

AN ORDINANCE AMENDING THE ZONING ORDINANCE OF THE CITY OF CHESTERFIELD BY CHANGING THE BOUNDARIES OF A "NU" NON-URBAN TO "E 1/2 ACRE" ESTATE DISTRICT FOR 61.0 ACRES OF LAND LOCATED NORTH OF STRECKER ROAD AND EAST OF CHURCH ROAD (P.Z. 39-2005 WESTLAND ACRES (WESTLAND ACRES DEVELOPMENT LLC))

WHEREAS, the Petitioner, Westland Acres Development LLC, requested a change in zoning from "NU" Non-Urban to an "E-1/2 Acre" Estate District; and,

WHEREAS, the Planning Commission held a public hearing regarding the said request on February 13, 2006; and,

WHEREAS, the Planning Commission upon review of said request recommended approval by a vote of 7-1 on June 26, 2006 with conditions as written in the Attachment A; and,

WHEREAS, the City Council upon review of said request, recommended approval with amendments made to clarify the minimum lot size, landscape buffering, structure setbacks, tree requirements, and additional criteria regarding street improvements.

NOW THEREFORE BE IT ORDAINED BY THE CITY OF COUNCIL OF THE CITY OF CHESTERFIELD, ST. LOUIS COUNTY, MISSOURI, AS FOLLOWS:

Section 1. The City of Chesterfield Zoning Ordinance and Official Zoning District Maps, which are part thereof, are hereby amended by approving preliminary plans for a change in zoning of a "NU" Non-Urban District to a "E-1/2 Acre" Estate District for 61.0 acre tract of land located north of Strecker Road and east of Church Road in the City of Chesterfield as follows:

LAND DESCRIPTION

A tract of land being part of Fractional Section 13, Township 45 North, Range 3 East, cities of Wildwood and Chesterfield, St. Louis County Missouri and being more particularly described as follows:

Beginning at the Northeast corner of said Fractional Section 13, said corner also being the Southeast corner of Lot 12 of Country Lake Estates per the plat thereof recorded in plat book 345 page 41 of the St. Louis County records; said corner also being on the West line of Lot 3 of Pacland Place First Addition per the plat thereof recorded in plat book 278 page 1 of said records; thence with the West line of said Lot 3 of Pacland Place First Addition, also being the East line of said Fractional Section 13, South 00°50'13" West 1002.98 feet to the Northeast corner of a tract of land described in a deed to William Shannahan per deed book 11959 page 899 of the St. Louis County records; thence with the North, West and South lines of said Shannahan tract the following: North 89°12'18" West 212.39 feet to a point; thence with a curve to the right 03°48'22" East 68.49 feet and an arc length of 68.57 feet to a point of tangency; thence South

01°06'18" West 58.04 feet to a point of curvature; thence with a curve to the right having a radius of 300.00 feet and an arc length of 187.18 feet to a point; thence South 53°08'47" East 203.28 feet and South 88°21'37" East 100.05 feet to the Southeast corner of said Shannahan tract; said corner also being on the West line of Lot 6 of aforesaid Pacland Place First Addition and on the East line of aforesaid Fractional Section 13; thence said East line of Fractional Section 13, South 00°50'13" West 806.99 feet to a point on the Northwest line of a tract of land described in a deed to Catholic Cemeteries of the Archdiocese per deed book 15901 page 446 of said records; said point also being on the Northwest line of a tract of land described in a deed to Catholic Cemeteries of the Archdiocese per deed book 15901 page 446 of said records; said point also being on the Northwest line of U.S. Survey 124; thence with the said Northwest line of U.S. Survey 124, South 52°16'36" West 613.51 feet to a point on the centerline of Church (50'w) Road; thence with said centerline of Church Road, along a curve to the right which radius bears North 82°28'17" East 100.00 feet, a chord bearing of North 06°26'04" West 3.82 feet with an arc length of 3.82 feet to a point of tangency; thence North 05°20'31" West 77.05 feet to a point of curvature; thence with curve to the left having a radius of 100.00 feet and an arc distance of 35.80 feet to a point of tangency; thence North 25°51'12" West 604.92 feet to a point of curvature; thence with a curve to the left having a radius of 125.00 feet and an arc length of 159.33 feet to a point of tangency; thence South 81°06'49" West 94.63 to a point of curvature; thence with a curve to the right having a radius of 175.00 feet and an arc length of 105.84 feet to a point of tangency; thence north 64°14'00" West 222.05 feet to a point of curvature; thence with a curve to the left having a radius of 175.00 feet and an arc distance of 114.03 feet to a point of tangency; thence South 78°26'00" West 10.68 feet to a point; thence departing said centerline of Church Road, North 00°40'00" East 941.40 feet to a point on the South line of a tract of land described in a deed to Steve & Cindy Whitman per deed book 11251 page 306 of said records; thence with the South line of said Whitman, North 77°27'21" East 169.81 feet to the Southeast thereof; thence with the East line of said Whitman tract, North 12°48'03" West 220.00 feet to the Northeast corner thereof; said point being on the South line of Lot 12 of Wildhorse Village Plat 1 per the plat thereof recorded in plat book 283 page 20; thence with said South line of Lot 12, North 77°27'21" East 198.00 feet to the Southeast corner of said Lot 12; thence departing said Lot 12, and with the South line of a tract of land described in a deed to Leonard and Virginia Scott as recorded in deed book 8786 page 2388 of said records, South 88°37'46" East 212.50 feet to the Southeast corner thereof; thence with the East line of said Scott tract, North 12°48'03" West 579.11 feet to the northeast corner thereof; said corner being on the South line of Country Lake Estates per the plat thereof recorded in plat book 345 page 41 of said records and the North line of aforesaid Fractional Section 13; thence with the said North line of Fractional Section 13, South 88°37'46" East 1043.77 feet to the point of beginning and containing 61.1 acres more or less.

Section 2. The preliminary approval, pursuant to the City of Chesterfield Zoning Ordinance is granted subject to all of the ordinances, rules and regulations and the specific conditions as recommended by the Planning Commission in its recommendations to the City Council.

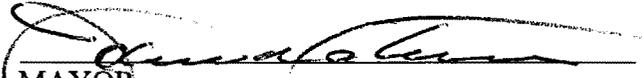
Section 3. The City Council, pursuant to the petition filed by Westland Acres Development LLC in P.Z. 39-2005 requesting the amendment embodied in this ordinance, and pursuant to the recommendations of the City of Chesterfield Planning Commission that said

petition be granted and after public hearing, held by the Planning Commission on the 13th day of February 2006, does hereby adopt this ordinance pursuant to the power granted to the City of Chesterfield under Chapter 89 of the Revised Statutes of the State of Missouri authorizing the City Council to exercise legislative power pertaining to planning and zoning.

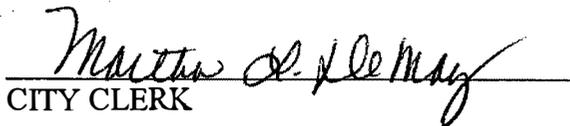
Section 4. This ordinance and the requirements thereof are exempt from the warnings and summons for violations as set out in Section 1003.410 of the zoning Ordinance of the City of Chesterfield.

Section 5. This ordinance shall be in full force and effect from and after its passage and approval.

Passed and approved this 20th day of NOVEMBER, 2006.


MAYOR

ATTEST:


CITY CLERK

First Reading Held: 8/21/06

ATTACHMENT A

In keeping with the following Comprehensive Plan policies, these conditions have been developed:

- 1.4 Quality New Development
- 2.1 Quality Residential Development
- 2.1.1. Conservation of Existing Quality of Life
- 2.1.2 Historic Preservation
- 2.1.5 Provide Buffer for Existing Residential Development
- 2.1.6 Reinforce Existing Residential Development Pattern
- 2.1.9 Encourage Planned Residential Development
- 2.5 Westland Acres

I. SPECIFIC CRITERIA

A. Information to be shown on the Site Development Concept Plan shall adhere to conditions specified under General Criteria-Concept Plan. Site Development Plans and Site Development Section Plans shall adhere to specific design criteria.

B. Definitions

1. **A Site Development Concept Plan is a conceptual plan for development in a planned district being done in phases.**
2. **A Site Development Section Plan is a plan for development for sections of the overall concept plan.**
3. **A Site Development Plan is a plan for development in planned districts that is being done in one phase.**

C. PERMITTED USES

1. The uses allowed in this "E-Half Acre" Estate District shall be:
 - a. Fifty-six (56) detached single-family dwellings.
 - b. The density for this development shall be one (1) acre as guided by the City of Chesterfield Comprehensive Plan.

- c. Fifty-nine (59) detached single family dwelling will be permitted upon the completion of the boundary adjustment for lots 48, 49, and 50.
 - d. The minimum lot size for this development in the City of Chesterfield shall be 15,000 square feet.
 - e. As set forth in Section II B, the historical nature of this site is significant and this documented historical significance is an indispensable component of the "E-Half Acre Estate District" zoning that is permitted herein.
2. Non Single family uses, other than home occupations shall be prohibited in this development.

D. SETBACKS

1. STRUCTURE SETBACKS

No building or structure, other than: a freestanding project identification sign, boundary and retaining walls, light standards, flag poles or fences will be located within the following setbacks:

- a. One hundred fifty (150) feet from the landscape buffer along the southern property line bearing N52°16'36"E.
- b. Twenty (20) feet from the landscape buffer along the eastern property line bearing S00°50'13"W.
- c. Forty (40) feet from the landscape buffer bearing S53°08'47"E.
- d. Twenty (20) feet from the landscape buffer along the northern property line with bearing S88°37'46"E.

E. LOT CRITERIA

In addition to the above-referenced requirements, no building or structure (other than boundary and retaining walls) light standards, flag poles or fences, the following lot criteria shall apply:

- a. Front yard setback: Twenty five (25) feet from the internal public right-of-way.

- b. Side yard setback: Fifteen (15) feet from the side property line.
 - (i.) A minimum of thirty (30) feet must be maintained between structures.
- c. Rear yard setback: Twenty (20) feet from the rear property line.
- d. No foundation shall be closer than 150 feet of the eastern property line bearing S00°50'13"W.

II. DEVELOPMENT COHESIVENESS

The Westland Acres Development is a proposal for 1 residential community which encompasses land in both the City of Chesterfield and City of Wildwood. In an effort to achieve cohesiveness and uniformity in design and planning of the development, the following conditions are required which reflect similar conditions set forth in the Attachment B of the City of Wildwood for this development.

A. BUILDING REQUIREMENTS

- 1. The maximum height of the single-family dwelling shall not exceed 50 feet or two stories above final grade, as measured from the front building line on any individual lot at its street elevation.
- 2. The maximum area of this 58 acre tract of land which can be used for development and related land disturbance shall not exceed 36 acres.
- 3. The minimum amount of this 58 acre tract of land, which must be preserved in a natural state as part of this development shall be 22 acres.

B. HISTORY OF THE WESTLAND ACRES AREA

- 1. Steps shall be taken to preserve the history of the area. This shall include the following:
 - a. installation a system of eight (8) foot wide multiple use trails which provide logical interconnections to all areas of the site and the historic assets planned within the development as directed by the City of Chesterfield. The trails will be reviewed and approved by the City of Chesterfield during the site development plan review;

- b. provide a series of historic markers throughout the development depicting the history of the Westland Acres Area. These markers will be reviewed and approved by the City of Chesterfield during the site development plan review;
- c. provide artwork (both sculptures and statues) at a minimum of five (5) prominent locations within the boundaries of the development located in the City of Chesterfield as directed by the City of Chesterfield. The artwork must be respectful and appropriate of this community and its history. Said artwork shall be reviewed and approved by the City of Chesterfield during site development plan review;
- d. streets shall be named after descendants of the original property owners and founders.

C. ACCESS

1. All proposed streets within the City of Chesterfield shall connect to the system of roadways planned within the City of Wildwood portion of this development.

D. ENTRANCE MONUMENT

1. Ornamental Entrance Monument construction, if proposed, shall be reviewed and approved by the City of Chesterfield and City of Wildwood, as applicable for sight distance considerations prior to installation or construction.

E. INDENTURES

1. With the filing of the record plat to the City of Chesterfield, the developer shall submit an approved indenture which is in accord with the specific conditions set forth in this ordinance and the City of Chesterfield Zoning Ordinance and Subdivision Ordinance. Provisions shall be made for the maintenance, upkeep, and repair of the historic assets throughout this development. The responsibility for compliance shall be placed upon the Homeowners Association unless another comparable entity is created to assume said responsibilities.

F. TRAFFIC STUDY

1. Provide a traffic study as directed by the City of Chesterfield and/or the St. Louis County Department of Highways and Traffic. The scope of the study shall include internal and external circulation and may be limited to site specific impacts, such as the need for

additional lanes, entrance configuration, geometrics, sight distance, traffic signal modifications or other improvements required, as long as the density of the proposed development falls within the parameters of the City's traffic model. Should the density be other than the density assumed in the model, regional issues shall be addressed as directed by the City of Chesterfield. Review and approval of the Traffic Study shall be by the City of Chesterfield and City of Wildwood.

III. DEVELOPMENT CRITERIA

A. PARKING AND LOADING REQUIREMENTS

1. Parking and loading spaces for this development will be as required in the City of Chesterfield Code.
2. Parking is restricted to one side of each street. On those streets that have fire hydrants, parking is to be restricted along the side where the fire hydrants are located and streets need to be posted with "No Parking" signs.
3. Construction Parking
 - a. The streets surrounding this development and any street used for construction access thereto shall be cleaned throughout the day. The developer shall keep the road clear of mud and debris at all times.
 - b. Provide adequate off-street stabilized parking area(s) for construction employees and a washdown station for construction vehicles entering and leaving the site in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions.
 - c. Construction parking shall not be permitted on public-maintained roadways. Adequate off-street stabilized parking area(s) shall be provided for construction employees.

B. LANDSCAPE AND TREE REQUIREMENTS

1. The developer shall submit a landscape plan, tree stand delineation, in adherence with the Tree Manual of the City of Chesterfield Code.

2. Landscaping in the right of way, if proposed, shall be reviewed by the City of Chesterfield Department of Public Works.
3. Tree canopy preservation for this site shall be 50%.
4. A minimum 30 foot wide landscape buffer strip shall be required around the perimeter of this development in accordance with the City of Chesterfield Tree Manual.
 - a. A 50 foot wide landscape buffer strip shall be required along the eastern boundary of the development bearing S00°50'13"W. The detention basin shall not be allowed within this buffer.
5. The minimum amount of this 58 acre tract of land, which must be preserved in a natural state as part of this development shall be 22 acres.
6. Natural state is defined as an area of land in its original state before any clearing, grading, excavating or filling. The areas shown on the preliminary plan labeled as being "common ground" shall remain in its natural state.
7. Trees located in the common ground area shall be replanted if any loss occurs due to cleaning and/or clearing of the area so that the area is restored to its natural state.
8. During Site Development Plan review, Tree Stand Delineation shall be submitted to the Department of Planning for approval before the Planning Commission. The Tree Stand Delineation shall adhere to the requirements set forth in the City of Chesterfield Tree Manual and show the exact location of trees being lost in the common ground area in an overlay form, provide the reason for said tree loss, and provide replanting information to restore said area to its natural state.

C. SIGN REQUIREMENTS

Sign package submittal materials, including information regarding historical markers, shall be required for this development. All sign packages shall be reviewed and approved by the City of Chesterfield Planning Commission.

D. LIGHT REQUIREMENTS

Provide a lighting plan and cut sheet in accordance with the City of Chesterfield Code.

E. ARCHITECTURAL

Building facades should be articulated by using color, arrangement or change in materials to emphasize the facade elements. The planes of the exterior walls may be varied in height, depth or direction. Extremely long facades shall be designed with sufficient building articulation and landscaping to avoid a monotonous or overpowering appearance.

F. ACCESS/ACCESS MANAGEMENT

1. Streets and drives related to this development shall be designed and located in conformance with the Chesterfield Driveway Access Location and Design Standards, as originally adopted by Ordinance No. 2103 and as may be amended from time to time.
2. No landlocked parcels shall be created under the terms of this ordinance. Any property existing and enjoying access on the effective date of this ordinance shall continue to have substantially equivalent access during construction of the development and on a permanent basis.
3. Street length
 - a. The street length of all streets within the proposed development shall adhere to the requirements of the Street Matrix of the City of Chesterfield Subdivision Ordinance unless otherwise directed by the City of Chesterfield Department of Planning.
 - b. Review and approval of any variance request pertaining to street length requirement shall occur prior to site development plan approval. Consideration of any variance request shall include meetings with the City of Chesterfield, the Petitioner, and the Corps of Engineers, as directed by the City of Chesterfield.

G. PUBLIC/PRIVATE ROAD IMPROVEMENTS, INCLUDING PEDESTRIAN CIRCULATION

1. Sidewalks shall be required in accord with the City of Chesterfield Subdivision Regulations and ADA Standards.

2. Provide for the vacation of the of the portion of the Church Road right of way that will no longer be needed as part of the development.
3. Provide up to a 60 foot right of way and up to a 32 foot wide pavement for Church Road from Strecker Road to the first street that provides alternate access, as directed by the City of Chesterfield and/or the City of Wildwood.
4. Improvements to Church Road shall be completed prior to the issuance of 60% of the approved building permit in either the City of Chesterfield or City of Wildwood. Delays due to utility relocation and/or adjustment or obtaining required permits, for which the developer is responsible monetarily, shall not constitute a cause to delay improvements to Church Road as required above.
5. All roadway and related improvements in each plat or phase of the development shall be constructed prior to 60% occupancy of that plat or phase of development in either the City of Wildwood or the City of Chesterfield. All roadway and related improvements in the overall development shall be completed prior to 85% occupancy of the overall development except for Church Road improvements as set forth in paragraph 4 above.
6. All new roads within and adjacent to this site shall be constructed at least one (1) foot above the base flood elevation of the Special Flood Hazard Area. Improvements to Church Road from the proposed subdivision to Strecker Road including any necessary improvements to the intersection of Church and Strecker shall be required as necessary to provide at least one (1) access route to each lot that is at least one (1) foot above the base flood elevation.
7. Internal streets shall be constructed in accordance with Section 1005.180 of the Subdivision Ordinance of the City of Chesterfield.
8. All stub streets shall have a sign prominently posted at the end of the street and a sign posted at the entrance to the stub street as required in Section 1005.180 of the City of Chesterfield Subdivision Ordinance. Include a note on both the Site Development Plan and Record Plat indicating the existence of the stub street.
9. If street grades in excess of six percent are desired, steep grade approval must be obtained from the Department of Public Works. In no case shall slopes in excess of 12 percent be considered. Any request for steep street grades must include justification prepared, signed and sealed by a registered professional engineer and include plans, profiles, boring logs, cross-sections, etc in

accordance with the Street Grade Design Policy. The justification should clearly indicate site conditions and alternatives considered. If steep grades are approved for this site, a disclosure statement shall be provided to all potential buyers and a note indicating that priority snow removal will not be given to this site shall be included on the Site Development Plan and Record Plat.

10. Any request to install a gate in this development must be approved by the City of Chesterfield. No gate installation will be permitted on public right of way, in the City of Wildwood, nor across any road that provides access to properties in the City of Wildwood. A minimum stacking distance of 60 feet from any intersection and a turnaround for rejected vehicles designed to accommodate a single unit truck shall be provided in advance of the gate, as directed by the City of Chesterfield.
11. If a gate is installed on a street in this development, the streets within the development or that portion of the development that is gated shall be private and remain private forever. Maintenance of private streets, including snow removal, shall be the responsibility of the developer/subdivision. In conformance with Section 1005.265 of the City of Chesterfield Subdivision Ordinance, a disclosure statement shall be provided to all potential buyers. In conformance with Section 1005.180 of the City of Chesterfield Subdivision Ordinance, signage indicating that the streets are private and owners are responsible for maintenance shall be posted. Said signage shall be posted within thirty days of the placement of the adjacent street pavement and maintained and/or replaced by the developer until such time as the subdivision trustees are residents of the subdivision, at which time the trustees will be responsible for maintenance.

The nearest edge of any drive or intersecting street shall be located at least forty feet from the line of the gate, as directed.

12. If roadways are designated to be private, these roadways shall remain private forever. Maintenance of private streets, including, but not limited to, snow removal, shall be the responsibility of the developer/subdivision. In conformance with Section 1005.265 of the City of Chesterfield Subdivision Ordinance, a disclosure statement shall be provided to all potential buyers. In conformance with Section 1005.180 of the City of Chesterfield Subdivision Ordinance, the method for providing continuous maintenance of streets and appurtenant storm sewers shall be included in the trust indentures and the record plat.

Signage indicating that the streets are private and owners are responsible for maintenance shall be posted in conformance with Section 1005.180 of the City of Chesterfield Subdivision Ordinance. Said signage shall be posted within 30 days of the placement of the adjacent trustees are residents of the subdivision, at which time the trustees shall be responsible.

13. Obtain approvals from the Department of Public Works and the St. Louis County Department of Highways and Traffic for areas of new dedication, and roadway improvements.
14. All cul-de-sacs must have a 43 foot outside radius.

H. POWER OF REVIEW

The City Council shall review and provide final approval of the site development plan for the proposed development subsequent to Planning Commission review.

I. STORMWATER AND SANITARY SEWER

1. Detention/retention is to be provided in each watershed as required by the City of Chesterfield and the City of Wildwood. The post development release rate shall not exceed the undeveloped release rate for the 1 year - 24 hour storm event, the 2 year - 24 hour storm event and the 100 year - 24 hour storm event. Detention of storm water runoff is required by providing permanent detention/retention facilities, such as dry reservoirs, ponds, underground vaults or other alternatives acceptable to the Department of Public Works. The maximum fluctuation from the permanent pool elevation to the maximum ponding elevation of a basin shall be three (3) feet, as directed. Wetland mitigation shall not be permitted within a detention/retention basin. The detention/retention facilities shall be operational prior to issuance of building permits exceeding sixty (60%) of the approved dwelling units in each plat, watershed or phase of residential developments in either the City of Chesterfield or the City of Wildwood. The location and types of detention/retention facilities shall be identified on the Site Development Plan.
2. All stormwater collected onsite shall be treated prior to release into the receiving streams in order to maintain water quality and protect channels from erosion. Extended stormwater detention facilities shall be configured to completely detain a 1 inch - 24 hour event and release this volume over a minimum of 24 hours, as directed. Dry basins shall not detain stormwater longer than 72 hours.

3. All stormwater runoff from disturbed areas shall be routed to a stormwater facility (detention, retention, extended detention, etc.) that provides, at a minimum, a 24 hour drawdown on a 1 inch - 24 hour storm, as directed.
4. The lowest opening of all structures shall be set at least two (2) feet higher than the 100-year high water elevation in detention/retention facilities. The minimum elevation for the lowest opening of any proposed structure on each lot around those facilities shall be indicated on the improvement plans and plot plans. All structures shall be set at least 30 feet horizontally from the limits of the 100-year high water.
5. Grade control structures shall be installed in receiving channels from the point of discharge of a storm sewer system to a downstream pond or detention facility. The grade control structures shall be spaced such that there is a control for every two feet of fall in the channel thalweg (line drawn to join the lowest points along the entire length of a channel) elevation.
6. Lake(s), ponds(s), detention area(s), etc., are located downstream from the proposed development which may, in the opinion of the Department of Public Works, be impacted by development of subject site. A bond, in a form acceptable to the City of Chesterfield, shall be posted to assure compliance with this section. The developer shall perform preconstruction and post-construction surveys of these facilities and determine any changed condition. Preconstruction surveys shall be performed prior to any clearing, grading, demolition or other construction related to the proposed development. Post-construction surveys shall be performed within twelve (12) months of the completion of the proposed development or two (2) years from the start of the development, whichever is greater. The developer shall return affected facilities to their preconstruction condition within 3 months of the post-construction survey. If the owner/operator of potentially impacted facilities will not grant the developer the necessary easements to complete the surveys and/or restorative work, the requirements in this paragraph are null and void. The required bond and preconstruction survey of downstream facilities shall be submitted prior to approval of a grading permit or improvement plans.
7. The site shall provide for the positive drainage of storm water and it shall be discharged at an adequate natural discharge point or an adequate piped system. The adequacy and condition of the existing downstream systems shall be verified and upgraded if necessary.

8. Emergency overflow drainage ways to accommodate runoff from the 100-year storm event shall be provided for all storm sewers, as directed by the Department of Public Works.
9. This project is in the Caulks Creek Surcharge area and is subject to a surcharge of \$2750.00 per acre.

J. GEOTECHNICAL REPORT.

Provide a geotechnical report, prepared by a registered professional engineer licensed to practice in the State of Missouri, as directed by the Department of Public Works. The report shall verify the suitability of grading and proposed improvements with soil and geologic conditions and address the existence of any potential sinkhole, ponds, dams, septic fields, etc., and recommendations for treatment. A statement of compliance, signed and sealed by the geotechnical engineer preparing the report, shall be included on all Site Development Plans and Improvement Plans.

K. ENVIRONMENTAL SITE ASSESSMENT

1. All trash and debris, including any hazardous material, and abandoned vehicles/commercial equipment shall be removed and cleaned from the Westland Acres development.
2. All areas included in the SCI Engineering Report dated April 2006, including common ground, shall have trash/debris on site removed in accordance with the recommendations from the Phase I and limited Phase II Environmental Site Assessment conducted by SCI Engineering dated April 2006.
3. The developer shall adhere to all recommendations of the Environmental Site Assessment conducted by SCI Engineering including the following:
 - a. Prior to or during development, the solid waste dumped on site should be excavated, transported, and disposed at a licensed landfill facility.
 - b. The farm dumps, which primarily contain residential trash, can be disposed either as Municipal Solid Waste (MSW) or as a special waste.
 - c. Dump material should be excavated with a trackhoe or high lift and placed into trucks for transport to a landfill. In some areas, the construction of haul roads and placement of erosion control barriers may be necessary. Over-digging or exploratory testpitting

may be necessary to ensure that all the solid waste has been removed.

- d. If petroleum products or automotive batteries are encountered in dump area 5, this material should be excavated in the same manner as the other farm dumps.
 - e. Any dump material impacted by petroleum hydrocarbons must be disposed as a special waste.
 - f. Automotive batteries, if noted, should be segregated and disposed at a recycling facility.
4. Certification regarding the environmental cleanup must be submitted prior to the issuance of 25% of the building permits in the City of Chesterfield.
 5. Clean up shall occur within two years of zoning approval or any case no later than one year from site development plan approval as set forth in the SCI Standard Operating procedures Memorandum attached as Exhibit 1.

L. MISCELLANEOUS

1. All utilities will be installed underground. The development of this parcel will coordinate the installation of all utilities in conjunction with the construction of any roadway on site.
2. Sleeves for future telecommunication services are required to be installed adjacent and/or parallel to any proposed roadway, or other location as directed by the City of Chesterfield, in order to facilitate the installation of utilities and telecommunication infrastructure for current and future users.
3. Church Road shall be designated as a snow route as directed by the Department of Public Works.
4. Prior to Site Development Plan review, a boundary adjustment for lots 48, 49, 50, and 51 as depicted on the Preliminary Plan shall be required so that these lots are not split between both the City of Chesterfield and City of Wildwood.
5. Fire hydrants shall be placed at 600 foot intervals, for the length of all streets in the subdivision, including the full length of Church Road as directed by the monarch fire protection district.
6. Design standards for this development shall adhere to those conditions and requirements set forth in the City of Chesterfield Subdivision Ordinance.

7. Disclosure language as set out in paragraph (a) below shall be required for every contract for sale, lease or rental of any residential dwelling unit within the development. Said disclosure shall be contained on a separate sheet of paper at least eight and one-half (8 1/2) by eleven (11) inches in size and shall require signature acknowledgements by the prospective purchaser(s) or renter(s) which shall be kept on file by the seller or lessor for five (5) years. If a real estate broker is involved in the transaction, then the real estate broker shall maintain said disclosure in their files for a period of not less than five (5) years.
 - a. The disclosure statements required by this section shall, at a minimum, contain the language set out in this section. The use of the language, which is contained herein, shall satisfy the requirements of this section. The disclosure shall read as follows:

This disclosure, as required by the City of Chesterfield ordinance(s), is for the purpose of informing prospective buyers and tenants of any residential property in the development that there may be a potential for development of nearby real estate and there is a possibility of future development activities near this development. Parts of this development are located near or adjacent to certain businesses which at times operate a paving business. Prospective buyers and tenants who may have concerns about future land use of nearby properties should refer to the current Comprehensive Plan of the City of Chesterfield, located and available at the Chesterfield City Hall. Buyers and tenants should conduct independent investigation of their concerns, if any, before executing a purchase, lease or rental agreement.

IV. TIME PERIOD FOR SUBMITTAL OF SITE DEVELOPMENT CONCEPT PLANS AND SITE DEVELOPMENT PLANS

- A. The developer shall submit a concept plan within 18 months of City Council approval of the Preliminary Development Plan. This requirement shall be accomplished prior to issuance of building permits.
- B. In lieu of submitting a Site Development Concept Plan and Site Development Section Plans, the petitioner may submit a Site Development Plan for the entire development within 18 months of the date of approval of the Preliminary Development Plan by the City.

- C. Failure to comply with these submittal requirements will result in the expiration of the preliminary development plan and will require a new public hearing.
- D. Said Plan shall be submitted in accordance with the combined requirements for Site Development Section and Concept Plans. The submission of Amended Site Development Plans by sections of this project to the Planning Commission shall be permitted if this option is utilized.
- E. Where due cause is shown by the developer, this time interval for plan submittal may be extended through appeal to and approval by the Planning Commission.

V. COMMENCEMENT OF CONSTRUCTION

- A. Substantial construction shall commence within two years of approval of the site development concept plan or site development plan, unless otherwise authorized by ordinance. Substantial construction means final grading for roadways necessary for first approved plat or phase of construction and commencement of installation of sanitary storm sewers.
- B. Where due cause is shown by the developer, the Commission may extend the period to commence construction for not more than one additional year.
- C. Grading and Improvement Plan Requirements shall be met prior to start of work.
- D. A grading permit or improvement plan approval is required prior to any clearing or grading.

VI. GENERAL CRITERIA

A. SITE DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS

The Site Development Plan shall adhere to the above criteria and to the following:

1. Location map, north arrow, and plan scale. The scale shall be no greater than 1 inch equals 100 feet.
2. Outboundary plat and legal description of the property.

3. Density Calculations.
4. Parking calculations. Including calculation for all off street parking spaces, required and proposed, and the number, size and location for handicap designed.
5. A note indicating all utilities will be installed underground.
6. A note indicating signage approval is separate process.
7. Depict the location of all buildings, size, including height and distance from adjacent property lines and proposed use.
8. Specific structure and parking setbacks along all roadways and property lines.
9. Indicate location of all existing and proposed freestanding monument signs.
10. Zoning district lines, subdivision name, lot number, dimensions, and area, and zoning of adjacent parcels where different than site.
11. Floodplain boundaries.
12. Depict existing and proposed improvements within 150 feet of the site as directed. Improvements include, but are not limited to, roadways, driveways and walkways adjacent to and across the street from the site, and significant natural features, such as wooded areas and rock formations, that are to remain or be removed.
13. Depict all existing and proposed easements and rights-of-way within 150 feet of the site and all existing or proposed off-site easements and rights-of-way required for proposed improvements.
14. Indicate the location of proposed storm sewers, detention basins, sanitary sewers and connection(s) to the existing systems.
15. Depict existing and proposed contours at intervals of not more than two (2) feet, and extending 150 feet beyond the limits of the site as directed.
16. Address trees and landscaping in accordance with the City of Chesterfield Code.

17. Provide a lighting plan in accordance with the City of Chesterfield Code.
18. Comply with all preliminary plat requirements of the City of Chesterfield Subdivision Ordinance.
19. Signed and sealed in conformance with the State of Missouri Department of Economic Development, Division of Professional Registration, Missouri Board for Architects, Professional Engineers and Land Surveyors requirements.
20. Provide comments/approvals from the appropriate Fire District, the Metropolitan St. Louis Sewer District, the City of Wildwood, the St. Louis County Department of Highways and Traffic.
21. Compliance with Sky Exposure Plane.
22. Include a note indicating the existence of any stub streets.
23. Provide as a note on both the record plat and site development plan that as of the adoption date of this ordinance, the paving company located to the north of the proposed Westland Acres Drive is an existing no-conforming use.

VII. GRADING AND IMPROVEMENT PLAN REQUIREMENTS

- A. A Site Development Plan and Tree Preservation Plan must be approved prior to issuance of a grading permit or approval of improvement plans.
- B. Prior to approval of a grading permit or improvement plans, a Storm Water Pollution Prevention Plan (SWPPP) must be submitted and approved. The SWPPP shall address installation and maintenance of required erosion control practices specific to site conditions. The purpose of the SWPPP is to ensure the design, implementation, management and maintenance of Best Management Practices (BMPs) to control erosion and reduce the amount of sediment and other pollutants in storm water discharges associated with land disturbance activities, and ensure compliance with the terms and conditions stated in the Sediment and Erosion Control Manual.
- C. No grading which results in a change in watersheds will be permitted.
- D. If existing City maintained streets are to be used as construction access to this site, prior to approval of a grading permit or improvement plans, or any construction related traffic or delivery of any construction equipment to the site, the following items must be addressed:

1. The travel route must be approved by the Department of Public Works. No deviation from the approved route will be permitted.
 2. An evaluation, including film record, of the current condition of the pavement on the approved travel route must be submitted.
 3. An appropriate bond must be submitted, as approved by the City of Chesterfield, to ensure that any damage to existing pavement is repaired. Repair of damage to existing streets will not be included in the subdivision escrow; a separate bond must be established.
 4. All plan sheets shall indicate that vehicle loads of construction traffic using this route are not to exceed 22,400 pounds axle load or 60,000 gross vehicle weight, and that no tri-axle trucks are to be used. Weight tickets may be used to determine conformance with this requirement.
 5. Additional protective measures, as deemed necessary by the Department of Public Works, may also be required.
- E. Prior to grading permit or improvement plan approval, provide comments/approvals from the appropriate Fire District, St. Louis County Department of Highways and Traffic, the City of Wildwood and the Metropolitan St. Louis Sewer District.
- F. Prior to approval of a grading permit or improvement plans, copies of recorded easements, including book and page of record, for all off-site work and off-site areas inundated by headwater from on-site improvements must be submitted.
- G. In accordance with the City of Chesterfield Sediment and Erosion Control Manual, adequate provision shall be made to prevent surface waters from damaging the cut face of an excavation or the sloping surface of a hill. Existing erodible slopes that are to remain undisturbed shall be protected from storm water runoff associated with any disturbed or developed area. No storm water shall be allowed to flow from an area that has been graded or improved to the undisturbed slope.

VIII. TRUST FUND CONTRIBUTION

- A. The developer will contribute to the Traffic Generation Assessment (TGA) to the Eatherton-Kehrs Mill road Trust Fund. This contribution will not exceed an amount established by multiplying the ordinance required parking spaces by the following rate schedule:

Type of Development

Required Contribution

Single Family

\$879.10

(Parking spaces as required by the City of Chesterfield City Code.)

If types of development differ from those listed, the Department of Highways and Traffic will provide rates.

Allowable credits for required roadway improvements will be awarded as directed by the Saint Louis County Department of Highways and Traffic. Sidewalk construction and utility relocation, among other items, are not considered allowable credits.

As this development is located within a trust fund area established by St. Louis County, any portion of the traffic generation assessment contribution which remains following completion of road improvements required by the development will be retained in the appropriate trust fund.

The amount of the required contribution, if not approved for construction by January 1, 2007 shall be adjusted on that date and on the first day of January in each succeeding year thereafter in accordance with the construction cost index as determined by the St. Louis County Department of Highways and Traffic.

Traffic generation assessment contributions shall be deposited with St. Louis County prior to the issuance of building permits. If development phasing is anticipated, the developer shall provide the traffic generation assessment contribution prior to issuance of building permits for each phase of development.

IV. RECORDING

Within 60 days of approval of any development plan by the City of Chesterfield, the approved Plan will be recorded with the St. Louis County Recorder of Deeds. Failure to do so will result in the expiration of approval of said plan and require re-approval of a plan by the Planning Commission.

X. VERIFICATION PRIOR TO SPECIAL USE PERMIT ISSUANCE

Prior to any Special Use Permit being issued by St. Louis County Department of Highways and Traffic, a special cash escrow must be established with this Department to guarantee completion of the required roadway improvements.

XI. VERIFICATION PRIOR TO RECORD PLAT APPROVAL

The developer shall cause, at his expense and prior to the recording of any plat, the reestablishment, restoration or appropriate witnessing of all Corners of the United States Public Land Survey located within, or which define or lie upon, the outboundaries of the subject tract in accordance with the Missouri Minimum Standards relating to the preservation and maintenance of the United States Public Land Survey Corners.

XII. VERIFICATION PRIOR TO FOUNDATION OR BUILDING PERMITS

- A. A grading permit or improvement plan approval is required prior to issuance of a building permit. In extenuating circumstances, an exception to this requirement may be granted.
- B. All required subdivision improvements in each plat of a subdivision shall be completed prior to issuance of more than 85 percent of the building permits for all lots in the plat.
- C. Prior to the issuance of foundation or building permits, all approvals from all applicable agencies and the Department of Public Works, as applicable, must be received by the City of Chesterfield Department of Planning.
- D. Prior to issuance of foundation or building permits, all approvals from the City of Chesterfield, and the Metropolitan St. Louis Sewer District must be received by the St. Louis County Department of Public Works.

XIII. OCCUPANCY PERMIT/FINAL OCCUPANCY

- A. Prior to the issuance of any occupancy permit, floodplain management requirements shall be met.
- B. All lots shall be seeded and mulched or sodded before an occupancy permit shall be issued, except that a temporary occupancy permit may be issued in cases of undue hardship because of unfavorable ground conditions. Seed and mulch shall be applied at rates that meet or exceed the minimum requirements stated in the Sediment and Erosion Control Manual.

XIV. FINAL RELEASE OF SUBDIVISION DEPOSITS

Prior to final release of subdivision construction deposits, the developer shall provide certification by a registered land surveyor that all monumentation depicted on the record plat has been installed and United States Public Land Survey Corners have not been disturbed during construction activities or that

they have been reestablished and the appropriate documents filed with the Missouri Department of Natural Resources Land Survey Program.

XV. GENERAL DEVELOPMENT CONDITIONS

- A. Erosion and siltation control devices shall be installed prior to any clearing or grading and be maintained throughout the project until adequate vegetative growth insures no future erosion of the soil and work is accepted by the owner and controlling regulatory agency.
- B. General development conditions relating to the operation, construction, improvement and regulatory requirements to be adhered to by the developer are as follows:
 1. When clearing and/or grading operations are completed or will be suspended for more than 5 days, all necessary precautions shall be taken to retain soil materials on site. Protective measures may include a combination of seeding, periodic wetting, mulching, or other suitable means.
 2. If cut and fill operations occur during a season not favorable for immediate establishment of permanent ground cover, unless alternate storm water detention and erosion control devices have been designed and established, a fast germinating annual, such as rye or sudan grasses, shall be utilized to retard erosion.
 3. If cut or fill slopes in excess of the standard maximum of 3:1 horizontal run to vertical rise are desired, approval for the steeper slopes must be obtained from the Director of Public Works. Approval of steeper slopes is limited to individual and isolated slopes, rock dikes, undisturbed and stable natural slopes and slopes blending with the natural terrain. Design of the steep slopes must be performed by a registered professional engineer and include recommendations regarding construction methods and long-term maintenance of the slope. Any steep slope proposed on a Site Development Plan shall be labeled and referenced with the following note: *Approval of this plan does not constitute approval of slopes in excess of 3:1. Steep slopes are subject to the review and approval of the Director of Public Works. Review of the proposed steep slope will be concurrent with the review of the grading permit or improvement plans for the project.*
 4. Soft soils in the bottom and banks of any existing or former pond sites or tributaries or any sediment basins or traps should be removed, spread out and permitted to dry sufficiently to be used as fill. This material shall not be placed in proposed public right-of-way locations or in any storm sewer location.

5. All fills placed under proposed storm and sanitary sewer lines and/or paved areas, including trench backfill within and off the road right-of-way, shall be compacted to 95 percent of maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557) for the entire depth of the fill, as directed. Compacted granular backfill is required in all trench excavation within the street right-of-way and under all paved areas. All tests shall be performed concurrent with grading and backfilling operations under the direction of a geotechnical engineer who shall verify the test results.
6. Access/utility easements shall be required throughout the development. A continuous 15 foot wide rear yard easement shall be provided as directed. At a minimum, a 10 foot wide utility/access easement shall be provided at every other lot line or break between structures, as directed.
7. Should the design of the subdivision include retaining walls that serve multiple properties, those walls shall be located within common ground or special easements, including easements needed for access to the walls.
8. This development may require an NPDES permit from the Missouri Department of Natural Resources. NPDES permits are applicable to construction activities that disturb one or more acres.

XVI. ENFORCEMENT

- A. The City of Chesterfield, Missouri will enforce the conditions of this ordinance in accordance with the Site Development Plan approved by the City of Chesterfield and the terms of this Attachment A.
- B. Failure to comply with any or all the conditions of this ordinance will be adequate cause for revocation of approvals/permits by reviewing Departments and Commissions.
- C. Non-compliance with the specific requirements and conditions set forth in this Ordinance and its attached conditions or other Ordinances of the City of Chesterfield shall constitute an ordinance violation, subject, but not limited to, the penalty provisions as set forth in the City of Chesterfield Code.

- D. Waiver of Notice of Violation per the City of Chesterfield Code.

- E. This document shall be read as a whole and any inconsistency to be integrated to carry out the overall intent of this Attachment A.



Solid Waste removal at Westland Acres

Standard Operating Procedure

1. Introduction

This standard operating procedure (SOP) is for the removal of the previously identified solid waste at the proposed Westland Acres Subdivision. The waste was varied in nature, but primarily contained residential trash, demolition rubble, and scrap metal. Previous test pitting into the waste areas revealed the presence of very minor amounts of what appeared to be impact from petroleum products and indicated as much as 12,000 in-place cubic yards of waste may be present.

The goal of the removal project will be to remove the waste in a safe and efficient manner and dispose of the waste in a licensed landfill.

2. Waste Characterization

The solid waste will be classified as Special Waste and therefore some analytical profiling of the waste will be necessary. Prior to excavation and disposal, a sample will be collected which is representative of the waste present at the site. This sample will be analyzed for parameters determined by St. Louis County Department of Health (assuming the waste will be disposed in St. Louis County) and the landfill which will be receiving the waste. Sampling, testing and County approval typically takes 2 to 3 weeks.

3. Health and Safety Plan

A health and safety plan will be prepared by a Certified Hazardous Material Manager (CHMM) which will include steps which need to be taken to protect the health of the personnel performing the removal but also will include steps to prevent the release, into the environment of any potentially toxic substances which might be present.

4. Excavation and Disposal

The subject site has been divided into areas which are intended for development and areas which are to be left undisturbed or "in a natural state". Waste excavation will be handled differently in each area. Because more than an acre of area will be disturbed to remove the solid waste, it will be necessary to have a Storm Water Pollution Prevention Plan (SWPPP) prepared detailing what management practices will be necessary to limit soil erosion and off site sediment discharge during and following excavation activities. Detention/retention basins are often an integral part of the SWPPP and therefore it should be assumed that solid waste excavation would not begin until after the detention/retention basins had been constructed. A competent person will be on site as necessary to provide oversight of the excavation process.

In the areas to be developed, the waste will be excavated using track hoes and/or hi-lifts and placed directly into trucks for transport to the landfill. Each load of waste will be manifested, if necessary, before leaving the site and the loads will be covered to prevent waste material from blowing from the trucks. If the waste material is very dry when excavated it may be necessary to mist the load to prevent dust from blowing from the trucks during transport. When misting the load, only the minimum amount of water should be used to adequately control dust. Because of the vegetated and steeply sloping nature of the site, it may be necessary to construct haul roads to access some areas. To the extent possible, on-site materials will be used for this purpose.

In the areas which are not to be disturbed, or left "in a natural state", smaller equipment will be used where practical. It is anticipated that most waste in the "natural" areas could be removed with a bobcat loader. Similarly, however, the construction of roads or pathways may be necessary to access some waste material. In accessing these areas every effort will be made to limit disturbance and no trees greater than 6" caliper will be removed. It is assumed that dump trucks will not be taken into the "natural" areas but that any waste present in these areas will be staged to the nearest accessible

developed area using the smallest, least disruptive equipment practical for subsequent loading onto trucks.

Excavation of waste material will proceed in all dump areas until virgin soil is reached. Certain materials may require segregation if observed during excavation. Items such as automotive batteries, tires and appliances are banned from disposal in a landfill. Any of these materials, if observed, will be segregated for subsequent disposal at an appropriate facility.

If at any time during excavation material of an unknown or previously unidentified nature is identified then excavation activities in that area will cease until the material can be characterized.

5. Post Excavation

Following waste removal activities, the disturbed areas will be stabilized per the SWPPP and a report detailing all excavation activities will be prepared. This report will include copies of all disposal manifests including any materials requiring special disposal.



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Phase One and Limited Phase Two
Environmental Site Assessment

WESTLAND ACRES
CHESTERFIELD & WILDWOOD, MISSOURI

April 2006



Prepared For:

THE JONES COMPANY

SCI No. 2006-2022.20



SCI ENGINEERING, INC.

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April 11, 2006

Mr. Jerry Duepner
The Jones Company
16640 Chesterfield Grove, Suite 160
Chesterfield, Missouri 63005

CONSULTANTS IN DEVELOPMENT,
DESIGN, AND CONSTRUCTION
GEOTECHNICAL
ENVIRONMENTAL
CULTURAL RESOURCES
NATURAL RESOURCES
CONSTRUCTION SERVICES

RE: Phase One and Limited Phase Two Environmental Site Assessment
Westland Acres
Chesterfield & Wildwood, Missouri
SCI No. 2006-2022.20

Dear Mr. Duepner:

SCI Engineering, Inc. (SCI) has completed the Phase One and Limited Phase Two Environmental Site Assessment at the above-referenced site, the report of which is contained herein. Phase One activities consisted of historical and public records research, historical review, interviews, and a reconnaissance survey. SCI's Phase Two activities consisted of advancing test pits into several suspected solid waste dumps on the subject site. The purpose of this investigation was to determine the contents of these dump areas and to assess their approximate extent.

Based on the activities, which were performed in general accordance with the ASTM Practice E 1527-00 for Phase One Environmental Site Assessments, SCI identified the following evidence of recognized environmental conditions in connection with the subject site:

- Possible disposal of petroleum products and automotive batteries in an on-site fill area; and
- Significant quantities of solid waste were present on the subject site which will likely require removal and disposal at a licensed landfill during site development.

Although not an REC, a cemetery was present on site. State law prohibits disturbing marked graves and no development should be performed which would potentially impact the cemetery. Please contact SCI's Cultural Resources department for more information.

SCI appreciates being of service to you on this project. Please contact us if you have any questions or comments regarding this report.

Respectfully,

SCI ENGINEERING, INC.

Glen A. Grissom
Project Scientist

Karl E. Ruhmann, P.E., R.G.
Vice President

Enclosures

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ST. CHARLES, MISSOURI
O'FALLON, ILLINOIS
ST. LOUIS, MISSOURI
UNION, MISSOURI
SPRINGFIELD, MISSOURI

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Phase One and Limited Phase Two Environmental Site Assessment

WESTLAND ACRES CHESTERFIELD & WILDWOOD, MISSOURI

1.0 INTRODUCTION

SCI Engineering, Inc. (SCI) was retained by Mr. Jerry Duepner, The Jones Company, to perform a Phase One and Limited Phase Two Environmental Site Assessment (Phase One and Limited Phase Two) of an approximate 114-acre tract of land located southeast of the intersection of Wildhorse Parkway and Highway CC in Chesterfield and Wildwood, Missouri (site or subject site). Services were provided in accordance with the Jones Company Service Agreement.

The purpose of this assessment was to explore for evidence of the presence of Recognized Environmental Conditions (RECs), in general accordance with the American Society for Testing and Materials (ASTM) Practice E 1527-00 for Phase One Environmental Site Assessments. An REC is defined by ASTM as the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release or material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a material risk of harm to public health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of the appropriate governmental agencies.

Phase One activities included historical and public records research, interviews, and a reconnaissance (walkover) survey. The details of these activities are outlined herein.

Phase Two activities consisted of advancing several test pits into suspected solid waste dumps on the subject site.

2.0 SITE RECONNAISSANCE

A representative of SCI performed a site reconnaissance to assess the physical conditions at and adjacent to the site. A Vicinity and Topographic Map is contained as Figure 1, and a Site/Surrounding Properties Map

is contained as Figure 2. An aerial photograph of the subject site is contained as Figure 3. Photodocumentation is contained in Appendix A.

2.1 Site Use

At the time of SCI's site reconnaissance, the majority of the subject site was wooded, however, three occupied residences were observed on the subject site. In addition to the three occupied residences, the remains of approximately four additional residences and a church were observed, as well as the foundations for numerous other structures. On-site and adjacent to the church was a cemetery.

An area near the center of the subject site was being used for equipment storage by Westfall Paving. Numerous pieces of paving equipment were observed in this area along with miscellaneous trash including what appeared to be drums of waste oil and piles of automobile batteries. Some shallow surface staining was observed in the vicinity of the drums of waste oil. However, it is SCI's opinion that the quantity of waste oil present would be considered *de minimus* and therefore the soil staining is not an REC. If the drums of waste oil and batteries are not removed by the owner, these materials should properly be recycled. Also near the center of the subject site, but in an off-site location, three petroleum Aboveground Storage Tanks (ASTs) and a small pile of road salt were observed.

Small amounts of scattered trash and debris were observed at many locations of the subject site. This trash and debris included primarily household refuse, but also included appliances, scrap metal, automobile bodies, tires, and a few drums. The drums were all open topped and no evidence of any spillage was observed in the vicinity of the drums. These drums were most likely old burn barrels. This scattered surficial trash and debris is not an REC but some of the materials such as tires and appliances require special disposal or recycling. In addition to the scattered trash, several areas were observed in which the trash appeared to be buried to some depth. To investigate these potential dump areas, SCI advanced several test pits. The results of SCI's test pit activities are summarized in Section 6.0 of this report.

Based on these observations, it appears that the subject site, with the exception of the area utilized by Westfall Paving, has been utilized for residential and/or agricultural use for many decades.

2.2 Heating/Cooling System

The structures located at 1502 West Hill Road and 17024 Church Road utilized propane for heat and had an electric cooling system. The church located at 17200 Church Road used natural gas for heat and had an electric cooling system.

The residence located at 17072 Church Road utilized propane as a heat source and had an electric cooling system and according to the owner, Ms. Marie Thompson, this structure has always utilized propane as a heat source.

The residence located at 17065 Church Road which is currently vacant, previously utilized heating oil from an AST as a heat source. This heating oil is further discussed in Sections 4.1 and 7.0.

2.3 Water and Sewage Systems

The structure located at 1502 West Hill Road previously utilized a cistern and currently utilizes the municipal water and sewage system.

The residence located at 17024 Church Road utilized a well and septic system. This well and septic system do not represent RECs to the subject site but should be closed in accordance with all applicable regulations.

The residence located at 17072 Church Road utilized a well and septic system. This well and septic system do not represent RECs to the subject site but should be closed in accordance with all applicable regulations.

The church located at 17200 Church road had a well and septic system.

The residence located at 17065 Church Road utilized a cistern and septic system. This cistern and septic system do not represent RECs to the subject site but should be closed in accordance with all applicable regulations.

2.4 Adjacent Property Use

Adjacent to the north, south, and west of the subject site were residential subdivisions. East of the subject site was wooded, residential, and agricultural land.

2.5 Above-Ground Storage Tanks (ASTs)/Underground Storage Tanks (USTs)

SCI identified several propane ASTs associated with the on-site residences. These ASTs stored propane used to heat the on-site residences. These ASTs do not represent an REC to the subject site as any release from these ASTs would be gaseous in nature and not impact soil or groundwater.

Three petroleum ASTs were identified on the property adjoining the south-central portion of the subject site. These ASTs appeared relatively new with no signs of staining or leakage. Therefore, these ASTs do not represent an REC to the subject site.

No evidence of USTs were observed on the subject site.

2.6 Polychlorinated Biphenyl (PCB) Survey

Several pole-mounted transformers were observed on-site during SCI's site reconnaissance. However, no evidence of leakage or staining was observed associated with these transformers. In addition, no other equipment or machinery suspected of containing PCBs was observed on site.

Under EPA rules, transformers are assumed to contain fluid containing 50 to 499 parts per million (ppm) PCBs unless tested. The local utility company should be consulted should any leakage from any of the transformers on the subject site be observed in the future. The presence of PCB containing transformers on the subject site is not an environmental concern, as any impact resulting from these transformers would be the responsibility of the utility company which owns the transformer.

2.7 Solid Waste/Hazardous Waste/Chemical Use

SCI observed eight suspected farm dump areas during the site reconnaissance. The approximate locations of these farm dumps are noted on the Site/Surrounding Properties Map contained as Figure 2. These dump areas appeared to contain household trash, miscellaneous metal and wooden debris, and a few tires. To investigate the depth and volume of these farm dumps, SCI advanced several test pits into the fill areas. The results of SCI's test pitting activities are discussed further in Section 6.0 of this report.

During SCI's site reconnaissance, many areas of surficial solid waste were observed on the subject site. This solid waste consisted of household trash, appliances, demolition rubble, automobile bodies, and scrap metal. This solid waste does not represent an REC to the subject site due to its surficial nature and lack of petroleum, toxic, or hazardous contents.

SCI observed several former foundations located on the subject site. These foundations appeared to have been the remnants of old farm buildings or residences.

Salt storage was observed on the property adjoining the south-central portion of the site. This salt storage did not appear to be impacting the subject site however, runoff from the salt storage could migrate onto the subject site and cause stress to vegetation. However, SCI does not believe the salt storage to be an REC.

3.0 PHYSICAL SETTING

3.1 Topography

The elevation of the subject site ranged from approximately 490 to 640 feet above mean sea level (msl) according to the Vicinity and Topographic Map, contained as Figure 1. This map is a reproduction of a portion of the United States Geological Survey (USGS) Topographic Map for the Chesterfield and Weldon Spring, Missouri quadrangles dated 1994. This map indicated the site's topography is strongly sloping. The subject site sloped generally north and south from the ridgeline running east to west across the subject site.

SCI was provided with a survey for the subject site in which recent topographic elevations were depicted. SCI compared the actual surveyed topography to that shown on the USGS map, in an effort to determine whether substantial filling has occurred. It was noted that the topography depicted on the USGS map was dissimilar in several areas to that observed on the recent surveys. SCI paid special attention to these areas during our site reconnaissance to observe for evidence of filling. Some of these areas proved to be farm dumps however, other areas exhibiting significant differences in topography from the USGS map to the survey did not show any surficial evidence of fill.

3.2 Geology

According to the Missouri Geologic Survey, *Geologic Map of Missouri*, bedrock in the vicinity of the subject site is composed of formations of the Osagean Series of the Mississippian System. The Osagean

Series consists of three formations, the Burlington, Keokuk, and Fern Glen. The contact between the Burlington and the Keokuk formations is indistinct and therefore the two formations are typically considered together. These Osagean Series formations are characteristically composed of limestones, which are chrinoidal, very cherty, generally coarsely crystalline, and fossiliferous. The Osagean Series has a maximum thickness in east-central Missouri of approximately 200 feet.

The Burlington formation of east-central Missouri is a white to light buff, very coarsely crystalline, fossiliferous, chrinoidal limestone with layers of chert nodules in the upper part. The Burlington formation ranges from 75 to 100 feet thick in central and east-central Missouri.

The Keokuk formation is a bluish-grey medium to coarsely crystalline, medium bedded limestone that contains large amounts of light grey chert in the form of layers and nodules. The Burlington formation is fairly uniform in this lithology. The chert in the Keokuk formation is irregularly distributed throughout the formation and appears to be more concentrated in the lower and upper parts. This chert weathers to a buff or reddish-brown color. The Keokuk formation in east-central Missouri is typically about 50 feet thick and is the uppermost unit of the Osagean Series in this area.

The Fern Glen formation, which is the basal unit of the Osagean Series in east-central Missouri, is recognized only in east-central and southeastern parts of the state. This formation consists of grey, greyish-green, and red limestone with red and green calcareous shale. The lower parts of this formation are non-cherty while the upper parts contain small nodules and layers of greyish-green to grey chert. Through much of the area, the formation has three types of lithologies, a lower, non-cherty brown thickly-bedded chrinoidal limestone 4-15 feet thick which contains a few quartz geodes; a middle distinctively red or green fossiliferous calcareous shale 10 to 20 feet thick; and an upper nodular cherty chrinoidal limestone 12 to 15 feet thick which contains some quartz geodes. Total thickness of this formation ranges from 20 to 45 feet. At the type area in central St. Louis County, the prevailing color of this formation is red, but in southwestern St. Louis County the formation is predominantly light greenish-grey to yellowish-grey.

Bedrock of this type tends to be relatively permeable due to fractures in solution joints in the rock. The shaley units, where present, can act as confining layers if of sufficient thickness. This series is susceptible to infiltration by contaminants present at the soil-bedrock interface.

3.3 Soils

According to the Department of Agriculture's *Soil Survey of St. Louis County, Missouri*, soil on the subject site is composed of the Menfro silt loam.

The Menfro silt loam is a strongly sloping, well-drained soil which forms on narrow ridgetops and upper side slopes. Typically, the surface layer is dark, yellowish brown silt loam 5 inches thick, the subsoil is brown silty clay about 33 inches thick. The underlying material to a depth of 60 inches or more is brown and dark yellowish brown silty loam. In some areas, on lower side slopes, gray mottles are in the lower part of the subsoil. In other areas, the natural soil has been disturbed by development. The permeability of the Menfro soil is moderate, surface runoff from cultivated areas is rapid, and the available water capacity is high.

3.4 Hydrology and Hydrogeology

Surface runoff on the subject site will drain away from the on-site topographic ridge in a northwestern and southeastern direction. It is unlikely that surface runoff will be received from the surrounding properties.

The presence and flow direction of a perched groundwater table can only be conclusively verified by subsurface investigation. However, if present, its flow direction would normally parallel the undisturbed surface topography. Therefore, groundwater flow would generally flow in northwestern and southeastern directions away from the topographic ridge located on site. It is unlikely groundwater flow will be received from the adjacent properties.

According to *Water Resources of the St. Louis Area, Missouri*, prepared by the Missouri Geological Survey, the site is located in the post-Maquoketa aquifer group. This group includes all bedrock units above the Maquoketa shale. This bedrock aquifer receives recharge from direct precipitation if the area. Movement of water from the soil and subsoil into the bedrock takes place along fractures and openings in the rock. Mississippian system rocks at the upper boundary of this group are relatively impermeable and yield very little water to wells.

4.0 HISTORICAL USE INFORMATION

Historical records are used to determine past use of the subject site and whether these past uses may be an environmental concern. The standard to which this report was conducted requires the identification of all

past uses of the site, from the present to 1940 or the first developed use, whichever is earlier. SCI used as many practically reviewable sources as necessary to identify the past used of the subject site.

4.1 Interviews

SCI submitted an Environmental Assessment Questionnaire (EAQ) to Mr. Anthony Thompson, current owner of the residence at 1502 West Hill Road. A copy of Mr. Thompson's completed EAQ is contained in Appendix B. Mr. Thompson stated that he inherited the site from his great grandparents George and Ida Wash. Mr. Thompson stated that the residence located at 1502 West Hill Road has been on site for over 40 years and this residence formerly utilized a cistern that had not been used in approximately thirty years. Mr. Thompson was unaware of the previous heat source for the residence. Mr. Thompson stated he was unaware of any ASTs or USTs currently or previously located on the property. To the best of his knowledge, Mr. Thompson was unaware of any petroleum, toxic, or hazardous materials used or stored on the property with the exception of fertilizers used in the garden. Mr. Thompson further stated he was unaware of any materials brought onto, dumped, buried, or burned on the property.

SCI submitted an EAQ to the Westland Acres Partnership, current owner of the property at 17071 Church Road. This EAQ was completed by Marie Thompson, representative for Westland Acres Partnership. A copy of this EAQ is contained in Appendix B. Ms. Thompson stated that no structures were currently located on this parcel and that if a structure was formerly located on site, it would have been more than 70 years ago. Ms. Thompson stated that there were no ASTs, USTs, petroleum, toxic, or hazardous material on the property. She further indicated she was unaware of any materials brought onto, burned, buried, or dumped on the property.

SCI submitted an EAQ to Mr. Clifford Frazier, owner of 17024 Church Road. This EAQ was completed by Clifford and Doris Frazier, partial owner of this property. A copy of this completed EAQ is contained in Appendix B. Mr. and Mrs. Frazier stated that they purchased property from her family and that the property has always been owned by her relatives. Mr. and Mrs. Frazier indicated that they owned the subject site along with McCormick & Baron Company, Marie Thompson, Alice Works, and the Heirs of William West. Mr. and Mrs. Frazier indicated that a former structure was located at 17071 Church Road which had been burned and only the foundation and garage remain. Mr. and Mrs. Frazier indicated that the current structure was built in 1951. The subject site previously utilized heating oil as a heat source. This heating oil was stored in an above ground storage tank. The residence currently utilizes propane gas

as a heat source. They also indicated the residence currently utilizes a well. Mr. and Mrs. Frazier indicated that to the best of their knowledge, no ASTs or USTs were located on the property with the exception of the aforementioned heating oil AST. Additionally, no wells, cisterns, or septic systems were located on the property with the exception of the aforementioned well. Mr. and Mrs. Frazier further indicated that no farm dumps were located on the property nor had any materials been brought onto, dumped, burned, or buried on the property. With the exception of the heating oil use, they were also unaware of any petroleum, toxic, or hazardous materials on the subject site.

SCI submitted an EAQ to the Union Baptist Church located at 17200 Church Road. This EAQ was completed by Ms. Maria Frazier, Trustee and Board Member for this property. A copy of this EAQ is contained in Appendix B. Ms. Frazier indicated that the subject site is owned by Union Baptist Church. The current church was built in 1981 and utilizes a well and septic system. Prior to the current on-site building, a former church was located on site. Ms. Frazier was unaware of the presence of any ASTs, USTs, farm dumps, petroleum, toxic, or hazardous materials on the property. She further indicated she was unaware of any materials brought onto, dumped, burned, or buried on the subject site.

SCI submitted an EAQ to Ms. Marie Thompson, owner of 17072 Church Road. A copy of this completed EAQ is contained in Appendix B. Ms. Thompson indicated that she acquired the subject site approximately 50 years ago from her parents. She further indicated that the residence located on the property had been on-site for 50 years. To the best of her knowledge, no structures were previously located on the subject site. Ms. Thompson indicated that the subject site currently utilizes a well and formerly utilized a septic tank. Ms. Thompson stated that no heating oil was ever used in the current residence. Ms. Thompson was unaware of the presence of any ASTs, USTs, farm dumps, cisterns, or petroleum, toxic, or hazardous materials on the property. She further indicated she was unaware of any materials brought onto, dumped, burned, or buried on the subject site.

SCI submitted an EAQ to Mr. Lorenzo McNairy, current owner of 17084 Church Road. Mr. McNairy indicated that he purchased this property from Milton Westfall in 1972. At the time of his purchase, the subject site was undeveloped and had always been used for gardening. Mr. McNairy was unaware of any former structures located on his property. Mr. McNairy stated that no heating oil, septic systems or wells were ever used on the property. Mr. McNairy was unaware of the presence of any ASTs, USTs, farm dumps, cisterns, petroleum, toxic, or hazardous materials on the property. He further indicated she was

unaware of any materials brought onto, dumped, burned, or buried on the subject site. A copy of this EAQ is contained in Appendix B.

SCI submitted an EAQ to Mr. Theroné Louis and Ms. Constance Frazier, current owners of 17065 Church Road. A copy of this completed EAQ is contained in Appendix B. Mr. Frazier stated that they purchased property from Mr. Henry Frazier and that the on-site residence was built in 1964. Mr. Frazier indicated that he owned the subject site along with Ms. Constance Frazier. Mr. Frazier indicated the subject site previously utilized heating oil as a heat source. This heating oil was stored in a 250-gallon AST. He also indicated that a cistern is located on site. Mr. and Mrs. Frazier indicated that to the best of their knowledge no ASTs or USTs were located on the property with the exception of the aforementioned heating oil AST. Mr. Frazier further indicated that the on-site residence utilizes a septic system. Mr. Frazier stated that a farm dump was located on his property approximately 100 feet behind his house. With the exception of the heating oil use, they were also unaware of any petroleum, toxic, or hazardous materials on the subject site.

SCI submitted an EAQ to Mr. Harold W. and Ms. Melba Booker, current owners of 17069 Church Road. A completed copy of this EAQ is contained in Appendix B. Mr. Booker indicated that this property has always been wooded and undeveloped. Therefore, no wells, cisterns, septic tanks, ASTs, USTs, or petroleum, toxic, or hazardous materials were located on site. He further indicated that there were no underground pipelines or sewers on site.

SCI submitted an EAQ to MBII, LLC, current owner, of 17091 Church Road. As of the date of this report, SCI has not received a completed EAQ from MBII, LLC. A copy of this EAQ is contained in Appendix B.

SCI submitted an EAQ to Ms. Armetha Robinson, current owner of 17114 Church Road. As of the date of this report, SCI has not received a completed EAQ from Ms. Robinson. A copy of this EAQ is contained in Appendix B.

In review of these EAQs, SCI has identified the following concerns:

- Cistern located at 1502 West Hill Road;

- Well and heating oil use at 17024 Church Road;
- Former residence located at 17071;
- Cistern, septic system, heating oil use, and farm dump located at 17065 Church Road; and
- No response from two property owners.

While not an REC, the cisterns located at 1502 West Hill Road and 17065 Church Road, and the well located at 17024 Church Road, should be closed in accordance with all applicable guidelines.

The heating oil use identified at 17024 Church Road, and 17065 Church Road does not represent an REC to the subject site as it was stored in aboveground tanks and there is no indication of past releases of heating oil on the site.

The former residence located at 17071 Church Road does not represent an REC to the subject site. However, it is possible during development that you will encounter debris from this previous residence. This debris should be properly disposed of.

SCI advanced test pits into the farm dump located at 17065 Church Road and found it to contain primarily household trash. The results of SCI's test pitting are summarized in Section 6.0 of this report.

Two property owners did not complete and return the EAQs. The EAQ is a principal source of information on rural properties. SCI made every effort to investigate the site but on properties of this nature, nothing can substitute for owner knowledge. Information from these owners could invalidate, in whole or in part, the findings and conclusions of this report.

4.2 Local Fire Department Interview

SCI issued a letter of request to the Monarch Fire Protection District regarding information on any hazardous material incidents or chemical spills on or in the vicinity of the subject site. SCI received a letter of response from Inspector Roger Morris with the Monarch Fire Protection District.

Inspector Morris indicated that three fuel ASTs and a stockpile of rock salt were located just south of the intersection of Church and West Hill Roads. This area is located just south of the central portion of the

site but is not on the subject site. As previously mentioned, these fuel ASTs and rock salt storage do not represent RECs.

Inspector Morris further indicated that illegal dumping has occurred on the subject site along the north and south sides of Church Road. He indicated these dumps contained 55-gallon drums and other visible trash. As previously mentioned, these dumps are further discussed in Section 6.0.

Inspector Morris further indicated that most of the on-site residences utilize propane as a heat source. Propane usage and storage on the subject site does not represent an REC due to the fact that any release would be gaseous in nature and would not impact the soil or groundwater.

Lastly, Inspector Morris stated that part of the subject site is used for the outdoor storage of vehicles, machinery, and equipment. While not considered an REC to the subject site, these materials should be properly disposed of during development of the site.

A copy of SCI's letter of request to and response from the Monarch Fire Protection District is contained in Appendix C.

4.3 Historical Aerial Photograph Review

Aerial photographs are an important source for showing past conditions on a site. Vegetation and developments like structures, water bodies, or land disturbance are generally readily apparent. However, vegetation can often obscure from view activities taking place under the canopy of trees. The aerial photographs typically available for review as part of a Phase One are usually large-scale black and white photographs. For these reasons, small details may be difficult to discern.

SCI reviewed aerial photographs at the St. Charles County Department of Agriculture for the years 2002, 1996, 1990, 1980, 1971, 1965, 1958, and 1953. A summary of this review is contained in Table 4.1, below.

Table 4.1 - Historical Aerial Photograph Summary

Year	Observation
2002	The subject site was primarily wooded and residentially developed. Church Street crossed through the southern portion of the site and three unimproved roads were observed extending off Church Street to on-site residences. A commercial building (church) was observed on the southeastern portion of the site. Seven residences were also observed scattered throughout the subject site. North of the subject site was a residential subdivision. South of the subject site was wooded and residential. West and east of the subject site was also wooded and residential.
1996	The subject site and surrounding properties appeared similar to the 2002 aerial photograph with the exception that an additional structure was located on the northern portion of the subject site. Some grading activities appeared to have recently occurred in the central portion of the site along Church Street due to residential development.
1990	The subject site and surrounding properties appeared similar to the 1996 aerial photograph with the exception that an unimproved drive extended further onto the northern portion of the site. Grading activities appeared to have occurred in the central portion of the site.
1980	The subject site and surrounding properties appeared similar to the 1990 aerial photograph with the exception that the areas to the north and south no longer hosted residential subdivisions and were wooded with scattered residential structures.
1971	The subject site and surrounding properties appeared similar to the 1980 aerial photograph.
1965	The subject site and surrounding properties appeared similar to the 1971 aerial photograph with the exception that the commercial structure located in the southeast corner was no longer observed and the site appeared to host fewer residential structures.
1958	The subject site was wooded and Church Street crossed through the southern portion of the site. No structures were visible on the site. Areas to the north, south, west, and east were wooded and agricultural.
1953	The subject site and surrounding properties appeared similar to the 1958 aerial photograph.

This review of historical aerial photographs has identified no evidence of additional RBCs in connection with the subject site. Although no structures are visible in the 1958 and 1953 aeriels, on-site observations indicate they are likely present but masked by the trees on-site.

4.4 Sanborn Map Review

Sanborn fire insurance maps were produced for the insurance industry starting in the late 1800's to assist in evaluating the fire risks of a building or area. Sanborn maps show structure locations and typically indicate the usage of the structure, whether it be a dwelling, store, or a manufacturing plant. The actual name of the company operating the facility is also sometimes given. These maps show the type of construction of buildings, and also show locations of USTs and ASTs used for the storage of highly flammable materials including solvents, paint, and motor fuels. The identification of USTs on Sanborn maps often makes them one of the only ways to identify past UST sites. Most large older towns and cities have some Sanborn coverage. Typically, the larger and older the area, the better the coverage.

SCI obtained a Sanborn Fire Insurance Map Report for the subject site and surrounding properties from Environmental Data Resources, Inc. (EDR). The EDR report indicated that there were no fire insurance maps depicting the subject property or surrounding properties.

4.5 Historical Topographic Map Review

Historical topographic maps can be used to identify changes in site topography as well as site development and usage. Differences in the topographic lines on the maps from one edition to the next can indicate areas where fill may have been placed on the subject site or show areas where soil may have been removed or cut. Most topographic maps depict man-made structures as well as natural features including wooded areas, streams, rivers, lakes, and ponds. However, if a property is located in an urban setting, the topographic map may not show individual structures.

SCI reviewed topographic maps from the years 1994, 1954 (photorevised 1982), 1954 (photorevised 1968) and 1974), 1954 (photorevised 1968), 1954, and 1947 for the subject site area. A summary of this review is contained in Table 4.2, below.

Table 4.2 - Historical Topographic Map Summary

Year	Observation
1994	Approximately 14 structures and a church are noted on the subject site. These include a mixture of residences and outbuildings.
1954 (photorevised 1982)	The subject site appears very similar to that illustrated on the 1994 topographic map. However, the ridgetops are depicted as being somewhat less wooded.
1954 (photorevised 1968)	The subject site appears very similar to that illustrated on the 1954 (photorevised 1982) topographic map.
1954	Fourteen structures and a church are noted on the subject site. However, some of these structures are in different locations than the structures depicted on the 1954 (photorevised 1968) and the 1954 (photorevised 1982) topographic maps.
1947 (Chesterfield) & 1937 (Weldon Spring)	Seven structures including a church are depicted on the subject site at locations similar to the locations of structures noted on later topographic maps. The topography illustrated on this topographic map is similar to that illustrated on the later topographic maps and to that observed during the site reconnaissance.

SCI's review of historic topographic maps has revealed the subject site hosted residences and a church since at least 1937. It should be noted that many of the structure depicted on the 1994 topographic map were present only as foundations at the time of SCI's site reconnaissance. The site topography illustrated on the topographic maps changed little from 1937 to 1994.

4.6 Historical Plat Map Review

Historical plat maps, sometimes known as land atlases, typically indicate the name and the owner of each parcel of land in the area covered. However, individual ownership may not be shown on small parcels or parcels within urban settings. Plat maps, which are generally published by county, may indicate the locations of structures and roads. Many older plat maps also show other features such as orchards, cemeteries, and quarries. The location of individual features is fairly imprecise as many plat maps, especially the older ones, were hand-drawn from on-site observation. The plat maps are very useful for showing site ownership and in some cases, improvements, but may not indicate site usage.

SCI reviewed a historic St. Louis County Plat Map dated 1878 which indicated the subject site was owned by Mr. Nicholas Gabriel Long, Et. Al. The 1878 Plat Map did not note the presence of any structures on the subject site. According to Mr. Clifford Frazier, the principal contact for the owners of the subject site, his great grandmother was partial owner of the subject site along with Mr. Long.

5.0 REGULATORY AGENCY RECORDS REVIEW

SCI reviewed environmental records obtained from Environmental Data Resources, Inc. Copies of these records are contained in Appendix D. This search covered all lists required by ASTM E-1527-00 to the required radii as shown on Table 5.1, below.

Table 5.1 Environmental Record Sources

Search Effort	Search Radius	Number of Sites
National Priorities List (NPL)	1.0 mile	0
Federal Comprehensive Environmental Response, Compensation, & Liability Information System (CERCLIS)	0.5 mile	0
CERCLIS No Further Remedial Action Planned (NFRAP)	Site and adjoining properties	0
Resource Conservation & Recovery Information System (RCRIS): - Treatment, Storage, and Disposal (TSD)	1.0 mile	0
Resource Conservation & Recovery Information System (RCRIS): - Facilities List and Generators List	Site and adjacent properties	0
RCRA TSD Facilities with Corrective Action Activities (CORRACTS)	1.0 mile	0
Emergency Response Notification System (ERNS)	Site only	0
Missouri Hazardous Waste Sites List	1.0 mile	0
Missouri Solid Waste Landfill List	0.5 mile	0
Leaking Underground Storage Tank (LUST) List	0.5 mile	0
Registered UST List	Site & adjacent properties	0
Additional Environmental Record Sources ¹	1.0 mile	0

¹ Confirmed dioxin sites, Former Manufactured Gas Plants, Former USDA Grain Bins, Lead and Zinc Smelters, Wood Treatment sites, and Voluntary Cleanup Program Sites

5.1 NPL

Section 105(a)(8)(B) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requires the preparation of the NPL. The NPL is a list of national priorities among the known or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. The identification of a site for the NPL is intended to guide the USEPA in: determining which sites warrant further investigation to assess the nature and extent of the human health and environmental risks associated with a site; identifying what CERCLA-financed remedial actions may be appropriate; notifying the public of sites USEPA believes warrant further investigation; and serving notice to potentially responsible parties that USEPA may initiate CERCLA-financed remedial action.

No listings were encountered during the review of the NPL within the ASTM prescribed radius of the subject site.

5.2 CERCLIS

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) is the official repository for site and non-site specific Superfund data in support of CERCLA. It contains information on hazardous waste site assessments and remediation from 1983 to the present.

No listings were encountered during the review of the CERCLIS database within the ASTM prescribed radius of the subject site.

5.2.1 NFRAP

As of February 1995, CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP) have been removed from CERCLIS. NFRAP sites may be sites where, following an initial investigation, no contamination was found, contamination was removed quickly without the need for the site to be placed on the NPL, or the contamination was not serious enough to require Federal Superfund action or NPL consideration.

No listings were encountered on the NFRAP list within the ASTM-prescribed radius of the subject site.

5.3 RCRIS

Hazardous waste data is contained in the Resource Conservation and Recovery Information System (RCRIS) in support of the Resource Conservation and Recovery Act (RCRA). RCRA requires that generators and transporters of hazardous waste, as well as hazardous waste treatment, storage and disposal facilities provide information concerning their activities to state environmental agencies. These agencies then provide information to regional and national USEPA offices. RCRIS is used by the USEPA to support its implementation of RCRA.

No listings were encountered during the review of the RCRIS database within the ASTM prescribed radius of the subject site.

5.4 CORRACTS

The EPA maintains this database of RCRA TSD facilities that are undergoing corrective action. A corrective action order is issued pursuant to RCRA section 3008(h) if there has been a release of hazardous waste into the environment from a RCRA facility.

No listings were encountered during the review of the CORRACTS database within the ASTM prescribed radius of the subject site.

5.5 ERNS

The Emergency Response Notification System (ERNS) is a database used to store information on notifications of oil discharges and hazardous substance releases. The ERNS program is a cooperative data sharing effort among the USEPA, the Department of Transportation, and the National Response Center. ERNS provides the most comprehensive data compiled on notifications of oil discharges and hazardous substance releases in the United States.

No listings were encountered during the review of the ERNS database within the ASTM prescribed radius of the subject site.

5.6 Missouri Hazardous Waste Sites List

The Missouri "Superfund Law" requires the MDNR to prepare a Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri (Registry). The MDNR annually publishes *Confirmed Abandoned or Uncontrolled Hazardous Waste Disposal Sites in Missouri and Hazardous Waste Remedial Fund Statement of Revenues, Expenditures and Changes in Fund Balance*. The most current Registry was the Fiscal Year 2004 Annual Report.

No listings were encountered during the review of the Registry within the ASTM prescribed radius of the subject site.

5.7 Missouri Solid Waste Landfill List

The Missouri Department of Natural Resources Solid Waste Management Program publishes and regularly updates; the List of Sanitary Landfill Contacts in Missouri (last updated April 2005) the List of Demolition, Utility Waste and Special Waste Landfill Contacts (last updated April 2005) the List of Transfer Station Contacts in Missouri; the List of Inactive Facilities; and the List of Closed Facilities.

No listings were encountered during the review of the landfill lists within the prescribed radius of the subject site.

5.8 LUST List

The Missouri Department of Natural Resources Hazardous Waste Program publishes and regularly updates a List of Leaking Underground Storage Tanks Active Sites. This list was last published in August 2005.

No listings were encountered during the review of the LUST list within the prescribed radius of the subject site.

5.9 Registered UST List

The Missouri Department of Natural Resources maintains a regularly updated database of registered USTs. This database was last updated in December 2005.

No listings were encountered during the review of the registered UST database within the ASTM prescribed radius of the subject site.

5.10 Additional Environmental Record Sources

A review of the latest listing of *Confirmed Dioxin Sites Tracking List*, January 2004, supplied by the MDNR, revealed no known dioxin-contaminated properties within a one-mile radius of the subject site.

Additionally, SCI reviewed a list of Former Manufactured Gas Plants, Former USDA Grain Bins, Lead and Zinc Smelters, Wood Treatment sites, and Voluntary Cleanup Program sites. This list was last published in MDNR's Missouri Registry Annual Report for the fiscal year 2004. No listings of the above-listed sites were found within 0.5 mile of the subject site.

6.0 LIMITED PHASE TWO ACTIVITIES

As part of this investigation, SCI advanced test pits into several suspected farm dumps on the subject site. The location and designation of each of these dump areas is noted on the Site/Surrounding Properties Map.

Dump 1 located on the north central portion of the subject site, contained primarily residential household trash and was estimated to cover an area of approximately 70 feet by 30 feet to a uniform depth of approximately 4 feet. SCI estimates at least 300 in place cubic yards of trash to be present in dump 1.

Dump 2 is located near the eastern edge of the subject site and contained primarily residential household trash but also included some scrap metal and demolition rubble. Dump 2 was roughly triangular in shape and covered an area approximately 100 feet wide by 70 feet long to a maximum depth of approximately 15 feet. This dump area was generally wedge shaped and SCI estimated up to 2,000 in place cubic yards of trash could be present.

Dump 3 was located along Church Road and covered an area approximately 50 feet long by 50 feet wide with a maximum depth of 8 feet. The dump is wedge shaped and SCI estimated at least 370 in place cubic yards of trash to be present at this location.

Dump 4 was located on the western portion of the subject site and consisted of a small filled ravine which SCI estimates contains less than 100 cubic yards of trash.

Dump 5 is located near the center of the subject site adjacent to the area occupied by the Westfall Paving equipment lot. The material in this area appeared to consist primarily of scrap metal and demolition rubble along with significant amounts of trash and scrap metal. At the time SCI conducted our test pitting activities, permission had not been obtained from the property owner to advance test pits into this dump area. The volume of this area therefore cannot be estimated. However, based on on-site observations, it could exceed 1,000 cubic yards. In addition, at the time of SCI's site reconnaissance, several drums of waste oil and piles of automobile batteries were observed in this area. However, on the day SCI's test pitting activities were conducted, the drums of waste oil and automobile batteries were not observed on-site. It appeared that the drums and batteries had been removed and a fresh layer of soil was evident in this area. Although no direct evidence was observed, it is possible that the waste oil and batteries were deposited in this dump area. If the waste oil and batteries were placed in this dump area, this dump area would represent an REC.

SCI was not able to advance test pits at Dump 6 due to its inaccessibility. Dump 6 appeared to be more of a mound of trash rather than filling in a ravine as with the other locations. On-site observations seemed to indicate this area contains primarily scrap metal and demolition rubble which cover an area approximately 50 feet in diameter to a depth of approximately four feet. SCI estimates approximately 350 in place cubic yards of trash to be present at this location.

Dumps 7 and 8 could also not be test pitted due to their inaccessibility. However, based on on-site observation, it appears that these areas contain less than 100 in place cubic yard of waste each.

7.0 ADDITIONAL INVESTIGATIONS

SCI previously performed a geotechnical investigation on the subject site dated January 29, 1998. During this investigation, 12 borings were advanced on the subject site to a depth of 25 feet or auger refusal. These borings indicated that the soil profile along the ridge tops is composed of 7 to 13 ½ feet of brown, low plastic, silty clay underlain by high plastic clay with rock fragments or clayey rock. The borings terminated in the rocky clay at the predetermined depths of 25 feet. No fill was encountered in any of SCI's geotechnical borings.

SCI is unaware of any other environmental or geotechnical investigations pertaining to the subject site.

8.0 FINDINGS

In the course of SCI's investigation of the subject site, SCI has identified the following environmental conditions:

- Several wells, two cisterns, and a septic system located in the vicinity of the on-site residences;
- Several areas of surficial solid waste;
- Several farm dump areas located on the subject site;
- Possible disposal of petroleum and batteries in on-site fill area; and
- On-site cemetery.

The on-site wells, cisterns, and septic system located in the vicinity of the residence do not represent RECs to the subject site due to the lack of petroleum, toxic, or hazardous material, use, or storage on-site. However, it is recommended that these items be closed in accordance with all applicable regulations if no longer utilized.

The surficial solid does not represent an REC to the subject site due to its surficial nature and lack of petroleum, toxic, or hazardous contents.

SCI advanced several test pits into the farm dumps on the subject site. The results of this investigation indicated the dumps contained primarily residential household trash, scrap metal, and demolition rubble. SCI estimated that at least 4,320 in place cubic yards of trash may be present in the dumps. Please be aware that upon excavation, some fluffing of the material will occur and excavated yardage often exceeds in place cubic yardage by 30 to 50 percent. Because of the high costs (\$50.00 to \$70.00 per cubic yard) associated with this volume of material, the solid waste will be considered a Recognized Environmental Condition (REC).

Storage of drums of waste oil and automotive batteries was observed on site during the Phase One site reconnaissance. These materials however, were not present at the time of the Phase Two Investigation. It is possible these materials were disposed of on site. The former presence of these materials is an REC.

Although not an REC, a cemetery was present on site. State law prohibits disturbing marked graves and no development should be performed which would potentially impact the cemetery. Please contact SCI's Cultural Resources department for more information.

9.0 CONCLUSIONS/RECOMMENDATIONS

SCI has performed a Phase One Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-00 of the Westland Acres Tract. This assessment has revealed no evidence of RECs in connection with the subject site with the exception of the following:

- Possible disposal of petroleum products and automotive batteries in an on-site fill area; and
- At least 4,320 in place cubic yards of solid waste requiring disposal.

Prior to or during development, the solid waste dumped on site should be excavated, transported, and disposed at a licensed landfill facility. The farm dumps, which primarily contain residential trash, can be disposed either as Municipal Solid Waste (MSW) or as a special waste. MSW is the name used for normal household trash and a special waste is anything that does not fit any of the other categories and is not hazardous. Classifying this waste as a special waste will likely require additional permitting and analytical testing. However, disposal costs are often lower as special wastes. The dump material should be excavated with a trackhoe or high lift and placed into trucks for transport to a landfill. In some areas, the construction of haul roads and placement of erosion control barriers may be necessary. Some over-digging

or exploratory testpitting may be necessary to ensure that all the solid waste has been removed. If petroleum products or automotive batteries are encountered in dump area 5, this material should be excavated in the same manner as the other farm dumps. However, any dump material impacted by petroleum hydrocarbons must be disposed as a special waste. Automotive batteries, if noted, should be segregated and disposed at a recycling facility. No personal protective equipment should be necessary during the excavation of the solid waste.

9.1 ASTM Exceptions

The ASTM Practice E 1527 requires site usage to be documented back to 1937 or initial development of the site, whichever is earlier. SCI identified site usage in 1878 for the subject site area, at which time it appeared that no development was present on-site. Although site ownership was identified back to 1878, a data gap exists between 1878 and 1937. SCI is unaware of any additional practically reviewable resources pertaining to the subject site.

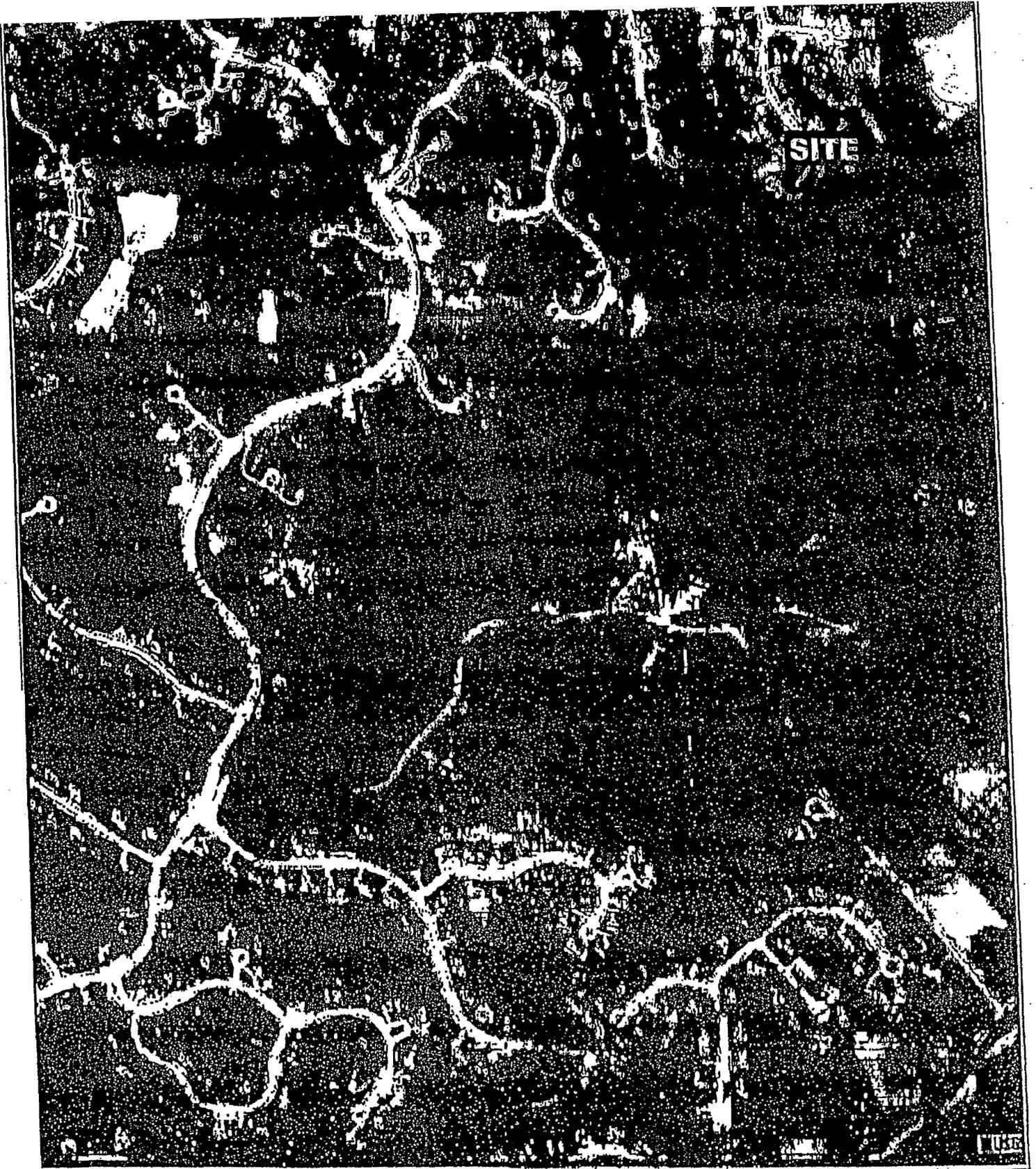
10.0 LIMITATIONS

This report has been prepared for the exclusive use of The Jones Company. SCI is not responsible for independent conclusions or recommendations made by others. Furthermore, written consent must be provided by SCI should anyone other than our client wish to excerpt or rely on the contents of this report.

The services performed are consistent with those outlined in ASTM Practice E 1527. The findings of this report are valid as of the present date of the assessment.

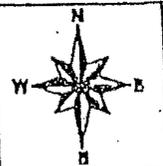
Changes in surface and subsurface conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation, the broadening of knowledge, or other reasons. Accordingly, the findings of this report may be invalidated in whole or in part by changes outside our control.

SCI should be contacted with any known or suspected variations from the conditions described herein. If further development of this site indicates the presence of hazardous, toxic, or petroleum materials, or other concerns of an environmental nature, SCI should be notified to perform a re-evaluation of the environmental conditions.



PROJECT NAME
 WESTLAND ACRES
 CHESTERFIELD, MISSOURI

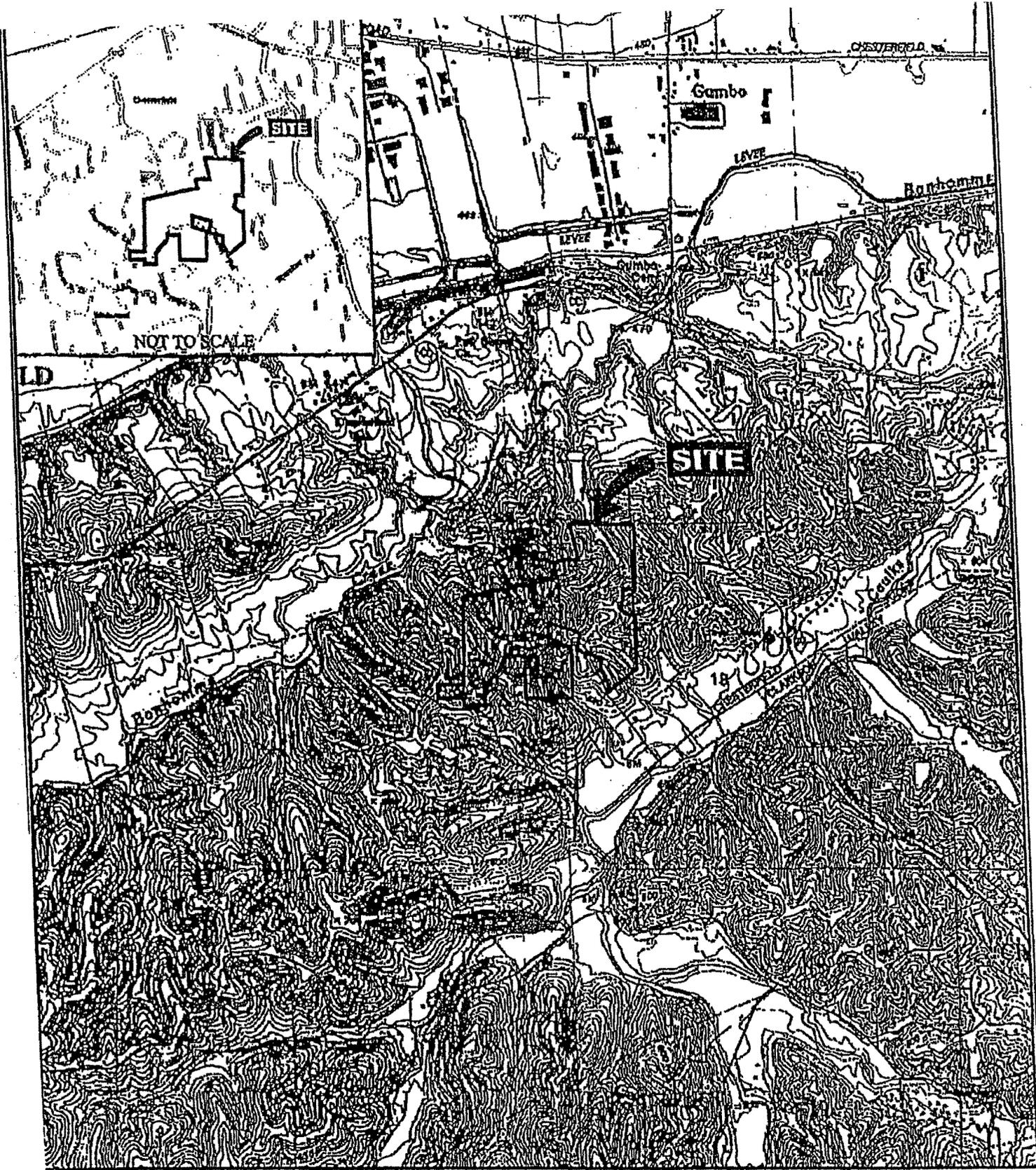
General Notes/Legend
 AERIAL PHOTOGRAPH OBTAINED FROM
 WWW.TERRASERVER-USA.COM
 DATED 03/22/02



AERIAL PHOTOGRAPH

SCALE NOT TO SCALE
 FIGURE 3

DRAWN BY	DKM	DATE	JOB NUMBER
CHECKED BY	QAG	04/2006	2006-2022.20



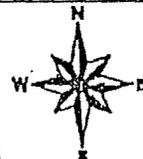
PROJECT NAME
WESTLAND ACRES
CHESTERFIELD, MISSOURI

VICINITY AND TOPOGRAPHIC MAP

DRAWN BY	DKM	DATE	JOB NUMBER
CHECKED BY	GAG	04/2006	2006-2022.20

General Notes/Legend
 USGS TOPOGRAPHIC MAP
 WELDON SPRING, MISSOURI QUADRANGLE
 CHESTERFIELD, MISSOURI QUADRANGLE
 DATED 1994
 10' CONTOURS

MICROSOFT STREETS AND TRIP'S 2005



SCALE 1" = 2000'
 FIGURE 1