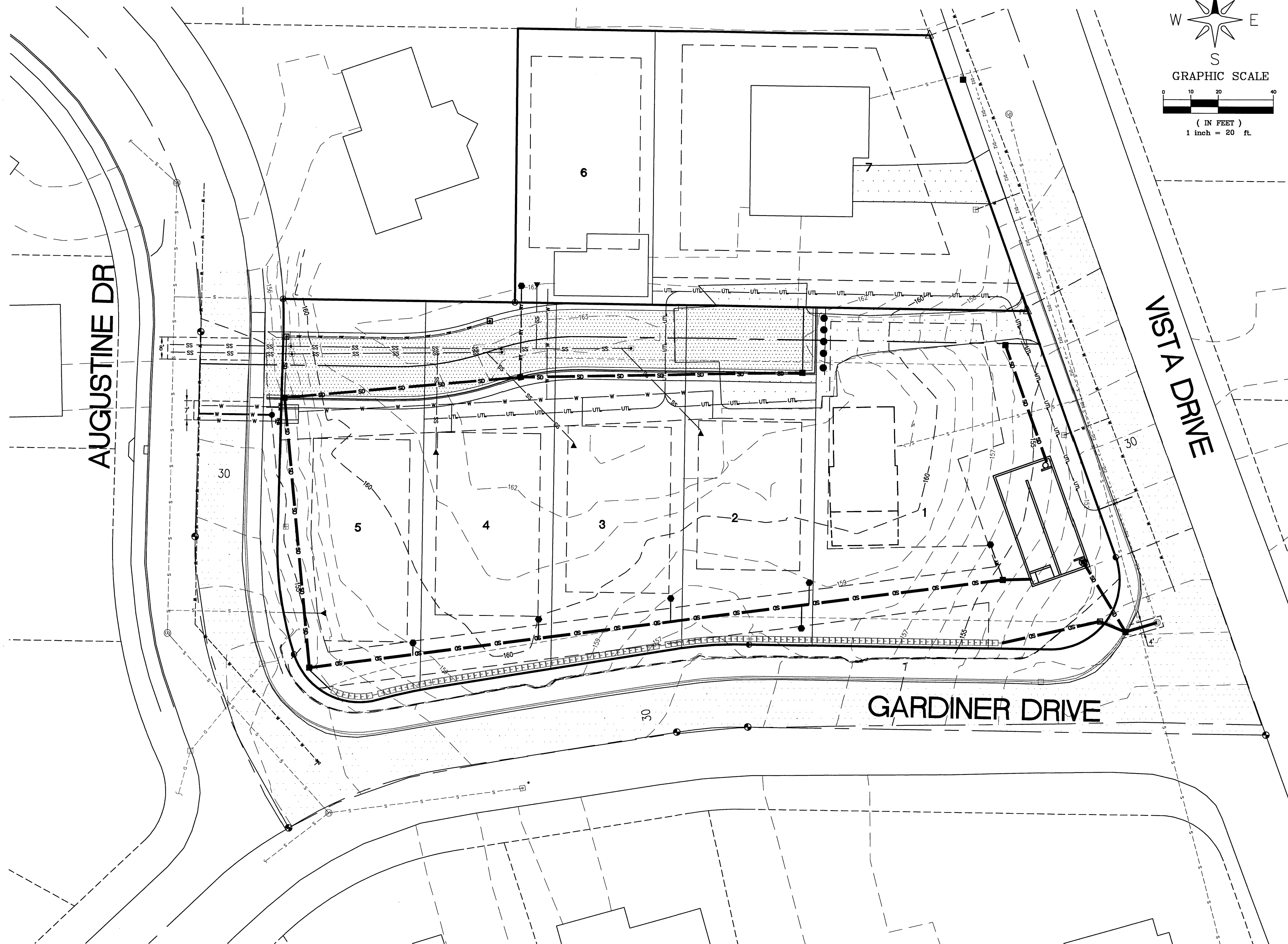


- = FND BRASS MON
- = FND ALUMINUM CAP MON
- = FND REBAR AND CAP
- ⚠ = SET RED CAP WITH REBAR
- ⊙ = SET RAILROAD SPIKE
- ⊕ = SET BERNTSEN ROD
- = SET YPC
- = EXIST SD CATCH BASIN (TYPE 1)
- ⊠ = EXIST SD CATCH BASIN (TYPE 2)
- ⊞ = EXISTING SD MANHOLE (TYPE 1) (SOLID TOP)
- ⊞ = EXISTING SD MANHOLE (TYPE 2) (SOLID TOP)
- ⊞ = EXIST SD CLEANOUT
- = PROPOSED STORM DRAIN SERVICE
- ⊞ = PROPOSED STORM DRAIN CLEANOUT
- = PROPOSED STORM DRAIN CATCH BASIN
- = PROPOSED STORM DRAIN MANHOLE (TYPE 2)
- ⊞ = EXIST SANITARY SEWER MANHOLE
- ⊞ = PROPOSED SANITARY SEWER SERVICE
- ⊞ = PROPOSED SEWER CLEANOUT
- = PROPOSED SEWER MANHOLE
- ⊞ = EXISTING WATER METER BOX
- ⊞ = EXISTING WATER VALVE
- ⊞ = EXISTING FIRE HYDRANT
- ⊞ = EXIST WATER VALVE BOXS
- ⊞ = EXIST LIGHT POLE
- ⊞ = EXIST TELEPHONE POLE
- ⊞ = EXIST MAIL BOX

- |   |   |  |
|---|---|--|
|    | = | EXIST OVERHEAD UTILITIES (UNKNOWN)         |
|    | = | EXIST GAS MAIN                             |
|    | = | EXIST WATER LINE                           |
|    | = | EXIST WATER SERVICE LINE                   |
|    | = | EXIST SANITARY SEWER LINE                  |
|    | = | EXIST STORM DRAIN LINE                     |
|    | = | EXISTING ROAD CENTERLINE                   |
|    | = | EXIST CHAIN LINK FENCE                     |
|    | = | EXIST WOOD POST FENCE                      |
|    | = | EXIST CONC. FENCE OR RET. WALL             |
|    | = | EXIST CONTOUR (INDEX)                      |
|    | = | EXIST CONTOUR (NORMAL)                     |
| <br> | = | SPOT ELEVATION AT BOTTOM OF RETAINING WALL |
|   | = | SPOT ELEVATION AT TOP OF RETAINING WALL    |
|    | = | PROPOSED ALLAN BLOCK WALL                  |
|    | = | PROPOSED STORM DRAIN LINE                  |
|    | = | PROPOSED SAN. SEWER LINE                   |
|    | = | PROPOSED WATER LINE                        |
|    | = | PROPOSED ROOF DRAIN                        |
|    | = | EXIST ASPHALT                              |
|    | = | EXIST GRAVEL DRIVEWAY                      |
|    | = | EXIST STRUCTURE                            |
|    | = | OFFSITE WETLANDS BASED ON                  |
|    | = | EXIST CONC SIDEWALK                        |
|    | = | SILT FENCE (BMP C233)                      |
|    | = | PROPOSED ASPHALT                           |
|    | = | PROPOSED COMMON UTILITIES                  |
|    | = | PROPOSED PAVEMENT SAW-CUT LINE             |

PAVEMENT REPAIR NOTES:

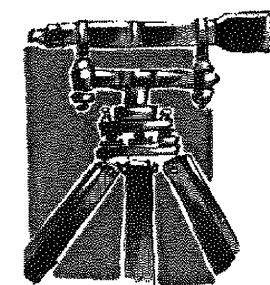
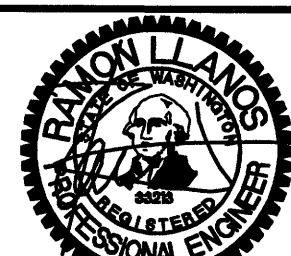
1. MINIMUM WIDTH FOR PAVEMENT REPAIR SHALL BE 42-INCHES.
2. PAVEMENT REPAIR THICKNESS SHALL BE PER COF DETAIL R-4 (SEE SHEET 9) OR MATCH EXISTING ASPHALT SECTION WHICHEVER PROVIDES THE THICKER SECTION.



00612.015 1/19/17 SH

# RECORD DRAWING

①	ASBUILT SUBMITTAL 1	RL	12/29/16
②			
③			
④			
⑤			
NO.	REVISION	BY	DATE



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

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

**APPROVED**  
City of Ferndale Public Works  
By: [Signature] Date: 1-18-

**COMPOSITE UTILITY PLAN**  
**MARIANAS LONG PLAT**

SHEET  
**15**  
OF **16**



R:\Common\Land Projects 2012\2025-Gardner Short Plat Research (5945 Vets Dr Vets) 2025-Long Plat east-AS-BUILT.dwg PLOT DATE: 12/29/2016 12:32 PM

- GENERAL REQUIREMENTS:
1. ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND TO THE REQUIREMENTS OF THE CURRENT EDITION OF THE "STATE OF WASHINGTON, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION" (WSDOT SPECS.), THE CITY OF FERNDALE DEVELOPMENT STANDARDS (COFDS) AND THE 2005 VERSION OF THE DEPARTMENT OF ECOLOGY STORM WATER MANAGEMENT MANUAL FOR WESTERN WASHINGTON (DOE MANUAL). 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. THROUGHOUT THE PERIOD OF CONSTRUCTION, CONTRACTOR SHALL COMPLY WITH THE TERMS OF ALL PERMITS.
  3. THE CONTRACTOR MUST HAVE A FULL SET OF CITY CONTRACT DOCUMENTS ON THE SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
  4. CONSTRUCTION NOISE SHALL BE LIMITED TO BETWEEN 7 a.m. TO 8 p.m., MONDAY THROUGH SATURDAY.
  5. THE CONTRACTOR SHALL CONTACT THE UTILITIES UNDERGROUND LOCATION CENTER AT LEAST 72 HOURS PRIOR TO STARTING CONSTRUCTION. PHONE: 1-800-424-5555. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL OF THE VARIOUS UTILITY COMPANIES TO ARRANGE FOR FIELD LOCATIONS OF ALL EXISTING UTILITY FACILITIES. 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.
  6. 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.
  7. 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 IN CONFORMANCE WITH THE EROSION & SEDIMENTATION CONTROL PLAN AND THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP SHALL BE ON-SITE AT ALL TIMES DURING CONSTRUCTION ACTIVITIES.
  8. SITE CLEARING SHALL INCLUDE THE LOCATION AND REMOVAL OF ALL ABOVE GROUND AND BURIED DEBRIS AND WASTE THAT MAY BE PRESENT.
  9. THE CONTRACTOR SHALL OBTAIN REVOCABLE ENCROACHMENT PERMITS FROM THE CITY OF FERNDALE AND/OR WHATCOMB COUNTY PRIOR TO COMMENCING WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
  10. THE CONTRACTOR SHALL ATTEND 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, THE CITY WILL SCHEDULE THE MEETING.
  11. ALL WORK AND MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT, REPRESENTATIVES FROM THE CITY OF FERNDALE PUBLIC WORKS DEPARTMENT MUST INSPECT ALL WORK IDENTIFIED ON THE PLANS, BOTH PUBLIC AND PRIVATE. THE CONTRACTOR SHALL CALL AT LEAST 24 HOURS IN ADVANCE TO SCHEDULE INSPECTIONS AS FOLLOWS:
    - A. PLACEMENT OF TEMPORARY EROSION CONTROL MEASURES.
    - B. CONSTRUCTION OF STORMWATER MANAGEMENT FACILITIES.
    - C. PLACEMENT OF WATER MAIN AND BACKFILLING OF WATER MAIN TRENCH WITHIN ROAD RIGHTS OF WAY OR IN WATERLINE EASEMENT TO BE DEDICATED TO THE CITY OF FERNDALE.
    - D. PLACING OR BACKFILLING OF UNDERGROUND UTILITIES, STORM SEWER AND SANITARY SEWER WITHIN ROAD RIGHTS-OF-WAY, IN EASEMENTS TO BE DEDICATED TO THE CITY OF FERNDALE, OR OTHER PUBLICLY SHARED FACILITIES.
  12. E. GRADING OF PUBLIC OR PRIVATE ROADWAY AT:
    1. COMPLETION OF EXCAVATION TO SUBGRADE.
    2. COMPLETION OF BALLAST COURSE PLACEMENT.
    3. COMPLETION OF CRUSHED SURFACING COURSE PLACEMENT.
  13. F. POURING OF CURB AND GUTTER AND SIDEWALK IN PUBLIC ROADWAY.
  14. G. ASPHALT PAVING IN PROGRESS IN PUBLIC ROADWAY.
  15. H. OVERALL INSPECTION FOR FINISHED SHOULDERS, DITCHES, PERMANENT SEEDING AND MONUMENT PLACEMENT.
  16. I. END OF MAINTENANCE PERIOD.
- 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 INTERFERE WITH NORMAL TRAFFIC FLOW SHALL REQUIRE AT LEAST ONE FLAGGER FOR EACH LANE OF TRAFFIC AFFECTED. A TRAFFIC CONTROL PLAN SHALL BE SUBMITTED TO THE CITY FOR APPROVAL PRIOR TO PERFORMING THE WORK. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS 1-07.23- TRAFFIC CONTROL, SHALL APPLY.
13. THE CONTRACTOR SHALL INFORM THE ENGINEER AND OBTAIN APPROVAL FROM THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF ANY PROPOSED DEVIATION 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.
  14. AS-BUILT DATA SHALL BE PROVIDED TO THE CITY OF FERNDALE UPON COMPLETION OF CONSTRUCTION AND PROVIDED IN CITY OF FERNDALE DATUM - VERTICAL (NGVD 29) AND HORIZONTAL (NAD 83/91). CONTACT THE CITY FOR MORE INFORMATION ON SUBMITTAL REQUIREMENTS.
- 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, WATER SERVICE TAPS, 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 THE PROJECT ENGINEER AT LEAST 48-HOURS BEFORE BURYING UNDERGROUND PIPE TO ASSURE AND FACILITATE REQUIRED AS-BUILT SURVEY.
  - 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. ALL UTILITY TRENCHES IN THE RIGHT OF WAY SHALL BE BACKFILLED WITH 7-INCH MINUS OR 5/8-INCH MINUS WELL GRADED CRUSHED ROCK.
  - E. TESTING OF NEW WATER LINES, STORM SEWER SYSTEMS SHALL NOT BE PERFORMED UNTIL ALL OTHER ADJACENT UTILITIES HAVE BEEN INSTALLED.
  - F. ALL UTILITY TRENCHES SHALL BE BACKFILLED AND COMPACTED TO 95% DENSITY IN LIFTS NOT TO EXCEED 24 INCHES WITH A "HOE PACK" OR 8 INCHES WITH HAND-OPERATED COMPACTION."
  - G. OPEN CUTTING OF EXISTING ROADWAYS IS ONLY ALLOWED AS APPROVED AND NOTED ON THESE APPROVED PLANS. ANY OPEN CUT SHALL BE RESTORED IN ACCORDANCE WITH THE FERNDALE STANDARD TRENCH DETAIL(S).
  - H. ALL UTILITY TRENCHES UNDERNEATH AN EXISTING ROADWAY SHALL BE BACKFILLED WITH 150 PSF CONTROLLED DENSITY FILL.
  - I. NO PART OF THE DRAINAGE SYSTEM MAY BE COVERED, CONCEALED, OR PUT INTO USE UNTIL IT HAS BEEN INSPECTED, TESTED, AND ACCEPTED BY THE CITY INSPECTOR.
- EARTHWORK
- A. THE CONTRACTOR SHALL REMOVE AND REPLACE ALL EXISTING UN-COMPACTED OR POORLY COMPACTED FILL SOILS WITHIN THE ROAD PRISM AT THE DIRECTION OF THE ENGINEER.
  - B. THE CONTRACTOR SHALL EXCAVATE AND GRADE TO THE ALIGNMENT, GRADE AND CROSS-SECTIONS SHOWN IN THE PLANS OR ESTABLISHED BY THE ENGINEER.
  - C. UNSUITABLE MATERIAL FOUND AND 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.
  - D. THE ENGINEER IS REQUIRED TO CERTIFY SUBGRADE, IN WRITING, PRIOR TO PAVING.
- BASE COURSES & CRUSHED SURFACING
- A. GRAVEL BASES AND BALLAST MATERIAL GRADATION SHALL MEET WSDOT STANDARD SPECIFICATIONS.
  - B. BALLAST, GRAVEL BASE AND CRUSHED SURFACING SHALL BE COMPACTED TO AT LEAST 95% OF MAXIMUM DRY DENSITY.
  - C. THE GRADED AND COMPACTED SURFACE OF THE CRUSHED SURFACING TOP COURSE SHALL BE WITHIN 1/8 INCH OF FINISHED GRADE.
  - D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MATERIAL AND COMPACTION TESTING. PRIOR TO IMPORTING OF MATERIAL FOR BASE AND CRUSHED SURFACING TOP COURSE THE CONTRACTOR SHALL PROVIDE EVIDENCE OF SATISFACTORY PASSING GRADING AND DEGRADATION TEST RESULTS TO THE ENGINEER.
- STORM DRAINAGE
1. THE FOLLOWING STANDARD DETAILS SHALL BE USED FOR CONSTRUCTION OF STORM DRAIN IMPROVEMENTS:

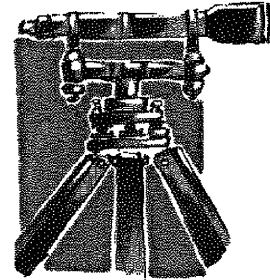
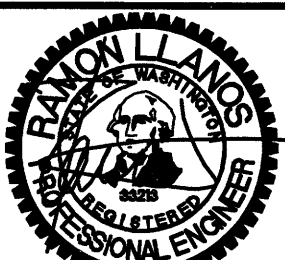
CATCH BASINS TYPE 1, 1L OR 2	WSDOT STD. DETAILS B-5.20, B-5.40 OR B-10.20
"RESIDENTIAL SERVICE LINE"	COFSD ST-7 (CITY OF FERNDALE STD DETAIL)
  2. CATCH BASINS SHALL BE CONSTRUCTED WITH 18" DIA. CORRUGATED POLYETHYLENE PIPE (CPEP); ALL OTHER STORM SEWER PIPE SHALL BE PVC.
  3. STORM SEWER PIPE HAVING DIAMETERS GREATER THAN 18" SHALL BE CORRUGATED POLYETHYLENE PIPE (CPEP); ALL OTHER STORM SEWER PIPE SHALL BE PVC.
  4. ALL CATCH BASIN GRATES SHALL INCLUDE THE STAMPING "OUTFALL TO STREAM DUMP NO POLLUTANTS"
  5. CONTROL DENSITY FILL SHALL BE COVERED IN AREAS WHERE LESS THAN 18" OF COVER IS MAINTAINED OVER THE PROPOSED STORM PIPES (PIPE IS IN ROAD BASE SECTION), AS SHOWN IN THE PLANS. DUCTILE IRON PIPE MAY BE USED FOR STORM PIPES WITH LESS THAN 18" OF COVER IF APPROVED BY THE CITY.
  6. COVER OVER PIPES SHALL BE MAINTAINED DURING CONSTRUCTION. DEPTH OF COVER REQUIRED SHALL CONFORM TO THE MANUFACTURER'S RECOMMENDATIONS AND WILL VARY WITH THE VEHICLE LOADS TRAVELING OVER THE PIPE. NO ADDITIONAL COMPENSATION SHALL BE PROVIDED FOR DAMAGE TO PIPE DURING CONSTRUCTION ACTIVITIES.
  7. AT THE END OF ALL SITE CONSTRUCTION, THE CONTRACTOR SHALL CLEAN ALL DEBRIS FROM CATCH BASINS AND STORMWATER CONVEYANCES. DEBRIS SHALL NOT BE ALLOWED TO ENTER STREAMS OR OFF-SITE STORMWATER SYSTEMS.
  8. POSITIVE LOT DRAINS PER STANDARD DETAIL ST-16.
- WATER
1. THE FOLLOWING STANDARD DETAILS SHALL BE USED IN CONSTRUCTING WATER SUPPLY SYSTEM IMPROVEMENTS:

PIPE BEDDING	COFSD W-11
TRENCH BACKFILL	COFSD W-11
FIRE HYDRANT ASSEMBLY	COFSD W-1
THRUST BLOCKING	COFSD W-2, W-3 & W-4
WATER SERVICE	COFSD W-5
  2. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF FERNDALE DEVELOPMENT STANDARDS, SECTIONS 702 AND 705 AND THE MOST RECENT VERSION OF WSDOT STANDARD SPECIFICATIONS.
  3. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON, MINIMUM THICKNESS CLASS 50, PER AWWA STANDARDS C104-71 AND C151-74, WITH GEMENT LINING PER AWWA STANDARD C104-71.
  4. MATERIAL FOR FITTINGS SUCH AS CROSSSES, 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.
  5. 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.
  6. CONNECTIONS TO EXISTING WATER MAINS - THE CONTRACTOR MUST NOTIFY THE CITY OF FERNDALE PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION AT LEAST FOUR WORKING DAYS IN ADVANCE.
  7. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTION 7-09.3(23) AND SECTION 7-09.3(24) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. CURRENT EDITION. HYDROSTATIC TEST PRESSURE FOR WATER MAIN ACCEPTANCE SHALL BE 250 PSI AND SHALL BE DONE ACCORDING TO CITY OF FERNDALE REQUIREMENTS. THE CITY OF FERNDALE LABORATORY SHALL CONDUCT ALL DISINFECTION TESTS AND BACTERIOLOGICAL TESTS. THE PIPE WILL NOT PASS TESTING UNLESS A ZERO BACTERIAL COUNT IS MEASURED ON TWO CONSECUTIVE TESTS, CONDUCTED 24 HOURS APART.
  8. 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.
  9. ALL PIPES SHALL HAVE A MINIMUM COVER OF 36".
  10. ALL VALVES SHALL BE EITHER GATE OR BUTTERFLY TYPE VALVES AND SHALL BE INSTALLED WITH SLIP TYPE CAST IRON VALVE BOXES. GATE VALVES SHALL BE USED FOR LINES 2 INCHES THROUGH 10 INCHES IN DIAMETER. SHORT-BODY VALVES SUITABLE FOR A NON-SHOCK SHUT-OFF PRESSURE OF 150 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 NON-RISING 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.
  11. WATER SERVICE TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE COFDS W-5.
  12. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO COFDS- SD 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 AIRCRAFT CABLE SHALL BE SUPPLIED. HYDRANTS SHALL BE EITHER M.J. 925T 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.
    - 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 250 PSI. 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.

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

TYPICAL STREET SECTION	PER THESE PLANS
PCC CURB AND GUTTER	COFSD R-9
PCC SIDEWALKS	COFSD R-12 (SEE CONSTRUCTION DOCUMENTS TYPICAL SECTION)
PCC CURB RAMPS	WSDOT STD. DETAIL F-40.
  2. ROADWAY EXCAVATION WITHIN THE ROADWAY PRISM SHALL BE CUT TO A UNIFORM GRADE. THE COMPLETED SUBGRADE SURFACE SHALL NOT VARY MORE THAN 0.10-FOOT FROM THE LOWER EDGE OF A 15-FOOT STRAIGHTEDGE PLACED ON THE SUBGRADE PARALLEL TO THE CENTERLINE UNLESS APPROVED BY THE ENGINEER.
  3. THE OWNER SHALL PROVIDE TO THE ENGINEER A REPORT FROM A QUALIFIED GEOTECHNICAL FIRM CERTIFYING THE COMPACTION OF THE GRAVEL BASE UNDER ALL PAVING AREAS.
  4. ASPHALT CONCRETE PAVEMENT SHALL BE CLASS "B" MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SECTION 5-04, EXCEPT AS MODIFIED HEREIN. CONNECTION TO EXISTING PAVEMENT SHALL BE TO A STRAIGHT NEATLY-TIMMED LINE.
  5. CRUSHED ROCK SURFACING FOR PAVEMENT SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 9-03.9(3); BALLAST PER SECTION 9-03.9(1).
  6. CEMENT CONCRETE SHALL BE CLASS 3000 (WITH AIR ENTRAINMENT) IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 6-02.3(2)(b).
  7. CEMENT CONCRETE SIDEWALK SHALL BE CONSTRUCTED AS SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH CITY STANDARDS, DRAWING NO. R-12.
  8. CEMENT CONCRETE DRIVEWAYS SHALL BE 6 INCHES THICK AND CONSTRUCTED WHERE SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER IN ACCORDANCE WITH THE CITY STANDARDS, DRAWING NO. R-15. A 2- INCH LATER OF 3/4 INCH DRAIN ROCK SHALL BE USED FOR DRIVEWAY BEDDING.
  9. CEMENT CONCRETE CURB AND GUTTER SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS OR AS DESIGNATED BY THE ENGINEER, IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATIONS, SECTION 8-04 AND CITY OF FERNDALE STANDARDS, DRAWING R-8 AND R-9. HANDICAP RAMPS SHALL BE CONSTRUCTED PER WSDOT STANDARD PLANS F-40. WHERE NEW CEMENT CONCRETE CURB AND GUTTER IS CONNECT TO EXISTING CURB AND GUTTER, ASSURE THAT NO ABRUPT OFFSETS IN LINE OR GRADE SHALL BE CONSTRUCTED WHICH WILL BE UNSIGHTLY OR IMPEDE FLOW IN THE GUTTER LINE.
  10. PAVEMENT:
    - A. SOL 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-400W SHALL BE APPLIED TO ALL EDGES OF EXISTING PAVEMENT. WHERE NEWLY CONSTRUCTED PAVING MEETS EXISTING PAVING, THE APPLICANT SHALL PROVIDE A SMOOTH TRANSITION FROM EXISTING TO PROPOSED PAVING. CONTRACTOR SHALL COLD PLANE PER DIMENSIONS SPECIFIED ON THE PLANS, AND INSTALL A MINIMUM 2-FOOT WIDE PETROTEC PAVING FABRIC, OR EQUIVALENT, OVER JOINT BETWEEN PAVING LIFTS.
  11. THRU-CURB BASINS AND THRU-CURB INLETS CONFORMING TO THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-05 SHALL BE CONSTRUCTED AT THE LOW POINT OF THE CURB FLOW LINES AND TO THE LOCATIONS, DIMENSIONS, AND DETAILS AS SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER AND CITY STANDARDS, DRAWING NO. R-8.
  12. TRENCH EXCAVATIONS, BEDDING AND PIPE FOR STORMWATER PIPE LAYING SHALL BE IN ACCORDANCE WITH THE WSDOT STANDARD SPECIFICATIONS, SECTION 7-08.
  13. STORM SEWER PIPE CONSTRUCTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH WSDOT STANDARD SPECIFICATION, SECTION 7-04. MATERIAL SHALL BE HANGOR SURE-LOK F477 PIPE OR CITY APPROVED EQUAL. LOTS' STORM DRAIN SERVICE LINE SHALL BE 6" PVC PER WSDOT STANDARD SPECIFICATION, SECTION 9-05.1(6).
  14. PERFORATED UNDERDRAIN PIPE SHALL MEET THE WSDOT STANDARD SPECIFICATION 7-01.3(2) .
- SANITARY SEWER SYSTEMS
1. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF FERNDALE STANDARD SPECIFICATIONS AND DETAILS, A.P.W.A. STANDARD SPECIFICATIONS, AND WSDOT STANDARD SPECIFICATIONS, MOST RECENT EDITIONS. SANITARY SEWER SYSTEM INSTALLATION, BOTH PUBLIC AND PRIVATE, IS SUBJECT TO CITY REVIEW AND APPROVAL.
  2. 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 PERFORMED IN THE PRESENCE AND UNDER THE SUPERVISION OF A CITY OF FERNDALE REPRESENTATIVE.
  3. 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.
  4. SANITARY SEWER PIPE BEDDING SHALL BE PER A GRAVEL PER COFSD SS-1. ALL TRENCHES SHALL BE BACKFILLED WITH CLASS B BANK RUN GRAVEL WITHIN CITY RIGHT OF WAY AND TRAVELED WAYS OUTSIDE OF RIGHT OF WAY (ACCESS EASEMENTS) AND SHALL BE COMPACTED TO A MINIMUM DENSITY OF 95% MODIFIED PROCTOR. USE OF SUITABLE NATIVE BACKFILL OUTSIDE OF TRAVELED WAY SHALL BE SUBJECT TO APPROVAL BY THE CITY.
  5. ALL MANHOLES SHALL BE INSTALLED PER CITY OF FERNDALE STANDARD DETAILS AND SHALL BE PRE-CHANNELED. MANHOLE CONES ARE TO BE OFFSET SUCH THAT LADDER RUNGS ARE PARALLEL TO THE FLOW.
  6. 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".
  7. CONTRACTOR SHALL EXTEND SEWER STUBS 5 FT BEYOND UTILITY CORRIDOR OR 15 FEET BEYOND RIGHT-OF-WAY LINE.
  8. EACH SIDE SEWER STUB SHALL BE CAPPED WITH A WATERTIGHT PLUG. EACH STUB SHALL BE MARKED FOR LOCATION WITH A 2" DIA. PVC PIPE (MIN. SCHEDULE 40) WITH THE TOP 18" PAINTED GREEN AND STENCILED WITH THE WORD "SEWER" AND THE PIPE INVERT INDICATED. THE LOCATION MARKER SHALL BE CONNECTED TO THE SERVICE STUB BY A #12 COPPER WIRE.

ASBUILT SUBMITTAL 1	RL	12/29/16
NO.	REVISION	BY DATE



**LD&S, INC.**  
**5160 INDUSTRIAL PL. #108**  
**FERNDALE, WA 98248**  
**PHONE 360-383-0620**  
**FAX 360-383-0639**

JOB NO.:	1470
DWG. NAME:	
DESIGNED BY:	RL
DRAWN BY:	YC
CHECKED BY:	RL

APPROVED  
City of Ferndale Public Works  
By:  Date: 12/29/16

**CITY OF FERNDALE**  
**GENERAL NOTES**  
**MARIANAS LONG PLAT**

SHEET  
**16**  
OF **16**

RECORD DRAWING

00612.016 1/19/17 SH