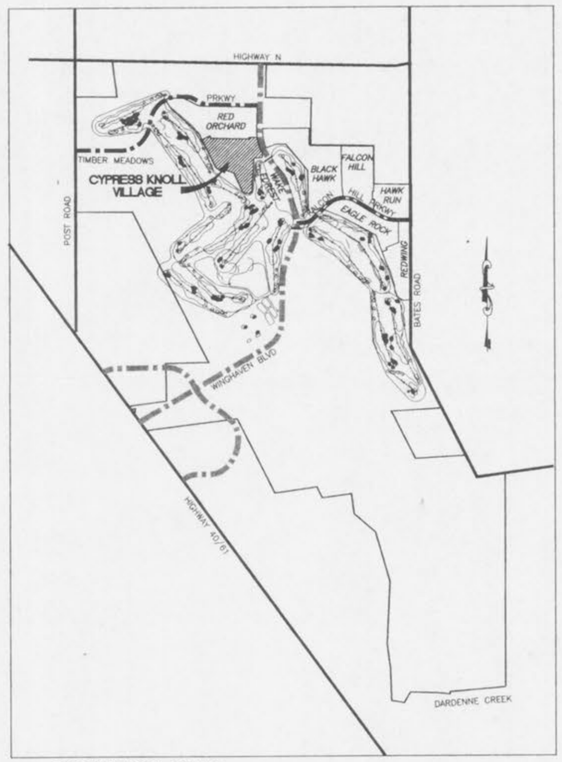
WINGHAVEN PHASE I
IMPROVEMENT PLANS FOR CYPRESS KNOLL VILLAGE

PART OF U.S. SURVEY NO. 1669 AND PART OF SECTIONS 11 & 12
TOWNSHIP 46 NORTH, RANGE 2 EAST
CITY OF O'FALLON, MISSOURI

GENERAL NOTES

1. Underground utilities have been plotted from available information and therefore their locations must 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 grading or construction of imporvements.
2. Polyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings, SDR35 or equal.
   Bedding for sanitary sewer pipe shall consist of "clean" 1/2 inch to 1 inch granular stone uniformly graded. This bedding shall extend from 4 inches below pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above top of pipe. Where PVC connects to ductile iron pipe, pre-manufactured adaptors shall be used at such connection. Rubber boot/mission type couplings will not be allowed.
3. All storm sewer pipe under pavement and/or parallel to pavement within right-of-way regardless of size, shall be reinforced concrete pipe w/ o-ring rubber type gaskets per M.S.D.(A.S.T.M. C-76, Class III) unless otherwise noted on plans. All other storm sewer shall be high density polyethylene corrugated pipe (HDPE) w/ o-ring ruber type gasket per M.S.D., ADS N-12 (for pipe ≤ 36"), N-12HC (for pipe > 36"), or equal, with an integrally smooth waterway. HDPE pipe shall conform to AASHTO M-294-921 Type D. Pipe installation shall conform to ASTM D2321.
4. All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
5. Concrete pipe joints shall be MSD Type "A" approved compression type joints and shall conform to the requirements of the Specifications for joints for Circular Concrete Sewer and Culvert Pipe, using flexible, watertight, Rubber-type Gaskets ASTM C443. Band-type gaskets depending entirely on cement for adhesion and resistance to displacement during jointing shall not be used.
6. All filled places under proposed storm and sanitary sewer lines and / or paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations.
7. All filled places in proposed and existing St. Charles County roads (highways) shall be compacted from the bottom of the fill up to 90 percent 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.
8. All storm and sanitary sewer trench backfills shall be water-jetted. Granular backfill shall be used under pavement areas. In areas where storm and sanitary sewers cross, trench shall jetted following placement of intitial pipe and prior to placement of second pipe and again after placement of second pipe. This shall to be done in the presence of a Local Governing Authority Representative. Jetting shall be 100% completed and approved prior to paving. Seven days shall pass at all street crossings after jetting and before paving operations at the crossings. In the case of pipe crossings, the first pipe trench shall be jetted and allowed time to settle before the installation of the next pipe.
9. Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat. Record plat will contain complete information regarding location and size of easements. All existing and proposed monuments will be shown on the final record plat.
10. No area shall be cleared without permission of the developer.
11. All grades in unpaved areas shall be within 0.2 feet more or less of those shown on the grading plan.
12. Unless otherwise noted, no slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
13. Barricades will consist of three standard 9 reflector-red diamond end of roadway hazard markers mounted on two pound "U" channel sign post, with bottom of marker four feet above pavement surface.
14. All standard street curb inlets to have front of inlet 2 feet behind curb.
15. Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority. There shall be a minimum of 18" vertical/10' horizontal separation between all water mains and sanitary sewers.
16. All water hydrants and valves shall be cast iron and installed in accordance with plans & details.
17. Water pipe shall be ASTM D2241 Class 200 SDR21. Twelve (12) gauge coated copper tracer wire and tracer tape shall be used.
18. The developer will comply with grading requirements of the City of O'Fallon.
19. All streets must meet the specifications and installation requirements of the standard specifications of City of O'Fallon.
20. Contractor shall maintain all siltation control measures and shall insure that all public roads are free from dust, mud and/or debris that may be produced as a direct result of construction operations on this project.
21. All exterior manholes shall be waterpfoofed on the exterior in accordance with Missouri Department of Natural Resources specifications. 10 CSR-8.120 (7) (E).
22. This tract is served by:
    A. SANITARY SEWERS: DUCKETT CREEK SEWER DISTRICT
    B. WATER: PUBLIC WATER SUPPLY DISTRICT NO.2 OF ST. CHARLES COUNTY
    C. ELECTRIC: AMEREN UE
    D. GAS: ST. CHARLES GAS
    E. PHONE: GTE
    F. SCHOOL DISTRICT: WENTZVILLE SCHOOL DISTRICT
    G. FIRE DISTRICT: WENTZVILLE FIRE PROTECTION DISTRICT
23. Brick shall not be used on manholes.
24. All pipes shall have positive drainage through manholes. No flat base structures are allowed.
29. All sanitary manholes shall be 42" minimum inside diameter.
30. No water meters, valves or blow-off valves will be permitted in streets or driveways
31. Specifications for street name signs and stop signs
    a) Street name signs and stop signs shall be aluminum.
    b) Street name signs shall be green backing with white letters.
    c) Height of sign shall be seven (7) feet from the fininsh grade to the bottom of the sign.
32. Notify the City of O'Fallon 48 hours prior to the commencement of grading and/or prior to the commencement of construction.
33. The Contractor shall prevent all storm surface water, mud and construction debris from entering the existing sanitary sewer system.
34. The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for coordination and inspection.
35. This site falls outside of the 100-year flood zone. Reference Flood Insurance Rate Maps 29183C0240E, 29183C0220E, 29183C0440E. Effective date August 2, 1996
36. All stormwater inlets shall be provided with a 5/8"ø trash bar per City of O'Fallon
37. Storm manholes shall be cast with a 0.2' drop along the flowline.
38. All storm sewer trenches non-perpendicular to roadway right-of-way must be jetted twice prior to paving. This may be waved if inlets are separated by 15' or less as measured along roadway centerline.

SHEET INDEX:



LOCATION MAP

NOT TO SCALE

LEGEND

EXISTING		PROPOSED
	STRUCTURES	
+ 500	SPOT ELEVATION	+(500)
500	CONTOURS	(500)
	BUILDING LINE	
	PROPERTY LINE	
	CENTER LINE	
	SWALE	
	STORM SEWER	
	SANITARY SEWER	
4"G	GAS MAIN	(4"G)
6"W	WATER MAIN	(6"W)
OT	OVERHEAD TELEPHONE	(OT)
FO	FIBER OPTIC	(FO)
CATV	CABLE TELEVISION	(CATV)
OE	OVERHEAD ELECTRIC	(OE)
UE	UNDERGROUND ELECTRIC	(UE)
UT	UNDERGROUND TELEPHONE	(UT)
FL 510.00	FLOW LINE ELEVATION	(FL 510.00)
INV 520.00	INVERT ELEVATION	(INV 520.00)
G 515.00	FLOW LINE ELEV. AT GUTTER	(G 515.00)
TC 515.50	TOP OF CURB ELEV.	(TC 515.50)
CI AI	CURB INLET/AREA INLET	CI AI
GI	GRATED INLET	GI
MH	MANHOLE	MH
FES	FLARED END SECTION	FES
DCI DAI	DOUBLE CURB INLET/AREA INLET	DCI DAI
CO	CLEANOUT	CO
WVOWM	WATER VALVE OR METER	WVWM
GVGM	GAS VALVE OR METER	GVGM
FH	FIRE HYDRANT W/VALVE	FH
UP PP	UTILITY OR POWER POLE	UP PP
	GUY WIRE	
	LIGHT STANDARD	
TB TP	TELEPHONE BOX OR PEDESTAL	TB TP
SB	SIGNAL BOX	SB
	SIGNS (NOTE TYPE OF SIGN)	
H	HANDICAPPED	
	BENCHMARK	
B-1	SOIL BORING	B-1
	RAILROAD	
	FENCE (NOTE TYPE OF FENCE)	
	STRAW BALE BARRIER OR SYNTHETIC FIILTER BARRIER	
	STREET LIGHT	SL
TBR	TO BE REMOVED	
12" +	TREE	
M.H. 1	SANITARY SEWER STRUCTURES	M.H. 1
D.C.I. A.I.	STORM SEWER STRUCTURES	D.C.I. A.I.
	STREET ADDRESS	112

ELEVATION REFERENCE MARK:
RM36 ELEV. 501.92 - CHISELED SQUARE ON TOP OF SOUTHWEST WINGWALL AT EAST END OF WESTBOUND U.S. HIGHWAY 40 BRIDGE OVER DARDENNE CREEK

File Copy
APPROVED
7/27/98
Joan Gallup

DEVELOPER:
WINGHAVEN RESIDENTIAL, LLC by
MCBRIDE and SON HOMES, INC.
#1 MCBRIDE and SON CORPORATE CENTER DRIVE
CHESTERFIELD, MISSOURI 63005
(314) 537-2000

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IMPROVEMENT PLANS FOR
CYPRESS KNOLL VILLAGE
PART OF U.S. SURVEY NO. 1669
AND PART OF SECTIONS 11 & 12
TOWNSHIP 46 NORTH, RANGE 2 EAST
CITY OF O'FALLON, MISSOURI

Kuhlmann Design Group, Inc.
#6 Westbury Drive
St. Charles, Missouri 63301
Tel: (314) 946-5566
St. Louis, Missouri
Belleville, Illinois
St. Charles, Missouri

DISCLAIMER OF RESPONSIBILITY

I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

STATE OF MISSOURI
SALIM ELKOTT
NUMBER E-29452
REGISTERED PROFESSIONAL ENGINEER

NO.	DATE	
1	06/26/98	PER O'FALLON
2	07/16/98	PER O'FALLON

PROJECT NO.	CONTRACT NO.
970231	0002
DRAWN: FPB	CHECKED: SYE
DATE: 06/04/98	

CYPRESS KNOLL
COVER SHEET

SHEET 1 OF 13

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