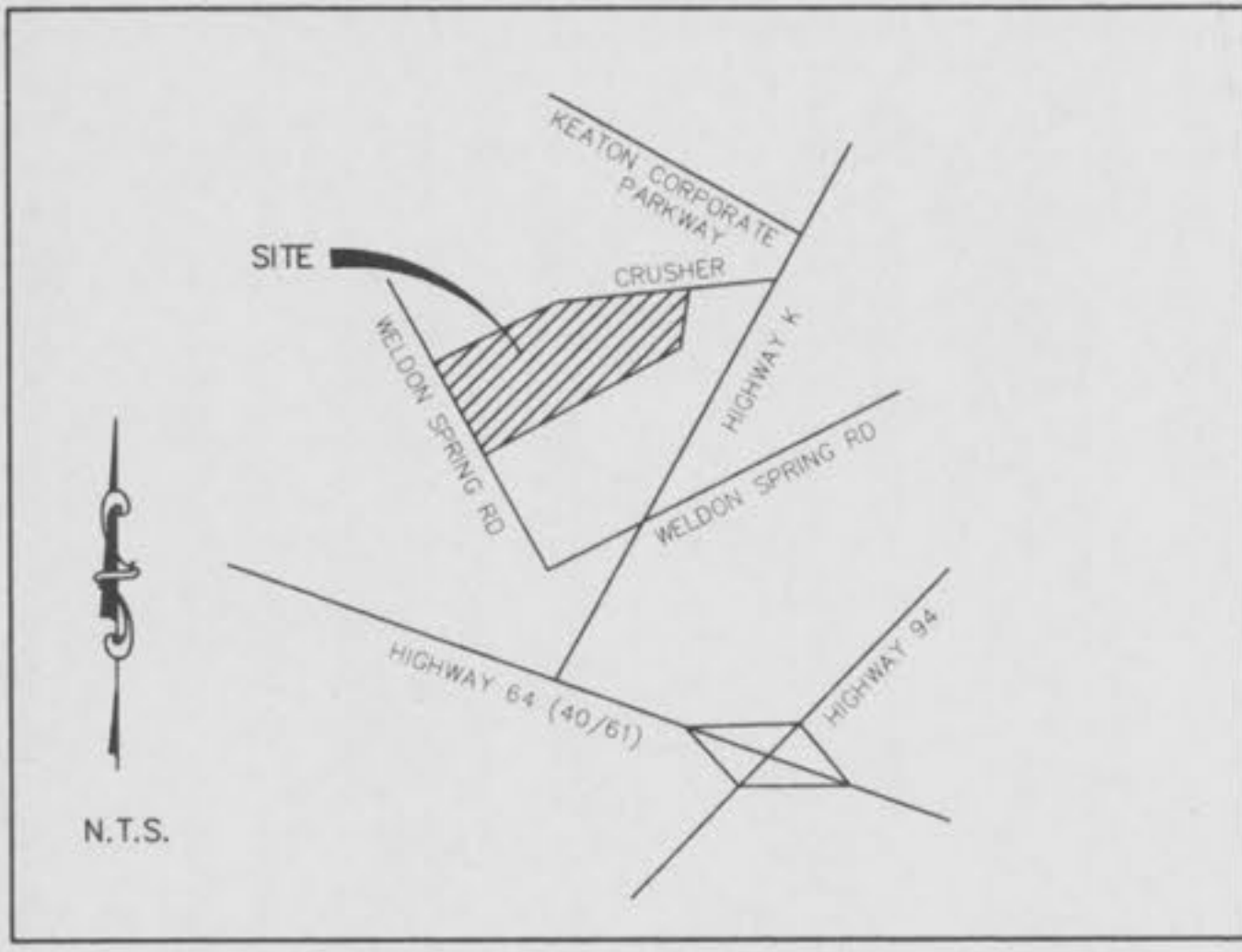


MALLARD'S LANDING



LOCATION MAP

CONSTRUCTION NOTES

- Underground facilities, structures and utilities have been plotted from available surveys, records and information, and therefore, do not necessarily reflect the actual existence, non-existence, size, type, depth, number or location of these facilities, structures and utilities. The Contractor shall be responsible for verifying the actual location of all underground facilities, structures and utilities, either shown or not shown on these plans. The underground facilities, structures and 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.
- Contractor to verify location and flowline of all existing utilities prior to connection. All connections to be made in accordance with local codes and/or utility companies requirements.
- Contractor to notify Engineer as soon as possible if conditions on site differ from those shown on plans.
- The original of this drawing is on file at the office of The Clayton Engineering Company. Any modifications to this drawing shall release said Clayton Engineering Company, the Engineer and/or the Surveyor whose seal appears hereon from any liability resulting from said unauthorized modifications.
- All grading shall be within 0.1 feet more or less of the elevations and contours shown on the grading plan, unless otherwise directed by the Owner or Engineer.
- All fills are to be left with a temporary lip (berm) at the top of the slope at the end of each day's operations.
- Any trees, brush, organic topsoil and other objectionable material remaining shall be removed and disposed of at an off-site location. Additional suitable fill material as needed shall be brought onto the site. Areas which are to be filled shall be compacted to a minimum density of 90% maximum density as determined by the Modified AASHTO Compaction Test, T-180-74 (ASTM D-1557) in the building area and 85% in other areas, or as set forth in a Soils Engineer's investigative written report setting forth the grading specifications and requirements.
- Before filling, the Contractor shall thoroughly clean out and remove all objectionable material, organic material, rubbish and debris. Existing concrete and asphalt paving shall be broken up to a maximum dimension of 6 inches in size, and may be mixed with sufficient excavated soil to eliminate voids and disposed of in fill areas on the site, excluding areas that will be under building or utility construction.
- During the excavation for footings, if any unsuitable soil is uncovered, the Contractor shall remove it and deepen the footings as necessary to build on clean soil.
- The General Contractor shall be responsible for rough grading of all landscape areas. Grade to match top of proposed pavement elevation, not top of curb elevation. All areas shall be free of debris. Landscape Contractor shall be responsible for a minimum of 6" of topsoil in all landscape areas.
- Damage to offsite streets and downstream properties due to soil erosion or siltation shall be prevented by erecting silt barriers or basins, or by utilizing similar devices to effect soil stabilization prior to the start of any grading operations.
- All protective measures shall be installed downslope of every location where the original ground is to be disturbed.
- Storm water pipes, outlets and channels shall be protected by silt barriers and kept free of waste and silt at all times prior to final surface stabilization and paving.
- No slope shall be greater than 3:1, except where shown on plans.
- Slopes steeper than 5 to 1 and all swales shall be protected by sodding or paving upon completion of construction or compaction. All other areas disturbed by grading operations to be protected by seeding and mulching as soon as possible.
- Inspection of, and necessary repairs made to, the erosion and silt control measures must be made daily and/or following periods of precipitation.
- Face of all inlets to be set 2 feet behind back of curb unless otherwise shown on plans. Top of inlets shall be set flush with top of curb.
- All concrete pipe shall be reinforced concrete pipe and meet current A.S.T.M. Specification C-76 and shall be Class III unless otherwise noted on profiles.
- Joints for concrete pipe shall be rubber gasketed meeting ASTM C-443 with a main sealing surface of no less than 3 inches.
- All fill under storm or sanitary lines constructed above original grade shall be compacted to 90% of maximum dry density as determined by the modified AASHTO Compaction Test T-180 (Current A.S.T.M. Specification D-1557), and verified by a Soils Engineer prior to installing pipe.
- Location and elevation of field inlets, manholes and culvert pipes to be verified by Engineer after stakeout and prior to construction.

- All materials and methods of construction for sewers to meet the requirements of the City of O'Fallon, Missouri and City of O'Fallon Engineering Department.
- All sewer structures to conform to the City of O'Fallon Engineering Department Construction Specifications.
- All sanitary connection pipe and fittings shall be polyvinyl chloride pipe (PVC) with the material meeting and the pipe conforming to current ASTM Specification D-3034, SDR-35, and shall be bedded to meet manufacturer's specifications. Joints for PVC pipe shall conform to current ASTM Specification D-3212.
- Cleanouts to consist of 4 inch on 6 inch wye turned up, 4 inch elbow and riser. Cap with a round frame and cover, Neenah Foundry Company R-1978 or equivalent, approved by the Engineer. Frame to be set in concrete collar.
- All materials and methods of construction for new water mains, service lines and appurtenances to meet the requirements of St. Charles County Public Water District #2. Installation to be in accordance with ANSIAWWA C600, latest edition.
- Joints on copper service lines shall be either flared, compression or silver soldered.
- Gate valves and stopcocks must be of a type approved by St. Charles County Public Water District #2. Gate Valves shall meet ANSIAWWA C500, latest edition.
- All gate valves and stopcocks shall be provided with a stop or curb box of a type approved by St. Charles County Public Water District #2. Boxes shall extend to and be flush to the finished ground or pavement surface.
- All water lines shall be installed in accordance with ANSIAWWA C-600, latest edition or City Plumbing Code, whichever is most stringent, with a minimum of 42 inches of cover to proposed finish surface.
- All water lines shall be laid at least 10 feet horizontally, from any sanitary sewer, storm sewer, or manhole. Whenever water lines must cross sanitary sewers, laterals or storm drains the water lines shall be laid at such an elevation that the bottom of the water line is 18 inches above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet, horizontally, of any sewer or drain it crosses.
- All water lines to be tested and disinfected in accordance with the current Missouri State Division of Health's requirements and project specifications.
- Joints on ductile iron pipe shall be push on type rubber gasket joints meeting ANSIAWWA C111/A21.11, latest edition.
- Adaptors, couplings and/or other accessories and materials shall be those recommended for the pipe being used. Ductile Iron Fittings shall meet ANSIAWWA C110/A21.10, latest edition.
- All 6" Water Pipe shall be Class 52 Ductile Iron to 6 feet beyond Meter Box. All other pipe shall be C-900 PVC pipe with Ring-Tite couplings, conforming to A.S.T.M. Tentative Specification D-2241 for 200 pounds working pressure at 73 degrees F. All water lines shall be installed in accordance with the specifications with a minimum of 42 inch cover.
- All trenches under, or adjacent to proposed pavement shall be backfilled to subgrade elevation with compacted 3/4" minus crushed limestone. Crushed limestone shall be compacted to 90% density as determined by the Standard Proctor Test AASHTO T-99 (ASTM D-698). All other trenches within the road right of way shall be backfilled with suitable earth embankment material free from rubbish and debris and lumps, clods or rocks larger than 2 inches placed in 6" layers and compacted to the same density as above. Trenches not in road right-of-way or under or adjacent to pavement may be backfilled with earth embankment material defined above, jetted and neatly mounded to allow for subsequent settlement, unless otherwise directed by the Engineer.
- Type D joints will be required for all concrete pavement terminations at the end of a working day.
- Contractor shall guarantee paving for one year after final completion of construction against settlement, low spots or raveling out of surface. Make any repairs necessary during guarantee period to maintain paving in original condition, including cost of repaving within repaired areas. Repairs shall include but not be limited to removing defective paving and replacing with new paving. (No overlays will be allowed).

SITE NOTES

- Tract to be served by the following utilities:
Electric Union Electric Company
Gas Laclede Gas Company
Telephone GTE
Water Missouri American Water Company
Public Water Supply District #2
Sewer Duckett Creek Sewer District
- Missouri State Highway Benchmark #27-85: 80' spike 5" elm group of 4, 64' left of Hwy K STA. 316+25; 30' of North Weldon Springs Road; El. 549.09'
- Parking calculations:
Total Number of Dwelling Units = 253 @ 2 space / dwelling unit
TOTAL PARKING REQUIRED = 506 Parking Spaces
TOTAL PARKING PROVIDED = 506 PARKING SPACES
Handicapped Parking shall be provided at a rate of one space per building (14 SPACES PROVIDED). 3 Parking Spaces shall be designated as visitor spaces at the office/clubhouse. Variances were approved on April 9, 1998 by the City of O'Fallon Board of Adjustment, which eliminated the requirements for any loading spaces and covered parking spaces for this project.
- Unit types:
One Bedroom Units: 138
Two Bedroom Units: 82
Three Bedroom Units: 33
Total Units: 253
- The streets and storm sewers within this development will remain private.
- Due to the extensive grading required for this development, existing trees on the site can not be saved. In accordance with Section 230, PRESERVATION OF TREES, trees that are removed shall be replaced at a rate of fifteen (15) trees per acre, and that number shall count toward the landscaping requirements as set forth in Article X of Chapter 400 of the City of O'Fallon Code. Existing site has approximately 1.50 Acres of existing tree, shrub and bush area. Replacement trees shall be calculated at 15 trees for 1.50 acres = 22 trees.
- Tree Calculations and Requirements:
One (1) tree for every 50' Road Frontage
500' frontage Weldon Springs Road = 11 trees
650' frontage Crusher Drive = 14 trees
One (1) tree for every two (2) Dwelling Units
253 Units @ 1 tree per two units = 127 trees
Tree preservation replacement trees = 22 trees
TOTAL TREES REQUIRED = 174 TREES
- The lighting for the Tennis Court shall be in accordance with the City of O'Fallon.

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File Copy
APPROVED
9/10/98
Jan Cejlar

1	5/29/98	CEY	Revisions per City of O'Fallon
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COVER SHEET MALLARD'S LANDING

O'Fallon, Missouri 63366

Prepared for:
MALLARD'S LANDING, L.L.C.
1714 Deer Tracks Trail - 2nd Floor
Town and Country, Missouri 63131
(314) 965-6565

<p>ENGINEERS • SURVEYORS • PLANNERS 12755 OLIVE BOULEVARD - SUITE 100 ST. LOUIS, MISSOURI 63141-6200 (314) 542-0009 FAX (314) 542-9050</p>	Designed KRS
	Drawn KRS, CEY, KAM
	Checked ERD
	Date APRIL 13, 1998
Project Number 97454	
Sheet Number 1 of 13	

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