- 3. 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 nat shown on these plans shall be the responsibility of the contractor, and shall be located prior to
- 4. It shall be distinctly understoad that failure to mention specifically any work which would normally be required to complete the project shall not relieve the contractor of his responsibility to perform such work.
- 5. Contractor shall keep road clear of mud and debris.

grading or construction of improvements.

- 6. All signs shall meet MUTCD requirements and specifications, when applicable.
- 7. This site is in the following districts: DUCKETT CREEK SEWER DISTRICT WENTZVILLE FIRE PROTECTION DISTRICT WENTZVILLE SCHOOL DISTRICT PUBLIC WATER DISTRICT NO.2 CUIVER RIVER ELECTRIC COOPERATIVE LACLEDE GAS COMPANY CENTURYTEL INC.
- 8. All water mains, volves, fittings, hydrants, and related items are to be installed in accordance with the current St. Charles County P.W.S.D. #2 guidelines and specifications as approved by M.D.N.R. Review No. 61996-04R.
- 9. All paving to be in occordance with St. Chorles County standards and specifications except as modified by the City of O'Fallon ordinances.
- 10. Gross area of site: 14.2 Acres Area of right-of-way: 3.0 Acres Area of common ground; 1.8 Acres Project to be completed in one phase. Dwelling units proposed: 71 units (68 attached and 3 free-standing)

Yard Setbacks: Front yard 25'

- Side yard 6' min. (0' on attached units) Rear yard 15' min.
- 11. Driveway locations shall not interfere with the sidewalk handicap ramps.
- 12. Sidewalks, curb ramps and accessible parking spaces shall be constructed in occordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAC) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above and the plans, the ADAAC guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
- 13. All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Corboline 133 HB paint (or equivalent as approved by City and MoDOT).
- 14. Any proposed pavilions or playground areas will need a separate permit from
- 15. Developer must supply City construction inspectors with sall reports prior to or during site soil testing.
- 16. City approval of the construction site plans does not mean that single family and two family dwelling units can be constructed on the lots without meeting the building setbacks as required by the Zoning Cade.
- 17. All street signs and traffic signals shall be colored black in accordance with the approved MoDOT specifications.
- 18. No slopes shall exceed 3(horizontal):1(vertical).
- 19. The Contractor shall assume complete responsibility for controlling all siltation necessary to control erosion and siltation including, but not limited to, staked strow boies and/or siltation fobric fences. Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDOT may at their option direct the contractor the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud in new or existing povement shall be removed immediately. Any depositing of silts or mud in new ar existing storm sewers or swoles shall be removed after each rain and affected oreos cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT.
- 20. All fill paced under proposed storm and sanitary sewer, proposed roads, and/ar paved areas shall be compacted to 90% of maximum density as determined by the Madified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compocted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in fill areas is ta correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill.
- 21. All proposed utilities shall be located underground.
- 22. According to the fload insurance rate map of st. charles county, missouri, unincarporated areas (community panel number 29183c0220 E dated March 17, 2003), this property lies entirely outside the 500—year
- 23. All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planing and Development Department.
- 24. All requirements of the Planning and Zoning Commission have been addressed. 25. All on site utility and storm drainage easements required for this development
- will be shown on the Record Plot.
- 26. The maximum lot caverage for the lots shall be 50%.
- 27. P.W.S.D. #2 of St. Charles County shall be notified 48 hours prior to commencement of any construction on the water distribution system.

GRADING SPECIFICATIONS:

- It shall be the grading contractors responsibility to notify the sails engineer prior to work in progress and to comply with recommendations by the soils engineer with regards to compaction, surface preparation, and placement of fill.
- 2. It shall be the grading contractors responsibility to provide the location of any existing underground utilities by notifying utility componies prior to grading
- 3. The grading contractor shall cut or fill to subgrade elevation under all areas to be paved. Subgrade depth is 0.5 foat below proposed finished elevations.
- 4. All drainage swales shall be sadded or seeded and mulched to prevent erosion.
- Ail stumps, limbs, and other debris are to be removed from the site unless a suitable dump area is approved in advance by the owner after consulting with the soils engineer and burning is approved by the governing agencies.
- 6. Subgrade is included in the total bid yardage. (Subgrade is figured at pavement
- 7. Slopes to receive fill which are steeper than 5:1 should be benched prior to placement of fill.
- If fill is to be place in areas of soft soil, particularly in draws, drainage channels and other low lying areas, the soft soil shall be excavated until firm soil is
- 9. All grading shall comply with the soils engineer's recommendations.
- 10. Crading exceeding 3:1 slope shall be done at the direction of a Soils Engineer registered in the State of Missouri.

BELMONTE LANDING

A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 10,

IMPROVEMENT PLANS

TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI 11. All grading shall conform to the St. Charles County specifications.

12. All erosian control systems shall be inspected and necessary corrections made within 24 hours any rainstorm resulting in one-half inch of rain or more.

10.1 - 10.8

13. Sediment and erosion control shall not be limited to the measures shown on the

14. All filled places under proposed storm and sonitary sewer lines and/or poved

15. 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

tests shall be verified by a Solls Engineer concurrent with grading operations.

16. Any wells and/or springs which may exist on this property should be located and

17. All trash and debris on-site, either existing or from construction, must be

18. Trees, organic debirs, rubble, foundations and other deletrious material shall be

19. Soft soils in the bottom and banks of any existing or former pand sites ar

24 hours prior to the commencement of gracing and/or prior to the

22. Temporary siltation control measures (structural) shall be maintained until

24. Where natural vegetation is removed during grading, vegetation shall be

re-established in such a density as to prevent erasion.

the Director of the Division of Development Review.

Division of Development Review.

1,000 square feet when seeded.

unfavorable ground conditions.

23. Upon completion of storm sewers, siltation control shall be provided around all

25. When mechanized land clearing activities are completed or suspended for more

26. When grading operations are completed or suspended for more than 30 days,

permanent grass must be established of sufficient density to provide erosion

shall be provided according to the recommendation of the Director of the

27. All finished grades (areas not to be disturbed by future improvement) in excess

control on the site. Between permanent grass seeding periods, temporory cover

of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per

All lats shall be seeded and mulched at the minimum rates defined in Appendix

"A" in Chapter 410, Article VI of the United Development Ordinance ar sodded

permit may be issued by the Building Code Enforcement Division of the

Community Development Department in cases of undue hardship because of

Prior ta placement of the povement section, all areas to be paved should be

approval of the earth subgrade, no water should be allowed to saturate the

surface prior to placement of the crushed rock base course.

field tested with a truck laoded to at leost 30,000 lb. The field test should be

observed by a qualified geotechnical engineer. Any soft oreas encountered during

the field test should be undercut and replaced with properly compocted fill. After

before an occuponcy permit shall be issued except that a temporary occupancy

than 30 days, either temporary vegetation must be established or temporary

siltation control measures must be put in place with the review and approval of

commencement of construction within the Sammers Road R.O.W.

removed from the site and disposed in compliance with all applicable laws and regulations. Londfill tickets for such disposal snall be maintained on file by the

developer. Burning on site shall be allowed only by permit from the local fire

district. If a burn pit is proposed the location and mitigation shall be shown on

tributaries or any sediment basins or traps should be remaved, spread out and

permitted to dry sufficiently to be used as fill. None of this material should be

20. Please notify the Chief Inspector of the St. Charles County Highway Department

21. All excavations, grading, or filling shall have a finished grade not to exceed a 3:

vegetative cover is established at a sufficient density to provide erosion control

open sewer inlets and shall remain until the disturbed drainage areas have been

placed in proposed public right-of-way locations or on any starm sewer location.

removed and properly disposed of off-site.

properly stabilized.

the grading plan and documented by the soils engineer.

sealed in a manner acceptable to the St. Charles County Highway Department and the Bullding Code Enforcement Division of the Community Development

o Soils Engineer concurrent with grading and backfilling operations.

properties, roadways, storm sewers, and drainage ways.

plans. The contractor with the approval of the County inspector, shall utilize best management practices to prevent sediment from entering adjacent

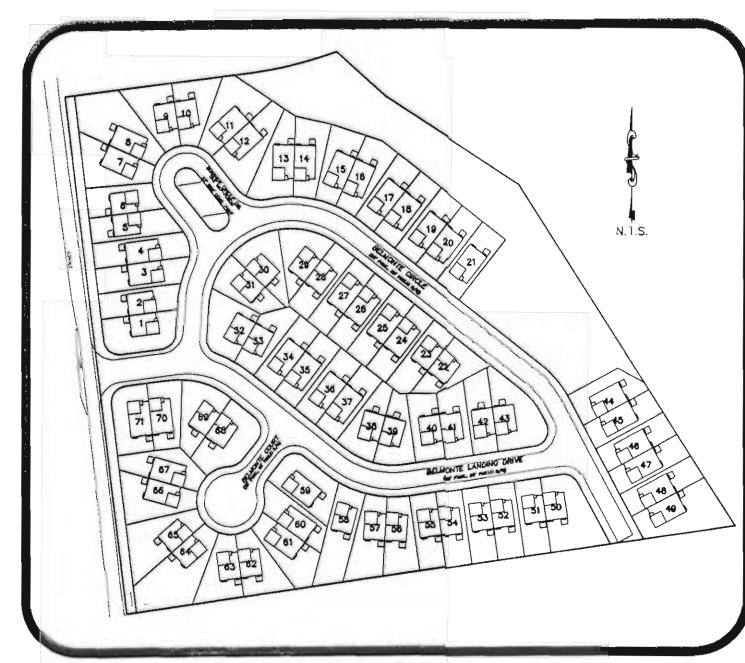
areas including trench backfills within and off the road right-af-way shall be

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

density as determined by the "Modified AASHTO T -180 Compaction Test" (ASTM

D-1557). Paved areas in cuts shall meet the some compaction requirements. All



KEY MAP N.T.S. ZIP CODE 63366

INDEX OF SHEETS

COVER SHEET GRADING PLAN 2.1 SITE PLAN 3.1 WATER PLAN 4.1 STREET PROFILES 5.1 SANITARY SEWER PROFILES 6.1STORM SEWER PROFILES 7.1 OUTFALL STRUCTURE/BASIN DETAILS HYDRAULICS/STORM SEWER DETAILS DRAINAGE AREA MAP WARPING DETAILS 9.1 ENTRANCE DETAILS 9.2 CONSTRUCTION DETAILS

TREE PRESERVATION REQUIREMENTS

10% of Site or 25% of Exist. Trees. Area of Site = 14.22 AC. 10% of Site = 1.42 AC. Area of Exist. Trees = 1.14 AC. 25% of Exist. Trees = 0.28 AC. Area of Trees to Remain and be Pratected = 0.28 AC.

CALL BEFORE YOU DIG! -800-DIG-RITE

SEWER CONSTRUCTION NOTES

- 1. All storm and sanitary sewer construction methods to conform to lotest standards and specifications of the applicable codes and shall conform to all appropriate Duckett Creek Sanitary District and the City of O'Fallon
- 2. After all sewers and appurtenances are completed, inspected and accepted, the contractor will be permitted to connect the sewer extension into the existing system, in the presence of an inspector.
- 3. RCP drainage pipe shall be reinforced concrete class III (ASTM C76) minimum unless otherwise noted on plans.
- 4. Trenches under existing pavement and under areas to be paved shall be backfilled with 3/4" minus crushed limestone and compacted to 90% of the maximum dry density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557).
- All manhole and inlet tops built without elevations furnished by the Engineer will be the responsibility of the Sewer Contractor. At the time of construction stakeout of the sewer lines, all curb and grate inlets will be face staked, provided said stakes do not fall in the ditch line. If stakes fall within the ditch line the sewer company or job superintendent shall notify the Engineer that stakes are needed and allow 48 hours for cuts. Tops of manhotes, inlets, valve boxes, etc., shall conform to
- All standard street curb inlets to have front of inlet two and one half feet (2.5) behind rolled curb and two feet (2') behind vertical curb. All orea inlets are opened 4 sides unless otherwise nated on the plans.
- It is the cantractors responsibility to confirm the location of existing utilities and/or underground facilities by natifying utility companies prior
- All construction methods and materials used shall conform to current
- Brick shall not be used in the construction of storm sewer structures. Pre-cost concrete structures are to be used unless otherwise approved
- 10. If the starm and sanitary sewers are parallel and in the same trench or over dig, the upper pipe shall be placed on a shelf and the lower pipe shall be bedded in compacted granular fill to the flow line of the upper
- All creek crossings shall be grouted rip—rap as directed by District inspectors. (All grout shall be high slump ready—mix cancrete).
- 12. Concrete pipe joints shall be MSD type "A" approved compression—type joints and shall conform to the requirements and specifications for joints far 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
- 13. All storm sewer pipes shall be reinforced concrete pipe. Class III minimum. Any concrete pipe, conduit or culvert beneath a street right-of-way or with reasonable probability of being so located shall be a minimum of Class III, but shall also account for all vertical loads. In no case shall the design provide for less than HS-20 loading per AASHTO. For other locations, the minimum design live lood shall be HS-10 loading.
- All curb and area inlets shall be installed with a %" trash bar per the City of O'Fallon requirements.
- 15. Each storm sewer shall be marked per the City of O'Fallon requirements. The City allows the following markers and adhesive procedures shown In

the table below.				
Monufacturer ACP International	Size 3-%"	<u>Adhesive</u> Epoxy	Style Crystal Cap	Message Na Dumping Drains to Waterways (SD-W-CC)
DAS Manufacturing Inc.	4"	Ероху	Standard Style (#SDS)	No Dumping Drains To Stream

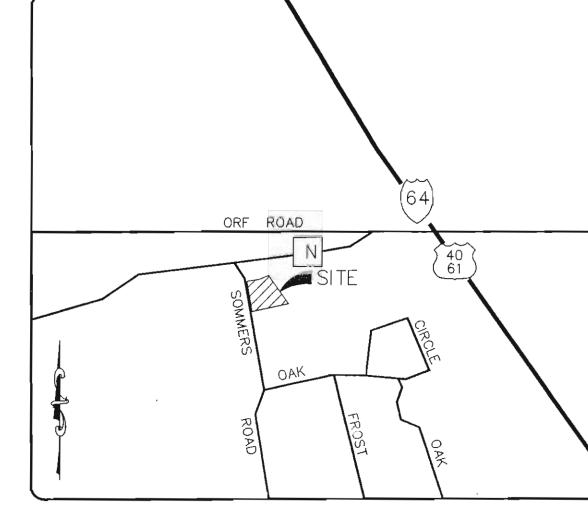
- 16. All concrete pipes will be installed with O-ring rubber type gaskets.
- 17. Connections at all storm structures to be made with A-lack joint or

DUCKETT CREEK SANITARY DISTRICT CONSTRUCTION

- 1. Underground utilities have been platted from available information and therefore location 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 ar construction of improvments.
- 2. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including house laterais.
- 3. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match precanstruction conditions.
- 4. All fill including 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 per cent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and bockfilling operations, the compacted fill shall be free of rutting and shall be non-yielding and non- pumping during proofrolling and compaction.
- 5. The contractor shall prevent all starm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- 6. All sanitary sewer flowlines and taps built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- 7. It is the responsibility of the contractor to adjust all sonitary sewer manholes (that are affected by the development) to finish grade.
- 8. Easements shall be provided for all sanitary sewers, storm sewers and all utilities on the record plat.
- 9. All sanitary sewer construction and materials shall conform to the current
- construction standards of the Duckett Creek Sanitary District. 10. The Duckett Creek Sanitary District shall be notified at least 48

hours prior to construction for coordination of Inspection.

- 11. All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to the flowline of a sonitary sewer at the corresponding building cannection shall not be less than the diameter of the pipe plus the vertical distance of
- 12. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specification
- 10 CSR-8.120(7)(E).
- 13. All PVC sanitary sewer pipe shall conform to the requirements of ASTM D-3034 Standard Specification for PSM Polyvinyl Chloride Sewer Pipe, SDR-35 or equal, with "clean" 1 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist af same size "clean" or "minus" stone from springline of pipe to 6 Inches above
- 14. All sanitary trench backfills shall be water jetted. Granular backfill will be



LOCATION_MAP

CONTOURS ——(542 ———)— SPOT ELEVATIONS 536.0 BUILDINGS, ETC. ~~~~ ~~~~~~ STORM SEWERS CATCH BASIN NO. EX. EX. GI GI NO. GRATED INLET SANITARY MANHOLE UTILITY OR POWER POLE FIRE HYDRANT TEST HOLE PAVEMENT ———(2°G) —— GAS MAIN & SIZE WATER MAIN & SIZE ——(6"W)—— TELEPHONE ——— (T) —— ELECTRIC (U) UNDERGROUND —— (E) —— ELECTRIC (O) OVERHEAD ————(OHW)—— FLOW LINE TO BE REMOVED TOP OF CURB (TC) SWALE LIGHT STANDARD STREET SIGN PARKING STALLS P.S. YARD LIGHT TOP OF FOUNDATION BASEMENT FLOOR TAILSTAKE ELEVATION LOW SILL ELEVATION

- 15. All pipes shall have positive drainage through manholes. No flat invert structures are allowed.
- 16. All creek crossings shall be lined with rlp—rap as directed by District
- 17. Brick shall not be used an sanitary sewer manholes.
- 18. Existing sanitary sewer service shall not be interrupted.

Rubber boat/Mission—type couplings will not be allowed.

- 19. Maintain access to existing residential driveways and streets. 20. Pre-manufactured adapters shall be used at all PVC to DIP connections.
- 21. Any permits, licenses, easements, ar approvals required to work on public or private properties or roadways are the responsibility of the developer.
- 22. "Type N" lock-type cover and locking device (Lock-Lug) shall be used where lock-type covers are required.

CITY OF O'FALLON INDICATES RESPONSIBILITY FOR DESIGN

PROJECT & SITE BENCHMARK

607.22 (USGS) - 'Sq' CUT WEST END OF SOUTHERN HEADWALL LOCATED AT THE SOUTHEAST INTERSECTION OF SOMMERS ROAD AND STATE HIGHWAY 'N', 36.5' EAST OF CENTERLINE OF SOMMERS AND 14' SOUTH OF CENTERLINE HIGHWAY 'N'.

> O'FALLON FILE # 4406.01 P&Z APPROVAL: DEC. 7, 2006

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