IMPROVEMENT PLANS
FOR
DARDENNE LANDING PHASE II
SECTION2, TOWNSHIP 46 NORTH, RANGE 2 EAST
VILLAGE OF DARDENNE PRAIRIE, ST CHARLES COUNTY, MISSOURI

LOCATION MAP
N.T.S.

N

DEVELOPMENT NOTES

RESIDENTIAL AREA
AREA OF TRACT: 7.19 Acres
EXISTING ZONING: R-1A, R1D-PUD (PHASE 1)
PROPOSED ZONING: R1-D
PROPOSED USE: RESIDENTIAL
TOTAL LOTS PROPOSED: 21 SINGLE FAMILY DETACHED

GENERAL NOTES

1. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor, and shall be located prior to any grading and/or construction of improvements.
2. Contractor shall be responsible for the protection of all adjacent properties and roadways from siltation and erosion. Methods of controlling erosion and siltation shall not be limited to those shown on the plans.
3. If silt control measures are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by Contractor.
4. All cut and fill slopes shall be a maximum of 33% slope (3:1) after grading.
5. All construction and materials shall conform to the current Construction Standards of The Village of Dardenne Prairie, PWSD #2, and St. Charles County.
6. Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
7. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
8. When grading operations are completed or suspended for more that thirty (30) days, permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the Designated Official's recommendation. Refer to Appendix A of St. Charles Soil and Water Conservation District Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1000 square feet when needed.
9. All fill including fill places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90% of maximum density as determined by the "Modified ASSHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be nonyielding and nonpumping during proofrolling and compaction.
10. The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
11. Owner or Developer will assume full responsibility as to the performance of the grading operation and provide assurance that all properties and County roads will be adequately protected.
12. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
13. Storm sewers 18" diameter and smaller shall be ASTM C-76 Class II unless otherwise shown on the plan.
14. Storm sewers 21" diameter or larger shall be ASTM C-76 Class III RCP unless otherwise shown on the plans. ALSO, any storm sewer pipe, regardless of size, located beneath a street right-of-way or within reasonable probability of being so located, shall be a minimum of Class III, reinforced concrete.
15. All sanitary sewer construction shall conform to current PWSD #2 Standards and Specifications.
16. All water line construction shall conform to St. Charles County Water District #2 and Cottleville Community Fire Protection District standards and specifications.
17. Any wells and/or springs which may exist on this property shall be located and sealed in a manner acceptable to The Village of Dardenne Prairie.
18. Trees, organic debris, rubble, foundations and other deleterious materia shall be removed from the site and disposed in compliance with all applicable laws and regulations. Landfill tickets for such disposal shall be maintained on file by the developer.
19. Burning on site shall be allowed only by permit from the local fire district.
20. Soft soils in the bottom and banks of any existing or former pond sites or tributaries shall be removed, spread out, and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer location.
21. Concrete Pipe Joints shall be Type "A" Approved Compression Joints and shall conform to the requirements of the Specification for Joints and Circular Concrete Sewer and Culvert Pipe, using Flexible, watertight, rubber-type gaskets, ASTM C-443 Bend-Type. Gaskets depending entirely on cement for adhesion and resistance to displacement during jointing shall not be used.
22. All manhole tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
23. Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including laterals.
24. Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat. See record plat for location and size of easements.
25. No area shall be cleared without permission of the developer.
26. All standard street curb inlets to have front of inlet 2-feet behind curb.
27. All sanitary building connections have been designed so that the minimum vertical distance from the low point of the basement to the flow line of a sanitary sewer at the corresponding building connection is not less than the diameter of the pipe plus a vertical distance of 2-1/2 feet.
28. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specifications 10 CSR-8.120 (7) (E).
29. Brick shall not be used on sanitary manholes.
30. All grout for rip-rap shall be high slump ready-mix concrete.
31. All sanitary manholes shall be a minimum of 48" diameter for 10" diameter and larger sanitary sewer lines.
32. Public Water Supply District #2 shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.
33. All storm and sanitary trench backfills will be water jetted. Granular backfill will be used throughout the storm and sanitary trenches as indicated in note 34.
34. All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 1/2" to 1" granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or minus stone from springline of pipe to 6" above the top of pipe.
35. All pipes shall have positive drainage through manholes. No flat base structures shall be permitted.
36. All streets within this set of Improvement Plans shall be publicly maintained and dedicated to The Town of Dardenne Prairie on acceptance by the Town.
37. All fill in proposed and existing right-of-way shall be compacted to 90% maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). Paved areas in cuts shall meet the same compaction requirements. All tests shall be verified by a Soils Engineer concurrent with grading operations.
38. Please notify the Chief Inspector of the St. Charles County Highway Department and SBA at 240-2444 twenty-four hours prior to the commencement of grading and/or prior to the commencement of construction.
39. Sidewalk curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the Project Engineer shall be notified by the contractor prior to any construction.
40. The Contractor shall prevent all storm water, mud or construction debris from entering the existing sanitary system.
41. Water main must be Class 200, SDR 21 PVC, installed with tracer tape and locator wire.
42. Fire hydrants shall be 6 inch 3-way with auxiliary valve, Mueller "Centurion" or Clow "Lady". Hydrants shall be installed with the steamer connection facing the street.
43. Public Water Supply District No. 2 shall be notified at least twenty-four (24) hours prior to the start of water line installation for inspection coordination.
44. Existing sanitary sewer service shall not be interrupted.
45. Pre-Manufactured adapters shall be used at all PVC to DIP connections. Rubber boot /Mission-Type couplings will not be allowed.
46. All streets and storm sewers are to be constructed to St. Charles County Highway Department specifications.
47. Straw bales shall be placed in front of all inlets and the silt will be removed after each rain. Silt fences will be placed at all uphill corner lots.
48. Mud shall be removed from all pavement at the end of each work day by scraping, brooming and washing as necessary.
49. Area inlets will have all sides open unless otherwise noted on plan sheets.

LEGEND

	SANITARY STRUCTURE	C.O.	CLEAN OUT
	STORM STRUCTURE	T.B.R.	TO BE REMOVED
	TEST HOLE	T.B.R.&R.	TO BE REMOVED & RELOCATED
	POWER POLE	T.B.P.	TO BE PROTECTED
	LIGHT STANDARD	T.B.A	TO BE ABANDONED
C.I.	CURB INLET	B.C.	BASE OF CURB
D.C.I.	DOUBLE CURB INLET	T.C.	TOP OF CURB
G.I.	GRATE INLET (EXISTING)	T.W.	TOP OF WALL
A.I.	AREA INLET (EXISTING)	TYP.	TYPICAL
D.A.I.	DOUBLE AREA INLET	U.N.O.	UNLESS NOTED OTHERWISE
F.E.	FLARED END SECTION	U.I.P.	USE IN PLACE
E.P.	END PIPE		EXISTING CONTOUR
E.D.	ENERGY DISSIPATOR	578	PROPOSED CONTOUR
M.H.	MANHOLE		TREE LINE
R.C.P.	REINFORCED CONCRETE PIPE		SAN. SEWER (EXISTING)
C.M.P.	CORRUGATED METAL PIPE		SAN. SEWER (PROPOSED)
C.I.P.	CAST IRON PIPE		STORM DRAIN (EXISTING)
PVC	POLYVINYL CHLORIDE		STORM DRAIN (PROPOSED)
VCP	VITRIFIED CLAY PIPE		PHONE BOX
	GUY WIRE		IRON PIPE
	SIGN		WATER LINE, SIZE
	POST		HYDRANT
	WATER METER		CONCRETE PAVEMENT
			PLACED RIP-RAP W/UNDERLAIN FABRIC

RESIDENTIAL DEVELOPMENT DENSITY:
TOTAL AREA: 7.19 ACRES
TOTAL UNITS: 21
DENSITY = TOTAL UNITS (21) / TOTAL AREA (7.19 ACRES)
DENSITY = 2.92 UNITS PER ACRE
R/W AREA: 1.32 ACRES
NET LOT AREA: 5.87 ACRES
DENSITY = TOTAL UNITS (21) / NET LOT AREA (5.87 ACRES)
DENSITY = 3.58 UNITS PER ACRE

DARDENNE LANDING PHASE 2 DEVELOPMENT DATA (RESIDENTIAL):
AVERAGE LOT SIZE:
AREA MINUS R/W 5.87 AC
TOTAL LOTS: 21
5.87 * 43,560 / 21 LOTS = 12,176 SQ FEET

MIN LOT SIZE: 10,500 SQ FEET

MIN WIDTH AT BLDG LINE: 80 FEET
MIN DEPTH OF LOT: 100 FEET
MIN FRONT YARD: 25 FEET
MIN SIDE YARD: 7 FEET

SHEET INDEX

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UTILITIES SERVING THIS TRACT:

FIRE: WENTZVILLE FIRE PROTECTION DISTRICT
WATER AND SEWER: PWSD #2
GAS: ST CHARLES GAS CO.
ELECTRIC: CUIVRE RIVER ELECTRIC
SCHOOL: WENTZVILLE SCHOOL DISTRICT
TELEPHONE: GTE TELEPHONE
POST OFFICE: O'FALLON POST OFFICE

ALL STREETS SHALL BE CONSTRUCTED TO ST CHARLES COUNTY SPECS.

ALL PROPOSED UTILITIES SHALL BE LOCATED UNDERGROUND

THIS SITE WILL ADDRESS SOIL AS WATER CONSERVATION SERVICE COMMENTS WITH THE IMPROVEMENT PLANS

THERE ARE NO DEVIATIONS FROM DISTRICT REQUIREMENTS

OFF-STREET PARKING SHALL BE PROVIDED FOR EACH LOT

SIDEWALKS SHALL BE INSTALLED PER DARDENNE PRAIRIE ORDINANCES

ALL STREETS SHALL BE 26' SIDE CONCRETE PER COUNTY DESIGN REQUIREMENTS UNLESS OTHERWISE NOTED.

STREET LIGHTING WILL BE PROVIDED AT INTERSECTIONS AND CUL DE SACS AND WILL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION

BUILDERS SHALL PROVIDE TWO TREES WITHIN 10 FEET OF THE FRONT PROPERTY LINE ON EACH LOT BY THE TIME OF FINAL SEEDING

THIS TRACT IS NOT WITHIN THE 100 YEAR FLOOD PLAIN AS SHOWN BY FEMA MAP NO 29183C0220E DATED AUG 2, 1996

THIS SITE IS TO BE DEVELOPED IN ONE PHASE

BENCHMARK

Old Iron Pipe at the Northeast corner of Lot 14 of Dardenne Landing
Elevation: 630.50
FEMA Datum from Map Number 29183C0220 E, Reference Mark 39
ALUMINUM MONUMENT H&V 80-1, ST. CHARLES CO. MAPING PROJECT 1994, THAT IS LOCATED 20 FT. WEST OF THE CENTERLINES OF FEISE AND HANLEY ROADS (USGS) ELEV 619.80.

THE UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE OR NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OR IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMO.

DEVELOPER:
TMH-H LLC
114 E ELM STREET
O' FALLON, MO 63366
636-379-1167

11/2/00	Revised as per County

DARDENNE LANDING PHASE 2
COVER SHEET
DEVELOPED BY: TMH-I, L.L.C.

S|C|E|S
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801 S. FIFTH STREET, SUITE 202
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ORDER NO.
99-0503-01
DATE
6/30/00

Nov. Wed. 02 10:21:21 5001

GRAVITY SEWERS AND MANHOLES

TESTING OF SEWERS AND MANHOLES

A. General. The completed lines shall be tested for leaks and visually checked for straightness of line and cracked pipe. If any deficiencies in line or grade are found which will be detrimental to the proper functioning of the sewer, the deficiencies shall be corrected. Any damaged or cracked pipe shall be excavated and relayed in a manner satisfactory to the Engineer. Any section of sewer which is found to be leaking in excess of the allowable quantity shall be repaired.

B. Acceptance Test: The Contractor shall furnish all equipment necessary for testing. Acceptance tests shall be made in the presence of the Engineer. All defects shall be repaired to the satisfaction of the Engineer. Each reach of sewer shall meet the requirements for the following acceptance tests.

1. Lamping. Each section of sewer line between manholes shall be straight and uniformly graded. Each such section will be lamped. Lamping will be performed by the Engineer.

2. Leakage Tests. Leakage test may be by exfiltration, by infiltration, or by low-pressure air testing as specified.

a. Exfiltration. The total exfiltration shall not exceed 200 gallons per inch of nominal diameter per mile of pipe per day. For purposes of determining maximum allowable leakage, manholes shall be considered section of 48 inch pipe.

1. Testing Procedures

a) The contractor shall furnish all equipment for testing.

b) Seal off the downstream end to the line to be tested. Fill with water to a minimum head of 2 feet in the manhole at the upstream end.

c) A period of at least one hour will be allowed for absorption time before making the test.

d) A suitable meter or method of measuring the quantity of water used is necessary.

e) The test shall be run a minimum period of 2 hours.

b. Infiltration. Pipe joints shall be protected from damage in the field prior to laying. Lubricants, primers, adhesives, etc., shall be recommended by the pipe manufacturer's specifications to obtain the degree of water-tightness required. The maximum rate of infiltration shall not exceed 200 gallons per inch of pipe diameter per day per mile. Infiltration exceeds this rate the leakage source(s) shall be located and repairs made as necessary. The infiltration test shall be performed with a minimum positive head of 2 feet. A suitable meter or method of measuring the quantity of water leaked into the sewer line is necessary.

c. AIR TEST

1. LOW PRESSURE AIR TEST: The air test, if used shall conform to the test procedure described in ASTM C-828, for vitrified clay pipe, ASTM C-924 for concrete pipe, andASTM F-1417 for plastic pipe.

a. Test Procedure:

1. Before testing, the pipe shall be thoroughly cleaned.

2. The Contractor shall seal off the section of pipe to be tested at each manhole connection. Test plugs must be securely braced within the manholes.

3. UNDER NO CIRCUMSTANCES ARE WORKERS TO BE ALLOWED IN THE CONNECTING MANHOLES WHILE A PRESSURE TEST IN BEING CONDUCTED.

4. Add air slowly into the test section. After an internal pressure of 4.0 psi is obtained, allow internal air temperature to stabilize.

5. After stabilization period, adjust the internal air pressure to 3.5 psi, disconnect the air supply and begin timing the test.

6. Refer to the following Table A at the end of this section to determine the length of time (minutes) the section under test must sustain while not losing in excess of 1 psi as monitored by the test gauge.

7. Sections so determined to have lost 1 psi or less during the test period will have passed the leakage test. Those sections losing in excess of 1 psi during the test period will have failed the leakage test.

8. Appropriate repairs must then be completed and the line re-tested for acceptance.

SANITARY SEWER AIR TEST (TABLE A)

Minimum Specified Time Required FOR A 1.0 psig Pressure Drop for Size and Length of Pipe Indicated for Air Leak Rate=0.0015 CFM / S.F. for Plastic Pipe

Specification Time for Length (L) Shown, min's

Pipe Diameter In	Minimum Time, mins	Length For Minimum Time, Ft	Length for Longer Length, s	SPECIFICATION TIME FOR LENGHT (L) SHOWN, mins 100 Ft	150 Ft	200 Ft	250 Ft	300 Ft	350 Ft	400 Ft	450 Ft
4	3:46	597	0.380L	3:46	3:46	3:46	3:46	3:46	3:46	3:46	3:46
6	5:40	398	0.854L	5:40	5:40	5:40	5:40	5:40	5:40	5:42	6:24
8	7:34	298	1.520L	7:34	7:34	7:34	7:34	7:36	8:52	10:08	11:24
10	9:26	239	2.374L	9:26	9:26	9:26	9:53	11:52	13:51	15:49	17:48
12	11:20	199	3.418L	11:20	11:20	11:24	14:15	17:05	19:56	22:47	25:38
15	14:10	159	5.342L	14:10	17:48	22:15	26:42	31:09	35:36	40:04	
18	17:00	133	7.692L	17:00	19:13	25:38	32:03	38:27	44:52	51:16	57:41
21	19:50	114	10.470L	19:50	26:10	34:54	43:37	52:21	61:00	69:48	78:31
24	22:40	99	13.674L	22:47	34:11	45:34	56:58	68:22	79:46	91:10	102:33
27	25:30	88	17.306L	28:51	43:16	57:41	72:07	86:32	100:57	115:22	129:48
30	28:20	80	21.366L	35:37	53:27	71:13	89:02	106:50	124:38	142:26	160:15
33	31:10	72	25.852L	43:05	64:38	86:10	107:43	129:16	150:43	172:21	193:53
36	34:00	66	30.768L	51:17	76:55	102:34	128:12	153:50	179:29	205:07	230:46

b. Vacuum Test of Manholes: The vacuum test, if used, shall conform to the test procedure described in ASTM C-1244. Test shall be performed with suitable apparatus made for such purpose and shall draw vacuum of 10 inches of Mercury (Hg). Test passes if vacuum remains at 10 inches of Hg or drops to not less than 9 inches of Hg in 1 minute.

3. Deflection Test. Not less than thirty (30) days after final backfill has been placed the Contractor shall perform a deflection test on all flexible pipe with the Engineer present. The test is to be run using a rigid ball or mandrel having a diameter equal to 95% of the inside diameter of the pipe. The tests shall be run without mechanical pulling devices. The pipe shall not exceed a deflection of 5%.

INSTALLATION OF WATER MAINS

"ALWAYS KEEP THE WATER MAIN ON EASEMENT"

1. Water main should be located 5' behind the curb and a minimum of 32" deep, as not to interfere with other utility locations.

2. All water mains should be 8 inches in diameter, or larger. The Last 300' can be 6" diameter pipe. The Pipe should have a Minimum Pressure Rating (PR) of 200 PSI or SDR-21 for 8" and C-900 class 150 or SDR 18 for 12" or larger pipes. All water mains of PVC Material shall be certified by NFS and listed in NFS Standard 61. NFS stands for NSF International which is an agency that certifies materials, such as pipe, valves, etc., for use in potable water systems among other things. Standards 61 is the (ANSI/NSF Standard 61) is a listing of certified drinking water components. The Missouri DNR requires that products which come in contact with drinking water be listed in NSF Standard 61. If the pipe is NFS certified, it will have a stamp on the pipe that says "NSF-pw".

3. Fire Hydrants must be Mueller Steamer Centurion and painted yellow in color and all valves must be Mueller Mechanical joint resilient wedge gate valve. A fire hydrant is required at the end of all dead end waterlines, including those which may be extended at a later date.

4. All fire hydrants are to have valves flanged to the tee and (with a total length of 38" or less) hydrants swivel anchored to the valve. Clean 1" rock should be used to backfill above the weep holes of the fire hydrant.

5. The contractor shall place all fire hydrants between 1.5 feet and 3 feet from the street curb (measured from the edge of the fire hydrant). The buryline should be set 6" higher in elevation than the top of curb.

6. These water bends (45 degrees, 22 1/2 degrees, 11 1/4 degrees), are to be made with mechanical joint fittings using mega lugs up to 10" diameter, 12" or larger requires mega lugs and concrete blocking. Concrete not to be on nuts or bolts. Ninety degree bends are not allowed. The first slip joint, up and down stream after fittings, should be restrained per pipe manufacturer specs.

7. Tees, 4-ways, etc. shall have concrete blocking. Concrete not to be on nuts or bolts.

8. Rocky soils shall require bedding 6" under and 6" over water pipe.

9. Concrete encasement required, to DNR Specification, when crossing storm or sanitary sewers. Sanitary: Vertical is 18", horizontal is 10'. Storm: vertical is 12", horizontal is 3'.

10. Must use appropriate sized casings when crossing streets.

11. Must attach coated solid core, 12 gauge tracer wire, taped to the top of pipe. All wire must run up the outside of the PVC SDR 21 valve box and I to be tucked inside the valve box under the water lid.

12. Use 3M waterproof splice kits for all splicing of tracer wire.

13. Any project with over 1500' of pipe should use the 2500' role of tracer wire to eliminate splicing. Any project where the fire hydrants, or valves, are over 600' apart, tracer wire with a connection box must be installed every 500'.

14. A chlorine test is required. It must initially test at 25 PPM, or greater, and 24 hours later 10 PPM must be present. It must be tested by the PWSD #2 inspector, and have 24 hours notice prior to that inspection. The main will be tested for 0.2 every 1,200' of pipe.

15. If chlorine test fails then the main must be re-chlorinated.

16. Coliform samples should be collected every 1,200.

17. Final Pressure Test: The water main must be pumped up to 125 PSI, and maintain this pressure for one hour without any drop in pressure. PWSD #2 may require higher pressure test if deemed necessary.

18. Gas, water and other underground utilities shall not conflict in depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.

19. All waterline construction shall conform to current PWSD #2 Standards and Specifications.

20. The contractor shall place the "streamer" outlet of a fire hydrant towards the street.

21-23. Not used.

24. Easements shall be provided for water mains, and all utilities in the record plat. See record plat for location, size, and width of easements.

25. Public Water Supply District #2 shall be notified at least 48 hours prior to the construction of water mains for coordination and inspections.

26. All open mains should be properly capped when the main is unattended for more than 4 hours. Duct tape the end closed so it is visually seen.

27. All casings, except service lines, shall have a casing spacer every 10'.

28. All service lines under the streets are to have a 2" PVC casing installed, at a minimum of 30" depth. Larger casings may be required depending on service size requested or required. All water mains shall be buried at a depth to allow a minimum cover of 42".

29. Notify PWSD #2 when work stops and when the Contractor will not be continuing work. Twenty-four (24) hour notice is required notifying when work will continue.

30. All water mains are to be installed in a straight line (no bends in individual pipes). A 5% deflection in joints is allowed. Bends around cul-de-sacs are to be made with 22 1/2 degree elbows.

31. Small field changes may be made by the PWSD #2 inspector. Larger changes have to be resubmitted by the Developer's Engineer for approval.

32. As-Built drawings must be sent to PWSD #2 before the project can be considered Final. (Ex. Showing location changes of elbows, elevations, easements, etc.)

NOTE: 24 HOUR NOTICE REQUIRED ON ALL INSPECTIONS

11/2/00	Revised as per County	

DARDENNE LANDING PHASE 2
COVER SHEET
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ORDER NO. 99-0503-01

DATE 6/20/00

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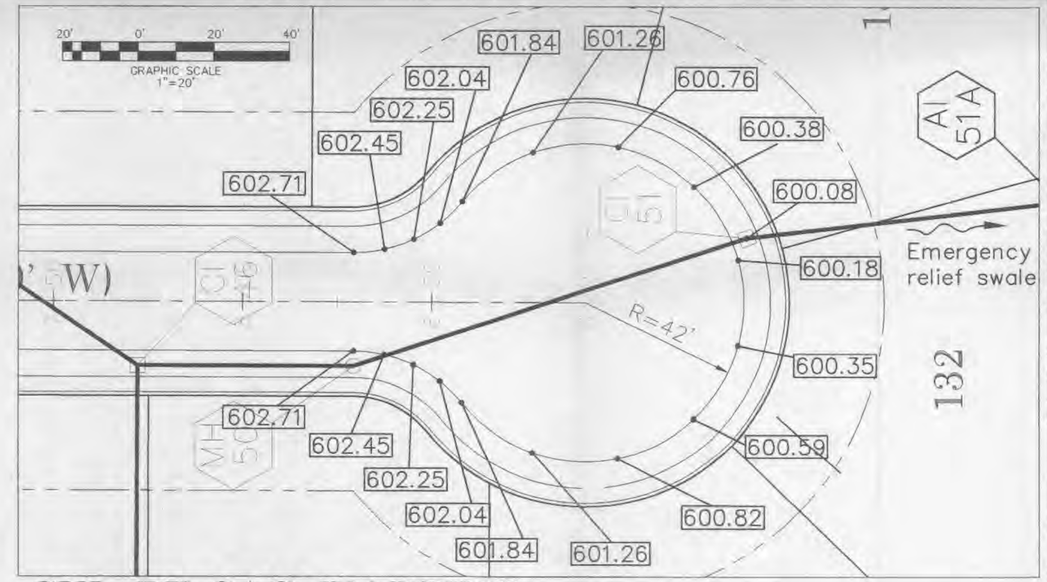
Nov Nov 02 10:21:28 2001

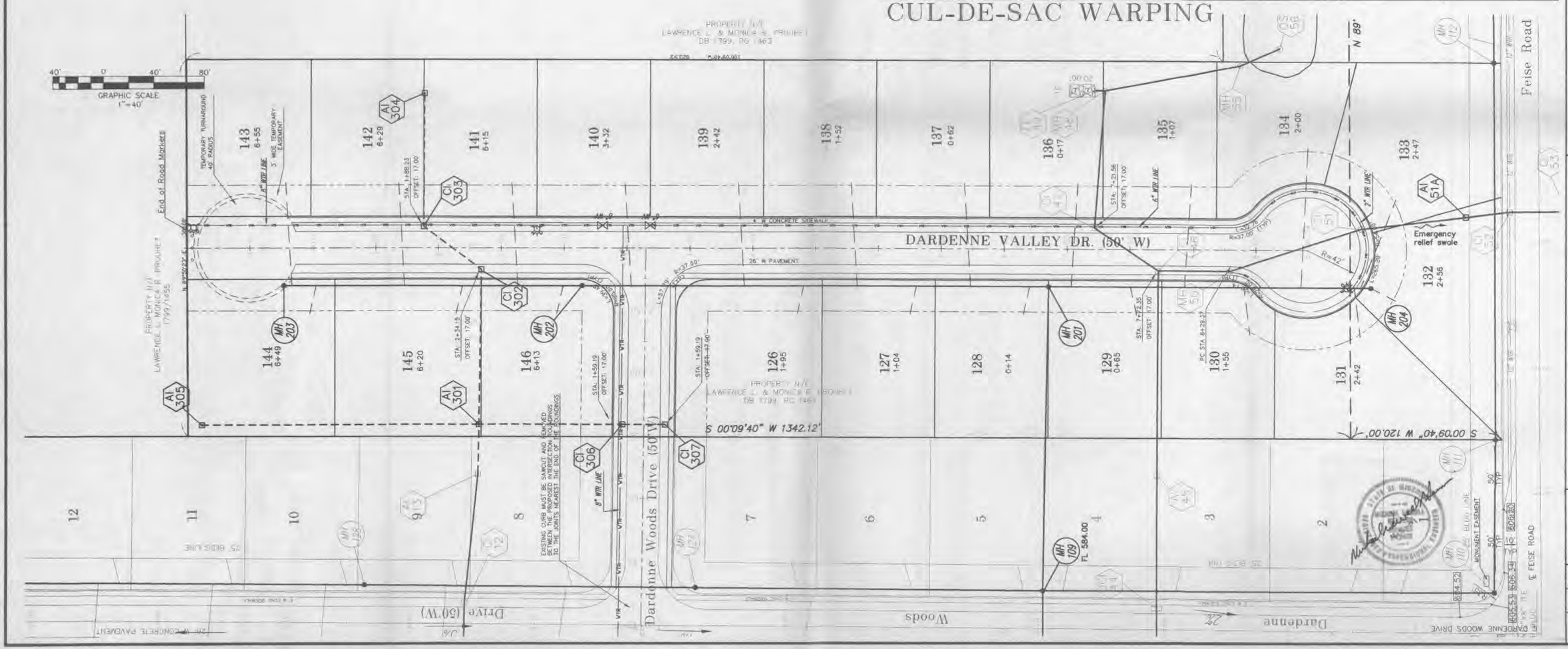
THE UNDERGROUND UTILITIES SHOWN HEREIN WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE OR NONEXISTENCE, SIZE, TYPE, NUMBER, OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 319, RSMO.

NOTE:

1. "ALL CUL-DE-SACS MUST BE HAND-FORMED BEGINNING AT THE PC'S OF THE ROUNDINGS. A CONTINUOUS SLOPE MUST BE MAINTAINED FROM THE CENTER OF THE CUL-DE-SAC TO THE CURB."
2. ALL ELEVATIONS REPRESENTED IN WARPING DETAILS REPRESENT TOP-OF-CURB ELEVATIONS.



CUL-DE-SAC WARPING



11/2/00	Revised as per County
3/5/01	Revised as per County
4/3/01	Revised as per County

DARDENNE LANDING PHASE 2
FLAT PLAN

S|C E|S
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DATE 6/20/00